

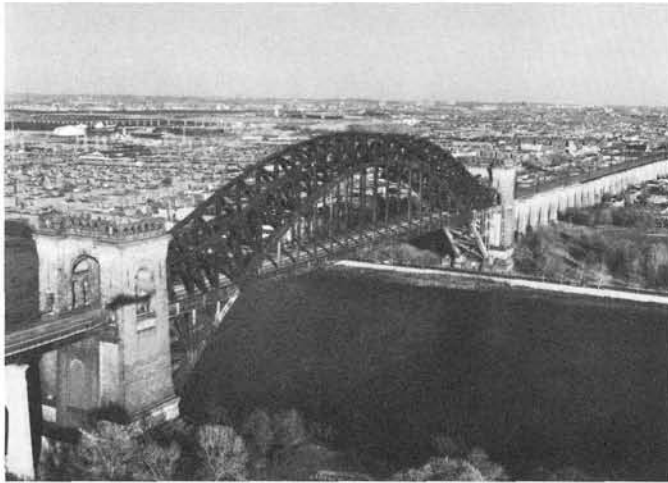
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SURVEYING THE NORTHEAST CORRIDOR



Landmarks of the Northeast Corridor: Hell Gate Crossing and the superannuated Cos Cob Generating Station with the New Haven's Mianus River Bridge. *Jack E. Boucher photographs for HAER.*

Evidence that the U.S. government is taking seriously the logic of attempting to reverse a forty-year trend by diverting passenger travel from automobiles—not to say airplanes—back to railroads is the Northeast Corridor Improvement Program. The simple goal of the NECIP is to upgrade the permanent way, structures, equipment, and operation of the 456 miles of railroad between Washington and Boston to the extent that by 1981 travel time between the two cities routinely and dependably will be 6.3 hours. (Wash.-NY, 2:40; NY-Boston, 3:40.) The time for through trains presently is about nine hours, or, via the high-speed Metroliner for the Washington-NY leg and with an ideal, non-wait connection to the NY-Boston leg, the run now theoretically can be made in about eight.

The project, to cost \$1.75 billion, results from The RR Revitalization & Regulatory Reform Act of 1976, being administered by DOT's Federal RR Admn. FRA has retained DeLeuw Cather/Parsons & Assoc. (DCP), Washington, as project managers. The bulk of the cost will, naturally, be expended on the improvement of the physical plant required to permit operating speeds of 120 mph for much of the route. The most visible element of the work will be electrification of the only stretch of the corridor still without catenary—New Haven to Boston.

The route is a historic one, comprised of many small lines that ultimately were absorbed into the Pennsylvania RR (Wash.-N.Y.C.) and the N.Y., New Haven & Hartford, (N.Y.C. to Boston). The line today is Conrail end to end. The principal elements of the route had been laid down by the 1870s, although the New England section was in operation by the 50s. Not until 1917, however, was there steel solidly between the terminal cities.

The importance of the line from the outset has dictated the fastest possible schedules between all points, resulting in some extraordinarily fancy civil, mechanical, and electrical engineering

over the years. Overlooking the host of notable terminals and stations along the way (Washington Union, Baltimore Union, Philadelphia 30th St., Newark, N.Y.'s late, lamented Pennsylvania, Richardson's New London, and Boston's South stations, to name a few gems), the major water crossings have given rise to a number of impressive bridges in a variety of types and materials; and traffic density and other factors led to two of the most important mainline electrifications in the world. The PRR's desire for a Manhattan terminal launched one of the most ambitious RR improvement projects in the nation's history (1903-10), which included tunneling of the Hudson and East rivers, construction of Penn Station with extensive underground trackage, and a major yard—Sunnyside—in Long Island City. The last major work of RR civil engineering was the connection between the PRR and the New Haven at N.Y., that closed the final gap in through service. The link took the form of the jointly-built N.Y. Connecting RR, running some 16 miles from Sunnyside Yard to the New Haven mainline (which terminated by lease with the N.Y. Central at Grand Central) at New Rochelle. The outstanding feature of this line, which opened in 1917, was Gustav Lindenthal's heroic Hell Gate Bridge—until 1931 the longest RR arch in the world—carrying four tracks over the Hell Gate in the East River at the western end of Long Island Sound.

As notable were the New Haven and PRR electrification projects. The former was the first in N. America for a mainline RR and the pioneer in the use of single-phase, high-voltage (11,000) alternating current for generation, transmission, and on the trolley wire, thus (initially) avoiding the need for substations. The first leg, between Woodlawn, N.Y.—N. of N.Y. City—and Stamford, Conn., went into operation in 1907; the remainder of the line—to New Haven—in 1914. The electrification of the PRR between N.Y.C. and Washington, the initial segments of which were