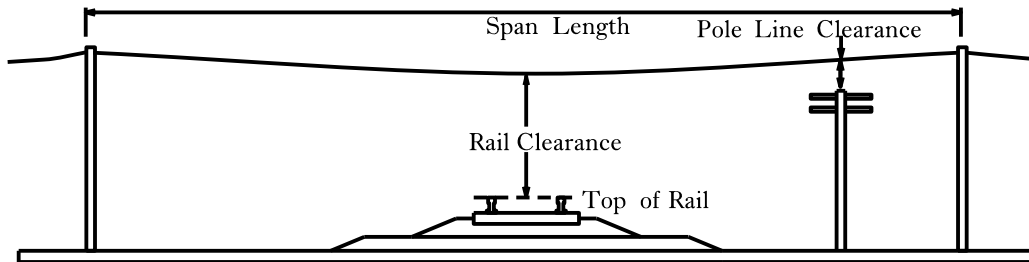


CLEARANCE REQUIREMENTS FOR CABLE AND WIRE CROSSINGS

Initial date 09/01/93 – Revised 08/07/00

Note: All power and communication lines constructed over, under or parallel to the railroad shall meet or exceed the requirements of the National Electric Safety Code, latest revision.

OVERHEAD CLEARANCE



In no case shall crossings have less vertical clearance than the following at a final unloaded sag at 60 deg. Fahrenheit, or for span lengths greater than the standard span lengths for the appropriate geographic loading district, at the maximum conductor temperature for which the supply line is designed to operate.

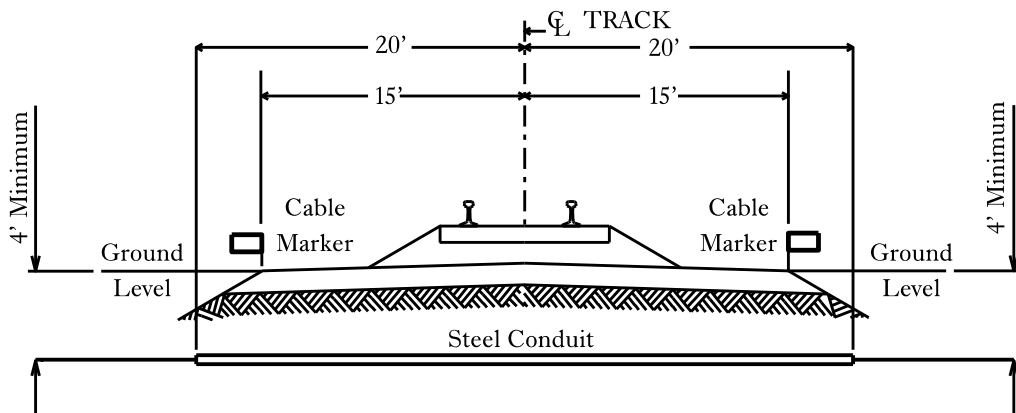
| Distance Above | Guys, Messenger And Comms Spans | Open Supply Line or any Neutral (phase to ground voltage) | | |
|----------------|---------------------------------|-----------------------------------------------------------|-------------|---------------|
| | | 0 to 750 V | 750 V-15 kV | 15 kV - 50 kV |
| Rail | 27 Feet | 30 Feet | 31 Feet | 33 Feet |
| Pole Line | 2 Feet | 2 Feet | 4 Feet | 6 Feet |

• Add 1/2 inch for each 1000 volts (phase to ground) above 50 kV

| Loading District | Standard Span Lengths |
|------------------|-----------------------|
| Heavy | 175 Feet |
| Medium | 250 Feet |
| Light | 350 Feet |

Note - The applicant will furnish line design final sag data.

UNDERGROUND CLEARANCE



Power and communications underground wire and cable crossings must be buried a minimum 5 1/2 feet below base of rail and 4 feet below ground level for entire width of right-of-way and must be installed in steel conduit beneath the track, extending a minimum of 20 feet from the centerline of nearest track. Cable marker signs must be installed 15 feet from centerline of nearest track on both sides at points of right-of-way entry/exit. Signs must indicate cable owner, depth buried and voltage.