TOWN OF OXFORD

S.B. Church Memorial Town Hall
486 Oxford Road, Oxford, Connecticut 06478-1298
www.Oxford-CT.gov

Oxford Conservation Commission / Inland Wetlands Agency

August 23, 2006

ATTN: Robert E. Carberry

The Connecticut Light & Power Company
107 Selden Street
Berlin, CT 06037

Re: Disposition of Application # IW-06-158.

At its **Regular Meeting** on Monday, August 14, 2006 the Oxford Conservation Commission / Inland Wetlands Agency made the following decision on you application:

IW-06-158 CT Light & Power Company Christian Street & Jacks Hill Road (Electric Substation) (Approval of Preliminary Plan).

MOTION made by Commissioner L. Hellerich and seconded by Commissioner T. Adamski to **APPROVE** application **IW-06-158 CT Light & Power Company Christian Street & Jacks Hill Road** (Electric Substation) (Approval of Preliminary Plan) based on the preliminary plans dated *August 3, 2006* with the following conditions:

- Further environmental review and/or studies may be required upon submission of a final design,
- Footprint may change for this site based on the outcome of environmental reviews and/or studies,
- Further mitigation may be required pending the Upland Review Areas and Wetlands impacts associated with the final design, and
- there may be conservation easements.

The reason for approval of the preliminary plan is minimal impact to the wetlands and no feasible and prudent alternative exists. **Voted 4-0.**

PERMIT EXPIRES: August 14, 2011.
Permit duration is five (5) years. Additional extension must be requested prior to expiration.

THIS PERMIT IS NOT TRANSFERABLE UNLESS THE NEW OWNER PROVIDES THE COMMISSION WITH A SIGNED ACKNOWLEDGEMENT THAT HE/SHE UNDERSTANDS AND ACCEPTS THE CONDITIONS OF APPROVAL.

Attached please find a copy of the application and if you have any questions please call me at the office at (203) 888-2543 ext. 3065 between the hours of 9:00 AM to 5:00 PM Monday to Thursday.

By Direction of the Commission,

Anna M. Silva
OCCIWA Secretary

OCCIWA/as

Cc: Planning & Zoning
Marianne Barbino Dubuque, Esq.
Herman V. Schuler
Dave Nafis, L.S., P.E. of Nafis & Young

REQUEST RETURN RECEIPT/CERTIFIED & REGULAR MAIL
Article Number: 7002 2030 0000 1219 1637

IW- 06 - 158
Ref #
Subdivision #

OXFORD CONSERVATION COMMISSION / INLAND WETLANDS AGENCY

A. X APPLICATION permit for: Location Approval CGS § 16-50 x(d)
1) Approval for wetland/watercourse delineation and/or road layout.
2) Approval of site plan.
3) Activity in, impact to/disturbance of wetland, watercourse and/or setback area.

B. _____ NOTIFICATION to Planning & Zoning, Building, and/or Health Department that no Inland Wetlands permit is required. Approval by IW Enforcement Officer.

C. _____ Permitted Operations & Uses under per CT State Statutes 22a-40.

Please Print Clearly or Type.

1) Applicants Name: The Connecticut Light & Power Company Phone: 860-665-6774
Address: 107 Selden St., Berlin, CT Zip: 06037 Email: _____

2) Property Owner (if not the applicant): _____ Phone: _____
(If not owner, attach a letter of consent)
Address: _____ Zip: _____

3) Location of Site: Christian St/Jacks Hill Map: 25 Block: 25 Lot: 1BB3 Unit
Subdivision Name: _____

4) Total Size and Dimension of Site (acres/ square feet): 15.77 acres

5) Proposed Use/Activity/Alteration: Electric Substation

6) Total acreage/dimensions of wetlands/watercourse on site (acres/ square feet): See attached

7) Wetlands Impacted (s/f): 2,615 s/f Upland Review Area Impacted (s/f): 3,000 s/f

8) Amount of material to be Removed (CY): _____ Deposited (CY): _____

9) Check whether any of the following apply:

[ ] A portion of the property affected by the decision of the Commission is located within five hundred (500) feet of the bounda an adjoining municipality.

[ ] A portion of the sewer or water drainage from the project site will flow through and significantly impact the sewage system within the adjoining municipality.

[ ] Water run-off from the improved site will impact streets or other municipal or private property within the adjoining municipa

[X] Not Applicable.

If any of the above apply, the applicant is required to give written notice of his/her application to the Inland Wetlands Agency the adjoining municipality and submit a copy to OCCIWA. Notification must be by CERTIFIED MAIL/RETURN RECEI

Please read: A fee must be paid at the time of submission. **Application Fee:** Checks payable to the **Oxford Inland Wetlands Agency.** Some applications may require an additional State Fee due at time of submission. **State Fee:** Checks payable to the **Town of Oxford.** All activities within a wetland and/or watercourse must be completed within 1 year of start.

The undersigned: 1) Understands that submission is complete only when all required fees, necessary information, supporting documents, m etc. has been submitted. 2) Warrants that all information submitted herein, including all material and supporting documents are TRUE and CORRECT to the best of my knowledge. 3) Grants permission for Members of the Inland Wetlands Agency and Commission to conduct si inspections and investigate all information provided for this application during the application process and post approval inspections and investigations.

I understand that if any of the above statements are false, I may be subject to fines and/or penalties.

Signature of Applicant / Agent: Robert Clarke Date: August 7, 2006

THIS SECTION TO BE COMPLETED BY AGENCY

Date application received / accepted: 8-7-06 Fees received: $1,450.00 + 30.00 Receipt #: 331008
Other material(s) received: maps
Disposition and Date: Approved at the Regular Meeting on 8-14-06 with conditions. * See letter dated 8-23-06 for details.
OCCIWA Chairman, Michael A Hart (as)

Date of Final Approved Map: 8-3-2006
Last Revised: _____

Expiration date of Permit: 8-14-2011 (5 years)

Connecticut
Light & Power

The Northeast Utilities System

LOCATION APPROVAL APPLICATION

Connecticut General Statutes Section 16-50 x(d)

Oxford 115- to 13.8 kV Substation

Christian Street and Jacks Hill Road
Oxford, Connecticut

August 2006

Submitted to:
Town of Oxford, Connecticut
Conservation Commission/Inland Wetlands Agency

Submitted by:
The Connecticut Light and Power Company
107 Selden Street
Berlin, CT 06037

Connecticut Light & Power

The Northeast Utilities System

107 Selden Street, Berlin, CT 06037
Northeast Utilities Service Company
P.O. Box 270
Hartford, CT 06141-0270
(860) 665-5000

Robert E. Carberry
Transmission Siting and Permitting

August 7, 2006

Town of Oxford Conservation Commission/Inland Wetlands Agency
Oxford Town Hall
486 Oxford Road
Oxford, Connecticut 06478-1298

Re: **The Connecticut Light & Power Company**
Proposed Oxford 115- to 13.8-kV Substation – Location Approval
Oxford, Connecticut

Members of the Commission:

The Connecticut Light and Power Company (CL&P) hereby submits its application and filing fee and respectfully requests that the Oxford Conservation Commission/Inland Wetlands Agency approve the location of an electric substation, to be known as the Oxford Substation. CL&P proposes to construct this substation on property located within the Oxford Commerce Park between Jacks Hill Road and Christian Street. This property is owned by CL&P and consists of approximately 16 acres.

In order to add capacity in response to the increased demand for electricity and to improve system reliability in Oxford and its surrounding areas, CL&P proposes to construct a new substation, as more specifically set forth in the application materials.

As set forth in a letter from our counsel, Carmody & Torrance LLP, to Town Counsel Robert J. Uskevich dated May 24, 2006, the proposed substation is subject to the jurisdiction of the Connecticut Siting Council, pursuant to Chapter 277a of the Connecticut General Statutes. However, the Connecticut Legislature has provided wetlands and zoning commissions with a supporting role in the State's decision making process with respect to the location of certain utility facilities, including electric substations.

CL&P asks that the Conservation Commission/Inland Wetlands Agency carefully consider the information provided in the application materials and approve the location of the Oxford Substation.

Please call me at (860) 665-6774 or Amanda Carroll at (860) 665-6953 if you have any questions or would like any further information. Thank you for you consideration of this matter.

Very truly yours,

IW-_____-____
Ref # _____
Subdivision # _____

OXFORD CONSERVATION COMMISSION / INLAND WETLANDS AGENCY

A. X APPLICATION permit for: Location Approval CGS § 16-50 x(d)
1) Approval for wetland/watercourse delineation and/or road layout.
2) Approval of site plan.
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B. _____ NOTIFICATION to Planning & Zoning, Building, and/or Health Department that no Inland Wetlands permit is required. Approval by IW Enforcement Officer.

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- [] A portion of the property affected by the decision of the Commission is located within five hundred (500) feet of the boundar an adjoining municipality.
- [] A portion of the sewer or water drainage from the project site will flow through and significantly impact the sewage system within the adjoining municipality.
- [] Water run-off from the improved site will impact streets or other municipal or private property within the adjoining municipa
- [] Not Applicable.

If any of the above apply, the applicant is required to give written notice of his/her application to the Inland Wetlands Agency the adjoining municipality and submit a copy to OCCIWA. Notification must be by CERTIFIED MAIL/RETURN RECEI

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I understand that if any of the above statements are false, I may be subject to fines and/or penalties.

Signature of Applicant / Agent: _____ Date: August 7, 2007

THIS SECTION TO BE COMPLETED BY AGENCY

Date application received / accepted: _____ Fees received: _____ Receipt #: _____
Other material(s) received: _____
Disposition and Date:

Date of Final Approved Map: _____ Expiration date of Permit: _____
Last Revised: _____

List of Abutting Property Owners
Oxford 115- to 13.8 kV Substation
Map 25, Block 25, Lot 1BB3

1. Map 25, Block 25, Lot 1BB

   David Sippin
   234 Main Street
   Monroe, CT 06486

2. Map 25, Block 25, Lot 1BB2

   David Sippin
   234 Main Street
   Monroe, CT 06486

3. Map 25, Block 25, Lot BB4

   David Sippin
   234 Main Street
   Monroe, CT 06486

4. Map 18, Block 25, Lot 1A

   Oxford Science Park, LLC.
   One American Way, 178 Christian Street
   Oxford, CT 06478

5. Map 25, Block 25, Lot 2

   Jacks Hill Cemetery
   Southford Cemetery Association
   c/o Mr. Frederick Rowland, President
   62 Tower Lane
   Oxford, CT 06478

6. State of Connecticut

   Connecticut Department of Environmental Protection
   Parks Division
   79 Elm Street
   Hartford, CT 06106

7. Town of Oxford

   Department of Public Works
   21 Great Oak Road
   Oxford, CT 06478

List of Project Professionals

Northeast Utilities
Jeffrey Martin
Project Manager - Transmission
P.O. Box 270
Hartford, CT 06141-0270

Northeast Utilities
Kris Aberg
Substation Project Engineering Manager
P.O. Box 270
Hartford, CT 06141-0270

Northeast Utilities
Amanda Carroll
Transmission Siting & Permitting
P.O. Box 270
Hartford, CT 06141-0270

Carmody & Torrance LLP
Marianne Dubuque
Attorney
P.O. Box 1110
50 Leavenworth St
Waterbury, CT 06721-1110

ENSR Corporation
James Durand
Project Manager
10 Orms Street, Suite 405
Providence, RI 02904

Soil Science & Environmental Services, Inc.
Thomas Pietras
Soil & Wetland Scientist
545 Highland Avenue
Route 10
Cheshire, CT 06410

Proposed Oxford Substation

Introduction and Purpose

The purpose of constructing a new 115- to 13.8-kV substation at the property located to the west of Jacks Hill in the Town of Oxford is to add capacity in response to the increasing demand for electricity in Oxford and its surrounding area; and by so doing, improve electric distribution system reliability in Oxford. CL&P is forecasting deficiencies in substation capacity in the Oxford area and is proposing to address these deficiencies by establishing a new bulk power source (i.e., a new substation supplied by 115-kV lines) in Oxford.

The hub of the load in the Town of Oxford to initially be served by the new Substation is located in an area between Prokop Road to the north, Oxford Road (Route 67) to the south, Christian Street to the west and Riggs Road to the east.

Subject Project Description

The proposed Substation site (Subject Property) is a 15.77-acre parcel located within the Sippin / Oxford Commerce Industrial Park, which is currently in the initial phase of construction. The Subject Parcel is located to the north of Jacks Hill Road, east of Christian Street and west of North Larkey Road (Figures 1 and 2). CL&P acquired the parcel, along with an additional 4.4 acres of right-of-way (ROW) adjacent to the north side of the Subject Property, in 2005 to develop a new substation[1]. An existing 110-foot wide CL&P ROW currently traverses the parcel and is occupied by three 115-kV transmission circuits on two rows of lattice-steel towers.

The property contains approximately 6.34 acres of wetland areas, one intermittent watercourse that traverses the south-central portion of the site, and two intermittent watercourses located along the fringes of the site boundaries (Figure 3).

[1] The land and ROW acquisition was approved by the Connecticut Siting Council under their Docket No. 304 (Attachment 1) and was supported by the Town of Oxford (Attachment 2).

The state-owned Larkin Bridle Trail is located to the northwest of the Subject Property, and the Oxford Science Park is to the south. The Waterbury-Oxford Airport is approximately 1,500 feet to the north. There are no existing homes in the area adjacent to the Property, which is zoned Industrial.

The Subject Property is well suited for the proposed substation because:

- it is located close to the hub of the growing Oxford electric load;
- existing 115-kV transmission line sources traverse the eastern portion of the property;
- the property will have good access from a new road associated with the Sippin / Oxford Commerce Industrial Park;
- there are no existing homes in the area adjacent to the proposed site;
- the property was recently re-zoned for "industrial" use;
- the property extends a distance from the road, allowing the proposed substation to be located at the rear of the lot, nearly 400 feet to the north of the future Sippin / Oxford Commerce Industrial Park roadway.

Proposed Activity

Site preparation / construction will require clearing, grading and cut-and-fill activities, portions of which would be located within the locally-regulated 100-foot upland review area, as measured from the edge of the wetlands. To provide permanent access to the facility, CL&P proposes to construct a gravel access drive extending from the proposed road associated with the Sippin / Oxford Commerce Industrial Park to the substation. The access drive will extend for a distance of approximately 600 linear feet. The travel lane of the access road will be approximately 15 feet wide to accommodate CL&P maintenance vehicles, with the remaining width of 10 feet comprising the driveway embankments. Crossing of an inland wetland and an associated intermittent watercourse would also be required to provide access to the Substation.

The Substation would be contained within an approximately 1.1-acre fenced area and secured by a 7-foot high chain link fence topped with one foot of barbed wire. The fenced area would measure approximately 226 by 229 feet and have a trap-rock surface. The 115-kV line interconnection with the Substation would be made using two, up to 55-foot high, line terminal structures. The Substation would consist of typical components including power transformers, metal-clad distribution

switchgear, circuit switchers, circuit breakers, a relay and control enclosure (approximately 48 feet by 14 feet) and a battery enclosure (approximately 24 feet by 14 feet) within the fenced area of the Substation. The enclosures would contain protective relaying and control equipment associated with the transmission portion of the Substation. Also within the switchgear and control enclosures, equipment for full Supervisory Control and Data Acquisition (SCADA) system functions and digital metering would be installed to allow control and monitoring of the Substation from a remote location. Distribution getaways would exit the substation underground in conduits. The getaways will be installed under the gravel access drive, below the bottom elevation of the stream channel. The conduit installation will be confined to the footprint of the proposed access drive crossing of the wetland/watercourse.

Alternatives Considered

CL&P evaluated a number of locations for the Substation site in the Town of Oxford. The alternative locations were primarily chosen based on their proximity to customer load and existing transmission / distribution lines. Four locations, including the Subject Property, passed an initial CL&P evaluation. However three of the sites were removed from further consideration based on the presence of extensive inland wetlands, proximity to dwellings, threatened and endangered species habitat, and other physical constraints.

The three sites, depicted on the Site Alternatives Map (Figure 4) and discussed in more detail below, included properties located on Jacks Hill Road, Prokop Road, and Oxford Road.

Jacks Hill Road Alternative (I – Industrial/Residential)

One alternative site was identified to the east of the transmission line and to the south of Jacks Hill Road. The zoning for this site was recently changed from Industrial to Residential as part of an approval from the Oxford Planning and Zoning Commission for development of senior housing, and the site is not considered available for purchase. Additionally, according to the *State and Federal Species and Significant Natural Communities Map for Oxford, CT* published by the Connecticut

Natural Diversity Database, this location is located in proximity to a Natural Diversity Database Area of Concern.

Prokop Road Alternative (I – Industrial)

The area north of Prokop Road contains wetlands and although zoned industrial, has residences within 100 feet. The area to the south of Prokop Road contains steep grades and also has residential neighbors.

Oxford Road Alternative (R – A – Residential District A)

This location is at the southerly edge of the search area. Three quadrants at this location contain residential dwellings; the fourth quadrant contains standing water and wetland areas.

General Construction Sequence

The general sequence of events that takes place during the construction of a substation include:

a. Placement of erosion and sedimentation control barriers;
b. Removal of vegetation from the proposed fenced area and access drive;
c. Construction of the access drive;
d. Preparation of the Substation Site (cut, fill, grading);
e. Stabilizing all slopes by loaming and seeding exposed soils with a conservation meadow seed mixture;
f. Installing fence, substation foundations, buried conduits and the ground grid;
g. Spreading trap rock;
h. Installing electrical components and hardware;
i. Installing tie-ins to transmission lines and distribution lines;
j. Energizing substation;
k. Completing site stabilization, landscaping and site restoration;
l. Removing erosion control barriers upon completion of site stabilization.

Effects of Construction

The proposed Substation would be located outside any inland wetlands or locally regulated 100-foot upland review area, although, site preparation and grading activities will extend into portions of the upland review area. It is estimated that approximately 3,000 square feet of upland review area would be temporarily disturbed during the construction phase of the Project.

Access to the Substation would be from the Sippin / Oxford Commerce Industrial Park roadway, which is currently under construction, and would require crossing a narrow band of inland wetlands and an approximately six-foot wide intermittent watercourse. Constructing the new access drive and installation of the underground distribution getaways would temporarily affect approximately 550 square feet of inland wetlands and permanently affect approximately 2,063 square feet of inland wetlands. To minimize these impacts, CL&P would construct the minimum-width driveway required to safely access and egress the Substation and install a properly sized culvert to maintain the ambient flow of the watercourse.

CL&P would also implement its *Construction Best Management Practices* to minimize or eliminate potential adverse environmental effects during the construction phase of the Project, and incorporate the mitigation measures outlined in the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control* in its Development and Management Plan (D&M) Plan. A detailed D&M Plan must be approved by the Connecticut Siting Council prior to construction.

See the enclosed Environmental Assessment Report (Attachment 3) dated August 2006 for additional information on potential environmental effects.

Proposed Mitigation Measures

Mitigation will consist of CL&P's Best Management Practices for erosion and sediment control in accordance with the *2002 Connecticut Guidelines for Erosion and Sediment Control* (see typical details on enclosed drawings). Geotextile fabric sediment barriers will be placed between the project and inland wetlands and

watercourses during construction and maintained until the site is stabilized and rehabilitated. Cut-and-fill slopes will not exceed 2 to 1 grades, and will be loamed and seeded.

Any temporary impact on wetland areas resulting from the construction of the access drive will be mitigated. A permanent culvert will be installed where the proposed access drive crosses an intermittent watercourse to retain the natural flow of water.

As part of site restoration, a conservation meadow seed mix will be planted in disturbed portions of the Subject Property. This will create a natural vegetative transition zone between upland and wetland regimes. Existing vegetation will be left in place to the extent feasible to establish a visual barrier between the Substation and the new Sippin / Oxford Commerce Industrial Park. A landscape plan will be developed for the Substation to provide visual screening of the access drive and Substation facility.

Figures presented in this application include:

- Figure 1 Site Location Map;
- Figure 2 Site Location Map – Aerial View
- Figure 3 General Land Use Map;
- Figure 4 Site Alternatives Map
- Project Drawing – Location Approval Plan (Attachment 4).

FIGURES

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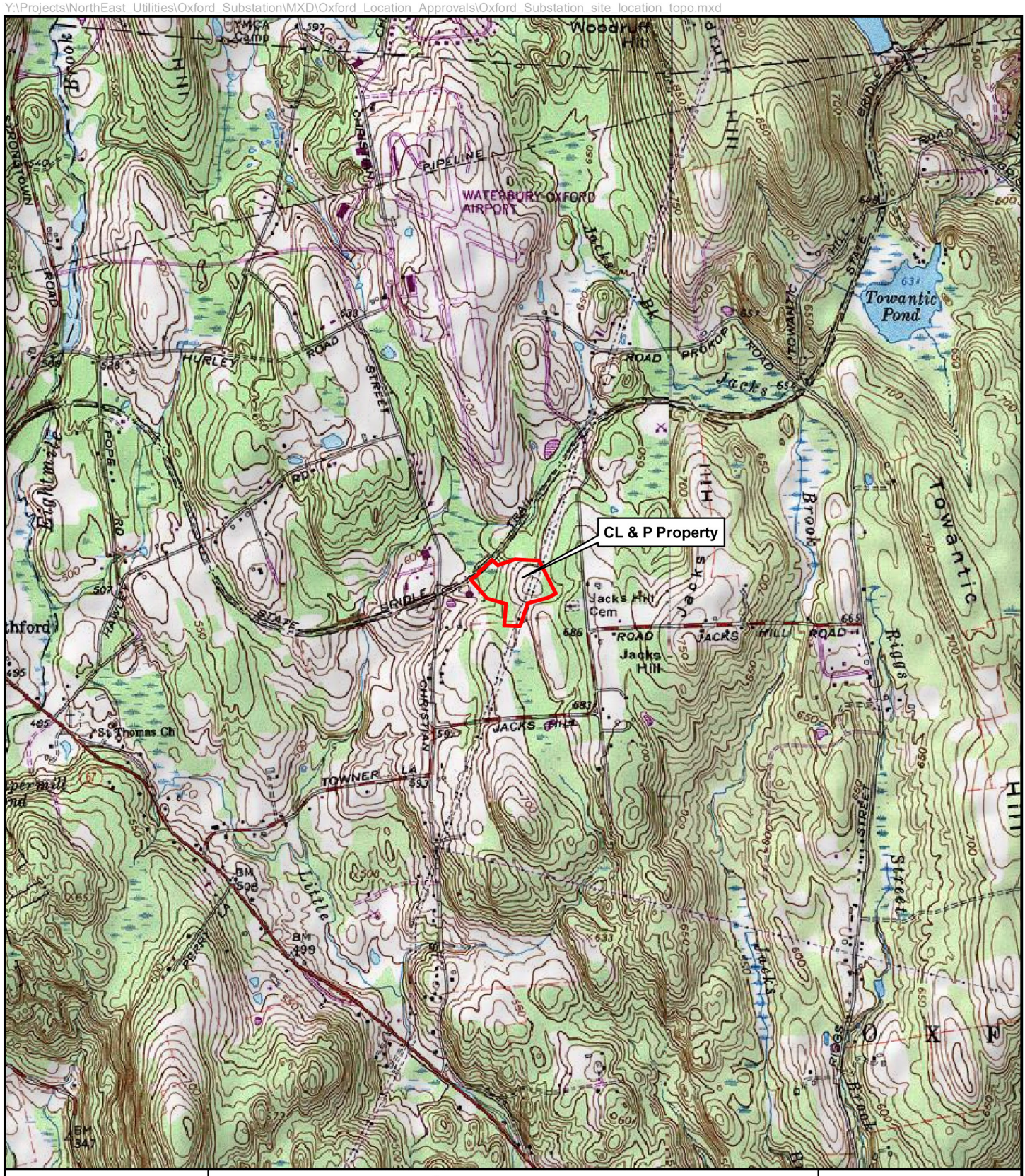
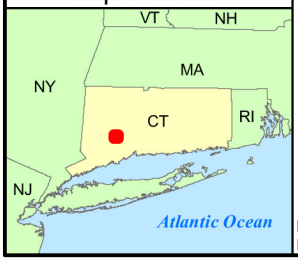


Map Location



N

Site Location Map

Oxford 115- to 13.8-kV Substation

0 500 1,000 2,000 3,000 4,000 5,000 6,000 Feet

0 100 200 400 600 800 1,000 1,200 1,400 1,600 Meters

Map Projection: CT State Plane , NAD 83, US Feet.
Image Source: SBC aerials.

Scale: 1:24,000
(1 inch = 2,000 ft)

Northeast Utilities System

ENSR | AECOM

Figure 1

Date: June 2006

Project #: 05022-012

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Map Location

N

Site Location Map - Aerial View

Oxford 115- to 13.8-kV Substation

0 100 200 400 600 800 1,000 1,200 Feet

0 30 60 120 180 240 300 Meters

Map Projection: CT State Plane , NAD 83, US Feet.
Image Source: SBC aerials.

Scale: 1:4,200
(1 inch = 350 ft)

Northeast Utilities System

ENSR | AECOM

Figure 2

Date: June 2006

Project #: 05022-012

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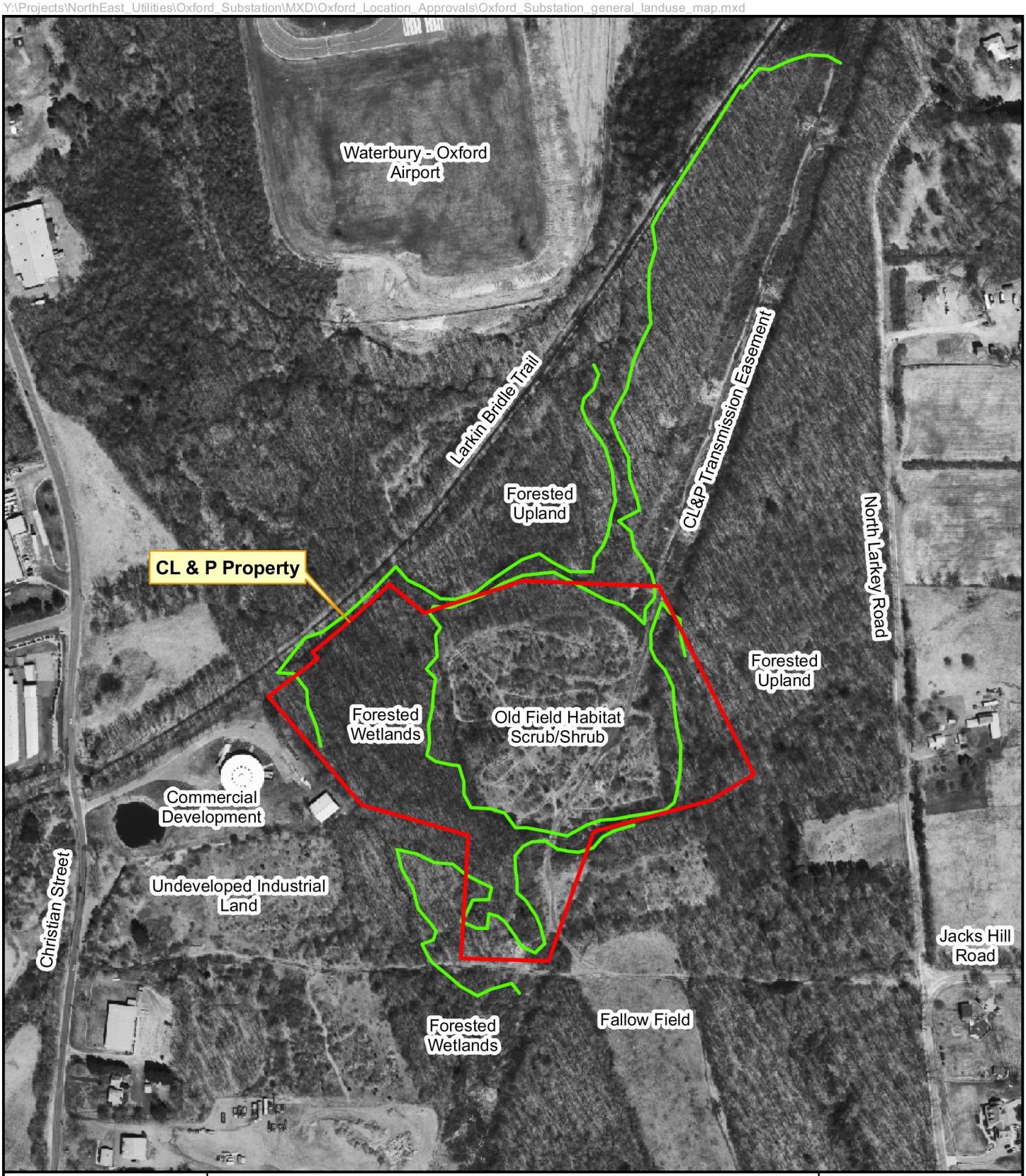

Map Location

General Land Use Map

Oxford 115- to 13.8-kV Substation

CL&P Property — Inland Wetland Boundary

0 100 200 400 600 800 1,000 1,200 Feet

0 30 60 120 180 240 300 Meters

Map Projection: CT State Plane , NAD 83, US Feet.
Image Source: SBC aerials.

Scale: 1:4,200
(1 inch = 350 ft)

Northeast Utilities System

ENSR | AECOM

Figure 3

Date: June 2006

Project #: 05022-012

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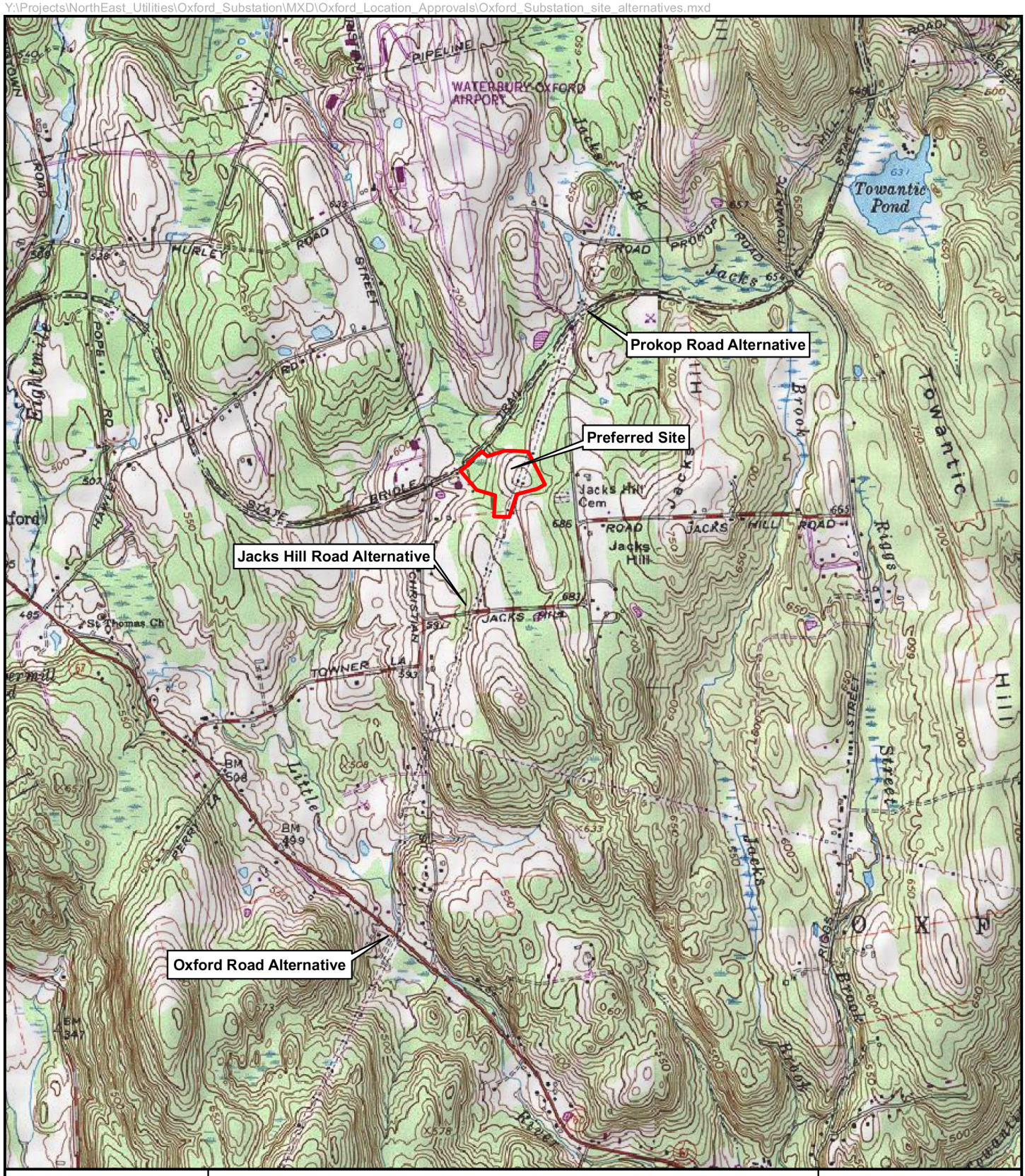

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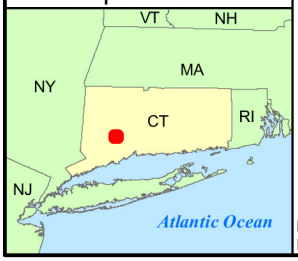

Site Alternatives Map

Oxford 115- to 13.8-kV Substation

N

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Scale: 1:24,000
(1 inch = 2,000 ft)

Northeast Utilities System

ENSR | AECOM

Figure 4

Date: June 2006

Project #: 05022-012

ATTACHMENT 1

Connecticut Siting Council
Docket No. 304

Connecticut Siting Council
Decisions

DOCKET NO. 304 - The Connecticut Light and Power Company submission of a Statement of Intent to Acquire Property as the site for a possible future CL&P 115-kV substation located within an industrial park between Jacks Hill Road and Christian Street and a transmission line easement adjacent to the existing right-of way for possible future transmission line use located near the Waterbury Oxford Airport, Oxford, Connecticut.	}	Connecticut Siting Council June 28, 2005

Decision and Order

Pursuant to the foregoing Findings of Fact and Opinion regarding the Statement of Intent by the Connecticut Light and Power Company (CL&P) to acquire property in Oxford, Connecticut, the Connecticut Siting Council (Council) has given due consideration to the effects of such an acquisition, including the probable hardship for the owner of the property or owners of adjacent properties; development and potential development on and nearby the property to be acquired; environmental impact; public need; convenience of the owner, and the location of the property proposed to be acquired for the transmission of electric power within the state as required under Section 16-50-z1-4 of the Regulations of Connecticut State Agencies, and therefore grants approval to CL&P to acquire the proposed 15.77-acre property between Jacks Hill Road and Christian Road in Oxford, Connecticut.

Pursuant to General Statutes § 16-50p, the Council hereby directs that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below, and notice of issuance shall be published in the Woodbury Voices, the Waterbury Republican American, the New Haven Register, and the Connecticut Post.

By this Decision and Order, the Council disposes of the legal rights, duties, and privileges of each party named or admitted to the proceeding in accordance with Section 16-50j-17 of the Regulations of Connecticut State Agencies.

The parties and intervenors to this proceeding are:

Applicant	**Its Representative**
The Connecticut Light and Power Company	Roger C. Zaklukiewicz Vice President – Transmission Projects Northeast Utilities Service Company P.O. Box 270 Hartford, CT 06141-0270 (860) 665-5000 (860) 665-6717 - fax zaklurc@nu.com

Content Last Modified on 7/1/2005 8:27:04 AM

Connecticut Siting Council
Opinions

DOCKET NO. 304 - The Connecticut Light and Power Company submission of a Statement of Intent to Acquire Property as the site for a possible future CL&P 115-kV substation located within an industrial park between Jacks Hill Road and Christian Street and a transmission line easement adjacent to the existing right-of way for possible future transmission line use located near the Waterbury Oxford Airport, Oxford, Connecticut.	}	Connecticut Siting Council June 28, 2005

Opinion

The Connecticut Light & Power Company (CL&P) filed a Statement of Intent to Acquire Real Property with the Connecticut Siting Council (Council) on November 10, 2004. CL&P intends to acquire a 15.77-acre parcel of land in Oxford, Connecticut as the potential site of a future 115-kV electric substation. The Council held a public hearing on this proposed land acquisition in Oxford on April 28, 2005.

CL&P projects its customer load in the Oxford area will be exceeded in 2007. The purchase of this property would be the first step in a process to address the need for additional capacity and decrease voltage problems in the area.

The Town of Oxford has expressed support for the proposed land acquisition, citing rapid development and growth in the area. There are no existing homes in the area surrounding the proposed site, which is zoned Industrial.

Under Section 16-50z of the Regulations of Connecticut State Agencies (RCSA) in granting or denying a proposed land acquisition, the Council must give consideration to probable hardship for the owner of the property or owners of adjacent properties; the development and potential development on and nearby the property proposed to be acquired; the environmental impacts; public need; convenience of the owner; and the location of the property proposed to be acquired for the purpose of transmission of electric power or fuel within the state.

Having given due consideration to RCSA 16-50-4, and based on the record in this proceeding, the Council hereby grants approval to CL&P for the acquisition of 15.77 acres of property between Jacks Hill Road and Christian Street in Oxford, for the possible application as a future electric substation site.

Content Last Modified on 7/1/2005 8:24:35 AM

DOCKET NO. 304 - The Connecticut Light and Power Company submission of a Statement of Intent to Acquire Property as the site for a possible future CL&P 115-kV substation located within an industrial park between Jacks Hill Road and Christian Street and a transmission line easement adjacent to the existing right-of way for possible future transmission line use located near the Waterbury Oxford Airport, Oxford, Connecticut.	}	Connecticut Siting Council June 28, 2005

Findings of Fact

Introduction

1. The Connecticut Light and Power Company (CL&P) in accordance with provisions of General Statutes 16-50z (a) and section 16-50z-1 of the Regulation of Connecticut State Agencies (RCSA) filed with the Connecticut Siting Council (Council) a Statement of Intent to Acquire Real Property on November 10, 2004. (CL&P 3)

2. The purpose of the proposed land acquisition is to obtain property as the site of a possible future 115kV substation in the Town of Oxford, Connecticut. (CL&P 3)

3. The party in this proceeding is CL&P. (Tr. 4/28/05, p. 4)

4. Pursuant to General Statutes Section 16-50m, the Council, after giving due notice thereof, held a public hearing on April 28, 2005, beginning at 3:00 p.m. at the S.B. Church Memorial Town Hall, 486 Oxford Road, Oxford, Connecticut. (Tr. p. 2; Council Hearing Notice, 4/5/05)

5. The Council and its staff conducted an inspection of the proposed land acquisition site on April 28, 2005, beginning at 2:00 p.m. (Council Hearing Notice, 4/5/05)

6. Notice of the Council's hearing on this matter was published in the Woodbury News; the Waterbury Republican-American; the New Haven Register, and the Connecticut Post. (Council Hearing Notice, 4/5/05)

State Agency Comments

7. Pursuant to General Statutes § 16-50j (h), on April 5, 2005, and on April 29, 2005, the following state agencies were solicited by the Council to submit written comments regarding the proposed land acquisition: the Department of Environmental Protection (DEP), the Department of Public Health (DPH), the Council on Environmental Quality (CEQ), the Department of Public Utility Control (DPUC), the Office of Policy and Management (OPM), Department of Economic and Community Development (DECD) and the Department of Transportation (DOT). (Record)

8. The Council received a response from the DOT Bureau of Engineering and Highway Operations, Utility Section on April 28, 2005, and from the DPH on April 28, 2005. The DPH indicated it had no comments. (Record)

9. The following state agencies did not provide comments: the DEP, CEQ, DPUC, OPM, and the DECD. (Record)

Municipal Comments

10. On April 21, 2005, the First Selectman of Oxford provided comments to the Council regarding the proposed land acquisition. In these comments and at the public hearing the First Selectman stated his support of this land acquisition, and that the acquisition is consistent with proper planning for the Town of Oxford. (Town of Oxford letter, dated 4/19/05; Tr., pp.5-8)

Acquisition of Real Property Considerations

11. Under Section 16-50z-4 of the RCSA, the Council shall render a decision upon the record either granting or denying the acquisition, giving consideration to: probable hardship for the owner of the property or owners of adjacent properties; development and potential development on and nearby the property proposed to be acquired; environmental impact; public need; convenience of the owner; and the location of the property proposed to be acquired for the purpose of transmission of electric power or fuel within the state. (Regulations of Connecticut State Agencies, Section 16-50 z-4)

Proposed Land Acquisition Site

12. The proposed land acquisition site consists of a 15.77 acre parcel of land located within the Sippin Industrial Park between Jacks Hill Road and Christian Street in Oxford, Connecticut. Additionally, an adjacent 4.44 acre transmission line easement would be acquired by CL&P adjacent to an existing right-of-way for possible transmission line use. (CL&P 3; CL&P 1, p.2, map; Tr., p. 14)

13. Part of the acquisition property now contains a 110-foot wide CL&P right-of-way easement and has three 115kV electric transmission lines, facilitating any future connection between a new substation and the existing transmission line. (CL&P 3)

Owner

14. The proposed acquisition site is owned by David Sippin, who is also the owner of the properties abutting the proposed land. Mr. Sippin has agreed to sell the property to CL&P. (Tr. pp. 16-17; CL&P 2, p. 1)

Nearby Development

15. The state-owned Larkin Bridle Trail is immediately northwest of the proposed land, and the Oxford Science Park is to the south. The Waterbury-Oxford Airport is approximately 1500 feet to the north. (CL&P 3, CL&P 4, Q. 3)

16. There are no existing homes in the area adjacent to the proposed acquisition site, which is zoned Industrial. (CL&P 2, p. 1; Tr. pp. 18-19)

Environmental Impact

17. The proposed land acquisition contains wetlands; however, a future substation and access road could be developed without impacting those wetlands. (Tr., p. 20, p. 27, p. 28; CL&P 4, Q. 3)

18. The DOT Bureau of Aviation and Ports has had discussions with CL&P regarding a possible substation and its close proximity to Oxford Airport. CL&P was made aware of those DOT and Federal Aviation Administration criteria which may have to be met for the installation of a future substation. The DOT does not object to the intent to acquire the proposed property. (DOT letter of 4/27/05)

19. CL&P may be able to decrease the height of existing transmission towers in the area by purchasing the property. The proposed 4.4-acre easement acquisition would allow CL&P to expand its existing right-of-way by 145 feet and convert the existing transmission lines to a lower horizontal line configuration. (Tr. 4/28/05, p. 30; CL&P 2, p.1)

Public Need

20. CL&P projects that its customer load in the Oxford area will exceed the combined capacity of CL&P's Beacon Falls and Bates Rock Substations by the summer of 2007. CL&P also finds it increasingly difficult to operate the long distribution feeders in this area within the guidelines established by the DPUC. (CL&P 1, p. 1)

21. Purchase of the property described is the first step in a multi-step process to address the need for additional capacity and decrease the voltage problems in the area. (Tr. p. 15)

22. CL&P is experiencing greatly increased load growth in the Oxford area. The Town of Oxford is planning to place a foreign trade zone in and around the Waterbury-Oxford Airport. The Oxford region is one of the fastest growing areas of the state, with industrial parks, housing developments, and a shopping center all now in the planning stages. (Tr. pp. 5-8, p. 21)

23. CL&P desires to purchase the proposed land before it is acquired for development. Significant commercial and residential development is already planned for the properties surrounding the proposed acquisition site. (CL&P 1, p. 1)

Alternative Sites Investigated

24. CL&P investigated six other sites in the area as possible future substation sites. Criteria used by CL&P for site evaluation included proximity to an existing 115kV transmission line; proximity to customer load and distribution lines; environmental impact; zoning and present land use; and topography. (CL&P 2, p. 1)

25. The six locations investigated included properties at the following locations: Riggs Road, Jacks Hill Road, Prokup Road, Christian Road, Oxford Road and High Hill. The sites were eliminated from consideration as future substation sites for reasons which include proximity to residences; a residential zoning designation; steep grades; substantial existing wetlands; and insufficient access. (CL&P 2, pp. 2-3)

Future Application

26. If the Council approves CL&P's proposed land acquisition, CL&P would submit a separate application in a different proceeding for permission to construct a new 115-kV substation on the proposed property. (CL&P 1, p. 1)

ATTACHMENT 2

Town of Oxford
First Selectman Letter of Support

TOWN OF OXFORD

S.B. Church Memorial Town Hall
486 Oxford Road, Oxford, Connecticut 06478-1298

Office of the First Selectman

April 19, 2005

Pamela B. Katz, P.E. Chairman
Connecticut Siting Council
10 Franklin Square,
New Britain, Connecticut 06051

RE: The Connecticut Light and Power Company intent to acquire property as the site for a possible future CL&P 115-kV substation located within an industrial park between Jacks Hill Road and Christian Street and a transmission line easement adjacent to the existing right-of-way for possible future transmission line use located near the Waterbury-Oxford Airport, Oxford Connecticut.

Dear Chairman Katz:

First, let me thank you for your letter of April 5, 2005. I was happy to receive it and read of your Council's intention. I also thank you for the offer to participate in the hearing, as I fully intend to speak at this hearing.

The Town of Oxford has long awaited the increased presence of CL&P. I, as the First Selectman of Oxford, support this land acquisition by CL&P. We are one of the fastest growing communities in the State of Connecticut and can only continue into our future through proper planning. This acquisition is part of that proper planning.

CL&P has been extremely helpful to this administration. Our need for three-phase power in our Industrial area is critical. This land acquisition is the first step in allowing the future 115-kV substation to be built in Oxford. This is an important part of the long range goals for the Town of Oxford.

Again, I thank you for this opportunity. The Town shall do what ever you ask to assist in bringing this long awaited endeavor to fruition.

Yours truly,

August A. Palmer III
First Selectman

ATTACHMENT 3

Environmental Assessment Report

Environmental Assessment Report
Proposed Oxford Substation
Oxford, CT

August 2006

Prepared For:
The Connecticut Light & Power Company

Prepared By:
ENSR Corporation
11 Phelp's Way, P.O. Box 506
Willington, CT 06279

TABLE OF CONTENTS

LIST OF APPENDICIES:

1.0 Introduction

The approximately 15.77 acre project site (Subject Property) located between Christian Street and Jacks Hill Road in the Town of Oxford is the proposed location of the Oxford 115- to 13.8-kV Substation (Substation or Project). The Subject Property is located within the Oxford Commerce Park, which is currently under development.

On April 3 and 10, 2006, Soil Science and Environmental Services, Inc. (SSES), confirmed the boundaries of the wetlands and watercourses on and immediately adjacent to the Subject Property. The assessment was conducted to identify the presence and extent of inland wetlands and watercourses, and to confirm the boundary of wetland soils on and adjacent to the Subject Property. On June 7, 2006 ENSR Corporation (ENSR) performed field reconnaissance to evaluate wildlife habitats and vegetative cover types.

2.0 General Site Description

The 15.77 acre parcel and an additional 4.4 acres of right-of-way (ROW) adjacent to the 15.77 acre parcel was acquired by CL&P in 2005. An existing 110-foot wide CL&P right-of-way with three 115-kV transmission lines traverses the 15.77 acre parcel. The acquisition of the land and ROW was approved by the Connecticut Siting Council under Docket No. 304 on June 28, 2005.

The Subject Property is located on one of five industrially zoned lots that comprise the Oxford Commerce Park. The state-owned Larkin Bridle Trail is located to the immediate northwest of the Subject Property. The Oxford Science Park is located to the south, and the Waterbury-Oxford Airport is located approximately 1,500 feet to the north. Industrial zoned, undeveloped land is located to the east. There are no dwellings or residences abutting the Subject Property.

2.1 Topography and Drainage Basins

Elevation at the Subject Property ranges from approximately 600 feet above mean sea level along the southeastern Subject Property boundary to approximately 660 feet above mean sea level in the central portion of the Subject Property.

The Subject Property is located in the Little River drainage basin within the Housatonic River Watershed Major Basin.

2.2 Geology

According to the *Bedrock Geology Map of Connecticut* (Connecticut Geology and Natural History Survey, 1985), the bedrock underlying the Subject Property consists of well layered gray granofels. Granofels are medium to coarse grained metamorphic rock composed primarily of quartz and feldspar.

A review of the *Surficial Materials Map of Connecticut*, DEP, 1992, indicates that most of the Subject Property is underlain by thin till. Thin till is generally less than 10-15 feet thick.

2.3 Soils Description

The Subject Property consists of three soil types (one general wetland soil series, and two general upland soil series). The Soil Report and sketch map of soil type locations mapped by SSES are included in Appendix A.

There are approximately 9.43 acres of uplands that occur within the 15.77 acre Subject Property (Figure 3 of the Project Narrative). The upland soil types consist of the following:

Woodbridge fine sandy loam (Aquic Dystrudepts)
This is a deep, moderately well drained, glacial till soil developed in a friable, coarse-loamy textured, solum over dense, basil till (hardpan). The till was derived from schist, gneiss and granite. Woodbridge soils occur on glaciated plains, hills and ridges. The hardpan is within 20 to 40 inches.

Paxton and Montauk fine sandy loams (Oxyaquic Dystrudepts)
These are deep, well drained, glacial till soils developed in a friable, coarse-loamy textured solum over dense, coarse-loamy to sandy textured, basal till (hardpan). The till was derived from schist, gneiss and granite. Typical depth to hardpan is 30 to 40 inches. Paxton and Montauk soils occur on glaciated plains, hills and ridges.

There is a continuous wetland system and two main intermittent watercourses present on the Subject Property. The wetland area comprises approximately 6.34 acres (Figure 3 of the Project Narrative). The wetland soils types consist of the following:

Ridgebury, Leicester & Whitman soils (Aquepts)
These are poorly drained and very poorly drained, coarse-loamy textured, glacial till soils. The till was derived from schist, gneiss and granite. These soils occur on glaciated plains, hills and ridges. Ridgebury and Whitman soils contain dense basal till (hardpan) in the subsoil within 20 to 30 inches.

2.4 Description of Uplands

The uplands at the Subject Property consist predominantly of shrub/sapling thickets and old field habitats. The plant species comprising the shrub thickets include an assemblage of Autumn olive (*Elaeagnus umbellata*), grey-stemmed dogwood (*Cornus racemosa*), muliflora

rose (*Rosa multiflora*), red cedar (*Juniperus virginiana*) and black cherry (*Prunus serotina*). The old field habitat is comprised of orchard grass (*Dactylis glomerata*), common milkweed (*Asclepias syriaca*), galium/cleavers (*Galium aparine*), cow vetch (*Vicia cracca*) and common plantain (*Plantago major*). Mature upland forest abuts the Subject Property and the existing electric transmission line. The predominantly deciduous forest consists of large diameter trees consisting of yellow birch, white oak (*Quercus alba*), sweet birch, red maple and pignut hickory (*Carya glabra*).

2.5 Description of Inland Wetlands and Watercourses

The inland wetlands and watercourses located on and abutting the Subject Property were field identified and delineated by SSES in April 2006. The boundaries of the inland wetlands and watercourses were determined based upon the definitions and methodology pursuant to the Connecticut Inland Wetlands and Watercourses Act, Sections 22a-36 through 22a-45. The wetlands boundary determination performed for the Subject Property also included a review of the Town of Oxford Wetland Soils Map prepared by the CTDEP Environmental and Geographic Information Center (1995 Soils Digital Data), and a previous wetland delineation conducted by Environmental Planning Services, Inc. in 2004 for the re-subdivision of land owned by David B. Sippin. A Wetlands / Watercourses and Soil Report prepared by SSES is provided in Appendix A documenting the wetland soil types found on the Subject Property.

A wetlands assessment has been performed for the Subject Property. The identified wetlands were classified according to the U.S. Fish and Wildlife Service classification system (Cowardin et al, 1979), and assessed based on the U.S. Fish and Wildlife Service Wetland Definition and Classification System utilizing Keys to Landscape Position of Landform Descriptors for U.S. Wetlands (Operational Draft).

The Subject Property wetlands consist of palustrine scrub/shrub broad-leaved deciduous wetlands located within the existing 110-foot wide electric transmission line easement, and palustrine forested broad-leaved deciduous wetland (forested swamp) located along the fringes of the Subject Property. The scrub/shrub wetland system includes some inclusions of palustrine emergent persistent wetland (wet meadow). These wetland types can be broadly categorized as lotic wetlands, meaning the wetland system is located along a flowing stream. There are two main intermittent watercourses that bisect the Subject Property. One intermittent stream flows across the southern portion of the Subject Property and the second stream channel flows along the northerly portion of the Subject Property. These two stream systems converge at the western border of the Subject Property and flow under the Bridle Trail. The stream system is ultimately tributary to the Little River located approximately 0.8 mile to the southwest of the Subject Property. The wetland system can be further defined as a throughflow slope wetland. Throughflow wetlands receive significant surface and ground water which passes through the wetland and is discharged to a stream, wetland or other waterbody at a lower elevation. The wetlands on and abutting the Subject Property are located along the fringe and lower elevations of the till ridge that forms the central portion of

the Subject Property, and seasonal high groundwater and intermittent stream flows contribute to the hydrological characteristics of the wetland system.

The scrub/shrub wetlands are dominated by moderate to tall growing shrubs including southern arrowwood (*Viburnum dentatum*), silky dogwood (*Cornus amomum*), black willow (*Salix nigra*), pussy willow (*Salix discolor*), winterberry (*Ilex verticillata*), spicebush (*Lindera benzoin*) and multiflora rose (*Rosa multiflora*). The emergent wetlands interspersed within the scrub/shrub wetland are dominated by a plant community of spotted jewelweed (*Impatiens capensis*), sedge (*Carex spp*.), soft rush (*Juncus effusus*), knotweed (*Polygonum spp*.), rough-stemmed goldenrod (*Solidago rugosa*) and hydrophillic grasses (*Graminaea spp*.). The forested wetlands are dominated by a canopy of deciduous species including red maple (*Acer rubrum*), American elm (*Ulmus americana*), yellow birch (*Betula alleghaniensis*), sweet birch (*Betula lenta*) and to a lesser extent eastern hemlock (*Tsuga canadensis*).

2.6 Assessment of Wetland Functional Quality

The functions of lotic and associated slope wetlands can be categorized into four major attributes including hydrologic, biochemical, plant habitat, and animal habitat. Hydrologically the wetlands provide a means of water storage, energy dissipation during heavy rainfall events, subsurface water storage, and moderation of groundwater flow/discharge and surface water flow. The biochemical attributes of the wetlands include nutrient cycling and uptake of imported elements, retention of particulate matter and organic carbon export including downstream export of detritus through the discharge of surface water in the intermittent streams. The scrub/shrub and forested wetlands provide habitat for an assemblage of vegetative species, which in turn provide a spatial structure of wildlife habitats functioning as escape cover, nesting sites, browse and migration corridors. The assemblage of plant species and habitat types when viewed as a whole, collectively produce an assemblage of habitat types and structural diversity utilized by a diverse group of wildlife.

According to the State and Federal Listed Species and Significant Natural Communities Map for the Town of Oxford (June 2006) prepared by the Connecticut Natural Diversity Data Base (CT NDDB), the Subject Property is not located within mapped CT NDDB area of concern. The southern most portion of the site is located within ½ mile (upstream) of a mapped area of concern located south of Jack's Hill Road. Projects located within or less then ½ mile away from an area of concern must consult with the CT NDDB program. CL&P is in the process of conducting this consultation in order to identify any issues of concern related to the Project activities.

2.7 Potential Wetland Effects and Mitigation

The Substation facility is sited outside of inland wetlands and the locally regulated 100-foot upland review area. Site preparation and grading activities for the construction of the Substation will extend into portions of the upland review area. Approximately 3,000 square feet of upland review area will be disturbed during the construction phase of the Project.

Access to the Substation will be from the Oxford Commerce Park roadway that is currently under construction by others. CL&P would construct an access drive from the terminus of the Commerce Park roadway in a northerly direction onto the Subject Property. Access to the Substation would require crossing an inland wetland and intermittent watercourse. There is no other feasible means of upland access from a public road to the Subject Property. CL&P has evaluated multiple crossing locations to reduce the overall inland wetland and watercourse effects from the construction of a new access drive. CL&P would construct the minimum width driveway required to safely access and egress the Substation. Constructing a new access drive for the Substation would temporarily affect approximately 550 square feet of inland wetlands and permanently affect approximately 2,063 square feet of inland wetlands. Distribution getaways would exit the substation underground in conduits. The getaways will be installed under the gravel access drive, below the bottom elevation of the stream channel. The conduit installation will be confined to the footprint of the proposed access drive crossing of the wetland/watercourse.

The wetland crossing would also require crossing of an approximate 6-foot wide intermittent watercourse. The area of the watercourse to be affected is located within the existing electric transmission line right-of-way. The watercourse at this location consists of shallow, gradually sloping banks with a gravel / cobble substrate. Approximately 30 linear feet and approximately 180 square feet of this intermittent watercourse would be permanently affected by the construction of the access drive. The watercourse crossing would be accomplished while maintaining ambient base flows of the stream. CL&P would design a culvert crossing with the capacity to handle anticipated storm flows. CL&P is also evaluating the size and structure type of the culvert to be installed.

CL&P would implement its *Construction Best Management Practices* to minimize or eliminate potential adverse environmental effects during the construction phase of the Project. CL&P's Development and Management (D&M) Plan for the Substation would also incorporate the mitigation measures outlined in the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control.*

APPENDIX A

SSES Wetlands / Watercourses and Soils Report

SOIL SCIENCE AND ENVIRONMENTAL SERVICES, INC.
545 HIGHLAND AVENUE * ROUTE 10 * CHESHIRE * CONNECTICUT * 06410 * (203) 272-7837
FAX (203) 272-6698

WETLANDS/WATERCOURSES AND SOIL REPORT

To: Northeast Utilities System
107 Seldon Street
Berlin, CT 06037

SSES Job No: 06/04-157-CT-OXF-3A
Client Job No:

Site Inspection Date: April 3 & 10, 2006

PROJECT TITLE AND LOCATION: Proposed Substation located on Jacks Hill Road and Christian Street, Oxford, CT

IDENTIFICATION OF WETLANDS AND WATERCOURSES RESOURCES

WETLANDS AND WATERCOURSES PRESENT ON PROPERTY: Yes X No

Wetlands: Inland Wetlands X Tidal Wetlands
Watercourses: Streams X Waterbodies

Remarks:

VEGETATION COMMUNITIES PRESENT IN WETLANDS

Forest X Sapling/Shrub X Wet Meadow X Marsh Field/Lawn

SOIL MOISTURE CONDITION

Dry
Moist X
Wet X

WINTER CONDITIONS

Frost Depth: none inches
Snow Depth: none inches

The classification system of the National Cooperative Soil Survey, USDA, Natural Resources Conservation Service and the State Soil Legend were used in this investigation. The investigation was conducted by the undersigned Registered Soil Scientist. A sketch map showing wetland boundaries and the numbering sequence of wetland markers, watercourses and soil types in both wetland and non-wetlands are included with this report.

All wetland boundary lines established by the undersigned Registered Soil Scientist are subject to change until officially adopted by local, state or federal regulatory agencies.

Respectfully Submitted by

SOIL SCIENCE AND ENVIRONMENTAL SERVICES, INC.

Thomas W. Pietras
Registered Professional Soil Scientist
Wetland Scientist

See attached pages

SOIL SCIENCE AND ENVIRONMENTAL SERVICES, INC.

545 Highland Avenue * Route 10 * Cheshire * Connecticut * 06410 * (203) 272-7837
FAX (203) 272-6698

WETLANDS/WATERCOURSES AND SOIL REPORT

PROJECT TITLE AND LOCATION: Proposed Substation located on Jacks Hill Road and Christian Street, Oxford, CT

NUMBERING SEQUENCE OF WETLAND BOUNDARY LINE MARKERS:

1 THRU 9 10 THRU 90 91 THRU 128 129 THRU 180

SOILS SECTION:

Soil Legend: State Soil Number/County Soil Symbol, Soil Series Name, Taxonomic Class & Brief Description.

WETLAND SOILS

3/Rn Ridgebury, Leicester & Whitman soils (Aquepts) – These are poorly drained and very poorly drained, coarse-loamy textured, glacial till soils. The till was derived from schist, gneiss and granite. These soils occur on glaciated plains, hills and ridges. Ridgebury and Whitman soils contain dense basal till (hardpan) in the subsoil within 20 to 30 inches.

NON-WETLAND SOILS

45/Wx Woodbridge fine sandy loam (Aquic Dystrudepts) - This is a deep, moderately well drained, glacial till soil developed in a friable, coarse-loamy textured, solum over dense, basil till (hardpan). The till was derived from schist, gneiss and granite. Woodbridge soils occur on glaciated plains, hills and ridges. The hardpan is within 20 to 40 inches.

84/Pb Paxton and Montauk fine sandy loams (Oxyaquic Dystrudepts) - These are deep, well drained, glacial till soils developed in a friable, coarse-loamy textured solum over dense, coarse-loamy to sandy textured, basal till (hardpan). The till was derived from schist, gneiss and granite. Typical depth to hardpan is 30-40 inches. Paxton and Montauk soils occur on glaciated plains, hills and ridges.

SOIL SCIENCE AND ENVIRONMENTAL SERVICES, INC.
545 Highland Avenue * Route 10 * Cheshire * Connecticut * 06410 * (203) 272-7837
FAX (203) 272-6698

DEFINITIONS AND METHODOLOGY
DEFINITIONS OF STATE REGULATED WETLANDS & WATERCOURSES

INLAND WETLANDS AND WATERCOURSES: According to Section 22a-38 of the State of Connecticut Inland Wetlands and Watercourses Act, Wetlands "means land, including submerged land, not regulated pursuant to sections 22a-28 to 22a-35, which consists of any of the soil types designated as poorly drained, very poorly drained, alluvial, and floodplain by the National Cooperative Soils Survey, as may be amended from time to time, of the Natural Resources Conservation Service (NRCS) of the United States Department of Agriculture." Watercourses "means rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs and all other bodies of water, natural or artificial, vernal or intermittent, public or private. Intermittent watercourses shall be delineated by a defined permanent channel and bank and the occurrence of two or more of the following characteristics: (A) Evidence of scour or deposits of recent alluvium or detritus, (B) the presence of standing or flowing water for a duration longer than a particular storm incident, and (C) the presence of hydrophytic vegetation."

TIDAL WETLANDS: According to Connecticut General Statutes, Sec. 22a-29 (2) of the Tidal Wetlands Act, Tidal Wetlands are defined as "those areas which border on or lie beneath tidal waters, such as, but not limited to banks, bogs, salt marsh, swamps, meadows, flats, or other low lands subject to tidal action, including those areas now or formerly connected to tidal waters, and whose surface is at or below an elevation of one foot above local extreme high water; and upon which may grow or be capable of growing some, but not necessarily all of the following:" (list of those plants common to tidal marshes, brackish wetlands and other wetlands which are subject to tidal influence).

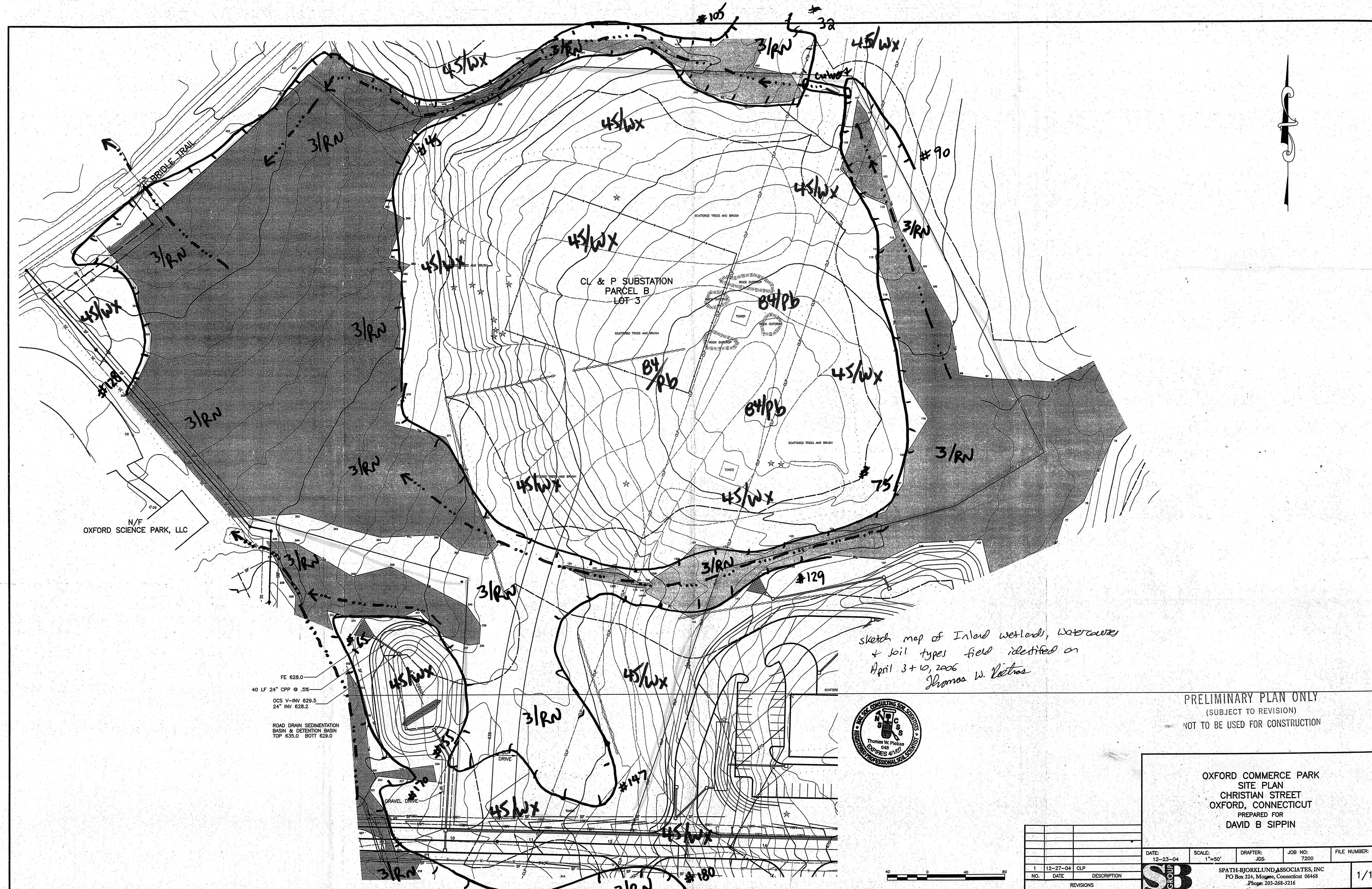
METHODOLOGY FOR IDENTIFICATION OF SOILS, WETLANDS & WATERCOURSES

1) **SOILS IDENTIFICATION**: Soils are investigated by digging test holes with a spade and auger. Test holes are typically dug to depths of between 15 and 40 inches. Based on soil features, including coloration patterns, texture and depths to restrictive layers, the soils are identified by soil series utilizing the classification system of the National Cooperative Soil Survey. The soil map series correspond with the State Soil Map Legend established by USDA, NRCS in the State of Connecticut Soil Survey. For further information about soils refer to the NRCS website for CT: www.ct.nrcs.usda.gov

2) **INLAND WETLAND DELINEATION**: Soil test holes and borings are made in selected areas in order to determine the lateral extent of Inland Wetlands. The boundaries of all Inland Wetlands on each project site are delineated with consecutively numbered survey tapes, unless instructed by the client to only map wetland boundaries for planning purposes.

3) **IDENTIFICATION OF WATERCOURSES**: Watercourse locations are sketched onto maps. Often ponds, streams and rivers are already shown on the survey map. If a watercourse is not shown on a survey map, survey tapes are placed along the channel and labeled "Intermittent or Perennial Watercourse."

4) **TIDAL WETLANDS**: Tidal Wetlands are identified based on a predominance of tidal wetland plants and observation of physical markings or water laid deposits resulting from tidal action. Tidal Wetland boundaries are established by locating the upland limits of the "Listed Plants" from the Tidal Wetlands Act to the extent that these plants reflect inundation by tides.


CL & P SUBSTATION
PARCEL B
LOT 3
N/F
OXFORD SCIENCE PARK, LLC
BRIDLE TRAIL
SCATTERED TREES AND BRUSH
ROCK OUTCROP
TOWER
GRAVEL DRIVE
DRIVE
FE 628.0
40 LF 24" CPP @ .5%
OCS V-INV 629.5
24" INV 628.2
ROAD DRAIN SEDIMENTATION
BASIN & DETENTION BASIN
TOP 635.0 BOTT 629.0
45/WX
3/RN
84/Pb
#105
#32
#90
#75
#129
#128
#147
#180
#170
#151
#65
Sketch map of Inland wetlands, Watercourses
+ soil types field identified on
April 3 + 10, 2006
Thomas W. Pietras
Thomas W. Pietras
048
EXPIRES 4/1/07
PRELIMINARY PLAN ONLY
(SUBJECT TO REVISION)
NOT TO BE USED FOR CONSTRUCTION
OXFORD COMMERCE PARK
SITE PLAN
CHRISTIAN STREET
OXFORD, CONNECTICUT
PREPARED FOR
DAVID B SIPPIN
DATE: 12-23-04
SCALE: 1"=50'
DRAFTER: JDS
JOB NO: 7200
FILE NUMBER:
1 | 12-27-04 | CLP
NO. | DATE | DESCRIPTION
REVISIONS
SPATH-BJORKLUND ASSOCIATES, INC
PO Box 324, Monroe, Connecticut 06468
Phone: 203-268-5216
1/1

ATTACHMENT 4

Project Drawings

NOTES:

1) CONSTRUCTION WITHIN THE 100 FOOT UPLAND REVIEW AREA TO BE MINIMIZED TO THE EXTENT FEASIBLE.
2) LIMITS OF WORK TO BE MARKED BY EROSION CONTROLS IN ACCORDANCE WITH THE 2002 CONNECTICUT GUIDELINE FOR SOIL EROSION AND SEDIMENT CONTROL.
3) PROPERLY SIZED CULVERT TO BE INSTALLED AT INTERMITTENT WATERCOURSE CROSSING TO MAINTAIN THE AMBIENT FLOW OF THE WATERCOURSE.

100 50 0 100
Scale in Feet

PRELIMINARY DRAFT

NO.	DATE	REVISIONS	BY	CHK	APP	APP

REVISIONS DURING CONSTRUCTION	W.O. NO.

NORTHEAST UTILITIES SERVICE CO.
FOR THE CONNECTICUT LIGHT & POWER CO.

TITLE
Oxford 115- to 13.8-kV Substation
LOCATION APPROVAL PLAN
OXFORD, CONNECTICUT

BY JDL	CHKD	APP	APP
DATE 08/03/06	DATE	DATE	DATE
SEE BAR SCALE	MICROFILM DATE	DWG. NO.	
P.A. #		X	