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ENCASEMENT OF LBP-COATED, RUSTY STEEL BEAMS in TUNNEL at UNION STATION Denver, CO

01-5

Challenge: An idle passenger tunnel was to be renovated for use in conjunction with the installation of new tracks for the Denver Rapid Transit System. The beams in the roof of the tunnel, over which the new rails will pass, were covered with loose, flaking Lead-Based Paint and a considerable amount of rust. Sandblasting followed by re-painting was rejected because of the costs associated with disturbing LBP.

Solution: The solution chosen was encasement, where a surface-stabilizing primer, followed by an encapsulant top coat is employed. The first step consisted of removal of only the very loose, flaking paint by power washing. Bolt holes were repaired with a non-shrinking grout, following which the beams were brush washed with a solution of 4% Chlor*Rid Soluble Salt Remover in water. Corrosion-Inhibiting primer, SE-110-CI, was then spray applied over all of the exposed surfaces in one day, application rate was 10-12 wet mils. On the following day, pigmented SE-120 topcoat was spray applied to the same thickness. This provides a tough, long-lasting, flexible protective barrier that prevents against the release of LBP and provides protection against future corrosion, and will not crack, chip or peel. *The use of encasement vs. removal saved over 50% of the total cost of abatement.*

