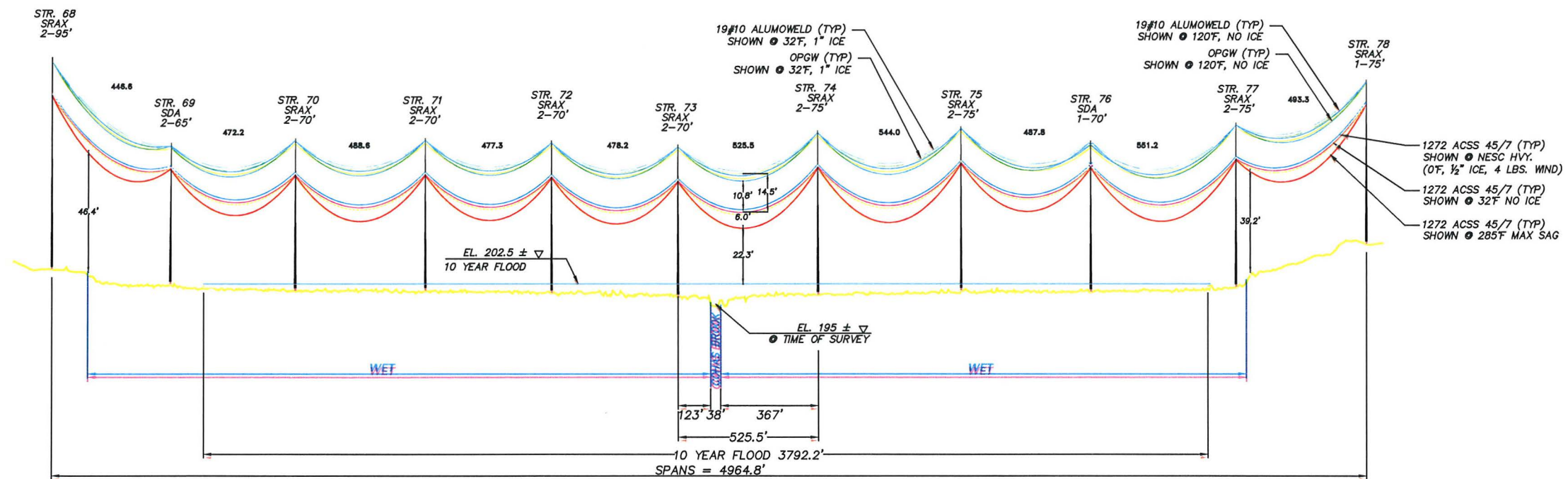


PLAN VIEW

SCALE: 1"=500'



PROFILE VIEW

SCALE: 1"=500' HORIZ.
1"=50' VERT.

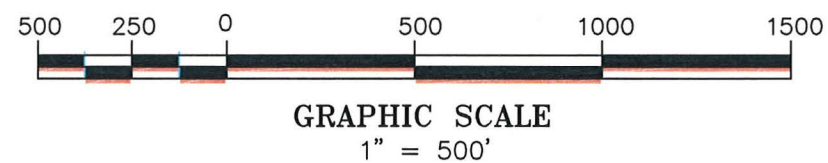
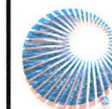


EXHIBIT 2



**Public Service
of New Hampshire**
A Northeast Utilities Company

**115 kV TRANSMISSION
LINE W144
COHAS BROOK CROSSING**

Transmission Business

DRAWN JJD	DATE 8/25/2014
APPROVED	DRAWING NO. SK-018

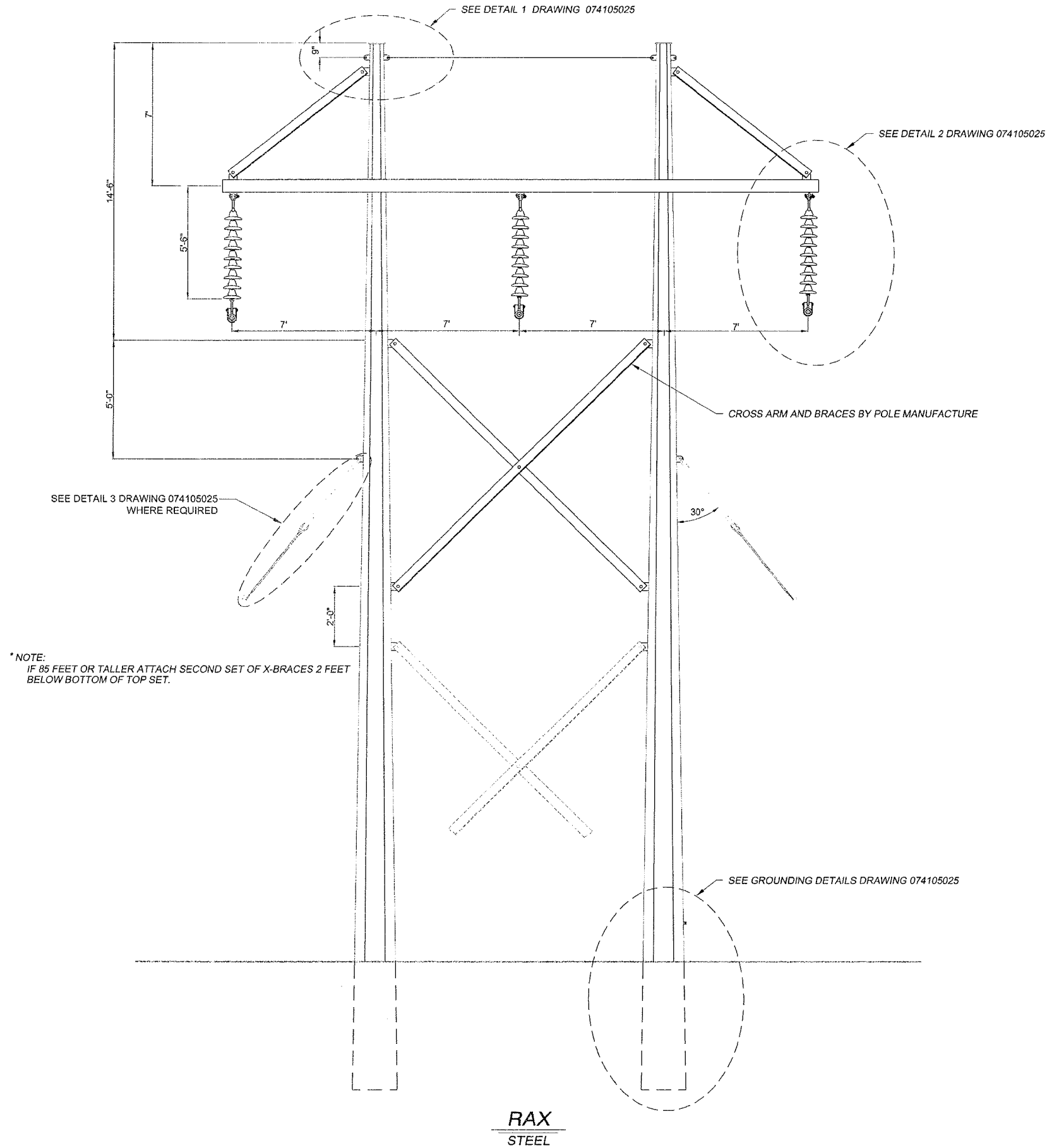
APPENDIX A
W144 LINE
STRUCTURES 68-78
GREAT COHAS BROOK
MANCHESTER, NH

1. The proposed W144 line crosses Great Cohas Brook by one two-pole 75' directly embedded steel structure (north) and one two-pole 70' directly embedded steel structure (south) with a span of 525'. Detailed drawings of these structures have been provided with this Appendix A as Figure 1. As shown in Figure 1, the phase wires are spaced 14' horizontally. The OPGW cable and 19#10 static wires are carried on the structures above the phase wires approximately 9" below the top of the poles positioned 7' laterally from the center phase wires. NESC 2012 code ground clearance minimum for 115kV is 20.1' and has been met as a maximum sag of 26.1' of clearance is provided. Clearances, as well as a plan and profile view of this crossing are shown in Exhibit 2.
2. Flood water elevations for the Great Cohas Brook were based on information contained in FEMA Flood Insurance Rate Map (FIRM) #33011C0383D Panel 93 to 94. This document has an effective date of September 25, 2009. Based on the information provided in the FIRM, the section of Great Cohas Brook where the W144 line crosses is in an area labeled "Zone AE". From the map legend, Zone AE areas are determined to be within the base flood elevation or areas that are subject to inundation 1-percent-annual-chance flood event. At the time of survey the elevation of this section of Great Cohas Brook was El. 195 +/- . In accordance with the FIRM, PSNH estimates the 10 year flood elevation to be El. 202.5' +/- . These elevations are based on the North American Vertical Datum of 1988.
3. These lines were designed to safely exceed the 10-year flood elevation. The area of the crossing contains approximately eight (8) spans and seven (7) structures within the 10-year flood elevation. The area outside of the Great Cohas Brook stream banks occur as a vegetated floodplain wetland and is normally not suitable for sailboat navigation. Further, access to the stretch of Great Cohas Brook where the crossing is proposed is blocked to normal sailboat navigation by the occurrence of open-box culverts located on South Willow Street to the west and Route 28A located to the northeast prohibiting normal access to Great Cohas Brook. The area of the crossing, as required by the NESC (Table 232-1.7, Note 19), is approximately 9.2 acres. This is based on the total area of the Brook for a 1-mile stretch in either direction of the crossing $\{38' \times 5,280'\}/43,560 \text{ sf/ac} = 4.6 \text{ ac}\}$. As stated in paragraph 9 of the Petition, the minimum required 115 kV conductor clearances for sailable water surface areas less than 20 acres is 23.6'.
4. The sags and clearances to the water surface during a 10-year flood event for this crossing are as follows:
 - PSNH has investigated a multitude of weather and loading conditions for its design. PSNH used these design conditions and combinations thereof to determine the minimum clearance of all conductors to the water and land surfaces, between the phase conductors and the OPGW cable. PSNH has

determined that the weather cases and combinations listed below results in the minimum clearance and control over all other weather conditions and combinations.

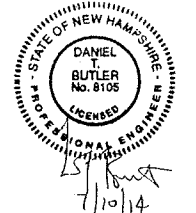
- OPGW wire- Due to the fact that the OPGW wire is located above the phase wires, its clearance to the water surface will always exceed the minimum required NESC distance.
- Staticwire – Due to the fact that the 19#10 alumoweld staticwire is located above the phase wires, its clearance to the water surface will always exceed the minimum required NESC distance.
- NESC Heavy Loading – The maximum conductor sag for this weather case will be 21.5' with a clearance to the 10 year flood water elevation at 28.3'.
- 285 degrees F – Max operating temperature (phase wires) based on PSNH transmission standards – The maximum conductor sag for this loading case will be 32' with a clearance to the 10 year flood water elevation of 22.3'. This condition produces the greatest sag in the phase wires and therefore minimum clearance to the water surface. The design will exceed the minimum clearance requirement of 20.1' by 2.2 under temporary emergency conditions during a 10-yr storm event
- Minimum phase to OPGW and state wire clearance – The weather case that would produce the minimum clearance between the phase wires and OPGW wires would be a combination of winter weather factors. First, the phase wires would have to be at 32 deg. F just after an ice storm and would have just dropped their ice. The OPGW and static wires would also be at 32 deg. F and would still be iced with 1" of radial ice. Under these conditions the clearance would be 14.5' vertically and 7' horizontally from the shield wires to the closest phase wire. Based on Section 235.C.2.a.1 and Table 235-6 section 2.a of the NESC, the minimum clearance required is 57.4", or approximately 4'-10: [29" + (121 kV-50kV) x 0.4"].


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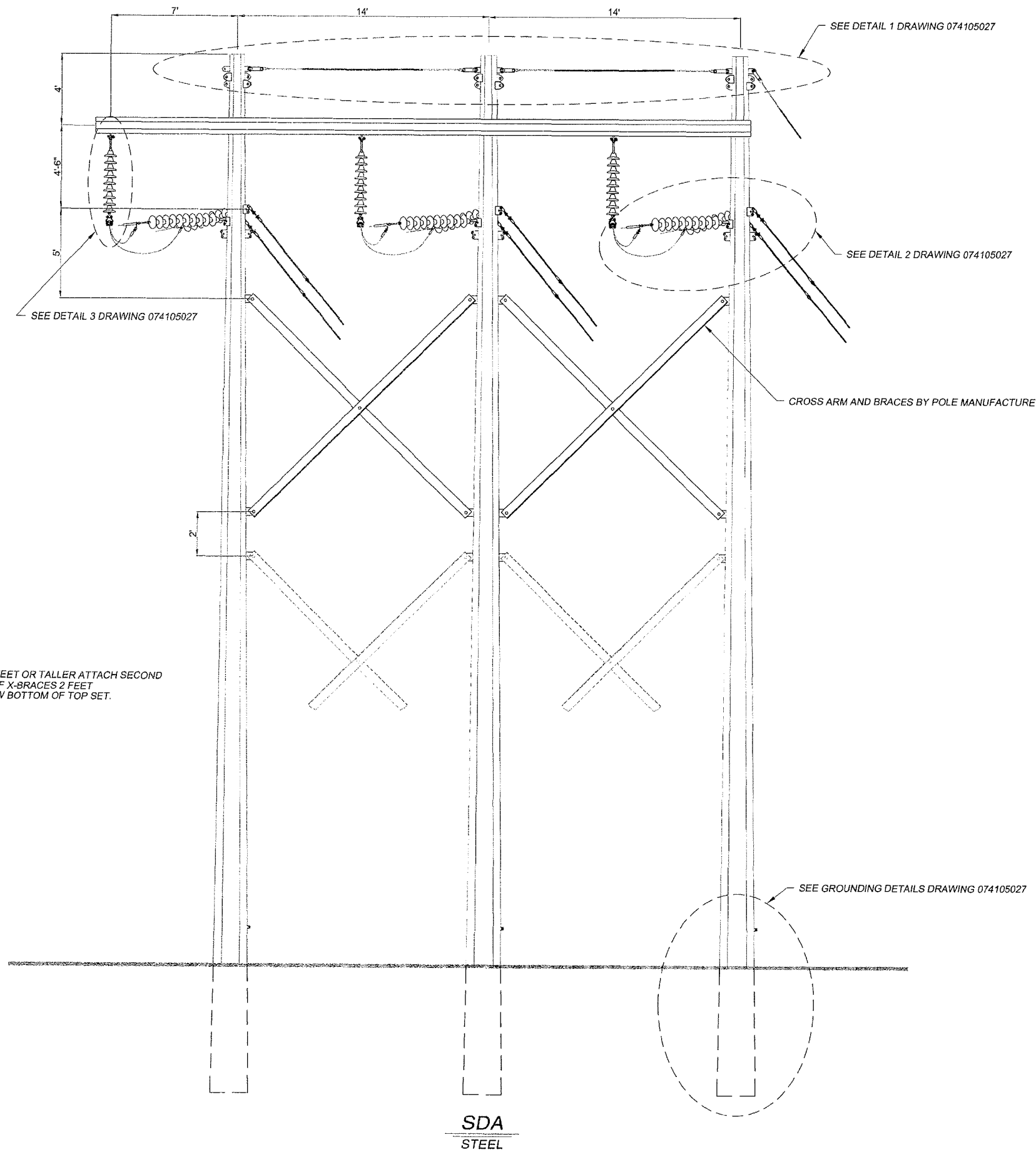


S/C #	DESCRIPTION	UNIT	QTY
CONDUCTOR ASSEMBLY			
173140	BALL Y-CLEVIS, LONG, HOT LINE, 30K	EA	3
450549	GLASS, INSULATOR, M&E RATED, 52-3, 10 IN, 20,000 LBS	EA	27
174910	EYE-SOCKET, 2-1/16 IN LONG, 30K	EA	3
438027	CLAMP, SUSPENSION, AGS, 1272 ACSS 45/7	EA	3
STATIC WIRE & CROSS-TIE ASSEMBLY			
437021	LINK, CONNECTING, STRAIGHT	EA	4
448107	BOLT, MACHINE 7/8" X 3-1/2"	EA	4
437024	GUY, ROLLER, 19#10	EA	2
437017	NUT, LOCK, 7/8 IN	EA	4
179512	GRIP, GUY, PREFORMED, 19#10 ALUMOWELD (GREEN)	EA	2
177610	WIRE, BARE, ALUMOWELD 19#10, 0.509" DIA.	FT	20
176646	SHACKLE, ANCHOR-CLEVIS, GALV., 5/8", 30K	EA	2
436103	GRIP, ASSEMBLY, ARMOR, 19#10 AW	EA	1
438208	SUSPENSION UNIT, AGS, 0 - 30", 0.646 DIAMETER W/GROUND LUG AND #4CU WIRE	EA	1
GROUNDING			
179024	CONNECTOR, PG, BOLTED 19#10AW TO #2 OR #4CU	EA	2
177581	WIRE, COPPER, #4, 7-STRAND, 0.232" DIA.	FT	10
175364	ROD, GROUND, 5/8" X 8', COPPERWELD	EA	8
178973	CONNECTOR, GROUND ROD TO 20 COPPER	EA	8
177820	WIRE, 3/8" COPPERWELD, 0.277" DIA.	FT	160
446240	CONNECTOR, COMPRESSION, C-TAP, .162-.292 IN, RUN AND TAP	EA	13
174434	GROUND BONDING BOLT, 1/2" X 1"	EA	4
174540	BONDING CLIP STEEL	EA	4
SIDE GUY (IF NEEDED) FOR (2) SIDE GUYS			
179651	INSULATOR, STRAIN, FIBERGLASS, 78", ROLLER/CLEVIS, 30K	EA	2
179512	GRIP, GUY, PREFORMED, 19#10 ALUMOWELD (GREEN)	EA	4
177610	WIRE, GUY, 19#10 ALUMOWELD (0.509" DIA.)	EA	150
180719	MARKER, GUY, YELLOW, 8' POLYETHYLENE, W/V-GROOVE CLAMP	EA	2
173134	ANCHOR, SCREW, MULTI-HELIX (10-12-14"), TWINEYE	EA	2
174898	ROD, EXTENSION, 8'	EA	6

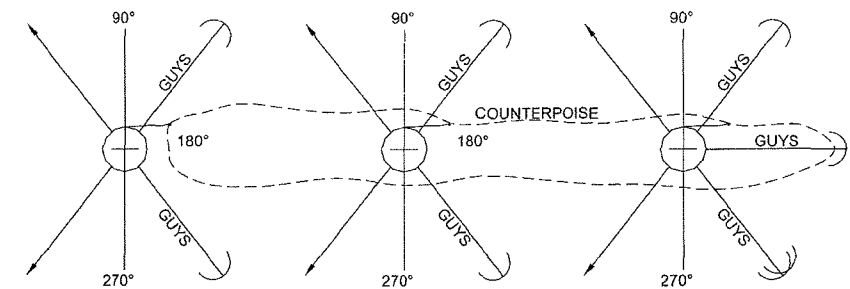
Figure 1



CONTRACT SERVICES	ISSUED FOR CONSTRUCTION	8105	7/8/14	TRC	TRC	TRC
	DESCRIPTION	ENG/PE#	DATE	DRN	CHKD	APPR
						
Public Service of New Hampshire A Northeast Utilities Company						
115 kV H-FRAME STEEL POLE TYPE SRAX TANGENT						
APPROVED DTB/TRC 8105 DATE 7/8/14						
SCALE NTS						
FILE: 074105024.DWG IMAGE: 074105024						



S/C #	DESCRIPTION	UNIT	QTY
CONDUCTOR ASSEMBLY			
176646	SHACKLE, ANCHOR-CLEVIS, GALV., 5/8", 30K	EA	6
176774	TURNBUCKLE, CLEVIS-EYE, 30K	EA	6
173140	BALL Y-CLEVIS, LONG, HOT LINE, 30K	EA	6
450548	GLASS INSULATOR, M&E RATED, 53-5, 10 IN, 30,000 LBS	EA	60
176658	SOCKET Y-CLEVIS, LONG, HOT LINE, 30K	EA	6
443829	DEADEND, COMPRESSION, 1272 ACSS 45/7 HIGH TEMP, W/LUG	EA	6
137414	INHIBITOR, OXIDE, 2 OZ. BOTTLE	EA	3
442780	COMPOUND, FILLER, CARTRIDGE, COMPRESSION FITTINGS, 16 OZ	EA	6
IDLER ASSEMBLY			
173140	BALL Y-CLEVIS, LONG, HOT LINE, 30K	EA	3
450549	GLASS INSULATOR, M&E RATED, 52-3, 10 IN, 20,000 LBS	EA	27
174910	EYE-SOCKET, 2-1/16 IN LONG, 30K	EA	3
439027	CLAMP, SUSPENSION, AGS, 1272 ACSS 45/7	EA	3
STATIC WIRE DEAD-END			
176646	SHACKLE, ANCHOR-CLEVIS, GALV., 5/8", 30K	EA	4
166523	BALL Y-CLEVIS, SHORT, 30K	EA	2
414020	FIBERGLASS DEAD-END FOR OPTICAL GROUND WIRE (OPGW 0.646 DIA)	EA	2
142032	CONNECTOR, PG, BOLTED 19#10AW TO 19#10AW	EA	4
166501	CLAMP, QUADRANT, STATIC, (25"-57"), ALUM, SOCKET CONNECTOR	EA	2
CROSS-TIE & STATIC WIRE GUYING AND ANCHORING			
437017	NUT, LOCK, 7/8 IN	EA	10
448107	BOLT, MACHINE 7/8" X 3-1/2"	EA	10
437021	LINK, CONNECTING, STRAIGHT	EA	10
437024	GUY, ROLLER, 19#10	EA	5
178512	GRIP, GUY, PREFORMED, 19#10 ALUMOWELD (GREEN)	EA	6
177610	WIRE, GUY, 19#10 ALUMOWELD (0.509" DIA.)	FT	220
184719	MARKER, GUY, YELLOW, 8" POLYETHYLENE, W/V-GROOVE CLAMP	EA	1
175361	ROD, ANCHOR, TRIPLE-EYE, 1" X 10'	EA	1
177040	WASHER, 4" X 4", 1 1/8" HOLE	EA	1
174256	ANCHOR, LOG, WOOD, 6" X 8" X 8'	EA	1
173129	ANCHOR, EXPANDING, ROCK, 1" X 72"	EA	1
173134	ANCHOR, SCREW, MULTI-HELIX (10-12-14"), TWINEYE	EA	1
174898	ROD, EXTENSION, 5-FOOT	EA	3
142032	CONNECTOR, PG, BOLTED 19#10AW TO 19#10AW	EA	2
CONDUCTOR GUYING AND ANCHORING			
176646	SHACKLE, ANCHOR-CLEVIS, GALV., 5/8", 30K	EA	6
176650	INSULATOR, STRAIN, FIBERGLASS, 50", ROLLER/CLEVIS, 30K	EA	6
178512	GRIP, GUY, PREFORMED, 19#10 ALUMOWELD (GREEN)	EA	12
177610	WIRE, GUY, 19#10 ALUMOWELD (0.509" DIA.)	FT	700
184719	MARKER, GUY, YELLOW, 8" POLYETHYLENE, W/V-GROOVE CLAMP	EA	6
175361	ROD, ANCHOR, TRIPLE-EYE, 1" X 10'	EA	6
177040	WASHER, 4" X 4", 1 1/8" HOLE	EA	6
174256	ANCHOR, LOG, WOOD, 6" X 8" X 8'	EA	6
173129	ANCHOR, EXPANDING, ROCK, 1" X 72"	EA	6
173134	ANCHOR, SCREW, MULTI-HELIX (10-12-14"), TWINEYE	EA	6
174898	ROD, EXTENSION, 5-FOOT	EA	18
STATIC GUYING AND ANCHORING TOP OF POLE			
177581	WIRE, COPPER, #4, 7-STRAND, 0.232" DIA.	FT	40
179024	CONNECTOR, PG, BOLTED 19#10AW TO #2 OR #4CU	EA	2
439408	CLAMP, GROUND, OPGW (0.646) TO #4CU/#8 (TYCO GC-H-2)	EA	2
174434	GROUND BONDING BOLT, 1/2" X 1"	EA	2
174540	BONDING CLIP STEEL	EA	2
CONDUCTOR GUYING AND ANCHORING BOTTOM OF POLE			
177820	WIRE, 3#8 COPPERWELD, 0.277" DIA.	FT	AS REQD
177631	WIRE, #2 SOLID COPPERWELD, 0.258 DIA., 0.1842 LBS/FT	LBS	6
446240	CONNECTOR, COMPRESSION, C-TAP, .162-.292", RUN AND TAP	EA	3
175364	ROD, GROUND, 5/8" X 8", COPPERWELD	EA	3
178973	CONNECTOR, GROUND ROD TO 3#8 COPPERWELD	EA	3
174434	GROUND BONDING BOLT, 1/2" X 1"	EA	3
174540	BONDING CLIP STEEL	EA	3



GUYING AND COUNTERPOISE ARRANGEMENT

Figure 2

NOTE: 1158 STRUCTURES 2 & 3A AND W144 STRUCTURES 4 & 5 SEE STATIC DROP DETAILS ON W14405018

CONTRACT SERVICES	ISSUED FOR CONSTRUCTION	8/105	7/8/14	TRC	TRC	TRC
	DESCRIPTION	ENG/PE#	DATE	DRN	CHKD	APPR
Public Service of New Hampshire A Northeast Utilities Company						T JUD/TRC ENGINEER AMW/TRC CHECKED TSW/TRC APPROVED OTB/TRC 8/105 DATE 7/8/14
115 kV H-FRAME STEEL POLE TYPE SDA DEAD-END						SCALE N.T.S.
FILE: 074105026.DWG IMAGE:						DRAWING NO. 074105026