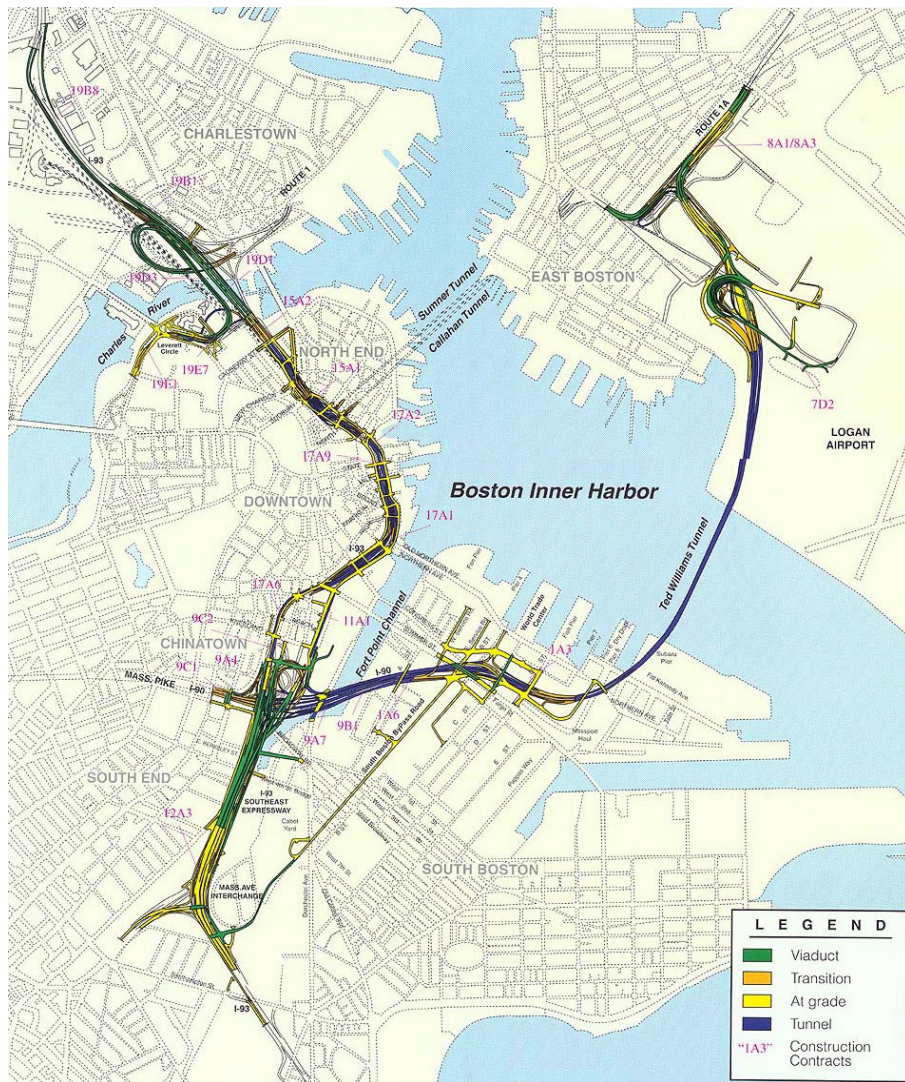


CENTRAL ARTERY/TUNNEL BOSTON, MA



The project spanned 7.8 miles of highway, 161 lanes miles in all, about half in tunnels, and involved replacing the six-lane elevated highway with an eight-to-ten-lane underground expressway directly beneath the existing road, culminating at its northern limit in a 14-lane, [two-bridge crossing](#) of the Charles River. The larger of the two Charles River bridges, a ten-lane cable-stayed hybrid bridge, is the widest ever built and the first to use an asymmetrical design. It has been named the Leonard P. Zakim Bunker Hill Bridge. It also required the extension of I-90 (the Massachusetts Turnpike) from its former terminus south of downtown Boston through a tunnel beneath South Boston and Boston Harbor to Logan Airport. The four-lane [Ted Williams Tunnel](#) under the harbor was finished in December 1995.

The project also included four major highway interchanges to connect the new roadways with the existing regional highway system. At Logan Airport, a new interchange carries traffic between I-90 and Route 1A as well as onto the airport road system. In South Boston, a mostly underground interchange carries traffic between I-90 and the fast-developing waterfront and convention center area. At the northern limit of the project, a new interchange connects I-93 north of the Charles River to the Tobin Bridge, Storrow Drive, and the new underground highway. At the southern end of the underground highway, the interchange between I-90 and I-93 was completely rebuilt on six levels -- two subterranean -- to connect with the underground Central Artery and the Turnpike extension through South Boston. The interchange carries a total of 28 routes, including High Occupancy Vehicle lanes, and channels traffic to and from Logan Airport to the east.

Bay Colony Group, Inc was part of a joint venture that was hired by the CA/T to provide surveying engineering support to the project. The contract involved up to 10 surveying crews at one time as well as the office staff to coordinate the work and to process the data into plans and reports furnished to the CA/T team. The services provided included: horizontal and vertical control surveys; bridge, highway and tunnel construction verification surveys; pre-construction monitoring surveys; deformation and structure movement monitoring surveys, and utilities location surveys. Due to the nature and sensitivity of the area of the survey, entry permits had to be obtained prior to our field work. Permits were required from the Massachusetts Bay Transportation Authority, AMTRAK, the Consolidated Rail Corporation (now CSX), U.S. Federal Reserve, and the Massachusetts Turnpike Authority.