City Mobility Planning Heights-Northside and Northwest Mobility Studies

TxDOT Houston District Office
5/15/2013

Agenda

- Introductions
  - Purpose of Study
  - Project Team
  - Schedule
- Public Comment Review
- Challenges and Opportunities
- Outcomes Inner West Loop Study
- Group Break-Out Discussion
  - Corridors Discussion
  - Share results

Purpose of the Project

- Roadway and intersection improvements
  - Improve the efficiency of the system we have
- Pedestrian connectivity
- Bicycle connectivity
- Transit connectivity and access
- Multi-Modal street classification

Project Team

- City of Houston
- H-GAC
- METRO
- TxDOT
- Harris County
- Kimley-Horn and Associates
- Gunda Corporation

Schedule Overview

» Data Collection	February - April
» First Steering Committee Meeting	February 27th
» First Public Meeting	March 26th and 27th
» Existing Conditions Analysis	April
» First Stakeholder Committee Meeting	May 15th
» Future Conditions Analysis	April - June
» Mitigation Strategies	May-June
» Second Stakeholder Meeting	June - July
» Second Public Meeting	July
» Development of Draft and Final Report	July - August

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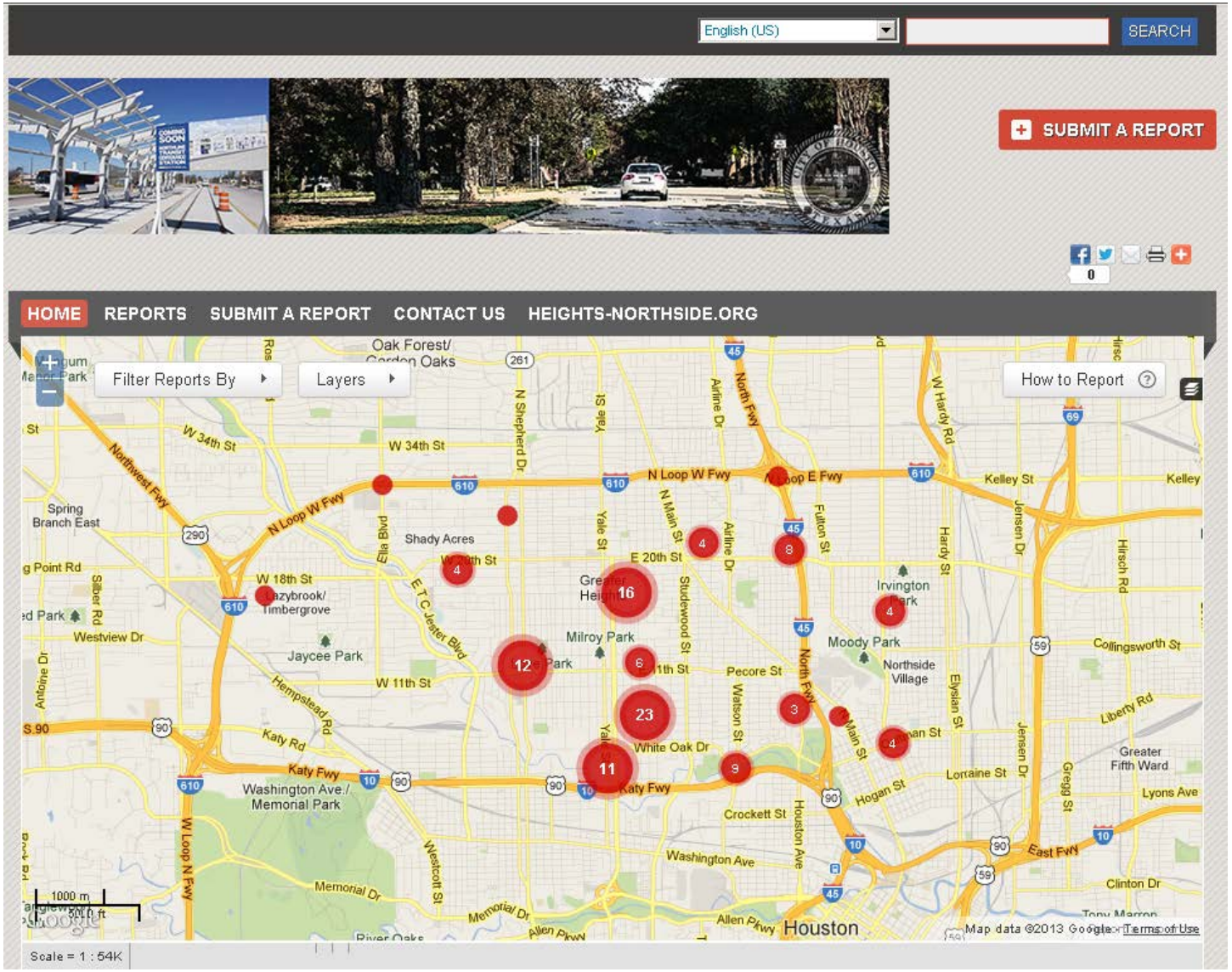
Background

- Public Comments to Date
- Challenges and Opportunities
  - Exist LOS Summary
  - Model Summary
- Corridor Discussion
  - Heights-Yale
  - Shepherd-Durham
  - Cavalcade
  - Irvington
  - 43rd
  - Fairbanks N. Houston
  - Gulfbank

Summary of Public Comments to Date

- Heights-Northside
  - Desire for streets to accommodate all modes of travel (Complete Streets)
  - Safer pedestrian facilities-missing sidewalks
  - Lower speeds and less through traffic
  - Bike paths are important-crossings at streets
  - Congestion to Freeway connections
  - Consistent traffic flows

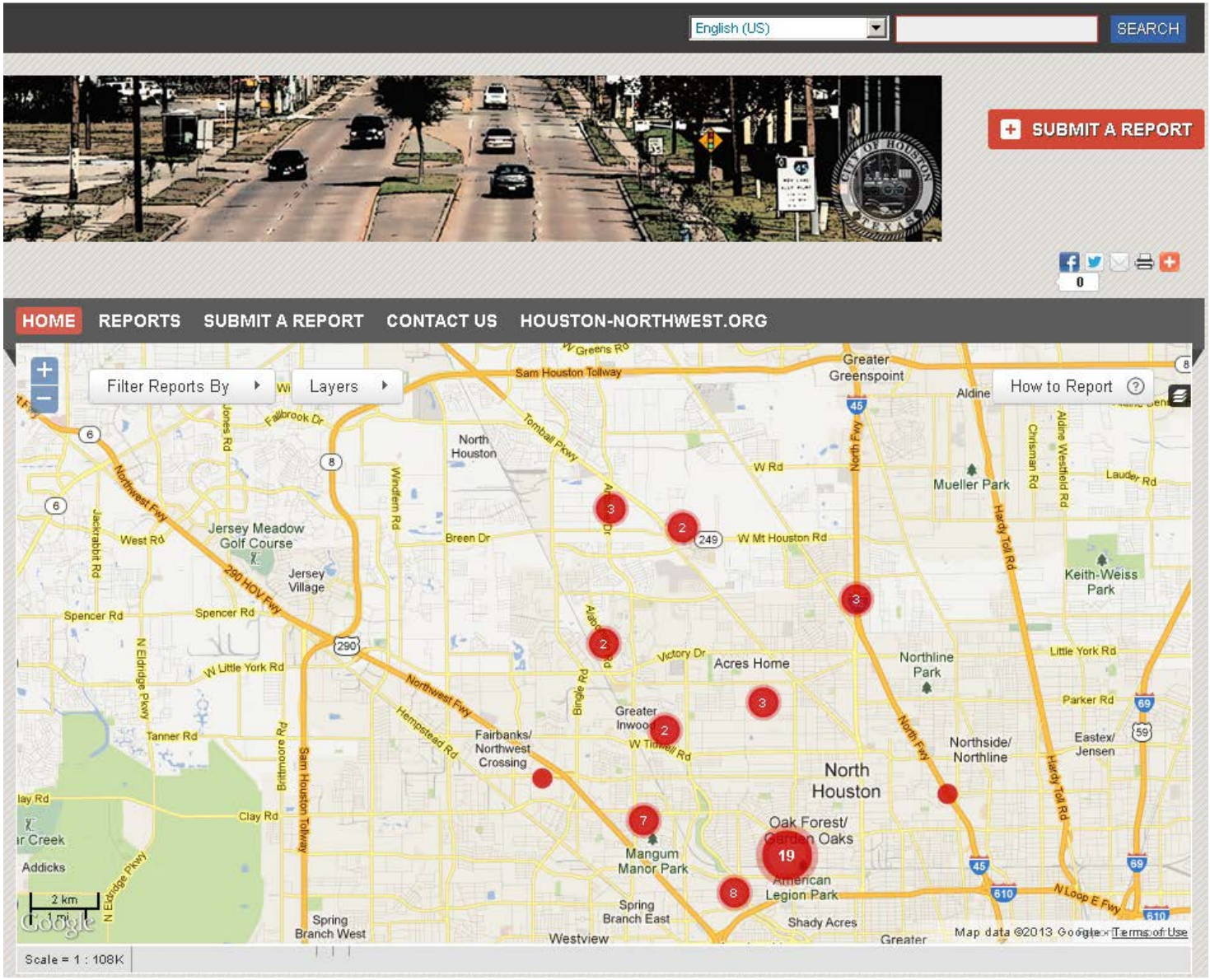
heights-northside.org



Summary of Public Comments to Date

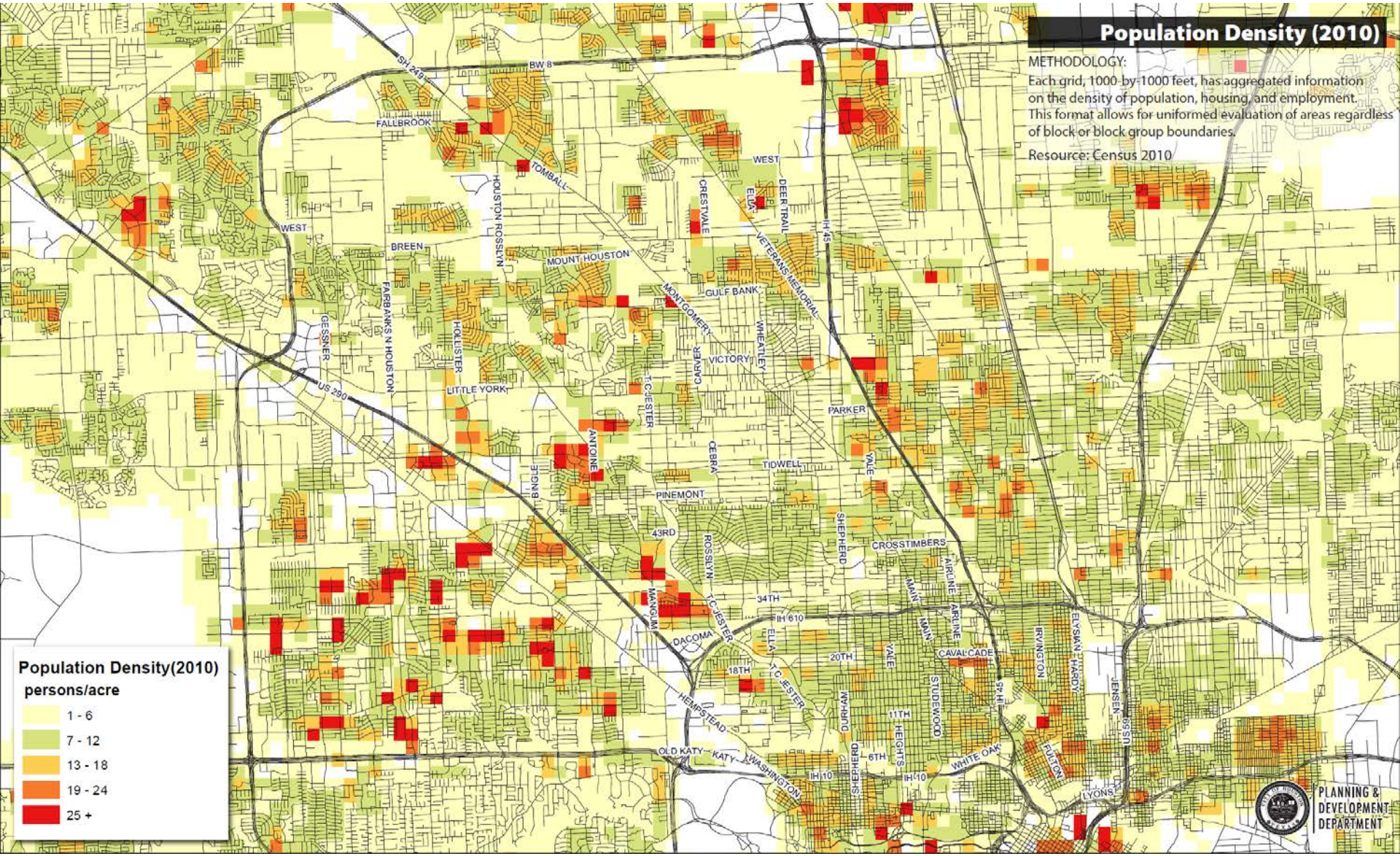
- Northwest
  - Safety of streets including pedestrian facilities-missing sidewalks
  - Congestion to Freeway connections
  - Transit reliability
  - Access to Northline LRT & other Transit Center
  - Poor Street Connectivity

houston-northwest.org

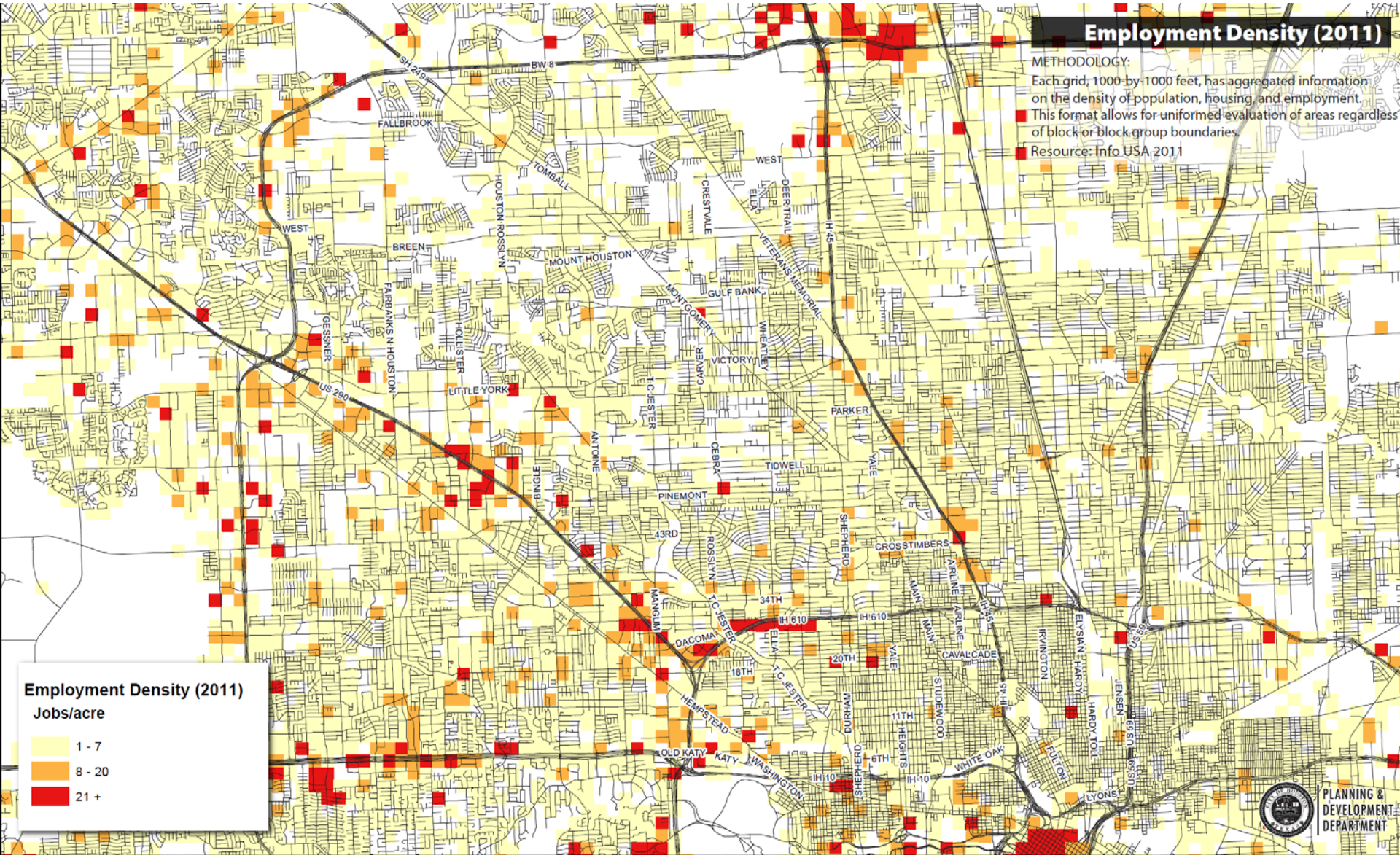


Challenges and Opportunities

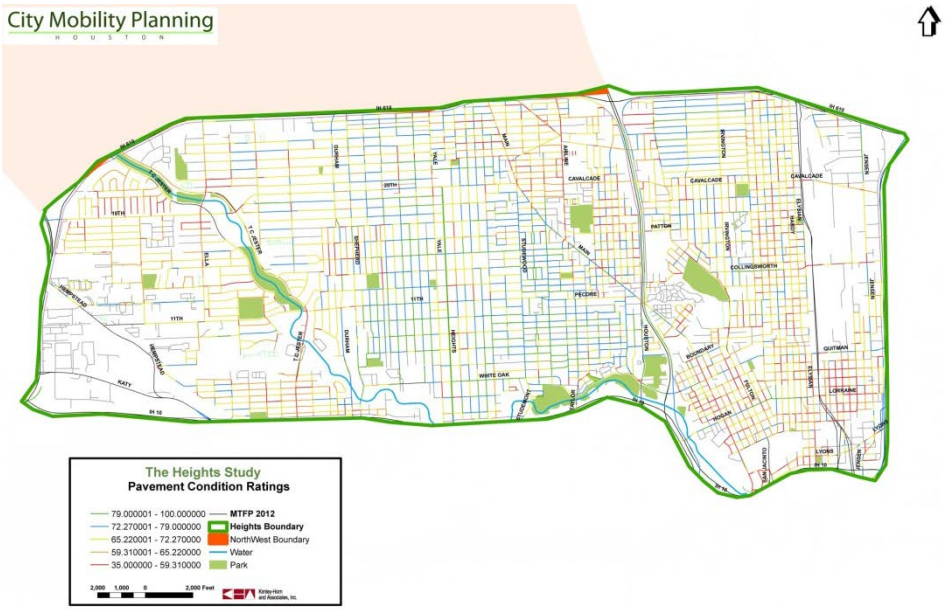
Population Density

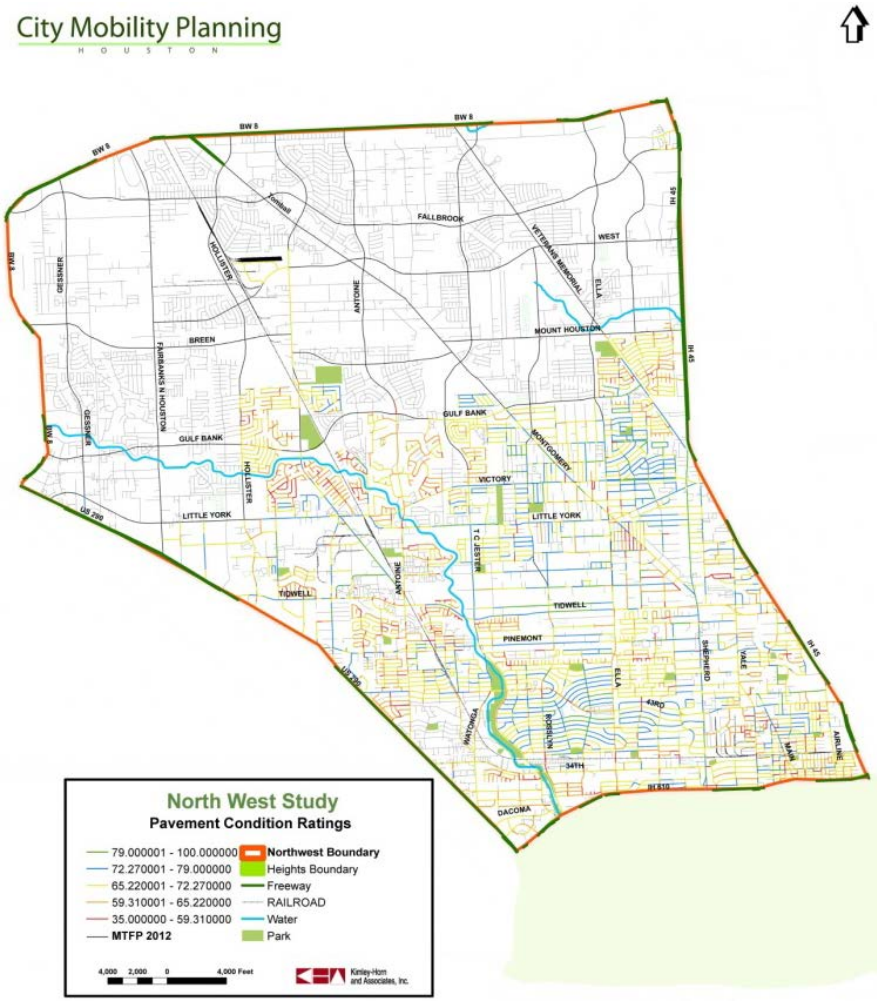


Employment Density



Pavement Conditions





Transit Routes

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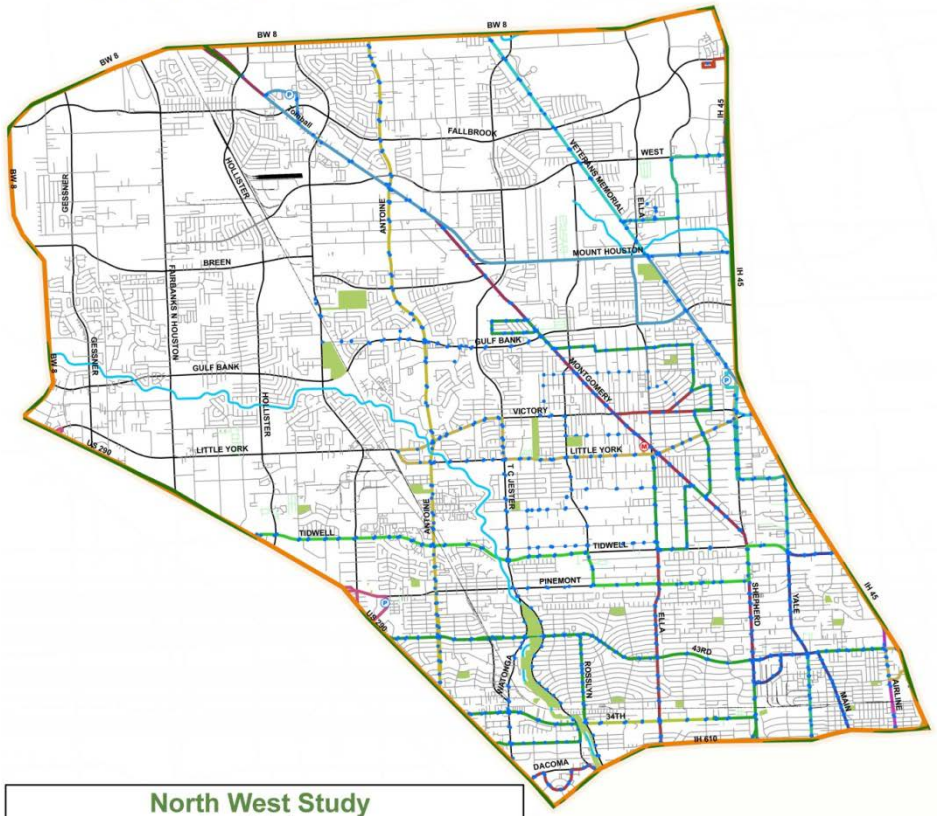

North West Study
Transit Routes

- METRO Transit Center
- METRO Park and Ride
- METRO Bus Stops
- Metro Bus Routes
- METRO Proposed LRT Stations
- METRO Proposed LRT Alignment
- Northwest Boundary
- Heights Boundary
- Freeway
- Park
- Water
- RAILROAD

5,000 2,500 0 5,000 Feet

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The Heights Study
Transit Routes

- METRO Transit Center
- METRO Park and Ride
- METRO Bus Stops
- METRO Proposed LRT Stations
- METRO Bus Routes
- METRO Proposed LRT Alignment
- Heights Boundary
- NorthWest Boundary
- Park
- Water
- RAILROAD

2,000 1,000 0 2,000 Feet

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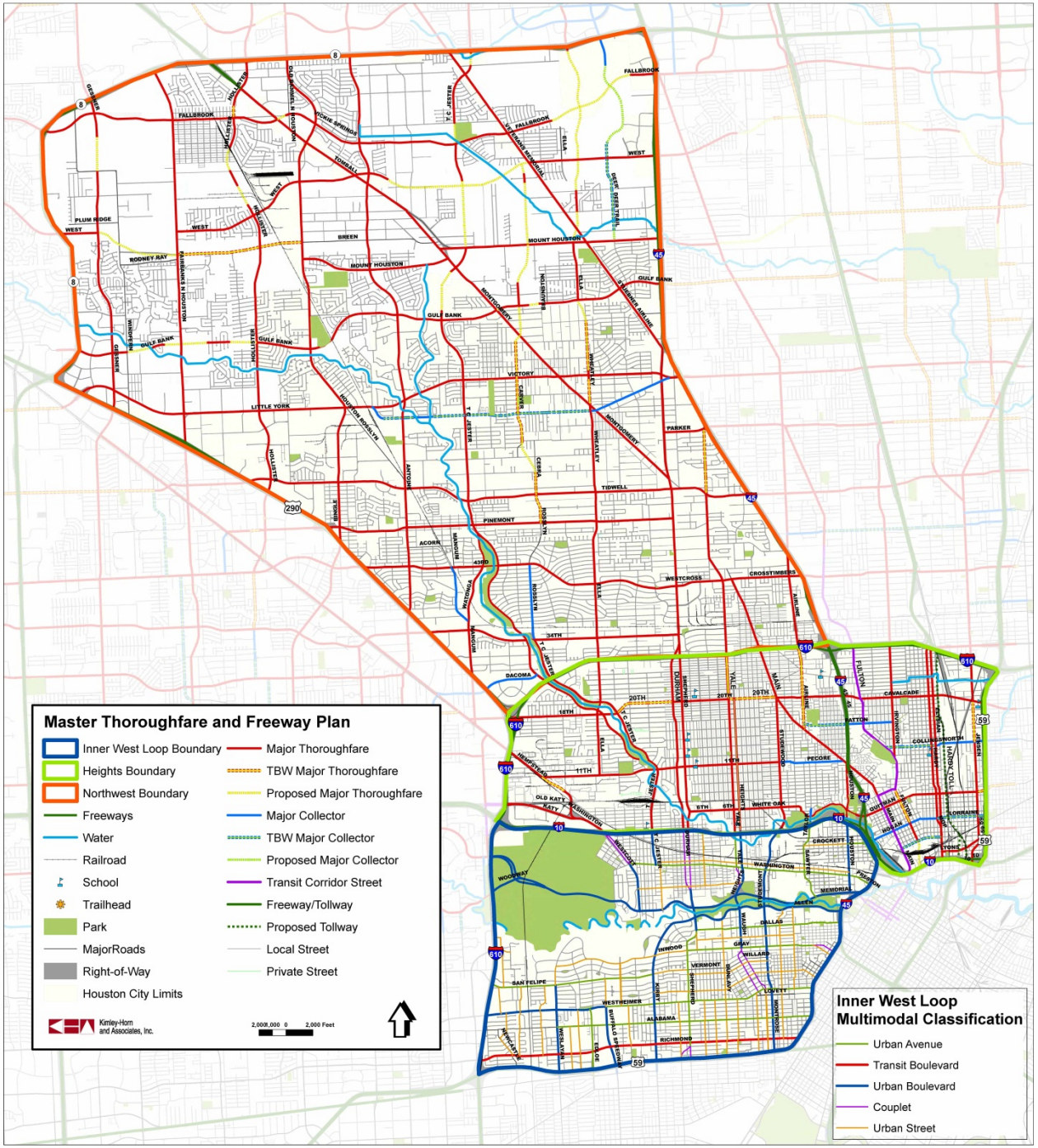
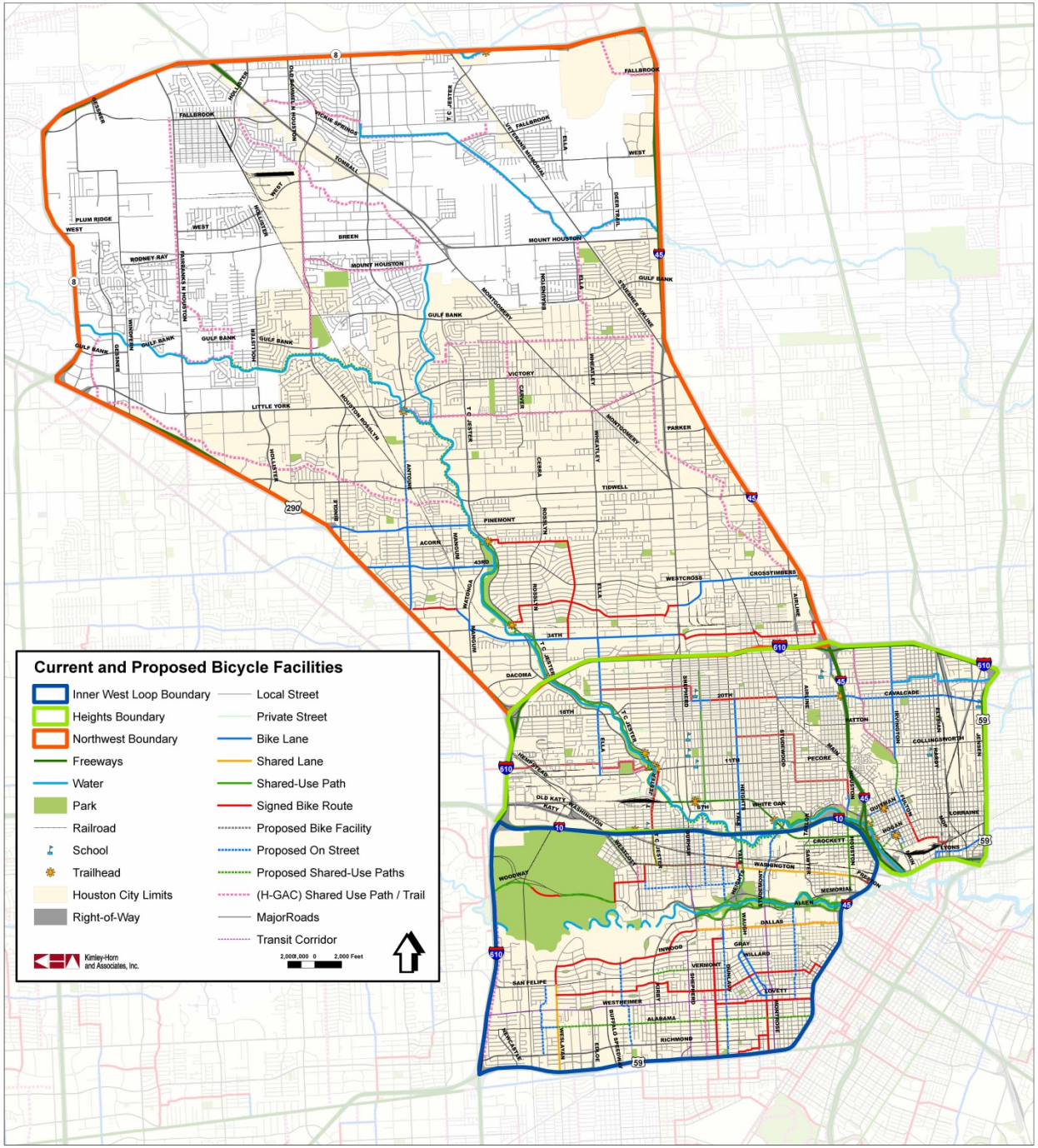


Observations

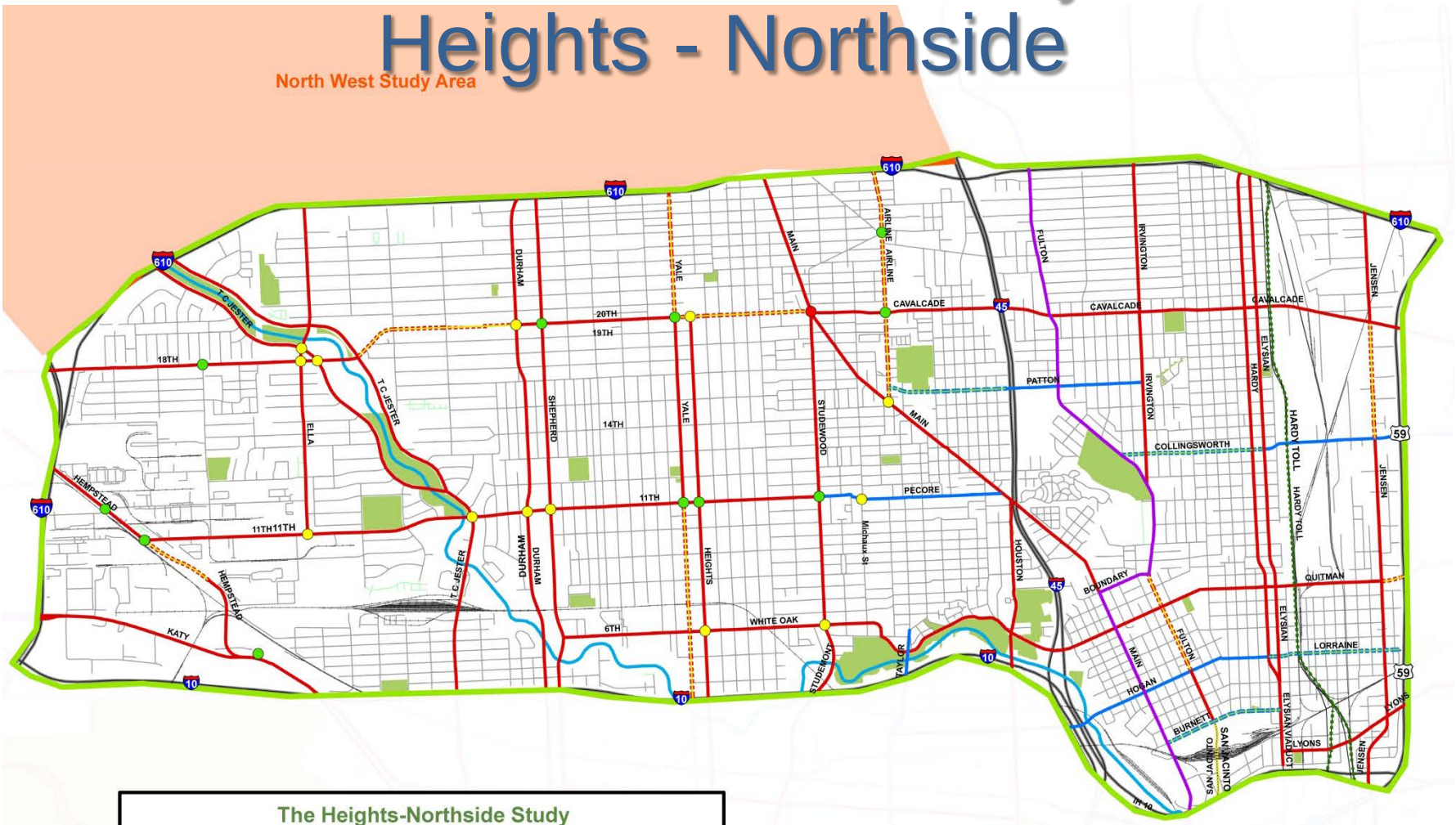
Connectivity of street network

Railroads, highways and water



Observations:
Trail and street conflicts
Connections to Bayou Greenway

2013 Intersection Analysis
Heights - Northside



The Heights-Northside Study

Intersection Level Of Service
PM Peak Hours

A - B C - D E F

- Major Thoroughfare
- TBW Major Thoroughfare
- Proposed Major Thoroughfare
- Major Collector
- TBW Major Collector
- Proposed Major Collector
- Transit Corridor Street
- Freeway/Tollway
- Proposed Tollway
- **Heights Boundary**
- North West Boundary
- Water
- Park
- Railroad
- MTFP 2012
- Freeways

2,000 1,000 0 2,000 Feet

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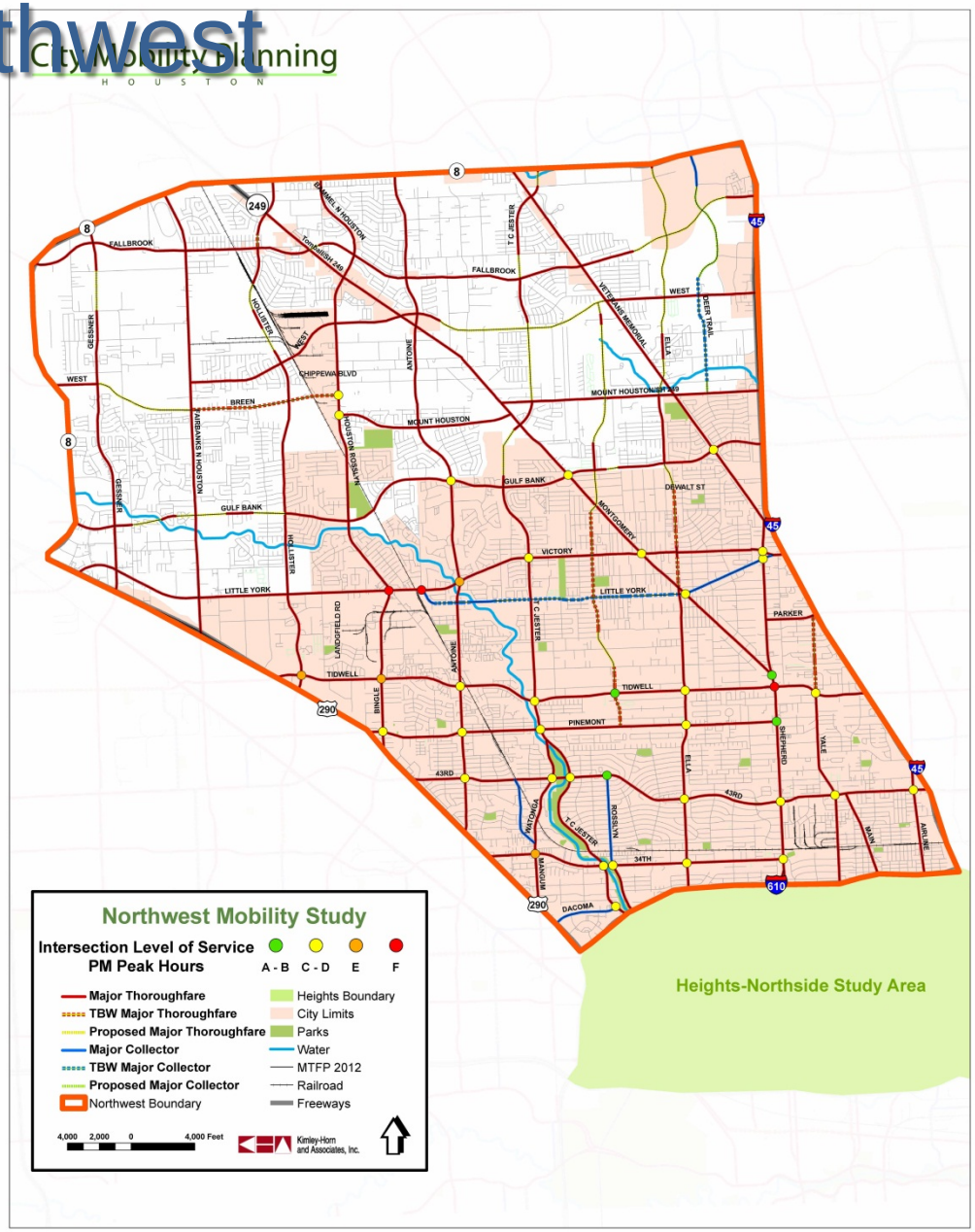
High Congestion Levels:
20th Cavalcade @ Main/Studewood is LOS E

2013 Intersection Analysis – Northwest

High Congestion Levels:
W. Little York @ Bingle, Victory
Tidwell @ Bingle, Hollister, Shepherd
34th @ Mangum, Shepherd



2035 Congestion Levels

Observations:
North-South movements high
Missing gaps needed
Not a lot of travel options

Observations:
Very good network
Congestion near freeways
Find ways to maximize capacity

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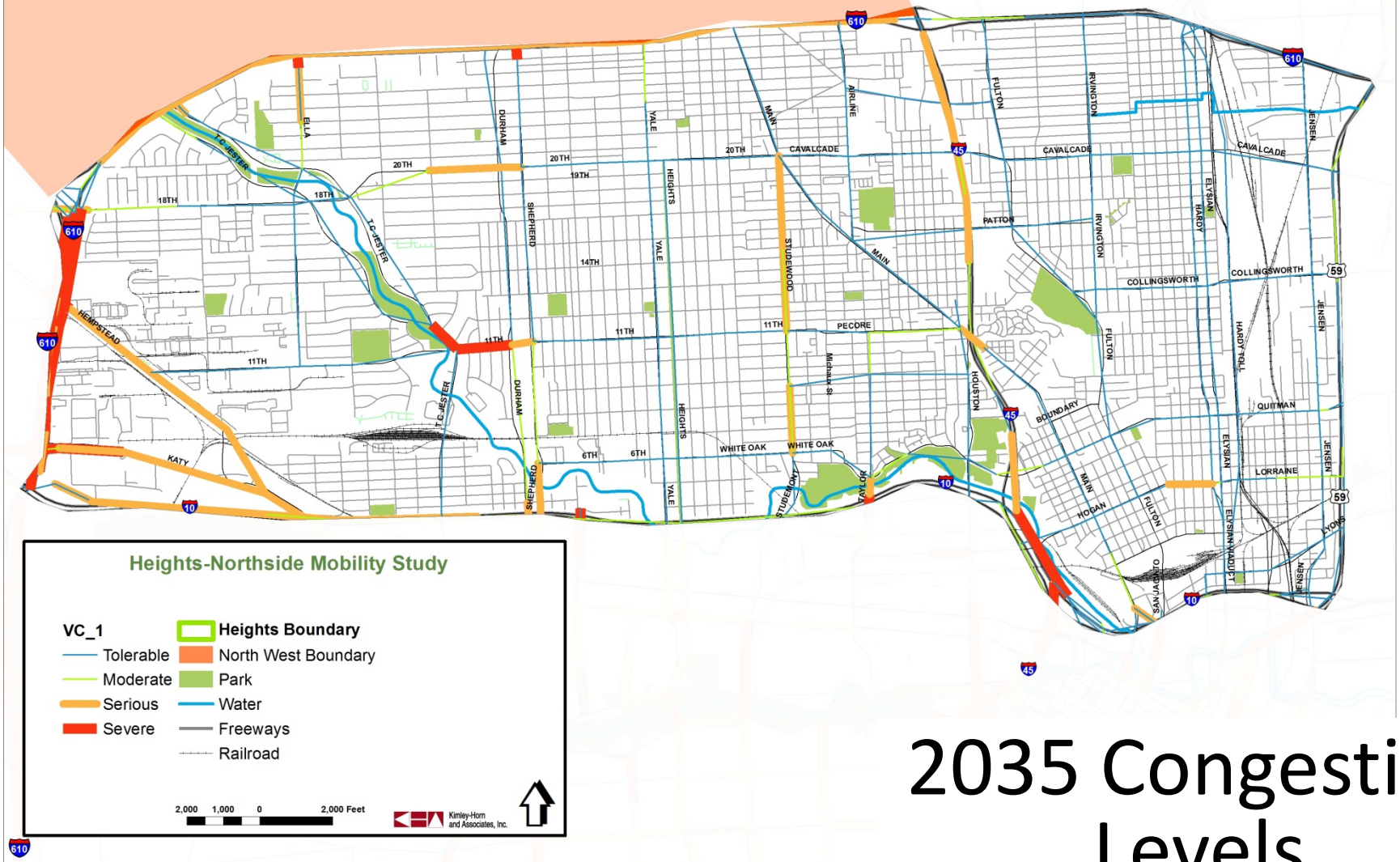


Heights-Northside Mobility Study

VC_1
- Tolerable
- Moderate
- Serious
- Severe

- Heights Boundary
- North West Boundary
- Park
- Water
- Freeways
- Railroad

2,000 1,000 0 2,000 Feet

Kimley-Horn and Associates, Inc.

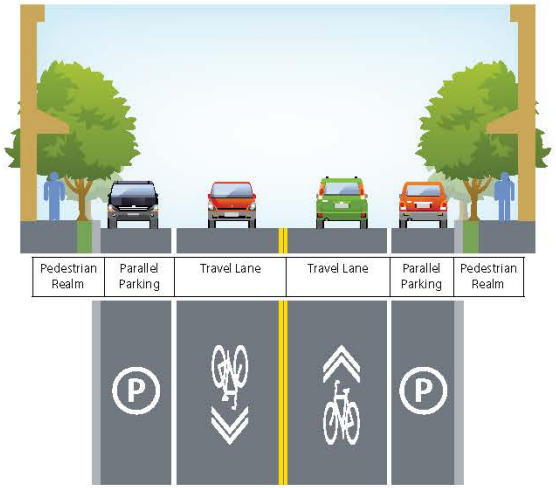
2035 Congestion Levels

What is the result?

- Report summarizing the results of this study
- Program of potential projects with phased implementation
  - Near and long-term strategies
  - Grouped into categories
- Policy recommendations

Existing Conditions

Dunlavy provides north/south access within a series of neighborhoods in the southeastern quadrant of the Study Area. The connections to several Major Thoroughfares make Dunlavy a logical Major Collector within the overall transportation network. Dunlavy has been identified as a corridor that will require additional Right-of-Way near the intersection with US-59 and the intersection with Allen Parkway.



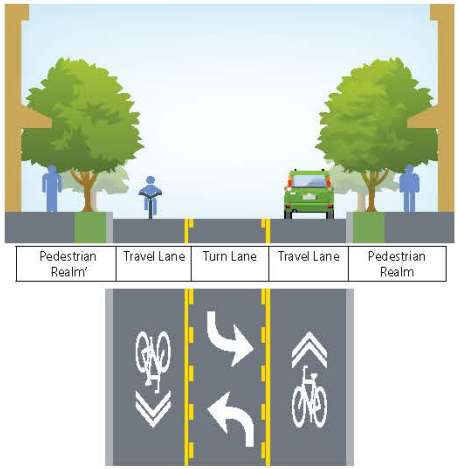
Key Factors

Identified Needs

Given the more residential context along Dunlavy, there is a large existing network of on-street parking that provides transportation challenges near major intersections. In particular, the intersection near Westheimer has been identified as an area that will likely need a specific analysis of intersection treatments to minimize conflict points between turning traffic and parking/parked cars. A few small gaps in the sidewalk network exist along Dunlavy. Additionally, the lower speed nature of Dunlavy makes it an attractive Bike Route within this part of the Study Area, especially given the Right-of-Way constraints on the adjacent Major Thoroughfares. The combination of on-street parking and intersection treatments for turning movements can create some confusion for a cyclist, and a clearly defined space would be ideal for creating a bike-friendly environment.

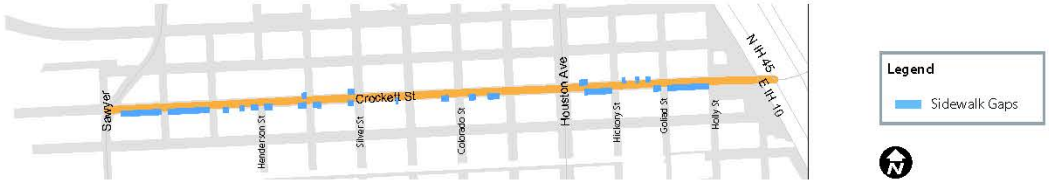
Future Vision

Providing a complete bicycle and pedestrian network along Dunlavy helps to provide an alternative route within the larger transportation network. Slower vehicular speeds, and lower carrying capacity are a byproduct of the corridor focus, however, local access is maintained. The connection of Dunlavy at Allen Parkway will also need additional examination of the best way to get cyclists and pedestrians into the Bayou Trail network. As a Major Collector, Dunlavy would fit within the **Urban Street** designation within the Multi-Modal Street Classification System.



Urban Street

URBAN STREET DESIGNATION						
	PEDESTRIAN REALM		TRAVELWAY REALM			
Minimum R.O.W. (feet)	Sidewalk (feet)	Tree Well or Swale (feet)	On-Street Parking (feet)	Bike Lane (feet)	Lane Widths (feet)	ADT (vpd)
60	18 x 2 = 36	TW	N/A	N/A	2 x 12 = 24	1,000 – 10,000
	10 x 2 = 20	TW	8 x 2 = 16	N/A		
	12 x 2 = 24	TW	N/A	N/A		
	12 x 2 = 24	TW	N/A	6 x 2 = 12		



Existing Conditions

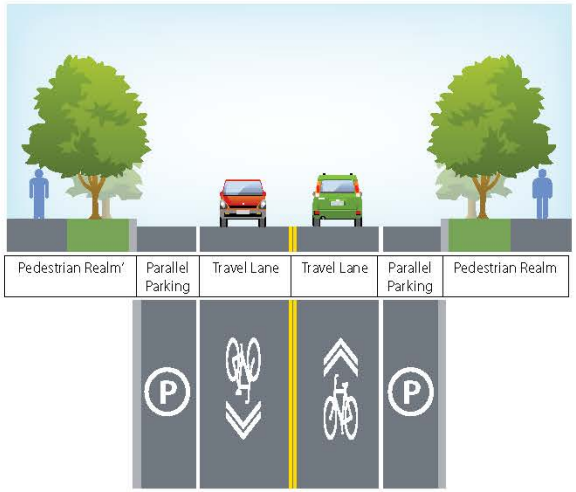
Crockett serves a primarily residential purpose; however, as one of a few roads with access across I-10/I-45 just north of Downtown the roadway is classified as a **Major Collector**. The section between Houston and Taylor allows for on-street parking, while the section east of Houston requires a 4-Lane configuration to match traffic demands.

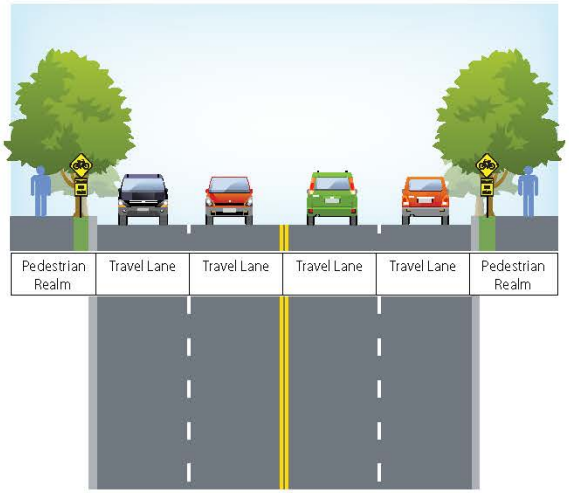
Identified Needs

There are significant sidewalk gaps along the Crockett corridor. Given the slow pace of redevelopment in this area, the gaps are not unexpected; however, the area will continue to see increased development pressure as the surrounding neighborhood sees higher land values. The completion of the sidewalk network and implementation of bicycle facilities across I-10/I-45 will help to create additional connectivity within the non-motorized transportation network.

Future Vision

Given the density of redevelopment likely to occur along Crockett, and the transition into the north side of Downtown, the designation as an **Urban Street** will allow for the transition between the two contexts, while preserving the existing Right-of-Way. On-Street parking within the residential area will continue to be a need, as such the roadway will need to transition between a 2 and 4-Lane section.





Key Factors

Existing Conditions

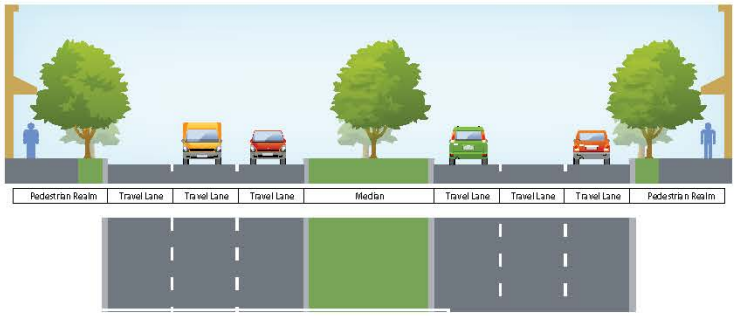
Richmond Avenue changes context and configuration several times throughout the Study Area. The roadway is classified as a Major Thoroughfare and significant segments of the corridor have been studied for years as a part of the METRO University Line. Several sections of Richmond could benefit from the completion of the sidewalk network. A portion of the Richmond Corridor could be designated as a Transit Corridor, per the City of Houston MTFP, requiring additional details regarding sidewalk minimum width and development orientation as redevelopment occurs. There are also a few locations throughout the corridor that are lacking ADA compliant ramps within the cross-walk area.

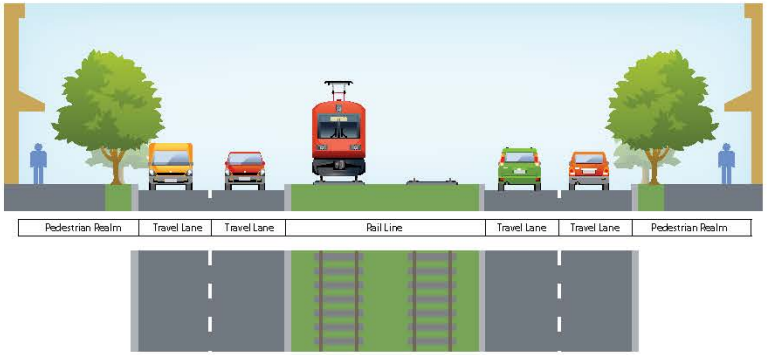
Identified Needs

Traffic congestion along Richmond Avenue was a significant comment that was received through the public outreach process. Several potential improvements have been identified through this planning process, and several of those improvements could be completed in conjunction with the construction efforts for the University Line. The corridor has been analyzed throughout several studies and the design specifics should be coordinated with those efforts to ensure that the multi-modal carrying capacity of the corridor is considered as improvements are made.

Future Vision

The Richmond Corridor has been envisioned as an **Urban Boulevard** and a **Transit Boulevard** throughout the Study Area given the changing dynamics as Rail turns south on Cummins. Wider sidewalks east of Weslayan are warranted given the nature of the Greenway Plaza District and moving east the Transit Corridor designation reinforces the need for improved pedestrian facilities. There is a need to further evaluate additional pedestrian crossing amenities at high volume crossing locations.





Key Factors

Existing Conditions

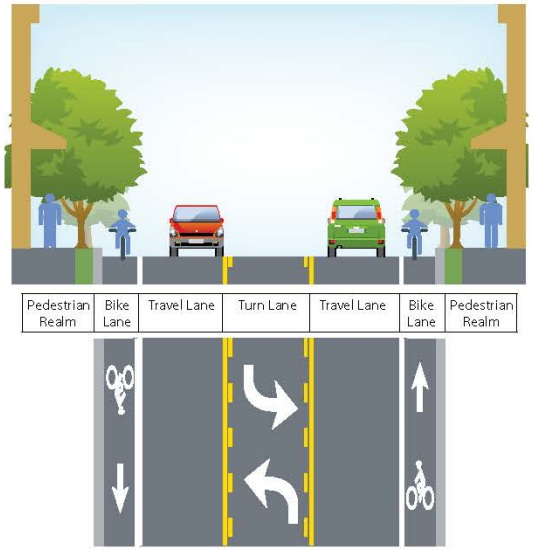
The Sawyer/Taylor corridor is currently designated as a **Major Collector**, with the segment between Washington and Crockett identified as an area the will need additional Right-of-Way. The corridor transitions quickly from commercial to industrial uses, and then as it approaches the Washington Corridor, the corridor again transitions to residential uses.

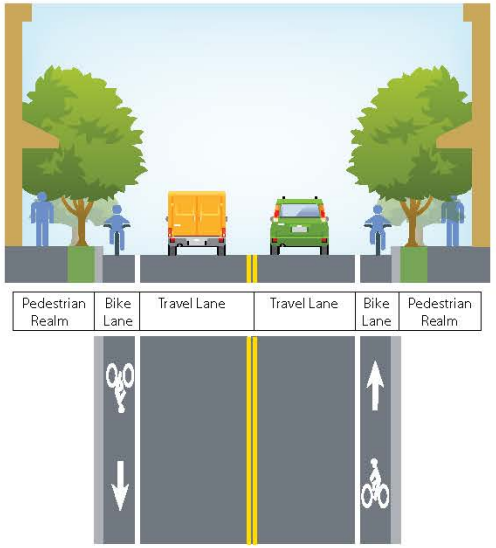
Identified Needs

Several sidewalk gaps exist along the corridor, and there has been discussion of continuing the existing bicycle facility throughout the remainder of the corridor. As redevelopment occurs, there will be a need to widen the Right-of-Way to the designated 60' width to accommodate the planned cross section.

Future Vision

Defining Sawyer/Taylor as an **Urban Street** will allow for the 60' Right-of-Way to promote the continuation of the bicycle and pedestrian facilities that are present in sections of the corridor, while still allowing the vehicle realm to manage the traffic demand. Continuing to provide connectivity to the local and regional networks will allow Sawyer/Taylor to meets the needs of the traveling public, while also addressing the needs for multi-modal transportation options within this sector of the Study Area.





Key Factors

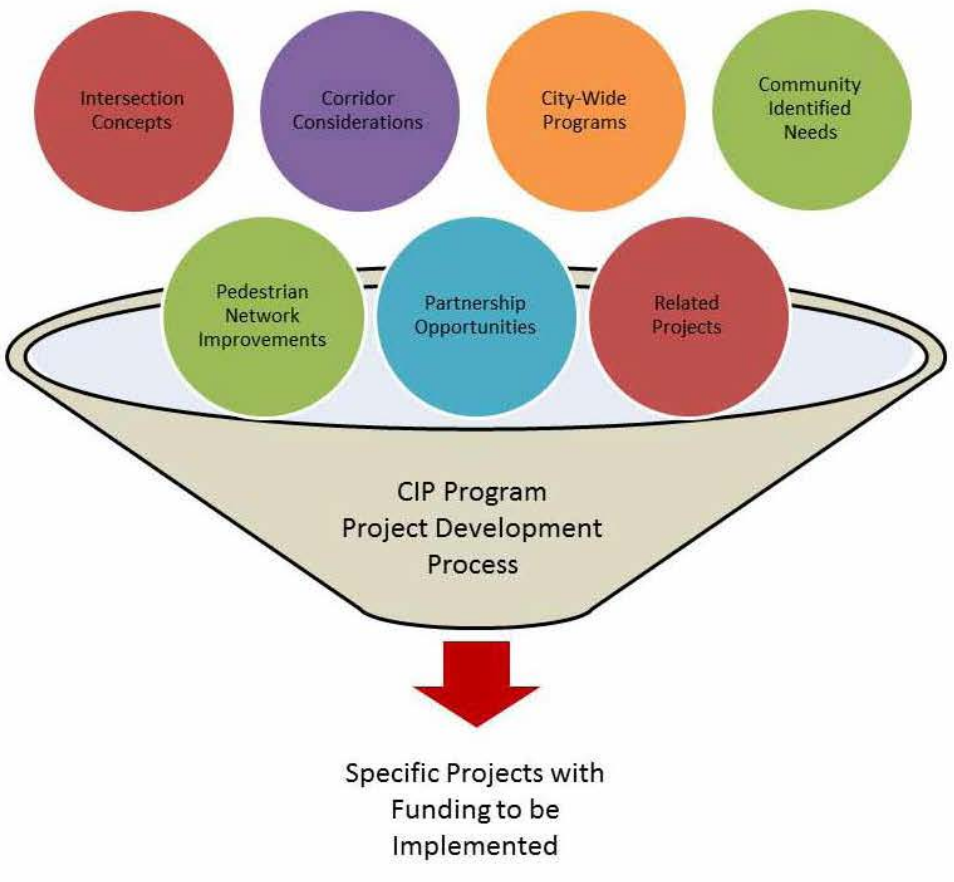
Next Steps

The Purpose of this Study

The City of Houston has undertaken this Planning Level Study to identify short- and long-term transportation system needs within the Inner West Loop Study Area. This study sets a vision for future transportation facilities within the Study Area through an examniation of multiple transportation modes and project concepts. This study examined projects and project concepts that can ultimately be fed into the City's Capital Improvement Program Process which includes a prescribed ser of next steps, which are described in the next section.

Additionally, this study promotes several concepts that are policy oriented. These items can be addressed through the annual review process that several City documents undergo, and taht process is described in the following section as well.

Finally, these recommendations are not intended to be static. It is the intent of the planning process undertaken through the City Mobility Planning Process, as well as other studies in which the City is a partner, to develop a set of project and policy recommendations that can be used in determining sub-regional priorities to be examined within the broarder citywide capital programming and pre-engineering process.



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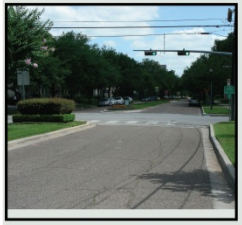
TOOLBOX

Motorized Tools

Traffic calming slows or reduces automobile traffic, improving safety for pedestrians and cyclists. Techniques include speed humps, textured paving, curb extensions, pedestrian crossing islands, traffic circles, and reduced turning radii.



Intersection design controls traffic movement where two or more streets cross. Improvements include left-turn bays, right-turn slip lanes, flared lanes to increase intersection capacity, reduced turning radii to increase intersection awareness, and protected bicycle turn spaces.

Signal timing is coordinating the sequence and timing of traffic signal phases. Signal timing can increase the efficiency of the street of by allowing for the greatest number of vehicles to cross the intersection in the shortest time.

Access management techniques help increase the mobility and safety of a particular corridor by consolidating driveways and controlling access to adjacent land uses by influencing access location, design, spacing and operation.

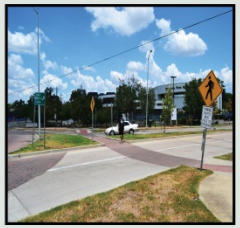
Medians are traffic islands installed to prevent or ensure certain turning movements at intersections. They also provide a seperation between opposing traffic lanes of traffic. Medians eliminate cut-through traffic, change driving patterns, beuatify streets with greenery and increase pedestrian saftey for crossing streets.

Non-Motorized Tools

Sidewalks are important to the pedestrian traveler. Wider sidewalks in commercial areas facilitate a mix of uses, and the addition of streetscaping can promote pedestrian use.

Bike Lanes are located on the edge of a street or between the travel lanes and parking lanes. Typically, they are 5-6 feet wide and allow cyclist to have a protected space on the street.

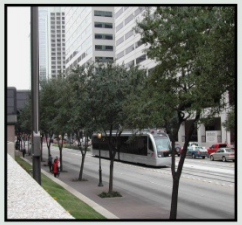
Streetscaping refers to the use of planted areas and other beautifying techniques along transit corridors that can attract pedestrians and make pedestrian and bicycle use more pleasant.



Pedestrian Crossings connect neighborhoods and can be at intersections or mid-block. Signal timing and pedestrian "islands" can improve safety for walkers.

Sharrows are special lane markings for roads too narrow to accomodate a separate bike lane. These markings alert drivers to the likelihood of encountering bicyclists.

Alternative Transport Tools



Rapid Transit comes in two forms: Light Rail Transit (LRT) and Bus Rapid Transit (BRT). Bus Rapid Transit has the unique ability to function in either an exclusive right-of-way (ROW) or in mixed traffic, however, the most common application assumes an exclusive ROW for operational efficiency and saftey.

Communter Rail service connects the large master planned communities around the region, the surrouding towns and even nearby cities with the urban core.

Road space rationing or reallocation reserves parking and other road uses for preferred modes such as carpools, vanpools, energy-efficient vehicles, and public transit vehicles.

Travel Demand managment refers to a set of strategies to reduce the use of of city roadways to decrease congestion and the infastructural burden of intense use, especially by single-occupancy vehicles.

Park and Ride lots encourage transit usage for people who are not within walking distance of a transit station. These lots typically adjoin suburban bus and rail stations to reduce the number of cars in the urban core.

Workshop Questions

- Feedback for specific issues (Use box areas)
  - What works well?
  - What needs improvement?
  - What is lacking?
- Input to better connect these areas (mark on maps)
- Indicate your mode preference (Within box areas)

Corridor Discussion

• Heights-Yale	Heights
• Shepherd-Durham	Heights
• Cavalcade	Northside
• Irvington	Northside
• 43rd	Northwest
• Fairbanks N. Houston	Northwest
• Gulfbank	Northwest

Questions

- Heights Questions:
  - Heights / Yale road cross section or improvements
  - Reducing truck traffic
  - Bicycle lane connections
  - Pedestrian / bike crossings
  - Critical pedestrian connections or improvements-neighborhood study improvements
- Northside
  - Bike and ped connections to Rail
  - Traffic issues associated with rail
  - Transit Street designations
- Northwest
  - Future road widening & connectivity
  - Pedestrian elements
  - Transit service improvements
  - Intersection improvements
  - Railroad Crossing