

BRIDGE PRESERVATION & INSPECTION SERVICES



WATER WORKS "Fast Track" Hydrodemolition

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

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MoDOT Asset Management Includes "Fast Track" Hydro for Preserving Bridge Decks

By: Patrick Martens, PE

Asset management is popular among state agencies as they look to stretch their funds. A deck preservation process called "Fast Track" Hydrodemolition is a powerful tool in the arsenal to help states, such as Missouri, get the most out of their bridge decks.

Total surface "Fast Track" Hydrodemolition is a robotic process that utilizes high pressure water over the entire surface of a bridge deck prior to placement of a latex modified concrete (LMC) overlay system. The hydrodemolition robot *selectively removes* all the unsound concrete from the deck, and results in a very roughened and bondable surface, that is free of any delaminations and microfractures. The monolithic LMC overlay is then applied to shield the deck from further intrusion of chlorides, and providing upwards of a 25+ year service life wearing surface.

Just in the last five years, MoDOT has used "Fast Track" to prepare approximately 120,000 square yards of concrete deck surface, and already, another 28,500 square yards is slated for work in early 2018, with more to come!

Owners across the country are seeing the advantages of "Fast Track" Hydrodemolition

to expedite projects, and get extended preservation of their bridge decks. Some of the advantages of the process include:

- *Greater Surface Area for Bonding LMC – more than 300% more bondable surface area than what traditional roto-milling provides.

- *No need to chip under rebars! When combined with LMC, the requirement to gain clearance under the reinforcing bars can be waived.

- *Process does not produce silica dust, as traditional jackhammering, complying with OSHA exposure levels.

- *Exceptional production rates, compared to jackhammering. This also means less work zone closure time and a quicker turn around time for the project.

- *Controlled costs – "Fast Track" Hydrodemolition is bid as a square yard unit of measure (known deck area). The owner is protected from costly overruns that conventional jackhammering methods can lead to.

For a free seminar contact Pat Martens at patrickmartens161@gmail.com. Or, call at 636-441-1376.



"Fast Track" Hydrodemolition Surface Preparation on the Warsaw Bridge, on Route 7, in Henry County, in 2017. This included 4227 square yards of surface preparation and LMC overlay.

Amount of "Fast Track" Hydro in Missouri since 2013

DISTRICT	Fast Track Hydro (SY)
NW	2136
NE	2171
KC	0
Central	19627
St. Louis	99609
SW	23170
SE	1266
Total	147979