

Amplify: Design Agency and the Transportation Megaproject

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Transportation infrastructure projects are infamously complex and illegible. Freeway expansions in particular have a legacy of disregarding and displacing communities of color without substantial engagement. This legacy continues with the North Houston Highway Improvement Project (NHHIP), which the Texas Department of Transportation (TxDOT) unapologetically states “would cause disproportionately high and adverse impacts to minority and low-income populations.”¹

In response to disparities in participation, agency, and impact, a public engagement process parallel to TxDOT’s was collaboratively developed by academic and professional design researchers and practitioners. This research outlines the tools and processes used to make legible an intentionally opaque freeway megaproject and equip Houston’s residents to substantively critique it. Through participatory mapping, public dialogue, active listening, and the translation of thousands of comments received by TxDOT and thousands of pages of reports, the work has informed decision making and re-balanced power. In this effort, design became the tool to transform an institutionally mandated process too often designed to exclude into one that was inclusive and activating.

In the midst of a renewed call to confront white supremacy, citizen coalitions are emerging across the county to fight freeway expansion projects that reproduce racist legacies. The NHHIP has become a key narrative within this resurgence of anti-freeway activism. There are no two communities in Houston or elsewhere that have ever been created equal. The neighborhoods that have been most marginalized historically are often the least called upon or prepared to engage substantively with a one-size-fits-all community outreach process like TxDOT’s.

Designers need to put politics back into practice as a means of amplifying the many and diverse voices of the public, as they were called to do in 1968. In the case of the work, this imperative was upheld through the design team’s radical alignment with residents rather than with the project. The work posed

questions about architecture’s capability to visualize realities to inform decision-making and create clarity around impact. The process strengthened grassroots activism such as by citizen coalition “Stop TxDOT I-45” while demonstrating how designers, academics, researchers, government officials, and communities can work together to create more equitable and inclusive cities. Further, in recent months the process has led to a lawsuit from Harris County and multiple Title VI complaints from Houston residents which have resulted in a Federal Highway Administration (FHWA)-mandated pause on the project.

Freeway projects, perhaps more than any other public infrastructure investment, raise the question of agency. Who decides where public dollars are spent, for what purpose, and for whose benefit? Architects and designers are capable of translating history, material reality, and imagined futures back and forth between diverse stakeholders. Our responsibility to make the future inclusive, accessible, and legible is integral to whether or not the future will be equitable.

INTRODUCTION

In 1956 the Federal-Aid Highway Act passed both houses of congress, committing the United States federal government to pick up 90% of the tab on the 41,000-mile interstate highway system. Billions of dollars in public spending paved a web of roadways across the United States, cultivating an insatiable dependence on the private automobile and fossil fuels. Intersecting with racist mid-century planning and development practices, freeway construction became a key strategy in the so-called urban renewal of great American cities. The U.S. Department of Transportation states that more than 475,000 households and more than a million people were displaced nationwide between 1957 and 1977 to make way for freeways.¹

The North Houston Highway Improvement Project (NHHIP), currently paused by a federal mandate while Title VI civil rights claims are investigated, has an estimated price tag of \$8 billion and has been in the making for nearly two decades. It is a complicated project with a complicated history, yet it reveals in painful simplicity the ongoing concentration of power over the built environment in the hands of a few whose interests are in

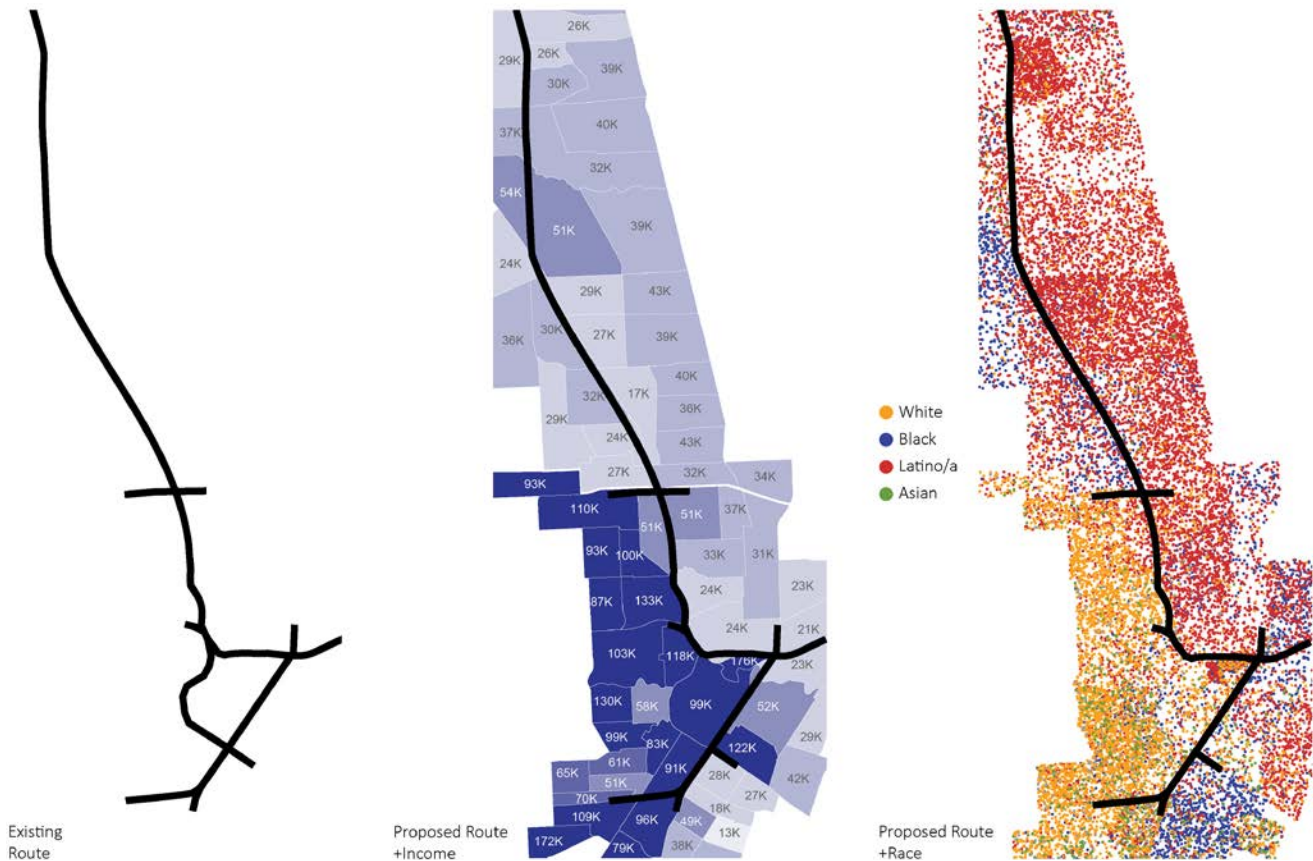


Figure 1. Existing and Proposed Freeway Alignment and Demographics, Graphic by K. Polkinghorne and S. Rogers.

direct conflict with a global public demanding a more inclusive and equitable society.

The NHHIP provides a frame in which to explore the power dynamics, processes, and key decisions behind transportation megaprojects by isolating actors and alliances, uncovering the networks of power in which they operate, and opening the door on backroom decision making. Further, the project demonstrates the necessity of intentionally pursuing a design practice that makes room for the public, privileges local knowledge and local voices, and re-balances power. Designers have the power to arm people with the tools necessary to interrogate transportation megaprojects. Considering the NHHIP as a key narrative in the resurgence of anti-freeway activism across the United States reveals opportunities for designers to transform agency and amplify the voices of the public in what are typically opaque and illegible processes.

THE FREEWAY GAME

“All alternatives would cause disproportionately high and adverse impacts to minority and low-income populations.”

—Texas Department of Transportation, North Houston Highway Improvement Project Draft Environmental Impact Statement

The planning and expansion of freeways, particularly in a city like Houston, has been motivated by developer interest, oil industry influence, and the classism and racism that historically permeate urban development more generally. Fifth Ward, a historic Black community just northeast of downtown Houston, has been repeatedly drawn and quartered by freeways; Interstate 10 and Interstate 69 displaced hundreds of families during their initial construction in the 1950s, and an expansion in the 1990s salted the wound.

Despite the devastating inequities perpetuated by freeway projects being well-known and well-documented, the NHHIP merely serves to extend this legacy into the twenty-first century. The boldest move in the project is a realignment of Interstate 45 from the west and south sides of downtown Houston to the east and north, parallel to Interstate 10 and Interstate 69. The realignment essentially pays for the benefits of removing a freeway barrier from wealthier, whiter neighborhoods to the west and south with the homes, environmental welfare, and connectivity of low-income communities of color to the east and north. Among the neighborhoods bearing the cost of the project is Fifth Ward, where 500 units of publicly owned housing will be displaced. TxDOT unapologetically writes in the NHHIP’s Draft Environmental Impact Statement, “all alternatives would cause

disproportionately high and adverse impacts to minority and low-income populations.”²

Meanwhile, wealthy communities see the project as an opportunity to create transformational change. The realignment reconnects neighborhoods to the west and south to one another and to downtown. Robustly funded management districts in these neighborhoods are equipped to come to the table with private partners in tow proposing expansive new green spaces in the place of the decommissioned concrete infrastructure. TxDOT embraces these self-funded and self-serving proposals, and the project is celebrated as a win for communities across Houston.

THE PROBLEM OF THE PROBLEM

“A professional is a man with an interest, a continuing interest, in the existence of problems.”

—Reyner Banham, “Opening Remarks” in Design Participation

Texas is a sprawling and conservative state with islands of progressivism in its urban centers. TxDOT operates within this political landscape, guided by the six-person, governor-appointed Texas Transportation Commission (TTC). The commission is neither elected nor accountable to the public but is responsible for most major decisions impacting how and where transportation dollars are spent. Conservatism permeates TxDOT: the 2035 Texas Statewide Long-range Transportation Spending Plan targeted 84% of all transportation dollars (\$242 billion) for roads and highways and only 16% (\$38 billion) for public transportation, feeding Texans’ dependence on private automobiles even in the face of the potentially drastic transformations associated with climate change.

It is not surprising that a DOT in a conservative and suburban state would consider highways to be the central problem of transportation planning and more lanes the constant solution, regardless of mounting evidence to the contrary and a public that increasingly demands a different approach. Giddens refers to this professional stubbornness as the “fixity of agents.” Freeway planners do one thing: they plan freeways. To imagine new possibilities for transportation, or even for freeways, is a threat to their professional authority. In the case of the NHHIP, TxDOT has exhibited a fixity that is immovable in the face of public outcry, yet moldable in the face of wealthy downtown power brokers who do not pose a threat to status quo transportation policymaking processes.

A detailed timeline of the NHHIP reveals three core points: first, that the input TxDOT solicited from the public was more frequently dismissed than incorporated into the design of the project; second, that an incredible amount of influence over the project was wielded by downtown power brokers; and third that disparate impacts to low-income and communities of color were dismissed as simply the costs associated with the project.

PUBLIC INPUT: WHAT DID YOU SAY?

“TxDOT is not listening to the public and I want that to change”

—Jasmine Coleman, Comment to TxDOT
January 29, 2014³

Over the past ten years, TxDOT solicited public input regarding the NHHIP at the frequency and resolution mandated by federal law. However, attempting to track how this public input was incorporated into the project reveals a record of obstinate stubbornness by TxDOT in favor of backroom decision making.

One piece of legislation central to TxDOT’s public engagement requirements is the National Environmental Policy Act (NEPA), adopted in 1969. NEPA provides guidelines for any federal project, including freeway projects and requires a transparent and public process for the following: (1) defining the “Purpose and Need”; (2) developing and eliminating design alternatives, and; (3) quantifying the environmental and social effects of the project. As described by the Council on Environmental Quality’s Citizens’ Guide to the NEPA Process, “The environmental review process under NEPA provides an opportunity for you to be involved in the Federal agency decision making process. It will help you understand what the Federal agency is proposing, to offer your thoughts on alternative ways for the agency to accomplish what it is proposing, and to offer your comments on the agency’s analysis of the environmental effects of the proposed action and possible mitigation of potential harmful effects of such actions.”⁴ NEPA, in other words, requires that the public be both informed of and able to impact decision making for a federal project.

When an agency such as TxDOT asks the public to participate and comment on a project it is critical that this input impacts the outcome, and that the ways in which it impacts the outcome are made clear. Yet, records documenting public comments for the NHHIP indicate that the majority of the public’s concerns and input were dismissed. Most fundamentally, at the first public scoping meeting in 2011 and at every meeting thereafter, the statement of purpose and need was presented for comment, but across the six years between this first meeting and the release of the Draft Environmental Impact Statement the purpose and need statement for the project remained unchanged.

In addition, at this first 2011 meeting, where no drawings or designs were presented, TxDOT administered a survey asking whether the public supported, opposed, or had no opinion about the NHHIP. The results, published in TxDOT’s Environmental Impact Statement, show that 78% of stakeholders were opposed to the project, and only 6% were in favor. Still, the project moved forward. In fact, throughout the project, public comments were only substantively responded to when they aligned with TxDOT’s vision and proposals. By the third meeting the majority of comments submitted to TxDOT focused on the agency’s disregard for public input, with one respondent writing “It appears that though TXDOT is soliciting comments from the public, they

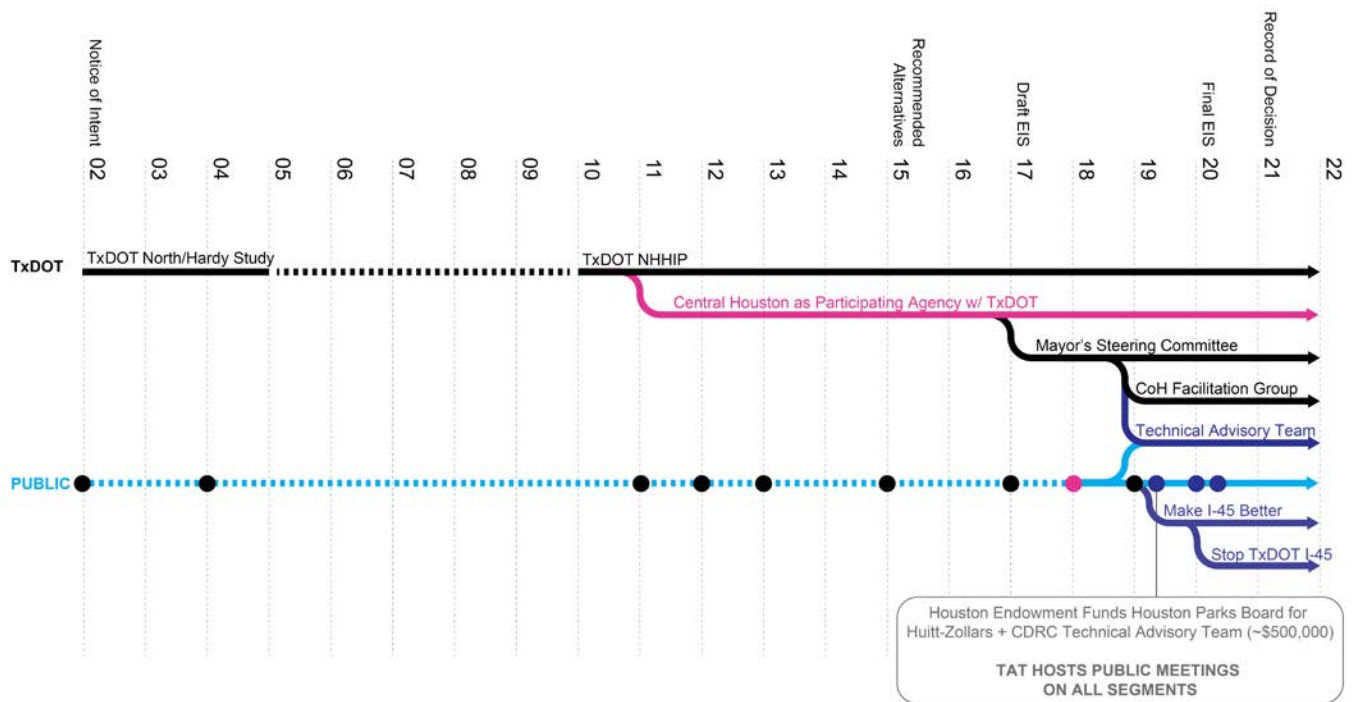


Figure 2. NHHIP Timeline, Graphic by K. Polkinghorne and S. Rogers.

are not adequately taking public opinion into account, given the elimination of so many preferred choices in previous actions.”⁵ The result was public apathy until the release of the Draft Environmental Impact Statement in 2017, which included a full set of drawings for the recommended alternatives and a full account of the displacements and impacts to low-income and communities of color.

The TxDOT public engagement process clearly failed to embody NEPA’s requirement that the public be both informed of and able to impact decision making for a federal project. The most basic and immediate result of such a transgression is a disillusioned public. The longer-term impact is a public that distrusts government agencies with good cause and a breakdown in the democratic participation necessary to sustain civil society.

DESIGN ALTERNATIVES: WHERE DID THAT COME FROM?

“The ‘alternatives’ as presented are not truly alternatives at all. They are simply variations on the same failed concept of attempting to remedy congestion with roadway expansion . . . All publicly preferred options for Segment 3 have been eliminated, discounted, or changed . . .”⁶

—Tom Dornbusch, Comment to TxDOT December 12, 2013

The development of design alternatives for the NHHIP is described by TxDOT as following a standard process. In summary, a universe of alternatives is developed and narrowed first to a limited number of preliminary alternatives, then to a smaller number of reasonable alternatives, and finally to a single recommended alternative. In the case of the NHHIP, this process occurred between 2011 and 2014, and included three public meetings. Alternatives were developed in three geographic segments.

Preliminary alternatives were evaluated without consideration for displacement, impact to low-income and communities of color, or other adverse environmental impacts. In the northern two segments of the project, the single criteria of ensuring there were 12 lanes drove decisions, even as public input focused on increasing transit, providing traffic congestion relief through the proposed Hardy Toll Road, and avoiding expansion of TxDOT’s existing right-of-way. Below is a direct quote from TxDOT in response to comments on alternatives:

“Response to comments that the public’s favorite alternatives from the second public meeting were not selected to move forward, and that the public is being ignored: [...] commenting is not a form of “voting” on an alternative. The public’s needs, ideas, and opinions are an important part of

the NEPA process, but in addition, the project team must keep in mind many other considerations as they develop, evaluate, and select alternatives. Final decisions on alternatives are not based solely on what the public favors. The public's favorite alternatives must also score or perform better in the other selection criteria, including engineering, traffic, and environmental. If a favored alternative does not score as well as others, it must be dropped from further consideration, regardless of public support [...]”⁷

Adding insult to injury, two entirely new alternatives for the project's downtown segment emerged in 2013, contradicting the process established by TxDOT themselves. These new alternatives featured the realignment of I-45 from west to east, a move that has become a core focus of the NHHIP but has no roots in the universe of alternatives.

Unsurprisingly, the appearance of these alternatives was the result of influence by downtown power brokers sitting on the board of organizations such as Central Houston, Inc. and the Downtown Management District. In a personal essay about the NHHIP, Central Houston, Inc. President Robert Eury writes:

“As early as 2001, Central Houston and the Downtown District began asking the question “What is our organizations' role whenever TxDOT decides to repair or replace the ring of highways around Downtown?” The answer was very clear. Our role is to conceive options that might reduce or remove barriers and reconnect adjacent neighbors to the Downtown area. In 2010 we began meeting with TxDOT to understand their plans, process and willingness to consider input. Next, we put together a team of experts to study the possibilities and provide input. As plans progressed, we realized that there was a once in a lifetime opportunity working with TxDOT, and community stakeholders to develop an interconnected set of garden bridges, cap parks, understory parks, sky parks, greenways, bikeways and other civic amenities with the collective potential of reshaping the central city.”⁸

The imbalance of power, disregard for public comment, and preference for input from well-situated downtown power brokers is publicly documented in TxDOT's Environmental Impact Statement. As another specific example, TxDOT records 30 official meetings with Downtown Houston leaders between 2013 and 2019, and likely many more unofficial, but only one meeting with Fifth Ward.

If the public did not select and impact the design of the project, who did? To the public, TxDOT explains their design outcomes as the cold result of traffic models and indisputable laws of engineering. However, Central Houston's intimate access to TxDOT and influence on the project is clear and documented. Where does this leave us?

PUBLIC OUTCRY: MY HOME IS NOT FOR SALE!

“... people who get marked with the planners' hex signs are pushed about, expropriated, and uprooted much as if they were the subjects of a conquering power.”

—Jane Jacobs, *The Death and Life of Great American Cities*

Late in the project timeline, following the 2017 release of the Draft Environmental Impact Statement (DEIS), the results of nearly a decade of backroom deals became public. With this exposure, the NHHIP emerged from a long period defined by public apathy to become an incredibly publicized project that citizens continue to mobilize against and both local and federal governments are confronting.

Between 2017 and 2020 there is an explosion of activity. Coalitions are formed, consultants hired, and local governments work to coordinate efforts both for and in opposition to the project—often simultaneously. The contradictions this creates are evident in the commitments of Houston's largest philanthropic foundation, the Houston Endowment. In the span of just a few years the foundation funded LINK Houston, a non-profit transit advocacy organization that educated residents mostly on the negative impacts of the project, Central Houston to study civic opportunities in support of the project, and a Technical Advisory Team to engage the public in a series of meetings and develop mitigation strategies targeting the most egregious impacts of the project.

A new round of public engagement for neighborhoods outside of downtown appeared, but it did not come from TxDOT. The engagement began with community and non-profit organizations such as LINK Houston, Air Alliance, and Stop TxDOT I-45 and culminated in an effort by the Technical Advisory Team, which answered to the City of Houston and a facilitation group comprised of a balanced set of community and agency stakeholders. The counter processes did not have the large purses of downtown or TxDOT, and most of the work was funded by foundation dollars or through volunteer efforts. Yet, this work would have a lasting impact on the NHHIP by exposing the failures of TxDOT even though it failed at impacting the final freeway design.

NOT THIS PROJECT

The combined efforts of the Technical Advisory Team, LINK Houston, Air Alliance, Stop TxDOT I-45, the Make I-45 Better Coalition, and a number of other community organizations resulted in a parallel set of public processes that countered the approach of TxDOT. While each organization and effort had different purposes and goals the result sparked a more organized opposition to the disparate and unjust impacts of the project, particularly for communities of color.

The tools developed across these grounded agencies equipped the public with the information needed to substantively critique the project and helped to identify the key issues that people

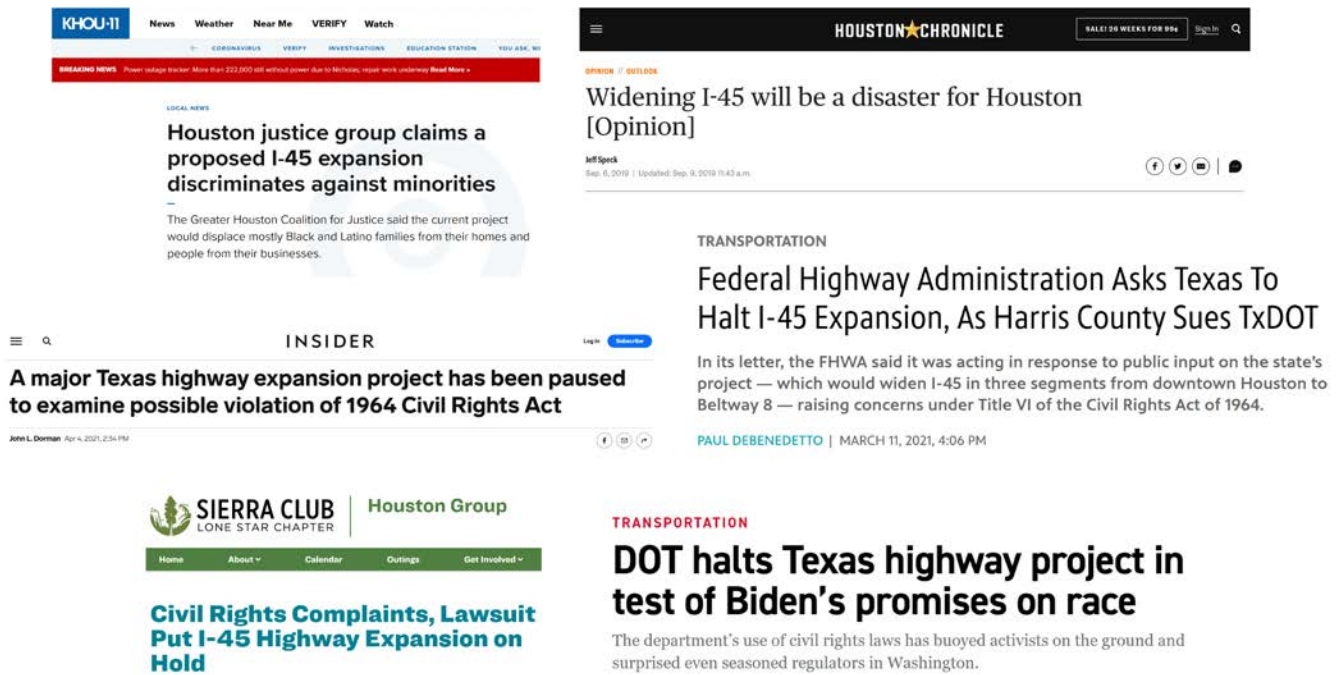


Figure 3. NHHIP Headlines, Graphic by K. Polkinghorne.

cared about most, including more public transit, cleaner air, safer streets, and new approaches to freeway design. Designers and planners developed accessible maps and diagrams that isolated key issues to make the project more legible and accessible to everyone while also identifying design solutions to mitigate the inequities. As the collective voice against the project increased in magnitude local government agencies had to pay attention.

The work informed requests to TxDOT to revise the project from the City of Houston, Harris County, community-based organizations, other agencies, and the public. Each request asked TxDOT to re-think elements of the project or commit to further evaluation in the Final Environmental Impact Statement. However, TxDOT remained stubborn and unmoving even in the face of widespread public outcry, demands by elected officials, Title VI civil rights claims leading to a federally mandated pause, and a lawsuit from Harris County.

In the end, the grounded coalitions and counter processes emerged just as the opportunities for meaningful design agency waned. As a result, the public's input and demands from elected officials fell predominantly on the deaf ears of TxDOT. The general scope of the project, including the ambitious reroute of the Downtown loop system that would remove lanes from the wealthy and white west side and relocate them on the historically Black and Latino east side, was not up for debate.

Clearly, we needed the kind of substantive public engagement that we saw in 2019 in 2011, and we needed that engagement to

come from TxDOT, not just from local government and grassroots organizations. Did TxDOT fail to fulfill their legal obligations? Or is the system working exactly how it's supposed to?

QUESTIONS IN THE FORM OF A CONCLUSION

"A world marked more and more by private greed and the private provision of public goods is a world that doesn't trust the people, in their collective capacity, to imagine another kind of society into being."

—Anand Giridharadas, *Winners Take All*

Over the past several years, it has become resoundingly clear that a fundamental shift is required in determining how public dollars are spent, for what purpose, and for whose benefit is needed. Still, the questions emerging from an analysis of the NHHIP are more numerous than the answers. As designers, we are personally and professionally responsible for engaging in the ongoing interrogation of what policy, design, and agency mean in the context of the built environment—a conversation that can find a turning point in the NHHIP.

Too often, policy is a neutral tool that bureaucratic governmental agencies take up to cover their bases and limit the public imagination. NEPA defines a process for public engagement with federally supported projects like the NHHIP, but it does not require that the public participate in determining whether the project was needed at all. Rather, NEPA is embodied by TxDOT as a checklist that codifies public input and then promptly



Figure 4. Polk Street Protest Stop TxDOT I-45, Photo by Stop TxDOT I-45.

neutralizes it. Directly democratic processes at all scales of government, including participatory budgeting, can aid in correcting this negligent ethos. Necessarily requiring transparency and dialogue around issues such as, for example, the disparity between funding for roadways and funding for transit, pedestrian, and bicycle infrastructure has the potential to grow a political culture that halts projects like the NHHIP before they ever begin. Do we have the courage to earn the public's trust and redress past injustices by developing processes that are open and transparent with new kinds of policy?

Design is any process that shapes our environment and the things in it. Designers have the capacity to visualize realities in a way that informs decision-making. In extraordinarily complex projects, designers can create clarity around benefits and costs, as was so desperately needed following TxDOT's 2017 publication of the NHHIP Draft Environmental Impact Statement. Yet, designers can also obfuscate the true nature of a project when they allow themselves to be co-opted into visualizing the fantasies of people with power and concealing what those fantasies will cost people without it. Thomas Fisher once lamented that design and architecture, which relate so directly to the health of the public, are not funded like public health. Freeways, though, are an exception to this rule. Harnessing these publicly funded design projects towards a more equitable built environment

demands that designers put politics back into practice and align their work with communities, even as the economic systems we have cultivated punish us for activism.

The central aim of policy and design should always be to amplify agency so that every public voice is equipped to participate in shaping our collective environment. The systems that currently guide transportation megaprojects in Texas and the United States work against that central aim. Changing course will require a radical realignment of policy and design, away from the dreams and visions of the powerful, the project, or the complicit client and towards communities demanding change. The future-making pursued by grassroots organizations like Stop TxDOT I-45, the research and planning efforts carried out by designers like the Technical Advisory Team, and the political solidarity shown by local government actors like Harris County show us that such a realignment is possible.

Inequity is not embedded in our cities by accident, nor will it be remedied without intention. Now that we know change is necessary and within our reach, the NHHIP most pressing question becomes: what is it going to take?

ENDNOTES

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