



# East End



**DRAFT November 2007 - Work in Progress**

# Corridor-specific Report A

**Phase II and III**  
City of Houston

November, 2007

The **Planning** Partnership  
in collaboration with:

Asakura Robinson Company • Gunda Corporation • Cushman & Wakefield LePage • Working Partner





# Table of Contents

<b>Introduction</b>	<b>3</b>
<b>A1. Context/ Background Analysis</b>	<b>4</b>
A1.1 East End Urban Corridor Study Area	4
A1.2 Context of the East End	6
A1.2.1 Land Use	
A1.2.2 Building Footprint	
A1.2.3 Pedestrian Realm/Mobility Inventory	
A1.2.4 Engineering/Infrastructure Inventory	
A1.3 East End Corridor Demographic Market Overview	15
A1.4 Summary of Initiatives	18
A1.5 East End Corridor Workshop	24
<b>A2. East End Planning Strategy</b>	<b>28</b>
A2.1 The Combined Pedestrian Realm/Mobility/Land Development Concept Plan	28
A2.2 Pedestrian Realm/Mobility Plan	30
A2.3 Land Development Concept Plan	32
A2.3.1 Demonstration Plans	
A2.3.2 Development Analysis	
A2.4 Infrastructure Overview	45
A2.5 Pedestrian Oriented Cross Sections	46
A2.5.2 Pedestrian Character Transit Street	
A2.5.2 Pedestrian Character Major Thoroughfare	
A2.5.3 Pedestrian Character Major Collector	
A2.5.4 Pedestrian Character Local Street	
<b>Appendix</b>	
East End Implementation Matrices	



# Introduction

The East Corridor is similar in scale to the Southeast and North Corridors, but it has a number of distinct characteristics. The Transit Street follows Harrisburg Boulevard, which historically led to the port and the initial settlement. Presently the Corridor has a mix of uses along its length including large industrial uses at the west end of the line where it meets the Southeast Corridor. As the corridor moves east there are a number of residential neighborhoods on either side until 65th Street where the street is edged by retail and commercial buildings. This varied character is important because it indicates where larger scale redevelopment may occur and, in areas where the corridor is very narrow, where it will be difficult to generate redevelopment in the near term. The demonstration plans illustrate redevelopment at several sites along the East Corridor.

The Corridor report will develop a strategy for encouraging the forms of development that will be supportive of transit as well as creating pedestrian scaled streets that lead from the surrounding neighborhoods to the transit street. The report will also suggest that most development will occur within a five-minute walk of the stations. This will result in large portions of the corridor that will not develop in the short term. These have been described as stable neighborhoods and, because of their distance from the stations; they will be protected from redevelopment. In addition, the East Corridor has a number of historic buildings and neighborhoods that need to be enhanced as redevelopment occurs. The advent of transit in this corridor should be viewed as an opportunity to strengthen its historic assets.

An approach to infill development, and the attendant ordinance controls and urban design guidelines, advances the concept that different forms of development should be designed to respect the adjacent neighborhoods.

# 1 Context/Background Analysis

This chapter introduces the concept of transit oriented development for the six urban corridors being studied.

## A1.1

### East End Urban Corridor Study Area

The East End Urban Corridor begins just east of the downtown and runs east along Harrisburg Boulevard, terminating at the Magnolia Transit Center on the south side of Harrisburg at 70th Street. The Corridor is approximately 2.5 miles long. The northern and southern boundaries of the East End Urban Corridor Study Area – measured at a 1/4 mile on either side of Harrisburg - are shown on adjacent map.



Streetscape along Harrisburg Blvd. west of Wayside Dr.



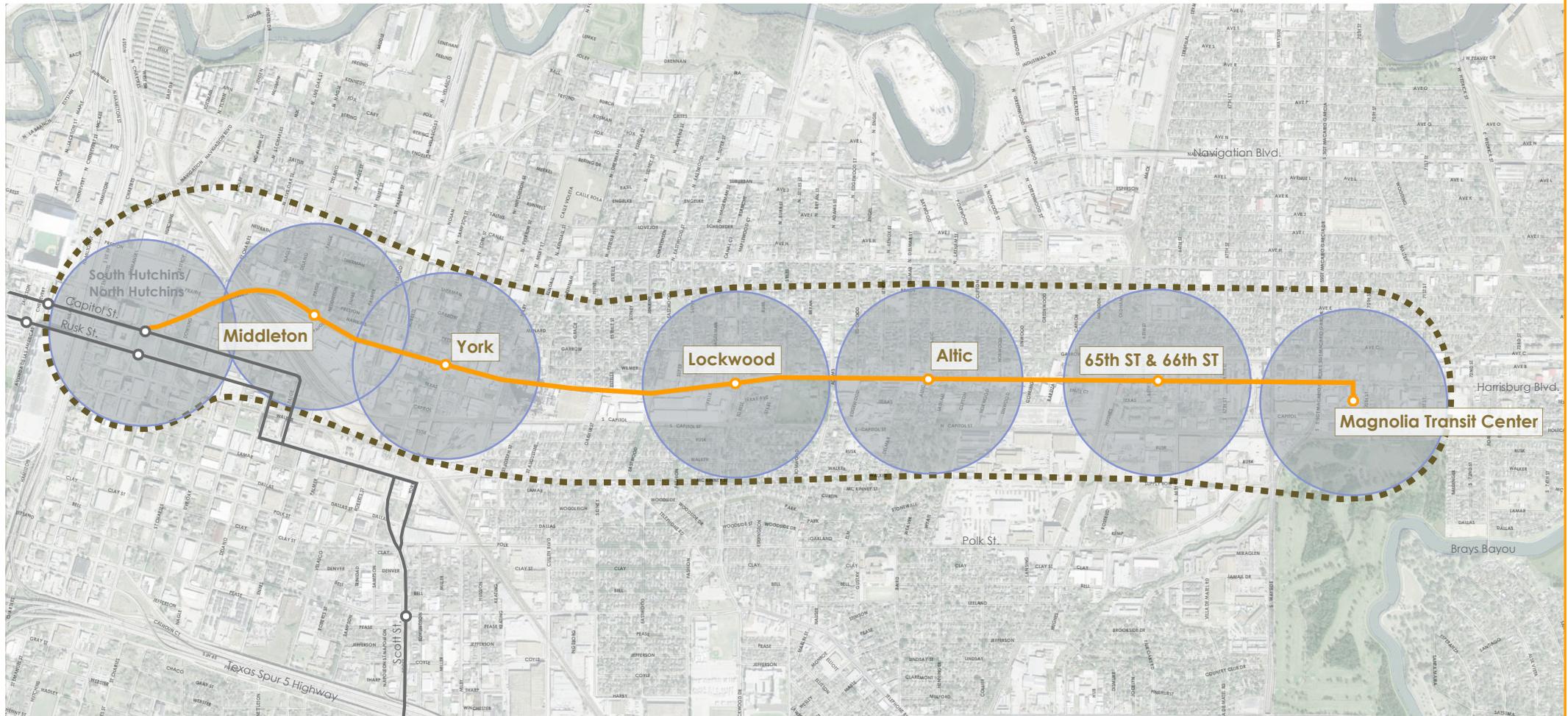
Industrial uses on Harrisburg Blvd. west of South Lockwood Dr.



Main Street character around 66th St.

Urban Corridor Study Area East End

-  East Corridor
-  Southeast Corridor
-  Corridor Study Area
-  5 Minute Walking Distance to Station





Single family residential at the western edge of the Corridor



Commercial establishment on Harrisburg Blvd. at Eastwood St.



Eastwood Park - Example of open space land use

## A1.2

### Context of the East End

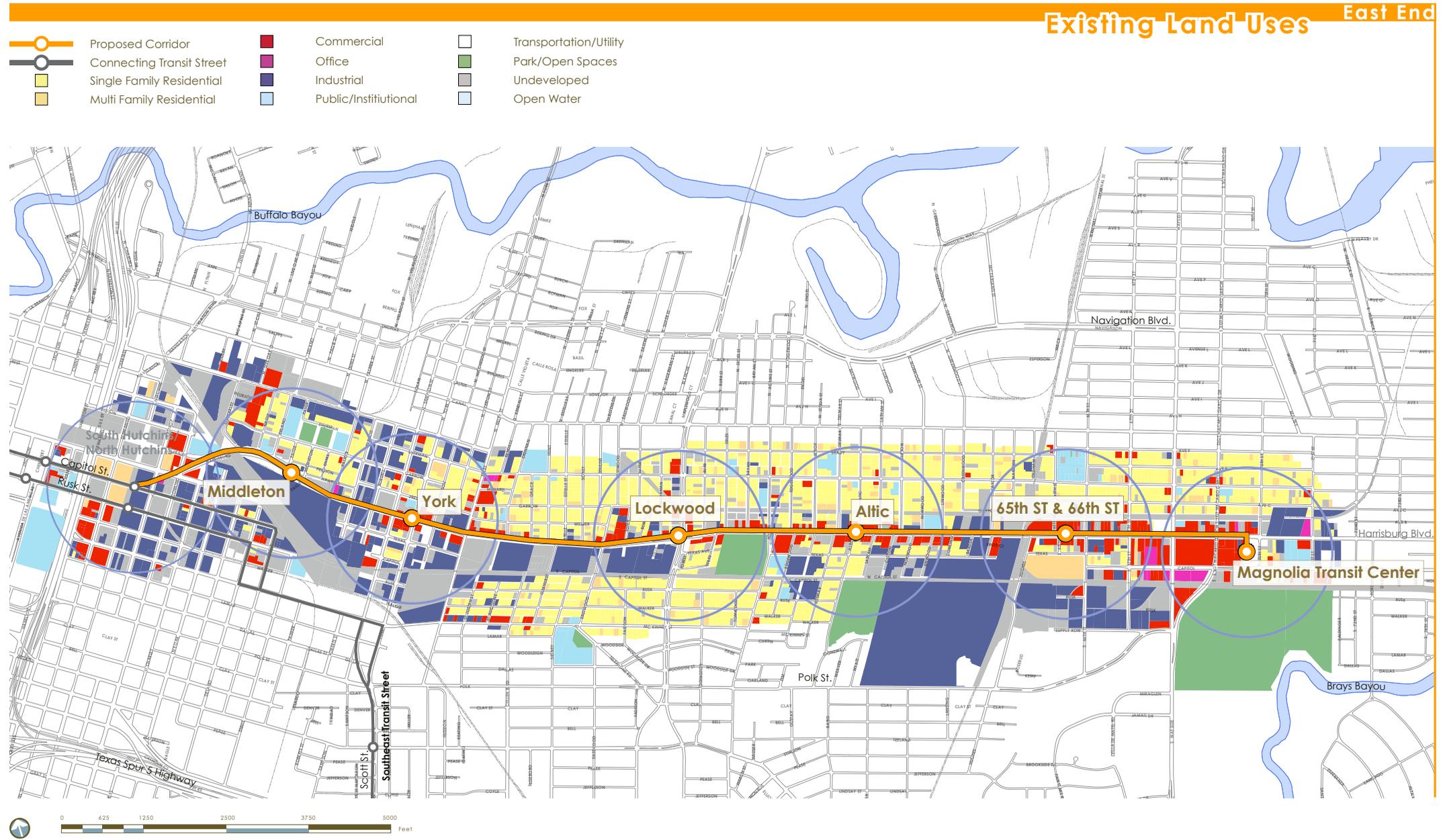
#### A1.2.1 Land Use

Part of this Urban Corridor Planning study is to understand the common and unique characters of each Urban Corridor. Two elements that define the area are the land uses and the size and scale of buildings in the study area - a 1/4 mile of the planned guided rapid transit.

The map on the opposite page illustrates the range of existing land uses along the East End Corridor. The area is composed of industrial uses, single family residential neighborhoods, commercial establishments and open spaces. The area also has considerable undeveloped parcels of land. There are only a few multi-family residential units and offices.



Industrial use on Harrisburg Blvd. near South Lockwood Dr.





Small building footprints between Edgewood and Lennox St.



Medium sized building fronting Harrisburg Blvd. at Delmar St.



Large building footprint on Harrisburg Boulevard at Drennan St.

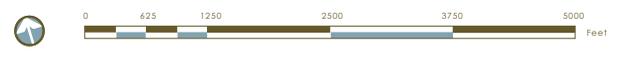
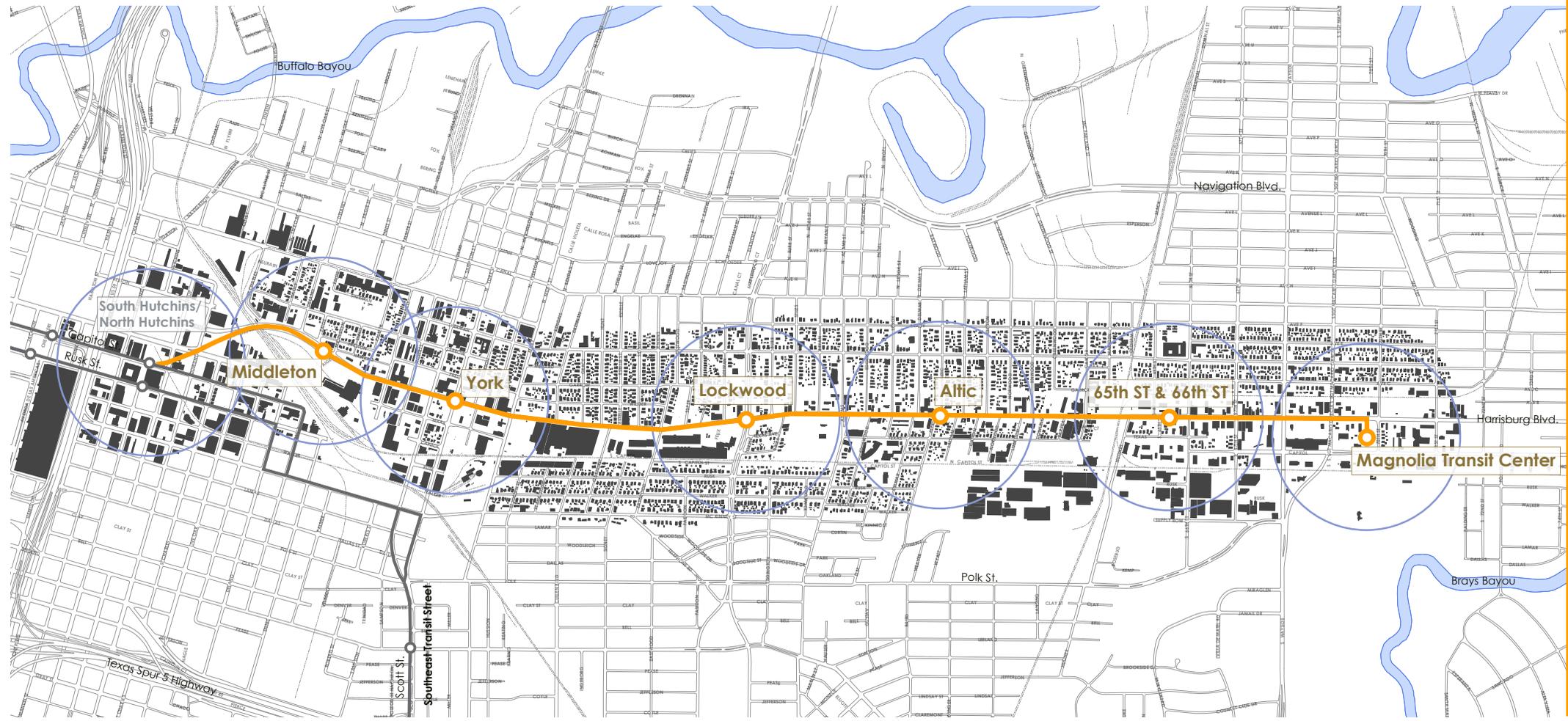
## A1.2.2 Building Footprint

The map on the facing page illustrates the size and scale of buildings found in the East End Corridor. All existing buildings have been shaded to help create a picture of the pattern created by different buildings, streets and open space - or the area's urban fabric.

The typical small downtown block dimensions of 250 by 250 feet extend from the western edge of the East End Corridor up to the underpass. At this point, the block dimensions shift to a rectangular shape and the urban character changes. The building footprints in this area generally reveal half block and large block developments. Large atypical block developments are found south of the corridor between Nagle Street and South Lockwood Drive. Many medium sized buildings front Harrisburg Boulevard. Their configuration varies from detached buildings at Estelle Street, to attached rows on both sides of Harrisburg Boulevard between 65th and Wayside Drive and plazas found near the Magnolia Transit Center. The smallest building footprints show the prominence of single detached homes in adjacent neighborhoods.

Existing Building Footprints East End

-  Proposed East End Corridor/Stations
-  Southeast Corridor
-  Building Footprint
-  5 Minute Walking Distance to Station





Edison Spark Park

Park	Acres	Acquired	Park Class
Settegast Park	3.41	1913	Community
Eastwood Park	10.80	1916	Community
Hidalgo Park	11.60	1927	Community
Gus Wortham Park	150.77	1973	Regional
Guadalupe Plaza	6.46	1986	Plaza/Square
Tony Marron Park/North York	20.90	1987	Community

Target Acquisition Area/Park
Eastwood Park
HB&T RR/SP RR Navigation/Harrisburg
Harrisburg/Sunset Trail/Brays Bayou
Buffalo Bayou



Eastwood Park

### A1.2.3 Pedestrian Realm/Mobility Inventory

#### Parks

Parks within the East End Corridor area are some of the oldest in the City of Houston. Eastwood Park is the only park located directly on the Harrisburg Boulevard. The table on the left lists the East End Corridor Parks and the Target Acquisition Area/Park described in the 2001 Parks and Recreation Master Plan. Many City of Houston Community Center Parks offer After School and Summer Enrichment Programs, Summer Teen Camps, and Summer Food Service Programs, in addition to Teen, Adult and Senior Recreation Programs.

#### Publicly Accessible Open Space

Other privately owned outdoor spaces often allow some public access. Evergreen Cemetery, boasting 15 acres of green space, was established in 1894. This space may be used for numerous outdoor activities.

#### Sidewalks

Harrisburg Boulevard serves as a primary thoroughfare between Downtown Houston and the Houston Ship Channel. Remnants of this “Main Street” exist today between 66th Street to South Wayside. Sidewalks in this area extend from back-of-curb to the building fronts in many cases. This charming character is functional, and popular among residents and worthy of preservation and enhancement.

Sidewalks along Harrisburg Boulevard are often terminated due to access to parking lots and fences. In general, the existing sidewalks are in need of maintenance, repair, or even replacement, often due to age as well as adjacent Live Oak roots.

**Neighborhood Areas** - The Eastwood neighborhood is one of Houston’s first master-planned subdivisions. The neighborhood is recognized for its terraced lots, mature street trees and historic homes reflecting Craftsman, Arts & Crafts, Foursquare and Mission style architecture.

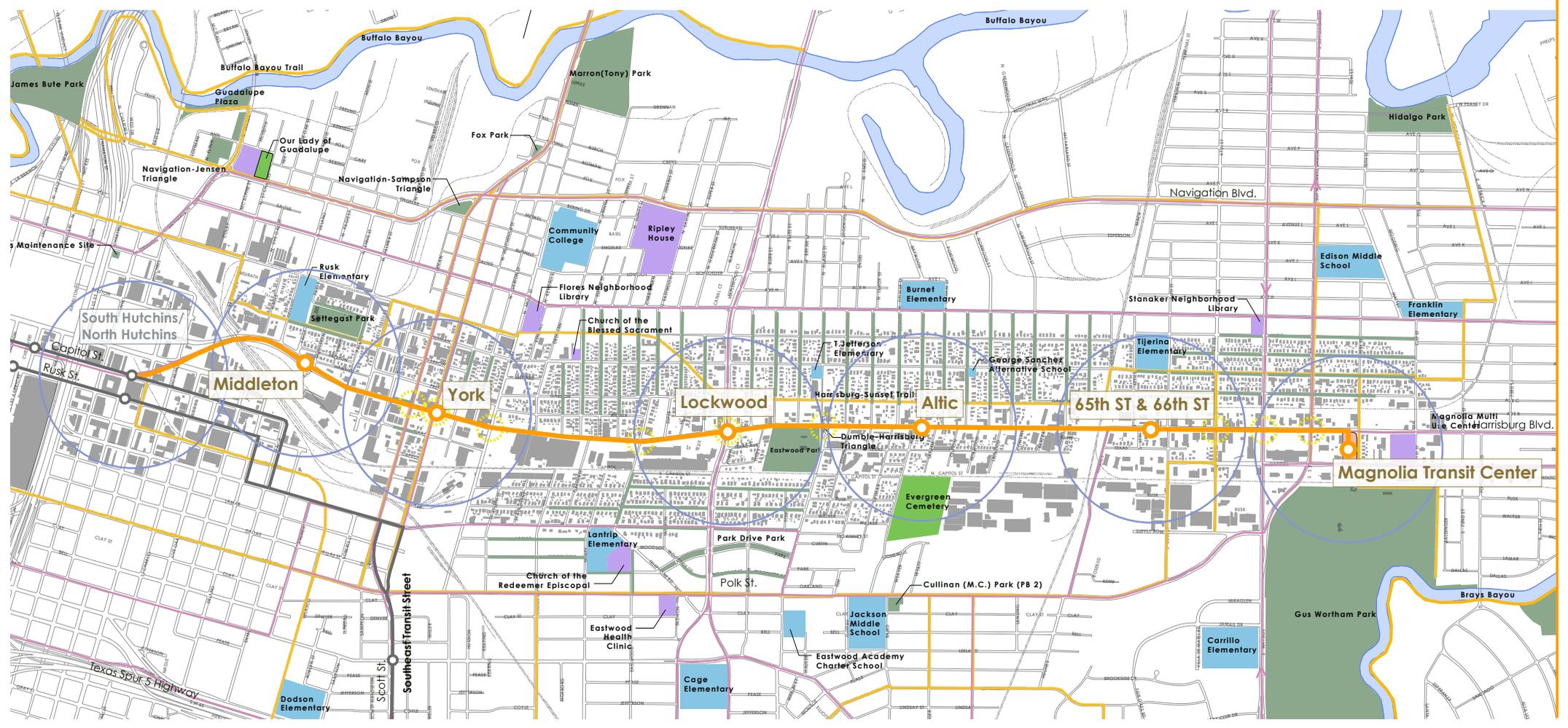
**Industrial Areas** - Other portions of Harrisburg Boulevard are industrial in nature with warehouses, chain link fences, blank street walls and storage yards. Historically, these areas did not focus on the pedestrian realm and consequently, sidewalks are in disrepair or are non-existent today.

#### Community Facilities

**Schools** - Schools are dependant on pedestrian and bicycle mobility for students to safely and efficiently arrive and depart. HISD Eastern Regions Schools with attendance zones within the East End Corridor are shown on the plan. The SPARK School Park Program is a non-profit organization

## Existing Pedestrian Realm/Mobility East End

- Bayou
- Schools
- Open Space
- Cemetery
- Institutional Buildings
- Metro Transit Center
- Trail/Bikeway
- Tree Lined Streets
- Bus Routes
- Pedestrian Signalized Crossing
- Building Footprint
- Major Thoroughfare per COH Major Thoroughfare Plan 2006
- Proposed East End Corridor/Stations
- 5 Minute Walking Distance to Station
- Southeast Corridor





Sidewalk on Harrisburg Blvd. at 65th St.



Existing sidewalk on Harrisburg Blvd.



Existing streetscape on Harrisburg Blvd.

which increases park space by developing public school grounds into neighborhood parks.

SPARK(school/park) Parks within the East End Corridor Area include: Lantrip Elementary, Tijerina Elementary, Franklin Elementary, Gallegos Elementary, Briscoe Elementary, Cage Elementary, Jackson Middle School and Edison Middle School.

#### Other facilities accessed by pedestrians -

Several more significant public facilities rely on safe and continuous sidewalks for optimum access. These public facilities include:

- City of Houston Library, Flores Neighborhood Library
- Magnolia Multi-Services Center
- Eastwood Community Center
- Numerous churches
- East End Worker Development Center

Currently, area schools and other significant public facilities are not adequately served by safe and ample sidewalks.

#### Streetscape

**Street trees** - Primarily mature trees line Eastwood Park and Settegast Park street frontage in commercial areas. In addition, many residential streets benefit from mature growth. The prevalent species of street tree is the Live Oak, whose shallow root systems exacerbate sidewalk maintenance concerns in the Corridor.

Recent tree planting programs within the area have significantly increased the number of street trees.

These efforts include:

- Minute Maid donation and planting of 60 trees at Lockwood Drive at Park Street -2003
- Greater East End Management District Arbor Day planting of 300 trees along Harrisburg Blvd. and Canal Street -2002
- Trees for Houston planting of 81 trees at Texas Avenue and Harrisburg Boulevard -2001
- City of Houston planting of medians with "Linear Forest", low maintenance massing of trees in mulch along Lockwood.

Street furnishings such as benches, trash receptacles, recycling bins, bollards and bicycle racks are rarely visible within the Corridor today.

Pedestrian oriented lighting provides a safer and more attractive environment for night-time use of Pedestrian Realm areas. Pedestrian level lighting rarely exists within the corridor today. Currently, street lights and a few attached fixtures to building facades provide the only ambient lighting along pedestrian walkways.

#### Public Art

Public art adds an element of pride and interest to the pedestrian realm. Public art works located within the East End Corridor include:

- Padre Don Miguel Hidalgo Sculpture, Hidalgo Park

- Museum of Cultural Art Houston is a public art museum that uses art as a tool for community development and social awareness.

MOCAH mural projects include:

- El Centro De Corazon mural at 5001 Navigation St.
- “Doorways to the Future” at Thomas A. Edison Middle School

The Orange Show Center for Visionary Art, at 2401 Munger Street, has become Houston’s hub of folk art activity hosting nationally respected.

**Mobility**

**Crosswalks** - Demarcation of crosswalks at key intersections and mid-block areas provide safe and visible pedestrian crossings for public rights-of-way. City of Houston standard painted crosswalks exist at several signaled intersections along Harrisburg Boulevard. Very few pedestrian crossing signals exist with the Corridor area.

**Bikeways/Trails** - The Houston Bikeway Program provides a completed 300-mile bikeway network for urban cycling that spans a 500 square-mile area of the city. City of Houston Bikeways located within the East End Corridor include: Navigation, Polk, South 67th, South 66th, South 70th to Gus Wortham Park, Sampson and York. Several Rails to Trails and on-street bikeways serve East End Corridor Area residents, including the 1.6 mile Harrisburg Trail and the 1.8 mile Sunset Trail.

**Buses/Bus Shelters** - Existing transit service within the East End Corridor includes METRO bus (express and local) and private bus lines operating between the Magnolia, Eastwood, Downtown, Fifth Ward/Denver, TMC and Wheeler Transit Stations.

Bus service currently operates on the east/west streets of Navigation, Canal, Harrisburg, Lawndale and Polk. Bus service operates on the north/south streets of York, Lockwood and Wayside.

The East End Corridor is also home to several private bus lines with regular service to Mexico.

Sidewalks leading to bus shelters are also in need of maintenance and repair.



Recently completed trail and bikeway



Wooden service poles along Harrisburg Blvd.

## A1.2.4 Engineering/Infrastructure Inventory

### Existing Water mains

The typical life of a water transmission main is 40-50 years. For the East End Corridor, research indicates that the water mains range from 72 inch steel services installed in 1993 in the Dowling/Harrisburg intersection to 16 inch services at 70th Street and Harrisburg; therefore, their life expectancy is in excess of 30 years.

### Existing Sanitary Sewer Lines

The typical life of a sewer line is 30 to 40 years, unless the lines are rehabilitated. From the City's GIMS database, it appears that the trunk lines identified along Harrisburg Boulevard are less than 30 years old.

### Existing Storm Sewer Lines

The Corridor has sufficient dry weather capacity for the wastewater system. However, during wet weather, surcharge conditions exist almost in all areas along the Harrisburg Boulevard. Surcharge conditions in the wastewater collection system do not necessarily mean that there is no hydraulic capacity. Current City regulations require storm water detention for all new development. Hence, any proposed developments will be required to design for storm water detention.

### Existing Lighting

Harrisburg Boulevard has a continuous lighting system. The lights are mostly mounted on wooden service poles. It is assumed that existing lighting meets current standards for illumination of the road.

### Summary

Redevelopment along the East End Urban Corridor will happen incrementally, over a long period of time. It appears that some redevelopment capacity currently exists within the Corridor, subject to the City of Houston requirements for water and sewer lines and storm water management.

Over time, major trunk system upgrades will be required, similar to all systems throughout the City. Through the Capital Improvement Plan process, the City should ensure that adequate infrastructure capacity exists in advance of substantial redevelopment in the East End Urban Corridor.

**Socio-Economic Profile - East Corridor**

		% Share
2005 Total Population	57,224	
2005 Total Households	15,840	
2005 Pop, Age 0 - 4	6,206	10.8%
2005 Pop, Age 5 - 9	5,179	9.1%
2005 Pop, Age 10 - 14	4,980	8.7%
2005 Pop, Age 15 - 17	2,761	4.8%
2005 Pop, Age 18 - 20	3,062	5.4%
2005 Pop, Age 21 - 24	3,918	6.8%
2005 Pop, Age 25 - 34	9,270	16.2%
2005 Pop, Age 35 - 44	8,096	14.1%
2005 Pop, Age 45 - 49	3,361	5.9%
2005 Pop, Age 50 - 54	2,792	4.9%
2005 Pop, Age 55 - 59	2,147	3.8%
2005 Pop, Age 60 - 64	1,629	2.8%
2005 Pop, Age 65 - 74	2,213	3.9%
2005 Pop, Age 75 - 84	1,234	2.2%
2005 Pop, Age 85+	376	0.7%
2005 Median Age	27.7	
2005 Avg Age	30.2	
2005 HHs, 1-Person HH	2,655	16.8%
2005 HHs, 2-Person HH	2,964	18.7%
2005 HHs, 3-Person HH	2,804	17.7%
2005 HHs, 4-Person HH	2,770	17.5%
2005 HHs, 5-Person HH	2,137	13.5%
2005 HHs, 6-Person HH	1,265	8.0%
2005 HHs, 7+ Person HH	1,245	7.9%
2005 Avg HH Size	3.57	
2005 HUs, Built 1999 to March 2005	529	3.1%
2005 HUs, Built 1995 to 1998	559	3.3%
2005 HUs, Built 1990 to 1994	157	0.9%
2005 HUs, Built 1980 to 1989	865	5.0%
2005 HUs, Built 1970 to 1979	2,506	14.6%
2005 HUs, Built 1960 to 1969	3,032	17.6%
2005 HUs, Built 1950 to 1959	4,010	23.3%
2005 HUs, Built 1940 to 1949	3,416	19.9%
2005 HUs, Built 1939 or Earlier	2,123	12.3%
2005 Median Year HU Structure Built	1958	
2005 Housing Units, Owner Occ	6,918	43.7%
2005 Housing Units, Renter Occ	8,921	56.3%
2005 HHs with Inc < \$25,000	6,684	42.2%
2005 HHs with Inc \$25,000 - \$49,999	5,412	34.2%
2005 HHs with Inc \$50,000 - \$74,999	2,149	13.6%
2005 HHs with Inc \$75,000 - \$99,999	846	5.3%
2005 HHs with Inc \$100,000+	750	4.7%
2005 Median HH Inc	\$29,851	
2005 Median Value of all Owner-Occ HUs	\$54,573	

Source: Claritas

## A 1.3

# East End Corridor Demographic Market Overview

### Demographic Overview

The East Corridor area has a population of just over 57,000 persons (as of 2005). The dominant ethnic group is Hispanic, at 92%, and the median age level is 27.7 years old, which is the youngest among the six Corridors being examined, which range from 27.7 to 34.9 years of age. Persons under the age of 25 account for a 46% share of the local population in the East Corridor, while persons aged 25 to 54 (prime income earning years) account for a 41% share of the total.

The average household size in the East Corridor is 3.57 persons, which places it highest among the six Corridors being examined, which range from 3.57 down to 2.18 persons per household. Households with 1 or 2 persons account for a 35% share of the total, while households of 5 or more persons account for a 29% share.

The East Corridor has the oldest housing stock among the six Corridors being examined. Homes built since 1990 account for just a 7% share of the total, while homes built pre-1970 represent a 73% share. This compares to an average of 14% and 56% share, respectively, for the total sample of housing across the six Corridors. Some 44% of homes are owner-occupied, and 56% are renter-occupied.

In examining household income levels, the East Corridor ranks near the bottom among the six Corridors in question. With a median household income level in 2005 of \$29,850, some three-quarters of area households have an income level of less than \$50,000 annually, and approximately 42% earn less than \$25,000 per year.

The median value of housing in the East Corridor is in the range of \$54,600 (2005 data), which places it second lowest among the six Corridors being analyzed. Some 60% of area households are valued at less than \$60,000, and over 93% are valued at less than \$100,000.

## Neighborhood Description

The East Corridor is part of Study Area 5, analyzed as part of a Land Use and Demographic Profile prepared by the City's Planning and Development Department in 2003. The East Corridor itself principally comprises two neighborhoods: Second Ward and Magnolia Park. The following is a brief area description.

- Second Ward is one of the first Hispanic neighborhoods in Houston, with a number of important Hispanic institutions, including Our Lady of Guadalupe Catholic Church, Ripley House, and Talento Bilingue. The largest block of post-war housing is the Clayton Homes public housing project on the community's western edge. In recent years, the area's proximity to downtown has drawn the larger Houston population to some of the area restaurants.
- Magnolia Park borders the Houston Ship Channel near some of the first wharves built when Houston became a deep-water port in 1913. The community thrived as a home for workers on the docks and in industries lining the channel. For a time it was even an incorporated municipality. As early as the 1930s, Magnolia Park developed an identity as a center of Houston's Hispanic community, especially around recently revived commercial areas near Harrisburg and Wayside.

The following land use characteristics are identified for Study Area 5:

- Study Area 5 has a total land area of 26,368 acres. It is mainly residential and industrial. Major highways connecting the area are: I-10 in an east-west direction, US 59 (north-south), US-45 (southwest-

southeast), Loop 610 to the north and east, and SH 288 in the south.

- Single-family residential uses declined by about 5% between 1990 and 2000, though still represent more than 20% of the Study Area. This decrease in single-family is visible in the Third Ward area, which is located in the southern portion of the Study Area; and in the greater Fifth Ward, located in the northwestern portion of the Study Area. These older neighborhoods and others, such as Magnolia Park, consist of small bungalows mixed with industrial and commercial uses interspersed with vacant lots. New single-family development is concentrating in an area between US 59, Wayside Dr. and I-10.
- Multi-family developments are scattered within the single-family areas, and increased 8% overall from 1990-2000. Multi-family uses cover 385 acres in the Study Area. Between 1990 and 2000, thirteen apartment complexes with a total of more than 1,200 units were permitted in the Study Area, three of them on Lyons Avenue in the Fifth Ward.
- Commercial and Office land uses make up 3.1% of the Study Area. Commercial space, with 944 acres in 1990, decreased to about 723 acres in 2000. On the other hand, office space increased from 78.4 acres in 1990 to almost 94 acres in 2000. Most commercial land is located along commercial Corridors. Prominent north-south Corridors include Lyons Rd., Navigation Boulevard and Canal St. Telephone is another corridor that runs in a NW-SE direction. North-South corridors include Dowling St., Jensen Dr., Lockwood Dr. and Wayside. Office sites are located along US 45 south and on Market St. Between 1990 and 2000 commercial development was permitted mainly in the areas of Harrisburg, Canal, Wayside and Macario, and along Lyons Dr. Two office projects valued at \$1 million and above

were permitted; one on Lyons Ave. and another on Lawndale St.

- Industrial uses in Study Area 5 cover 4,070 acres (15.4% of the land), which makes it the second largest group of industrial areas of all the Study Areas. These uses increased almost 24% between 1990 and 2000. Industrial land in Study Area 5 is primarily consumed by the manufacturing and petrochemical processing industries, which dominate the eastern portion of the City. Industrial districts in this part of the City were planned during the 1930's and 1940's and are a feature along the Ship Channel. In the last decade, new manufacturing plants and warehouses have appeared in the central portion of the Study area between US 45, I-10 and Loop 610.
- Public and Institutional land is more concentrated in the south of the Study Area with the presence of Texas Southern University, University of Houston and the Port of Houston/Ship Channel. Public and Institutional land occupies 1,747 acres or 6.6% of the total land. In the 1990's an array of new churches and church-related facilities, including educational facilities, were permitted in the mainly residential areas. These new developments and the expansion of Texas Southern University and the University of Houston accounted for most of the growth in institutional land uses from 736 acres in 1990 to 1,747 acres in 2000.
- Transportation and Utilities comprise 0.8% of the Study Area, with 205 acres of land mainly in railroads and small utility stations. During the 1990's, a new terminal bus facility was permitted on Harrisburg Blvd. In addition, the City of Houston built two wastewater treatment plants and lift stations, and a wet weather facility. This last facility is located on Japhet St. and had a valuation of more than 10 million dollars.

- Parks and Open Space accounted for 2.8% of the land in 2000. Parks are scarce in the area north of Buffalo Bayou and almost non-existent above I-10 and US 90. Linear parks and green space extend along Brays Bayou, including Mason Park with 102 acres and Gus Wortham Park with 161 acres.
- Vacant and Undeveloped land makes up 18.1% of the Study Area, somewhat less than single-family land uses. Large tracks are interspersed with industrial uses, mainly in the northeastern, and eastern portions. In old neighborhoods, vacant lots are found intermingled in residential areas.
- Roads make up 22% of the Study Area, higher than the city-wide figure of 18%. Loop 610, I-45, I-10, US 59, and SH 288 all connect at some point in this Study Area.

### Office Market

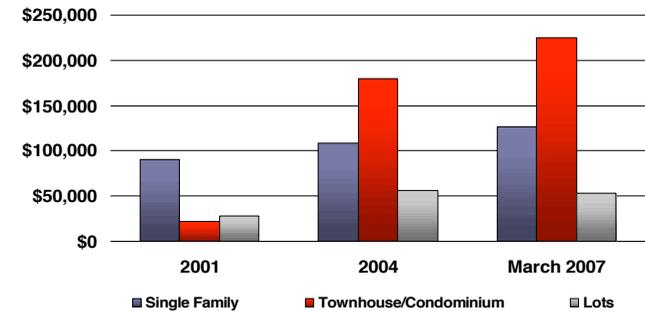
The East Corridor is not home to a concentration of major office space. Refer to Houston Macro-Level Overview for overall market analysis in the Urban Corridor Planning Report.

### Housing Market

The average single family house price was just over \$126,000, based upon Multiple Listing Service (MLS) data from the first three months of 2007 compiled by the Houston Association of Realtors. At that time, the average townhouse/condominium sale price was close to \$225,000, reflecting the age and quality of stock being transacted. These values have increased in the range of 15%-25% since 2004.

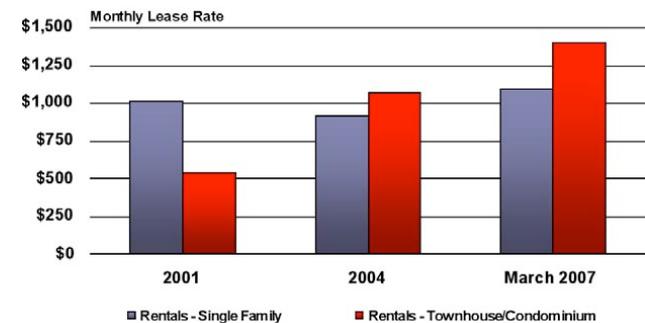
In the rental market, the single-family home rental rate was just less than \$1,100 per month, compared to \$1,400 in the townhouse/condominium segment of the market. Rents are up sharply from a few years ago; townhouse/condo average monthly rents were in the range of \$1,075 in 2004 and just \$540 back in 2001.

**Houston Association Of Realtors MLS Statistics**  
**Average Price by Property Type**  
**East Corridor- MLS District 4 (South)**



Source: Real Estate Centre at Texas A&M University, Houston Association of Realtors  
 Note: Data shown is annual, other than for the current year (year-to-date March, 2007)

**Houston Association Of Realtors MLS Statistics**  
**Average Price (Lease Rate) by Property Type**  
**East Corridor- MLS District 4 (South)**



Source: Real Estate Centre at Texas A&M University, Houston Association of Realtors  
 Note: Data shown is annual, other than for the current year (year-to-date March, 2007)

## A1.4

### Summary of Initiatives

The Initiatives Plan is an attempt to compile and map all of the initiatives, projects and plans that have been prepared for lands in the study area. In addition, initiatives identified by participants in the workshop have been added.

A comprehensive picture emerges of the immense planning and development efforts undertaken in the Corridor to date, as well as the geographical relationship between the initiatives and the Transit Street and Stations. From a strategic stance, the Initiatives Plan provides a clearer sense of the location of priority areas within the Corridor and how future Transit Oriented Development objectives might be focused and positioned to build on existing initiatives and planning efforts.



Buffalo Bayou Master Plan

#### Opportunity Areas

These locations identify sites that could be considered for redevelopment. Sites located along Harrisburg Boulevard are suitable for intensification with transit supportive uses. These locations were identified by workshop participants.

##### 1. Navigation at Canal

The Jones Elementary School recently closed and the site is planned for redevelopment. This location was identified for new neighborhoods in the Buffalo Bayou and Beyond Master Plan. These neighborhoods were suggested for medium density, mixed use development in a park-like setting to capitalize on views to the bayou and access to the park system.

##### 2. Stadium at Congress and Bastrop

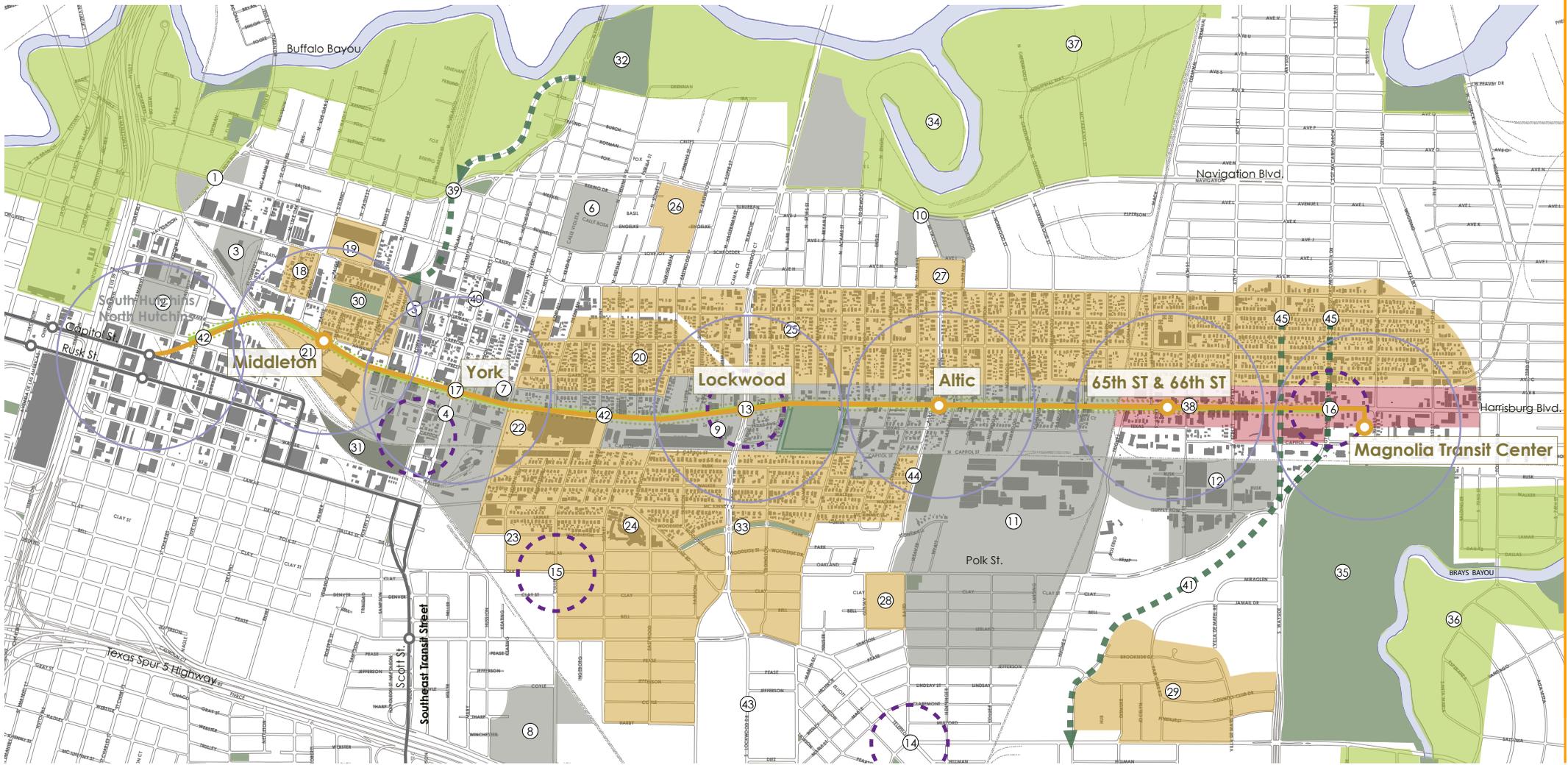
The site has been identified as possible location for a stadium to host Houston's professional soccer team.

##### 3. Canal at St. Charles

Commerce Street is ideal for the conversion of under used industrial and warehouse buildings to alternative uses. The street is within a 5 minute walk to the Middleton Station. Redevelopment with higher density residential will help to support the commercial and retail uses focused near the stations

**Initiatives East End**

-  Uptown Transit Street
-  Connecting Transit Street
-  Opportunity Area
-  Stable Area
-  Existing Open Space
-  Opportunity District
-  Proposed Pedestrian Realm



**4. South of York Station**

This is a large, under-used industrial site, located adjacent to the York Transit Station. This site is ideal for Transit Oriented Development. Mixed use development, incorporating both places to live and work would be ideal.

**5. Roberts at Garrow**

This location is an under used industrial site on the south side of Commerce Street. Located within a 5 minute walk of the Harrisburg Transit Line, it is suitable for redevelopment that complements the adjacent residential neighborhoods. It is a block away from Settegast Park and a focus for this neighborhood.

**6. Milby at Bering**

This site was the location of the City's bus maintenance facility. It has since stopped operating as such and Houston Community College has bought the site. There are plans to develop a community college campus.

**7. Harrisburg between proposed York Station and Hughes**

The lands along Harrisburg between the Transit Stations are suitable for Transit Oriented Development. There may be land taking in this area for construction of the transit facility, reducing the depth of the development sites. Active industrial sites on the south side of Harrisburg limit opportunities to widen the right-of-way to accommodate the transit facility.

**8. Coyle at Cullen**

Finger Furniture is relocating. The site is for sale and available for redevelopment. Being a large site, it would be suitable for a mix of densities and uses.

**9. Oak Hurst at Eastwood Park**

The Stewart & Stevenson industrial site was recently purchased by Lovitt Homes. This site is located adjacent to the Lockwood Transit Station and is ideal for transit oriented development. Street related retail uses would provide services to transit users and higher density residential development would augment the number of residents living close to a station.

**10. Navigation at Baywood**

This site is across the street from Buffalo Bayou and close to the proposed Turkey Bend Ecology Park. It is also adjacent to the Burnes Elementary School. The proximity of these existing and future amenities creates an opportunity for redevelopment, perhaps with higher density residential uses.

**11. Adams to Hughes**

This site is the location of the former Baker Hughes oil tool industry, with active industrial uses on the south side of Capital. This site has been assembled by a private developer who is in the process of generating concepts for the site. The site is within a 5 minute walk of two Transit Centers - Altic and 65th - making it ideal for Transit Oriented Development.

**12. Hughes to South Wayside**

This is a vacant industrial and retail site suitable for redevelopment. This site is within a 5 minute walk of the 65th Street Transit Station and the Magnolia Transit Centre. Redevelopment with higher density residential uses would help to support transit.

**Retail Development Centers:**

The Greater East End Strategic Vision Project identified many locations ripe for redevelopment into new retail centers by capitalizing on opportunities for mixed use Transit Oriented Development.

- 13. Harrisburg and Lockwood
- 14. Telephone and Lawndale
- 15. Cullen and Polk
- 16. Harrisburg and Sgt. Marcario Garcia
- 17. Harrisburg and York

**Stable Areas**

Workshop participants identified many neighborhoods, open spaces, schools and employment areas as Stable Areas. It is important to protect and enhance employment areas close to the Transit Stations so that employees can conveniently and safely walk to and from the stations. Neighborhoods will need to assess the opportunities that result from change, especially at their edges that abut the Transit Street or Stations. Safe and convenient pedestrian connections to the Corridor will encourage ridership and help to support the new retail and service uses that may develop near the Stations. The following areas were identified as Stable Areas by workshop participants.

- 18. Neighborhood at Garrow and Delano
- 19. Employment use at Canal and north Delano
- 20. Settegast Park neighborhood
- 21. Employment south of Harrisburg between St. Charles and Velasco
- 22. Employment between Milby and Oakhurst
- 23. Eastwood neighborhood
- 24. Lantrip Elementary School
- 25. Oakdale Fullerton Neighborhood
- 26. Lovejoy and north Eastwood
- 27. Burnes Elementary School
- 28. Jackson Middle School
- 29. Country Club Place Neighborhood



Tony Marron Park Plan

## Pedestrian Realm

The East End has several neighborhood, community and city scale parks, open spaces and streetscapes. Workshop participants identified several initiatives to improve the pedestrian environment.

### Parks:

#### 30. Settegast Park

Settegast Park was recently renovated. Located next to Rusk Elementary School, the park and school shared the "SPARK" funding program to reconfigure the grounds to make them open to the public when the school is not in session. The Park functions as a larger scale community park as well as a neighborhood park.

#### 31. New park at Sampson

Workshop participants suggested a new park along the rail corridor. This park would help to buffer the view of the adjacent industrial use.

#### 32. Tony Marron Park

The 19 acre park on the south side of the Buffalo Bayou was recently redesigned and enhanced. Over \$2m was raised in private funds to construct an extensive trail system (that will tie into the City's Hike and Bike Trail), five soccer fields, a large pavilion, a plaza with spray features built in to the paving, and large play structures, as well as landscaping and reforestation.

#### 33. Park Dr. Park

Park Drive was originally the grand boulevard of the Eastwood neighborhood. Participants at the workshop identified an opportunity to rehabilitate the landscape character of the boulevard to the

condition that exists in other neighborhoods such as Heights Boulevard.

#### 34. Proposed Turkey Bend Ecology Park

This site is currently a cement plant. This unique oxbow was identified in the Buffalo Bayou and Beyond Master Plan as ideal for rehabilitation of the industrial uses to an ecology park with wetlands and reservations of natural species.

#### 35. Gus Wortham Park

This is the site of one of Houston's original country clubs. It includes an 18 hole golf course and driving range. The City is planning to renovate the golf course. Participants at the workshop expressed a desire for the course to remain public.

#### 36. Brays Bayou Projects

Federal funding has been made available to increase the flood capacity of Brays Bayou. As part of the reconstruction of the waterway, new trail connections, new park space, recreation amenities and landscape treatment, to restore the original prairie grasses, will be implemented.

#### 37. Buffalo Bayou Master Plan

The Buffalo Bayou and Beyond Master Plan proposed new destinations and development sites that will transform the waterfront into an active and vibrant centre. The Plan includes a Landscape Strategy, which proposes 850 acres of new park land, continuous public access, integrated landscape amenities with flood management, boating and other public uses and green streets to integrate adjacent neighborhoods. The Access and Transportation Plan supports upgrading the boulevards in the East End and improving transit to ensure convenient access to work, residential and recreational destinations for the Buffalo

Bayou District. The Environmental Plan will create environmentally rich ecosystems to integrate it into a regional system of open space improvements. The Flood Management Plan will improve downtown floodwater flow, consolidated bridge crossings to reduce impediments to flow, and furthermore, increase the capacity of the Bayou along critical reaches.

#### Community Focus:

**Harrisburg Boulevard east of 65th was suggested by many workshop participants as the focus for the East End community.**

#### 38. Historic Main Street

Many workshop participants identified the stretch of Harrisburg Road from 65th Street to Sgt. Marcario Garcia as the focus for the East End Neighborhood. This area consists of predominantly street-related buildings that could use enhancement. Redevelopment could intensify the Focus Area with compatible buildings to support a mixed use area.

#### Streetscape/Trails:

**The East End has an extensive network of trails. Adding to this network will be Brays Bayou, which is presently under construction and Buffalo Bayou, which is in the proposal stage.**

#### 39. Settegast Park and Buffalo Bayou

Participants at the workshop identified an opportunity for a pedestrian connection to link Settegast Park to Buffalo Bayou. A connected system of open spaces will help to enhance the character of the neighborhoods with more accessible green spaces and recreation amenities.

#### 40. Sunset Trail

The abandoned railway was recently converted to a hiking and cycling trail. This trail is very well used by residents. Workshop participants suggested that the trail be extended west to connect with Settegast Park and ultimately to Buffalo Bayou. This initiative was also identified in the Greater East End Strategic Vision Project.

#### 41. Trail Connection at Gus Wortham Park toward southwest

Workshop participants suggested that a pedestrian trail be developed along a drainage ditch. This would provide a hiking and cycling connection from the adjacent residential neighborhoods to Gus Wortham Park.

#### 42. Pedestrian environment along East End Corridor

A key to success of transit on Harrisburg Boulevard will be the transformation of the character of the street to an appealing and safe pedestrian environment. Wide and continuous sidewalks, shaded with street trees, lined with buildings that provide interest and activity on the ground floor.

#### 43. Pedestrian environment along South Lockwood

Lockwood is an instrumental connecting street that provides access to the Lockwood Transit Station. Wide and continuous tree-lined sidewalks will be critical to provide a safe and convenient route to transit service on Harrisburg.

#### 44. Connection for proposed Altic Station along the Cemetery to Jackson Middle School

Altic Street provides a key connection to the Altic Transit Station. The road terminates at the Jackson Middle School and is an important connection with the open space of the cemetery and at the school grounds.

#### 45. Connection from Gus Wortham Park towards north on Wayside and Sgt. Marcario Garcia

Workshop participants suggested these as key connections to link the residential neighborhood to the Harrisburg Transit Line, the Magnolia Transit Centre and the historic main street area. Continuous, tree-lined sidewalks would enhance pedestrian access to help support transit service and the shops and services in the main street area.



The Strand, Galveston, TX



Carson Street, Pittsburgh, PA



French Quarter, New Orleans, LA

## A1.5

### East End Corridor Workshop

The purpose of the first day of the workshop was to establish a common understanding existing conditions and opportunities. During the day, the team met with representatives of City staff, and major landowners, to review the understanding of the context of the Corridor. During the evening session with the public, participants were asked to identify projects or initiatives that would enhance the area, as well as to help identify areas that could change and those that should be protected. As background, the Current Initiatives plan was presented at the workshop. It was a compilation of projects identified in previous strategies, plans and reports (see Chapter A1.2)

Each one of the table groups identified many opportunities in the East End that have been included in the Initiatives Plan (see Chapter A1.3). Suggestions of the participants, with respect to the public realm, redevelopment opportunities and areas to be protected included:

#### Public realm

- preserve the facades of historic buildings in the study area
- use paver stones in sidewalks
- provide additional parks e.g. vacant land on the north side of Harrisburg across from Houston Armature Works. Gus Wortham Golf Course could include more non- golf related amenities such as trails, benches, etc.

- abandoned rail ROW's that could connect Commerce to the new parks along buffalo Bayou
- implement the Symphony Park proposal along Buffalo Bayou
- open space in the front of some buildings
- a pedestrian friendly environment

#### Redevelopment opportunities

- old Hughes Tool company site is a good location for new mixed use development
- more upscale businesses including an upscale grocery store, coffee houses, and book stores
- need a hospital
- prefer a "village" concept in redevelopment
- relocate bus companies to one concentrated area like the inter-modal transit center proposed for near north side
- redevelop the site located at 75th and Harrisburg Boulevard
- the main entrance of the golf course would be ideal for higher density residential (next to transit and multi-service center)
- vacant Industrial along Lockwood – would make for good TOD (mixed use)
- redevelop truck storage on Milby and Scott and old warehouses
- Altic Station is suitable for affordable housing opportunities - large industrial area just to the southeast should be redeveloped
- 66th Station: also some redevelopment/affordable housing opportunities
- many smaller infill opportunities all along the corridor (directly on Harrisburg) , particularly close to the Altic Station
- densification (infill) in the neighborhood just west of the RR tracks, west of Country Club subdivision
- Navigation Boulevard has much of development potential
- Halliburton site along the Bayou would make for a great redevelopment site
- more industrial sites along the Bayou could be

Evolution from workshop suggestions to report East End

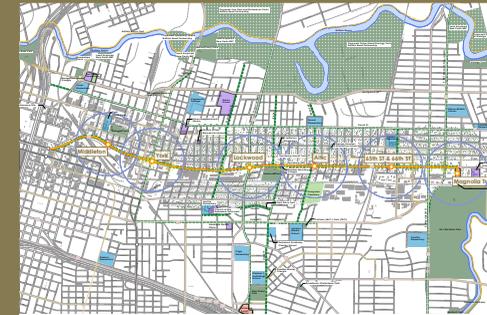
**Pedestrian Realm**



Existing Pedestrian Realm as presented at the workshop

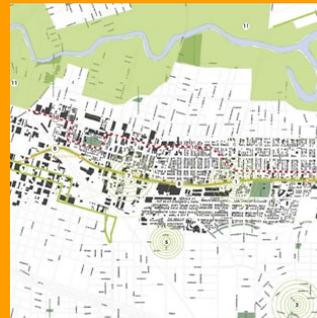


Potential Pedestrian Realm drawn during the 2-day workshop



Proposed Pedestrian Realm

**Initiatives**



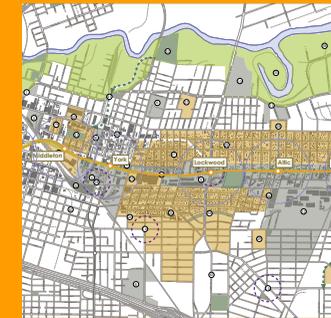
Current Initiatives as presented at the workshop



Sample workshop comments



Summary of workshop Initiatives results



Summary of Initiatives

**Land Development**



Existing Land Use as presented at the workshop



Land Development Concept Plan produced during the workshop



Proposed Land Development Concept Plan



East End Corridor Workshop



Discussion regarding the East End Land Development Concept Plan



Reviewing the East End Pedestrian Realm Plan

- redeveloped as the area acquires more parkland
- warehouse district potential along Roberts – halfway between Middleton and York Stations
- the Fingers building near I-45 is for sale and would be ideal for high density mixed use (close to U of H)
- orient buildings close to the street
- mixed use (retail/entertainment and residential) opportunity east of Maxwell House (between South Capitol, Lockwood, and Oakhurst)
- variety of stores (need a hardware store nearby)
- commercial center – Signature Kroger's, Target
- ground-level commercial along rail line
- small retail shops on bottom with 2-3 stories of residential above on north side of Harrisburg
- develop both sides of the street

**Areas to be protected**

- The Art Deco building across from Eastwood Park is a community icon.
- major employment locations located at Maximus Coffee plant (formerly Maxwell House) and future redevelopment site located at TEDECO yards at Harrisburg at the railroad tracks.
- golf course
- historic filling station on Lockwood
- Maxwell House and Centerpoint Energy along Harrisburg are employment centers.
- Neighborhoods: Settegast Historic Housing, Magnolia Park, Second Ward, Houston Country Club Place, Eastwood and Idylwood, Brady Homes
- Library
- Old Harrisburg
- parks, bayou areas

Participants were also asked to write a headline for the front page of the Houston Chronicle in 2012. The headline was to reflect the character of the East Corridor once the Transit Street has been built. The facing page summarizes some of the headlines collected during this exercise.

Based on the input provided during the first workshop day, the preliminary Pedestrian Realm, Land Development Concept Plans, and three Demonstration Plans were developed and presented for discussion the next day.

The drawings on the previous page illustrate the input received at the workshop and the evolution to the report's Pedestrian Realm, Current Initiatives and Land Development Concept Plans (see Chapter A2 for proposed Plans).



Coral Gable, Miracle Mile, FL



Chestnut Street, San Francisco, CA



Main Square, Prague

**East End, an open door to Houston**  
Mixed Use Mixed Income Revitalizes East End

**East End: Houston's Choice**  
Phase II connection to Hobby  
Airport in Progress

**Don't study it, do it!**  
**Ridership Exceeds Expectations:**  
**METRO Conversion to Rail now Complete**

**2nd Ward Rediscovered**

**Metro Rail:**  
Catalyst for change in the East End

These headlines were taken during the East End Corridor Workshop



## A2.1

---

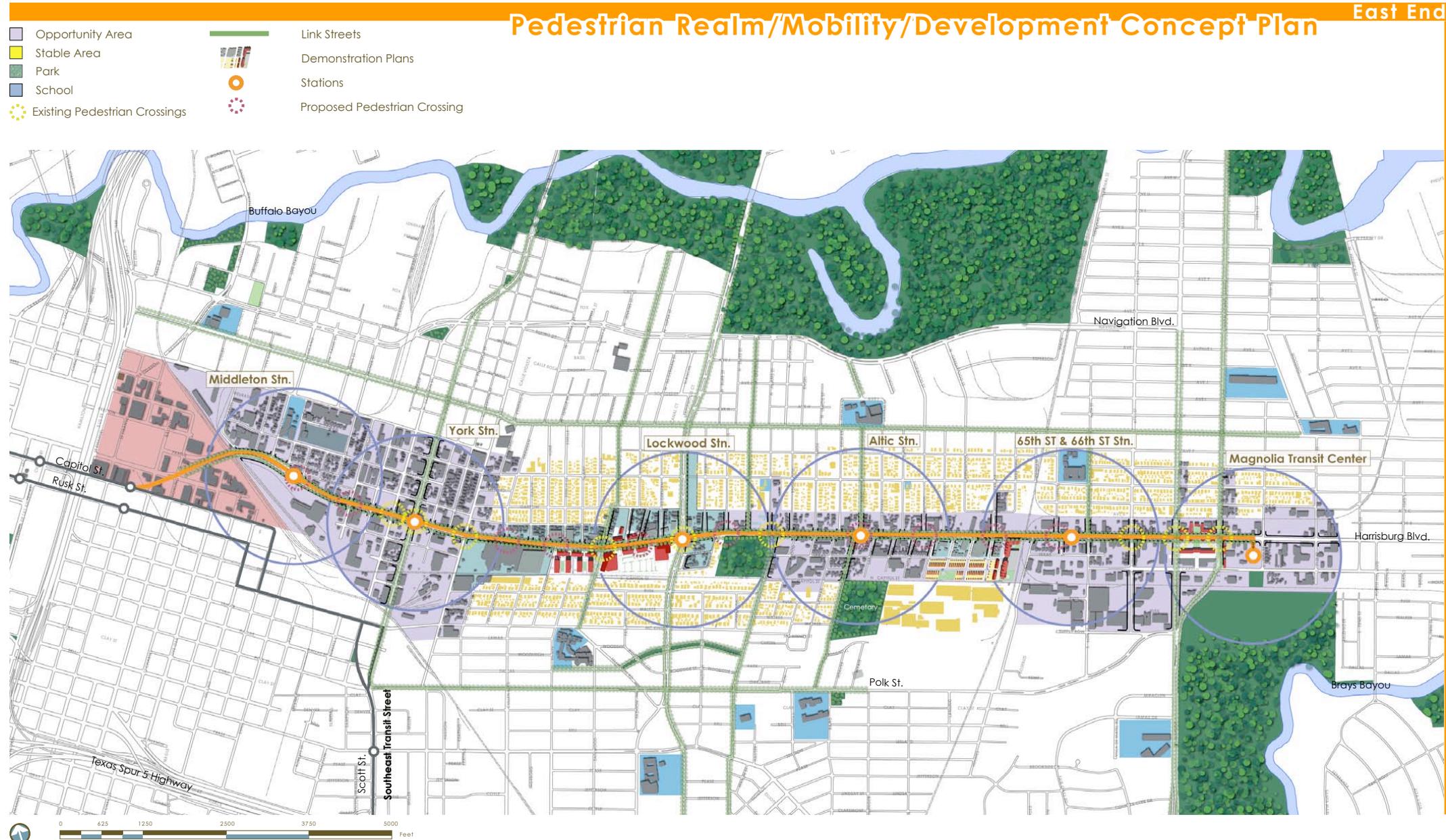
### The Combined Pedestrian Realm/Mobility/Land Development Concept Plan

The diagram on the facing page overlays the Pedestrian Realm/Mobility Plan and the Land Development Concept Plan, which are described individually in more detail in the sections following. The Combined Plan brings into focus the broader elements along the Corridor that will eventually result in Transit Oriented Development and the potential linkages to the surrounding community.

In addition to illustrating Development Opportunity Areas where redevelopment associated with the Urban Corridors should be focused, it also delineates Stable Areas that should be protected for the impacts of redevelopment.

The Combined Plan, through the illustration of the “built to” line, also provides a sense of the scale of the street resulting from future Transit Oriented Development.

Finally, the Combined Plan illustrates the importance of a developed and connected pedestrian realm that includes a system of open spaces linked to transit. The early development of sidewalks and landscape reinforces the linear nature of the Corridor as a Linked Transit Line.



## A 2.2

### Pedestrian Realm/ Mobility Plan

The Pedestrian Realm/Mobility Plan illustrates recommendations to improve and enhance the pedestrian realm and mobility conditions within the East End Corridor. The goal of these recommendations is to provide a safe, vibrant, attractive and highly functional pedestrian experience along the East End Corridor Transit Line (Harrisburg Boulevard), adjacent to proposed Transit Stations/Transit Centers and along key connecting streets.

Beautiful, tree-lined, pedestrian-focused streets are the framework of the Pedestrian Realm/Mobility Plan. Collector streets comprise the largest percentage of public space, and as such, must be enhanced and treated as important public places. When they function well, they are lively places where cafes, flower shops, gardens and public art create a vibrant outdoor space. They are the places where the eyes of the community are on the activities of the street, the frontage for development and the addresses of businesses.

Harrisburg Boulevard is the main spine with key north/south connecting streets also identified for streetscape enhancement. The connecting streets, such as York, North Eastwood and Baywood, provide important links to adjacent community destinations such as parks, schools, community facilities and trails.

Streetscape enhancements should include street tree planting, with an ambition to create a continuous canopy. Street trees would clearly identify the important streets and public places and would provide shade to clear, wide, continuous sidewalks extending from back of curb to building fronts along Harrisburg Boulevard and adjacent to a tree boulevard on connecting streets. In addition, pedestrian level lighting and street furnishings are appropriate.

Lighting along the Southeast Corridor Rail Line is recommended to be consolidated, as possible onto the catenary poles to be installed for the electrical service to the light rail cars. Both street lighting and pedestrian lighting can be attached to these catenary poles effectively. Consolidating lighting on these poles will avoid the visual clutter and expense of multiple poles.

The intent of the pedestrian oriented street hierarchy is to provide an integrated, multi-modal transportation network for all residents and businesses that is safe, convenient and efficient.

Ample pedestrian crosswalks are crucial to the perception of accessibility to both sides of the Harrisburg Transit Street. Great care must be taken to provide safe, well-marked, and unimpeded crossing opportunities especially within retail zones. Bulb-outs reduce crossing distances and should be designed where on-street parking is proposed.

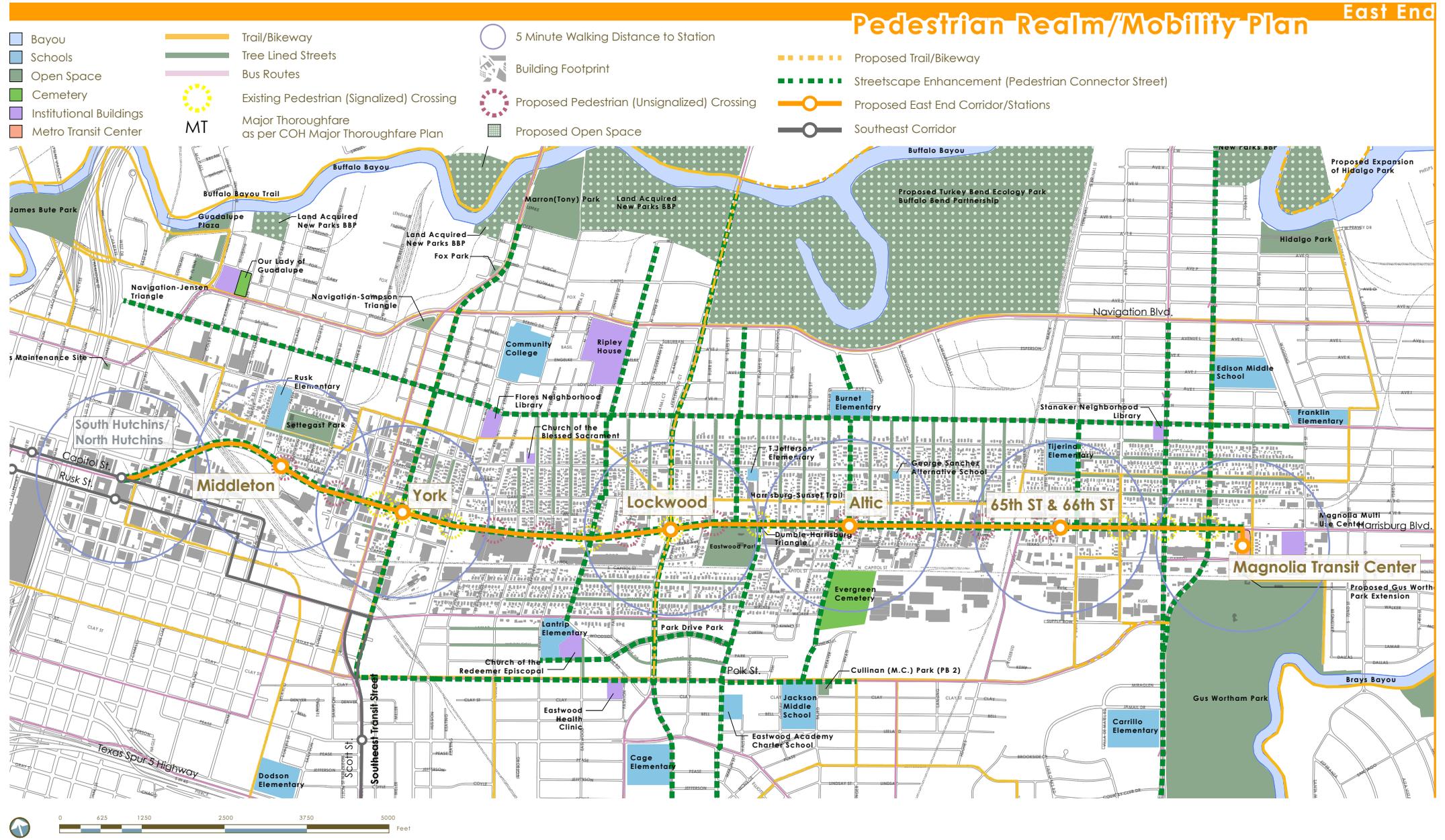
Current bike lanes serving the East End Corridor area should be connected to Transit Stations. These existing bike

lanes are also recommended to be widened to AASHTO standards to improve their functionality and safety for bikers.

Eastwood Park is ideally located on Harrisburg Boulevard to provide a key focal point and existing public space. It can provide an amenity for adjacent Transit Oriented Development.

Urban Squares are smaller scale publicly accessible open spaces that should be located in association with Transit Oriented Development. These small plazas are more urban in nature and do not include active/sports facilities. Urban Squares are generally accessible to public use, often privately owned and may be gated or well lit for night security. These squares are primarily paved with planting areas, shade trees, planters, public art, fountains and seating for passive, outdoor enjoyment.

The East End Corridor is framed by two major open space systems: one planned along the Buffalo Bayou, and one existing along Brays Bayou. The Buffalo Bayou Partnership is working to secure and develop a linear park facility along the Bayou extending from Guadalupe Plaza to Hildalgo Park. This future linear park will provide an enormous amenity to the East End as well as to the City. Even in its undeveloped state, Buffalo Bayou provides canoeing, fishing, hiking and biking within an amazingly densely vegetated area. An extension of the Buffalo Bayou hike/bike trail, from Lockwood east to Hildalgo Park, is recommended to provide access to future Buffalo Bayou park facilities to the eastern half of the Corridor. A second



## A2.3

### Land Development Concept Plan

The Land Development Concept Plan divides the East End Corridor into three categories based on their development potential:

#### Development Opportunity Area 1 - Downtown

– The Downtown is likely to experience large-scale redevelopment activity as a result of the planned transit facilities and proximity to the City center. It includes existing employment, office and commercial uses – uses that are typically subject to more frequent redevelopment. The Downtown also includes vacant and underdeveloped lands within the 1/4 mile station radius where Transit Oriented Development is most probable.

#### Development Opportunity Area 2 - Corridor

The Development Opportunity Area 2 is concentrated at the eastern end of the Corridor and comprises mainly older underdevelopment industrial and employment lands. Development Opportunity Area 2 flanks the entire length of the Corridor, covering a narrow portion (1/2 block depth) along the north side of Harrisburg between Harrisburg and the existing Hike and Bike Trail which consists primarily of smaller scale commercial and retail uses. The identified Development Opportunity Area 2 – Corridor also covers a wider portion (3-4 block depth) along the south side of Harrisburg which consists of a mix of larger

scale employment and industrial blocks. Development Opportunity Area 2 also extends along some of the north-south roadways north of Harrisburg where commercial uses have encroached into Stable residential areas.

**Stable Areas** – Stable Areas are comprised of the predominately residential neighborhoods and parks on the north and south of the East Corridor Study Area. Stable Areas are those areas that are not likely to experience large scale redevelopment activity as a result of the planned Urban Corridor. Areas designated as Stable include existing stable residential neighborhoods, existing parks and open space as well as significant institutional uses both within and outside of the 1/4 mile stations radius.

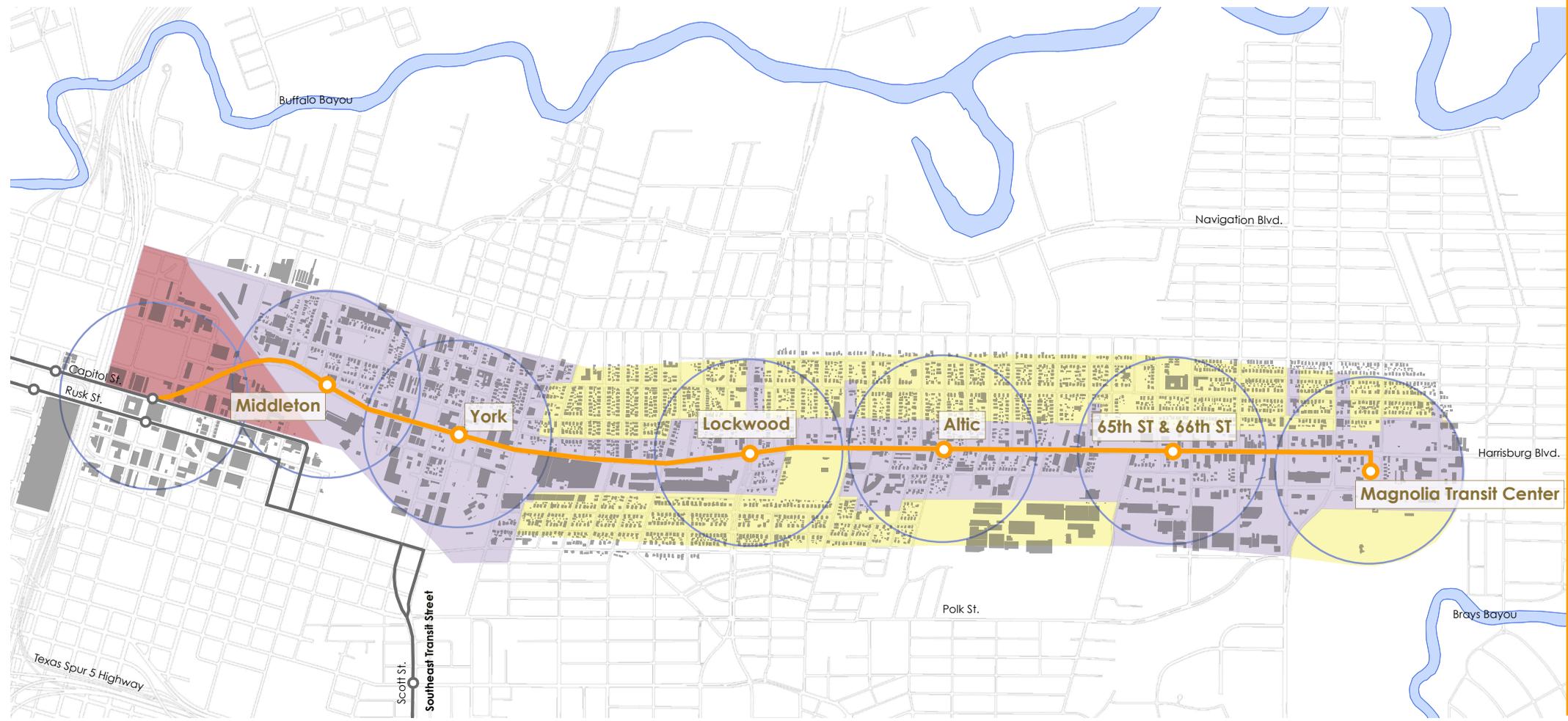
#### A2.3.1 Demonstration Plans

Three Demonstration Plans for prototypical sites were prepared to demonstrate, conceptually, how Transit Oriented Development could manifest itself given the context and condition of the East End Corridor.

The following diagrams provide a collection of images including a site plan, photographs of development precedents and photo simulations of large lot redevelopment, a large lot with minimum frontage on the Transit Line and a large through lot.

# Land Development Concept/Infrastructure Plan East End

-  East Corridor
-  Southeast Corridor
-  5 Minute Walking Distance to Station
-  Development Opportunity Area 1 - Downtown Shoulder
-  Development Opportunity Area 2 - Corridor
-  Stable Areas



# 1

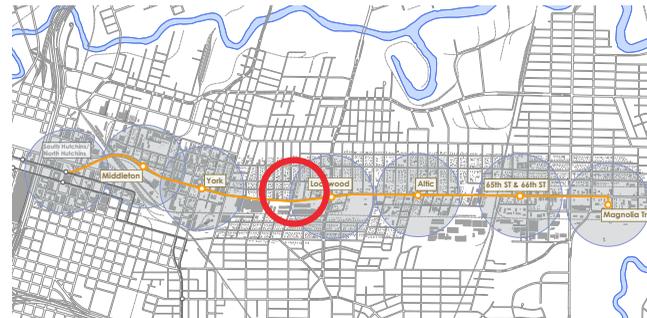
## Large Lot

### Harrisburg Boulevard at South Lockwood Drive

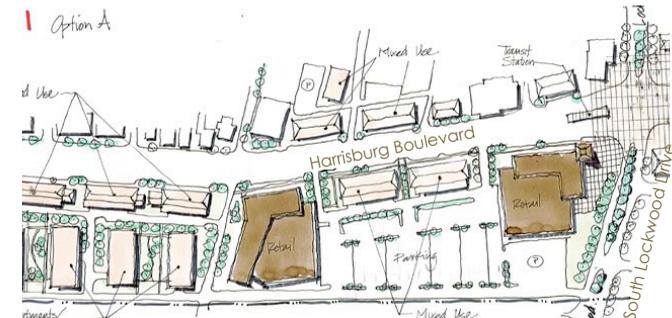
This site, sometimes referred to as the Stewart & Stevenson industrial site, is an example of a large site prototype.



Existing Site Conditions



Location of site in corridor



Demonstration Plan created during the workshop

### Site Characteristic

- the site encompasses approximately 416,545 sf of land (9.5 acres);
- an extensive length of frontage on Harrisburg Boulevard (1,490 linear ft);
- a proposed transit station adjacent to the site;
- full lot depth backing onto a railway;
- the surrounding area includes industrial (on adjacent lands), the Eastwood community (to the north) and low rise residential (on the south side of Harrisburg Boulevard); and,
- the site is privately owned.

### The Program

- a program for the site includes residential, retail and "big box" retail stores;
- a second option develops the site as a mix of multi-family homes and mixed-use with residential over retail; and,
- the location adjacent to a proposed station lends itself to the creation of an open space focus for the site.

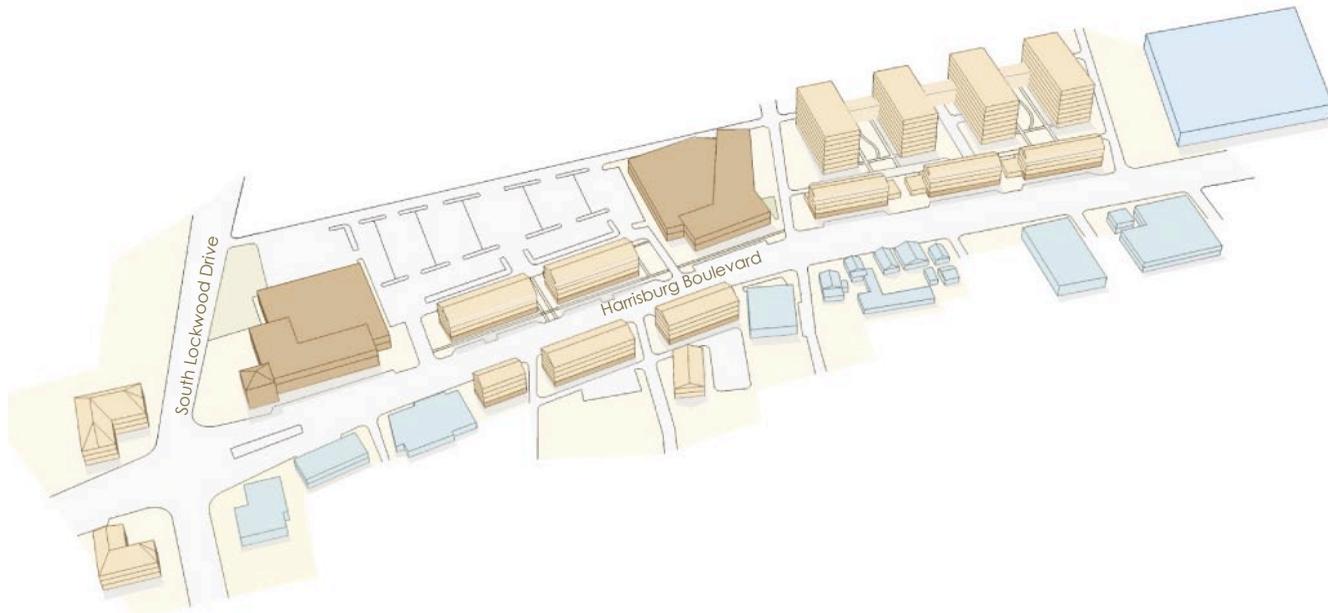
### The Design Solution

- A phased site plan for the site includes two "box" retail stores, residential multi-family residential units and parking at grade. The second phase produces a site that is mixed use with residential uses over retail.

### The Results

- a mixed-use TOD form of development adjacent to the Lockwood Station;
- retail stores adjacent to the street;
- a mix of housing;
- two large format retailers at 77,000 and 71,000 sf;
- 26,750 sf of mixed-use retail;
- approximately 100 apartments in mixed-use buildings;
- 136 apartments in stand alone buildings; and,
- 288 parking spaces at grade.

Demonstration Plan East End



3D model of demonstration plan



Photomontage illustrating the potential enhanced streetscape and built form on Harrisburg Boulevard just west of South Lockwood Dr.



Precedent - Grocery store with pedestrian activity at grade



Precedent - Mid-rise apartments



Precedent - 3 Story apartments over retail

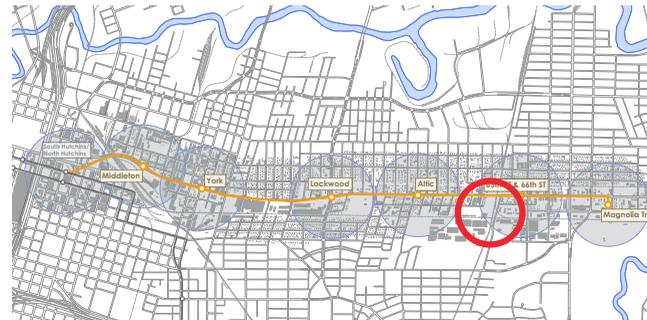
# 2 Large Lot with Minimum Frontage

## Hughes Tool Site

This site is located on the south side of Harrisburg Boulevard adjacent to the railroad tracks. The site is a portion of the former Hughes Tool site and is an example of a Large Lot with Minimum Frontage. In this case, it is a large interior site with limited frontage.



Existing Site Conditions



Location of site in corridor



Demonstration Plan created during the workshop

### Site Characteristic

- The site encompasses approximately 337,250 sf of area (7.7 acres);
- the site has 180 linear feet of frontage on Harrisburg Boulevard;
- the west edge of the site is formed by the railway line;
- the area surrounding the site is a mix of industrial to the north and residential to the north and across Harrisburg is a retail strip centre that is empty; and,
- the site is privately owned.

### The Program

- The program for the site is primarily residential with a mix of single-family homes on small lots, multi-family residential and mixed-use apartments over retail. The objective is to front Harrisburg Boulevard with development, locate parking structures adjacent to the railway as a buffer and create a community of mixed housing in a compact walkable neighbourhood.

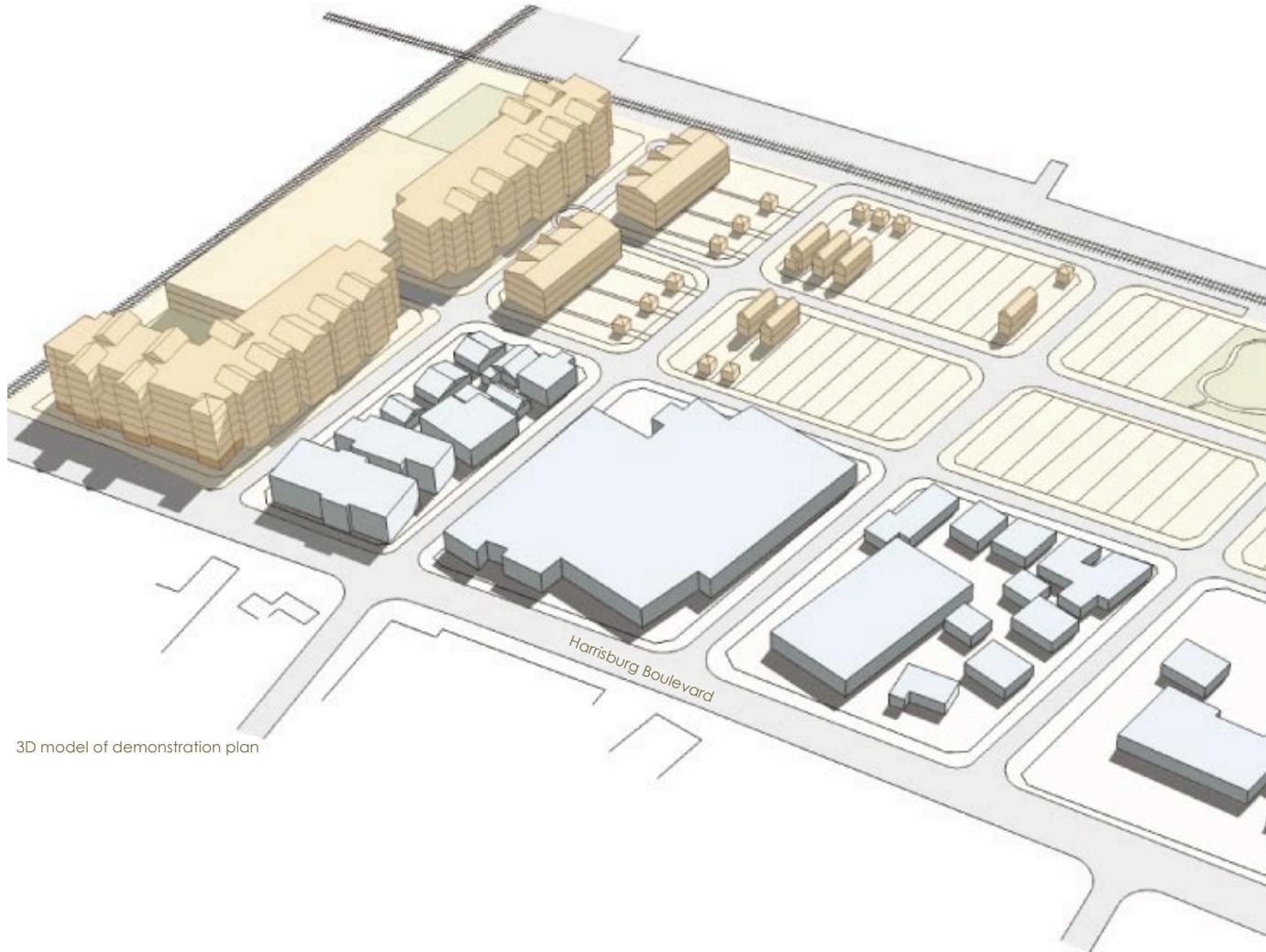
### The Design Solution

- A neighbourhood of single-family homes on small lots on the interior of the site;
- the extension of existing north/south streets into the new neighbourhood;
- townhouses adjacent to the single-family homes as a transition to the higher mixed-use buildings on the west edge of the site;
- mixed-use residential over retail on the west of the site and frontage; and,
- structured parking serving the mixed-use development and acting as a buffer to the railway line.

### The Results

- 5200 sf of retail;
- 217 apartments with one half acre of private open space;
- 12 townhouses;
- 50 single family lots;
- a half acre parkette; and,
- structures adjacent to the railway as a buffer and create a community of mixed housing in a compact walkable neighbourhood.

Demonstration Plan East End



3D model of demonstration plan



Precedent - Apartment building courtyard



Precedent - Townhouses as suggested on plan



Precedent - Small Lot single-family homes

# 3 Large Through Lot

## Harrisburg at Wayside

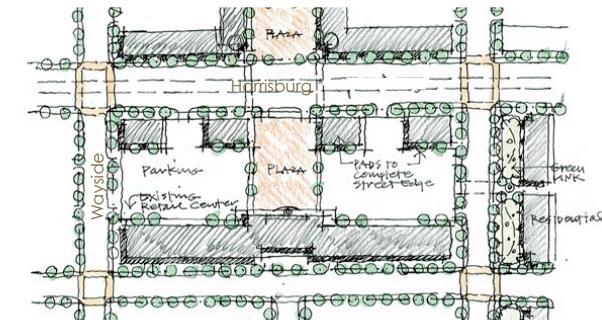
Located near the east end of the Corridor, the site is the location of a retail strip centre on the south side of Harrisburg Boulevard that includes some food pads. Across the street is a McDonald's restaurant. The site is a prototypical large through-lot site on the north and a series of narrow through-lots on the south.



Existing Site Conditions



Location of site in corridor



Demonstration Plan created during the workshop

### Site Characteristic

- the site encompasses both sides of Harrisburg Boulevard and includes approximately 194,900 sf of area;
- the area around the site is predominantly non-residential to the north with Gus Wortham Park in proximity;
- the south side of Harrisburg is restricted by a railroad right of way which limits the site depths to approximately 180 feet of depth; and,
- on the north side, the site is bound by Capital Street, which is a collector.

### The Program

- the program for the site includes intensified uses in a mixed use form;
- there is a desire to generate a "meeting place" on the development site in the form of a plaza or a park to be a focus for the neighbourhood as well as the site; and,
- the potential to connect the transit line with the open space to the north is to be accommodated.

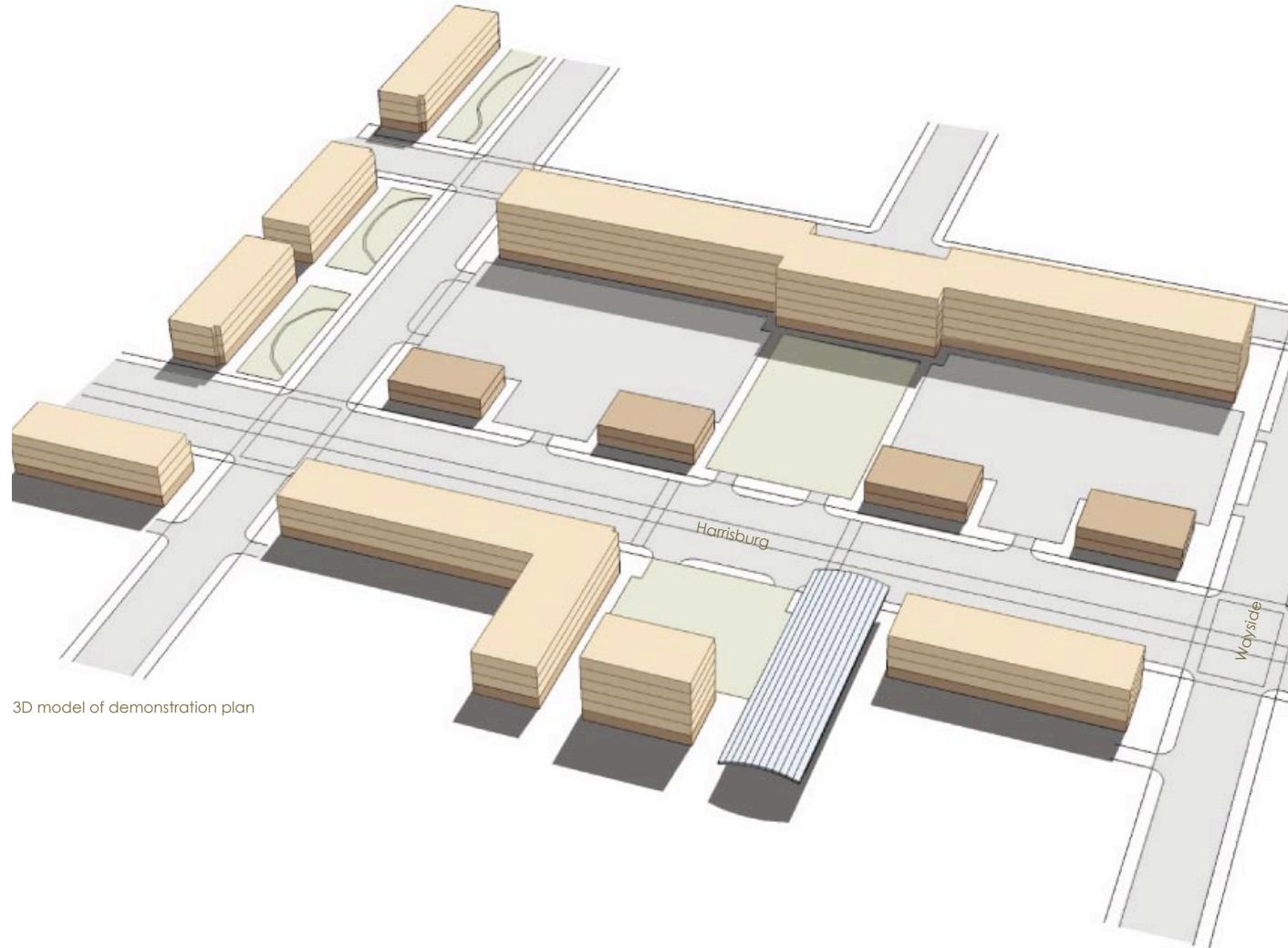
### The Design Solution

- infill retail development and mixed-use adjacent to Harrisburg Boulevard;
- structured parking in later phases to allow for higher density mixed-use;
- development of a small public space on the north side directly across from a semi-public space on the south to produce a neighborhood focus; and,
- green connections to Gus Wortham Park adjacent to Sgt. Marcia.

### The Results

- A TOD mixed use development near an intermodal station;
- Almost 700 feet of frontage on the Transit Corridor developed on both sides;
- South of Harrisburg Blvd. - 100 Apartments, 30,885 sf of retail in mixed-use on the south side, 16,000 sf of existing retail retained, an urban plaza; and,
- North of Harrisburg Blvd. - 71,000 of mixed use development and stand alone buildings, 300 apartments, 275 Parking spaces at grade, an urban plaza and gathering space.

## Demonstration Plan East End



3D model of demonstration plan



Precedent - Low-rise mixed-use



Precedent - Two story retail



Precedent - Urban Square

### A2.3.2 Development Analysis

The following analysis is intended to test underlying development economics in the East End Urban Corridor market context. The development proformas are generic in nature and are not intended to represent specific site feasibilities. The development scenarios (infill townhouses site and a mixed use mid-rise residential and retail project) may be indicative of the type of Transit Oriented Development that could be expected over time in this area. Office buildings, for example, are unlikely to drive denser development in the East End Urban Corridor given the absence of an existing nearby office node.

#### Development Scenario 1 Infill Townhouse Project

##### Description of Development

A generic development proforma was prepared for a 40-unit, 3-storey townhouse project. The assumed site measures 2 acres, and the units average 1,800 sf. There is one parking stall per unit, although additional surface parking may be available on a driveway, on-street parking or shared communal lot. The total development time horizon is 16 months from land acquisition to full occupancy. The proforma details are summarized on the following page.

##### Comparable Properties and Market Parameters

Two existing townhouse development projects were identified in or close to the East Corridor area; one at 93 Sidney Street, with the other known as Leeland Gardens, on Pease Street. The Sidney Street townhouse unit was 2,300 sf, and had an asking price of \$299,000. The Leeland Gardens townhouse unit was just less than 1,800 sf and had an asking price of \$249,000. The prices for the two comparable projects are \$130 psf and \$140 psf, respectively. These projects are generally equal to or larger than the units proposed in the development proforma illustrated below.

New projects in the area, however, face considerable pricing pressure from the existing housing stock. As outlined in the corridor overview above, based upon MLS data from the Houston Association of Realtors, the average resale townhouse/condominium price in early 2007 was in the range of \$225,000. In contrast, single family homes were in the range of \$125,000 (generally older supply compared to the newer townhouse/condominium units that transacted).

##### Proforma Results

Not surprisingly, the economic price required to justify new construction of townhouses in this area reflect current pricing at comparable projects. The development proforma presented below suggests a required sale price of around \$253,000, or \$141 psf, compared to current asking prices for similar projects (albeit closer to downtown) in the \$130 to \$140 psf range. There may be a potential

to downgrade the finish and corresponding price for the project, closer to the \$200,000 per unit range.

Some observations regarding the proforma for this type of project include the following:

- Hard construction costs (excluding parking) represent 57% of total project costs. The cost of parking accounts for an additional 4% of total end unit price. This represents a relatively small component since it is assumed the parking is at grade or structured underneath the units. Underground parking, although it can permit higher densities, results in considerably more cost.
- Total land costs represent roughly 14% of total end unit price – this represents land values of roughly \$630,000 per acres plus some carry costs. A more dense development, provided it can be successfully marketed, will generally achieve lower land costs per square foot, helping to reduce end unit prices (although for a different type of project).
- Municipal development fees are generally very minor in Houston and do not greatly impact end unit prices.
- Of course, a developer needs to profit from any development at a rate consistent with the risk. Taking into account total project costs of over \$9 million and assuming a 12% profit margin on the total project (higher when leveraged equity is considered), the required sale price per unit is \$253,000 – translating to \$141 per square foot.

Of note, the generic proforma outlined above can achieve relatively high densities (20 units per acre) and still provide at least one parking space per unit. There may be an opportunity to design additional surface parking, either in front of each unit, on a street or some communal parking lot. A key consideration regarding the market feasibility

**Economic Rent/Price Calculation- East Corridor Townhouse Residential** **East End**

for this type of development project is the potential demand generated by proximity to the Transit Line. There are clearly a number of cost-competitive housing options in this area. In order to entice existing or new residents to a new development in the East Corridor, the availability of enhanced public transit and associated mixed use development as an amenity will have to be emphasized. The ability to reduce car ownership may also assist with affordability if efficient public transit can be utilized.

**Assumptions**

<b>Timing Assumptions</b>				
Land Acquisition			01-Jan-08	
Planning Period			4 months	
Construction Commencement			03-May-08	
Construction Period			12 months	
Occupancy			01-May-09	
<b>Total Development Period</b>			<b>16 months</b>	
<b>Interest Rate</b>				
Interim Financing			7.00%	
<b>Building Areas</b>				
Number of Units			40	
Average Unit Size			1,800 sq.ft.	
Number of Storeys			3	
Ground Floor Coverage			24,000 sq.ft.	
Gross Building Area			72,000 sq.ft.	
Site Coverage			0.83 times	
Land Area			2.00 acres	
<b>Residential Units</b>				
	<u>G.B.A.</u>	<u>Avg. Size</u>	<u>G.F.A.</u>	<u>G.L.A.</u>
Bach & 1 Bedroom	0%	0	0	0
2 & 2+ Bedroom	100%	1,800	72,000	72,000
Other	0%	0	0	0
<b>Total</b>	<b>100%</b>	<b>1,800</b>	<b>72,000</b>	<b>72,000 sq.ft.</b>
<b>Parking Ratio</b>				
			1.00 stalls per residential unit	40.0 stalls

**Project Costs**

	\$ 000's	Per Unit
<b>Land</b>		
Purchase Price	\$1,260	\$31,500
Additional Land Costs	\$63	\$1,575
Land Carrying Costs	\$123	\$3,087
<b>Subtotal</b>	<b>\$1,446</b>	<b>\$36,162</b>
<b>Construction &amp; Fringe</b>		
Hard Construction Costs	\$5,765	\$144,129
Parking	\$389	\$9,719
Architect. & Engineer.	\$400	\$10,000
Site Improvements	\$261	\$6,534
Const. Contingency	\$308	\$7,692
Municipal Fees	\$15	\$385
Development Interest	\$35	\$874
<b>Subtotal</b>	<b>\$7,173</b>	<b>\$179,334</b>
<b>Sales &amp; Marketing</b>		
Sales Commissions	\$324	\$8,100
Marketing & Advertising	\$100	\$2,500
<b>Subtotal</b>	<b>\$424</b>	<b>\$10,600</b>
<b>Total Project Cost</b>	<b>\$9,044</b>	<b>\$226,096</b>

**Required Price/Rent Calculations**

<b>Required Return on Investment</b>	<b>12%</b>
<b>Required Average Sale Price</b>	<b>\$253,227</b> Unit

## Development Scenario 2 Large Mixed Use (Residential/Retail) Project

### Description of Development

A generic development proforma was also prepared for a mixed use project on a 9.5 acre site with two apartment buildings (assuming 236 units) with internal above-grade structured parking, along with two retail pads (approximately 148,000 sf combined). Streetfront retail space is anticipated on the ground floor of the apartment buildings, plus potential landscaped open space at the site.

There are roughly 750 surface and structured parking spaces serving the project including 3.5 spaces per 1,000 sf of leasable retail area, along with one parking space per residential unit. The residential proforma describes two, 6-storey buildings, but the built form could be converted to a 4-storey podium set back to an 8-storey tower, incorporating structured parking, with only limited (increased cost) impact on construction costs. Additionally, some of the parking could be accommodated one level below grade, lowering the overall building height, but this is a more costly alternative. In the development proforma the residential condominium units have an average size of 1,010 sf, but this includes a mix of one and two bedroom units ranging from 850 sf to 1,250 sf.

### Comparable Properties

Two mid rise apartment projects currently being marketed were identified in or near the East Corridor area; one known as Navigation Place, at 2424 Navigation Street with the other known as Keystone Lofts, at 1120 Texas Street.

The Navigation Place property has a 1,624 sf unit with an asking price of \$285,000 (2 bedrooms), while a 1,405 sf unit at Keystone Lofts has an asking price of \$259,900 (2 bedrooms). These prices equate to roughly \$175 psf and \$185 psf, respectively. Notably, these two examples are larger than the units proposed in the development proforma illustrated below.

There is a 5-storey apartment condominium project (redevelopment) currently under development called Herrin, located at 2205 McKinney that has 52 units (39 presently still listed for sale) ranging in size from around 700 sf to 1,300 sf (mostly in the 800 sf to 900 sf range). The prices range from roughly \$135,000 for smaller units on lower floors up to \$240,000 sf for large upper level units, equating to approximately \$180 to \$200 psf. Notably, this is the second time a developer has attempted to renovate this historic property into residential lofts.

*"In 2000, the former owner began building out units there and selling them for prices ranging from the high \$100,000s to more than \$600,000. But the Sept. 11 attacks halted sales. And the area never became the thriving residential district area developers had hoped."... "In addition to the condos having lower prices [than when originally marketed], Spencer Partnership Architects is redesigning the building to make the units smaller, with most of them containing one bedroom and having between 700 and 900 square feet." (Source: Houston Chronicle)*

### Proforma Results

Based upon the development proforma, a required sale price of approximately \$160,000 is established for the condominium apartment units, which equates to a price of roughly \$160 psf, which is near the lower end of the current market average range (in part due to savings on land and parking costs associated with a mixed use development). For the retail space, the proforma generates a required economic net rental rate in the range of \$17.00 psf net, which is within the asking market rent range (based upon a recent market survey of retail space across the local submarket), and recognizes the age and quality of the proposed construction.

As was presented in the proforma for the townhouses above, hard construction costs and land costs represent roughly 70 percent of the total project costs. While different grades of finish and construction quality can be considered, there is relatively little that can be done to influence these fundamental development parameters. The key cost saving in this development scenario, and one that can be used to help lower the end unit prices/rents, is the sharing of parking. The creation of a rapid transit alternative to private car use and the ability to share parking with different demand peaks, allows less land to be devoted to parking and higher development densities than could otherwise occur. It is still recognized that considerable parking is required (parking requirements have been reduced only partly). These elements have allowed pricing for the residential units, for example, to be near the lower end of the current market range for new projects in and near the area.

## Economic Rent Calculation - Mixed Use Residential & Retail Development East End

### Assumptions

<b>Timing Assumptions</b>				
Land Acquisition		01-Jan-08		
Planning Period		6 months		
Construction Commencement		03-Jul-08		
Construction Period		12 months		
Substantial Completion		01-Jul-09		
Cost of Vacancy Period		2 months		
<b>Total Development Period</b>		<b>20 months</b>		
<b>Interest Rate</b>				
Interim Financing		7.00%		
<b>Building Areas</b>				
		<b>Residential Units</b>	<b>Retail Space</b>	
Number of Units		236	-	
Number of Buildings		2	2	
Average Unit Size		1,010 sq.ft.	-	
Number of Storeys		6	1	
Floor Plate		29,959 sq.ft.	148,000 sq.ft.	
Gross Building Area		359,510 sq.ft.	148,000 sq.ft.	
Site Coverage		0.58 times	0.36 times	
Land Area		9.50 acres	9.50 acres	
<b>Residential Units</b>				
	<u>G.B.A.</u>	<u>Avg. Size</u>	<u>G.F.A.</u>	<u>G.L.A.</u>
Bach & 1 Bedroom	60%	850	120,360	111,935
2 & 2+ Bedroom	40%	1,250	118,000	118,000
<b>Retail Space</b>				
Retail	100%	-	148,000	148,000
<b>Total</b>	-	1,637	386,360	377,935 sq.ft.
<b>Parking Ratio</b>				
1.00 stalls per residential unit				236 stalls
3.50 stalls per 1,000 sq. ft. of G.F.A.				518 stalls

### Project Costs

	Residential Units		Retail Space		Blended Total	
	\$ 000's	Per Unit	\$ 000's	PSF	\$ 000's	PSF
<b>Land</b>						
Purchase Price	\$2,980	\$12,625	\$3,700	\$25.00	\$6,680	\$17.29
Additional Land Costs	\$149	\$631	\$185	\$1.25	\$334	\$0.86
Land Carrying Costs	\$328	\$1,392	\$408	\$2.76	\$736	\$1.91
<b>Total Land</b>	<b>\$3,457</b>	<b>\$14,648</b>	<b>\$4,293</b>	<b>\$29.01</b>	<b>\$7,750</b>	<b>\$20.06</b>
<b>Construction &amp; Fringe</b>						
Hard Construction Costs	\$21,493	\$91,073	\$10,503	\$70.97	\$31,996.56	\$82.82
Parking	\$3,066	\$12,991	\$715	\$4.83	\$3,780.67	\$9.79
Architect. & Engineer.	\$1,596	\$6,764	\$729	\$4.93	\$2,325.52	\$6.02
Site Improvements	\$828	\$3,507	\$745	\$5.03	\$1,572.52	\$4.07
Const. Contingency	\$1,228	\$5,203	\$561	\$3.79	\$1,788.86	\$4.63
Municipal Fees	\$8	\$32	\$26	\$0.18	\$33.92	\$0.09
Development Interest	\$138	\$586	\$372	\$2.51	\$510.09	\$1.32
<b>Total Construction &amp; Fringe</b>	<b>\$28,357</b>	<b>\$120,157</b>	<b>\$13,651</b>	<b>\$92.24</b>	<b>\$42,008.14</b>	<b>\$108.73</b>
<b>Sales &amp; Marketing</b>						
Sales Commissions	\$1,430	\$3.70	-	-	-	-
Marketing & Advertising	\$590	\$1.53	-	-	-	-
<b>Total Sales &amp; Marketing</b>	<b>\$2,020</b>	<b>\$5.23</b>	-	-	-	-
<b>Cost of Vacancy</b>						
	-	-	\$65	\$0.44	-	-
<b>Deferred Costs (Leasing)</b>						
Tenant Allowances	-	-	\$2,220	\$15.00	-	-
Leasing Costs	-	-	\$592	\$4.00	-	-
Financing Carry Costs	-	-	\$308	\$2.08	-	-
<b>Total Deferred</b>	-	-	<b>\$3,120</b>	<b>\$21.08</b>	-	-
<b>Total Project Costs</b>	<b>\$33,834</b>	<b>\$143,365</b>	<b>\$21,129</b>	<b>\$143</b>	<b>\$54,963</b>	<b>\$142</b>

### Required Sale Price Calculation

<b>Required Return on Investment</b>	<b>12%</b>
<b>Required Apartment Condominium Average Sale Price</b>	<b>\$160,569</b> Per Unit
<b>Required Retail Average Net Rent</b>	<b>\$17.13</b> Per Square Foot

## Conclusions Regarding Development Analysis

The above proforma analyses demonstrate the required sales price or rent for a selection of new projects. When assessing these development proformas, it is important to note they reflect new building costs which generally exceed market affordability for many area residents. In the East Corridor, for example, the income levels and stock of single-detached housing available for resale places a considerable constraint on market demand for new construction.

The average price of existing homes in the corridor is far below that required for almost any type of new housing development. The average single detached house price in the East Corridor area was \$126,000 in the spring of 2007. New townhouses require a sales price of roughly \$250,000, which can purchase a larger single detached house on a relatively sizeable lot.

With a median household income of roughly \$30,000, the affordable house price, at the median, is \$125,000 and the affordable monthly housing rent is \$800, far below the types of prices or rents to justify new construction. Of course, some new construction has and will continue to take place in this corridor, catering to a subset of the existing and potential new residents that can afford and are seeking the lifestyle associated with transit oriented development, but this appears to be only a smaller niche market at present.

The general inequities between economic feasibility and market pricing for higher density forms of housing suggest the following:

- Transit Oriented Development along the East Corridor is likely to be incremental. Substantial and broad market demand for Transit Oriented Development will not appear overnight even with the emplacement of new rapid transit along this Corridor.
- New rapid transit along the Corridor will likely increase demand but higher density forms of housing (and subsequently commercial space demand) is likely to remain a niche (hopefully a growing niche) market that appeals to users which have accepted (and can afford) a more urban housing lifestyle.
- In order to facilitate faster development of the medium and higher density development along this Corridor, considerable "assistance" might have to be considered – perhaps in the form of financial subsidies for development or ongoing occupancy costs and reduced parking costs.
- Lastly, although it is not explicitly examined in the proformas here, the availability of quality public schooling is clearly an important criteria within the City for attracting families to higher density forms of housing.

## A2.4

### Infrastructure Overview

Based upon the research of the existing east corridor infrastructure, the base infrastructure is sufficient to serve the Corridor.

The existing infrastructure serves a community that is a mix of industrial and residential users along the Corridor. The size of the infrastructure that serves industrial users is sufficient to accept more intense infill development as the Corridor redevelops.

Even though there is adequate capacity in the system, the City has received several complaints about water quality in this Corridor. The water service needs to be improved in this area for new development with new small-sized (8"-12") water lines across the Corridor from Nagle to Lockwood.

Areas that are presently predominantly residential in nature will require careful analysis to determine the level of increased capacity that might be needed. The incremental nature of redevelopment will allow for the renovation of watermains and sanitary sewers to occur as development is proposed. At this time, the City is unable to provide a detailed evaluation of available capacity along the Corridor. As the development progresses along the corridor, the City will assess the system capacity on a case-by-case basis. This is particularly important within 1600 feet of the station locations.

## A2.5

# Pedestrian Oriented Cross Sections

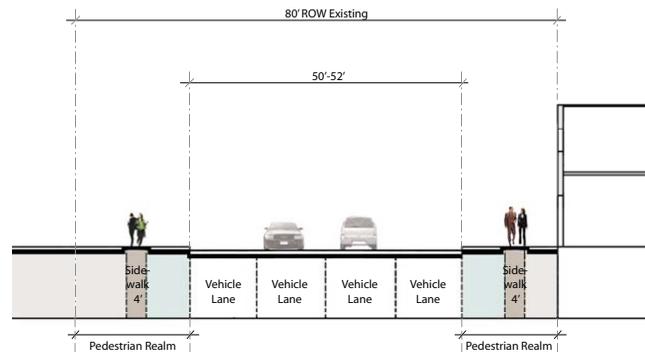
To better understand the urban design impact of the new transit on the existing streetscapes, sections have been developed through various locations along the East Corridor illustrating the existing condition of the street between buildings façades. A section showing the new streetscape has been constructed as a comparison.

The sections have been selected to indicate typical conditions on the Transit Street to show the impact of the LRT. Additional sections have been developed to illustrate the connecting streets and indicate both existing conditions and proposed improvements with a high level of attention to the pedestrian realm. The importance of these streets as primary pedestrian ways cannot be overstated. These streets are envisioned as the principle links between the transit street and the surrounding neighbourhoods as well as the location of bus routes.

### A2.5.1 Pedestrian Character Transit Street

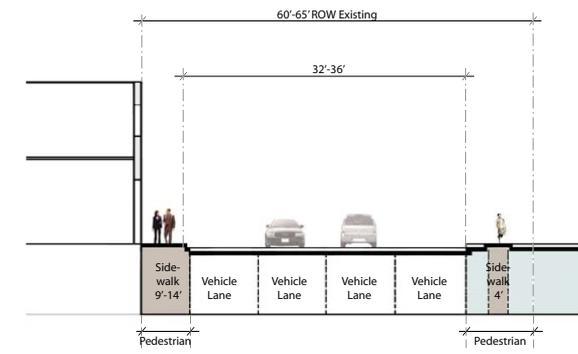
The sections that have been selected to illustrate typical conditions in the East Corridor are at key locations on Harrisburg Boulevard. The first is taken at Harrisburg Boulevard and Hutcheson Street. As can be seen in the image, the existing street accommodates four lanes of traffic in an 80' right of way. For the most part the sidewalks

are 4' wide and discontinuous. Buildings are low and set back from the street. The new street will continue to carry four lanes of traffic but with an LRT line in the middle of the street. The stations are between the two lines at this point and the pedestrian realm is 15' wide and is continuous. Locating buildings at the edge of the pedestrian realm generates a strong pedestrian zone along the street.



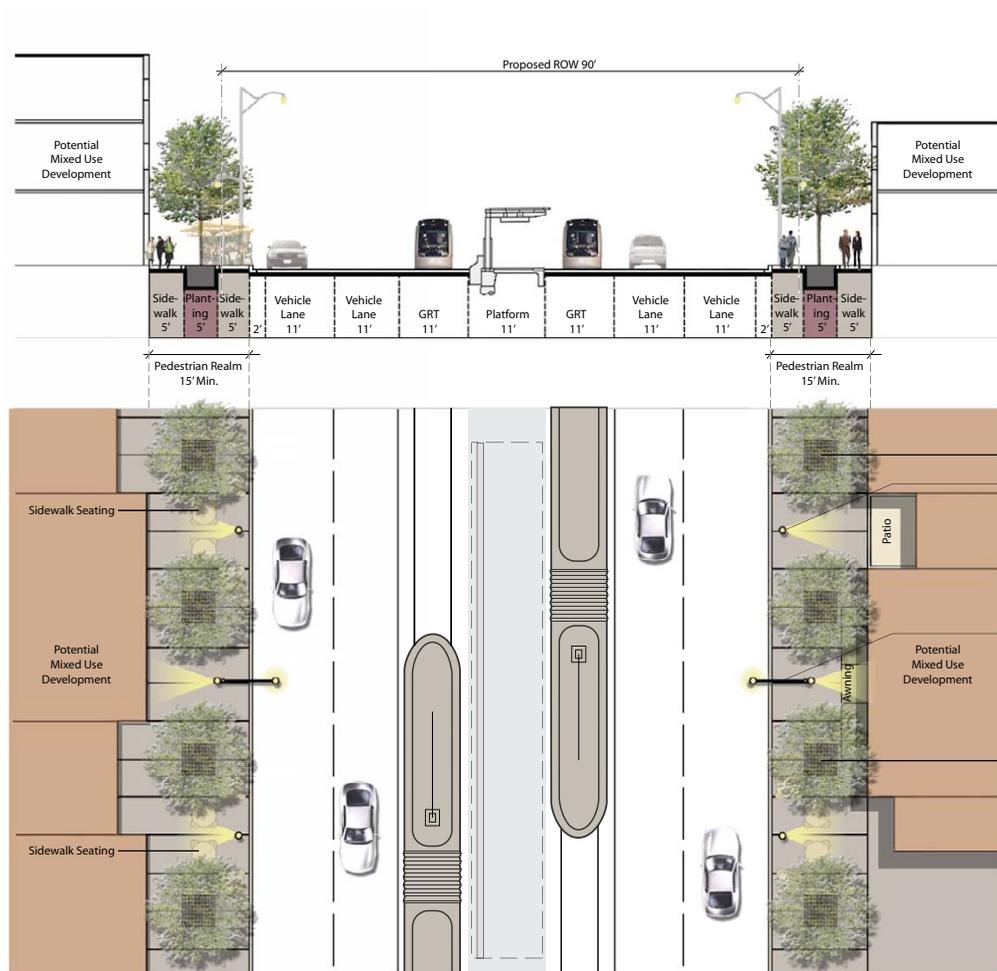
East Corridor Existing Conditions - Harrisburg at Hutcheson St.

The second condition is located at Harrisburg and Grace Street. The existing condition is an example of a narrow street with buildings in close proximity to the street edge. In this case, the new street will be widened to 76' in width and will accommodate four lanes of traffic with the LRT at the centre.

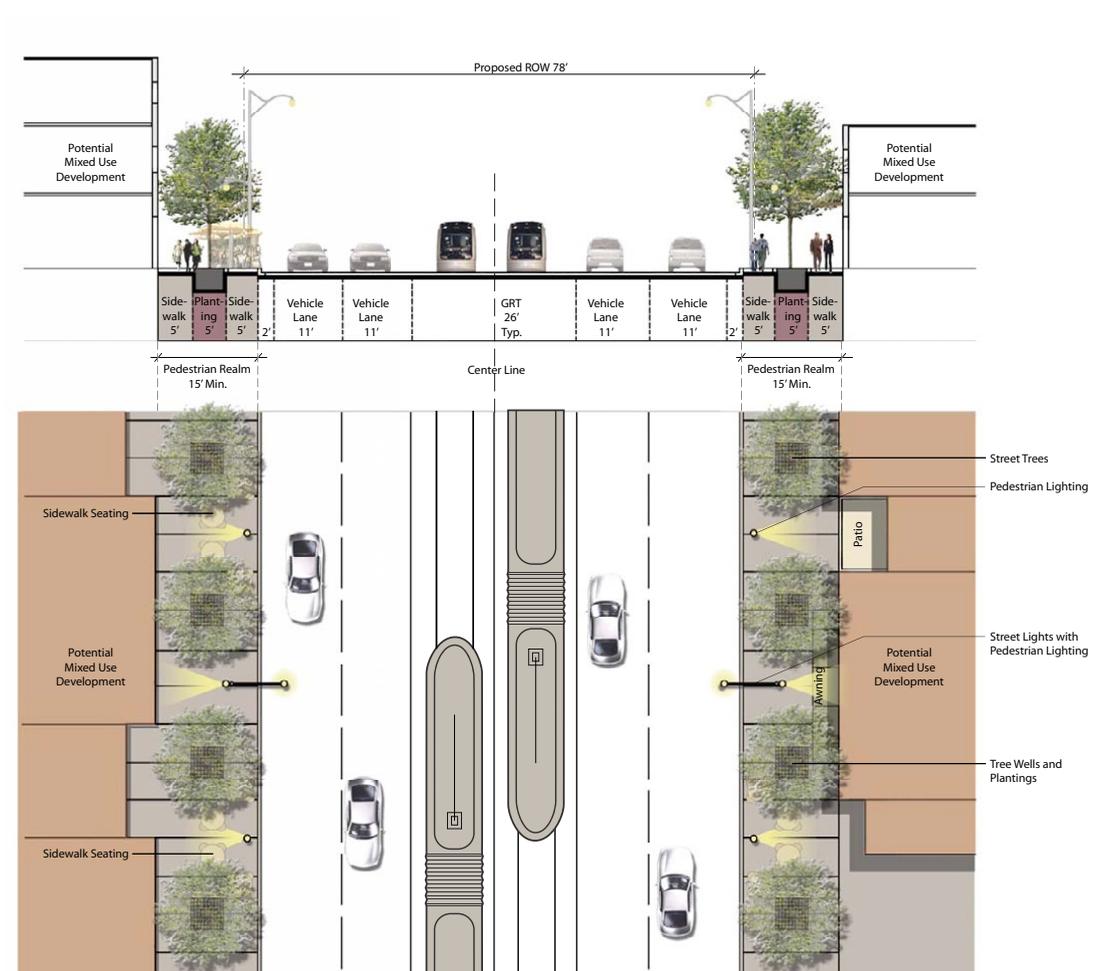


East Corridor Existing Conditions - Harrisburg at Grace St.

**Pedestrian Character Transit Street, Offset Station Platforms East End**



East Corridor Proposed Section - Harrisburg at Hutcheson St.



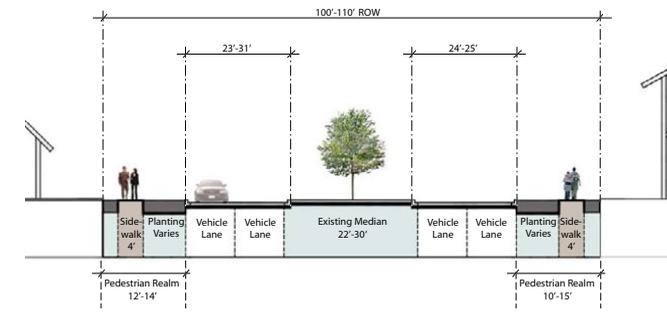
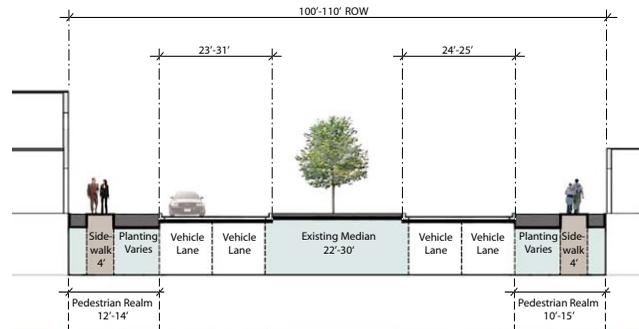
East Corridor Proposed Section - Harrisburg at Grace St.

### A2.5.2 Pedestrian Character Major Thoroughfare

Major Thoroughfare right-of-ways are typically 80 to 100 feet, and include 48 feet of pavement divided by a median of 14 to 32 feet. Rarely has a connected sidewalk system been provided. Major Thoroughfares that intersect with the Transit Street have been identified as Pedestrian Character Major Thoroughfares because they have the potential to provide a crucial connection from area focal points neighborhoods and schools to transit stations. A continuous and connected sidewalk system been provided. A prototype street cross section indicates the following:



Pedestrian Character Major Thoroughfares

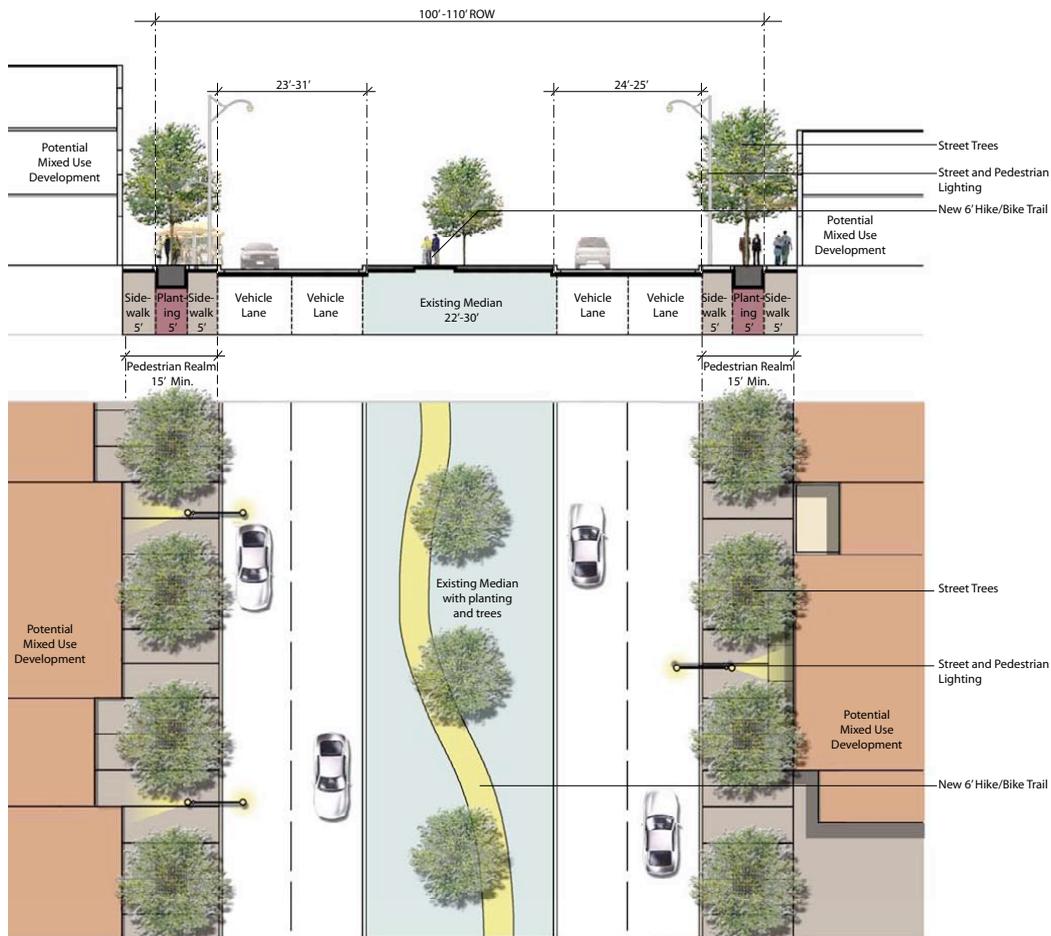


East Corridor Existing Conditions - Lockwood St. - Commercial Area

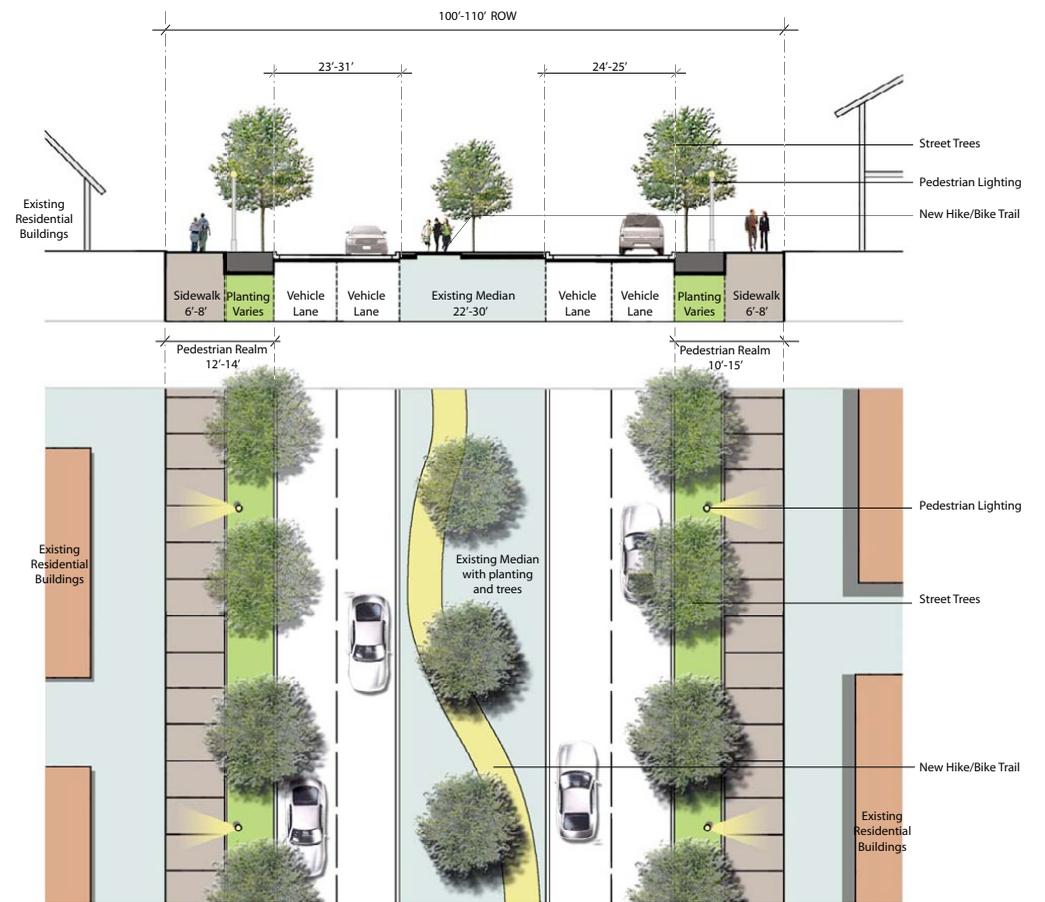


East Corridor Existing Conditions - Lockwood St. - Residential Area

**Pedestrian Character Major Thoroughfare, Commercial and Residential Areas** **East End**



East Corridor Proposed Section - Lockwood St. - Commercial Area



East Corridor Proposed Section - Lockwood St. - Residential Area

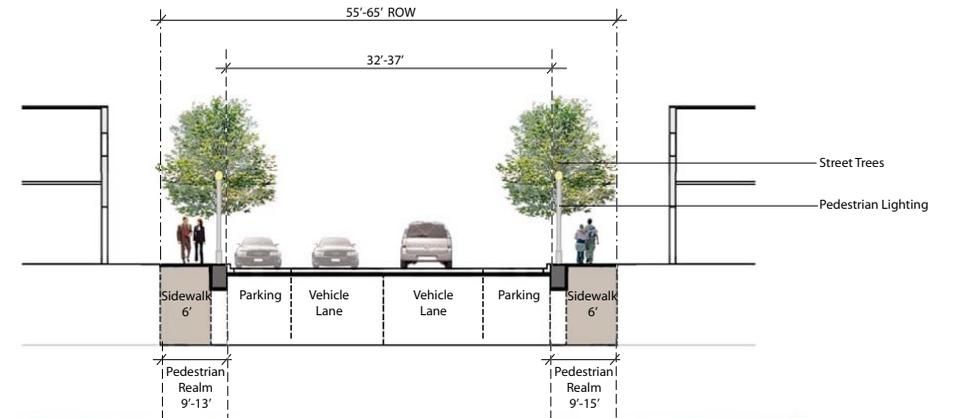
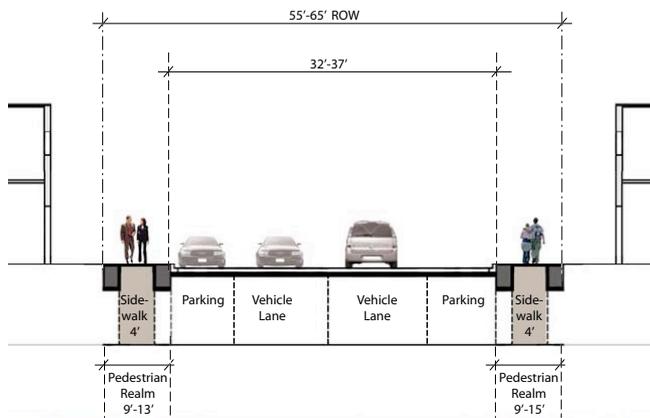
### A2.5.3 Pedestrian Character Major Collector

Major Collectors range from 60 - 80 feet, and include 44 feet of pavement, and ditches on both sides. Rarely is a continuous and connected sidewalk system provided. Canal Street has been identified as a Pedestrian Character Major Collector because it is an important parallel street to the Harrisburg Transit Line and edge to neighborhoods. A prototype street cross section indicates the condition:

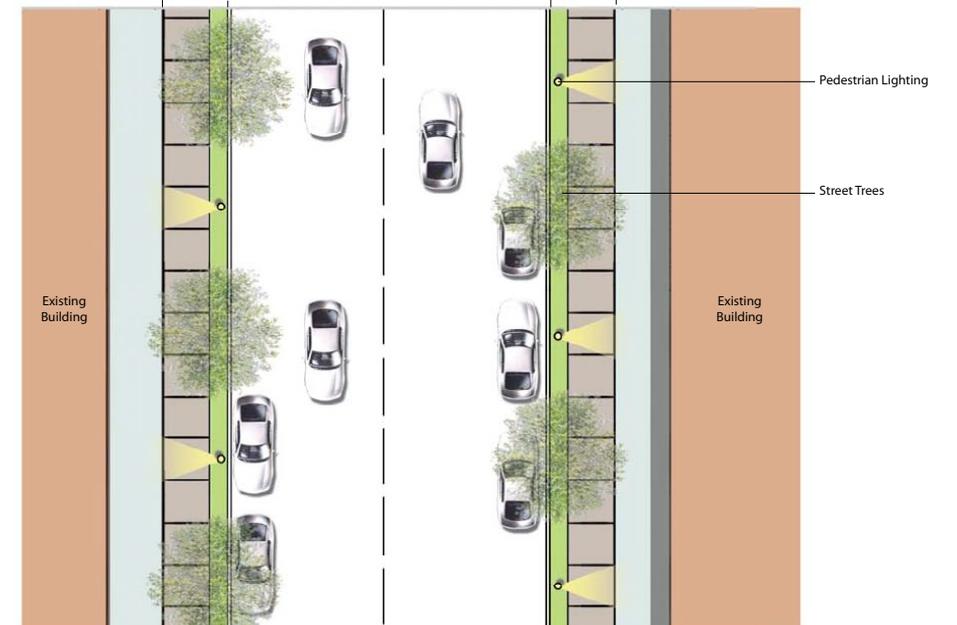


Pedestrian Character Major Collector

**Pedestrian Character Major Collector** East End



East Corridor Existing Conditions - Canal St.



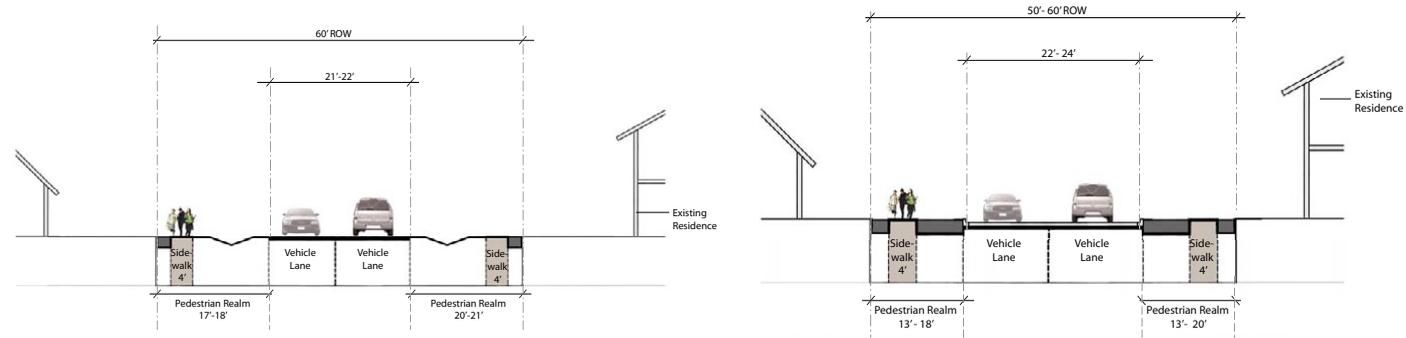
East Corridor Proposed Section - Canal St.

### A2.5.4 Pedestrian Character Local Street

Local street right-of-ways are typically 60 feet, and include 22 feet of pavement. Some local streets have ditches on both sides. Rarely are sidewalks provided. Some local streets that intersect with the Transit Lines have been identified as Pedestrian Character Local Streets because they have the potential to provide a crucial connection between the transit stations and a local pedestrian traffic generator, such as a school, recreation center, public park or place of worship. A prototype street cross section for a Pedestrian Character Local Street with and without a ditch indicates the following:



Pedestrian Character Local Street

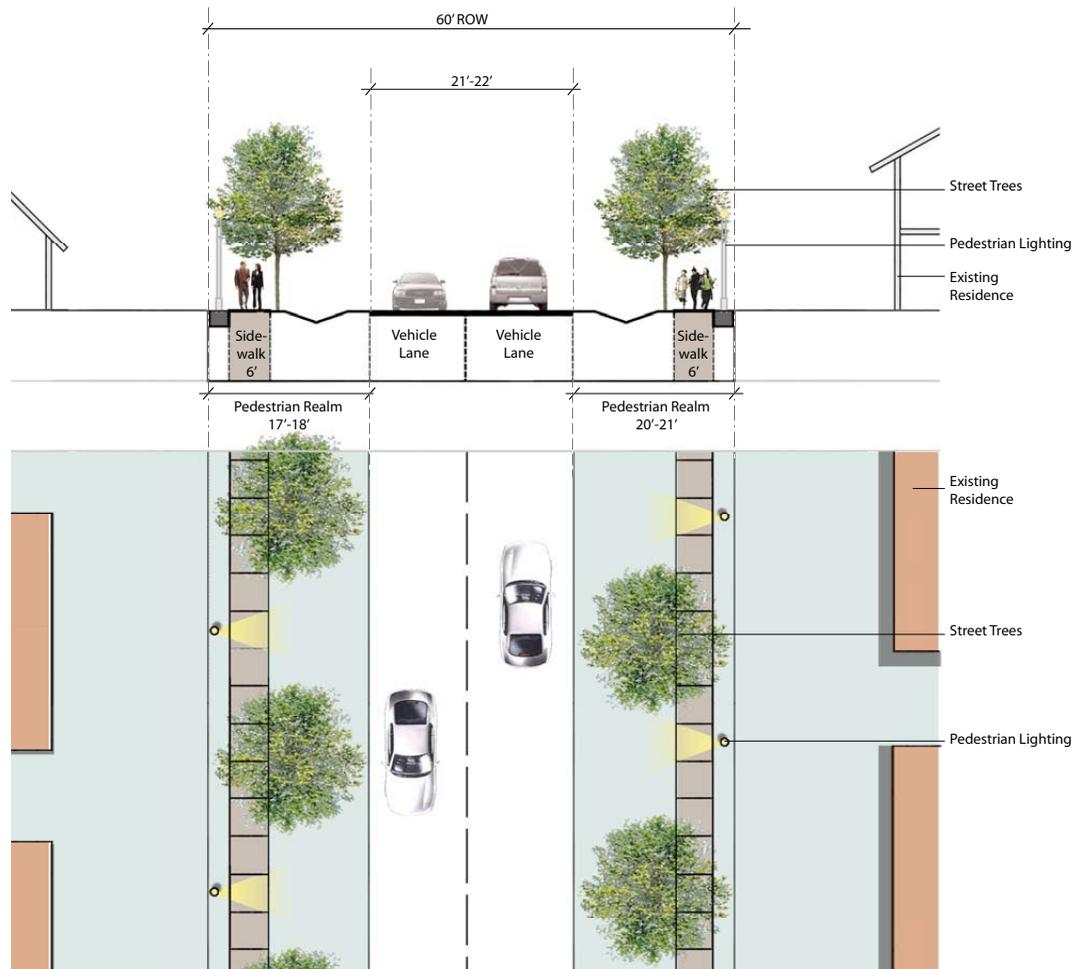


East Corridor Proposed Section - Eastwood St. with no curb

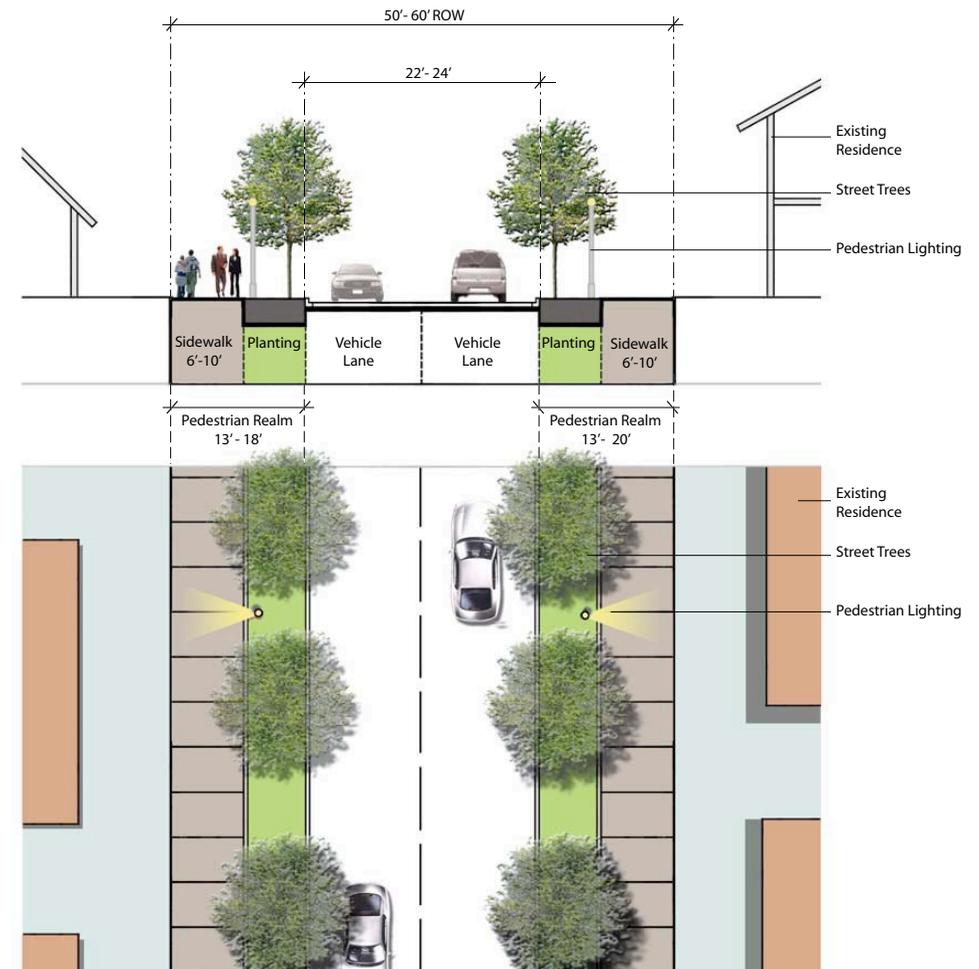


East Corridor Proposed Section - Eastwood St.

**Pedestrian Character Local Street Cross Section/Plan** East End



East Corridor Proposed Section - Eastwood St. with no curb



East Corridor Proposed Section - Eastwood St. with curb

# Appendix

## East End Implementation Matrix

**IMPLEMENTATION - DEVELOPMENT OPPORTUNITY AREA 1 - DOWNTOWN**

**Statement of Application** - applies everywhere within the defined Downtown area (to be defined)

**Key Implementation Terms:**

**Redevelopment** – The removal of buildings or structures from land and the construction or erection of other buildings or structures therein or when the existing gross floor area on a parcel is increased by 25% or more

**Grandfathering** - Application of the Ordinance Requirements shall begin on the date that the Implementing Ordinance comes into effect. It applies to New Development (see definition of New Development). It does

**New Development** - New Development refers to both the Redevelopment of existing properties or the construction of new buildings or structures on previously undevelopment properties.

**Variations** - Variations to the Implementing Ordinance are subject to the current approvals process for variations of the City of Houston. Variations shall be approved by the City that meet the following three tests to the

- 1. The variance is considered minor in nature.
- 2. The variance does not result in the achievement of a performance benefit, without achieving the basic density and urban design requirements of the Implementing Ordinance.
- 3. The variance assists in achieving new development that is appropriate for its context and does not create any undue adverse impact on adjacent development.

**Mandatory Requirements** – Mandatory requirements are those provisions that must be applied consistently on all new development in order to achieve the fundamental

**Performance Based Standards** – Performance Based Standards are incentive-based discretionary standards designed to encourage development that meets established development objectives. Achievement of

**Design Guidelines** – Design Guidelines are discretionary standards to guide land development to achieve a desired level of quality for the physical environment.

Mandatory Requirements for all new Development within the Development Opportunity Area 1 - Downtown	
<b>Pedestrian Realm</b>	
1	A connected sidewalk system shall be provided on both sides of streets that have been identified as Pedestrian Character to facilitate access by pedestrians to the transit stations, adjacent businesses and local pedestrian traffic generators.
2	The City shall not accept cash-in-lieu of required street trees, unless a substantiated technical reason is provided that precludes street tree planting. Where cash-in-lieu of street trees is accepted, the monies received shall be utilized to enhance tree cover in a local public park, or along the Transit Street within 1/4 of a mile of the development site from which the cash-in-lieu of street trees was accepted.
3	All buildings shall be developed with a substantial portion of their front and exterior side façades between 15 and 25 feet of the back-of-curb. It is understood that where a parcel has three sides abutting a public street, the build-within concept may not be achieved on the third side.
4	In all Transit Street Configurations, 15 feet from the back-of-curb is required for the Pedestrian Realm.
5	On all lands fronting onto a public street, a Major Thoroughfare and/or a Major Collector, the minimum built frontage requirement shall be 75 percent of the parcel frontage and shall be occupied by the main front wall of a building within the build-within zone.
6	Notwithstanding the requirements for a minimum built frontage, where an urban square is provided abutting a front and/or exterior side parcel line, the frontage occupied by the urban square shall be counted toward the minimum built frontage requirement.
7	A minimum of 75 percent of the main front wall at grade and, on a corner parcel, exterior side wall at grade of any non-residential building shall consist of windows and entranceways that facilitate visibility into the building.
8	Accessible building design, streets and publicly accessible open spaces shall conform with the requirements of the American Disabilities Act.
<b>Urban Squares</b>	
9	There shall be no compensating open space requirement for any Transit Oriented Development. Urban Squares/Plazas shall be provided in accordance with section 5.3.2.
10	Notwithstanding that there is no requirement for compensating open space, all development applications on sites greater than .5 of an acre in size shall include a location for an urban square. Urban squares are intended as formal pedestrian spaces, in support of the adjacent higher density, mixed use development.
11	Lands shall be set aside for an urban square/plaza as follows: for all non-residential development, the land requirement for an urban square/plaza shall constitute a minimum of 2 percent of the net developable site area; for all primarily residential development (where more than 80 percent of the Gross Floor Area is residential), the land requirement for an urban square/plaza shall constitute a minimum of 4 percent of the net developable site area; or, for development that include a mix of land uses, where the secondary use comprises at least 20 percent of the Gross Floor Area, the land requirement for an urban square/plaza shall constitute a minimum of 2% of the net developable site area;
12	An urban square shall have a minimum frontage on the abutting sidewalk of 15 feet, and a depth of at least 15 feet.
13	Large sites may include a single, large scale Urban Square/Plaza and/or a series of smaller Urban Squares/Plazas.
14	Urban squares shall be built and maintained by the landowner, and an easement with the City shall ensure that the space is open and accessible to the public at all times, as specified in the easement agreement.
<b>Development Blocks</b>	
15	For all large scale Transit Oriented Development projects (defined as projects on development blocks or parcels that are greater than 5 acres in size), the maximum development block or parcel size shall be approximately 5 acres in area. In all cases, there shall be no minimum development block or parcel area.
16	No development block or parcel frontage on a street shall exceed 600 feet. In all cases, the minimum development block or parcel frontage shall be 25 feet.
17	Large scale Transit Oriented Development projects shall provide public streets, or publicly accessible private streets, to subdivide any development block or parcel greater than 5 acres in size into smaller development blocks or parcels in accordance with this policy.
<b>Buildings</b>	
18	The minimum density for any Transit Oriented Development project shall be a Floor Area Ratio of 1.75.
19	There shall be no specified maximum density.
20	The minimum height for any Transit Oriented Development building shall be 3 storeys, or 27 feet, whichever is greater. Buildings on corner sites shall be a minimum of 4 storeys, or 36 feet, whichever is greater.
21	There shall be no specific height limit.
22	Buildings of up to 3 storeys may be built with zero setbacks to interior side parcel lines. Exterior side yards shall conform to the described build-within zones.
23	Buildings above 3 storeys may include a zero interior side yard setback for the base building of 3 storeys, but building side walls must be set back a minimum of 10 feet from the interior side yards for that component of the building above 3 storeys.
24	In all cases, the minimum rear yard setback shall be 14 feet to facilitate a potential lane access and/or a utilities easement.
<b>Encroachments</b>	
25	Temporary encroachments (i.e. awnings), may be permitted to encroach into the pedestrian realm subject to approval of a Temporary Encroachment Permit from the City.
26	Outdoor cafes and seating for restaurants may be permitted to encroach into the pedestrian realm subject to approval of a Temporary Encroachment Permit from the City.
27	Semi-permanent structures over the sidewalk, including entry features, arcades and perpendicular signage attached to the building may be permitted to encroach into the pedestrian realm subject to approval of an Encroachment Permit from the City.
28	Permanent structural components of the building (structured parking lots, colonnades and balconies) are not permitted to encroach into the defined pedestrian realm.
29	The amount of any permitted encroachment shall be established by the City on a site-by-site basis, and in consideration of the following criteria: the encroachment enhances pedestrian comfort by providing shade and/or protection from the rain; and, the encroachment does not impede pedestrian movement, and maintains an unobstructed sidewalk area of a minimum width of 5 feet.

Design Guidelines for Development Opportunity Area 1 - Downtown (non-mandatory)	
<b>Pedestrian Realm</b>	
30	Buildings shall connect to the street - by proximity, by the location of windows and entranceways and the level of architectural detail.
31	Buildings shall be sited and organized to create a street space scaled to the pedestrian, and organized to present an appropriate façade to all adjacent streets to provide interest and comfort at ground level for pedestrians.
32	Main building entrances shall, wherever possible, be oriented toward adjacent streets to provide convenient access to pedestrians and public transit; buildings, and their main public entrances, shall be located close to the front and exterior side property lines, on-street parking, and the public sidewalk.
33	Buildings are to be generally sited parallel to the public street and along the edges of parks and open spaces. The public faces of these buildings are to align with neighboring buildings in a manner that defines these spaces with a consistent building face lining the street.
34	Non-residential buildings shall, to the greatest extent possible, front onto adjacent streets, be flush with grade and provide an active use at grade in order to promote pedestrian activity.
35	Buildings shall provide active façades that include windows and entry features and, where appropriate, outdoor cafés and restaurants, community services, retail stores and display windows.
36	Street tree planting should form a continuous canopy along the street. Tree species should be selected by the applicable TIRZ/MMD to reinforce the role of the various street hierarchies within the Urban Corridors and to visually and thematically distinguish the Urban Corridors from one another. In instances where no TIRZ/MMD exists, the City will select the trees that they will plant.
37	Street trees should have a minimum size of 45 gal. and be planted 30 feet on-centre. Trees should be located in open planting pits where space permits and with wells sized at a minimum of 5'x10'. The planting pits should be filled with shrubs, perennials and annual plants. Planting pits should be edged with a low wall and/or fence.
38	Where space is limited, trees should be planted in continuous trenches. The rootball should be protected with a tree grate, ground cover or material such as gravel.
39	Where there is no room for street trees, consider a vertical shade element planted with vines so add special landscape treatment to the street.
40	Coordination of utilities, especially overhead power lines will be required during the design phase of street tree planting.
41	Consider a palette of the street furnishings, newspaper boxes, notice boards, bicycles racks, flower pots, luminaires and poles that will visually and thematically distinguish the each particular Urban Corridor from the others.
42	Concentrate mailboxes, vending machines, trash cans, and recycling bins in single locations to create active public space and minimize visual clutter.
<b>Urban Squares</b>	
43	Urban squares shall be designed to reinforce a high quality formalized relationship with its adjacent building use and streetscape.
44	Hard and soft landscape elements and features within the urban square shall be designed to define and articulate activity areas, circulation, entry points, seating and gathering areas.
45	Urban squares shall provide sitting, shade, trash receptacles and bicycle racks.
<b>Public Parks</b>	
46	Provide public amenities such as washrooms and field house where appropriate.
47	Provide programmed activities for a range of ages and demographics with emphasis on children and youth.
48	Provide a balance of passive and active park space and provide for the maximum program flexibility in the design of the parks.
49	Incorporate a greening strategy that includes tree planting and seasonal horticultural displays.
50	Incorporate sustainability practices both in terms of capital projects and operations.
51	Provide wayfinding and program information displays as well as heritage interpretation and public art.
<b>Gateways</b>	
52	Gateways shall be either architectural, stand-alone features, or landscape treatments that define the main entrances to the Urban Corridors.
53	Features shall be lit to enhance their legibility at night.
54	The scale of the gateway shall be large enough to be visible from a car at a distance of at least 300 feet.
55	Gateways shall enhance and not compete with surrounding existing architectural and natural features.
<b>Buildings</b>	
56	Corner building designs shall articulate, define and enhance the intersection at which it is located by enhancing the building's presence at each corner.
57	Buildings should 'turn' the corner, i.e. they should have primary, articulated façades towards both streets and should be visually different from adjacent development.
58	Large areas and continuous rows of monotonous and repetitive façades shall be avoided. A more textured architectural quality can be achieved by introducing variation in certain elements of the façade treatment.
59	Variation in three-dimensional elements, such as balconies, bay windows and porches, cornices, window trim, entrances and the articulation of the building mass, shall be used to create a dynamic façade.
60	Variation and articulation in the building mass including horizontal and vertical setbacks, such as step backs at the upper storeys, shall be established.
61	A pedestrian weather protection system including awnings, canopies, colonnades, or front porches along the sidewalk edges and adjacent to the urban squares/plazas and at entrances to buildings shall be considered. The City will promote Temporary or Permanent Encroachment Permits for both signage and awnings.
<b>Signage</b>	
62	Signage will address the amount and type of illumination, size, materials, typography and design.
63	Signage should be an integral part of the architecture of a building.
64	Signs should be designed to complement the building and enhance the visual appeal of the street.
65	Signs should be designed in consideration of nearby residential uses, in terms of size, materials, and location.
66	The ratio of sign band to building mass should be restricted such that the signage does not dominate the façade.
67	Mobile box signage is not allowed.
68	Neon lights are allowed when they do not dominate the signage and have no negative impacts on nearby residences.
69	Exterior lighting shall be designed to promote pedestrian comfort, safety and provide a high quality ambiance. In addition, accent lighting is required to emphasize built form and landscape elements. Pedestrian scale lighting shall be provided adjacent to streets, walkways, urban squares, pedestrian routes and in parks, urban squares and courtyards.
70	Internally lit canopies are strongly discouraged.
71	Commercial façades should be appropriately lit.
72	Pedestrian realm signage and lighting should be coordinated. Pole mounted pedestrian light fixtures with a light source at 12 to 15 feet high and a spacing of 30 to 50 feet is recommended.
<b>Mid-Block Pedestrian Connections</b>	

73	Mid-block pedestrian connections shall be provided within larger development parcels. These are intended to be designed as pedestrian landscaped lanes and should be lit, landscaped and maintained for public
74	Mid-block pedestrian connections shall provide a fine grain of pedestrian circulation and an important connection between two streets.
75	Mid-block pedestrian connections shall lead to public destinations such as schools, parks and public transit stations.
76	Mid-block pedestrian connections shall provide an address to individual residential or business frontages along their lengths.
<b>Parking</b>	
77	The City shall provide public parking lots (surface lots and/or structured parking facilities) within the Urban Corridors to augment the supply of parking.
78	On-street parking shall be promoted within all of the Urban Corridors.
79	The City shall pursue opportunities for the establishment of on-street parking in partnership with adjacent landowners where the spaces are provided on a combination of public land and private property, with public access to the parking spaces secured through agreements with the City.
80	Surface parking, loading areas, drive-through lanes and servicing facilities shall not be permitted in front of Transit Oriented Development buildings. Surface parking, drive-through lanes and/or servicing facilities may be permitted in an interior side yards, and are permitted within the rear yard.
81	Surface parking, loading areas, drive-through lanes and servicing facilities, where permitted, shall be appropriately screened from view from the street. Surface parking lots shall respect the build-within zones. Where surface parking must be provided, the visual impact of large surface lots shall be mitigated by a combination of setbacks, and significant landscaping including: pavement treatments, low walls or decorative fencing, landscape, trees and lighting throughout parking lots and along the edges.
82	Parking is encouraged to be provided in structures, either above, or where possible, below grade. Where a parking structure is above grade, it shall include a façade with active uses at grade and appropriate architectural articulation. Entrances to below grade or structured parking and service areas should occur within the building.
83	Access to parking and servicing areas should occur off side streets or service lanes and to the side or rear of buildings, where possible.
84	It is an objective of the City to limit access driveways to individual sites adjacent to the Transit Street. The City shall encourage shared access driveways and, preferably, shared rear lane access for all Transit Oriented Development. Where new development is proposed, the City shall require a minimum of 100 feet between access driveways onto the Transit Streets.
<b>Pedestrian Character Major Thoroughfare</b>	
85	The hard surface of the sidewalk (the pedestrian realm) shall be a minimum of 15 feet wide, measured from the back-of-curb to the main front wall and/or exterior side wall of any adjacent building. This requirement may include components of the public right-of-way and/or private lands, as described in the discussion of the build-within zone.
86	The design of the 15 foot pedestrian realm shall include a "furnishing zone" for utilities, street furniture and street lighting adjacent to the curb, and a minimum 7 foot, six inch unimpeded pedestrian sidewalk.
87	At all street intersections there shall be provisions for pedestrian crossings of the transit facility, regardless of whether or not the intersection is signalized. In addition, provisions for mid-block pedestrian crossings must be considered at intervals of approximately 300 feet. There shall never be a condition where distances between pedestrian crossings of the Facility exceed 600 feet. Countdown pedestrian head signals shall be provided for at all signalized crossings.
88	It is understood that the development of the required 15 foot pedestrian realm will occur over a long period of time, in conjunction with private sector redevelopment projects. In the interim, the City should build a connected sidewalk on the public component of the right-of-way concurrent with the development of the transit facilities. The maximum width of the pedestrian realm in this interim condition shall be 15 feet, to be measured from the back-of-curb to the edge of the right-of-way.
<b>Pedestrian Character Major Collector</b>	
89	The pedestrian realm shall be a minimum of 8 feet wide, measured from the back-of-curb to edge of the right-of-way.
90	The pedestrian realm shall include a minimum 6 foot wide sidewalk measured from the edge of the right-of-way. The sidewalk shall be continuous and extend across driveways.
91	The pedestrian realm shall include a planted boulevard with street trees next to the curb.
92	The planted boulevard should also be the location for utility poles, placed on the same alignment as the street trees.
<b>Pedestrian Character Local Street</b>	
93	The pedestrian realm shall be a minimum of 19 feet wide, measured from the back-of-curb or the edge of the outside vehicle lane to the edge of the right-of-way.
94	The pedestrian realm shall include a minimum 6 foot wide sidewalk. The sidewalk shall be continuous and extend across driveways.
95	On Pedestrian Character Local Streets with curbs, the pedestrian realm shall include a planted boulevard with street trees next to the curb.
96	On Pedestrian Character Local Streets with curbs, the pedestrian realm shall include a planted boulevard with street trees next to the curb.
97	The planted boulevard shall also be the location for utility poles, placed on the same alignment as the street trees.
98	On Pedestrian Character Local Streets with road side ditches, the tree shall be planted on the outside edge of the ditch adjacent to the sidewalk.
99	On Pedestrian Character Local Streets with road side ditches, utility poles shall be placed adjacent to the edge of the right-of-way.
<b>Engineering/Infrastructure</b>	
100	The width of travel lanes along streets with transit should generally be 10-11' in width,
101	Alleys should be designed to provide an 12'-0" paved surface,
102	No access should be allowed from the street for new developments fronting onto the street with transit,
103	All new development fronting on to streets with transit should indicated space for the provision of alleys or access to the site from side streets,
104	A plan for access to sites fronting onto the Transit Street should be developed by the proponent before construction of the Transit Line showing the following: The preferred location for access into site along the line, A phasing plan for combined access over time, A phasing plan for the implementation of alleys or service lanes.
105	Provision for cross walks between stations should an integral part of the design of the streets with transit. The maximum distance between a station and a crosswalk shall be 1/4 of a mile.
106	The radius of corner conditions should be determined with the pedestrian in mind. Tighter radii corners slow traffic speeds and protect pedestrians. Along the streets with transit corner radii for through streets should be no more than a 25'-0" radius. For non through streets intersecting the transit street corner radii should be reduced to 20'-0"
107	Bicycle lanes should be explored as part of the design, access and phasing plans for the corridor streets. Where there is not enough room for bike lanes on transit streets, they should be part of the design of the connector streets that access stations.
108	Infrastructure services need to be developed with future intensification of the corridors in mind,

109	Infrastructure should be implemented as transit is being built,
110	The implementation and design of infrastructure should be carried out comprehensively including all departments of the City as well as utility providers,
111	All utilities should be buried along the corridors,
112	Consideration should be given to burying utilities under alleys,
113	Where it is impossible to bury utilities, the location of above ground components must be coordinated with the design of the pedestrian realm following the following guidelines:
	utility poles and transformers shall be located where they do not impact on the movement of pedestrians,
	utility poles and transformers shall be located according to an overall plan for the entire corridor,
	the form and design of above grade components to be approved by the City and Metro.
	Where possible, utilities should be located in alleys,
114	Accessibility should be designed into all sidewalk conditions along the corridors.

**Additional Implementation Terms:**

- Abutting** – two or more parcels sharing a common boundary of at least 1 point.
- Block** – all land fronting on one side of a street between the nearest streets, intersecting, meeting or crossing the aforesaid street.
- Easement** – a negotiated interest in the land of another which allows the easement holder specified uses or rights without actual ownership of the land.
- Encroachment** – a physical structure or partial structure that advances beyond established property boundaries into abutting properties.
- Exterior side wall** – the exterior side wall of a building or structure abutting a right-of-way or open space.
- Facade** – the exterior wall of a building exposed to public view or that wall viewed by persons not within the building.
- Frontage** – the minimum straight line distance between the intersection of the side lot lines and the front lot line.
- Grade** – the average elevation of the finished surface of the ground adjacent to the exterior walls of the building or structure.
- Gross Floor Area** – the number of square feet of total floor area bounded by the exterior faces.
- Net Developable Site Area** – the portion of a parcel or site that is remaining after requirements for minimum setbacks, yards, urban squares, easements and right-of-ways.
- Parcel/Lot line, front, exterior, rear** – the legal boundary of a parcel or lot of land.
- Pedestrian Realm** – the pedestrian realm is the area from the back-of-curb to the face of the adjacent building.
- Main front wall** – the main front exterior wall of a building or structure.
- Setback** – the horizontal distance measured at right angles to the boundary of the parcel, lot or block of land, between the main wall of the building and the main boundary.
- Transit Street** – A transit street is a street along which the transit line currently exists or is planned to be located.

## IMPLEMENTATION - DEVELOPMENT OPPORTUNITY AREA 2 - CORRIDOR

**Statement of Application** - applies on sites that about the Transit Street and are within 1/4 mile of a Transit Station

**Key Implementation Terms:**

**Redevelopment** – The removal of buildings or structures from land and the construction or erection of other buildings or structures therein or when the existing gross floor area on a parcel is increased by 25% or more through the construction of additions to existing buildings.

**Grandfathering** - Application of the Ordinance Requirements shall begin on the date that the Implementing Ordinance comes into effect. It applies to New Development (see definition of New Development). It does not apply to minor additions or improvements that are not defined as New Development.

**New Development** - New Development refers to both the Redevelopment of existing properties or the construction of new buildings or structures on previously undevelopment properties.

**Variations** - Variations to the Implementing Ordinance are subject to the current approvals process for variations of the City of Houston. Variations shall be approved by the City that meet the following three tests to the satisfaction of the City:

1. The variance is considered minor in nature.
2. The variance does not result in the achievement of a performance benefit, without achieving the basic density and urban design requirements of the Implementing Ordinance.
3. The variance assists in achieving new development that is appropriate for its context and does not create any undue adverse impact on adjacent development.

**Mandatory Requirements** – Mandatory requirements are those provisions that must be applied consistently on all new development in order to achieve the fundamental

**Performance Based Standards** – Performance Based Standards are incentive-based discretionary standards designed to encourage development that meets established development objectives. Achievement of performance based standards results in the reduction or dispensation of otherwise mandatory requirements.

**Design Guidelines** – Design Guidelines are discretionary standards to guide land development to achieve a desired level of quality for the physical environment.

Mandatory Requirements within Development Opportunity Area 2 - Corridor	
Pedestrian Realm	
1	A connected sidewalk system shall be provided on both sides of streets that have been identified as Pedestrian Character to facilitate access by pedestrians to the transit stations, adjacent businesses and local pedestrian traffic generators.
2	The City shall not accept cash-in-lieu of required street trees, unless a substantiated technical reason is provided that precludes street tree planting. Where cash-in-lieu of street trees is accepted, the monies received shall be utilized to enhance tree cover in a local public park, or along the Transit Street within 1/4 of a mile of the development site from which the cash-in-lieu of street trees was accepted.
3	All buildings, with the exception of street facing townhouse units, shall be developed with a substantial portion of their front and exterior side facades between 15 and 25 feet of the back-of-curb. It is understood that where a parcel has three sides abutting a public street, the build-within concept may not be achieved on the third side.
4	In all Transit Street Configurations, 15 feet from the back of curb is required for the Pedestrian Realm.
5	Where the rear yard or interior side yard of a Transit Oriented Development site abuts a single detached house, an angular plane shall be implemented to control the height of the building. The angular plane shall be established as follows:
6	a line from the abutting rear parcel line and/or the abutting interior side parcel line to be drawn to a point 10 feet above grade; then,
7	a 45 degree angle from the previous point into the development site shall establish the maximum height of buildings within the development site.
8	Within the identified Development Opportunity Area 2 - Corridor, street facing townhouses with no street facing garage shall ensure that the main front wall of the unit be built within 15 and 30 feet of the back-of-curb.
9	Where front garages are proposed, the main front wall of the building shall be built within 20 and 40 feet of the back of the curb.
10	In all cases within the identified Development Opportunity Area 2 - Corridor, the exterior side build-within zone for street townhouses shall be between 15 and 30 feet of the back edge of the curb.
11	In locations where the public street right-of-way is equal to, or greater than the required 15 feet, the build-within zone shall be established from the edge of the street right-of-way and shall be between 0 and 10 feet.
12	On corner parcels within the identified Development Opportunity Area 2 - Corridor, the exterior side yard shall also include a build-within zone located between 15 and 25 feet from the back edge of the curb, and the main exterior side wall shall occupy a minimum of 60 percent of the depth of the parcel, within the build-within zone.
13	All residential buildings with direct access to dwelling units from the street, shall be elevated a minimum of 2 feet 6 inches to provide privacy and a sense of entry to the unit. The maximum elevation from grade to the entrance landing shall be 5 feet.
14	On all lands fronting onto a public street, a Major Thoroughfare and/or a Major Collector, the minimum built frontage requirement shall be 75 percent of the parcel frontage and shall be occupied by the main front wall of a building within the build-within zone.
15	Notwithstanding the requirements for a minimum built frontage, where an urban square is provided abutting a front and/or exterior side parcel line, the frontage occupied by the urban square shall be counted toward the minimum built frontage requirement.

16	A minimum of 75 percent of the main front wall at grade and, on a corner parcel, exterior side wall at grade of any non-residential building shall consist of windows and entranceways that facilitate visibility into the building.
17	Accessible building design, streets and publicly accessible open spaces shall conform with the requirements of the American Disabilities Act.
18	Urban squares shall be built and maintained by the landowner, and an easement with the City shall ensure that the space is open and accessible to the public at all times, or as identified in the easement agreement.
<b>Optional Performance Based Standards for Development Opportunity Area 2 - Corridor (non-mandatory)</b>	
Applies on sites within 1/4 mile of a Transit Station and generates no undue adverse impact on the stability of the neighbourhood (to be defined)	
To utilize the following standards:	
<b>Urban Squares</b>	
19	There shall be no compensating open space requirement for any Transit Oriented Development. Urban Squares/Plazas shall be provided in accordance with section 5.3.2.
20	Notwithstanding that there is no requirement for compensating open space, all development applications on sites greater than .5 of an acre in size shall include a location for an urban square. Urban squares are intended as formal pedestrian spaces, in support of the adjacent higher density, mixed use development.
21	Lands shall be set aside for an urban square/plaza as follows: for all non-residential development, the land requirement for an urban square/plaza shall constitute a minimum of 2 percent of the net developable site area; for all primarily residential development (where more than 80 percent of the Gross Floor Area is residential), the land requirement for an urban square/plaza shall constitute a minimum of 4 percent of the net developable site area; or, for development that include a mix of land uses, where the secondary use comprises at least 20 percent of the Gross Floor Area, the land requirement for an urban square/plaza shall constitute a minimum of 2% of the net developable site area;
<b>Parking</b>	
22	For all retail and service commercial uses, including restaurants - a minimum of 2.0 and a maximum of 4.0 spaces/1,000 square feet of Gross Leaseable Floor Area.
23	For hotels/inns - a minimum of 1.0 and a maximum of 1.25 spaces per room.
24	For all office uses - a minimum of 2.0 and a maximum of 3.0 spaces/1,000 square feet of Gross Leaseable Floor Area.
25	For all condominium-based residential uses, a minimum of 1.0 and a maximum of 1.75 spaces per unit, inclusive of visitor parking.
26	For all fee simple residential uses – a minimum/maximum of 2.0 spaces per unit.
27	Where a public parking facility is developed, Transit Oriented Developments within 300 feet the City may reduce the minimum parking requirement, in recognition of the enhanced public parking supply. The reduction of the minimum parking requirement shall be determined by the City on a case-by-case basis.
28	Parking requirements for any individual development do not necessarily need to be provided on the same parcel, or on a parcel contiguous to the development. Required parking for any Transit Oriented Development may be provided on any parcel within 300 feet of the development that is being served by the parking facility.
29	Where a Transit Oriented Development is unable, or does not wish to provide all of the required parking spaces, the City may accept cash-in-lieu of the parking spaces. The minimum parking requirement shall be used to calculate any parking space deficiency. The cost of each parking space shall be established by the City, and may be waived for any specific development, at the discretion of the City. The funds raised through this provision shall be utilized by the City's Parking Authority solely for the purchase of property for public parking and/or the building of public parking structures in proximity to the Transit Street where the fees were collected.
All of the following must be achieved:	
<b>Development Blocks</b>	
30	For all large scale Transit Oriented Development projects (defined as projects on development blocks or parcels that are greater than 5 acres in size), the maximum development block or parcel size shall be approximately 5 acres in area. In all cases, there shall be no minimum development block or parcel area.
31	No development block or parcel frontage on a street shall exceed 600 feet. In all cases, the minimum development block or parcel frontage shall be 25 feet.
32	Large scale Transit Oriented Development projects shall provide public streets, or publicly accessible private streets, to subdivide any development block or parcel greater than 5 acres in size into smaller development blocks or parcels in accordance with this policy.
<b>Buildings</b>	
33	The minimum density for any Transit Oriented Development project shall be a Floor Area Ratio of 1.00.
34	There shall be no specified maximum density.
35	The minimum height for any Transit Oriented Development building shall be 2 storeys, or 18 feet, whichever is greater. Buildings on corner sites shall be a minimum of 3 storeys, or 27 feet, whichever is greater.
36	Where any Transit Oriented Development building abuts a street, the building height shall be established as follows: the main front wall and/or exterior side wall shall be permitted up to 3 storeys (or 27 feet, whichever is greater) within the corresponding build-within zone; and, for any main front wall and/or exterior side wall above 3 storeys (or 27 feet, whichever is greater), the building shall be stepped back from the main front wall and/or the exterior side wall of the base building by a minimum of 5 feet.
37	There shall be no specific height limit.
38	Buildings of up to 3 storeys may be built with zero setbacks to interior side parcel lines. Exterior side yards shall conform to the described build-within zones.
39	Buildings above 3 storeys may include a zero interior side yard setback for the base building of 3 storeys, but building side walls must be set back a minimum of 10 feet from the interior side yards for that component of the building above 3 storeys.
40	In all cases, the minimum rear yard setback shall be 14 feet to facilitate a potential lane access and/or a utilities easement.

<b>Encroachments</b>	
41	Temporary encroachments (i.e. awnings), may be permitted to encroach into the pedestrian realm subject to approval of a Temporary Encroachment Permit from the City.
42	Outdoor cafes and seating for restaurants may be permitted to encroach into the pedestrian realm subject to approval of a Temporary Encroachment Permit from the City.
43	Semi-permanent structures over the sidewalk, including entry features, arcades and perpendicular signage attached to the building may be permitted to encroach into the pedestrian realm subject to approval of an Encroachment Permit from the City.
44	Permanent structural components of the building (structured parking lots, colonnades and balconies) are not permitted to encroach into the defined pedestrian realm.
45	The amount of any permitted encroachment shall be established by the City on a site-by-site basis, and in consideration of the following criteria: the encroachment enhances pedestrian comfort by providing shade and/or protection from the rain; and, the encroachment does not impede pedestrian movement, and maintains an unobstructed sidewalk area of a minimum width of 5 feet.
<b>Parking</b>	
46	The City shall provide public parking lots (surface lots and/or structured parking facilities) within the Urban Corridors to augment the supply of parking.
47	On-street parking shall be promoted within all of the Urban Corridors.
48	The City shall pursue opportunities for the establishment of on-street parking in partnership with adjacent landowners where the spaces are provided on a combination of public land and private property, with public access to the parking spaces secured through agreements with the City.
49	Surface parking, loading areas, drive-through lanes and servicing facilities shall not be permitted in front of Transit Oriented Development buildings. Surface parking, drive-through lanes and/or servicing facilities may be permitted in an interior side yards, and are permitted within the rear yard.
50	Surface parking, loading areas, drive-through lanes and servicing facilities, where permitted, shall be appropriately screened from view from the street. Surface parking lots shall respect the build-within zones. Where surface parking must be provided, the visual impact of large surface lots shall be mitigated by a combination of setbacks, and significant landscaping including: pavement treatments, low walls or decorative fencing, landscape, trees and lighting throughout parking lots and along the edges.
51	Parking is encouraged to be provided in structures, either above, or where possible, below grade. Where a parking structure is above grade, it shall include a facade with active uses at grade and appropriate architectural articulation. Entrances to below grade or structured parking and service areas should occur within the building.
52	Access to parking and servicing areas should occur off side streets or service lanes and to the side or rear of buildings.
53	It is an objective of the City to limit access driveways to individual sites adjacent to the Transit Street. The City shall encourage shared access driveways and, preferably, shared rear lane access for all Transit Oriented Development. Where new development is proposed, the City shall require a minimum of 100 feet between access driveways onto the Transit Streets.
54	Within the identified Development Opportunity Area 2 - Corridor, where on-street parking is provided, the number of spaces may be deducted from the parking requirements of the abutting Transit Oriented Development.
<b>Design Guidelines for Development Opportunity Area 2 - Corridor (non-mandatory)</b>	
<b>Pedestrian Realm</b>	
55	Buildings shall be sited and organized to create a street space scaled to the pedestrian, and organized to present an appropriate façade to all adjacent streets to provide interest and comfort at ground level for pedestrians.
56	Main building entrances shall, wherever possible, be oriented toward adjacent streets to provide convenient access to pedestrians and public transit; buildings, and their main public entrances, shall be located close to the front and exterior side property lines, on-street parking, and the public sidewalk.
57	Buildings are to be generally sited parallel to the public street and along the edges of parks and open spaces. The public faces of these buildings are to align with neighboring buildings in a manner that defines these spaces with a consistent building face lining the street.
58	Non-residential buildings shall, to the greatest extent possible, front onto adjacent streets, be flush with grade and provide an active use at grade in order to promote pedestrian activity.
59	Buildings shall provide active façades that include windows and entry features and, where appropriate, outdoor cafés and restaurants, community services, retail stores and display windows.
60	Buildings shall connect to the street - by proximity, by the location of windows and entranceways and the level of architectural detail.
61	Street tree planting should form a continuous canopy along the street. Tree species should be selected by the applicable TIRZ/MMD to reinforce the role of the various street hierarchies within the Urban Corridors and to visually and thematically distinguish the Urban Corridors from one another. In instances where no TIRZ/MMD exists, the City will select the trees that they will plant.
62	Street trees should have a minimum size of 45 gal. and be planted 30 feet on-centre. Trees should be located in open planting pits where space permits and with wells sized at a minimum of 5'x10'. The planting pits should be filled with shrubs, perennials and annual plants. Planting pits should be edged with a low wall and/or fence.
63	Where space is limited, trees should be planted in continuous trenches. The rootball should be protected with a tree grate, ground cover or material such as gravel.
64	Where there is no room for street trees, consider a vertical shade element planted with vines so add special landscape treatment to the street.
65	Coordination of utilities, especially overhead power lines will be required during the design phase of street tree planting.
66	Consider a palette of the street furnishings, newspaper boxes, notice boards, bicycles racks, flower pots, luminaires and poles that will visually and thematically distinguish the each particular Urban Corridor from the others.
67	Concentrate mailboxes, vending machines, trash cans, and recycling bins in single locations to create active public space and minimize visual clutter.
<b>Urban Squares</b>	
68	An urban square shall have a minimum frontage on the abutting sidewalk of 15 feet, and a depth of at least 15 feet.
69	Large sites may include a single, large scale Urban Square/Plaza and/or a series of smaller Urban Squares/Plazas.
70	Urban squares shall be designed to reinforce a high quality formalized relationship with its adjacent building use and streetscape.

71	Hard and soft landscape elements and features within the urban square shall be designed to define and articulate activity areas, circulation, entry points, seating and gathering areas.
72	Urban squares shall provide sitting, shade, trash receptacles and bicycle racks.
<b>Public Parks</b>	
73	Provide public amenities such as washrooms and field house where appropriate.
74	Provide programmed activities for a range of ages and demographics with emphasis on children and youth.
75	Provide a balance of passive and active park space and provide for the maximum program flexibility in the design of the parks.
76	Incorporate a greening strategy that includes tree planting and seasonal horticultural displays.
77	Incorporate sustainability practices both in terms of capital projects and operations.
78	Provide wayfinding and program information displays as well as heritage interpretation and public art.
<b>Gateways</b>	
79	Gateways shall be either architectural, stand-alone features, or landscape treatments that define the main entrances to the Urban Corridors.
80	Features shall be lit to enhance their legibility at night.
81	The scale of the gateway shall be large enough to be visible from a car at a distance of at least 300 feet.
82	Gateways shall enhance and not compete with surrounding existing architectural and natural features.
<b>Buildings</b>	
83	Corner building designs shall articulate, define and enhance the intersection at which it is located by enhancing the building's presence at each corner.
84	Buildings should 'turn' the corner, i.e. they should have primary, articulated facades towards both streets and should be visually different from adjacent development.
85	Large areas and continuous rows of monotonous and repetitive façades shall be avoided. A more textured architectural quality can be achieved by introducing variation in certain elements of the façade treatment.
86	Variation in three-dimensional elements, such as balconies, bay windows and porches, cornices, window trim, entrances and the articulation of the building mass, shall be used to create a dynamic façade.
87	Variation and articulation in the building mass including horizontal and vertical setbacks, such as step backs at the upper storeys, shall be established.
88	A pedestrian weather protection system including awnings, canopies, colonnades, or front porches along the sidewalk edges and adjacent to the urban squares/plazas and at entrances to buildings shall be considered. The City will promote Temporary or Permanent Encroachment Permits for both signage and awnings.
<b>Signage</b>	
89	Signage will address the amount and type of illumination, size, materials, typography and design.
90	Signage should be an integral part of the architecture of a building.
91	Signs should be designed to complement the building and enhance the visual appeal of the street.
92	Signs should be designed in consideration of nearby residential uses, in terms of size, materials, and location.
93	The ratio of sign band to building mass should be restricted such that the signage does not dominate the facade.
94	Mobile box signage is not allowed.
95	Neon lights are allowed when they do not dominate the signage and have no negative impacts on nearby residences.
96	Exterior lighting shall be designed to promote pedestrian comfort, safety and provide a high quality ambiance. In addition, accent lighting is required to emphasize built form and landscape elements. Pedestrian scale lighting shall be provided adjacent to streets, walkways, urban squares, pedestrian routes and in parks, urban squares and courtyards.
97	Internally lit canopies are strongly discouraged.
98	Commercial facades should be appropriately lit.
99	Pedestrian realm signage and lighting should be coordinated. Pole mounted pedestrian light fixtures with a light source at 12 to 15 feet high and a spacing of 30 to 50 feet is recommended.
<b>Mid-Block Pedestrian Connections</b>	
100	Mid-block pedestrian connections shall be provided within larger development parcels. These are intended to be designed as pedestrian landscaped lanes and should be lit, landscaped and maintained for public
101	Mid-block pedestrian connections shall provide a fine grain of pedestrian circulation and an important connection between two streets.
102	Mid-block pedestrian connections shall lead to public destinations such as schools, parks and public transit stations.
103	Mid-block pedestrian connections shall provide an address to individual residential or business frontages along their lengths.
<b>Pedestrian Character Major Thoroughfare</b>	
104	The hard surface of the sidewalk (the pedestrian realm) shall be a minimum of 15 feet wide, measured from the back-of-curb to the main front wall and/or exterior side wall of any adjacent building. This requirement may include components of the public right-of-way and/or private lands, as described in the discussion of the build-within zone.
105	The design of the 15 foot pedestrian realm shall include a "furnishing zone" for utilities, street furniture and street lighting adjacent to the curb, and a minimum 7 foot, six inch unimpeded pedestrian sidewalk.
106	At all street intersections there shall be provisions for pedestrian crossings of the transit facility, regardless of whether or not the intersection is signalized. In addition, provisions for mid-block pedestrian crossings must be considered at intervals of approximately 300 feet. There shall never be a condition where distances between pedestrian crossings of the Facility exceed 600 feet. Countdown pedestrian head signals shall be provided for at all signalized crossings.
107	It is understood that the development of the required 15 foot pedestrian realm will occur over a long period of time, in conjunction with private sector redevelopment projects. In the interim, the City should build a connected sidewalk on the public component of the right-of-way concurrent with the development of the transit facilities. The maximum width of the pedestrian realm in this interim condition shall be 15 feet, to be measured from the back-of-curb to the edge of the right-of-way.
<b>Pedestrian Character Major Collector</b>	
108	The pedestrian realm shall be a minimum of 8 feet wide, measured from the back-of-curb to edge of the right-of-way.

109	The pedestrian realm shall include a minimum 6 foot wide sidewalk measured from the edge of the right-of-way. The sidewalk shall be continuous and extend across driveways.
110	The pedestrian realm shall include a planted boulevard with street trees next to the curb.
111	The planted boulevard should also be the location for utility poles, placed on the same alignment as the street trees.
<b>Pedestrian Character Local Street</b>	
112	The pedestrian realm shall be a minimum of 19 feet wide, measured from the back-of-curb or the edge of the outside vehicle lane to the edge of the right-of-way.
113	The pedestrian realm shall include a minimum 6 foot wide sidewalk. The sidewalk shall be continuous and extend across driveways.
114	On Pedestrian Character Local Streets with curbs, the pedestrian realm shall include a planted boulevard with street trees next to the curb.
115	On Pedestrian Character Local Streets with curbs, the pedestrian realm shall include a planted boulevard with street trees next to the curb.
116	The planted boulevard shall also be the location for utility poles, placed on the same alignment as the street trees.
117	On Pedestrian Character Local Streets with road side ditches, the tree shall be planted on the outside edge of the ditch adjacent to the sidewalk.
118	On Pedestrian Character Local Streets with road side ditches, utility poles shall be placed adjacent to the edge of the right-of-way.
<b>Engineering/Infrastructure</b>	
119	The width of travel lanes along streets with transit should generally be 10-11' in width,
120	Alleys should be designed to provide an 12'-0" paved surface,
121	No access should be allowed from the street for new developments fronting onto the street with transit,
122	All new development fronting on to streets with transit should indicated space for the provision of alleys or access to the site from side streets,
123	A plan for access to sites fronting onto the Transit Street should be developed before construction of the Transit Line showing the following: The preferred location for access into site along the line, A phasing plan for combined access over time, A phasing plan for the implementation of alleys or service lanes.
124	Provision for cross walks between stations should an integral part of the design of the streets with transit. The maximum distance between a station and a crosswalk shall be 1/4 of a mile.
125	The radius of corner conditions should be determined with the pedestrian in mind. Tighter radii corners slow traffic speeds and protect pedestrians. Along the streets with transit corner radii for through streets should be no more than a 25'-0" radius. For non through streets intersecting the transit street corner radii should be reduced to 20'-0"
126	Bicycle lanes should be explored as part of the design, access and phasing plans for the corridor streets. Where there is not enough room for bike lanes on transit streets, they should be part of the design of the connector streets that access stations.
127	Infrastructure services need to be developed with future intensification of the corridors in mind,
128	Infrastructure should be implemented as transit is being built,
129	The implementation and design of infrastructure should be carried out comprehensively including all departments of the City as well as utility providers,
130	All utilities should be buried along the corridors,
131	Consideration should be given to burying utilities under alleys,
132	Where it is impossible to bury utilities, the location of above ground components must be coordinated with the design of the pedestrian realm following the following guidelines: utility poles and transformers shall be located where they do not impact on the movement of pedestrians, utility poles and transformers shall be located according to an overall plan for the entire corridor, the form and design of above grade components to be approved by the City and Metro. Where possible, utilities should be located in alleys,
133	Accessibility should be designed into all sidewalk conditions along the corridors.

**Additional Implementation Terms:**

**Abutting** – two or more parcels sharing a common boundary of at least 1 point.

**Block** – all land fronting on one side of a street between the nearest streets, intersecting, meeting or crossing the aforesaid street.

**Easement** – a negotiated interest in the land of another which allows the easement holder specified uses or rights without actual ownership of the land.

**Encroachment** – a physical structure or partial structure that advances beyond established property boundaries into abutting properties.

**Exterior side wall** – the exterior side wall of a building or structure abutting a right-of-way or open space.

**Facade** – the exterior wall of a building exposed to public view or that wall viewed by persons not within the building.

**Frontage** – the minimum straight line distance between the intersection of the side lot lines and the front lot line.

**Grade** – the average elevation of the finished surface of the ground adjacent to the exterior walls of the building or structure.

**Gross Floor Area** – the number of square feet of total floor area bounded by the exterior faces.

**Net Developable Site Area** – the portion of a parcel or site that is remaining after requirements for minimum setbacks, yards, urban squares, easements and right-of-ways.

**Parcel/Lot line, front, exterior, rear** – the legal boundary of a parcel or lot of land.

**Pedestrian Realm** – the pedestrian realm is the area from the back-of-curb to the face of the adjacent building.

**Main front wall** – the main front exterior wall of a building or structure.

**Setback** – the horizontal distance measured at right angles to the boundary of the parcel, lot or block of land, between the main wall of the building and the main boundary.

**Transit Street** – A transit street is a street along which the transit line currently exists or is planned to be located.