

Captain Blake versus the Highwaymen: Or, How San Francisco Won the Freeway Revolt

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The San Francisco freeway revolt was not just the first but the longest 1960s protest against superhighway construction in urban areas. Most accounts attribute this to the city's dramatic natural setting, which fostered an early and insistent aesthetic critique. This article identifies the critical condition in not the city but the state. In 1947, the California legislature reoriented its entire highway program from multipurpose roads to limited-access freeways designed to go directly into cities. Resituating the revolt in this context explains not just its precocity but its duration and intensity. What began as a reasonable assertion of local jurisdiction was transformed into a protracted standoff with the state by the vast new funding of the Interstate and Defense Highway Act of 1956. It also reveals how close the city came to losing the revolt, despite the legitimacy of its claims, and identifies a direct impact of this narrow victory on the emerging environmental movement.

Keywords: freeway revolt; San Francisco; interstate highways; environmental movement

The freeway revolts of the 1960s and 1970s overlapped with and reinforced the defining political movements of the postwar era. The roads they targeted were not only singularly destructive of African American neighborhoods but also a striking example of the nation's environmental waste and excess. They also provided a visible metaphor of the unaccountable "machine" that was prosecuting the war in Vietnam.¹ Among the scores of freeway revolts that managed to cancel or reroute the big roads, however, San Francisco's stands out. It was not only the first but also the longest and, in the end, most costly. The price of this revolt was the loss of some \$200 million dollars in federal aid—almost \$1 billion in today's

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dollars.² The most common explanation for this precocity is the city's dramatic setting, said to have inspired aesthetic concerns that no other city shared. This argument is supported by the early emphasis of protesters on the negative impact of freeways on property values as well as the relative absence of class conflict: big business and organized labor remained strong supporters of freeways throughout the revolt, while the opposition appeared concentrated among middle- and upper-income homeowners concerned with the view.³ The larger influence of the San Francisco freeway revolt is said to follow directly there from: what began as narrow parochial concerns were elevated over the course of the revolt into more general concerns for environmental quality and historic preservation that challenged the prevailing assumptions of postwar policy makers. As William Issel puts it, the San Francisco freeway revolt "influenced the creation of a new politics of place that altered the character of American liberalism."⁴

This article shifts the explanatory weight from the distinctive geography and political culture of San Francisco to the institutional context in which the freeway revolt played out. More specifically, it argues that San Francisco was the first city to protest urban freeways within its own duly constituted political institutions because California was the first state to resolve the political conflicts that allowed urban freeways to be built as part of a regular state highway program. In 1947, the California state legislature resolved a longstanding dispute over the distribution of highway funds between urban and rural counties by shifting the entire focus of the state highway program from multipurpose rural roads to limited-access superhighways designed to go directly into the cities. The primary effect of this legislation is that it pointed the way toward resolving a similar conflict over the distribution of highway funds between urban and rural states, which became the Interstate and Defense Highway Act of 1956. Because the central political concern at both the federal and state levels was a *funding* problem, there was little or no rethinking of the effect of new superhighways on the densely built cities toward which they were now aimed. California's precocious resolution of the freeway funding problem also provided the city of San Francisco with a window of opportunity to claim jurisdiction over their location and design. In federalizing the California approach, Congress added new conditions and deadlines that made the possibility of a similar jurisdictional claim by other cities more remote.

The article begins by resituating the San Francisco freeway revolt in this institutional context, highlighting the conditions behind California's path-breaking approach to freeway funding and the political circumstances that enabled the city of San Francisco to wrestle the issue onto its own political turf. It follows with a detailed account of the freeway revolt itself, beginning with the city's failure to produce an alternative plan (1959–1962), followed by the effort of state highway authorities to retake

the initiative (1962–1964), and concluding with the final showdowns of 1965 and 1966 that escalated this city–state conflict to Washington, D.C. Critical in this retelling is the federalized power of state highway authorities and the dogged agency of San Francisco Supervisor William C. Blake, whose grand populist gestures amplified the limited power of the city’s legislative body, drawing the highway engineers onto unfamiliar political turf. The article closes with a brief discussion of the wider impacts of this freeway revolt.

The California Freeway

In October 1945, state highway authorities in California, citing growing congestion on the San Francisco–Oakland Bay Bridge, announced plans for a second bridge right next to the first.⁵ The city of San Francisco, citing huge traffic tie-ups around the existing Bay Bridge, countered with an alternative alignment about two miles south through an aging industrial district. When state highway authorities rejected this alternative, Mayor Elmer Robinson took the city’s case directly to Washington, D.C. In April 1946, he persuaded Congress to authorize a new study to consider the bridge location from a military point of view. The joint Army–Navy Board formed for the task returned the following year with a recommendation against the parallel alignment, arguing that proximity to the existing bridge would increase the vulnerability of both facilities to military attack. The state, however, chose to ignore this report. In February 1949, state highway authorities reannounced plans for a parallel bridge—whereupon the city re-escalated the fight to Washington, D.C.⁶ In hearings before the Senate Armed Services Committee in July 1949, Mayor Robinson cranked up the Cold War to fearsome proportions: “Mr. Senator, can you envision an emergency happening on the San Francisco Peninsula? Can you imagine a million and a half human beings trying to jam themselves, their babies and their baby carriages, their birds and their cats and their dogs . . . trying to force themselves through a bottleneck in conflict with the military trying to get across this bottleneck to do a job of national defense?”⁷ The Senate voted shortly thereafter to deny California the necessary easement over military property to build the parallel bridge.

The significance of this episode is that it introduced the city of San Francisco to the formidable bureaucracy that would soon be in charge of urban freeway construction throughout the United States. What most concerned city observers was the preoccupation of highway authorities with highway capacity and flow to the exclusion of anything we would call “environmental impacts” today. More significant than the aesthetic blight of a second bridge so close to downtown was the traffic impact on downtown

streets. David Jones captures this blind spot in the quip of one city planner: “[But] you can’t dissolve a bottleneck by doubling the size of the bottle.”⁸ Equally troublesome, however, were the layers of agencies, commissions, and legislative committees that shielded the highway engineers from critique. These included: the Department of Public Works, a superagency responsible for all major roads and most bridges; the California Highway Commission, which controlled the location and timing of all new routes; and the powerful Senate Transportation Committee, which secured funding and autonomy for the highway program from the state legislature.⁹

Though perhaps unusual in scope, this “highway machine,” as it became known by its critics, was not unique. Most state highway programs trace their origins to the Federal Aid Highway Act of 1916, which required that the states establish technically oriented highway departments free from legislative interference.¹⁰ In most states the emphasis on apolitical expertise was reinforced by an independent highway commission responsible for the location and timing of all new routes (for politicians, such commissions provided a way to resolve the pervasive inter-jurisdictional competition for funds; for the courts, they provided expert standards by which to adjudicate the many suits brought by property owners in the way). In the 1920s, finally, all states established and dedicated an excise tax on gasoline to their highway programs, effectively tying the funding of roads to their rapidly expanding use. By the late 1920s, states were collecting five times as much in gas tax revenues as they received in federal highway aid.¹¹

The big flaw at the heart of this federalized highway machine right from the start was its rural bias. The same 1916 act established a funding formula that weighted the distribution of federal aid in favor of large rural states and expressly prohibited the use of federal aid for city streets—a ban most legislatures promptly extended to their state highway programs as well.¹² More than just resentment in the cities, however, this rural bias began to produce functional problems as well. In the late 1930s, highway engineers became preoccupied with two unintended consequences of this singular, heavily funded focus on nonurban roads: (1) growing congestion on the outskirts of the cities where adjacent property owners had turned once free-flowing traffic into “ribbon cities” and (2) rising accident rates in the countryside where long distance truckers competed with tractors and tourists for a narrow right-of-way.¹³ Grand visions notwithstanding, the first proposals for limited-access, high-speed superhighways were prompted by the very practical need for a technical solution to this functional mess. The famous 1939 report of the federal Bureau of Public Roads, which provided the original blueprint for an interstate system, justified superhighways as a necessary “third tier” of a national highway system designed to speed traffic past the ribbon cities and remove the most dangerous through traffic from rural roads.¹⁴ Congress, however, initially refused to provide more than token funding for this plan because of its exorbitant cost, leaving the bulk of the job to the states.

Beginning in the late 1930s and picking up steam after the war, states across the Northeast overcame the funding problem by assigning public authorities the right to finance the construction of superhighways through the collection of tolls.¹⁵ This set off a rancorous debate over the fate of the federal highway program as a whole. Rural states, at a disadvantage for the first time, insisted on maintaining the old federal aid formula, citing their even greater needs in a superhighway era (they did not have sufficient traffic for toll roads). Urban states rejected any increase in federal highway aid because they now had a viable way out: by the early 1950s, bond issues for new toll roads had begun to exceed regular federal highway aid.¹⁶

In the Collier-Burns Act of 1947, the State of California found a way to fund the construction of superhighways as part of its regular highway program *without* resort to tolls: it reoriented the entire state highway program from multipurpose rural roads to limited-access superhighways and extended them directly *into* the cities. The fiscal rationale was simple. Though construction costs were far higher in the cities, so were the "returns," as measured against the dominant source of state highway funds: the gas tax. It was the higher traffic in cities, in short, that would fund the programmatic switch. The political rationale—what actually sold the program in the state legislature—was the promise that urban counties would finally get their fair share of state highway funds. The 50 percent increase in the state gas tax, set aside in a special highway trust fund, was calibrated to keep rural counties whole as the formula shifted.¹⁷ In addition to solving a big problem in California, this approach demonstrated a way out of the federal conundrum described above. In 1956, Congress funded the interstate highway system the same way California funded its state freeway system in 1947: it reoriented the entire federal highway program from multipurpose country roads to limited-access superhighways and extended them directly into the cities. Fully 6,000 miles of the 41,000-mile interstate system were mapped in urban areas and funded on a "cost to complete" basis—ensuring, in effect, that urban states would finally get their fair share of federal highway aid. As in California, the switch was funded by a 50 percent increase in the gas tax—in this case, the *federal* gas tax—which was set aside in a special Highway Trust Fund and dedicated to the federal highway program for the first time. Finally, to discourage new toll roads and encourage reluctant states to accept the switch, Congress agreed to pay 90 percent of the cost.¹⁸

The major flaw of this solution to the rural bias of the American highway system was precisely its fiscal logic. The central political issue driving the inclusion of urban highways for the first time was a *funding* problem: how to pay for a superhighway *system*. There were no accompanying design standards or review procedures relevant to their impact on the densely built cities toward which they were now aimed. The only technical rationale for urban freeways outside the fiscal-cum-engineering logic

of increasing highway capacity and traffic flow was the elimination of *blight*, a term that suggests that sizeable portions of America's cities would have to be rebuilt.¹⁹ Reinforcing this oversight was the absence of any formal role for the cities, the level of government with direct jurisdiction over the streets, parks, commercial districts, and neighborhoods in the way. The remarkable increase in funding accrued instead to the same federalized highway bureaucracy whose procedures and prejudices had been honed over two generations of building rural roads. In solving the problem of freeway funding, in short, California also created the basic conditions for the freeway revolt.

On the City's Turf

The specific promise of the Collier-Burns Act of 1947 for San Francisco was a freeway plan to rival Los Angeles. Approved by the San Francisco Planning Commission in 1951, it called for 25 miles of elevated "skyways" crisscrossing the city in a rough grid (see Figure 1). In early 1952, the California Highway Commission voted to expedite construction of the Embarcadero, a short stretch of the new skyway where the parallel bridge had been slated to land. Opposition emerged rapidly with completion of the access ramps in 1953 and spread through 1954 and 1955 to include a wide range of public agencies and civic groups.²⁰ The State Parks Commission threatened to withhold funding for a park around the Ferry Building, which would be shadowed by the new road. The San Francisco Arts Commission and the Planning and Housing Association each proposed alternative designs. On November 22, 1955, the *San Francisco Chronicle* took up the cause with an editorial decrying a similar elevated structure just completed in Seattle. Each suggestion to modify the design or bury the road, however, was dismissed by state highway authorities as too costly, too time-consuming, and/or potentially ineligible for federal aid. And ground was broken in late 1956.²¹

It was state plans for another freeway far from downtown, however, that set off the actual freeway revolt. In April 1956, as the final appeals on the Embarcadero were being heard, William C. Blake, chairman of the Streets Committee of the San Francisco Board of Supervisors, responded to a deluge of complaints from the city's western neighborhoods by holding hearings on state plans for a freeway to connect San Mateo County in the south to the Golden Gate Bridge. On June 11, 1956, his fellow supervisors voted 8–3 to cancel the freeway outright.²² Neither the neighborhood protest nor the authority that Supervisor Blake invoked on its behalf—the power of the city to close city streets—was unique to San Francisco.²³ Nor was there much sympathy for the homeowners' protest downtown, where freeways were considered vital to the city's survival in an automobile age. A

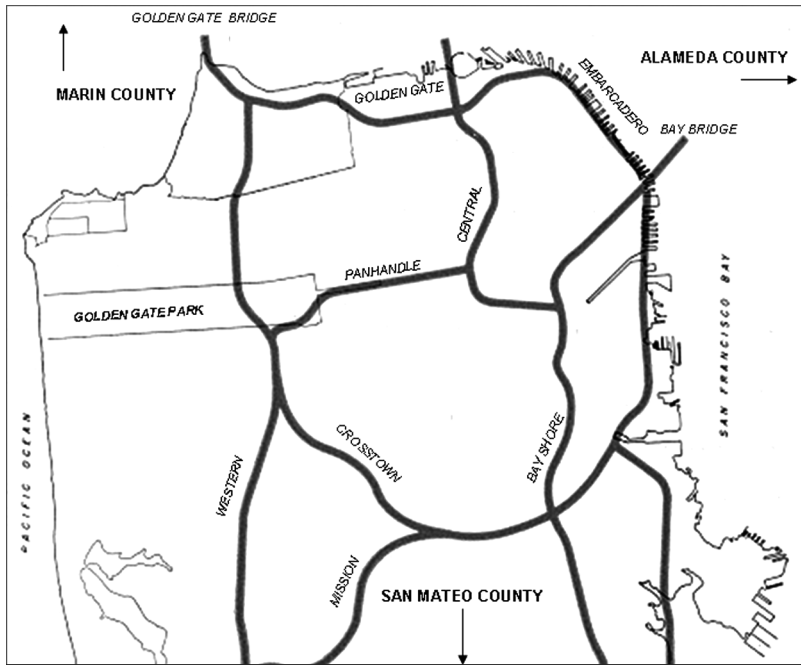


Figure 1: State freeway plan proposed 1958

Source: City of San Francisco, *Trafficways in San Francisco: A Reappraisal* (San Francisco: Departments of City Planning and Public Works, 1960).

Chronicle editorial captured this view with a caption: "Calling Halt is Not the Solution." What *was* unique, however, was the growing irritation of the city's leadership with state highway authorities. The three-year fight against the Embarcadero had followed a four-year fight against the parallel bridge with no discernible easing of their rigid views.²⁴ Though Mayor George Christopher vetoed the supervisors' resolution, he also directed his chief city planner and director of public works to begin their own study of the western route, with an eye toward cutting the loss of homes. Early the next year, the Board of Supervisors further stalled the process by authorizing funds for an independent consultant to study the route.²⁵

Over the next two years as the Embarcadero rose above the bay and the city's consultants retallied the effects of a freeway on the city's western neighborhoods, state highway authorities moved from strength to strength. In June 1956, President Eisenhower signed the Interstate and Defense Highway Act, extending California's funding approach to the nation as a whole. With the new infusion of federal aid, cost was literally no longer an object. State highway spending—already surging from a second major increase in the state gas tax in 1953—grew another 85 percent between 1954 and 1959.²⁶ The state legislature celebrated by directing

the Division of Highways to produce a plan for “the ultimate freeway and expressway system of the entire state.” Completed in 1958, the new plan called for a 12,500-mile system—almost one-third the size of the entire interstate highway system—including all 25 miles of San Francisco’s sky-high plan of 1951.

At the public hearings for the San Francisco portion of the new state freeway plan on January 23, 1959, interrupting an otherwise triumphant march to the legislature for ratification, the San Francisco Board of Supervisors voted to dismember not just the Western Freeway but four other freeways as well, for a total of 18.3 miles, or some three-quarters of the original 1951 plan (see Figure 2). According to the press, the hearings were a “three-hour Roman circus” with Supervisor Blake presiding.²⁷ At a highway conference the following week, State Senator Randolph Collier, chairman of the Senate Transportation Committee and author of the Collier-Burns Act of 1947, denounced the city’s “clownish politicians” for setting up “well qualified men like the engineers of the State highway board . . . as targets in a shooting gallery.” He then proclaimed to a standing ovation of the assembled highway engineers, “I had thought that . . . we had arrived on a plane where the highway problem was no longer handled on a political basis.”²⁸ Downtown erupted in a panic as word came from Sacramento that some \$337 million in federal and state aid was at stake. The unanimous vote of the supervisors, however, precluded a mayoral veto. According to the press, Mayor George Christopher closeted himself with top advisers for two days of “bruising skull sessions,” emerging on January 31, 1959, with the entire city leadership by his side to announce that the City of San Francisco would call another time-out, this time to revisit the *entire* state freeway plan.²⁹

For the next three and a half years, the City of San Francisco managed to keep the freeway issue on its own political turf. Mayor Christopher adopted a two-pronged approach to the city’s review, appointing a citizens’ advisory committee to build consensus and a technical team to produce a new plan. The advisory committee quickly became mired in conflict and was forced to disband in April 1960 after less than a year.³⁰ The technical team trudged on, however, producing a revised plan in November 1960 called the “Reappraisal” that restored only two of the cancelled freeways: a realigned Western and a modified Golden Gate Freeway (see Figure 3).³¹ It also eliminated any pretense that freeways were designed for local traffic: their core purpose, the plan said, was to provide a high-volume, high-speed connection to downtown from the city’s suburbs. The most significant recommendation, however, was that only the Western Freeway be built right away. The Golden Gate Freeway should wait, it said, so as to facilitate plans for downtown redevelopment.

As the Reappraisal Plan wound its way back to Supervisor Blake’s Streets Committee in the spring of 1961, the same western neighborhoods

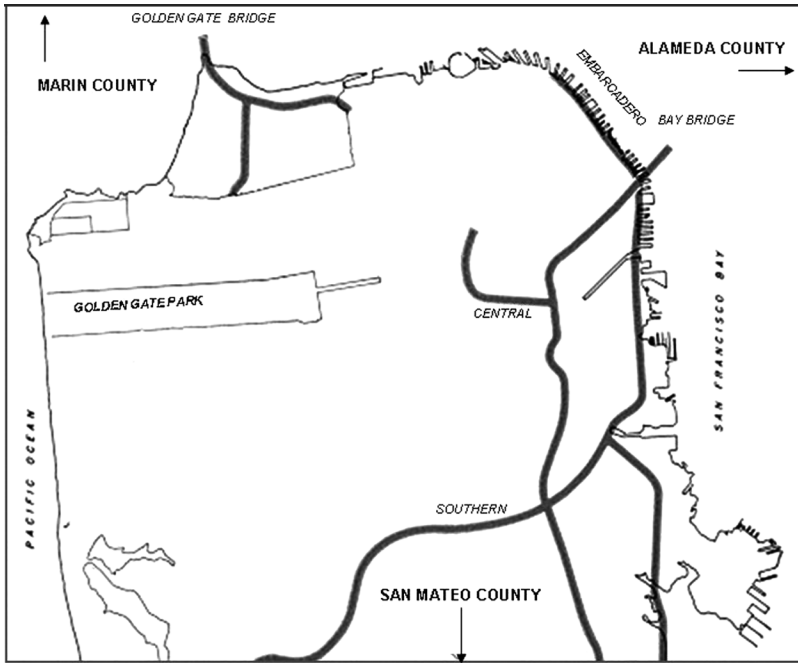


Figure 2: Freeway plan after supervisors' resolution of January 1959

Source: City of San Francisco, *Trafficways in San Francisco: A Reappraisal* (San Francisco: Departments of City Planning and Public Works, 1960).

erupted once again. This time, however, the press was invited to caricature them as narrow minded ("a noisy, unruly set-to . . . [of] doughty ladies and lusty housewives"). An editorial in the *Chronicle* sanctimoniously intoned, "The kind of zeal . . . shown by property owners along the proposed Western Freeway would . . . have saved San Francisco from the infliction in 1956 of the double-decker Embarcadero botch."³² Shortly after the first set of hearings, however, state highway authorities revealed that they, too, were unhappy with the city's Reappraisal Plan. In April 1961, State Senator Randolph Collier emerged from closed-door meetings with the western neighborhoods to announce that the Western Freeway was "dead."³³

Though the easy explanation for Collier's intrusion into the city's formal political process is the arrogance of state highway authorities—two years of local bickering would have confirmed their view that the city was not up to the job—the substance of this intrusion placed it squarely in the dispute that began with the parallel bridge: state highway authorities wanted the Golden Gate Freeway not just for traffic management but also for new bridge landings. Playing into this, of course, was the thought of the stub ends of the Embarcadero hanging there indefinitely: a clear

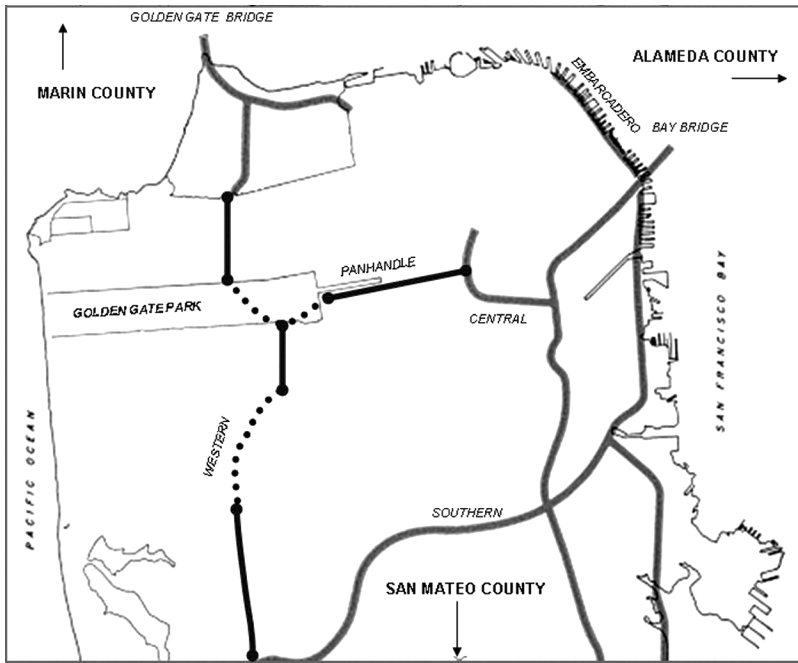


Figure 3: Reappraisal Plan, November 1960

Source: City of San Francisco, *Trafficways in San Francisco: A Reappraisal* (San Francisco: Departments of City Planning and Public Works, 1960).

affront to their institutional pride.³⁴ And initially the strategy seemed to work. On July 10, 1961, Supervisor Blake, brandishing the signatures of some 30,000 freeway opponents, denounced both the Reappraisal Plan *and* its planners for attempting to sell out the city's neighborhoods and secured another unanimous vote of the San Francisco Board of Supervisors against the Western Freeway.³⁵ Collier's big miscalculation, however, was assuming that cancelling the Western would increase pressure to approve the Golden Gate Freeway—now presumably the city's only option. At a widely publicized "peace talk" arranged by Governor Edmund (Pat) Brown in early August, the supervisors indicated that they were in no hurry to let the issue out of their hands. Downtown interests, meanwhile, dug in their heels. The city's chief administrative officer called the Western vote a "serious setback" ("I'm convinced the Western Freeway is necessary . . . we're going to have to have it"). Mayor Christopher persuaded a downtown business association to create a new citizens group to fight *for* the Western Freeway.³⁶ City planners developed a draconian plan of road widenings and sidewalk narrowings through the renegade neighborhoods they claimed would be necessary if the freeway were not built.³⁷

In the end, however, it was the supervisors' willingness to *wait* that proved to be the best strategy of all. In the two years since the city first wrestled the issue onto its turf, the freeway revolt had taken on a momentum of its own. Shortly after the 1959 vote, parks advocates launched a full-scale attack on the highway authorities' power of eminent domain, or their right to take state parkland for freeway routes, prompting a major "scenic highways" initiative from Governor Brown in January 1960.³⁸ As the Western went down to a second defeat in mid-1961, freeway revolts broke out in smaller cities in the Bay Area.³⁹ In the fall of 1961, eminent historian Lewis Mumford took up residence as a visiting scholar at the University of California, Berkeley, from where he regularly denounced Los Angeles as the "nightmare of the future" and praised San Francisco: "The freeway almost ruined San Francisco . . . but it was stopped in time."⁴⁰ In late 1961, the first statewide antifreeway lobby was organized in Sacramento, setting off another rash of freeway protests in the spring of 1962.⁴¹

Of all the gathering effects of the San Francisco freeway revolt, however, the most significant was the revival of plans for a Bay Area Rapid Transit (BART) system. This proposal, which emerged in the late 1940s out of the same Army-Navy Report that sided with the city in the parallel bridge dispute, was originally conceived as an alternative to the state's emphasis on freeways. The effort to translate conception into a viable plan in the 1950s, however, had foundered on the most fundamental difference between the two modes: the utter lack of public funding for mass transit.⁴² As a direct result of the January 1959 freeway revolt, however, BART advocates achieved a critical victory: they secured the surplus toll revenues from the Bay Bridge for the transbay tube, the costly anchor of the proposed system.⁴³ It was the defeat of the Western Freeway in July 1961, however, that brought the big players on board. The real possibility that San Francisco would defeat its entire freeway plan converted key holdouts to the BART campaign, such as Mayor Christopher and the Bay Area Council, a consortium of Bay Area industrialists.⁴⁴

What finally compelled the San Francisco supervisors to request a new freeway plan was the first real acknowledgement by state highway authorities of the city's aesthetic complaints. At a conference organized by San Francisco's Down Town Association in late January 1962, Senator Collier proclaimed, "If one truly beautiful freeway were built in San Francisco . . . the people would find it acceptable." The perfect test, he went on to argue, was the portion of the Western Freeway originally mapped through Panhandle Park: if connected up to the existing Central Freeway, it would provide the long-needed connection between downtown and the Golden Gate Bridge (see Figure 3).⁴⁵ In February 1962, the Highway Division hired a noted landscape architect to scope out the task and set out to convince the Board of Supervisors to approve a new study.⁴⁶

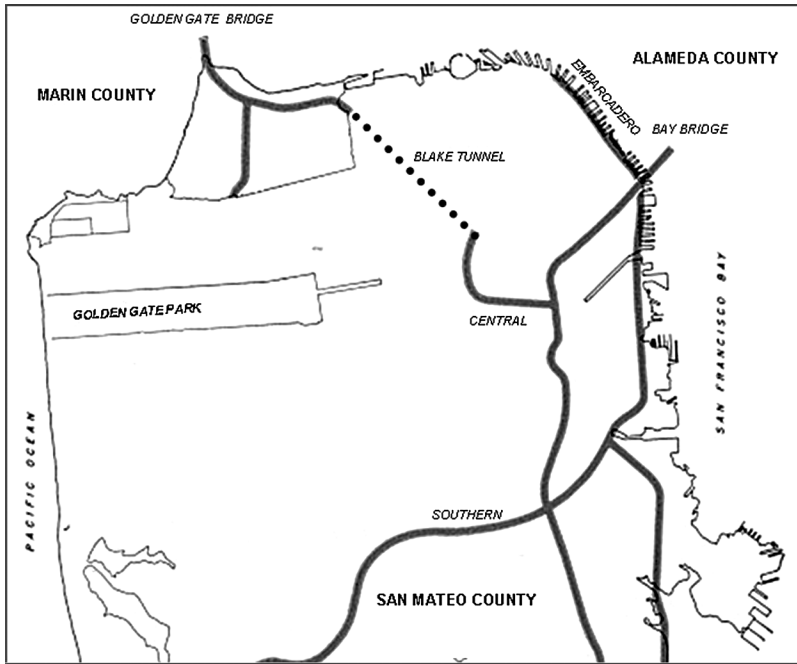


Figure 4: Crosstown "Blake" Tunnel

Source: City of San Francisco, *Trafficways in San Francisco: A Reappraisal* (San Francisco: Departments of City Planning and Public Works, 1960).

Though the initial reaction of the supervisors was hostile—this was a portion of a freeway they had rejected not just once but three times—for Supervisor Blake it provided a perfect opportunity to push his own pet project: a 1.6-mile tunnel under Pacific Heights from the (already built) Central Freeway to the ramps of the Golden Bridge (see Figure 4). This one tunnel, he argued, would provide downtown access to the Golden Gate Bridge without the need for a single new mile of freeway above ground—sparing, in effect, both the western neighborhoods and the waterfront from another “freeway botch.”⁴⁷ The plan to effectively *bury* a freeway also mocked the very notion that freeways could be beautified. On May 18, 1962, Supervisor Blake persuaded eight of his fellow supervisors to approve a resolution that explicitly rejected a beautified Panhandle in favor of the “Crosstown” Tunnel.⁴⁸

The state, however, also had a ready response: good engineering practice, they said, required that an *alternative* route be studied in case the tunnel proved too difficult or costly to build.⁴⁹ Because no one trusted them to take the tunnel seriously, the effect was a replay of the civic fight of the year before, this time within the Board of Supervisors itself: would the “alternative” be a freeway through city neighborhoods—the Panhandle now in place

of the Western—or one that conflicted with downtown interests, the Golden Gate?⁵⁰ Blake's resolution for a straight Tunnel–Golden Gate Freeway comparison was defeated in a close 6–5 vote on June 8, 1962, and five days later—three and a half years after they first wrestled the issue onto their turf—the San Francisco Board of Supervisors returned to the state with a formal request to study two alternative freeway routes, both heading the same direction: a beautified Panhandle and an invisible Crosstown Tunnel.⁵¹

Raising the Stakes

In federalizing California's approach to freeway funding, the Interstate and Defense Highway Act of 1956 not only generalized the two conditions behind the San Francisco's freeway revolt emphasized above—the lack of design standards or review procedures relevant to densely built urban areas, and a decision-making structure that left the old state highway authorities in charge—but also added a new condition that made the possibility of a similar claim of jurisdiction by other cities of its size and vintage more remote: all the new federal money for freeways had to be spent by 1972 or it would revert to the general account.⁵² By 1962, almost four years into San Francisco's official freeway revolt, only a handful of cities had claimed similar jurisdiction over location and design.⁵³ For the highway engineers, of course, the four-year delay at the city's hands meant they were now less than ten years away from the 1972 deadline.⁵⁴ The plan requested by the city, moreover, was just a short stretch of an already truncated highway plan—which the Board of Supervisors still reserved the right to approve. And it was still missing what they had long regarded as the most important link: a waterfront freeway.

In the fall of 1962, as California's highway authorities set to work on the Panhandle plan, they also resolved to raise the stakes. In October 1962, the Highway Division released a study showing that traffic on both bay bridges would shortly exceed capacity, with accompanying diagrams of potential alignments for one or two new bridges from Marin County.⁵⁵ At its regular session in June 1963, the California Highway Commission rejected a \$7 million request from the city for improvements to the main ramps to the Golden Gate Bridge to relieve a traffic bottleneck, explaining that because the ramps were part of a federally-designated interstate corridor, no construction could proceed until the city approved an interstate plan. When Supervisor Blake protested that the ramps were indeed part of an interstate plan—the Crosstown Tunnel—the commissioners blew their cover and threatened to shift \$100 million of interstate highway funds to Los Angeles unless San Francisco approved the Golden Gate Freeway within sixty days. This first effort to play their federal card, however,

quickly backfired: on August 12, 1963, in what the *Chronicle* called a “ringing proclamation [that] officials in San Francisco and not engineers in Sacramento would set the future pattern of the city,” the San Francisco Board of Supervisors endorsed the Crosstown Tunnel as the city’s official interstate highway plan (realizing their mistake, the Highway Division dispatched its landscape architect to showcase the new designs for the Panhandle, only to have supervisor after supervisor accuse them of “blackjack” and “blackmail”).⁵⁶ The state’s villainy also played into the mayoral race later that year. Supervisor Harold Dobbs, running for mayor on the Republican ticket, unveiled a grand “tri-tunnel” scheme to bury the Golden Gate Freeway along its entire length, complete with an underwater landing for a new bridge from Marin County at Blossom Rock, about a half mile north of Telegraph Hill. Taking a line from Blake’s book, he argued that all the city’s interstate highway funds could be applied to this one route. Though shying away from a similar scheme, Dobb’s opponent, John Shelley, did not hesitate to call for demolishing the Embarcadero declaring at each campaign stop that he would personally swing the first sledgehammer.⁵⁷ Just before the election, On October 23, 1963, just before the election, the Board of Supervisors amended its resolution of June 1962 once again, calling for demolition of the Embarcadero and a new study for “a new, completely underground Golden Gate Freeway.”⁵⁸

In March 1964, after the campaign dust had settled, the State Highway Division finally released its comparison of the Panhandle Freeway and the Crosstown Tunnel authorized by the Board of Supervisors almost two years before.⁵⁹ As anticipated, it made quick work of the latter. The cost of the tunnel was estimated at \$450 to \$520 million, more than double the city’s original estimate of \$162 million and well over the total amount of federal aid available to the city (the short write-up blamed the increase on the geology of Pacific Heights, described as “loose sand and severely shattered and sheared rock”).⁶⁰ The Panhandle, by contrast, weighed in at a mere \$138 million and showcased new designs that would “blend the roadways into the fabric of the neighborhoods they traverse.”⁶¹ Before Blake could vent his spleen, however, city planners revealed that the state had “botched” the Panhandle plan with a design that would take far more homes and trees than necessary.⁶² At the scheduled hearings on May 21, 1964, the state representative agreed on the spot to cooperate with the city planners on a redesign and then floated the suggestion that the Panhandle be approved “in principle” while the two sides worked things out—finally giving Chairman Blake a chance to say “no.”

Though the decision to send the Panhandle back to the drawing board in the summer of 1964 was clearly aimed at improving its chances of passage (a new study would not only deflect attention away from the tunnel, which was pointedly excluded from the restudy, but also give the redesign effort a city stamp), the same few months also gave freeway opponents a

powerful new argument.⁶³ In July 1964, Congress passed the Civil Rights Act, empowering the U.S. Attorney General to bring suit against any state that violated the civil rights of African Americans. The extension of the proposed Panhandle to the Central Freeway clearly fit the bill: it passed through a low-income, largely African American neighborhood already struggling to absorb people displaced by urban renewal in an adjacent neighborhood (the Western Addition; see Figure 3). The issue here was not the aesthetic concerns that the engineers and planners were attempting to address but an *ethical* flaw: the dominant planning rationale for urban freeways up to that point had been the removal of “blight,” which, in the context of the times, usually meant poor African American neighborhoods.⁶⁴ When the revised Panhandle plan came before the Board of Supervisors on October 14, 1964, the city’s first African American supervisor, Terry Francois—resisting strong pressure from the new mayor, John Shelley, who had just appointed him—cast the deciding vote against it. He prefaced his vote with a widely published statement condemning the Panhandle plan as potentially disrupting “one of the few pleasant well integrated neighborhoods in our city.”⁶⁵

At its regular session in Sacramento two weeks later (October 29, 1964), the California Highway Commission not only unanimously approved the Panhandle Freeway but also authorized the Department of Public Works to begin acquiring property along the route in case the supervisors changed their minds. The same session also unanimously rejected the Crosstown Tunnel as “exorbitantly costly” (in the words of Commissioner Roger Wooley of San Diego, “damned preposterous”).⁶⁶ At a celebration for the victorious supervisors in San Francisco the following day, William Blake, with Supervisor Terry Francois by his side, denounced the highway commissioners as “concrete heads” and warned them against any further attempt to “bulldoze” the city, receiving a standing ovation from the fifty assembled civic groups.⁶⁷ Two months later, riding this new wave of popular acclaim, Blake announced the findings of his own restudy of the Crosstown Tunnel, confirming that the state had sharply inflated the cost. The report compared the \$450 million estimate to other freeway tunnels the state was building in the Bay Area, including the Caldicott Tunnel at \$16 million per mile and the Waldo Tunnel in Marin County at \$23 million per mile.⁶⁸

In March 1965, the State Highway Division released the final study requested by the Board of Supervisors for an all-underground Golden Gate Freeway.⁶⁹ Rather than heeding the supervisors’ request, however, all of the proposed alignments extended the elevated Embarcadero into a short tunnel followed by a depressed roadway. The hearings, according to one reporter, “played like a late-late show rerun” of all the freeway hearings to date, with highway engineers extolling the virtues of their new designs, protesters heckling them from the rafters, and indignant supervisors

demanding to know why their repeated demands to take down the Embarcadero or bury the freeway had been ignored.⁷⁰ Even the promise of new funding for redevelopment on the freeway landfill (a “bold, imaginative . . . catalyst for the development of the entire area” according to the report) or new estimates predicting a complete traffic breakdown by 1985 if it was not built failed to sway them. On July 22 1965, the San Francisco Board of Supervisors unanimously rejected the state’s plans for the Golden Gate Freeway, the final chunk of the city’s interstate highway plan.⁷¹

Tours of Duty

In the wake of this final defeat, an ominous silence descended from Sacramento. Governor Brown left town in August 1965 for a three-week trip with a parting shot: “The greatest tragedy is the lack of courage of San Francisco officials to build beautiful freeways,” adding enigmatically that they “just doesn’t understand the problems of transportation . . . it is too bad and very tragic.”⁷² A delegation from the San Francisco Chamber of Commerce dispatched to Sacramento to promote the all-underground route got the baffling message that a new engineering study was underway, contents unclear. This prompted the editorial page of the *Chronicle* to ask, “Will the state keep its word? . . . For years [they] have been saying ‘tell us what you want and we’ll do it.’ . . . At best this amounts to ‘tell us what you want and we’ll think it over for a month.’”⁷³ The silence was broken early September 1965 when reporters learned that state highway authorities had made good on their threat to shift San Francisco’s interstate highway funds to Los Angeles.⁷⁴ Mayor John Shelley responded by reaching over the state to Washington, D.C., receiving assurance from Alan Boyd, the newly appointed Undersecretary of Commerce for transportation, shortly thereafter that the city’s money was still there.⁷⁵ Anxious to talk Shelly out of a Washington deal, Governor Brown assured the mayor that the state would make the city whole—only to be upstaged by his own highway officials. In late September, the Highway Division released a letter it had been holding onto for several weeks revealing that officials in Washington, D.C., had rejected the Los Angeles switch. Hearing the news, Shelley raced back to Washington, D.C., this time to confront the real power behind the throne: Rex Whitton, Chief of the Federal Bureau of Public Roads. Chief Whitton gave Mayor Shelley until March 1, 1966—exactly five months—to work things out with the state.⁷⁶

On October 20, 1965, Mayor John Shelley led a grand delegation of businessmen, planners, and supervisors from the City of San Francisco to the regularly scheduled meeting of the California Highway Commission in Sacramento to plead the city’s case, once again, for an all-underground Golden Gate Freeway. Taking a well-worn line from the supervisors, he

argued that *all* of the city's federal highway funds could be applied to just this one route. He even offered \$100,000 of the city's own money for an emergency study to meet the new federal deadline of March 1, 1966.⁷⁷ For the highway commissioners, however, it was their turn to say no. In a remarkable display of civic rancor, they not only rejected the city's request for an underground route on the waterfront but unanimously re-endorsed their failed effort to shift the funds to Los Angeles.⁷⁸ Unable to resist a final dig, Commissioner William S. Whitehurst of Fresno commented to the press, "I have never found tunnels revolutionary. I find them rather revolting. I think that San Francisco is still living in an era where they think the cable car is revolutionary."⁷⁹

On the spot this time was Governor Brown, the man who had appointed all seven of the ornery commissioners. Rather than risk the chance that a new effort to switch the funds to Los Angeles would fail just as he was gearing up for his own reelection campaign (Brown's most likely opponent in the 1966 race was just retired San Francisco Mayor George Christopher, who would clearly hammer the point), Brown made his own trip to Washington, D.C., to work out a deal.⁸⁰ In mid-November, after conferring with U.S. Secretary of Commerce, John O'Connor, Governor Brown confirmed that if the \$270 million earmarked for San Francisco was not spent in San Francisco, it would be lost to the state. In quick succession, the Highway Commission released \$75,000 for an expedited study, allowing Mayor Shelley, in turn, to host a series of "peace talks" at City Hall between state engineers and city planners, which produced an agreement to undertake a joint emergency review of all freeway plans to date—except the Crosstown Tunnel. In late November, meeting behind closed doors, the San Francisco Board of Supervisors agree to match the Highway Commission's \$75,000. And a final freeway countdown began.⁸¹

Thus, it was that the Panhandle and Golden Gate Freeways, both defeated by broad coalitions of residents, businesses, and civic groups over a period of almost seven years, were resurrected, given a superficial makeover, and paraded once again before an enraged city. Weary civic groups reassembled for another fight. Morton Rader, president of the Telegraph Hill Dwellers Association, captured the gloomy mood: "We are very tired; we do not enjoy this." Robert Barone, spokesman for the Haight-Ashbury Neighborhood Council, voiced a more radical mood when he advised that parks employees "should be chaining themselves to trees and arming gardeners with shotguns."⁸² Accounts of the time, however, also attest to a sharp shift in the mood of downtown, from gleefully defiant in August 1965 after the Golden Gate defeat to deeply contrite in February 1966 on the eve of the new vote. Even the editorial page of the *Chronicle*, longstanding champion of the freeway revolt, appeared to be giving up. In the weeks leading up to the vote, they published an eleven-part, front-page series titled "Transit Fantasy," featuring a parade of

experts who claimed that the new BART system would do nothing to alleviate automobile traffic.⁸³ In mid-February 1966, two weeks before the deadline, the joint committee of city planners and state engineers released their final report, which recommended that, with few modifications, both freeways be built. A tally of the supervisors a week before the vote showed a 6–5 majority in favor of each of the resurrected routes.⁸⁴

The only person who seemed to relish the new fight was Supervisor Blake. On news of the Shelley–Brown rapprochement, he wrote a widely publicized letter to Governor Brown: “The disgraceful action of your California Highway Commission in not approving the official policy of 780,000 San Franciscans to build the Crosstown Tunnel is reprehensible. Your commission are men without hearts. They all should be barred from this city forever.” He then turned his wrath against Mayor Shelley, loudly calling for his recall (“and I will participate in the recall movement”). Shelley shot back, dismissing Blake as “the gentleman who stood in the way” by “offering nothing but his cross-town tunnel which is impractical, infeasible, and will not work.” He then publicly relieved him of the chairmanship of the Streets Committee, now renamed the Transportation Committee, a position Blake had held since the first freeway revolt in April 1956, almost ten years before.⁸⁵

The eve of the drop-dead date also found Supervisor Blake in finest form, blasting the state highway engineers as “frauds,” denouncing the deadline as “phony,” accusing his colleagues of being parties to “back room deals” and generally playing to the crowd of freeway opponents, who once again jammed the chambers to cheer him on. Then, to everyone’s surprise, he announced his departure for a tour of duty with the Naval Reserve in Hawaii, a commitment he claimed he had no power to change. After a brief debate, the supervisors voted to delay the final vote for another three weeks as a courtesy to Supervisor Blake. When Mayor Shelley quickly arranged another extension from Washington, the city exploded in righteous indignation, accusing all parties of perpetuating a fraud. An editorial in the *Chronicle* characterized the deadline as “pure hokum, part of a pressure game being played by the Tom Thumb Tweeds at City Hall.” Blake, it seems, had called everyone’s bluff.⁸⁶

Over the next three weeks, demonstrations mushroomed across the city, with new groups coming forward daily to denounce the freeway plan. Even the San Francisco Labor Council, staunch ally of freeways, reversed its support, arguing in a resolution of March 12, 1966, that jobs would actually be lost if the city became “one long strip of concrete for commuters” with “bigger and better ghettos.” On March 15, Frieda Klusmann, mother of San Francisco’s cable car revolt, threatened a “personal invasion of Washington” in letters to Lady Bird Johnson, Federal Budget Director Charles L. Schultze, and a gallery of federal highway officials. By the time Captain Blake returned from his Hawaii tour of duty, all tanned

and rested, two of his colleagues had switched their vote: Jack Morrison came out against the Panhandle and Charles Ertola against the Golden Gate. On March 21, 1966, with Blake back in his seat, the San Francisco Board of Supervisors defeated the state's freeway plan for a sixth and final time.⁸⁷

Hoist by Their Own Petard

The defeat of the resurrected Golden Gate and Panhandle Freeways in March 1966 marked the end of the freeway revolt that began exactly ten years before when the Board of Supervisors of the City of San Francisco, responding to protests in the city's western neighborhoods, called their initial time-out. The critical condition behind that precocious claim of jurisdiction was the equally precocious response of the California State Legislature to the funding problem. The Collier-Burns Act of 1947, as argued above, provided not just a head start for California's urban freeways but also a demonstration of their fundamental flaws: the lack of any consideration for what we would call environmental impacts today. It also helps explain why other cities failed to follow San Francisco's lead: when Congress adopted California's solution to the funding problem in 1956, it not only fixed the location of urban freeways in federal law but also imposed a rigid deadline for their completion, beyond which the new funds would revert to the general account.

Though the fear of losing millions of dollars in federal highway aid figured prominently in the San Francisco revolt, it is also clear that once on the city's political turf, the issues proved impossible to resolve. The failure to meet the state's requirements for high-speed, high-capacity automobile flow into the densely built city—even after six years of extensive restudy and redesign—forced them into the ornery corner from which they eventually played their Washington card. The most significant factor in the city's victory from this perspective was the dogged agency of Supervisor William C. Blake. It was Blake's refusal to be drawn into the deal worked out by politicians at all levels of government to save the city's interstate highway funds—boycotting the “peace talks,” calling for Mayor Shelley's recall, and finally daring his cowed fellow supervisors to approve the freeways while he was away—that pushed the San Francisco freeway revolt over the top.

The sobering conclusion from this retelling is how close San Francisco came to losing the freeway revolt, despite the legitimacy of its aesthetic and economic concerns and the gathering environmental and civil rights movements that reinforced them. The power of the state highway authorities was such that the same freeways kept coming back—and the same civic divides kept opening up. The final decision turned on just two votes shifted over the three weeks that Supervisor Blake was away. The very

rigidity of that federalized highway machine ensured, however, that even a cliff-hanger victory would have far reaching effects. Demapping San Francisco from the interstate highway system was not just an isolated accommodation of one city's complaints but also a breach in the political accord on which the entire interstate highway system was based.

Though a full analysis of the aftermath of the San Francisco freeway revolt is beyond the scope of the current article, a brief survey indicates a significant escalation of other freeway revolts in the wake of the March 1966 supervisors' vote. In June 1966, opponents of the Riverfront Expressway in New Orleans secured the same deal that Mayor Shelly had won for San Francisco—a delay to consider a new plan—even though the Bureau of Public Roads had already approved the final design. In July 1966, city leaders in Baltimore created a multidisciplinary task force to reevaluate its entire freeway plan, despite the fact that the city council had already condemned most of the rights-of-way. In October 1966, opponents of an Inner Beltway around Boston ditched their efforts to negotiate alignments and designs with highway authorities in favor of an outright moratorium on all major construction.⁸⁸ The willingness of San Francisco to accept the fiscal price—some \$200 million in federal aid—also appears to have changed the political equation on Capitol Hill. Freeway critics in Congress had been limited thus far to hounding the highway bureaucracy for corruption, pushing for a more inclusive planning process, and securing some compensation for people whose homes were in the way.⁸⁹ In the 1966 session, however, they succeeded in attaching strong language to both major transportation bills, giving federal highway administrators the power to veto any plan that did not show “maximum effort” or consider “all feasible and prudent alternatives” to the disruption of parkland and historic sites.⁹⁰ The growing complaints from Congress and the public clearly influenced, in turn, the choice of Alan Boyd—the Commerce Department official who had tried to work things out with Mayor Shelley the year before—as the first secretary of the new Department of Transportation, who chose for his chief highway administrator a non-engineer.⁹¹

As the new federal officials responded to the new directives from Congress by withholding funds and calling for new studies, state highway officials around the country dug in their heels. Still smarting from their San Francisco defeat, California's Highway Commission refused to reroute Interstate 280 away from a city reservoir in San Mateo County, insisting that they could engineer a solution to the runoff problem with the same conviction they had brought to their beautification campaign.⁹² In Louisiana, state highway authorities tried to split the opposition with a new plan showing that the only alternative to the Riverfront Expressway was a new freeway through an upper-income neighborhood.⁹³ In the Washington metropolitan highway officials enlisted their own powerful friends in Congress to

veto a Court of Appeals ruling against the Three Sisters Bridge, a major link in the region's interstate plan.⁹⁴ As in San Francisco, however, each effort of the highway authorities to engineer or muscle their way out of these now politicized environmental and civic concerns served only to highlight the narrow and insular basis of their power and expertise. Even the new Republican administration was unable to turn the tide. Promising to return control of the highway bureaucracy to the highway engineers, the Nixon Administration tapped John Volpe, a veteran opponent of freeway revolts, to replace Alan Boyd as Secretary of Transportation (as Governor of Massachusetts, Volpe had stood down opposition to the Inner Beltway around Boston and was quoted as describing the Highway Trust Fund as "sacred").⁹⁵ In March 1969, however, he was forced to accede to demands from Nixon's Council of Economic Advisors for more cuts in the highway budget, and in July 1969 he succumbed to pressure from Congress and canceled the Riverfront Expressway in New Orleans.⁹⁶ In January 1970, Richard Nixon himself signed the National Environmental Policy Act (PL 91-190), institutionalizing the new environmental and civic values in the form of a mandatory, comprehensive environmental review for all projects funded with federal aid—highways included. And the freeway revolt became almost mainstream.

Notes

1. See especially Tom Lewis, *Divided Highways: Building the Interstate Highways, Transforming American Life* (London: Viking, 1997), 271, 398; and Ben Kelley, *The Pavers and the Paved* (New York: Donald W. Brown, 1971).

2. By way of contrast with San Francisco, freeway protests in Manhattan cancelled a comparable mileage but gave up little in federal aid. "Westway: No Way? City Eyes a Switch," *New York Daily News*, September 17, 1985, 4. In the early 1980s, New York City exercised a "trade-in" option created by the Federal Highway Act of 1973 enabling it to redirect some \$1.4 billion in interstate highway funds to the city's aging mass transit system.

3. For studies of the San Francisco revolt, see especially William Issel, "Land Values, Human Values, and the Preservation of the City's Treasured Appearance: Environmentalism, Politics, and the San Francisco Freeway Revolt," *Pacific Historical Review* 68, no. 4 (1999); Herbert M. Goodwin, "California's Growing Freeway System" (PhD dissertation, University of California, 1969); William Lathrop, "San Francisco Freeway Revolt," *Transportation Engineering Journal* 97 (1971); Seymour M. Adler, "The Political Economy of Transit in the San Francisco Bay Area, 1945-1963" (PhD dissertation, University of California, Berkeley, 1980); and David W. Jones, *California's Freeway Era in Historical Perspective* (Berkeley, CA: Institute of Transportation Studies, 1989). For the influence of aesthetic concerns on San Francisco politics more generally, see Richard E. DeLeon, *Left Coast City: Progressive Politics in San Francisco, 1975-1991* (Lawrence: University Press of Kansas, 1992); Frederick M. Wirt, *Power in the City: Decision Making in San Francisco* (Berkeley: University of California Press, 1974).

4. Issel, "Land Values, Human Values," 619.

5. This summary of the parallel bridge dispute is drawn from Adler, "The Political Economy of Transit," 31-54, and Jones, *California's Freeway Era*, 263-73.

6. "Parallel Bridge Endorsed by Governor Warren," *California Highways and Public Works* 28, no. 2 (1949).

7. U.S. Senate, Committee on Armed Services, "Easement for Construction of Toll Cross in SF Bay," July 8, 1949, 96-99, quoted in Adler, "The Political Economy of Transit," 51.

8. Jones, *California's Freeway Era*, 298. The quote is attributed to City Planning Director Jack Kent. City planners played an especially prominent role in this dispute because, unlike their counterparts in other cities, their job included transit planning: San Francisco was one of the few cities at the time that had municipalized its transit system. Note also that the parallel bridge was backed in the state legislature by San Francisco's rival city, Oakland, which had a privately owned and operated transit system.

9. Goodwin, "California's Growing Freeway System," 28-60. For a good synopsis of the history of California's highway program, see Jeffrey Brown, "Statewide Transportation Planning: Lessons from California," *Transportation Quarterly* 56, no. 2 (2002). For a good overview of highway programs in other states, see Robert S. Friedman, "State Politics and Highways," in *Politics in the American States: A Comparative Analysis*, ed. Herbert Jacob and Kenneth Vines (Boston: Little, Brown, 1965), 411-46. An aspect of the California highway machine that was perhaps more insular than most was the fact that the Department of Public Works acted as both staff and chair of the California Highway Commission. This link was broken by the state legislature in 1968. Goodwin, "California's Growing Freeway System," 39, 53.

10. For a good history of the federal highway program, see Bruce E. Seely, *Building the American Highway System: Engineers as Policy Makers* (Philadelphia: Temple University Press, 1987). Political scientists use the terms *policy subsystem* and *iron triangle* to describe the federal highway program, emphasizing the interlocking congressional committees, executive agencies, and industry lobbies at the federal level. For a discussion of these concepts, see Hugh Helco, *A Government of Strangers: Executive Politics in Washington* (Washington, DC: Brookings Institution, 1977). Seely's account indicates that this unusual power was a product of the federal system, which divides sovereignty between two levels of government. The American Association of State Highway Officials, for example, achieved a remarkable degree of deference from Congress by acting as a kind of parallel legislature of state experts. For a good study illustrating the insularity of highway professionals produced by this system, see Louis Ward Kemp, "Aesthetes and Engineers: The Occupational Ideology of Highway Design," *Technology and Culture* 27, no. 4 (1986).

11. U.S. Department of Transportation, *Table Sf-201: Revenues Used by States for Highways, 1921-1995* (Washington, DC: U.S. Department of Transportation, Federal Highway Administration, 1997), <http://www.fhwa.dot.gov>. By 1948, all forty-eight states had established a state gas tax dedicated to their highway program, and some states were already on their third rate increase. U.S. Department of Agriculture, *Table G-205: State Gas Tax Rates; Highway Statistics to 1955* (Washington, DC: U.S. Department of Agriculture, Bureau of Public Roads, 1955), 13.

12. Urban complaints found a political voice with the election of Franklin D. Roosevelt, who owed his margin of victory to the urban vote. In 1934 Congress passed an amendment to the Federal Highway Act requiring that a share of all federal highway aid be spent in cities for the first time. The Roosevelt administration also gave a larger share of public works funding to the Works Progress Administration rather than the federal Bureau of Public Roads. U.S. Department of Transportation, *Table Fa-205: Federal Funds Expended for Highways, by Agency 1921-1995; Highway Statistics to 1995* (Washington, DC: U.S. Department of Transportation, Federal Highway Administration, 1997), <http://www.fhwa.dot.gov>.

13. Between 1921 and 1941, the mileage of paved roads in the U.S. quadrupled, from 387,000 to 1.6 million miles, substantially outpacing the growth of motor vehicle registrations. U.S. Department of Agriculture, *Table M-200, Surfaced Mileage; Highway Statistics to 1955* (Washington, DC: U.S. Department of Agriculture, Bureau of Public Roads, 1955); U.S. Department of Transportation, *Table Mv-200: State Motor Vehicle Registrations* (Washington, DC: U.S. Department of Transportation, Federal Highway Administration, 1995), <http://www.fhwa.dot.gov>. By 1937, traffic fatalities had reached 38,000 per year, almost six times the current rate. U.S. Department of Transportation, *Table FI-200: Motor Vehicle Traffic Fatalities 1900-1995; Highway Statistics to 1995* (Washington, DC: U.S. Department of Transportation, Federal Highway Administration, 1997), <http://www.fhwa.dot.gov>.

14. U.S. Department of Agriculture, *Toll Roads and Free Roads* (Washington, DC: U.S. Department of Agriculture, Bureau of Public Roads, 1939). Roosevelt's Interregional Highway Commission justified the shift to superhighways as a cure for "years of promiscuous building" that had produced "thousands of disconnected little pieces of roads." National Interregional Highway Committee, *Interregional Highways* (Washington, DC: National Interregional Highway Committee, 1944), 1. Also

see Jonathan L. Gifford, *An Analysis of the Federal Role in the Planning, Design and Deployment of Rural Roads, Toll Roads and Urban Freeways* (PhD dissertation, University of California, Berkeley, 1983), 134-40.

15. Federal highway aid dropped off significantly from its 1938 high as measured in real dollar terms and as a percentage of gross national product. U.S. Department of Agriculture, *Table Sb 201-A: Highway Finance; Highway Statistics to 1955* (Washington, DC: U.S. Department of Agriculture, Bureau of Public Roads, 1955). For a discussion of the toll road movement, see Wilfred Owen and Charles L. Dearing, *Toll Roads and the Problem of Highway Modernization* (Washington, DC: Brookings Institution, 1951); Gifford, *An Analysis of the Federal Role*, 212-22.

16. Seely, *Building the American Highway System*, 137-40. The 1944 report of the Interregional Highway Committee called for a fivefold increase in federal aid authorizations; National Interregional Highway Committee, *Interregional Highways*, 126.

17. "Collier-Burns Highway Act," *California Highways and Public Works* 26, no. 4 (1947); "How Money for Highways Is Collected and Spent," *California Highways and Public Works* 29, no. 2 (1950).

18. Though the idea of tapping the greater traffic potential in the cities as a means of funding the lightly traveled roads in between was first laid out in the 1939 report noted above (U.S. Department of Agriculture, *Toll Roads and Free Roads*, 95) and re-endorsed by Roosevelt's Interregional Highway Commission in 1944 (National Interregional Highway Committee, *Interregional Highways*, 40-41, 126), few politicians had grasped the political efficacy of this fiscal logic before state senator Randolph Collier set out on his extensive "fact-finding mission" that became the Collier-Burns Act of 1947. California's precocity can be explained by the fact that the rural bias of its highway program was exaggerated by a north-south divide. As in most other states, highway funds were suballocated to counties. Because there are fewer counties in Southern California, however, this method consistently shortchanged the Los Angeles area, which was not only the fastest growing part of the state but also one that had committed itself to the automobile early on. This ensured that the "urban" grievance would dominate the state legislative agenda for years. See Jones, *California's Freeway Era*, 185-95. For a legislative history of the interstate highway program that focuses on the debates in Washington only, see Gary Schwartz, "Urban Freeways and the Interstate System," *Southern California Law Journal* 49, no. 3 (1976).

19. The effect of this fiscal rationale can be seen in the transformation of Los Angeles freeways from the low-speed, landscaped parkways of the 1930s into massive unadorned concrete viaducts as the state of California took over the job. See especially Brian D. Taylor, "When Finance Leads Planning: Urban Planning, Highway Planning, and Metropolitan Freeways in California," *Journal of Planning Education and Research* 20 (2000). For a study that discusses the absence of these concerns in the pivotal freeway debates, see Raymond Mohl, "Ike and the Interstates: Creeping toward Comprehensive Planning," *Journal of Planning History* 2, no. 3 (2003).

20. For a detailed account of the Embarcadero dispute sympathetic to the highway engineers, see Goodwin, "California's Growing Freeway System," 419-38. In the 1951 plan, the Embarcadero turned away from the waterfront at Broadway just south of Telegraph Hill, where it connected with a planned extension of the Central Freeway. The double-decker design was proposed to minimize property takings. Completion of new ramps from the Bay Bridge in 1953 gave opponents a preview of how they would actually look.

21. "Progress on the Embarcadero," *California Highways and Public Works* 36, no. 2 (1957).

22. The route ran along the 19th Street corridor and across Golden Gate Park. "Protest of State Plan: 1600 Sunset Residents Meet, Blast Freeway," *San Francisco Chronicle*, April 18, 1956, 2. Richard Reinhardt, "Supervisors Ban Western Freeway: Chambers Packed for Debate," *San Francisco Chronicle*, June 12, 1956, 1. The San Francisco Board of Supervisors is the city's legislative body. It consists of eleven members elected at large. San Francisco is both a city and a county under California law.

23. Several scholars have argued that San Francisco had special veto power over freeways that other cities lacked. See especially Alan Lupo, Frank C. Colcord, and Edmund P. Fowler, *Rites of Way: The Politics of Transportation in Boston and the U.S. City* (Boston: Little, Brown, 1971), 181; Richard M. Zettel, *Urban Transportation in the San Francisco Bay Area* (Berkeley, CA: Institute of Governmental Studies, 1963), 32-34. A close reading of the events, however, suggests that it was the 1956 revolt that clarified things. Goodwin documents considerable debate in the state legislature on this point in the wake of the 1956 revolt. Goodwin, "California's Growing Freeway System," 42-44. More generally, jurisdiction over city streets is part of the general "police powers" delegated to municipalities from the state legislature. Given the importance of "home rule" in America's legal and political traditions, the bigger

puzzle is how few cities called a similar time-out as freeway protests emerged. The better explanation for San Francisco's precocity is not special powers but the special institutional conditions discussed herein. It was not only the first city of its size and density to face a fully conceived, publicly funded urban freeway program—other cities where freeway revolts broke out in the 1950s confronted public authorities whose independence from the state legislature was reinforced by the terms of their bond covenants—but it did so *before* the federal highway program fixed the basic presumptions of the California freeway approach in bureaucratic stone. For a good review of the home rule tradition in the American political system, see Richard Briffault, "Our Localism: Part I—the Structure of Local Government Law," *Columbia Law Review* 90, no. 1 (1990).

24. Blake's political pedigree is especially relevant in this regard. He was appointed to the Board of Supervisors by Elmer Robinson, the mayor who had led the charge against the parallel bridge, to succeed Marvin E. Lewis, the supervisor who had spearheaded efforts to develop a Bay Area Rapid Transit (BART) system as an alternative to the state's freeway system. The city's new mayor, George Christopher, who had been president of the Board of Supervisors through both disputes, at one point halted construction of the Embarcadero pending the result of a new study. San Francisco Board of Supervisors, *Past Supervisors* (San Francisco: San Francisco Board of Supervisors, 2006), <http://www.sfgov.org>. Also, 1956 was the year that hearings were held on the abandonment of the Bay Bridge trolley service, which increased popular discontent with state highway authorities, who had made no attempt to accommodate alternative transit proposals. *San Francisco Chronicle*, January 4, 1955. See Adler, "The Political Economy of Transit," 209–27.

25. *San Francisco Chronicle*, June 13, 1956, 22; Lathrop, "San Francisco Freeway Revolt," 136.

26. U.S. Department of Transportation, *Table Sf-202c: State Government Capital Outlay for Highways, by State, 1921–1995: Highway Statistics to 1995* (Washington, DC: U.S. Department of Transportation, Federal Highway Administration, 1997), <http://www.fhwa.dot.gov>; Jones, *California's Freeway Era*, 243–45. The Federal Highway Administration shows a 60 percent increase in capital outlays for highways in California over the same period.

27. "Board Unit Opens War on Freeways," *San Francisco Chronicle*, January 23, 1959, 1. According to the article, Streets Committee Chairman William Blake "fed two red-faced highway engineers to a cheering crowd of more than 200 freeway opponents."

28. "Tongue-Lashing by Senator: S.F. Freeway Vote Decried," *San Francisco Chronicle*, January 30, 1959. According to Goodwin, Collier also threatened to redesignate 19th Avenue as a city street, forcing the city to pick up thousands of dollars per year in maintenance costs.

29. "Legislative Response: S.F. May Lose \$377 Million by Freeway Action," *San Francisco Chronicle*, January 28, 1959, 1; Jack Burby, "City Hall Talks: S.F. Chief Backs Freeway Ban: Ask New Routes," *San Francisco Chronicle*, January 31, 1959, 1.

30. *San Francisco Chronicle*, April, 23, 1960. According to Seymour Adler, one of the leaders of the citizens' advisory committee, Chris McKeon, a real estate developer, proposed a beefed-up Southern freeway as a substitute for the Western, an option that would have precluded use of the freeway median for the proposed BART system. Adler, "The Political Economy of Transit," 315.

31. City of San Francisco, *Trafficways in San Francisco: A Reappraisal* (San Francisco: Departments of City Planning and Public Works, 1960).

32. "Freeway Plans Meet Roadblock," *San Francisco Chronicle*, April 16, 1961, James Benet, "Architects, Districts: City's Freeway Plan under Fire," *San Francisco Chronicle*, April 16, 1961, 2.

33. Mel Wax, "Collier Gives City a New Freeway Plan," *San Francisco Chronicle*, May 16, 1961, 1.

34. Mel Wax, "Mayor's Assessment: Politics Snag Freeways," *San Francisco Chronicle*, May 18, 1961. The freeway revolt also played out in the state legislature, where the battle line between downtown and the highway engineers was more strictly drawn. San Francisco assemblyman J. Eugene McAleer submitted legislation in March 1961 calling for state gas taxes to be used to tear down the Embarcadero—shortly after which the legislature approved a bill from Collier's Transportation Committee appropriating \$500,000 to study another bay bridge crossing. "Build a Model of Freeway Plan," *San Francisco Chronicle*, May 19, 1961.

35. *San Francisco Examiner*, July 11, 1961.

36. "Transit, Freeways: Mayor Gets Glum Transport Picture," *San Francisco Chronicle*, August 5, 1961; "Talk, No Action: State Aide Can't Budget S.F. Freeway Stalemate," *San Francisco Chronicle*, August 17, 1961.

37. *San Francisco Chronicle*, December 19, 1961. As city planning chief, James McCarthy explained, "Although one freeway would disrupt an area, its effect is far less than street modification."

This prompted Supervisor James Leo Halley to complain, "They're trying to build up a wall of opposition to anything but the original Western Freeway."

38. Goodwin, "California's Growing Freeway System," 271, 398. The scenic highways plan actually extended the takings power of state highway authorities to a 200 ft. right-of-way on either side of a designated route.

39. "Fremont Assails Freeway Plan," *San Francisco Chronicle*, May 24, 1961, 2; "Highway Revolt in Palo Alto," *San Francisco Chronicle*, August 16, 1961. The power of eminent domain over state parkland had been granted to the Highway Division in 1937. Goodwin, "California's Growing Freeway System," 271, 398.

40. "Parting Advice from Mumford," *San Francisco Chronicle*, January 16, 1962, 2. Mumford had just published what was to become his most famous work, *The City in History* (New York: Harcourt, 1961).

41. "The Embarcadero: Help in Sight for Foes of Freeway," *San Francisco Chronicle*, April 18, 1962, 4. The new antifreeway lobby grew to some 250,000 members in just a few months. A large protest broke out in Marin County in April, followed by protests in Chico, Novato, Fair Oaks, Malibu, Santa Barbara, and Monterey.

42. The preliminary design for BART—announced in 1956, the same year that the Interstate Highway Act flooded state highway coffers with even more funds—was a narrowly conceived supplement to the state's freeway system, requiring, in effect, that Bay Area residents pay for what state highway engineers were providing free. It also had the misfortune of coinciding with a public takeover of the Key System in Alameda County, which established a prior claim on BART's one remaining revenue source: the property tax. See Adler, "The Political Economy of Transit."

43. BART directors submitted a formal request for the toll surplus just after the January 1959 supervisor vote against the state freeway plan. In quick succession, the supervisors dropped their longstanding support for the Southern Crossing, a bridge-cum-industrial revitalization project that had first claim on the surplus (February 1959), Bay Area mayors voted against a rival plan of the Bay Area Council (March 1959), and Governor Brown pressured Senator Collier into reassigning the surplus, which was running about \$9 million a year at that point, sufficient to finance the \$100 million cost of the BART tunnel (at the final hearings in June 1959, Collier was forced to defend himself against charges that withholding the funds from BART was a form of revenge against the city for the freeway revolt). *San Francisco Chronicle*, February 13, 1959, 28; March 21, 1959; May 5, 1959. Over the next three years, as the city struggled with its freeway plan, BART underwent the same process of negotiating routes and design at a much larger scale (five counties and scores of towns). This caused them to miss several election cycles but also contributed to a second political coup: in January 1961, in exchange for increased local representation on the BART board, the state legislature approved a critical reduction in the threshold required for the bond issue to pass. See *Ibid.*, 267; Stephen Zwerling, *Mass Transit and the Politics of Technology: A Study of Bart and the San Francisco Bay Area* (New York: Praeger, 1974), 33-34.

44. "Trends within the Golden Gate," *BAC Newsletter*, July 1961. In July 1961, just after the western defeat, Mayor Christopher proposed that tolls from all five Bay Area bridges be pledged to the BART plan. *San Francisco Chronicle*, July 29, 1961.

45. "Pressure for Freeways," *San Francisco Chronicle*, January 31, 1962. The conference was called by the Down Town Association and the San Francisco Chamber of Commerce, both steadfast supporters of freeways.

46. The landscape designers' contract would not go into effect unless the Board of Supervisors approved a new study

47. Proposed just after the 1959 revolt, the "Blake Tunnel," as it was dubbed, was rejected by the Reappraisal Plan as lacking sufficient capacity to handle the projected traffic from Marin County, which would leave the waterfront vulnerable to another state bridge. Attempting to counter the official momentum behind the Western, the supervisors approved \$20,000 to study the tunnel in February 1961. "Gate Span Surplus, Tunnel Study: Blake Gets Support for Pet Projects," *San Francisco Chronicle*, February 17, 1961; Mel Wax, "A Year and a Half Later: Blake Finally Promised Hearing on Tunnel Study," *San Francisco Chronicle*, March 14, 1961, 2.

48. *San Francisco Examiner*, May 19, 1962.

49. Mel Wax, "State Backtracks on City Freeways," *San Francisco Chronicle*, May 29, 1962, 1. Press reports indicate that the state initially stumbled into this strategy. Their negotiating engineer was publicly "benched" by his boss, most likely for revealing that the state would not take the tunnel seriously. *San Francisco Chronicle*, June 7, 1962.

50. Intensifying the debate was the withdrawal of Marin County from the BART proposal, removing whatever technical or political cover it had provided the freeway revolt; now there would be no transit option for the city's wealthiest suburbs. This withdrawal ironically increased BART's chances of passage by bringing the bond issue to under \$1 billion, the threshold its financial advisers said it was still viable. The BART referendum was approved in November 1962 by just over 61 percent of the vote in its three remaining counties: San Francisco, Alameda, and Contra Costa.

51. Board of Supervisors Resolution 326-62, June 13, 1962. "Crosstown Tunnel—New Bid for Study," *San Francisco Chronicle*, June 8, 1962, 14; Mel Wax, "City O.K.'s Study—with Curbs: A Freeway 'Straitjacket,'" *San Francisco Chronicle*, June 12, 1962, 4. The November 1961 supervisor election contributed to this outcome by returning two of Mayor Christopher's handpicked appointees, Peter Tamaras and Joseph Tinney, and a profreeways newcomer, Jack Morrison. Also voting against Blake's resolution were three of his longtime allies in the freeway fight: Roger Boas (who introduced a separate resolution for a tunnel-panhandle comparison), Harold Dobbs, and John Fernndon.

52. By way of comparison, San Francisco's general revenue in 1964 was \$202 million, with total capital outlays of \$51 million (total outlays for its own highways was only \$7 million, the city's total debt outstanding was \$248 million); U.S. Census Bureau, *Data Base on Historical Finances of Municipal Governments: Fiscal Years 1951–2004* (Washington, DC: U.S. Census Bureau, 2006). The expected cost of the Panhandle Freeway alone was \$135 million.

53. Those that did, however, experienced a similar escalation of political opposition. In December 1962, the Board of Estimate of New York City cancelled the Lower Manhattan expressway in response to huge protests. See John E. Seley, *Development of a Sophisticated Opposition: The Lower Manhattan Expressway Issue* (Princeton, NJ: Princeton University, 1970). In Baltimore, provisions of the city's home rule charter kept the issue on the city's turf, creating a similarly arduous public process. See Raymond Mohl, "Stop the Road: Freeway Revolts in American Cities," *Journal of Urban History* 30, no. 5 (2004): 83–86.

54. According to Goodwin, if San Francisco failed to claim its share, Southern California would lose hundreds of millions of dollars as well. This is because, under state formulas, all highway funds—including federal aid—had to be divided 45–55 between north and south. Goodwin, "California's Growing Freeway System," 499. It is doubtful, however, that the state legislature would have forced the rest of the state to pay for a San Francisco default.

55. "Rejected Bridge Plans Revived," *San Francisco Chronicle*, October 25, 1962; "Additional Bridges Urgently Needed," *California Highways and Public Works* 42, no. 2 (1963); Goodwin, "California's Growing Freeway System," 492. Earlier that year, they had resumed plans to extend a freeway from the south to the Embarcadero stubs; "Extension Plans for Embarcadero," *California Highways and Public Works* 41, no. 3 (1962).

56. San Francisco Board of Supervisors Resolution 458-63, August 13, 1963. The resolution was passed by a 7–4 vote and signed by Mayor Christopher the following day. *San Francisco Chronicle* August 13, 1963, 14. The state's effort to backtrack was reported in the *San Francisco Chronicle*, July 22–23 and 30–31, 1963.

57. Goodwin, "California's Growing Freeway System," 492.

58. San Francisco Board of Supervisors Resolution 605-63. Dobbs's tri-tunnel plan was described in *San Francisco Examiner*, August 13, 1963.

59. California Department of Public Works, *San Francisco Panhandle Parkway and Crosstown Tunnel: Technical Report* (Sacramento: California Department of Public Works, California Division of Highways, 1964).

60. *Ibid.*, 12, 13, 73, 80. Plans included a massive interchange in the Civic Center area that would take five city blocks.

61. *Ibid.*, 12, 36

62. Mel Wax, "State Bungling: Freeway Chaos—the inside Story: Engineers Ignore Advice," *San Francisco Chronicle*, May 21, 1964, 1. The presiding engineer confessed he "had no idea" that the state had the authority to do what the city planners wanted.

63. Key city officials behind the strategy included the chief city planner, James McCarthy, who authored the Reappraisal Plan, and the chief administrative officer, Sherman Duckel, who released a report just before the Panhandle hearings arguing that the cost of demolishing the Embarcadero was prohibitive and that the city would have to reimburse the federal government for the original construction costs if they did. *San Francisco Chronicle*, December 5, 1963; Goodwin, "California's Growing Freeway System," 494–95. Though John Shelley, the city's new mayor, committed himself to respecting a

majority vote, as a former eight-term Democratic congressman, he would have been especially reluctant to compromise the city's pipeline to the federal purse—as would soon become clear.

64. See especially Raymond Mohl, *The Interstates and the Cities: Highways, Housing, and the Freeway Revolt* (Washington, DC: Poverty and Race Research Action Council, 2002). The Civil Rights Act of 1964 also inspired the Free Speech Movement, which erupted on the Berkeley campus the same month that the Board of Supervisors reconsidered the Panhandle Freeway.

65. "Hour of Decision on the Parkway," *San Francisco Examiner*, October 13, 1964; "Panhandle Parkway Loses," *San Francisco Chronicle*, October 14, 1964, 1. Mayor Shelley had appointed Terry Francois to the Board of Supervisors in September 1964 to replace John Ferdon who was reportedly in favor of the Panhandle Freeway (Ferdon left to become district attorney).

66. "State Quits on S.F. Freeways," *San Francisco Examiner*, October 30, 1964, 14.

67. "Anti-Freeway Celebration," *San Francisco Chronicle*, October 30, 1964, 7.

68. Mel Wax, "Blake Still Hopeful for His Tunnel," *San Francisco Chronicle*, January 5, 1965; "The Concrete Highway Trip," *San Francisco Chronicle*, January 22, 1965, 36. The tunnels compared favorably with elevated freeways in the 1989 Loma Prieta earthquake, which toppled both the Embarcadero and portions of the MacArthur Freeway in Oakland but did little damage to the nearby Waldo and Caldicott tunnels cited in Blake's report.

69. California Department of Public Works, *San Francisco Golden Gate Freeway: Interstate Highway Route 480* (Sacramento: California Department of Public Works, California Division of Highways, 1965).

70. Waite Elmont, "A Re-Run Freeway Hearing," *San Francisco Chronicle*, April 10, 1965, 4.

71. Mel Wax, "Gate Bridge: State Freeway Plan Rejected by Supervisors; Tunnel Idea Still Alive," *San Francisco Chronicle*, July 23, 1965, 1.

72. *San Francisco Chronicle*, July 31, 1965. A reporter for the *San Francisco Examiner* quoted a similar complaint from the state public works director, John Errecia: "I see a lot of funny statements of Mayor Shelley even after its been explained to him. We tried to explain it step by step and then, somehow, its lost." Russ Cone, "Freeway Problem in Laps of Supervisors," *San Francisco Examiner*, September 1, 1965.

73. "Embarcadero Freeway Issue," *San Francisco Chronicle*, August 18, 1965, 3. The all-underground route was re-endorsed by the supervisors in the same July 1965 vote against the state's plan.

74. Goodwin, "California's Growing Freeway System," 499. According to Goodwin, the Highway Division had been authorized to consider this shift by the state legislature the year before.

75. Mel Wax, "Freeway Funds 'Saved' by Shelley," *San Francisco Chronicle*, September 4, 1965, 8. Shelly was an eight-term congressman before becoming mayor, giving him some Washington insider access.

76. *San Francisco Chronicle*, September 20, 22, 27, 30, 1965. The governor's promise to keep San Francisco whole referred to the Breed Act of 1939. Several highway commissioners criticized him for suggesting this, and Mayor Shelley clearly did not trust the offer.

77. *San Francisco Chronicle*, October 9, 10, 11, 14, 1965. Mayor Shelley and Supervisor Blake had confirmed with Defense Secretary Robert McNamara and Commerce Undersecretary Alan Boyd that tunnels were a feasible option for interstate segments.

78. The highway commissioners also chose this moment to reject the city's request to reroute the Junipero Serra Freeway (I-280) away from the city's reservoir in San Mateo County, potentially costing the city several million dollars for a filtration plant. See Issel, "Land Values, Human Values."

79. Doyle Jackson, "Highway Commission: S.F. Slapped on Tunnel Study, Freeway Funds, a Bad Day for S.F.," *San Francisco Chronicle*, October 21, 1965, 1.

80. George Christopher dropped out of the mayoral race in 1963 to focus on a run for governor. He was defeated by Ronald Reagan in the Republican primary the following year. Voters apparently did not blame the supervisors for the freeway mess. All five supervisors running for reelection that year were returned to office in the November election, including William Blake, Jack Morrison, Joseph Tinney, Roger Boas, and Pete Tamaras. San Francisco Board of Supervisors, *Past Supervisors*.

81. *San Francisco Chronicle* November 11, 17, 18, 25, 1965.

82. "A Pact to Go to Jail: Foes of Panhandle Freeway Threaten Drastic Action," *San Francisco Chronicle*, February 9, 1966.

83. *San Francisco Chronicle*, February 1, 3, 5, 8, 9, 12, and 16, 1966. BART's general manager accused the paper of attempting to commit "project assassination." The paper also ran feature articles showing how housing needs could be met by building over the freeways.

84. "Both Needed Board Told: New Freeway Plans," *San Francisco Chronicle*, February 15, 1966, 1. It is not clear why longtime supervisor Clarissa McMahon, a steadfast freeway opponent, resigned abruptly two weeks before the final freeway vote. Mayor Shelley immediately replaced her with basketball star Kevin O'Shea, a strong backer of freeways.

85. Mel Wax, "A Waste of Time—Blake. New Freeway Huddle," *San Francisco Chronicle*, November 19, 1965, 2; *San Francisco Chronicle*, November 25, 30, 1965.

86. "The Crucial Vote on Freeways," *San Francisco Examiner*, February 25, 1966; Russ Cone, "Committee 2 to 1 for Both Freeways," *San Francisco Examiner*, February 25, 1966, 10; *San Francisco Chronicle*, February 27, 28, 1966; "Courtesy Wins over a Myth," *San Francisco Chronicle*, March 2, 1966; Mel Wax, "Spreading Impact of Freeway Vote Delay," *San Francisco Chronicle*, March 2, 1966, 4. Supervisor Joseph Casey cast the deciding vote approving the delay for Blake.

87. Board of Supervisors Resolution Number 91-363-5, March 21, 1966. Two weeks after the vote, the Board of Supervisors endorsed the switch to Los Angeles, permanently forgoing some \$200 million in federal aid. Of the city's interstate funds, \$80 million was transferred to the Southern Freeway, a state highway through the city's industrial district that became the new I-280. *San Francisco Chronicle*, April 6, 1966.

88. Richard O. Baumbach and William E. Borah, *The Second Battle of New Orleans: A History of the Vieux Carré Riverfront-Expressway Controversy* (Tuscaloosa: University of Alabama Press, 1981), 76, 85, 89; Lupo, Colcord, and Fowler, *Rites of Way*, 16-21; Judson Gooding, "How Baltimore Tamed the Highway Monster," *Fortune* 81 (February 1970): 152. Many accounts also describe stepped-up contacts among antifreeway groups as well as the active engagement of the American Institute of Architects.

89. For efforts that focused on contractor corruption, see Richard F. Weingroff, "The Battle of Its Life" *Public Roads* 69, no. 6 (2006). Many have argued that the requirements for comprehensive planning in the Federal Aid Highway Act of 1962 were co-opted by highway interests. See Thomas A. Moorehouse, "The 1962 Highway Act: A Study in Artful Interpretation," *Journal of the American Institute of Planners* 35 (1969); and Lupo, Colcord, and Fowler, *Rites of Way*, 188-91. On the efforts to provide compensation for people and businesses in the way, see Mohl, *The Interstates and the Cities*, 248-50.

90. Federal Aid Highway Act of 1966, §138 (Public Law 89-574); Department of Transportation Act of 1966 §4(f) (Public Law 89-670). Both bills became law in October 1966. Baumbach and Borah report a "national outcry" on Capitol Hill that spring, with congressmen and senators condemning the highway bureaucracy for "incalculable damage" and "planned destruction of historical or areas of beauty . . . rural as well as urban"; *The Second Battle of New Orleans*, 106.

91. The Johnson administration was also seeking cutbacks in highway spending as part of a general effort to cool inflation. See Weingroff, "The Battle of Its Life." Lowell Bridwell, the new federal highway administrator, had been Alan Boyd's deputy in the Department of Commerce. Boyd also chose antihighway activist Peter Craig as assistant general counsel for litigation. See Zachary Schrag, "The Freeway Fight in Washington, D.C.: The Three Sisters Bridge in Three Administrations," *Journal of Urban History* 30, no. 5 (2004): 656.

92. Issel, "Land Values, Human Values," 642-43.

93. Baumbach and Borah, *The Second Battle of New Orleans*, 146-48.

94. Schrag, "The Freeway Fight," 658-61.

95. Lupo, Colcord, and Fowler, *Rites of Way*, 17, 41. The quote is from Ben Kelley, *The Pavers and the Paved*, 71.

96. Ben Kelley quotes Nixon's chief economic advisor, Paul McCracken, as describing pressure for a highway exemption as coming "more from state highway officials and the highway construction industry than from highway users"; Kelley, *The Pavers and the Paved*, 83-85; Baumbach and Borah, *The Second Battle of New Orleans*, 193-97.

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