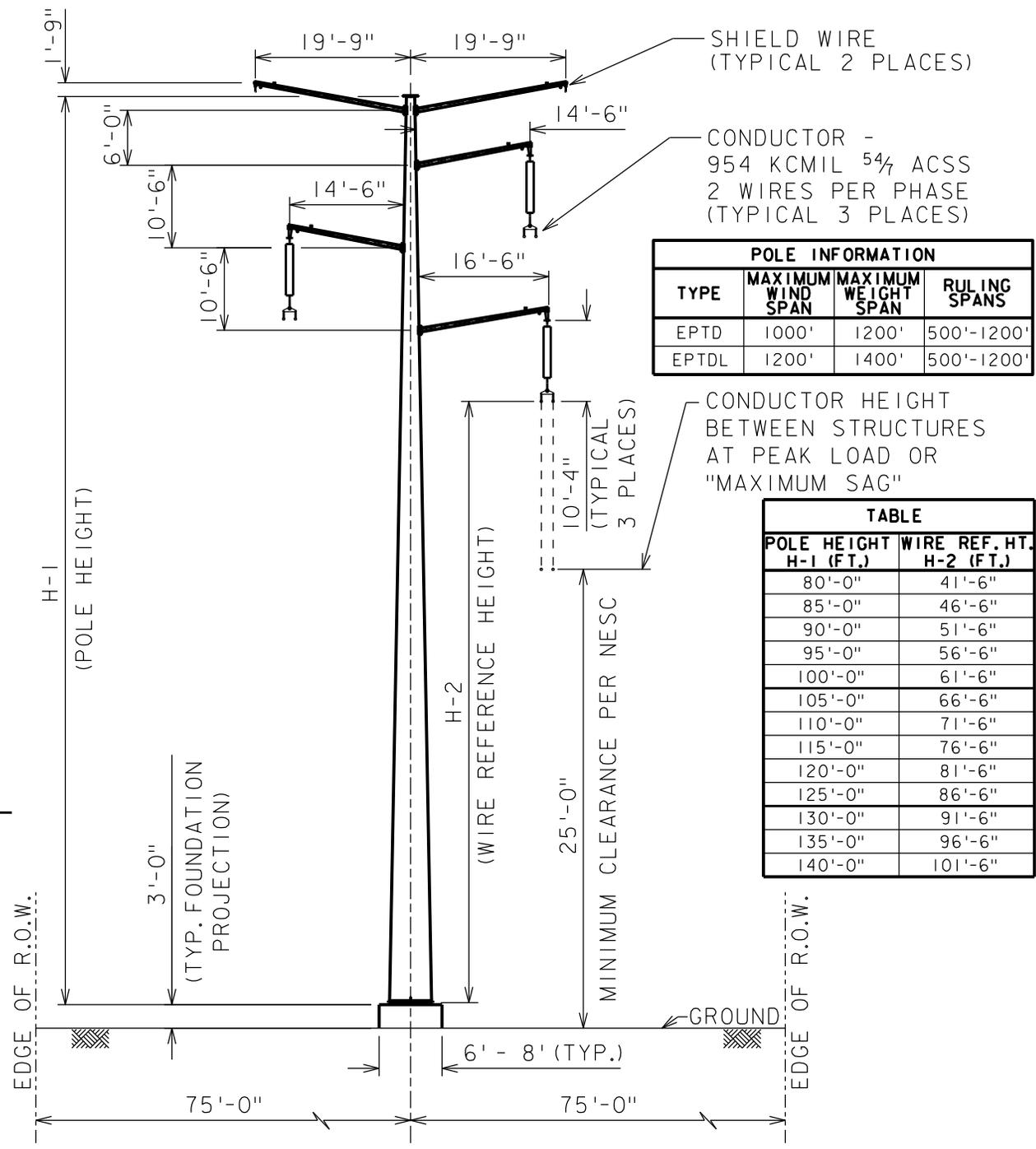


REVISIONS	
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POLE INFORMATION			
TYPE	MAXIMUM WIND SPAN	MAXIMUM WEIGHT SPAN	RULING SPANS
EPTD	1000'	1200'	500'-1200'
EPTDL	1200'	1400'	500'-1200'

TABLE	
POLE HEIGHT H-1 (FT.)	WIRE REF. HT. H-2 (FT.)
80'-0"	41'-6"
85'-0"	46'-6"
90'-0"	51'-6"
95'-0"	56'-6"
100'-0"	61'-6"
105'-0"	66'-6"
110'-0"	71'-6"
115'-0"	76'-6"
120'-0"	81'-6"
125'-0"	86'-6"
130'-0"	91'-6"
135'-0"	96'-6"
140'-0"	101'-6"

FORM 7433-A-EPTD REV.0 01/19/12

STRUCTURE DESIGNED IN ACCORDANCE WITH THE NESC TO MEET OR EXCEED RULES:  
 250B-NESC HEAVY CONDITION  
 250C-EXTREME WIND  
 250D-EXTREME ICE

PREPARED FOR Ameren

DRAWN	LINE CONSTRUCTION - 345 KV, 60HZ STEEL POLE OUTLINE POLE TYPE EPTD & EPTDL (0°-1°) SINGLE CIRCUIT TANGENT STRUCTURES	
CHK/RVW		
SUPV.		
APPD. 01/20/12 P A FIFE	LOCATION ILLINOIS RIVERS	CLASS 12034

B

A

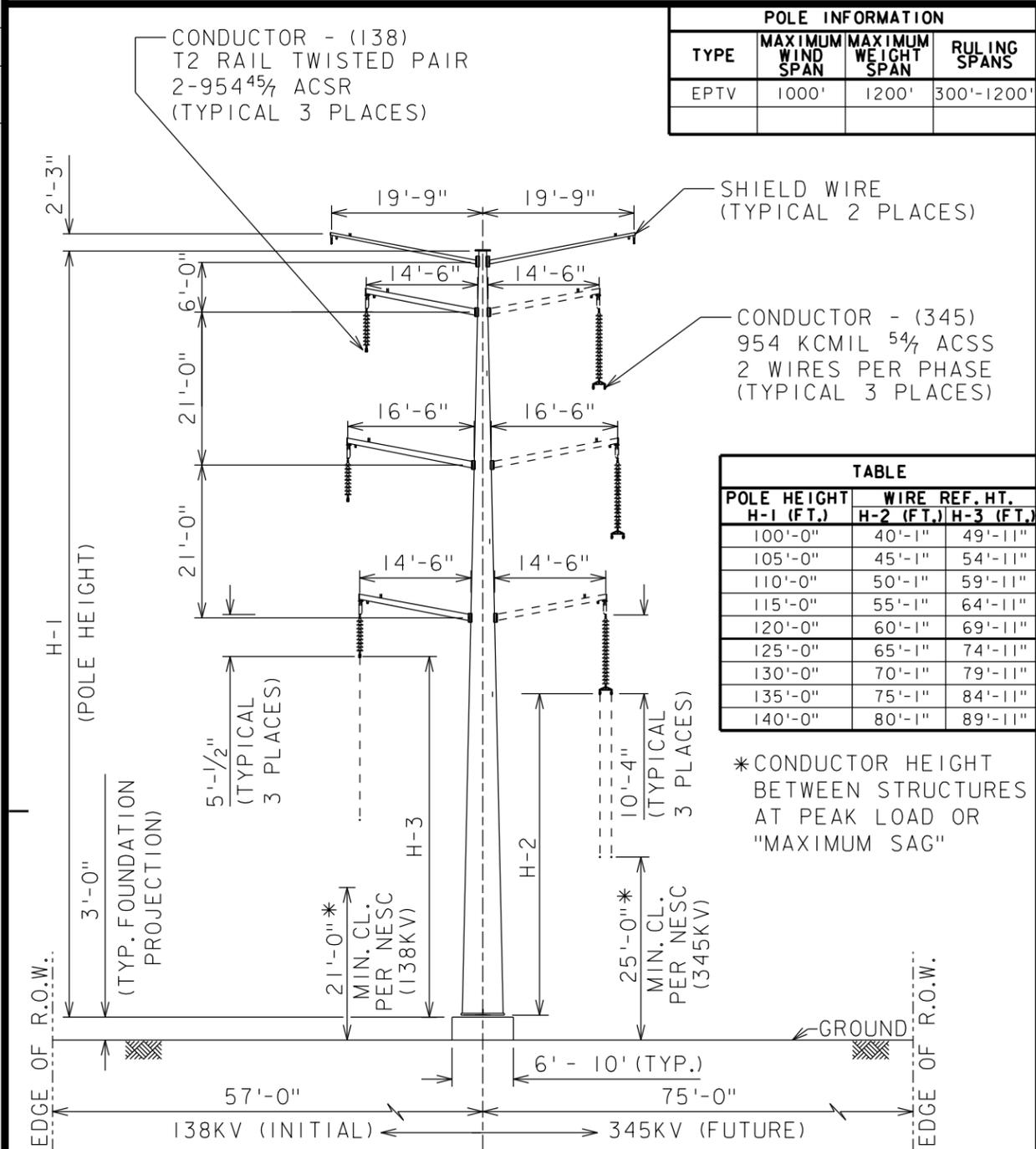
37-13-067 Rev.9-85

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FIRST ISSUE



STRUCTURE DESIGNED IN ACCORDANCE WITH THE NESC TO MEET OR EXCEED RULES:  
250B-NESC HEAVY CONDITION  
250C-EXTREME WIND  
250D-EXTREME ICE

PREPARED FOR Ameren

DRAWN 10/17/12 A M SMITH		LINE CONSTRUCTION-345/138KV, 60HZ STEEL POLE OUTLINE POLE TYPE EPTV SPECIAL DOUBLE CIRCUIT TANGENT STRUCTURES	
CHK/RVW			
SUPV.			
APPD.	LOCATION	ILLINOIS RIVERS	CLASS 12034
ST. LOUIS, MISSOURI		EXHIBIT 7.2	REV. 0

37-13-067 Rev.9-85

**Engineering Data Appendix**

**8-406.1(a)(1)(B)(ii) *Description of conductors, structures, substations***

- (I) ***Conductor size and type:*** Bundled 954 54/7 ACSS (Cardinal)
- (II) ***Type of structure:*** Steel Monopole, Single Circuit, Vertical Configuration
- (III) ***Height of typical structure:*** range of 80 feet to 140 feet
- (IV) ***Explanation of why these structures were selected:*** Minimize footprint of the structure.
- (V) ***Dimensional drawing of typical structures:*** The shield wires are at the top of the pole on steel arms; the top phase is 17 feet from the top; the vertical phase spacing is 10 feet and the horizontal phase spacing is 30 feet; See ATXI Exhibit 7.1.
- (VI) ***Names of all substations (new and existing) associated with new line:*** Quincy Substation, Meredosia Substation, Ipava Substation, Pawnee Substation, Pana Substation, Mt. Zion Substation, Kansas Substation, Rising Substation and Sidney Substation.

**8-406.1(a)(1)(B) (iii) *Location of the right-of-way:***

- (I) ***Miles of circuit:*** Primary Route: approximately 375 miles; Alternative Route: approximately 403 miles
- (II) ***Width of right-of-way:*** 150 feet typical

**8-406.1(a)(1)(B) (iv) *A technical description providing the following information:***

- (I) ***Number of circuits:*** Overhead, one circuit
- (II) ***Operating voltage and frequency:*** 345 kV, 60 Hz
- (III) ***Conductor size and type and number of conductors per phase:*** Bundled 954 54/7 ACSS (Cardinal)

**8-406.1(a)(1)(B) (v) *The following overhead line data:***

- (I) ***Wind and ice loading design parameters:***  
National Electric Safety Code (NESC):  
Rule 250B: Heavy Condition: 4 psf wind, ½ inch ice, 0°F Initial  
Rule 250C: Extreme Wind Condition: 21 psf wind, no ice, 60°F Initial  
Rule 250D: Extreme Ice Condition: 4 psf wind, 1 inch ice, 15°F Initial

- (II) ***Full description and drawing of typical structure, including strength specifications:*** Single circuit tangent vertical configuration. Structure design will meet or exceed stated loadings in the National Electric Safety Code (NESC). See ATXI Exhibits 7.1 and 7.2.
- (III) ***Structure spacing with typical ruling and maximum spans:*** The typical ruling span will be approximately 800 feet; maximum ruling span will not exceed 1000 feet.
- (IV) ***Conductor spacing:*** Typical vertical phase spacing is 10 feet and the typical horizontal phase spacing is 30 feet.
- (V) ***Designed line-to-ground and conductor-side clearances:***  
Line to Ground: NESC criteria with 8% voltage adder plus 3 feet  
Conductor-side: NESC criteria of 6 psf, 60°F Final with 8% voltage adder plus 2 feet.

**8-406.1(a)(1)(B) (vi) *Underground/underwater data:*** Not Applicable.

**8-406.1(a)(1)(B) (vii) *Technical diagrams that provide clarification of any item:*** Not applicable.

## Illinois Rivers Project - Baseline Cost Estimate

<b>Portion</b>	<b>Primary</b>	<b>Alternate</b>
Mississippi River - Quincy	\$ 20,385,000	\$ 22,747,000
Quincy - Meredosia	\$ 105,957,000	\$ 104,264,000
Meredosia - Ipava	\$ 101,516,000	\$ 104,875,000
Meredosia - Pawnee	\$ 129,077,000	\$ 144,205,000
Pawnee - Pana*	\$ 65,868,000	\$ 78,780,000
Pana - Mt. Zion	\$ 62,869,000	\$ 72,182,000
Mt. Zion - Kansas	\$ 125,502,000	\$ 128,026,000
Kansas - Indiana State Line	\$ 68,236,000	\$ 63,919,000
Rising - Sidney	\$ 40,482,000	\$ 65,122,000
<b>Total Cost</b>	<b>\$ 719,892,000</b>	<b>\$ 784,120,000.00</b>

\*Alternate 2 for this Portion only \$ 65,018,000