

\\vhb\gis\proj\Bedford\52626.00 Y138 Transmission Line\Project\Y138_USGS_RiverCrossing_ALL.mxd



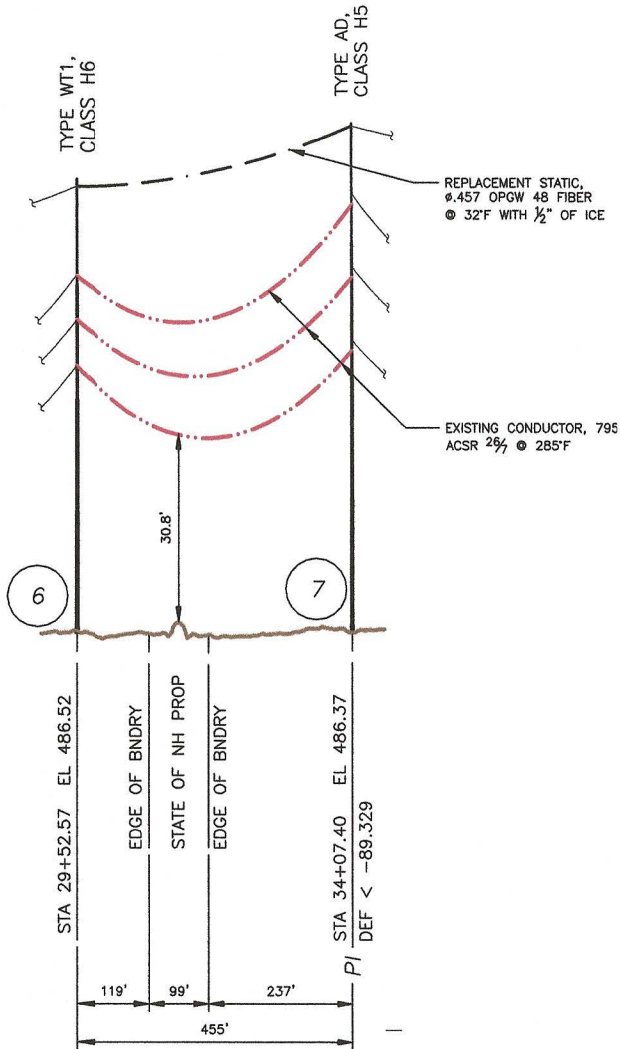
- Transmission Structure
- Overhead Eversource Line
- Town Boundary

**2020 Structure Replacements
Y138 Line**

Tamworth, Madison and
Conway, New Hampshire

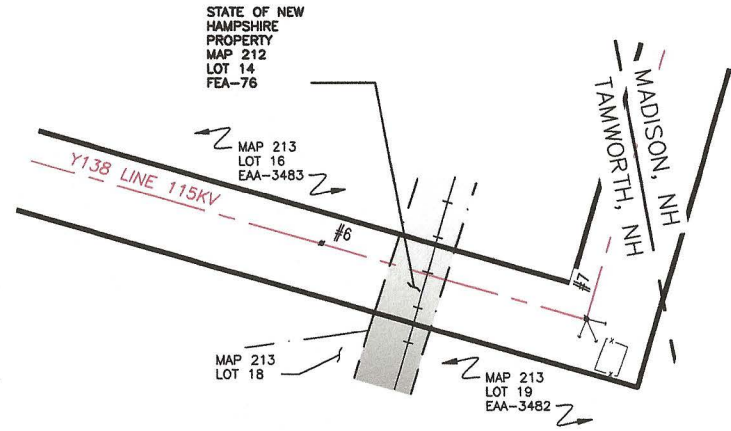
**State Water and Land
Crossing Exhibit**

Source: VHB, NHGranit, Eversource, USGS



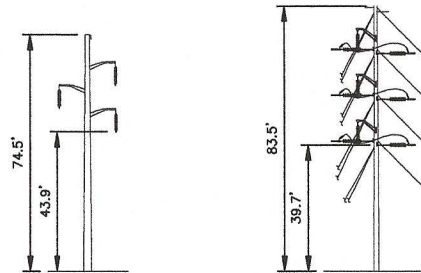
PROFILE VIEW

SCALE: HORZ 1" = 200'
VERT 1" = 20'



PLAN VIEW

SCALE: 1" = 200'



STR 6: IS A EVERSOURCE TYPE WT1, SINGLE CIRCUIT STEEL POLE TANGENT, DELTA CONFIG

STR 7: IS A EVERSOURCE TYPE AD, SINGLE CIRCUIT STEEL POLE DEAD END ANGLE, VERTICAL CONFIG., GUYED.

STRUCTURE DETAIL

SCALE: NTS

2012 NESC VERTICAL CLEARANCE (FT) FROM TABLE 232.1	
NATURE OF SURFACE UNDERNEATH WIRES, CONDUCTORS OR CABLES	115 kV
TRACK RAILS OF RAIL ROAD	28.1

LEGEND:

- #90 STRUCTURE (WITH GUYS)
- STATE OF NEW HAMPSHIRE PROPERTY
- PROPERTY BOUNDARY
- Y138 LINE 115KV LINE, ϕ OF CONSTRUCTION
- LIMITS OF EVERSOURCE RIGHT OF WAY

NOTES:

1. PARCEL INFORMATION PROVIDED BY NH GRANIT.
2. ELEVATIONS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988.

CABLE SCHEDULE						
WIRE	QTY OF CABLES	TYPE		REPLACEMENT DATA		
		EXISTING	REPLACEMENT	ϕ (in)	WEIGHT (lb/ft)	ULTIMATE TENSION (lb)
OPGW	1	7/16" STEEL	OPGW 48F	0.457	0.241	11690

STRUCTURE LOCATION		
STRUCTURE	LONGITUDE	LATITUDE
6	-71.19558166	43.84728357
7	-71.19392732	43.84693237

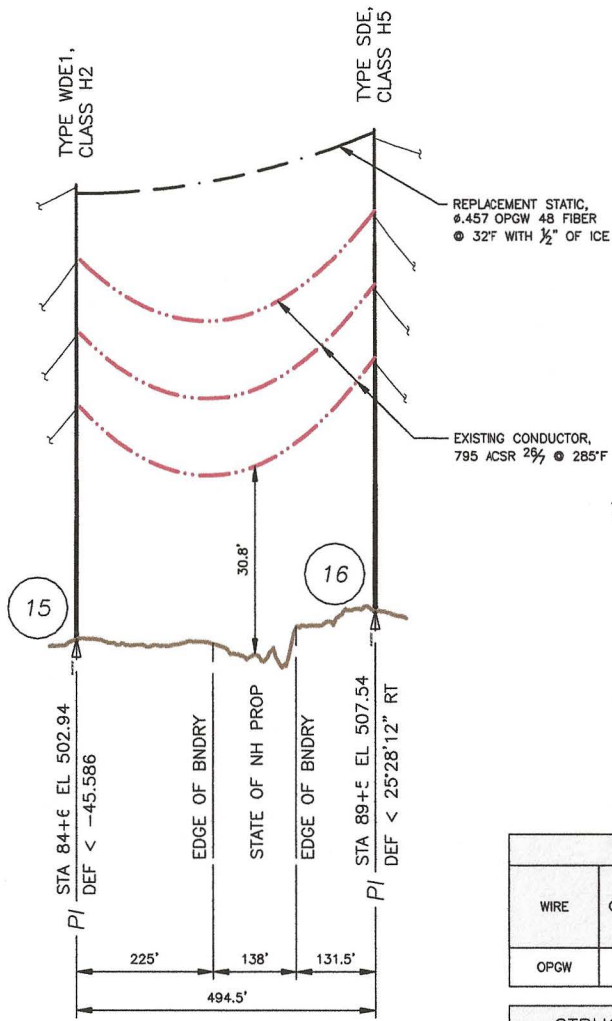
DATE	BY	CHKD	APPD	DESCRIPTION
08/20	GBS	SDR	SDR	UPDATES PER PUC
11/19	GBS	JRS	OSD	ISSUED FOR PERMIT

EVERSOURCE ENERGY

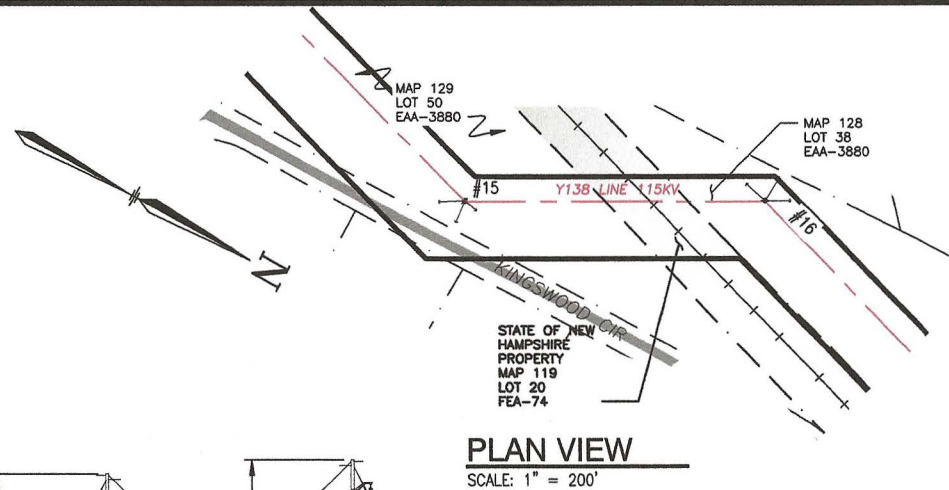
Y138, 115kV LINE
STATE LAND CROSSING
TAMWORTH, NEW HAMPSHIRE
EXHIBIT 2

SCALE: 1" = 200'	FILE: Y13843501.DWG
DRAWING NO. Y13843501	DATE: 11/19/19

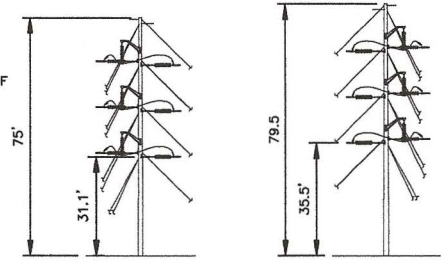
DWG REV	EPN/DESCRIPTION	CONT/PEP	DATE	DRN	CHKD	APPD



PROFILE VIEW
SCALE: HORIZ 1" = 200'
VERT 1" = 20'



PLAN VIEW
SCALE: 1" = 200'



STR 15: IS A EVERSOURCE TYPE WDE1, SINGLE CIRCUIT STEEL POLE DEAD END ANGLE, VERTICAL CONFIG, GUYED
STR 16: IS A EVERSOURCE TYPE SDE, SINGLE CIRCUIT STEEL POLE DEAD END ANGLE, VERTICAL CONFIG, GUYED

STRUCTURE DETAIL
SCALE: NTS

2012 NESC VERTICAL CLEARANCE (FT) FROM TABLE 232.1	
NATURE OF SURFACE UNDERNEATH WIRES, CONDUCTORS OR CABLES	115 KV
TRACK RAILS OF RAIL ROAD	28.1

- LEGEND:**
- STRUCTURE (WITH GUYS)
 - STATE OF NEW HAMPSHIRE PROPERTY
 - PROPERTY BOUNDARY
 - Y138 LINE 115KV LINE, & OF CONSTRUCTION
 - LIMITS OF EVERSOURCE RIGHT OF WAY

- NOTES:**
- PARCEL INFORMATION PROVIDED BY NH GRANIT.
 - ELEVATIONS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988.

CABLE SCHEDULE						
WIRE	QTY OF CABLES	TYPE		REPLACEMENT DATA		
		EXISTING	REPLACEMENT	Ø (in)	WEIGHT (lb/ft)	ULTIMATE TENSION (lb)
OPGW	1	7/16" STEEL	OPGW 48F	0.457	0.241	11690

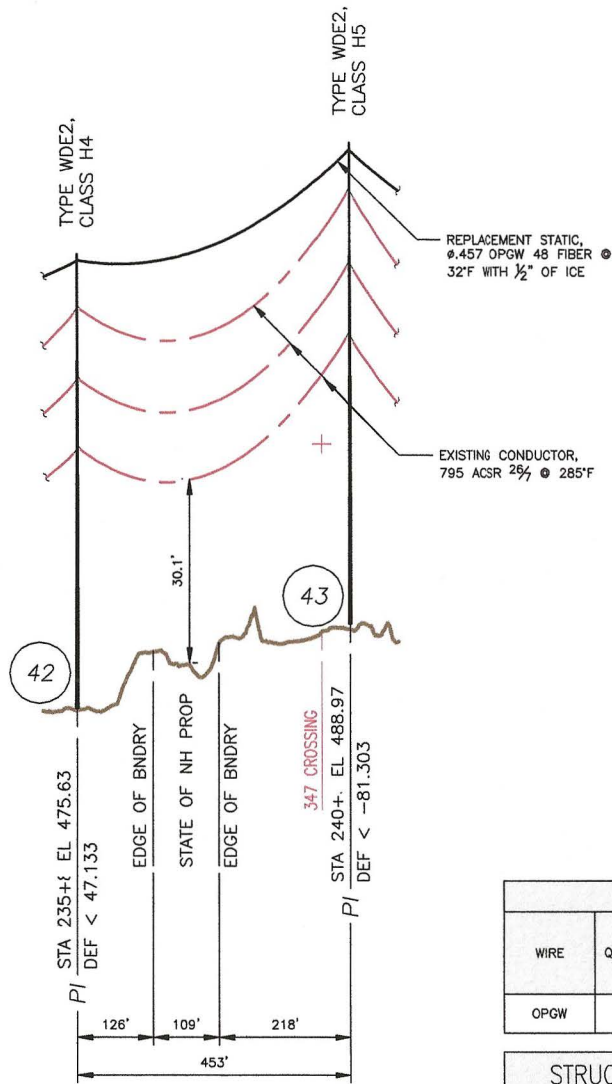
STRUCTURE LOCATION		
STRUCTURE	LONGITUDE	LATITUDE
15	-71.18832999	43.86020194
16	-71.18922808	43.86139326

DWG REV	DATE	BY	CHKD	APPD
2	08/20	GBS	SDR	SDR
1	11/19	GBS	JRS	DSD

EVERSOURCE ENERGY

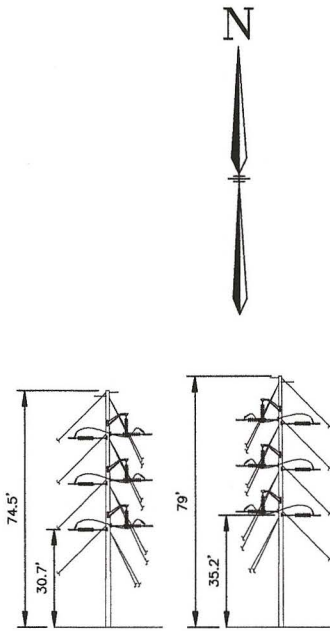
Y138, 115kV LINE
STATE LAND CROSSING
MADISON, NEW HAMPSHIRE
EXHIBIT 3

DRAWING NO. Y13843502	DATE 11/19/19
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PROFILE VIEW

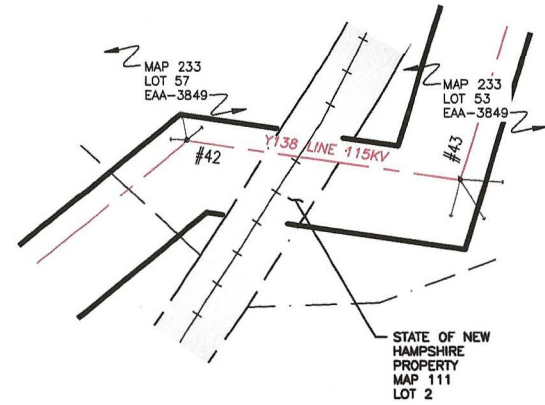
SCALE: HORIZ 1" = 200'
VERT 1" = 20'



STR 42: IS AN EVERSOURCE TYPE WDE2, SINGLE CIRCUIT WOOD POLE DEAD END ANGLE, VERTICAL CONFIG, GUYED
STR 43: IS AN EVERSOURCE TYPE WDE2, SINGLE CIRCUIT WOOD POLE DEAD END ANGLE, VERTICAL CONFIG, GUYED

STRUCTURE DETAIL

SCALE: NTS



PLAN VIEW

SCALE: 1" = 200'

2012 NESC VERTICAL CLEARANCE (FT) FROM TABLE 232.1	
NATURE OF SURFACE UNDERNEATH WIRES, CONDUCTORS OR CABLES	115 kV
TRACK RAILS OF RAIL ROAD	28.1

LEGEND:

- #90 STRUCTURE (WITH GUYS)
- STATE OF NEW HAMPSHIRE PROPERTY
- PROPERTY BOUNDARY
- Y138 LINE 115KV LINE, ϕ OF CONSTRUCTION
- LIMITS OF EVERSOURCE RIGHT OF WAY

NOTES:

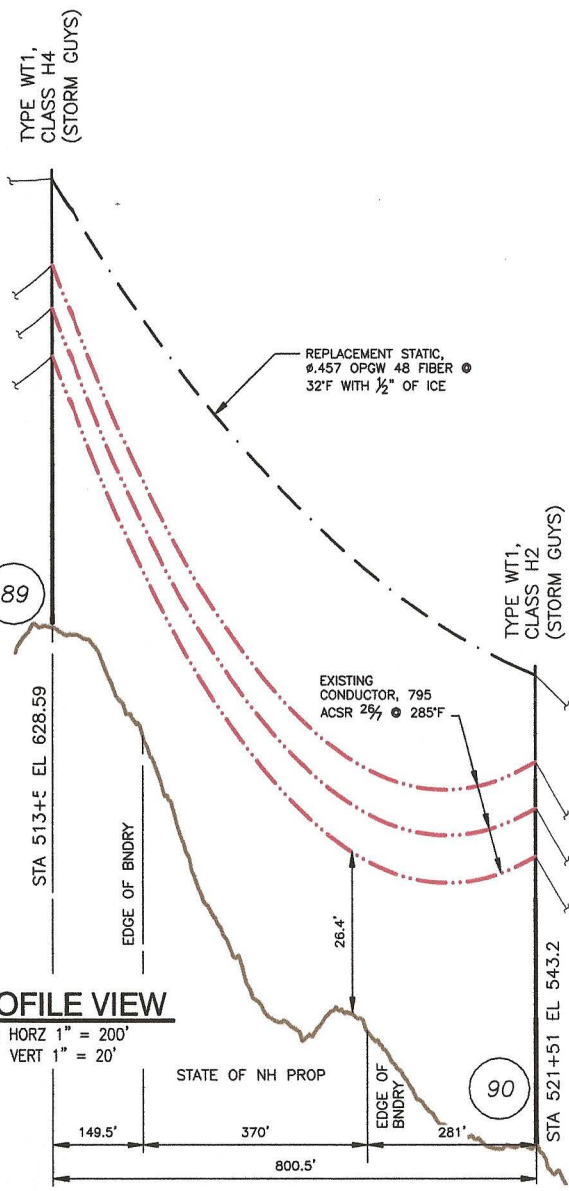
1. PARCEL INFORMATION PROVIDED BY NH GRANIT.
2. ELEVATIONS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988.

CABLE SCHEDULE						
WIRE	QTY OF CABLES	TYPE		REPLACEMENT DATA		
		EXISTING	REPLACEMENT	ϕ (in)	WEIGHT (lb/ft)	ULTIMATE TENSION (lb)
OPGW	1	7/16" STEEL	OPGW 48F	0.457	0.241	11690

STRUCTURE LOCATION		
STRUCTURE	LONGITUDE	LATITUDE
42	-71.16819057	43.89496628
43	-71.16649475	43.89478445

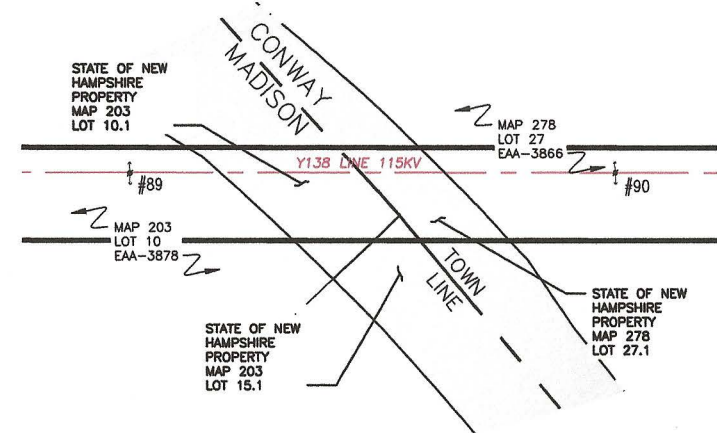
DWG REV	EPN/DESCRIPTION	CONTY/PEA	DATE	DRN	CHKD	APPR
2	UPDATED PER PUC		08/20	CTS	SDR	SDR
1	ISSUED FOR PERMIT		11/19	GBS	JRS	DSD

 Y138, 115kV LINE STATE LAND CROSSING MADISON, NEW HAMPSHIRE EXHIBIT 4	T	2
	DRAWN	GBS
	ENGINEER	DSD
	CHECKED	SDR
	APPROVED	DSD
	DATE	11/19/19
SCALE 1" = 200'	FILE: Y13843503.DWG IMAGE:	DRAWING NO. Y13843503



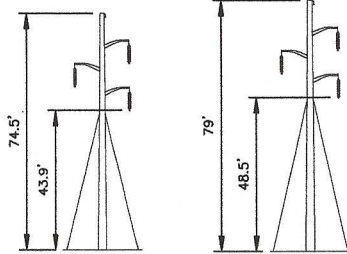
PROFILE VIEW

SCALE: HORIZ 1" = 200'
VERT 1" = 20'



PLAN VIEW

SCALE: 1" = 200'



STR 89: IS AN EVERSOURCE TYPE WT1, SINGLE CIRCUIT STEEL POLE TANGENT, DELTA CONFIG WITH GUYS
STR 90: IS AN EVERSOURCE TYPE WT1, SINGLE CIRCUIT STEEL POLE TANGENT, DELTA CONFIG WITH GUYS

STRUCTURE DETAIL

SCALE: NTS

NESC VERTICAL CLEARANCE (FT) FROM TABLE 232.1	
NATURE OF SURFACE UNDERNEATH WIRES, CONDUCTORS OR CABLES	115kV
SPACES AND WAYS SUBJECT TO PEDESTRIAN OR RESTRICTED TRAFFIC ONLY	16.1

LEGEND:

- #90 STRUCTURE (WITH GUYS)
- STATE OF NEW HAMPSHIRE PROPERTY
- PROPERTY BOUNDARY
- Y138 LINE 115KV LINE, & OF CONSTRUCTION
- LIMITS OF EVERSOURCE RIGHT OF WAY

NOTES:

1. PARCEL INFORMATION PROVIDED BY NH GRANIT.
2. ELEVATIONS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988.

CABLE SCHEDULE						
WIRE	QTY OF CABLES	TYPE		REPLACEMENT DATA		
		EXISTING	REPLACEMENT	Ø (in)	WEIGHT (lb/ft)	ULTIMATE TENSION (lb)
OPGW	1	7/16" STEEL	OPGW 48F	0.457	0.241	11690

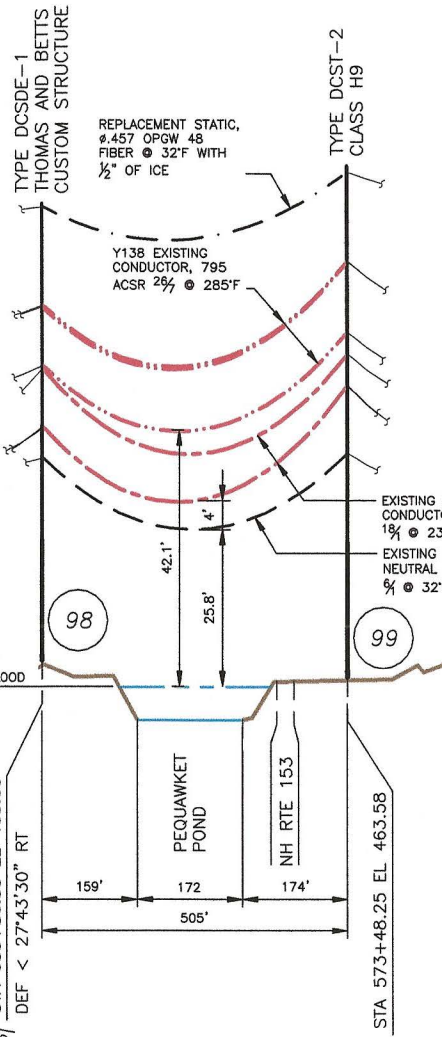
STRUCTURE LOCATION		
STRUCTURE	LONGITUDE	LATITUDE
89	-71.13214006	43.96280465
90	-71.13019888	43.96449516

DWG REV	EPN/DESCRIPTION	CONT/PEP	DATE	DRN	CHKD	APPR
2	UPDATED PER PLIC		08/20	GBS	SDR	SDR
1	ISSUED FOR PERMIT		11/19	GBS	JRS	DSD

EVERSOURCE ENERGY

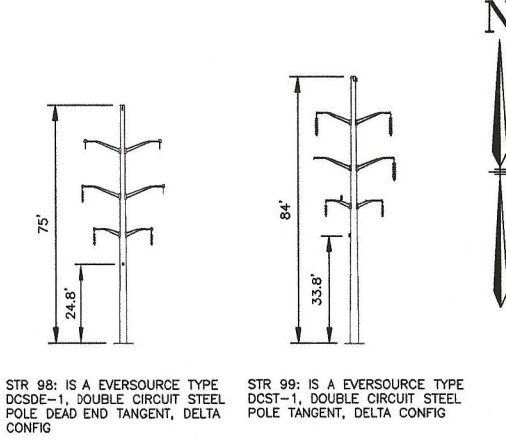
Y138, 115kV LINE
STATE LAND CROSSING
MADISON / CONWAY, NEW HAMPSHIRE
EXHIBIT 5

SCALE: 1" = 200'	DRAWING NO. Y13843504
FILE: Y13843504.DWG	DATE: 11/19/19



PROFILE VIEW

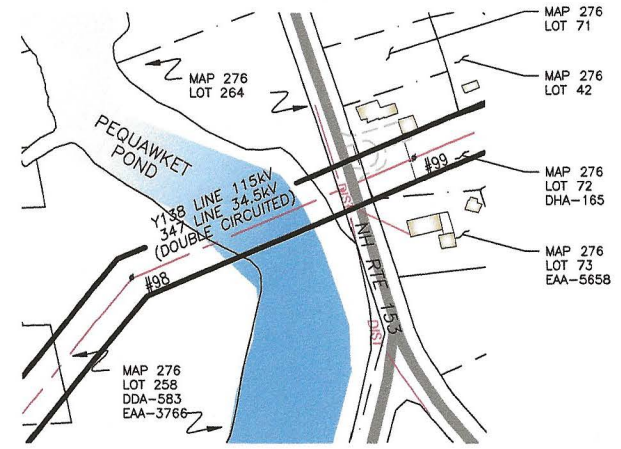
SCALE: HORZ 1" = 200'
VERT 1" = 20'



STRUCTURE DETAIL

SCALE: NTS

STRUCTURE LOCATION		
STRUCTURE	LONGITUDE	LATITUDE
98	-71.11848026	43.97435818
99	-71.11670919	43.97488935



PLAN VIEW

SCALE: 1" = 200'

LEGEND:

- #128 STRUCTURE
- BUILDING / STRUCTURE
- PROPERTY BOUNDARY
- LIMITS OF EVERSOURCE RIGHT OF WAY

NESC VERTICAL CLEARANCE (FT) FROM TABLE 235-5	
NATURE OF SURFACE UNDERNEATH WIRES, CONDUCTORS OR CABLES	34kV
WATER AREAS SUITABLE FOR SAIL BOATING INCLUDING LAKES, PONDS, RESERVOIRS, TIDAL WATERS, RIVERS, STREAMS, AND CANALS WITH AN UNUPSTRUCTURED SURFACE AREA OF:	
LESS THAN 20 ACRES	20.5

NESC VERTICAL CLEARANCE (FT) FROM TABLE 232.1	
NATURE OF SURFACE UNDERNEATH WIRES, CONDUCTORS OR CABLES	115kV
WATER AREAS SUITABLE FOR SAIL BOATING INCLUDING LAKES, PONDS, RESERVOIRS, TIDAL WATERS, RIVERS, STREAMS, AND CANALS WITH AN UNUPSTRUCTURED SURFACE AREA OF:	
LESS THAN 20 ACRES	22.1

NOTES:

1. ELEVATIONS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988.
2. PARCEL BOUNDARIES ARE FROM THE NH GRANITVIEW WEB MAPPING APPLICATION, PARCEL MOSAIC LAYER, PUBLISHED 02/19.

CABLE SCHEDULE						
WIRE	QTY OF CABLES	TYPE		REPLACEMENT DATA		
		EXISTING	REPLACEMENT	Ø (in)	WEIGHT (lb/ft)	ULTIMATE TENSION (lb)
OPGW	1	7/16" STEEL	OPGW 48F	0.457	0.241	11690

NO.	REVISION	DATE	BY	CHKD	APPR
2	REVISED PER PLIC	08/20	GBS	SDR	SDR
1	ISSUED FOR PERMIT	10/19	GBS	JRS	DSD

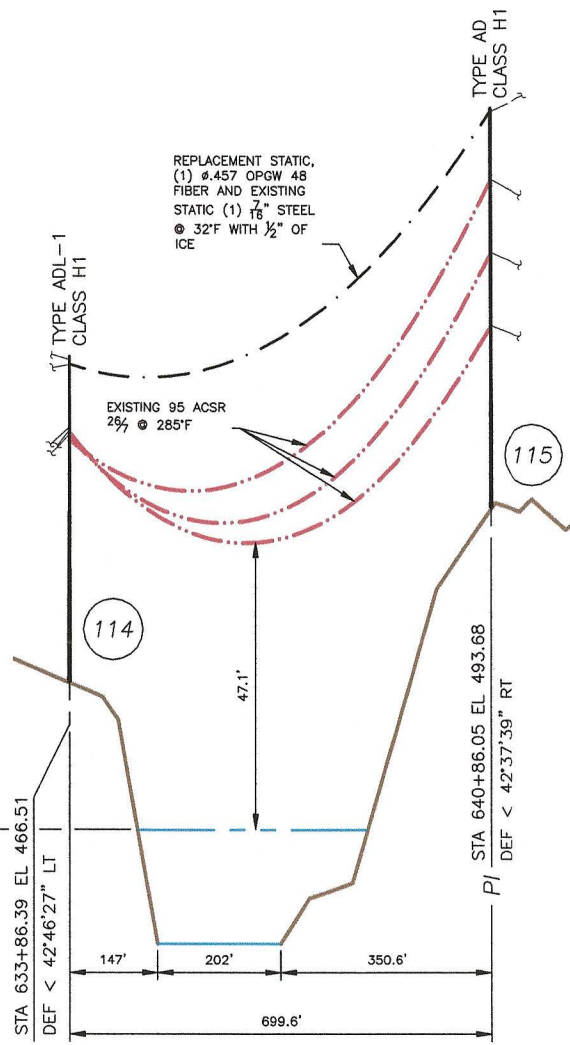
EVERSOURCE ENERGY

Y138, 115kV LINE
PEQUAWKET POND, WATERBODY CROSSING
CONWAY, NEW HAMPSHIRE
EXHIBIT 6

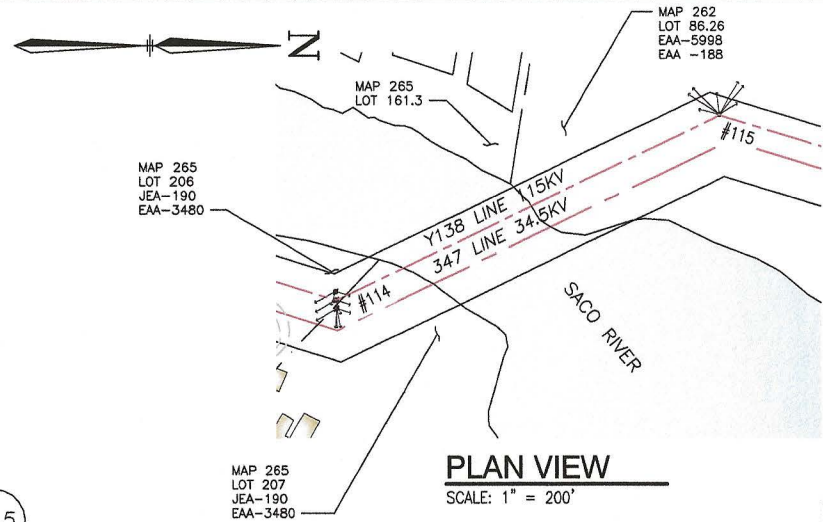
DRAWN GBS	T 2
ENGINEER DSD	CHECKED SDR
APPROVED DSD	DATE 10/29/19

DRAWING NO.
Y13843901

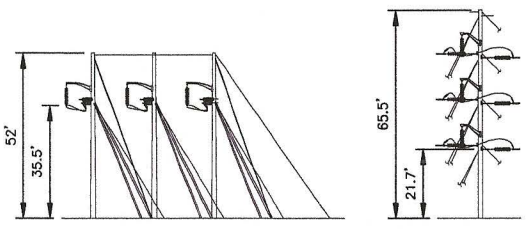
DWG REV	EPN/DESCRIPTION	CONT/PEP	DATE	DRN	CHKD	APPR



PROFILE VIEW
SCALE: HORIZ 1" = 200'
VERT 1" = 20'



PLAN VIEW
SCALE: 1" = 200'



STR 114: IS A EVERSOURCE TYPE ADL-1, SINGLE CIRCUIT THREE POLE STEEL POLE DEAD END ANGLE, HORIZ CONFIG GUYED
STR 115: IS A EVERSOURCE TYPE AD, SINGLE CIRCUIT STEEL POLE DEAD END ANGLE, VERTICAL CONFIG., GUYED

STRUCTURE DETAIL
SCALE: NTS

CABLE SCHEDULE						
WIRE	QTY OF CABLES	TYPE		REPLACEMENT DATA		
		EXISTING	REPLACEMENT	Ø (in)	WEIGHT (lb/ft)	ULTIMATE TENSION (lb)
OPGW	1	7/8" STEEL	OPGW 48F	0.457	0.241	11690

DWG REV	EPN/DESCRIPTION	CONT/PEJ	DATE	DRN	CHKD	APPR
2	REVISED PER PLC		08/20	GBS	SDR	SDR
1	SUPERSEDES D-7849-339		10/19	GBS	JRS	DSD

STRUCTURE LOCATION		
STRUCTURE	LONGITUDE	LATITUDE
114	-71.10389016	43.98548037
115	-71.10502947	43.98721448

NESC VERTICAL CLEARANCE (FT) FROM TABLE 232.1	
NATURE OF SURFACE UNDERNEATH WIRES, CONDUCTORS OR CABLES	115KV
WATER AREAS SUITABLE FOR SAIL BOATING INCLUDING LAKES, PONDS, RESERVOIRS, TIDAL WATERS, RIVERS, STREAMS, AND CANALS WITH AN UNUPSTRUCTED SURFACE AREA OF:	OVER 20 TO 200 ACRES
	30.1

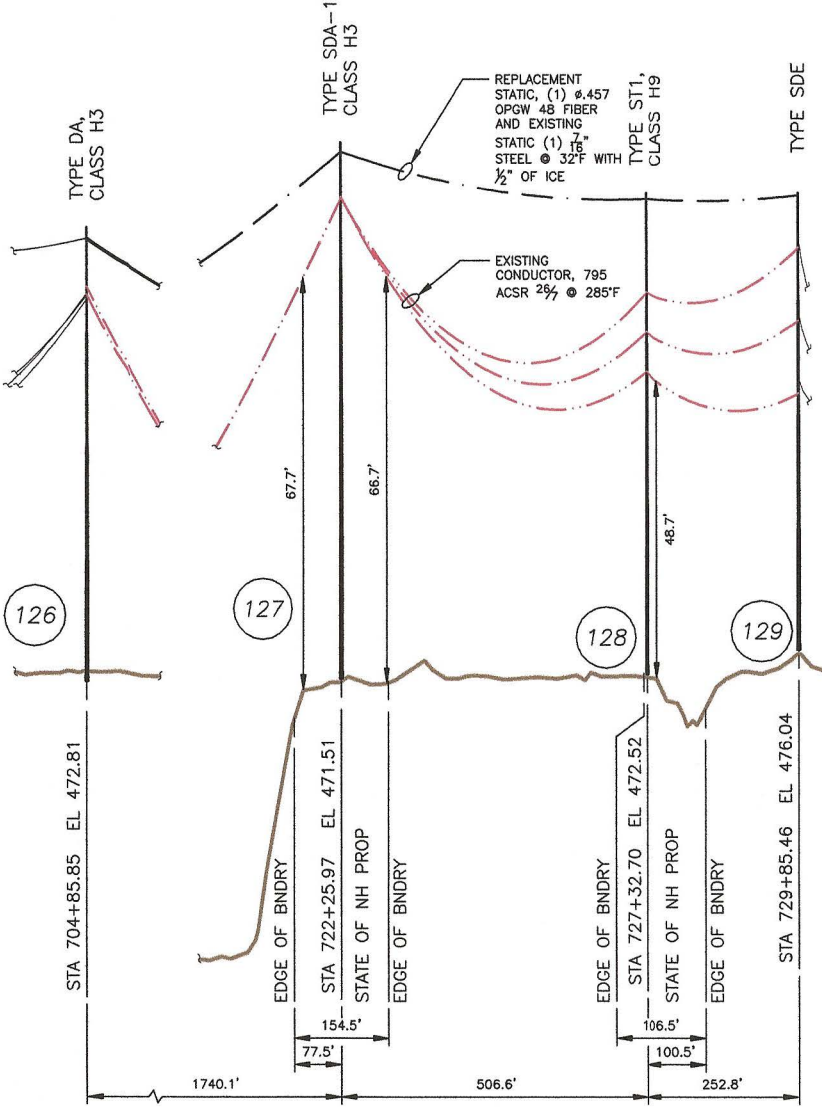
- LEGEND:**
- #128 STRUCTURE
 - BUILDING / STRUCTURE
 - PROPERTY BOUNDARY
 - LIMITS OF EVERSOURCE RIGHT OF WAY

- NOTES:**
- ELEVATIONS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988.
 - PARCEL BOUNDARIES ARE FROM THE NH GRANITVIEW WEB MAPPING APPLICATION, PARCEL MOSAIC LAYER, PUBLISHED 02/19.

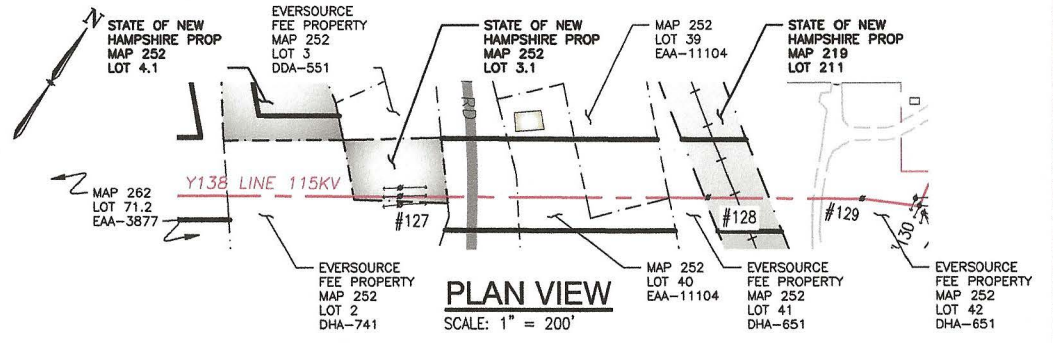
EVERSOURCE ENERGY

Y138, 115KV LINE
SACO RIVER, WATERBODY CROSSING
CONWAY, NEW HAMPSHIRE
EXHIBIT 7

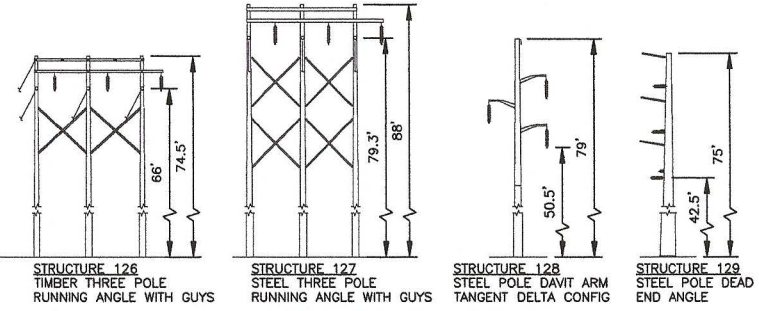
SCALE 1" = 200'	FILE: Y13843902.DWG	DRAWING NO. Y13843902
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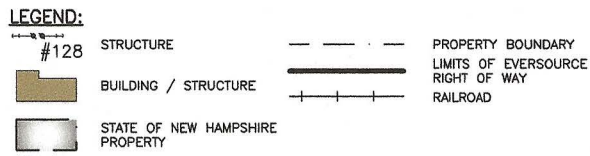
PROFILE VIEW
SCALE: HORZ 1" = 200'
VERT 1" = 20'



PLAN VIEW
SCALE: 1" = 200'



STRUCTURE DETAIL
SCALE: NTS



STRUCTURE LOCATION		
STR	LONGITUDE	LATITUDE
126	-71.09497150	44.00294099
127	-71.08944129	44.00555932
128	-71.08783189	44.00632274
129	-71.08702694	44.00670087

NESC VERTICAL CLEARANCE (FT) FROM TABLE 232.1	
NATURE OF SURFACE UNDERNEATH WIRES, CONDUCTORS OR CABLES	115kV
SPACES AND WAYS SUBJECT TO PEDESTRIAN OR RESTRICTED TRAFFIC ONLY	16.1
TRACK RAILS OF RAIL ROAD	28.1

CABLE SCHEDULE						
WIRE	QTY OF CABLES	TYPE		REPLACEMENT DATA		
		EXISTING	REPLACEMENT	Ø (in)	WEIGHT (lb/ft)	ULTIMATE TENSION (lb)
OPGW	1	7/16" STEEL	OPGW 48F	0.457	0.241	11690

- NOTES:**
- ELEVATIONS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988.
 - PARCEL BOUNDARIES ARE FROM THE NH GRANITVIEW WEB MAPPING APPLICATION, PARCEL MOSAIC LAYER, PUBLISHED 02/19.

DWG REV	EPN/DESCRIPTION	CONT/PEA	DATE	DRN	CHKD	APPR
5	UPDATED PER PUC		08/20	GBS	SDR	SDR
4	ADDED STR 128 AND 129 DETAILS		2/20	GBS	CJN	SDR
3	ADDED STR 126		1/20	GBS	CJN	SDR
2	ADDED SECOND OPGW STATIC LINE		12/19	GBS	CJN	SDR
1	ISSUED FOR PERMIT		11/19	GBS	JRS	DSD

EVERSOURCE ENERGY

Y138, 115kV LINE
STATE LAND CROSSING
CONWAY, NEW HAMPSHIRE
EXHIBIT 8

T	5
DRAWN	GBS
ENGINEER	DSD
CHECKED	SDR
APPROVED	DSD
DATE	11/19/19

SCALE: 1" = 400'
FILE: Y13843505.DWG
DRAWING NO. Y13843505