DOCKET 272
UI Segment 3 and Amendment
Bridgeport Singer Substation – Stratford Westbank of Housatonic River

Note: For the purposes of the attached current and future comments, please refer to the legend designating the specific office from which the comment originated.

AG = Attorney General, **BD** = Bridge Design, **BM** = Bridge Maintenance, **CBD** = Consultant Bridge Design, **D** = Design, **DC** = Construction, **EC** = Environmental Compliance, **EP** = Environmental Planning, **F** = Financial, **GS** = Graphic Services, **H** = Hydraulics, **L** = Lab, **M** = Maintenance, **MS** = Miscellaneous, **PDU =** Project Development Unit **R =** Rails, **S** = Soils, **T** = Traffic, **U** = Utilities.

All referenced comments number 1 through 189 shall carry equal weight, unless it is determined that there is a conflict between or among any of those requirements. In the case of such a conflict, the comment with the stricter requirements, as determined by the Connecticut Department of Transportation (ConnDOT), will take precedence.

COMMENTS AND RESPONSES ARE RELATED TO SUBMISSION DATED 3-6-06

1U: All work within the ConnDOT Right-of-Way shall be completed in accordance with the State of Connecticut, Department of Transportation, Standard Specifications for Roads, Bridges, and Incidental Construction, Form 816 and the Supplemental Specifications dated January 2005, attached as Exhibit A.

2U: In the event of an issue not approved by ConnDOT by a specific waiver request, the Department requirement shall stand.

3U: Route 1 is a back-up artery to I-95. UI and NU must include provisions in their upcoming construction contracts that will require contractors to immediately cease construction activities in the event of a major accident on I-95 and restore the travel lanes that may have been closed.

4U: Encroachment Permit – Pursuant to the Connecticut Highway Encroachment Permit Regulations, an encroachment permit(s) must be secured before any work is performed in the State highway right-of-way. The encroachment permit(s) does not become effective until all necessary local and state licenses and permits are obtained by UI or their agent, and further, UI shall be subject to all Federal, State and local regulations. (See Exhibit B).

5U: The following reports were not provided to ConnDOT as requested: single vault structure study, water crossings, vault load design, vault inspection criteria, and EMI Study.

6U: All submittals or communiqué's to ConnDOT should include docket number, segment identifier, towns, and with plan submittals, include State and town ROW delineation.

7U: The Department strongly recommends locating the vaults off of the State travelway. Vaults SC13A, SC13B, SC16A, SC16B, SC17A and SC17B are proposed in the State travelway. UI is required to take all necessary steps to locate the vaults off the State travelway where possible.

8U: Page 27, Section 6.8.8 explains the installation of fiber optic cable. Note 3 on D&M drawing 24214-702 contradicts the Department's understanding that UI provide gain to Municipal or ConnDOT. Please clarify.

9U: Page 29, Section 6.8.9.3.2. have been submitted for review, should read submitted for review and approval by ConnDOT.

10U: Page 29, Section 6.8.9.3.3 discusses utility separation from the transmission line. The minimum clearance (vertical and horizontal) between the proposed transmission line, is to be governed by the individual utility being impacted.

11U D&M Plan, page 30, section 6.8.9.4 all impact or potential impact to railroad R.O.W. is to be reviewed and approved by ConnDOT and the impacted railroad.

12U Page 35, Section 6.10, all submittals are to be reviewed and approved by ConnDOT.

13U Prior to the ConnDOT issuance of an encroachment permit, the United Illuminating Company (UI) and ConnDOT shall enter into an Encroachment Agreement that will memorialize understandings relative to the installation of the proposed transmission system within the ConnDOT right-of-way.

14E: Appendix I – Environmental Borings:
There were areas of environmental concern (AOECs) identified based on the UI investigative borings B1-B124 due to exceedances of the CTDEP Remediation Standard Regulations (RSRs) for GB. As a reminder, UI is the generator and owner of excess materials (soils, groundwater and other debris) and therefore UI is responsible for handling and disposing of all materials in accordance with State and Federal Regulations.

15E: Section 4.2.6 Staging Areas, pg 9:
Do these staging areas include areas for excess soil stockpiles (once excavations are completed), or will there be other locations specific to soils?

16E: Section 6.8.4.9.3 Contaminated Soils and/or Hazardous Substances and Waste, pg 22: Will UI's environmental inspector be monitoring soil conditions as the Contractor excavates/ handles these materials?

17E: Section 6.8.4.11 Removal of Water, pg 23:
Will UI's environmental inspector be monitoring groundwater conditions as the Contractor encounters/handles it?
In the event that contaminated groundwater is encountered, where would the temporary holding tanks be staged?

18E: Does UI intend to develop a soil and groundwater handling plan, as is being done on the other Segments (4a & 4b)?

19T Please provide written responses specific to each comment and provide answers to all questions.

20T Please label all state roadways with the appropriate route number on all plans. For example, on Drawing Nos. 24214-103 and 104, Water Street is Route 130.

21T In the future, please do not change the drawing numbers between submissions.

22T Please include a requirement in the transmission line contract that the Contractor must restore traffic to existing traffic operations immediately as directed by the Engineer in emergency situations such as in the case of an incident on I-95 in which traffic must be diverted onto Routes 1 and 130.

Consultant's responses to 60% comments

23T–UI responded that where vaults will have longer-term impacts, a Maintenance and Protection of Traffic (M&PT) plan has been created to show how vehicular and pedestrian traffic will be managed at locations where lane and shoulder closures can not be avoided. Any exceptions to the allowable periods for lane closures must be approved by Department Management.

24T 30T – The Traffic Typical Sheet for pavement markings was not included with this submission.

25T 35T – The Traffic Typical Sheets were not included with this submission.

26T 37T – The response does not seem to make sense. Please clarify and elaborate.

27T 42T – The guidelines and Typical Traffic Control Plans for Maintenance Operations were not included in this submission.

28T 52T – The response states that the access to the Railroad Station will be addressed in the M&PT plan. However, one of the existing accesses is blocked by TPCBC. Is this acceptable to the Railroad Station? Are any signs needed?

29T 53T and 57T - Please identify the traffic equipment that will be disturbed by construction. Please ensure that the signal items and special provisions are included in the transmission line contract so that the contractors can bid on the traffic signal work appropriately.

30T 54T – The response requests that we identify any specific locations of concern where the transmission line may affect the foundations of the traffic signal equipment. UI should review the entire length of the transmission line to determine if there will be issues with the proximity to signal equipment. Two examples are in the vicinity of Station 38+00 and in the vicinity of Station 42+00 on Route 130 (Water Street) where it appears that the excavation for the transmission line will be very close to mast arm foundations.

31T 56T – The response states that an M&PT plan has been created to address the installation of the transmission line in the middle of the Route 130 Southbound roadway in the area south of John Street. However, there does not appear to be a plan. Is an M&PT plan needed or is it feasible to use the steel plate support system so that existing traffic operations can be restored during the periods when the Contractor is not allowed a lane closure? Please address.

32T 60T – The response to the question, how will traffic be maintained during the installation of the transmission line on Route 130 Northbound (on Drawing No. 714), was not answered and it states to refer to the response to 24T. The response to 24T states that a site-specific M&PT plan will be created, however there does not appear to be a plan for this situation. Is an M&PT plan needed or is it feasible to install a steel plate system to restore existing traffic operations at the end of the allowable lane closure work period? Please address.

33T In reference to 72T, please include the following requirements for the I-95 ramps:

In Prosecution and Progress – Limitations of Operations special provision:

I-95 Ramps

The Contractor will not be allowed to perform any work that will interfere with existing traffic operations on:
Monday through Friday between 6:00 a.m. and 9:00 a.m. and between 3:00 p.m. and 7:00 p.m.
Saturday and Sunday between 10:00 a.m. and 9:00 p.m.

In Maintenance and Protection of Traffic special provision:

I-95 Ramps
The Contractor shall maintain and protect existing traffic operations.

Excepted there from will be those periods, during the allowable periods, when the Contractor is actively working at which time the Contractor shall maintain and protect at least one lane of traffic on a paved travel path not less than 11 feet in width.

34T In Section 4.0 Construction, in Section 4.1.1. Work Hours, on page 7, it states that normal work hours for most of the project construction will be between 7:00 a.m. and 7:00 p.m., with construction activities in public road rights-of-way being guided by the approved Construction Maintenance and Control Plan. If a lane closure is needed, it may not be feasible to limit work to daytime construction in all areas because the traffic volumes may be too high to allow a lane closure during daytime hours.

35T In Section 4.1.1 Work Hours, on page 7, it states that the proposed work hours may be extended, on a temporary and case by case basis to complete critical installation items. Any exceptions to the allowable work periods for lane closures must be submitted for review and approval by Department Management.

36T In Section 4.1.1 Work Hours, on page 7, it states that splicing activities will be conducted on a 24-hour basis within each appropriate splicing chamber for a duration of up to two weeks. As previously commented, on some roadways, a continuous lane closure will not be allowed due to heavy traffic volumes. Any exceptions to the allowable work periods for lane closures must be approved by Department Management.

37T In Section 4.1.2 Special Construction Timing Windows, on page 7, it states that the special timing windows for the Lines, along with conditions associated with them, are as follows but there is nothing following.

38T In Section 6.7.2 Population Concentrations, on page 15, it states that construction activities will be scheduled between 7:00 a.m. and 7:00 p.m. Monday through Saturday in residential areas. If a lane closure is needed, it may not be feasible to limit work to daytime construction in all areas because the traffic volumes may be too high to allow a lane closure during daytime hours.

39T In Section 6.8.2 Traffic Maintenance and Control, on page 17, it states that one lane will be left open at all times during construction on Main Street in Bridgeport where there are two existing lanes. However, two lanes may need to be maintained during some hours.

40T In Section 6.8.7.3 Cable Pulling, on page 26, the last statement states that once the cable installation is started, it will proceed without interruption until the installation is complete for that section of duct bank. As previously commented, on some roadways, a continuous lane closure will not be allowed due to heavy traffic volumes. Any exceptions to the allowable work periods for lane closures must be approved by Department Management.

41T In Section 6.8.9.3.1 Notification, on page 28, it states that notification will be given to all parties at least ten days before construction commences within the right-of-way of local streets and state roads. Please check with the District 3 Maintenance office and the District 3 Construction office to ensure that this notice is sufficient. Please add that the Encroachment Permit must be submitted to District 3 Maintenance.

42T In Section 6.8.9.7 Residential Mitigation Plan, on page 30, it states that construction activities in residential areas will be limited to daylight hours, generally between 7:00 a.m. and 7:00 p.m. If a lane closure is needed, it may not be feasible to limit work to daytime construction in all areas because the traffic volumes may be too high to allow a lane closure during daytime hours.

43T In section 6.10 Public Safety, on page 34, in reference to the Traffic Management and Control Plan and Drawings, it states “These appendices have been reviewed and approved by CDOT and the municipalities of Bridgeport and Stratford.” The Department had not yet reviewed them since they were just received with this submission. The Traffic Management and Control Plan and Drawings are not approved. Please refer to the comments below.

44T In Section 6.13 Maintenance, on page 35, please add that lane or shoulder closures for future maintenance will require an encroachment permit from District 3 Maintenance.

45T In Section 7 Procedures for Notices and Reports, on page 35, please include notification to the Department of the start of construction and of any changes.

46T In Appendix E - Proposed Traffic Maintenance and Control Plan, under General Work Rules, in reference to the 2nd paragraph, alternating one-way traffic operations will only be allowed during certain allowable work periods as approved by the Department and the municipalities.

47T In Appendix E - Proposed Traffic Maintenance and Control Plan, under General Work Rules, in reference to the 2nd paragraph, Department Management must approve any exceptions to lane closures exceeding the allowable periods.

48T In Appendix E - Proposed Traffic Maintenance and Control Plan, under General Work Rules, in reference to the last paragraph, it is recommended that pay items for traffic control during construction, for example traffic drums, construction signs, etc, be included in the transmission line contract. Refer to the attached list of Traffic items, descriptions, and pay units.

49T In Appendix E - Proposed Traffic Maintenance and Control Plan, in reference to Temporary Plating of Trench section, please ensure that the Department's steel plate requirements are included in the transmission line contract.

50T In Appendix E - Proposed Traffic Maintenance and Control Plan, under Notification, it states that 24-hour notice will be provided to the Department before impacting intersections. Section 6.8.9.3.1 states that a ten-day notice will be provided. Please clarify and confirm with District 3 Maintenance and District 3 Construction that the notice is sufficient.

51T In Appendix E - Proposed Traffic Maintenance and Control Plan, under Notification, please remove the third statement regarding a ten-day notice for State road detours. Full closures of State roads will not be allowed.

52T In Appendix E - Proposed Traffic Maintenance and Control Plan, in reference to Daily Allowable Active Work hours and Traffic Impacts, it is recommended to revise language similar to the Department's samples and include special provisions Prosecution and Progress and Maintenance and Protection of Traffic in the transmission line contract. Please refer to the attached samples.

53T In Appendix E - Proposed Traffic Maintenance and Control Plan, under Daily Allowable Active Work Hours and Traffic Impacts, for the section of Route 1 from Longbrook Ave. to Route 110, a portion of this section is one-way and this section must be broken into separate sections. Therefore, please revise the heading “Route 1 from Longbrook Ave. to Route 110 (East Main Street)” to “Route 1 (bi-directional traffic) from Longbrook Ave. to where Route 1 N.B. and S.B. separate”.

54T In Appendix E - Proposed Traffic Maintenance and Control Plan, under Daily Allowable Active Work Hours and Traffic Impacts, please add a section “Route 1 S.B. (one-way westbound) from where Route 1 N.B. and S.B. separate to Route 110”. Based on the traffic volumes from count station no. 138 2078, the Contractor can be allowed a lane closure between 8:30 p.m. and 6:00 a.m.

55T In Appendix E - Proposed Traffic Maintenance and Control Plan, under Daily Allowable Active Work Hours and Traffic Impacts, please add a section “Route 1 S.B. (one-way westbound) from Route 110 to Route 130” since the transmission line extends slightly past Route 110. Based on the traffic volumes from count station no. 138 2128, the Contractor can be allowed a lane closure between 8:30 p.m. and 6:00 a.m.

56T In reference to Appendix E – Proposed Traffic Maintenance and Control Plan, Daily Allowable Active Work Hours and Traffic Impact, District 3 Maintenance and District 3 Construction must review all allowable work periods.

57T In Appendix E - Proposed Traffic Maintenance and Control Plan, under Daily Allowable Active Work Hours and Traffic Impacts, please revise the minimum travel path width for the alternating one-way traffic operation to 12 feet.

58T In Appendix E - Proposed Traffic Maintenance and Control Plan, under Daily Allowable Active Work Hours and Traffic Impacts, it states that night work will only be permitted in areas considered commercial/industrial. However, night work may be needed if volumes are too high to allow a lane closure during the day.

59T In Appendix E - Proposed Traffic Maintenance and Control Plan, under Other Work Stipulations, the word “flows” should be replaced with “operations”.

60T In Appendix E - Proposed Traffic Maintenance and Control Plan, under Other Work Stipulations, the entire list of holidays are not typically included in every project. Please review and include the appropriate holidays. Also, the holiday restrictions are typically included before the hourly restrictions in the special provision for Prosecution and Progress – Limitations of Operations.

61T In Appendix E, please add the following statement to the Requirements for Winter in the special provision for Maintenance and Protection of Traffic in the transmission line contract:

This meeting shall be held prior to October 31 of each year and will include, but not be limited to, discussion of the status and schedule of the following items: pavement restoration, traffic signal work, pavement markings, and signing.

62T In Appendix E, under Signing Patterns, please add a reference to the Department's typical Maintenance Traffic Control Plans.

63T Please include the Maintenance Traffic Control Plans in the special provision for Maintenance and Protection of Traffic in the transmission line contract.

64T Please include the special provision for Section 12.08 Sign Face Sheet Aluminum, which is available on the Department's web site, in the specification package in the transmission line contract.

65T In Appendix E, under Restoration of Traffic Facilities, please revise the statement about construction signs. Construction signs shall conform to the special provision for Item No. 1220011A Construction Signs – Type III Retroreflective Sheeting. Please include this special provision in the transmission line contract.

66T Please include the special provision for Item No. 0979003A – Construction Barricades – Type III in the transmission line contract.

67T Please include the special provision for Item No. 111805xA – Temporary Signalization.

68T Please replace the nine pages of Traffic Control During Construction Operations with the attached pages titled Traffic Control During Maintenance Operations.

69T Please include the following Traffic Typical Sheets, which are available on the Department's web site, in the transmission line contract:

Typical Delineation, Delineator and Object Marker Details
Typical Sign Support and Sign Placement Details Gore Exit Sign
Typical Metal Sign Posts and Sign Mounting Details
Special Details and Typical Pavement Markings for Two-Way Highways
Signs for Construction and Permit Operations
Typical Construction Sign Supports and Channelizing Devices

70T Please include the following special provisions, which are available on the Department's web site, in the transmission line contract:
Item No. 09790003A – Construction Barricades – Type III
Item No. 1220011A- Construction Signs – Type III Reflective Sheeting

71T Please include the Typical Traffic Control Plans and guidelines for Maintenance Operations for work that affects state roads in the contract specifications in the transmission line contract.

72T Please refer to the sample Prosecution and Progress specification and Maintenance and Protection of Traffic specifications that are available on the Department's web site for applicable requirements that should be included in the transmission line contract.

General Maintenance and Protection of Traffic (M&PT) Comments

73T Please note that only the M&PT plans impacting state roads were reviewed. However, the comments contained herein should be reviewed and the applicable comments incorporated on the town road M&PT plans.

74T Please ensure that shifting tapers are adequate, in accordance with Section 6C.08 of the *Manual on Uniform Traffic Control Devices – 2003 Edition* (MUTCD), based on 85% speeds.

75T In areas where traffic will be traveling adjacent to TPCBC during stage construction, it is recommended that a minimum of 11' travel lanes and 1' shoulders be maintained. If there is no feasible way to provide this, then 10' lanes and 1' shoulders should be provided.

76T Please ensure that the taper rates for the TPCBC and the temporary impact attenuation systems are adequate for 85% speeds.

77T At intersecting roadways and driveways, please ensure that temporary impact attenuation systems and TPCBC are located such that they will not obstruct motorists' sightlines. Also, please verify that the widths of the openings and the turning radii are adequate.

78T Please ensure that all blunt ends of TPCBC are adequately protected or are outside the clear zone.

79T Please review all runs of TPCBC for installation of delineators and include the appropriate delineator items in the Contract. Type DE-7 Delineators are to be installed on runs of TPCBC to the right of traffic and Type DE-7A Delineators are to be installed on runs of TPCBC to the left of traffic. Please refer to Traffic Typical Sheet 7 "Typical Delineation and Delineator and Object Marker Details" for additional information.

80T Please include notes, similar to the following, on the plans:

- Existing conflicting pavement markings shall be removed or covered, including those pavement markings outside of the travelway.
- The appropriate Type DE-7 and Type DE-7A Delineators shall be installed on the TPCBC as specified on the typical sheet "Typical Delineation and Delineator and Object Marker Details."
- Existing signs are to be relocated as needed and as directed by the Engineer during construction so that they are in the appropriate location and visible to motorists. Some signs may have to be temporarily located within the work area. This work will be paid for under Item #0971001A – Maintenance and Protection of Traffic.
- Existing signs in conflict with temporary signs shall be covered, removed or revised to meet field conditions.
- The locations of temporary signs shown on the plans are approximate and shall be adjusted by the Contractor to meet field conditions.
- Temporary signs shall be mounted on posts when feasible.
- The locations of Traffic Drums shown on the plans are approximate and shall be adjusted by the Contractor to meet field conditions and to clearly define access to and egress from all roadways and driveways.
- The height of temporary sheet piling shall not extend above the height of the TPCBC.

81T Please show Construction Barricades Type III at the ends of the work areas.

82T Where applicable, please provide a callout at each intersection that will require temporary signalization, with the site number, to clearly indicate to the Contractor during which stages temporary signalization will be required and the item under which the temporary signalization at each location will be paid.

83T Please label the lane closure tapers and show the minimum lane closure taper length.

84T Drums should be shown along the lane closure tapers. Please refer to the MUTCD and/or the Typical Traffic Control Plans for Maintenance Operations.

85T Please label the shifting tapers and show the minimum shifting taper length for the shifting taper prior to the work area and the one after the work area.

86T It is recommended to decrease the spacing between advance warning signs to 100 feet.

87T What modifications to the existing traffic signal(s) will be needed? Please specify and include the necessary items for temporary signalization in the transmission line contract.

88T When a sidewalk has to be closed, please show how pedestrians will be detoured or provide a temporary sidewalk, and include the appropriate signing. Please include temporary pedestrian curb ramps and pedestrian signal indications as needed.

89T Please show the locations where the temporary pavement markings match the existing pavement markings.

90T Please remove plan sheet 24214-942. Construction Traffic Control Plans will not be used in this project. Please include the Maintenance Traffic Control Plans in the contract specifications.

Drawing No. 24214-950 – "Typical Maintenance and Protection of Traffic Schematic Layout at Splicing Chambers"

91T Please clarify that this plan only applies to locations in which there is only one existing lane of through traffic in each direction.

92T Please call for a Type DE-9 Delineator to be installed on the first module of the temporary impact attenuation systems. Please include the item in the transmission line contract.

93T Please call for Type DE-7 Delineators to be installed on the Temporary Precast Concrete Barrier Curb (TPCBC). Please include the item in the transmission line contract.

94T Please call for Black Mask Pavement Marking Tape to cover existing conflicting pavement markings. Please include the item in the transmission line contract.

95T Under “Notes”, it states “All other areas shall be considered “residential” with no work allowed from 10 p.m. to 6 a.m. unless approved by the governing authorities.” and under “General Notes” note no. 7 it states “In the City of Bridgeport, there will be no work between the hours of 10:00 p.m. and 6:00 a.m. unless specifically authorized. If a lane closure is needed, this may not be feasible in all areas because traffic volumes may be too high to allow a lane closure during the day.

96T Under “General Notes”, note nos. 5 and 6 include a 24-hour advance notice for lane closures and impacts to intersections. This does not seem sufficient. Please check with the Department’s District 3 Maintenance and District 3 Construction offices to ensure this notice is sufficient. In Section 6.8.9.3.1 Notification states that at least a ten-day notice will be provided to the Department.

97T Under general Notes”, note no. 7 referencing state road detours should be revised or removed. Full closures of State roads will not be allowed.

98T Under “General Notes”, note no. 13 is not clear. There appears to be a conflict with the language between “within 24 hours” and “prior to disruption”. Should there be two separate sentences? Please clarify.

99T Under “General Notes”, in note no. 14, please add a statement referencing the Department’s Standard Specifications Form 816 Sections 12.10 and 12.12 for permanent pavement markings and temporary pavement markings, respectively, for State roadways.

100T Under “General Notes”, in note no. 16, please replace “work zone safety guidelines…for construction” with “guidelines titled “Traffic Control During Maintenance Operations” and the typical Maintenance Traffic Control Plans.

101T Under “General Notes”, in note no. 18, please add “during each allowable period” at the end of the sentence.

102T For the vault locations, can a steel support system be used to restore existing traffic operations by the end of the allowable work period?

Drawing No. 24214-951 – "Maintenance and Protection of Traffic Typical Details"

103T Please show a DE-9 Delineator on the front of the first module of the temporary impact attenuation system.

104T Please remove the details of the construction barricades, traffic cones and traffic drums since these details are shown on the Department's typical sheet titled "Typical Construction Sign Supports and Channelizing Devices". Please include this typical sheet in the contract.

Drawing No. 24214-952 – "Maintenance and Protection of Traffic at Splice Chamber SC-2A and SC-2B"

105T Please label Route 130 on Water Street east of State Street.

106T Please confirm with the City that a continuous lane closure on Water Street is acceptable.

107T Please show the lane closure taper for the left lane closure on Route 130 westbound.

108T There is an existing traffic signal at this location, Intersection No. 15-259 – Route 130 (Water Street and State Street) at Water Street. Will temporary signalization be needed? If so, please include the appropriate notes on the plan and include the special provision in the contract.

109T One of the access drives to the Railroad Station is blocked by the TPCBC. Is this acceptable to the Railroad Station?

110T Is there sufficient width on Water Street to maintain the lane widths that are dimensioned on the plan considering the width of the temporary impact attenuation systems?

111T Does the trailing end of the TPCBC on the right side of Water Street northbound need to be protected?

112T Can the runs of TPCBC be shortened so that they will not interfere with the crosswalk and pedestrian signals on Water Street at the intersection with Route 130 (State Street)?

113T Please show the temporary shoulder line pavement markings.

114T Please show traffic drums along the lane closure taper.

115T Please show a Construction Barricade Type III at each end of the work area in front of the TPCBC leading taper.

116T Please remove the arrow sign, sign no. 41-4221.

Drawing No. 24214-963 – M&PT Plan for Vaults SC-11A and SC-11B

117T Based on the traffic signal plan, there are two lanes on Barnum Avenue eastbound and therefore a lane closure is needed. Please provide the appropriate signing and pavement markings for the lane closure.

118T Please confirm that the lane closure on Barnum Avenue is acceptable to the Town.

119T On Route 1 (Barnum Avenue) westbound, the through lane needs to be shifted to the left. Is there adequate distance for at least the minimum shifting taper? Please show the appropriate signing and pavement markings for the lane shift. Also, please ensure that the appropriate lane-use signs and pavement markings are installed on the Route 1 westbound approach to the intersection.

120T Under "Note", the first note references the appropriate traffic control plan on Drawing No. 24214-762 but this plan does not appear to be included in this submission. This applies to all plans. The typical Traffic Control Plans for Maintenance Operations should be included in the transmission line contract specifications.

121T There is a traffic signal at this intersection, Intersection No. 138-202 – Route 1 at Barnum Ave, College St., and High Park Ave. Will temporary signalization be needed? Please include in the contract as needed. If so, please include the appropriate notes on the plan and include the special provision in the contract.

Drawing No. 24214-964 – M&PT Plan for Vaults SC-13A and SC-13B

122T There is an existing sidewalk on the south side of Route 1. Please show the appropriate pedestrian detour signing and sidewalk closed signing. Please include temporary pedestrian curb ramps and pedestrian signal indications as needed.

123T Are intersection sight distances adequate at the intersection of the drive on the south side of Route 1 that is located just east of the work area?

124T Please add "Reduce Speed to 25 mph" sign and a lane shift sign on both approaches on Route 1.

125T Please show temporary pavement markings for the lane shift on each approach to the work zone.

126T Please ensure the lane shift taper is adequate.

127T Please increase the distance between the shoulder line pavement marking and the TPCBC.

128T Please show a Construction Barricade Type III at each end of the work area in front of the TPCBC leading taper.

Drawing No. 24214-965 – M&PT Plan for Vaults SC-14A and SC-14B

129T There is an existing sidewalk on the south side of Route 1. Please show the appropriate pedestrian detour signing and sidewalk closed signing. Please include temporary pedestrian curb ramps and pedestrian signal indications as needed.

130T There is a traffic signal at this intersection, Intersection No. 138-236 – Route 1 (Barnum Ave.) at Route 108 (Nichols Ave.), King St. and Essex St. Will temporary signalization be needed? If so, please include the appropriate notes on the plan and include the special provision in the contract.

131T Please include the appropriate signs and call for the pedestrian signal heads to be bagged to prevent pedestrians from crossing Essex Street and Route 1 to and from the southeast corner where the work area is.

132T Will the span pole in the southeast corner of the intersection be affected by construction due to the proximity of the excavation?

133T There are two lanes of traffic in each direction on Route 1. Please show this on the plan.

134T Is there sufficient width to maintain the four existing travel lanes on Route 1? Will the travel lanes have to be shifted? Please show the necessary pavement markings (shoulder lines and lane lines) and lane width dimensions. If the lanes have to be shifted, please show the necessary signing for the lane shift.

135T Please add a “Shoulder Closed Ahead” sign on both approaches to the work zone.

136T Please add “Route 108” next to “Nichols Avenue”.

Drawing No. 24214-966 – M&PT Plan for Vaults SC-15A and SC-15B

137T There is an existing sidewalk on the south side of Route 1. Please show the appropriate pedestrian detour signing and sidewalk closed signing. Please include temporary pedestrian curb ramps and pedestrian signal indications as needed.

138T There is a traffic signal at this intersection, Intersection No. 138-272 – Route 1 (Barnum Ave. Cut-Off) at Burlington Coat Factory Driveway. Will temporary signalization be needed? If so, please include the appropriate notes on the plan and include the special provision in the contract.

139T Will the span pole in the small island in the southeast corner of the intersection be affected by construction due to the proximity of the excavation?

140T There are two lanes of traffic in each direction on Route 1. Please show this on the plan.

141T Is there sufficient width to maintain the four existing travel lanes on Route 1? Will the travel lanes have to be shifted? Please show the necessary pavement markings (shoulder lines and lane lines) and lane width dimensions. If the lanes have to be shifted, please show the necessary signing for a lane shift.

142T Please add a “Shoulder Closed Ahead” sign on both approaches to the work zone.

143T There is one driveway closed sign for one driveway but it appears that two driveways will have to be closed. Please clarify and add the appropriate signs as needed. If the two driveways are closed, is there another access?

Drawing No. 24214-967 – M&PT Plan for Vaults SC-16A and SC-16B

144T There is a traffic signal at this intersection, Intersection No. 138-277 – Route 1 at Veterans Boulevard and Shopping Center Drive. Will temporary signalization be needed? If so, please include the appropriate notes on the plan and include the special provision in the contract.

145T Will the pedestal for the pedestrian signal head and button that is located in the southeast corner of the intersection be affected by construction due to the proximity of the excavation?

146T Will the utility pole, which the signal span is attached to, that is located in the in the southeast corner of the intersection be affected by construction due to the proximity of the excavation?

147T There are four lanes, one right-turn lane, two through lanes, and one left-turn lane, on Route 1 on each approach to the intersection. Please show this on the plan.

148T Is there sufficient width to maintain the existing travel lanes on Route 1? Will the travel lanes have to be shifted? Please show the necessary pavement markings (shoulder lines and lane lines) and lane width dimensions. If the lanes have to be shifted, please show the necessary signing for a lane shift.

149T Please add a "Shoulder Closed Ahead" sign on both approaches to the work zone.

150T The traffic signal plan shows a two-lane approach on Veterans Boulevard. If only one lane can be maintained, please show traffic drums so that the second lane does not open and temporarily revise the lane-use.

151T There is an existing lane-use sign on Route 1 eastbound that is in the work area. Please call for this sign to be relocated.

Drawing No. 24214-968 – M&PT Plan for Vaults SC-17A and SC-17B

152T There are three existing lanes on the Route 1 westbound approach and then one lane turns right onto Route 110 and two lanes continue on Route 1 westbound. The plan shows two lanes merging into one lane immediately. This is unacceptable. Can two lanes be maintained? Can a steel support system be used to restore existing traffic operations by the end of the allowable work period? If a continuous lane closure is needed, it must be approved by Department Management. If Department Management approves the continuous lane closure, the proper lane closure taper length with appropriate signs and pavement markings must be shown.

153T There is a traffic signal at this intersection, Intersection No. 138-275 – Route 1 (Ferry Blvd. W.B.) at Route 110 (East Main Street). Will temporary signalization be needed? If so, please include the appropriate notes on the plan and include the special provision in the contract.

154T Will the utility pole or the controller cabinet that are located near the vaults be affected by construction?

155R UI will be required to enter into a formal license agreement for each location that occupies State owned rail property.

156R: The development of an Electromagnetic Interference (EMI) study to identify any potential impact to the existing railroad infrastructure that may result from the future 345 kV installation. Submission of the EMI report is required by the Office of Rail.

157R: General: We are still waiting to review an EMI study from UI documenting that the installation will have no impact on railroad electrical systems, or if there is an impact, the means of mitigating of the problem. Meanwhile, we will continue to review the plans in anticipation of the report.

158R: Housy Siding (Sheet 24214-712): Prior to final approval, CDOT will need to see a cross-section of the installation under the railroad showing the cable duct bank relative to the anticipated foundations. Also, when the utility is ready to apply for an access permit from Metro-North for the installation, they will need to provide specific drawings and more detailed construction methods indicating how they plan to protect the railroad.

Also on Sheet 24214-712, Water Street is mislabeled. This is the driveway to the back of the arena and ballpark.

I continue to assume that UI has coordinated the design with the City of Bridgeport. The city is building an elevated walkway from the garage to the rail station over the cable duct bank. These plans for this project (which is in construction) are available from the city. UI needs to show the foundations on this plan.

159R: Stratford Ave (Sheet 24214-714): As-built plans are available from Metro-North in their New York office. If they haven't done so already, UI needs to contact Dave Willard to locate the plans and arrange for the designer to go to the city to review and /or make copies of the plans. Again, UI needs to provide a cross section prior to our approval. And when the utility is ready to apply for an access permit from Metro-North for the installation, UI will need to provide specific drawings and more detailed construction methods indicating how they plan to protect the railroad.

160R: Sheets 24214-715 & 716: Plans for the **Pequonnock River Railroad Crossing** are also available from Metro-North. I mention this because while UI seems to be out far enough, they need to avoid any substructure features of our bridge and fender systems. As before, CDOT will need to see a cross-section of the installation under the railroad at **Nobel Avenue** showing the cable duct bank relative to the anticipated foundations. Also, when the utility is ready to apply for an access permit from Metro-North for the installation, they will need to provide specific drawings and more detailed construction methods indicating how they plan to protect the railroad.

161R: Sheets 24214-734 & 735: The boring and receiving pits appear to by well off the tracks. This is good. However, we will still need to see details of the boring prior to approval. Also, because of the proximity of the boring to the tracks, Metro-North will still require an access permit backed up by boring details and methods.

162CBD: Sheet No. 103: In the vicinity of Station 32+00, the duct bank passes below I-95. This is Bridge No. 105A. The locations of the existing substructure should be reviewed for potential conflicts with the duct bank.

163CBD: Sheet No. 105: It appears that the duct bank will pass below the Pequonnock River. When the river crossing scheme is finalized, it should be forwarded for review.

164CBD: Sheet No. 106: In the vicinity of Station 66+00 MNRR bridge no. 55.98 passes over Noble Avenue. The duct bank is shown being carried on Noble Avenue below the bridge. The substructure should be reviewed for potential conflicts with the new duct bank.

165CBD: Sheet No. 111: In The vicinity of Station 114+00 the duct bank is shown passing below the Yellow Channel. When the crossing scheme is finalized, it should be forwarded for review.

166CBD: Sheet No. 124: In the vicinity of Station 240+00 the duct bank passes below Long Brook. When the crossing scheme is finalized it should be submitted for review. This applies also near Station 250+00 where the duct bank will pass below the railroad.

167DC: Could the vaults at STA 102+00 (#SC6A, SC6B) be located outside the travel pavement?

168DC: Vaults at STA 134+00 could be moved to the area on the north side of roadway to be outside the pavement.

169DC: The proposed vaults between STA 242+00 to 243+00 appears to impact existing drainage structures. Please review and provide a resolution.

170DC: At STA 254+40, the 345 kV duct bank should be deeper than 2.5’ in order to avoid conflict with providing adequate embedment for guiderail posts.

171DC: The M&PT on Drawing #24214-954 shows a blunt end at the Temp. Precast Concrete Barrier Curb facing traffic with one (1) single barrel used as a crash cushion. Consider closing off the opening with T.P.C.B.C. and opening at the trailing end for access to install vaults #4A & 4B.

172DC: It seems that a detour plan should be in place for installation of Vaults SC-9A & SC-9B, SC-10A & SC-10B and SC-11A & SC-11B in order to allow wide vehicles to safely pass through the work zones.

173DC: The procedure described in "Section 6.8.10.2 Proposed Deviations to the D&M Plan" addressed only notifying the Siting Council. The D&M plan change approval protocol should be followed to keep all parties informed. Please include the D&M Plan Change Approval Process.

174M: Since this project will affect numerous traffic signals, it is highly recommended that the utility company hire an electrical contractor to provide 24 hour service for repair to any affected signals including traffic signal loop replacement.

175M: It is suggested that the utility company purchase several "Pre-Fabricated Loop Detectors of Surface Mount Loop Detectors" as described in the State of Connecticut Department of Transportation Standard Specifications for roads, Bridges and Incidental Construction - Form 816 for daily use over excavations until permanent pavement is in place.

176M: Establishment of temporary "No Parking Zones" may be required for on-street parking in the project limits.

177M: A highway sign inventory is suggested in areas where work will be outside of the roadway. Highway signs should be safe guarded and restored properly.

178M: Temporary pavement markings will be required over trenching with permanent pavement marking restoration after final paving.

179M: Include plan copies of the all the traffic signals within the project limits with the contract documents.

180M: Include District Construction Notes as well as State details for asphalt, curb, walk, pedestrian ramps on the plans.

181M: Drawing Number 24214-010 – Notes: No. 3 ….. The number and final location and whether such conduits will be installed, will be determined based on the successful resolution of security, cost and construction issues with the municipalities and CDOT.

182M: Parking of personal and company vehicles will not be permitted on the city streets and/or State routes that will be supporting the route of the lines.

183PDU: The plans use a rather broad brush approach to show the proposed duct alignment. This is not coordinated with the existing lane lines. Also, the width of pavement repair is unspecified in the typical sections. This makes the exact extent of the proposed roadway disruption hard to evaluate in any given location.

The PDU anticipates that the nature of work will require more than one lane of traffic to be closed at times, since unplanned underground obstacles that must be avoided are almost inevitable in urban construction. Route 1 is one of the busiest highways in the state. The ramifications of closing multiple lanes are significant. THE M&P plans should address the method of maintaining traffic when this situation occurs.

This is a matter of serious concern since the contractor will be working for the utility rather than the department. It is the department's responsibility to maintain traffic flow. The PDU does not believe that these plans are adequate to the task.

184PDU: The PDU is concerned that the contractor will not be held to the restricted hours and limitations indicated in the report, since he is not under direct ConnDOT contract and supervision and it would financially benefit the utility to ignore these restrictions. This too can adversely influence traffic.

185PDU: The plans indicate that the Pequonnock River crossing will be installed using a drilling operation. There is no indication about how this is to be accomplished. The PDU anticipates that the drilling operation will create a significant amount of material which could cause environmental impacts to the river. ConnDOT should ensure that all required environmental regulations are met so that we do not assume any liability for approving plans that do not meet the standards to which we are normally held for our own projects.

186M: Note 1 on the "Typical Splice Chamber Details" sheet, Drawing No. 24214-020, references specifications for the design and fabrication requirements of the precast concrete splice chambers, but those are not provided. Forward these for review.

187M: The Office of Maintenance, Bridge Operations unit and the unit of Oversize/Overweight Permits is requesting that the vaults be designed for the HS-25 Design vehicle in lieu of the HS-20 vehicle noted in the plans. The higher vehicle loading is required as these vaults will not be inspected by personnel responsible to the Department in addition to the recent notification that NU has had to significantly increase the number of these vaults (most to be located in the roadway) due to their requirements.

188M: This office also requests that the design computations from the manufacturer be submitted to the Department along with the actual load rating for both the inventory and operating (using the Department's 204,000 lb. on 8 axles operating vehicles-copy attached) conditions.

189CD: Two locations appear to be in conflict with Projects 138-211/212. These comments are based on the proposed concept plans for these projects.

- A pair of vaults will conflict with the realignment of Essex Place (Sta. 226+00 to Sta. 227+00)/
- UI Plans will conflict with the proposed widening at Sta. 232+00.