

Excavation Near Pipelines/Buried Facilities

No excavation, including hand digging, is permitted on TransCanada pipeline rights-of-way without prior approval from TransCanada. **TransCanada personnel must be present during any construction or excavation activities on or around its facilities or rights-of-way unless otherwise permitted by TransCanada. Excavation on TransCanada's right-of-way is strictly forbidden without a TransCanada representative on site.** Within 24 inches of the outer edge of the pipe (on all sides), only hand excavation, air cutting, vacuum excavation, or potholing techniques are permitted.

Crossing Pipelines With Heavy Equipment

TransCanada may require heavy equipment operators to install mats, steel plates, dirt pads or other approved protective materials to adequately protect TransCanada pipelines from potential damage by heavy equipment crossing the right-of-way before crossing can begin or during the course of such crossing activity. All proposed road crossings of buried facilities must be evaluated by TransCanada. Any overburden or materials installed for crossing the pipeline must be removed after construction, unless otherwise directed by TransCanada.

Blasting Plans Must Be Approved

Any blasting proposed within 300 feet of TransCanada's facilities must be submitted to TransCanada in advance, along with a blasting plan outlining such proposed activity. No blasting may begin unless and until TransCanada provides prior written confirmation that it does not object to such blasting. Any modifications to the blasting plan must also be submitted to TransCanada for prior review approval and should not be implemented unless and until TransCanada provides prior written confirmation that it does not object to such modifications. The blasting contractor may be required to monitor and record seismic shock at the facilities. Pipeline facilities must be protected from excessive ground vibrations.

Allow Adequate Clearance for Directional Drilling

Any directional drilling or boring proposed under TransCanada's buried facilities must be submitted to TransCanada for review and approval. A minimum of 24 inches of vertical clearance must be maintained from TransCanada's facilities, and additional excavations may be required to ensure adequate clearance. As-built plans for construction are required for all borings.

Maintain Up to 300-foot Clear Area Around Storage Wellheads

Property owners or developers must notify TransCanada of any proposed construction or excavation within 300 feet in any direction of a natural gas storage well. For safety, TransCanada reserves the right to object to any such proposed activities or placement of objects closer than 300 feet to a storage wellhead.

For more information contact TransCanada at:
1-866-701-9582 or email at
us_land@transcanada.com,
or visit us at www.transcanada.com

If you expose, hit, or touch a pipeline while digging, no matter how insignificant it may appear, please contact our emergency monitoring center immediately by calling:

- Columbia Gas Transmission, Crossroads Pipeline, Millennium Pipeline Company, Hardy Storage Company at 1-800-835-7191
- Columbia Gulf Transmission at 1-866-485-3427
- Columbia Midstream Group at 1-855-511-4942

If you discover gas leaking, you are required by federal law to contact 911, your local fire department or Public Safety Answering Point (PSAP).



Note: "Minimum Guidelines for construction near pipeline facilities" addresses the most common issues concerning land use on/near TransCanada rights-of-way. "Right-of-Way Use" procedures provides additional technical information, as well as guidance on various areas not covered here, and should be consulted as needed. In rare cases, TransCanada may determine that adherence to a specific provision of the Minimum Guidelines/Right-of-Way Use procedure is not feasible for a particular project. In such instances, TransCanada may, at its sole discretion, elect to modify specific requirements for that project. Said modifications shall be made by appropriate TransCanada personnel and shall be properly documented.

These guidelines supersede any and all prior guidelines pertaining to activities and placements on or near gas transmission facilities owned by a TransCanada company. Existence of, or the ramifications from, the implementation of prior guidelines will not dictate, direct, or provide for exemption of any of the above guidelines.

In the event that the provisions of an applicable land rights document conflicts with the requirements set forth herein, the land rights document shall supersede these requirements.

March 2017

MINIMUM GUIDELINES

for construction near
pipeline facilities



**Know what's below.
Call before you dig.**

National Call Before You Dig Number: 811



MEMBER COMPANIES

Columbia Gas Transmission
Columbia Gulf Transmission
Crossroads Pipeline

Millenium Pipeline Company
Hardy Storage Company
Columbia Midstream Group

TransCanada Pipeline

This document provides for the design and construction of facilities on rights-of-way owned and/or operated by TransCanada companies, including Columbia Gas Transmission, Columbia Gulf Transmission, Crossroads Pipeline, Millennium Pipeline Company, Hardy Storage Company, and Columbia Midstream Group.

These guidelines are intended for individuals whose proposed construction activities will impact TransCanada's rights-of-way. TransCanada's primary concern is for public safety and to help ensure the continuous safe flow of the nation's energy supplies. For complete details and requirements for the design and construction of facilities on TransCanada's rights-of-way please make a request by calling 1-866-701-9582.

Consult TransCanada Early in Your Planning

TransCanada must review and approve all plans for proposed construction impacting a TransCanada right-of-way. To expedite construction or excavation, submit your plans to TransCanada for review in the design phase of the project before applying for permits or committing to construction. TransCanada requires a minimum of 60 days to review design plans.



Notify TransCanada Before Construction Begins

No construction or excavation activities of any kind shall be performed on or near TransCanada's rights-of-way, including crossing with heavy equipment, or blasting on or near the right-of-way before TransCanada personnel have established the exact location and elevation of all affected facilities and the limits of the right-of-way. Start your project by calling 811 "Before You Dig" or your state's One Call notification service. Request that both the location and approximate depth of the pipeline be determined.

Construction Requirements Within a TransCanada Right-of-Way

TransCanada rights-of-way generally extend 25 to 50 feet on each side of the center line of the pipeline and include all areas between multiple pipelines, unless otherwise defined in the applicable land rights document.

TransCanada may allow certain property improvements within its rights-of-way. However, TransCanada will not assume responsibility, financial or otherwise, for any such improvements directly or indirectly damaged as a result of its operation and maintenance of its facilities. Upon review of individual plans and property rights, TransCanada may identify additional restrictions or requirements to the items listed:



1. The existing cover over pipelines and rights-of-way shall not be modified without TransCanada's written permission. The minimum earth cover over pipelines shall be 36 inches and no greater than 5 feet. Variance of the existing depth of cover is not permitted without TransCanada's written permission. TransCanada will perform external load evaluations as necessary. Protective measures may be required before construction activity can begin or during the course of such construction activity.
2. Above-ground or below-ground structures or obstructions of any type shall not be placed within the easement area of any pipeline.
3. Pipeline easements shall not be shared longitudinally with other pipelines or utilities. All water valves, curb boxes, manholes, etc. must be outside the easement. All utility crossings must be approved by TransCanada before installation begins and must meet the following criteria:
 - Cross as near to 90 degrees as possible, but in no case less than a 45 degree angle.
 - Minimum of 24 inches vertical clearance.
 - Must cross **below** TransCanada's pipeline, unless prior written consent is granted by CPG.
(Note: protective measures required for crossing over a TransCanada pipeline may differ from those described below and will be listed in the permission document.)
 - Except for trenchless excavation, warning tape in accordance with APWA Uniform Color Code shall be placed above the utility, 12 inches below ground, across the entire TransCanada right-of-way.
 - Cable/wire crossings (excluding single telephone/television drops) must be encased with a minimum of 2-inch Schedule 40 PVC pipe or equivalent across the entire width of the right-of-way. Electric and fiber optic lines shall also be surrounded with a minimum of 6 inches of colored 2,000 psi concrete (red for electric, orange for fiber) or 4-inch minimum diameter, standard wall thickness, coated steel pipe across the entire right-of-way (except for trenchless excavations).
 - Metallic utilities shall be coated with a non-conductive coating for the entire width of the TransCanada right-of-way. Corrosion protection (CP) materials shall be installed at the expense of the Permittee where necessary, at TransCanada's sole determination.
 - Non-metallic utilities shall be installed with tracer wire for the full width of the TransCanada right-of-way, unless otherwise permitted by TransCanada. Tracer wire shall be raised to the ground surface and connected to a test station for monitoring.
 - Natural gas, petroleum, or other industrial gas pipelines crossing under TransCanada pipelines must be encased in a 6-inch envelope of yellow 2,000 psi concrete or a 4-inch minimum diameter, standard wall thickness, coated steel pipe across the full width of the TransCanada right-of-way.
 - All crossings shall be marked with above-ground markers installed on either side of TransCanada's right-of-way boundaries.
4. A "Field Tile Agreement" is required prior to any field tile installations that occur from the edge of TransCanada right-of-way to the edge of TransCanada right-of-way. Permitted field tile or drainage pipe shall cross the pipeline right-of-way at or as near to 90 degrees as possible with a minimum clearance of 12 inches above or below the pipeline. Crossings less than 45 degrees are not permitted. Field tile shall not drain onto a TransCanada right-of-way. Longitudinal runs of field tile shall not be closer than 15 feet from TransCanada pipeline.

5. Roads shall cross pipelines at or as near to 90 degrees as practical, but at angles not less than 45 degrees. The entity constructing the road must pay for any measures required by TransCanada to inspect and protect its pipeline(s). Such protective measures shall be designed and/or approved by TransCanada personnel.

6. Walking/bicycling paths require TransCanada's written permission prior to construction. Paths must be constructed at the outside edge of TransCanada's right-of-way and may extend no more than 6 feet into the right-of-way. Paths shall cross TransCanada's pipeline as close to 90 degrees as possible, but in no case less than 45 degrees. TransCanada shall have sole determination of number of path crossings to be permitted. No motorized vehicles of any type, other than power-driven wheelchairs, are permitted to utilize paths that run longitudinally inside the right-of-way. Landowner shall be responsible for maintaining the path to prevent right-of-way damage, including erosion, illegal dumping, etc.

7. Parking areas require written permission from TransCanada. Parking shall not be allowed over the easement unless designed/alterd so as not to impact the safe and reliable operation and maintenance of TransCanada's pipeline. In no case shall parking lots be designed such that vehicles are allowed to park directly over or within 5 feet of a pipeline. Paving for parking lots shall be limited to asphalt or gravel and must meet all requirements set forth by TransCanada.

8. Paving within a TransCanada right-of-way must be submitted and approved by TransCanada before paving can begin. Concrete or paving is permitted for sidewalks, curbs and residential driveways. Continuously poured, steel reinforced concrete is prohibited within TransCanada's right-of-way. Residential or commercial driveways may be permitted provided that the design and installation meets TransCanada requirements.

9. Detention ponds, lakes or any type of water impoundment is prohibited within the right-of-way. Septic tanks and leach fields should be placed so they drain away from the pipeline where practical. In no case shall they be placed in the easement area.

10. The right-of-way may be planted in lawn, flowerbeds or vegetable gardens, or used for normal agricultural purposes. Shrubs maturing at less than 5 feet tall are permitted on the right-of-way. However, they must be planted such that the branches at maturity are a minimum of 5 feet away from the pipeline. Shrubs greater than 5 feet tall and trees, including fruit or nut bearing trees of any kind, and "Christmas tree farms" are prohibited within the right-of-way.

TransCanada shall not be responsible for replacement of or reimbursement for any plantings within the right-of-way, unless otherwise stated in applicable land rights document.

11. Fences or continuous hedges that block visual inspection, interfere with access to TransCanada facilities, or are installed longitudinally to the pipeline shall not be permitted within the right-of-way. Fence or hedge height may not exceed 5 feet. Commercial or residential chain link fence installations are permitted. Fence posts shall not be placed within 3 feet of the outermost edge of the pipeline. Fences permitted to cross a TransCanada pipeline right-of-way must be designed and installed to allow at least a 16 foot gate or opening centered on the pipeline and must cross at or near to 90 degrees as possible, or as permitted by TransCanada. If gates are to be locked, TransCanada must be allowed to install its own locks on the gates. Locks will be installed in such a manner as to allow both the landowner and TransCanada unimpeded access to the property.