

INTERIM GUIDELINES FOR HORIZONTAL DIRECTIONAL DRILLING (HDD) UNDER THE
PROPERTY AND TRACK(S) OF CSX TRANSPORTATION, INC.

Preface: In order to facilitate use of the latest technology available for construction of pipelines that traverse the property and tracks(s) of CSX Transportation, Inc., the following interim guidelines to govern the approval and execution of pipeline and wire line occupancies utilizing Horizontal Directional Drilling (HDD) have been adopted.

Scope: The guidelines detailed in this document do not nullify or supersede existing policies, standards, or practice currently approved by CSXT.

1. For pipelines conveying gas or liquid substances, steel pipe only may be installed under track(s) and/or CSXT right-of-way utilizing horizontal directional drilling.
2. For wire line installations, including fiber optic cable, High Density Polyethylene (HDPE) pipe may be installed as the outermost pipe. **Bundling is prohibited.** All inner ducts must have an outer casing pipe.
3. For all liquid or gas installations, or for nominal pipe sizes exceeding six (6) inches outside diameter, minimum cover (measured from base-of-rail to top-of-pipe) shall be twenty-five (25) feet, regardless of product. For fiber optics or electrical installations, with casing/conduit nominal size of eight (8) inches outside diameter, or less, minimum cover shall be fifteen (15) feet. Pipe casing/conduit greater than eight (8) inches outside diameter; minimum cover shall be twenty-five (25) feet.
4. Applicant submittal shall include actual planned depth of pipe under each railroad track. The plan and profile views must show the entire bore, including the sending and receiving pits, regardless of the railroad right-of-way limits.
5. Applicant must provide pipe specifications for casing and carrier pipes. Pipe must satisfy all applicable governmental and industry regulations.
6. Applicant must provide qualifications of drilling contractor, including specific instances of previous successful experience in drilling under railroad and other sensitive surface facilities.
7. Prior to commencement of drilling:
 - a) The contractor must submit a Boring Plan, using the template provided.
 - b) The contractor must provide a detailed Fraction Mitigation (frac-out) Plan, including method of monitoring quantity and capturing the return of drilling fluids with particular attention to variation from proposed plan (i.e. volumes, pressure, or consistency). Sample Attached.
 - c) Establish a Survey Grid Line and provide a program of monitoring and documenting the actual location of the bore hole during drilling operations.

8. An engineering inspector is required to monitor the ground and track for movement during the drilling reaming, and pullback processes. The engineering inspector will be provided by CSX at the applicant's sole cost and expense. The installation process and all train movement must be immediately stopped if movement is detected. The damaged area must be immediately repaired. The installation process must be reviewed and modified as required before the installation may proceed. Applicant must pay Railroad's expenses for review and inspection.
9. Upon completion of the HDD installation work, the contractor shall provide an accurate as-built drawing of the installed HDD segment. As-built drawings will include both horizontal and profile plans. The latitude and longitude coordinates of the entry, exit, and turn points shall be provided on the as-built drawing(s).
10. A Geotechnical Report is required for bores 20" or larger.
11. To minimize the potential of the bore hole collapsing, all back reaming must utilize trailing rods.

Office of Fixed Plant Engineering

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Revision: Items Nos. 2, 3, 7(a), and 10 were revised/added by CSXT, Project Engineering, Corridor Occupancy Services, on July 1, 2015.

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