

The Adobe Tower
by Jerry Hall and Loretta Hall

The Interstate System's Initial Challenges

When President Eisenhower signed the Federal-Aid Highway Act of 1956, creating the Interstate System, he wasn't the only one who celebrated. The program enjoyed widespread popular support. But once construction began, consequences evolved and reality set in. The first decade of Interstate construction produced a chain of challenges.

Financial problems surfaced first. The initial authorization of \$27.5 billion quickly proved unrealistic. In 1958, the first of a series of Interstate Cost Estimates required by the 1956 Act raised the projected cost to \$39.9 billion—an astounding 45 percent increase in only two years. To meet this challenge, Congress tapped the existing federal excise tax on automobiles, diverting half of it from the general treasury to the Highway Trust Fund. It also raised the federal gasoline tax by a penny, to four cents a gallon.

The initial timetable for the System's construction proved unrealistic just as quickly. But it wasn't for lack of trying. By the end of 1966, the 23,476 miles that were open to traffic represented more than half of today's Interstate System. During the first decade, construction proceeded at an average rate of 2,130 miles per year. In the following decade, the average rate dropped to 1,470 miles per year. During the third decade, construction dwindled to 350 miles per year.

The first decade's breakneck speed of construction created new challenges. Basic materials such as cement, sand, and steel fell into short supply. State highway departments could not find enough engineers to hire—a problem that opened employment opportunities for women engineers. Testing of structural designs and pavement durability led to rapid developments that engineers had to keep up with. Traditional construction practices could not meet the speed and volume requirements for road building—a problem that led to the invention of new generations of equipment such as excavators and pavers.

As if the financial and technical challenges were not enough, public sentiment shifted as land acquisition, freeway design, and route selection began to hit home. Eisenhower preferred a system that bypassed cities, but a large portion of the general public wanted local access. “Number one [issue] is probably the bypassing problem. Try as we might, we have not been able to halt the loud outcry of the motel, restaurant, and service station people,” said William Willy, president of the Western Association of State Highway Officials (WASHO), in 1958. Willy cited access control as another significant problem, saying, “Here in the West this concept is proving highly unpalatable to our ranchers and farmers, who have long been accustomed to almost totally unrestricted freedom of movement.” He also mentioned instances where the Interstate System was routed through ranches in an alignment that “left the water hole on one side and the grazing land on the other.”

City folks were no easier to please. Routing urban sections created one of the most significant

social challenges of the construction phase. The low property value of blighted neighborhoods made them an economical choice for right-of-way acquisition, but social engineering was also a deliberate motive. Lowell Bridwell wrote in *The Freeway in the City*, published by FHWA in 1968: “Some internal freeways have been deliberately located through the worst slums to help the city in its program of slum clearance and urban renewal. The federal government has greeted the concept with enthusiasm.” The residents of those neighborhoods were not so enthusiastic. Civil protests and lawsuits stopped construction of planned Interstate routes in several cities, including San Francisco, Boston, and Memphis. Freeway construction through low-income Black neighborhoods contributed to racial unrest that erupted in the 1965 Watts riot in Los Angeles and the 1967 Detroit riot, which lasted five days and left 43 people dead and 1189 injured.

Suspicious of corruption further damaged the public perception of Interstate construction. The Special Subcommittee on the Federal-Aid Highway Program, headed by Minnesota Representative John Blatnik, investigated allegations including fraud and land speculation. The committee verified some offenses, but in 1962 Blatnik told WASHO, “The areas in which we have found . . . faults are only a small fraction of the total of this great program.” Still, to ensure the integrity of the program and bolster public confidence, the Bureau of Public Roads (BPR) created an Office of Right-of-Way and Location and an Office of Audit and Investigations to monitor future activities.

In 1962, the year the Blatnik Committee concluded its work, a new challenge sprang forth with the publication of Rachael Carson’s *Silent Spring*. The book, which dealt with the consequences of pesticide pollution, aroused public concern about all aspects of environmental protection. The federal response in terms of highway construction began with administrative directives within the BPR and continued with legislation, including the Federal-Aid Highway Acts of 1966 and 1968. Strategies included protecting fish and wildlife, preserving historic structures, and avoiding or minimizing harm to parks and recreational areas.

In late 1966, retiring FHWA Administrator Rex Whitton addressed the annual meeting of the American Association of State Highway Officials (AASHO, now AASHTO). Looking back on the challenges the program’s first decade, he said, “I have been around long enough . . . to have confidence that our highway program is not frozen by tradition, that it has not only resiliency but also the flexibility needed to respond to any new challenge. And I have confidence that its response, that your response, that the response of the highway engineer, will be more than adequate to what our nation expects and deserves—and that . . . is a lot.”

###

Jerry Hall, a professor of Civil Engineering at the University of New Mexico, has served District 6 as president and international director. Loretta Hall, a member of the Construction Writers Association, is a freelance writer concentrating on engineering and construction. They can be contacted at jerome@unm.edu and lorettahall@constructionwriters.org, respectively.

This is the eleventh in a series of articles tracing the development of the Interstate Highway System.