

North Houston Highway Improvement Project (NHHIP) Health Impact Assessment (HIA)

H-GAC Transportation Improvement Program and
Regional Transportation Plan Joint Meeting

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Air Alliance Houston

Air Alliance Houston believes everyone has a right to breathe clean air and where you live, work, learn, and play should not determine your health.

What I will talk about today

- Why we are concerned about NHHIP
- NHHIP Draft Environmental Impact Statement
- NHHIP Health Impact Assessment (HIA)
- Stakeholder Engagement
- Next Steps

Why we are concerned about NHHIP

Houston Air Quality Context

74% of Houston families are concerned about air quality in Houston

Houston has never met national standards for ozone and ranked 11th (out of 227 cities) for ozone pollution in 2017

Houston ranked 2nd for toxic releases among big cities in 2016

Harris County had the highest vehicle miles traveled (VMT) in Texas with 109 million VMT in 2015 (and is forecast to add an additional 50 million VMT by 2050)

80,000 Houston-area children attend schools in traffic-related air pollution (TRAP) zones

Traffic-related Air Pollution & Public Health

Proximity to busy roadways is associated with many health issues.

Research has consistently found that living closer to and going to school near heavy traffic is associated with:

- childhood asthma
- reduced lung function
- impaired cardiovascular health and mortality
- the development of autism

NHHIP Draft Environmental Impact Statement

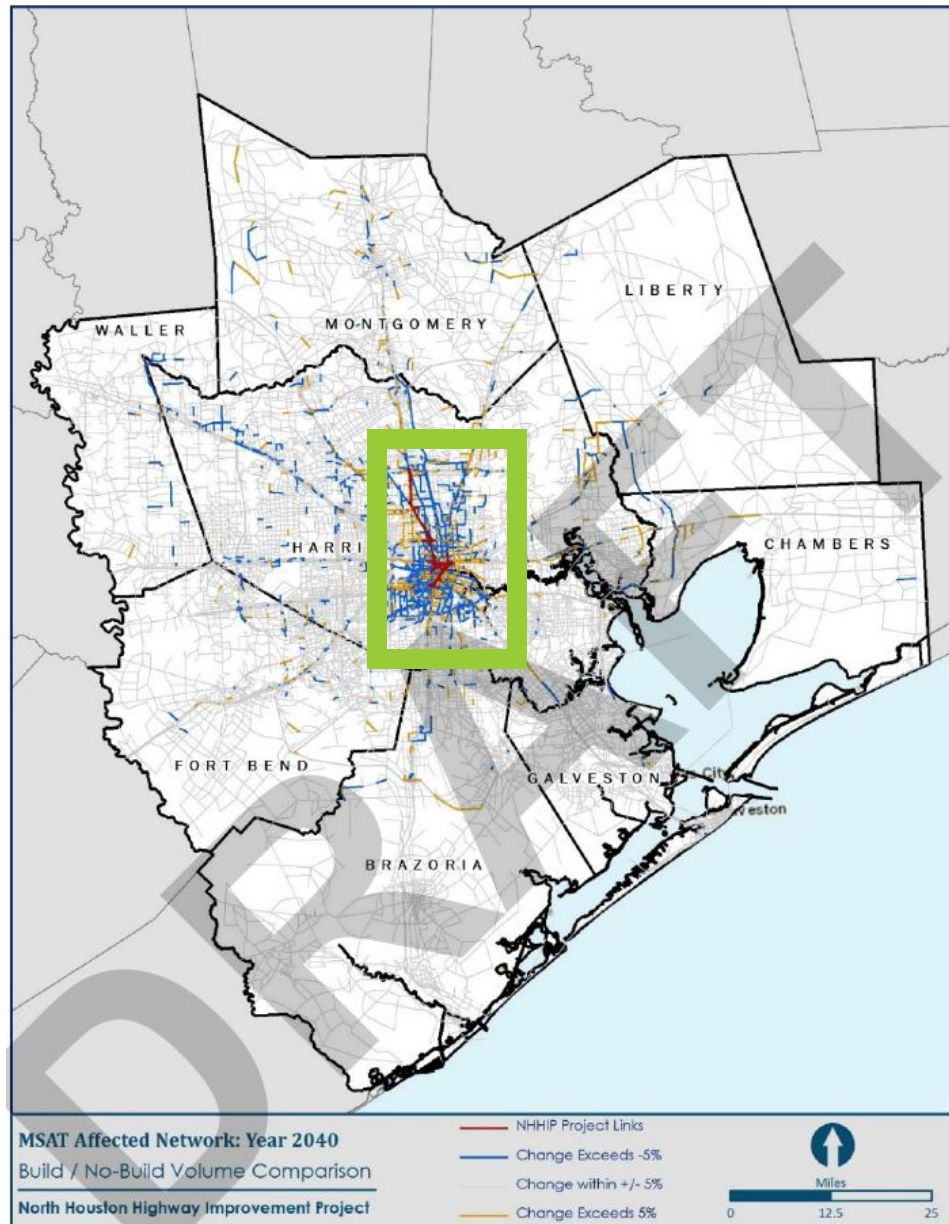
North Houston Highway Improvement Project (NHHIP) & Air Quality

The Environmental Protection Agency (EPA) has identified several air pollutants that are emitted from mobile sources that contribute to both cancer and non-cancer health issues.

The Federal Highway Administration (FHWA) requires a quantitative assessment of these pollutants, also known as mobile source air toxics (MSATs), on projects generating 140,000 annual average daily traffic (AADT) or more in populated areas.

Priority MSATs and public health

Pollutant	Health impact
diesel particulate matter*	causes lung cancer, aggravated lung diseases, decreased lung function in children
benzene	leukemia, anemia, blood disorders
1,3 butadiene	causes cancer, respiratory irritation, aggravated lung diseases
acetaldehyde	causes cancer, respiratory irritation, kidney and liver damage
acrolein	respiratory irritation, aggravated lung diseases
formaldehyde	nasal and eye irritation, neurological effects, asthma and allergies, GI ulcers, liver and kidney damage, cancer
naphthalene	possible carcinogen, anemia
polycyclic organic matter	causes cancer, birth defects, low body weight in children
ethylbenzene	possible carcinogen, damage to hearing, respiratory irritation, kidney damage



TX DOT draft MSAT analysis displays segments with increased MSAT emissions ...

... but does not publish segment-level projections

... and does not assess the impact on EJ communities

Source: NHHIP Draft Quantitative MSAT Analysis, May 2018
Figure 2: Affected Network Roadway Links

Health Impact Assessment (HIA)

Grant period: March 2018 - March 2019

Awarded to AAH by Urban Institute, Robert Wood Johnson Foundation

What is a health impact assessment?

HIA is an objective methodology designed to establish the ways in which a proposed policy or project could benefit and/or harm community health.

HIA Process

1. **Screening:**
Define project goals.
2. **Scoping:**
Set parameters and methodology.
3. **Assessment:**
Identify potential co-benefits and co-harms to population health.
4. **Recommendations**
5. **Report**
6. **Evaluation**

Screening

Setting Goals

Primary Goal:

Develop quantitative information about the project's potential co-benefits and co-harms to health for inclusion in the Final EIS.

Long-term Goal:

Model project for inclusion of HIAs in future mobility projects in metro-Houston area.

Ancillary Goal:

Raise public awareness of the public health implications of freeways.

Scoping

Setting Parameters

Assessing two types of health effects

1. Freeway expansion
2. Mitigation strategies

Focus on one vulnerable group

School-aged children

Addressing all impact categories in coalition DEIS letter

Air quality, Mobility, Low income communities, Economic development, Parks and green space, Noise, Views, Urban heat island, Flooding

Stakeholder Engagement

Community Workshop, September 17, 2018

Positive & Negative Changes

What changes will this project bring to your community?

The following changes were included in either or both the positive and negative columns of most stakeholder responses:

- Congestion, idling, commute time
- Impact on connectivity
- Impact on traffic-related air pollution
- Impact on flooding
- Impact on economic development

Policy Opportunities



- Complexity and Interconnectivity
- A Range of Perspectives
- Disparity Between the Current Approach to Segments 1-2 v. Segment 3
- Funding Opportunities

Next Steps

Stakeholder workshop

September 17, 2018

Air monitoring

October 2018 & January 2019

Perform assessment

September – December 2018

Issue report

February 2019

RTP Input - Future of HIA in Houston

2040 RTP, Appendix H: Healthy Planning Framework

Summary of Regional Efforts

Framework Areas		Maintain	Enhance	Develop
Institutionalize	Plans	Our Great Region 2040	Regional Transportation Plan	
	Capital Projects	Metro Bus System Reimagining		
	Funding		Transportation Improvement Program Criteria	Reserved Funding for Active Transportation Projects
	Codes and Ordinances	Parking Ordinance Update		Draft Complete Streets Policy
Organize	Governance		Pedestrian-Bicyclist Subcommittee	
Identify	Data	Regional Parks Viewer	Health Indicator Viewer	Regional Sidewalk Inventory
		Regional Bikeway Viewer		Health Impact Assessments

“Recommendation: The city may consider completing health impact assessments as part of ... planning efforts to fully understand the health outcomes of each plan.”

Summary of Local Efforts

Table D: Summary Local Efforts:

		Maintain	Enhance	Develop
Institutionalize	Plans		Parks and Recreation Master Plan	
			Bicycle Master Plan	
			General Plan	
	Capital Projects	Bayou Greenway Initiative		
Funding	Fresh Food Initiative	Capital Improvement Plans	Local Funding For Active Transportation Projects	
Codes and Ordinances	Complete Streets Executive Order			
Organize	Governance	Healthy Living Matters		
		Community Transformation Initiative		
Identify	Data			Local Sidewalk Inventory
				Health Impact Assessments