

DRAINAGE

Ponds Adjacent to Limited Access Right-of-Way

Due to environmental permit requirements, an existing retention pond was expanded during design. The outside berm of the pond was narrowed to less than the standard 15-foot width and moved very close to the limited access right-of-way. The pond berm was constructed in the location of a shallow existing swale that conveyed runoff from Turnpike Right-of-Way and from an adjacent property. After heavy rains, water seeping through the berm, as well as water flowing from the adjacent property caused some localized flooding. To alleviate the seepage, a design revision was prepared to provide underdrain along the outside of the pond berm adjacent to Turnpike Right-of-Way.

The revised design showed the underdrain to be built on the outer slope of the berm very close to the Right-of-Way. Yet, the plans revision failed to show the existing right-of-way fence encroaching up to two-feet within the Turnpike Limited Access Right-of-Way. Further, there was no pay item in the original plans to relocate the fence. These conditions made for inefficient and difficult construction that resulted in high premium costs.

Lesson Learned: The effect of ponds on adjacent property must be carefully analyzed during design. Any off-site runoff to Turnpike Right-of-Way must continue to be conveyed. If well-draining, granular materials are required to be used for the pond construction, verify that this will not cause seepage from the pond through the berm.

Proposed construction near a right-of-way fence must account for the specific location of the fence inside the right-of-way. Also, close coordination may be needed with the Turnpike Maintenance unit to ensure that the pond berm width is adequate for the use of mowers and other necessary maintenance equipment.