



## **ENCROACHMENT GUIDELINES**

### **INTRODUCTION**

Since 1950, Williams has been safely and reliably delivering refined petroleum products, natural gas and natural gas liquids through its onshore pipeline systems. It is committed to maintaining safe pipeline systems on facilities owned or operated by its subsidiaries. These guidelines outline procedures to be followed when planning construction on or near easements or rights-of-ways ("right of ways") owned or operated by its companies including but not limited to Williams Pipeline Line Company, Williams Field Services Company and Mid-America Pipeline Company (collectively "Williams" herein). These guidelines are intended to be used by federal, state, city, county, and local planners, developers, engineers, contractors, land surveyors, or anyone involved in land development near pipeline systems.

These guidelines define the minimum standards of quality for addressing encroachments to pipeline corridors and rights-of-ways. Pipeline(s) and related rights-of-ways are an extremely valuable asset and these guidelines outline Williams responsibility to protect its rights-of-ways while working with the communities in which it operates. The Williams goal is to maintain the value of its rights-of-ways and to ensure safety.

Williams pipeline systems operate at very high pressure, and for safety reasons, it requires its company representatives to be on-site while work is being performed on its rights-of-way. No excavation shall occur in the vicinity of Williams' facilities or within its rights-of-ways until proper telephone notification has been made to the appropriate "One-Call" system and a Williams representative is on-site to monitor excavation activities. All of the states in which Williams conducts pipeline operations have "One-Call" laws, which require 48- to 72-hour notification prior to any construction or maintenance activities across, on, or in the vicinity of certain facilities. Williams' facilities include, but are not limited to, rights-of-way, easements, pipelines, meter and valve sites, and scraper assembly sites. Government entities play a major role in regulating land use by means of comprehensive planning, zoning, and other regulatory matters.

Williams normally requires approximately 30 days lead-time to review preliminary plats for impacts to its pipeline rights-of-ways. Williams requires approximately 90 days lead-time to review proposed roadway crossing plans. When plans are submitted, a scope of work, description, plan and profile views should be provided. A location map should also be provided, showing the project site area including sufficient geographical references such as legal property lines and roadways.

### **GENERAL**

1. All costs associated with pipeline modification, replacement, lowering, and protection, including engineering evaluation and design, are paid by the developer or encroaching entity, unless stated otherwise.
2. A fully executed Encroachment Agreement should be in-place prior to any encroachment to the existing right-of-way. An encroachment shall include, but not be limited to, structures, landscaping, and foreign utility, foreign pipeline, roadway, railroad, and waterway crossings. An Encroachment Agreement may be required for foreign pipeline, utility, structure, improvement, obstruction, or any other encroachment on Williams rights-of-ways. Any disturbance to the existing pipeline right-of-way shall not occur without review by Williams. A disturbance shall include, but not be limited to, adding dirt, rock, or any other debris, or removing dirt, rock, or vegetation. All rights-of-ways granted to third parties on Williams owned land or easements shall contain relocation, indemnity and damage provisions in favor of Williams along with other conditions deemed necessary by Williams.

3. The maximum amount of clean fill to be placed on the pipeline(s), including existing soil cover, is 8'. Only clean fill dirt will be allowed on the right-of-way. Erosion-control materials will be allowed.

**Note:** Special authorization must be given in the event soil cover exceeds 8'.

4. Pipeline markers will be set at all public roadway crossings, railroad crossings, waterway crossings, and in sufficient number along the right of way as deemed necessary by Williams personnel so that the pipeline's location is accurately known.
5. Guidelines outlined in governing industry codes and standards, as well as Williams policies, will be strictly adhered.
6. Williams may require proof of current ownership in the form of a Title Commitment, Title Policy, or a copy of a recorded Warranty Deed.
7. Williams requires a copy of the Subdivision Plat, if applicable. If the plat has been recorded, Williams requires a copy indicating the book and the page of the recording.
8. A Williams representative is available with 48 hours notice to determine the location and depth of the pipeline(s). No excavation on the right-of-way shall take place without approval from Williams and verification by Williams of the pipeline location and depth.
9. Encroaching entities shall provide type, size, and weight of construction equipment planned to be used in the vicinity of the pipeline(s).
10. Plans for any excavation on the right-of-way must be approved prior to commencing the work. Excavating closer than 2 feet to the pipeline(s) shall be done by hand until the pipeline(s) is exposed and shall be done only with the approval of a Williams representative.
11. When excavating for crossing the ditch line, after the pipe has been exposed by hand digging, the excavation equipment must be positioned so that from the point of operations the equipment will not reach within 2 feet of the pipeline(s).
14. Plans ( 3 sets) submitted for consideration will need to contain the following information:
  - A standard warning statement will need to be conspicuously displayed on all prints that depict the pipeline(s). The statement will need to contain the following language:

**WARNING**  
**HIGH-PRESSURE PIPELINE(S)**  
**Excavation and/or Construction Prohibited Without Written Permission From**  
**WILLIAMS ENERGY SERVICES**

- The pipeline(s) location and depth, as well as the right-of-way width must be depicted on each print that portrays the area where they exist.
- A plan view of the project with the pipeline(s) location included.
- An illustration in profile of the existing surface elevations, the proposed surface elevations and the elevation of the Williams pipeline(s).
- A comprehensive utility/structure/grading plan depicting the relationship to the pipeline(s).
- A proper legal description of the project location.
- Complete landscaping plans.

**Note:** Plans submitted incomplete could delay the engineering impact study. Also, insufficient information could result in increased costs.

## **RIGHT-OF-WAY RESTRICTIONS**

Upon notification from the landowner, if pipeline right-of-way width is not defined, Williams will clarify said width that will reasonably allow maintenance of its lines and allow for construction of future pipeline(s). The Partial Release and Grant of Right-of-Way will not result in the right-of-way being restricted to less than the following:

1. On a multi-line right-of-way, a strip of land extending a minimum of 25' outward from the centerline of each outermost pipeline not to be less than a total minimum width of 100'.
2. On single-line right-of-way, a strip of land extending a minimum of 45' outward from the centerline of the pipeline not to be less than a total minimum width of 75'.
3. Multi-line, above ground appurtenance, and ingress and egress rights will be retained.
4. Maintain the right of reasonable access across the landowner's property for maintenance and for the installation, operation and maintenance of utilities required for appurtenances.

## **STRUCTURES**

1. No buildings, houses, barns, garages, patios, swimming pools, reinforced concrete slabs, or other permanent structures will be permitted on the right-of-way.
2. Williams must be notified prior to any fence construction on or over Williams' pipeline(s) and/or associated right-of-way. Fences **may not** be allowed to parallel the pipeline(s) within associated right-of-way. Fence posts will not be allowed within 3 feet of the centerline of the pipeline. The landowner accepts full responsibility for any and all future damage(s) to the fence in the event Williams or its designee must access the pipeline(s) and/or associated right-of-way to perform routine or emergency maintenance.
3. "Large debris" such as old cars, trailers, scrap metal, boulders, etc., will not be permitted on the right-of-way. The right-of-way must be kept clear for maintenance and inspection.

## **LANDSCAPING**

1. Trees are not permitted on the right-of-way. Mature shrubs exceeding 3' tall and/or obstructing the view of the marker posts are not permitted on the right-of-way.
2. Irrigation systems, field drain lines, and sidewalks will cross Williams pipeline(s) as close to 90 degrees as possible, but not less than 45 degrees. No septic-system lateral lines are permitted on the right-of-way.
3. Retaining walls are not permitted.
4. Surface grade or elevation changes require Williams review.

## **RIGHT-OF-WAY CLEARING**

Williams, at any time, may elect to remove trees, brush, crops, and other vegetation from all or part of its right-of-ways. Existing trees and/or shrubs may be cleared or side trimmed by Williams at its sole discretion.

## **CHANGE OF LAND USE**

1. The landowner or tenant shall notify Williams when the land will be changed from pasture to cultivation, or that tilling depth will increase, or terraces will be cut or re-cut. Williams will confirm the depth of cover over the pipeline(s) and then determine the appropriate action to protect the pipeline(s).
2. Livestock ponds, lakes, retention ponds, or wetlands will not be allowed on the pipeline right-of-way.
3. As the rural environment is altered and land developments are proposed, Williams prefers to amend the right-of-way agreement to reflect the changing land use. Williams will work with developers to incorporate its right-of-way into the project design, including consent to the use of rights-of-way as "greenways" or open space areas within the development.

## **FOREIGN PIPELINE/UTILITY CROSSING GUIDELINES**

1. Crossings should be as close to 90 degrees to Williams pipeline(s) as possible, but not less than 45 degrees.
2. Foreign pipeline(s), utilities or flow lines should cross Williams pipeline(s) with at least 24 inches separation. Special authorization must be given in the event separation is less than 24 inches. Exceptions for farm field drain tile may be made at the discretion of Williams supervisors. The preferred method is to cross under Williams pipeline(s). Warning tape, 6" wide McMaster-Carr No. 8288T12 or equal, shall be placed above all foreign lines that cross Williams pipeline(s).
3. Metallic pipe crossing Williams pipeline(s) will be subject to a cathodic protection interference survey. Should remediation be necessary, Williams will demand full cooperation to ensure that the cathodic protection system is operating properly. If interference is detected, the crossing pipeline company shall work diligently towards remediation.
4. Electrical, fiber optic, local service communication, long distance carrier telephone, and low-voltage utility cable should cross Williams pipeline(s) with at least 12-inches of separation. Such cables shall be encased in a rigid, non-metallic conduit when crossing Williams pipeline(s). Warning tape, McMaster-Carr No. 8288T12 or equal, shall be placed over the cable and shall extend at least 20' on each side of the pipeline.  
  
**Note:** The placement of warning tape on each side of Williams pipeline(s) will not be required for utility cables that are installed using the directional drill or jacking method.
5. High-voltage electrical cable should cross Williams pipeline(s) with a minimum separation as follows: (1) 24-inches for 0 to 600 volts; (2) 30-inches for 601 to 22,000 volts; (3) 36-inches for 22,001 to 40,000 volts; and (4) 42-inches for 40,001 volts and above.  
  
**Note:** In the event a high-voltage electrical cable crosses over a Williams pipeline(s), the cable shall be encased in red concrete across the full width of the right-of-way.
6. Utility poles and guy anchors shall not be placed within 20 feet of the pipeline(s). Utility poles are permitted if they do not interfere with future maintenance. An Encroachment Agreement will need to be executed if the pole is located on Williams right-of-way.

## **ROADWAYS, DRIVEWAYS, RAILROADS, AND EQUIPMENT CROSSINGS**

New roadways, driveways, railroad construction, and equipment crossings may require adjustments to Williams pipeline(s) for compliance with current pipeline construction standards and local, state, and federal regulations. Resurfacing of existing roadways or driveways may not require adjustments if widening and/or changes to the depth of cover are not planned.

In the event the encroachment requires pipeline adjustment, **cased crossings should be avoided if at all possible**. To accommodate the additional longitudinal stress due to external loads, Williams will require extra strength steel and/or heavier wall thickness for the line pipe installed under roadways, driveways, and railroads. The carrier pipe under railroads may require

extra depth to comply with the crossing permit. The encroaching party shall bear the cost of the pipeline adjustment.

The following requirements apply to crossings:

1. Paved surfaces or rail beds shall not be allowed to cross a pipeline bend.
2. Crossings should be as close to 90 degrees to Williams pipeline(s) as possible, but not less than 45 degrees.
3. Prior to road or rail bed construction, Williams must inspect the pipeline coating to ensure integrity.
4. Williams prefers that cased roadway and railroad crossings no longer be installed. The carrier pipe under roadways and railroads will consist of extra strength material or heavier wall thickness to accommodate the additional longitudinal stress due to external loads. Casing pipe on an existing crossing(s) may be extended to accommodate additional road surface.

5. Minimum Cover

A. Railroad Crossings

Railroads shall be installed with a minimum compacted cover over the carrier pipe, as measured from the base of the rail to the top of the pipe, as follows (see Figures 1 and 3):

<u>Location</u>	<u>Minimum Compacted Cover</u>
• Under track structure proper	6.0 feet
• Under all other surfaces within the right-of-way or from the bottom of ditches	3.0 feet

B. Roadway Crossings

Roadways, including driveways, shall be installed with a minimum compacted cover over the carrier pipe, as measured from the top of the roadway surface to the top of the pipe, as follows (see Figures 2 and 4):

<u>Location</u>	<u>Minimum Compacted Cover</u>
• Under roadway surface proper	4.0 feet
• Under all other surfaces within the right-of-way or from the bottom of ditches	3.0 feet

**Note:** If the pipeline to be crossed is used to transport a highly volatile liquid, the minimum cover in drainage ditches must be 4.0 feet.

6. In addition to the minimum depth stated above, the combined stress of the existing pipe due to internal pressure and external loading shall be analyzed to ensure that the pipe operates at a safe level.
7. Casings must not end under the roadway surface or track structure, but will extend across the entire length of the roadway or railroad right-of-way.
8. Temporary construction roads, field roads, and unimproved roads must provide adequate protection to limit stress on the pipeline. Additional cover and/or stabilization (timbers, steel plate, crushed rock, concrete slab, etc.) may be required taking into account expected weather, line depth, and type of vehicles proposed. All temporary construction roads must be adequate to meet stress limits and must be approved by Williams Engineering department.
9. Six-inch wide plastic warning tape, McMaster-Carr No. 8288T12 or equal, shall be placed over each pipeline.

10. Equipment must cross the pipeline only at approved crossing locations where the cover has been checked by Williams and determined adequate to meet load-bearing requirements.

## **PARKING LOTS**

1. Parking lots will not be permitted without a fully executed Encroachment Agreement releasing Williams from any and all future damages to the parking lot due to pipeline maintenance and repair. All parking lots installed on the right-of-way shall consist of a flexible surface such as asphalt. No reinforced concrete will be allowed.
2. Line depth must meet or exceed compacted cover requirements listed in the previous "Roadways, Driveways, Railroads, and Equipment Crossings" section above.
3. A close interval cathodic protection survey and a coating inspection will be performed prior to the parking lot being installed to evaluate the integrity of the pipeline coating.

## **WATERWAY CROSSINGS**

Rivers, streams, creeks, irrigation canals, and drainage ditches crossing the pipeline(s) shall meet or exceed the minimum depth for compliance with current pipeline construction standards and federal, state, and local regulations.

The following requirements apply to waterway crossings:

1. Crossings should be as close to 90 degrees to Williams pipeline(s) as possible, but not less than 45 degrees.
2. Pipelines to be crossed shall have a minimum cover, as measured from the top of the carrier pipe to the waterway bottom, of 5.0 feet.
3. Pipelines to be crossed shall have sufficient weight added to create negative buoyancy. This can be achieved by using concrete coating, bolt-on concrete anchors, or mechanical auger anchors.

## **BLASTING**

Should blasting be necessary, a comprehensive plan shall be submitted to Williams for review. For safety and preservation of Williams assets, all blasting shall be in accordance with federal, state, and local governing agencies and the Williams' "Damage Prevention Plan for Blasting Near Company Facilities". A copy of said plan will be made available upon request.

## **ONE-CALL IS FEDERAL LAW AND VIOLATION CAN RESULT IN FINE AND IMPRISONMENT**

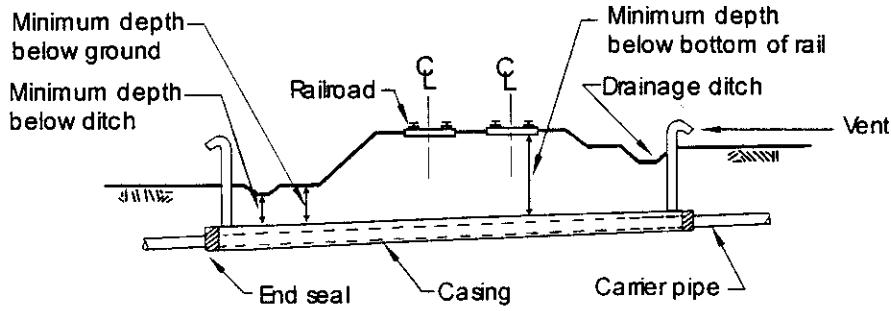
The Secretary of Transportation has prescribed minimum requirements for establishing and operating a One-Call Notification System for a State to adopt that will notify an operator of a pipeline facility of activity in the vicinity of the facility that could threaten the safety of the facility. On notification by an operator of a damage prevention program or by a person planning to carry out demolition, excavation, tunneling, or construction in the vicinity of a pipeline facility, the operator of the facility shall mark accurately, in a reasonable and timely manner, the location of the pipeline facility in the vicinity of the demolition, excavation, tunneling, or construction.

Penalty for not using One-Call Notification System or not heeding location information or markings could result in fine or imprisonment up to five (5) years, or both.

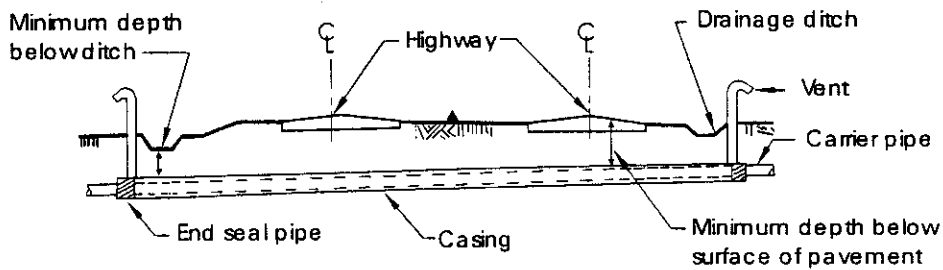
## **ONE-CALL CENTER TELEPHONE NUMBERS**

Alabama One Call	1-800-292-8525	New Mexico	1-800-321-ALERT
Arkansas One-Call	1-800-482-8998	Oklahoma One-Call	1-800-654-8249
Colorado One-Call	1-800-922-1987	South Dakota One-Call	1-800-781-7474
Illinois One-Call	1-800-892-0123	Tennessee One-Call	1-800-351-1111
Iowa One-Call	1-800-292-8989	TESS (Texas) One-Call	1-800-344-8377
Kansas One-Call	1-800-344-7233	Texas One-Call	1-800-245-4545
Louisiana One Call	1-800-272-3020	Texas (Lone Star) One-Call	1-800-669-8344
Minnesota Gopher State One-Call	1-800-252-1166	Utah One-Call	1-800-662-4111
Mississippi One Call	1-800-227-6477	Wisconsin Diggers Hotline	1-800-242-8511
Missouri One-Call	1-800-344-7483	Wyoming One-Call	1-800-348-1030
National One Call Referral	1-888-258-0808		
Nebraska One-Call	1-800-331-5666		
North Dakota One Call	1-800-795-0555		

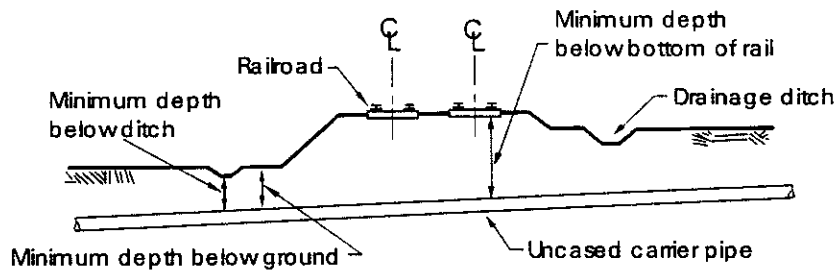
# RAILROAD AND HIGHWAY CROSSINGS



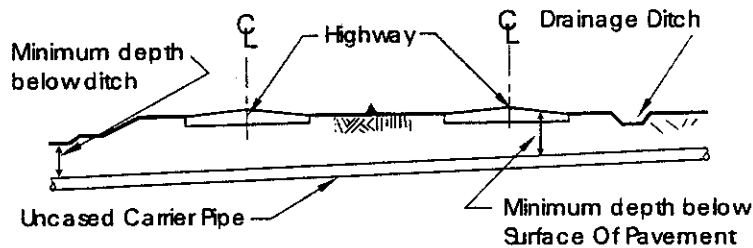
CASED RAILROAD CROSSING  
 FIGURE 1



CASED HIGHWAY CROSSING  
 FIGURE 2



UNCASED RAILROAD CROSSING  
 FIGURE 3



UNCASED HIGHWAY CROSSING  
 FIGURE 4