

- d. Note: Contractor to provide handrail protection H=3 feet minimum for excavation adjacent to track or leave sheeting 3 feet minimum above ground line adjacent to excavation.
 - e. Drawings must be to scale.
2. Calculations covering temporary sheeting or bulkhead design.

Clear Zone Requirements

A minimum of 22 feet of [clear zone](#) is required adjacent to railway tracks.

BICYCLE FACILITIES

Bicycle Facilities are to be provided as specified, for replacement in kind, or as shown on the approved preliminary plans. Proposed Bicycle Facilities and crossing of bicycle facilities are to be depicted with light, solid lines and proper labeling. [See Appendix A\(1\) *](#), [Section A\(1\) – 1 – BICYCLE AND PEDESTRIAN FACILITY GUIDELINES](#).

GREENWAYS

All official Greenways (as defined in Chapter 1B, Section 1B-2) that cross the proposed highway right-of-way are to be depicted with light and solid lines.

UNDERDRAINS

Underdrains are installed for a number of purposes, most of which may be included in the following classifications:

1. Control of seepage in cuts or side hill location.
2. Lowering of ground-water table.
3. Base, subbase and subgrade drainage.

(See Chapter 9 of VDOT [Drainage Manual](#) for more information on underdrains).

Underdrains (UD's Only) are to be shown on all typical sections.

St'd. UD-1 Underdrains are to be shown on the plans at locations prescribed in the soil investigation report from the Materials Division. The underdrains are to be depicted similar to pipe culverts and located generally parallel to the roadway as shown in VDOT's [Road and Bridge Standards](#).

* Rev. 7/18