

4. CROSS SECTION ELEMENTS

Practices and Procedures

4-1 ROADWAY SECTION

4-1.01 Travel Lanes

Widths

See EI C1 - Lane Width and Shoulder Width.

Cross Slopes

See EI C4 – Cross Slopes.

Pavement Design

See 8-2 Structural Pavement Design in Pavement Design

4-1.02 Shoulders and Curb Offsets

Widths

See EI C1 - Lane Width and Shoulder Width.

Transitions

Use 50 feet of length for every 2 foot width of transition. For transitions of paved shoulders to gravel shoulders, transition from full width to 2 feet.

Surface Type

See [Maine Department of Transportation Shoulder Surface Type Policy](#).

Cross Slopes

See both EI C4 – Cross Slopes and Design Guidance – High Side Shoulder Rollover.

Pavement Design

See 8-2.02 Shoulder HMA Thickness in Pavement Design

4-1.03 Auxiliary Lanes

Widths

See EI C1 - Lane Width and Shoulder Width.

Cross Slopes

Reference Section 4.2.2 Cross Slope in the *AASHTO Green Book*.

Transition Lengths

See 5-5 Auxillary Lanes in Intersections and Interchanges.

4-1.04 On-Street Parking

See Design Guidance – On and Off-Street Parking.

4-1.05 Curbs

See Design Guidance – Curb Type and Mold Usage.

4-1.06 Sidewalks *Updated 10/24/2023*

Width

Standard sidewalk width will be 5 feet, exclusive of the curb width. Where utilities and other appurtenances are present, a width of 4 feet is acceptable, exclusive of curb width. Where widths of less than 5 feet are used, 5 foot by 5 foot passing spaces must be provided at least every 200 feet. Entrances may be used as passing spaces.

Preferably, any roadside appurtenances (e.g. utility poles, traffic signs, fire hydrants) will be placed behind the sidewalk. In highly urbanized areas (central business districts), sidewalks are often paved from the back of the curb to the front edge of the building.

Cross Slope

Standard sidewalk cross slopes will be a 1.5%. This allows for a 0.5% construction tolerance. The maximum acceptable sidewalk cross slope will be 2.0%. Typically, sidewalk cross slopes are sloped towards the roadway for drainage purposes.

Curb Ramps

See Design Guidance - Minimum ADA Requirements for Pedestrian Facilities.

4-2 MEDIANS

4-2.01 Width

Reference Section 4.11 Medians in the *AASHTO Green Book*.

4-2.02 Type

See Design Guidance – Medians and Islands.

4-3 ROADSIDE ELEMENTS

For information on fill slopes, earth cuts and rock cuts see Design Guidance – Sideslopes and Backslopes.

Clearing of wooded areas is generally necessary beyond slope limits. Clearing limit lines (CLL) should be established 10 feet from the slope limit line in wooded areas. At sensitive locations, this offset may be reduced to minimize impacts. Clearing limit lines shall be established 15 feet from the slope limit line on Interstate Highways.

4-4 TYPICAL SECTIONS

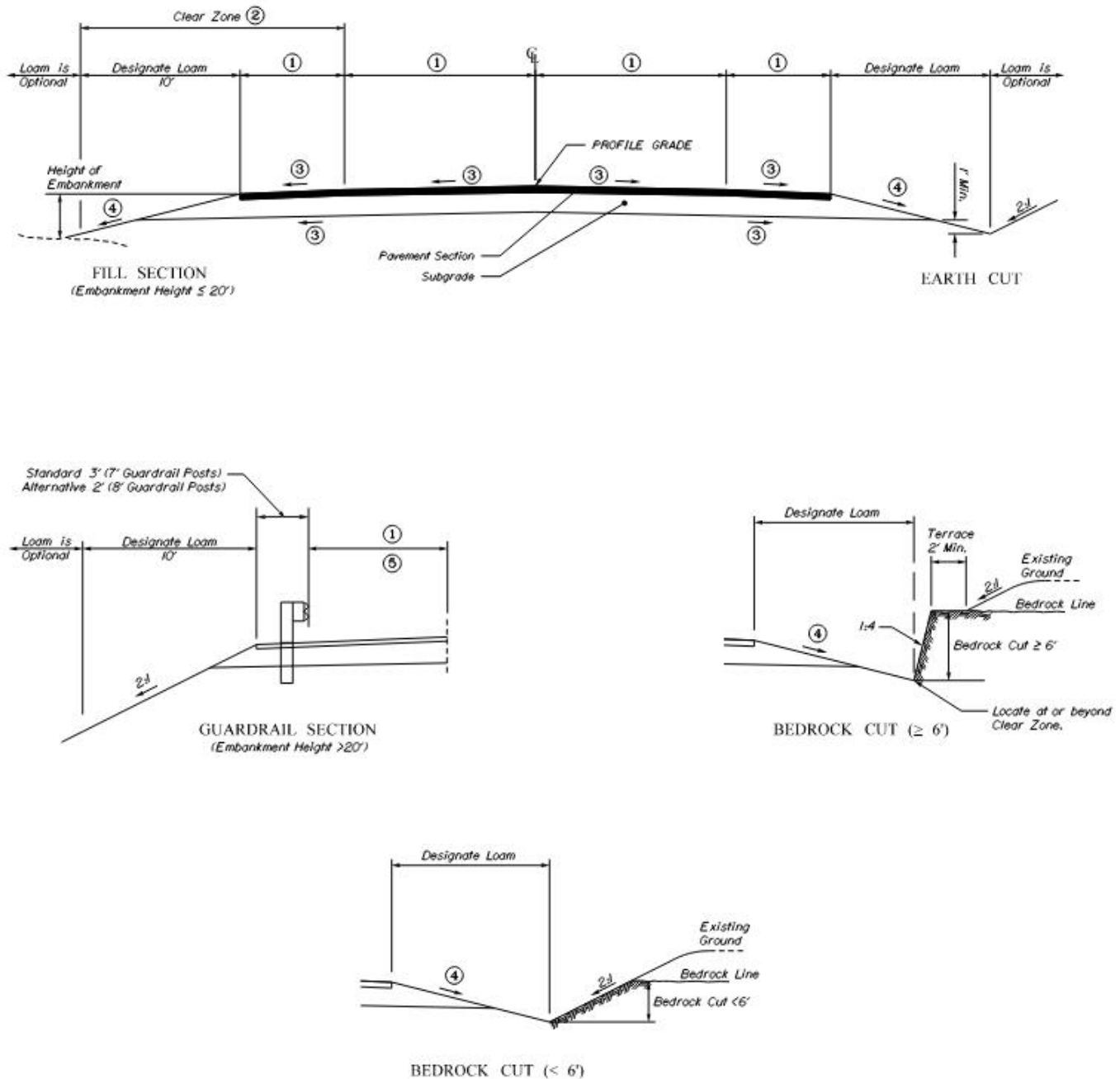
The following figures present typical sections which will apply to all new construction and reconstruction projects. The typical section figures are:

Figure 4-1 Typical Two Lane Uncurbed Highway

Figure 4-2 Typical Two Lane Curbed Highway

Figure 4-3 Typical Median/Island Section

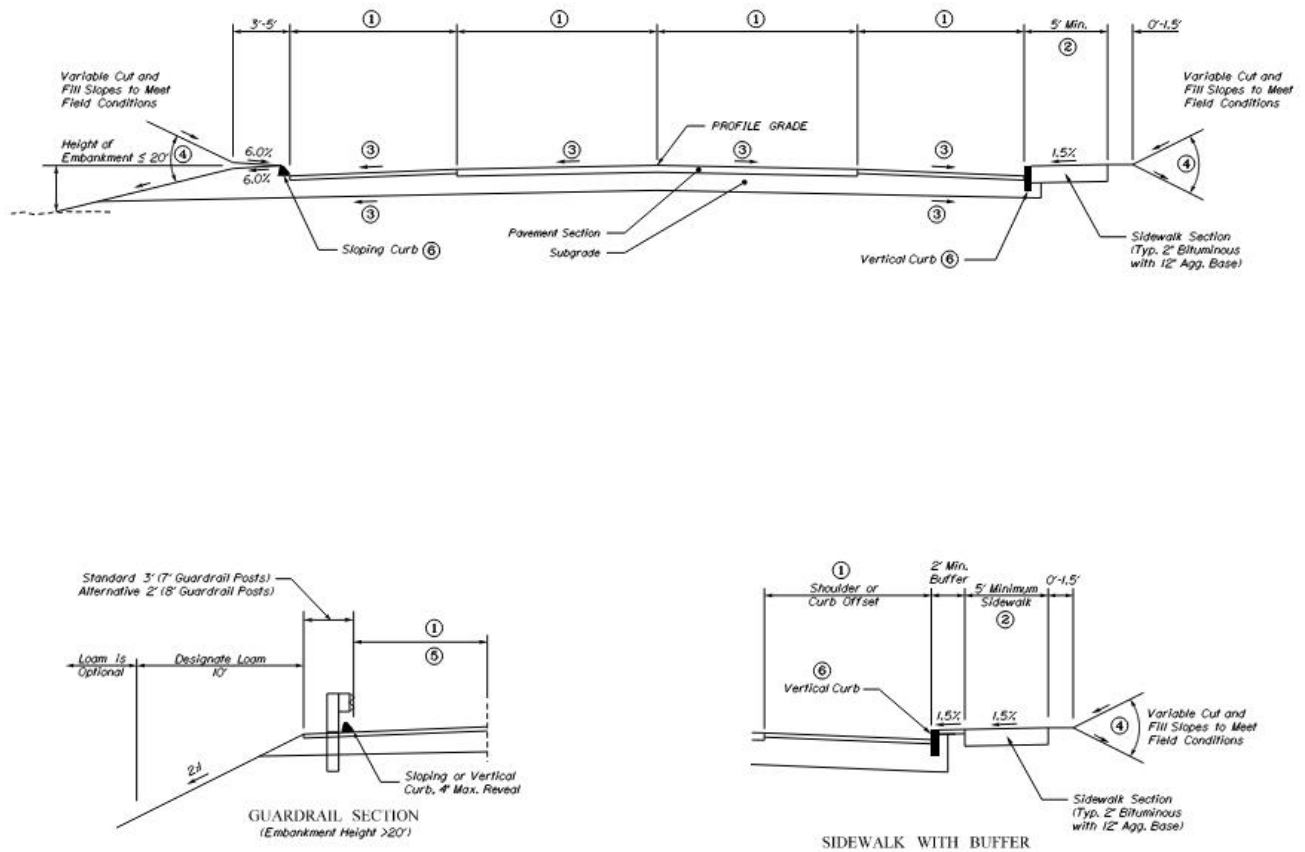
TYPICAL TWO-LANE UNCURBED HIGHWAY
FIGURE 1



1. Lane Width and Shoulder Width will be determined based on EI C1 – Lane and Shoulder Width.
2. Clear Zone is measured from the edge of travelway or lane. Width will be determined based on EI C2 – Clear Zone.
3. Cross Slope for lanes and shoulders will be determined based on EI C4 – Cross Slope.
4. Sideslopes and backslopes will be determined based on DG – Sideslopes and Backslopes.
5. Offset to face of guardrail should be 16 feet from the centerline, especially if there is curb or guardrail on the opposite side of the road.

TYPICAL TWO-LANE CURBED HIGHWAY

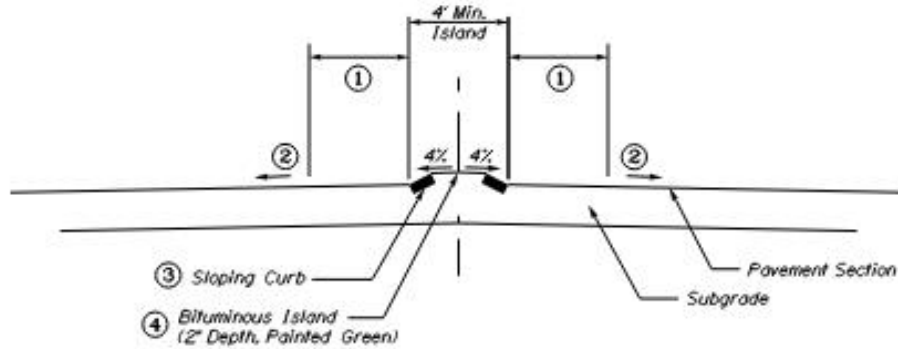
FIGURE 2



1. Lane Width and Shoulder Width will be determined based on EI C1 – Lane and Shoulder Width.
2. Standard sidewalk width will be 5 feet, exclusive of curb width. Where utilities or other appurtenances are present, a width of 4 feet is acceptable, exclusive of curb width.
3. Cross Slope for lanes and shoulders will be determined based on EI C4 – Cross Slope.
4. Sideslopes and backslopes will be determined based on DG – Sideslopes and Backslopes.
5. Offset to face of guardrail should be 16 feet from the centerline, especially if there is curb or guardrail on the opposite side of the road.
6. Curb type and shape will be determined based on DG – Curb Type and Mold Usage.

TYPICAL MEDIAN/ISLAND SECTION

FIGURE 3



1. Desirable curb offset is two feet. Where no catch basin grates are present, a one-foot offset may be used.
2. For islands on the outside of the travelway, or in superelevated sections, cross slope may be toward the island. Drainage needs must be considered.
3. Curb type and shape will be determined based on DG – Curb Type and Mold Usage.
4. Flush medians or islands may also be used in some situations. Median or island type will be determined based on DG – Medians and Islands.