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October 3, 2023

Melanie A. Bachman, Esq.
Executive Director/Staff Attorney
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: Docket No. 516 – The United Illuminating Company Application for a Certificate of Environmental Compatibility and Public Need for the Fairfield to Congress Railroad Transmission Line 115-kV Rebuild Project

Dear Ms. Bachman:

Enclosed for filing with the Connecticut Siting Council ("Council") are The United Illuminating Company's ("UI") Late Filed Exhibits as requested by the Council during the August 29, 2023 hearing.

An original and fifteen (15) copies of this filing will be hand delivered to the Council today.

Should the Council have any questions regarding this filing, please do not hesitate to contact me.

Very truly yours,

Bruce L. McDermott

Enclosure

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Late Filed Exhibit 2-1

Q LF-2-1: Referencing UI's response to Council interrogatory 14, in the cost table, Alternative 6 – all underground through streets alternative is 9.14 miles long with transmission costs of approximately $977M. Docket 508, Findings of Fact Figure 15, Cost Table, Option G, an all-underground through streets alternative had a comparable length of about 9.5 miles, with transmission costs of approximately $290M. Please explain the discrepancy.

A LF-2-1: The transmission costs that are shown in Docket 508, Findings of Fact Figure 15, Cost Table, Option G, are for an alternative that placed the transmission lines underground between structures P905 and P914 within the public streets (0.65 miles). Alternative 6 in this docket is an estimate for installing both transmission lines underground for the entire 9.14 miles.

Late Filed Exhibit 2-2

Q LF-2-2: Identify any procedure(s) to privately fund portions of a transmission project. Any ISO-NE links to guidelines related to customer or privately funded transmission projects versus pool transmission facility projects could be included

A LF-2-2: Any privately funded portions of a pool transmission facility project would be considered a localized cost.

The process for determining cost allocation on a transmission project is defined in the Open Access Transmission Tariff (OATT). The OATT is comprised of two sections and can be found on the ISO-NE website at:

1. https://www.iso-ne.com/static-assets/documents/regulatory/tariff/sect_1/sect_i.pdf

2. https://www.iso-ne.com/static-assets/documents/regulatory/tariff/sect_2/oatt/sect_ii.pdf

Determinization of localized cost can be found in Section II of the OATT at Schedule 12c which is also attached as Attachment LFE-2-2-1.

Late Filed Exhibit 2-3

Q LF-2-3: Provide a drawing for Structure P724S that depicts its location, including the locations of the work pads, the aerial easement and the pole installation easement:

a. In the application;

b. In Configurations 2-1 and 2-2;

c. In Configurations 2-3 and 2-4; and

d. In relation to the BWC easement.

A LF-2-3:

a. See Attachment LFE-2-3-1 A for the location of P724S, work pads and permanent easement width at P724S. The temporary (pole installation) easement is contiguous with the work pads where the work pads are located outside of the permanent easement.

b. See Attachment LFE-2-3-1 B for the location of P724S and permanent easement width at P724S. The work pads shown are for Configuration 2-2. The work pads shown on Attachment LFE-2-3-1 A would be utilized for Configuration 2-1. The temporary easement is contiguous with the work pads where the work pads are located outside of the permanent easement.

c. See Attachment LFE-2-3-1 C for the location of P724S and permanent easement width at P724S. The work pads shown on this exhibit are for Configuration 2-4. The work pads shown on Attachment LFE-2-3-1 A would be utilized for Configuration 2-3. The temporary easement is contiguous with the work pads where the work pads are located outside of the permanent easement.

d. Assuming BWC easement refers to the temporary construction easement (work pads) at the BWC property, this is discussed above and depicted on the attached exhibits.

Q LF-2-4 Provide the wetland testing/investigation protocols including but not limited to, hand auger depth(s);

A LF-2-4 The CT DEEP defines wetlands and wetland soils as any soils that are mapped as Poorly Drained, Very Poorly Drained, and/or Alluvial / Floodplain soils. CT DEEP wetland soil definitions are as follows:

Poorly drained: These soils occur where the water table is at or just below the ground surface, usually from late fall to early spring. The land where poorly drained soils occur is nearly level or gently sloping.

Very poorly drained: These soils generally occur on level land or in depressions. In these areas, the water table lies at or above the surface during most of the growing season. Most marshes and bogs are on these soils.

Alluvial and Floodplain: These soils occur along watercourses occupying nearly all level areas subject to periodic flooding. These soils are formed when material is deposited by flowing water. Such material can be composed of clay, silt, sand, or gravel. Alluvial and floodplain soils range from excessively drained to very poorly drained.

When proposing to disturb any of these mapped areas, a field verification survey is completed to determine if the mapping is accurate based on current real-world conditions within these areas.

Please note that as indicated by the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) in the 2015 Clarification of Wetland Soil Criteria for Human-Altered and Human-Transported Soils in Connecticut, the areas described above that are within areas disturbed by human activities and no longer in their natural state, may or may not be classified as wetlands due to their soil characteristics. The CT DEEP requires consultation "with a natural resource professional with the proper expertise, such as a soil scientist, if this is an issue at (the) location of interest."[1]

The methodology utilized in the field to characterize the soils within each sample point followed the U.S. Army Corps of Engineers Wetlands Delineation Manual (1987), which is summarized below:

[1] https://portal.ct.gov/DEEP/Water/Inland-Wetlands/How-Are-Inland--Wetlands-and-Watercourses--Defined

- A soil scientist confirms that the mapped soil type is correct and determines whether the soil series observed in the field is a hydric soil.
- If a hydric soil type is confirmed, record on Data Form, if not, dig a soil pit using a soil auger or spade (dictated by soil conditions) and look for indicators of hydric soils immediately below the A-horizon or 10 inches (whichever is shallower)
- Record findings on Data Form.

The Manual's described procedure for digging and examining for hydric soils is summarized below:

- Circumscribe a 1-foot diameter area, preferably with a tile spade (sharpshooter).
- Extend the blade vertically downward, cut all roots to the depth of the blade, and lift the soil from the hole.
- This should provide approximately 16 inches of the soil profile for examination. Please not that observations are usually made immediately below the A-horizon or 10 inch (whichever is shallower).
- In many cases, a soil auger or probe can be used instead of a spade. If so, remove successive cores until 16 inches of the soil profile have been removed. Place successive cores in the same sequence as removed from the hole. Please note that an auger or probe cannot be effectively used when the soil profile is loose, rocky, or contains a large volume of water.

Specifically for the Fairfield/Congress Metro-North corridor, a field verification survey of the areas described above that occur within and along this portion of the Metro-North corridor was conducted. Several non-wetland field sample points were collected that were located within mapped poorly drained, very poorly drained, alluvial / floodplain soils, and/or 100-year floodplain areas. These sample points are summarized in the following Table:

Sample Point	Observation Depth (inches)	Mapped Soil Unit	Hydric Soil Components (%)	Drainage Class	Mapped 100-Year Floodplain?	Alluvial / Floodplain Soils Present?	Wetland Hydrology Present?	Wetland Vegetation Present?
SP 2	2 (due to rock refusal)	98 - Westbrook mucky peat, 0 to 2 percent slopes, very frequently flooded	100	Very Poorly drained	Yes	No	No	No
SP 4	18	229B - Agawam-Urban land complex, 0 to 8 percent slopes	8	Well drained	Yes	No	No	No
SP 12	18	307 - Urban land	0	Unranked	Yes	No	No	No
SP 14	16 (ballast stone only)	306 - Udorthents-Urban land complex	0	Unranked	Yes	No	No	Yes
SP 16	6 (due to rock refusal)	306 - Udorthents-Urban land complex	0	Unranked	Yes	No	No	No
SP 18	20	308 - Udorthents, smoothed	0	Moderately Well drained	Yes	No	No	No
SP 20	18	307 - Urban land	0	Unranked	Yes	No	No	No
SP 22	18	306 - Udorthents-Urban land complex	0	Unranked	Yes	No	No	No

It should be noted that mapped 100-year floodplain areas that were located along the project corridor are classified as Zone AE, which are defined as “areas subject to inundation by the 1% annual chance flood event determined by detailed methods (Base Flood Elevations (BFEs) are shown)”. The 100-year floodplain areas are distinguished from the alluvial / floodplain soils in that the 100-year floodplains are determined by elevation only, and the alluvial / floodplain soils are determined by the soil characteristics within these areas, as defined above.

As can be seen in the Table above, only Sample Point 2 was located within the mapped 100-year floodplain and also within mapped hydric soils. Only 2 inches of soil could be observed at this location due to the large amount of rock fill that exists within this area. Similarly, Sample Point 14 and Sample Point 16 had relatively shallow observations depths (16 inches and 6 inches, respectively) due to ballast and rock fill within these sampling locations.

Late Filed Exhibit 2-5

Q LF-2-5: Provide the cost data in a format similar to the Cost Data Table in response to Council interrogatory 14 for the following:

a. A double-circuit overhead structure alternative from Structure 648S to Ash Creek; and
b. An all-underground alternative from Structure 648S to Ash Creek.

A LF-2-5: See Attachment LFE-2-5-1.

SCHEDULE 12C

DETERMINATION OF LOCALIZED COSTS ON AND AFTER JANUARY 1, 2004

Introduction

The purpose of this Schedule 12C is to describe procedures that the ISO will use in determining Localized Costs for eligible Transmission Upgrades as specified below on or after January 1, 2004.

Review and Approval

These Schedule 12C review and approval procedures are separate and distinct from any other approval procedures within the Transmission, Markets and Services Tariff and are not a condition for receiving approval under any other section of the Transmission, Markets and Services Tariff. If submission of a proposed plan for a Transmission Upgrade by a Market Participant or Transmission Owner for review pursuant to Section I.3.9 of the Transmission, Markets and Services Tariff is required, then the approval for Transmission Upgrade cost allocations as described under this Schedule 12C of this OATT cannot occur sooner than after that review has been completed and it has been determined, pursuant to Section I.3.9 of the Transmission, Markets and Services Tariff, that the Market Participant or Transmission Owner is free to proceed with implementation of the proposed Transmission Upgrade.

Entities conducting transmission system studies shall review and discuss transmission design and construction alternatives as they are developed under a System Impact Study ("SIS") or as part of the Regional System Plan with the System Operator, Reliability Committee and the Planning Advisory Committee, as deemed appropriate by the ISO.

1. Review Procedures For Determining Localized Costs

All (1) RTEP02 Upgrades; (2) Regional Benefit Upgrades developed pursuant to Section 4.2 of Attachment K of the OATT; (3) reconstructions/replacements of all or part of Pool Transmission Facilities; and (4) Regional Benefit Upgrades and Public Policy Transmission Upgrades developed pursuant to Sections 4.3 and 4A (respectively) of Attachment K of the OATT shall be reviewed by the ISO with advisory input from the Reliability Committee to determine if any of the costs associated with such upgrades are Localized Costs, except that a proposed Transmission Upgrade which costs less than

$500,000 may be exempted from this review by the ISO. The ISO, with advisory input from the Reliability Committee, will review and update, as appropriate, the $500,000 threshold on an annual basis.

The Market Participant or Transmission Owner seeking cost recovery for a proposed Transmission Upgrade, including reconstruction or replacement, shall submit to the ISO and the Reliability Committee the following information as deemed appropriate by the ISO:

(a) A description of (i) the proposed Transmission Upgrade and any feasible and practical transmission alternatives that were considered, and (ii) the most currently available study grade or better estimates of the construction, including the potential impact on the bulk power system during the construction of such upgrade, and (iii) the operating costs of the proposed Transmission Upgrade and any feasible and practical transmission alternatives that were considered.

(b) A summary of the technical analysis performed for the Transmission Upgrade and the identified transmission alternatives.

(c) A review and discussion of the need for the proposed Transmission Upgrade.

(d) A discussion of why the requested Transmission Upgrade was selected over other transmission alternatives, with a description of the benefits of the proposed Transmission Upgrade over other transmission alternatives from an operational, timing of implementation, cost and reliability perspective.

If in reviewing the application and associated information, the ISO, with advisory input from the Reliability Committee, decides that additional information, review, or study is required prior to acting on the application, the ISO, with advisory input from the Reliability Committee, may elect to defer action and solicit supplementary information, review, or study as required. Sources for such additional information may be, but are not limited to, the entity sponsoring the application, Transmission Owners, or the Reliability Committee.

In making its determination of whether Localized Costs exist for the Transmission Upgrades identified in (1), (2) and (3) above, the ISO will consider the reasonableness of the proposed engineering design and

construction method with respect to (i) Good Utility Practice, (ii) the current engineering design and construction practices in the area in which the Transmission Upgrade is built, (iii) alternate feasible and practical Transmission Upgrades and (iv) the relative costs, operation, timing of implementation, efficiency and reliability of the proposed Transmission Upgrades.

In making its determination of whether Localized Costs exist for the Transmission Upgrades identified in (4) above, the ISO will consider incremental costs resulting from changes to the Transmission Upgrade described in the Transmission Cost Allocation application (or any revisions thereto) for regional rate recovery compared to the description of the Transmission Upgrade in Schedule A to the Selected Qualified Transmission Project Sponsor Agreement. Localized Costs for the Transmission Upgrades identified in (4) above that are located on a PTO's existing transmission system, where the Selected Qualified Transmission Project Sponsor is not the PTO for the existing system element(s), will be determined in a manner consistent with the process described for the Transmission Upgrades identified in (1), (2) and (3) above.

Local siting requirements for transmission facilities shall not be dispositive of whether or not Localized Costs exist with respect to any particular Transmission Upgrade.

The ISO will develop detailed procedures to fulfill the objectives and requirements of this Schedule 12C.

2. Additional Transmission Upgrade Costs or Design Changes Subsequent to the ISO's Determination of Localized Costs

If the costs associated with a Transmission Upgrade exceed the estimated Pool-Supported PTF costs determined in the original Localized Costs review by ten percent, or the design associated with the construction of a Transmission Upgrade is materially changed subsequent to the ISO's determination of Localized Costs, then the applicant for Pool-Supported PTF costs shall be required to submit its Transmission Upgrade again to a review by the ISO to determine if any of the incremental costs or costs associated with the change in design are Localized Costs.

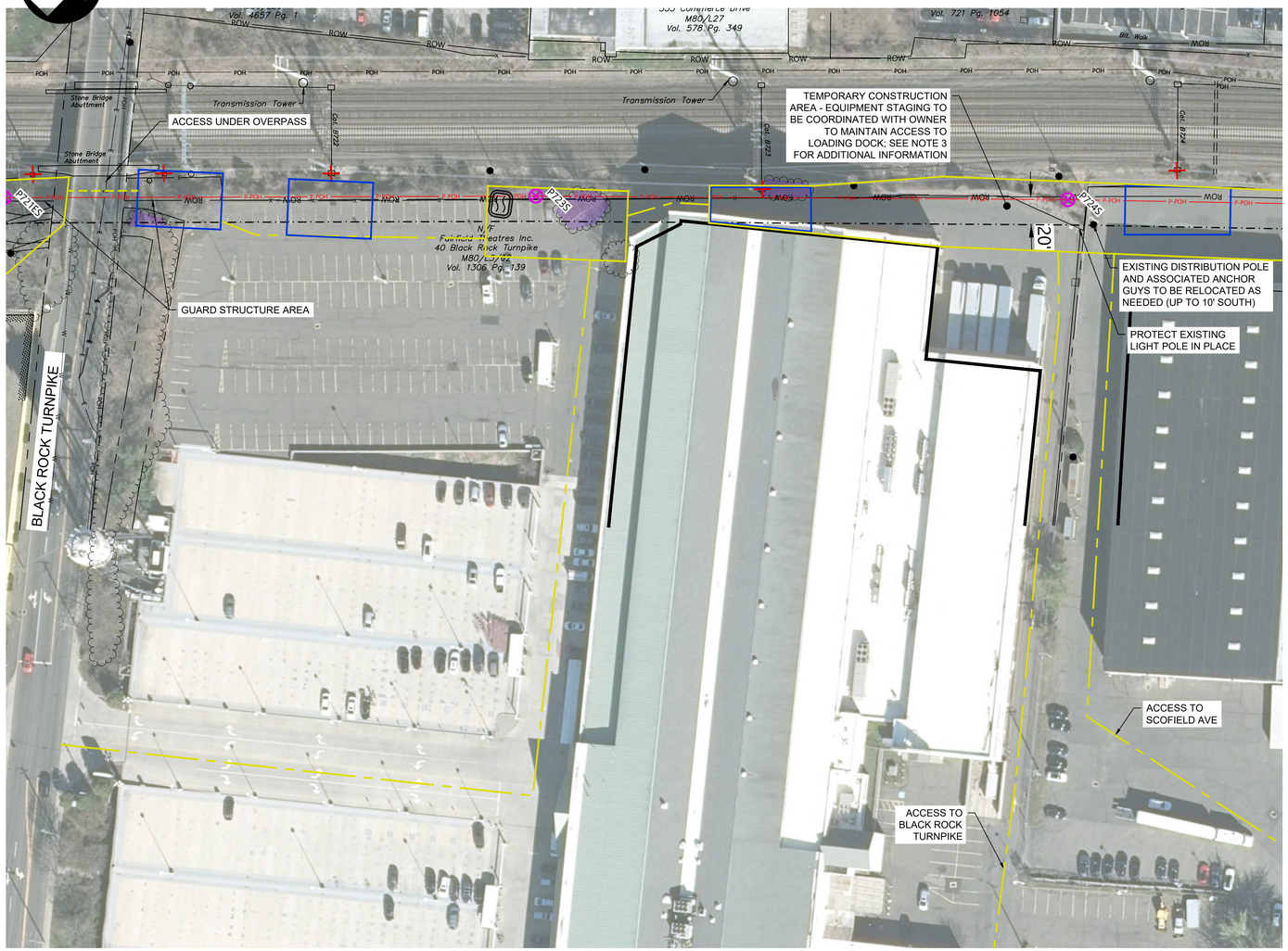
3. Dispute Resolution Regarding Determination of Localized Costs

The ISO's determination of Localized Costs under this OATT shall take effect on the date on which the ISO issues its written findings and determination. The applicant for cost recovery (the "Applicant") whose project is deemed to include Localized Costs may dispute such decision by the ISO by submitting

within 60 days of such decision formal written notice of the dispute to the ISO, describing in detail the basis for its challenge of the ISO's determination. The Applicant and the ISO shall then enter into good faith negotiations for a period not to exceed 60 days from the date of the Applicant's written notice to try to resolve the dispute.

If there is no satisfactory resolution of the dispute at the end of the negotiation period, the Applicant shall then have the right to file a Section 206 complaint with the Commission.

Attachment LFE-2-3-1



GENERAL NOTES

1. PROPOSED POLE LOCATION: THE ORIGINAL DESIGN IN THE APPLICATION PLACES THE POLE AND FOUNDATION FULLY ON THE BWC PROPERTY IN A GRASSY AREA THAT IS ADJACENT TO THE CTDOT RAILROAD CORRIDOR AND SEPARATED FROM THE USED, PAVED AREA BY BOLLARDS. PER THE DESIGN IN THE APPLICATION, THIS STRUCTURE IS A DEADEND STRUCTURE ASSOCIATED WITH A LARGER PULLING PAD TO FACILITATE THE INSTALLATION OF THE NEW OPGW AND 115KV CONDUCTOR IN BOTH THE EASTERLY AND WESTERLY DIRECTIONS.
2. PROPOSED TEMPORARY EQUIPMENT ACCESS PATH: THIS IS THE PROPOSED ROUTE THROUGH THE PROPERTY THAT UI AND CONTRACTOR EQUIPMENT WILL GENERALLY FOLLOW. THIS ROUTE WILL FOLLOW EXISTING PAVED AND GRAVEL ACCESSES. EQUIPMENT WILL NOT OCCUPY THIS AREA FOR ANY SIGNIFICANT DURATION. THESE ACCESS ROUTES THROUGH THE PROPERTY WILL BE DISCUSSED AND COORDINATED WITH THE PROPERTY OWNER DURING EASEMENT NEGOTIATIONS.
3. PROPOSED TEMPORARY CONSTRUCTION AREA: THIS IS THE PROPOSED AREA THAT WILL BE OCCUPIED BY CONSTRUCTION EQUIPMENT DURING THE INSTALLATION ACTIVITIES OF THE FOUNDATION, POLE, INSULATORS AND HARDWARE, AND WIRE. THE WORK AREA IS SIZED TO ACCOMMODATE VEHICULAR TURNING RADII AND MOVEMENT. EQUIPMENT WILL NOT TAKE UP THE ENTIRE AREA AT ANY ONE TIME. WORK ACTIVITIES AND DURATIONS INCLUDE:
   - SITE PREP: 2 DAYS OR NIGHTS
   - FOUNDATION DRILLING AND CONCRETE POURING: 3 DAYS OR NIGHTS
   - POLE INSTALLATION: 1 DAY OR NIGHT
   - OPGW AND 115kV CONDUCTOR INSTALLATIONS: 9 DAYS OR NIGHTS
   - GROUNDING INSTALLATION / RESTORATION: PORTIONS OF 4 DAYS OR NIGHTS

   ALTHOUGH AT THIS TIME, IT CANNOT BE DICTATED WHERE EACH INDIVIDUAL PIECE OF EQUIPMENT WILL BE LOCATED DURING THE WORK ACTIVITIES, UI WILL WORK WITH BWC IN ORDER TO LIMIT THE IMPACTS TO THEIR OPERATIONS. HOWEVER, DUE TO THE NEED TO INSTALL NEW OPGW AND 115KV CONDUCTOR, THE ABILITY TO DO SO WOULD BE A BIT MORE COMPLEX. WHERE THE EXISTING SURFACE AREA IS NOT PAVEMENT OR GRAVEL, THE CONTRACTOR WILL UTILIZE TIMBER OR COMPOSITE MATTING LAID UPON THE EXISTING GROUND SURFACE TO LIMIT EARTH DISTURBANCE AND SUPPORT THE CONSTRUCTION EQUIPMENT. IN PAVEMENT AND GRAVEL AREAS, THE CONTRACTOR WILL STAGE THEIR EQUIPMENT ON THE EXISTING PAVED SURFACES. THEY WILL USE APPROPRIATE PROTECTION MEASURES FOR OUTRIGGER SUPPORT, ETC. EXISTING FENCES AND BOLLARDS WITHIN PROPOSED CONSTRUCTION AREAS WILL BE REMOVED TEMPORARILY TO SUPPORT CONSTRUCTION ACTIVITIES. UPON COMPLETION OF CONSTRUCTION, THESE WILL BE PERMANENTLY REPLACED TO MATCH PRE-CONSTRUCTION CONDITIONS.
4. PROPOSED TEMPORARY BONNET REMOVAL WORK PAD AREA: THIS IS THE PROPOSED AREA THAT WILL BE OCCUPIED BY CONTRACTOR EQUIPMENT DURING THE REMOVAL OF TRANSMISSION LINE BONNET STRUCTURES FROM THE EXISTING CTDOT CATENARY STRUCTURES. IT IS ANTICIPATED REMOVAL OF ONE BONNET STRUCTURE AND ASSOCIATED ASSEMBLIES CAN BE COMPLETED IN ONE TO TWO WORK SHIFTS. THE CONTRACTOR WILL UTILIZE THE EXISTING PAVEMENT AREAS TO STAGE THEIR EQUIPMENT. MATTING AND CRIBBING WILL BE USED TO SUPPORT ANY EQUIPMENT OUTRIGGERS. THE BONNET REMOVAL WORK WILL NOT OCCUR AT THE SAME TIME AS THE FOUNDATION/POLE INSTALLATION.
5. FOLLOWING CONSTRUCTION ACTIVITIES, THE CONTRACTOR IS RESPONSIBLE TO RESTORE, AS CLOSE AS POSSIBLE, ANY WORK AREAS/ ACCESS ROUTES TO CONDITIONS THAT WERE PRESENT PRIOR TO CONSTRUCTION ACTIVITIES.

LEGEND

- PROPOSED TRANSMISSION POLE
- EXISTING TRANSMISSION/UTILITY POLE
- P-POH — PROPOSED TRANSMISSION CENTER LINE
- ROW — EXISTING CTDOT CORRIDOR BOUNDARY
- NEW UI PERMANENT EASEMENT BOUNDARY
- PROPOSED TEMPORARY EQUIPMENT ACCESS PATH
- PROPOSED TEMPORARY WORK/PULLING CONSTRUCTION AREA
- PROPOSED TEMPORARY BONNET REMOVAL WORK PAD
- PROPOSED TREE CLEARING
- EXISTING TREE LINE
- EXISTING BUILDING LINE
- EXISTING HARDWARE ONLY TO BE REMOVED
- EXISTING STEEL POLE TO BE REMOVED
- EXISTING LATTICE TOWER TO BE REMOVED
- EXISTING BONNET TO BE REMOVED
- EXISTING WOOD POLE TO BE REMOVED
- EXISTING STEEL POLE TOP TO BE REMOVED AND CAPPED

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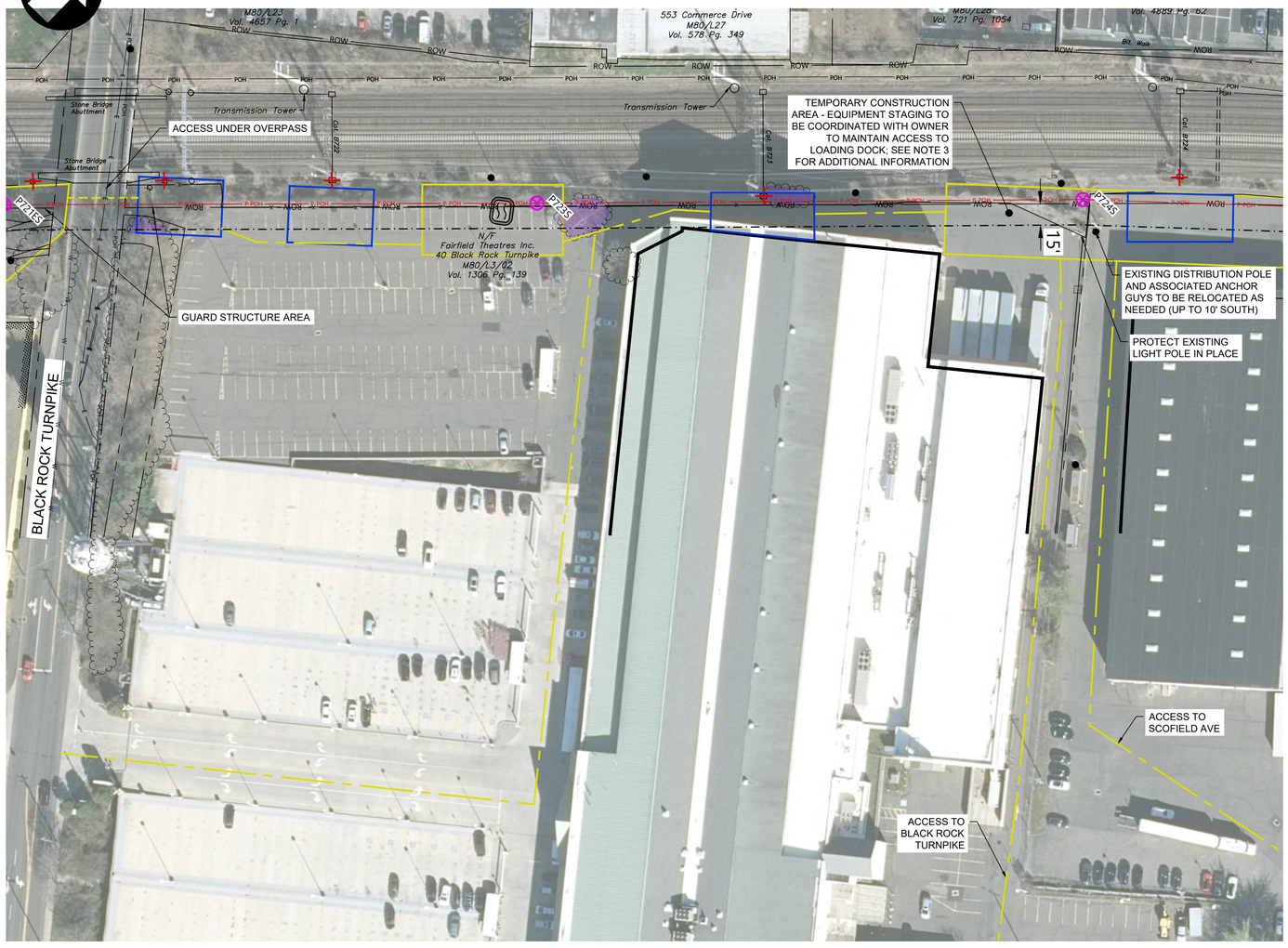
REV.	DATE	BY	DESCRIPTION	APP.

UI 115 KV PROJECT FAIRFIELD TO CONGRESS
DESIGN PER SITING COUNCIL APPLICATION
(P724S AS A DEADEND TYPE STRUCTURE)

DR. | SCALE AS SHOWN | FILE:
CK. | NO. LFE-2-3-1 A | REV.
APP.
DATE:



GENERAL NOTES

1. PROPOSED POLE LOCATION: THIS OPTION PLACES THE POLE AND FOUNDATION FULLY ONTO THE CTDOT RAILROAD CORRIDOR. THIS SHIFTS THE POLE 9' CLOSER TO THE PROPERTY LINE SHARED WITH FEROLETO STEEL AND APPROXIMATELY 5' CLOSER TO THE TRACKS COMPARED TO THE ORIGINAL LOCATION IN THE APPLICATION. DUE TO THE CLEARANCES TO THE ADJACENT MNR SIGNAL WIRES, THE MNR SIGNAL WIRES ARE SUPPORTED BY PROPOSED P724S UNDER THIS OPTION. UNDER THIS CONFIGURATION, NEW METRO NORTH SIGNAL WIRES WILL HAVE TO BE INSTALLED STARTING AT P724S AND HEADING TO THE EAST.
2. PROPOSED TEMPORARY EQUIPMENT ACCESS PATH: THIS IS THE PROPOSED ROUTE THROUGH THE PROPERTY THAT UI AND CONTRACTOR EQUIPMENT WILL GENERALLY FOLLOW. THIS ROUTE WILL FOLLOW EXISTING PAVED AND GRAVEL ACCESSES. EQUIPMENT WILL NOT OCCUPY THIS AREA FOR ANY SIGNIFICANT DURATION. THESE ACCESS ROUTES THROUGH THE PROPERTY WILL BE DISCUSSED AND COORDINATED WITH THE PROPERTY OWNER DURING EASEMENT NEGOTIATIONS.
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   - SITE PREP: 2 DAYS OR NIGHTS
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   - POLE INSTALLATION: 2 DAYS OR NIGHTS
   - OPGW AND 115kV CONDUCTOR INSTALLATIONS: PORTIONS OF 3 DAYS OR NIGHTS
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   ALTHOUGH AT THIS TIME, IT CANNOT BE DICTATED WHERE EACH INDIVIDUAL PIECE OF EQUIPMENT WILL BE LOCATED DURING THE WORK ACTIVITIES, UI WILL WORK WITH BWC IN ORDER TO LIMIT THE IMPACTS TO THEIR OPERATIONS. HOWEVER, DUE TO THE NEED TO INSTALL NEW MNR SIGNAL WIRES, THE ABILITY TO DO SO WOULD BE A BIT MORE COMPLEX. WHERE THE EXISTING SURFACE AREA IS NOT PAVEMENT OR GRAVEL, THE CONTRACTOR WILL UTILIZE TIMBER OR COMPOSITE MATTING LAID UPON THE EXISTING GROUND SURFACE TO LIMIT EARTH DISTURBANCE AND SUPPORT THE CONSTRUCTION EQUIPMENT. IN PAVEMENT AND GRAVEL AREAS, THE CONTRACTOR WILL STAGE THEIR EQUIPMENT ON THE EXISTING PAVED SURFACES. THEY WILL USE APPROPRIATE PROTECTION MEASURES FOR OUTRIGGER SUPPORT, ETC. EXISTING FENCES AND BOLLARDS WITHIN PROPOSED CONSTRUCTION AREAS WILL BE REMOVED TEMPORARILY TO SUPPORT CONSTRUCTION ACTIVITIES. UPON COMPLETION OF CONSTRUCTION, THESE WILL BE REPLACED PERMANENTLY TO MATCH PRE-CONSTRUCTION CONDITIONS.
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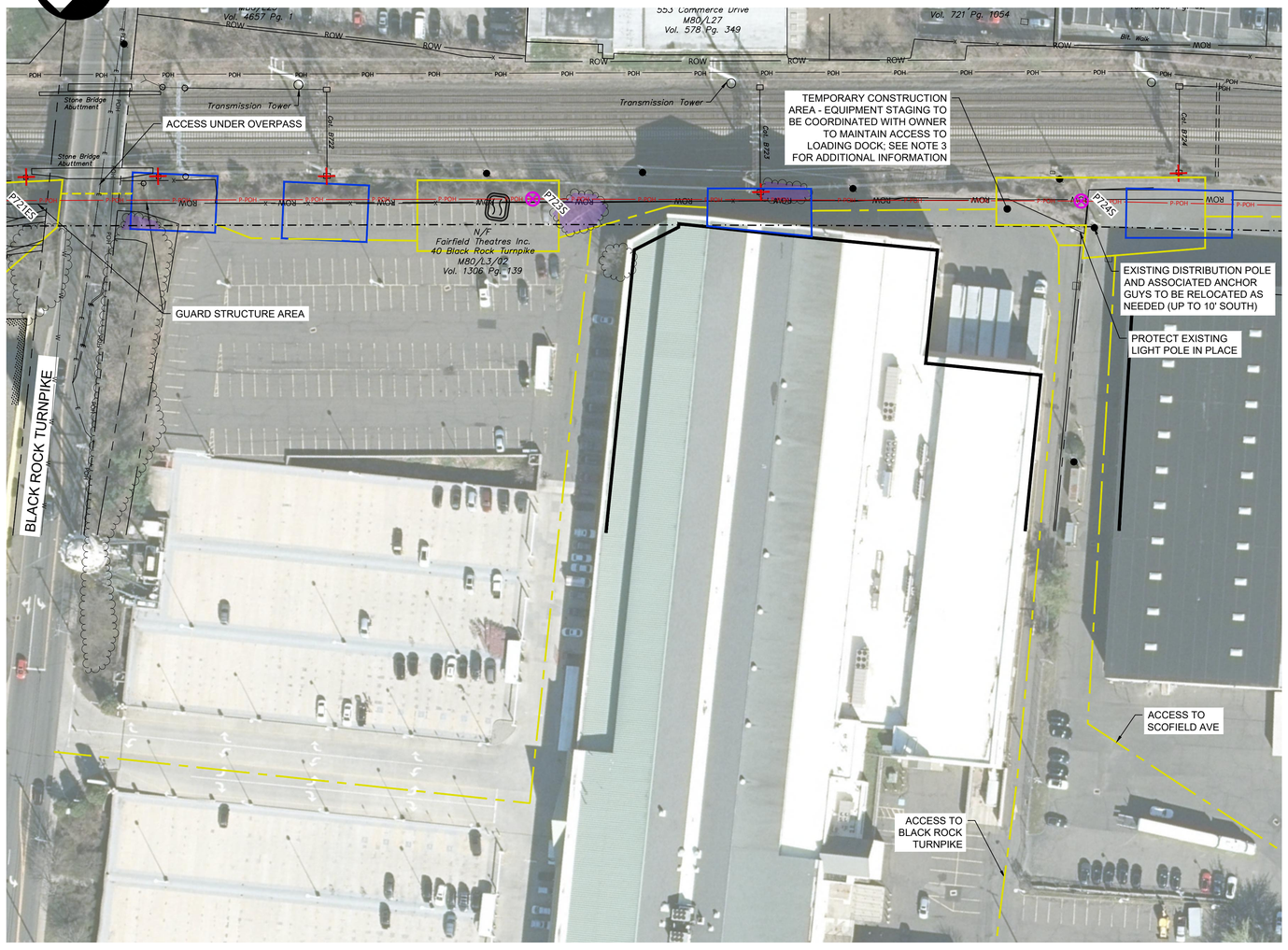
REV.	DATE	BY	DESCRIPTION	APP.

UI 115 KV PROJECT FAIRFIELD TO CONGRESS

OPTION 2-2
(P724S ON CTDOT PROPERTY AS A SUSPENSION TYPE STRUCTURE WITH MNR SIGNAL WIRES ATTACHED)

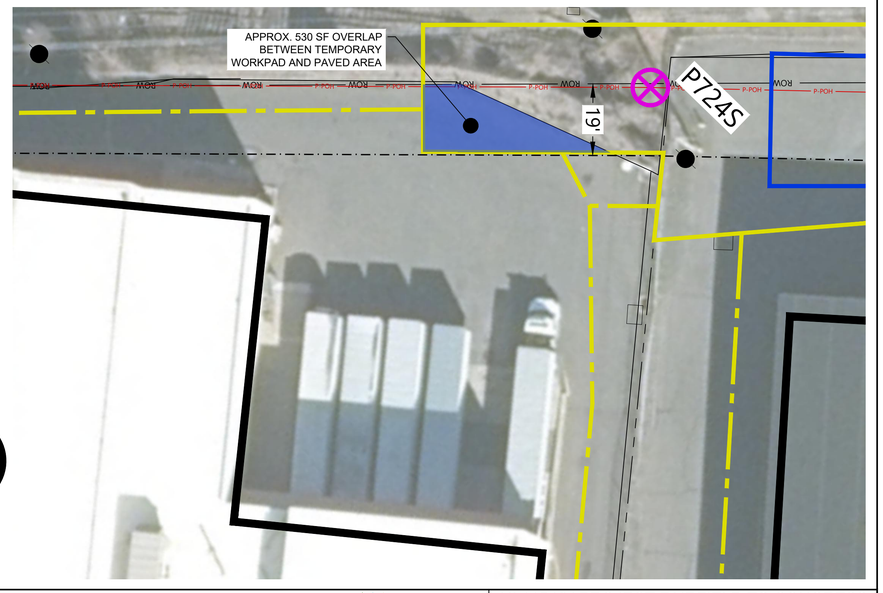
DR.		SCALE AS SHOWN	FILE:
CK.		NO.	REV.
APP.		LFE-2-3-1 B	
DATE:			



GENERAL NOTES

1. PROPOSED POLE LOCATION: THIS OPTION PLACES THE POLE INTO THE FARTHEST CORNER OF THE BWC PROPERTY AS POSSIBLE. THIS SHIFTS THE POLE 9' CLOSER TO THE PROPERTY LINE SHARED WITH FEROLETO STEEL AND APPROXIMATELY 1' CLOSER TO THE TRACKS COMPARED TO THE ORIGINAL LOCATION IN THE APPLICATION.
2. PROPOSED TEMPORARY EQUIPMENT ACCESS PATH: THIS IS THE PROPOSED ROUTE THROUGH THE PROPERTY THAT UI AND CONTRACTOR EQUIPMENT WILL GENERALLY FOLLOW. THIS ROUTE WILL FOLLOW EXISTING PAVED AND GRAVEL ACCESSES. EQUIPMENT WILL NOT OCCUPY THIS AREA FOR ANY SIGNIFICANT DURATION. THESE ACCESS ROUTES THROUGH THE PROPERTY WILL BE DISCUSSED AND COORDINATED WITH THE PROPERTY OWNER DURING EASEMENT NEGOTIATIONS.
3. PROPOSED TEMPORARY CONSTRUCTION AREA: THIS IS THE PROPOSED AREA THAT WILL BE OCCUPIED BY CONSTRUCTION EQUIPMENT DURING THE INSTALLATION ACTIVITIES OF THE FOUNDATION, POLE, INSULATORS AND HARDWARE, AND WIRE. THE WORK AREA IS SIZED TO ACCOMMODATE VEHICULAR TURNING RADII AND MOVEMENT. EQUIPMENT WILL NOT TAKE UP THE ENTIRE AREA AT ANY ONE TIME. WORK ACTIVITIES AND DURATIONS INCLUDE:
   - SITE PREP: 2 DAYS OR NIGHTS
   - FOUNDATION DRILLING AND CONCRETE POURING: 3 DAYS OR NIGHTS
   - POLE INSTALLATION: 1 DAY OR NIGHT
   - OPGW AND 115kV CONDUCTOR INSTALLATIONS: PORTIONS OF 3 DAYS OR NIGHTS
   - GROUNDING INSTALLATION / RESTORATION: PORTIONS OF 4 DAYS OR NIGHTS

   ALTHOUGH AT THIS TIME, IT CANNOT BE DICTATED WHERE EACH INDIVIDUAL PIECE OF EQUIPMENT WILL BE LOCATED DURING THE WORK ACTIVITIES, UI WILL WORK WITH BWC IN ORDER TO LIMIT THE IMPACTS TO THEIR OPERATIONS. WHERE THE EXISTING SURFACE AREA IS NOT PAVEMENT OR GRAVEL, THE CONTRACTOR WILL UTILIZE TIMBER OR COMPOSITE MATTING LAID UPON THE EXISTING GROUND SURFACE TO LIMIT EARTH DISTURBANCE AND SUPPORT THE CONSTRUCTION EQUIPMENT. IN PAVEMENT AND GRAVEL AREAS, THE CONTRACTOR WILL STAGE THEIR EQUIPMENT ON THE EXISTING PAVED SURFACES. THEY WILL USE APPROPRIATE PROTECTION MEASURES FOR OUTRIGGER SUPPORT, ETC. EXISTING FENCES AND BOLLARDS WITHIN PROPOSED CONSTRUCTION AREAS WILL BE REMOVED TEMPORARILY TO SUPPORT CONSTRUCTION ACTIVITIES. UPON COMPLETION OF CONSTRUCTION, THESE WILL BE REPLACED PERMANENTLY TO MATCH PRE-CONSTRUCTION CONDITIONS.
4. PROPOSED TEMPORARY BONNET REMOVAL WORK PAD AREA: THIS IS THE PROPOSED AREA THAT WILL BE OCCUPIED BY CONTRACTOR EQUIPMENT DURING THE REMOVAL OF TRANSMISSION LINE BONNET STRUCTURES FROM THE EXISTING CTDOT CATENARY STRUCTURES. IT IS ANTICIPATED REMOVAL OF ONE BONNET STRUCTURE AND ASSOCIATED ASSEMBLIES CAN BE COMPLETED IN ONE TO TWO WORK SHIFTS. THE CONTRACTOR WILL UTILIZE THE EXISTING PAVEMENT AREAS TO STAGE THEIR EQUIPMENT. MATTING AND CRIBBING WILL BE USED TO SUPPORT ANY EQUIPMENT OUTRIGGERS. THE BONNET REMOVAL WORK WILL NOT OCCUR AT THE SAME TIME AS THE FOUNDATION/POLE INSTALLATION.
5. FOLLOWING CONSTRUCTION ACTIVITIES, THE CONTRACTOR IS RESPONSIBLE TO RESTORE, AS CLOSE AS POSSIBLE, ANY WORK AREAS/ ACCESS ROUTES TO CONDITIONS THAT WERE PRESENT PRIOR TO CONSTRUCTION ACTIVITIES.



LEGEND

- PROPOSED TRANSMISSION POLE
- EXISTING TRANSMISSION/UTILITY POLE
- PROPOSED TRANSMISSION CENTER LINE
- EXISTING CTDOT CORRIDOR BOUNDARY
- NEW UI PERMANENT EASEMENT BOUNDARY
- PROPOSED TEMPORARY EQUIPMENT ACCESS PATH
- PROPOSED TEMPORARY WORK/PULLING CONSTRUCTION AREA
- PROPOSED TEMPORARY BONNET REMOVAL WORK PAD
- PROPOSED TREE CLEARING
- EXISTING TREE LINE
- EXISTING BUILDING LINE
- EXISTING HARDWARE ONLY TO BE REMOVED
- EXISTING STEEL POLE TO BE REMOVED
- EXISTING LATTICE TOWER TO BE REMOVED
- EXISTING BONNET TO BE REMOVED
- EXISTING WOOD POLE TO BE REMOVED
- EXISTING STEEL POLE TOP TO BE REMOVED AND CAPPED

0' 20' 40' 60'

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REV.	DATE	BY	DESCRIPTION	APP.

UI 115 KV PROJECT FAIRFIELD TO CONGRESS

OPTION 2-4: PREFERRED SOLUTION
(P724S AS A SUSPENSION TYPE STRUCTURE)

DR.		SCALE AS SHOWN	FILE:
CK.		NO.	REV.
APP.		LFE-2-3-1 C	
DATE:			

Project Component	Section Length in Linear Miles	Transmission Line Costs (A)	Substation Costs (B)	HDD Costs (C)	Misc. Costs (e.g. bonnet decommissioning) (D)	Total Cost Estimate (E)[1] =[A+B+C+D]	Preferred Solution Cost (F)	Cost Delta (E-F)
Overhead Transmission Line Double Circuit Monopoles (North-side only) B648S to Ash Creek	10.16	$311,475,000	$446,000	$0	$9,800,000	$321,721,000	$255,000,000	$66,721,000
Underground Transmission Line Single Circuit Duct Bank (South-side only) B648S to Ash Creek	10.85	$475,163,300	$694,100	$2,443,600	$9,800,000	$488,101,000	$255,000,000	$233,101,000

[1] These costs are for the total Project, including the Option Described
Per ISO-NE PP4, Appendix D, these are “Project Initiation” type estimates (-50%/+200% accuracy)