

## **WATER WORKS**

FAST TRACK HYDRODEMOLITION

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YOU BUILD A BRIDGE FROM THE GROUND UP, BUT YOU HAVE TO MAINTAIN IT FROM THE TOP DOWN.

## For Rapid Bridge Deck Rehab, "Fast Track" It

## By: Patrick Martens, PE

Hydrodemolition technology has been around for many years. It is a great way to get jackhammers off of bridge decks in order to perform more efficient and higher quality deck repairs, and it has evolved into a superior process for surface preparation ahead of dense concrete overlay installations. But the technology has ramped up even further in that now there is the capability for even quicker repairs through what is referred to as Fast Track Hydrodemolition.



Fast Track Hydrodemolition is a process by which a self-propelled, programmable robot, with a calibrated waterjet, selectively removes concrete. This is done through a single pass of the waterjet. In doing so, not only does it 'selectively remove' all weakened or deteriorated concrete, but it also provides a very roughened and bondable surface for a dense latex modified concrete (LMC) overlay to be monolithically placed.

The robot is run over the entire top surface area of the deck. No prior sounding of the deck is required. The robot will seek out and find all the bad concrete. Silica dust is eliminated. The



Fast Track Hydro provides a selective removal of deficient concrete only.

detrimental effect of jackhammers is eliminated. Production is maximized.

One of the real keys to the Fast Track process, when combined with LMC, is that the requirement to gain rebar clearance around reinforcing steel that is more than 50% exposed, can be waived, as long as the concrete is sound and the reinforcing steel bond with concrete is not damaged.

LMC was specifically designed as an overlay for bridges. It can be placed as thin as  $1 \frac{1}{2}$ " in nominal thickness and provides a very dense and impermeable barrier.

For many years, and still in a number of states, specifications call for a "deep cut" of hydrodemolition to get under the top mat of steel. With conventional portland cement concrete mixes, that is a necessary approach. You need depth and you need the grab to the reinforcing steel.

When using LMC, however, the latex industry has endorsed the waiving of the rebar requirements when Fast Track Hydrodemolition surface preparation is used. This is due to the mechanical grip that hydrodemolition gives, and the chemical adhesion that is achieved with the LMC.

And, why take out all the sound concrete that is remaining, just to get the clearance, if you do not have to? Only the deteriorated concrete needs to come out! That is why Fast Tracking makes sense.

This is a big advantage for motorists, too, as now contractors have the ability to get in and out much faster on jobs. Shorter work zone times mean less exposure time of workers in traffic, less traffic jams and potential work zone accidents, and, the big one – cost savings to the owner! Who does not want to save money and maximize the budget?

There is no sacrifice in quality either. The longevity of this type of repair has proven (or projects out) to get in excess of 25 years, as seen in states that have been using this process for many years.

It is really a "no brainer." Break your paradigms about concrete repair processes. Step into Fast Track Hydrodemolition to expedite your projects, and stretch your valuable



Typical completed Fast Track job.

dollars to fix more bridge decks. For more information on the Fast Track Hydrodemolition process, contact Pat Martens at 636-441-1376 or patrickmartens161@gmail.com.



324 Timber Creek Drive Jefferson City, MO 65109