ENERGY CORRIDOR | LIVABLE CENTERS PLAN





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We would like to thank the more than two hundred people who participated in the creation of this plan.





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THE BEST BUSINESS DISTRICT IN THE BEST BUSINESS CITY IN THE U.S.A.



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INTRODUCTION





BECOMING THE FUTURE GEOGRAPHIC CENTER OF THE HOUSTON REGION



HISTORY & OVERVIEW

The Texas State Legislature created the Energy Corridor Management District in 2001 with the mission to improve, enhance and promote a 1,500 acre area that extends along both sides of Interstate 10 from Tully to east of Park 10 Boulevard and along North Eldridge Parkway from Interstate 10 to south of Briar Forest. Founded to help guide the success of member businesses, the Energy Corridor District is made up of area members, staff, and an elected board of directors who work with public and private organizations at the local, regional, state and national levels to facilitate attracting, relocating and optimizing the success of companies in the District.

Strategically located along IH-10, midway between Beltway 8 and the Grand Parkway, the Energy Corridor is home to multi-national and local growth-oriented companies. This broad range of companies, from energy to healthcare, engineering, and financial services, allows the District to diversify its economic base while strengthening its competitive edge in the global market place. Currently, the Energy Corridor is the third largest employment center in the region with more than 77,000 employees. Premier shops and restaurants, beautiful parks and trails, and the growing residential population make the Energy Corridor one of the most desirable places for people and businesses to call home in Houston.

A PLANNED BUSINESS CENTER

The Energy Corridor District's primary purpose is to increase the value of properties in the District. Local and national property interests recognize the benefit of special districts to protect property owners' investments and increase values. There are opportunities within the City of Houston that emphasize the benefit of the District's master planning initiatives, transportation and infrastructure plans, park improvements, maintenance, security and advocacy for its constituents.

The Energy Corridor is a model community of progressive companies recognized as a wellplanned, high-quality place that integrates regional and metropolitan commercial development. The District's Master Plan includes long- and shortterm improvements that support current and future economic vitality. The master plan includes a marketing campaign for transit, other commuting options and infrastructure projects that address congestion, increase connectivity and improve traffic operations. Landscape and urban design elements aim to create identity, visual continuity and inviting streetscapes. The District has one of the most significant system of parks and trails in the region which will be tied together through a master plan prepared by the National Park Service.

In its relatively short active life, the Energy Corridor District has registered significant accomplishments. By applying the effort and expertise of its staff in collaborative arrangements with public agencies, the District has leveraged its financial resources to design and implement several key projects. This success would not be possible without maintaining a strong relationship with locally elected representatives.







THE MOST POWERFUL ENERGY COMPANIES IN THE WORLD CALL THIS HOME



Vision Statement

Prepare a vision and plan with community support that establishes a Livable Center as "the heart of the Energy Corridor". This high quality mixed-use place will support transit, pedestrian and bicycle usage so people can LIVE, WORK, RIDE and PLAY and Energy Corridor companies can retain and attract the best and brightest candidates from around the world.

LIVABLE CENTERS STUDY

By 2035, the eight-county Houston-Galveston region is expected to grow by an additional 3.5 million people. Accommodating this growth will overburden the region's transportation network unless we identify ways to reduce vehicle trips. The Regional Transportation Plan of the Houston-Galveston Area Council (H-GAC) lays out a new strategy to address this growth - Livable Centers.

Livable Centers are walkable, mixed-use places that provide multimodal transportation options, improve environmental quality and promote economic development. These places are safe, convenient, and attractive areas where people can live, work, and play with less reliance on their cars.

The Energy Corridor Livable Centers Study is a partnership between the H-GAC and the Energy Corridor District for developing a vision and plan for a Livable Center. This plan will incorporate recommendations for transportation, infrastructure improvements, urban design and economic development.

Goals & Objectives

At the onset of this project, the following goals and objectives were established for the Plan:

- To improve connectivity and choices for all modes of movement and become a pedestrian, bicycle and transit-friendly community.
- To envision how development/redevelopment can be a high-quality and mixed-use place with a focus on the Addicks Park & Ride Lot as a target opportunity site.
- To become the transit hub for west Houston.

RECREATIONAL ASSETS

Parks, Trails and Recreation

A wide variety of recreational activities are available in and near the Energy Corridor. There are 50 miles of recreational trails for jogging, hiking, rollerblading and cycling – all of which connect neighborhoods and businesses in and around the Corridor.

The Energy Corridor District was recently selected by the National Park Service's Rivers, Trails and Conservation Assistance Program to receive planning assistance for the West Houston Trail System. Through this partnership, efforts will continue to develop and improve trails throughout the area.

Addicks and Barker Reservoirs

Located about 17 miles from downtown Houston, the Addicks and Barker Reservoirs lie entirely within the boundaries of the city and create places where visitors can find peace and quiet in the middle of a vital metropolitan area. The reservoirs are a flood damage reduction project that prevents downstream flooding of Buffalo Bayou in the City of Houston. The 26,000 acres of land that makes up these reservoirs is largely undeveloped, thus creating opportunities for recreational and natural experiences and observations. Visitors are welcome to experience and enjoy the diverse ecosystem and wildlife found in fields, lush woods and streams.

The City of Houston, Harris County Precinct 3, and Fort Bend County operate daytime recreational facilities within Addicks and Barker Reservoirs. There are many miles of scenic trails that provide unlimited opportunities for walking, hiking and biking. Cullen / Bear Creek Parks and George Bush Park are blessed with a wealth of recreational facilities and amenities.





CONVENIENT AND SAFE ON FOOT OR BICYCLE



STUDY AREA

The Livable Centers Study focuses on the properties adjacent and near the Addicks Park & Ride Lot along SH-6 between Grisby and Park Row and along both sides of IH-10 from SH-6 to West Lake Boulevard. The Study Area includes public and private lands within one-half mile of a future Energy Corridor Transit Center and Transit-Oriented Development at and surrounding the Addicks Park & Ride Lot.

OPPORTUNITIES & CHALLENGES





PROACTIVE PLANNING FOR FUTURE GROWTH





Current and Future Commercial and Industrial Space

Building Size in Square Feet					
Туре	Total				
Current 2010					
Office / Mixed Use	20,185,815				
Industrial / Warehouse	2,642,764				
Retail	4,226,343				
Grand Total	27,054,922				
Future 2025					
Office / Mixed Use	27,963,211				
Industrial / Warehouse	3,024,786				
Retail	5,562,033				
Grand Total	36,550,029				

Current and Future Housing Units

Number of Housing Units				
Туре	Total			
Current 2010				
Multifamily Condo / Apts	13,677			
Single Family, Attached	2,139			
Single Family, Detached	4,149			
Grand Total	19,965			
Future 2025				
Multifamily Condo / Apts	17,973			
Single Family, Attached	2,170			
Single Family, Detached	4,137			
Grand Total	24,280			

LAND USE

The Energy Corridor is one of the Houston area's premier employment centers. The Energy Corridor is so-called because it contains the headquarters locations and regional offices of prominent international energy and energy services firms including BP America, Shell Exploration and Production, ExxonMobil Chemical, ConocoPhillips, and CITGO. Other non-energy companies also have headquarters in the corridor including Cardinal Health Care, Inc., Sysco Corporation, Gulf States Toyota, Dow Chemical, and Star Furniture. Overall, the Energy Corridor includes a population of 44,000 and 77,000 jobs. The corridor contains over 20 million square feet of office space (of which 72% is Class A) and over 4 million square feet of retail.

The tables on this page illustrate the land use in the Energy Corridor as of January 2010 with projections for the year 2025. This data is based on the parcel level GIS information on land use prepared by CDS Market Research. The source data used in this analysis was updated for the 2010 inventory.

Despite the softening of values, occupancy rates and absorption pace during the period of the Great Recession, the Energy Corridor is still extremely well-positioned to capture a substantial share of its projected growth over the coming decade or two. With proper planning and proactive efforts for public funding and public --private partnering, the Study Area is well positioned to become the premier location in the Energy Corridor. With the potential for approximately eight million square feet of new office space, more than one million square feet of future retail space and almost 5,000 residential units, this is one of the most optimally located Livable Centers in the region from a land use potential standpoint. The growth is definitely coming to this location and this Livable Center only has to reshape that growth not create the demand.

EXISTING & PROPOSED TRAILS - REGIONAL





EXPAND HIKE AND BIKE AS BEST IN REGION









PEDESTRIAN & BIKE TRAILS

A major competitive advantage of the Energy Corridor Livable Center Study Area location is the access to what may be the best regional trail system outside of a planned community development in the region. The Study Area is anchored to the north and southwest by two of the largest green spaces in Harris County: Cullen / Bear Creek Parks and Addicks Reservoir as well as George Bush Park and Barker Reservoir, respectively.

Having these amenities enables the project to build upon a great quality of life environment that exists today. This plan leverages what exists by incorporating gateways to the existing parks, trail systems and neighboring developments so that the users of the Livable Center and the entire Energy Corridor District will have alternative transportation options as well as a high quality of life environment.

As part of the City of Houston, the Energy Corridor District is coordinating its plans with the City's Bikeway Program which offers a 345-mile bikeway network that spans the city. The Energy Corridor District also falls within the area addressed by the West Houston Trails Master Plan (WHTMP) which proposes a 100+ mile interconnected trail system. These networks include bike lanes / routes, shared lanes, bayou trails, rail-trails and other urban multiuse paths. Bicycle commuters can use combinations of trails, bike lanes, transit and shared roadways to travel between their homes and work places.

As development within the Energy Corridor District becomes denser, pedestrian circulation becomes a more critical element to the quality of life shared by those who work, live and play in the district. It is clear that the existing trails and sidewalks within the Study Area are not sufficient to support anticipated growth. A clear vision must be planned for the future which provides connection to existing developments and open spaces and weaves together the complex urban fabric of the Energy Corridor.

REGIONAL MOBILITY

Surveys conducted previously in the Energy Corridor District have indicated that employers, employees and residents all see traffic as a problem that is growing in significance. One reason is that several physical barriers limit connectivity and mobility to and within the Study Area. These barriers are IH10 in the center, Addicks Dam to the north and Buffalo Bayou to the south. East/west travel in and out of the Study Area is limited to Park Row, IH-10, and Memorial Drive. North/south travel in and out of the Study Area is limited to SH6. The local streets provide some relief and spread out travel patterns, but the lack of overall interconnectivity is a significant limitation.

At present, only 6,000 people both live and work in the Energy Corridor District and there is a fairly low level of commuting using alternative modes to the private automobile. There is a relative imbalance in the jobs-to-housing ratio and the potential internal capture of trips is not only lost, it results in greater peak hour commuter traffic.





TRANSPORTATION ENHANCING LIVABILITY







Modal Split

Subject	Subject	Male	Female
Workers 16 years and over	70,869	35,558	35,311
Car, truck or van	90.70%	89.70%	91.70%
Drove alone	82.00%	81.10%	83.00%
Carpooled	8.70%	8.60%	8.70%
In 2-person carpool	7.30%	7.30%	7.30%
In 3-person carpool	1.00%	1.00%	0.90%
In 4-or-more person carpool	0.40%	0.30%	0.50%
Workers per car, truck or van	1.16	1.17	1.15
Public transportation (excluding taxi)	2.50%	2.50%	2.60%
Walked	1.90%	2.00%	1.70%
Bicycle	0.20%	0.30%	0.20%
Taxicab, motorcycle or other means	1.20%	1.70%	0.70%
Worked at home	3.50%	3.80%	3.20%

Above is information from the US Census web site illustrating mode split data for the Study Area. The data was produced as part of the American Community Survey. Statistics shown are for a three year average from data collected during the period 2006 – 2008. This survey uses a random sample from the Study Area which is then expanded to the total population in the area.

Addicks Park & Ride Ridership

Year	Vehicles	228 ¹	285 ²	298 ³
FY96	1,368	2,270	333	
FY97	1,493	2,298	358	
FY98	1,404	2,486	376	
FY99	1,622	2,824	373	
FY00	1,828	2,977	409	342
FY01	2,074	3,050	400	550
FY02	2,186	2,967	456	809
FY03	1,901	2,550	449	987
FY04	1,811	2,460	408	1,009
FY05	1,819	2,586	311	1,037
FY06	2,021	2,705		1,238
FY07	2,398	2,426		1,289
FY08	2,082	2,414		1,498
FY09	1,646	2,549		1,407
FY10	1,567	2,174		1,199

1 - Route 228 Addicks Boardings; 2 - Route 285 K-A-NWTC/U-G Boardings (discountinued in October 2004); 3 - 298 K-A-NWTC/TMC Boardings (began in January 2000).

This data is for Public Use Microdata Area PUMA5 - 04612

REGIONAL MOBILITY

The current modal split among forms of movement was examined along with existing transit service and ridership. Below are some observations regarding mobility in the Energy Corridor:

- METRO Bus Route 228 Addicks operates between the Addicks Park & Ride lot and downtown and carries approximately 80% of the transit riders from the lot.
- The interchanges at both SH-6 and N. Eldridge were improved recently and no additional capacity improvements are planned.
- The most critical east/west transportation need in the Study Area is the completion of Park Row to Eldridge in order to give motorists and transit more route options to enter and leave the Study Area.
- The most critical north/south transportation need in the corridor and Study Area is the addition of a pedestrian/transit bridge over IH-10 which will greatly impact the utilization of the Addicks Park & Ride Lot.
- The addition of an overpass between SH-6 and Eldridge at WestLake Park Boulevard would add cohesion to the Study Area and improve the general mobility in the corridor.

OPPORTUNITIES & CHALLENGES

At the inception of the planning process at meetings with The Advisory Committee members and key stakeholders, a series of "big ideas" and the associated opportunities and challenges for each was identified. These big ideas became major themes guiding the focus of this project and serve as the storyline for what a Livable Center can make possible for the Energy Corridor. There is perhaps no better single image that captures these big ideas and the opportunities and challenges than the incredible panoramic photographic at right.



Panoramic View of Addick's Park & Ride

Get people to the "great green backyards" Expand hike/bike trails as "best in region"



Opportunity: The Energy Corridor is surrounded by 26,000 acres of open space situated in the Addicks and Barker Reservoirs.

Challenge: Connecting people to these vast open spaces by Challenge: Implement the National Park Service plan so the foot and bicycle as well as viewing magnificent green vistas from buildings tall enough to peer over the reservoir embankments.



Opportunity: With 50 miles of trails, the Energy Corridor has more trails than any place in the Houston region outside of the Woodlands & Kingwood.

Energy Corridor can become the region's "trail head" for the West Houston Trail System.





Bridge the "great highway divide"



Opportunity: IH-10 is a lifeline that moves more than

Challenge: At 24 lanes in width, this massive dividing line Challenge: Incorporating lands adjacent to the Addicks slices and separates the Energy Corridor, limiting the ability to create a connected Livable Center.

Create the "missing center"



vet exist.

Park & Ride Lot and opposite the site on the south side of IH-10 to achieve a Livable Center with sufficient critical mass.

More choices & access for all modes



Opportunity: Leverage redevelopment of the Addicks **Opportunity**: Create and reshape places in the Energy 200,000 trips per day to and through the Energy Corridor. Park & Ride Lot to help anchor the "center" that does not Corridor to encourage more walking, biking and transit usage.

> **Challenge**: Traffic is one of the most significant challenges to the function and future prosperity of the Energy Corridor.

PLANNING PROCESS











TO GAIN THE MOST VALUE FROM GROWTH, YOU NEED STRONG GUIDANCE



KICK-OFF & ADVISORY COMMITTEE

The planning process commenced in April 2010 with a review by the consulting team of all existing available plans and studies relevant to the Study Area and the immediate surroundings. Every effort was made to rely upon these existing studies and plans for baseline data and projections related to mobility, land use, circulation and transit service.

The consultant team conducted tours of the Study Area by driving, walking, bicycling and riding (by 75 Connector bus) to gain a better understanding of existing conditions and mobility by all modes. Field observations of traffic, transit, bicycle, and pedestrian activity were used to identify deficiencies and impediments to the use of alternative modes of transportation and future needs.

The Energy Corridor District established an Advisory Committee which included community representatives to develop a consensus on the goals and objectives for the project vision for the future of the area. Stakeholders representing land surrounding the Addicks Park & Ride lot and the Letitia Village restaurant area were included to provide input from existing businesses in the Study Area.

Initial kick-off meetings in early May to explain the planning and community visioning process were held with the Advisory Committee and stakeholders. A stakeholders vision session was conducted on May 17 in order to understand private property owners' perspectives and any plans proposed for their lands. Two dozen stakeholders attended and helped the consultant team gain a detailed understanding of the opportunities, challenges and perspectives of the Study Area and its stakeholders. This input was used to custom-tailor the Public Open House Workshops on June 7-9.

PUBLIC OPEN HOUSE WORKSHOPS

A three-day, charrette-style workshop was conducted June 7-9, 2010 at the Crowne Plaza hotel at which more than 200 people attended. The Public Open House Workshops were promoted through a variety of methods ranging from broad public awareness through press releases, postcards, flyers and posters supplemented with direct outreach efforts by way of phone calls, letters and e-mail blasts. Specific groups identified by the Advisory Committee and stakeholders were targeted ranging from apartment complexes, restaurants, employers, neighborhood associations and various governmental and nongovernmental organizations. The offices of elected officials representing the Energy Corridor District were also invited.

On the first day, June 7, community input was solicited in an "open house" where the public could "drop-in" any time at their convenience. Attendees were asked to identify with dots on maps where they live/work, traffic and pedestrian "hot spots", and most/least favorite places in the Study Area. A Community Vision Survey allowed participants to help evaluate and select images to help guide the creation of the concept plan.

The second day of the workshop consisted of work sessions to translate community input into the plan. Visions and concept plan studies were created throughout the day based on public input from the "open house". The third day of the workshop involved refining the vision and design concepts followed by an "open house" where the public was invited to see how the plan was shaping up. This format made it easy for the public to follow the evolution of the vision and concept plan.

Walk over I-10 - great idea!"

Citizen Comment



Help Envision a "Livable Center" in the Energy Corridor

You are invited to share your thoughts & vision at two special public "open house" workshops.

Monday, June 7 - Join us and share your best ideas Wednesday, June 9 - Come see how the plan is shaping up

4:00 - 8:00PM both days at the Crowne Plaza Hotel 14703 Park Row

The public is invited to drop by our "open house" workshops to create the vision for the Energy Corridor Livable Centers Study for the area along IH 10 from the Addicks Park & Ride Lot to SH 6.

Let us know the kind of new development you would like to see.
Share how we can expand & enhance our trails to become the "best hike & bike network in the region"
Learn about better ways to manage traffic by creating more travel choices and access.
Describe how our streets can be safer for walkers and cyclists of all ages.

- Help envision the "missing center" for the Energy Corridor.
- Come up with a "Big Idea" to become a transit hub for West Houston.

Help imagine a future where the Energy Corridor is more livable for residents, more valuable for business and more vibrant for everyone. We value and appreciate your insights and ideas regarding this exciting project.

For more information, call Clark Martinson at 281-759-3800 or email him at cmartinson@energycorridor.org



A series of large-scale aerial photos helped make it easy for the public to identify issuesin the Study Area.



Citizens identified locations where improved pedestrian and bicycle connections are needed.



Residents and employees placed dots on maps to identify where they live and/or work in the Study Area.



The public placed green dots to identify "Favorite Places" and red dots for "Least Favorite Places".



Public Spaces













COMMUNITY VISION SURVEY

A visually-based Community Vision Survey was used to gain public input on the "look and feel" of public spaces, streetscape and architectural character and transit facilities/vehicles. The Survey was conducted during the June 7 Public Open House Workshop and results have been incorporated into the concept plan. The survey arranged images in a series of four per topic to present a range of choices for possible future visions. Presented to small groups, participants were given a chance to view each set of images and then select the image they felt would be "most appropriate" for the Energy Corridor or, "none" if they felt that no image fit their vision. Scores were recorded on individual score sheets and afterward, select images were re-presented for follow-up discussions. A summary of these findings follows on this and the next few pages.

Public Spaces – The images displayed at left were the highest rated public space images in the survey. Participants indicated that they want to see a diversity of public spaces ranging from passive greens to enticing water features to hard paved plazas. Discussions were very precise with participants noting that these spaces need shade, not too much concrete, places to site, open spaces for kids and changes in elevation to make add interest to the flat environment.



COMMUNITY VISION SURVEY

Architectural Character – There was more diversity of opinion when it came to architecture. Some participants like buildings that have a small town feel or look "vintage Texan" while others prefer more modern designs. Images of more typical Houston-area buildings did not fare as favorably.

Buildings with specially-designed corner treatments seemed to catch many participants' eyes in the survey. In some of the follow-up discussions participants talked of the need to create a unique architectural character for the Energy Corridor to help make the district uniquely identifiable in the region.

Streetscapes – Street trees that provide for shade for pedestrians was a critical element of preferred streetscapes. Participants want to see wider sidewalks, old-style lampposts and touches of greenery that add interest for pedestrians. Participants clearly stated that they want more opportunities to walk in safety, with some protection from the sun and to destinations with activities that are currently missing or non-existent.

Transit Facilities – The survey presented sets of images to test both transit facilities (bus shelters) and transit vehicles (buses). Participants had a very clear vision for transit facilities that are unique and not typical. Transit facilities that were more than just a shelter were strongly favored. In follow-up discussions, participants focused on how the mix and integration of multiple uses made the transit facility feel much more attractive, inviting and dignified.

The design of transit vehicles was another area where the public would strongly like to see a new alternative. The overwhelming majority of participants selected images of more contemporary, sleek and highly-glazed vehicles versus typical buses.

Architectural Character















Streetscapes

Transit Facilities



















CONCEPT PLAN





TRANSLATING THE VISION INTO THREE DIMENSIONS







TRANSLATING THE VISION

The Public Open House Workshop schedule was established in a charrette-style to enable the consulting team to focus intensely on the design of the concept plan immediately following gathering community input at the June 7 Open House, then presenting the concept plan for public feedback at the June 9 Open House. The charrette allowed the consultant team to listen to the community and translate their input as follows:

- Identify potential locations for special places to create identity, activation and uniqueness.
- Conceptualize the potential character and activities, including amenities and programming and management that occur for each place.
- Explore multi-modal connections between the special places walking, bicycling, shuttles and bus.
- Envision how to enrich the human experience when moving between places so that it becomes a defining element of the entire district.
- Analyze ways to layer a rich mix of uses within and between the special places that creates a synergy which can be a hallmark of the entire district.







CONCEPT PLAN

The concept plan transforms the Addicks Park & Ride Lot and the surrounding properties spanning both sides of the highway into the "heart of the Energy Corridor". This place is a series of interconnected spaces, streets and parks that are all linked to one another and connected together by a landmark bridge lined with buildings and punctuated in the middle with a public plaza. Existing places such as Letitia Village, Helios Plaza and Park Row are integrated into the plan. All of the special places in this Livable Center will be activated by transit, pedestrians, bicyclists and motor vehicles. Parking is provided curbside along most streets, and funneled into parking garages lined with buildings at key intercept locations so people can "park once" then walk, bike or ride transit to get around.

At the center of the Addicks Lot is a new transit facility with a multi-level commuter parking structure. The highest densities containing a mix of uses are focused in proximity to transit. Employees, residents and visitors all using transit for different reasons at different times will help to create a round-the-clock vibrancy to the transit experience. The bridge brings transit proximity to nearby, but difficult-to-reach properties across IH-10. A magnet match and science energy education campus is envisioned to the east, allowing Energy Corridor companies to partner in educating the next generation.

This Livable Center is intended to promote sustainability, particularly as it relates to energy efficiency and generation from renewable resources. The plan envisions buildings with green roofs to reduce heat gain and run-off, solar panels on buildings and parking structures, geothermal heating/cooling systems and wind turbines. Storm water run-off will be directed into recharge rain gardens. Sustainable agriculture will be promoted in rooftop and wall gardens, community garden plots in parks and perhaps a community-supported organic farm on nearby underutilized land.





CREATING THE HEART OF THE ENERGY CORRIDOR



THE BRIDGE

One key element that will connect the north and south sides of IH-10 into a walkable, bikable and transit-friendly Livable Center is to bridge over the 24 lanes of highway with a structure that is lined with commercial uses and punctuated by public space resulting in an iconic landmark that defines the center of the Energy Corridor.

Lining a bridge with retail shops and other business uses was common in Medieval times with roots tracing back to the Romans. Bridges were lined with commercial uses to help underwrite construction and maintenance costs. Today, only a handful of these historic commerce lined bridges still exist, however, they are among the most memorable landmarks in their respective cities and stand among the most famous structures in the world:

- The Rialto, Venice, Italy
- The Ponte Vecchio, Florence, Italy
- The Pulteney Bridge, Bath, England

There are numerous structures built on top of freeways in the United States including the following:

- Civic Center MARTA Station over I-75/85, Atlanta, GA
- Freeway Park and the Washington State Convention Center over I-5, Seattle, WA
- Bartle Hall Convention Centers over I-670, Kansas City, MO St. Louis Science Center over I-64, St. Louis, MO
- Prudential Center & Copley Place over I-90, Boston, MA Cobo Center over M-10, Detroit, MI
- Great Platte River Road Archway Monument (museum) over I-80, Kearney, NE
- Walgreens pharmacy over I-80, Reno, NV
- Apartment buildings over I-95, New York, NY
- High Street retail stores over I-670, Columbus, OH
- Apartment buildings and Lytle Park, Cincinnati, OH
- The largest McDonald's in the world over I-44, OK
- Parking garage over I-66, Arlington, VA
- 6 rest stop/restaurant oases over I-80/90/94/294, Chicago, IL
- US Post Office over I-290, Chicago, IL
- Riverfront Plaza/Belvedere over I-64, Louisville, KY



The Pulteney Bridge in Bath, England



Great Platte River Road Archway Monument in Nebraska



Civic Center MARTA Station in Atlanta



The Ponte Vecchio in Florence, Italy



Freeway Park and the Washington State Convention Center in Seattle

High Street retail stores over I-670 in Columbus

THE BRIDGE

Connecting together a Livable Center that spans both sides of a highway with 24-lanes of separation is a huge challenge. The solution is rather unique - a signature bridge lined with unique building space that encloses a "shared space" passage for pedestrians, bicycles and transit vehicles. The center of the bridge is envisioned as an open plaza that will accommodate special events.

The buildings lining the bridge will contain specialized tenant space targeted to incubate unique one-of-a-kind establishments ranging from small cafes to energy-related start-ups. This space will be a landmark location that will be recognized throughout the region. The bridge also serves a critical mass transit function by creating a local transit connection between the north and south sides of IH-10, thus giving transit a competitive advantage in time efficiency within the Energy Corridor. From a transit function standpoint, the bridge will allow arrivals at Addicks to achieve what is impossible today: to hop a quick ride, walk or bike to a destination just across the highway.

ADDICKS PARK & RIDE LOT

At the center of the Addicks Lot, it is proposed there be a new transit facility which is under consideration by METRO. This new transit facility would be configured as either a Transit Mall or Transit Station integrated with a multi-level commuter parking structure. The highest densities containing a mix of uses are focused in this area close to transit service. Blocks and buildings will contain a mix of uses framing a series of public spaces, including Addicks Square and Triangle Park. The streets will have wide sidewalks where employees, residents and visitors all using transit for different reasons at different times create a round-the-clock vibrancy.

The bridge provides a multi-dimensional change in grades from above on the bridge to below in unique shaded spaces under the ramps which can host activities such as a "locally grown" Saturday market. Walks and trails from the bridge will also lead pedestrians and bicyclists gently down into Triangle Park where one can follow a series of interactive water features toward the Addicks Reservoir beyond.

FROM PARKING LOT TO "PLACE"

ADDICKS SQUARE

Addicks Square is actually a series of interconnected and interrelated squares which contain a range of active gathering spaces and passive gardens within the squares. This space is more active where it is surrounded by shops, services and office space at its southern end, closer to IH-10, and becomes more passive at the other where it is enclosed by residential multi-family buildings.

The square is anchored by a café kiosk and circular plaza at the more commercial end which provides focal point for surrounding shops and services. The center contains an oval-shaped "sunken green" that can support both informal gathering and programmed special events. The more residential end of the square contains shady gardens where neighbors can meet and greet or read a book in solitude.

TRIANGLE PARK

This linear park helps provide a transition from the lined bridge to the trails leading towards Addicks Reservoir and Cullen / Bear Creek Parks. Coming off the bridge, pedestrians and bicyclists will be gently led down grade and into Triangle Park where they can follow a series of interactive water features. The water features will be a visible attraction from on the bridge, enticing young and old to interplay with fountains, bubblers and waterfalls that line and wind between the walks and trails.

Triangle Park is very green and shaded by tree canopies to provide relief from the heat and sun and build anticipation for the incredible open space vistas that are just a short stroll or ride to the north at the top of the Addicks Reservoir embankment.

BRIDGE TO LETITIA VILLAGE

The grade change provided by the bridge will create some interesting spaces "down under" the ramps that make great one-of-a-kind business such as restaurants, unique markets and night clubs.

A hotel at the foot of the bridge on the south side of IH-10 is envisioned to be anchored by retail and service-oriented businesses which will extend toward Helios Plaza.

The Post Office site is envisioned to be redeveloped perhaps as a multi-plex cinema and major structured parking intercept. The cinema and parking would provide a compliment to the restaurants in Letitia Village.

Grisby Street could be the site of a long proposed green square shaded by existing mature Live Oaks. The adjacent street could be punctuated by an in-street fountain for traffic calming and a unique sense of arrival. The square is envisioned to be lined with a community garden on the edge of the new school. This garden could provide a learning interaction between student farmers and the nearby restaurants or perhaps be incorporated with a farmers market.

CONNECTING AND ENHANCING EXISTING ASSETS

There are several options for improving parking capacity and function in Letitia Village, ranging from extensive streetscape improvements and reorienting on-street parking as back-in diagonal spaces to a less costly "shared space" concept. This would maintain the mix of parallel and head-in parking that exists, but over time treats the surface of streets, parking spaces and walkways with a similar or complimentary textured paving and bollards to separate pedestrians. The plan envisions several parking structures proposed at intercept locations at the edges of Letitia Village that will provide the substantive increase in parking capacity that this area needs during peak periods.

-33

PARK ROW NORTH TO RESERVOIR

The neighborhood along the north side of Park Row is envisioned as primarily residential and "green" in multiple ways. Townhomes and flats are set on blocks framing garden squares, lush mews and shady courtyards. Well-defined green streets and enclosed green spaces frame a series of outdoor living rooms for neighbors to meet and greet, gather informally and host block parties.

The green and garden-like character of this neighborhood compliments its location at the "trailhead" of the Addicks Reservoir and Cullen / Bear Creek Parks. Streets and paths crossing the neighborhood are active with bikers and hikers from throughout the Energy Corridor who pass through on their way to and from the trail and park system to the north. On weekends, the neighborhood buzzes with bikers from across Houston who hop on buses with their bikes, disembark at the Energy Corridor transit hub and then ride-off on the most extensive trail system in the region.

Living in this neighborhood is within walking distance of transit, employment and a range of restaurants and services. It is the ideal place to live-walk-ride-work during the week as well as hike-bike-hangout on weekends. Energy-efficient residences reinforce this as an ideal place for those interested in reducing their carbon footprints.

PEDESTRIAN & BICYCLE WAYS

The plan includes many recommendations for street, path and intersection improvements that support the Livable Center's goals for bicycling and walking:

- Employees, residents and visitors should find it safe, comfortable and convenient to reach all internal and nearby destinations on foot and bicycle.
- Nearby families including those with elementaryschool age children on their own bikes – should find it safe comfortable and convenient to walk or bike together to the Livable Center, and to nearby attractions including Leticia Village as well as Addicks Dam and Cullen / Bear Creek Parks.

These photos illustrate several improvement areas for achieving these goals:

- Adding and improving walkways along Grisby Road through Leticia Village and making it convenient to cross the street;
- Widening IH-10's frontage road sidewalks into two-way paths to facilitate bicycle travel between the Eldridge and Park Ten interchanges;
- Adding a signal on SH-6 to connect Grisby's western segment, and adding bike lanes to SH-6 south of IH-10;
- Adding a new east-west hike and bike trail on a pipeline corridor between Park Row and IH-10 to serve workplaces and residences west of SH-6;
- Creating additional high-quality neighborhood connections to Addicks-Howell Road, Grisby Road, and Gracie Lane to support walking and bicycling trips by residents of the Barker's Landing and Fleetwood neighborhoods;
- 6 Transforming Addicks-Howell Road with a hike and bike trail along its east side and several neighborhood gateways along its length, linking the Livable Center with Buffalo Bayou and the Terry Hershey Trail for walkers & bicyclists of all ages.

PEDESTRIAN & BICYCLE WAYS

This figure illustrates many of the recommended improvements to the area's walking and bicycling network:

- ① A new lined bridge would span IH-10 for walking, bicycling and local transit.
- (2) Missing walkways and bikeways would be added to Park Row and Memorial Drive.
- 3 A new trail along Addicks-Howell Road would connect the Livable Center and several neighborhood gateways to Buffalo Bayou, with a western spur to Barker Dam.
- A new hike and bike bridge would connect neighborhoods north and south of the Bayou.
- (5) IH-10's frontage road sidewalks would be upgraded to paths wide enough for two-way bicycling.

PARKING

Parking is provided curbside along most streets, but the bulk of major parking has been funneled into parking structures strategically located at key intercept locations. The strategy is to encourage people to "park once" and then walk, bike or ride transit to move within the Livable Center. The plan anticipates that some existing surface parking lots would remain, but perhaps with additional streetedge screening. In other instances, surface parking may be an interim use until full redevelopment takes place in that area.

Park Row North On-Street Parking

This neighborhood is envisioned to have extensive on-street parallel parking that helps define and protect the pedestrian realm. Residents would utilize alleys to access rear parking.

Addicks P&R On-Street Parking

The active retail streets, with the exception of the Transit Mall, would have metered curbside paralell parking.

Liner-building Structured Parking

The plan envisions that most new parking structures would be lined with buildings along sides exposed to important streets and spaces. These liners could range from ground level commercial space with a fenestrated facade above to multi-level mixed-use structures.

Letitia Village On-Street Parking

There are two options for improving parking capacity and function in Letitia Village, ranging from extensive streetscape improvements and reorienting on-street parking as back-in diagonal spaces to a less costly "shared space" concept. In addition, there are several liner-building parking structures proposed at intercept locations at the edges of Letitia Village that will provide the substantive increase in parking capacity that this area needs during peak periods.

Park Row North On-Street Parking

Addicks P&R On-Street Parking

Liner Parking Structured Parking

Letitia Village On-Street Parking

A TRANSIT HUB

A primary goal of this Plan is to position the Study Area to become the transit hub for West Houston. There are three main elements that enable this to be achieved:

- The bridge and other connectivity improvements
- Commuter-friendly station environment
- Increased density within 10-minute walking distance of the transit hub

The proposed "lined bridge" over IH-10 is the key link to make transit function effectively in competition with the private automobile. This bridge is designed for transit, pedestrian and bicycle modes with either no automobile access or only during limited hours. This bridge connection gives a competitive advantage to transit in terms of bypassing SH-6 to connect south of IH-10. The Park Row extension east to Dairy Ashford and a future vehicular bridge across IH-10 at WestLake Park Boulevard complete the major street system allowing greater flexibility and time-competiveness for local transit service.

At present, the Addicks Park & Ride Lot consists of an isolated transit station surrounded by a sea of parking. The Plan clears the Addicks Lot for Transit-Oriented Development by stacking commuter parking in a lined parking structure. This parking structure will contribute to a more commuterfriendly station environment by replacing the existing sea of parking with spaces located closer to transit boarding allowing commuters to have a more convenient, mostly covered linkage between parking and transit. On the following pages, two alternatives for a more commuter-friendly station environment are presented in more detail.

TRANSIT STATION CONCEPT

This concept involves retaining a covered bus Transit Station at the same location that it has currently. The commuter parking structure would be constructed adjacent to or as part of the station so that commuters would have convenient, covered linkage between parking and transit boarding. Circulation and turning movement of transit vehicles would approximate how buses circulate currently.

The advantage of this scheme is that it functions similar to current operations. The disadvantages of this scheme are that it maintains the Transit Station in a location that is minimally integrated with other land uses and is not user-friendly for commuters choosing to arrive on foot, thus somewhat dampening the potential ridership capture from surrounding Transit-Oriented Development. It should be noted that during the Public Open House Workshops, people overwhelmingly indicated that they were more reluctant to use transit if it had the look and feel of typical public transportation.

Perhaps the most significant long-term drawback of this scheme is that it will locate bus transfers furthest away from any future heavy or light rail station located under the proposed lined bridge in the center of the IH-10 right-of-way. Separating the bus and rail functions without direct visual connection will limit the ability to create a single overall station environment where users have the perception of convenient proximity between modes. The concern is that this will reduce the user-friendly commuter experience at a major multi-modal hub.

TRANSIT MALL CONCEPT

This concept involves creating a two-way Transit Mall around a block adjacent to the commuter parking structure. The commuter parking structure would be constructed adjacent to the Transit Mall so that commuters would have convenient linkage between parking and transit boarding comparable to a Transit Station. This linkage can be continuously covered to protect users from the elements by canopies, arcades and station shelters. Circulation and turning movement of transit vehicles could be routed in either direction around the Transit Mall block.

The disadvantage of this scheme is that it employs a new transit station design and function. However, Transit Mall concepts have been used successfully in many cities for decades, so Metro has the advantage of being able to gain "lessons learned" from other agencies. The advantages of this scheme is that it shifts bus boarding into a multifunctional public space that acts as a focal point for surrounding land uses. By designing the Transit Mall as a "shared space" between buses and pedestrians, commuters who arrive on foot have an inviting, safe, user-friendly experience. This will help maximize the potential ridership capture from surrounding Transit-Oriented Development.

Another long-term advantage of this scheme is that it will locate bus transfers closer to any future heavy or light rail station located under the proposed lined bridge in the center of the IH-10 right-of-way. This more direct visual connection between the bus and rail functions within an integrated overall station environment will give users the perception and experience of convenient proximity between modes. A unique and defining station area experience, combined with the landmark established by the lined bridge over IH-10, would significantly reinforce the identity of this place as the transit hub for West Houston.

IMPLEMENTATION

A PLAN FOR FUTURE GENERATIONS

Transportation Improvement Program (TIP) Selection Criteria

Efficient use of infrastructure	20 pts	Fosters redevelopment and infill of areas within existing infrastructure of promotes the orderly and efficient provisions of new infrastructure.
Variety and choice	20 pts	Sustain and facilitates a range of transportation mode opportunities and promotes a balance of development options and land use types for residents of multiple age groups and economic levels.
Quality Design	20 pts	Strengthens community identity through use of compatible, quality architectural and landscape designs and preservation of significant historic structure and or nature features.
Partnerships	20 pts	Consistent with local comprehensive planning efforts and demonstrates local coordination with stakeholders and leverages private investment.
Safety	20 pts	Facilitate safe walkable circulation and access to destinations within the center.

IMPLEMENTATION

Implementation and Funding Strategies

Implementation of the projects in this Livable Center plan is likely to occur over a long period, even decades. The plan calls for a variety of transportation-related improvements supporting both vehicular and pedestrian mobility and access. The most applicable funding sources relate to both the primary mode served and the scope of access intended (neighborhood vs. community / regional). Changes in federal and local funding systems, along with the growth within the Energy Corridor, will present new opportunities over time.

Implementation Prioritization and Readiness

Federal funds are programmed by H-GAC through the Transportation Improvement Program (TIP), a three-year horizon. Projects are prioritized for placement in the TIP based on their ability to meet the eligibility and objectives of the federal programs and project "readiness." Two important ways that the Energy Corridor District can enhance project readiness include (1) funding detail project design and environmental assessments; and (2) facilitating the acquisition of right of way, if required by the design.

Of particular interest with regard to this Livable Centers plan, H-GAC Livable Centers projects have opportunities for programming of STP and CMAQ funds in the TIP. Specifically, among the criteria that H-GAC uses in evaluating Livable Centers projects are a set of Livable Centers criteria, as shown at the top of this page. Most of the projects recommended by this plan should score well against these criteria.

STRATEGIES

objectives, there are two overarching readiness concerns that will affect the ability of the projects in this Livable Centers plan to be eligible for various types of federal funds:

- 1. In order to be placed in the TIP, which covers all near-term federally-funded projects, the project needs to be able to demonstrate its level of readiness. Readiness factors may include right-of-way acquisition, engineering / design / costing work, or environmental clearances (the NEPA process), depending on the type of project. Project sponsors should coordinate with HGAC to determine the specific eligibility requirements for their proposed project. As the TIP is constrained by expected funding, even projects with a high level of readiness are not guaranteed inclusion in the TIP; the selection process is competitive.
- 2. Federal grants almost always require a local sponsor which provides matching funds. A typical local match ratio is 20%. Thus a strategy for acquiring federal funds to implement projects also requires a strategy for providing local matching funds.

Two important ways that the Energy Corridor District can enhance project readiness include (1) funding detail project design and environmental assessments; and (2) facilitating the acquisition of right of way, if required by the design. The District can address (1) directly by procuring the required engineering and consultant services. Its projected budget currently anticipates expenditures for planning and design services in Fiscal Years 2011-2014 for such projects as Addicks Village, Park Row, and Transit Center TOD development. It is important that these expenditures take projects as close as possible to detail design and engineering if the District seeks to obtain federally-assisted implementation for them in the near term.

Task (2) is more difficult for the District to accomplish, as it will not likely have enough of its own financial resources to purchase right of way outright. Instead, the District should work with the applicable public agencies (such as the City of Houston for local public streets) and property owners to have productive dialogue that can lead to right of way purchases or dedications. Projects need to have 70% of right of way

Apart from the federal eligibility requirements and program procured and plans to procure the remainder in place for inclusion in the TIP.

State Funding

In addition to the federal transportation funds administered by TxDOT, the State of Texas also aids local improvements through administration by the Texas Parks and Wildlife Department of Recreation Grants. Two types of grants could apply to the Energy Corridor Livable Center: Urban Outdoor Recreation Grants, which fund acquisition and development of park land with a 50% match up to a maximum of \$1,000,000; and Recreational Trail Grants, which are Federal Highway Administration Funds for trails with an 80% match up to \$200,000. These funds would obviously be used for parks and trails. Local funding matches may include certain types of in-kind contributions as well as cash.

Local Funding

As previously stated, some level of local funding commitment will be required for nearly all projects. While large transportation-related Livable Center projects could be targeted to obtain state or federal funding leveraged with a smaller local funding match, other non-transportation projects may be primarily funded locally. Several potential local sources could assist project implementation.

City of Houston

Most of the public capital improvements contemplated in this plan will be owned by the City of Houston. Therefore, the City would be the most appropriate entity for generating local funding.

- Capital Improvement Program The Capital Improvement Program (CIP) is the standard method for the City to fund major capital improvements. Street and bridge improvements are funded from the General Fund.

allow the City to have a dedicated source of capital projects funding for many of the improvements and land acquisition proposed in this plan by segregating the incremental property or sales tax revenues generated by value appreciation or new development / redevelopment. In the case of the Energy Corridor, the potential increases in assessed values due to development of vacant or underutilized properties in the Livable Center would make it an appropriate place for TIRZ creation to assist in funding proposed improvements, though it is not a viable strategy at this time.

Chapter 380 agreements - With new TIRZ creations on hold, the appeal of economic development agreements created under Chapter 380 of the Texas Local Government Code become more appealing. Chapter 380 gives municipalities broad latitude to provide grants and loans to private developers and businesses. In practice, these agreements are often used to reimburse a developer for public facilities or infrastructure that were provided in a private development project.

- Parking district Several of the envisioned components of the Energy Corridor Livable Center are dense private developments with structured parking. Many buildings could include ground-level retail uses that will have demand for proximate parking facilities that will be critical to market viability. Some buildings south of the freeway may be retail only. Also, the plan suggests significant public parks and open spaces that could be significant enough to create their own demand for parking. However, providing parking for each use at each destination could have serious negative implications for financial feasibility and also detracts from the urban design objectives of this plan.
- Hotel Occupancy Tax / Convention and Entertainment If artistic display or performance venues are included in the public parks and plazas in the Livable Center, they could be eligible for funding by the Convention and Entertainment Department, using the occupancy tax revenues generated by adjacent hotels as a justification.

METRO

• Tax Increment Reinvestment Zone (TIRZ) - A TIRZ could The core of this plan is the existing METRO Park & Ride.

METRO can obtain federal funding for transit facilities, including structured parking for Park & Ride commuters. METRO will also likely take the lead in finding private development partners for the Park & Ride site. At its Cypress Park & Ride facility, this was the approach used to seek a development partner, initially for retail only then expanding to mixed-use; the private portions are on a 99-year ground lease. METRO will seek development that promotes transit ridership first and foremost, followed by revenues to the agency. Federal Transit Agency (FTA) guidance indicates that any joint development on the site must be "physically and functionally related" to the transit objective the Park & Ride facility is serving. Actual funds from the FTA, however, must be used explicitly for transit facilities.

METRO may be able to contribute investment in other locations of the Livable Center if the improvements are at least partly to provide new or expanded transit service, such as changing the Addicks facility from a purely Park & Ride operation to a full Transit Center. Park Row expansion, construction or right of way purchase, for example, might benefit from METRO investment if special facilities such as bus-priority lanes were to be part of the design. Simply extending typical local bus service, without service-enhancing bus-targeted infrastructure, is not likely to qualify as sufficient for METRO to provide assistance of this type, however.

It should be noted that a street improvement could be eligible for federal CMAQ funding if the project enables METRO to provide new transit service.

Harris County

Within the incorporated area of the City of Houston, Harris County primarily undertakes investments related to parks and recreation, public safety, and flood control. Harris County Precinct 3 has already made significant investments in the Energy Corridor area to provide park space and hike / bike trails. The County has already committed to extending the Terry Hershey Park trail northward past IH 10 and other trail investments are planned around Addicks Reservoir.

Special Districts

In Houston, special districts commonly play key roles in implementing and managing improvements. Fortunately for this plan, the Energy Corridor District, a municipal management district, is already in place.

- Energy Corridor District The Energy Corridor District has a key role to play in implementing Livable Center projects. While its resources are generally insufficient to implement large capital projects by itself, the District is appropriately positioned to fund the environmental, design, and engineering activities needed to get projects ready for acceptance into other entities' funding programs. It also could act as a facilitator for agreements between property owners and public entities for tasks such as right of way acquisition and economic development agreements. The District could also fund operations and maintenance activities in the new rights of way and public spaces envisioned in this plan.
- Public Improvement District (PID) Certain projects of this Livable Center such as parks and public spaces and the proposed Ponte Vecchio-style bridge over IH-10 may be difficult to fund by existing public entities because they do not fit into standard funding and improvement programs. To address this problem, the property owners adjacent to these projects could consider requesting the formation of a Public Improvement District (PID). PIDs are created by the governing municipalities (in this case the City of Houston) and derive a revenue stream by assessing properties within their boundaries. The assessment amount must be tied to specific activities or projects that the PID will fund and could include both capital improvements and operating / maintenance activities.

The drawback to a PID is of course the additional property owner assessment required, on top of their existing tax and assessment burden. The property owners would need to perceive the market and financial benefits of the PID improvements and activities to outweigh the assessment costs (including reduced competitiveness in the market due to higher cost burden) in order to support PID creation. Some property owners in the Livable Center area might be willing to join, others might not. City Council may be unwilling to create the PID if includes recalcitrant or opposed property owners, creating the possibility of a less efficient "patchwork" district.

A PID can fund public improvements such as parks and open spaces. It can also fund some types economic development activities – meaning that it could also fund business recruitment and development, which may allow PID funding for the potential incubator space on the overpass.

Private / Nonprofit Sources

- Property Owners Association (POA) Essentially a private version of a PID, property owners would need to voluntarily agree to create a POA and incorporate membership into their ownership deed. A POA could perform many of the operations and maintenance functions that the ECD or a PID could take on, as well as help fund elements of the proposed freeway overpass and parks. It may be less limited in its activities than a PID, which must follow Texas law regarding eligible expenditures. Its formation and operation is also a purely private exercise which would not require action by a political body.
- Fundraising Some types of improvements and amenities are highly appropriate for fundraising efforts targeting local residents, businesses, and organizations, including some Houston-area foundations that offer grants for community improvements. The overpass "business incubator" is an excellent candidate for such fundraising, similar to that done for the Houston Technology Center in Midtown Houston. Other candidate beneficiaries include park and public space improvements and particular events that might be held in those facilities. This is a way to keep stakeholders involved increase the awareness of the Livable Center plan throughout the region.

The Energy Corridor District could consider creation of a not for profit 501c(3) affiliate organization as a fundraising vehicle for projects in this plan. An existing example would be Central Houston Civic Improvement (CHCI), the taxdeductible counterpart to Central Houston, Inc. CHCI helped fund projects such as Main Street Square in Downtown Houston.

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DEVELOPMENT COSTS

201 Using 2010 dollars and relying on industry 201 acceptable construction estimates, the table to 201 the right quantifies the overall anticipated Public 201 Improvement Costs and the resulting Private 201 Development Investment. 201

The developments and expected densities within the plan were determined using the "Most Likely" development scenario generated by the overall Energy Corridor Land Use study's "Summary Table Growth Potential for the Study Area". Below are the annotated quantities:

	Most Likely	Actual Plan	201
Office, Sq Ft	3,000,000	2,700,000	201 201
Retail, Sq Ft	420,000	436,000	201
Multi-Family, Units	2,300	900	201
Hotels, Rooms	315	400	201
Schools	1	2	201
			201

The primary difference between the "Most Likely" scenario and the "Actual Plan" are the number of Multi-Family units. It is anticipated that the larger number of 2,300 would be reached as development moves east once Park Row is connected through to North Eldridge Parkway.

If the funding for the two schools is excluded from the Public Improvement Costs, as bond referendums will cover their construction, the Public Improvement Costs of \$76,085,680 is anticipated to create a Private Investment of nearly \$671,000,000.

		Public Improvement		Private Development		
		Project	Costs	Project	Costs	
2011	A1	Terry Hershey Extension from I-10 to Park & Ride Road	\$2,500,000			
2011	A2	Addicks Village Streetscape & Parking Concept (Reclaiming Fortsmith)	\$7,500,000			
2013	A3	Wolfe School (via Katy ISD Bond)	\$30,000,000			
2013	A4			Lone Wolfe Office	\$4,000,000	
2012	A5			Lone Wolfe Parking Garage & Retail	\$2,000,000	
2012	B1	Purchase Park Row R.O.W. (600k sf @ \$8/sf)	\$4,800,000			
2013	B2	Build Park Row Extension with required utilities	\$12,500,000			
2013	B3	Houston Area Energy Education Center	\$75,000,000			
2014	B4	Addicks-Howell Road & Grisby Trail Enhancements	\$750,000			
2014	B5	METRO Park Row service Addicks to Dairy Ashford				
2014	C1	Transit Center, 2,000 Car Metro Garage, Street Improvements	\$22,000,000			
2014	C2a	Lined Bridge (Bridge & Approaches Only, Bridge: 800' x 100')	\$13,250,000			
2014	C2b			Lined Bridge Retail & Incubator Office Space (120k sf)	\$9,600,000	
2014	C3	Addicks Park & Ride Public Street Network & Infrastructure	\$1,520,000			
2015	C4	Livable Center Park	\$2,076,300			
2015	C5	Bridge Approach Park	\$4,189,380			
2015	C6a			East of Park & Ride Residential & Parking (75 du)	\$15,000,000	
2016	C6b			East of Park & Ride Residential & Parking (100 du)	\$20,000,000	
2017	C6c			East of Park & Ride Residential & Parking (75 du)	\$15,000,000	
2015	C7a			Addicks Office Development & Parking (350k sf office, 12k sf retail)	\$52,500,000	
2017	C7b			Addicks Office Development & Parking (750k sf office, 10k sf retail)	\$110,000,000	
2019	C7c			Addicks Office Development & Parking (250k sf office, 6k sf retail)	\$37,500,000	
2018	C8			Central Garage & Mixed-use (160k sf office, 42k sf retail, 110 du, 2700 sp)	\$50,000,000	
2018	C9			IH-10 Mixed-use Liner (21k sf office, 22k sf retail, 140 du)	\$32,300,000	
2020	Dla			Bernstein/Perwien Development Office & Parking (400k sf office)	\$60,000,000	
2020	D1b			Bernstein/Perwien Development Hotel (150 rooms)	\$20,000,000	
2016	D2a			North of Park Row Residential High Density (200 du)	\$40,000,000	
2017	D2b			North of Park Row Residential Townhomes (200 du)	\$35,000,000	
2016	D3			North of Park Row Roads & Infrastructure		
2017	E1	Post Office integration (Public/Private Swap, 15k sf)	\$2,500,000			
2017	E2b			BP West of Bridge Retail/Movie (105k sf Retail/Entertainment)	\$15,000,000	
2017	E2a			BP West of Bridge Retail/Parking (40k sf Retail, 530 sp)	\$5,000,000	
2018	E3a			BP East of Bridge Hotel & conference (250 rooms, 15k sf Retail, 500 sp)	\$40,000,000	
2020	E3b			BP East of Bridge Retail/Parking I (60k sf Retail, 150 sp)	\$6,000,000	
2020	E3c			BP East of Bridge Office I (350k sf Office, 12k sf Retail, 1100 sp)	\$45,000,000	
2020	E3d			BP East of Bridge Retail/Parking II (30k sf Commercial, 15k sf Retail, 120 sp)	\$6,000,000	
2020	E3e			BP East of Bridge Retail/Parking III (50k sf Retail, 150 sp)	\$6,000,000	
2020	E3f			BP East of Bridge Office II (350k sf Office, 12k sf Retail, 1100 sp)	\$45,000,000	
2018	E4	Other Trail Upgrades	\$2,500,000			
Tote	als:	Total Public :	\$181,085,680	Total Private:	\$670,900,000	
		Total Schools:	\$105,000,000	Total Office:	\$354,000,000	
		Total Public without Schools:	\$76,085,680	Total Residential:	\$125,000,000	
				Total Retail:	\$32,000,000	
				Total Hotel:	\$60,000,000	
				Total Mixed-Use:	\$99,900,000	

PARTNERSHIPS WITH STAKEHOLDERS CAN LEVERAGE PRIVATE INVESTMENT

Phase A

Phase B

(47)

CONCLUSION

A BLUEPRINT FOR A MORE SUSTAINABLE FUTURE

ENERGY CORRIDOR LIVABLE CENTERS STUDY CONCLUSION

walked, bicycled and rode the bus to get to know the study area better. We verified demographic and land use data and estimated the square footage of future mixeduse development. The Team's engineers, designers and planners produced 3-D mass models, illustrations and plans based on the observations, public comments and projected development. We met with property owners, business owners, elected officials, agency representatives, employees and residents in three 3-day public workshops to review the concepts and make revisions.

The Energy Corridor District Livable Centers Study Team The first transit, parking, streetscape, bicycle and pedestrian improvements are proposed for the restaurant area formerly known as Grisby Square. The area has also been called Grasshopper Square and Letitia Village. Agreeing on a name and a marketing plan for this delightful restaurant area will help promote this midday, evening and weekend destination. Protecting the grand Live Oak trees, cleaning up the overgrown vacant lots, adding transit amenities and expanding casual dining experiences will make it a place that encourages walking, bicycling and transit use.

Interested property owners, developers and public agencies are encouraged to review and evaluate the Energy Corridor District Livable Centers Study. The Energy Corridor District will continue to revise the plan to respond to real estate market realities and public budgets. We recognize that good planning includes a shared vision of where we want to go, bringing interested parties together to reach consensus and coordinating efforts in an on-going effort.

METRO's and BP's involvement are crucial to implement

much of the plan. The planning process occurred from May to July 2010. In that time METRO appointed a new board of directors and hired a new chief executive officer and BP responded to the Deepwater Horizon oil spill in the Gulf of Mexico. METRO's senior management continued to participate and encouraged us to work on the transit oriented development concepts for the Addicks Park & Ride Lot. The Deepwater Horizon oil spill was capped and BP's WestLake Campus leaders also asked us to include their future WestLake Commons mixed-use project in the plan.

The plan calls for splitting the 75 Energy Corridor Connector bus route into two separate routes. A northsouth route will run from the Addicks Park & Ride Lot to the Eldridge Parkway corridor. A new east-west route along IH-10 would connect apartments, office centers, restaurants and the Addicks Park & Ride Lot providing faster service and more options for transit use along N. Dairy Ashford and Park Row.

Perhaps the study's biggest idea is the proposed Livable

Centers Bridge over IH-10. The bridge is proposed to connect high density transit oriented development on METRO's Addicks Park & Ride Lot on the north side to future WestLake Commons mixed-use development proposed by BP on the south side. Future plans for the Addicks Park & Ride Lot and BP's West Lake Commons lifestyle development project must provide space for the Livable Centers Bridge to make sure that the bridge aligns with the proposed transit mall and buildings.

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The Livable Centers Bridge can function as an exclusive transit facility with bicycle and pedestrian access or as a multi-modal facility adding local traffic. The bridge needs to be built to its ultimate width so that future construction will not conflict with transit service on the bridge. Transit amenities and commercial businesses can be added to the bridge when the real estate market is ready. The bridge must provide clearance for future rail transit underneath in the center of IH-10. A future rail-boarding platform would be connected with steps, escalators and elevators to the shops, promenades and transit mall above fulfilling the Energy Corridor Station at the Livable Centers Bridge.

