

## Attachment 4

ATTACHMENT 4  
Candidate B  
General Facility Description

126 Transylvania Road, Roxbury, Connecticut 06783

Owner: Rita L. Errico

Tax ID: 34/029

Approximately 21.02 Acre Parcel

The proposed Candidate B facility consists of a 100' by 100' lease area located in the central-north portion of an approximately 21.02 acre parcel owned by Rita L. Errico at 126 Transylvania Road in Roxbury. A new self-supporting monopole tower 170' in height would be constructed. AT&T will install up to 6 panel antennas at the 167' centerline height on the tower together with an associated 12' x 20' radio equipment shelter at the tower base on a concrete pad within the tower compound. The tower compound would consist of a 75' by 75' area to accommodate AT&T's equipment and provide for future shared use of the facility by other carriers. An 8-foot high chain link fence would enclose the tower compound. Vehicle access to the facility would be provided by a 12' wide gravel access drive. Electric and telephone utilities would be extended underground from an existing offsite utility pole to the proposed facility. Provisions are also included for an emergency generator.

## Site Evaluation Report

### I. LOCATION

- A. COORDINATES: 41° 31' 46.08" N 73° 16' 00.27" W
- B. GROUND ELEVATION: 822' AMSL
- C. USGS MAP: Mount Carmel Quadrangle
- D. SITE ADDRESS: 126 Transylvania Road in Roxbury, Connecticut, 06783
- E. ZONING WITHIN 1/4 MILE OF SITE: Residential / Open Space

### II. DESCRIPTION

- A. SITE SIZE: 100' by 100' lease area, 75' by 75' compound
- B. LESSOR'S PARCEL: ± 21 acres
- C. TOWER TYPE/HEIGHT: Monopole / 170' AGL.
- D. SITE TOPOGRAPHY AND SURFACE: The proposed site is located towards the central portion of the parcel in an undeveloped area to the northeast of the lessor's residence.
- E. SURROUNDING TERRAIN, VEGETATION, WETLANDS, OR WATER: The surrounding terrain ranges in elevation from 285' AMSL to over 900' AMSL. The majority of the surrounding area is covered in heavy vegetation. A review of available information regarding the site through Federal, State and local databases indicates the site is not located within a wetlands mapped on the National Wetland's Inventory and not within a 100-year or 500-year flood zone. Wetlands soils were identified on the parcel approximately 295' east of the proposed equipment compound. The closest surface water bodies are off-premises and include Transylvania Brook located approximately 2000' east of the site and a small pond approximately 2000' west/northwest of the site.
- F. LAND USE WITHIN 1/4 MILE OF SITE: Land uses within 1/4 mile of the site are primarily single-family residences and open space.

### III. FACILITIES

- A. POWER COMPANY: Connecticut Light and Power
- B. POWER PROXIMITY TO SITE: Facilities available from off site utility pole.
- C. TELEPHONE COMPANY: AT&T
- D. PHONE SERVICE PROXIMITY: Same as power.
- E. VEHICLE ACCESS TO SITE: Access to the facility would be provided initially over an existing asphalt driveway then a new 12' wide gravel access drive approximately 600' to the site.
- F. OBSTRUCTIONS: None
- G. CLEARING AND FILL REQUIRED: The compound will require clearing and grading to level the area. No filling will be required. Detailed plans would be included in a Development and Management Plan ("D&M" plan) after any approval of the facility which may be issued by the Connecticut Siting Council.

### IV. LEGAL

- A. PURCHASE [ ] LEASE [ X ]
- B. OWNER: Rita L. Errico
- C. ADDRESS: 126 Transylvania Road, Roxbury, Connecticut 06783
- D. DEED ON FILE AT: Town of Roxbury Vol. 107; page 236

## Facilities and Equipment Specification

### I. TOWER SPECIFICATIONS:

- A. MANUFACTURER: To be determined
- B. TYPE: Self-Supporting monopole
- C. HEIGHT: 170'  
DIMENSIONS: Approximately 4½' in diameter at the base, tapering to approximately 2' at the top.
- D. LIGHTING: None as set forth in attached TOWAIR report

### II. TOWER LOADING:

- A. AT&T – up to 12 panel Antennas
  - a. Model – P90-15-XLH-RR or equivalent panel antenna
  - b. Antenna Dimensions – 55”H x 11”W x 5”D
  - c. Position on Tower – 167’ centerline mounted on low profile platform
  - d. Transmission Lines – MFG: Commscope; Size 1-5/8”
- B. Future Carriers – To be determined

### III. ENGINEERING ANALYSIS AND CERTIFICATION:

The tower will be designed in accordance with American National Standards Institute TIA/EIA-222-F “Structural Standards for Steel Antenna Towers and Antenna Support Structures” and the 2003 International Building Code with 2005 Connecticut Amendment. The foundation design would be based on soil conditions at the site. The details of the tower and foundation design will be provided as part of the final D&M plan.

## Environmental Assessment Statement

### I. PHYSICAL IMPACT

#### A. WATER FLOW AND QUALITY

No water flow and/or water quality changes are anticipated as a result of the construction or operation of the proposed facility. The construction and operation of the tower and related site improvements will have no effect on any watercourses or waterbodies. Best Management Practices to control storm water and soil erosion during construction will be implemented. The equipment associated with the facility will discharge no pollutants to area surface or groundwater systems.

#### B. AIR QUALITY

Under ordinary operating conditions, the equipment that would be used at the proposed facility would emit no air pollutants of any kind.

#### C. LAND

Some clearing and grading will be necessary in the compound area and access drive and best management practices implemented for steep slopes. The remaining land of the lessor would remain unchanged by the construction and operation of the facility.

#### D. NOISE

The equipment to be in operation at the facility would not emit noise other than that provided by the operation of the installed heating, air-conditioning and ventilation system. Some construction related noise would be anticipated during facility construction, which is expected to take approximately four to six weeks. Temporary power outages could involve sound from an emergency generator.

#### E. POWER DENSITY

The cumulative worst-case calculation of power density from AT&T's operations at the facility would be 5.3% of the MPE standard. Attached is a copy of AT&T's Power Density Report dated June 22, 2009.

#### G. VISIBILITY

The potential visual impact of the proposed facility was determined by preparation of the attached Visual Resource Evaluation Report prepared by VHB/Vanasse Hangen Brustlin, Inc. in August 2009. The potential visibility of the proposed monopole was assessed within an approximate two-mile radius using a computer-based, predictive view shed model and in-field visual analysis. As shown in the report and photosimulations, only 68

acres (less than 1%) of the 8,042-acre study area (a two mile radius of the proposed facility) would have views of the proposed tower above the tree canopy. The majority of the anticipated year-round visibility occurs over open, undeveloped land approximately 1.0 mile to the northwest of the facility and nearly 1.5 miles to the northeast. Such views would generally be intermittent and somewhat distant (1.0 mile or more). Overall, there is intervening topography and an abundance of vegetation in the area that limit visibility.

## II. SCENIC, NATURAL, HISTORIC & RECREATIONAL VALUES

The parcel on which the facility is located exhibits no unique scenic, natural, historic or recreational characteristics. The Connecticut State Historic Preservation Officer (SHPO) reviewed the proposal and determined that it will have no adverse effect on historic resources. After review of the Natural Diversity Database (NDDB) map for Roxbury and other information, CTDEEP found that their records indicate that the Eastern Box Turtle (*Terrapene Carolina*) occurs in the vicinity of the project area and provided suggested protective measures. These protective measures are similar to protective measures employed for other approved sites and can be included if construction is to occur during the turtle's active season. These protective measures can be incorporated into the D&M Plan should the project be approved by the Siting Council.

Attachment 4(A)



# NEW CINGULAR WIRELESS PCS, LLC (AT&T) WIRELESS COMMUNICATIONS FACILITY

## ROXBURY 126 TRANSYLVANIA ROAD ROXBURY, CONNECTICUT 06783 SR1876

**SITE INFORMATION:**

THE SCOPE OF WORK SHALL INCLUDE:

1. THE CONSTRUCTION OF A 75'X75' FENCED WIRELESS COMMUNICATIONS COMPOUND WITHIN A 100'X100' LEASE AREA.
2. SITE GRADING SHALL BE CONDUCTED, AS REQUIRED, WITHIN LEASE AREA AND ACCESS DRIVE FOR PROPER DRAINAGE.
3. A TOTAL OF TWELVE (12) DIRECTIONAL PANEL ANTENNAS ARE PROPOSED TO BE MOUNTED AT A RAD CENTER ELEVATION OF 167'± A.G.L. ON A 170' A.G.L. PROPOSED MONOPOLE LOCATED IN THE PROPOSED COMPOUND.
4. POWER AND TELCO UTILITIES SHALL BE ROUTED UNDERGROUND FROM EXISTING UTILITY POLE LOCATED ON TRANSYLVANIA TO THE PROPOSED TRANSFORMER, TELEPHONE CABINET, AND METER BOARD LOCATED WITHIN THE PROPOSED LEASE AREA. UTILITIES SHALL BE ROUTED UNDERGROUND FROM THE PROPOSED UTILITY BACKBOARD TO THE PROPOSED 11'-6"x20'-0" EQUIPMENT SHELTER LOCATED WITHIN THE COMPOUND. FINAL UTILITY ROUTING WILL BE VERIFIED BY LOCAL UTILITY COMPANIES.
5. FINAL DESIGN FOR TOWER, TOWER FOUNDATION, AND ANTENNA MOUNTS SHALL BE DONE BY THE TOWER MANUFACTURER.
6. THE PROPOSED WIRELESS FACILITY INSTALLATION SHALL BE DESIGNED IN ACCORDANCE WITH THE CURRENT CONNECTICUT STATE BUILDING CODE.
7. THERE WILL NOT BE ANY LIGHTING UNLESS REQUIRED BY THE FCC OR THE FAA.
8. THERE WILL NOT BE ANY SIGNS OR ADVERTISING ON THE ANTENNAS OR EQUIPMENT.

**NOTE:**

THIS DOCUMENT WAS DEVELOPED TO REFLECT A SPECIFIC SITE AND ITS SITE CONDITIONS AND IS NOT TO BE USED FOR ANOTHER SITE OR WHEN OTHER CONDITIONS PERTAIN. REUSE OF THIS DOCUMENT IS AT THE SOLE RISK OF THE USER.

**DIRECTIONS:**

FROM ROCKY HILL, TAKE 1-91 SOUTH TOWARD NEW HAVEN. MERGE ONTO I-691 WEST VIA EXIT 18 TOWARD MERIDEN/WATERBURY. MERGE ONTO I-84 VIA EXIT 1 TOWARD WATERBURY/DANBURY. TAKE US-6/CT-67, EXIT 15 TOWARD SOUTHBURY. KEEP RIGHT AT FORK TO GO ON MAIN ST N/US-6/CT-67. TURN LEFT ONTO ROXBURY ROAD/CT-67. TURN SLIGHT RIGHT ONTO BACON ROAD. TURN SHARP RIGHT ONTO TRANSYLVANIA ROAD. SITE WILL BE ON THE LEFT.



**PROJECT SUMMARY**

**SITE NAME:** TRANSYLVANIA ROAD -- ROXBURY

**APPLICANT / LESSEE:** NEW CINGULAR WIRELESS PCS, LLC (AT&T)  
 500 ENTERPRISE DRIVE  
 3RD FLOOR  
 ROCKY HILL, CT 06067

**PROPERTY OWNER:** RITA L. ERRICO  
 126 TRANSYLVANIA ROAD  
 ROXBURY, CT 06783

**CONTACT:** KEVIN DEY  
 (732) 267-3359

**COORDINATES:** LATITUDE: 41° 31' 46.08" N (NAD 83)  
 LONGITUDE: 73° 16' 00.27" W (NAD 83)  
 COORDINATES TAKEN FROM A 1-A CERTIFICATION DONE BY LRC GROUP IN CROMWELL, CT

**PROJECT DESCRIPTION:**

THE PROJECT CONSISTS OF THE INSTALLATION AND OPERATION OF 3 SECTORS OF 4 PANEL ANTENNAS PER SECTOR WHICH SHALL BE MOUNTED TO A PROPOSED ANTENNA FRAME ATTACHED TO A PROPOSED 170-FT TALL MONOPOLE TOWER, AND INSTALLING A 11'-6"x20'-0" EQUIPMENT SHELTER. THIS SYSTEM WILL BOTH TRANSMIT AND RECEIVE RADIO SIGNALS.

THE PROPOSED USE DOES NOT REQUIRE FULL-TIME OR PART-TIME EMPLOYEES AT THE SITE. IT WILL BE TYPICALLY VISITED ONCE OR TWICE PER MONTH FOR MAINTENANCE. THE FACILITY IS NOT EXPECTED TO GENERATE ADDITIONAL NOISE, FUMES OR VIBRATIONS. NO WATER OR SEWER SERVICES ARE NEEDED.

DRAWING INDEX	
DRAWING	TITLE
T-1	TITLE SHEET
S-1	PERIMETER PLAN
S-2	EXISTING CONDITIONS PLAN
S-3	SITE & PARTIAL ACCESS DRIVE PLAN
S-3A	PARTIAL ACCESS DRIVE PLAN
S-4	DETAILED SITE PLAN & ELEVATION
S-5	CONSTRUCTION DETAILS
S-6	CONSTRUCTION DETAILS
S-7	CONSTRUCTION DETAILS
S-8	FENCE NOTES & SITE DETAILS
S-9	EQUIPMENT SHELTER PLAN & ELEVATIONS

No.	DATE	By	Description
E	04/29/10	BAD	REV PRELIM. CSC
D	12/7/09	BAD	REV PER DRIVEWAY
C	8/28/09	BAD	REV PER COMMENT
B	8/24/09	BAD	REV PER WETLANDS
A	8/21/09	BAD	PRELIM. CSC

**REVISIONS**

**126 TRANSYLVANIA ROAD**  
**ROXBURY, CT 06783**  
**SR1876**

**SITE NAME / ADDRESS**

**DRAWN BY:** BAD  
**APPROVED BY:** FDK  
**CHECKED BY:** DU  
**DATE:** 08/07/09

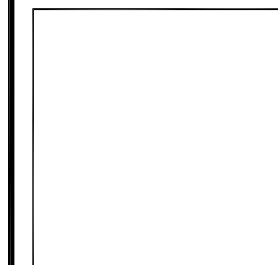
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**TITLE SHEET**

DEWBERRY P.N. 50013461

**T-1**

SHEET NO.



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D	12/7/09	BAD	REV PER DRIVEWAY
C	8/28/09	BAD	REV PER COMMENT
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REVISIONS

**126 TRANSYLVANIA ROAD**

ROXBURY, CT 06783  
SR1876

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APPROVED BY: FDK  
CHECKED BY: DU  
DATE: 08/07/09

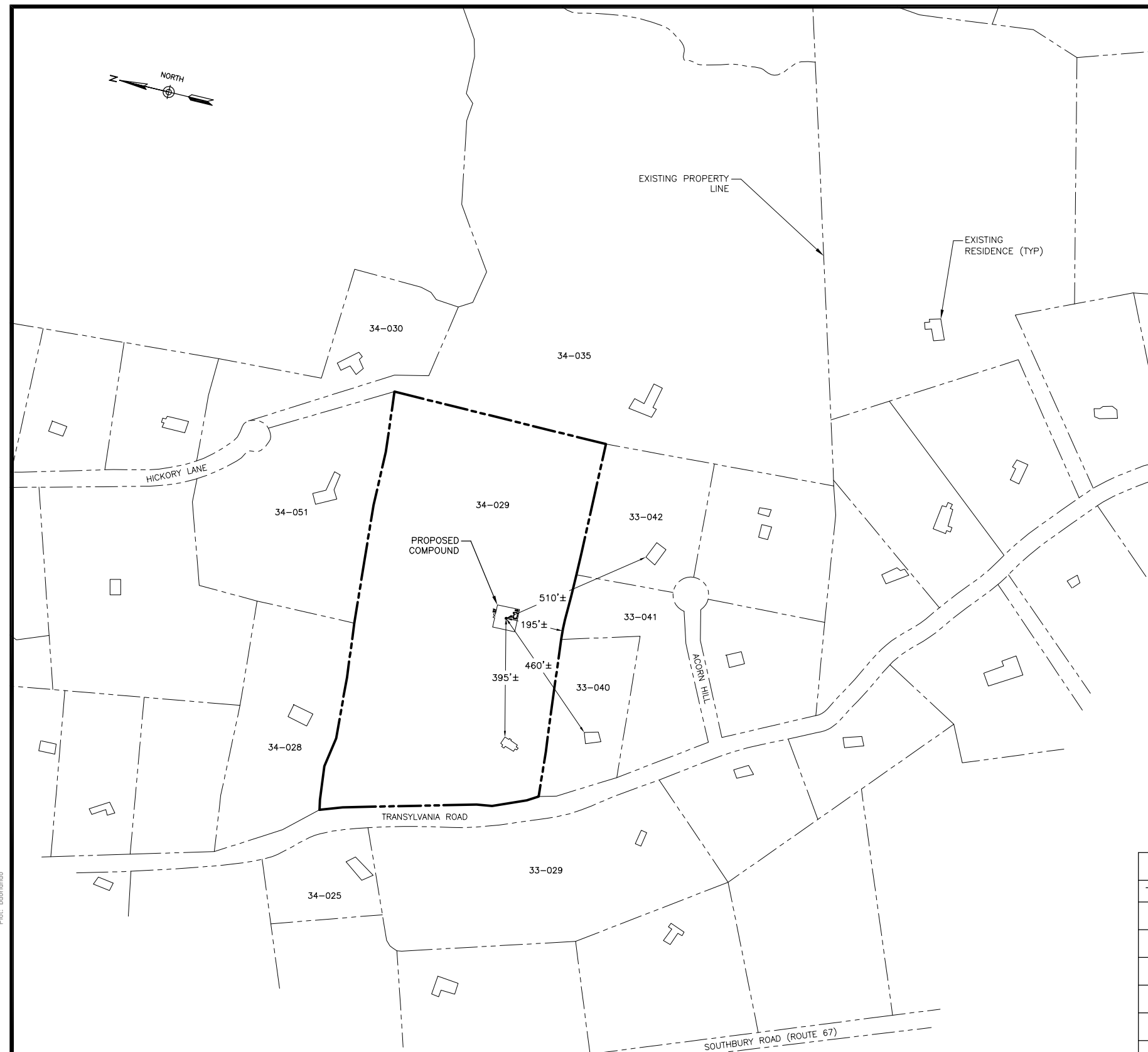
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**PERIMETER PLAN**

DEWBERRY P.N. 50013461

**S-1**

SHEET NO.



**PERIMETER PLAN**

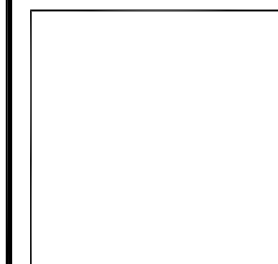
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**NOTE:**  
1. PLAN & ABUTTER INFORMATION WAS COMPILED FROM INFORMATION OBTAINED FROM THE TOWN OF ROXBURY ASSESSOR'S OFFICE, ROXBURY VISION APPRAISAL & AERIAL PHOTOGRAPHS.

500' ABUTTERS		
TAX MAP ID	NAME	MAILING ADDRESS
34-035	WILDER JAMES B. & AINO HEGGE	64 HICKORY LANE, ROXBURY, CT 06783
34-054	JUDITH T. MARTINEZ	52 HICKORY LANE, ROXBURY, CT 06783
34-051	MONICA PEACOCKE	39 HICKORY LANE, ROXBURY, CT 06783
34-028	NORTH ATLANTIC LIQUID ENERGY CORP.	140 TRANSYLVANIA ROAD, ROXBURY, CT 06783
34-025	ANTONIO D. MATOS	139 TRANSYLVANIA ROAD, ROXBURY, CT 06783
33-029	STEERS WILLIAM V. & JULIE G.	121 TRANSYLVANIA ROAD, ROXBURY, CT 06783
33-040	JOHN R. & MARGARET H. AMBRUSO	118 TRANSYLVANIA ROAD, ROXBURY, CT 06783
33-041	WILSON MARK CARLTON	116 TRANSYLVANIA ROAD, ROXBURY, CT 06783
33-042	THOMAS E. REAGAN	12 ACORN HILL, ROXBURY, CT 06783

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No.	DATE	By	Description
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ROXBURY, CT 06783  
SR1876

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APPROVED BY FDK  
CHECKED BY DU  
DATE 08/07/09

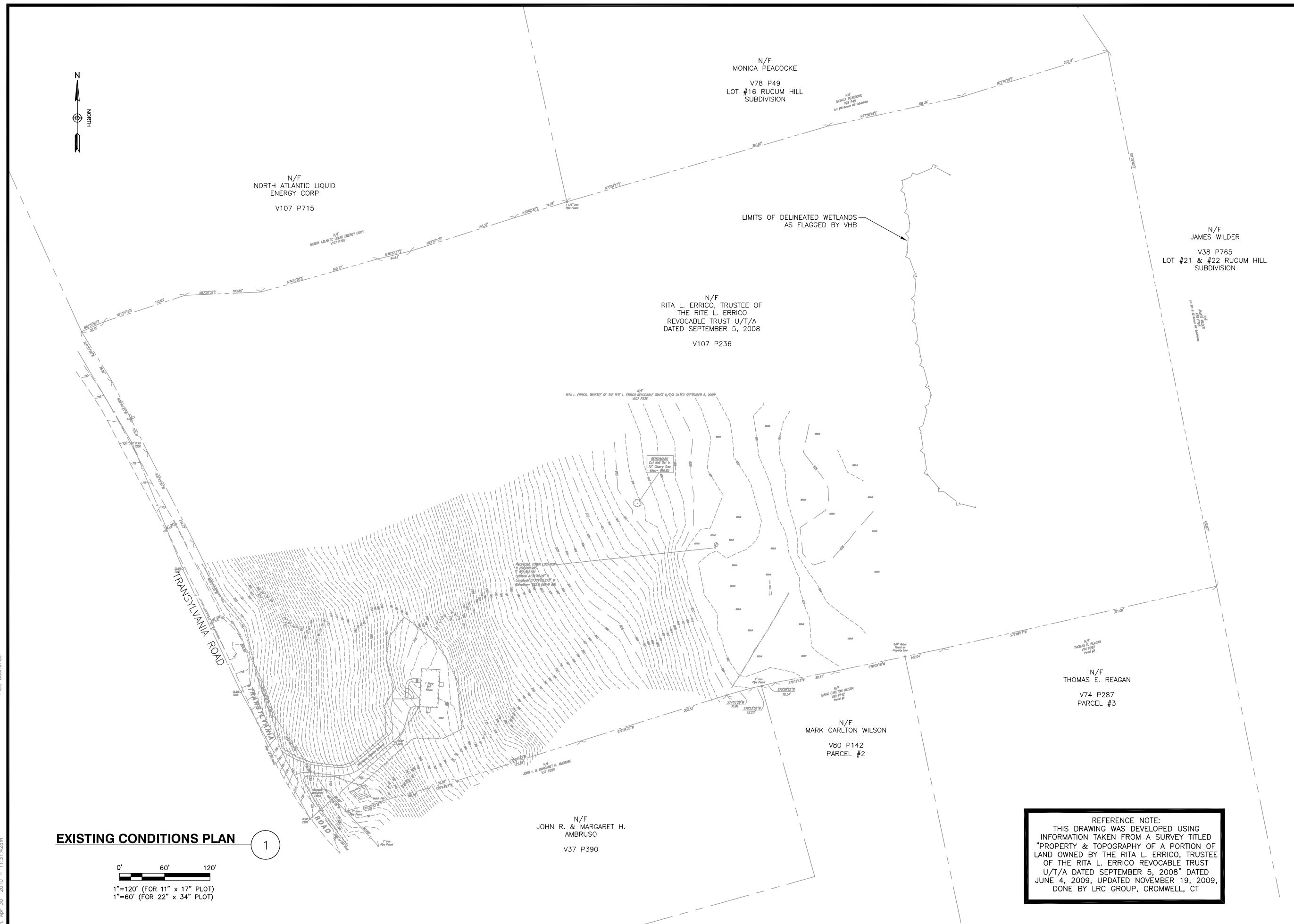
SHEET TITLE:

**EXISTING  
CONDITIONS PLAN**

DEWBERRY P.N. 50013461

**S-2**

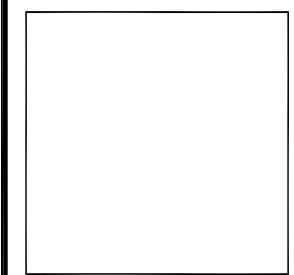
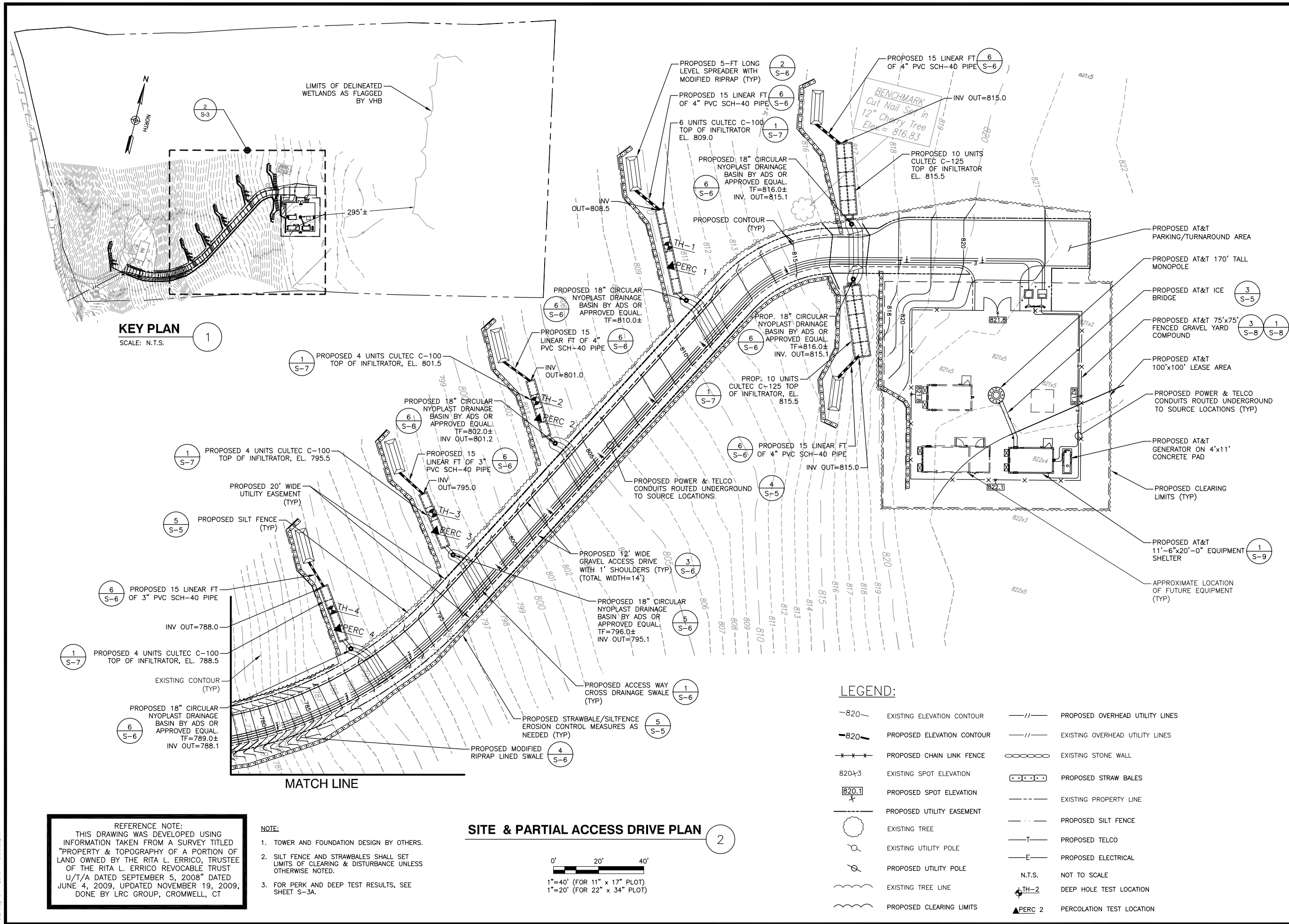
SHEET NO.



**EXISTING CONDITIONS PLAN** 1

0' 60' 120'  
1"=120' (FOR 11" x 17" PLOT)  
1"=60' (FOR 22" x 34" PLOT)

REFERENCE NOTE:  
THIS DRAWING WAS DEVELOPED USING INFORMATION TAKEN FROM A SURVEY TITLED "PROPERTY & TOPOGRAPHY OF A PORTION OF LAND OWNED BY THE RITA L. ERRICO, TRUSTEE OF THE RITA L. ERRICO REVOCABLE TRUST U/T/A DATED SEPTEMBER 5, 2008" DATED JUNE 4, 2009, UPDATED NOVEMBER 19, 2009, DONE BY LRC GROUP, CROMWELL, CT



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REVISIONS

**126 TRANSYLVANIA ROAD**

ROXBURY, CT 06783  
SR1876

SITE NAME / ADDRESS

DRAWN BY: BAD

APPROVED BY: FDK

CHECKED BY: DU

DATE: 08/07/09

**SITE & PARTIAL ACCESS DRIVE PLAN**

DEWBERRY P.N. 50013461

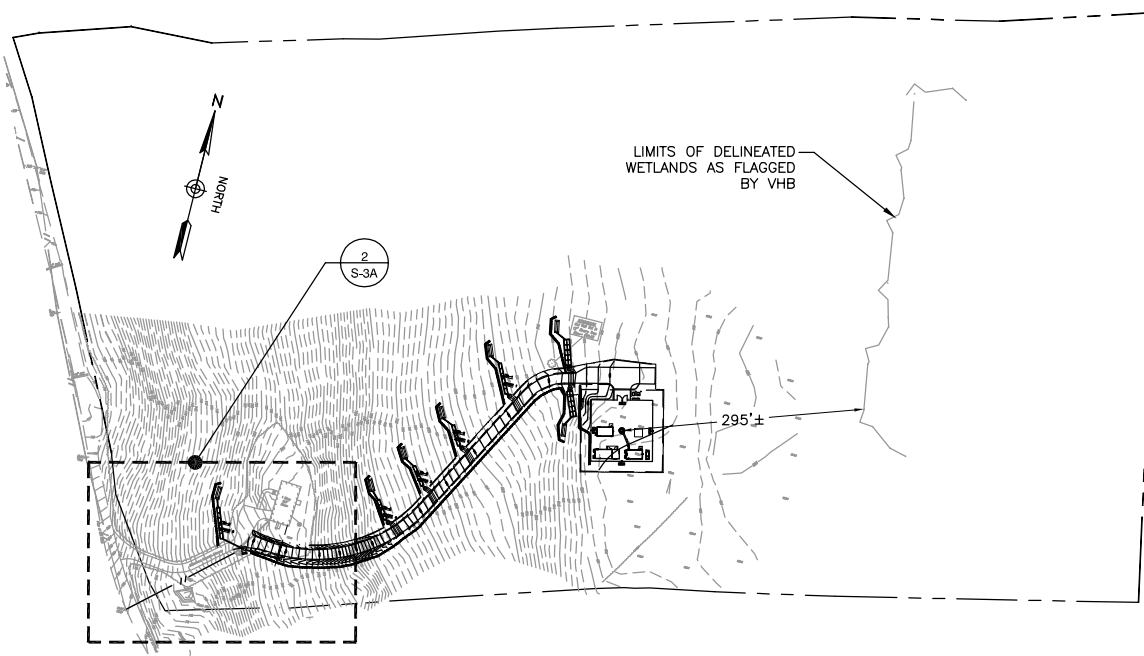
**S-3**

SHEET NO.

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 By: Plot: boronido



Dewberry-Goodkind, Inc.  
59 ELM STREET  
SUITE 101  
NEW HAVEN, CT 06510  
203.776.2277 PHONE  
203.776.2288 FAX



**KEY PLAN**  
SCALE: N.T.S. 1

- TH 1:**  
0"-9"-TOPSOIL  
9"-21"-ORANGE BROWN SILTY LOAM  
21"-32"-OLIVE SILTY LOAM  
32"-46"-OLIVE SILTY LOAM WITH TRACES OF MOTTLING (MEDIUM COMPACTION)
- TH 2:**  
0"-11"-TOPSOIL  
11"-20"-ORANGE BROWN SILTY LOAM  
20"-29"-OLIVE SILTY LOAM  
29"-31"-OLIVE SILTY LOAM WITH TRACES OF MOTTLING
- TH 3:**  
0"-10"-TOPSOIL  
10"-17"-ORANGE BROWN SILTY LOAM  
17"-34"-OLIVE SILTY LOAM  
34"-43"-OLIVE SILTY LOAM WITH TRACES OF MOTTLING
- TH 4:**  
0"-10"-TOPSOIL  
10"-32"-ORANGE BROWN SILTY LOAM  
32"-40"-OLIVE SILTY LOAM  
40"-47"-OLIVE SILTY LOAM WITH SMALL STONES
- TH 5:**  
0"-8"-TOPSOIL  
8"-24"-ORANGE BROWN SILTY LOAM  
24"-43"-OLIVE SILTY LOAM  
43"-49"-OLIVE SILTY LOAM WITH TRACES OF MOTTLING
- TH 6:**  
0"-8"-TOPSOIL  
8"-24"-ORANGE BROWN SILTY LOAM  
24"-43"-OLIVE SILTY LOAM  
43"-49"-OLIVE SILTY LOAM WITH TRACES OF MOTTLING

**NOTE:**  
DEEP TESTS WERE CONDUCTED BY DEWBERRY-GOODKIND, INC ON APRIL 23, 2010

**DEEP TEST RESULTS**  
SCALE: N.T.S. 3

**PERC 1**

TIME	READING	FALL
10:02	13 1/4"	-
10:12	14 1/2"	1"
10:22	15 3/4"	1"
10:32	15 3/4"	8"
10:42	16 1/2"	3/4"
10:52	17 1/4"	3/4"
11:02	18"	3/4"

PERC = 12.3 MIN/IN

**PERC 2**

TIME	READING	FALL
10:01	20"	-
10:11	21 3/4"	1 3/4"
10:21	23 1/4"	1 1/2"
10:31	24 1/2"	1 1/2"
10:41	25 1/2"	1"
10:51	26 1/2"	1"
11:01	27 1/4"	3/4"

PERC = 8.3 MIN/IN

**PERC 3**

TIME	READING	FALL
10:24	17 1/2"	-
10:34	18 1/4"	3/4"
10:44	19"	3/4"
10:54	19 1/2"	1/2"
11:04	20"	1/2"
11:14	20 1/2"	1/2"
11:24	20 3/4"	3/4"

PERC = 17.8 MIN/IN

**PERC 4**

TIME	READING	FALL
10:26	15 1/2"	-
10:36	17 1/2"	2"
10:46	18 1/4"	3/4"
10:56	19 1/4"	1"
11:06	20"	3/4"
11:16	20 3/4"	3/4"
11:26	21 3/8"	3/8"

PERC = 10.2 MIN/IN

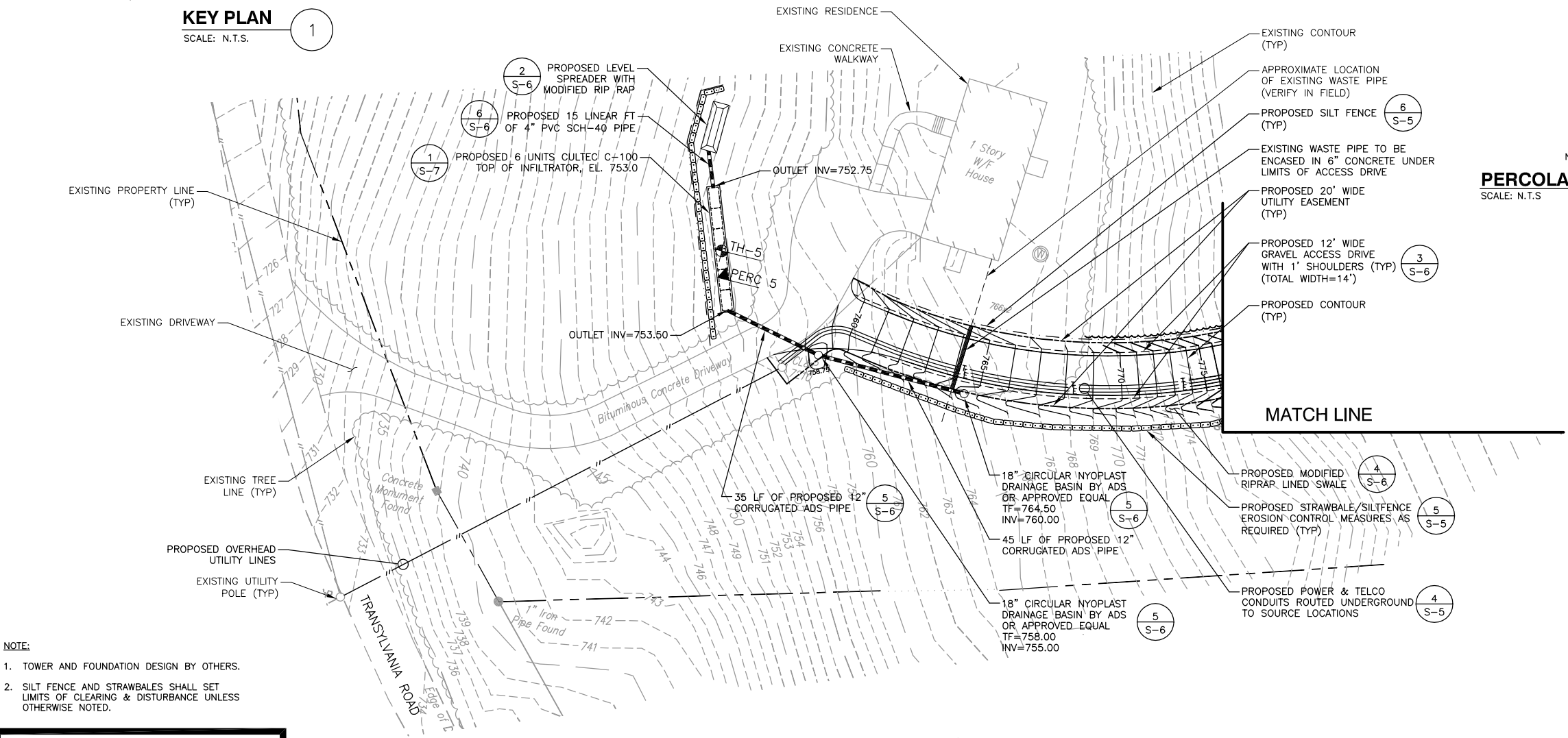
**PERC 5**

TIME	READING	FALL
11:20	16 3/8"	-
11:30	17 1/4"	1 1/8"
11:40	18 1/4"	1"
11:50	19 3/8"	7/8"
12:00	20"	7/8"
12:10	20 3/4"	3/4"
12:20	21 3/8"	3/8"

PERC = 11.4 MIN/IN

**PERCOLATION TEST RESULTS**  
SCALE: N.T.S. 4

NOTE: TEST HOLES PRE-SOAKED.



**PARTIAL ACCESS DRIVE PLAN**  
SCALE: N.T.S. 2

- NOTE:**
- TOWER AND FOUNDATION DESIGN BY OTHERS.
  - SILT FENCE AND STRAWBALES SHALL SET LIMITS OF CLEARING & DISTURBANCE UNLESS OTHERWISE NOTED.

**REFERENCE NOTE:**  
THIS DRAWING WAS DEVELOPED USING INFORMATION TAKEN FROM A SURVEY TITLED "PROPERTY & TOPOGRAPHY OF A PORTION OF LAND OWNED BY THE RITA L. ERRICO, TRUSTEE OF THE RITA L. ERRICO REVOCABLE TRUST U/T/A DATED SEPTEMBER 5, 2008" DATED JUNE 4, 2009, UPDATED NOVEMBER 19, 2009, DONE BY LRC GROUP, CROMWELL, CT

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REVISIONS  
**126 TRANSYLVANIA ROAD**  
ROXBURY, CT 06783  
SR1876

SITE NAME / ADDRESS  
DRAWN BY: BAD  
APPROVED BY: FDK  
CHECKED BY: DU  
DATE: 08/07/09

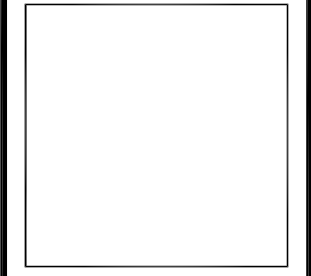
**PARTIAL ACCESS DRIVE PLAN**

DEWBERRY P.N. 50013461

**S-3A**

SHEET NO.

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Tue, May 04 2010 4:31:56pm



No.	DATE	By	Description
E	04/29/10	BAD	REV PRELIM. CSC
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REVISIONS

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**SR1876**

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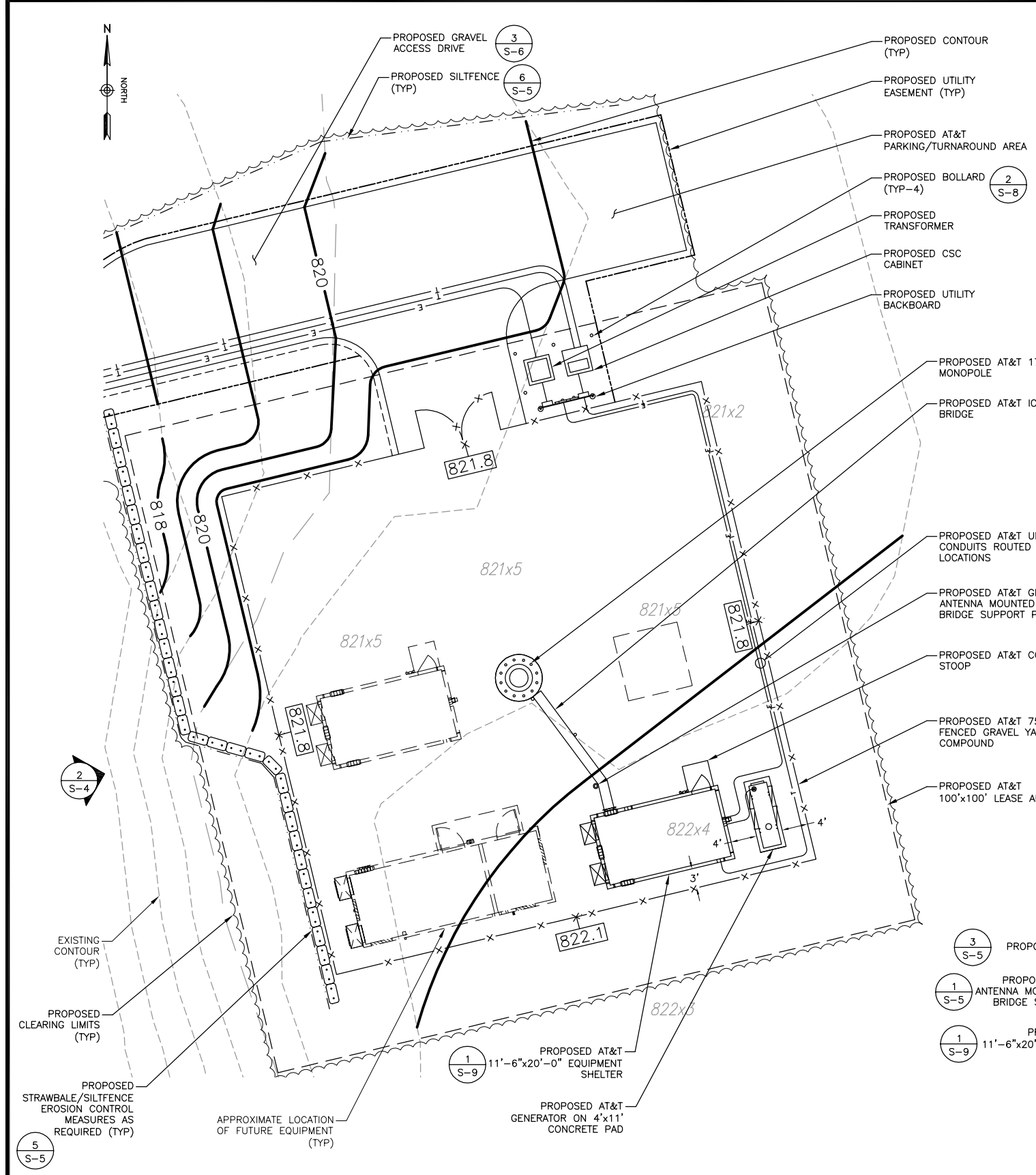
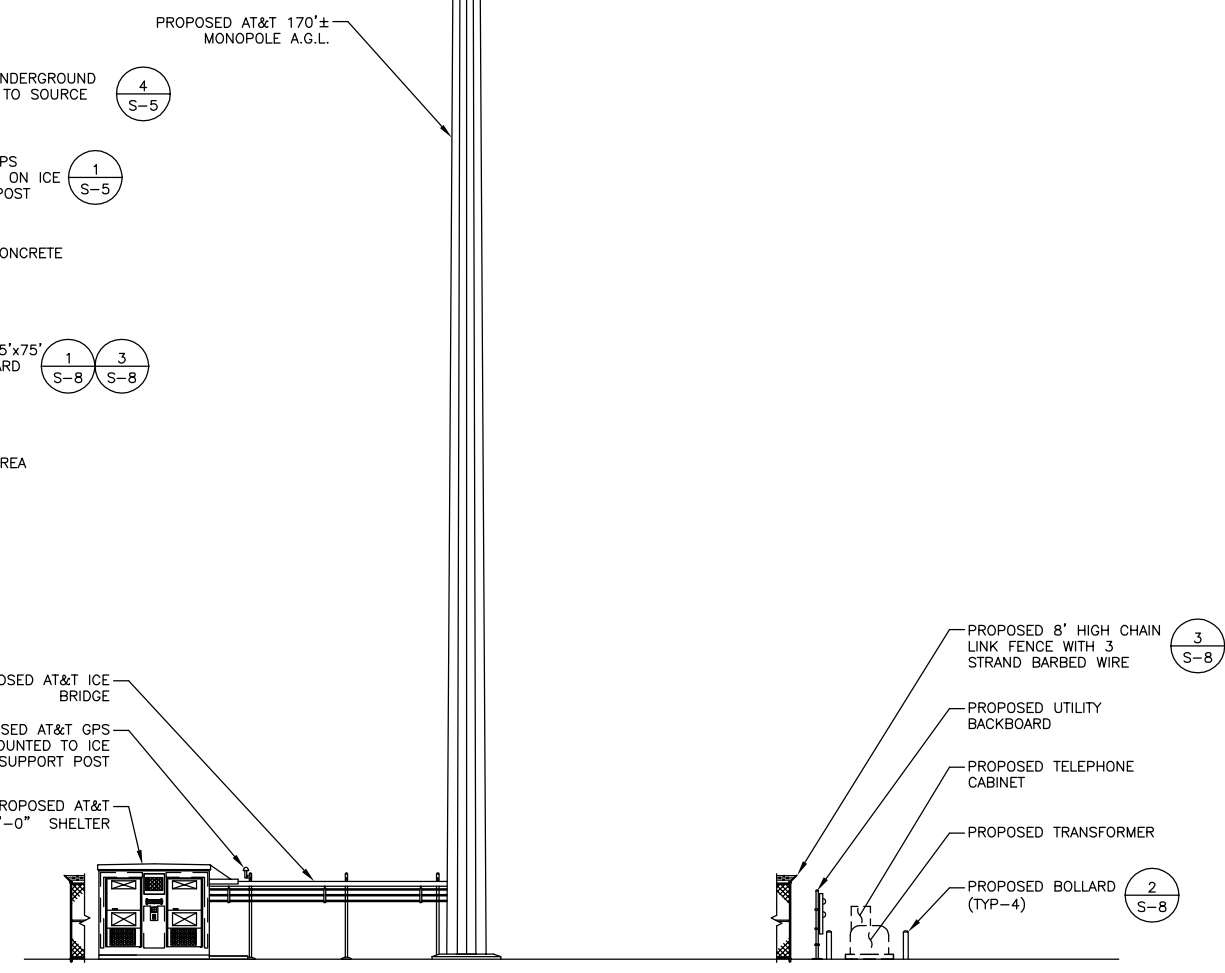
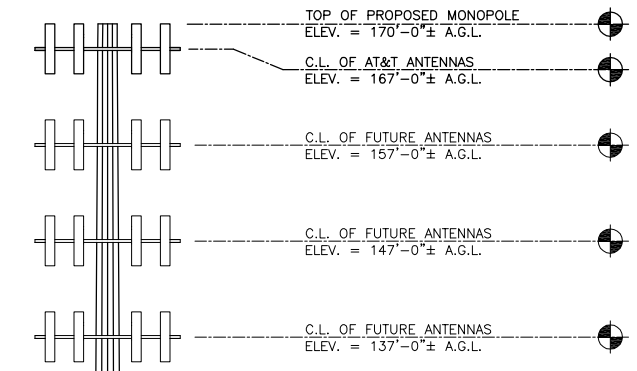
SHEET TITLE:

**DETAILED SITE PLAN & ELEVATION**

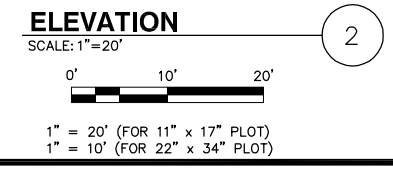
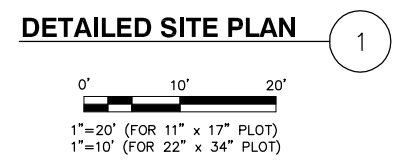
DEWBERRY P.N. 50013461

**S-4**

SHEET NO.

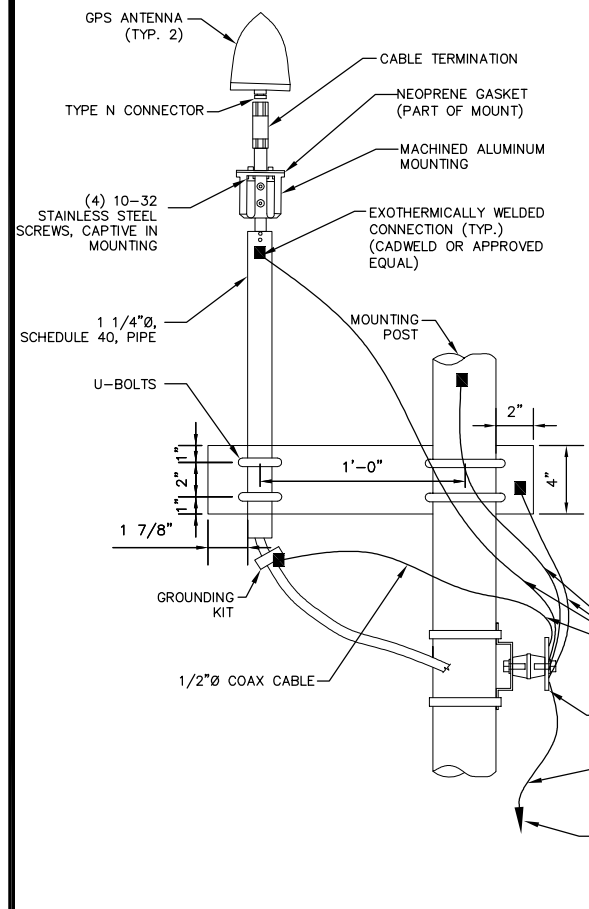


- NOTE:**
- TOWER AND FOUNDATION DESIGN BY OTHERS.
  - SEE SHEET S-3 FOR PROPOSED ACCESS DRIVE GRADING.



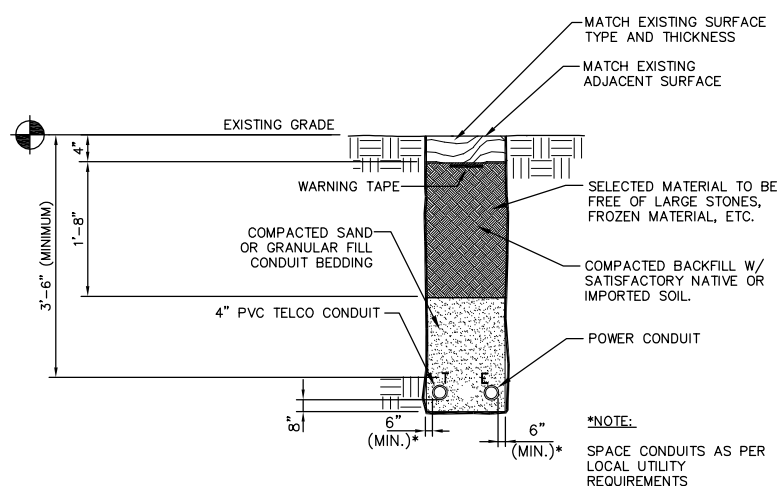
**REFERENCE NOTE:**  
THIS DRAWING WAS DEVELOPED USING INFORMATION TAKEN FROM A SURVEY TITLED "PROPERTY & TOPOGRAPHY OF A PORTION OF LAND OWNED BY THE RITA L. ERRICO, TRUSTEE OF THE RITA L. ERRICO REVOCABLE TRUST U/T/A DATED SEPTEMBER 5, 2008" DATED JUNE 4, 2009, UPDATED NOVEMBER 19, 2009, DONE BY LRC GROUP, CROMWELL, CT

By: bborfando  
 Plot: bborfando  
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 Tue, May 04 2010 - 5:02:25pm

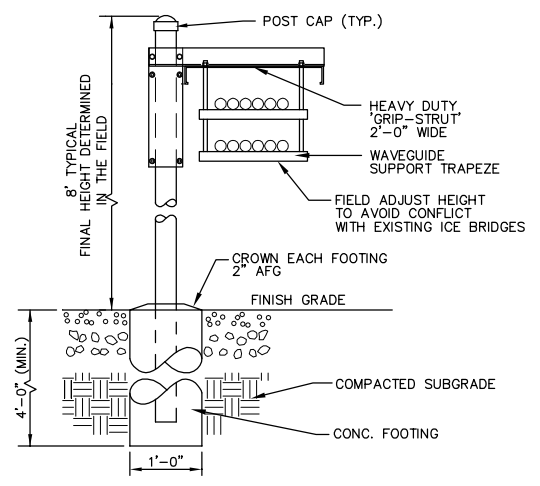


- NOTES:**
1. THE ELEVATION AND LOCATION OF THE GPS ANTENNA SHALL BE IN ACCORDANCE WITH THE FINAL RF REPORT.
  2. THE GPS ANTENNA MOUNT IS DESIGNED TO FASTEN TO A STANDARD 1-1/4" DIAMETER, SCHEDULE 40 GALVANIZED STEEL OR STAINLESS STEEL PIPE. THE PIPE MUST NOT BE THREADED AT THE ANTENNA MOUNT END. THE PIPE SHALL BE CUT TO THE REQUIRED LENGTH (MINIMUM OF 18") USING HAND OR ROTARY PIPE CUTTER TO ASSURE A SMOOTH AND PERPENDICULAR CUT. A HACK SAW SHALL NOT BE USED. THE CUT PIPE END SHALL BE DEBURRED AND SMOOTH IN ORDER TO SEAL AGAINST THE NEOPRENE GASKET ATTACHED TO THE ANTENNA MOUNT.
  3. THE MOUNTING PLATE SHALL BE FABRICATED AS SHOWN USING 3/8" THICK GALVANIZED STEEL, AND ATTACHED TO THE APPROPRIATE SUPPORT STRUCTURE USING U-BOLTS. THE SUPPORT PIPE SHALL THEN BE ATTACHED TO THE MOUNTING PLATE USING THE OVERSIZED U-BOLTS PROVIDED TO ALLOW FOR ADJUSTMENT. IT IS CRITICAL THAT THE BASE OF THE GPS IS MOUNTED SUCH THAT IT IS WITHIN 2 DEGREES OF THE VERTICAL AND THE BASE OF THE GPS IS WITHIN 2 DEGREES OF THE LEVEL.
  4. MOUNTING PLATE MAY BE SUBSTITUTED WITH VALMONT UNIVERSAL MOUNTING KIT (P/N B1841) OR APPROVED EQUAL. GPS BASE MUST BE MOUNTED AS DESCRIBED IN NOTE 3.

**GPS ANTENNA DETAIL 1**  
SCALE: N.T.S.

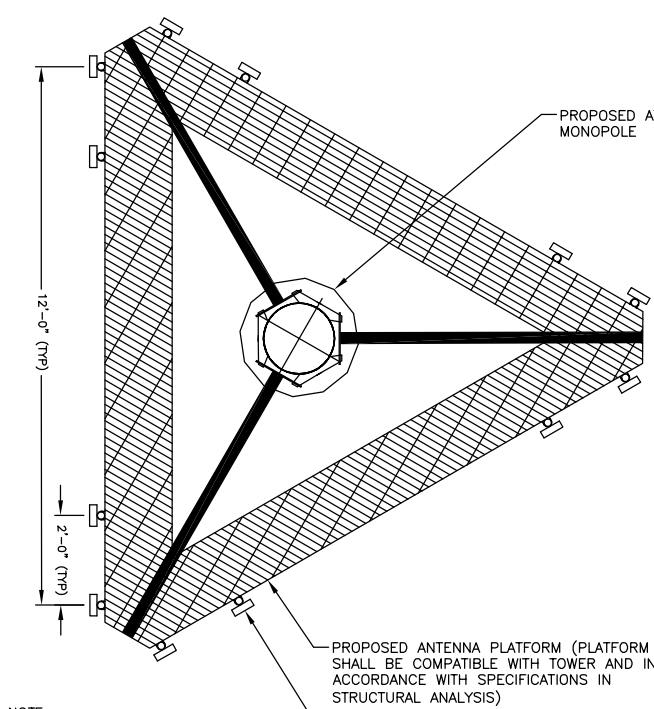
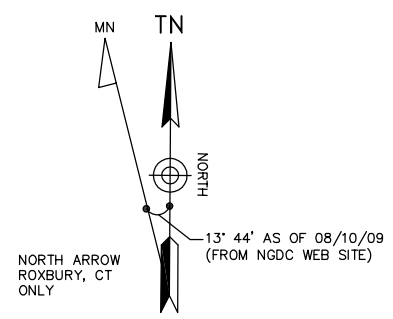


**UNDERGROUND UTILITY DETAIL 4**  
SCALE: N.T.S.



**ICE BRIDGE DETAIL 3**  
SCALE: N.T.S.

- NOTES:**
1. ICE BRIDGE SHALL BE VALMONT GRIP STRUT TRANSMISSION LINE BRIDGE KIT (P/N: B2959) OR APPROVED EQUAL.
  2. CABLE SUPPORT SHALL BE VALMONT DOUBLE LEVEL CHANNEL (P/N: 802264) OR APPROVED EQUAL.
  3. ALL COMPONENTS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
  4. CONTRACTOR SHALL DETERMINE REQUIRED QUANTITY OF ALL ICE BRIDGE COMPONENTS.
  5. SNAP-IN HANGERS, SPLICE KITS, HINGE KITS, EXTENSION KITS, STIFFENERS, AND OTHER MISCELLANEOUS HARDWARE SHALL BE PROVIDED BY THE CONTRACTOR AS REQUIRED.
  6. ICE BRIDGE SHALL BE ROUTED TO ACCOMMODATE THE MINIMUM BENDING RADIUS OF THE COAXIAL CABLE.
  7. ICE BRIDGE COMPONENTS SHOWN ARE SCHEMATIC, CONSULT MANUFACTURER FOR EXACT AND CURRENT SPECIFICATIONS.

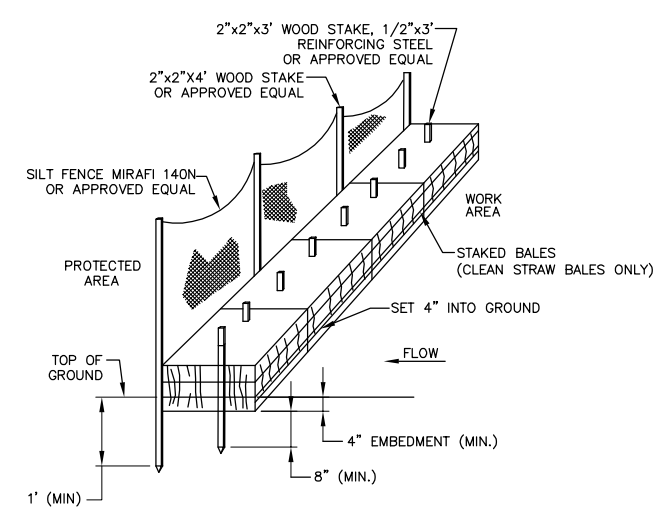


**ANTENNA PLATFORM DETAIL 2**  
SCALE: N.T.S.

- NOTE:**
1. ANTENNA PLATFORM DETAIL FOR ILLUSTRATIVE PURPOSES ONLY.

- SEDIMENTATION AND EROSION CONTROL NOTES**
1. CONTRACTOR SHALL MAINTAIN SEDIMENTATION CONTROLS. ALL CONTROLS SHOWN SHALL BE CONSIDERED TYPICAL. CONTRACTOR SHALL EMPLOY ALL STANDARDS OF SOIL EROSION AND SEDIMENTATION CONTROL, AS PRESCRIBED IN THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL PUBLISHED BY THE CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION," AND AS AMENDED, AS WELL AS ANY LOCAL REGULATIONS AND/OR GUIDELINES.
  2. INSTALL AND MAINTAIN THE EROSION CONTROL SYSTEM AS SHOWN ON THE PLANS PRIOR TO INITIATING ANY OTHER EARTH DISTURBANCE CONSTRUCTION ACTIVITY.
  3. SEDIMENTATION AND EROSION CONTROL MEASURES SHOWN ARE THE MINIMUM REQUIRED. INSTALL AND MAINTAIN ADDITIONAL MEASURES, AS REQUIRED, TO CONTROL EROSION AS THE CONSTRUCTION PROJECT PROGRESSES AND COMPLY WITH THE CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL.
  4. CONTRACTOR SHALL SEED DISTURBED AREAS, IF THEY ARE LEFT TO BE UNDISTURBED FOR 15 OR MORE DAYS, TO PREVENT ADDITIONAL EROSION.
  5. CONDUCT CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF ENVIRONMENTAL PERMITS ISSUED FOR THIS PROJECT.

- EROSION CONTROL CONSTRUCTION SPECIFICATIONS**
1. STRAWBALES SHALL BE PLACED PRIOR TO CONSTRUCTION ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT STRAWBALES.
  2. EACH STRAWBALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4 INCHES, AND PLACED SO THE BINDINGS ARE HORIZONTAL.
  3. STRAWBALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR REBARS DRIVEN THROUGH THE STRAWBALE. THE FIRST STAKE IN EACH STRAWBALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID STRAWBALE AT AN ANGLE TO FORCE THE STRAWBALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE STRAWBALE.
  4. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
  5. UPON COMPLETION OF CONSTRUCTION AND STABILIZATION OF ALL DISTURBED AREAS, EROSION CONTROL MEASURES ARE TO BE REMOVED.



**SILT FENCE/CLEAN STRAW BALE DETAIL 5**  
SCALE: N.T.S.

No.	DATE	By	Description
E	04/29/10	BAD	REV PRELIM. CSC
D	12/7/09	BAD	REV PER DRIVEWAY
C	8/28/09	BAD	REV PER COMMENT
B	8/24/09	BAD	REV PER WETLANDS
A	8/21/09	BAD	PRELIM. CSC

REVISIONS

**126 PENNSYLVANIA ROAD**  
ROXBURY, CT 06783  
SR1876

SITE NAME / ADDRESS

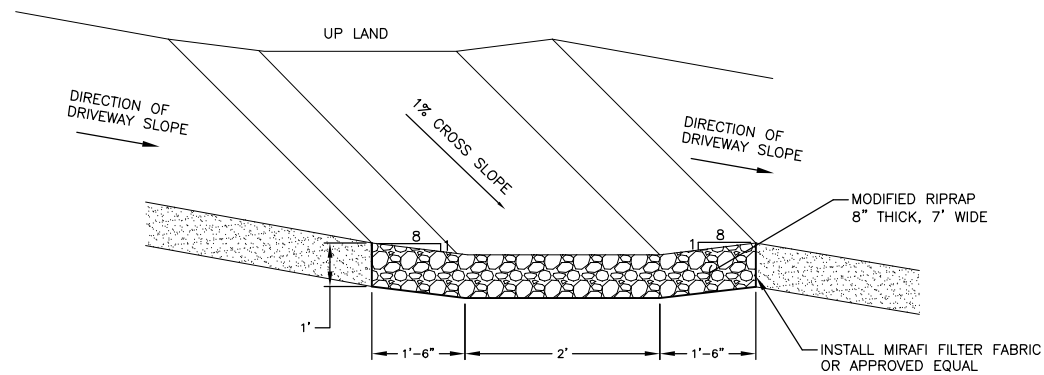
DRAWN BY: BAD  
APPROVED BY: FDK  
CHECKED BY: DU  
DATE: 08/07/09

**CONSTRUCTION DETAILS**

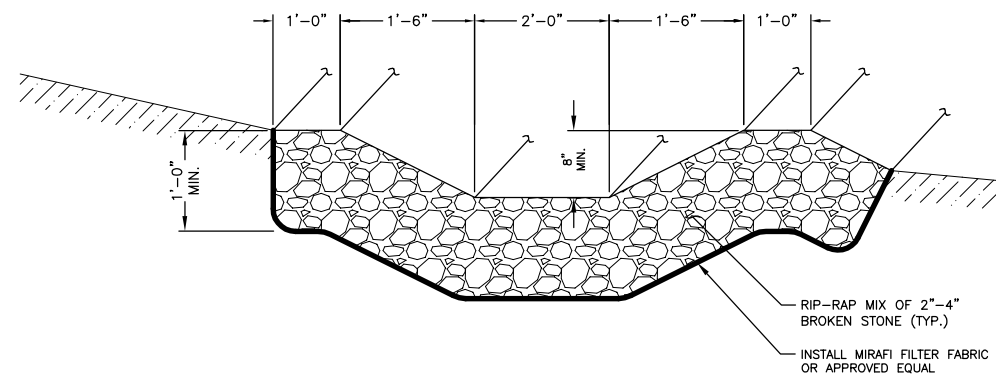
DEWBERRY P.N. 50013461

**S-5**

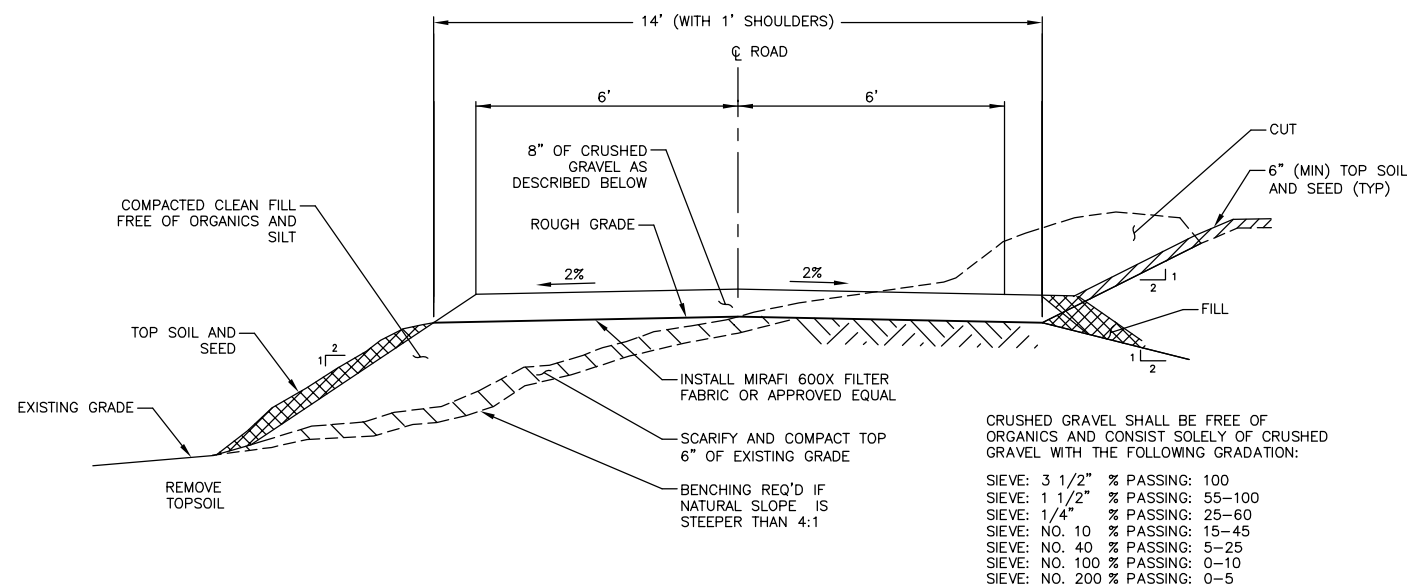
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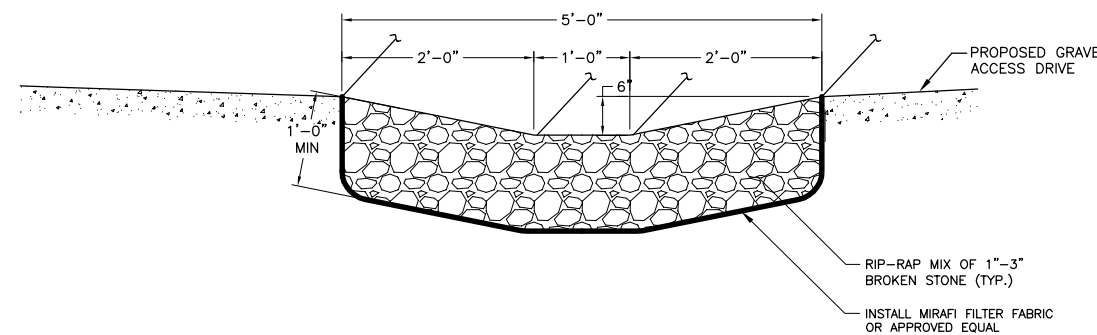
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 SCALE: N.T.S.



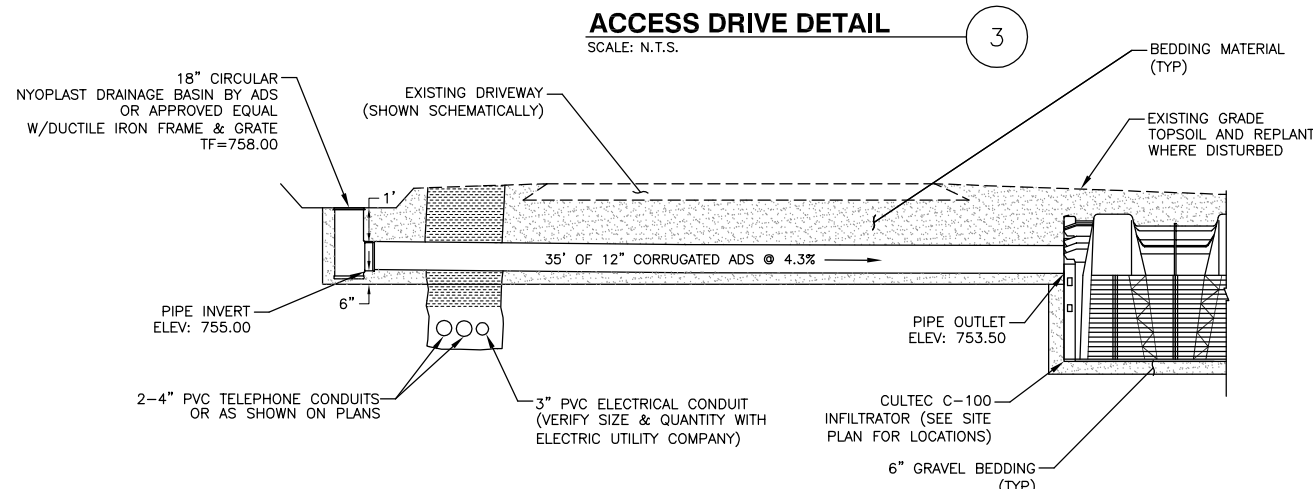
**LEVEL SPREADER TYPICAL SECTION** 2  
 SCALE: N.T.S.



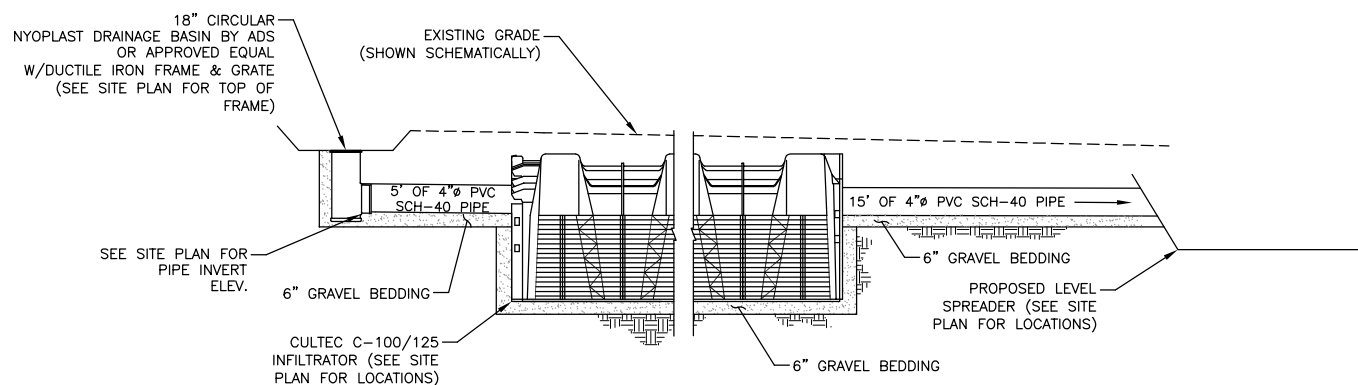
**ACCESS DRIVE DETAIL** 3  
 SCALE: N.T.S.



**GRAVEL SWALE TYPICAL SECTION** 4  
 SCALE: N.T.S.



**CROSS CULVERT DETAIL** 5  
 SCALE: N.T.S.



**TYP. SCHEMATIC SECTIONS OF NYOPLAST INLET/INFILTRATOR/LEVEL SPREADER** 6  
 SCALE: N.T.S.

No.	DATE	By	Description
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C	8/28/09	BAD	REV PER COMMENT
B	8/24/09	BAD	REV PER WETLANDS
A	8/21/09	BAD	PRELIM. CSC

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 SR1876

SITE NAME / ADDRESS

DRAWN BY: BAD  
 APPROVED BY: FDK  
 CHECKED BY: DU  
 DATE: 08/07/09

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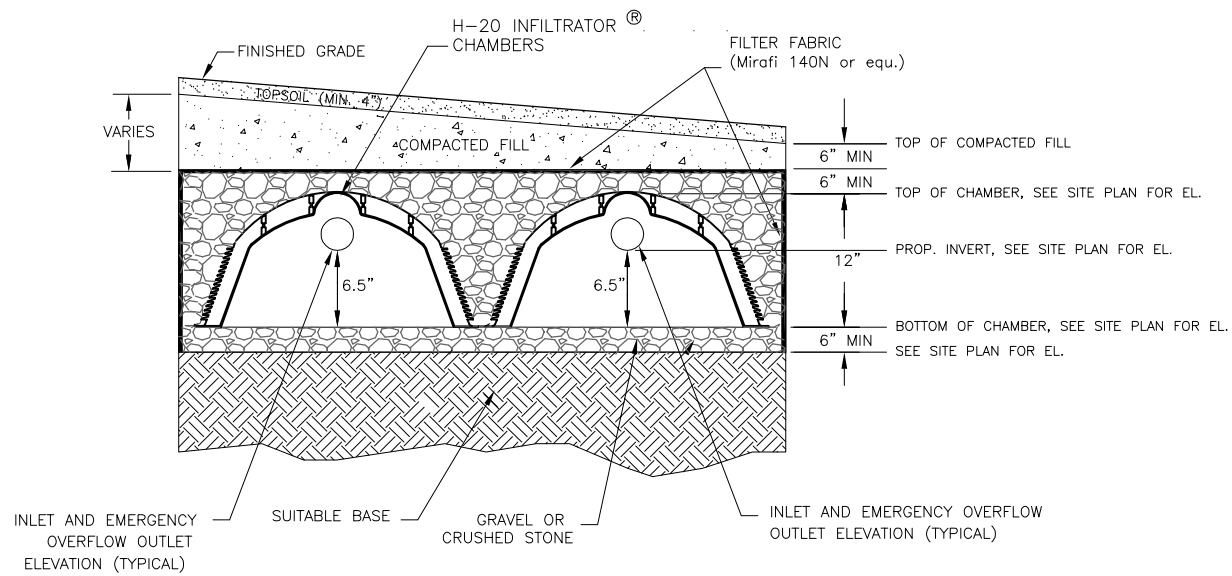
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DEWBERRY P.N. 50013461

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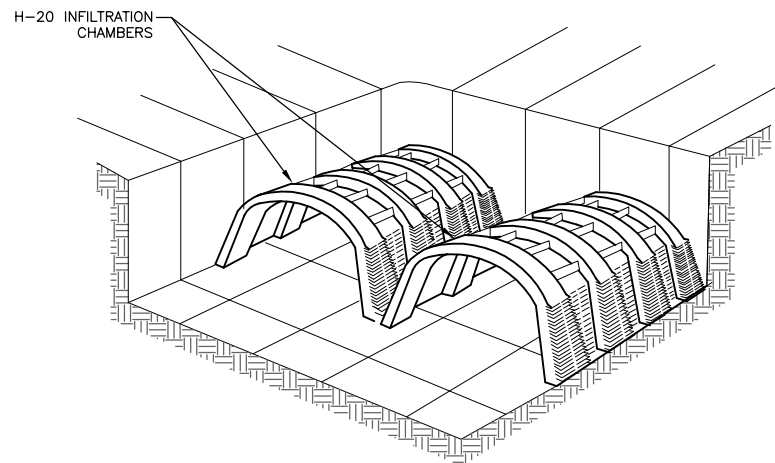


USE 12" HIGH [H-20 TYPE] C-100 INFILTRATOR UNITS AS MANUFACTURED BY CULTEC, INC., BROOKFIELD, CT., OR APPROVED EQUAL.

**INFILTRATOR CHAMBER SYSTEM**

SCALE: N.T.S

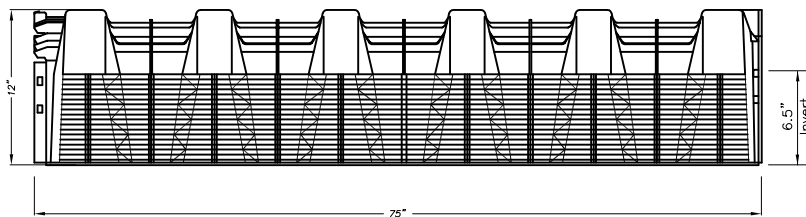
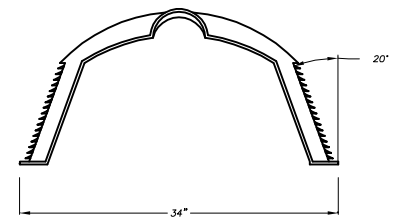
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**ISOMETRIC INFILTRATOR VIEW**

SCALE: N.T.S

2



**CHAMBER DIMENSIONS**

SCALE: N.T.S

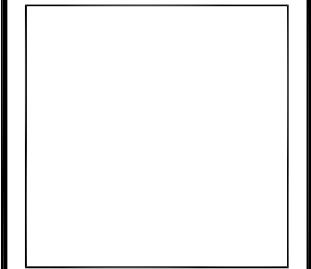
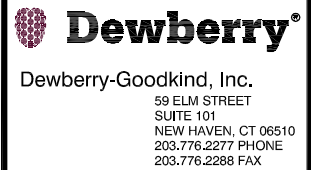
3

**INFILTRATOR SUBSURFACE FILTERING SYSTEM  
SINGLE-LAYER INSTALLATION INSTRUCTIONS:**

- EXCAVATE and level designated area. Be sure to excavate beyond the planned perimeter of the bed to allow for proper fit and adequate compaction.
- If in loose sandy soils, FLOOD the excavated area. NOTE: SANDY SOILS REQUIRE SPECIAL INSTALLATION PROCEDURES. CALL INFILTRATOR SYSTEMS, INC. FOR INSTRUCTIONS.
- COMPACT the base to state department of transportation standards or 95% of maximum attainable density, whichever is greater.
- PLACE geotextile fabric such as Amoco 45/53, Mirafi 140-N, or equivalent as specified in engineered drawings.
- LAY 1 1/2" - 2" diameter crushed stone or 2 - 2 1/2" diameter rounded gravel to a depth of 3 - 6" as per plan detail. NOTE: CRUSHED OR RECYCLED CONCRETE IS NOT RECOMMENDED. USE WILL VIOLATE WARRANTY.
- COMPACT the stone with vibratory roller or plate compactor. To ensure maximum stone compaction, compact twice, the second pass being perpendicular to the first.
- CUT hole in closed end plate for appropriately-sized distribution pipe, according to plan.
- SCREW end plate into "Inlet End" (without interlocks) of first Infiltrator® chamber.
  - \* End plates are required only at beginning and end of each row of chambers.
  - \* End plates are reversible to fit either end of chamber. (Upper steps fit into "Inlet End" and lower step in downstream end (with interlocks)).
  - \* A cordless drill and self-drilling screws work well for all connections.
  - \* Use the four starter holes around perimeter of flange.
- PLACE first Infiltrator® chamber in the "Inlet End" of excavation with interlocks downstream.
  - \* Place rows of Infiltrator chambers next to each other to fit desired bed area as per plan detail drawing. Do not overlap the "feet" of the chamber onto adjacent chambers.
- PLACE catch basin and other sedimentation structures as required by drawing.
  - \* Run distribution pipe to rows of chambers as per design requirements.
  - \* Run distribution pipe through inlet opening in endplate.
  - \* Pipe does not run the length of the system.
  - NOTE: PROVISIONS MUST BE MADE TO AVOID SEDIMENTATION FLOW INTO SYSTEM. INSERTING A 90° ELBOW INTO OUTLET PIPE IN CATCH BASIN IS AN EFFICIENT METHOD.
- Fit Infiltrator® chambers together, fully engaging interlocks to fit desired bed area. Interlock chambers by holding at 45° angle. Place inlet end on end of previous chamber. Lower chamber fully interlocking units.
  - \* To keep joints from disengaging during construction, joints must be screwed together at the two top locations, similar to end plates.
- FILL area to a minimum of 6" over top of chambers with stone as per plan. NOTE: FOR A LARGE BED THAT CANNOT BE FILLED FROM THE SIDES, USE A LIGHT TRACKED TRACKED VEHICLE SUCH AS A CATERPILLAR D-3. (TRACKED VEHICLE SIZE MUST NOT EXCEED D-5. GROUND PRESSURE OF TRACK NOT TO EXCEED 1,100 LBS. PER FT<sup>2</sup>). BE SURE TO MAINTAIN 6" MINIMUM OF COMPACTED COVER BENEATH TRACKS AT ALL TIMES.
- COMPACT stone with walk-behind plate compactor or vibratory roller, not to exceed dynamic force of 10,000 pounds.
- COVER entire installation area with geotextile fabric by taking it from perimeter and laying it onto area, making sure that it overlaps onto itself by 2 feet.
- BACKFILL in 6" lifts over top of chambers with well-graded soil. Avoid large rocks and organic matter such as roots, stumps etc. in the backfill material. A well-graded soil contains an even distribution of approx 10% fines, ranging from silt through sand to gravel. NOTE: TOTAL COVER IS MINIMUM 8", NOT INCLUDING TOP SOIL
- COMPACT backfill. Compact all lifts to state department of transportation standards or 95%, whichever is greater. Use vibratory roller with maximum gross vehicle weight of 12,000 lbs. and a maximum dynamic force of 20,000 lbs.
  - \* If in loose sandy soils, lay geogrid over first 6" lift. Use Tensor BX1100, Mirafi MX1 or equivalent geogrid.
- Continue to BACKFILL in 6" lifts to a minimum of 8" of cover over top of chambers. Be sure to compact lifts as described above in step 16. CAUTION:
  - \* Rope off area to avoid construction traffic on system before final completion.
  - \* Inlet catch basins should be covered during construction to prevent silt intrusion into the system.

**INFILTRATOR NOTES**

- STONE SIZE MUST BE AS FOLLOWS:
  - 1 1/2" - 2" OVERALL DIA. CRUSHED STONE or
  - 2 - 2 1/2" DIA. ROUNDED WASHED STONE.
- USE CATERPILLAR D3 OR EQUIVALENT MACHINE.
- VIBRATORY ROLLER OR PLATE COMPACTOR BE USED AT EACH LEVEL BASED UPON MANUFACTURERS REQUIREMENTS, AS OUTLINED IN THE STORMWATER INSTALLATION INSTRUCTION MANUAL.
- IN SANDY SOILS, GEOGRID MUST BE USED BETWEEN THE TOP OF THE STONE AND THE PAVEMENT.
- A MINIMUM OF 6" OF STONE MUST BE PLACED ON TOP ROW OF INFILTRATOR® CHAMBERS
- A MINIMUM OF 8" OF BACKFILL, EXCLUSIVE OF ASPHALT PAVEMENT OR TOP SOIL AND INCLUSIVE OF SPECIFIED STONE, MUST BE PLACED ON THE TOP ROW OF INFILTRATOR CHAMBERS. THIS BACKFILL MUST BE A WELL GRADED SOIL CONTAINING AN EVEN DISTRIBUTION OF GRAIN SIZES. THE MATERIAL SHOULD MEET THE APPLICABLE STATE'S DEPARTMENT OF TRANSPORTATION SPECIFICATIONS FOR SUB-GRADE MATERIAL.
- DO NOT USE WHEELED VEHICLES ON THE BED DURING CONSTRUCTION.
- MATERIAL LIFTS SHALL BE COMPACTED TO 95-98% DENSITY.
- PROPER SEDIMENTATION CONTROL STRUCTURES MUST BE USED TO LIMIT SILT INTRUSION
- PAVEMENT DESIGN MUST MEET D.O.T. REQUIREMENTS AND BE DESIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER
- CONTRACTOR MUST NOTIFY INFILTRATOR SYSTEMS, INC. PERSONNEL PRIOR TO CONSTRUCTION (ENGINEERING DEPT. 1-800-221-4436)
- SEE STORMWATER INSTALLATION INSTRUCTION MANUAL FOR ADDITIONAL INSTALLATION INSTRUCTIONS (SEE ALSO "SINGLE-LAYER INSTALLATION INSTRUCTIONS." THIS DRAWING).



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REVISIONS

**126 PENNSYLVANIA ROAD**  
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DRAWN BY: BAD  
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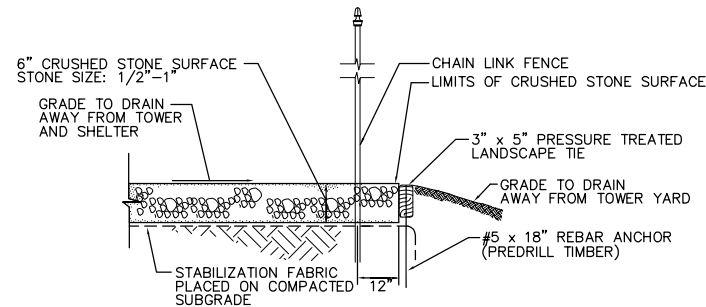
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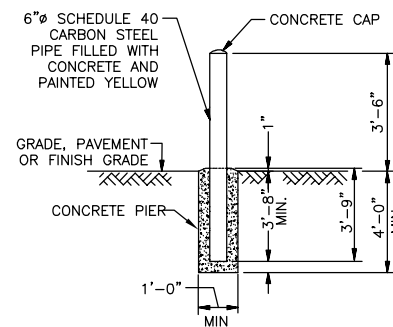
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**S-7**

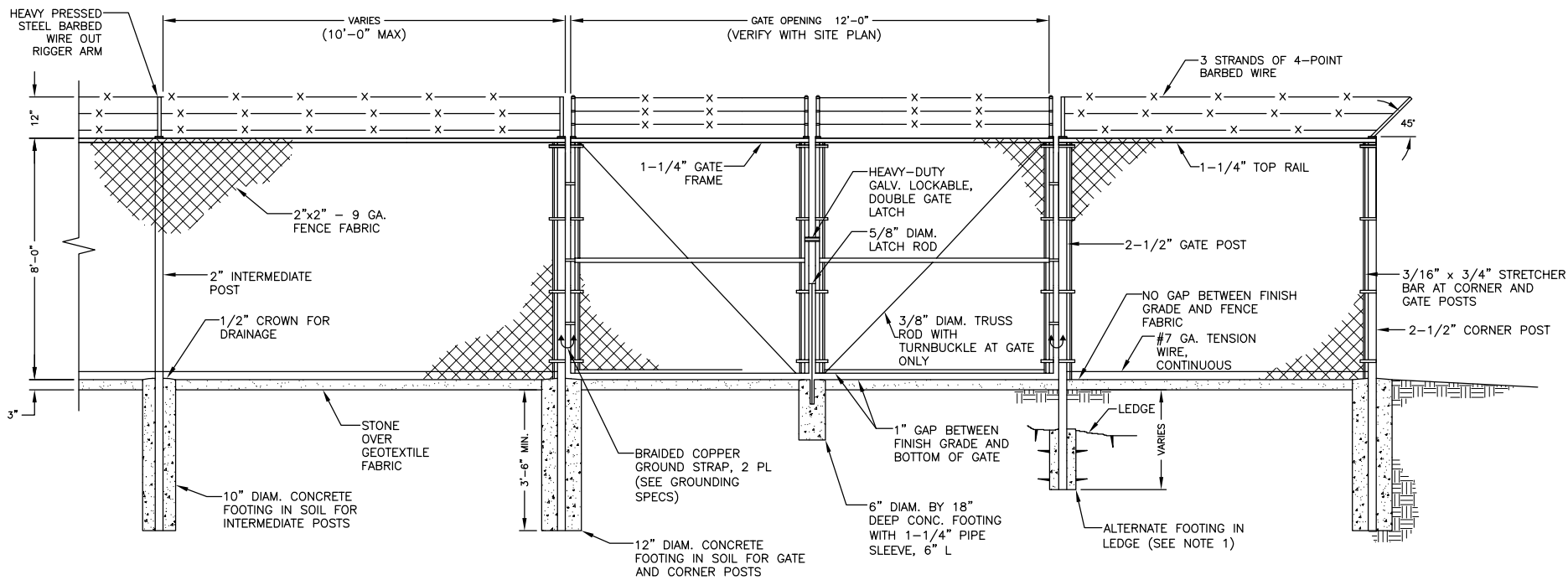
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**GRAVEL YARD SECTION**  
SCALE: N.T.S. ①



**BOLLARD DETAIL**  
SCALE: N.T.S. ②



**TYPICAL CHAIN LINK FENCE AND ACCESS GATE**  
SCALE: N.T.S. ③

**CHAIN LINK FENCE NOTES AND SPECIFICATIONS:**

**NOTES:**

1. ALTERNATE FOOTINGS FOR ALL FENCE POSTS IN LEDGE: IF LEDGE IS ENCOUNTERED AT GRADE, OR AT A DEPTH SHALLOWER THAN 3'-6", CORE DRILL AN 8" DIA HOLE 18" INTO THE LEDGE. CENTER POST IN THE HOLE AND FILL WITH CONCRETE OR GROUT. IF LEDGE IS BELOW FINISH GRADE, COAT BACKFILLED SECTION OF POST WITH COAL TAR, AND BACKFILL WITH WELL-DRAINING GRAVEL.

2. ATTACH GATE WITH 1-1/2 PAIR OF NON-LIFT-OFF TYPE, MALLEABLE IRON OR FORGING, PIN-TYPE HINGES. ASSEMBLIES SHALL ALLOW FOR 180° OF GATE TRAVEL.

**QUALITY ASSURANCE:**

1. INSTALL FENCING PER ASTM F-567, SWING GATES PER ASTM F-900
2. COMPLY WITH STANDARDS OF THE CHAIN LINK FENCE MANUFACTURER'S INSTITUTE
3. PROVIDE STEEL FENCE AND RELATED GATES AS PRODUCED BY A SINGLE MANUFACTURER, INCLUDING NECESSARY ERECTION ACCESSORIES, FITTINGS, AND FASTENINGS
4. COMPLY WITH ASTM A-120 FOR REQUIREMENTS OF SCHEDULE 40 PIPING
5. LOCAL ORDINANCE OF BARBED WIRE PERMIT REQUIREMENT SHALL BE COMPLIED IF REQUIRED.
6. HEIGHT = 8' VERTICAL + 1' BARBED WIRE VERTICAL DIMENSION.

**FINISHES:**

1. STEEL FRAMEWORK:  
PIPE - GALVANIZED IN ACCORDANCE WITH ASTM A-120, 2.0 OZ. ZINC PER SQ. FT. CLASS "B" STEEL TUBING - EXTERIOR: 1.0 OZ ZINC PER SQ. FT PLUS A COATING OF CHROMATE AND POLYURETHANE. INTERIOR: ZINC RICH ORGANIC COATING.

2. FABRIC: ALUMINUM FINISH - ASTM A-491 ALUMINUM COATED WITH 0.40 OZ PER SQ. FT.

3. FENCE AND GATE HARDWARE, MISCELLANEOUS MATERIALS, ACCESSORIES: WIRE TIES - GALVANIZED FINISH, ASTM A-90 2.0 OZ PER SQ. FT. HARDWARE AND OTHER MISCELLANEOUS ITEMS - GALVANIZED FINISH, ASTM A-153 (TABLE 1) ANGLE BEAMS, I BEAMS, AND STEEL SHAPES - GALVANIZED IN ACCORDANCE WITH ASTM A-123, 2.0 OZ ZINC PER SQ. FT.

4. BARBED WIRE: ALUMINUM FINISH - ASTM A-585 CLASS 2, 0.30 OZ PER SQ. FT.

**PRODUCTS:**

1. STEEL FRAME WORK: END POSTS, CORNER POSTS, PULL POSTS AND LINE POSTS - CLASS B STEEL TUBING: 2.875" OD, 4.64 LB PER LINEAR FT; SS-40 FENCE PIPE
2. STEEL FABRIC: ONE PIECE WIDTHS FOR FENCE HEIGHTS UP TO 12'-0"; CHAIN LINK NO. 9 GAUGE, 2 INCH MESH; SELVAGES: TOP SIDE TWISTED AND BARBED, BOTTOM SIDE KNUCKLED.
3. SWING GATE POSTS: PIPE - 4" OD, 9.11 LB PER LINEAR FT (SCHEDULE 40)
4. SWING GATE FRAMES: CLASS B STEEL TUBING - 1.90" OD, 2.28 LB PER LINEAR FT; SS-40 FENCE PIPE
5. GATE HARDWARE: HINGES - NON-LIFT-OFF TYPE, OFFSET TO PERMIT 180° DOOR SWING, AND OF SUITABLE SIZE AND WEIGHT TO SUPPORT GATE. PROVIDE 1 1/2 PAIR OF HINGES FOR EACH LEAF OVER 6' HIGH. LATCH - PROVIDE INDUSTRIAL SINGLE LEAF LATCH BY CARGO PROTECTORS, INC. (OR APPROVED EQUAL) AS SUPPLIED BY AFSCO FENCE SUPPLY CO. (OR SIMILAR VENDOR) FOR ALL DOUBLE SWING GATES OVER 10' IN TOTAL WIDTH.

6. RAILS AND POST BRACES: CLASS B STEEL TUBING - 1.660 INCHES OD, 1.84 LB PER LINEAR FT; SS-40 FENCE PIPE

7. POST TOPS: STEEL, WROUGHT IRON, OR MALLEABLE IRON.

8. STRETCHER BARS: ONE PIECE EQUAL TO FULL HEIGHT OF FABRIC, MINIMUM CROSS-SECTION 3/16" x 3/4".

9. METAL BANDS (FOR STRETCHER BARS): STEEL, WROUGHT IRON, OR MALLEABLE IRON, TO SECURE STRETCHER BARS TO END, CORNER, PULL GATE POSTS.

10. WIRE TIES: FOR TYING FABRIC TO LINE POSTS, RAILS AND BRACES - 9 GAUGE STEEL WIRE

11. TRUSS RODS: 3/8" DIA.

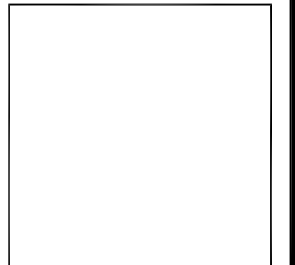
12. ANGLE BEAMS, I BEAMS AND STEEL SHAPES: ASTM A-36

13. BOLTS AND NUTS: ASTM A-307, GRADE A

14. CONCRETE: MINIMUM 3000 PSI AT 28 DAYS

**INSTALLATION:**

1. SPACE POSTS EQUIDISTANT IN THE FENCE LINE WITH A MAXIMUM OF 10' ON CENTER
2. LOCATE CORNER POSTS AT CORNERS AND AT CHANGES IN DIRECTION.
3. INSTALL BRACE AND BOTTOM RAILS IN ONE PIECE BETWEEN POSTS AND FLUSH WITH POST ON FABRIC SIDE USING SPECIAL OFFSET FITTINGS WHERE NECESSARY.
4. DIAGONALLY BRACE CORNER POSTS, PULL POSTS, AND TERMINATE POSTS TO ADJACENT LINE POSTS WITH TRUSS RODS AND TURNBUCKLES
5. ATTACH FABRIC TO SECURITY SIDE OF FENCE. MAINTAIN A 2" CLEARING ABOVE FINISHED GRADE EXCEPT WHEN INDICATED OTHERWISE. THREAD STRETCHER BARS THROUGH FABRIC USING ONE BAR FOR EACH GATE AND END POST AND TWO FOR EACH CORNER AND PULL POST. PULL FABRIC TIGHT SO THAT THE MAXIMUM DEFLECTION OF FABRIC IS 2" WHEN A PULL IS EXERTED PERPENDICULAR TO THE CENTER OF A PANEL. MAINTAIN TENSION BY SECURING STRETCHER BARS TO POSTS WITH METALS BANDS SPACED 15" O.C. FOR RAILS AND BRACES. BEND BACK WIRE ENDS TO PREVENT INJURY. TIGHTEN STRETCHER BAR BANDS, WIRE TIES, AND OTHER FASTENERS SECURELY.
6. POSITION BOLTS FOR SECURING METAL BANDS AND HARDWARE SO NUTS ARE LOCATED OPPOSITE THE FABRIC SIDE OF FENCE. TIGHTEN NUTS AND SCORE EXCESS THREADS. SECURE POST TOPS, EXTENSION ARMS, AND CAPS WITH ONE-WAY CADMIUM PLATED STEEL SCREWS.
7. INSTALL GATES PLUMB AND LEVEL AND ADJUST FOR FULL OPENING WITHOUT INTERFERENCE. INSTALL GROUND-SET ITEMS IN CONCRETE FOR ANCHORAGE, AS RECOMMENDED BY A FENCE MANUFACTURER. ADJUST HARDWARE FOR SMOOTH OPERATION AND LUBRICATE WHERE NECESSARY.



No.	DATE	By	Description
E	04/29/10	BAD	REV PRELIM. CSC
D	12/7/09	BAD	REV PER DRIVEWAY
C	8/28/09	BAD	REV PER COMMENT
B	8/24/09	BAD	REV PER WETLANDS
A	8/21/09	BAD	PRELIM. CSC

**REVISIONS**

**126 TRANSYLVANIA ROAD**

**ROXBURY, CT 06783  
SR1876**

**SITE NAME / ADDRESS**

DRAWN BY: BAD  
APPROVED BY: FDK  
CHECKED BY: DU  
DATE: 08/07/09

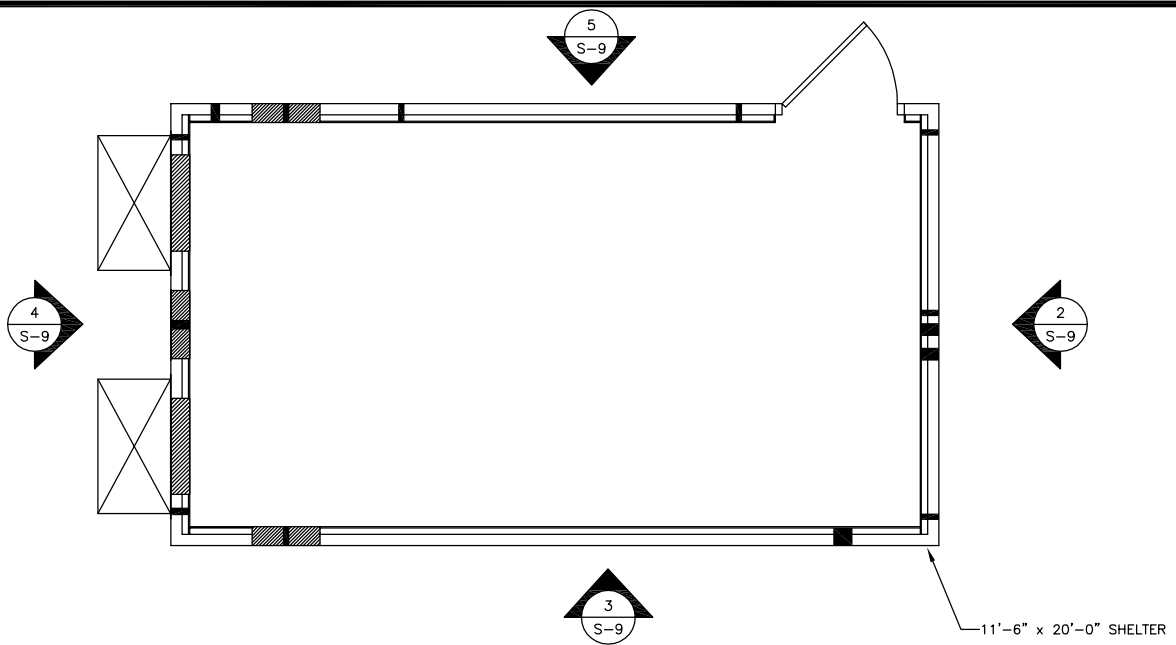
**SHEET TITLE:**

**FENCE NOTES & SITE DETAILS**

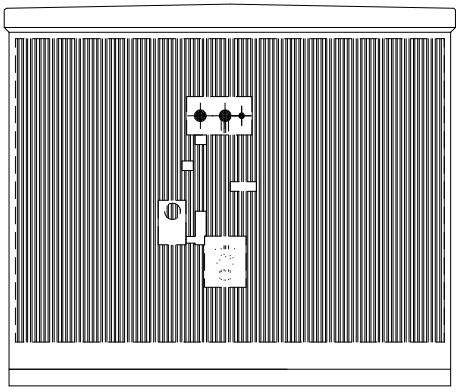
DEWBERRY P.N. 50013461

**S-8**

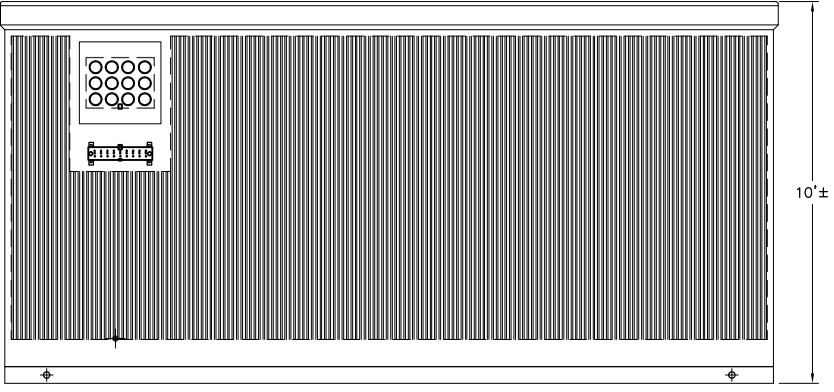
SHEET NO.



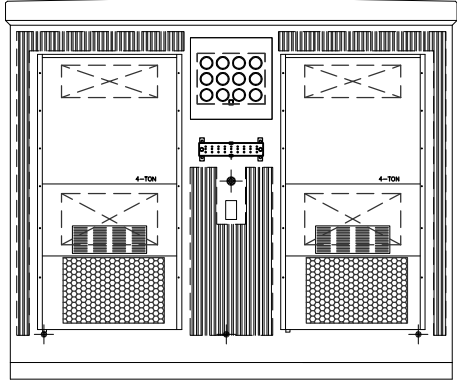
**SHelter Floor Plan**  
 SCALE: N.T.S.



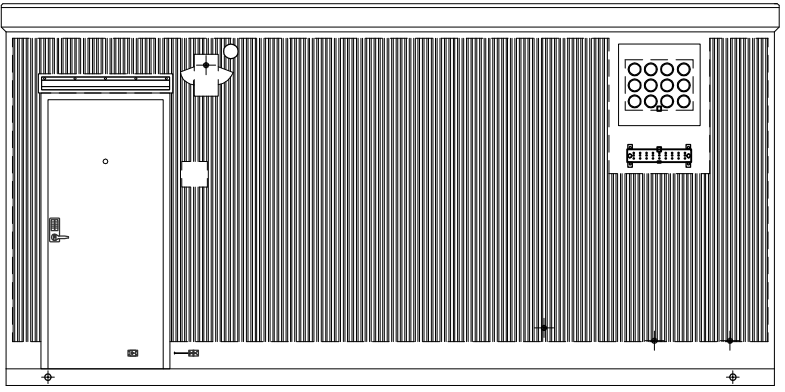
**SHelter Right Elevation**  
 SCALE: N.T.S.



**SHelter Rear Elevation**  
 SCALE: N.T.S.



**SHelter Left Elevation**  
 SCALE: N.T.S.



**SHelter Front Elevation**  
 SCALE: N.T.S.

No.	DATE	By	Description
E	04/29/10	BAD	REV PRELIM. CSC
D	12/7/09	BAD	REV PER DRIVEWAY
C	8/28/09	BAD	REV PER COMMENT
B	8/24/09	BAD	REV PER WETLANDS
A	8/21/09	BAD	PRELIM. CSC

REVISIONS

**126 TRANSYLVANIA ROAD**  
 ROXBURY, CT 06783  
 SR1876

SITE NAME / ADDRESS

DRAWN BY: BAD  
 APPROVED BY: FDK  
 CHECKED BY: DU  
 DATE: 08/07/09

SHEET TITLE:

**EQUIPMENT SHELTER PLAN & ELEVATIONS**

DEWBERRY P.N. 50013461

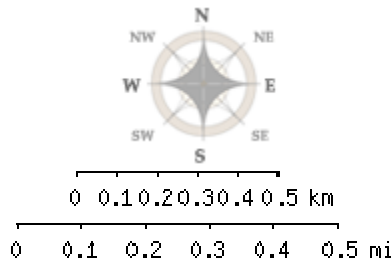
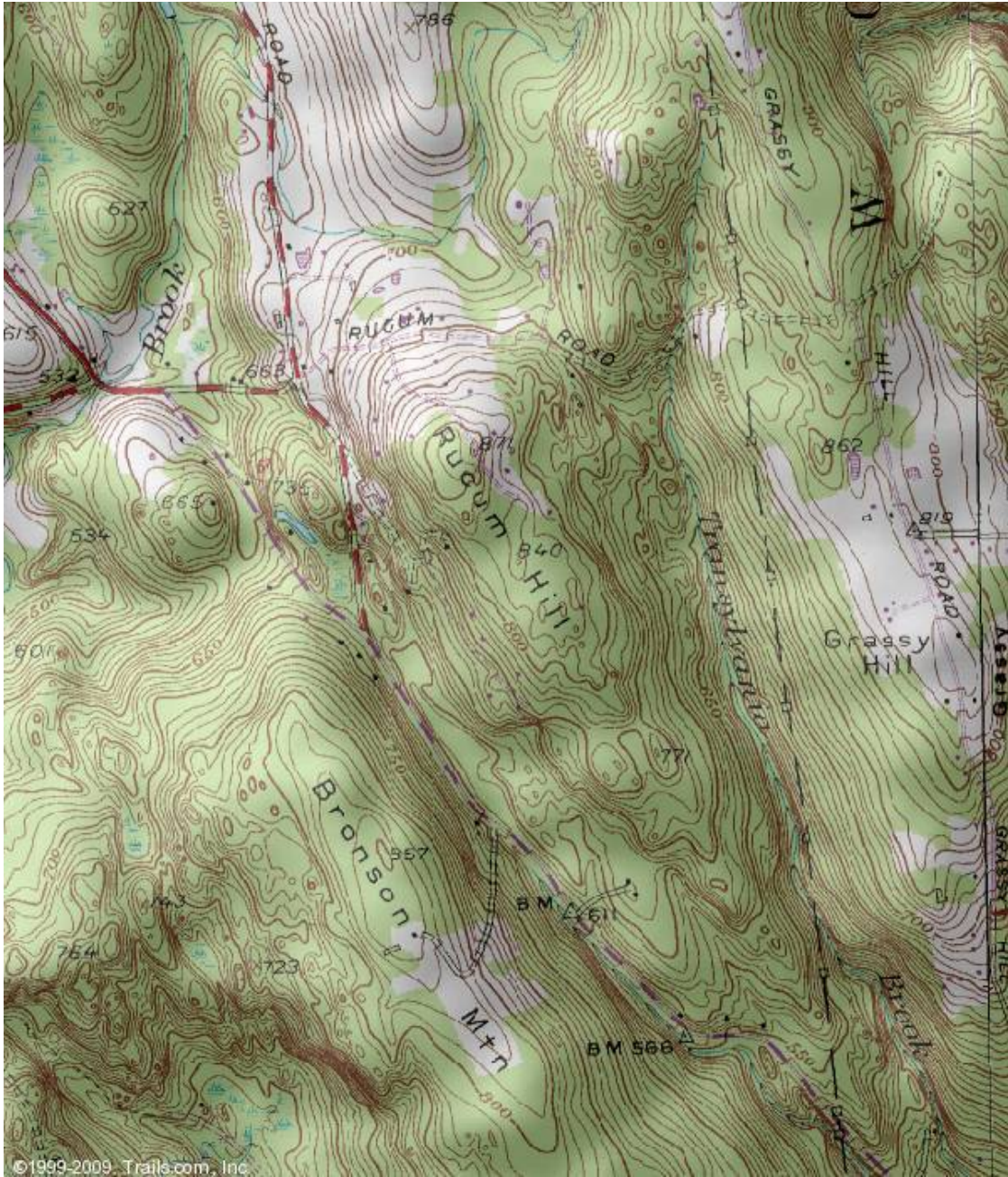
**S-9**

SHEET NO.

Aerial Photo of 126 Transylvania Road, Roxbury, CT and Surrounding Areas  
Approximate Location of Proposed Facility Site Identified as Point "A"



# Topographic Map of 126 Transylvania Road and Surrounding Area



Attachment 4(B)

# 1-A CERTIFICATION

**Client:** New Cingular Wireless PCS, LLC  
500 Enterprise Drive  
Rocky Hill, CT 06067

**Site Number:** SR1876  
**Site Address:** 126 Transylvania Road  
Roxbury, CT 06783

**Horizontal Datum:**  GPS Survey

**Vertical Datum:**  GPS Survey

**Structure Type:**  New Tower  Water Tank  
 Existing Tower  Smoke Stack  
 Roof Top  C.O.W.  
 Temporary Site  Other: \_\_\_\_\_

**Latitude:** 41°31'46.08" North - NAD 83  
**Longitude:** 73°16'00.27" West - NAD 83  
(Center of Proposed Tower)

**Ground Elevation:** 822.0 AMSL (Above Mean Sea Level) – NAVD 88  
(Ground at Proposed Pole Base)

**Support Structure Height:** (Top Proposed Tower) 170.0' AGL (Above Ground Level)

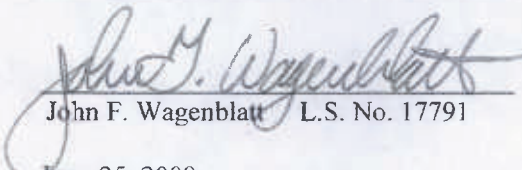
**Proposed Height to AT&T Antenna Tip:**  
(Top of Highest proposed antenna) 170.0' AGL

**Proposed Total Overall AT&T Antenna Height:**  
(Top of Highest proposed antenna) 992.0' AMSL

**Design RAD Center Height:** 168.0' AGL  
(Center of Highest proposed antenna)

**Certification:** I certify that the latitude of 41°31'46.08" North and the longitude 73°16'00.27" West are accurate to within +/- 20 feet horizontally, and that the ground elevation of 822.0' AMSL is accurate to within +/- 3 feet vertically. The horizontal datum (coordinate) are in terms of the North American Datum of 1983 (NAD 83) and are expressed in degrees, minutes and seconds. The vertical datum (elevations) are in terms of the North American Vertical Datum of 1988 and are expressed in feet.

**Company:** The LRC Group  
160 West Street, Suite E  
Cromwell, CT 06416  
Phone: 860-635-2877; Fax: 860-635-4226

**Signature:**   
John F. Wagenblatt L.S. No. 17791

**Date:** June 25, 2009



## TOWAIR Determination Results

### \*\*\* NOTICE \*\*\*

TOWAIR's findings are not definitive or binding, and we cannot guarantee that the data in TOWAIR are fully current and accurate. In some instances, TOWAIR may yield results that differ from application of the criteria set out in 47 C.F.R. Section 17.7 and 14 C.F.R. Section 77.13. A positive finding by TOWAIR recommending notification should be given considerable weight. On the other hand, a finding by TOWAIR recommending either for or against notification is not conclusive. It is the responsibility of each ASR participant to exercise due diligence to determine if it must coordinate its structure with the FAA. TOWAIR is only one tool designed to assist ASR participants in exercising this due diligence, and further investigation may be necessary to determine if FAA coordination is appropriate.

#### DETERMINATION Results

**Structure does not require registration. There are no airports within 8 kilometers (5 miles) of the coordinates you provided.**

#### Your Specifications

##### NAD83 Coordinates

Latitude	41-31-46.0 north
Longitude	073-16-00.2 west

##### Measurements (Meters)

Overall Structure Height (AGL)	51.8
Support Structure Height (AGL)	NaN
Site Elevation (AMSL)	250.5

##### Structure Type

TOWER - Free standing or Guyed Structure used for Communications Purposes

#### [Tower Construction Notifications](#)

Notify Tribes and Historic Preservation Officers of your plans to build a tower.

CLOSE WINDOW



# THE OTTERY GROUP

July 29, 2009

Susan Chandler  
Historical Architect  
Connecticut Commission on Culture & Tourism  
Historic Preservation and Museum Division  
One Constitution Plaza, 2nd Floor  
Hartford, Connecticut 06103

Re: Section 106 review for the proposed AT&T Mobility "Southbury-Roxbury #1876  
Telecommunications Facility" – 126 Transylvania Road, Roxbury, CT 06783

Ms. Chandler:

At the request of AT&T Mobility, The Ottery Group, Inc. is hereby initiating consultation with your office prior to the construction of a telecommunications facility in Roxbury, CT. As a licensee of the Federal Communications Commission (FCC), AT&T is required to consider the effects of the proposed undertaking on historic properties under FCC requirements (47 CFR 1.1307) and Section 106 of the National Historic Preservation Act (36 CFR 800) as implemented by the Programmatic Agreements governing project review for telecommunications projects.

The following attachment regarding the proposed undertaking is provided in order to initiate consultation pursuant to 36 CFR 800.3. The report includes an identification of historic properties that are listed in or have been determined eligible for the National Register of Historic Places (NRHP) and an assessment of the effects of the planned undertaking.

I look forward to your comments regarding the effects of the proposed undertaking. If you have any questions or require more information please feel free to contact me by phone or email (stacy.patterson@otterygroup.com). I appreciate your assistance with this project.

Sincerely,  
THE OTTERY GROUP, INC.

*Stacy P. Montgomery*

Stacy P. Montgomery  
Architectural Historian

Attachment – FCC Form 620

**NO EFFECT**

*Daniel Cahlan* DEPUTY SHPO

STATE HISTORIC PRESERVATION OFFICE

Date 8-6-09 Project \_\_\_\_\_

*Archaeology - NO EFFECT*



Michael Doiron  
 SAI Communications  
 260 Cedar Hill St.  
 Marlborough, MA 01752  
[Mike.Doiron@sai-comm.com](mailto:Mike.Doiron@sai-comm.com)

August 5, 2011

Connecticut Siting Council

Subject: AT&T Wireless, Roxbury, CT

Dear Connecticut Siting Council:

At the request of AT&T Wireless, SAI Communications has performed an assessment of the RF Power Density at the proposed site located at Southbury Road, Roxbury, CT. Calculations were done in compliance with FCC OET Bulletin 65. This report provides an FCC compliance assessment based on a "worst-case" analysis that all transmitters are simultaneously operating at full power and pointing directly at the ground.

FCC OET Bulletin 65 formula:

$$S = \frac{2.56 * 1.64 * ERP}{4 * \pi * R^2}$$

Transmission Mode	Antenna Centerline AGL (ft)	Frequency (MHz)	Number of Channels	Effective Radiated Power per Channel (Watts)	Power Density (mW/cm <sup>2</sup> )	Standard Limits (mW/cm <sup>2</sup> )	% MPE (Uncontrolled/General Public)
AT&T GSM	167	880	3	296.00	0.0115	0.5867	1.95%
AT&T GSM	167	1900	1	427.00	0.0055	1	0.55%
AT&T UMTS	167	850	1	500.00	0.0064	0.5667	1.14%
AT&T UMTS	167	1900	1	500.00	0.0064	1	0.64%
AT&T LTE	167	700	1	500.00	0.0064	0.4667	1.38%
<b>Total</b>							<b>5.67%</b>

**Conclusion:** AT&T's proposed antenna installation is calculated to be within 5.67% of FCC Standard for General Public/Uncontrolled Maximum Permissible Exposure (MPE).

Sincerely,

Michael Doiron  
 SAI Communications

## Attachment 4(C)

*Proposed Wireless  
Telecommunications Facility*

*Roxbury*

126 Transylvania Road  
Roxbury, Connecticut

---

Prepared for **New Cingular Wireless PCS, LLC**  
**500 Enterprise Drive, Suite 3A**  
**Rocky Hill, CT 06057**

Prepared by **VHB/Vanasse Hangen Brustlin, Inc.**  
**54 Tuttle Place**  
**Middletown, CT 06457**

August 2009

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## Visual Resource Evaluation

New Cingular Wireless PCS, LLC seeks approval from the Connecticut Siting Council for a Certificate of Environmental Compatibility and Public Need for the construction of a wireless telecommunications facility ("Facility") to be located on property at 126 Transylvania Road in the Town of Roxbury, Connecticut (identified herein as the "host property"). This Visual Resource Evaluation was conducted to evaluate the visibility of the proposed Facility within a two-mile radius ("Study Area"). In addition to the Town of Roxbury, the Study Area also contains land located within the Towns of Southbury and Woodbury, Connecticut. Attachment A contains a map that depicts the location of the proposed Facility and the limits of the Study Area.

---

## Project Introduction

The proposed Facility includes the installation of a 170-foot tall monopole with associated ground equipment to be located at its base. Both the proposed monopole and ground equipment would be situated within a fence-enclosed compound. The proposed project area is located at approximately 822 feet Above Mean Sea Level (AMSL). Access to the Facility would be provided via a proposed 12-foot wide gravel driveway.

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## Site Description and Setting

Identified in the Town of Roxbury Tax Assessor's records as parcel Map 34/Lot 029, the host property consists of approximately 21.02 acres of land and is currently occupied by a single family dwelling. Other portions of the host property are undeveloped and heavily wooded. The proposed Facility is centrally located on the host property, roughly 200 feet to the northeast of the existing single family residence. Attachment A includes a photograph of the proposed project area. Land use within the general vicinity of the proposed Facility and host property consists primarily of low-density residential development and undeveloped woodlands. In total, the Study Area features approximately 56 linear miles of roadways, including portions of Route 67 and Route 172.

The topography within the two-mile radius surrounding the proposed Facility is characterized by rolling hills with ground elevations that range from approximately 285 feet to nearly 950 feet AMSL. The Study Area contains approximately 69 acres of surface water that includes portions of Transylvania Pond and Hesseky Pond, both located nearly two miles to the southeast of the proposed Facility. The tree cover within the Study Area consists mainly of mixed deciduous hardwood species and occupies approximately 6,379 acres of the 8,042-acre study area (79%). During the in-field activities associated with this analysis, a laser range finder was used to determine the average tree canopy height throughout the Study Area. Numerous trees were selected for measurement and the average tree canopy was determined to be 75 feet.



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## METHODOLOGY

In order to better represent the visibility associated with the proposed Facility, VHB uses a two-fold approach incorporating both a predictive computer model and in-field analysis. The predictive model is employed to assess potential visibility throughout the entire Study Area, including private property and/or otherwise inaccessible areas for field verification. A “balloon float” and Study Area drive-through reconnaissance are also conducted to obtain locational and height representations, back-check the initial computer model results and provide documentation from publicly accessible areas. Results of both activities are analyzed and incorporated into the final viewshed map. A description of the methodologies used in the analysis is provided below.

---

### Visibility Analysis

Using ESRI’s ArcView® Spatial Analyst, a computer modeling tool, the areas from where the top of the Facility is expected to be visible are calculated. This is based on information entered into the computer model, including Facility height, its ground elevation, the surrounding topography and existing vegetation. Data incorporated into the predictive model includes a digital elevation model (DEM) and a digital forest layer for the Study Area. The DEM was derived from the Connecticut LiDAR-based digital elevation data. The LiDAR data was produced by the University of Connecticut Center for Land Use Education and Research (CLEAR) in 2007 and has a horizontal resolution of 10 feet. In order to create the forest layer, digital aerial photographs of the Study Area are incorporated into the computer model. The mature trees and woodland areas depicted on the aerial photos are manually traced in ArcView® GIS and then converted into a geographic data layer. The aerial photographs were produced in 2006 and have a pixel resolution of one foot.

Once the data are entered, a series of constraints are applied to the computer model to achieve an estimate of where the Facility will be visible. Initially, only topography was used as a visual constraint; the tree canopy is omitted to evaluate all areas of potential visibility without any vegetative screening. Although this is an overly conservative prediction, the initial omission of these layers assists in the evaluation of potential seasonal visibility of the proposed Facility. A conservative tree canopy height of 50 feet is then used to prepare a preliminary viewshed map for use during the Study Area reconnaissance. The average height of the tree canopy was determined in the field using a laser range finder. The average tree canopy height is incorporated into the final viewshed map; in this case, 75 feet was identified as the average tree canopy height. The forested areas within the Study Area were then overlaid on the DEM with a height of 75 feet added and the visibility calculated. As a final step, the forested areas are extracted from the areas of visibility, with the assumption that a person standing among the trees will not be able to view the Facility beyond a distance of approximately 500 feet. Depending on the density of the vegetation in these areas, it is

assumed that some locations within this range will provide visibility of at least portions of the Facility based on where one is standing.

Also included on the map is a data layer, obtained from the State of Connecticut Department of Environmental Protection (“CTDEP”), which depicts various land and water resources such as parks and forests, recreational facilities, dedicated open space, CTDEP boat launches and other categories. Lastly, based on both a review of published information and discussions with municipal staff in Roxbury, it was determined that there are several locally-designated scenic roads located within the Town of Roxbury including six that extend into the Study Area. These include portions of Flag Swamp Road, Grassy Hill Road, Lower County Road, Tophet Road and Welton Road. Each of these roadways is depicted on the viewshed map.

The preliminary viewshed map (using topography and a conservative tree canopy height of 50 feet) is used during the in-field activity to assist in determining if significant land use changes have occurred since the aerial photographs used in this analysis were produced and to compare the results of the computer model with observations of to the balloon float. Information obtained during the reconnaissance is then incorporated into the final visibility map.

---

## Balloon Float and Study Area Reconnaissance

On August 14, 2009 Vanasse Hangen Brustlin Inc., (VHB) conducted a balloon float at the proposed Facility location to further evaluate the potential viewshed within the Study Area. The balloon float consisted of raising and maintaining an approximate four-foot diameter, helium-filled weather balloon at the proposed site location at a height of 170 feet. Once the balloon was secured, VHB staff conducted a drive-by reconnaissance along the roads located within the Study Area with an emphasis on nearby residential areas and other potential sensitive receptors in order to evaluate the results of the preliminary viewshed map and to document where the balloon was, and was not, visible above and/or through the tree canopy. During the balloon float, the temperature was approximately 85 degrees Fahrenheit with calm wind conditions and sunny skies.

---

## Photographic Documentation

During the balloon float, VHB personnel drove the public road system within the Study Area to inventory those areas where the balloon was visible. The balloon was photographed from a number of different vantage points to document the actual view towards the proposed Facility. Several locations where the balloon was not visible are also included in order to provide documentation. The locations of the photos are described below:

1. View from Squire Road at Apple Lane.
2. View from Grassy Hill Road adjacent to house #65.
3. View from Route 67 north of Squire Road.
4. View from Squire Road adjacent to house #31.
5. View from Route 67 at Crofut Road and Grassy Hill Road.
6. View from Apple Lane.
7. View from Hickory Road adjacent to house #34.
8. View from Bacon Road adjacent to house #141.
9. View from Grassy Hill Road.
10. View from Route 67 at Bronson Mountain Road.
11. View from Route 67 north of Route 172.
12. View from Transylvania Road adjacent to house #126.
13. View from Transylvania Road adjacent to house #116.

Photographs of the balloon from the view points listed above were taken with a Nikon D-80 digital camera body and Nikon 18 to 135 mm zoom lens. For the purposes of this report, the lens was set to 50mm. "The lens that most closely approximates the view of the unaided human eye is known as the normal focal-length lens. For the 35 mm camera format, which gives a 24x36 mm image, the normal focal length is about 50 mm."<sup>1</sup>

The locations of the photographic points are recorded in the field using a hand-held GPS receiver and are subsequently plotted on the maps contained in the attachments to this document.

---

## Photographic Simulation

Photographic simulations were generated for the four representative locations where the balloon was visible during the in-field activities. The photographic simulations represent a scaled depiction of the proposed Facility (a monopole) from these locations. The height of the Facility is determined based on the location of the balloon in the photograph and a proportional monopole image is simulated into the photographs. The simulations are contained in Attachment A.

---

## CONCLUSIONS

Based on this analysis, areas from where the proposed 170-foot tall Facility would be visible above the tree canopy comprise approximately 68 acres, or less than one percent of the total land area contained 8,042-acre Study Area. As depicted on the viewshed map (provided in Attachment B), the majority of the anticipated year-round visibility occurs over open, undeveloped land located approximately one mile to the northwest of the proposed Facility and nearly 1.50 miles to the northeast. Specifically, this includes select portions of Squire

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<sup>1</sup> Warren, Bruce. *Photography*, West Publishing Company, Eagan, MN, c. 1993, (page 70).



Road, Grassy Hill Road (a town of Roxbury scenic road), Route 67 and the open fields that are located within the immediate vicinity of these roadways. As evidenced by the photographs taken from these locations (Views 1 thru 4) such views would generally be intermittent and/or somewhat distant (in excess of one mile). The viewshed map also includes several smaller areas of potential year-round visibility to the northwest and south of the proposed Facility that are located on private properties and could therefore not be accessed for evaluation during the balloon float. Overall, year-round visibility within the Study Area would be limited to the areas described above by a combination of the intervening topography and abundance of vegetative screening. VHB estimates that select portions of approximately 10 residential properties may have at least partial year-round views of the proposed Facility. This includes three residences located along Squire Road; two residences located along Route 67; two residences located along Bacon Road; and three residences located along Grassy Hill Road.

The viewshed map also depicts several additional areas where seasonal (i.e. during “leaf off” conditions) views are anticipated. These areas comprise approximately 62 acres and include select portions of Squire Road, Route 67, Transylvania Road and Hickory Lane. Based on VHB’s field reconnaissance conducted from this area, potential views would be mostly obstructed by existing vegetation, even during leaf-off conditions. Overall, VHB estimates that seasonal views of the proposed may be achieved from roughly seven residential properties within the Study Area. This includes one residence located along Squire Road; two residences located along Transylvania Road; three residences located along Route 67 and one residence located along Hickory Lane.

---

## Attachment A

# Project Area Photograph, Photolog Documentation Map, Balloon Float Photographs, and Photographic Simulations

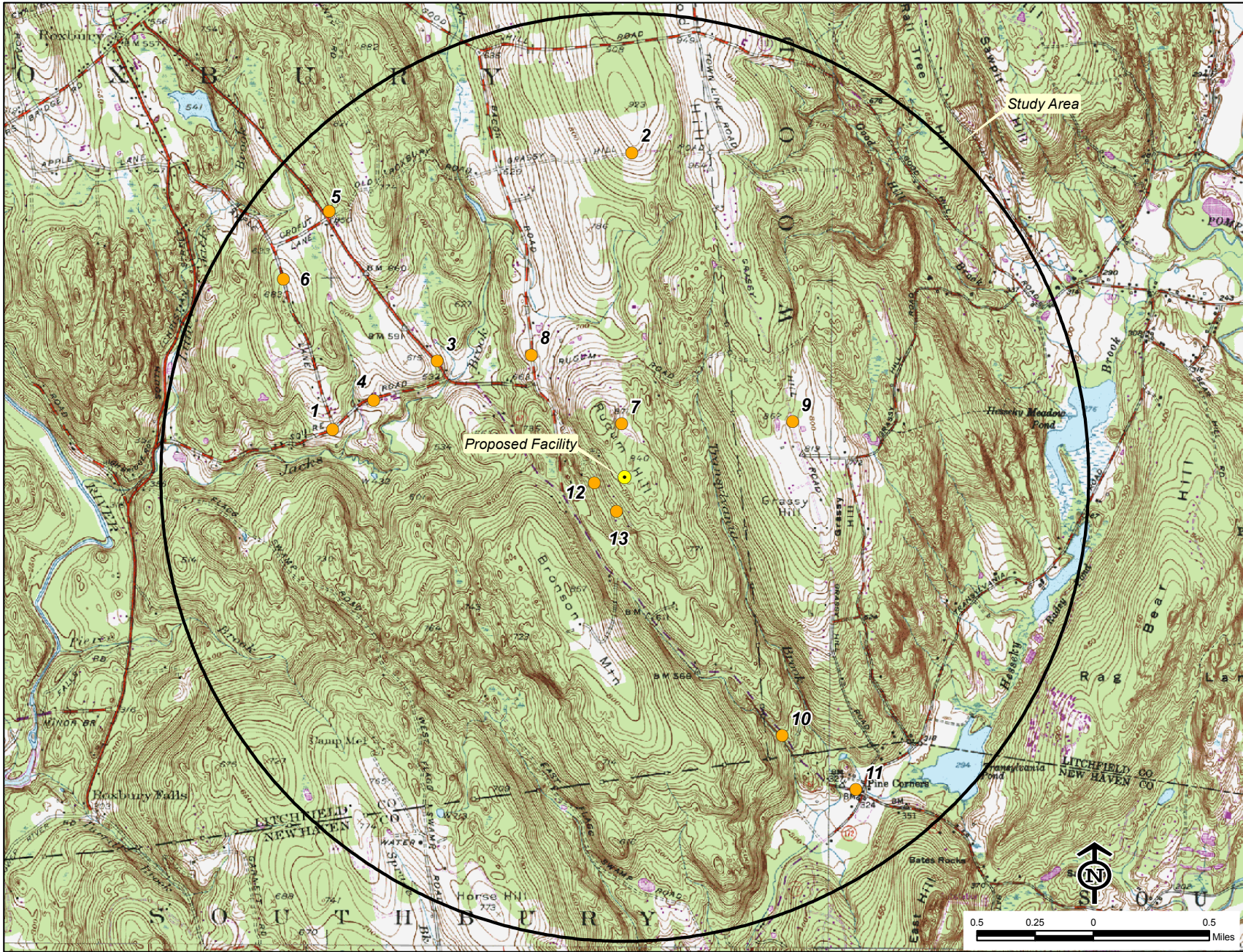
# PHOTOGRAPHIC DOCUMENTATION



cm:\data\40706.02\graphics\FIGURES\40706.02\_Photosim

**PROPOSED PROJECT AREA**

# PHOTOLOG MAP



ctmidat140706.02\graphics\FIGURES\40706.02\_Photosim

VIEW 1



PHOTO TAKEN FROM SQUIRE ROAD AT APPLE LANE, LOOKING SOUTHEAST  
DISTANCE FROM THE PHOTOGRAPH LOCATION TO SITE IS 1.27 MILES +/-

cmiddat\40706.02\graphics\FIGURES\40706.02\_Photosim

VIEW 1



PHOTO TAKEN FROM SQUIRE ROAD AT APPLE LANE, LOOKING SOUTHEAST  
DISTANCE FROM THE PHOTOGRAPH LOCATION TO SITE IS 1.27 MILES +/-

ct:\mddat\40706.02\graphics\FIGURES\40706.02\_Photosim

VIEW 2



ct:\mddat\40706.02\graphics\FIGURES\40706.02\_Photosim

**PHOTO TAKEN FROM GRASSY HILL ROAD ADJACENT TO HOUSE# 65, LOOKING SOUTH/SOUTHWEST**  
DISTANCE FROM THE PHOTOGRAPH LOCATION TO SITE IS 1.40 MILES +/-

VIEW 2



ct:\mddat\40706.02\graphics\FIGURES\40706.02\_Photosim

**PHOTO TAKEN FROM GRASSY HILL ROAD ADJACENT TO HOUSE# 65, LOOKING SOUTH/SOUTHWEST**  
DISTANCE FROM THE PHOTOGRAPH LOCATION TO SITE IS 1.40 MILES +/-



VIEW 3



ct:\mddat\40706.02\graphics\FIGURES\40706.02\_Photosim

**PHOTO TAKEN FROM ROUTE 67 NORTH OF SQUIRE ROAD, LOOKING SOUTHEAST**  
DISTANCE FROM THE PHOTOGRAPH LOCATION TO SITE IS 0.94 MILE +/-

VIEW 3



ct:\mddat\40706.02\graphics\FIGURES\40706.02\_Photosim

**PHOTO TAKEN FROM ROUTE 67 NORTH OF SQUIRE ROAD, LOOKING SOUTHEAST**  
DISTANCE FROM THE PHOTOGRAPH LOCATION TO SITE IS 0.94 MILE +/-

VIEW 4



ct:\mddat\40706.02\graphics\FIGURES\40706.02\_Photosim

**PHOTO TAKEN FROM SQUIRE ROAD ADJACENT TO HOUSE# 31, LOOKING SOUTHEAST**  
DISTANCE FROM THE PHOTOGRAPH LOCATION TO SITE IS 1.10 MILES +/-

VIEW 4



**PHOTO TAKEN FROM SQUIRE ROAD ADJACENT TO HOUSE# 31, LOOKING SOUTHEAST**  
DISTANCE FROM THE PHOTOGRAPH LOCATION TO SITE IS 1.10 MILES +/-

ct:\mddat\40706.02\graphics\FIGURES\40706.02\_Photosim

VIEW 5



PHOTO TAKEN FROM ROUTE 67 AT CROFUT ROAD AND GRASSY HILL ROAD, LOOKING SOUTHEAST - BALLOON IS NOT VISIBLE  
DISTANCE FROM THE PHOTOGRAPH LOCATION TO SITE IS 1.71 MILES +/-

ct:\mddat\40706.02\graphics\FIGURES\40706.02\_Photosim

VIEW 6



ct:\mddat\40706.02\graphics\FIGURES\40706.02\_Photosim

**PHOTO TAKEN FROM APPLE LANE, LOOKING SOUTHEAST - BALLOON IS NOT VISIBLE**  
DISTANCE FROM THE PHOTOGRAPH LOCATION TO SITE IS 1.69 MILES +/-

VIEW 7



ct:\mddat\40706.02\graphics\FIGURES\40706.02\_Photosim

**PHOTO TAKEN FROM HICKORY ROAD ADJACENT TO HOUSE# 34, LOOKING SOUTH - BALLOON IS NOT VISIBLE**  
DISTANCE FROM THE PHOTOGRAPH LOCATION TO SITE IS 0.24 MILE +/-

VIEW 8



ct:\mddat\40706.02\graphics\FIGURES\40706.02\_Photosim

**PHOTO TAKEN FROM BACON ROAD ADJACENT TO HOUSE# 141, LOOKING SOUTHEAST - BALLOON IS NOT VISIBLE**  
DISTANCE FROM THE PHOTOGRAPH LOCATION TO SITE IS 0.66 MILE +/-



VIEW 9



**PHOTO TAKEN FROM GRASSY HILL ROAD, LOOKING SOUTHWEST - BALLOON IS NOT VISIBLE**  
DISTANCE FROM THE PHOTOGRAPH LOCATION TO SITE IS 0.78 MILE +/-

ct:\mddat\40706.02\graphics\FIGURES\40706.02\_Photosim

VIEW 10



ct:\mddat\40706.02\graphics\FIGURES\40706.02\_Photosim

**PHOTO TAKEN FROM ROUTE 67 AT BRONSON MOUNTAIN ROAD, LOOKING NORTHWEST - BALLOON IS NOT VISIBLE**  
DISTANCE FROM THE PHOTOGRAPH LOCATION TO SITE IS 1.30 MILES +/-

VIEW 11



ctimiddat40706.02\graphics\FIGURES\40706.02\_Photosim

**PHOTO TAKEN FROM ROUTE 67 NORTH OF ROUTE 172, LOOKING NORTHWEST - BALLOON IS NOT VISIBLE**  
DISTANCE FROM THE PHOTOGRAPH LOCATION TO SITE IS 1.70 MILES +/-

VIEW 12



ct:\mddat\40706.02\graphics\FIGURES\40706.02\_Photosim

PHOTO TAKEN FROM TRANSYLVANIA ROAD ADJACENT TO HOUSE# 126, LOOKING NORTHEAST - BALLOON IS NOT VISIBLE  
DISTANCE FROM THE PHOTOGRAPH LOCATION TO SITE IS 0.12 MILE +/-

VIEW 13



ctimiddat40706.02\graphics\FIGURES\40706.02\_Photos\m

**PHOTO TAKEN FROM TRANSYLVANIA ROAD ADJACENT TO HOUSE# 116, LOOKING NORTH - BALLOON IS NOT VISIBLE**  
DISTANCE FROM THE PHOTOGRAPH LOCATION TO SITE IS 0.13 MILE +/-

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# Attachment B

## Viewshed Map

**Viewshed Analysis**  
**Proposed AT&T/Cingular Wireless**  
**PCS, LLC Facility**  
**Roxbury**  
**126 Transylvania Road**  
**Roxbury, Connecticut**

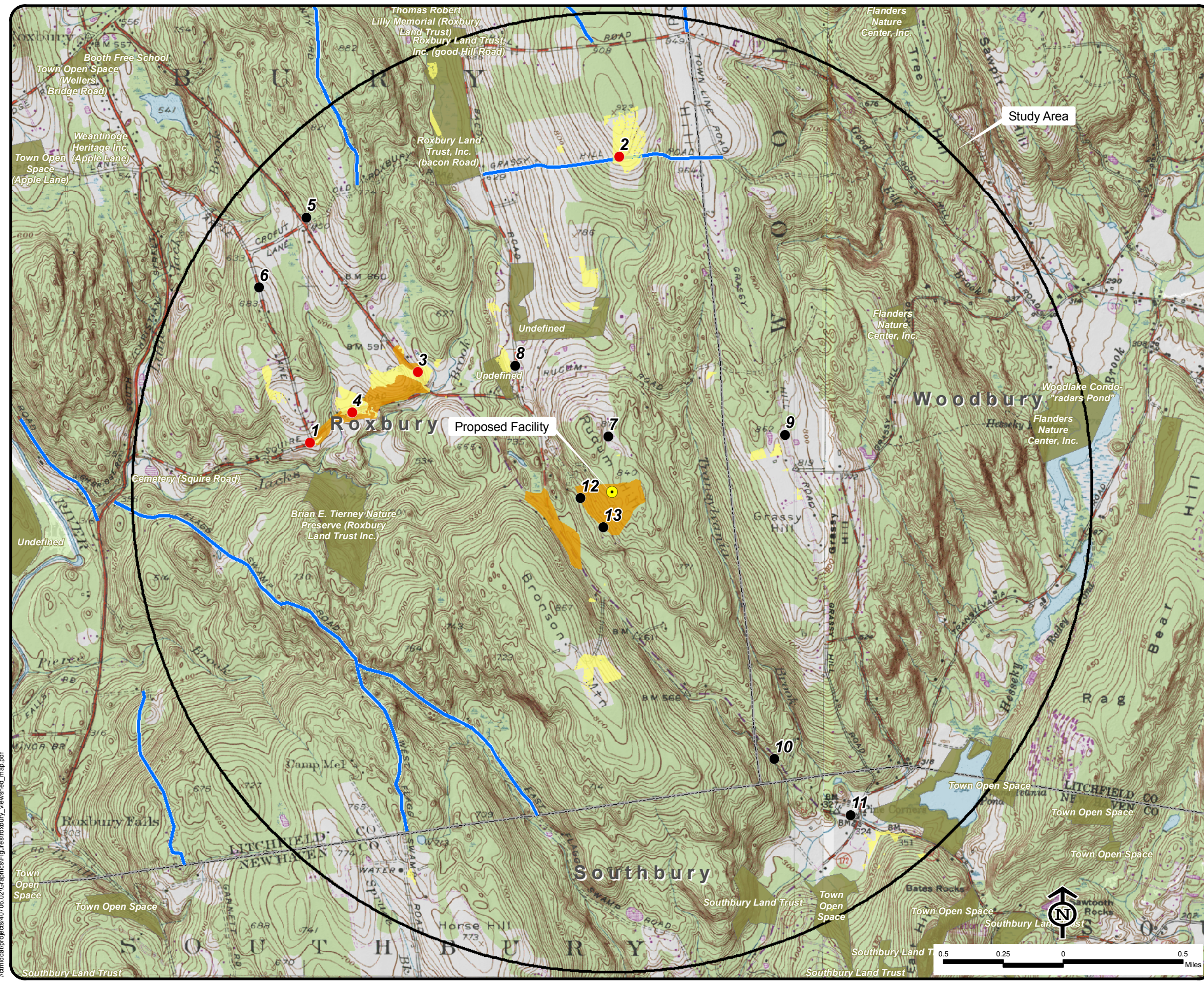
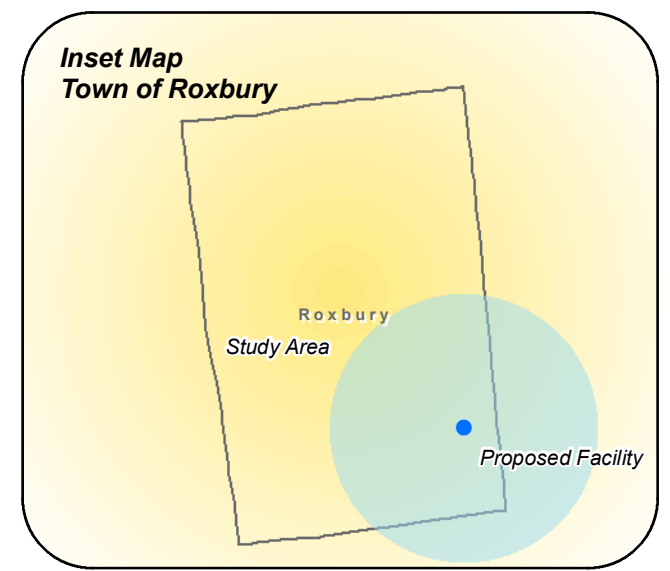
NOTE:  
 - Viewshed analysis conducted using ESRI's Spatial Analyst.  
 - Proposed Facility height is 170 feet.  
 - Existing tree canopy height estimated at 75 feet.

DATA SOURCES:  
 - Digital elevation model (DEM) derived from Connecticut LiDAR-based Digital Elevation Data with a horizontal resolution of 10 feet produced by the University of Connecticut and the Center for Land Use Education and Research (CLEAR); 2007  
 - Forest areas derived from 2006 digital orthophotos with 1-foot pixel resolution; digitized by VHB, 2006.  
 - Base map comprised of Roxbury (1984) and Woodbury (1984) USGS Quadrangle Maps  
 - Protected municipal and private open space properties and federal protected properties and data layers provided by CT DEP, 1997  
 - Protected CT DEP properties data layer provided by CTDEP, May 2007  
 - CT DEP boat launches data layer provided by CT DEP, 1994  
 - Scenic Roads layer derived from available State and Local listings.

Map Compiled August, 2009

**Legend**

- Tower Location
- Balloon Not Visible
- Balloon Visible Above Trees
- Year-Round Visibility (Approximately 68 acres)
- Seasonal Visibility (Approximately 62 acres)
- Protected Municipal and Private Open Space Properties (1997)
- CT DEP Protected Properties (2007)
- CT DEP Boat Launches (1994)
- Scenic Road (State and Local)
- Town Line
- Federal Protected Properties (1997)
- State Forest
- State Park
- DEP Owned Waterbody
- State Park Scenic Reserve
- Historic Preserve
- Natural Area Preserve
- Fish Hatchery
- Flood Control
- Other
- State Park Trail
- Water Access
- Wildlife Area
- Wildlife Sanctuary
- Conservation
- Existing Preserved Open Space
- Recreation
- General Recreation
- School
- Uncategorized



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Attachment 4(D)





Connecticut Department of  
**ENERGY &  
ENVIRONMENTAL  
PROTECTION**

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

May 10, 2012

Mr. Dean Gustafson  
All-Points Technology Corporation, P.C.  
3 Saddlebrook Drive  
Killingworth, CT 06419

Regarding: AT&T Roxbury – 126 Transylvania Road Site SR-1876 – telecommunications facility  
Natural Diversity Data Base 201204051

Dear Mr. Gustafson:

In response to your request for a Natural Diversity Data Base Review of State Listed Species for the telecommunications facility at AT&T Roxbury – 126 Transylvania Road Site SR-1876, our records indicate extant populations of species documented on or within the vicinity of the site:

Eastern box turtle (*Terrapene carolina Carolina*) Status: Species of Special Concern

Habitat and Ecology: Eastern Box Turtles require old field and deciduous forest habitats, which can include power lines and logged woodlands. They are often found near small streams and ponds. The adults are completely terrestrial but the young may be semiaquatic, and hibernate on land by digging down in the soil from October to April. They have an extremely small home range and can usually be found in the same area year after year. Eastern Box Turtles have been negatively impacted by the loss of suitable habitat. Some turtles may be killed directly by construction activities, but many more are lost when important habitat areas for shelter, feeding, hibernation, or nesting are destroyed. As remaining habitat is fragmented into smaller pieces, turtle populations can become small and isolated.

Recommendation: If work is to be conducted on site during summer or fall, then Eastern box turtles could be impacted, therefore work should be done outside of these seasons. If work must be done in the summer or fall then the following guidelines shall be met:

- ✦ Silt fencing shall be installed around the work area prior to construction;
- ✦ After silt fencing is installed and prior to construction, conduct a sweep of the work area to look for turtles;
- ✦ Apprise workers of the possible presence of turtles, and provide a description of the species;
- ✦ Any turtles that are discovered shall be moved, unharmed, to an area immediately outside of the fenced area, and position in the same direction that it was walking;
- ✦ No vehicles or heavy machinery shall be parked in any turtle habitat;
- ✦ Work conducted during early morning and evening hours shall occur with special care not to harm basking or foraging individuals; and

- ✦ All silt fencing shall be removed after work is completed and soils are stable so that reptile and amphibian movement between uplands and wetlands is not restricted.

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

Thank you for consulting the Natural Diversity Data Base. If you have any additional questions, I can be contacted by email at [Elaine.Hinsch@po.state.ct.us](mailto:Elaine.Hinsch@po.state.ct.us).

Sincerely,

/s/  
Elaine Hinsch  
Program Specialist II  
Wildlife Division