

# TRANSMITTAL

TO: Tom Pridgen

RE: Updates for Website

FROM: Mike Davis

**Type of Update:**

New Criteria

Addendum

Lessons Learned

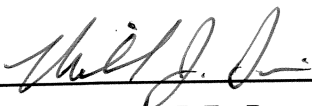
DATE: December 27, 2004

I am sending you  Attached  
 Under Separate Cover  
 Included

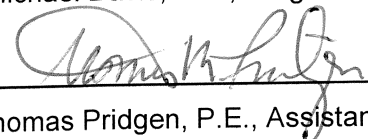
The following item(s) are for review and concurrence:

COPIES	DATE	No. of Sheets	DESCRIPTION
1	12/27	2	Temporary Drainage Lessons Learned

**REMARKS:** The attached document should serve as a lessons learned for calculating and including temporary drainage in design plans.

Concurrence:   
Michael Davis, P.E., Program Manager

12/27/04  
Date

Concurrence:   
Thomas Pridgen, P.E., Assistant Turnpike Design Engineer

01/04/05  
Date

## Temporary Drainage Analysis

The analysis of the traffic control plans to determine the required temporary drainage items is required as part of a roadway design. It is important to do this analysis as soon as possible because the analysis may reveal a needed change to the MOT. The temporary drainage analysis is required as part of the drainage documentation and temporary drainage structures are required in the traffic control plans.

An often missed area of temporary drainage is the Turnpike standard minimum allowed 2 foot shoulder width used next to temporary barrier wall. Since design speeds are not reduced during MOT, no spread is allowed on the travel lanes and must be confined to the 2 foot shoulder width. As you know, spread is sensitive to longitudinal slope, cross slope, and the amount of contributory pavement. Also keep in mind that the amount of flow through the temporary barrier wall slots is limited to the cross slope and allowable spread width which many times does not afford full flow through the slot. It is important to calculate actual spread to determine whether wider shoulders will be needed during MOT.

Another missed area of temporary drainage involves construction of a new elevated roadway next to the lower existing roadway. Runoff of the lower roadway will many times drain to the elevated section with nowhere to outfall. Spread and positive outfall should be carefully designed.

Any ditches that are in close proximity to a travel lane need to be checked for not only the 2 year storm, but also for 4 inches per hour (whichever is greater) to ensure water remains off of the travel lane.