Houston-Galveston Area Council

Livable Centers Study for the City of Houston

ENSEMBLE / HCC

Livable Centers Study

FINAL REPORT

Morris Architects
project manager
planning and architectural design

Design Workshop
planning and public realm design

Bay Area Economics
economics

CDS
economics

Nelson-Nygaard
transportation

Walter P Moore
transportation and civil

Knudson
public involvement

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Study team contact:
Doug Childers, AIA
Principal, Urban Studio
MORRIS ARCHITECTS
1001 Fannin Street, Suite 300, Houston, TX 77002
Phone: 713.850.6644
doug.childers@morrisarchitects.com

Client contact:
Meredith Dang, AICP
Land Use Transportation Coordinator
HOUSTON-GALVESTON AREA COUNCIL
3555 Timmons, Suite 120, Houston, TX 77027
Phone: 713-993-2443
meredith.dang@h-gac.com

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HCC
AMPCO SYSTEM PARKING
$1.50
$3.00
$1.50
PAY HERE
Ensemble/HCC
Southbound Red Line
Ensemble/HCC

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Ensemble/HCC light rail station, looking towards City of Houston Code Enforcement site, HCC headquarters, and Downtown


R R
MAIN
NO RIGHT TURN ON RED
METRO

Executive Summary

The following books are the story of a neighborhood in Midtown Houston. This study is focused on the transit district surrounding the Ensemble/HCC station area - though many of the challenges and opportunities are common to Midtown in general. The seven Books cover a lot of ground. We review Midtown's past as an important window into its present. We look in detail at the current urban fabric and infrastructure in, "Integrate Systems", and we document the prevailing and emerging patterns of land use in "Identify Districts". These two Books go on to identify strategies and prioritized objectives for improving the urban fabric and the potential opportunities for strengthening and incentivizing increased land use activity - in line with primary objectives of the Livable Centers program. We address the particular challenges of implementation in terms of funding and regulatory contexts; and we identify specific project opportunities and design concepts that could help catalyze greater economic development in the neighborhood. The vision for the future of this particular station area emerges from active engagement with the community, recognition of the opportunities and a clear eye on the challenges. We have set a high bar for the 'vision' and the implementation solutions that can make it happen. The story is still being written, of course. It is a vision and a plan for action. We can project a set of desired outcomes, but success depends on the will and effort of many. We are all actors in this story – author, architect, urban designer, engineer, client, citizen, elected official, developer and business owner alike. The publication of these documents is the beginning. We hope and expect that the community and all those who share a passion for Midtown's history and future will take up the plan and make it their own.

Holman at Travis, looking west towards Main

The Challenge

Midtown as a whole has seen a resurgence in recent years. It's proximity to Downtown, The Medical Center, Neartown and the Third Ward make it convenient to jobs and services and a desirable place to live. Many stakeholders, developers and residents have appreciated its potential for decades. The opening of the Main Street light rail line in 2004 drew more attention to the area. However, much of that has come in the form of real estate speculation that has inhibited new development - particularly the types of mixed-use / transit-oriented development that are desired on or near Main Street. Development that has occurred has generally happened away from the transit corridor on cheaper land, or in the form of adaptive re-use of existing structures. Development and improvements have been fragmented and uncoordinated. Elevated property values, suburban development codes and standards, and the absence of planning linked to meaningful incentives have generally made mixed-use transit related development unfeasible in this area - and in Houston in general. So the key challenge has been to identify a path, or set of coordinated paths to realizing a more active, more walk-able, economically vital mixed-use center around this station area.

The Place

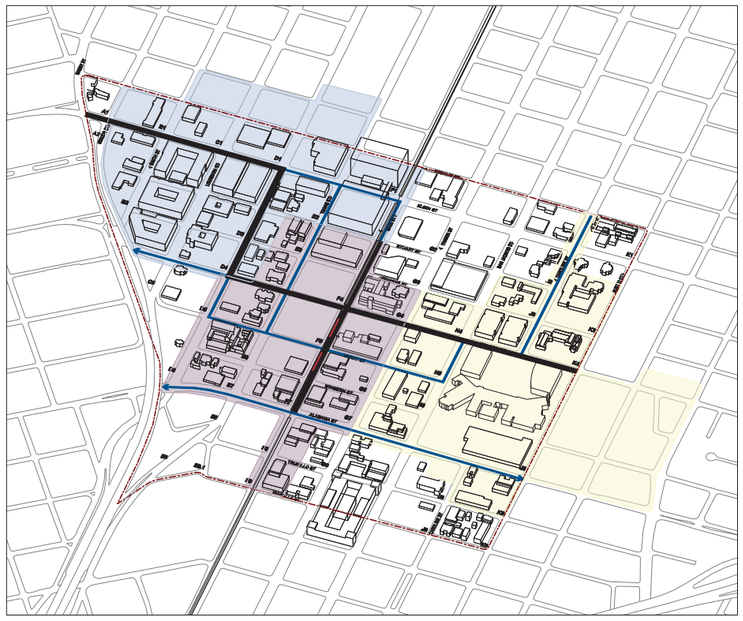
Midtown began as a place to build 'suburban' mansions around the turn of the Century. By 1920, residential development was moving westward into Courtlandt Place and the Montrose Addition (now Neartown). Main Street / Midtown gradually became more commercial with lots of restaurants and stores on the street, and walk up apartments above. Streetcar connections to downtown made shopping and living there convenient. The rise of automobile culture and car oriented development patterns in the 1950s meant a demise in the area's importance. Proximity to jobs was no longer important. Americans were in love with the automobile and the dream of owning a home in the suburbs. A whole new culture grew up around freeways and ranch style homes. Midtown was gradually and mostly abandoned to lesser land uses and blight. Very little new development happened for the next 30-40 years. In the 90's and early 2000's, Midtown was again on the radar. Many recognized the importance of its location between the Central Business District and the burgeoning Texas Medical Center. There was (is) also an emerging desire for urban lifestyle around the country, and Midtown has the block size and bona fide history as an urban, 'transit-oriented' neighborhood. Development ramped up in earnest by 2000. The opening of the light rail on Main Street in 2004 reinforced its urban status and its potential for transit oriented development.

Approach

Book 1: Road Map, describes our philosophical and technical approach to the project in detail. To address the Challenge, we first set out to answer the question, 'why has so little happened around the Ensemble/HCC Station?' We undertook a thorough examination of the existing realities and needs in terms of the physical conditions, economics and market drivers, and the people and context that define the neighborhood today. We wanted to know what specifically was needed to change the game in the study area. It was easy to identify stuff to fix and places to build new projects. But, we knew we could not do it all at once. We needed a guiding strategy that would help us prioritize our recommendations for future investment. This needed to be a coordinated plan for improving the public realm - linking proposed improvements to real development and/or redevelopment scenarios. We also know that, regardless of the 'brilliance' of the plan, the plan will never see the light of day without public and political support. From the beginning we set out to build this capacity (Book 5: Create Development Capacity) in the community and with community leaders. We met formally and informally with stakeholders of all kinds. We identified those that might take the lead on key project initiatives - both

public improvements and private development. Previous studies and our assessment reinforced the fact that there were regulatory and other kinds of barriers to redevelopment in the area. Our recommendations to "Overcome Barriers" (Book 6) identify specific changes to development ordinances that currently make desired outcomes more difficult.

We also put numbers to our recommendations. We developed comprehensive budgets and we tested financial feasibility. We explored tools and mechanisms for funding the public improvements - and we developed proformas that describe the current viability of specific project types. We envision the Plan as a comprehensive set of strategies and tools designed to be taken up by current and future leaders and stakeholders. We have structured the document as a unified vision and game plan, where each Book can also stand on its own and be used as a guidebook or reference by those with specific charge. Recommendations are tied to each Book, and every recommendation has key agents or leaders identified. This is a living document. It is a 20-25 year vision for the study area. It is not a set of prescriptions or rules. As conditions change and unexpected opportunities and/or obstacles appear, new choices will have to be made. Above all perhaps, the Plan should serve as a prototype tool for analyzing and evaluating those choices.



The Z Diagram

The 'Z' Diagram

The Study Area is centered around the light rail station at Main and Holman. Our analysis identified 3 primary 'districts' with significant activity drivers at various times of day and night. In between these districts there are broken pedestrian systems and empty parcels. Walking feels unsafe (especially at night), uncomfortable and even dangerous. In order to build on the existing activity generators, we set out to create stronger links between the districts, and to intensify/expand the districts themselves. The ideal outcome is for the districts to weave together into a connected fabric emanating from the transit station area - while retaining some of their unique characteristics. Our explorations lead to an initial diagram that describes the key connections between the districts along a 'Z' axis. This formed our prioritization strategy and main idea for structuring and focusing initial investments. If we can fix the pedestrian systems and facilitate redevelopment on key sites along the Primary 'Z', these isolated districts can be connected and will in turn strengthen the overall area. We also indentified a set of secondary corridors that need to be fixed early in the game as well. Key investments along the 'Z' corridors and the secondary corridors hold the potential to change the game in this area.

The Books

Book 1: Road Map is intended to serve as record of our methodology and philosophical approach to the Plan - and a potential prototype for future studies. In Book 1, we have outlined the touchstones that make a Plan truly reflective of a community and the prerequisites for realization of the plan objectives. We think these touchstones are applicable to most similar studies. The plan is about creating and enhancing places for people - above all else. While we have to address the systems that make it all work, the end goal is a meaningful place that people will visit, move to, remember and come back to. Any study must also provide sensible and integrated solutions. Recommendations must be backed up by good analysis, design, engineering, economics and public outreach. This Book lays out a detailed process for mobilizing an effective interdisciplinary team to achieve practical well-designed and implementable solutions.

Book 2: Identify Districts, captures a snapshot of the current land use, activity generators and building stock and looks for patterns and opportunities to build on. Three distinct districts emerged - The Arts District around the light rail station, the College District at the HCC campus, and the Design District along Elgin. In order to create the sense of place key to any successful projects, the Districts need to strengthen and gain more presence in the minds of the Community. With market realities as a backdrop, we tested the physical capacity of the area at full build out. In conjunction with improving the key systems described below, we looked for opportunity sites and partners that could strengthen the Districts and bring more activity to the area, and we make recommendations for developing the visibility and identity of the districts.

Book 3: Integrate Systems takes a hard look at a number of systems that support and help make a neighborhood livable, convenient, safe and attractive. These include various circulation systems for pedestrians, bicyclists, automobile drivers, and transit riders. Each resident, employee and visitor to the study area needs safe and consistent streetscapes and rights-of-way, parks and public spaces, signage and wayfinding, utility service, and parking. These are the

systems addressed in the Integrate Systems book. The “Z Connection” illustrates an effective method of prioritizing efforts and resources to initiate change in the study area. The book concludes with a set of prioritized recommendations and projects to be implemented to improve connectivity, walk-ability and to support the continuing revitalization of the area.

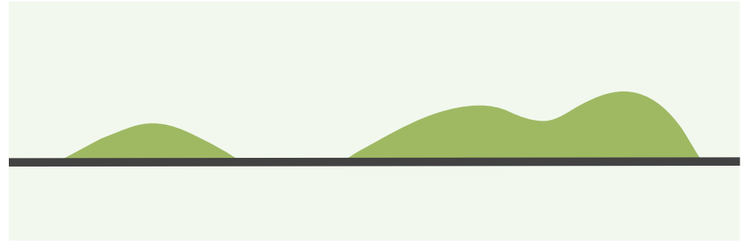
Book 4: Close the Gap makes use of the market research and construction cost information to determine the feasibility of public realm improvements and proposed catalytic projects. It identifies potential public and private funding and financing options that have been explored and can help strengthen a positive cost to revenue equation and lead to built projects.

Book 5: Create Development Capacity recognizes the preeminent role of the larger community in carrying the plan forward. Perhaps the most challenging aspect of the Plan goals, Development Capacity, is about the leadership that is required to make this plan a reality. We recognize that a critical path to realizing a vision in the area will be finding the leaders and torch bearers that will take ownership of the vision and ensure that it lives on after we hand it over. This begins with the vision being aligned with the community’s objectives, and ends with hard work and leadership.

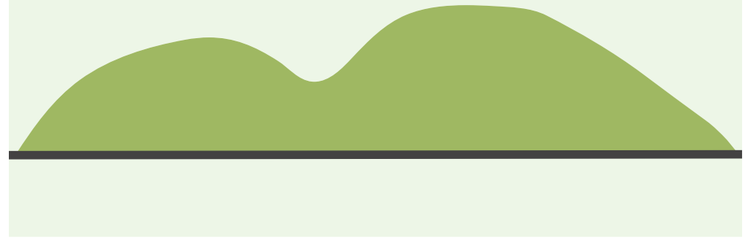
Book 6: Overcome Barriers assesses the current regulatory environment in light of the desire for higher density mixed-use development. We identify regulations and obstacles that currently inhibit or discourage the kind of development that is desired. Chief among these is the challenge of parking. Our recommendations for creating comprehensive and managed parking solutions are central to the Plan. The cost of building parking for every potential project is the single biggest hurdle to new development. We make concrete recommendations for new rules and strategies for maximizing the benefit of on-street parking and optimizing the potential for shared public parking.

Book 7: Build a Catalytic Project. Redevelopment and revitalization is dependent on new projects happening. Our initial research, planning priorities and conversations with stakeholders led to the identification of five potential catalytic projects. Two of the projects, the Independent Arts Collaborative (IAC) and the Student Housing project, were designed in detail. Two are plans on the boards with other landowners, and one is proposed for the City-owned property at Main and Francis streets. In varying degrees, these projects have the potential to dramatically change the neighborhood and contribute to the rebuilding of the urban fabric.

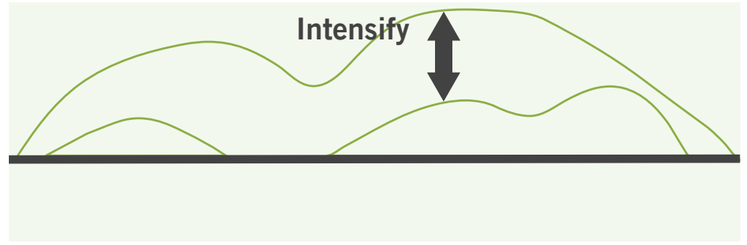
The development of this plan has continued conversations that have been underway in Midtown for a long while. It has also started new conversations and defined specific objectives and strategies for moving forward. These are not prescriptions. But, it is critical that future public investment be tied to a prioritized set of goals. The temptation will always be to spread the dollars around and thereby nominally satisfy the greatest number of agendas. However, changing the game around the Ensemble/HCC Station and promoting a true Livable Center will require prioritization of the plan objectives. It will also require leadership to make the necessary changes in public priorities. Our extreme familiarity and comfort with suburban development standards has to give way to new urban design standards. We need to implement comprehensive tools to mitigate the impact of parking needs on development feasibility and the urban fabric. A true livable center requires that all the pieces come together in a coordinated way. We need to fix systems, get new projects built, generate more activity and regenerate the urban fabric. The plan is the first step in that direction. It outlines other steps. But, success will ultimately depend on those that have the ability to influence change and the will to see these goals realized. We hand this document off to all of you in good faith that you will take up the charge!



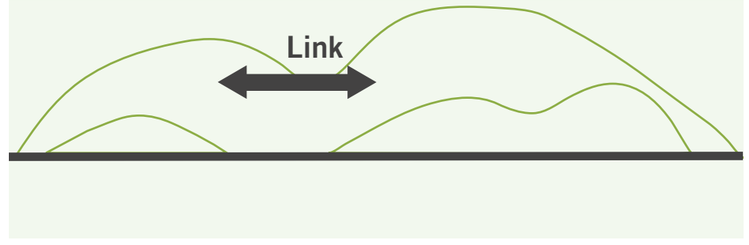
Current activity level



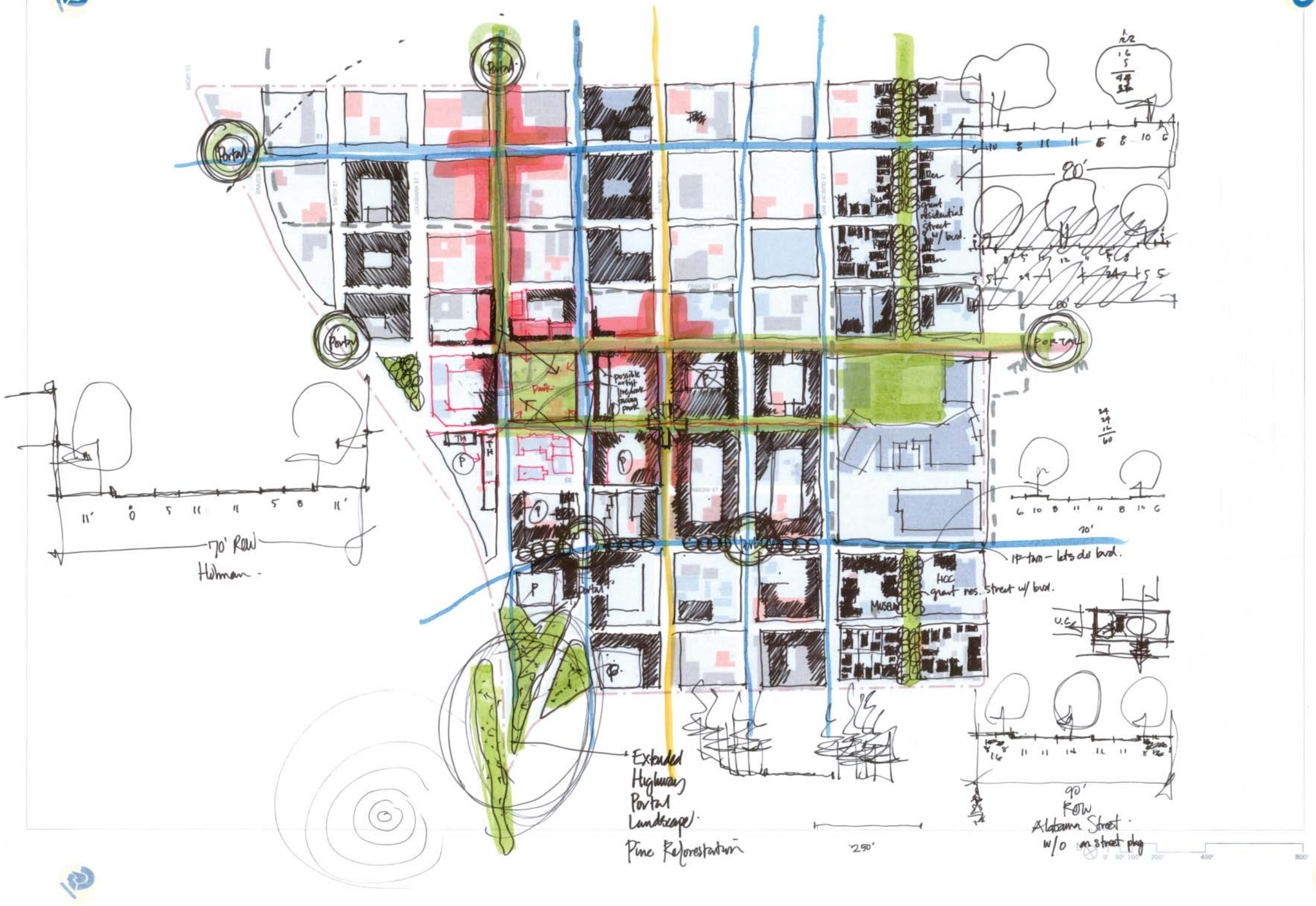
Desired activity level



Intensifying



Linking


Portal
Portal
Portal
PORTAL
Great residential street w/ bvrd.
possible artist enclave facing park
Park
TH
TH
P
P
P
P
Portal
MUSEUM
HCC grant res. street w/ bvrd.
U.C.
11' 0 5 11 11 5 8 11'
70' ROW
Hillman
Extended Highway Portal Landscape/ Pine Reforestation
250'
10' two - lets do bvrd.
20'
90'
ROW
Alabama Street
w/o on street pkg
0' 50' 100' 200' 400' 800'

Road Map

1

The Ensemble/HCC Livable Centers Study is a strategic plan for a neighborhood's future. There are two important pieces to the Study: the plan itself and the process for realizing that vision. This book is the Road Map that describes the methodology for creating a vision.

A range of solutions contribute to creating a better mix of land uses, expanded multi-modal transportation options and an ultimately more sustainable, thriving neighborhood center. Well-designed places and the connections (systems) that link them must work together. This area will connect to adjacent neighborhoods in a cohesive way, providing needed services and transportation access while also serving the city as a whole. The entire environment will promote a more walkable, transit-friendly environment. By providing options within walking distance of existing uses, the number of vehicle trips required by locals can be reduced.

The story begins with forming an interdisciplinary team of professionals who work together throughout the process. They complete in-depth observations and analyses of the existing conditions using a variety of methods and references. The team designs solutions to improve the way the neighborhood functions, how the network of systems as a whole performs. While there are key pieces to the Study such as compiling data, developing priority projects and determining the largest impact for the smallest cost, the process is flexible and able to adjust to changing conditions over an extended period of time, approximately twenty to twenty-five years. Recommendations are made to complete specific projects with funding sources and key players identified. These recommendations are vetted by the interdisciplinary team with local change agents to ensure ownership of the plan at all levels throughout the community. Development capacity, defined in terms of people as agents of change, is identified and expanded to ensure projects will move forward after the plan book itself is complete. These steps are not mutually exclusive; they happen concurrently during the course of the Study. The team identifies concrete steps to feasibly implement improvements to the built environment so that it may better serve its users.

The Ensemble/HCC Livable Centers Study is an outcomes driven document. The plan capitalizes on interest from the development community and encourages partnerships with local agencies to create change. The Study examines opportunities for creating public-private partnerships to implement Livable Centers concepts, as well as identifies specific investments that will promote the vision. Focusing on the tools available to make projects work, the plan presents the details of specific improvement projects and prioritizes them within the over arching community vision.

A working drawing from an early team visioning exercise

Existing land use map

Places for People

Placemaking is a critical component of transportation planning. Creating better places makes it easier to link destinations with transit options because the place itself is more defined. Better access to transit increases connectivity and makes transit more efficient and cost effective. Transportation planning focuses on moving people and goods efficiently and effectively to their destinations. But there has been a national shift in how this is done. Instead of focusing on improving capacity and service, the strategy is to bring a critical mass to the service areas. This will be increasingly more important as the Houston region grows, reaching an estimated 3.5 million people in the next thirty years. The city must better position itself to accommodate that growth through placemaking strategies that can create more effective and useful transportation systems. Improved mobility ultimately creates more vibrant places for people.

This plan begins under the direction of the Houston-Galveston Area Council's (HGAC) Livable Centers program, which aims to create more walkable, mixed-use places around planned and existing transit areas. Livable Centers studies are funded through the FY 2008-2011 Transportation Improvement Program (TIP), and are part of HGAC's 2035 Regional Transportation Plan. The Livable Centers program seeks to provide multimodal travel choices by improving pedestrian, bicyclist and transit spaces thereby reducing vehicle miles traveled. By creating better access to transit, protecting green space and encouraging pedestrian trips, the result will be improved air quality and a better environment.

The plan focuses on strengthening community identity and creating quality public spaces to create a more identifiable sense of place. Localized improvements in the public realm serve as economic development drivers. The implementation of catalytic investment projects, leveraging public and private investment and promoting a more efficient use of infrastructure, encourages spin-off redevelopment and increases the potential for large scale neighborhood revitalization.

The Ensemble/HCC Livable Centers Study evolves from a 2006 market study, "Building Houston's Competitive Edge: Transit-Oriented Development for the Ensemble/HCC Station," sponsored by the Environmental Protection Agency (EPA). The study identified a rising demand for transit-oriented development in Houston. The EPA study led to the City of Houston's Transit Corridor Ordinance, adopted by Houston City Council on August 19, 2009 (Ord. no. 2009-0762. Chapter 42 Article IV). The ordinance creates land development regulations on transit corridors to improve access to jobs, services, entertainment and recreation. Building from these previous endeavors, the Ensemble/HCC Livable Centers Study identifies key implementation projects that will leverage public and private investment to create a stronger sense of place and better access to transit.

The study area is located in the Midtown neighborhood and centered on the Ensemble/HCC light rail station and the adjacent City of Houston Code Enforcement building located at 3300 Main Street. Comprised of approximately 60 blocks, the area is bound by Rosalie Street to the north, Austin Street to the east, Isabella Street to the south and Spur 527 to the west. The light rail line connects the neighborhood to numerous destinations on the corridor and will link to more destinations as new light rail lines are constructed. This is an essential location in the urban core of the city. Making the study area a dynamic place, a destination in its own right, will contribute significantly to the economic health and function of the neighborhood and of the city and its networks.

Holy Rosary Catholic Church brings hundreds of people to the study area on a weekly basis and intends to grow its programs and facilities in the neighborhood.

Good streetscape design encourages pedestrian activity, increases property values, and enhances the sense of place.

Adding to a local sense of place, the Saturday Farmer's Market located in the T'afia parking lot is a destination for locals and residents from all over the city.

Interdisciplinary Team

Urban neighborhoods are complex and require different skills to understand them. The interdisciplinary study team is made up of professional planners, architects, landscape architects, economists, transportation and civil engineers and public engagement coordinators. The team provides a broad range of expertise in planning, landscape and architectural design, economic development, public policy, transportation and community engagement. Understanding the local nuances within each of these disciplines is paramount to the overall success of the plan and feasibility of its proposed implementation strategies. Just as city agencies cannot be neatly divided into separate disciplines, team members cannot work individually in a vacuum. The interdisciplinary team works together at all steps of the Study to pool resources on each issue and at each level, from block-by-block field observations to data synthesis and discussions on recommendations.

Understanding the existing environment is paramount to creating appropriate recommendations. Planning, architecture and landscape architecture professionals work through design issues identifying opportunities to solve connectivity issues through better design of streetscaping. They run public meetings and provide regular communication and connections to local community members and change agents to ensure the public owns the vision and the implementation plan. Transportation planners and engineers provide data on traffic patterns and circulation. Market and economics professionals collect data on market trends and the development climate to better understand why investment is stagnant and how to trigger it. The interdisciplinary team completes in-depth qualitative and quantitative analysis of the Study area on a block-by-block basis.

Through a synthesis of data, the team can identify challenges and highlight opportunities for change. This is a reiterative process and the team benefits from having team member experts evaluating the issues and brainstorming solutions at each step of the planning process. Each discipline contributes expertise on regulations and resolutions within their field. With an interdisciplinary problem solving team, solutions can be more comprehensive and streamlined to address multiple challenges.

Together with local leaders and change agents, the interdisciplinary team formulates a cohesive implementation plan for the study area. The value in a team formed by professionals from multiple disciplines is that regulatory solutions from each field can be thoroughly explored and creative solutions developed. In a city without a traditional planning toolbox, all tools available must be maximized and alternative options identified. The team creates development capacity by meeting with change agents, coordinating interests and breaking through any barriers to project implementation, ensuring that the plan will get built. Combining expertise in a variety of fields, the team formulates specific prioritized projects to regenerate activity around Midtown's Ensemble/HCC light rail station and enables a core team of people in the community to move those projects forward when the creation of this book is complete.

MORRIS ARCHITECTS
Project Manager, Planning and Architectural Design

DESIGNWORKSHOP
Planning and Public Realm Design

bae Bay Area Economics
Real Estate Economics and Development Advisory Services

CDS Market Research Community Development Strategies
Market Research and Strategic Urban Analysis

Nelson|Nygaard consulting associates
Transportation and Parking

WALTER P MOORE
Transportation, Civil, Parking

KNUDSON
Public Involvement

The interdisciplinary team compiles qualitative data from field observations to understand how the area is used.

Maps highlight the systems in the study area such as traffic circulation and pedestrian amenities.

Analysis of current market data, such as price per leasable square foot and cost estimates on new projects in the neighborhood, provides valuable information on demand and development capabilities.

The Meaning of Place

Formulating a plan that grows from the existing patterns of development is the key to creating continuity in the built environment. The Meaning of Place is derived from the existing urban fabric, and revitalization comes from enhancing that sense of place. There is an emotional component to identifying a sense of place, which is based on how people feel about and use spaces. Enhancing a sense of place begins with a detailed analysis of the built environment, using first and second hand information, and follows with a synthesis of information that leads to identifying strengths and opportunities. What is important to the revitalization of the study area is to create a coherent, identifiable neighborhood to serve its residents better and integrate consistently into the overall urban pattern.

Field Work

The interdisciplinary team formulates a comprehensive understanding of the study area's existing conditions through primary data, first-hand field observations and interviews. The team examines the built environment on a block-by-block basis, focusing on how people use the area and how key characteristics such as systems and infrastructure can be improved. The team compiles data and analyses on area systems including bus and light rail transit, pedestrian and bike circulation, streetscape amenities, parking and utilities including sanitary, water, storm and electric lines. Examining the circulation of traffic through the grid street system includes directional traffic counts on thoroughfares, collectors and streets in addition to examining pedestrian and bicycle circulation. The team creates a series of maps to illustrate characteristics of the study area such as parking, transit patterns, land use activities and streetscape amenities. To further understand the real estate market in the area, the team conducts interviews with local real estate professionals and developers to better understand the market, in addition to collecting data on projects nearby that serve as successful development case studies. First-hand data collection is an important piece to gaining an intimate understanding of the study area, how it is used and its potential for improvement.

Reference Materials

Data collection for the plan also comes from a variety of secondary sources. There are pre-existing plans and regulations manuals that the team references to provide consistency with the recommendations of the Study. Specifically, two documents relate most directly to the implementation plan: the "Transit Corridor Ordinance" (Houston City Council, 8/19/09) and "Building Houston's Competitive Edge: Transit-Oriented Development for the Ensemble/HCC Station" (US. EPA, 10/27/06). Presiding regulations on systems throughout the study area reveal plan limitations or areas for negotiations. Understanding the requirements for municipal regulations on criteria like open space and utility and right-of-way easements is important to creating solutions that require either no special exceptions or an attainable variance.

Team marketing experts research critical information on the current market, trends in development, and keys to triggering revitalization activity. Reviewing historical data on land transactions, the team identifies dramatic price increases since 2004 that have held strong during the current economic downturn. The team uses market data to identify solutions that can eliminate the disparities that make development projects financially infeasible. The team analyzes regional, local and Midtown market areas to understand current potential and anticipate future growth.

Sources for travel data included HGAC regional travel demand model 2009 output and 2000 U.S. Census data for modes not covered by HGAC. Market data for land prices and development costs worked out in back-of-the-envelope proformas reveals details about the private market and what it requires to stimulate participation in redeveloping underused properties in the district. Other data referenced includes parking counts taken by the study team and survey data from the Urban Research Center, as well as code information from CenterPoint Energy, ordinances from the City of Houston, and crime statistics from the Houston Police Department. Reference materials include the City of Houston's Major Thoroughfare and Freeway Plan and the Parks and Open Space Master Plan.

Synthesis

The team synthesizes primary and secondary data to complete an accurate picture of the study area's strengths, weaknesses and opportunities for change. The interdisciplinary team convenes for working sessions to analyze the facts and identify unique characteristics of the study area environment and its systems. Collecting comprehensive qualitative and quantitative data on the existing conditions makes for more viable recommendations. The practicality of recommendations is a key to project feasibility and must be derived from accurate data. The synthesis reveals clusters within the study area categorized into three distinct districts: the Elgin/Design District, the Station/Arts District and the HCC/College District. The interdisciplinary team's work examining a range of qualities on a block-by-block basis leads to a more comprehensive understanding of the meaning of place in the study area.

Group discussions at public meetings reveal key details about the study area.

The interdisciplinary team puts their heads together to evaluate existing conditions and synthesize data from the study area.

Team members collected in-field data on traffic flows.

Sensible Solutions

This implementation plan will not sit on the shelf. Change agents in the community will reference it throughout their decision-making and approvals processes. They will do this because the plan is a detailed guide on how to get projects built. It provides valuable information on local regulations and practical information for public and private sector organizations. The interdisciplinary team evaluates each project to ensure that it is legal to complete, or if it is not, there is a suggestion on how to make that project legal through various achievable negotiations or variances. Concessions in the areas of economics, regulations and politics are worked out before presenting recommendations. This implementation plan is only as good as it is feasible; the solutions have to make sense.

An intervention in the study area is needed because the redevelopment of underutilized properties around a major transportation investment, the light rail, is not happening naturally. The situation worsened with the recent economic downturn, but was identified as a problem beforehand. The market is currently stifled by increases in property values around the light rail corridor, and market demand has not caught up. The team completes a comprehensive analysis of market data and identifies opportunities to close the financial gap between development costs and market prices. Participation from both the public and private sectors provides solutions. Opportunities for potential partnerships are identified through meetings with local economic development agencies, city departments and private developers. Identifying funding sources and regulatory waivers is critical to closing the financial gap.

Reviewing regulatory barriers to the type of development envisioned in this plan, the team identifies potential concessions and alternatives. The regulations component is the most important piece to create recommendations for the study area. Knowing local municipal codes and regulations, particularly those conflicting with the desired outcomes of the vision, allows the team to specify what accommodations need to be made to get projects built. Knowing the existing policies and tools gives the team a clear set of parameters through which a realistic plan can be written. Going a step further, the team connects with regulatory agencies to test out variances and gather information on alternative methods. This step is intrinsically linked to building political will and creating development capacity. Elected officials need to encourage city agencies to support approvals on projects that comply with this vision. Additionally, a panel of real estate advisors reviews the study in its final stages. Economic assumptions and study recommendations are discussed in detail and vetted for their abilities to trigger new development and overcome barriers to change. The process itself of vetting these recommendations and implementation projects with decision makers in the private and public sectors improves their potential for getting built because it extends the range of ownership of the plan itself.

The Ensemble/HCC Livable Centers Study identifies leaders to carry the plan forward. These change agents work in the Study area today and make decisions that will impact its future. The Study is a documented reference for all the people contributing to the vision, but implementation of the Study recommendations would be very difficult without streamlined leadership to push the agenda forward. Ultimately, the torchbearer is not one agency or organization, but a variety of players working on current and future projects. Design plays a large role in this package of projects and strategies for revitalizing the study area. But design is not a formula independent of place; a clear strategy must be closely linked to activities and functions in the area today and proposed for the future. The mission is to transform the built environment to encourage a more efficient and comfortable use of transportation options. The solutions are a combination of partnerships between change agents and design solutions to create a more dynamic public realm.

There are better uses than surface parking for lots along the light rail line, but encouraging the private market to respond requires creative solutions.

Simple design solutions that make pedestrians more comfortable can be the key to generating more activity on the street.

Solutions must follow patterns of development that work, like this historic building in the study area that houses a variety of destinations and encourages an active pedestrian environment.

The Importance of Community

The goals of creating an economically vital, walkable, mixed-use place begins with good design and planning, but the power to realize the objectives of a plan lies in the community - the individuals, organizations, institutions and businesses that are, and will be, the enduring actors and change agents. In an environment with few land use regulations and no adopted citywide master plan, political will is the key to getting projects built and the glue that binds the vision to a place. Intrinsically linked to political will is the role of the community in influencing elected officials and local leaders. Delicate coordination of community and local agency support in conjunction with the private sector allows projects to move forward. A key to success is creating a sense of ownership of the plan at all levels and developing strong connections with community change agents. This plan is essentially a contract between all the change agents that reflects their consensus on a shared vision and how to get there. The study process has a finite end date, and the plan must go beyond the interdisciplinary team of consultants to find the torchbearers, the individuals and organizations that will ultimately implement pieces of the plan over time.

Development Capacity

Plans, and neighborhoods for that matter, do not happen without a proactive effort from the community. Developing capacity for change is essential to creating a successful plan. To build capacity, the team focuses on engaging key change agents in developing a vision for the study area. The study team facilitated discussions among property and business owners, local institutions such as churches and the community college, and other organizations with a specific interest in the study area. These discussions led to ideas for catalytic projects, potential partnerships, and creative ways to eliminate barriers. The people who have the power and connections to create measurable change within the district are the people who increase the capacity for development.

Community Engagement

The team encourages all stakeholders to participate in the visioning process, but also works with several key change agents from public agencies, private development companies and local organizations. Community involvement for this study focuses on a Stakeholder Advisory Committee, which includes key change agents selected by the study team, the Houston-Galveston Area Council (HGAC) and the City of Houston (See Appendix of this book for more information). The task of the Committee is to review the progress of the Study at each stage of its completion and give input on the direction that the planned projects should take. The study team also calls on Committee members periodically to review specific project details. This input is critical to the ultimate success of the Study. Regular committee meetings occur informally throughout the planning process in addition to open public community meetings.

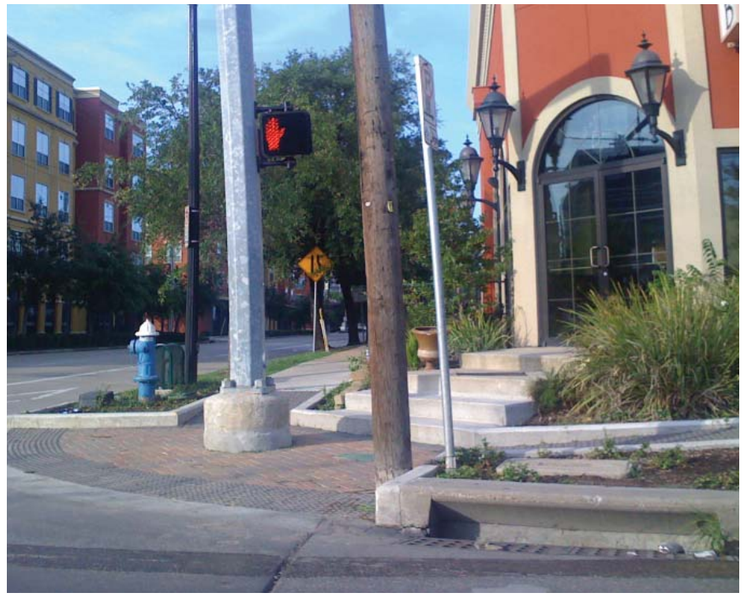
The public outreach strategy is centered on engaging those members of the Midtown area affected by the projects and improvements proposed by the Ensemble/HCC Livable Centers Study. The team contacts the appropriate public officials, motivates the stakeholders, and energizes the private property owners to ensure their collective participation in implementation. Notices for public meetings are emailed to stakeholders in addition to USPS mailers to property owners and bulletins posted conspicuously at various local businesses. Early dissemination of the notices allows for their posting in newsletters and end of year reports of the individual organizations.

The Study schedule is divided into four tasks, and at the completion of each task, there is a public workshop event with the community. At Task 1, the team presents a general needs assessment which is refined through community input. Community meetings link the study team to data on first-hand experiences in the study area. The people that operate regularly within the study area have the most intimate knowledge of how the space functions. Identifying the strengths and weaknesses of the area's usability provides critical data for the study team to understand opportunities for and challenges to enhanced mobility. Task 2 is the development of a conceptual plan that identifies strategic projects and policies. The presentation to the community at this stage of the process results in valuable feedback on potential redevelopment projects and their impacts. Task 3 is the creation of designs for specific proposed recommendations to improve mobility, enhance identity, and create a stronger sense of place. And, Task 4 is the implementation plan for the proposed projects with details on who is involved and how to get it approved and funded.

Throughout the planning period, the team holds meetings with the Stakeholder Advisory Committee as well as with local developers, agencies, and organizations to consider possibilities and bring ideas to the table for discussion. Each discussion generates ideas and solutions, which are then further explored for feasibility, vetting the details with local agencies and funding sources. It is a reiterative process that requires multiple parties are involved throughout a series of discussions, and ultimately a program is developed where barriers are eliminated and capacity for projects is built.

The City Code Enforcement building and its adjacent parking lot will be ready for redevelopment when the department moves to a new facility in March 2011; this is a key redevelopment opportunity for the neighborhood.

Property-owner RHS Interests can help make an Independent Arts Collaborative (IAC) building possible on a city-owned surface parking lot by providing parking for the new building on the adjacent parcel in a new mixed-use parking garage with ground floor retail.



A traffic signal and utility pole are located in the middle of the sidewalk at the main entrance of a business. Better coordination could have created a more sensible solution.

The Power of Design

Design solutions to area challenges address critical issues identified through a comprehensive, block-by-block analysis of the study area. The interdisciplinary team collectively reviews all the data and information on the study area. Continuing a synthesis of information, particular themes arise, and the team creates a range of recommendations to improve the functionality of the area. Places are redesigned to encourage activities like walking, biking and taking public transit in order to enhance connectivity and access. Design solutions can intensify activities within the three districts, connect the districts more effectively and encourage new development patterns that support a more dynamic pedestrian realm and encourage multi-modal transportation. These revitalization objectives can be achieved through the power of design.

Districts

The team identifies a three-district theme where clusters of activity are categorized into the Elgin/Design District, the Station/Arts District and the HCC/College District. The Design District to the east centers around High Fashion Home on Elgin and includes several other interiors retailers. The Arts District is a cluster of arts and entertainment venues including a theater, night club and restaurants located around the Ensemble/HCC light rail station. The College District is the community college campus that draws tons of students to the area regularly. These centers of activity form the foundations for revitalization efforts. Study recommendations and implementation plans build from the strength of those activity nodes. Cross marketing district activities and creating better connections between districts help capitalize on potential synergies. Intensifying activities in the district with new developments and businesses will create a critical mass for a more dynamic street life.

Streets

Pedestrian streetscape improvements will make an enormous difference in improving connectivity within the study area. Using data from systems analysis, the team identifies a priority route for improvements along a Z-shaped corridor, the 'Z Connection,' that can link the three districts along Elgin, Milam and Holman streets. A more unified urban fabric around the Ensemble/HCC light rail station is created through better pedestrian access to that station. New streetscaping creates a more comfortable space to encourage pedestrian trips, maximizing opportunities for shade and breeze, protecting pedestrians from vehicular traffic, and linking the three districts. On-street parking spaces with traffic-calming bulb-outs at intersections provide convenience for those arriving by car while protecting pedestrians from car traffic. Way-finding signage contributes to an overall branding of the area while making pedestrian navigation to area destinations such as theaters, restaurants and plazas more convenient. Good sidewalks encourage walking, and as an extension of the public realm parks offer additional public activity centers. The team recommends constructing a park at the western side of the study area so that all properties are within a 5-minute walk to a park. Improving the function of the study area can be achieved through a prioritized list of pedestrian streetscape improvements and by marketing district assets with way-finding signage. Through design improvements, we can create an overall more comfortable public realm.

Private Development

Private development can make a significant impact on the success of revitalization efforts. Numerous vacant lots provide opportunities for new construction. The form of new buildings must add a cohesive line to the streetscape. Design elements can improve pedestrian comfort by creating transparent and active ground floor elevations. This translates to lots of ground floor retail spaces with windows where customers can see out and pedestrians can look in. Active storefronts are those that spill out onto the sidewalk with people or windows that open up to visually extend the interior space into the public realm. The team identifies key projects and partnerships that can serve as catalysts to create a new generation of activity in the study area and intensify the character of the three districts. New development projects trigger spin-off development, and when designed appropriately they can reinforce the goals of this plan to create a human scale, increase activity, and improve how the study area functions.

Park space enhances the public realm and can be designed as a valuable destination and meeting point within a neighborhood.

Buildings with transparent ground floors and active facades encourage pedestrian activity.

Pedestrian-only streets can create intimate public realm spaces for outdoor cafe seating and festivals or markets.

Appendix

Stakeholders

The Ensemble/HCC Livable Centers Study team created a Stakeholders Advisory Committee made up of local leaders who were consulted throughout the study period. The list frequently expanded depending on what issue or detail the team was working on. Here are some of the people we talked with throughout the Study:

Breakfast Klub: Marcus Davis
City of Houston Department of Real Estate: Bob Christy
City of Houston Planning & Development Department:
Marlene Gafrick, Michael Kramer, Amar Mohite,
Diana Ponce de Leon
City of Houston, Chief Development Officer: Andrew Icken
City of Houston Parks & Recreation Department:
Joe Turner, Renissa Garza Montalvo
City of Houston, Parking Management:
Liliana Rambo, Paul Dugas
City of Houston, Public Works: Mark Loethen, Michael Y. Ereti
Continental Club: Pete Gordon
Council Member Wanda Adams (District D)
Council Member James Rodriguez (District I)
Crosspoint Properties: Matt Stovall
Diverse Works: Diane Barber
Downtown District: Bob Eury, Lonnie Hoogeboom
Ensemble Theater: Janette Cosley, Eileen Morris,
Greater Southeast Management District: Jason McLemore
Houston-Galveston Area Council: Meredith Dang, Jeff Taebel
Holy Rosary Church:
Fr. Bordenave, Bob Fretz, Tim Belton, Fr. Konkel
Houston Arts Alliance: Jonathon Glus
Houston Community College System:
Dr. Art Tyler, Winston Dahse, Karun Sreerama
Jewett Consulting: Jill Jewett
Main Street Coalition: Ian Rosenberg
METRO: Karen Marshall, Ernest Chou
Midtown Civic Club: Russell Hruska
Midtown Management District:
Matt Thibodeaux, Cynthia Alvarado, Marlon Marshall
Neartown Association: David Robinson
Parks Board: Roksan Okan-Vick
Trinity Episcopal Church:
Daniel Barnum, James Cowan, Gayle Davies-Cooley,
Lawrence Chapman, Rev. Hannah E. Atkins
Search Homeless: Thao Costis
South Main Baptist Church: Dr. Steve Wells
South Main Alliance: Susan Young
State Representative Garnet Coleman
RHS Interests: Robert Schultz

Meetings

The interdisciplinary team conducts presentations and holds discussions using an open house forum at various intervals throughout the study period. Presentations provide an overview of the study process and objectives. Printed exhibits illustrate key findings and proposals being developed by the study team. Design team members conduct informal and topical group discussions at various stations following presentations.

During the study period the team held the following meetings:

- July 7, 2009 -
Kick Off Meeting

- August 24, 2009 -
Task 1 Presentation

- September 24, 2009-
Stakeholder Advisory Committee Meeting

- November 10, 2009 -
Task 2 Presentation

- December 10, 2009 -
Public Meeting

- March 18, 2010 -
Task 3 Stakeholder Advisory Committee Meeting

- April 1-5, 2010 -
Reality Check: Real Estate Advisors Panel Interviews
Panelists: Lance Gilliam, Moody Rambin; Robert Fiederlein, LAN;
John Darrah, GID Urban Development Group; Rob Tullis, GID Urban Development Group; Matt Stovall, Crosspoint Properties

- April 6, 2010 -
Regulations Meeting
Financing Meeting

- April 15, 2010 -
Task 4 Presentation to the Client, Stakeholders in attendance

Additional informal meetings were held with key stakeholders throughout the study period.

Participants talk with the interdisciplinary team about presentation boards at the Public Meeting (December 10, 2009).


SEARS

Identify Districts

2

A city is made of neighborhoods, and a neighborhood is made of districts. To be strong, a district must have an identity, a mix of complementary uses and activities, appropriate well-maintained integrated systems and connections to other districts.

Midtown today is the product of 100 years of development. Over that time, the neighborhood has gone through at least four distinct stages, each of which has left its marks. In the study area, three distinct districts have emerged. None of them can be characterized as vital, but they do have distinct identities, architectural characters, land use patterns, and activity.

If Midtown is to become a livable, vital, neighborhood, it needs multiple districts. The easiest way to achieve that is to strengthen the districts that are already there by multiplying activity, filling in gaps, and creating connections. There are three distinct centers of activity in the study area today that provide a basis on which to build on. Along Elgin Street a series of home decor shops have arisen to make up a small mass of home goods retail. The Elgin District can be built upon to emphasize this character and become a Design District destination. A second area around the Ensemble/HCC light rail station presents a cluster of arts and entertainment venues. Increasing activity in this area with more businesses and destinations could emphasize a new Arts District centered around the station. A third district is made up of the Houston Community College campus to the east. The area has already seen new retail businesses move in to attract student buyers, but there is potential for much more. This HCC District can be enhanced to become a College District with a vibrant pedestrian environment supporting a growing student population.

The following pages look at the evolution of Midtown, its strategic location and the particular qualities that make it unique, and then propose a strategy for strengthening that character while intensifying and spreading activity. The vision is captured by the creation of three districts, which are already there but not well defined: the Design District, Arts District and College District.

Main Street corridor, looking south towards the Ensemble/HCC light rail station

Relationship to the City

History

In the last 15 years, Houston's Midtown has gone from no man's land to development hotspot. But this is only the latest in a series of changes in Midtown, a neighborhood that has changed its character at least three times in a century.

Around 1900, Midtown was Houston's suburban frontier. As the downtown retail and office core expanded, the rich moved southward, and what was then known as the South End became Houston's most desirable residential neighborhood. A few remaining mansions, now used as office space, survive from that era, as do several splendid old churches.

By the late 1910s, development was moving westward to Courtlandt Place and the Montrose Addition (now Neartown) and southwards to Shadyside, adjacent to the Rice University campus. Midtown remained prestigious, but it became more commercial. Main Street was developed with Spanish-Mediterranean retail and restaurant buildings. Excellent streetcar connections to Downtown attracted two- and three-story walk up apartment buildings. Main Street remained Houston's most fashionable retail corridor into the 1950s, when residents and businesses alike decamped to the suburbs.

By the 1960s, much of the old residential fabric was gone and retail was in terminal decline. A few office buildings were built in this period, but it was soon clear that the Galleria and Greenway Plaza were more desirable locations. Midtown became a blighted area of vacant lots, empty storefronts, light industrial, and a few resilient institutions.

Through the 1970s and 1980s, many attempts were made to revitalize Midtown. A few townhouses and office buildings are testaments to forward-thinking architects and developers. But the most effective revitalization of this area came from new residents from abroad. In the mid 70's, Vietnamese immigrants saw cheap land and empty buildings as an opportunity to build their own neighborhood. Travis and Milam became Vietnamtown, lined with restaurants, stores, and travel agencies. As the Vietnamese community became more prosperous in the 1980s and 1990s, its businesses began moving to the suburbs. By then, however, bigger change was under way.

Revitalization came in earnest in the 2000s. It was driven by a new national trend towards the revitalization of inner cities and an increased market demand for living closer to Downtown, which had already revitalized Neartown and the Museum District and completely remade the Fourth Ward. Midtown sprouted new apartment buildings, townhouses, and retail to serve the new population. This boom preceded the construction of light rail on Main Street, but light rail further reinforced Midtown's status as an inner city development frontier. Even with the recession of 2008, this development has continued. A lot of empty land remains, suggesting that this boom has not played itself out.

1910s house, Austin Street

Isabella Court, 1928

Henke-Pillot South End Store, 1923, transformed into Vietnamese retail in 1980s

Ventana at Midtown, 2001

Study area, 1891 (Source: LIbrary of Congress)

Study area, 1915 (Source: University of Texas)

Location

The Ensemble/HCC Livable Centers study area occupies a key nexus in Houston's urban core. Main Street remains, as it has been since Houston was founded, an axis of commerce, culture, and education. To the north is Downtown, one of the nation's top ten employment centers, with a still growing skyline, the second largest concentration of theatre seats in the country, and an expanding residential community. To the south are the Museum District (home of the busiest museum in the United States outside of Washington and New York), the recently renovated Hermann Park, and the world's largest medical center (the Texas Medical Center), which itself has more jobs than downtown San Diego or Salt Lake City, and more students than UT-Austin.

Westheimer/Elgin, though, has its own claim as Houston's Main Street. It links the University of Houston to the Galleria and Westchase, Houston's second and fifth largest employment centers. Along the way, it passes a cross-section of Houston's diversity: the Hispanic East End, the African American Third Ward, the Vietnamese precinct in Midtown, the mixing pot of Montrose, the old money of River Oaks, and the petroleum engineers of West Houston.

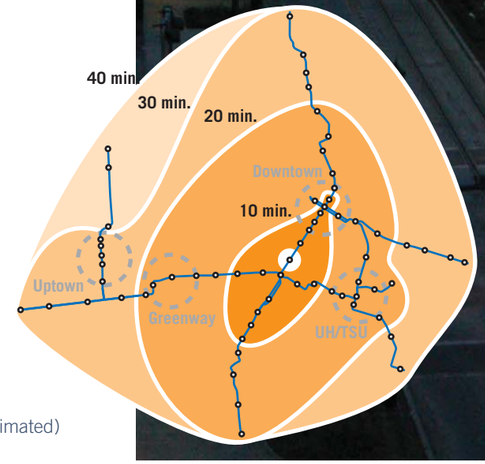
Thus, Midtown's greatest asset is its location. Midtown is within 5 miles of 4 of 5 of Houston's major employment centers, all of Houston's major cultural institutions, five universities and half a dozen graduate institutions, and 385,000 residents.

Midtown is also extremely connected. Every north-south street leads directly to Downtown; Fannin and San Jacinto connect to the Medical Center and Museum District; Elgin and Alabama lead to the University of Houston and Texas Southern University; Richmond, Alabama, and Westheimer lead to Neartown, Greenway Plaza, and Uptown. There are on-ramps to the Southwest Freeway (US59), the North Freeway (IH45), the Gulf Freeway (IH45), and the South Freeway (SH288) all within a few blocks of the neighborhood.

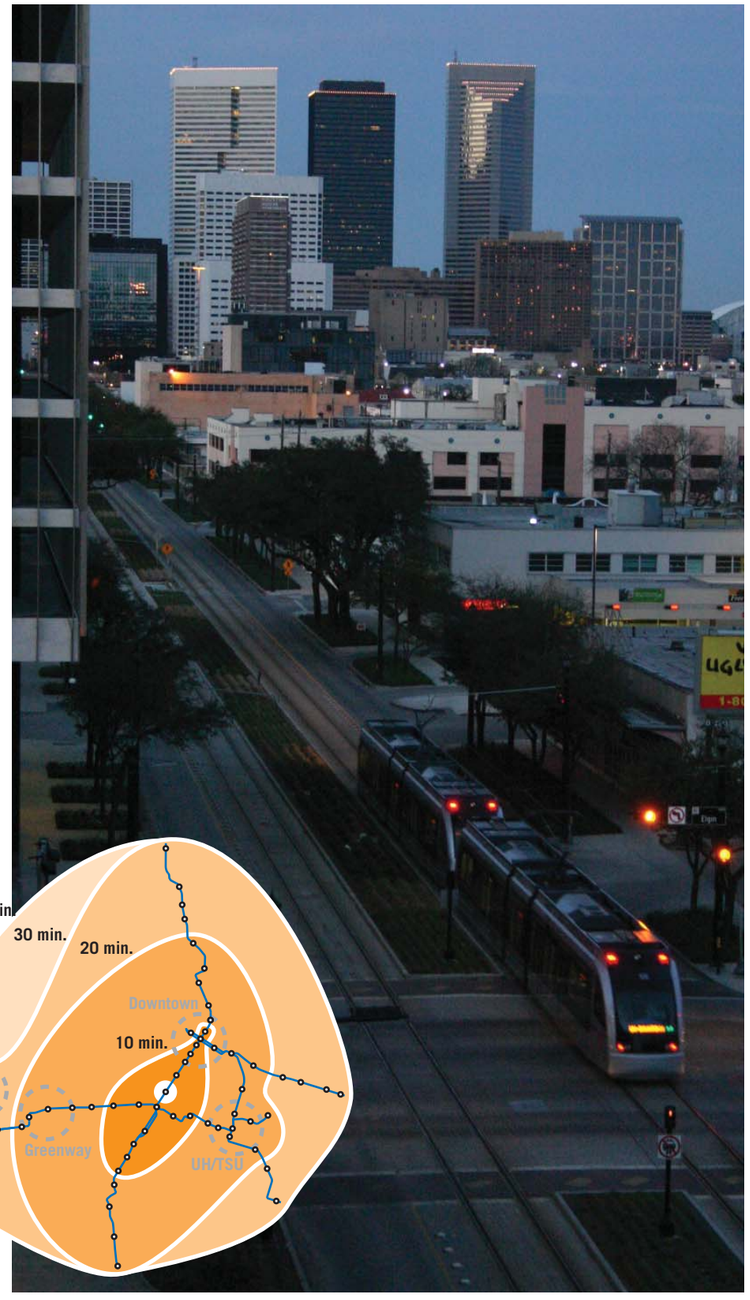
Midtown will be the center of Houston's transit system. The Main Street light rail line, with more riders per mile than any other New Starts light rail line in the United States, already connects Midtown to Downtown, the Museum District, and the TexasMedical Center. The planned University Line will add east-west service to the University of Houston, TSU, the University of St. Thomas, Neartown, Greenway Plaza, and Uptown. The entire 39-mile system will connect 210,000 residents, 181,000 students, and 478,000 jobs to the study area. It is projected to carry 211,000 boardings a day on 38 miles of track.

Houston has seen significant redevelopment in its urban core. Inner city neighborhoods, in particular those to the west of Main Street, have experienced widespread renovation of existing homes and construction of new townhouses, condominiums, and apartment complexes. From 1990 to 2000, the median income within 5 miles of the study area increased 68% from $22,000 to $37,000. This has driven demand and led to retail and restaurant construction. In the mid 2000s, that development started to spread eastwards into the Third Ward and East Downtown; that has nearly stopped with the recession of 2008 but the long-term trends seem likely to continue.

Despite its centrality, Midtown's redevelopment is still unfinished. Location is important, but it's not enough.



Light rail travel times from Ensemble/HCC Station, 2012 (estimated)



Main at Elgin with Downtown beyond

The Ensemble/HCC Livable Centers Study area is in a key location connected to numerous job centers around the city

Neighborhood Identity

Houston is flat; topography rarely defines neighborhoods. Instead, man-made edges define Midtown. Those edges have created very sharp distinctions that have resisted change, giving Midtown a distinct identity from its neighbors.

Midtown began as a natural extension of Downtown. Into the 1910s, the southern end of Downtown – where Houston Pavilions and the Downtown Transit Center are today – was primarily residential. Midtown was the extension of that neighborhood. As the city grew further south, the same grid was extended into the current Museum District. At their birth, these three neighborhoods were very similar and contiguous.

To the west though, a boundary was created early on. The original street grid created by the Allen Brothers turned 33 degrees off of due north; the new street grid developed in the Fourth Ward, Courtlandt Place, Westmoreland, and the Montrose Addition – the neighborhoods that make up today's Neartown – was aligned east-to-west. Where the street grids met, different landowners made different choices, creating a ragged edge where one grid collided with another. Thus, a neighborhood boundary was created early on, and it has persisted.

To the east was a boundary of another sort: Houston's traditional "color line." It marked the distinction between the white South End (today's Midtown) and the African-American Third Ward. Dowling Street in the Third Ward was for African-Americans what Main Street was for whites: a thriving retail street and the center of the community.

Midtown's boundaries became set in concrete in the 1950s and 1960s as a series of freeways were cut through the city to reach Downtown. Spur 527 was extended along the ragged grid edges, establishing a definitive boundary between Neartown and Midtown. Today, the west side of the freeway is an intact residential neighborhood while the east side is a mix of commercial buildings and vacant lots. The IH 45 Pierce Elevated separates Downtown from Midtown. When it was constructed in the early 60's, the remaining residential and small commercial north of the freeway gave way almost instantly (before the freeway was even done) to office towers. A lasting line was drawn. To the east, SH 288/ US 59 reinforced the color line and moved it a few blocks westward. Even as legal segregation ended, informal segregation remained, with a new concrete moat defining it. To the south, US 59 created an altogether new boundary between Midtown and the Museum District, which remained more residential and more intact than Midtown.

Today, Midtown is surrounded by four distinct neighborhoods. Downtown is dense, consisting mainly of office tower and high-profile civic and cultural uses, interspersed, particularly at the edges, with vacant lots waiting for demand for more high rises. Neartown is largely residential, with small-scale commercial on major streets. It's a neighborhood of old bungalows, new townhouses, trendy restaurants, coffee houses, boutiques, and tree-shaded streets. The museum district is similar, but a little rougher around the edges; it has less commercial activity, but boasts an exceptional concentration of museums. The Third Ward remains heavily African-American; it suffered from severe blight in the 1960s and 1970s that left it with many vacant lots and rundown buildings in the hands of absentee landlords. However, a strong sense of neighborhood pride has remained, and institutions like churches and Project Row Houses and a handful of strong civic clubs have created islands of stability. In recent years, development has crossed SH 288 in the form of new townhouses.

The freeways continue to act as barriers. Walking from Midtown to the Third Ward across nearly 400 feet of below-grade traffic is forbidding, and only major streets make that connection. The freeways to the north and south, while narrower and less disruptive to the street grid, form a strong psychological barrier and feel unsafe at night. Spur 527 is partially elevated and partially at grade, severing most streets and providing only narrow sidewalks below. As it ends at Elgin, it releases traffic into the street grid, and high traffic volumes and oddly configured intersections discourage pedestrian traffic.

Within its barriers, Midtown stagnated. Building better connections to the surrounding neighborhood is key to continuing or moving forward to revitalize the area.

Alabama at Spur 527, looking towards Neartown

Neighborhood Connections Map

Downtown

Third Ward

Neartown

Museum District

Current Land Uses and Activities

Overview

Midtown's patchwork of land uses comes from its varied history. It was once a suburb. Later, the mansions of Houston's elite were converted into commercial and institutional uses. Retail buildings replaced some of them in the 1920s, and some light industrial moved in the 1950s. The study area itself has few surviving mansions. However, churches that served them have endured. Trinity Episcopal Church, Holy Rosary Catholic Church, and First Evangelical Lutheran Church are major anchors and notable structures in the area, and South Main Baptist Church is just to the south. Another institution, Houston Community College (HCC), is the largest landholder and user within the study area. They own 13 blocks, approximately 20% of the total land area. The historical Central campus is an anchor on the East side of the Study area. The Central Administration building on Elgin is the tallest office building in Midtown and anchors the North end of the study area.

For a long time, Midtown was a cheap place to buy land – really close to the Central Business District and the expanding Texas Medical Center. Since 2001, things have changed dramatically. Midtown is not cheap anymore. The rail changed that. Speculation has driven prices closer to downtown land prices and different kinds of land use are proving viable and desirable. The Midtown patchwork is getting richer.

The area has two major residential projects, the Calais and the Ventana. Both are market rate 'for rent' apartment complexes, built since 2001. Significant retail and entertainment uses have also emerged and Midtown has become a major restaurant destination. West of Main Street, along and around Elgin, the Mix and High Fashion Home opened in the past 5 years. Three long-standing Houston restaurants, Mai's, Brennan's and Damian's, are all near the Elgin corridor west of Main. Numerous other restaurants have recently opened north of Elgin both within and beyond the study boundary. Main Street at Alabama Street is another hot spot. Three popular restaurants and a taco joint live on one block with the Continental Club between Main and Travis, south of Alabama. This is also the locale of the Midtown Farmers market on Saturdays.

These destinations generate major activity at various intervals. There are several vacant or almost vacant blocks north and south of this important area. Most of them are currently used for surface parking lots during working hours and especially during peak restaurant and club hours. These empty parcels represent a significant opportunity for catalytic projects that build on the current activity.

Much of the rest of the study area is a mix of vacant land, various social services / non-profits and small parcels with low-density improvements. There are some scattered single-family houses including some newer townhouses in the NE corner of the study area. The pages that follow will look in more detail at activity generators, parcel size – vacant land, and condition of existing building stocks.

Elgin at Fannin and San Jacinto

LEGEND

- Retail
- Office
- Single Family
- Multifamily
- Institutional
- Governmental / Civic

BUILDING USE

Activity Generators

Street level activities and building uses that attract people at various times are a first step to a vital street life and an active, safe neighborhood. To contribute to the urban street life and energy, the buildings need to be mostly oriented towards and close to the sidewalk and the street. Building fronts should have significant transparency so that the activity on the inside animates the sidewalk, and vice-versa. Activities that spill out of stores and restaurants onto the sidewalk add further to the sense of place in an urban context. Midtown is starting to see a significant increase in retail/street level activity. However, in the span of the study area, street level activities that generate pedestrian intensity are still limited.

In addition to storefront activities, major destinations, plazas and significant, transparent building entries can contribute to an area's sense of place being secure and inhabited. Good examples of this in the study area are the churches and theatre – where crowds gather on sidewalks before and after events -- and the Houston Community College campus, which creates plaza and sidewalk activity at various times throughout the day.

The adjacent map illustrates retail building uses and street level transparency currently found in Midtown. The pattern of activity is fragmented. Areas of unbroken activity rarely occur in a contiguous fashion along a single block face. There are gaps created by vacant land, incompatible uses (opaque building fronts) and parking lots. Additionally, current activity occurs within limited time frames. The general absence of residential uses and office activities near the activity generators means there are many hours in the day when sidewalks are empty. Additionally, most people drive to their destinations, park as close as possible and then walk the minimal distances. The study area lacks the critical mass of activities that encourages people to park once and then spend extended periods moving between destinations on foot.

Julia's, Main at Alabama

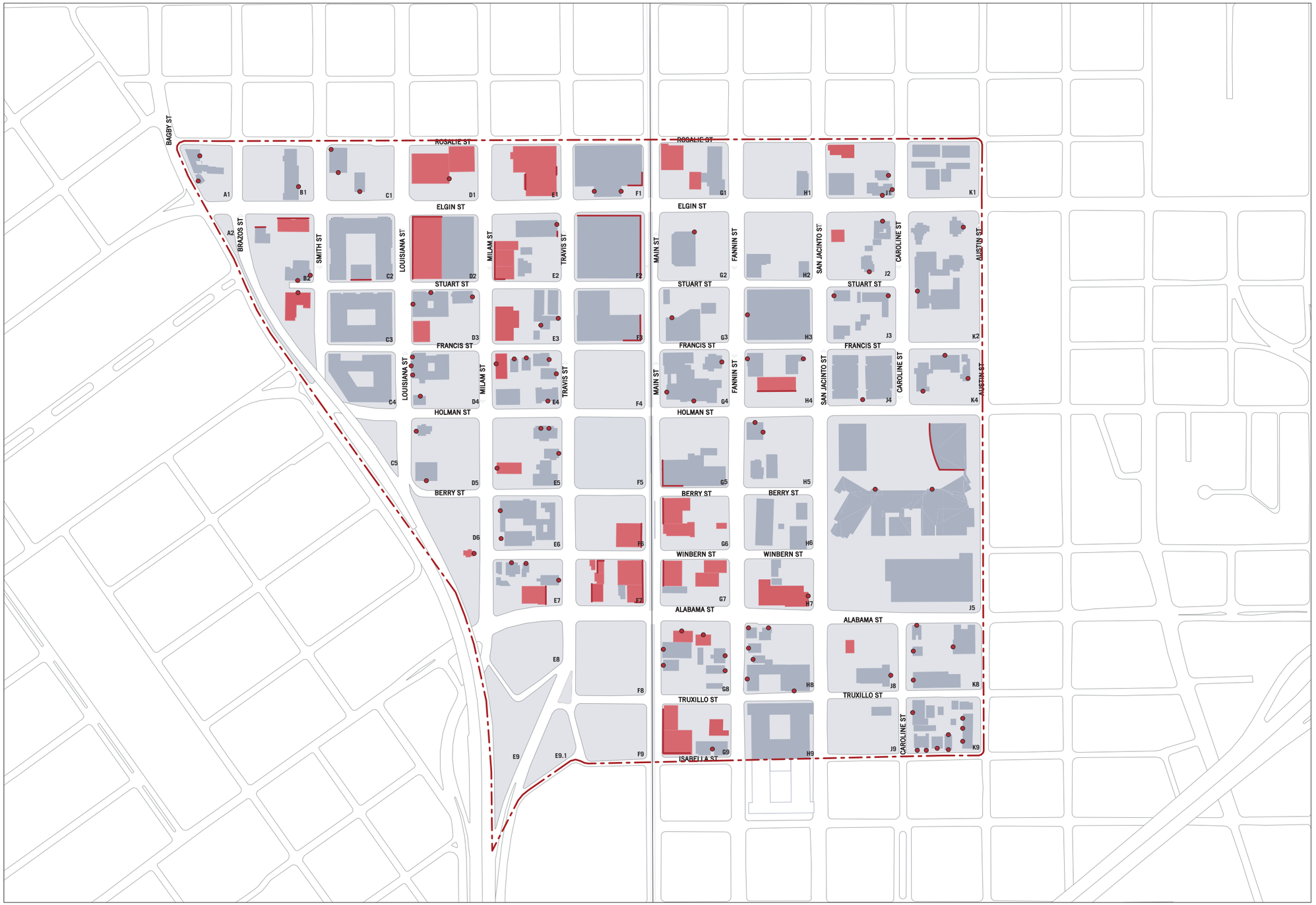
Ensemble Theatre, Berry at Main

Saturday morning farmer's market, Winbern at Travis

Retail building, Milam at Francis

Maple Leaf Pub, Elgin at Smith

Breakfast Klub, Travis at Alabama



LEGEND

- Retail
- Transparent Facade
- Entry

GROUND FLOOR ACTIVITY

Parcel Ownership

The 2006 study, "Building Houston's Competitive Edge: Transit Oriented Development for the Ensemble/HCC Station", identified parcel size and land assembly as a challenge to implementing significant catalytic, mixed-use projects in the area around Ensemble/HCC light rail station. The adjacent maps and tables below illustrate the range of parcel sizes, current larger assemblages and the pattern of vacant land in the study area. The study area has many small parcels, but two thirds of the area is owned in aggregations of larger than 1 block, while less than 10% is in ¼ block or smaller parcels:

Property Holdings	Square Footage of Property	Percent of Total Parcel Area
Less than a quarter block	324,636	9%
Quarter block to half block	471,355	13%
Half block to one block	434,387	12%
One block to two blocks	705,036	19%
Greater than two blocks	1,795,578	48%

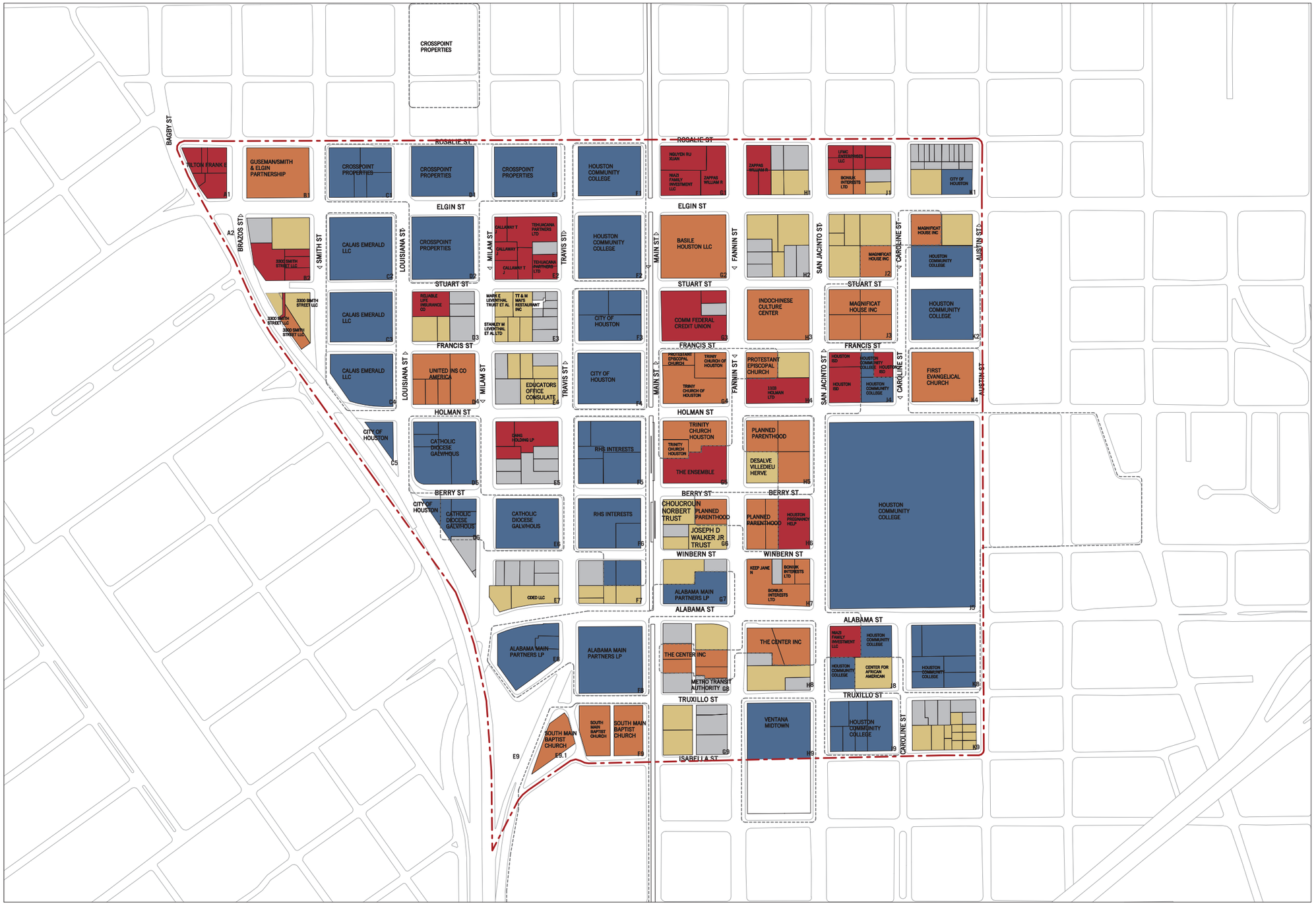
Much of the property in the study area is owned by institutions. Houston Community College has the largest holdings with just over 20% of the total holdings in the study area. Parts of their holdings allow for long term growth. The major churches together are the second largest owner and user. Holy Rosary Catholic Church and Trinity Episcopal Church are both fairly landlocked and do not have adequate expansion room, especially for parking. Planned Parenthood owns 1-1/2 blocks, but is expected to sell their property in the near term. The properties owned by Crosspoint, Alabama Main Partners, and Ensemble/HCC partners are targeting future development and the City of Houston property, which is adjacent to the Ensemble/HCC Partners property, will be vacated when Code Enforcement functions move to a new site outside the study area.

Major Land Owners	Square Footage of Property	Percent of Total Parcel Area	Contiguous Blocks	Vacant
Institutions + Social Service				
Houston Community College	783,856	21%	Y	Partial
Churches	329,431	9%	NA	N
Planned Parenthood	85,120	2%	Y	N
Government				
City of Houston	126,184	3%	N	Partial
Private Sector				
Crosspoint Properties	211,157	6%	Y	Partial
Calais Emerald LLC	157,210	4%	Y	N
Alabama Main Partners LP	132,085	4%	Y	Largely
RHS Interests	126,703	3%	Y	Y
Ventana Midtown	111,724	3%	Y	Y

Despite the ownership described in the chart above, about a quarter of the total study area consists of vacant parcels.

Vacant parcels and surface parking lots in the study area

Vacant lot, McGowen at Main



LEGEND

- Less than quarter block
  Less than 11,999 sf
- Quarter block to half block
  12,000 - 23,999 sf
- Half block to one block
  24,000 - 47,999 sf
- One block to two blocks
  48000 - 95,999 sf
- Greater than two blocks
  Greater than 96,000 sf

N

0' 50' 100' 200' 400' 800'

PARCEL OWNERSHIP

Building Conditions: Evaluating the Probability of Building Replacement

PROBABLE

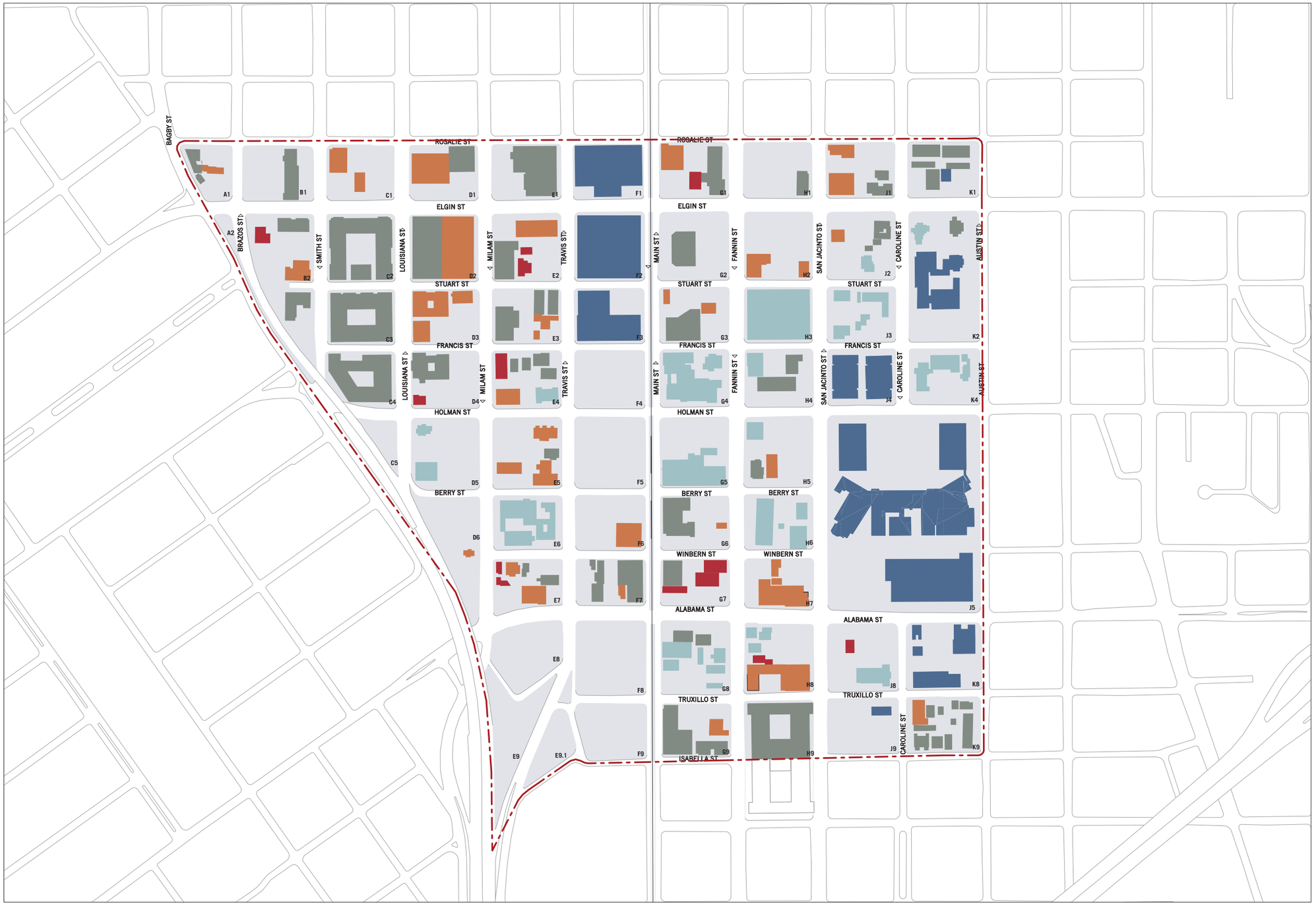
Buildings rated "***probable***" are buildings that are in bad condition or that are designed for a building use that is unlikely to persist given property values. These are likely to be replaced in the short term.

POTENTIAL

Buildings rated "***potential***" are older buildings that are still functional but may be too small or otherwise out-of-date. These may be replaced in the short term to enable a compelling development project, or may remain in their current use or be adapted for a new use.

UNLIKELY

Buildings rated "***unlikely***" have been built recently or significantly renovated in the last 15 years or that are historically significant. These buildings are likely to remain for the indefinite future.



LEGEND

- Probable
- Potential
- Unlikely
- Institutional
- Governmental / Civic

N

0' 50' 100' 200' 400' 800'

BUILDING POTENTIAL FOR CHANGE

Districts

Overview

Midtown lacks a consistent physical pattern. It is a series of districts, each with its own uses, character, and identity. Sometimes, these districts adjoin; sometimes, a few blocks of vacant land or inactive uses separate them. The study area can be defined by three districts: the Station District, the HCC District, and the Elgin District.

The first is held together by the Ensemble/HCC light rail station at the core of the study area. It developed at a much smaller scale than the Elgin corridor; the predominant form is one- and two-story 1920s retail buildings fronting on Main. At the south end of the station, these buildings contain a hip cluster of restaurants, stores, and clubs. At the north end of the station, the tower of Trinity Episcopal Church is the district's most prominent landmark. In between are antique stores, the Ensemble Theatre, and vacant lots.

The second district is driven by Houston Community College (HCC). The campus itself spreads from a large mega block onto several adjacent blocks, filling sidewalks and plazas with students between classes and at lunch. The college also sustains some adjacent retail. But neither the campus – which grew haphazardly – nor the adjacent uses have a strong sense of urban order.

The third district, along Elgin, is the densest part of the study area, with office buildings, apartments, and some multi-level retail. Before the 1990s, this was where a New Orleans-themed restaurant and office area met a Vietnamese retail strip; now, new high-end retail has connected the two areas. But, despite a concentration of activity, the pieces don't quite fit together.

All three of these districts are works in progress. The area transition is fueled by some local initiatives as well as market forces and uncoordinated private investments. The districts have some strong existing uses that can serve as anchors for new development. They have identities, which, although weak, can be strengthened. They are close enough to connect and build synergies, though those connections are currently weak.

These three districts can be the seeds of Midtown's future. Building on their existing characteristics the Station District can grown into a vibrant Arts District, the HCC District can become an energetic College District, and the Elgin District can evolve into an active Design District.

Station District

HCC District

Elgin District

EXISTING DISTRICTS

Station District

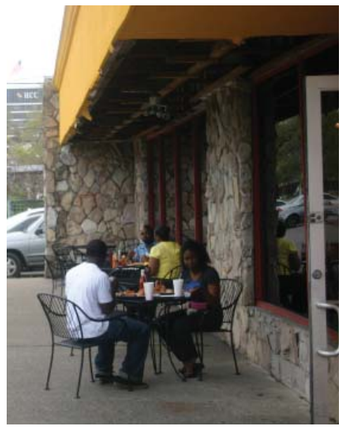
The light rail station is the nucleus of a small district at the south end of the study area. The activity generated by rail passengers going in all directions creates its own energy. But this is also the locale of some of the earliest signs of revitalization in this part of Midtown. Three restaurants, Julia's, T'afia, and the Breakfast Klub, opened on the same block within a year or two of each other, joining the Houston branch of the Continental Club, a well-known Texas music institution. They were followed by Tacos A Go-Go and other complimentary businesses. Monica Pope, sometimes referred to as Houston's Alice Waters, created T'afia and the Midtown Farmers Market. The market attracts vendors and hundreds of people from adjacent neighborhoods every Saturday morning. Julia's anchors the corner and serves as an important sign for passengers on the light rail. The Breakfast Klub has become an institution. Customers line up down the block on weekends for wings & waffles, catfish & grits and hot coffee. This block is a great example of revitalization driven by pure entrepreneurism and creative energy.

Founded in 1976, The Ensemble Theatre, just to the north and on the east side of the light rail station, calls itself "one of the only professional theatres in the region dedicated to the production of works portraying the African American experience." The Ensemble is another manifestation of the creative energy that characterizes this part of Midtown and the study area, and its building in an important landmark on Main Street.

Across Holman Street from the Ensemble Theater is Trinity Episcopal Church, an institution that has endured all of the transformations in the area. The Church tower is an important landmark, and the church community has been an active proponent of revitalization.

The transit area has all the beginnings of a great neighborhood district with an emphasis on entertainment, dining and street life.

Light rail station, Ensemble Theatre, and Trinity Episcopal Church



Breakfast Klub

Tacos A Go-Go

Julia's, Tacos A Go-Go, and Continental Club

N

0' 20' 40' 80' 160' 320'

LEGEND

Retail

- A1 Vacant Retail Building
- A2 Norbert Antiques
- A3 Richards Antiques
- A4 Tiger Automotive
- A5 Sig's Lagoon
- A6 Bridal Store
- A7 Retail Buidling

Restaurant

- B1 T'afia
- B2 Breakfast Klub
- B3 Tacos A Go Go
- B4 Julia's Bistro

Bars and Clubs

- C1 Continental Club
- C2 Big Top Lounge
- C3 The Mink

Institutional

- D1 Trinity Episcopal Church
- D2 Ensemble Theater

STATION DISTRICT

HCC District

The Houston Community College (HCC) central campus anchors the eastern third of the study area. The College owns land from San Jacinto all the way east to the South Freeway. The historic campus is symbolically oriented to Holman, on an axis with Caroline. A lot of foot traffic is generated to and from the campus from the west along Holman and parallel streets to the south. The core of the campus sits on a super block of 6 full blocks. Several buildings and older houses in the surrounding neighborhood have been adapted to College uses.

First Evangelical Lutheran Church is one block north of the campus on Caroline. It is a handsome 1930s Italianate building and Texas Historic Landmark. A multi-faceted service agency, the Magnificat House, occupies multiple buildings on 3 different blocks along Caroline. Most of these structures have a residential scale. A couple older homes have been converted for use by agency clients. Caroline Street has a well-kept quality. The street terminates to the south at the HCC campus and joins a rapidly changing townhouse district on the north side of Elgin St.

The area west of HCC, from San Jacinto to Main Street, is generally a patchwork of small commercial, some converted residential scale buildings and vacant land. Only a new strip center at Holman and San Jacinto addresses the student market. This is the area that transit riding students pass through to get to the campus. Though Holman Street is the main street that arrives at the front door of HCC, most pedestrians take the shortest path along side streets south of Holman – essentially arriving at the campus from the side.

The south end of the campus is even less well defined. The strong identity established on Caroline is totally lacking on Alabama, which feels like the back door of a different institution. South of Alabama, the neighborhood character changes completely.

HCC provides a solid anchor for the east end of the study area. The social services mostly to the north of campus also provide stability and 'ownership' of the neighborhood. There is strong identity here. However, there is a gap in connectivity and identity on the west and south sides of campus. The area will benefit from a strengthening of identity, on all sides, better connections and improved fabric between campus and the Ensemble/HCC light rail station.

Holman at Austin

Holman at Caroline

San Jacinto at Berry

N

0' 20' 40' 80' 160' 320'

LEGEND

Retail

- A1 Jackson Hewitt Tax Service
- A2 Textbooks for Less

Restaurant

- B1 Subway
- B2 Boba Cafe

Institutional

- C1 First Evangelical Church
- C2 Magnificat Buildings

Governmental

- D1 HCC Business Career Center
- D2 HCC J. Don Boney Building
- D3 HCC San Jacinto Building West Wing
- D4 HCC San Jacinto Building Learning HUB/ Science
- D5 HCC San Jacinto Building
- D6 HCC JB Whiteley Building
- D7 HCC Central Plant
- D8 HCC SIS Building
- D9 HCC Educational Development Center

HCC DISTRICT

Elgin District

As it leaves Neartown, Westheimer Road becomes Elgin Street. Some of its eclectic Montrose character spills over into Midtown but the boundary created by the Spur as it dumps on to Bagby Street, is fairly clear. The street turns, widens out and joins the Midtown / Downtown grid of uniform blocks. This is now a decidedly commercial district.

Just past the spur is small one-story retail: a pub in an old gas station, a small strip center built right up the street. Then, the scale changes. The Calais, a 356 unit, residential apartment complex built in 2003, stretches three blocks south between Smith and Louisiana. It's one of several New Orleans style buildings in the area, including the 43,000 square foot Bienville office building and Brennan's (in the 1930s Junior League Building), recently reopened after burning during Hurricane Ike. Brennan's is a Houston and New Orleans institution; it attracts weekday lunch and dinner crowds, and is extremely popular for Sunday brunch.

At the corner of Louisiana and Elgin, the Mix, a new 3-story modern retail building at the corner of Louisiana and Elgin, faces the Calais. The Mix has a new fitness club on the upper floors new retail space on the ground floor. One block east, High Fashion Home, a modern multi-story furniture store adds further to Elgin's retail strength, and High Fashion Fabric is just one block off Elgin nearby. The Mix and High Fashion Home were developed and are currently owned by Crosspoint Properties. They are the single largest non-institutional landowner in the study area. Two of their blocks are essentially fully developed, but the other two blocks are partially vacant or underutilized. Crosspoint Properties has plans to build additional retail and office space as demand warrants. This retail district also extends south on Milam to Mai's Restaurant and a handful of design stores in a 1920s sidewalk retail building and northwards to more restaurants.

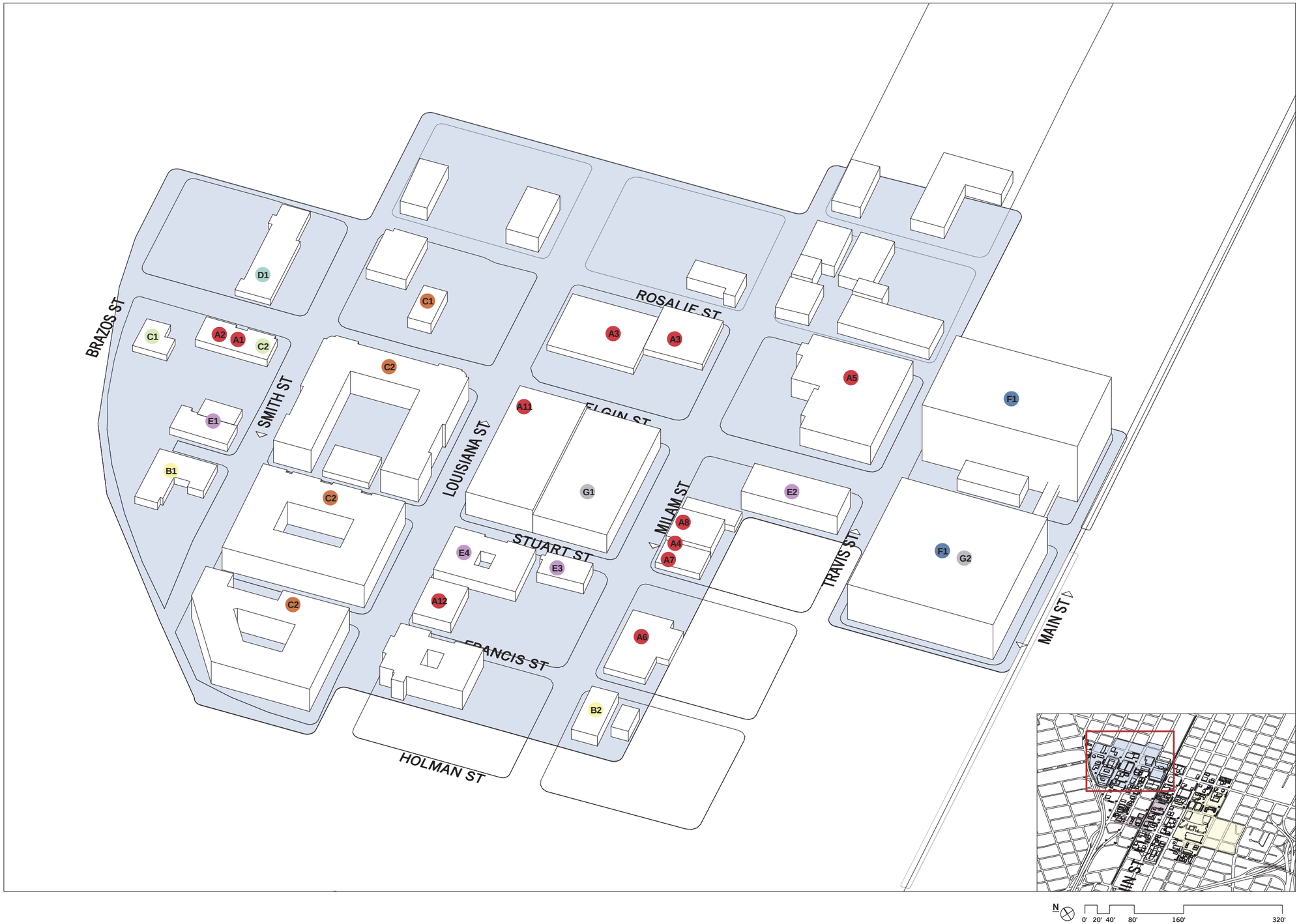
This area has significant retail momentum and committed stakeholders in Crosspoint Properties and other landowners. Its adjacency to Montrose and lower Westheimer make it an important gateway to Midtown. Going forward we will look for ways to strengthen its mixed use character and to improve the pedestrian systems that support it.

High Fashion Home

The Calais


1920s Retail on Milam

The Mix and The Calais



LEGEND

Retail
- A1 Impact Nutrition
- A2 Floss Dental
- A3 High Fashion Fabrics
- A4 Rebecca's Slipcovers
- A5 High Fashion Home
- A6 Texas Music and Amusements
- A7 Mod Pod
- A8 ERA Antiques and Furniture
- A11 24 Hour Fitness
- A12 House of Glass

Restaurant
- B1 Brennan's of Houston
- B2 Mai's Restaurant

Bars and Clubs
- C1 Saint Dane's Bar and Grill
- C2 Maple Leaf Pub

Multi-Family Housing
- C1 Apartment Building
- C2 The Calais at Courtlandt Square

Institutional
- D1 Social Security Administration

Office
- E1 Courtlandt Square Office
- E2 Hagans Burdine Montgomery Rustay Law
- E3 Milam Medical Clinic
- E4 Courtlant Square

Governmental
- F1 Houston Community College

Parking
- G1 High Fashion Parking Garage
- G2 HCC Parking Garage

ELGIN DISTRICT

Connections Between Districts

The three districts are only blocks apart from each other. But those blocks can be an intimidating experience for pedestrians. Vacant lots, inactive facades, and missing crosswalks discourage pedestrians from crossing those gaps.

The smallest gap between districts is between the HCC and Station districts. On Holman Street, the districts actually touch each other. The presence of crosswalks on Holman makes this a relatively safe trip. Coming from the college, the tower of Trinity Episcopal Church serves as a useful landmark, emphasizing the close proximity of Main Street. Unfortunately, two-thirds of the two blocks between the college and Main Street are lined with parking lots, so even this short walk feels exposed. The most direct connection from the main building of the college and the rail station is actually Berry. Here, the college is visible from the rail station and most of the two blocks between the college and the station are lined with buildings (though not with active uses). However, there are no marked crosswalks across Fannin or San Jacinto on Berry Street.

The connection between the HCC District and the station is more difficult. The biggest problem here is the empty blocks on the west side of Main, which form a virtual moat between the districts. This is exacerbated by the inactive facades of the City of Houston Code Enforcement building and the HCC headquarters building parking garage. Once again, only Holman and Elgin have crosswalks. Most of the routes between these districts require turns, and there are no prominent landmarks except the HCC headquarters building.

The most difficult connection is between the HCC district and Elgin. This connection can happen via the Station District, which requires crossing two gaps. Alternately, that connection can happen on Elgin, but Elgin is also lined with parking lots and inactive buildings.

The three districts in the study are islands. They are isolated from each other by inactive gaps. Bridging these gaps is the only way to create synergies between the districts.

View down Holman from HCC District to Main Street

View down Holman from Main Street towards Elgin District

Inactive façade at HCC parking garage

CONNECTIONS BETWEEN DISTRICTS

Strategies for Linking

There are four essential strategies for creating links between districts:

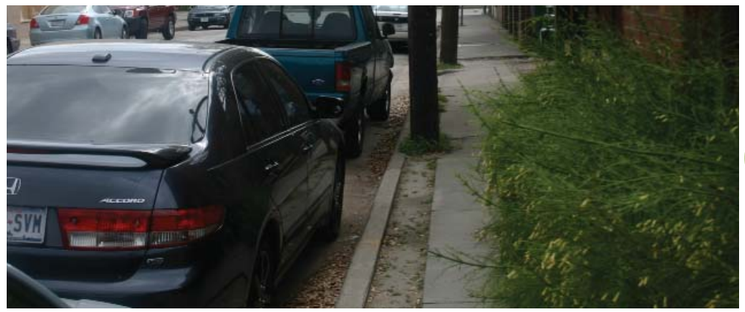
1. Improve sidewalks
   A good sidewalk is unbroken, wide enough for people to walk abreast and pass each other, shielded from fast traffic, and shaded.

2. Build buildings up to the street
   No matter how well built, a sidewalk along a vacant lot will always feel isolated. A continuous street wall is essential to an urban neighborhood.

3. Create active facades
   Not every building is created equal. Sidewalk-facing stores and restaurants bring more people onto the sidewalk. They also add "eyes on the street" that make the neighborhood feel safer, as do other uses like offices if they have large, transparent windows along the sidewalk.

4. Make navigation easy.
   People will walk from one district to another only if they know where they are going. This requires signage. It also helps to have buildings that act as landmarks to better orient pedestrians.

EXISTING

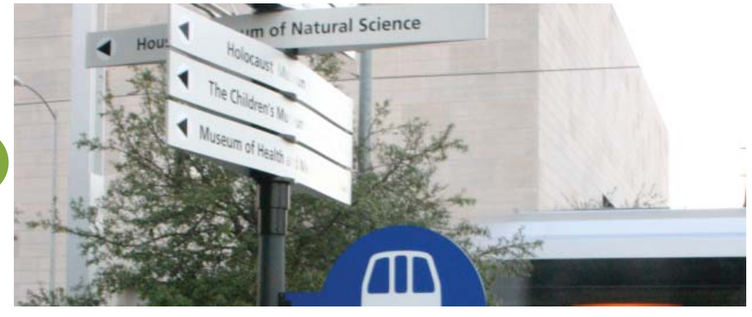


GOAL

1

2

3



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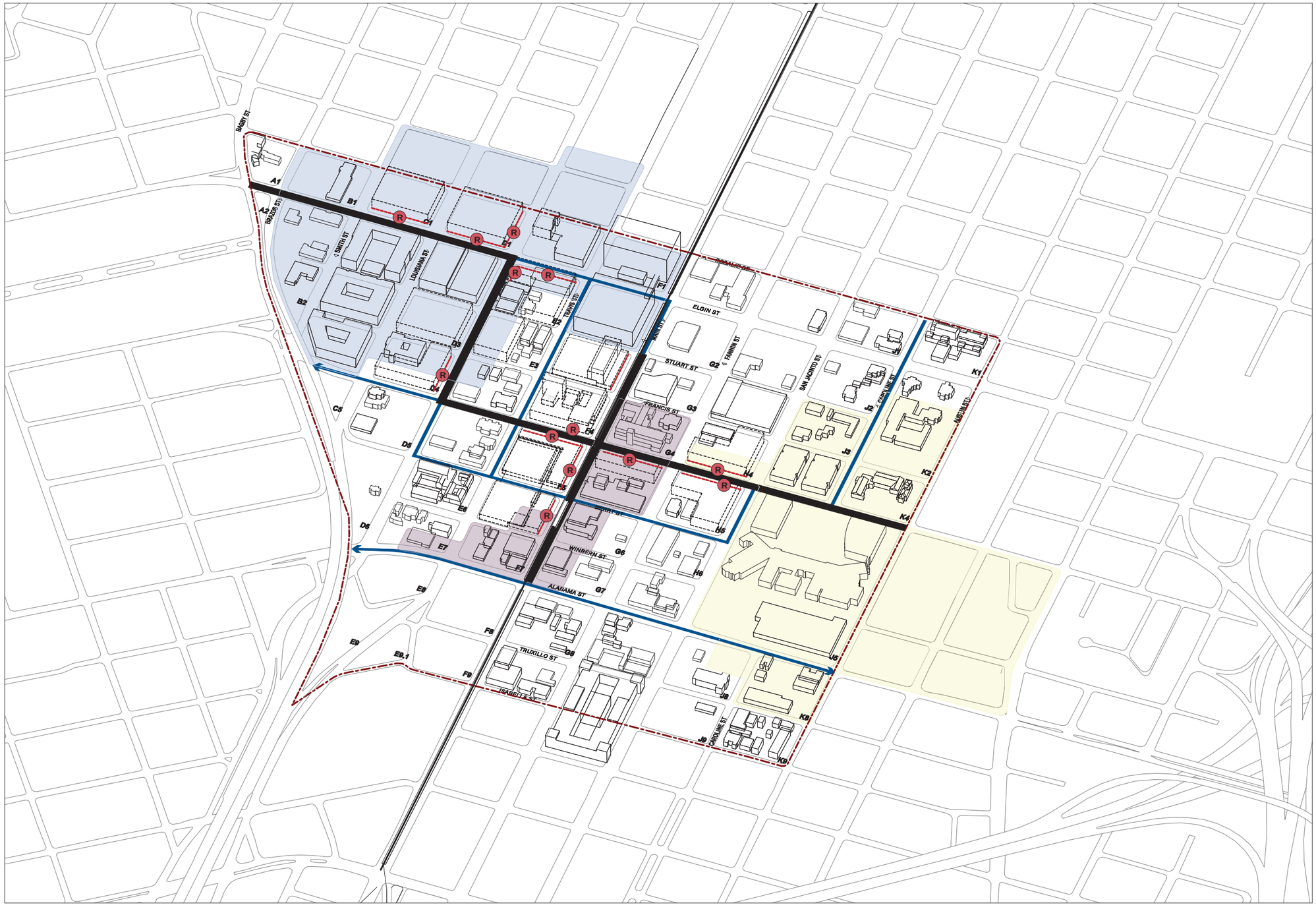


LEGEND

- Station District
- HCC District
- Elgin District
- Surface Parking / Vacant Lots at district connections
- "Z" Connection
- Secondary Connections
- Ground Floor Retail
- Key Development Sites

N 0' 50' 100' 200' 400' 800'

STRATEGIES TO STRENGTHEN CONNECTIONS

Intensify and Link

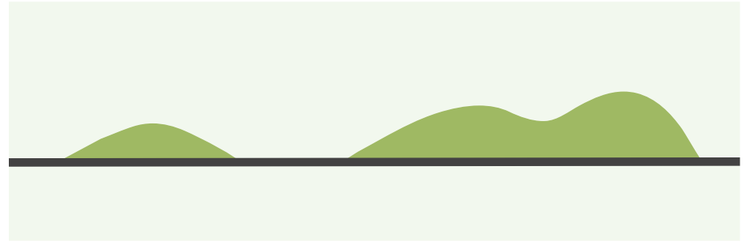
A true urban neighborhood is not homogenous. Its character changes from block to block. It has mixed uses, but the mix of uses is not the same everywhere. It has distinct centers where street activity concentrates. But those centers are not isolated; they are part of a continuous urban fabric.

How does Midtown evolve into such a neighborhood?

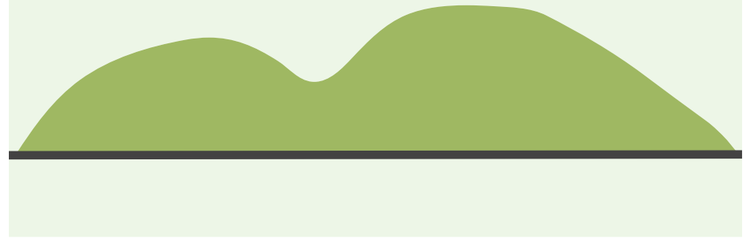
The existing districts -- the centers of activity that already exist -- are the starting point. They need to be intensified with more activity, more retail, more restaurants and more events. The districts also need to be linked together so that it is easy to walk from one to another. That means filling in the vacant lots and adding more activity -- apartments and offices -- which in turn supports the districts.

Of course this will not happen all at once. The funds are not there to improve every street right away, and the market is not there to build on every block right away. Thus, it's important to prioritize. Within each district, some blocks by virtue of their location can have more impact than others. Between districts, certain streets form the most direct links.

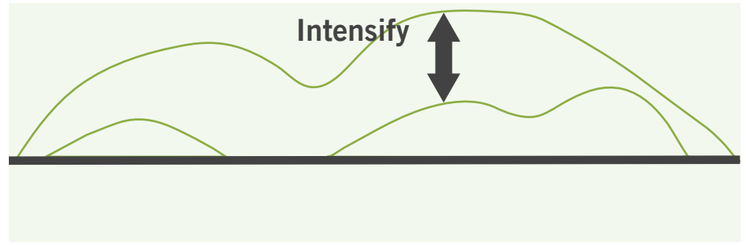
A Z of streets -- Elgin, Milam, and Holman -- connect all three districts and the light rail station. This should be the initial focus of infrastructure improvements and development.



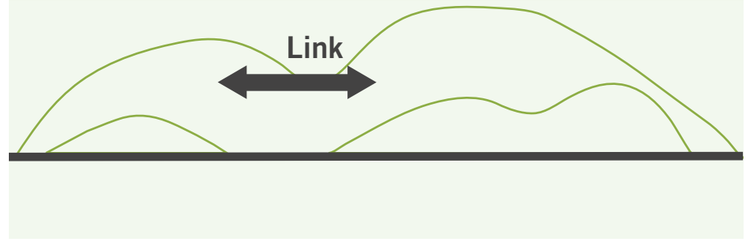
Current activity level



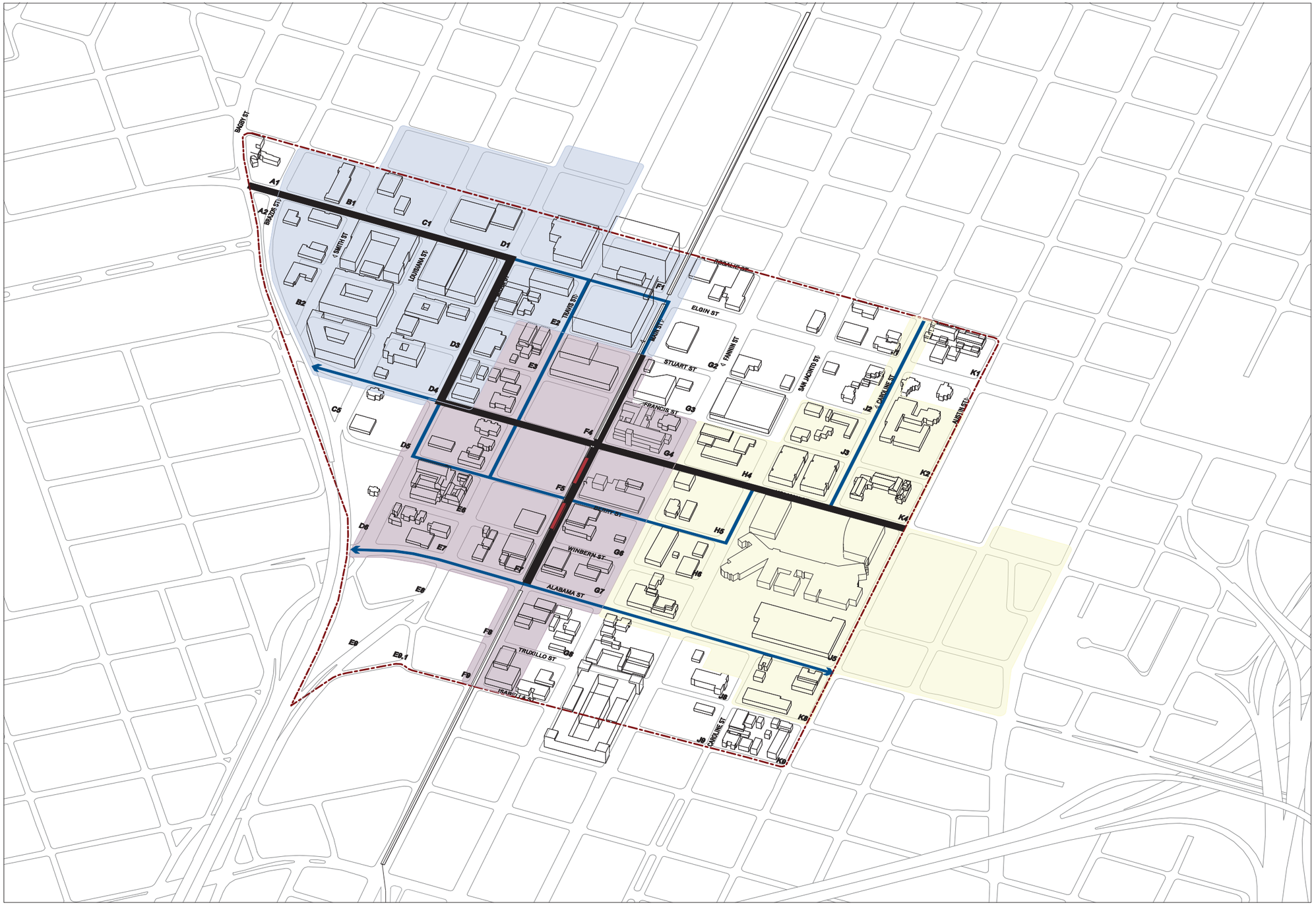
Desired activity level



Intensifying



Linking



LEGEND

- Arts District
- College District
- Design District
- HCC/Ensemble Station
- "Z" Connection
- Secondary Connections

N 0' 50' 100' 200' 400' 800'

Z-DIAGRAM

Station District: An Arts District Vision

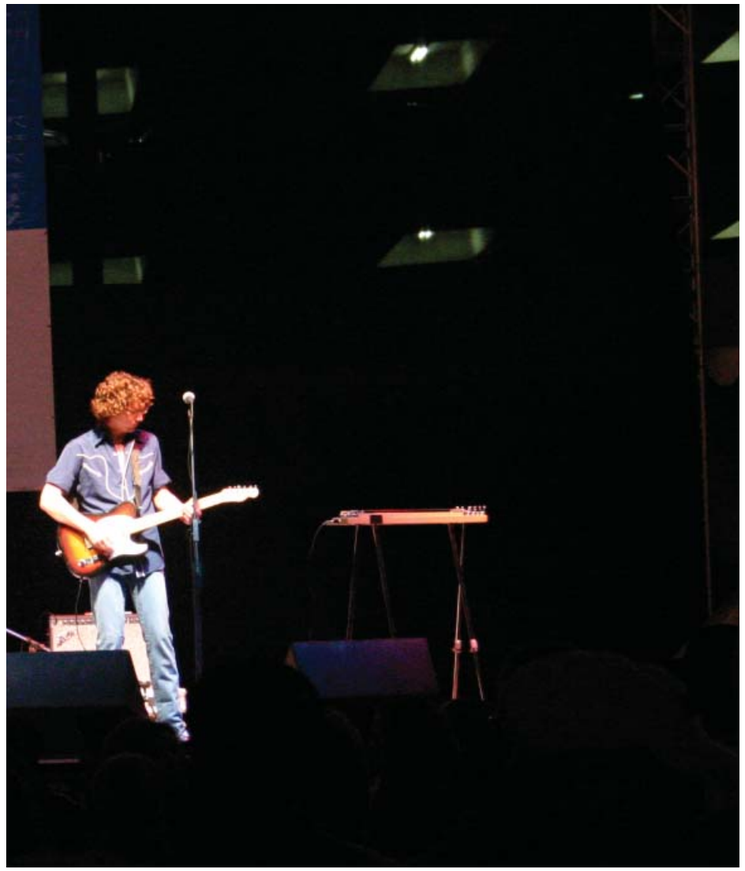
The area around the Ensemble/HCC light rail station can develop as an Arts District. This would be a different kind of place than the existing Theatre District and Museum District (both of which would be linked to the study area by light rail): edgier, less established, less institutional and more diverse.

A new arts center, the Independent Arts Collaborative (IAC), located at Main and Holman, housing alternative arts groups including DiverseWorks, Fotofest, Catastrophic Theatre, Main Street Theatre, and Suchu Dance would join the Ensemble Theatre and the Continental Club as neighborhood anchors. Private galleries could locate nearby, as could artsy boutiques. Arts events create demand for restaurants, which could serve not only arts patrons and artists but also Downtown employees for lunch and Third Ward/Neartown/Museum District residents for dinner. Bars and coffee shops are a natural fit, too. All these also create a great neighborhood to live in, not only for artists but for people who appreciate quirky places, so residential is part of the mix of uses as well. Architecture firms, ad agencies, and other creative businesses may seek office space.

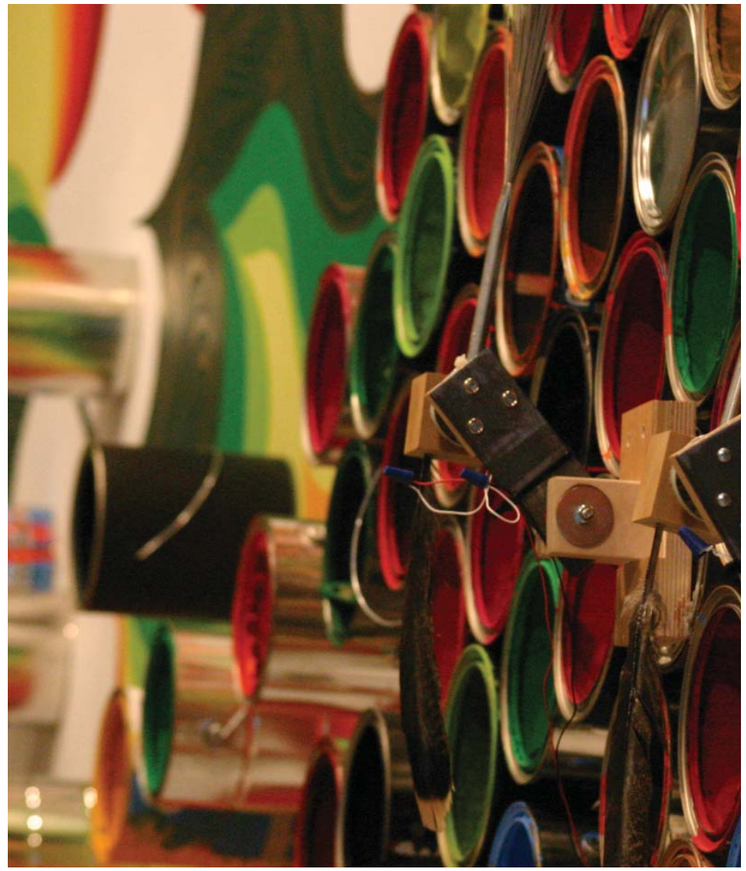
The Arts District would be alive day and night. Morning school groups would be joined by the Downtown lunch crowd and artists meeting over coffee. In the evening, residents returning from work would mix with patrons headed to gallery openings and performances and people stopping by to shop or eat on their way home. Even as the theatre lets out, people would still be coming in for live music at the clubs.

Takes the train to work at the Texas Medical Center
Lives in a one bedroom apartment at The Calais
Walks the dog daily
Breakfast tacos with friends on Saturday morning

Works Downtown
Lives in the Heights
Takes the train to get lunch
Sees an interesting gallery show, drops by after work



Live music is abundant in the Arts DIstrict

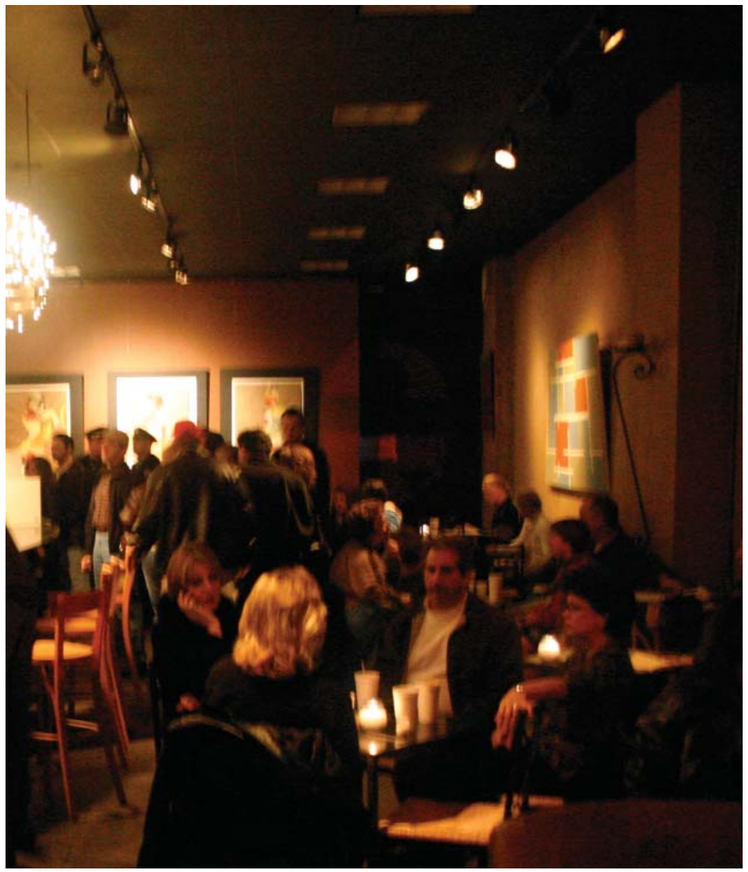


A critical mass of artists makes this district a destination

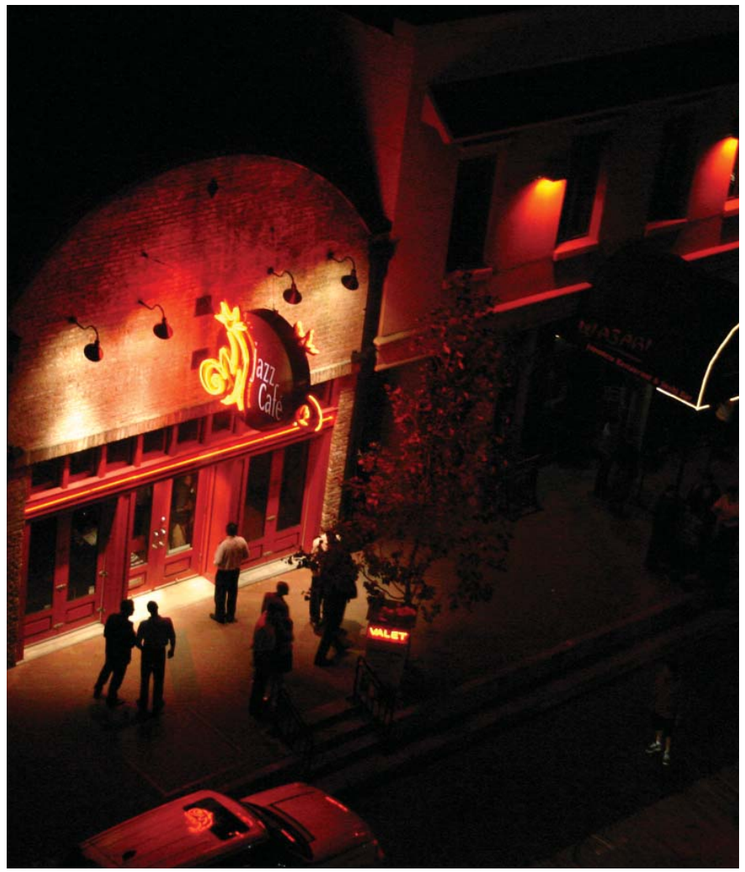
Rice student
Lives off campus because it's more interesting
Studies in the coffee shop
Works as a stage hand at Ensemble Theatre

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

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

Arts District: Strategy

The key streets in this district are Main, the location of the light rail station, and Holman Street, which connects to the retail and college districts. The critical intersection is Main at Holman. Today, three corners of that intersection are vacant; the city property on the northwest corner, the RHS Interests blocks at the southwest, and a Trinity Episcopal Church owned half block to the southeast. These are the most important development sites. Fortunately, the fourth quadrant of the intersection is already occupied by the historic sanctuary of Trinity Episcopal Church, its tower a neighborhood landmark.

The new arts collaborate, including galleries, performance halls, rehearsal spaces, and offices, would be located on the city property between Main and Travis and Holman and Francis. Gallery spaces would be oriented to Main and Holman, putting active uses on the sidewalk. The major building entrance would face the corner. The second city-owned block north of Francis is further from the center of the district and would be an excellent location for housing. Since it is city-owned, affordable housing is an excellent possibility.

RHS Interests proposes to develop the block with retail and parking, both of which would be an excellent fit. The parking garage would be accessible from Travis and centrally located to serve the district. Retail would create an active face on Main Street, linking the existing destinations south of Winbern to the IAC and Ensemble Theatre.

The Trinity Episcopal Church site fronts the key link from the station to Houston Community College. An active ground floor is important here. If the parking garage on the RHS Interests property serves the church (which it should be able to do since the church's largest demand occurs on Sunday morning when other activities have low parking demand), then no parking is required on this site.

There are three secondary redevelopment sites where spin-off development is likely to occur. Trinity Episcopal Church intends to build a new facility on its surface parking lot on Main at Holman. North and south of Holy Rosary Catholic Church there are potential sites for expansion of church facilities as their congregation and programming expands.

Public Realm Projects

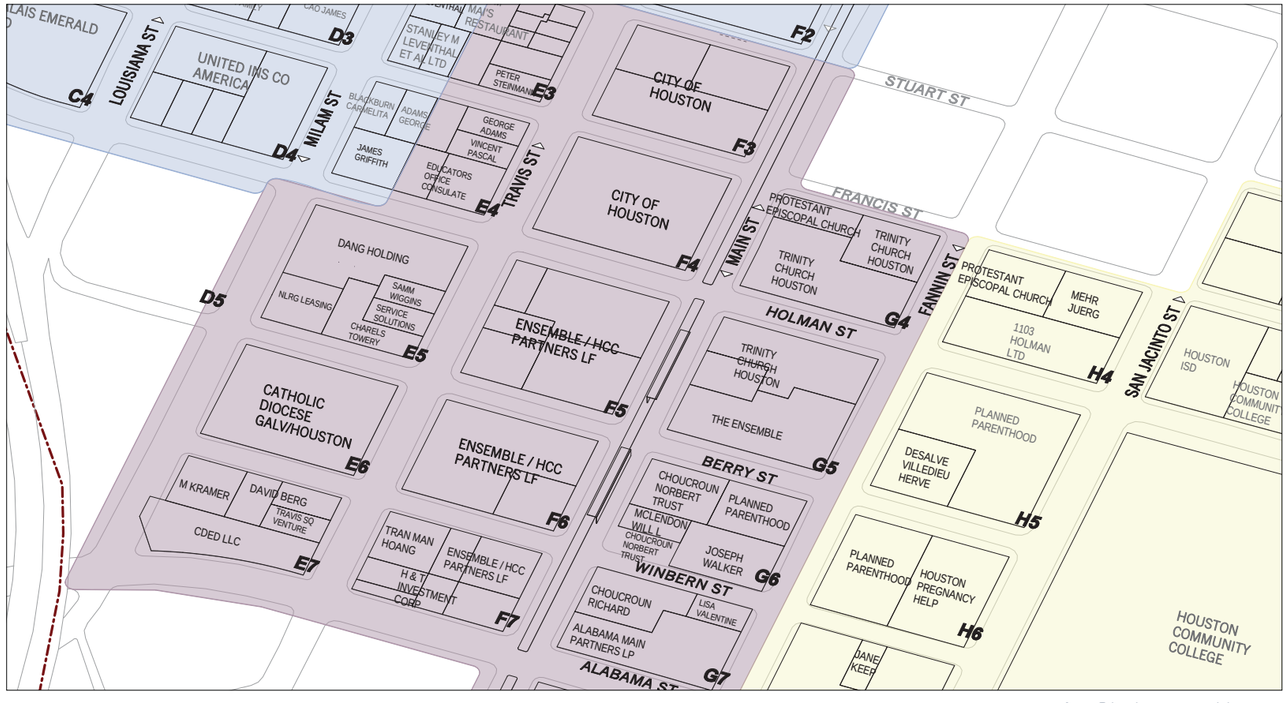
1. Holman Street (Z Connection)
Shared vehicle/bike lane, on-street parking with bump outs at crosswalks, preserve existing mature street trees, widen sidewalks

2. Main Street (connection from Z to rail station)
Widen sidewalks

3. Berry Street (connection from station to HCC)
Shared vehicle/pedestrian space (Woonerf) with legal priority given to pedestrians, new crosswalks at Fannin and San Jacinto streets

Private Realm Projects

1. Catalyst projects
    a. Independent Arts Collaborative (IAC)
    b. Five-story mixed-use residential
    c. Retail and parking on RHS Interests property
2. Primary development sites (along the Primary Z)
    a. Trinity Episcopal Church property
    b. Other sites
3. Secondary development sites
    a. Holy Rosary Church expansion
    b. Other sites



Arts District ownership map

LEGEND

- Arts District
- College District
- Design District
- Ground Floor Retail
- Parking Structure
- Catalyst Projects
- 1a Proposed Independent Arts Collaborative
- 1b Proposed Mixed-Use Residential
- 1c Proposed RHS Interests Development -Office over Ground Floor Retail, and District Parking
- Key Development Sites
- 2 Primary Development Sites
- 3 Secondary Development Sites

N

0' 20' 40' 80' 160' 320'

ARTS DISTRICT STRATEGY

Arts District: Catalyst Project

The catalyst project for the Arts District spans four blocks, between Main and Travis from Winbern to Stuart. These blocks will contain an arts center on the North side of Holman, a mixed-use parking garage on the two blocks to the south, and a block of housing between Francis and Stuart streets.

These diverse uses will bring all day and all night life to the district. It will give the district a distinct character, and it will anchor the key Holman at Main Street intersection. This project's location, next to the rail station and on the spine of the Z, gives it an importance to the entire study area.

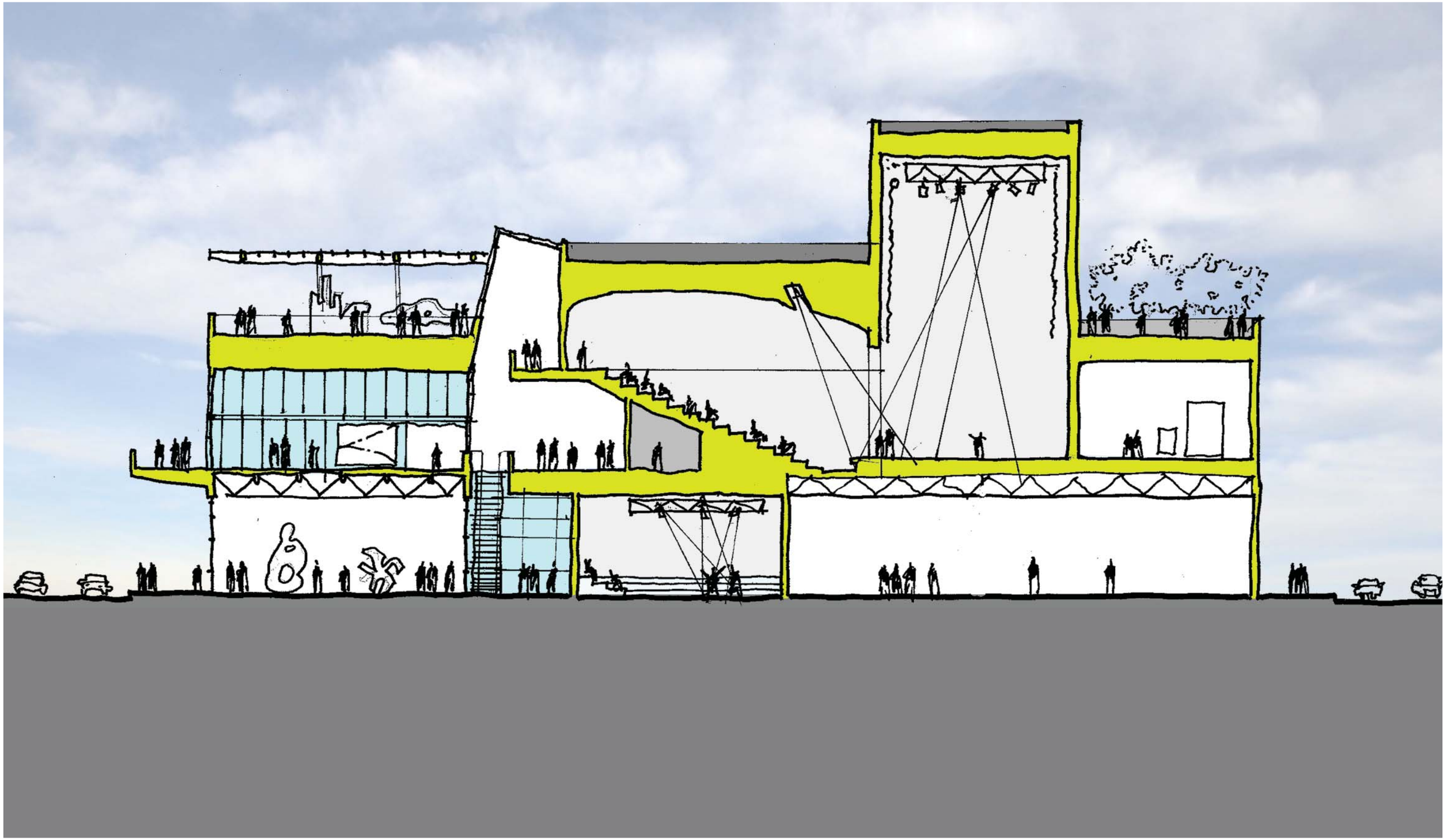
The heart of this redevelopment strategy is the Independent Arts Collaborative (IAC) facility, which will be built on the city-owned Code Enforcement parking lot site. This fills an important hole in the current Main Street corridor streetscape. But in order for this project to work, parking must be accommodated off site.

The viability of the IAC is largely dependent on the construction of a public, shared parking garage, which is planned for construction on the two adjacent blocks to the south of the property. This mixed-use parking garage will feature unique retail opportunities on the ground floor to add to an already growing streetscape of independent business owners providing an eclectic mix of restaurant, retail and nightlife destinations. The garage will also provide needed parking opportunities for the Ensemble Theater across Main Street and other area businesses in the district. People can park in this garage and walk to a number of destinations in the Arts District. This is a critical component of development feasibility in an area with small blocks that is challenged by on-site parking requirements.

To the north of the IAC, the current location of the Code Enforcement building, a new residential opportunity exists. The current market demand indicates that high-rise residential is too costly to support, but low-rise residential is a possibility. There is potential to support the construction of a 5-story, mixed-use residential building with ground floor retail. Residents will be drawn to the area by its unique artsy character, easy access to the light rail and proximity to job centers in neighboring downtown and the Medical Center via light rail. Ground floor retail will enhance the pedestrian environment and create local opportunities for more services.

These projects fill in a major four-block section along the light rail line on Main Street. They add to the already prevalent undercurrent of roots retail and arts organizations in the area. They create a strong sense of place at a currently underdeveloped location along the light rail corridor. With the creation of this four-block development project centered on the light rail station and the IAC, the Ensemble/HCC light rail station will become a stronger destination. Light rail ridership at this station will increase. Market demand to be in the district will increase, and this will help close the gap on development feasibility at other adjacent properties.

See Chapter 7, *Build a Catalytic Project*, for more information.



Proposed Independent Arts Collaborative (IAC) building in the Arts District

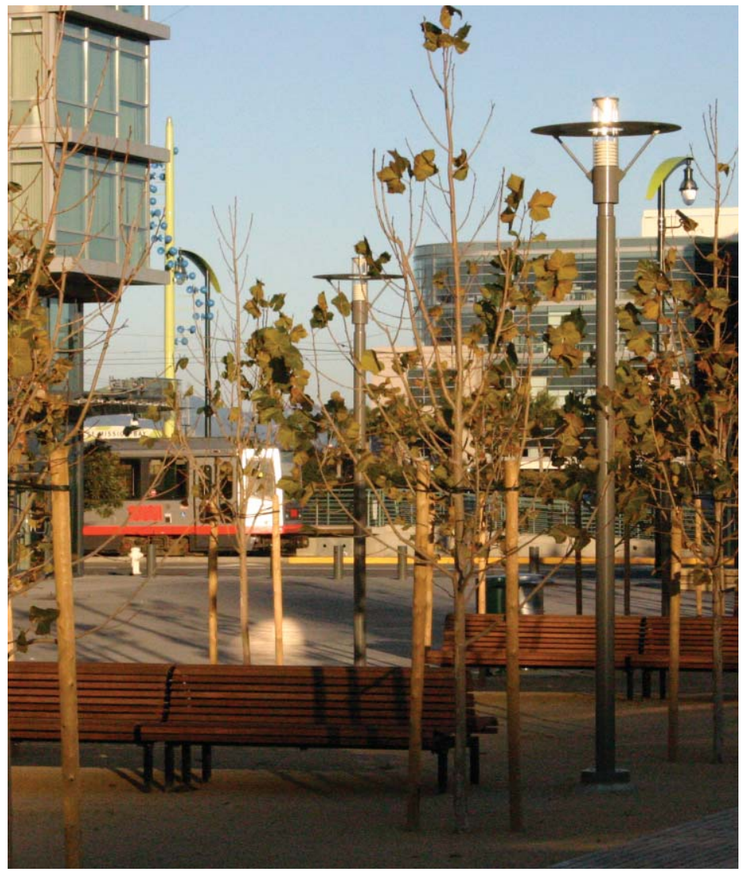
HCC District: A College District Vision

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

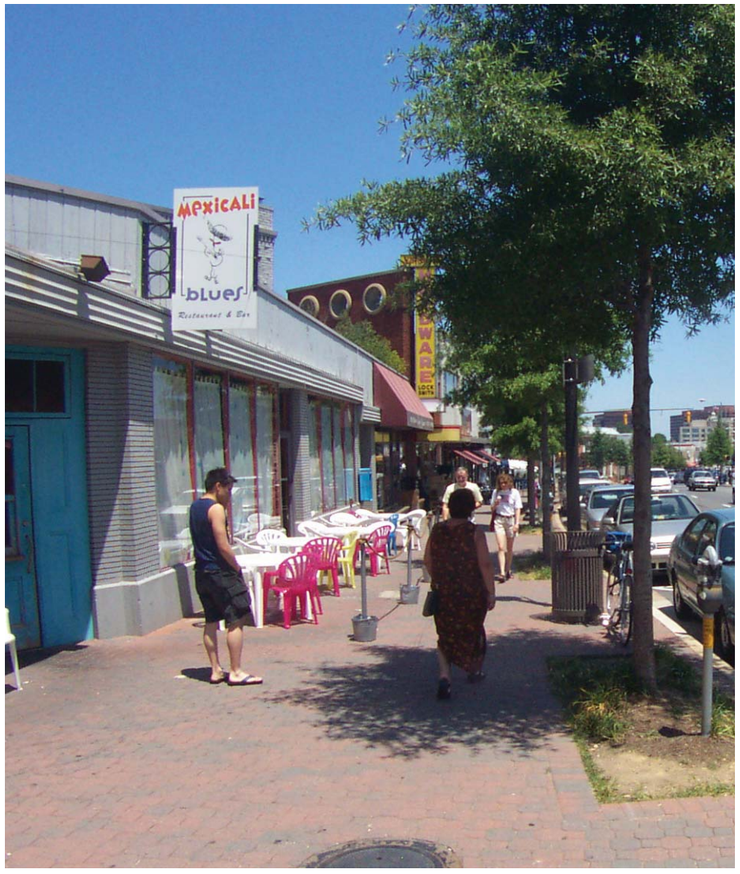
Sidewalk cafes



Plaza seating to hang out between classes

Lives in a Midtown townhouse
Goes running every morning
Takes a break by the fountain at the Plaza
Rides the train to work in Greenway Plaza

PR flack by day
Dancer by night
Sold the car to reduce expenses
The apartment is small, but it's only a place to sleep



An active pedestrian realm

Ground floor retail makes for a pleasant walking environment

College District: Strategy

The college's campus faces onto Holman Street, which links it to the light rail station to the west and Third Ward to the east. HCC plans a new plaza at the northwest corner of its campus, replacing a parking lot and a building. The plan will open the campus to the surroundings and creating an inviting public space that can be used by students and neighbors. The distance from this plaza to the light rail station is only two blocks. These two blocks offer an opportunity to strengthen the College District and link it to the Station District. The key site is the southwest corner of Holman and San Jacinto, currently occupied by a surface parking lot serving a small office building. A building here would help frame the plaza, making it more inviting and placing an active facade on Holman to improve the link. The opposite face of Holman is occupied by a strip mall. It serves students but turns a wide parking lot to the street. A larger street-facing building here could house the same businesses while strengthening the street.

Two secondary connections could further link the college to its surroundings. Berry runs from the southwestern corner of the new plaza to the light rail station. It is a shorter walk on Berry to the train from the main campus building than on Holman. But there are no crosswalks on Fannin and San Jacinto and half the street frontage is parking lots. Caroline runs north from the campus towards the residential neighborhood to the north. It has narrow sidewalks and much wider pavement than the low traffic volume requires. Rebuilding this street with wider sidewalks and green space, as is planned by the Midtown TIRZ, would create a more pedestrian-friendly connection.

Public Realm Projects

1. Holman Street (Z Connection)
Shared vehicle/bike lane, on-street parking with bump outs at cross-walks and existing trees, widen sidewalks, street trees

2. Berry Street (connection from station to HCC)
Shared vehicle/pedestrian space (Woonerf) with legal priority given to pedestrians, new crosswalks at Fannin and San Jacinto streets

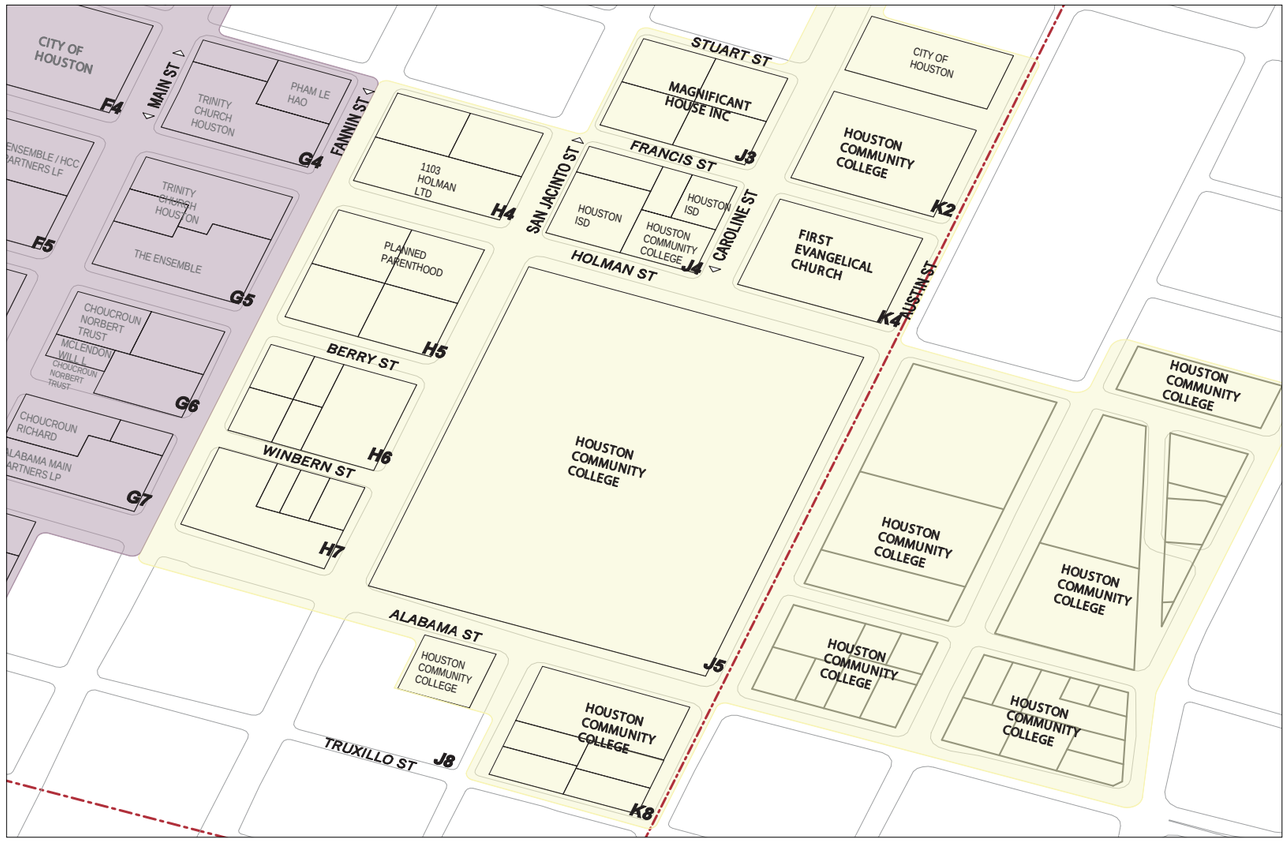
3. Caroline Street (connection from HCC to neighborhood)
Shared vehicle/bike lane, wide sidewalks with plantings to create linear park

4. HCC Star Plaza
HCC is redeveloping the southeast corner of Holman Street at San Jacinto to create a campus plaza

Private Realm Projects

1. Catalyst project
    a. Student housing with ground floor retail

2. Primary development sites (along the Primary Z)
    a. 1103 Holman Street



College District ownership map

LEGEND

- Arts District
- College District
- Design District
- R — Ground Floor Retail
- P — Parking Structure
- Catalyst Project
- 1 — Proposed (For Rent) Student Housing on Planned Parenthood Site
- Key Development Sites
- 2 — Proposed 1108 Holman LTD Development

COLLEGE DISTRICT STRATEGY

College District: Catalyst Project

The key site for this district is the block between Holman, Berry, Fannin, and San Jacinto streets. Half of the block is occupied by a surface parking lot. A further quarter under the same ownership is occupied by a small office building. The remaining quarter is home to a historic house, one of the scattered leftovers of Midtown's first incarnation. Preserving the house would leave three quarters of the block for redevelopment. This has proven a difficult size to develop: using surface parking would occupy half the site and greatly limit the size of a building, and the dimensions do not lend themselves to an efficient parking garage alongside a larger building. The college setting suggests markets that do not depend on parking, apartments for students without cars and retail serving students that arrive on public transit or have already parked to go to class.

The proposed building has three retail spaces on the ground. The remainder of the ground floor is occupied by 55 parking spaces. Above the retail, levels 2 through 5 are dedicated to apartments. Midrise buildings are the best fit for the area in the context of the area's proximity to downtown and existing structures, as well as the financial feasibility of projects in relation to land cost, market demand, and construction costs. The unit mix is roughly three quarters one-bedroom and one quarter two-bedroom.

The parking spaces are "unbundled" (leased out separately) from the apartments. Thus, the building houses a mix of residents with and without cars. The nearby rail station and the supermarket, a ten minute walk down San Jacinto, make carless living feasible, and the lower rents that result could attract students from UH Downtown, the Texas Medical Center, and Rice University as well as HCC. Alternately, some parking spots could be used for a car-share service, making vehicles available for occasional errands.

This project activates a key corner, bridges the gap between the College and Arts districts, provides retail space to serve students and residents, and gives HCC students a housing option next to campus. Students arriving to campus from the light rail station walk down Berry Street to the campus and cross San Jacinto Street at the southern elevation of this new mixed-use building. This is a key link in the streetscape between the station and the campus. Retail stores on the ground floor could provide a stop for coffee on the way to class or a bite to eat between classes. Most importantly, this building would establish an on-campus community of students that could anchor the neighborhood population in the College District.

See Chapter 7, *Build a Catalytic Project*, for more information.

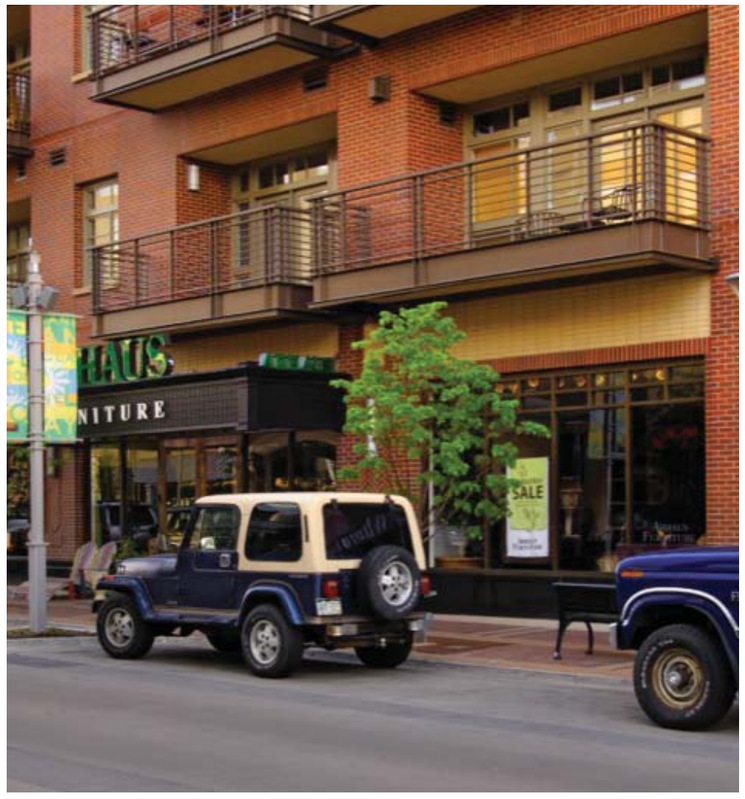
Proposed student housing development in the College District

Elgin District: A Design District Vision

What exists already on Elgin works: apartments, white tablecloth restaurants, and home goods retail. What the district needs is more of the same. Both restaurants and retail benefit from critical mass. When someone is shopping for furniture, they like to be able to go next door and compare. And while no one is going to have dinner two places on the same night, they may well go back next week to check out the restaurant they saw the last time they were out. Elgin benefits from easy access from US 59, the Museum District, and Neartown. It is also the natural continuation of the Lower Westheimer restaurant and retail district. The apartment market can benefit from that association, too, as well as the obvious proximity to Downtown.

Downtown lawyer
Meet clients for upscale lunch
Returns for theatre event later that week with spouse

Works hard, plays hard
Bachelor pad at the Calais
Enjoys a drink after work with buddies



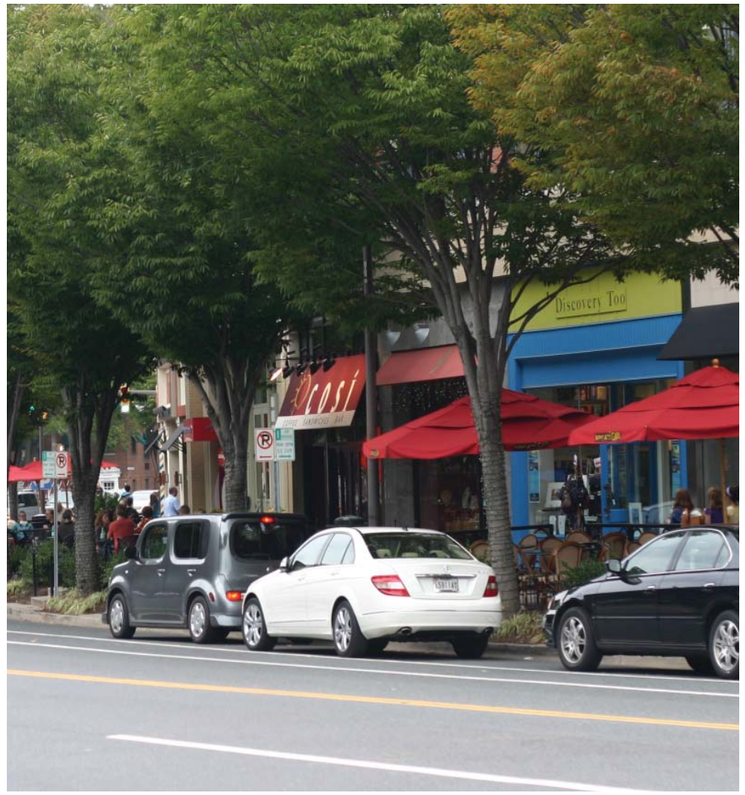
On-street parking protects pedestrians

Awnings provide needed shade for pedestrians

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

Green softscape enhances comfort levels in the pedestrian realm



Shade trees provide much needed relief from the summer heat

Design District: Strategy

The spine of this district is Elgin Street; the connection to the station is Milam Street. Both of these streets have active retail on them, but they also have a lot of surface parking. Replacing these parking lots with new buildings is key. The most important site is two blocks on the north side of Elgin between Milam and Smith, owned by Crosspoint Properties. Another key site is the southeast corner of Milam and Elgin, a small lot just north of existing retail. Street improvements on Elgin and Smith would tie everything together.

Public Realm Projects

1. Elgin Street (Z Connection)
Landscape buffer with street trees, canopy trees on north side of the street, widen sidewalks

2. Milam Street (Z Connection)
Replace one lane with on-street parking with bump outs, street trees

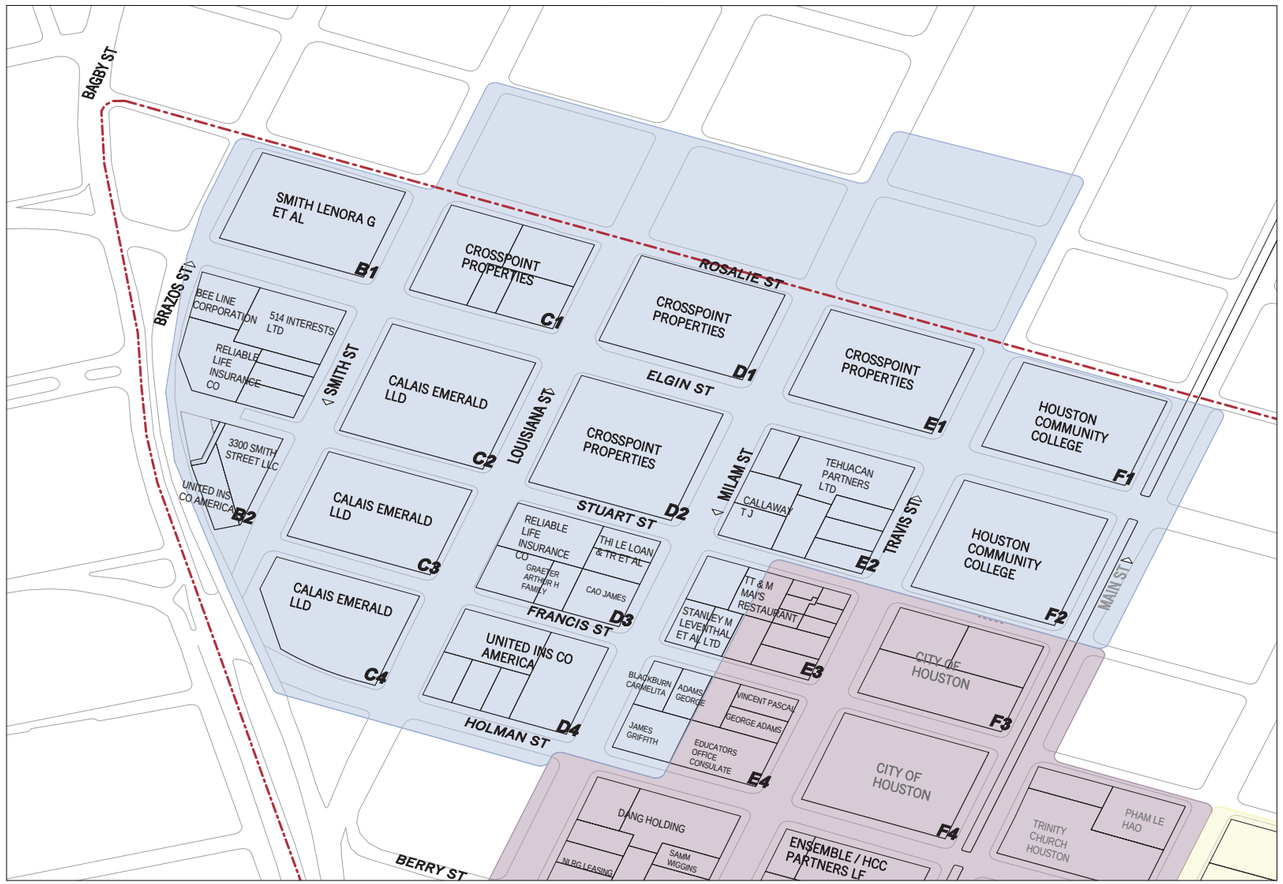
3. Holman Street (Z Connection)
Shared vehicle/bike lane, on-street parking with bump outs at crosswalks and existing trees, widen sidewalks, street trees

Private Realm Projects

1. Catalyst project
    a. Mixed-use office with ground floor retail and structured parking (Crosspoint Properties)

2. Primary development sites (along the Primary Z)

3. Secondary development sites



Design District ownership map

DESIGN DISTRICT STRATEGY

Design District: Catalyst Project

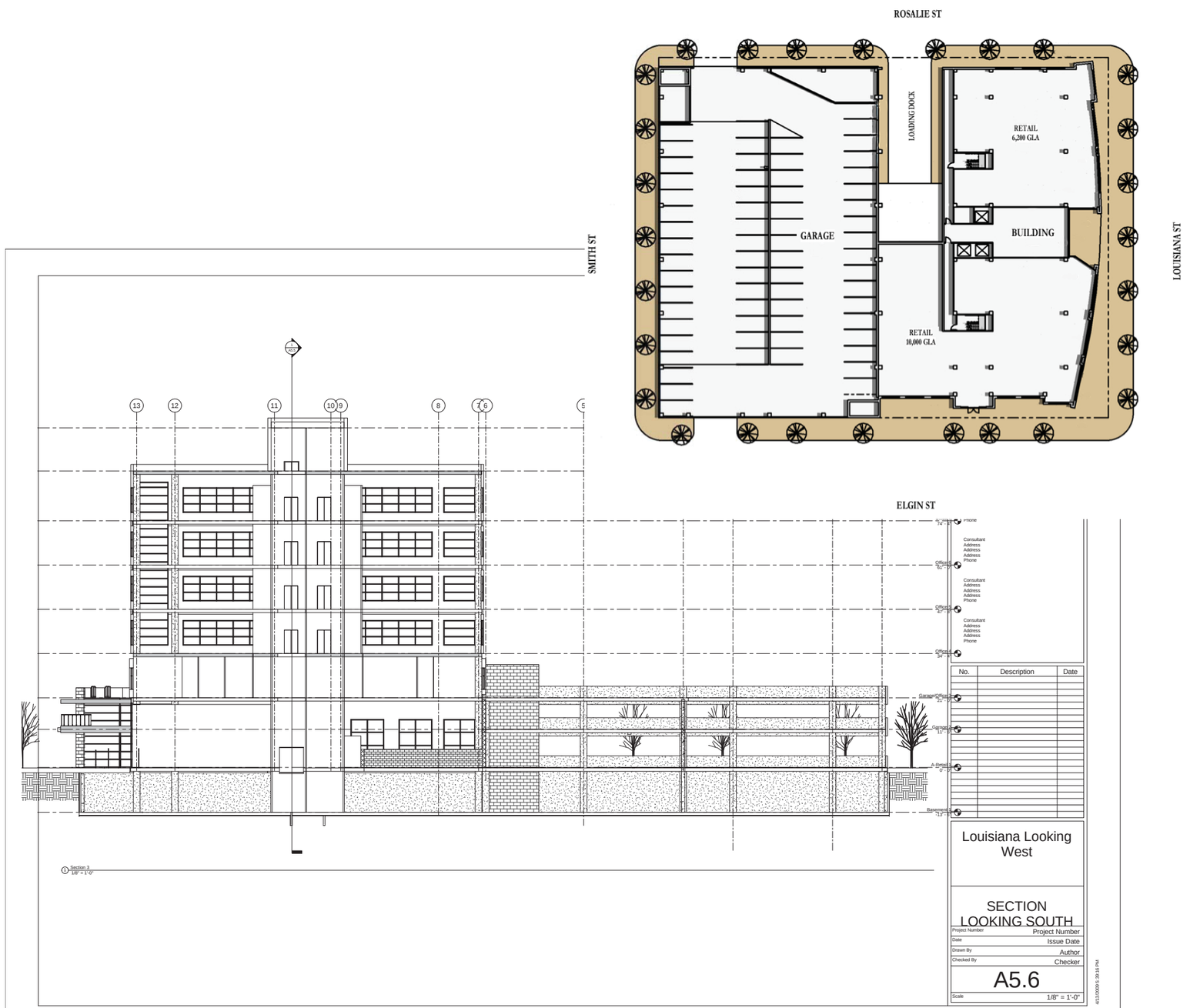
Crosspoint Properties is planning an office and retail building on the north side of Elgin between Smith and Louisiana.

The Crosspoint Properties program calls for 94,000 square feet of office space, 16,000 square feet of retail, and 270 parking spaces on the basement level, level 2, and level 3. At $85/square foot for the office and retail space and $40-$45 a square foot for parking, the construction cost would be in the range of $14 million.

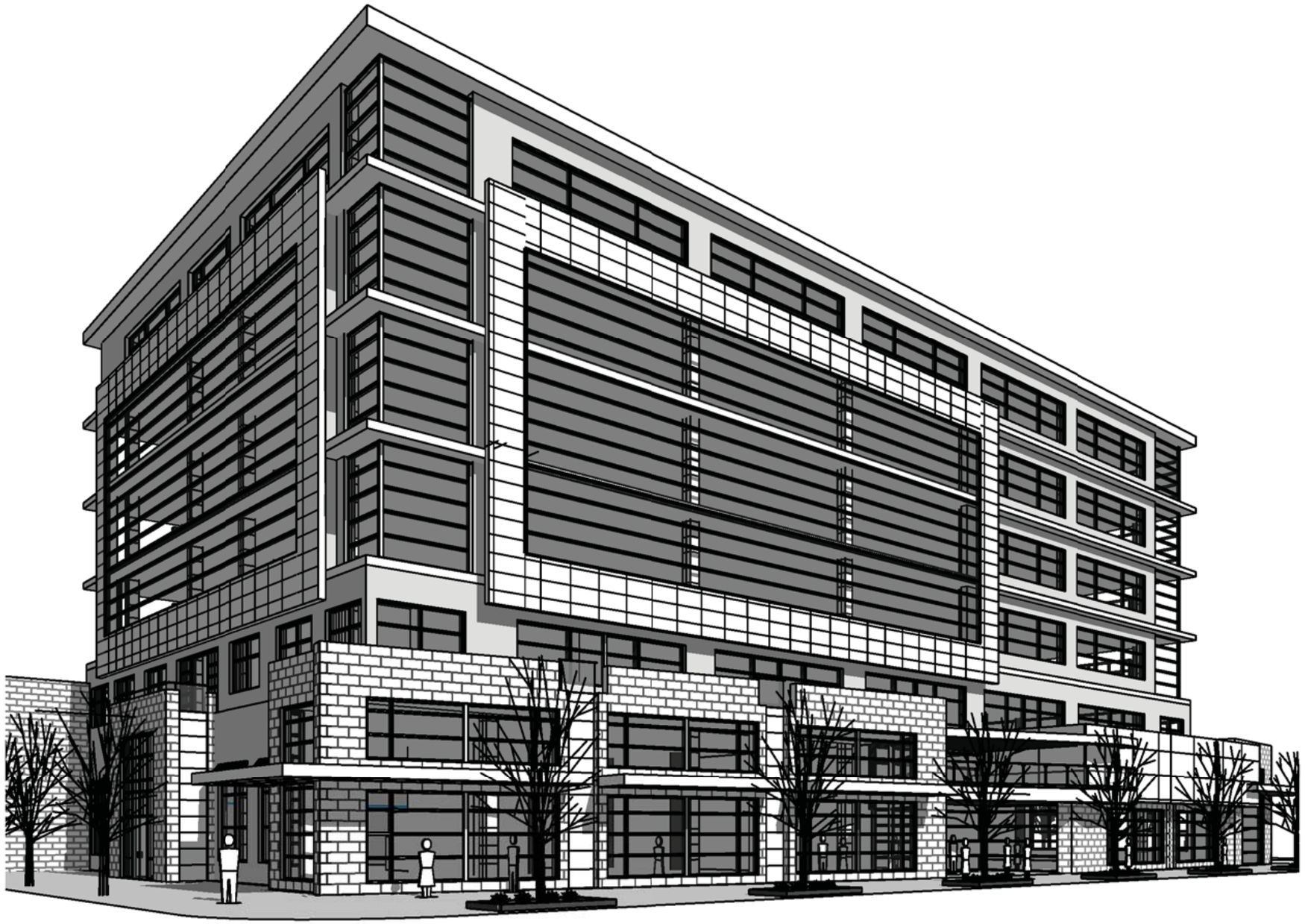
The parking garage can serve district-wide parking needs by allowing public parking access at times when building uses are less active, such as in the evenings. Parking spaces can be reserved for area valet services, especially at night when office uses vacate. In the evenings when office tenants have left, the parking garage can serve ground floor retail patrons as well as neighboring restaurants and bars.

This building would occupy a key site in the district and on the Primary Z Connection. It is across the street from The Calais, diagonally across from The Mix, and only one block from the key intersection of Elgin and Milam. It would add activity in the eastern section of the Z, enclose Elgin to better define the district, and help fill a two block gap on the north side of the street. The office and retail building would also be a visible landmark for traffic coming in from Neartown.

See Chapter 7, *Build a Catalytic Project*, for more information.



Crosspoint Properties elevation and site plan for Design District property



Proposed mixed-use office building development in the Design District


THE CALAIS
Brazos St
Louisiana St
EXIT ONLY

Integrate Systems

3

surrounding their project. The goal of this book is to explore methods of consistently linking and restoring systems in a strategic manner throughout the study area to ensure the fledgling districts survive and thrive into the future.

There is rarely a great enough mix of uses in one small district alone to sustain a live, work, play lifestyle. This diversity is both a market requirement in today's urban environments and the key objective of the Houston-Galveston Area Council's Livable Centers Program. To solve this challenge, there needs to be linkages to surrounding districts to fulfill the desires of residents, employees and visitors.

The study area, a portion of the greater Midtown District, has evolved over many decades in a very uncoordinated manner leaving disconnected systems and broken linkages. Systems for the sake of this document include multi-modal transportation systems, utilities, signage and wayfinding, public art, and parks. These systems and linkages must contribute to a safe, convenient and comfortable environment allowing the opportunity to park once and visit many uses in the area.

Market success has occurred in very small areas within the study area where one landowner or developer was able to repair those linkages

Construction at Spur 527

Circulation Systems

Operational Characteristics

The northbound-southbound roadways in the study area function as one-way pairs or couplets:
Bagby (SB) and Brazos (NB)
Smith (SB) and Louisiana (NB)
Milam (SB) and Travis (NB)
Fannin (SB) and San Jacinto (NB)

The traffic signals are programmed to support progression along the one-way pairs. The traffic signals are also timed to optimize LRT throughput and to minimize the risk of vehicle/train crashes.

During the AM peak period, traffic volumes are heavy to moderate along the northbound roadways and light along the southbound roadways within the study area. Significant platooning of vehicles by the traffic signals along the north-south streets was observed, but the typical number of vehicles per platoon varied between roadways. Vehicle platooning is a phenomenon in which a number of vehicles in a traffic stream travel close to each other in groups, typically because of signal control.

Table 1 summarizes traffic observations made during the AM peak hour. By observation, of the northbound roadways Louisiana Street and Travis Street appear to have the highest AM peak hour usage while San Jacinto Street has the lowest. For the east-west through roadways, traffic volumes along Alabama Street and Elgin Street appear to be the highest. Volumes along Holman Street appear to be low to moderate. Traffic volumes along the minor roadways are relatively low. Light pedestrian activity was observed in the area, being more prominent in the eastern portion near the Houston Community College (HCC) campus. Louisiana Street had the highest number of METRO Park and Ride buses; there were approximately two or three in each platoon of vehicles.

Table 2 summarizes traffic observations made during the PM peak hour. During the PM peak period, traffic volumes are heavy to moderate along the southbound roadways and light to moderate along the northbound roadways within the study area. By observation, of the southbound roadways Smith, Milam and Fannin appear have the highest PM peak hour usage; Bagby Street has the lowest. For the east-west through roadways, traffic volumes along Alabama Street and Elgin Street appear to be the highest. Volumes along Holman Street appear to be low to moderate. Traffic volumes along the minor roadways are relatively low. Light to moderate pedestrian activity was observed in the area, being more prominent in the eastern portion near HCC. Light bicycle activity was also observed in the eastern portion of the study area.

Opportunities

- Low traffic volumes suggest that certain streets have the opportunity to become more pedestrian oriented.

Challenges

- Parking can be difficult on high volume streets.
- High volume streets are not typically pedestrian friendly.
- Left turns from Elgin Street onto side streets can be difficult during peak periods.

Table 1
Summary of AM Peak Hour Observations Along Major Roadways

Roadway	Direction of Travel	Vehicles per Platoon	Transit Buses per Platoon	Remarks
Bagby	SB	10-12	0	Queues clearing at signalized intersections each cycle
Brazos	NB	12-16	0	Queues clearing at signalized intersections each cycle
Smith	SB	12-16	<1	Queues clearing at signalized intersections each cycle
Louisiana	NB	35-45	2-3	Queues clearing at signalized intersections each cycle
Milam	SB	8-10	0	Queues clearing at signalized intersections each cycle
Travis	NB	25-30	0	Queues clearing at signalized intersections each cycle Notable HOV lane violations
Main	NB & SB	<1	0	Very little traffic. LRT vehicles traveling in six minute headways
Fannin	SB	12-15	<1	Queues clearing at signalized intersections each cycle
San Jacinto	NB	4-6	<1	Very light traffic
Elgin	EB & WB	10-15	1-2	Queues clearing at signalized intersections each cycle except some left turns
Holman	EB & WB	1-2	0	Very light traffic
Alabama	EB & WB	8-12	0	Queues clearing at signalized intersections each cycle

Table 2
Summary of PM Peak Hour Observations Along Major Roadways

Roadway	Direction of Travel	Vehicles per Platoon	Transit Buses per Platoon	Remarks
Bagby	SB	8-15	0	Queues clearing at signalized intersections each cycle
Brazos	NB	12-15	0	Queues clearing at signalized intersections each cycle
Smith	SB	35-40	3-4	3-5 vehicles not clearing signal per cycle
Louisiana	NB	13-20	1	Queues clearing at signalized intersections each cycle
Milam	SB	25-30	1	Queues clearing at signalized intersections each cycle
Travis	NB	20-25	1	Queues clearing at signalized intersections each cycle
Main	NB & SB	<1	0	Very little traffic. LRT vehicles traveling in six minute headways
Fannin	NB & SB	25-35	1	Queues clearing at signalized intersections each cycle
San Jacinto	SB	25-35	1	Queues clearing at signalized intersections each cycle
Elgin	NB	15-23	1	Queues from Bagby/Brazos extending into Smith; queues at other intersections clearing at signalized intersections each cycle except at left turn bays
Holman	EB & WB	3-5	0	Queues clearing at signalized intersections each cycle
Alabama	EB & WB	8-10	1	Queues clearing at signalized intersections each cycle

N

0' 50' 100' 200' 400' 800'

LEGEND

- Principal Thoroughfare
- Thoroughfare
- Collector
- Streets with Transit/HOV Lanes
- Study Boundary

STREET HIERARCHY DIAGRAM

Pedestrian Circulation System

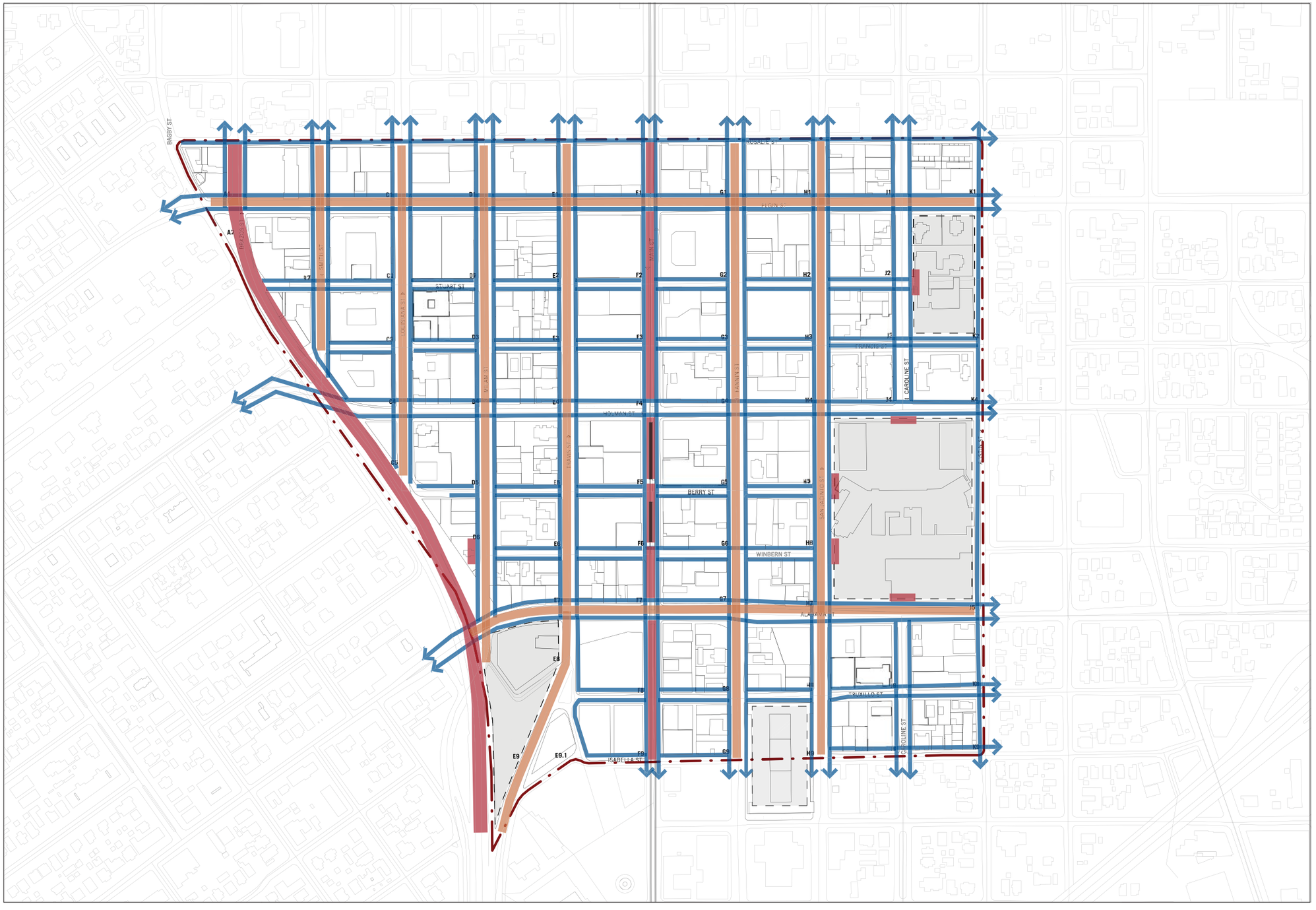
Pedestrian circulation and safety have been increasingly recognized as critical transportation issues in recent years in the United States. With ever increasing congestion on the roadways, various modes of travel other than the single occupant vehicle are being promoted on national, state and local levels. Pedestrian mobility is a an important element of all forms of transportation, including public transit, bicycling, carpooling and motor vehicle modes (e.g., walking to the bus, walking to parking spaces, walking from cars to stores and other destinations, etc.). The widespread absence of pedestrian accommodations is well known and many cities are recognizing the need to improve conditions for pedestrians.

Opportunities

- Increased pedestrian mobility.
- Sidewalks improve access to business and industry for employees relying on public transportation.
- Reduced crime risk through increased pedestrian traffic - “more eyes on the street” as promoted by the International Crime Prevention Through Environmental Design Association (www.cpted.net)
- Decreased use of cars for short trips, saving gas and lowering emissions.
- Transit service in the area guarantees a certain level of pedestrian activity.
- Narrow right-of-ways and reduced traffic on east/west streets makes them more pedestrian-friendly.
- Safe pedestrian access to and from transit service.

Challenges

- Cost of new infrastructure.
- Width and velocity of traffic on north/south streets creates barriers to pedestrian movement.
- Incomplete and hazardous sidewalk conditions make pedestrian circulation unsafe.
- Combined or large blocks block pedestrian movement.



LEGEND

- Transit Station
- Pedestrian Circulation
- Vehicular Barriers to Pedestrian
- Impenetrable Barriers
- Super Blocks

PEDESTRIAN CIRCULATION DIAGRAM

Bicycle Circulation System

The 2006 US EPA Smart Growth Implementation Assistance report "Transit-Oriented Development for the Ensemble/HCC Station" notes universal characteristics of transit oriented development (TOD) projects. These criteria emphasize that TODs are multi-use areas within ¼ to ½ mile of a transit station that are "linked by a strong network of walkable and bikeable streets." In addition to supporting non-motorized access to the transit station itself, a strong walking and biking network enables individuals to make trips among the wide variety of destinations throughout the larger TOD area without the need of a private vehicle.

The existing intersecting street grid and relatively short blocks in the study area provide a foundation to support walking and biking, as long as supportive infrastructure and street designs are in place to make walking and biking comfortable, inviting, and an obvious choice for travel. The Houston Bikeway Program has designated intersecting north-south and east-west bicycle routes through the area, with signed routes and shared lanes running along Holman Street from east to west and on the Caroline Street/Austin Street couplet from north to south. With the exception of a detour at the Houston Community College (HCC) campus, these routes are direct and easily understood, and provide a through-route north to downtown and south through Hermann Park toward the Texas Medical Center. Indeed, mode split data reveal that 1.7% of journey-to-work trips from Midtown are made by bicycle. Although this is a small percentage relative to motorized modes, it notably surpasses the Harris County average of 0.3%.

In terms of access to transit, the Holman Street bicycle route passes multiple bus stops, essentially bringing cyclists directly to all METRO routes serving the area. This designated bike route also passes by but does not continue directly into the Ensemble/HCC rail station south of Holman Street on Main Street. Although there are bike racks on the sidewalk adjacent to Ensemble/HCC Station, the Bikeway Map designates City-provided bike racks only at Houston Community College two blocks to the east. Currently bikes are allowed on the METRO light rail line from 9am-3pm and after 7pm on weekdays, and all day on weekends. Two bikes are allowed per train car. All public transit buses in Houston except for articulated buses have the ability to transport bikes. Low-floor buses have bike racks, and high-floor buses allow bikes in the baggage area. No racks are installed on articulated buses. Articulated buses are assigned predictably to certain routes. For buses operating in and around Ensemble/HCC study area, only Route 163 has articulated buses assigned to it, although not every bus is an articulated bus.

The existing bikeway network supports access to transit hubs in the study area and through-access to destinations beyond, but the area's other local streets are less hospitable to internal cycling for short-distance trips. Although these two major bike routes pass through the Ensemble/HCC study area, residents and visitors have to navigate on local streets offering no official cycling infrastructure in order to reach internal destinations or to access these major designated bike route corridors.

Opportunities

- A safe biking network within the study area can encourage residents of the Midtown study area to bike to destinations within their community.
- Increasing the use of bike systems will therefore reduce vehicle circulation within the area, reduce parking demand (and needed supply), and support the patronage of local businesses and services.
- For external visitors, an inviting biking and walking environment will encourage the use of transit to reach the study area in the first place, because people know they do not need to bring a car in order to get around in the area.

Challenges

- Cost of new infrastructure.
- Because of high traffic volumes, many streets in the study area are less hospitable to bicycles

LEGEND

Designated Bike Routes

DESIGNATED BIKE ROUTES

Transit Circulation System

The study area is served by light rail and several different types of bus routes, most of which provide circulation to and from downtown Houston, as well as a handful of crosstown routes. The challenge with regard to transit in the area is not so much the availability of transit services, which are relatively plentiful with a high transit mode share, but rather (1) the connections between transit services in Midtown are limited and (2) safe pedestrian access to and from transit services is not available in all areas.

The 2006 EPA study identified the light rail line and Ensemble/HCC Station as the locus of activity potential for the study area based on the concentration of pedestrian activity and development potential within a few blocks of the rail station. Light rail service along Main Street initiated operation in January 1, 2004. Some bus routes were shifted in the vicinity of the new light rail line and over the past five years, adjustments have been made to the existing services. Routes that currently operate in the study area include the following:

- METRO Rail service at the Ensemble/HCC Station
- Local Bus Routes 1, 9, 11, 42, 53, 78, 81, 82, and 163
- Park-and-Ride routes that operate on/off Spur 527, including 261, 262, 265, 269, 274 and 283

The Urban Research Center of Houston at Rice University's annual Houston Area Survey found that 62 percent of Houston-area residents believe the "development of a much-improved mass transit system" will be very important for the future success of Houston.

A rail component to regional transit was identified as very important by 58% of survey respondents in 2008, a significant increase over the 32% of residents who said rail was very important in 1993, seven years before light rail was implemented. Nevertheless, individual stakeholders in the Midtown study area spoke less about the value of transit than the importance of parking in the area, and some indicated the need for parking so people could access transit to get downtown in the short-term rather than envisioning the Ensemble/HCC Station area as a destination to which people would arrive on transit. HCC was generally described by stakeholders as being the most important destination for transit riders in the area.

Boarding/Alighting Activity

Data from METRO illustrates the major activity nodes in the study area based on transit boarding and alighting. With 922 inbound passenger boardings and 1,048 outbound weekday passenger boardings, people boarding light rail at the Ensemble/HCC station are slightly more likely to travel southbound toward the Texas Medical Center than toward downtown. Because boarding data by hour is not available, this could mean several different things: (1) that many residents who use METRO Rail travel to work in downtown Houston and in the Texas Medical Center area; (2) that Ensemble/HCC Station is a key destination for METRO Rail users coming from both directions and returning home from the Ensemble/HCC Station, or (3) any combination of transit use patterns exists, with people traveling north and south to HCC or other jobs in Midtown, while Midtown residents travel to jobs downtown or at the Texas Medical Center. This third scenario is the most likely based on parking and traffic analyses: that the area is a growing residential center, but also has a high number of jobs and students.

Transit data also shows several bus stops with high volumes of passengers boarding and alighting. Route 42, a crosstown route which operates approximately every 18 minutes for much of the day along Holman Street, has some of the highest boarding and alighting activity in the area, presumably for transfers to and from METRO Rail and for some service to HCC. Route 11 also has significant boarding activity at stops along Holman Street and on San Jacinto Street in the vicinity of HCC. Routes 81 and 82 account for a large number of boardings and alightings in the northwest corner of the study area, while most other portions of the study area have very limited boarding and alighting

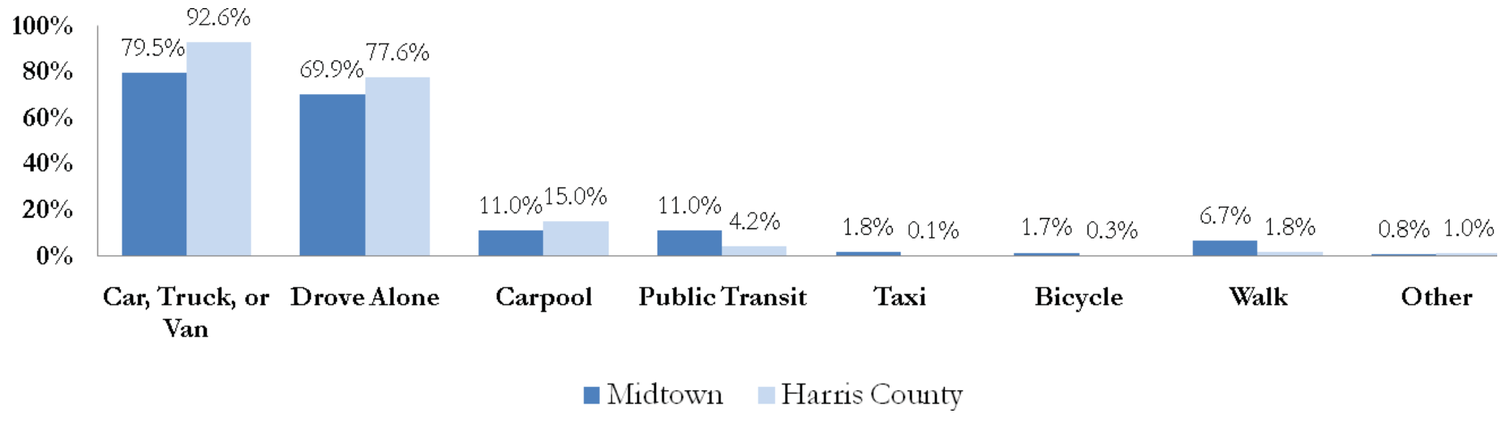
activity.

Opportunities

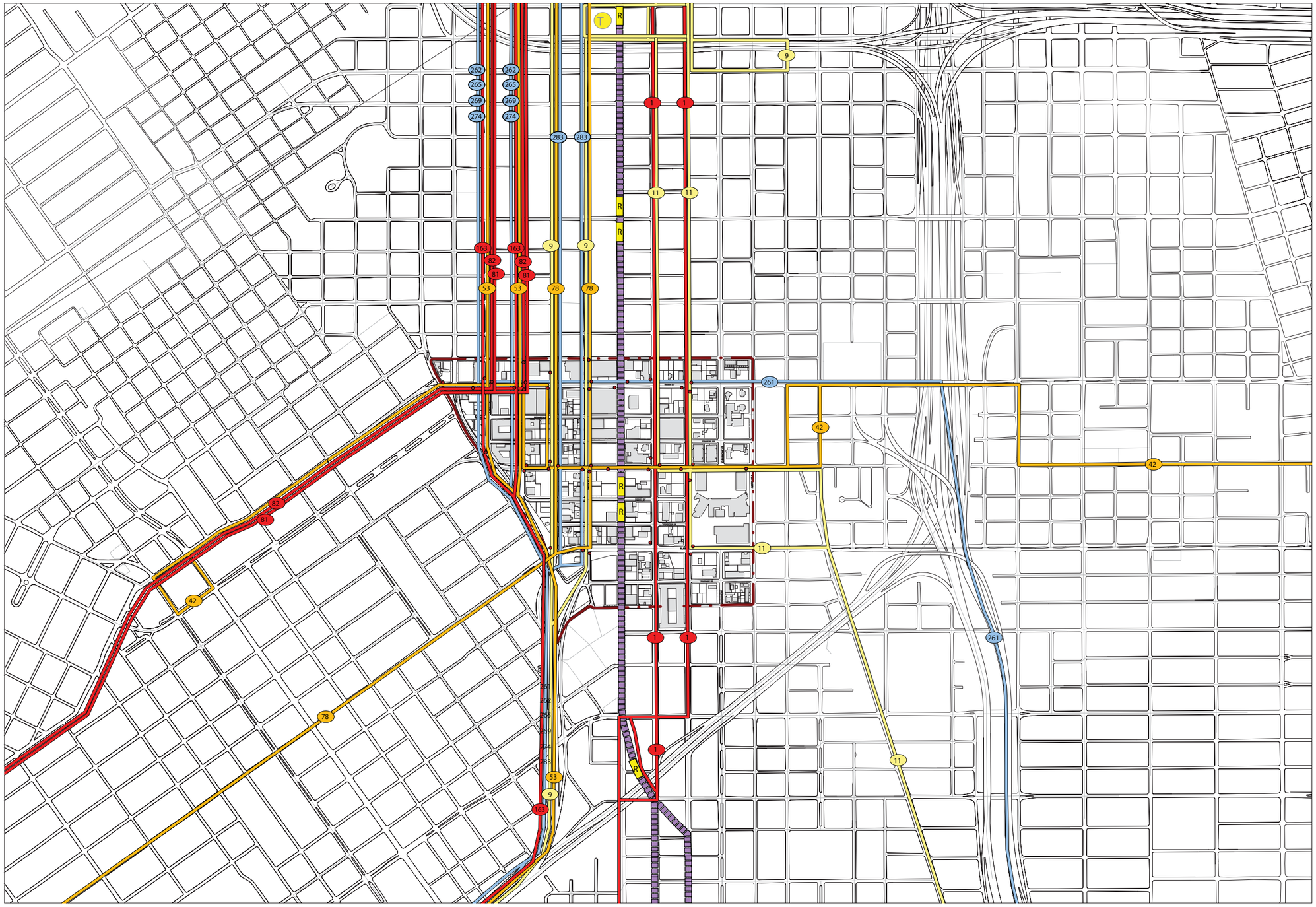
- Reduce number of 'drove alone' work trips.
- Increase use of alternative modes of transportation.

Challenges

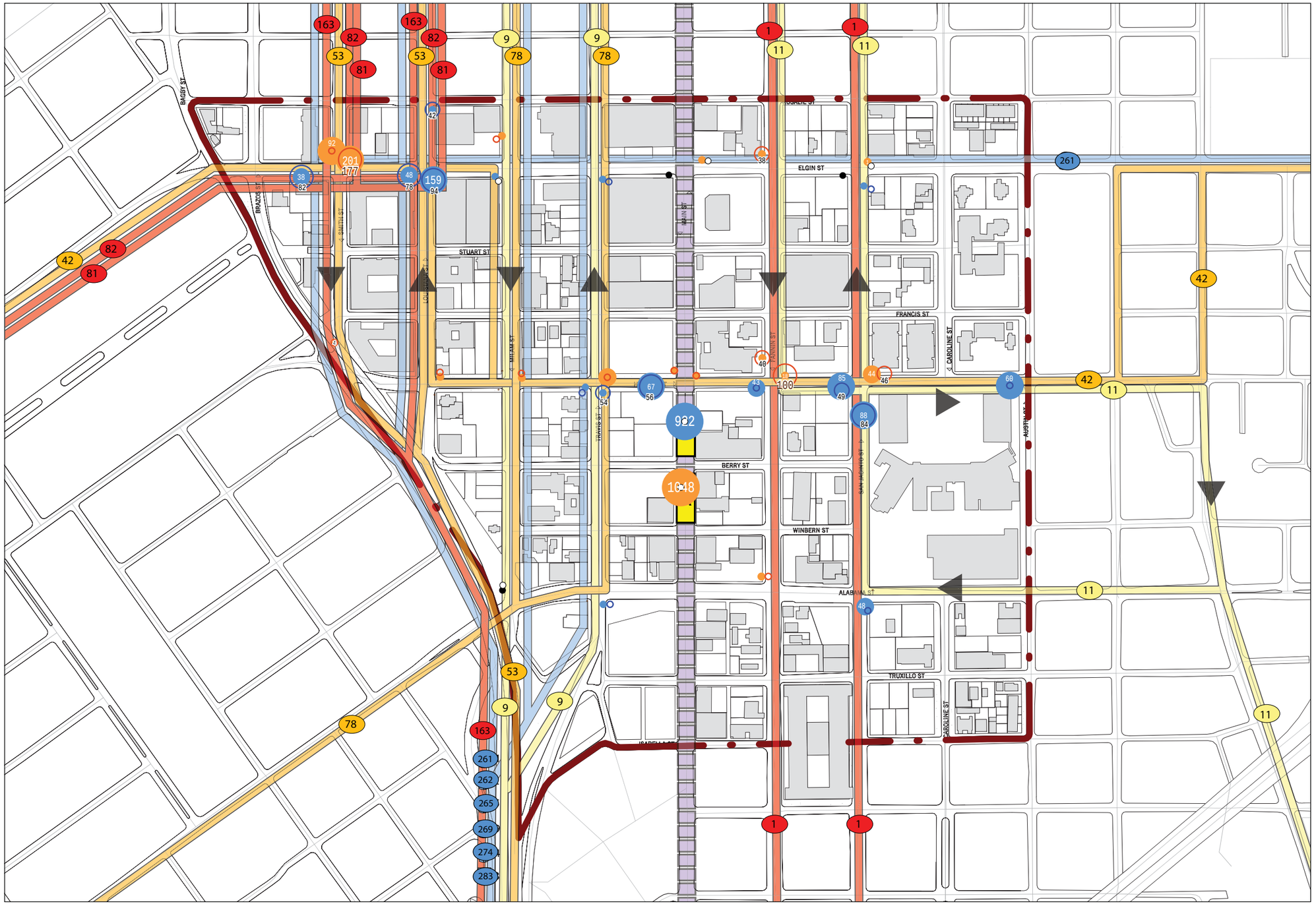
- Providing good access to alternative modes of transportation.
- Overcoming perceptions that alternative modes are less desirable.



Source: HGAC regional travel demand model 2009 output for drive alone, carpool and transit modes within study area; 2000 US Census for all other modes and for all 2000 Harris County data. Note: HGAC does not model taxi, bike, walk or other modes.



METRO TRANSIT
WEEKDAY REGIONAL ROUTES



LEGEND

Direction

- Northbound / Eastbound
- Southbound / Westbound

Ridership

Ons		Offs
XX	500 or more	XX
XX	56 - 500	XX
XX	35 - 55	XX
●	1 - 35	○
●	No ons or offs	○
·	Other bus stops (Ridership not available)	

LOCAL BUS LINES BY FREQUENCY

- High Frequency (5-15 minutes)
- Moderate Frequency (16-25 minutes)
- Low Frequency (26-40 minutes)

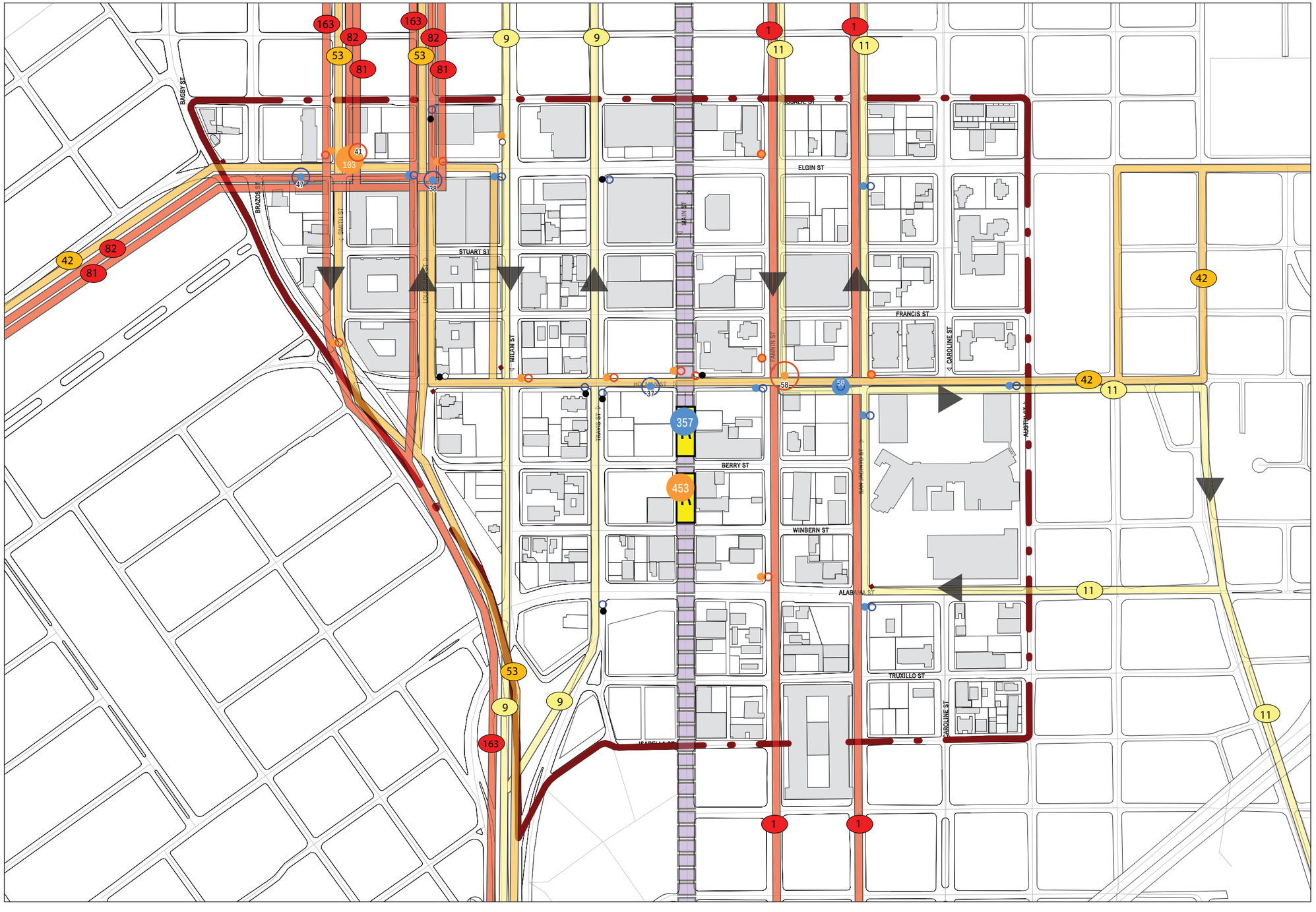
OTHER FEATURES

- Park and Ride lines
- Light Rail Line
- Light Rail Stations

N

0′ 50′ 250′ 500′ 1000′ 2000′

METRO TRANSIT WEEKDAY RIDERSHIP



LEGEND

Direction

- Northbound / Eastbound
- Southbound / Westbound

Ridership

Ons		Offs
XX	500 or more	XX
XX	56 - 500	XX
XX	35 - 55	XX
●	1 - 35	○
●	No ons or offs	○

- Other bus stops (Ridership not available)

LOCAL BUS LINES BY FREQUENCY

- High Frequency (5-15 minutes)
- Moderate Frequency (16-25 minutes)
- Low Frequency (26-40 minutes)

OTHER FEATURES

- Park and Ride lines
- Light Rail Line
- Light Rail Stations

N

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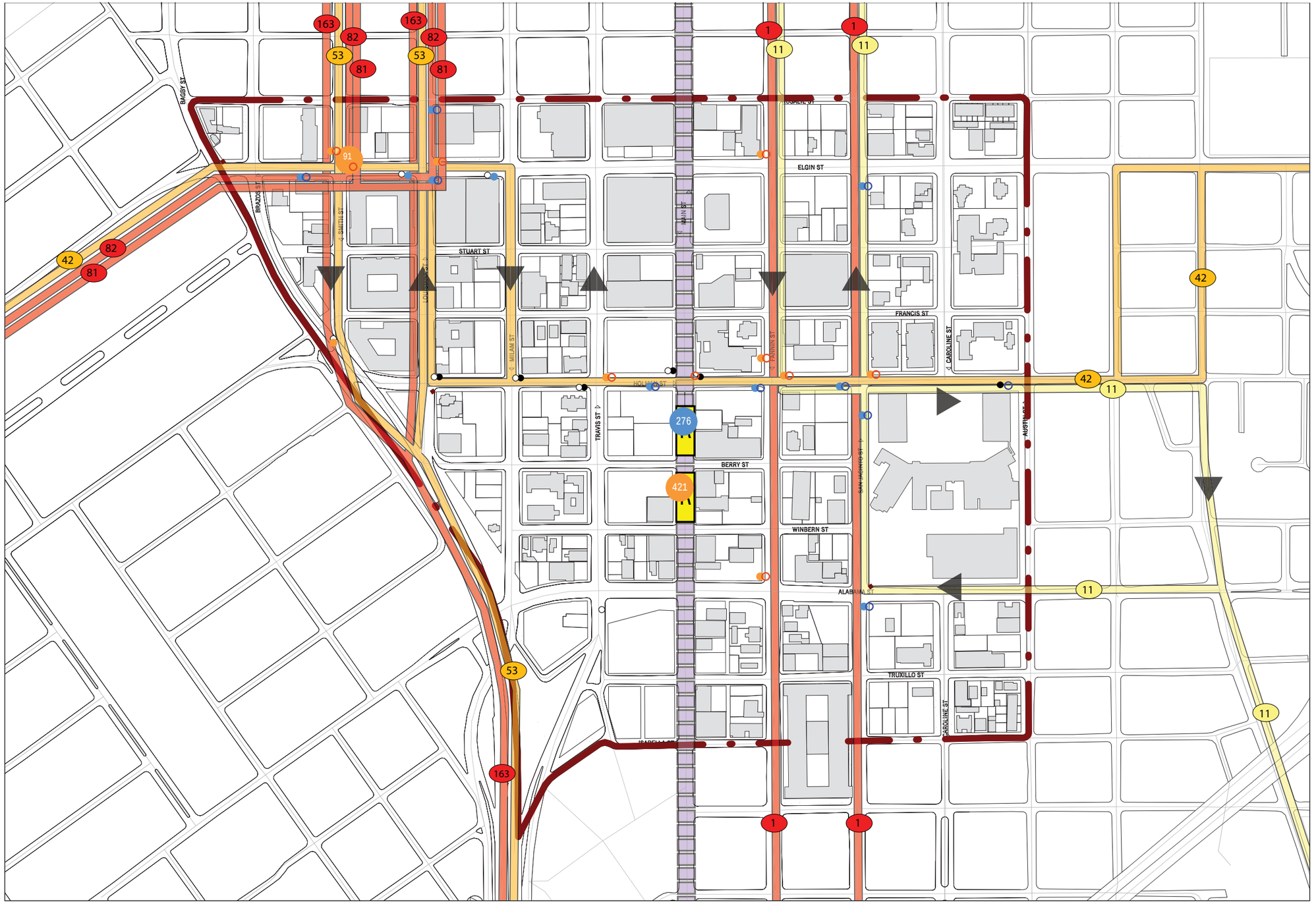
METRO TRANSIT SATURDAY RIDERSHIP



LEGEND

Direction

- Northbound / Eastbound
- Southbound / Westbound

Ridership

Ons		Offs
XX	500 or more	XX
XX	56 - 500	XX
XX	35 - 55	XX
●	1 - 35	○
●	No ons or offs	○

◆ Other bus stops (Ridership not available)

LOCAL BUS LINES BY FREQUENCY

- High Frequency (5-15 minutes)
- Moderate Frequency (16-25 minutes)
- Low Frequency (26-40 minutes)

OTHER FEATURES

- Park and Ride lines
- Light Rail Line
- R Light Rail Stations

N

0′ 50′ 250′ 500′ 1000′ 2000′

METRO TRANSIT SUNDAY RIDERSHIP

Streetscape and Rights-of-Way

The design of Houston's rights-of-way has a significant impact on the livability of the city as well as the health, safety and welfare of its citizens. Many elements such as the width of a sidewalk, availability of shade and wind, availability of seating, provision of bike facilities, number of lanes in the right-of-way, vehicular and pedestrian lighting, and the location of utilities such as overhead power lines and underground waterlines all play a role in shaping the right-of-way.

This section describes the current conditions of the study area's rights-of-way and includes street hierarchy, intersections, street furnishings and amenities, lighting, landscape and tree canopy, pedestrian safety, human comfort, and accessible ramps and sidewalks.

Opportunities

- The existing right-of-ways provide for a basic level of public infrastructure.
- Reducing street width creates the opportunity to preserve the scale and character of certain streets.
- The existing street network is a grid with relatively short block lengths.
- Many intersections are signalized. Pedestrian signals are included at all traffic signals.

The platooning of traffic along the north-south streets creates adequate gaps for pedestrians to cross at non-signalized intersections.

Challenges

- Public right-of-way is expected to support a myriad of infrastructure systems, sometimes within confined areas where the roadways have relatively narrow rights-of-way.
- Public improvement projects are confined to the public right-of-way. Corridor designs should not consider the right-of-way lines as absolute limits, but rather explore public access easements for parking and sidewalks to compliment the public realm.
- The design of the north-south streets promotes vehicular speeds higher than the 30 MPH speed limit. However, reducing the number of lanes to provide on-street parking and shorter pedestrian crossing distances in an effort to mitigate higher travel speeds may degrade corridor and intersection levels of service.
- The traffic signals along the north-south streets are progressed at 35 MPH, which is faster than the 30 MPH speed limit.

The traffic signals are programmed to provide less clearance time for pedestrians than could be provided and is available without affecting vehicular signal timings.

Rights-of-Way Dimensions

From Bagby/Spur 527 to Austin	Approx. ROW (ft)
Rosalie	50
Elgin	80
Stuart	50
Francis	50
Holman	70-80 (Varies)
Berry	60-70 (Varies)
Winbern	56
Alabama	80-100 (Varies)
Truxillo	50
Isabella	50

From Rosalie to Isabella	Approx. ROW (ft)
Brazos	80
Smith	80
Louisiana	80
Milam	85 (Varies)
Travis	70-80 (Varies)
Main	100
Fannin	85
San Jacinto	80
Caroline	80
Austin	80

Street Hierarchy

Streets within the study area are under the jurisdiction of the City of Houston unless noted otherwise. Some streets have specific designations according to the City of Houston's 2008 Major Thoroughfare and Freeway Plan (MTFP). Each hierarchy classification consists of a three-part-code that designates street function, anticipated number of lanes required to meet projected traffic volumes, and the required right-of-way width for the street. The planned number of lanes and right-of-way widths may not be reflected by actual field conditions.

An example of the classification system is provided as follows:
P-6-100
P - Street function, either (P)rinciple Thoroughfare, (T)horoughfare, or (C)ollector
6 - Number of lanes to meet projected future traffic volumes
100 – Minimum required right-of-way width (feet)

All other streets are considered local streets that function to provide access from individual properties to the thoroughfare network.
The speed limit along all street segments within the City of Houston is 30 MPH unless posted otherwise.

Some roadways have been reconstructed to provide HOV lanes. These projects were implemented through the Metropolitan Transit Authority of Harris County (METRO) beginning in the late 1990s utilizing funding from the Federal Transit Administration (FTA). These streets are referred to as Transit Streets and are co-administered by the City of Houston and METRO.

Rosalie Street

Rosalie Street is a two-way, two lane local roadway running east-west in the study area. This section of the roadway terminates at Bagby Street to the west and at Crawford Street to the east. It is discontinuous at Main Street due to METRO's Light Rail Transit Red Line. Sidewalks are provided on both sides of the street for pedestrian access. On-street parking is permitted on some sections of Rosalie Street.

Elgin Street

Elgin Street is a two-way, four lane roadway running east-west in the study area. West of the study area Elgin Street becomes Westheimer and east of the study area Elgin Street extends to IH 45. From Bagby Street to Main Street, its MTFP designation is T-4-80, and from Main Street eastward its designation is T-4-70. Left turn bays are provided on Elgin Street at intersections where left turning maneuvers are permitted. Sidewalks are provided on both sides of the street for pedestrian access. Parking is prohibited along Elgin Street.

Stuart Street

Stuart Street is a two-way, two lane local roadway running east-west in the study area, but is discontinuous between Caroline Street and LaBranch Street. It is also discontinuous at Main Street due to METRO's Light Rail Transit Red Line. Sidewalks are provided on both sides of the street for pedestrian access. On-street parking is permitted on some sections of Stuart.

Rosalie Street

Elgin Street

Stuart Street

Francis Street

Francis Street is a two-way, two lane local roadway running east-west in the study area. It is discontinuous between Austin Street and LaBranch Street. It is also discontinuous at Main Street due to METRO's Light Rail Transit Red Line. Sidewalks are provided on both sides of the street for pedestrian access. On-street parking is permitted on some sections of Francis.

Holman Street

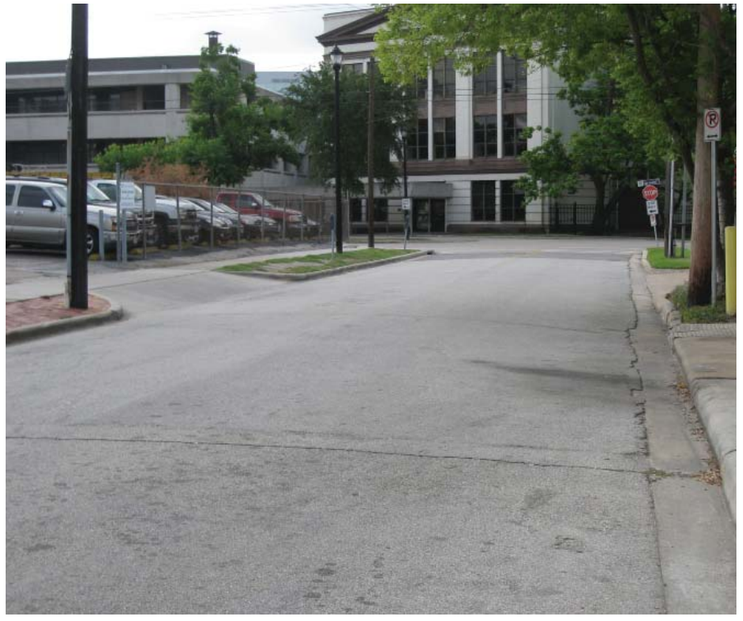
Holman Street is a two-way, two lane local roadway running east-west in the study area. It runs between Spur 527 to the west and US 59 to the east. Sidewalks are provided on both sides of the street for pedestrian access. On-street parking is permitted along some sections of Holman Street. The City of Houston's Bikeway Program has designated Holman Street a shared roadway bike route through the study area. A shared roadway is one that is open to both bicycle and motor vehicle traffic.

Berry Street

Berry Street is a two-way, two lane local roadway running east-west in the study area. It extends from its tee intersection with San Jacinto Street westward to Louisiana Street. It is discontinuous at Main Street due to METRO's Light Rail Transit Red Line. Sidewalks are provided on both sides of the street for pedestrian access. On-street parking is permitted on some sections of Berry.

Francis Street

Holman Street



Berry Street

Winbern Street

Winbern Street is a two-way, two lane local roadway running east-west in the study area. It is discontinuous between Austin Street and San Jacinto Street at the Houston Community College (HCC) campus. It is also discontinuous at Main Street due to METRO's Light Rail Transit Red Line. Sidewalks are provided on both sides of the street for pedestrian access. On-street parking is permitted on some sections of Winbern.

Alabama Street

Alabama Street is a two-way, four lane roadway running east-west in the study area. Alabama Street continues to the west of the study area as W. Alabama Street. East of the study area Alabama Street continues until its intersection with Scott Street near the University of Houston main campus. In the study area, its MTFP designation is C-4-60. Left turn bays are provided along Alabama Street at the signalized intersections of San Jacinto, Fannin, Main, Travis, and Milam Street. Sidewalks are provided on both sides of the street for pedestrian access. Parking is prohibited along Alabama Street.

Truxillo Street

Truxillo Street is a two-way, two lane local roadway running east-west in the study area. It runs between Travis Street to the west and US 59 to the east but is discontinuous at Main Street due to METRO's Light Rail Transit Red Line. Sidewalks are provided on both sides of the street for pedestrian access. On-street parking is permitted on some sections of Truxillo Street. The City of Houston's Bikeway Program has designated Truxillo Street from Caroline Street to LaBranch Street a shared lane bike route.

Winbern Street

Alabama Street

Truxillo Street

Isabella Street

Isabella Street is a two-way, two lane local roadway running east-west in the study area. It runs from Travis Streets to the west and Almeda Road to the east but is discontinuous at Main Street due to METRO's Light Rail Transit Red Line. It is also discontinuous between Fannin Street and San Jacinto Street. Sidewalks are provided on both sides of the street for pedestrian access. On-street parking is permitted on some sections of Isabella Street

Isabella Street

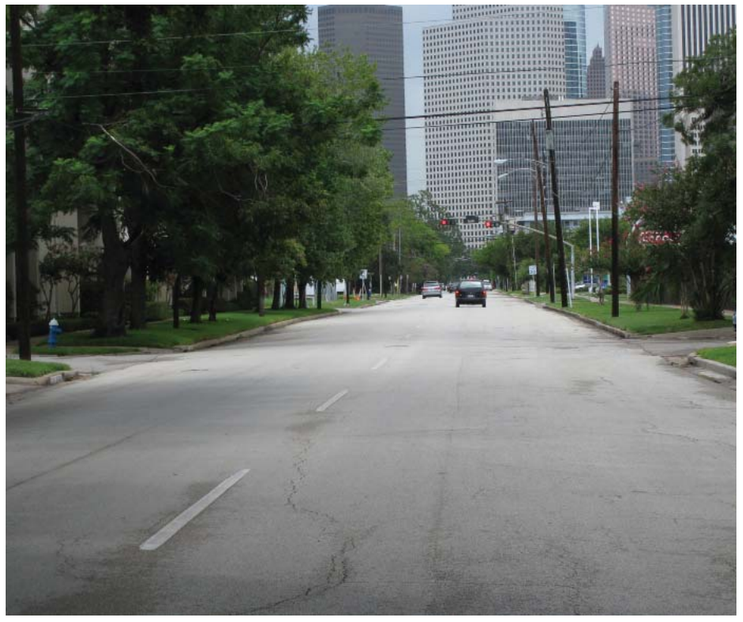
Bagby Street

Bagby Street is a one-way, three lane roadway running southbound in the study area. Bagby Street begins as the terminus of Heiner Street in the southern portion of the Central Business District (CBD) of Houston, and extends south to Spur 527. Sidewalks are provided on both sides of the street for pedestrian access. On-street parking is prohibited within the study area but is allowed along other sections of Bagby Street.

Bagby Street

Brazos Street

Brazos Street is a one-way, two lane roadway running northbound in the study area. Brazos Street begins as the terminus of Spur 527 and extends northward into the CBD of Houston. In the study area, its MTFP designation is C-4-80. Sidewalks are provided on both sides of the street for pedestrian access. On-street parking is prohibited within the study area but is allowed along other sections of Brazos.



Brazos Street

Smith Street

Smith Street is a one-way, five lane Transit Street running southbound in the study area. Smith Street begins in the northern portion of the CBD as an exit ramp terminus from IH 10 and extends south to Spur 527. The right-most lane on Smith is designated bus and right turns only; north of Elgin Street, the adjacent lane is designated bus and carpool only during the periods of 7-9 AM and 4-6 PM on weekdays. Sidewalks are provided on both sides of the street for pedestrian access. On-street parking is permitted on some sections of Smith during various hours of the day.

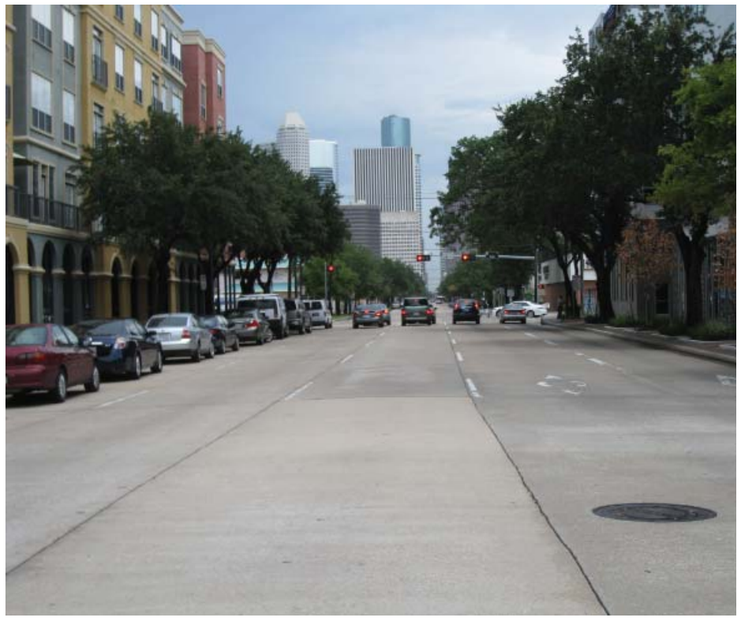
Louisiana Street

Louisiana Street is a one-way, five lane Transit Street running northbound in the study area. Beginning as the terminus of an exit ramp from Spur 527, Louisiana Street extends northward through the CBD and eventually becomes an entrance ramp onto IH 10. The right-most lane on Louisiana Street is designated bus and right turns only; the adjacent lane is designated bus and carpool only during the periods of 7-9 AM and 4-6 PM on weekdays. Sidewalks are provided on both sides of the street for pedestrian access. On-street parking is permitted on some sections of Louisiana Street during various hours of the day.

Milam Street

Milam Street is a one-way, four lane Transit Street running southbound in the study area. Milam Street begins in the northern portion of the CBD as an exit ramp terminus from IH 45 and extends south to Spur 527. At Spur 527, Milam Street provides access to the US 59 HOV lane, Spur 527, and access to Richmond via a two lane frontage road. The right-most lane on Milam Street is designated bus and right turns only; the adjacent lane is designated bus and carpool only during the periods of 7-9 AM and 4-6 PM on weekdays. Sidewalks are provided on both sides of the street for pedestrian access. On-street parking is permitted on some sections of Milam Street.

Smith Street



Louisiana Street

Milam Street

Travis Street

Travis Street is a one-way, four lane Transit Street running northbound in the study area. Beginning as the terminus of an exit ramp from Spur 527 and a two lane frontage road extending from Richmond, Travis Street extends northward through the CBD and eventually becomes an entrance ramp onto IH 45. The right-most lane on Travis Street is designated bus and right turns only; the adjacent lane is designated bus and carpool only during the periods of 7-9 AM and 4-6 PM on weekdays. Sidewalks are provided on both sides of the street for pedestrian access. On-street parking is permitted on some sections of Travis Street.

Main Street

Main Street is a two-way, two lane street running north-south in the study area. METRO's Light Rail Transit Red Line exists within the median of Main Street. Left turning traffic movements from Main Street onto side streets are not permitted in the study area. Main Street runs from Downtown Houston to the north, merges with Old Spanish Trail in the Texas Medical Center (TMC), and continues as US 90 to the south. Main Street is designated as P-6-80 in the study area and is designated as a transit corridor street. Sidewalks are provided on both sides of the street for pedestrian access.

Fannin Street

Fannin Street is a one-way, five lane Transit Street that runs southbound in the study area. Fannin Street begins in the CBD by splitting from San Jacinto Street just north of Buffalo Bayou and continues through the study area southward through the Texas Medical Center to IH 610. The right-most lane on Fannin Street is designated bus and right turns only; the adjacent lane is designated bus and carpool only during the periods of 7-9 AM and 4-6 PM on weekdays. The MTFP designation of Fannin Street in the study area is P-4-80. Sidewalks are provided on both sides of the street for pedestrian access. On-street parking is permitted on some sections of Fannin Street.

Travis Street

Main Street

Fannin Street

San Jacinto Street

San Jacinto Street is a one-way, four lane Transit Street that runs northbound in the study area. San Jacinto Street begins just north of the Texas Medical Center by splitting from Fannin Street and continues through the study area northward through the CBD to IH 10. The right-most lane on San Jacinto Street is designated bus and right turns only; the adjacent lane is designated bus and carpool only during the periods of 7-9 AM and 4-6 PM on weekdays. Sidewalks are provided on both sides of the street for pedestrian access. On-street parking is permitted on some sections of San Jacinto Street.

Caroline Street

Caroline Street begins in the northern portion of the CBD and extends southward to Hermann Park. Caroline Street is discontinuous between Alabama Street and Holman Street at the Houston Community College campus. It has different operational characteristics within the study area. North of Holman Street, it is a one-way three lane roadway that runs southbound, teeing into Holman Street with a two lane cross section. South of the Houston Community College campus, Caroline Street is a two-way two lane roadway. Sidewalks are provided on both sides of the street for pedestrian access. The City of Houston's Bikeway Program has designated Caroline Street a shared lane bike route through the study area except for a one block segment between Alabama Street and Truxillo Street. On-street parking is permitted on some sections of Caroline Street.

Austin Street

Austin Street begins just north of Hermann Park with its southern terminus at Hermann Drive. From that point, Austin Street is a two-way, two lane roadway up to Alabama Street. Between Alabama Street and Holman Street, Austin Street is a one-way, northbound, private drive. North of Holman, Austin Street is a one-way, two lane northbound street that continues through the study area to the CBD terminating at Commerce Street. On-street parking is permitted on some sections of Austin Street.

San Jacinto Street

Caroline Street

Austin Street

Intersections

The design of Houston's intersections has a large impact on the pedestrian accessibility of the study area. If the distance between ramps is too great or if crosswalks are non-existant or unclearly marked, pedestrians will be hesitant to cross certain streets. The inability for a pedestrian to cross certain streets reduces movement across the study area and promotes the use of personal vehicles. Currently crosswalks are only allowed at signalized interesections but should be allowed at all intersections, despite the lack of signals. These crosswalks can be marked clearly through signage, flashing lights, street markings, or a material change.

Opportunities

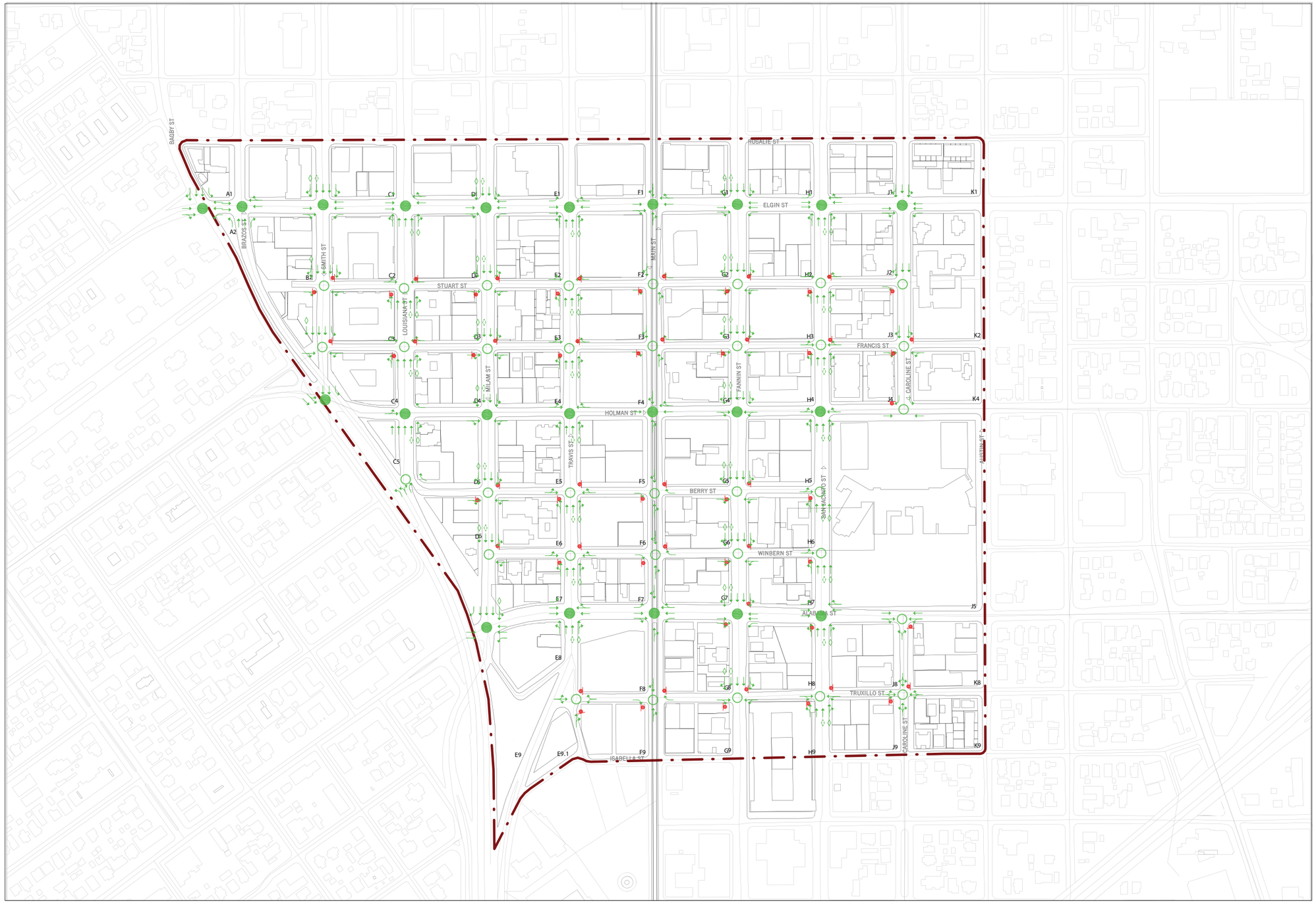
- The existing street network is a grid with relatively short block lengths.
- Many intersections are signalized. Pedestrian signals are included at all traffic signals.
- The platooning of traffic along the north-south streets creates adequate gaps for pedestrians to cross at non-signalized intersections.
- Provide additional signal time for pedestrian movements.

Challenges

- The design of the north-south streets promotes vehicular speeds which are not in conformance with the 30 MPH speed limit.
- The traffic signals along the north-south streets are progressed at 35 MPH, which is faster than the 30 MPH speed limit.
- The traffic signals are programmed to provide less clearance time for pedestrians than could be provided. The additional time can be provided without affecting existing vehicular signal timings.
- Historically, the City of Houston has been reluctant to signalize additional intersections within the study area. A specific development situated at an unsignalized intersection may generate enough pedestrian traffic to warrant signalization of the intersection.
- Historically, the City of Houston has been reluctant to install crosswalks across the north-south streets within the study area at unsignalized intersections. Development of walkable corridors within the study area may warrant the installation of crosswalks across the north-south streets at unsignalized intersections.

The width of the one way transit streets such as Bagby Street make crossing difficult for pedestrians.

Pedestrians still attempt to cross north-south streets within the study area at unsignalized intersections despite the lack of crosswalks.



LEGEND

- Lane Direction
- Transit Lane
- Car Pool/Van Lane: 7-9 AM & 4-6 PM
- Signalized Intersection
- Unsignalized Intersection
- Stop Sign

LANE ASSIGNMENTS AND INTERSECTION CONTROLS

Street Furnishing and Amenities

Not only must the pedestrian zone in a streetscape be walkable, it must also contain site furnishings and amenities to enhance the character and functionality. Street furnishings should include lighting, seating, trash receptacles, bike racks, parking meters, tree grates, planter pots, newspaper racks, and kiosks. These elements need to be selected for their durability, safety, and their aesthetic qualities and be unifying elements resulting in a consistent identity for Midtown. The Midtown Development Tools report encourages specific manufacturer products for benches, bike racks, bollards, tree grates and trash receptacles. Streetscape furnishings and amenities can increase the use of the streetscape by making it more comfortable for pedestrians.

Analysis suggests that street furnishings and amenities are lacking in most of the study area.

Street furnishings such as new benches, trash receptacles, and pedestrian-scale lighting has been provided in a few areas of Midtown, primarily around new development. A few areas in Midtown have provided street furnishings that included new benches, trash receptacles, etc. However, most of the study area is lacking the necessary furnishings to make the pedestrian experience comfortable. The Elgin Street Corridor and the Houston Community College campus have adequate pedestrian furnishings, but most other areas in Midtown either have little or no furnishings.

Opportunities

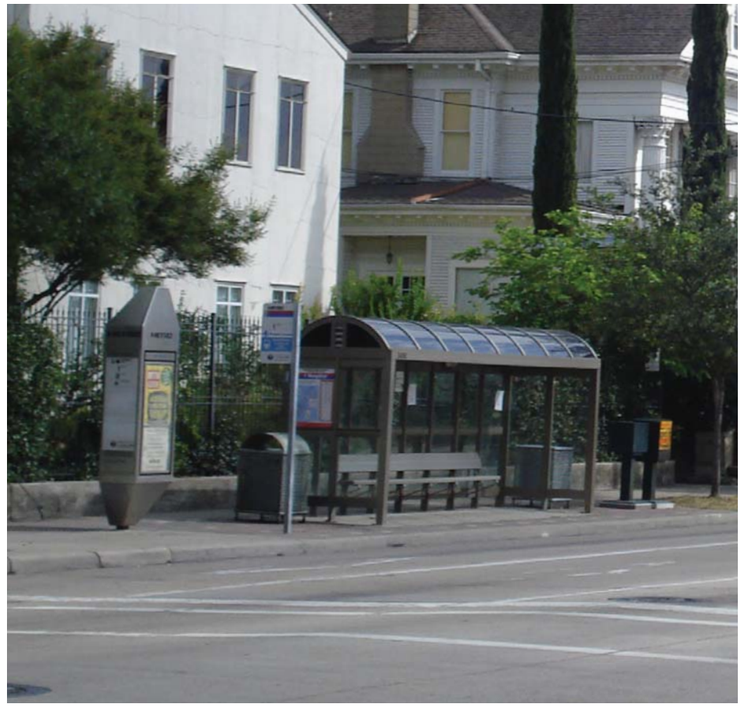
- New streetscape improvements and furnishings can sometimes stimulate adjacent private development.
- Streetscape furnishings and amenities create a more enjoyable pedestrian experience.

Challenges

- One challenge with adding street seating to an area is the concern that the homeless population will loiter in these areas. Too often seating is removed for this reason. Removing or not adding seating for this reason does not solve the problem and only denies the rest of the community the comfort of having a place to sit.
- Maintenance is always an issue and vandalism will inevitably occur. However, as pride in the community increases, less vandalism will occur.
- The initial purchase cost and installation of street furnishings can be expensive for a city.

Benches with divider discourage sleeping or long-term loitering on the bench.

Bicycle parking is essential to increased bicycle use in the district.



Visible and comfortable transit facilities can contribute to higher ridership.

Amenities such as newspaper racks and trash receptacles are commonly located at transit stops.

LEGEND

- Sufficient pedestrian amenities
- Barely sufficient or satisfactory pedestrian amenities
- No pedestrian amenities

STREETSCAPE AMENITIES INVENTORY

Lighting

Street lighting improves pedestrian visibility and personal security. On streets with trees, street lighting scaled to pedestrians (low lights) illuminates the sidewalk even after the trees mature. Street lighting improves safety by allowing pedestrians and drivers to see each other. It also adds to personal safety and aesthetics. Lighting on both sides of the street should be considered along wide streets, and it is especially important to provide lighting at pedestrian crossings.

Lighting is necessary along streets to reduce vandalism, improve security, and increase perceived safety.

Analysis suggests that adequate lighting is lacking in most of the study area. A few streets have new pedestrian lighting, primarily around new development. The Elgin Street Corridor and the Houston Community College campus have adequate lighting, but most other areas need additional pedestrian and vehicular lighting.

Opportunities

- Consistent lighting can also enhance the image of the study area. Refer to the Midtown Development Tools report for the use of street lighting.
- Lighting should be integrated into future streetscape projects.
- Increased sense of safety for pedestrians

Challenges

- Costs vary widely depending on materials used, lighting design, utility service agreements and other factors. However, a general cost estimate is $2,000 to $3,000 per streetlight (Metropolitan Transportation Commission website).
- More light fixtures result in an increases in maintenance budget.

Tall lighting shines into second and third floor windows creating glare.

Decorative lights can contribute to the identity of the study area.

Cobra-style lighting lights the streets effectively, but lack human scale.

Tall lighting in tree-lined streets is diffused by leaves and branches. Utilize lower lights in these areas.

LEGEND

- Pedestrian Scaled Lighting
- Vehicular Scaled Lighting
- No Mid-block Lighting
  **Lighting present at intersections*

STREET LIGHTING INVENTORY

Landscaping and Tree Canopy

The availability and quality of landscaping and tree canopy is vital to a community's quality of life. It contributes to a positive neighborhood identity, and may serve as a key strategy in community revitalization. Landscaping can reduce the temperature and make a more comfortable microclimate while making the streetscape more attractive. Landscaping should be selected for low maintenance and low water use. Plant material should include only native or adapted species to the Houston area.

Analysis suggests that although some areas have nice landscaping in Midtown, most streets need landscaping improvements.

Many of the new landscape improvements on Elgin Street were not maintained and are dead or dying and will need to be replaced. Several sidewalks in the study area are blocked due to plant material that is hanging low or overhanging its planting area. Most streets in Midtown have landscaping, but it is either not maintained adequately or was not the proper plant selection for the site.

Previous studies have all observed the importance of shade to creating walkable streets. The inventory shows that there is not consistent shade along the sidewalks. There are some large existing Oak trees adjacent to the sidewalk, most located near Holman Street and are associated with long-term or historic uses such as churches and single-family residential.. These assets need to be preserved. Additional street trees along Main Street, San Jacinto Street, Smith Street, Louisiana Street and Austin Street are fairly good. Because of overhead utilities in the study area, ornamental trees were planted along streets such as Elgin Street. They are fairly new but fail to provide effective shade. The rest of the site either has very small trees that do not provide effective shade or they do not have trees at all.

Opportunities

- Trees provide human comfort and thus walkable streets.
- Landscaping can help create an identity for an individual street or an entire district.
- Public/private partnerships can contribute to implementation of tree plantings as well as long-term maintenance.

Challenges

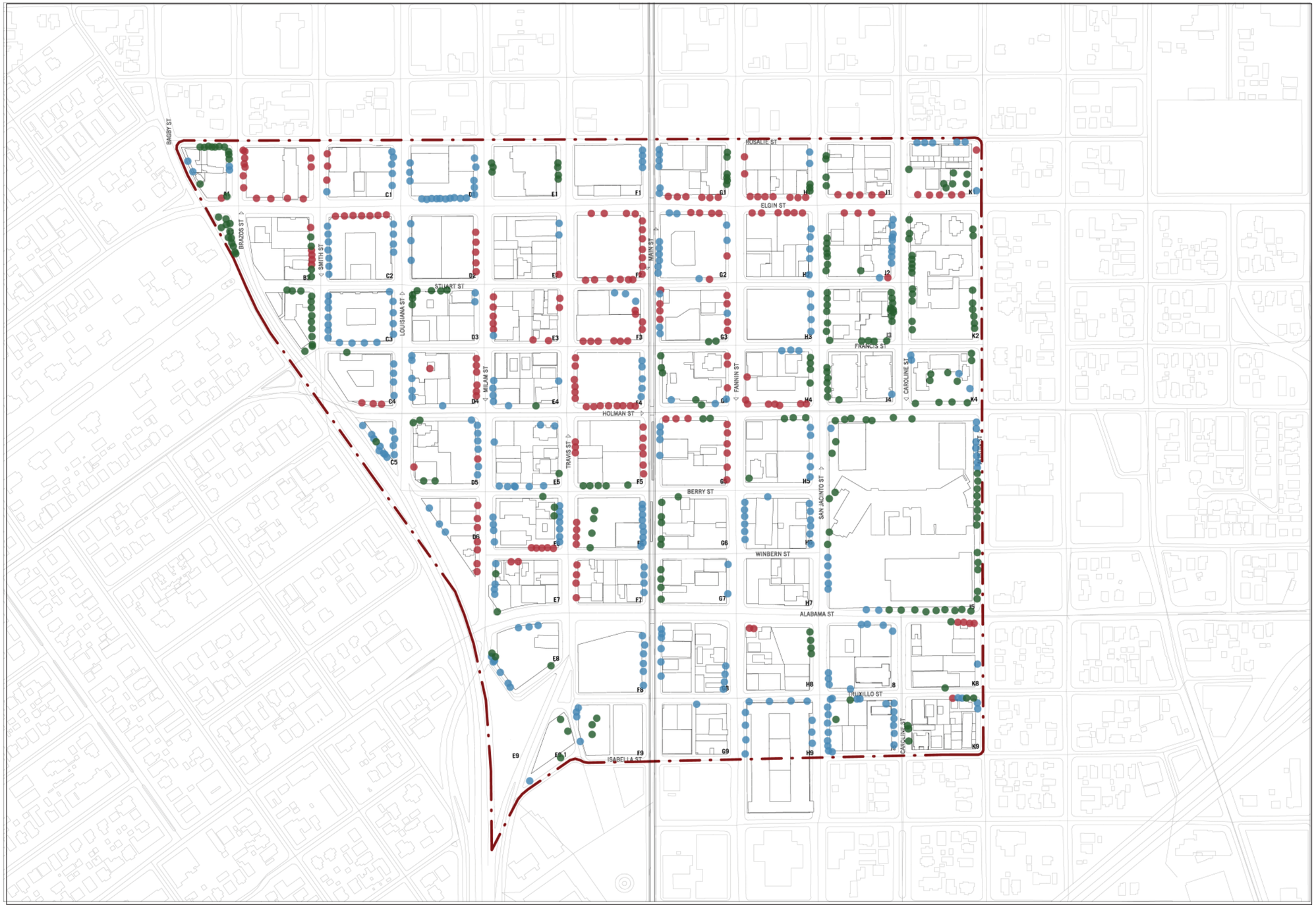
- Above-ground power lines conflict with trees.
- Careful selection of plant material is necessary in order to ensure long term survival and cost effectiveness.
- Irrigation is expensive and must be regularly maintained.

Allowable Trees

Bald Cypress	Taxodium distichum	30-40'
Southern Magnolia	Magnolia grandiflora	25-35'
'Highrise' Live Oak	Quercus virginiana 'QVTIA'	30-40'
Nuttal Oak	Quercus nuttallii	30-35'
Shumard Oak	Quercus shumardii	30-40'
Burr Oak	Quercus macrocarpa	30-35'
American Elm	Ulmus americana	30-40'
Lacebark Elm	Ulmus parvifolia	20-35'
Mexican Sycamore	Plantanus mexicana	30-40'
Tulip Poplar	Liriodendron tulipifera	35-45'
Swamp Red Maple	Acer rubrum var. drummondii	25-30'
Sawtooth Oak	Quercus acutissima	25-35'

Native Oak trees provide essential shade while requiring minimal water.

Continual maintenance of trees is essential for the first two years or until the tree is established.



LEGEND

Excellent Condition
Recommended Preservation

Good Condition
Removal Only When Absolutely Necessary

Marginal Condition
Removal When Needed

TREE INVENTORY

Pedestrian Safety

A prerequisite for a healthy and vibrant community is making people feel safe, secure, and un-threatened. All large cities have crime issues, but by design many cities have improved and reduced pedestrian safety concerns. Surveillance and territoriality are key to deterring crime. Encouraging more pedestrians on the street and filling in vacant lots with new structures will aid in reducing crime since people are not as likely to commit a crime if someone is watching. Instilling pride in the neighborhood will also increase safety. If people view the public space as their own they will be more willing to take responsibility for it and protect it. Lack of lighting contributes to low visibility and therefore high crime. Many of the streets in Midtown lack vibrancy both day and night. This results in a feeling that the streets are unsafe and that crime persists.

According to the Houston Police's website, in June 2009 Midtown had 114 crimes including personal theft, auto theft, burglary, aggravated assault, robbery and rape.

Another aspect of safe streets is having an obstruction free walkway. Many obstructions block the pedestrian sidewalks in the study area. These obstructions include un-maintained planting, parked cars, and un-walkable sidewalks. These obstructions force the pedestrian to walk into the street placing them in danger. Unsafe streets also include a lack of open storefronts along the street and low visibility due to obstructions such as fences, walls, and shrubs. Many sidewalks in the study area have no seperation between the pedestrian and the vehicular traffic. The diagram to the right rates the level of pedestrian safety in the study area based on lighting, sidewalk location, traffic speeds, obstructions, and other visual observations.

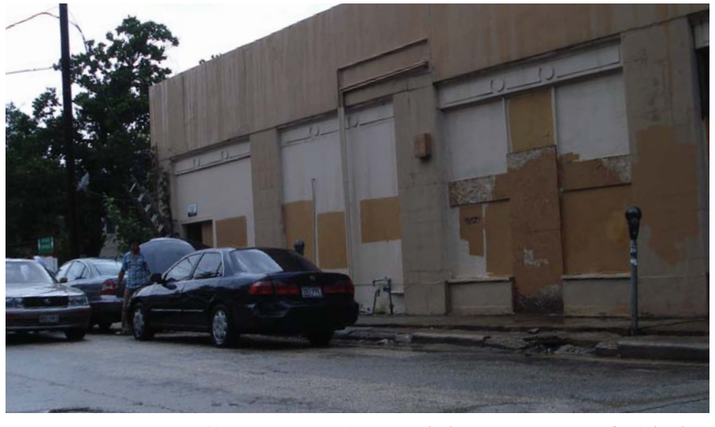
Opportunities

- Increasing both day and night use will create a safe and vibrant streetscape.
- When safety is increased so are shoppers and investment. This results in retail prosperity and an increased municipal tax base.
- Allowing street venders helps increase surveillance of the streetscape.
- Involving residents in neighborhood watch programs instills greater awareness.

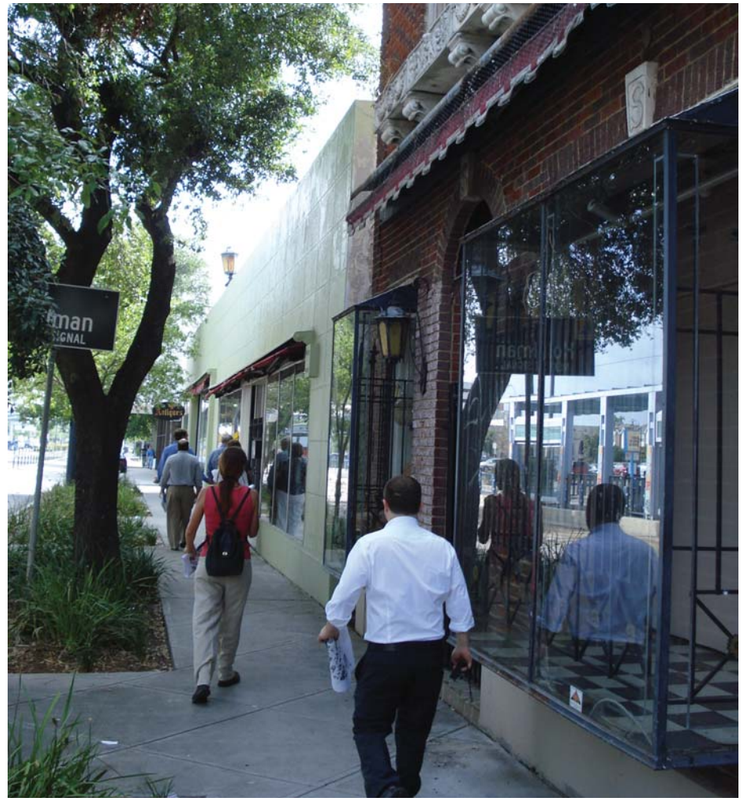
Challenges

- An unsafe streetscape cannot be fixed by streetscape improvements alone. There are larger issues that must also be addressed such as poverty levels, education, and homelessness.

Obstructions on the sidewalk create unsafe walking conditions for pedestrians.



Abandoned, boarded up buildings create an area for loitering.



Streets that have businesses with windows facing the sidewalk create a feeling of safety.

Plantings that are not properly maintained can become an obstruction to the pedestrian.

LEGEND

Safe
Good seperation between sidewalk and street, high visibility

Moderate
Little seperation between sidewalk and street, medium visibility

Unsafe
Little to no seperation between sidewalk and street, low visibility

PEDESTRIAN SAFETY ANALYSIS

Human Comfort

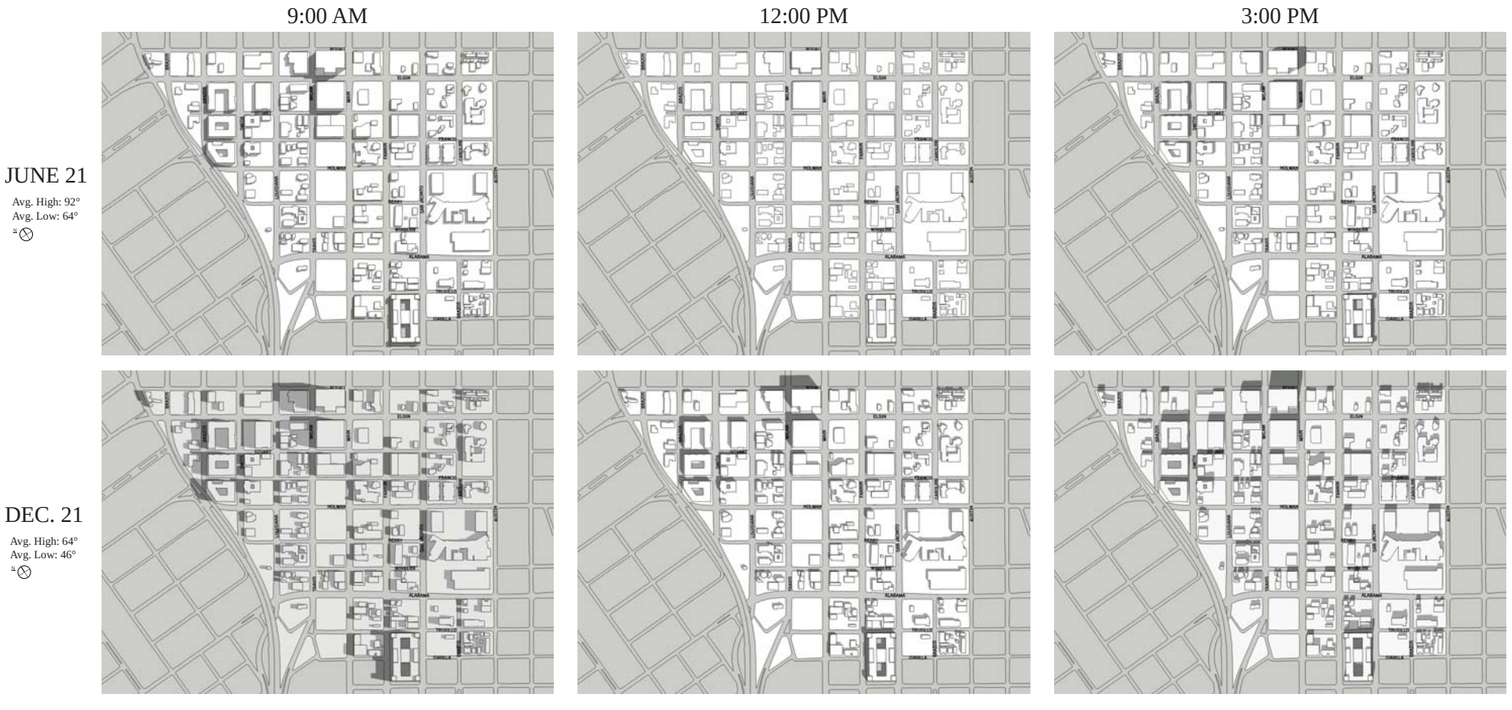
Creating human comfort is essential for the pedestrian circulation system in Houston, since it experiences hot and humid summers. The temperature can often be higher than 100 °F and from May to October, the humidity can exceed 90%.

A comfortable outdoor environment will make the study area a pedestrian-friendly urban area and become a strong linkage for various uses in Midtown.

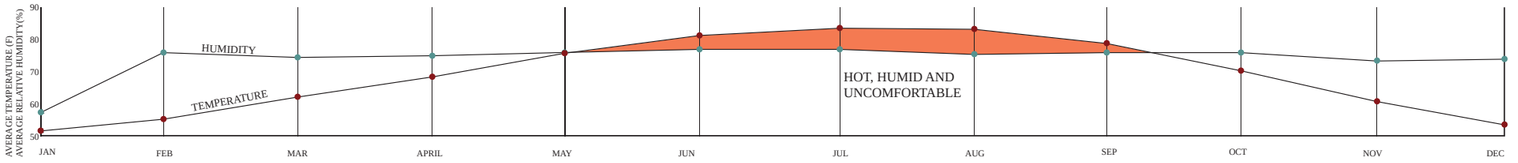
Based on the shade the buildings and trees provide in summer, we identified areas that are comfortable, moderate and uncomfortable for people to walk along the streets in the summer. There are primarily two areas that have higher levels of human comfort than the rest of the site- the west side where the new Calais apartment homes are and the east side near Houston Community College and First Evangelical Church. As the diagram to the right shows, the summer breeze is almost aligned with the east-west streets and brings opportunity to reduce humidity, especially in the summer.

Buildings can provide shade for pedestrian areas. However, there are very few buildings that are tall enough to provide summer afternoon shade for the sidewalk in the study area. The opposite shows an analysis of human comfort levels in the study area based on level of shade, wind direction, average temperatures, average humidity, and personal observations.

SUN/SHADE STUDY

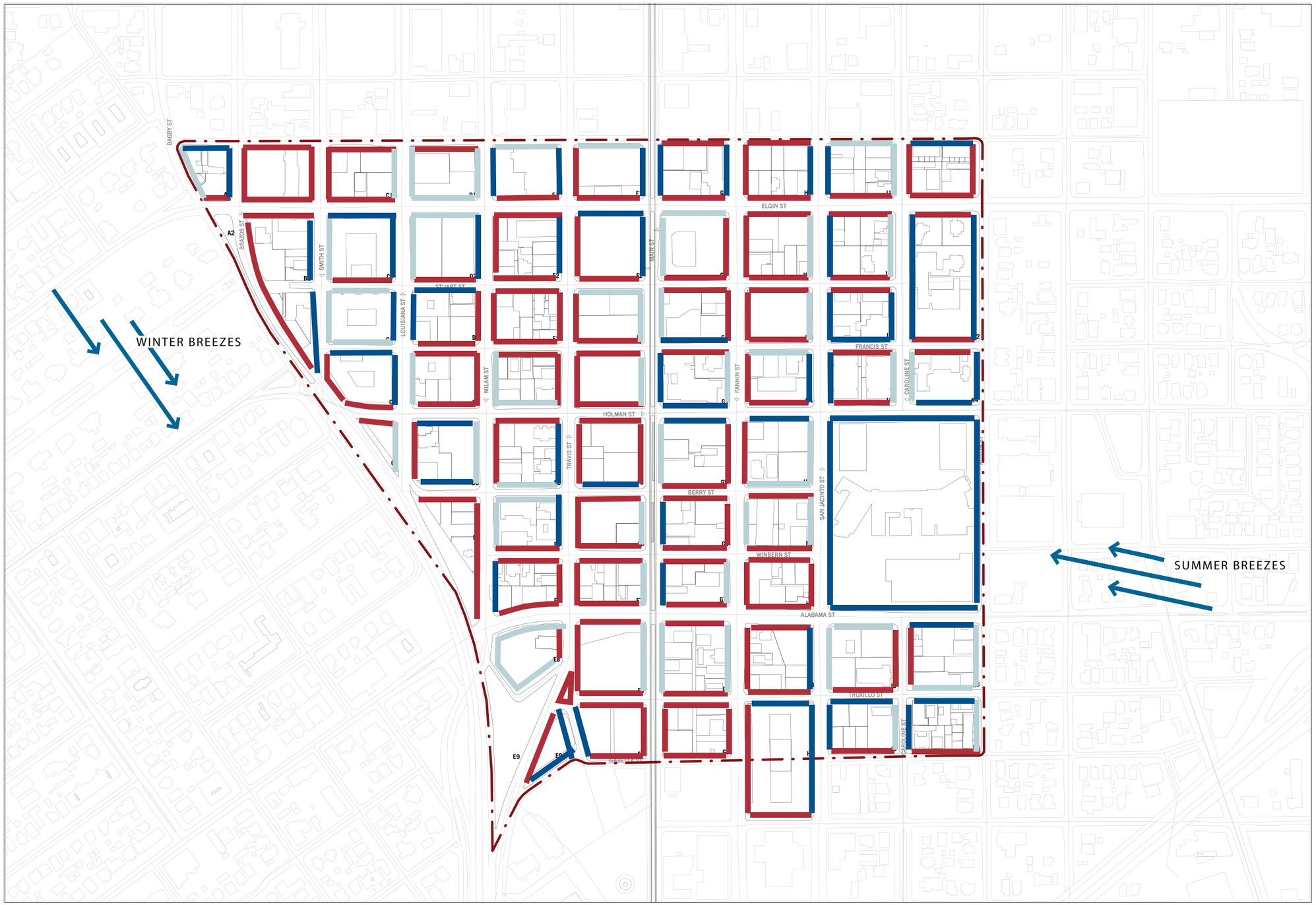


HUMAN COMFORT GRAPH



AVERAGE WIND DIRECTION AND SPEED

TEMPERATURE INTENSITY



LEGEND

- Comfortable
- Moderate
- Uncomfortable

HUMAN COMFORT ANALYSIS

Accessible Ramps and Sidewalks

Creating accessible and safe ramps and sidewalks is vital to the overall pedestrian circulation in a community. During the later part of the 20th century, the automobile was the preferred mode of transportation. This provided personal convenience and protection from the elements, but resulted in a huge cost burden for communities as they struggled to build and maintain streets and parking facilities. During this time pedestrian infrastructure was allowed to decline and limited to no investment in new pedestrian infrastructure was made. This study area reflects this disinvestment with poor sidewalks, ramps, and pedestrian connections.

Ramps and sidewalks must meet ADA requirements so all residents, including individuals with disabilities, have the opportunity to utilize places of commercial facilities and public accommodation. According to the Employers Forum on Disability, in 2002 roughly 51.2 million or 18% of Americans stated they had some form of disability; for 32.5 million of them the disability was severe. Another Employers Forum on Disability study shows that 16.7% of the American population were aged 60 and over in 2005. This is projected to be 26.4% by 2050. All previous studies on ADA accessibility observe the importance of ADA accessible ramps and sidewalks to a city.

These studies suggest that around 25% of the population cannot easily walk around the study area in its current state due to a lack of accessibility.

Despite the fact that some are "grandfathered" in (meaning they are not required to be updated because they met ADA compliance at one time), all ramps and sidewalks should be upgraded to meet the current ADA standards. However, this is a costly endeavor. Therefore, this study recommends focusing first on the streets that will be a direct connection between districts. Several ramps and sidewalks have been constructed recently on Elgin Street and near the Houston Community College Campus. These ramps meet current ADA standards and should be used as an example in other ares.

Pedestrian walking surfaces can provide a signal to those with disabilities that they are approaching a hazard.

There are three programs in the City of Houston that address sidewalk and ramp repairs, these include:

Safe School Sidewalk Program

Provides for the installation of sidewalks leading to and surrounding schools based on the following criteria:

Many intersections do not have adequate pedestrian accessibility.

Previously ADA compliant ramps do not have the truncated domes that are required by new ADA standards.

- Number of children using pathways
- Traffic count and road conditions
- Constructability issues
- Located within school block
- Collector street within school zone

Major Thoroughfare Program

Provides for installation of sidewalks along major thoroughfares based on the following criteria:

- Thoroughfares lacking safe passage for pedestrians
- Areas around shopping centers, bus stops and other frequently traveled routes
- Constructability issues

PAR Program

The PAR Program is administered by the Mayor's Office for People with Disabilities (MOPD). Sidewalks and curb cut/ramps are provided to improve sidewalk accessibility for people with disabilities. A citizen is considered eligible to participate in the PAR Program when there is no safe accessible path of travel to:

- Grocery/Pharmacy
- Financial Institution
- Vehicle
- Place of Employment
- Medical Facility
- Bus Stop/Metrolift
- Educational Facility
- Any facility/structure deemed necessary to provide quality of life
- Place of Worship

Improper grading and construction details leads to maintenance hassles.

Some streets do not have pedestrian accessibility at all.

Many streets in the study area have broken sidewalks and vehicles that block pedestrian circulation.

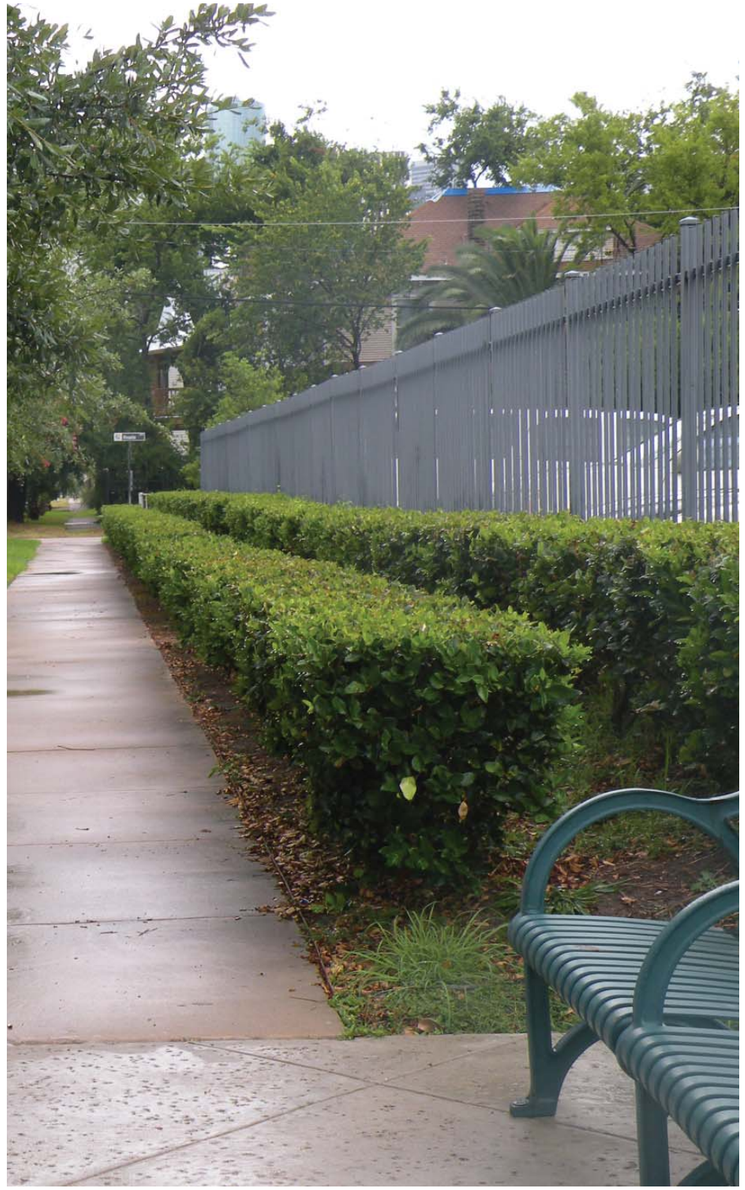
Opportunities

- ADA compliant ramps and sidewalks increase walkability of the city
- New streetscape improvements and furnishings can sometimes stimulate adjacent private development.

Challenges

- Private money will be necessary in addition to city funds in order to repair this public infrastructure.
- These new improvements need to be maintained on a regular basis in order to keep them ADA compliant.
- Planting the wrong type of street trees can cause sidewalk and ramp damage via roots.

The treatment of the sidewalk can contribute to and reinforce the character of the district.



Newer sidewalks address key elements of design for walkability safe walking surfaces, buffering from unsightly adjacent uses, amenities such as benches, and shade for human comfort.

LEGEND

SIDEWALK CONDITIONS

- Excellent Condition, like new
- Good Condition, minimal cracking or spalling, vertical displacement of sections less than one (1) inch
- Poor Condition, vertical displacement of several sections greater than one (1) inch, several broken or cracked sections
- No Sidewalk, non-conforming construction or materials, or deteriation that represents a dangerous situation

CURB RAMPS

- Ⓐ ADA Compliant
- Ⓑ Grandfather Non- ADA Compliant
- Ⓒ Non ADA Compliant

N

0' 50' 100' 200' 400' 800'

SIDEWALK AND ACCESSIBILITY RAMP ANAYSIS

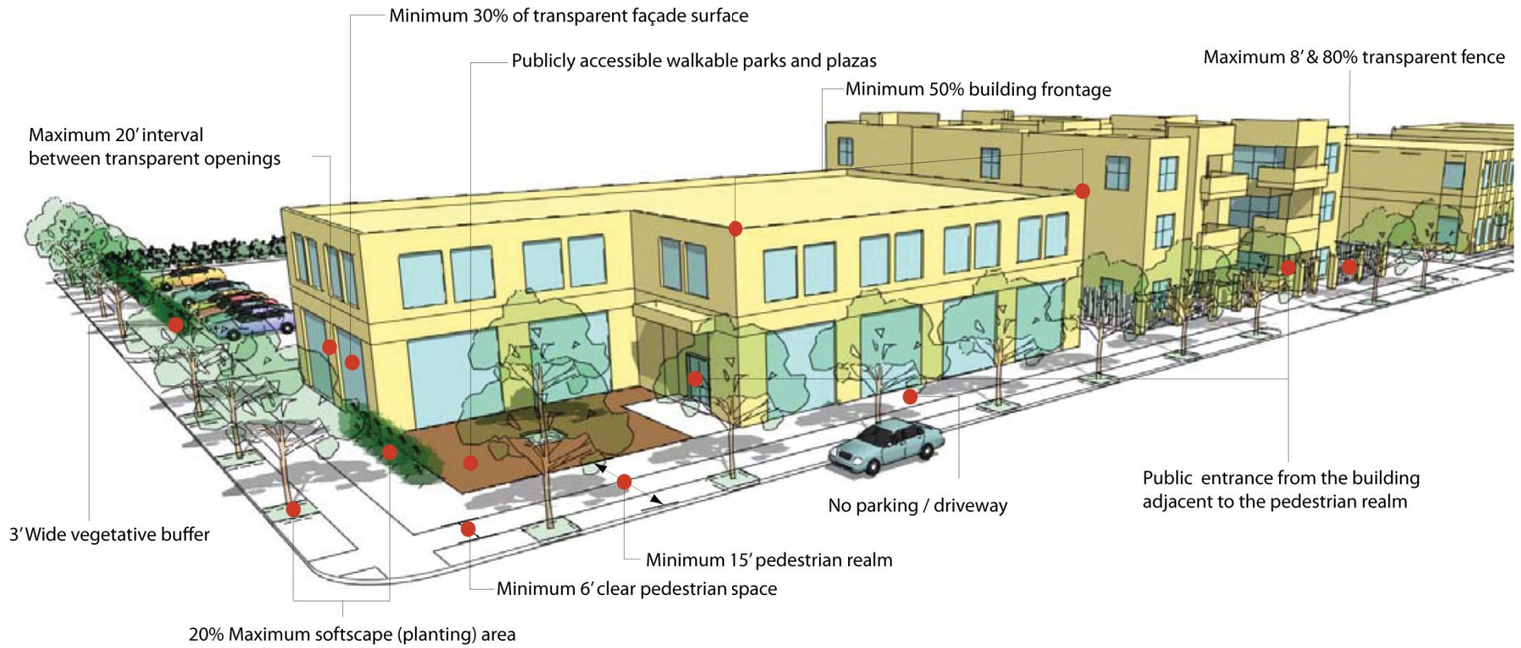
Safe, Walkable, and Vibrant

Streetscapes thrive in places where people can gather, meet along the street, and feel protected from traffic. People are attracted to vibrant places that contain a mix of activity such as retail, restaurants, theatres, public plazas, parks, and shaded area. In order for a streetscape to be successful, the hardscape area must be wide enough to allow multiple people to pass each other at the same time and must be part of a larger interconnected network of streets. Wide sidewalks provide adequate space to allow outdoor dining, seating, and window shopping. Softscape should be encouraged but should not interfere with pedestrian circulation. Vegetative buffers should be encouraged when the sidewalk parallels a busy street, and tree grates can be utilized when traffic speeds are lower. Buildings should be encouraged to build to the property line as long as adequate space is provided for the public realm. The ground floor of buildings should have a minimum of 75% transparent facade. Transparency helps retail businesses by increasing visibility while also making the streetscape safer by ensuring more eyes on the street.

The following pages describe the vision for connecting the individual districts to make a true livable and walkable center. This vision is described as the "Z" Connection due to the "Z" shape of the primary street connection that links the study area together. The "Z" connection consists of Elgin Street, Milam Street, and Holman Street and links the centers of the districts together. Initial streetscape improvements should be focused on this "Z" Connection. Secondary connections link other parts of the study area to the "Z" connection and should be second in the order of streetscape improvements.

Transit Corridor Ordinance

The Transit Corridor Ordinance is a great step for Houston's streets. The proposed streetscape improvements in this chapter have taken into account this ordinance. The Transit Corridor Ordinance applies to two types of streets, Type 'A' Streets and Transit Corridor Streets. Type 'A' streets are East/West running streets that are located within 1320' from a Metro light rail platform. Transit Corridor Streets are the streets that contain the light rail. In the Midtown area the only Transit Corridor Street is Main Street. Type 'A' Streets and Transit Corridor Streets in the study area are located on the diagram on the opposite page. The Transit Corridor Ordinance can be broken down into two categories, the requirements and the option:



Source: City of Houston, Planning & Development Department

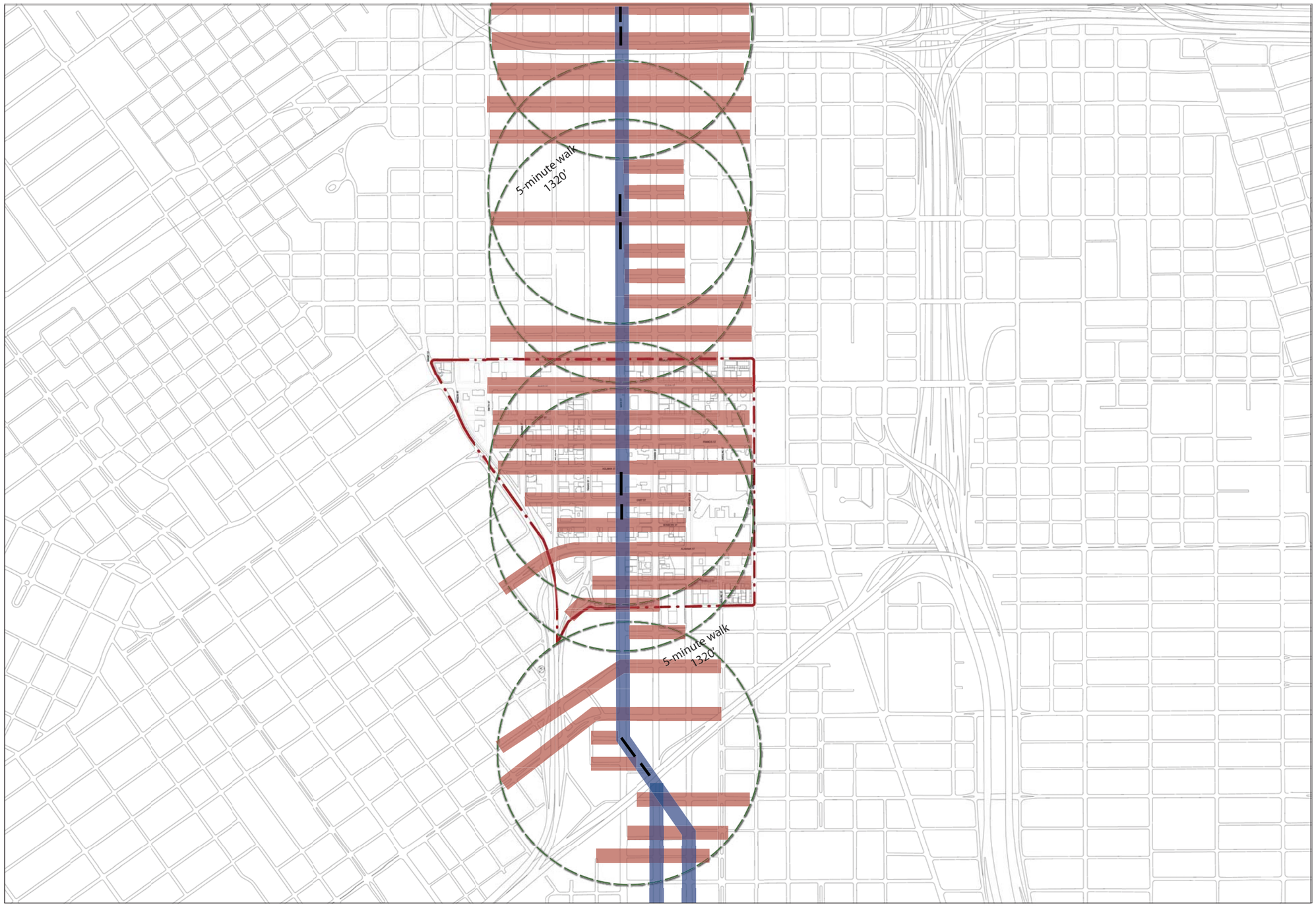
Requirement

On Type 'A' Streets and Transit Corridor Streets sidewalks must have a clear pedestrian space minimum 6 feet wide and 7-½ feet high.

Option

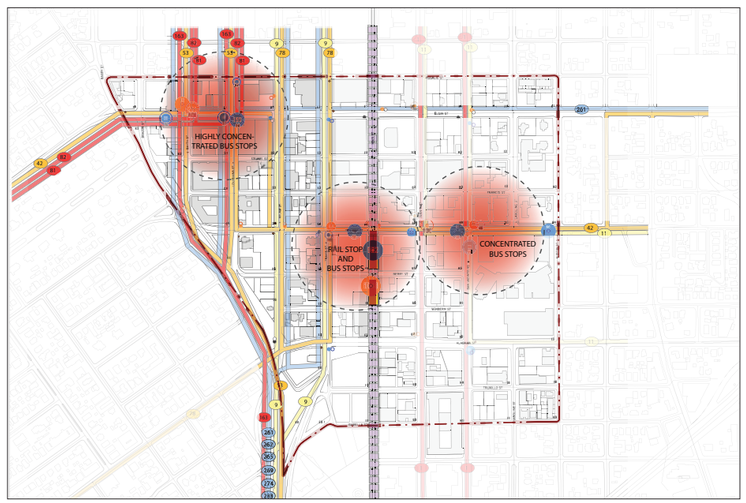
On Type 'A' Streets and Transit Corridor Streets the owner may build up to the property line but no closer than 15 feet from the back of curb, if the owner provides a pedestrian realm. The pedestrian realm shall be defined as the area from back of curb to the front of the building. If the owner decides to use this option then all the performance standards in the diagram above must be met.

The pedestrian realm is a minimum 15 feet wide. If a property owner opts-in and there is less than 15 feet from the back of curb to the property line, the owner must provide the additional public right-of-way or easement to provide the 15 foot pedestrian realm.



PROPOSED TRANSIT CORRIDOR ORDINANCE

Defining Existing Districts



Step 1: Existing Primary Transit Routes

Observation A

- The rail station is located between Berry and Holman Streets creating a small node of activity.

Observation B

- Most north/south bus routes run on Smith, Louisiana, Travis Street and Milam Streets. Most east/west bus routes run on Elgin Street and Holman Streets. The bus stops are concentrated in the three areas indicated by the red circles.

Observation C

- The activity around the rail station is currently based around entertainment, food and beverage.
- The bus stops are currently concentrated at the key destination points such as retail stores, high-density residential buildings and Houston Community College Campus.

Step 2: Existing Primary Vehicular Routes

Observation A

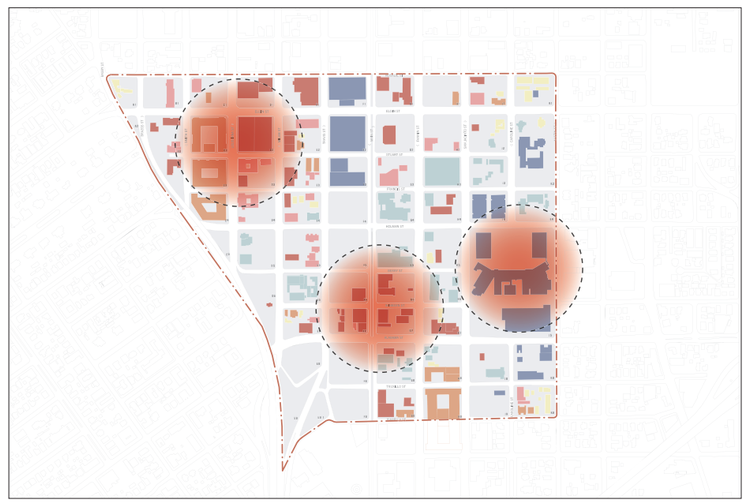
- Elgin Street and Alabama Street are the key east/west vehicular travel routes through the study area.

Observation B

- San Jacinto, Fannin, Travis, Milam and Smith Streets are the key north/south vehicular travel routes through the district.

Observation C

- The intersection of these streets become the most visible locations for retail.



Step 3: Existing Land/Building Use

Observation A

- The Houston Community College Campus is a key activity node on the eastern side of the study area. It is disconnected from major transportation routes.

Observation B

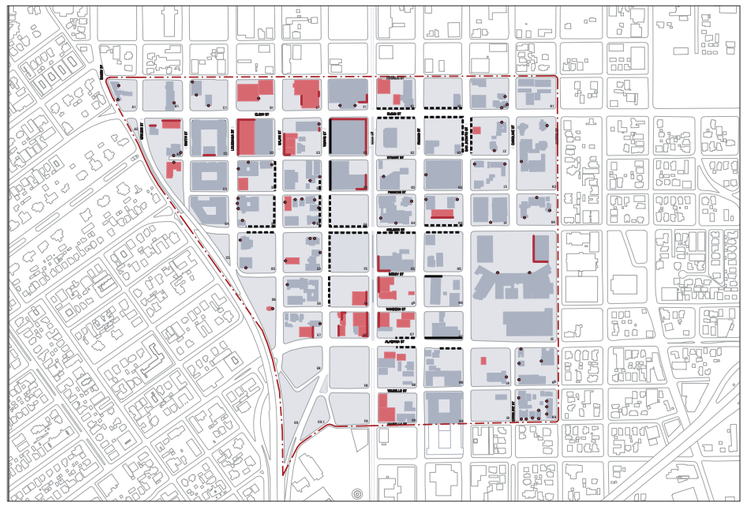
- Retail is clustered around the intersection of Elgin Street and Milam Street and on Main Street between Berry and Alabama Street.

Observation C

- Visibility and accessibility near Alabama Street and the rail station has created a node of food/beverage and entertainment activity.

EXISTING DISTRICT DISCONNECTION

Linking Districts with a “Z” Connection



Step 4: Increase Existing Ground Floor Activity

Observation A

- Retail frontage is present, but spotty throughout the study area.

Observation B

- Parking lots and vacant lots create gaps in the ground floor activity.

Step 5: Improve Pedestrian Circulation

Observation A

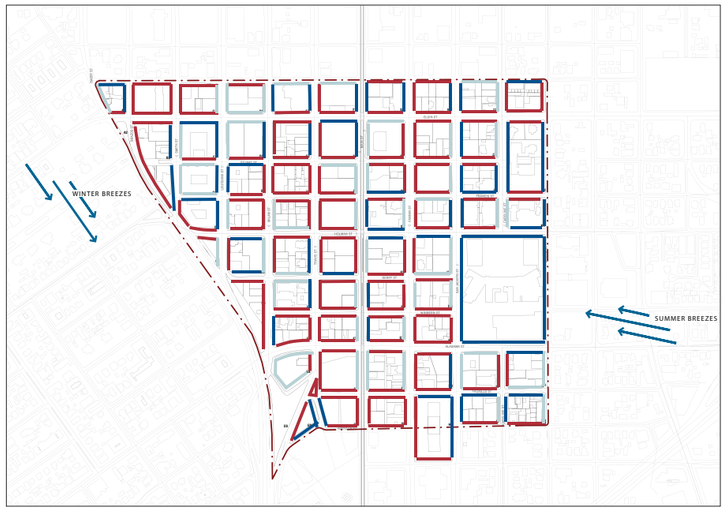
- Medians on Main Street create barriers to east/west pedestrian movement.

Observation B

- Busy streets create barriers primarily to east/west pedestrian movement.

Observation C

- Elevated roadways like Spur 527 create barriers to pedestrian movement.



Step 6: Increase Human Comfort

Observation A

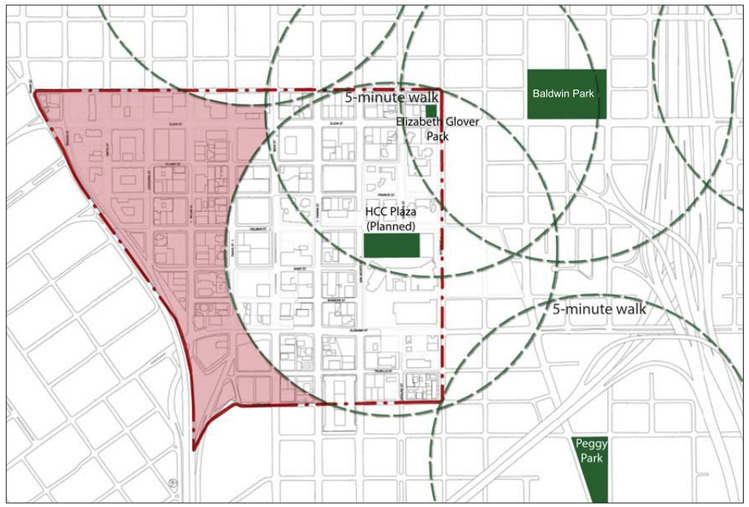
- May through August present months that are too hot, humid, and uncomfortable for outdoor pedestrian activities in current street conditions.

Observation B

- Sun exposure, high temperature and humidity, stagnate air and radiation off adjacent property are the most significant obstacles to human comfort.


Design District
College District
Arts District
BASSETT ST
BRUSH ST
SMITH ST
LOUISIANA ST
TRAVIS ST
MAIN ST
ELGIN ST
FANNIN ST
SAN JACINTO ST
CAROLINE ST
AUSTIN ST
STUART ST
FRANCIS ST
BERRY ST
WINBERN ST
ALABAMA ST
TRUXILLO ST
ISABELLA ST
CHROMIE ST
LEGEND
District Centers
Arts District
College District
Design District
Parks and Open Space
Ensemble / HCC Station
"Z" Connection
N
0' 50' 100' 200' 400' 800'
"Z" CONNECTION

Expanding Districts with Secondary Connections



Step 7: Create Parks, Plazas, and Open Space Where They Are Needed

Observation A

- The western half of the study area is severely underserved by park and open space as shown in the diagram above.

Observation B

- 2.5 acres of park and open space will be needed in the Study Area at full build out.

Observation C

- A variety of park sizes will accommodate different users.

Step 8: Enhance Midtown and District Gateways

Observation A

- There are existing gateways that introduce travelers to the midtown area. These primary gateways are located in the northwest at Elgin Street and Spur 527, and at the exit of Spur 527 towards Alabama Street and at the intersection of Louisiana Street and Holman Street.

Observation B

- There are essential secondary gateway nodes that introduce travelers into the various districts.

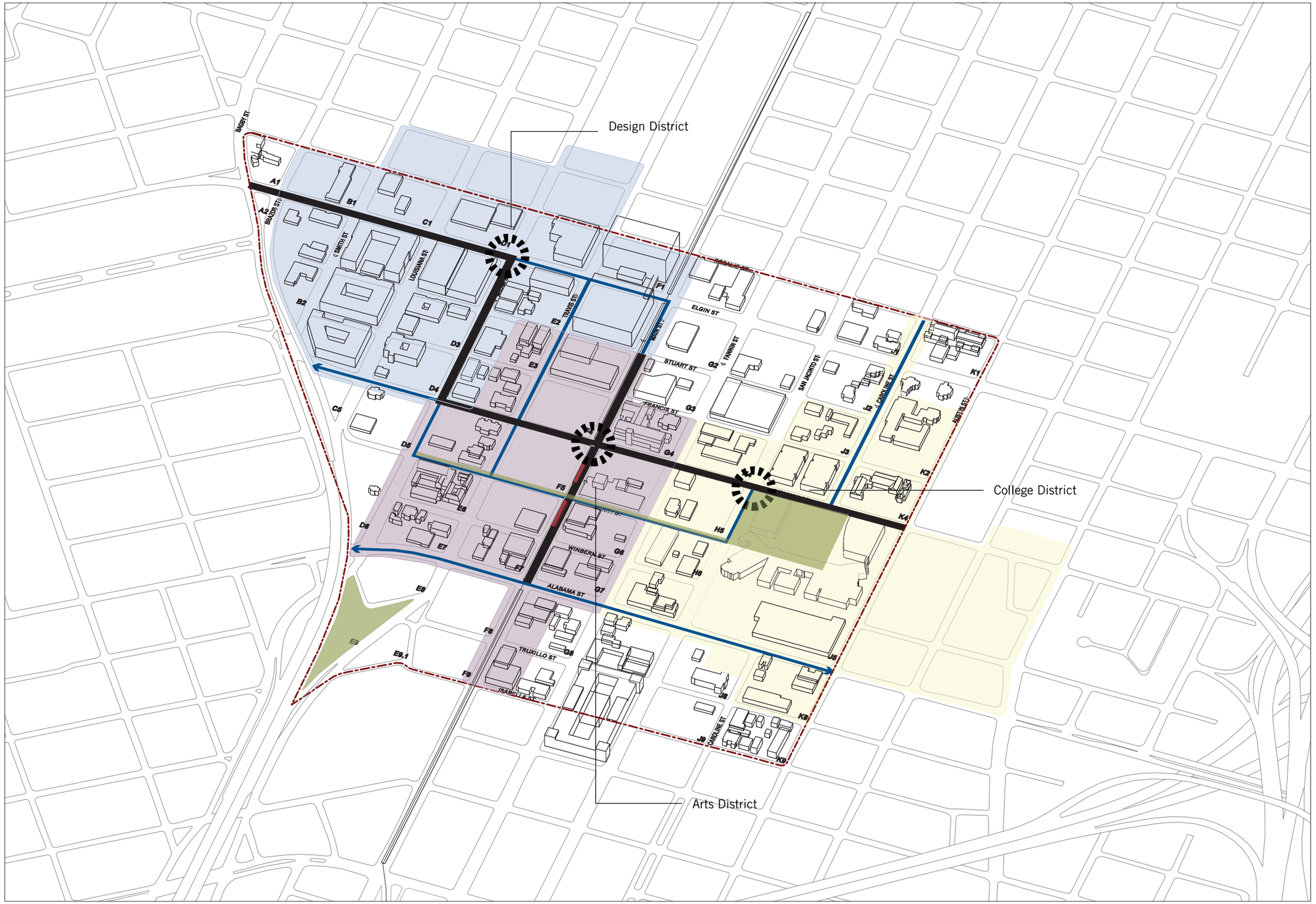
Step 9: Increase Land Use Connectivity

Observation A

- Land uses should respond to their district and are compatible with adjacent land uses.

Observation B

- Retail and urban form can begin linking districts together.



SECONDARY CONNECTIONS

“Z” Connection Projects

The following projects are the catalysts that hold the “Z” Connection Concept together and create an unbroken and interconnected pedestrian realm through the study area.

Elgin Street (Between Brazos Street and Milam Street)

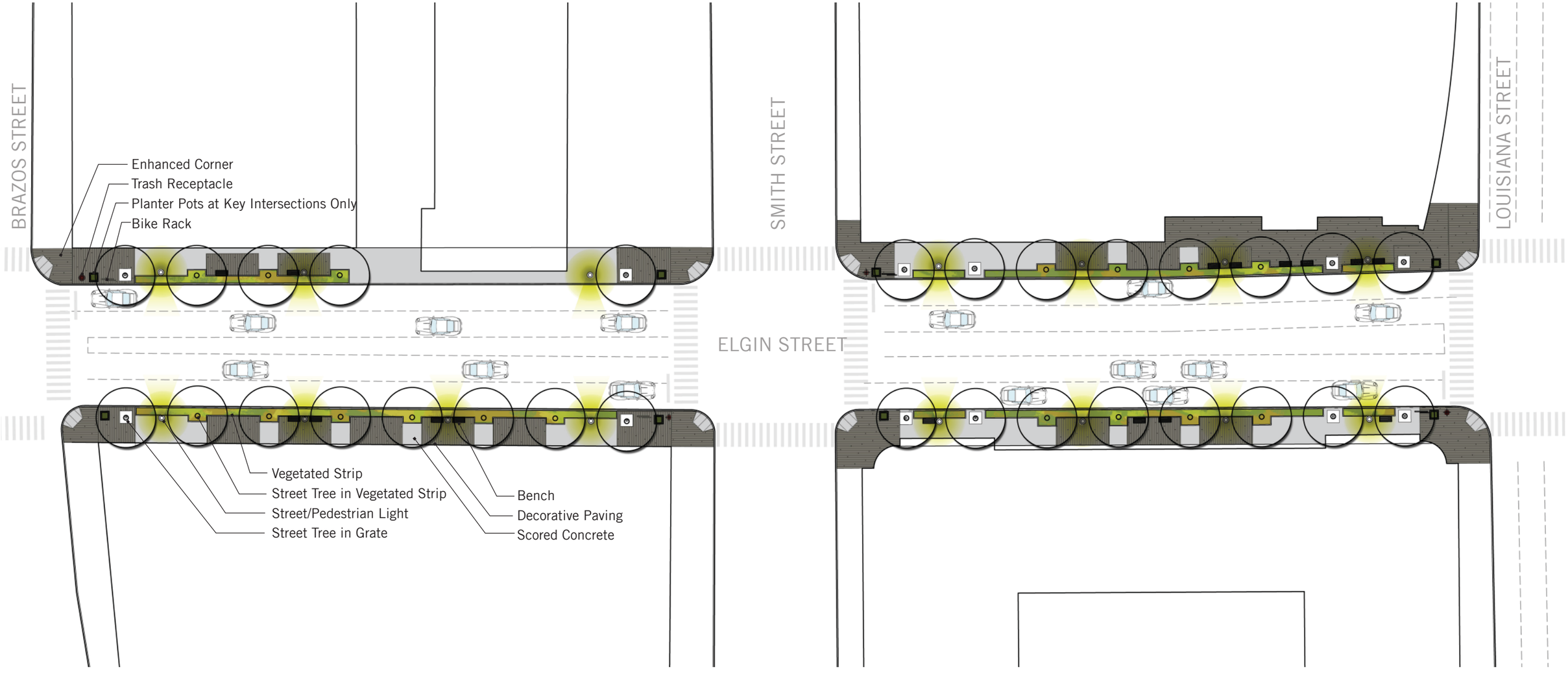
Although connected by Elgin Street, the vibrant street life of Neartown is cut off from Midtown by Spur 527. Wider streets, taller buildings, and uniform city blocks on axis with downtown contribute to this change in character. By strengthening the connection to Neartown through safe pedestrian routes, clear signage, and an improved gateway, much of the vibrancy of Neartown should spread into Midtown. On this street a visitor may find a popular clothing store, a furniture store and a gourmet cookware store. Restaurants and bars would also be located on Elgin Street and would utilize areas between buildings for outdoor dining and gathering. The section, plan and images to the right explain the proposed character of Elgin Street.

Elgin Street currently is a thoroughfare that carries a high volume of traffic at fairly high speeds. The street is currently two-way with four lanes and a center turn lane. Understanding that the streetscape was competed recently, the recommendations for this street have focused mainly on the pedestrian realm. Where possible, street paving, curbs, ramps, and character-giving elements such as the tiled street names shall be kept. A landscape buffer will separate the traffic from the sidewalk, making a safer and more comfortable pedestrian experience. Human comfort is of significant importance when creating a successful streetscape. Canopy trees should be introduced to provide shade for ground floor use and the pedestrian realm. Trees should be planted a minimum 6’-0” off the face of curb to ensure proper automobile travel clearance. Large awnings can also provide needed relief by creating shade and minimizing exposure to harsh weather conditions. Planter pots will also reinforce the identity of the area, but their use should be reserved for key intersections to minimize maintenance requirements.

Street Section at The Calais

Softscape creates a buffer from traffic and increases the level of comfort for pedestrians.

Overhead awnings provide dappled shade and a higher level of human comfort.



Plan Showing Typical Improvements to Elgin Street

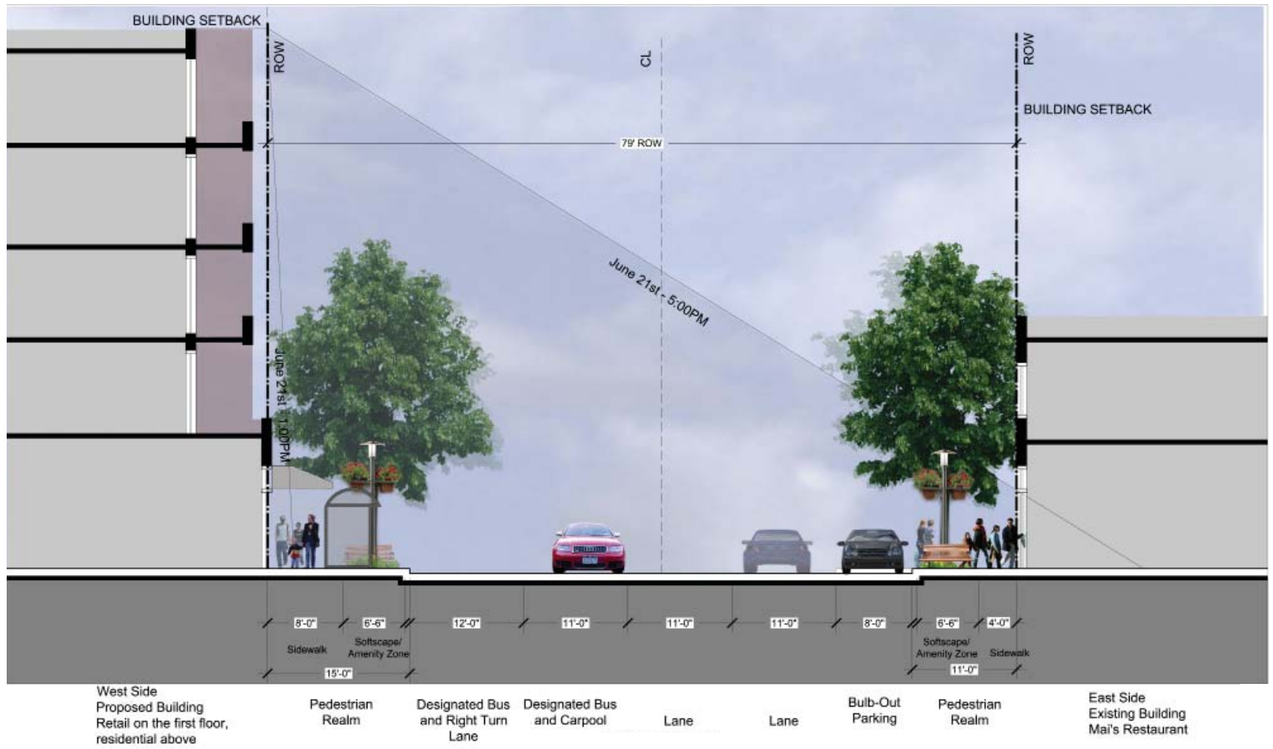
0 10' 20' 40'

ELGIN STREET

Milam Street (Between Elgin Street and Holman Street)

Milam Street was chosen as the north/south connector of the “Z” Connection between Elgin Street and Holman Street because of the existing retail and the southbound direction of traffic. The ability to attract the high volumes of the “after work” crowd traveling southbound from Downtown will be vital to the success of this street. The ground floor is envisioned as retail and the upper floors residential, making Milam Street the primarily high density mixed use residential section of the “Z” Connection. The retail would include shops that provide necessities, daily goods and services. On this street you may find a small corner grocery, a unique little book store, a sushi restaurant, and a dry cleaners. The section, plan and images to the right explain the proposed character of Milam Street.

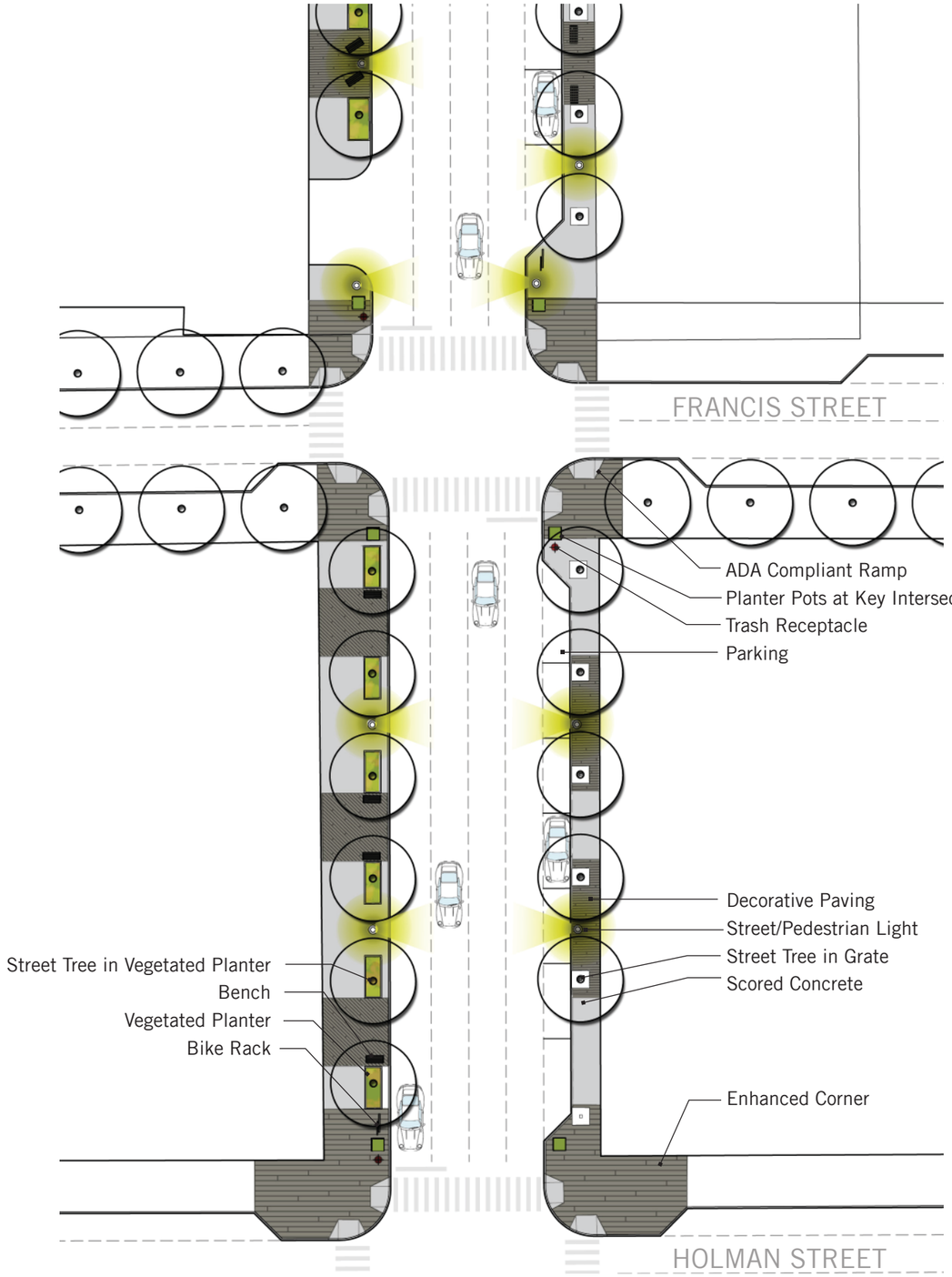
Milam Street currently is a one-way, four lane Transit Street running southbound from the CBD through the study area. The west-most lane on Milam Street is dedicated bus and right turn only. The adjacent lane is designated bus and carpool between 7-9am and 4-6pm on weekdays - This lane is currently slated for removal. An on-street parking lane is proposed in the far east lane with bulb-outs at ends of blocks and around existing large trees. The existing pavement between curbs will not require new construction except in areas requiring on-street parking with new bulb-outs. Trees will be planted in tree grates and small planting beds. Trees planted adjacent to travel lanes shall be a minimum 6’-0” from the face of curb to ensure proper automobile travel clearance. Adjacent to parallel parking spaces, the trees shall be a minimum 2’-6” from the face of curb. Potted plants, outdoor seating, and other streetscape furnishings are suggested as long as a six foot area is kept clear for pedestrian movement.



Street Section at Mais Restaurant

A mix of retail and residential would help make Milam Street a vibrant pedestrian realm.

Planters create a “green” sidewalk and cost little compared to permanent plantings.



Plan Showing Typical Improvements to Milam Street

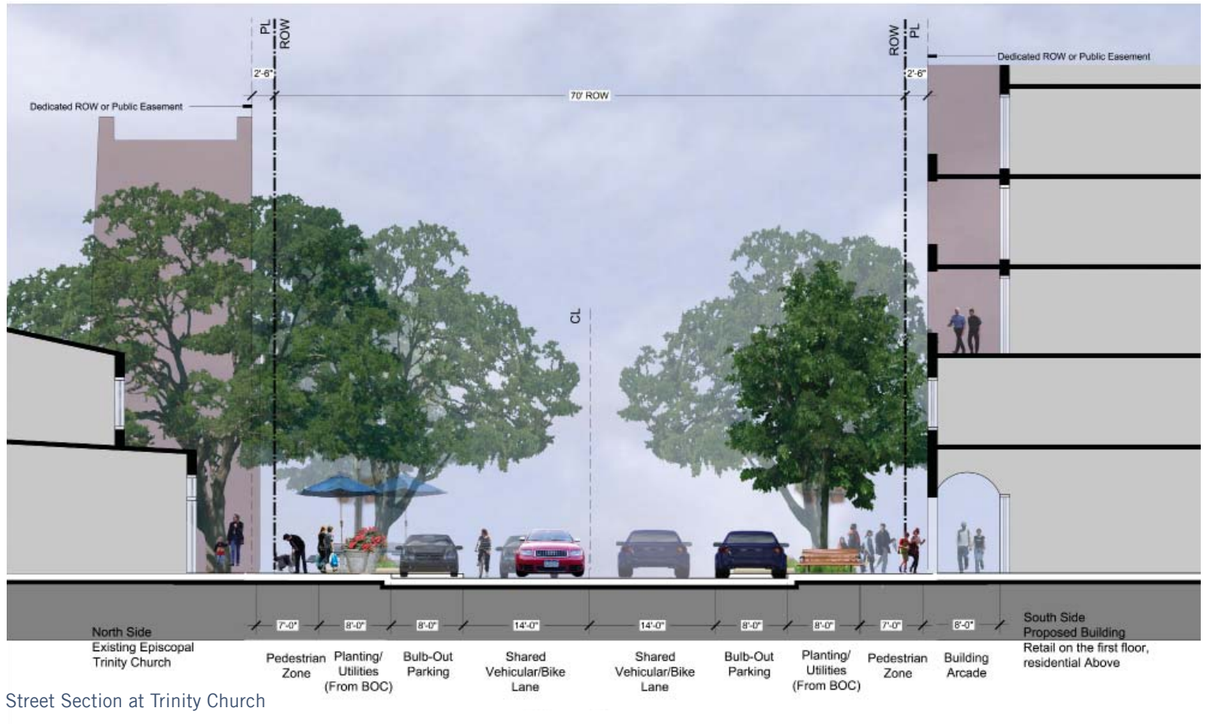
0 10' 20' 40'

MILAM STREET

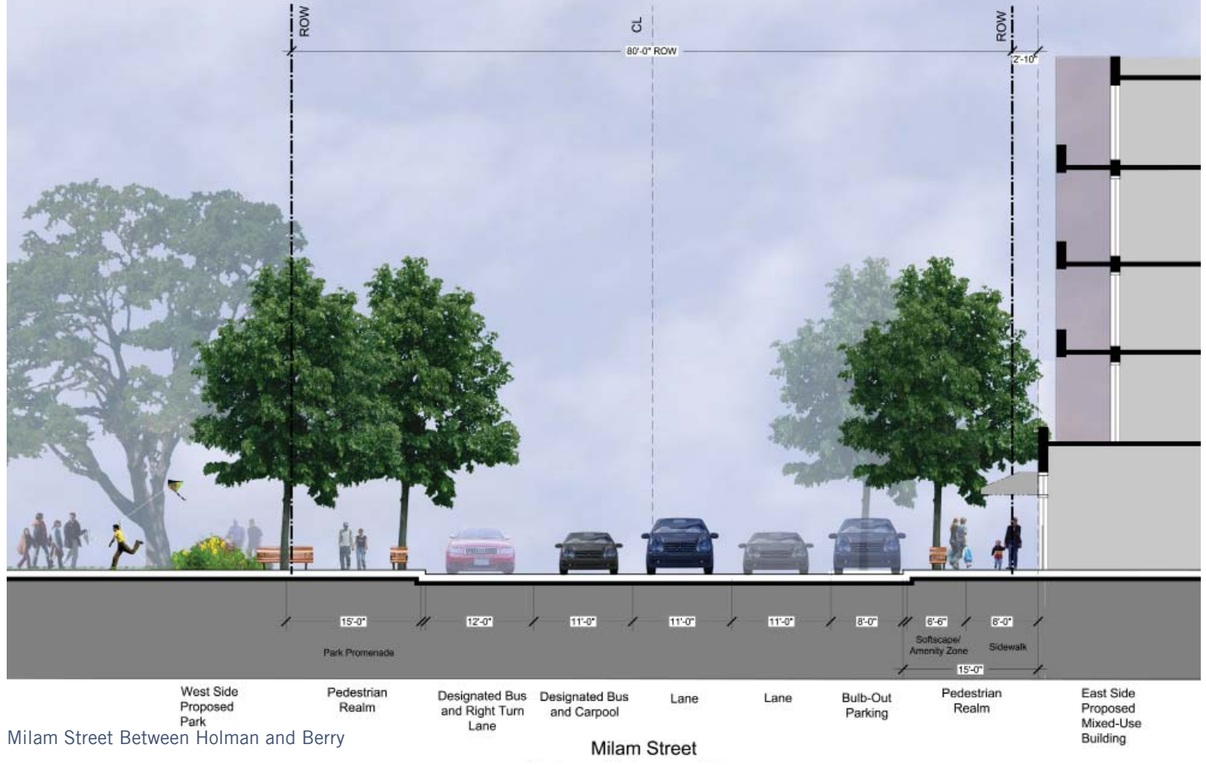
Holman Street (Between Milam Street and San Jacinto Street)

Holman Street is planned to be the primary pedestrian oriented street in the study area. It was chosen as the east/ west connector due to its central location in the study area, its designation as a bike route, its redevelopment potential, traffic speed, and its connection to the Houston Community College campus. Holman Street is also the only street in our study area that connects all three of the identified districts. A wide public realm would be highly utilized as an active outdoor space and could include cafe spaces, seating, and street furnishings. Existing historical buildings such as Trinity Episcopal Church would be preserved and woven into the new redevelopment in a way to emphasize their importance to the story of Midtown. Holes in the urban fabric would be infilled with vertical mixed-use including retail, office, and residential. The section, plan and images to the right explain the proposed character of Holman Street.

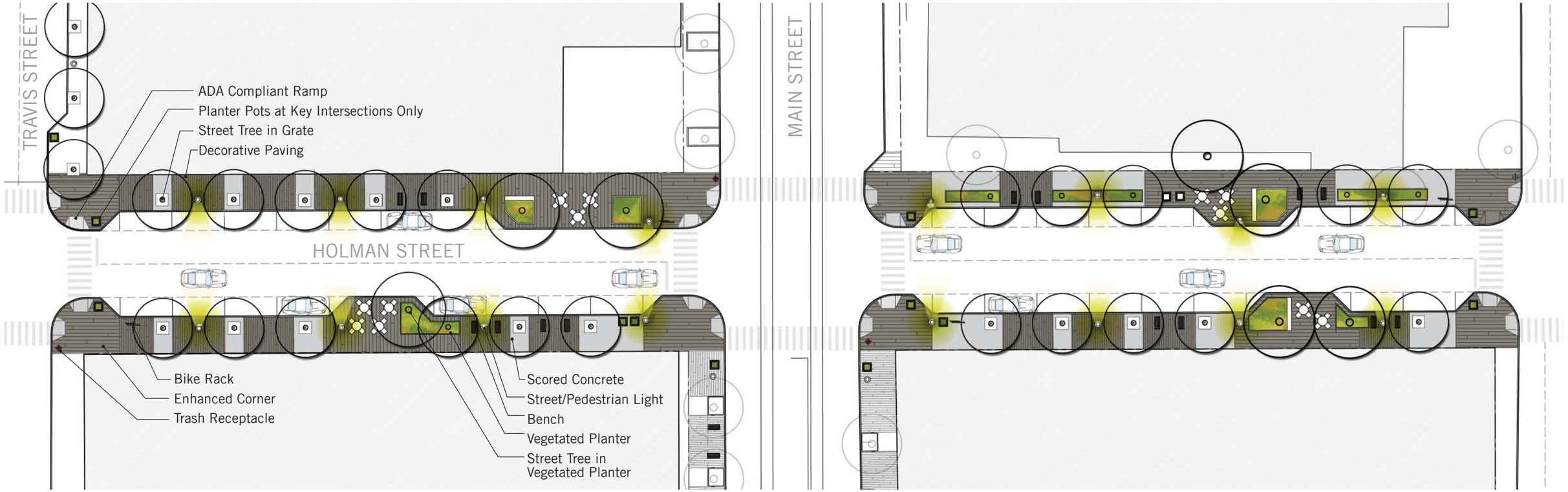
Holman Street is currently a two-way, two lane local street running east/ west through the study area. Holman Street is the only designated bike route from east to west through the study area linking the study area to Herman Park and Braes Bayou. Lanes are slightly wider than normal to allow for shared vehicular/bike lanes. On-street parking is permitted along certain sections of Holman Street. Two lanes of on-street parking with bump-outs should be included to allow easy access to adjacent retail. Curb to curb widths should be standardized which will require replacing the curbs and relaying the road pavement. Trees will be located primarily in grates, maximizing the hardscape available for pedestrian circulation. Outdoor cafe spaces are encouraged and a six foot clear sidewalk zone should be maintained around the perimeter of these areas. Existing mature trees should be preserved by using bump-outs as needed. The shaded areas from the mature trees should be utilized for pedestrian seating and outdoor cafes.



Street Section at Trinity Church



Milam Street Between Holman and Berry



Plan Showing Typical Improvements to Holman Street

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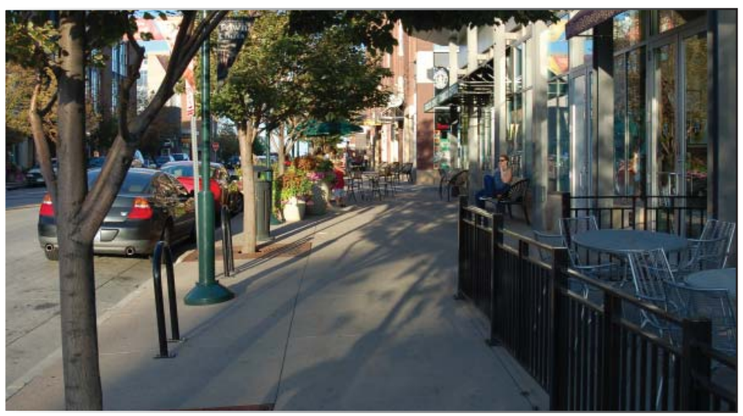


A wide pedestrian realm provides space for outdoor cafes and unobstructed sidewalks.

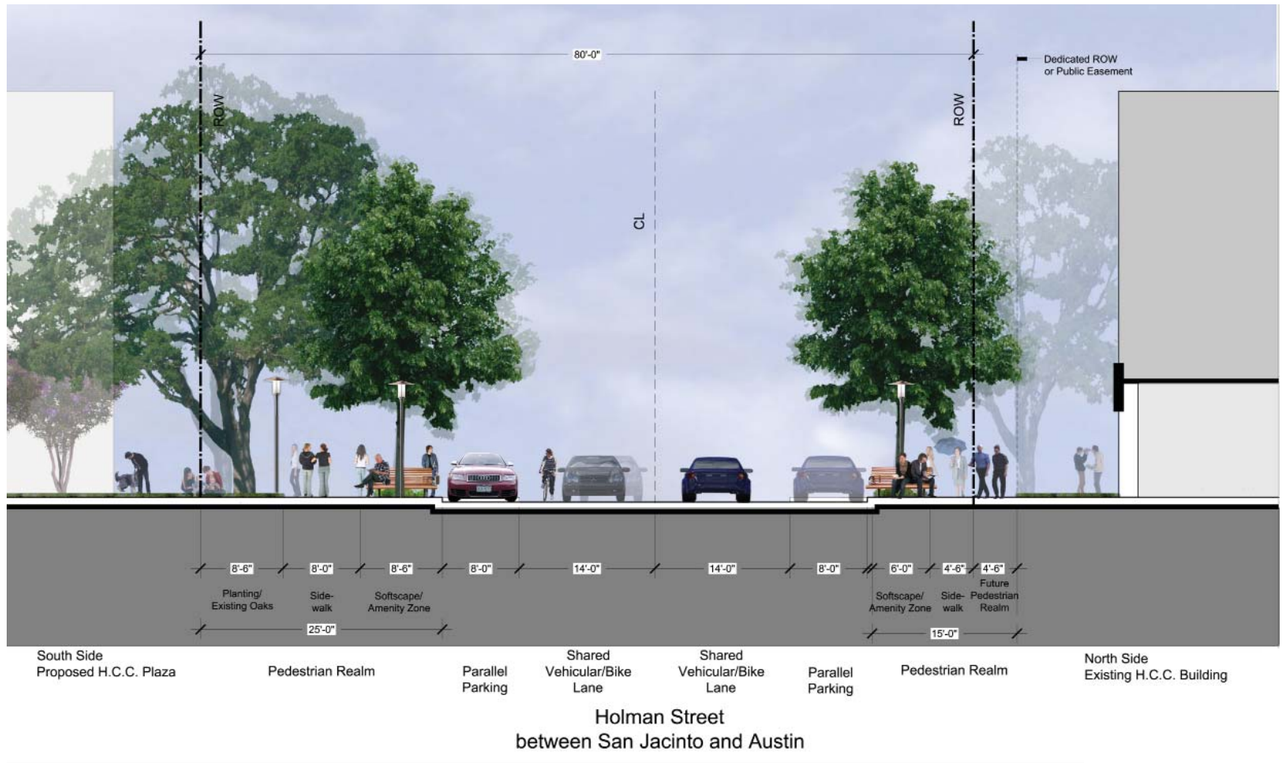
Wide sidewalks will allow room for window shopping, pedestrian circulation, and sitting.

HOLMAN STREET

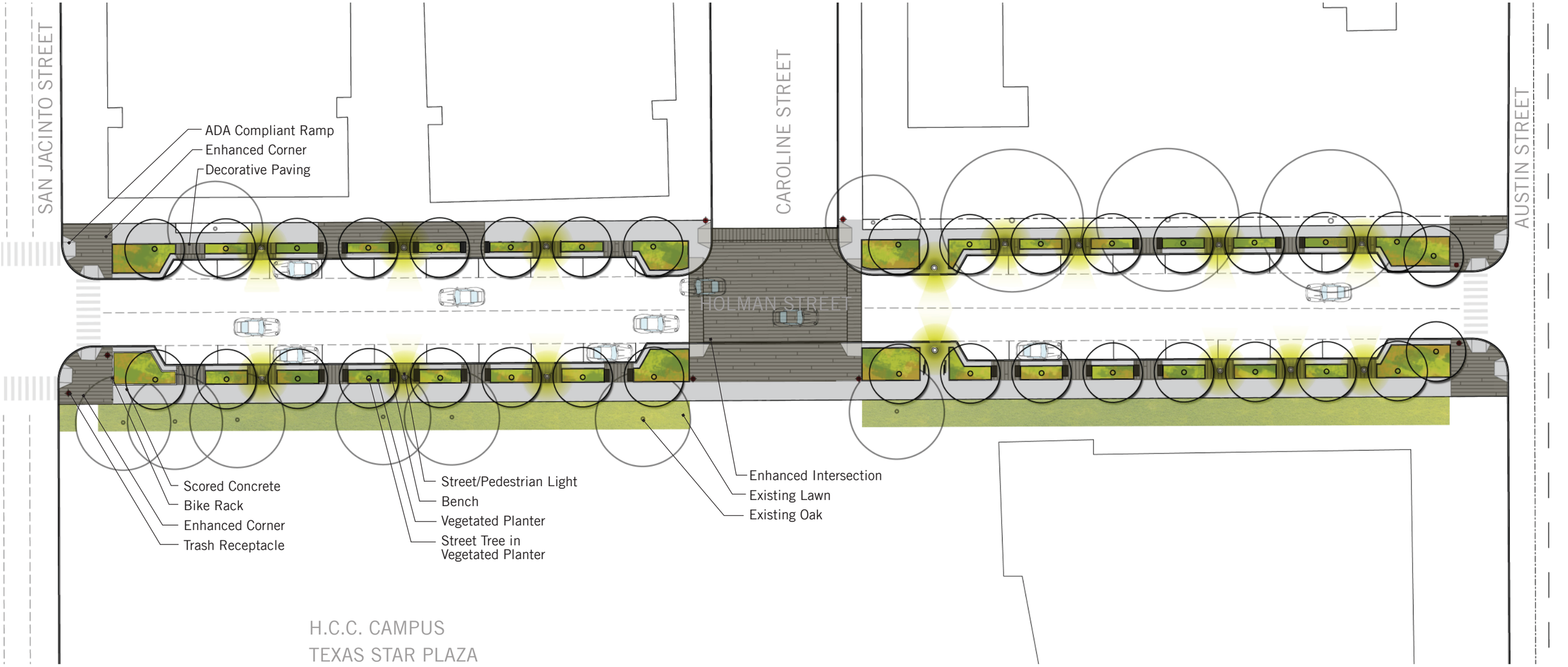
Holman Street (Between San Jacinto Street and Austin Street)

With the construction of the new Houston Community College (HCC) Star Plaza, the two blocks of Holman Street between San Jacinto Street and Austin Street will become a vital part of the campus experience. This street must provide a high level of human comfort through shade, seating, and directional signage. The pedestrian experience will not end at the right-of-way, but extend into the campus. The public realm and private realm must blend together seamlessly. Hardscape material and plant material from the plaza must be reflected in the streetscape to provide visual continuity between spaces. On this street you may find a current student between classes, a professor reading the morning paper, and a Houston Community College employee walking back from lunch. The section, plan and images to the right explain the proposed character of portion of Holman Street.

Holman Street is currently a two-way, two lane local street running east/ west through the study area. Holman Street is the only designated bike route from east to west through the study area and lanes are slightly wider than normal to allow for shared vehicular/bike lanes. On-street parking is currently permitted along certain sections of Holman Street and should be allowed permanently. Crosswalks must be highly visible due to the large numbers of pedestrians crossing the street. Curb to curb widths should be standardized which will require replacing the curbs and relaying the road pavement.



Street section at the west end of the proposed HCC Star Plaza



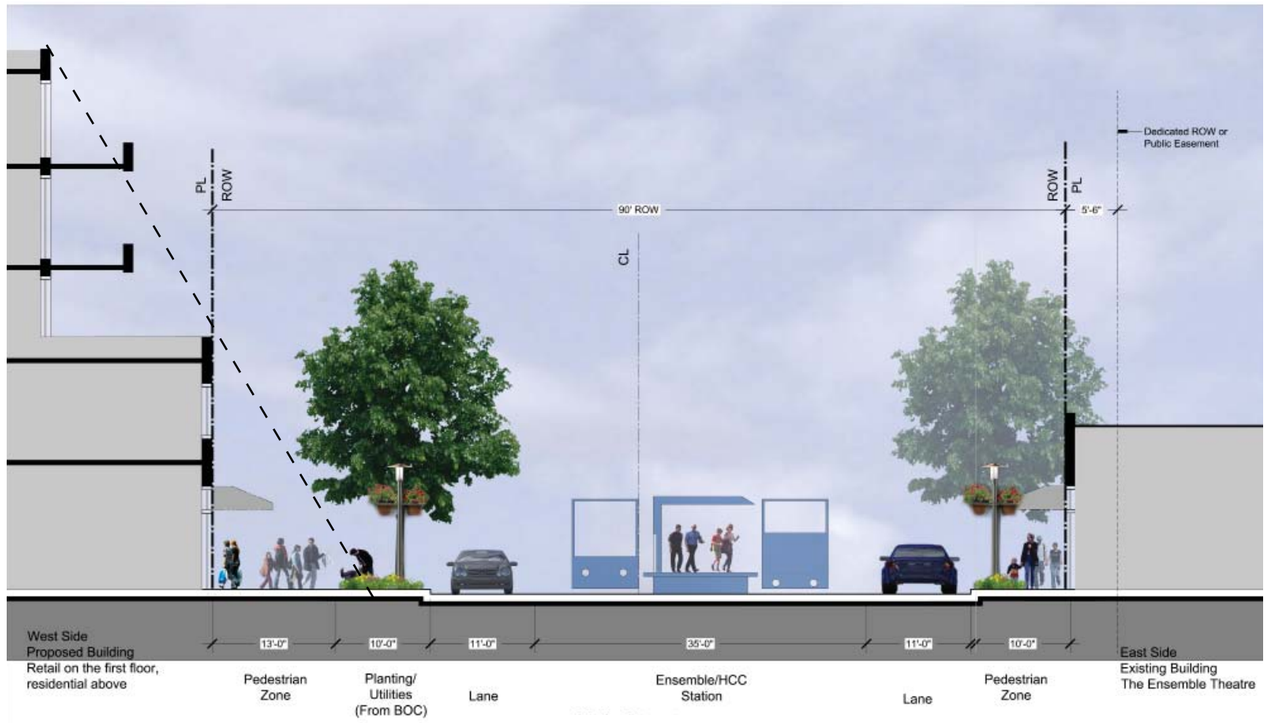
0 10' 20' 40'

HOLMAN STREET

Main Street (South of Holman Street)

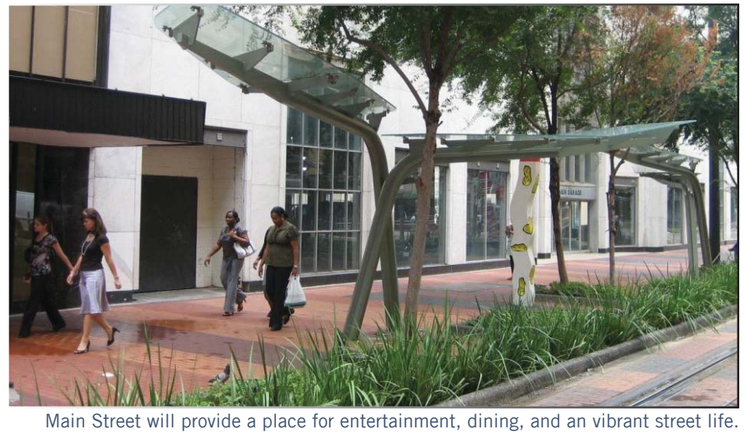
The core of Midtown in our study area is located on Main Street at the METRO Light Rail Ensemble/HCC Station. The elements that make this section of Main Street unique are the sense of creative energy and the pedestrian-scaled streetscape. In many areas of Houston it is easy for the pedestrian to feel overwhelmed by the sheer mass and height of adjacent buildings. Maintaining a pedestrian scaled streetscape is very important to retain the existing identity of the area. At the same time, the adjacency to Downtown and the light rail suggests that the residential density should be at its highest here. This conflict in needs can be addressed by requiring an articulated building setback after the second floor. As the section to the right represents, an imaginary line should be drawn from the edge of the pedestrian realm at eye view to the roof of the adjacent building. This line will suggest at the building height and setback required to make the pedestrian realm feel human-scaled. On this street you may find a jazz club, a cocktail lounge, a dance studio, and a small Indian Restaurant. This street will attract the creative class and evening crowd. The section, plan and images to the right explain the proposed character of Main Street.

Main Street currently is a two-way, two lane street running north-south in the study area. Northbound and southbound Metro light rail are located in the central median. There are only a few designated areas for pedestrians to cross the tracks and access the other side of the street or the rail platform. A change in the existing curb to curb dimension is not required and street improvements should include creating a six foot wide (min.) clear sidewalk for pedestrians circulation. A few tables may be located outside a restaurant here, but large outdoor cafe spaces should be minimized in the pedestrian realm to reduce obstructions for the pedestrian.

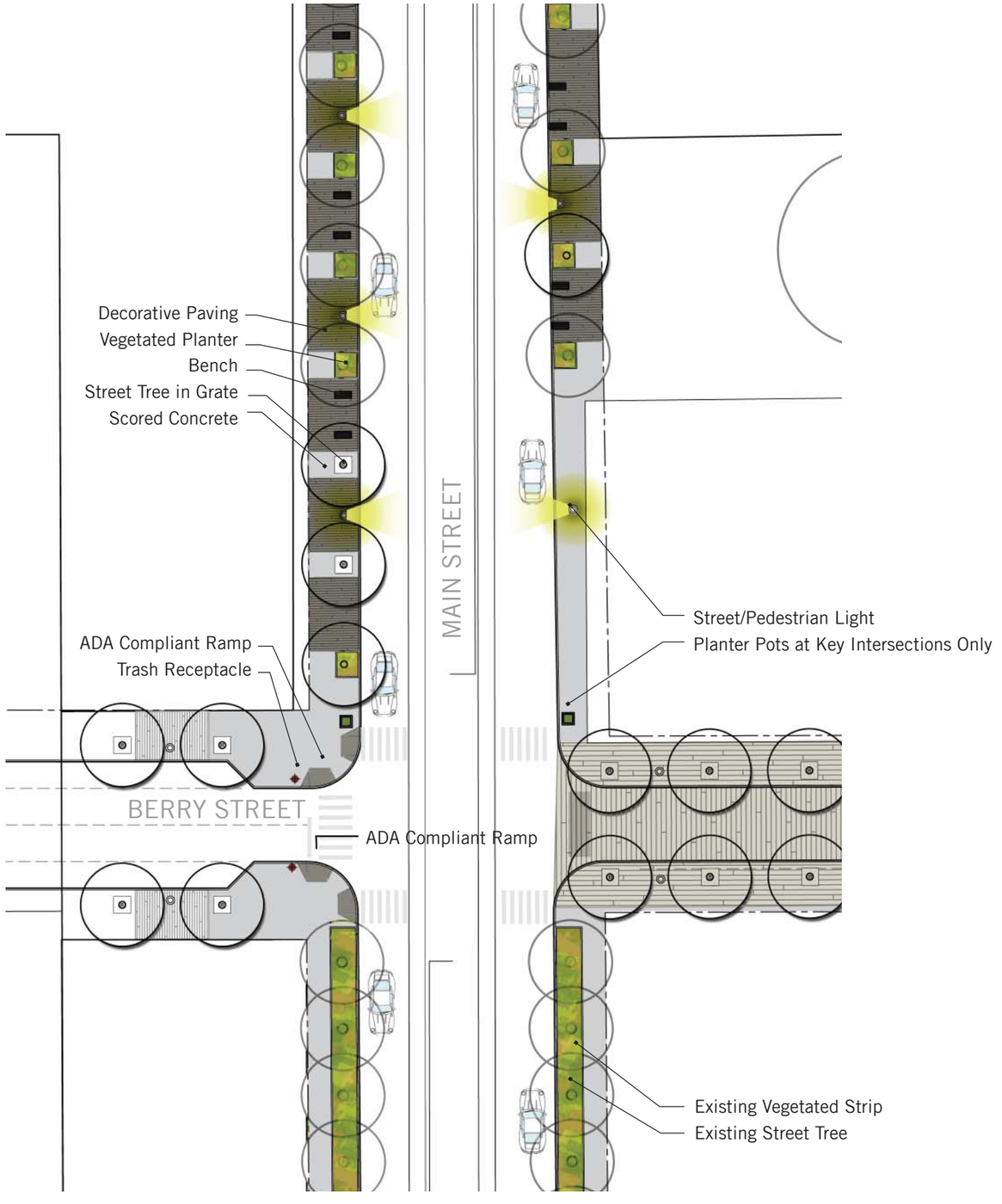


Street Section at The Ensemble Theatre

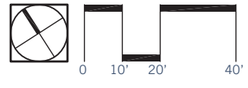
Main Street at the Ensemble/HCC Station will be a primary stop for entertainment.



Main Street will provide a place for entertainment, dining, and an vibrant street life.



Plan Showing Typical Improvements to Main Street



MAIN STREET

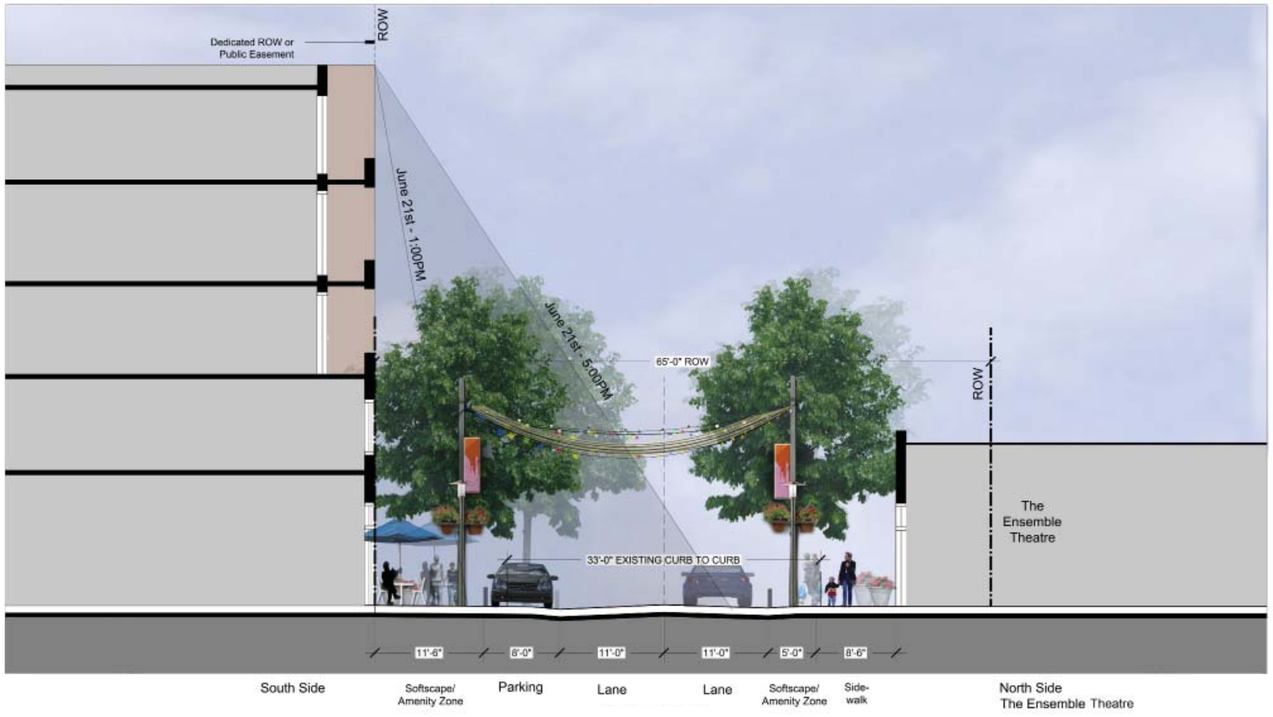
Secondary Connection Projects

The following projects are the secondary streets that connect outlying areas of the study area to the “Z” Connection.

Berry Street (Between Main and San Jacinto Street)

As a northbound or southbound traveler exits the Metro Light Rail at the Ensemble/HCC station, they use a crosswalk that leads almost directly to Berry Street. Many student and professor commuters use Berry Street as a primary route to the Houston Community College campus because there is minimal traffic and the speeds are low. The adjacency of Berry Street to Main Street and the Ensemble Theatre make it a prime location for a pedestrian oriented street that allows space for artistic expression. This street is proposed to become a Woonerf, where pedestrians and cyclists have equal rights to motorists. Woonerfs typically are comprised of a pedestrian friendly surface, such as pavers, so the definition between pedestrian space and vehicular space becomes one shared space. Bollards and other vertical barriers such as planters, trees, and furniture are used to separate motorists from pedestrians. Typically, Woonerfs do not have a curb and the stormwater drains along the edge of the vehicular lanes into valley pans with stormwater grates. Woonerfs offer significant flexibility for events such as farmer’s markets, street bazaars, and public performances. The Ensemble Theatre should be preserved and wall murals or viewing windows should be considered along it’s southern facade on Berry Street. This street will attract the creative class, daytime, and evening crowd. The section, plan and images to the right explain the proposed character of Berry Street.

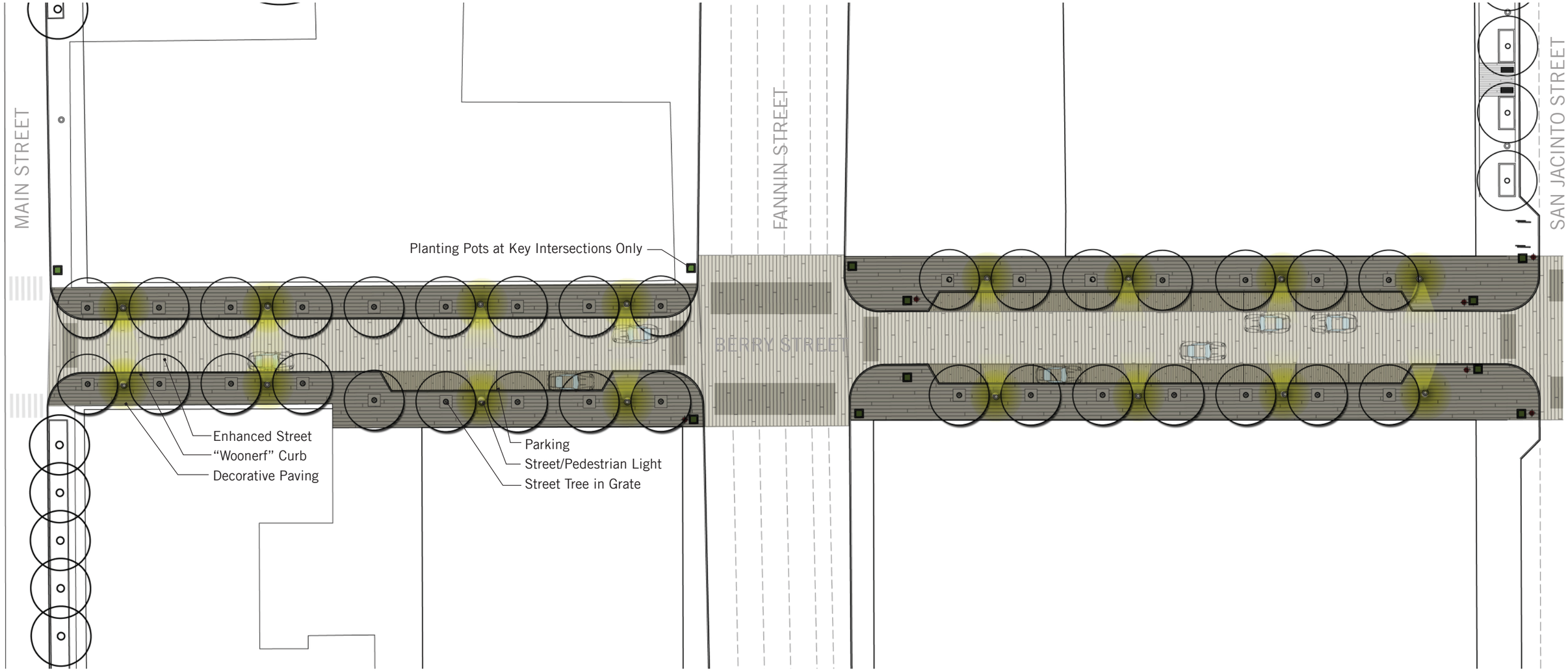
Berry Street is currently a two-way, two-lane local street with parking allowed in certain areas. It is suggested that this road be reconstructed to become more pedestrian friendly. Pedestrian signalization is recommended on Fannin Street and San Jacinto Street where Berry Street crosses. On-street parking is suggested where it does not require removal of large trees.

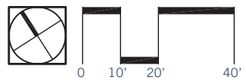


Street Section at The Ensemble Theatre

Berry Street will be a pedestrian friendly street great for people watching and performances.

Bollards help provide for easy circulation while protecting the primary pedestrian realm



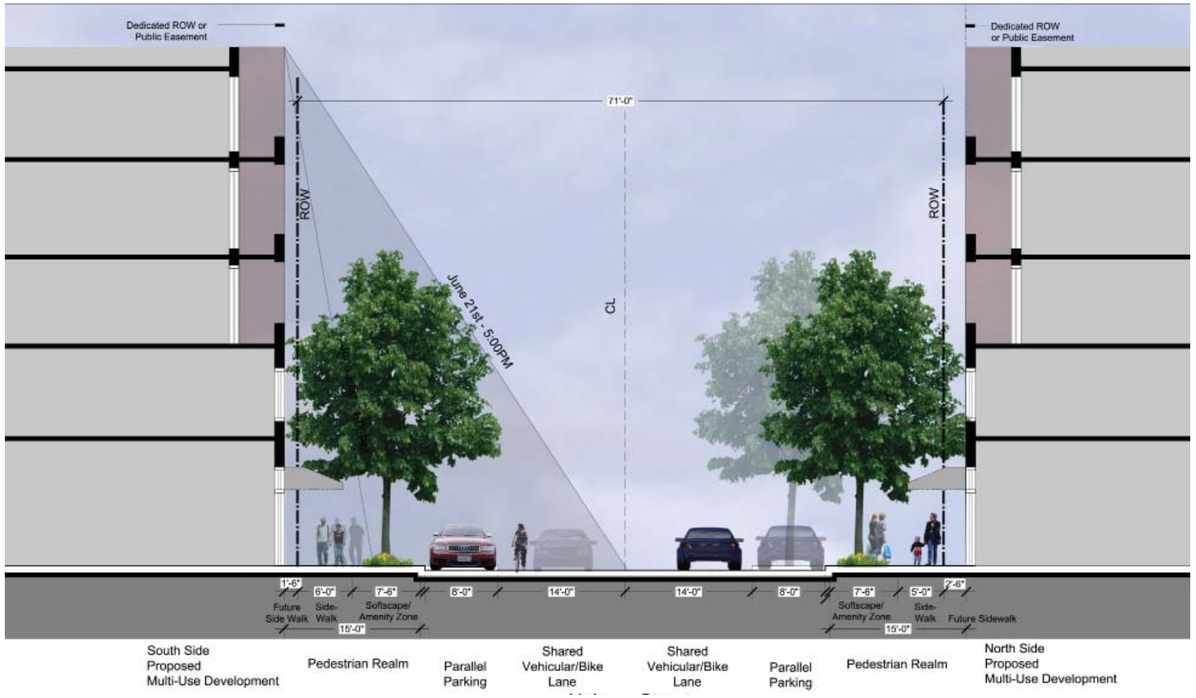


BERRY STREET

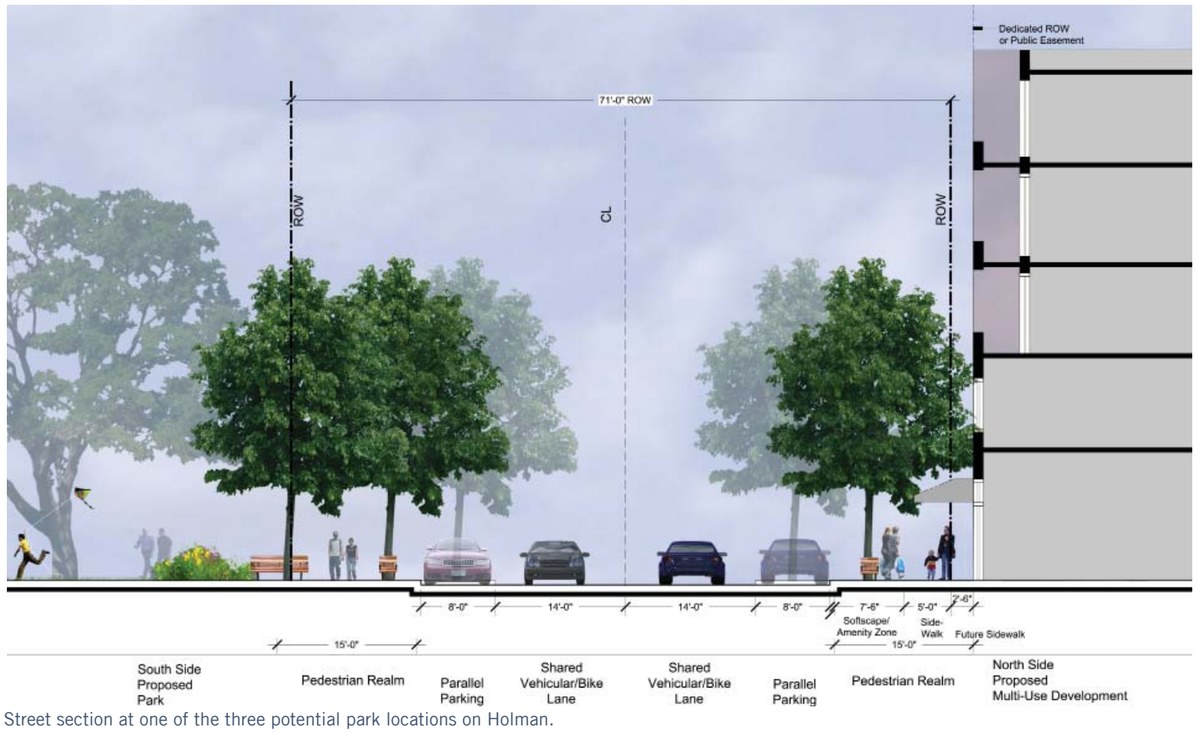
Holman Street (between Milam Street and Spur 527)

The analysis of existing park and open space amenities revealed that the western half of the study area was underserved by adequate amenities and program. Holman Street is an ideal location for a park because the proposed street improvements include a designated bike route, as part of the 14' travel lane system. On this street you may find families and young professionals using the corridor to and from the park, people watching opportunities, a small café and bicycling. The section, plan and images to the right explain the proposed character of this portion of Holman Street.

Holman Street is a two way, two lane local street stretching east to west through the study area. Key to this street environment is the automobile/bike lane. On- street parking is encouraged on both sides of the street as shown in the plan. Because this area is underserved by parks, one or several park spaces may be located on Holman Street iin the future. On street parking is planned for both sides of the streets. Human comfort through shade, seating and signage needs to be found on each side of the street, and extend into park space. Crosswalks must be highly visible, especially where a park is implemented. The pedestrian and bicycle crossing across Bagby Street and Louisiana Street should be clarified with more lighting, unique paving and better signage. On the north side of Holman Street (between Louisiana Street and Smith Street) a 10' multi use trail is suggested to better connect the bicycle route linking the Montrose Neighborhood to Holman Street. The typical plan view on the next page illustrates a streetscape treatment abutting a park on the south side of the street. If the park space is not implemented, the pedestrian realm on the south side of the street shall match the north side of the street. The part of Holman Street between Louisianna and Spur 527 is served by insufficient stormsewer lines which will need to be addressed during redesign and reconstruction

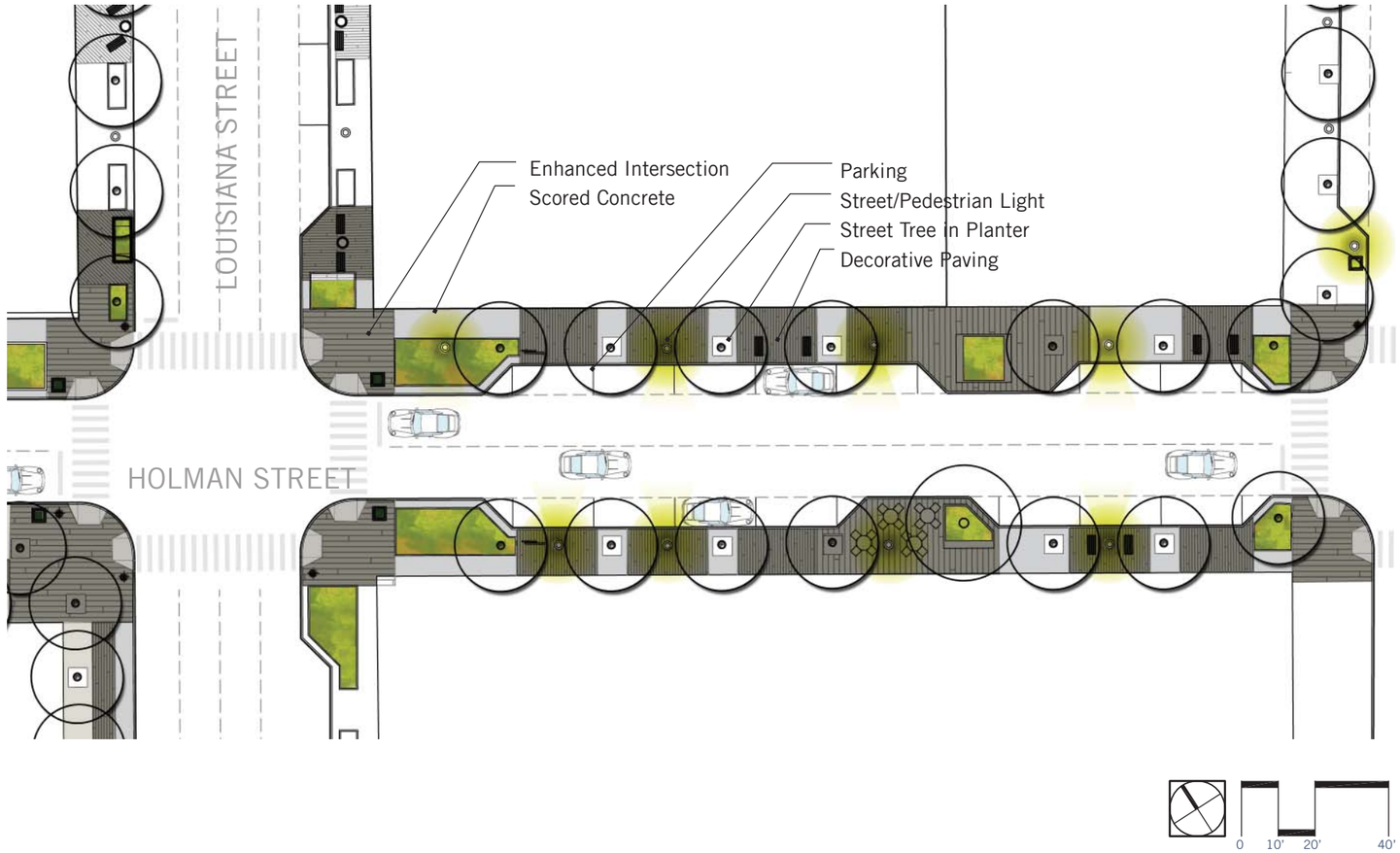


Holman Street between Louisiana and Milam.



Street section at one of the three potential park locations on Holman.

Intersection at Holman and Spur 527, where pedestrian crossing can be improved and gateway signage installed



HOLMAN STREET

Holman Street will be a viable option to have outdoor dining.

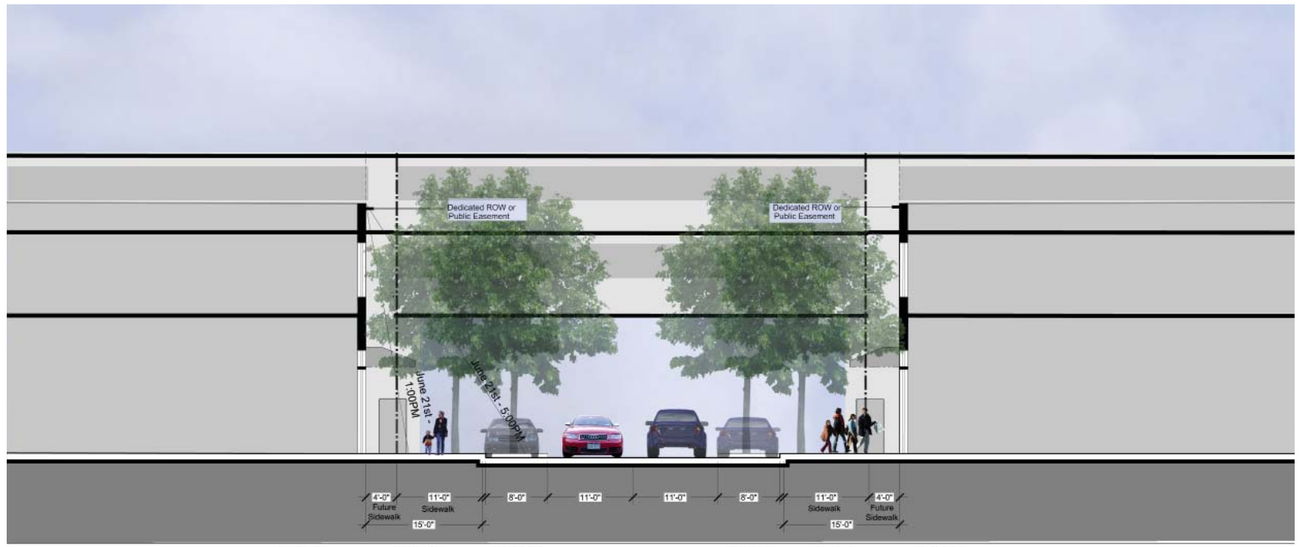
Streetscapes and development that face on to a park can become a great animated space.

Berry Street (Between Travis Street and Main Street)

Berry Street, west of Main Street takes on a different purpose and design intent than that east of Main Street. While the eastern half terminates at the Houston Community College campus, the western corridor currently terminates at Spur 527.

Immediately west of Main Street, a proposed parking garage spans the second and third level over Berry Street creating a gateway entrance opportunity to and from the Ensemble/HCC Station. Pedestrian access points to the parking garage as well as corner retail is anticipated on the ground floor. An opportunity for public art through creative lighting, murals and wall sculpture can make this gateway safe and inviting. Along this corridor you may see locals and guests of Midtown accessing the Ensemble/HCC Station or people walking to local restaurants or the Catholic Church. The section, plan and images to the right explain the proposed character of this portion of Holman Street.

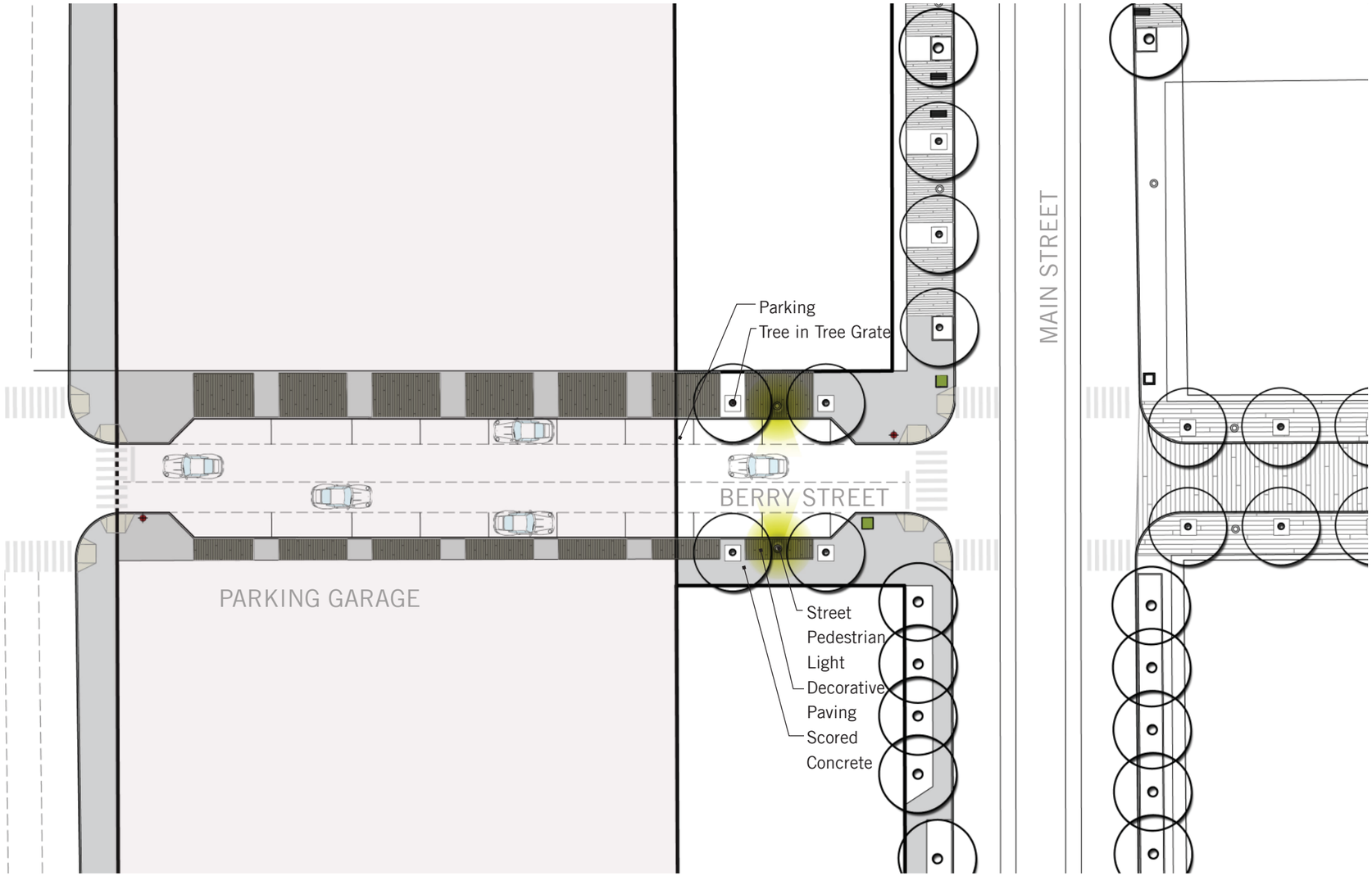
Berry Street is currently a two-way, two-lane local street with on street parking in designated areas. It is recommended that the street continue to allow for two-way service and maximize on street parking helping service local businesses. In addition, the sidewalk conditions will need to improve in order to provide a safe and comfortable pedestrian environment. Berry Street through this portion of the study area is served by insufficient water lines which will need to be addressed during redesign and reconstruction.



Street Section looking immediately west of Main Street.

Small retail shops or art studios can project from the ground floor parking garage along Berry Street.

The second and third floor bridges over Berry Street should be designed to act as a gateway or portal to and from the Ensemble-HCC Station.



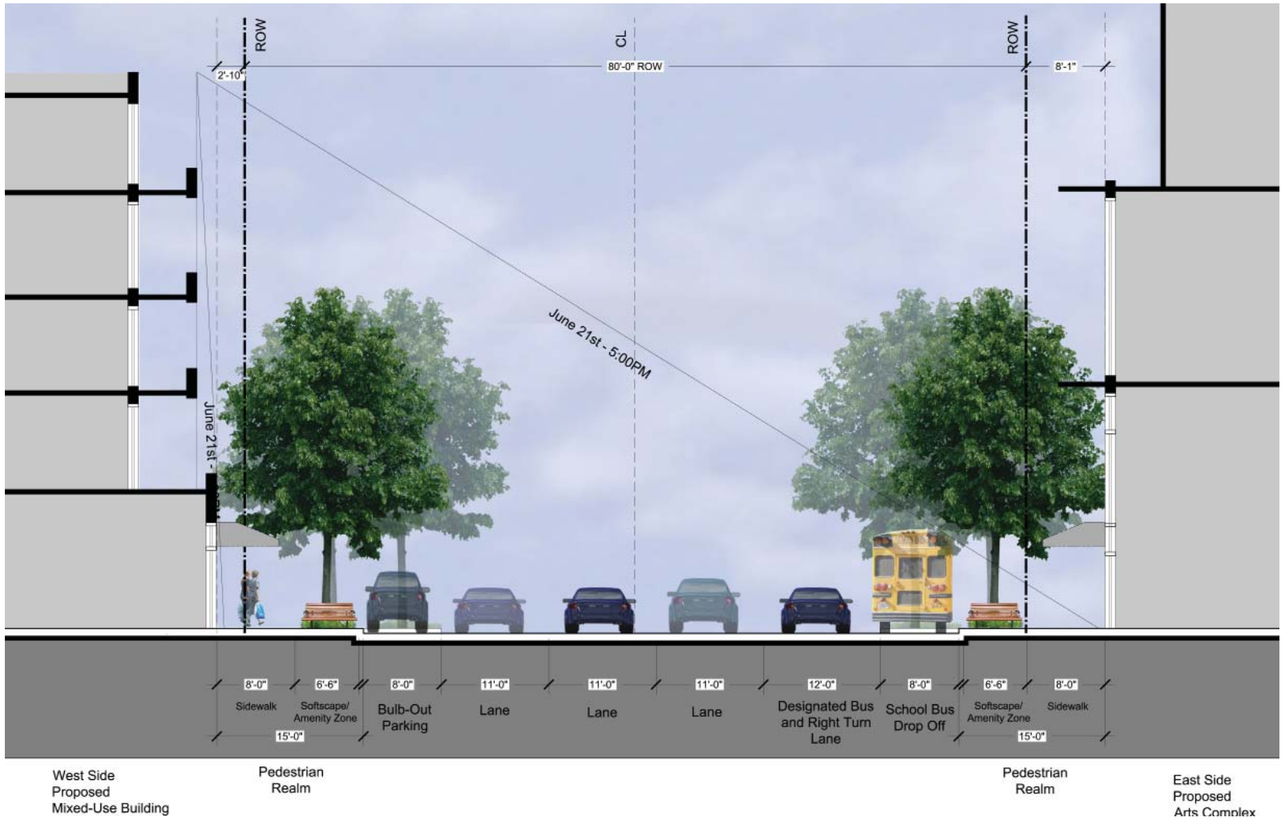
0 10' 20' 40'

BERRY STREET

Travis Street (Between Holman Street and Elgin Street)

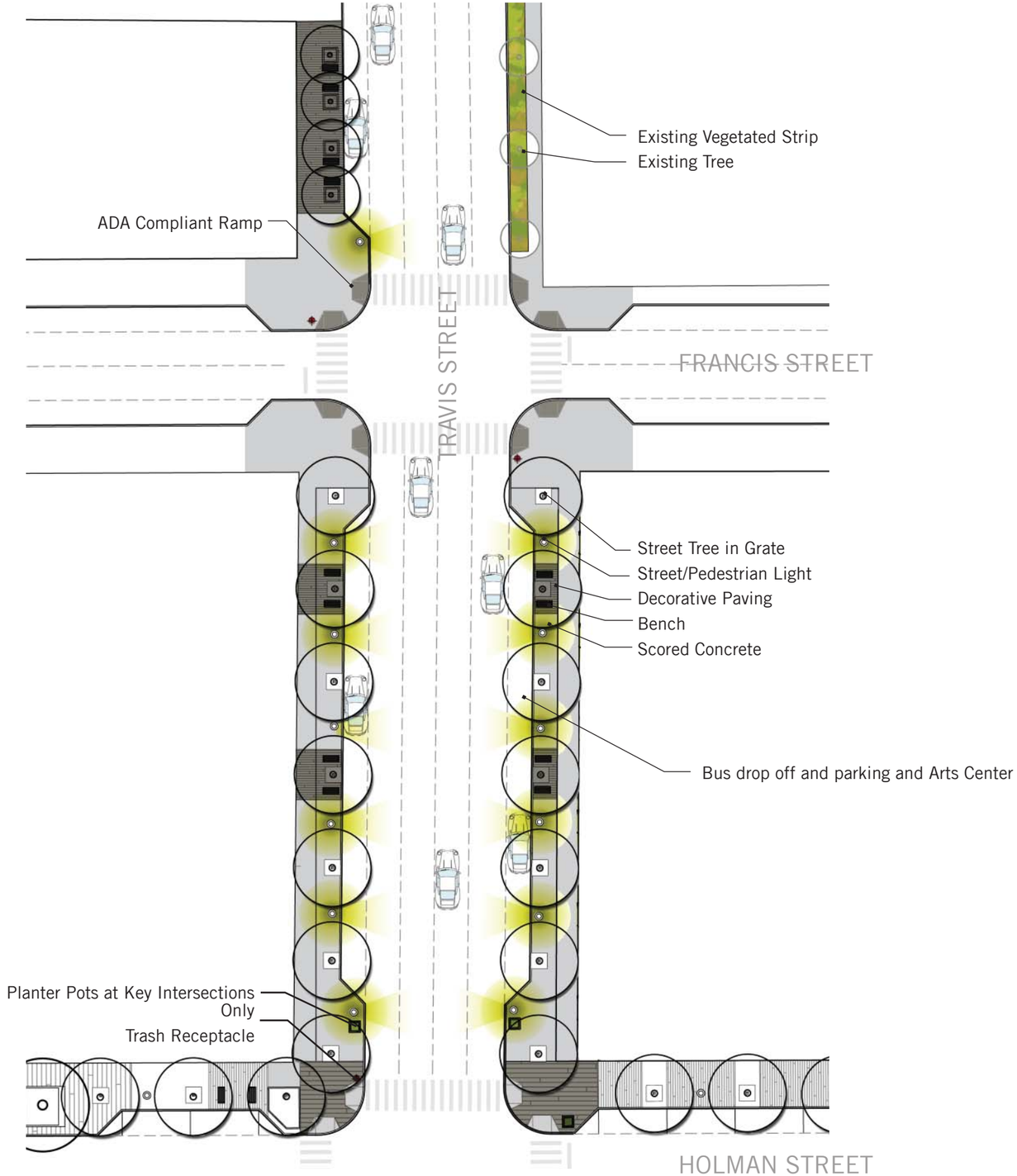
Travis Street is a key automobile corridor from Spur 527 into the district and on to the CBD. Once the Primary Z corridor between Holman Street and Elgin Street (on Milam Street) is established, this corridor will be the next north/south corridor to focus on. The ground floor is envisioned to include retail with residential and office on the upper floors. In addition, the western edge of the proposed arts complex fronts onto this road, providing additional opportunity for public art to be an accent to the façade. On this street you may find a small restaurant, coffee shop, dry cleaner or art store. The section, plan and images to the right explain the proposed character of this portion of Travis Street.

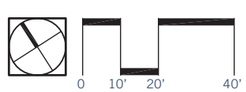
Travis Street is currently a one-way, four lane Transit Street running northbound toward the CBD. The eastern-most lane is dedicated to bus and right turn only. The lane immediately to the west is designated bus and carpool between 7-9am and 4-6pm on weekdays - This lane is currently slated for removal. To help assist in making the street more inviting for businesses and to help buffer pedestrians from the high volume of traffic, on street parallel parking with bulb-outs is proposed on each side of the street. A portion of the parallel parking spaces on the east side will need to be set aside for bus stops (unloading and loading). Trees are to be planted in tree grates or small planting beds. Potted plants, outdoor seating and other applicable streetscape furnishings are suggested once the 15' pedestrian realm is achieved.



Street Section looking north with the proposed IAC on the right.

Travis Street has the ability to carry significant traffic and still offer pedestrian safety and comfort.



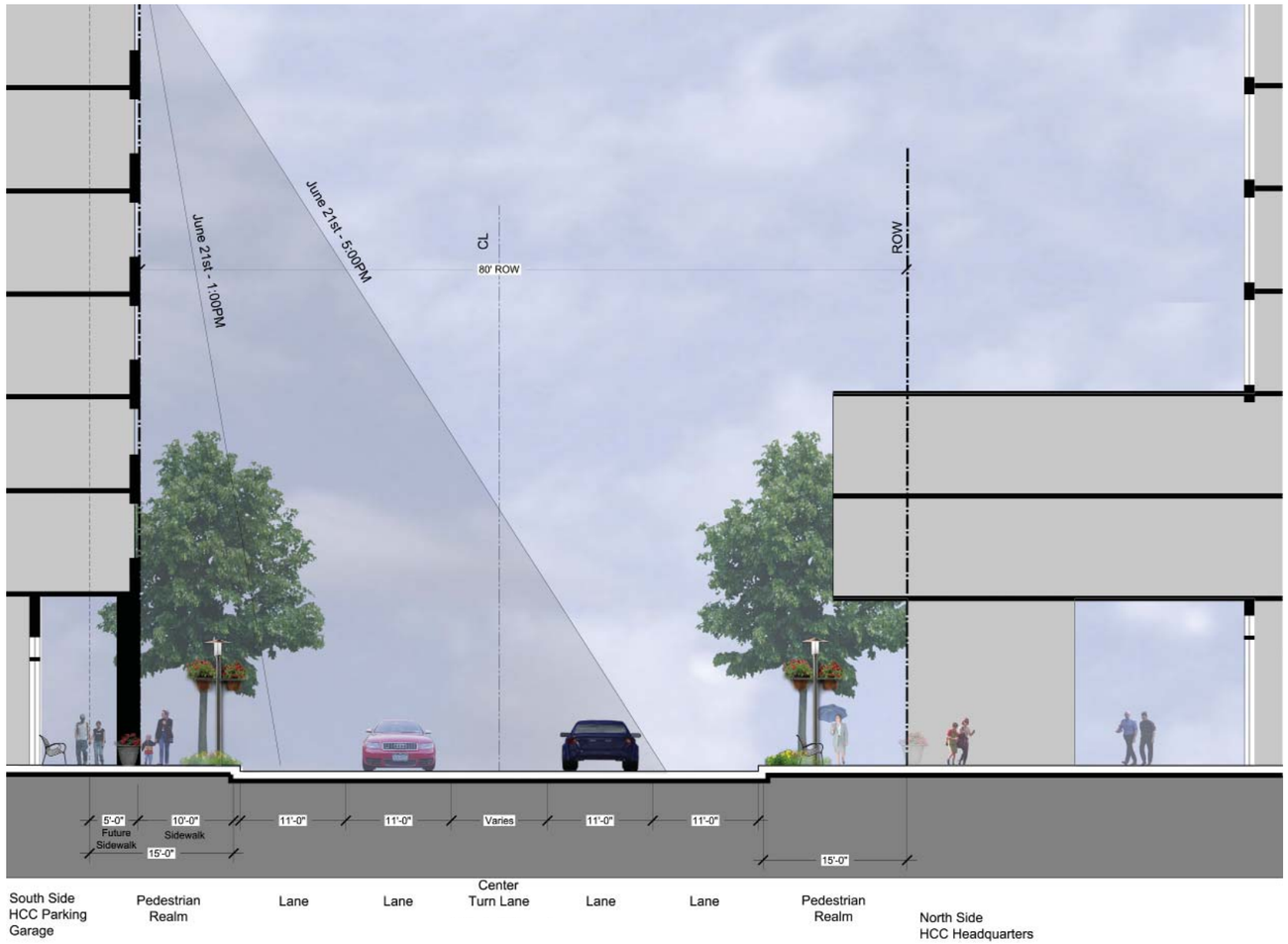


TRAVIS STREET

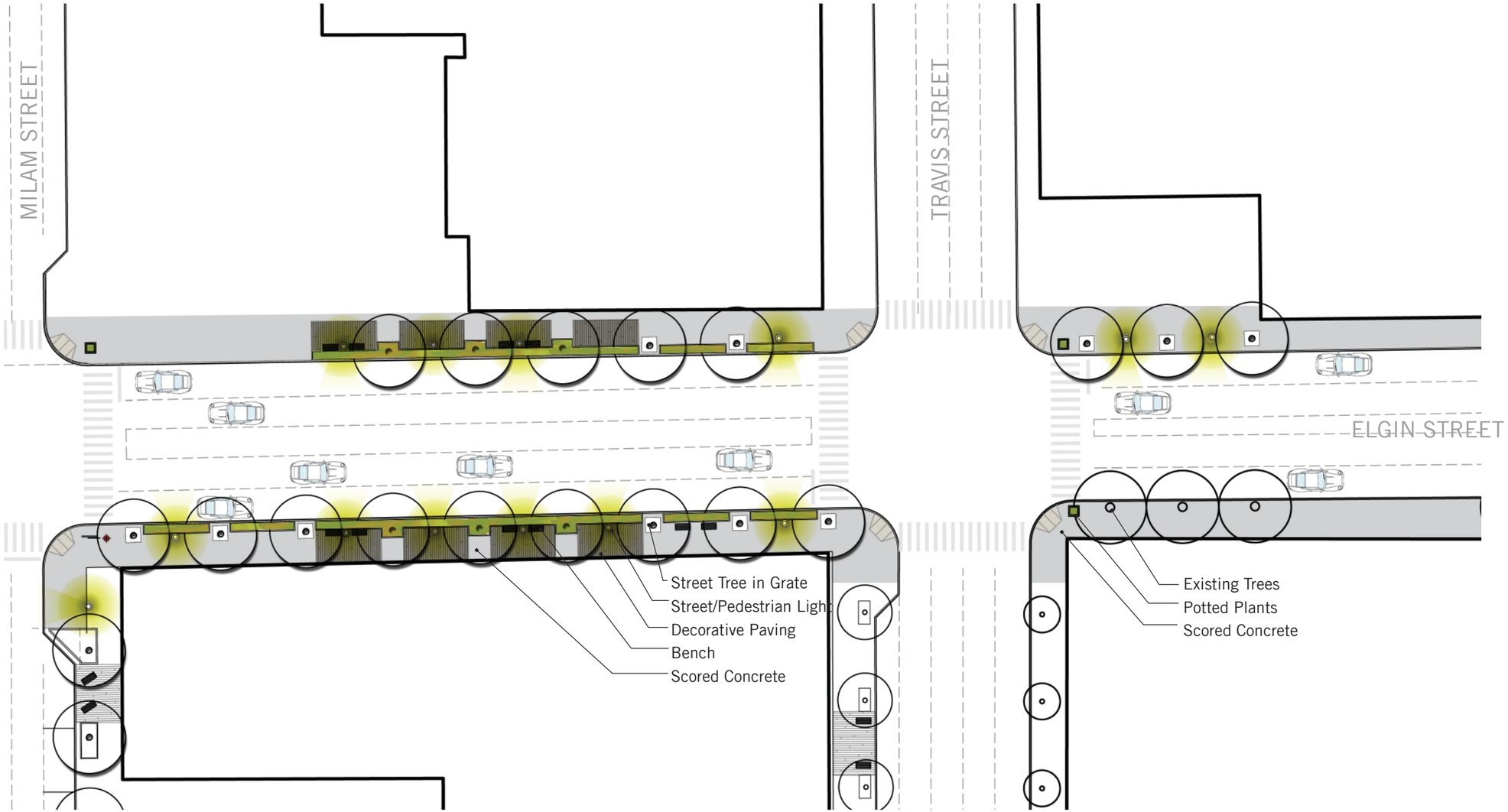
Elgin Street (from Milam Street to Main Street)

Elgin Street is one of the most important east/west corridors in the study area. Already carrying significant volumes of traffic, retail has begun to develop on the western half of the study area. While Elgin Street (between Brazos and Milam Streets) is a critical component of the Primary Z diagram, the stretch between Travis Street and Main Street is also important. This stretch is an important transition between the transit vibrancy of Main Street and the retail emphasis anticipated in the primary Z diagram. On this street you may find Houston Community College employees walking to and from work or a restaurant, additional destination retail or office store. The section, plan and images to the right explain the proposed character of this portion of Elgin Street.

Elgin Street is currently a main east/west thoroughfare with four lanes and a center turn lane. It is anticipated that the existing pavement between the curbs will not require new construction but several significant improvements are necessary in the public realm. Because there is not on street parking, a landscape buffer is necessary to help separate automobile traffic and pedestrian traffic. Street trees are anticipated and should be set back 6'-0" from the face of curb to provide clearance for free flowing automobile traffic. At a minimum, trees should be placed on the north side of street to ensure appropriate shading and human comfort from the harsh sun environment. Large awnings can also provide shade. In addition, the existing Houston Community College parking garage and Houston Community College headquarters do not provide an animated street environment, such as an outdoor café. The streetscape will need to ensure that this environment is safe and comfortable, even though there will be limited ground floor retail activity. The use of planters, sculpture and color will ensure a visually desirable streetscape appearance between the transit vibrancy of Main Street to the retail emphasis of the primary Z diagram on Elgin Street.



Street section between the Houston Community College Parking Garage and the Headquarters building.



0 10' 20' 40'

ELGIN STREET

Alabama Street (Between Louisiana Street and Austin Street)

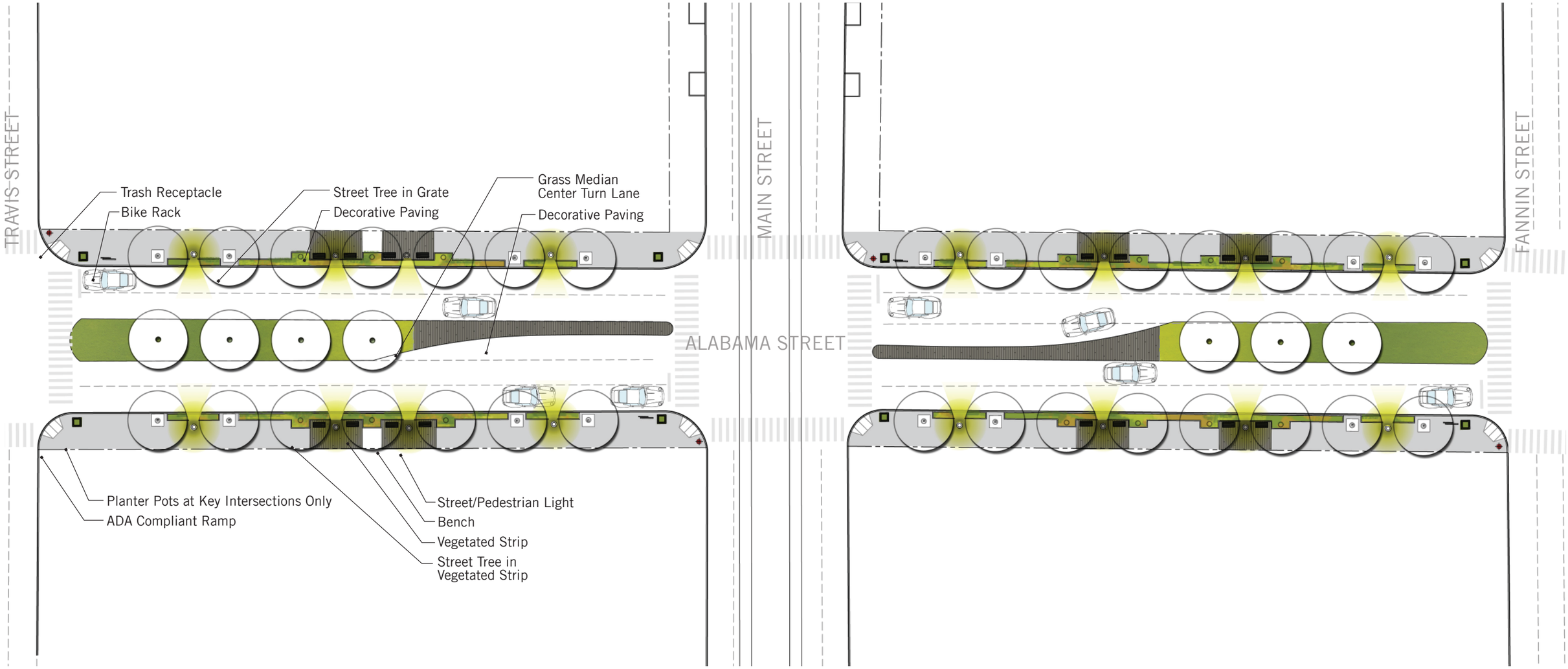
Alabama Street is an important east/west corridor and key entry into the study area. As such, it carries significant volumes of traffic. The western portion of this street segment is home to the Breakfast Klub, a popular neighborhood breakfast spot. On this street you may find residents walking into the study area from Montrose or passers-by exiting from Spur 527. The section, plan and images to the right explain the proposed character of this portion of Alabama Street.

Alabama Street is currently a four lane corridor with a center concrete median/turn lane. Because there is no on-street parking, a landscape buffer is necessary to help separate automobile traffic and pedestrian traffic. Street trees are anticipated and should be set back 6'-0" from the face of curb to provide clearance for free flowing automobile traffic. At a minimum, trees should be placed on the north side of street to ensure appropriate shading and human comfort from the harsh sun environment. Large awnings can also provide shade. The use of planters, sculpture and color will ensure a visually desirable streetscape appearance. Eastern portions of Alabama Street through the study area are served by insufficient stormsewer lines which will need to be addressed during redesign and reconstruction.

Street Section in an area with a divided median.

Medians help to calm traffic and reduce heat island effect.

Medians can help to establish the character of the district through plantings, banners, lighting and public art.



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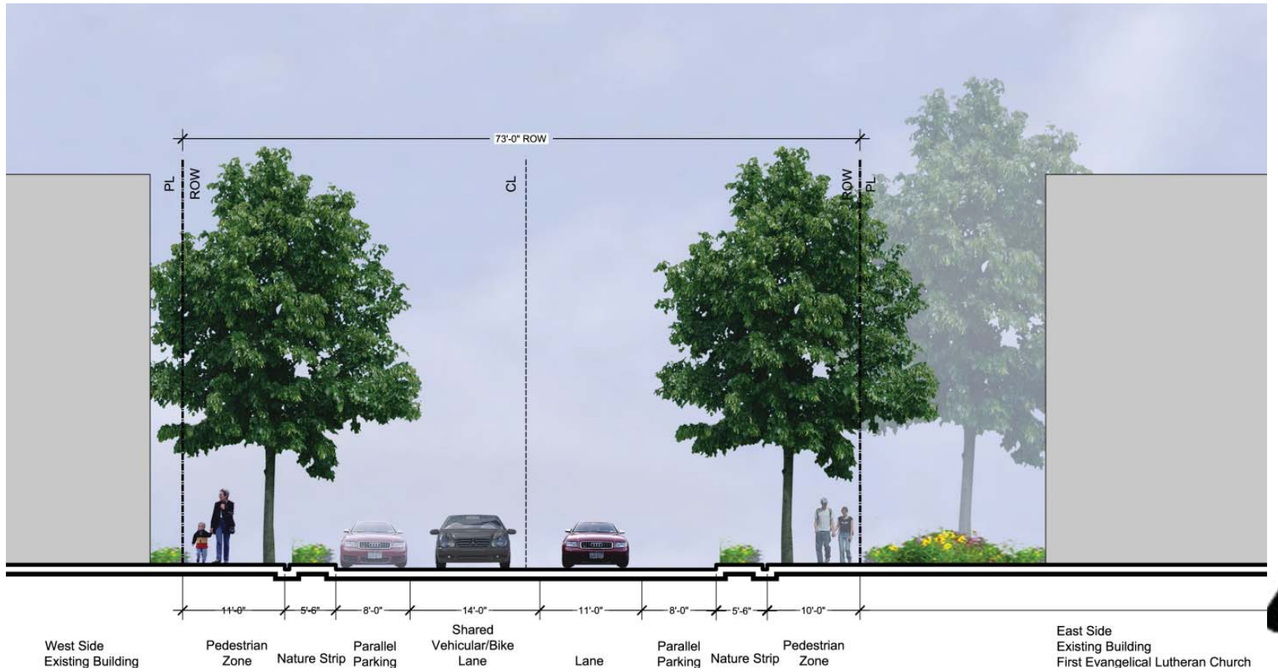
ALABAMA STREET

Caroline Street (North of Houston Community College Campus)

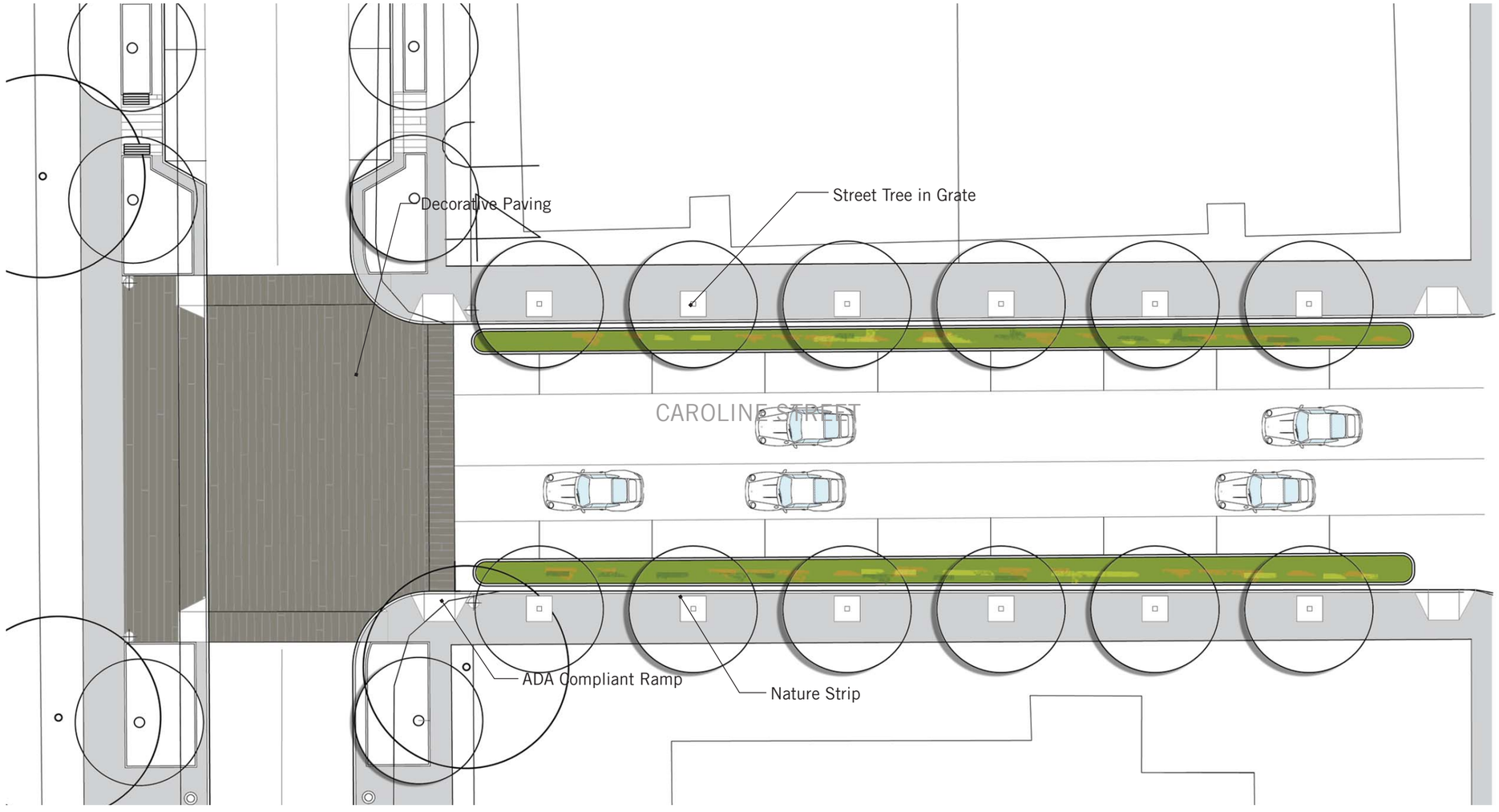
Caroline Street provides a primary north/south connection from downtown to the Houston Community College Campus. The focal point looking north is the downtown skyline and the focal point to the south is the Houston Community College Campus. These important and iconic views should be preserved and enhanced with tree plantings that are upright in form to frame and these views.

Caroline Street is currently a two lane corridor through the study area with a painted median/turn lane between Francis and Holman Streets. Despite the on-street parking and bicycle lanes, the driving lanes are still excessively large. Caroline Street is a designated bike route from north to south through the study area. Lanes are slightly wider than normal to allow for shared vehicular/bike lanes. Carloline Street consists of a mix of land uses including institutional, religious, and residential. The majority of pedestrian and vehicular travelers on this section of Caroline Street are heading to the Houston Community College Campus. On this street you may find a student biking to class, a resident walking their dog, and a professor sitting on a bench grading papers. The section, plan and images to the right explain the proposed character of portion of Caroline Street.



Street Section adjacent to the First Evangelical Lutheran Church


Caroline Street improvements should include bicycle, pedestrian, and automobile circulation.



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CAROLINE STREET

Curb Cuts

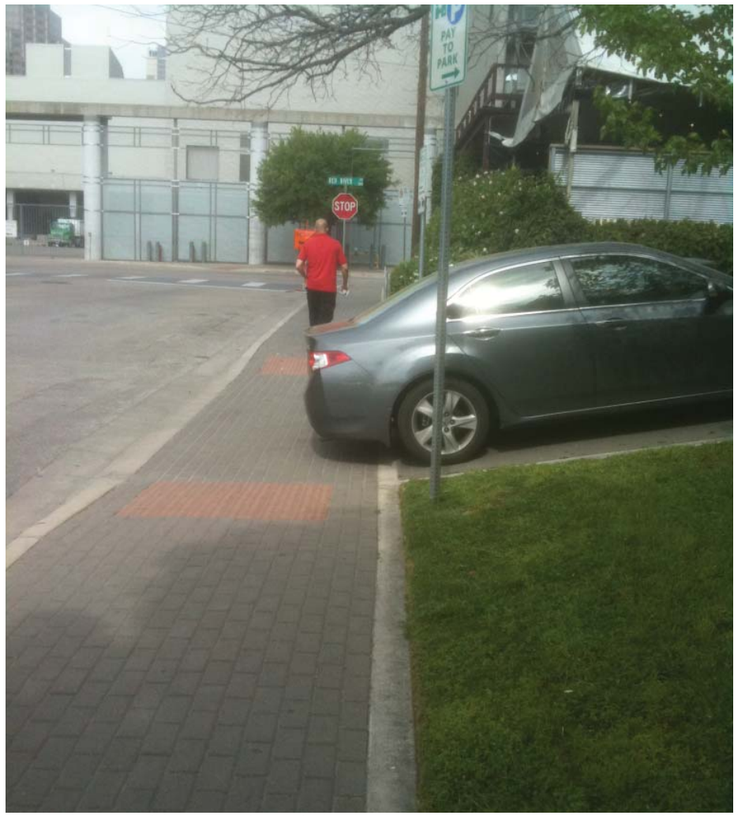
The proposed streetscape environment of the Primary Z and Secondary Z will require significant capital improvements in order to make these corridors pedestrian-oriented environments. However, with any sidewalk in an urban area, curb cuts need to be appropriately considered to minimize pedestrian and automobile conflicts, to ensure the functionality and aesthetics of the proposed streetscape, and to contain drainage from coming onto the sidewalk environment.

The proposed streetscape improvements will expand the pedestrian area, in many cases up to 15'-0" in width. The pedestrian area is defined as the back of curb to the edge of the improvements. Because of this additional width, curb cuts and ramps should be constructed without visually interrupting the character of the sidewalk, or creating awkward slopes for pedestrians, as shown in the images below and to the right.

In addition, the design and engineering of curb cuts should follow these recommendations:

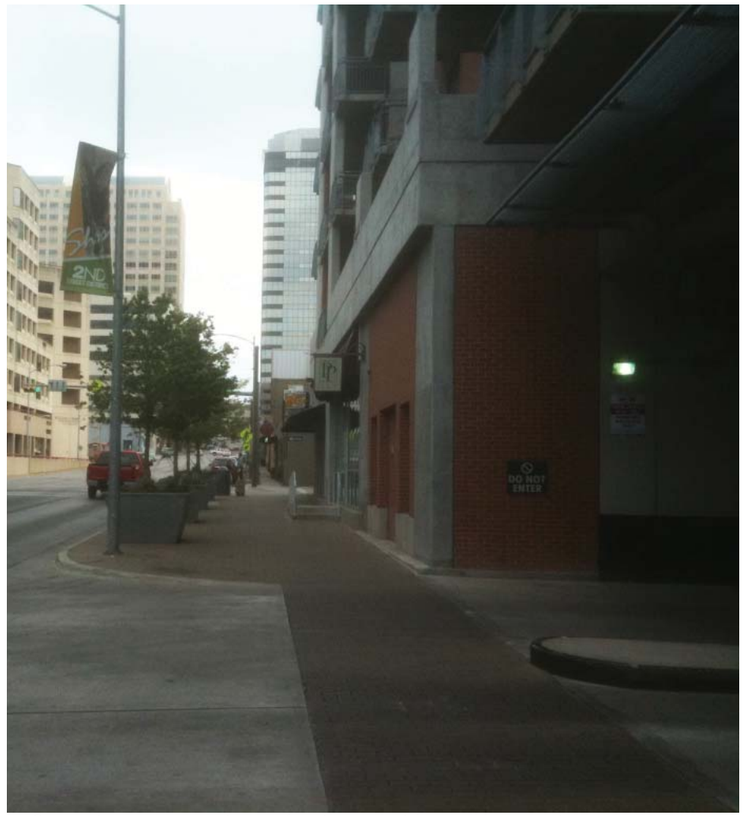
- Consolidate curb cuts where possible;
- Minimize curb cuts on the Primary Z and Secondary Z streets;
- Allow for sidewalk material to flow through the curb cut to enhance aesthetic quality;
- Grade curb cuts efficiently so that cross slopes do not exceed code in the primary pedestrian area;
- Use medians to help separate multiple curb cuts; and
- Provide clear signage or material changes for both the pedestrian and vehicles to allow the user to know that they are entering an area of potential conflict.

The median in the foreground helps to divide ingress and egress for a parking garage.



In high pedestrian areas, truncated domes can be used to help signal an automobile/ pedestrian conflict zone.

Sidewalk materials should continue through curb cuts to help accentuate the pedestrian environment.



Curb cut ramps shall return before the pedestrian walking zone to ensure cross slopes do not create an unsafe walking environment.

Parks, Plazas, and Open Space

Parks, plazas, and open spaces are critical to satisfying the diverse outdoor recreational needs of urban residents, visitors, and employees. They are also vital to a urban quality of life. Parks and plazas help foster social interactions and sense of community that define the public realm and urban culture. Elizabeth Glover Park is the only park in the study area. The other closest parks are Baldwin Park, Emancipation Park, and Sam Houston Park.

National best practices suggest that all residential units should be within ¼ mile or 5 minute walk to a plaza, park, or open space system.

A large park/plaza is planned adjacent to the McGowen Station on Main Street known as the "Superblock Park," and Houston Community College has plans to build a large plaza on their campus in Midtown.

Opportunities

- Parks and open spaces create a high quality of life that attracts tax-paying businesses and residents to communities. Urban parks, gardens, and recreational open space stimulate commercial districts.
- Parks and open space boosts local economies by attracting tourists and supporting outdoor recreation.
- Open space can reduce costs of handling stormwater by allowing more infiltration, reducing impervious materials, and by allowing for regional detention facilities.
- Access to parks increases frequency of exercise making healthier communities.

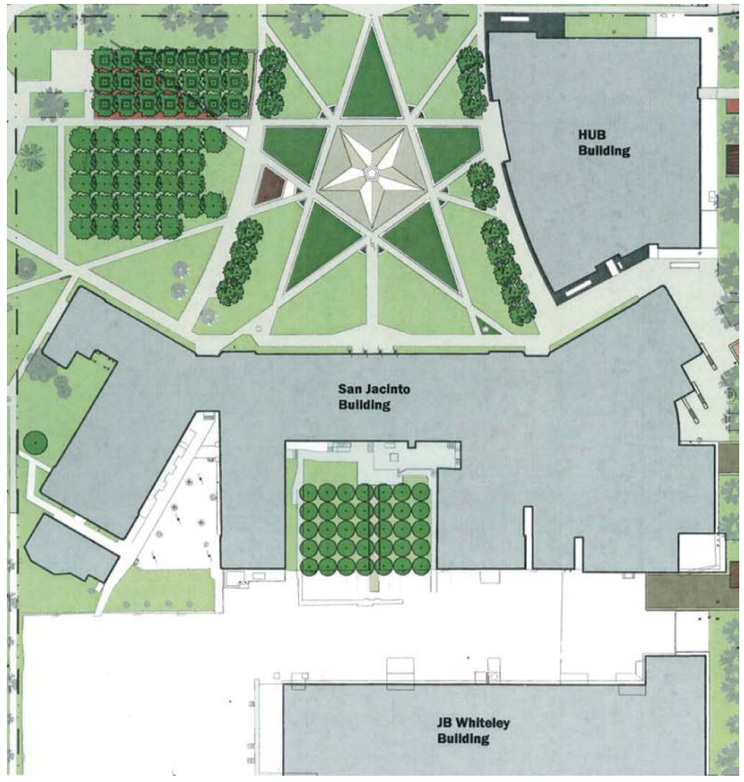
Challenges

- Parks and open spaces require additional maintenance.
- Cost of purchasing land for parks and open space can be a challenge in the district.
- Costs of developing recreational amenities are typically a burden on the city.
- Identifying and acquiring available land in the study area.

What park space exists within close proximity of the study area (but not in the study area)?

- Baldwin Park: 4.88 acres in size. Located approximately 2600' (1/2 mile) from the Ensemble/HCC Station. The park includes informal lawn space, shaded tree area, a soft surface jogging path, a pavilion, Vietnamese Heritage Plaza, picnic tables, chess tables and a 1912 historic stone fountain. (www.houstontx.gov/parks/baldwin park.html)
- Superblock Park is a master planned park of approximately 1 acre located 2,100 feet (.4 miles) from the Ensemble/HCC Station. The original park master plan suggests programs of informal lawn space, a shallow pond for paddle boating and canoes, library, fire museum, plazas, 3600 space underground parking facility, (http://www.mcgowengreen.org/pagetwo.html). The program for the new park plan is unavailable at this time.

The proposed Superblock Park is located between Midtown and Downtown between Main Street and Travis Street and south of McGowen Street.



Houston Community College (HCC) is currently developing plans for a new plaza on their campus in Midtown.

LEGEND

Existing and Planned Parks

PARKS AND OPEN SPACE INVENTORY

Parks and Open Space Vision

Why Park Space?

Parks have social, cultural, environmental, and economic value associated with them. First, as a primary building block of communities, parks provide a place for neighbors to meet and socialize. Parks influence the mind, body, and soul of their users through the active or passive recreational elements designed into each. Parks provide opportunities for urban dwellers to spend time out of doors. In medium- to high-density scenarios as will exist in the study area at build out, outdoor gathering places are essential to quality of life. Under these density conditions, residents do not have access to private yards. Parks can contribute to reduced heat island effects, reduced urban runoff, and increased urban habitat. These are not just altruistic benefits; they directly influence human comfort and desirability of a place and ensure long-term sustainability of the district.

Parks contribute an economic value to the surrounding properties and the community in which it is located. According to the Trust for Public Land, most people are willing to pay more for a home close to a nice park. Economists call this phenomenon "hedonic value." (Hedonic value also comes into play with other amenities such as schools, libraries, police stations, and transit stops.) In this case, hedonic value is affected primarily by two factors: distance from the park and the quality of the park itself. While proximate value can be measured up to 2,000 feet from a large park, most of the value is within 500 feet. Less attractive or poorly maintained parks are only marginally valuable and parks with frightening or dangerous aspects can reduce nearby property values. According to the Urban Land Institute, hedonic value is quantified using seven major factors:

(1) Property Value
(2) Tourism and everyday activity
(3) Direct Use
(4) Health
(5) Community Cohesion
(6) Clean Water
(7) Clean Air

Two factors to consider with parks provide a city with direct income: 1) Property tax from the increase in property value and 2) Increased sales tax on spending by tourist and everyday activity around the park. Although, parks are thought of as an expense, they should also be viewed as an asset and economic investment.

Finally, providing park space in the study area is essential to the success of the area because the stakeholders expressed concerns about large tracts of vacant land and indicated that highly programmed public space was a strong value.

How Much Park Space is Needed in the Study Area?

The proper amount of park space differs for every community based on public expectations and access to other amenities (i.e. beaches, homeowners' association amenities). Therefore park standards are difficult to find and not typically applicable. The Houston Parks and Recreation 2007 Master Plan Update concludes that there should be 11.7 acres of open space per 1,000 people. This is averaged across the city and includes all park types including pocket, neighborhood, community, regional, parks as well as linear park/greenway and park reserve/natural areas. Since the vision for this study area is to create a vibrant urban neighborhood, it is appropriate to simply use the neighborhood and pocket park standard to determine park needs in the study area. The population of the study area is intended to increase from 1,600 residents now to approximately 4,500 residents at full build out. This would suggest a total of 4.5 acres pocket and neighborhood parks. There will also be additional employees and visitors to the district at full build out that may suggest slightly more park and open space. Between the Elizabeth Glover Park and the proposed HCC Star Plaza, there will soon be 2 acres of park and open space in the study area. This still leaves a minimum of 2.5 acres of park and open space that needs to be established within the study area. Because this study area is substantially below the adopted city standard, the recommendation is the placement of one neighborhood park (defined in the Park Plan as 1-15 acres) and three or four pocket parks (defined as less than 1 acre).

Park Classification	Inventory – all sources (In Acres)	HPARD Standards (Acres/1000 population)	2020 Needs (In Acres)
Pocket	13	0.005/1000	Meets Needs
Neighborhood	1,945	1.0/1000	Need 702 Acres
Community	3,302	1.5/1000	Need 669 Acres
Regional	36,846	8.0/1000	Meets Needs
Linear Park/Greenway	1,158	1.0/1000	Need 1,490 Acres
Park Reserve/Natural Area	7,699	0.2/1000	Meets Needs

Source: City of Houston Parks and Open Space Masterplan

Where Should Parks be Located?

The western half of the study area is outside of a comfortable five minute walking radius from a park as the diagram on the opposite page shows. This suggests that some of the new parks in the study area should be located in this area. There are several key criteria for evaluating potential park locations. Parks should:

- Be easily accessible from transit station, bus routes and existing/future residents;
- Maximize hedonic value surrounding the park space
- Be near retail and entertainment to build on the energy of the district
- Avoid historic or non-negotiable properties/buildings that will need to be removed
- Be visible from both the automobile and pedestrian perspective to ensure adequate "eyes on the park"
- Reinforce major urban design decisions (such as the "Z" Connection).

LEGEND

Existing and Planned Parks

Area lacking park space

PARKS AND OPEN SPACE INVENTORY

What Program Elements Should the Parks Include?

Urban parks should meet the needs of the existing and future neighborhood as well as be an attractive and inviting space. The Houston Parks and Recreation 2007 Master Plan Update defines a desired program for pocket and neighborhood parks as follows;

- POCKET PARK - Playground, picnic tables, gazebos or gardens
- NEIGHBORHOOD PARK - To Pocket Park list add open space, natural habitat, walk trails, multi-use courts, practice sports fields and covered picnic shelters

In addition, urban parks should consider the following program elements:

- Informal/flexible lawn space
- Interactive water feature for all ages
- Public art walk
- Shade (trees, possibly a structure)
- Possible skyline view
- Playground
- Gardens
- Seating and picnic tables
- Dog park

The following Park Use Matrix chart rates a variety of program elements based on capatibility. For example, a family area with picnic tables has a high level of capability with a playground.

	Informal Lawn Space	Public Art	Playground	Gardens	Family Area/Picnic	Seating	Shade/Promenade	Dog Park	Interactive Water Feature
Informal Lawn Space	x								
Public Art	2	x							
Playground	4	2	x						
Gardens	2	3	1	x					
Family Area/Picnic	3	2	4	2	x				
Seating	3	3	3	3	4	x			
Shade/Promenade	2	3	3	2	4	4	x		
Dog Park	2	1	2	1	2	3	3	x	
Interactive Water Feature	2	2	3	2	2	3	2	1	x

4 highest level of captibility
3 above average level of capatibility
2 moderate level of capatibility
1 low level of capatibility
x same program

The Park Use Matrix above rates a variety of program elements based on capatibility.

Size Comparisons/Case Studies

Successful parks vary in size dependent on the context and function of the park. Analyzing the following case studies sheds some light on an appropriate size for the park in the study area. Size comparisons to these parks and the park options for our study area can be found on the opposite page.

Pearl District, Portland, OR.

The Pearl District is a redevelopment of a former industrial district north of downtown Portland. As industrial was on the decline in this portion of Portland, the City envisioned a redevelopment that originally thought to capture empty nesters. However, its rich arts and culture has brought all age groups to the revitalized district. Pacific Northwest College of Art, along with live work art studios, galleries and outdoor exhibition space anchor the arts and culture scene in the district. Centered on two main public catalyst projects, a series of one block parks and a streetcar (which connects to downtown and Portland State University), the district is considered an internationally recognized leader in urban renewal. The upfront investment of a highly designed park system and transit system is an affirmation that quality of life can rise from the ashes of urban decay. The park master plan for the redevelopment of Pearl District includes three new parks, each approximately 1.25 acres in size. Rather than replicate the pattern of the city's famous linear parks, which date back to Olmsted, the three proposed parks take the form of a series of individual square blocks, surrounded and separated by housing and retail/commercial buildings. While each of the neighborhood parks are unique, the three are tied together to sweep from the Pearl District and eventually connect to a new park along the river, though the repetition of a park every three blocks and to be located along the streetcar alignment. Each park has a streetcar stop.

Two of the three parks have been designed and implemented in the Pearl District. The first, Jamison Square, includes an interactive water feature for all ages; an arts promenade, a lawn space for gathering and a hardscape plaza, which doubles as a small amphitheatre. This program is tailored toward activity and play, people watching, shade and outdoor comfort. Contrasting Jamison Square is Tanner Springs Park. This park is designed for the contemplative and is considered a passive space, with an urban ecology function. The park includes open lawn space, a restored savannah and wetland, an amphitheatre and a significant art installation reflecting the district's former railroad and industrial past.

Each of the parks is wrapped with new development or adaptive reuse development. The average height of the development is approximately 5-6 storey's, thus creating medium to high density living patterns. Upon observation, these two parks are at nearly full capacity in the evenings and on weekends. It is an attraction that makes this district

a ‘Livable Center.’ The park user consists of children, parents and grandparents. The multi-generational livelihood of the Pearl District has resulted in a desirable place to live. According to ‘Explore the Pearl’, an online website dedicated to this district, the primary reasons why this redevelopment has been successful include:

- High quality of life rich in culture and diversity
- Access to parks
- Eco-friendly district with alternative transportation options
- LEED building renovations and new designs
- Availability of services, including healthcare
- Views of the city skyline and surrounding landscape
- Simpler, greener lifestyle in a clean and safe area

Jamison Square and Tanner Springs, Portland, OR 1.4 Acres Each

Discovery Green, Houston, TX 12 Acres

Hardy Yards, Houston, TX 2.1 Acres

What Value do Parks add to Surrounding Property?

The hedonic value of property surrounding parks is best explained through a series of case studies. These case studies depict other neighborhood or pocket parks in urban environments.

Pearl District, Portland, OR

Urbanworks Real Estate, who leases many properties within the Pearl District observed that there is an average 10 percent premium on properties near Jamison Square Park, a highly designed very active neighborhood park. The park amenity makes the property around it more competitive.

Washington, D.C.

The Trust for Public Land conducted a case study on the total park system of Washington D.C. to determine value added to surrounding property. The hedonic value of Washington D.C.'s Parks – both private and public return on investment - is illustrated below:

Value of Properties within 500 Feet of Parks	$23,977,160,000
Assumed average value of a park	5 percent
Value of properties attributed to parks	$1,198,858,025
Effective annual residential tax rate	0.58 percent
Annual property tax capture from value of property due to parks	$6,953,377

Bryant Park, Manhattan

The programming of park space is essential to the success of the park and its ability to increase the hedonic value of the surrounding land. In the 1970s, Bryant Park was known for crime and drugs. Generally, the neighbors were too afraid to frequent the park. In 1980, the park was revitalized and new standards put in place for maintenance, security, concessions, facilities, and special events. Financially, the city and local business owners made a sound investment. The entire neighborhood has risen in value with commercial rental values increasing by up to 225 percent, far outpacing increases in nearby buildings not adjacent to the park. Citywide, single-family home sale prices in close proximity to well improved parks typically exceeded sale prices further from the park, ranging from 8 percent to 30 percent.

St. Albans Park, Queens

Single – family home sales on a square foot basis are approximately 19 percent higher in comparison to those further from the park.

Mueller Development, Austin Texas

Mueller is a new master planned community on the former ground of Austin's Mueller Airport. Located just three miles from downtown Austin, two miles from the University of Texas, and home to Dell Childrens Hospital and Seton Health headquarters, the vision for Mueller anticipated a community distinguished by high density single family lots and multi-family development centered on a significant park and open space system.

The complete development is 711-acres, with 20%, or 140 acres, dedicated to public parks and open space. Residential lots facing a park space sold with up to a $10,000 premium. With the average lot size facing the parks set at 45 feet wide, the park frontage premium is approximately $220 per linear foot. These lots sold at an accelerated rate over interior block lots. Multi family for lease properties are experiencing a 10-15% premium for units facing onto the park system. CapMetro, Austin's transit authority, will provide light rail service from Dell Children's Hospital, through the residential neighborhood, to the University of Texas, then downtown and out to the airport in 2015. This will also provide hedonic value to the development, complimenting the highly successful park and open space network. (www.mueller austin.com and interviews with Mueller homeowners, developers and builders)

Community Park within the Mueller Development

Playground Structure at the Community Park within the Mueller Development

Proposed Projects: Parks and Open Space

Existing Park Improvements

Elizabeth Glover Park is a small park and will offer minimal programming activity necessary for the revitalized district. However, the .25-acre open space could include urban gardening opportunities, seating, shade, a small lawn space, or a playground. This park should remain open and visible from adjacent streets and include appropriate fencing and lighting for safety.

The Houston Community College Star Plaza is currently designed as a flexible space offering little programmed spaces. The plan includes a large sun oriented space and a shaded tree landscape area that is connected with sidewalks, and adequate lighting. To take advantage of the flexible space, the plaza design should consider a water feature for cooling and gathering, appropriate power for events such as festivals and performance, additional seating, and shade.

Proposed Parks

“If the City of Houston is going to continue to promote Livable Centers and returning people to life in the inner city, they MUST determine a mechanism for implementing neighborhood parks. Open space fees and park land dedication requirements may work in a suburban setting where cheap land is present to purchase, but in a city where there is competition among users for land as well as demolition or clean up costs for parcels, it is not enough. Houston seems to have a terrific program for iconic parks like Discovery Green, Buffalo Bayou, Memorial Park, and Herman Park. Currently, few programs are in place for assuring the people who actually live in the city are serviced adequately by neighborhood parks within a short walk of their homes.

Nevertheless, a neighborhood park is suggested in the western half of the study area. This neighborhood park should be roughly one acre in size and include a variety of program elements such as a playground, dog park, art walk, and water feature.

In addition, three to four additional pocket parks are encouraged in the study area. These could be negotiated with larger landowners such as the churches, schools, and residential developments in the study area. One example may be the land south of Holman Street between Louisiana Street and Smith Street. Due to its isolated location, the best program for this park space is a dog park.

Baldwin Park offers a soft surface jogging path with mature Oaks providing adequate shade.

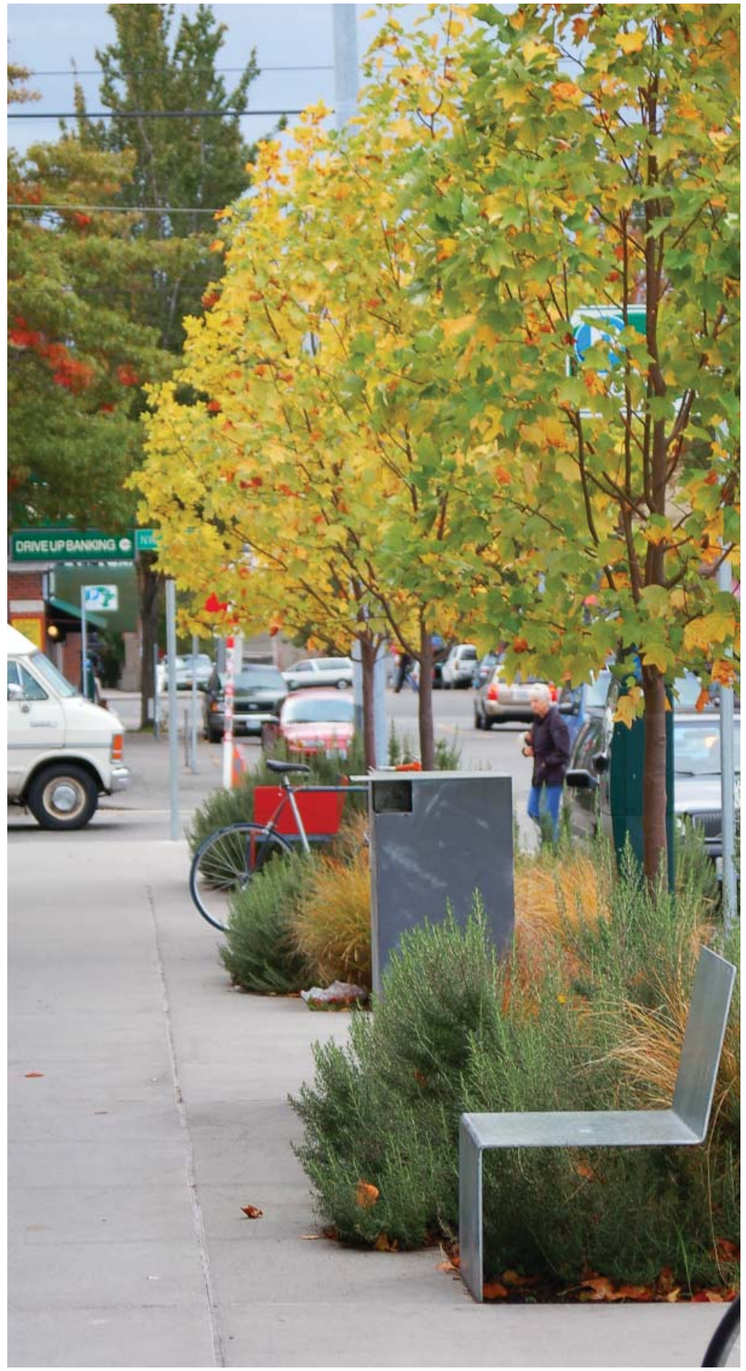
Proposed Park: Character Images

The following images explain the suggested character of the proposed park. The desired character should be determined by a public process including the surrounding residents, business owners, city staff, and interested parties. These images were determined based on the existing character of Midtown and the suggested program elements.

Passive lawn space provides a place to relax in the sun.

Shaded seating provide a comfortable place to relax.

Picnic tables provide a place for a lunch break in the park.



Artistic street furnishings create the desired identity of the park.

Open lawn space is also an essential program elements to allow for community events.

Interactive water features are important elements that attract all ages in a park that is located in a hot climate.

Signage and Wayfinding and Art

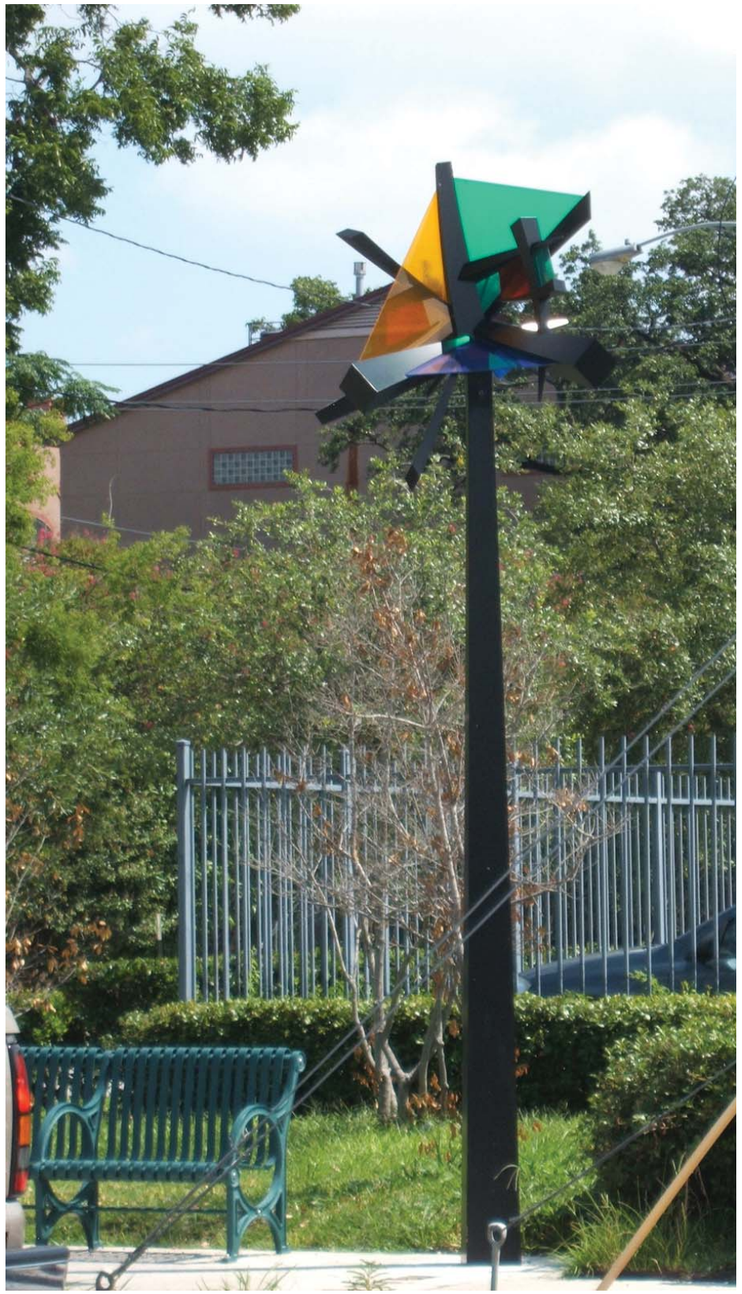
Current Districts, Areas and Corridors identified within the Study Area

Midtown - The area within the project boundary is part of the larger "Midtown District." The Midtown District currently has an existing graphic identity (logo) which occurs on most street identification signs, street directional signs and a district entrance marker/sculpture. The graphic is an abstracted plan of the area with primary colors to identify areas in central Houston. Midtown is featured in red. The district entry identification/gateway is treated as a three dimensional sculpture of the mark and does not identify the district by name.

Adjacent Districts and Areas

- Downtown/Central Business District (CBD) to the North.
- The Museum District to the South.
- Montrose to the West.
- Additional Historic District sub-districts are also identified within Montrose.
- The Third Ward is adjacent to the East of the study area past the Houston Community College Campus.

Midtown's logo can be found on street signage, district markers and sculptures.



This sculpture is a 3-dimensional representation of the Midtown District logo.

The Montrose District has a significant (but dated) entrance gateway with a initial "M.

Other districts in the area use logos and signage as a way of reinforcing their identity.

Main Street Corridor and Rail - Main Street is an existing linear sub-district/corridor identified on Main Street Signs extending from the CBD through the study area and continuing south to the Medical District. There is one rail station in the study area called the Ensemble/HCC Station.

Naturally Evolving Sub-Areas and Destinations in the study area

1. HCC District: Houston Community College is a major destination located in the southeast corner of the study area.
2. Station District: The area around the Continental Club and the Ensemble Theater in an emerging entertainment center.
3. Elgin District: Located in the northwestern corner of the study area this area features a strong group of retailers.

Connections and Identification/Direction to Adjacent Districts

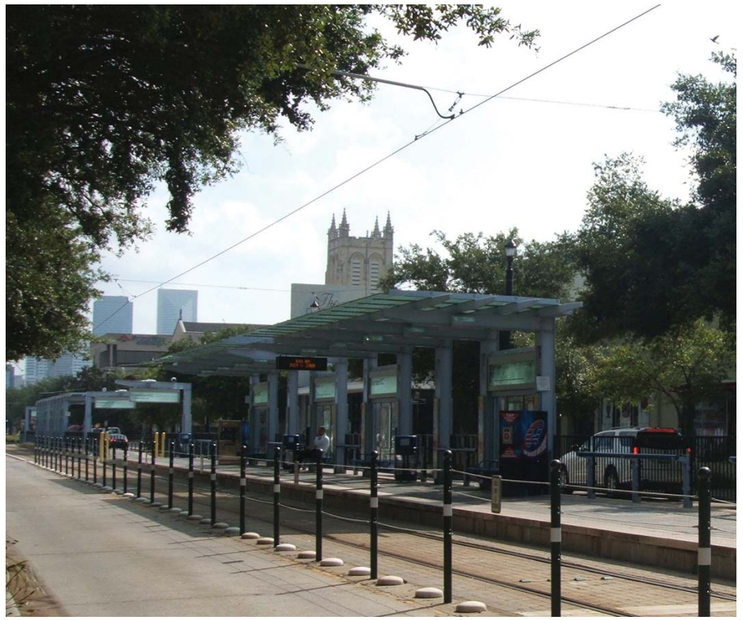
In addition to the already identified vehicular/pedestrian entry from the Montrose District, there are other major entries with no existing district identification such as the vehicular exit ramp from US 59 via Spur 527 (at Travis Street) and pedestrian exits from the Ensemble/HCC Station on Main Street as well as other spur entries to the district.

Houston Community College Entrance Sign

Intersection of Travis Street and Alabama Street

Ensemble/HCC Station platform sign

The Continental Club


Ensemble/HCC Station pedestrian facilities

District Identification

A “Midtown” District entrance marker/sculpture is located at the intersection of Elgin and Bagby Streets. Both the Midtown District and the Main Street Corridor are identified on street identification and vehicular directional signs. There are no banners or other district or sub-area identifiers.

Sub-area Commemoration Program

In the 1970s, Midtown became home to Little Saigon, a neighborhood of Vietnamese and Vietnamese Americans who pioneered the redevelopment of Midtown Houston. During the 1980s, Travis Street and Milam Streets were viewed as a mirror image of 1970s era Saigon. The Vietnamese areas were established around Milam Street, Webster Street, Fannin Street, and San Jacinto Street. Special street signs commemorate Vietnamese history such as “Phan Thanh Gian,”Sai Gon” and “Nguyen Hue.

Vehicular Directional Signs

Very few vehicular directional signs exist within the study area with standard directional signs to the “Farmer’s Market” and “Texas Medical Center and the Houston Downtown wayfinding system has not been extended to Midtown.

Pedestrian Directional Signs

Pedestrian directional signs exist associated with the METRO bus stops. Maps are also present at bus stops and the light-rail station. The pedestrian directional information on the bus stop signs is meekly scaled. Maps utilized on both the rail and bus stop locations are not consistent.

District logos on Midtown street signs

Vehicular directional sign to the Farmers Market


Midtown logo sculpture

Vehicular directional sign to the Texas Medical Center

Commemorative Vietnamese signs

Downtown wayfinding sign

Street Identification Signs

Typical Streets - Each Street is identified with a custom sign with the “Midtown” District logo. At the cross streets (on Main Street) there are mid-block preliminary directional signs to announce the upcoming street/next signal. While helpful to vehicular travel, some are damaged or obscured by trees.

Main Street - Street identification signs on Main Street are identified with a custom sign with the “Main Street Corridor” area identifier.

Select streets have their names inset in the corner paving with square tiles. This design and identity element can be extended throughout the Midtown District as streetscapes are upgraded.

A myriad of other existing elements add to the fabric of the area identity. Street lights, trees, tenant signs, store display, paving and other streetscape elements add to the overall perception of the area identity. The analysis of these elements will occur in other sections of the summary.

Street identification sign with street light and traffic signal

Unique Main Street Sign

Next signal sign

With the redevelopment of Elgin, new inset tile street identification signs were added.

Signage and Wayfinding Vision

Vehicular and Pedestrian-scaled Identity Elements

For primary and secondary connection streets, an enhanced streetscape can include various signage and identity elements. This creates a healthier pedestrian-friendly scale and break down the perception of vastness. Where Secondary Entry Portals are indicted, banners or strand lights can span the roadway. Vertical banners can be attached to light posts, or occur on their own posts and carry a variety of visual themes reinforcing and celebrating the district. The precedent to embed street names at corner intersections can be completed throughout the district. Finally, district wayfinding signs, scaled for pedestrians can identify key destinations as well as visually extend the district identity.

Public Art

Because the Midtown District has the potential for a creative edge, art can be infused throughout on street banners, signature identity elements, portals, etc. A program can be established to encourage art funding in new developments and keep the design and production locally focused.

Opportunities

- Define emerging “centers” with signature identity elements.
- Wayfinding can enhance and define districts.
- Enhance entry points to “midtown.”
- Create a stronger sense of arrival.
- Identity experience from Ensemble/HCC Station on Main Street.
- Engage art community involvement. Art=Identity

Challenges

- Budget. All proposed elements to have the best value for the investment.
- May not be feasible to affect the total area.
- Inconsistent infrastructure (light standards).
- Overly theming of the district environment.

Bold and sculptural letterforms

Lighting and banners span roadway at key decision points

Vertical totem element; visual impact with minimal real estate

Parking Structure or new building can be a district identity piece

Banners on light standard

Vehicular wayfinding

Proposed Projects- Identity, Signage and Wayfinding

Midtown Identity

The existing Midtown identity has both a strong typographic treatment and visual image of an abstracted Midtown plan graphic. The identity has already been translated into the vertical sculpture element at Elgin Street between Baldwin and Brazos streets as well as appearing on street signage throughout the district. What is lacking is a strong presentation of the word “Midtown” as visitors and residents arrive. A more bold application of the identity—image and word can strengthen the edge of the district and reinforce the sense of place.

Primary District Entry Portals

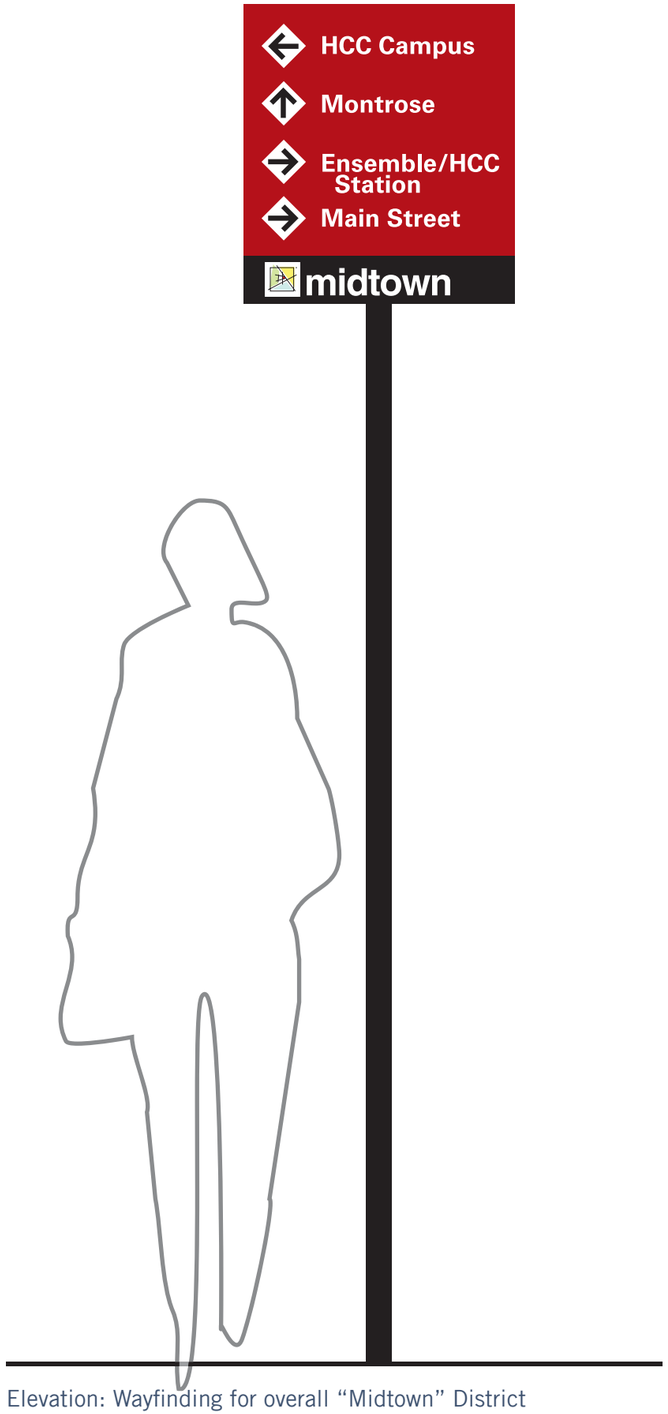
As cars exit off Spur 527 onto Travis Street, a Primary District Entry Portal is proposed for the high visibility and lack of future development potential. This area is an open backdrop for a bold horizontal element announcing the arrival into Midtown as a district gateway. The second The second Primary District Entry Portal location on Elgin Street coming from the Montrose District already has a vertical Midtown identity sculpture element. This location can be augmented with a vertical Midtown sculpture element with the “midtown” logotype embedded in the sidewalk.

District Wayfinding

Hundreds of cities in the United States are developing or have implemented wayfinding programs for their cities including a current system in Downtown Houston. Not only are these programs vital for tourism, they also provide a sense of distinctiveness and district pride. While there are no specific statistics available concerning their benefits, adding wayfinding signs in the Midtown District will be an undeniable aid in increasing awareness of cultural and civic destinations, historic sites, the college and parks. For the Midtown District, the use of distinctive colors and images can also help differentiate the sub-districts within.

Other Identity Elements

- Street spanning identity element
- Vertical banners on street light posts



Elevation: Wayfinding for overall “Midtown” District

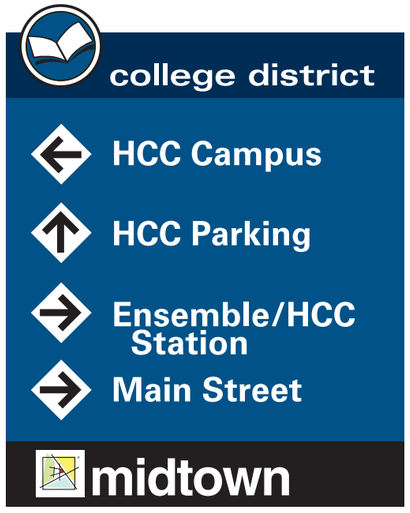
Conceptual Wayfinding by DISTRICT:

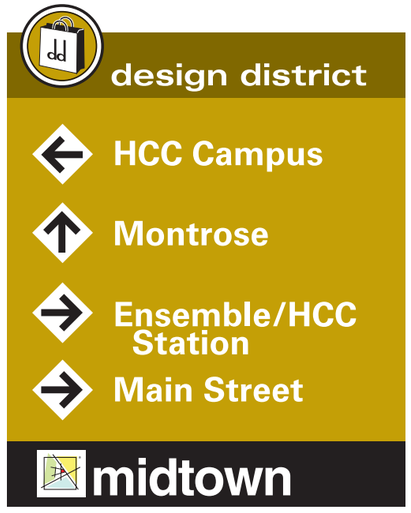
Main District = midtown (red)

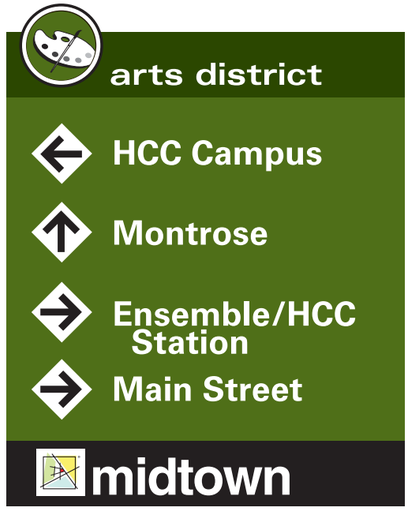
Sub District = College District (Blue)

Sub District = Design District (Gold)

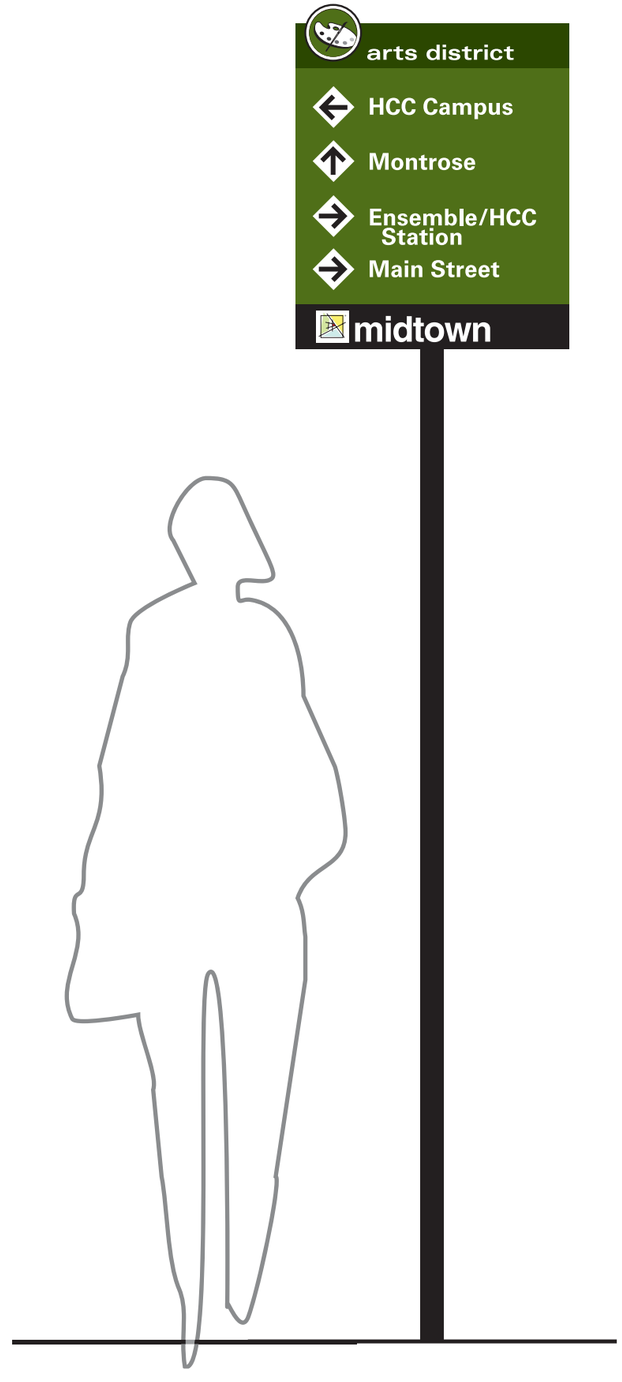
Sub District = Arts District (Green)



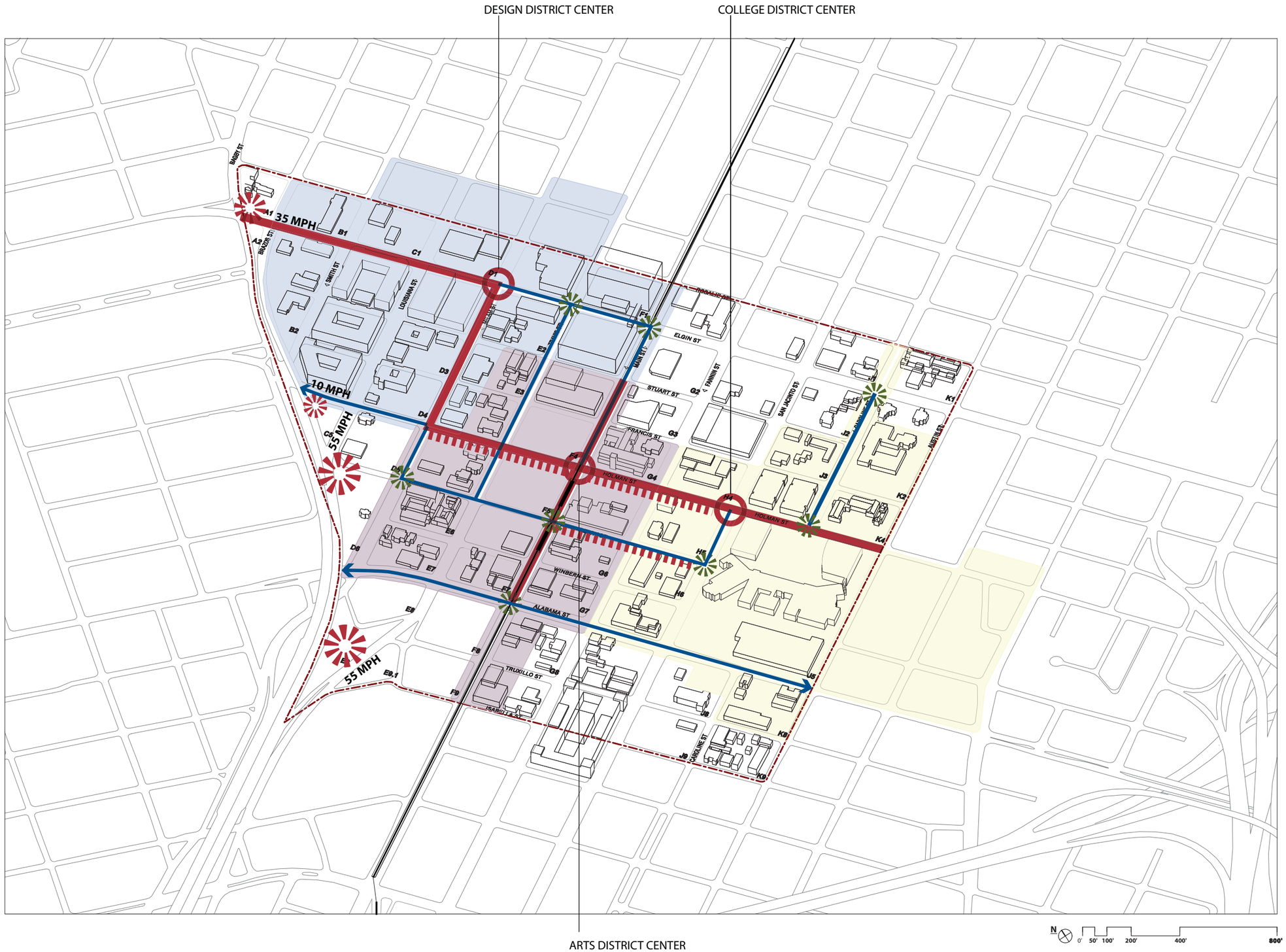




Detail sign panels



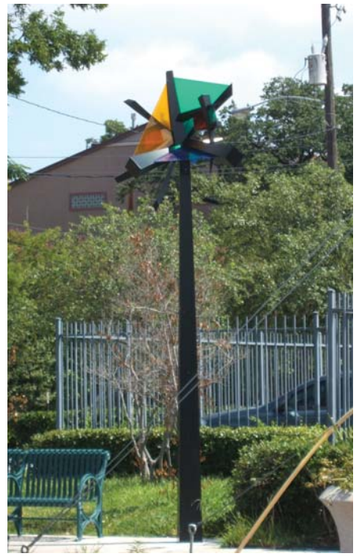
Elevation: Wayfinding for emerging sub-districts



LEGEND

- Design District
- College District
- Arts District
- Primary Midtown Gateway (largest scale for 55 mph)
- Secondary Midtown Gateway (mid-range scale for 35 mph)
- Tertiary Midtown Gateway (pedestrian scale for 10 mph)
- District Wayfinding
- Streetscape Enhanced Identity (element spanning the street)
- Z-Connection (street banners, wayfidning)
- Secondary Connections (street banners, wayfinding)
- District Center

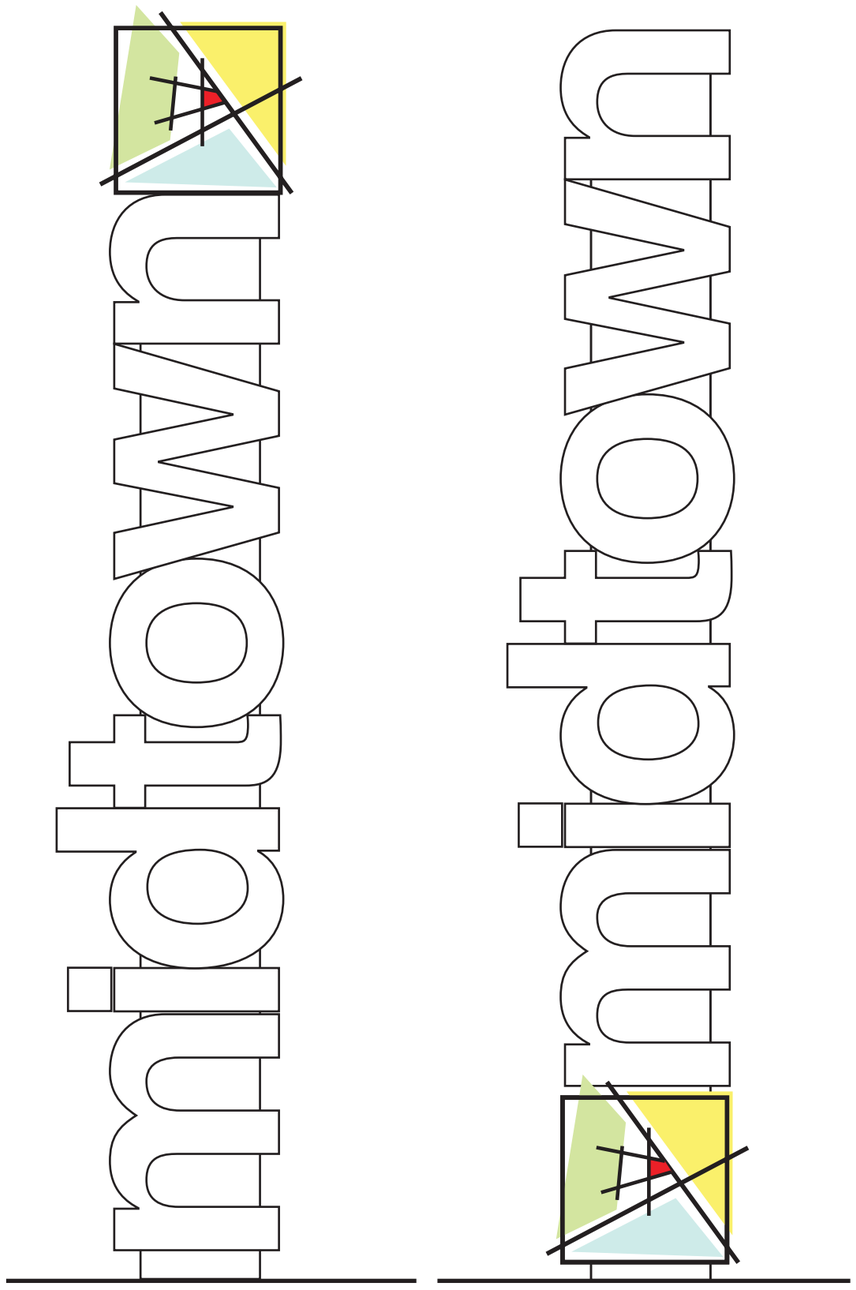
IDENTITY & WAYFINDING CONCEPTUAL PLAN



Existing District Entry Sculpture

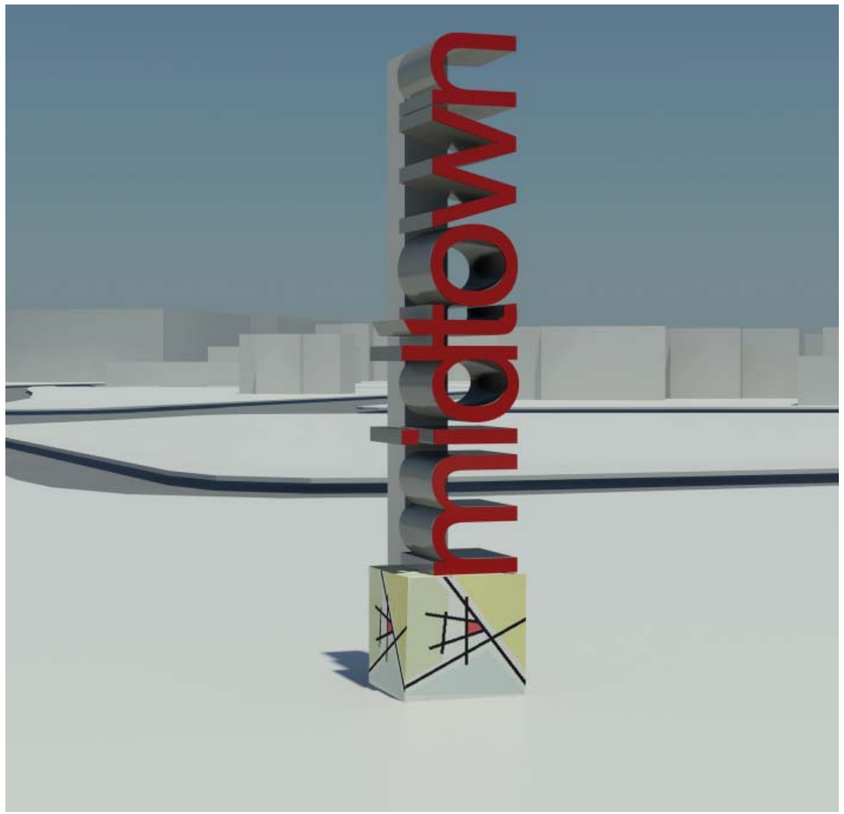
Entries to Midtown at the perimeter are weakly identified or not identified at all. Two areas have been marked for future portals where more bold gestures can provide a sense of arrival and identity.

Midtown logo



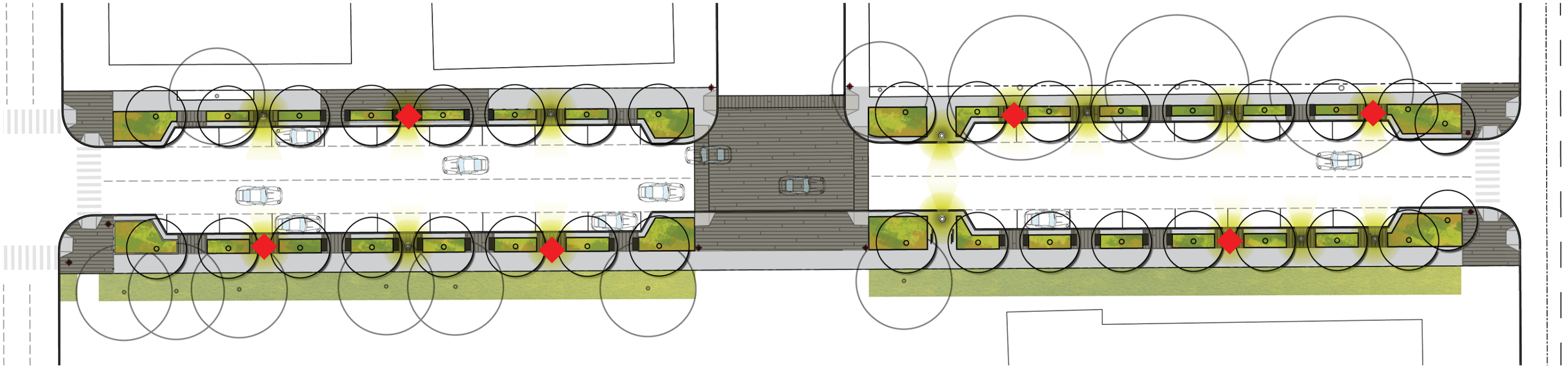
Utilize the Midtown logo for entry portals

Perspective Rendering: Horizontal “Gateway” Entry Portal Concept. Identity can be raised off the ground plane to accommodate landscape.

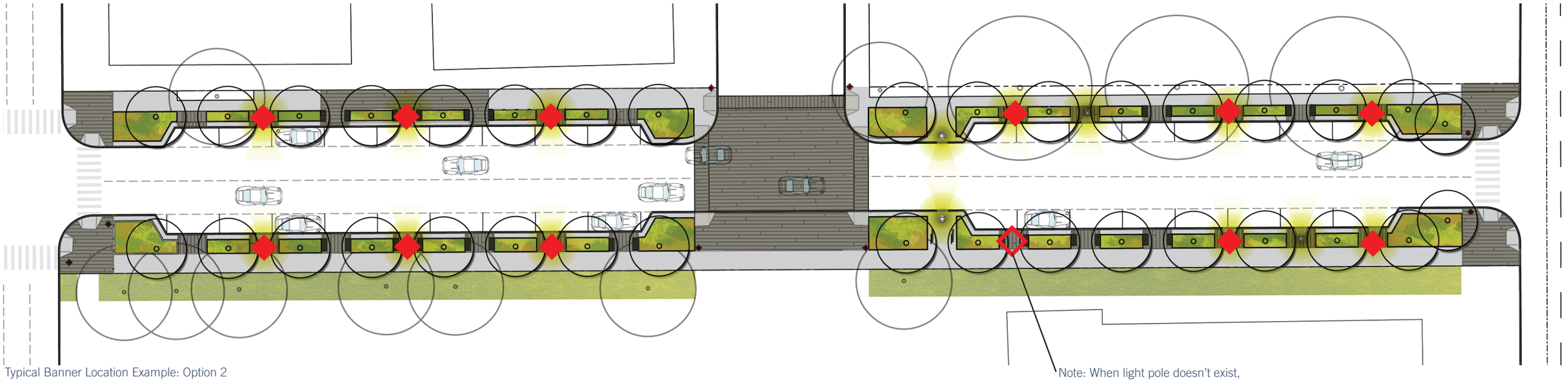


Perspective Renderings: Vertical Entry Portal Concept scaled for pedestrians

Perspective Rendering: Horizontal “Gateway” Entry Portal Concept



Typical Banner Location Example: Option 1
Staggered (zig-zag)
Note: With reduced quantity, banners can be two per pole (double-up)

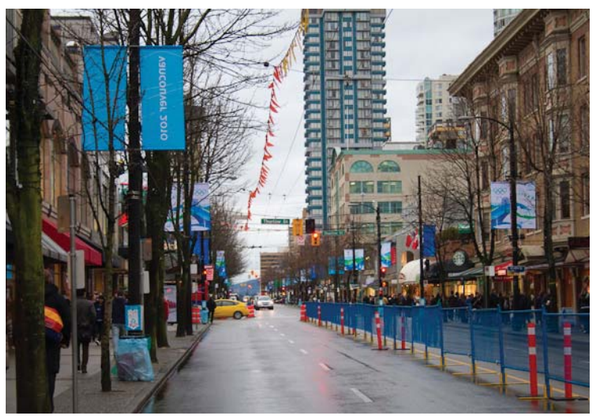


Typical Banner Location Example: Option 2
One per light pole

Note: When light pole doesn't exist,
consider a free standing banner post.

Tall and thin banners are more flexible for most conditions and areas with limited space.

Banners add color, texture and interest to the overall streetscape



While more costly, doubling up banners has a greater impact on the streetscape.

District Banner Recommendations:

- Content should be scaled primarily for vehicles.
- Content should be bold and legible.
- Consider vertically-oriented (tall) and thin-width banners.
- Can be overall “midtown” district banner identification or the three sub-districts identification.
- Can identify churches and schools.
- District banners can be considered permanent with seasonal or event-oriented banners temporary.
- For economy, one banner per light post is recommended.
- Utilizing existing light standard posts is recommended.
- An added post can be considered in areas where a light fixture/post is not present.
- Bottom edge of banner armature should be at 8’-0”.
- 16 mil cast vinyl with waterproof UV inks. 100% opaque. 1200 dpi.
- Substrate and printing shall be for long-term outdoor use.

Public Art

Art is often expressed as a representation of a place and its community. It is considered a key element that makes a neighborhood or community authentic. Art can be found in the public realm, religious institutions, educational programs, non-profits, entertainment venues, architecture and landscapes. Performance art, visual art, landscape art, communication art, cinema art, culinary art, and architecture are common artistic expressions in the urban environment.

The current conditions of the Midtown district suggest that art is not only present but an emerging element of the community.

Three churches are present within the study area offering music, religious opportunities and iconic architectural street presence. Houston Community College offers performance and visual art programs. Grassroot and non-profit organizations in and surrounding the study area, such as Ensemble Theatre, Theatre One, Project Row House, and the future Buffalo Soldier Museum offers significant local artist presence. Businesses such as The Continental Club provide richness in entertainment that compliment what other non-profits are doing in the area. Antique shops represent artistic artifacts from the past. Many restaurants such as the Breakfast Klub, T'afia's + Julia's Bistro, Tacos A-Go-Go, the future Sushi Raku, and the local farmers market provide richness in food and beverage. Historic buildings consisting of Spanish Mission, Victorian, Art Deco, and early 20th Century Commercial are found throughout the district. Public art can also be found in the Midtown logo and sculpture thus comtibuting to the wide variety of visual arts within the district.

Opportunities

- Build upon the strong presence of performance based arts such as the Ensemble Theatre, Continental Club and Theatre One. Along with the rich culinary experience of Breakfast Klub and others, combine food and entertainment as an emerging amenity within the district.
- Expand the opportunities with Houston Community College performance and visual art.
- Preserve and enhance the remaining historic architectural buildings within the district.
- Attract and retain businesses and organizations that represent art, history and culture in the district.
- Create spaces that allow performance art.

Challenges

- Encourage an appropriate mix of performance art clubs, venues and theatres that build synergy instead of competition.
- Consider a public art program into the public realm that is representative of Midtown and its community.
- Develop in context with the remaining historic structures so that 21st century densities are met while preserving historic structures/ elements.

Recent improvements on Elgin Street in Midtown

The Ensemble Theatre preserves African American artistic expression and enlightens, entertains and enriches a diverse community.

The Continental Club has helped to bring live music to Midtown

Utilities

Wastewater

Meetings with the City of Houston Planning and Development and Public Works and Engineering departments have determined that the sanitary sewer plant and infrastructure serving the Midtown area of study is sufficient to serve future developments and increased densities. However to date, the actual availability and capacity of the sanitary sewer plant and infrastructure has not been determined. A program of proposed block densities and usages should be provided to the City Utility Analysis group to ensure that there is sufficient availability and capacity for the proposed developments, densities, and land usages, when each parcel is developed.

The existing wastewater system for the specified Midtown study area is served by an 84-inch trunk line which outfalls to the Almeda Simms treatment facility. The 84-inch sanitary pipe runs east-west in Holman Street to La Branch Street. The specified study area is comprised of sanitary sewer lines that range from as small as 6-inch to as large as 84-inch. Currently the City of Houston will not allow any sanitary lines to tie into existing lines that are smaller than 8-inches in diameters. The City of Houston considers these existing 6-inch sanitary lines to be deficient and will not allow new private connections to these lines. Connections to sanitary sewer lines that are larger than 36-inches in diameter require City of Houston Public Works and Engineering approval and may not be granted if there are other lines within the vicinity.

The following blocks are currently served by 6” sanitary sewer lines but could potentially need sanitary sewer extension to serve new developments (this also includes blocks that are served by sanitary sewers greater than 8” but only on one side)

- Blocks – B3, E2, E3
- Block B3 and E3 – Served by a 8” line to the south but only a
- 6” line to the north
- Block E2 –Served by a 8” line to the north but only a 6” line to the south

Listed below are the existing sanitary pipes smaller than 8” that are also shown on the Overall Existing Sanitary Sewer Exhibit.

- Stuart – Bagby & Main (6”)

Opportunities

- The existing public utilities are recently constructed and, for the most part, appropriately sized for current and future development.

Challenges

- Some block faces and properties are served by undersized public utilities. Redevelopment projects needing to be served by these lines will have to upsize the deficient lines.
- Maintaining minimum clearances from utilities is a parameter redevelopment projects must consider.
- The capacity for private utilities to serve specific redevelopment projects must be determined on a case-by-case basis.

LEGEND

- SITE BOUNDARY
- EXISTING SANITARY
- DEFICIENT SANITARY SEWER LINES
- BLOCKS SERVED BY DEFICIENT SANITARY SEWER LINES

EXISTING WASTEWATER INFRASTRUCTURE

Water

Meetings with the City of Houston Planning and Development and Public Works and Engineering departments have determined that the water treatment plant and infrastructure serving the Midtown area of study is sufficient to serve future developments and increased densities. However to date, the actual fire and domestic flow, availability and capacity of the water treatment plant and infrastructure has not been determined. A program of proposed block densities and usages should be provided to the City Utility Analysis group to ensure that there is sufficient fire and domestic flow, availability and capacity for the proposed developments, densities, and land usages.

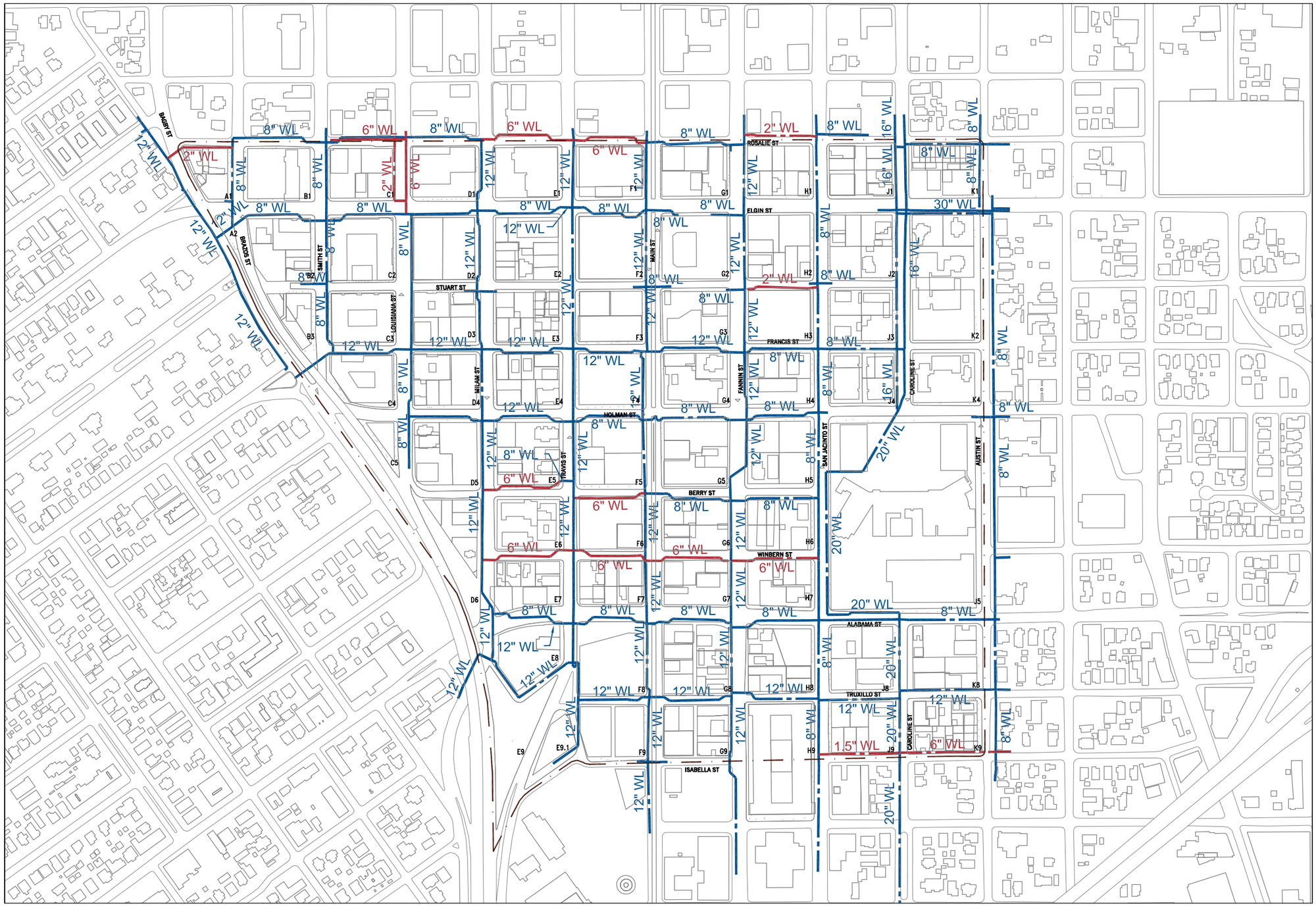
The existing water line system for the specified Midtown study area is served primarily by looped 12-inch waterlines that connect into a 20-inch trunk line located in Caroline Street. Currently the City of Houston will not allow same size connections. All connections to existing water lines must be one size smaller than the existing line that is to be connected to.

A review of the City of Houston geographic information system for public water lines shows that all blocks within this study area are currently served by lines 8-inch in diameter or greater on at least two block sides.

Listed below are the existing water lines smaller than 8-inch that are also shown on the Existing Water Infrastructure Exhibit.

Waterlines smaller than 8”

- Isabella – San Jacinto & Austin (1.5”, 6”)
- Winbern – Milam & San Jacinto (6”)
- Rosalie – Milam & Main (6”)
- Rosalie – Smith & Louisiana (6”)
- Rosalie – Bagby & Brazos (2”)
- Rosalie – Fannin & San Jacinto (2”)
- Berry – Milam & Main (6”)
- Stuart – Fannin & San Jacinto (2”)
- Louisiana -Elgin to Rosalie (2”, 6”)



EXISTING
WATER LINE INFRASTRUCTURE

Existing Storm Sewer

The specified Midtown study area's topography is considered to be generally flat. The study area's elevation ranges from an elevation 48-feet MSL (NAVD 1998 – 2001 Adj) on the southwest and 42-feet MSL (NAVD 1998 – 2001 Adj) on the northeast. In general, overland surface sheet flow occurs from the currently undeveloped and developed blocks to their adjacent streets and from the southwest of the study area to the northeast and onto Buffalo Bayou.

The existing drainage systems within the specified Midtown area fall within the Buffalo Bayou watershed and ultimately outfalls into Buffalo Bayou. The study area is currently divided into two drainage systems served by large diameter (108-inch and 84-inch) storm sewer trunk lines. The division of the drainage areas occur along the mid-blocks between Caroline Street and San Jacinto Street between Rosalie Street and Francis Street and continues south along Caroline Street between Francis Street and Isabella Street.

The west drainage system is served by a 108-inch trunk line in Milam Street that out falls into Buffalo Bayou.
The east drainage system is served by an 84-inch trunk line in Austin Street that out falls into Buffalo Bayou.

The specified study area is comprised of storm sewer utilities that range from as small as 15-inches to as large as 108-inches in diameter. Currently the City of Houston will not allow any private storm connections to a public storm sewer that are smaller than 24-inches in diameter. The city will consider these lines to be deficient and require developers to extend at the minimum a new 24-inch storm sewer to the proposed development and/or upgrade the deficient public storm sewer to a minimum of 24-inch diameter storm sewer.

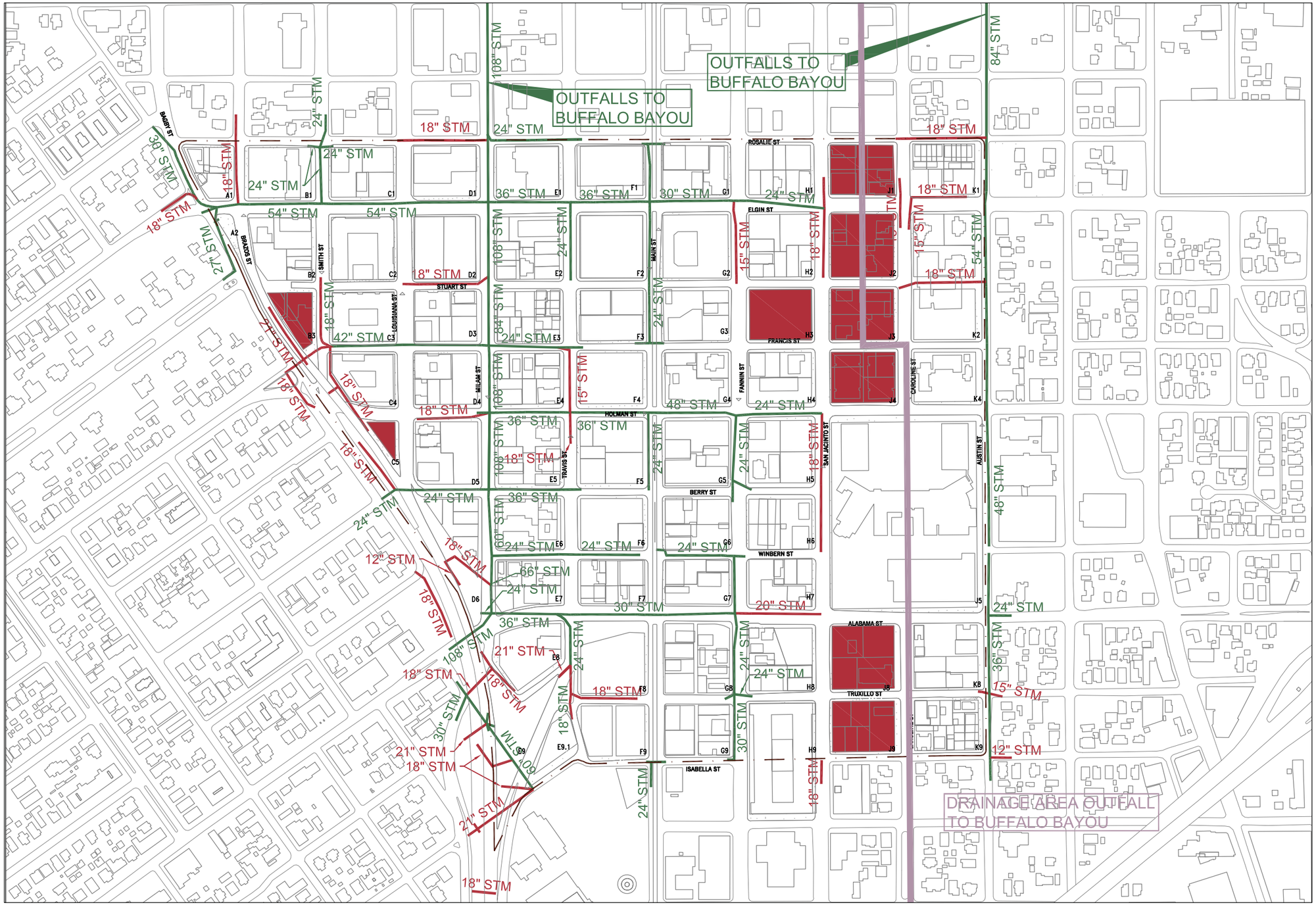
The following blocks are currently served by deficient storm sewer lines that are smaller than 24" and will require extension of 24" storm sewers to serve proposed developments:

Blocks - B3, C5, H3, J1-J4, J8-J9

- Block B3 – Served by a 18" storm line to the east and a 21" storm line to the southwest
- Block C5 – Served by a 18" storm line to the west
- Block H3 – Served by a 18" storm to the northeast and a 15" storm line to the northwest
- Block J1 and J2 – Served by a 18" storm line to the west and a 15" storm line to the east
- Block J3 – Served by a 18" storm line to the northeast
- Block J8 - J4 – There are no storm sewer lines around the block to tie into.

The following blocks are currently served by 24" storm sewer lines but could potentially need storm sewer extension to serve new developments (this also includes blocks that are served by storm sewers greater than 24" but only on one side)

- Blocks – A2, C2-C4, E9.1, F3, F6, F9, G2-G5, G6, G9, H1, H2, H4, H6-H8, H9, J5, K1-K4, K9-K9
-
- Block A2 – Served by a 30" line to the west
- Block C2 – Served by a 54" line to the north
- Block C3 – Served by a 42" line to the south but only a 18" line to the west
- Block C4 – Served by a 42" line to the north but only a 18" line to the west
- Block E9.1 – Served by a 60 " line to the south but only a 18" line to the north
- Block F3 – Served by 24" line to the east
- Block F6 – Served by 24" line to the south
- Block F9 – Served by 24" line to the southeast
- Block G2 and G3 – Served by a 24" line to the west but only a15" line to the east
- Block G4 – Served by a 48" line to the south
- Block G5 – Served by a 24" line to the south
- Block G6 – Served by a 24" line to the south
- Block G9 – Served by a 30" line to the east
- Block H1 – Served by a 24" line to the south
- Block H2 – Served by 24" line to the north but only 15" and 18" lines to the west and east
- Block H4 – Served by a 24" line to the south
- Block H6 – Served by a 24" line to the northeast
- Block H7 and H8 – Served by a 24" line to the west
- Block H9 – Served by a 30" line to the west
- Block J5 – Served by a 48" line to the east
- Block K1-K4 – Served by a 54" line to the east
- Block K8-K9 – Served by a 36" line to the east



EXISTING STORM SEWER INFRASTRUCTURE

Flood Insurance Rate Map (FIRM)

The Flood Rate Insurance Maps for Harris County, Texas, Community Panel Number 48201C0880L, Panel Number 880 of 1135, with map revision June 18, 2007, depicts the specified study area as unshaded "Zone X," which is to be outside of the 500-year

Detention

The City of Houston's current detention requirement states that any new development or redevelopment that increases the percentage of impervious cover will be required to provide on-site detention at the rate of 0.50 acre-feet per acre of increased impervious cover. It is recommended that the specified Midtown study area be viewed as a region and requests should be make to the City of Houston Planning Department which would allow for the percentage of pervious and impervious cover be calculated for the entire study area instead by block.

Listed below are existing green areas that are considered to be significant enough to require detention if removed or changed from pervious ground cover to impervious ground cover. These areas are also shown on the Existing Green Areas.

- Rosalie & Fannin (Block H1)
- Rosalie & Brazos (Block A1)
- Elgin & Austin (Block K1 and K2)
- San Jacinto & Stuart (Block J2)
- Caroline & Francis (Block J3)
- Holman & Travis (Block E4)
- Fannin & Francis (Block G4)
- Holman & Louisiana St (Block C5 and D5)
- Holman & Milam (Block E5)
- Berry & Louisiana (Block 6)
- Berry & Main St (Block F6)
- West Alabama & Travis (Block E8)
- Alabama & San Jacinto (Block H8)
- Truxillo & Travis (Block E9, E9.1 and F9)
- Fannin & Truxillo (Block G9)

From COH Infrastructure Design Manual Ch. 9, Sec. H

3. Calculation of Detention Volume.

a. Detention volume for Development areas is calculated on the basis of the amount of area of increased impervious cover. Impervious cover includes all structures, driveways, patios, sidewalks, etc.

b. Single family residential (SFR) lots of 15,000 square feet in area or less: SFR Lots are exempt from detention if proposed impervious cover is less than or equal to 75.0 %. Detention volume of 0.20 acre feet per acre required for impervious cover over 75%. Existing SFR lots of 15,000 square feet or less may be further subdivided and exempt from detention provided the proposed impervious cover remains less than or equal to 75.0%

c. Areas less than 1 acre: Detention will be required at a rate of 0.20 acre feet per acre of increased impervious cover. The subdividing of larger tracts into smaller tracts of 1.0 acre and less will require the detention volume of 0.5 acre-feet per acre of increased impervious cover.

d. Areas between 1 acre and 50 acres: Detention will be required at a rate of 0.50 acre-feet per acre of increased impervious cover.

e. Areas greater than 50 acres: Reference HCFCD Criteria Manual.

f. Private parking areas, private streets, and private storm sewers may be used for detention provided the maximum depth of ponding does not exceed 9 inches directly over the inlet, and paved parking areas are provided with signage stating that the area is subject to flooding during rainfall events.

g. Private transport truck only parking may be used for detention provided the maximum depth of flooding does not exceed 15 inches directly above the inlet and signage is provided stating that the area is subject to flooding during rainfall events.

EXISTING PERVIOUS SURFACE

Overhead Utilities Vision

Above Ground VS. Below Ground

One of the most important elements in creating a successful pedestrian streetscape is human comfort. In Houston, providing shade on a streetscape is necessary to allow comfortable use during hot days. Shade structures such as awnings and canopies can help, but large street trees are necessary to provide continuous shade as well as absorb noise, store and treat stormwater, and remove carbon dioxide from the atmosphere. Street trees also add to the aesthetics of the streetscape and can dramatically raise property values. Many times, the decision to plant street trees is defeated due to predicted conflicts with existing overhead powerlines. An option that has been used in many cities to overcome this obstacle is burying powerlines.

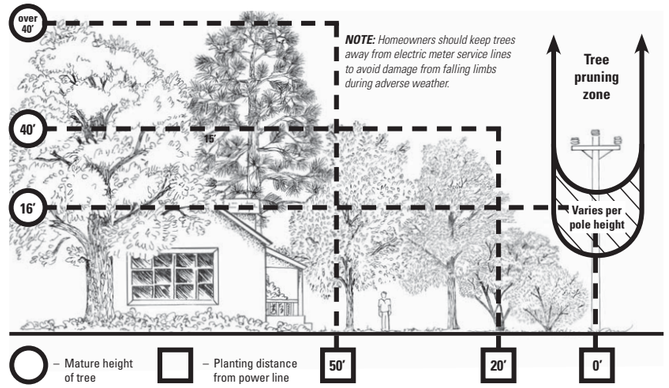
The charts and diagrams to the right discuss the advantages and limitations to burying overhead utility lines and show the existing requirements for planting under or near powerlines. While many options are provided for acceptable ornamental trees planting under powerlines, these trees do not provide adequate shade needed for a streetscape. The section on the opposite page illustrates the current overhead utility line dilemma that occurs on Elgin Street.

In the study area, it is suggested that overhead lines be buried at a minimum on the primary and secondary "Z" Connection streets. This would provide a continuous shaded pedestrian route through Midtown and would attract potential businesses and residents.

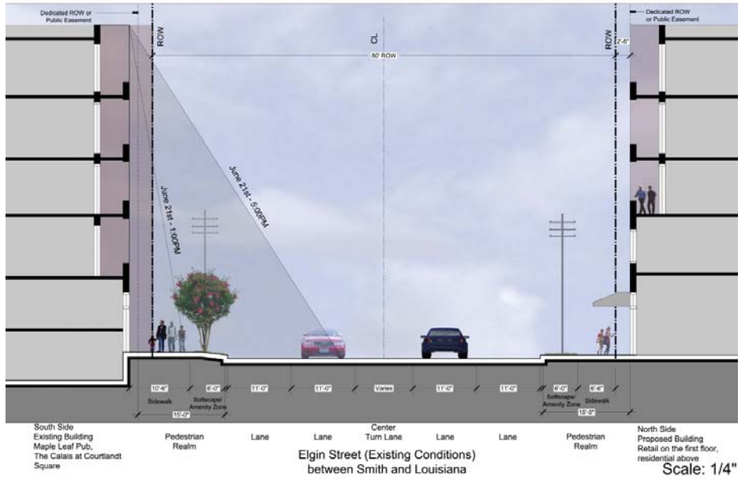
Advantages	Limitations
Damage from natural elements	
Not Susceptible to high winds	Susceptible to Flooding
Less outages	Longer outages
No damage from everyday contact	
Attractive livable environment	
Provides room for an on street tree canopy.	Some tree root interference
Shade creates a more walkable, interactive, and engaging environment.	
Allows further enhancement of the urban environment. Makes this area of the city more desirable and therefore more competitive	
Safety	
Better protection for children and adults from accidents.	
Implementation Cost	
Higher quality of living comes with higher expenses paid for by future tenants, developers, and the city	Much More Expensive with an average of 1 Million per Mile
Stimulus money for infrastructure	Average for undergrounding existing powerlines is between 20,000 and 35,000 per city block.
More practical when already doing street infrastructure improvements	
Improved Property Values	
Maintenance	
Less need for repair	More expensive repair when necessary
	Shorter Lifespan

Advantages and limitations of burying utility lines.

Common Name	Scientific Name	Mature Tree Height
Texas Redbud	*Cercis canadensis var. texensis*	20 ft.
Fringe Tree	*Chionanthus virginicus*	30 ft.
Texas Hawthorn	*Cratagus texana*	20 ft.
Yaupon Holly	*Ilex vomitoria*	15 - 25 ft.
Dwarf Crape Myrtle	*Lagerstroemia spp. (dwarf varieties)*	20 ft.
Southern Waxmyrtle	*Myrica cerifera*	10 - 20 ft.
Texas Pistache	*Pistacia texana*	10 ft.
Mexican Plum	*Prunus mexicana*	20 ft.
Little Gem Magnolia	*Magnolia grandiflora 'Little Gem'*	15 - 20 ft.
Pygmy Date Palm	*Phoenix roebelenii*	8 ft.
Mediterranean Fan Palm	*Chamarops humilis*	15 ft.

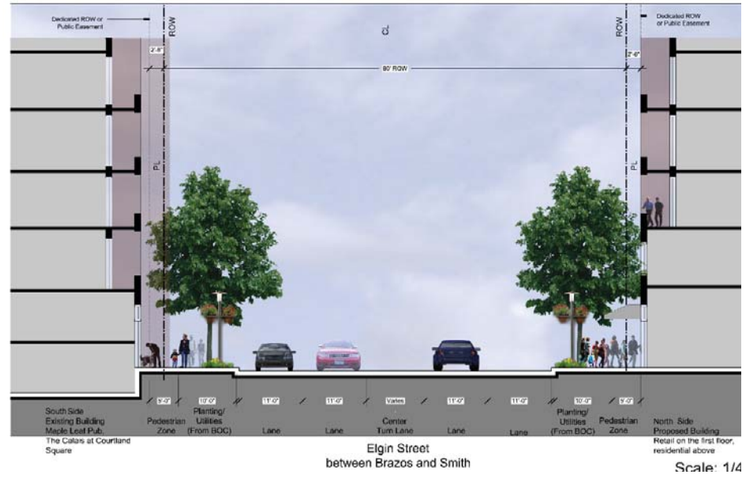


Allowable trees and height limitations near overhead utility lines. Source: Centerpointe Energy



Right of Way Existing Conditions

Improvements with Utilities Buried on One Side



Improvements with Utilities Buried on Two Sides

Parking

Parking is a critical element of the plan for Midtown because the supply of parking and policies regarding parking will impact how people will travel to the District, how far they will walk, and what types of projects developers will construct. Planners, city officials, developers, merchants, and residents — based on feedback though stakeholder groups and public meetings — noted that having the right parking policies and strategies will be critical to making Midtown a place where people will want to shop, work, live, go to school and invest their time and money. While having parking is essential in the modern world, many communities have seen their revitalization efforts hindered by parking requirements (i.e., parking regulation provisions that require a certain number of on-site parking spaces for each land use) that may not reflect the true needs of a district. In attempting to ensure that there is enough of a good thing, these parking requirements have often inadvertently rendered new building projects and the reuse of existing buildings physically and financially infeasible. A good parking plan for Midtown must strike the right balance between ensuring that parking is available for all users, and avoiding inflexible policies that hamper revitalization.

The integration of parking with safe walkable spaces, good circulation, transit access, comfortable canopies, attractive landscaping and intensive development will make Midtown a unique place in Houston, where residents and visitors will not need to rely on private automobiles for all of their mobility needs. Few places in the greater Houston area can currently boast this. Nevertheless, it can happen in Midtown with a distinct mix of transportation planning efforts and parking policies.

On street parking, if appropriately designed, can fit well within the urban streetscape environment.

Existing Parking Supply

On-Street Parking Management Policies and Enforcement

On-street parking in the study area is controlled via signage and parking meters. There is little consistency, however, in the placement of meters throughout the Midtown area. There are streets with one or two meters and several unmetered spaces. Parking enforcement is performed by the City of Houston Parking Management division. Officers issue citations for parking in no parking zones and expired meters. Parking meters are enforced Monday through Saturday, from 7:00 A.M. to 6:00 P.M.

- On-Street Supply: The on-street parking supply includes 253 metered spaces and approximately 213 non-metered spaces
- On-Street Occupancy: Based on occupancy studies, weekday occupancy of on-street metered parking in the study area is approximately 30%. Non-metered space weekday occupancy is approximately 56%.

Off-Street Parking Management Policies

Public off-street parking is managed by private parking operators. The off-street public parking lots are typically controlled by honor boxes during the day. That is, a customer parks in a numbered stall on the lot and places payment in a corresponding numbered slot at the honor box. The honor boxes are checked several times during the day and violators are left tickets. Repeat violators are towed or booted. During evening hours, the lots around the Continental Club typically have an attendant to collect parking fees from patrons.

- Off-Street Parking Supply: There are approximately 1,984 off-street spaces currently available to the public within the study area. Approximately 1,500 of the off-street spaces are located in the HCC Garage located at Main and Elgin.
- Off-Street Occupancy: Weekday occupancy in off-street parking facilities in the study area is approximately 77%. The majority of the occupancy occurs in the HCC Garage. The off-street lots around the Continental Club typically see lower occupancy during the day (25-40%) but can reach 90 to 100% on weekend nights.

Parking Occupancy Survey 1

We conducted a parking occupancy survey in the study area on Wednesday, July 29, 2009 between the hours of 9:30 A.M. and 11:00 A.M. The survey included on- and off-street parking. Off-street parking occupancy during this time was 1,531 spaces (62%), on-street meter occupancy was 94 (37%), and non-metered space occupancy was 141 spaces (66%). Total occupancy was 1,766 spaces (72%).

Parking Occupancy Survey 2

We conducted a Parking occupancy survey in a study area bounded by Holman, Milam, Isabella and San Jacinto Streets. The survey was conducted on Saturday, August 1, 2009 between the hours of 8:00 P.M. and 10:00 P.M. The Continental Club located at 3700 Main Street was the main parking generator in the survey area. The club had a popular regional performer booked for a 10:00 P.M. show that evening. Total parking supply in the survey area is 556 spaces and includes 355 off-street spaces, 86 on-street metered spaces and 115 on-street non metered spaces.

Total parking occupancy was 242 spaces (43%). Off-street occupancy was 57 spaces (16%). On-street metered space occupancy was 86 spaces (100%) and on-street non-metered occupancy was 99 spaces (46%). Off-street parking rates during this survey were $5.00 after 6:00 PM. Metered spaces are free after 6:00 PM.

LEGEND

- METERED SPACES
- NON-METERED SPACES
- PUBLIC PARKING

EXISTING PARKING SUPPLY

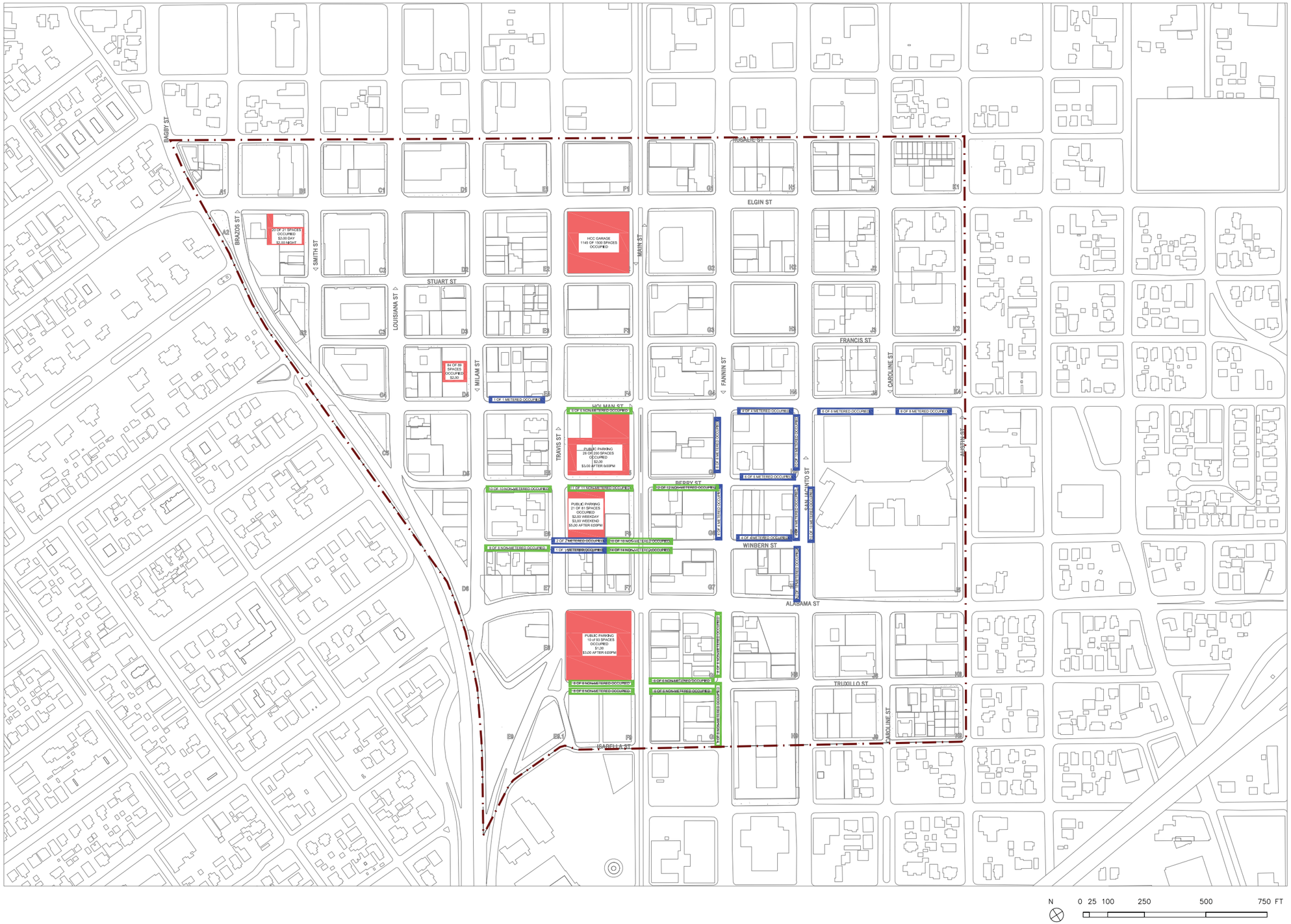
Public Parking Spaces
Occupied Wednesday 7/29/2009
9:30AM to 11:00 AM

LEGEND

- METERED SPACES
- NON-METERED SPACES
- PUBLIC PARKING

PARKING OCCUPANCY SURVEY 1

N 0 25 100 250 500 750 FT



Public Parking Spaces
Occupied Saturday 8/01/2009
8:00PM to 11:00 PM

LEGEND

METERED SPACES

NON-METERED SPACES

PUBLIC PARKING

PARKING OCCUPANCY SURVEY 2

Parking Vision

Other elements of this report highlight the characteristics of Midtown that make it different from other parts of Houston: geography, a street network, transit links and demographics that support the growth and development of a livable district. In terms of parking policy, the following specifically impact parking demands:

- The district is served by METRORail service that connects downtown Houston and the Texas Medical Center, and in the future, will link the study area to other parts of the city. This fixed guideway link provides a backbone for the community: a multitude of users can access Midtown without a car. Similarly, METRORail makes Midtown an attractive option for transit-oriented housing, allowing residents to leave a car at home, or have fewer cars per household, while still granting them a speedy commute to jobs downtown or the Texas Medical Center. In coming years as METRORail expands, the number of employment and activity centers accessible from Midtown will continue to grow.

- The district currently serves a large number of students who attend Houston Community College. Based on stakeholder interviews and data from urban college campuses, students are much more likely to walk, bike, or take transit than the general population. Thus, their concentration provides additional justification for policies that provide access via an array of different modes.

- Community development plans call for a new Independent Arts Collaborative (IAC), which would increase pedestrian traffic. Increased sidewalk activity is anticipated to spur additional retail outlets and dining options within the study area. In combination with the Ensemble Theater and the future Buffalo Soldiers Museum, part of Midtown will transform into a lively arts district where visitors can use transit or park their car once and comfortably walk to different locations without needing to move their car.

- A mix of uses in Midtown allows for most parking to be shared parking. Parking spaces can be filled during the day with employees, shoppers, students and those residents who use transit to commute. In the evening the same parking spaces become available for residents driving home from work, students taking evening classes, and visitors to the arts and entertainment establishments. Furthermore, the low number of single-family residential units will minimize any impacts that could occur due to spillover parking problems. Most of the area does not border single-family residential neighborhoods.

- Midtown's proximity to downtown and intensifying development makes it essentially downtown's next frontier: where new high density development will occur in Houston. Downtown Houston's lack of parking requirements and pedestrian-friendly sidewalks can be replicated in Midtown with potentially similar parking policies in place.

- The district already currently has a wealth of parking supply in the form of on-street spaces, as well as some off-street surface parking lots that will be developed as demonstrated in this plan. The on-street spaces are currently underutilized and can accommodate current and future short-term demand, eliminating the immediate need to build additional off-street parking.

Getting parking "right" is imperative in creating a livable, walkable district. Simply following parking standards can result in the opposite effect as depicted above.

Midtown may have the necessary foundation to create a vibrant, walkable, urban environment. Yet, without implementing appropriate parking policy tools to support this vision, Midtown could see more surface parking lots and low-scale development.

Houston is known for its use of market forces to shape development and growth. So, why shouldn't parking requirements be modeled in the same regard? In many cities, parking Code requirements are based on Institute of Transportation Engineers (ITE) parking generation manuals whose purpose is to provide a best guess at parking requirements for particular types of developments. Subsequently, in many locations, these standards are taken as fact and implemented without regard to district-specific characteristics or a full understanding of the consequences of overbuilt parking. These consequences are both quantitative and qualitative but include excessive costs for underutilized spaces, the inability to "create places" due to the isolative effects of large parking facilities, and allowing a destination to draw traffic to the extent where it has negative externalities on other transportation modes.

These parking requirements oftentimes do not appropriately reflect the actual parking demand generated by a development. As a result, in some communities we see overbuilt parking facilities and structures, creating an urban space that is relegated to the automobile instead of the transit users, bicycles and pedestrians. It is this scenario that this plan aims to avoid in Midtown.

Having the appropriate amount of parking enables many goals of the livable district to come to fruition:

- It supports the "lifestyle" of those who choose to reduce their use of automobiles or not to own one at all.

- It supports transit usage and allows valuable land to be used for development or public spaces rather than parking garages.

- It helps create an overall environment that sends a message of urbanity, energy, and people as opposed to buildings isolated by pavement.

- Those who choose or need to use their automobile still have parking available for their trips.

From the perspective of the developer, it is clear that parking is a necessary component to sustain growth, ensure investment funding, and sell/lease buildings. However, demand for mixed-use walkable districts is steadily growing and will continue to do so, especially in regions that offer relatively few of these types of districts.

Overbuilding of parking not only dimishes the aesthetic space, but is often extremely costly, if not well utilized.

Proposed Projects

This Livable Center Study aims to address this shift in market trends, enabling Houston to cultivate a mixed-use transit-oriented district that ensures parking supplies are appropriate and that the following objectives are met:

- Design and construct projects that encourage pedestrian activity and a "park once" philosophy for both residents and visitors.
- Ensure that space allocated to parking is appropriately minimized when the market and design guidelines indicate better uses for land.
- More effectively plan for overall parking supply through a comprehensive effort that includes both on- and off-street parking and shared parking.
- Ensure that developers are not unnecessarily overbuilding parking, the costs of which are passed on to businesses, residents and consumers.

Midtown has an exceptional opportunity to be a model for the region. The proposed parking policies are critical in supporting the vision for Midtown's future.

Existing Parking Code

The City of Houston Parking Code falls under Section 26 of the City Code. Under this section, all regulations and policies pertain to the provision and operation of city-controlled parking facilities. In addition, off-street parking requirements are also specified in this section. Briefly, the policies regarding various types of parking zones, not limited to time-controlled zones and meter zones, among others and basic information about off-street parking requirements are described below.

Parking Meters

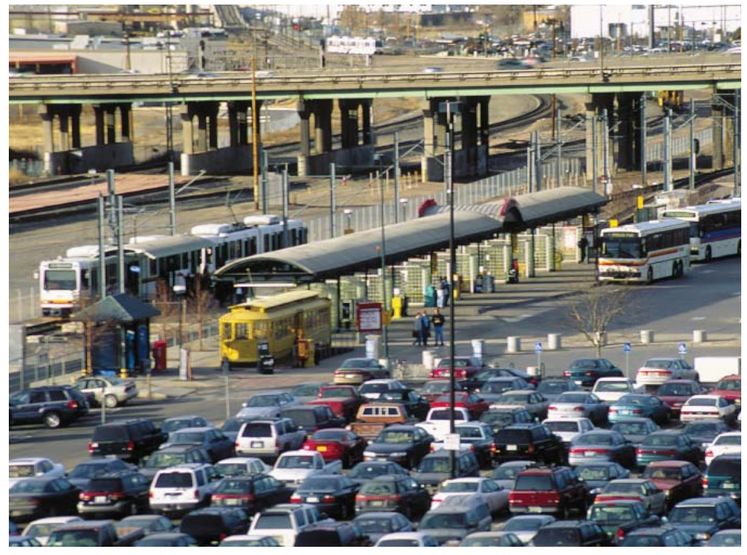
Parking meters can be established both on- and off-street at the discretion of parking officials. These meters are to be set at the following rates according to Section 26-160 of the City Code.

- Short-term parking: A fee is established by the parking official between a minimum of $0.10 for each ten minutes and a maximum of $1.50 for each ten minutes, which includes any applicable sales tax. Short-term parking fees shall apply to a meter during a time period for which the meter has been designated for short-term parking use upon determination that the public's needs during that time period may be best served by ensuring that the space is not used for lengthy periods of time by one vehicle.
- Long-term parking: A fee is established by the parking official between a minimum of $0.10 for each hour and a maximum of $1.50 for each hour, which includes any applicable sales tax. Long-term parking fees shall apply at meters during those periods in which they have not been designated for short-term parking use.

Residential Parking Permit Zones

In additional to using meters as a form of parking regulation, the City of Houston may also designate Residential Parking Permit areas to deal with residential districts that face overflow parking problems due to nearby parking generators. These zones can be established through the observance of a "chronic commuter parking problem" as defined by: the occupancy of curbside parking spaces by commuter vehicles at the same hours and on the same days, but shall not mean parking for events which by their nature are expected to occur on a frequency of less than once every two weeks.

Parking should be integrated into development and streetscapes.



Large parking lots, as shown above, should be avoided.

Off-Street Parking Requirements

Presently, the City of Houston does not own or operate any off-street parking facilities in Midtown. Thus, all off-street parking is privately owned.

Unless a development is specifically located in the Houston Central Business District or is located within a Code-specified Parking Management Area, it is subject to Section 26-492 pertaining to off-street parking requirements. Although numerous types of land uses and designations have specific parking requirements, a few of the most relevant include the following:

- Office: 2.5 spaces for every 1,000 square feet of gross floor area (GFA) or 2.75 for every 1,000 square feet of usable floor area (UFA)
- Apartment house:
  - 1.250 spaces for each efficiency apartment
  - 1.333 spaces for each one-bedroom apartment
  - 1.666 spaces for each two-bedroom apartment
  - 2.0 spaces for each apartment with 3 or more bedrooms
- Single-family residential dwelling unit: 2.0 parking spaces for each dwelling unit
- Hotel or motel:
  - 1.0 parking space for each sleeping room up to 250 rooms;
  - 0.75 parking spaces for each sleeping room from 251 rooms to 500 rooms;
  - 0.50 parking spaces for each sleeping room in excess of 500 rooms
- Theater: 1 space per every 3 seats
- Shopping Center (community): 4 spaces per 1,000 square feet GFA.
- Shared Parking (Sec. 26-499):
  - Shared parking provisions currently exist within city code. However, these are based on a percentage of the requirements noted above, which are not necessarily appropriate for Midtown, Houston.

LEGEND

Proposed Additional On-street Parking

Existing On-street Parking

PROPOSED ON-STREET PARKING

Capitol Improvements Plan

Cost Estimates

All the recommendations in the Integrate Systems book result in real capital improvements for the district. These capital improvements will each contribute to the overall achievement of a livable center. In the following pages quantities, unit costs, design fees, and a contingency have been considered. These are considered to be conservative estimates and will become more realistic as each project works through schematic design, design development and project documentation.

Phasing

The proposed phasing strategy prioritizes the capital improvements based on the Z Connection diagram utilized throughout the document. Phase I represents the Primary Z and Phase II projects represent the secondary Z streets. Each major phase has been broken down into “A” and “B” projects. The A projects correspond to those projects that are adjacent to private developments anticipated to begin early in the phase. B projects correspond to those projects that are adjacent to private developments that will likely occur later in the phase. For example, an immediate connection can be made between the Ensemble/ HCC Station and the Houston Community College, so it is identified as an A project. Whereas, development at the corner of Milam Street and Holman Street will likely take longer to evolve thereby making the public improvements in that area B projects. Signage is encouraged at the beginning of each phase of street improvements. The park improvements are planned for Phase II.

LEGEND

- Phase I A
- Phase I B
- Phase II A
- Phase II B

N

0' 50' 100' 200' 400' 800'

PHASING

Cost Estimates

Streets						
Primary Z Connection						
Holman Street on Primary Z	***Item***	***Unit Cost***	***Unit***	***Quantity***	***Item Cost***	***Description***
	Streetscape	$ 45	SF	62,450	$ 2,810,250	Full upgrade to streetscape/pedestrian zone
	Road Pavement (8" concrete, 6" subgrade)	$ 150	SY	4,000	$ 600,000	New concrete roadway paving and parking lanes
	Concrete Curbs	$ 15	LF	3,600	$ 54,000	Engineered curb and gutter at edges of street pavement
	Bulb Outs	$ 8,000	EA	8	$ 64,000	Pedestrian area extensions at roadway intersections
	Roadway Intersection	$ 30,000	EA	7	$ 210,000	Full upgrade to crosswalk paving and ADA compliant corner ramps
	Lighting	$ 100,000	EA	1	$ 100,000	Required roadway lighting and pedestrian lighting
	Storm	$ 250	LF	600	$ 150,000	New storm sewer construction
	Dry Utilities	$ 1,000	LF	1,050	$ 1,050,000	Power lines to be run in subsurface duct banks
	Subtotal				**$ 5,038,250**	
Elgin Street on Primary Z	***Item***	***Unit Cost***	***Unit***	***Quantity***	***Item Cost***	***Description***
	Streetscape	$ 40	SF	21,500	$ 860,000	Full upgrade to streetscape/pedestrian zone
	Roadway Intersection	$ 30,000	EA	4	$ 120,000	Full upgrade to crosswalk paving and ADA compliant corner ramps
	Lighting	$ 65,000	EA	1	$ 65,000	Required roadway lighting and pedestrian lighting
	Dry Utilities	$ 1,000	LF	960	$ 960,000	Power lines to be run in subsurface duct banks
	Subtotal				**$ 2,005,000**	
Main Street on Primary Z	***Item***	***Unit Cost***	***Unit***	***Quantity***	***Item Cost***	***Description***
	Streetscape	$ 40	SF	21,200	$ 848,000	Full upgrade to streetscape/pedestrian zone
	Roadway Intersection	$ 30,000	EA	5	$ 150,000	Full upgrade to crosswalk paving and ADA compliant corner ramps
	Lighting	$ 65,000	EA	1	$ 65,000	Required roadway lighting and pedestrian lighting
	Subtotal				**$ 1,063,000**	
Milam Street on Primary Z	***Item***	***Unit Cost***	***Unit***	***Quantity***	***Item Cost***	***Description***
	Streetscape	$ 45	SF	37,650	$ 1,694,250	Full upgrade to streetscape/pedestrian zone
	Road Pavement (8" concrete, 6" subgrade)	$ 150	SY	267	$ 40,000	New concrete roadway paving (curbs on East side) and parking lanes
	Concrete Curb	$ 15	LF	750	$ 11,250	Engineered curb and gutter at edges of street pavement
	Bulb Outs	$ 8,000	EA	2	$ 16,000	Pedestrian area extensions at roadway intersections
	Roadway Intersection	$ 30,000	EA	4	$ 120,000	Full upgrade to crosswalk paving and ADA compliant corner ramps
	Lighting	$ 65,000	EA	1	$ 65,000	Required roadway lighting and pedestrian lighting
	Dry Utilities	$ 1,000	LF	830	$ 830,000	Power lines to be run in subsurface duct banks
	Subtotal				**$ 2,776,500**	
	Subtotal for Construction of Primary Z				**$ 10,882,750**	
	Design Fee	0			$ 1,088,275	10% of construction budget
	Bonding	0			$ 217,655	2% of construction budget
	Testing	0			$ 326,483	3% of construction budget
	Contingency	0			$ 3,264,825	30% of construction budget
	Total Cost of Primary Z Connection				**$ 15,779,988**	

Secondary Connections						
Holman Street on Secondary Z West	***Item***	***Unit Cost***	***Unit***	***Quantity***	***Item Cost***	***Description***
	Streetscape	$ 35	SF	9,000	$ 315,000	Basic walkway and some upgrades to streetscape/pedestrian zone
	Road Pavement (8" concrete, 6" subgrade)	$ 150	SY	2,444	$ 366,667	New concrete roadway paving and parking lanes
	Concrete Curb	$ 15	LF	1,000	$ 15,000	Engineered curb and gutter at edges of street pavement
	Roadway Intersection	$ 12,000	EA	2	$ 24,000	Surface applied crosswalk paving and ADA compliant corner ramps
	Lighting	$ 25,000	EA	1	$ 25,000	Required roadway lighting and pedestrian lighting
	Storm	$ 250	LF	300	$ 75,000	Upgrades to existing storm sewer
	Subtotal				**$ 820,667**	
Caroline on Secondary Z	***Item***	***Unit Cost***	***Unit***	***Quantity***	***Item Cost***	***Description***
	Streetscape	$ 30	SF	28,000	$ 840,000	Basic streetscape/pedestrian zone
	Road Pavement (8" concrete, 6" subgrade)	$ 150	SY	5,867	$ 880,000	New concrete roadway paving and parking lanes
	Concrete Curb	$ 15	LF	2,400	$ 36,000	Engineered curb and gutter at edges of street pavement
	Roadway Intersection	$ 12,000	EA	3	$ 36,000	Surface applied crosswalk paving and ADA compliant corner ramps
	Lighting	$ 25,000	EA	1	$ 25,000	Required roadway lighting and pedestrian lighting
	Bulb Outs	$ 8,000	EA	6	$ 48,000	Pedestrian area extensions at roadway intersections
	Storm	$ 250	LF	1,200	$ 300,000	New storm sewer construction
	Dry Utilities	$ 1,000	LF	1,050	$ 1,050,000	Power lines to be run in subsurface duct banks
	Subtotal				**$ 3,215,000**	
Berry on Secondary Z - East of Main	***Item***	***Unit Cost***	***Unit***	***Quantity***	***Item Cost***	***Description***
	Streetscape	$ 35	SF	42,500	$ 1,487,500	Basic walkway and some upgrades to streetscape/pedestrian zone
	Road Pavement (8" concrete, 6" subgrade)	$ 150	SY	267	$ 40,000	New concrete roadway paving and parking lanes
	Concrete Curb	$ 15	LF	300	$ 4,500	Engineered curb and gutter at edges of street pavement
	Bulb Outs	$ 8,000	EA	2	$ 16,000	Pedestrian area extensions at roadway intersections
	Roadway Intersection	$ 12,000	EA	2	$ 24,000	Surface applied crosswalk paving and ADA compliant corner ramps
	Lighting	$ 25,000	EA	1	$ 25,000	Required roadway lighting and pedestrian lighting
	Dry Utilities	$ 1,000	LF	1,050	$ 1,050,000	Power lines to be run in subsurface duct banks
	Subtotal				**$ 2,647,000**	
Berry on Secondary Z - West of Main	***Item***	***Unit Cost***	***Unit***	***Quantity***	***Item Cost***	***Description***
	Streetscape	$ 30	SF	18,000	$ 540,000	Basic streetscape/pedestrian zone
	Road Pavement (8" concrete, 6" subgrade)	$ 150	SY	267	$ 40,000	New concrete roadway paving and parking lanes
	Concrete Curb	$ 15	LF	600	$ 9,000	Engineered curb and gutter at edges of street pavement
	Bulb Outs	$ 8,000	EA	2	$ 16,000	Pedestrian area extensions at roadway intersections
	Roadway Intersection	$ 12,000	EA	2	$ 24,000	Surface applied crosswalk paving and ADA compliant corner ramps
	Lighting	$ 25,000	EA	1	$ 25,000	Required roadway lighting and pedestrian lighting
	Dry Utilities	$ 400	LF	600	$ 240,000	Dry utility improvements
	Subtotal				**$ 894,000**	

Cost Estimates

Alabama on Secondary Z	***Item***	***Unit Cost***	***Unit***	***Quantity***	***Item Cost***	***Description***
	Streetscape	$ 30	SF	38,200	$ 1,146,000	Basic streetscape/pedestrian zone
	Road Pavement (8" concrete, 6" subgrade)	$ 150	SY	3,959	$ 593,867	New concrete roadway paving and parking lanes
	Concrete Curb	$ 15	LF	3,920	$ 58,800	Engineered curb and gutter at edges of street pavement
	Roadway Intersection	$ 12,000	EA	6	$ 72,000	Surface applied crosswalk paving and ADA compliant corner ramps
	Lighting	$ 25,000	EA	1	$ 25,000	Required roadway lighting and pedestrian lighting
	Bulb Outs	$ 8,000	EA	16	$ 128,000	Pedestrian area extensions at roadway intersections
	Storm	$ 250	LF	428	$ 107,000	New storm sewer construction
	Storm	$ 250	LF	214	$ 53,500	Upgrades to existing storm sewer
	Dry Utilities	$ 400	LF	1,275	$ 510,000	Dry utility improvements
	Subtotal				**$ 2,694,167**	
Elgin on Secondary Z	***Item***	***Unit Cost***	***Unit***	***Quantity***	***Item Cost***	***Description***
	Streetscape	$ 30	SF	18,500	$ 555,000	Basic streetscape/pedestrian zone
	Roadway Intersection	$ 12,000	EA	2	$ 24,000	Surface applied crosswalk paving and ADA compliant corner ramps
	Lighting	$ 25,000	EA	1	$ 25,000	Required roadway lighting and pedestrian lighting
	Bulb Outs	$ 8,000	EA	6	$ 48,000	Pedestrian area extensions at roadway intersections
	Dry Utilities	$ 400	LF	620	$ 248,000	Dry utility improvements
	Subtotal				**$ 900,000**	
Main on Secondary Z	***Item***	***Unit Cost***	***Unit***	***Quantity***	***Item Cost***	***Description***
	Streetscape	$ 30	SF	24,000	$ 720,000	Basic streetscape/pedestrian zone
	Roadway Intersection	$ 12,000	EA	2	$ 24,000	Surface applied crosswalk paving and ADA compliant corner ramps
	Lighting	$ 25,000	EA	1	$ 25,000	Required roadway lighting and pedestrian lighting
	Bulb Outs	$ 8,000	EA	6	$ 48,000	Pedestrian area extensions at roadway intersections
	Subtotal				**$ 817,000**	
Travis on Secondary Z	***Item***	***Unit Cost***	***Unit***	***Quantity***	***Item Cost***	***Description***
	Streetscape	$ 30	SF	40,000	$ 1,200,000	Basic streetscape/pedestrian zone
	Road Pavement (8" concrete, 6" subgrade)	$ 150	SY	2,972	$ 445,867	New concrete parking lanes; restripe existing roadway
	Concrete Curb	$ 15	LF	3,600	$ 54,000	Engineered curb and gutter at edges of street pavement
	Roadway Intersection	$ 12,000	EA	2	$ 24,000	Surface applied crosswalk paving and ADA compliant corner ramps
	Lighting	$ 25,000	EA	1	$ 25,000	Required roadway lighting and pedestrian lighting
	Bulb Outs	$ 8,000	EA	12	$ 96,000	Pedestrian area extensions at roadway intersections
	Storm	$ 250	LF	560	$ 140,000	Upgrades to existing storm sewer
	Dry Utilities	$ 400	LF	1,330	$ 532,000	Dry utility improvements
	Subtotal				**$ 2,516,867**	
	Total Storm Inlets	$ 1,500	EA	8.0	**$ 12,000**	
	Total Sanitary Manholes	$ 2,500	EA	2.0	**$ 5,000**	
	Subtotal for Construction of Secondary Z				**$ 14,521,700**	
	Design Fee	$ 0			$ 1,452,170	10% of construction budget
	Bonding	$ 0			$ 290,434	2% of construction budget
	Testing	$ 0			$ 435,651	3% of construction budget
	Contingency	$ 0			$ 4,356,510	30% of construction budget
	Total Cost of Secondary Connections				**$ 21,056,465**	

Tertiary Connections						
All other streets in the study area:	***Item***	***Unit Cost***	***Unit***	***Quantity***	***Item Cost***	***Description***
Brazos (Rosalie and Stuart)	Streetscape	$ 20	SF	220,000	$ 4,400,000	Strategic pedestrian zone improvements; especially for Type A streets
	Road Pavement (8" concrete, 6" subgrade)	$ 150	SY	1,467	$ 220,000	Addition of concrete parking lanes
	Concrete Curb	$ 15	LF	600	$ 9,000	Engineered curb and gutter at edges of street pavement
	Storm	$ 125	LF	230	$ 28,750	Storm sewer upgrades for added parking lanes
	Lighting	$ 9,000	EA	1	$ 9,000	Required roadway lighting and pedestrian lighting
	Roadway Intersection	$ 12,000	EA	2	$ 24,000	Surface applied crosswalk paving and ADA compliant corner ramps
				Subtotal	**$4,690,750**	
Smith (Rosalie and Francis)	Road Pavement (8" concrete, 6" subgrade)	$ 150	SY	4,178	$ 626,667	New concrete roadway paving and parking lanes
	Concrete Curb	$ 15	LF	1,900	$ 28,500	Engineered curb and gutter at edges of street pavement
	Bulb Outs	$ 8,000	EA	2	$ 16,000	Pedestrian area extensions at roadway intersections
	Storm	$ 125	LF	300	$ 37,500	New storm sewer construction
	Storm	$ 125	LF	450	$ 56,250	Upgrades to existing storm sewer
	Roadway Intersection	$ 12,000	EA	2	$ 24,000	Surface applied crosswalk paving and ADA compliant corner ramps
	Lighting	$ 25,000	EA	1	$ 25,000	Required roadway lighting and pedestrian lighting
				Subtotal	**$813,917**	
Louisiana (Rosalie and Berry)	Road Pavement (8" concrete, 6" subgrade)	$ 150	SY	5,867	$ 880,000	New concrete roadway paving and parking lanes
	Concrete Curb	$ 15	LF	2,400	$ 36,000	Engineered curb and gutter at edges of street pavement
	Bulb Outs	$ 8,000	EA	4	$ 32,000	Pedestrian area extensions at roadway intersections
	Storm	$ 250	LF	1,200	$ 300,000	New storm sewer construction
	Roadway Intersection	$ 12,000	EA	2	$ 24,000	Surface applied crosswalk paving and ADA compliant corner ramps
	Lighting	$ 25,000	EA	1	$ 25,000	Required roadway lighting and pedestrian lighting
	Water	$ 100	LF	600	$ 60,000	New water line/upgrade waterline
				Subtotal	**$1,357,000**	
Milam (Rosalie and Alabama)	Road Pavement (8" concrete, 6" subgrade)	$ 150	SY	1,067	$ 160,000	New concrete roadway paving and parking lanes
	Bulb Outs	$ 8,000	EA	8	$ 64,000	Pedestrian area extensions at roadway intersections
	Roadway Intersection	$ 12,000	EA	2	$ 24,000	Surface applied crosswalk paving and ADA compliant corner ramps
	Lighting	$ 25,000	EA	1	$ 25,000	Required roadway lighting and pedestrian lighting
				Subtotal	**$291,000**	
Travis (Winbern and Isabella)	Road Pavement (8" concrete, 6" subgrade)	$ 150	SY	2,444	$ 366,667	New concrete roadway paving and parking lanes
	Concrete Curb	$ 15	LF	1,000	$ 15,000	Engineered curb and gutter at edges of street pavement
	Bulb Outs	$ 8,000	EA	4	$ 32,000	Pedestrian area extensions at roadway intersections
	Storm	$ 250	LF	500	$ 125,000	Upgrades to existing storm sewer
	Lighting	$ 25,000	EA	1	$ 25,000	Required roadway lighting and pedestrian lighting
	Roadway Intersection	$ 12,000	EA	2	$ 24,000	Surface applied crosswalk paving and ADA compliant corner ramps
				Subtotal	**$587,667**	
Main (Alabama and Isabella)	Road Pavement (8" concrete, 6" subgrade)	$ 150	SY	2,933	$ 440,000	New concrete roadway paving and parking lanes
	Concrete Curb	$ 15	LF	1,200	$ 18,000	Engineered curb and gutter at edges of street pavement
	Storm	$ 250	LF	600	$ 150,000	New storm sewer construction
	Roadway Intersection	$ 12,000	EA	2	$ 24,000	Surface applied crosswalk paving and ADA compliant corner ramps
	Lighting	$ 25,000	EA	1	$ 25,000	Required roadway lighting and pedestrian lighting
				Subtotal	**$657,000**	

Cost Estimates

	Item	*Unit Cost*	*Unit*	*Quantity*	*Item Cost*	*Description*
Fannin (Rosalie and Isabella)	Road Pavement (8" concrete, 6" subgrade)	$ 150	SY	18,800	$ 2,820,000	New concrete roadway paving and parking lanes
	Concrete Curb	$ 15	LF	1,800	$ 27,000	Engineered curb and gutter at edges of street pavement
	Bulb Outs	$ 8,000	EA	14	$ 112,000	Pedestrian area extensions at roadway intersections
	Roadway Intersection	$ 12,000	EA	2	$ 24,000	Surface applied crosswalk paving and ADA compliant corner ramps
	Lighting	$ 25,000	EA	1	$ 25,000	Required roadway lighting and pedestrian lighting
	Storm	$ 250	LF	600	$ 150,000	New storm sewer construction
	Storm	$ 250	LF	300	$ 75,000	Upgrades to existing storm sewer
	Sanitary	$ 150	LF	450	$ 67,500	New sanitary sewer
				Subtotal	**$3,300,500**	
San Jacinto (Rosalie and Isabella)	Road Pavement (8" concrete, 6" subgrade)	$ 150	SY	17,067	$ 2,560,000	New concrete roadway paving and parking lanes
	Concrete Curb	$ 15	LF	6,000	$ 90,000	Engineered curb and gutter at edges of street pavement
	Bulb Outs	$ 8,000	EA	16	$ 128,000	Pedestrian area extensions at roadway intersections
	Roadway Intersection	$ 12,000	EA	2	$ 24,000	Surface applied crosswalk paving and ADA compliant corner ramps
	Lighting	$ 25,000	EA	1	$ 25,000	Required roadway lighting and pedestrian lighting
	Storm	$ 250	LF	1,500	$ 375,000	New storm sewer construction
	Storm	$ 250	LF	1,000	$ 250,000	Upgrades to existing storm sewer
	Sanitary	$ 150	LF	730	$ 109,500	New sanitary sewer/upgrade sanitary sewer
				Subtotal	**$3,561,500**	
Caroline (Rosalie and Holman)	Road Pavement (8" concrete, 6" subgrade)	$ 150	SY	5,467	$ 820,000	New concrete roadway paving and parking lanes
	Concrete Curb	$ 15	LF	3,000	$ 45,000	Engineered curb and gutter at edges of street pavement
	Bulb Outs	$ 8,000	EA	10	$ 80,000	Pedestrian area extensions at roadway intersections
	Roadway Intersection	$ 12,000	EA	2	$ 24,000	Surface applied crosswalk paving and ADA compliant corner ramps
	Lighting	$ 25,000	EA	1	$ 25,000	Required roadway lighting and pedestrian lighting
	Storm	$ 250	LF	600	$ 150,000	New storm sewer construction
	Storm	$ 250	LF	600	$ 150,000	Upgrades to existing storm sewer
				Subtotal	**$1,294,000**	
Rosalie (Bagby and Austin)	Road Pavement (8" concrete, 6" subgrade)	$ 150	SY	9,333	$ 1,400,000	New concrete roadway paving and parking lanes
	Concrete Curb	$ 15	LF	4,200	$ 63,000	Engineered curb and gutter at edges of street pavement
	Bulb Outs	$ 8,000	EA	14	$ 112,000	Pedestrian area extensions at roadway intersections
	Roadway Intersection	$ 12,000	EA	2	$ 24,000	Surface applied crosswalk paving and ADA compliant corner ramps
	Lighting	$ 25,000	EA	1	$ 25,000	Required roadway lighting and pedestrian lighting
	Storm	$ 250	LF	600	$ 150,000	Upgrades to existing storm sewer
	Water	$ 100	LF	1,500	$ 150,000	Upgrades to existing water lines
				Subtotal	**$1,924,000**	
Elgin (Travis and Austin)	Road Pavement (8" concrete, 6" subgrade)	$ 150	SY	1,467	$ 220,000	New concrete roadway paving and parking lanes
	Concrete Curb	$ 15	LF	600	$ 9,000	Engineered curb and gutter at edges of street pavement
	Storm	$ 250	LF	300	$ 75,000	New storm sewer construction
	Roadway Intersection	$ 12,000	EA	2	$ 24,000	Surface applied crosswalk paving and ADA compliant corner ramps
	Lighting	$ 25,000	EA	1	$ 25,000	Required roadway lighting and pedestrian lighting
				Subtotal	**$353,000**	

	Item	***Unit Cost***	***Unit***	***Quantity***	***Item Cost***	***Description***
Stuart (Brazos and Austin)	Road Pavement (8" concrete, 6" subgrade)	$ 150	SY	9,333	$ 1,400,000	New concrete roadway paving and parking lanes
	Concrete Curb	$ 15	LF	4,200	$ 63,000	Engineered curb and gutter at edges of street pavement
	Bulb Outs	$ 8,000	EA	12	$ 96,000	Pedestrian area extensions at roadway intersections
	Roadway Intersection	$ 12,000	EA	2	$ 24,000	Surface applied crosswalk paving and ADA compliant corner ramps
	Lighting	$ 25,000	EA	1	$ 25,000	Required roadway lighting and pedestrian lighting
	Storm	$ 250	LF	500	$ 125,000	New storm sewer construction
	Storm	$ 250	LF	1,200	$ 300,000	Upgrades to existing storm sewer
	Sanitary	$ 150	LF	1,500	$ 225,000	New sanitary sewer
	Sanitary	$ 150	LF	300	$ 45,000	Upgrade sanitary sewer
	Water	$ 100	LF	300	$ 30,000	Upgrades to existing water lines
				Subtotal	**$2,333,000**	
Francis (Brazos and Austin)	Road Pavement (8" concrete, 6" subgrade)	$ 150	SY	1600	$ 240,000	New concrete roadway paving and parking lanes
	Concrete Curb	$ 15	LF	1950	$ 29,250	Engineered curb and gutter at edges of street pavement
	Bulb Outs	$ 8,000	EA	14	$ 112,000	Pedestrian area extensions at roadway intersections
	Roadway Intersection	$ 12,000	EA	2	$ 24,000	Surface applied crosswalk paving and ADA compliant corner ramps
	Lighting	$ 25,000	EA	1	$ 25,000	Required roadway lighting and pedestrian lighting
	Storm (New storm sewer)	$ 250	LF	300	$ 75,000	New storm sewer construction
				Subtotal	**$505,250**	
Berry (Brazos and Travis)	Road Pavement (8" concrete, 6" subgrade)	$ 150	SY	6,267	$ 940,000	New concrete roadway paving and parking lanes
	Concrete Curb	$ 15	LF	1,200	$ 18,000	Engineered curb and gutter at edges of street pavement
	Bulb Outs	$ 8,000	EA	6	$ 48,000	Pedestrian area extensions at roadway intersections
	Roadway Intersection	$ 12,000	EA	2	$ 24,000	Surface applied crosswalk paving and ADA compliant corner ramps
	Lighting	$ 25,000	EA	1	$ 25,000	Required roadway lighting and pedestrian lighting
	Water	$ 100	LF	300	$ 30,000	New water line/upgrade waterline
				Subtotal	**$1,085,000**	
Winbern (Brazos and San Jacinto)	Road Pavement (8" concrete, 6" subgrade)	$ 150	SY	5,867	$ 880,000	New concrete roadway paving and parking lanes
	Concrete Curb	$ 15	LF	2,400	$ 36,000	Engineered curb and gutter at edges of street pavement
	Bulb Outs	$ 8,000	EA	8	$ 64,000	Pedestrian area extensions at roadway intersections
	Roadway Intersection	$ 12,000	EA	2	$ 24,000	Surface applied crosswalk paving and ADA compliant corner ramps
	Lighting	$ 25,000	EA	1	$ 25,000	Required roadway lighting and pedestrian lighting
	Water	$ 100	LF	1,200	$ 120,000	New water line/upgrade waterline
				Subtotal	**$1,149,000**	
Truxillo (Travis and Austin)	Road Pavement (8" concrete, 6" subgrade)	$ 150	SY	4,933	$ 740,000	New concrete roadway paving and parking lanes
	Concrete Curb	$ 15	LF	2,400	$ 36,000	Engineered curb and gutter at edges of street pavement
	Bulb Outs	$ 8,000	EA	8	$ 64,000	Pedestrian area extensions at roadway intersections
	Roadway Intersection	$ 12,000	EA	2	$ 24,000	Surface applied crosswalk paving and ADA compliant corner ramps
	Lighting	$ 25,000	EA	1	$ 25,000	Required roadway lighting and pedestrian lighting
	Storm (New storm sewer)	$ 250	LF	600	$ 150,000	New storm sewer construction
	Storm (Upgraded storm sewer)	$ 250	LF	300	$ 75,000	Upgrades to existing storm sewer
				Subtotal	**$1,114,000**	

	Item	*Unit Cost*	*Unit*	*Quantity*	*Item Cost*	*Description*
Isabella (Travis and Austin)	Road Pavement (8" concrete, 6" subgrade)	$ 150	SY	800	$ 120,000	New concrete roadway paving and parking lanes
	Concrete Curb	$ 15	LF	900	$ 13,500	Engineered curb and gutter at edges of street pavement
	Bulb Outs	$ 8,000	EA	6	$ 48,000	Pedestrian area extensions at roadway intersections
	Roadway Intersection	$ 12,000	EA	2	$ 24,000	Surface applied crosswalk paving and ADA compliant corner ramps
	Lighting	$ 25,000	EA	1	$ 25,000	Required roadway lighting and pedestrian lighting
	Dry Utilities	$ 300	LF	22,000	$ 6,600,000	Upgrades to dry utilities
				Subtotal	**$6,830,500**	
	Subtotal				**$ 31,847,083**	
	Design Fee	$ 0			$ 3,184,708	10% of construction budget
	Bonding	$ 0			$ 636,942	2% of construction budget
	Testing	$ 0			$ 955,413	3% of construction budget
	Contingency	$ 0			$ 9,554,125	30% of construction budget
	Total Cost of Tertiary Connections				**$ 46,178,271**	
Parks and Open Space						
	Item	*Unit Cost*	*Unit*	*Quantity*	*Item Cost*	*Description*
Neighborhood Park	Land Purchase	$ 50	SF	100,500	$ 5,025,000	Cost of land acquisition, x acres, location
	Park Construction	$ 50	SF	104,800	$ 5,240,000	Projected cost of basic program, amenity and utility improvements within park site
	Subtotal				**$ 10,265,000**	
Elizabeth Glover Park	Land Purchase	$ -	SF	12,000	$ -	Cost of land acquisition, x acres, location
	Park Construction	$ 30	SF	12,000	$ 360,000	Projected cost of basic program, amenity and utility improvements within park site
	Subtotal				**$ 360,000**	
	Subtotal for Parks and Open Space				**$ 10,625,000**	
	Design Fee	$ 0			$ 1,062,500	10% of construction budget
	Bonding	$ 0			$ 212,500	2% of construction budget
	Testing	$ 0			$ 318,750	3% of construction budget
	Contingency	$ 0			$ 3,187,500	30% of construction budget
	Total Cost of Parks and Open Space				**$ 15,406,250**	
Environmental Graphics						
	Item	*Unit Cost*	*Unit*	*Quantity*	*Item Cost*	*Description*
	Primary District Entry Portal	$ 50,000	EA	3	$ 150,000	Iconic district identity features
	Secondary Entry Portal	$ 20,000	EA	6	$ 120,000	Smaller district identity features
	Enhanced Identity	$ 1,000	EA	50	$ 50,000	Basic district signage
	District Wayfinding	$ 1,500	EA	20	$ 30,000	Small communication signage
	Subtotal for Construction of Env. Graphics				**$ 350,000**	
	Design Fee	$ 0			$ 35,000	10% of construction budget
	Bonding	$ 0			$ 7,000	2% of construction budget
	Contingency	$ 0			$ 105,000	30% of construction budget
	Total Cost of Environmental Graphics				**$ 497,000**	
	Total Cost of all projects				**$ 98,917,973**	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Close The Gap

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The final piece to closing the gap is formulating a feasible approach to the financing and implementation of public improvements for streetscape, parking, infrastructure, and other improvements that are needed to attract private investment. A phased approach is outlined that matches improvements to market and development potential. A financing strategy is presented that primarily relies upon new fiscal revenues that would be generated by new development in the study area. A public-private partnership approach to implementation of these improvements is presented.

This chapter addresses the factors that have led to a gap between the potential for transit-oriented development (TOD) in the study area and the limited amount of development to date, despite the area's strategic location and METRORail service. The consideration of the factors behind this gap involves analysis of land values and lot characteristics, market conditions including present and future opportunities, and the impact of parking requirements on development feasibility.

The analysis of these factors is used to evaluate potential targeted catalyst and anchor projects that can serve to demonstrate market potential, generate increased development interest in other projects, and create the activity needed to support new retail and other businesses. This evaluation includes a detailed analysis of development economics through use of proforma models to identify supportable land values.

New construction in Midtown

Identifying and Addressing the Gap

The Ensemble/HCC Study area has over the past few years seen limited development of new medium- and high-density multifamily residential, along with some new retail development. However, it has yet to experience the amount and types of new TOD within walking distance of the Ensemble/HCC Station that would fully leverage the benefit of METRORail, contrary to expectations when the system was built. This section discusses the factors that can cause development potential to not be realized, and how a gap between development potential and actual new development can be closed.

Private market-rate development is driven by developer assessments of costs, revenues, and potential risk. New private development can only occur when developers believe they can generate sufficient revenues from the value of a completed project to cover all development costs (including profit), and can do so for reasonable risk given the potential returns.

Desired types of new development in a local market area can be stymied by various factors that negatively affect potential costs, revenues, and risks. These factors can include land availability, market demand, parking requirements and costs, and development costs, including needed new infrastructure or upgrades and repairs to existing systems. These factors, working singly or in combination, can limit the types of new development that can be profitably built as well as create additional risks that discourage new private investment.

There are also regional, state, and national factors that impact development feasibility, and at times have a more significant impact than local market factors. The most significant of these is macroeconomic conditions that affect overall demand for various types of real estate, as well as the cost and terms and conditions of project financing. The recently ended recession has reduced immediate demand for most development and the ability to finance new projects throughout most of the U.S., including Houston. Regulatory, tax, and other conditions can also impact development at the city-wide, regional, and state levels.

A key objective of the Plan is identifying the factors that limit more extensive TOD around the Ensemble/HCC Station and formulating strategies to mitigate their impact.

Land Values and Lot Sizes

Typical blocks in the study area are relatively small, approximately 250 feet by 250 feet, or similar dimensions. While this is desirable for creating pedestrian-friendly environments, it does limit the size of potential projects, particularly for wood-frame structures that tend to be the most feasible development type. For example, a typical Midtown block would allow a mixed-use project with approximately 22,000 square feet of ground floor space and slightly more than 90 dwelling units in a five-story wood-frame structure, and would constitute a $25 million development project.

Existing ownership patterns split many blocks into multiple parcels, with a variety of existing improvements. This means that multiple parcels must be assembled to create a full block development, much less one that would span more than one block. Owners of improved property will seek prices that reflect the value of existing land and improvements. Land assembly is an inherently risky and time-consuming activity, and one that developers are reluctant to attempt for more than a few parcels even with strong market conditions.

The challenges of extensive land assembly, and limited potential for larger projects, means that the pool of potentially interested developers will be somewhat smaller and unlikely to include the larger, national development companies who typically do not consider projects of $25 million or less. Some local developers consider the minimum desirable parcel size for multifamily development to be three acres, or twice the size of a typical Midtown block.

Another factor is the dramatic rise since 2004 of land values in the Midtown Plan study area, from a range of $25 to $40 per square foot for 2004 transactions to $50 to $80+ per square foot for transactions in 2008 and 2009. Interviews with local market participants provide anecdotal information that asking prices for land may be as high as $90 to $100 per square foot for sites close to the Ensemble/HCC Station, to $60 per square foot at the northwestern portion of the Study Area, to $50 per square foot east of Main Street. These high asking prices, while not necessarily the prices at which transactions will occur, likely reflect the impact of land speculation that often occurs with the development of light rail transit systems. However, developers active in the area believe that the economics of new development cannot currently support land values higher than a range from the mid-$30's per square foot to up to $50 per square foot. The effect of this rapid land appreciation is that longer-term property Midtown property owners who acquired sites at lower prices will find it easier to develop new projects, while those who must acquire sites at current high market values may find the cost exceeds what can be supported by new development.

Parking Requirements

The cost of providing parking structure spaces that can support denser infill TOD is one of the biggest factors affecting the feasibility of such development, since each space in a parking structure can cost in excess of $14,000 including all hard and soft construction costs. This is many times more than the cost of providing parking in a surface lot. Smaller parcels also face additional difficulty in accommodating on-site parking structures without significantly reducing income generating floor area. Thus, getting the parking supply right is of great importance for development feasibility and ensuring parking funds are efficiently used.

As noted in the Integrate Systems chapter section on parking, current City parking requirements do not recognize a TOD's ability to reduce parking demand, nor do they provide full credit for the efficiencies gained by mixed-use development whose various uses have peak parking demand at different times of the day or days of the week, except through a variance. Nor do current parking requirements fully consider street parking as a resource that can be used to satisfy parking demand for individual projects. Application of current City parking requirements would contribute to substantial project feasibility gaps.

The Plan envisions the creation in the study area of multiple Parking Management Areas to facilitate sharing of parking resources between buildings, as well as the establishment of Parking Management Districts to capture revenues from paid street parking to help fund parking and other public space improvements. It also proposes several alternative options for parking requirements that capture the parking efficiencies that are possible with TOD. These options could include use of the HCC parking structure that is underutilized during evenings and weekends, as well as more efficient use of street parking in the study area.

Implementation of revised parking requirements and implementation of Parking Management Areas and a Parking Management District that reduces the number of parking structure spaces developers must build is one of the most important steps for enhancing the feasibility of individual TOD projects. These measures can also greatly reduce or eliminate the need for construction of public parking structures to meet retail and other visitor demand. Establishment of an in-lieu fee for parking, provided that it is set at a reasonable amount for a parking structure space, is another tool that could enhance the feasibility of TOD projects by allowing developers to meet demand off-site, include reimbursement of investments by developers who provide additional public parking.

Development Costs

Development cost components include hard construction ("sticks and bricks"); soft construction costs including architect, engineer, and other professional and support services, along with financing costs and various permit or other connection fees; property taxes paid during and after project construction; and potential on-site or off-site infrastructure costs that can vary depending upon both the nature of the project and infrastructure deficiencies (including transportation improvements).

These costs can vary greatly based on construction type and building design. For example, buildings taller than five stories require steel or concrete frame construction for their structures, which is much more expensive than typical wood-frame construction. As buildings become taller, they require more extensive and expensive systems for life safety, plumbing, ventilation, and so on. Most recent Midtown development has been wood-frame construction with adjacent parking structures ("wrap buildings"), some with retail on the ground floor. This represents the most affordable type of TOD project, and is likely to represent most or all of new TOD projects in the Midtown study area in the near- and medium-term. As the study area becomes a more established destination and can support higher property values, mid-rise projects of eight stories or more may become feasible, however this may take as long as seven years or more.

Hard construction costs are difficult to adjust, and during the previous economic peak were subject to substantial ongoing inflation as international demand for building materials peaked due to rapid global growth. Houston is one of the more affordable markets in the U.S. for construction costs. Soft construction costs are also difficult to mitigate. For example, while sewer and water connection fees along with park open space fees can be substantial, they represent pro-rated costs to build necessary systems.

Traffic improvement costs represent one area that can create feasibility challenges for developers. Currently, proposed projects must perform a traffic study to determine if transportation improvements are needed to mitigate additional traffic congestion caused by a project. One potential challenge is that depending on the type of improvement, the first developer to cross a threshold for traffic impacts may need to fully pay for a transportation improvement that will also benefit a number of subsequent projects (e.g., a reconfigured intersection). If these costs are substantial they may negatively affect project feasibility. One potential strategy is for the City to conduct an area-wide traffic study to determine the types and timing of needed transportation improvements to offset development impacts, and the cost of constructing them. The cost for these improvements could then be recouped from developers through a transportation impact fee, which would reduce uncertainty and risk for developers while also more equitably sharing costs.

Property tax abatements are a frequently-used means for reducing development costs, and increasing the value of completed projects since lower taxes result in higher net operating income. However, the Plan envisions use of tax increment financing for public improvements, and reductions in property taxes can be counterproductive for this funding source because they mean less available funds.

While current market conditions for development are very challenging due to the recently ended recession, this does not represent a long-term condition. As the current economic recovery proceeds, real estate markets will recover and support new development. Given the lead times for planning, design, financing, and construction of new projects, developments whose planning commences within the next year or so are likely to be completed when market conditions are much more favorable than at present.

Market Demand

Market demand, including the prices that buyers and tenants are willing to pay as well as the number of residential units or square feet of commercial space that can be bought or sold each year, has a huge impact on project feasibility, is highly variable over time, and tends to move in tandem with larger macroeconomic cycles. Its importance, to put it simply, is that if there are sufficient buyers and tenants willing to pay adequate rents and sale prices, with sufficient affordable land and appropriate parking requirements, developers can most often find a way to create a feasible development. However, if market demand is insufficient, there may be no amount of cost reductions or other changes that can make development projects feasible.

A key characteristic of local real estate markets is that they are not static, and often have a substantial potential for change. Areas that are seen as marginally desirable can become more attractive to residents and businesses as a result of a range of actions, including public improvements that create a higher quality environment; increased availability of sites for development; the provision of new types of development products not available elsewhere; spillover effects when available real estate in desirable nearby areas becomes limited; locational advantages that become more apparent as traffic congestion increases (including access to high quality public transportation); and resolution of any negative (if inaccurate) perceptions regarding neighborhood safety and viability. These factors can in turn support higher rents and sale prices that make TOD projects more feasible and attractive to developers.

The Midtown study area already enjoys substantial advantages from its location between Downtown and the Texas Medical Center; the adjacency of the popular Montrose neighborhood; and the existence of METRORail service. Enhancements to Midtown's streetscape and other public space, and implementation of parking solutions and other Plan recommendations to enhance TOD project feasibility are factors that can strengthen the market for new development in the study area.

Real Estate Market Conditions

Market conditions were researched by the CDS / Spillette team for the Plan in order to determine current market support (the ability to absorb new development) and sales prices and rental rates. The evaluation of market potential considered long-term growth projections as well as other Houston markets that have successfully supported denser, infill mixed-use development. This work helped develop a better understanding of the potential for the Midtown study area to capture a larger share of Houston's future growth and support a variety of TOD projects at potentially higher sales prices and rents.

Office

Midtown office space needs to be positioned for smaller-scale projects and tenants who do not desire the Class A high rise space and amenities available Downtown. Examples of this type of product can be seen in recent office development in Montrose, such as The Campanile (4119 Montrose Boulevard). Numerous other existing Montrose Class B buildings demonstrate strong occupancy levels and rents. Potential office absorption could average approximately 54,000 square feet to 81,000 square feet annually. A location with Midtown's advantages can potentially appeal to professional and creative services and other firms seeking smaller office spaces than may be available in the Downtown area, including opportunities for office condo units that provide ownership and associated tax benefits to small business owners. Near-term development should be incremental, and offer below-market rates relative to Downtown and other locations. Near-term office rental rates are projected to be $27 per square foot per year on a full-service gross basis (including all utilities, janitorial, maintenance, and operating costs).

Retail

Potential retail absorption is influenced by the extent to which residents in the local market area are underserved by existing retail choices, the amount of future residential and worker growth in the same market area, and the potential for entertainment, dining, or other destination uses that can attract shoppers from beyond the local market area. The Midtown study area has an emerging cluster of lifestyle and home furnishings retailers along Elgin Street, a spillover of this use from Montrose, and dining and entertainment uses on and near Main Street. Based on the potential for enlarging these clusters and accommodating future growth in residents, it may be possible to support as much as 400,000 square feet of various types of new retail in the study area over the next 20 years. Near-term average rents are projected to be $2.50 per square foot per month on a triple-net basis (tenants responsible for all utilities, maintenance, and other operating costs, including insurance and property taxes).

Residential

New apartment development in Midtown has catered to young single professionals who tend to work Downtown or in the Texas Medical Center. Long-term growth in these jobs centers is a positive sign for further residential development in the Study Area. Continued growth in dining and entertainment uses in the Midtown area will be key for maintaining the area's attractiveness to this market segment. Potential apartment absorption could average 150 to 225 units annually, with additional potential for for-sale condominiums. For-sale townhome development is limited by current high land prices. As land prices decrease in response to economic conditions, townhome development may resume. There is likely to be potential for higher-end townhouses in the medium- and longer-term, as Midtown becomes a more desirable setting and prices increase. Similar considerations apply to the condominium market. Near-term apartment market rental rates are projected to average up to $1,350 per month for one-bedroom units and just over $2,000 per month for two-bedroom units; supportable for-sale prices would be $175,000 for one-bedroom units and $270,000 for two-bedroom units.

Targeted Catalyst and Anchor Projects

The Ensemble/HCC Study area has experienced a limited amount of new development over the past decade, considerably less than the identified market potential, and in locations that do not maximize the advantage of METRORail and the HCC/Ensemble Station.

The Plan identifies three districts within the study area that can target distinct market segments for residential and commercial development: the Design District centered along Elgin Street; the Arts District centered around the HCC/Ensemble Station; and the College District centered around HCC's Central Campus. The development of one or more successful catalyst projects within these districts could demonstrate the study area's market potential to other developers and tenants, thereby helping increase market demand, establish destinations, increase retail activity for surrounding businesses, and stimulate interest from other developers in the construction of additional TOD projects. These catalyst projects can also serve as anchors for each district that establish the identity of each district.

The strategy of catalyst projects that concentrate resources on a focused set of projects in targeted locations whose success spurs additional development has been proven in numerous communities around the U.S. It works because developers, investors, and lenders are extremely reluctant to take on the risk of being a "pioneer" in an unproven local market and/or with a product type that does not have a demonstrated track record of success. The public sector, working with developers to provide various types of financial or other assistance, can help create successful catalyst and anchor projects that demonstrate market potential and reduce the perception of risk for subsequent projects. Subsequent future developments can then be supported by market fundamentals, lessening the need for ongoing public assistance.

Independent Arts Center (IAC) in the Arts District

This proposed catalyst project would occupy two full blocks fronting on Main Street, between Stuart Street and Holman Street, and just north of the Ensemble/HCC Station. The northernmost of these blocks is currently occupied by the City's Code Enforcement Building, and would be ground leased at fair market value for the development of arts-related housing. The southernmost block is a surface parking lot that would be ground leased at fair market value to the IAC for development of its facility.

The Independent Arts Center (IAC) would provide a new home for a number of Houston's leading and emerging arts and cultural organizations, and serve as an anchor for the Arts District. It would offer a combination of three distinct small performance spaces, exhibit spaces, rehearsal spaces, workshop areas, classrooms, offices, and other facilities in a three-level structure with a total of approximately 112,000 square feet. Total project cost is estimated at approximately $30 million by the IAC. The interaction between these organizations and the number and range of programs that would be presented on site would create a new arts destination within the City, establish a strong arts identity for Midtown, and create support for additional adjacent retail, residential, and other development.

The arts organization collaborative seeking to create the IAC envisions pursuing multiple funding sources, including a major capital campaign. However, because of the lead time associated with planning and implementing a capital campaign, and the current low construction prices resulting from the recession, the IAC is seeking an interim loan for up to 10 years from the City or other sources to enable near-term development of its facility.

Mixed-Use Parking Garage in the Arts District

RHS Interests owns the two blocks fronting Main Street, between Berry Street and Alabama Street, next to the Ensemble/HCC Station, and has been involved in the creation of new businesses occupying existing buildings, including the Continental Club and Tacos A Go-Go. Based on this success, RHS is interested in developing a three-story mixed-use building that could catalyze further commercial and residential development in the Arts District. It would include approximately 41,000 square feet of retail on the ground level, 32,000 square feet of retail on the second level, and up to 529 parking spaces on three levels. The above-standard parking is intended to provide up to 228 additional public parking spaces that are available for use by transit users during the daytime, and retail and entertainment patrons during peak evening and weekend periods. It could also allow other nearby developers to potentially meet some of their parking requirements off-site in the structure.

Because of the cost of financing public parking so that it is available in advance of development to maximize its use, and the insufficiency of current parking rates to fully finance construction costs, RHS seeks a subsidy of operating and debt service costs associated with the public parking spaces. This subsidy could amount to as much as an average $300,000 per year over a period of 10 years, or approximately $3 million.

HCC Staff and Student Housing in the College District

Based on discussions with HCC, there may be an opportunity to develop a catalyst project near HCC that captures demand from HCC staff and/or students, with minimal parking to leverage the nearby METRORail and these groups reduced need for automobiles. This project could serve as a catalyst for additional mixed-use residential development in the College District. Limited on-site parking could accommodate

a car-sharing rental service to further reduce demand for individually owned vehicles. This project is envisioned as having approximately 19,000 square feet of ground floor retail, with one or more ground floor residential units, and up to 96 rental residential units on four floors above.

The feasibility of this project could be strongly enhanced by greatly reducing parking construction costs. At the same time, such a project is likely to experience substantial reluctance from lenders to provide financing given the limited amount of parking and its potential impact on marketability to other users in the event of foreclosure. This type of project may require a loan guarantee or other type of credit enhancement from HCC or another creditworthy entity in order to obtain project financing.

Mixed-Use Commercial in the Design District

Crosspoint Properties is working to build on its success in creating High Fashion Home and fabric stores, and other retail development on its properties around Elgin Street in the Design District. It seeks to develop an additional multi-story mixed-use commercial building with ground floor retail and upper floor retail and offices that would help establish an anchor that cements the district's identity as a location for home furnishing and lifestyle retail, along with other retail and entertainment uses.

The subarea around Elgin Street, west of Travis Street, is the one location within the larger study area that has experienced the most retail and residential development to date. Crosspoint would finance and develop this project itself, and based on its experience the only assistance it would need would be flexibility on parking requirements, consistent with the parking alternatives presented in the Plan.

Development Economics and Feasibility

An analysis of development economics was conducted to understand the development feasibility of four types of prototype TOD catalyst and anchor projects, as well as other types of mixed-use TOD projects that developers could undertake at other sites in the study area. These projects included:

- Mixed-use with ground floor residential, and four stories of either rental or for-sale residential above it, consisting of wood-frame construction wrapping around a parking structure.
- Mixed-use with minimal parking, based on the College District catalyst project, with ground floor residential and minimal parking, and four stories of residential above in a wood-frame structure. This project also helps illustrate the benefit for development feasibility of lowered parking requirements.
- Mixed-use mid-rise building with ground floor retail and parking in a three level "podium" at the base of the building and 11 stories of residential above, in a concrete frame structure. This project illustrates the economics of going to a more expensive type of mid-rise construction.
- Mixed-use with ground floor retail, second floor offices, and three levels of parking providing additional public parking for commuters and retail and entertainment patrons, and potentially off-site parking for other developments. This project is similar to the catalyst project envisioned for the Arts District.

Methodology for Assessing Feasibility

The methodology for determining the feasibility of these projects involved preparation of proformas for each project, just as is done by developers. The proformas show in a single page format the economic results for the project once it has been fully leased up and/or all units have been sold. All details of the projects' development program and unit mix are identified, including parking, along with assumptions for rental rates and sale prices, operating expenses, hard and soft construction costs, other fees and costs, financing costs, and developer profit.

These assumptions are then used to estimate total development cost and developer profit. The next step involves estimating the value of the completed project, based either on revenues from sales of units (e.g. for for-sale residential) or on the value of the project's net operating income after deducting operating expenses from rental revenues (dividing net operating income by a market-based capitalization rate, or cap rate, tied to the required rates of return on the investment).

The final step involves deducting total development cost from the value of the completed project. The remaining "residual" amount is the value available to pay for purchase of land for the development project, or "residual land value". By comparing this residual land value to current market land values it is possible to determine if a project is feasible. If the residual land value is similar to current market land values, it means a developer could afford to purchase land and build the project. However if the residual land value is less than current market land values (or worse, a negative number because the finished project is worth less than what it costs to build) then it means that a developer would likely be unable to justify proceeding with the project, unless other forms of financial assistance are provided or costs can be reduced.

Some developers may have purchased property previously when land values were lower, so the residual land value from a proposed development does not need to be as high for them to proceed with a project. Similarly, developers will sometimes enter into joint ventures with property owners where the land owner is paid out of profits from the completed project, which can help feasibility by reducing the need for an expensive up-front investment in land.

Proforma Findings for Catalyst Projects

The complete proformas listing all assumptions are appended to the Plan. Other key assumptions besides the market rental rates and sale prices previously discussed include:

- Parking ratios for residential uses are assumed to reflect the proven reduction in vehicle trips at TOD projects, with an average of 1.25 parking spaces per unit. Parking ratios for commercial uses, based on implementation of a parking management area, is assumed to average 2.5 spaces per 1,000 square feet, and without the requirements for extra parking for retail and entertainment uses.
- Hard construction costs are assumed to range from $110 per square foot for wood-frame multifamily projects (including College District housing targeted at students) to $160 per square foot for concrete-frame mid-rise structures. Commercial hard construction costs are assumed to range from $90 per square foot on the ground floor of wood-frame structures to $125 per square foot in mid-rise structures. A hard cost contingency of five percent is also assumed.
- Soft construction costs, not including financing, are assumed to run approximately 15 percent of hard construction costs.
- Developer profit is assumed to be approximately 10 percent of total development costs, including land.
- Capitalization rates for determining the value of completed rental projects are assumed to be seven percent.
- The above assumptions are based on current market conditions and considered somewhat conservative. In other words, they do not project substantially higher market rents and sale prices that might or might not occur in the longer-term as the area improves; nor do they assume that any short-term savings in construction costs because of weak construction market conditions can be sustained as the economic recovery continues.

Table 1 below summarizes the calculated residual land value per square foot.

Table 1: Summary of Midtown Prototype Project Pro Forma Findings

	Residual (Supportable) Land Value psf
Project 1: Mixed-Use, Ground Floor Retail, 4-Stories Rental Residential	$31
Project 2: Mixed-Use, Ground Floor Retail, 4-Stories For-Sale Residential	($16)
Project 3: Mixed-Use, Ground Floor Retail, 4-Stories Rental Residential College District - Minimal Parking	$63
Project 4: Mixed-Use, Ground Floor Retail, 11-Stories Rental Residential Mid-Rise Development	($30)
Project 5: Design District Mixed-Use, Ground Floor Retail, 2nd Floor Office, Surplus Public Parking for Art District Use	$12

Source: BAE, 2010.

The residual land value for mixed-use retail with residential above (Project 1) is considerably below current asking prices for sites in the Midtown study area, however it is close to what interviews with active developers indicate can be supported based on current economics.

The gap between supportable residual land values as estimated by the proformas and current asking prices reinforces that land in the Midtown area is currently overvalued, thwarting market support that exists for denser development. This overvaluation is consistent with both speculation in land associated with the construction of METRORail as well as increases in land values at the peak of the previous economic cycle. Overvaluation in land prices can take awhile to correct itself because landowners are unwilling to recognize losses as long as they can afford to carry the cost of properties. Ultimately, some combination of reductions in land values, or increases in supportable land values based on rising rents and sales prices, would be expected to close the gap between market values and what development projects can support. Meanwhile, those landowners who acquired their property before the recent run-up in land values are better positioned to proceed with development projects.

The high residual land value for mixed-use retail with residential above and limited parking (Project 3) shows the bottom line financial benefit of elimination of most of the parking requirements for a project. While this is a favorable land value, as noted earlier some sort of loan guarantee or credit enhancement is likely to be required for a lender to be willing to finance such a unique project.

The residual land value for a mixed-use commercial project with substantial public parking above code requirements (Project 5) reflects the impact of providing approximately 228 additional parking spaces for public use. Even though it is assumed that parking revenues are collected from daily commuters and evening arts, retail, and entertainment patrons, at current market rates for parking the revenue is insufficient to cover the cost of constructing those parking spaces. This project, with parking at TOD standards to support the on-site office and retail development would support a residual land value in excess of $50 per square foot, based on potential office and retail rents.

The negative residual land values for mixed-use retail with for-sale residential above (Project 2) and mixed-use retail with rental residential above in a mid-rise building (Project 4) indicates that these are far from being feasible based on current market conditions. Current market sale prices for condominiums in for-sale multifamily developments are actually less than the implicit sales price based on rental rates, reflecting a relative lack of demand for this product type. Supportable sales prices should rise in the medium- and longer-term as demand increases for ownership multifamily units. An average increase in sales prices of approximately $75,000 per unit would be sufficient to increase the residual land value for multifamily for-sale residential to approximately $40 per square foot. By comparison, only a 10 percent increase in rental rates for the high-rise residential units would be needed to make increase residual land value to approximately $40 per square foot.

Project 1: Mixed-Use TOD: Ground Floor Retail with 4 Stories Rental Residential, Structured Parking

Major Assumptions

Characteristics of Project		
Site Area (Acres)		1.43
Potential Project Density (DU/AC)		65
Total Number of Units		93
Building Height (Stories)		5
Rentable Building Area (Sq. Ft.)	Efficiency	172,163
Residential	87%	92,772
Retail	95%	22,301
Office	90%	-
Parking Garage (Sq. Ft.)		57,090

Residential Product Mix (Units):	1BR	2BR
Market Rate	70	23
Moderate Income (% AMI)	0	0
		-

Project Size: (a)	1BR	2BR
Unit Size (Sq. Ft.)	750	1,200

Sale Prices / Lease Rates: (b)	1BR	2BR
Residential - Market Rate Units	$1,350	$2,040
Residential - Below Market Rate	$0	$0
Retail Lease (Monthly NNN)		$2.50
Office Expenses/Lease (Annual)	$7.00	$27.00
Cap Rate for Rental Residential		7.0%
Cap Rate for Commercial		7.5%
Parking Annual Exp./In-Lieu Fee (f	$400	$0

Required Parking (c)	1BR	2BR
Residential	1.25	1.25
Total Residential Spaces		117
Comm'l per 1,000 sf: Office / Retail	2.5	2.5
Total Commercial Spaces		56
Garage Parking Space Size (Sq. Ft.)		330
Number of Spaces in Garage		173
Number of Spaces - Surface		0
Number of Spaces - Off-Site		0
		-

Development Costs	
Land Costs (Sq. Ft.)	$0
Construction Costs (Sq. Ft.) - Residential	$110
Construction Costs (Sq. Ft.) - Commercial	$90
Tenant Improvements - Commercial	$20
Hard Cost Contingency	5%
Demolition (Sq. Ft)	$5
On & Off-site Improvements (Sq. Ft.)	$5
Fees (Unit) (d)	$1,000
Other Soft Costs (e)	15%
Developer Profit	12%
Construction Costs - Garage (space)	$11,000
Construction Costs - Grade Parking (space)	$2,500

Construction Financing Assumptions	
Interest Rate	7.0%
Period of Initial Loan (Months)	18
Initial Construction Loan Fee (Points)	2.0%
Average Outstanding Balance	60%
Loan to Cost Ratio	70%
Hard & Soft Costs, Land, Site Costs	$19,893,033
Amount of Loan	$13,925,123

Pro Forma Analysis

Development Cost Summary		
Construction Cost		$15,002,966
On & Off-site improvements		$311,454
Demolition Costs - Existing Sq. Ft:	0	$0
Parking Costs		$1,903,000
Fees/Permits - Included in Soft Costs		$93,000
Other Soft Costs		$2,582,613
Finance Costs:		
Interest on Construction Loan		$877,283
Points on Construction Loan		$278,502
Total Development Costs w/o Land		$21,048,819
Developer Profit		$2,525,858

Development Feasibility		
Gross Sales Revenue - For-Sale Housing		$0
Less 5% Commissions/Marketing		$0
Net Sales Revenue - For-Sale Housing		$0
Gross Revenues - Resid'l, Vacancy	5.0%	$1,612,188
Less Operating Costs per Unit/Yr:	$4,400	$409,200
Capitalized Value - Rental Residential		$17,185,543
Capitalized Value - Comm'l, Vacanc	7.0%	$8,295,972
Total All Revenue/Capitalized Value		$25,481,515
Less Development Costs + Developer Profit		$23,574,677
Residual Land Value		**$1,906,838**
Residual Land Value (Sq. Ft.)		$31

Notes

(a) Blended average of unit mix.
(b) Lease rates per CDS and Steven Spillette Consulting market analysis.
(c) Parking requirements TBD.
(d) Wastewater and domestic water connection fees, building permit, planning, and all other fees included in soft cost assumption.
(e) Other soft costs include architect, legal fees, and other professional services and are expressed as percentage of hard costs.
(f) Annual expense figure is for parking structures. In-lieu fee is one-time payment for potential right to relocate identified parking spaces off-site pursuant to proposed shared parking program.

Sources: Morris Architects; CDS/Spilette; BAE, 2009.

Project 2: Mixed-Use TOD: Ground Floor Retail with 4 Stories For-Sale Residential, Structured Parking

Major Assumptions

Characteristics of Project		
Site Area (Acres)		1.43
Potential Project Density (DU/AC)		51
Total Number of Units		73
Building Height (Stories)		5
Rentable Building Area (Sq. Ft.)	Efficiency	163,913
Residential	87%	92,772
Retail	95%	22,301
Office	85%	-
Parking Garage (Sq. Ft.)		48,840

Residential Product Mix (Units):	1BR	2BR
Market Rate	37	36
Moderate Income (% AMI)	0	0
		-

Project Size: (a)	1BR	2BR
Unit Size (Sq. Ft.)	850	1,350

Sale Prices / Lease Rates: (b)	1BR	2BR
Residential - Market Rate Units	$175,000	$270,000
Residential - Below Market Rate	$0	$0
Retail Lease (Monthly NNN)		$2.50
Office Expenses/Lease (Annual)	$7.00	$27.00
Cap Rate for Rental Residential		7.0%
Cap Rate for Commercial		7.5%
Parking Annual Exp./In-Lieu Fee (f	$400	$0

Required Parking (c)	1BR	2BR
Residential	1.25	1.25
Total Residential Spaces		92
Comm'l per 1,000 sf: Office / Retail	2.5	2.5
Total Commercial Spaces		56
Garage Parking Space Size (Sq. Ft.)		330
Number of Spaces in Garage		148
Number of Spaces - Surface		0
Number of Spaces - Off-Site		0
		-

Development Costs	
Land Costs (Sq. Ft.)	$0
Construction Costs (Sq. Ft.) - Residential	$120
Construction Costs (Sq. Ft.) - Commercial	$90
Tenant Improvements - Commercial	$20
Hard Cost Contingency	5%
Demolition (Sq. Ft)	$5
On & Off-site Improvements (Sq. Ft.)	$5
Fees (Unit) (d)	$1,000
Other Soft Costs (e)	15%
Developer Profit	12%
Construction Costs - Garage (space)	$11,000
Construction Costs - Grade Parking (space)	$2,500

Construction Financing Assumptions	
Interest Rate	7.0%
Period of Initial Loan (Months)	18
Initial Construction Loan Fee (Points)	2.0%
Average Outstanding Balance	60%
Loan to Cost Ratio	70%
Hard & Soft Costs, Land, Site Costs	$20,844,395
Amount of Loan	$14,591,076

Pro Forma Analysis

Development Cost Summary		
Construction Cost		$16,122,628
On & Off-site improvements		$311,454
Demolition Costs - Existing Sq. Ft:	0	$0
Parking Costs		$1,628,000
Fees/Permits - Included in Soft Costs		$73,000
Other Soft Costs		$2,709,312
Finance Costs:		
Interest on Construction Loan		$919,238
Points on Construction Loan		$291,822
Total Development Costs w/o Land		$22,055,454
Developer Profit		$2,646,655

Development Feasibility		
Gross Sales Revenue - For-Sale Housing		$16,195,000
Less 5% Commissions/Marketing		$809,750
Net Sales Revenue - For-Sale Housing		$15,385,250
Gross Revenues - Resid'l, Vacancy	5.0%	$0
Less Operating Costs per Unit/Yr:	$0	$0
Capitalized Value - Rental Residential		$0
Capitalized Value - Comm'l, Vacanc	7.0%	$8,295,972
Total All Revenue/Capitalized Value		$23,681,222
Less Development Costs + Developer Profit		$24,702,109
Residual Land Value		**($1,020,887)**
Residual Land Value (Sq. Ft.)		($16)

Notes

(a) Blended average of unit mix.
(b) Lease rates per CDS and Steven Spillette Consulting market analysis.
(c) Parking requirements TBD.
(d) Wastewater and domestic water connection fees, building permit, planning, and all other fees included in soft cost assumption.
(e) Other soft costs include architect, legal fees, and other professional services and are expressed as percentage of hard costs.
(f) Annual expense figure is for parking structures. In-lieu fee is one-time payment for potential right to relocate identified parking spaces off-site pursuant to proposed shared parking program.

Sources: Morris Architects; CDS/Spilette; BAE, 2009.

Project 3: Mixed-Use TOD: Ground Floor Retail with 4 Stories Rental Residential, Minimal Parking - College District

Major Assumptions

Characteristics of Project		
Site Area (Acres)		1.43
Potential Project Density (DU/AC)		67
Total Number of Units		96
Building Height (Stories)		5
Rentable Building Area (Sq. Ft.)	Efficiency	117,810
Residential	87%	95,570
Retail	95%	22,240
Office	85%	-
Parking Garage (Sq. Ft.)		-

Residential Product Mix (Units):	1BR	2BR
Market Rate	72	24
Moderate Income (% AMI)	0	0
		-

Project Size: (a)	1BR	2BR
Unit Size (Sq. Ft.)	750	1,200

Sale Prices / Lease Rates: (b)	1BR	2BR
Residential - Market Rate Units	$1,350	$2,040
Residential - Below Market Rate	$0	$0
Retail Lease (Monthly NNN)		$2.50
Office Expenses/Lease (Annual)	$7.00	$27.00
Cap Rate for Rental Residential		7.0%
Cap Rate for Commercial		7.5%
Parking Annual Exp./In-Lieu Fee (f	$400	$0

Required Parking (c)	1BR	2BR
Residential	-	-
Total Residential Spaces		-
Comm'l per 1,000 sf: Office / Retail	3.5	4.0
Total Commercial Spaces		89
Garage Parking Space Size (Sq. Ft.)		-
Number of Spaces in Garage		0
Number of Spaces - Surface		50
Number of Spaces - Off-Site		0

Development Costs	
Land Costs (Sq. Ft.)	$0
Construction Costs (Sq. Ft.) - Residential	$110
Construction Costs (Sq. Ft.) - Commercial	$90
Tenant Improvements - Commercial	$35
Hard Cost Contingency	5%
Demolition (Sq. Ft)	$5
On & Off-site Improvements (Sq. Ft.)	$5
Fees (Unit) (d)	$1,000
Other Soft Costs (e)	15%
Developer Profit	12%
Construction Costs - Garage (space)	$11,000
Construction Costs - Grade Parking (space)	$2,500

Construction Financing Assumptions	
Interest Rate	7.0%
Period of Initial Loan (Months)	18
Initial Construction Loan Fee (Points)	2.0%
Average Outstanding Balance	60%
Loan to Cost Ratio	70%
Hard & Soft Costs, Land, Site Costs	#########
Amount of Loan	#########

Pro Forma Analysis

Development Cost Summary		
Construction Cost		$15,717,356
On & Off-site improvements		$311,454
Demolition Costs - Existing Sq. Ft:	0	$0
Parking Costs		$125,000
Fees/Permits - Included in Soft Costs		$96,000
Other Soft Costs		$2,423,072
Finance Costs:		
Interest on Construction Loan		$823,474
Points on Construction Loan		$261,420
Total Development Costs w/o Land		$19,757,776
Developer Profit		$2,370,933

Development Feasibility		
Gross Sales Revenue - For-Sale Housing		$0
Less 5% Commissions/Marketing		$0
Net Sales Revenue - For-Sale Housing		$0
Gross Revenues - Resid'l, Vacancy	5.0%	$1,666,224
Less Operating Costs per Unit/Yr:	$4,400	$422,400
Capitalized Value - Rental Residential		$17,768,914
Capitalized Value - Comm'l, Vacanc	7.0%	$8,273,280
Total All Revenue/Capitalized Value		$26,042,194
Less Development Costs + Developer Profit		$22,128,709
Residual Land Value		**$3,913,485**
Residual Land Value (Sq. Ft.)		$63

Notes

(a) Blended average of unit mix.
(b) Lease rates per CDS and Steven Spillette Consulting market analysis.
(c) Parking requirements TBD.
(d) Wastewater and domestic water connection fees, building permit, planning, and all other fees included in soft cost assumption.
(e) Other soft costs include architect, legal fees, and other professional services and are expressed as percentage of hard costs.
(f) Annual expense figure is for parking structures. In-lieu fee is one-time payment for potential right to relocate identified parking spaces off-site pursuant to proposed shared parking program.

Sources: Morris Architects; CDS/Spilette; BAE, 2009.

Project 4: Mixed-Use TOD: Ground Floor Retail with 11 Stories Rental Residential, Structured Parking

Major Assumptions

Characteristics of Project		
Site Area (Acres)		1.43
Potential Project Density (DU/AC)		92
Total Number of Units		131
Building Height (Stories)		12
Rentable Building Area (Sq. Ft.)	Efficiency	199,947
Residential	87%	128,360
Retail	95%	9,548
Office	85%	-
Parking Garage (Sq. Ft.)		62,040

Residential Product Mix (Units):	1BR	2BR
Market Rate	66	65
Moderate Income (% AMI)	0	0
		-

Project Size: (a)	1BR	2BR
Unit Size (Sq. Ft.)	750	1,200

Sale Prices / Lease Rates: (b)	1BR	2BR
Residential - Market Rate Units	$1,613	$2,460
Residential - Below Market Rate	$0	$0
Retail Lease (Monthly NNN)		$2.50
Office Expenses/Lease (Annual)	$7.00	$27.00
Cap Rate for Rental Residential		7.0%
Cap Rate for Commercial		7.5%
Parking Annual Exp./In-Lieu Fee (f	$400	$0

Required Parking (c)	1BR	2BR
Residential	1.25	1.25
Total Residential Spaces		164
Comm'l per 1,000 sf: Office / Retail	2.5	2.5
Total Commercial Spaces		24
Garage Parking Space Size (Sq. Ft.)		330
Number of Spaces in Garage		188
Number of Spaces - Surface		0
Number of Spaces - Off-Site		0
		-

Development Costs	
Land Costs (Sq. Ft.)	$0
Construction Costs (Sq. Ft.) - Residential	$160
Construction Costs (Sq. Ft.) - Commercial	$125
Tenant Improvements - Commercial	$35
Hard Cost Contingency	5%
Demolition (Sq. Ft)	$5
On & Off-site Improvements (Sq. Ft.)	$5
Fees (Unit) (d)	$1,000
Other Soft Costs (e)	15%
Developer Profit	12%
Construction Costs - Garage (space)	$11,000
Construction Costs - Grade Parking (space)	$2,500

Construction Financing Assumptions	
Interest Rate	7.0%
Period of Initial Loan (Months)	18
Initial Construction Loan Fee (Points)	2.0%
Average Outstanding Balance	60%
Loan to Cost Ratio	70%
Hard & Soft Costs, Land, Site Costs	$33,292,523
Amount of Loan	$23,304,766

Pro Forma Analysis

Development Cost Summary		
Construction Cost		$26,456,653
On & Off-site improvements		$311,454
Demolition Costs - Existing Sq. Ft:	0	$0
Parking Costs		$2,068,000
Fees/Permits - Included in Soft Costs		$131,000
Other Soft Costs		$4,325,416
Finance Costs:		
Interest on Construction Loan		$1,468,200
Points on Construction Loan		$466,095
Total Development Costs w/o Land		$35,226,819
Developer Profit		$4,227,218

Development Feasibility		
Gross Sales Revenue - For-Sale Housing		$0
Less 5% Commissions/Marketing		$0
Net Sales Revenue - For-Sale Housing		$0
Gross Revenues - Resid'l, Vacancy	5.0%	$3,036,105
Less Operating Costs per Unit/Yr:	$5,000	$655,000
Capitalized Value - Rental Residential		$34,015,786
Capitalized Value - Comm'l, Vacanc	7.0%	$3,551,670
Total All Revenue/Capitalized Value		$37,567,456
Less Development Costs + Developer Profit		$39,454,037
Residual Land Value		**($1,886,581)**
Residual Land Value (Sq. Ft.)		($30)

Notes

(a) Blended average of unit mix.
(b) Lease rates per CDS and Steven Spillette Consulting market analysis.
(c) Parking requirements TBD.
(d) Wastewater and domestic water connection fees, building permit, planning, and all other fees included in soft cost assumption.
(e) Other soft costs include architect, legal fees, and other professional services and are expressed as percentage of hard costs.
(f) Annual expense figure is for parking structures. In-lieu fee is one-time payment for potential right to relocate identified parking spaces off-site pursuant to proposed shared parking program.

Sources: Morris Architects; CDS/Spilette; BAE, 2009.

Project 5: Design District TOD: Ground Floor Retail with 2nd Story Office, Structured Parking Above Requirements

Major Assumptions

Characteristics of Project		
Site Area (Acres)		2.86
Potential Project Density (DU/AC)		-
Total Number of Units		-
Building Height (Stories)		2
Rentable Building Area (Sq. Ft.)	Efficiency	218,398
Residential	85%	-
Retail	95%	40,974
Office	85%	32,151
Parking Garage (Sq. Ft.)		137,443
Residential Product Mix (Units):	1BR	2BR
Market Rate	0	0
Moderate Income (% AMI)	0	0
		-
Project Size: (a)	1BR	2BR
Unit Size (Sq. Ft.)	750	1,200
Sale Prices / Lease Rates: (b)	1BR	2BR
Residential - Market Rate Units	$1,350	$2,040
Residential - Below Market Rate	$0	$0
Retail Lease (Monthly NNN)		$2.50
Office Expenses/Lease (Annual)	$7.00	$27.00
Cap Rate for Rental Residential		7.0%
Cap Rate for Commercial		7.5%
Parking Annual Exp./In-Lieu Fee (f	$400	$0
Required Parking (c)	1BR	2BR
Residential	1.25	1.25
Total Residential Spaces		-
Comm'l per 1,000 sf: Office / Retail	2.5	2.5
Total Commercial Spaces		103
Garage Parking Space Size (Sq. Ft.)		415
Number of Spaces in Garage		331
Number of Spaces - Surface		0
Number of Spaces - Off-Site		0
Excess Parking for District (g)		*228*
Development Costs		
Land Costs (Sq. Ft.)		$0
Construction Costs (Sq. Ft.) - Residential		$110
Construction Costs (Sq. Ft.) - Commercial		$90
Tenant Improvements - Commercial		$35
Hard Cost Contingency		5%
Demolition (Sq. Ft)		$5
On & Off-site Improvements (Sq. Ft.)		$5
Fees (Unit) (d)		$1,000
Other Soft Costs (e)		15%
Developer Profit		12%
Construction Costs - Garage (space)		$11,000
Construction Costs - Grade Parking (space)		$2,500
Construction Financing Assumptions		
Interest Rate		7.0%
Period of Initial Loan (Months)		18
Initial Construction Loan Fee (Points)		2.0%
Average Outstanding Balance		60%
Loan to Cost Ratio		70%
Hard & Soft Costs, Land, Site Costs		$16,791,714
Amount of Loan		$11,754,200

Sources: Morris Architects; CDS/Spilette; BAE, 2009.

Pro Forma Analysis

Development Cost Summary		
Construction Cost		$10,337,582
On & Off-site improvements		$622,908
Demolition Costs - Existing Sq. Ft:	0	$0
Parking Costs		$3,641,000
Fees/Permits - Included in Soft Costs		$0
Other Soft Costs		$2,190,224
Finance Costs:		
Interest on Construction Loan		$740,515
Points on Construction Loan		$235,084
Total Development Costs w/o Land		$17,767,312
Developer Profit		$2,132,077
Development Feasibility		
Gross Sales Revenue - For-Sale Housing		$0
Less 5% Commissions/Marketing		$0
Net Sales Revenue - For-Sale Housing		$0
Gross Revenues - Resid'l, Vacancy	5.0%	$0
Less Operating Costs per Unit/Yr:	$4,400	$0
Capitalized Value - Rental Residential		$0
Capitalized Value - Comm'l, Vacanc	7.0%	$21,361,502
Total All Revenue/Capitalized Value		$21,361,502
Less Development Costs + Developer Profit		$19,899,390
Residual Land Value		**$1,462,112**
Residual Land Value (Sq. Ft.)		$12

Notes

(a) Blended average of unit mix.
(b) Lease rates per CDS and Steven Spillette Consulting market analysis.
(c) Parking requirements TBD.
(d) Wastewater and domestic water connection fees, building permit, planning, and all other fees included in soft cost assumption.
(e) Other soft costs include architect, legal fees, and other professional services and are expressed as percentage of hard costs.
(f) Annual expense figure is for parking structures. In-lieu fee is one-time payment for potential right to relocate identified parking spaces off-site pursuant to proposed shared parking program.
(g) Excess parking for District use, pursuant to potential partnership agreement with City establishing revenue guarantee. Additional parking revenue assumptions:

	Daily Rate	Days/Year
Daily Commuters	$3.00	250
Evening Restaurant/Entertainment	$5.00	164
(assumes 70% average utilization)		
Revenue from excess parking		$357,732
Operating expenses		$91,200
NOI		$266,532
Dev. Cost w/ prorated land at $50/sf = $1.8M		$5,185,800
Feasibility Gap at 8% cap		($1,854,150)
per space		($8,132)

Public Improvements to Leverage Private Investment

Public improvements whose location and timing are linked to the timing of new TOD constitutes an essential step for closing the gap and stimulating TOD projects in the Midtown study area. There are several reasons for this. Public improvements to streetscapes, parks, and other areas enhance the quality of life for residents, workers, and shoppers and increase potential market activity and prices. Developers and lenders consider such public investments a tool to reduce development risk because of the commitment by local government that it demonstrates. Thus, public investment to increase the quality of streets and other public spaces is a key step for attracting and leveraging much more substantial amount of private investment in new development.

At the same time, needed public improvements can be expensive and must compete with other needs for limited available funds. There is often a tendency to spread limited public improvement funds throughout an area so that all property owners receive some benefit. However, such a diffuse approach results in modest improvements with low impact in any one area, resulting in an inability to help attract substantial new private investment. It is important for public investment to be concentrated at key sites so that it can result in high quality projects and have the biggest impact in closing the gap and attracting new development. Demonstrating success in a smaller area can help increase both public and private investor interest in extending investment to other nearby areas, and ultimately leading to revitalization of the larger area.

Streetscape

The “Z” connection for public improvements as described in this Plan represents an effort to concentrate public improvements so that it most benefits the sites with the greatest TOD potential over the first several phases of new development in the Midtown study area. The “Z” connection also lends itself to phasing to better match available funding and market potential.

Parking

The need for public investment in new parking structures will be determined by which of the parking alternatives in the Plan is ultimately adopted. For the purposes of estimating public improvement costs, it is assumed that public investment for parking is limited to approximately $3 million spread over 10 years to provide approximately 228 public parking spaces in a single Arts District catalyst project.

The potential establishment of parking in-lieu fees to allow developers to meet parking requirements off-site is one of the options being considered. It is assumed that such fees would be set at an accessible amount, while taking into consideration the actual cost of constructing parking structure space. This fee would be collected and distributed through a Parking Management District to build public parking structure spaces when sufficient funds have been collected, or reimburse previous developer investments in additional public parking spaces above parking requirements, as well as transportation demand management programs. An alternate would be for developers to pay market-rate fees directly to property owners that have excess parking supply.

Depending on the final parking plan, there may also be a need for capital funds to support installation of “smart” parking meters and other parking control improvements. Estimates for these costs would need to be developed and further refined in consultation with City of Houston staff.

Phasing

Phasing for public improvements should be tied to the locations and timing of market support for new development. Based on development economics, most new development would be mixed-use TOD projects with ground floor retail or commercial and four stories of residential above, in wood-frame construction with adjacent parking structure wrapping the building. Each block in the Midtown Study area was evaluated to determine its potential for redevelopment. Table 2 shows the resulting development program, based on four phases of development covering approximately four years each, starting in 2012 and going through 2027. This development corresponds to the primary and secondary Z connection; future development beyond 2027 would likely occur elsewhere in the study area, mostly in areas peripheral to the Z connection.

Table 2: Midtown Houston Development Program by Phase

Use	2012-2015 Phase 1	2016-2019 Phase 2	2020-2023 Phase 3	2024-2027 Phase 4	2028+ Future	Total
Retail - Sq. Ft.	101,592	101,637	135,998	56,332	65,806	461,365
Office - Sq. Ft. (a)	155,985	98,889	50,177	0	0	305,052
Residential - Units	198	467	774	413	313	2,165
Arts Center - Sq. Ft.	112,461	0	0	0	0	112,461

(a) Does not include office uses in ground floor retail space.

Sources: Morris Architects; Design Workshop; BAE, 2010.

The resulting development projections by phase are considerably less than potential market support. This is because a number of blocks with substantial high-value improvements are not projected to redevelop, and also because of the limitations of how many residential units and commercial space can be built within the envelope of a five-story structure. The resulting more modest level of projected development results in a more conservative approach to public investment.

A phased approach was formulated to public improvements based on the analysis of the amount of development by phase and its location relative to the Z connection, as shown in Table 3. Phases 1 and 2 correspond to the Primary Z Connection, while Phases 3 and 4 correspond to the Secondary Z Connection.

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	Total
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:	0	0	0	0	0
Total Investments	**$9,834,000**	**$16,465,000**	**$20,050,000**	**$8,067,000**	**$54,416,000**

Not Included:
- International 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.

This results in a total public improvement program of slightly more than $54 million, however because of its phasing just under $10 million needs to be expended in the first phase, with approximately $16 million in the second phase, $20 million in the third phase, and $8 million in the final phase ending in 2027.

It is important to note that these figures do not include funding or the potential cost of an interim loan to the IAC for its anchor development in the Arts District. Also excluded are costs of additional public parking spaces beyond 228 spaces in Phase 1, and other transportation or parking management improvements.

Financing and Implementation Strategies

Strategy

The strategy for financing public improvements is focused on using a combination of tax increment from new Midtown development, open space fees, potential parking meter revenues, and other potential sources. This layering of multiple funding sources, involving the City of Houston as well as other regional, state, and federal sources, is a typical approach to closing the gap for public improvement costs.

TIRZ

The existing Midtown Tax Increment Reinvestment Zone (TIRZ) is authorized by Texas law to collect the City's share of increases in property taxes within the boundaries of the TIRZ, and to use those proceeds for public improvements, including the issuance of tax-exempt bonds to be repaid from the tax increment.

Based on the development program in Table 2, current market values for various uses, and the City's 0.63875 percent share of property tax revenues, the potential growth in assessed value and potentially available tax increment from new TOD projects in the Midtown study area is shown in Table 4.

Table 4: Tax Increment Projection for Midtown TIRZ from New Midtown Development, 2012 - 2025
Constant 2010 Dollars.

	2012-2015 Phase 1	2016-2019 Phase 2	2020-2023 Phase 3	2024-2027 Phase 4	2028+ Future (b)	Total
Increase in Assessed Value	$116,981,000	$148,630,000	$206,063,000	$97,274,000	$82,319,000	$651,267,000
City of Houston Share (TIRZ) (a)	$1,868,000	$5,362,000	$10,077,000	$13,605,000	$15,851,000	$46,763,000

(a) Cumulative. Does not include any increases in value of existing properties. Includes only City of Houston share of new property tax revenues, at 0.63875% of assessed value. Collections cease with TIRZ expiration in 2025.
(b) All future development; for calculation purposes this future phase is assumed to be 4 years in length.
Sources: City of Houston; CDS/Spillette; BAE, 2010.

New TOD projects resulting from Plan implementation are projected to ultimately add more than $651 million to the City's tax base, using 2010 values. This is a conservative figure because it does not assume further increases in the value of existing properties that would not be redeveloped (aside from the increases that have already occurred as a result of the construction of METRORail). It also excludes increases in tax receipts due to inflation, as tax rates are adjusted downwards annually to mitigate such increases.

A key assumption is the life of the Midtown TIRZ district will be extended past is current sunset date of 2025. There is precedent for the City extending the life of other TIRZ districts to further public purposes, and the concept of extending the life of the Midtown TIRZ district is under consideration. This is a significant impact because without an extension the amount of potentially available TIRZ funds is reduced by nearly half.

Other Funding Sources

Table 5 summarizes other funding sources projected to be available to fund Midtown public improvements, showing total amounts projected to be available for each phase of development. There is projected to be approximately $39 million in total available funds, however only approximately $4 million is available in the first phase, growing to nearly $10 million in the second phase, slightly more than $14 million in the third phase, and $11 million in the fourth phase.

Table 5: Potential Public Funding Sources 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	Total
TIF/TIRZ (a)	$1,870,000	$5,360,000	$10,080,000	$13,610,000	$30,920,000
Parking In-Lieu (b)	0	0	0	0	0
Parking Management District (c)	1,000,000	2,000,000	2,000,000	2,000,000	7,000,000
Park/Open Space In-Lieu (d)	120,000	310,000	580,000	290,000	1,300,000
Grants - Federal Transportation (e)	2,500,000	2,500,000	2,500,000	2,500,000	10,000,000
Sales Tax Reimbursements (f)	530,000	1,070,000	1,790,000	2,090,000	5,480,000
Other - TBD	0	0	0	0	0
Total Sources	**$6,020,000**	**$11,240,000**	**$16,950,000**	**$20,490,000**	**$54,700,000**

(a) City of Houston share from projected new Midtown Plan area development; assumes TIRZ extension beyond 2025.
(b) Placeholder for potential future developer in-lieu parking fee to fund off-site parking structure construction.
(c) Midpoint of projected revenues per Nelson\Nygaard; net of 50% for HPD mobility fund.
(d) Fee revenues per City ordinance for projected new residential development in Midtown Plan area.
(e) Estimate for grants funds to become available from transportation bill reauthorization, subject to competitive selection.
(f) Reimbursement of local share sales tax proceeds from new retail (80% of space) at estimated sales $350/sf/year. Portion of new sales tax revenues made available corresponding to 47% regional growth during Phases 1 - 4.
Sources: Knudson Services; Nelson\Nygaard; BAE, 2010.

Parking In-Lieu Fees

Parking in-lieu fees are anticipated to involve transfers of funds from developers gaining the benefit from use of parking spaces built by other developers in their projects. Thus, no amounts are shown in Table 5 as the in-lieu fees do not help fund publicly-financed parking structure spaces.

Parking Management District

As noted in the parking options, creation of a Parking Management District is recommended to allow collection of street parking meter and other related revenues. Based on moderate projections for future metered street parking in the Midtown study area, and increases in parking meter rates and enforcement, Midtown may eventually be able to generate in excess of $1 million annually. Over the first four phases of the Plan this could amount to as much as $14 million (excluding any costs for parking meters or other parking-related improvements that are yet to be identified).

Parks/Open Space Fees

Open space fees are calculated based on the City's current ordinance, and would be used to fund the park improvements described in the Plan. This would generate approximately $1.3 million in revenue

Grants – Federal Transportation Sources

The reauthorization of the federal SAFETEA-LU transportation bill is expected to provide significant additional resources to support projects than encourage alternative modes of transit. Many of the identified public improvements are expected to meet the criteria for funding from this source. The actual amount of available funds will depend upon the final bill, as well as whatever competitive or other selection processes are used by HGAC to allocate such funds. Based on discussions with HGAC staff, it is reasonable to expect that up to $10 million in such funds could be available for improvements in the study area over the first four phases of development.

Sales Tax Reimbursements

The 400,000+ square feet of new retail development projected for the study area will generate substantial new proceeds from the City's local share of sales tax revenues. Texas law allows reimbursement of public funds to developers, including sales tax revenues, through Section 380 economic development public-private partnerships. Such partnerships could be used to reimburse developer costs of construction of streetscape or other public improvements associated with projects.

There is concern that dedication of new sales tax revenues to public improvements could represent a capture of existing retail sales from other areas, rather than generation of new retail activity. Accordingly, only 47 percent of the sales tax revenue that would be generated from new study area retail is included as a potential funding source. This percentage represents the projected population growth in the region over the first four phases of development, increasing the likelihood that new sales tax revenues correspond to a net increase in retail sales (including regional entertainment and lifestyle-oriented retail located in the study area). Even with this substantial discount, up to $5.5 million in revenue for public improvements could be generated from new sales tax revenues.

Public Improvement District

Another funding source permitted by Texas law is the creation of a public improvement district through a vote of property owners in an area in order to raise funds for public improvements. However, approval of improvement districts tends to be extremely difficult in areas with many property owners such as the Midtown study area with its residences and small commercial buildings, since these owners tend to not perceive any benefit from new development on other parcels and are unwilling to pay additional taxes to fund public improvements. For this reason creation of an improvement district is not being proposed for the Plan.

Other sources could include any future impact fees for transportation improvements or other appropriate public improvements would be expected to be offset by the cost of constructing those improvements.

Another potential source would be the City's Capital Improvement Program (CIP). The challenge is that there are considerably more projects than funds for the CIP.

Funding and Implementation Strategy

Table 6 shows the net surplus or shortfall in financing for public improvements, calculated by subtracting the improvement cost shown in Table 3 from the funding sources listed in Table 5.

Table 6: Public Investment Funding Need 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	Total
Uses Minus Identified Sources: Funding Need	($3,814,000)	($5,225,000)	($3,100,000)	$12,423,000	$284,000

Does not include potential interim $30 million loan for Independent Arts Center development.
Source: BAE, 2010.

Table 6 shows that although total sources and uses of funding are in balance for all four phases together, there are significant imbalances in the first three phases until development ramps up sufficiently to create substantial ongoing surpluses of new fiscal sources above expenditures. The resulting shortfalls are $3.8 million in Phase 1, $5.2 million in Phase 2, and $3.1 million in Phase 3, before a substantial surplus of $12.4 million in Phase 4. This is typical for "self-financed" strategies that leverage the fiscal benefits of new development. A common method used by cities to deal with these temporary shortfalls is internal fund borrowing. Under such an arrangement, the City would provide internal loans from its funds to cover the Phase 1 through Phase 3 shortfalls and repay itself from the surpluses in Phase 4 and beyond.

An "incentives strategy" is proposed for implementation of public improvements through a series of Section 380 economic development public-private partnerships with developers of study area projects. These partnerships would involve contractual relationships between developers and the City whereby developers take on construction management responsibility for streetscape and other improvements for the areas adjacent to and near their projects. In turn, the City would provide funding to perform the improvement work. The City would also ensure that new public improvements meet the design and quality standards established in planning for the study area's future. These arrangements can be attractive to developers because it gives them direct involvement in ensuring the appearance of the "front yard" of their projects, and from the City's perspective it can bring private-sector efficiencies to bear in the performance of the work.

There may still be a need for direct City management of improvement work to certain areas, e.g. locations that are between development projects, or where a suitable developer is not available and the improvements are part of the Z Connection for a particular phase.

This funding and implementation strategy provides a way for needed new public improvements to be self-funded, with some interim City advancement of funds. The phasing of public improvements to match market demand reduces funding needs for each phase while ensuring that improvements generate the greatest possible synergies with new private investment.

Sample Analysis: What is the Revenue Generation Potential for a Parking Benefit District?

It is difficult to pinpoint the potential revenues that could be generated by a PBD. Many variables are at play including the number of on-street spaces that are metered versus non-metered, the price of on-street spaces compared to off-street spaces, and the actual occupancy of those spaces, among other things. In addition, the potential for on-street parking will be largely dependent on the implemented parking policies for Midtown Houston, as described previously. In order to capture a magnitude of the potential revenues, a simple on-street parking revenue generation range was prepared. For this analysis, several assumptions were made, including the following:

- Parking pricing would remain within the legal range that is set by current City of Houston parking Code.
- 75% of all existing and proposed on-street spaces would be metered, and 95% of these metered spaces would be available for occupancy (assumes 5% would be obstructed, in a construction zone, inoperable, etc.)
- Parking meters would be enforced Monday through Saturday between 7:00 AM and 6:00 PM, which is consistent with present conditions.
- Parking occupancy percentages over the course of the day were estimated based on general peaks occurring during lunch time and the early afternoon/evening with a minimum occupancy of 20% which occurs overnight and into the early morning.
- Off-street shared parking supply would be utilized during non-business hours.
- Dynamic pricing for the purposes of achieving optimal occupancy would not yet be implemented. However, it is understood that the City of Houston plans to investigate this further in the future. Such programs may significantly affect parking demand and usage.
- Projected revenues listed below do not account for potential earnings due to meter enforcement (parking tickets).

Although these assumptions provide a basic framework for determining potential parking revenues, there are many additional factors that were not considered due to constraints on time and resources for this analysis. Based on these assumptions, two scenarios were created. One based on low parking demand and another on high parking demand. The low-demand scenario assumes the proposed build-out supply of on-street parking (existing and proposed). It also assumes occupancy characteristics are similar to present-day observations. Based on these factors, potential earnings for the district could range between $111,000 and $1,400,000 annually. This huge range is predicated by an hourly parking rate between $0.10/hr (the legal minimum) and $1.25/hr. Presently prices in the district range between $0.10/hr to $1.50/hr.

A high-demand scenario assumes the same build-out of on-street parking, but also assumes increased on-street parking demand and a range of hourly parking rates between $1.00/hr and $1.50/hr. Under these factors, potential revenues are naturally higher. Any spillover parking into the non-metered areas may be regulated through the use of a Residential Permit Program. Potential earnings in this scenario range from $1,365,000 to $2,050,000 annually.

	Low-Demand Scenario	High-Demand Scenario
Average parking price/hour	$0.10-$1.25	$1.00-$1.50
Range of Potential Annual Revenue	$111,000-$1,400,000	$1,365,000-$2,050,000
% of metered on-street spaces	75%	
Meter Enforcement	Monday-Saturday 7AM-6PM	

These findings are by no means final, but serve as an indicator of potential annual earnings as an order of magnitude that could be invested back in the district. Additional technical analysis should be conducted by the City of Houston to validate the accuracy of these results.

PBD Funds to Benefit District

The recommended parking benefits district (PBD) could be a means of achieving the mutual goals of an optimal utilization rate of on-street parking through proper pricing, while providing funds to directly benefit local streetscapes. In Midtown Houston, it is recommended that the City install multi-space pay meters for on-street metered spaces. In order to achieve a desired occupancy rate of 85%, those spaces should be priced at a level that may vary significantly from the rates currently charged by the Parking Management Division.

Currently, funds collected from meters and enforcement fines generate Enterprise Revenue funds for the City of Houston. In many other cities, however, locally generated funds are used to support local parking management and pedestrian environment enhancement activities.

Although new developments may not explicitly be able to be funded through a revenue stream provided through a PBD, the potential improvements could indirectly benefit tenants. PBDs have the ability to fund improvements such as landscaping improvements, façade improvements, or even parking management programs. They could be directed to ongoing pedestrian improvements and amenities, general facilities maintenance in the area, or bicycle facilities. These types of programs could result in higher rents and higher retail traffic, as seen in many urban environments with a high-quality pedestrian environment. Alternatively, funds generated through a PBD could be used to support a wide variety of transportation demand management programs such as subsidized transit passes, local shuttle programs, or to support transit pass discounts for local employers.

Conclusions

Development of new TOD projects in the Midtown study area has lagged despite the opening of METRORail due to a variety of various factors that have negatively affected market potential, development economics, and realization of the area's potential. These factors have created a situation at present where new developers who would seek to acquire a site in Midtown and build new market-rate development are unlikely to be able to do so profitably and/or without assuming excessive risk.

Significant barriers include small parcel sizes, diffuse ownership, and overvaluation of land for development; high parking requirements in the current City code; and the lack of current market demand for new residences and commercial space. At the same time, the study area has strong locational advantages because it is midway between Downtown and the Texas Medical Center, has excellent transit access, and is positioned to capture "spillover" development from Montrose.

Long-term growth in Houston and implementation of a plan to make the Midtown study area a more attractive destination will enable it to capture a larger share of potential market demand and new development in the City. Ultimately, there is more market support that could be captured than the nearly three million square feet of TOD projects of up to five stories or more with residential and commercial uses that could be built on likely available sites in the study area.

Public support assistance for a limited number of catalyst and anchor projects is important for demonstrating market potential and reducing perceived risk for subsequent projects. These successes would attract more developers wishing to repeat the success without the expectation of financial support.

Proforma financial modeling shows that, based on near-term market conditions, the most feasible types of TOD projects are mixed-use developments with ground floor retail and four stories of residential above, in a wood-frame structure and an adjacent parking structure. Permitting lower parking ratios consistent with other TOD projects elsewhere in the U.S. is essential for this type of project to be feasible. Other types of projects, including for-sale residential and mid- and high-rise development, will require significant increases in market rental rates and sale prices to become feasible.

Public improvements to enhance streetscapes and other public space is an essential supporting factor for successful TOD in the Midtown study area. These improvements can strengthen the market for new development, as well as lower the perceived risk of development because of the commitment by local government that it demonstrates. A phased program for $54 million of public improvements linked to new development and spanning slightly more than 15 years has been identified. Available funding sources generated from new development in the study area, including tax increment (TIRZ) funding, park open space fees, and parking revenues captured by a new Parking Management District, grant sources, and use of new sales tax proceeds are projected to generate in excess of $54 million over the same time frame. This means that there are sufficient sources of new funding to fully fund the public improvement program.

A financing and implementation strategy has been formulated that by the end of the first four phases of development will fully match the costs of needed public improvements with funding sources generated by new development. There will, however, be a need for an interim advancement of approximately $12.1 million in funds for the first three phases, until new development generates sufficient funds in Phase 4 to repay the advance.

An incentives strategy that uses Section 380 public-private economic development partnerships would allow study area developers to take the lead in performing public improvements, using funding provided by the City, based on the design and quality standards identified during planning for the study area. There may be an ongoing role for the City in making public improvements for those areas that are located between development projects or where a developer is not available. This incentives strategy, combined with a phasing of improvements to match market demand, will leverage the respective advantages of the public- and private-sectors and maximize synergies between public and private investment.

A total unmet funding need of $15 million exists, with lesser amounts in individual phases, that will need to be offset from various City, grant, and other sources for successful Plan implementation.

Development Capacity

5

Creating an economically vital, walkable, mixed-use place begins with good design and planning, but the power to realize the objectives of a plan lies in the community - the individuals, organizations, institutions and businesses that are, and will be, the enduring actors and change agents in the study area. Create Development Capacity is about the people and the organizations that already make things happen in the study area and in the larger Midtown neighborhood. It is about the leaders and groups that have the greatest potential to affect change in the future.

Midtown as a whole is undergoing a renaissance - behind the efforts of many individuals and groups from the public and private sectors. The current regeneration began as early as the mid-1990s with the founding of the Midtown Tax Increment Reinvestment Zone (TIRZ) and the Midtown Redevelopment Authority and followed in 2000 with the establishment of the Midtown Management District. As Houston's real estate markets began to recover from the severe downturn that began in the mid-1980s, Midtown was an obvious target. It had a great location near downtown and adjacent to established residential neighborhoods; and, it had plenty of affordable land. In the late-1990s, both of these characteristics were very attractive to those developing Houston's rapidly expanding inner-city housing market. The Redevelopment Authority / TIRZ and its stakeholders took up the cause of promoting local economic development. Early on, the Authority also took up the charge of improving and healing Midtown's urban fabric through planning, visioning and capital improvement projects.

The private sector is also having a big impact. Major redevelopment projects have been completed and more are planned. Businesses are also moving into the area. Many of Houston's best restaurants are now located in Midtown. Entrepreneurs, residents and established businesses all see the potential and the value of being in the urban core. Recent successes in Midtown have been possible in large part because of the availability of cheap land around the edges or underutilized, low-density buildings in more central areas. With some isolated exceptions, a true sense of place is largely missing. There are great destinations, but they are typically disconnected. The challenges ahead involve continuing economic development on more expensive land, while strengthening and linking various centers of activity. This will require both public and private investment, guided by a consensus about where to focus capital dollars for infrastructure and development incentives, to have the greatest impact.

Mobilization of all resources to maximize the advancement of the plan is critical. Plans don't happen without a proactive effort to implement them. Revitalization efforts have to some extent taken place within the study area but must continue to happen in a coordinated way to make the plan work. The following pages identify key leaders and the kinds of powers they have to effect ongoing change. While we are working to ensure that the plan represents the will of the community, the individuals, organizations and institutions identified are the only ones that can carry this plan forward into the future.

Discussions at the Public Meeting

Objectives

The objective of this plan is to identify key players, or agents of change, within the study area, specify infrastructure improvement projects that will encourage the creation of a thriving and sustainable neighborhood center, and facilitate partnerships that make otherwise unfeasible projects feasible. The plan documents a unified vision for the study area and specific catalytic projects that push the vision into a reality. The key is generating momentum by engaging change agents, overcoming barriers to change and encouraging partnerships to magnify the power of revitalization efforts.

Create a Living Plan

Just as any business has a strategy to meet its corporate goals, this plan lays out specific projects to create a more livable neighborhood center. The plan is a reference tool for everyone involved in revitalization efforts in the community. With local change agents taking ownership of the vision, the plan has the potential to become a reality. A living plan provides practical solutions that can be easily implemented. It does not just sit on the shelf. It is applicable over the intended time period and flexible enough to adapt to the changing environment.

This pragmatic approach alone is compelling, but cannot work without the people to move it forward. Focusing on the tools to get projects built, the plan prioritizes feasible approvals and reasonable variances as well as partnerships that make a more compelling argument for permitting variances. Regulations are identified in numerous fields from storm water to parking requirements to show where the vision complies with regulations and goes a step further to recommend how, if the project does not comply, it can be approved. Additionally, the plan identifies potential funding sources to pay for implementation projects; this includes the TIRZ, METRO, and private sector funding as well as other sources. Development partnerships can strengthen political support, which can help tremendously with project approvals. The Study is a living plan that change agents can make a reality, and it is a tool for communicating the vision to everyone involved today and in the future.

Engage Community Leaders

Change agents can be found within the community, local government and non-profit agencies and private sector businesses. Each agent has the ability to make an impact on the built environment at some scale. This book, Create Development Capacity, identifies key players for implementation projects highlighted in the plan. But, there will be others along the way as new residents and businesses move into the study area and new potential partnership opportunities arise. In many ways, coordinating change agents can be a moving target as roles and ownership change over the years; therefore, providing tools for communication that withstand the test of time and the potentially changing range of stakeholders is critical. Generating a critical mass of decision makers in support of the plan is paramount to its success.

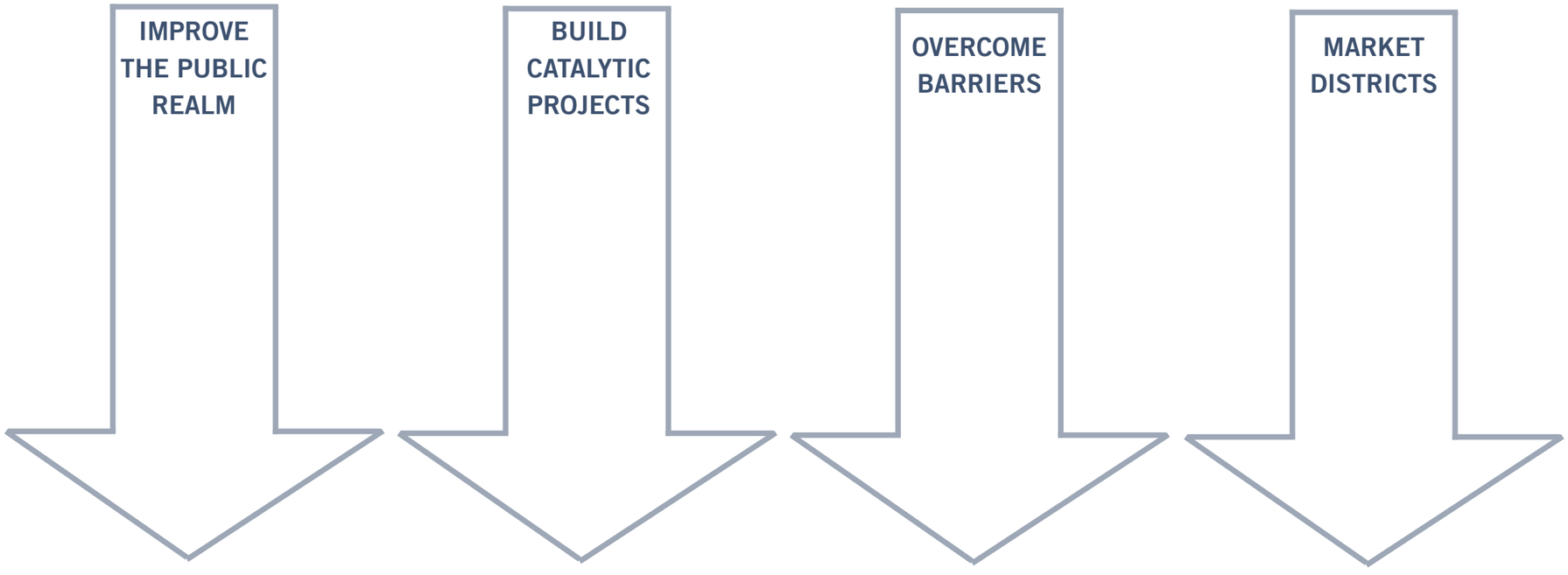
Communicate the Vision

At the most fundamental level, this plan is a tool for communication between all the change agents working in the Study area now and in the future. It is a reference point to work towards a unified vision, which is more easily achieved when everyone shares the same strategies to reach the goal. Points of contact within the community can assist with these efforts. City agencies such as the Planning & Development Department can spread the word, distribute the plan and be a gatekeeper for activity in the study area. But at a more intimate level, the TIRZ/Redevelopment Authority and Management District are the most localized organizations working within the district on a broad range of economic development topics. Other main points of communication include groups actively using the study area such as the community college, transit authority and local businesses. Realistically, the gatekeeper of the plan will be a select few, a group of change agents with long-term investment interests, that work together at any given point and who are all linked by the goals of the Study. Communicating the vision is also about telling a story that will build commitment among existing stakeholders, and more importantly, bring in outside financing, developers, businesses, and residents.

Connect the Dots

Building bridges between change agents is paramount to the success of neighborhood revitalization. Relationships can be the primary tool available to effect change. For projects to come to fruition, they must connect people and places with funding and approvals. The social connections and partnerships will, in effect, connect the dots in the urban fabric, joining isolated redevelopment attempts and generating a more vibrant cohesive neighborhood pattern. Many local groups were in contact in some form or another before the Study began. However, it was in some cases the initiation of discussions for the Study that encouraged change agents to move forward on projects. Keeping the lines of communication open is important to encouraging new partnerships. It is riskier to act alone than to join a coordinated effort that holds a stronger guarantee of success. The community college, for example, was more willing to move forward with campus planning projects knowing that other investments were in the works. The catalyst for many projects is incentivizing actions, whether those incentives are financial or simply partnerships that will enhance the outcome of each individual project by grouping projects together. There are many examples of development successes in Midtown, but the efforts are physically disconnected. Connecting the dots means that neighborhood revitalization happens by connecting people and projects to maximize the impact of collective revitalization efforts.

ENSEMBLE / HCC LIVABLE CENTERS:
HOW TO CREATE A LIVABLE CENTER



Successes

Success in drawing residents and businesses back to Midtown has been widespread over the last ten years. Thousands of residents have moved into Midtown along with a new urban supermarket to serve them. Multifamily projects and townhouses have shown up east and west of Main Street. Retail businesses, especially restaurants, have come by the dozens in recent years. These businesses are serving residents and customers from all directions - drawn to the cuisine and the urban atmosphere.

The light rail line arrived in 2004 at the central spine of the study area and now connects the area to downtown and the Texas Medical Center. There are several thriving restaurants and businesses, including the Breakfast Klub, Julia's Bistro and T'afia. There are notable entertainment venues such as the Continental Club and the long standing Ensemble Theatre. Isabella Court, located at Main and Isabella streets, features galleries and offices on the ground level with apartments above. Religious complexes such as Trinity Episcopal Church and Holy Rosary Catholic Church bring visitors to the center of the study area on a regular basis for services and other programming.

The Midtown residential market is clustered in two areas at the northwestern and northeastern parts of the district. Residents can choose from apartment and townhome options, with condominiums beginning to appear as well. "Post Midtown" is a residential community outside the study area with several block faces of on-street retail and a generous well-designed pedestrian realm. The construction of this mixed-use apartment complex helped generate a small nucleus of activity in the northern part of the Midtown district. High Fashion home, a 132,500 SF modern furnishings store, opened in 2005 on Travis at Elgin. A significant mixed-use project, "The Mix," opened on Elgin at Louisiana in 2008. A 24 Hour Fitness facility is located in the top two floors, and the ground floor has retail and restaurant space. A parking garage with more than 300 spaces serves the building's tenants and patrons. The area includes a newly constructed park at Gray and Brazos streets and a new office building. Restaurants, offices and retailers are within walking distance of residences creating a dynamic urban environment.

On the eastern side of the Midtown neighborhood, the community college provides an anchor of activity. Houston Community College (HCC) students arrive by light rail, bus and car from around the city for classes. There is an eastern cluster of residential development. With the recent decline in the residential for-sale market, new townhome construction slowed and a townhome rental market arose. The two residential clusters are somewhat small, but provide a significant local market for the bourgeoning retail and restaurant opportunities scattered throughout the district. A recently renovated park on Elgin, Baldwin Park, serves this residential cluster and was renovated and rededicated in 2006.

All in all, Midtown is progressing. The successes mentioned in this chapter represent development capacity that is already in place. There are more projects and destinations in the works including a new park on the superblock at McGowen and Main, more housing and more mixed-use development along Elgin. What has happened already in the neighborhood is a result of the diligent efforts of the TIRZ, the Management District, institutions, developers, and business owners.

New construction

Apartments under construction

Post-Midtown

Julia's Bistro and the Continental Club (Main Street)


LEGEND
Retail, built since 1990
Office, built since 1990
Single Family, built since 1990
Multifamily, built since 1990
Institutional, built since 1990
Governmental / Civic, built since 1990
MIDTOWN SUCCESSES
N
0' 100' 200' 400' 800' 800'
U.S. HIGHWAY 59
ALMEDA
S.H. 288
ALABAMA
MCGOWEN
ELGIN
MAIN
TRANSTAR 45

Local Economic Development Agencies

There are two local economic development organizations working within the study area: the Midtown TIRZ/Redevelopment Authority and the Midtown Management District. These agencies work towards revitalization of the district using various sources of funding for projects. The TIRZ/Redevelopment Authority receives a portion of the ad valorem taxes generated within the boundaries to finance the cost of certain public improvements. The Management District levies an assessment on commercial and residential property owners to fund improvements.

Midtown TIRZ #2

The Midtown TIRZ, or Tax Increment Reinvestment Zone #2, was created in 1994 by the City of Houston in accordance with Chapter 311 of the Texas Tax Code. Local residents of the TIRZ petitioned the city to create this entity for the purpose of economic development within the approximately 617-acre district area. A TIRZ is most effective when an area is in transition and property values are rising rapidly. This has been the case since the Midtown TIRZ was founded and has allowed the TIRZ to play a major role in making improvements in Midtown, such as aggressive streetscape, way-finding, and open-space / park improvement projects. The Midtown Redevelopment Authority was created (also by the City of Houston) as a 'parallel organization' to the Midtown TIRZ. Chapter 431 of the Texas Tax Code, also known as the Texas Transportation Corporation Act, authorizes the creation of the Redevelopment Authority. The act creates a non-profit organization with the purpose of the promotion and development of alternative transportation facilities and systems. The organization is authorized to work directly with private property owners, governmental organizations and elected officials to promote transportation systems.

The Midtown TIRZ and Redevelopment Authority share a common nine-member board comprised of five mayoral appointments, and one appointee from Harris County, Houston Independent School District, State Senator, and State Representative. The Redevelopment Authority serves as a local government corporation that functions as an operating and financing vehicle for TIRZ projects. Within daily administration duties, the Redevelopment Authority prepares the budget, manages projects, hires consultants and handles the overall financial affairs. Together, the TIRZ and the Redevelopment Authority have the ability to realize tax revenue (increment over base year assessment) and to spend that revenue on eligible project costs associated with public improvements. This includes capital costs for acquisition and construction, financing costs including interest, professional services and administrative costs. A new ordinance enables them to also offer financing, grants and loans for the purpose of economic development within the district.

The potential for the combined TIRZ / Redevelopment Authority to effect change is significant. They can raise, borrow (bond issuance) and spend money on projects for public purpose. This can include street and pedestrian improvements, but also parks and public parking facilities, and other public improvements. They can also spend money for professional services for planning, design, marketing and other services to benefit the Midtown district. Properly mobilized in conjunction with a prioritized implementation plan, the TIRZ can be the single most important change agent, and should:

- Coordinate way-finding signage and street lighting proposals for the study area with Midtown design standards and plans.
- Validate any new design approaches with Midtown design objectives
- Review development projects with staff and board members to generate support and identify potential partnerships.
- Track and support the concept of joint development of HCC property to provide for student and community needs.
- Promote the goals of the Ensemble/HCC Livable Centers Study.

Midtown Management District

The Texas Legislature created the Midtown Management District in 1999. The District levies an assessment of $0.118100 per $100 of valuation on the commercial and residential property owners within the District. Non-profit organizations, churches, governmental entities, and utilities are exempt from this assessment. The funds are used to provide services and improvements above and beyond what the city and individual property owners can provide. This includes marketing and perception enhancement, urban planning, services and maintenance and security and public safety. The Management District has seventeen directors who are initially appointed by the Texas Legislature, and when their term expires, the Mayor and City Council appoints new members based on recommendations by the Board. Board members must be Midtown residents, property owners, or agents of property owners, and they are responsible for approving and monitoring agency programs.

The ability to provide maintenance and operations services is critical to improving the quality of place and enhancing visual identity for Midtown and some of its sub-districts. The City of Houston Public Works & Engineering Department allows management districts to assume responsibility for installation and maintenance of amenities like enhanced lighting, signage, landscaping and public art. This capability is critical to establishing an enduring sense of place. The Management District should:

- Review proposed street amenities to ensure any required maintenance can be supported by long- and short-term budgets.
- Work with the Parks Department, the Parks Board and local land owners to pursue installation of a new park in the western part of the study area.
- Coordinate with the TIRZ/Redevelopment Authority on the design and maintenance of new public realm amenities.

Midtown Management District's signature pedestrian light is a sculptural interpretation of the two-dimentional logo.

The Midtown logo on street signs lets people know you are in the neighborhood.

Midtown Redevelopment Authority provided $750,000 in matching grants to Houston Technology Centers for a new facility, which opened in Midtown in 2002.

Institutions

Institutional stakeholders have the capacity to play a large role in effecting change in the districts. They are unique compared to other property owners in that they are deep-rooted stakeholders. They tend to have a long-term view when it comes to investment and improvement of their facilities and infrastructure. Given the opportunity, they are more likely to see the immediate benefit of creating a plan for the surrounding neighborhood, and they are likely to be active participants in the process.

Institutions often have master plans of their own. These can be coordinated to maximize and leverage benefits to the surrounding area and to ensure that public realm improvements benefit institutional needs. The key is that there be an ongoing communication and integration of planning efforts. The Institutions in the study area include HCC and several large churches. HCC is the largest single landowner in the study area. Trinity Episcopal Church, Holy Rosary Catholic Church, South Main Baptist and First Evangelical Lutheran Church together own close to 10% of the total land area.

Houston Community College

With close to 20% of the area property, and potential to acquire additional land and expand existing programs, HCC is a very important stakeholder. Both the Central Campus and the main Administration Building on Elgin generate significant daytime activity. According to the senior administration, the College is working on several strategic decisions and initiatives that will increase their presence and/or benefit the surrounding areas. They expressed an interest in acquiring and developing additional retail space north of the current Administration building, as well as student housing. They will build out 1,500 square feet of retail space on the ground floor of the garage at Elgin and Main streets. This space will accommodate various services including the Police Department and the Financial Aid office for all campuses. Other plans in progress include improvements to Alabama and a linear park along Caroline Street, both in collaboration with the Midtown Redevelopment Authority. HCC also plans to convert their existing parking lot at the north side of campus to a pedestrian plaza and there is a desire to improve pedestrian connections across Fannin and San Jacinto at Holman and Berry streets, and improve the approach routes and campus identity from the west. Additionally, the college is expanding programming at the Central Campus, which will result in more foot traffic and potential for future campus expansion.

HCC's campus is an asset to the community. The new Plaza can serve as neighborhood open space. The daily coming and going of students creates pedestrian activity and potential business for nearby stores. Campus parking needs could be shared with other district needs for parking - if appropriately located. The capital investments made in campus facilities and other properties provide long term stability and potential neighborhood services. HCC should pursue the following objectives to ensure maximizing mutual benefits within the study area and Midtown as a whole:

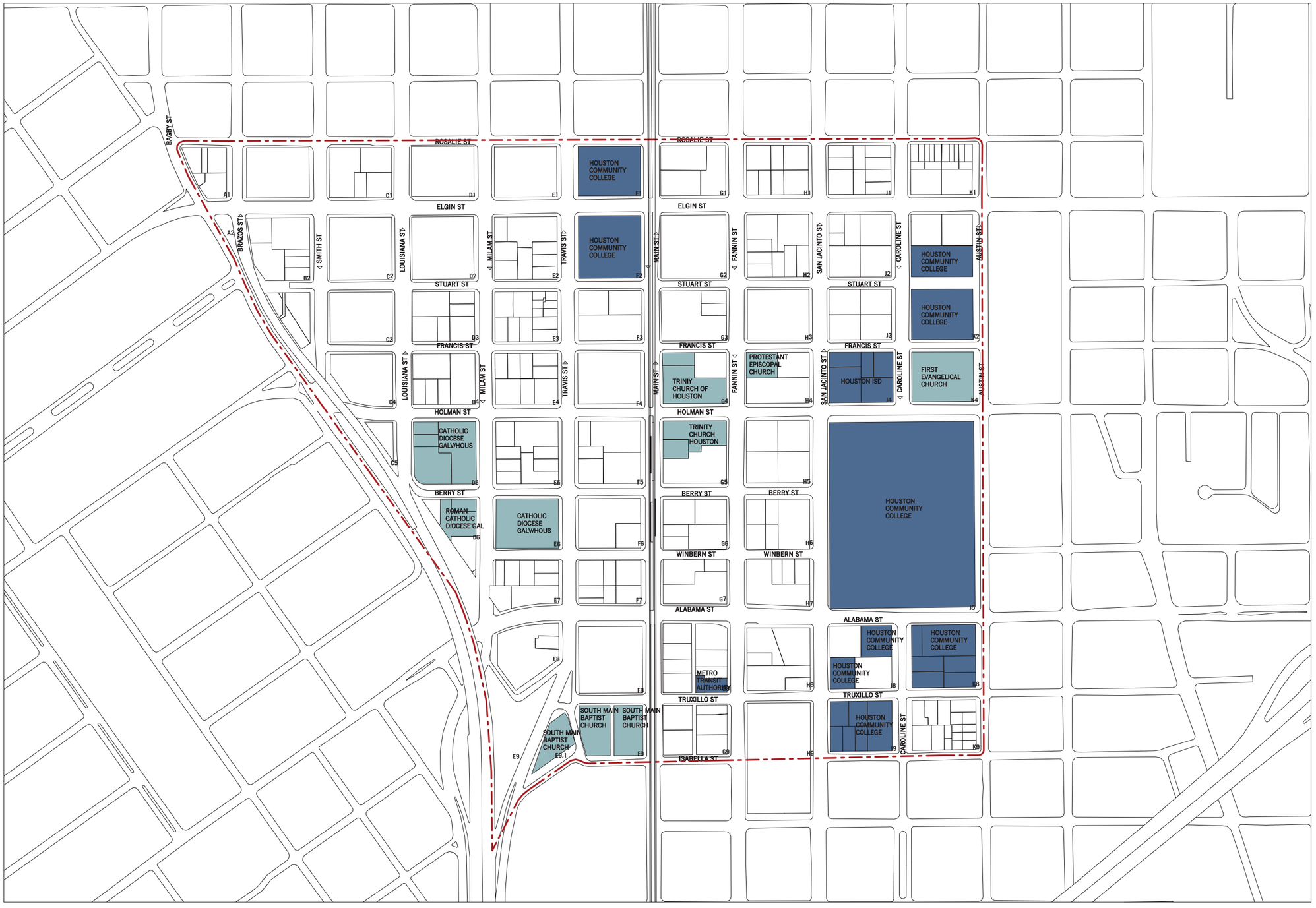
- Coordinate all public realm plans being undertaken by the College with those developed by the Study - including Fannin and San Jacinto pedestrian crossings and streetscape improvements on San Jacinto, Alabama and Caroline streets.
- Identify parking requirements and work with the TIRZ to determine the feasibility of developing a joint use parking facility in the District.
- Work with the TIRZ to evaluate feasibility of and identify joint development strategies for the construction of student housing somewhere between the light rail station and the Campus.

Trinity Episcopal Church, Holy Rosary Catholic Church, South Main Baptist Church, and First Evangelical Lutheran Church

The churches in the study area generate local activity, provide needed services and contribute to the cultural diversity of the community. Most churches hold several Saturday and Sunday services as well as a couple weekday sermons. Trinity Church sponsors regular jazz concerts in addition to attracting their congregants to the area for weekend services. South Main Baptist Church offers after school programming for kids. Trinity Church runs a program called Lord of the Streets where sandwiches are handed out every weekday evening to the homeless and disadvantaged.

To protect their long-term interests, churches are compelled to acquire adjacent properties when they become available. The main drivers for this are the need for parking and the ability to meet long term growth needs. Currently, Trinity and Holy Rosary depend on adjacent property owners to provide peak-use parking spaces. Churches need parking spaces when other types of users do not. A district parking garage could meet church needs on Sundays and weekdays without increasing the total number of parking spaces needed in the District. This could free up surface parking lots for future program expansion, open space and/or development at a higher use. South Main Baptist owns multiple blocks (approximately 9 blocks) inside and just south of the study area. Roughly half of their land is vacant/open space or surface parking lots. It may be viable for development of a shared parking solution that liberates some of their land for other uses - including church programs, community open space and/or private development. The following strategies should be further pursued by local Churches:

- Identify parking requirements and work with the TIRZ to determine the feasibility of developing a joint use parking facility.
- Explore opportunities to utilize church property for community uses including open space and/or a site for public parking facilities.



LAND HOLDINGS
GOVERNMENTAL
AND INSTITUTIONAL

Metropolitan Transportation Authority

METRO's footprint in the study area is large. METRO built and operates the public transit system - the light rail on Main Street and the various bus lines that pass through and provide connections throughout the area. They also constructed several of the primary north-south streets to carry high volumes of traffic to and from downtown. The Transit Streets program includes the construction of two diamond-marked lanes used during peak traffic hours as a bus-only lane and a bus passing or high occupancy vehicle lane. METRO maintains much of what happens along these streets - including bus stops, rail stations and many of the traffic lanes.

METRO funds mobility projects through a one-cent sales tax and is authorized to leverage up to $640 million in bonds for transportation projects. The comprehensive transit plan, METRO Solutions, was adopted by the METRO Board of Directors in July 2003 and approved by voters in November 2003. Phase 2 of this plan includes 30 miles of light rail, 28 miles of commuter rail, and 40 miles of suburban bus service, as well as upgraded bus services and park and ride locations. METRO is responsible for building the next phase of light rail - which will increase efficient transit access to destinations other than those along the Main Street line. In fact, when the next phase is completed destinations such as the Galleria (Uptown), the University of Houston, and Greenway Plaza will be less than 30 minutes from Midtown by train. This makes the Midtown neighborhood all that more convenient for those who prefer to live near and use transit.

METRO can also use federal transportation dollars to subsidize the construction of 'transit supportive parking.' The study area already has a significant number of commuters that park in area parking lots and ride the light rail to downtown or the Texas Medical Center. This trend is motivated by the relative affordability of parking in the district, compared to that in Downtown and the Texas Medical Center. The Plan proposes modifications, improvements and capital projects in which Metro is a key player.

METRO should pursue the following opportunities in coordination with the Plan:

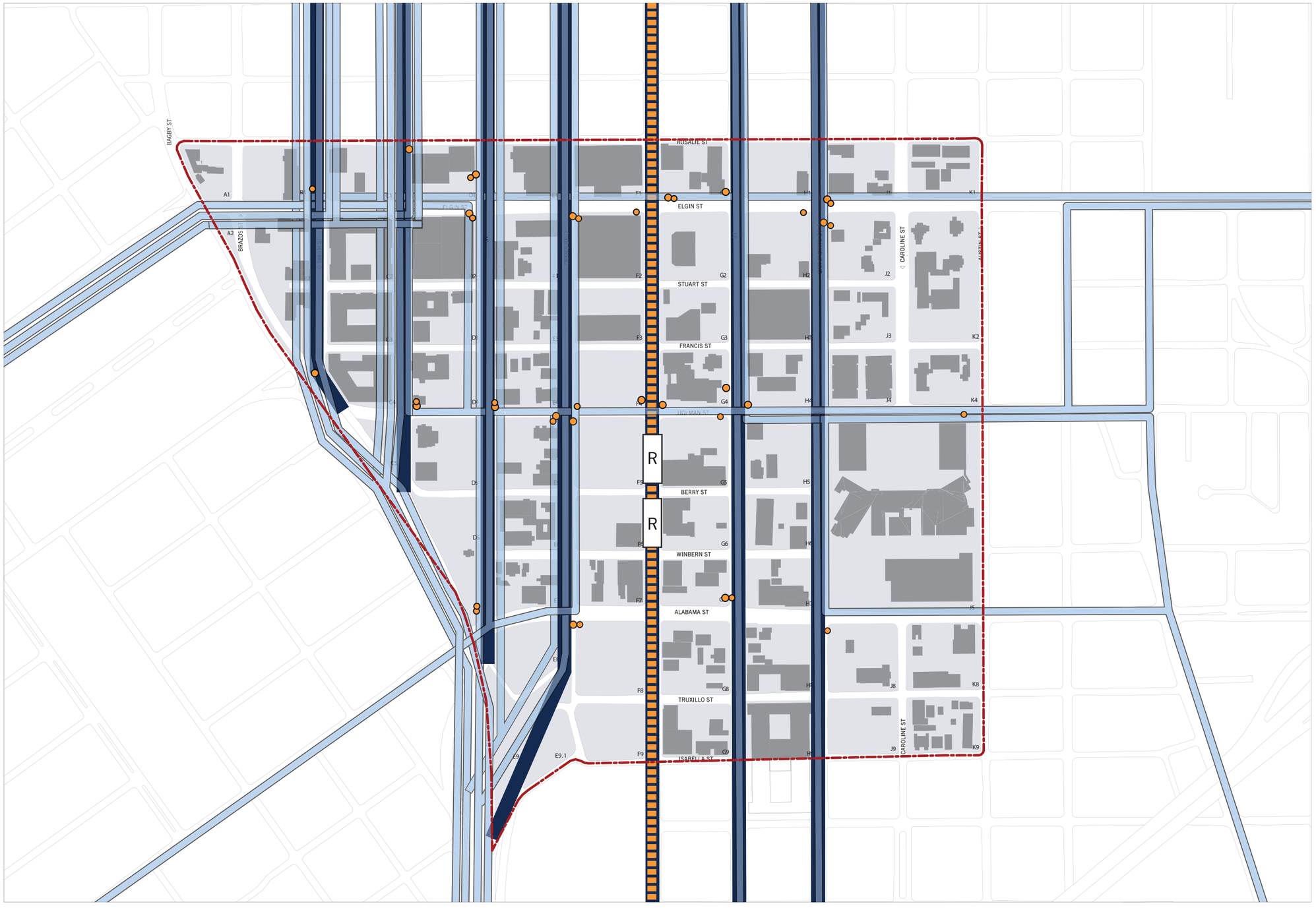
- Determine the feasibility of altering existing north-south transit streets to better accommodate pedestrians on adjacent sidewalks, as well as pedestrian cross-traffic.
- Work with the TIRZ to determine whether 'commuter' parking demand justifies contribution of federal transportation funds to build structured parking. This parking capacity would be utilized for local needs during non-commuter hours.
- Determine an operational framework for structured parking that can be utilized in accordance with METRO/Federal requirements.
- Coordinate the design and maintenance of on-street transit amenities such as bus hoods and rail stations, benches, signage and landscaping where applicable.
- Monitor transit service to identify enhancements over time that would improve access and connectivity for current and future residents and visitors desiring to use transit to access the study area.

Commuter bus service stop

Holman Street, Trinity Church

Metro Rail at Wheeler Station


Bus stop, Travis at Elgin



DOWNTOWN / MIDTOWN
TRANSIT STREETS

Primary Landowners

Urban development can be risky and requires vision, resources, and patience to make quality, urban development possible and ultimately attractive to current and future land owners. Mixed-use development on urban sites, with high land costs and relatively few precedents is riskier than 'formula' single-use development strategies in the suburbs. Precedents for higher density mixed-use projects in Midtown are scarce. The few projects that have been developed have generally been on cheaper land that is currently available in the heart of the study area. The first wave of developers have to be committed and patient. They have to be interested in creating long-term value and waiting for returns to come after the area has changed. Four landowners have accrued significant holdings and are interested in developing urban mixed-use projects in the near future. Each quality urban project that promotes street activity and provides services and destinations to residents and visitors can contribute to rebuilding the urban fabric and increasing economic vitality.

RHS Interests

RHS Interests owns 2 ¼ blocks adjacent to the light rail station and just south of the City Code Enforcement property at Main and Holman. RHS Interests is part owner of the Continental Club, and they have a stated long-term interest in seeing the area grow into a vital creative community. They want to build on the current flavor of creative food destinations like T'afia, Julia's Bistro and the Breakfast Klub, as well as the entertainment activity established by the Continental Club and the Ensemble Theatre. They believe there is potential for more local eateries, some dry goods retail (local), more arts and entertainment venues, and a destination hotel like the Hotel San Jose on South Congress in Austin. RHS Interests is currently working on plans to develop a mixed-use project and parking facility on the two blocks bound by Main, Winbern, Travis and Holman. Currently used for surface parking, this property is in a key location for intensification and linking of current activity centers. It represents a huge gap on the light rail corridor adjacent to notable destinations. Redevelopment of this land provides a critical missing link in the urban fabric. Recommendations for RHS Interests include:

- Partner on IAC development application submittal to build a shared parking garage that is designed with active ground floor facades and coordinates with the plan's streetscape specifications.
- Pursue partnerships with TIRZ to maximize development benefits.
- Collaborate with other businesses and property owners to create Parking Management Area.

Crosspoint Properties

Crosspoint Properties has been acquiring land, redeveloping existing buildings and constructing new projects in Midtown for several years. They also run businesses in many of their buildings. They currently own and operate High Fashion Home and High Fashion Fabric. Crosspoint owns four contiguous blocks on Elgin at Milam and Louisiana - all in the study area. They own additional blocks just north of the study area and throughout Midtown. They recently built and opened The Mix, a multi-story retail complex that includes ground level stores and a 24 Hour Fitness facility above, in a dramatic modern building on Elgin Street. They incorporated an existing parking garage into their building plans; reusing the garage was a key to project feasibility. In addition to planning various other adaptive reuse projects, they have plans to build a multi-story, mixed-use project that would include office and retail with parking. This would be located at the north side of Elgin at Louisiana - in the heart of the 'Design District'. Crosspoint has a proven commitment to developing quality urban places in Midtown. They have studied desirable places in other cities and are trying to bring these ideas to Midtown with much success. They are almost single handedly creating a new retail district along Elgin. They are also patient, and their approach is having a dramatic impact in the study area.

Recommendations for Crosspoint Properties include:

- Collaborate with other businesses and property owners to create Parking Management Area.
- Coordinate all public realm projects with those developed by the study.

Alabama Main Partners

Alabama Main Partners owns two blocks, approximately 2.8 acres, in the study area on the south side of West Alabama between Main and Milam streets. While the Harris County Appraisal District (HCAD) values the properties at a total of $5.25 million, the market value is likely much higher. These properties are located at a key gateway into the study area from the adjacent Neartown neighborhood where the street grid aligns on a straight axis. Alabama is one of only three gateways into the study area from Neartown to the west. It is uncertain what a new buyer would build. The properties, totaling approximately 122,219 square feet, are listed at $125 per square foot.

- Connect developers of this site with the TIRZ to coordinate efforts based on Study recommendations.

Planned Parenthood

Planned Parenthood currently occupies office facilities on three blocks in the study area with approximately 40,000 square feet of space on 2 acres. They are relocating to a new facility off of the Gulf Freeway in early 2010. Their properties provide opportunities for redevelopment on three core blocks of the study area.

- Secure properties after vacating offices.
- Connect potential buyers with the TIRZ to coordinate efforts based on Study recommendations.

LEGEND

Crosspoint
211,157 sf

Alabama Main Partners LP
142,926 sf

RHS Interests
126,703 sf

Planned Parenthood
85,120 sf

N 0' 50' 100' 200' 400' 800'

PRIVATE PROPERTY OWNERS

Local Businesses

There are a number of smaller local businesses scattered throughout the study area. Synergies have formed where businesses cluster together and share clientele; this results in a more active street scene in these areas. Even placing competing businesses next door to each other can be better for business overall because there is a stronger draw to that area for that market, as we can see in the Design District. Existing businesses have contributed to an eclectic undercurrent of investment in an otherwise underutilized area. They provide the seeds for change and help form the basis for which the Arts, College and Design districts were identified. As the neighborhood continues to redevelop, the area's business market will change, and local businesses will likely have to accommodate new markets. But, developers will likely be taking a loss on leasable ground floor space until the market picks up. The biggest challenge will be to encourage mixed-use developments in a market that will not effectively support the rents required by high land costs.

Office

There are a variety of commercial office buildings within the study area. Office buildings date back to the early 1920s and include mid-century modern structures as well as newer office buildings. Offices in the district range from government agencies like the Social Security Administration building to private law firms and medical clinics. Many older buildings are outdated and few have been renovated recently. However, a demand is brewing for small-scale, office spaces and older buildings in Midtown are fulfilling that need.

With an abundance of surface parking lots, proximity to downtown and access to multiple transportation options, the opportunities to expand office markets in the district exist, but this is not the place for the large scale office developments seen in downtown. Midtown remains a pioneering location, which puts downward pressure on leasing rates and limits the market to smaller-scale office opportunities. Unless the environment is improved significantly, the market will likely not afford an influx of offices, but maybe just small incremental additions.

Retail

Retailers in the area include antique shops, automotive repair, gift stores, book stores, and more. Generally, existing retailers sell lower-priced products, although newer retailers to the area, such as High Fashion Home, sell higher priced products. The Design District has naturally drawn in a group of interiors retailers that offer home furnishings, fabrics, slipcovers and antiques. This northwestern part of the study area also includes a new retail building with fitness center as well as a nutrition store and other small retail shops.

The Study calls for mixed-use development, which has the potential to increase retail opportunities within the district on the ground floors of residential and office buildings or parking garages. It is likely that the retail options will turn towards higher-priced products given the rising price of land. The new market will likely produce destination retailers willing to pay for high-cost retail space and taking a big risk to do so. Midtown is next to an area with a compelling critical mass, but doesn't have the population numbers to attract retailers on its own. New retailers will have to draw a critical mass from name recognition and might be high-profile restaurants and entertainment venues that draw patronage from well outside of Midtown.

Restaurants, Bars & Clubs

There are a lot of great restaurants already located in the study area. Choices range from quick-bite shops to high-end restaurants. Food destinations have a strong basis and variety on which to build and work synergistically with bars and clubs to attract patrons and create a destination for eating, drinking and relaxing. Visitors can take the train to the Ensemble/HCC Station stop, eat dinner at Julia's Bistro or T'afia and walk a few doors down to the Continental Club for cocktails and live music. People line up for wings at the Breakfast Klub, forming lines down the street. These are popular hot spots and have contributed to growing activity in the study area. As pedestrian improvements and new development projects are completed, the market for restaurants, bars and clubs will expand and a new generation of change agents will form.

The following recommendations should be pursued with local businesses:

- Work with the TIRZ to support and encourage the creation of a Parking Management Area.
- Coordinate with TIRZ on enhancing signage to encourage pedestrian activity and link to the light rail station.
- Explore potential for facade and street-front improvements to adapt older properties to the vision in the Study.

The Breakfast Klub is a local institution bringing hungry patrons to the district from around the city.

Isabella Court houses galleries and an architecture firm in a historic building on the light rail.

The Continental Club is a destination for live music and entertainment.

The City

The City of Houston is the primary client for the Ensemble/HCC Livable Centers Study and controls the public right-of-way, which makes up over a third of the land in the study area. City agencies play a critical role in the success of the study and the implementation of its recommended projects, as well as provide approvals and leverage city funds. Political support within the city is an essential key to getting projects built.

Planning and Development Department

Houston's Planning and Development Department partners with decision makers and the community to balance a variety of needs and interests while addressing the dynamics of a rapidly growing and changing environment. The department regulates land development, reviews development applications, and investigates and promotes land regulation policies. The Planning Department should:

- Make the Study available to stakeholders.
- Accommodate development that meets the recommendations of this Study.

Houston Parks and Recreation Department

Created in 1916, the Department of Public Parks oversees 350 developed parks and more than 200 green spaces totaling over 38,945.42 acres. More than 800 full-time employees strive to fulfill the department's mission, "to enhance the quality of urban life by providing safe, well-maintained parks and offering affordable programming for the community." The Houston Parks Board is a non-profit that raises funds for city park maintenance and protection as well as park acquisitions. Parks and Recreation operates a small pocket park in the northeast corner of the study area, Elizabeth Glover Park.

- Pursue parks acquisitions and maintenance contracts to better serve the study area.

Public Works and Engineering Department

The City of Houston Public Works and Engineering Department is responsible for the administration, planning, maintenance, construction management and technical engineering of the City's infrastructure to provide basic services. They publish a manual of specifications on street design. Public Works manages water and wastewater systems and also maintains traffic signals, street signs and street lighting. Public Works controls two blocks in the study area that will soon be vacated as the Code Enforcement Department moves to a new site outside the study area.

- Coordinate public realm projects undertaken by city agencies with the Study's prioritized streetscape improvement projects.
- Consider revising the Public Works design manual to accommodate more urban development patterns like those recommended in the Study.

Convention and Entertainment Facilities

The Convention & Entertainment Facilities (CEF) Department manages more than 10 City-owned buildings and plazas and underground and surface parking for nearly 7,000 vehicles. These facilities include the George R. Brown Convention Center, Jones Hall, Wortham Theater Center, Houston Center for the Arts, Talento Bilingue de Houston, Jones Plaza, Miller Outdoor Theatre and other smaller venues. CEF is responsible for the day-to-day maintenance and operation of these properties, producing conventions, trade shows and theatrical performances.

- Explore potential for constructing and managing parking facilities within the study area.

Department of Finance

The Economic Development division of the Department of Finance manages citywide policies and procedures for TIRZ programs and considers agreements that provide mutual benefit to the City and the development. The department partners with the State of Texas Office of Economic Development, Harris County, the Greater Houston Partnership, the Bay Area Houston Economic Partnership, and a multitude of other economic development organizations to ensure companies have access to incentives that help grow their business in Houston.

- Create TIRZ budget that can fund economic development projects.

Parking Management

Servicing almost 6,400 on-street parking spaces across the Houston area, Parking Management creates regulations for all commercial and residential areas enhancing pedestrian safety, ensuring smooth traffic flows and allowing emergency vehicles to reach their destinations. Mobility, or "diamond," lanes provide an additional travel lane to reduce congestion during peak periods.

- Support a tailored parking policy focusing on availability instead of supply and including residential permit parking and additional on-street parking meters.

Houston Police Department

The Houston Police Department (HPD) provides safety and security for the city. Creating an environment of actual and perceived safety is paramount to encouraging economic development and attracting new businesses, residents, and visitors.

- Collaborate with citizens and businesses on crime prevention programs like Keep Houston Safe.
- Prioritize crime prevention and safety along the Primary and Secondary Z connections.


BAGBY ST
ROSALIE ST
ELGIN ST
STUART ST
FRANCIS ST
HOLMAN ST
BERRY ST
WINBERN ST
ALABAMA ST
TRUXILLO ST
ISABELLA ST
BRAZOS ST
SMITH ST
LOUISIANA ST
MILAM ST
TRAVIS ST
MAIN ST
FANNIN ST
SAN JACINTO ST
CAROLINE ST
AUSTIN ST
CITY OF HOUSTON
LEGEND
Ciy of Houston
Right of Way
N
0' 50' 100' 200' 400' 800'
CITY OF HOUSTON

Other Change Agents

Houston - Galveston Area Council (HGAC)

The Houston-Galveston Area Council (HGAC) administers the Livable Centers program in partnership with local governments. The two-tiered program includes planning studies to develop strategies and funding to implement projects. The goal is to create "walkable, mixed-use places that provide multimodal transportation options, improve environmental quality and promote economic development." HGAC manages the program using 80% federal funding acquired through the Texas Department of Transportation. A required local government match of 20% is provided for in this Ensemble/HCC Livable Centers Study by the City of Houston. Funding comes from the Surface Transportation Program (STP), and funds are programmed through HGAC's Transportation Improvement Program (TIP).

HGAC is a regional council of governments that coordinates local governments to address regional growth issues. HGAC represents 13 counties including Austin, Brazoria, Chambers, Colorado, Fort Bend, Galveston, Harris, Liberty, Matagorda, Montgomery, Walker, Waller, and Wharton. There are more than 100 member cities in the region. The council initiates programs in the areas of transportation and air quality, community and environmental planning, as well as public safety and security. HGAC receives state and federal funding to implement programs that enhance the quality of life within the region. Community enhancement grants are used to create livable centers, improve pedestrian and bicyclist transportation, and expand regional parks and natural areas. HGAC has the potential to coordinate local governments to adopt coordinated strategies to address regional issues.

HGAC is the Metropolitan Planning Organization (MPO) for the eight-county Transportation Management Area, and develops the TIP in collaboration with local governments, transit and transportation agencies, and the Texas Department of Transportation. HGAC's Transportation Policy Council (TPC) oversees budgets and programs, providing guidance on the regional coordination of planning efforts. The 2008-2011 Transportation Improvement Program was adopted by the Transportation Policy Council in 2007 and highlights all major multi-modal transportation projects planned over the four year period. The following recommendations should be pursued:

- Allocate Livable Centers funding for priority projects from the Study.
- Explore additional funding and coordination opportunities to implement recommendations of the Study.

Texas Department of Transportation

The Texas Department of Transportation (TxDOT) works to provide "the safe, effective and efficient movement of people and goods". TxDOT plans, designs, builds, operates, and maintains the state's transportations system with a priority on reducing congestion, enhancing safety, expanding economic opportunity, improving air quality and maintaining transportation assets. TxDOT built, maintains, and controls the Spur 527 at the western boundary of the study area. TxDOT uses all financial options to build transportation projects. They empower local leaders to solve local transportation problems and focus on consumer-driven decisions. TxDOT funds the HGAC's Transportation Improvement Program, which in turn funds the Livable Centers program. TxDOT has the potential to access a myriad of funding opportunities for transportation projects.

TxDOT plays a large role in the Livable Centers program, and should pursue the following recommendations:

- Continue to influence regional policies to support the recommendations of the Study.
- Identify funding opportunities for Livable Centers Implementation Projects.

Greater Houston Partnership

The Greater Houston Partnership (GHP) was formed by a merger of the Houston Chamber of Commerce, which dates back to 1840, and the Houston Business League, formed in 1895. The two groups joined in 1989 as a non-profit advocacy group for the local business community. Working in a ten county region, GHP works to build regional economic prosperity through initiatives that establish Houston as a business magnet and a leading gateway to global markets. GHP also drives local, regional, state and federal public policy to protect and nurture the Houston business environment.

Opportunity Houston is a new program that promotes the ideals highlighted in GHP's 10-year strategic plan, and focuses on five major economic sectors: aviation and aerospace, energy and petrochemical, medical and biotechnology, information technology, and nanotechnology. GHP also assists with business expansions in the Houston area and promotes the city to national and international companies as a great place to relocate. The program aims to raise $40 million, which will be used for marketing and public relations initiatives designed to improve Houston's image around the world. Research and statistical analysis about the region with an emphasis on cultural amenities, cost of living, educational resources and medical facilities is a large part of what GHP does to attract businesses to the region.

- Work with the Management District to promote the assets of the Design, Arts and College Districts.

Strategic placemaking strategies can trigger new development, as projected here, to fill in underutilized properties in the Study area.

The ecclectic entryway of Tacos A Go-Go, located in the Arts District, makes it a distinctive destination for locals and residents from around the city.

The Livable Centers program focuses on improving the public realm, linking to the station, and encouraging multimodal transportation.

CenterPoint Energy

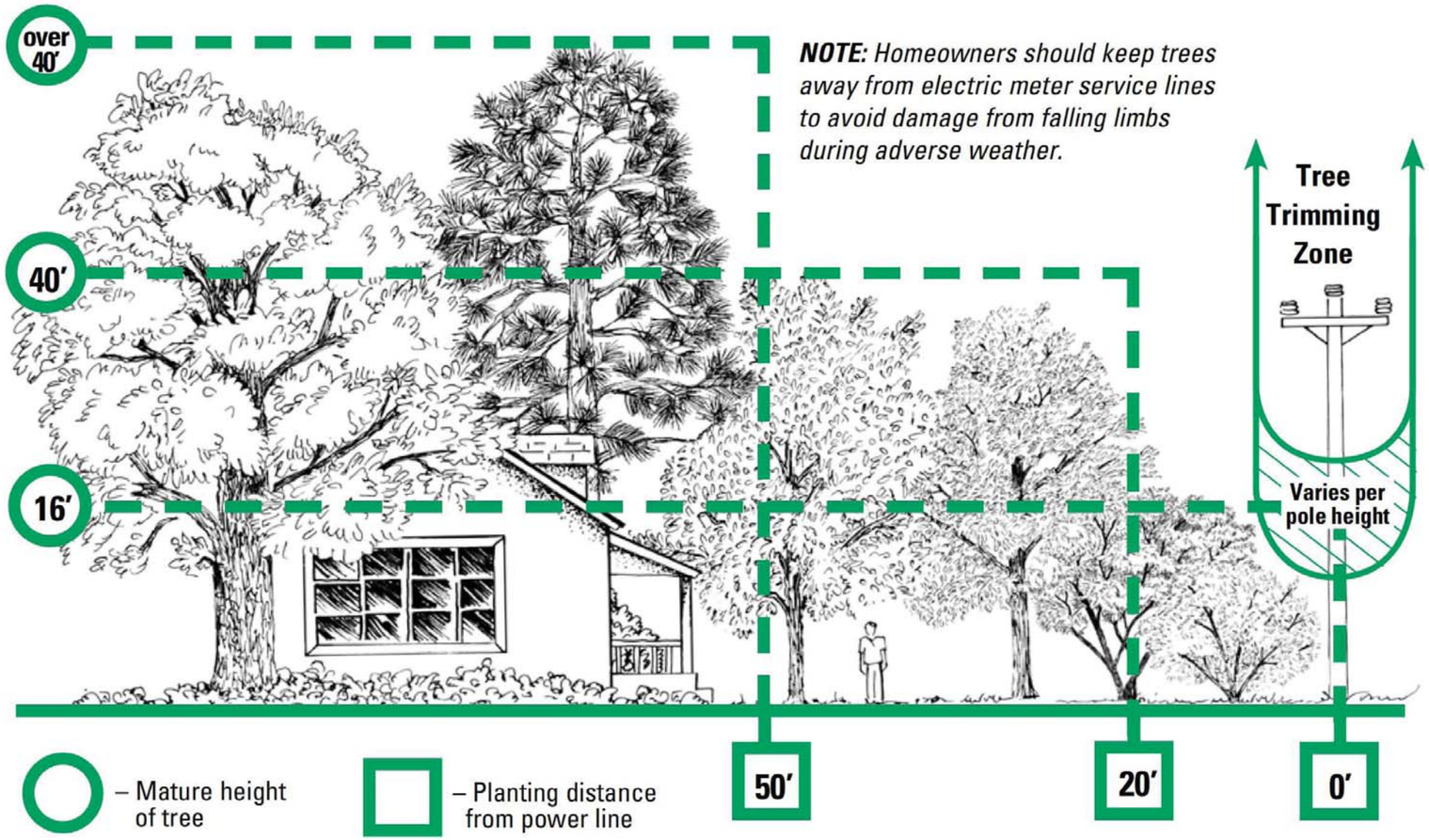
CenterPoint Energy operates several energy services including electric lines, which extend through 5,000 square mile electric service territory in the Houston metropolitan area. They maintain the wires, poles and electric infrastructure. CenterPoint Energy delivers power from power plants to homes and businesses, but does not generate power. Essentially, CenterPoint owns the infrastructure that connects power to Houston-area customers.

Overhead power lines present several challenges to promoting human comfort in the public realm. The lines are unattractive and conflict with shade-providing street trees. Utility poles clutter streets and sidewalks. Burying utilities is expensive, and the cost would likely be the responsibility of the requester. Maintaining minimum clearances from utilities is a parameter redevelopment projects must consider. Existing public utilities were recently constructed and, for the most part, appropriately sized for current and future development.

Adequate pedestrian lighting is lacking in most of the study area. A few streets with new developments have new pedestrian lighting. The TIRZ has a specific pedestrian light identified for the area and a relationship with CenterPoint Energy to install the lights. The Management District maintains the poles and pays the electric costs.

CenterPoint Energy should consider the following recommendations:

- Partner with local developers and the TIRZ to improve the pedestrian realm by burying utility lines.
- Continue to work with the TIRZ to install Midtown pedestrian street lighting.
- Work with the City of Houston Public Works & Engineering Department to create more livable design standards for utility work.



The CenterPoint Energy guide for tree planting at power lines limits shade cover in pedestrian areas, which is a major factor for creating human comfort in the public realm.

Over head utility lines are unsightly, and they make the pedestrian realm less comfortable.

Elected Officials

Elected officials are in the best position to provide leadership, with more latitude than agencies and more influence than the general public, businesses or institutions. They have the power to push projects forward. A large part of developing capacity for change is bringing in support from elected officials. The strategy is to involve all representatives in the creation of the Plan and encourage them to push Livable Centers implementation projects forward.

Strong constituent support plays a large role in influencing policymakers, and Houstonians' views on local issues can be better understood by the 2009 Houston Area Survey results. Sixty-one percent of Houston residents said that the biggest problem in their area was traffic congestion, and the most popular solution was "developing communities where people can live closer to where they work and shop" as a solution. Most survey respondents also supported "making improvements in public transportation, such as trains, buses, and light rail." Houstonians are generally moving towards more transit-oriented and sustainable development preferences. These findings provide a foundation for political support for enhancing urban environments and improving citywide transit connections.

The Mayor

City of Houston Mayor Annise Parker has enormous power to push forward agendas. She presides over City Council with voting privileges. As the city's Executive Director, Parker is responsible for the general management of the City, enforcement of all laws and ordinances, and appointments of department heads. The Mayor signs all motions, resolutions and ordinances passed by City Council and advises them of the City's financial conditions. Mayor Parker's term runs two years from her January 2010 inauguration, with a maximum of three terms of service.

City Council

Houston City Council has fourteen representatives elected every two years. There are five members elected by the citizens at-large and seven district area representatives. Council Members adopt the budget, approve appointments, issue bonds, award contracts, and approve city expenditures over $25,000. Council can lease or dispose of the City's real estate, levy assessments against property, and determine its own rules of procedure.

The District Council representatives are most directly accountable to the study area constituents as well as most familiar with the study area relative to At-Large Council Members representing the entire city. All Council Members serve a two-year term and have the ability to increase political will at the municipal level to move projects and policies forward. Council representation in the study area is as follows:

District D:	Wanda Adams
District I:	James Rodriquez
At-Large 1:	Stephen C. Costello
At-Large 2:	Sue Lovell
At-Large 3:	Melissa Noriega
At-Large 4:	C.O. "Brad" Bradford
At-Large 5:	Jolanda "Jo" Jones

HCC Board

The HCC Board of Trustees is the college's governing body, whose duties include establishing HCC policy and appointing the Chancellor. The nine members of the Board are elected from single, geographic districts for six-year terms with no term limits and serve without pay. The study area is located in HCC Districts IV and VIII. As the primary land holder with over 20% of the study area land, the HCC Board governs a large part of the area. HCC Board members include the following Officers and Trustees:

HCC Officers:	Dr. Michael P. Williams (Chairman) (District IV)
	Neeta Sane (Vice Chair) (District VII)
	Sandie Meyers (Secretary) (District VI)
HCC Trustees:	Yolanda Navarro Flores (District I)
	Bruce A. Austin (District II)
	Mary Ann Perez (District III)
	Richard M. Schechter (District V)
	Eva Loredo (District VIII)
	Christopher W. Oliver (District IX)

State Legislature

The Texas House of Representatives is comprised of 150 members and the Texas Senate has 31 members. The Texas State Legislature meets from January to May in odd numbered years. District area representation includes:

State Representative Garnet F. Coleman (District 147)
Texas Senator Rodney Ellis (District 13)

Representative Coleman is also a board member of the Midtown Redevelopment Authority and the Ensemble Theatre.

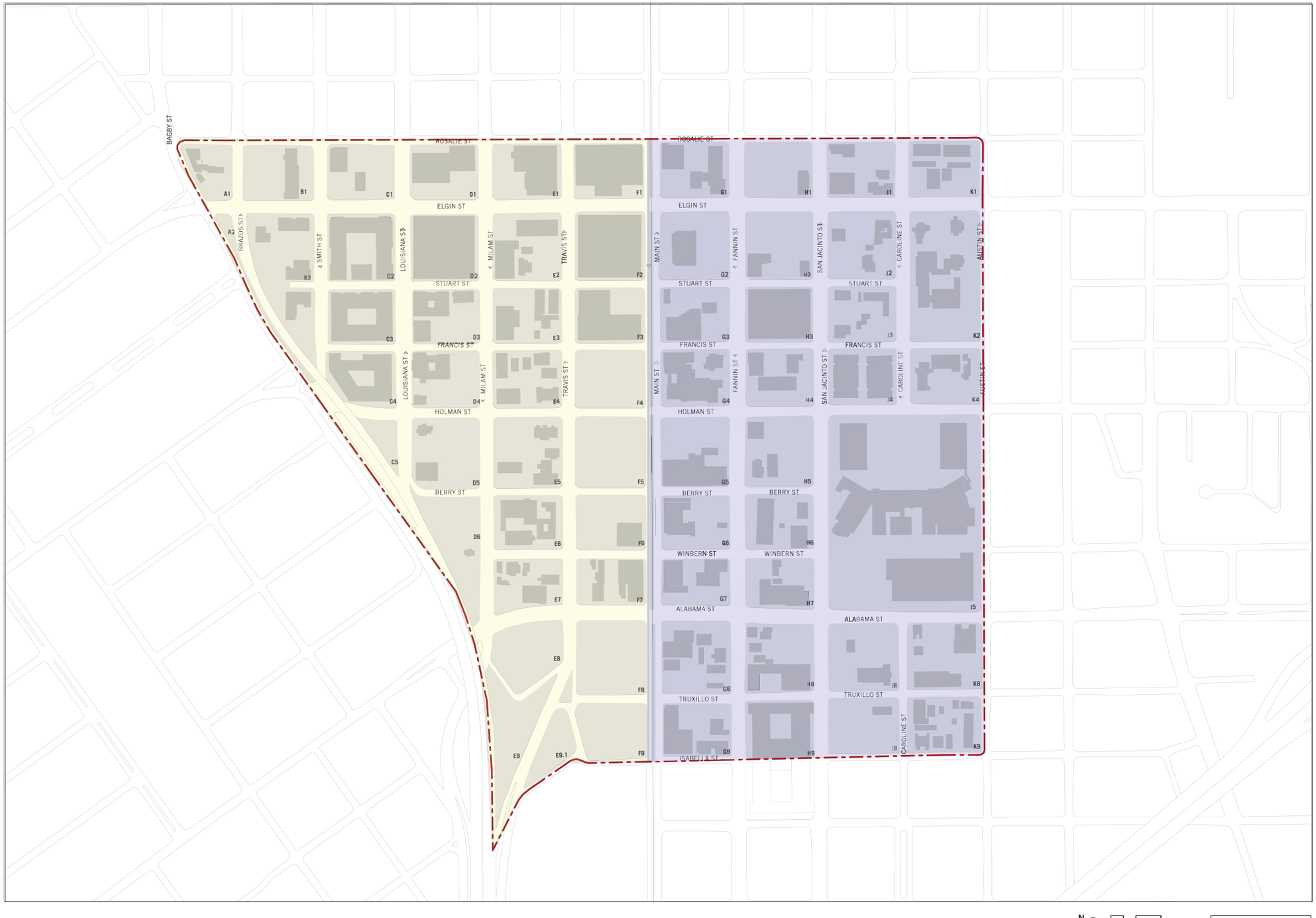
U.S. Senate & Congress

At the federal level, politicians can be instrumental in accessing funding for local projects such as Federal Recovery Act funding for transportation improvements. District-area representation includes:

U.S. Senator Kay Bailey Hutchison
U.S. Senator John Cornyn
U.S. Congresswoman Sheila Jackson Lee: District 18

It is recommended that all elected officials:

- Actively participate in promoting the vision of this Study and support its recommendations and implementation projects.



District D

District I

CITY COUNCIL DISTRICT MAP

N 0' 50' 100' 200' 400' 800'

Recommendations

Development Capacity is the single most important component of this plan. It is the agents of change detailed in this book that will be the most influential to the success of the Ensemble/HCC Livable Centers Plan and the implementation of its recommended projects.

Realizing the Plan

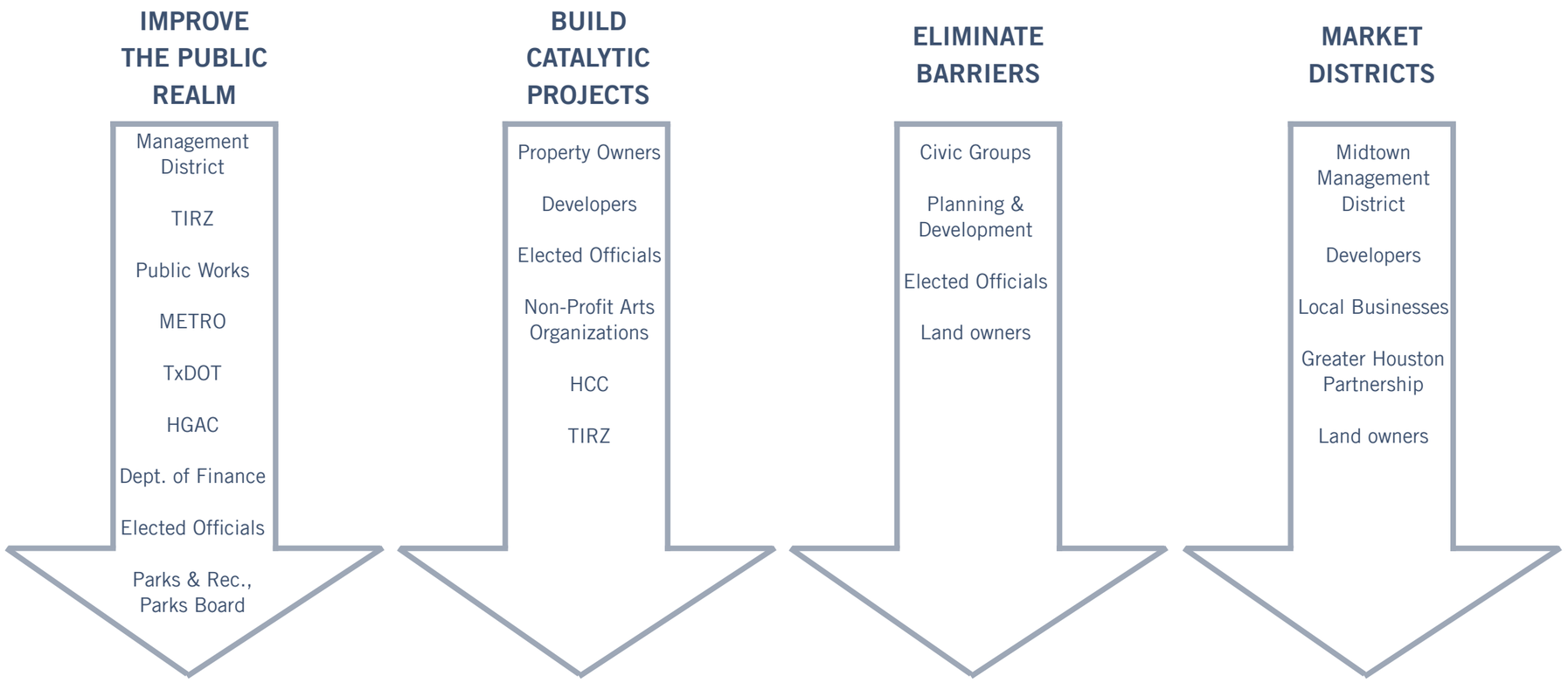
When this study process evolves, development capacity itself expands as interested parties come together to discuss their vision for the area. Recommendations for each change agent are highlighted in this Development Capacity book with the key being communicating the unified vision and acting in accordance with that vision with each and every project. It is important to have key organizations continually pushing for the implementation of projects detailed in the Plan. The Midtown TIRZ/Redevelopment Authority and Management District are the most localized and best suited to be the torchbearers for the Plan. Working in conjunction with HGAC on the Livable Centers projects such as street improvements, the Midtown Redevelopment Authority can be the central point of contact for coordination and communication to achieve the best results by coordinating incremental improvements throughout the district with the goals of the Plan.

Change agents should follow these strategies to make the vision for the study area a reality:

- Developers, property owners and local agencies can continue to explore potential public-private partnerships on projects that will contribute to the revitalization efforts in the study area.
- New developments can coordinate public realm plans with the recommendations of the Study to create coordinated streetscape improvements throughout the district.
- Local businesses and property owners can complete street-front building improvements to improve the public realm along sidewalks.
- The TIRZ can coordinate local businesses, developers, local government agencies, and the management district to create a Parking Management Area (PMA) and a Parking Benefits District.
- City departments can work with developers to issue project approvals, identify incentives, and lift restrictive development requirements that inhibit the implementation of this plan.
- Parks Department and Parks Board can work collaboratively to acquire and maintain parks to improve the public realm in the district, particularly in the western part of the study area where park space is lacking.
- Management District can coordinate with Police Department to increase actual and perceived safety in the study area.
- TIRZ can identify additional HGAC and TxDOT funding and programming opportunities to support implementation projects.
- All change agents can engage political leaders in actively supporting the Study's vision and implementation projects.

Making revitalization in the study area happen is most dependent on vision and leadership. The plan packages a distinct vision and route to get there with flexibility to evolve over time. A number of alliances and collaborations are needed to move projects forward. The Study works to expand development capacity by linking the right people and organizations together. A key deliverable of the Study is the creation of a matrix of priority projects with details on the components of implementing the projects. The matrix indicates decision maker or change agent involvement in pushing each recommendation and project forward. The value in the matrix is having clear documentation of the projects that will lead to realizing the vision and the people who need to be involved to get the projects built. The main tool we have is leadership, and carrying the torch should be a collective effort involving as many change agents as possible to make the biggest impact.

ENSEMBLE / HCC LIVABLE CENTERS STUDY:
CREATING DEVELOPMENT CAPACITY GETS PROJECTS BUILT



Recommendations Matrix

The following chart highlights the recommendations from each of the chapters of the Ensemble/HCC Livable Centers Study and highlights who will lead the charge and fund projects:

Recommendation	Timeline	Leadership	Public Funding / Implementation	Public Approvals / Regulatory Changes	Private Realm Funding / Implementation
Define Districts					
Envision and brand the Arts District	Ongoing	Management District, Elected Officials, IAC, Ensemble, Trinity, RHS, Greater Houston Partnership	TIRZ	City of Houston	Developers, Land Owners, Business Owners
Envision and brand the College District	Ongoing	Management District, Elected Officials, HCC, Greater Houston Partnership	TIRZ	City of Houston	Developers, Land Owners, Business Owners
Envision and brand the Design District	Ongoing	Management District, Elected Officials, Crosspoint, Greater Houston Partnership	TIRZ	City of Houston	Developers, Land Owners, Business Owners
Integrate Systems					
Create new park	Phase 3	Management District, Elected Officials	Parks Board, Parks and Recreation Department	Chief Development Officer (COH)	Land owners, Developers
Make Improvements to Elizabeth Glover Park	Phase 4	TIRZ	Parks Board, Parks and Recreation Department	City of Houston	-
Create pocket park at Holman and Spur 527; Improve pedestrian connections across Spur 527	Phase 3	TIRZ	Parks Board, Parks and Recreation Department	City of Houston	The Calais at Courtlandt Square
Create Star Plaza at HCC	Phase 2	HCC	HCC	-	CenterPoint Energy
Improve Elgin between Brazos and Milam	Phase 1	Management District, Elected Officials	HGAC/TxDOT, TIRZ	City of Houston	Land Owners, CenterPoint Energy
Improve Milam between Holman and Elgin	Phase 2	Management District, Elected Officials	HGAC/TxDOT, TIRZ	City of Houston, METRO	Land Owners, CenterPoint Energy
Improve Holman between Milam and Travis	Phase 2	Management District, Elected Officials	HGAC/TxDOT, TIRZ	City of Houston	Land Owners, CenterPoint Energy
Improve Holman between Travis and San Jacinto	Phase 1	Management District, Elected Officials	HGAC/TxDOT, TIRZ	City of Houston	Land Owners, CenterPoint Energy
Improve Main between Holman and Alabama	Phase 1	Management District, Elected Officials	HGAC/TxDOT, TIRZ	City of Houston, METRO	Land Owners, CenterPoint Energy
Improve Berry between Milam and Fannin	Phase 3	Management District, Elected Officials, Ensemble Theater, Property Owners on Berry Street	HGAC/TxDOT, TIRZ	City of Houston	Land Owners, CenterPoint Energy
Improve Holman between San Jacinto and Austin	Phase 2	Management District, Elected Officials	HGAC/TxDOT, TIRZ	City of Houston	Land Owners, CenterPoint Energy
Improve Holman between Spur 527 and Milam	Phase 3	Management District, Elected Officials	HGAC/TxDOT, TIRZ	City of Houston	Land Owners, CenterPoint Energy
Improve Travis between Holman and Elgin	Phase 4	Management District, Elected Officials	HGAC/TxDOT, TIRZ	City of Houston, METRO	Land Owners, CenterPoint Energy
Improve Elgin between Travis and Main	Phase 4	Management District, Elected Officials	HGAC/TxDOT, TIRZ	City of Houston	Land Owners, CenterPoint Energy
Improve Alabama between Louisiana and Main	Phase 3	Management District, Elected Officials	HGAC/TxDOT, TIRZ	City of Houston	Land Owners, CenterPoint Energy
Improve Alabama between Main and Austin	Phase 4	Management District, Elected Officials	HGAC/TxDOT, TIRZ	City of Houston	Land Owners, CenterPoint Energy
Improve Caroline	Phase 4	Management District, Elected Officials	HGAC/TxDOT, TIRZ	City of Houston, HCC	Land Owners, CenterPoint Energy
Install portals and wayfinding - Primary Z	Phase 1	Management District, Elected Officials	HGAC/TxDOT, TIRZ	City of Houston	CenterPoint Energy
Install portals and wayfinding - Secondary Z	Phase 3	Management District, Elected Officials	HGAC/TxDOT, TIRZ	City of Houston	CenterPoint Energy
Improve other streets in study area	Phase 5	Management District, Elected Officials	HGAC/TxDOT, TIRZ	City of Houston	Land Owners, CenterPoint Energy
Minimize curb cuts	Immediate	City of Houston, Planning and Development Dept.	-	City of Houston, Planning and Development Dept.	Local Land Owners, Developers

Recommendation	Timeline	Leadership	Public Funding / Implementation	Public Approvals / Regulatory Changes	Private Realm Funding / Implementation
Overcome Barriers					
Create a Parking Management Area	Immediate	Management District, Elected Officials	Parking Management	Mayor, City Council	-
Modify City parking requirements	Immediate	Management District, Elected Officials	Parking Management	Mayor, City Council	-
Require bicycle parking	Immediate	Management District, Elected Officials	-	Mayor, City Council	Private developers
Install meters on all on street spots	Immediate	Management District, Elected Officials	Parking Management	Mayor, City Council	-
Set meter rates to achieve 85% occupancy	Immediate	Management District, Elected Officials	Parking Management	Mayor, City Council	-
Encourage developers to unbundle parking	Immediate	Management District, Elected Officials	-	-	Private developers
Encourage developers to implement parking cash out	Immediate	Management District, Elected Officials	-	-	Private developers
Establish Parking Benefits District	Immediate	Management District, Elected Officials	Parking Management, Management District	Mayor, City Council	Private developers
Implement a Residential Parking Program	Immediate	Management District, Elected Officials, Local Residents	Parking Management	Mayor, City Council	-
Implement TDM programs	Immediate	Management District, Elected Officials	-	Mayor, City Council	-
Construct off-street parking	See catalytic projects, additional long-term	Management District, Elected Officials	TIRZ, Parking Management, METRO	Mayor, City Council	-
Develop specific trip reduction factors for livable centers	Immediate	Management District, Elected Officials	-	Public Works	-
Modify TIA process to allow traffic impacts within livable center	Immediate	Management District, Elected Officials	-	Public Works	-
Adopt Urban Corridors area wide on all streets	Immediate	Management District, Elected Officials	-	City Council	-
Amend parks master plan to include TOD parks	Immediate	Management District, Elected Officials	-	Parks Board / Parks Department	-
Dedicate Open Space funds within the area and improve mechanisms for creating new urban parks	Immediate	Management District, Elected Officials	-	Parks Board / Parks Department	-
Allow calculation of previous/impervious cover for drainage by district	Immediate	Management District, Elected Officials	-	Public Works	-
Develop specific trip reduction factors for livable centers	Immediate	Management District, Elected Officials	-	Public Works	-
Modify TIA process to allow traffic impacts within livable center	Immediate	Management District, Elected Officials	-	Public Works	-
Implement area-wide traffic mitigation efforts	Immediate	Management District, Elected Officials	-	Public Works	-
Conduct area wide TIA	Immediate	Management District, Elected Officials	Management District	Public Works	-
Build a Catalytic Project					
Build Independent Arts Center in Arts District	Phase 1	Management District, Elected Officials	TIRZ, Public Works	Mayor, City Council, Chief Development Officer (COH)	IAC
Build retail/parking in Arts District	Phase 1	Management District, Elected Officials	TIRZ, METRO	Mayor, City Council, Chief Development Officer (COH)	RHS Interests
Build a mixed-use residential building in Arts District	Phase 1	Management District, Elected Officials	Public Works	-	Private developer TBD
Build student housing in College District	Phase 1	HCC, Management District, Elected Officials	HCC	-	Planned Parenthood, HCC, private developer TBD
Build office/retail building with surplus parking in Design District	Phase 1	Crosspoint Properties, Management District, Elected Officials	-	-	Crosspoint Properties


HCCS
SUPER TIRE & AUTO REPAIR

Overcome Barriers

6

There are a number of barriers to the revitalization of the study area. Property values have risen dramatically as a result of the construction of the light rail line, and market demand has not caught up to make new developments feasible. There are many parcels in the study area that sit vacant and others that bide their time as surface parking until the time is right to take on a new higher and better use.

Midtown blocks are small, and parcel ownership is fragmented. Developing on small blocks is not only a challenge for programming a building but is also more difficult to meet parking requirements. A suburban one size fits all parking regulation makes it nearly impossible to include the required on-site parking spaces.

Other regulations create challenges for quality development. Traffic Impact Analysis (TIA) requirements can be restrictive to improving multimodal service. Infrastructure design requirements also work against transit-oriented development (TOD) patterns by allowing too many curb cuts and long pedestrian crossings. Another major obstacle is the challenge of creating meaningful park space on what is now very expensive land. All of these regulatory challenges require a collaborative process between area stakeholders to find solutions and move forward towards reaching the goal of a more livable community.

This chapter will address some of the key regulatory barriers to development such as parking, traffic impact analysis, access management, setbacks, open space requirements, on-site detention requirements and infrastructure capacity. For each of these, the conflict with the Livable Center vision will be discussed, some similar case studies will be highlighted, and a recommendation will be proposed. The results of this chapter will highlight regulatory changes that should be proposed to ensure development happens in a manner befitting a Livable Center.

Parking Requirements

The parking policy alternatives have an end goal of a livable, walkable district. However, that vision will be dependent on the ability of developers and other interested parties to be able to effectively secure, finance, and construct projects on the site. Although parking may not be the most critical component for making a particular project come to fruition, it is major contributing factor.

Through numerous discussions, a recommended parking strategy has emerged. This parking policy reflects the different options and approaches on how to guide the growth of parking supply for Midtown Houston that were discussed over the course of this project. Yet, these policies will have a direct and immediate effect on the development community as they approach this district with projects and proposals:

- Recommended Parking Policy: Reduced Parking Minimums and Reserved Parking Maximums. This policy would maintain parking minimums while allowing 100% of those requirements to be met with in-lieu fees if desired. This recommendation would also set a maximum on parking spaces, if those spaces were not shared or open to the general public.

	Minimum Requirement	In-Lieu Options
Residential	Between 1 and 1.5 spaces/unit depending on unit size and number of bedrooms. Can be shared or reserved.	100% of requirement can be met with in-lieu fees
Non-Residential	.5 spaces/1000 square feet, must be shared, on or off-site	100% of requirement can be met with in-lieu fees
Both	In-lieu fees and on-street parking spaces within ¼ mile of the proposed development can be utilized to meet parking demand, use of on-street spaces for purposes of parking requirements requires city approval. Current minimum parking requirements will become maximums, unless the parking in question is both shared and open to the general public, in such a case, there is no maximum parking limit.	
*Off-site spaces should also be within 1/4 mile of proposed development.		

The proposed parking Code alternative was crafted with developers in mind. It provides a great deal of flexibility to meet market parking demands and does away with strict parking requirements that may be inaccurate for a district such as Midtown, Houston.

In addition, flexible parking requirements should be implemented to enable multiple types of land uses to exist in a mixed-use district without necessitating serious changes to the parking requirements. From the developer perspective, this may ease barriers of entry and ensure that parking requirements are not a reason for commercial vacancies. As an example, a newly vacant retail space could be converted into a coffee shop/café without being inhibited by the requirement to meet new parking requirements because of a shift in function.

With the elimination of strict parking requirements, developers and others involved with helping the district grow will now have direct influence in determining how much parking is necessary and calculating an appropriate parking demand for their respective projects. The allowance for developers to determine appropriate parking supplies in conjunction with City-adopted guidelines can help incentivize parking efficiencies to bring about a district that meets the goals of a Livable Center.

Parking Demand Analysis

Based on the proposed land uses at full build out, a parking demand analysis was carried out to account for several factors. These include each of the following:

- Type of land use
- Amount (square feet) of that land use
- Estimated amount of mixed-use for purposes of trip-capture[1]
- Efficiencies due to the ability to shared parking resources.

These four inputs are used to calculate the demand for parking based on land uses and time of day. These various land use types have different parking requirements and also peak at different times of day. Understanding the peak parking requirement from combined land uses is the most important criteria for this analysis.

To illuminate the potential benefits of parking efficiencies, the analysis reviewed district-wide parking demand (assuming mixed-use development and mode-share adjustments). With these assumptions in mind, the total parking demand for the district at peak hour is 10,556 spaces. This number is calculated using a traditional parking demand calculation whereby all spaces would be reserved and assigned to their particular land use.

Using a model that takes into consideration the significant efficiencies that can be gained though shared parking, the demand drops to 7,308 spaces, a savings of more than 3,200 spaces or nearly 1,000,000 square feet of parking.[2] This drop in the overall “need” for constructed off-street parking spaces should be viewed by developers as potential benefits:

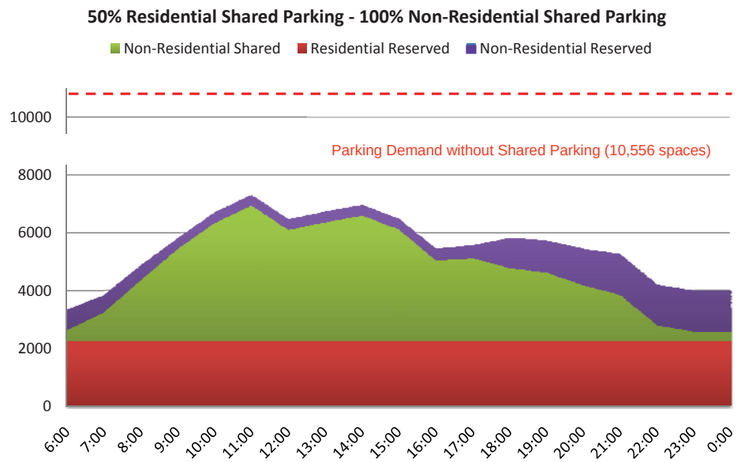
- They have more flexibility in terms of how they structure their projects.
- The design of parking should be a contributing factor to the overall design of the development, but should not dictate the overall design.
- Developers can create more valuable space -- rentable or sellable square footage -- instead of parking spaces.

Figure 1 shows the demand curve of the Houston Midtown district based on the shared parking assumptions noted above.

[1]Trip-capture refers to a reduced parking demand due to individuals walking from within the district to their destination.

[2]This calculation was completed with an assumption that 50% of residential spaces and 100% of non-residential spaces would be eligible to be shared.

Figure 1 Shared Parking Demand Analysis



Discussion: This parking demand curve was developed by taking the land uses at full build-out and determining their respective parking requirements per hour. Based on this calculation, the overall peak occurs around 11:00 AM. It is assumed that due to the mix of land uses, the study area has a high number of midday parking generators (likely restaurants and retail). Parking demand drops off in the afternoon and evening as demand for office spaces goes down and is eventually replaced by residential parking demand.

Based on our proposed parking policy, and using the assumption that 50% of residential parking demand is met through a supply of reserved parking, a demand for 2,249 reserved parking spaces will exist.

Assuming construction on the proposed development program at one space per residential unit, a total of 2,998 parking spaces could be constructed, resulting in a surplus of 750 spaces over the needed parking requirement. Thus, even before the implementation of more progressive parking policies, an ample supply of parking could be built if developers wish to do so. However, over time, as the market dictates that less parking is necessary, fewer parking spaces can be built without need for regulatory exception.

It is assumed that non-residential development would demand shared parking. Based on the meeting the minimum non-residential requirements, it appears that a small deficit of parking exists. However, based on the recommended code, this deficit could be easily fulfilled using TDM measures, on-street parking, or additional off-street parking that could be off-site.

Table 3 Comparison of District-wide Demand and Supply at Build-Out of Proposed Program

	Residential Reserved Parking (assumes 1 space per unit)	**Non-Residential** Reserved Parking (assumes .5 spaces/1,000 sf)	**Off-Street Shared Parking**
Estimated Supply	2,998	1,939	Flexible
Estimated Demand	2,249	0	4,043
Difference	+750	+1939	n/a

In addition to off-street spaces, Midtown Houston has a large supply of on-street parking spaces that are currently underutilized. Based on previous supply counts, current on-street parking includes approximately 253 metered spaces and 213 non-metered spaces.

Based on the recommended street designs, the total on-street parking supply would be 1,016 spaces. This large supply of shared spaces should be considered by developers when they evaluate parking demands for individual uses. In many cases, developers will be able to rely on on-street parking (with appropriate fees to encourage turnover) to serve their developments. Currently, on-street parking is a significantly underutilized resource for the district and should be used to meet growing parking demand while it is in abundance.

Based on these findings and our analysis, it is evident that proposed parking policies are pragmatic in terms of meeting the estimated district demands while allowing ample flexibility for developers to build based on market forces. Yet, this proposal recommends that an annual parking supply, demand, and preference survey is administered to stakeholders within Midtown Houston. The results of such a study will help planners react and adjust to ongoing parking issues as the district continues to develop and grow towards its full build-out potential.

Temporary Options

Based on current figures, Midtown has large excesses in parking supply at any given time. In the near future, it may be unnecessary to spend significant resources on building off-street parking facilities to supplement an overall underutilized parking supply. However, as the district continues to grow, it will be necessarily to find phasing solutions to match parking supply with future demands.

Various strategies could be implemented to add parking supply as needed. These strategies involve taking existing parking supply and improving their efficiency, perhaps in the short-term, to temporarily alleviate any parking constraints until the full project build out can take place.

Parking stackers: an example of a strategy to quickly and cost-effectively increase parking capacity to meet demands Photo: Nelson\Nygaard

These opportunities include:

- Coordinated parking wayfinding and “real-time” parking occupancy signage systems. These electronic signs or on-line resources allow people driving into the district to understand where parking spaces are available and how to locate them.

- Use of tandem, parking stackers or parking operations (e.g., valet) to add capacity as needed.
- Use of undeveloped parcels for additional surface parking ("parking reservoir") as needed.

What do others do to address this similar challenge?

Parking Management Areas

Currently, the City of Houston Code has provisions for what is known as a Parking Management Area (PMA): an area created to "accommodate parking needs within certain major activity centers within the city in which there is evidence that parking demand is or can be met on a permanent basis through means other than off-street parking as herein provided." According to Code, substituted parking ratios may be approved if the activity center/structural requirements are met. Midtown Houston currently meets requirements and would be eligible to become a PMA.

A PMA is appropriate for the Ensemble/HCC District because it would provide an incentive for developers to build the high-density projects defined in this plan via parking policies that do not necessitate superfluous amounts of parking.

Based on the City's definition, a new PMA would serve as the legal basis for a new set of parking requirements and programs, while a specific entity would implement the requirements, as well as other measures to further reduce parking demand and improve overall transportation conditions. The entity could be the City of Houston Parking Management Division, a new parking benefits district (PBD), the Tax Increment Development Zone (TIRZ), or another type of transportation management entity could be created to help initiate these requirements and administer any additional programs to further optimize transportation options for the Midtown district.

Downtown Houston: A Model for Midtown

Although not specifically designated as a PMA, Houston's Central Business District (CBD) by all practical purposes possesses similar liberties. Based on City Code Sec. 26-473, the CBD is "exempt" from any requirements for off-street parking due its adequate level of parking supply and number of users who take non-motorized modes of transportation. Thus, any development in Houston's CBD may be constructed without the provision of any additional parking.

Unlike other PMAs in Houston, the CBD does not specify any parking requirements, leaving those decisions to market forces to determine if additional parking supply is appropriate. Midtown could benefit from a similar PMA structure with the assumption of 1) its current abundance of on- and off-street parking and 2) its visions of become a livable, walkable district.

Other Houston PMAs

Currently both the Uptown/Galleria area and the Texas Medical Center are both considered PMAs under the City of Houston Municipal Code.

- The Texas Medical Center has a specific designation for reduced parking requirements, with a minimum parking ratio of 1.8 spaces per 1,000 square feet of floor area, lower than the overall requirements in the City Code.
- The Uptown/Galleria district retains nearly identical parking requirements as the City Code, despite its designation as a PMA. Many of the requirements were implemented in their current form with the potential that they could change in the future. Within the Uptown/Galleria PMA, no formal parking strategies or programs have been implemented beyond managing the spaces themselves. Parking requirements for the Uptown/Galleria area are as follows:
  - Office space: 2.75 spaces for every 1,000 square feet of usable floor area.
  - Shopping centers: 4.0 spaces for every 1,000 square feet of usable floor area.
  - Hotels: 1.0 parking space for each sleeping room up to 250 rooms, plus 0.5 parking spaces for each sleeping room in excess of 250 rooms.

Within the Uptown/Galleria area, several entities exist that could potentially administer or manage a parking strategy within the PMA. The Uptown Houston District is a nonprofit organization charged with serving the district's residents and businesses. It is comprised of smaller organizations, one of those being the TIRZ. These two organizations are effectively responsible — although not explicitly —for transportation and traffic monitoring within the district. In addition, Galleria Parking, an entity operated by Standard Parking, operates and manages all parking resources within the Houston Galleria. These organizations only oversee parking operations and do not implement strategies to manage parking more efficiently.

What are we recommending?

Recommended PMA

As noted, Midtown is located between two major Houston job centers with high levels of local activity. The plan for Midtown calls for it to approach, or perhaps even exceed, the activity and energy of its nearby neighbors. Midtown also possesses unique characteristics that would dictate different parking requirements from other parts of Houston, such as shared parking, reduced parking requirements, an extended off-site parking allowance, or reduced residential and commercial parking requirements. Thus, it would be prudent for the Ensemble/HCC area to incorporate a parking code that is effective in pursuing this strategy. Furthermore, in its present state, the City parking Code applies equally throughout all of Houston with the exception of PMA areas. These general standards are intended to be adequate for areas that are

completely dependent on the automobile, where no walking occurs, and where there is no on-street parking. This fact alone should illustrate that Midtown is an appropriate setting for a PMA.

Based on the current conditions and vision for development, it is recommended that Midtown be established as a PMA. Any recommendation for parking policy changes in Midtown must take into account the current framework for parking in the greater Houston area as well as the development goals envisioned for Midtown. Based on the Houston's current parking Code, it is recommended that Midtown be added under Section 26-500 as a Parking Management Area. Within this section of Code, Midtown could then specify specific criteria for parking and programs that would help support the vision for growth and development in the district. By establishing Midtown as a PMA, it would then be exempt from the parking requirements that are standard in other parts of Houston. The boundaries of this PMA should be subject to review by the appropriate parties.

The PMA would provide the guidance necessary for parking and subsequent development in Midtown. The boundaries should reflect the Ensemble/HCC study area, but may also be expanded to adjacent areas based on the characteristics of land uses and demographics.

If a PMA were established, a wide variety of programs could be implemented based on the specific needs and distinctive features of the area. At this stage, it is unclear what the final development program or phasing will be for the project, however a "toolbox" of potential strategies could be administered or operated within a Midtown PMA. Some strategies that could comprise this toolbox, and brief summaries of their expected impacts, are described in the next section.

Parking Code Modifications

By modifying the current parking Code, Midtown has an opportunity to set a new standard for urban infill development and community revitalization near transit. The existing parking Code that defines PMAs is a great advantage to Midtown, as it gives it the ability to redefine parking policies without a significant city policy or Code modification. However, it will be imperative to be thoughtful and thorough in making these recommendations as no local precedent currently exists.

The overarching goals for such a policy would be the following:

- Limit reserved/dedicated parking.
- Reduce the overall amount of parking spaces for the district, by eliminating unnecessary supply, and optimizing current supply.
- Incentivize aggregation of parking facilities, especially shared-use structures, through unlimited on-site shared parking in combination with in-lieu fees for off-site parking.
- Ensure parking supply responds to parking demand and an optimal occupancy rate.

Initial discussions regarding parking requirements brought up several key goals that helped inform these policy recommendations. Any number of specific tools can be used to support the recommended policies. Although most of them can be informally adopted by the Department of Parking or the TIRZ, or even private developers, some of the following could be used in Code language to meet district goals:

- Reserved Parking Maximums: In order to best meet parking demands, while constructing fewer spaces, reserved parking can be minimized. Reserved parking is that which dedicates a space to one owner/use over a 24-hour period. While it is understood that such spaces may be necessary in certain circumstances, these spaces are largely underutilized and are costly. Thus, one alternative is that a parking maximum can be set for reserved spaces for all land uses (although some exceptions shall be made for single family dwellings, which are unlikely to be built in the district) while not setting a required minimum. Maximum requirements would be based on the modeled demand for a future build out, in addition to a 5% buffer to ensure availability of parking.

- Shared-use spaces: Shared use spaces would be available to or allocated to residents in the evening/overnight and available to or allocated to retail/office uses during the day. As a result, shared-use spaces offer a much higher utilization rate and would significantly help the district reduce its overall built parking supply. To encourage the construction and operation of shared-use spaces, it is possible to require a minimum number or maximum number of spaces. Such an arrangement gives developers flexibility in being able to provide parking as needed or as the market suggests, while ensuring additional parking can be used for other complementary uses.

- In-lieu parking fees: Property owner or lessor-paid in-lieu fees could be used to meet any potential minimum parking requirement. An in-lieu fee is a payment from a developer or property owner to fulfill a specific parking requirement. The funds generated from in-lieu fees could then be directed towards the construction of new shared parking, to repay any parking bonds, or for improved management of parking facilities. In-lieu fees ensure a revenue stream to help finance additional facilities as needed, but also incentivize parking to be aggregated as opposed to disaggregated, making parking more efficient to construct and operate.

- Reduced parking minimums: The purpose of reduced parking minimums is to help incentivize use of an in-lieu parking fee, while understanding that more widely used parking standards (e.g., ITE Parking Generation Manual), may be artificially high. A parking minimum proposal for Midtown Houston could be set at a very low rate — less than predicted parking demand — with the understanding that additional parking would be addressed through district-wide solutions. The requirement could be met on-site, off-site or through in-lieu fees.

The tools above can be used in varying combinations to craft a parking code that will be most effective for the district and that is politically feasible to implement. These tools have been tested and proven in other cities around the country, as demonstrated in the peer review.

The project team considered various needs and constraints with regard to parking. Some of the proposed alternatives suggested that parking maximums would best fulfill the goals of creating a livable district; others suggested that parking standards should be abolished, allowing market conditions to determine the appropriate supply of parking. After a continued dialogue with City officials and members of the project team about parking demand and the economics of parking, a final recommendation was crafted. This recommended parking policy combines the understanding that development conditions and the Midtown environs necessitate the continued use of parking minimums. However, these minimum parking requirements should be reduced from current requirements, and should be combined with other related parking and transportation demand management policies that reinforce the district's goal of being a true livable center.

Proposal for Houston Midtown Parking Management Area Policies

The guidelines described below provide the basis for primary parking requirements in Midtown. In addition, a comprehensive parking demand analysis was conducted that brought into account the unique features of Midtown and factored in the efficiencies of shared parking opportunities. In addition to motor vehicle spaces, it is recommended that the Code include specific requirements for bicycle parking, as part of a truly multimodal approach to transportation in Midtown. These are included among the proposed PMA policies for the City Code. In whole these scenarios, although functionally different, maintain the characteristic of flexibility in parking policies for Midtown.

Recommended Parking Policy – Reduced Parking Minimums and Reserved Parking Maximums

Currently, the City of Houston maintains parking requirement minimums in all areas with the exception of downtown. This plan's recommendation is as follows:

- Parking requirements are modestly reduced within the district in the short-term.
- Parking maximums are established for reserved/dedicated spaces.
- Parking supply and demand are evaluated annually.
- Adjustments to parking requirements are made periodically to ensure parking occupancy and supply goals address demands.

The strategy is to reduce parking requirements to a nominal amount that provides the flexibility of providing fewer parking spaces, while ensuring that some supply is constructed. Alternatively, if it is found that additional parking is necessary, there are no maximums, as long as parking is shared and open to the general public. It is assumed that the high cost of building structured parking will incentivize private developers to build the appropriate amount of parking to meet actual demand. Parking maximums will be set for the qualifying parking supply (parking that is not shared or open to the public) at the rate of the existing minimum parking requirements. This will ensure that if additional parking supply is needed, cost-efficient publicly-accessible shared parking will be added to the supply. Since this recommendation maintains a minimum requirement, it can be met 100% through an in-lieu fee which would provide a consistent revenue stream while incentivizing an appropriate amount of parking to be built district-wide.

In-lieu fees could be used within the district to help implement the policies and projects of a local parking benefits district (PBD), discussed later in this section. Revenue from in-lieu fees could help support larger transportation goals such as increasing use of the existing public transportation system, implementing ridesharing programs, and providing other incentives for reducing transportation demand.

Furthermore, the funds could be used to help support construction of publicly funded parking facilities as parking demand increases with development. This revenue could be managed and administered at the local level through the existing TIRZ or at the city level through the Parking Department. The in-lieu fee should be set at a reasonable amount that is less than the actual cost per space of structured parking, but great enough to provide substantial benefits to the district through alternative programs.

For both non-residential and residential units, parking requirements could be met on or off-site. Residential units would have the following minimum requirements, based on their classification:

- 1.0 spaces per efficiency or one-bedroom unit
- 1.5 spaces per unit with two or more bedrooms

These spaces could be shared or reserved and would have parking maximums based on the current parking minimums (e.g., 1.250 spaces for each efficiency apartment; 1.333 spaces for each one-bedroom apartment; 1.666 spaces for each two-bedroom apartment; and 2.0 spaces for each apartment with 3 or more bedrooms).

Parking maximums would be in effect unless the parking is both shared and open to the general public.

Non-residential units would have a minimum of .5 spaces per 1,000/ square feet and maximums based on the current parking minimums for non-residential spaces, unless the parking is shared and open to the public (e.g., for office space, .5 spaces for every 1,000 square feet of gross floor area (GFA)All non-residential parking spaces would be required to be shared. Any off-site spaces should be within ¼ mile of the development. Yet, it is noted that the study area (and proposed PMA) itself is approximately ½ mile by ½ mile wide, so it is likely that this requirement would not be a significant limiting factor. As another

means of reducing the need to construct new parking, on-street spaces within ¼ mile of the development can be used to meet the minimum parking requirements.

Depending on the type of development, parking requirements could be waived through a planning exception. Examples of developments that may be appropriate for waiving parking requirements would be highly transit-dependent developments or those where residents would not likely need a personal vehicle, such as student housing.

The use of off-site parking spaces and on-street parking spaces leads to a question of administration and organization. How are these spaces accounted for in the long term, and how is it ensured that they are not double-counted by multiple developments? For off-site spaces, it would be likely that any accounting or administration would be handled on an annual basis, with a parking supply/demand questionnaire that would be administered by a local PBD or the TIRZ. Such information would illustrate that all parking requirements are being met, while gaining an understanding of any excess supply that exists from year to year. On-street spaces that are intended to be used to meet minimum parking requirements should be allocated through the City of Houston or a local agency to ensure that on-street spaces are not accounted by numerous developments. Again, these on-street spaces would remain open to the general public but they would be claimed by developments for the purposes of accounting for parking requirements.

Parking Code for this proposed scenario would be as follows:

Parking Guidelines

- A minimum of .5 spaces per 1,000 square feet of non-residential space must be provided either on-site or within .25 miles from the site. These spaces are required to be shared.
- A minimum of 1 space per residential efficiency or one-bedroom unit must be provided either on-site or within .25 miles from the site. These spaces can be shared or reserved.
- A minimum of 1.5 spaces per residential two or more bedroom unit must be provided either on-site or within .25 miles from the site. These spaces can be shared or reserved.
- Any or all of the above parking requirements can be met with in-lieu fees, which will be then used to construct off-street public parking or fund transportation demand management programs
- Any or all of the above parking requirements can be met with on-street spaces within ¼ mile of the development, subject to city approval.
- For each land use mentioned above, a maximum number of spaces per unit, or 1,000 square feet can be built. This maximum is based on the existing parking minimums outlined Houston Parking Code, depending on land use. The maximum is not applicable if the parking in question is both shared and open to the general public.
- A parking supply, demand and preference survey will be administered on an annual basis

Parking Code Recommendations

	Existing Policy	Recommended Parking Policy
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	• 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
Ways to meet parking minimums	• Onsite parking only	• 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	• None	• Set current minimums as maximums • Maximums apply only to restricted parking – parking available to the general public is not limited
Areawide management	• None	• Conduct study of parking supply and update on yearly basis • Use in lieu of fees and meter revenue to construct off-street public parking
Advantages	• Provides basic guidance on approximate number of spaces that may be needed for development	• Sets low minimum requirement which helps prevent overbuilding of parking capacity • Incentivizes use of in-lieu fee, establishing revenue stream for public parking • Parking maximums discourage overbuilding and encourage public parking • Takes on-street and public capacity into account
Disadvantages	• Has tendency to overbuild parking at the expense of other goals • Does not incentivize parking efficiencies such as shared parking or demand management programs	• Has little impact on amount on supply of reserved parking • Still requires parking to be built, even if market conditions do not demand it, unless in-lieu fee is used

Meeting Parking Guidelines

- In lieu of minimum parking requirements, the City of Houston shall accept an annual payment per each space of shared use parking or otherwise. The Department of Parking shall establish this annual payment based on the approximate cost to build structured parking and operating parking management programs.
- Shared parking shall be designated by appropriate signage and markings as required by City policy
- On-street parking supply should be considered when determining how to meet estimated parking demand.

Proposal for On-Street Parking

- Parking spaces should be added, metered, and enforced based on local parking demand and can be phased in concert with local development
- Parking meter rates should be set at a price that helps achieve 85% occupancy based on market conditions. These prices can vary based on time of day, which may eliminate the need for time limits on parking at meters. Appropriate turnover should be enforced using meter pricing. Upon initial rollout, parking meter hours should remain the same until demand deems that hours should be extended to maintain 85% occupancy.
- Spillover parking in residential areas of the district should be addressed using RPP programs or similar (described below). Specifically, the Southeast portion of Midtown Houston should be eligible as an RPP through the city's RPP process.
- On-street parking spaces should be made available for transportation demand management strategies such as car-sharing or bicycle parking.

- Parking meter enforcement hours should be extended beyond the current limits to support the goals described above.

Proposal for Bicycle Parking

- For office development, the developer must provide 1 employee bicycle parking rack or bicycle locker (2-bike capacity) per 7,500 square feet of GFA and 1 visitor/customer bicycle parking rack (2-bike capacity) per 20,000 square feet of GFA.
- For residential development, the developer must provide 1 tenant bicycle parking rack or bicycle locker (2-bike capacity) per 3 units and 1 visitor bicycle parking rack (2-bike capacity) per 50 units.
- For retail development, the developer must provide 1 employee bicycle parking rack or bicycle locker (2-bike capacity) per 5,000 square feet of GFA and 1 visitor/customer bicycle parking rack (2-bike capacity) per 12,500 square feet of GFA.
- All bicycle parking facilities are to be highly visible to intended users and protected from rain within a structure. The bicycle parking facilities shall not encroach on any area in the public right of way intended for use by pedestrians, nor shall they encroach on any required fire egress.
- On-street/sidewalk bicycle parking spaces may be counted toward the minimum customer visitor bicycle parking requirement.
- If on-site space is not available for a bicycle parking space, the developer may pay to have one installed within an approved site within the public right-of-way.

Carefully located bicycle parking provides bicyclists (and the district) great benefits for a relatively small amount of space. Photo: Nelson\Nygaard

Other Parking Tools for Midtown

For Code changes to be effective, they should be supported by other programs and tools. These strategies comprise a "parking tool box." The advantage of using a toolbox is that these strategies can be mixed and matched in such a way that will best benefit Midtown, while allowing for a considerable amount of flexibility based on local considerations. We have divided these strategies into on-street and off-street approaches because they are fundamentally different.

Off-Street Parking Tools

The future of the Ensemble/HCC Station area will have structured parking to supplement on-street parking. It is assumed that there is significant funding available from private developers and the TIRZ, or from other public funding sources to pay for the development of shared parking garages in the district. Various funding strategies will be investigated regarding alternatives that involve public versus private construction, operation, maintenance, etc. More information regarding the funding and construction of off-site parking can be found within the Close the Gap section of this report.

In addition to in-lieu parking fees, which could be established at a rate to incentivize development, and reduced parking minimums the following tools could also be considered for Midtown:

Unbundling Parking

Parking costs are traditionally subsumed into the sale or rental price of housing and commercial space. Unbundling refers to separating parking costs from both rental and sale prices of multifamily housing and commercial space. In many residential developments, including those presently in Midtown, it is common practice for the developers or property owners to include the cost of parking with the cost or rent of a particular unit. However, such a practice eliminates by default any financial incentives not to drive. Unbundling of parking separates these costs and provides an individual the ability to opt-out of having a parking spot in favor of payment for its value. By implementing an unbundled parking policy, residential developers may be able to further reduce parking demand while encouraging residents to use other forms of transportation.

Parking Cash-Out

Similar to unbundled parking, parking cash-out is a policy that helps to reduce parking demand. One option for implementing such a policy is to require all new and existing employers that provide subsidized employee parking to offer their employees the option to "cash out" their parking subsidy. The majority of all employers provide free or reduced price parking for their employees as a fringe benefit. Under a parking cash-out requirement, employers are allowed to continue this practice on the condition that they offer the cash value of the parking subsidy to any employee who does not drive to work. The primary benefit of parking cash out programs is their proven effect on reducing auto congestion and parking demand.

On-Street Parking Tools

On-street parking plays a valuable role in overall parking management. It can be a unique tool by providing easy access and high turnover spaces, if spaces are managed and priced appropriately. Based on a full build-out scenario, it has been proposed that the on-street parking supply will total 1,016 spaces for the district. At this time, there are no specific locations for additional meter locations. However, metered spaces can be added as dictated by parking demand, as the district continues to grow.

Examples of some of the tools that can be used to manage on-street parking include the installation of multi-space meters that can offer demand-based pricing, establishment of a parking benefit district, and implementation of a residential parking permit program.

Install Multi-space Meters

Upgrading traditional parking meters to multi-space meters provides a wide variety of improvements over existing technology. The City of Houston is in the process of studying and installing multi-space meters in Midtown, and can likely be implemented in the immediate term. In addition to easing payment barriers for consumers by allowing for multiple forms of payment, multi-space meters also allow for a variety of pricing schemes that would be suitable for Midtown's unique parking requirements. Presently in other cities, multi-space parking meters are being used to continually provide live parking demand data while giving transportation officials the ability to change parking prices based on time of day or other requirements. This type of flexibility would be useful for the City to manage parking during various events in Midtown, during peak demand hours, and in other situations.

Establish Parking Benefits District (PBD)

As mentioned earlier in this plan, in the case of Midtown, a PBD could be used as a mechanism to administer a PMA and any supporting programs for the district. A PBD can take a variety of forms and carry a variety of responsibilities. In many examples, PBDs are structured such that on-street parking rates are set in a particular geographic area. The parking revenue in that area is then specified to return to the district for streetscape and other local improvements, helping spur additional development and growth.

The scope of the PBD can take many forms. Some of these roles may include:

- Collection and redistribution of parking meter revenues to fund transportation or other improvements
- Administration and operation of various transportation demand management (TDM) measures to reduce vehicle trips to a site or within a service area
- Provision and operation of specialized transportation services, such as a shuttle or special transit service
- Continual monitoring of parking demand issues and potential spillover problems

These are only a small number of the potential strategies that a PBD can employ to better manage parking and transportation in a particular area. Nevertheless, these could have a significant impact on parking habits in Midtown and can help reduce overall parking demand.

It is recommended that the PBD would be organized and administered by the TIRZ structure at the local level. If the TIRZ is unable to lead this effort, it could be managed through the establishment of a new Transportation Management Association comprised of local businesses and homeowners associations, or could be managed by the City of Houston. Any revenues generated by a PBD could be distributed between local transportation/general improvements for the Houston Midtown district and the City of Houston Parking Management Division. Because it is assumed that significant additional revenues would be generated with new metering and enforcement of parking regulations, the City of Houston will receive more money as part of its Parking Department enterprise fund. All of the additional revenues generated beyond the baseline revenue goals established by the City would be available to fund local projects within the district, such as new parking construction, pedestrian infrastructure improvements, and new transportation programs.

Implement a Residential Parking Permit (RPP) Program

Residential parking programs (RPP) are often created in neighborhoods where spill-over parking and/or parking capacity is a serious problem. RPPs provide policies that limit long-term parking to those holding parking permits for a specific area. Within Midtown Houston, there are few areas that would be appropriate for an RPP program, which is typically used in areas with large amounts of single-family homes. However, a small portion of the southern corner of the Ensemble/HCC study area may be appropriate as for an RPP program. This area is roughly bordered by Caroline and Isabella Streets, and US 59. Defining the entirety of the study area asfor an RPP program is not recommended because it would be in opposition to district goals for providing adequate turnover of on-street spaces and disincentivizing excessive auto usage. Likewise, defining an RPP program strictly within the district would do little to reduce spillover parking. Thus, an RPP is recommended in residential portions of Midtown (and perhaps beyond Midtown), which may include a small portion of the study area. These are areas which are impacted by new parking demands, as well as parking rules and enforcement within the study area that may result in spillover parking outside the study area.

By managing most of the study area's on-street parking supply through metering with dynamic pricing and time limits – and by providing ample shared paid public parking in off-street garages – the study area will have an appropriate parking supply to meet demand. Nevertheless, in some communities with significant parking management programs, like those recommended for the study area, some drivers will seek non-metered on-street parking, even if it is at some distance from their destination. Because these spaces may be located outside of the study area, the City of Houston is encouraged to implement an RPP program in Midtown, in predominantly residential areas where the City does not intend to install parking meters.

Currently, the City of Houston has an RPP program in place (Sec 26-311). However, this allows the creation of an RPP based on a "chronic commuter parking problem." For the purposes of Midtown Houston, it would be recommended that language be modified to state instead, a "chronic spillover parking problem." Furthermore, based on the current pricing scheme, the first two auto permits for an RPP are $20 each,

with each additional being $2.00 per permit. Such a pricing schedule should be modified to better align with the goals of the district. It is recommended that the price for RPP permits increase with each additional purchased permit and that a limit on permits could be set per household.

Applying these recommendations in Midtown would ensure on-street parking would be available for local residents, while directing commercial or other parking to metered spaces or off-street shared parking facilities. Streets within the RPP area should be signed with information identifying a time limit for individuals without permits (e.g., one- or two-hour parking for cars without permits; permit holders may park 24 hours a day). Enforcement is required to ensure the effectiveness of an RPP program. An annual review of parking supply and demand will provide useful information to the City regarding the need to expand or modify the RPP program in Midtown.

Summary of Potential Parking Strategies

Table 2 provides the full listing of potential strategies for the Ensemble/HCC area in Midtown Houston. These options are among those included in the three parking policy proposals outlined above but also include other strategies that may be worth considering as a final parking proposal for the district. Although all strategies may not be warranted in the immediate term, some of these may find added relevance as Midtown develops.

Some general strategies that were not explicitly addressed as parking policy proposals are also mentioned below. If the proposed parking recommendations are not implemented, these strategies may prove useful as smaller-scale modifications to current parking policies that would also support improved transportation within the district.

Use a TIRZ to Increase Area Revenues

The TIRZ can help finance improvement programs within the district. Funds from the TIRZ could be used to help Midtown be a leader and pioneer in progressive parking management.

Identify Funding to Provide Transportation Demand Management (TDM) Programs

Funding, from the TIRZ, local merchants, or other local groups could be used to help fund transportation programs and to improve overall efficiency of the district's transportation system. Examples of initiatives funded by TDM programs include transit passes, car sharing, and marketing for non-motorized forms of transportation.

Table 2 Toolbox of Parking Options for Midtown (Ensemble/HCC District)

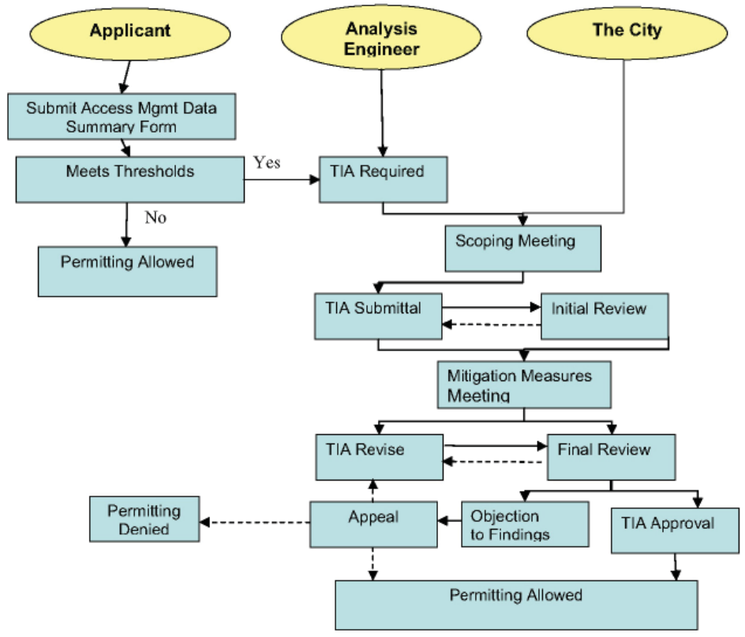
	Strategy	Definition/Purpose	Where to Implement	Funding Sources/Origins	Operator	Opportunities	Challenges
Off-Street							
Infrastructure	Publicly-built, privately operated parking structure to serve multiple uses	To provide additional capacity to accommodate future growth using public monies for capital costs and private funds for operating costs	Pre-designated locations	General fund, bonding, other municipal sources of revenue	Private operator - potentially a developer	A privately operated parking facility may take some burden and costs off of city departments.	Establishing contractual agreement while maintaining certain controls could prove difficult in a public-private partnership. This option would still require up-front public capital via bonding or other funding mechanism.
	Publicly-built, publicly operated parking structure to serve multiple uses	To provide additional parking capacity to accommodate future growth using public monies for capital costs and operating costs	Pre-designated locations	General fund, bonding, other municipal sources of revenue	City of Houston	A publicly owned and operated facility could give the city of Houston the most flexibility and control over current and future parking management.	Capital construction costs and operation costs may be high
	Privately-built, privately operated parking structure to serve multiple uses	To provide additional parking capacity to accommodate future growth using public monies for capital costs and operating costs	Pre-designated locations	Private funds	Private Operator, potentially a developer	A privately financed and operated project would relieve the city from any major sunk costs of a new parking structure	May be difficult to establish meaningful controls to meet local parking goals
	Privately-built and operated parking structure, assisted with public funds	To provide additional parking capacity to accommodate future growth. Funds for construction could be private, but private and public funds would be used for operations.	Pre-designated locations	Private funds, General fund, bonding, other municipal sources of revenue	Private Operator, potentially a developer	By assisting with operations costs, developers would face reduced risk in pursuing parking structure construction and operations.	Developing consistent guidelines and agreements to establish such a relationship would need to be vetted and approved by city officials. It may not be financially advantageous for the city to support private garage operations.
Policy	In-lieu parking fees for new commercial and residential developments	Fees that can be paid by developers to pay into parking management programs as opposed to funding and building new parking facilities	Off-street, managed parking facilities	Paid by project developers	City of Houston	By utilizing in-lieu fees, developers could selectively opt out of paying for costly new parking facilities while the neighborhood would benefit from a more appropriate number of parking spaces in a more centralized location. Houston Ensemble may benefit from having structures already built and being able to set in-lieu fees at a reasonable rate.	Would need to establish what those funds would be used for and if parking fees and other specifics of how an in-lieu fee would be setup
	Reduce parking minimums	Reduce the amount of minimum parking required for a new development based on its land use. Such a policy will allow for development to reduce its potential cost to provide parking and/or pay for alternatives.	Off-street, managed parking facilities	N/A	City of Houston	A reduction of parking minimums may better reflect actual parking demand as opposed to the stated ITE parking demand rates.	A reduction in parking requirements may better reflect actual parking demand but may reduce incentives to buy into in-lieu fees. Additionally, despite city codes to reduce parking requirements, developer financing and tenant acquisition may not be convinced of the benefits of reduced parking requirements.
	Unbundled parking	Requires new or existing residences to separate the cost of parking from the cost of housing. This gives the individual the choice whether or not they wish to use parking or instead be compensated for not using it.	Off-street, managed parking facilities	N/A	City of Houston	By allowing for unbundled parking, residential developers may be able to lower parking demand, and subsequent need for parking while incentivizing residents to use alternative forms of transportation or car sharing.	Enforcement of unbundled parking may be challenging with developments not clearly advertising resident's ability to separate parking costs.
	Parking Cash-out	Requires new or existing businesses to separate the cost of parking from their employee benefits and compensate employees who choose not to use employee provided parking	Commercial parking spaces	Employers would pay for compensation (as a cash subsidy for not using parking)	City of Houston	Parking cash-out would allow individuals to make a choice on whether or not they want to use a company-provided parking space, but instead take transit or other alternative modes.	Challenges will rest in marketing and enforcing the program for local employers.

	Strategy	Definition/Purpose	Where to Implement	Funding Sources/Origins	Operator	Opportunities	Challenges
On-Street							
Infrastructure	Install multi-space pay meters where appropriate	Multispace meters allow for flexible pricing and parking space schemes without significant infrastructure changes	On-street spaces where appropriate across the site, most likely within HCC, Station, or Elgin Districts	City would pay for infrastructure and collect revenue but users would pay for fees	City of Houston	Multi-space meters will provide the flexibility to implement a variety of parking management strategies without need for significant amounts of additional infrastructure. MSMs also ease access for parking users by accepting multiple forms of payment.	Infrastructure costs of implementing meters and appropriate communication devices may be costly.
Policy	Establish Parking Benefit District	Parking Benefit Districts (PBD) are created to allow for parking revenues to be directed towards various purposes within the PBD. These can include other transportation improvements or programs to incentivize alternative transportation modes.	On-street spaces where appropriate across the site, most likely within HCC, Station, or Elgin Districts	Users would pay for upgrades via parking fees	City of Houston	Parking benefits districts accomplish two goals, 1) being that pricing can be introduced to on street metered parking spaces to meet occupancy goals. 2) the revenue generated can be used to fund other programs, such as transportation demand management strategies.	Parking benefits will likely come as part of managed/priced parking, thus it may face opposition
	Implement Residential Parking Permit Program (RPP)	An RPP program would help manage on-street spaces in residential districts and prevent overflow parking from commercial districts.	Residential districts outside of stated districts above. These RPP areas should compliment any managed on-street parking elsewhere within the site.		City of Houston	An RPP district would enable the city to increase funds while reducing spill-over parking and more efficiently manage those off-street spaces.	Residents who may currently be parking for free may be hesitant to support an RPP. A RPP may be feasible when spillover parking becomes a problem.
General Policies							
Utilize TIRZ to increase area revenues		TIRZ (Tax Increment Reinvestment Zone) can be utilized to generate funds for any major capital projects such as parking infrastructure or programs	Within the TIRZ	Property owners through property taxes	City of Houston	Using the TIRZ classifications, the Ensemble District has a unique opportunity to raise funds for a variety of projects or for operating costs within the district	Relying on TIRZ funds for operating costs can be risky since its collection rate is based on property tax assessments on the TIRZ district, which may fluctuate.
Use funds for TDM programs to further reduce parking demand and reduce spaces needed		TDM Programs such as transit passes or car sharing would help reduce overall vehicle trips in the site and also parking capacity.	Site-wide	Could be funded via grants programs, local funding, parking revenue generation, funds from other users fees	City of Houston	Expansion of TDM programs may compliment the district's goals of livability by reducing the necessity for vehicle trips.	Challenges will involve in creating an appropriate agency or organization to administer and operate TDM programs. May involve setting up a district TMA
Enable more flexible parking requirements for mixed-use districts		This program would likely be more beneficial for development as compared to parking policy. More flexible parking would allow for changes in existing land uses without necessitating major changes in parking requirements.	Within districts noted above	N/a	City of Houston	If land-uses are able to turnover and change without requiring major changes in parking requirements, it may serve as an incentive for businesses expansion.	This may need further review with the city planning department based on possible implications of easing parking requirement standards for turnover of land uses, even if they are in the same building.

Traffic Impact Studies

The City of Houston's Infrastructure Design Manual, issued in July 2009, introduced detailed guidelines for traffic studies. Chapter 15 outlines the requirements for the traffic studies that are summarized in the following discussion.

There are two levels of traffic studies: Access Management Data or Traffic Impact Analysis. For each proposed development, an Access Management Data Summary form is submitted to determine if a Traffic Impact Analysis (TIA) is required. Single family homes do not require TIAs. The primary determination of whether a TIA is required is based on the number of new peak hour trips that will be generated by the site. If the development is expected to generate 100 or more new peak hour trips, a TIA will be required. The AM peak hour typically occurs between 7-9 AM and the PM peak hour typically occurs between 4-6 PM; however, it can vary based on land use. The following graphic, taken from the Infrastructure Design Manual (Figure 15.04.01 Overview of Traffic Impact Analysis Process), depicts the Traffic Impact Analysis process.



The purpose of the Traffic Impact Analysis is to determine if the existing roadway network can handle changes in traffic volumes based on proposed development traffic. If impacts are identified, the TIA makes recommendations for mitigation methods to maintain an acceptable threshold of mobility. In addition, the TIA provides information for the City to determine if driveway locations are acceptable.

There are four Traffic Impact Analysis categories based on the number of new peak hour trips:

TIA Category	New Peak Hour Trips	Study Boundary Limit
Category I	Less than 100	n/a
Category II	100 to 499	¼ mile
Category III	500 to 999	½ mile
Category IV	Over 1000	½ mile or 1 mile

The scope of the TIA is defined by the TIA category assigned to the development. For a Category I TIA, only an Access Management Data Form is required. For a Category II, III, and IV TIAs, the following tasks must be completed:

- Meet with City Traffic Engineer
- Scope Proposal
- Analysis for Opening Year
  - Background Conditions – Opening Year volumes based on annual growth rate only
  - Projected Conditions – Background volumes plus site-generated volumes
- Analysis of all site access points
- Analysis of signalized intersections within boundary
- Analysis of major unsignalized intersections within boundary

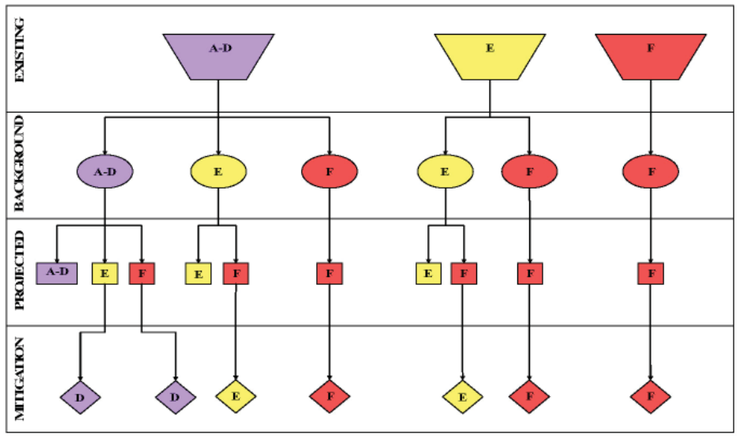
The boundary limit for a Category II TIA is ¼ mile. For a Category III TIA, the boundary limit is ½ mile. For a Category IV TIA, the boundary limit is ½ mile or 1 mile depending on the location of critical intersections. In addition, analysis for the full build-out year must be included for Category III and IV TIAs.

The purpose of the TIA is to identify any significant adverse traffic impacts and explore potential mitigation strategies for those impacts. The need for mitigation is determined by using Level of Service (LOS) results and a decision tree. The following graphic, taken from the Infrastructure Design Manual (Figure 15.04.04 Mitigation Decision Tree), depicts the changes in Level of Service necessary to require mitigation and the Level of Service that needs to be maintained once mitigation is in place. For locations that are currently at LOS F, the traffic impacts of the development shall be mitigated such that the LOS criteria do not deteriorate beyond background conditions. The City Engineer must approve any deterioration beyond background conditions.

When a TIA is conducted along designated Transit Streets, the number of trips generated should be estimated in accordance with the guidelines. In addition, a summary of estimated trips by mode (automobile, truck, transit, bicycle, pedestrian) should be included in the TIA. When the existing and background levels of service are LOS E or LOS F, a meeting should be held with the City Engineer to review impacts to the community and possible mitigation measures.

Transportation improvements that could be used as mitigation should be included in the TIA. These improvements could include the following:

- Traffic control devices (modification or installation)
- Additional capacity (left, right, or through lanes)
- Acceleration or deceleration lanes
- Modification to length of storage bays
- Access Management
- Improved site circulation



What is the challenge?

One of the focuses of the HGAC Livable Centers initiative is mobility. The intent is to make walking, bicycling, and transit more attractive; therefore, reducing local vehicle trips and reducing congestion on major thoroughfares. Some of the items included in HGAC's checklist for policies and standards related to traffic are:

- Allow people to move between destinations without having to use vehicles
- Provide multimodal transportation options, including walking, biking, and mass transit
- Promote appropriate street widths (24-36 feet) that help to slow down traffic and encourage pedestrian activity
- Have primary streets with lanes for vehicle circulation, but also with dedicated spaces and clear paths for transit vehicles, cyclists, and individuals crossing such streets on foot
- Make circulation of private automobiles secondary to other travel modes once within the Center
- Establish pedestrian-friendly speed limits, generally 20 mph or less
- Use access management techniques to increase safety and make the street more accessible for multiple transportation modes

There is a potential for conflict between these project goals and the required mitigation from a Traffic Impact Analysis. For example, if an intersection declines in level of service, the resultant mitigation may be the addition of one lane in each direction. This may conflict with the strategy of maintaining appropriate street widths for pedestrians.

In general, Traffic Impact Analysis studies have been focused on improving private automobile mobility, but when reviewing TIAs within Livable Centers, the focus must be on all modes of travel. The current TIA guidelines allow for trip reductions for pass-by and diverted traffic; pedestrian, bicycle, and transit reduction; and internal capture; however, specific reduction factors are not defined.

The Traffic Impact Analysis guidelines also apply to individual developments and not a larger area such as a Livable Center. Livable Centers are planned as larger communities to ensure convenient interaction between developments. Producing individual TIAs may result in a variety of transportation improvement recommendations that may not adhere to the vision of the Livable Center.

In general the possible requirement of a Traffic Impact Analysis and mitigation adds cost, uncertainty, and risk to the development of a parcel. For the 5-story prototype development (approximately 22,000 SF retail, 89 dwelling unit), it is expected that this development will generate about 110 peak hour trips. This would require a Category II Traffic Impact Analysis. It is anticipated that this size development should have minimal impacts at the major intersections and required mitigation may be limited to turn bay improvements or similar. However, the results of the study could require more costly mitigation than planned for by the developer.

What do others do to address this similar challenge?

In reviewing other Livable Centers studies, specific Traffic Impact Analysis requirements are rarely addressed. Some initiatives have conducted "neighborhood traffic studies" that result in the implementation of traffic calming devices; however, intersection level of service analysis was not reviewed in detail.

Other cities address the challenges of traffic impact by focusing their mitigation methods on transportation demand management improvements. The City of Pasadena (California) Department of Transportation has a wide range of suitable traffic mitigation measures categorized by various modes of transportation. The following is a list of mitigation measures taken from their "Guidelines for Transportation Review of Projects" dated September 2004.

Traffic Management System

- Upgrade Transportation Management Center hardware, software, and monitoring equipment
- Expand Intelligent Transportation System components, such as CCTV and Changeable Message Signs
- Expand the City's communication/fiber-optic backbone (allows for traffic signal interconnection and optimization along corridors)
- Install additional arterial loop detectors (system loops)
- Deploy traffic monitoring network in residential neighborhoods

Roadway System

- Upgrade traffic signal to encourage traffic to use major arterials rather than residential streets
- Change roadway striping to enhance safety and reduce congestion
- Install wayfinding signage
- Minimize potential conflicts by encouraging developers to construct fewer driveways

Pedestrian Activities

- Equip signalized intersections with vibrating or audible pedestrian functions for hearing/vision impaired persons
- Provide streetscape amenities along the entire length of multimodal corridors that will be consistent with guidelines adopted as part of specific plan areas (Encourages mode shift to walking)

Public Transit

- Provide information on transportation benefit programs for employees and multi-family residential development projects that encourage non-auto travel, including rideshare, vanpool, bus/rail route, and dial-a-ride information
- Provide transit stop amenities, including bus shelters, benches, and trash receptacles (Encourages mode shift to transit)
- Consider landscaping and related enhancements at transit stops (Encourages mode shift to transit)
- Upgrade traffic signal to provide transit priority provisions
- Contribute to capital costs

Bicycle Facilities

- Consider video detection for bicyclists at appropriate locations
- Increase the availability of bicycle parking both on-site and on the adjacent sidewalk
- Provide bicycle maps and bicycle safety brochures

Parking and Loading

- Apply technology to improve the efficiency of parking facilities to minimize traffic impacts on local streets
- Identify locations for priority parking for clean-fuel and car-share vehicles (Encourages carpooling and reduces emissions)
- Implement peak-hour parking restrictions
- Prohibit on-street parking at critical locations to improve visibility
- Assess the adequacy of existing on-street provisions for goods delivery
- Provide passenger loading areas at key locations
- Limit truck delivery to non-peak traffic hours
- Implement parking restrictions or prohibitions to protect adjacent residential neighborhoods from on-street parking spillover

Neighborhood Protection

- Assess the potential impacts on adjacent residential neighborhoods and install appropriate traffic calming measures, such as speed humps, chokers, partial road closures, etc.

What are we recommending?

In order to meet the intent of the City of Houston's Traffic Impact Analysis, while maintaining the goals of Livable Centers, four approaches have been developed for consideration. The approaches are not mutually exclusive and can all be implemented concurrently.

The current TIA guidelines allow for trip generation reduction for pass-by trips, internal capture, pedestrians, bicycle, and transit usage. These reduction rates are often subjective for each traffic impact study based on experiences of the engineer doing the analysis. It is recommended that the City consider developing specific trip generation reduction rates for Livable Centers. Many studies have been conducted, by groups like the Institute of Transportation Engineers and the Federal Transit Administration, related to transit-orient developments resulting in a wide variety of reduction factors. Some TODs result in a 10% trip generation reduction while others result in a 40% trip generation reduction depending on the location of the development. Based on experience in Houston, it is anticipated that the City or HGAC can develop reasonable trip reduction factors for Livable Centers that can be used in individual Traffic Impact Analyses.

Another alternative is to ensure that the traffic impacts are confined to the Livable Center itself. This means that it would be acceptable to have a reduction in Level of Service at internal intersections, but not at intersections with major thoroughfares. This would ensure that mobility would be maintained along the thoroughfares while allowing internal streets to be more pedestrian friendly and conducive to the Livable Centers vision. This could require the City of Houston to create a separate TIA mitigation decision tree for Livable Centers.

A third approach to addressing the Traffic Impact Analysis requirement while maintaining the vision of Livable Centers would be to implement mitigation measures similar to those indicated by the City of Pasadena. Mitigation measures such as widening sidewalks, improving bus shelters, and improving signage not only improve vehicle operations but also contribute to the attractiveness of the area. The City of Houston should consider identifying a list of suitable traffic mitigation measures for Livable Centers.

A final approach to addressing the Traffic Impact Analysis requirement while maintaining the vision of Livable Centers would be to conduct an area-wide TIA. This study would be an overall Traffic Impact Analysis based on the City's current guidelines and the planned development program. Recommended mitigation measures could be reviewed for the overall area instead of at individual development sites. This would also provide developers some level of certainty relative to transportation improvements that they may be required to pay for or provide right-of-way. If an individual property was developed differently than what was defined in the TIA for that site, the developer would have to provide an update to the TIA.

Access Management

The City of Houston's Infrastructure Design Manual, issued in July 2009, introduced design standards for access management. Chapter 15 defines access management as "the systematic control of the location, spacing, design, and operation of driveways, medians, auxiliary lanes, and intersections in order to improve the balance between access and mobility while preserving street efficiency and safety." The standards address criteria for driveway and intersection spacing, driveway geometry, median opening spacing, turn lanes, and related criteria.

All property owners have a right to reasonable access to their property from a public street. The location and design of that access should not result in an adverse impact to the roadway network or those who use it. Some examples of problematic driveway designs are shown in the following photographs.

Fannin north of Richmond. Circulation between parking lot aisles requires entry into the public street.

Westheimer west of Taft. Non-interconnecting adjacent parking lots result in additional conflict points along the corridor. Vehicular circulation between adjacent properties requires entry into the street.

Buffalo Speedway south of San Felipe. A continuous driveway with head-in parking creates conflicts between backing vehicles, pedestrians, and through traffic.

Most of the elements of access management are in harmony with the goals of livable centers. Access management is included in the guidelines in the HGAC publication Livable Centers. One element of access management that could conflict with the goals and vision of livable centers is the limitation of pedestrian crossing points. This is sometimes done with the intent of reducing vehicular delay due to pedestrian movements and may result in either fewer pedestrian crossing points or added pedestrian travel distance.

In general, the application of access management has benefits to both pedestrians and vehicles. Reductions to the number of driveways and intersections benefits pedestrians by reducing the number of vehicle-pedestrian conflict points. Fewer driveways reduces the number of places the sidewalk has to be warped to accommodate the driveway. Concentrating the traffic at fewer sidewalk crossing points increases pedestrians' expectation of crossing traffic.

What do others do to address this similar challenge?

HGAC's Livable Centers publication (undated) contains the following language:

> ***Use access management techniques (e. g. medians, consolidated driveways) to increase safety and make the street more accessible for multiple transportation modes.***

Numerous agencies have guidelines with language similar to the following, which is copied verbatim from the Federal Highway Administration publication Designing Sidewalks and Trails for Access, Part II of II, Best Practices Design Guide (2001).

3.7.2 Access management

Access management regulates the movement of a variety of modes at key locations such as intersections, parking facilities, and alleys.

Successful access management programs reduce or consolidate the number of driveways to parking areas and businesses and provide raised medians to control vehicular turning movements (Washington State Department of Transportation, 1997).

Pedestrians benefit from access management policies because (Washington State Department of Transportation, 1997):

- The number of potential conflict points is reduced;
- Pedestrian crossing opportunities are enhanced;
- The number of driveway crossings is reduced; and
- Improved traffic flow may reduce the need for road widening, which, in turn, reduces crossing distances and allows more space for sidewalk facilities.

People with disabilities gain particular benefits from access management policies that reduce the number of driveway crossings in parking areas. In many suburban and some urban shopping centers, commercial facilities are designed with parking lots in front of the store for the convenience of automobile drivers. Oftentimes, these parking lots are designed for the maximum parking needs (e.g., holiday shopping) and are larger than necessary for most of the year. In some locations, a row of stores may each have their own parking lot entrances and exits. Such locations seldom provide sidewalks. When sidewalks are provided, they are generally narrow, which forces wheelchair users to negotiate rapidly changing cross slopes at driveway crossings.

Access management policies aimed to improve a parking area should consider placing parking lots behind the building whenever possible. By doing this, people using the sidewalks do not have to travel through a parking lot of cars. Furthermore, pedestrian and automobile conflict points are reduced because the cars are not crossing over the sidewalk as they enter the parking facility. If parking in the back is not possible, access management policies should:

- Design accessible driveway crossings with level landings (see Chapter 3 for further details);
- Combine parking lots to limit the number of entrances and exits;
- Prioritize sidewalk construction;
- Provide a raised walkway between the sidewalk and entrances to reduce pedestrian exposure to automobile movement; and
- Control curb radius to keep turning speeds low.

What are we recommending?

Pedestrian treatment is not addressed in any detail in the access management standards. It is recommended that pedestrian crossings be planned along with the other street elements of the community to account for pedestrian demand and desirable pedestrian paths. Intersection spacing and development layout should direct pedestrians toward intersections for crossings. Block lengths should not be so long that mid-block crossings have to be considered or that physical barriers have to be used to prevent mid-block crossing. Any prohibitions to crossings of specific legs of an intersection should be justified by safety considerations, and should only be recommended if other measures are less reasonable.

It is also recommended that vehicle routes to parking areas be designed to avoid pedestrian routes. An example of this principle is to have a parking facility between the thoroughfare and the main pedestrian activity areas of the development.

Raised medians, which are primarily intended to control vehicle flow, also offer important safety benefits to pedestrians by proving a refuge area during street crossing. Improved traffic flow may reduce the need for road widening, which, in turn, reduces crossing distances and allows more space for sidewalk facilities.

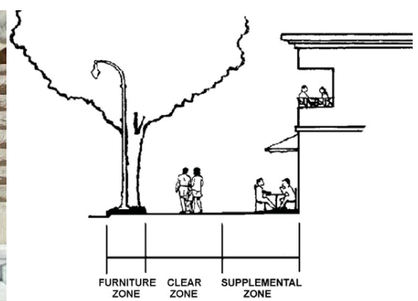
Setback Requirements

The current City of Houston Development Ordinance allows for setbacks of 10 feet along local streets and 25 feet along major thoroughfares. The Midtown area is made up of both types of streets. If a developer requests a setback less than the ordinance the State Law dictates the criteria that must be met before the Houston Planning Commission can grant the variance. Economic hardship is not a basis for a variance, nor is good design or new urbanist designs.

Due to this reality, many developers are faced with trying to manufacture a basis that fits the narrow interpretation of the State Law or they opt to adhere to the setbacks forcing the front 25-foot setback to be turned into a 64-foot setback placing all parking in the front and pushing the building to the rear of the lot. This runs counter to the design principles that have proven to be more suited for denser urban development, and more financially beneficial to local public entities via higher real property tax values.

The City has established Urban Corridor standards that allow a development along a transit corridor to reduce the setback to less than the 25-foot setback if the developer provides a minimum of 15 feet of pedestrian zone with a 6-foot minimum unencumbered sidewalk.

The basic barrier is that the Urban Corridor standard is not applied district-wide causing new urban corridor options to be treated as individual variances adding time and money to every application outside the immediate transit corridor.



Courtesy City of Atlanta

The Urban Corridor standards are not established district-wide. This results in a hodge-podge of development patterns. Some developers may take the time to apply for the variances and others may just avoid the delays and design their projects with the 25-foot or larger setbacks. The vision and goals of the Livable Centers Plan then may or may not be able to be implemented uniformly.

As an un-zoned city, Houston must write its ordinances to be applied uniformly. So, if any other area in Houston can meet the conditions of Midtown that area must be able to use the same standards. This accommodation is a challenge, but it can be done within the confines of existing law.

The City would have to draft the Urban Corridors standards to apply to Urban Districts geographically with an easily understandable set of standards and criteria. Houston has done this successfully with the Parking Management Area (PMA) ordinance. The initial PMAs were created when the City of Houston drafted the PMA ordinance. Additional criteria were put in place to provide for new PMAs to be created in other areas of the city where conditions warranted. A city of 620 square miles needs the flexibility to provide opportunities for development within different contexts of conditions.

What do others do to address this similar challenge?

Zoned cities generally do not have the same issue. Cities routinely use overlay districts, planned unit developments, and other zoning tools to create special districts with different development standards to accommodate the desired outcome(s). That option cannot be applicable to Houston without passage via an election to pass a city-wide zoning ordinance. While some TIRZs have zoning authority, Midtown does not due to its creation by city ordinance rather than petition of the property owners.

What are we recommending?

We recommend amendment of the Urban Corridors ordinance to apply to districts that have created a district-wide master plan, or have an approved Livable Centers Plan. This type of amendment would allow the various Management Districts, TIRZs, and Livable Centers plans to all avail themselves of the more conducive Urban Corridors provisions.

Open Space

Midtown covers a total of 617 acres. The City of Houston Parks Plan sites demand for the dedication of approximately 4.5 acres of park land.

Chapter 42 of the City of Houston Development Code requires two different types of park land dedication. The first is a park land dedication for single-family lots of less than 5,000 square feet. This applies generally for single family lots whether detached or attached.

The 2008 amendment set up a park land dedication or payment-in-lieu of dedication for multi-family developments. The dedication requirement is based on the formula contained in the ordinance (10 acres x the number of dwelling units x the number of occupants divided by 1000 persons per acre of parkland) or the developer may opt to pay a fee of $700 per dwelling unit in lieu of the dedication.

The park land fees in lieu of land dedication are based on the rate of $700.00 per dwelling unit. Chapter 42 of the Development Code also allows for the prorated payment of park land fees based on the partial dedication of park land.

Midtown currently includes approximately 617 acres of land within its boundaries, 365 of which are developable. Midtown's 22.9 miles of streets and approximately 325 city blocks offer a unique opportunity to develop a highly attractive and vibrant community; based on the City of Houston Parks Plan there is demand for the dedication of approximately 4.5 acres of park land.

The primary desired outcome is the creation of meaningful, compact, accessible and aesthetically pleasing park spaces that enhance both the quality of life and the value of properties in the study area.

With land values in Midtown ranging from $55 to $85 per square foot, the high price of land inhibits the dedication of open space for medium and low-density developments. Developers can opt for the payment-in-lieu of dedication but, as the fee is not high enough to acquire park land based on the $55 to $85 per square foot real estate, this presents a paradox to creating meaningful open space.

The City of Houston Parks Plan calls for pocket parks as a component of our open space options. These "places" would be basically a lot size of 50 x 110 feet (5,500 square feet). A typical 300-unit multi-family development would generate a fee of $210,000 based on the fee ($700) and would only acquire a parcel of 3,818 square feet in size. The other issue is that there is no incentive in the current landscape architecture ordinance to reward developers for providing more than the minimum open space. If developers could be rewarded for exceeding the minimum, particularly in the streetscape element, the result would be lushly landscaped streetscapes that provided shade and encouraged walkability, a goal of the livable center plan.

Streetscapes should be considered "places" too, and the additional landscape design provided on both the public ROW and adjacent private property should be counted toward compliance with the landscape ordinance. This provision should also be a consideration in the variance process for the set-back and/or urban corridors process. By establishing walkability, wide sidewalks, street furniture, shade and lighting as desired outcomes, the streets within Midtown can become "green places" connecting transit stations to employment centers and residential neighborhoods.

The role of a public champion is critical to providing meaningful public open space. The Midtown TIRZ/Management District is a logical partner along with the city, METRO and TxDOT. A project like the proposed McGowen Green could become the Discovery Green of Midtown (on a smaller scale).

What do others do to address this similar challenge?

Cities across the country are embracing the recognition that street trees can make a place just as well as park land dedication. Each has a place in meeting the needs of an urbanized community. Several organizations have studied the benefits of park space and streets as meaningful elements to placemaking.

Surveys conducted of cities and regions with populations over 250,000 have indicated that shoppers prefer landscaped shopping areas versus non-landscape retail centers. The results of the surveys are reflected below based on weighted preferences, with the lowest being no trees. As a result, communities are amending their ordinances to require more street trees and landscape designs to achieve desired outcomes.

"The street is the river of life of the city, the place where we come together, the pathway to the center." –William H. Whyte

Locally, the Texas legislature passed an amendment to State Law that allows Municipal Utility Districts (MUDs) to use their surplus bond funds and/or to sell new MUD bonds for landscape architecture

enhancements. Developers are then reimbursed up to 100% of their development costs for open space.

The City of Houston has created over 300 separate Strategic Partnership Agreements that allowed MUDS's to begin collecting sales tax captured within their boundaries. Consequently, MUDs now offer developer reimbursements funded by the newly collected sales tax to directly compete with Houston via incentivizing retail development.
Many developers are being offered up to 80% of the MUD's portion of the sales tax to offset development cost, including landscape installation, for new retail and similar projects in the extra-territorial jurisdiction of Houston. The MUDs recognized that landscape designs enhance their master-planned residential developments, and increase property tax revenues.

High

Green Streets
mean 4.00 (sd 0.60)

Medium

Enclosed Sidewalk
mean 3.32 (sd 0.83)

Low

No Trees
mean 1.65 (sd 0.72)

Houston does not offer a similar competitive incentive.

Seattle Precedent

Seattle has introduced Context Sensitive Design Solutions into their landscape plans to encourage carriage retail parking with shade and landscaping creating an inviting shopping experience. Studies conducted by Roger Ullrich of Texas A&M have indicated that the shoppers will spend 9%-12% more on products when the retail experience is made friendly and welcoming through trees, landscape materials and street furniture.

What are we recommending?

The City of Houston should consider amending the landscape architecture ordinance to encourage additional streetscapes as a condition of the urban corridors variance conditions. Street trees can create place. In addition, landscape architecture including land acquisition and public art should become eligible for reimbursement as in the MUDs.

The City should amend the Urban Corridors ordinance to apply to everywhere within its boundaries if an adopted Plan is in place. The entire Midtown area covered in this Plan should be eligible for the same exceptions if the applicants adhere to the standards outlined for additional streetscape, public art, wide sidewalks, lighting etc. Further, the City, METRO, and TXDOT should partner in recognizing the new Plan applying the standards and goals to other public improvements and private developments. The public sector should adhere to the same vision and goals.

The Houston Parks and Recreation Master Plan should be amended to include Transit-Oriented District parks and public space regulations to be adopted by City Council.

The City should embrace all Texas economic development tools that can be applied in creating places. Tools such as Neighborhood Empowerment Zones, Chapter 380 and Chapter 381 Agreements, and TIRZ improvements are all good examples.

Cities are subject to a statutory cap of no more than 15% of the tax base value being contained in TIRZs (at the time of TIRZ creation). Houston is approaching the cap threshold; therefore using these tools separately on a project-by-project basis is an option worthy of exploration.

Detention Requirements

Drainage criteria for the City of Houston is administered by the City of Houston and complemented by Harris County and the Harris County Flood Control District (HCFCD) for newly-designed and re-designed areas which provide protection from flooding from a 100-year storm event. This is accomplished through application of various drainage enhancements, such as storm sewers, roadside ditches, open channels, detention and overland (sheet) run-off. The combined system is intended to prevent flooding from extreme events up to a 100-year storm.

The intention of storm water detention is to mitigate the effect of the new development, redevelopment, or in-fill development on an existing drainage system. Storm water detention volume requirements are based on increased impervious cover. For areas less than 1.0 acre, detention is required at a rate of 0.20 acre-feet per acre of increased impervious cover. For areas between 1.0 acre and 50 acres, detention is required at a rate of 0.50 acre-feet per acre of increased impervious cover. The subdividing of larger tracts into smaller tracts of 1.0 acre and less will require the detention volume of 0.5 acre-feet per acre of increased impervious cover.

Storm water detention must occur on the site that is being developed and whose storm water runoff is being mitigated. Sites where the impervious area is increased will be required to provide detention. Many of the areas within the proposed development are small, and having to provide detention at the site could make the property undevelopable.

What do others do to address this similar challenge?

Regional detention and underground detention are common methods employed to address flood mitigation on sites that are constrained by size.

- Examples of developments that have employed regional detention are:
  - Rice University
  - Texas Children's Hospital West Campus
  - Methodist West Campus
  - Various residential subdivisions
- Examples of developments that have employed underground detention are:
  - Texas A&M Mitchell Physics Building
  - M.D. Anderson Cancer Center Admin Building and Garage
  - BP Westlake

What are we recommending?

It is recommended that the specified Midtown study area be viewed as a region. Requests should be made to the City of Houston Planning Department which would allow for the percentage of pervious and impervious cover to be calculated for the entire region instead of by block. Underground detention should also be considered as an effective way to satisfy the City detention requirements. Since many of the redevelopments will replace existing impervious surfaces, increases to the net impervious cover may not be significant and can easily be accommodated for below grade either in pipes or vaults.

Storm Sewer Infrastructure

- Storm sewer criteria are administered by the City of Houston Public Works and Engineering Department and are defined in the City of Houston Infrastructure Design Manual. This design manual outlines the following requirements for storm sewer design and analysis for capacity, routing, and connection:
- Design and analysis of storm sewer capacity shall be based on the 2-year storm event.
- All storm sewers and inlet leads entering the City's Right-Of-Way (ROW) are required to have a 24-inch inside diameter or equivalent cross sectional area.
- All larger pipes upstream from new developments or redevelopments must connect to equivalently-sized or larger City storm sewers.
- Storm sewers smaller than 24-inch inside diameter are considered deficient and cannot be connected to by developments or redevelopments.
- Based upon capacity analysis, all new storm sewers, extensions of storm sewers, and re-routing of storm sewers within the City's ROW will be done with a minimum of 24-inch storm sewer pipe.

Hydraulic analysis is required to determine the minimum size of storm sewer lines. City design criteria requires 24-inch storm sewer regardless of the results of hydraulic analysis.

Blocks with current storm sewer deficiencies that require storm sewer extension are:

- A3
- B5
- H3
- J1, J2, J3, J4, J8, J9

What do others do to address this similar challenge?

In lieu of upsizing existing storm sewers, a development can utilize additional on-site storm water detention to restrict the developed flow to pre-developed conditions or release rates. Otherwise, the storm sewer must be replaced with larger pipes meeting minimum City requirements.

What are we recommending?

It is recommended that developers strategically develop each block so that all storm sewer connections tie to provided City infrastructure that meets the current design criteria as described in the barrier section of this document. Walter P Moore has reviewed the existing City of Houston storm sewer network along the Primary Z concept and has determined that the existing storm sewer trunk lines are located in such a way that each block has a minimum of one block length to connect to a City 24-inch storm sewer.

Potable and Fire Water Infrastructure

Potable and fire water capacity criteria are administered by the City of Houston Public Works and Engineering Department and are defined in the City of Houston Infrastructure Design Manual. This design manual outlines the following requirements for potable and fire water infrastructure:

- Pipe with 6-inch diameter may be used if the line is less than 1000 feet in length and is interconnected between two lines which are 8-inch diameter or larger. Only one fire hydrant or flushing valve is allowed on any length of 6-inch diameter line.
- Use minimum 8-inch diameter pipe for lines over 1000 feet long or when two or more fire hydrants or flushing valves are required.
- Pipes 12-inch diameter and larger shall be used as determined by the Professional Engineer and as approved by the OCE Division.
- Potable and fire water meter and backflow connections to existing lines must be one size smaller that the line being connected to (i.e. 6-inch meters/backflow preventers require 8-inch water line).

Most developments require 6-inch or 8-inch fire line connections. The City of Houston requires that all private water line connections connect to a minimum of one pipe size larger than the private water line. This means that a private 6-inch water line connection is required to connect to an 8-inch public water line, and an 8-inch private water line is required to connect to a 10-inch public water line. Currently there are not any blocks within the study are that are not able meet the project goals.

What do others do to address this similar challenge?

This question is not applicable since all blocks can potentially meet the project goals.

What are we recommending?

It is recommended that developers strategically develop each block so that all potable and fire water connections tie in to existing City infrastructure which meets the current design criteria, as described in the barrier section of this document. Walter P Moore has reviewed the existing City of Houston water line network along the Primary Z concept and has determined that the existing water trunk lines are located in such a way that each block has a minimum of two block lengths to connect to a City 8-inch water line.

Wastewater Infrastructure

- Sanitary sewer capacity criteria are administered by the City of Houston Public Works and Engineering Department and are defined in the City of Houston Infrastructure Design Manual. This design manual outlines the following requirements for sanitary sewer infrastructure:
- The minimum pipe diameter for a public sanitary sewer shall be 8-inches.
- Service leads 4-inches in diameter shall be confined to the limits of the lot which they serve and shall serve only the equivalent of one single-family lot. No 4-inch sewer shall be laid in any street, alley, or right-of-way.
- Service leads 6-inch in diameter shall not serve more than the equivalent of two single-family lots or other types of small land tracts.
- The minimum size lead shall be 8-inch in diameter downtown and 6-inch in diameter elsewhere.

The City of Houston will determine the availability and point of connection for each block within the study area. Currently there are three blocks served by 6-inch sanitary sewer lines.
Blocks with potential sanitary sewer deficiencies are:

- B3
- E2, E3

What do others do to address this similar challenge?

The extension of appropriately-sized sanitary sewer lines to serve the development or redevelopment is the only way to address this issue. Developer Participation Contract (DPC) programs are provided by the City of Houston which will allow the Developer to contract with the City of Houston and share in the cost of constructing new sanitary sewer lines in areas where there are insufficiencies to serve a development or redevelopment. The City of Houston currently has three types of DPCs and all three are covered in City of Houston Code of Ordinances, Chapter 47, Article IV, beginning with Section 47-161.

1) 30-70 DPCs: are mainly intended for reimbursement of new sanitary sewer infrastructure construction only. Housing is not associated with these type projects and there is no provision for reimbursement of storm sewer costs. The cap on reimbursement is limited to $1,000,000 but only includes construction costs.

2) 50-50 DPCs: are also mainly intended for reimbursement of sanitary sewer infrastructure construction only. Housing is not associated with these type projects and there is no provision for reimbursement of storm sewer costs. The cap on reimbursement is limited to $50,000 and includes construction and engineering costs.

3) 70-30 DPCs: are principally for sanitary sewer infrastructure construction in new residential subdivisions. The Department of Public Works and Engineering is principally responsible for reimbursements involving sanitary sewer funds. If applied for, some developers will receive funds from the Department of Housing and Community Development for Storm Sewer infrastructure construction on affordable housing development. The cap on reimbursements for these type projects is $1,000,000 and includes construction and engineering costs.

What are we recommending?

It is recommended that developers strategically develop each block so that all sanitary sewer connections tie in to existing City infrastructure which meets the current design criteria, as described in the barrier section of this document. Walter P Moore has reviewed the existing City of Houston sanitary sewer network along the Primary Z concept and has determined that the existing sanitary sewer trunk lines are located in such a way that each block has a minimum of one block lengths to connect to a City 8-inch sanitary sewer line.


CROSSPOINT PROPERTIES
Crosspoint Properties plans to add another landmark to its collection of Design District properties: a mixed-use office building with garage parking.
RHS INTERESTS
RHS Interests owns the two properties on the adjacent blocks to the south of the City-owned blocks.
CITY SITE 2
The Independent Arts Collaborative (IAC) is a consortium of multiple, independent performing and visual arts organizations from around the City.
STUDENT HOUSING
Houston Community College (HCC) plans to build a student apartment building with ground floor retail on a key block connecting the College District to the Arts District.
BRAZOS ST
SMITH ST
LOUISIANA ST
MILAM ST
TRAVIS ST
ROSALIE ST
ELGIN ST
FANNIN ST
SAN JACINTO ST
CAROLINE ST
AUSTIN ST
HOLMAN ST
WINBERN ST
ALABAMA ST
TROXLLO ST
ISABELLA ST
527
CROSSPOINT PROPERTIES
CITY SITE 1
CITY SITE 2
RHS INTERESTS
RHS INTERESTS
HOUSING STUDENT
N

Build A Catalytic Project

7

Strategic investments in the built environment can increase the momentum of private sector real estate development and help drive new development. New projects have the ability to increase market demand in the area and improve the potential for other spin off projects to get built. Building a catalytic project that achieves dramatic results is not simple. It requires creating development capacity, forming partnerships, and closing the financial gap. To be a catalyst, a project must encourage new projects and increase local activity. Catalytic projects closely match the needs of the community and link to their greater vision.

The market for new development in the study area has stagnated. While the current economic decline emphasized the slowdown in investment, the study area was already experiencing problems before the crisis. Land prices are prohibitively high. There are opportunities for development, but they will require the support of multiple parties and incentives for the private sector to take action. Rather than distributing resources evenly within the community, special attention should be paid to key projects that have the potential to regenerate revitalization activity. The risks are managed through partnerships, and the reward is the potential success of neighborhood revitalization that creates a vibrant, livable community. The following projects contribute to intensifying the activities in each of the three districts:

Independent Arts Collaborative (Arts District)
RHS Interests Parking Garage (Arts District)
Student Housing building (College District)
Crosspoint Properties Office Building (Design District)

These project ideas solidified to some extent because of the study process, which engaged community change agents and linked them together to envision possibilities for the neighborhood's future. The project details highlighted in this book are comprehensive, but only intended as schematics. The building designs and programs are flexible in order to adapt to potentially changing factors, and enhance the community vision. In general, these projects represent the kinds of projects that can make a difference in the revitalization of the Ensemble/HCC Livable Centers study area.

Independent Arts Complex (IAC)

The Independent Arts Collaborative (IAC) is a consortium of multiple, independent performing and visual arts organizations from around the City. These groups have been working together to find/build a common home and facility in which they can collaborate, share resources and provide a unique destination for Houstonians. The Houston Arts Alliance hired Jewett Consulting to assist the IAC with identifying and developing a strategic plan for a new home. After looking at other locations, the group was introduced to the study team as a potential 'tenant' for the Ensemble/HCC Livable Centers Study area -perhaps on one of the blocks owned by the City or RHS Interests. Subsequent explorations led to the conclusion that the IAC program would require close to a full block, and the decision was made to develop a design concept for the facility on the City-owned property, specifically the southern block located at Holman and Main streets.

The City of Houston Code Enforcement property occupies a central location in the HCC/Ensemble Station area. The corner of Holman and Main Street is at the center of the corridors identified with the highest priority for improvement. This block is currently used as surface parking for the Code Enforcement building. Together with the RHS property to the south, redevelopment of this property is seen as having the greatest positive effect on the area immediately around the light rail station.

The vision for the complex is to build a multi-purpose, performance, exhibition, practice and headquarters for a broad range of independent arts groups. Many of these organizations are currently leasing space in various locations around town. While this gives them some of their grass roots ('do more with less') character and authenticity, they have come together with the belief that they can do more if they leverage their common interests and resources; and with a belief in the power of collaboration. The notion is that in coming together, their audience can multiply and so will the opportunity to multiply creative energy together. Over the course of several weeks, the study team met with representatives of the IAC and Jewett Consulting. We were provided a quantitative program for facility space that is laid out in the following pages. We also articulated key qualities that the Collaborative members want to realize in the vision for this project.

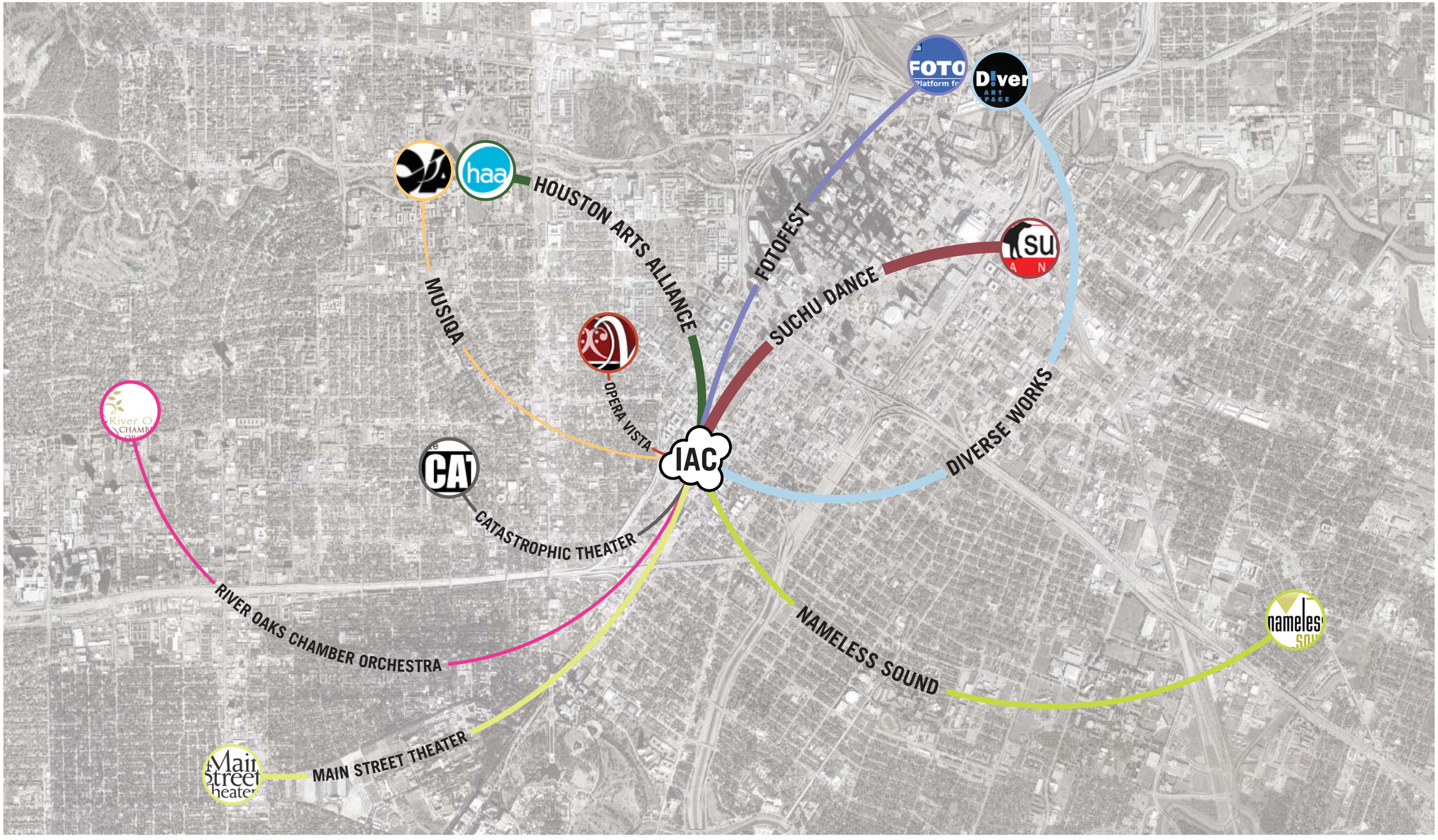


FOTO
D!ver
ART PACE
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HOUSTON ARTS ALLIANCE
FOTOFEST
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SUCHU DANCE
MUSIQA
OPERA VISTA
IAC
DIVERSE WORKS
CAT
CATASTROPHIC THEATER
RIVER OAKS CHAMBER ORCHESTRA
NAMELESS SOUND
MAIN STREET THEATER

Program

The Independent Arts Collaborative (IAC) facility is a collection of spaces that will be used by many organizations; some of the spaces are shared and some are dedicated to a single organization. The facility has performance spaces, rehearsal/classroom spaces, offices, theatrical back of house (BOH) spaces, front of house (FOH) spaces, and a roof top plaza.

Performance Spaces

In the building, there are three shared performance venues of varying sizes and styles; there is a proscenium, a thrust and a black box theatre. All three venues are entered from a second floor common lobby and share FOH and BOH support spaces.

The Proscenium Style theatre is a 300-seat shared performance space with a full fly loft (90' tall) and a 40' deep x 85' wide stage. The house has a fixed steep raked seating layout to create intimacy, natural acoustics, a supplemental electro-acoustical system and a variable acoustic system to accommodate a variety of performance types. The room has the ability to change its acoustics to accommodate cinema, dramatic theater, musicals and operas. The following is a list of organizations that have requested the use of a 300-seat performance space:

- Diverse Works — 14 days a year
- Suchu Dance — 4 nights & 6 days a year
- Foto Fest — 26 weeks a year
- Musiqa — 4 days a year
- Main Street Theater — Daily from Sept to May; plus twice a year for a 4-week run
- Opera Vista — 2 to 16 performance & 6 to 8 rehearsals

The Thrust Style theatre is a 150-seat shared performance space and is the most heavily scheduled space. It has a 20' x 20' thrust stage area with an overhead grid at 22' and an additional 20' deep x 55' wide back stage area with 45' fly capacity. The seating in this theatre is fixed, has a steep rake and has vomitories for actor circulation. The following is a list of organizations that have requested the use of a 150 seat performance space:

- Diverse Works — 70 days a year
- Suchu Dance — 24 nights & 22 days a year
- Nameless Sound — 15 performances a year
- Catastrophic Theater — 108 nights a year
- River Oaks Chamber Orchestra — 12 days a year
- Main Street Theater — Twice a year for a 5-week run
- Opera Vista — 4 performance & 2 rehearsals a year

The Black Box Style theatre is a 75 seat shared performance space that is 42' x 42' (1,764 square feet). It has a flat sprung floor and 21' clear height below a catwalk or grid system. The theatrical seating is on movable risers that can be arranged in several different configurations. The following is a list of organizations that have requested the use of a 75 seat performance space (or a performance space of this size):

- Diverse Works — 35 days a year
- Suchu Dance — 8 nights & 6 days a year
- Nameless Sound — # days a year

The building also has a 50' x 40' black box style private performance space (2,000 square feet) that is equipped with an 18' high grid. The space is located on the ground floor, adjacent to Diverse Works' exhibit space. This performance space is used by Diverse Works.

Exhibit Spaces

A 10,000 square foot shared exhibit space is located on the ground floor and aligns with Holman Street. The space is contiguous, approximately 55' wide, 18' clear height and can be access from either the exterior or interior of the building. This space is used by Foto Fest and the Houston Arts Alliance (HAA).

The facility also has a 4,250 square foot and an 800 square foot exhibit space on the ground floor. These spaces run along Main Street. Both spaces are approximately 40 feet wide, have an 18' clear height and can be accessed from either the exterior or interior of the building. These exhibit spaces are dedicated to Diverse Works.

Rehearsal / Classroom / Flexible Spaces

The building has several flexible rehearsal/classroom spaces that are shared by a variety of organizations. These rooms overlook Main Street, are accessible from the main theatre lobby and have easy access to the theatre BOH. These rooms are open, have sprung floors and have 18' ceilings.

Organization using the spaces	#	Size of Space Requested
Diverse Works	1	(30'x40')
Suchu Dance	4	(30'x40')
Houston Arts Alliance	1	(32'x32' = 1,024 sf)
Main Street Theater	2	(25'x25' = 625 sf)

An additional 1,500 square foot shared rehearsal /classroom is located on the ground floor in the rehearsal wing.

Organization using the spaces	#	Size of Space Requested
Suchu Dance	1	(30'x40' = 1,200) (1 of the 5 requested is now 1,500 sf)
Catastrophic Theater	1	1,500 sf
Nameless Sound	1	1,500 sf

The three 300 square foot (15x20) shared multi-purpose spaces are located on the ground floor in the rehearsal wing. The rehearsal wing is off of the ground floor main circulation space and the Fannin Street entry. These rooms are open and have 12' high ceilings.

Organization using the spaces	#	Size of Space Requested
Houston Arts Alliance	3	(15'x20')
Musiqa	1	(15'x15' = 225 sf)

The one 500 square foot shared multi-purpose classroom is located on the ground floor, has windows that overlook Fannin and is in the

rehearsal wing. The room is open and has an 18’ high ceiling.

Organization using the spaces	#	Size of Space Requested
Foto fest	1	500 sf
River Oaks Chamber Orch	1	(20’x20’ = 400 sf)

The building also has two dedicated rehearsal /classrooms. Both are located on the ground floor in the rehearsal room wing. These rooms are open, have sprung floors and 18’ high ceilings.

Organization using the spaces	#	Size of Space Requested
Nameless Sound	1	700 sf
Suchu Dance	1	1,700 sf

Office Spaces

Office suites for the various organizations are located on the third floor. The office suites share common office support spaces and are all clustered around a common atrium. The office level is easily accessible from the public lobby and has elevator and stair access to the theatre BOH.

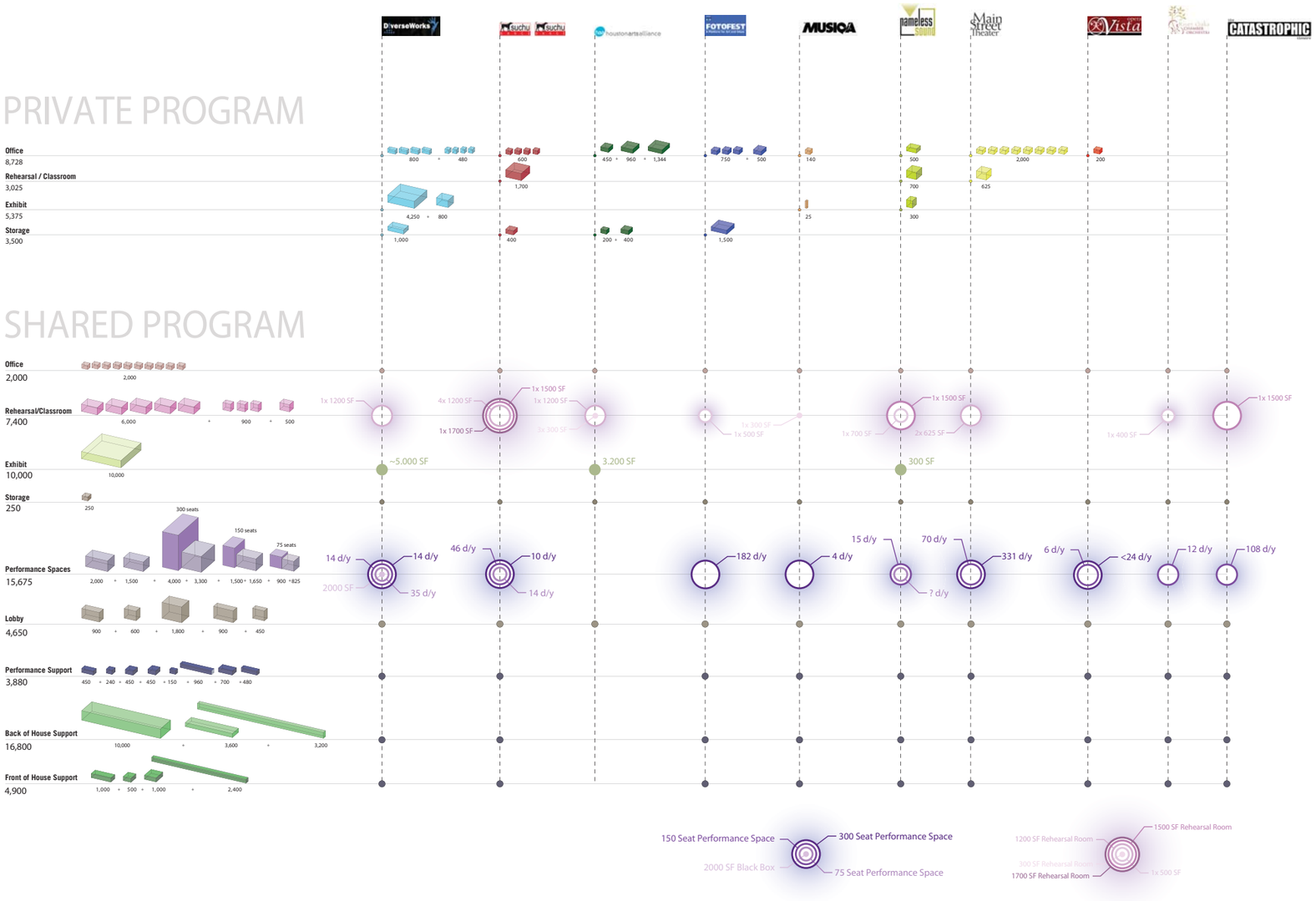
Support Spaces

The theatrical Back of House includes shared dressing rooms, restrooms, a green room, a break room, a large scene shop, tech offices, control rooms, etc. The Front of House has a café at the corner of Main and Holman, a large lobby on the second floor overlooking Holman, a catering kitchen, a box office, a facility operations offices, lobby storage, etc.

Roof Top Plaza

The building has a roof top plaza on the third level. The plaza overlooks Holman Street, has a view of The Medical Center to the south and a view of Neartown to the west. The plaza is accessible via elevators from the main facility entry or via a series of exterior stairs and terraces.

Program Matrix

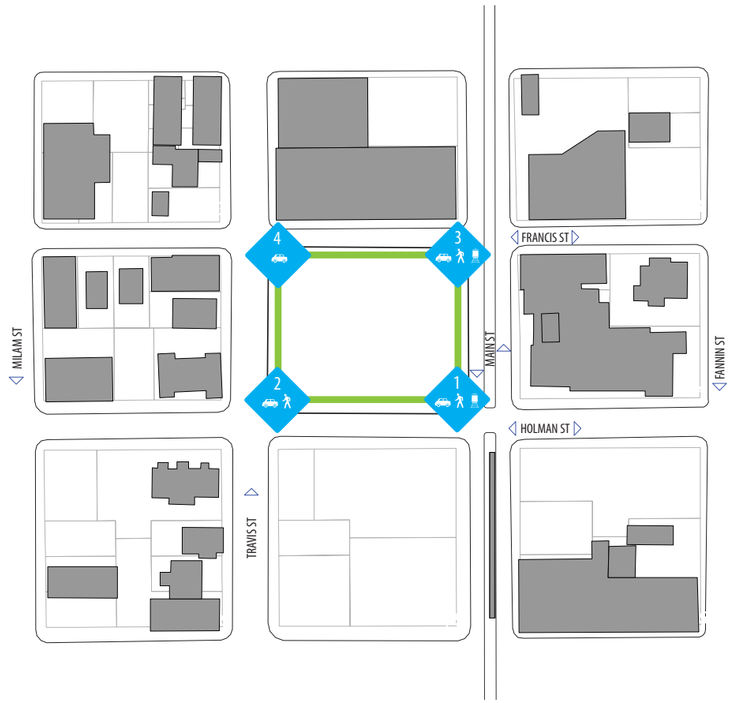


Site Analysis

This site occupies a key location in the study area. It is at the end of the light rail station, where the Z Connection meets Main Street. It is visible to cars on Spur 527 and to light rail passengers. It links the three districts. A project on this site will impact areas beyond its own block; it can help redefine and activate the entire study area.

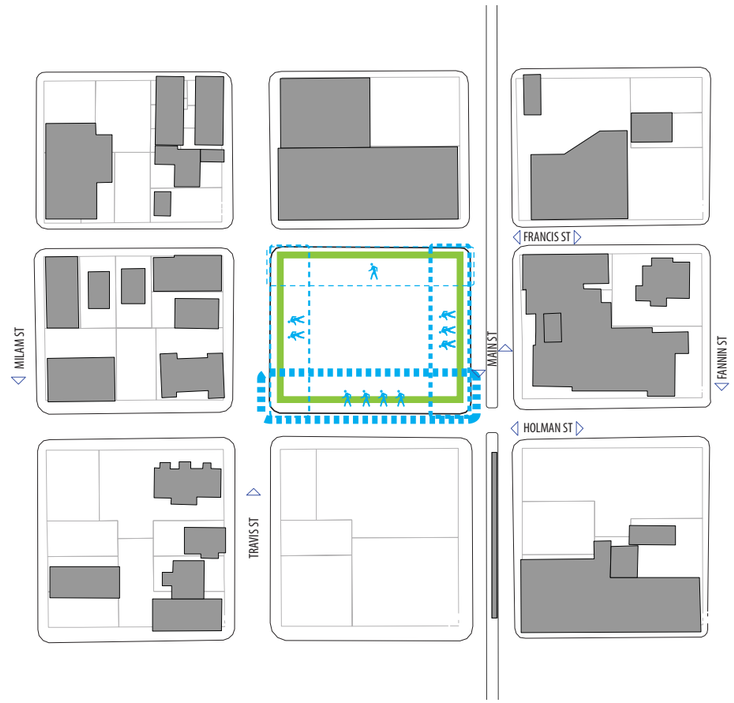
Corner Hierarchy

This diagram maps the visual importance of the site's four corners based on the modes and volume of observation; automobiles, trains, and pedestrians constitute the three diagram icons. It concludes that the northwest corner may be the least important for pedestrians, and could be the best location for a loading dock entrance.



Pedestrian Prominence

This diagram maps the pedestrian hierarchy of the site's four sides based on the projected greatest volumes of foot traffic. The most prominent pedestrian block face is along Holman Street, and new construction on the site should contribute to pedestrian comfort on this particular elevation.



Vehicular Hierarchy

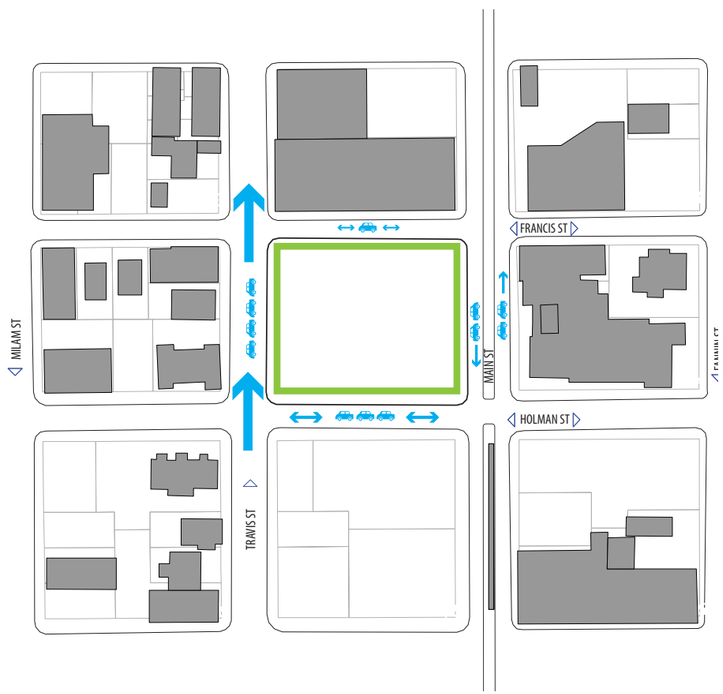
This diagram analyzes and maps the volume of vehicular traffic on the site's four bounding streets. It reveals the highest volumes occur on Travis Street, a one-way north-bound street.

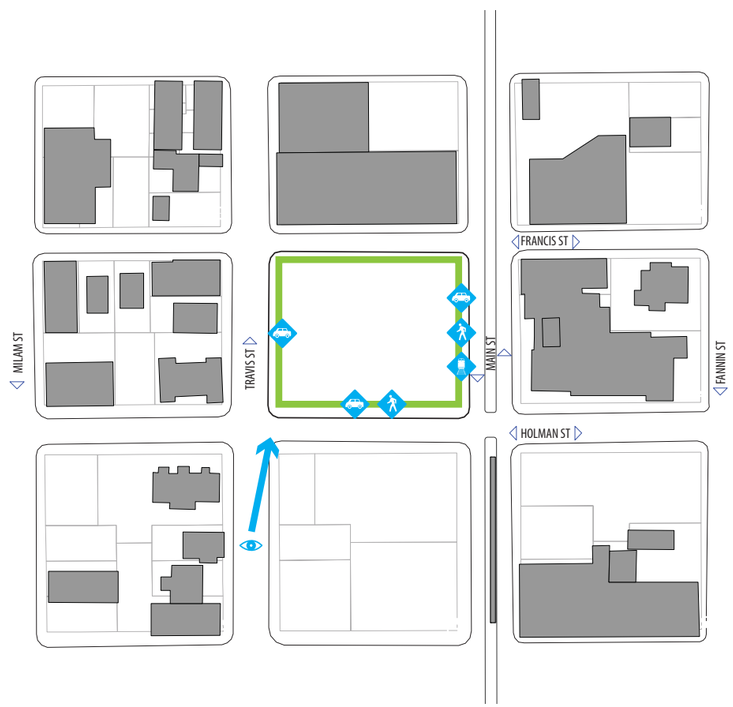
Facade Visability

This diagram maps the visual hierarchy of the proposed building's four 'street facades'. The analysis is based on the three principal inter-modal forms of movement and their respective volumes and speeds.

Block Concept

This diagram is the melding of the three preceding diagrams to capitalize and maximize on the opportunities that all four building 'faces' offers. Building entry points, screened service, and visibility and identity for all of the constituent users are the primary drivers of the resultant diagram.





Building Massing

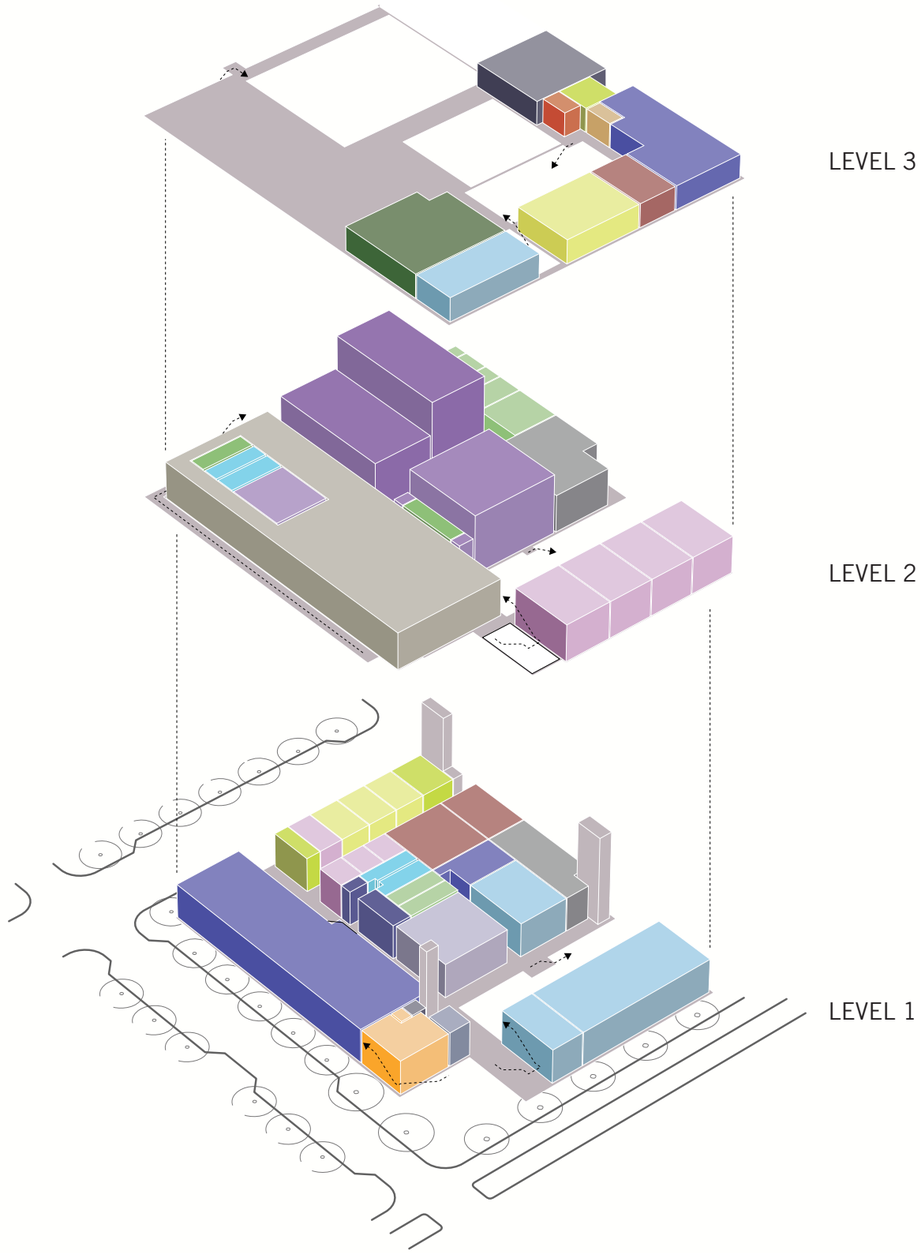
The building is organized around four major public spaces:

The sidewalk provides access to galleries and classrooms at ground level. The primary building entrance is a plaza at Main and Holman with a secondary entry (with bus drop-off-area) on Travis.

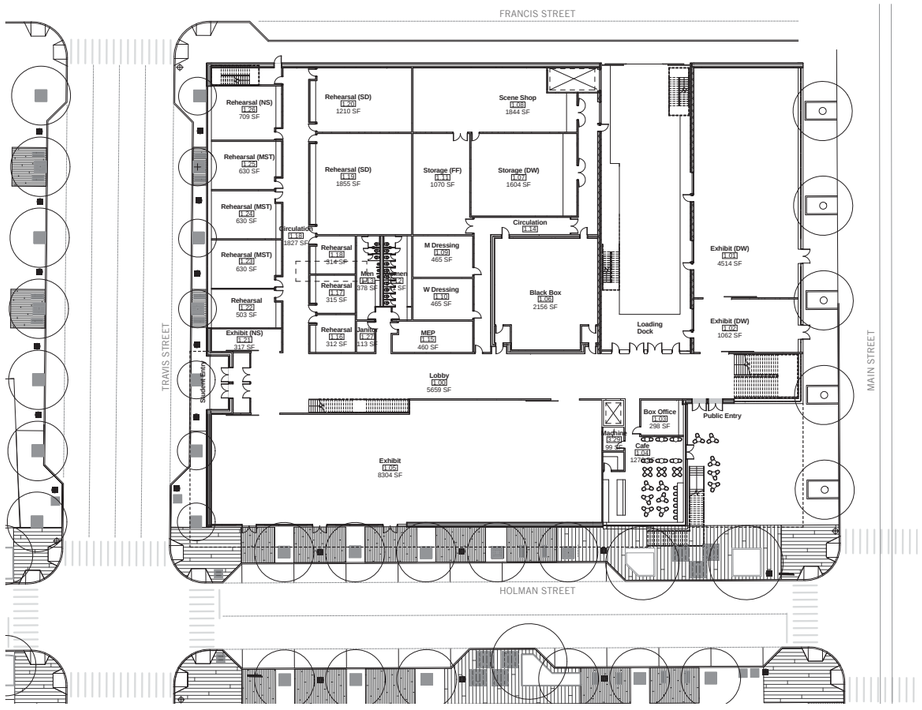
The lobby, accessed by stairs from both entries, serves performance spaces and classrooms. It is located on the second floor to avoid putting a sometimes inactive space on the sidewalk; that placement also provides excellent views from the lobby out and from the city in. At night, the lit lobby advertises the presence of the building. The lobby is also designed to be rented out for events.

The loading dock is the primary back of house circulation and delivery access but also a major public space, a quirky venue for special events. It ties the building together vertically, visually connecting the ground floor plaza, the second floor lobby, and the third floor offices.

A roof deck, accessed from interior circulation as a well as an exterior deck and stair that wraps around the south side of the building, is a communal gathering space for the building's users (including the staff in the third floor offices, which open onto it) as a well as a special events venue.



LEVEL 1



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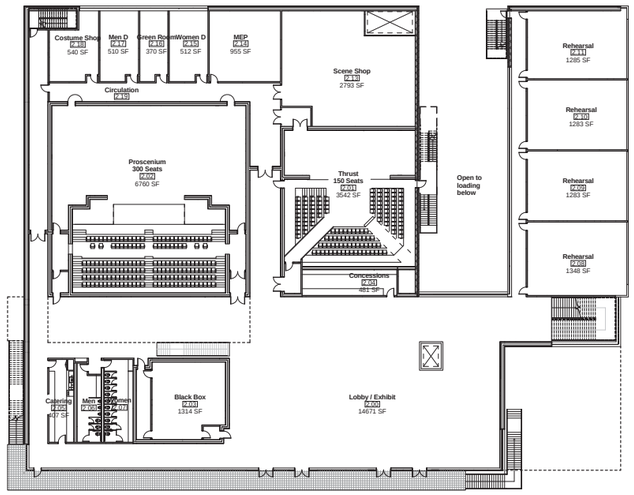
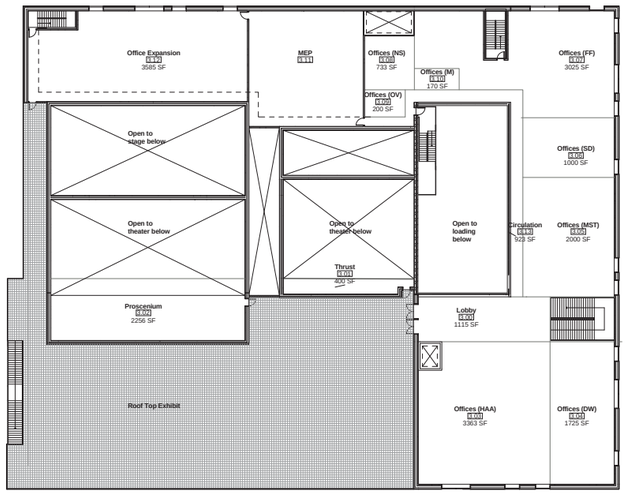


LEVEL 3



DIVERSE WORKSHOP EXHIBITION	4200 SF
DIVERSE WORKSHOP EXHIBITION	850 SF
DIVERSE WORKSHOP PERFORMANCE SPACE	2000 SF
DIVERSE WORKSHOP STORAGE	1000 SF
SUCHU DANCE REHEARSAL ROOM	1500 SF
SUCHU DANCE REHEARSAL ROOM	1700 SF
HOUSTON ARTS ALLIANCE REHEARSAL ROOM	900 SF
HOUSTON ARTS ALLIANCE STORAGE	300 SF
FOTOFEST EXHIBITION SPACE	10000 SF
FOTOFEST EXHIBITION SPACE	500 SF
FOTOFEST STORAGE	1500 SF
NAMELESS SOUND EXHIBITION	700 SF
NAMELESS SOUND EXHIBITION	300 SF
MAIN THEATER EXHIBITION	625 SF
MAIN THEATER EXHIBITION SHARED	1250 SF
FRONT OF HOUSE	1070 SF
CLASSROOM SUPPORT	1070 SF
BOX OFFICE	225 SF
CAFE	780 SF
SCENERY SHOP	2400 SF

PERFORMANCE SPACE - 300 SEAT THEATER	6400 SF
PERFORMANCE SPACE - 150 SEAT THEATER	3125 SF
PERFORMANCE SPACE - 75 SEAT THEATER	1765 SF
SUCHU DANCE REHEARSAL CLASSROOM	4800 SF
LOBBY	10500 SF
FRONT OF HOUSE	350 SF
FRONT OF HOUSE	735 SF
BACK OF HOUSE	2850 SF
SCENERY SHOP	2450 SF

DIVERSE WORKSHOP OFFICE PRIVATE	800 SF
DIVERSE WORKSHOP OFFICE SHARED	480 SF
DIVERSE WORKSHOP OFFICE SHARED	250 SF
SUCHU DANCE OFFICE PRIVATE	600 SF
SUCHU DANCE STORAGE SHARED.	400 SF
HOUSTON ARTS ALLIANCE OFFICE	450 SF
HAA OFFICE PRIVATE	960 SF
HAA OFFICE PRIVATE	1300 SF
HAA STORAGE	300 SF
FOTOFEST OFFICE PRIVATE	750 SF
FOTOFEST OFFICE SHARED	2000 SF
FOTOFEST CONFERENCE LIBRARY	500 SF
MUSIQUA OFFICE PRIVATE	144 SF
MUSIQUA STORAGE PRIVATE	25 SF
NAMELESS SOUND OFFICE	500 SF
MAIN THEATER OFFICE PRIVATE	2000 SF
OPERA VISTA OFFICE PRIVATE	200 SF

IAC programming chart

Independent Arts Collaborative (IAC)

IAC Priorities

The users want the facility to achieve the following:

1. Facilitate Collaboration
The constituent organizations believe in cross-pollination; informal and unplanned interactions as well as formal collaborations enabled by shared facilities will spark creativity.

2. Accommodate Change over Time
The individual organizations will grow and change over time; some may choose to leave the complex, some will evolve to need different spaces, and others may want to move in. The building program must be flexible in order to accommodate these changes over time.

3. Support Independent Identity of various Groups
This is a collaborative, but the individual organizations remain independent; they must visibly maintain their own presences, even in shared spaces.

4. Provide for Renewal by Fostering New Grass Roots Groups
The center must have a low barrier to entry: it is designed to facilitate independent arts, not institutionalize arts. That means spaces must be affordable and small organizations must be accommodated as well as larger ones.

5. Leverage and Maximize Shared Resources
There is economy in sharing support facilities and even staff.

6. Encourage Daily Interaction Between Groups and Individuals
The making of art should be public. Visitors should be able to see rehearsals, run into artists, and be aware of the work going on behind the stage.

7. Retain Some of the 'Rawness' Inherent in the Origins of Group Members

Each of these groups is accustomed to adapted, rough facilities and appreciates the freedom and informality they bring. This facility should not feel polished and institutional.

Southeast corner of the IAC building at the corner of Main and Holman streets

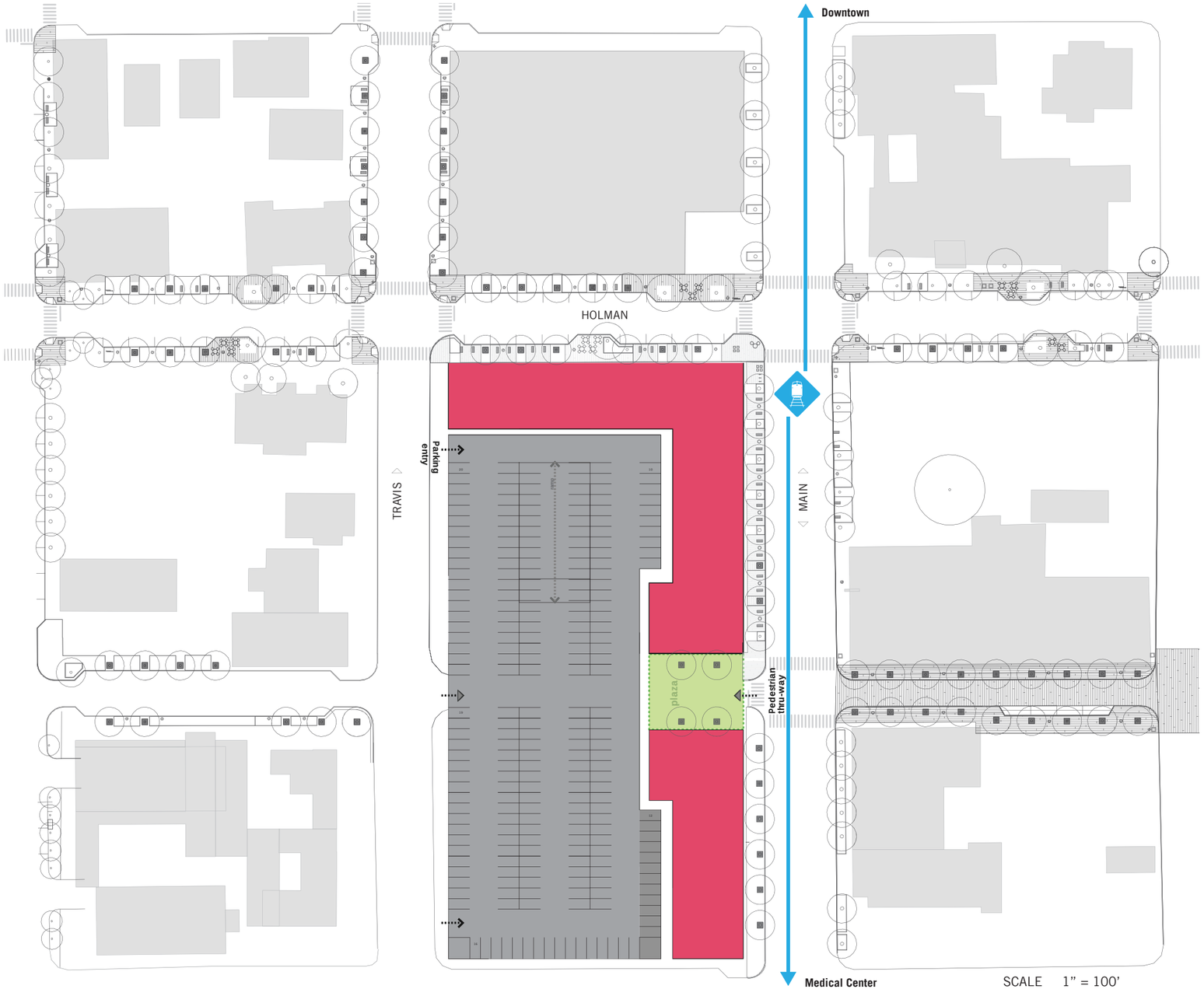

WINTERHOUSE
POLLING
PLACE
PHOTO
PROJECT
CITIZEN
JOURNALISM
EXHIBITION
Main
MAIN
FOTO
FEST
2010
BIENNIAL
CONTEMPORARY
U.S. PHOTOGRAPHY

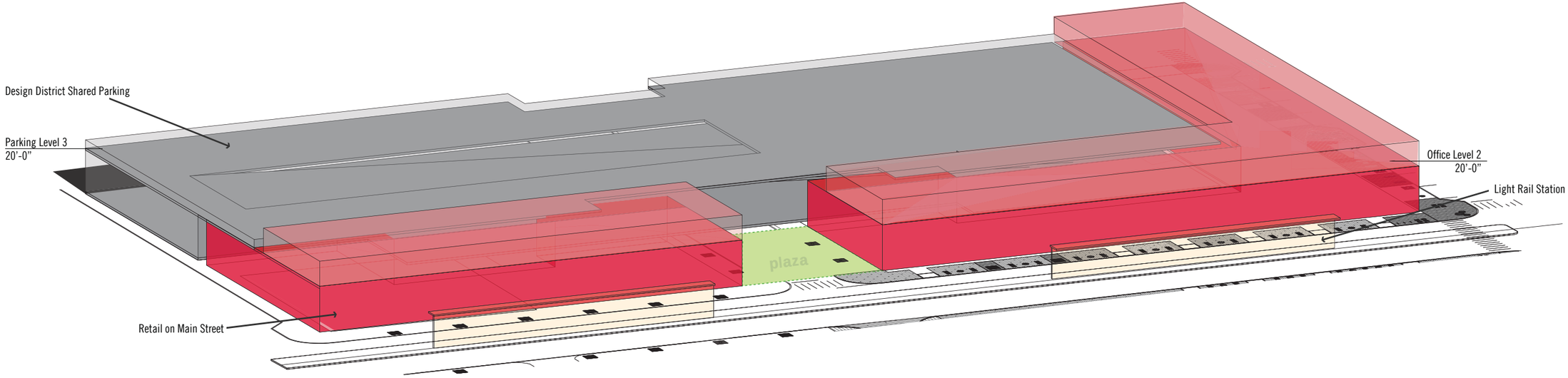
Arts District Garage

RHS Interests owns the two Ensemble/HCC Partners properties on the adjacent blocks to the south of the Independent Arts Collaborative (IAC). The properties are essential to the success of the IAC building because they will provide critically needed parking spaces. The two project teams are working together and will submit a joint development plan to the City. The IAC cannot be built without parking to serve tenants and visitors, and it cannot accommodate its programmatic needs on one block if parking must be accommodated on site. Similarly, the parking garage is not feasible without the parking demand generated from the IAC.

The developer plans to build a 750-space parking garage that is wrapped in ground floor retail space. Leasable space will market to business with the character of existing roots retail along Main Street to the south where individual business owners provide an eclectic mix of destination spots. This is not the suburban box stores of Anywhere, USA but a mix of unique businesses that define the Arts District and differentiate it from other districts in the city and around the country.

The parking garage will be open to the public, serving all businesses, residents, and visitors in the Arts District and the greater Midtown neighborhood. Access to the garage will be oriented to the west with entrance and exit routes on Travis Street. The building plan involves closing Berry Street to vehicular traffic and creating a covered pedestrian route between Main and Travis streets. The second floor of the structure will create overhead cover for the walkway, which connects to the planned Woonerf pedestrian priority area on Berry Street between Main and Fannin streets. The collaborative development project will help create a critical streetscape connection along the light rail corridor and help bridge the gap between the Arts and College Districts. Additionally, this garage offers an opportunity to create a shared district parking garage for the study area.





RETAIL, 43,130 SF
OFFICE, 37,825 SF
PLAZA, 4,400 SF
DISTRICT PARKING, 137,443 SF

Arts District parking garage, a mixed-use public parking garage serving the IAC and other district visitors

HCC Student Housing

Student activity around the HCC campus is a major asset for the Study area. As the HCC curriculum expands and the campus grows, there are significant opportunities to increase student activity within the district. HCC wants to add on-campus student housing to support its growing student population. In addition, the college is planning for campus improvements such as demolishing the west wing to construct a new plaza at the corner of Holman and San Jacinto streets.

Across from its new plaza, HCC plans to build a mixed-use building for student housing at the southwest corner of Holman and San Jacinto streets. The site is currently the location of Planned Parenthood, which is moving to a new facility this year. This location would be ideal because of its proximity to the light rail station with direct access down Berry Street. Students already arrive to the campus from the light rail station and walk down Berry Street to the western edge of the campus. The new residential building would better link the College District to the new Arts District around the station, and increase student activity in the neighborhood.

Adkins Architectural Antiques is located on Berry Street in this historic house. This is the block where a new student housing building will be located.

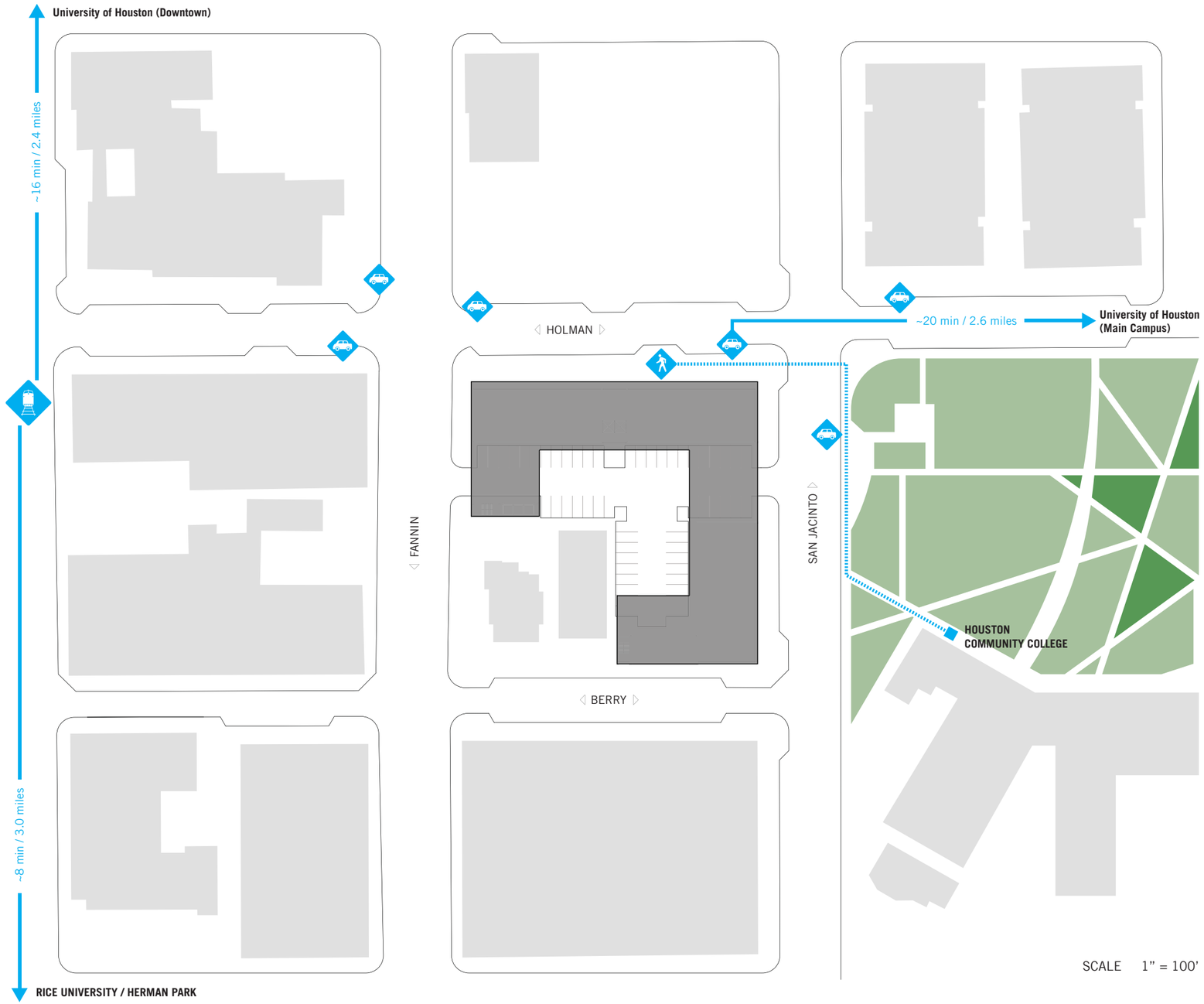
Holman Street, looking toward Main Street with Trinity Episcopal Church in the distance

This parking garage is slated for demolition and replacement with HCC Star Plaza.

Site Plan

The site design works around a historic building on the southwest corner of the block. The historic house is a remnant of the original early-1900s suburban neighborhood, and today is home to Adkins Architectural Antiques. Preserving the historic house, the site is limited to a 3/4 block area, which limits parking spaces within the footprint. The market for these apartments and retail spaces does not depend on parking - students may not have cars, and ground floor retailers will rely mostly on foot traffic to and from the campus.

A new mixed-use building on this site will help frame the planned plaza across the street. Ground floor retail would capture significant foot traffic from the light rail station and create a more pleasant public realm along this already heavily traveled street. This is a key block for HCC to connect to the Arts District and an ideal location to create and attract more student activity to the College District.



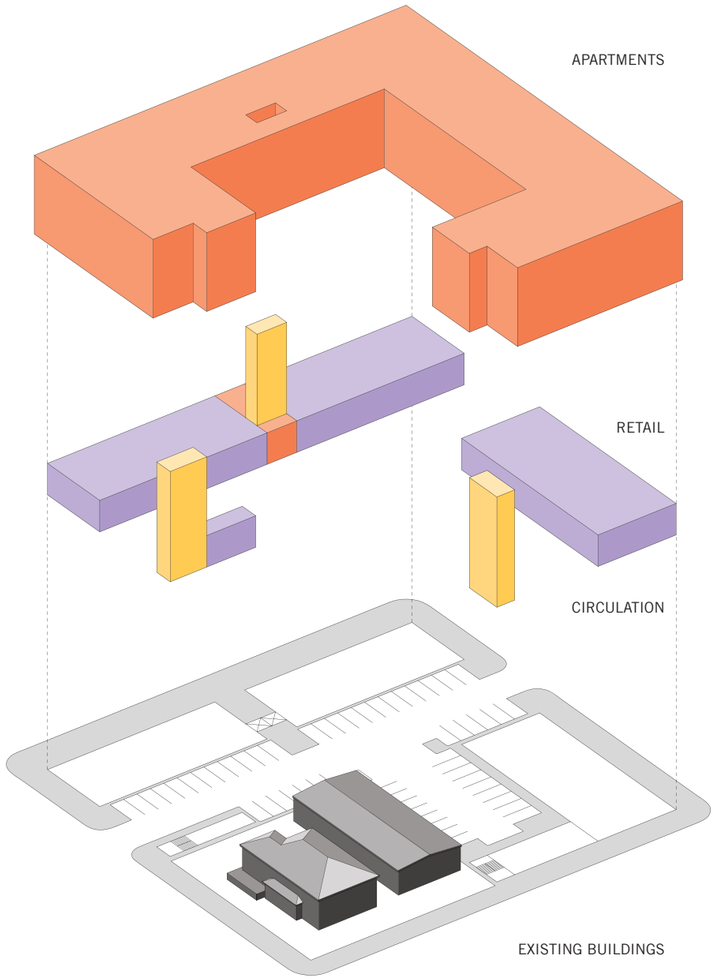
Student Housing in the College District

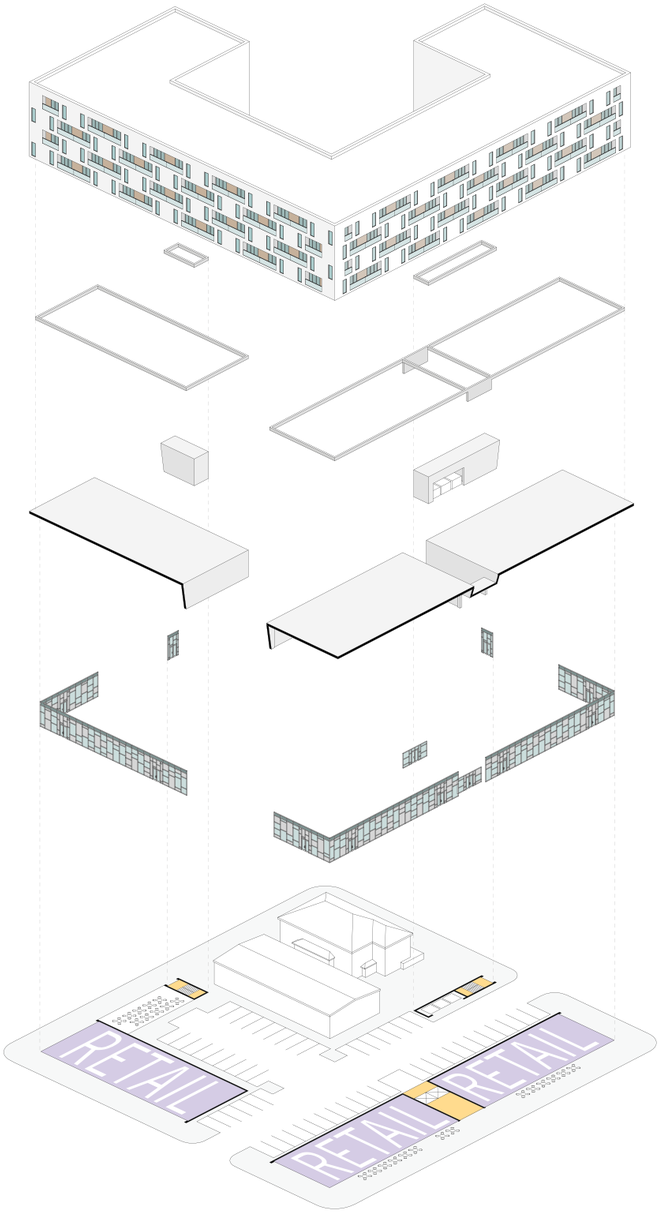
Building Program

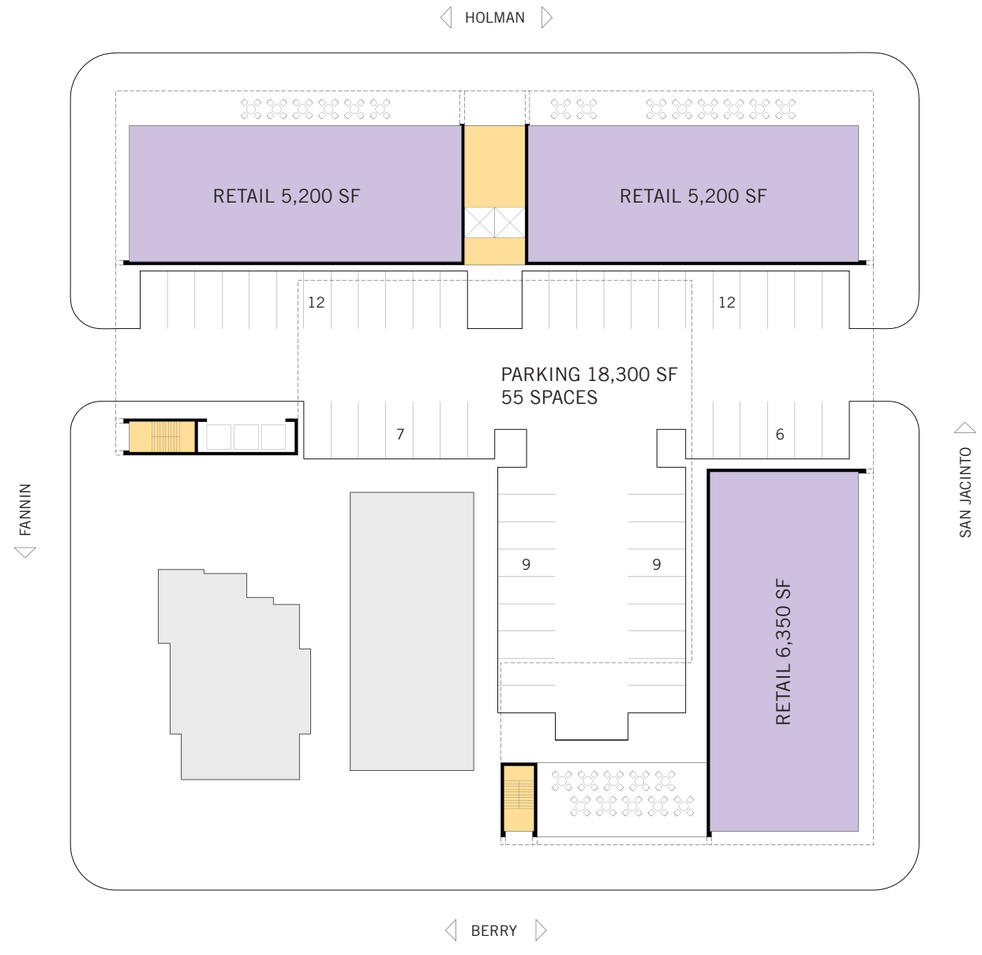
The building program features four floors of apartments above ground floor retail spaces. Residents will enter the building mid-block on Holman Street. Apartments include one- and two- bedrooms, each with one bathroom, and are located on either side of a central hallway. Approximately 18,000 square feet of ground floor retail area is divided into three spaces. These spaces are designed with transparent ground floor elevations and will contribute to a more dynamic and appealing pedestrian realm.

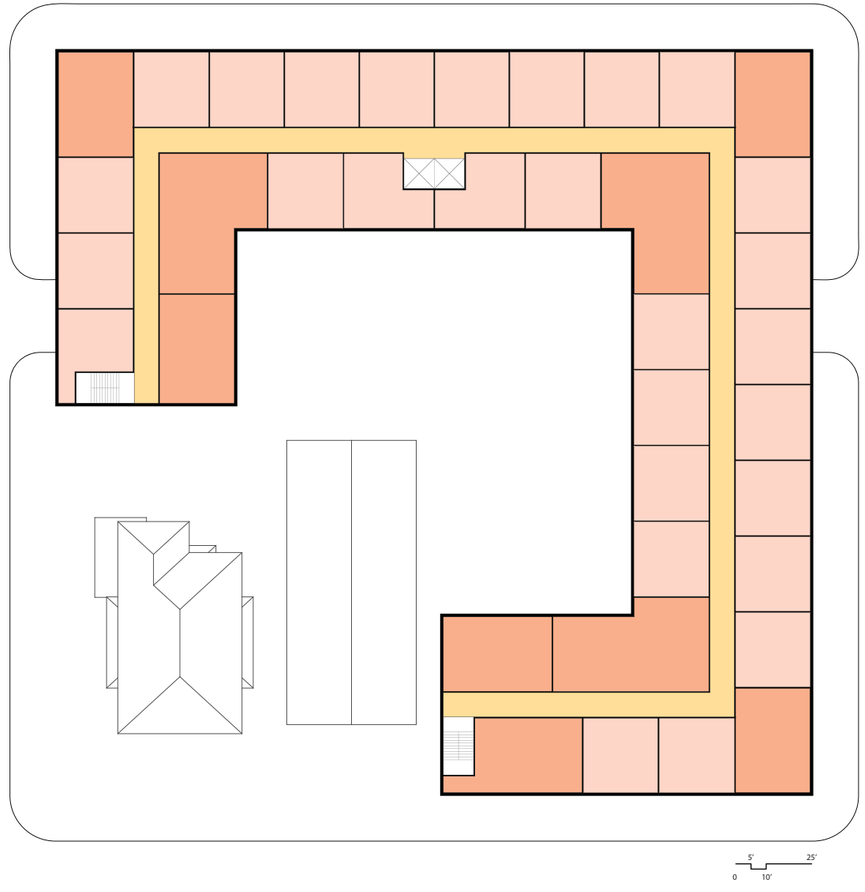
Surface parking is clustered in the center area of the building with approximately 55 spaces. Student residents will likely not have cars, and will be able to access their daily trips on foot or by light rail or bus. This area also serves as a loading space for the ground floor retailers. The space allows for additional air and light for interior facing apartment units. Apartments facing San Jacinto Street will have nice views of HCC's proposed plaza.

The building is designed with cost efficiency in mind to keep rents low for students. Exterior and interior materials are inexpensive, and the design focuses on standard products like windows and faming materials that are easy to get and cost effective. The simple modern design adds architectural interest to the area without raising the cost of construction.









RETAIL (16,750 SF)
RESIDENTIAL CIRCULATION

37 APARTMENTS PER FLOOR:
28 - ONE BEDROOM UNITS
9 - TWO BEDROOM UNITS

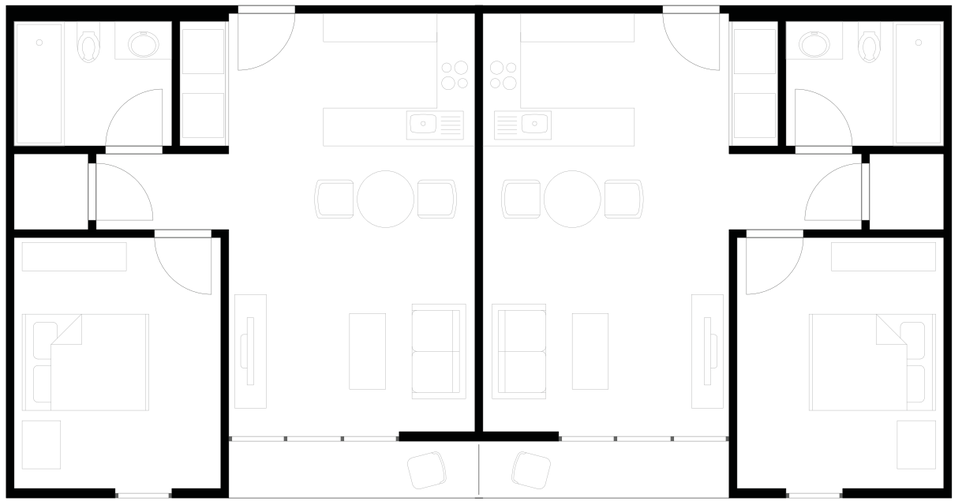
148 TOTAL UNITS (33,420 SF x 4 levels = 133,680 SF)

SCALE 1" = 50'

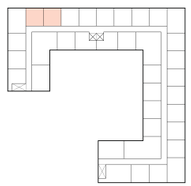
Unit Floorplans

A schematic design of the building includes four levels of student apartments above ground floor retail space. The apartment floor plans include one- and two-bedroom units, each with one bath and a balcony. One bedroom units are 650 square feet and two bedroom units are 930 square feet. The building floor plan maximizes air and light to apartment units. There are no other common areas besides the building foyer and two additional stair egresses. Minimizing common areas reduces management costs by maximizing the leasable square feet of the building,

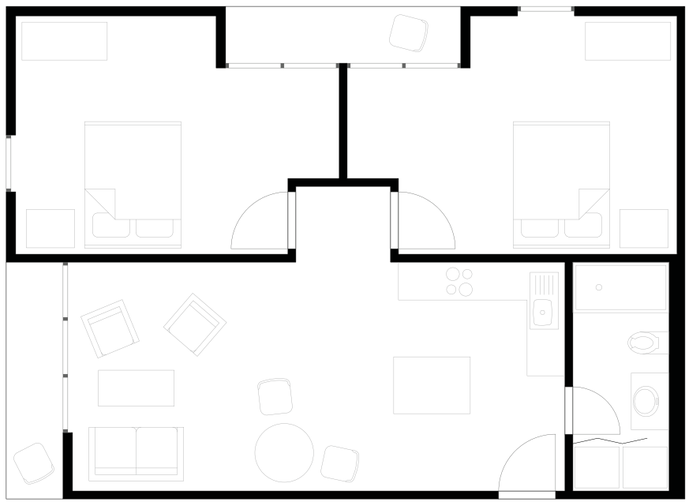
ONE BEDROOM UNIT (~650 SF)



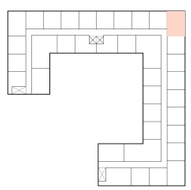
1/8” = 1’-0”



TWO BEDROOM UNIT (~930 SF)



1/8” = 1’-0”



HOLMAN STREET - ELEVATION

SAN JACINTO STREET - ELEVATION

BERRY STREET - ELEVATION

FANNIN STREET - ELEVATION

SCALE 1" = 75'

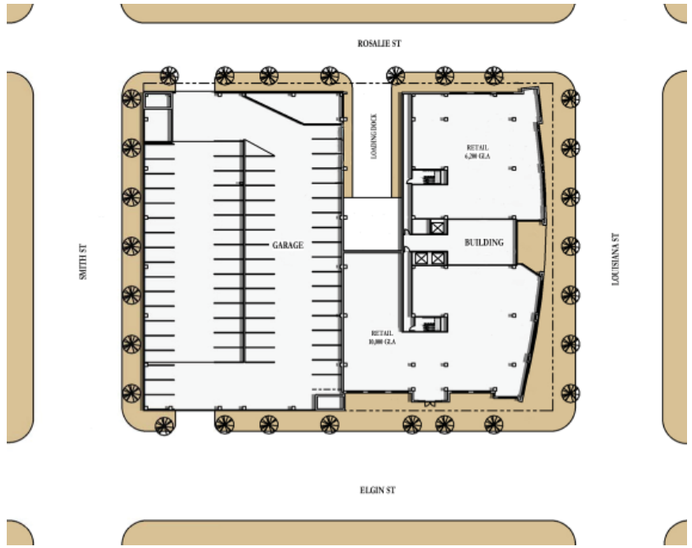
Crosspoint Office Building

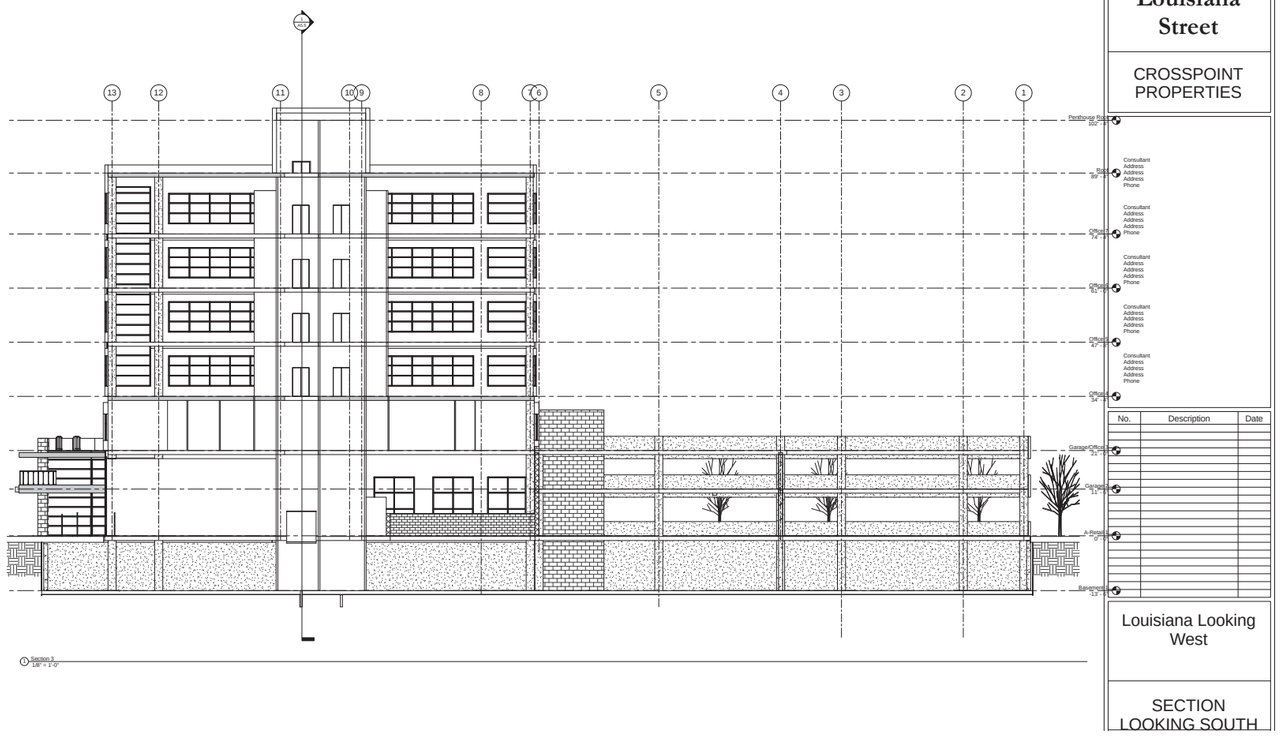
Crosspoint Properties is planning to build a mixed-use office building on the block bound by Elgin, Rosalie, Louisiana and Smith in the Design District. The developer owns several properties in the area, including the adjacent block to the east. These are both key sites along the Primary Z on Elgin.

Crosspoint Properties has a proven commitment to developing quality urban spaces. Plans for this new office building in the Design District have a pedestrian-oriented design featuring retail space along the sidewalk. The main office entrance faces Louisiana, but the Elgin Street elevation features a primary retail entry.

Building Program

The Crosspoint Properties office building features 16,000 square feet of ground floor retail with 94,000 square feet of office space on four floors above. A parking garage occupies the western half of the block on the basement level, level 2 and level 3. The garage provides 270 parking spaces.

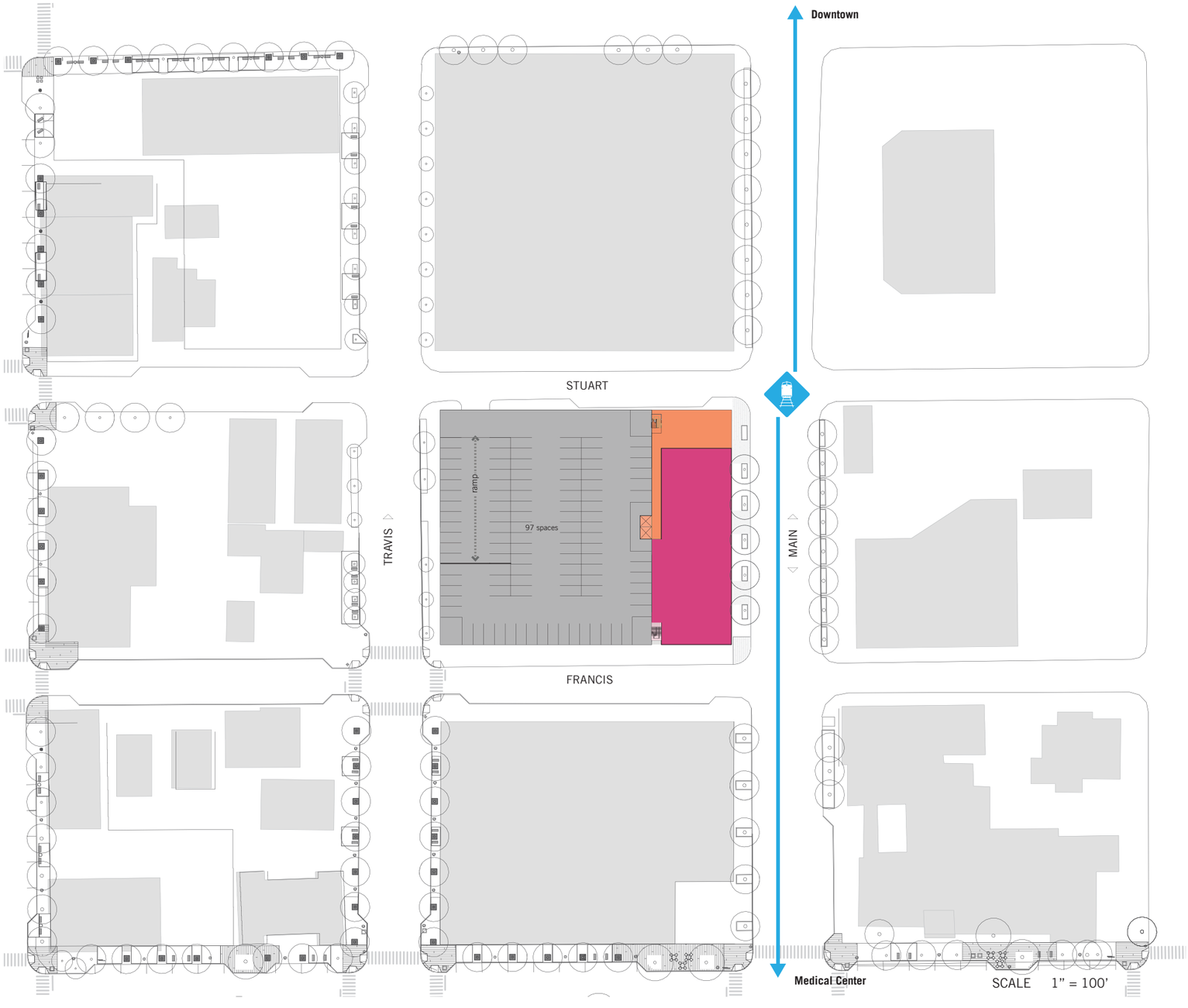


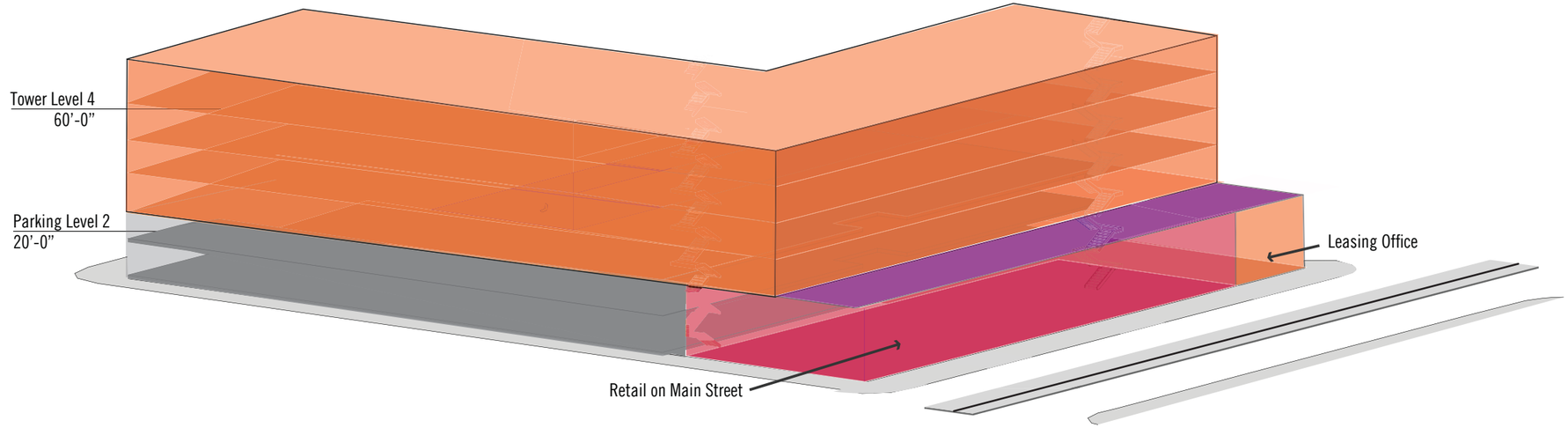


Mixed-Use Residential

When the Code Enforcement Department moves into a new facility and vacates its building on Main Street, the City of Houston will have to determine what the best new use is for the building and the site. The interdisciplinary team evaluated both sites and concluded that the surface parking lot south of the Code Enforcement building is an appropriate location for the Independent Arts Collaborative (IAC) building. An option for the Code Enforcement Building in the near term is to rent out the facility and provide parking in the HCC parking garage to the north. This is a good option for now, while the city explores potential development partnerships and/or the sale of the property. In the long term, we recommend that the Code Enforcement Building be replaced with a new mixed-use residential building.

This five-story building features ground floor retail opportunities and a 2-level parking garage below four stories of residential apartments. Additional parking can be accommodated off site in accordance with a district-wide shared parking strategy. Parking can also be provided in a new public garage located two blocks south of the site (constructed by RHS Interests) or in the HCC parking garage located on the adjacent block to the north. The building will attract residents with its proximity to the Ensemble/HCC Station, which provides easy access to major job centers such as Downtown and the Texas Medical Center. Additionally, tenants will be drawn to the area's unique artsy environment with an eclectic mix of shops, restaurants, and entertainment venues. Bringing new residential uses to the area will enhance activity in the Arts District.





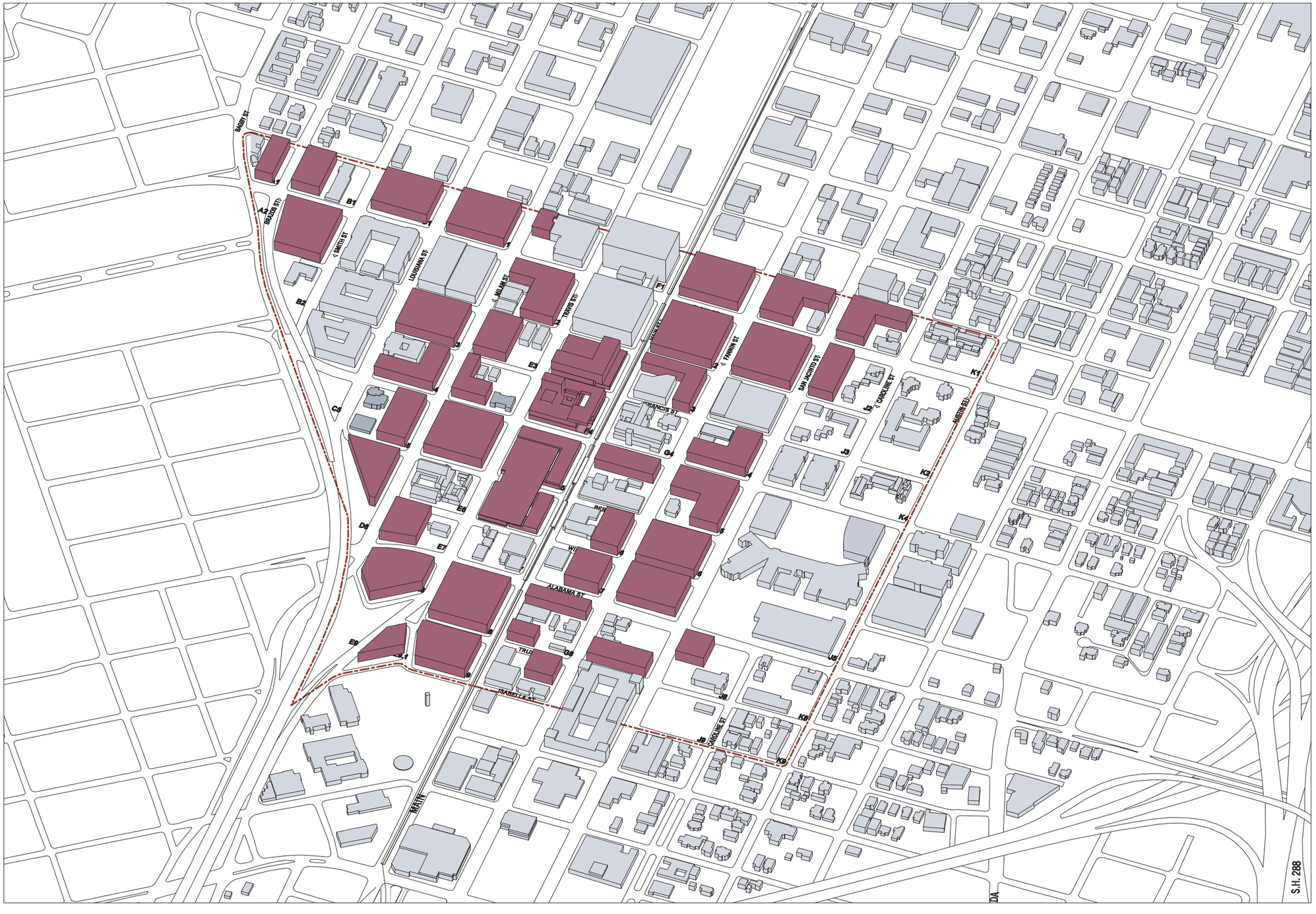
24 APARTMENTS PER FLOOR:
RETAIL, 10,050 SF
MULTIFAMILY, 93,200 SF
AMENITY, 14,300 SF
PARKING, 76,000 SF

Mixed-use residential building located on the Code Enforcement Building site

Build Out

The following build out map illustrates the potential of the Ensemble/HCC Livable Centers Study and its impacts on the study area. A combination of public realm improvements and catalytic projects will help generate a critical mass of investment in the study area in the long term. This will take focus and vision from local leaders, change agents, and investors. The map shows parcels that are likely to be replaced over time with new five story buildings, which are the most feasible based on land prices, market demand, and construction costs. Over time, the study area will redevelop and become a significantly more desirable place to live, work and play.

This neighborhood is in a key location in the city. Better use of the properties in this 60-block study area will more efficiently and effectively utilize an opportune location. The benefits for the neighborhood are great and for the city, greater. The investment in the light rail system will be more cost effective and beneficial for the city and its citizens by enhancing the Ensemble/HCC Station area as a destination. The neighborhood and city will benefit from the increased tax revenues and improved connections through the district as the study area develops.



LEGEND

Existing Buildings

Proposed 5-Storey

N 0' 50' 100' 200' 400' 800'

5-STOREY DEVELOPMENT