Pavement, Placement, and Displacement:

A Spatial History of Freeways in the Bay Area, 1893-2005

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Introduction

From the genesis of highway infrastructure in the United States in the 1910s, roadways catering to the growing driving demographic became signs of a dynamic, progressive, and growth-oriented America, to be supported by policy and industry and heralded by the public. The economic potential of the roadways was immediately recognized, and a diverse set of actors from industries related to road building and automobiles worked with political actors at levels ranging from local to federal promoted a vision of their country and localities that centralized high-speed roads. Conceptions of highways came to be closely tied to American values through incessant promotion and savvy marketing.[1]

Their increasing presence in the American imagination preceded their presence in the American landscapes, but both steadily increased over the decades. By the latter half of the twentieth century, it was undeniable that their early boosters had succeeded. Freeways were ubiquitous across the country in all landscapes, even stimulating a new sort of spatial arrangement: the suburb. They had not only come to be seen as a boon to economic growth and indispensable for city and regional functioning at large, but they were increasingly unrecognized, a naturalized utility that users and community members were decreasingly conscious and appreciative of. That said, for as long as freeways have been built, they have been deeply contested infrastructure.[2]

The placement of these sprawling concrete arteries has always been labored over, but in part due to explicit policy and directives as well as tacit contemporary rationale, freeways have

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[1] Jane Holtz Kay, *Asphalt Nation: How the Automobile Took over America, and How We Can Take It Back*, 1st ed. (New York: Crown Publishers, 1997).
[2] Eric Avila, *The Folklore of the Freeway: Race and Revolt in the Modernist City*, A Quadrant Book (Minneapolis: University of Minnesota Press, 2014).

always been built in the path of least resistance.[3] That resistance may be related to the physical landscape, but in other cases, particularly in cities, it is people and their settlements. There have always been landscapes and people bearing the cost of this large infrastructure. Throughout the history of freeway construction, the demography of these people disserved by the freeways can largely be predicted by who was most disempowered at the time and place. In many cases, and nearly all from 1939 to the mid-1960s, people who were poor, working-class, an ethnic minority, and Black were particularly targeted in freeway building, experiencing state-led dispossession of homes and the destruction and bisection of physical communities.[4]

In this multi-decade period where many freeways were being built in the Bay Area and across the country, far more were being proposed in plans that would create a sprawling network of freeways around, in, and through built out urban environments, leaving no resident too far from an arm of their cities "cement octopus;" however, only a few of the many proposed would ever be built. As more freeways were constructed, particularly in cities, the nuisance and damage they delivered became more recognizable.[5] Resistance from potentially affected communities mounted as freeways were proposed through their neighborhoods by state and federal engineers. That said, just as geographic concentrations of disempowerment were reliable predictors of

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[3] Joseph F.C. DiMento and Cliff Ellis, *Changing Lanes: Visions and Histories of Urban Freeways* (The MIT Press, 2012), https://doi.org/10.7551/mitpress/9374.001.0001.

[4] Deborah N. Archer, "'White Men's Roads Through Black Men's Homes'*: Advancing Racial Equity Through Highway Reconstruction," *Vanderbilt Law Review* 73, no. 5 (October 2020): 1259–1330.

[5] Bill Van Niekerken, "Save Us from the 'Cement Octopus,'" San Francisco Chronicle, August 5, 2015, https://www.sfchronicle.com/thetake/article/Save-us-from-the-Cement-Octopus-6425442.php.

where freeways would be routed, they did not materialize where privileged demographics were and continued to be clustered.[6]

As far as why the planned routes were not built, in some cases, certain routes that were proposed by the engineers were not seriously expected to be built and were used to sew division amongst community members who began focusing on resisting freeways that would cut through their homes and neighborhoods instead of the city's freeway system more broadly. However, the most notable reason for proposed routes being left unbuilt were "freeway revolts."[7] These movements are understood to have been citizen-led, popular uprisings where concerned community members raised their voices to express their disdain for the routes that would destroy their community. They challenged the sense of empirical rationality and scientific logic engineers used as the sole determinants in placing freeways, instead reframing issues of placement to be primarily of political will and human costs.[8]

That said, the success of these movements was predicated on power and privilege of the concerned residents. They needed the resources and capacity to turn general misgivings towards the freeways into a well-organized, political movement and leveraged connections to politicians, business groups, major community groups, the press, and anyone else whose support could be advantageous to promote and embolden their cause.[9] Generally speaking, any beneficial

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[6] Chris Carlsson, "The Freeway Revolt - FoundSF," accessed April 17, 2023, https://www.foundsf.org/index.php?title=The_Freeway_Revolt.

[7] Jessica Kraft-Klehm, "21st Century Futurama: Contemplating Removal of Urban Freeways in the World of Tomorrow," *Washington University Journal of Law and Policy* 49, no. 1 (2015): 205-.

[8] 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 (November 1, 1999): 611–46, https://doi.org/10.2307/4492372.

[9] Anti-Eviction Mapping Project, Ananya Roy, and Chris Carlsson, "Transportation, Infrastructure, & Economy," in *Counterpoints* (United States: PM Press, 2021).

diversion these movements achieved for disempowered communities were circumstantial, not primary efforts; in San Francisco, where the first and most formidable Freeway Revolt ever occurred, several freeways were still built through the South and East parts of the city, areas where there was no zoning for single-family homes. In Oakland, freeways ravaged the Black part of the city, West Oakland, destroying homes and ruining a once-vibrant community.[10]

From the late 1800s when highways first began to be built in the United States, they were deployed by empowered, elite groups to serve their respective economic interests. As the infrastructure expanded and developed further, so too did understandings of how it could serve economic and social interests. As freeways began to be built in urban areas during the latter part of the twentieth century, they were promoted to be able to rid cities of social ills and bring them into an economically prosperous future. A broader group of elites came to support freeways, and more several were constructed in the Bay Area by 1955.[11]

That said, the construction of highways was necessarily damaging. In some cases, that was understood as an opportunity: freeways were a way to eliminate undesirable parts of cities, and in San Francisco and Oakland, they destroyed lower-income, minority neighborhoods.[12] When there were proposals for them to be routed through areas that were economically and racially privileged, however, they were resisted from "citizen uprisings."[13]

Amidst all of the opportunities and benefits that freeways created, they also caused immense loss for the least enfranchised. In the Bay Area, dynamics of racism, economic power,

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[10] Angela Harris, Margaretta Lin, and Jeff Selbin, "From 'The Art of War' to 'Being Peace': Mindfulness and Community Lawyering in a Neoliberal Age," *California Law Review* 95, no. 5 (2007): 2073–2132, https://doi.org/10.2307/20439130.

[11] DiMento and Ellis, *Changing Lanes,* 92-100.

[12] Avila, *Folklore of the Freeway*, 12-18.

[13] San Francisco Parks Alliance, "ByeByeFreeway | The Journey from the Central Freeway to Octavia Boulevard and Beyond," accessed April 17, 2023, https://byebyefreeway.org/.

and privilege contoured the highway system, in every capacity, at every step of the way, yielding a network of freeways heralded by some as the greatest innovation of the century and as a destroyer of livelihoods for a disenfranchised group of others.

1. Not Yet Freeways, 1893-1944

Good roads were hard to come by during the early twentieth century. Paired with new automobile technology, new infrastructure was needed. Among the earliest and most effective promoters of highways were those in the automotive industry, who shaped the national direction of freeway construction to maximize financial gain above all else. The most influential within this group of lobbyists were those who successfully lobbied for this infrastructure to be paid for by the government. Highways garnered more support from industrial leaders who turned their attention to attracting public support, which both led to increases in profits as automobility became more popular and made highways more politically popular.

From 1900 to 1941, road construction was blocked by debates over financing. During the war years, the impediments became mainly about competing visions for roads and their roles. Internal debates existed between leaders of industries who use the freeways and professionals. Through all the jockeying, and over the decades, however, the influence of private capital and industry was foremost throughout.[14]

DAYS BEFORE FREEWAYS

Throughout America in the 19th century, simpler hierarchies of mobility were predominant. Railroads defined movement and frontier expansion; they were the chief way to

[14] Mark H. Rose and Raymond A. Mohl, *Interstate: Highway Politics and Policy since 1939*, Third edition (Knoxville: The University of Tennessee Press, 2012).

move throughout the American landscape, and there was minimal expense or innovation dedicated to supporting other forms of transportation. That said, throughout the 1880s, bicycles were becoming increasingly popular and the crude, often impassable dirt roads of the US were called to be replaced.[15]

Leaders of farm groups who relied on roads to transport their produce to sell at markets joined forces with bicycle advocates and the first iteration of an enduring road lobby was born. Their lobbying successfully made road building a political priority, a necessary precursor for roadways to expand, improve, and find a place in the US. By the mid-1890s, expanding and improving roads and highways were part of the platforms of both major political parties.[16] In 1893, governmental involvement in road creation began with the establishment of the Office of Road Inquiry within the Department of Agriculture.[17]

FORMING A LOBBY AND FORMALIZING HIGHWAYS

At the turn of the century, some men who stood to gain professionally from improved roads began to promote good roads across the country. They gathered political support incrementally and the lobby for expanded road networks continued to grow: by 1908, "engineers, dairymen, farmers, and businessmen" were involved in support for roads, as well as railroad executives who sought to expand connectivity in under-accessed parts of the country.[18]

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[15] "The Open Roads of America: 100 Years in the Making," Roads and Bridges, March 27, 2007, https://www.roadsbridges.com/home/article/10583410/the-open-roads-of-america-100-years-in-the-making.

[16] Rose and Mohl, *Interstate*, 10.

[17] "Records of the Bureau of Public Roads," accessed April 17, 2023, https://www.archives.gov/research/guide-fed-records/groups/030.html#30.1.

[18] Rose and Mohl, *Interstate*, 8.

Planners, developers, and truckers also came to be significant professions in the design of the roads. All these actors together had distinct visions for where highways should be routed, to what ends they would serve, how they would be designed and integrated with the landscape, and how to pay for them, but among the high echelons of American industrialists, there was near unanimity that more roads ought to be built and the government ought to bear a significant responsibility in this construction.[19] From 1891 on, more states were offering assistance to build county roads and "by 1917, every state had created a road agency" that were largely staffed by civil engineers.[20] In 1916, the Office of Public Roads received support as the Federal-Aid Road Act and Congress approved $75 million to be spent across the next five years.[21]

THE LINCOLN HIGHWAY

A complex, more politically and economically empowered highway system began to emerge, in large part due to the lobbying of private citizens who understood highways to facilitate the accumulation of capital. One significant figure in the early history of the development of the highway system was Carl G. Fisher, the owner of Prest-O-Lite, which manufactured most headlights for early automobiles.[22] Fisher was a leading proponent of developing an interconnected, transnational road system, seeing it as a foundational element of the expansion of the automobile. He sought to build a "Rock Highway" across the country and "'stimulate as nothing else could the building of enduring highways everywhere that will not

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[19] Richard F. Weingroff, "Federal Aid Road Act of 1916: Building The Foundation | FHWA," *Public Roads* 60, no. 1, accessed April 17, 2023, https://highways.dot.gov/public-roads/summer-1996/federal-aid-road-act-1916-building-foundation.

[20] Rose and Mohl, *Interstate*, 8.

[21] "History | FHWA," February 25, 2022, https://highways.dot.gov/federal-lands/about/history.

[22] Drake Hokanson, *The Lincoln Highway: Main Street Across America*, 10th anniversary ed (Iowa City, Iowa: University of Iowa Press, 1999).

only be a credit to the American people but that will also mean much to American agriculture and American commerce.'"[23]

Fisher began to promote his idea for a coast-to-coast rock highway to other industry friends in 1912 who quickly pledged $1 million (he expected the project to cost a total of $10 million) and sought to complete the project before 1915's Panama-Pacific International Exposition in San Francisco, the proposed terminus for the west end.

A notable absence on the list of donors, however, was Henry Ford, who despite Fisher's best attempts to attract his support refused to make contributions because he believed that the onus of road building should be on the government and that there was no feasible way to raise enough money privately for the Lincoln Highway. Ford was correct, and while private contributions were still received by Fisher's Lincoln Highway Association, their significance in financing was limited.[24]

What's more, amongst the public, there were significant numbers of people skeptical of the highway idea at large. Southerners feared that highways and increased automobility would degrade morals and lead to a fall in church attendance.[25] Much contestation occurred over the issue of financing, with many resisting the allocation of tax dollars to highways.[26] The project was coming at a time when industry use of automobiles was existent but limited and automobiles

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[23] Richard F. Weingroff, "The Lincoln Highway - General Highway History - Highway History - Federal Highway Administration," June 27, 2017, https://www.fhwa.dot.gov/infrastructure/lincoln.cfm.

[24] Ronnie Schreiber, "How Henry Ford Advocated for Public Road Building—until He Wanted to Join a Fancy Camping Club," Hagerty Media, October 19, 2021, https://www.hagerty.com/media/automotive-history/how-henry-ford-advocated-for-public-road-building-until-he-wanted-to-join-a-fancy-camping-club/.

[25] James J. Flink, *The Car Culture* (Massachusetts: The MIT Press, 1976).

[26] Brian D. Taylor, "Why California Stopped Building Freeways – ACCESS Magazine," Access Magazine, 1993, https://www.accessmagazine.org/fall-1993/why-california-stopped-building-freeways/.

were not accessible to those outside of the middle and upper classes. Critics referred to them as "'peacock allies'" for the leisure of the aforementioned groups (Figure 1.1).[27]

In face of these challenges, the LHA oriented significant resources and effort to cultivating public support and appreciation for highways. The group was dogged in their promotion and highly adept in messaging: these masters of publicity bordered on propagandists. They used every possible outlet to promote the Lincoln Highway and develop public and political support, from having preachers discuss Lincoln in their sermons around the time of the highway's dedication to promoting high-profile donors. Favorable coverage of the project in newspapers was common.[28]

The project continued on. After receiving Congressional approval in 1913, scouts for the Lincoln Highway Association drove through the country looking for potential sites for the highway. The success of the LHA's promotional efforts was identifiable in the stories written about this tour: local news outlets often wrote of the "enthusiastic greetings in every town that thought it had a chance of being on the new highway" and in the end, the convoy was met with a "triumphal auto parade down Market Street in San Francisco before thousands of cheering residents."[29]

On October 31, 1913, the route was made official and dedicated across the country.[30] In the Bay Area, excitement was immense. Stuart Gayness wrote in the San Francisco Examiner that the new project "promises to be a lasting monument to the automobile industry, and [is] one

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[27] Weingroff, "The Lincoln Highway."
[28] James Lin, "The Lincoln Highway - A Brief History," Lincoln Highway Association, accessed April 17, 2023, https://www.lincolnhighwayassoc.org/history/.
[29] Weingroff, "The Lincoln Highway."
[30] Stuart Gayness, "Public to See Dedication of Great Highway," *San Francisco Examiner*, October 31, 1913, History of the Lincoln Highway: Public To See Dedication Of Great Highway, http://lincolnhighway.jameslin.name/papers/examiner/1913-10-31.html.

of the greatest developments ever made in this country." A celebration in San Francisco was sponsored by the "Motor Car Dealers' Association" and according to Leon J Pinkson, this was well deserved, as "thousands of motor car tourists will annually make the pilgrimage from the East to the West, and this city will in most cases be the objective point."[31]

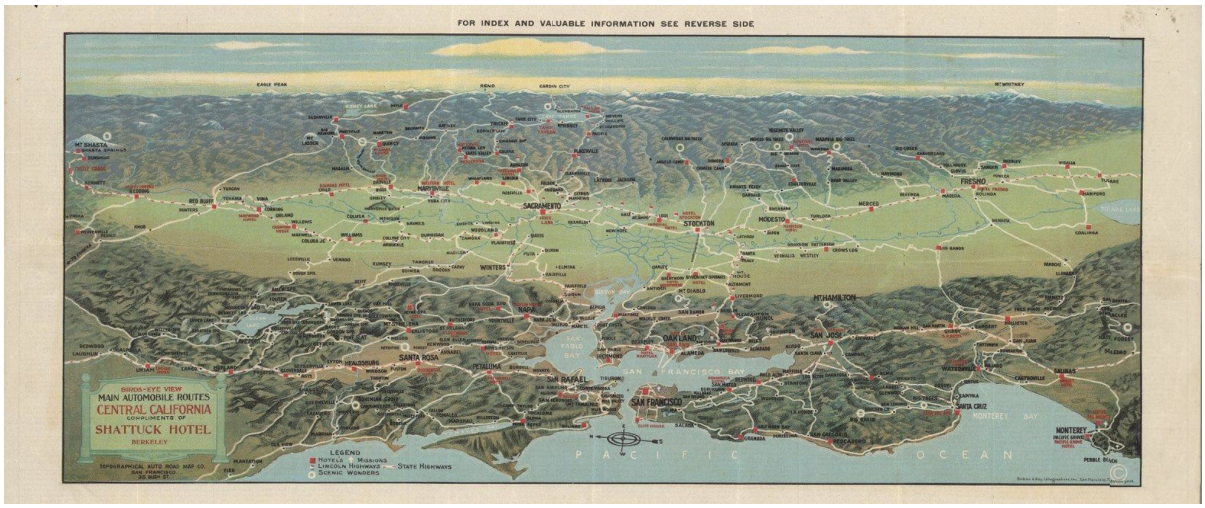

Figure 1.X.[32] This image, featuring the original highway route, highlights stops for tourists. It was sponsored by the Shattuck Hotel in Berkeley.

While they supported movement to and from established tourist destinations, stretches of the Lincoln Highway remained rather treacherous in these early years and their industrial utility was not yet fully realized.[33] As a significant share of potential ridership was for leisure activities, this opportunity was seized on by those who stood to profit from an increasingly popular Lincoln Highway and driving along the highway was increasingly promoted to be an attraction itself. A significant means of promotion in the early twentieth century were postcards, which at the time

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[31] Gayness "Public to See Dedication."

[32] Topographical Auto Road Map Co., "Birds-Eye-View Main Automobile Routes Central California," 1920, https://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~299689~90070721:Birds-eye-view-main-automobile-rout.

[33] National Parks Service, *Lincoln Highway: Special Resource Study, Environmental Assessment.*, Special Resource Study (Washington, D.C.: National Park Service, U.S. Dept. of the Interior, 2004), https://catalog.hathitrust.org/Record/005019875.

were cost-effective ways for businesses to promote themselves, and with tourism becoming increasingly popular, the tourist destinations were commodified by manufactures of postcards as they represented and sold them.[34] Postcards were "significant visual shapers of public expectations and perceptions of American landscape," with the potential to affect a shared American identity.[35]

The Curt Teich Company, a major postcard publisher from the late nineteenth century to late twentieth century, gave significant attention and representation to the Lincoln Highway, starting in the 1910s. They published hundreds of cards depicting or referencing the highway, and in analyzing these idealized promotional objects, Douglas Hurt and Adam Payne identified "business promotion, evolving automobility and roadways, distinctive rural landscapes, and common urban landscapes" as the main themes that were emphasized in relation to the highway.[36] On these cards were depictions of stretches of road that cut through exotic, grand, undisturbed and untamed landscapes of the American west, small motor hotels and restaurants with patriotic decor alongside the highway, and a main street bisecting bustling and growing urban centers. Together, these postcards centrally placed highways in shared American fantasies about Western expansion and domination and tied them to ideas of nationalism, capitalism, social and technological progress, and democracy.[37]

The ideals and relationships between highways and the landscapes constructed in these postcard promotions are illustrative of the efforts of highway promoters at large to situate and

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[34] Douglas Hurt and Adam Payne, "Postcard Imagery and Geographical Imagination along the Lincoln Highway," *Material Culture* 51, no. 1 (2019): 1–20.
[35] Hurt and Payne, "Postcard Imagery," 5.
[36] Hurt and Payne, "Postcard Imagery," 3.

[37] D. W. Meinig and John Brinckerhoff Jackson, eds., *The Interpretation of Ordinary Landscapes: Geographical Essays* (New York: Oxford University Press, 1979).

insert highways in the American consciousness. By incessantly associating highways with economic systems, landscapes, and values intrinsically tied to a shared American consciousness, these highway promoters inaugurated a basis for public support and passive acceptance of what was a novel technology. Beyond that, the highways were not just passively accepted but actively celebrated by some individuals and communities. For example, the infrastructural achievements like the Carquinez Bridge were "points of pride for communities."[38] By the time the 1915 Panama-Pacific International Exposition came to San Francisco, it attracted "millions of tourists to its exhibits, including several thousand intrepid travelers who motored west on the Lincoln Highway."[39] The infrastructure itself was incorporated in this celebration of progress and achievement.

The private influence on the highway system was greatly significant through this period: In 1922, two grocery store owners formed the American Toll Bridge Company to build a bridge across the Carquinez Strait.[40] When the bridge opened, after promotion from private development associations, local Chambers of Commerce, and automotive industry professionals from along the northwest edge of the East Bay, the Lincoln Highway was officially realigned to pass over the Carquinez Strait in 1928.[41]

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[38] Hurt and Payne, "Postcard Imagery," 15-16.
[39] Hurt and Payne, "Postcard Imagery," 2.
[40] Andrew Hope, *Carquinez Bridge: PHOTOGRAPHS WRITTEN HISTORICAL AND DESCRIPTIVE DATA*, Historic American Engieneering Record (National Park Service, U.S. Dept. of the Interior, 1968), https://tile.loc.gov/storage-services/master/pnp/habshaer/ca/ca3000/ca3089/data/ca3089data.pdf.
[41] "Object Lesson Road Section," *Stockton Independent*, May 30, 1920, California Digital Newspaper Collection, https://cdnc.ucr.edu/?a=d&d=SDI19200530.2.80&srpos=12&e=------192-en--20--1--txt-txIN-Lincoln%2bHighway-------1.

Infrastructural improvements continued along throughout this time, and in the 1930s, the bay between San Francisco and Oakland was the primary setting. One of the projects was Treasure Island, which originated as the site of the wonderfully festive Golden Gate International Exposition (GGIE) of 1939. It was to be "a kind of utopia of modern living and global fraternity" and proudly exhibit advances in industry, art, and progress that had come to define this coalition of the world's richest nations.[42] What occupied the island for the fair had a short shelf life; what did not was the newly constructed San Francisco-Oakland Bay Bridge, opened in 1936, which was a signal of the area's intense and growing capacity for connection and expansion. Just as the Lincoln Highway was constructed in part to be celebrated at the Panama-Pacific International Exposition, the massive SFOBB was the object of marvel for the GGIE.[43]

[42] Lynne Horiuchi and Tanu Sankalia, eds., "2. The Island at the Center of the Bay," in *Urban Reinventions*, by Richard A. Walker (University of Hawaii Press, 2020), 26–46, https://doi.org/10.1515/9780824866051-005.

[43] Walker, "The Island," 28.

Figure 1.2.[44] A 1938 Curt Teich & Co. Postcard entitled "San Francisco Night View, Bay Bridge and Battleship Searchlights and Lights of Oakland, / Berkeley, Alameda in Distance." It is a particularly extraordinary example of the postcards that prompted travel on the basis of technological marvels.

Governance and Contested Visions of Highways

From the 1890s through the celebration that was "Modernist Hero" Norman Bel Geddes' 1939 New York World's Fair *Futurama* exhibit, highways were ascending in popularity and institutional security.[45] What and who would be prioritized in their design, as well as how much governmental support should be devoted to them and to what ends they should serve, however, were constantly contested as the nascent industry and governing body began to construct order.

On top of the oil and car manufacturers who generated public and governmental support for highways, planners, developers, and truckers also came to be significant professions in the design of the roads. Per Eric Avila:

> The automobile lobby, or "the Road Gang," included not only the usual suspects—automobile manufacturers and retailers, insurance companies, the producers of rubber, glass, and steel—but also oil companies, suburban retailers, housing developers, real estate associations, trucking companies, and powerful advocacy organizations like the Automotive Safety Foundation, the National Automobile Association, the American Association for Highway Improvement, the American Road Builders Association, and the Urban Land Institute.[46]

All these actors together had distinct visions for where highways should be routed, to what ends they would serve, how they would be designed and integrated with the landscape, and

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[44] Jeffrey L. Meikle, *Postcard America: Curt Teich and the Imaging of a Nation, 1931-1950* (Durham, UNITED STATES: University of Texas Press, 2016), http://ebookcentral.proquest.com/lib/berkeley-ebooks/detail.action?docID=4397285.

[45] Paul Goldberger, "Back to the Future: A New Look at Modernist Hero Norman Bel Geddes, Designer of the Original 1939 'Futurama,'" *Vanity Fair*, October 22, 2013, https://www.vanityfair.com/culture/architecture/2013/10/norman-bel-geddes-designer-original-futurama.

[46] Eric Avila, *The Folklore of the Freeway: Race and Revolt in the Modernist City*, A Quadrant Book (Minneapolis: University of Minnesota Press, 2014).

how to pay for them. DiMento and Ellis set out six visions for what the primary purpose of highways ought to be: they were "traffic conduits" made to ensure vehicles moved efficiently, ways to direct land-use and modernize city centers, "large-scale objects of architecture, landscape architecture, and urban design," means to revitalize economies and facilitate commercial mobility, "tools of social policy strongly influencing the spatial distribution of urban residents by race and class," and an integral aspect of national security as they ensure efficient movement of civilians and supplies.[47]

Through the 1920s and into the 1930s, the transformative economic potential of freeways began to be considered. City planners and local commercial boosters advocated for freeways along these lines; likewise, local developers saw the expansion of highways as means to expand areas viable for development. An economist in Roosevelt's National Resources Planning Board, Wilfred Owen, proposed an overhaul of the road construction system that, among other things, would direct development. Additionally, there was a growing emphasis on the social impacts freeways could deliver. City planners thought that urban road networks would "... upgrade downtown property values, and make men and their families wealthier and better behaved."[48] As a part of the City Efficient vision, advocates like Harland Bartholomew defined blight and explained the perceived necessity of its removal; planners began to promote freeways with an eye towards urban revitalization. While not explicitly said, designations of "slum" and "blighted" areas were systematically concentrated in minority and low-income communities.[49]

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[47] Joseph F.C. DiMento and Cliff Ellis, *Changing Lanes: Visions and Histories of Urban Freeways* (The MIT Press, 2012), https://doi.org/10.7551/mitpress/9374.001.0001.
[48] Rose and Mohl, *Interstate*, 6.
[49] Alexander Benjamin Craghead, "Blighted Ambitions: Federal Policy, Public Housing, and Redevelopment on the West Coast, 1937-1954" (UC Berkeley, 2020), https://escholarship.org/uc/item/33c953w2.

Broadly, however, engineers resisted these efforts to carefully consider impacts of freeways outside of their narrow focus in maximizing traffic flow, and they had industrial support as a result. By 1932, among the high echelons of highway advocates, there was near unanimity that more roads ought to be built and the government ought to bear a significant responsibility in this construction. In broad ways, the demands of these professional leaders were met by the government, and roadways were receiving an increasing amount of governmental funding and support. In 1916, the Office of Public Roads received support as the Federal-Aid Road Act and Congress approved $75 million to be spent across the next five years.[50]

Through the 1920s, highway budgets continued to expand; from 1921-1940, Road costs were the "second largest area of governmental expense."[51] Contemporaneous to this increase in funding was an increase in formalization and standardization of a growing, complexifying highway planning apparatus.[52] At the same time, state and federal engineers assumed a more central role in highway design.[53]

Starting in 1941, the Roosevelt administration pivoted, and the direction of highways became oriented around defense priorities. In fact, Roosevelt left new highway projects to be approved by the defense agencies until September 6, 1945. Up until that point, however, in a pivotal time of highway history, Roosevelt used highway construction as a tool to "manipulate the economy" and secure votes.[54] With the priority being the creation of jobs and not the highways themselves, the country ended up with a high volume of low quality roads all around.

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[50] "History | FHWA."
[51] Rose and Mohl, *Interstate,* 4.
[52] "Thomas H. MacDonald - Asphalt Institute," August 15, 1965, https://www.asphaltinstitute.org/timeline/thomas-h-macdonald/.
[53] W. Stull Holt, *The Bureau of Public Roads, Its History, Activities and Organization, by W. Stull Holt* (Maryland: The Johns Hopkins Press, 1923), https://hdl.handle.net/2027/uc1.$b113983.
[54] Rose and Mohl, *Interstate,* 11-12.

ENGINEERS' EMERGE AND THE SHAPE OF AMERICAN FREEWAYS

Through World War II, a larger, more imaginative and complete system for highways began to be promoted by MacDonald, who sought to build a 30,000 mile system that would increase urban and rural connectivity. Planners, engineers, policymakers, civic and industrial boosters, the public, and MacDonald himself were hopeful for a reshaping of urban forms where the cities of old were eliminated. Many of the aforementioned actors thought freeways could cure the social ills of cities and bring about urban regeneration and maximally productive urban economies.[55]

Still, some maintained a more straightforward set of goals, congruent with the prevailing ideology and goals of the engineering profession: speed up traffic.[56] During the war, state engineers were continuously planning new routes thanks to federal and state funds. Their professional norms predominated, which meant that "traffic flow dictated construction priorities."[57] Many other visions became formative, but during the war, engineers' plans were methodically and unremarkably humming along, and the authority and effect of the profession increased in turn.

Conversely, of all the professions outside of engineering, planners may have been best positioned to challenge the engineers sole dominance of highway design as they too were understood to have pragmatic rationals, a chief desire of modernist leaders and the public. Still, they did not. A part of why is illustrated in the divide between the City Beautiful and City Efficient schools of planning thought.[58] Not all planners had their imaginations strictly ordered

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[55] Rose and Mohl, *Interstate*, 20-28.
[56] John B. Rae, *The Road and the Car in American Life* (Cambridge, Mass: MIT Press, 1971).
[57] Rose and Mohl, *Interstate*, 22.
[58] Emily Talen, "Chapter Five Urban Plan-Making: The City Beautiful and the City Efficient," in *New Urbanism and American Planning* (United States: Taylor & Francis Group, 2005).

by concerns of maximized mobility and efficiency, which itself eroded faith in planners' abilities to develop a highway network that fit in with the visions of the government and private capitalists who sought freeways to be efficient conduits for capital. According to Dimento and Ellis, "[Engineers'] form concepts radiated the aura of scientific research, whereas those of planners and designers often seemed to emerge from trial and error or artistic intuition."[59]

Some groups of planners and individual planners, like Le Corbursier and Frank Lloyd Wright remained relevant with their grand plans for future cities and support for highway designs that prioritized efficiency ahead of all other concerns.[60] However, the planning profession remained divided on roles and practices for highway design, and their influence waned in turn.[61] Architects and urban designers were even less important in design processes, in large part due to a public perception of freeways as engineering projects, not design, a perception continually reified over time; their roles were limited to just cosmetic issues after all major decisions of planning had already been done by engineers. Planners "did not build strong connections with the federal government," they did not have the wide support of private capitalists, they were not unified as a profession, and they did not have the resources or capacity to challenge the authority of engineers.[62]

Since the first state road offices opened up, engineers were the first profession to make up the majority of the staff. Engineers asserted their "right to determine highway location and design" on the basis of experience and those who dared to challenge them were treated "in a

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[59] DiMento and Ellis, *Changing Lanes,* 15.
[60] Norma Evenson, *Le Corbusier: The Machine and the Grand Design*, Planning and Cities (New York: G. Braziller, 1970).
[61] Gordon Emanuel Cherry, *Shaping an Urban World*, Planning and the Environment in the Modern World ; v. 2 (London: Mansell, 1980).
[62] DiMento and Ellis, *Changing Lanes,* 13.

manner judged arrogant, haughty, and abusive."[63] They were concerned about "status in society, political clout, educational credentials, and employment prospects."[64] Still, they claimed to transcend political squabbles, a justification for their absence of concern about any social harms or personal impacts of their practices. They insulated themselves from scrutiny as they used simplified images of cities, seductive data, and appeals to their own authority as they turned their attention to addressing the problem of highways in the city.

Through the 1930s, city planners and highway engineers were forecasting a complete replacement of old, decaying cities.[65] In 1931, Harold S. Buttenheim, an editor of the journal *American City,* explained that in order to rehabilitate blighted areas, "One of the most practicable legal means of action in the United States is through such major projects of boulevard building as were carried out in Paris through the efforts of our fellow member Baron Haussmann."[66] There was little meaningful concern for study of inner cities by planners through the 1930s–instead of trying to assist them in line with their interests, or even learning what their interests were, "the professional imperative was to transform these areas to fit middle-class norms of order and social propriety."[67] According to various cities and state transportation officials, as well as industry representatives, freeways were said to stop decentralization; they were expected to improve health and social welfare; they were going to make cities pleasant, contain blight, increase property values, and make orderly and beautiful the chaos of the old cities.

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[63] Rose and Mohl, *Interstate,* XVIII.
[64] DiMento and Ellis, *Changing Lanes,* 14.
[65] Frank Lloyd Wright, *Frank Lloyd Wright and the Living City* (Weil am Rhein, Germany: Vitra Design Museum, 1998).
[66] DiMento and Ellis, *Changing Lanes,* 29.
[67] DiMento and Ellis, *Changing Lanes,* 43.

The same year that he proposed 30,000 highway miles nationally, in 1939, Bureau of Public Roads Chief MacDonald diagnosed blight around Central Business Districts and called for freeways to be used for slum clearance.[68] These were among the major results of the *Toll Roads and Free Roads* report published by MacDonald and the BPR, where urban freeway policy began to be formalized. The report "manifested technical determinism," as it assumed the automobiles and their associated structures could and fairly should shape cities.[69] There was no discussion of how to navigate existing communities, address citizen needs, or integrate with local development in a cohesive manner.[70]

Two years later, President Roosevelt created the Interregional Highway Committee.[71] This 1941 committee featured planners who "equated the removal of blighted buildings with the removal of social problems attributed to the buildings' users."[72] The *Interregional Highways* report of 1944 affirmed the notion that urban freeways were a panacea for problems of the city.[73] They displaced beautified parkways and smaller roadways as viable options to facilitate mobility, eliminated support for interregional and local transit, and severed road planning from holistic

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[68] United States Bureau of Public Roads, *Toll Roads and Free Roads.*, 1939.
[69] Dimento and Ellis, *Changing Lanes,* 57.
[70] Jane Jacobs, *The Death and Life of Great American Cities* (New York: Random House, 1961).
[71] Mertz, Lee. "Part 1 of 7 - Origins of the Interstate System - Interstate System - Highway History - Federal Highway Administration," June 27, 2017. https://www.fhwa.dot.gov/infrastructure/origin01.cfm.
[72] Dimento and Ellis, *Changing Lanes,* 56.
[73] *Interregional Highways. Message from the President of the United States, Transmitting a Report of the National Interregional Highway Committee, Outlining and Recommending a National System of Interregional Highways.*, [U.S.] 78th Cong., 2d Sess. House. Doc. 379 (Washington: U.S. Govt. print. off., 1944), https://catalog.hathitrust.org/Record/001611705.

land-use plans.[74] Following the determinations from these reports, "... traffic service always ranked first among the purposes of highways."[75]

At the time of these reports, the work of Robert Moses in New York was the most robust and influential model for highway engineers.[76] In his forty-plus year career, Moses's freeways made an indelible impact on the city of New York, ripping apart quiet communities, polluting non-white areas like Harlem, facilitating the replacement of commercial districts with "vice districts," and doing irreparable harm to New York's natural environment, particularly its waterways, separating citizens from greenspace even further.[77] Despite the fact that he worked for the famously corrupt Tammany administration and once held twelve public titles simultaneously, Moses sought to display himself as an apolitical expert seeking nothing more than to serve the public interest.[78] If protests of freeways were understood to be political, this apolitical, pragmatic veneer was used to justify ignoring them.

Most engineers followed the path Moses shared and maintained a similar mindset. They collected deeply biased data and used it to justify their plans and clung to a fictitious vision of their work that transcended politics, had no human impacts, and was solely about efficiency, in

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[74] Harland Bartholomew & Associates and Oakland City Planning Commission, *A Report on Transit Facilities and Mass Transportation in the Oakland Metropolitan Area: A Unit of the Oakland Master Plan* (St. Louis, Mo: Harland Bartholomew and Associates, 1947).
[75] *Building the American Highway System: Engineers as Policy Makers / Bruce E. Seely*, Technology and Urban Growth (Philadelphia: Temple University Press, 1987).
[76] Jeffrey Brown, "A Tale of Two Visions: Harland Bartholomew, Robert Moses, and the Development of the American Freeway," *Journal of Planning History* 4, no. 1 (February 2005): 3–32, https://doi.org/10.1177/1538513204272856.
[77] The New York Preservation Archive Project, "Robert Moses," accessed April 17, 2023, https://www.nypap.org/preservation-history/robert-moses/.
[78] Caro, Robert A. *The Power Broker: Robert Moses and the Fall of New York*. New York: Alfred A. Knopf, 1974.

movement and cost. With the latter considered, engineers often routed urban freeways through deteriorating areas that were non-white and cheapest, displacing the residents in turn.[79]

Despite their claims of being apolitical, their work, particularly in urban areas, had immense consequences for people living in the surrounding area. Engineers grew intolerant of local residents and environmentalists who protested their proposed routes, and were actively hostile towards some. Those who were on the receiving end of engineers' hostilities were "the central city poor," to whom very few resources were devoted to.[80] While they may have opposed the plans to destroy the areas they lived in, "these groups remained essentially voiceless in the formation of urban policy. The idea of blocking major public works because of their impact on poor neighborhoods had little support."[81] The brazenness of engineers was exemplified in 1943, when the American Association of State Highway Officials proposed a bill to congress that would increase federal funding commitments from 50 percent to 75 percent, increase spending to $1 billion a year, and acquire rights-of-way prior to route approval to speed up construction, maximizing dispossession in a less tactful manner.[82]

In 1944, the Federal Aid Highway Act was passed, approving the construction of a highway system with 40,000 interstate miles, 5,200 of which would be in cities. Farmers and truckers, who respectively sought to increase rural and intercity roads, saw their visions materialize after Congress approved what was essentially a continuation of the status quo of road construction.[83] The passage of the act "appropriated $225 million for primary roads in each of the

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[79] Dimento and Ellis, *Changing Lanes,* 50-55.
[80] Dimento and Ellis, *Changing Lanes,* 70.
[81] Dimento and Ellis, *Changing Lanes,* 68-70.
[82] Rose and Mohl, *Interstate,* 23.
[83] Richard F. Weingroff, "Federal-Aid Highway Act of 1956: Creating The Interstate System | FHWA," *Public Roads* 60, no. 1 (1996),

first three post-war years, $150 million for secondary and feeder road projects, and $125 million for urban federal-aid highway construction."[84] Additionally, "No aesthetic or urban renewal considerations were going to trouble road builders," following the passage of this cost-cutting spending package.[85] The act solidified the centrality of engineers in freeway planning, and also outlined the relationship between levels of government in freeway planning. In the end, federal and state engineers were given the ultimate authority, and did not have to consult with local planners or officials at all as they planned their freeways.

CONCLUSION

The innovation of the highways transformed the American landscape and economy significantly. The government–at the federal, state, and local levels–was indispensable in transforming the idea for improved roads for cyclists and farmers to a 40,000 mile network of limited access, multi-lane expressways that covered every state and reached every major city. From the beginning, highway development was inaugurated by coalescing private interests and private capital remained the primary force determining highway design, placement, and who held seats of power in the highway bureaucracies through the first half of the twentieth century. Highways shaped development and became a part of the middle class imaginary; warranted or not, as exemplified by the popularity of Curt Teich postcards and Futurama, they were sources of hope for a public that continuously imagined renewed urban forms.

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https://highways.dot.gov/public-roads/summer-1996/federal-aid-highway-act-1956-creating-interstate-system.

[84] "Federal Aid to Roads and Highways Since the 18th Century: A Legislative History," January 6, 2012, https://www.everycrsreport.com/reports/R42140.html.

[85] Rose and Mohl, *Interstate*, 25.

These fantastic ideals were explicitly constructed by the actors who came to determine the placement, physical characteristics, and ubiquity of highways, all of which were shaped by their hopes to use highways to accumulate capital, gain authority, and deploy infrastructure to destroy communities. Despite efforts to depoliticize highway construction in the public and political imagination, within the highway bureaucratic apparatus, responsibility was not shared but rather allocated to those who were the most politically adept at rallying support for highways and had the strongest ties to capital interests. Politicians used highways for their political gain and designed highway policy in collaboration with industrial capitalists set to gain from them and planners and all other professions who sought to be involved in the design of highways capitulated to engineers. Rose and Mohl write that:

> An unsavory alliance of politicians and lobbyists, according to this drama, imposed unneeded roads on a foolish and gullible public, in the process ruining mass transit, creating useless jobs, and destroying rustic charm… Americans believe that road legislation served as license for realtors and contractors to raid the United States Treasury.[86]

There is conspicuously little mention of race in freeway design documents of the time, but by no means were these policies race-neutral. Particularly as freeways began to be planned and built in urban areas, their discriminatory impacts were identifiable. Coded language like "slums" and "blighted" were used to describe areas where non-white residences were concentrated. Following federal guidance and local directives, these areas were explicitly targeted for eradication through freeway construction. Per a logic where the "the removal of blighted buildings [was equated] with the removal of social problems attributed to the buildings' users," freeways were used to facilitate social control and racial replacement across the country.[87]

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[86] Rose and Mohl, *Interstate*, XXI.

[87] DiMento and Ellis, *Changing Lanes*, 57.

Resistance was present, and those negatively affected by highways did voice their opposition. Still, their fight was against a body of engineers, politicians, and capitalists whose collective power was ever-growing. At no point was freeway design democratic, and it became decreasingly so through the midcentury. When the Federal Aid Highway Act of 1944 was passed, it formalized a clear order in highway design: engineers dominated, there was no space for collaboration, and they did not care about citizens nor was there any protection for citizens. This totalitarian order shaped the ensuing several decades of freeway design, the most critical in American history.

2. Freeway Revolts and Unnamed Protests, 1948-1985

In the postwar years, national automobility dependence and freeway obsession were hastily expanding and formalizing, yielding more robust and deliberate freeway networks. Through the 1950s, the United States was being reshaped at a dizzying rate, both cultural and spatial. Privacy through simulated rural living experiences in single-family homes and a conventional conception of stability were peddled by cultural leaders and real estate developers; its attainment was supported by the government in a racially discriminatory fashion.[88] Suburbs formed and proliferated, a spatial orientation made viable by the accessibility freeways created. A modernist American culture began to trust in technological optimism and have faith in "experts," including engineers, particularly if their findings and solutions supported a lifestyle the American public found to be amenable.[89]

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[88] Peter E. Moskowitz, *How to Kill a City: Gentrification, Inequality, and the Fight for the Neighborhood* (New York: Bold Type Books, 2018).
[89] Eric Avila, *The Folklore of the Freeway: Race and Revolt in the Modernist City*, A Quadrant Book (Minneapolis: University of Minnesota Press, 2014).

Highway engineers took advantage of this veneration of the qualified, building thousands of road miles through the 1940s and 1950s, never being checked or challenged in any meaningful way, stifling any challenge to their power and bulldozing over any opposition to their plans. More and more, the demographics of the affected citizenry were predictable. Freeways affected Black and low-income minority communities. Their homes were razed, communities destroyed, and those that remained were harmed by the polluting infrastructure that depressed their home values and loomed where life once bustled. These communities were targeted by engineers and city officials in Oakland, in San Francisco, and cities across the country. Through the 1950s, these engineers and professionals seemed to be an unstoppable force, and the citizens who lived with their decisions would never be heard.

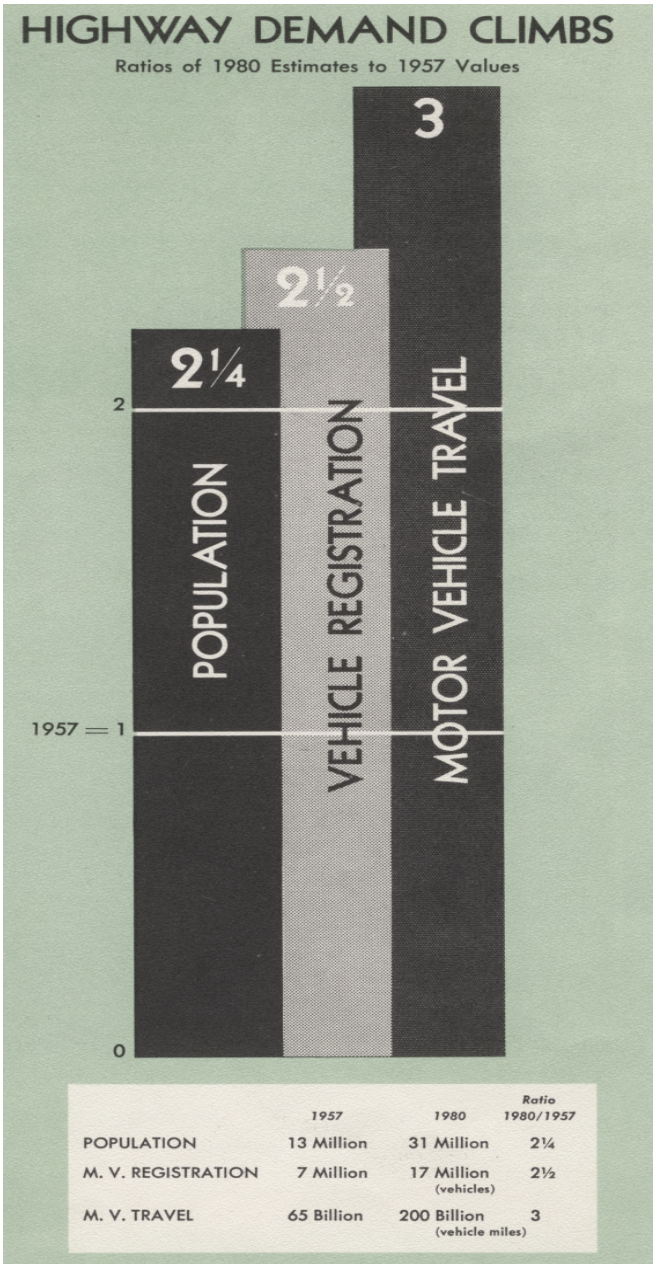

Figure 2.1.[90] A graph published by the California Division of Highways in 1958. It predicts a rapid proliferation of automobile usership, including a tripling of Vehicle Miles Traveled, by 1980. The complete report justifies expansions to the state freeway system and advocates for further expansion.

[90] California Division of Highways. *The California Freeway System, a Report to the Joint Interim Committee on Highway Problems of the California Legislature in Conformity with Senate Concurrent Resolution No. 26, 1957 Legislature*, 1957.

SAN FRANCISCO

Figure 2.2.[91] The 1948 Trafficways Plan, published in "A report to the City Planning Commission on a transportation plan for San Francisco, November, 1948." In 1955, a new report was published with few changes, and was the stimulus for resistance in San Francisco.

Following World War II, freeway engineers were becoming more emboldened, the state of California was the emergent leader in freeway building (See Figure 3.1), and policy was

[91] San Francisco Department of City Planning, "(San Francisco) Comprehensive Trafficways Plan. Trafficways 11 Plate 8," accessed April 16, 2023, https://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~258970~5522255:-San-Francisco--Comprehensive-traff.

continuing to develop so that more money and authority were being fed to engineers.[92] In 1947, the California legislature oriented freeway policy to increase superhighway construction through cities.[93]

As the topic of freeway development entered San Francisco politics, it seemed that the city was bound to face the same fate as most other American cities: the construction of a massive, disruptive freeway network.[94] Concurrently, however, San Francisco countercultural movements like the Beats were coalescing with advocates for nature, rubbing shoulders with the the economic and political elites that had called the city home for decades. The result was a city populous that was increasingly engaged and obstinate, whose advocacy primarily began by taking up quality of life matters.[95]

In 1948, the San Francisco Planning Department published a proposal that featured a sprawling network of freeways in the seven by seven mile city (Figure 3.2). The plan was updated and expanded, and per the plan published in 1955, there would be nine limited access freeways serving San Francisco citizens. By 1959, sections of several freeways had already been constructed, most notably the elevated Embarcadero and Central Freeways[96] That said, San Francisco residents were the first to challenge the myopic views of freeway planners; they were

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[92] Joseph F.C. DiMento and Cliff Ellis, *Changing Lanes: Visions and Histories of Urban Freeways* (The MIT Press, 2012), https://doi.org/10.7551/mitpress/9374.001.0001.
[93] Katherine M. Johnson, "Captain Blake versus the Highwaymen: Or, How San Francisco Won the Freeway Revolt," *Journal of Planning History* 8, no. 1 (February 2009): 56–83, https://doi.org/10.1177/1538513208324570.
[94] Mark H. Rose and Raymond A. Mohl, *Interstate: Highway Politics and Policy since 1939*, Third edition (Knoxville: The University of Tennessee Press, 2012).
[95] 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 (November 1, 1999): 611–46, https://doi.org/10.2307/4492372.
[96] Issel, "Land Values," 622.

weary of the effects freeways would have on the environment, aesthetics, and "neighborhood integrity."[97]

Upon groundbreaking for the Embarcadero Freeway in 1956 and San Franciscans witnessing first-hand the destruction freeways caused, Supervisor William Blake, chairman of the Streets Committee of the San Francisco Board of Supervisors, held several hearings where western neighbors aired grievances about a proposed freeway from the Golden Gate Bridge to San Mateo County.[98] In 1956, the first legislative shot was fired by San Francisco, as the Board of Supervisors voted to cancel the freeway. This motion was rejected by the mayor thereafter and in 1958, the California Highway Commission proposed the whole 25 miles of freeway in the 1951 Plan.[99]

For the ensuing 11 years, the Board of Supervisors, led by a fervent William Blake, in coordination with other city bureaucrats including several city planners and fleeting support from the mayors of the time, opposed the incessant proposals and threats of funding cuts levied by the state. The Board of Supervisors rejected further proposals in 1961, 1965, and once again in 1966.[100] Throughout this period, neighborhood associations, like the "Telegraph Hill Dwellers Association," "Haight-Ashbury Neighborhood Council," and others from Glen Park and the Sunset drove much of the debate and the votes on this issue, always keeping political pressure on their supervisors.[101] Additionally, citizen groups who were on the vanguard of environmental and park protection also proved to be formidable allies in the fights against freeways. Because of the intense lobbying efforts of these citizens and their success in attracting supporters, San Francisco

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[97] Issel, "Land Values," 623.
[98] Johnson, "Captain Blake versus the Highwaymen," 61.
[99] Johnson, "Captain Blake versus the Highwaymen," 63.
[100] Johnson, "Captain Blake versus the Highwaymen," 65-74.
[101] Johnson, "Captain Blake versus the Highwaymen," 75.

was the first city in the country to effectively resist the plans of state officials and highway engineers at a meaningful scale.[102]

OAKLAND

Across the Bay, however, Oakland had a very different experience with freeways. It featured the characteristic domineering of engineers and the immense discriminatory harm that came from it. State freeway engineers returned to being the unstoppable force they were across the country and local leaders harnessed and propelled their work forward. The freeways successfully connected the city to the suburbs and surrounding landscapes but left a carnage of destroyed communities, particularly minority and low-income, in the wake.

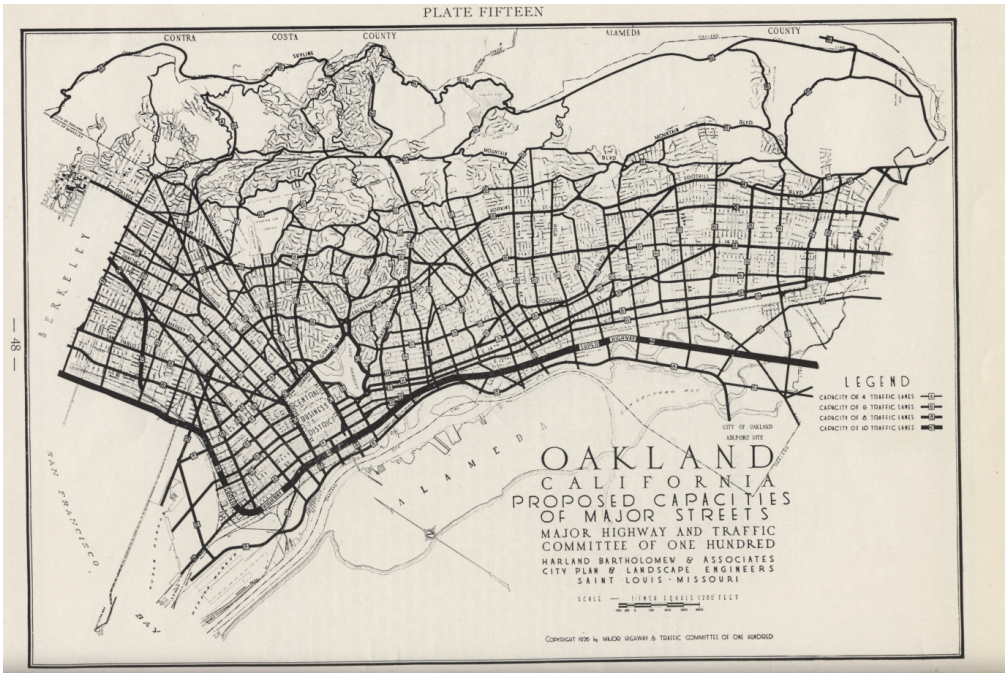

Figure 2.3.[103] An early map depicting a vision of Oakland oriented around the emergent automobile. The faith in the new technology can be identified in the density of wide roads

[102] Issel, "Land Values," 625.

[103] Harland Bartholomew, *A Proposed Plan for a System of Major Traffic Highways, Oakland, California 1927: For the Major Highway and Traffic Committee of One Hundred.* (St. Louis, Missouri: Harland Bartholomew and Associates, 1927).

through *all* parts of the city. Following the waterfront, starting in West Oakland and cutting through East Oakland, a 10 lane "Super Highway" is proposed. Less than two decades later, the Nimitz Freeway largely followed this route, but meaningful changes were made (See the caption of Figure 3.4).

In Oakland, a more tepid but accepting approach to urban freeways shifted to a more hasty expansion of the infrastructure that carried on for five decades, the first few with particular vigor. In conjunction with the opening of the San Francisco-Oakland Bay Bridge 1936, the East Bay Distribution Structure was opened, connecting the state of the art bridge to three highways of Oakland: the Eastshore Freeway, US 50, and US 40.[104] In 1942, Oakland united several of the streets that US 50 meandered through Oakland into one major thoroughfare that traversed the city with a western terminus at the Distribution Structure: it was named after General Douglass MacArthur, and West MacArthur and MacArthur Boulevard began to be routed and signs began to be posted within days of approval.[105]

[104] William Travis, *California Highways and Public Works*, ed. California. Dept. of Public Works and California. Division of Highways ([Sacramento : Dept. of Public Works, State of California, 1927), http://archive.org/details/californiahighwa195455calirich.
[105] "MacArthur Blvd.," *Oakland Tribune*, March 28, 1942.

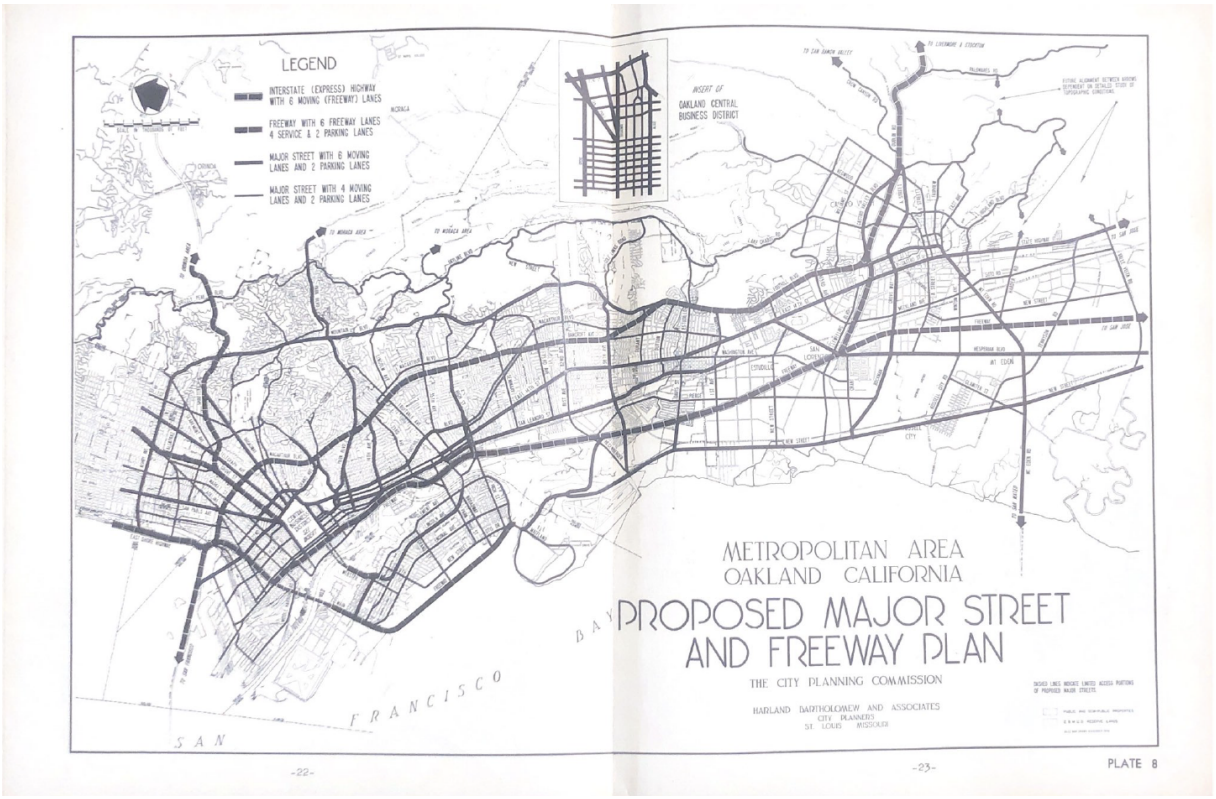

Figure 2.4.[106] Proposed Major Street and Freeway Plan for Oakland, 1947. In this report, Bartholomew identifies an opportunity for changing the predominant modes of transportation in Oakland to freeways and automobile infrastructure. Per Bartholomew, this could facilitate dispersal and decrease congestion in the city. Note that when compared to the map published by Bartholomew in 1927 indicating highway capacities (Figure 3.3), the route of the "Super Highway" follows the waterfront more closely, but in this map from 1947, it cuts directly through West Oakland. Due to the influx of ship workers for World War II, the Black population in West Oakland boomed in the decades between these two proposals being published.[107]

Nimitz Freeway

[106] Harland Bartholomew, *A Report on Freeways and Major Streets in Oakland, California: Prepared for the City Council of the City of Oakland, California* (St. Louis, Missouri: Harland Bartholomew and Associates, 1947).
[107] Robert O. Self, *American Babylon: Race and the Struggle for Postwar Oakland* (Princeton, New Jersey: Princeton University Press, 2003).

Across the city, California State Route (SR) 17 was being aligned through East Oakland.[108] In 1935, it followed along several streets, including East 14th Street (later International Boulevard), 12th Street, 8th Street, and its terminus on Broadway.[109] Soon after its opening, however, the aforementioned major infrastructure projects were opening and supporting high volume vehicle traffic; to unite with the Distribution Structure, SR-17 was extended straight through West Oakland, continuing west down 7th Street and north along Cypress Street.[110]

In these early years, the highway designations stimulated traffic along the corridors; in Oakland, stretches of SR-17 were accommodating up to 37,000 vehicles a day in the mid 1930s.[111] That said, these highways were largely at-grade and far less intrusive, disruptive, and destructive than their freeway successors; however, recognizing the new and expanding traffic through the cities and armed with technological innovation, freeways began to be imagined. Recruited by a private local booster who hoped to alleviate the city's traffic, John Hunt Skeggs, a state highway engineer who worked on the East Bay Distribution Structure, began to plan the Eastshore freeway in 1937, the first in Oakland.[112] On July 22, 1949, "between Oak Street [...] and 23rd Avenue" and partially aligned with SR-17, the first formal limited access freeway was opened in Oakland.[113] Its opening was celebrated with a "Freeway Fiesta," attended by local and

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[108] Tom Fearer, "Legacy California State Route 17; CA 13 (i), CA 17, the Nimitz Freeway, I-880, the Richmond-San Rafael Bridge, and I-580," January 29, 2018, http://www.gribblenation.org/2018/01/california-state-route-17.html.
[109] Fearer, "Legacy California State Route 17."
[110] Self, American Babylon, 149.
[111] California Division of Highways, "Highway Transportation Survey of 1934: Alameda County," David Rumsey Map Library, 1935, https://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~247257~5515341:Alameda-County-.
[112] Mitchell Schwarzer, *Hella Town: Oakland's History of Development and Disruption* (California: University of California Press, 2022).
[113] Fearer, "Legacy California State Route 17."

state politicians, engineers, and Chamber of Commerce members, as well as 1500 spectators.[114] At the time of opening, the East Shore Freeway had a price tag of $17 million dollars. It expanded South to 98th Street during the ensuing two years.[115]

Motorists enjoyed shortened commute times on the Nimitz, but benefits were not delivered to all who were impacted by the freeway. Per Bob Halligan, a Highway Engineer for the State of California, following the conclusion of World War II, SR-17 destroyed all the houses and structures along 5th and 6th Streets.[116] The freeway, the opening of which was celebrated by a "Fiesta," wiped out 16 blocks of what were the main Asian and Mexican districts of Oakland at the time (Figure 3.4). Additionally, the Nimitz slashed through East Oakland's industrial quarter, causing scores of plants to shut down and hundreds of homes to be destroyed.[117]

Figure 2.5.[118] An image of the "Freeway Fiesta" for the opening of the Eastshore Freeway (Later renamed the Nimitz Freeway).

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[114] California Division of Highways, "Freeway Fiesta: Multi-Million Dollar Highway in Oakland Open to Traffic," *California Highways and Public Works*, 1949, http://archive.org/details/californiahighwa194849calirich.

[115] Division of Highways, "Freeway Fiesta," 41.

[116] Nandi Pointer, *Highway of Dreams*, (Graduate School of Journalism at the University of California, Berkeley, 2000).

[117] Schwarzer, *Hella Town*, 176-178.

[118] California Division of Highways, "Freeway Fiesta."

Cypress Street Viaduct

By 1949, the East Bay Distribution Structure in Oakland, (then known colloquially as the MacArthur Maze) was connecting tens of thousands of motorists from the Bay Bridge to and from the East Bay along US 50 and US 40; at the same time, the East Shore Freeway was expanding and supporting tens of thousands of motorists as well. That said, there was no thoroughfare to connect the two high-volume hubs. Cypress Street was officially part of SR-17, but at that time it was still an at-grade city street, afflicted with extreme congestion.[119]

The change West Oakland underwent as Cypress Street shifted from a surface street to a freeway is thoroughly recorded in the documentary *Highway of Dreams* (1999), made by Nandi Pointer, a third generation West Oakland resident.[120] Cypress Street ran straight through the heart of West Oakland, a center of Black culture on the west coast. Since making inroads and establishing roots in West Oakland, Black residents were constantly under pressure of potential dispossession and loss, but worked to create a vibrant community in spite of that and successfully did so. Streets were lively, there was a robust nightlife scene including blues venues like Slim Jenkins, and in the mid-1940s, the area saw a boom in churches and commerce. DeFremery Park was a centerpiece of the area, creating a venue for great athletes like Bill Russell and Paul Silas to begin playing sports; former resident Anita Pointer described the park as the neighborhood's "babysitter." From the mid 1940s through the early 1950s, there were steady manufacturing jobs in the neighborhood that employed local residents, Black people in the neighborhood held positions as managers and supervisors at different facilities, and all in all,

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[119] Kenneth C. Adams, "Bay Crossings: Parallel Span Across San Francisco Bay Recommended," *California Highways and Public Works* 27 (November 1948), http://libraryarchives.metro.net/DPGTL/Californiahighways/chpw_1948_novdec.pdf.
[120] Pointer, *Highway of Dreams.*

members of the largely Black neighborhood felt that they could be successful and the nature of the community made people feel "confident."[121]

That said, there was a growing tension between the internal dynamism and self-created vibrancy of West Oakland and external forces of oppression; a new freeway made that oppression concrete. The state Division of Highways and City of Oakland continued their plans for the city's freeways. Cypress Street was burdened with intense connective traffic between the East Shore Freeway on the southern edge of West Oakland and the Distribution Structure on the northern edge.[122] With this considered, along with its pre-existing designation as a highway corridor, the freeway being placed along Cypress Street was "a logical undertaking."[123] In 1949, the all white city council declared West Oakland as "blighted" and approved the construction of a new limited access, double-deck freeway along Cypress Street.[124] The rapidity of the blight designation and approval for constructing a major infrastructure project is indicative of the lack of concern for (the desires of) residents that city officials and state highway engineers. Cypress Street was a congested yet traversable thoroughfare in West Oakland; residents predicted the ruinous effect it would have on the area.[125]

Though the double-deck design limited the footprint of the freeway itself, the Division of Highways designed multi-lane frontage roads flanking the freeway to facilitate movement during construction that would be left upon completion.[126] This expanded road footprint required the

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[121] Pointer, *Highway of Dreams.*
[122] Pointer, *Highway of Dreams.*
[123] *I-880 Cypress Viaduct Construction (Part 1 of 5)*, accessed April 16, 2023, https://www.youtube.com/watch?v=lMnXZiw3hJk.
[124] William Travis, "Something New: Double-Deck Freeway Viaducts In San Francisco and Oakland," *California Highways and Public Works*, January 1957, http://libraryarchives.metro.net/DPGTL/Californiahighways/chpw_1957_janfeb.pdf.
[125] Pointer, *Highway of Dreams*.
[126] Travis, "Something New," 33.

acquisition of right-of-way, with Bob Halligan stating, “Caltrans kind of pioneered the field of eminent domain and condemnation.” Though people were satisfied with their neighborhood, the interests of the state and city would not be denied; in the name of slum clearance and increased vehicular efficiency, “hundreds of homes were destroyed.” The resistance of these residents was wholly squashed, with Halligan indicating that the existence of complaints of the West Oakland residents was not even acknowledged by the engineers.[127]

Construction began on the freeway in 1955; it was completed on June 11, 1957. The grand stature of the double-deck structure, the first of its kind in California, was celebrated by state and city officials; down below, the imposing freeway made people feel “puny” and powerless. The area below the freeways, save for a few cross streets, were fenced off and useless, soon becoming too dangerous for residents to cross. The community was dissected by the freeway, creating what Paul Silas called “the middle class ghetto and the ghetto ghetto.”[128] Paired with the destruction of 7th St from BART and the USPS facility in the ensuing decade, the area quickly began to decline further.[129]

According to residents of West Oakland through the 1940s and early 1950s, the area was burgeoning with Black success and achievement, fueled by the resilience and will of a community that was connected and unified.[130] When imposing infrastructure replaced examples of success and made unity in the area impossible, West Oakland saw increasing unemployment,

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[127] Pointer, *Highway of Dreams*.
[128] Pointer, *Highway of Dreams*.
[129] Chris Rhomberg, *No There There: Race, Class, and Political Community in Oakland* (California: University of California Press, 2007).
[130] Donna Jean Murch, *Living for the City: Migration, Education, and the Rise of the Black Panther Party in Oakland, California*, The John Hope Franklin Series in African American History and Culture (North Carolina: University of North Carolina Press, 2010).

poverty, and crime rates as well as decreasing academic achievement. The residents of West Oakland didn't benefit at all: per Fritz Pointer, none of the neighbors would use the freeway.[131]

Warren and Ashby Freeways

As the Cypress Viaduct opened, decimating dense residential and commercial settlements, the Warren Freeway (SR-13) was being built through a sparsely developed stretch of the hills in 1957. The freeway was a modest four-lanes and the route was described as "woodsy, bucolic," a certain departure from the experiences of driving through the cities.[132] The pleasant freeway ultimately stimulated further residential development along its route in the hills and a new enclave of wealth was expanded in turn.

To the north, it was supposed to pass through Berkeley as well, but this was fervently protested by Berkeley residents as they came to appreciate the massive amount of residential destruction that would come about if the Ashby extension was built along its planned corridor.[133] The Ashby route began to be studied in 1947, to run through neighborhoods in South Berkeley that pioneered the adoption of zoning codes, creating racially and economically exclusive neighborhoods in perpetuity.[134] These residents protested immediately when the council began to consider the project and after years of study, the city council officially shelved the plans for the freeway in 1957.[135] The expansion never occurred.

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[131] Pointer, *Highway of Dreams*.
[132] Schwarzer, *Hella Town,* 176.
[133] Schwarzer, *Hella Town,* 182.
[134] Jesse Barber, "Berkeley Zoning Has Served for Many Decades to Separate the Poor from the Rich and Whites from People of Color," Berkeleyside, March 12, 2019, https://www.berkeleyside.org/2019/03/12/berkeley-zoning-has-served-for-many-decades-to-separate-the-poor-from-the-rich-and-whites-from-people-of-color.
[135] Richard M. Zettel and Paul W. Shuldiner, *Freeway Location Conflicts in California*, Research Report / Institute of Transportation and Traffic Engineering ;No. 29 (Berkeley: Institute of

Grove-Shafter (Rockridge-Temescal)

The same year the Cypress Street Viaduct opened along the Nimitz Freeway, Oakland residents in the Temescal and Rockridge neighborhoods were celebrating the removal of railroad tracks through the area a few miles northeast. This was a major political win for the neighbors in the area, who had long complained about the tracks' negative impacts on quality of life; however, right as their battle over a form transportation infrastructure of diminishing prominence came to an end, the neighborhood had to face off against an assurgent freeway lobby. In his 2006 book *Temescal Legacies*, Jeff Norman, an Oakland historian, interviewed activists and community members from the neighborhood at the time, constructing a complete history of their experiences fighting against the freeways.[136]

In 1956, the California Highway Commission convened a meeting in Oakland, presenting several possible routes for a new freeway they planned to construct, and favoring the Grove route through Rockridge and Temescal, which were then predominantly Italian neighborhoods with thriving commercial districts and close-knit communities.[137] Despite this, state highway engineers called North Oakland "blighted," a stretch by even the imprecise and discriminatory standards the term was used in.[138] North Oaklanders had been demanding information about the proposed routes for more than a year and the 1956 meeting was the first opportunity for locals to see them. Residents assumed it was the first time anyone beyond the engineers were seeing the planned routes; however, outrage ensued when "'representatives of the Chamber of Commerce

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Transportation and Traffic Engineering, University of California, Berkeley, 1959), https://catalog.hathitrust.org/Record/010654199.

[136] Jeff Norman, *Temescal Legacies: Narratives of Change from a North Oakland Neighborhood* (Oakland, California: Shared Ground, 2006).

[137] B.W. Booker, "Freeways in District IV," *California Highways and Public Works* 36 (March 1957), http://libraryarchives.metro.net/DPGTL/Californiahighways/chpw_1957_marapr.pdf.

[138] Schwarzer, *Hella Town*, 179.

and various downtown groups read prepared statements and presented resolutions favoring the state's plan."[139] The neighbors of Temescal and Rockridge felt misled and deceived, intensifying the adversarial nature of the relationship between local residents and the empowered officials making decisions on the placement of the freeway.

The state engineers were required by law to hold public meetings, but, per Sewall Glinternick, publisher of several local newspapers, "It wasn't, as I recall, 'Would you like it, would you not like it?' It simply was going to be built."[140] Glinternick was an early, dogged opponent of the Grove route but was not alone; as more information came to be understood about the scope of the destruction along commercial thoroughfares like Telegraph Avenue. Merchants from Temescal, College Avenue, and Piedmont Avenue all joined together and began to oppose the plan vocally; groups such as Citizens Committee Against the Grove-Shafter Freeway and North Oakland Home Defenders began to be formed to oppose the route.[141] However, unlike in San Francisco, there was no complete, city-wide resistance effort as there was in San Francisco. There were 7 routes presented at the meeting. In Glinternick's estimation, the diversity of routes that threatened a broad area made coalition building difficult for resisting the freeway, as the residents in each area were concerned with diverting the freeway from their own neighborhood as opposed to the city itself. The Grove route was supported by "most of the Oakland city councilmen" and in 1958, the council approved it.[142] In the approval meeting, Councilman Glen E. Hoover minimized resistance efforts, saying, "'[The City] would rarely be able to build any freeway anywhere if we had to find a route that everybody wanted.'"[143]

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[139] Norman, *Temescal Legacies,* 80.
[140] Norman, *Temescal Legacies,* 82.
[141] "North Oakland Home Defenders Name Mrs. K. R. MacTavish to Gather Signatures.," *Oakland Tribune*, August 27, 1958.
[142] Norman, *Temescal Legacies,* 75.
[143] Norman, *Temescal Legacies,* 76.

Here are State Engineers' estimates of the cost, mileage and other factors involved in the alternate Grove-Shafter freeway routes shown on map above.

	G-8	G-9	G-11*	G-12	G-13	C-1	C-3	C-4	C-5	R-7
Mileage	4.90	5.02	4.90	4.87	4.77	5.05	4.97	5.12	5.15	4.80
Cost (millions)	$42.9	$43.2	$41.9	$43.0	$43.1	$45.5	$46.1	$45.0	$46.4	$48,9
Acreage Required	129.5	126.1	127.9	123.9	118.8	132.0	129.4	134.0	145.6	118.4
Homes Involved	1,675	1,652	1,594	1,619	1,560	1,738	1,651	1,719	1,791	1,131
Businesses Involved	105	99	108	94	89	112	117	87	87	108

*G-11 is the originally recommended route.

Figure 2.6.[144] Map of the proposed Grove-Shafter routes with calculations on homes and businesses that would be moved or razed given each selection.

Residents were shocked by the route selection, lamenting the destruction of a well-established community. In 1959, affluent neighbors began to fight against the possible prospect of 1,768 homes and 118 businesses being sacrificed for a freeway (Figure 3.5). The Chabot Canyon Association and Save the Hills Associations formed and protested the construction of the Grove-Shafter freeway, but construction marched forward anyways.[145]

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[144] "10 Freeway Routes Studied by Council," *Oakland Tribune*, August 28, 1957, California Digital Newspaper Collection, https://cdnc.ucr.edu/?a=d&d=OT19570828.1.4&e=-------en--20-OT-1--txt-txIN-grove%252Dshafter-------.

[145] Schwarzer, *Hella Town*, 183.

Following the removal of the Sacramento Northern tracks, concerns about similar quality of life issues did not come until the first phase of Grove-Shafter opened in 1969. The effects of the freeway were largely considered to be worse than those of the tracks as the freeway presented a new set of disamenities and "decimated entire commercial districts, such as on Grove Street and at Telegraph and 55th."[146] Raymond Mellena, a resident who lived through the change, noted, "We still lost a lot of homes, and many businesses were sacrificed." There was a significant business district around 55th and Telegraph, but with the new freeway looming in the area, the commercial patterns of the area shifted as buying habits changed and many businesses disappeared.[147]

[146] Norman, *Temescal Legacies,* 68.
[147] Norman, *Temescal Legacies,* 76.

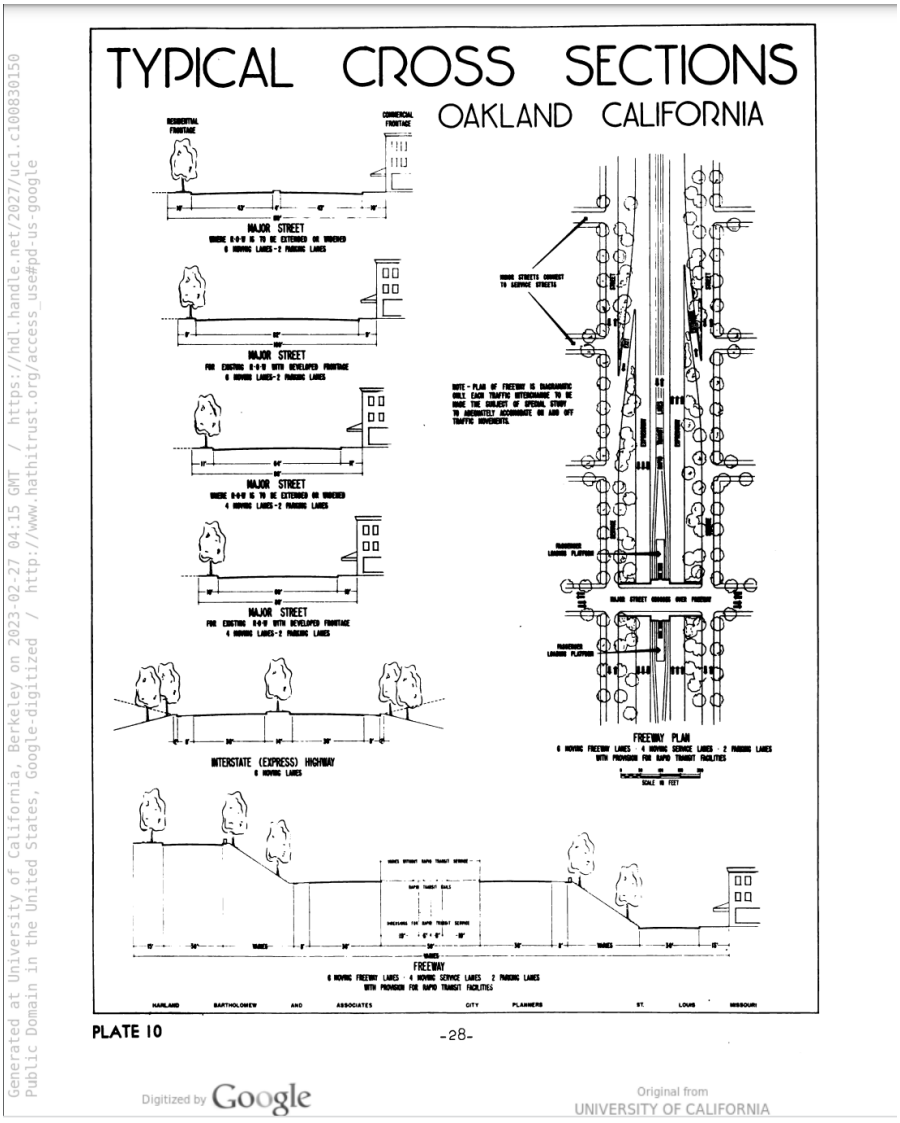

Figure 2.7.[148] The Cross Sections of the Freeway and Major Street Plans from Bartholomew and Associates, 1947. The Grove-Shafter Freeway included the middle rapid transit service line, which was an additional 50 feet. In total, excluding the variable landscaping that were the sites of the land-demanding on and off-ramps, freeways with additional service streets were a massive 228 feet wide, nearly three times the width of major streets that had two sidewalks, two parking lanes, and four traffic lanes (80 feet).

[148] Harland Bartholomew & Associates and Oakland (Calif.), *A Report on Freeways and Major Streets in Oakland, California: Prepared for the City Council of the City of Oakland, California* (St Louis: The Firm, 1947), https://catalog.hathitrust.org/Record/101712977.

Grove-Shafter (West Oakland)

West Oakland, described as the "Harlem of the West" due to its status as a site of thriving Black culture at the midcentury, was declared as blighted by the Oakland City Council in 1949; as such, it became a target for demolition.[149] Indeed, across West Oakland, for a variety of development and renewal projects, 200 acres were cleared and 9000 people were displaced by 1954.[150] The Grove-Shafter freeway cut north and south of I-580 (MacArthur Freeway), with the north section being built first. For several years, however, the approved section south of the MacArthur in West Oakland laid bare for years (Figure 3.7). According to historian Robert Self, "much of the demolition required to accommodate it had been completed by the late 1960s as part of the City Center redevelopment project," but construction endured into the next two decades.[151] For that stretch of the freeway, some 400 people, 100 families, and 600 apartments and houses were razed and cleared.[152]

[149] Walter Hood, *Walter Hood: Urban Diaries*, Landmarks 02 (Washington, D.C.: Spacemaker Press, 1997).
[150] Hood, *Urban Diaries*, 11.
[151] Self, *American Babylon*, 163.
[152] Elaine Brown, *A Taste of Power: A Black Woman's Story* (New York, NY, USA: Anchor Books, 1992).

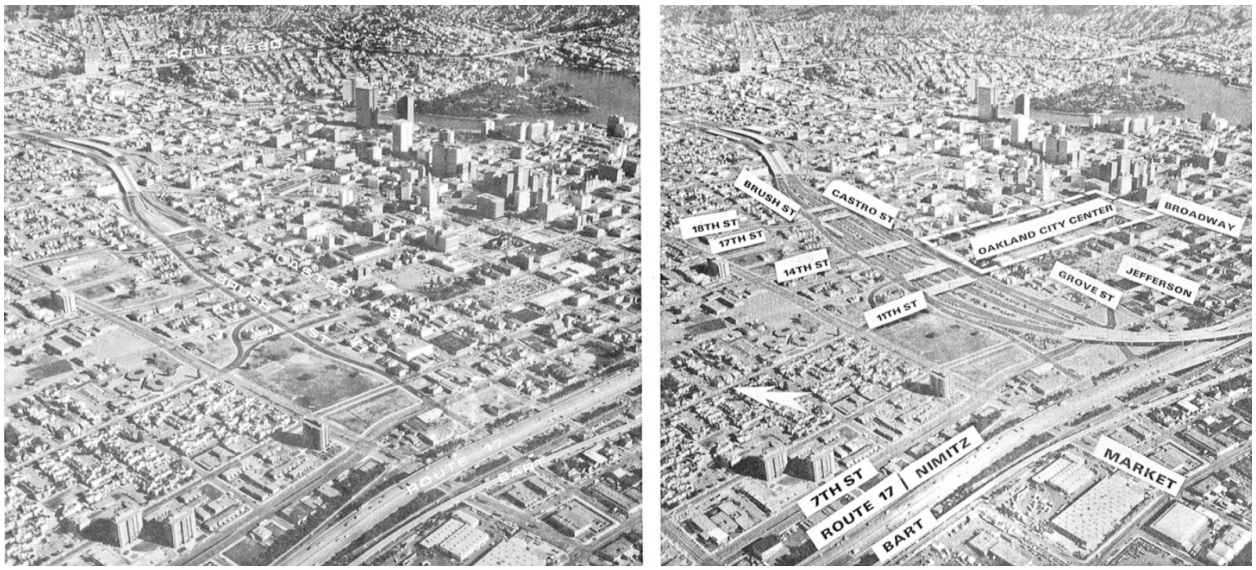

Figure 2.8.[153] An image adapted from the Final Environmental Impact Statement of Interstate 980, published in 1978. The Eastward view shows swaths the width of the swaths that were cleared for the highway just a few blocks from the city center.

Contemporaneous with the freeway's construction delays, the Black Panther Party persisted and remained powerful in West Oakland. The Black Panthers denounced the freeway, for both its displacement and the harm they expected it to reproduce in the community in a vein similar to the Cypress Street Viaduct. If it were to be built, the BPP demanded that a scheme be developed to deliver the benefits the freeway produced to the affected community members through a profit sharing system.[154]

Indeed it was supposed to be a very profitable venture. According to Brown, "Major nonlocal investors had pledged to join the locals in transfusing blood into the decrepit heart of the city if a proposed freeway extension was constructed to lift prospective white suburban consumers over the unsightly blight of blacks in West Oakland and the city center."[155] The

[153] "West Oakland: A Neighborhood Divided," *ConnectOakland* (blog), April 20, 2015, http://www.connectoakland.org/history/west-oakland/.
[154] Brown, *A Taste of Power*, 418.
[155] Brown, *A Taste of Power*, 335.

freeway's logic for extending along the I-980 corridor of the Grove-Shafter Freeway, where land laid razed but a freeway was yet to be built, was made all the more illogical and improbable after its extension into Alameda was canceled. Still, much of the plans of the city and their boosters–including economic development and racial recomposition in the city–impinged upon the construction of the freeway.[156]

The pro-freeway lobby–which included the Association of Bay Area Governments, Oakland Chamber of Commerce, and Oakland Citizens Committee for Urban Renewal–levied immense economic and political power in Oakland.[157] The construction of the freeway was a precondition for the Hyatt Corporation, Wells Fargo, Bullocks, and Sears to locate major facilities downtown.[158] These investments would revitalize the economy, the city hoped.

Blacks did not expect to be the beneficiaries of this new downtown and revitalized economy. Only further damage to their West Oakland community was expected. Though the Black Panther Party as well as a few allies at the state and local level supported a court-ordered injunction that paused construction of the freeway, the aforementioned freeway supporters continued their push for the realization of a Grove-Shafter extension through West Oakland.

In the mid-1970s, then Governor Jerry Brown was withholding funds for the construction of the Grove-Shafter extension. Governor Brown was not eager to change his position, and his Secretary of Transportation, Adriana Gianturco, was steadfast in her opposition to the project on environmental grounds. At the same time, however, the BPP saw a great chance at obtaining a meaningful position of power: they sought to have Lionel Wilson become the first Black mayor of Oakland in the 1977 election. Recognizing the challenge of the task, any means of gaining

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[156] Schwarzer, *Hella Town*, 276.
[157] Schwarzer, *Hella Town*, 185.
[158] Brown, *A Taste of Power*, 425.

support was on the table, and Elaine Brown, the Black Panther Party's Minister of Information, was goaded by local political figures to lobby the governor to fund the Grove-Shafter Freeway extension.[159]

Brown herself was wary of the freeway, as were the Black Panthers and most of the West Oakland community, all intimately familiar with the harm they can deliver; however, she recognized the immense political leverage that Wilson's support could create and the opportunity the Black Panthers could have in overseeing the construction of the freeway if Wilson supported the project. Elaine Brown proposed to Wilson that he would support the project if they could get concessions from the City and the private leaders pushing for the freeway's construction to guarantee Black residents received jobs in the new plan to redevelop the City Center. Specifically, they sought an administrative body that would be run by the Black Panthers to secure *long-term* jobs, as opposed to temporary construction opportunities. Mr. Wilson was "excited and wary" by the prospect of the proposal, recognizing the opportunity but acknowledging the harmful legacy the freeway represented for the community, but the economic promises to the Black community were significant enough for him to support it.[160]

With the new support of the Black community, Governor Brown "felt justified" distributing funds for the project. Secretary Gianturco would not authorize the expenditures but despite this, Brown, facing pressure from the business lobby and now the Black community, announced his support for the freeway.

A few days later, Oakland business magnates came together and formed the Oakland Council of Economic Development. The members of OCED were executives of multinational corporations including Kaiser Industries, Pacific Bell, Clorox, the Oakland Tribune, and more,

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[159] Brown, *A Taste of Power*, 429.
[160] Brown, *A Taste of Power*, 419.

united by a mission to complete Oakland's City Center plans. Per Elaine Brown, the group was not interested in continuing the outward thrust of capital to suburban areas; instead, they sought to recapture the city center for business and investment and "wrest Oakland from the encroaching, hostile natives."[161] Immediately upon its emergence, OCED and the Black Panthers, were jockeying for control of Oakland.

With that considered, it was ultimately the support of Elaine Brown that swayed Governor Brown to support funding the freeway; if it was rescinded, the approval and funding Grove-Shafter Freeway extension, recognized by OCED as the gateway to billions in international investment, would have a political battle ahead that was even more complex and challenging. OCED quickly became a premiere political influence in Oakland. Still, to the dismay of OCED, the Black Panthers remained a significant political force. Ms. Brown and Wilson recognized the importance of their support of the freeway extension in its construction, which was central to OCED's vision. For the Black Panthers, it was just a political bargaining chip; if it did not get built, there would not be sustained jobs delivered to the community, but there would not be further harms of a freeway in the community either. Knowing that the rescission of the Black Panthers' support of the extension meant the governor would rescind his support, Elaine Brown successfully extracted further political power from OCED: as a condition of their continued support of the Grove-Shafter Freeway, Elaine Brown we be a member of OCED, the BPP would operate a City Center Employment Corporation, through which all City Center jobs would be funneled, and OCED would use their influence to dissuade any attacks of Lionel Wilson during his mayoral run.[162]

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[161] Brown, *A Taste of Power*, 425.
[162] Brown, *A Taste of Power*, 430.

Concessions were made and across Oakland, support for the Grove-Shafter extension materialized; however, Gianturco was steadfast in her refusal to release funds for construction. After an intense debate with many warnings of harm by Gianturco, Elaine Brown convinced Secretary Gianturco to release the funds for the sake of local political and economic progress. Governor Brown ensured a direct line to his office from OCED to facilitate the project's completion. The deal was publicized. Several months later, in 1977, Wilson became Oakland's first Black mayor.[163]

[163] Brown, *A Taste of Power*, 430-436.

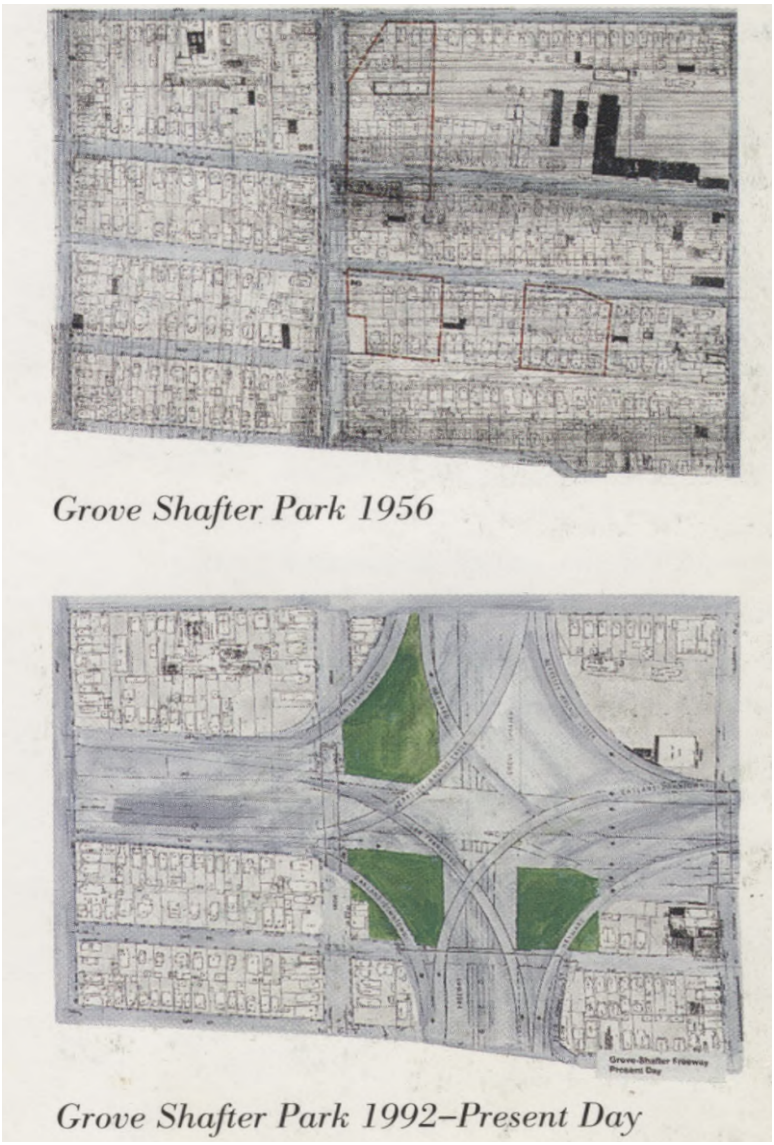

Figure 2.9.[164] Illustrations created by Berkeley landscape architect Walter Hood. In the above section, Hood highlights what would become "Grove Shafter Park," directly beneath the heavily trafficked Grove-Shafter Interchange. The park was constructed after the last stretch of Interstate 980 was completed.

MacArthur

The MacArthur Freeway, which began to be planned in 1947 and was designed to traverse the length of the city of Oakland, was first presented to the public in 1954, with

[164] Hood, *Urban Diaries*, 12.

construction set to start a decade later.[165] Aside from the pleasant, small Warren Freeway, it was the first freeway planned to run through the more white, affluent Oakland Hills, and immediately, public outcry began. Per Schwarzer, this was the first time a freeway in Oakland was met with shock and anger from elites in the city. In 1954, 700 people attended a protest organized by the "Lakeshore Homes Association at Crocker Highlands Elementary School, voicing fears that their properties would be condemned and property values would decline."[166]

Several groups coalesced in opposition, including homeowners associations and several business associations. The MacArthur Freeway Citizens' Opposition Committee lobbied to have all freeways in the city banned outright. This movement did create a small stir, but generated little institutional support, for instance the Oakland Tribune never endorsed the opposition. In East Oakland, still a poorer, more minority community, there is little documentation of any protests led by these community members.[167]

The route was approved in several stages, and by June 1957, the full route was endorsed by the City Planners and the state Division of Highways. In 1957, all but one city councilmember voted to approve construction.[168] The Right-of-Way for the MacArthur Freeway alone cost $54,000,000, as the state purchased 2100 parcels starting in 1955.[169] That said, the interests of those who dwelled in the more affluent, white hills were not wholly ignored as they were in other areas. Following approval, the route was diverted away from Mills College, conserving trees and the peace of the campus; it was also redirected to save Knowland Park and maintain the green

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[165] Zettel and Shuldiner, *Freeway Location Conflicts*, 34.
[166] Schwarzer, *Hella Town*, 178.
[167] Zettel and Shuldiner, *Freeway Location Conflicts*, 35
[168] Schwarzer, *Hella Town*, 179-182.
[169] L.M. Petersen, "US 50 Freeway: State Begins Construction on MacArthur Freeway in Oakland," *California Highways and Public Works*, March 1960, http://archive.org/details/cavol3940liforniahigh6061wa00calirich.

space there. While the freeway was constructed in a characteristically intrusive manner through West Oakland, significant investments were made in retaining walls that "saved a lot of valuable property including a school" as the MacArthur ran through the more affluent, white Oakland Hills. Further east along the route, the same retaining walls continued to be built to protect existing commercial and manufacturing districts in the hills.[170] By 1965, all phases of the 16 mile freeway were completed.

The MacArthur freeway was lauded for its beauty, winning a national Highway Beauty Awards Competition in 1969, and Oakland planners took pride in this. MacArthur Boulevard had a long history with concern for quality of life issues related to the roadway: in 1951, a ban of trucks was instituted along the entire Boulevard was instituted in order to ward off the perceived harm and devaluation they and their associated land uses brought to an area. In 1963, as a result of a multi-year pressure campaign from surrounding residents, the California Division of Highways approved a ban of trucks weighing more than four and a half tons to continue on the MacArthur Freeway.[171]

ENDURING SOCIAL IMPACTS

Before the conscious shift towards urban freeways occurred, highway engineers across the country were focused primarily on rural access roads.[172] When assignments changed and urban landscapes became the arena for new design, emboldened by past experience and a pervading sense of data-driven infallibility, state engineers changed little about their design

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[170] D.C. Ryman, "MACARTHUR FREEWAY: Relief for the Nimitz Freeway," *California Highways and Public Works*, March 1966, http://archive.org/details/califvol4546orniahighwa6667calirich.
[171] Schwarzer, *Hella Town*, 182.
[172] Rose and Mohl, *Interstate,* 12.

approach. The shortcomings of this perspective came to the fore in the most public of manners upon execution. 1930s-forged principles of design "broke down in the inner city" and the vacuous view engineers had of freeway planning as "technical exercise[s] in traffic movement led to unnecessarily damaging interventions in the fragile social ecology and physical structure of cities."[173]

Per Professor Tom Lewis, many engineers "reveled in the sheer joy of building without attention to the consequences."[174] That said, starting in the 1950s and persisting through the 1960s, freeway plans clashed with San Franciscans, yielding decades long political battles and forever changing the history of the city of San Francisco, federal transportation and environmental policy, and precedents for what local advocacy can yield.[175]

The San Francisco Freeway Revolt is heralded as a watershed moment in the history of freeway development across the United States. The triumph of San Francisco's Freeway Revolts reverberated across the country.[176] According to Issel, the revolt was environmentalism before the term "environmentalism" was coined and was a catalyst for the passage of the National

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[173] DiMento and Ellis, *Changing Lanes,* 3.
[174] Tom Lewis, *Divided Highways: Building the Interstate Highways, Transforming American Life* (Ithaca, UNITED STATES: Cornell University Press, 2013), http://ebookcentral.proquest.com/lib/berkeley-ebooks/detail.action?docID=3138477.
[175] Dinyar Patel, "Saving America's 'Last Lovely City:' The San Francisco Freeway Revolt," *STANFORD UNDERGRADUATE RESEARCH JOURNAL* 3 (2004), https://ojs.stanford.edu/ojs/index.php/surj/issue/view/surj-2004/46.
[176] Raúl García and Teju Adisa-Farra, "How 'Freeway Revolts' Helped Create the People's Environmental Law," Earthjustice, June 13, 2019, https://earthjustice.org/article/freeway-revolts-helped-create-national-environmental-policy-act.

Environmental Protection Act of 1970.[177] Additionally, the freeway revolt in San Francisco inspired similar movements in several other American cities that were eventually successful.[178]

The actors in San Francisco's revolt were primarily upper- and upper middle-class whites who were engaged in advocacy and many had elite connections.[179] The SF Chronicle ended up being amongst the most formidable of planned freeway critics at the behest of executive editor Scott Newhall, a descendant of California's elite Newhall family, who was urged to oppose the change freeways triggered by his sailing companion.[180] The neighborhood organizations were formed of elites, like property developer Chris McKeon's Property Owners' Association of San Francisco.[181] The founder of the Haight Ashbury Neighborhood Council (f. 1964), one of the most significant neighborhood associations, was Sue Bierman, wife of Arthur K. Bierman, the leader of a group that turned public opinion against hearings of the House Committee on Un-American Activities. She was turned to the environmental movement by neighbor Dianne Feinstein, when they campaigned to stop development threatening the Sutro forest.[182]

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[177] Issel, *Land Values*, 613.
[178] Jeffrey Brinkman and Jeffrey Lin, "Freeway Revolts! The Quality of Life Effects of Highways," *The Review of Economics and Statistics*, September 27, 2022, 1–45, https://doi.org/10.1162/rest_a_01244.
[179] Johnson, "Captain Blake versus the Highwaymen," 57.
[180] Issel, *Land Values*, 625.
[181] Issel, *Land Values*, 629.
[182] Issel, *Land Values*, 632.

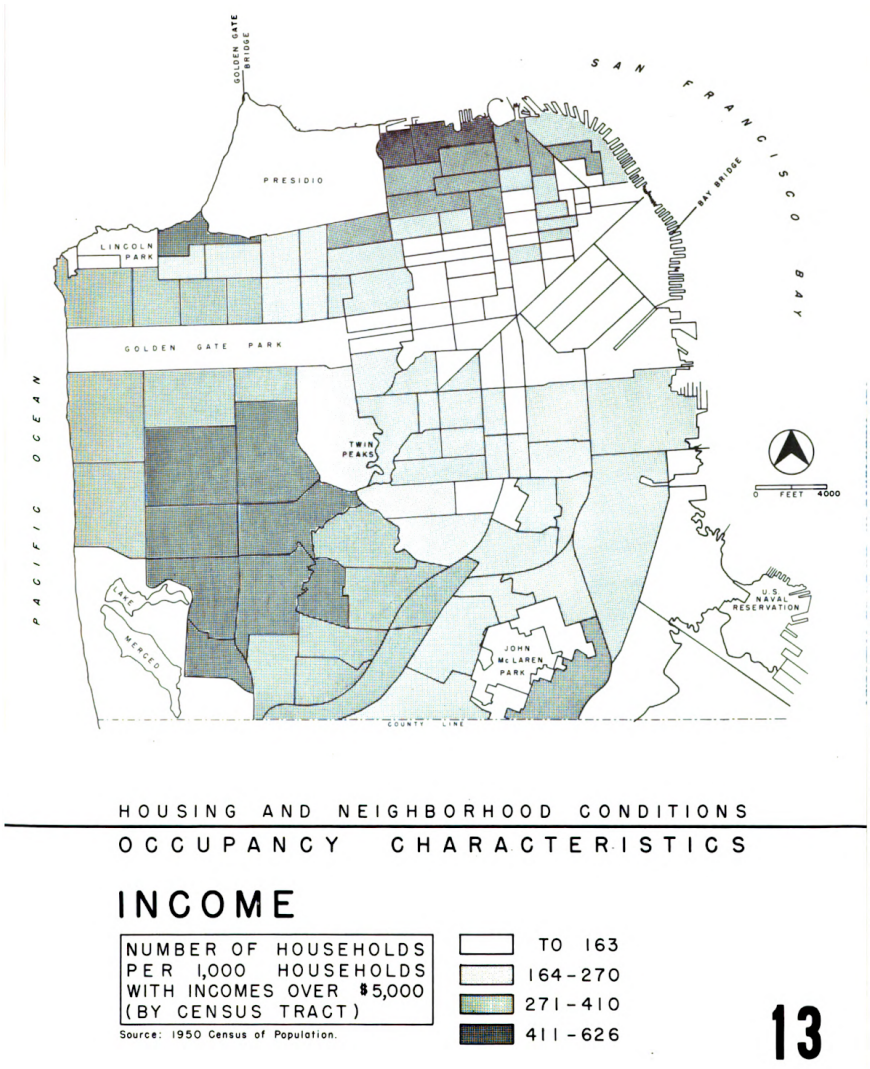

Figure 2.10.[183] A map indicating income levels across San Francisco, published in 1955. It is included in a report entitled "Housing and Neighborhood Conditions: A Classification of Areas for Urban Renewal." Urban Renewal was broadly used to clear areas that officials in cities across the country identified as "blighted."[184] This report is dedicated to defining where "blight" persists in San Francisco. Factors that contributed to blight definitions in this report included things about the character of buildings, like dilapidation and age of units, but also included income levels, density, rates of owner occupancy, and "non-white population" rates. Areas that had high

[183] San Francisco Department of City Planning, *Housing and Neighborhood Conditions in San Francisco; a Classification of Areas for Urban Renewal.* (San Francisco: San Francisco Department of City Planning, 1955), https://catalog.hathitrust.org/Record/003060796.
[184] Deborah N. Archer, "'White Men's Roads Through Black Men's Homes'*: Advancing Racial Equity Through Highway Reconstruction," *Vanderbilt Law Review* 73, no. 5 (October 2020): 1259–1330.

density, high percentages of renters, more low-income residents, and higher proportions of non-white populations would receive "penalty points" accordingly. These penalty points translated to an increased likelihood of an area being redeveloped. It was uncommon to find explicit commands for freeways to be routed through non-white areas or areas with more low-income residents in official planning documents, but it was common to find recommendations that freeways be routed through "blighted" areas.[185] This report makes explicit that "blight" means low-income and non-white. The areas with more low-income residents in the above figure correspond to where freeways were built (See Figure 3.9).

Individuals in the east side of San Francisco near the industrial corridors did protest, but received little sympathy, despite suffering much more destruction than what would have occurred if other plans materialized.[186] These areas were historically given C and D ratings by the Home Owners Loan Corporation (often explicitly on the basis of their racial character), yielding no loans for the area's residents and effectively denying the area's residents the most historically significant key to wealth generation (See Figure 3.10).[187] They were already disinvested areas and they were further devalued as this harmful infrastructure was constructed in them.

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[185] *Interregional Highways. Message from the President of the United States, Transmitting a Report of the National Interregional Highway Committee, Outlining and Recommending a National System of Interregional Highways.*, [U.S.] 78th Cong., 2d Sess. House. Doc. 379 (Washington: U.S. Govt. print. off., 1944), https://catalog.hathitrust.org/Record/001611705.
[186] Johnson, "Captain Blake versus the Highwaymen," 57.
[187] Jack Dougherty and contributors, *Federal Lending and Redlining | On The Line: How Schooling, Housing, and Civil Rights Shaped Hartford and Its Suburbs*, accessed April 16, 2023, https://ontheline.trincoll.edu/lending.html.

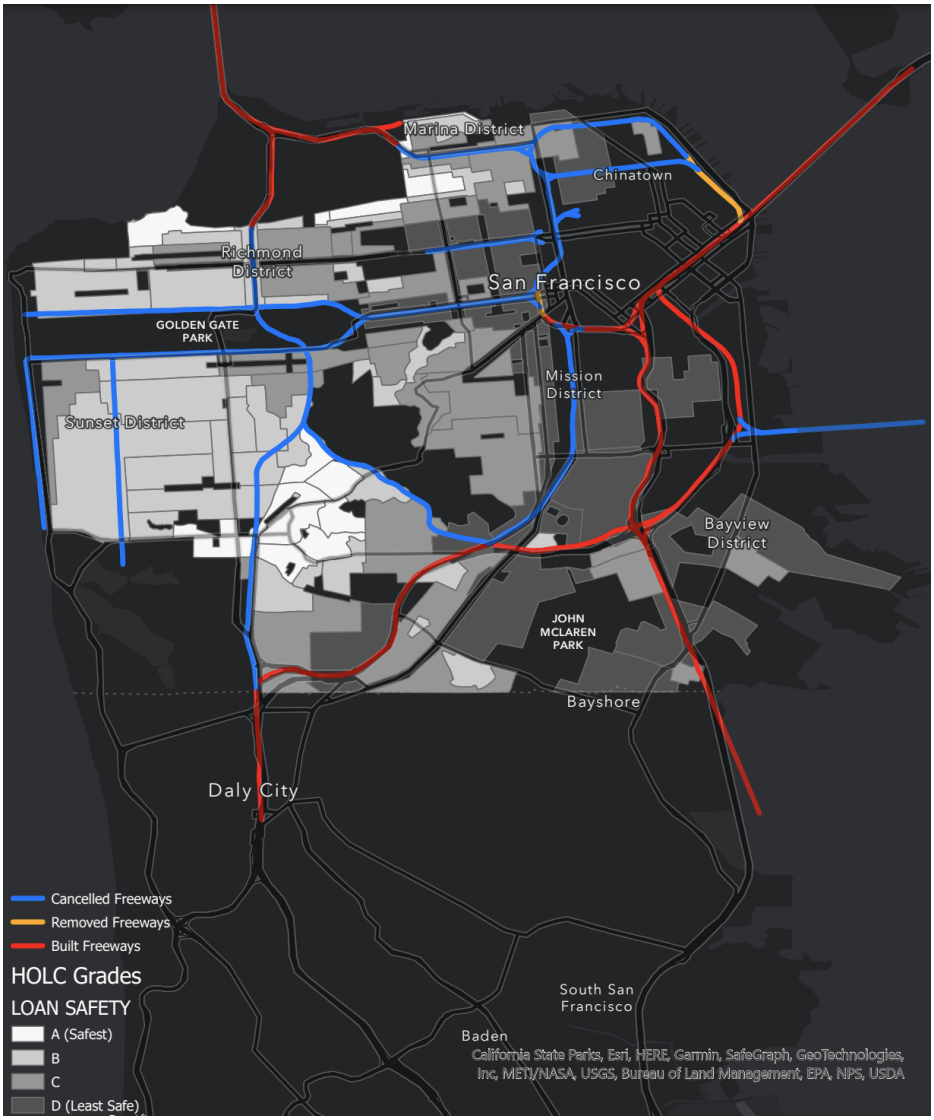

Figure 2.11.[188] A map of the freeway routes proposed in a 1948 transportation plan for the City of San Francisco differentiated by their building status. Beneath the freeways are the grades for loan safety of the areas as determined by the Home Owners' Loan Corporation in 1937.

The general mythos of freeway revolts parallels conceptions of 1960s counterculturalism, a grassroots uprisings in defense of the community against powerful forces of the state. That

[188] By Author. Data from Robert K. Nelson, LaDale Winling, Richard Marciano, Nathan Connolly, et al., "Mapping Inequality," American Panorama, ed. Robert K. Nelson and Edward L. Ayers, accessed April 16, 2023, https://dsl.richmond.edu/panorama/redlining/#loc=13/37.803/-122.353&maps=0&city=san-francisco-ca&text=downloads; San Francisco Department of City Planning, "(San Francisco) Comprehensive Trafficways Plan.

said, "the success of the visible freeway revolt has left us with some of the nation's most exclusive enclaves of wealth and privilege."[189] Most were motivated by preserving property values and increasing the generation of commercial income.[190] These high value areas were ones that the HOLC had generally given A and B ratings just a couple decades before the freeway revolts really began. The result was a defense of "historic patterns of racial segregation."[191] The inequitable, racial dimensions of freeway revolts is largely obfuscated in narratives about the revolts and nationally, there are examples of present activists deceptively asserting that racial equity was a foremost motivation in these initiatives. The reality is that freeway revolts of the mid-century reproduced spatial inequality, and while being hailed for their successful defenses of some areas, citizens who protested the harm of some freeways tolerated the destruction of other areas.

Oakland had a very different history with freeways, losing out on the region's shifting transportation and development patterns. Freeways impeded movement in the inner cities and facilitated centrifugal development and regional sprawl, prioritizing the mobility of white suburbanites over the holistic well-being of those living in cities. This privileged demographic received "greater control over the social environments of their excursions and destinations."[192] The rerouting of vehicles off city streets caused major harm to businesses and facilitated the deindustrialization of Oakland, as larger facilities moved to the cheaper, newly connected suburbs. City and commercial leaders in Oakland embraced freeways while San Francisco

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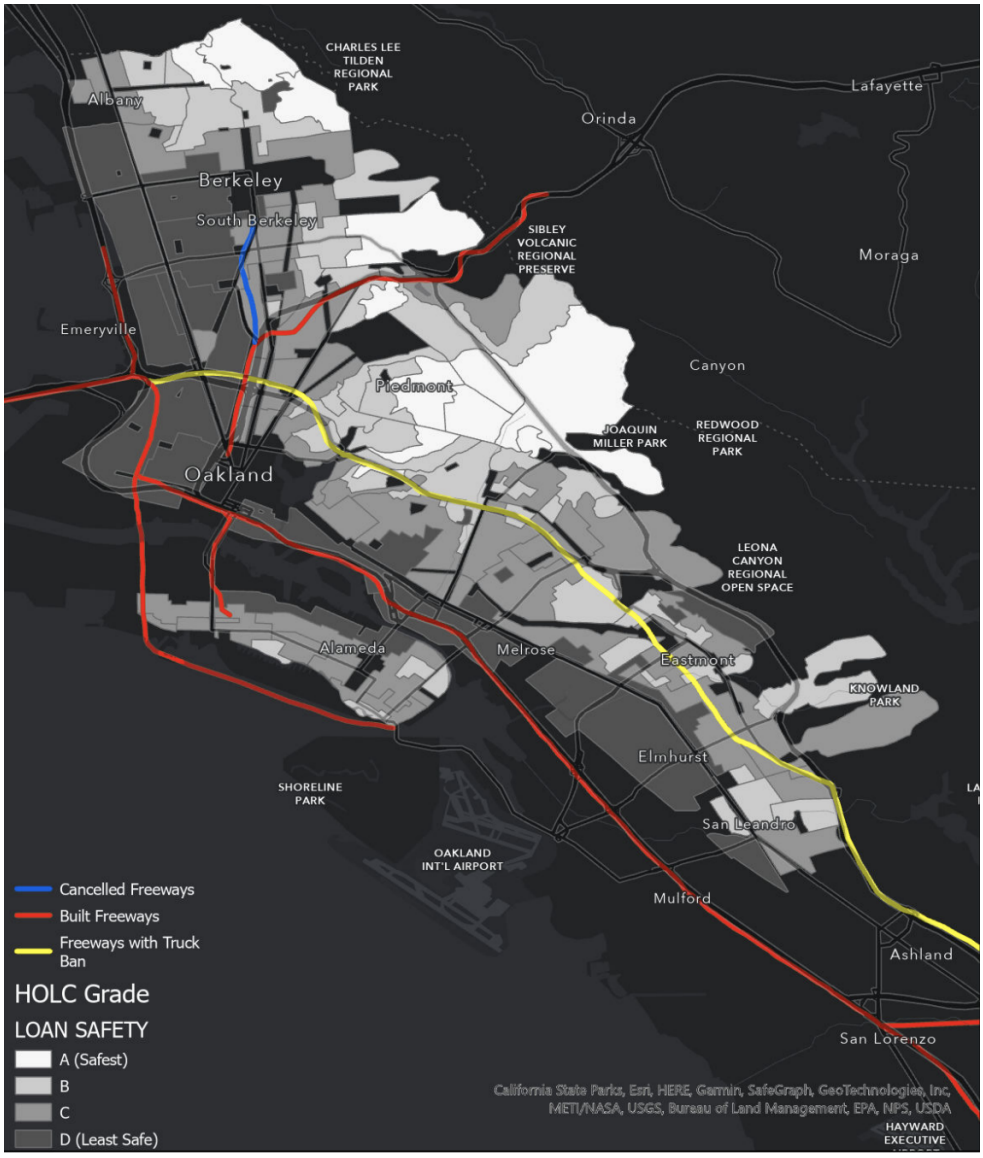
[189] Eric Avila, *The Folklore of the Freeway: Race and Revolt in the Modernist City*, A Quadrant Book (Minneapolis: University of Minnesota Press, 2014).
[190] Issel, "Land Values," 623.
[191] Avila, *Folklore of the Freeways*, 71.
[192] Schwarzer, *Hella Town*, 198.

rejected them: in the end, freeways benefited "San Francisco more than Oakland, the suburbs more than the inner city."[193]

In California, 400,000 people were displaced, 13,000 farmers were evicted, and 44,000 businesses were sacrificed across the state of California for freeways to be built.[194] Across the city of Oakland, all residents were impacted by freeways: thousands of dwellings and hundreds of businesses were lost.



[193] Schwarzer, *Hella Town*, 171.
[194] Schwarzer, *Hella Town*, 184.

Figure 2.12.[195] A map of the freeway routes proposed in the 1947 Transportation Plan for the City of Oakland differentiated by their building status. Beneath the freeways are the grades for loan safety of the areas as determined by the Home Owners' Loan Corporation in 1937.

Still, as freeways were placed, race, class, and the variable levels of power and influence that come from these two factors still were key determinants in the impacts of freeways in Oakland and the East Bay. Per Schwarzer, "Oakland lacked the students and political activists of Berkeley and the elites and alternative cultures of San Francisco, all of whom early on championed quality-of-life issues."[196] Such can be seen with the Ashby Freeway in Berkeley: immediately upon review by the council, the politically fervent, comparatively privileged, and largely white Berkeley residents were able to defeat the proposed project. The freeway would have come at a detriment to them, so it was refused; the only freeway in the 1947 plan that was rejected was one that would have wound up on Ashby Avenue in Berkeley (Figure 3.11). On the other hand, the Warren Freeway that built through the hills was bucolic and relatively small and unobtrusive. It ended up being a boon to the area's residential development.

The Nimitz Freeway was revolutionary in the history of freeway construction in Oakland; not only was it the first of the type of structure to be built, but it was also the first to cut straight through minority areas and destroy the spatial organization and livelihoods of the primary Mexican and Asian enclaves at the time, forcing them to disperse and resettle elsewhere. At this time, freeway planners were unchallengeable and no citizens' protests–and certainly not minorities'–were heard.

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[195] By Author. Data from Robert K. Nelson, LaDale Winling, Richard Marciano, Nathan Connolly, et al., "Mapping Inequality," American Panorama, ed. Robert K. Nelson and Edward L. Ayers, accessed April 16, 2023, https://dsl.richmond.edu/panorama/redlining/#loc=13/37.803/-122.353&maps=0&city=san-francisco-ca&text=downloads; Harland Bartholomew & Associates and Oakland (Calif.), *A Report on Freeways and Major Streets*.

[196] Schwarzer, *Hella Town*, 171-172.

The Cypress Street Viaduct was more of the same, but to a higher degree. Before the construction of the elevated structure, West Oakland was a thriving Black neighborhood. The then all-white city council targeted this demographic, and by 1957, the once traversable thoroughfare of West Oakland became an imposing, polluting elevated highway that served people from outside of the community and almost none who lived in West Oakland. It fractured the area, and was one way that the residential and commercial makeup of the area was reconfigured and harmed greatly. According to many residents, the area began to feel unsafe and devalued, initiating further devaluing of the area that resulted in higher crime, lower educational attainment, and created a spate of other factors that lowered quality of life.

Dissimilarly, the MacArthur Freeway affected different demographics and communities, and as such, the city planners and state highway engineers were variably receptive to the demands and interests of citizens. In West Oakland, the MacArthur Freeway ran roughshod over the communities, as it did on Cypress Street and the Nimitz Freeway. The further East it went, however, it began to approach the more affluent, white communities of the hills, where routes were altered to preserve green spaces and peaceful areas. Significant investments in retaining walls were made to preserve some of the commercial areas in the hills. Most notably, however, the beauty of the freeway and the area was maintained through a bizarre and rare ban of heavy trucks on the freeway. As a result, the MacArthur Freeway was and continues to see uniquely low levels of noise and air pollution in and around what is normally a particularly harmful sort of infrastructure.

The Grove-Shafter Freeway in the Rockridge and Temescal areas did harm the area significantly. Many commercial and residential properties were razed and the commercial

character of the areas that remained worsened significantly as the freeway loomed and polluted above. That said, their demands were not completely ignored. Per Zettel and Shuldiner:

> Two months later a compromise route avoiding the Temescal business district was adopted. In its statement of adoption, the Commission carefully pointed out that while the compromise route cost almost $2 million more than the one originally favored by the State engineers, it would have a less disruptive effect on the North Oakland area.[197]

That said, harm was still done to the community and people were displaced. Due to the incessantly lobbying of Sewall Glinternick, who leveraged his political connections at the state and local levels, those who were directly impacted by the freeway construction ended up being fairly compensated for their homes and the cost of moving, a first for the time.[198] The Italian and Irish communities began to flee for the suburbs, mourning the loss of their communities but finding new ways to achieve success as conceptions of whiteness expanded.[199] Blacks came to populate the undesirable areas around the freeway that these Italian and Irish communities fled.[200]

The deeply illogical I-980 extension of the Grove-Shafter Freeway was completed because it ran through a site of depressed property values and the displacement of Black residents was viewed as an opportunity by the council. At the time of approval, there were no Blacks on the city council. The result: "the highway location decisions erected both literal and figurative barriers to reclaiming large parts of West Oakland for a thriving residential and commercial life."[201]

The Grove-Shafter Freeway was supported by the most powerful lobbies in the city of Oakland; major international capital depended upon the construction of the corridor. Up to this

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[197] Zettel and Shuldiner, "Freeway Location Conflicts," 32.
[198] Norman, *Temescal Legacies*, 84-87.
[199] Avila, *Folklore of the Freeway*, 61-62.
[200] Norman, *Temescal Legacies*, 92-93.
[201] Self, *American Babylon,* 165.

point, the track record was clear: minority-communities' protests against freeways in Oakland and the country at large were futile, and engineers could not be denied, especially with support of local political leaders and private boosters.

That said, the Black Panther Party was a uniquely formidable oppositional force, but tactful. Recognizing the aforementioned historical reality, the Black Panthers used support of the freeway as a political bargaining chip to the ends of advancing the interests of institutionally disempowered Black Oaklanders. Elaine Brown was motivated to make this decision based out of a recognition of a dynamic that pervaded into 1985: Black West Oaklanders were still structurally disempowered and in opposing the freeway, they would be fighting against the city's most formidable booster lobby, hell-bent on getting the I-980 built. All historical examples indicated that the latter would be successful and the former would be defeated, receiving hardship and harm alone. As a result, the Black Panthers agreed to support the freeway if some concessions were made: they were promised jobs for Black citizens and political support for Lionel Wilson: if they had not supported the freeway, it is plausible that the freeway would have still been built given the stakes and fervor of the city of Oakland's boosters.

Unfortunately, the only win is that Lionel Wilson won the election for mayor. The Black Oakland residents did not get the jobs they were guaranteed.[202] In total, West Oaklanders got broken promises about jobs and a superfluous freeway that displaced many, worsened the conditions and connectivity of the community, and continues to devalue and pollute the area.

CONCLUSION

In the midcentury of the United States, social and racial hostilities touched every dimension of urban planning and life: space was organized accordingly, and decades of decisions

[202] Schwarzer, *Hella Town*, 185-186.

made by state actors, city bureaucrats, and citizens ultimately reified these disparities in the built environment. Harms and benefits came from decisions affecting the urban environment: the impact of the aforementioned racial and social context can be identified in all of these decisions and outcomes. In San Francisco, a privileged and politically engaged class of citizens coalesced and deployed their elite connections to beneficial ends for these elite, mostly white neighborhoods, maintaining property values and racial exclusivity in turn. Freeways were built where residents were not privileged, and property values depressed as quality of life did the same.

San Francisco had a more unified citizenry, both on this particular issue but also in a broader demographic sense; Oakland, on the other hand, was facing constant internal struggle along the lines of race and class, and civic unity on political issues was not attainable. Additionally, the city council was more receptive to citizen concerns and demands in San Francisco: for several years while freeways were planned, the city council and other bureaucrats were actively hostile towards a statistically significant part of Oakland's population.

Due to the political fracturing of Oakland, freeways were built throughout the city, touching the lives and neighborhoods of those belonging to most all classes and races: however, qualities of these freeways along with the extent of the harm they wrought varied along racial and class lines. As the freeways reached more affluent, white communities, the demands and well-being of the communities were heard increasingly. City planners and state engineers made expensive alterations and accommodations to ensure the minimization of intrusion and harm from the freeways; in some cases, the freeways were recognized to have positive impacts on an area. However, the more vulnerable, poorer, minority communities of Oakland had their physical communities run over and torn apart; senses of unity and camaraderie were destroyed in turn as

well. By 1957, after the two major projects for the Nimitz Freeway were completed, "Oakland's three principal minority districts were struck with one blow."[203] Some of the affected community members were able to flee, in some cases resettling in neighborhoods like Rockridge whose white residents left for peaceful suburbs once freeways were built through their communities; however, many were trapped living next to a nuisance indefinitely.

Conclusion: What Might Stay if Freeways are Removed?

Freeways were built across US cities, including San Francisco and Oakland. Literature continues to emerge about the disamenities of the area; air pollution that leads to a spate of respiratory harms, noise pollution and its damages to physical well-being, impassable infrastructure that limits mobility, and decreased property values that result from all these factors considered together.[204] These freeways intentionally damaged and bisected neighborhoods and several have not rebounded from the disintegration caused by the infrastructure, leaving two weakened halves.[205]

Freeway corridors are among the last places where prices are consistently low in city centers, creating a refuge from capital-induced displacement, but the atypical stability of these neighborhoods is being challenged at present.[206] Freeways have been effective repellents of

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[203] Schwarzer, *Hella Town*, 174.
[204] "I-94 Harms Minneapolis and Saint Paul Communities – Twin Cities Boulevard," accessed April 17, 2023, https://www.twincitiesboulevard.org/learn-more/i-94-harms-our-communities/.
[205] Regan F. Patterson and Robert A. Harley, "Effects of Freeway Rerouting and Boulevard Replacement on Air Pollution Exposure and Neighborhood Attributes," *International Journal of Environmental Research and Public Health* 16, no. 21 (October 23, 2019): 4072, https://doi.org/10.3390/ijerph16214072.
[206] Peter E. Moskowitz, *How to Kill a City: Gentrification, Inequality, and the Fight for the Neighborhood* (New York: Bold Type Books, 2018).

development capital, but there are increasingly popular and present movements to remove urban freeways as many recognize their harms and seek to dismantle these half-century or older pieces of infrastructure that are coming to the end of their useful life.[207] The polluting, noisy, unsightly freeways are often designed to be replaced with parks, transit stops, new housing, and community centers, making these neighborhoods significantly healthier and attractive living areas.[208] With that considered, it is a guaranteed certainty that such changes would at minimum radically change the surrounding community, for better or worse.[209] Without input from incumbent community members and robust support for them, these changes can bring about displacement of some form, be it physical or otherwise, and fail to deliver benefits of an improved area to the ones most acutely impacted by freeway harms.[210]

The Bay Area, led by the tumult of San Francisco and Oakland, has had the most extraordinary history with freeways. Right now, the region has the opportunity to continue their legacy of being on the vanguard of improving quality of life for its residents. In San Francisco and Oakland, following the Loma Prieta earthquake in 1989, the cities removed a total of three freeways, and all three of those areas triggered radical change through their surrounding

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[207] Roger Rudick, "Weekend Roundup: Scott Wiener Guns for Central Freeway, Fremont Shows Vision Zero Can Work," *Streetsblog San Francisco* (blog), December 2, 2022, https://sf.streetsblog.org/2022/12/02/weekend-roundup-scott-wiener-guns-for-central-freeway-fremont-shows-vision-zero-can-work/.

[208] Eve Lettau, "Why I Loathe the High Line, and How Parks Became New York's New Gentrification Tool," *Carolina Planning*, September 9, 2021, https://carolinaangles.com/2021/09/09/high-line-new-york-gentrification/.

[209] Karen Chapple and Anastasia Loukaitou-Sideris, *Transit-Oriented Displacement or Community Dividends? Understanding the Effects of Smarter Growth on Communities*, Urban and Industrial Environments (Cambridge, MA: The MIT Press, 2019).

[210] Harvey Molotch, "The City as a Growth Machine: Toward a Political Economy of Place," *American Journal of Sociology* 82, no. 2 (1976): 309–32.

neighborhoods.[211] Now, several more freeways across the two cities face *voluntary* removal, which would alter the character of these devalued spaces. Among those who are aware of these proposals, there is near unanimity that freeway removals are a net good for the cities and areas that bear these concrete burdens would face dramatic revitalization and improvement upon removal. However, as there were when freeways were being routed and as there were when successful revolts resisted freeways through some areas and ignored the building of freeways in others, there still may be some who are most acutely harmed by these physical changes. Still, their dissenting interests may not be the drivers of or even seriously considered in decisions that theoretically are supposed to deliver direct benefits to them.

Freeway construction from the beginning to the mid-twentieth century, the Freeway Revolts, and current freeway removal movements have each been heralded as symbols of progressivism of their time, delivering new benefits to the communities they impact. The first two, however, have come to be understood as having inequitable directions and perpetuating discriminatory practices of the status quo; without careful consideration, the current removal movement could do the same.

[211] Jason Henderson, "The Second Freeway Revolt: Removing the Central Freeway," in *Street Fight* (United States: University of Massachusetts Press, 2013).

Bibliography

INTRODUCTION

Archer, Deborah N. "'White Men's Roads Through Black Men's Homes'*: Advancing Racial Equity Through Highway Reconstruction." Vanderbilt Law Review 73, no. 5 (October 2020): 1259–1330.

Avila, Eric. The Folklore of the Freeway: Race and Revolt in the Modernist City. A Quadrant Book. Minneapolis: University of Minnesota Press, 2014.

Carlsson, Chris. "The Freeway Revolt - FoundSF." Accessed April 17, 2023. https://www.foundsf.org/index.php?title=The_Freeway_Revolt.

DiMento, Joseph F.C., and Cliff Ellis. Changing Lanes: Visions and Histories of Urban Freeways. The MIT Press, 2012. https://doi.org/10.7551/mitpress/9374.001.0001.

Harris, Angela, Margaretta Lin, and Jeff Selbin. "From 'The Art of War' to 'Being Peace': Mindfulness and Community Lawyering in a Neoliberal Age." California Law Review 95, no. 5 (2007): 2073–2132. https://doi.org/10.2307/20439130.

Issel, William. "'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 (November 1, 1999): 611–46. https://doi.org/10.2307/4492372.

Kay, Jane Holtz. Asphalt Nation: How the Automobile Took over America, and How We Can Take It Back. 1st ed. New York: Crown Publishers, 1997.

Kraft-Klehm, Jessica. "21st Century Futurama: Contemplating Removal of Urban Freeways in the World of Tomorrow." Washington University Journal of Law and Policy 49, no. 1 (2015): 205-.

Project, Anti-Eviction Mapping, Ananya Roy, and Chris Carlsson. "Transportation, Infrastructure, & Economy." In Counterpoints. United States: PM Press, 2021.

San Francisco Parks Alliance. "ByeByeFreeway | The Journey from the Central Freeway to Octavia Boulevard and Beyond." Accessed April 17, 2023. https://byebyefreeway.org/.

Schwartz, Katrina. "Remembering Russell City: A Thriving East Bay Town Razed by Racist Government | KQED," August 11, 2022.

https://www.kqed.org/news/11922175/remembering-russell-city-a-thriving-east-bay-town-razed-by-racist-government.

Van Niekerken, Bill. “Save Us from the ‘Cement Octopus.’” San Francisco Chronicle, August 5, 2015. https://www.sfchronicle.com/thetake/article/Save-us-from-the-Cement-Octopus-6425442.php.

SECTION 1

Avila, Eric. The Folklore of the Freeway: Race and Revolt in the Modernist City. A Quadrant Book. Minneapolis: University of Minnesota Press, 2014.

Brown, Jeffrey. “A Tale of Two Visions: Harland Bartholomew, Robert Moses, and the Development of the American Freeway.” Journal of Planning History 4, no. 1 (February 2005): 3–32. https://doi.org/10.1177/1538513204272856.

Building the American Highway System: Engineers as Policy Makers / Bruce E. Seely. Technology and Urban Growth. Philadelphia: Temple University Press, 1987.

Caro, Robert A. The Power Broker: Robert Moses and the Fall of New York. New York: Alfred A. Knopf, 1974.

Cherry, Gordon Emanuel. Shaping an Urban World. Planning and the Environment in the Modern World ; v. 2. London: Mansell, 1980.

Craghead, Alexander Benjamin. “Blighted Ambitions: Federal Policy, Public Housing, and Redevelopment on the West Coast, 1937-1954.” UC Berkeley, 2020. https://escholarship.org/uc/item/33c953w2.

DiMento, Joseph F.C., and Cliff Ellis. Changing Lanes: Visions and Histories of Urban Freeways. The MIT Press, 2012. https://doi.org/10.7551/mitpress/9374.001.0001.

Evenson, Norma. Le Corbusier: The Machine and the Grand Design. Planning and Cities. New York: G. Braziller, 1970.

“Federal Aid to Roads and Highways Since the 18th Century: A Legislative History,” January 6, 2012. https://www.everycrsreport.com/reports/R42140.html.

Flink, James J. The Car Culture. Massachusetts: The MIT Press, 1976.

Gayness, Stuart. “Public to See Dedication of Great Highway.” San Francisco Examiner, October 31, 1913. History of the Lincoln Highway: Public To See Dedication Of Great Highway. http://lincolnhighway.jameslin.name/papers/examiner/1913-10-31.html.

Goldberger, Paul. “Back to the Future: A New Look at Modernist Hero Norman Bel Geddes, Designer of the Original 1939 ‘Futurama.’” Vanity Fair, October 22, 2013. https://www.vanityfair.com/culture/architecture/2013/10/norman-bel-geddes-designer-original-futurama.

Harland Bartholomew & Associates and Oakland City Planning Commission. A Report on Transit Facilities and Mass Transportation in the Oakland Metropolitan Area: A Unit of the Oakland Master Plan. St. Louis, Mo: Harland Bartholomew and Associates, 1947.

“History | FHWA,” February 25, 2022. https://highways.dot.gov/federal-lands/about/history.

Hokanson, Drake. The Lincoln Highway: Main Street Across America. 10th anniversary ed. Iowa City, Iowa: University of Iowa Press, 1999.

Holt, W. Stull. The Bureau of Public Roads, Its History, Activities and Organization, by W. Stull Holt. Maryland: The Johns Hopkins Press, 1923. https://hdl.handle.net/2027/uc1.$b113983.

Hope, Andrew. Carquinez Bridge: PHOTOGRAPHS WRITTEN HISTORICAL AND DESCRIPTIVE DATA. Historic American Engieneering Record. National Park Service, U.S. Dept. of the Interior, 1968. https://tile.loc.gov/storage-services/master/pnp/habshaer/ca/ca3000/ca3089/data/ca3089data.pdf.

Horiuchi, Lynne, and Tanu Sankalia, eds. “2. The Island at the Center of the Bay.” In Urban Reinventions, 26–46. University of Hawaii Press, 2020. https://doi.org/10.1515/9780824866051-005.

Hurt, Douglas, and Adam Payne. “Postcard Imagery and Geographical Imagination along the Lincoln Highway.” Material Culture 51, no. 1 (2019): 1–20.

Interregional Highways. Message from the President of the United States, Transmitting a Report of the National Interregional Highway Committee, Outlining and Recommending a National System of Interregional Highways. [U.S.] 78th Cong., 2d Sess. House. Doc. 379. Washington: U.S. Govt. print. off., 1944. https://catalog.hathitrust.org/Record/001611705.

Jacobs, Jane. The Death and Life of Great American Cities. New York: Random House, 1961.

Lin, James. “The Lincoln Highway - A Brief History.” Lincoln Highway Association. Accessed April 17, 2023. https://www.lincolnhighwayassoc.org/history/.

Matchette, Robert B. “Records of the Bureau of Public Roads,” 1995. https://www.archives.gov/research/guide-fed-records/groups/030.html#30.1.

Meikle, Jeffrey L. Postcard America: Curt Teich and the Imaging of a Nation, 1931-1950. Durham, UNITED STATES: University of Texas Press, 2016. http://ebookcentral.proquest.com/lib/berkeley-ebooks/detail.action?docID=4397285.

Meinig, D. W., and John Brinckerhoff Jackson, eds. The Interpretation of Ordinary Landscapes: Geographical Essays. New York: Oxford University Press, 1979.

Mertz, Lee. "Part 1 of 7 - Origins of the Interstate System - Interstate System - Highway History - Federal Highway Administration," June 27, 2017. https://www.fhwa.dot.gov/infrastructure/origin01.cfm.

National Parks Service. Lincoln Highway: Special Resource Study, Environmental Assessment. Special Resource Study. Washington, D.C.: National Park Service, U.S. Dept. of the Interior, 2004. https://catalog.hathitrust.org/Record/005019875.

Rae, John B. The Road and the Car in American Life. Cambridge, Mass: MIT Press, 1971.

Roads and Bridges. "The Open Roads of America: 100 Years in the Making," March 27, 2007. https://www.roadsbridges.com/home/article/10583410/the-open-roads-of-america-100-years-in-the-making.

Rose, Mark H., and Raymond A. Mohl. Interstate: Highway Politics and Policy since 1939. Third edition. Knoxville: The University of Tennessee Press, 2012.

Schreiber, Ronnie. "How Henry Ford Advocated for Public Road Building—until He Wanted to Join a Fancy Camping Club." Hagerty Media, October 19, 2021. https://www.hagerty.com/media/automotive-history/how-henry-ford-advocated-for-public-road-building-until-he-wanted-to-join-a-fancy-camping-club/.

Stockton Independent. "Object Lesson Road Section." May 30, 1920. California Digital Newspaper Collection. https://cdnc.ucr.edu/?a=d&d=SDI19200530.2.80&srpos=12&e=------192-en--20--1--txt-txIN-Lincoln%2bHighway-------1.

Talen, Emily. "Chapter Five Urban Plan-Making: The City Beautiful and the City Efficient." In New Urbanism and American Planning. United States: Taylor & Francis Group, 2005.

Taylor, Brian D. "Why California Stopped Building Freeways – ACCESS Magazine." Access Magazine, 1993. https://www.accessmagazine.org/fall-1993/why-california-stopped-building-freeways/.

The New York Preservation Archive Project. "Robert Moses." Accessed April 17, 2023. https://www.nypap.org/preservation-history/robert-moses/.

"Thomas H. MacDonald - Asphalt Institute," August 15, 1965. https://www.asphaltinstitute.org/timeline/thomas-h-macdonald/.

Topographical Auto Road Map Co. "Birds-Eye-View Main Automobile Routes Central California," 1920. https://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~299689~90070721:Birds-eye-view-main-automobile-rout.

United States Bureau of Public Roads. Toll Roads and Free Roads., 1939.

Weingroff, Richard F. "Federal Aid Road Act of 1916: Building The Foundation | FHWA." Public Roads 60, no. 1. Accessed April 17, 2023. https://highways.dot.gov/public-roads/summer-1996/federal-aid-road-act-1916-building-foundation.

"Federal-Aid Highway Act of 1956: Creating The Interstate System | FHWA." Public Roads 60, no. 1 (1996). https://highways.dot.gov/public-roads/summer-1996/federal-aid-highway-act-1956-creating-interstate-system.

"The Lincoln Highway - General Highway History - Highway History - Federal Highway Administration," June 27, 2017. https://www.fhwa.dot.gov/infrastructure/lincoln.cfm.

Wright, Frank Lloyd. Frank Lloyd Wright and the Living City. Weil am Rhein, Germany: Vitra Design Museum, 1998.

SECTION 2

"#7 - Interregional Highways. Message from the President of the ... - Full View | HathiTrust Digital Library." Accessed April 16, 2023. https://babel.hathitrust.org/cgi/pt?id=mdp.39015031947149&view=1up&seq=7.

Adams, Kenneth C. "Bay Crossings: Parallel Span Across San Francisco Bay Recommended." California Highways and Public Works 27 (November 1948). chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/http://libraryarchives.metro.net/DPGTL/Californiahighways/chpw_1948_novdec.pdf.

Adisa-Farrar, Teju, and Raul Garcia. "How 'Freeway Revolts' Helped Create the People's Environmental Law." Earthjustice, June 13, 2019. https://earthjustice.org/article/freeway-revolts-helped-create-national-environmental-policy-act.

Barber, Jesse. "Berkeley Zoning Has Served for Many Decades to Separate the Poor from the Rich and Whites from People of Color." Berkeleyside, March 12, 2019.

https://www.berkeleyside.org/2019/03/12/berkeley-zoning-has-served-for-many-decades-to-separate-the-poor-from-the-rich-and-whites-from-people-of-color.

Bartholomew, Harland. A Proposed Plan for a System of Major Traffic Highways, Oakland, California 1927: For the Major Highway and Traffic Committee of One Hundred. St. Louis, Missouri: Harland Bartholomew and Associates, 1927.

A Report on Freeways and Major Streets in Oakland, California: Prepared for the City Council of the City of Oakland, California. St. Louis, Missouri: Harland Bartholomew and Associates, 1947.

Booker, B.W. "Freeways in District IV." California Highways and Public Works 36 (March 1957). http://libraryarchives.metro.net/DPGTL/Californiahighways/chpw_1957_marapr.pdf.

Brinkman, Jeffrey, and Jeffrey Lin. "Freeway Revolts! The Quality of Life Effects of Highways." The Review of Economics and Statistics, September 27, 2022, 1–45. https://doi.org/10.1162/rest_a_01244.

Brown, Elaine. A Taste of Power: A Black Woman's Story. New York, NY, USA: Anchor Books, 1992.

California Division of Highways. "Freeway Fiesta: Multi-Million Dollar Highway in Oakland Open to Traffic." California Highways and Public Works, 1949. http://archive.org/details/californiahighwa194849calirich.

California Division of HIghways. "Highway Transportation Survey of 1934: Alameda County." David Rumsey Map Library, 1935. https://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~247257~5515341:Alameda-County-.

California Division of Highways. The California Freeway System, a Report to the Joint Interim Committee on Highway Problems of the California Legislature in Conformity with Senate Concurrent Resolution No. 26, 1957 Legislature, 1957.

DiMento, Joseph F.C., and Cliff Ellis. Changing Lanes: Visions and Histories of Urban Freeways. The MIT Press, 2012. https://doi.org/10.7551/mitpress/9374.001.0001.

Dougherty, Jack, and and contributors. Federal Lending and Redlining | On The Line: How Schooling, Housing, and Civil Rights Shaped Hartford and Its Suburbs. Accessed April 16, 2023. https://ontheline.trincoll.edu/lending.html.

Fearer, Tom. "Legacy California State Route 17; CA 13 (i), CA 17, the Nimitz Freeway, I-880, the Richmond-San Rafael Bridge, and I-580," January 29, 2018. http://www.gribblenation.org/2018/01/california-state-route-17.html.

Harland Bartholomew & Associates and Oakland (Calif.). A Report on Freeways and Major Streets in Oakland, California: Prepared for the City Council of the City of Oakland, California. St Louis: The Firm, 1947. https://catalog.hathitrust.org/Record/101712977.

Highway of Dreams. Graduate School of Journalism at the University of California, Berkeley, 2000.

I-880 Cypress Viaduct Construction (Part 1 of 5). Accessed April 16, 2023. https://www.youtube.com/watch?v=lMnXZiw3hJk.

Interregional Highways. Message from the President of the United States, Transmitting a Report of the National Interregional Highway Committee, Outlining and Recommending a National System of Interregional Highways. [U.S.] 78th Cong., 2d Sess. House. Doc. 379. Washington: U.S. Govt. print. off., 1944. https://catalog.hathitrust.org/Record/001611705.

Issel, William. "'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 (November 1, 1999): 611–46. https://doi.org/10.2307/4492372.

Johnson, Katherine M. "Captain Blake versus the Highwaymen: Or, How San Francisco Won the Freeway Revolt." Journal of Planning History 8, no. 1 (February 2009): 56–83. https://doi.org/10.1177/1538513208324570.

Lewis, Tom. Divided Highways: Building the Interstate Highways, Transforming American Life. Ithaca, UNITED STATES: Cornell University Press, 2013. http://ebookcentral.proquest.com/lib/berkeley-ebooks/detail.action?docID=3138477.

"Mapping Inequality." Accessed April 16, 2023. https://dsl.richmond.edu/panorama/redlining/.

Moskowitz, Peter E. How to Kill a City: Gentrification, Inequality, and the Fight for the Neighborhood. New York: Bold Type Books, 2018.

Murch, Donna Jean. Living for the City: Migration, Education, and the Rise of the Black Panther Party in Oakland, California. The John Hope Franklin Series in African American History and Culture. North Carolina: University of North Carolina Press, 2010.

Norman, Jeff. Temescal Legacies: Narratives of Change from a North Oakland Neighborhood. Oakland, California: Shared Ground, 2006.

Oakland Tribune. "10 Freeway Routes Studied by Council." August 28, 1957. California Digital Newspaper Collection. https://cdnc.ucr.edu/?a=d&d=OT19570828.1.4&e=-------en--20-OT-1--txt-txIN-grove%252Dshafter-------.

Oakland Tribune. “MacArthur Blvd.” March 28, 1942.

Oakland Tribune. “North Oakland Home Defenders Name Mrs. K. R. MacTavish to Gather Signatures.” August 27, 1958.

Patel, Dinyar. “Saving America’s ‘Last Lovely City:’ The San Francisco Freeway Revolt.” STANFORD UNDERGRADUATE RESEARCH JOURNAL 3 (2004). https://ojs.stanford.edu/ojs/index.php/surj/issue/view/surj-2004/46.

“Press Democrat 11 October 1921 — California Digital Newspaper Collection.” Accessed April 15, 2023. https://cdnc.ucr.edu/?a=d&d=SRPD19211011.2.50&srpos=7&e=------192-en--20-SRPD-1--txt-txIN-%22highway%22+%22protest%22-------.

Rhomberg, Chris. No There There: Race, Class, and Political Community in Oakland. California: University of California Press, 2007.

Rose, Mark H., and Raymond A. Mohl. Interstate: Highway Politics and Policy since 1939. Third edition. Knoxville: The University of Tennessee Press, 2012.

Ryman, D.C. “MACARTHUR FREEWAY: Relief for the Nimitz Freeway.” California Highways and Public Works, March 1966. http://archive.org/details/califvol4546orniahighwa6667calirich.

San Francisco Department of City Planning. Housing and Neighborhood Conditions in San Francisco; a Classification of Areas for Urban Renewal. San Francisco: San Francisco Department of City Planning, 1955. https://catalog.hathitrust.org/Record/003060796.

“(San Francisco) Comprehensive Trafficways Plan. Trafficways 11 Plate 8.” Accessed April 16, 2023. https://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~258970~5522255:-San-Francisco--Comprehensive-traff.

Schwarzer, Mitchell. Hella Town: Oakland’s History of Development and Disruption. California: University of California Press, 2022.

Self, Robert O. American Babylon: Race and the Struggle for Postwar Oakland. Princeton, New Jersey: Princeton University Press, 2003.

Travis, William. California Highways and Public Works. Edited by California. Dept. of Public Works and California. Division of Highways. [Sacramento : Dept. of Public Works, State of California, 1927. http://archive.org/details/californiahighwa195455calirich.

"Something New: Double-Deck Freeway Viaducts In San Francisco and Oakland." California Highways and Public Works, January 1957. http://libraryarchives.metro.net/DPGTL/Californiahighways/chpw_1957_janfeb.pdf.

Zettel, Richard M., and Paul W. Shuldiner. Freeway Location Conflicts in California. Research Report / Institute of Transportation and Traffic Engineering ;No. 29. Berkeley: Institute of Transportation and Traffic Engineering, University of California, Berkeley, 1959. https://catalog.hathitrust.org/Record/010654199.

CONCLUSION

Chapple, Karen, and Anastasia Loukaitou-Sideris. Transit-Oriented Displacement or Community Dividends? Understanding the Effects of Smarter Growth on Communities. Urban and Industrial Environments. Cambridge, MA: The MIT Press, 2019.

Henderson, Jason. "The Second Freeway Revolt: Removing the Central Freeway." In Street Fight. United States: University of Massachusetts Press, 2013.

"I-94 Harms Minneapolis and Saint Paul Communities – Twin Cities Boulevard." Accessed April 17, 2023. https://www.twincitiesboulevard.org/learn-more/i-94-harms-our-communities/.

Lettau, Eve. "Why I Loathe the High Line, and How Parks Became New York's New Gentrification Tool." Carolina Planning, September 9, 2021. https://carolinaangles.com/2021/09/09/high-line-new-york-gentrification/.

Molotch, Harvey. "The City as a Growth Machine: Toward a Political Economy of Place." American Journal of Sociology 82, no. 2 (1976): 309–32.

Moskowitz, Peter E. How to Kill a City: Gentrification, Inequality, and the Fight for the Neighborhood. New York: Bold Type Books, 2018.

Patterson, Regan F., and Robert A. Harley. "Effects of Freeway Rerouting and Boulevard Replacement on Air Pollution Exposure and Neighborhood Attributes." International Journal of Environmental Research and Public Health 16, no. 21 (October 23, 2019): 4072. https://doi.org/10.3390/ijerph16214072.

Rudick, Roger. "Weekend Roundup: Scott Wiener Guns for Central Freeway, Fremont Shows Vision Zero Can Work." Streetsblog San Francisco (blog), December 2, 2022. https://sf.streetsblog.org/2022/12/02/weekend-roundup-scott-wiener-guns-for-central-freeway-fremont-shows-vision-zero-can-work/.