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February 7, 2020

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CTC Comments to Draft NHHIP Community Impact Assessment (CIA) Technical Report (CIA-TR)

Dear TxDOT Project Development Staff:

Citizens' Transportation Coalition (CTC) has reviewed the vast amount of data and analysis in the Draft NHHIP Community Impact Assessment (CIA) Technical Report and submits the following comments and recommendations.

CTC Conclusion Regarding the NHHIP CIA-TR and This Project Generally

We do not see that mitigation of community impacts is impossible for Segments 1 and 2, but it will be costly. TxDOT may decide it does not want to spend the money on the mitigation it has outlined. NEPA requires a design that will minimize impacts, both generally and to the environment, as well as locally to the communities affected. The cost of mitigation for Segment 3 appears to us to outweigh any benefits that will result after a very long period of construction and upheaval. Our conclusion is that Segment 3 should not be built at this time.

CTC would prefer that the project be separated and defer construction of Segment 3 until there is more study of flooding, drainage, construction sequencing, land developer impacts, takings, and provision for limited oversight by FHWA and other federal agencies such as the EPA and USACE. Based upon TxDOT's own forecast regarding Segment 3 construction (below), it will take years, be incomprehensibly difficult, and violate all sorts of standards for operation of roads and bridges (the interchanges) during destruction of existing facilities and construction of new ramps and other infrastructure required. All the while our 3rd or 4th largest city is trying to maintain economic viability of its downtown and control horrific structural and natural flood threats and to keep tabs on the city's economic viability so it can maintain quality of life. Boston was the laughingstock with the Big Dig, but Houston may replace it, but with much more horrific results.

It was our understanding prior to Hurricane Harvey that the construction would begin with Segment 3, rather than end with Segment 3. This construction sequence should be flipped around and put the more thoroughly scrutinized, simpler designed Segments 1 and 2 ahead of Segment 3 in the queue. Or Segment 3 should be tabled for lack of an adequate Purpose and Need and failure to meet Performance Metrics and the matter referred to the FHWA and other agencies.

Pierce Elevated: Fix it First

The Pierce Elevated should not be removed to gain green space and community cohesion. Those are land developer pretexts. Since the day it opened, the Pierce Elevated has been like Houston's version of Galloping Gertie. But that structure is very functional both for the community, for downtown, and for circumventing downtown, providing interchange options and shortening fuel-wasteful trips.

About the Citizens' Transportation Coalition

The Citizens' Transportation Coalition (CTC) is an all-volunteer, grassroots advocacy organization based in Houston, with members across the 8-county Houston-Galveston region. Since 2004, CTC volunteers have worked to engage neighborhood leaders in the planning of transportation projects that affect our neighborhoods throughout the H-GAC region.

CTC advocates for the effective transportation infrastructure, expenditures, processes, and solutions that improve access to mobility, safety, and quality of life for all stakeholders. We closely adhere to FAST principles for performance, safety, and multimodality, and we strongly support NEPA requirements for documentation, consideration, and mitigation of federal projects including highway projects.

CTC has certain guidelines and principles to help with the two goals above which we think have greatest bearing on the community assessment analysis: safety and improvement of quality of life for neighborhoods and stakeholders.

Purpose and Need. If there is no well-defined Purpose and Need for each segment of the project, that segment should not be built.

CTC's first guideline for taking a position on federal aid highway projects is that Purpose and Need (often referred in NHHIP documents as Need and Purpose because TxDOT takes a position in its guidance that need should be stated before purpose) is a substantive legal requirement requiring compliance. TxDOT advises that only a few sentences are needed for this conjoined statement, meaning it assumes its answer as to whether a project has a supportable purpose and need.

Projects should be designed to minimize environmental, economic, and social impacts; and plans must be made to mitigate those impacts.

After doing the costing to achieve this, a project should be scotched, where it appears infeasible or not sustainable, or more succinctly the fully accounted for costs outweigh the benefits.

CTC appreciates that TxDOT has finally given credence to negative health, property, and psychological impacts resulting from the very long construction period for the NHHIP.

We describe this below, but we do not give much credence to TxDOT actually implementing the solution it briefly proposes.

Since 2012, the US Department of Transportation has focused on a performance-based planning approach to our transportation systems.

To meet the tests of MAP-21 and FAST for federal funding, a project, or project segment if the project can be segmented as to constructability and cost, must have a clearly defined and justifiable purpose and need and must meet appropriate MAP-21 and FAST metrics for Safety, Pavement and Bridges on the NHS, System Reliability, Freight, Congestion, and Air Quality, and Transit Asset Management Targets.

Land development and asserted congestion relief through highway construction and CMAQ programs do not alone qualify for support by CTC. CTC had, since Segment 3 was first proposed, severe misgivings whether Segment 3, as proposed met Safety requirements and whether it presented unnecessary environmental impacts that would be difficult or impossible to mitigate.

Land development often shifts the costs of land development onto highway users or other adjacent landowners. Land development is certainly not always bad: **it can provide sustainability to a community** that might be in need of commercial operations not already there such as big box hardware and lumber stores or large groceries with top quality produce and access for large freight to delivery that produce. Plus, the developers can make a significant amount of money, but **they should not be granted variances from provisions that are required by MAP-21 and FAST for safety and protection, especially from flooding.**

Fix It First minimizes additional community impacts

A key CTC transportation principle is “Fix it first”: don’t reconstruct something that could be modified or retrofitted and work nearly as well. Further, if infrastructure is already there, its rehabilitation should minimize community impacts. Presumably transportation dollars spent on highways should be less also.

The problem is that more lanes are needed for a 20-year design and for today’s type of car capacity and today’s type of transit capacity, so Fix It First is easy to say, but not so easy to implement. This is a total reconstruction project. **Segment 3 might afford the opportunity to Fix It First since there is already a composite of interchanges downtown.**

CTC wants a cost-benefit analysis for Segment 3 with impacts on the various communities quantified and a budget for their mitigation.

CTC has read the most recent TxDOT construction report newsletter, which it has linked to below. TxDOT’s letter indicates that construction time for Segment 3 might be as much as 7 years. We do not see any benefit on the communities affected nor on Houston as a whole to be undergoing construction, using very complicated sequencing, for 7 years.

We also are skeptical of the traffic numbers going 20 years out, and the cost of the project. Our guiding principle regarding costs is that “Real numbers must be used to measure fiscal constraints; numbers must be available to the public for all transportation expenses whether at the federal, state, county, or local level, and reported in a format that can be reviewed by the public. A project this large, especially for Segment 3, or one that involves toll lanes, must be backed by some sort of investment grade study. We do not see it.

Summary of City and Civic Efforts

The City of Houston conducts Complete Community and Complete Streets studies and have provided findings to TxDOT. Also, many civic organizations such as the Houston Coalition of Complete Streets and Bike Houston attempt to improve communities, but they do not focus on the negative or positive impacts of freeways and toll roads other than they commandeer all the space and money.

We are very grateful that the Mayor and City and the various government entities have participated in such community studies and have elevated them to TxDOT for inclusion and, one hopes, action. We have linked to the summary of such studies. It would appear from the summaries they are not focused at mitigation of individual stakeholder harms and the studies rely on super neighborhoods and other organizations which all in poor neighborhoods or neighborhoods overshadowed by TIRZ are not privileged to participate in.

CTC summary of specific comments re FEIS Draft CIA Technical Report

CTC comments that there is no comprehensive Executive Summary for the 3 Segments covered by this report.

Notwithstanding the City’s outstanding efforts, busy elected officials and stakeholders need a comprehensive Executive Summary to integrate all the GIS, census, and other raw data covering each of the 3 segments.

First CTC comments that there is no Executive Summary for the entirety of this report although there are Summaries of each type of recurring impact (e.g. Construction Noise). The report is 545 pages long inclusive of exhibits and tables which contain much textual comment. This is not that useful to busy city officials who are charged with oversight of our city communities. We imagine that except where there is a well-defined management district, super neighborhood, or historical district, boundaries of the “communities”, or as we would prefer “local areas” along the Preferred Alternative are difficult to define and may shift rapidly.

METHODOLOGY OF ASSESSMENT

Section 3.2 Land Use Assessment

CTC objects to the Land Use metric for the TR. The metric should be Land Use with “x feet” of existing and preferred alternative locations to capture the impact of the Preferred Alternative.

How does measuring within one half mile of the existing location capture the impact that will result from the Preferred Alternative unless the two are congruent? We assume this is just an error and will be corrected in the editing process.

TxDOT quotes as their study boundaries:

The land use assessment evaluates how the proposed project would affect existing land use patterns, proposed developments, and development trends. Land uses were identified **within approximately one-half mile of the existing project corridor roadways** to document existing development and development patterns in the project vicinity. The area includes land that would be directly impacted by the proposed right-of-way of the Preferred Alternative, and other land in the project vicinity that may have a higher potential for indirect impacts. Direct impacts would include the permanent conversion of existing uses or restricted use of land as a result of the proposed project. Other impacts may include shifts in development patterns and inconsistency with local and regional development plans.

Existing land use data for the CIA is based on 2018 Geographic Information System (GIS) data provided by H-GAC (H-GAC 2018).” (H-GAC data is excellent, but existing land use within half a mile of the current alignment as well as existing land use within half a mile of the preferred alternative should be use.

Methodology of CIA Technical Report is not appropriate for this large a project. It is fortunate that the City and Mayor have held community-based meetings also, but they do not seem to be well integrated into this report. (CTC has the link to the summary of those meetings elsewhere.)

CTC objects strenuously to abatement of impacts based on inclusion in a super neighborhood or management district. What does it mean to be in a community? Is it only those who are in a super neighborhood or management district?

The methodology is far too atomistic for a complex multi-mile project and has resulted in reliance on city community meetings (not a bad thing, but they should not be the sum total source of analysis for a federal aid highway project).

Simple super neighborhoods do not line up with communities, and certainly do not encompass all significant impacts from the project. Not everyone is fortunate enough to be in a super neighborhood or management district.

There will already have been an inherent abatement or mitigation of impacts within these special areas, so there is probably an underreporting of impacts.

Further, there is a danger that those persons who TxDOT indicates in the Mitigation section are entitled to relief may get left out just because they are not in one of the super neighborhoods.

This was an analysis de novo. CTC does not have a problem with that, but the 2010 Census data on which the study is predicated is stale. If the tabulated numbers were run in a model, Census 2020 forecasts should be loaded in to see if there have been significant population shifts (cf land developer forecasts eg for EaDo.)

The use of 2010 Census data is described in the TR:

“The 2010 U.S. Census provides population, racial and ethnic distribution data down to the census block level. The 2010 U.S. Census provides population, racial and ethnic distribution data down to the census block level. **Community profile data was collected for census tracts**, block groups, and blocks that intersect or that are adjacent to the proposed right-of-way of the Preferred Alternative. Collectively, this census profile area includes 48 census tracts, 78 census block groups, and 1,108 census blocks, with two census tracts overlapping and several block groups overlapping Segment boundaries.

Tabulating all this data is awfully granular, and little community analysis is tied to the data, and the data blocks do not match up with the Land Use boundaries.

CTC counted the number of “mentions” in the TR of key stakeholders and impacts that would be important to members of the community.

Among the issues and numbers of mentions are as follows with brief comments:

Executive summary, 0 mentions. This is a CTC complaint as noted here.

There is no Executive Summary. **Disparate and separate communities do not lend themselves to an executive summary, but it is a bit much to ask busy council members and the mayor to read through 545 pages.** It is important to get support by city officials to push forward a huge project which many think is overbuilt, Segment 3 a dangerous boondoggle, damaging to the environment, there is no community based purpose and need for, and no longer is touted as an evacuation route. Council and Mayor support is also needed for issues such as green space and walking and biking which transcend communities and council member districts.

Census, 441 mentions; Population, 503 mentions.

The report is based on 2010 census numbers. CTC is not asserting the analysis should change, but **there is overreliance on demographics. The impacts are caused by TxDOT, not by the number of persons.**

Mayor, 10 mentions; The Mayor is instrumental in developing community workshops to gather data regarding impacts and relations with highways, discussed below.

Super Neighborhood, 576 mentions; There is too much reliance on Super Neighborhoods.

Many areas either do not have a super neighborhood or it is not active in promoting control over community impacts.

GIS, 262 mentions; Site visit, 17 mentions; HCAD, 34 mentions.

There is too much of a listing of GIS locations, meant for identification of sites. TxDOT gets much of its data from H-GAC, and perhaps its staff needs to do more site visits rather than relying on GIS and Google Earth information. There is mention of the Mayor and the City’s efforts to get input for community concerns, above. This input though is very valuable for

community concerns as a whole, but TxDOT can obtain a better feel on the ground by driving along the Preferred Alternative and seeing exactly what is going on. Perhaps take a community leader along for the ride. This viewing of the Preferred Alternative alignment would include issues such as access to schools that probably are not exactly abutting the Preferred Alternative to determine whether changing an exit or entrance ramp could mitigate the dangers to the school kids and operations.

HCAD, 34 mentions; This is a source of location and wealth (not income) information. If the numbers were dug into, changes in market value could be examined. Many of HCAD's numbers are routinely challenged, but that is an effort that may not regularly be undertaken in communities where there is a high rental population. The numbers are also a good measure of **gentrification** and community change. TxDOT should not be helping the land developers and the city regentrify an area. Its job is mobility for all and safety.

Flooding, 9 mentions; Detention, 18 mentions.

Flooding is not well analyzed in the DEIS or any draft technical studies. We set our cap on depressed sections of the freeway, particularly downtown prior to Harvey. Now we need to get serious about rising sea levels that can encroach on Galveston Bay and Buffalo Bayou, new rainfall levels, and of course structural flooding. Structural flooding can be community based, and it would be caused by TxDOT when it fails to mitigate its projects with adequate drainage.

Detention is not the only solution in many communities, but it is discussed as if it were the only mitigation. Better control and cleaning by the city and/or TxDOT of existing pipe and ditch systems needs to be discussed.

Surface Water Pollution Caused by Pumping; Where to Convey or Detain the Water; Backup Plain

This is a major community impact associated with rainfall and flooding and the TR should mention it even if there are flooding, surface water, and waters of the US reports elsewhere. The existence of alternate surface road routes for when the pumps malfunction should be mentioned.

Petrochemicals, hydrocarbons, refineries and chemical plants, hazardous materials: all not mentioned

This should be mentioned in the TR. Flooding of these critical infrastructure facilities presents the possibility for a massive, massive environmental disaster.

Construction Dust: Only a total of 108 general mentions.

Construction dust has only 3 mentions; plus Dust, generally, 105 mentions.

This is a real health, safety, and property damage impact for stakeholders, and it will be long-term, not "temporary" as TxDOT styles it.

TxDOT mentions construction dust, but in a general way and without reference to the composition of the dust.

Cement is a wonderful product, but it contains many chemicals dangerous to lungs over prolonged breathing. The Portland Cement Association says "Cement is manufactured through a closely controlled chemical combination of calcium, silicon, aluminum, iron and other

ingredients. Common materials used to manufacture cement include limestone, shells, and chalk or marl combined with shale, clay, slate, blast furnace slag, silica sand, and iron ore.”

CTC thinks construction dust from cement and cement operations, and surely there will be a plant or two, and hacking up and disposing of millions of tons of used cement over a long term (not temporary construction as represented in the CIA TR) poses very serious environmental and health hazards both to workers and residents. Further, soil dust from TxDOT projects where dirt is excavated or hauled in or dug up or embankments are taken down always gets in the homes of adjacent and nearby stakeholders, and those soils will contain contaminants from years of oil and other highway use spills. Dust will get all over people’s homes and in their air conditioning and electronic systems, and especially for those communities such as in Segment 3 where construction times will be years.

The Study has a chapter 5 MITIGATION SECTION, “IMPACTS OF THE PREFERRED ALTERNATIVE”.

CTC has serious concerns about statements made in the Mitigation Section, particularly about construction dust.

In its Mitigation Section, commencing at 5-214, **TxDOT makes the somewhat unbelievable statement regarding dust and noise impacts:**

“To mitigate for potential short-term construction dust or noise impacts, TxDOT will provide funding for weatherization and energy efficiency for qualifying low-income single-family residences.”

CTC finds this statement wholly unacceptable from a community impacts standpoint, and from a fairness standpoint. **At least TxDOT is acknowledging these impacts will be long-term and hazardous to health. But the statement is vacuous.** The statement sounds great, but it must be examined as to how it will be administered. For example, who decides who gets the mitigation. Do residents have to put up the money and get reimbursed. At what stage in the construction process will the payments be made. This would be new for TxDOT, and CTC is highly skeptic and does not hold much hope for the impacted persons.

There is no reference to point out how persons will go about qualifying for the weatherization: do they have to be within 500 feet of the construction? 500 feet is a typical metric. The area of interest is one mile. CTC does not believe there is a timeline for doing this, and to the best of our knowledge, **this has never been done before.** When TxDOT refers to “low income” CTC assumes that this is low income property owners and not renters, but this needs to be clarified. This is an administrative mess and should be settled before shovels are in the ground. TxDOT needs to set forth the budget and timeline for impacted parties, particularly those for construction dust.

TxDOT needs to modify the foregoing statement.

Construction Noise Mitigation: this provision, like Construction Dust, above, needs to be rewritten to reflect more accurate what TxDOT intends to do and at what stage of the construction project.

Page 5-191 of the Draft Technical Report reads in part:

Construction noise would have short-term impacts to receivers along and nearby the corridor and along designated construction access routes. Impacts from construction normally occurs during daylight hours when occasional loud noises are more tolerable. None of the receivers are expected to be exposed to construction noise for a long duration. Any extended disruption of normal activities is not expected...

There is also the provision for qualifying low-income housing for weatherization and energy efficiency. Parameters need to be developed for this or it is a meaningless promise to vulnerable persons who are often not experts in interpreting long highway reports developed from templates.

Fuels, CO, MSAT Studies, and a 20-Year Design

Fuel, 4 mentions; Electric or new vehicle types such as autonomous, 0 mention in this report. No matter what part of the Technical Reports, TxDOT needs to focus forward. Major federal aid highways are to have a 20-year design standard. TxDOT, based on H-GAC recommendations and MSAT studies which state that pollution due to tailpipe emissions will continue to decline.

CO is a local, ground level pollution. CTC is a major fan of H-GAC's knowledge base and planning and forecasting skills, but this sort of conclusion needs to be meshed with Census 2020 predictions and current and future vehicle types owned in the various communities. The report is detailed elsewhere, but many city, special government entities, and community civic groups should be advised briefly how to use the current detailed report. Also, they should be told briefly how current the model data is that was used to run the forecast for the various hot spots. Overall the TxDOT diminishing pollutants assertion for lower income communities seems improbable. There was no mention of electric vehicles in this particular Technical Report.

Access Roads Have Pros and Cons for the Communities. Access roads are not listed as an impact but should be.

The Preferred Alternative for Segments 1 and 2 is fairly clear as to the presence and alignment of access roads. Whether access roads will be built for Segment 3 where the highway is elevated, and real estate is scarce is another question.

Access road, 2 mentions; Curb cut, 0 mention; Freeways in Houston will not quit building access roads, but access roads can be good to serve as new local streets and can provide shopping and offices close to the freeway particularly for the underserved communities.

On the other hand, access roads can be under construction for so long, and have stupid intersection management facilities such as four way stops, they cause major congestion and fuel waste, undermining the time gains from the mainlanes of the freeway. Further, they can do much damage to existing businesses due to diminished access.

Without design refinement, 30% of the Preferred Alternative ROW is in a flood plain in Segment 1. A lot of the land along the current ROW is used by small and low-income merchants. TxDOT is taking the land not in the floodplain. TxDOT has no real solution here if the road is to be as wide as desired: it could build parts of the Segment 1 pancake on low piers, but there would be no access to merchants. The community may lose a number of businesses it

relies on in this car-centric area. CTC considers this to be part of the Environmental Justice problem.

Land Developers.

Developer, 6 mentions of developers, only in passing; Developers and concrete lobbyists generally do not have the best interests of Houston as a 21st century at heart because they refuse to include the cost of mitigation of their projects into their ; they are generally the nemesis of CTC goals: they promote sprawl and highway building and can cause gentrification, but they can have a positive impact on jobs, but the jobs need to be in the community. Growth in one neighborhood will not have an optimal impact on economics if the jobs are not nearby.

Pierce Elevated should remain and be rebuilt.

Pierce Elevated, 90 mentions; Many support CTC's position that removal of the Pierce Elevated does not promote community cohesion and mobility, but rather promotes land development dressed up as green space. Pierce Elevated is one of the few structures that serve a real purpose and need both for the Downtown Segment 3 and for the community.

Visual impacts, 34 mentions.

“Visual impacts” is a subject of another Technical Report, but on a community wide basis, TxDOT, in conjunction with SGE's or the city, could promote at very low-cost optimal use of its Green Ribbon and Scenic America principles.

Interchange, 142 mentions.

TxDOT characterizes the entirety of Segment 3 as one large series of interchanges.

Generally, if CTC is going to support building a highway or segment thereof, CTC will support constructing the interchanges first. Interchanges at an appropriate capacity allow modelling to determine how much capacity needs to be added to the linear portion of the road. Plus, interchanges must be up to date and safe.

Environmental Justice Stakeholder Meetings

TxDOT has tabulated an extensive number of public meetings under an Environmental Justice exhibit. CTC was most interested in meetings in 2018 and thereafter. CTC is not certain that all these meetings deal with Environmental Justice issues and is concerned with the lack of attention to Segment 1 where there are real Environmental Justice issues.

The City has developed an interactive map for NHHIP where one can view impacts on communities adjacent to the planned NHHIP

(<http://www.houstontx.gov/planning/nhhip/>).

The comments of residents who attended June 2019 city workshops designed for persons affected by NHHIP are summarized at

http://www.houstontx.gov/planning/nhhip/docs_pdfs/NHHIP_June_Public_Meetings_Comments_Received.pdf. The summary shows that most of the comments reflected opposition to the project (spend dollars on more mass transit) or its design (e.g. too much space for HOV lanes).

However, the comments that reflected immediate impacts on their communities included design features of frontage roads.

Houstonians use frontage roads like local roads and merchants and TxDOT encourage this. A comment frequently appearing is that the frontage roads flood causing major mobility disruption which essentially says the design of frontage roads is substandard for communities.

It is a CTC principle to support neighborhood quality of life and neighborhood and cultural preferences. The negative impacts on Segment 1 and 2 can probably be mitigated, albeit at a high cost; but we do not see that the impacts, including community impacts, from Segment 3 can be mitigated at a cost that will not outweigh all foreseeable benefit from building the project.

The different communities have vastly differing dependence on automobiles, but that does not mean they have dependence on the use of the freeway and certainly not dependence on inter-segment use of the freeway.

CTC would add these ideas to the community inputs. CTC would suppose that the greatest factor in community cohesiveness is land use, local taxation, schools, good local streets and transit, and land developer operations. Although we particularly do not support Segment 3, we see the immediate negative impact on community from long-dated construction impacts, arising from dust, noise, and local mobility constraints over a long period, and greater design and mobility impacts due to more exits and entrances and more takings of land. Other impacts include flooding, lack of effective pumps and flood mitigation, climate change exacerbating flooding, damage to clean water especially from pollutants from the ship channel, damage to historical districts, over gentrification, and possible loss of cultural identity. We do not think these can all be mitigated, and the mitigation for the factors that can be mitigated will be so expensive as to outweigh any benefits from constructing the project.

We remain firm in our position that destruction of the Pierce Elevated does not promote community cohesion; rather it promotes land re development, rising housing costs, and gentrification where there is still land to gentrify. It should be rebuilt to a safer standard.

Mechanisms for Offsetting Community Impacts of NHHIP and Other Roads.

TxDOT does not have this type of approach in its TR, but it mentions some of these, and we hope will consider adding them to the Final TR.

The City's Complete Communities Initiative.

There is much for our communities to work on. Funds should not be diverted for speculative TxDOT projects.

In his inaugural speech, the mayor outlined initiatives for his second term. Under his leadership, the City is to expand street repairs beyond the 250,000 potholes filled in his first term; involve non-profits and corporations as financial partners in further reduction of homelessness; carry out newly funded flood mitigation projects; debut the final version of the city's first climate action plan; improve neighborhood parks through a private-public partnership; further expand the city's digital innovation economic sector; continue work through the **Complete Communities** initiative toward equitability for under-served neighborhoods; and more.

The Third Ward is a Complete Communities pilot. Regarding mobility and infrastructure, its website says at

<https://www.houstontx.gov/completemunities/thirdward/third-ward-complete-communities-action-plan.pdf> **"A resilient community with quality infrastructure, including streets, sidewalks, and reliable public transit, makes a complete community."** The website mentions the I45 expansion, but Third Ward is actually delineated as west of Spur 5.

Further, it states,

The Third Ward is well-served by public transit, including the Southeast Corridor Light Rail Line (Purple Line) which travels along Scott Street in the eastern portion of the neighborhood, and connects directly to Palm Center to the south and downtown to the north. The Purple Line provides further access to the North Corridor Light Rail Line and the East End Line. Many residents are dependent on public transit. In 2015, 18% of area households did not own a vehicle, compared to 6% in the City overall. As a result, 12% of workers used public transit to get to work, compared to 4% in Houston; an additional 17% walked or biked. While the Third Ward is well-connected to the City by transit, the neighborhood streets, sidewalks, and crossings need improvement.

But road transportation is needed even in "communities" where there is good mass transit. Many persons work hours when surface transport is not running or work in locations where mass transit does not exist or is too far to access.

TxDOT could assist the Arts and Culture programs within pilot Complete Communities and other culturally definable areas by allocating funds for local artists to paint freeway walls or other structures out of Green Ribbon funds.

As a cultural matter, CTC thinks this would promote cohesiveness. Perhaps even small scholarships could be given by civic organizations and nonprofits for art wall on road walls.

Livable Centers are a mechanism for offsetting community impacts.

H-GAC defines Livable Centers as places where people can live, work, and play with less reliance on their cars. They encourage a complementary mix of land uses that are designed to be walkable, connected, and accessible by multiple modes of transportation, including bus, bike, foot, or vehicle (multi-modal). Established in 2008, the Program works with local communities to reimagine auto-focused infrastructure, policies, and programs to be more multi-modal friendly.

LIVABLE CENTERS STUDIES

The City of Houston (COH) has been awarded Livable Centers Study funds by the Houston-Galveston Area Council (H-GAC) for implementation in multiple study areas to create walkable, mixed-use places that provide multimodal transportation options, improve environmental quality and promote economic development.

There are a number of studies and plans for Livable Center projects that involve communities adjacent to or near NHHIP, e.g. EaDO, East End and Fifth Ward. TxDOT should encourage participation in these programs and help to ensure that not all funds are hogged by rich management districts.

Complete Streets near access roads and especially near interchanges; other Complete Streets surface modifications to promote community and offset impacts.

Safety is not really mentioned in the CIA TR, but the complex structures definitely represent inherent safety risks to pedestrians (and bike riders).

TxDOT must include in its mitigation plans safety measures and especially for pedestrians. Signs, lights, and appropriate crosswalks near interchanges and ramps also promote community and conformity with FAST safety requirements.

CTC is a founding member of the Houston Complete Streets Coalition, and we proudly support Complete Streets efforts and share our Chair with that organization. CTC comments that some of the issues for which design might be used to minimize negative visual impacts while protecting safety include the following:

CTC asserts that Complete Streets projects, particularly around interchanges, and entrances and exits can be created near the NHHIP with little capital investment, and would do much to unify the community and to offset community impacts and enhance quality of life.

CTC also promotes safety particularly for safe street designs and crosswalks, lighting, and signage that promote pedestrian safety. CTC strongly supports the city's task of developing a Vision Zero Action Plan by September 2020. Many of the design plans for community road surface safety are included in the COH PWE-IDM (City of Houston Public Works & Engineering Infrastructure Design Manual) Chapter 10: Street Design. CTC asserts such measures as set forth in the IDM are not just a "Plan" when associated with a federal aid highway project such as NHHIP; they are FAST safety requirements.

Lighting, TxDOT mentioned light pollution. CTC thinks lighting is very important to safe use and operations on a highway and safety for pedestrians near a highway or access road. Lumens on a highway should not be sacrificed in an urban area for a dark skies preference. (In rural areas this might not be true.) Thus, we support the need for moon towers as long as they are not angled to cast spillover light into the homes of abutting residents.

Plants. Vegetation along a highway is important for visual relief and to reduce driver distraction. Plants along the Houston freeways are getting better. Palm trees and oleander are not native and do not thrive in Houston; grasses such as pampas grass and trees such as cypress, oak, fir, and pine look great and require less maintenance than lawn grass does.

Signs and Lane Paintings. CTC has utmost concern about safety for all drivers, autos, buses, and trucks, and we support Vision Zero. All stakeholders need to know where to go, what lane to be in, and when to enter or exit. **We definitely do not support a pave the earth mentality, but for those road projects we have, we need to have more and better signage, not less,** both in the ROW and outside the ROW. Signage right now is not good enough particularly at freeway entrances, exits, and interchanges on IH-45. Signs to announce parklands and other major features (including non-motorized features such as trails and bike paths and Houston historical areas such as 6th Ward) would be a welcome community addition and destination marker. CTC thinks that traffic signs trump local signage objections and restrictions. The same applies for lane paintings.

Piers. CTC does not like elevated projects because they throw out noise onto neighborhoods, and TxDOT is notorious for under-correcting the noise even though there are federal funds to do so.

But elevated structures enable much more community connectivity using less real estate. So, the footprint is smaller. CTC generally supports building projects that need to be elevated on piers rather than using dirt embankments. Some say the piers are ugly. Most highway projects are ugly. But embankments require a lot of foreign soil and tend to create damming effects in already flood prone areas such as all three Segments of NHHIP. Piers would tend to reduce flooding because water can move more easily. Tall vegetation and under-pier lighting and possibly hardscape at parkland or major intersection crossings can offset the use of piers.

Noise Abatement Structures. TxDOT should apply to the FHWA and adopt appropriate **procedures to use pavement surfacing** as one aspect, but not the only one, for noise abatement. We are talking about diamond grinding and other new surfaces, not the longitudinal tining mentioned in the Noise Mitigation Section. 19th Century noise walls are not pretty and are not appropriate for an organization that can design and construct a 5-layer interchange, but they are better than nothing. There is a noise abatement statute and there are extensive regulations providing for abatement of highway noise impacts. Merchants along the highway should not be able to dictate the design features.

Green Ribbon Design Features for the Sides of Highways. The report refers to the green ribbon project concepts. CTC almost always supports vegetation landscaping and xeriscape issues, but it has issues with the hardscape decoration used. **It is time for a new green ribbon design for the IH-45 project,** or possibly one for each segment. Perhaps the disrespected Segment 1 abutting owners, or the Segment 2 stakeholders who have commented (along with CTC) since the outset of the project, could have some input along with the wealthy Segment 3 owners to alter the green ribbon hardscape.

TIRZ, Management Districts, Complete Streets Areas, and Community Benefit Agreements

Creation of TIRZ, Management Districts, Community Benefit Agreements (CBA), and other defined area opportunity districts can have both positive and negative impacts on communities. This is especially true for TIRZ where the TIRZ does not share its tax benefits with surrounding communities. But we need to be certain that overt or covert variances in street design and

stormwater design or tax abatement are not given by the city as inducements when the public or TxDOT does not know about them. That is just a recipe to aggravate structural flooding.

Finally, TxDOT should get help and advice from FHWA and other federal agencies, such as the EPA and USACE, if it insists on constructing Segment 3. It is not up to handling the environmental threats to communities and the public alike.

Since Segment 3 was first proposed, CTC has opposed the construction of this project: it has an inoperable design, astronomical cost, will tie up years of capital, and lacks of sustainable purpose and need.

The NHHIP SEGMENT 3 PROJECT STATUS SUMMARY, dated November 12, 2018 <http://ftp.dot.state.tx.us/pub/txdot/pfd/strategic-contracts/alt-delivery/nhhip-seg3/project-status-111218.pdf> shows the construction timeline of the destruction of existing interchanges, construction of temporary ramps, and final construction for Segment 3 as 7 years, then with an additional project including the destruction of one of the most useful facilities in the Segment 3 system, the Pierce Elevated, as 15 years.

Segment 3 is overengineered, over specified, does not treat the foreseeable flooding and environmental impacts attending its design and resulting from attempts to control stormwater. Segment 3 is highly speculative; it will not benefit Houston downtown for years, if ever, and appears to be a boondoggle. Land developers will cash out their projects and head for the mountains, but they will not have any gasoline to drive anywhere. Gentrification is already underway, and displacement of low-income housing availability is being lost. The design has the inherent potential for eliminating IH-45 as an evacuation route. Pumped water out of the depressed areas will only contribute to surface pollution. It is not a good idea for Houston's residents, businesses, or our environment. TxDOT now has greater flexibility to spend its money on other transportation modes. TxDOT should not spend it on Segment 3. TxDOT will never be able to offset the major negative impacts, harden the assets against flooding and pollution catastrophes, or even mitigate the negative community impacts.

Sincerely,

/s/

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