

A COMMUNITY CONVERSATION ABOUT GROWTH



WEST HOUSTON PLAN 2050[®]

Envisioning Greater West Houston at Mid-Century

A PROJECT OF THE WEST HOUSTON ASSOCIATION



BY 2050, GREATER WEST HOUSTON WILL ADD...

■ Over one million new residents — more than the current population of San Jose, San Francisco or Austin and will become a region with a total population of 2.2 million. ■ 500,000 new jobs — equivalent to the current employment of Oklahoma City, Hartford or Salt Lake City — resulting in a total employment (925,000) by mid century equivalent to the current employment of San Jose, Austin or San Antonio. ■ 260 square miles of new residential development — added growth larger than the current city land areas of San Jose, Salt Lake City or Greenville, South Carolina.

A LOOK INTO THE FUTURE OF GREATER WEST HOUSTON

■ As the population and employment data in the adjoining tables indicate, Greater West Houston (a 1000-square-mile urbanized section of Harris, Fort Bend and Waller Counties) has moved from being a sparsely populated rural region in the 1960s to a population and employment giant in the 21st century.

■ Growth is more than just numbers, it portends the need for tens of thousands new homes and millions of square feet of commercial facilities all with the supporting infrastructure and services to allow them to operate efficiently. ■ We must ask ourselves how do we provide the infrastructure to accommodate this projected growth. ■ Much, including our continued quality growth, depends on the answer to that question.

GROWTH IS CERTAIN.

Greater West Houston Growth

Population Growth of Greater West Houston

Year	Number	Increase	Percentage
1970	184,000		
1980	352,000	168,272	91%
1990	762,724	410,452	117%
2000	1,065,000	302,276	40%
2035	1,834,162	769,162	62%
2050	2,163,801	329,639	20%

Employment Growth of Greater West Houston

Year	Number	Increase	Percentage
1970	16,794		
1980	148,774	131,980	785%
1990	331,770	182,996	123%
2000	425,138	93,368	28%
2035	774,923	349,923	82%
2050	924,831	149,908	19%

Greater West Houston Area Required to Accommodate Residential Growth 2000-2050

Year	Population	Sq. Miles	Increase	Percentage from 2000
2000	1,065,000	250		
2035	1,834,162	431	181	72%
2050	2,163,000	508	258	103%

SOURCE: 2035 Forecasts – Houston Galveston Area Council; 2050 Forecasts & Land Area Usage – West Houston Association

Throughout our history, as the economy has grown Houston has expanded to accommodate its significant growth.

From our current vantage point in 2007, we look back at a reasonably compact Houston of the 1960s, which was almost completely contained within a 14 mile radius of the central (and only) business district that was mostly without major freeways or transit.

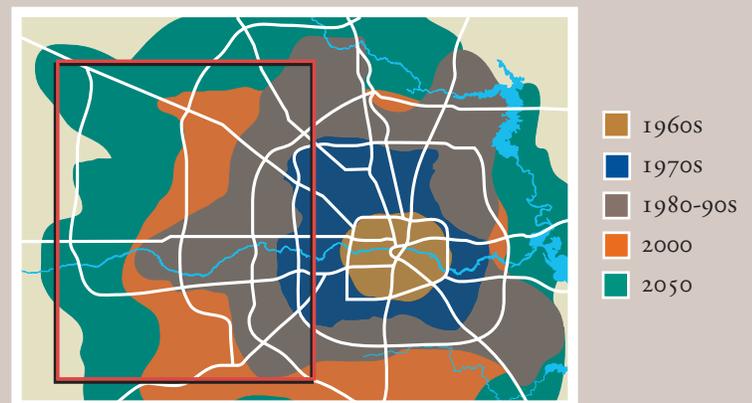
Reaching Outward — Like all cities modern or ancient, the influx of new jobs and families expanded these boundaries. Aided by favorable topography, the Houston of the 1970s saw residential growth expand west to the State Highway 6 area and north to the FM 1960 area. Also witnessed was the beginning of the migration of employment centers from the central business district to the Galleria and Greenway Plaza areas.

The 1980s and early 1990s brought continued residential growth further from the city center to areas like The Woodlands, Kingwood, Cinco Ranch, First Colony and Clear Lake. Following the suburban housing trend, employers began to migrate to these suburban locations in newly created employment centers like Westchase, the Energy Corridor and Greenspoint.

To date these trends have continued, driven by the demand for new, affordable housing and quality schools. The West Houston Plan 2050 comes at a time of some apprehension and uncertainty about the future and ongoing discussions of how to mitigate the negative effects of growth and urban sprawl. Our belief is that no proposals currently are being discussed that will change the basic forces and economic trends that have driven families and employers to seek improved quality in their living and workplace experience. In our view, nothing exists that will alter the current trend toward this geographically diverse growth pattern.

Suburban/Urban Growth Model Benefits — We see a continued pattern of suburban growth and job migration complemented by continued redevelopment, densification and revitalization of the city center, creating an even more dynamic first class urban living and working experience. Along with new greenfield growth in suburban areas, we must plan for greater densities in strategic areas of the “original” 1970s West Houston.

Houston Area Growth



GROWTH IS CERTAIN, QUALITY GROWTH TAKES PLANNING.

With Greater West Houston on track to more than double its population and employment base by mid century, the goal of the West Houston Association is to encourage quality growth throughout the region's residential and commercial developments.

To meet this challenge, the West Houston Association is introducing **West Houston Plan 2050: *Envisioning Greater West Houston at Mid-Century***, an initiative that anticipates the myriad of ways in which the enormous projected influx of new households, jobs and development will impact our region's infrastructure and quality of living. It will require work and dedication to continue to maintain the high quality of life that is a hallmark of Greater West Houston.

With this initiative and its recommendations, we will proactively offer solutions to meet the extraordinary challenges that lie ahead for the region.

West Houston Plan 2050 has several key goals:

- Keeping Greater West Houston the premier place to live, work and play in the Greater Houston Metropolitan Area.
- Making Greater West Houston even better by setting new standards for quality growth.
- Anticipating infrastructure needs and avoiding extensive periods when infrastructure and quality of life significantly trail the demand for improvements.

With the completion of several very critical transportation projects, the future of Greater West Houston has never been brighter. If we continue to be proactive — if we look to the future and plan ahead to 2050 — we can meet the greatest challenge Greater West Houston has ever faced.

■ PREPARE NOW FOR MORE WIDESPREAD QUALITY GROWTH

West Houston Plan 2050 interprets how growth will impact our region's infrastructure, and how we can use quality growth solutions and strategies to make Greater West Houston of the future the best possible place to live, work and visit. Our enviable quality of life — the engine for past and projected growth — cannot be taken for granted.

The key to success in improving our quality of life in the face of this growth is to anticipate, acknowledge and prepare. In order

to prepare for the future we must first understand that future growth will mirror our historical growth, it will be significant and challenging.

This population and job growth will bring unprecedented levels of income and revenue to the region. It will also increase demand for new infrastructure from roadways to hospitals to schools. When we build, we do not build just to accommodate the growth of yesterday or for today, we build for future growth. West Houston has been fortunate to have enlightened and forward-thinking government at all levels addressing our growth. To address the future, this foresight must be continued and strengthened.

The challenge Greater West Houston faces is to ensure that the future growth we experience is “quality growth.”

■ BEGINNING A CONVERSATION

What is the next step? The West Houston Plan 2050 initiative contains several key recommendations in primary focus areas:

- Transportation
- Drainage & Flood Control
- Water Supply and Wastewater Treatment
- Education
- Conservation & Open Space
- Quality Planned Communities — Residential and Commercial Developments
- Infrastructure Rehabilitation

Implementation of these infrastructure recommendations will require a new level of dialogue between public and private sectors in Greater West Houston. The West Houston Association proposes a multi-jurisdictional, multi-disciplinary public/private initiative to monitor growth and the planning, funding and deployment of infrastructure anticipating that growth. The recommendations highlighted in the West Houston Plan 2050 will require continued scrutiny by the private and public sectors in order for Greater West Houston to maintain its quality growth profile.

In addition, the West Houston Association will embark on a unique private-sector based program — *the Quality Planned Community initiative* — to bring master planned community standards to more residential and commercial projects in Greater West Houston.

We propose a community conversation about how to prepare for the future and assure quality growth. We hope the West Houston Plan 2050 will be a process through which interested parties in Greater West Houston can begin to contribute to a vision — and a roadmap for the future.

■ QUALITY GROWTH: THE CHALLENGE

Greater West Houston is a suburban environment surrounding numerous commercial and retail activity centers and is one of the most dynamic growing areas of the country. Currently, it is home to more than one million residents and over 400,000 employees.

The challenge is to respond to market demands with quality products. As the region grows and new development occurs, the West Houston Association believes each resident and employee should be afforded the highest possible quality of life and work experience.

Growth Provides Financing for Infrastructure:

Much of the infrastructure supporting Greater West Houston's population and employment growth has been implemented utilizing bonds financed by new residents. From the earliest days of growth, major thoroughfares and streets, wastewater facilities, storm water detention systems and parks and conservation areas that accompanied the growth — or more accurately facilitated growth — have all been built and financed by those benefiting from the facilities.



Quality Growth is the application of “best practices” in the residential and commercial markets to achieve the highest “quality of place” living and working possible. It is important to balance these with purposeful attention to the natural environment. Our belief is that growth and development can coexist in a harmonious and mutually beneficial relationship with enhanced quality of life.

With Quality Growth the West Houston Association is committed to pursuing public and private policies and defining priorities that will make Greater West Houston a preferred place to live, raise a family, receive an education, work, shop and recreate. We are equally committed to securing fundamental private sector rights and responsibilities and addressing market demands for amenities that enhance living and working environments.

These principles of Quality Growth will help guide our region's future development:

- Recognize that quality of life is the essence of Quality Growth
- Ensure that the development process is predictable and easily navigated
- Ensure that public money is spent efficiently
- Acknowledge and address the needs of our current built environment
- Alleviate traffic congestion by providing sufficient system capacity and a range of transportation choices
- Enable freedom for people to choose from diverse working and living environments
- Protect public and private investment in existing neighborhoods
- Enhance each community's character, sense of place and quality of life
- Protect environmental quality and conserve open space
- Anticipate the growth and needs of future generations
- Encourage Quality Growth goals rather than enforce through legislative or governmental means
- Communicate with the public about existing programs and their effectiveness

FOCUS: TRANSPORTATION

■ THE ISSUE

The dramatic growth projected for Greater West Houston will place tremendous pressure on the region's transportation infrastructure.

■ CHALLENGES

Perhaps no greater challenge lies before Greater West Houston than to provide the transportation infrastructure for 2.2 million residents of Greater West Houston at mid century as well as to accommodate regional, intrastate and interstate mobility needs.

Greater West Houston is a transportation power house. When projects currently under construction or anticipated to be constructed in the foreseeable future are completed, Greater West Houston will have a "backbone" transportation infrastructure unsurpassed by any other part of the Houston metropolitan area or any other major city in the United States.

The key to this backbone system will be the reconstructed Interstate 10 with its toll and managed use lanes for transit, vanpools and carpools. Other critical components include the Westpark Tollway, the Grand Parkway, US 290 corridor and the Sam Houston Parkway. Together, these transportation assets set Greater West Houston apart and provide an excellent base to build upon.



However, major challenges lie ahead. Since the vast majority of job growth will be suburban and primarily focused in major employment centers, we must expand circumferential roadway capacity on major arterials and freeways/tollways.

Also, we will need a transit access alternative for the commuters traveling to employment centers from the many suburban areas that will dot Greater West Houston. For those most heavily traveled corridors, we should plan on and implement high-capacity rapid transit access.

Greater West Houston of 2050 will benefit from a major air cargo facility to expedite inter-modal freight movement. This will encourage the development of mega-distribution centers to support the expanding economy.

Most importantly, we must advocate for a significant level of local, state and federal transportation funding for West Houston Region projects. Hundreds of millions of dollars will be needed

by all levels of government to build new facilities to support the growth in the region and our role will be to help support the means by which these projects are financed. Traditional financing methods such as bonds for local roads and tax funds for state facilities will not be sufficient to build the needed infrastructure. User-paid financing will become more widespread in system development as the demand for new projects meets diminishing funding sources.

■ SOLUTIONS & OPPORTUNITIES

US 290 Northwest Freeway, Tollway & Transit Corridor — Planning is well underway on the expansion of US 290 from Loop 610 to beyond FM 2920. This multimodal corridor with freeway, variably tolled managed use lanes and transit will have to be extended well before mid century to the city of Waller.

State Highway 6 — must become a super street with grade separations at crossings with principal arterials. This will enable it to function as an expanded capacity commuter facility to serve the Energy Corridor commercial office concentrations on Interstate 10 and residential areas to the north and south.

Sam Houston Parkway — Beltway 8 West must be expanded before mid century to serve the growing population and employment concentrations in the Energy Corridor, Westchase and Memorial City that will continue to develop. The Beltway expansion could serve as a transit facility because of the growing urbanization in the corridor and would facilitate cross-region commuting.

Westpark Tollway expansion & extension west of the Grand Parkway and expanding the existing sections of Westpark east of State Highway 6.

Preserve and increase rights-of-way for expansion of existing major transportation corridors to include rights-of-way for future toll roads, HOT lanes and transit options. Expanded right-of-way will be necessary for innovative transportation solutions such as limited-access "express streets" and flaring intersections of major thoroughfares for increased through lanes and dedicated turn lanes. To facilitate expansion and improved future mobility, we should strongly consider the expansion of the currently required 100' right-of-way to a 120' minimum for major thoroughfares throughout their length.

Add express streets — These streets would be limited-access "express streets" with grade separations at major interchanges that would be laid out on an approximate five to six mile grid, providing alternative travel routes to the freeway/tollway system. Making this new class of thoroughfares a reality will require changes in current public policies governing how our thoroughfare system is planned and implemented.



Transportation infrastructure: *The Grand Parkway will not only provide mobility but is a reflection of the excellence of the region's quality growth efforts.*

Address system repair and rehabilitation — Preservation of the existing transportation network must be a first priority with rehabilitation planned every 10 to 15 years. New streets and thoroughfares must be constructed for extended life to minimize repair and rehabilitation expenses.

High-capacity rapid transit will be needed long before mid century to serve the growth and commuter needs along three radial corridors — Interstate 10, Westpark and US 290 — and at least one circumferential roadway, either SH 6 or Beltway 8. Technology for these systems is flexible but the guideways should be grade-separated so as not to interfere with vehicle traffic.

Plan for a suburban-style transit system — Not easily gained but necessary for future mobility, these systems must be tailored to the unique needs of Greater West Houston. Designed for low-density, primarily residential communities, this transit system could provide commuters an alternative during peak travel periods.

Prairie Parkway — We believe our westward growth will require a new, major roadway linking US 290 and the Westpark corridor west of Katy. We need to begin planning now for this major north-south freeway. The Prairie Parkway would be located on the fast-growing western edge of Greater West Houston six to 10 miles west of the Grand Parkway and would link the cities of Waller, Katy, Brookshire and Fulshear and eventually continue south to US 59 South.

Lone Star Parkway (State 529 express street) extending west from west of State Highway 6 into Waller County to the Prairie Parkway. The upgrading of this arterial will be critical to mobility midway between Interstate 10 and US 290. At its intersection with both the Grand Parkway and the Prairie Parkway, major commercial concentrations are expected.

Area-wide computerized signalization systems can make the existing network of thoroughfares and highways work most efficiently by implementing real-time sensors of traffic flow and funneling traffic to portions of the system that are underutilized. We must add every efficiency possible to the transportation system. This includes widely deploying what we call a “quick flow” traffic signalization system that synchronizes traffic signals to the volume and flow of vehicles on local streets, express streets and freeways. This system would anticipate periods and directions of peak travel demand and act to reroute traffic away from congested routes. Harris County and TxDOT are in the early development stages of this system in a selected area of West Houston. The system needs to be rapidly expanded to meet our growing demand for traffic control.

FOCUS: WATER SUPPLY & WASTEWATER TREATMENT

■ THE ISSUE

Adequate supplies of surface water and effective and efficient wastewater treatment will remain critical in the support of Greater West Houston growth. Utility districts have been at the heart of providing site-specific infrastructure. They will be challenged to continue providing economical and efficient services on a more regionalized scale.

■ CHALLENGES

The metropolitan area's surface water supply should be adequate through mid century. However, in order to transport the supply to where future growth places the demand, we should begin now addressing the issues of the distribution of the water supply and potential future water sources.

Sizing efficient wastewater treatment facilities for development is a critical and fundamental economic issue. While treatment facilities can be built incrementally as a development grows, they must also be permitted to verify that they operate within the guidelines established by the State of Texas.

■ SOLUTIONS & OPPORTUNITIES

Local and state governing/regulatory agencies and the private sector must reach consensus through continued dialogue to address both the adequacy of water distribution as well as the efficiency and cost effectiveness of planned regional water systems. With age, consolidation of smaller treatment facilities may provide long-term operational cost and discharge quality benefits. However, converting plants can be expensive and redundant in the short term.

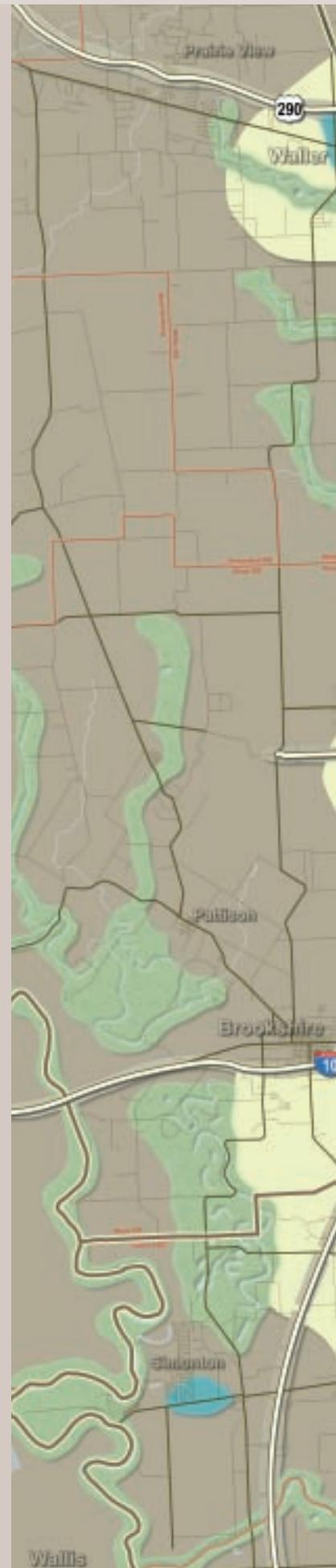
GREATER WEST HOUSTON AT MID-CENTURY

This map depicts a likely development scenario for the 1000-square-mile Greater West Houston area with the need to accommodate the one million new residents and nearly 500,000 new jobs expected by 2050.

- By 2050 the total population of Greater West Houston will be 2.2 million. Employment will reach nearly one million.
- Approximately 258 additional square miles of residential development are required to accommodate the new residential population.
- This land use forecast suggests that by 2050 residential development will extend west along existing and new radial transportation spines and fill in along two new circumferential corridors.
- Office, light industrial and retail development will concentrate at the nodes of major roadways, principal corridors, along Interstate 10, Beltway 8 and the Grand Parkway.
- The three regional activity centers serving as “downtowns” for the region — the Energy Corridor, Westchase and Memorial City/CityCentre — will expand. Several new satellite commercial concentrations will develop in strategic locations on principal corridors.
- Major new infrastructure initiatives in areas such as flood control and waste water treatment will advance to support new development.
- Quality of life will play a major part in providing Greater West Houston with parks, conservation areas and educational facilities to help ensure sustainable growth.
- Quality Growth initiatives will help ensure that both residential and commercial development is attuned to the market for higher levels of amenities.

LEGEND

- Residential by 2050
- Current Residential
- Conservation/Green Space
- Retail/Commercial/Multiuse Concentration
- Employment Concentration
- Major Transportation Infrastructure
- Future Major Transportation Corridors



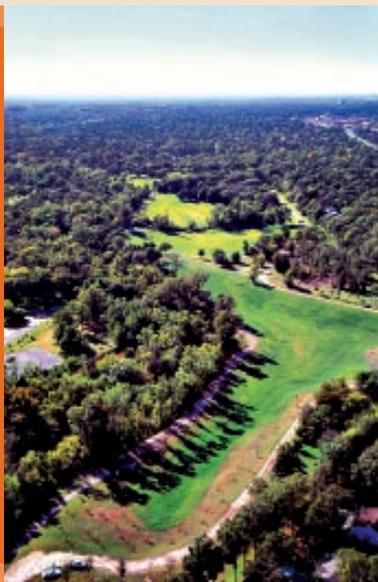
FOCUS: DRAINAGE & FLOOD CONTROL

■ THE ISSUE

One of the most crucial but least understood and arguably most poorly funded elements of Houston's infrastructure is drainage and flood control. Given the relatively flat topography of the region, we must have a serious, well-funded flood protection and drainage capital program. From Tropical Storm Allison in 2001 to the busy hurricane season of 2005, flooding issues have drawn wide local and national attention. The growth the West Houston Plan 2050 addresses will require new and expanded infrastructure to reduce not only structural damage from flooding, but also the adverse economic impacts.

Greater West Houston — Reducing

Flood Impact: *Since the mid-1980s new development in Harris County has implemented what is in effect a near “zero impact” drainage standard utilizing on-site or regional retention and continually refined drainage and retention criteria. The drainage and flood control system of all counties in Greater West Houston must be similarly protective of structures to avoid downstream flooding.*



■ CHALLENGES

As Greater West Houston grows, we must plan for adequate drainage infrastructure that will be cost-effective while at the same time preserve areas for recreation and conservation of open and green space.

■ SOLUTIONS & OPPORTUNITIES

To further enhance the flood control system in the unincorporated areas outside the city of Houston, Greater West Houston has the opportunity to advance the use of the Frontier Channel, an innovative drainage solution currently being explored in our area of interest.

The Frontier Channel concept being developed by the Harris County Flood Control District envisions a series of riparian corridors (250 to 700 feet wide) that combine flood control, water quality, wildlife habitat and recreational potential. These broad, functional greenbelts will be naturally landscaped and can be developed to include greenbelt pedestrian and bike trails, sports fields and pocket parks.

The Frontier Channel envisions a “pay-as-you-go” solution for future growth, wherein developers contribute right-of-way for the channel and build their portion of the corridor as they develop adjacent land. The volume excavated by developers will provide the necessary mitigation (detention) to offset their development impact.

We believe solutions such as the Frontier Channel embody the best characteristics of quality growth — meeting a critical public need in a cost-effective manner, while also addressing aesthetic and quality of life concerns.

While the Frontier Channels concept will help expand retention capacity west of the reservoirs, we should explore expanding the detention capacity of the Barker and Addicks reservoirs to enable them to meet possible future drainage demands under extreme events. This would expand current protection for residential and commercial properties downstream on Buffalo Bayou and would also allow Buffalo Bayou to remain in its current native state, providing a scenic natural source for Greater West Houston.

With relatively minor improvements, we can utilize the region's conservation areas as natural holding areas for rainfall.

We will promote the added benefits of developing the recreational potential of flood control detention facilities. Some of the most popular parks in the Houston area have been created in these detention areas by offering popular amenities such as sports fields and hike-and-bike trails.

Drainage System Rehabilitation — Even though areas of Greater West Houston within the Houston city limits are relatively new and have more modern drainage systems, over time these facilities will need to be rehabilitated. By mid century some of the original drainage systems serving the eastern portions of West Houston will be 80 years old. Today, the city of Houston's drainage system lacks a significant, dedicated funding source sized adequately to make citywide progress on the issue of rehabilitation. A significant new city of Houston funding source must be developed to begin addressing this issue.

FOCUS: EDUCATION

■ THE ISSUE

A well educated workforce is the key to economic success and social progress for any region. Today, workers and employers in Greater West Houston compete not only with their peers from within the region, state and nation, but globally as well. This will be increasingly true by 2050.

■ CHALLENGES

Greater West Houston needs to develop a K through college education infrastructure that will help its stakeholders thrive in the 21st century's globally competitive environment. Quality public education has traditionally been a magnet for growth in Greater West Houston. We must work to maintain our educational advantage even as our region adds significant population and the demographics of that growth change.

■ SOLUTIONS & OPPORTUNITIES

Greater West Houston is renowned for high quality primary and secondary education. Higher education opportunities are not as prevalent and must be improved. We must establish a goal of adding to our region a fully accredited four-year and/or graduate level university serving West Houston during the first half of this century.

We must promote the expansion of onsite and extension programs at The University of Houston System (UHS) at Cinco Ranch. Presently, Cinco Ranch UHS offers junior, senior and

graduate classes leading to more than 30 bachelor's and master's degrees, providing a strong basis for expansion. The University of Houston should be encouraged to enhance and expand their collaborative partnerships with other regional institutions of higher learning.

Additionally, community colleges offer an entry point to higher education for an increasing number of students. We will advocate an even stronger presence for the community college systems active in Greater West Houston. Providing an important affordable alternative for many students, community colleges are beginning to adapt many characteristics of four-year colleges. In some instances, community colleges are the only source of specialized vocational training in the area.

Higher education is not our only challenge. As the demand for skilled craftsmen grows in the region, our educational system must provide a means to train and educate this workforce.

Greater West Houston includes 15 independent school districts. These systems must be prepared organizationally and financially to address the demands of a growing and more diverse school-age population within their districts. Some are highly regarded and widely recognized. Other districts located in the area that presently are more rural in nature need to begin planning now to lay the foundation for future explosive growth. We must support and encourage all public school districts in Greater West Houston in their pursuit of academic excellence.



Community Colleges: *Educational excellence is more than a priority for residents seeking quality of life in West Houston. It is also the means by which the region provides the educated workforce that will be required by employers well into this century.*

FOCUS: CONSERVATION & GREEN SPACE



■ THE ISSUE

As quality of life increasingly becomes a critical consideration for where people chose to live and do business, what role will this issue play as Greater West Houston enters an era of unprecedented growth?

■ CHALLENGES

With its tradition of quality growth, Greater West Houston is well-prepared to meet the challenge of balancing growth and conservation. By definition, quality growth is sustainable growth. As a key ingredient of sustainable growth, the preservation of natural land and habitat must be planned for and encouraged to the greatest extent possible. Greater West Houston will continue to see an increase of land devoted to single and multi-family residential and commercial areas. Our region presently incorporates tens of thousands of acres of agricultural and prairie land. Our challenge will be to conserve portions of these areas while at the same time accommodating the growth we will experience.

■ SOLUTIONS & OPPORTUNITIES

Home to the nation's largest urban park system — covering over 28,000 acres — Greater West Houston looks toward 2050 with a considerable advantage over other regions with much less green space.

We have the opportunity to capitalize on this asset to identify and preserve other large parcels of green space in perpetuity, enhancing the quality of life and the overall attractiveness of the entire region. An excellent example is the preservation of 13,000 acres of native prairie habitat by the Katy Prairie Conservancy, which serves to protect wildlife and preserve open space. Ongoing efforts are planned to expand this area up to 40,000 acres.

Houston Clean Air: *Houston, through the early part of the 21st century, is meeting a significant challenge to reduce hydrocarbon and nitrous oxides emissions (the only federal emissions standards Houston exceeds), which contribute to smog in the region. All indicators show that Houston has significantly improved its air quality over the last 15 years. In addition, technological improvements to the internal combustion engine and new manufacturing techniques will translate into continued air quality improvement through 2015. Our view is that through 2050 Houston, along with other major cities in the United States, will continue this trend and our air quality will continue to improve.*

In addition, we can begin preliminary efforts to explore conserving large tracts of land in Waller County, where dramatic growth is projected. The heavily wooded creek running from Brookshire north through Waller County could be a strategic conservation target.

Since natural habitat can be seen as an amenity for residents and users, in some developments conservation areas are replacing golf courses as popular amenities for residents with the added advantages that such conservation areas cost much less to develop and operate.

FOCUS: RESIDENTIAL COMMUNITIES

■ THE ISSUE

Housing to meet the expected market demand will require significant resources. Major new residential developments will be necessary to meet anticipated housing demand.

■ CHALLENGES

As Greater West Houston increases its residential area by over 100%, we must work to ensure that new growth is “quality growth.”

As detailed on the West Houston Plan 2050 map, it is projected that future residential growth will fill out Harris County to the west, northern Fort Bend County and move into Waller County along principal arterials.

■ SOLUTIONS & OPPORTUNITIES

Our vision of quality growth embodies the concept of sustainable, environmentally-friendly development and convenient, aesthetically pleasing communities created with retail facilities in close proximity.

The West Houston Plan 2050 introduces our Quality Planned Community concept that takes the many attributes already present in “master planned communities” in our region and applies them to smaller residential development.

The residential products most admired and emulated in Greater West Houston are typically the larger master planned communities. These types of developments are critical to sustaining the growth model of new suburban areas and they have become the benchmark by which all suburban development is measured. More and more master planned community concepts and standards are being incorporated in smaller residential areas. Innovation, uniqueness and dynamic responsiveness to market demand make quality growth an ever-evolving concept. The Quality Planned Community concept is envisioned as a vehicle to help encourage smaller developments to see the benefits that enhanced development standards bring their projects.

Since the Quality Planned Community project is so important and has such a great potential to enhance all residential development in the region, the West Houston

Association has already begun working with other groups in the Houston area to expand this concept to the Houston metropolitan area. Within subdivisions, properties are protected by deed restrictions originally applied by the subdivision developer. As subdivisions mature, homeowner associations are vital for the continual enforcement of standards to which the development was originally built.



Quality Residential Development:

The Quality Planned Communities project is designed to set benchmarks for residential development throughout Greater West Houston.



The quality of residential communities in West Houston is on par with or surpasses that of any other area in the country. The quality is evident in community standards, superior access and educational excellence. The challenge through mid century will be to ensure this quality development throughout the region.

FOCUS: COMMERCIAL INFRASTRUCTURE

■ THE ISSUE

Greater West Houston will gain nearly 500,000 new jobs to total nearly one million jobs by mid century. What is the nature of office, research, technology and industrial space required to accommodate this growth and where will it be concentrated?

■ CHALLENGES

Greater West Houston is currently home to three major employment/retail activity centers. Westchase with 55,000 employees and the Energy Corridor with over 72,000 employees are headquarters to major corporations and each has in excess of 15 million square feet of office space. The Memorial City and CityCentre areas are unique blends of major retail, office and services. Numerous additional office, light commercial, industrial and retail developments are clustered throughout the region. Nearly 20% of the Houston area's rentable office space is located in Greater West Houston.

The existence of these major office complexes located 12 to 17 miles west of the central business district is emblematic of the continuing opportunities and challenges of Greater West Houston. What at one point was considered a "remote suburban office location" is now considered a robust, urban-style concentration of employment and services on a scale exceeding most American cities today. These employment centers have become the central business districts for the new West Houston Region. In fact, by mid century the Energy Corridor will be the geographical center of metropolitan Houston.

The major task will be to maintain a high level of access to these centers from the surrounding residential areas and other business centers in the region. This will be complicated by the fact that existing centers of activity have been served by what is essentially a residential and rural style street and roadway system. Transit service to these centers has been minimal or non-existent.

As existing office centers such as Westchase and the Energy Corridor expand and attract additional corporate activity, critical services such as utilities become more important. Already, delivery of some services such as power that is expected by users to be stable are showing signs of stress under the increased demand. Providers of these services must adequately plan for the growth of demand not only in existing employment centers but also in the new ones that will evolve by mid century.



The Energy Corridor and Westchase will continue to occupy the role of corporate headquarter centers and, along with City Centre/Memorial City area, will form the "downtown" of Greater West Houston.

Because commercial development in all of its forms is such an important part of the built environment, it has tremendous potential to impact the quality of the region. Quality growth standards must be encouraged as new office, industrial, retail and institutional development in Greater West Houston occurs.

■ SOLUTIONS & OPPORTUNITIES

Given the projected growth and the job migration trends to suburban locations, several new activity centers — areas of concentrated employment, retail and support services — will arise in Greater West Houston. West Houston Plan 2050 has mapped the most logical locations for additional concentrations of employment based largely on known planned development and new and expanded transportation corridors. It is in the region's best interest to encourage development of these employment centers in locations where the infrastructure can most adequately support them.

"Town Center" type commercial development in close proximity to residential areas and near current and future major arterials and transit facilities should be encouraged. These centers tend to be relatively compact, mixed-use areas combining retail, office and multi-family residential. Connected to nearby single-family residential areas by greenbelt trails, such town centers encourage pedestrian activity and lead to less auto use. Typically, they also have higher standards of aesthetics, architecture and landscaping.

Since traditional neighborhood retail developments will likely continue to comprise the majority of new retail space, we must develop and adhere to stricter standards of landscaping, architecture and design in order to make these developments more sensitive, appealing and sustainable. With such guidelines in place, quality neighborhood retail developments can serve consumer demand and contribute to the region's quality growth.

The commercial element of the West Houston Association's Quality Planned Community initiative will address this issue with suggested standards for new commercial development. We have the opportunity to have a positive impact on commercial development by creating standards for landscaping, screening, setbacks, restricted onsite and offsite signage, driveway and building materials, shared driveways and limited thoroughfare entry points. Our region's challenge will be to encourage widespread use of these standards. The Quality Planned Development program will be instituted to encourage adoption of commercial development standards. Mirroring the Quality Planned Community program, the Quality Planned Development initiative will identify key standards that developers may voluntarily implement.

In an interconnected global economy where small business is creating more than 70% of new jobs, we will see continued use of light office/distribution facilities. The trend to these lower cost or "value offices" facilities by those who had previously worked in traditional office buildings will continue.

Addressing power distribution, West Houston companies and CenterPoint Energy are planning new power infrastructure, both natural gas and electrical, to provide the most reliable electrical service available for existing and future businesses.

FOCUS: INFRASTRUCTURE REHABILITATION

■ THE ISSUE

All infrastructure (freeways, thoroughfares, transit, wastewater and drainage facilities) in Greater West Houston built over the next 15 years will begin require significant maintenance if not total rehabilitation before mid century. For a growth-oriented community such as Greater West Houston that is focused on providing new infrastructure, rehabilitation costs will become a priority.

■ CHALLENGES

In 2005 fully 20% of existing developed land area in Greater West Houston was built beginning in the early 1970s and continued into the early to mid-1990s. Some of the supporting infrastructure for this expansion is well over 40 years old. An additional 30% of the existing developed land area, which was developed between the early 1990s to the present time, will be 30 years old in the 2020s. Untouched, West Houston by mid century will have an infrastructure that is approaching 100 years in age.

Original design and construction quality, degree of utilization, soils and climate conditions, and the frequency and type of routine maintenance will affect the useful life of any element of infrastructure. Generally, the more aggressive these are the longer the life of any infrastructure element and the lower the life cycle costs. On average the infrastructure life of 30 years is at the higher end. Toward the end of this cycle, costs of maintenance will begin to increase significantly.

For example, the Regional Transportation Plan — roadway, transit, port and aviation facilities — for the eight-county area calculates that by 2025 system preservation costs will total 28% or \$21.3 billion of a total \$77 billion that will be spent on transportation services and facilities. Local government roadway rehabilitation needs over that time period are estimated at \$4 billion with only about \$1 billion programmed for funding, leaving a funding gap of \$3 billion for transportation facilities alone.

Maintaining facilities and systems is a difficult management issue for several reasons: most attention is focused on controlling design and construction costs; maintenance must compete for funding with other, more pressing budget priorities; aging facilities require ever-increasing levels of maintenance; and an existing lack of adequate information to make budget decisions about maintenance.

■ SOLUTIONS & OPPORTUNITIES

A first step that many governments have taken in varying degrees is to develop a detailed information system that provides an accurate inventory of all asset condition, use, maintenance and replacement cost. This information is a vital aid in the decision-making and budgeting priority process. In addition, with large portions of Greater West Houston outside incorporated areas, it is important to understand the long-term geographic areas of governmental responsibility.

Although, routine maintenance will increase the useful life of an asset and allow for more control over capital spending priorities, not all infrastructure assets have a dedicated revenue source. A case in point is the city of Houston stormwater drainage system. As noted earlier, a dedicated fee based system is necessary for this critical system. Only in this fashion can the necessary revenue, estimated by one study to be on the order of \$2 billion, be ensured.



WEST HOUSTON PLAN 2050[®]

Envisioning Greater West Houston at Mid-Century

A Project of the West Houston Association

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The West Houston Association is a non-profit organization established in 1979 and is comprised of firms and organizations dedicated to quality growth in the Region. Our mission is to aggressively pursuing public policies that enhance quality of life, quality growth and promote economic development in one of the fastest growing areas in the United States.

The Association wishes to thank the photo contributions of the following:

Harris County Flood Control District | Westchase District | Energy Corridor Management District