



**Connecticut Siting Council
Docket No. 272**

**Development & Management Plan
for the
Middletown-Norwalk
345-kV Transmission Line Project
Norwalk Substation**

April 2007



Development & Management Plan

for the

**Middletown-Norwalk
345-kV Transmission Line Project**

Norwalk Substation

**Connecticut Siting Council
Docket No. 272**

**Submitted By:
The Connecticut Light and Power Company**

April 2007

**Prepared by:
Burns & McDonnell Engineering Company, Inc**

TABLE OF CONTENTS

1.0	INTRODUCTION.....	1-1
1.1	Project Description.....	1-2
1.2	Conditions.....	1-3
1.3	Consultations.....	1-3
2.0	DRAWINGS AND SITE INFORMATION.....	2-1
2.1	Key Map.....	2-1
2.2	Plan Drawings.....	2-1
2.3	Land Ownership.....	2-1
2.4	Public Roads and Lands.....	2-1
2.5	Topography and Grading.....	2-1
2.6	Structure and Foundation Locations.....	2-1
2.7	Access Points for Construction.....	2-2
2.8	Vegetation and Clearing.....	2-2
2.9	Environmentally Sensitive Areas.....	2-2
2.10	Existing Underground Utilities.....	2-2
2.11	Staging Area and Construction Facilities.....	2-2
3.0	CONSTRUCTION INFORMATION.....	3-1
3.1	Timber and Snag Trees.....	3-1
3.2	Construction And Rehabilitation Procedures.....	3-1
3.2.1	Water Crossing Techniques.....	3-1
3.2.2	Sedimentation and Erosion Control Procedures.....	3-1
3.2.3	Precautions for Protected Species.....	3-1
3.2.4	Restoration of Hydrologic Features.....	3-1
3.2.5	Protection of Cultural Resources.....	3-1
3.2.6	Herbicide Use.....	3-1
3.2.7	Public Recreation Areas.....	3-2
3.2.8	Disposal and Maintenance Procedures.....	3-2
3.2.9	Blasting Procedures.....	3-2
3.2.10	Rehabilitation Plans.....	3-2
3.2.11	Independent Environmental Consultant.....	3-2
4.0	NOTICES AND REPORTS.....	4-1
4.1	Staging and Material Laydown Areas.....	4-1
4.2	Notices to the Council.....	4-1
4.2.1	Notice of Beginning.....	4-1
4.2.2	Notice of Changes to D&M Plan.....	4-1
4.2.3	Notice of Completion.....	4-1
4.3	Notice to Municipalities.....	4-1
4.4	Notice to Landowners.....	4-1
4.5	Monthly Reports.....	4-1
4.6	Final Report.....	4-1
5.0	ADDITIONAL ELEMENTS PER COUNCIL ORDER.....	5-1
5.1	Decision and Order Checklist.....	5-1
5.2	Supplemental Plans and Information.....	5-2

6.0 PROJECT SCHEDULE 6-1

APPENDICES

APPENDIX A – DRAWINGS AND PHOTOS

- Exhibit 1 Key Map
- Exhibit 2 Aerial Photograph
- Exhibit 3 General Arrangement
- Exhibit 4 Sedimentation and Erosion Control Plan
- Exhibit 5 Sedimentation and Erosion Control Details

APPENDIX B – DOCKET NO. 272, SELECTED PORTIONS OF DECISION AND ORDER

APPENDIX C – D&M PLAN CHANGE APPROVAL PROCESS

1.0 INTRODUCTION

The Connecticut Light and Power Company (CL&P) hereby submits this Development and Management (D&M) Plan for the Norwalk Substation located in the City of Norwalk, a part of the Middletown-Norwalk Project (the Project), in accordance with the Connecticut Siting Council (Council) Decision and Order for Docket No. 272 of April 7, 2005, and pursuant to Sections 16-50j-60 through 16-50j-62 of the Regulations of Connecticut State Agencies, *Requirements for a right-of-way development and management plan*. The Project consists of approximately 69 miles of 345-kV transmission line from CL&P's existing Scovill Rock Switching Station (located in the City of Middletown in Middlesex County), through New Haven County to CL&P's existing Norwalk Substation (located in the City of Norwalk in Fairfield County). The Project will include approximately 45 miles of overhead transmission line construction and 24 miles of underground transmission line construction. The overhead portion of the Project will extend from the Scovill Rock Switching Station in the City of Middletown to the East Devon Substation in the City of Milford. The underground portion will extend from the East Devon Substation to the Norwalk Substation in Norwalk. In addition to East Devon Substation, the Project will include the construction of one other new electric substation (Singer in the City of Bridgeport) and a new Switching Station (Beseck in the Town of Wallingford) as well as modifications to the existing Norwalk Substation and Scovill Rock Switching Station. CL&P will own all overhead portions of the Project, as well as that portion from East Devon Substation to the first splice-vault west of the Housatonic River. CL&P ownership continues from the Singer Substation to the Norwalk Substation. The United Illuminating Company (UI) will build and own the Singer Substation and from the Singer Substation to the first splice-vault, inclusive of the splice-vault, west of the Housatonic River, a distance of approximately 5.75 miles.

CL&P plans to submit thirteen D&M plans for its portion of the Project. The D&M plans will be developed based on the type of construction and geographic location along the route, as follows:

Switching Stations and Substations (4 D&M plans)

- Scovill Rock (Middletown) – Approved by the Council on August 25, 2005
- Beseck (Wallingford) – Approved by the Council on February 22, 2006
- East Devon (Milford) – Approved by the Council on December 12, 2006.
- Norwalk (Norwalk)

Overhead Lines (4 D&M plans)

- Segment 1a: Scovill Rock Switching Station to Chestnut Junction, Oxbow Junction to Beseck Switching Station (with the exception of the Royal Oak Bypass), and Black Pond Junction to Beseck Switching Station
(Middletown, Haddam, Durham, Middlefield, Meriden, Wallingford) – Approved by the Council on March 8, 2006
- Segment 1b: Royal Oak Bypass
(Middletown) – Approved by the Council on August 31, 2006.
- Segment 2a: Beseck Switching Station to Cheshire/Hamden Town line
(Wallingford, Cheshire) – Approved by the Council on June 7, 2006
- Segment 2b: from Cheshire/Hamden Town line to East Devon Substation
(Hamden, Bethany, Woodbridge, West Haven, Orange, Milford) – Approved by the Council on August 31, 2006, with the exception of that portion of Segment 2b between Rimmon Road and Center Road in the Town of Woodbridge, which was approved October 10, 2006.

Underground Lines (4 D&M plans)

- Segment 3: East Devon Substation to UI ownership point in Stratford (Milford, Stratford) – Approved by the Council on March 22, 2006
- Segment 4a: Singer Substation to Fairfield/Westport Town line (Bridgeport, Fairfield) – Approved by the Council on February 22, 2006
- Segment 4b: Sasco Creek to Father Conlon Place in Norwalk (Westport, Norwalk) – Approved by the Council on June 27, 2006
- Segment 4c: Father Conlon Place in Norwalk to Norwalk Substation (Norwalk) – Filed with the Council on April 16, 2007

Underground Watercourse and Railroad Crossings (1 D&M plan)

- (Milford, Stratford, Bridgeport, Fairfield, Westport, Norwalk) – Filed with the Council on September 8, 2006. Modifications filed with the Council on April 5, 2007

1.1 PROJECT DESCRIPTION

This D&M Plan covers the work associated with the addition of new 345-kV equipment within the existing Norwalk 345/115-kV Substation fence. CL&P will install new equipment or modify existing equipment associated with the Middletown – Norwalk 345-kV Transmission Line Project. The work will include:

- Addition of three (3) GIS transmission circuit positions consisting of two breakers each, and associated GIS equipment, supporting steel and ancillary devices installed inside the existing GIS enclosure.
- Addition of three (3) new 345/115-kV 200 MVA single-phase autotransformers and ancillary devices.
- Addition of one spare single-phase transformer and one spare three-phase reactor with foundations, ancillary devices and oil containment.
- Addition of two (2) new three-phase 100MVA shunt reactors, including surge arresters, foundations, oil containment, fire barriers, and ancillary devices.
- Addition of two (2) new 345-kV circuit switchers, foundations and ancillary devices.
- Addition of riser termination structures and foundations, including surge arresters, to accommodate the two new 345-kV underground cables entering Norwalk Substation.
- Addition of 345-kV Gas Insulated Line (GIL), support structures and foundations (where above grade) between the termination structures and the GIS equipment, between the GIS equipment and the shunt reactors (including a short extension to the circuit switchers), and between the GIS equipment and the three new transformers.
- Addition of underground ground grid and rods.
- Increasing the height of the existing fence near Route 7 ramp.
- Addition of below grade cable trench to accommodate the GIL and control cables.
- Underground duct bank and associated manholes to accommodate control and low voltage power cables.
- Final grading and crushed rock surfacing of the Norwalk Substation site in the proximity of the GIS enclosure.
- Addition of landscaping between the Route 7 exit ramp and the Norwalk Substation fence.
- Additional stairway from the 2nd story of the GIS enclosure to the ground.

In addition to the work inside the substation fence, a new 345-kV underground duct bank will be installed from the two riser locations to the first set of underground vaults outside the eastern side of the substation in the Route 7 Right-of-Way. Some fencing along the eastern side of the substation facing Route 7 may be temporarily removed during installation, then reinstalled once the duct bank to the vaults has been completed. Landscaping will be added between the Route 7 ramp and the Norwalk Substation fence.

1.2 CONDITIONS

In addition to the *Requirements for a right-of-way development and management plan* found in Sections 16-5-j-60 et seq. of the Regulations of Connecticut State Agencies, the Council stipulated certain requirements for the D&M plans in conditions 14-21 of its Decision and Order. A copy of this portion of the Decision and Order is provided in Appendix B. Those requirements have been incorporated in this D&M Plan either directly or by reference. The General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities (DEP-PED-GP-015) from the Connecticut Department of Environmental Protection (DEP), required for the Project including the Norwalk Substation, was registered by the DEP on April 16, 2006.

1.3 CONSULTATIONS

Project personnel met with the City of Norwalk officials on Friday March 16, 2007 at the Norwalk City Hall to discuss the Norwalk Substation modifications. Project personnel included Jim Long, Jerry Fortier, Al Cretella, Dan Garstka, and Chris Swan of CL&P. Representatives from Norwalk included Mayor Richard Moccia, Chairman of Planning and Zoning Michael Greene and Public Works Director Harold Alvord.

Items discussed included: 1) GIS Substation addition within the existing GIS Enclosure; 2) Installation of two (2) Shunt Reactors; 3) Storage locations for spare 345 kV shunt reactor and 345/115-kV Auto-transformer; and 4) the two 345 kV underground termination structures and the higher fence near the Route 7 ramp. All parties agreed that drawings reviewed in the discussion could be submitted as presented. Additionally, the City of Norwalk requested that no plastic screening slats be used in the security fence.

In a subsequent discussion with the City of Norwalk, Mayor Moccia requested that additional trees be added to the ConnDOT right-of-way along the Route 7 exit. This requires review and approval by the ConnDOT of any landscaping plans needed to comply with the City of Norwalk's request. NU will coordinate discussions with the ConnDOT and the City of Norwalk to develop a landscape approved by the ConnDOT. NU would then implement the approved landscaping plan.

2.0 DRAWINGS AND SITE INFORMATION

Construction at the existing Norwalk Substation will include installation of equipment contained inside a fenced area with a surface of trap rock. A limited amount of construction will be required outside of the substation fence to tie the 345-kV underground cable into the Substation and to improve the existing landscaping as noted in Section 1.3. CL&P performed and reported on extensive research on environmental conditions and cultural resources as part of the Docket No. 272 proceedings before the Council. The following provides descriptive information regarding the existing conditions at the site and the design and construction that will take place at Norwalk Substation as part of the Project. As described below, this information is also shown on the drawings included in Appendix A.

2.1 KEY MAP

The Norwalk Substation is located along New Canaan Avenue between Route 7 to the east and Riverside Drive to the southwest in the City of Norwalk. The Norwalk River runs along the western boundary of the Substation. The location is shown on the Key Map (Appendix A, Exhibit 1), as well as on an aerial photograph (Appendix A, Exhibit 2).

2.2 PLAN DRAWINGS

In addition to the key map and aerial photograph, this D&M Plan contains drawings depicting the General Arrangement Plan and Sections (Appendix A, Exhibit 3). The General Arrangement Plan and Sections provides locations of the components to be installed at the Substation, including underground duct bank. Drainage patterns, with locations for installation of sediment and erosion control materials, are shown on the Sedimentation and Erosion Control Plan (Appendix A, Exhibit 4).

2.3 LAND OWNERSHIP

The entire Norwalk Substation site is owned by CL&P.

2.4 PUBLIC ROADS AND LANDS

No public lands cross the proposed Substation property. New Canaan Avenue is adjacent to the Station and along the southern boundary. Route 7 and the associated Ramp G lie east of the Station. The Norwalk River lies just to the west of the Station property line.

2.5 TOPOGRAPHY AND GRADING

Final grading and placement of trap rock surfacing will be required in the area affected by construction.

2.6 STRUCTURE AND FOUNDATION LOCATIONS

The approximate location and type of structures and foundations on the site are shown on the General Arrangement Plan and Sections in Appendix A, Exhibit 3.

2.7 ACCESS POINTS FOR CONSTRUCTION

Access to the site for construction, material deliveries, operation, and maintenance will be from New Canaan Avenue and the exit ramp for Route 7 off of Interstate 95 (Appendix A, Exhibit 4). No improvements to the roads will be necessary.

2.8 VEGETATION AND CLEARING

There is no vegetation inside the fenced area of the Norwalk Substation or up to 5 feet from the fence line.

2.9 ENVIRONMENTALLY SENSITIVE AREAS

There are no watercourse crossings, areas of high erosion potential or areas where there are federal or state protected species that will be affected by the construction at Norwalk Substation. Substation construction will have no impact on the Norwalk River.

2.10 EXISTING UNDERGROUND UTILITIES

There are no underground utilities in or near the Norwalk Substation site impacted by the proposed work.

2.11 STAGING AREA AND CONSTRUCTION FACILITIES

The staging area for materials and equipment for the Norwalk Substation construction will be on the Substation site. It will be the responsibility of the Construction Contractor to provide additional staging areas and/or construction facilities, if needed. Any additional staging and/or proposed construction locations will be submitted to the Council for approval using the Change Process described in Appendix C. The Construction Contractor's office trailer will be on-site. Parking will be on the Norwalk Substation site. Portable sanitary facilities will be used during construction. Temporary overhead phone, power lines and security lighting will be necessary.

3.0 CONSTRUCTION INFORMATION

This section contains information concerning construction practices and mitigation measures related to the construction of the Norwalk Substation.

3.1 TIMBER AND SNAG TREES

No clearing of timber is required at the Norwalk Substation.

3.2 CONSTRUCTION AND REHABILITATION PROCEDURES

Construction procedures for water crossings, sedimentation and erosion control, protected species, hydrologic features and cultural resource properties are described below.

3.2.1 Water Crossing Techniques

There are no watercourse crossings or wetlands associated with construction at the Norwalk Substation.

3.2.2 Sedimentation and Erosion Control Procedures

Construction activities will comply with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control. Specific sedimentation and erosion control measures are shown on the Sedimentation and Erosion Control drawing in Appendix A, Exhibit 4. Details for typical sedimentation and erosion control measures are also provided in Appendix A, Exhibit 4. Excess spoil material will be removed from the site by the contractor and disposed of in an approved location. Some spoil material may be retained for backfill.

Groundwater encountered during the drilling of foundations for Substation equipment will be discharged in accordance with the DEP Stormwater and Dewatering Wastewaters from Construction Activities General Permit GP-015.

3.2.3 Precautions for Protected Species

Pursuant to consultation with the DEP Natural Diversity Database, there are no federal or state protected species located near the Norwalk Substation.

3.2.4 Restoration of Hydrologic Features

Surface drainage will be improved in the area north of the control enclosure and east of the GIS enclosure during the final grading performed at the Substation.

3.2.5 Protection of Cultural Resources

CL&P provided a Cultural Resources Assessment Survey as part of the Application to the Council. The survey found no known cultural resources located in or near the Substation site. In accordance with the Council Decision and Order Item #21, CL&P retained Raber and Associates to determine if any unknown cultural resources eligible for inclusion on the National Register of Historic Places occur at the Norwalk Substation site. Dr. Raber concluded that due to the disturbed nature of the site and based on the results of the Phase I survey no Phase II survey will be required.

3.2.6 Herbicide Use

No herbicides will be used for clearing associated with construction. Normal maintenance of the Substation yard, however, will include treatment of vegetation with Environmental Protection Agency

approved herbicides. Normal maintenance outside the fence will include both mechanical clearing and herbicide treatment. Such vegetation control will be performed on a regularly scheduled basis.

3.2.7 Public Recreation Areas

There are no public recreation areas in the immediate vicinity of the Norwalk Substation.

3.2.8 Disposal and Maintenance Procedures

The Contractor will remove all debris, excess rock and soil, including polluted or contaminated soils, and dispose of it in accordance with local, state, and federal regulations and the Material Handling Guideline prepared for the Norwalk Substation. No burning will occur at the Substation.

3.2.9 Blasting Procedures

CL&P does not anticipate blasting will be required during construction at the Substation. If any blasting should subsequently be found to be necessary on this site, it will be performed by licensed blasting contractor(s), pursuant to the regulations of State and Local Fire Marshals. In addition, any blasting near CL&P's existing transmission and distribution lines will be performed in accordance with CL&P's guidelines.

3.2.10 Rehabilitation Plans

All of the ground surface of the Norwalk Substation and a perimeter up to 5 feet past the proposed chain link fence is currently, and will be, covered in trap rock.

3.2.11 Independent Environmental Consultant

The Council approved BSC Group as the independent environmental consultant at its January 25, 2006 meeting.

4.0 NOTICES AND REPORTS

This section outlines requirements regarding notifications and reporting procedures per Section 16-50j-62 of the Regulations of Connecticut State Agencies.

4.1 STAGING AND MATERIAL LAYDOWN AREAS

The staging and laydown area for this work will be designated within the Substation yard. Temporary overhead phone and power lines and security lighting will be required within the Substation. Staging and material laydown areas proposed for use and not in the yard at the Station will be submitted to the Council for review and approval.

4.2 NOTICES TO THE COUNCIL

Three types of notices are required by the Council for construction. Each type is described below.

4.2.1 Notice of Beginning

CL&P will provide written notification to the Council a minimum of two weeks prior to the beginning of construction at the site.

4.2.2 Notice of Changes to D&M Plan

For all segments of this Project, CL&P intends to utilize a uniform procedure for interfacing with the Council regarding any changes to approved D&M Plans, namely, the procedure that the Council has already approved in connection with the D&M Plan for Scovill Rock Switching Station. This model, which has also been successfully applied for the Bethel-Norwalk Project (Docket No. 217), is described in Appendix C.

4.2.3 Notice of Completion

CL&P will provide the Council written notification of the completion of construction and site rehabilitation for the Substation.

4.3 NOTICE TO MUNICIPALITIES

CL&P will provide written notification to the Chief Elected Official of Norwalk a minimum of three weeks prior to the beginning of construction. CL&P will also notify the Chief Elected Official when the work at the Substation is complete.

4.4 NOTICE TO LANDOWNERS

There are no adjacent landowners requiring notification at the Norwalk Substation.

4.5 MONTHLY REPORTS

CL&P will provide the Council with written monthly progress reports.

4.6 FINAL REPORT

CL&P will provide a final report to the Council as required in Section 16-50j-62 of the Regulations of Connecticut State Agencies. The final report will contain the following information as prescribed in the regulations:

1. All agreements with abutters or other property owners regarding special maintenance precautions.

2. Significant changes to the D&M Plan that were required because of the property rights of underlying and adjoining owners or for other reasons.
3. Location of non-transmission materials which have been left in place.
4. Actual construction cost of the facility including but not limited to the following:
 - Clearing and access
 - Construction
 - Rehabilitation

5.0 ADDITIONAL ELEMENTS PER COUNCIL ORDER

The listing of additional elements identified in the Decision and Order for Docket No. 272 pertaining to D&M Plans is included in Appendix B. All applicable information is contained within the above portions of the plan and the related permits.

5.1 DECISION AND ORDER CHECKLIST

Following is a synopsis of the requirements for the D&M Plans for the Middletown-Norwalk Project as stated in the Decision and Order, followed by the location of the information in the Plan, or a statement if not applicable to this specific plan for the Norwalk Substation.

ITEM FROM DECISION	LOCATION/APPLICABILITY
14. D&M Elements	
a. Detailed site plan showing access roads, foundations, staging areas for overhead route	General Arrangement Drawing, Appendix A, Exhibit 3
b. Detailed site plan showing splice vaults, duct banks, staging areas for underground route	Not Applicable
c. Identification of boring sites for underground	Not Applicable
d. Erosion and Sediment Control Plan	Section 3.2.2 and Site Erosion and Sediment Control Plan, Appendix A, Exhibit 4
e. Provisions for crossing wetlands and watercourses	Not Applicable (no watercourse crossings or wetlands)
f. Vegetation Clearing Plan	Not Applicable (no vegetation clearing)
g. Wetland Restoration Plan	Not Applicable (no wetland disturbance)
h. Invasive Species Management Plan	Not Applicable (no vegetation rehabilitation)
i. Plan for Pre-Construction Survey for species of concern	Not Applicable (no habitat)
j. Post-construction EMF Monitoring Plan	Section 5.2
k. Fencing of vernal pools; buffer around wetlands	Not Applicable (no vernal pool or wetland disturbance)
l. Inland Wetlands Restoration Plan	Not Applicable (no wetland disturbance)
m. Monitoring and Operations Plan for each water crossing	Not Applicable (no watercourse crossings)
n. Traffic Control Plan	N/A
o. Blasting Plan	N/A
p. Groundwater Best Management Practices	Section 3.2.2
q. Identification of staging areas	Section 2.11, Section 4.1
r. May spread excavated material in uplands;	Not Applicable (no adjacent upland areas)

stockpile excavated soil from wetlands	
s. Limit conductor installation sites to cleared right-of-way, not in wetlands	Not Applicable
t. Plan to remove or adjust selected structures	Not Applicable (no structures for overhead lines to be removed or adjusted)
15. DEP Consultation (river crossings)	Not Applicable (no river crossings)
16. Regional Water Authority (RWA) Conditions	Not Applicable (not on RWA property)
17. DOT Encroachment Permit Process	Not Applicable (no areas of DOT encroachment)
18. Provide the Following Permits Prior to Construction (Public Health, OLISP, Water Crossings)	Not Applicable (none of the listed permits apply to the Norwalk Substation)
19. Waste Management Permits	Section 3.2.8
20. Independent Environmental Consultant	Section 3.2.11
21. Phase II Archeological Reconnaissance Survey	Section 3.2.5

5.2 SUPPLEMENTAL PLANS AND INFORMATION

CL&P and UI filed their Electric and Magnetic Field Monitoring Plan for the entire project on February 16, 2007.

6.0 PROJECT SCHEDULE

The construction additions to the Norwalk Substation will take approximately 15-18 months from mobilization through construction and site restoration. The expected start of construction is July 2007, with completion by December 2008. The new equipment will be placed in service upon completion of the associated 345-kV line sections and substation improvements. Daily work hours for construction activities are expected to fluctuate between eight and twelve hours per day, 5 to 6 days per week, as determined by the Construction Contractor to meet the project schedule.

NORWALK SUBSTATION CONSTRUCTION SCHEDULE

Relocation of Autotransformer	July 2007 – September 2007
Relocate existing spare to New spare pad	July 2007 – August 2007
Construction Contractor Mobilization	September 2007 - November 2007
Subgrade installation (Includes foundations and supports)	September 2007 – January 2008
Equipment delivery	November 2007 – October 2008
Equipment installation	November 2007 – November 2008
Install control wiring	March - November 2008
Testing	June - December 2008

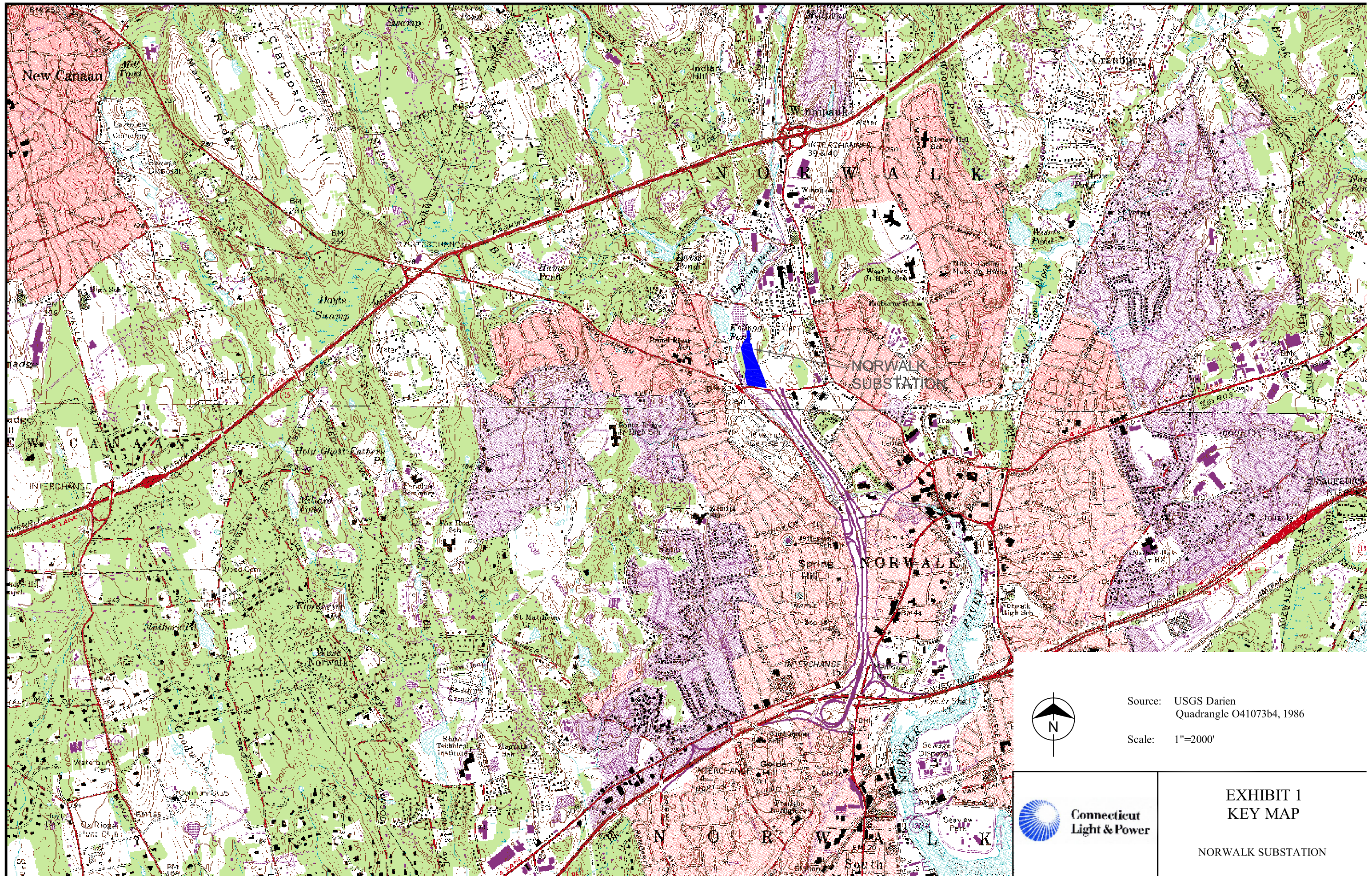
APPENDICES

- A Drawings**
- B Docket No. 272 - Selected
Portions of Decision and Order**
- C D&M Plan Change Approval
Process**

APPENDIX A

DRAWINGS

- EXHIBIT 1 – Key Map
- EXHIBIT 2 – Aerial Photograph
- EXHIBIT 3 – General Arrangement Plan and Sections
- EXHIBIT 4 – Sedimentation and Erosion Control Plan
- EXHIBIT 5 – Sedimentation and Erosion Control Details



Source: USGS Darien
Quadrangle O41073b4, 1986
Scale: 1"=2000'

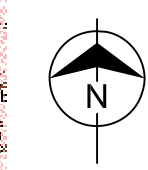
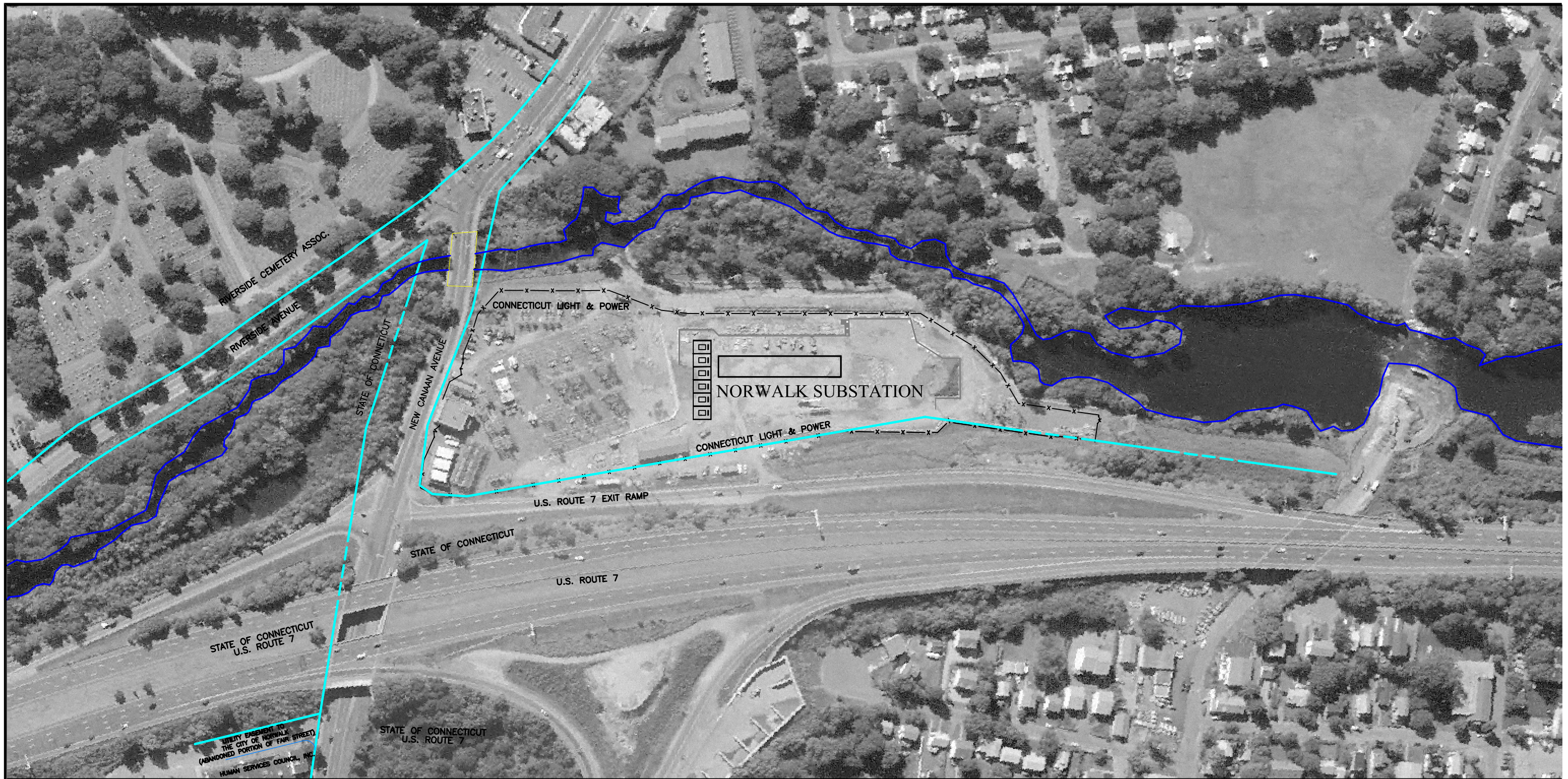


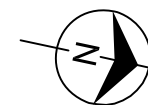
EXHIBIT 1 KEY MAP

NORWALK SUBSTATION

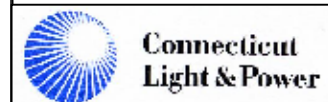


LEGEND

- x-x-x-x- FENCE LINE
- WATERCOURSE
- - - ROAD RIGHT OF WAY



Scale: 1"=400'

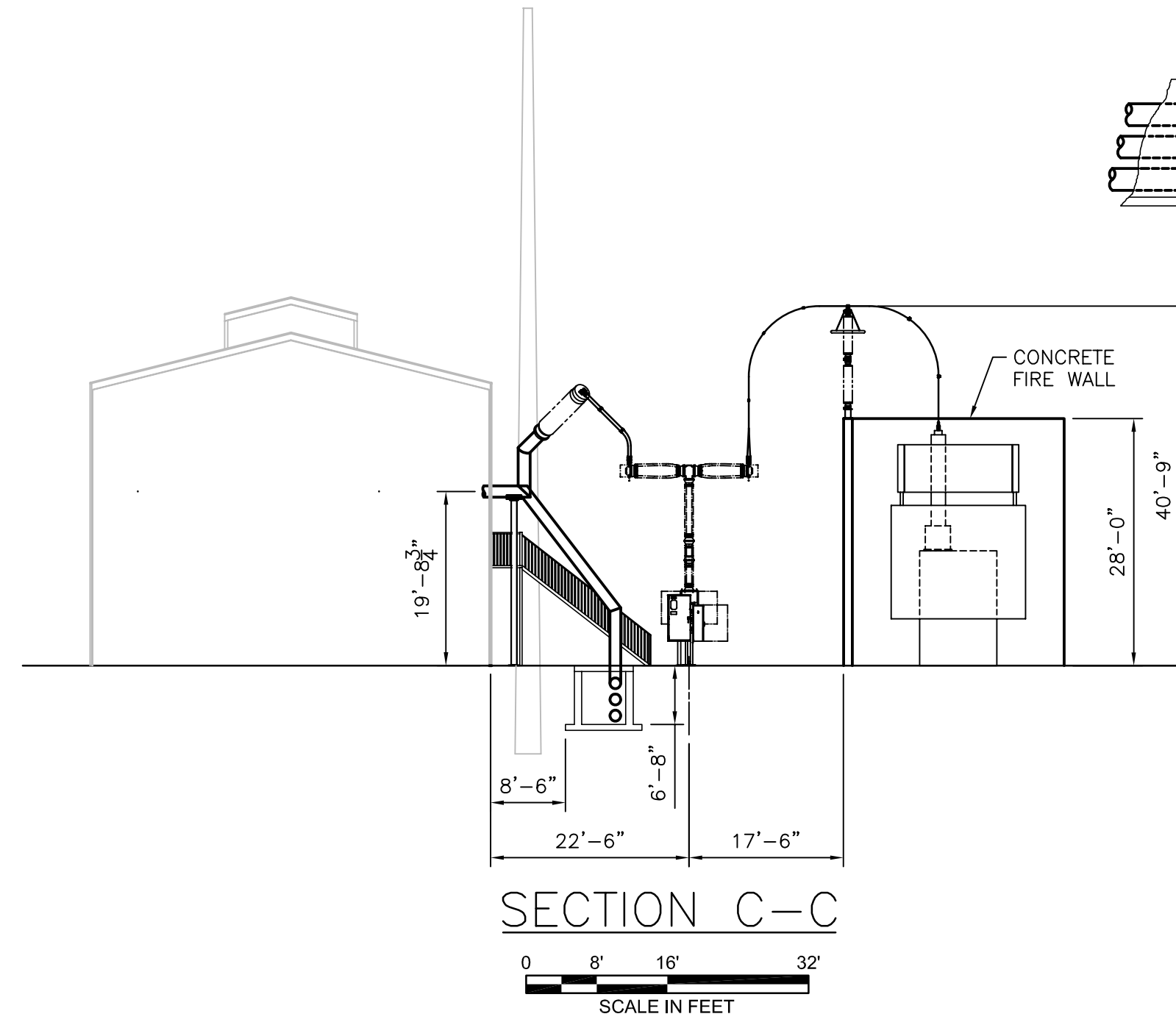
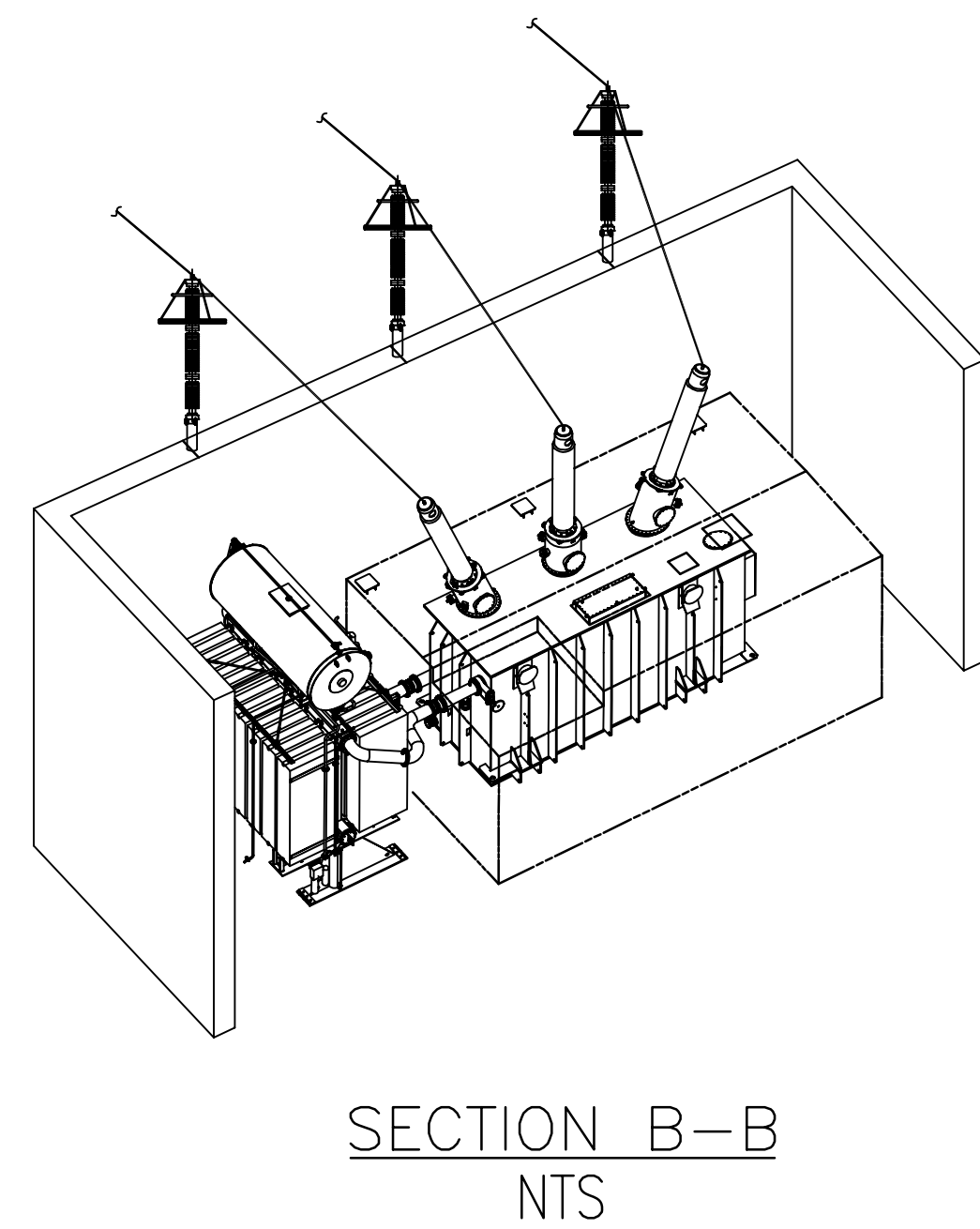
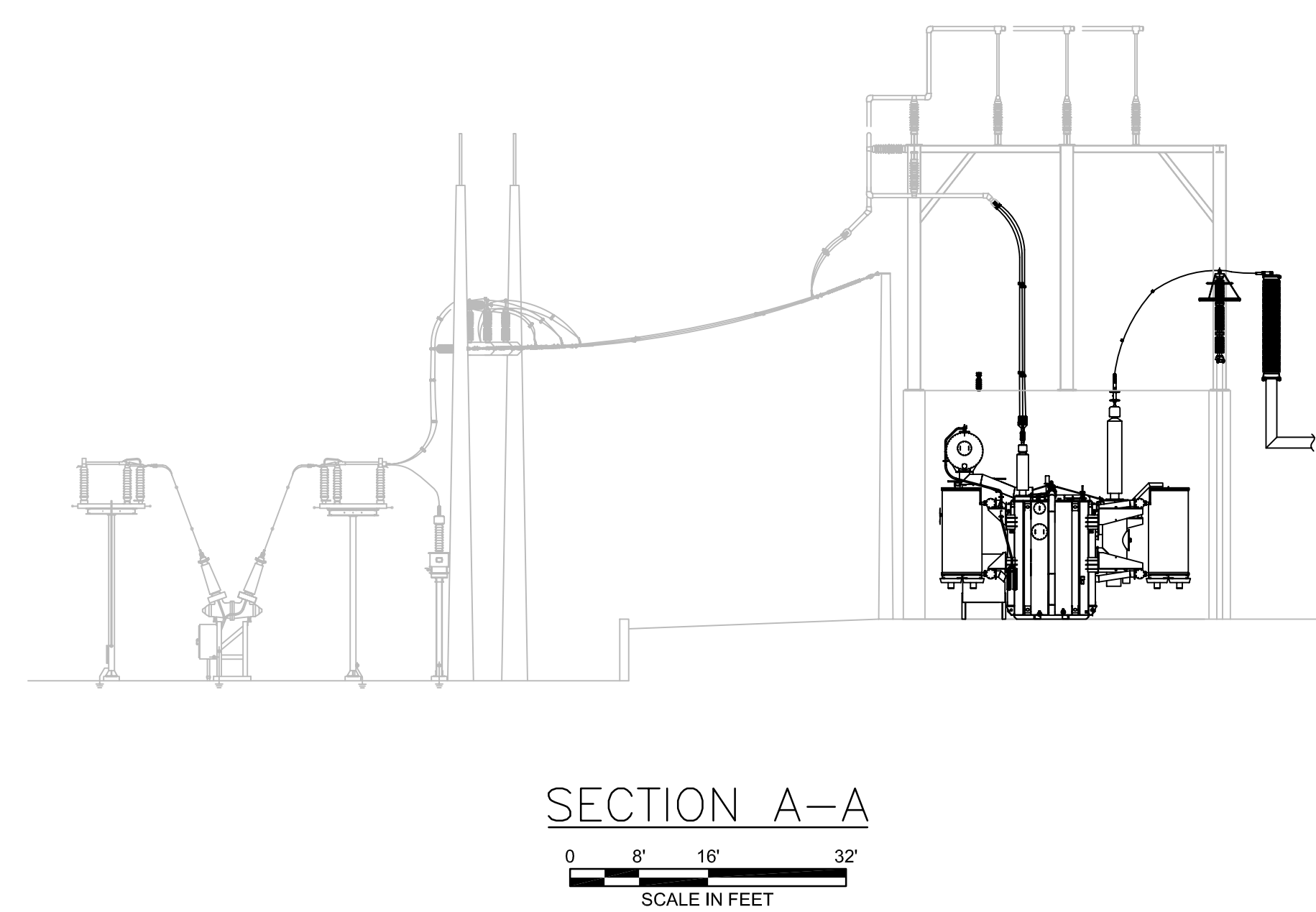
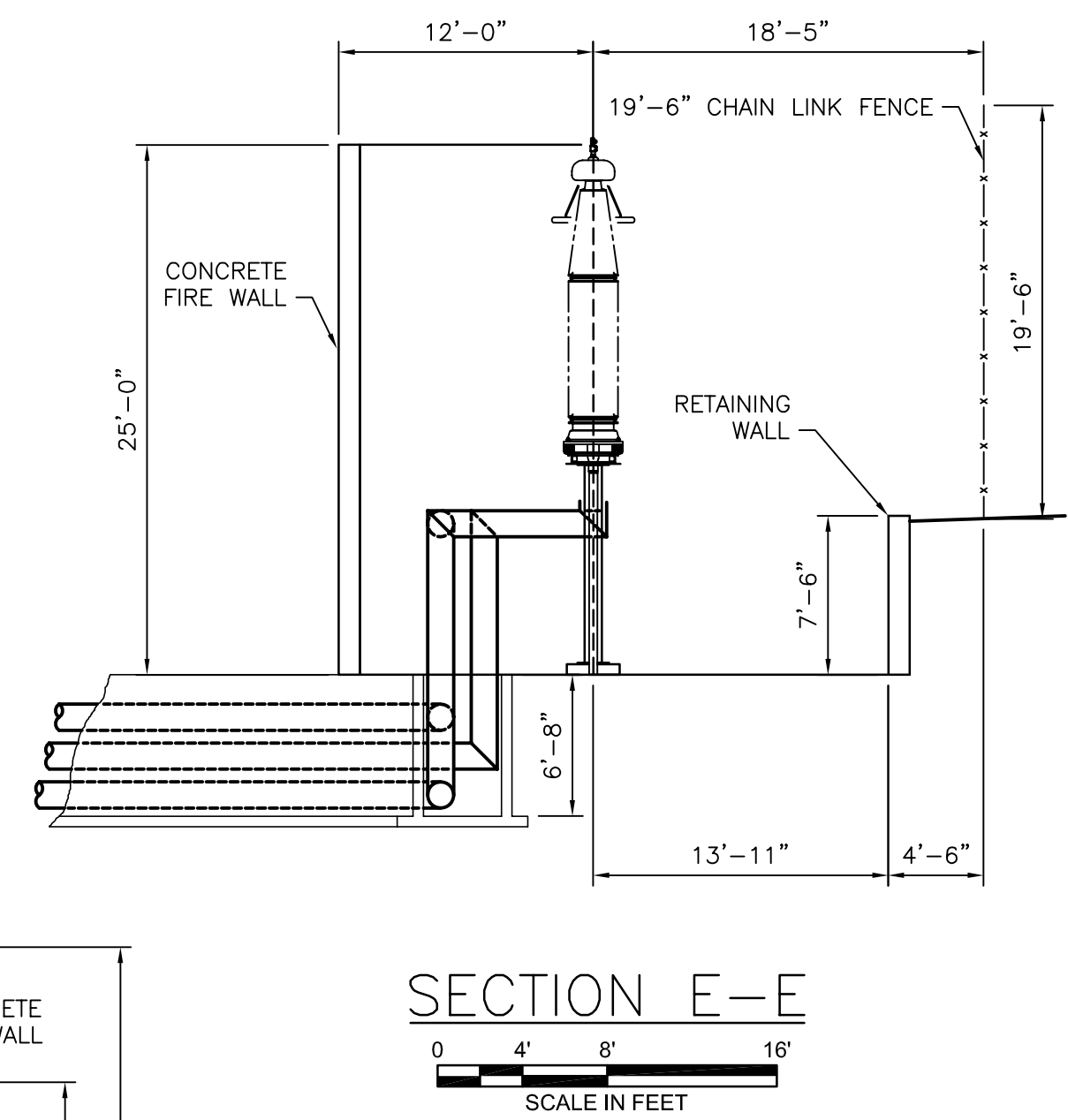
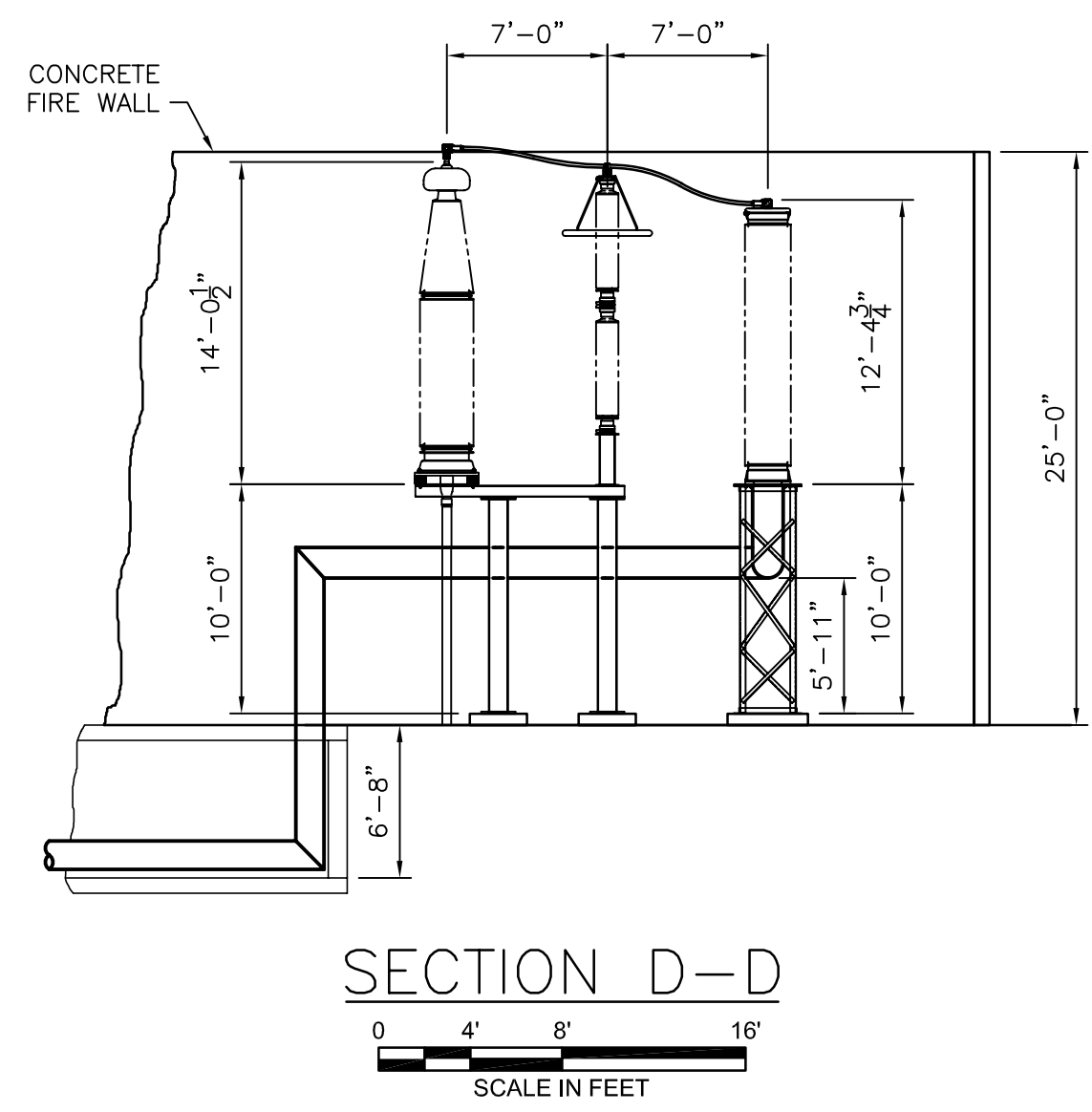
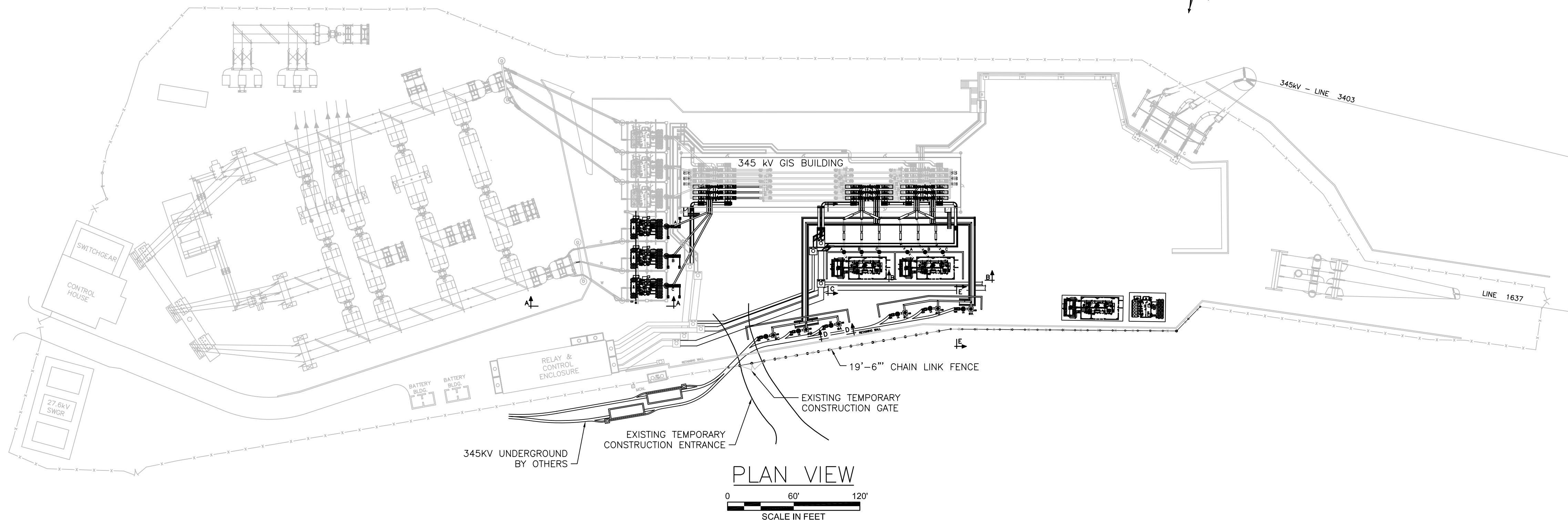
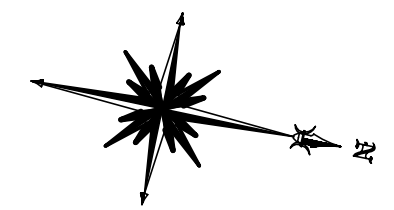


Connecticut
Light & Power

EXHIBIT 2
AERIAL PHOTO

NORWALK SUBSTATION

MIDDLETOWN-NORWALK CONSTRUCTION OF A 345-kV TRANSMISSION LINE
 NORWALK 345-kV SUBSTATION ADDITION



PRELIMINARY

CAD GENERATED DWG
 MAKE NO MANUAL CHANGES

BEFORE CHANGES	VOID DWG.
AFTER CHANGES	NO BEFORE DWG.
REVISIONS DURING CONSTRUCTION	

NORWALK 9S SUBSTATION			
FOR THE CONNECTICUT LIGHT & POWER COMPANY			
TITLE PROPOSED GENERAL ARRANGEMENT - PLAN & SECTIONS NORWALK, CT.			
BY TAT	CHKD	APP	APP
DATE SEPT. 29, 2006	DATE	DATE	DATE
SCALE AS NOTED		DWG. NO.	EXHIBIT 3

MF	NO.	DATE	REVISIONS	BY	CHK	APP	APP

H:\MSDC\345KV\Draw\NORWALK\Draw\Drawings\Main\345kv 11-02-2006 1344.RWG

MIDDLETOWN-NORWALK CONSTRUCTION OF A 345-kV TRANSMISSION LINE
 NORWALK 345-KV SUBSTATION ADDITION

LEGEND

- TCE TEMPORARY CONSTRUCTION ENTRANCE
- TSP TEMPORARY STOCK PILE
- GSF GEOTEXTILE SILT FENCE

NARRATIVE STATEMENT

1. THE DEVELOPMENT

A) THE PROPOSED SITE DEVELOPMENT INCLUDES THE INSTALLATION OF ONE 345/115KV TRANSFORMER BANK, TWO UNDERGROUND TRANSMISSION LINE EXITS & ASSOCIATED TRENCH FOR GAS INSULATED LINE, TWO 3 PHASE SHUNT REACTORS, MANHOLES, DUCT BANK AND STORAGE PAD FOR ONE 345/115KV SINGLE PHASE TRANSFORMER AND ONE THREE PHASE SHUNT REACTOR.

B) THE PROJECT SITE-WORK INVOLVES DISTURBING APPROXIMATELY 0.8 ACRES OF EXISTING SUBSTATION TO INSTALL NEW FOUNDATIONS, MANHOLES, AND CONDUIT.

C) THE EXISTING PROPERTY DISCHARGES ALL STORM WATER RUNOFF TO THE NORWALK RIVER, PRIMARILY BY SURFACE FLOW. STORM WATER RUNOFF WILL REMAIN UNCHANGED BY THE PROPOSED DEVELOPMENT.

2. SEDIMENT AND EROSION CONTROL CRITERIA

A) ALL SEDIMENT AND EROSION CONTROL MEASURES ARE BASED ON THE EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONNECTICUT PREPARED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, REVISED 1976, AND GUIDELINES FOR SOIL AND SEDIMENT CONTROL PREPARED BY THE CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION, DATED MAY 2002.

B) PRIOR TO THE START OF CONSTRUCTION ACTIVITIES ON THE SITE, A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD TO ESTABLISH SUPERVISORY AND INSPECTION PROCEDURES FOR SEDIMENT AND EROSION CONTROL MEASURES. THIS MEETING SHALL BE ATTENDED BY THE OWNER, THE CONTRACTOR, THE TOWN ENGINEER AND THE TOWN SEDIMENT AND EROSION CONTROL OFFICER.

3. INSTALLATION PROCEDURES

A) INSTALL GEOTEXTILE SILT FENCE (GSF) AS INDICATED ON THE DRAWING PRIOR TO DISTURBING ANY SOIL.

B) INSTALL TEMPORARY CONSTRUCTION ENTRANCE (TCE) AS INDICATED ON THE DRAWING.

C) INSTALL FOUNDATIONS, MANHOLES AND CONDUITS FOR NEW EQUIPMENT. EXCAVATE AND STOCK PILE SOIL (TSP) AS INDICATED ON DRAWING. PROVIDE GSF AROUND STOCK PILE.

E) BACK-FILL, AND COMPACT AROUND NEW FOUNDATIONS, MANHOLES AND CONDUIT AS SPECIFIED.

F) IMMEDIATELY AFTER BACK-FILL OF FOUNDATION AREA, INSTALL THE 3/4" TRAPROCK SURFACE. REMOVE THE GSF AND TCE.

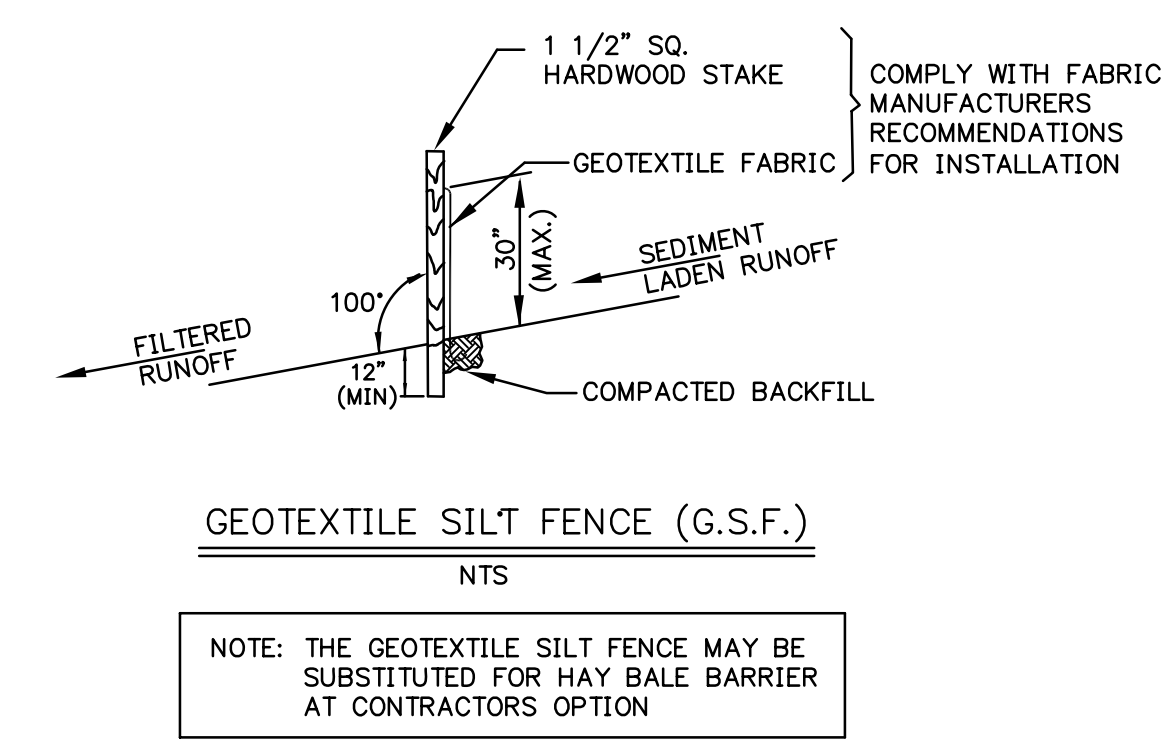
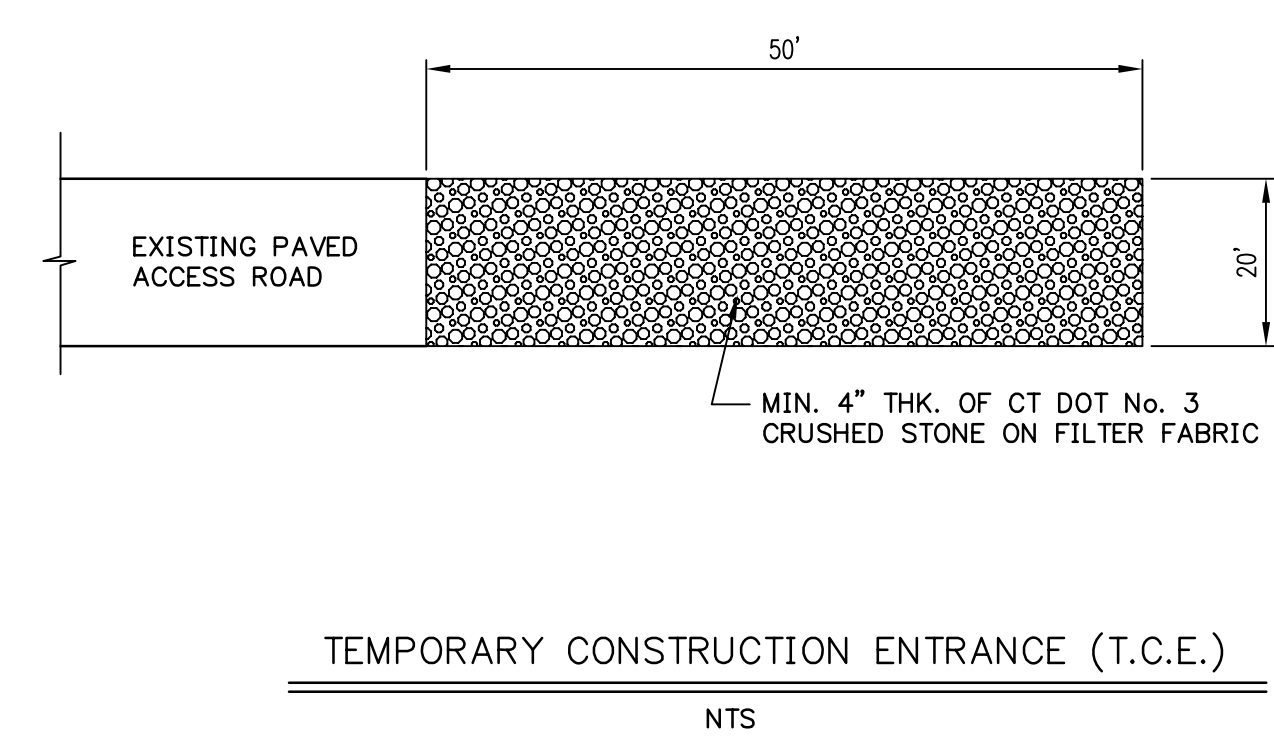
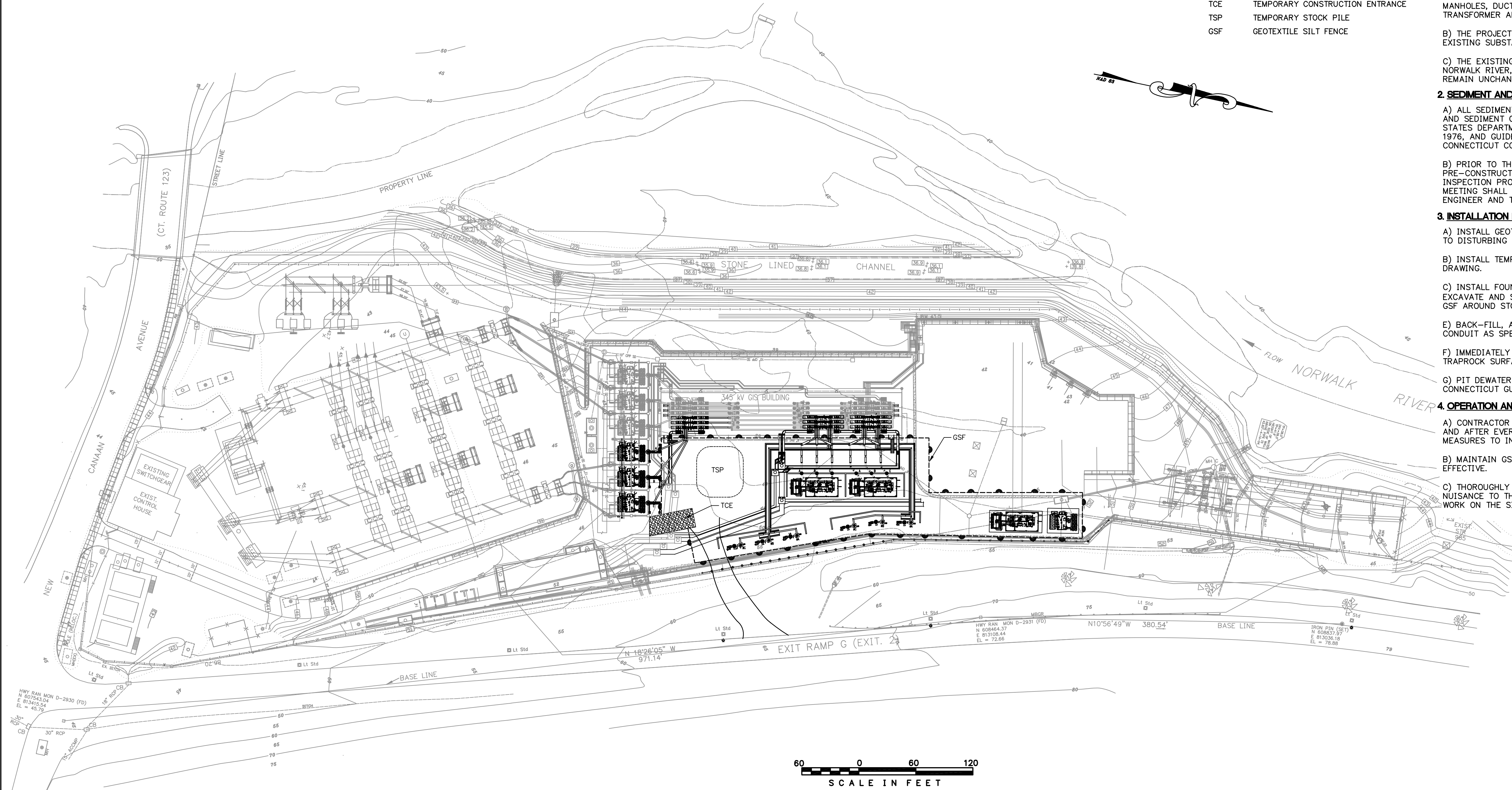
G) PIT DEWATERING, IF APPLICABLE, SHALL BE IN ACCORDANCE WITH THE 2002 CONNECTICUT GUIDLINES FOR SOIL EROSION AND SEDIMENT CONTROL.

4. OPERATION AND MAINTENANCE PROGRAM - DURING CONSTRUCTION

A) CONTRACTOR SHALL INSPECT AND RECORD EROSION CONTROLS AND TCE WEEKLY AND AFTER EVERY STORM EVENT. REPAIR AS NECESSARY ALL EROSION CONTROL MEASURES TO INSURE INTEGRITY OF THE EROSION CONTROL PROGRAM.

B) MAINTAIN GSF UNTIL ALL PERMANENT EROSION CONTROL MEASURE BECOME EFFECTIVE.

C) THOROUGHLY MOISTEN ALL SURFACES AS REQUIRED TO PREVENT DUST BEING A NUISANCE TO THE PUBLIC, NEIGHBORS AND CONCURRENT PERFORMANCE OF OTHER WORK ON THE SITE.



PRELIMINARY

CAD GENERATED DWG
 MAKE NO MANUAL CHANGES

BEFORE CHANGES	VOID DWG.
AFTER CHANGES	NO BEFORE DWG.
REVISIONS DURING CONSTRUCTION	

NORTHEAST UTILITIES SERVICE CO.			
FOR THE CONNECTICUT LIGHT & POWER COMPANY			
TITLE NORWALK 9S SUBSTATION SEDIMENTATION AND EROSION CONTROL PLAN NORWALK, CT.			
BY BPB	CHKD DATE NOV. 9, 2006	APP DATE	APP DATE
SCALE AS NOTED	DWG. NO.		EXHIBIT 4

MF	NO.	DATE	REVISIONS	BY	CHK	APP	APP

W:\MSD\345KV\CON\NORWALK\NORWALK_9S\DWG\SUBSET.dwg 11-14-2006 14:02 RRS

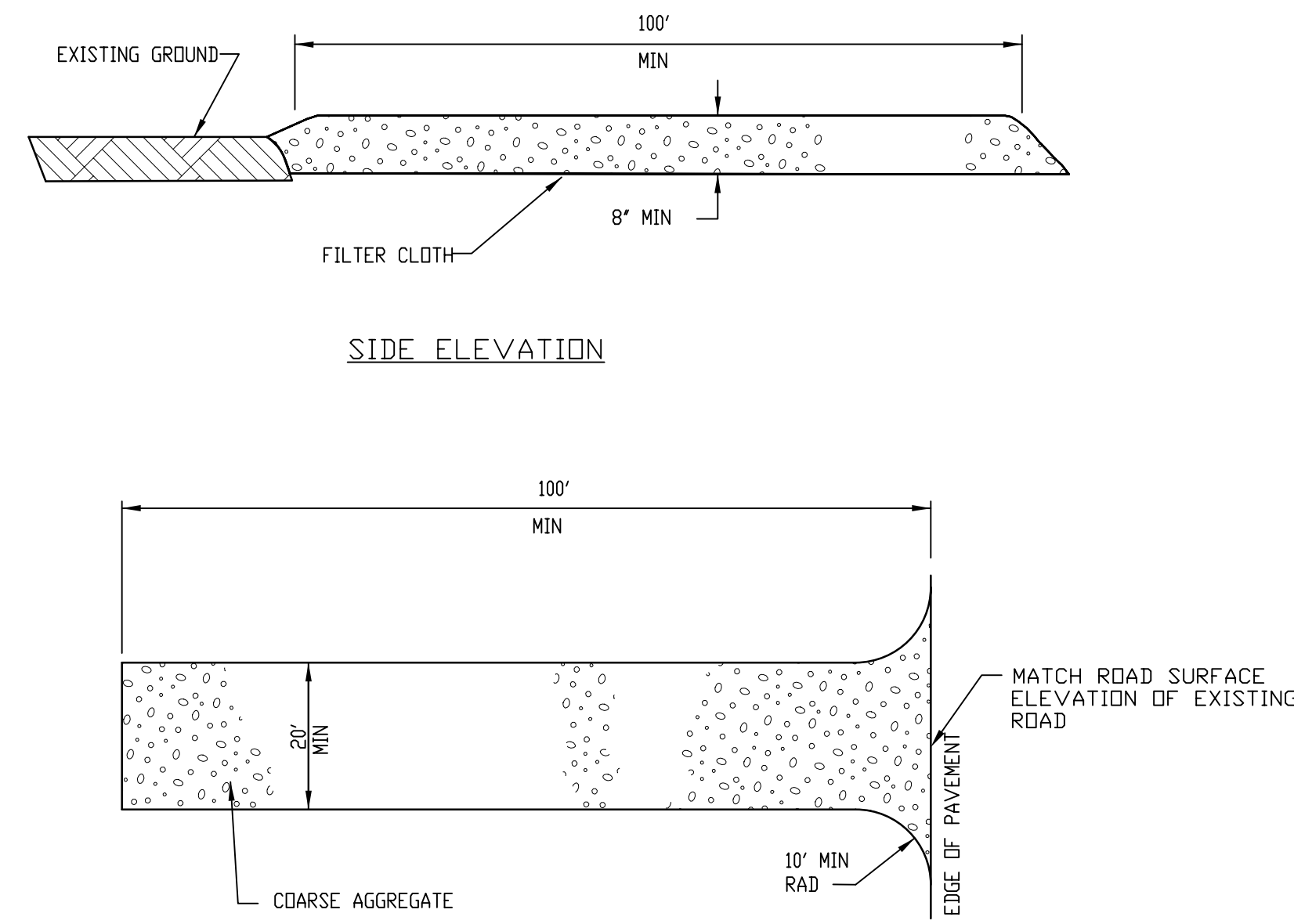
MIDDLETOWN-NORWALK CONSTRUCTION OF A 345-kV TRANSMISSION LINE
 NORWALK 345-KV SUBSTATION ADDITION

TEMPORARY STONE CONSTRUCTION ENTRANCE
 CONSTRUCTION SPECIFICATIONS

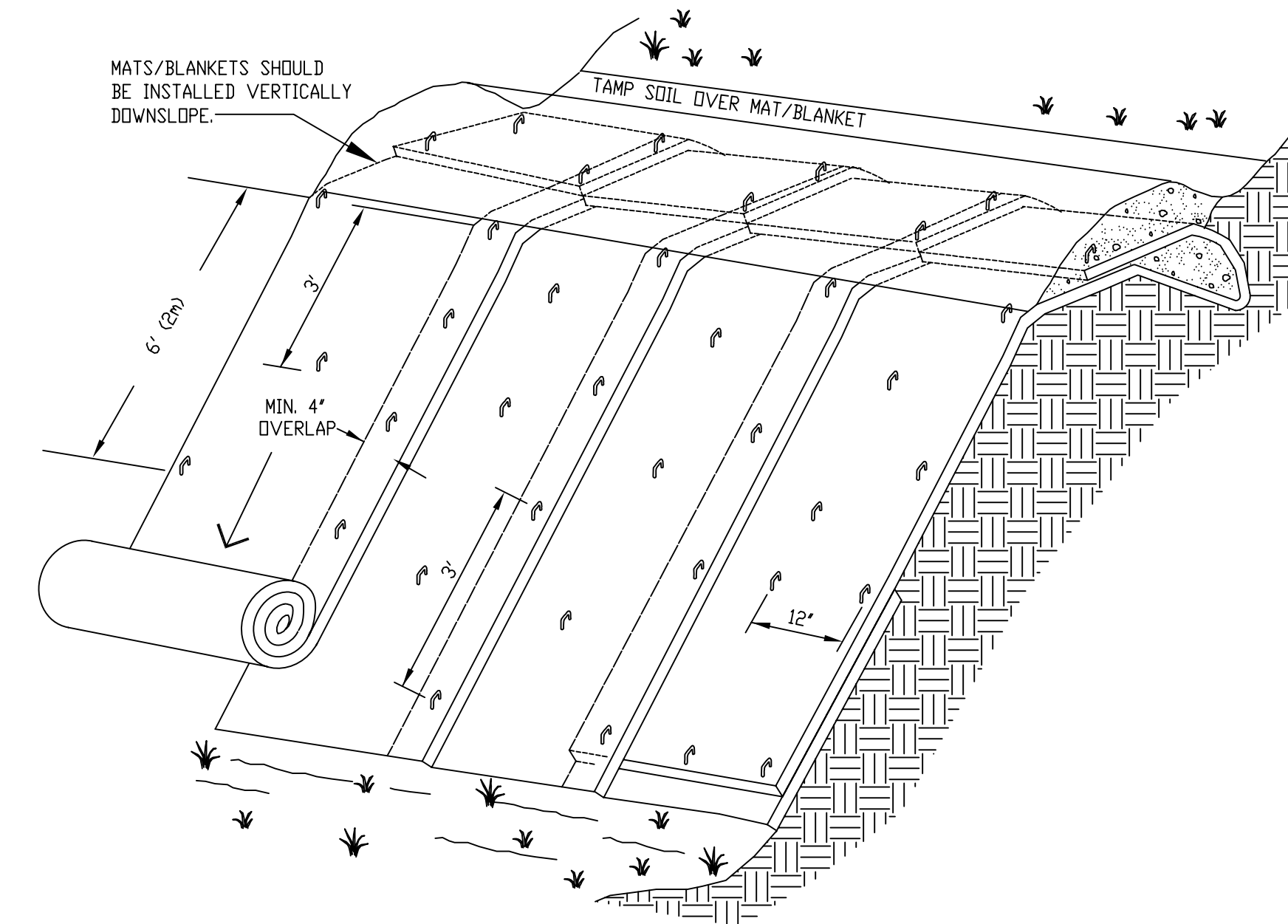
1. THE AREA OF THE ENTRANCE MUST BE EXCAVATED A MINIMUM OF 3 INCHES AND MUST BE CLEARED OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL. THE FILTER FABRIC UNDERLINER WILL THEN BE PLACED THE FULL WIDTH AND LENGTH OF THE ENTRANCE.
2. FOLLOWING THE INSTALLATION OF THE FILTER CLOTH, THE STONE SHALL BE PLACED TO THE SPECIFIED DIMENSIONS. ANY DRAINAGE FACILITIES REQUIRED BECAUSE OF WASHING SHALL BE CONSTRUCTED ACCORDING TO SPECIFICATIONS. CONVEYANCE OF SURFACE WATER UNDER ENTRANCE, THROUGH CULVERTS, SHALL BE PROVIDED AS REQUIRED. IF SUCH CONVEYANCE IS IMPOSSIBLE, THE CONSTRUCTION OF A "MOUNTABLE" BERM WITH 3:1 SLOPES WILL BE PERMITTED.
3. THE FILTER CLOTH UTILIZED SHALL BE A NONWOVEN FABRIC CONSISTING ONLY OF CONTINUOUS CHAIN POLYMERIC FILAMENTS OR YARNS OF POLYESTER. THE FABRIC SHALL BE INERT TO COMMONLY ENCOUNTERED CHEMICALS AND HYDROCARBONS, BE MILDEW AND ROT RESISTANT.

MAINTENANCE

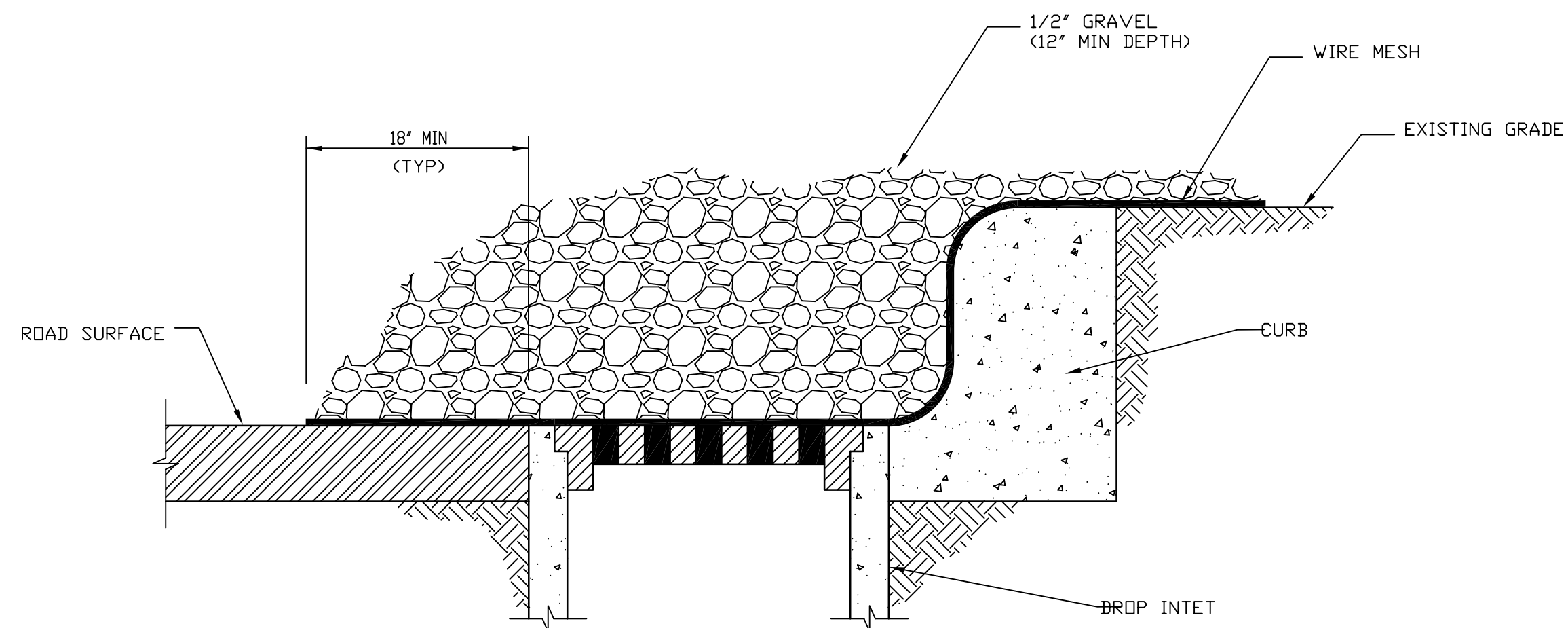
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR THE WASHING AND REWORKING OF EXISTING STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY. THE USE OF WATER TRUCKS TO REMOVE MATERIALS DROPPED, WASHED, OR TRACKED ONTO ROADWAYS WILL NOT BE PERMITTED UNDER ANY CIRCUMSTANCES.
2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL PUBLIC STREETS FREE OF CONSTRUCTION DEBRIS AND SEDIMENT.



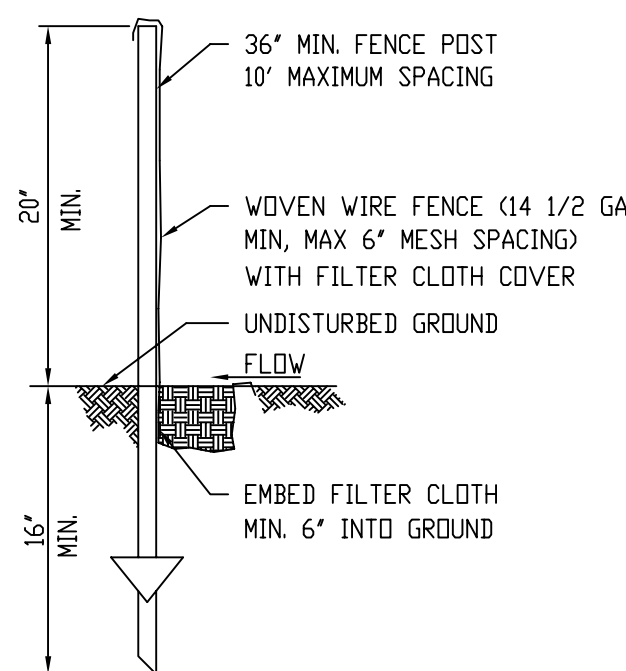
TEMPORARY STONE
 CONSTRUCTION ENTRANCE



EROSION CONTROL FOR SIDE SLOPES
 NOT TO SCALE



CURB DROP INLET PROTECTION DETAIL

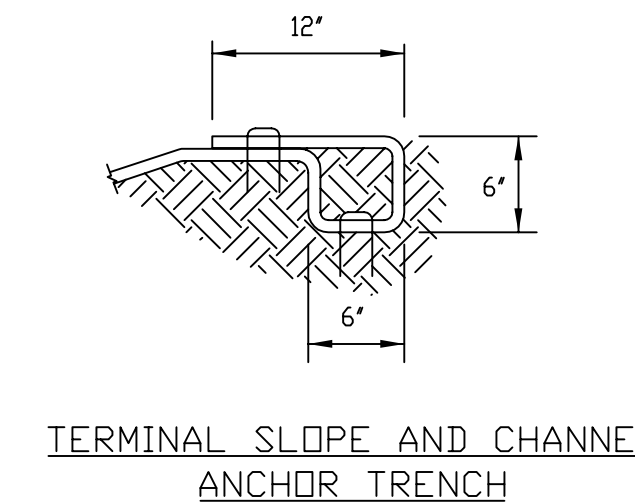


CONSTRUCTION NOTES FOR FABRICATED SILT FENCE:

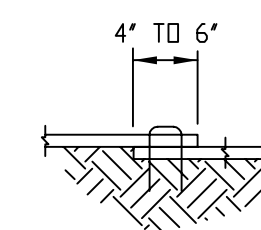
1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 6" AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

POSTS: STEEL EITHER 'I' OR 'U' TYPE OR 2" HARDWOOD
 FENCE: WOVEN WIRE 14 1/2 GA. 6" MAX MESH OPENING
 FILTER CLOTH: FILTER X, MIRAFL 100X, STABILINKA T140 OR APPROVED EQUAL
 PREFAB. UNIT: GEOFAB, ENVIROFENCE OR APPROVED EQUAL

DETAIL 1
 SILT FENCE
 NOT TO SCALE

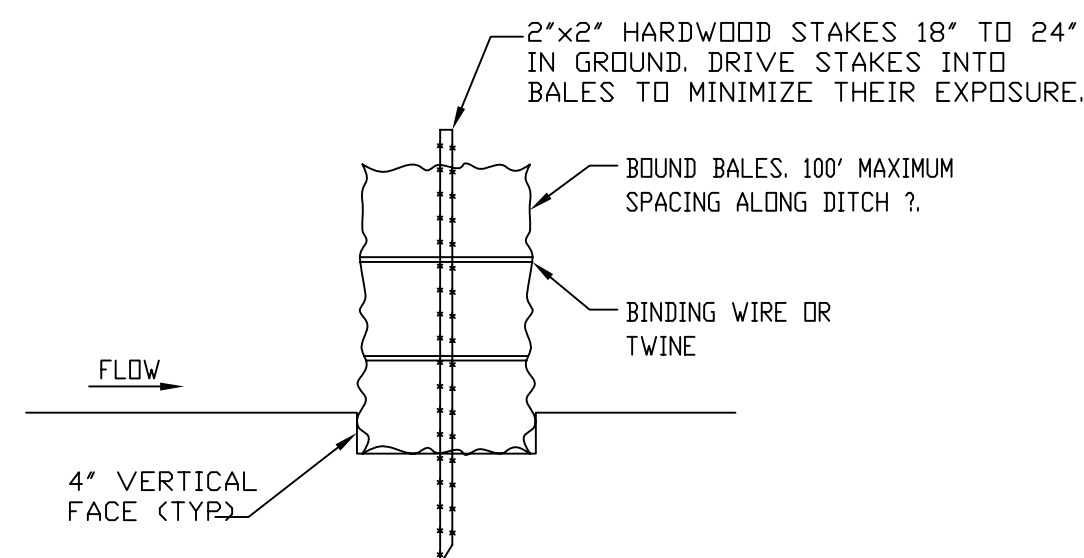


TERMINAL SLOPE AND CHANNEL
 ANCHOR TRENCH



STANDARD MATTING OVERLAP

EROSION CONTROL BLANKETS
 NOT TO SCALE



DETAIL 2
 STRAW BALE DETAIL
 NOT TO SCALE

PRELIMINARY

CAD
 GENERATED
 DWG
 MAKE NO
 MANUAL
 CHANGES

BEFORE CHANGES	VOID DWG.
AFTER CHANGES	NO BEFORE DWG.
REVISIONS DURING CONSTRUCTION	

NORTHEAST UTILITIES SERVICE CO.

FOR THE CONNECTICUT LIGHT & POWER COMPANY

TITLE
 NORWALK 9S SUBSTATION
 SEDIMENTATION AND EROSION
 CONTROL DETAILS
 NORWALK, CT.

BY: BPB	CHKD:	APP:	APP:
DATE: APRIL 20, 2006	DATE:	DATE:	DATE:

SCALE: AS NOTED	DWG. NO.	EXHIBIT 5
-----------------	----------	-----------

MF	NO.	DATE	REVISIONS	BY	CHK	APP	APP

APPENDIX B

DOCKET NO. 272

SELECTED PORTIONS OF DECISION AND ORDER

APPENDIX B

DOCKET 272

SELECTED PORTIONS OF DECISION AND ORDER

14. The Certificate Holders shall not commence construction of the overhead and underground electric transmission system until securing Council approval of a D&M Plan, consistent with the Regulations of Connecticut State Agencies Section 16-50j-60 through Section 16-50j-62 and which includes the following elements:
 - a. A detailed site plan showing the placement of the access roads, structure foundations, equipment and material staging area for the overhead route;
 - b. A detailed site plan showing the underground route, splice boxes, provisions for underground cable protection, and equipment and material staging area;
 - c. Identification of horizontal directional drill and jack and boring sites;
 - d. An erosion and sediment control plan, consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control as amended for both overhead and underground routes;
 - e. Provisions for crossing inland wetland and watercourses for both overhead and underground routes;
 - f. Vegetative clearing plan;
 - g. A wetland restoration plan;
 - h. Invasive species management plan;
 - i. A Plan for a pre-construction survey for all other endangered, threatened and species of special concern, flag areas of mudwort and bayonet grass, sweep areas for eastern box turtle and wood turtle prior to construction and abide to construction periods as outlined by the DEP Wildlife Division;
 - j. A post-construction electric and magnetic field monitoring plan;
 - k. A plan for installing construction fencing at vernal pools near construction activities and a buffer area be established around inland wetlands;
 - l. An inland wetlands restoration plan;
 - m. Monitoring and Operations Plan for each water body crossing;
 - n. A traffic control plan to include scheduling of construction hours during nights and/or weekends and mitigation of lighting and noise;
 - o. A blasting plan
 - p. Groundwater best management practices plan;
 - q. Identification of developed areas for staging and equipment lay down, field office trailers, sanitary facilities and parking before establishing a new area;
 - r. Excavated material in upland construction may be allowed to be graded in proximity to the structure and excavated soil in wetland construction shall be stockpiled in an upland area for use in wetland restoration;
 - s. Conductor installation sites shall be within the existing right-of-way, use of existing cleared areas, to the extent possible, and pulling sites will not be allowed in wetlands;
 - t. A plan for the following: structure #4010 may be eliminated; in Woodbridge, details on removal of structure #3920 and new poles may be eliminated in the area of wetland #133; a number of structures within wetland #70 adjacent to Tamarac Swamp in Wallingford may be reduced, especially structures #8769 and 8800; and a set of existing pole structures immediately adjacent to the Farmington Can Recreational Trail in Hamden could be removed.

15. The Certificate Holders are directed to consult with DEP on the following matters:
 - a. Concerning horizontal directional drill and the jack and bore crossing techniques;
 - b. Forging streams; and
 - c. Construction scheduling at the Milford boat launch and the line should be sited so as to not interfere unreasonably with any future maintenance needs.

16. The Certificate Holders shall abide to the following Regional Water Authority (RWA) conditions:
 - a. Shall provide all information necessary for the RWA to prepare a DPH Change in Use Application and Revocable License Agreement for the construction activities on RWA owned watershed land.
 - b. Shall prepare a Stormwater Pollution Prevention Plan (SWPPP) during the development of the Development and Management Plan (D&M Plan). The D&M Plan shall be prepared in accordance with the Connecticut Guidelines for Soil Erosion and Sediment Control.
 - c. Refueling of construction equipment on public water supply watershed and aquifer areas shall only be conducted over portable spill container areas. Absorbent spill response materials shall be readily available on-site. The RWA shall be immediately notified of any hazardous material spills or other water quality incidents on its public water supply watershed or aquifers.
 - d. Any fuel, oils, paints solvents, or other hazardous material stored on-site during the construction process shall be in a secure area with at least 100 percent secondary containment.
 - e. Submittal of an Integrated Pest Management Plan for long-term maintenance of right-of-ways and submittal of an annual summary of pesticide use and other maintenance activities on RWA property.
 - f. If blasting is required, pre-blast surveys of RWA facilities shall be done, recording seismographs shall be in place during blasting and copies of the survey and sand seismograph results shall be provided to the RWA.
 - g. Provision of reimbursement for reasonable costs incurred by the RWA regarding review and inspection of the Project, including costs for review by its special consultants, and costs associated with designing and relocating the RWA's facilities, if required.
 - h. Preliminary and final D&M Plans shall be provided to the RWA for its review comments. The RWA shall be allowed at least 30 days to review and comment.
 - i. The RWA shall receive between three and five days notice prior to commencement of construction activity on public water supply watershed or aquifers, or in the vicinity of RWA facilities.

17. The Certificate Holders shall use the DOT encroachment permit process developed for Docket No. 217 project as a template.

18. The Certificate Holders shall provide the following permits prior to the commencement of construction:
 - a. Department of Public Health change-in-use permit;
 - b. Office of Long Island Sound Programs (OLISP) coastal permits for the Singer and East Devon Substations; and
 - c. DEP water body crossing permits.

19. The Certificate Holders shall obtain necessary waste management permits for activity in any solid waster disposal areas and remove and dispose of contaminated soil per municipal, state and federal regulations.
20. The Certificate Holders shall hire an independent environmental consultant, subject to Council approval, to monitor and report on the installation of the overhead and underground transmission system.
21. The Certificate Holders shall conduct a Phase II Archeological Reconnaissance Survey in consultation with the Connecticut Historical Commission prior to construction.

APPENDIX C

D&M PLAN CHANGE APPROVAL PROCESS

APPENDIX C

D&M PLAN CHANGE APPROVAL PROCESS

Identification of Significant Changes:

Once CL&P identifies a required change to the D&M Plan, it must determine whether it is a “significant change,” because such changes require advance Council approval. CL&P proposes the following criteria for identifying significant changes: a “significant change” is a change to the Project that significantly reduces the amount of protection to the environment or significantly increases potential public concerns. To be “significant”, the change must have a meaningful impact to the environment, public, or other permits.

For the underground portion of the Project, once CL&P identifies a potential change, it will consult with a Connecticut Department of Transportation (CDOT) representative to reach an agreement as to whether the change is “significant.” Any changes to existing CDOT facilities or affecting planned projects of CDOT would be considered “significant.”

Procedure for Council Review of “Significant Changes” to D&M Plan:

“Urgent” Case: If the change is “urgent” (i.e., if having to wait until the next regularly scheduled meeting of the Council to obtain approval of the change would have a material impact on construction cost or scheduling), then CL&P will contact Council staff to determine if the Council chairman will grant oral permission for the change so as to allow construction to continue in accordance with the proposed change. If oral permission is granted, CL&P will continue construction in accordance with the change and will file documentation regarding the change within 24 hours. If oral permission is denied, CL&P will file the proposed D&M Plan Change with the Council for review and will hold construction impacted by the change pending the Council’s determination.

“Non-Urgent” Case: If the change is not “urgent,” then CL&P will file the proposed D&M Plan Change with the Council for review at its next meeting and will delay the construction impacted by the change pending the Council’s determination.

Procedure for Council Review of Other Types of Changes to the D&M Plan:

For purposes of reviewing and processing changes to an approved D&M Plan that are not deemed to be “significant”, CL&P will categorize the change as one of the following:

Non-significant change: a change to the Project that may reduce the amount of protection to the environment or may increase potential public concerns, but only in a minor or trivial manner.

Positive Change: A change to the Project that increases the amount of protection to the environment or decreases public concerns, having no negative aspects in this regard (that is, positive impacts may not be considered to offset any negative impacts).

Minor Change: A change to a design aspect of a drawing, where the design has no bearing on the environment or potential public concerns.

For “non-significant” and “positive” changes, CL&P will inform Council staff of the change by phone (or telephone message) and will file appropriate documentation with the Council within 24 hours. There will be no “hold” on construction for such non-significant and positive changes.

For “minor changes”, there will be no formal notification process prior to proceeding with construction incorporating the change, and the reporting of such changes will occur weekly, as described below.

Weekly Reporting of All Changes to D&M Plans

CL&P will document all D&M Plan changes - significant, non-significant, positive, and minor – in an attachment to the environmental inspector’s weekly report.

Middletown-Norwalk Transmission Project
D&M Plan Change Approval Process

