



MEMBER BEST PRACTICES



POROUS FRICTION COURSE TIPS AND TECHNIQUES

As we all know, the mission of a porous friction course (PFC) is to remove water from the roadway surface, and then transport it unimpeded through the mix to the edge of the pavement where it can be discharged. Below are a few suggestions to help ensure your PFC surface functions as intended.

SHARED BY: DARREN W. POE, P.E., TEXAS CEI DEPUTY PROGRAM MANAGER – LOCHNER

SURFACE PREPARATION AND WATERPROOFING

Surface preparation is more important for PFC than most mixes. A smooth constant slope is desirable and any existing pavement failures need to be addressed prior to laying. Any rutting also needs to be repaired before laying since those areas will trap water. Laying PFC over ruts causes issues when the PFC needs to be removed and replaced in the future. You don't want to deal with leftover PFC scabs after the removal operation. (More to come on that in a bit.)

Also, if milling is required, paying slightly more to micromill in lieu of regular milling will help ensure a smoother surface.

We also need to make sure we waterproof the layer directly below the PFC. There are different ways to waterproof, but I generally prefer a seal coat, if practical. It is reassuring to be able to see the consistent, waterproofed layer below the PFC.

Areas of the State also have had success laying PFC with a spray paver and membrane under seal. We successfully used a spray paver on a PFC project last summer. That particular project had a micromill followed by an under seal and then the PFC set up. However, during the milling operation, we discovered we were leaving scabs of the old PFC,

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P.O. Box 1468
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even though we constantly adjusted the milling depth. Since shooting an under seal on top of a porous surface on IH 35 didn't sound like it would end well, the decision was made to use a spray paver instead. To date, that mix has performed successfully, and I wouldn't hesitate to do the same thing again in the future.

MAINTAINING A GOOD OUTFALL

I can't stress enough the importance of maintaining a good outfall for the PFC. Backfilling pavement edges on a PFC project can impede water flow. You should always mill "to daylight", if possible, so the water will have free flow to the pavement edge. Avoid tying into other types of mixes on the downstream edge, even old PFC since it likely won't drain as well as your new PFC.

Tying into mow-strip under metal beam guard fence can also impede PFC drainage. I've seen plans for new mow-strip that called for notches to be placed periodically in the mow-strip for drainage purposes. In my opinion, forcing the water to find a way out is inefficient. A better option would be to install the new mow-strip low enough so the PFC can drain over the top. It goes without saying, this needs to be planned out when setting the height of the guard fence.

PFC is a great mix for improving the safety of roadways, especially during rainy weather. Hopefully, by following some of the suggestions above, we can ensure that future PFC surfaces function as intended.

PFC IS A GREAT MIX FOR IMPROVING THE SAFETY OF ROADWAYS, ESPECIALLY DURING RAINY WEATHER.

ABOUT MEMBER BEST PRACTICES

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