



**Northeast
Utilities**

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John R. Morissette
Manager – Transmission Siting

March 15, 2013

Linda Roberts, Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

Re: Docket No. 435: The Connecticut Light & Power Company Application for a Certificate of Environmental Compatibility and Public Need for the Stamford Reliability Cable Project - Supplemental Filing

Dear Ms. Roberts:

In connection with the above-referenced matter, The Connecticut Light and Power Company ("CL&P") is providing a Supplemental Filing to the Connecticut Siting Council ("Council"). This Supplemental Filing presents an alternative potential route option, which resulted from CL&P's discussions with the Connecticut Department of Transportation ("ConnDOT").

Representatives of ConnDOT informed CL&P of their plans to lower the Atlantic Street roadway as part of the MNRR Bridge Replacement Project, which would leave the street surface very near bedrock. In addition, ConnDOT disclosed plans for an access ramp to I-95 from South State Street at Atlantic Street as part of the same project. ConnDOT asked CL&P to explore alternatives to avoid the Atlantic Street underpass that is included in all three of the potential project routes identified in the CL&P Application. CL&P reviewed alternative route options and identified a potential route segment option that is feasible and avoids Atlantic Street. This route option involves the use of Canal Street, and it is referred to as the "Preferred Route With Canal Street Option".

CL&P presented the Preferred Route With Canal Street Option to the City of Stamford and ConnDOT (including ConnDOT Rails) officials; both the City and ConnDOT expressed a preference for this route option.

CL&P identified two additional private property owners, Dock Street Holdings, LLC and Seatek Company Incorporated, that would be affected by the Preferred Route With Canal Street. CL&P contacted the representatives of the two owners and provided an overview of the project and the potential impact on their property. CL&P provided a description of the project, including the Council's hearing notice, copies of the Council's docket page and CL&P's project page, and this Supplemental Filing via overnight delivery to the representatives of the two owners.

Please find enclosed an original and fifteen (15) copies of the Supplemental Filing.

Sincerely,

A handwritten signature in blue ink that reads "John R. Morissette".

John R. Morissette

Attachment: Supplemental Filing

cc:

Service List

Kim Harvey, Director of Property Management, Dock Street Holdings, LLC, 2 Overhill Road, Suite 425, Scarsdale, NY 10583-5339

Mr. Lucien Ducret, Seatek Company Incorporated, 392 Pacific Street, Stamford, CT 06902

Docket No. 435: STAMFORD RELIABILITY CABLE PROJECT
PREFERRED ROUTE WITH CANAL STREET OPTION

CSC Supplemental Filing

Background

The Connecticut Light and Power Company ("CL&P") filed an Application for a Certificate of Environmental Compatibility and Public Need ("Application") for the Stamford Reliability Cable Project (Docket No. 435) on January 18, 2013. The Application included three potential underground transmission line routes for a new 115-kilovolt ("kV") underground transmission circuit extending between CL&P's Glenbrook and South End Substations in Stamford, Connecticut. The three routes are referred as the Preferred Route, the Preferred Route With Variation and the Alternate Route. At the Connecticut Department of Transportation's ("ConnDOT") request, CL&P has further evaluated a small section of all three routes at the intersection of South State Street and the underpass along Atlantic Street.

ConnDOT's Request

In January 2013, representatives of ConnDOT informed CL&P that the Atlantic Street roadway would be lowered as much as 5.5 feet as part of the Metro North Railroad ("MNRR") Bridge Replacement Project, which would leave the street surface very near bedrock. In addition, ConnDOT disclosed plans for an access ramp to I-95 from South State Street at Atlantic Street as part of the same project. Therefore, ConnDOT asked the Project team to explore alternatives to avoid the Atlantic Street underpass that is included in all of the potential project routes identified in the Application. CL&P has identified an alternate route segment that is feasible, which involves the use of Canal Street. Canal Street was not previously considered by the Project team due to the City of Stamford's request that CL&P avoid roadways within the Stamford Urban Transitway (SUT) Project. In particular, the City requested that CL&P avoid the roads where the work had already been completed (in 2010) and the roads paved, as part of SUT Phase I, including Canal Street. In fact, to protect the SUT Project roads, Stamford has a five-year moratorium in place to prohibit excavation and re-paving.

In its analysis, CL&P first considered the alternatives discussed below (see Alternatives Considered). When those alternatives were eliminated, CL&P identified Canal Street as a potential route, now incorporated into the route known as the Preferred Route With Canal Street Option. See Drawing CS-1 attached hereto. Accordingly, CL&P is now submitting the Preferred

Route With Canal Street Option to the Council for its consideration. CL&P presented it to the City of Stamford; the City prefers this route because it reduces the construction time on local streets, especially along Atlantic Street, a major through street. CL&P also presented it to ConnDOT (including ConnDOT Rails) officials, who also expressed a preference for the route.

Alternatives Considered by CL&P

Atlantic Street is a key pathway to the area surrounding the South End Substation. As such, the Atlantic Street underpass is a necessary component of the Preferred Route, the Preferred Route With Variation, and the Alternate Route. Therefore, eliminating Atlantic Street from the Project route severely limits the route options available.

A number of options and construction methodologies to identify a suitable path to the northwestern side of the MNRR corridor, in lieu of Atlantic Street, were discussed and eliminated. The alternatives discussed and the reasons for elimination include:

- (1) From South End Substation, an overhead line crossing over MNRR to a new overhead/underground transition structure located along South State Street.
 - a) The crossing would be long and high, because it would need to span the existing 115-kV overhead lines in the MNRR railroad yard, catenary lines, and all the tracks with the necessary clearances.
 - b) There is no room between the railroad tracks and South State Street to place a new overhead/underground transition structure. ConnDOT has plans to add another track to the north of the existing tracks, which would further complicate positioning of a new structure.

- (2) From South End Substation, a cross-linked polyethylene ("XLPE") cable that would rise above ground on a bridged support system to cross over the MNRR corridor to South State Street.
 - a) There are existing 115-kV overhead lines and MNRR catenary lines that would need to be avoided or moved to allow space for a bridged support system for the XLPE cable.
 - b) There is no room between the railroad tracks and South State Street to install a bridged support structure. ConnDOT has plans to add another

track to the north of the existing tracks, which would further complicate positioning of a new structure.

- (3) A jack and bore crossing of the MNRR corridor, parallel to Atlantic Street from Manhattan Street to South State Street.
 - a) A jack and bore crossing requires that a "jack pit" be constructed on one end of the crossing and a "receiving pit" constructed on the other end of the crossing. Due to the lack of available space along Manhattan Street and South State Street for an "off road" jack pit or receiving pit, these pits would need to be in the travelled portions of Manhattan Street and South State Street. Because one of the pits would need to be located in the travelled portion of South State Street, between Atlantic Street and Canal Street, South State Street would need to be shut down for the duration of the jack and bore installation.

Detailed reviews of each of these alternatives were not performed due to the difficulty of construction within City of Stamford streets, specifically South State Street, and the MNRR corridor that have severe space constraints. All land on which the facilities for these alternatives could be located is already occupied by South State Street or the MNRR corridor. Consequently, it is not practical to implement any of these alternatives because each would result in either permanent closure of two lanes of South State Street or closure of all lanes of South State Street for the duration of the jack and bore installation (approximately one month).

Route options on the southeast side of the MNRR corridor are also limited, in this case by the coast line and the SUT Phase I and Phase II projects. The SUT Phase I Project included roadway improvements along Dock Street, Jefferson Street and Myrtle Avenue. These three streets would be the principal route the underground transmission circuit would follow and would negatively impact the recently constructed SUT Phase I Project. As mentioned above, earlier discussions with the City of Stamford indicated a strong opposition to using any SUT roadways.

The Preferred Route With Canal Street Option

CL&P then considered a route option using Canal Street. The Preferred Route With Canal Street Option extends from the South End Substation to Canal Street and then to South State

Street. This route avoids Dock Street; however, it minimally impacts SUT Phase I where it enters Canal Street, which is a side road feeding into the primary SUT Phase I route. This route is 7,565 feet in length, is the shortest of the four routes evaluated and is located primarily along city streets, with the exception of 430 feet crossing through private property. Consistent with the Preferred Route and the Alternate Route, the Preferred Route With Canal Street Option would require a jack and bore crossing of the MNRR corridor between Lincoln Avenue and Scott Place. This route would also require easements from a total of three private property owners, an easement from the City of Stamford, as well as rights from MNRR.

Route Analysis

In Section C.3 Table C-1 of the Application, CL&P presented a summary of its route analysis as to the three routes considered. CL&P conducted a similar analysis for the Preferred Route With Canal Street Option. The first three columns from Table C-1 in the Application are reprinted below in Table CS-1 with the analysis for the Preferred Route With Canal Street Option added as the fourth column.

Table CS-1: Route Analysis Summary

Key Factors	Preferred Route	Preferred Route With Variation	Alternate Route	Preferred Route With Canal Street Option
Route Length	8,000 feet	8,080 feet	8,800 feet	7,565 feet
Impact to ConnDOT Property	<u>275 Feet</u>	<u>1,150 feet</u>	<u>395 feet</u>	<u>175 Feet</u>
- Route 1	175 feet	1,050 feet	45 feet	175 feet
- Atlantic Street	100 feet	100 feet	350 feet	0 feet
ConnDOT Encroachment Agreement Required	No	Yes	No	No
Railroad Crossing Agreement Required	Yes	No	Yes	Yes
Impact to City Projects (SUT)	0 feet	700 feet	0 feet	130 feet
Underground Utilities Congestion	Least	Greatest	Moderate	Least
Property Easement Required	2	0	3	4
Schools/Day cares within 600 feet	0	0	2 (Day cares)	0

Route Description

The Preferred Route With Canal Street Option consists of nine underground segments through the City of Stamford. The segments that differ from the Preferred Route are indicated in bold.

- **Segment 1:** Originating at the CL&P Glenbrook Substation, the route first extends southerly down Lincoln Avenue to a location past Sheridan Street where it turns westerly onto private property (735 feet). Lincoln Avenue is a lightly traveled street that is zoned residential to the east and light industrial to the west.
- **Segment 2:** The route continues westerly across the MNRR corridor, using a 140-foot jack and bore crossing, connecting to Scott Place and extending westerly to the Culloden Road intersection (480 feet). This route segment passes from an industrial area through private property, railroad property, and a narrow City of Stamford Greenway that borders the railroad until it reaches the dead end of eastern Scott Place, which is zoned residential with residences located on both sides of the street.
- **Segment 3:** The route then turns southerly down Culloden Road, which becomes Crystal Street, to the East Main Street/Route 1 intersection (1,230 feet). Culloden Road is a lightly traveled street, with residences on both sides, that extends to the intersection with Crystal Street where commercial zoning begins to the east.
- **Segment 4:** A short route segment is required to cross East Main Street/Route 1 as the route continues southwesterly, connecting into North State Street (175 feet). East Main Street/Route 1 is a heavily traveled ConnDOT corridor bordered by a commercial area north and south of the crossing.
- **Segment 5:** The route continues southwesterly along North State Street and then bears left onto South State Street crossing under the elevated I-95 roadway (975 feet). North State Street is a highly travelled two lane road bordered to the west by a commercial area and to the east by the light industrial area occupied by the MNRR.
- **Segment 6:** The route continues southwesterly on South State Street to Canal Street (2,750 feet)¹. South State Street is a moderate to heavily travelled one-way road with three to four traffic lanes through this segment located between I-95 and the MNRR corridor, which services northbound I-95 with on-ramps near Canal Street and Elm Street.

¹ As compared with the Preferred Route, the distance of this Segment is shorter because it stops at Canal Street.

- **Segment 7:** The route turns south onto Canal Street, continues south before turning west and entering MNRR property (250 feet). With moderate traffic throughout the day, Canal Street serves as an alternative access route to downtown Stamford.
- **Segment 8:** The route then extends westerly through the corner of MNRR property and into private property (parking lot) crossing into the back of another private property and then connecting into the dead end of Pacific Street (440 feet).
- **Segment 9:** The route extends southerly along Pacific Street to Manhattan Street where it travels northwesterly along Manhattan Street then turns slightly to the north terminating in the CL&P South End Substation (530 feet). Pacific Street and Manhattan Street are lightly travelled roads located within a generally industrial area.

The general land uses in the vicinity of Segment 7 to Segment 9 of the Preferred Route With Canal Street Option include commercial and industrial uses, specifically a CL&P substation, MNRR, and commercial buildings. These segments of the Preferred Route With Canal Street Option would be installed under city streets and an existing private parking lot.

Advantages

In its analysis of the Preferred Route With Canal Street Option, CL&P identified the following advantages:

1. **Length** – At 7,565 feet, this route is the shortest of all four routes, and 435 feet (5%) shorter than the Preferred Route (8,000 feet). Shorter length typically translates into a shorter construction window due to less excavation and trenching.
2. **Fewer Construction Complexities** – Boring information on Atlantic Street shows rock present starting at five feet below existing grade. As noted above, ConnDOT plans to lower the Atlantic Street roadway by as much as 5.5 feet as part of the MNRR Bridge Replacement Project. Consequently, CL&P would need to excavate 12 feet deep to account for ConnDOT's future road lowering work. The borings on Canal Street show no rock present. Also, the required depth for Canal Street would

only need to be six feet because ConnDOT plans only minimal roadway lowering (less than six inches) on Canal Street. The lack of rock and the shallower duct bank reduce the construction complexities of cable installation on Canal Street.

3. **Coordination with ConnDOT** – The more complex nature of ConnDOT planned work on Atlantic Street would require more coordination and design changes than Canal Street.
4. **Traffic** – The disruption of traffic would be reduced because Atlantic Street, a busy City of Stamford through street, would be avoided by the Preferred Route With Canal Street Option. In addition, traffic disruption would also be reduced along South State Street between Atlantic Street and Canal Street because this section of South State Street would be avoided by this route.
5. **Cost** – A shorter route would result in lower material and construction costs due to less cable, less excavation and less material handling.
6. **Environmental** – The Preferred Route With Canal Street Option presents a shorter overall route and less soil disturbance. In addition, the reduced overall route length allows for a shorter construction period, which results in general environmental benefits.

Disadvantages

In addition, CL&P identified the following disadvantages:

1. **Disruption of Recently Paved Areas** – The section of Canal Street and the parking lot that this option crosses were recently paved during the City's SUT Phase I project. However, the City is willing to allow the disruption to Canal Street and prefers this route as does ConnDOT.
2. **Coordination with Property Owners** – This route would affect two additional private property owners and additional rights from MNRR would be required.

Council's Application Guidelines

Further, CL&P reviewed the Preferred Route With Canal Street Option in the context of the Council's Application Guidelines. The Preferred Route With Canal Street Option presents no new substantial adverse environmental effects. CL&P's review is noted below.

Construction Procedures

The construction procedures set forth in Section E of the Application apply equally to the Preferred Route With Canal Street Option.

Environmental Effects

A portion of the Preferred Route With Canal Street Option is located within the coastal boundary, but this route would not have any impacts on coastal resources. Due to the shorter route length, the portion of this route located within the coastal boundary would be about 400 to 450 feet less than the portion of the Preferred Route located within the coastal boundary. The information in Section G.2.4 of the Application also applies to the Preferred Route With Canal Street Option. CL&P would conduct soil sampling along this route to ensure soil is properly handled and disposed of according to soil handling and removal guidelines. Soil handling guidelines would be included in CL&P's Development and Management Plan.

Electric and Magnetic Fields

Electric fields would be essentially unchanged as a result of the Preferred Route With Canal Street Option. Magnetic fields would be different than those identified in the Application only for the area between Canal Street and the South End Substation. A typical plot of the magnetic fields under average annual loading conditions is presented below (see Figure CS-1):

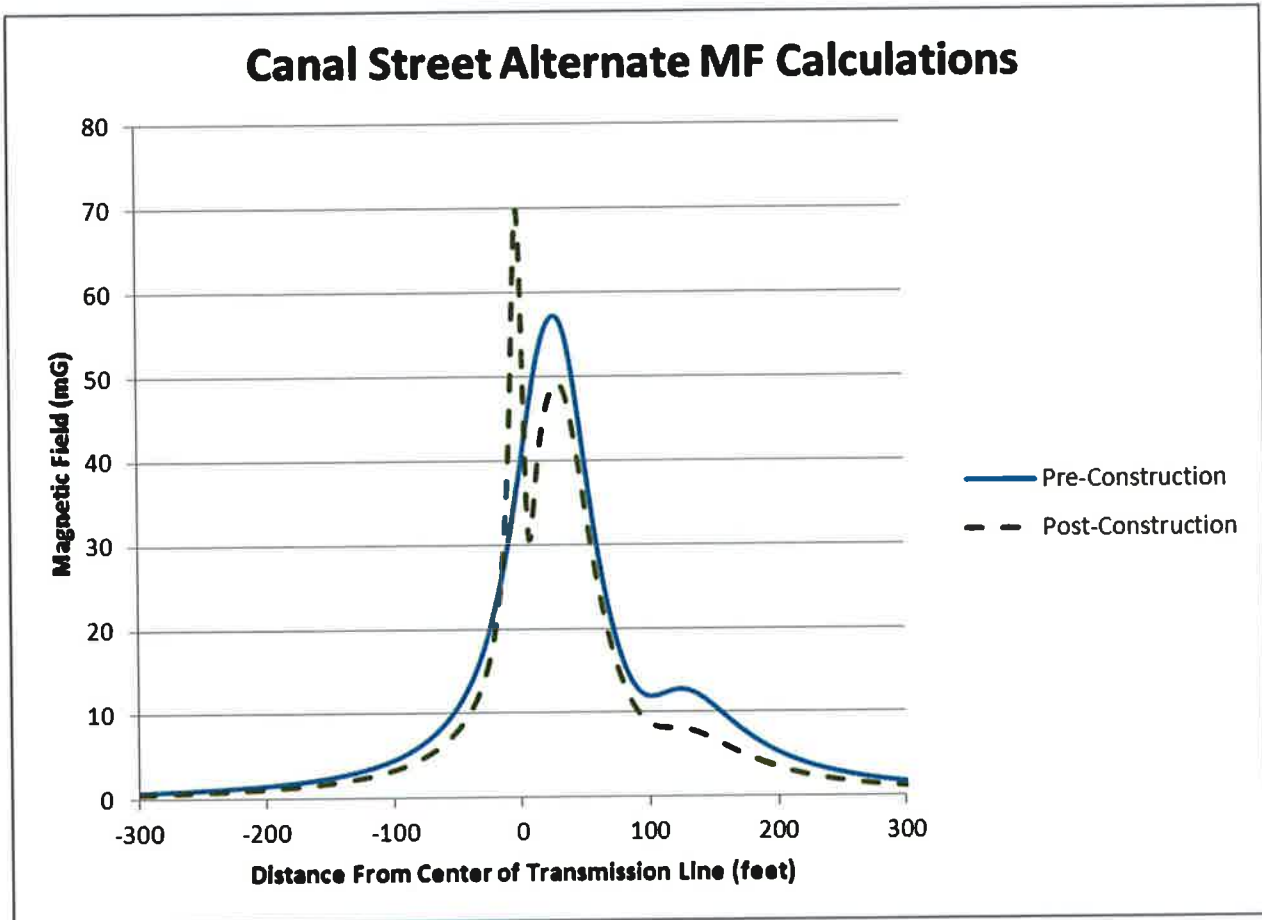


Figure CS-1

Outreach

CL&P conducted outreach for the Preferred Route With Canal Street Option in a manner consistent with its actions outlined in Section J of the Application as follows:

1. **March 1, 2013** – The SRCP Project team met with representatives from the City of Stamford (Operations and Engineering) to acquire feedback on the proposed Preferred Route With Canal Street Option. City officials fully support the new route segments as they would avoid the heavily congested Atlantic Street, a major through street, and would minimize conflict with ConnDOT’s accelerated Bridge Project.

2. **March 7, 2013** – The Project team met with representatives from ConnDOT – Bridges and Facilities, Rights of Way, Utilities, Rails Divisions and the City of

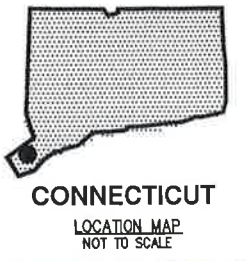
Stamford to present the Preferred Route With Canal Street Option. ConnDOT prefers the Preferred Route With Canal Street Option.

3. **March 11 - 14, 2013** – Members of the Project team contacted representatives of the two private property owners from whom CL&P would require permanent and temporary easements for the Preferred Route With Canal Street Option.

Conclusion

ConnDOT informed CL&P that the lowering of the Atlantic Street roadway (associated with the MNRR Bridge Replacement Project) would leave the street surface very near bedrock. As a result, this road lowering would impede CL&P's construction from South State Street through the underpass along Atlantic Street for all three potential routes. ConnDOT also plans an access ramp to I-95 from South State Street at Atlantic Street. Accordingly, ConnDOT requested that the Project team explore alternatives to avoid the Atlantic Street underpass.

CL&P reviewed alternative route options and identified the Preferred Route With Canal Street Option as a feasible route. The Preferred Route With Canal Street Option has an overall shorter route (about 400 to 450 feet), fewer construction complexities, and is located away from busy downtown streets. Furthermore, the City of Stamford and ConnDOT prefer this route.



CONNECTICUT
LOCATION MAP
NOT TO SCALE



PREFERRED ROUTE WITH CANAL STREET OPTION
60± LINEAR FEET ACROSS
METRO NORTH RAILROAD PROPERTY.

PREFERRED ROUTE WITH
CANAL STREET OPTION
130± LINEAR FEET ACROSS
STAMFORD URBAN
TRANSITWAY - PHASE 1

SOUTH END SUBSTATION

TEMPORARY EASEMENT
TO BE ACQUIRED FROM
SEATEK COMPANY, INC.
AREA = 1,406± SQ.FT.
= 0.03± ACRES

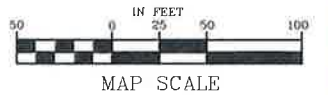
PERMANENT EASEMENT
TO BE ACQUIRED FROM
DOCK STREET HOLDINGS, LLC
AREA = 6,745± SQ.FT.
= 0.15± ACRES

PERMANENT EASEMENT
TO BE ACQUIRED FROM
SEATEK COMPANY, INC.
AREA = 1,180± SQ.FT.
= 0.03± ACRES

TEMPORARY EASEMENT
TO BE ACQUIRED FROM
DOCK STREET HOLDINGS, LLC
AREA = 7,480± SQ.FT.
= 0.17± ACRES

LEGEND

- CL&P PROPERTY
- EASEMENT LINE TO BE ACQUIRED
- CL&P RIGHT OF WAY
- TEMPORARY EASEMENT LINE TO BE ACQUIRED
- PARCEL LINES
- PREFERRED ROUTE
- PREFERRED ROUTE WITH CANAL STREET OPTION
- EASEMENT AREA TO BE ACQUIRED
- TEMPORARY EASEMENT AREA TO BE ACQUIRED



ATTENTION
THIS MAP IS FOR PLANNING PURPOSES ONLY.
LINEWORK AND DIMENSIONS SHALL BE
CONSIDERED APPROXIMATE.

NOTE:
NUMBER OF AFFECTED PRIVATE PROPERTY OWNERS = 2

TOTAL PERMANENT EASEMENT TO BE ACQUIRED
AREA = 7,925± SQ.FT.
= 0.18± ACRES

TOTAL TEMPORARY EASEMENT TO BE ACQUIRED
AREA = 8,886± SQ.FT.
= 0.20± ACRES

Northeast Utilities Service Co.
FOR THE CONNECTICUT LIGHT & POWER COMPANY

TITLE STAMFORD RELIABILITY CABLE PROJECT PREFERRED ROUTE WITH CANAL STREET OPTION STAMFORD, CT					
BY	TAL	CHKD	SAS	APP	APP
DATE	2/22/2013	DATE	2/22/2013	DATE	DATE
H-SCALE	1"=100'	SIZE	ANSI B	SURVEY JOB #	S20355
V-SCALE		V.S.	Z-1-2	R.E.DWG.	23389
R.E. PROJ. NUMBER	135-09.135		NUSCO		