Connecticut
Light & Power

The Northeast Utilities System

CONNECTICUT SITING COUNCIL APPLICATION

Connecticut General Statutes Section 16-50*l*(a)(1)

For a Certificate of Environmental Compatibility and Public Need

OXFORD SUBSTATION

Oxford, New Haven County
Connecticut

Volume II of II
APPENDICES

December 2006

Submitted to:
Connecticut Siting Council

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

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Connecticut Siting Council Application

Oxford Substation

Volume II of II

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OXFORD SUBSTATION
OXFORD, CT

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View of Substation Parcel from the West Looking Northeast

View of Southern Property Line of Substation Parcel Looking West Down Commerce Park Drive (under development)

View of Existing CL&P Transmission Lines Intersecting Substation Parcel Looking North

View of Existing CL&P Transmission Lines Looking Further North

View of Proposed Access Drive Crossing of Inland Wetland & Intermittent Watercourse – Looking North

Appendix B

Project Plans

WATERBURY–OXFORD AIRPORT
APPROACH LIGHT PLAN

BRIDLE TRAIL

"CL&P PROPERTY BOUNDARY"

PROPOSED APPROACH
LIGHT (TYP.)

151.58' (CLP)

WETLAND

TRANSMISSION LINE RIGHT OF WAY

TOWER

TANK

COMMERCE PARK DRIVE

LEGEND

- EXISTING CONTOURS
- CL&P PROPERTY BOUNDARY
- WETLANDS BOUNDARY

60 30 0 60
Scale in Feet

PRELIMINARY

NO.	DATE	REVISIONS	BY	CHK	APP	APP

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NORTHEAST UTILITIES SERVICE CO.

FOR THE CONNECTICUT LIGHT & POWER CO.

TITLE

Oxford 115– to 13.8–kV Substation
EXISTING CONDITIONS PLAN
OXFORD, CONNECTICUT

BY JDL, SWC	CHKD	APP	APP
DATE 09/27/06	DATE	DATE	DATE
SCALE: 1"=60'	MICROFILM DATE	DWG. NO.	
P.A. #		X	

WATERBURY-OXFORD AIRPORT APPROACH LIGHT PLAN

PROPOSED 74' LAMINATED WOOD POLE

PROPOSED 58' WOODEN H-FRAME

TRANSMISSION LINE EASEMENT

N 19°11'11" E

S 19°11'11" W

45°

45°

LIMIT OF WETLAND

151.56'(CLP)

100'

UPLAND REVIEW AREA

BRIDLE TRAIL

"CL&P PROPERTY BOUNDARY"

LIMIT OF WETLAND

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2700± S.F. PERM. IMPACT TO UPLAND REVIEW AREA

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LIMIT OF WORK EROSION CONTROL BARRIER

18" FLARED END INV. 648.0

RIP RAP (TYP.)

CONCRETE HEADWALL INV. 648.8

5575± S.F. PERM. IMPACT TO UPLAND REVIEW AREA

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CONCRETE HEADWALL INV. 640.9

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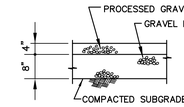
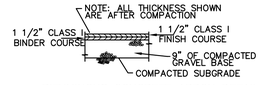
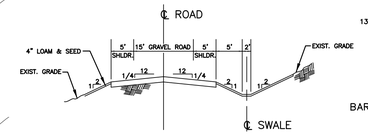


GRAVEL ROAD DETAIL
NTS



BITUMINOUS CONCRETE APRON DETAIL
NTS



TYPICAL ROADWAY SECTION
NTS

GENERAL NOTES:

1.) THE PROJECT SITE INVOLVES CLEARING APPROX. ____ ACRES AND GRADING APPROX. ____ACRES APPROX. ____ ACRES WILL HAVE A TRAPROCK SURFACE. THE PERIMETER OF THE DEVELOPED AREA WILL BE LOAMED AND SEEDED.

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CREEPING RED FESCUE	.5
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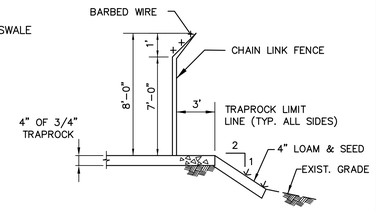
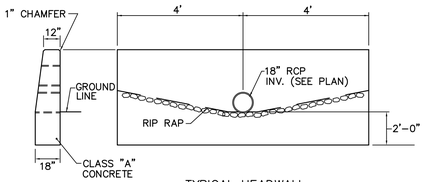
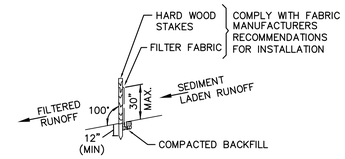


TYPICAL YARD DETAIL



TYPICAL HEADWALL
NTS



GEOTEXTILE SILT FENCE (G.S.F.)
NTS

60 30 0 60
Scale in Feet

PRELIMINARY

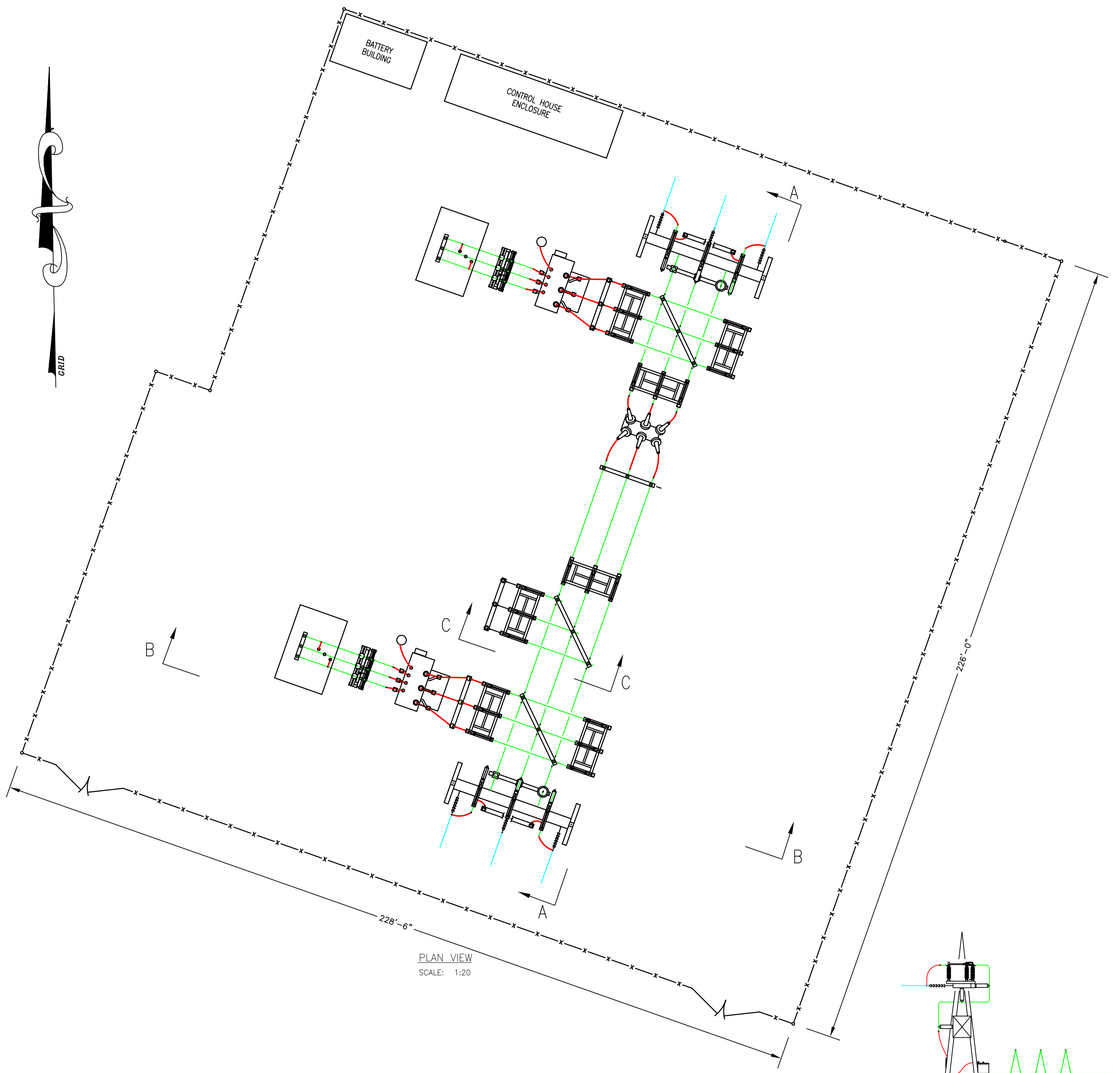
REVISIONS DURING CONSTRUCTION	W.O. NO.

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

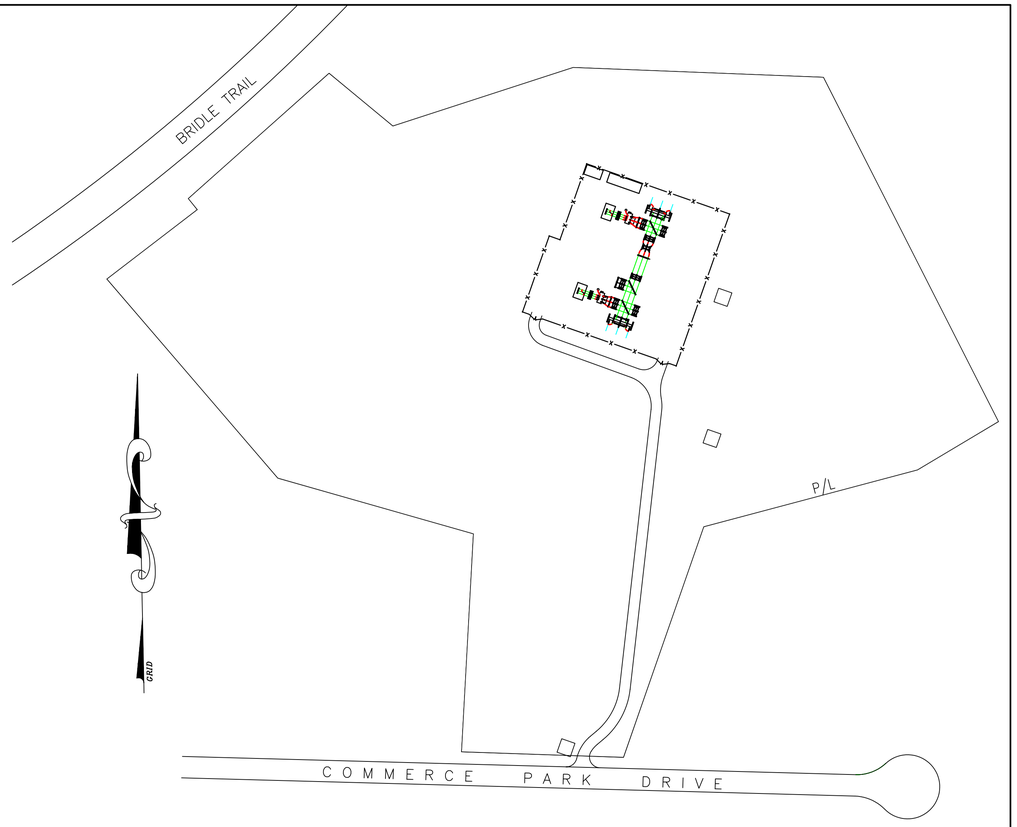
TITLE
Oxford 115– to 13.8–kV Substation
SITE PREPARATION PLAN AND DETAILS
OXFORD, CONNECTICUT

BY JDL, SWC	CHKD	APP	APP
DATE 11/13/06	DATE	DATE	DATE
SCALE: 1"=60'	MICROFILM DATE	DWG. NO.	
P.A. #		X	

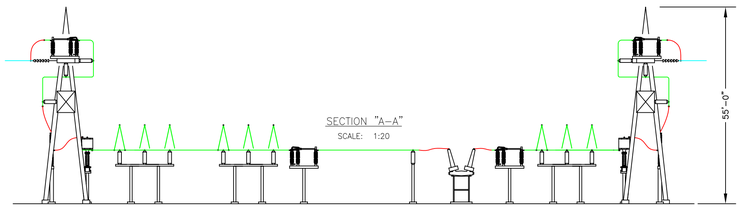
NO.	DATE	REVISIONS	BY	CHK	APP	APP
1	12/06	ADDED TRANSMISSION LINES	KB	JD		



PLAN VIEW
SCALE: 1:20



LOCATION PLAN
SCALE: 1:100



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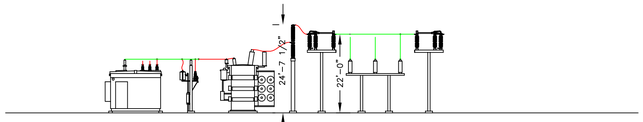
SCALE: 1:20



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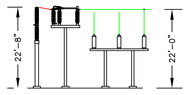


SECTION "C–C"
SCALE: 1:20

PRELIMINARY

NO.	DATE	REVISIONS	BY	CHK	APP	APP

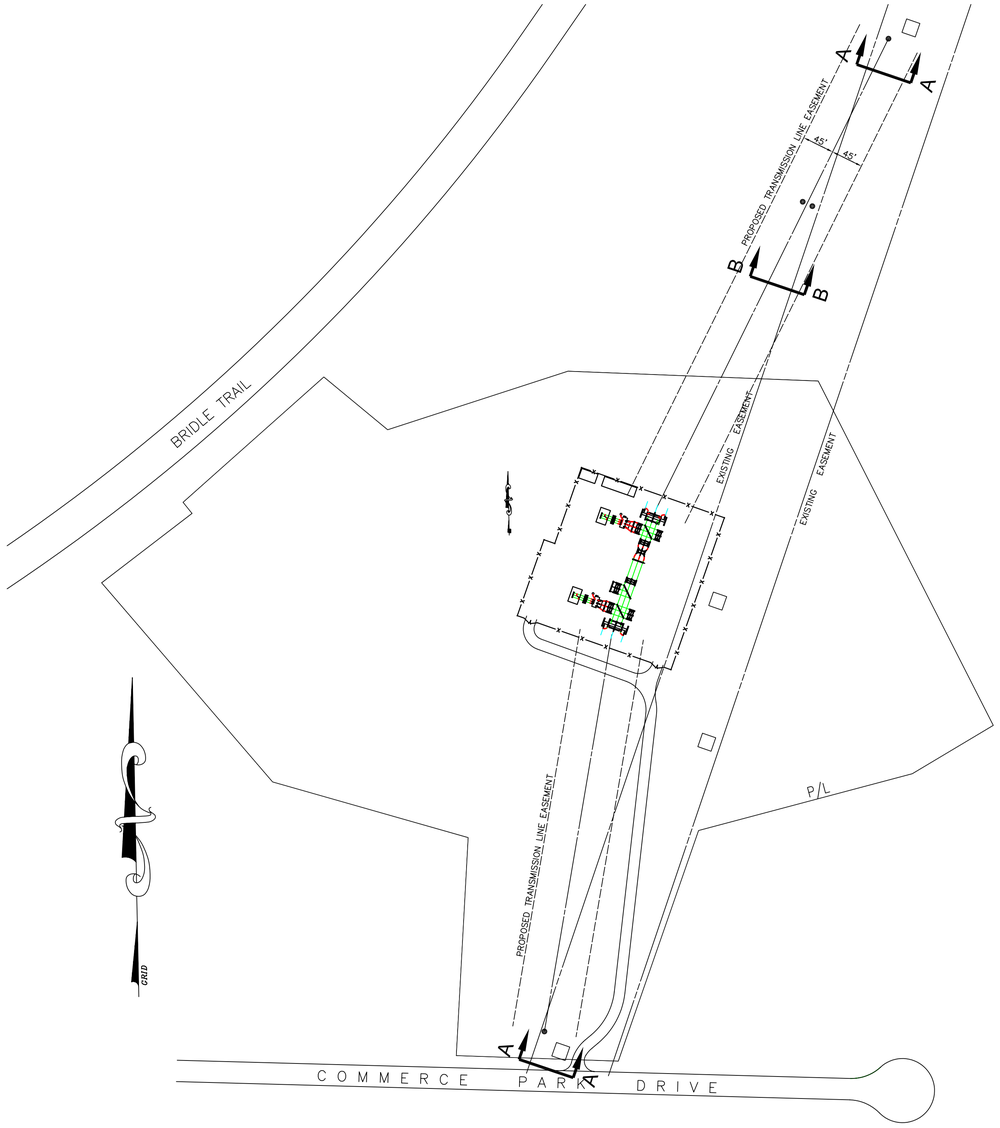
REVISIONS DURING CONSTRUCTION	W.O. NO.

NORTHEAST UTILITIES SERVICE CO.

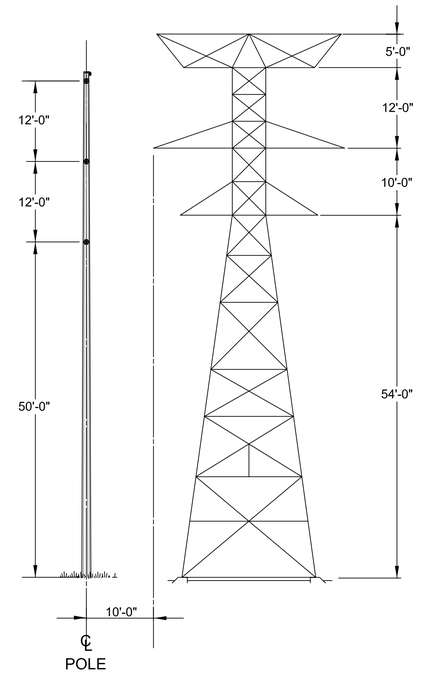
FOR THE CONNECTICUT LIGHT & POWER CO.

TITLE
Oxford 115– to 13.8–kV Substation
GENERAL ARRANGEMENT PLAN & SECTIONS –
CSC – SUBSTATION LAYOUT
OXFORD, CONNECTICUT

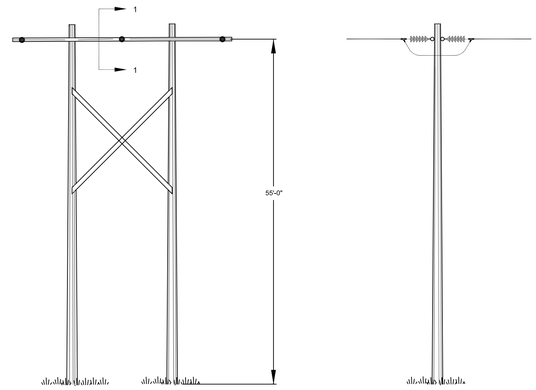
BY	MPM	CHKD	CIR	APP	ACM	APP	KA
DATE	9/06	DATE	9/06	DATE	9/06	DATE	9/06
SCALE: AS SHOWN		MICROFILM DATE		DWG. NO.			
P.A. # 331–OXFORD 26N				20807–92001			



LOCATION PLAN
SCALE: 1:100



SECTION A–A
LAMINATED WOOD POLE/TRANSMISSION TOWER
NOT TO SCALE



SECT 1-1

SECTION B–B
WOODEN H–FRAME
NOT TO SCALE

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
GENERAL ARRANGEMENT PLAN & SECTIONS –
CSC – TRANSMISSION LINE LAYOUT
OXFORD, CONNECTICUT

BY MPM	CHKD CIR	APP ACM	APP KA
DATE 9/06	DATE 9/06	DATE 9/06	DATE 9/06
SCALE: AS SHOWN	MICROFILM DATE	DWG. NO.	
P.A. # 331–OXFORD 26N		20807–92001	

NOTES:

ALL PLANT MATERIAL SHALL BE NURSERY GROWN AND SHALL CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.

ALL PLANTS SHALL BE DELIVERED TO THE SITE SECURELY BALLED IN BURLAP OR IN ORIGINAL CONTAINERS, WITH ALL LABELS INTACT. ALL PLANTS MUST BE FREE OF DISEASE AND INSECTS, AND WILL BE INSPECTED ON THE SITE BY THE OWNER'S REPRESENTATIVE PRIOR TO PLANTING.

THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT ANY PLANTS NOT IN CONFORMANCE WITH THE SPECIFICATIONS OR IN UNACCEPTABLE CONDITION.

CONTRACTOR SHALL STAKE ALL PLANTING LOCATIONS AND RECEIVE APPROVAL OF ALL LOCATIONS FROM THE OWNER'S REPRESENTATIVE PRIOR TO PLANTING.

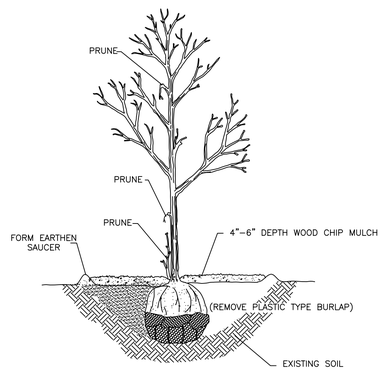
ALL TREES AND SHRUBS SHALL BE MULCHED INDIVIDUALLY WITH 4 TO 6 INCHES DEPTH OF WOOD CHIPS PER NU SPECIFICATIONS FOR LANDSCAPING.

ALL PLANT MATERIAL SHALL BE GUARANTEED FOR ONE YEAR AFTER PLANTING, AND CONTRACTOR SHALL MAINTAIN THE PLANTING INCLUDING ALL WATERING, WEEDING, OR OTHER MAINTENANCE NECESSARY FOR A PERIOD OF ONE YEAR AFTER PLANTING.

ALL AREAS OF DISTURBED SOIL TO BE SEEDED PER NU SPECIFICATION FOR LANDSCAPING AND SEEDING

Proposed Wilton Substation Plant List

Quantity	Common Name	Botanical Name	Size
28	Red Cedar	*Juniperus virginiana*	5–6' ht.
29	Arrowwood Viburnum	*Viburnum dentatum*	18"–24" ht.
26	Gray Dogwood	*Cornus racemosa*	2'–3' ht.



TRANSPLANTING DETAIL
NTS

LEGEND

- 00 — NEW SPOT ELEVATIONS
- 00 — PROPOSED CONTOURS
- 00 — EXISTING CONTOURS
- 95 — LIMIT OF WETLANDS
- CHAIN LINK FENCE
- WETLANDS 100' BUFFER
- LIMIT OF WORK/EROSION CONTROL BARRIER

60 30 0 60
Scale in Feet

REVISIONS DURING CONSTRUCTION	W.O. NO.

NO.	DATE	REVISIONS	BY	CHK	APP	APP
1	12/06	ADDED TRANSMISSION LINES, BATTERY BUILDING AND CONTROL HOUSE ENCLOSURE	KB	JD		

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

TITLE
Oxford 115– to 13.8–kV Substation
LANDSCAPE PLAN
OXFORD, CONNECTICUT

BY RMG	CHKD	APP	APP
DATE 12/1/06	DATE	DATE	DATE
SCALE: 1"=30'	MICROFILM DATE	DWG. NO.	
P.A. # 331–OXFORD 26N		22480	

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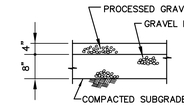

GRAVEL ROAD DETAIL
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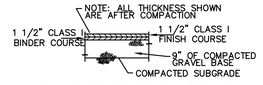

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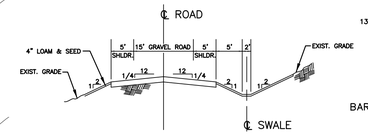

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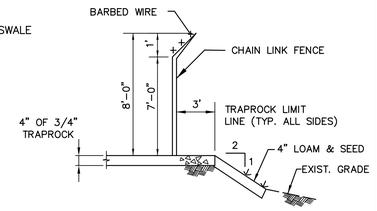
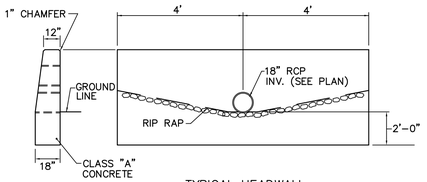


TYPICAL YARD DETAIL



TYPICAL HEADWALL
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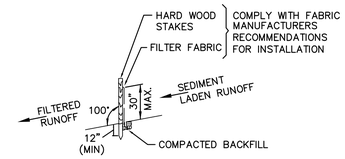

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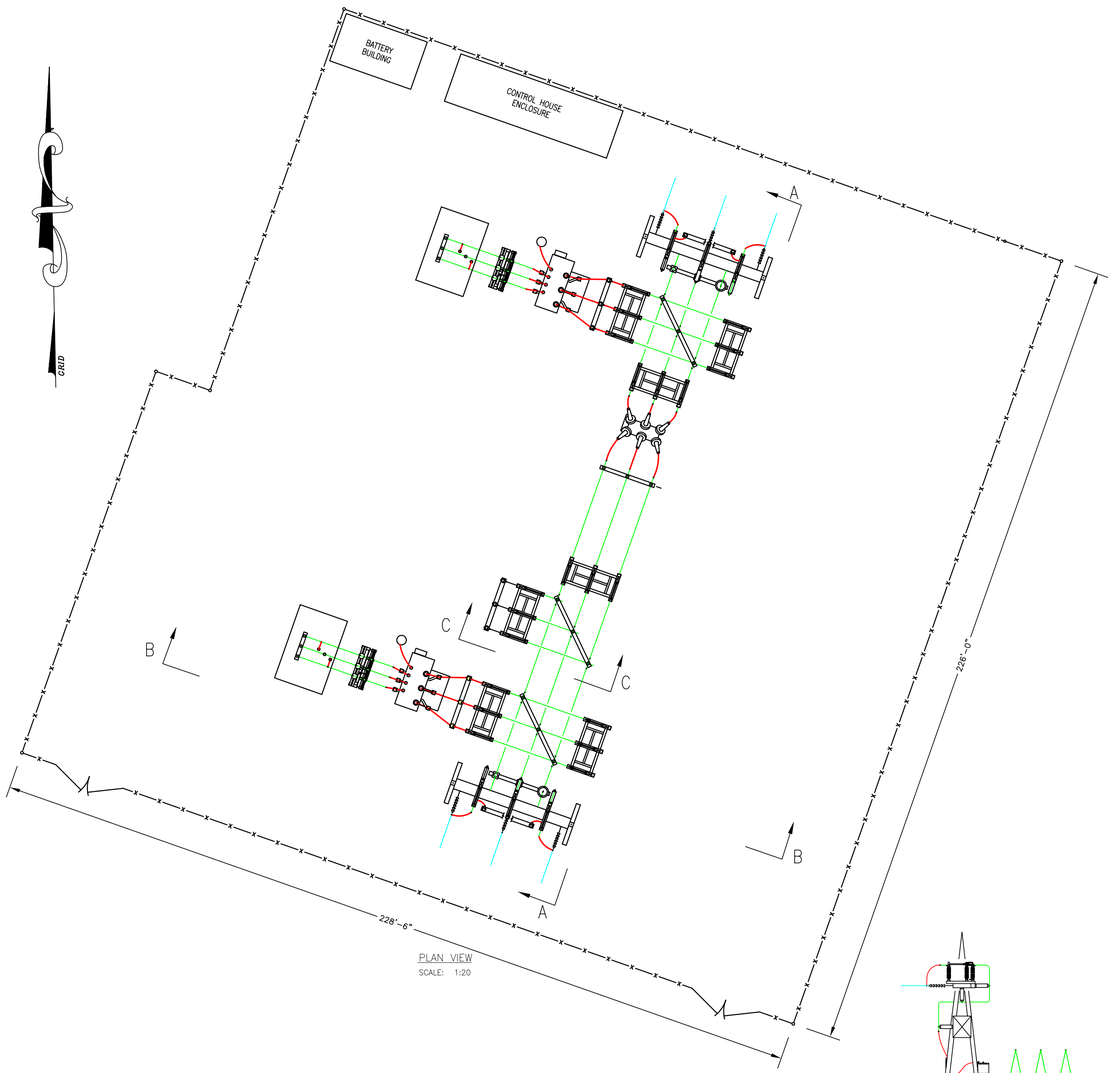
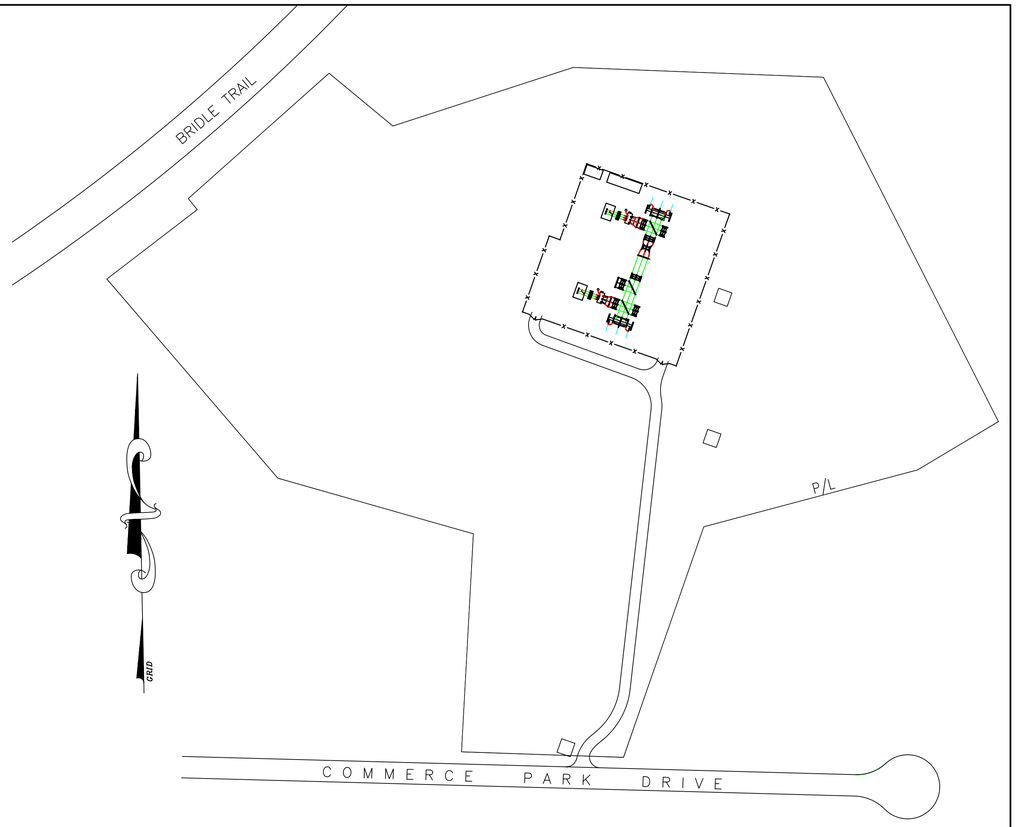


PLAN VIEW
SCALE: 1:20



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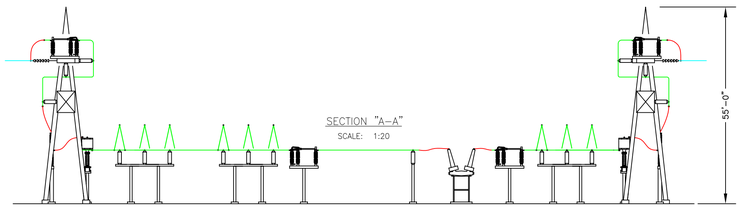

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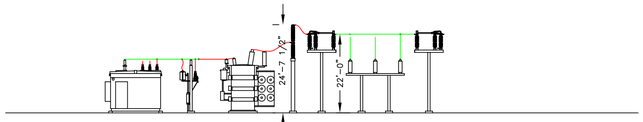

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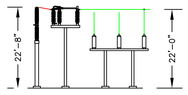

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PRELIMINARY

NO.	DATE	REVISIONS	BY	CHK	APP	APP

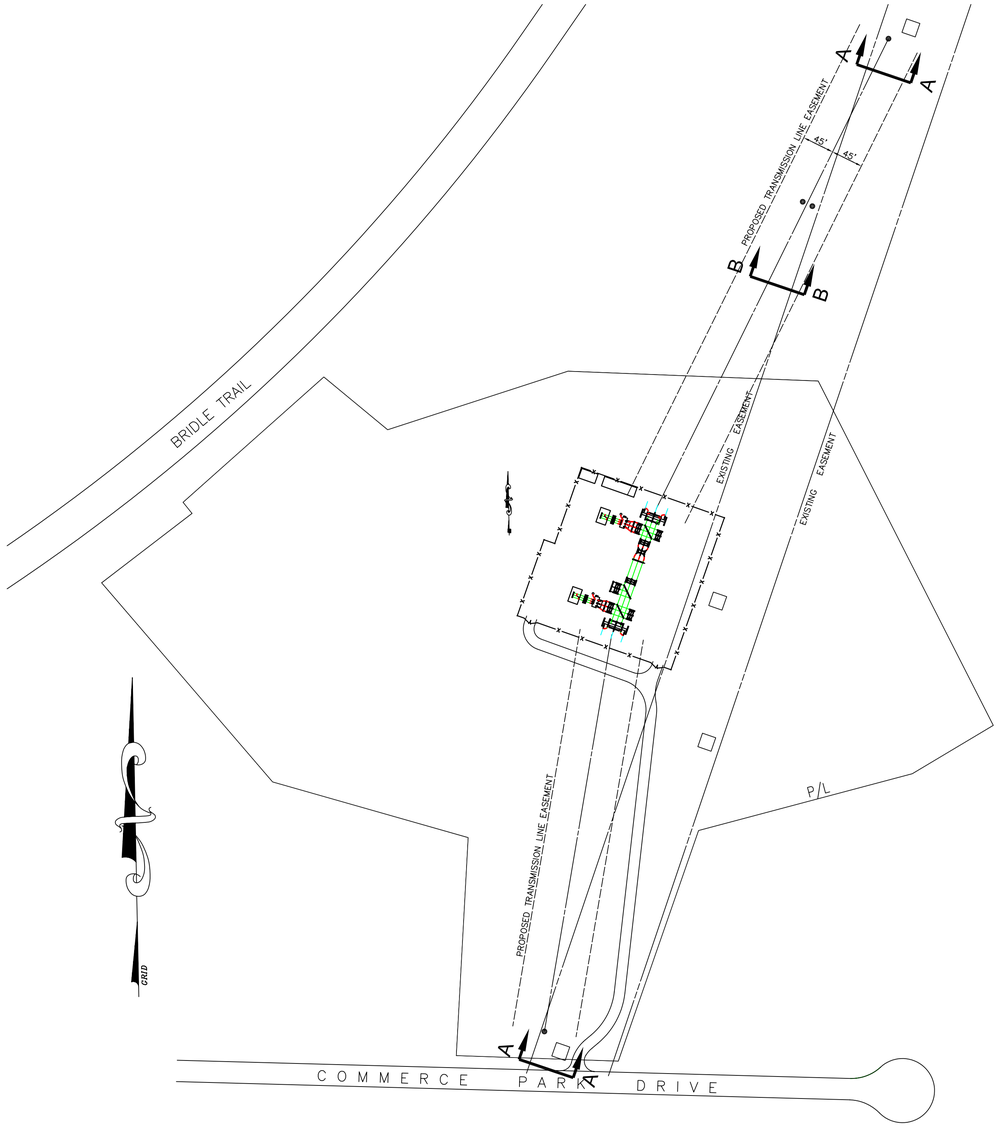
REVISIONS DURING CONSTRUCTION	W.O. NO.

NORTHEAST UTILITIES SERVICE CO.

FOR THE CONNECTICUT LIGHT & POWER CO.

TITLE
Oxford 115– to 13.8–kV Substation
GENERAL ARRANGEMENT PLAN & SECTIONS –
CSC – SUBSTATION LAYOUT
OXFORD, CONNECTICUT

BY	MPM	CHKD	CIR	APP	ACM	APP	KA
DATE	9/06	DATE	9/06	DATE	9/06	DATE	9/06
SCALE: AS SHOWN		MICROFILM DATE		DWG. NO.			
P.A. # 331–OXFORD 26N				20807–92001			



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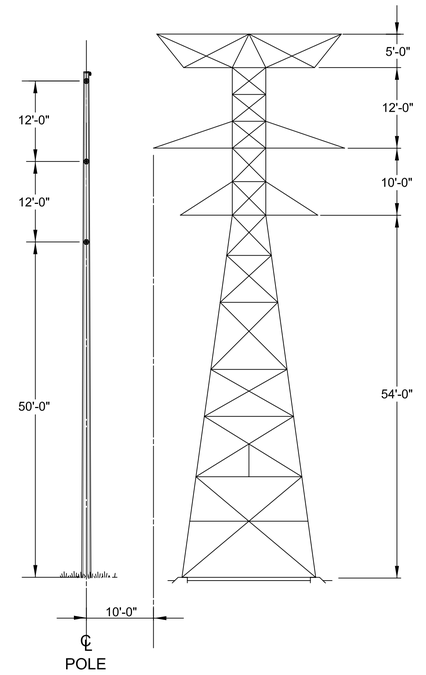
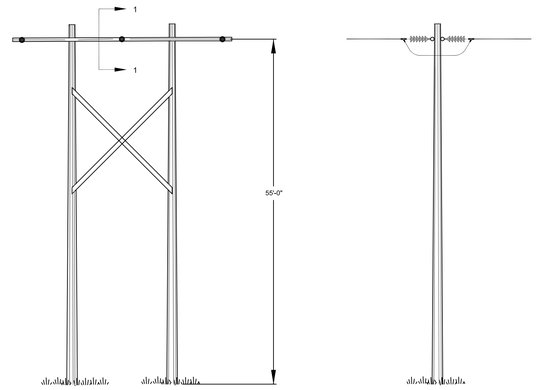


SECTION A–A
LAMINATED WOOD POLE/TRANSMISSION TOWER
NOT TO SCALE



SECT 1-1

SECTION B–B
WOODEN H–FRAME
NOT TO SCALE

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
GENERAL ARRANGEMENT PLAN & SECTIONS –
CSC – TRANSMISSION LINE LAYOUT
OXFORD, CONNECTICUT

BY MPM	CHKD CIR	APP ACM	APP KA
DATE 9/06	DATE 9/06	DATE 9/06	DATE 9/06
SCALE: AS SHOWN	MICROFILM DATE	DWG. NO.	
P.A. # 331–OXFORD 26N		20807–92001	

NOTES:

ALL PLANT MATERIAL SHALL BE NURSERY GROWN AND SHALL CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.

ALL PLANTS SHALL BE DELIVERED TO THE SITE SECURELY BALLED IN BURLAP OR IN ORIGINAL CONTAINERS, WITH ALL LABELS INTACT. ALL PLANTS MUST BE FREE OF DISEASE AND INSECTS, AND WILL BE INSPECTED ON THE SITE BY THE OWNER'S REPRESENTATIVE PRIOR TO PLANTING.

THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT ANY PLANTS NOT IN CONFORMANCE WITH THE SPECIFICATIONS OR IN UNACCEPTABLE CONDITION.

CONTRACTOR SHALL STAKE ALL PLANTING LOCATIONS AND RECEIVE APPROVAL OF ALL LOCATIONS FROM THE OWNER'S REPRESENTATIVE PRIOR TO PLANTING.

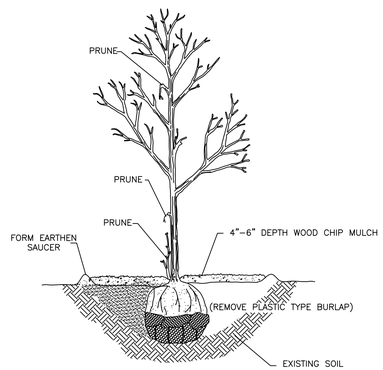
ALL TREES AND SHRUBS SHALL BE MULCHED INDIVIDUALLY WITH 4 TO 6 INCHES DEPTH OF WOOD CHIPS PER NU SPECIFICATIONS FOR LANDSCAPING.

ALL PLANT MATERIAL SHALL BE GUARANTEED FOR ONE YEAR AFTER PLANTING, AND CONTRACTOR SHALL MAINTAIN THE PLANTING INCLUDING ALL WATERING, WEEDING, OR OTHER MAINTENANCE NECESSARY FOR A PERIOD OF ONE YEAR AFTER PLANTING.

ALL AREAS OF DISTURBED SOIL TO BE SEEDED PER NU SPECIFICATION FOR LANDSCAPING AND SEEDING

Proposed Wilton Substation Plant List

Quantity	Common Name	Botanical Name	Size
28	Red Cedar	*Juniperus virginiana*	5–6' ht.
29	Arrowwood Viburnum	*Viburnum dentatum*	18"–24" ht.
26	Gray Dogwood	*Cornus racemosa*	2'–3' ht.



TRANSPLANTING DETAIL
NTS

LEGEND

- 00 — NEW SPOT ELEVATIONS
- 00 — PROPOSED CONTOURS
- 00 — EXISTING CONTOURS
- 95 — LIMIT OF WETLANDS
- CHAIN LINK FENCE
- WETLANDS 100' BUFFER
- LIMIT OF WORK/EROSION CONTROL BARRIER

60 30 0 60
Scale in Feet

REVISIONS DURING CONSTRUCTION	W.O. NO.

NO.	DATE	REVISIONS	BY	CHK	APP	APP
1	12/06	ADDED TRANSMISSION LINES, BATTERY BUILDING AND CONTROL HOUSE ENCLOSURE	KB	JD		

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

TITLE
Oxford 115– to 13.8–kV Substation
LANDSCAPE PLAN
OXFORD, CONNECTICUT

BY RMG	CHKD	APP	APP
DATE 12/1/06	DATE	DATE	DATE
SCALE: 1"=30'	MICROFILM DATE	DWG. NO.	
P.A. # 331–OXFORD 26N		22480	

F:\107–OXFORD_CT\03–SUBSTATION\331–OXFORD 26N\22480.dwg

Appendix C

Connecticut Siting Council Documentation

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)

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

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

CL&P EXHIBIT 2

(CL&P Site Evaluation and Selection Report)

Witnesses: Kris Aberg

1. EXECUTIVE SUMMARY

The maps on Pages 4 and 5 of this Exhibit illustrate that The Connecticut Light and Power Company ("CL&P" or the "Company") evaluated seven different sites before it selected "Location 7" as its preferred location for a potential new 115-kV substation. Location 7 is comprised of a 15.77 acre parcel and a 4.44 acre transmission easement (collectively, the "Property"), which is located near Christian Street and North Larkey Road in Oxford, Connecticut. The maps on Pages 6 and 7 of this Exhibit provide additional information concerning the Property.

Of the seven locations evaluated by the Company, only Locations 2, 3 and 7 are zoned industrial, and therefore, could potentially accommodate a new substation.

Location 3 is near residential dwellings, contains steep grades and some wetlands, and does not contain any suitable substation sites. Although Location 2 contains one suitable substation site, its zoning was recently changed from Industrial to Residential as part of a zoning approval for a senior housing project, and therefore, Location 2 is no longer a viable substation site.

Location 7 contains two suitable substation sites in the northwest quadrant of this Location if the proposed substation is constructed approximately 400 feet to the west of the existing CL&P right of way ("ROW"), or if the substation is constructed approximately 400 feet to the north of a new road associated with the proposed Oxford Commerce Park. After lengthy negotiations with Mr. David B. Sippin, the owner of the proposed Oxford Commerce Park ("Sippin") and the Property, Mr. Sippin has agreed to sell the Property to CL&P. As indicated previously, the Property is comprised of a 15.77 acre parcel, which is the potential future location of a 115-kV substation, and a 4.44 acre transmission easement, which would allow the Company to expand its existing ROW by 145 feet and convert the transmission lines in this area to a lower, horizontal line configuration.

Since Mr. Sippin has agreed to sell the Property to CL&P, the Company's proposed Property acquisition will have no adverse impact on the existing Property owner.

2. DISCUSSION

The Company considered the following criteria in its evaluation of Locations 1 through 7:

- Proximity to an existing 115-kV transmission line
- Proximity to customer load and distribution lines required to serve this load
- Environmental impact
- Zoning and the present land use
- Topography

Initially, an area surrounding the hub of the customer load to be served by the proposed substation was identified as a substation site search area. As access to the site is important and it is expensive to construct new transmission and distribution lines, locations within the search area are identified where existing transmission lines cross public roads. At each of the seven such locations there are potentially four substation sites, one in each quadrant made up by the transmission line/road crossing. If the general area where the transmission line crosses the road is not considered well-suited as a substation site, no individual site evaluation is given to each of the four quadrants. However, if a road crossing yields more than one alternate site, each site is evaluated. If a review of these initial locations does not identify any suitable sites, the search may be expanded to include sites located some distance from existing transmission lines and/or public roads.

The hub of the load to 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 Road to the west and Riggs Road to the east. (See Sketch # SKKA0501 on Page 5 of this Exhibit). Using the above-mentioned criteria, there are five locations where existing transmission lines cross public roads and all of these five locations have good access to the transmission lines. Since CL&P already owns a property (Location 6), which is located to the south of the initial search area, it was decided to include this site in the evaluation although the site does not have access from public roads.

After considering the above-mentioned criteria and information, CL&P made the following recommendations concerning Locations 1 through 7:

(i) Location 1, Riggs Road (Zoned Residential - Community Golf District)

This location is at the easterly edge of the search area. Distribution feeders will exit to the north and south on Riggs Road. It contains wetlands, which stretch a significant distance away from Riggs Road. In addition, the site is zoned residential and is in close proximity to residential neighbors. The location does not contain a viable substation site.

(ii) Location 2, Jacks Hill Road (Zoned Residential)

One suitable substation site was identified at this location to the east of the existing transmission line and to the south of Jacks Hill Road. The site has suitable interconnecting routes for the distribution feeders which will exit to the east and west on Jacks Hill Road and then north and south on Christian Street. A building, which is part of the proposed Oxford Commerce Park, was recently constructed in the northeast quadrant and the area to the west of the transmission lines contains steep grades and likely wetlands.

The land to the east of the existing ROW and to the south of Jacks Hill Road would be a very good substation site. However, the zoning for this land was recently changed from Industrial to Residential as part of an approval by the Oxford Planning and Zoning Commission for development of senior housing, and therefore, this land is not considered available for purchase. Thus, Location 2 does not contain a viable substation site.

(iii) Location 3, Prokop Road (Zoned Industrial)

This location is at the northerly edge of the search area. The area north of Prokop Road contains wetlands, and, although zoned industrial, has close residential neighbors. The area to the south of Prokop Road contains steep grades and also has close residential neighbors. Location 3 does not contain a viable substation site.

(iv) Location 4, Christian Road (Zoned Residential - District A)

This location is zoned residential, has substantial slopes and is partially occupied by residential dwellings. Location 4 does not contain a viable substation site.

(v) Location 5, Oxford Road (Zoned 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 in a swamp-like area. The location is zoned residential and does not contain a viable substation site.

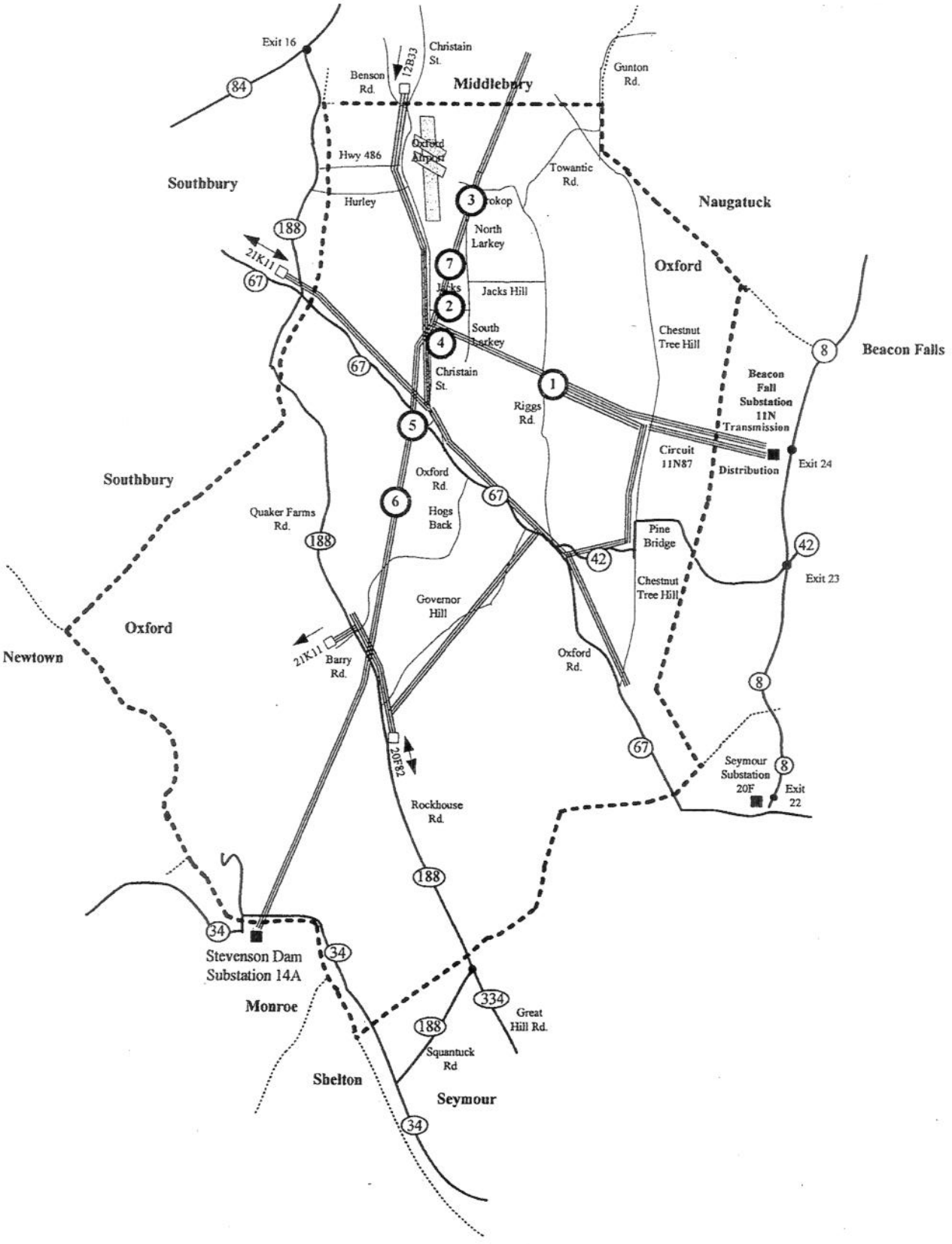
(vi) Location 6, High Hill (Zoned Residential - District A)

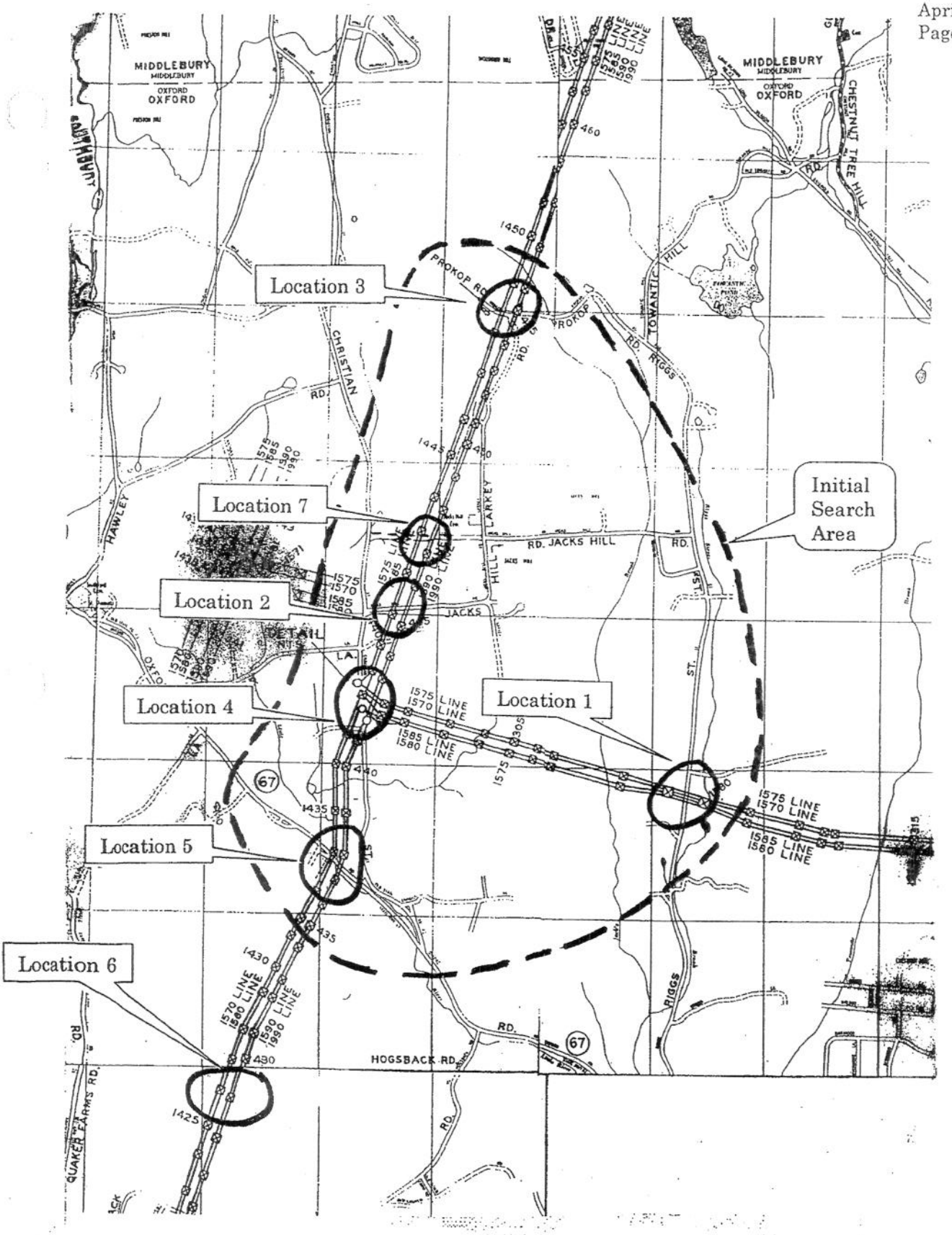
This location, which is currently owned by CL&P, does not have access from public roads and interconnection with the existing distribution system will be difficult and costly. The location is outside of, and to the south of, the initial search area (i.e., all distribution feeders from this location will be exiting the substation in one direction, north to Route 67, thereby further complicating the distribution interconnections). There are wetland areas between this location and Route 67, and it is not considered feasible to use the existing transmission ROW as a route for a significant number of distribution feeders. Due to the lack of access, lack of routes for distribution feeders, and the distance to the hub of the load to be served by the substation, Location 6 does not contain a viable substation site.

(vii) Location 7, Oxford Commerce Park (Zoned Industrial)

At this location the transmission lines cross a future road which is expected to connect Christian Street at approximately the intersection of Jacks Hill Road and North Larkey Road. The proposed new road will cut across the proposed Oxford Commerce Park and will provide suitable exit routes for distribution feeders supplied by the substation. Of the four quadrants at this location, the northwest quadrant is considered an excellent substation site due to the lack of wetlands in this quadrant. Although there are limited wetlands on the southwest, southeast and northeast quadrants of Location 7, it would be possible to locate a substation away from the wetlands in the northwest quadrant if the transmission line interconnections are extended about 400 feet to the west of the existing CL&P ROW or if the distribution line interconnections are extended about 400 feet to the north of the proposed new road. The Property is located in the northwest quadrant of Location 7; and as reflected in the Company's response to Q-CSC-003 in this proceeding, the footprint of the proposed substation has no impact on existing wetlands and there is a substantial buffer zone between the outermost edge of the proposed substation and the edge of the wetland area.

Review of Potential Locations




Location 3
Location 7
Location 2
Location 4
Location 1
Location 5
Location 6
Initial Search Area
MIDDLEBURY
OXFORD
PROKOP RD.
CHRISTIAN RD.
HAWLEY RD.
LARKEY HILL RD.
RD. JACKS HILL
TOWANTIC HILL RD.
RIGGS RD.
CHESTNUT TREE HILL RD.
HOGSBACK RD.
QUAKER FARMS RD.
1575 LINE
1570 LINE
1585 LINE
1580 LINE
1590 LINE
67

SKKA0501

Appendix E

Agency Correspondence

Connecticut Department of Environmental Protection

Northeast Utilities System

107 Selden Street, Berlin, CT 06037

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

Amanda Carroll
Transmission Siting and Permitting
Tel: (860) 665-6953 - Fax: (860) 665-6933
carroam@nu.com

August 9, 2006

Natural Diversity Data Base/Data Request
Environmental & Geographic Information Center
Ms. Dawn McKay
Connecticut Department of Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

Re: Proposed New CL&P Substation in Windsor, Connecticut

Dear Ms. McKay

The Connecticut Light and Power Company (CL&P) is proposing to construct a new substation on company owned land located east of Christian Street and north and west of Jacks Hill Road in Oxford, Connecticut. The new substation, to be called the Oxford 115-kV Substation, is necessary to meet an increasing demand for electricity in the Oxford area. The proposed development of a new substation requires CL&P to submit an application to the Connecticut Siting Council for a Certificate of Environmental Compatibility and Public Need. Consultation with your office is part of the application process.

The CL&P property contains approximately 16 acres of undeveloped woodlands and fields. Overhead transmission lines cross the property in a northeast/southwest direction. The proposed substation facility would occupy approximately 1.5 acres just west of the existing transmission lines. Attachments 1 and 2 show property location, boundaries and land use.

CL&P has reviewed the Natural Diversity Data Base's (NDDB) June 2006 GIS layer of "State and Federal Listed Species and Natural Communities" and found no mapped areas within CL&P's property boundary. The attached map shows the CL&P property boundary and the NDDB layer on 7.5 minute series USGS quadrangles (Southbury and Naugatuck). Additionally, I have attached a completed a NDDB Review Request Form.

On behalf of CL&P, I am requesting a CT Department of Environmental Protection review of the above referenced CL&P property for the presence of any state or federally listed Endangered, Threatened, or Special Concern species. Should you have any questions, I may be reached at (860) 665-6953 or via e-mail at carroam@nu.com. Thank you for your attention to this matter.

Very Truly Yours,

Amanda Carroll

Attachments

cc: J. Borne/NU
J. Durand/ENSR

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Bureau of Natural Resources
Division of Wildlife
79 Elm Street, 6th Floor
Hartford, CT 06106
Natural Diversity Data Base

August 28, 2006

Ms. Amanda Carroll
Northeast Utilities Service Company
P.O. Box 270
Hartford, CT 06141-0270

re: New CL&P Substation Located East of Christian Street and North and West of Jacks Hill Road in Oxford, Connecticut

Dear Ms. Carroll:

I have reviewed Natural Diversity Data Base maps and files regarding the area delineated on the map you provided for the proposed new CL&P substation located east of Christian Street and north and west of Jacks Hill Road in Oxford, Connecticut. According to our information, there may be state-listed species that occur in the vicinity of this project site. I have sent your letter to Julie Victoria (DEP-Wildlife; 860-642-7239) for further review. She will write to you directly with her comments.

Natural Diversity Data Base information 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 Natural Resources Center's Geological and Natural History Survey and cooperating units of DEP, 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 substitutes 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.

Please contact me if you have further questions at 424-3592. Thank you for consulting the Natural Diversity Data Base. Also be advised that this is a preliminary review and not a final determination. A more detailed review may be conducted as part of any subsequent environmental permit applications submitted to DEP for the proposed site.

Sincerely,

Dawn M. McKay
Biologist/Environmental Analyst

Cc: Julie Victoria, NDDB # 14784

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

FRANKLIN WILDLIFE MANAGEMENT AREA
391 ROUTE 32
NORTH FRANKLIN, CT 06254
TELEPHONE: (860) 642-7239

August 31, 2006

Ms. Amanda Carroll
Northeast Utilities Service Company
P.O. Box 270
Hartford, CT 06141-0270

Re: new CL&P substation located east of Christian Street and north and west of Jacks Hill Road, Oxford

Dear Ms. Carroll:

Your request was forwarded to me on 8/30/06 by Dawn McKay of the Department of Environmental Protection's (DEP) Natural Diversity Data Base. Their records indicate that a state species of special concern, American kestrel occurred historically in the vicinity of this project site.

American kestrel (*Falco sparverius*) nest in late March - April in open areas like woodland edges, parks, and open field habitat. They are cavity nesters and seek out abandoned woodpecker or flicker holes to nest. They catch and eat mice, voles, shrews and insects. They winter over much of the nesting range. Kestrels are cavity nesters and will nest in artificial nesting boxes that are placed in the area. Artificial nesting box plans will be provided at your request. Nesting boxes and silvicultural practices that maintain high densities of nesting and roosting cavities in trees with a minimum diameter of 30.5 cm will benefit this species.

If this work will be conducted in any American kestrel habitat, the Wildlife Division recommends that a ornithologist familiar with the habitat requirements of these species conduct surveys. A report summarizing the results of such surveys should include habitat descriptions, avian species list and a statement/resume giving the ornithologist' qualifications. The DEP doesn't maintain a list of qualified ornithologists. The results of this investigation can be forwarded to the Wildlife Division and, after evaluation, recommendations for additional surveys, if any, will be made.

The Wildlife Division has not been provided with details or a timetable of the work to be done. Consultation with the Wildlife Division should not be substituted for site-specific surveys that may be required for environmental assessments. Please be advised that should state permits be required or should state involvement occur in some other fashion, specific restrictions or conditions relating to the species discussed above may apply. In this situation, additional evaluation of the proposal by the DEP Wildlife Division should be requested. If you have any additional questions, please feel free to contact me (860-642-7239). Thank you for the opportunity to comment.

Sincerely,

Julie Victoria, Wildlife Biologist
Franklin Swamp Wildlife Management Area
391 Route 32
N. Franklin, CT 06254

cc: NDDB – 14784

Northeast
Utilities System

107 Selden Street, Berlin, CT 06037

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

Amanda Carroll
Transmission Siting and Permitting
Tel: (860) 665-6953 - Fax: (860) 665-6933
carroam@nu.com

October 12, 2006

Ms. Julie Victoria, Wildlife Biologist
Connecticut Department of Environmental Protection
Franklin Swamp Wildlife Management Area
391 Route 32
North Franklin, CT 06254

Re: Proposed New CL&P Oxford Substation
Commerce Park Drive
Oxford, Connecticut
NDDB - 14784

Dear Ms. Victoria:

As you know, the Connecticut Light and Power Company (CL&P) is proposing to construct a new substation on Company owned land located off of Commerce Park Drive in Oxford, Connecticut. The new substation, to be called the Oxford Substation, is necessary to meet an increasing demand for electricity in the Oxford area. The proposed development of a new substation requires CL&P to submit an application to the Connecticut Siting Council for a Certificate of Environmental Compatibility and Public Need. Consultation with your office is part of the application process.

At this point in the process, CL&P has reviewed the Natural Diversity Data Base's (NDDB) June 2006 GIS layer of "State and Federal Listed Species and Natural Communities" and found no mapped areas within CL&P's property boundary. Subsequent to that database query in a letter dated August 9, 2006 CL&P made an official request to the Environmental and Geographic Information Center for an official NDDB query. In response to that request, in a letter dated August 31, 2006 your office responded with a letter indicating the American Kestrel (*Falco sparverius*), a state Species of Special Concern, has historically occurred in the vicinity of the site.

In response to the August 31, 2006 letter, CL&P has authorized ENSR to perform a habitat assessment on the site as it relates to potential American Kestrel habitat. Accordingly, please find the attached American Kestrel Habitat Assessment survey report for your review and comment. Should you have any questions, I may be reached at (860) 665-6953 or via e-mail at carroam@nu.com. Thank you for your attention to this matter.

Very Truly Yours,

Amanda Carroll

Attachments

cc: J. Borne/NU
J. Durand/ENSR

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION
FRANKLIN WILDLIFE MANAGEMENT AREA
391 ROUTE 32
NORTH FRANKLIN, CT 06254
TELEPHONE: (860) 642-7239

October 18, 2006

Ms. Amanda Carroll
Northeast Utilities Service Company
P.O. Box 270
Hartford, CT 06141-0270

Re: new CL&P substation located east of Christian Street and north and west of Jacks Hill Road, Oxford

Dear Ms. Carroll:

I received your cover letter and report on 10/13/06 regarding the historic record of American kestrel in the vicinity of this project site. I did make an error in my letter by referring to the American kestrel as a state species of special concern as it a state threatened species.

Since there is potential American kestrel hunting habitat that will be lost, the Wildlife Division agrees with ENSR's recommendation that artificial nest boxes be installed. I am enclosing nest box plans and a sheet on placement. Nest boxes should not be placed near over hanging tree limbs that may encourage starlings to use the box. The DEP Wildlife Division recommends that CL&P prepare and execute a vegetation management plan to maintain the foraging habitat as an open area preferably as grassland. The nest boxes should be field checked monthly from March through July and any nesting starlings should be promptly removed from the boxes during monthly checks. A yearly report should be sent to DEP Wildlife Division on the success of the boxes and all box locations should have GPS readings reported.

If you have any additional questions, please feel free to contact me (860-642-7239). Thank you for the opportunity to comment.

Sincerely,

Julie Victoria, Wildlife Biologist
Franklin Swamp Wildlife Management Area
391 Route 32
N. Franklin, CT 06254

cc: NDDB – 14784

WILDLIFE IN CONNECTICUT

ENDANGERED AND THREATENED SPECIES SERIES

AMERICAN KESTREL

Falco sparverius

Habitat: Found in a variety of habitats, including open fields, forest edges, parks and suburbs. American kestrels require open space for hunting and need perches to hunt from. They also need cavities for nesting.

Weight: Males, 3.5 to 4 ounces; females, 4.25 ounces.

Length: 9 to 12 inches; wingspan: 20 to 24.5 inches.

Food: Voles, insects (including grasshoppers), worms, mice, birds, small snakes and frogs.

Life Expectancy: Reported to live up to 11 years; average life expectancy in the wild is 15 months.

Status: Connecticut threatened species.

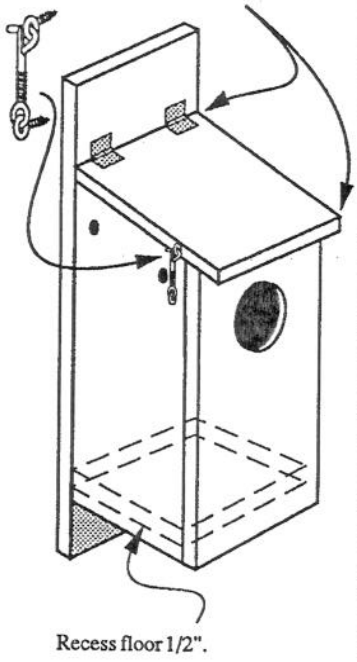
Identification: The American kestrel is the smallest falcon found in North America. Like most falcons, kestrels have pointed wings, long tails and are known for their rapid flight. The American kestrel is easily recognized by the two vertical black lines on its cheeks and by the rufous-colored back and tail. The female has rufous-colored wings while the male has black-banded, bluish-gray wings. Females are also larger than males. Both birds have a habit of pumping their tail feathers up and down when perched, especially after landing.

Range: American kestrels are found throughout most of North and South America. Most of the birds breeding in the northern United States and Canada migrate south in winter.

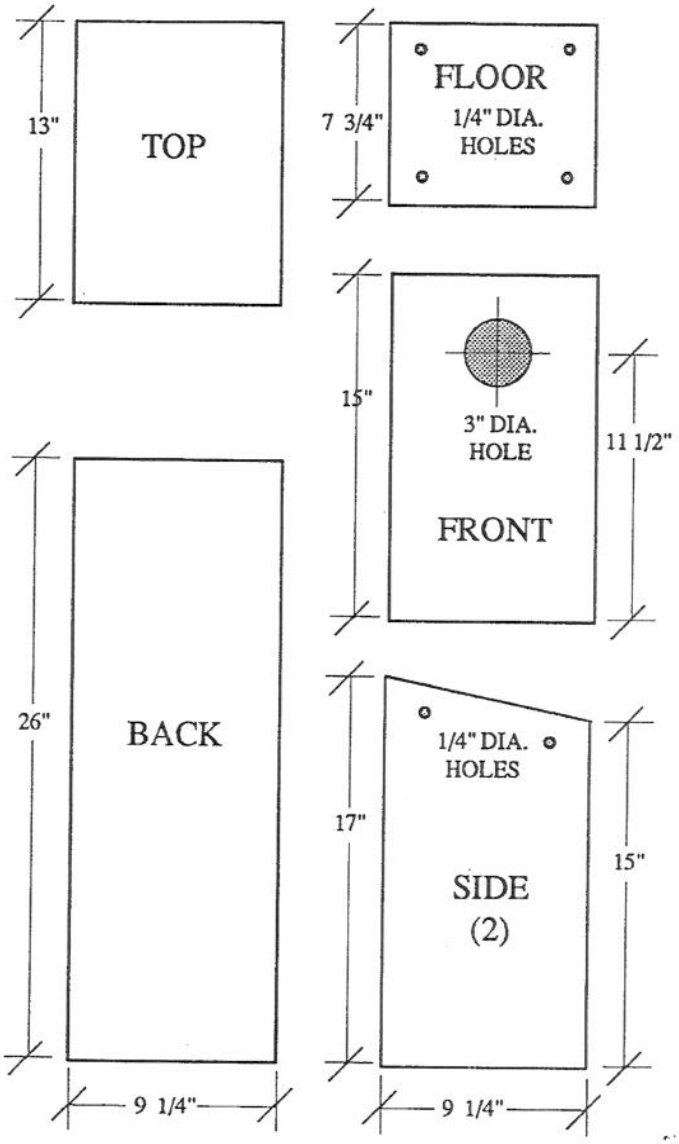
Reproduction: Connecticut's nesting kestrels begin courtship in late March to early April and egg-laying at the end of April. An average of four to five brown-spotted eggs are laid in a tree cavity or man-made nest box on little or no nesting material. They are incubated, primarily by the female, for 29 to 31 days. Males catch most of the food for the brooding female and, later, for the developing young. Usually three to five chicks are hatched and will grow very quickly, assuming adult weight in about two-and-a-half weeks. After fledging, the young stay with the adult

American Kestrel Nest Box

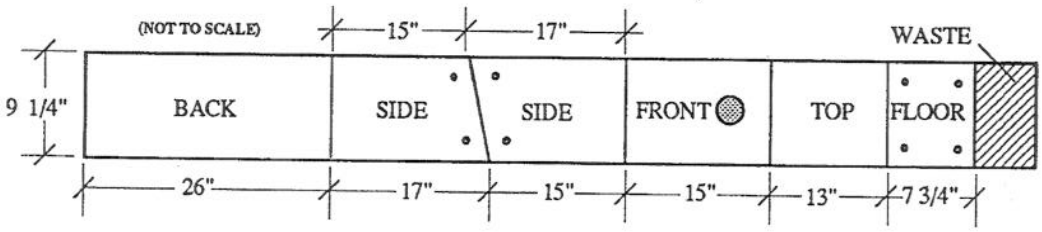
This plan modified from kestrel nest box plan featured in *Woodworking for Wildlife: Homes for Birds and Mammals* (Published by Minnesota DNR; Carrol Henderson, author)



To hold the roof secure and allow for easy cleaning access, hinge the roof and use a spring-loaded safety hook .
Place 3" of wood chips, wood shavings, or straw in bottom of box.



LUMBER: One 1" x 10" x 8' 0", (#2 white pine recommend). Painting the box will increase its useful life.
HARDWARE: Twenty-two 1 1/2" wood screws (#6), two 2" hinges and one 2" spring-loaded safety hook.



PM 488A 9-5-91

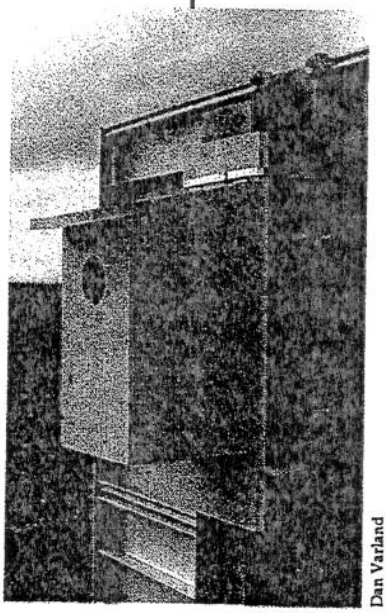
ESTABLISHING YOUR INTERSTATE HIGHWAY NEST BOX PROGRAM FOR AMERICAN KESTRELS

The ideas presented here focus on providing kestrel nesting sites along interstate highways; they are applicable to any highways with grassy rights-of-way and road signs supported by steel posts.

The first step: Obtain permission from your local transportation authority to establish and monitor a nest box route.

Erecting Nest Boxes and Working Along the Interstate:

Building Nest Boxes
These may be built from any of the designs available. The design shown on pages four and seven provides enough board above and below the box for wrapping the banding material to secure the box to the sign-post. The kestrel nest box featured here is suitable for use in other locations, such as the outer wall of a barn or a windmill. We recommend white pine (#2) for box construction. Painting the boxes will increase their useful life. Using earth-tone paint (avocado, tan, or gray) allows boxes to blend in with the environment.



Dan Varland

American Kestrel nest box.

Safety Equipment
Abide by the guidelines set forth by your transportation authority. **Use extreme caution** while working along the interstate. It is advisable to have a yellow caution light on top of your vehicle and to wear a blaze orange vest and a hard hat.

Placement of Nest Boxes
Attach the box to the sign-post 10 to 30 feet above ground. Space the boxes, on average, one mile from each other and no closer together than one-half mile.

Box use by kestrels will most likely be highest in open areas where natural cavities are lacking. If a box has been in place for three or four years and has not been used, it is advisable to choose a new site.

If a wetland is adjacent to the highway, using somewhat larger Wood Duck nest boxes will provide nesting opportunities for these birds as well as kestrels. Kestrels will use the larger Wood Duck nest box, but kestrel nest boxes are too small for Wood Ducks. Nest box plans for Wood Ducks are widely available.

Attachment of Nest Boxes
Metal banding material is used to secure the nest box to the steel sign-post. Use "C"-clamps to hold the box in place while working. Bands are applied with a tool that is normally used for strapping steel bands around freight. This steel binder is expensive, but is available for rent at many of the outlets that rent tools. One strap is wrapped around the sign-post and board extending above the box, and a second strap is wrapped below in the same manner (see photo). A third strap may be wrapped around the entire box and post and will help hold the box in place in high winds. Stainless steel banding is more expensive than galvanized steel but will not require replacement. In Iowa, galvanized steel banding rusts and breaks in about six years.

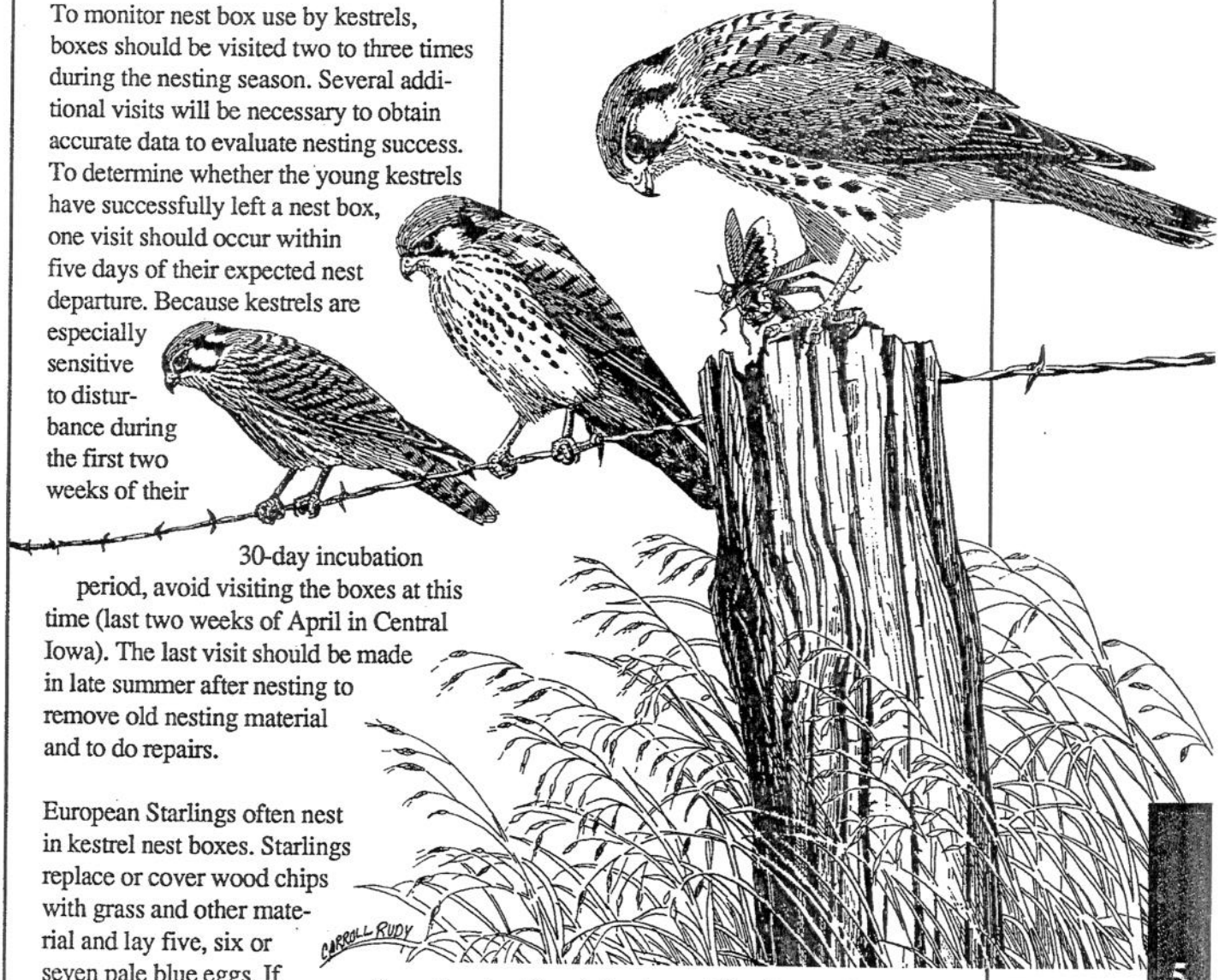
Checking and Maintaining Nest Boxes:

Nest boxes should be visited at least three or four times each year. The first visit should occur before the kestrels begin territory establishment. The date of the first visit will, of course, vary from one region to another. Because kestrels establish their territories in mid-March in Central Iowa, in this area the first box check is made in late February or early March. At this time, nest boxes are cleaned and repaired, and three to four inches of wood chips, wood shavings, or straw are added to the bottom of each box.

To monitor nest box use by kestrels, boxes should be visited two to three times during the nesting season. Several additional visits will be necessary to obtain accurate data to evaluate nesting success. To determine whether the young kestrels have successfully left a nest box, one visit should occur within five days of their expected nest departure. Because kestrels are especially sensitive to disturbance during the first two weeks of their 30-day incubation period, avoid visiting the boxes at this time (last two weeks of April in Central Iowa). The last visit should be made in late summer after nesting to remove old nesting material and to do repairs.

European Starlings often nest in kestrel nest boxes. Starlings replace or cover wood chips with grass and other material and lay five, six or seven pale blue eggs. If starlings are found nesting, remove the nest and replace it with a new layer of wood chips. Sometimes kestrels will evict starlings from nest boxes. If this happens, the kestrels will use the starling's nesting material (see photo of kestrel incubating, page three).

Records kept for each box on each visit will help to evaluate the sucess of individual nest boxes, the nesting sucess of your kestrel population, and ultimately, the sucess of your nest box program.



Young American Kestrels hunting socially after nest departure.

Connecticut State Historic Preservation Office

Northeast Utilities System

107 Selden Street, Berlin, CT 06037

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

Amanda Carroll
Transmission Siting and Permitting
Tel: (860) 665-6953 - Fax: (860) 665-6933
carroam@nu.com

August 10, 2006

J. Paul Loether, Division Director and State Historic Preservation Officer
Connecticut Commission on the Arts, Tourism, Culture, History and Film
Historic Preservation and Museum Division
Amos Bull House, 59 South Prospect Street
Hartford, CT 06106-1901

Re: Proposed New CL&P Electric Substation in Oxford, Connecticut

Dear Mr. Loether,

The Connecticut Light and Power Company (CL&P) is proposing to construct a new electric substation on company owned land located east of Christian Street and north and west of Jacks Hill Road in Oxford, Connecticut. The new substation, to be called the Oxford 115-kV Substation, is necessary to meet an increasing demand for electricity in the Oxford area. The proposed development of a new substation requires CL&P to submit an application to the Connecticut Siting Council for a Certificate of Environmental Compatibility and Public Need. Consultation with your office is part of the application process.

The CL&P property contains approximately 16 acres of undeveloped woodlands and fields. Overhead transmission lines cross the property in a northeast/southwest direction. The proposed substation facility would occupy approximately 1.5 acres just west of the existing transmission lines. Attachments 1, 2, and, 3 show proposed location, alternative locations, boundaries, and land uses (using aerial photos and USGS Quadrangles Southbury and Naugatuck).

In addition, CL&P evaluated three alternative sites that are shown on the attached map. The alternative sites are along the existing transmission line and are within approximately one mile of the proposed site.

We respectfully request an opinion from your office regarding the potential effect of the project on cultural resources at the proposed and alternative substation locations. Should you have any questions, I may be reached at (860) 665-6953 or via e-mail at carroam@nu.com. Thanks you for your attention to this matter.

Very Truly Yours,

Amanda Carroll

Attachments

cc: J. Borne/NU
J. Durand/ENSR

Connecticut Commission on Culture & Tourism

Historic Preservation & Museum Division

59 South Prospect Street
Hartford, Connecticut
06106

(v) 860.566.3005
(f) 860.566.5078

August 16, 2006

Ms. Amanda Carroll
Northeast Utilities System
PO Box 270
Hartford, CT 06141-0270

Subject: CL&P Electric Substation
Christian Street and Jacks Hill Road
Oxford, CT

Dear Ms. Carroll:

The State Historic Preservation Office has reviewed the above-named project. This office notes that the preferred project area possesses moderate to high sensitivity for prehistoric and historic archaeological resources. The Oxford Road, Jacks Hill Road and Prokop Road alternative sites similarly possess moderate to high archaeological sensitivity. Therefore, we recommend that a professional reconnaissance survey be undertaken to identify and evaluate archaeological resources which may exist within proposed project limits, including equipment storage and associated work areas. All archaeological studies must be undertaken in accordance with our *Environmental Review Primer for Connecticut's Archaeological Resources.* A list of archaeological consultants is enclosed for your information.

No ground disturbance or construction-related activities should be initiated until this office has had an opportunity to review and comment upon the recommended archaeological survey report.

We anticipate working with CL&P and all interested parties in the expeditious furtherance of the proposed undertaking as well as in the professional management of Connecticut's archaeological heritage.

For further information please contact Dr. David A. Poirier, Staff Archaeologist.

Sincerely,

J. Paul Loether
Division Director and Deputy
State Historic Preservation Officer

cc: Dr. Nicholas Bellantoni/OSA

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

Amanda Carroll
Transmission Siting and Permitting
Associate Scientist
(860) 665-6953

October 16, 2006

J. Paul Loether, Division Director and Deputy State Historic Preservation Officer
Connecticut State Historic Preservation Office
Connecticut Commission on the Arts, Tourism, Culture, History and Film
59 South Prospect Street
Hartford, Connecticut 06106

Re: **The Connecticut Light & Power Company**
Proposed Oxford 115-kV Substation Project
Jacks Hill Rd and Christian Lane Oxford, CT

Dear Mr. Loether:

The Connecticut Light & Power Company (CL&P) is submitting an application to the Connecticut Siting Council for construction of the new Oxford 115-kV Substation between Jacks Hill Road and Christian Lane in the Town of Oxford. This site is one of the alternatives addressed in Raber Associates' October 2006 cultural resources assessment.

In response to your August 16, 2006 letter to me, which responded to an initial consultation, Raber Associates, on behalf of CL&P and ENSR Corporation, prepared the attached Cultural Resources Assessment of the four alternative sites as part of compliance with federal and state regulations, as required by the Connecticut Siting Council. Assessment tasks included identification of any known or possible archaeological sites eligible for the National Register of Historic Places at each alternative, identification of any eligible historic structures within 0.25 miles of each alternative for preliminary evaluation of possible visual effects, and identification of any eligible historic structures within 500 feet of each alternative.

Due to the potential for unreported Native American archeological resources at the preferred site, Raber Associates recommends a Reconnaissance Survey be completed prior to construction. The Survey will commence shortly and a second report will be created and included in the application to the Connecticut Siting Council.

CL&P submits the attached Assessment for your review and comment. CL&P proposes to file a Connecticut Siting Council Application for this Project by December 5, 2006 and would appreciate having your response as early as possible for insertion into the subsequent Connecticut Siting Council Application. Please contact me at 860-665-6953 or Jamie Durand of ENSR International at 860-429-5323 x230 should you have any questions or require additional information. Thank you for your assistance.

Sincerely,

Amanda Carroll

Attachment

Cc: J. Durand, ENSR
M. Raber, Raber Associates
J. Borne, CL&P

Connecticut Commission on Culture & Tourism

Historic Preservation & Museum Division

59 South Prospect Street
Hartford, Connecticut
06106

(v) 860.566.3005
(f) 860.566.5078

October 19, 2006

Ms. Amanda Carroll
Connecticut Light & Power
107 Selden Street
Berlin, CT 06037

Subject: CL&P 115-kV Substation
Jacks Hill Road and Christian Lane
Oxford, CT

Dear Ms. Carroll:

The State Historic Preservation Office has reviewed the assessment survey prepared by Raber Associates concerning the above-named project. In the opinion of the State Historic Preservation Office, the archival and archaeological methodologies employed by Raber Associates are consistent with our *Environmental Review Primer for Connecticut's Archaeological Resources.*

The State Historic Preservation Office concurs with Raber Associates that further archaeological investigations appear warranted with respect to the proposed undertaking. Therefore, we recommend that a professional reconnaissance survey be undertaken to identify and evaluate archaeological resources which may exist within proposed project limits, including equipment storage and associated work areas. All archaeological studies must be undertaken in accordance with our *Environmental Review Primer for Connecticut's Archaeological Resources.*

No ground disturbance or construction-related activities should be initiated until this office has had an opportunity to review and comment upon the recommended archaeological survey report.

We anticipate working with Connecticut Light & Power Company and all interested parties in the expeditious furtherance of the proposed undertaking as well as in the professional management of Connecticut's archaeological heritage.

For further information please contact Dr. David A. Poirier, Staff Archaeologist.

Sincerely,

J. Paul Loether
Division Director and Deputy
State Historic Preservation Officer

cc: Bellantoni, Raber

Subject: FW: OXFORD SUBSTATION

From: Poirier, David [mailto:Dave.Poirier@po.state.ct.us]
Sent: Monday, December 11, 2006 9:10 AM
To: msraber@aol.com
Cc: bornejo@NU.COM; Durand, James
Subject: OXFORD SUBSTATION

SHPO has reviewed the draft reconnaissance report prepared by Raber Associates. This office will draft and post a "no effect" determination ASAP. This comment is conditional upon CL&P's submission of a final report (two bound copies) to our office.

Dave Poirier
Staff Archaeologist
Conn. SHPO

> -----Original Message-----
> **From:** msraber@aol.com [mailto:msraber@aol.com]
> **Sent:** Friday, December 08, 2006 6:35 PM
> **To:** Poirier, David
> **Cc:** bornejo@NU.COM; jdurand@ensr.aecom.com
> **Subject:** OXFORD SUBSTATION
>
> Dave -
>
> I attach a transmittal letter and a short reconnaissance report for the proposed CL&P substation in Oxford, for which I prepared an assessment in October 2006. Results were negative and no further work appears necessary. Let me know if oyu have questions. CL&P will send you 2 hard copies after I address any comments you may have. Please copy all recipients of this e-mail in any electronic correspondence. If convenient for you, we would appreciate a brief electronic response prior to any letter response, as SHPO concurrence would assist in the Siting Council process.
>
> Thanks for your help. I realize we have been deluging you with electric project items, but this one is simple and, as far as I can tell, the last thing you will need to read on this particular project.
>
> Mike

United States Fish and Wildlife Service

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

November 27, 2006

Mr. Michael J. Amaral
Endangered Species Specialist
U.S. Fish and Wildlife Service
New England Field Office
70 Commercial Street, Suite 300
Concord, New Hampshire 03301-5087

Re: The Connecticut Light & Power Company
Proposed Oxford 26N 115-kV Substation Project
Oxford, CT

Dear Mr. Amaral:

The Connecticut Light & Power Company (CL&P) is proposing to build a new substation referred to as the Oxford Substation. The Substation will improve electric distribution and transmission reliability and respond to increasing load growth demands in the Town of Oxford Connecticut. The Substation will be situated on an approximately 16-acre parcel owned by CL&P located within the Sippin / Oxford Commerce Industrial Park located between Jacks Hill Road and Christian Street. An existing 110-foot wide CL&P easement containing three 115-kV transmission lines traverses the parcel (Refer to the attached USGS Figure and Aerial Photograph). The Subject Property also includes an adjacent 4.44 acre transmission line easement located to the immediate north of the 15.77 acre parcel and west of the existing right-of-way.

The Substation would be approximately 226- by 229-foot in area with a trap rock surface and secured by a 7-foot height chain link fence topped with one foot of barbed wire. A new access drive approximately 650-feet long by 15-feet wide would be constructed to provide access to and egress from the Substation. The Substation would consist of typical components including large power transformers, metal-clad distribution switchgear, circuit switchers, circuit breakers, a relay and control enclosure (48 feet by 14 feet) and a battery enclosure (24 feet by 14 feet) within the fenced area of the Substation.

This request specifically addresses the requirement for documented consultation in regard to compliance with the Endangered Species Act (ESA) of 1973. We request correspondence from your office regarding the occurrence of any threatened or endangered species (T&E) and/or their critical habitats within the project area depicted on the attached USGS topographic figure and aerial photograph. If upon review, you concur that the work activities within the Property will have no adverse effect on significant species or their habitat, please provide your written concurrence.

Thank you for your attention regarding this matter. Please contact me at 860-665-6953 or Jamie Durand of ENSR at 401-274-5685 should you have any questions or require additional information.

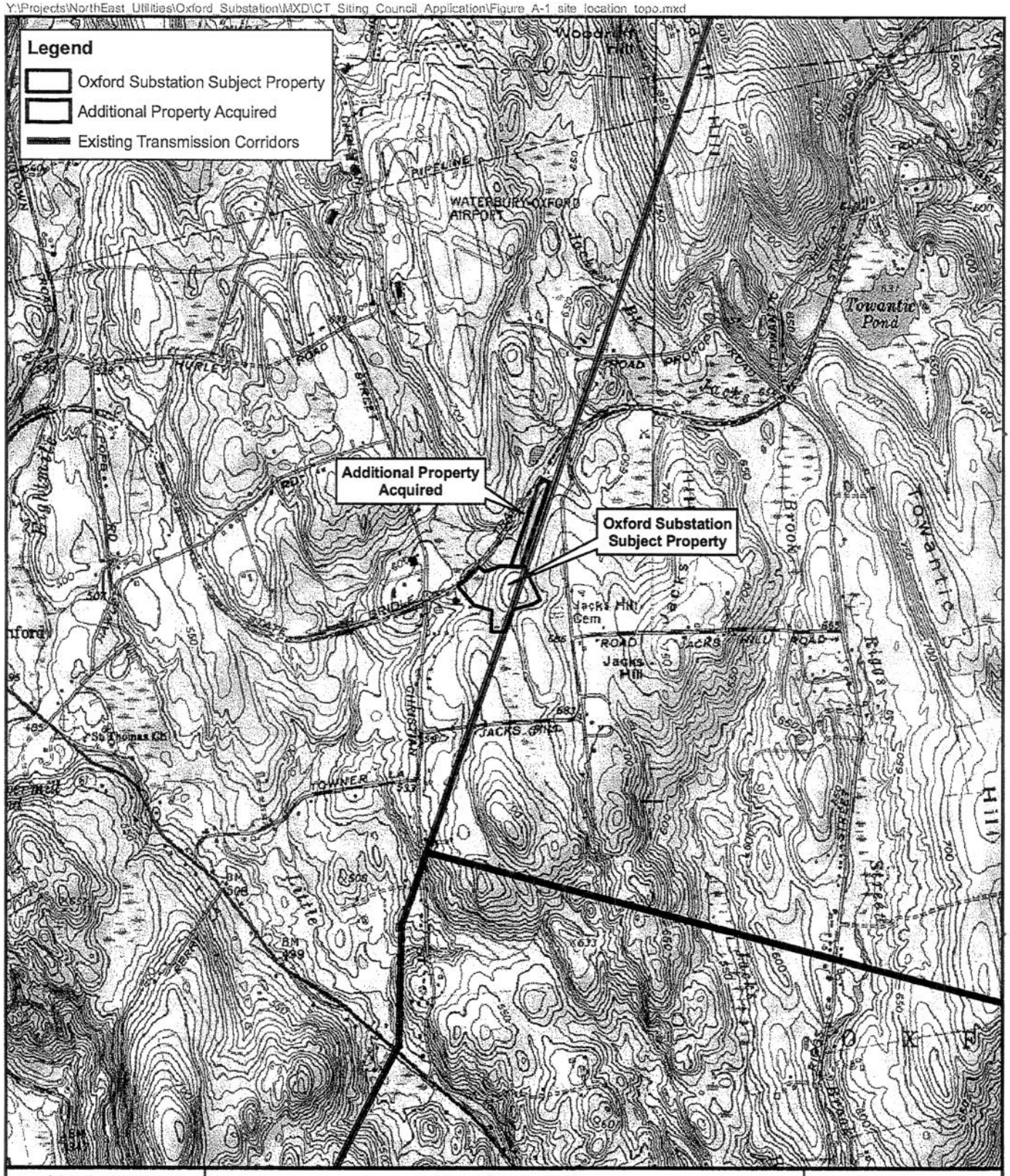
Sincerely,

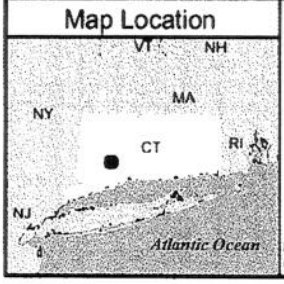
Amanda Carroll
Associate Scientist

Attachments

Cc: D. Biondi, Northeast Utilities
J. Durand, ENSR International

Y:\Projects\NorthEast Utilities\Oxford Substation\MXD\CT Siting Council Application\Figure A-1 site location topo.mxd





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: USGS Topographic Quadrangles Southbury and Naugatuck, CT

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

Northeast Utilities System

ENSR | AECOM

Figure A-1

Date: November 2006

Project #: 05022-012

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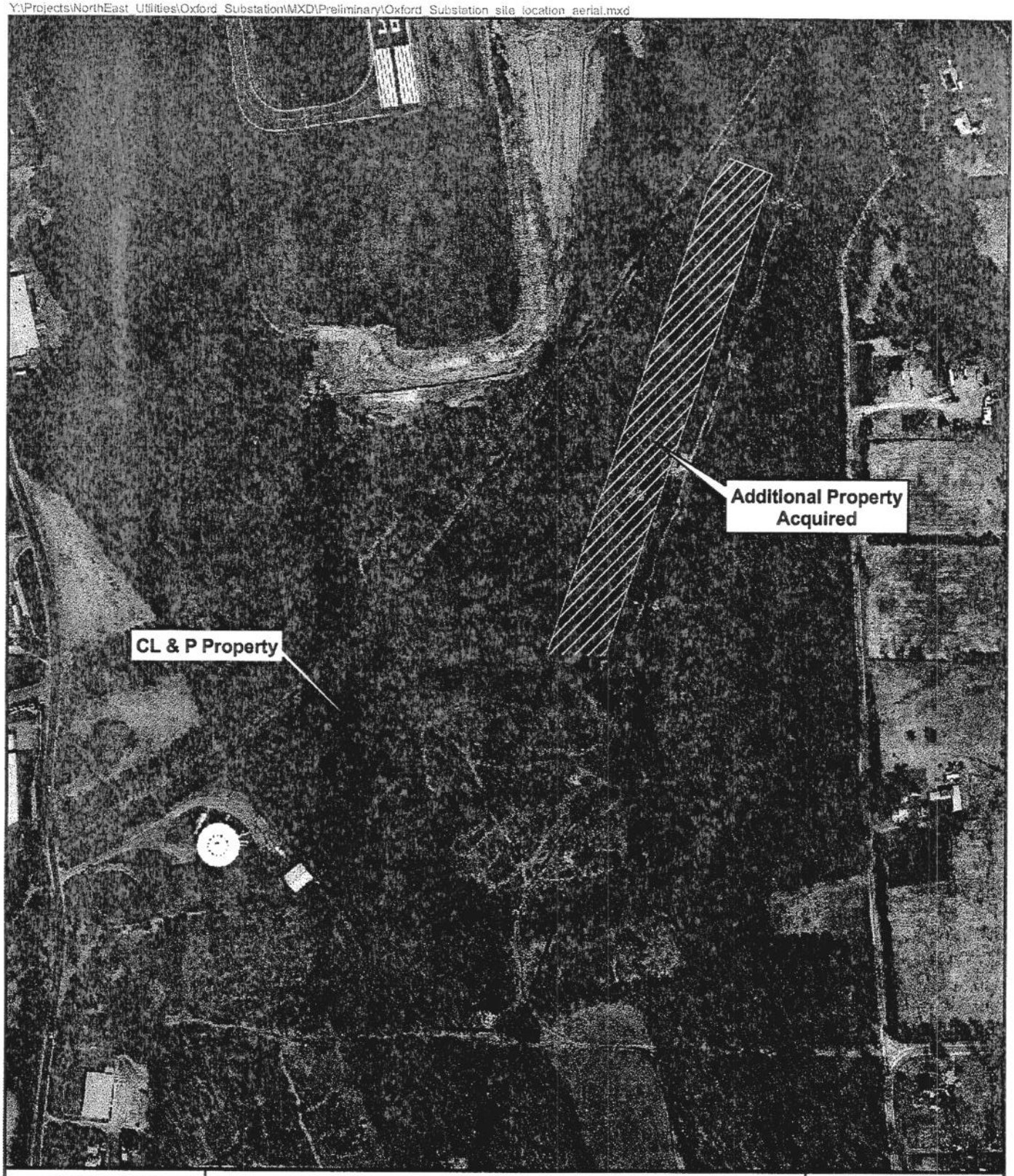
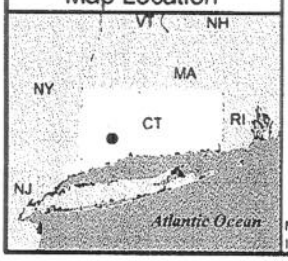


Map Location



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Site Location Map - Aerial View

Oxford 115-kV Substation Project

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

Appendix F

American Kestrel Habitat Assessment Report

Connecticut
Light & Power

The Northeast Utilities System

American Kestrel Habitat Assessment Report

Oxford Substation
Oxford, New Haven County
Connecticut

October 2006

Prepared for:
The Connecticut Light and Power Company
107 Selden Street
Berlin, CT 06037

Prepared by:
ENSR Corporation
11 Phelps Way
Willington, CT 06279

1.0 INTRODUCTION

This report has been prepared by ENSR Corporation (ENSR) on behalf of The Connecticut Light & Power Company (CL&P or the Company) to document the results of a habitat assessment that was conducted to assess the Subject Properties suitability to provide habitat for the American Kestrel (*Falco sparverius*), which is listed as a Species of Special Concern by the State of Connecticut. The Subject Property is an approximately sixteen acre site located in Oxford, Connecticut on the north side of a new road named Commerce Park Drive and is identified in Figure A-1.

1.1 American Kestrel Natural History

The American Kestrel occupies a relatively wide range of habitats, favoring open areas such as pastures and grasslands with perching sites, but also utilizes forest edges, shrubby utility rights-of-way, marshes and beaver impoundments. Even suburban and urban areas will be utilized if suitable nesting cavities are available (DeGraff and Yamasaki, 2001).

In Connecticut, the American Kestrel is listed as a Species of Special Concern. The Atlas of Breeding Birds of Connecticut cites the two primary requirements of American Kestrels as being open terrain, which is utilized as hunting grounds, and tree cavities, which are used for nesting. The Atlas states that in Connecticut, American Kestrels are usually seen around agricultural areas, airports, large parks and power line rights-of-way. Preferred habitat is grassland and/or shrubland at the edge of forest or open country with scattered trees. Kestrels feed on a wide array of food items including but not limited to large invertebrates, small vertebrates such mammals, herpetofauna and small birds.

American Kestrels are monogamous, nesting in tree cavities or snags and to a lesser degree on cliffs if other suitable nest sites are lacking. The nesting period generally extends from April 1st through June 30th. Typically four or five eggs are deposited in the nest. However, anywhere from three to seven eggs have been documented at nest sites. Incubation takes approximately twenty-nine to thirty-one days, with the chicks being capable of flight after an additional thirty to thirty-two days. The species readily utilizes specifically designed nest boxes.

1.2 Project Description

CL&P is proposing to construct a new electric power 115- to 13.8-kV substation on Company owned land located on the north side of Commerce Park Drive in Oxford, Connecticut. The new Substation, to be called the Oxford Substation is necessary to

meet an increasing demand for electricity, and to improve electric distribution system reliability in Oxford and surrounding communities. The facility will include the construction of an access drive off of Commerce Park Drive as well as the construction of two new transmission poles to connect the new Substation to the existing 115-kV overhead electric transmission lines.

1.3 Purpose and Need for Habitat Assessment

The proposed development of a new Substation requires CL&P to submit an application to the Connecticut Siting Council for a Certificate of Environmental Compatibility and Public Need. As part of that process, consultation with Connecticut's Department of Environmental Protection's Natural Diversity Database (CT NDDB) program is required. Accordingly, in a letter dated August 9, 2006, CL&P inquired with the CT NDDB about the presence of any state or federally listed flora or fauna which may occur on the site. As a result of that inquiry, in a letter dated August 31, 2006, the Connecticut Department of Environmental Protection indicated that their records show that historically, the American Kestrel has occurred in the vicinity of the proposed project. All correspondence relating to this issue is included in Appendix A.

2.0 METHODS

2.1 Habitat Assessment

An ENSR biologist (resume provided in Appendix C) performed a habitat assessment on the Subject Property on September 11, 2006. The purpose of the habitat assessment was to determine if the site contained habitat which could potentially be utilized by the American Kestrel. Various cover types were documented, with plant lists generated by cover type. These data are listed by cover type in Section 3.0. Existing plant communities/cover types were photographically documented and are included in Appendix B. The existing cover types currently exist in varying degrees of interspersion and collectively form a mosaic. An aerial photograph of the site as well as the immediate surroundings can be seen in Figure I-2. The entire site, including offsite areas which are visible from and/or immediately adjacent to the Subject Property, were evaluated relative to American Kestrel habitat. While performing the habitat assessment a list of bird species identified on the site was compiled and can be seen in Section 3.0.

3.0 RESULTS

3.1 Existing Conditions

Except for an existing overhead electric transmission line right-of way, the Subject Property is currently undeveloped. There are four dominant cover types present on the site. These cover types include forested upland, forested wetland, upland old field and upland shrub/sapling thicket. Under the power lines there are lesser amounts of wet meadow and scrub/shrub wetlands. There is a high degree of interspersion between the upland old field and upland shrub/sapling thicket habitats on the site. In addition, some areas of these habitats also feature large (>12-inch diameter at breast height [dbh]) trees, which could potentially serve as nesting habitat if suitable cavities are present. The dominant cover types, including the most common plants present in each cover type are described below and can be seen on Figure I-2.

Vegetation Cover Types

Forested Upland

Upland forested areas on the site are dominated by hardwoods such as white oak (*Quercus alba*), red oak (*Quercus rubra*), sweet birch (*Betula lenta*), white ash (*Fraxinus americana*), black cherry (*Prunus serotina*), hickory (*Carya spp.*) and red maple (*Acer rubrum*). The understory in these areas is composed of the canopy species mentioned above as well as highbush blueberry (*Vaccinium corymbosum*), winterberry (*Ilex verticilatta*) and northern arrowwood (*Viburnum dentatum*). The herbaceous layer is dominated by Canada mayflower (*Maianthemum canadense*), partridgeberry (*Mitchella repens*), teaberry (*Gaultheria procumbens*), hay scented fern (*Dennstaedtia punctilobula*) and cinnamon fern (*Osmunda cinnamomea*).

Forested Wetland

The forested wetlands on the site exhibit a canopy dominated by red maple (*Acer rubrum*), yellow birch (*Betula alleghaniensis*), American Elm (*Ulmus americana*) and eastern hemlock (*Tsuga canadensis*), subtended by an understory composed of these species as well as highbush blueberry (*Vaccinium corymbosum*), winterberry (*Ilex verticilatta*) and northern arrowwood (*Viburnum dentatum*). Herbaceous vegetation is sparse and consists predominantly of skunk cabbage (*Symplocarpus foetidus*).

Upland Old Field

Due to past agricultural activity and present vegetative maintenance in the right-of-way, the site currently exhibits some old field habitat, all of which is interspersed with shrub/sapling thickets. These areas are dominated by grasses and forbes including deer tongue (*Panicum clandestinum*), Timothy (*Phluem pratense*), goldenrods (*Solidago spp.*), wild carrot (*Daucus carota*), milkweed (*Asclepias syriaca*), chickory (*Cichorium intybus*), among many others which are too numerous to name and ancillary to the main focus of the habitat assessment. Interspersed within this habitat cover type are various species of woody vegetation including species such as multiflora rose (*Rosa multiflora*), autumn olive (*Elaeagnus umbellata*), gray dogwood (*Cornus racemosa*), silky dogwood (*Cornus amomum*), and northern arrowwood (*Viburnum dentatum*).

Upland Shrub/Sapling Thicket

The upland shrub/sapling thickets on the site consist of areas which are transitioning from old field habitats to a succession of more forested conditions. Herbaceous vegetation is much reduced as compared to the old field habitats described above and woody vegetation dominates. Common plant species occurring in this cover type include plants such as multiflora rose (*Rosa multiflora*), autumn olive (*Elaeagnus umbellata*), gray dogwood (*Cornus racemosa*), silky dogwood (*Cornus amomum*), northern arrowwood (*Viburnum dentatum*), red maple (*Acer rubrum*), black cherry(*Prunus serotina*), hickory (*Carya spp.*) and oak (*Quercus spp.*). Vines such as poison ivy (*Toxicodendron radicans*), Virginia creeper (*Parthenocissus quinquefolia*) and bittersweet (*Celastrus scandens*) are common.
Table One lists the bird species observed during the habitat assessment.

Table One. Bird Species Observed on the Site

Common Name	Scientific Name
Red-tailed Hawk	*Buteo jamaicensis*
American Goldfinch	*Carduelis tristis*
Turkey Vulture	*Cathartes aura*
American Crow	*Corvus brachyrhynchos*
Gray Catbird	*Dumetella carolinensis*
Common Yellowthroat	*Geothlypis trichas*
Black-capped Chickadee	*Parus atricapillus*
Tufted Titmouse	*Parus bicolor*
Rufus-sided Towhee	*Pipilo erythrophthalmus*
American Redstart	*Setophaga ruticilla*
American Robin	*Turdus migratorius*

4.0 FINDINGS

In ENSR's opinion, all of the old field and shrub/sapling habitats on the site should be considered areas where the American Kestrel could potentially hunt for food. In addition, due to the generally large size (> 12-inch dbh) of the trees in the forested areas among and adjacent to the old field and shrub/sapling thickets, most of the forested areas immediately adjacent to these habitats should be considered areas where American Kestrels could potentially find suitable cavities in trees to nest in. Many potential nest sites are likely present and not detectable from the ground, especially when the trees are fully leaved.

Areas adjacent to the site also provide more extensive habitat for American Kestrels. For instance, to the southeast of the Subject Property (south of Commerce Park Drive), there is a large area of old field habitat surrounded by mature upland and wetland forested areas. This area is however zoned as Industrial and will eventually be developed. To the north of the site there is a large beaver influenced impoundment in the wetland system and northwest of that there is the Waterbury-Oxford Airport. All of these cover types and land uses are areas which could potentially provide additional habitat for the American Kestrel. Given the described existing conditions on the site, as well as the land uses and cover types adjacent to the site, it is not surprising that American Kestrels have been documented as historically occurring in the vicinity of the site.

5.0 Recommendations

As a result of the construction of the proposed Substation with supporting infrastructure, in ENSR's opinion, some American Kestrel hunting habitat will be lost. In addition, while no suitable nesting cavities were observed in the trees from the ground in the immediate Project area the potential for their presence does exist. However, given the site's location relative to additional substantial suitable American Kestrel habitat and given that the majority of the area where the Substation is proposed is currently undergoing succession to forested habitat, in ENSR's opinion the impact to Kestrel habitat by this Project will be negligible.

In addition, given that American Kestrels readily utilize nest boxes which are specifically designed for this species the potential to mitigate any negative impacts to potential nesting cavities is high. Should this project be approved, ENSR recommends the installation of artificial nesting boxes for this species in vicinity of the Project, in accordance with plans available from the CT NDDB. Through CL&P's existing Vegetation Management Plan, CL&P will continue to maintain the 115-kV transmission right-of-way, which provides foraging habitat for the American Kestrel.

6.0 References

DeGraaf, Richard M. and Mariko Yamasaki. 2001. New England Wildlife: Habitat, Natural History, and Distribution. University Press of New England, Hanover, NH

Ehrlich, Paul R., et al. 1988. The Birder's Handbook, A field Guide to the Natural History of North American Birds. Simon & Schuster, New York, New York

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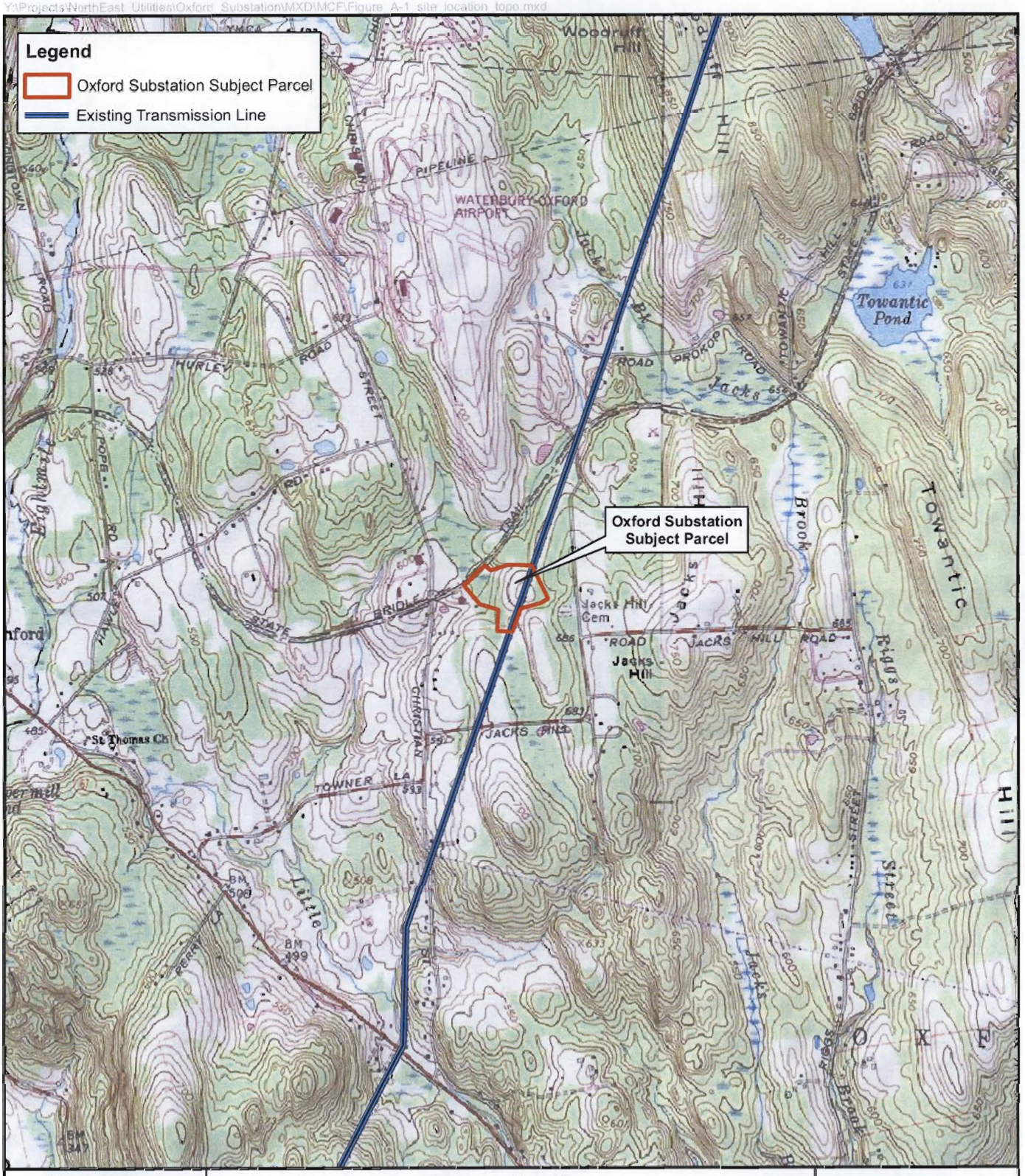

Site Location Map

Oxford 115- to 13.8-kV Substation

Map Projection: CT State Plane , NAD 83, US Feet.
Image Source: USGS Topographic Quadrangles: Southbury and Naugatuck, CT.

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

Northeast Utilities System

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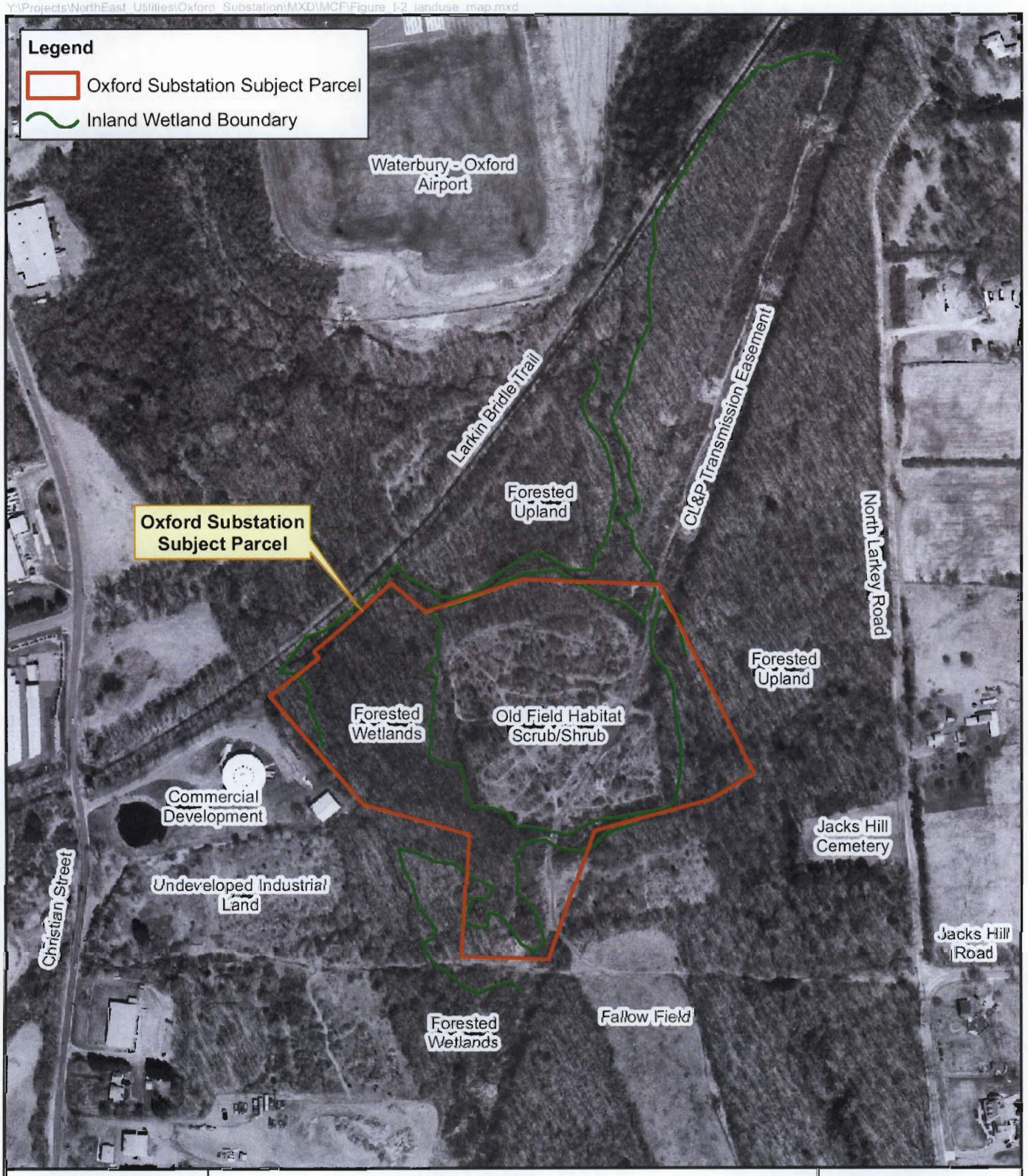
Figure A-1

Date: September 2006

Project #: 05022-012



General Land Use Map

Oxford 115- to 13.8-kV Substation

N

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 I-2

Date: September 2006

Project #: 05022-012

Appendix A

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

FRANKLIN WILDLIFE MANAGEMENT AREA
391 ROUTE 32
NORTH FRANKLIN, CT 06254
TELEPHONE: (860) 642-7239

August 31, 2006

Ms. Amanda Carroll
Northeast Utilities Service Company
P.O. Box 270
Hartford, CT 06141-0270

Re: new CL&P substation located east of Christian Street and north and west of Jacks Hill Road, Oxford

Dear Ms. Carroll:

Your request was forwarded to me on 8/30/06 by Dawn McKay of the Department of Environmental Protection's (DEP) Natural Diversity Data Base. Their records indicate that a state species of special concern, American kestrel occurred historically in the vicinity of this project site.

American kestrel (*Falco sparverius*) nest in late March - April in open areas like woodland edges, parks, and open field habitat. They are cavity nesters and seek out abandoned woodpecker or flicker holes to nest. They catch and eat mice, voles, shrews and insects. They winter over much of the nesting range. Kestrels are cavity nesters and will nest in artificial nesting boxes that are placed in the area. Artificial nesting box plans will be provided at your request. Nesting boxes and silvicultural practices that maintain high densities of nesting and roosting cavities in trees with a minimum diameter of 30.5 cm will benefit this species.

If this work will be conducted in any American kestrel habitat, the Wildlife Division recommends that a ornithologist familiar with the habitat requirements of these species conduct surveys. A report summarizing the results of such surveys should include habitat descriptions, avian species list and a statement/resume giving the ornithologist' qualifications. The DEP doesn't maintain a list of qualified ornithologists. The results of this investigation can be forwarded to the Wildlife Division and, after evaluation, recommendations for additional surveys, if any, will be made.

The Wildlife Division has not been provided with details or a timetable of the work to be done. Consultation with the Wildlife Division should not be substituted for site-specific surveys that may be required for environmental assessments. Please be advised that should state permits be required or should state involvement occur in some other fashion, specific restrictions or conditions relating to the species discussed above may apply. In this situation, additional evaluation of the proposal by the DEP Wildlife Division should be requested. If you have any additional questions, please feel free to contact me (860-642-7239). Thank you for the opportunity to comment.

Sincerely,

Julie Victoria, Wildlife Biologist
Franklin Swamp Wildlife Management Area
391 Route 32
N. Franklin, CT 06254

cc: NDDB – 14784

Appendix B

Oxford Substation Subject Property

Power Line Right-of-Way, On Site

Fallow Agricultural Field, Southeast of Site

OXFORD SUBSTATION
CHRISTIAN ST/JACKS HILL RD – OXFORD, CT

SITE PHOTOGRAPHS

View of Substation Parcel from the East Looking West

View of Substation Parcel from the West Looking Northeast

View of Southern Property Line of Substation Parcel Looking West Down Commerce Park Drive (under development)

View of Existing CL&P Transmission Lines Intersecting Substation Parcel Looking North

View of Existing CL&P Transmission Lines Looking Further North

View of Proposed Access Drive Crossing of Inland Wetland & Intermittent Watercourse – Looking North

Appendix C

Timothy P. O'Sullivan

ENSR Office: **Willington, Connecticut**

Years Experience: **12**

Technical Specialties

- Wetland Delineation and Evaluation
- Wetland Replication Area Design and Monitoring
- Wetland Vegetation Monitoring
- Field Surveys for Rare, State and Federal Listed Plants and Animals
- Radio Telemetry Turtle Studies
- Wildlife Habitat Assessment
- Vernal Pool Investigation and Drift Fence Surveys
- Marine and Terrestrial Bird Surveys
- Marine and Freshwater Invertebrate Sampling
- Finfish sampling

Professional History

- ENSR Consulting and Engineering Willington, Connecticut
- Epsilon Associates Incorporated Maynard, Massachusetts
- Rockland County Parks Department, New City, New York
- University of Maine, Machias, Maine
- West Hill Nature Preserve, Naples, New York

Education

- University of Massachusetts, M.S. Wetlands Conservation
- University of Maine, B.S. cum laude Environmental Science
- Finger Lakes Community College A.S. Natural Resources

Professional Registrations and Affiliations

- Professional Wetland Scientist, Society of Wetland Scientists
- Registered Soil Scientist, The Society of Soil Scientists of Southern New England
- Xi Sigma Pi , Forest Resources Management academic honor society
- Massachusetts Association of Wetland Scientists

Representative Project Experience

Avian Census and Habitat Assessment for Upland Sandpiper (*Bartramia longicauda*) and Eastern Meadowlark (*Sturnella magna*), Bloomfield, Connecticut.
Conducted habitat assessments for Upland Sandpiper and Eastern Meadowlark and conducted breeding bird surveys on approximately three hundred acres of agricultural and forested lands to determine avian habitat utilization of the site. Recorded bird observations based on songs, calls and direct observations. Prepared reports for appropriate regulatory authorities.

Avian Survey, Dedham-Westwood Massachusetts Water District, Fowl Meadow Wetland Public Water Supply Well Sites.
Conducted field surveys over multiple years in various wetland cover types, establishing pre and post water withdrawal avian utilization of the Fowl Meadow wetland system. Bird identification was determined using auditory cues such as songs and calls as well as direct observations. Prepared reports for appropriate regulatory authorities.

Avian Survey, Long Island, New York.
Conducted Aerial and Boat field surveys over multiple years establishing baseline avian utilization of an approximately fifty square mile area of the Atlantic Ocean off the south shore of Long Island New York for a proposed wind park. Bird identification determined mainly through direct observation.

Box Turtle (*Terrapene carolina*) and Spotted Turtle (*Clemmys guttata*) Radio Tracking and Habitat Study, South Weymouth, Massachusetts.
Conducted field surveys, radio telemetry tracking, and trapping activities to document spotted turtle and box turtle habitat utilization at a Naval Air Station in Eastern Massachusetts to facilitate the least damaging remediation options at several CERCLA sites. Documented characteristics of habitat utilized by spotted and box turtles. Prepared reports for appropriate regulatory authorities.

Spotted Turtle (*Clemmys guttata*) RadioTracking and Habitat Study, New Bedford Massachusetts.
Conducted field surveys, radio telemetry tracking, and trapping activities to document spotted turtle habitat utilization at the New Bedford Regional Airport for a master plan and an environmental impact statement. Documented characteristics of habitat utilized by spotted turtles. Prepared reports for appropriate regulatory authorities.

Spotted Turtle (*Clemmys guttata*) Habitat Assessment, Waltham, Massachusetts
Performed a habitat evaluation on a fifty (50) acre site in reference to spotted turtles. Data was collected relative to important wildlife functions (feeding, basking, breeding, over-wintering, shelter, escape cover, and migration) potentially provided for the spotted turtle. Information pertaining to the hydrology, micro-topography, and vegetative composition and structure was also collected. Prepared report for appropriate regulatory authorities.

Bog Turtle (*Clemmys muhlenbergii*) Habitat Assessment, Dover, New York
Performed a habitat evaluation on a forty-five (45) acre site in reference to bog turtles. Data was collected relative to important wildlife functions (feeding, basking, breeding, over-wintering, shelter, escape cover, and migration) potentially provided for the bog turtle. Information pertaining to the hydrology, micro-topography, and vegetative composition and structure was also collected. Prepared report for the U.S. Fish and Wildlife Service and New York State Department of Environmental Conservation.

Vernal Pool Habitat and Amphibian Studies, Norfolk, MA and Bedford, MA.
Conducted a habitat study and qualitative population study of five vernal pools to determine amphibian populations, and investigate for rare species. Installed, maintained, and monitored approximately 600 meters of drift fence traps. Recorded the presence of reptiles and amphibians, identified aquatic invertebrates and documented general habitat characteristics as well as physical and chemical conditions in the pools. Prepared report for appropriate regulatory authorities.

Rare Species Habitat / Vernal Pool Assessment, Upton, Massachusetts
Investigated 164 acre parcel, portions of which were mapped as habitat for several state listed species. Data was gathered in upland and wetland habitats relative to important wildlife functions potentially provided for the listed species. Investigations included habitat cover type characterizations, generation of plant species lists, and dip net surveys of two (2) certified vernal pools.

Vernal Pool Monitoring, Worcester, Massachusetts
Collected baseline data relative to biological and hydrologic conditions in four (4) certified vernal pools. Collected hydrologic data using staff gauges and monitoring wells. Collected water quality data including pH, conductivity, turbidity, and dissolved oxygen. Collected biological data through weekly dip net surveys. Documented baseline conditions for comparison to post development conditions within the vernal pools.

Camelback Mountain Ski Resort, Monroe County, Pennsylvania
Assisted in performing a habitat evaluation on Pocono Creek. Habitat evaluation included sampling of macro-invertebrates with D nets, fish collection with an electro-fisher and water chemistry analysis. Upstream-downstream and target vs. reference system comparisons were made to illustrate presence or absence of impacts.

Perrier Springwater Corporation, Lehigh County, Pennsylvania
Assisted in performing a habitat evaluation on Hoffman Brook. Habitat evaluation included sampling of macro-invertebrates with D nets, fish collection with an electro-fisher and water chemistry analysis. Upstream-downstream and target vs. reference system comparisons were made to illustrate presence or absence of impacts.

Perrier Springwater Corporation, Chester County, Pennsylvania
Assisted in performing a habitat evaluation on Sasoonan Springs. Habitat evaluation included sampling of macro-invertebrates with D nets, fish collection with an electro-fisher and water chemistry analysis. Upstream-downstream and target vs. reference system comparisons were made to illustrate presence or absence of impacts.

Rare Plant Survey, Greenfield, Massachusetts
Conducted a survey of a fifty (50) acre site for the Barren Strawberry (*Waldsteinia fragarioides*). Compared habitat requirements of the barren strawberry with on site habitat conditions and surveyed appropriate habitats. Submitted report to the Massachusetts Natural Heritage and Endangered Species Program.

Rare Plant Survey, Rockland County, New York
Conducted a survey on five (5) miles of utility right of way for Hyssop Skullcap (*Scutellaria integrifolia*), Large Twayblade (*Liparis lilifolia*), and Wildenow's Sedge (*Carex willdenowii*). Compared habitat requirements of the subject plant species with on site habitat conditions and surveyed appropriate habitats. Submitted report to the New York State Department of Environmental Conservation.