

1250801 EXCAVATION FOR STRUCTURES AND PIPE  
COMMENTS FROM INTERNAL/INDUSTRY REVIEW

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David Sadler  
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Comments: (5-10-13)

Concern is what about when the fill material over the pipe is less than 4 feet? That is the reason for the statement that is in the spec now. Refer to tables in Design Standard 205 to see that there can be significantly less than 4 feet of fill over a pipe (depending on the pipe type).

Response: The AASHTO construction specifications for pipe state that if construction loads are going to be placed on shallow pipes that a ramp be constructed over them to a height of 3 ft for concrete and 2-4ft for flexible pipes, depending on axle loads of vehicles. Larry and I thought sticking with one height would be easier. The 4ft height only applies if the contractor plans to drive over area.

The concerns stems from shallower pipes due to new LRFD calculations. I have copies of the specifications and the LRFD changes if you would like to discuss.

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Charles Boyd/Steve Nolan  
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Comments: (5-15-13)

What if the total depth of fill is less than 4'? I guess the contractor will have to mound fill over the top temporarily?

Response:

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Paul Harkins  
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Comments: (5-21-13)

This change is long overdue. Thanks. However, when you have shallow installations (side drains, primarily) are you proposing that the Contractor bridge the pipe (add dirt to gain the 4 foot of cover) until the likelihood of heavy equipment passing over it removed? Again, I like the change.

Response:

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D3 Staff  
850-330-1592  
Comments: (6-6-13)

1. What is the definition of heavy equipment? Should heavy equipment be defined?

Response:

2. How will Standard Index 205 be affected by removing “the finished earthwork grade or to” from Specification 125-8.1.3? Not all culvert or storm sewer pipe will have 4 feet of backfill, but they should be constructed with the minimum cover per the Standard Index, which takes into account the size and type of culvert.

Response:

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Doug Holdener  
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Comments: (6-10-13)

Regarding proposed change 1250801 and the height of fill during construction over pipe....the concept of considering construction loads is a good one. I am not sure how it will be avoidable to restrict embankment and pavement construction from passing over pipe unless there is 4 feet of fill. Many instalations are less than 4 feet from pipe crown to finished grade. If needed, perhaps FDOT would consider a discussion with contractors, pipe producers, and engineers to look at what type of construction vehicles / loads are present during various construction phases as a first step.

Response:

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Neil Monkman  
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Comments: (6-19-13)

I am emailing you in case there is something that I am missing. There is a proposed revision that will not allow any heavy equipment to cross culvert pipes unless there is 4' of cover. What would a contractor do if there is a pipe that only had and requires (per the plans) 30" of cover or 36"?

They could mound the material up during construction, but at some point during fine grading and paving you will have heavy equipment crossing over that culvert, would you not?

Like I said, maybe I am missing something. Is it the definition of heavy equipment? Maybe there should be a maximum allowable single axle weight listed.

Response:

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