

**6135.1100 STANDARDS FOR ROUTE DESIGN.**

Subpart 1. **Topography.** With regard to topography:

- A. avoid steep slopes;
- B. avoid scenic intrusions into stream valleys and open exposures of water;
- C. avoid scenic intrusions by avoiding ridge crests and high points; and
- D. avoid creating tunnel vistas by, for example, building deflections into the route or using acceptable screening techniques.

Subp. 2. **Vegetation.** With regard to vegetation:

- A. avoid wetlands; and
- B. run along fringe of forests rather than through them, but if it is necessary to route through forests, then utilize open areas in order to minimize destruction of commercial forest resources.

Subp. 3. **Soil.** With regard to soil characteristics:

- A. avoid soils whose high susceptibility to erosion would create sedimentation and pollution problems during and after construction;
- B. avoid areas of plastic soils which would be subject to extensive slippage; and
- C. avoid areas with high water tables, especially if construction requires excavation.

Subp. 4. **Crossing public waters.** With regard to crossing of public waters:

- A. avoid streams, but if that is not feasible and prudent, cross at the narrowest places wherever feasible and prudent, or at existing crossings of roads, bridges, or utilities; and
- B. avoid lakes, but where there is no feasible and prudent alternative route, minimize the extent of encroachment by crossing under the water.

Crossings on or under the beds of streams designated by the commissioner as trout waters shall be avoided unless there is no feasible alternative. When unavoidable, maximum efforts shall be taken to minimize damage to trout habitat.

Subp. 5. **Special use areas.** With regard to special use areas, which are those areas designated under Minnesota Statutes, section 84.033, as scientific and natural areas; those areas designated pursuant to Minnesota Statutes, section 103F.325, as units of the Minnesota

Wild and Scenic River System; and those areas subject to special regulation for recreational, scenic, natural, scientific, or environmental purposes:

A. avoid them, but if there is no feasible alternative route, then utilities shall be placed underground; and

B. locate such crossings with existing public facilities such as roads and utilities.

**Statutory Authority:** *MS s 84.415*

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