

TURNPIKE PLANS PREPARATION AND PRACTICES HANDBOOK (TPPPH)

VOLUME I



**FLORIDA'S TURNPIKE ENTERPRISE
PRODUCTION DESIGN DEPARTMENT**

OCOEE, FL

~~JULY 1~~OCTOBER 18, 2013 EDITION, Addendum #2

The minimum thickness of structural asphalt on shoulders where ground-in rumbles strips are to be used is 1.5 inches. On existing shoulders without rumble strips that call for new rumble strips to be placed, the minimum thickness of existing structural asphalt and proposed asphalt shall be no less than 1.5 inches.

Add the following section

2.3.4 Shoulder Rocking

Cross slope for full width shoulders in a tangent section may be varied from ~~three-3% percent~~ to a maximum of 6~~-percent%~~. A minimum longitudinal gutter grade of 0.24% ~~-percent~~ shall be met. The minimum distance between the low point and high point is 100 feet. This criterion applies to sections of the mainline where the profile grade line will require varying the inside or outside shoulder slope as a means of maintaining minimum spread criteria.

For the outside shoulder the Turnpike will allow one of three types of treatment in areas where the outside shoulder slope must be varied in order to meet minimum spread criteria. These options are shown in order of preference. Options 1 and 2 must be shown as not feasible or workable before Option 3 can be considered.

1. Use concrete barrier wall with inlets. If the shoulder slope must be varied then the above criteria for varying the shoulder slope and longitudinal gutter grade must be met. Design shall include provisions to assure that the reveal of the concrete barrier is not compromised.
2. Use guardrail with shoulder gutter and inlets to collect storm water. If the shoulder slope must be varied then the above criteria for varying the shoulder slope and longitudinal gutter grade must be met.
3. Use guardrail in conjunction with a permanent ~~erosion~~turf reinforcement mat in fill sections with a front slope steeper than 1:4 and embankment height less than or equal to 10 feet. Storm water will be allowed to flow over the shoulder and the miscellaneous asphalt onto the sodded front slope. Shear stress calculations will be required for the design/selection of the permanent turf reinforcement mat.

2.4 Roadside Slopes

Add the following paragraphs

Though a 1:4 front slope rate can be applied without restrictions per PPM Chapter 4, a 1:6 rate to the edge of a clear zone is required on widening and reconstruction projects. In addition, a 1:2 front slope rate with guardrail can be applied regardless of fill height when constrained conditions exist, which requires justification via an approved technical memorandum and coordination / concurrence with FTE Maintenance and FTE Drainage.

Sufficient space from face of guardrail to the beginning of the 1:2 slope shall be provided on all guardrail and 1:2 slope applications to allow for a 4 feet guardrail deflection. If a concrete barrier is used instead of guardrail and shoulder gutter, then a 4 feet wide level bench shall be constructed within the fill behind the barrier before proceeding with a 1:2 slope.