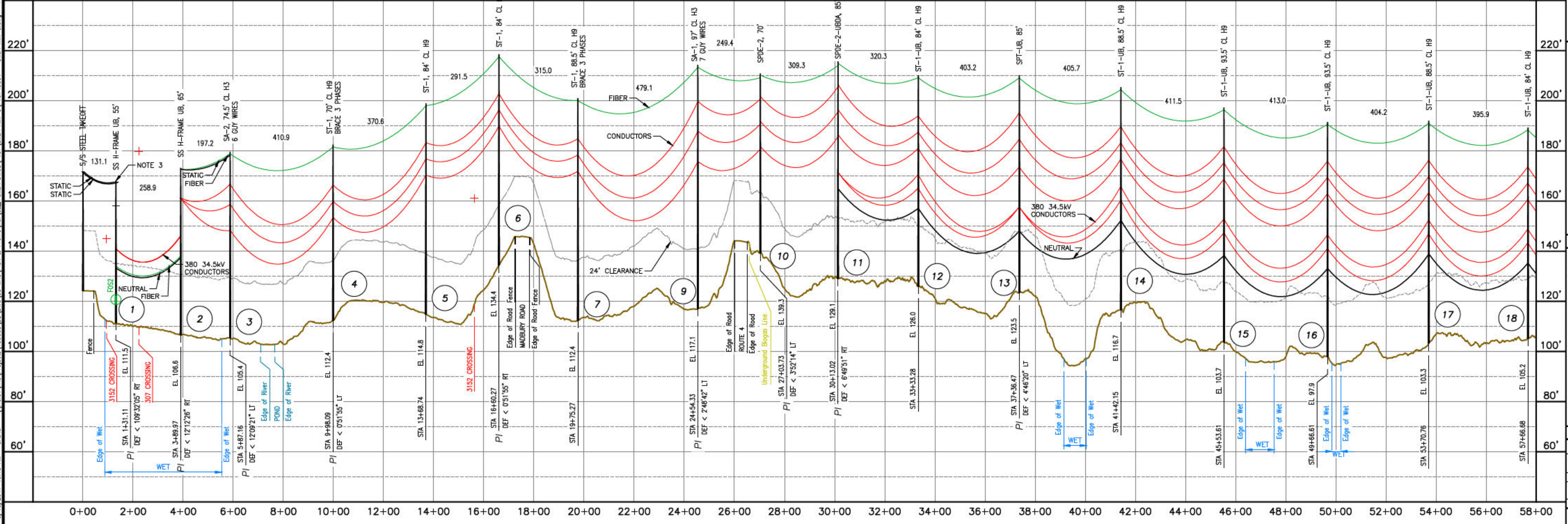
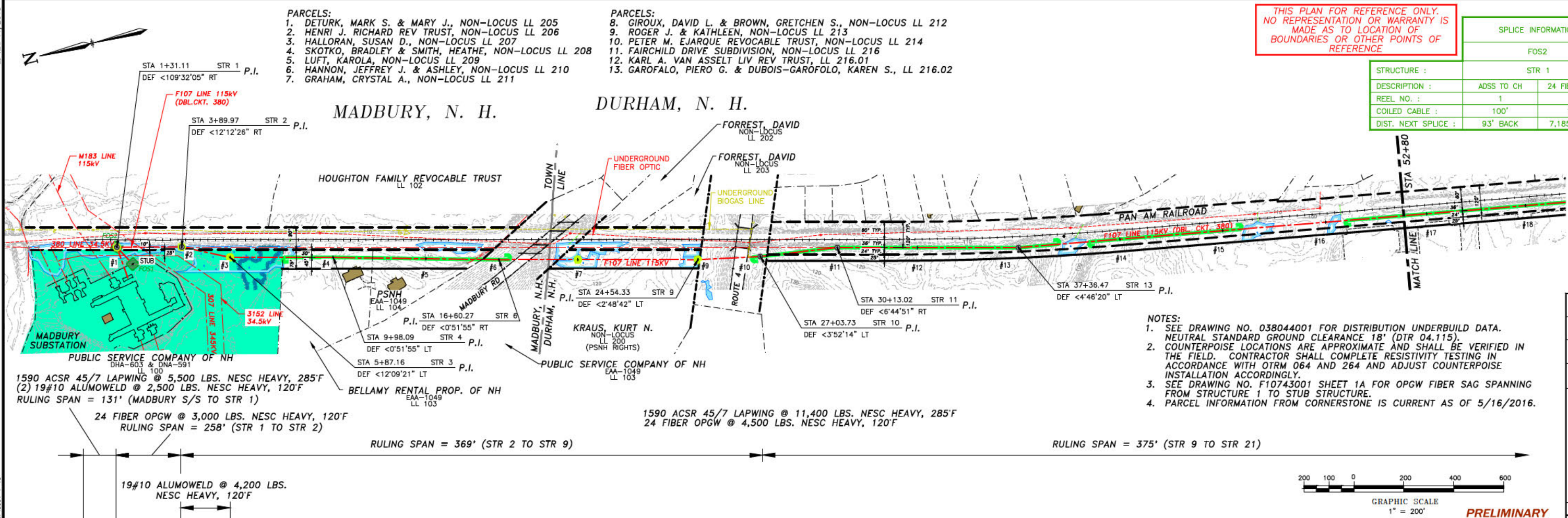


ES VER. 11/2015  
 3/15/2017 10:19 AM - efisher - \\files\line\Projects\130005\DD\DWG\03\_Line\Plan & Profile\Rev\02\_PSECA\DWG\F107A\SECA\_REV\_C\F107A3001\_1-13

THIS PLAN FOR REFERENCE ONLY.  
 NO REPRESENTATION OR WARRANTY IS  
 MADE AS TO LOCATION OF  
 BOUNDARIES OR OTHER POINTS OF  
 REFERENCE

SPLICE INFORMATION		
FOS2		
STRUCTURE :	STR 1	
DESCRIPTION :	ADSS TO CH	24 FIBER OPGW
REEL NO. :	1	2
COILED CABLE :	100'	100'
DIST. NEXT SPLICE :	93' BACK	7,185' AHEAD



**EVERSOURCE ENERGY**

MADBURY S/S TO PORTSMOUTH S/S  
 115kV TRANSMISSION LINE  
 MILE SHEET

TOWN: MADBURY, DURHAM  
 TRANSMISSION LINE: F107  
 MILE NO: 1  
 DISCIPLINE/SHT NO.

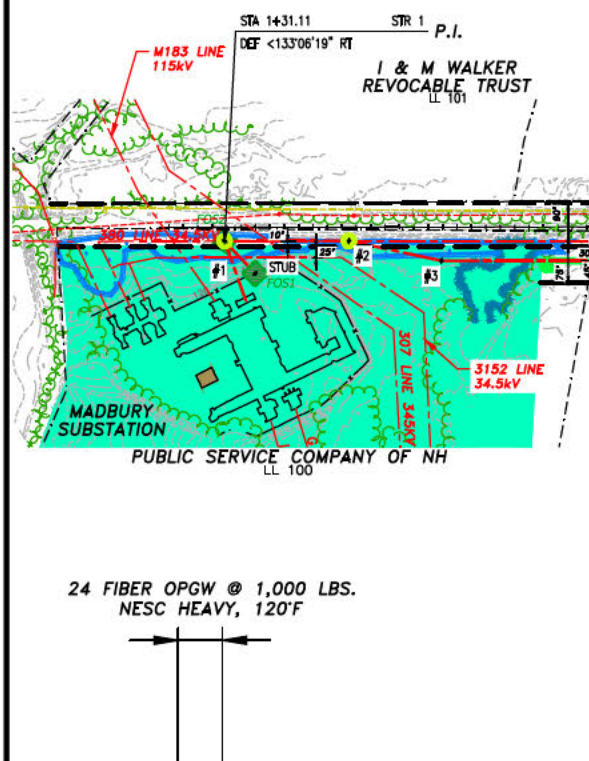
DATE: 03/20/2016  
 SCALE: H. 1"=200', V. 1"=20'

SHEET 1 OF 13  
 F10743001

ES: VER. 11/2015



# MADBURY, N. H.

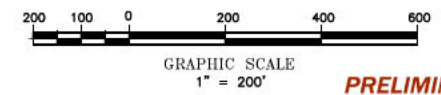


- LEGEND:**
- FENCE
  - STONEWALL
  - LIMITS OF WET
  - EDGE OF WET DELINEATION
  - TOPOGRAPHICAL CONTOURS WITH 10' INTERVALS
  - TOPOGRAPHICAL CONTOURS WITH 2' INTERVALS
  - UNDERGROUND WATER LINE
  - UNDERGROUND GAS LINE
  - DENOTES LINE COUNTERPOISE
  - TREELINE
  - BUILDINGS
  - FEE PROPERTY
  - FIBER OPTIC SPLICE LOCATION
  - F107 STRUCTURE (PERMITTING STR NO./CONSTRUCTION STR NO.)
  - F107 STRUCTURE IN WET (PERMITTING STR NO./CONSTRUCTION STR NO.)

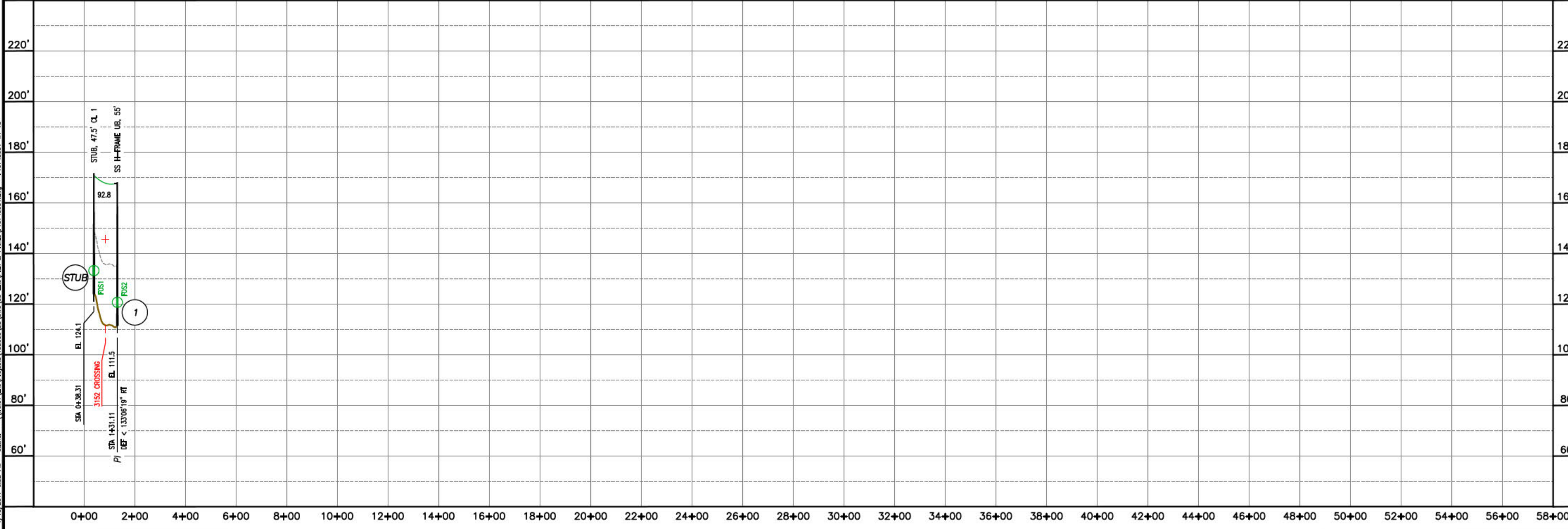
THIS PLAN FOR REFERENCE ONLY. NO REPRESENTATION OR WARRANTY IS MADE AS TO LOCATION OF BOUNDARIES OR OTHER POINTS OF REFERENCE.

SPLICE INFORMATION		
FOS1		
STRUCTURE :	STUB	
DESCRIPTION :	ADSS	24 FIBER OPGW
REEL NO. :	-	1
COILED CABLE :	100'	100'
DIST. NEXT SPLICE :	-	93' AHEAD

SPLICE INFORMATION		
FOS2		
STRUCTURE :	STR 1	
DESCRIPTION :	24 FIBER OPGW	24 FIBER OPGW
REEL NO. :	1	2
COILED CABLE :	100'	100'
DIST. NEXT SPLICE :	93' BACK	7,185' AHEAD



**PRELIMINARY**



NO.	REVISION	DATE	BY	CHKD.	APPV.	GROUND OR NEUTRAL
1	ISSUED FOR SET AMENDMENT	07/20/17	SOE	MAS	MAS	24 FIBER OPGW (24 FIBER OPGW)
2	ISSUED FOR 10% REVIEW	11/28/18	SOE	MAS	MAS	24 FIBER OPGW (24 FIBER OPGW)

**EVERSOURCE ENERGY**

MADBURY S/S TO PORTSMOUTH S/S  
 115kV TRANSMISSION LINE  
 MILE SHEET  
 TOWN: MADBURY, DURHAM  
 TRANSMISSION LINE: F107  
 MILE NO.: 1  
 DISCIPLINE/SHEET NO.:  
 SHEET 1A OF 13  
 F10743001

1/10/2017 6:32 PM - sfisher - \\wfs1\me\Projects\133005\00\DWG\03\_Line\Plan & Profile\F10743001.dwg - F10743001\_1A-13

3/15/2017 11:06 AM - e:\aher - \Projects\133005\UD\DWG\03\_Line\Plan & Profile\Rev\02\_IPSECA\DWG\F107\SECA\_REV\_C\F10743001\_2-13

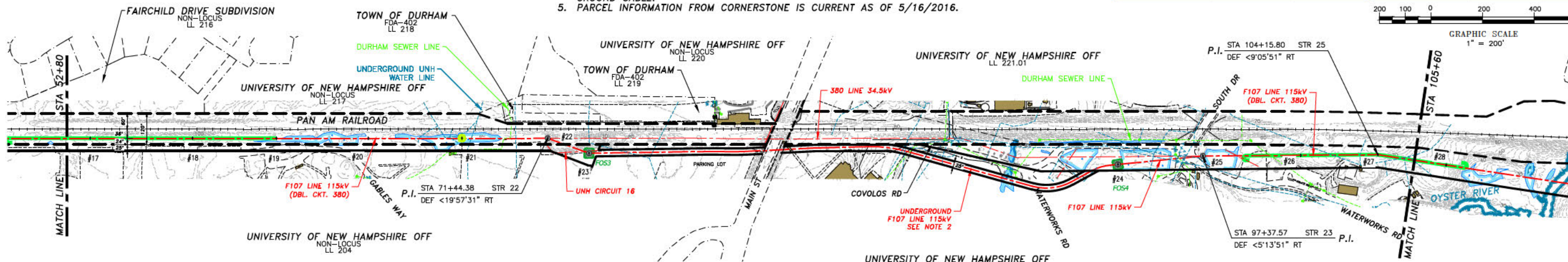


# DURHAM, N. H.

- NOTES:**
- SEE DRAWING NO. 038044001 FOR DISTRIBUTION UNDERBUILD DATA. NEUTRAL STANDARD GROUND CLEARANCE 18' (DTR 04.115).
  - SEE DRAWING NO. F10743002 FOR UNDERGROUND PORTION. COUNTERPOISE LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD. CONTRACTOR SHALL COMPLETE RESISTIVITY TESTING IN ACCORDANCE WITH OTRM 064 AND 264 AND ADJUST COUNTERPOISE INSTALLATION ACCORDINGLY.
  - UNDERGROUND POWER CABLE TO BE INSTALLED AND TERMINATED BY CABLE SUPPLIER. OVERHEAD LINE CONTRACTOR SHALL INSTALL CONNECTION FROM OVERHEAD LINE TO UNDERGROUND TERMINATION. UNDERGROUND FIBER CABLE TO BE INSTALLED BY UNDERGROUND CABLE SUPPLIER. OVERHEAD LINE CONTRACTOR RESPONSIBLE FOR SPLICING UNDERGROUND FIBER OPTIC CABLE TO ABOVE GROUND CABLE.
  - PARCEL INFORMATION FROM CORNERSTONE IS CURRENT AS OF 5/16/2016.

THIS PLAN FOR REFERENCE ONLY. NO REPRESENTATION OR WARRANTY IS MADE AS TO LOCATION OF BOUNDARIES OR OTHER POINTS OF REFERENCE

SPLICE INFORMATION		SPLICE INFORMATION	
FOS3		FOS4	
STRUCTURE :	STR 22	STRUCTURE :	STR 23
DESCRIPTION :	24 FIBER OPGW	DESCRIPTION :	24 FIBER OPGW
REEL NO. :	2	REEL NO. :	4
COILED CABLE :	100'	COILED CABLE :	100'
DIST. NEXT SPLICE :	7,185' BACK	DIST. NEXT SPLICE :	2,090' BACK
			2,615' AHEAD



1590 ACSR 45/7 LAPWING @ 11,400 LBS. NESC HEAVY, 285°F  
24 FIBER OPGW @ 4,500 LBS. NESC HEAVY, 120°F

19#10 ALUMOWELD @ 4,200 LBS. NESC HEAVY, 120°F

19#10 ALUMOWELD @ 4,200 LBS. NESC HEAVY, 120°F

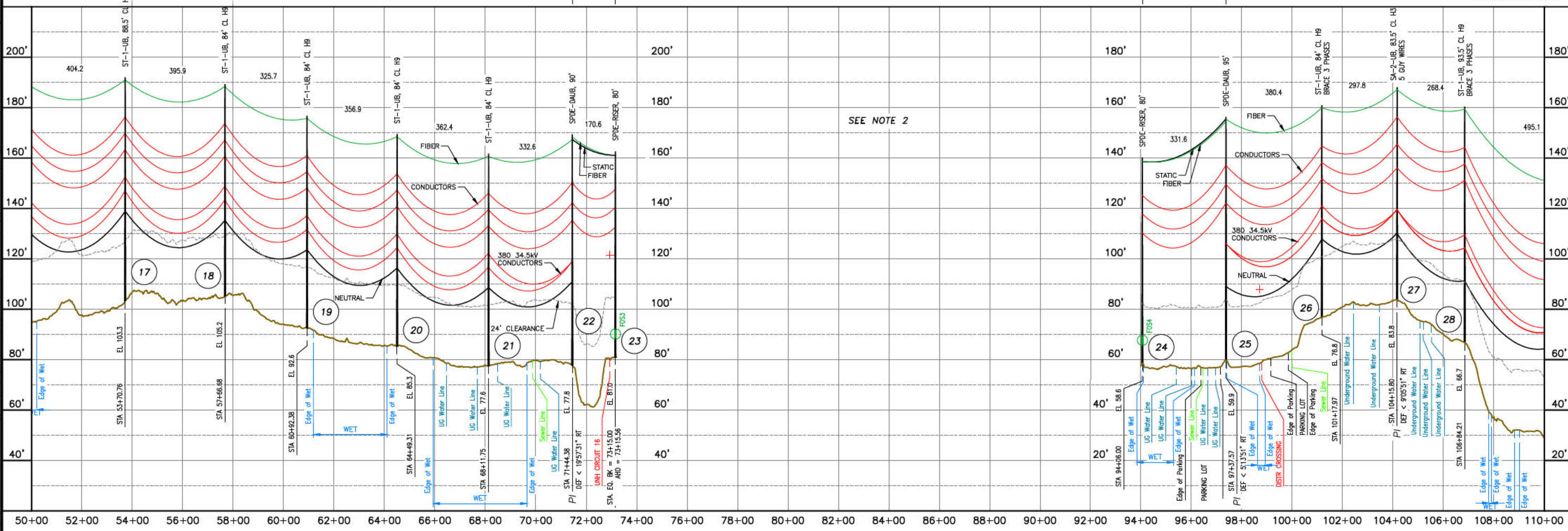
RULING SPAN = 375' (STR 9 TO STR 21)

RULING SPAN = 170' (STR 21 TO STR 22)

RULING SPAN = 331' (STR 23 TO STR 24)

RULING SPAN = 392' (STR 24 TO STR 28)

PRELIMINARY

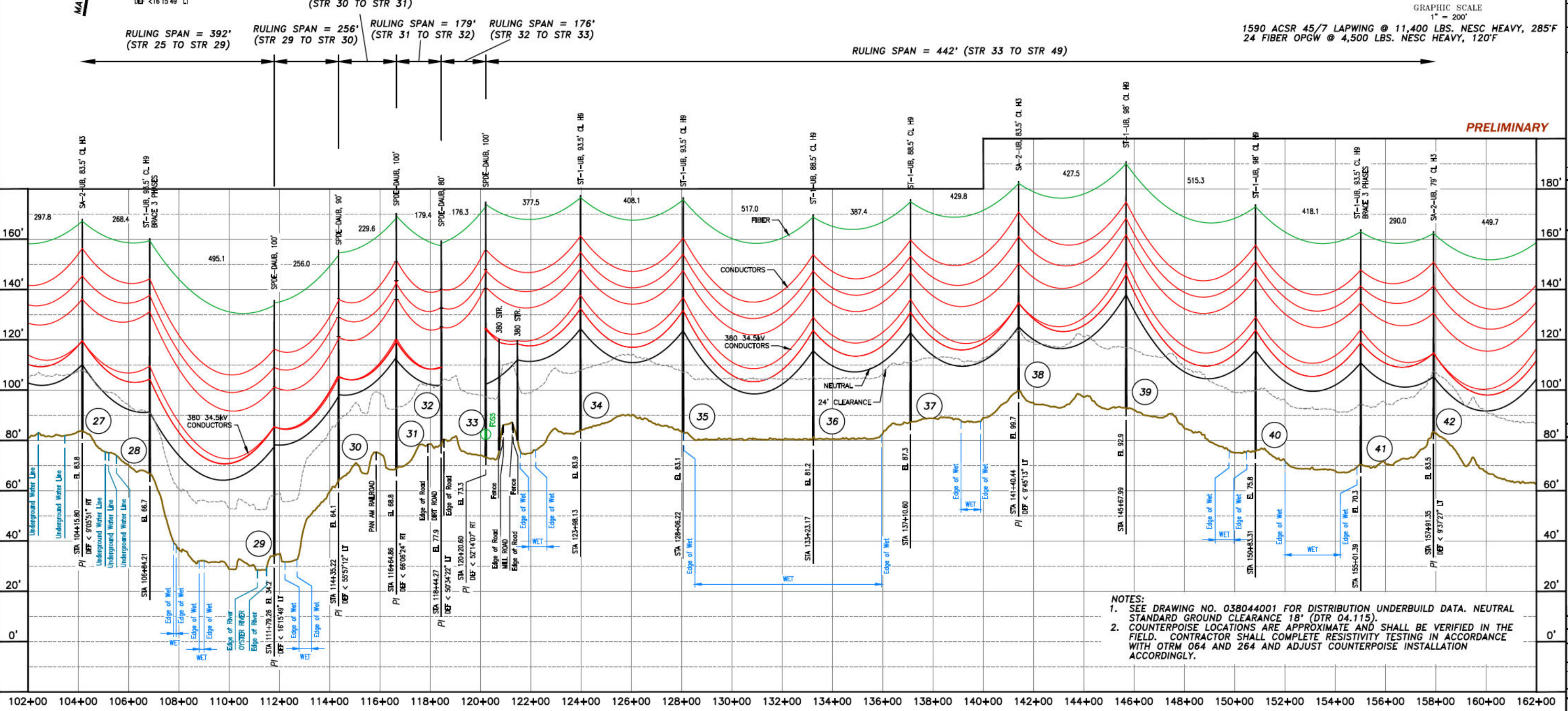
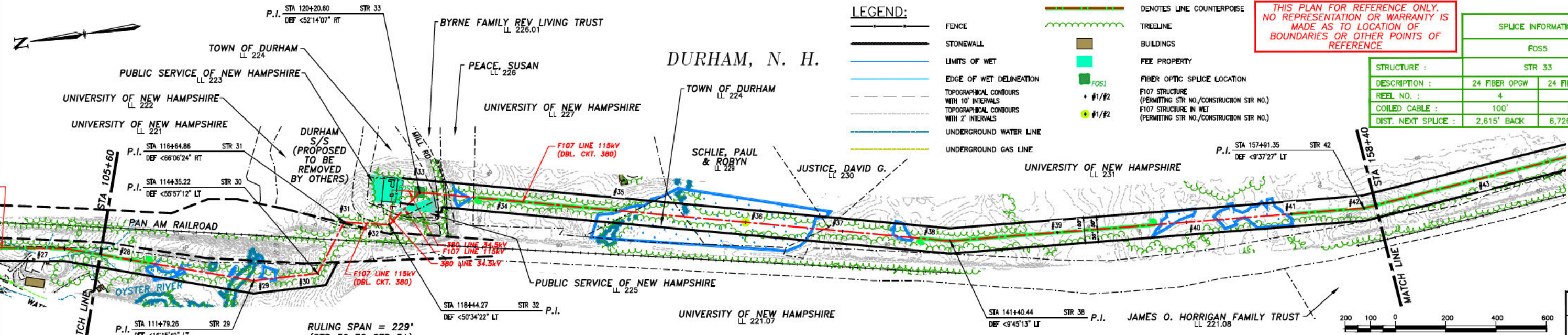


NO.	DATE	REVISION	BY	CHKD.	APPR.
1	03/15/17	ISSUED FOR SEC. AMENDMENT	APJ		
2	07/07/17	ISSUED FOR SEC. AMENDMENT	APJ		
3	11/08/18	ISSUED FOR 70% REVIEW	APJ		
4	11/08/18	REVISION	APJ		

**EVERSOURCE ENERGY**

MADBURY S/S TO PORTSMOUTH S/S  
115kV TRANSMISSION LINE  
MILE SHEET  
DATE: 06/03/2016  
SCALE: H. 1"=200', V. 1"=20'  
TOWN: DURHAM  
TRANSMISSION LINE: F107  
MILE NO: 2  
DISCIPLINE/SHT NO.  
SHEET 2 OF 13  
F10743001

1/10/2017 6:32 PM - sffisher - \\trans1\line\Projects\133005\DD\DWG\03\_Line\Plan & Profile\F10743001.dwg - F10743001\_3-13



**EVERSOURCE ENERGY**

MADBURY S/S TO PORTSMOUTH S/S  
115kV TRANSMISSION LINE  
MILE SHEET

DATE: 09/03/2018  
SCALE: H. 1/4"=1'-0"

NO.	REVISION	DATE	BY	CHKD
1	ISSUED FOR SEC. AMENDMENT	07/20/17	SOJ	ASJ
2	ISSUED FOR 10% REVIEW	11/08/16	SOJ	ASJ
3	ISSUED FOR 10% REVIEW	11/23/16	SOJ	ASJ

DATE: 09/03/2018  
SCALE: H. 1/4"=1'-0"

SHEET 3 OF 13  
F10743001

1/10/2017 6:27 PM - sffisher - \\trans1\me\Projects\133005\DD\DWG\03\_Line\Plan & Profile\F10743001.dwg - F10743001 4-13

ES: 11/20/2015

DURHAM, N. H.

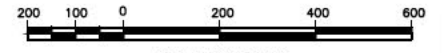


STATE PUBLIC LAND CROSSING  
SEE DRAWINGS F10799001 & F10799002

STATE OF NEW HAMPSHIRE FISH & GAME  
L.L. 232

THIS PLAN FOR REFERENCE ONLY.  
NO REPRESENTATION OR WARRANTY IS  
MADE AS TO LOCATION OF  
BOUNDARIES OR OTHER POINTS OF  
REFERENCE

SPLICE INFORMATION	
FOS6	
STRUCTURE :	STR 49
DESCRIPTION :	24 FIBER OPGW 24 FIBER OPGW
REEL NO. :	5 6
COILED CABLE :	100' 100'
DIST. NEXT SPLICE :	6,726' BACK 6,429' AHEAD



PRELIMINARY

**LEGEND:**

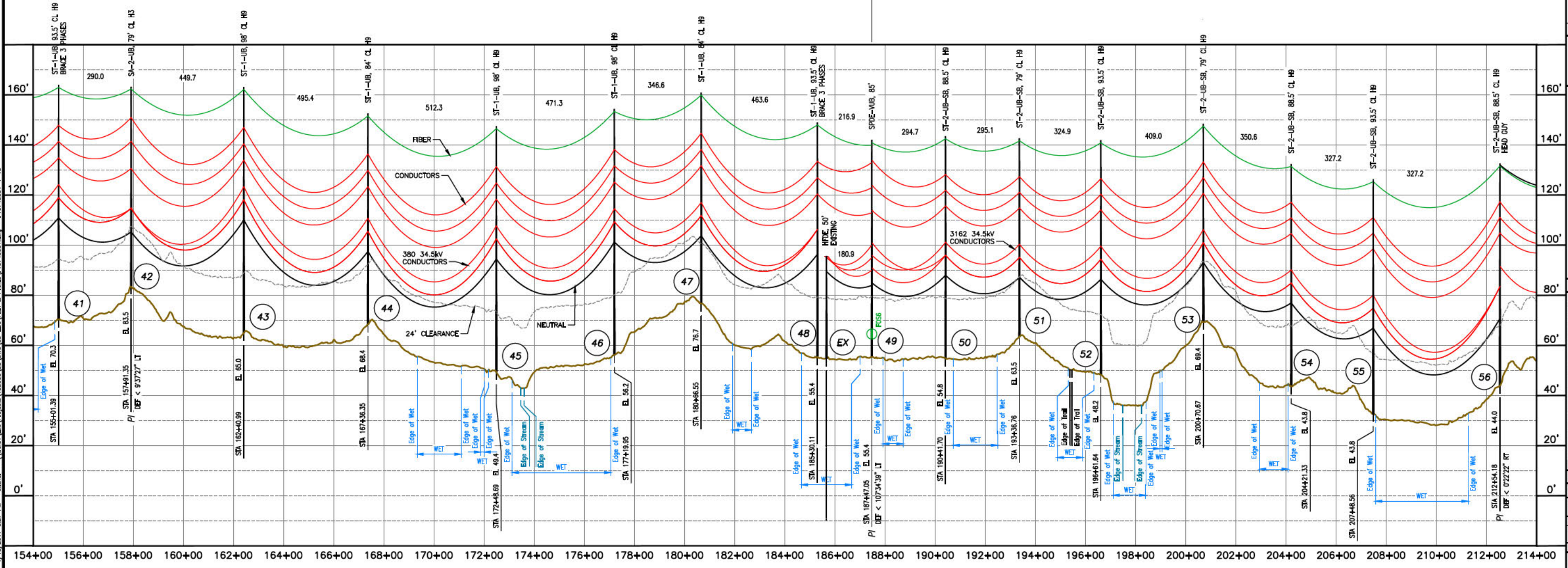
- FENCE
- STONEWALL
- LIMITS OF WET
- EDGE OF WET DELINEATION
- TOPOGRAPHICAL CONTOURS WITH 10' INTERVALS
- TOPOGRAPHICAL CONTOURS WITH 2' INTERVALS
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE
- DENOTES LINE COUNTERPOISE
- TREELINE
- BUILDINGS
- FEE PROPERTY
- FIBER OPTIC SPLICE LOCATION
- F107 STRUCTURE (PERMITTING STR NO./CONSTRUCTION STR NO.)
- F107 STRUCTURE IN WET (PERMITTING STR NO./CONSTRUCTION STR NO.)

- NOTES:**
- SEE DRAWING NO. 038044001 FOR DISTRIBUTION UNDERBUILD DATA. NEUTRAL STANDARD GROUND CLEARANCE 18"; (DTR 04.115).
  - SEE DRAWING NO. 316244001 FOR DISTRIBUTION UNDERBUILD DATA. NEUTRAL STANDARD GROUND CLEARANCE 18"; (DTR 04.115).
  - COUNTERPOISE LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD. CONTRACTOR SHALL COMPLETE RESISTIVITY TESTING IN ACCORDANCE WITH OTRM 064 AND 264 AND ADJUST COUNTERPOISE INSTALLATION ACCORDINGLY.

1590 ACSR 45/7 LAPWING @ 11,400 LBS. NESC HEAVY, 285'F  
24 FIBER OPGW @ 4,500 LBS. NESC HEAVY, 120'F

RULING SPAN = 442' (STR 33 TO STR 49)

RULING SPAN = 405' (STR 49 TO STR 86)



NO.	REVISION	DATE	BY	CHKD.	APPV.	GROUND OR NEUTRAL
1	ISSUED FOR PERMITS	07/07/17	SOJ	ASJ	ASJ	ASJ
2	ISSUED FOR CONSTRUCTION	11/28/17	SOJ	ASJ	ASJ	ASJ
3	ISSUED FOR REVIEW	11/28/17	SOJ	ASJ	ASJ	ASJ

**EVERSOURCE ENERGY**

MADBURY S/S TO PORTSMOUTH S/S  
115KV TRANSMISSION LINE  
MILE SHEET  
DATE: 09/03/2018  
SCALE: H. 1"=200' V. 1"=50'  
SHEET 4 OF 13  
F10743001

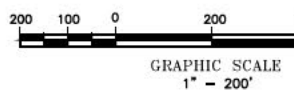
ES: VER: 11/20/2015

# DURHAM, N. H.

THIS PLAN FOR REFERENCE ONLY.  
NO REPRESENTATION OR WARRANTY IS  
MADE AS TO LOCATION OF  
BOUNDARIES OR OTHER POINTS OF  
REFERENCE

SPLICE INFORMATION	
FOST7	
STRUCTURE :	STR 67
DESCRIPTION :	24 FIBER OPGW 24 FIBER OPGW
REEL NO. :	6 7
COILED CABLE :	100' 100'
DIST. NEXT SPLICE :	6,429' BACK 14,142' AHEAD

- PARCELS:
1. STREETER, JEREMY E. & BERGERON, LL 248
  2. MCDONOUGH, TIMOTHY P. & ERIN J., LL 248.01
  3. KRAUS JR., JOHN D.; KRAUS, JANI, LL 250
  4. RUSSELL, BRIAN & WATTS, CHRISTI, LL 250.01
  5. FRANCES T. TILLOCK REV TRUST, LL 254.06
  6. RAPPOLT, ERIC J. & PAULA M., LL 254
  7. ZHOU, ZAIXING & ZHAO, BAORONG, LL 255
  8. JENKINS, SCOTT M. & LORIE ANN, LL 254.01



**LEGEND:**

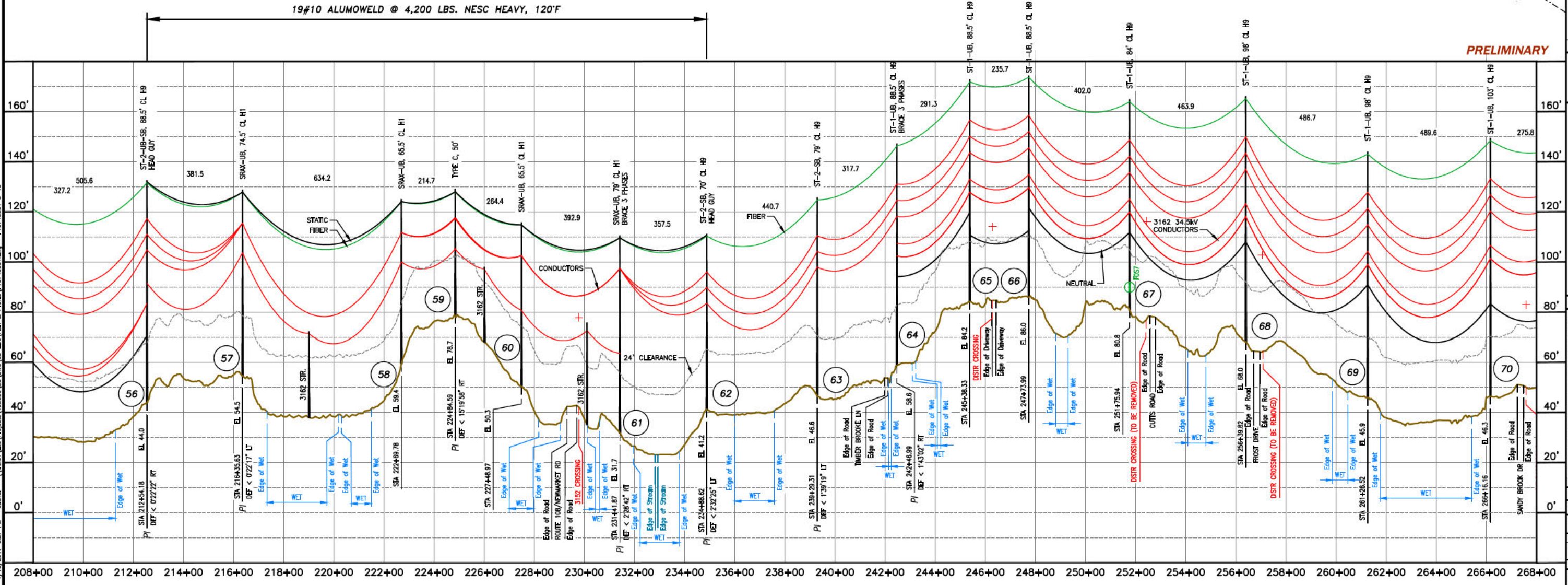
- DENOTES LINE COUNTERPOISE
- TREELINE
- BUILDINGS
- FEE PROPERTY
- FIBER OPTIC SPLICE LOCATION
- F107 STRUCTURE (PERMITTING STR NO./CONSTRUCTION STR NO.)
- F107 STRUCTURE IN WET (PERMITTING STR NO./CONSTRUCTION STR NO.)
- FENCE
- STONEWALL
- LIMITS OF WET
- EDGE OF WET DELINEATION
- TOPOGRAPHICAL CONTOURS WITH 10' INTERVALS
- TOPOGRAPHICAL CONTOURS WITH 2' INTERVALS
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE

- NOTES:**
1. SEE DRAWING NO. 316244001 FOR DISTRIBUTION UNDERBUILD DATA. NEUTRAL STANDARD GROUND CLEARANCE 18' (DTR 04.115).
  2. COUNTERPOISE LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD. CONTRACTOR SHALL COMPLETE RESISTIVITY TESTING IN ACCORDANCE WITH OTRM 064 AND 264 AND ADJUST COUNTERPOISE INSTALLATION ACCORDINGLY.

1590 ACSR 45/7 LAPWING @ 11,400 LBS. NESC HEAVY, 285'F  
24 FIBER OPGW @ 4,500 LBS. NESC HEAVY, 120'F

RULING SPAN = 405' (STR 49 TO STR 86)

19#10 ALUMOWELD @ 4,200 LBS. NESC HEAVY, 120'F



PRELIMINARY

## EVERSOURCE ENERGY

MADBURY S/S TO PORTSMOUTH S/S  
115KV TRANSMISSION LINE  
MILE SHEET

DATE: 09/03/2015  
SCALE: N. 1"=200' V. 1"=50'

SHEET 5 OF 13  
F107  
DISCIPLINE/SHEET NO.  
F10743001

1/10/2017 6:27 PM - sfisher - \\trns11\me\Projects\133005\DD\DWG\03\_Line\Plan & Profile\F10743001\_5-13

DATE: 11/20/15



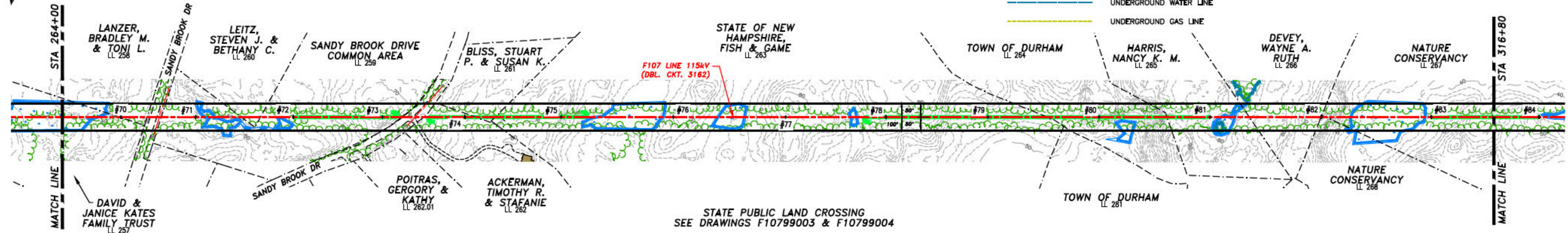
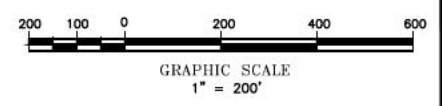
**NOTES:**  
 1. SEE DRAWING NO. 316244001 FOR DISTRIBUTION UNDERBUILD DATA. NEUTRAL STANDARD GROUND CLEARANCE 18' (DTR 04.115).  
 2. COUNTERPOISE LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD. CONTRACTOR SHALL COMPLETE RESISTIVITY TESTING IN ACCORDANCE WITH OTRM 064 AND 264 AND ADJUST COUNTERPOISE INSTALLATION ACCORDINGLY.

# DURHAM, N. H.

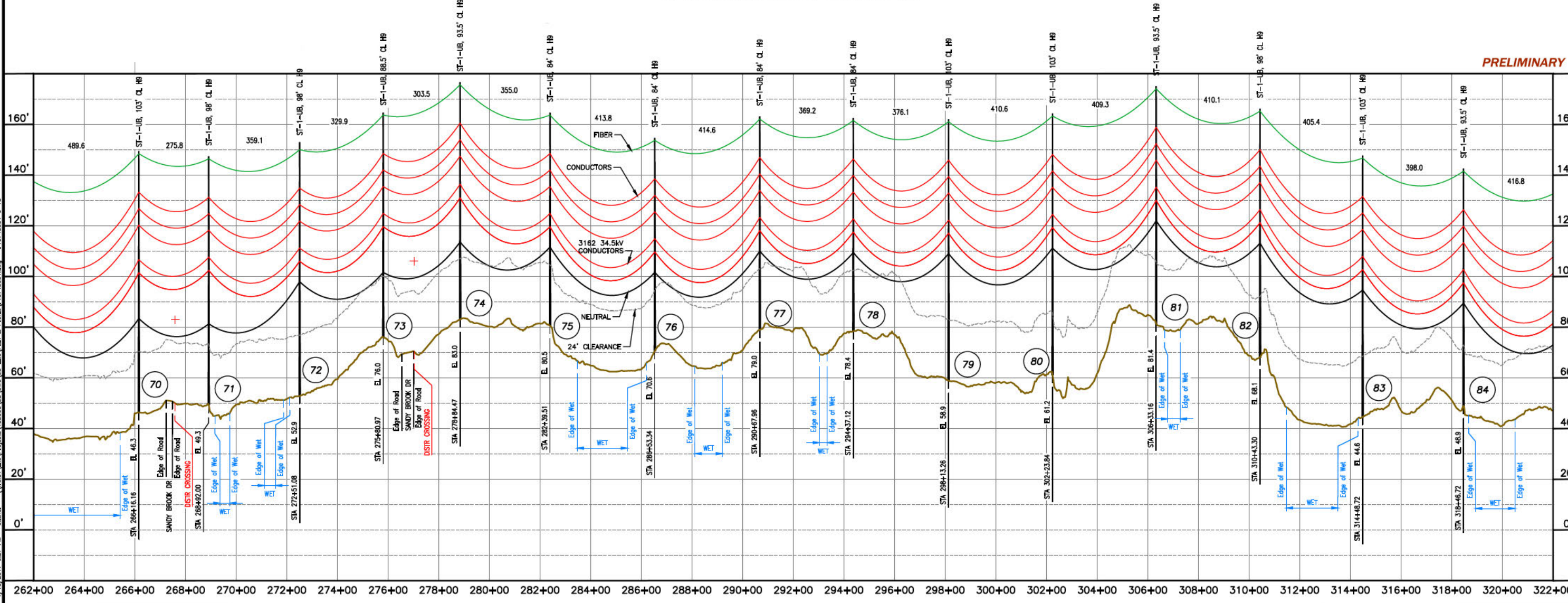
## LEGEND:

- FENCE
- STONEWALL
- LIMITS OF WET
- EDGE OF WET DELINEATION
- TOPOGRAPHICAL CONTOURS WITH 10' INTERVALS
- TOPOGRAPHICAL CONTOURS WITH 2' INTERVALS
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE
- TREE LINE
- BUILDINGS
- FEE PROPERTY
- FOS1
- F107 STRUCTURE (PERMITTING STR NO./CONSTRUCTION STR NO.)
- F107 STRUCTURE IN WET (PERMITTING STR NO./CONSTRUCTION STR NO.)

THIS PLAN FOR REFERENCE ONLY. NO REPRESENTATION OR WARRANTY IS MADE AS TO LOCATION OF BOUNDARIES OR OTHER POINTS OF REFERENCE.



RULING SPAN = 405' (STR 49 TO STR 86)  
 1590 ACSR 45/7 LAPWING @ 11,400 LBS. NESC HEAVY, 285'F  
 24 FIBER OPGW @ 4,500 LBS. NESC HEAVY, 120'F



PRELIMINARY

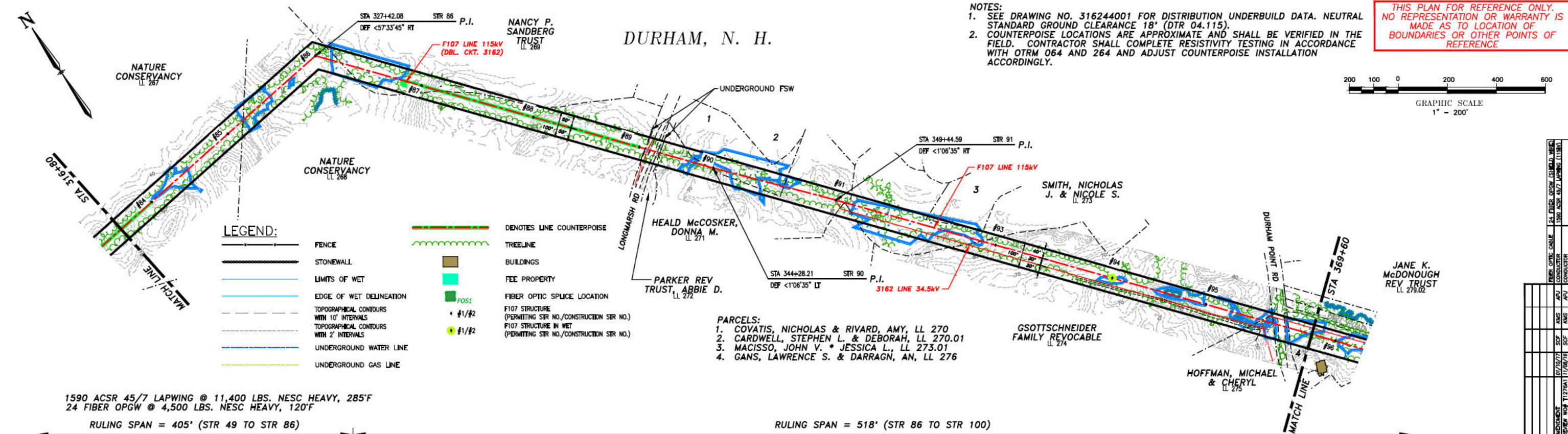
1/10/2017 6:27 PM - sfisher - \\fiscer\1\Projects\133005\DD\DWG\03\_Line\Plan & Profile\F10743001.dwg - F10743001\_6-13

DATE	11/20/15
REVISION	
NO.	
DESCRIPTION	
DATE	
BY	
CHKD	
APPV	
DATE	
BY	
CHKD	
APPV	
DATE	
BY	
CHKD	
APPV	

EVERSOURCE ENERGY

MADBURY S/S TO PORTSMOUTH S/S  
 115KV TRANSMISSION LINE  
 MILE SHEET  
 TRANSMISSION LINE  
 F107  
 MILE NO. 6  
 DISCIPLINE/SHEET NO.  
 SHEET 6 OF 13  
 F10743001

ES: VER. 11/2015



NOTES:  
 1. SEE DRAWING NO. 316244001 FOR DISTRIBUTION UNDERBUILD DATA. NEUTRAL STANDARD GROUND CLEARANCE 18' (DTR 04.115).  
 2. COUNTERPOISE LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD. CONTRACTOR SHALL COMPLETE RESISTIVITY TESTING IN ACCORDANCE WITH OTRM 064 AND 264 AND ADJUST COUNTERPOISE INSTALLATION ACCORDINGLY.

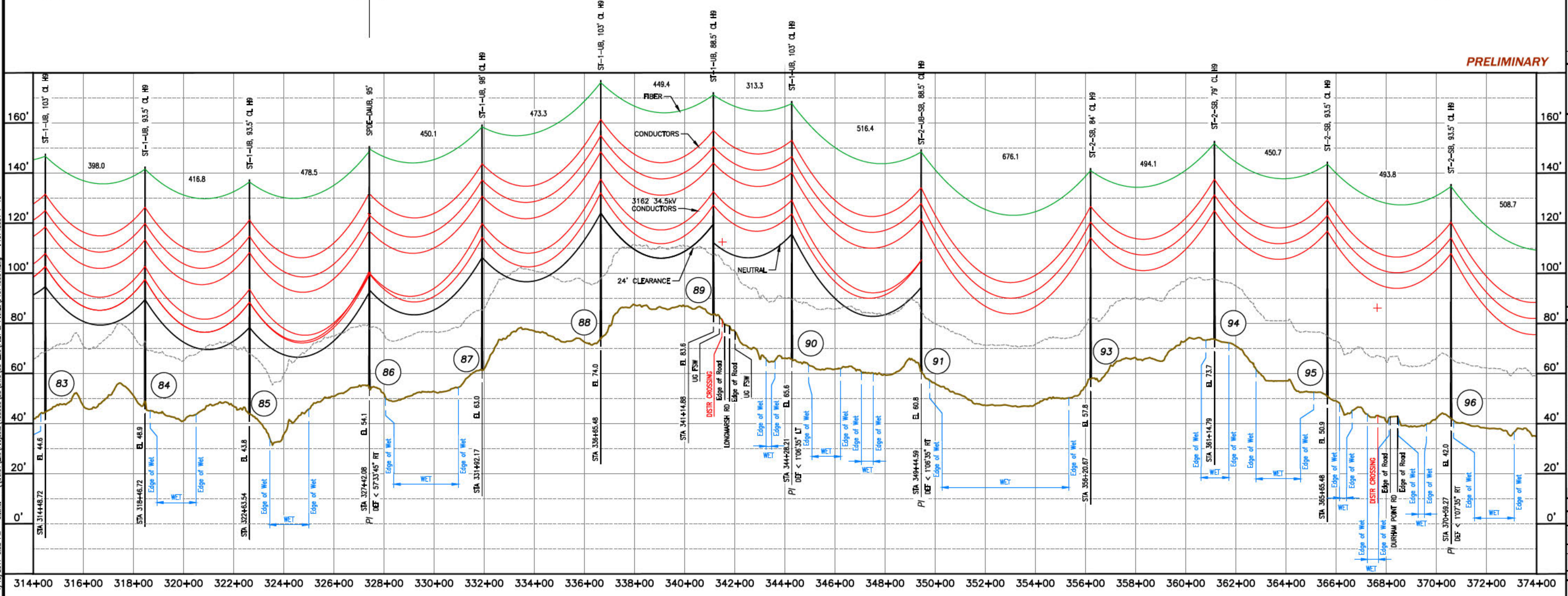
THIS PLAN FOR REFERENCE ONLY. NO REPRESENTATION OR WARRANTY IS MADE AS TO LOCATION OF BOUNDARIES OR OTHER POINTS OF REFERENCE.

- LEGEND:**
- FENCE
  - STONEWALL
  - LIMITS OF WET
  - EDGE OF WET DELINEATION
  - TOPOGRAPHICAL CONTOURS WITH 10' INTERVALS
  - TOPOGRAPHICAL CONTOURS WITH 2' INTERVALS
  - UNDERGROUND WATER LINE
  - UNDERGROUND GAS LINE
  - DENOTES LINE COUNTERPOISE
  - TREELINE
  - BUILDINGS
  - FEE PROPERTY
  - FIBER OPTIC SPLICE LOCATION
  - F107 STRUCTURE (PERMITTING STR NO./CONSTRUCTION STR NO.)
  - F107 STRUCTURE IN WET (PERMITTING STR NO./CONSTRUCTION STR NO.)

1590 ACSR 45/7 LAPWING @ 11,400 LBS. NESC HEAVY, 285°F  
 24 FIBER OPGW @ 4,500 LBS. NESC HEAVY, 120°F

RULING SPAN = 405' (STR 49 TO STR 86)

RULING SPAN = 518' (STR 86 TO STR 100)



PRELIMINARY

1/10/2017 6:32 PM - sffisher - \\trns1\me\Projects\133005\DD\DWG\03\_Line\Plan & Profile\F10743001.dwg - F10743001\_7-13

NO.	REVISION	DATE	BY	CHKD.	APPV.
1	ISSUED FOR REVIEW	11/28/17	SMF	APJ	LLM
2	ISSUED FOR CONSTRUCTION	07/07/18	SMF	APJ	LLM
3	ISSUED FOR CONSTRUCTION	07/07/18	SMF	APJ	LLM

**EVERSOURCE ENERGY**

MADBURY S/S TO PORTSMOUTH S/S  
 115KV TRANSMISSION LINE  
 MILE SHEET  
 SHEET 7 OF 13  
 F10743001



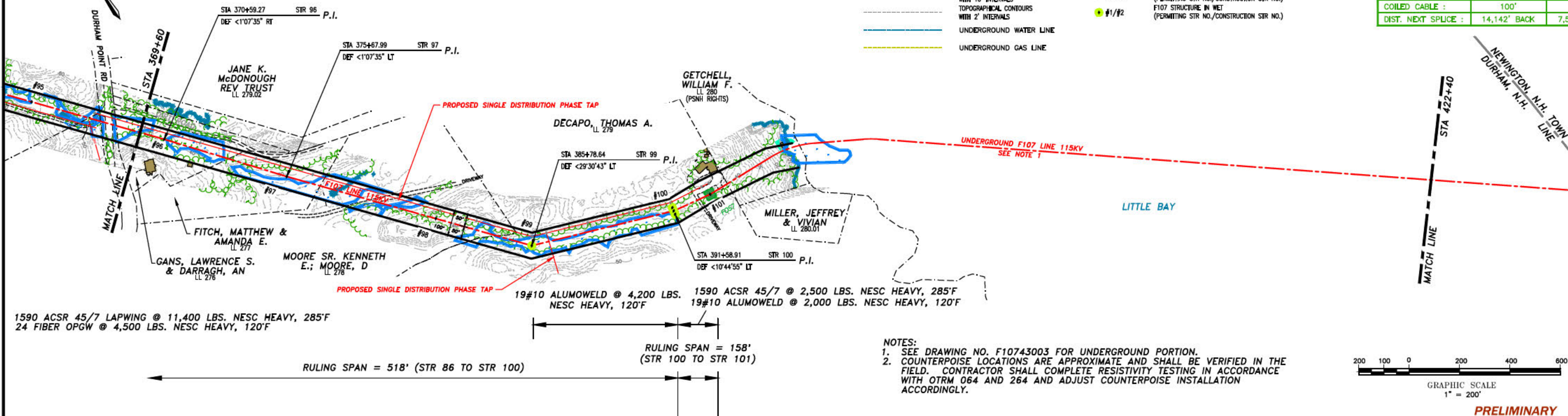
# DURHAM, N. H.

## LEGEND:

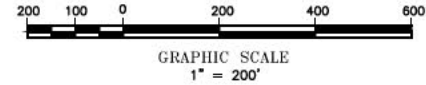
- DENOTES LINE COUNTERPOISE
- TREELINE
- BUILDINGS
- FEE PROPERTY
- FOS1
- #1/#2
- FIBER OPTIC SPLICE LOCATION
- F107 STRUCTURE (PERMITTING STR NO./CONSTRUCTION STR NO.)
- F107 STRUCTURE IN WET (PERMITTING STR NO./CONSTRUCTION STR NO.)
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE
- FENCE
- STONEWALL
- LIMITS OF WET
- EDGE OF WET DELINEATION
- TOPOGRAPHICAL CONTOURS WITH 10' INTERVALS
- TOPOGRAPHICAL CONTOURS WITH 2' INTERVALS
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE

**THIS PLAN FOR REFERENCE ONLY.  
NO REPRESENTATION OR WARRANTY IS  
MADE AS TO LOCATION OF  
BOUNDARIES OR OTHER POINTS OF  
REFERENCE**

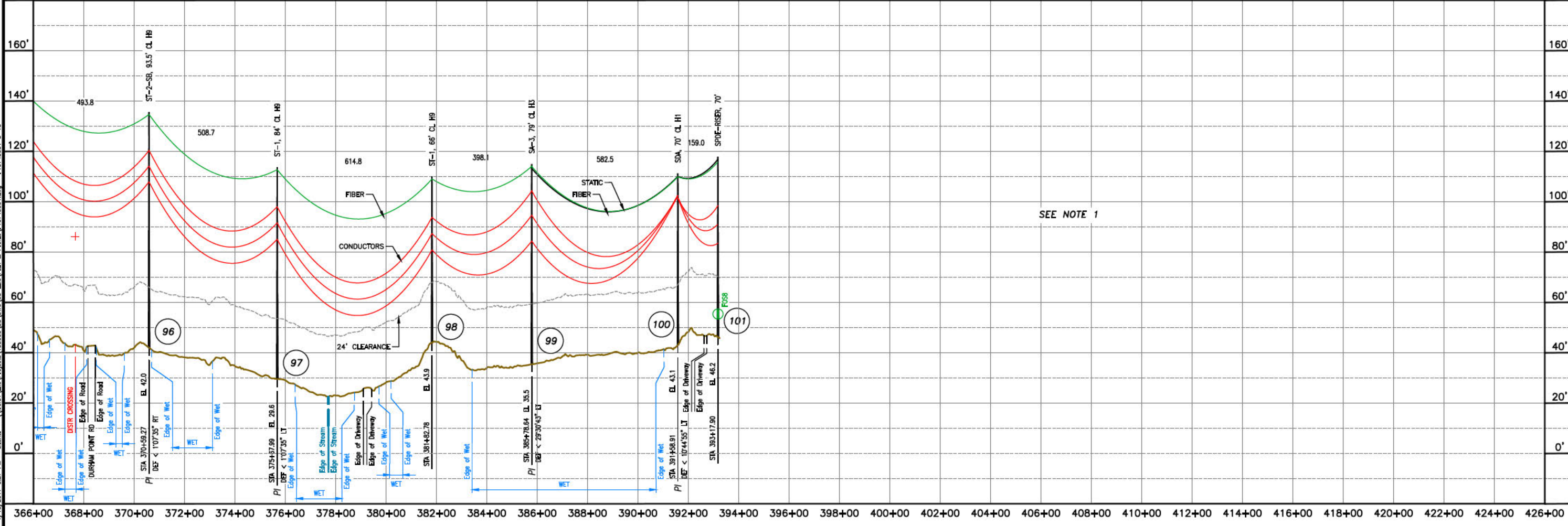
SPLICE INFORMATION	
FOS8	
STRUCTURE :	STR 101
DESCRIPTION :	24 FIBER OPGW SUBMARINE FIBER (2)
REEL NO. :	7 8
COILED CABLE :	100' 100'
DIST. NEXT SPLICE :	14,142' BACK 7,543' AHEAD



- NOTES:**
- SEE DRAWING NO. F10743003 FOR UNDERGROUND PORTION.
  - COUNTERPOISE LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD. CONTRACTOR SHALL COMPLETE RESISTIVITY TESTING IN ACCORDANCE WITH OTRM 064 AND 264 AND ADJUST COUNTERPOISE INSTALLATION ACCORDINGLY.



PRELIMINARY



**EVERSOURCE ENERGY**

MADBURY S/S TO PORTSMOUTH S/S  
 115KV TRANSMISSION LINE  
 MILE SHEET  
 TRANSMISSION LINE  
 F107  
 SHEET 8 OF 13  
 F10743001

ES VER: 11/2015  
 1/10/2017 6:27 PM - sffisher - \\trns1\New\Projects\133005\DWG\03\_Line\Plan & Profile\F10743001.dwg - F10743001\_9-13

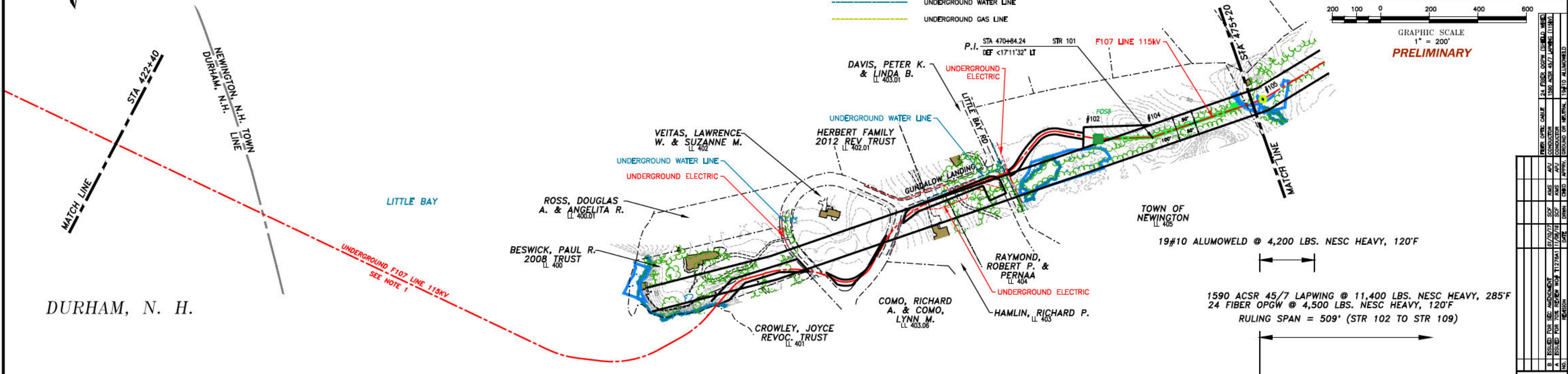
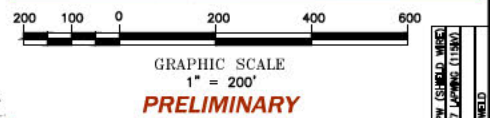
NEWINGTON, N. H.

**LEGEND:**

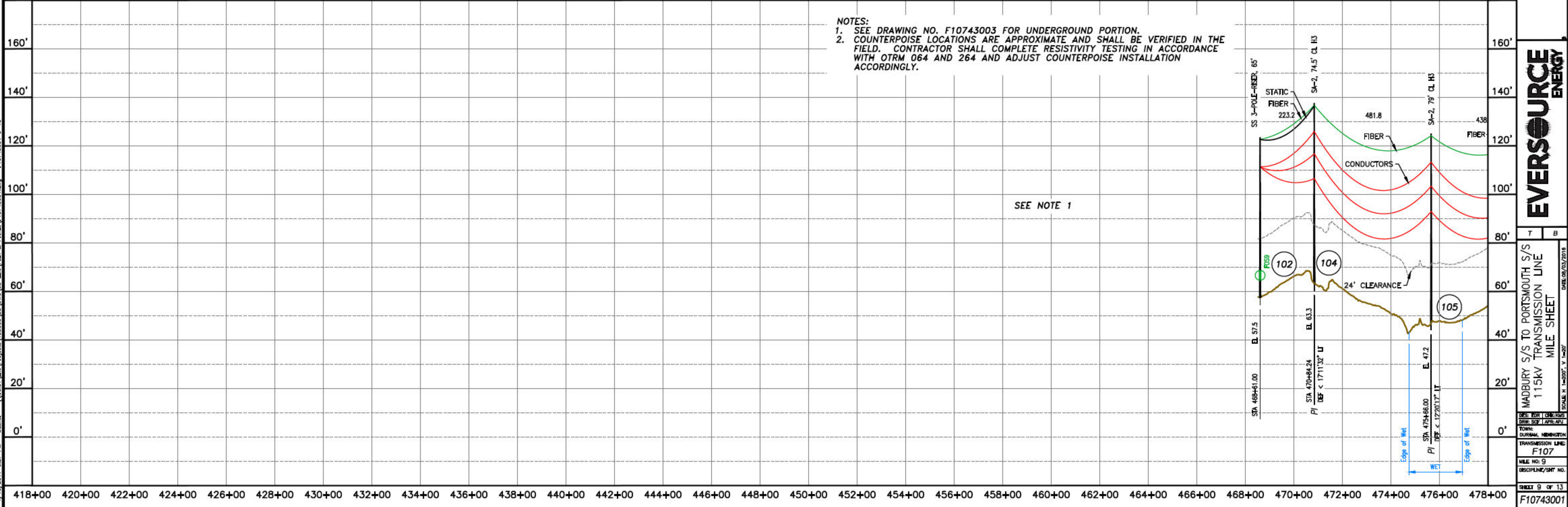
- FENCE
- STONEWALL
- LIMITS OF WET
- EDGE OF WET DELINEATION
- TOPOGRAPHICAL CONTOURS WITH 10' INTERVALS
- TOPOGRAPHICAL CONTOURS WITH 2' INTERVALS
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE
- DENOTES LINE COUNTERPOISE
- TREELINE
- BUILDINGS
- FEE PROPERTY
- FIBER OPTIC SPLICE LOCATION
- F107 STRUCTURE (PERMITTING STR NO./CONSTRUCTION STR NO.)
- F107 STRUCTURE IN WET (PERMITTING STR NO./CONSTRUCTION STR NO.)

THIS PLAN FOR REFERENCE ONLY.  
 NO REPRESENTATION OR WARRANTY IS MADE AS TO LOCATION OF BOUNDARIES OR OTHER POINTS OF REFERENCE.

SPLICE INFORMATION		
FOS9		
STRUCTURE :	STR 102	
DESCRIPTION :	SUBMARINE FIBER (2)	24 FIBER OPGW
REEL NO. :	8	9
COILED CABLE :	100'	100'
DIST. NEXT SPLICE :	7,543' BACK	3,288' AHEAD



- NOTES:**
- SEE DRAWING NO. F10743003 FOR UNDERGROUND PORTION.
  - COUNTERPOISE LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD. CONTRACTOR SHALL COMPLETE RESISTIVITY TESTING IN ACCORDANCE WITH OTRM 064 AND 264 AND ADJUST COUNTERPOISE INSTALLATION ACCORDINGLY.



NO.	REVISION	DATE	BY	CHKD.	APPV.	GROUND OR NEUTRAL	100' TO ALLOWED
1	ISSUED FOR CONSTRUCTION	07/20/17	APU	APU	APU	CONDUCTOR	
2	ISSUED FOR REVIEW	11/23/16	APU	APU	APU	CONDUCTOR	

**EVERSOURCE ENERGY**

MADBURY S/S TO PORTSMOUTH S/S  
 115KV TRANSMISSION LINE  
 MILE SHEET

DATE: 09/03/2015  
 SCALE: H. 1"=200', V. 1"=20'

TOWN: DURHAM, NEWINGTON  
 TRANSMISSION LINE: F107  
 MILE NO: 9  
 DISCIPLINE/SHEET NO.

SHEET 9 OF 13  
 F10743001

ES VER. 11/2015  
 1/10/2017 6:27 PM - sfisher - \\trns1\me\Projects\133005\DD\DWG\03\_Line\Plan & Profile\F10743001.dwg - F10743001\_10-13

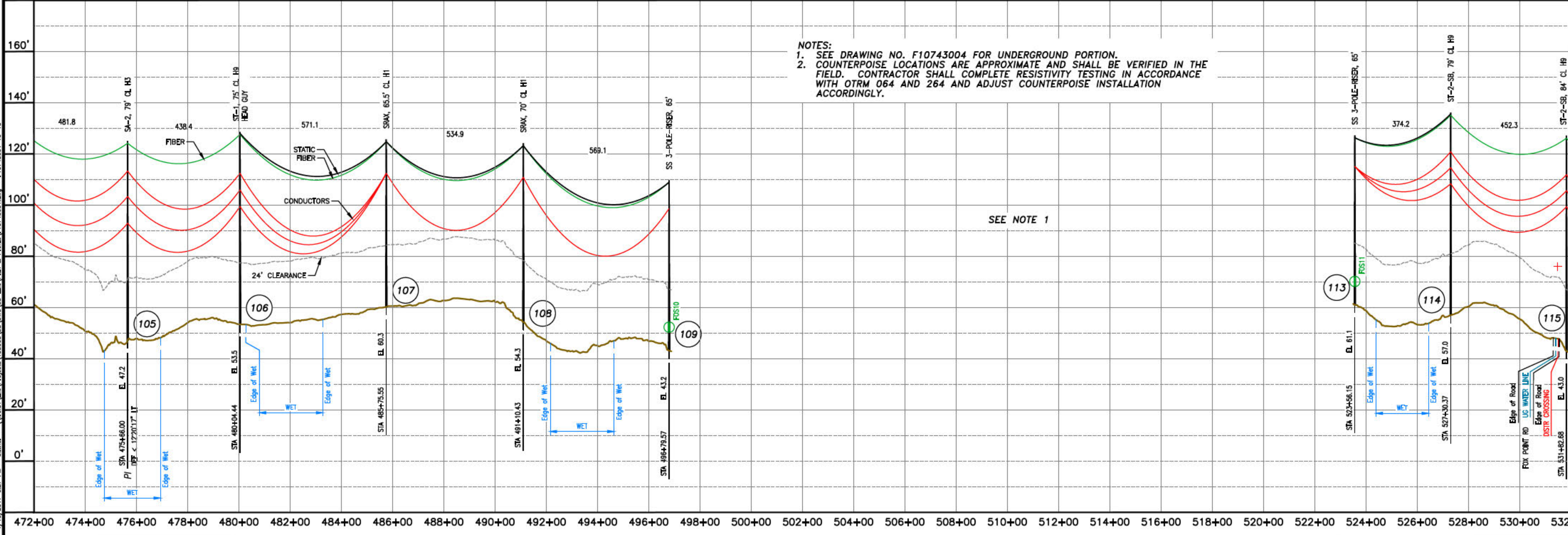
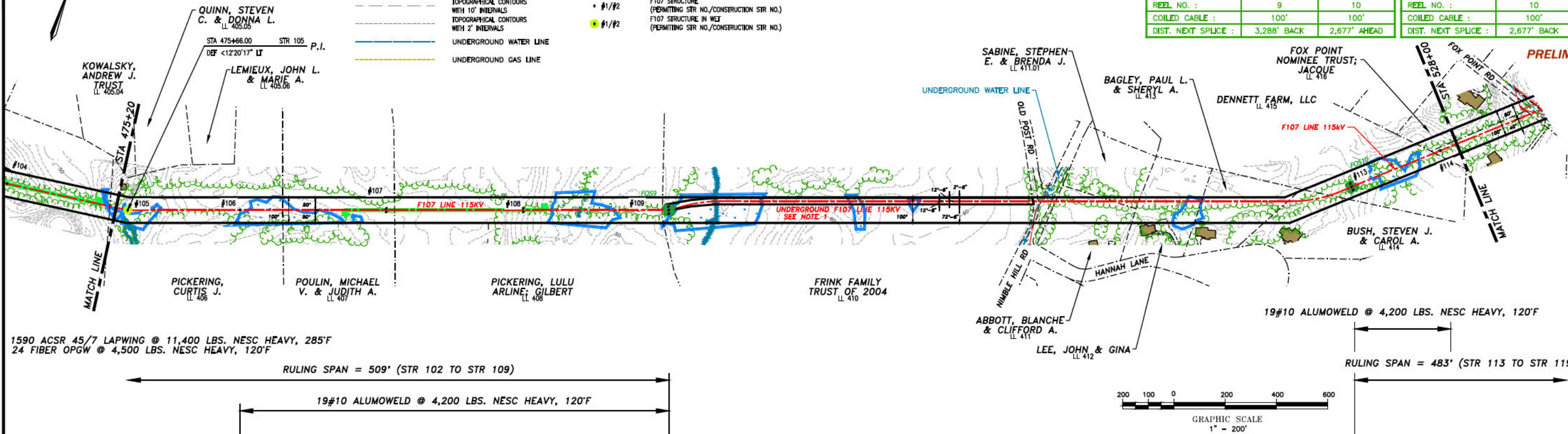
NEWINGTON, N. H.

THIS PLAN FOR REFERENCE ONLY.  
 NO REPRESENTATION OR WARRANTY IS  
 MADE AS TO LOCATION OF  
 BOUNDARIES OR OTHER POINTS OF  
 REFERENCE

**LEGEND:**

	FENCE		DENOTES LINE COUNTERPOISE
	STONEWALL		TREELINE
	LIMITS OF WET		BUILDINGS
	EDGE OF WET DELINEATION		LEE PROPERTY
	TOPOGRAPHICAL CONTOURS WITH 10' INTERVALS		FIBER OPTIC SPLICE LOCATION
	TOPOGRAPHICAL CONTOURS WITH 2' INTERVALS		F107 STRUCTURE (PERMITTING STR NO./CONSTRUCTION STR NO.)
	UNDERGROUND WATER LINE		F107 STRUCTURE IN WET (PERMITTING STR NO./CONSTRUCTION STR NO.)
	UNDERGROUND GAS LINE		

SPLICE INFORMATION		SPLICE INFORMATION	
FOS10		FOS11	
STRUCTURE :	STR 109	STRUCTURE :	STR 113
DESCRIPTION :	24 FIBER OPGW UG FIBER	DESCRIPTION :	UG FIBER 24 FIBER OPGW
REEL NO. :	9 10	REEL NO. :	10 11
COILED CABLE :	100' 100'	COILED CABLE :	100' 100'
DIST. NEXT SPLICE :	3,288' BACK 2,677' AHEAD	DIST. NEXT SPLICE :	2,677' BACK 10,761' AHEAD



**EVERSOURCE ENERGY**

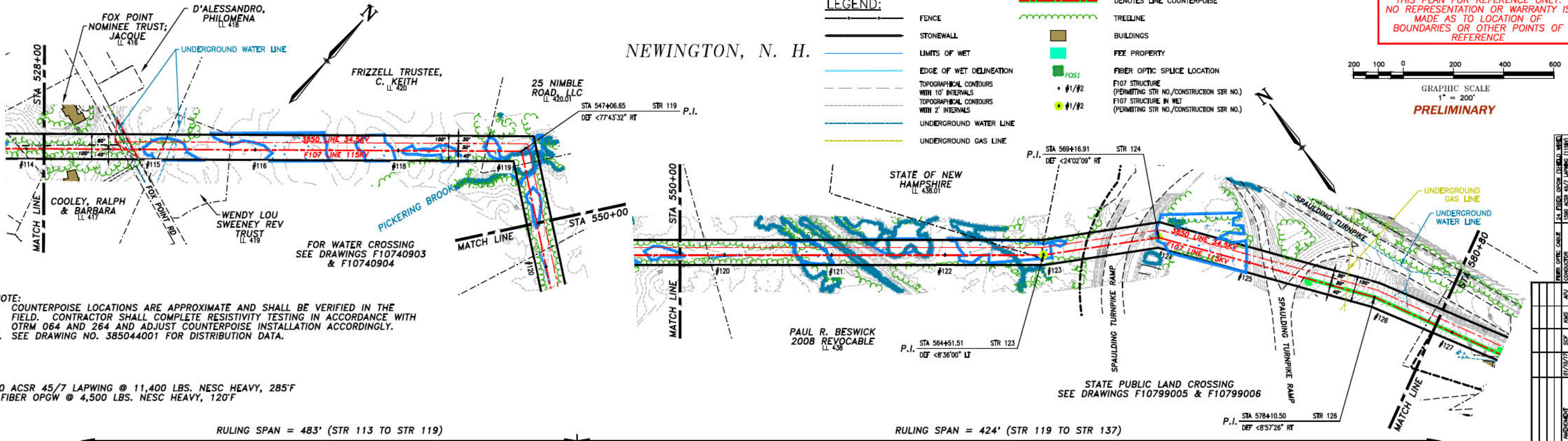
MADBURY SYS TO PORTSMOUTH SYS  
 115KV TRANSMISSION LINE  
 MILE SHEET

TOWN: NEWINGTON  
 TRANSMISSION LINE: F107  
 MILE NO: 10  
 DISCIPLINE/SHEET NO.

DATE: 09/03/2015  
 SCALE: H. 1"=200', V. 1"=50'

SHEET 10 OF 13  
 F10743001

1/10/2017 6:27 PM - sfisher - \\trans1\me\Projects\133005\DD\DWG\03\_Line\Plan & Profile\F10743001.dwg - F10743001\_11-13

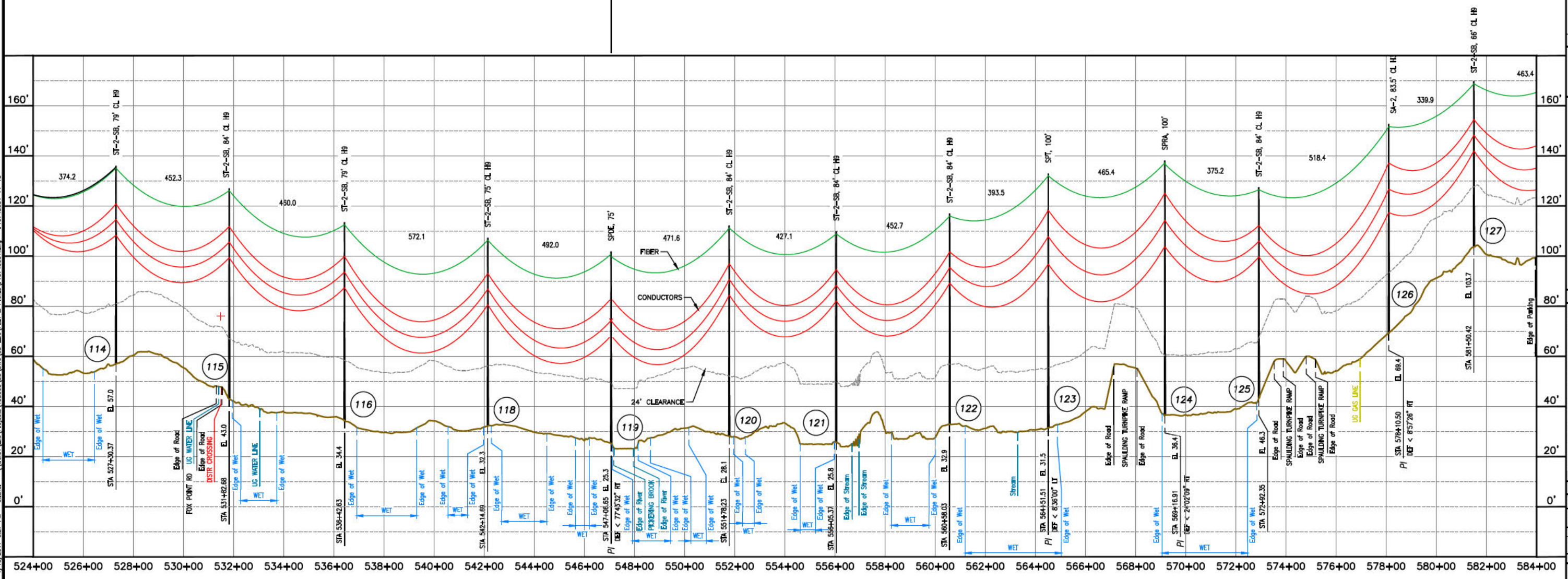


NOTE:  
 1. COUNTERPOISE LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD. CONTRACTOR SHALL COMPLETE RESISTIVITY TESTING IN ACCORDANCE WITH OTRM 064 AND 264 AND ADJUST COUNTERPOISE INSTALLATION ACCORDINGLY.  
 2. SEE DRAWING NO. 385044001 FOR DISTRIBUTION DATA.

1590 ACSR 45/7 LAPWING @ 11,400 LBS. NESC HEAVY, 285°F  
 24 FIBER OPGW @ 4,500 LBS. NESC HEAVY, 120°F

RULING SPAN = 483' (STR 113 TO STR 119)

RULING SPAN = 424' (STR 119 TO STR 137)



NO.	DATE	REVISION
1	07/20/17	ISSUED FOR PERMITS
2	07/20/17	ISSUED FOR PERMITS
3	07/20/17	ISSUED FOR PERMITS
4	07/20/17	ISSUED FOR PERMITS
5	07/20/17	ISSUED FOR PERMITS
6	07/20/17	ISSUED FOR PERMITS
7	07/20/17	ISSUED FOR PERMITS
8	07/20/17	ISSUED FOR PERMITS
9	07/20/17	ISSUED FOR PERMITS
10	07/20/17	ISSUED FOR PERMITS
11	07/20/17	ISSUED FOR PERMITS
12	07/20/17	ISSUED FOR PERMITS
13	07/20/17	ISSUED FOR PERMITS
14	07/20/17	ISSUED FOR PERMITS
15	07/20/17	ISSUED FOR PERMITS
16	07/20/17	ISSUED FOR PERMITS
17	07/20/17	ISSUED FOR PERMITS
18	07/20/17	ISSUED FOR PERMITS
19	07/20/17	ISSUED FOR PERMITS
20	07/20/17	ISSUED FOR PERMITS

**EVERSOURCE ENERGY**

MADBURY S/S TO PORTSMOUTH S/S  
 115KV TRANSMISSION LINE  
 MILE SHEET

TOWN: NEWINGTON  
 TRANSMISSION LINE: F107  
 MILE NO: 11  
 DISCIPLINE/SHEET NO: SHEET 11 OF 13  
 F10743001

1/10/2017 6:27 PM - s:\shar - \\\trns\1\New Projects\133005\DD\DWG\03\_Line\Plan & Profile\F10743001.dwg - F10743001\_12-13

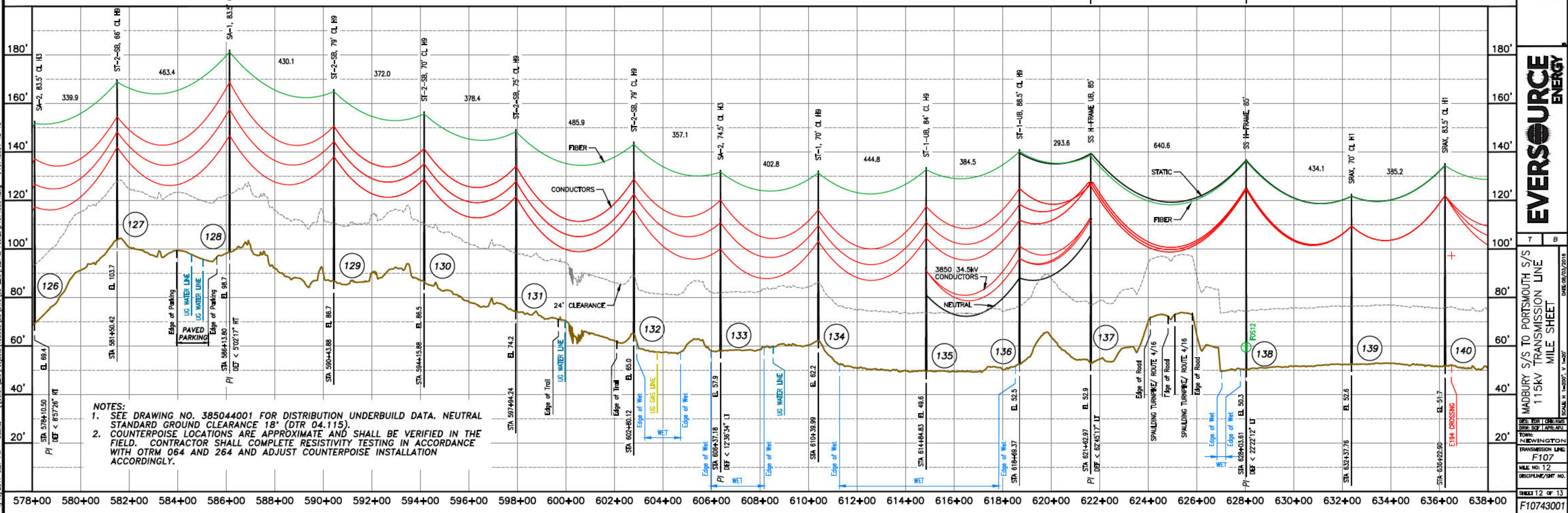
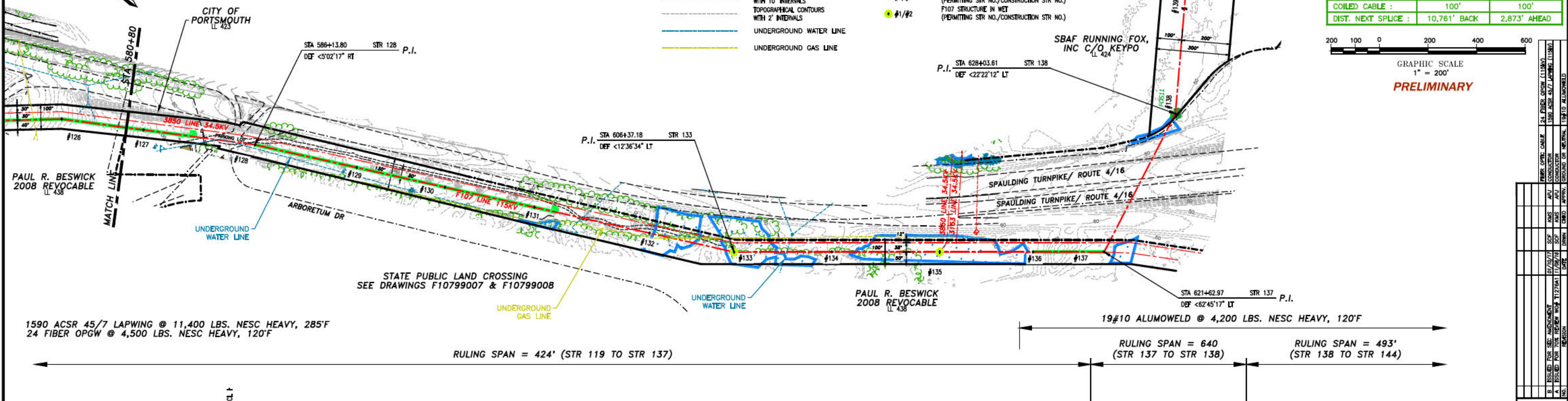
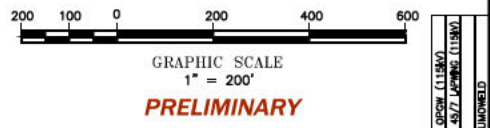
NEWINGTON, N. H.

LEGEND:

- FENCE
- STONEWALL
- LIMITS OF WET
- EDGE OF WET DELINEATION
- TOPOGRAPHICAL CONTOURS WITH 10' INTERVALS
- TOPOGRAPHICAL CONTOURS WITH 2' INTERVALS
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE
- DENOTES LINE COUNTERPOISE
- TREELINE
- BUILDINGS
- FEE PROPERTY
- FIBER OPTIC SPLICE LOCATION
- F107 STRUCTURE (PERMITTING STR NO./CONSTRUCTION STR NO.)
- F107 STRUCTURE IN WET (PERMITTING STR NO./CONSTRUCTION STR NO.)

THIS PLAN FOR REFERENCE ONLY.  
NO REPRESENTATION OR WARRANTY IS  
MADE AS TO LOCATION OF  
BOUNDARIES OR OTHER POINTS OF  
REFERENCE

SPLICE INFORMATION	
FOS12	
STRUCTURE :	STR 138
DESCRIPTION :	24 FIBER OPGW 24 FIBER OPGW
REEL NO. :	11 12
COILED CABLE :	100' 100'
DIST. NEXT SPLICE :	10,761' BACK 2,873' AHEAD



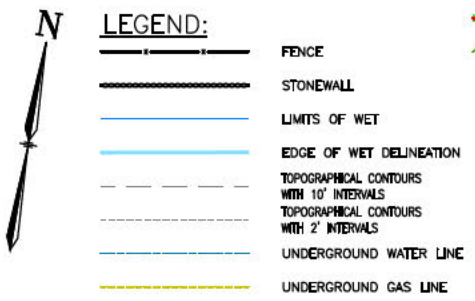
NOTES:  
1. SEE DRAWING NO. 385044001 FOR DISTRIBUTION UNDERBUILD DATA. NEUTRAL STANDARD GROUND CLEARANCE 18' (DTR 04.115).  
2. COUNTERPOISE LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD. CONTRACTOR SHALL COMPLETE RESISTIVITY TESTING IN ACCORDANCE WITH OTRM 064 AND 264 AND ADJUST COUNTERPOISE INSTALLATION ACCORDINGLY.

DATE	DESCRIPTION	BY	CHKD
07/20/17	ISSUED FOR PERMITS	ASJ	ASJ
07/20/17	ISSUED FOR CONSTRUCTION	ASJ	ASJ
11/22/17	ISSUED FOR REVIEW	ASJ	ASJ
11/22/17	ISSUED FOR REVIEW	ASJ	ASJ

**EVERSOURCE ENERGY**

MADBURY SYS TO PORTSMOUTH S/S  
115KV TRANSMISSION LINE  
MILE SHEET  
DATE: 09/03/2015  
SCALE: H. 1"=200', V. 1"=20'  
SHEET 12 OF 13  
F10743001

1/10/2017 6:27 PM - sffisher - \\trans1\New\Projects\133005\DD\DWG\03\_Line\Plan & Profile\F10743001.dwg - F10743001\_13-13

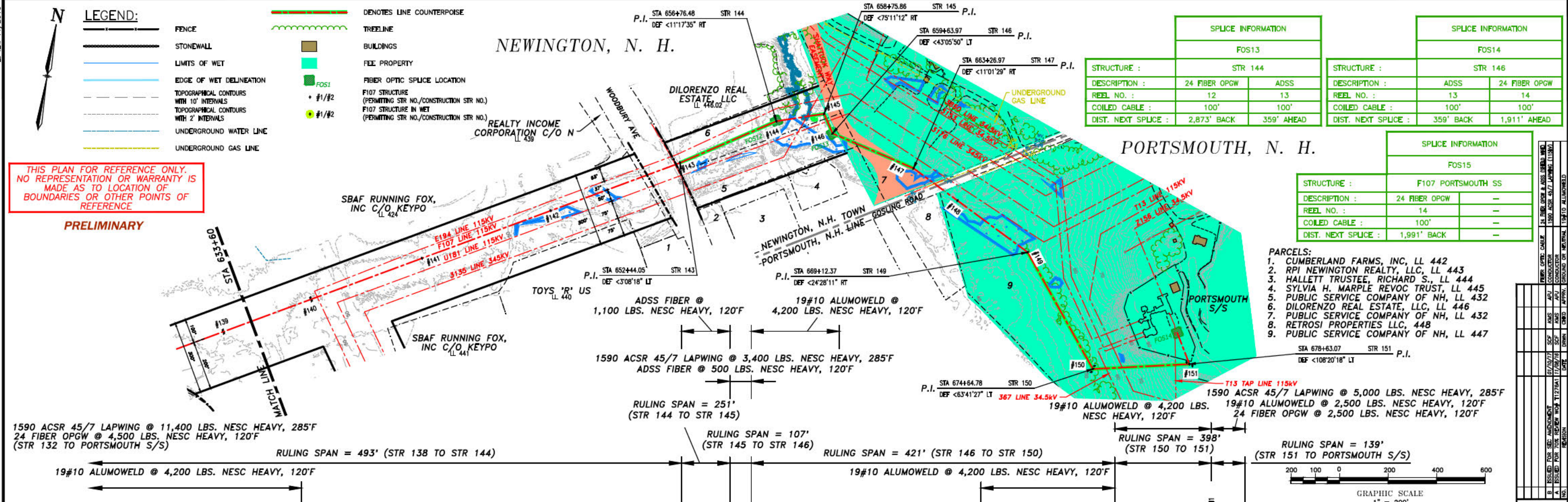


THIS PLAN FOR REFERENCE ONLY. NO REPRESENTATION OR WARRANTY IS MADE AS TO LOCATION OF BOUNDARIES OR OTHER POINTS OF REFERENCE.

PRELIMINARY

NEWINGTON, N. H.

PORTSMOUTH, N. H.



SPLICE INFORMATION		SPLICE INFORMATION	
FOS13		FOS14	
STRUCTURE :	STR 144	STRUCTURE :	STR 146
DESCRIPTION :	24 FIBER OPGW ADSS	DESCRIPTION :	ADSS 24 FIBER OPGW
REEL NO. :	12 13	REEL NO. :	13 14
COILED CABLE :	100' 100'	COILED CABLE :	100' 100'
DIST. NEXT SPLICE :	2,873' BACK 359' AHEAD	DIST. NEXT SPLICE :	359' BACK 1,911' AHEAD

SPLICE INFORMATION	
FOS15	
STRUCTURE :	F107 PORTSMOUTH S/S
DESCRIPTION :	24 FIBER OPGW
REEL NO. :	14
COILED CABLE :	100'
DIST. NEXT SPLICE :	1,991' BACK

- PARCELS:
- CUMBERLAND FARMS, INC, LL 442
  - RPI NEWINGTON REALTY, LLC, LL 443
  - HALLETT TRUSTEE, RICHARD S., LL 444
  - SYLVIA H. MARPLE REVOC TRUST, LL 445
  - PUBLIC SERVICE COMPANY OF NH, LL 432
  - DILORENZO REAL ESTATE, LLC, LL 446
  - PUBLIC SERVICE COMPANY OF NH, LL 432
  - RETROSI PROPERTIES LLC, 448
  - PUBLIC SERVICE COMPANY OF NH, LL 447

1590 ACSR 45/7 LAPWING @ 11,400 LBS. NESC HEAVY, 285°F  
24 FIBER OPGW @ 4,500 LBS. NESC HEAVY, 120°F  
(STR 132 TO PORTSMOUTH S/S)

ADSS FIBER @ 1,100 LBS. NESC HEAVY, 120°F  
19#10 ALUMOWELD @ 4,200 LBS. NESC HEAVY, 120°F

1590 ACSR 45/7 LAPWING @ 3,400 LBS. NESC HEAVY, 285°F  
ADSS FIBER @ 500 LBS. NESC HEAVY, 120°F

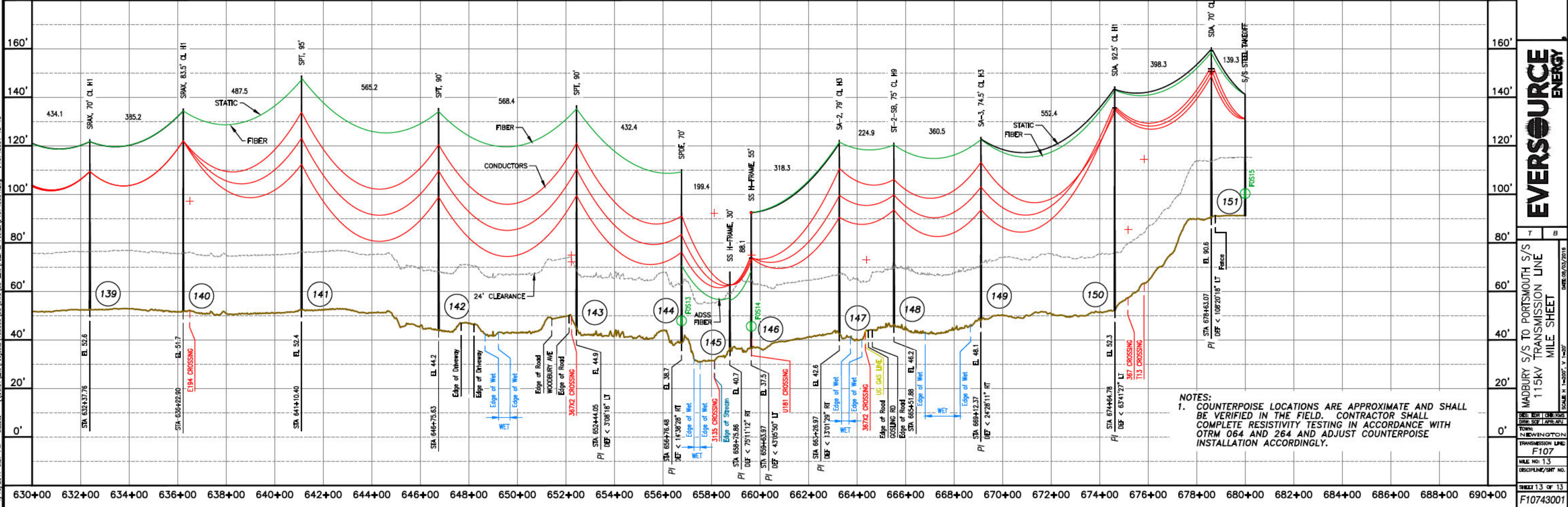
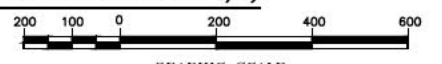
RULING SPAN = 251'  
(STR 144 TO STR 145)

RULING SPAN = 107'  
(STR 145 TO STR 146)

RULING SPAN = 421'  
(STR 146 TO STR 150)

RULING SPAN = 398'  
(STR 150 TO STR 151)

RULING SPAN = 139'  
(STR 151 TO PORTSMOUTH S/S)



NOTES:  
1. COUNTERPOISE LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD. CONTRACTOR SHALL COMPLETE RESISTIVITY TESTING IN ACCORDANCE WITH OTRM 064 AND 264 AND ADJUST COUNTERPOISE INSTALLATION ACCORDINGLY.

**EVERSOURCE ENERGY**

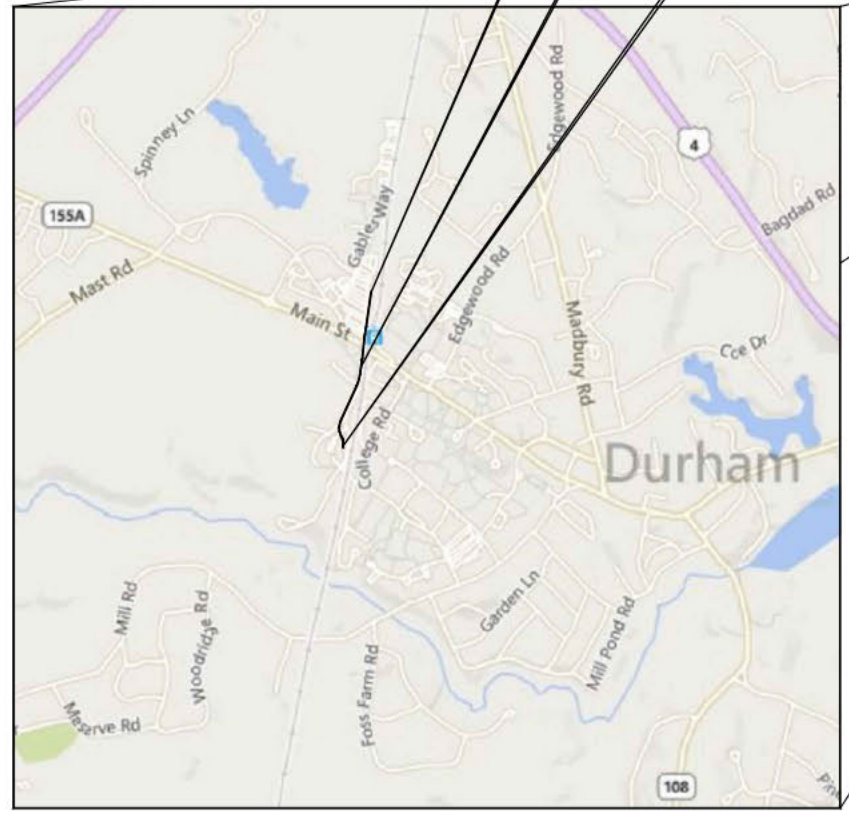
MADBURY S/S TO PORTSMOUTH S/S  
115KV TRANSMISSION LINE  
MILE SHEET  
DATE: 09/03/2016  
SCALE: 1"=200', V=200'

# PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE CIRCUIT F-107 UNH, DURHAM 115kV UNDERGROUND TRANSMISSION LINE

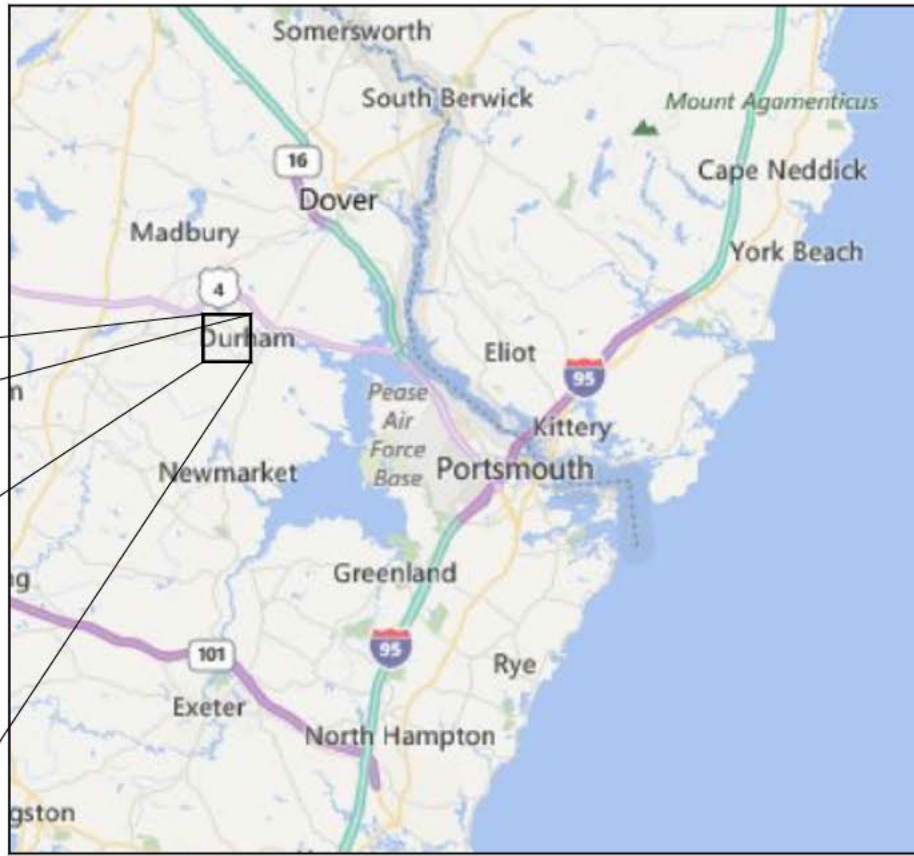
DRAWING MANIFEST			
DRAWING NO.	TITLE/DESCRIPTION	REVISION	DATE
SHEET 1 OF 5	COVER SHEET, LEGEND, AND DRAWING MANIFEST	R	3-9-2017
SHEET 2 OF 5	PLAN AND PROFILE DRAWING STA. 73+00 TO STA. 84+00	R	3-9-2017
SHEET 3 OF 5	PLAN AND PROFILE DRAWING STA. 84+00 TO STA. 95+00	R	3-9-2017
SHEET 4 OF 5	RISER SWEEP AND PIPE JACKING DETAILS	R	3-9-2017
SHEET 5 OF 5	MISCELLANEOUS DETAILS	R	3-9-2017

**LEGEND**

- |       |                          |
|-------|--------------------------|
| ⊕     | ELECTRICAL STRUCTURE     |
| ⊙     | LAMP POST                |
| ⊞     | WOODEN POST              |
| ⊗     | IRRIGATION CONTROL VALVE |
| ⊕     | ELECTRIC BOX             |
| ⊕     | TELECOMMUNICATION BOX    |
| ⊕     | UTILITY BOX              |
| □     | CATCH BASIN              |
| ●     | CONIFEROUS TREE          |
| ○     | DECIDUOUS TREE           |
| ■     | CONCRETE                 |
| ■     | RIP RAP                  |
| ■     | LANDSCAPED AREA          |
| ■     | CRUSHED STONE            |
| ■     | SURFACE LEDGE            |
| TYP.  | TYPICAL                  |
| RET.  | RETAINING                |
| EP    | EDGE OF PAVEMENT         |
| CONC. | CONCRETE                 |
| ~     | TREE LINE                |
| ~     | SHRUB LINE               |
| ---   | PROPERTY LINES           |
| D     | DRAIN LINE               |
| OHW   | OVERHEAD ELECTRIC        |
| UGE   | UNDERGROUND ELECTRIC     |
| W     | WATER LINE               |
| TELE  | TELEPHONE LINE           |
| S     | SEWER                    |
| STM   | STEAM LINE               |
| PD    | PROPOSED DRAIN           |
| ---   | EASMENT                  |



VICINITY MAP  
NOT TO SCALE



AREA MAP  
NOT TO SCALE

**General Notes**

1. THE UTILITIES HAVE NOT BEEN IDENTIFIED AND WILL IMPACT THE DESIGN OF THE UNDERGROUND TRANSMISSION LINE AT THE LOCATION OF ANY CROSSINGS.
2. ALL PROPERTY LINE INFORMATION IS SHOWN APPROXIMATE AND BASED ON TOWN ASSESSOR'S PLATS ONLY. THE AERIAL TRANSMISSION EASEMENT HAS BEEN ESTABLISHED BY SURVEY.
3. TOPOGRAPHY IS BASED ON AN AERIAL LIDAR SURVEY AND SATELLITE IMAGERY, THEREFORE GRADES ARE APPROXIMATE. AN ON THE GROUND DETAIL SURVEY WILL BE REQUIRED FOR DESIGN.
4. DETAIL DESIGN MAY BE OPTIMIZED TO REFLECT ACTUAL CONDITIONS.
5. ALL EXISTING ROAD MARKINGS ARE ESTIMATED.
6. CONTRACTOR IS RESPONSIBLE FOR PLACING SILT FENCE OR OTHER APPROVED EROSION CONTROL DEVICES. WETLANDS HAVE NOT BEEN DELINEATED AND HAVE NOT BEEN CONSIDERED FOR DESIGN.
7. CONTRACTOR SHALL INSTALL SILT SACK OR APPROVED EQUAL TO ALL CATCH BASINS OR CURB INLETS WITHIN THE DEFINED WORK ZONE.
8. CONTRACTOR SHALL ENSURE PROPER CONTROLS ARE IN PLACE SO WORKERS DO NOT TRACK SEDIMENT PAST THE LIMITS OF WORK.
9. ALL VERTICAL RADII ARE 500' UNLESS OTHERWISE NOTED.

NO.	REVISION	DATE	BY	CHKD.	APPV.
1	ISSUE FOR REVIEW	3-9-17	RSB	SSD	TSB
2	REVISED FOR DESIGN	3-22-18	RSB	SSD	TSB
3	REVISED FOR DESIGN	6-11-18	RSB	SSD	TSB
4	ISSUE FOR REVIEW	8-24-18	RSB	SSD	TSB
5	ISSUE FOR REVIEW	5-9-19	RSB	SSD	TSB
6	ISSUE FOR REVIEW	5-9-19	RSB	SSD	TSB



T	R
1	1

CIRCUIT F-107 115kV UNDERGROUND TRANSMISSION LINE PLAN AND PROFILE COVER SCALE: N.T.S.

PSNH (PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE)  
DESIGN ENGINEER: JOSEPH SPERRY

PSNH (PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE)  
WORK ORDER NUMBER:

POWER ENGINEERS  
PROJECT NUMBER: 133007

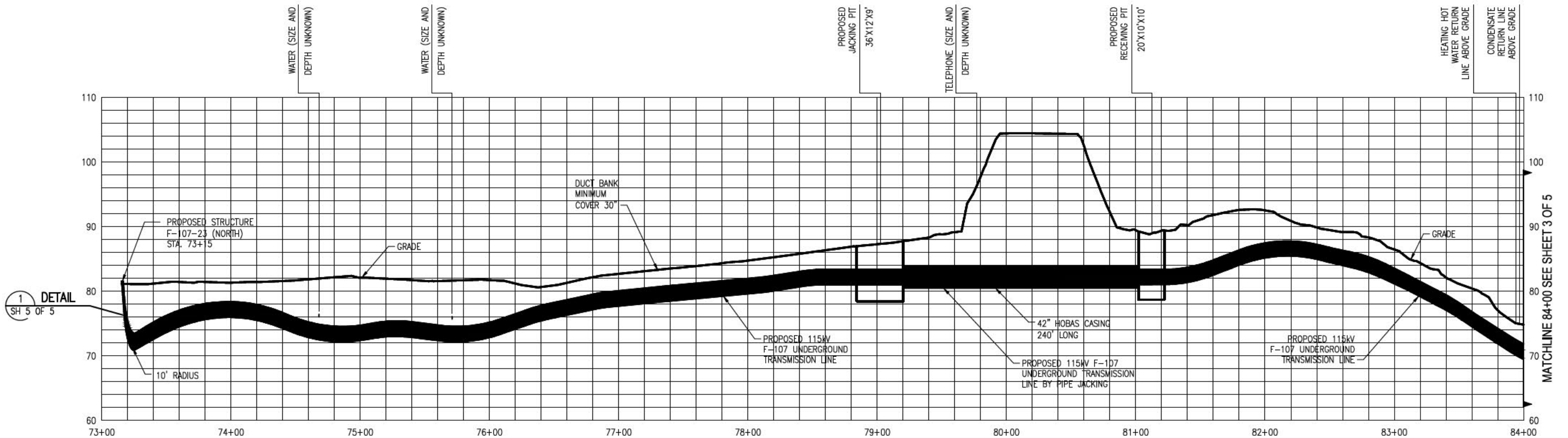
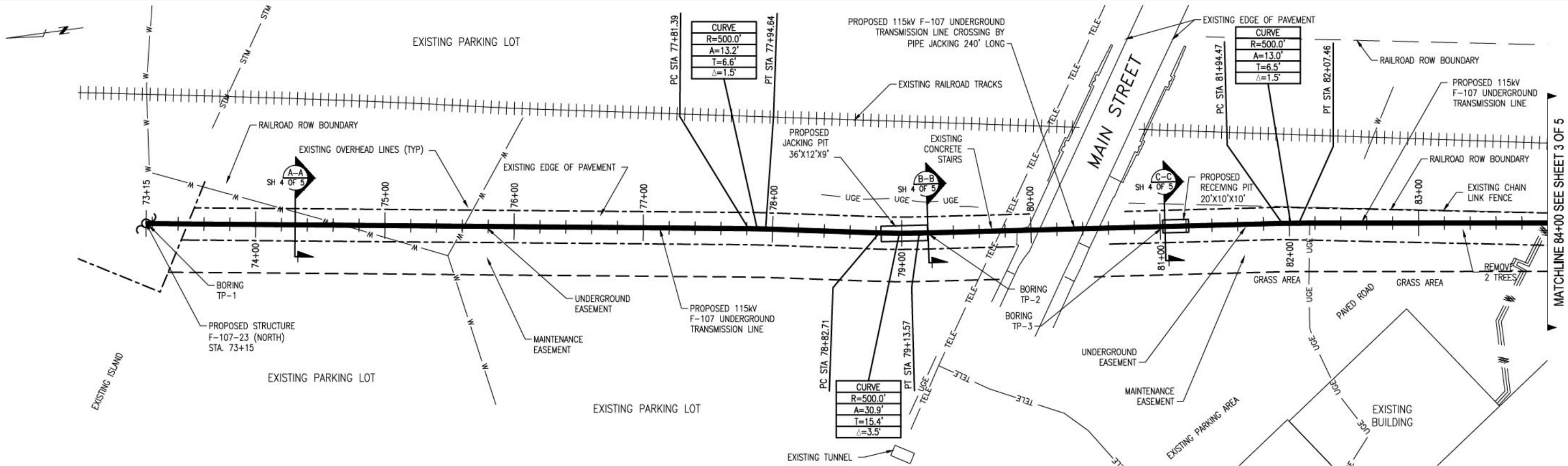
POWER ENGINEERS  
PROJECT ENGINEER: TODD GOYETTE

THREE BUSINESS DAYS BEFORE YOU DIG CALL  
NEW HAMPSHIRE DIG SAFE SYSTEM, INC.  
TOLL FREE  
1-888-344-7233

Know what's below.  
Call before you dig.

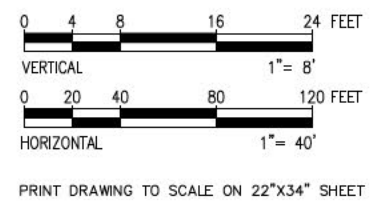
ISSUE FOR SEC AMENDMENT  
NOT FOR CONSTRUCTION





1  
SH 5 OF 5  
DETAIL

- General Notes**
1. THE UTILITIES HAVE NOT BEEN IDENTIFIED AND WILL IMPACT THE DESIGN OF THE UNDERGROUND TRANSMISSION LINE AT THE LOCATION OF ANY CROSSINGS.
  2. ALL PROPERTY LINE INFORMATION IS SHOWN APPROXIMATE AND BASED ON TOWN ASSESSOR'S PLATS ONLY. THE AERIAL TRANSMISSION EASEMENT HAS BEEN ESTABLISHED BY SURVEY.
  3. TOPOGRAPHY IS BASED ON AN AERIAL LIDAR SURVEY AND SATELLITE IMAGERY, THEREFORE GRADES ARE APPROXIMATE. AN ON THE GROUND DETAIL SURVEY WILL BE REQUIRED FOR DESIGN.
  4. DETAIL DESIGN MAY BE OPTIMIZED TO REFLECT ACTUAL CONDITIONS.
  5. ALL EXISTING ROAD MARKINGS ARE ESTIMATED.
  6. CONTRACTOR IS RESPONSIBLE FOR PLACING SILT FENCE OR OTHER APPROVED EROSION CONTROL DEVICES. WETLANDS HAVE NOT BEEN DELINEATED AND HAVE NOT BEEN CONSIDERED FOR DESIGN.
  7. CONTRACTOR SHALL INSTALL SILT SACK OR APPROVED EQUAL TO ALL CATCH BASINS OR CURB INLETS WITHIN THE DEFINED WORK ZONE.
  8. CONTRACTOR SHALL ENSURE PROPER CONTROLS ARE IN PLACE SO WORKERS DO NOT TRACK SEDIMENT PAST THE LIMITS OF WORK.
  9. ALL VERTICAL RADII ARE 500' UNLESS OTHERWISE NOTED



**811**  
Know what's below.  
Call before you dig.

THREE BUSINESS DAYS BEFORE YOU DIG CALL  
NEW HAMPSHIRE DIG SAFE SYSTEM, INC.  
TOLL FREE  
1-888-344-7233

ISSUE FOR SEC AMENDMENT  
NOT FOR CONSTRUCTION



DESIGNED BY	DATE	REVISION
CHECKED BY	DATE	REVISION
IN CHARGE	DATE	REVISION
APPROVED BY	DATE	REVISION

NO.	DATE	BY	DESCRIPTION
1	12-15-17	RED	ISSUE FOR SEC AMENDMENT
2	12-22-18	RED	ISSUE FOR SEC AMENDMENT
3	12-22-18	RED	ISSUE FOR SEC AMENDMENT
4	12-22-18	RED	ISSUE FOR SEC AMENDMENT
5	12-22-18	RED	ISSUE FOR SEC AMENDMENT
6	12-22-18	RED	ISSUE FOR SEC AMENDMENT
7	12-22-18	RED	ISSUE FOR SEC AMENDMENT
8	12-22-18	RED	ISSUE FOR SEC AMENDMENT
9	12-22-18	RED	ISSUE FOR SEC AMENDMENT
10	12-22-18	RED	ISSUE FOR SEC AMENDMENT

T	R

CIRCUIT F-107 115KV  
UNDERGROUND TRANSMISSION LINE  
PLAN AND PROFILE VIEW  
SCALE: H. 1"=40', V. 1"=8'

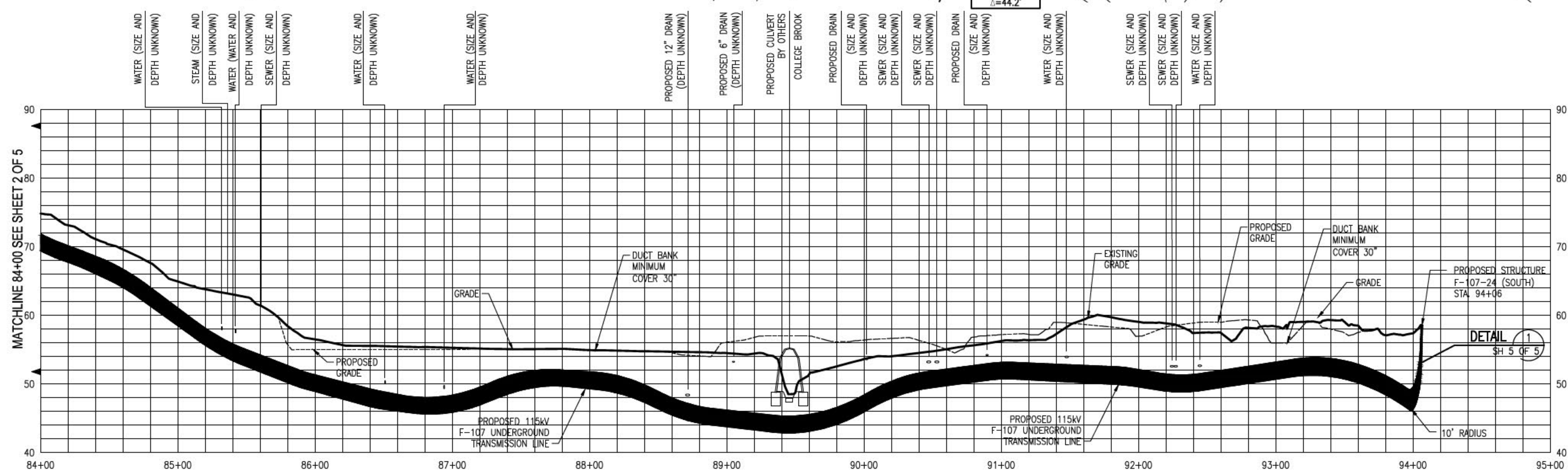
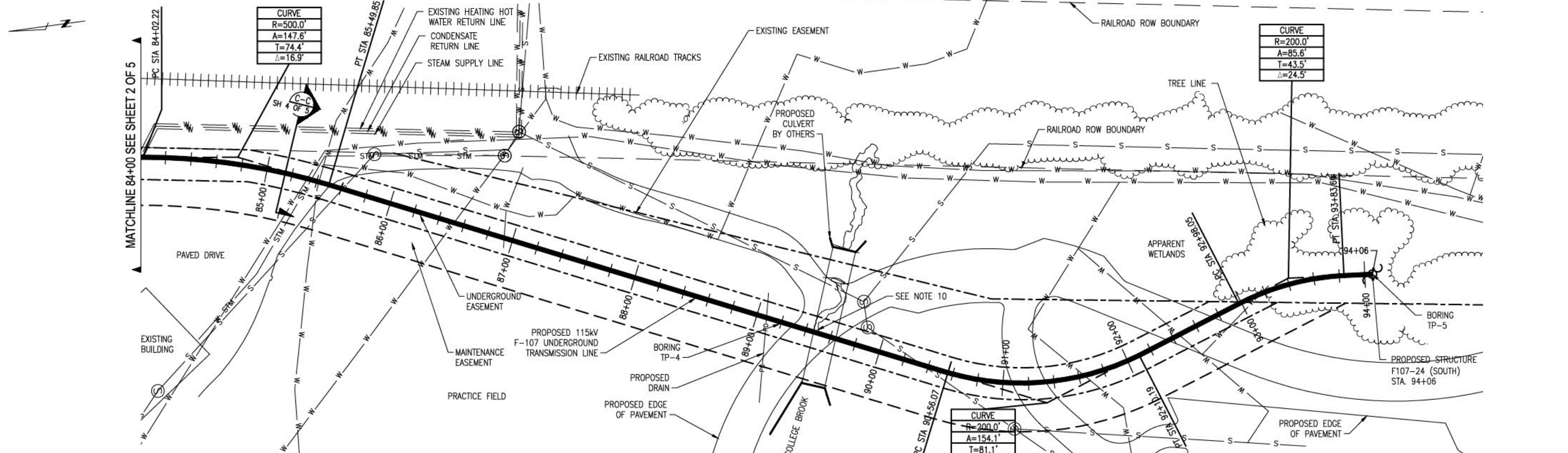
DATE: 07/19/2015

DESIGNER: GHT/TLB  
DRAWN: GHT/TLB  
CHECKED: GHT/TLB  
TOWN: DURHAM  
TRANSMISSION LINE: LINE  
MILE NO: 2  
DISCIPLINE/SHEET NO.:  
SHEET 2 OF 5  
F10743002

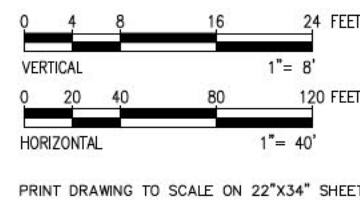
**EVERSOURCE ENERGY**



3/24/2017 2:03 PM - delliford - R:\Projects\133007\DWG\03\_Line\03\_DESIGN\3-24-17\F10743002-PRINT\_HALF\_SIZE.dwg - SH 3 EXTENDED



- General Notes**
1. THE UTILITIES HAVE NOT BEEN IDENTIFIED AND WILL IMPACT THE DESIGN OF THE UNDERGROUND TRANSMISSION LINE AT THE LOCATION OF ANY CROSSINGS.
  2. ALL PROPERTY LINE INFORMATION IS SHOWN APPROXIMATE AND BASED ON TOWN ASSESSOR'S PLATS ONLY. THE AERIAL TRANSMISSION EASEMENT HAS BEEN ESTABLISHED BY SURVEY.
  3. TOPOGRAPHY IS BASED ON AN AERIAL LIDAR SURVEY AND SATELLITE IMAGERY, THEREFORE GRADES ARE APPROXIMATE. AN ON THE GROUND DETAIL SURVEY WILL BE REQUIRED FOR DESIGN.
  4. DETAIL DESIGN MAY BE OPTIMIZED TO REFLECT ACTUAL CONDITIONS.
  5. ALL EXISTING ROAD MARKINGS ARE ESTIMATED.
  6. CONTRACTOR IS RESPONSIBLE FOR PLACING SILT FENCE OR OTHER APPROVED EROSION CONTROL DEVICES. WETLANDS HAVE NOT BEEN DELINEATED AND HAVE NOT BEEN CONSIDERED FOR DESIGN.
  7. CONTRACTOR SHALL INSTALL SILT SACK OR APPROVED EQUAL TO ALL CATCH BASINS OR CURB INLETS WITHIN THE DEFINED WORK ZONE.
  8. CONTRACTOR SHALL ENSURE PROPER CONTROLS ARE IN PLACE SO WORKERS DO NOT TRACK SEDIMENT PAST THE LIMITS OF WORK.
  9. ALL VERTICAL RADII ARE 500' UNLESS OTHERWISE NOTED.
  10. REFER TO STREAM CROSSING DETAIL PROVIDED IN APPENDIX C OF "PSNH RESPONSE TO DES WETLANDS BUREAU NOVEMBER 10, 2016 PROGRESS REPORT," DATED JAN 11, 2017.



THREE BUSINESS DAYS BEFORE YOU DIG CALL  
**NEW HAMPSHIRE DIG SAFE SYSTEM, INC.**  
 TOLL FREE  
 1-888-344-7233

Know what's below.  
 Call before you dig.

**ISSUE FOR SEC AMENDMENT  
 NOT FOR CONSTRUCTION**

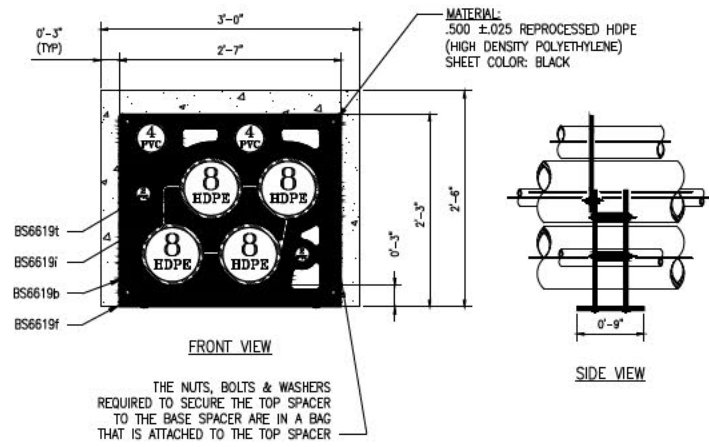


NO.	DATE	REVISION
1	07/15/2015	ISSUE FOR SEC AMENDMENT
2	07/15/2015	ISSUE FOR SEC AMENDMENT
3	07/15/2015	ISSUE FOR SEC AMENDMENT
4	07/15/2015	ISSUE FOR SEC AMENDMENT
5	07/15/2015	ISSUE FOR SEC AMENDMENT
6	07/15/2015	ISSUE FOR SEC AMENDMENT
7	07/15/2015	ISSUE FOR SEC AMENDMENT
8	07/15/2015	ISSUE FOR SEC AMENDMENT
9	07/15/2015	ISSUE FOR SEC AMENDMENT
10	07/15/2015	ISSUE FOR SEC AMENDMENT

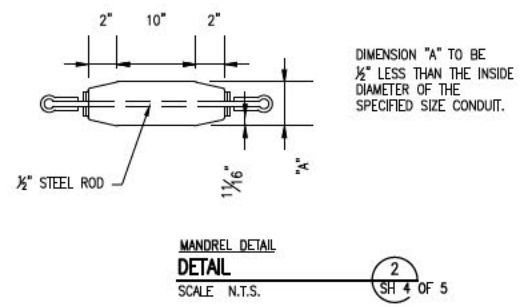
DESIGNER: J. DELIFORD  
 DRAWN: J. DELIFORD  
 TOWN: DURHAM  
 TRANSMISSION LINE: LINE  
 FILE NO: 2  
 DISCIPLINE/SHEET NO.:  
 SHEET 3 OF 5  
 F10743002

**EVERSOURCE  
 ENERGY**

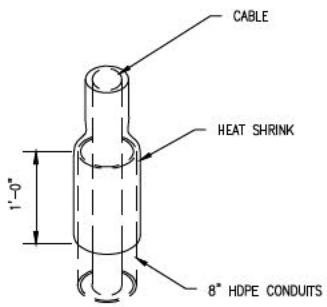
CIRCUIT F-107 115KV  
 UNDERGROUND TRANSMISSION LINE  
 PLAN AND PROFILE VIEW  
 SCALE: H: 1"=40', V: 1"=8'



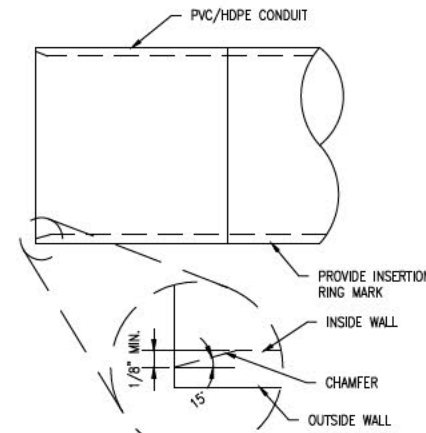
**UNDERGROUND DEVICES SPACER ARRANGEMENT**  
**DETAIL**  
 SCALE: N.T.S. SH 1 OF 5



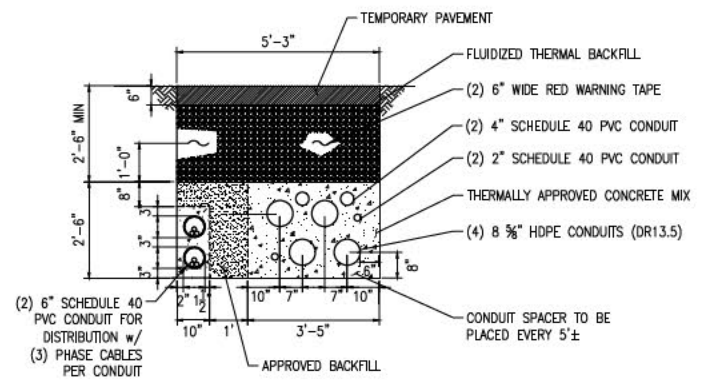
**MANDREL DETAIL**  
**DETAIL**  
 SCALE: N.T.S. SH 2 OF 5



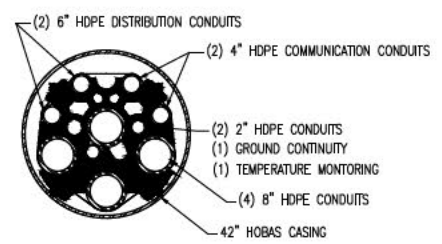
**HEAT SHRINK DETAIL**  
**DETAIL**  
 SCALE: N.T.S. SH 3 OF 5



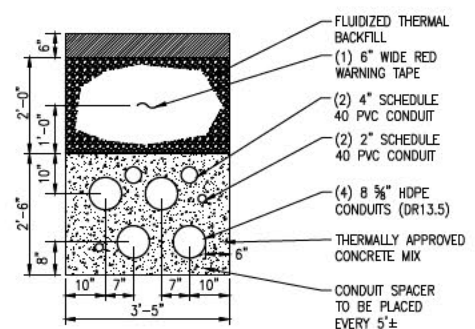
**PVC/HDPE DUCT CHAMFER DETAIL**  
**DETAIL**  
 SCALE: N.T.S. SH 4 OF 5



**TYPICAL DUCT BANK WITH DISTRIBUTION AT UNH CAMPUS**  
**SECTION**  
 SCALE: N.T.S. SH 4 OF 5



**TYPICAL CASING SECTION**  
**SECTION**  
 SCALE: N.T.S. SH 4 OF 5



**TYPICAL DUCT BANK AT UNH CAMPUS**  
**SECTION**  
 SCALE: N.T.S. SH 4 OF 5

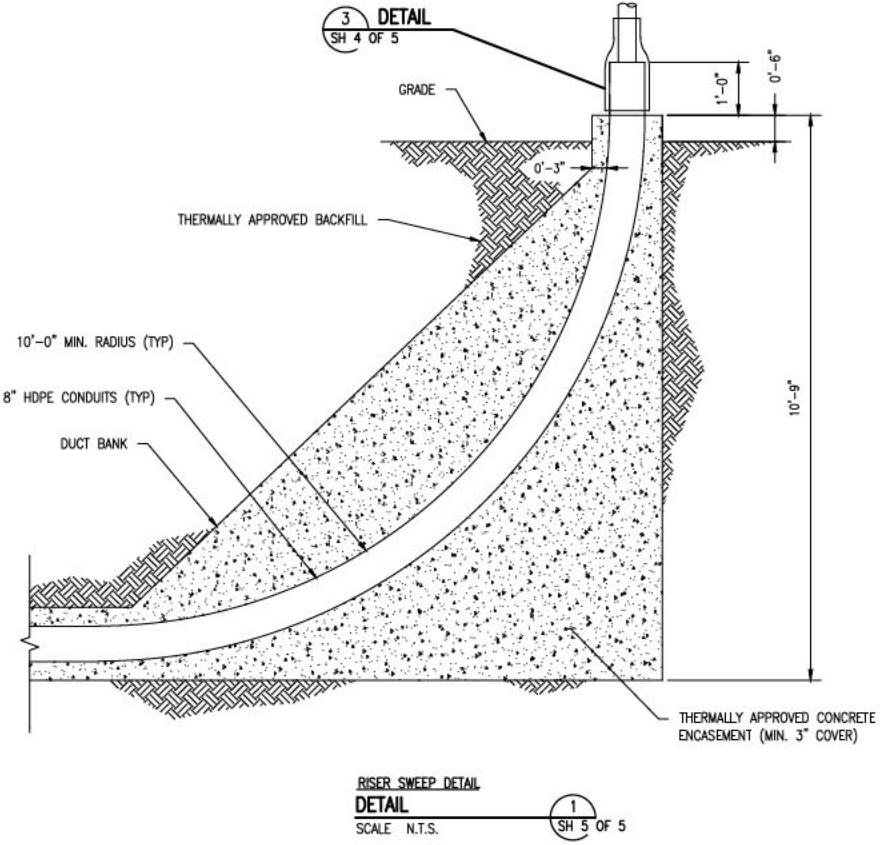
NO.	REVISION	DATE	BY	CHKD.	APPV.
1	ISSUE FOR REVIEW	5-9-18	RED	SOO	TSO
2	ISSUE FOR REVIEW	6-24-18	RED	SOO	TSO
3	ISSUE FOR REVIEW	8-16-18	RED	SOO	TSO
4	ISSUE FOR REVIEW	12-20-18	RED	SOO	TSO
5	ISSUE FOR REVIEW	12-20-18	RED	SOO	TSO
6	ISSUE FOR REVIEW	12-20-18	RED	SOO	TSO
7	ISSUE FOR REVIEW	12-20-18	RED	SOO	TSO
8	ISSUE FOR REVIEW	12-20-18	RED	SOO	TSO
9	ISSUE FOR REVIEW	12-20-18	RED	SOO	TSO
10	ISSUE FOR REVIEW	12-20-18	RED	SOO	TSO

**EVERSOURCE ENERGY**

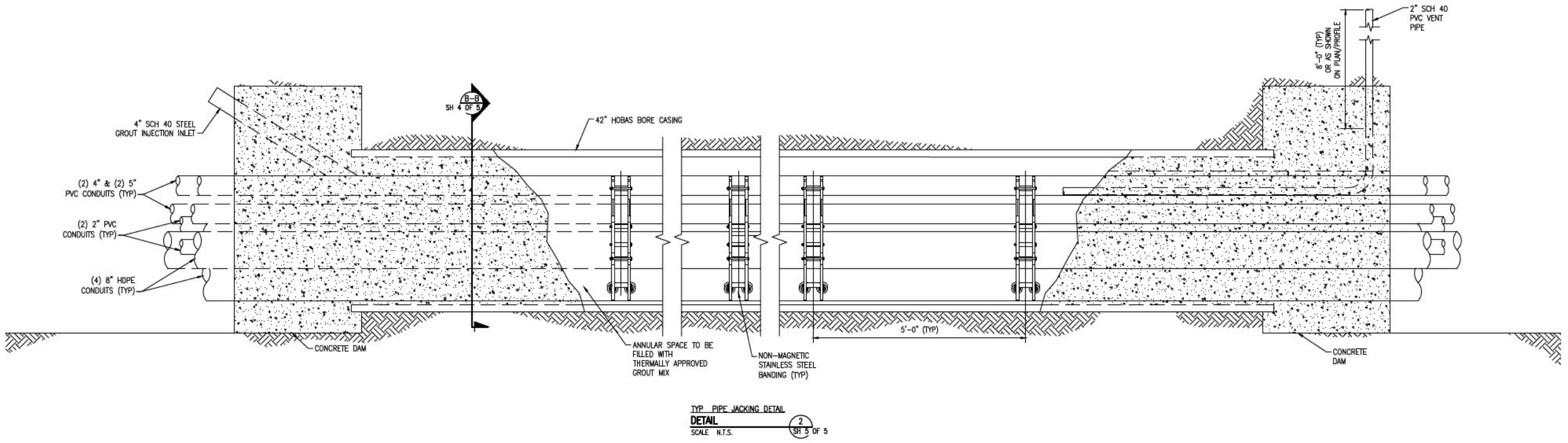
CIRCUIT: F107 115KV UNDERGROUND UNDERGROUND TRANSMISSION LINE  
 MISCELLANEOUS DETAILS  
 DATE: 07/19/2015  
 SCALE: N.T.S.

**ISSUE FOR SEC AMENDMENT NOT FOR CONSTRUCTION**





RISER SWEEP DETAIL  
 DETAIL  
 SCALE: N.T.S. 1  
 SH 5 OF 5



TYP PIPE JACKING DETAIL  
 DETAIL  
 SCALE: N.T.S. 2  
 SH 5 OF 5

ISSUE FOR SEC AMENDMENT  
 NOT FOR CONSTRUCTION



NO.	REVISION	DATE	BY	CHKD.	APPRV.
1	ISSUE FOR SEC	5-9-18	RED	SOB	TSO
2	ISSUE FOR SEC	5-9-18	RED	SOB	TSO
3	ISSUE FOR SEC	5-9-18	RED	SOB	TSO
4	ISSUE FOR SEC	5-9-18	RED	SOB	TSO
5	ISSUE FOR SEC	5-9-18	RED	SOB	TSO
6	ISSUE FOR SEC	5-9-18	RED	SOB	TSO
7	ISSUE FOR SEC	5-9-18	RED	SOB	TSO
8	ISSUE FOR SEC	5-9-18	RED	SOB	TSO
9	ISSUE FOR SEC	5-9-18	RED	SOB	TSO
10	ISSUE FOR SEC	5-9-18	RED	SOB	TSO

**EVERSOURCE**  
ENERGY

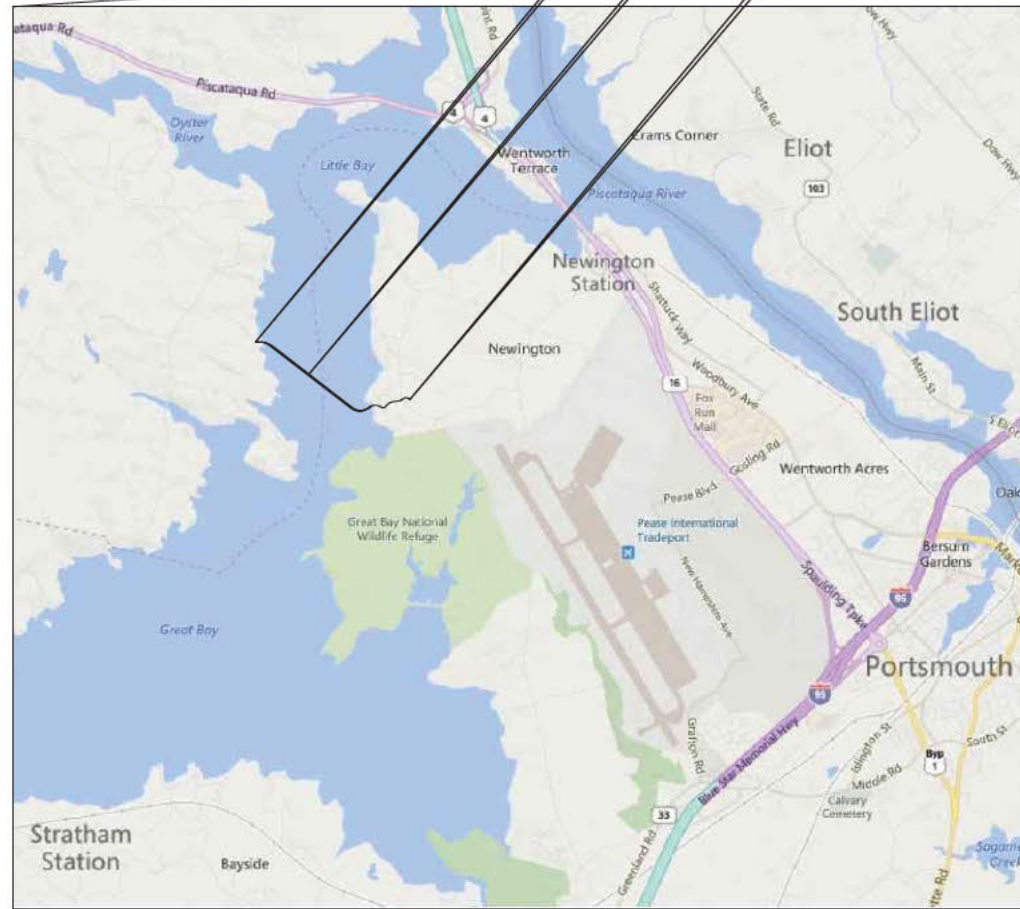
CIRCUIT F107 115KV UNDERGROUND  
 UNDERGROUND TRANSMISSION LINE  
 RISER AND PIPE JACKING DETAILS  
 SCALE: N.T.S.  
 TOWN: DURHAM  
 TRANSMISSION LINE: LINE  
 MILE NO: 2  
 DISCIPLINE/SHT NO:  
 SHEET 5 OF 5  
 F10743002

# PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE CIRCUIT F-107 LITTLE BAY, NEWINGTON 115kV UNDERGROUND TRANSMISSION LINE

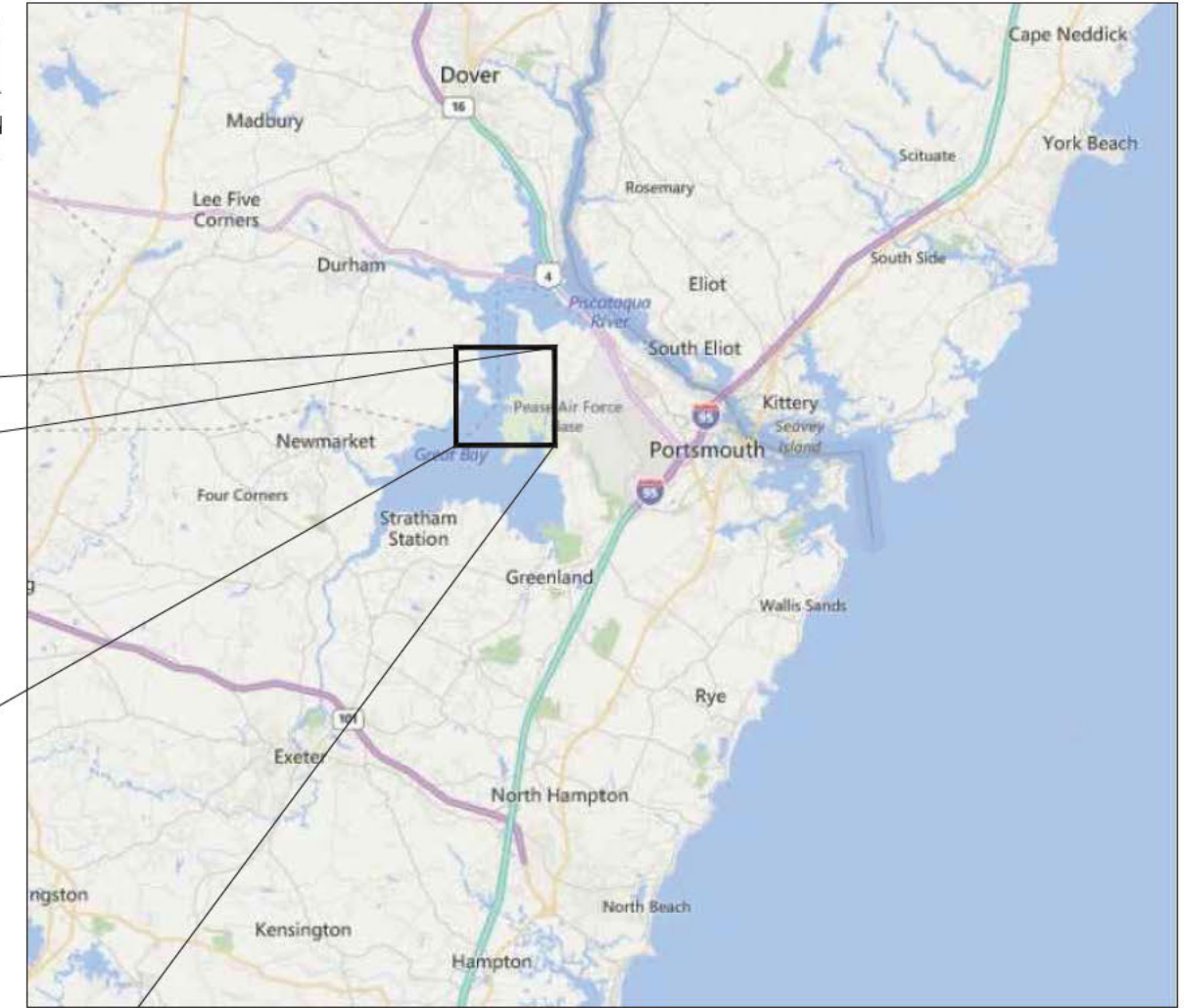
DRAWING MANIFEST			
DRAWING NO.	TITLE/DESCRIPTION	REVISION	DATE
SHEET 1 OF 13	COVER SHEET, LEGEND, AND DRAWING MANIFEST	11	1-20-2017
SHEET 2 OF 13	PLAN AND PROFILE DRAWING STA. 393+00 TO STA. 403+00	11	1-20-2017
SHEET 3 OF 13	PLAN AND PROFILE DRAWING STA. 403+00 TO STA. 413+00	11	1-20-2017
SHEET 4 OF 13	PLAN AND PROFILE DRAWING STA. 413+00 TO STA. 423+00	11	1-20-2017
SHEET 5 OF 13	PLAN AND PROFILE DRAWING STA. 423+00 TO STA. 433+00	11	1-20-2017
SHEET 6 OF 13	PLAN AND PROFILE DRAWING STA. 433+00 TO STA. 443+00	11	1-20-2017
SHEET 7 OF 13	PLAN AND PROFILE DRAWING STA. 443+00 TO STA. 453+00	11	1-20-2017
SHEET 8 OF 13	PLAN AND PROFILE DRAWING STA. 453+00 TO STA. 463+00	11	1-20-2017
SHEET 9 OF 13	PLAN AND PROFILE DRAWING STA. 463+00 TO STA. 470+00	11	1-20-2017
SHEET 10 OF 13	TRENCH AND JET PLOW DETAILS	11	1-20-2017
SHEET 11 OF 13	SPLICE VAULT DETAILS	11	1-20-2017
SHEET 12 OF 13	SPLICE VAULT DETAILS	11	1-20-2017
SHEET 13 OF 13	SPLICE VAULT MISCELLANEOUS DETAILS	11	1-20-2017

**LEGEND**

- ELECTRICAL STRUCTURE
- LAMP POST
- WOODEN POST
- IRRIGATION CONTROL VALVE
- ELECTRIC BOX
- TELECOMMUNICATION BOX
- UTILITY BOX
- CATCH BASIN
- CONIFEROUS TREE
- DECIDUOUS TREE
- CONCRETE
- RIP RAP
- LANDSCAPED AREA
- CRUSHED STONE
- SURFACE LEDGE
- TYP. RETAINING
- EP
- CONC.
- TREE LINE
- SHRUB LINE
- PROPERTY LINES
- D DRAIN LINE
- OHW OVERHEAD ELECTRIC
- UGE UNDERGROUND ELECTRIC
- W WATER LINE
- TELE TELEPHONE LINE
- S SEWER
- STM STEAM LINE
- PD PROPOSED DRAIN
- EASMENT



VICINITY MAP  
NOT TO SCALE



AREA MAP  
NOT TO SCALE

**General Notes**

1. THE UTILITIES HAVE NOT BEEN IDENTIFIED AND WILL IMPACT THE DESIGN OF THE UNDERGROUND TRANSMISSION LINE AT THE LOCATION OF ANY CROSSINGS.
2. ALL PROPERTY LINE INFORMATION IS SHOWN APPROXIMATE AND BASED ON TOWN ASSESSOR'S PLATS ONLY. THE AERIAL TRANSMISSION EASEMENT HAS BEEN ESTABLISHED BY SURVEY.
3. TOPOGRAPHY IS BASED ON AN AERIAL LIDAR SURVEY AND SATELLITE IMAGERY, THEREFORE GRADES ARE APPROXIMATE. AN ON THE GROUND DETAIL SURVEY WILL BE REQUIRED FOR DESIGN.
4. DETAIL DESIGN MAY BE OPTIMIZED TO REFLECT ACTUAL CONDITIONS.
5. ALL EXISTING ROAD MARKINGS ARE ESTIMATED.
6. CONTRACTOR IS RESPONSIBLE FOR PLACING SILT FENCE OR OTHER APPROVED EROSION CONTROL DEVICES. WETLANDS HAVE NOT BEEN DELINEATED AND HAVE NOT BEEN CONSIDERED FOR DESIGN.
7. CONTRACTOR SHALL INSTALL SILT SACK OR APPROVED EQUAL TO ALL CATCH BASINS OR CURB INLETS WITHIN THE DEFINED WORK ZONE.
8. CONTRACTOR SHALL ENSURE PROPER CONTROLS ARE IN PLACE SO WORKERS DO NOT TRACK SEDIMENT PAST THE LIMITS OF WORK.
9. ALL VERTICAL RADII ARE 400' UNLESS OTHERWISE NOTED

PSNH (PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE)  
DESIGN ENGINEER: JOSEPH SPERRY

PSNH (PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE)  
WORK ORDER NUMBER:

POWER ENGINEERS  
PROJECT ENGINEER: TODD GOYETTE

POWER ENGINEERS  
PROJECT NUMBER: 133007



Know what's below.  
Call before you dig.

THREE BUSINESS DAYS BEFORE YOU DIG CALL  
NEW HAMPSHIRE DIG SAFE SYSTEM, INC.  
TOLL FREE  
1-888-344-7233

ISSUE FOR SEC AMENDMENT  
NOT FOR CONSTRUCTION

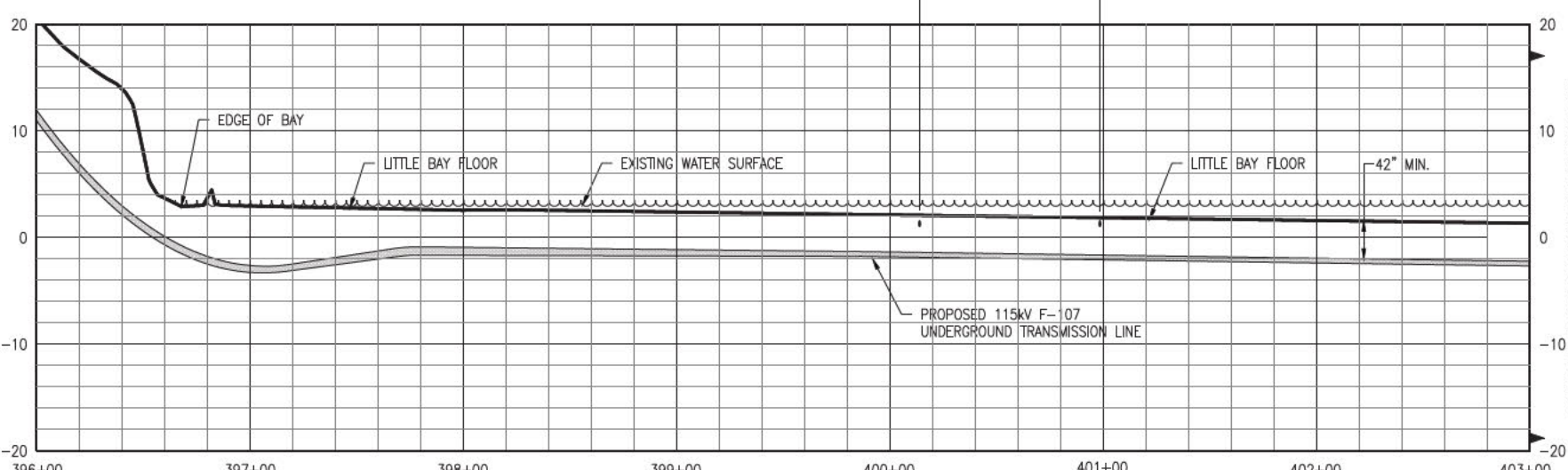
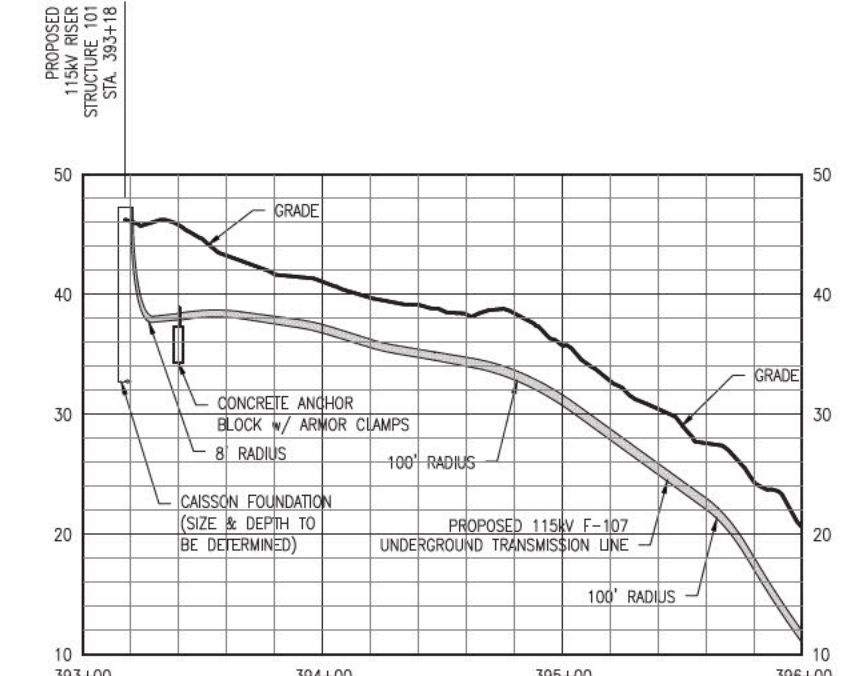
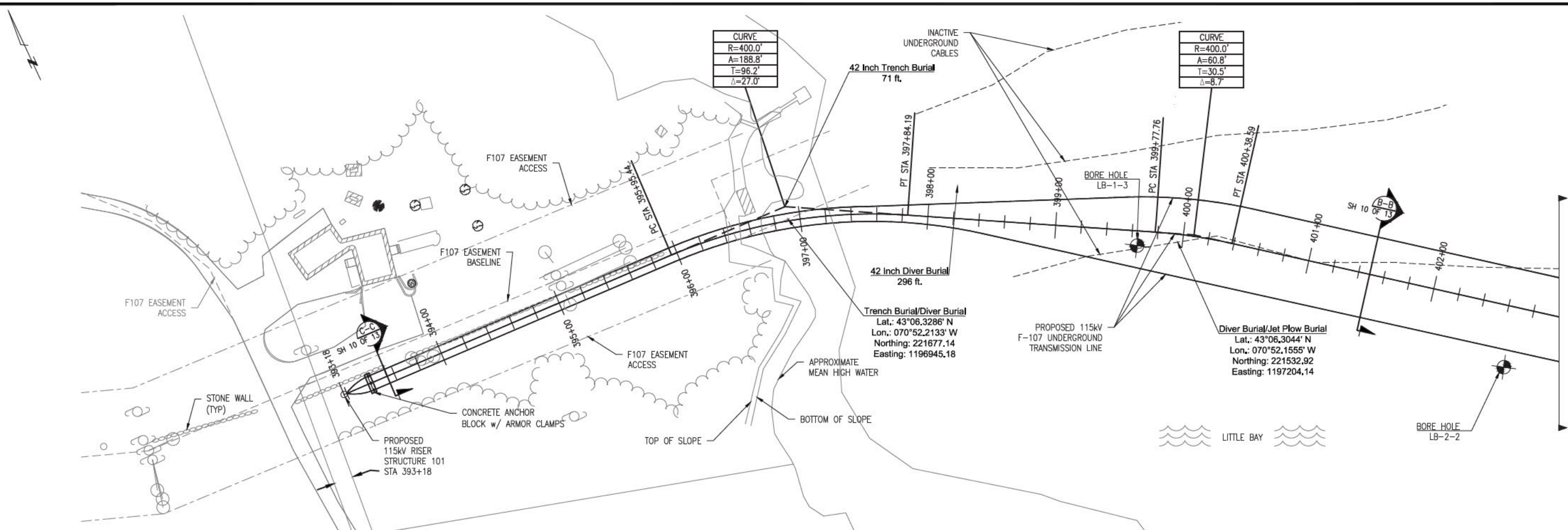


NO.	REVISION	DATE	BY	CHKD.	APPRV.
11	REVISED FOR DESIGN	1/20/17	REG	SOO	TS62
10	REVISED FOR DESIGN	9/16/16	REG	SOO	TS62
9	ISSUE FOR BID	8/15/16	REG	SOO	TS62
8	ISSUE FOR PERMIT	12/28/15	REG	SOO	TS62
7	ISSUE FOR PERMIT	12/28/15	REG	SOO	TS62
6	ISSUE FOR PERMIT	12/28/15	REG	SOO	TS62

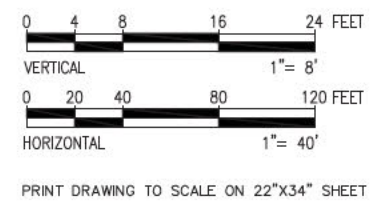
**EVERSOURCE ENERGY**

CIRCUIT F-107 115kV UNDERGROUND TRANSMISSION LINE COVER SHEET  
SCALE: N.T.S.

DATE: 08/25/2015  
TOWN: NEWINGTON  
TRANSMISSION LINE: LINE  
MILE NO: 8 & 9  
DISCIPLINE/SHT NO.  
SHEET 1 OF 13  
F10743103



- General Notes**
1. THE UTILITIES HAVE NOT BEEN IDENTIFIED AND WILL IMPACT THE DESIGN OF THE UNDERGROUND TRANSMISSION LINE AT THE LOCATION OF ANY CROSSINGS.
  2. ALL PROPERTY LINE INFORMATION IS SHOWN APPROXIMATE AND BASED ON TOWN ASSESSOR'S PLATS ONLY. THE AERIAL TRANSMISSION EASEMENT HAS BEEN ESTABLISHED BY SURVEY.
  3. TOPOGRAPHY IS BASED ON AN AERIAL LIDAR SURVEY AND SATELLITE IMAGERY, THEREFORE GRADES ARE APPROXIMATE. AN ON-THE-GROUND DETAIL SURVEY WILL BE REQUIRED FOR DESIGN.
  4. DETAIL DESIGN MAY BE OPTIMIZED TO REFLECT ACTUAL CONDITIONS.
  5. ALL EXISTING ROAD MARKINGS ARE ESTIMATED.
  6. CONTRACTOR IS RESPONSIBLE FOR PLACING SILT FENCE OR OTHER APPROVED EROSION CONTROL DEVICES. WETLANDS HAVE NOT BEEN DELINEATED AND HAVE NOT BEEN CONSIDERED FOR DESIGN.
  7. CONTRACTOR SHALL INSTALL SILT SACK OR APPROVED EQUAL TO ALL CATCH BASINS OR CURB INLETS WITHIN THE DEFINED WORK ZONE.
  8. CONTRACTOR SHALL ENSURE PROPER CONTROLS ARE IN PLACE SO WORKERS DO NOT TRACK SEDIMENT PAST THE LIMITS OF WORK.
  9. ALL VERTICAL RADII ARE 500' UNLESS OTHERWISE NOTED.



**811**  
Know what's below.  
Call before you dig.

THREE BUSINESS DAYS BEFORE YOU DIG CALL  
NEW HAMPSHIRE DIG SAFE SYSTEM, INC.  
TOLL FREE  
1-888-344-7233

ISSUE FOR SEC AMENDMENT  
NOT FOR CONSTRUCTION



MATCHLINE 403+00 SEE SHEET 3 OF 13

MATCHLINE 403+00 SEE SHEET 3 OF 13

NO.	REVISION	DATE	BY	CHKD.	APPR.
11	REVISED FOR DESIGN	1/7/17	REG	SOO	TSB
10	REVISED FOR DESIGN	8/16/16	REG	SOO	TSB
9	ISSUE FOR BID	6/7/16	REG	SOO	TSB
8	ISSUE FOR PERMIT	12/7/15	REG	SOO	TSB
7	ISSUE FOR PERMIT	12/7/15	REG	SOO	TSB
6	ISSUE FOR PERMIT	12/14/15	REG	SOO	TSB
5	ISSUE FOR PERMIT	12/14/15	REG	SOO	TSB

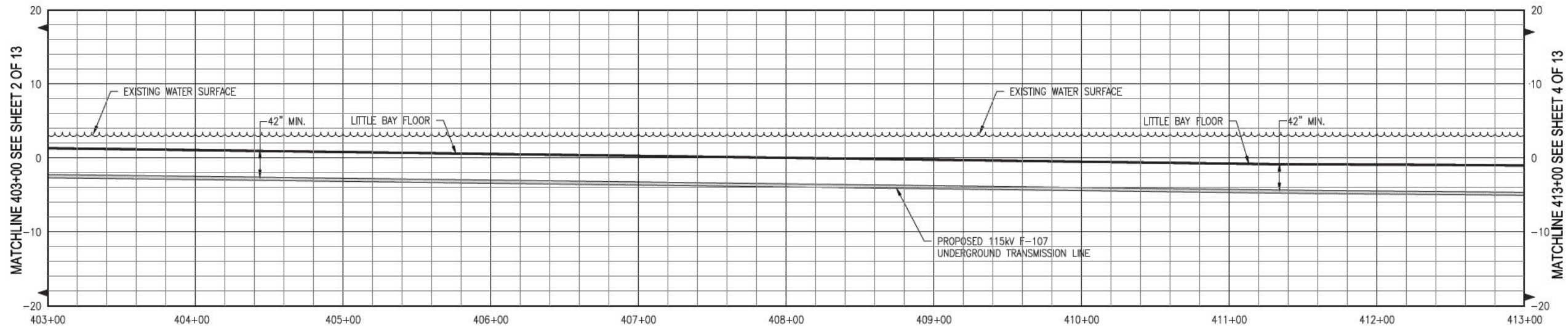
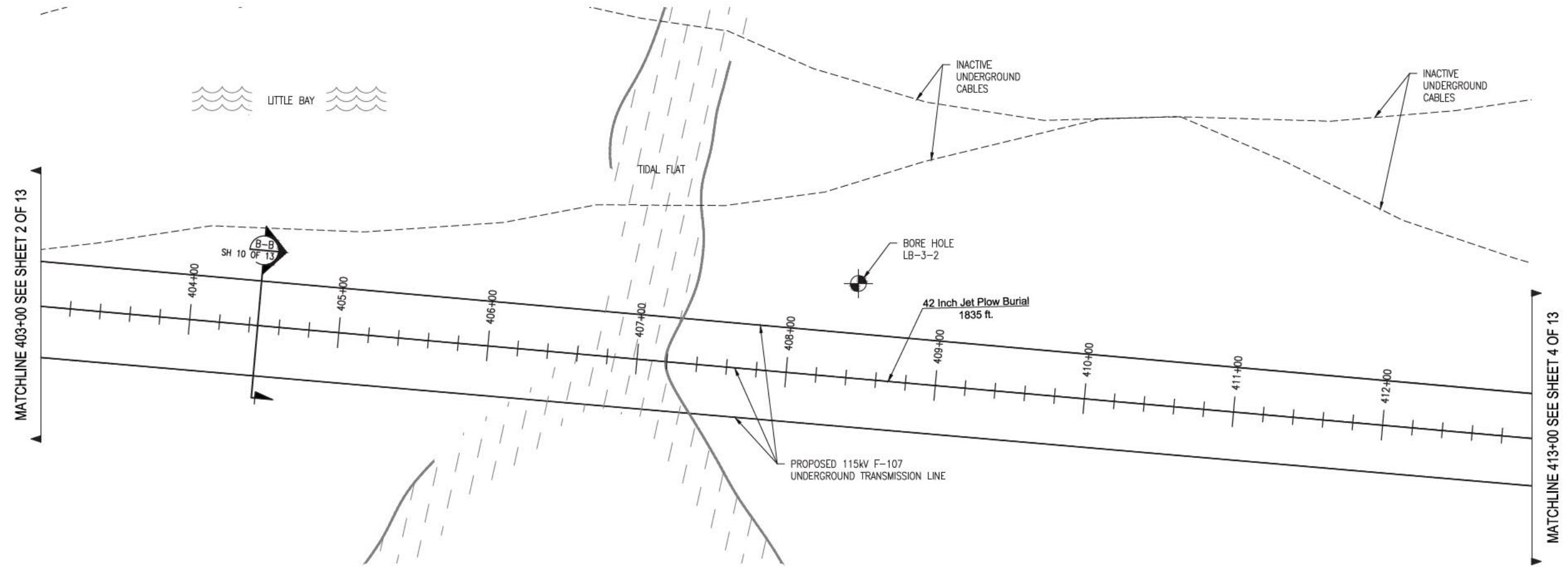
**EVERSOURCE**  
ENERGY

CIRCUIT F-107 115kV  
UNDERGROUND TRANSMISSION LINE  
PLAN AND PROFILE VIEW  
SCALE: H. 1"=40', V. 1"=8'

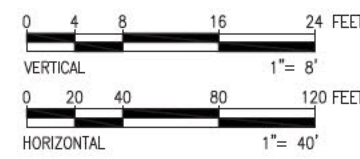
DATE: 06/25/2015

T 11


SEE REG. CHARTER  
FOR REG. APP.  
TOWN: NEWINGTON  
TRANSMISSION LINE:  
LINE  
MILE NO: 8 & 9  
DISCIPLINE/SHT NO.  
SHEET 2 OF 13  
F10743003



- General Notes**
1. THE UTILITIES HAVE NOT BEEN IDENTIFIED AND WILL IMPACT THE DESIGN OF THE UNDERGROUND TRANSMISSION LINE AT THE LOCATION OF ANY CROSSINGS.
  2. ALL PROPERTY LINE INFORMATION IS SHOWN APPROXIMATE AND BASED ON TOWN ASSESSOR'S PLATS ONLY. THE AERIAL TRANSMISSION EASEMENT HAS BEEN ESTABLISHED BY SURVEY.
  3. TOPOGRAPHY IS BASED ON AN AERIAL LIDAR SURVEY AND SATELLITE IMAGERY, THEREFORE GRADES ARE APPROXIMATE. AN ON-THE-GROUND DETAIL SURVEY WILL BE REQUIRED FOR DESIGN.
  4. DETAIL DESIGN MAY BE OPTIMIZED TO REFLECT ACTUAL CONDITIONS.
  5. ALL EXISTING ROAD MARKINGS ARE ESTIMATED.
  6. CONTRACTOR IS RESPONSIBLE FOR PLACING SILT FENCE OR OTHER APPROVED EROSION CONTROL DEVICES. WETLANDS HAVE NOT BEEN DELINEATED AND HAVE NOT BEEN CONSIDERED FOR DESIGN.
  7. CONTRACTOR SHALL INSTALL SILT SACK OR APPROVED EQUAL TO ALL CATCH BASINS OR CURB INLETS WITHIN THE DEFINED WORK ZONE.
  8. CONTRACTOR SHALL ENSURE PROPER CONTROLS ARE IN PLACE SO WORKERS DO NOT TRACK SEDIMENT PAST THE LIMITS OF WORK.
  9. ALL VERTICAL RADI ARE 500' UNLESS OTHERWISE NOTED.



PRINT DRAWING TO SCALE ON 22"x34" SHEET



THREE BUSINESS DAYS BEFORE YOU DIG CALL  
**NEW HAMPSHIRE DIG SAFE SYSTEM, INC.**  
 TOLL FREE  
 1-888-344-7233

**Know what's below.  
 Call before you dig.**

**ISSUE FOR SEC AMENDMENT  
NOT FOR CONSTRUCTION**



NO.	REVISION	DATE	BY	CHKD.	APPRV.
11	REVISED FOR DESIGN	1/20/17	REG	SOO	TSB
10	REVISED FOR DESIGN	9/16/16	REG	SOO	TSB
9	ISSUE FOR BID	6/15/16	REG	SOO	TSB
8	ISSUE FOR PERMIT	12/24/15	REG	SOO	TSB
7	ISSUE FOR PERMIT	12/24/15	REG	SOO	TSB
6	ISSUE FOR PERMIT	12/14/15	REG	SOO	TSB
5					
4					
3					
2					
1					

**EVERSOURCE ENERGY**

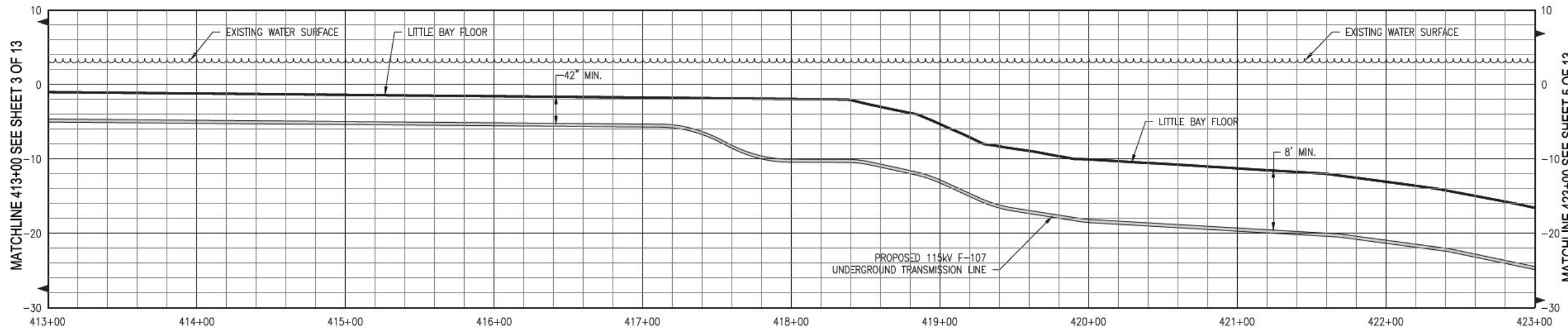
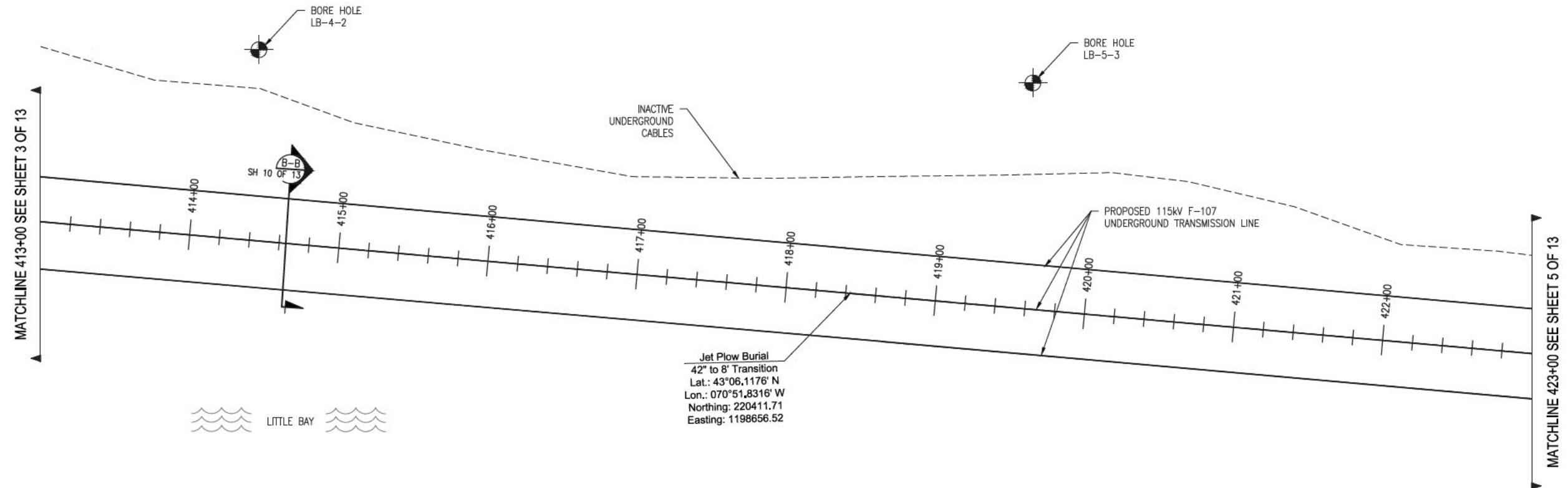
CIRCUIT F-107 115KV  
 UNDERGROUND TRANSMISSION LINE  
 PLAN AND PROFILE VIEW

T 11

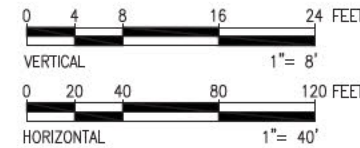
DATE: 06/25/2015

SCALE: H. 1"=40', V. 1"=8'

TOWN: NEWINGTON  
 TRANSMISSION LINE:  
 LINE  
 MILE NO: 8 & 9  
 DISCIPLINE/SHT NO.  
 SHEET 3 OF 13  
 F10743003



- General Notes**
1. THE UTILITIES HAVE NOT BEEN IDENTIFIED AND WILL IMPACT THE DESIGN OF THE UNDERGROUND TRANSMISSION LINE AT THE LOCATION OF ANY CROSSINGS.
  2. ALL PROPERTY LINE INFORMATION IS SHOWN APPROXIMATE AND BASED ON TOWN ASSESSOR'S PLATS ONLY. THE AERIAL TRANSMISSION EASEMENT HAS BEEN ESTABLISHED BY SURVEY.
  3. TOPOGRAPHY IS BASED ON AN AERIAL LIDAR SURVEY AND SATELLITE IMAGERY, THEREFORE GRADES ARE APPROXIMATE. AN ON-THE-GROUND DETAIL SURVEY WILL BE REQUIRED FOR DESIGN.
  4. DETAIL DESIGN MAY BE OPTIMIZED TO REFLECT ACTUAL CONDITIONS.
  5. ALL EXISTING ROAD MARKINGS ARE ESTIMATED.
  6. CONTRACTOR IS RESPONSIBLE FOR PLACING SILT FENCE OR OTHER APPROVED EROSION CONTROL DEVICES. WETLANDS HAVE NOT BEEN DELINEATED AND HAVE NOT BEEN CONSIDERED FOR DESIGN.
  7. CONTRACTOR SHALL INSTALL SILT SACK OR APPROVED EQUAL TO ALL CATCH BASINS OR CURB INLETS WITHIN THE DEFINED WORK ZONE.
  8. CONTRACTOR SHALL ENSURE PROPER CONTROLS ARE IN PLACE SO WORKERS DO NOT TRACK SEDIMENT PAST THE LIMITS OF WORK.
  9. ALL VERTICAL RADII ARE 500' UNLESS OTHERWISE NOTED.



PRINT DRAWING TO SCALE ON 22"X34" SHEET

**811**  
Know what's below.  
Call before you dig.

THREE BUSINESS DAYS BEFORE YOU DIG CALL  
NEW HAMPSHIRE DIG SAFE SYSTEM, INC.  
TOLL FREE  
1-888-344-7233

ISSUE FOR SEC AMENDMENT  
NOT FOR CONSTRUCTION



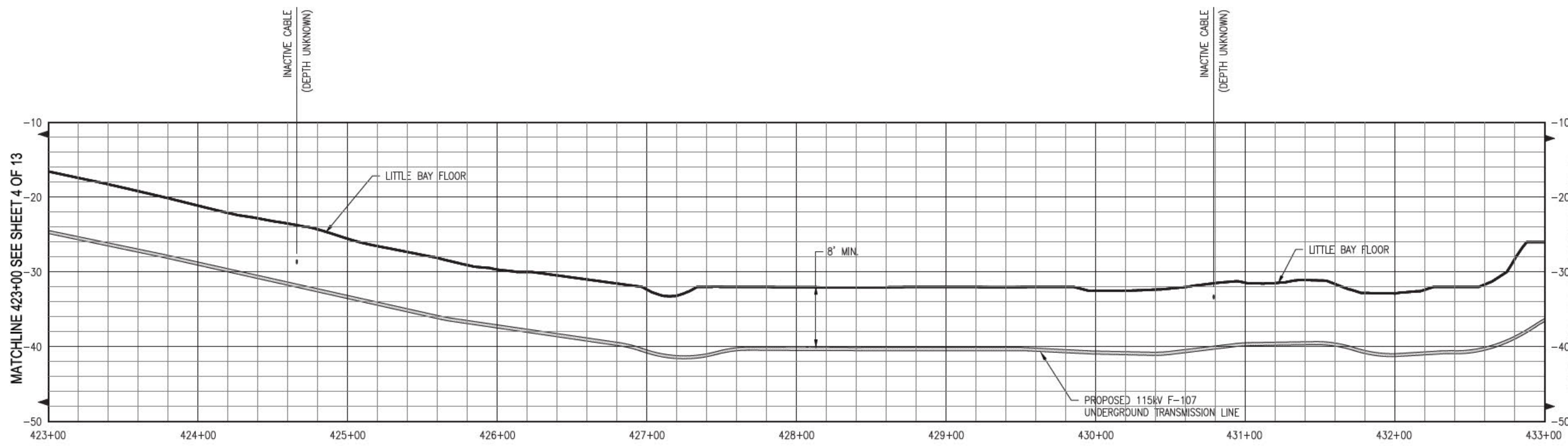
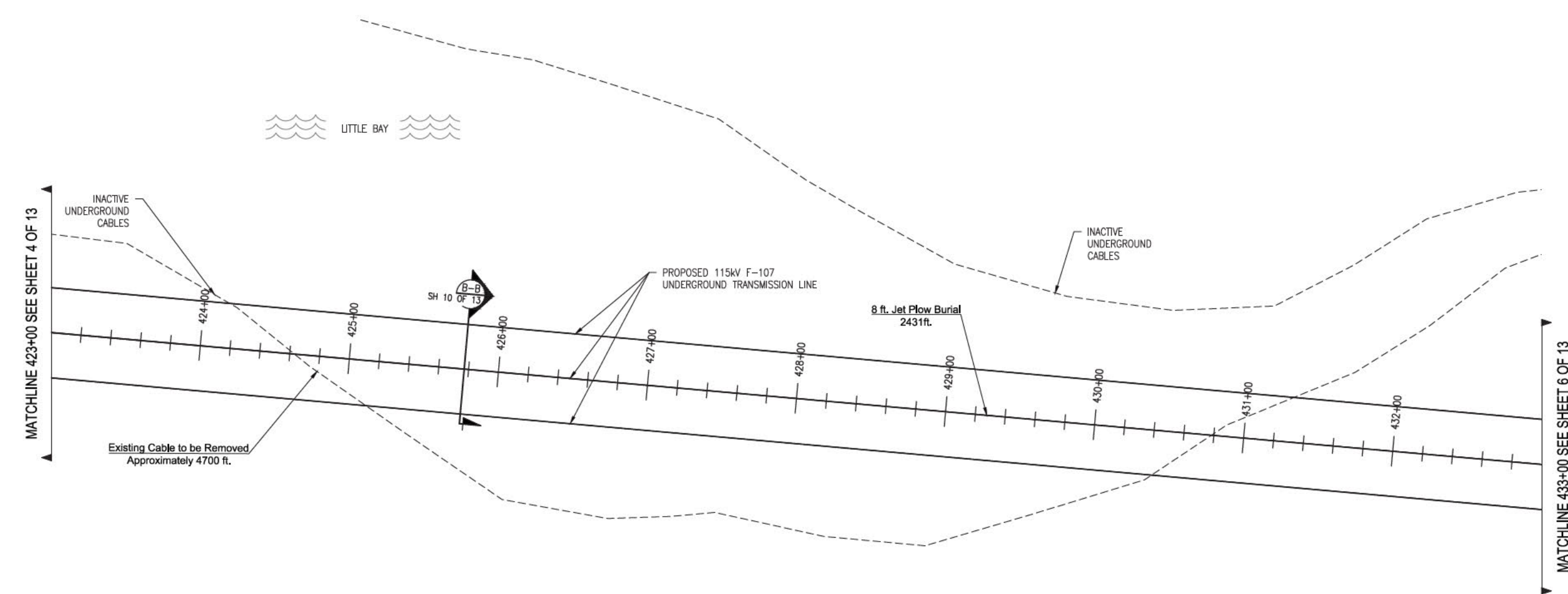
NO.	REVISION	DATE	BY	CHKD.	APPV.
11	REVISED FOR DESIGN	1/20/17	REG	SOO	TSB
10	REVISED FOR DESIGN	9/16/16	REG	SOO	TSB
9	ISSUE FOR BID	8/15/16	REG	SOO	TSB
8	ISSUE FOR PERMIT	12/28/15	REG	SOO	TSB
7	ISSUE FOR PERMIT	12/28/15	REG	SOO	TSB
6	ISSUE FOR PERMIT	12/14/15	REG	SOO	TSB
5	ISSUE FOR PERMIT	12/14/15	REG	SOO	TSB

**EVERSOURCE**  
ENERGY

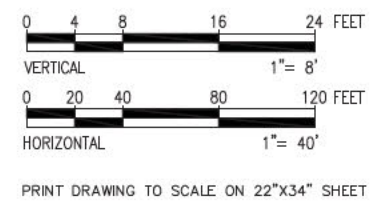
CIRCUIT F-107 115kV  
UNDERGROUND TRANSMISSION LINE  
PLAN AND PROFILE VIEW  
SCALE: H: 1"=40', V: 1"=8'

T 11  
DATE: 06/25/2015

SEE: REG: CH: TSB  
DW: REG: APP: [blank]  
TOWN: NEWINGTON  
TRANSMISSION LINE: LINE  
MILE NO: 8 & 9  
DISCIPLINE/SHT NO:  
SHEET 4 OF 13  
F10743003



- General Notes**
1. THE UTILITIES HAVE NOT BEEN IDENTIFIED AND WILL IMPACT THE DESIGN OF THE UNDERGROUND TRANSMISSION LINE AT THE LOCATION OF ANY CROSSINGS.
  2. ALL PROPERTY LINE INFORMATION IS SHOWN APPROXIMATE AND BASED ON TOWN ASSESSOR'S PLATS ONLY. THE AERIAL TRANSMISSION EASEMENT HAS BEEN ESTABLISHED BY SURVEY.
  3. TOPOGRAPHY IS BASED ON AN AERIAL LIDAR SURVEY AND SATELLITE IMAGERY, THEREFORE GRADES ARE APPROXIMATE. AN ON THE GROUND DETAIL SURVEY WILL BE REQUIRED FOR DESIGN.
  4. DETAIL DESIGN MAY BE OPTIMIZED TO REFLECT ACTUAL CONDITIONS.
  5. ALL EXISTING ROAD MARKINGS ARE ESTIMATED.
  6. CONTRACTOR IS RESPONSIBLE FOR PLACING SILT FENCE OR OTHER APPROVED EROSION CONTROL DEVICES. WETLANDS HAVE NOT BEEN DELINEATED AND HAVE NOT BEEN CONSIDERED FOR DESIGN.
  7. CONTRACTOR SHALL INSTALL SILT SACK OR APPROVED EQUAL TO ALL CATCH BASINS OR CURB INLETS WITHIN THE DEFINED WORK ZONE.
  8. CONTRACTOR SHALL ENSURE PROPER CONTROLS ARE IN PLACE SO WORKERS DO NOT TRACK SEDIMENT PAST THE LIMITS OF WORK.
  9. ALL VERTICAL RADII ARE 500' UNLESS OTHERWISE NOTED.



**811**  
 Know what's below.  
 Call before you dig.

THREE BUSINESS DAYS BEFORE YOU DIG CALL  
 NEW HAMPSHIRE DIG SAFE SYSTEM, INC.  
 TOLL FREE  
 1-888-344-7233

**ISSUE FOR SEC AMENDMENT  
 NOT FOR CONSTRUCTION**

**POWER ENGINEERS**  
 www.powereng.com

11	REVISED FOR DESIGN	1/20/17	RES	SCS	TSO
10	REVISED FOR DESIGN	9/16/16	RES	SCS	TSO
9	ISSUE FOR BID	8/31/16	RES	SCS	TSO
8	ISSUE FOR PERMIT	12/28/15	RES	SCS	TSO
7	ISSUE FOR PERMIT	12/28/15	RES	SCS	TSO
6	ISSUE FOR PERMIT	12/28/15	RES	SCS	TSO
5	ISSUE FOR PERMIT	12/28/15	RES	SCS	TSO
4	ISSUE FOR PERMIT	12/28/15	RES	SCS	TSO
3	ISSUE FOR PERMIT	12/28/15	RES	SCS	TSO
2	ISSUE FOR PERMIT	12/28/15	RES	SCS	TSO
1	ISSUE FOR PERMIT	12/28/15	RES	SCS	TSO

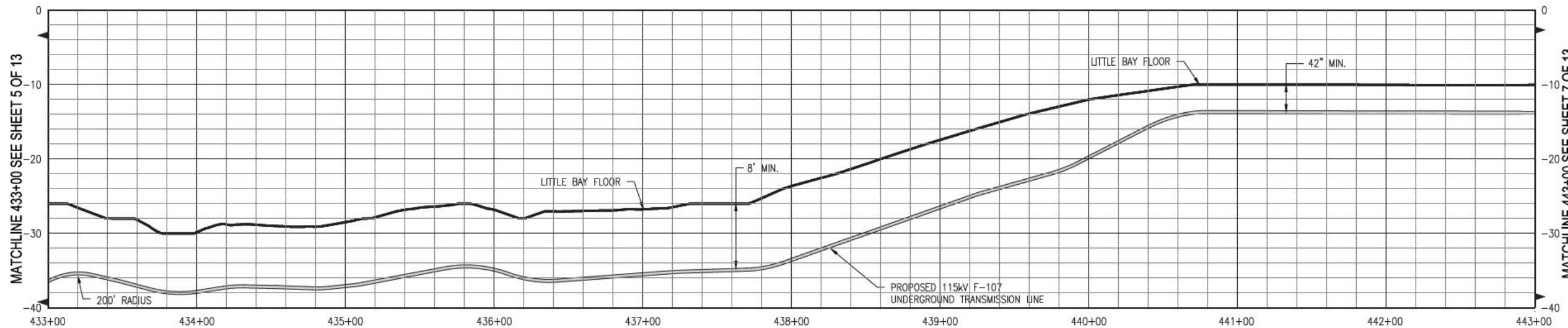
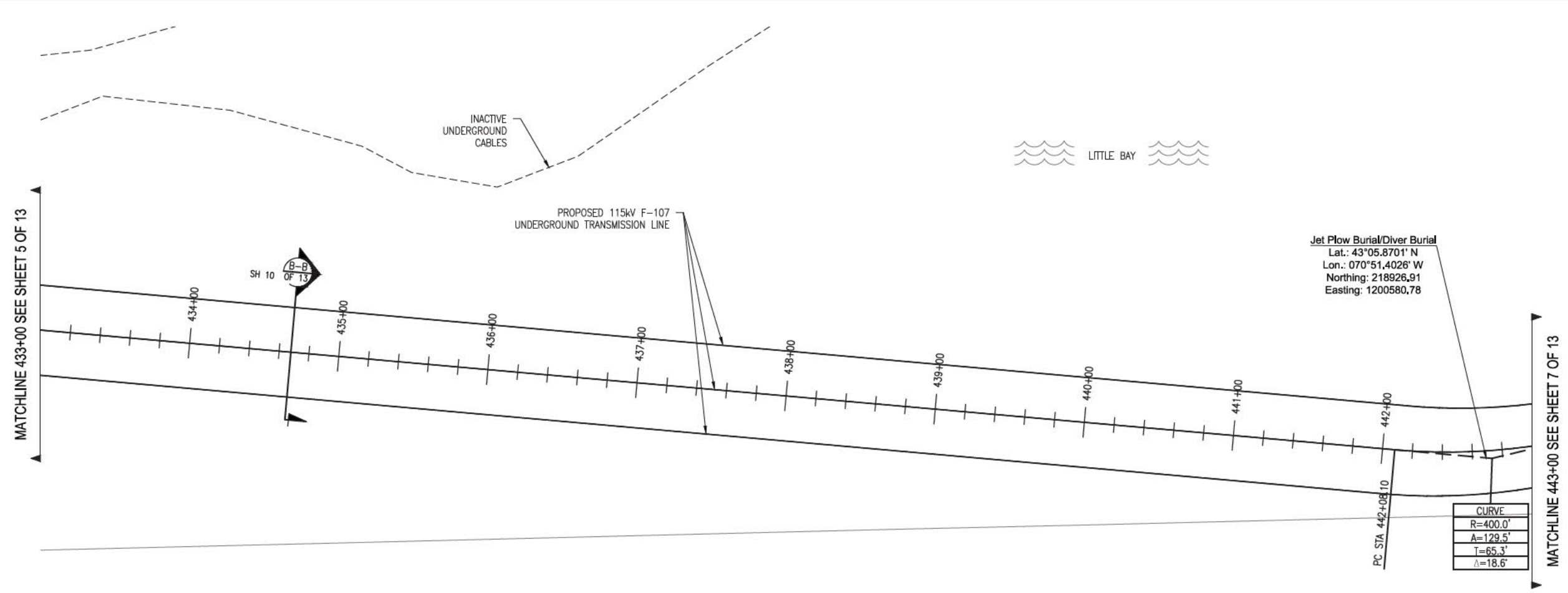
CIRCUIT F-107 115kV UNDERGROUND TRANSMISSION LINE  
 PLAN AND PROFILE VIEW  
 SCALE: H. 1"=40', V. 1"=8'

T 11

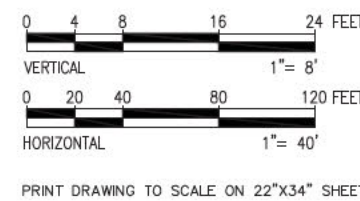
DATE: 08/25/2015

ISSUE FOR PERMIT  
 TOWN: NEWINGTON  
 TRANSMISSION LINE: LINE  
 MILE NO: 8 & 9  
 DISCIPLINE/SHT NO.  
 SHEET 5 OF 13  
 F10743003





- General Notes**
1. THE UTILITIES HAVE NOT BEEN IDENTIFIED AND WILL IMPACT THE DESIGN OF THE UNDERGROUND TRANSMISSION LINE AT THE LOCATION OF ANY CROSSINGS.
  2. ALL PROPERTY LINE INFORMATION IS SHOWN APPROXIMATE AND BASED ON TOWN ASSESSOR'S PLATS ONLY. THE AERIAL TRANSMISSION EASEMENT HAS BEEN ESTABLISHED BY SURVEY.
  3. TOPOGRAPHY IS BASED ON AN AERIAL LIDAR SURVEY AND SATELLITE IMAGERY, THEREFORE GRADES ARE APPROXIMATE. AN ON-THE-GROUND DETAIL SURVEY WILL BE REQUIRED FOR DESIGN.
  4. DETAIL DESIGN MAY BE OPTIMIZED TO REFLECT ACTUAL CONDITIONS.
  5. ALL EXISTING ROAD MARKINGS ARE ESTIMATED.
  6. CONTRACTOR IS RESPONSIBLE FOR PLACING SILT FENCE OR OTHER APPROVED EROSION CONTROL DEVICES. WETLANDS HAVE NOT BEEN DELINEATED AND HAVE NOT BEEN CONSIDERED FOR DESIGN.
  7. CONTRACTOR SHALL INSTALL SILT SACK OR APPROVED EQUAL TO ALL CATCH BASINS OR CURB INLETS WITHIN THE DEFINED WORK ZONE.
  8. CONTRACTOR SHALL ENSURE PROPER CONTROLS ARE IN PLACE SO WORKERS DO NOT TRACK SEDIMENT PAST THE LIMITS OF WORK.
  9. ALL VERTICAL RADI ARE 500' UNLESS OTHERWISE NOTED



**811**  
Know what's below.  
Call before you dig.

THREE BUSINESS DAYS BEFORE YOU DIG CALL  
NEW HAMPSHIRE DIG SAFE SYSTEM, INC.  
TOLL FREE  
1-888-344-7233

**ISSUE FOR SEC AMENDMENT  
NOT FOR CONSTRUCTION**



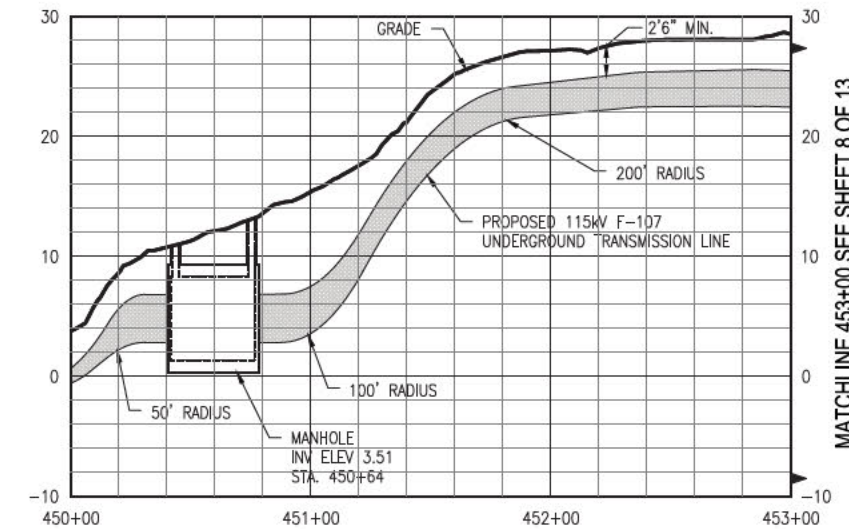
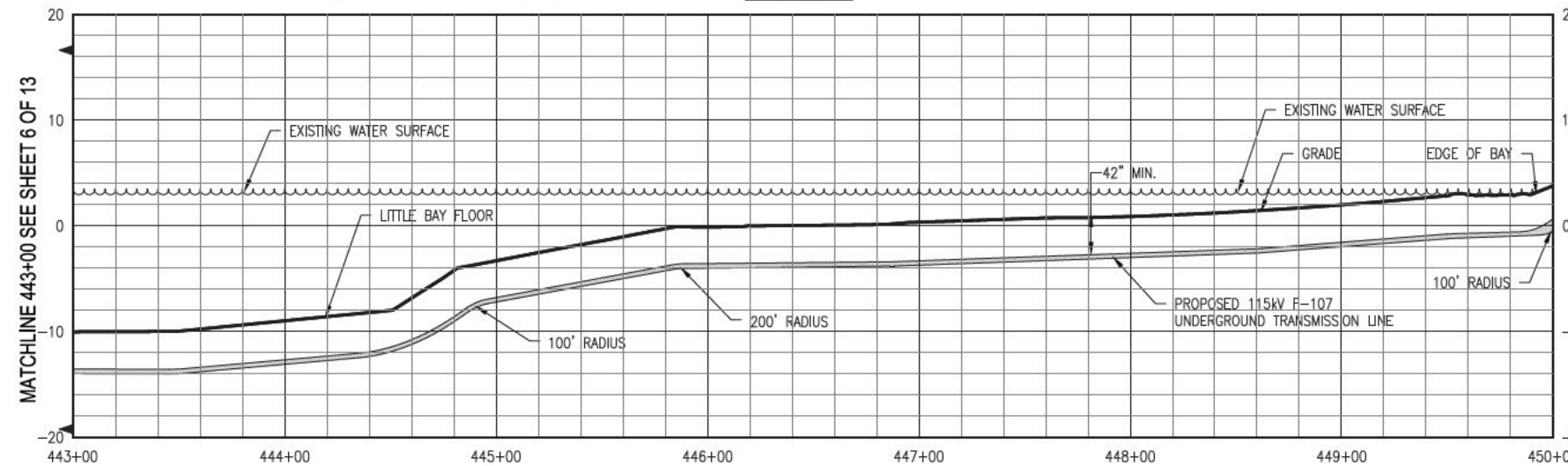
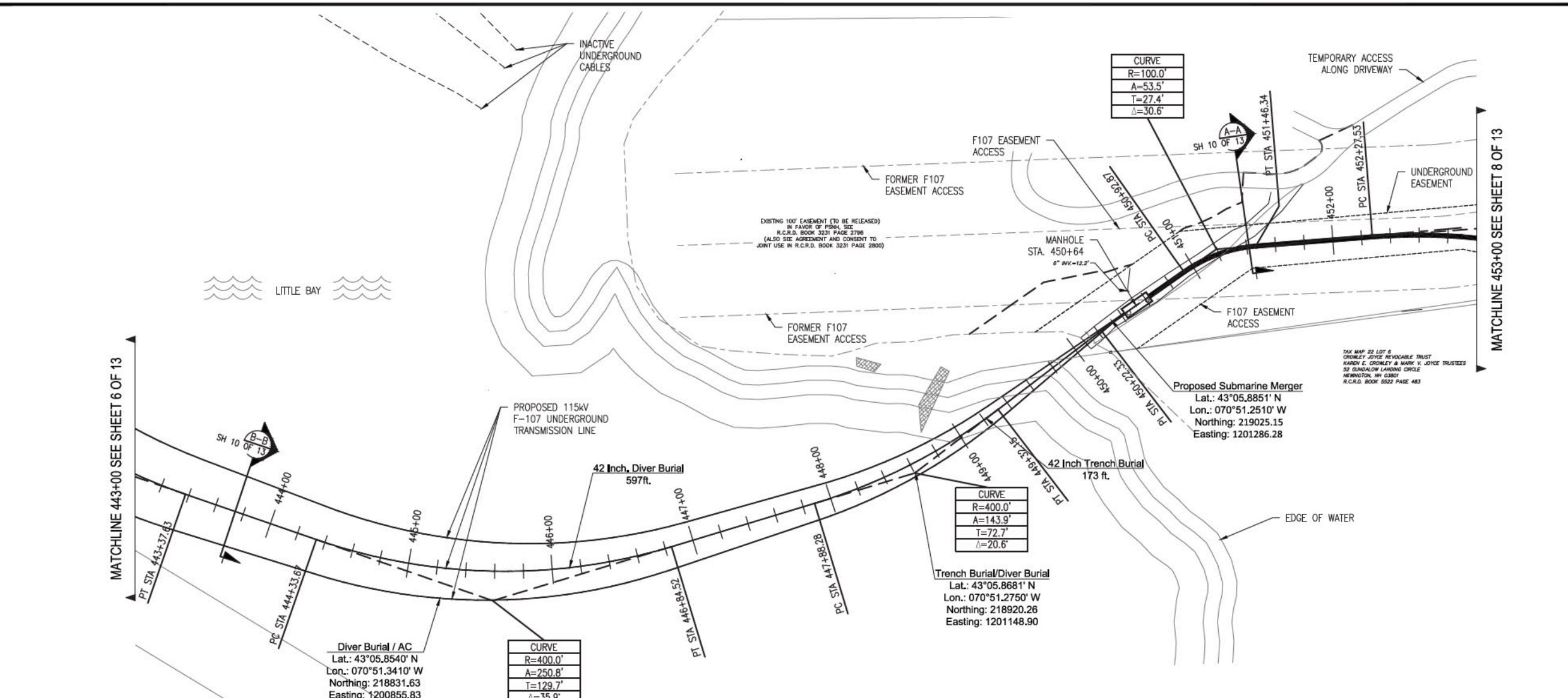
NO.	REVISION	DATE	BY	CHKD.	APPRV.
11	REVISED FOR DESIGN	1/20/17	REG	SOO	TSB
10	REVISED FOR DESIGN	9/16/16	REG	SOO	TSB
9	ISSUE FOR BID	6/15/16	REG	SOO	TSB
8	ISSUE FOR PERMIT RELOCATE RISER	12/7/15	REG	SOO	TSB
7	ISSUE FOR PERMIT	12/14/15	REG	SOO	TSB
6	ISSUE FOR PERMIT	12/14/15	REG	SOO	TSB

**EVERSOURCE ENERGY**

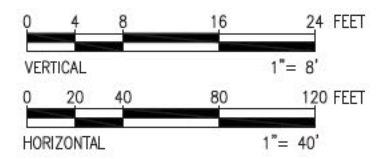
CIRCUIT F-107 115kV  
UNDERGROUND TRANSMISSION LINE  
PLAN AND PROFILE VIEW  
DATE: 06/25/2015  
SCALE: H: 1"=40', V: 1"=8'

T	11
---	----

SEE REG. CHARTER  
OWN. REG. APP.  
TOWN: NEWINGTON  
TRANSMISSION LINE:  
LINE  
MILE NO: 8 & 9  
DISCIPLINE/SHT NO.  
SHEET 6 OF 13  
F10743003



- General Notes**
1. THE UTILITIES HAVE NOT BEEN IDENTIFIED AND WILL IMPACT THE DESIGN OF THE UNDERGROUND TRANSMISSION LINE AT THE LOCATION OF ANY CROSSINGS.
  2. ALL PROPERTY LINE INFORMATION IS SHOWN APPROXIMATE AND BASED ON TOWN ASSESSOR'S PLATS ONLY. THE AERIAL TRANSMISSION EASEMENT HAS BEEN ESTABLISHED BY SURVEY.
  3. TOPOGRAPHY IS BASED ON AN AERIAL LIDAR SURVEY AND SATELLITE IMAGERY, THEREFORE GRADES ARE APPROXIMATE. AN ON THE GROUND DETAIL SURVEY WILL BE REQUIRED FOR DESIGN.
  4. DETAIL DESIGN MAY BE OPTIMIZED TO REFLECT ACTUAL CONDITIONS.
  5. ALL EXISTING ROAD MARKINGS ARE ESTIMATED.
  6. CONTRACTOR IS RESPONSIBLE FOR PLACING SILT FENCE OR OTHER APPROVED EROSION CONTROL DEVICES. WETLANDS HAVE NOT BEEN DELINEATED AND HAVE NOT BEEN CONSIDERED FOR DESIGN.
  7. CONTRACTOR SHALL INSTALL SILT SACK OR APPROVED EQUAL TO ALL CATCH BASINS OR CURB INLETS WITHIN THE DEFINED WORK ZONE.
  8. CONTRACTOR SHALL ENSURE PROPER CONTROLS ARE IN PLACE SO WORKERS DO NOT TRACK SEDIMENT PAST THE LIMITS OF WORK.
  9. ALL VERTICAL RADII ARE 500' UNLESS OTHERWISE NOTED



**811**  
Know what's below.  
Call before you dig.

THREE BUSINESS DAYS BEFORE YOU DIG CALL  
NEW HAMPSHIRE DIG SAFE SYSTEM, INC.  
TOLL FREE  
1-888-344-7233

**ISSUE FOR SEC AMENDMENT  
NOT FOR CONSTRUCTION**



NO.	REVISION	DATE	BY	CHKD.	APPV.
11	REVISED FOR DESIGN	1/26/17	REG	SCG	TSBG
10	REVISED FOR DESIGN	9/7/16	REG	SCG	TSBG
9	ISSUE FOR BID	8/7/16	REG	SCG	TSBG
8	ISSUE FOR PERMIT	12/7/15	REG	SCG	TSBG
7	ISSUE FOR PERMIT	12/7/15	REG	SCG	TSBG
6	ISSUE FOR PERMIT	12/7/15	REG	SCG	TSBG
5	ISSUE FOR PERMIT	12/7/15	REG	SCG	TSBG

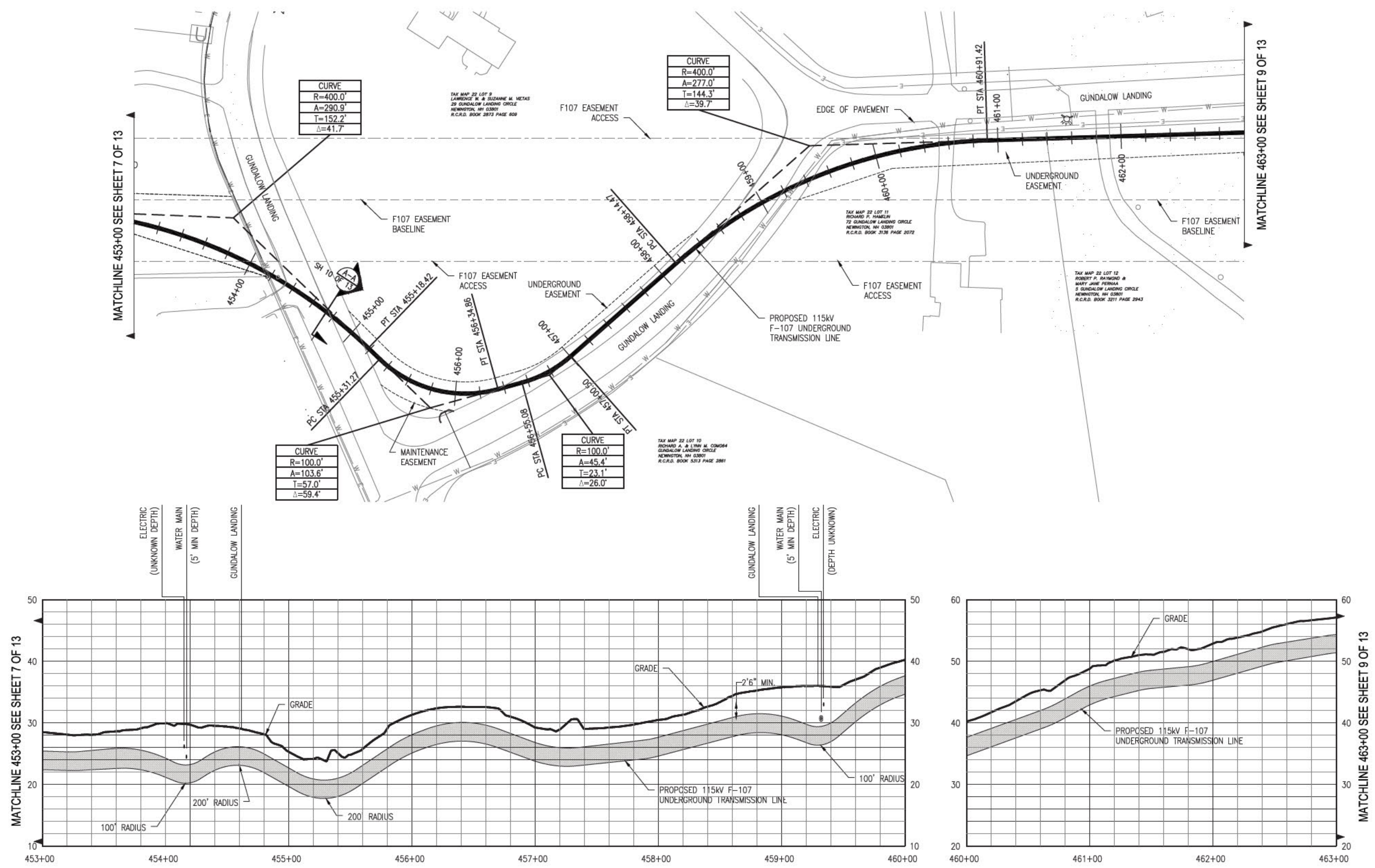
**EVERSOURCE ENERGY**

CIRCUIT F-107 115kV UNDERGROUND TRANSMISSION LINE  
PLAN AND PROFILE VIEW  
DATE: 06/25/2015  
SCALE: H: 1"=40', V: 1"=8'

T 11

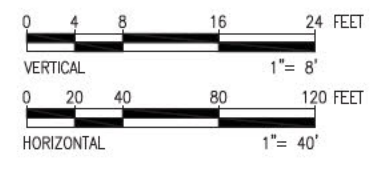
DES: REG  
CHKD: REG  
APPV: REG

TOWN: NEWINGTON  
TRANSMISSION LINE: LINE  
FILE NO: 8 & 9  
DISCIPLINE/SHT NO.:  
SHEET 7 OF 13  
F10743003



MATCHLINE 453+00 SEE SHEET 7 OF 13 MATCHLINE 463+00 SEE SHEET 9 OF 13

- General Notes**
1. THE UTILITIES HAVE NOT BEEN IDENTIFIED AND WILL IMPACT THE DESIGN OF THE UNDERGROUND TRANSMISSION LINE AT THE LOCATION OF ANY CROSSINGS.
  2. ALL PROPERTY LINE INFORMATION IS SHOWN APPROXIMATE AND BASED ON TOWN ASSESSOR'S PLATS ONLY. THE AERIAL TRANSMISSION EASEMENT HAS BEEN ESTABLISHED BY SURVEY.
  3. TOPOGRAPHY IS BASED ON AN AERIAL LIDAR SURVEY AND SATELLITE IMAGERY, THEREFORE GRADES ARE APPROXIMATE. AN ON-THE-GROUND DETAIL SURVEY WILL BE REQUIRED FOR DESIGN.
  4. DETAIL DESIGN MAY BE OPTIMIZED TO REFLECT ACTUAL CONDITIONS.
  5. ALL EXISTING ROAD MARKINGS ARE ESTIMATED.
  6. CONTRACTOR IS RESPONSIBLE FOR PLACING SILT FENCE OR OTHER APPROVED EROSION CONTROL DEVICES. WETLANDS HAVE NOT BEEN DELINEATED AND HAVE NOT BEEN CONSIDERED FOR DESIGN.
  7. CONTRACTOR SHALL INSTALL SILT SACK OR APPROVED EQUAL TO ALL CATCH BASINS OR CURB INLETS WITHIN THE DEFINED WORK ZONE.
  8. CONTRACTOR SHALL ENSURE PROPER CONTROLS ARE IN PLACE SO WORKERS DO NOT TRACK SEDIMENT PAST THE LIMITS OF WORK.
  9. ALL VERTICAL RADII ARE 500' UNLESS OTHERWISE NOTED.



THREE BUSINESS DAYS BEFORE YOU DIG CALL  
**NEW HAMPSHIRE DIG SAFE SYSTEM, INC.**  
 TOLL FREE  
 1-888-344-7233

**ISSUE FOR SEC AMENDMENT  
 NOT FOR CONSTRUCTION**



11	REVISED FOR DESIGN	1/20/17	RESO	505	7592
10	REVISED FOR DESIGN	9/16/16	RESO	505	7592
9	ISSUE FOR BID	6/7/16	RESO	505	7592
8	ISSUE FOR PERMIT	12/7/15	RESO	505	7592
7	ISSUE FOR PERMIT	12/7/15	RESO	505	7592
6	ISSUE FOR PERMIT	12/7/15	RESO	505	7592
5	REVISION	DATE	UNWIN	CH40	APPROV.

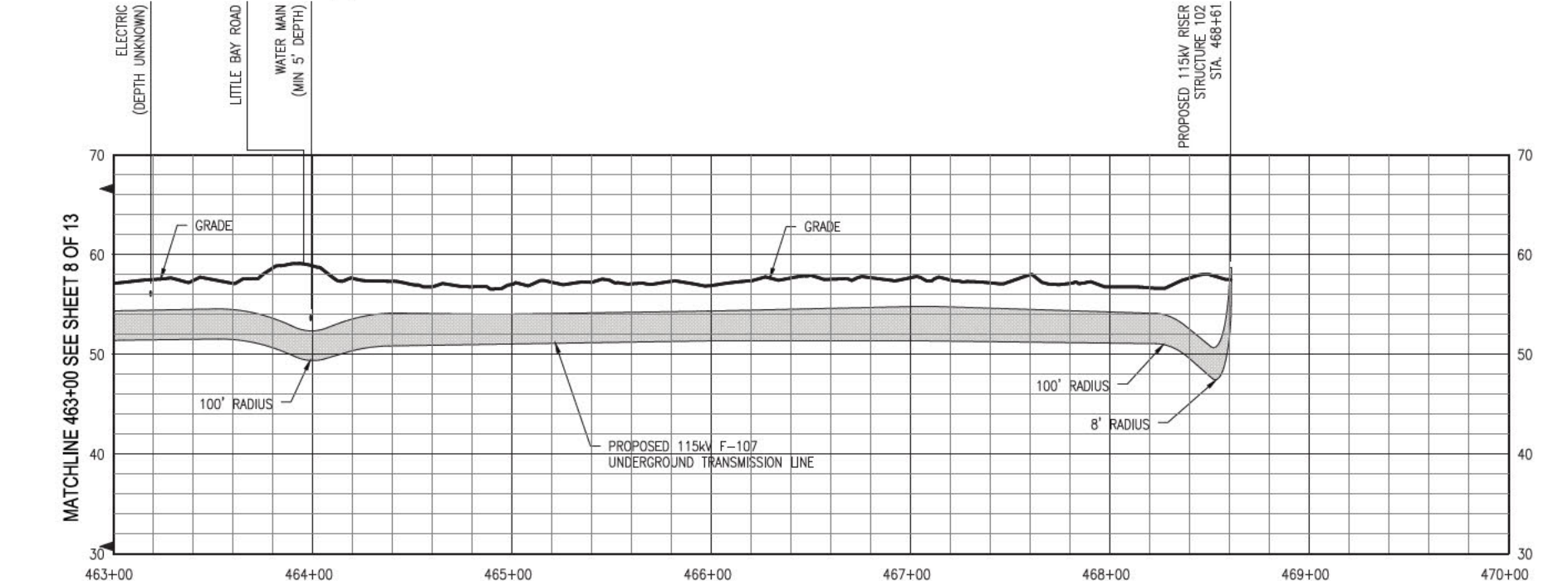
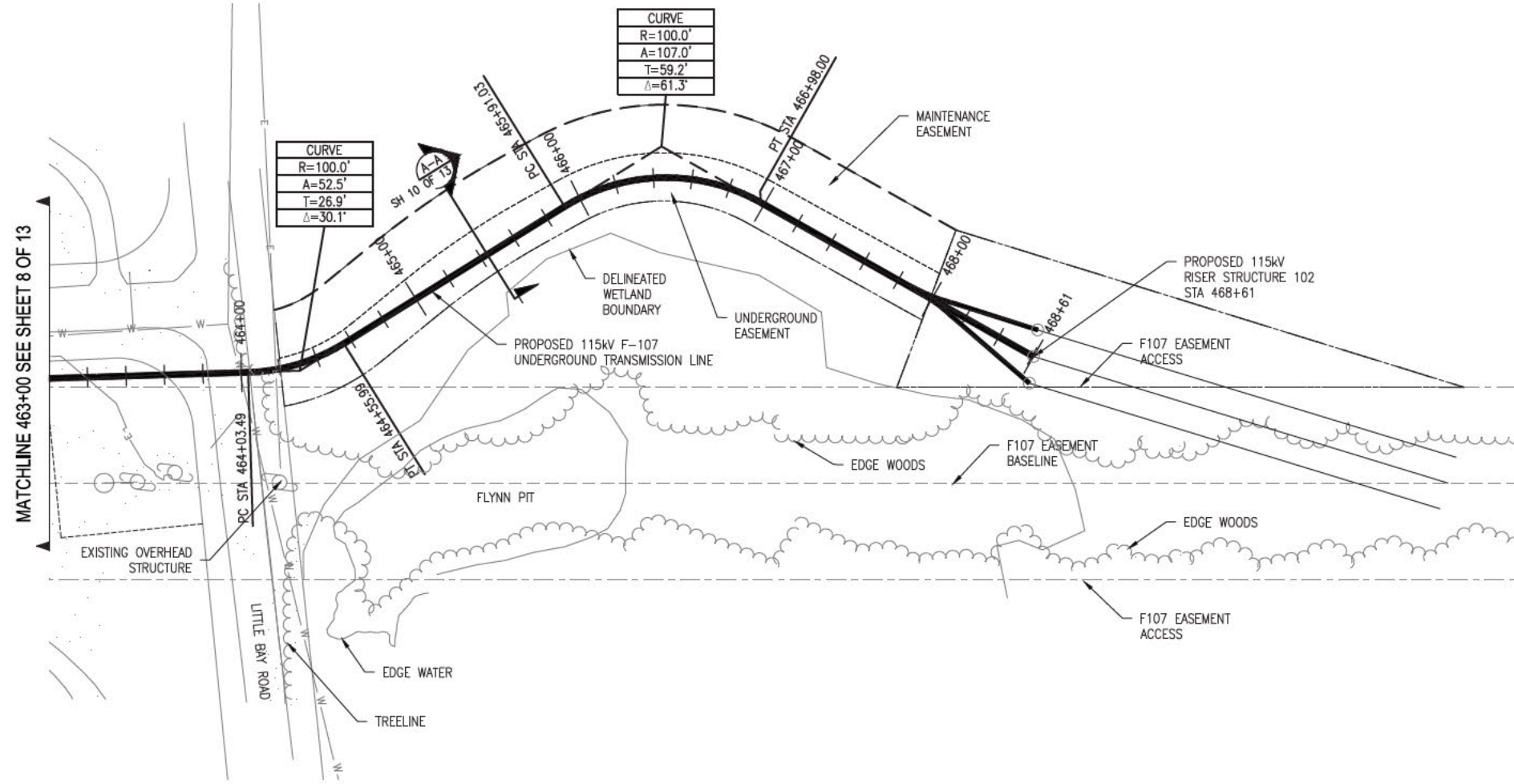
CIRCUIT F-107 115kV UNDERGROUND TRANSMISSION LINE  
 PLAN AND PROFILE VIEW  
 SCALE: H: 1"=40', V: 1"=8'

T 11

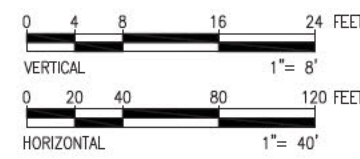
DATE: 02/25/2015

TOWN: NEWINGTON  
 TRANSMISSION LINE:  
 LINE  
 MILE NO: 8 & 9  
 DISCIPLINE/SHT NO.  
 SHEET 8 OF 13  
 F10743003





- General Notes**
1. THE UTILITIES HAVE NOT BEEN IDENTIFIED AND WILL IMPACT THE DESIGN OF THE UNDERGROUND TRANSMISSION LINE AT THE LOCATION OF ANY CROSSINGS.
  2. ALL PROPERTY LINE INFORMATION IS SHOWN APPROXIMATE AND BASED ON TOWN ASSESSOR'S PLATS ONLY. THE AERIAL TRANSMISSION EASEMENT HAS BEEN ESTABLISHED BY SURVEY.
  3. TOPOGRAPHY IS BASED ON AN AERIAL LIDAR SURVEY AND SATELLITE IMAGERY, THEREFORE GRADES ARE APPROXIMATE. AN ON-THE-GROUND DETAIL SURVEY WILL BE REQUIRED FOR DESIGN.
  4. DETAIL DESIGN MAY BE OPTIMIZED TO REFLECT ACTUAL CONDITIONS.
  5. ALL EXISTING ROAD MARKINGS ARE ESTIMATED.
  6. CONTRACTOR IS RESPONSIBLE FOR PLACING SILT FENCE OR OTHER APPROVED EROSION CONTROL DEVICES. WETLANDS HAVE NOT BEEN DELINEATED AND HAVE NOT BEEN CONSIDERED FOR DESIGN.
  7. CONTRACTOR SHALL INSTALL SILT SACK OR APPROVED EQUAL TO ALL CATCH BASINS OR CURB INLETS WITHIN THE DEFINED WORK ZONE.
  8. CONTRACTOR SHALL ENSURE PROPER CONTROLS ARE IN PLACE SO WORKERS DO NOT TRACK SEDIMENT PAST THE LIMITS OF WORK.
  9. ALL VERTICAL RADII ARE 500' UNLESS OTHERWISE NOTED.



**811**  
Know what's below.  
Call before you dig.

THREE BUSINESS DAYS BEFORE YOU DIG CALL  
NEW HAMPSHIRE DIG SAFE SYSTEM, INC.  
TOLL FREE  
1-888-344-7233

**ISSUE FOR SEC AMENDMENT  
NOT FOR CONSTRUCTION**



NO.	REVISION	DATE	BY	CHKD.	APPV.
11	REVISED FOR DESIGN	1/20/17	REG	SCG	TSB
10	REVISED FOR DESIGN	9/16/16	REG	SCG	TSB
9	ISSUE FOR BID	8/2/16	REG	SCG	TSB
8	ISSUE FOR PERMIT	12/28/15	REG	SCG	TSB
7	ISSUE FOR PERMIT	12/28/15	REG	SCG	TSB
6	ISSUE FOR PERMIT	12/28/15	REG	SCG	TSB
5	ISSUE FOR PERMIT	12/28/15	REG	SCG	TSB

**EVERSOURCE ENERGY**

CIRCUIT F-107 115kV UNDERGROUND TRANSMISSION LINE  
PLAN AND PROFILE VIEW  
SCALE: H. 1"=40', V. 1"=8'

DATE: 02/25/2015

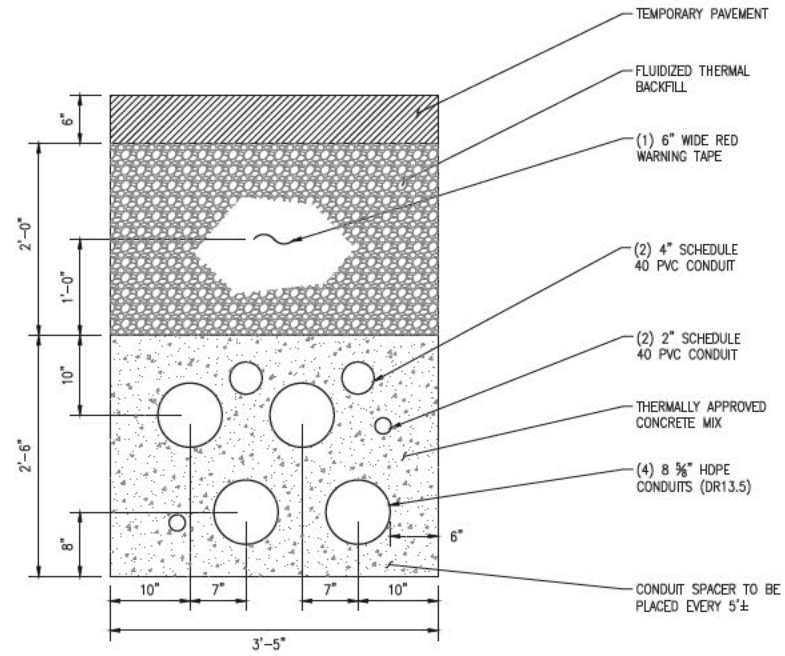
T 11

DES. REG. CHKD. TSB  
DWG. REG. APP. TSB

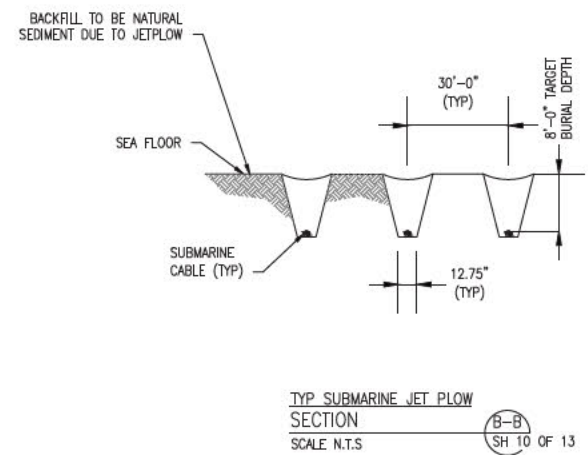
TOWN: NEWINGTON  
TRANSMISSION LINE: LINE  
MILE NO. 8 & 9  
DISCIPLINE/SHT NO.

SHEET 9 OF 13  
F10743003

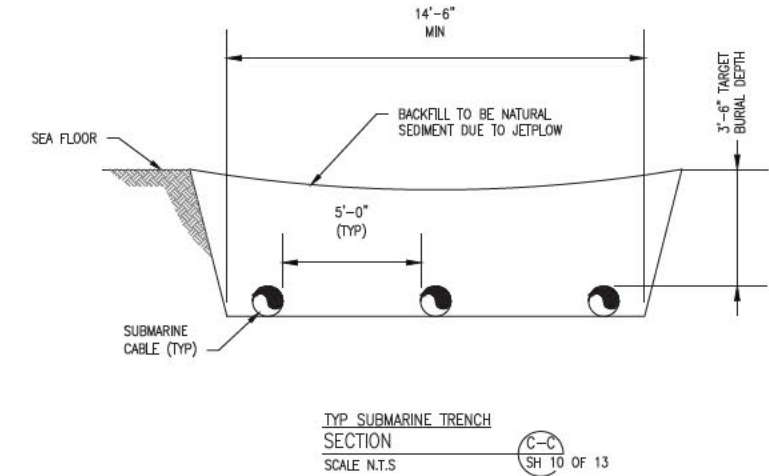
1/17/2017 3:23 PM - E:\Projects\133007\DD\DWG\03 Line\03X DESIGN\F10705060 SH 10.dwg - 10 ES VER. 11/2015



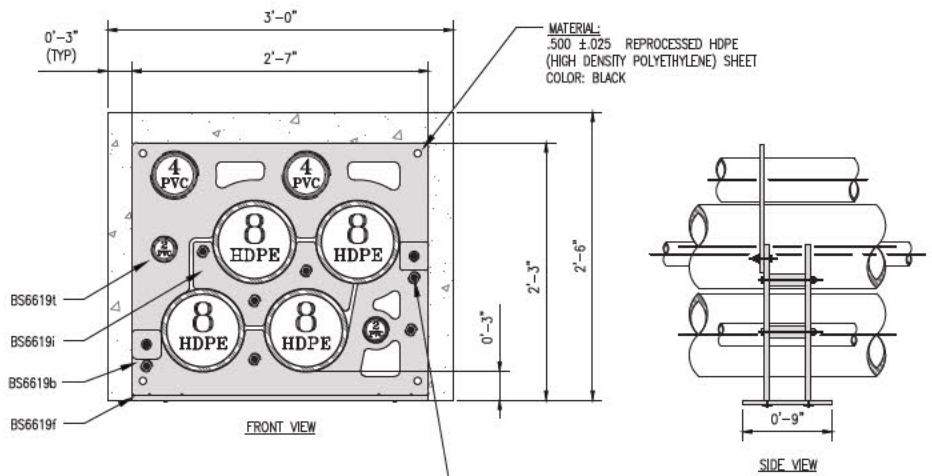
TYP TRENCH DETAIL SECTION A-A  
SCALE N.T.S. SH 10 OF 13



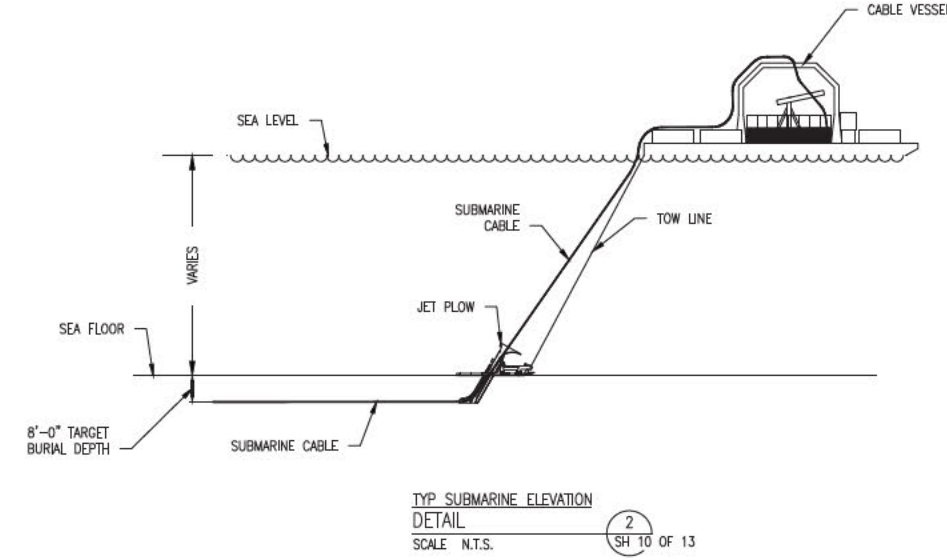
TYP SUBMARINE JET FLOW SECTION B-B  
SCALE N.T.S. SH 10 OF 13



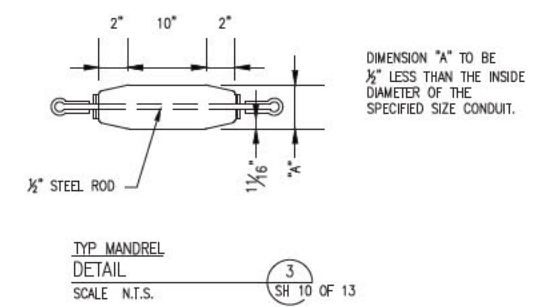
TYP SUBMARINE TRENCH SECTION C-C  
SCALE N.T.S. SH 10 OF 13



UNDERGROUND DEVICES SPACER ARRANGEMENT DETAIL  
SCALE N.T.S. SH 10 OF 13



TYP SUBMARINE ELEVATION DETAIL  
SCALE N.T.S. SH 10 OF 13



TYP MANDREL DETAIL  
SCALE N.T.S. SH 10 OF 13

- NOTES:
1. STAGGER BELL ENDS.
  2. AVOID STANDING ON CONDUIT.
  3. BELL ENDS SHALL BE INSTALLED ALL IN THE SAME DIRECTION BETWEEN TERMINATIONS. (SEE PULL DIRECTION DETAIL.)
  4. ALL TRENCH DETAILS AND PHASING SHOWN AS LOOKING AHEAD STATIONS.
  5. ALL DUCT SPACERS ARE UNDERGROUND DEVICES "WUNPEECE" SPACERS, OR APPROVED EQUIVALENT.

ISSUE FOR SEC AMENDMENT  
NOT FOR CONSTRUCTION



PRINT DRAWING TO SCALE ON 22"x34" SHEET

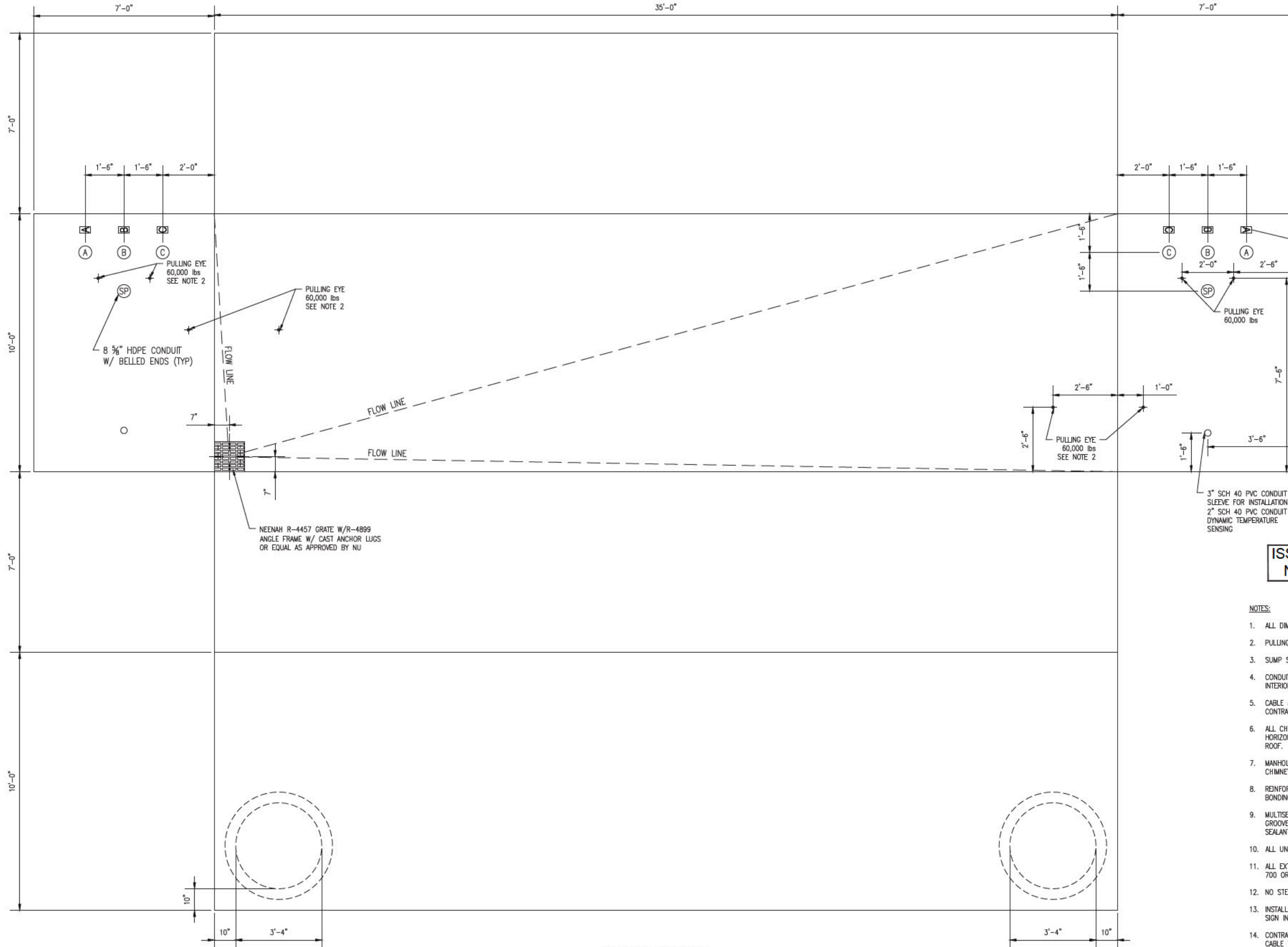
11	REVISED FOR DESIGN	12/14/13	REG	SCG	TSBG
10	REVISED FOR DESIGN	9/17/13	REG	SCG	TSBG
9	ISSUE FOR BID	8/15/13	REG	SCG	TSBG
8	ISSUE FOR PERMIT	12/11/13	REG	SCG	TSBG
7	ISSUE FOR PERMIT	12/11/13	REG	SCG	TSBG
6	ISSUE FOR PERMIT	12/11/13	REG	SCG	TSBG
5	ISSUE FOR PERMIT	12/11/13	REG	SCG	TSBG
4	ISSUE FOR PERMIT	12/11/13	REG	SCG	TSBG
3	ISSUE FOR PERMIT	12/11/13	REG	SCG	TSBG
2	ISSUE FOR PERMIT	12/11/13	REG	SCG	TSBG
1	ISSUE FOR PERMIT	12/11/13	REG	SCG	TSBG

CIRCUIT F-107 115KV  
UNDERGROUND TRANSMISSION LINE  
TRENCH AND JET FLOW DETAILS  
SCALE N.T.S.

DATE: 08/29/2015

7 11

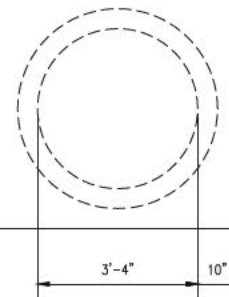
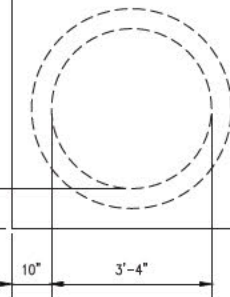
ISS: REG CHY: TSB  
DWN: REG: APR:  
TOWN: NEWINGTON  
TRANSMISSION LINE:  
LINE  
MILE NO: 8 & 9  
DISCIPLINE/SHT NO:  
SHEET 10 OF 13  
F10705060



DETAIL 2  
SH 13 OF 13

**ISSUE FOR SEC AMENDMENT  
NOT FOR CONSTRUCTION**

- NOTES:
1. ALL DIMENSIONS ARE INSIDE DIMENSIONS.
  2. PULLING HARDWARE SHALL BE GOOD FOR 60,000lbs OF TENSION, MINIMUM.
  3. SUMP SHALL BE CAPABLE OF HANDLING SUMP PUMP, MINIMUM 4" DEEP.
  4. CONDUITS MUST ALWAYS BE INSTALLED IN THE SAME DIRECTION (BELL END FLUSH WITH INTERIOR WALL OF VAULT).
  5. CABLE & ACCESSORIES CONTRACTOR TO FIELD VERIFY ACTUAL SPLICE VAULT DEPTHS. CONTRACTOR IS RESPONSIBLE FOR ALL SAFETY & ENTRY/EXIT REQUIREMENTS.
  6. ALL CHIMNEY RINGS SHALL BE MORTARED OR OTHERWISE "KEYED" TO PREVENT HORIZONTAL DISPLACEMENT AND SHALL BE SECURELY MORTARED TO SPLICE VAULT ROOF.
  7. MANHOLE RING SHALL BE SECURELY FASTENED TO THE SPLICE VAULT ROOF OR CHIMNEY USING INSERTS AND BOLTS OR OTHER MEANS WITH PRIOR APPROVAL.
  8. REINFORCING STEEL SHALL BE BONDED TO 500kcmil SOFT DRAWN BARE COPPER BONDING JUMPERS.
  9. MULTISECTION SPLICE VAULTS SHALL INCORPORATE EITHER SHIPLAP OR TONGUE AND GROOVE JOINTS UTILIZING APPROPRIATE SILICONE, POLYMERIC OR ELASTOMERIC SEALANTS.
  10. ALL UNISTRUT TO BE GROUNDED BY CONTRACTOR.
  11. ALL EXTERNAL SURFACES OF VAULT SHALL BE SEALED USING SONNEDORN HYDROCID 700 OR OWNER APPROVED EQUIVALENT.
  12. NO STEEL REINFORCING BAR MAY ENCAPSULATE ANY INDIVIDUAL CONDUIT.
  13. INSTALL CIRCUIT IDENTIFICATION LABELS ON VAULT WALL AND INSTALL DANGER WARNING SIGN IN CHIMNEY.
  14. CONTRACTOR SHALL PROVIDE RACKING FOR 50' OF DYNAMIC TEMPERATURE SENSING CABLE TO BE COILED ON THE WALL OPPOSITE THE CABLE SPLICES.



SPLICE VAULT DEVELOPMENT PLAN  
DETAIL 1  
SCALE 1" = 2'-0" SH 11 OF 13

NO.	REVISION	DATE	BY	CHKD	APPRV.
11	REVISED FOR DESIGN	1/20/17	REG	SOO	TSB
10	REVISED FOR DESIGN	9/16/16	REG	SOO	TSB
9	ISSUE FOR BID	8/5/16	REG	SOO	TSB
8	ISSUE FOR PERMIT	12/7/13	REG	SOO	TSB
7	ISSUE FOR PERMIT	12/7/13	REG	SOO	TSB
6	ISSUE FOR PERMIT	12/14/13	REG	SOO	TSB

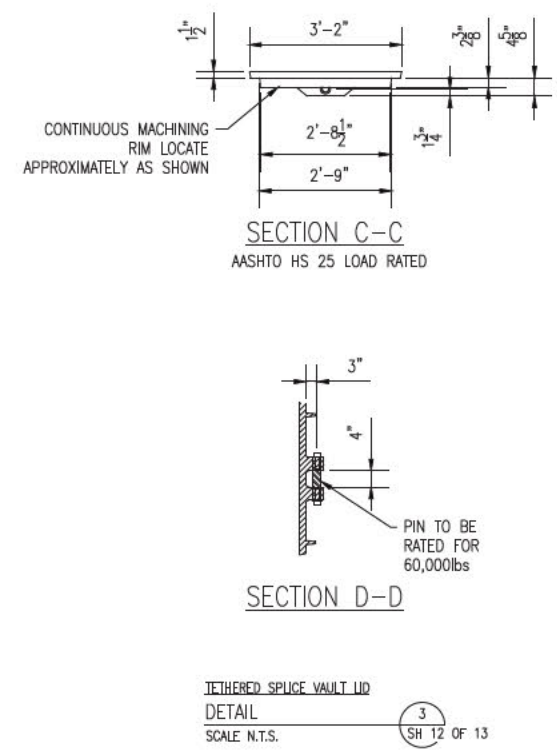
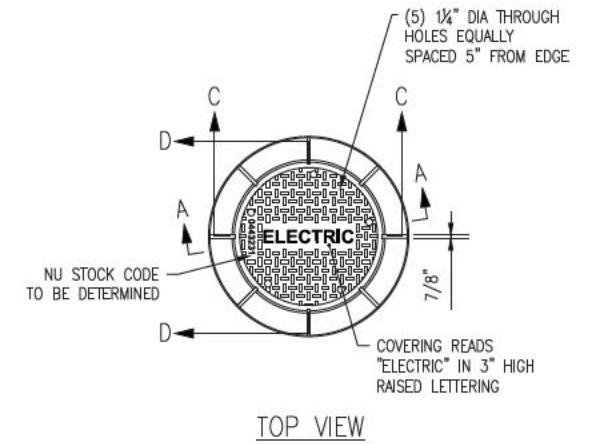
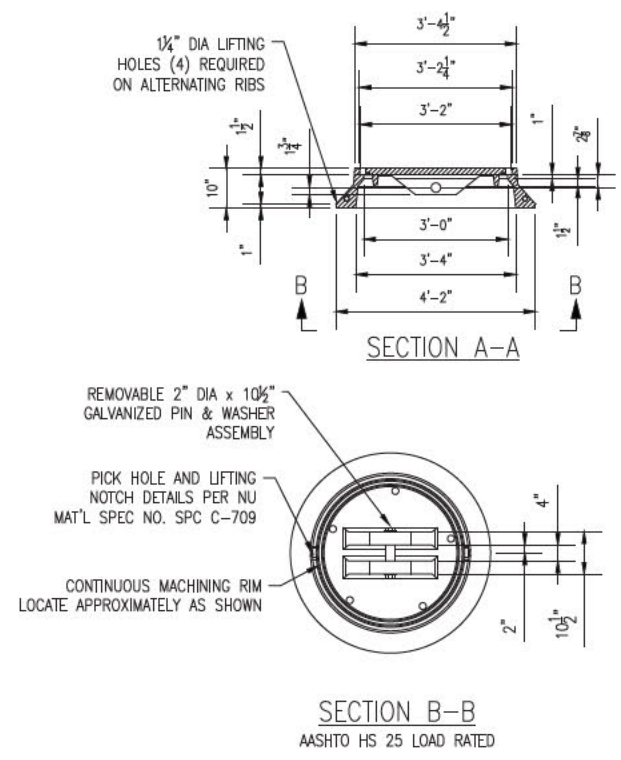
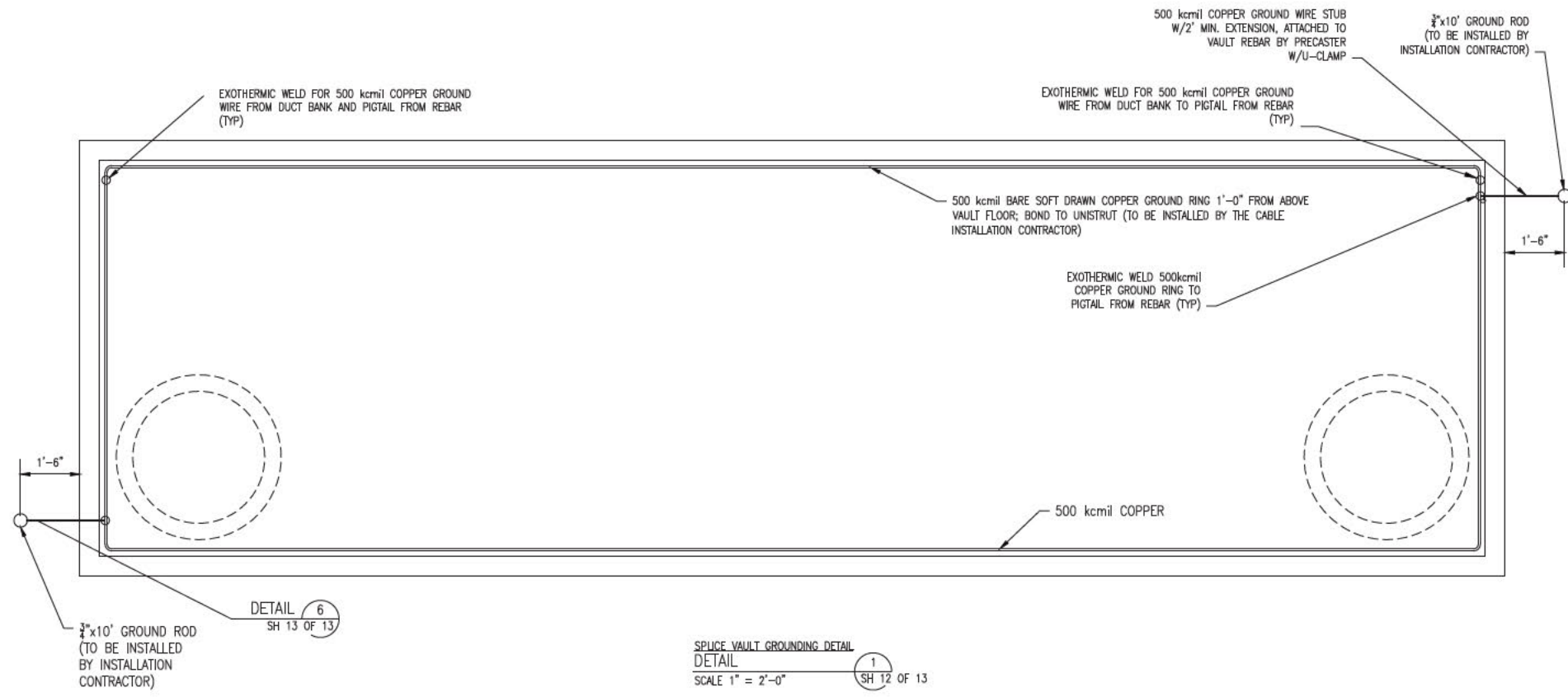
**EVERSOURCE ENERGY**

T 11

CIRCUIT F-107 115kV  
UNDERGROUND TRANSMISSION LINE  
SPLICE VAULT DETAIL SHEET  
SCALE: N.T.S.  
DATE: 06/25/2015

DES. REG: CRT/TSB  
DRW. REG: APR:  
TOWN: NEWINGTON  
TRANSMISSION LINE: LINE  
MILE NO. 8 & 9  
DISCIPLINE/SHT NO.  
SHEET 11 OF 13  
F10705060





**ISSUE FOR SEC AMENDMENT  
NOT FOR CONSTRUCTION**

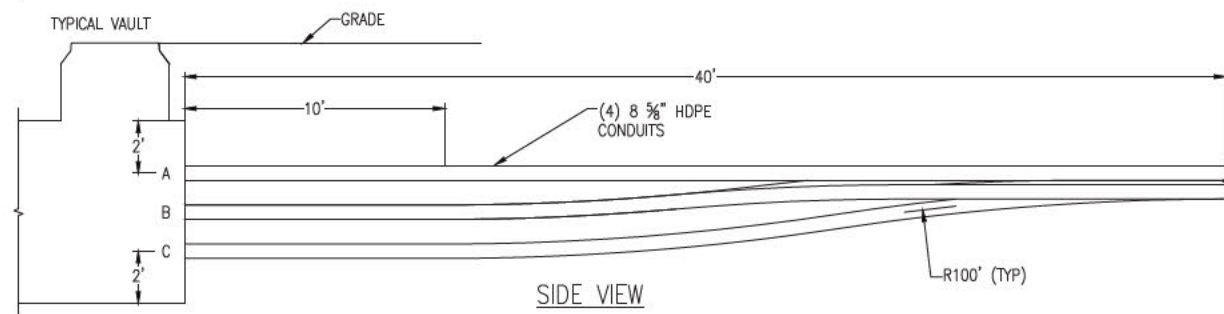
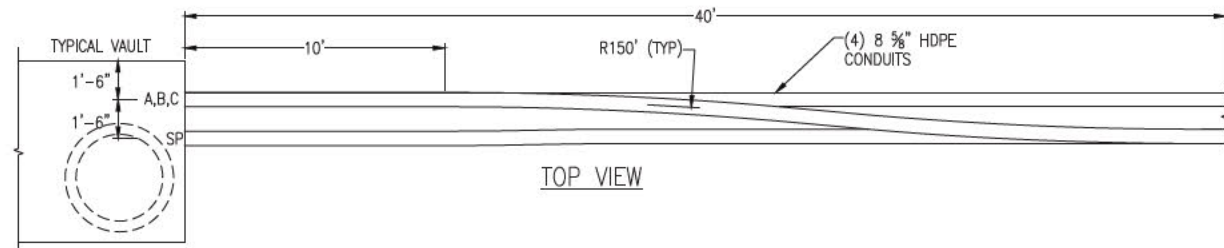
- NOTES:
1. ALL DIMENSIONS ARE INSIDE DIMENSIONS.
  2. PULLING HARDWARE SHALL BE GOOD FOR 60,000lbs OF TENSION, MINIMUM.
  3. SUMP SHALL BE CAPABLE OF HANDLING SUMP PUMP, MINIMUM 4" DEEP.
  4. CONDUITS MUST ALWAYS BE INSTALLED IN THE SAME DIRECTION (BELL END FLUSH WITH INTERIOR WALL OF VAULT).
  5. CABLE & ACCESSORIES CONTRACTOR TO FIELD VERIFY ACTUAL SPLICE VAULT DEPTHS. CONTRACTOR IS RESPONSIBLE FOR ALL SAFETY & ENTRY/EXIT REQUIREMENTS.
  6. ALL CHIMNEY RINGS SHALL BE MORTARED OR OTHERWISE "KEYED" TO PREVENT HORIZONTAL DISPLACEMENT AND SHALL BE SECURELY MORTARED TO SPLICE VAULT ROOF.
  7. MANHOLE RING SHALL BE SECURELY FASTENED TO THE SPLICE VAULT ROOF OR CHIMNEY USING INSERTS AND BOLTS OR OTHER MEANS WITH PRIOR APPROVAL.
  8. REINFORCING STEEL SHALL BE BONDED TO 500kcmil SOFT DRAWN BARE COPPER BONDING JUMPERS.
  9. MULTISECTION SPLICE VAULTS SHALL INCORPORATE EITHER SHIPLAP OR TONGUE AND GROOVE JOINTS UTILIZING APPROPRIATE SILICONE, POLYMERIC OR ELASTOMERIC SEALANTS.
  10. ALL UNISTRUT TO BE GROUNDED BY CONTRACTOR.
  11. ALL EXTERNAL SURFACES OF VAULT SHALL BE SEALED USING SONNEDORN HYDROCID 700 OR OWNER APPROVED EQUIVALENT.
  12. NO STEEL REINFORCING BAR MAY ENCAPSULATE ANY INDIVIDUAL CONDUIT.
  13. INSTALL CIRCUIT IDENTIFICATION LABELS ON VAULT WALL AND INSTALL DANGER WARNING SIGN IN CHIMNEY.
  14. CONTRACTOR SHALL PROVIDE RACKING FOR 50' OF DYNAMIC TEMPERATURE SENSING CABLE TO BE COILED ON THE WALL OPPOSITE THE CABLE SPLICES.

NO.	REVISION	DATE	BY	CHKD	APPRV.
11	REVISED FOR DESIGN	1/20/17	REG	SCS	TSB
10	REVISED FOR DESIGN	9/16/16	REG	SCS	TSB
9	ISSUE FOR BID	8/15/16	REG	SCS	TSB
8	ISSUE FOR PERMIT	12/28/15	REG	SCS	TSB
7	ISSUE FOR PERMIT	12/28/15	REG	SCS	TSB
6	ISSUE FOR PERMIT	12/14/15	REG	SCS	TSB
5	ISSUE FOR PERMIT	12/14/15	REG	SCS	TSB

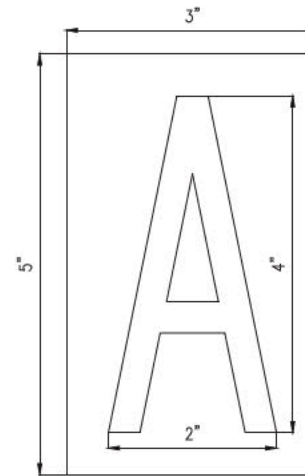
**EVERSOURCE ENERGY**

CIRCUIT F-107 115kV UNDERGROUND TRANSMISSION LINE  
SPLICE VAULT DETAIL SHEET  
SCALE: N.T.S.  
DATE: 06/29/2015  
TOWN: NEWINGTON  
TRANSMISSION LINE: LINE  
MILE NO: 8 & 9  
DISCIPLINE/SHT NO.  
SHEET 12 OF 13  
F10705060



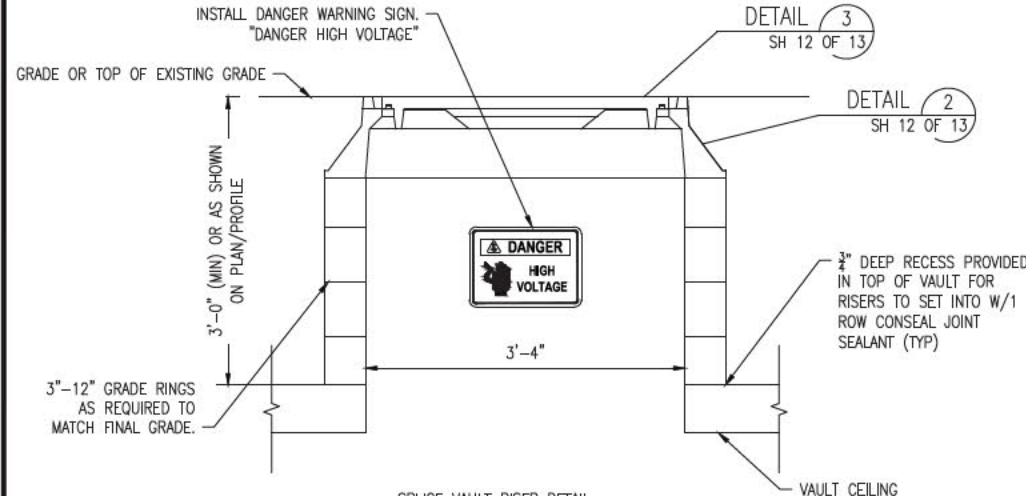


**SPLICE VAULT TRANSITION DETAIL**  
 NTS (1) SH 13 OF 13

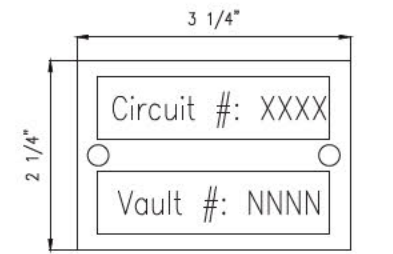


**PHASE IDENTIFICATION TAG DETAIL**  
 NTS (2) SH 13 OF 13

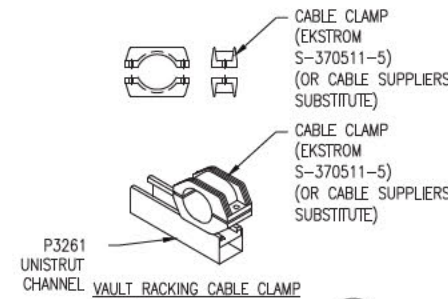
- NOTES:**
1. CHARACTER SHALL BE 4" HIGH BOLD TYPE.
  2. CHARACTER SHALL BE CENTERED ON SIGN.
  3. BACKGROUND: WHITE  
 LETTERING: BLACK  
 CHARACTERS: A, B & C AS SHOWN



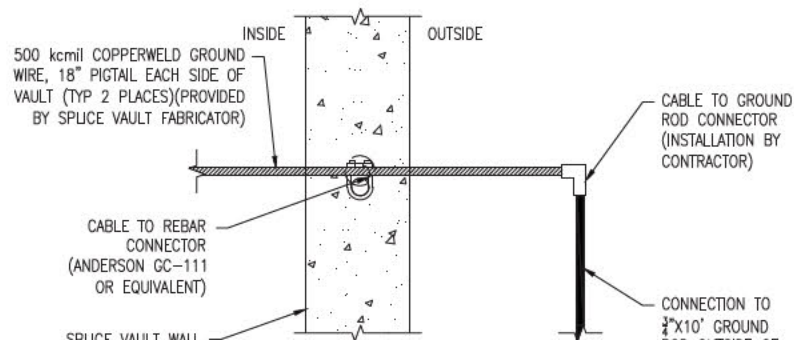
**SPLICE VAULT RISER DETAIL**  
 NTS (3) SH 13 OF 13



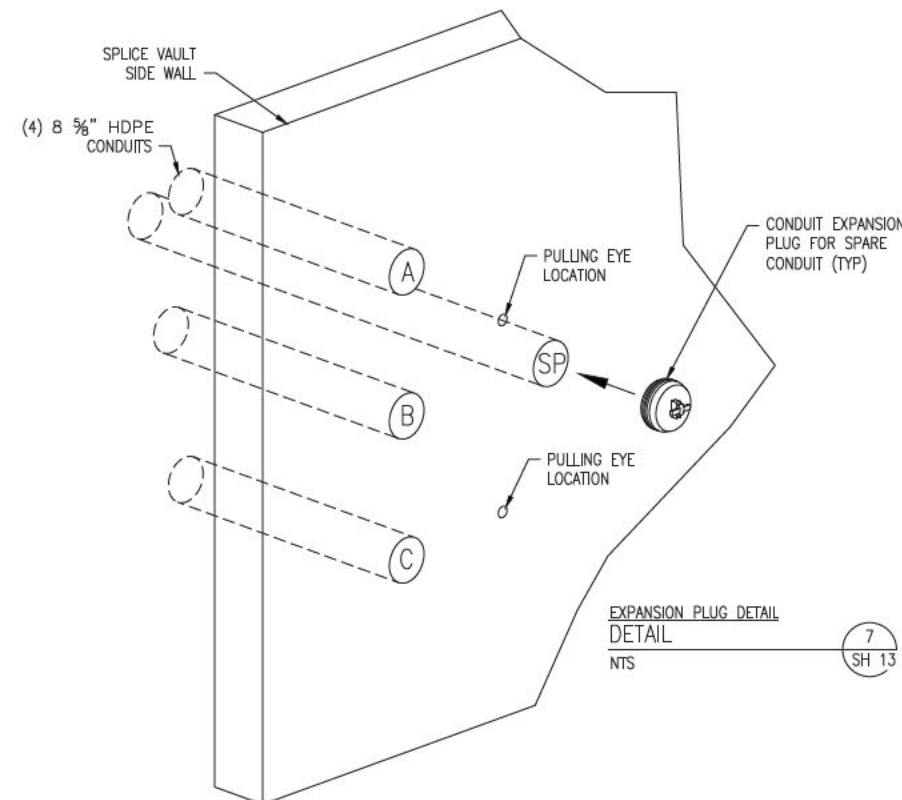
**CIRCUIT IDENTIFICATION TAG DETAIL**  
 NTS (4) SH 13 OF 13



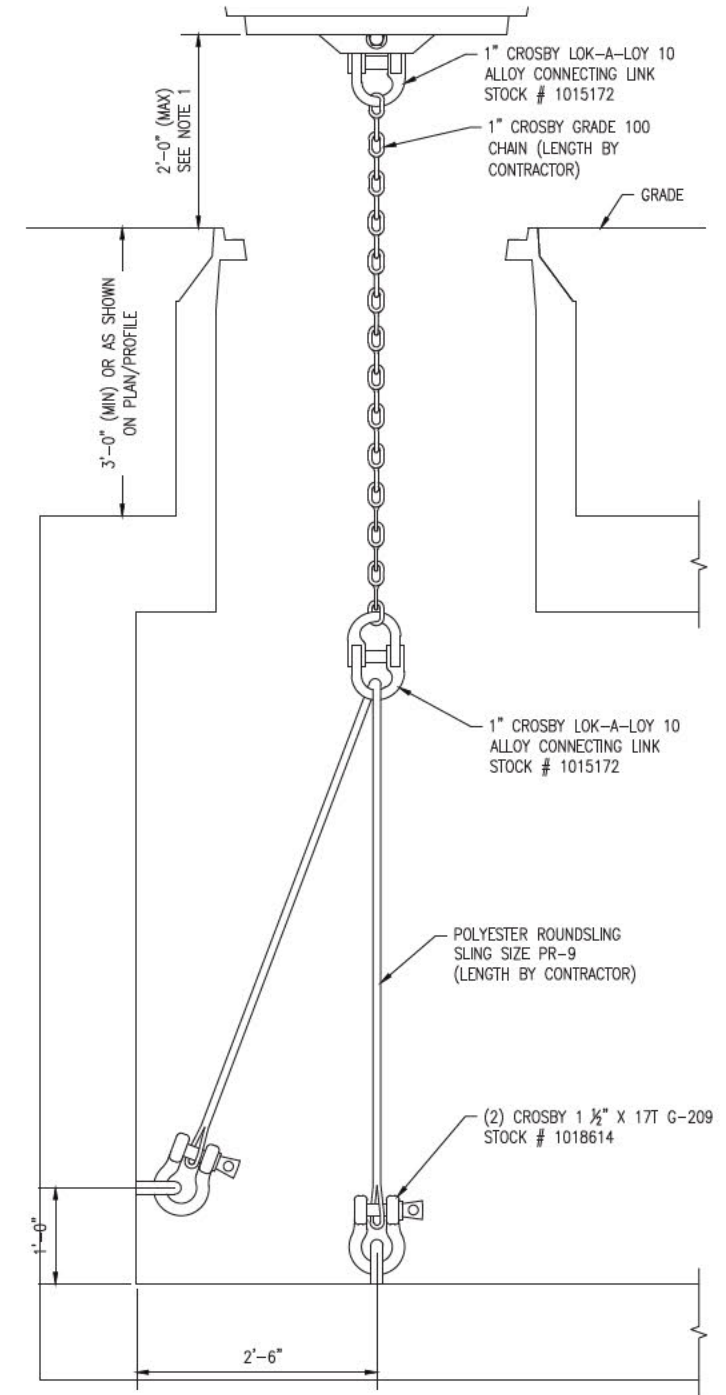
**VAULT RACKING CABLE CLAMP DETAIL**  
 NTS (5) SH 13 OF 13



**GROUND WIRE DETAIL**  
 NTS (6) SH 13 OF 13



**EXPANSION PLUG DETAIL**  
 NTS (7) SH 13 OF 13



**MANHOLE TETHER DETAIL**  
 NTS (8) SH 13 OF 13

- NOTE:**
1. CONTRACTOR TO ADJUST TETHER SYSTEM FOR MAXIMUM COVER RISE OF 24".

**ISSUE FOR SEC AMENDMENT  
 NOT FOR CONSTRUCTION**

NO.	DATE	REVISION	BY	CHKD	APPROV.
11	12/14/13	ISSUE FOR PERMIT	REG	SOO	TS62
7	12/14/13	RELOCATE RISER	REG	SOO	TS62
8	6/25/16	ISSUE FOR BID	REG	SOO	TS62
9	7/16/16	REVISED JOB DESIGN	REG	SOO	TS62
10	8/16/16	REVISED JOB DESIGN	REG	SOO	TS62
11	1/20/17	REVISED JOB DESIGN	REG	SOO	TS62

**EVERSOURCE ENERGY**

CIRCUIT F-107 115kV  
 UNDERGROUND TRANSMISSION LINE  
 SPLICE VAULT DETAIL SHEET  
 SCALE: N.T.S.  
 DATE: 06/29/2015  
 TOWN: NEWINGTON  
 TRANSMISSION LINE: LINE  
 MILE NO: 8 & 9  
 DISCIPLINE/SHT NO.  
 SHEET 13 OF 13  
 F10705060



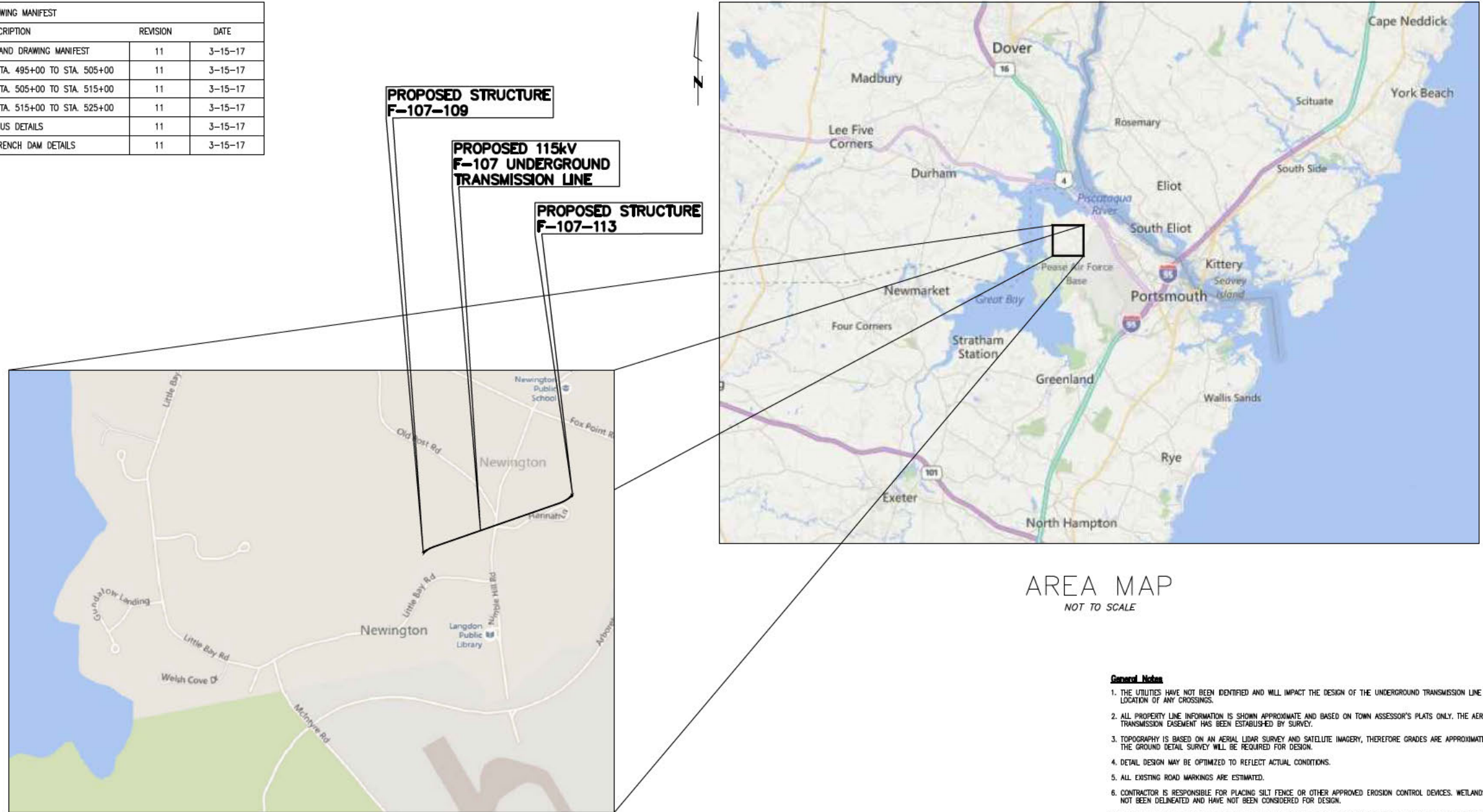


# PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE CIRCUIT F-107 FRINK FARM, NEWINGTON 115 kV UNDERGROUND TRANSMISSION LINE

DRAWING MANIFEST			
DRAWING NO.	TITLE/DESCRIPTION	REVISION	DATE
SHEET 1 OF 6	COVER SHEET, LEGEND, AND DRAWING MANIFEST	11	3-15-17
SHEET 2 OF 6	PLAN AND PROFILE DRAWING STA. 495+00 TO STA. 505+00	11	3-15-17
SHEET 3 OF 6	PLAN AND PROFILE DRAWING STA. 505+00 TO STA. 515+00	11	3-15-17
SHEET 4 OF 6	PLAN AND PROFILE DRAWING STA. 515+00 TO STA. 525+00	11	3-15-17
SHEET 5 OF 6	MISCELLANEOUS DETAILS	11	3-15-17
SHEET 6 OF 6	RISER SWEEP AND TRENCH DAM DETAILS	11	3-15-17

**LEGEND**

- ELECTRICAL STRUCTURE
- LAMP POST
- WOODEN POST
- IRRIGATION CONTROL VALVE
- ELECTRIC BOX
- TELECOMMUNICATION BOX
- UTILITY BOX
- CATCH BASIN
- CONIFEROUS TREE
- DECIDUOUS TREE
- CONCRETE
- RIP RAP
- LANDSCAPED AREA
- CRUSHED STONE
- SURFACE LEDGE
- TYP.
- RET.
- EP
- CONC.
- TREE LINE
- SHRUB LINE
- PROPERTY LINES
- DRAIN LINE
- OHW OVERHEAD ELECTRIC
- UGE UNDERGROUND ELECTRIC
- W WATER LINE
- TELE TELEPHONE LINE
- S SEWER
- STM STEAM LINE
- PD PROPOSED DRAIN
- EASMENT



AREA MAP  
NOT TO SCALE

VICINITY MAP  
NOT TO SCALE

**General Notes**

1. THE UTILITIES HAVE NOT BEEN IDENTIFIED AND WILL IMPACT THE DESIGN OF THE UNDERGROUND TRANSMISSION LINE AT THE LOCATION OF ANY CROSSINGS.
2. ALL PROPERTY LINE INFORMATION IS SHOWN APPROXIMATE AND BASED ON TOWN ASSESSOR'S PLATS ONLY. THE AERIAL TRANSMISSION EASEMENT HAS BEEN ESTABLISHED BY SURVEY.
3. TOPOGRAPHY IS BASED ON AN AERIAL LIDAR SURVEY AND SATELLITE IMAGERY, THEREFORE GRADES ARE APPROXIMATE. AN ON THE GROUND DETAIL SURVEY WILL BE REQUIRED FOR DESIGN.
4. DETAIL DESIGN MAY BE OPTIMIZED TO REFLECT ACTUAL CONDITIONS.
5. ALL EXISTING ROAD MARKINGS ARE ESTIMATED.
6. CONTRACTOR IS RESPONSIBLE FOR PLACING SILT FENCE OR OTHER APPROVED EROSION CONTROL DEVICES. WETLANDS HAVE NOT BEEN DELINEATED AND HAVE NOT BEEN CONSIDERED FOR DESIGN.
7. CONTRACTOR SHALL INSTALL SILT SACK OR APPROVED EQUAL TO ALL CATCH BASINS OR CURB INLETS WITHIN THE DEFINED WORK ZONE.
8. CONTRACTOR SHALL ENSURE PROPER CONTROLS ARE IN PLACE SO WORKERS DO NOT TRACK SEDIMENT PAST THE LIMITS OF WORK.
9. ALL VERTICAL RADII ARE 500' UNLESS OTHERWISE NOTED

NO.	REVISION	DATE	BY	CHKD	APPRV.
11	REVISED FOR 115KV UNDERGROUND TRANSMISSION LINE	3-15-17	REO	SOO	TSO
10	REVISED FOR DESIGN	12-29-16	REO	SOO	TSO
9	REVISED FOR DESIGN	8-18-16	REO	SOO	TSO
8	ISSUE FOR PERMITS	6-16-16	REO	SOO	TSO
7	REVISED PERMITS LOCATION PER DISCUSSURE	6-24-16	REO	SOO	TSO
6	ISSUE FOR PERMITS	6-2-16	REO	SOO	TSO



T	11
CIRCUIT F-107 115KV UNDERGROUND TRANSMISSION LINE PLAN AND PROFILE COVER	
SCALE: N.T.S.	
DES. REO	CHKD. TSO
DRW. REO	APPR. APRR.
TOWN: NEWINGTON	
TRANSMISSION LINE: LINE	
MILE NO.: 1.0	
DISCIPLINE/SHT NO.	
SHEET 1 OF 6	
F10743104	

PSNH (PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE)  
DESIGN ENGINEER: JOSEPH SPERRY

PSNH (PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE)  
WORK ORDER NUMBER:

POWER ENGINEERS  
PROJECT ENGINEER: TODD GOYETTE

POWER ENGINEERS  
PROJECT NUMBER: 133007

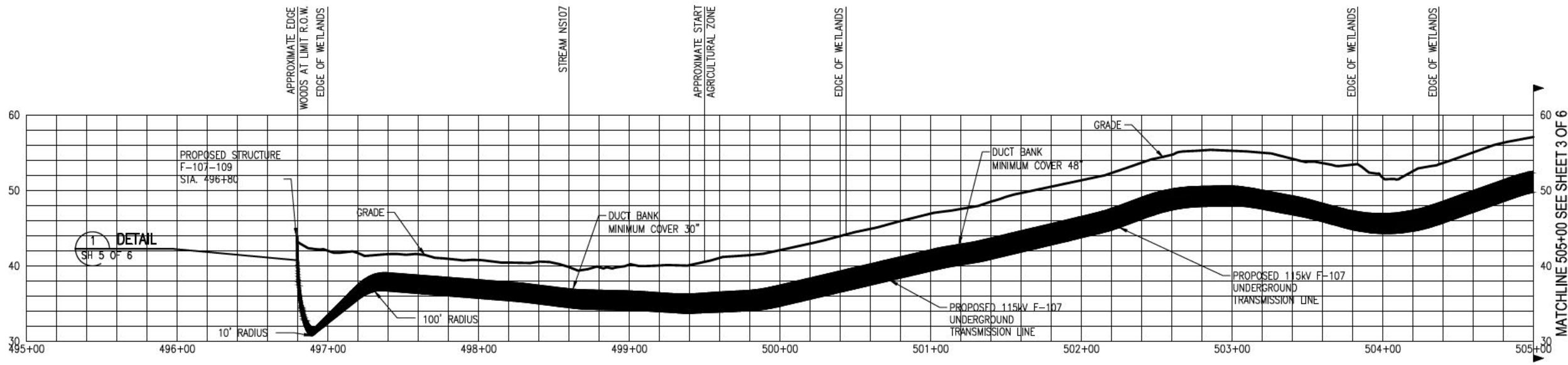
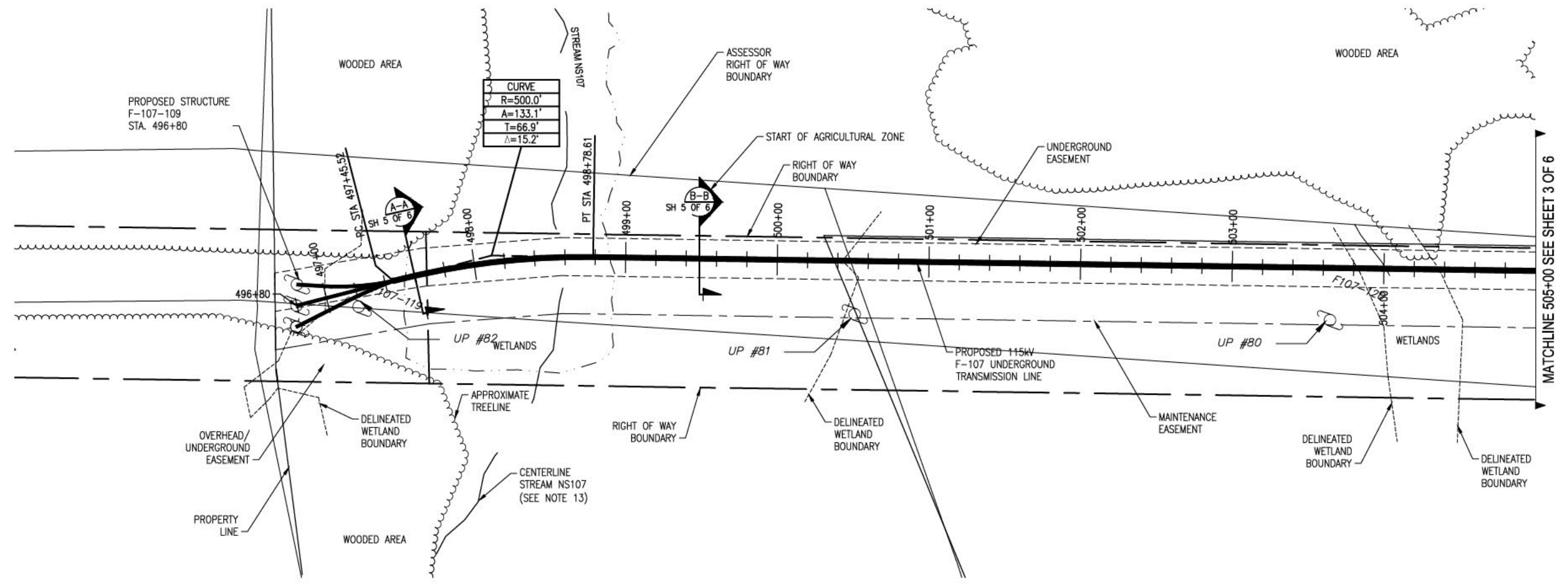
PRINT DRAWING TO SCALE ON 22"x34" SHEET

THREE BUSINESS DAYS BEFORE YOU DIG CALL  
**NEW HAMPSHIRE DIG SAFE SYSTEM, INC.**  
TOLL FREE  
1-888-344-7233

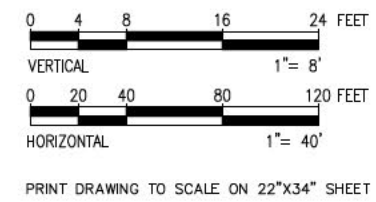
**Know what's below.  
Call before you dig.**

**ISSUE FOR SEC AMENDMENT  
NOT FOR CONSTRUCTION**





- General Notes**
1. THE UTILITIES HAVE NOT BEEN IDENTIFIED AND WILL IMPACT THE DESIGN OF THE UNDERGROUND TRANSMISSION LINE AT THE LOCATION OF ANY CROSSINGS.
  2. ALL PROPERTY LINE INFORMATION IS SHOWN APPROXIMATE AND BASED ON TOWN ASSESSOR'S PLATS ONLY. THE AERIAL TRANSMISSION EASEMENT HAS BEEN ESTABLISHED BY SURVEY.
  3. TOPOGRAPHY IS BASED ON AN AERIAL LIDAR SURVEY AND SATELLITE IMAGERY, THEREFORE GRADES ARE APPROXIMATE. AN ON-THE-GROUND DETAIL SURVEY WILL BE REQUIRED FOR DESIGN.
  4. DETAIL DESIGN MAY BE OPTIMIZED TO REFLECT ACTUAL CONDITIONS.
  5. ALL EXISTING ROAD MARKINGS ARE ESTIMATED.
  6. CONTRACTOR IS RESPONSIBLE FOR PLACING SILT FENCE OR OTHER APPROVED EROSION CONTROL DEVICES. WETLANDS HAVE NOT BEEN DELINEATED AND HAVE NOT BEEN CONSIDERED FOR DESIGN.
  7. CONTRACTOR SHALL INSTALL SILT SACK OR APPROVED EQUAL TO ALL CATCH BASINS OR CURB INLETS WITHIN THE DEFINED WORK ZONE.
  8. CONTRACTOR SHALL ENSURE PROPER CONTROLS ARE IN PLACE SO WORKERS DO NOT TRACK SEDIMENT PAST THE LIMITS OF WORK.
  9. ALL VERTICAL RADII ARE 500' UNLESS OTHERWISE NOTED.
  10. WARNING TAPE TO BE PLACED DIRECTLY ABOVE DUCT AT EXTENDED DEPTH TRENCH.
  11. THE TOP SOIL IN THE AGRICULTURAL ZONE (STA 500+05 TO STA 511+25) WILL BE STOCKPILED AND PRESERVED. THIS TOPSOIL WILL BE REPLACED AT THE CONCLUSION OF THE PROJECT UNDER THE SUPERVISION OF A CERTIFIED SOIL SCIENTIST.
  12. STREAM TO BE TEMPORARILY DIVERTED DURING CONSTRUCTION.
  13. REFER TO STREAM CROSSING DETAIL PROVIDED IN APPENDIX C OF TPSM RESPONSE TO DES WETLANDS BUREAU NOVEMBER 10, 2016 PROGRESS REPORT, DATED JAN 11, 2017.



**811**  
Know what's below.  
Call before you dig.

THREE BUSINESS DAYS BEFORE YOU DIG CALL  
NEW HAMPSHIRE DIG SAFE SYSTEM, INC.  
TOLL FREE  
1-888-344-7233

**ISSUE FOR SEC AMENDMENT  
NOT FOR CONSTRUCTION**



NO.	REVISION	DATE	BY	CHKD	APPRV.
11	REVISED FOR WOOD DELINEATED WETLANDS	3-15-17	RED	SSS	TSO
10	REVISED FOR DESIGN	12-29-16	RED	SSS	TSO
9	REVISED FOR DESIGN	8-16-16	RED	SSS	TSO
8	ISSUE FOR PERM	6-16-16	RED	SSS	TSO
7	REVISED PER 108 LOCATION PER DISCUSSURE	6-24-16	RED	SSS	TSO
6	ISSUE FOR PERM	6-2-16	RED	SSS	TSO

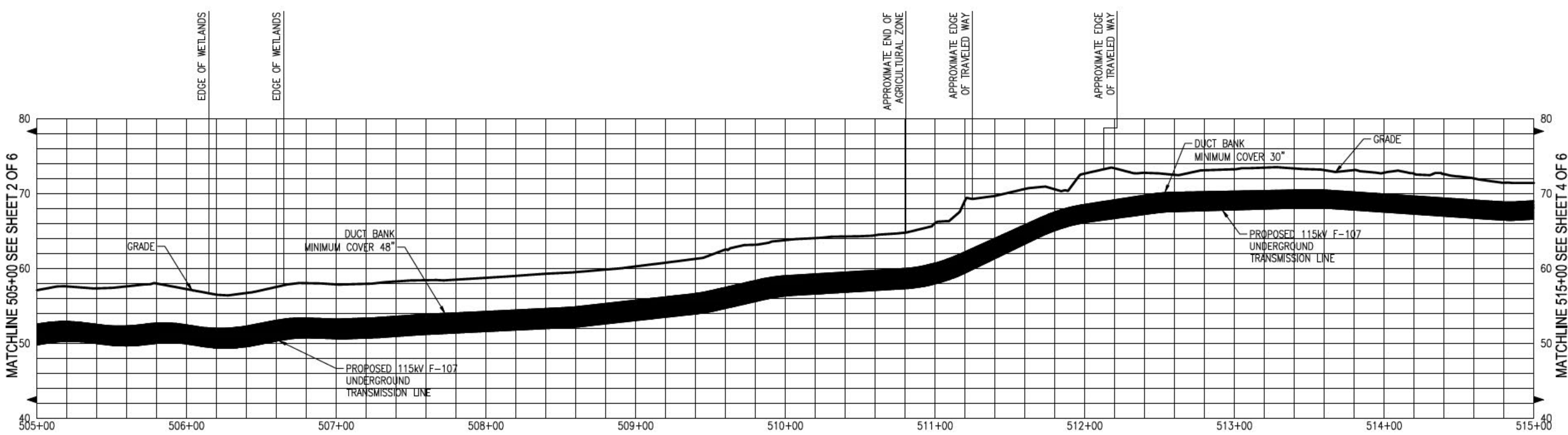
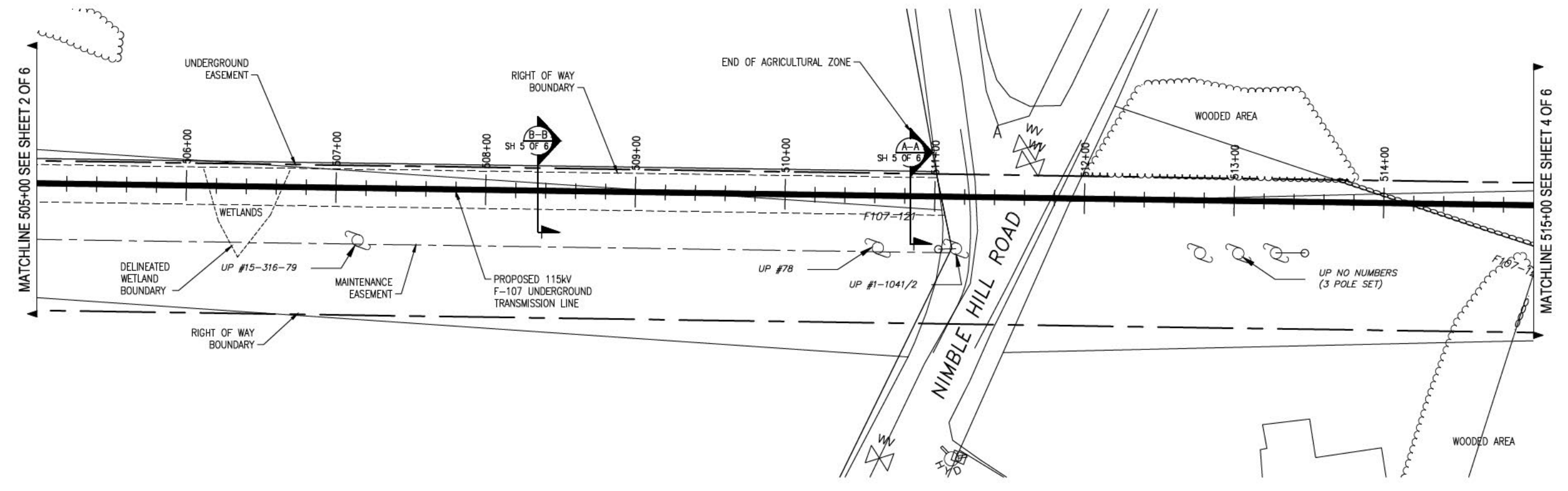
**EVERSOURCE ENERGY**

115kV F107 UNDERGROUND TRANSMISSION LINE  
PLAN AND PROFILE VIEW  
DATE: 07/24/2015  
SCALE: H: 1"=40', V: 1"=8'

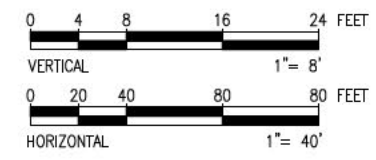
T 11

DES. REQ. CHECKED: [ ]  
CIVIL REQ. APPROVED: [ ]  
TOWN: NEWINGTON  
TRANSMISSION LINE: [ ]  
LINE: [ ]  
MILE NO.: 1.0  
DISCIPLINE/SHT NO.: [ ]  
SHEET 2 OF 6  
F10743004

3/24/2017 1:54 PM - d:\difford - R:\Projects\133007\DD\DWG\03\_Line\03\_Design\3-24-17\F10743004-PRINT HALF SIZE.dwg - SH. 3



- General Notes**
1. THE UTILITIES HAVE NOT BEEN IDENTIFIED AND WILL IMPACT THE DESIGN OF THE UNDERGROUND TRANSMISSION LINE AT THE LOCATION OF ANY CROSSINGS.
  2. ALL PROPERTY LINE INFORMATION IS SHOWN APPROXIMATE AND BASED ON TOWN ASSESSOR'S PLATS ONLY. THE AERIAL TRANSMISSION EASEMENT HAS BEEN ESTABLISHED BY SURVEY.
  3. TOPOGRAPHY IS BASED ON AN AERIAL LIDAR SURVEY AND SATELLITE IMAGERY, THEREFORE GRADES ARE APPROXIMATE. AN ON THE GROUND DETAIL SURVEY WILL BE REQUIRED FOR DESIGN.
  4. DETAIL DESIGN MAY BE OPTIMIZED TO REFLECT ACTUAL CONDITIONS.
  5. ALL EXISTING ROAD MARKINGS ARE ESTIMATED.
  6. CONTRACTOR IS RESPONSIBLE FOR PLACING SILT FENCE OR OTHER APPROVED EROSION CONTROL DEVICES. WETLANDS HAVE NOT BEEN DELINEATED AND HAVE NOT BEEN CONSIDERED FOR DESIGN.
  7. CONTRACTOR SHALL INSTALL SILT SACK OR APPROVED EQUAL TO ALL CATCH BASINS OR CURB INLETS WITHIN THE DEFINED WORK ZONE.
  8. CONTRACTOR SHALL ENSURE PROPER CONTROLS ARE IN PLACE SO WORKERS DO NOT TRACK SEDIMENT PAST THE LIMITS OF WORK.
  9. ALL VERTICAL RADII ARE 500' UNLESS OTHERWISE NOTED.
  10. WARNING TAPE TO BE PLACED DIRECTLY ABOVE DUCT AT EXTENDED DEPTH TRENCH.
  11. THE TOP SOIL IN THE AGRICULTURAL ZONE (STA 500+05 TO STA 511+25) WILL BE STOCKPILED AND PRESERVED. THIS TOPSOIL WILL BE REPLACED AT THE CONCLUSION OF THE PROJECT UNDER THE SUPERVISION OF A CERTIFIED SOIL SCIENTIST.
  12. STREAM TO BE TEMPORARILY DIVERTED DURING CONSTRUCTION.



PRINT DRAWING TO SCALE ON 22"x34" SHEET

THREE BUSINESS DAYS BEFORE YOU DIG CALL  
**NEW HAMPSHIRE DIG SAFE SYSTEM, INC.**  
 TOLL FREE  
 1-888-344-7233

**Know what's below.  
 Call before you dig.**

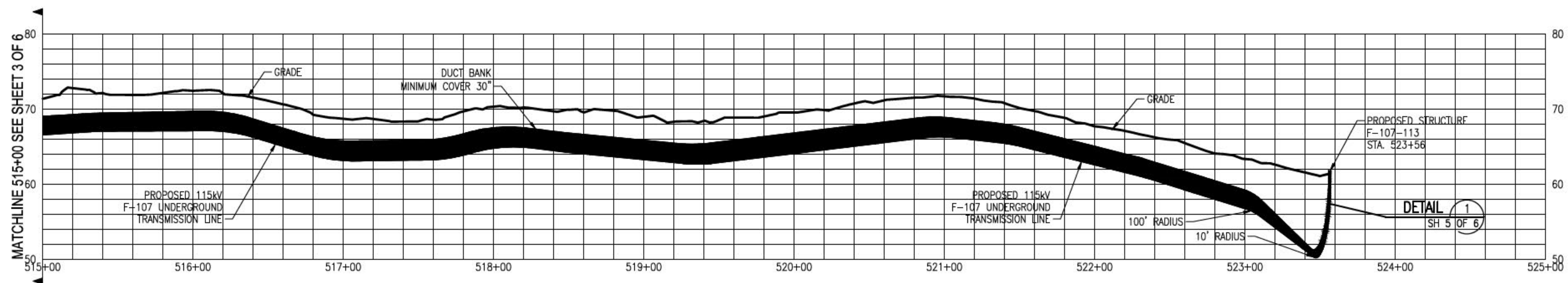
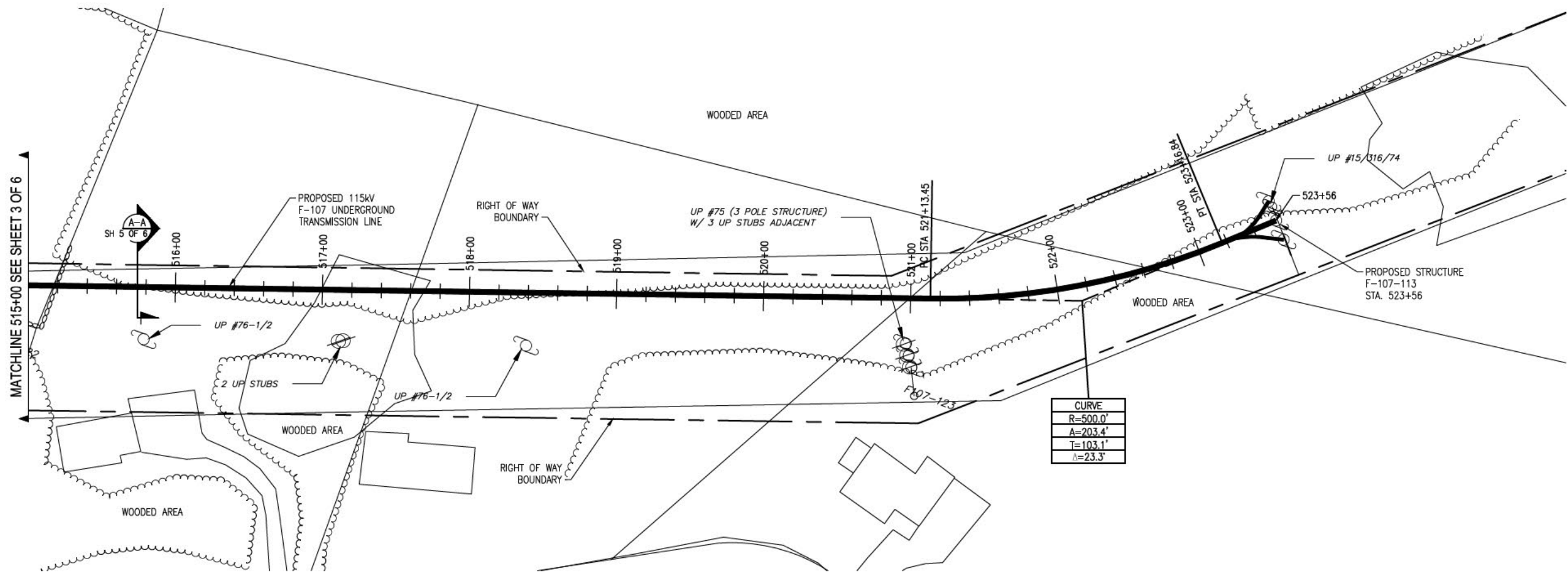
**ISSUE FOR SEC AMENDMENT  
 NOT FOR CONSTRUCTION**



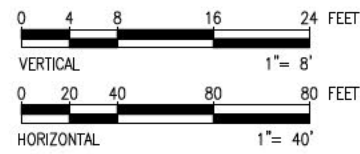
NO.	REVISION	DATE	BY	CHKD	APPRV.
11	REVISED FOR ADDITIONAL WETLANDS	3-15-17	REC	502	TSO
10	REVISED FOR DESIGN	12-29-16	REC	502	TSO
9	REVISED FOR DESIGN	8-16-16	REC	502	TSO
8	ISSUE FOR 40'	6-16-16	REC	502	TSO
7	REVISED HERE FOR LOCATION PER DISCUSSURE	6-24-16	REC	502	TSO
6	ISSUE FOR RAIN	6-2-16	REC	502	TSO

**EVERSOURCE ENERGY**

CIRCUIT F-107 115KV  
 UNDERGROUND TRANSMISSION LINE  
 PLAN AND PROFILE VIEW  
 DATE: 07/24/2015  
 SCALE: H: 1"=40', V: 1"=8'  
 SHEET 3 OF 6  
 F10743004



- General Notes**
1. THE UTILITIES HAVE NOT BEEN IDENTIFIED AND WILL IMPACT THE DESIGN OF THE UNDERGROUND TRANSMISSION LINE AT THE LOCATION OF ANY CROSSINGS.
  2. ALL PROPERTY LINE INFORMATION IS SHOWN APPROXIMATE AND BASED ON TOWN ASSESSOR'S PLATS ONLY. THE AERIAL TRANSMISSION EASEMENT HAS BEEN ESTABLISHED BY SURVEY.
  3. TOPOGRAPHY IS BASED ON AN AERIAL LIDAR SURVEY AND SATELLITE IMAGERY, THEREFORE GRADES ARE APPROXIMATE. AN ON THE GROUND DETAIL SURVEY WILL BE REQUIRED FOR DESIGN.
  4. DETAIL DESIGN MAY BE OPTIMIZED TO REFLECT ACTUAL CONDITIONS.
  5. ALL EXISTING ROAD MARKINGS ARE ESTIMATED.
  6. CONTRACTOR IS RESPONSIBLE FOR PLACING SILT FENCE OR OTHER APPROVED EROSION CONTROL DEVICES. WETLANDS HAVE NOT BEEN DELINEATED AND HAVE NOT BEEN CONSIDERED FOR DESIGN.
  7. CONTRACTOR SHALL INSTALL SILT SACK OR APPROVED EQUAL TO ALL CATCH BASINS OR CURB INLETS WITHIN THE DEFINED WORK ZONE.
  8. CONTRACTOR SHALL ENSURE PROPER CONTROLS ARE IN PLACE SO WORKERS DO NOT TRACK SEDIMENT PAST THE LIMITS OF WORK.
  9. ALL VERTICAL RADII ARE 500' UNLESS OTHERWISE NOTED.
  10. WARNING TAPE TO BE PLACED DIRECTLY ABOVE DUCT AT EXTENDED DEPTH TRENCH.
  11. THE TOP SOIL IN THE AGRICULTURAL ZONE (STA 500+05 TO STA 511+25) WILL BE STOCKPILED AND PRESERVED. THIS TOPSOIL WILL BE REPLACED AT THE CONCLUSION OF THE PROJECT UNDER THE SUPERVISION OF A CERTIFIED SOIL SCIENTIST.
  12. STREAM TO BE TEMPORARILY DIVERTED DURING CONSTRUCTION.



PRINT DRAWING TO SCALE ON 22"x34" SHEET

**811**  
Know what's below.  
Call before you dig.

THREE BUSINESS DAYS BEFORE YOU DIG CALL  
NEW HAMPSHIRE DIG SAFE SYSTEM, INC.  
TOLL FREE  
1-888-344-7233

ISSUE FOR SEC AMENDMENT  
NOT FOR CONSTRUCTION

**POWER ENGINEERS**

NO.	REVISION	DATE	BY	CHKD	APPR.
11	REVISED FOR 70% AVOID IDENTIFIED WETLANDS	3-15-17	RED	SOB	TSB
10	REVISED FOR DESIGN	12-29-16	RED	SOB	TSB
9	REVISED FOR DESIGN	8-16-16	RED	SOB	TSB
8	ISSUE FOR 40%	8-16-16	RED	SOB	TSB
7	REVISED HERE FOR LOCATION PER DISCUSSURE	8-24-16	RED	SOB	TSB
6	ISSUE FOR 10%	6-2-16	RED	SOB	TSB

**EVERSOURCE ENERGY**

CIRCUIT F107 115kV  
UNDERGROUND TRANSMISSION LINE  
PLAN AND PROFILE VIEW

DATE: 07/24/2015

SCALE: H: 1"=40', V: 1"=8'

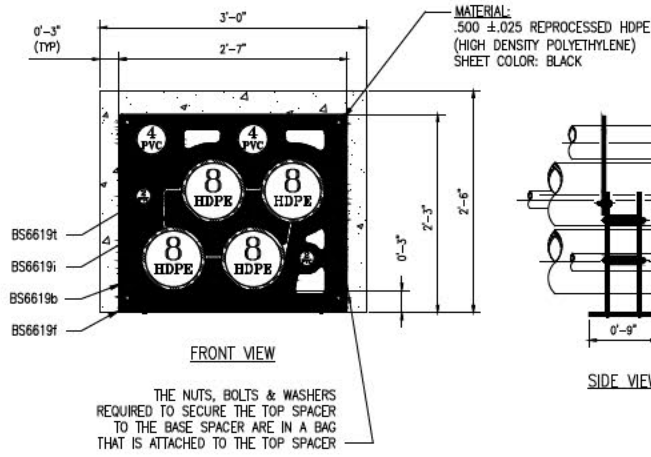
T 11

DES: RED CHK: TSB  
DWR: RED AP: TSB

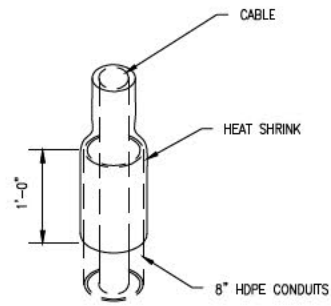
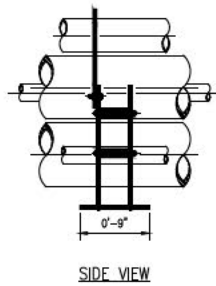
TOWN: NEWINGTON  
TRANSMISSION LINE:  
LINE

MILE NO: 1.0  
DISCIPLINE/SHT NO.

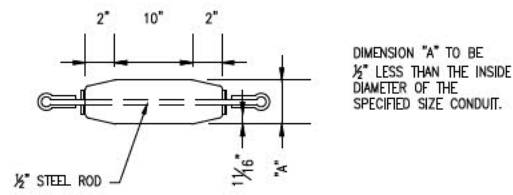
SHEET 4 OF 6  
F10743004



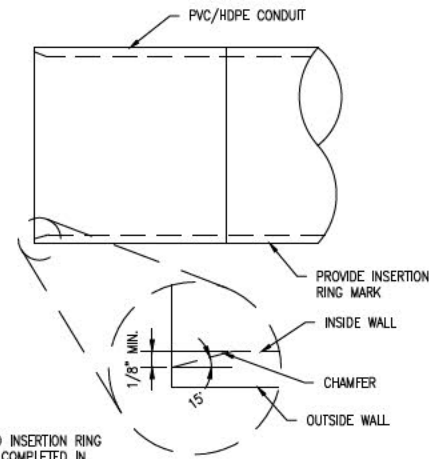
**UNDERGROUND DEVICES SPACER ARRANGEMENT**  
**DETAIL 1**  
 SCALE: N.T.S. SH 5 OF 6



**HEAT SHRINK DETAIL**  
**DETAIL 2**  
 SCALE: N.T.S. SH 5 OF 6

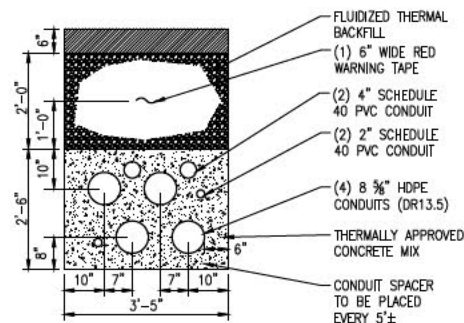


**MANDREL DETAIL**  
**DETAIL 3**  
 SCALE: N.T.S. SH 5 OF 6

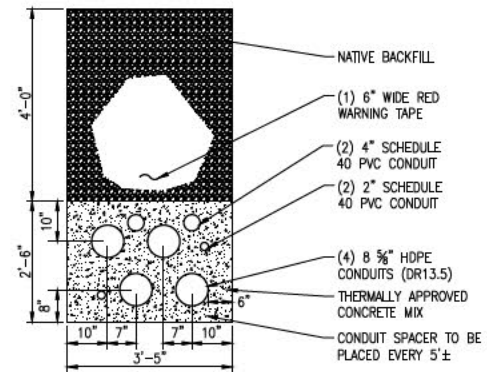


NOTE: CHAMFER AND INSERTION RING MARK TO BE COMPLETED IN FACTORY.

**PVC/HDPE DUCT CHAMFER DETAIL**  
**DETAIL 4**  
 SCALE: N.T.S. SH 5 OF 6



**SINGLE CIRCUIT TRENCH SECTION**  
**SECTION A-A**  
 SCALE: N.T.S. SH 5 OF 6



**FARMLAND TRENCH SECTION**  
**SECTION B-B**  
 SCALE: N.T.S. SH 5 OF 6

NO.	REVISION	DATE	BY	CHKD	APPRV.
11	REVISED FOR ADDITIONAL METERS	3-15-17	RED	SDS	TSD
10	REVISED FOR DESIGN	12-22-16	RED	SDS	TSD
9	REVISED FOR DESIGN	8-18-16	RED	SDS	TSD
8	ISSUE FOR BID	8-18-16	RED	SDS	TSD
7	REVISED FOR LOCATION PER DISCUSS	8-24-16	RED	SDS	TSD
6	ISSUE FOR BIDD	6-2-16	RED	SDS	TSD

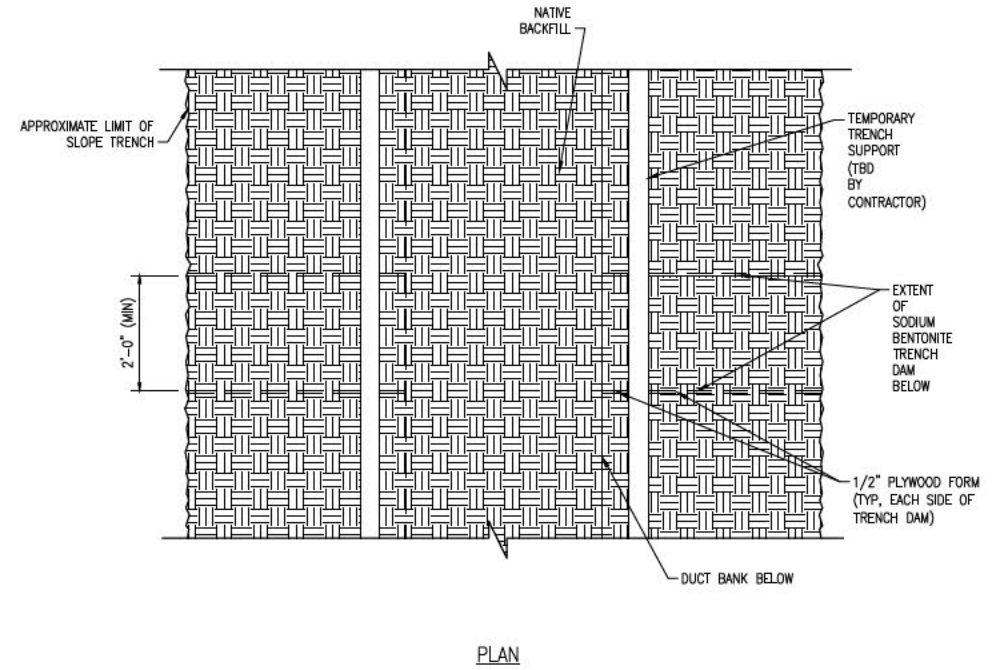
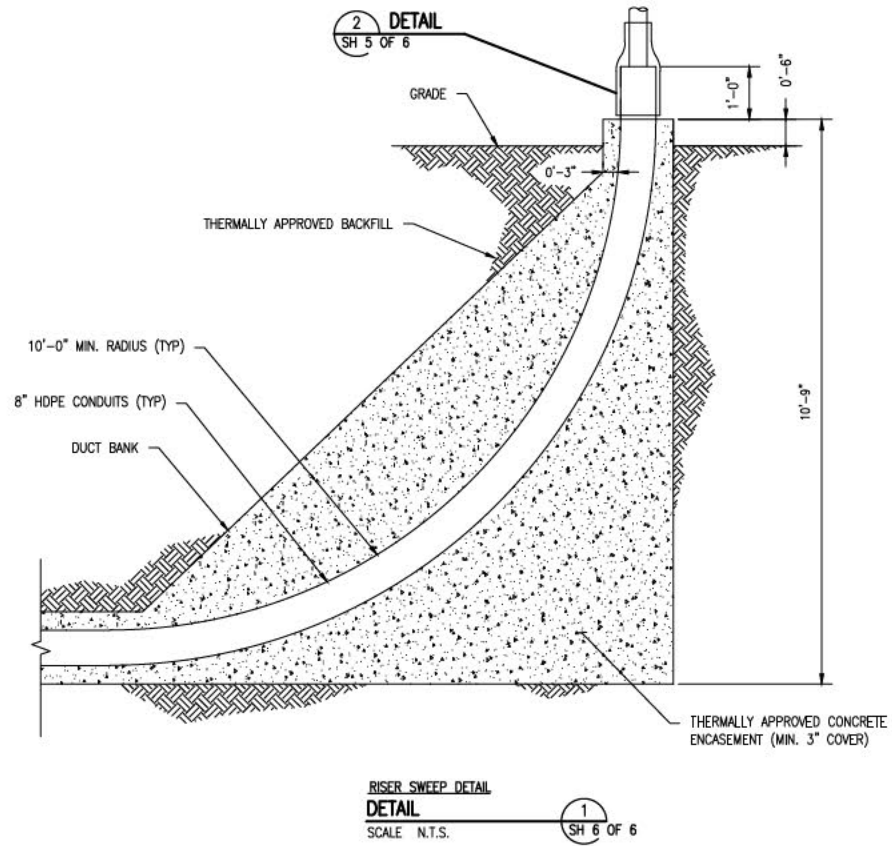
**EVERSOURCE ENERGY**

CIRCUIT F-107 115KV  
 UNDERGROUND TRANSMISSION LINE  
 MISCELLANEOUS DETAILS  
 DATE: 07/24/2015  
 SCALE: N.T.S.

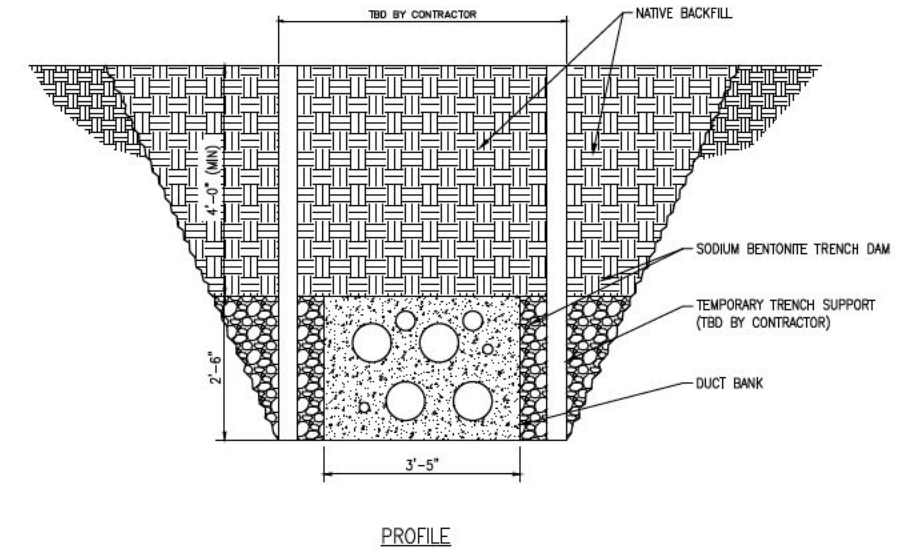
ISSUE FOR SEC AMENDMENT  
 NOT FOR CONSTRUCTION



3/24/2017 1:54 PM - dclifford - R:\Projects\133007\DWG\03\_Line\03\_DESIGN\3-24-17\F10743004-PRINT HALF SIZE.dwg - DETAILS SH 6 ES VER. 11/2015



**NOTE:**  
1. COPE PLYWOOD FORM TO FIT SNUGLY OVER CONCRETE DUCT BANK.



**NOTE:**  
1. PLACE BENTONITE BETWEEN DUCT BANK AND TRENCH SUPPORT AND BETWEEN TRENCH SUPPORT AND TRENCH SIDEWALLS.  
2. SEE F107 LINE CROSSING FRINK FARM, REVISION 0, TRENCH DAM LOCATION PLAN FIGURE 3, BY GEI CONSULTANTS, FOR PLACEMENT.

**GEI FARMLAND TRENCH DAM**  
**2 DETAIL**  
SCALE N.T.S.  
SH 6 OF 6

NO.	REVISION	DATE	BY	CHKD	APPRV.
11	REVISED FOR 115KV UNDERGROUND TRANSMISSION LINE	3-15-17	RED	SOB	TSB
10	REVISED FOR DESIGN	12-22-16	RED	SOB	TSB
9	ISSUE FOR PERMITS	8-16-16	RED	SOB	TSB
8	ISSUE FOR PERMITS	8-16-16	RED	SOB	TSB
7	REVISED HERE FOR LOCATION PER DISCUSSURE	6-24-16	RED	SOB	TSB
6	ISSUE FOR PERMITS	6-2-16	RED	SOB	TSB

**EVERSOURCE ENERGY**

CIRCUIT F-107 115KV UNDERGROUND TRANSMISSION LINE RISER AND TRENCH DAM DETAILS  
SCALE N.T.S.

DES: RED CHK: TSB  
APP: RED APR: TSB

TOWN: NEWINGTON  
TRANSMISSION LINE: LINE  
MILE NO: 1.0  
DISCIPLINE/SHT NO:  
SHEET 6 OF 6  
F10743004

**ISSUE FOR SEC AMENDMENT  
NOT FOR CONSTRUCTION**



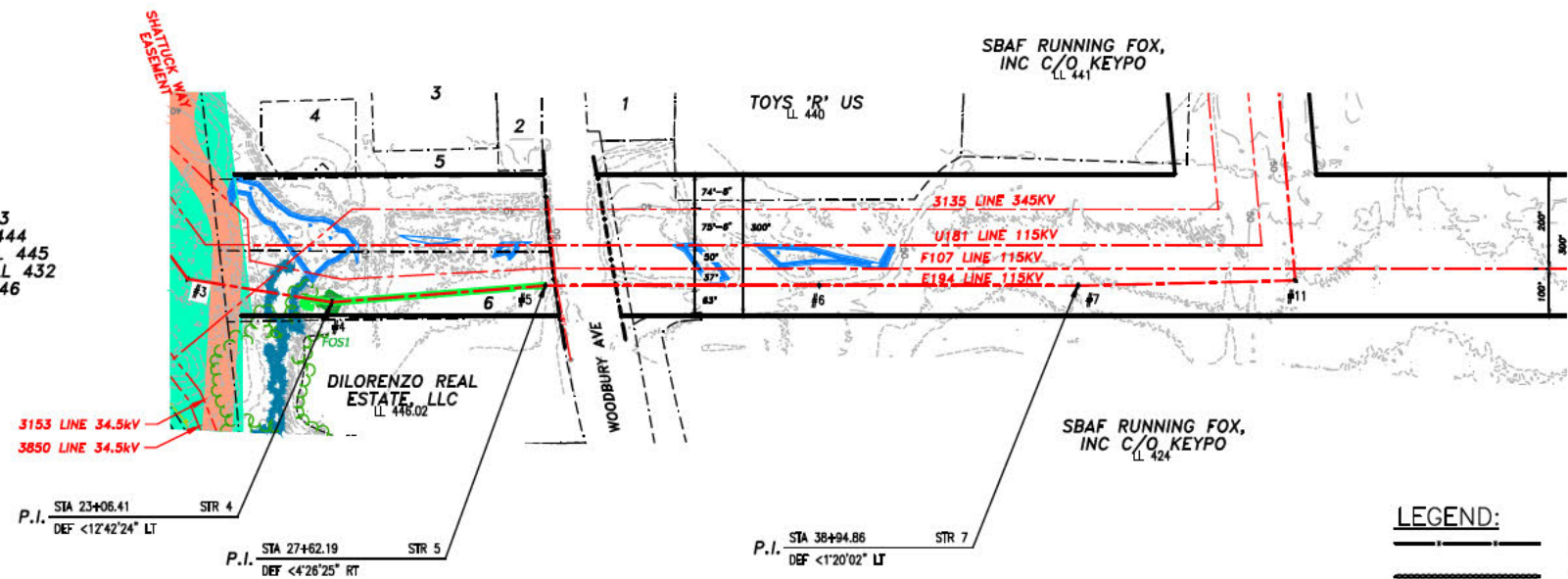
PRINT DRAWING TO SCALE ON 22"X34" SHEET



# NEWINGTON, N. H.

THIS PLAN FOR REFERENCE ONLY.  
NO REPRESENTATION OR WARRANTY IS  
MADE AS TO LOCATION OF  
BOUNDARIES OR OTHER POINTS OF  
REFERENCE

- PARCELS:
1. CUMBERLAND FARMS, INC, LL 442
  2. RPI NEWINGTON REALTY, LLC, LL 443
  3. HALLETT TRUSTEE, RICHARD S., LL 444
  4. SYLVIA H. MARPLE REVOC TRUST, LL 445
  5. PUBLIC SERVICE COMPANY OF NH, LL 432
  6. DILORENZO REAL ESTATE, LLC, LL 446



1590 ACSR 45/7 LAPWING @ 4,200 LBS. NESC HEAVY, 285'F  
ADSS @ 1,100 LBS. NESC HEAVY, 120'F  
(STR 3 TO STR 4)  
1590 ACSR 45/7 LAPWING @ 11,400 LBS. NESC HEAVY, 285'F  
24 FIBER OPGW @ 4,500 LBS. NESC HEAVY, 120'F  
(STR 4 TO STR 11)  
19 NO. 10 ALUMOWELD @ 4,200 LBS. NESC HEAVY, 120'F  
(STR 7 TO STR 11)

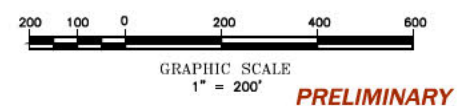
NOTES:  
1. COUNTERPOISE LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD. CONTRACTOR SHALL COMPLETE RESISTIVITY TESTING IN ACCORDANCE WITH OTRM 064 AND 264 AND ADJUST COUNTERPOISE INSTALLATION ACCORDINGLY.

SPlice INFORMATION	
FOS1	
STRUCTURE :	STR 4
DESCRIPTION :	24 FIBER OPGW
REEL NO. :	1
COILED CABLE :	100'
DIST. NEXT SPlice :	2051' AHEAD

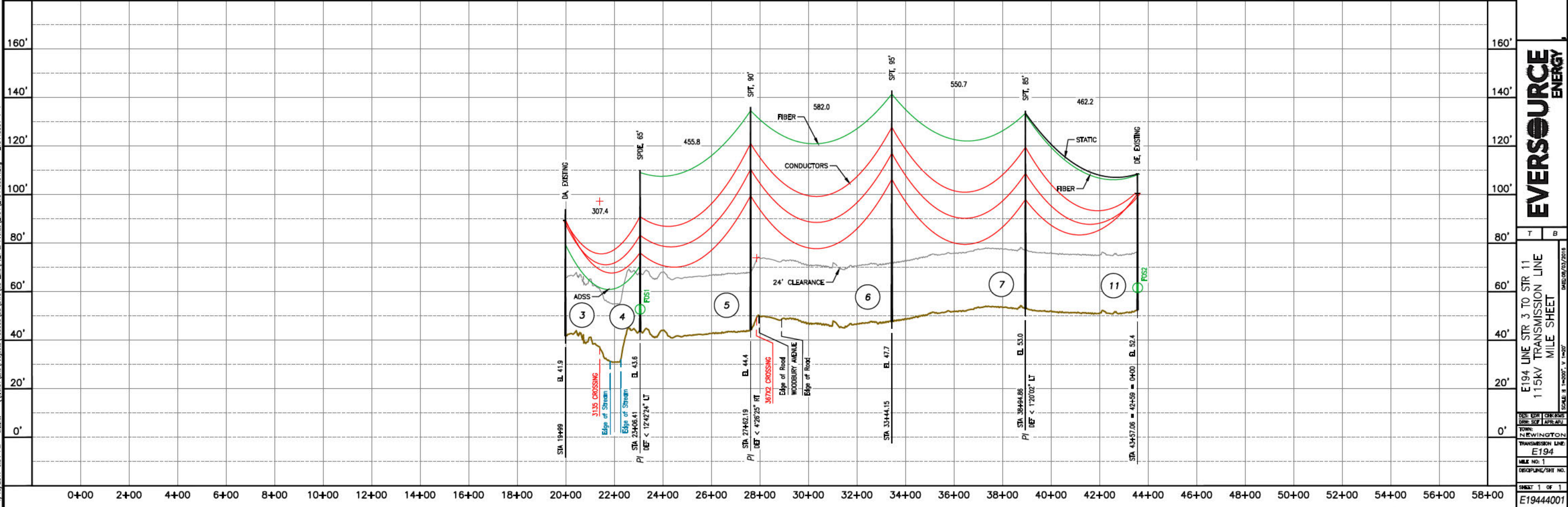
SPlice INFORMATION	
FOS2	
STRUCTURE :	STR 11
DESCRIPTION :	24 FIBER OPGW
REEL NO. :	1
COILED CABLE :	100'
DIST. NEXT SPlice :	2051' BACK

### LEGEND:

- DENOTES LINE COUNTERPOISE
- FENCE
- STONEWALL
- LIMITS OF WET
- EDGE OF WET DELINEATION
- TOPOGRAPHICAL CONTOURS WITH 10' INTERVALS
- TOPOGRAPHICAL CONTOURS WITH 2' INTERVALS
- TREE LINE
- BUILDINGS
- FEE PROPERTY
- FIBER OPTIC SPlice LOCATION
- #1 E194 STRUCTURE
- #1 E194 STRUCTURE IN WET



RULING SPAN = 307' (STR 3 TO STR 4)  
RULING SPAN = 521' (STR 4 TO STR 11)



# EVERSOURCE ENERGY

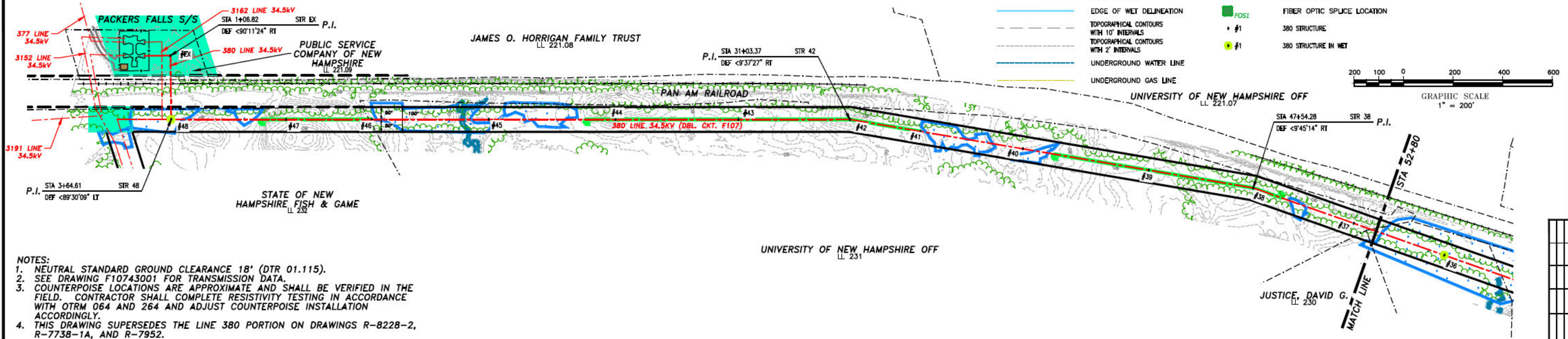
E194 LINE STR 3 TO STR 11  
115kV TRANSMISSION LINE  
MILE SHEET  
DATE: 03/27/2015  
SCALE: H. 1"=200', V. 1"=20'

# DURHAM, N. H.

## LEGEND:

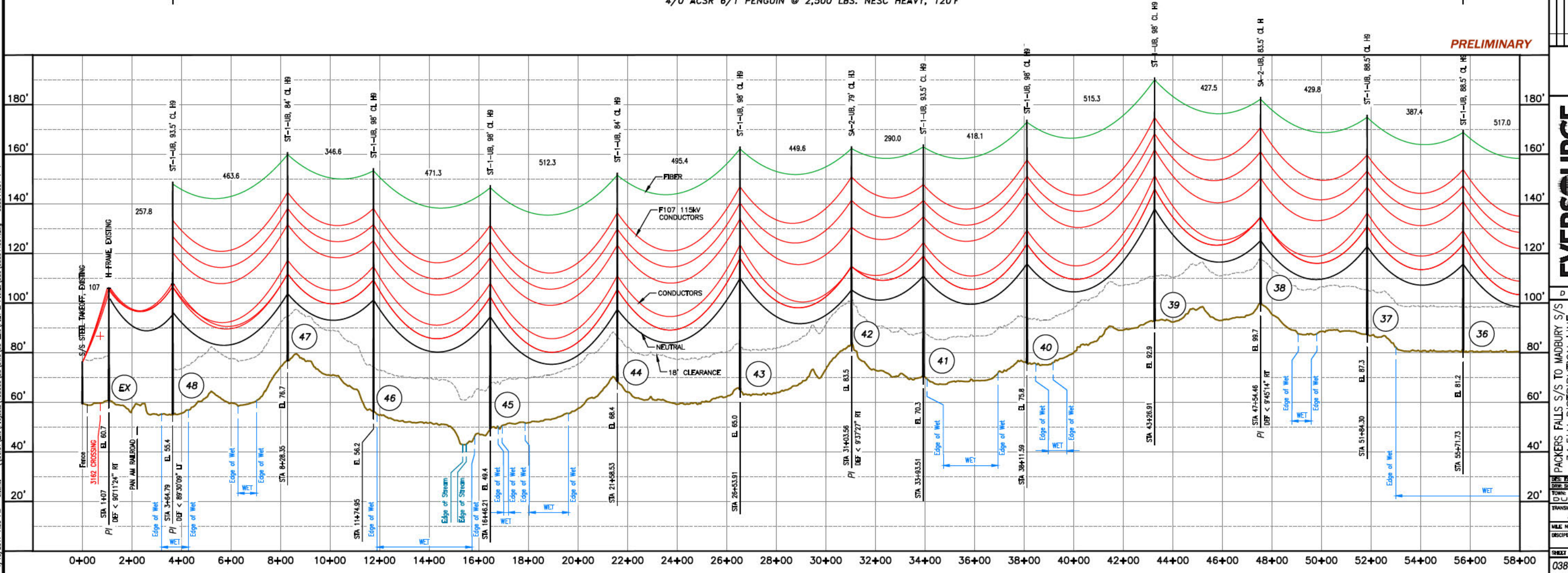
- FENCE
- STONEWALL
- LIMITS OF WET
- EDGE OF WET DELINEATION
- TOPOGRAPHICAL CONTOURS WITH 10' INTERVALS
- TOPOGRAPHICAL CONTOURS WITH 2' INTERVALS
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE
- TREELINE
- BUILDINGS
- FEE PROPERTY
- FIBER OPTIC SPLICE LOCATION
- 380 STRUCTURE
- 380 STRUCTURE IN WET

**THIS PLAN FOR REFERENCE ONLY. NO REPRESENTATION OR WARRANTY IS MADE AS TO LOCATION OF BOUNDARIES OR OTHER POINTS OF REFERENCE.**



- NOTES:**
- NEUTRAL STANDARD GROUND CLEARANCE 18' (DTR 01.115).
  - SEE DRAWING F10743001 FOR TRANSMISSION DATA.
  - COUNTERPOISE LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD. CONTRACTOR SHALL COMPLETE RESISTIVITY TESTING IN ACCORDANCE WITH OTRM 064 AND 264 AND ADJUST COUNTERPOISE INSTALLATION ACCORDINGLY.
  - THIS DRAWING SUPERSEDES THE LINE 380 PORTION ON DRAWINGS R-8228-2, R-7738-1A, AND R-7952.

**RULING SPAN = 441' (STR 48 TO STR 33)**  
 795 ACSR 26/7 DRAKE @ 4,500 LBS. NESC HEAVY, 212°F  
 4/0 ACSR 6/1 PENGUIN @ 2,500 LBS. NESC HEAVY, 120°F



**EVERSOURCE ENERGY**

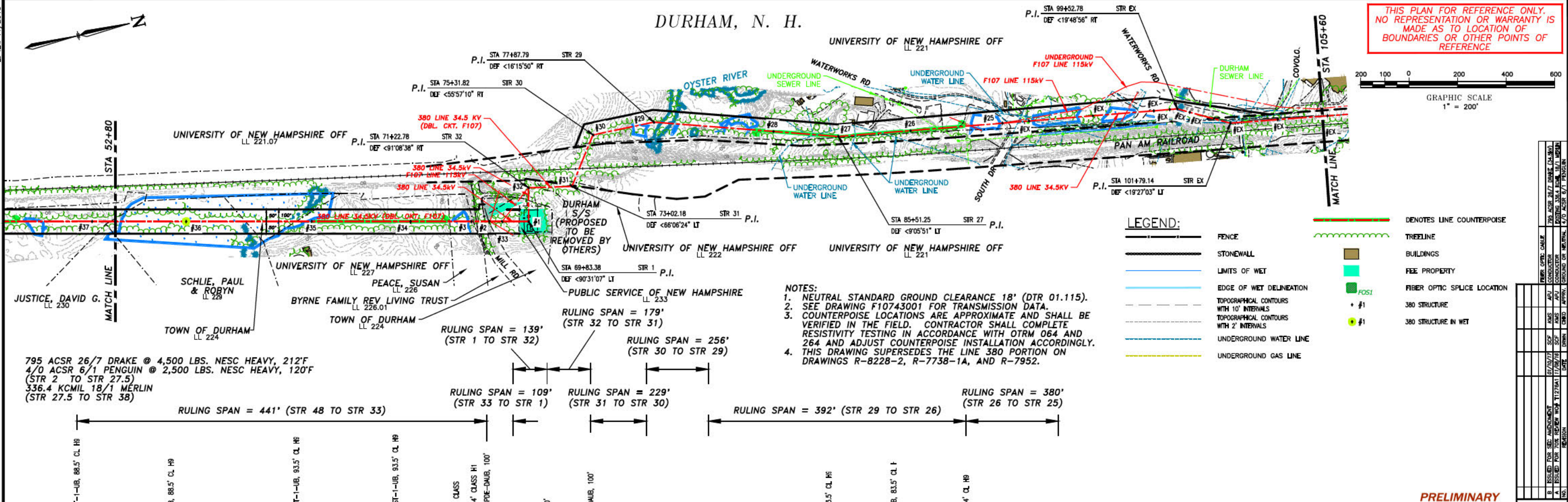
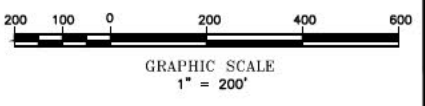
PACKERS FALLS S/S TO MADBURY S/S  
 34.5KV DISTRIBUTION LINE  
 MILE SHEET  
 SHEET 1 OF 4  
 038044001



1/11/2017 10:01 AM - e:\refiner - \Projects\133005\DD\DWG\03\_Line\Plan\_380\038044001.dwg - 038044001\_2-4

# DURHAM, N. H.

**THIS PLAN FOR REFERENCE ONLY. NO REPRESENTATION OR WARRANTY IS MADE AS TO LOCATION OF BOUNDARIES OR OTHER POINTS OF REFERENCE.**



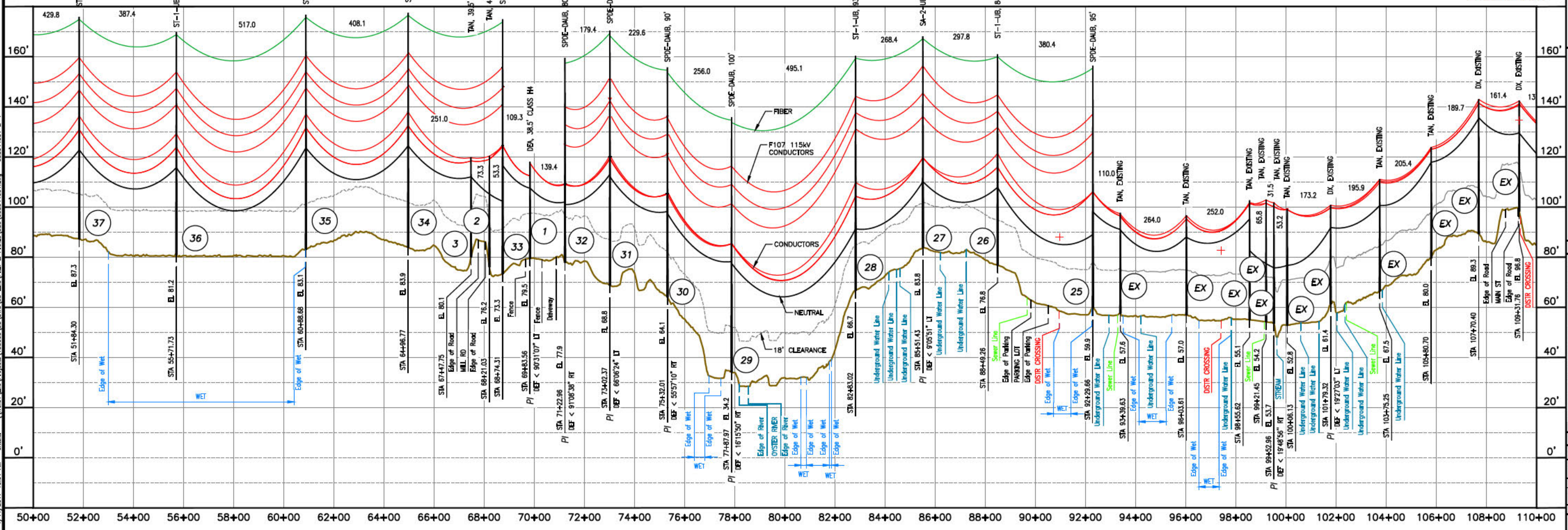
**LEGEND:**

- DENOTES LINE COUNTERPOISE
- TREELINE
- BUILDINGS
- FEE PROPERTY
- FIBER OPTIC SPLICE LOCATION
- 380 STRUCTURE
- 380 STRUCTURE IN WET
- FENCE
- STONEMALL
- LIMITS OF WET
- EDGE OF WET DELINEATION
- TOPOGRAPHICAL CONTOURS WITH 10' INTERVALS
- TOPOGRAPHICAL CONTOURS WITH 2' INTERVALS
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE
- DENOTES LINE COUNTERPOISE
- TREELINE
- BUILDINGS
- FEE PROPERTY
- FIBER OPTIC SPLICE LOCATION
- 380 STRUCTURE
- 380 STRUCTURE IN WET

**NOTES:**

- NEUTRAL STANDARD GROUND CLEARANCE 18' (DTR 01.115).
- SEE DRAWING F10743001 FOR TRANSMISSION DATA.
- COUNTERPOISE LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD. CONTRACTOR SHALL COMPLETE RESISTIVITY TESTING IN ACCORDANCE WITH OTRM 064 AND 264 AND ADJUST COUNTERPOISE INSTALLATION ACCORDINGLY.
- THIS DRAWING SUPERSEDES THE LINE 380 PORTION ON DRAWINGS R-8228-2, R-7738-1A, AND R-7952.

795 ACSR 26/7 DRAKE @ 4,500 LBS. NESC HEAVY, 212'F  
 4/0 ACSR 6/1 PENGUIN @ 2,500 LBS. NESC HEAVY, 120'F  
 336.4 KCMIL 18/1 MERLIN  
 (STR 27.5 TO STR 38)



PRELIMINARY

NO.	DATE	REVISION
1	07/20/17	ISSUED FOR PERMITS
2	07/20/17	ISSUED FOR PERMITS
3	07/20/17	ISSUED FOR PERMITS
4	07/20/17	ISSUED FOR PERMITS
5	07/20/17	ISSUED FOR PERMITS
6	07/20/17	ISSUED FOR PERMITS
7	07/20/17	ISSUED FOR PERMITS
8	07/20/17	ISSUED FOR PERMITS
9	07/20/17	ISSUED FOR PERMITS
10	07/20/17	ISSUED FOR PERMITS

## EVERSOURCE ENERGY

PACKERS FALLS S/S TO MADBURY S/S  
 34.5KV DISTRIBUTION LINE  
 MILE SHEET  
 DATE: 06/03/2016  
 SCALE: H. 1"=200', V. 1"=20'  
 TRANSMISSION LINE  
 380  
 MILE NO: 2  
 DISCIPLINE/SHEET NO.  
 SHEET 2 OF 4  
 038044001

1/1/2017 10:01 AM - e:\ref\New\Projects\130005\DD\DWG\03\_Line\Plan & Profile\380\_038044001.dwg - 038044001\_3-4

# DURHAM, N. H.

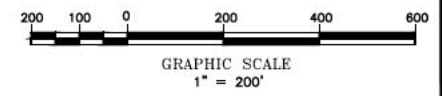
- PARCELS:**
1. GAROFALO, PIERO G. & DUBOIS-GAR, LL 216.02
  2. KARL A. VAN ASSELT LIV REV TRUST, LL 216.01
  3. PETER M. EJARQUE REVOCABLE TRUST, LL 214
  4. CORVINI, MARGUERITE, LL 213
  5. GIROUX, DAVID L. & BROWN, GRET, LL 212
  6. O'SHEA, KEVIN M. & LEIGHSA A., LL 211
  7. VASILE, THOMAS & KATHLEEN K., LL 210
  8. LUFT, KAROLA, LL 209
  9. SKOTKO, BRADLEY & SMITH, HEATHE, LL 208

- NOTES:**
1. NEUTRAL STANDARD GROUND CLEARANCE 18' (DTR 01.115).
  2. SEE DRAWING F10743001 FOR TRANSMISSION DATA.
  3. COUNTERPOISE LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD. CONTRACTOR SHALL COMPLETE RESISTIVITY TESTING IN ACCORDANCE WITH OTRM 064 AND 264 AND ADJUST COUNTERPOISE INSTALLATION ACCORDINGLY.
  4. THIS DRAWING SUPERSEDES THE LINE 380 PORTION ON DRAWINGS R-8228-2, R-7738-1A, AND R-7952.

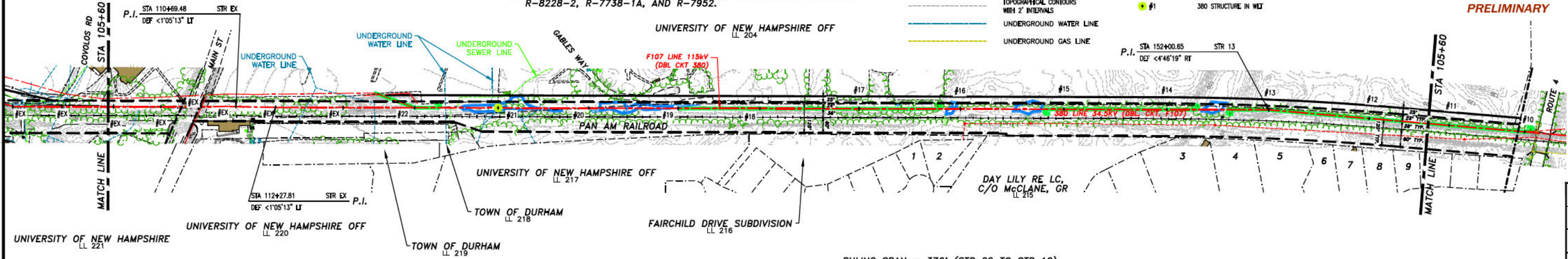
## LEGEND:

- FENCE
- STONEWALL
- LIMITS OF WET
- EDGE OF WET DELINEATION
- TOPOGRAPHICAL CONTOURS WITH 10' INTERVALS
- TOPOGRAPHICAL CONTOURS WITH 2' INTERVALS
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE
- DENOTES LINE COUNTERPOISE
- TREELINE
- BUILDINGS
- FEE PROPERTY
- FIBER OPTIC SPLICE LOCATION
- 380 STRUCTURE
- 380 STRUCTURE IN WET

THIS PLAN FOR REFERENCE ONLY. NO REPRESENTATION OR WARRANTY IS MADE AS TO LOCATION OF BOUNDARIES OR OTHER POINTS OF REFERENCE.

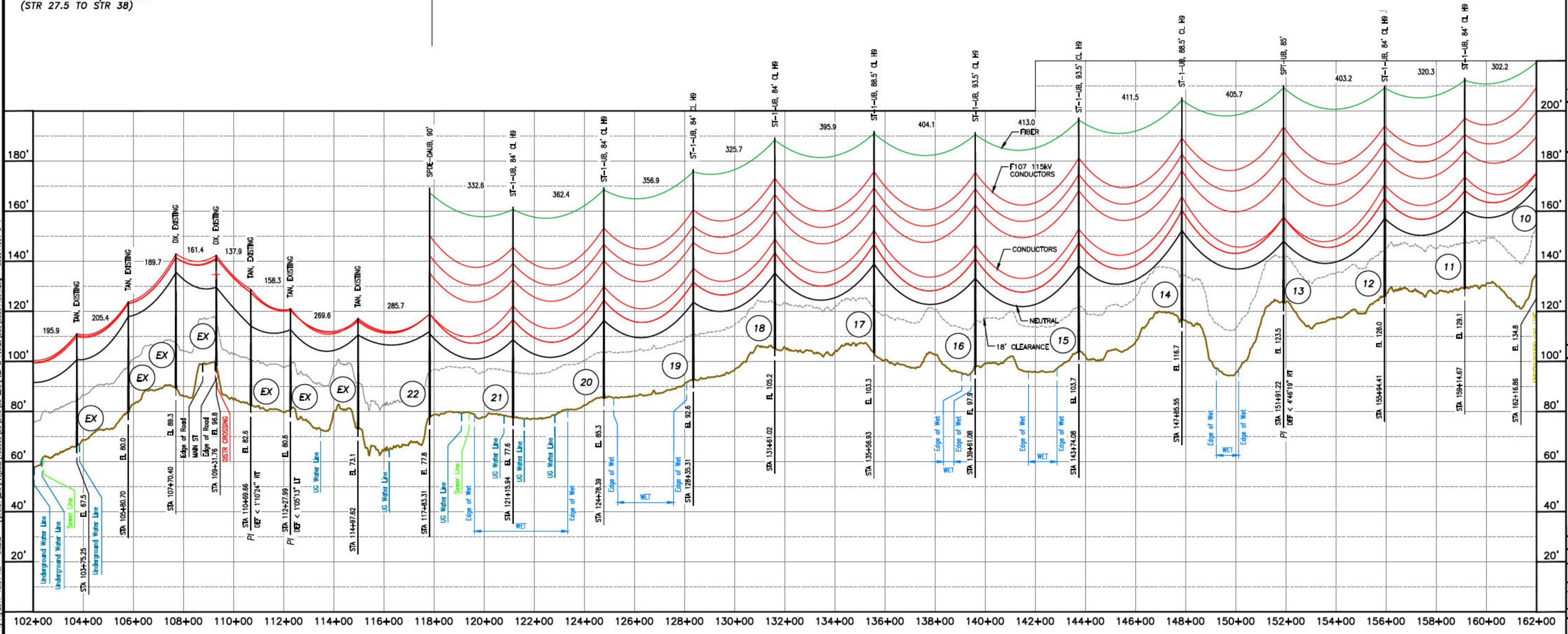


PRELIMINARY



795 ACSR 26/7 DRAKE @ 4,500 LBS. NESC HEAVY, 212'F  
 4/0 ACSR 6/1 PENGUIN @ 2,500 LBS. NESC HEAVY, 120'F  
 (STR 38 TO STR 50)  
 336.4 KCMIL 18/1 MERLIN  
 (STR 27.5 TO STR 38)

RULING SPAN = 376' (STR 22 TO STR 10)



DATE	03/02/2015
DESIGNER	APR/APU
CHECKER	APR/APU
APPROVER	APR/APU
SCALE	AS SHOWN
TITLE	PACKERS FALLS S/S TO MADBURY S/S 34.5KV DISTRIBUTION LINE MILE SHEET
PROJECT NO.	130005
DWG NO.	038044001
SHEET NO.	3 OF 4

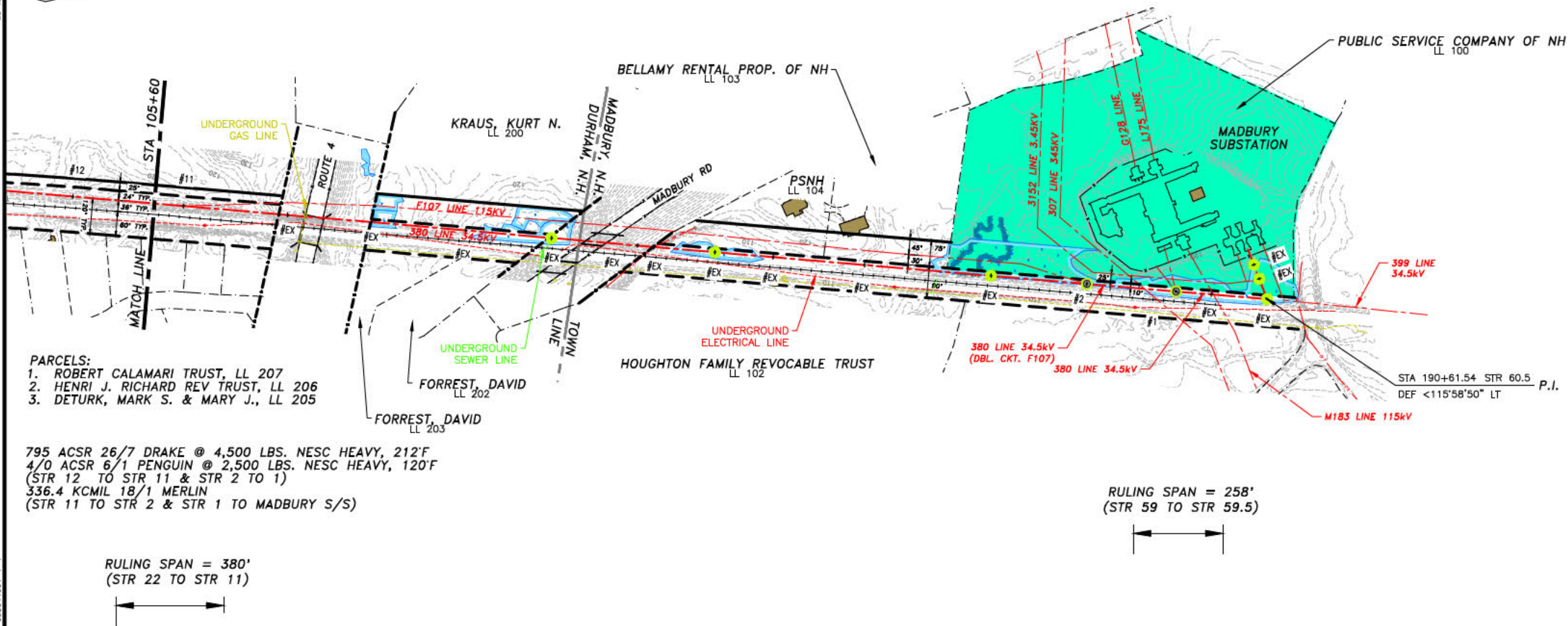
# EVERSOURCE ENERGY

PACKERS FALLS S/S TO MADBURY S/S  
 34.5KV DISTRIBUTION LINE  
 MILE SHEET  
 SHEET 3 OF 4  
 038044001

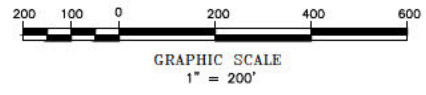
ES: 11/2015  
 3/15/2017 10:11 AM - efisher - \\net1\line\Projects\33005\UD\DWG\03\_Line\Plan & Profile\Net\02\_FSECA\DWG\380\NE-FSECA\_2017\_03\_15\038044001 - RE-FSECA.dwg - 038044001\_4-4

DURHAM, N. H.

THIS PLAN FOR REFERENCE ONLY.  
 NO REPRESENTATION OR WARRANTY IS  
 MADE AS TO LOCATION OF  
 BOUNDARIES OR OTHER POINTS OF  
 REFERENCE

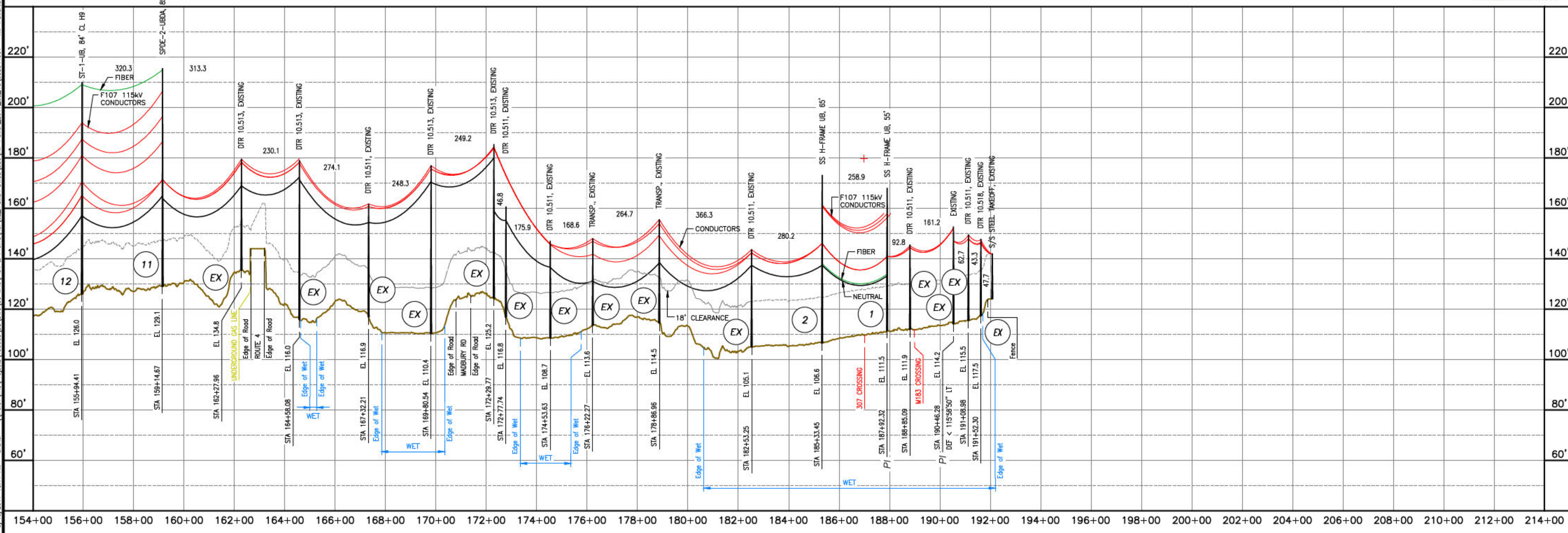


- NOTES:
- NEUTRAL STANDARD GROUND CLEARANCE 18' (DTR 01.115).
  - SEE DRAWING F10743001 FOR TRANSMISSION DATA.
  - COUNTERPOISE LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD. CONTRACTOR SHALL COMPLETE RESISTIVITY TESTING IN ACCORDANCE WITH OTRM 064 AND 264 AND ADJUST COUNTERPOISE INSTALLATION ACCORDINGLY.
  - THIS DRAWING SUPERSEDES THE LINE 380 PORTION ON DRAWINGS R-8228-2, R-7738-1A, AND R-7952.
  - PARCEL INFORMATION FROM CORNERSTONE IS CURRENT AS OF 5/16/2016.



NO.	REVISION	DATE	BY	CHKD.	APPV.
1	ISSUED FOR SEC. AMENDMENT	3/15/17	APU		
2	ISSUED FOR SEC. AMENDMENT	07/07/17	SCF		
3	ISSUED FOR 70% REVIEW	11/08/18	SCF		
4	ISSUED FOR 70% REVIEW	11/27/18	APU		
5	REVISION				

PRELIMINARY



EVERSOURCE ENERGY

PACKERS FALLS S/S TO MADBURY S/S  
 34.5kV DISTRIBUTION LINE  
 MILE SHEET  
 DATE: 08/02/2016  
 SCALE: H: 1"=200', V: 1"=20'  
 TOWN: DURHAM  
 TRANSMISSION LINE: 380  
 MILE NO: 4  
 DISCIPLINE/SHT NO:  
 SHEET 4 OF 4  
 038044001

1/10/2017 6:15 PM - sfisher - \\trans1\me\Projects\133005\DD\DWG\03\_Line\Plan & Profile\3162\316244001.dwg - 316244001\_1-4

# DURHAM, N. H.

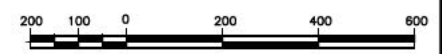
THIS PLAN FOR REFERENCE ONLY. NO REPRESENTATION OR WARRANTY IS MADE AS TO LOCATION OF BOUNDARIES OR OTHER POINTS OF REFERENCE.

## LEGEND:

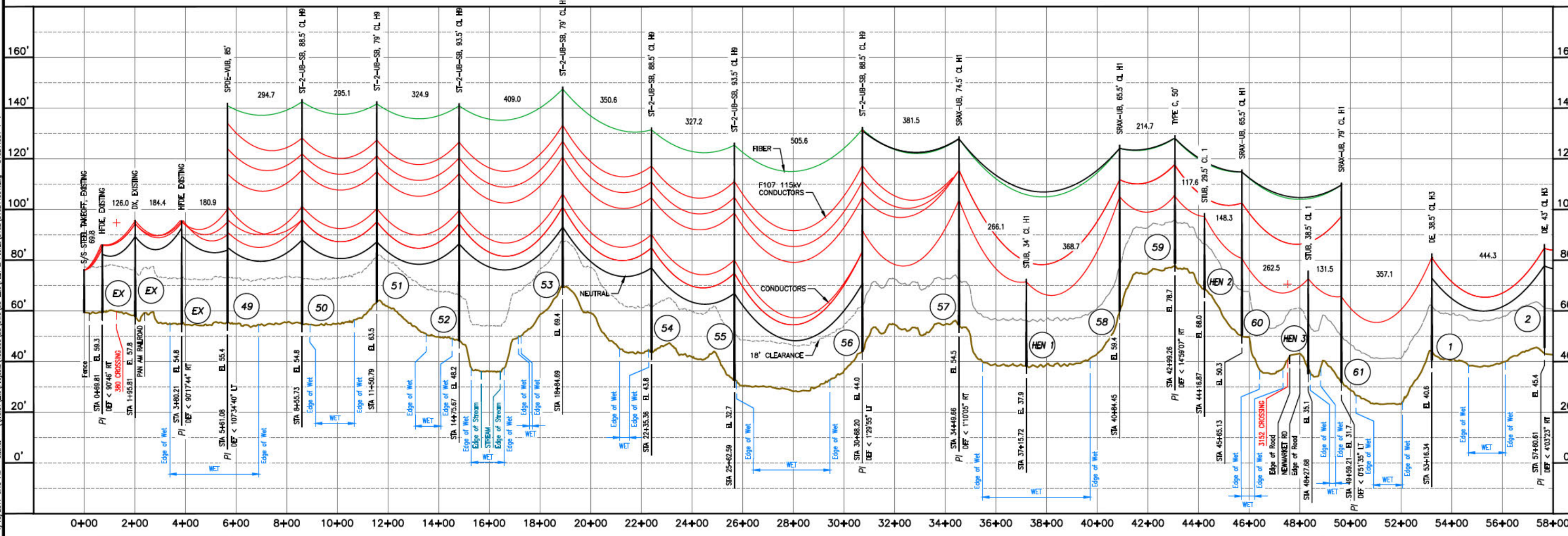
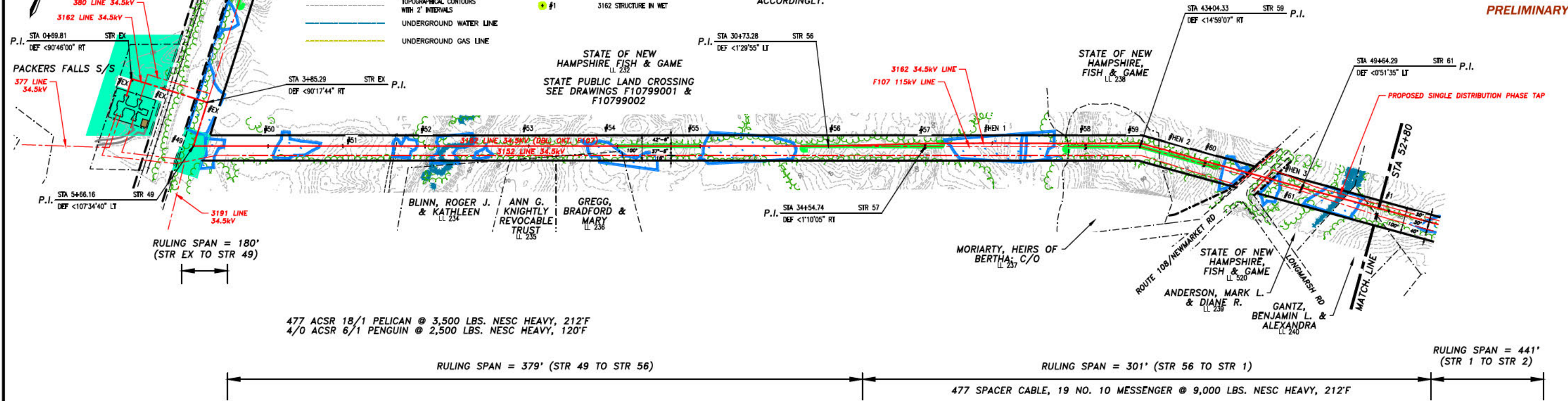
- FENCE
- STONEWALL
- LIMITS OF WET
- EDGE OF WET DELINEATION
- TOPOGRAPHICAL CONTOURS WITH 10' INTERVALS
- TOPOGRAPHICAL CONTOURS WITH 2' INTERVALS
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE
- DENOTES LINE COUNTERPOISE
- TREELINE
- BUILDINGS
- FEE PROPERTY
- FIBER OPTIC SPLICE LOCATION
- 3162 STRUCTURE
- 3162 STRUCTURE IN WET

### NOTES:

- SEE DRAWING NO. F10743001 FOR TRANSMISSION DATA.
- NEUTRAL STANDARD GROUND CLEARANCE 18' (DTR 04.115).
- COUNTERPOISE LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD. CONTRACTOR SHALL COMPLETE RESISTIVITY TESTING IN ACCORDANCE WITH OTRM 064 AND 264 AND ADJUST COUNTERPOISE INSTALLATION ACCORDINGLY.



PRELIMINARY



NO.	DATE	DESCRIPTION
1	07/07/17	ISSUED FOR PERMITS
2	07/07/17	ISSUED FOR PERMITS
3	07/07/17	ISSUED FOR PERMITS
4	07/07/17	ISSUED FOR PERMITS
5	07/07/17	ISSUED FOR PERMITS
6	07/07/17	ISSUED FOR PERMITS
7	07/07/17	ISSUED FOR PERMITS
8	07/07/17	ISSUED FOR PERMITS
9	07/07/17	ISSUED FOR PERMITS
10	07/07/17	ISSUED FOR PERMITS

# EVERSOURCE ENERGY

PACKERS FALLS S/S TO STR 53  
34.5KV DISTRIBUTION LINE  
MILE SHEET  
TRANSMISSION LINE  
3162  
SHEET 1 OF 4  
316244001

1/10/2017 5:48 PM - sfisher - \\trans1\area\Projects\133005\DD\DWG\03\_Line\Plan & Profile\3162\316244001.dwg - 316244001\_2-4

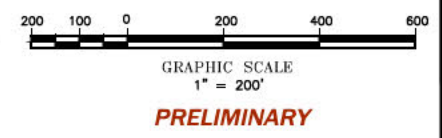
# DURHAM, N. H.

- NOTES:**
- SEE DRAWING NO. F10743001 FOR TRANSMISSION DATA.
  - NEUTRAL STANDARD GROUND CLEARANCE 18' (DTR 04.115).
  - COUNTERPOISE LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD. CONTRACTOR SHALL COMPLETE RESISTIVITY TESTING IN ACCORDANCE WITH OTRM 064 AND 264 AND ADJUST COUNTERPOISE INSTALLATION ACCORDINGLY.

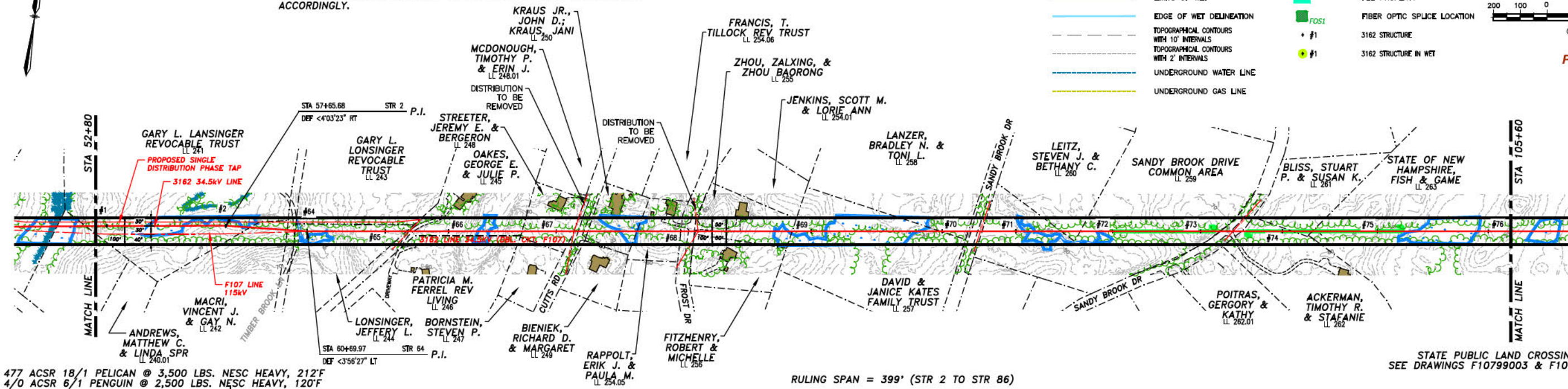
## LEGEND:

- FENCE
- STONEWALL
- LIMITS OF WET
- EDGE OF WET DELINEATION
- TOPOGRAPHICAL CONTOURS WITH 10' INTERVALS
- TOPOGRAPHICAL CONTOURS WITH 2' INTERVALS
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE
- DENOTES LINE COUNTERPOISE
- TREELINE
- BUILDINGS
- FEE PROPERTY
- FIBER OPTIC SPLICE LOCATION
- 3162 STRUCTURE
- 3162 STRUCTURE IN WET

**THIS PLAN FOR REFERENCE ONLY. NO REPRESENTATION OR WARRANTY IS MADE AS TO LOCATION OF BOUNDARIES OR OTHER POINTS OF REFERENCE.**



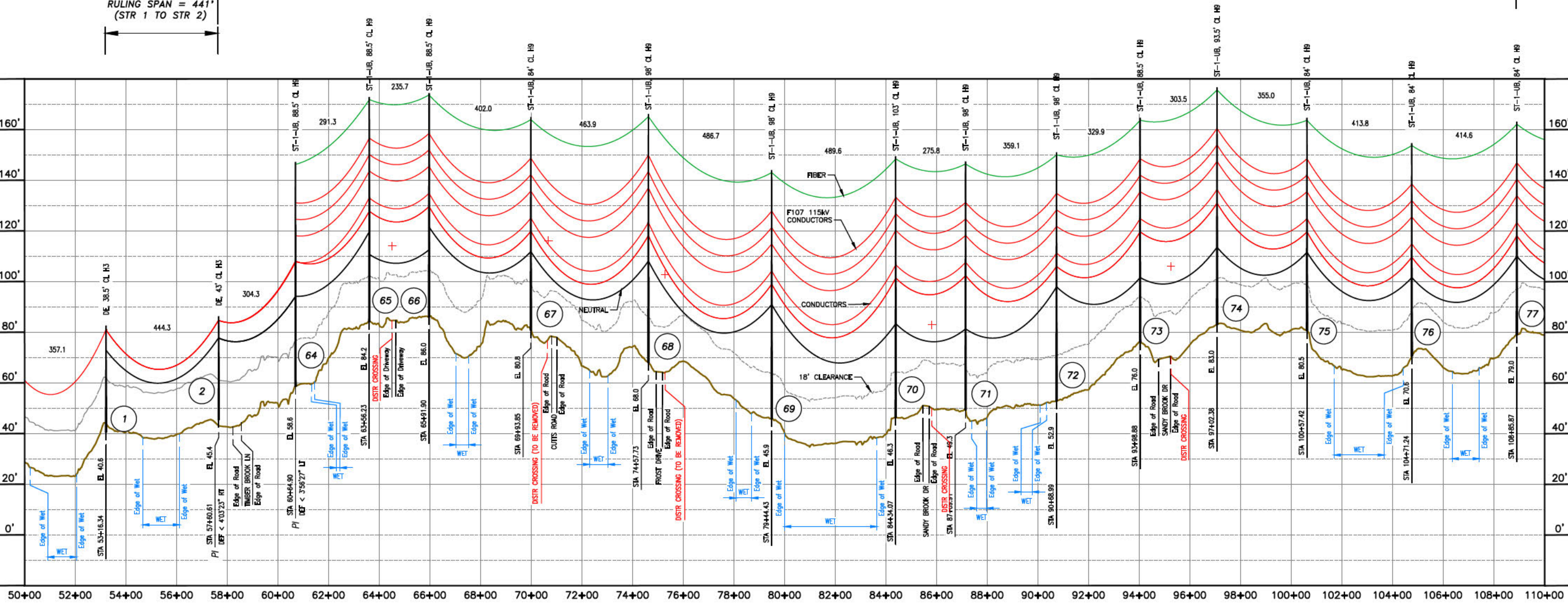
**PRELIMINARY**



477 ACSR 18/1 PELICAN @ 3,500 LBS. NESC HEAVY, 212'F  
 4/0 ACSR 6/1 PENGUIN @ 2,500 LBS. NESC HEAVY, 120'F

RULING SPAN = 399' (STR 2 TO STR 86)

RULING SPAN = 441' (STR 1 TO STR 2)



NO.	DATE	REVISION	BY	CHKD.	APPV.
1	07/07/17	ISSUED FOR PERMITS	AS	AS	AS
2	07/07/17	ISSUED FOR CONSTRUCTION	AS	AS	AS
3	11/02/17	ISSUED FOR REVIEW	AS	AS	AS
4	11/02/17	ISSUED FOR REVIEW	AS	AS	AS

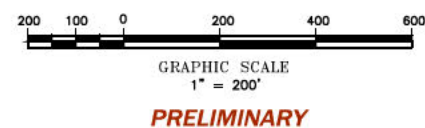
**EVERSOURCE ENERGY**

PACKERS FALLS S/S TO STR 53  
 34.5KV DISTRIBUTION LINE  
 MILE SHEET  
 SHEET 2 OF 4  
 316244001

1/10/2017 5:48 PM - sfisher - \\trns1\area\Projects\133005\DD\DWG\03\_Line\Plan & Profile\3162\316244001.dwg - 316244001\_3-4

# DURHAM, N. H.

THIS PLAN FOR REFERENCE ONLY. NO REPRESENTATION OR WARRANTY IS MADE AS TO LOCATION OF BOUNDARIES OR OTHER POINTS OF REFERENCE.



PRELIMINARY

- LEGEND:**
- FENCE
  - STONEWALL
  - LIMITS OF WET
  - EDGE OF WET DELINEATION
  - TOPOGRAPHICAL CONTOURS WITH 10' INTERVALS
  - TOPOGRAPHICAL CONTOURS WITH 2' INTERVALS
  - UNDERGROUND WATER LINE
  - UNDERGROUND GAS LINE
  - DENOTES LINE COUNTERPOISE
  - TREELINE
  - BUILDINGS
  - FEE PROPERTY
  - FIBER OPTIC SPLICE LOCATION
  - 3162 STRUCTURE
  - 3162 STRUCTURE IN WET

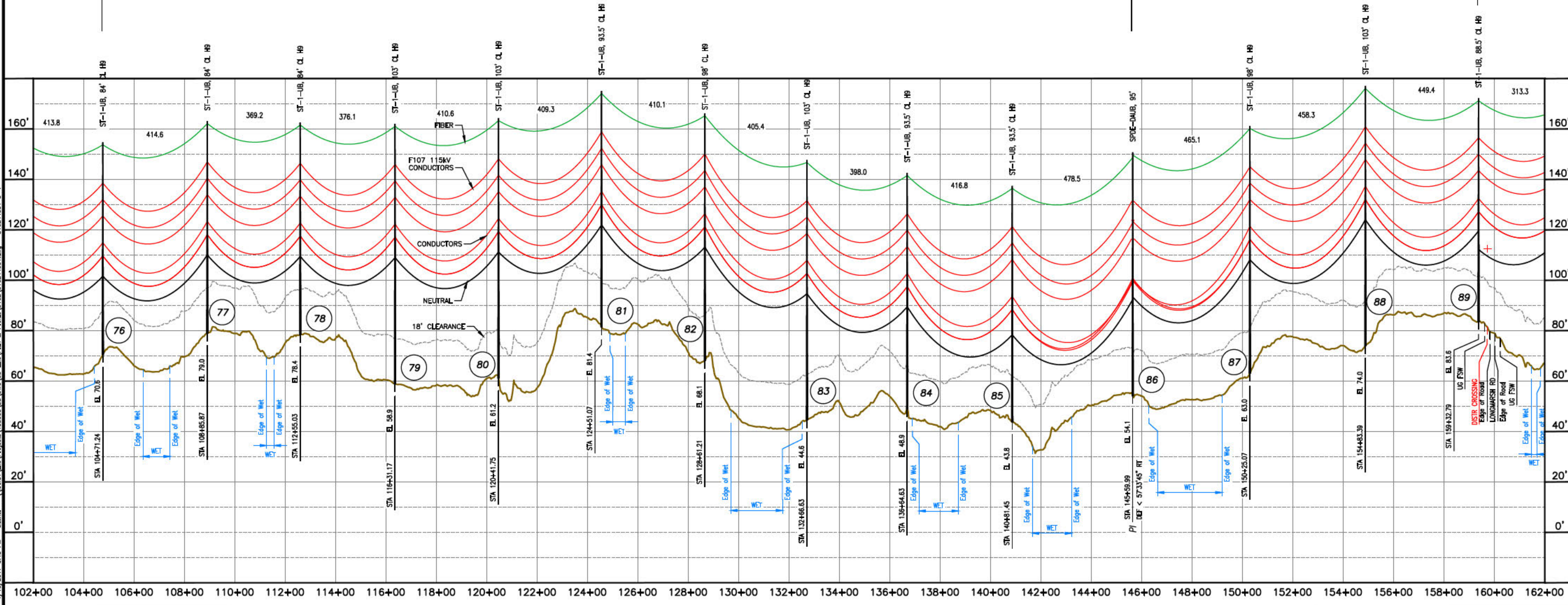
**NOTES:**

- SEE DRAWING NO. F10743001 FOR TRANSMISSION DATA.
- NEUTRAL STANDARD GROUND CLEARANCE 18' (DTR 04.115).
- COUNTERPOISE LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD. CONTRACTOR SHALL COMPLETE RESISTIVITY TESTING IN ACCORDANCE WITH OTRM 064 AND 264 AND ADJUST COUNTERPOISE INSTALLATION ACCORDINGLY.

477 ACSR 18/1 PELICAN @ 3,500 LBS. NESC HEAVY, 212'F  
 4/0 ACSR 6/1 PENGUIN @ 2,500 LBS. NESC HEAVY, 120'F

RULING SPAN = 399' (STR 2 TO STR 86)

RULING SPAN = 455' (STR 86 TO STR 91)



NO.	DATE	DESCRIPTION	BY	CHKD	APPV.
1	07/20/17	ISSUED FOR PERMITS	AS	AS	AS
2	07/20/17	ISSUED FOR CONSTRUCTION	AS	AS	AS
3	07/20/17	ISSUED FOR REVIEW	AS	AS	AS
4	07/20/17	ISSUED FOR REVIEW	AS	AS	AS
5	07/20/17	ISSUED FOR REVIEW	AS	AS	AS
6	07/20/17	ISSUED FOR REVIEW	AS	AS	AS
7	07/20/17	ISSUED FOR REVIEW	AS	AS	AS
8	07/20/17	ISSUED FOR REVIEW	AS	AS	AS
9	07/20/17	ISSUED FOR REVIEW	AS	AS	AS
10	07/20/17	ISSUED FOR REVIEW	AS	AS	AS

## EVERSOURCE ENERGY

PACKERS FALLS S/S TO STR 53  
 34.5KV DISTRIBUTION LINE  
 MILE SHEET

DATE: 07/20/2017  
 SCALE: H. 1"=200', V. 1"=20'

DESIGNER: [Signature]  
 CHECKER: [Signature]  
 TOWN: [Signature]  
 TRANSMISSION LINE: 3162  
 MILE NO: 3  
 DISCIPLINE/SHEET NO.  
 SHEET 3 OF 4  
 316244001

ES: VER. 11/2015

# DURHAM, N. H.

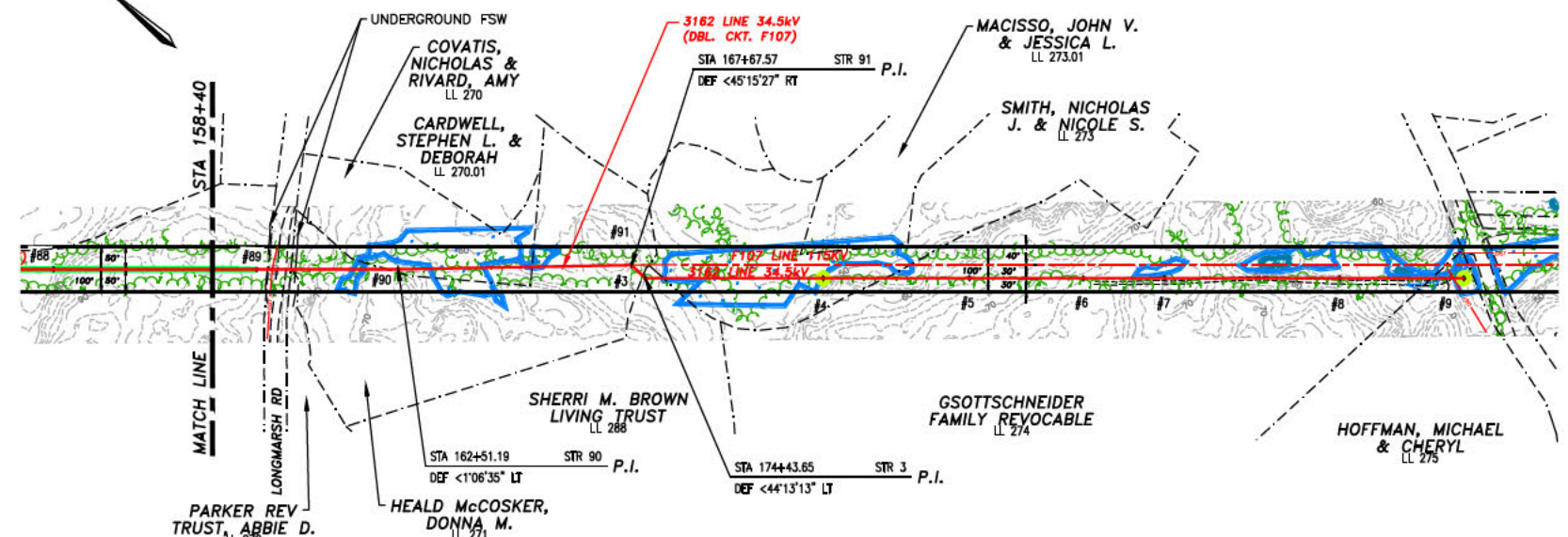
## LEGEND:

- FENCE
- STONEWALL
- LIMITS OF WET
- EDGE OF WET DELINEATION
- TOPOGRAPHICAL CONTOURS WITH 10' INTERVALS
- TOPOGRAPHICAL CONTOURS WITH 2' INTERVALS
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE
- DENOTES LINE COUNTERPOISE
- TREELINE
- BUILDINGS
- FEE PROPERTY
- FIBER OPTIC SPLICE LOCATION
- 3162 STRUCTURE
- 3162 STRUCTURE IN WET

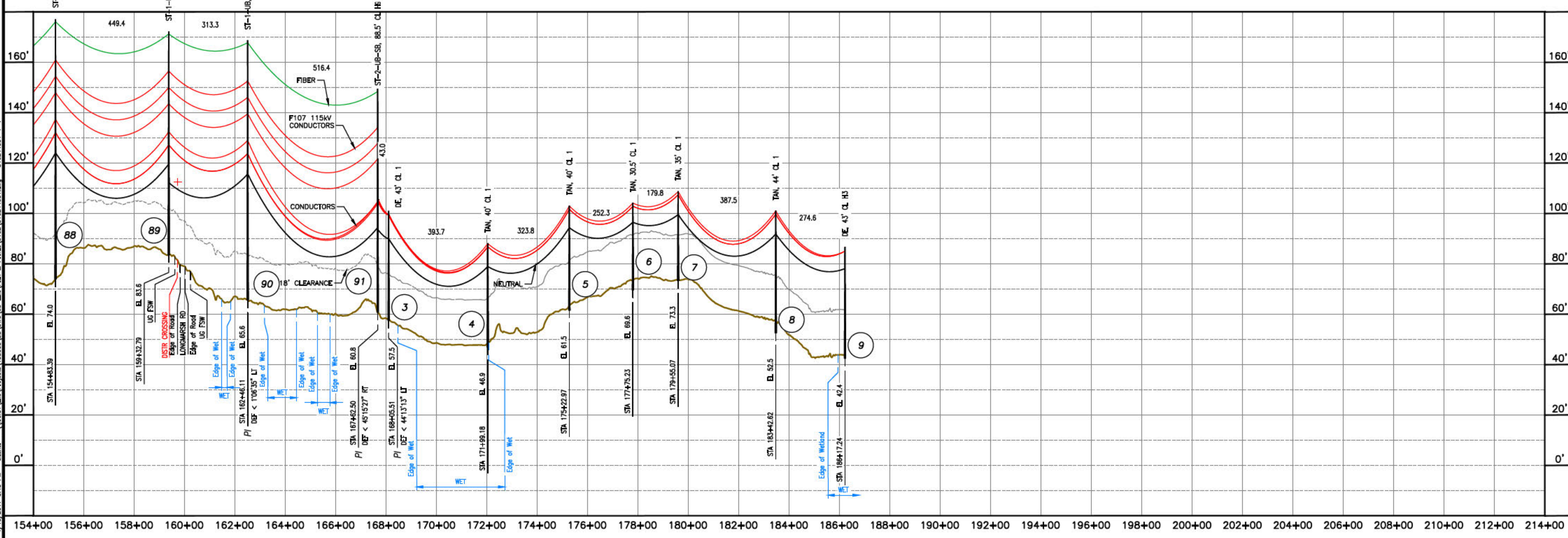
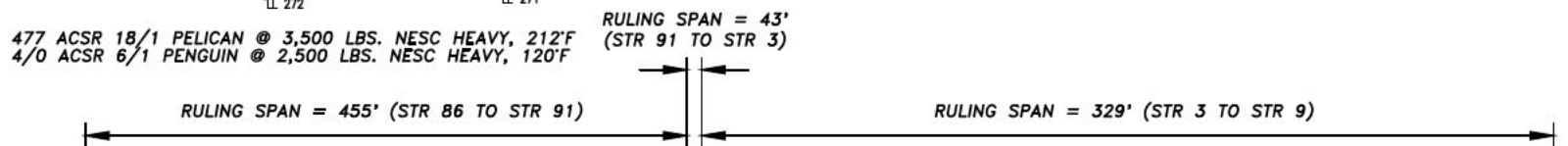
THIS PLAN FOR REFERENCE ONLY. NO REPRESENTATION OR WARRANTY IS MADE AS TO LOCATION OF BOUNDARIES OR OTHER POINTS OF REFERENCE

GRAPHIC SCALE  
1" = 200'

PRELIMINARY



- NOTES:**
- SEE DRAWING NO. F10743001 FOR TRANSMISSION DATA.
  - NEUTRAL STANDARD GROUND CLEARANCE 18' (DTR 04.115).
  - COUNTERPOISE LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD. CONTRACTOR SHALL COMPLETE RESISTIVITY TESTING IN ACCORDANCE WITH OTRM 064 AND 264 AND ADJUST COUNTERPOISE INSTALLATION ACCORDINGLY.



NO.	DATE	REVISION	BY	CHECKED	DESCRIPTION
1	07/07/15	ISSUED FOR PERMITS	APJ	APJ	ISSUED FOR PERMITS
2	07/07/15	ISSUED FOR CONSTRUCTION	APJ	APJ	ISSUED FOR CONSTRUCTION
3	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
4	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
5	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
6	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
7	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
8	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
9	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
10	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
11	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
12	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
13	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
14	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
15	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
16	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
17	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
18	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
19	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
20	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
21	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
22	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
23	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
24	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
25	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
26	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
27	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
28	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
29	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
30	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
31	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
32	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
33	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
34	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
35	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
36	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
37	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
38	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
39	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
40	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
41	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
42	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
43	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
44	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
45	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
46	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
47	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
48	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
49	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
50	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
51	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
52	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
53	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
54	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
55	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
56	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
57	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
58	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
59	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
60	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
61	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
62	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
63	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
64	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
65	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
66	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
67	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
68	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
69	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
70	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
71	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
72	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
73	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
74	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
75	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
76	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
77	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
78	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
79	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
80	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
81	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
82	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
83	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
84	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
85	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
86	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
87	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
88	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
89	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
90	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
91	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
92	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
93	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
94	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
95	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
96	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
97	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
98	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
99	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW
100	11/02/15	ISSUED FOR REVIEW	APJ	APJ	ISSUED FOR REVIEW

# EVERSOURCE ENERGY

PACKERS FALLS S/S TO STR 53  
34.5KV DISTRIBUTION LINE  
MILE SHEET

DATE: 09/03/2015  
SCALE: H. 1"=200', V. 1"=20'

TOWN: DURHAM  
TRANSMISSION LINE: 3162  
MILE NO.: 4  
DISCIPLINE/SHEET NO.:  
SHEET 4 OF 4  
316244001

1/10/2017 5:48 PM - sfisher - \\trans1\me\Projects\133005\DD\DWG\03\_Line\Plan & Profile\3162\316244001.dwg - 316244001\_4-4

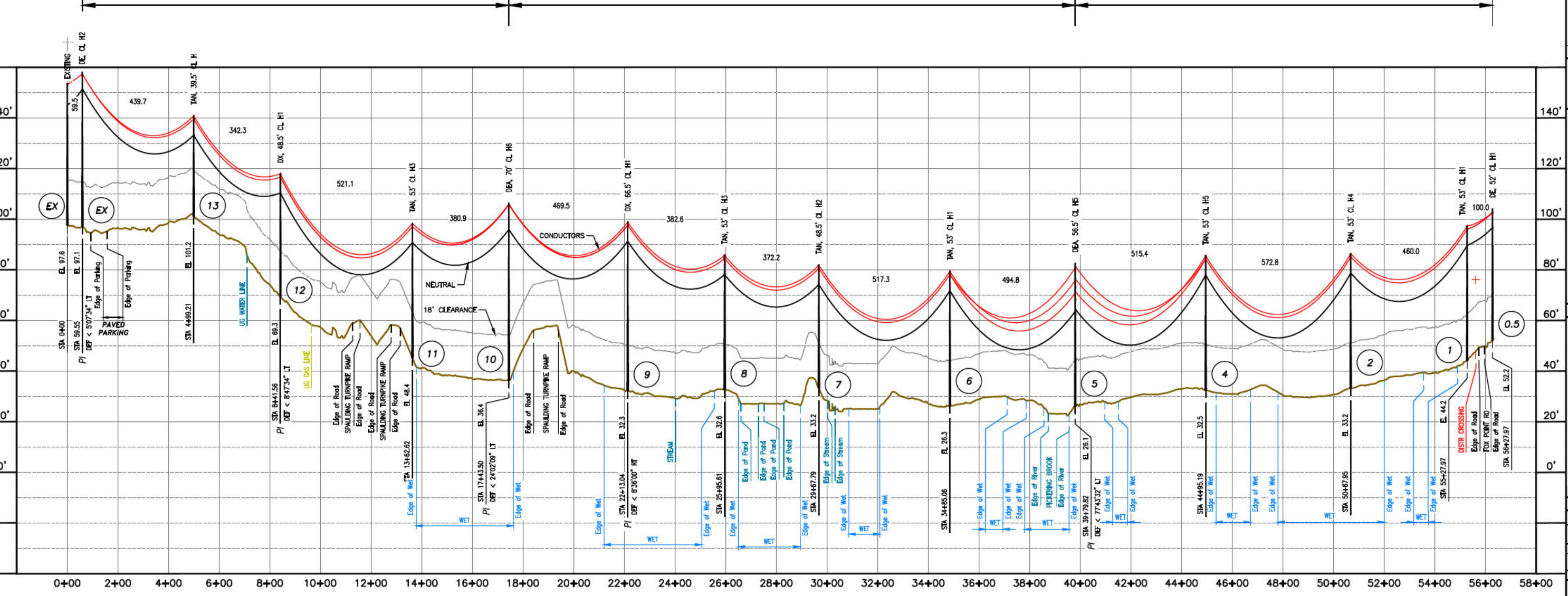
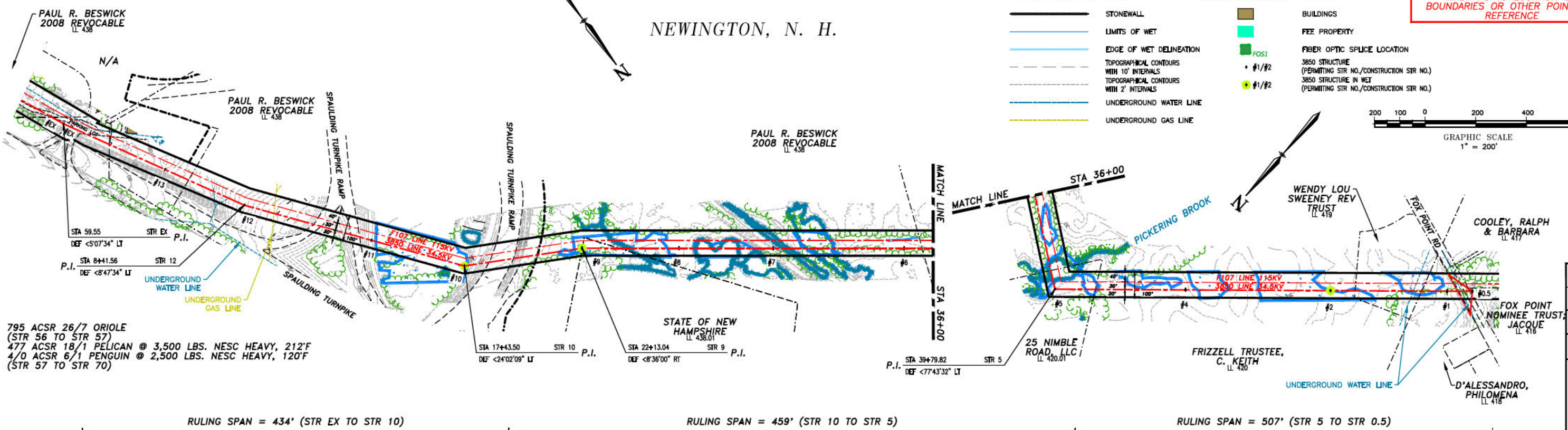
1/10/2017 6:50 PM - affisher - \\trans1\area\Projects\133005\DD\DWG\03\_Line\Plan & Profile\3850\4001.dwg - 385044001\_1-1

NEWINGTON, N. H.

LEGEND:

- FENCE
- STONEWALL
- LIMITS OF WET
- EDGE OF WET DELINEATION
- TOPOGRAPHICAL CONTOURS WITH 10' INTERVALS
- TOPOGRAPHICAL CONTOURS WITH 2' INTERVALS
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE
- TREELINE
- BUILDINGS
- FEE PROPERTY
- FIBER OPTIC SPLICE LOCATION
- 3850 STRUCTURE (PERMITTING STR NO./CONSTRUCTION STR NO.)
- 3850 STRUCTURE IN WET (PERMITTING STR NO./CONSTRUCTION STR NO.)

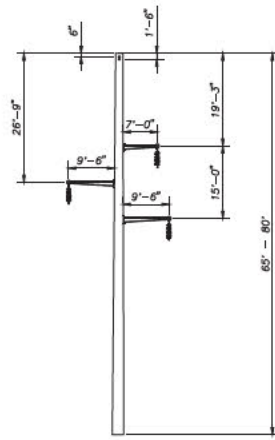
THIS PLAN FOR REFERENCE ONLY. NO REPRESENTATION OR WARRANTY IS MADE AS TO LOCATION OF BOUNDARIES OR OTHER POINTS OF REFERENCE



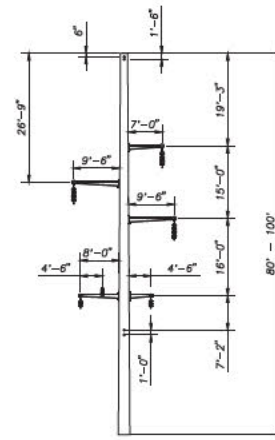
**EVERSOURCE**  
ENERGY

LINE 3850 STR 56 TO STR 70  
34.5kV DISTRIBUTION LINE  
MILE SHEET  
DATE: 08/03/2016  
SCALE: H. 1"=200', V. 1"=50'  
SHEET 1 OF 1  
385044001

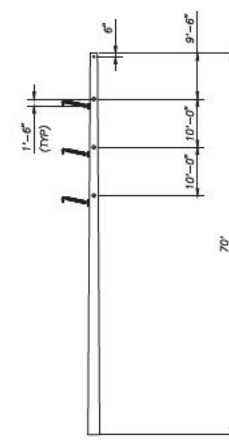




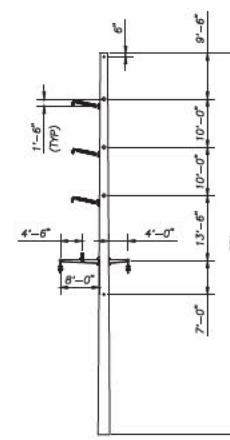
**TYPE SPDE**  
SELF SUPPORTING STEEL  
DEADEND  
115 KV  
DRILLED PIER FOUNDATION



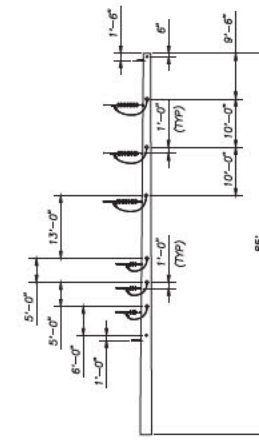
**TYPE SPDE-DAUB**  
SELF SUPPORTING STEEL  
DEADEND  
115 KV WITH 34.5 KV UNDERBUILD  
DRILLED PIER FOUNDATION



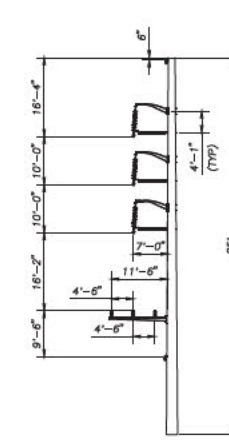
**TYPE SPDE-2**  
SELF SUPPORTING STEEL  
DEADEND  
115 KV  
DRILLED PIER FOUNDATION



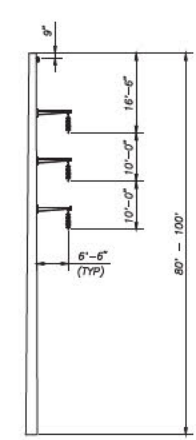
**TYPE SPDE-2-UBDA**  
SELF SUPPORTING STEEL  
DEADEND  
115 KV WITH 34.5 KV UNDERBUILD  
DRILLED PIER FOUNDATION



**TYPE SPDE-VUB**  
SELF SUPPORTING STEEL  
DEADEND  
115 KV WITH 34.5 KV UNDERBUILD  
DRILLED PIER FOUNDATION

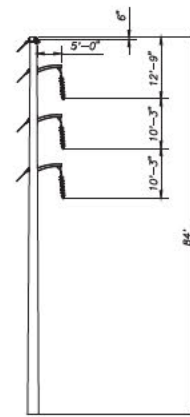


**TYPE SPT-UB**  
SELF SUPPORTING STEEL  
0' - 10' BRACED POST TANGENT/ANGLE  
115 KV WITH 34.5 KV UNDERBUILD  
DRILLED PIER FOUNDATION

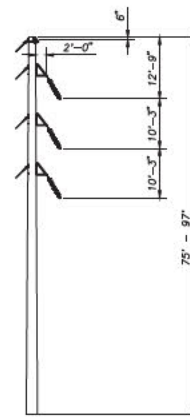


**TYPE SPT**  
SELF SUPPORTING STEEL  
TANGENT  
115 KV  
DRILLED PIER FOUNDATION

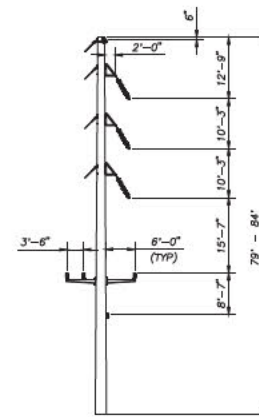
NOTE:  
SELECT STRUCTURES WILL HAVE  
HORIZONTAL STRUTS INSTALLED  
TO LIMIT INSULATOR SWING.



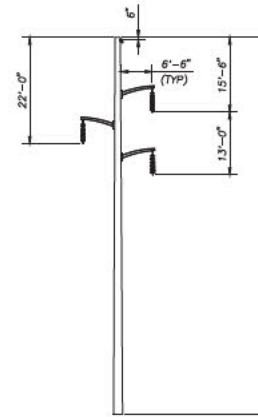
**TYPE SA-1**  
LIGHT DUTY STEEL  
GUYED SINGLE POLE  
1' - 8' ANGLE  
115 KV  
DIRECT EMBED FOUNDATION



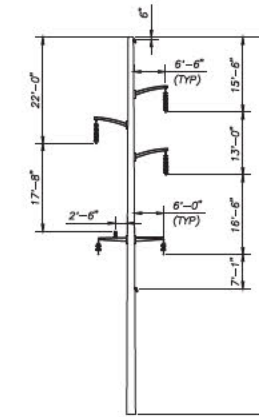
**TYPE SA-2**  
LIGHT DUTY STEEL  
GUYED SINGLE POLE  
8' - 20' ANGLE  
115 KV  
DIRECT EMBED FOUNDATION



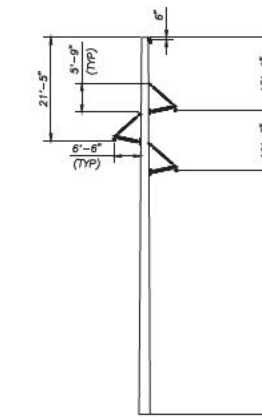
**TYPE SA-2-UB**  
LIGHT DUTY STEEL  
STEEL GUYED SINGLE POLE  
8' - 20' ANGLE  
115 KV WITH 34.5 KV UNDERBUILD  
DIRECT EMBED FOUNDATION



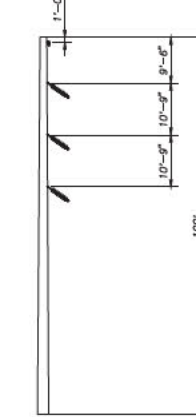
**TYPE ST-1**  
LIGHT DUTY STEEL SINGLE POLE  
TANGENT  
115 KV  
DIRECT EMBED FOUNDATION  
NOTE:  
SELECT STRUCTURES WILL HAVE  
HORIZONTAL STRUTS INSTALLED  
TO LIMIT INSULATOR SWING.



**TYPE ST-1-UB**  
LIGHT DUTY STEEL SINGLE POLE  
TANGENT  
115 KV WITH 34.5 KV UNDERBUILD  
DIRECT EMBED FOUNDATION  
NOTE:  
SELECT STRUCTURES WILL HAVE  
HORIZONTAL STRUTS INSTALLED  
TO LIMIT INSULATOR SWING.



**TYPE ST-2-SB**  
LIGHT DUTY STEEL SINGLE POLE  
BRACED POST TANGENT  
115 KV  
DIRECT EMBED FOUNDATION



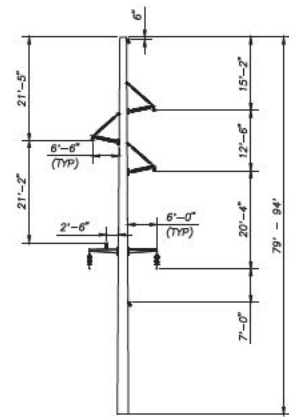
**TYPE SPRA**  
SELF SUPPORTING STEEL SINGLE POLE  
25' ANGLE  
115 KV  
DRILLED PIER

NOTE:  
STRUCTURE GEOMETRIES SUBJECT TO  
CHANGE WITH DETAILED ENGINEERING.

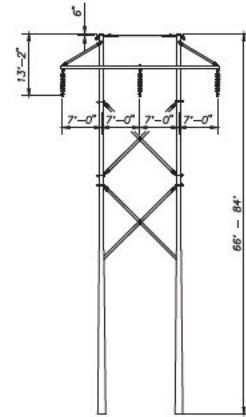
**PRELIMINARY**

CONTRACT SERVICES	DESCRIPTION	ENG/PE#	DATE	DRN	CHKD	APPR
H	ISSUED FOR SEC AMENDMENT		3/15/17	SCF	KMS	
G	ISSUED FOR SEC AMENDMENT		1/10/17	SCF	KMS	
F	REVISED 30 PERCENT DESIGN		9/12/16	SCF	KMS	
E	ISSUED FOR 30% REVIEW		8/22/16	SCF	KMS	
D	ISSUED FOR REVIEW		7/31/15	SCF	KMS	
C	RE-ISSUED FOR PERMITTING		4/10/15	SCF	KMS	
REV						

		T	H
		DRAWN SCF	ENGINEER KMS
TYPE 115 KV STANDARD STRUCTURE INDEX SEACOAST RELIABILITY PROJECT SHEET 1 OF 2		CHECKED APJ	APPROVED
		DATE 9/2/14	
DWG REV	EP#/DESCRIPTION	CONT/PE#	DATE
SCALE NTS	FILE: F10705000.DWG	INACC	DRAWING NO. F10705000

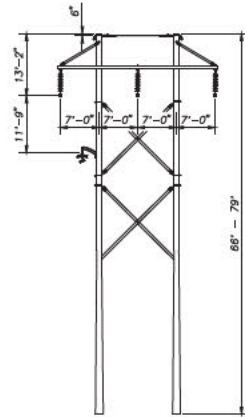


**TYPE ST-2-UB-SB**  
 LIGHT DUTY STEEL SINGLE POLE  
 BRACED POST TANGENT  
 115 KV WITH 34.5 KV UNDERBUILD  
 DIRECT EMBED FOUNDATION



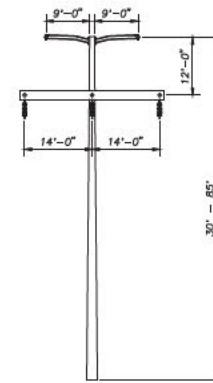
**TYPE SRAX**  
 LIGHT DUTY STEEL  
 TANGENT  
 115 KV  
 DIRECT EMBED FOUNDATION

NOTE:  
 SELECT STRUCTURES WILL HAVE  
 HORIZONTAL STRUTS INSTALLED  
 TO LIMIT INSULATOR SWING.

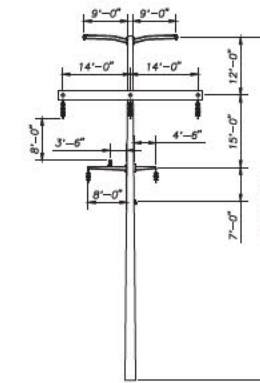


**TYPE SRAX-UB**  
 LIGHT DUTY STEEL  
 TANGENT  
 115 KV W/ 34.5 KV UB  
 DIRECT EMBED FOUNDATION

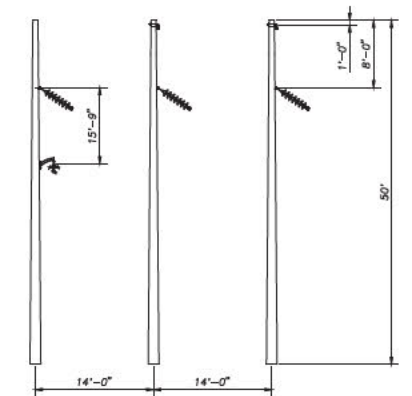
NOTE:  
 SELECT STRUCTURES WILL HAVE  
 HORIZONTAL STRUTS INSTALLED  
 TO LIMIT INSULATOR SWING.



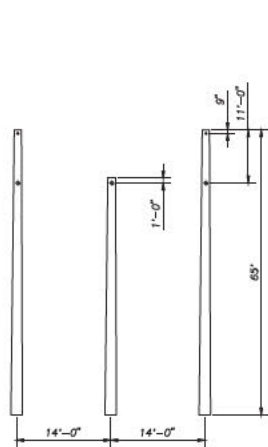
**TYPE SS-H-FRAME**  
 SELF SUPPORTING STEEL  
 DEADEND  
 115 KV  
 DRILLED PIER FOUNDATION  
 NOTE: 16' CONDUCTOR  
 DAVIT ARMS & 11' SW  
 DAVIT ARMS FOR LINE  
 ANGLES > 50°



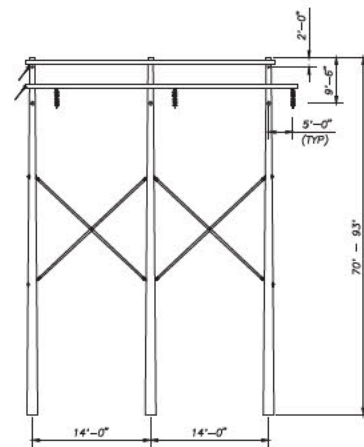
**TYPE SS-H-FRAME-UB**  
 SELF SUPPORTING STEEL  
 DEADEND  
 115 KV WITH 34.5 KV UNDERBUILD  
 DRILLED PIER FOUNDATION  
 NOTE: 16' CONDUCTOR  
 DAVIT ARMS & 11' SW  
 DAVIT ARMS FOR LINE  
 ANGLES > 50°



**TYPE C-UB**  
 STEEL H-FRAME  
 12° - 50° ANGLE  
 115 KV W/ 34.5 KV UB  
 DRILLED PIER FOUNDATION

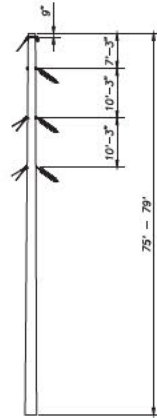


**TYPE SS 3-POLE**  
 SELF SUPPORTING STEEL  
 DEADEND  
 115 KV  
 DRILLED PIER FOUNDATION

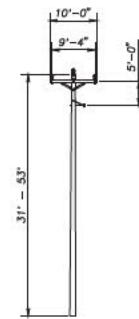


**TYPE SDA**  
 LIGHT DUTY STEEL 3 POLE  
 DEADEND  
 115 KV  
 DIRECT EMBED FOUNDATION

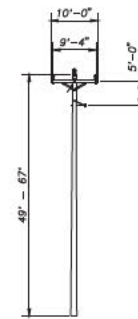
NOTE:  
 FOR STRUCTURES WITH LINE  
 ANGLE > 60°, POLE SPACING  
 IS 18'.



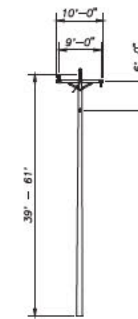
**TYPE SA-3**  
 LIGHT DUTY STEEL GUYED  
 SINGLE POLE  
 20° - 30° ANGLE  
 115 KV  
 DIRECT EMBED FOUNDATION



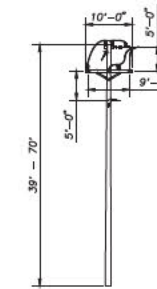
**TYPE TAN**  
 ROUNDWOOD SINGLE POLE  
 TANGENT  
 34.5 KV  
 DIRECT EMBED FOUNDATION



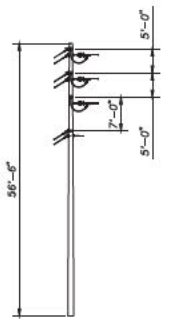
**TYPE DX**  
 ROUNDWOOD SINGLE POLE  
 0° - 12° ANGLE  
 34.5 KV  
 DIRECT EMBED FOUNDATION



**TYPE DE**  
 ROUNDWOOD SINGLE POLE  
 0° - 15° DEADEND ANGLE  
 34.5 KV  
 DIRECT EMBED FOUNDATION



**TYPE DEA**  
 ROUNDWOOD SINGLE POLE  
 15° - 90° DEADEND ANGLE  
 34.5 KV  
 DIRECT EMBED FOUNDATION



**TYPE DEB**  
 ROUNDWOOD SINGLE POLE  
 60°+ DEADEND ANGLE  
 34.5 KV  
 DIRECT EMBED FOUNDATION

NOTE:  
 STRUCTURE GEOMETRIES SUBJECT TO  
 CHANGE WITH DETAILED ENGINEERING.

**PRELIMINARY**

REV	DESCRIPTION	ENG/PEER	DATE	DRN	CHKD	APPR
H	ISSUED FOR SEC AMENDMENT		3/15/17	SCF	KMS	
G	ISSUED FOR SEC AMENDMENT		1/10/17	SCF	KMS	
F	REVISED 30 PERCENT DESIGN		9/12/16	SCF	KMS	
E	ISSUED FOR 30% REVIEW		8/22/16	SCF	KMS	
D	ISSUED FOR REVIEW		7/31/15	SCF	KMS	
C	RE-ISSUED FOR PERMITTING		4/24/15	SCF	KMS	

**EVERSOURCE ENERGY**

TYPE 34.5 KV & 115 KV  
 STANDARD STRUCTURE INDEX  
 SEACOAST RELIABILITY PROJECT  
 SHEET 2 OF 2

SCALE: NTS  
 FILE: F10705000.DWG  
 INACC

T	H
DRAWN	SCF
ENGINEER	KMS
CHECKED	APJ
APPROVED	
DATE	9/2/14
DWG NO.	F10705000