

DOCKET 272 SEGMENT 4A NU

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.

T = Traffic, R = Rails, HD = Design, EP = Environmental Planning, EC = Environmental Compliance, M = Maintenance, DC = Construction, L = LAB, U = Utilities, BD =- Bridge Design, BS = Soils, H = Hydraulics, GS = Graphic Services, AG = Attorney General, BM = Bridge Maintenance, MS = Miscellaneous, F = Financial CBD = Consultant Bridge Design

All comments referenced in these comments number 1 through 109 shall carry equal weight, unless it is discovered 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 1U THROUGH 50T ARE RELATED TO THE DEVELOPMENT AND MANAGEMENT SUBMISSION DATED 12-14-05.

1U Comment: 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 7/1/05, attached hereto as Exhibit A.

Response: *The transmission line contract states that “Technical specifications for the project shall follow the ConnDOT Standard Specifications for Roads, Bridges, and Incidental Construction, Form 816, dated 2004, including any Supplementals thereto, and Special Provisions to Form 816 contained in the Project Manual*

2U Comment: The following reports were never provided to ConnDOT as promised: Single vault structure study, water crossing, vault load design and inspection criteria, vault spacing, and EMI study due 8/05 (see Exhibits B and D).

Response: *The double circuit single vault structure study is currently being reviewed by cable manufacturers for approval. In the event that NU chooses to use double circuit vaults structural calculations will be provided to the department for review. A feasibility report was provided to ConnDOT regarding the Norwalk River crossing at Byington Place. All major water crossings will be presented in a separate D&M filing. The vault load design is per*

ConnDOT design operating vehicle, plate no. 1.1.1, dated 10/03. As previously mentioned, once design has been finalized structural calculations will be provided to ConnDOT for review. The vault spacing report is included with these responses. The EMI study referenced in this comment is for the Bethel – Norwalk Project, the EMI Study for Middletown-Norwalk is being performed (see response to 11R).

3U Comment: Route 1 is a back-up artery to I-95. NU and UI 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 (see Exhibit E).

Response: Provisions will be included in the transmission line contract 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 Comment: Prior to the ConnDOT issuance of an encroachment permit, the Northeast Utilities Service Company (NU) 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.

Response: The Encroachment Agreement is currently being reviewed by ConnDOT.

5U Comment: 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 NU or his agent, and further, NU shall be subject to all federal, State and local regulations.

Response: Comment Noted.

6U Comment: In the event of an issue not approved by ConnDOT by a specific waiver request, the Department requirement shall stand.

Response: Comment Noted.

7U Comment: In Volume 1 of 3 D&M, page 2-1, item 2.3, the number of vaults with respective locations does not agree with D&M plan submittal. Two sets of vaults were to be within ConnDOT rights-of-way outside of the roadway, and the submission shows five vaults; and three pairs within the ConnDOT rights-of-way, and we found four. Please verify.

Response: Vaults 6434 & 7534 (Sta. 567+00) are located within the DOT ROW but outside the roadway. These vaults are located in a parking lot in front of Bank of America. Vaults 6440 & 7540 (Sta. 664+00) are located within a sidewalk in front of U-Haul Self Storage in Bridgeport. These vaults extend 2 feet into the parking lane but since the majority is off the travel way they were counted as within DOT ROW but outside the roadway. Vaults 6435 & 7535 (Sta. 581+00), 6441 & 7541 (Sta. 680+50) and 6443 & 7543 (Sta. 713+00) are all located within ConnDOT ROW inside the travel way. The statement in Volume 1 of 3 page 2-1, item 2.3 is correct “Three pairs will be within the ConnDOT ROW inside the roadway; Two pairs will within the ConnDOT ROW but outside the roadway...”

8U Comment: In Volume 1 of 3 D&M, page 2-5, item 2.4 (#8), locations of DOT parcels are unclear. Please delineate clearly.

Response: The areas referenced occur when the ductbank is in municipal roads and cross under I-95. The first of the locations referenced above occurs on Old Post Rd. in Fairfield (Sta. 465+50). The second location occurs on Railroad Ave. in Bridgeport (Sta. 768+00).

9U Comment: Edge of roadway on plans should be distinguished more clearly.

Response: Comment noted. Edge of roadway is identified by a dashed line unless curbs are present. In the case of curbs the curb type is noted.

10R Comment: Install an at-grade rod for crossing the railroad.

Response: Please clarify comment including providing a location for recommended installation. We are not familiar with an “at-grade rod.”

11R Comment: Relative to the parallel installation, we have made certain assumptions to date that there would be no impact. This assumption was based on having NU’s report in hand by fall 2005 and having that report confirm the lack of impact. We have seen no report, hence cannot sanction the installation until such time as a report is provided that demonstrates no impact to the railroad.

Response: The electro-magnetic induction (EMI) study is being performed by SES. Information was requested from both Metro-North and ConnDOT rails on January 13, 2006 to aid in modeling the effects. As of January 31, 2006 no information has been provided. Furthermore, the report was referenced in this comment is part of the Bethel-Norwalk (Docket No. 217) project rather than the Middletown-Norwalk (Docket No. 272) project.

12R Comment: The 345kV installation in Old Post Road, Fairfield under the railroad will require a utility crossing agreement with Metro-North. The utility has done these before for other crossings. As usual, the railroad will be looking for the utility to bury the cable in the middle of

the roadway to avoid abutment footings. I noticed that the installation favors the west side of the road. If this design remains, this crossing will require further coordination. The railroad will also be concerned with all construction activities and methods employed under the rail bridge.

Response: *The current design favors the west side of the road due to the number of existing utilities within the roadway. These utilities include two telephone ductbanks (one with a 7 duct creosote wood arrangement and one with 16 4" fiberglass ducts), a 16" water line, an 8" sanitary sewer and a 15" PVC Storm Sewer. Only the sewers are in the middle of the road, therefore the other utilities have installations infringing on the abutment footings to the east. Existing Bridge As-Builts will be obtained from the Departments records. If existing As-Builts are not available, we will utilize Non-Destructive testing methods (GPR) to locate the substructure components.*

13R Comment: The east end of the installation parallels the railroad for about 1.6 miles. This concerns us greatly. First, we are still waiting for an EMI study from NU (originally due August 2005) that addresses the potential impact of the 345 kV power line on railroad signal and power systems. Without a study, we cannot sanction the proposed parallel installation. Second, the installation is closer to the railroad side of the roadway for much of this 1.6 mile stretch. This places the trench too close to our retaining wall footings. We will be looking for more separation and for specific details of utility trenching methods that will protect our retaining walls.

Response: *See response to 11R. Existing utilities in Railroad Ave. dictate the location of the ductbank. Efforts have been made to move the ductbank away from the retaining wall where possible. Specific trenching details will be provided after consultation with the civil contractor performing the work. Existing Bridge As-Builts will be obtained from the Departments records. If existing As-Builts are not available, we will utilize Non-Destructive testing methods (GPR) to locate the substructure components.*

14R Segment 3 Comment: The actual RR crossing in Devon (Milford) has been left out of our copy with a note stating that the crossing will be addressed in a separate CSC submission. The last I heard, NU plans to go under the main line and over the east leg of the wye at the start of the Waterbury Branch. The detail of this crossing must be provided to this office for review.

Response: *Copies of the design plans for the Metro-North Spur Line crossing will be sent to ConnDOT and Metro-North for review and comment after final internal review. This comment and response is not related to the Development and Management plan submission dated 12-14-05.*

15R Segment 4a Comment: Station 480 (Old Post Road, Southport): The installation hugs the west side of the road under our rail bridge. This could conflict with or determine our abutment. Station 720 to 800 (Bridgeport): The utility is buried in Railroad Ave. (parallel to the railroad);

so, we are concerned about the potential impact to our retaining wall. From Station 775 to 800, the installation “hugs” the railroad, which may conflict with our retaining wall footing or compromise the stability of our 100+ year-old wall.

Response: See responses to 12R and 13R.

16M Comment: It is highly recommended that the project progress in short segments of approximately 2000 feet with full road restoration prior to advancement of construction.

Response: Restoration plans will follow Form 816 and construction sequencing will be discussed with the civil contractor who will be on board in late April.

17M Comment: Since the installation of this utility line will affect numerous traffic signals, it is highly recommended that the utility company hire an approved electrical contractor to be available 24 hours a day, at the State inspector's discretion, for all traffic signal repairs.

Response: Comment Noted. The civil contractor is aware of the need to expedite restoration of traffic signals.

18M Comment: Since more than 35 system loop detectors and more than 20 turn lane loop detectors fall within this project, it is suggested that the utility company purchase at least 20 “Pre-Fabricated Loop Detectors or Surface Mount Loop Detectors” (Form 816, supplement item No. 1111403A) to be used temporarily through the project's business districts or high volume areas.

Response: Comment Noted.

19M Comment: Establishment of temporary “NO PARKING ZONES” may be required for on-street parking in the project limits.

Response: Restricting on-street parking has been discussed with the municipalities and will be necessary.

20M Comment: The Route 130 median divider in Bridgeport was constructed with specific granite and brick material. Any cuts through this median require the contractor to preserve this material and store it temporarily to assure these islands are restored to original condition.

Response: This will be incorporated into the General Conditions of the contract, for removal and storage of materials for reuse.

21M Comment: Pavement restoration limits will be determined in accordance with Highway Maintenance Directive 93-1 (see Exhibit C).

Response: *The current typical pavement restoration details conform to Directive 93-1 for trench restoration and permanent mill and overlay limits.*

22M Comment: The District has been experiencing the pumping of water (groundwater) from trenches on Route 7, Wilton. If necessary, remedial measures may be needed (i.e. perforated pipe) as part of the contract.

Response: *The civil contractor(s) is/are aware of the presence of groundwater and have been instructed on the proper disposal measures.*

23M Comment: Show how the Route 1 drainage is accommodated at STA 459+00 (36" RCP).

Response: *Given the invert elevation of 5.42 the duct bank will pass below the 36"RCP. Please provide any mapping available for this drainage pipe so the exact location can be determined.*

24M Comment: Check the elevation of the drainage crossing at STA 468+50 on Route 1 and Rennel Drive, STA 476+20 at Route 1 and Old Post Road, and STA 542+50 at Route 1 and Bungalow.

Response: *The drainage crossings were shown at incorrect elevations in the profile, adjustments will be made to the drawings.*

25CBD Comment: In the vicinity of Stations 465+00 to 467+00, the duct bank will pass below an existing twin 48" box culvert and also Bridge No. 76, I-95 over Old Post Road. Will the culvert be affected by the installation of the duct? The Designer should investigate and verify any potential conflict between the I-95 Bridge footings and the proposed duct bank.

Response: *Existing Bridge As-Builts will be obtained from the Departments records at Pascone Place of the Office of Bridge Safety & Evaluation. If existing As-Builts are not available, we will utilize Non-Destructive testing methods (GPR) to locate the substructure components.*

26CBD Comment: MNRR Bridge No. 49.01 over Old Post Road and the duct bank. The Designer should investigate and verify the footing locations and any specialty construction techniques that may be required at this location.

Response: *Existing Bridge As-Builts will be obtained from the Departments records at Pascone Place of the Office of Bridge Safety & Evaluation. If existing As-Builts are not available, we will utilize Non-Destructive testing methods (GPR) to locate the substructure components.*

27CBD Comment: The Southport Harbor/Mill River crossing is being shown as a separate submission. This submission must be forwarded to this office for review, whether or not it is carried on a Department-owned structure.

Response: *The submission will be forwarded to the department, however the water crossing will be performed outside the DOT ROW.*

28CBD Comment: At Station 610+50, the duct bank is shown passing over a 19-foot twin culvert. Will the existing culvert be affected by the new installation?

Response: *As depicted, the ductbank will pass over the 19-foot twin culvert at Turney's Creek and the culvert will not be affected as there will be a cover of 1-foot between the top of the culvert and the bottom of the ductbank.*

29CBD Comment: The Ash Creek Crossing (Station 633+50 to 642+00) is not included with this submission. This submission must be forwarded to this office for review, whether or not it is carried on a Department-owned structure.

Response: *The submission will be forwarded to the department, however the water crossing will be performed outside the DOT ROW.*

30CBD Comment: Bridge No. 100 carries I-95 over Fairfield Avenue in the vicinity of Station 716+00 to 718+50. The Designer should investigate and verify the location of the existing substructure to avoid any conflict during construction.

Response: *Existing Bridge As-Builts will be obtained from the Departments records at Pascone Place of the Office of Bridge Safety & Evaluation. If existing As-Builts are not available, we will utilize Non-Destructive testing methods (GPR) to locate the substructure components.*

31CBD Comment: At Station 720+00, the duct goes from Fairfield Avenue to Railroad Avenue. MNRR Bridge No. 53.42 goes over Fairfield Avenue at this location. This bridge is being replaced in its entirety and both Fairfield Avenue and Railroad Avenue are being re-profiled. The design is under Project No. 170-1375. The duct design should be coordinated with the project.

Response: *We have received the electronic files from the Office of Consultant Design for a portion of State Project 15-296; however the files lack proposed sections or a proposed profile on Railroad Avenue. This information has been requested and we are not in receipt of it at this time. We request again that the entire proposed condition file including all cross-sections and profiles for Route 130 and Railroad Avenue be provided.*

32CBD Comment: The duct bank will parallel the MNRR mainline along Railroad Avenue. The Office of Rails/MNRR may offer comments on the installation in that area.

Response: *Comment noted.*

33CBD Comment: Bridge No. 105 carries I-95 over Railroad Avenue between Station 768+00 and 772+00. The Designer should investigate and verify the location of any existing substructure items in this area prior to construction.

Response: *Existing Bridge As-Builts will be obtained from the Departments records at Pascone Place of the Office of Bridge Safety & Evaluation. If existing As-Builts are not available, we will utilize Non-Destructive testing methods (GPR) to locate the substructure components.*

34T Comment: *Previous 60% Review Comment No. 61T – Although the traffic volumes may be low enough to allow a lane closure, the Contractor should be restricted from interfering with traffic during both the a.m. and p.m. peak hours on Routes 1 and 130.*

NU's Response 61T: Where traffic volumes are low, interference with a.m. or p.m. peak hour traffic in the opposite direction or major peak hour flow would be minimal and should not cause adverse effect to traffic in the major flow direction.

Due to the many drives and businesses along these heavily traveled commuter routes, lane closures during the peak hours will likely reduce capacity.

Response: *There will be no lane closures along Route 1 or Route 130 during the weekday morning peak hours and the weekday afternoon peak hours.*

35T Comment: In Response to 60% Review Comment No. 76T, it states that TPCBC is necessary to protect the mobile unit and that when the cable splicing is taking place, the TPCBC will be set before each shift and removed at the end of the shift. Is there enough time to install and remove the TPCBC in addition to accomplishing the work within the allowable time period? If TPCBC will be needed at all vault locations during cable splicing, NU must ensure that all work can be completed within the allowable lane closure period at each location.

Response: *Close coordination with the Contractor will be maintained to ensure that mobilization/demobilization and actual cable pulling and slicing is performed within the specified allowable work periods.*

36T Comment: In the response to 60% Review Comment Nos. 80T and 87T, it states that Sunday work schedules are no longer being proposed. However, the Traffic Inventory Report still includes a Sunday work proposal for some of the vault locations.

Response: *The work schedule has been revised to permit Sunday work in order to expedite the construction process.*

37T Comment: The following questions in the 60% Review Comment No. 90T (Vaults 6443 and 7543 formerly Vault MN-B-43) were not answered: “Will this [steel support system] be in an area where traffic will be stopping for the traffic signal? Is it feasible to relocate the vault to the south to the eastbound lanes?”

Response: *The steel support system will be located within the westbound Route 1 (Fairfield Avenue) approach to the stop bar. The vault location is approximately 150 feet from the intersection and any plating will have a skid resistant surface. The relocation is not feasible due to the electrical distribution ductbank located in the eastbound lanes.*

38T Comment: Many of the hourly restrictions listed in the responses to the 60% comments on the Fairfield Traffic Inventory Report do not match the revised Traffic Inventory Report. In addition, many of these hours are not recommended by the Department. Please refer to the attached marked-up pages of the Traffic Inventory Report.

Response: *The MPT plans will be revised per traffic related comments.*

Traffic Inventory Reports

39T Comment: For Routes 1 and 130, please refer to the comments marked in red on the attached pages of the Traffic Inventory Report.

Response: *The comments have been incorporated into the Traffic Inventory Report.*

40T Comment: Please revise the Allowable Work Hours Map and any other sections of the Traffic Inventory Report, as commented herein.

Response: *The Allowable Work Hours Maps and other sections commented on have been revised.*

41T Comment: Based on the traffic volumes, there are some areas where it will not be feasible to allow a lane closure during the daytime and provide a sufficient work period and, therefore, it will not be feasible to restrict night work.

Response: *The Traffic Inventory Report and work hours have been revised to reflect this.*

42T Comment: Please ensure that it is specified that all of the vault work shall conform to the hourly lane closure restrictions as specified on the attached marked-up pages of the Traffic Inventory Report for each section of roadway.

Response: *It is specified that all of the vault work shall conform to the hourly lane closure restrictions.*

43T Comment: Please ensure that requirements for maintaining the I-95 ramps are included in the transmission line contract.

Response: *The requirements for maintaining the I-95 ramps are included in the Maintenance and Protection of Traffic section of the transmission line contract.*

44T Comment: Vaults 7540 and 6440 (formerly Vault Location MN-B-40) – It is proposed to have a lane closure on Route 130 Eastbound between 7:00 a.m. and 6:00 p.m.. As previously commented, the Contractor would typically be restricted from utilizing a lane closure during the peak periods. The allowable period for a lane closure during the day in this area is 8:30 a.m. to 4:00 p.m. Equipment to reduce the noise should be investigated so that night work can be done in this area, which would provide a longer allowable period for a lane closure. Justification should be provided for the need for a lane closure during the requested time period. If approved, requirements should be included in the transmission line contract such as the following: that the Contractor must open the lanes if congestion occurs, as directed by the Engineer, that the Contractor will only be allowed to utilize the longer work period for certain operations (which shall be specified), and that the Contractor will only be allowed the longer work period for a maximum number of days.

Response: *The allowable work hours have been revised to reflect no lane closures during the weekday morning and afternoon peak hours and to permit night work. The Contractor shall investigate equipment to reduce noise for night work.*

45T Comment: Vaults 7541 and 6441 (formerly Vault Location MN-B-41) – It is proposed to have a lane closure in both directions on Route 130 E.B. and W.B. between 8:30 a.m. and 6:00 p.m. As previously commented, the Contractor would typically be restricted from utilizing a lane closure during the peak periods. The allowable period for a lane closure during the day in this area is 8:30 a.m. to 3:30 p.m. Equipment to reduce the noise should be investigated so that

night work can be done in this area which would provide a longer allowable period for a lane closure. Justification should be provided for the need for a lane closure during the requested time period.

If approved, requirements should be included in the transmission line contract such as the following: that the Contractor must open the lanes if congestion occurs, as directed by the Engineer; that the Contractor will only be allowed to utilize the longer work period for certain operations (which shall be specified); and that the Contractor will only be allowed the longer work period for a maximum number of days.

Response: The allowable work hours have been revised to reflect no lane closures during the weekday morning and afternoon peak hours and to permit night work. The Contractor shall investigate equipment to reduce noise for night work.

46T Comment: Vaults 7542 and 6442 (formerly Vault Location MN-B-42) - It is proposed to have a lane closure in both directions on Route 130 E.B. and W.B. between 7:00 a.m. and 6:00 p.m. As previously commented, the Contractor would typically be restricted from utilizing a lane closure during the peak periods. The allowable period for a lane closure during the day in this area is 8:00 a.m. to 3:00 p.m. Equipment to reduce the noise should be investigated so that night work can be done in this area, which would provide a longer allowable period for a lane closure. Justification should be provided for the need for a lane closure during the requested time period. If approved, requirements should be included in the transmission line contract such as the following: that the Contractor must open the lanes if congestion occurs, as directed by the Engineer; that the Contractor will only be allowed to utilize the longer work period for certain operations (which shall be specified); and that the Contractor will only be allowed the longer work period for a maximum number of days.

Response: The allowable work hours have been revised to reflect no lane closures during the weekday morning and afternoon peak hours and to permit night work. The Contractor shall investigate equipment to reduce noise for night work.

47T Comment: Vaults 7543 and 6443 (formerly Vault Location MN-B-43) – As previously commented, the allowable hours for an alternating one-way traffic operation are between 10:00 p.m. and 6:00 a.m.

Response: The allowable work hours have been revised.

48T Comment: For vault locations MN-F-27, MN-F-30, MN-F-31, MN-F-33, MN-F-36, and MN-F-37, the responses to the 60% review comments state that a lane closure will not be necessary. This should be noted in the Traffic Inventory Report.

Response: This has been noted in the Traffic Inventory Report.

49T Comment: Why were the sections for vault locations MN-F-36 and MN-F-37 removed from the Traffic Inventory Report?

Response: *The sections for vault locations MN-F-36 (now vaults 7536 and 6436) and MN-F-37 (now vaults 7537 and 6437) were not removed and are located on page 56 of the Fairfield section of the Traffic Inventory Report.*

50T Comment: District 3 Maintenance and District 3 Construction must review all allowable work periods.

Response: *District 3 has been copied on all submissions, and we will incorporate any of their comments.*

COMMENTS AND RESPONSES 51T THROUGH 107DC ARE ASSOCIATED WITH MAINTENANCE AND PROTECTION OF TRAFFIC PLANS SUBMITTED 12-21-05 AND ARE NOT ASSOCIATED WITH THE DEVELOPMENT AND MANAGEMENT PLAN SUBMITTAL DATED 12-14-05.

51T Comment: On the Drawing Index sheet (PG 001), the Traffic Typical sheets are not Standard Drawings and should be removed from the list of Standard Drawings. The sheet number and FHWA dates listed only apply to the metric sheets.

Response: *The Traffic Typical drawings will be shown separately.*

52T Comment: Please ensure that the temporary impact attenuation systems are adequate for 85% speeds.

Response: *All impact attenuation devices are designed for 35 mph.*

53T Comment: Please ensure that the taper rates for the TPCBC are adequate for 85% speeds.

Response: *All TPCBC taper rates are designed for 35 mph.*

54T Comment: Please call for a Type DE-9 Delineator on the first module of each temporary impact attenuation system and ensure that the item is included in the Contract.

Response: *A “Type DE-9 Delineator” will be called out on the Maintenance and Protection of Traffic Details drawing.*

55T Comment: Please ensure that the appropriate items for temporary plastic pavement marking tape and black mask tape are included in the transmission line contract.

Response: *The items for temporary plastic pavement marking tape and black mask tape are included in Form 816 which is referenced in the transmission line contract.*

56T Comment: Please call for the appropriate Type DE-7 delineators to be installed on TPCBC.

Response: *“Type DE-7 Delineators” will be called out on the Maintenance and Protection of Traffic Details drawing.*

57T Comment: 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.

Response: *Installation notes will be called out on the Maintenance and Protection of Traffic Details drawing.*

58T Comment: M&PT Plan PG 007 – The sidewalk on the north side of Route 130 is closed. Please show how pedestrians will be detoured and include the appropriate signing.

Response: *A temporary bituminous concrete sidewalk is proposed for this location. The limits will be shown on the Maintenance and Protection of Traffic drawing.*

59T Comment: M&PT Plan PG 008 – For Vault Nos. 6440 and 7540, the Traffic Inventory Report states that the lane closure will occur during construction and that the steel support system will be used to maintain traffic during non-construction periods. However, this plan shows a continuous lane closure with TPCBC. According to the Traffic Inventory Report, this M&PT plan is not needed. As previously commented, traffic volumes in the peak hours are too high to allow a continuous lane closure. This M&PT plan has not been reviewed.

Response: The M&PT for this location has been revised and the TPCBC has been removed. The Contractor will not be allowed to close a northbound lane during peak periods.

M&PT Plan PG 009

60T Comment: The sidewalk on the south side of Route 130 is closed. Please show how pedestrians will be detoured and include the appropriate signing.

Response: A detour for pedestrians will be shown on the M&PT Plan.

61T Comment: On Route 130 westbound, please show a Left Lane Closed Ahead sign, sign no. 80-9847, after the Road Work Ahead sign.

Response: The sign will be included.

62T Comment: On Route 130 westbound, please remove sign no. 80-9911 Lane Ends Merge Right, because it could be confusing to motorists in the right lane.

Response: The sign will be removed.

63T Comment: On Route 130 eastbound, please show a Right Lane Closed Ahead sign, sign no. 80-9848, after the Road Work Ahead sign.

Response: The sign will be included.

64T Comment: It is recommended to label the lane closure taper areas.

Response: The lane taper areas will be labeled.

65T Comment: Please add “minimum” to the lane closure taper length.

Response: “Minimum” will be included on the lane taper dimensions.

66T Comment: It is recommended to decrease the spacing between merge symbol sign, sign nos. 80-9917 and 80-9918 and the beginning of the lane closure taper to 100 feet.

Response: The sign spacing will be decreased.

67T Comment: Drums should be shown at the along the lane closure tapers. Please refer to the MUTCD and/or the Typical Traffic Control Plans for Maintenance Operations.

Response: *Traffic Drums will be shown on all lane tapers and lane shifts.*

68T Comment: 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.

Response: *The shifting tapers will be shown on the M&PT Plans.*

69T Comment: Please label the Sidewalk Closed signs.

Response: *Sidewalk Closed signs will be included.*

70T Comment: Sign No. 80-9451 (the large horizontal arrow sign) should be replaced with a keep right symbol sign.

Response: *The sign will be replaced.*

71T Comment: 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.

Response: *Traffic signal equipment that would be affected during the construction process is outlined in the Specific Recommendations section of the Traffic Inventory Report. The necessary items for temporary signalization will be included in the transmission line*

M&PT Plan PG 010

72T Comment: The sidewalk on the south side of Route 130 is closed. Please show how pedestrians will be detoured and include the appropriate signing.

Response: *A detour for pedestrians will be shown on the M&PT Plan.*

73T Comment: On Route 130 eastbound, please show a Right Lane Closed Ahead sign, sign no. 80-9848, after the Road Work Ahead sign.

Response: *The sign will be included.*

74T Comment: On Route 130 westbound, please show a Left Lane Closed Ahead sign, sign no. 80-9847, after the Road Work Ahead sign.

Response: The sign will be included.

75T Comment: On Route 130 westbound, please remove sign no. 80-9911 Lane Ends Merge Right because it could be confusing to motorists in the right lane.

Response: The sign will be removed.

76T Comment: It is recommended to label the lane closure taper areas.

Response: The lane tapers will be labeled.

77T Comment: Please add “minimum” to the lane closure taper length.

Response: “Minimum” will be included on the lane taper dimensions.

78T Comment: It is recommended to decrease the spacing between merge symbol sign, sign nos. 80-9917 and 80-9918, and the beginning of the lane closure taper to 100 feet.

Response: The sign spacing will be decreased.

79T Comment: Drums should be shown at the along the lane closure tapers. Please refer to the MUTCD and/or the Typical Traffic Control Plans for Maintenance Operations.

Response: Traffic Drums will be shown on all lane tapers and lane shifts.

80T Comment: 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.

Response: The shifting tapers will be shown on the M&PT Plans.

81T Comment: 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.

Response: Traffic signal equipment that would be affected during the construction process is outlined in the Specific Recommendations section of the Traffic Inventory Report. The necessary items for temporary signalization will be included in the transmission line

M&PT Plan PG 011

82T Comment: On Route 130 eastbound, please show a Left Lane Closed Ahead sign, sign no. 80-9847, after the Road Work Ahead sign.

Response: *The sign will be included.*

83T Comment: On Route 130 eastbound, please remove sign no. 80-9911 Lane Ends Merge Right because it could be confusing to motorists in the right lane.

Response: *The sign will be removed.*

84T Comment: It is recommended to decrease the spacing between merge symbol sign, sign no. 80-9918, and the beginning of the lane closure taper to 100 feet.

Response: *The sign spacing will be decreased.*

85T Comment: On Route 130 westbound, please show the advance warning signs.

Response: *The advance warning signs will be shown.*

86T Comment: Please label the lane closure taper area and the minimum length.

Response: *The lane closure taper will be labeled with a “minimum” length.*

87T Comment: Please label the shifting taper areas and minimum lengths.

Response: *The shifting tapers will be shown on the M&PT Plans.*

88T Comment: 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.

Response: *Traffic signal equipment that would be affected during the construction process is outlined in the Specific Recommendations section of the Traffic Inventory Report. The necessary items for temporary signalization will be included in the transmission line*

SPECIAL PROVISIONS

89T Comment: Any other locations that will require specific M&PT plans?

Response: *Whenever the duct bank or vault construction cannot be covered under the ConnDOT's Traffic Control Plans for Maintenance Operations, M&PT plans will be developed.*

90T Comment: Will any bus stops need to be relocated? If so, please coordinate with the applicable bus company and provide the appropriate signing as needed.

Response: *Yes, we are currently coordinating with the bus companies. The appropriate signing will be provided.*

91T Comment: 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.

Response: *The notes will be included on the Maintenance and Protection of Traffic Details drawing.*

92T Comment: Please include the following specifications in the transmission line contract:

- Notice to Contractor - NCHRP Report 350 Requirements for Work Zone Traffic Control Devices
- Notice to Contractor – Traffic Drums and Cones
- Item No. 1220011A – Construction Signs – Type III Reflective Sheeting

Response: *The above specifications have been included in the transmission line contract.*

93T Comment: Please include the special provision for Item No. 111805_A - Temporary Signalization (Site No. _).

Response: *The special provision for Temporary Signalization has been included in the transmission line contract.*

94T Comment: Please refer to the attached list of traffic items and descriptions. It may be beneficial to include some of these items in the transmission line contract (see Exhibit G).

Response: *The items "Construction Barricade Type III" and "Changeable Message Sign" have been included in the transmission line contract. The remaining "A" items do not apply. The standard items are covered with reference to Form 816.*

Prosecution and Progress (P&P) special provision

95T Comment: Please revise the P&P special provision to match the hourly restrictions as commented on the Traffic Inventory Report contained herein.

Response: *The Prosecution and Progress has been revised to reflect the revised hourly restrictions.*

96T Comment: Please add the word "existing" in front of "traffic operations".

Response: *The word "existing" has been added in front of "traffic operations".*

97T Comment: Please add the following for the 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. & between 3:00 p.m. and 6:00 p.m.

Saturday and Sunday between 10:00 a.m. and 9:00 p.m.

Response: *The above has been added.*

98T Comment: Under "Other Limitations" please add the following:

All transverse height differentials on all roadway surfaces shall be tapered to negate any "bump" to traffic as specified elsewhere in this contract or as approved by the Engineer. Material for this taper shall be as approved by the Engineer.

Response: The above has been added.

Maintenance and Protection of Traffic (M&PT) special provision

99T Comment: Please refer to comments marked in red on the attached M&PT special provision (see Exhibit F).

Response: The Maintenance and Protection of Traffic Special Provision has been revised to reflect the Departments comments.

100T Comment: Please replace the first statement under the “I-95 Ramps” section with the following:

The Contractor shall maintain and protect existing traffic operations. Excepted therefrom will be those periods, during the allowable periods, when the Contractor is actively working, at which time the Contractor will be allowed to maintain and protect the existing number of lanes of traffic, each lane on a paved travel path not less than 11 feet in width.

Response: The above statement has been added.

101T Comment: Please replace the submitted traffic control plans with the Traffic Control Plans for Maintenance Operations.

Response: The submitted traffic control plans have been replaced with the Traffic Control Plans for Maintenance Operations.

102T Comment: Should Traffic Control Plan #9 be added?

Response: Traffic Control Plan #9 has been added.

103DC Comment: Several projects, which are in design phase, and ongoing projects may have areas of conflict with the 345 kV line. Coordination of the 345 kV line with the CDOT Designer for these projects needs to identify and address the potential conflicts.

Response: We have been provided with a list of ongoing and future projects along the proposed route and we have adjusted the route accordingly, with the information that has been provided to us.

104DC Comment: Is there any concern for rock blasting adjacent to the 345 kV XLPE transmission cable circuits when it is energized? Please identify the restrictions required to work adjacent to the 345 kV duck bank and vaults.

Response: As with any utility blasting is a concern and varies with amount of charge etc. No blasting should be allowed adjacent to the ductbank of vaults without approval of Northeast Utilities.

105DC Comment: The 345 kV line must be installed below all existing drainage structures.

Response: Comment noted. Where adequate cover is available it is more feasible to install the ductbank over the drainage structure rather than opening up a 20-foot deep trench to pass below existing structures.

106DC Comment: State roadways are to be restored in accordance with Highway Maintenance Directive No. 93-1. Indicate on the M&PT plans the limits of milling and resurfacing for the restoration of the roadway (see Exhibit C).

Response: Included in the Restoration and Maintenance & Protection of Traffic Plans are full-depth and mill and overlay sheets for the proposed route.

107DC Comment: The M&PT plans must include the proposed sequence of construction detailing the logical steps to complete every phase of the work. Include requirements to maintain all existing traffic signals within each phase.

Response: Comment noted.

COMMENTS AND RESPONSES 108BM THROUGH 109L ARE RELATED TO THE DEVELOPMENT AND MANAGEMENT SUBMISSION DATED 12-14-05.

108BM Comment: Although they have attempted to reduce the number of junction chambers in the roadway, there will still be some junction chambers subject to vehicular loads. These vaults will be subject to periodic inspections by N.U. and must be designed for at least HS-20 live loading, in accordance with Exhibit B.

Response: The vaults will be designed as requested by the department for the ConnDOT design operating vehicle rather than HS-20 loading. The design operating vehicle is ConnDOT plate no. 1.1.1, issued 10/03. A plan for vault inspection is being prepared.

109L Comment: Specification for concrete within the duct bank, as shown on drawing 01224-46003 PG 001, does not specify at what time (3 hrs., 6 hrs., 3 days, 7 days, 28 days?) . If this trench will be filled in quickly to maintain traffic, any strength specification beyond the time the trench is open is of no use. Also, given the number of obstructions in the trench, does the designer anticipate using a self-consolidating mix so that the concrete can flow around the ducts and keep any voids to a minimum?

Response: The concrete strength specification is for 28 days. The concrete used will be a self-consolidating mix to keep voids to a minimum. Voids negatively affect system ampactiy.