DEVELOPMENT & MANAGEMENT PLAN

VOLUME 2: MAPS, DRAWINGS AND RESOURCE SPECIFICATION **APRIL 2023**



AVANGRID

MILVON TO WEST RIVER RAILROAD TRANSMISSION LINE 115-kV REBUILD PROJECT (CONNECTICUT SITING COUNCIL DOCKET NO. 508)

SEGMENT 1: ELMWEST SUBSTATION TO WEST RIVER SUBSTATION CITIES OF WEST HAVEN AND NEW HAVEN NEW HAVEN COUNTY, CONNECTICUT



REV.

DATE

BY

(952) 937-5150 1684 South Broad Street, Suite #300

(952) 937-5822 Lansdale, PA 19446

Toll Free (888) 937-5150 ww-pc.com Westwood Surveying and Engineering, P.C.

Fax



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| | GRID | UI ′ | 115-kV RR DEVELC | PROJECT MILVON TO WEST RI OPMENT & MANAGEMENT PLAN SEGMENT 1 | VER |
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| | | CK. | JRD MSP | NO. | REV. |
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| STR 2 OF 2 | TYPICAL FOUNDATION & GROUNDING DETAILS | | | | | | | | |

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CROSS SECTION INDEX MAP

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| Jur | veying | a Engineering | |
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| | | | | PROJECT | MILVON TO WEST RIV MANAGEMENT PLAN | VER |
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| | | | | SEGMENT 1 | | |
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| DESCRIPTION | APP. | DATE: | | | | 0 0/1 |

| Structure | Cross Section # | Structure Height (ft) | A (ft) | B (ft) | C (ft) | D (ft) |
|-----------|--------------------|-----------------------------|-----------|-----------|-----------|-----------|
| P1030N | 12 | 110 | 43 | 25 | 18 | 14 |
| P1031N | 12 | 105 | 34 | 25 | 9 | 23 |
| P1032N | 12 | 105 | 34 | 24 | 10 | 22 |
| P1033N | 12 | 110 | 30 | 21 | 9 | 23 |

EXISTING (VIEW FACING EAST)

^A THE WIDTH OF THE EXISTING CT DOT CORRIDOR IN THE PROJECT AREA IS HIGHLY VARIABLE. REFER TO PROJECT MAPS AND DRAWINGS, FOR CT DOT CORRIDOR BOUNDARIES.

^B THIS DISTANCE AVERAGES TO BE 24'-0" BUT RANGES FROM 21'-0" TO 25'-0". REFER TO TABLE ABOVE FOR EXACT DISTANCES.

^C THE DISTANCE BETWEEN THE PROPOSED 115-KV DOUBLE-CIRCUIT STRUCTURES AND THE EXISTING CT DOT CORRIDOR NORTHERN BOUNDARY VARIES. REFER TO TABLE ABOVE FOR EXACT DISTANCES.

^D THE WIDTH OF UI'S REQUIRED NEW PERMANENT EASEMENT VARIES. REFER TO TABLE ABOVE.

^E THE HEIGHT OF THE NEW 115-KV DOUBLE-CIRCUIT STRUCTURES VARIES. REFER TO TABLE ABOVE FOR EXACT STRUCTURE HEIGHTS.

PROPOSED (VIEW FACING EAST)

Varies ^D

32'-0"

 \rightarrow

CROSS SECTION 12 ELMWEST SUBSTATION TO WEST RIVER SUBSTATION (WEST HAVEN): STR P1030N TO STR P1033N - 0.22 MILES



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DATE

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REV.

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Toll Free

NOTES:

- 1. DEPICTED STRUCTURES ARE STEEL TANGENT STRUCTURES. DEAD END STRUCTURES WILL DIFFER.
- 2. THE EXISTING CATENARY STRUCTURES SUPPORT METRO NORTH RAILROAD ELECTRICAL FACILITIES CONSISTING OF TWO (2) SIGNAL WIRES, 2 OR 3 FEEDER WIRES, AND ONE (1) AERIAL GROUND WIRE, BOTH ON THE NORTHERN AND SOUTHERN CATENARY SUPPORT COLUMNS.
- THE CT DOT CORRIDOR CONTAINS FOUR (4) RAILROAD 3. TRACKS IN THIS AREA OPERATED BY METRO NORTH RAILROAD.
- 4. A 15'-0" CLEARANCE MUST BE MAINTAINED BETWEEN THE NEW 115-KV CONDUCTORS AND THE EXISTING CATENARY STRUCTURES SO THAT METRO NORTH RAILROAD CAN MAINTAIN THEIR EQUIPMENT WITHOUT REQUIRING AN OUTAGE ON THE 115-KV FACILITIES.
- EXISTING VEGETATION WITHIN THE CT DOT CORRIDOR 5. VARIES BY LOCATION. REFER TO PROJECT MAPS AND DRAWINGS, FOR LOCATIONS OF PROPOSED TREE REMOVAL.
- TO COMPLY WITH UI STANDARD TRANSMISSION 6. VEGETATION MANAGEMENT PLANS, UI REQUIRES VEGETATION MANAGEMENT IN THE AREA THAT IS 32'-0" FROM EACH STRUCTURE CENTER (25'-0" FROM CONDUCTOR ATTACHMENT POINT). IN LOCATIONS WHERE THE CT DOT CORRIDOR NORTHERN BOUNDARY IS LESS THAN 32'-0" FROM THE PROPOSED STRUCTURE LOCATION, UI PROPOSES TO ACQUIRE A PERMANENT EASEMENT FROM ADJACENT LANDOWNERS. REFER TO PROJECT MAPS AND DRAWINGS, FOR PROPOSED ADDITIONAL PERMANENT EASEMENT LOCATIONS.
- DISTANCE FROM SOUTHERN CATENARY STRUCTURE TO CT 7. DOT CORRIDOR SOUTHERN BOUNDARY WILL REMAIN UNCHANGED FROM EXISTING CONDITIONS.

| | UI 115-kV RR PROJECT MILVON TO WEST RIVER DEVELOPMENT & MANAGEMENT PLAN | | | | | | | |
|-------------|--|------------------|-----|----------|-------|--------|------|--|
| | | CROSS SECTION 12 | | | | | | |
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| DESCRIPTION | APP. | DATE: | | | - | | | |

| Structure | Cross Section # | Structure Height (ft) | A (ft) | B (ft) | C (ft) |
|-----------|--------------------|-----------------------------|-----------|-----------|-----------|
| P1034N | 13 | 100 | 78 | 26 | 52 |
| P1035N | 13 | 95 | 75 | 48 | 27 |
| P1036N | 13 | 95 | 92 | 52 | 40 |
| P1037N | 13 | 95 | 106 | 49 | 57 |
| P1038N | 13 | 125 | 75 | 25 | 50 |

CROSS SECTION 13 ELMWEST SUBSTATION TO WEST RIVER SUBSTATION (WEST HAVEN): **STR P1034N TO STR P1038N - 0.28 MILES**

EXISTING

(VIEW FACING EAST)

^A THE WIDTH OF THE EXISTING CT DOT CORRIDOR IN THE PROJECT AREA IS HIGHLY VARIABLE. REFER TO PROJECT MAPS AND DRAWINGS, FOR CT DOT CORRIDOR BOUNDARIES.

^B THIS DISTANCE AVERAGES TO BE 45'-0" BUT RANGES FROM 25'-0" TO 52'-0". REFER TO TABLE ABOVE FOR EXACT DISTANCES.

^C THE DISTANCE BETWEEN THE PROPOSED 115-KV DOUBLE-CIRCUIT STRUCTURES AND THE EXISTING CT DOT CORRIDOR NORTHERN BOUNDARY VARIES. REFER TO TABLE ABOVE FOR EXACT DISTANCES.

^D THE HEIGHT OF THE NEW 115-KV DOUBLE-CIRCUIT STRUCTURES VARIES. REFER TO TABLE ABOVE FOR EXACT STRUCTURE HEIGHTS.

PROPOSED

(VIEW FACING EAST)



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| Westwood | Surveying and Engl | ineering, P.C. | | | | |
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NOTES:

- 1. DEPICTED STRUCTURES ARE STEEL TANGENT STRUCTURES. DEAD END STRUCTURES WILL DIFFER.
- 2. THE EXISTING CATENARY STRUCTURES SUPPORT METRO NORTH RAILROAD ELECTRICAL FACILITIES CONSISTING OF TWO (2) SIGNAL WIRES, 2 OR 3 FEEDER WIRES, AND ONE (1) AERIAL GROUND WIRE, BOTH ON THE NORTHERN AND SOUTHERN CATENARY SUPPORT COLUMNS.
- THE CT DOT CORRIDOR CONTAINS FOUR (4) RAILROAD TRACKS IN THIS AREA OPERATED BY METRO NORTH RAILROAD.
- 4. A 15'-0" CLEARANCE MUST BE MAINTAINED BETWEEN THE NEW 115-KV CONDUCTORS AND THE EXISTING CATENARY STRUCTURES SO THAT METRO NORTH RAILROAD CAN MAINTAIN THEIR EQUIPMENT WITHOUT REQUIRING AN OUTAGE ON THE 115-KV FACILITIES.
- EXISTING VEGETATION WITHIN THE CT DOT CORRIDOR VARIES BY LOCATION. REFER TO PROJECT MAPS AND DRAWINGS, FOR LOCATIONS OF PROPOSED TREE REMOVAL.
- TO COMPLY WITH UI STANDARD TRANSMISSION 6 VEGETATION MANAGEMENT PLANS, UI REQUIRES VEGETATION MANAGEMENT IN THE AREA THAT IS 32'-0" FROM EACH STRUCTURE CENTER (25'-0" FROM CONDUCTOR ATTACHMENT POINT). IN LOCATIONS WHERE THE CT DOT CORRIDOR NORTHERN BOUNDARY IS GREATER THAN 32'-0" FROM THE PROPOSED STRUCTURE LOCATION, UI WILL NOT NEED ANY PERMANENT EASEMENT FROM ADJACENT LANDOWNERS TO ACHIEVE THESE CLEARANCES.
- DISTANCE FROM SOUTHERN CATENARY STRUCTURE TO CT 7. DOT CORRIDOR SOUTHERN BOUNDARY WILL REMAIN UNCHANGED FROM EXISTING CONDITIONS.

| | | | | UI 115-kV RR PROJECT MILVON TO WEST RIVER DEVELOPMENT & MANAGEMENT PLAN | | | | | |
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| | | - | | CROSS S | SECTION 13 | | | | |
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| | | APP. | MSP | XS 2 | 2 OF 3 | | | | |
| DESCRIPTION | APP. | DATE: | | | | | | | |

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|-----------|--------------------|-----------------------------|-----------|-----------|-----------|-----------|
| Structure | Cross Section # | Structure Height (ft) | A (ft) | B (ft) | C (ft) | D (ft) |
| P1043N | 14 | 120 | 33 | 27 | 6 | 29 |
| P1045N | 14 | 115 | 33 | 28 | 5 | 30 |
| P1047N | 14 | 115 | 34 | 35 | -1 | 36 |

EXISTING (VIEW FACING EAST)

^A THE WIDTH OF THE EXISTING CT DOT CORRIDOR IN THE PROJECT AREA IS HIGHLY VARIABLE. REFER TO PROJECT MAPS AND DRAWINGS, FOR CT DOT CORRIDOR BOUNDARIES.

^B THIS DISTANCE AVERAGES TO BE 30'-0" BUT RANGES FROM 27'-0" TO 35'-0". REFER TO TABLE ABOVE FOR EXACT DISTANCES.

^C THE DISTANCE BETWEEN THE PROPOSED 115-KV DOUBLE-CIRCUIT STRUCTURES AND THE EXISTING CT DOT CORRIDOR NORTHERN BOUNDARY VARIES. REFER TO TABLE ABOVE FOR EXACT DISTANCES.

^D THE WIDTH OF UI'S REQUIRED NEW PERMANENT EASEMENT VARIES. REFER TO TABLE ABOVE.

^E THE HEIGHT OF THE NEW 115-KV DOUBLE-CIRCUIT STRUCTURES VARIES. REFER TO TABLE ABOVE FOR EXACT STRUCTURE HEIGHTS.

PROPOSED (VIEW FACING EAST)

Varies ^D

35'-0"

CROSS SECTION 14 ELMWEST SUBSTATION TO WEST RIVER SUBSTATION (WEST HAVEN): STR P1043N TO WEST RIVER - 0.27 MILES



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BY

REV.

NOTES:

- 1. DEPICTED STRUCTURES ARE STEEL TANGENT STRUCTURES. DEAD END STRUCTURES WILL DIFFER.
- 2. THE EXISTING CATENARY STRUCTURES SUPPORT METRO NORTH RAILROAD ELECTRICAL FACILITIES CONSISTING OF TWO (2) SIGNAL WIRES, 2 OR 3 FEEDER WIRES, AND ONE (1) AERIAL GROUND WIRE, BOTH ON THE NORTHERN AND SOUTHERN CATENARY SUPPORT COLUMNS.
- 3. THE CT DOT CORRIDOR CONTAINS FOUR (4) RAILROAD TRACKS IN THIS AREA OPERATED BY METRO NORTH RAILROAD.
- 4. A 15'-0" CLEARANCE MUST BE MAINTAINED BETWEEN THE NEW 115-KV CONDUCTORS AND THE EXISTING CATENARY STRUCTURES SO THAT METRO NORTH RAILROAD CAN MAINTAIN THEIR EQUIPMENT WITHOUT REQUIRING AN OUTAGE ON THE 115-KV FACILITIES.
- EXISTING VEGETATION WITHIN THE CT DOT CORRIDOR VARIES BY LOCATION. REFER TO PROJECT MAPS AND DRAWINGS FOR LOCATIONS OF PROPOSED TREE REMOVAL.
- 6. TO COMPLY WITH UI STANDARD TRANSMISSION VEGETATION MANAGEMENT PLANS, UI REQUIRES VEGETATION MANAGEMENT IN THE AREA THAT IS 45'-0" FROM EACH STRUCTURE CENTER (38'-0" FROM CONDUCTOR ATTACHMENT POINT). IN LOCATIONS WHERE THE CT DOT CORRIDOR NORTHERN BOUNDARY IS LESS THAN 45'-0" FROM THE PROPOSED STRUCTURE LOCATION, UI PROPOSES TO ACQUIRE A PERMANENT EASEMENT FROM ADJACENT LANDOWNERS. REFER TO PROJECT MAPS AND DRAWINGS, FOR PROPOSED ADDITIONAL PERMANENT EASEMENT LOCATIONS.
- 7. DISTANCE FROM SOUTHERN CATENARY STRUCTURE TO CT DOT CORRIDOR SOUTHERN BOUNDARY WILL REMAIN UNCHANGED FROM EXISTING CONDITIONS.

| | | | UI 115-kV RR PROJECT MILVON TO WEST RIVER DEVELOPMENT & MANAGEMENT PLAN | | | | | |
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| | | | | CROSS SECTION 14 | | | | |
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| Substation Connected V Facilities | | USGS Quad Nam |
|--------------------------------------|---|---------------|
| t to West River Segment | | |
| | N 1 Track 1 000 Fast | 0505 Q |
| eet Index Grid | $\frac{1}{1} \text{ Inch} = 1,000 \text{ Feet}$ | |
| | | |
| al Boundary | N 0 1.000 | |
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| | | | UI 115-kV RR PROJECT MILVON TO WEST RIVER DEVELOPMENT & MANAGEMENT PLAN | | | |
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| | | - | | SEGMENT 1 | | |
| | | - | | MAPSHEET INDEX | | |
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XS-12 (FACING NORTH)

| STRUCTURE NO. | STRUCTURE TYPE | CROSS SECTION | HEIGHT (FT) | FOUNDATION |
|---------------|----------------|----------------------|-------------|-----------------------|
| P1029ENS | DEADEND | N/A* | 71 | CONCRETE DRILLED PIER |
| P1029ES | DEADEND | N/A* | 76.5 | CONCRETE DRILLED PIER |
| P1030S | DEADEND | N/A* | 116 | CONCRETE DRILLED PIER |
| P1030N | DEADEND | XS-12 | 111 | CONCRETE DRILLED PIER |
| P1031N | TANGENT | XS-12 | 108 | CONCRETE DRILLED PIER |
| P1032N | TANGENT | XS-12 | 109.5 | CONCRETE DRILLED PIER |
| | | | | |

*THESE STRUCTURE ARRANGEMENTS ARE NON-TYPICAL, SEE PROJECT PLAN AND PROFILE DRAWINGS FOR DETAILS

STRUCTURE DETAIL TABLE

| GENERAL NOTES |
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|----------------------|

GENERAL WORK DESCRIPTION

- BONNETS B1029N/S, B1030N/S, B1031N/S, AND B1032N/S WILL BE REMOVED.
- REMOVED.
- B1029N AND WILL BE REMOVED PRIOR TO COMPLETION OF THE PROJECT.
- \bullet
- \bullet MODIFIED BASED ON SITE FIELD CONDITIONS.
- CTDOT.
- \bullet ACCORDANCE WITH CT DEEP EROSION AND SEDIMENT CONTROL REQUIREMENTS.
- ACCESS AGREEMENTS WITH LANDOWNER.

CT DOT CORRIDOR/PROJECT WORK AREA DESCRIPTION

WETLANDS, WATERCOURSES, WATERWAYS AND SENSITIVE AREAS

- NO WETLANDS, WATERCOURSES OR WATERWAYS
- NO NDDB AREA WITHIN SHEET

ROAD CROSSINGS

CAMPBELL AVE

| | | 1 |
|--|------|---|
| Westwood | | |
| | | |
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| EXISTNG CT DOT | CORRIDOR SOUTHERN BOUNDARY | | |
|----------------|-------------------------------|------|------|
| | ••••• | | |
| | | | |

NEW STEEL MONOPOLES P1029ENS, P1029ES, P1030S, P1030N, P1031N AND P1032 WILL BE INSTALLED. EXISTING STEEL STRUCTURES OUTSIDE AND ACROSS FROM THE ELMWEST SUBSTATION WILL BE

TEMPORARY WOOD POLE WP1030 WILL BE INSTALLED DURING CONSTRUCTION AS A STUB POLE TO GUY

PROJECT ACTIVITIES INCLUDE: VEGETATION CLEARING, REMOVAL OF EXISTING 115kV EQUIPMENT, AND INSTALLATION OF ACCESS ROADS, WORK PADS, FOUNDATIONS, STEEL MONOPOLES, AND CONDUCTOR. EROSION AND SEDIMENT CONTROLS TO BE INSTALLED ON SITE UNDER THE SUPERVISION OF AN ENVIRONMENTAL INSPECTOR IN ACCORDANCE WITH CT DEEP GUIDELINES AND THE PROJECT SWPCP. EROSION AND SEDIMENT CONTROLS ARE SHOWN IN GENERAL LOCATIONS ON THE PLANS BUT MAY BE

GUARD STRUCTURE WORK SPACES TO BE UTILIZED ON AN AS-NEEDED BASIS FOR WIRE PULLING ACTIVITIES. SCHEDULE AND WORK AREA PROTECTION TO BE PROVIDED BY CONTRACTOR IN ACCORDANCE WITH MUTCD GUIDELINES AND APPROPRIATELY COORDINATED WITH MUNICIPALITY AND

CONCRETE WASHOUTS ARE SHOWN IN GENERAL LOCATIONS AND ARE TO BE UTILIZED IN TEMPORARY ACCESS AND PADS WITH NO MATTING ARE ON EXISTING PAVEMENT OR GRAVEL. ACCESS ROUTES THROUGH PAVEMENT AND GRAVEL AREAS ARE SUBJECT TO CHANGE BASED ON

| | | UI 115-kV RR PROJECT MILVON TO WEST RIVER DEVELOPMENT & MANAGEMENT PLAN | | | | |
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| | | | | SEGMENT 1 | | |
| | | | MAPSHE | ET 1 STRUCTURES AND NOTES | | |
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LEGEND







PROPOSED TRANSMISSION POLE

EXISTING TRANSMISSION POLE SUBSTATION TERMINATION STRUCTURE PROPOSED TRANSMISSION CENTER LINE

NEW UI EASEMENT BOUNDARY PROPOSED TEMPORARY ACCESS ROAD

PROPOSED WORK/PULLING PAD

EXISTING CTDOT CORRIDOR BOUNDARY EXISTING PROPERTY LINE PROPOSED TEMPORARY MATTING

TEMPORARY MATTED WETLAND IMPACT

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- FIELD DELINEATED TIDAL WETLAND
- FIELD DELINEATED WETLAND
- FEMA 100-YEAR FLOODPLAIN LIMIT
- UI OWNED PROPERTY

FIELD DELINEATED STREAM EXISTING TREE LINE PROPOSED TREE CLEARING

FIELD DELINEATED TIDAL STREAM PROPOSED PERMANENT ACCESS ROAD TO REMAIN OPEN ENDED WETLAND DELINEATION BOUNDARY OPEN ENDED WETLAND DELINEATION DIRECTION



EXISTING HARDWARE ONLY TO BE REMOVED

EXISTING STEEL POLE TO BE REMOVED

EXISTING LATTICE TOWER TO BE REMOVED

EXISTING BONNET TO BE REMOVED

EXISTING WOOD POLE TO BE REMOVED EXISTING STEEL POLE TOP TO BE REMOVED AND CAPPED

DRAINAGE CROSSING



CATCH BASIN INLET PROTECTION

ROCK CONSTRUCTION ENTRANCE

CONCRETE WASHOUT

STRAW BALE SEDIMENT PROTECTION

- LOD

______ SF ______ SEDIMENT BARRIER REDUNDANT SEDIMENT BARRIER - DOUBLE ROW EXCLUSIONARY FENCE - LOD - LIMIT OF DISTURBANCE

| 0' | 50' | 100' | 150' | |
|--------------|----------------------------------|--|------------|---|
| | cturo | | | |
| AAG | SLWUU | | | |
| Sur | veying |) & Engine | ering | |
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GENERAL NOTES

GENERAL WORK DESCRIPTION

- NEW STEEL MONOPOLES P1033N, P1034N AND P1035N WILL BE INSTALLED.
- BONNETS B1033N/S, B1034N/S AND B1035N/S WILL BE REMOVED
- \bullet MODIFIED BASED ON SITE FIELD CONDITIONS.
- \bullet CTDOT.
- \bullet ACCORDANCE WITH CT DEEP EROSION AND SEDIMENT CONTROL REQUIREMENTS.
- \bullet ACCESS AGREEMENTS WITH LANDOWNER.

CT DOT CORRIDOR/PROJECT WORK AREA DESCRIPTION

WETLANDS, WATERCOURSES, WATERWAYS AND SENSITIVE AREAS NO WETLANDS, WATERCOURSES OR WATERWAYS

- NO NDDB AREA WITHIN SHEET •

ROAD CROSSINGS

WASHINGTON AVE

| STRUCTURE NO. | STRUCTURE TYPE | CROSS SECTION | HEIGHT (FT) | FOUNDATION |
|---------------|----------------|----------------------|-------------|-----------------------|
| P1033N | TANGENT | XS-12 | 111 | CONCRETE DRILLED PIER |
| P1034N | TANGENT | XS-13 | 101 | CONCRETE DRILLED PIER |
| P1035N | TANGENT | XS-13 | 96 | CONCRETE DRILLED PIER |

STRUCTURE DETAIL TABLE

| We | stwoo | d | | | | |
|--------------|----------------------------------|---|------|------|----|--|
| Sur | veying | & Engineering | | | | |
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| Toll Free | (888) 937-5150 | ww-pc.com | | | | |
| westwood | d Surveying and Eng | ineering, P.C. | REV. | DATE | BY | |

PROJECT ACTIVITIES INCLUDE: VEGETATION CLEARING, REMOVAL OF EXISTING 115kV EQUIPMENT, AND INSTALLATION OF ACCESS ROADS, WORK PADS, FOUNDATIONS, STEEL MONOPOLES, AND CONDUCTOR. EROSION AND SEDIMENT CONTROLS TO BE INSTALLED ON SITE UNDER THE SUPERVISION OF AN ENVIRONMENTAL INSPECTOR IN ACCORDANCE WITH CT DEEP GUIDELINES AND THE PROJECT SWPCP. EROSION AND SEDIMENT CONTROLS ARE SHOWN IN GENERAL LOCATIONS ON THE PLANS BUT MAY BE

GUARD STRUCTURE WORK SPACES TO BE UTILIZED ON AN AS-NEEDED BASIS FOR WIRE PULLING ACTIVITIES. SCHEDULE AND WORK AREA PROTECTION TO BE PROVIDED BY CONTRACTOR IN ACCORDANCE WITH MUTCD GUIDELINES AND APPROPRIATELY COORDINATED WITH MUNICIPALITY AND

CONCRETE WASHOUTS ARE SHOWN IN GENERAL LOCATIONS AND ARE TO BE UTILIZED IN TEMPORARY ACCESS AND PADS WITH NO MATTING ARE ON EXISTING PAVEMENT OR GRAVEL. ACCESS ROUTES THROUGH PAVEMENT AND GRAVEL AREAS ARE SUBJECT TO CHANGE BASED ON

| | | UI 115-kV RR PROJECT MILVON TO WEST RIVER DEVELOPMENT & MANAGEMENT PLAN | | | /ER |
|-------------|---------|--|--------|---------------------------|-------|
| | | | | SEGMENT 1 | |
| | | | MAPSHE | ET 2 STRUCTURES AND NOTES | |
| | DI | R. | SFB | SCALE AS SHOWN FILE: | |
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LEGEND







PROPOSED TRANSMISSION POLE

EXISTING TRANSMISSION POLE

SUBSTATION TERMINATION STRUCTURE PROPOSED TRANSMISSION CENTER LINE NEW UI EASEMENT BOUNDARY PROPOSED TEMPORARY ACCESS ROAD

PROPOSED WORK/PULLING PAD

EXISTING CTDOT CORRIDOR BOUNDARY EXISTING PROPERTY LINE PROPOSED TEMPORARY MATTING

TEMPORARY MATTED WETLAND IMPACT



FIELD DELINEATED TIDAL WETLAND

FIELD DELINEATED WETLAND

FEMA 100-YEAR FLOODPLAIN LIMIT

UI OWNED PROPERTY

FIELD DELINEATED STREAM EXISTING TREE LINE PROPOSED TREE CLEARING

FIELD DELINEATED TIDAL STREAM PROPOSED PERMANENT ACCESS ROAD TO REMAIN OPEN ENDED WETLAND DELINEATION BOUNDARY OPEN ENDED WETLAND DELINEATION DIRECTION

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EXISTING HARDWARE ONLY TO BE REMOVED

EXISTING STEEL POLE TO BE REMOVED

EXISTING LATTICE TOWER TO BE REMOVED

EXISTING BONNET TO BE REMOVED

EXISTING WOOD POLE TO BE REMOVED EXISTING STEEL POLE TOP TO BE REMOVED AND CAPPED

DRAINAGE CROSSING



CATCH BASIN INLET PROTECTION

ROCK CONSTRUCTION ENTRANCE

CONCRETE WASHOUT

STRAW BALE SEDIMENT PROTECTION

——— RSC ————

______ SF ______ SEDIMENT BARRIER REDUNDANT SEDIMENT BARRIER - DOUBLE ROW EXCLUSIONARY FENCE LIMIT OF DISTURBANCE



| REV. | DATE | BY | |
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CITY OF WEST HAVEN

| | RID | UI [,] | 115-kV RR DEVELC | PROJECT N OPMENT & N | MILVON TO WEST RIN MANAGEMENT PLAN | /ER |
|-------------|------|-----------------|---------------------|-------------------------|---------------------------------------|-------|
| | | - | | SEGM | IENT 1 | |
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| | | DR. | SFB | SCALE AS SHOWN | FILE: | |
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| | | APP. | MSP | MAPSHE | ET 2 OF 6 | 0-0A |
| DESCRIPTION | APP. | DATE: | | | | 0 0/1 |



XS-13 (FACING NORTH)

| STRUCTURE NO. | STRUCTURE TYPE | CROSS SECTION | HEIGHT (FT) | FO |
|---------------|----------------|----------------------|-------------|--------|
| P1036N | TANGENT | XS-13 | 96 | CONCRE |
| P1037N | DEADEND | XS-13 | 96 | CONCRE |
| P1038N | TANGENT | XS-13 | 126 | CONCRE |
| P1039N | TANGENT | N/A* | 131 | CONCRE |
| P1039EN | TANGENT | N/A* | 131.5 | CONCRE |
| P1040N | TANGENT | N/A* | 131 | CONCRE |

*THESE STRUCTURE ARRANGEMENTS ARE NON-TYPICAL, SEE PROJECT PLAN AND PROFILE DRAWINGS FOR DETAILS

STRUCTURE DETAIL TABLE

EXISTNG CT DOT CORRIDOR SOUTHERN BOUNDARY Varies

UNDATION ETE DRILLED PIER ETE DRILLED PIER

GENERAL NOTES

GENERAL WORK DESCRIPTION

- REMOVED.
- HARDWARE ON BONNETS B1039S AND B1040S WILL BE REMOVED.
- \bullet
- \bullet MODIFIED BASED ON SITE FIELD CONDITIONS.
- \bullet CTDOT.
- \bullet ACCORDANCE WITH CT DEEP EROSION AND SEDIMENT CONTROL REQUIREMENTS.
- ACCESS AGREEMENTS WITH LANDOWNER.

CT DOT CORRIDOR/PROJECT WORK AREA DESCRIPTION

WETLANDS, WATERCOURSES, WATERWAYS AND SENSITIVE AREAS

- NO WETLANDS, WATERCOURSES OR WATERWAYS
- NO NDDB AREA WITHIN SHEET \bullet

ROAD CROSSINGS

• FIRST AVE

| Surveying & Engineering |
|---|
| |
| Phone (952) 937-5150 1684 South Broad Street, Suite #300 Fax (952) 937-5822 Lansdale, PA 19446 Foll Free (888) 937-5150 ww-pc.com |

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| | REV. | DATE | BY | [|
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NEW STEEL MONOPOLES P1036N, P1037N, P1038N, P1039N, P1039EN AND P1040N WILL BE INSTALLED. BONNETS B1036N/S, B1037N/S, B1038N/S, B1038AN/S, B1038BN/S, B1039N, AND B1040N WILL BE

PROJECT ACTIVITIES INCLUDE: VEGETATION CLEARING, REMOVAL OF EXISTING 115kV EQUIPMENT, AND INSTALLATION OF ACCESS ROADS, WORK PADS, FOUNDATIONS, STEEL MONOPOLES, AND CONDUCTOR EROSION AND SEDIMENT CONTROLS TO BE INSTALLED ON SITE UNDER THE SUPERVISION OF AN ENVIRONMENTAL INSPECTOR IN ACCORDANCE WITH CT DEEP GUIDELINES AND THE PROJECT SWPCP. EROSION AND SEDIMENT CONTROLS ARE SHOWN IN GENERAL LOCATIONS ON THE PLANS BUT MAY BE

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CONCRETE WASHOUTS ARE SHOWN IN GENERAL LOCATIONS AND ARE TO BE UTILIZED IN TEMPORARY ACCESS AND PADS WITH NO MATTING ARE ON EXISTING PAVEMENT OR GRAVEL. ACCESS ROUTES THROUGH PAVEMENT AND GRAVEL AREAS ARE SUBJECT TO CHANGE BASED ON

| | | UI [,] | UI 115-kV RR PROJECT MILVON TO WEST RIVER DEVELOPMENT & MANAGEMENT PLAN | | | |
|-------------|------|-----------------|--|-------------------------|------|--|
| | | _ | | SEGMENT 1 | | |
| | | | MAPSHE | ET 3 STRUCTURES AND NOT | ſES | |
| | | DR. | SFB | SCALE AS SHOWN FILE: | | |
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SHEET SEE

LEGEND





PROPOSED TRANSMISSION POLE

EXISTING TRANSMISSION POLE

SUBSTATION TERMINATION STRUCTURE PROPOSED TRANSMISSION CENTER LINE NEW UI EASEMENT BOUNDARY PROPOSED TEMPORARY ACCESS ROAD

PROPOSED WORK/PULLING PAD

EXISTING CTDOT CORRIDOR BOUNDARY EXISTING PROPERTY LINE PROPOSED TEMPORARY MATTING

TEMPORARY MATTED WETLAND IMPACT

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FIELD DELINEATED TIDAL WETLAND FIELD DELINEATED WETLAND

FEMA 100-YEAR FLOODPLAIN LIMIT

UI OWNED PROPERTY

FIELD DELINEATED STREAM EXISTING TREE LINE PROPOSED TREE CLEARING

FIELD DELINEATED TIDAL STREAM PROPOSED PERMANENT ACCESS ROAD TO REMAIN OPEN ENDED WETLAND DELINEATION BOUNDARY OPEN ENDED WETLAND DELINEATION DIRECTION

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EXISTING HARDWARE ONLY TO BE REMOVED

EXISTING STEEL POLE TO BE REMOVED

EXISTING LATTICE TOWER TO BE REMOVED

EXISTING BONNET TO BE REMOVED

EXISTING WOOD POLE TO BE REMOVED EXISTING STEEL POLE TOP TO BE REMOVED AND CAPPED

DRAINAGE CROSSING



CATCH BASIN INLET PROTECTION

ROCK CONSTRUCTION ENTRANCE

CONCRETE WASHOUT

STRAW BALE SEDIMENT PROTECTION

SEDIMENT BARRIER REDUNDANT SEDIMENT BARRIER - DOUBLE ROW EXCLUSIONARY FENCE LIMIT OF DISTURBANCE

Westwood Surveying & Engineering
 Phone
 (952) 937-5150
 1684 South Broad Street, Suite #300

 Fax
 (952) 937-5822
 Lansdale, PA 19446

 Toll Free
 (888) 937-5150
 ww-pc.com
 Westwood Surveying and Engineering, P.C.

| REV. | DATE | BY | |
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4 SHEET SEE

CITY OF WEST HAVEN

| | | | | UI 115-kV RR PROJECT MILVON TO WEST RIVEF DEVELOPMENT & MANAGEMENT PLAN | | | |
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| | | | | SEGMENT 1 | | | |
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| DESCRIPTION | APP. | DATE: | | | 0.01 | | |



XS-14 (FACING NORTH)

| STRUCTURE NO. | STRUCTURE TYPE | CROSS SECTION | HEIGHT (FT) | FC |
|---------------|----------------|----------------------|-------------|-------|
| P1041N | DEADEND | N/A* | 131 | CONCR |
| P1042N | TANGENT | N/A* | 131 | CONCR |
| P1043N | DEADEND | XS-14 | 125 | CONCR |

*THESE STRUCTURE ARRANGEMENTS ARE NON-TYPICAL, SEE PROJECT PLAN AND PROFILE DRAWINGS FOR DETAILS

STRUCTURE DETAIL TABLE

GENERAL NOTES

OUNDATION

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RETE DRILLED PIER

GENERAL WORK DESCRIPTION

- NEW STEEL MONOPOLES P1041N, P1042N, AND P1043N WILL BE INSTALLED.
- BONNETS B1043AN AND B1043BN WILL BE REMOVED.
- LATTICE TOWERS NEAR B1041N AND B1042N WILL BE REMOVED.
- \bullet
- \bullet MODIFIED BASED ON SITE FIELD CONDITIONS.
- REFER TO SPECIES PROTECTION PLAN FOR AREAS WITHIN NDDB AREA.
- CTDOT.
- \bullet WITH CT DEEP EROSION AND SEDIMENT CONTROL REQUIREMENTS.
- ACCESS AGREEMENTS WITH LANDOWNER.

CT DOT CORRIDOR/PROJECT WORK AREA DESCRIPTION

WETLANDS, WATERCOURSES, WATERWAYS AND SENSITIVE AREAS

- WETLAND WH-W11 •
- WETLAND WH-W12
- WETLAND WH-W13
- PROTECTION SPECIALIST REGARDING WORK IN NDDB AREAS.

ROAD CROSSINGS

• INTERSTATE 95

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| Wo | stwoo | d | | | | |
| | SLUCC | | | | | |
| Sur | veying | & Engineering | | | | |
| Phone Fax | (952) 937-5150 (952) 937-5822 | 1684 South Broad Street, Suite #300 Lansdale, PA 19446 | | | | |
| Toll Free | (888) 937-5150 | ww-pc.com | | | | |
| Westwood | d Surveying and Eng | ineering, P.C. | REV. | DATE | BY | |

HARDWARE ON BONNETS B1041S, B1042S, B1043N/S, B1043AS AND B1043BS WILL BE REMOVED.

FIVE WOOD POLES ON THE NORTH SIDE OF THE RAILROAD TRACKS WILL BE REMOVED.

PROJECT ACTIVITIES INCLUDE: VEGETATION CLEARING, REMOVAL OF EXISTING 115kV EQUIPMENT, AND INSTALLATION OF ACCESS ROADS, WORK PADS, FOUNDATIONS, STEEL MONOPOLES, AND CONDUCTOR EROSION AND SEDIMENT CONTROLS TO BE INSTALLED ON SITE UNDER THE SUPERVISION OF AN ENVIRONMENTAL INSPECTOR IN ACCORDANCE WITH CT DEEP GUIDELINES AND THE PROJECT SWPCP. EROSION AND SEDIMENT CONTROLS ARE SHOWN IN GENERAL LOCATIONS ON THE PLANS BUT MAY BE

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MAJORITY OF SHEET WITHIN NDDB AREA. COORDINATE WITH ENVIRONMENTAL INSPECTOR/SPECIES

| | | | 115-kV RR DEVELC | PROJECT | MILVON TO WEST RI' MANAGEMENT PLAN | VER |
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| | | - | MAPSHE | ET 4 STRU | CTURES AND NOTES | ; |
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LEGEND







PROPOSED TRANSMISSION POLE

EXISTING TRANSMISSION POLE

SUBSTATION TERMINATION STRUCTURE PROPOSED TRANSMISSION CENTER LINE NEW UI EASEMENT BOUNDARY PROPOSED TEMPORARY ACCESS ROAD

PROPOSED WORK/PULLING PAD

EXISTING CTDOT CORRIDOR BOUNDARY EXISTING PROPERTY LINE PROPOSED TEMPORARY MATTING

TEMPORARY MATTED WETLAND IMPACT

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FIELD DELINEATED TIDAL WETLAND FIELD DELINEATED WETLAND FEMA 100-YEAR FLOODPLAIN LIMIT UI OWNED PROPERTY FIELD DELINEATED STREAM EXISTING TREE LINE PROPOSED TREE CLEARING FIELD DELINEATED TIDAL STREAM PROPOSED PERMANENT ACCESS ROAD TO REMAIN

OPEN ENDED WETLAND DELINEATION BOUNDARY OPEN ENDED WETLAND DELINEATION DIRECTION

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EXISTING HARDWARE ONLY TO BE REMOVED EXISTING STEEL POLE TO BE REMOVED

EXISTING LATTICE TOWER TO BE REMOVED

EXISTING BONNET TO BE REMOVED

EXISTING WOOD POLE TO BE REMOVED EXISTING STEEL POLE TOP TO BE REMOVED AND CAPPED

DRAINAGE CROSSING



CATCH BASIN INLET PROTECTION STRAW BALE SEDIMENT PROTECTION

ROCK CONSTRUCTION ENTRANCE

CONCRETE WASHOUT

DN _____ RSC _____ EF _____ LOD ____ LOD ____

______ SF _____

 F
 SEDIMENT BARRIER

 SC
 REDUNDANT SEDIMENT

 EXCLUSIONARY FENCE
 EXCLUSIONARY FENCE

 LOD
 LIMIT OF DISTURBANCE

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| 0' | 50' | 100' | 150' | | | | |
| We | stwoo | d | | | | | |
| Sur | veying | & Engine | ering |) | | | |
| Phone Fax | (952) 937-5150 (952) 937-5822 | 1684 South Broad Stree | et, Suite #300 | F | | | |
| Toll Free | (888) 937-5150 | ww-pc.com | | | | | |
| Westwoo | d Surveying and Eng | ineering, P.C. | | - | REV. | DATE | BY |



REDUNDANT SEDIMENT BARRIER - DOUBLE ROW EXCLUSIONARY FENCE LIMIT OF DISTURBANCE

CITY OF WEST HAVEN

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| | | | | PROJECT | MILVON TO WEST RI ^I MANAGEMENT PLAN | VER |
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| DESCRIPTION | APP. | DATE: | | | | 0 0/1 |



XS-14 (FACING NORTH)

| STRUCTURE NO. | STRUCTURE TYPE | CROSS SECTION | HEIGHT (FT) | FOUNDATION |
|---------------|----------------|----------------------|-------------|-----------------------|
| P1045N | TANGENT | XS-14 | 121 | CONCRETE DRILLED PIER |
| P1047N | TANGENT | XS-14 | 122 | CONCRETE DRILLED PIER |

STRUCTURE DETAIL TABLE

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GENERAL NOTES

GENERAL WORK DESCRIPTION

- NEW STEEL MONOPOLES P1045N AND P1047N WILL BE INSTALLED.
- BONNETS B1045N, B1046N AND B1047N WILL BE REMOVED.
- HARDWARE ON BONNETS B1045S, B1046S AND B1047S WILL BE REMOVED.
- \bullet
- \bullet MODIFIED BASED ON SITE FIELD CONDITIONS.
- REFER TO SPECIES PROTECTION PLAN FOR AREAS WITHIN NDDB AREA.
- ACCORDANCE WITH CT DEEP EROSION AND SEDIMENT CONTROL REQUIREMENTS.
- TEMPORARY ACCESS AND PADS WITH NO MATTING ARE ON EXISTING PAVEMENT OR GRAVEL. ACCESS AGREEMENTS WITH LANDOWNER.

CT DOT CORRIDOR/PROJECT WORK AREA DESCRIPTION

WETLANDS, WATERCOURSES, WATERWAYS AND SENSITIVE AREAS

- WETLAND WH-W12
- WETLAND WH-W13
- TIDAL WETLAND WH-TW1
- TIDAL WETLAND WH-TW2
- **TIDAL WETLAND WH-TW3**
- WEST RIVER
- PROTECTION SPECIALIST REGARDING WORK IN NDDB AREAS.

ROAD CROSSINGS

• NONE

| Drainage ID | Watercourse ID | Status | Crossing type/Culvert size | Closest Structure |
|-------------|----------------|-----------|----------------------------|--------------------------|
| 21 | WH-W13 | Temporary | Mat bridge | B1044N |

DRAINAGE CROSSING TABLE

| We | stwoo | d | | | | |
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| | vey mg | | | | | |
| Phone | (952) 937-5150 | 1684 South Broad Street, Suite #300 | | | | |
| Fax | (952) 937-5822 | Lansdale, PA 19446 | | | | |
| Toll Free | (888) 937-5150 | ww-pc.com | | | | |
| Westwood Surveying and Engineering, P.C. | | REV | DATE | BY | | |
| | | | I\ ∟ V. | DATE | | |
| Toll Free (888) 937-5822 Lansdale, PA 19446 Toll Free (888) 937-5150 ww-pc.com Westwood Surveying and Engineering, P.C. | REV. | DATE | BY | | | |

THREE WOOD POLES ON THE NORTH SIDE OF THE RAILROAD TRACKS WILL BE REMOVED.

PROJECT ACTIVITIES INCLUDE: VEGETATION CLEARING, REMOVAL OF EXISTING 115kV EQUIPMENT, AND INSTALLATION OF ACCESS ROADS, WORK PADS, FOUNDATIONS, STEEL MONOPOLES, AND CONDUCTOR EROSION AND SEDIMENT CONTROLS TO BE INSTALLED ON SITE UNDER THE SUPERVISION OF AN ENVIRONMENTAL INSPECTOR IN ACCORDANCE WITH CT DEEP GUIDELINES AND THE PROJECT SWPCP. EROSION AND SEDIMENT CONTROLS ARE SHOWN IN GENERAL LOCATIONS ON THE PLANS BUT MAY BE

CONCRETE WASHOUTS ARE SHOWN IN GENERAL LOCATIONS AND ARE TO BE UTILIZED IN

ACCESS ROUTES THROUGH PAVEMENT AND GRAVEL AREAS ARE SUBJECT TO CHANGE BASED ON

ENTIRE SHEET WITHIN NDDB AREA. COORDINATE WITH ENVIRONMENTAL INSPECTOR/SPECIES

| | | | | UI 115-kV RR PROJECT MILVON TO WEST RIVER DEVELOPMENT & MANAGEMENT PLAN | | | | |
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| | | DR. | SFB | SCALE AS SHOWN | FILE: | | | |
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| DESCRIPTION | APP. | DATE: | | | | 0.011 | | |



LEGEND





PROPOSED TRANSMISSION POLE

EXISTING TRANSMISSION POLE

SUBSTATION TERMINATION STRUCTURE PROPOSED TRANSMISSION CENTER LINE NEW UI EASEMENT BOUNDARY

PROPOSED TEMPORARY ACCESS ROAD

PROPOSED WORK/PULLING PAD

EXISTING CTDOT CORRIDOR BOUNDARY EXISTING PROPERTY LINE PROPOSED TEMPORARY MATTING

TEMPORARY MATTED WETLAND IMPACT



- FIELD DELINEATED TIDAL WETLAND
- FIELD DELINEATED WETLAND
- FEMA 100-YEAR FLOODPLAIN LIMIT

UI OWNED PROPERTY

FIELD DELINEATED STREAM EXISTING TREE LINE PROPOSED TREE CLEARING

FIELD DELINEATED TIDAL STREAM PROPOSED PERMANENT ACCESS ROAD TO REMAIN OPEN ENDED WETLAND DELINEATION BOUNDARY OPEN ENDED WETLAND DELINEATION DIRECTION

SEDIMENT BARRIER REDUNDANT SEDIMENT BARRIER - DOUBLE ROW EXCLUSIONARY FENCE LIMIT OF DISTURBANCE

EXISTING HARDWARE ONLY TO BE REMOVED

EXISTING STEEL POLE TO BE REMOVED

EXISTING LATTICE TOWER TO BE REMOVED

EXISTING BONNET TO BE REMOVED

EXISTING WOOD POLE TO BE REMOVED EXISTING STEEL POLE TOP TO BE REMOVED AND CAPPED

XX **D**RAINAGE CROSSING

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CATCH BASIN INLET PROTECTION STRAW BALE SEDIMENT PROTECTION

CONCRETE WASHOUT

ROCK CONSTRUCTION ENTRANCE



| REV. | DATE | BY | |
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| | | | | UI 115-kV RR PROJECT MILVON TO WEST RIVER DEVELOPMENT & MANAGEMENT PLAN SEGMENT 1 | | | | | |
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| DESCRIPTION | APP. | DATE: | | | | 0.077 | | | |

| STRUCTURE NO. | STRUCTURE TYPE | CROSS SECTION | HEIGHT (FT) | FOUNDATION |
|---------------|----------------|----------------------|-------------|-----------------------|
| P1049N | DEADEND | N/A* | 124 | CONCRETE DRILLED PIER |
| P1049S | DEADEND | N/A* | 123 | CONCRETE DRILLED PIER |
| P1049EN | TANGENT | N/A* | 121 | CONCRETE DRILLED PIER |
| P1049ES | TANGENT | N/A* | 121 | CONCRETE DRILLED PIER |
| P1050NN | OPGW DEADEND | N/A* | 55 | DIRECT EMBED |
| P1050NS | OPGW DEADEND | N/A* | 43.5 | DIRECT EMBED |
| | | | | |

*THESE STRUCTURE ARRANGEMENTS ARE NON-TYPICAL, SEE PROJECT PLAN AND PROFILE DRAWINGS FOR DETAILS

STRUCTURE DETAIL TABLE

| Drainage ID | Watercourse ID | Status | Crossing type/Culvert size | Closest Structure |
|-------------|----------------|-----------|----------------------------|--------------------------|
| 22 | WH-W13 | Temporary | Mat bridge | P1045N |
| 23 | WH-W13 | Temporary | Mat bridge | B1046N |
| 24 | WH-W13 | Temporary | Mat bridge | P1047N |

DRAINAGE CROSSING TABLE

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GENERAL NOTES

GENERAL WORK DESCRIPTION

- NEW STEEL MONOPOLES P1049N/S, P1049EN/S AND P1050NN/S WILL BE INSTALLED.
- BONNETS B1048N AND B1049N/S WILL BE REMOVED.
- HARDWARE ON BONNET B1048S WILL BE REMOVED.
- THREE WOOD POLES NEAR PROPOSED POLE P1049ES WILL BE REMOVED.
- \bullet MODIFIED BASED ON SITE FIELD CONDITIONS.
- REFER TO SPECIES PROTECTION PLAN FOR AREAS WITHIN NDDB AREA.
- CTDOT.
- WITH CT DEEP EROSION AND SEDIMENT CONTROL REQUIREMENTS.
- ACCESS AGREEMENTS WITH LANDOWNER.

CT DOT CORRIDOR/PROJECT WORK AREA DESCRIPTION

WETLANDS, WATERCOURSES, WATERWAYS AND SENSITIVE AREAS

- WETLAND WH-W12
- WETLAND WH-W13
- TIDAL WETLAND WH-TW1 •
- TIDAL WETLAND WH-TW2
- TIDAL WETLAND WH-TW3
- TIDAL WETLAND NH-TW1
- TIDAL WETLAND NH-TW2
- WEST RIVER
- PROTECTION SPECIALIST REGARDING WORK IN NDDB AREAS.

ROAD CROSSINGS

CT ROUTE 10/ELLA T GRASSO BLVD

| Westwood | | | | |
|---|--|------|----|--|
| | | | | |
| Surveying & Engineering | | | | |
| Phone (952) 937-5150 1684 South Broad Street, Suite #300 | | | | |
| Fax (952) 937-5822 Lansdale, PA 19446 Toll Free (888) 937-5150 ww-pc.com Westwood Surveying and Engineering, P.C. | | | | |
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| | | DATE | BY | |
| | | | | |

TWO STEEL POLES NORTH OF B1048 AND TWO STEEL POLES NORTH OF B1049 WILL BE REMOVED.

 PROJECT ACTIVITIES INCLUDE: VEGETATION CLEARING, REMOVAL OF EXISTING 115kV EQUIPMENT, AND INSTALLATION OF ACCESS ROADS, WORK PADS, FOUNDATIONS, STEEL MONOPOLES, AND CONDUCTOR EROSION AND SEDIMENT CONTROLS TO BE INSTALLED ON SITE UNDER THE SUPERVISION OF AN ENVIRONMENTAL INSPECTOR IN ACCORDANCE WITH CT DEEP GUIDELINES AND THE PROJECT SWPCP. EROSION AND SEDIMENT CONTROLS ARE SHOWN IN GENERAL LOCATIONS ON THE PLANS BUT MAY BE

• GUARD STRUCTURE WORK SPACES TO BE UTILIZED ON AN AS-NEEDED BASIS FOR WIRE PULLING ACTIVITIES. SCHEDULE AND WORK AREA PROTECTION TO BE PROVIDED BY CONTRACTOR IN ACCORDANCE WITH MUTCD GUIDELINES AND APPROPRIATELY COORDINATED WITH MUNICIPALITY AND

 CONCRETE WASHOUTS ARE SHOWN IN GENERAL LOCATIONS AND ARE TO BE UTILIZED IN ACCORDANCE TEMPORARY ACCESS AND PADS WITH NO MATTING ARE ON EXISTING PAVEMENT OR GRAVEL. ACCESS ROUTES THROUGH PAVEMENT AND GRAVEL AREAS ARE SUBJECT TO CHANGE BASED ON

• MAJORITY OF SHEET WITHIN NDDB AREA. COORDINATE WITH ENVIRONMENTAL INSPECTOR/SPECIES

| | U | UI 115-kV RR PROJECT MILVON TO WEST RIVER DEVELOPMENT & MANAGEMENT PLAN SEGMENT 1 | | | | | |
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| | | MAPSHE | ET 6 STRU | CTURES AND NOTES | ; | | |
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ഹ SEE SHEET

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PROPOSED TRANSMISSION POLE

EXISTING TRANSMISSION POLE SUBSTATION TERMINATION STRUCTURE

PROPOSED TRANSMISSION CENTER LINE NEW UI EASEMENT BOUNDARY

PROPOSED TEMPORARY ACCESS ROAD

PROPOSED WORK/PULLING PAD

EXISTING CTDOT CORRIDOR BOUNDARY EXISTING PROPERTY LINE PROPOSED TEMPORARY MATTING

TEMPORARY MATTED WETLAND IMPACT

FIELD DELINEATED TIDAL WETLAND FIELD DELINEATED WETLAND FEMA 100-YEAR FLOODPLAIN LIMIT UI OWNED PROPERTY FIELD DELINEATED STREAM EXISTING TREE LINE PROPOSED TREE CLEARING FIELD DELINEATED TIDAL STREAM

PROPOSED PERMANENT ACCESS ROAD TO REMAIN OPEN ENDED WETLAND DELINEATION BOUNDARY OPEN ENDED WETLAND DELINEATION DIRECTION

SEDIMENT BARRIER REDUNDANT SEDIMENT BARRIER - DOUBLE ROW EXCLUSIONARY FENCE LIMIT OF DISTURBANCE

| | EXISTING HARDWARE ONLY TO BE REMOVED |
|---|--------------------------------------|
| Ø | EXISTING STEEL POLE TO BE REMOVED |

EXISTING LATTICE TOWER TO BE REMOVED

EXISTING BONNET TO BE REMOVED

EXISTING WOOD POLE TO BE REMOVED EXISTING STEEL POLE TOP TO BE REMOVED AND CAPPED

XX **D**RAINAGE CROSSING

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CATCH BASIN INLET PROTECTION STRAW BALE SEDIMENT PROTECTION

CONCRETE WASHOUT

ROCK CONSTRUCTION ENTRANCE



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CITES OF WEST HAVEN AND NEW HAVEN

| | | | UI 115-kV RR PROJECT MILVON TO WEST RIVEF DEVELOPMENT & MANAGEMENT PLAN SEGMENT 1 | | | | | |
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SUBSTATION WORK PLANS

SUB 1: ELMWEST SUBSTATION SUB 2: WEST RIVER SUBSTATION

| We | stwoo | d |
|-----------|---------------------|-------------------------------------|
| Sur | veying | & Engineering |
| Phone | (952) 937-5150 | 1684 South Broad Street, Suite #300 |
| Fax | (952) 937-5822 | Lansdale, PA 19446 |
| Toll Free | (888) 937-5150 | ww-pc.com |
| Westwoor | d Surveying and Eng | ineering, P.C. |

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| | | | 115-kV RR DEVELC | PROJECT | MILVON TO WEST RI' MANAGEMENT PLAN | VER |
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LEGEND



PROPOSED TRANSMISSION POLE EXISTING TRANSMISSION POLE SUBSTATION TERMINATION STRUCTURE PROPOSED TRANSMISSION CENTER LINE NEW UI EASEMENT BOUNDARY PROPOSED TEMPORARY ACCESS ROAD PROPOSED WORK/PULLING CONSTRUCTION AREA EXISTING CTDOT CORRIDOR BOUNDARY EXISTING PROPERTY LINE PROPOSED TEMPORARY MATTING EXISTING TREE LINE PROPOSED TREE CLEARING



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PROPOSED UNDERGROUND ADSS EXISTING FENCE PROPOSED TEMPORARY SUBSTATION FENCE EXISTING HARDWARE ONLY TO BE REMOVED EXISTING STEEL POLE TO BE REMOVED EXISTING LATTICE TOWER TO BE REMOVED EXISTING BONNET TO BE REMOVED EXISTING WOOD POLE TO BE REMOVED EXISTING STEEL POLE TOP TO BE REMOVED AND CAPPED

DRAINAGE CROSSING



| | | | UI 115-kV RR PROJECT MILVON TO WEST RIVER DEVELOPMENT & MANAGEMENT PLAN | | | | | |
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| | | | | ELMWEST | SUBSTATION | | | |
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PROPOSED TRANSMISSION POLE

EXISTING TRANSMISSION POLE

SUBSTATION TERMINATION STRUCTURE PROPOSED TRANSMISSION CENTER LINE NEW UI EASEMENT BOUNDARY PROPOSED TEMPORARY ACCESS ROAD

PROPOSED WORK/PULLING CONSTRUCTION AREA

EXISTING CTDOT CORRIDOR BOUNDARY EXISTING PROPERTY LINE EXISTING TREE LINE PROPOSED TREE CLEARING





PROPOSED UNDERGROUND ADSS PROPOSED OVERHEAD OPGW

M272/B1

EXISTING HARDWARE ONLY TO BE REMOVED EXISTING STEEL POLE TO BE REMOVED EXISTING LATTICE TOWER TO BE REMOVED EXISTING BONNET TO BE REMOVED EXISTING WOOD POLE TO BE REMOVED EXISTING STEEL POLE TOP TO BE REMOVED AND CAPPED

XX **DRAINAGE CROSSING**





| | | | | UI 115-kV RR PROJECT MILVON TO WEST RIVER DEVELOPMENT & MANAGEMENT PLAN | | | | | |
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TYPICAL DETAILS

DET 1: EROSION AND SEDIMENT CONTROL DET 2: CONSTRUCTION DETAILS

| We | stwoo | d |
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| Phone Fax Toll Free | (952) 937-5150 (952) 937-5822 (888) 937-5150 | 1684 South Broad Street, Suite #300 Lansdale, PA 19446 ww-pc.com |
| Westwood | d Surveying and Eng | ineering, P.C. |

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| Toll Free (888) 937-5150 ww-pc.com | | | | | | |
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| | GRID | UI ' | 115-kV RR DEVELC | PROJECT | MILVON TO WEST RIV MANAGEMENT PLAN | VER |
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| | | - | EROS | ION AND SEDIM | ENT CONTROL DETAILS | |
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BOLLARD

Westwood CONSTRUCTION IN FLOODPLAINS TEMP. MATS BANK BANK STREAM - 16' X-A -//// BANK BANK ACCESS PATH ACCEPTABLE PLAN VIEW FIXED OBJECT TIMBER MATS STREAM BANK BANK **ELEVATION VIEW** NOTES: 1. TIMBER MATS SHOULD BE PLACED CLOSELY TOGETHER SO THERE IS A SMALL GAP BETWEEN EACH MAT SECTION. 2. ADDITIONAL MEASURES MAY BE REQUIRED.

3. TIMBER MAT DIMENSIONS OF 16'x4'x1' OR APPROVED EQUAL TO BE USED.

SI-19

- EXISTING GRADE

NOTES:

- SEE ALTERNATE SECTION

IN DETAIL RD01

SUBGRADE

SECTION

MAY BE CONSTRUCTED AS DEPICTED ABOVE AND DESCRIBED BELOW:

FLOODPLAIN, INTENDED TO BE LEFT IN PLACE, PREPARE SURFACE BY

EXISTING GRADE MAY REMAIN IN PLACE POST-CONSTRUCTION.

PERMANENT ACCESS OR WORK PAD

WEST RIVER, EAST OF MIX AVENUE.

FLOODPLAIN IN UPLANDS.

100-YEAR FLOODPLAIN.

4. CONTRACTOR TO ENSURE MATTING IS PLACED WITH NECESSARY BANK OVERLAP TO PROVIDE SUFFICIENT BEARING CAPACITY AND ENSURE STREAM BANK STABILITY.

Westwood TIMBER MAT BRIDGE FOR TEMPORARY STREAM CROSSING NOT TO SCAL

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Westwood





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| | | | | | | |
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| Phone Fax | (952) 937-5150 (952) 937-5822 | 1684 South Broad Street, Suite #300 Lansdale. PA 19446 | | | | |
| Toll Free | (888) 937-5150 | ww-pc.com | | | | |
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| | | | | CO | NSTRUC [®] | TION DETAILS | | | |
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| DESCRIPTION | APP. | DATE: | | | | | | | |

STRUCTURE DETAILS

STR 1: TYPICAL STRUCTURE CONFIGURATIONS STR 2: TYPICAL FOUNDATION & GROUNDING DETAILS

| Westwood | | | | | | | |
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| Phone Fax Toll Free | (952) 937-5150 (952) 937-5822 (888) 937-5150 | 1684 South Broad Street, Suite #300 Lansdale, PA 19446 ww-pc.com | | | | | |

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| | | | TYPICAL STRUCTURE CONFIGURATIONS | | | | |
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SINGLE CIRCUIT DEADEND STRUCTURE

SINGLE CIRCUIT BRACED POST **SUSPENSION STRUCTURE**

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