

Pipeline Specifications

1. Longitudinal Occupancy

This section applies to all public and private utilities, including water, gas, oil, petroleum products, steam, chemicals, sewage, drainage, irrigation and similar lines that are located, adjusted or relocated within the property under the jurisdiction of The Railroad. Such utilities may involve underground, surface or overhead facilities.

Any utility line greater than five hundred (500) feet in length will be considered a parallel line and is to be located on uniform alignment, within ten (10) feet or less of the property line so as to provide a safe environment and to preserve space for future railroad improvements or other utility installations. The Railroad's Engineer must approve any installation over one mile. Utilities will be located so as to provide a safe environment and shall conform to the current "American Waterworks Association Specifications," Federal Pipeline Safety Regulations," and "The American Railway Engineering and Maintenance Association Specifications." Where laws or orders of public authority prescribe a higher degree of protection, then the higher degree of protection prescribed shall supersede the provisions set forth here.

1. Underground utility installations should be located on top of the back slope at the outer limits of the railroad property.
2. Pipelines laid longitudinally in railway right-of-way shall be located as far as practicable from any tracks or other important structures.
3. Pipelines carrying flammable products or products under pressure located within 25 feet of the centerline of any track or where there is danger of damage from leakage to any bridge, building or other important structure, shall be encased or of special design as approved by the Engineer of the railway company.
4. Pipelines laid longitudinally on the railway right-of-way, 50 feet or less from the centerline of track shall be buried not less than 4'6" from the ground surface to the top of pipe.
5. If distance is more than 50 feet from centerline of track, minimum cover shall be 3 feet.
6. If the pipeline is located forty (40) feet or less from centerline of track, the pipeline shall be encased in a steel pipe subject to approval from The Railroad. No pipe may be placed closer than twenty-five (25) feet from centerline of track. Pipe must be buried with a minimum cover of three (3) feet.
7. If less than minimum depth is necessary because of existing utilities, water table, ordinance or similar reasons, the line shall be rerouted.
8. Locations where it will be difficult to attain minimum depth due to wet or rocky terrain shall be avoided. Any location change from plan must be approved by The Railroad.
9. The use of plastic carrier pipe for sewer, water, natural gas and other liquids is acceptable under specific circumstances. The use of plastic pipe is satisfactory if the pipe is designed to meet AREMA and all applicable federal and state codes, and if the carrier pipe is properly encased with a steel casing pipe for the entire length on The Railroad right of way.
10. Manholes shall be limited to those necessary for installation and maintenance of underground lines. Manholes vary as to size and shape depending on the type of utility they serve. To conserve space, their dimensions should be minimally acceptable by good engineering and safety standards. In general, the only equipment to be installed in manholes located on railroad property is that which is essential to the normal flow of the utility, such as circuit reclosers, cable splices, relays, valves and regulators. Other equipment should be located outside the limits of the railroad property. Manholes shall not protrude above the surrounding ground nor be located in the shoulder, shoulder slope, ditch, backslope, or within twenty-five (25) feet of the centerline of track without approval of The Railroad.
11. Pipelines shall not be installed on wood trestles but consideration will be given to permitting attachment to steel spans where unreasonable expense would be required to provide separate crossing over waterway, public way or railroad as approved by the Engineer.
12. The Utility Owner will not be permitted to route facilities through drainage structures or cattle passes. Utilities are not to be attached to other railroad structures without the written approval of The Engineer.
13. If additional tracks are constructed in the future and the Railway company determines that the roadbed requires widening, then the casing shall be extended correspondingly by the Licensee at the Licensee's cost.

2. Underground Crossings

This section of the policy applies to all public and private utilities, including water, gas, oil, petroleum products, steam, chemicals, sewage, drainage, irrigation and similar lines that are located, adjusted or relocated within the property under the jurisdiction of The Railroad. Installations crossing the property of the railroad, to the extent feasible and practical, are to be perpendicular to the railroad alignment and preferably at not less than forty-five (45) degrees to the centerline of the track.

- a. Utilities shall not be placed within culverts or under railroad bridges, buildings or other important structures. Utilities will be located so as to provide a safe environment and shall conform to the current "American Waterworks Association Specifications," Federal Pipeline Safety Regulations," and "The American Railway Engineering and Maintenance Association Specifications." Where laws or orders of public authority prescribe a higher degree of protection, then the higher degree of protection prescribed shall supersede the provisions of this document.
- b. All underground utility crossings of railroad trackage shall be designed to carry Cooper's E-80 Railroad live loading with diesel impact (AREMA Cooper's loading Section 8-2-8). This 80,000-lb. axle load may be distributed laterally a distance of three (3) feet, plus a distance equal to the depth from structure grade line to base of rail, on each side of centerline of single tracks, or centerline of outer track where multiple tracks are to be crossed. In no case shall railroad loading design extend less than ten (10) feet laterally from centerline of track. Longitudinally, the load may be distributed between the five foot axle spacing of the Cooper configuration. Railroad loading criteria will also apply where future tracks on The Railroad are contemplated; to the extent this information is available.
 - a. All utility crossings under ditches and railroad trackage should have a minimum depth of cover of three (3) feet below the flow line of the ditch or ground surface and five and one half (5-1/2) feet from base of rail. In fill sections, the natural ground line at the toe of slope will be considered as ditch grade. The depth of cover shall not be less than that meeting applicable industry standards.
 - b. For all boring and jacking installations under main and passing tracks, greater than 26 inches in diameter, and at a depth of between 5.5 and 10.0 feet below top of tie, a geotechnical study will need to be performed to determine the presence of granular material and/or high water table elevation, at the sole expense of the Permittee. The study will include recommendations and a plan for a procedure to prevent failure and a collapse of the bore. Generally, core samples are to be taken near the ends of tie at the proposed location, at least as deep as the bottom of the proposed horizontal bore. Test results must be reviewed and approved by The Railroad, or its agent, prior to boring activities commencing.
 - c. The Railroad reserves the rights, based on test results, to require the Permittee to select an alternate location, or to require additional engineering specifications be implemented, at the sole expense of the Permittee, in order to utilize existing location.
 - d. The use of plastic carrier pipe for sewer, water, natural gas and other liquids is acceptable under specific circumstances. The use of plastic pipe is satisfactory if the pipe is designed to meet all applicable federal and state codes, and if the carrier pipe is properly encased within a steel casing pipe per AREMA standards. This casing must extend the full width of the right of way. Casing may be omitted only for gaseous products if the carrier pipe is steel and is placed ten (10) feet minimum below the base of rail per AREMA standards.
 - e. If the minimum depth is not attainable because of existing utilities, water table, ordinances, or similar reasons, the line shall be rerouted.
 - f. Locations that are considered unsuitable or undesirable are to be avoided. These include deep cuts and in wet or rocky terrain or where it will be difficult to obtain minimum depth.
 - g. Underground installations may be made by open-trenching from the property line to the toe of the fill slope in fill sections and to the toe of the shoulder slope in cut sections but to no closer than thirty (30) feet of the centerline of track. The remainder will be tunneled, augured, jacked or directional-bored through the roadbed. Refer to the following sections for required encasement of utilities and boring requirements.
 - h. Manholes should be located outside railroad property, when possible. No manhole will be located in the shoulder, shoulder slope, ditch or backslope, or within twenty-five (25) feet of the centerline of track, and shall not protrude above the surrounding ground without approval of The Railroad.
 - i. Utilities will not be attached to or routed through drainage structures or cattle passes.
 - j. Utilities are not to be attached to other railroad structures without written approval of The Railroad Structures Department.
 - k. Jacking pits shall be located a minimum of thirty (30) feet from the centerline of track.

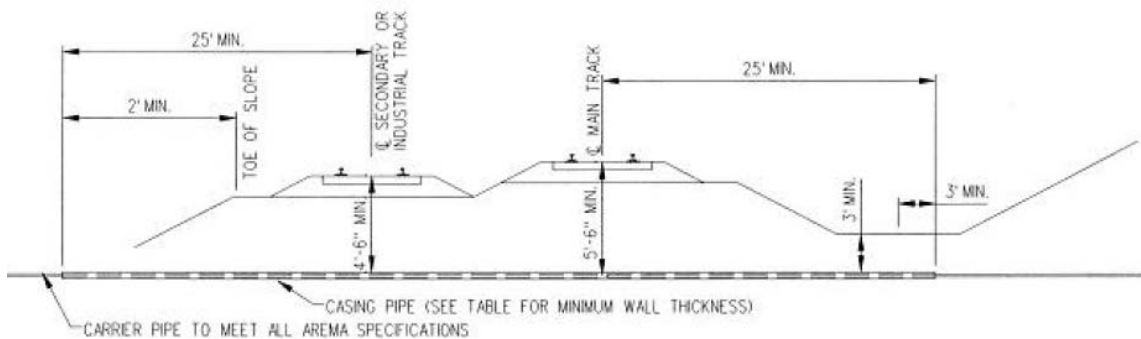
2.1 Pipeline Requirements

- a. Pipeline designs are to specify the type and class of material, maximum working pressures and test and design pressure. Pipelines which are not constructed, operated and maintained under regulations established under US Department of Transportation
- b. Hazardous Materials Regulations Board, shall upon revisions in the class of material or an increase in the maximum operating pressure, must obtain The Railroad's Engineer approval.
- c. Pipelines carrying oil, liquefied petroleum gas, natural or manufactured gas and other flammable products shall conform to the requirements of the current AREMA,
- d. ANSI/ASME B 31.4 Code for pressure piping - Liquid Petroleum Transportation Piping
- e. Systems; ANSI B 31.8 Code for pressure piping - Gas Transmission and Distribution
- f. Piping Systems; other applicable ANSI codes and 49 C.F.R. Part 192 or Part 195 -
- g. Transportation of Hazardous Liquids by Pipeline, except that the maximum allowable stress of design of steel pipe shall not exceed the following percentages of the specified minimum yield strength (multiplied by longitudinal joint factor) of the pipe as defined in the ANSI codes.
- h. Pipelines under railroad tracks and across railroad property shall be encased in a larger pipe or conduit called "casings." Generally, casings shall extend from right-of-way line to right-of-way line, unless otherwise approved.
- i. Pipelines and casing pipes shall be suitably insulated from underground conduits carrying electric wires on railroad property.
- j. Reinforced concrete pipe will need to be encased for a distance as wide as the embankment at the utility crossing. This is to protect against track failure due to joint separation.

2.2 PIPELINES CARRYING NON-FLAMMABLE SUBSTANCES

This includes steam, water or any non-flammable substance, which from its nature or pressure might cause damage if escaping on or in the vicinity or railway property. Sewers and drains do not require casing pipe unless conditions exist which will endanger security of track, but must be of sufficient strength to withstand E-80 railway loading.

PIPE LINES CARRYING NON-FLAMMABLE SUBSTANCES.

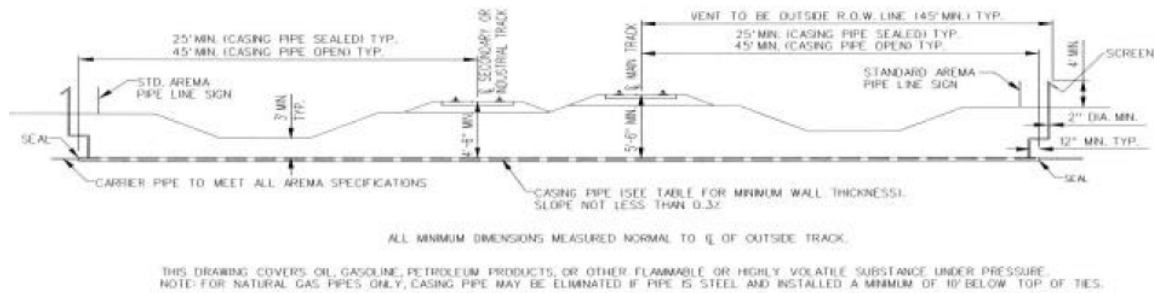


ALL MINIMUM DIMENSIONS MEASURED NORMAL TO Q OF OUTSIDE TRACK.

THIS DRAWING COVERS STEAM, WATER OR ANY NONFLAMMABLE SUBSTANCE WHICH FROM ITS NATURE OF PRESSURE MIGHT CAUSE DAMAGE IF ESCAPING ON OR IN THE VICINITY OF RAILWAY PROPERTY. SEWERS AND DRAINS DO NOT REQUIRE CASING PIPE UNLESS CONDITIONS EXIST WHICH WILL ENDANGER SECURITY OF TRACK, BUT MUST BE OF SUFFICIENT STRENGTH TO WITHSTAND E-80 LOADING.

2.3 PIPELINES CARRYING FLAMMABLE SUBSTANCES

PIPE LINES CARRYING FLAMMABLE SUBSTANCES.



This includes oil, gas, gasoline, petroleum products or other flammable or highly volatile substance under pressure.

At all other locations on the right -of-way the minimum ground cover for uncased steel natural gas pipes must be ten (10) feet.

2.4 Encasement of Utilities

- i. Casings are oversized load-bearing conduits or ducts through which a utility is inserted:
 - i. To protect the railroad from damages and to provide for repair, removal and replacement of the utility without interference to railway traffic.
 - ii. To protect the carrier pipe from external loads or shock, either during or after construction.
 - iii. To convey leaking fluids or gases away from the area directly beneath the railroad trackage to a point of venting at the railroad property line.
- ii. Casings may be omitted for gaseous products only under the following circumstances:
 - i. Carrier pipe must be steel and the wall thickness must conform to E-80 loading for casing pipe shown in the tables as included in the AREMA manual Chapter 1, Part 5 for Pipeline Crossings. The length of thicker-walled pipe shall extend from railroad right-of-way line to right-of-way line. This will generally result in thicker-walled pipe on railroad right-of-way.
 - ii. All steel pipe shall be coated and cathodically protected.
 - iii. The depth from base of rail to top of pipe shall not be less than ten (10) feet below base of rail. The depth from ditches or other low points on railroad right-of-way shall not be less than six (6) feet from ground line to top of pipe.
- b. In circumstances where it is not feasible to install encasement from right-of-way line to right-of-way line, casing pipe under railroad tracks and across railroad property shall extend to the greater of the following distances, measured at right angles to the centerline of track:
 - i. Two (2) feet beyond toe of slope.
 - ii. Three (3) feet beyond ditch line.
 - iii. Twenty-five (25) feet from centerline of outside track when casing is sealed at both ends.
 - iv. Forty-five (45) feet from centerline of outside track when casing is open at both ends.
 - v. If additional track is planned for future construction, casing must extend far enough to meet above distances given the additional track requirement.
- c. Pipelines and casing pipe shall be suitably insulated from underground conduits carrying electric wires on railroad property.
- d. Casing pipe and joints shall be made of metal, and of leakproof construction. Casings shall be capable of withstanding the railroad loadings and other loads superimposed upon them.

- e. Wall thickness designations for steel casing pipe for E-80 loading (including impact) are:

CASING PIPE FOR E-80 LOADING

<u>STEEL PIPE</u>		
(REFERENCE SOURCE: AREMA, CHAPER 1, PART 5): WALL THICKNESS FOR STEEL CASING PIPE (MINIMUM YIELD STRENGTH 35,000 psi)		
DIAMETER OF PIPE (INCHES)	PIPE COATED OR CATHODICALLY PROTECTED NOMINAL THICKNESS (INCHES)	PIPE NOT COATED OR CATHODICALLY PROTECTED NOMINAL THICKNESS (INCHES)
12 3/4 AND UNDER	0.188	0.188
14	0.188	0.250
16	0.219	0.281
18	0.250	0.312
20 AND 22	0.281	0.344
24	0.312	0.375
26	0.344	0.406
28	0.375	0.438
30	0.406	0.469
32	0.438	0.500
34 AND 36	0.469	0.531
38	0.500	0.562
40	0.531	0.594
42	0.562	0.625
44 AND 46	0.594	0.656
48	0.625	0.688
50	0.656	0.719
52	0.688	0.750
54	0.719	0.781
56 AND 58	0.750	0.812
60	0.781	0.844
62	0.812	0.875
64	0.844	0.906
66 AND 68	0.875	0.938
70	0.906	0.969
72	0.938	1.000

REINFORCED CONCRETE PIPE

PIPE SHALL CONFORM TO A.S.T.M. DESIGNATION C-76,
CLASS IV, WALL "B" (MIN.). ROUND PIPE SHALL HAVE
CIRCULAR, NOT ELLIPTICAL REINFORCEMENT.

CORRUGATED METAL PIPE

PIPE SHALL BE GALVANIZED, BONDED AND ASPHALT COATED.

GAGE OF METAL BEFORE GALVANIZING U.S. STD. GAGE	DIAMETER OF PIPE (INCHES)
14	18 AND UNDER
12	24,30, AND 36
10	42 AND 46

- i. Steel pipe shall have minimum yield strength of 35,000 pounds per square inch.
 - ii. All metallic casing pipes are to be designed for effective corrosion control, long service life and relatively free from routine servicing and maintenance. Corrosion control measures must include cathodic protection.
 - iii. Cast iron may be used for casing. It shall conform to ANSI A21. The pipe shall be connected with mechanical-type joints. Plain-end pipe shall be connected with compression-type couplings. The strength of the cast iron pipe to sustain external loads shall be computed in accordance with the most current ANSI A21.1 "Manual for the Computation of Strength and Thickness of Cast Iron Pipe."
- f. The inside diameter of the casing pipe shall be such that the carrier pipe can be removed without disturbing the casing. All joints or couplings, supports, insulators or centering devices for the carrier pipe shall be considered in the selection of the casing diameter.

- g. For flexible casing pipe, a minimum vertical deflection clearance of the casing pipe shall be three percent (3%) of its diameter plus one-half (1/2) inch so that no loads from the roadbed, track, railroad traffic or casing pipe are transmitted to the carrier pipe. When insulators are used on the carrier pipe, the relationship of the casing size to the size of the carrier pipe is:

Diameter of Carrier Pipe	Inside Diameter. of Casing Pipe Equals Outside Diameter. of Carrier Pipe Plus
0" - 8"	2"
10" - 16"	3-1/4"
Over 16"	4-1/2"

- h. The ends of casing pipe shall be securely and permanently sealed to outside of carrier pipe with approved joint material against encroachment of outside elements.

2.5 Casing and Pipeline Installation

- a. Casing and pipeline installations should be accomplished by directional boring, jack-and-bore, tunneling or other approved methods. Tunneling construction under tracks will be permitted only under direct supervision of a The Railroad Engineer. Tunneling procedures and equipment, as well as structural design, must have The Railroad Structures Department approval prior to starting any work on The Railroad property. Generally, tunneling shall not be considered where less than six (6) feet of cover exists, or where excessively sandy, loose or rocky soils are anticipated. Rail elevations over the work must be monitored at intervals prescribed by The Railroad to detect any track movement. Movements of over one-quarter (1/4) inch vertically shall be immediately reported to The Railroad Representative. Due to the danger to rail traffic that is caused by only small amounts of track movement, The Railroad forces may have to be called to surface the track several times. The following requirements shall apply to these construction methods:
- 1) The use of water under pressure jetting or puddling will not be permitted to facilitate boring, pushing or jacking operations. Some boring may require water to lubricate cutter and pipe, and under such conditions, is considered dry boring.
 - 2) Where unstable soil conditions exist, boring or tunneling operations shall be conducted in such a manner as not to be detrimental to the railroad being crossed.
 - 3) If excessive voids or too large a bored hole is produced during casing or pipeline installations, or if it is necessary to abandon a bored or tunneled hole, prompt remedial action should be taken by the Utility Owner.
 - 4) All voids or abandoned holes caused by boring or jacking are to be filled by pressure grouting. The grout material should be sand cement slurry with a minimum of two (2) sacks of cement per cubic yard and a minimum of water to assure satisfactory placement.
 - 5) The hole diameter resulting from bored or tunneled installations shall not exceed the outside diameter of the utility pipe, cable or casing (including coating) by more than one and one-half (1-1/2) inches for pipes with an inside diameter of twelve (12) inches or less, or two (2) inches on pipes with an inside diameter greater than twelve (12) inches.
 - 6) Pits for boring, tunneling or jacking will not be permitted within thirty (30) feet of the centerline of track; or closer to the track than the toe of fill slopes in fill sections, or toe of shoulder slopes in ditch sections when pipes are allowed on the railroad property.
 - 7) Jacking or boring of corrugated metal pipe, cast iron pipe or pipe with flanges, bells or couplings will not be permitted.
 - 8) Boring excavation must not exceed the outside diameter of the pipe.
 - 9) Directional boring will be allowed at the discretion of the Railroad.
 - 10) All casing pipes shall be sloped not less that 0.3%.

2.6 Vents

In casing pipe installations, vents are appurtenances by which fluids or gases between carrier and casing may be inspected, sampled, exhausted or evacuated.

- i. Vents shall be located at the high end of short casings and at both ends of casing longer than one hundred fifty (150) feet.
- ii. Vent standpipes shall be located and constructed so as not to interfere with maintenance of the railroad or to be concealed by vegetation. Where possible, they shall be marked and located at the property line. The markers shall give the name and address of the owner, and a phone number to contact in case of emergency.
- iii. Casing pipe, when sealed, shall be properly vented. Vent pipes shall be of sufficient diameter, but in no case less than two (2) inches in diameter and shall be attached near each end of casing, projecting through ground surface at property lines.
- iv. Vent pipes shall extend not less than four (4) feet above ground surface. Top of vent pipes shall be fitted with a down-turned elbow, properly screened; or a relief valve.
- v. For pipelines carrying flammable materials, vent pipes on casings shall be at least 16 feet (vertically) from aerial electric wires. Casings shall be suitably insulated from underground conduits carrying electric wires on Railroad right-of-way.
- vi. The vent pipes shall be connected to the top surface of casing pipe at both ends of the casing pipe.

2.7 Shut-Off Valves

- i. The Utility Owner shall install accessible emergency shut-off valves within effective distances on each side of the railroad. Where pipelines are provided with automatic control stations, no additional valves will be required.
- ii. Locating a shut-off valve on railroad property should be avoided. If approval is acquired, a guardrail must protect the shut-off valve.
- iii. When a guardrail is required, its height shall be four (4) feet above the ground line. All four corner posts shall be driven to a minimum depth of four (4) feet below ground line. There shall be a minimum clearance of two (2) feet from the valve to the guardrail. The steel pipes for the four corner posts and guardrail shall have a minimum diameter of four (4) inches. All joints will be welded with a one-quarter (1/4) inch fillet weld all around.

2.8 Water Lines

- a. Where casing pipe is used, venting is not required; however, sealing will be required if the ends of the casing are not above high water.
- b. Where non-metallic pipe is permitted and installed, steel casings are required from right of way line to right of way line.
- c. Manholes should be located outside the railroad property. Manholes shall not be located within twenty-five (25) feet of railroad trackage, in the shoulder, shoulder slope, ditch or backslope; and shall not protrude above the surrounding ground without the approval of The Railroad's Engineer.
- d. The Utility Owner shall place a readily identifiable and suitable marker at each railroad property line where it is crossed by a water line.

2.9 Sewer Lines

- a. New and relocated sewer lines shall be constructed with satisfactory joints, materials and designs which will provide protection and resistance to damage from sulfide gases and other corrosive elements to which they may be exposed.
- b. Where casing pipe is used, venting and sealing of casing will be required.
- c. Where non-metallic pipe is permitted and installed, a durable metal wire shall be concurrently installed; or other means shall be provided for detection purposes.
- d. Manholes should be located outside the railroad property. Manholes shall not be located within twenty-five (25) feet of railroad trackage, in the shoulder, shoulder slope, ditch or backslope; and shall not protrude above the surrounding ground without the approval of The Railroad's Engineer.

Plans and specifications for proposed installation shall be submitted to the Engineer and meet the approval of the railroad company before construction is begun. Plans shall be drawn to scale showing the relation of the proposed pipeline, angle of crossing, location of valves, railway survey station, right-of-way line and general layout of tracks and railway facilities. Plan should also show a cross-section (or sections) from field survey, showing pipe in relation to actual profile of ground and tracks, complete description of materials to be used, and location of jacking and receiving pits. If open cutting or tunneling is necessary, details of sheeting and method of supporting tracks or driving tunnel should be shown. The execution of the work on the railway right-of-way, including the supporting of tracks, shall be subject to the inspection and direction of the Engineer's office.

3. Additional Resources for Underground Crossings

<http://www.undergroundfocus.com/onecalldir.php> Provides links and information on state calls for cable locates

<http://www.ntdpc.com/> National Telecommunications Damage Prevention Council

<http://www.commongroundalliance.com> Common Ground Alliance

4. References

American National Standards Institute (ANSI) Codes, 1430 Broadway, NY, NY 10018.

American Railway Engineering and Maintenance of Way Association (AREMA) Specifications.

American Society for Testing and Materials (ASTM) Specifications.

American Water Works Association Standards and Specifications, AWWA, 2 Park Avenue, NY, NY 10016.

Manual on Uniform Traffic Control Devices - with revisions, US Department of Transportation, Federal Highway Administration.

National Electrical Safety Code, US Department of Commerce, National Bureau of Standards.

Pipeline Safety Regulations - Code of Federal Regulations, Title 49 - Transportation, Parts 191-192-Natural Gas; Part 195-Liquid Petroleum Gas.

Rules and Regulations for Public Water Systems - latest edition, State Health Departments.

Rules and Regulations promulgated by the Hazardous Materials Regulation Board of the US Department of Transportation.

Statutory Provisions, 23 U.S.C. 109 and 111.

5. Definitions of terms

The terminology used in this Policy strives for conventional meaning and to insure uniform interpretation. To this end, the following definitions apply:

ACCESS CONTROL: Restriction of access to and from abutting lands to railroad property.

AREMA: American Railroad Engineering and Maintenance of Way Association.

ANSI: American National Standard Institute.

ASTM: American Society for Testing and Materials.

BACKFILL: Replacement of soil around and over an underground utility facility.

BORING: Piercing a hole under the surface of the ground without disturbing the earth surrounding the hole. Boring may be accomplished by any approved manner. Water jetting or puddling will not be permitted. Holes may be mechanically bored and cased using a cutting head and continuous auger mounted inside of the casing. Small diameter holes may be augured and the casing or utility facility pushed in later.

The Railroad: Burlington Northern and Santa Fe Railway Company.

BURY: Placement of the utility facility below grade of roadway, ditch or natural ground to a specified depth.

CARRIER: Pipe directly enclosing a transmitted fluid (liquid or gas).

CASING: A larger pipe enclosing a carrier.

CFR: Code of Federal Regulations.

COATING: Material applied to or wrapped around a pipe.

COMMUNICATION LINE: Fiber optic, telephone cable and similar lines, not exceeding four hundred (400) volts to ground or seven hundred fifty (750) volts between any two (2) points of the circuit, the transmittal power of which does not exceed one hundred fifty (150) watts.

CONDUIT OR DUCT: An enclosed tubular runway for protecting wires or cables.

COVER: The depth of material placed over a utility. Depth of cover is measured from top of utility casing or carrier pipe (if no casing is required) to the natural ground line or construction line above the utility.

DIRECT BURIAL: Installing a utility underground without encasement, by plowing or trenching. No rail plows will be permitted.

ELECTRIC SUPPLY: Electric light, power supply, and trolley lines, irrespective of voltage used for transmitting a supply of electrical energy.

ENCASEMENT: Structural element surrounding a pipe or cable.

FLEXIBLE PIPE: A plastic, fiberglass, or metallic pipe having a large ratio of diameter to wall thickness that can be deformed without undue stress. Copper or aluminum pipe shall be considered as flexible pipe.

GROUNDING: Connected to the earth or to some extended conducting bodies which intentionally or accidentally is connected with the earth.

GROUT: A cement mortar or slurry of fine sand or clay as conditions govern.

JACK-AND-BORE: The installation method whereby the leading edge of the jacked pipe is well ahead of the cutting face of the auger bit. The auger is removing waste from inside the pipe as it is being jacked. This method greatly reduces the likelihood of subsidence of granular material during installation.

JACKING: The installation of small pipes by the use of hydraulic jacks or rams to push the pipe under the traveled surface of a road, railroad roadbed, or other facility.

LICENSE:

UTILITY LICENSE AGREEMENTS are executed for all utility facilities located on railroad property.

MANHOLE: An opening to an underground utility system which workmen or other may enter for the purpose of maintaining, inspecting, or making installations.

NATURAL GAS PIPELINES:

DISTRIBUTION SYSTEM - A pipeline other than a gathering or transmission line.

SERVICE LINE - A distribution line that transports gas from a common source of supply to a customer meter.

TRANSMISSION SYSTEM - A pipeline other than a gathering line that transports gas from a gathering line or storage facility to a distribution center or storage facility. It operates at a hoop stress of twenty percent (20%) or more of the Specified Minimum Yield Strength.

NORMAL: Crossing at a right angle.

PERMITS: PERMIT TO BE ON The Railroad PROPERTY FOR UTILITY SURVEY is to be executed prior to all survey work on railroad property.

PIPE: A tubular product made as a production item for sale as such. Cylinders formed from plate in the course of fabrication of auxiliary equipment are not pipes as defined here.

PRESSURE: Relative internal pressure in PSI (pounds per square inch) gauge.

PRIVATE LINES: Any privately owned facilities which convey or transmit the commodities outlined under the definition for Utilities but are devoted exclusively to private use.

PUBLIC LINES: Those facilities which convey or transmit the commodities outlined under the definition for Utilities and directly or indirectly serve the public or any part thereof.

RIGHT OF WAY: A general term denoting land, property of interest therein, usually in a strip, acquired for or devoted to railroad transportation purposes.

SEAL: A material placed between the carrier pipe and casing to prevent the intrusion of water, where ends of casing are below the ground surface.

SHOULDER: That portion of the roadbed outside the ballast.

TRENCHED: Installed in a narrow excavation.

TUNNELING: Excavating the earth ahead of a large diameter pipe by one or more of the following processes: 1) The earth ahead of the pipe will be excavated by men using hand tools while the pipe is pushed through the holes by means of jacks, rams or other mechanical devices, 2) The excavation is carried on simultaneously with the installation of tunnel liner plates, and/or 3) The tunnel liner plates are installed immediately behind the excavation as it progresses and are assembled completely away from the inside.

UTILITY OWNER: All privately, publicly or cooperatively owned lines, facilities and systems for producing, transmitting or distributing communications, power, electricity, light, heat, gas, oil, crude products, water, steam, waste, storm water and other similar commodities, including fire and police signal systems and street lighting systems which directly or indirectly serve the public.

6. Applications

Please use the Pipeline application form found on the website to submit your application.

1. Applications should be submitted to (preferably by e-mail .DWG or .PDF when printable on paper sizes 11X17 or smaller):

elaberge@gwrr.com

Planning & Processes

Huron Central Railway - Quebec Gatineau Railway - St-Lawrence & Atlantic Railway

6,700 Parc Avenue, Office 110

Montreal (Quebec) H2V 4H9

2. Upon receipt of the application, a reply will be sent acknowledging receipt and advising of the Permit & Contract file reference number that has been assigned with attached draft agreements applicable. For this purpose, please provide a reply E-Mail address.
3. Office Hours: 9:00 A.M. to 5:00 P.M. Monday through Friday, ET
4. Phone Number: (514)-948-6998.
5. Agreements will be required for all encroachments on railroad property.
6. Generally, agreement-processing time will be 6 to 8 weeks. Please allow sufficient lead-time for document handling prior to desired construction date. Before construction begins, agreements must be executed by Utility Owner and returned. Verbal authorizations will not be granted or permitted. A minimum of five (5) days advance notice after execution of an agreement will be required prior to initiation of construction.
7. License fees must be submitted at the time the agreement is executed and returned.
8. Applications are to be made on the standard application form including an Exhibit "A."