



# Construction Activities *Overhead Transmission Lines*



*Transmission line construction typically requires access to private property. Dominion has prepared this document to provide property owners important information on our construction practices and the activities that occur before, during, and after installation of our transmission facilities.*

## **PRE-CONSTRUCTION:**

### **Initial Inspection**

Prior to the actual construction schedule start date, Dominion employees or contractors will walk the transmission line corridor to determine structure locations and to identify potential areas that may require special consideration.

## **PRE-CONSTRUCTION:**

### **Right-of-Way Surveying**

A crew utilizing medium-sized pickup trucks or small construction vehicles will mark the centerline and outer edges of the right-of-way at road crossings and at each structure location. For line-of-sight purposes, a limited amount of tree, shrub and crop clearing may be required.

## **PRE-CONSTRUCTION:**

### **Access Roads and Construction Matting**

Following the centerline surveying, Dominion will access the right-of-way utilizing existing access roads, where possible, to further evaluate the area before line construction activities commence. If access is not available, highway construction entrances and/or additional access roads may be installed once approved by the Department of Transportation. Access roads constructed by Dominion may require the use of road gravel or drain pipes. Wooden construction mats are used in wetlands and other environmentally sensitive areas. Usage of construction mats is temporary and required only in specified locations, depending on field conditions. The installation equipment will be limited to the minimum amount needed to create the required access.

## **PRE-CONSTRUCTION:**

### **Soil Borings**

Using a rubber-tired truck or tracked vehicle, a two-person crew will access the property and may drill a 4" to 10" diameter hole in the ground at various structure locations. The hole is filled in after the soil sample is completed. This operation may occur during an initial survey or immediately follow the centerline surveying or the installation of access roads, depending on field conditions.

## **PRE-CONSTRUCTION:**

### **Structure Staking**

Prior to construction, a survey crew will mark the structure location with stakes. Crews will access the sites using medium-sized pickup trucks or other small construction vehicles.

## **PRE-CONSTRUCTION:**

### **Clearing**

The right-of-way must be cleared to allow construction activities and eventual transmission line operation. The landowners along the right-of-way will be notified prior to construction clearing and cleared material will be disposed of in accordance with their right-of-way agreement.

## **PRE-CONSTRUCTION:**

### **Access Road Development**

Existing roads will be used where practical. Where necessary, Dominion will install new access roads varying in width and preferably within the proposed right-of-way. After construction is complete and the area is completely rehabilitated, we will restore roads and entrances to their original condition unless they are necessary for permanent access to the right-of-way.

*continued*



**Construction will officially begin after all regulatory approvals and permits are obtained.**

**CONSTRUCTION:**

**Site Preparation: Clearing and Grading**

Access roads, structure work areas, and staging areas will be graded only where necessary. Temporary fencing and gates, if needed, can also be installed during this phase of the construction process. The trees along the edge, or just outside, of the right-of-way that could possibly fall and contact the transmission line are referred to as danger trees and will be removed.

**CONSTRUCTION:**

**Materials Handling and Staging**

The right-of-way corridor may be used as an area for temporary storage and handling for equipment and materials related to construction. Steel components of structures may be delivered and placed on the ground near foundation sites. In addition to the right-of-way, additional staging areas may also be located at several locations along the transmission line and temporary access will be negotiated with the landowner.

**CONSTRUCTION:**

**Foundation Installation**

Structure types and heights are based on the unique engineering requirements for each project location. Typically, angular steel structures will have four drilled concrete pier foundations, one for each leg. In rocky areas, rock anchoring or miniature pile systems will be used. Single shaft steel monopoles only require one foundation. For the majority of structures, concrete will be delivered by truck.

**CONSTRUCTION:**

**Erecting Structures and Stringing Conductors**

- Once foundations are in place, construction crews will erect the structures within the right-of-way.
- For lattice structures, angular steel components will be assembled using a truck-mounted crane (or in rare instances by helicopter) and then lifted onto the foundations.
- Next, insulators and attachment hardware will be installed and stringing sheaves (rollers or blocks) attached to the insulators.
- The conductors will be strung by attaching the conductor to a steel line and pulled through each structure's stringing sheaves under tension to keep the conductors well off the ground.
- Conductor pulling sites located along the right-of-way will provide space for tractors, trailers with spools of conductor, and tensioning equipment.

**POST-CONSTRUCTION:**

**Right-of-Way Restoration**

After all the work is completed, the ground is stabilized and vegetation is restored. Vegetation growth will be maintained by trimming, pruning, or spraying herbicides to assure continued service reliability of the transmission line.

Dominion maintains transmission rights-of-way by removing inappropriate species of trees — those that grow too tall and could pose a hazard to the wires — and by removing weakened or dead trees that could topple onto wires. Occasionally we apply selective applications of herbicides approved by the U.S. Environmental Protection Agency. For more information on vegetation management and herbicide use, visit us at [www.dom.com](http://www.dom.com), keyword *trees*.

If you would like to contact Dominion, please send an email to [powerline@dom.com](mailto:powerline@dom.com), or call 1-888-291-0190.



*Please note: All construction activities described within occur under the provision of right-of-way agreements entered into by Dominion and the landowner and/or right-of-entry/condemnation orders granted by a court of law. The construction activities described are representative of typical projects and are subject to change.*