

### Welcome

### **Texas Substation and Transmission Line Project**



### Purpose and Need

#### **Texas Substation and Transmission Line Project**

#### What is the Texas Substation and Transmission Line Project?

The Texas 138 kV Substation and Transmission Line Project (Project) consists of a new 138 kV single pole/double circuit transmission line that will connect to the existing Entergy Texas, Inc. (ETI) Lewis Creek to Goree 138 kV Transmission Line (L-487) in Walker County. The new transmission line will follow a path through Walker County until it reaches the new Texas Distribution Substation. The Texas Substation is planned to be located along Interstate Highway (IH) 45 between Huntsville and New Waverly in Walker County. The new transmission line could be approximately 3-5 miles in length, depending on the route ultimately approved by the Public Utility Commission of Texas (PUCT).

### What is the purpose and need of the Texas 138 kV Substation and Transmission Line Project?

The primary purpose of the Project is to meet the area's growing power demands in Walker County spurred by residential and business development. To accomplish this, a new distribution substation, to be called "Texas Substation", is needed to provide the additional capacity and distribution feeder delivery system to integrate into the existing distribution system in the area. The location of Texas Substation is determined by the existing distribution system and available suitable property and is proposed to be located along Interstate Highway 45 between Huntsville and New Waverly in southeast Walker County. The connecting transmission line would cut-in and extend ETI's existing Lewis Creek to Goree 138 kV Transmission Line (L-487) to the proposed new Texas Substation.

#### The Proposed Project will require the following scopes of work:

**1) Design and build the new Texas 138 kV / 13.2 kV Substation:** The Texas Substation will be new construction on property acquired by ETI. A 138 kV substation is required to facilitate the installation of the proposed new 138 kV line as well as the new distribution feeders that will provide power to the area's homes and businesses.

**2)** Design and build the new Texas 138 kV Transmission Loop (L-487): The connecting transmission line will be a new single pole, double-circuit 138 kV transmission line that would cut-in and extend ETI's existing L-487 transmission line and connect into the Texas Substation. ETI intends for the cut-in along L-487 to be located between Farm-to-Market 2296 and Farm-to-Market 1375.



# Certification Process

**Texas Substation and Transmission Line Project** 

#### **Project Development**

- Identify Project Study Area
- Gather environmental and cultural data
- Contact federal, state and local agencies
- Identify routing constraints
- Develop preliminary alternative route segments
- Identify current landowners within 300 ft of alternative routes

• Solicit public input via open house meetings (We Are Here)

• Evaluate preliminary alternative routes and identify primary alternative routes

#### Certificate of Convenience and Necessity (CCN) Application Process

- Submit CCN Application to the Public Utility Commission of Texas (PUCT), including an adequate number of alternative routes.
- Send notices to landowners within 300 ft. of an alternative route, municipalities, counties, electric utilities, Department of Defense, and pipeline owners in the area.
- All routes and route segments included in this notice are available for selection and approval by the Public Utility Commission of Texas. If approved, only one route (consisting of multiple route segments) from a "Cut-In" option to an "Alternative Substation Site" option will be selected by the PUCT.
- Interested parties may file comments or a motion to intervene and participate in the PUCT proceeding (Intervention Period – 45 days)
  - If Application is Uncontested: Application Approved Administratively in 80 days
  - If Application is Contested: Application Processed within 1 year and could include a hearing

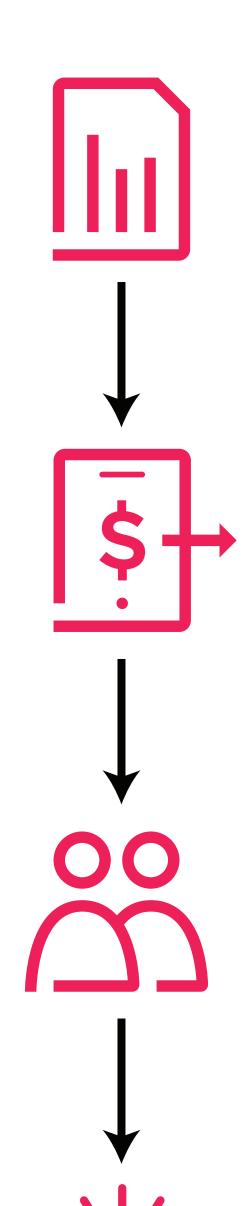
#### **PUCT Decision and Next Steps**

- Approves or Denies Application
- If approved, selects location of final approved Route.
- Approval provides Entergy Texas with the authorization to build the new transmission line along the route approved by the PUCT
- Notices will be sent to landowners who received notice of Entergy Texas' application advising them of the decision and next steps.



# Right-of-Way (ROW) Acquisition Process

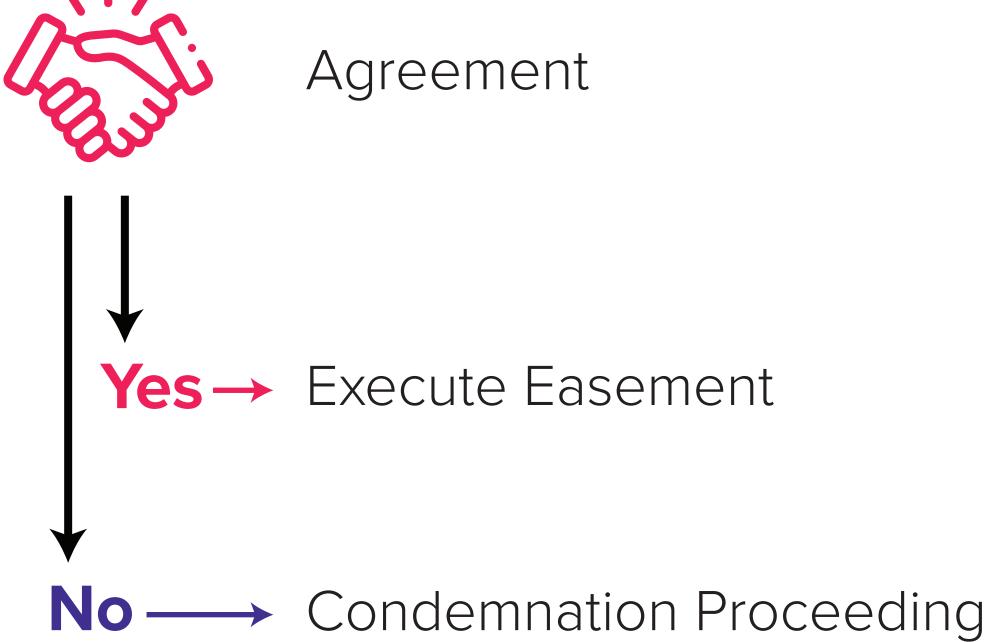
**Texas Substation and Transmission Line Project** 



Entergy Texas conducts market analysis to establish approximate property values by type and use

An initial offer is prepared and provided to the landowner based on market analysis

Negotiation with landowner





# Right-of-Way (ROW) Clearing

#### **Texas Substation and Transmission Line Project**

#### **About Right-of-Way Clearing**

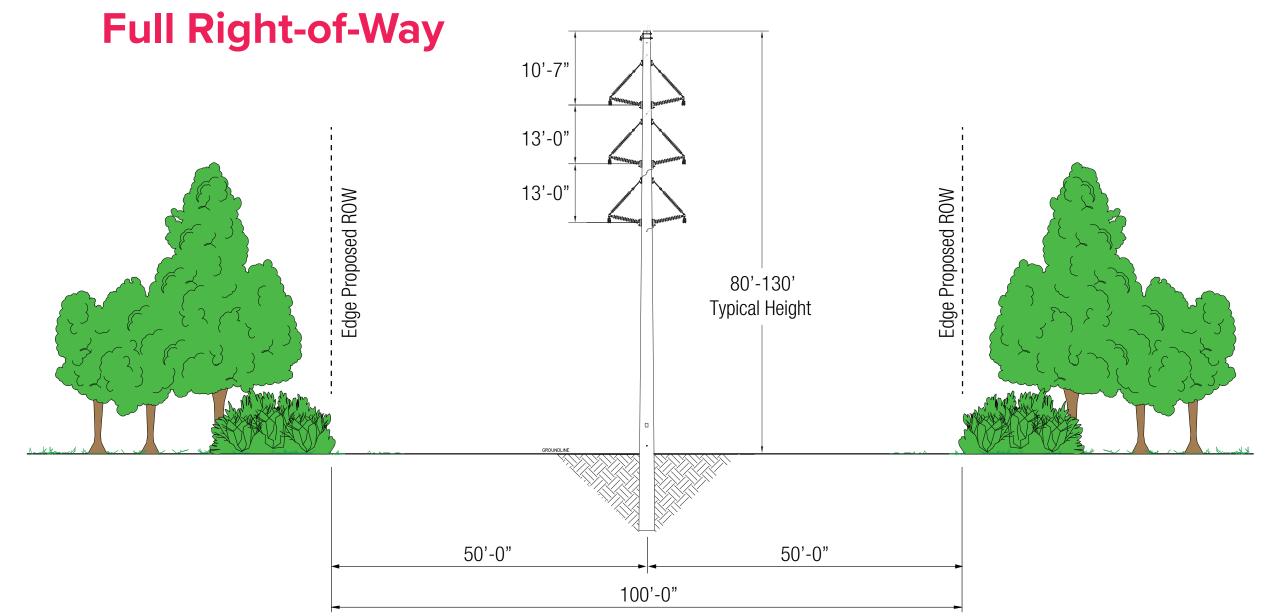
- Trees and branches near or touching power lines can cause service interruptions
- Electricity can arc or "flashover" from wires to nearby trees before actual contact is made, causeing electric current to flow through the trees into the ground

• To ensure everyone's safety, Texas, like most states, has adopted the National Electrical Safety Code

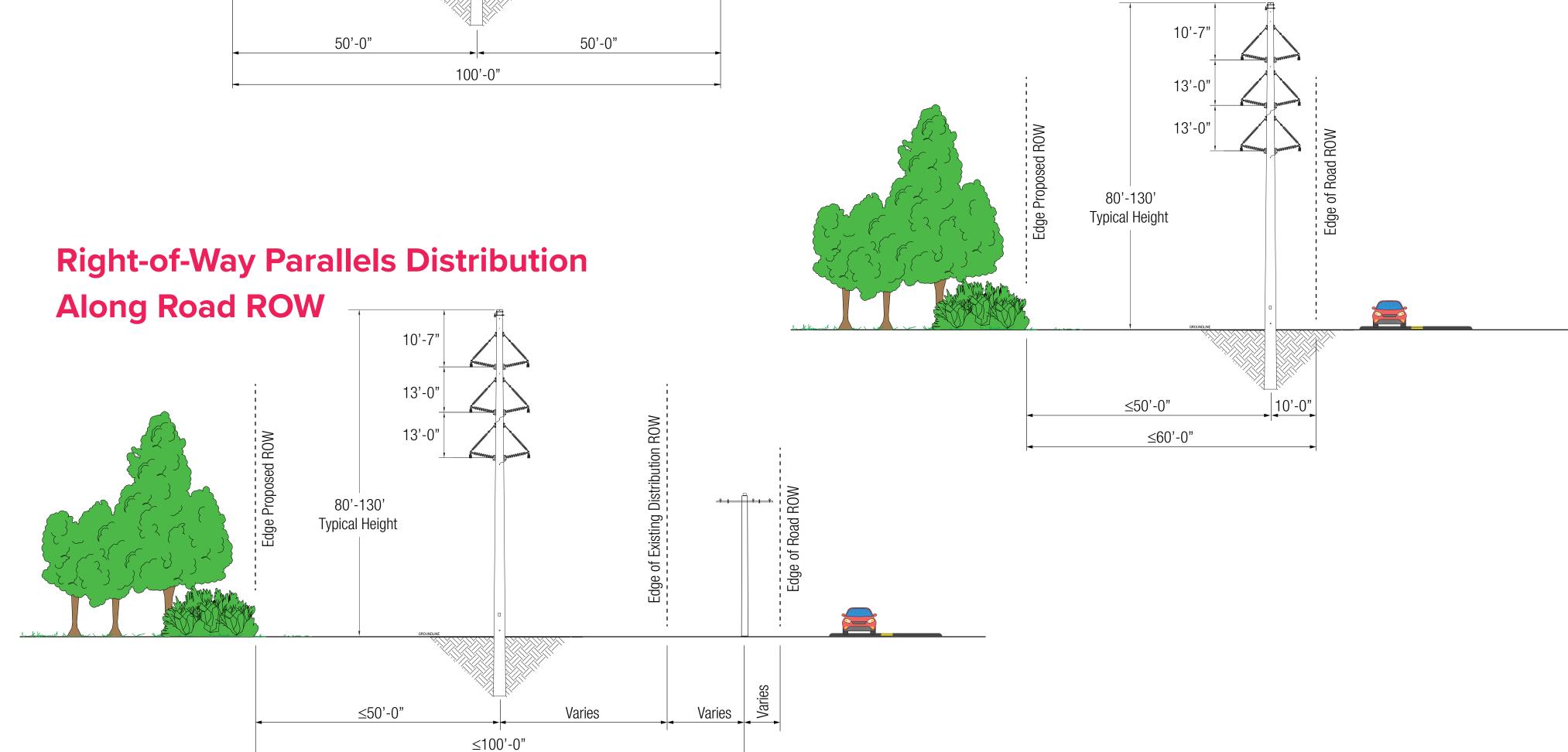
• The code establishes mandatory clearances to be maintained around power lines

#### **Typical Cross Sections**

Dimensions may vary depending on location and spatial constraints



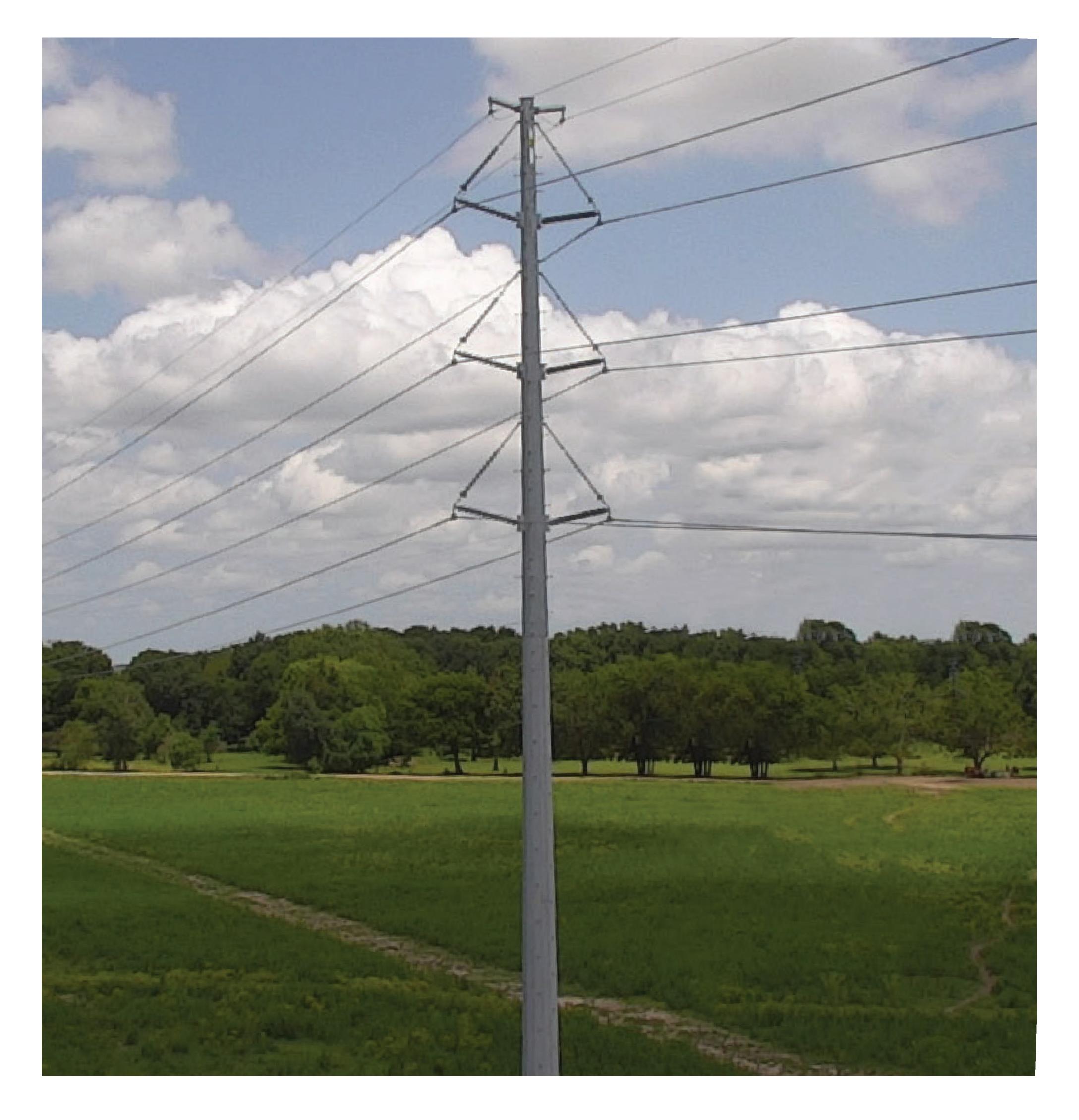
#### **Right-of-Way Parallels Road**





# Typical Structure

**Texas Substation and Transmission Line Project** 



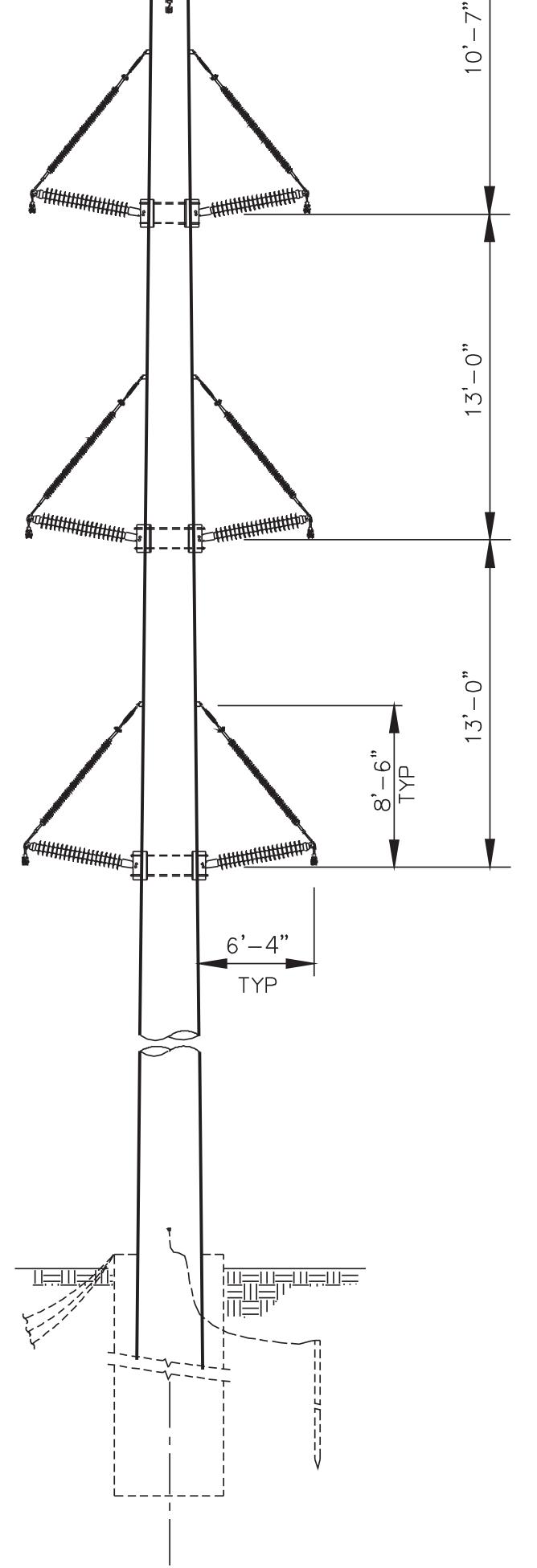


## Typical Structure

**Texas Substation and Transmission Line Project** 





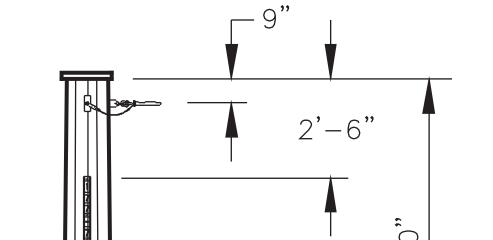




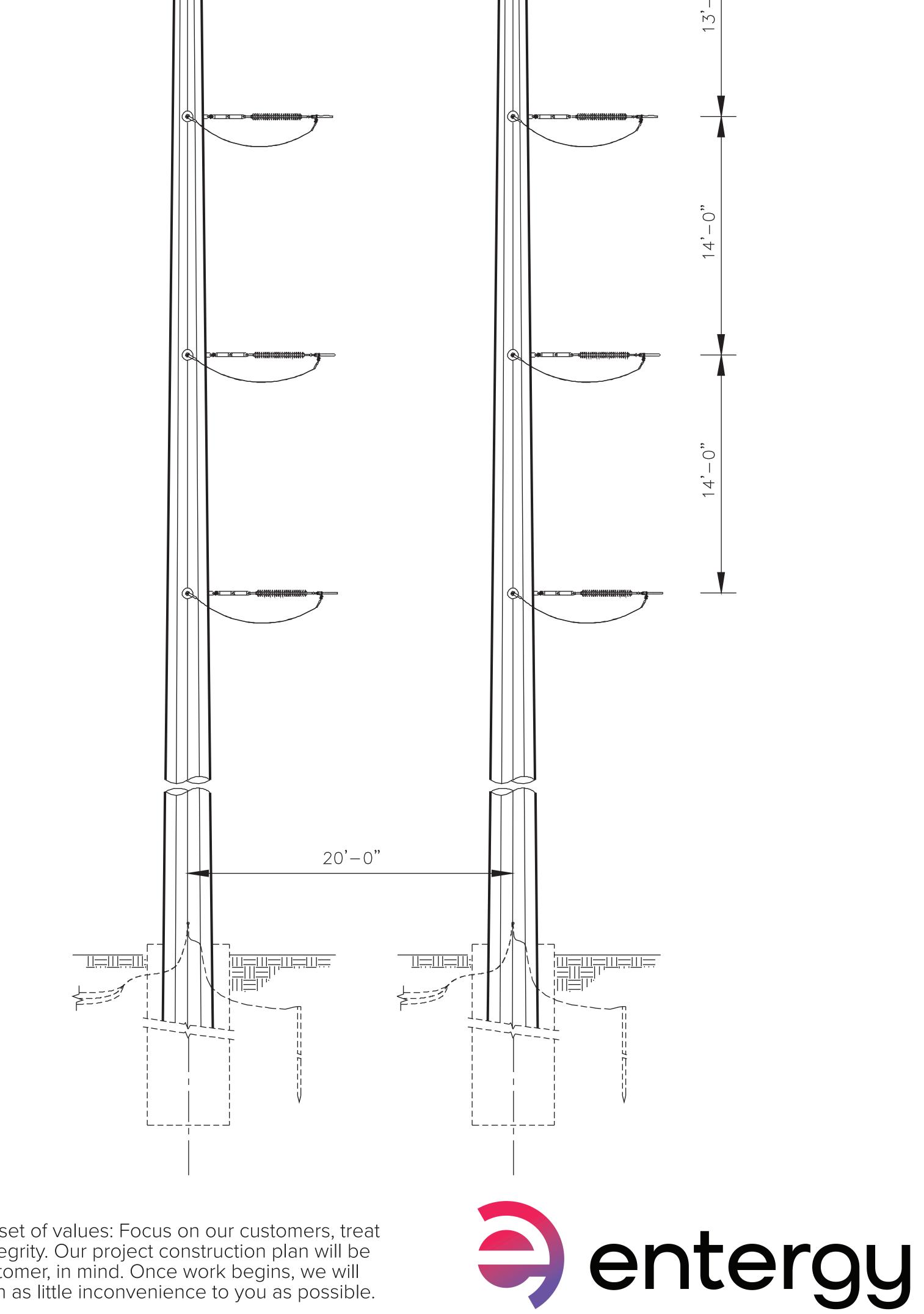
## **Vpical** Structure

**Texas Substation and Transmission Line Project** 

### Typical 138kV



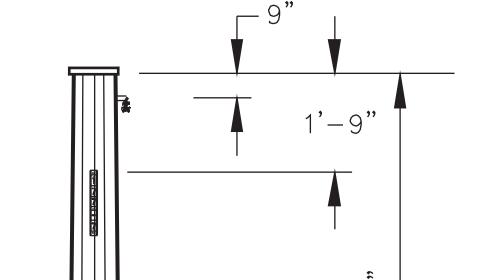
### **Dead-End** Structure

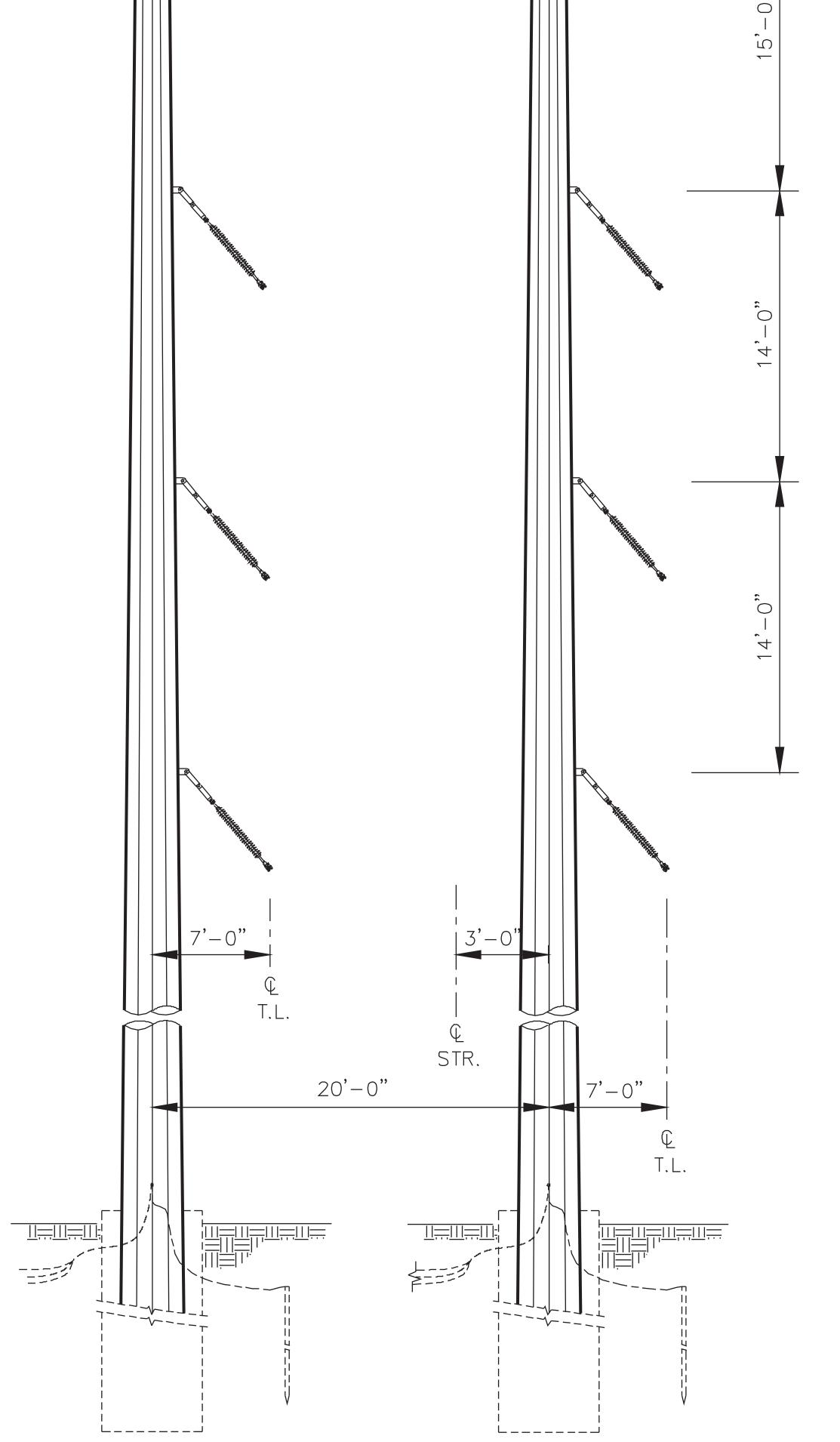


## Typical Structure

**Texas Substation and Transmission Line Project** 

### Typical 138kV Angle Structure







## Typical Substation

**Texas Substation and Transmission Line Project** 





## Agencies Contacted

**Texas Substation and Transmission Line Project** 

Federal

Federal Aviation Administration Federal Emergency Management Agency

National Parks Service Natural Resource Conservation Service U.S. Army Corps of Engineers U.S. Department of Defense Siting U.S. Environmental Protection Agency U.S. Fish & Wildlife Service U.S. Forest Service

#### State

Local

Texas Commission of Environmental Quality Texas Department of Transportation
Department of Aviation
Environmental Affairs Division
Transportation Planning & Programming
Bryan District Engineer
Texas General Land Office
Texas Parks and Wildlife Department
Texas Water Development Board
Texas Historical Commission
Railroad Commission of Texas
Houston-Galveston Area Council

Walker County Judge Walker County Commissioners Walker County Historical Commission Chair City of New Waverly Mayor City of New Waverly Public Works Department Walker County Floodplain Management Superintendents of New Waverly ISD and Huntsville ISD

Non-Governmental Organizations

> Texas Land Trust Council The Nature Conservancy, Texas Texas Agricultural Land Trust Texas Land Conservancy



# Evaluation Criteria

#### **Texas Substation and Transmission Line Project**

Land Use

- 01 Length of alternative route
- 02 Number of habitable structures<sup>1</sup> within 300 feet of the route centerline
- Length of route utilizing existing electric facility ROW (transmission)
- Length of route utilizing existing electric facility ROW<sup>2</sup> (distribution) 04
- Length of route parallel and adjacent to existing electric facility ROW (transmission)

06	Length of route parallel and adjacent to existing electric facility ROW (distribution)
07	Length of route parallel and adjacent to other existing compatible ROW
	(roads, highways, railway, or telephone utility ROW, etc.)
08	Length of route parallel and adjacent to apparent property lines <sup>3</sup> (or other natural or cultural features)
09	Sum of evaluation criteria 3, 4, 5, 6 and 7
10	Percent of evaluation criteria 3, 4, 5, 6, and 7
11	Length of route parallel to pipeline ROW
12	Length of route across parks/recreational areas <sup>4</sup>
13	Number of additional parks/recreational areas <sup>4</sup> within 1,000 feet of the route centerline
14	Length of route across cropland
15	Length of route across pasture/rangeland
16	Length of route across land irrigated by traveling systems (rolling or pivot type)
17	Length of route across gravel pits, mines, or quarries
18	Number of pipeline crossings
19	Number of electric transmission line crossings
20	Number of Interstate (IH), US Highway (US Hwy), and State highway (SH) crossings
21	Number of Farm-to-Market (FM) or Ranch-to-Market (RM) road crossings
22	Number of private use airstrips within 10,000 feet of the route centerline
23	Number of heliports within 5,000 feet of the route centerline
24	Number of FAA registered airports <sup>5</sup> (runways >3,200 feet) within 20,000 feet of the route centerline
25	Number of FAA registered airports <sup>5</sup> (runways <3,200 feet) within 10,000 feet of the route centerline
26	Number of commercial Amplitude Modulation (AM) radio transmitters within 10,000 feet of the route centerline
27	Number of FM radio transmitters, microwave towers, etc. within 2,000 feet of the route centerline
28	Number of existing water wells within 200 feet of the route centerline
Aesthetics <sup>29</sup>	Number of oil and gas wells within 200 feet of the route centerline
Acstrictics	
30	Estimated length of route within foreground visual zone <sup>6</sup> of US, Interstate, and State highways
31	Estimated length of route within foreground visual zone <sup>6</sup> of FM/RM roads
	Estimated length of route within foreground visual zone <sup>6</sup> of parks/recreational areas <sup>4</sup>
Ecology	

- Length of route across upland forest 33
- 34 Length of route across bottomland/riparian woodlands
- Acreage of route across NWI mapped forested or scrub/shrub wetlands
- 36 Acreage of route across NWI mapped emergent wetlands
- Length of route across known occupied habitat of federally listed endangered or threatened species
- Length of route across open water (lakes, ponds, etc.) 38
- **39** Number of stream crossings
- Length of route parallel (within 100 feet) to streams 40
- Length of route across FEMA mapped 100-year floodplains

#### **Cultural Resources**

- 42 Number of cemeteries within 1,000 feet of the route centerline
- Number of recorded historic or prehistoric sites crossed by route 43
- Number of additional recorded historic or prehistoric sites within 1,000 feet of route centerline 44
- 45 Number of National Register of Historic Places listed resources crossed by route
- 46 Number of additional National Register of Historic Places listed resources within 1,000 feet of route centerline
- Length of route across high archaeological/historical site potential 47

#### Notes

1 Single-family and multi-family dwellings, and related structures, etc., mobile homes, apartment buildings, commercial structures, industrial structures, business structures, churches, hospitals, nursing homes, schools or other structures normally inhabited by humans or intended to be inhabited by humans on a daily or regular basis within 300 feet of the centerline of a transmission project of 230 kV or less.

2 Includes instances of proposed under/overbuilding existing distribution lines and may require the expansion of the existing distribution ROW utilized.

3 Property lines created by existing roads, highway, or railroad ROW are not "double-counted" in the length of route parallel to property lines criteria.

4 Defined as parks and recreational areas owned by a governmental body or an organized group, club, or church.

5 As listed in the Chart Supplement South Central U.S. (FAA 2020b formerly known as the Airport/Facility Directory South Central U.S.), FAA 2020a. 6 One-half mile, unobstructed.

