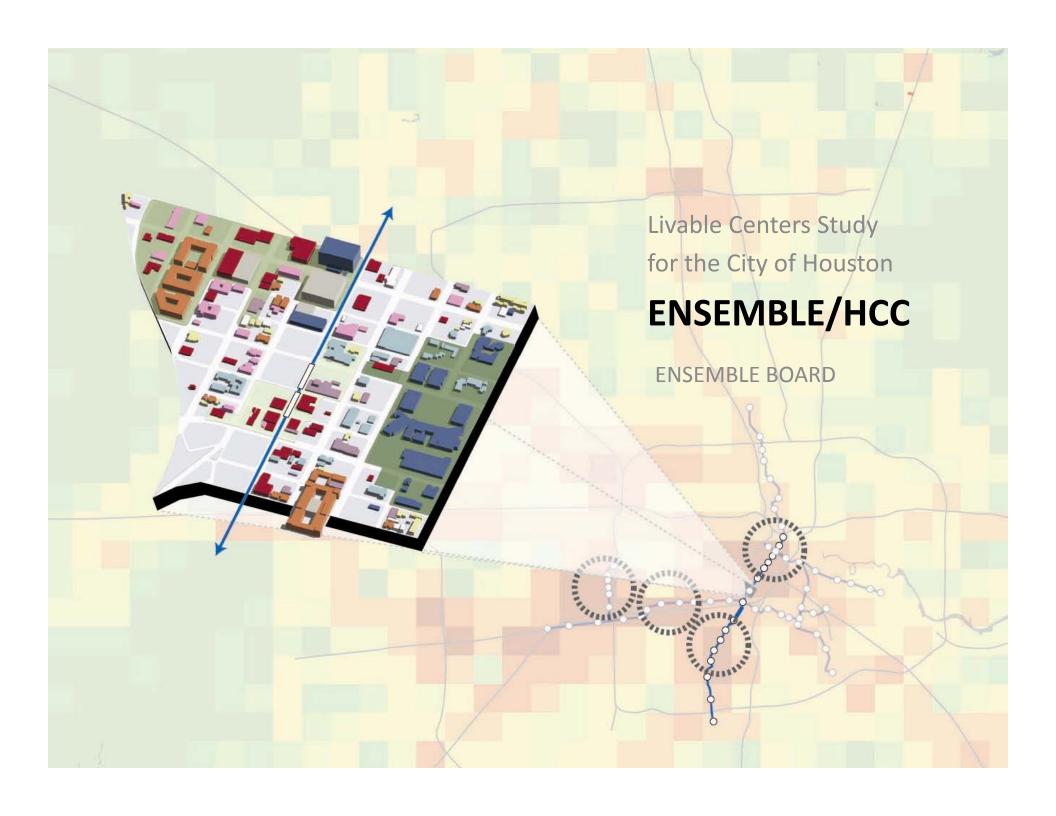


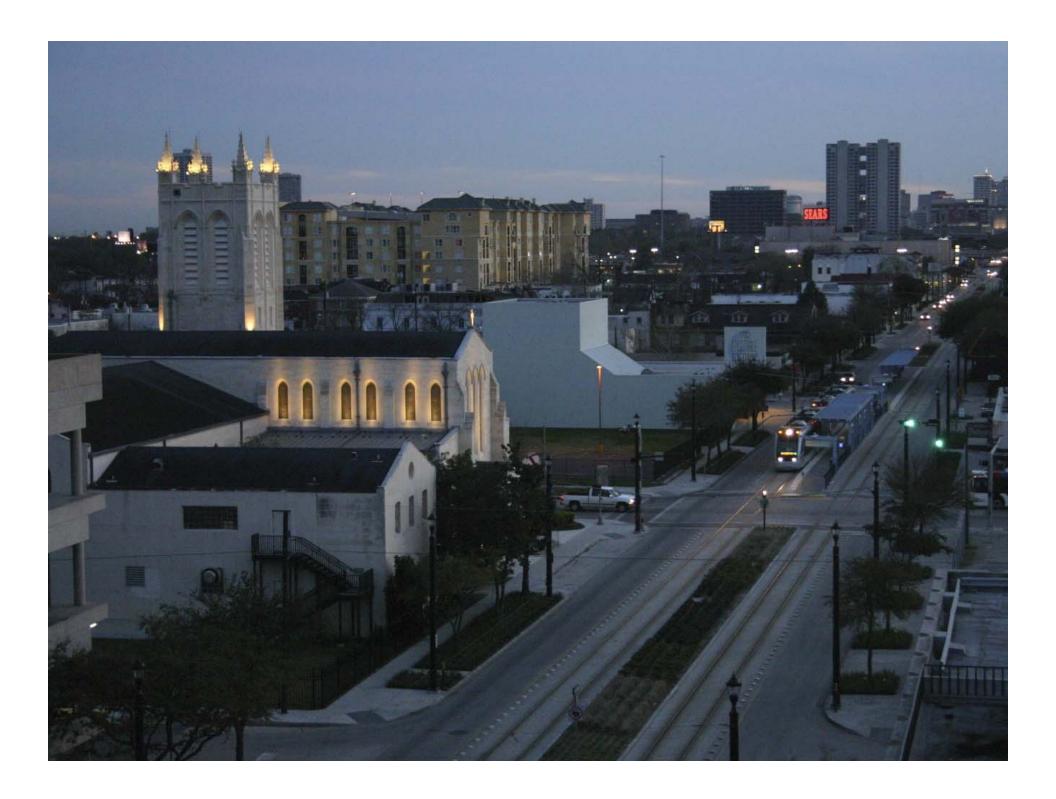
LEED-EN for Midtown

Christof Spieler, PE, LEED AP
Director of Technology and Innovation

ADVANCE**DESIGN**

LIVABLE CENTERS STUDY











GOALS

DESIGNWORKSHOP

Create a plan for a *Livable Center*

- •Walkable, mixed-use neighborhood
- Multimodal transportation options
- Reduce vehicle miles traveled (VMT)
- Vibrant local economy





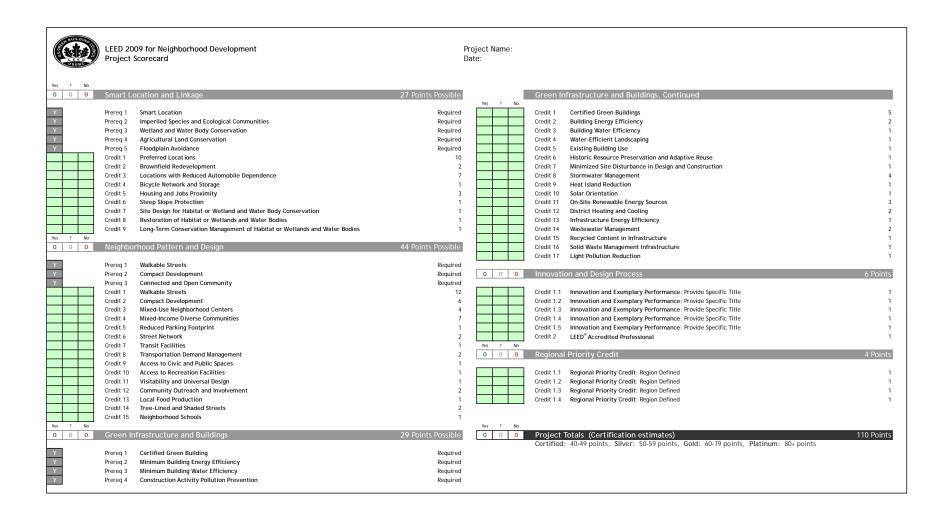


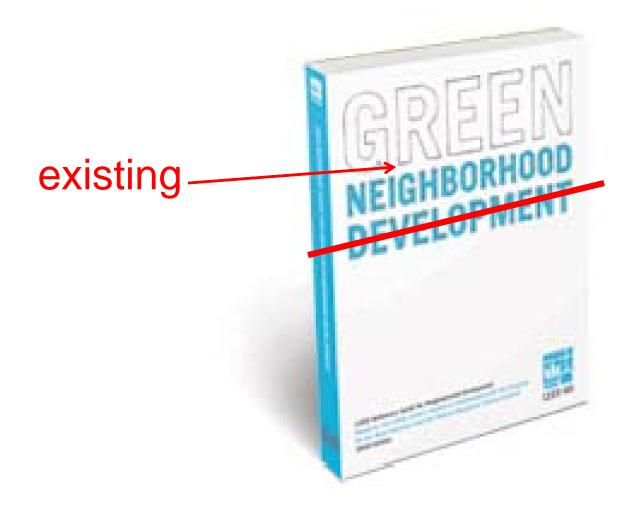
WALTER P MOORE

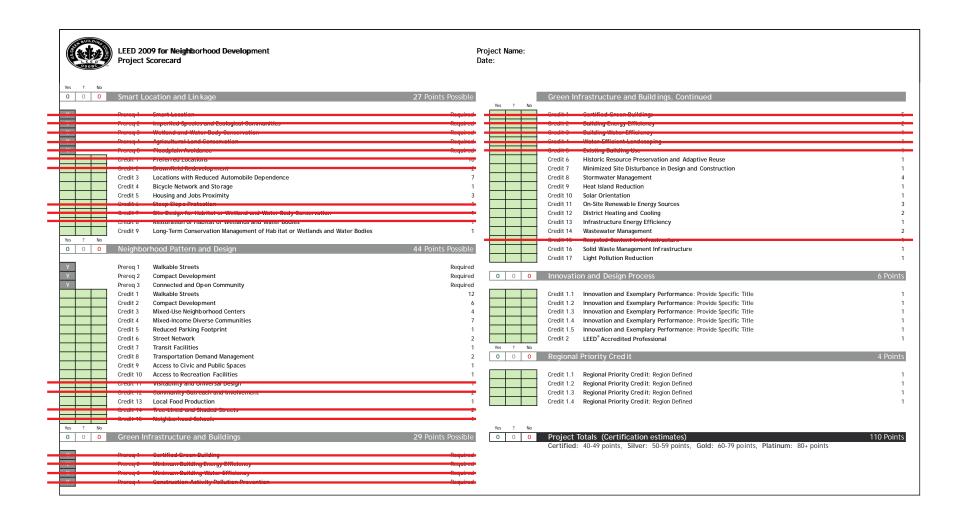


LEED-EN





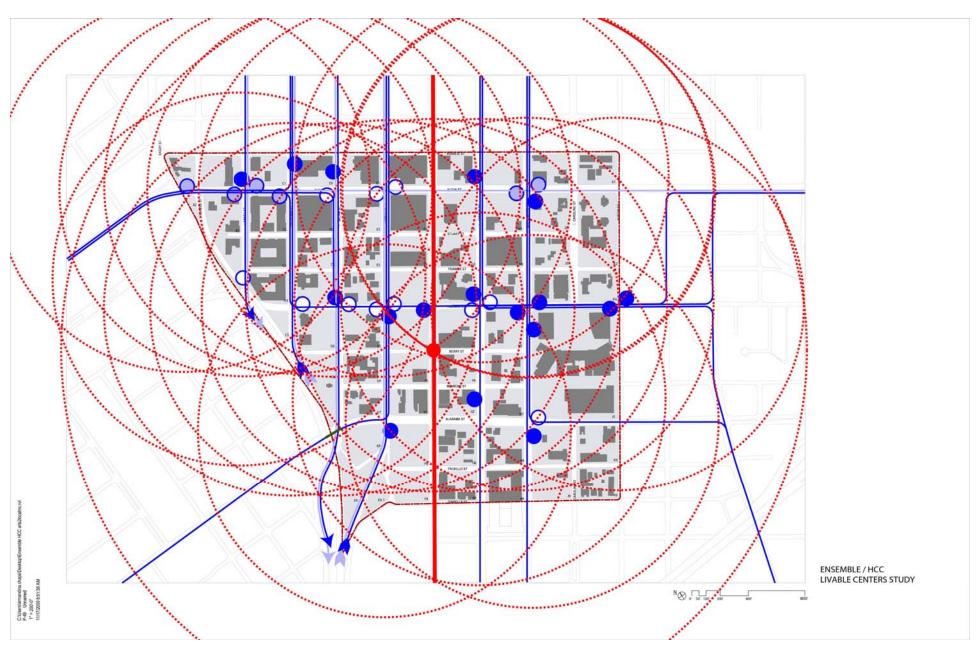




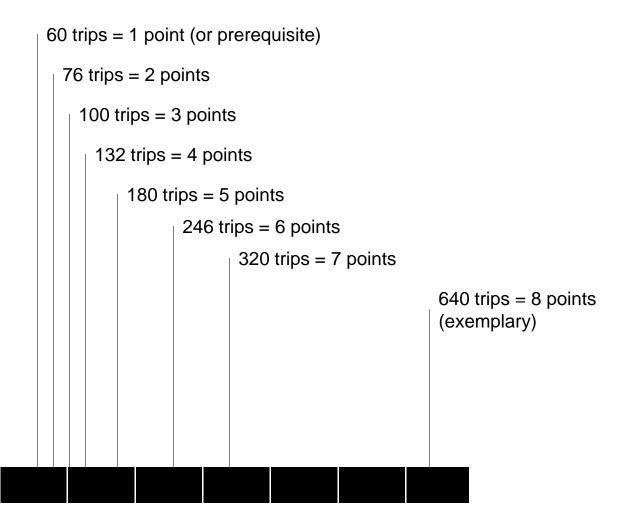
SMART LOCATION & LINKAGE

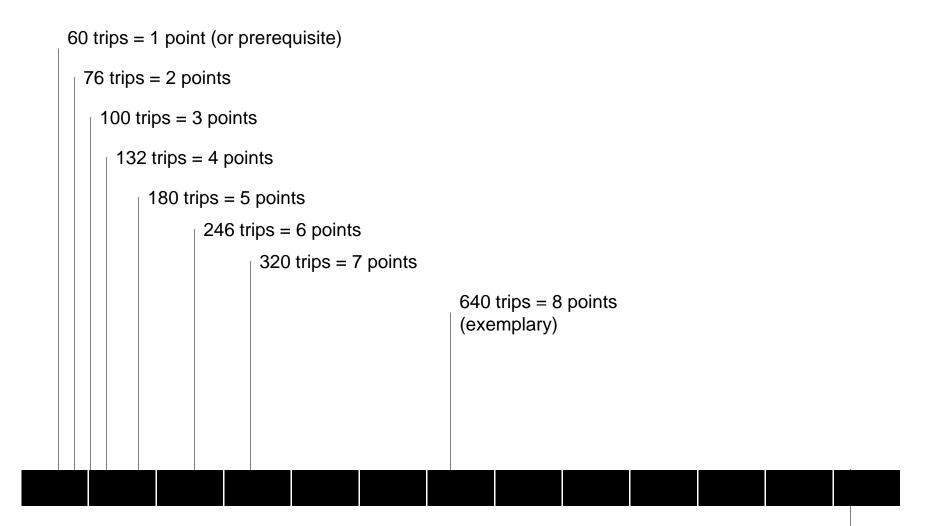
SLLc3 Reduced Automobile Dependence





ADVANCE DESIGN





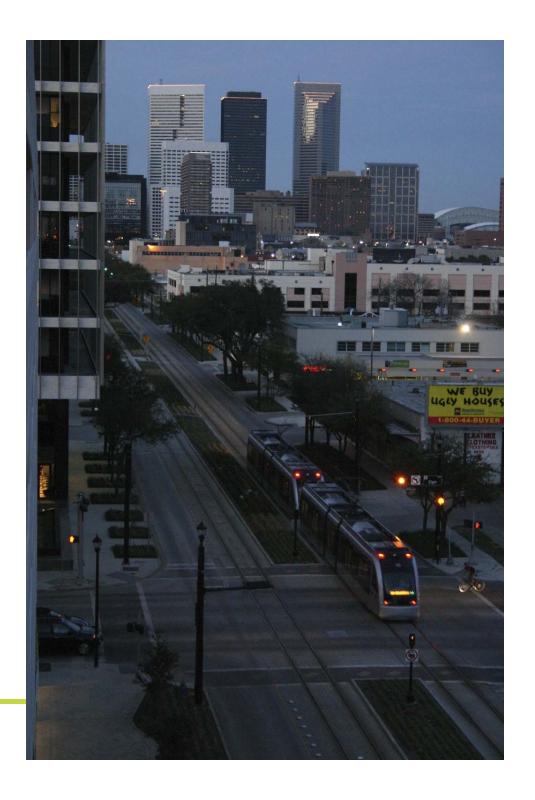
Midtown 1220 trips

SLLc4 Bicycle Network and Storage





SLLc5 Housing and Jobs Proximity





SLLc9 Long-term conservation management of habitat or wetlands and water bodies



NEIGHBORHOOD PATTERN & DESIGN



buildings within 18 / 25 feet of property lines Nonresidential / mixed use buildings within 1 foot of sidewalk





Functional entries every 75 feet on mixed use / residential Functional entries every 30 feet on mixed use / residential



ADVANCEDESIGN

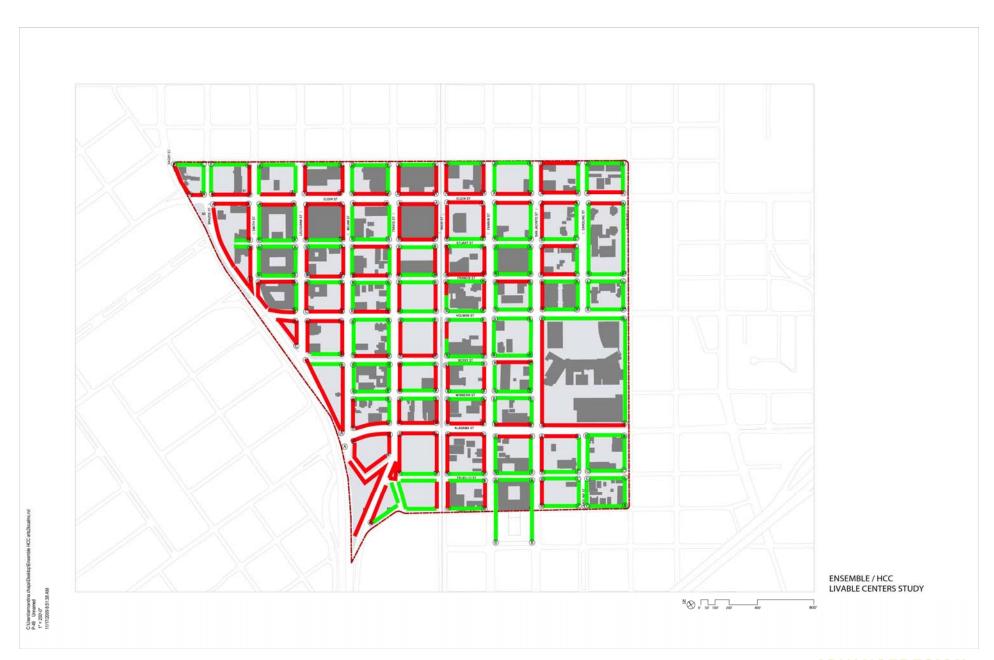
Clear glass on ground floors No more than 50 feet or 40% of block is blank





OnStreet parking





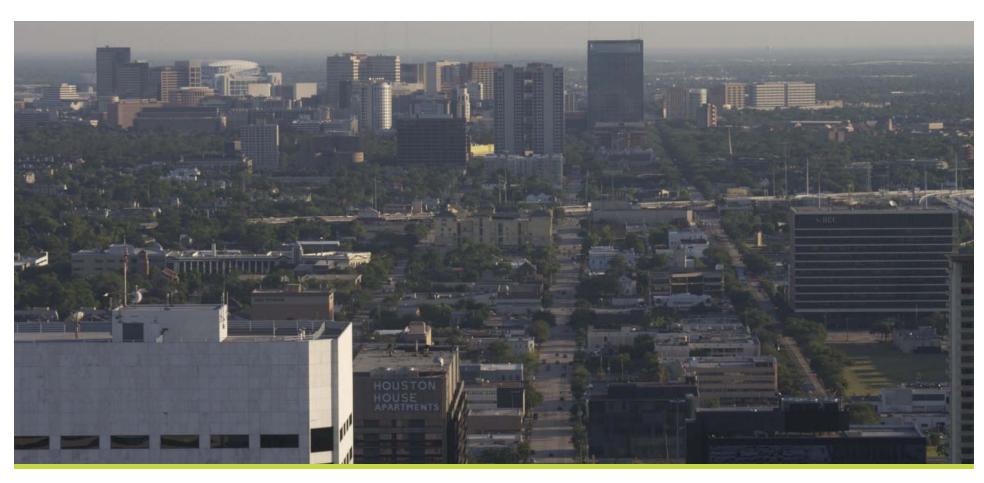




Ground floor dwellings elevated

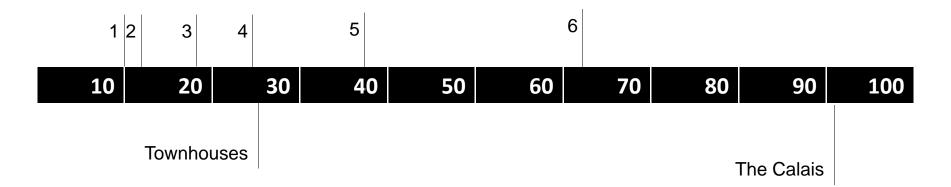


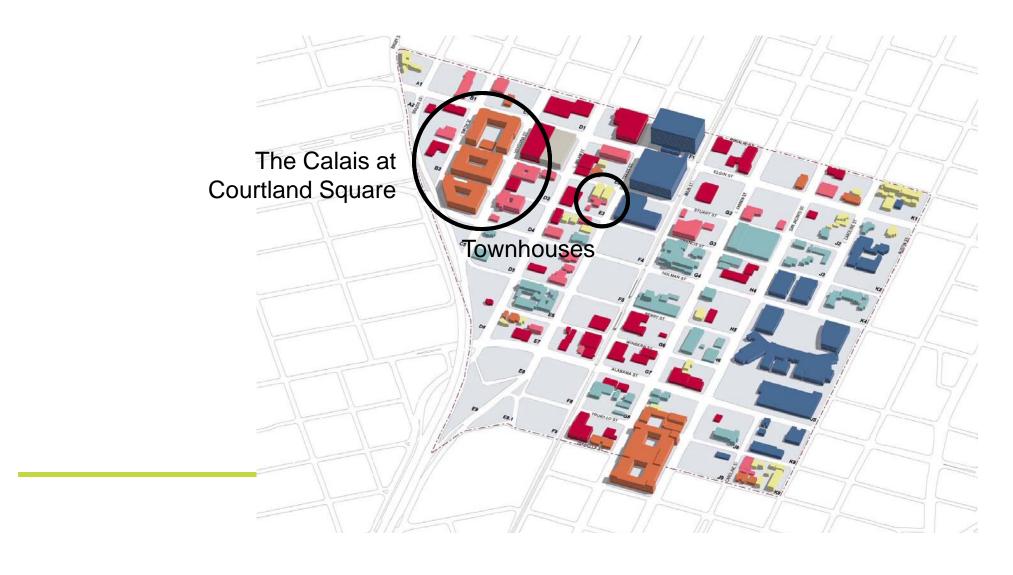
NPDp2/c2 Compact Development





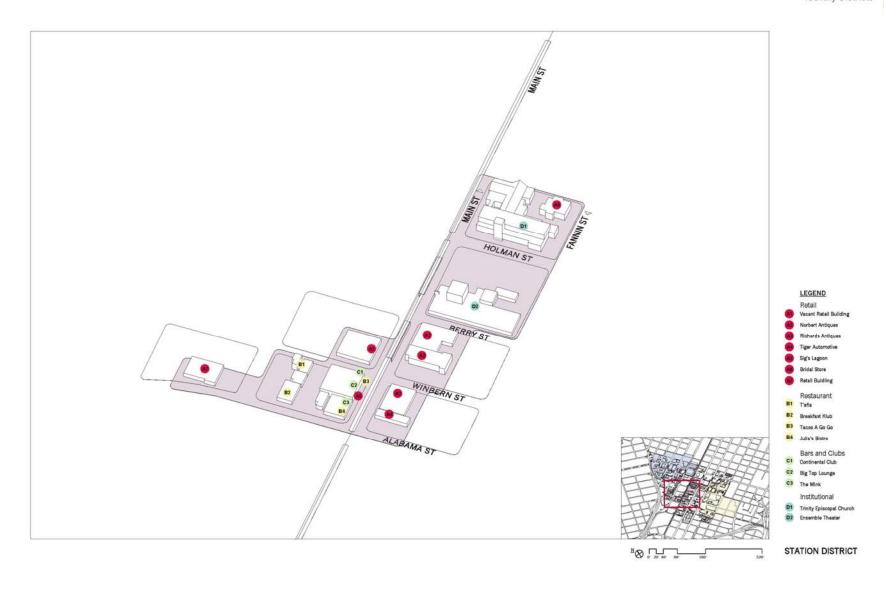
ADVANCEDESIGN





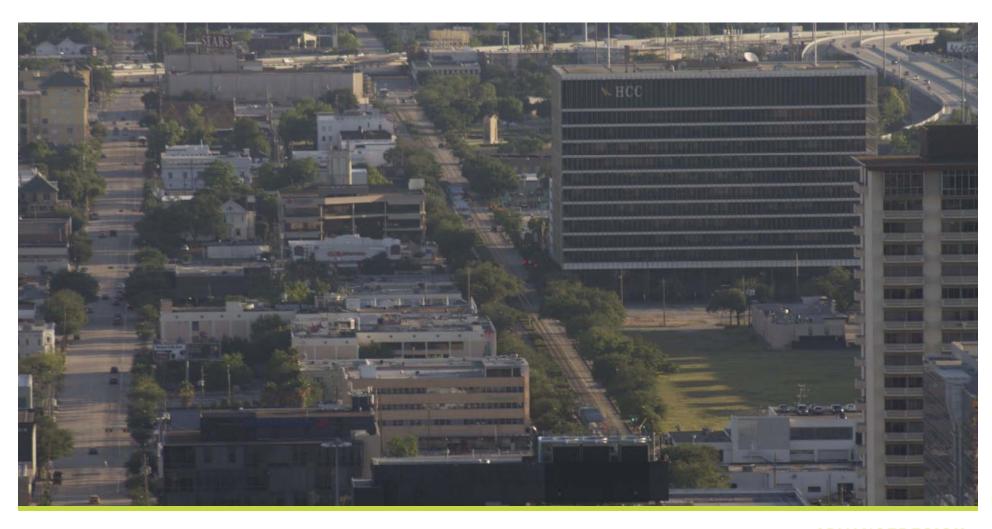




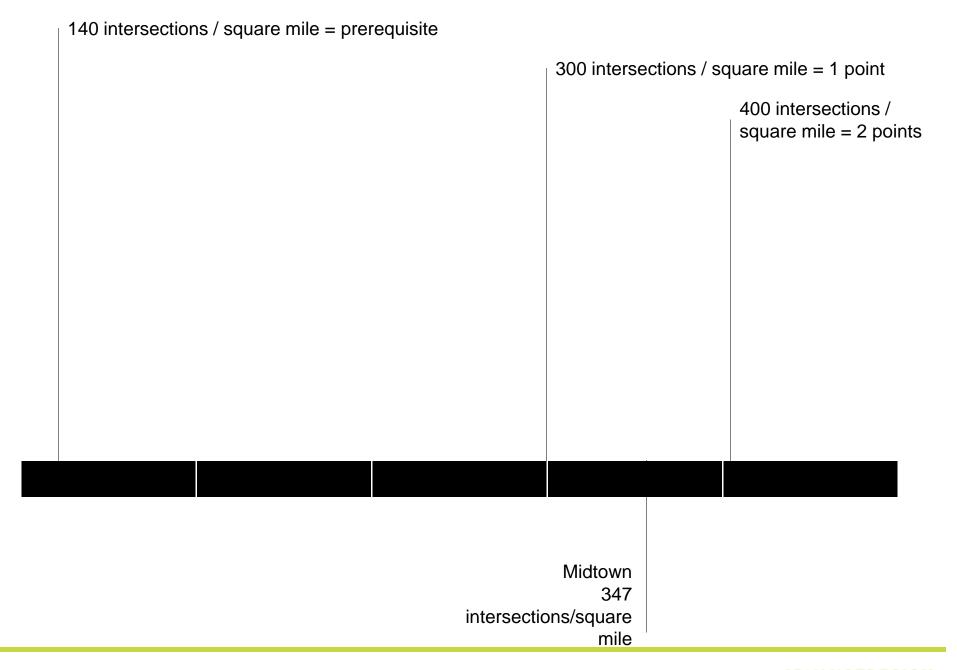


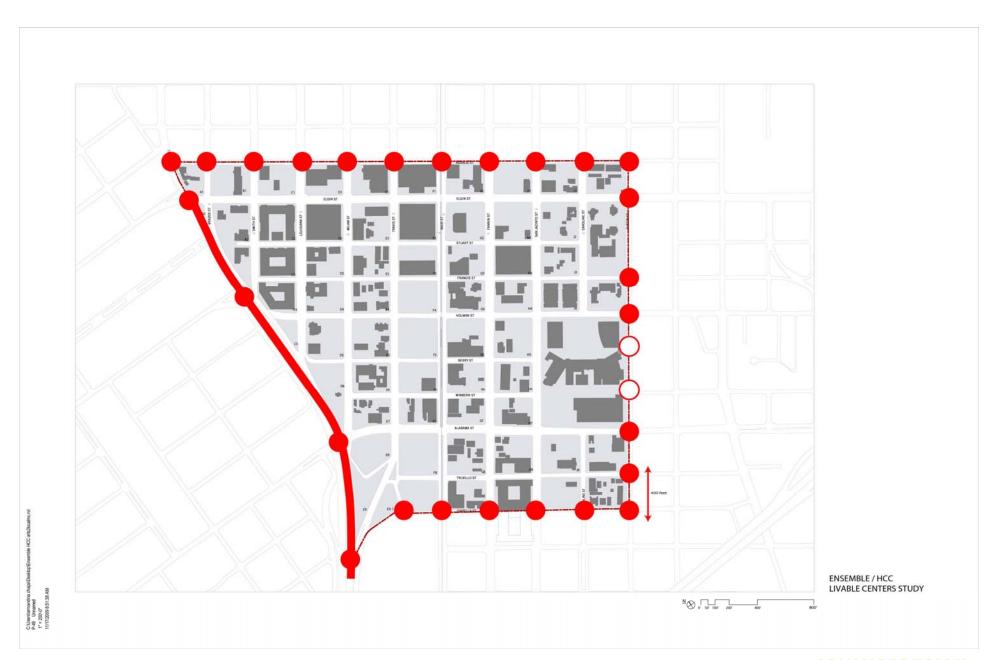


NPDp3 Connected and Open Community NPDc6 Street Network

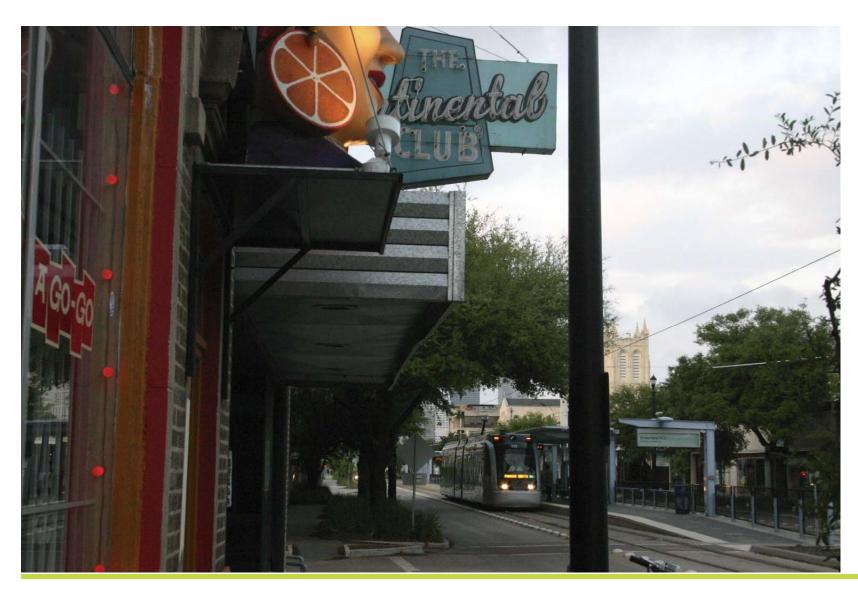








NPDc3 Mixed Use Neighborhood Centers

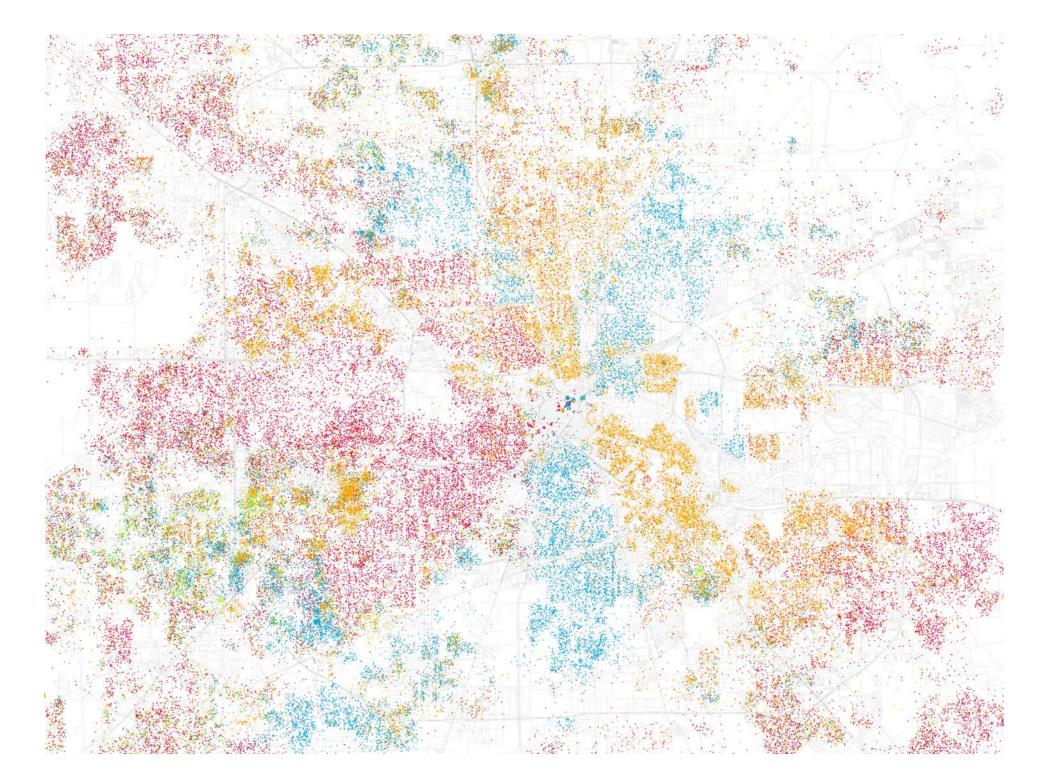


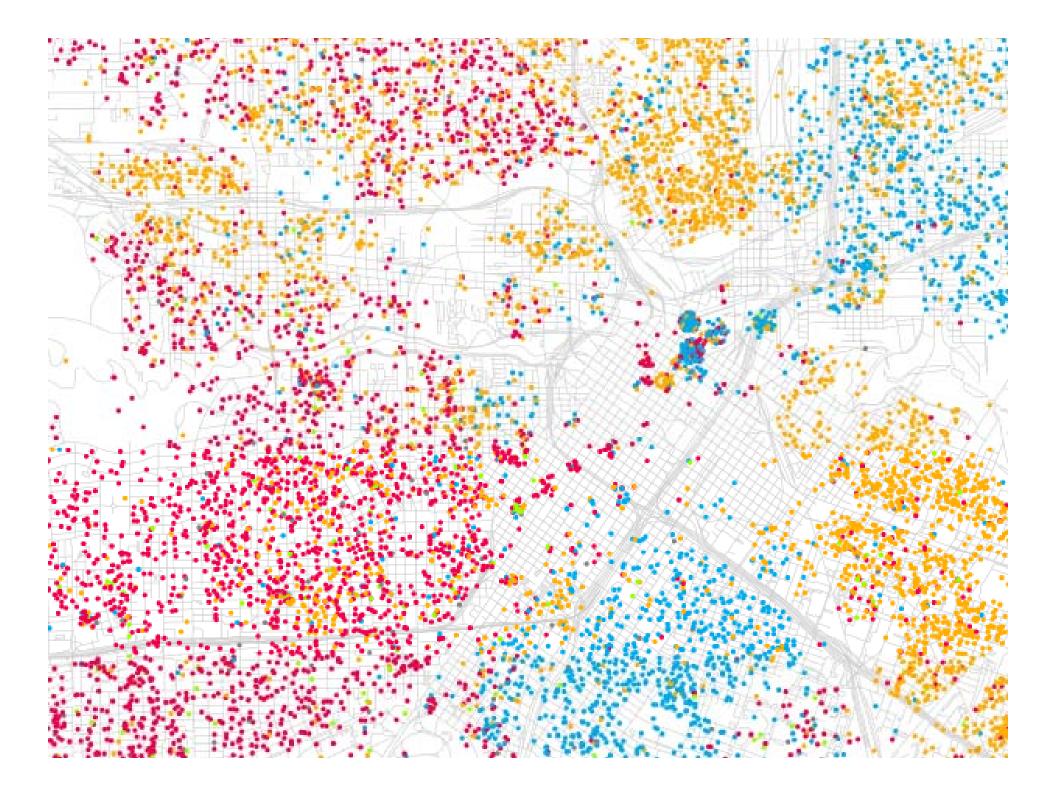




NPDc4 Mixed Income Diverse Communities

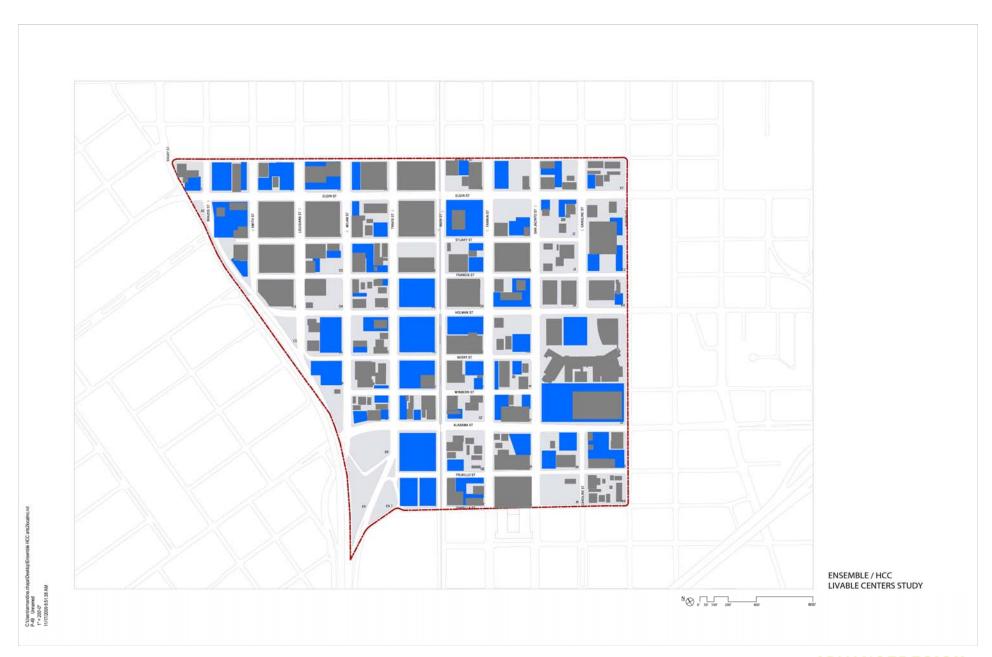






NPDc5 Reduced Parking Footprint





NPDc7 Transit Facilities





NPDc8 Transportation and Demand Management

NPDc9 Access to Civic and Public Spaces





ADVANCEDESIGN

NPDc10 Access to Recreation Facilities



NPDc13 Farmers Market



NPDc13 Trees





NPDc13 Schools

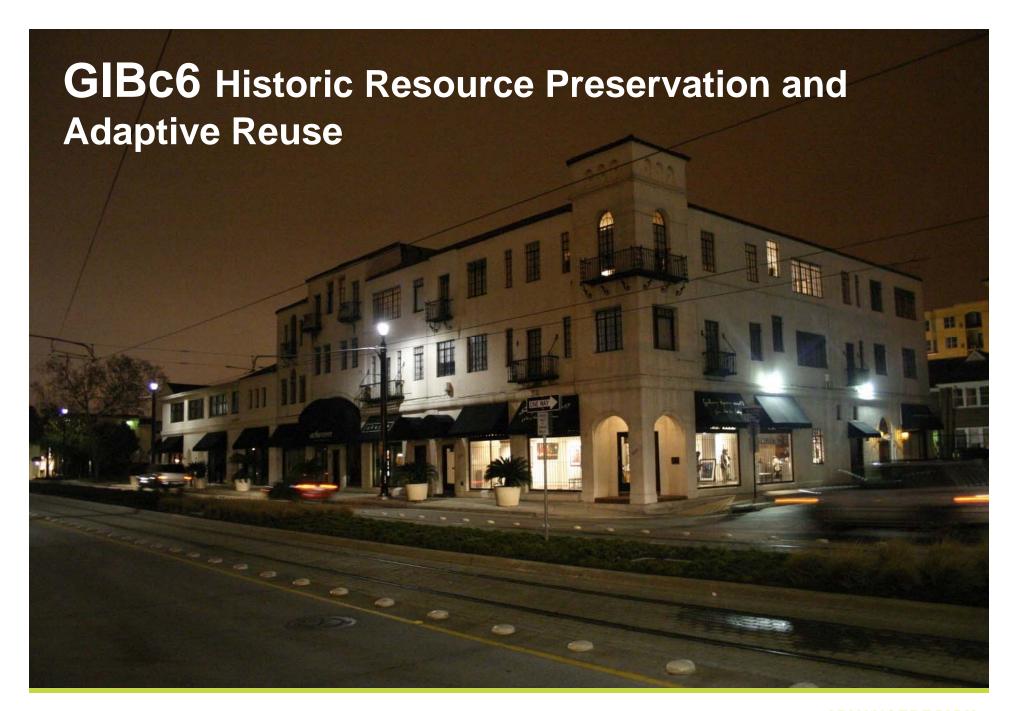




ADVANCEDESIGN

LEED-EN FOR MIDTOWN

GREEN INFRASTRUCTURE & BUILDINGS



GIBc7 Minimized Site Disturbance in Design



GIBc8 Stormwater Management

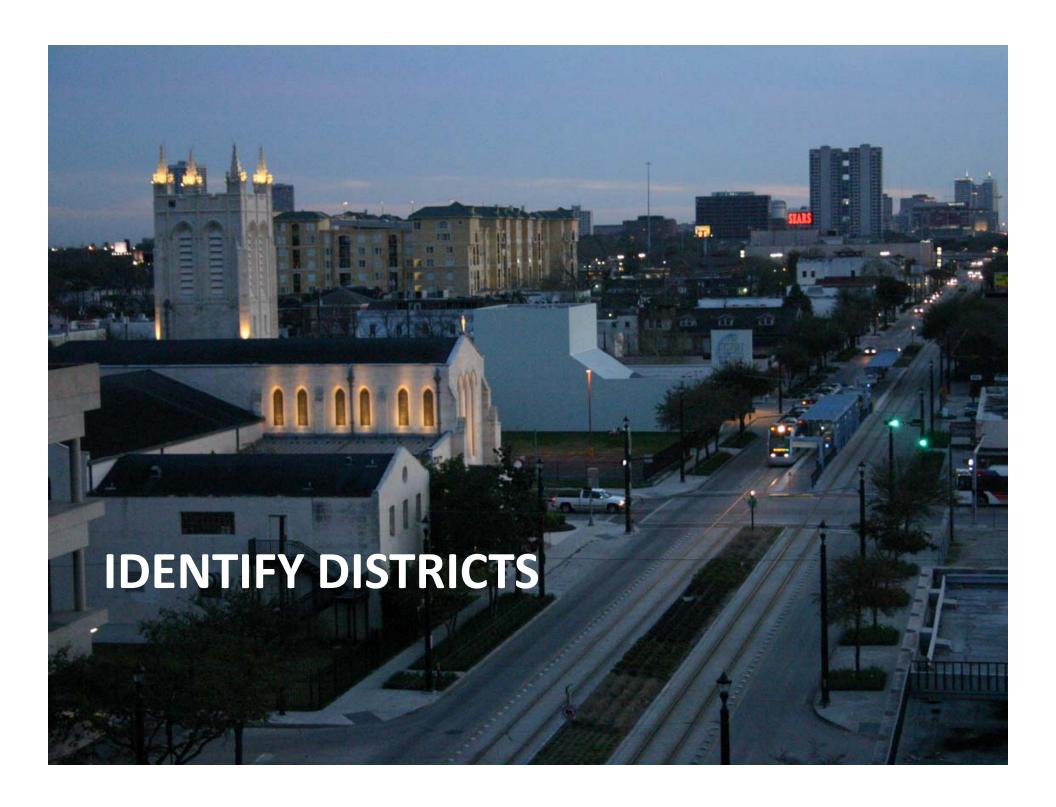
GIBc9 Heat Island Reduction **GIBc10** Solar Orientation

GIBc11 On-Site Renewable Energy S	Sources
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- **GIBc12** District Heating or Cooling
- GIBc13 Infrastructure Energy Efficiency
- **GIBc14** Wastewater Management
- GIBc16 Solid Waste Management Infrastructure
- GIBc17 Light Pollution Reduction

LEED-EN FOR MIDTOWN

HOW DO WE GET THERE?







Rice student Lives off campus because it's more interesting Studies in the coffee shop Works as a stage hand at Ensemble Theatre



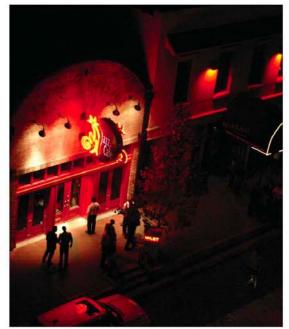
Singer / Songwriter Lives in an old duplex in Binz Rides the bus to wait tables at Ibiza



Neartown foodie Buys fresh vegetables at the farmers market every weekend Checks out all the new restaurants



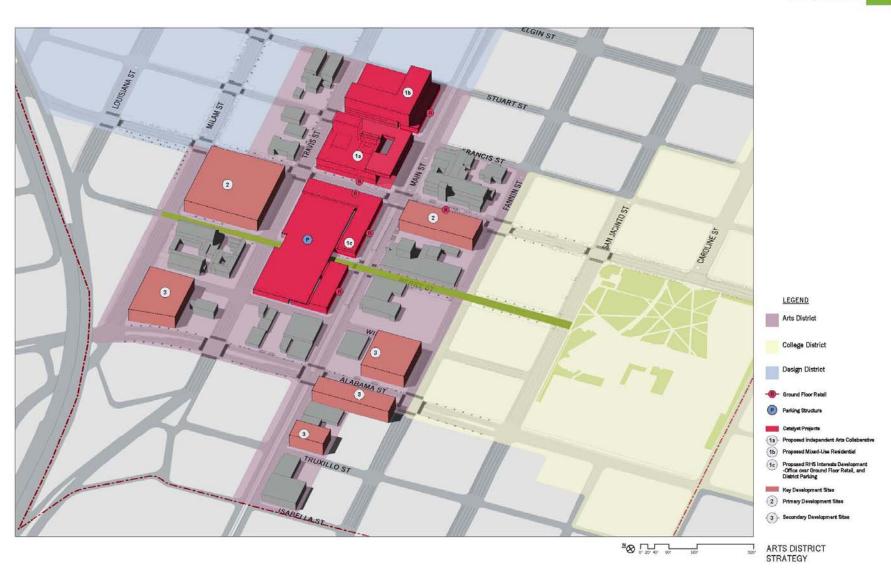
Cafes and restaurants are packed after a show



Evening concerts draw crowds from around the city



Exhibits are after-work destinations for downtown employees and Midtown residents alike



ADVANCEDESIGN

HCC District: A College District Vision

Houston Community College serves approximately 16,000 students at its central campus. They populate the surroundings all day long and fill every available seating surface at lunch. But there is little beyond the edges of campus to serve them. Students need places to eat, places to shop, and places to study. Some need places to live. The college could be the center of a district serving not only HCC students but other students up and down the light rail line as well as local residents. Retail would include quick, inexpensive food, coffee shops, and convenience goods. Apartments could cater to students without cars, reducing rents by eliminating the cost of building parking spots.



Works full time in the Texas Medical Center Takes night classes at HCC Grabs a bite to eat before class



Lives in Third Ward Rides Bus 42 to class at HCC Studies at the Bubble Tea Shop near campus

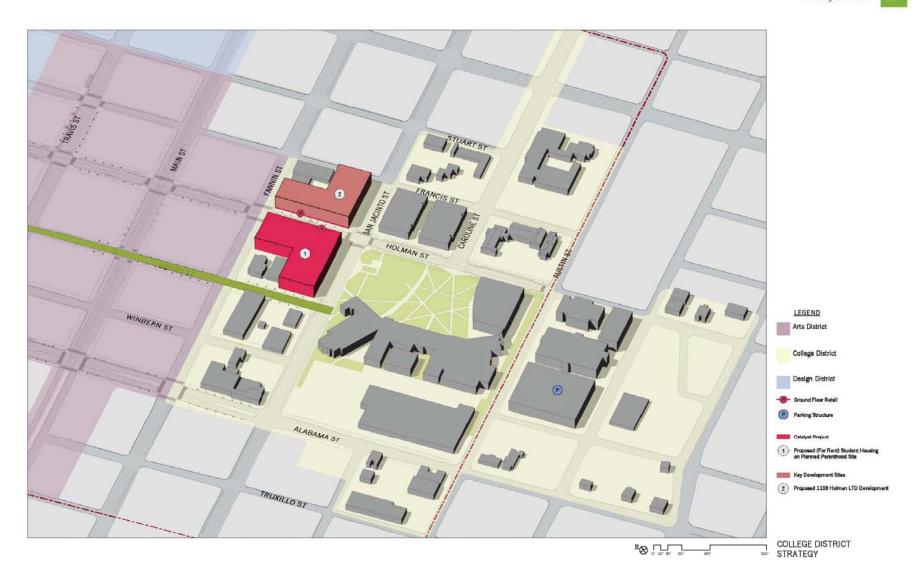






Plaza seating to hang out between classes







Girl's lunch out at Brennan's. Walk to High Fashion Home



Furnishing a bungalow Go shopping to find the perfect couch Decide on sushi for dinner





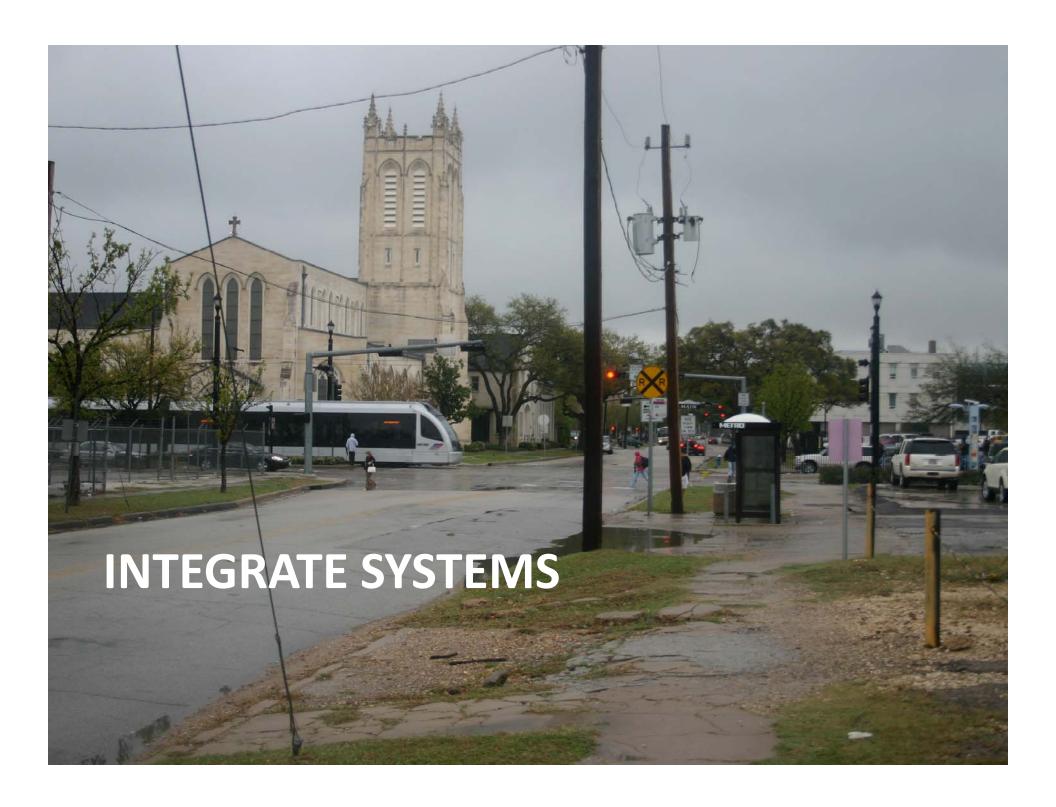


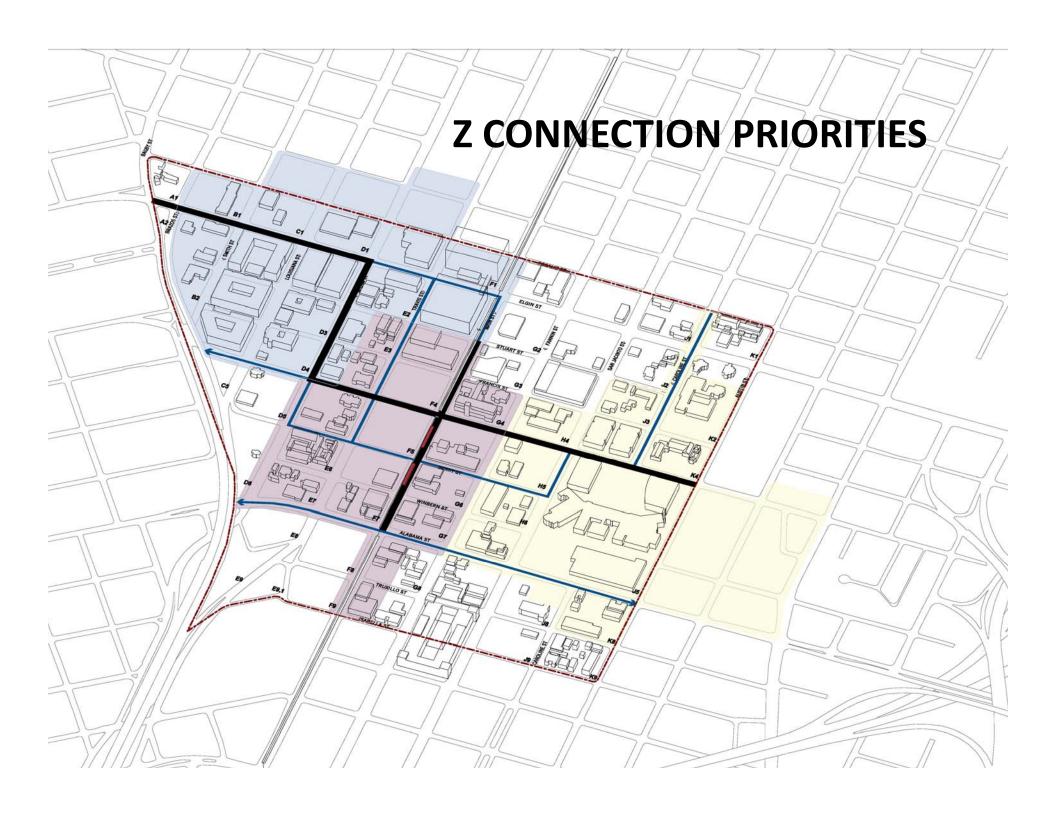
Shade trees provide much needed relief from the summer heat

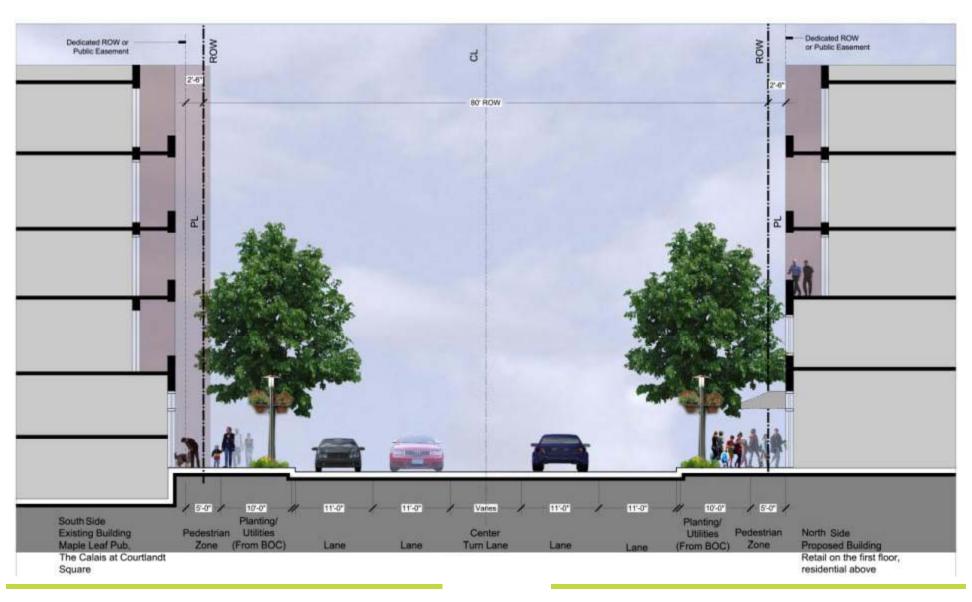


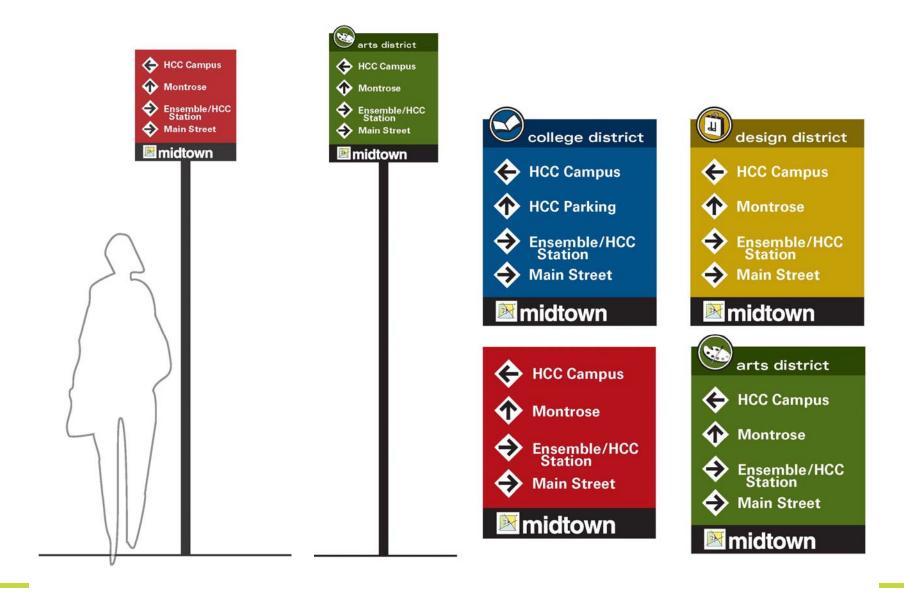
DISTRICTS

RECOMMENDATIONS	LEADERSHIP	PUBLIC FUNDING / IMPLEMENTATION	PUBLIC APPROVALS / REGULATORY CHANGES	PRIVATE REAL FUNDING / IMPLEMENTATION
Envision and brand the Arts District	Midtown Management District, Elected officials IAC, Ensemble Theater, Trinity Church, RHS Interests, Greater Houston Partnership	Midtown TIRZ	City of Houston	Developers, land owners, business owners
Envision and brand the College District	Midtown Management District, Elected officials, Houston Community College (HCC), Greater Houston Partnership	Midtown TIRZ	City of Houston	Developers, land owners, business owners
Envision and brand the Design District	Midtown Management District, Elected officials, Crosspoint Properties, Greater Houston Partnership	Midtown TIRZ	City of Houston	Developers, land owners, business owners









COST IMPLICATIONS

Table 3: Potential Public Improvement Investments for Midtown Livable Centers Plan

Current 2010 Dollars, Totals Rounded.

	2012-2015 Phase 1	2016-2019 Phase 2	2020-2023 Phase 3	2024-2027 Phase 4	<u>Total</u>
Streetscape & Roads (a)	\$8,007,000	\$7,679,000	\$12,282,000	\$7,545,000	\$35,513,000
Parks	0	7,286,000	7,598,000	522,000	15,406,000
Monuments & Signage	327,000	0	170,000	0	497,000
Parking Structures (b)	1,500,000	1,500,000	0	0	3,000,000
Other Parking Improvements:	0	0	0	0	0
Other:	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Investments	\$9,834,000	\$ <u>16,465,000</u>	\$20,050,000	\$8,067,000	\$ <u>54,416,000</u>

Not Included:

- Independent Arts Center, potential \$30 million 10-year loan.
- Developer project funded transportation (traffic impact) improvements.
- (a) Includes streetscape, roads, utility undergrounding, and related expenses.
- (b) Projected subsidy for 228 public parking structure spaces in Phase 1 development.

Sources: Design Workshop; BAE, 2010.

INTEGRATE SYSTEMS

RECOMMENDATIONS	LEADERSHIP	PUBLIC FUNDING / IMPLEMENTATION	PUBLIC APPROVALS / REGULATORY CHANGES	PRIVATE FUNDING / IMPLEMENTATION
Create new park	Midtown Management District, Elected Officials	The Parks Board, COH Parks and Recreation Dept, Midtown TIRZ	-	Local land owners/developers
Create Star Plaza at HCC	нсс	нсс	-	-
Improve Elgin between Brazos and Milam	Midtown Management District, Elected officials	HGAC, TxDOT, Midtown TIRZ	City of Houston	Local land owners, Centerpoint Energy
Improve Holman between Milam and San Jacinto	Midtown Management District, Elected officials	HGAC, TxDOT, Midtown TIRZ	City of Houston, METRO	Local land owners, Centerpoint Energy
Improve Main between Homan and Alabama	Midtown Management District, Elected officials	HGAC, TxDOT, Midtown TIRZ	City of Houston, METRO	Local land owners, Centerpoint Energy
Improve Berry between Main and Fannin	Midtown Management District, Elected officials	HGAC, TxDOT, Midtown TIRZ	City of Houston	Local land owners, Centerpoint Energy
Improve Holman between San Jacinto and Austin	Midtown Management District, Elected officials	HGAC, TxDOT, Midtown TIRZ	City of Houston	Local land owners, Centerpoint Energy







OFF-STREET PARKING MANAGEMENT

Toolbox of potential options

- Parking Cash Out
- Unbundle Parking
- In-lieu Parking Fees

Implement Parking Benefits District

- Evaluate annual shared parking supply and demand
- Collect and distribute parking revenue



PARKING CODE MODIFICATIONS

Existing Policy

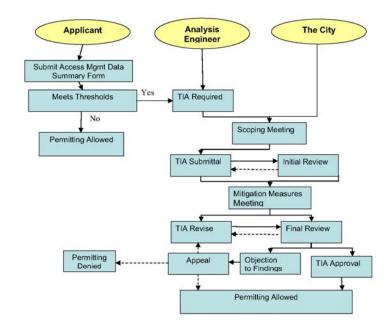
Recommended Parking Policy

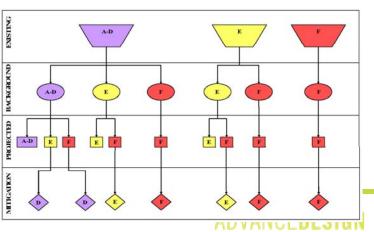
Parking minimums Ways to meet parking minimums	 1.250 spaces/efficiency 1.333 space/one-bedroom 1.666 spaces/ two-bedroom 2.0 spaces/ 3 or more bedrooms 2.5 spaces/1,000 sq ft office 4 spaces/1,000 sq ft retail 8 spaces/1,000 sq ft restaurant Onsite parking only	 1.000 spaces/efficiency 1.000 space/one-bedroom 1.500 spaces/ two-bedroom 1.500 spaces/ 3 or more bedrooms 2 spaces/1,000 sq ft office 3 spaces/1,000 sq ft retail 8 spaces/1,000 sq ft restaurant Variances can be granted for projects serving a car-free demographic 100% of requirement can be met with in lieu-of fee 100% of requirement can be met with existing offsite or on-street public parking where capacity is available
Parking maximums Areawide	NoneNone	 Set current minimums as maximums Maximums apply only to restricted parking – parking available to the general public is not limited Conduct study of parking supply and update on yearly basis
management		 Use in lieu of fees and meter revenue to construct off-street public parkingNCFNFSIGN

TRAFFIC IMPACT ANALYSIS

Recommendations

- Develop trip reduction rates specific for Livable Centers
- Allow lower levels of service on minor streets within Livable Centers
- Consider wide range of traffic mitigation
- Area-wide TIA





SETBACKS

Regulations

- 10 ft along local streets
- 25 ft along major thoroughfares
- Urban Corridor: less than 25 ft setback if 15-ft pedestrian zone with a
 6-ft minimum unencumbered walk is provided

Challenge

- Regulations encourage developers to create street-front parking
- Urban Corridor ordinance does not apply district wide

Recommendations

 Apply Urban Corridor ordinance to areas with a district-wide master plan or approved Livable Centers plan

OPEN SPACE

Regulations

- Chapter 42: 10 acres <u>times</u> the number of dwelling units <u>times</u> the number of occupants <u>divided by</u> 1,000 persons per acre of parkland
- OR \$700 per dwelling unit in lieu of the dedication

Challenge

- Potential pocket parks are lots of approximately 50 x 100 ft (5,500 SF)
- A typical 300-unit apt bldg would generate a fee of \$210,000 and would only acquire a 3,818 SF lot for a park at current land prices
- No incentive to reward developers for providing more than the minimum
- Park space lacking in western area of district

OVERCOMING BARRIERS

RECOMMENDATIONS	LEADERSHIP	PUBLIC FUNDING / IMPLEMENTATION	PUBLIC APPROVALS / REGULATORY CHANGES	PRIVATE REAL FUNDING / IMPLEMENTATION
Create a Parking Management Area	Management District, Elected Officials	Parking Management	Mayor, City Council	-
Modify City parking requirements	Management District, Elected Officials	Parking Management	Mayor, City Council	-
Require bicycle parking	Management District, Elected Officials	-	Mayor, City Council	Private developer
Install meters on all street spots	Management District, Elected Officials	Parking Management	Mayor, City Council	-
Set meter rates to achieve 85% occupancy	Management District, Elected Officials	Parking Management	Mayor, City Council	-
Encourage developers to implement parking cash out	Management District, Elected Officials	-	-	Private developer
Establish Parking Benefits District	Management District, Elected Officials	Parking Management, Management District	-	Private developer
Implement a Residential Parking program	Management District, Elected Officials, Local Residents	Parking Management	Mayor, City Council	-
Implement TDM programs	Management District, Elected Officials	-	Mayor, City Council	-
Construct off-street parking	Management District,	TIRZ, Parking	Mayor, City Council	-





MULTIFAMILY MIDRISE





STUDENT HOUSING



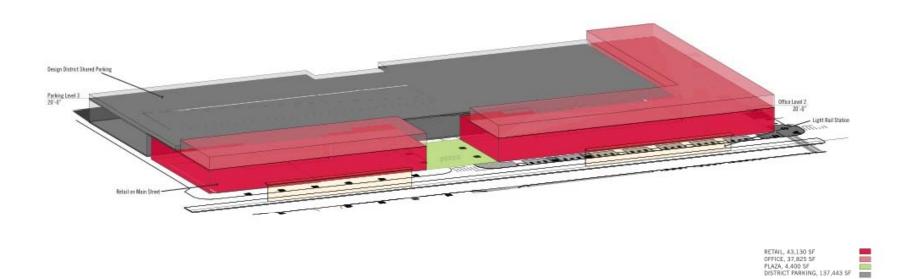


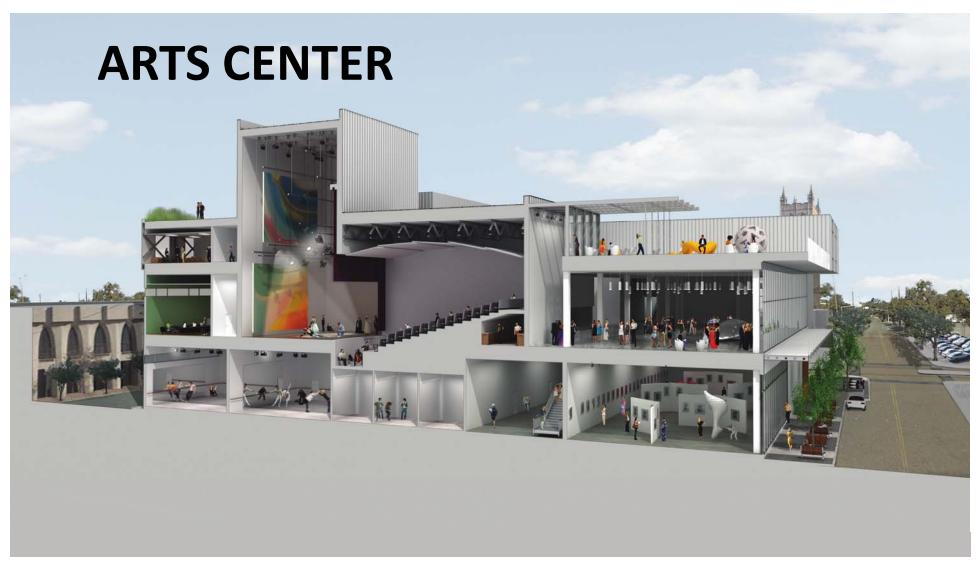
MIXED-USE OFFICE BUILDING





RETAIL + PARKING





INDEPENDENT ARTS COLLABORATIVE HCC / ENSEMBLE LIVABLE CENTERS

MORRIS ARCHITECTS JANUARY 25, 2010

CATALYTIC PROJECTS

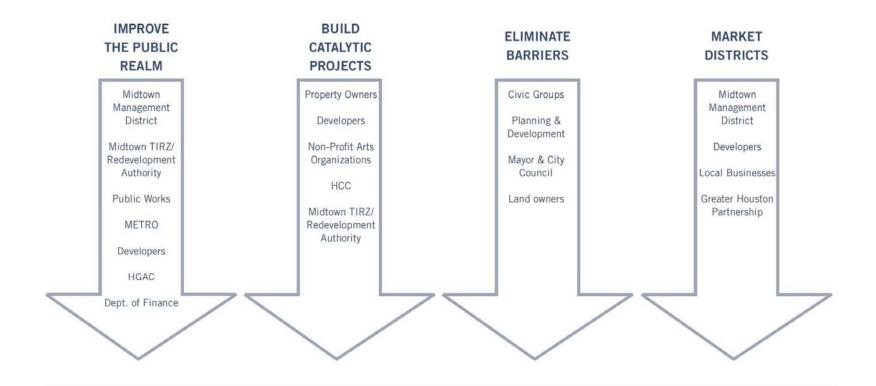
RECOMMENDATIONS	LEADERSHIP	PUBLIC FUNDING / IMPLEMENTATION	PUBLIC APPROVALS / REGULATORY CHANGES	PRIVATE REAL FUNDING / IMPLEMENTATION
Build Independent Arts Collaborative (IAC) in the Arts District	IAC	City of Houston	City of Houston	IAC
Build retail/parking in Arts District	RHS Interests	Midtown TIRZ	City of Houston	RHS Interests
Build market-rate multifamily midrise in Arts District	City of Houston, Private developer	City of Houston	City of Houston	Private developer
Build Student Housing in Student District	НСС	HCC	City of Houston	
Build office & parking in Design District	Crosspoint Properties	-	City of Houston	Crosspoint Properties



DEVELOPMENT CAPACITY

ENSEMBLE / HCC LIVABLE CENTERS STUDY:

CREATING DEVELOPMENT CAPACITY GETS PROJECTS BUILT



A LIVABLE CENTER

DEPT. OF FINANCE CENTERPOINT ENERGY

PARKING MANAGEMENT

WINSTON DAHSE LILIANA RAMBO

TRINITY CHURCH

COUNCIL MEMBER ADAMS

PLANNED PARENTHOOD

PARKS BOARD MARK LOETHAN

KARUN SREERAMA

HOUSTON COMMUNITY COLLEGE DR. ART TYLER

JILL JEWETT HOUSTON ARTS ALLIANCE

RHS INTERESTS

HOUSTON ARTS ALLIANCE

ENSEMBLE THEATER

COUNCIL MEMBER RODRIGUEZ

PUBLIC WORKS

MAIN STREET COALITION

BARRON WALLACE

HOLY ROSARY CHURCH

PARKS & RECREATION MARLENE GAFRICK

ANDY ICKEN

MIDTOWN TIRZ

METRO

GERALD WILSON

CROSSPOINT PROPERTIES

MIDTOWN MANAGEMENT DISTRICT

LOCAL BUSINESSES

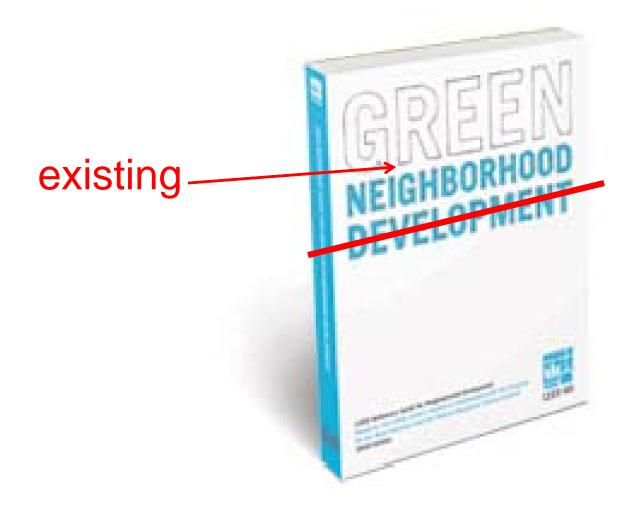
PUBLIC WORKS

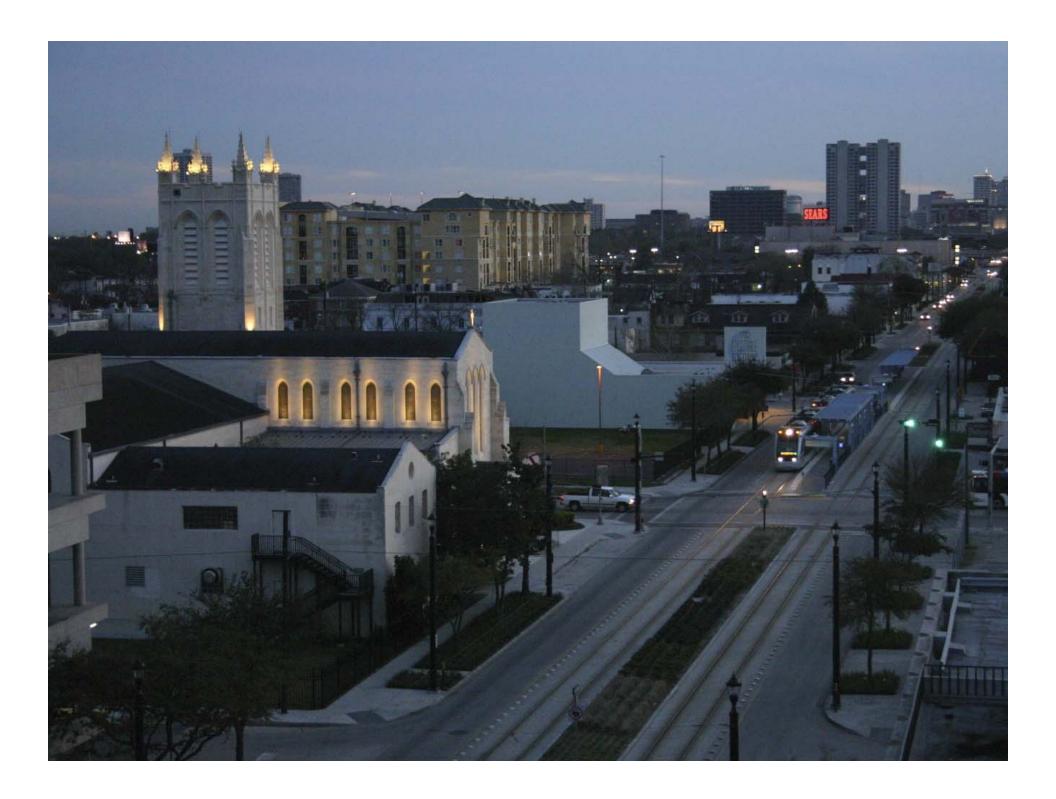
ROKSAN OKAN-VICK

TIM DOUGLASS

MICHAEL ERETI

DIVERSE WORKS ADVANCEDESIGN





Christof Spieler, PE, LEED AP Director of Technology & Innovation

MORRIS ARCHITECTS

Steven Spears, RLA Principal

DESIGNWORKSHOP

Lee Anne Dixon, PE Senior Associate

WALTER P MOORE





Nelson Nygaard



LEED-EN FOR MIDTOWN

Q&A/TOUR