



Connecticut DOT

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Office of Engineering

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ENGINEERING DIRECTIVE

Engineering Administrator

Fencing at Bridges

The table and notes on the following page provide design guidance for fencing and related features at bridges.

This guidance is effective upon issuance and supersedes any conflicting information in other publications (e.g., design manual).

Guidance for Placement of Fencing at Bridges

| Feature Crossed ¹ (Beneath bridge) | | Feature Carried (Above Feature Crossed) | | | | Non-motorized user facility |
|--|-----------------|---|------------------------|------------------------|------------------------|-----------------------------|
| | | Freeway | | Non-freeway | | |
| | | With sidewalk | Without sidewalk | With sidewalk | Without sidewalk | |
| Freeway | | Required (a) | Not generally required | Required (a) | Required (a) | Required (a) (b) |
| Non-freeway | | Required (a) | Not generally required | Required (a) | Required (a) | Required (a) (b) |
| Water | | Not generally required | Not generally required | Not generally required | Not generally required | Case by case |
| Rail | Non-electrified | Required (a) (c) | Required (a) (c) | Required (a) (c) | Required (a) (c) | Required (a) (b) (c) |
| | Electrified | Required (d) | Required (e) | Required (d) | Required (e) | Required (b) (d) |

Legend of Requirements

- a. Top of fence 8 feet (96 inches) above surface (i.e., road, sidewalk, trail) including any roadside barrier
- b. For rehabilitation of an existing structure with complete enclosure, consider retention of complete enclosure
- c. Maximum opening of 0.5 inch within 25 feet of tracks
- d. Top of solid barrier 9 feet (108 inches) above sidewalk
- e. Top of solid barrier 8 feet (96 inches) above road

Notes:

- 1. For bridges that cross multiple features, the most restrictive requirements (height, material, and configuration) apply to the entire bridge length unless a Department-approved analysis indicates a transition to an adequate and less restrictive design for part of the length is cost-effective.
- 2. Fence maximum opening of 2 inches except for locations with more restrictive requirement.
- 3. All fences shall minimize the use of horizontal rails and the fence face shall be flush with sidewalk parapet face.
- 4. Fences on/near bridges may limit sight distance; consider more appropriate mitigation where needed, i.e. move fence back or use transparent barrier.
- 5. Fences on bridges of historic significance should receive additional consideration of aesthetics in consultation with the Department’s National Register Specialist. For bridges of the Merritt Parkway, the Merritt Parkway Advisory Committee has typically recommended the use of standard chain link or black PVC coated chain link fences to minimize the visual impact to the historic bridges.
- 6. A continuation of fencing from the bridge to the wing walls shall be used when a four foot or greater drop off exists.
- 7. Where fences are listed as generally not required or case by case, consultation with the Department’s project manager should be sought to ensure concurrence.