IDOT Deck Preservation Trends Upward

By: Patrick Martens, PE

Illinois has been a leader in the use of hydrodemolition technology on bridge decks for many years. All dense concrete overlays that are constructed are based on the Illinois DOT job special provision for the installation of Latex Modified Concrete or Microsilica Concrete overlays, as specified. Illinois has been requiring hydrodemolition surface preparation as the final means of treatment for close to 20 years now. This insures a quality surface for bonding of the overlay, including selective removal of all deteriorated or weakened concrete.

Since 2014, IDOT has seen a continual increase in the amount of bridge deck rehab type work, as evidenced by the amount of hydrodemolition work let (figure 1). Last year was a banner year in Illinois, with 68,459 square yards (SY) of work awarded on just IDOT let projects. That does not even include large jobs that the Illinois Tollway is doing and has done in recent years. Based on data this year it is looking like another big year in Illinois with over 39,000 SY of rehab area let on projects just through April of this year, on IDOT lettings.

The Schaumburg District (D1) is leading the way. Since 2013, District 1 has done 26% of the hydrodemolition work in the state with 81,391 SY (figure 2). The Springfield District (D6) is second in total square yardage during the same period at 56,788 SY. The Dixon District (D3) is hard charging though at 45,285 SY, with the bulk of that (33,252 SY) coming in just the last 28 months.

Most of the overlays in the northern part of the state (districts 1 thru 5) tend to be Latex Modified Concrete overlays, while southern Illinois usually specifies MicrosilicaConcrete or other cementitious type overlays. Since 2015, approximately two-thirds of the installation volume has been Latex Modified Concrete in Illinois. The combination of hydrodemolition and Latex Modified Concrete gives the most effective and longest lasting deck protection, based on history of the products. Latex Modified Concrete can provide beyond 25 years of extended service life on a properly prepared deck surface using hydrodemolition.

For more information on how to preserve your structures with the fast track method of hydrodemolition and latex modified concrete, contact Pat Martens at 636-441-1376, or pmartens@bridgepreservation.net.
Ask about a lunch and learn!