

CITY OF EL PASO, TEXAS COMPREHENSIVE PLAN

AUSTIN EASTON **NORTHEAST** HIGH SCHOOL MISSION VALLEY JACKSON PLACE SAN JACINTO PLAZA NORTHGATE
PIEDRAS DRIVE RIM ROAD NEIGHBORHOOD MADELINE DRIVE MUNDY PARK
BURGESS HIGH SCHOOL SUNSET HEIGHTS **WESTSIDE** YSLETA
ARROYO PARK HUECO TANKS STATE PARK CORK
FRANKLIN MOUNTAINS **PLAN EL PASO** PARK TOM LEA PARK
CATHEDRAL HIGH LORETTO ACADEMY
GRAND VIEW OREGON CORRIDOR SNOW HEIGHTS PARK KIDD FIELD
FORT BLISS AMERICAS HIGH SCHOOL ALTHEA PARK KERN PLACE
BANDOLERO TARASCAS LOMAS DEL REY MESA HILLS FESTIVAL HILLS
LAMBKA PARK FALCON HILLS ROSEDALE **LOWER VALLEY** FARMS
HIGH RIDGE CRESTMONT PARK LAKEHURST
BELVIDERE BEAR **CENTRAL** RIDGE REMCON MONTOYA HEIGHTS
THREE HILLS SUNSET VIEW WEST GREEN BORDERLAND
MARWOOD PARK RIVERBEND EASTWOOD MEMORIAL PARK ARMSTRONG FIELD
AUSTIN TERRACE MILITARY HEIGHTS HIGHLAND PARK **EASTSIDE**
FIVE POINTS LOGAN HEIGHTS SUNRISE
NATIONS TOBIN PARK PARKLAND SUN VALLEY TERRACE HILLS
DOLPHIN PARK APOLLO HEIGHTS PLEASANT HILLS TIMBERWOLF
BUENA VISTA WASHINGTON PARK SAMBRANO STILES GARDEN
MEDINA CLARDY FOX DELTA PARK COLLINGSWORTH
GARDENS RIVERSIDE PARK
LAFAYETTE PLACE





PLAN EL PASO:

A Policy Guide for El Paso for the next 25 years and beyond

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Land Use Law
Cindy Crosby

...and thousands of El Paso residents

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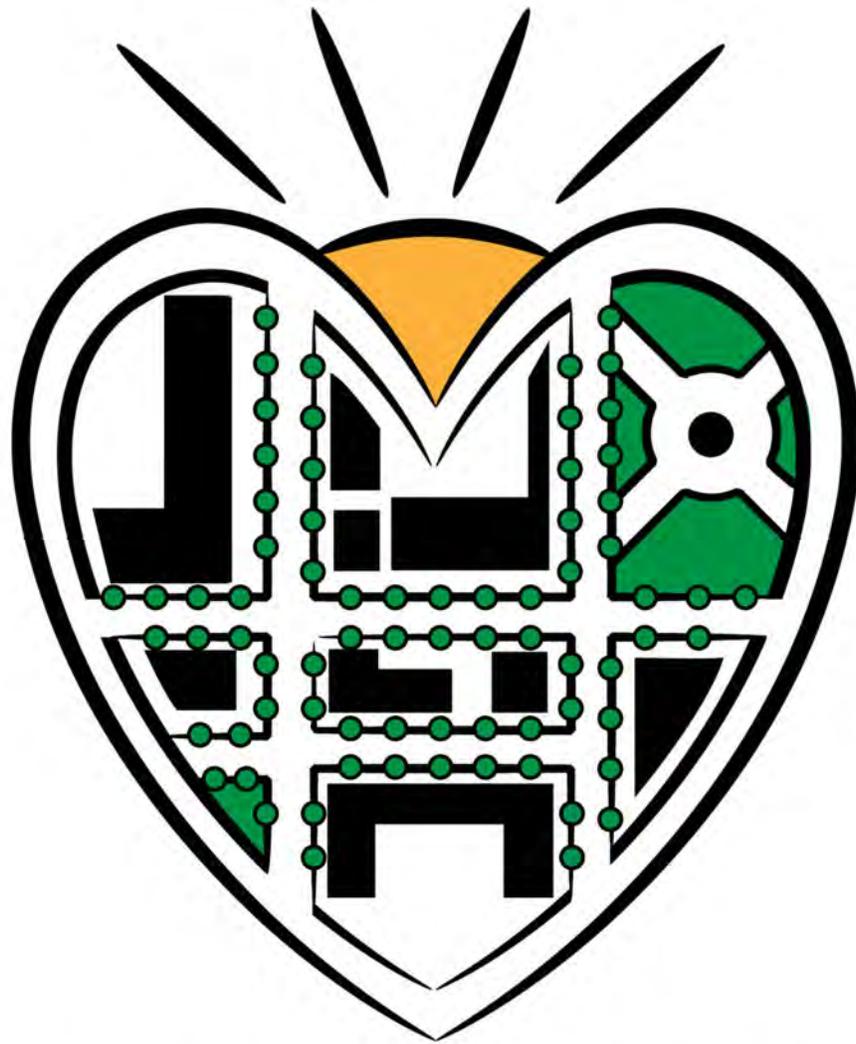
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ECONOMIC DEVELOPMENT

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Overall Goal: Build a foundation for economic prosperity that nurtures an atmosphere of innovation, increases quality of life to attract national and international talent, offers high-quality infrastructure, improves education and workforce development, and increases tourism.

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"NATURE AND A TREMENDOUSLY ENERGETIC CITIZENSHIP COMBINE TO AFFORD EL PASO OPPORTUNITIES FOR UNIQUE DEVELOPMENT, WITH POSSIBILITIES UNSURPASSED BY ANY OTHER COMMUNITY IN AMERICA. THERE IS NO REASON WHY EL PASO SHOULD NOT BE, AND CANNOT BE, A CITY OF STRIKING DISTINCTION AMONG CITIES, A CITY SO ATTRACTIVE FOR PERMANENT RESIDENTS AND FOR TRANSIENT VISITORS AS TO MAKE A NAME FOR ITSELF NATIONALLY FAMOUS."

– THE 1925 CITY PLAN FOR EL PASO

CURRENT CONDITIONS

ECONOMIC GROWTH IN EL PASO

Four factors have been critical drivers of the El Paso economy: the national economy, the economy of Ciudad Juárez and its maquiladora industries, the presence of Fort Bliss, and fluctuations in the monetary exchange rate between the US Dollar and the Mexican Peso.¹ To this should be added the expanding health-care and healthcare research sector that is being bolstered by the Medical Center of the Americas, and the continuing presence of the main campus of University of Texas at El Paso (UTEP).

Of these factors, the national economy and exchange rates cannot be influenced by El Paso. Factors that can be addressed in this planning effort include how the City responds to the opportunity provided by the Fort Bliss expansion, and the opportunities that can result from continued regional cooperation with Juárez.

Economic development must also go beyond what can be achieved by the City's economic development programs and look farther than existing City assets. El Paso must also continue to proactively develop framework elements that facilitate private investment in the following spheres: quality of life, infrastructure, and education. Investment in these foundational elements create a resilient local economic climate.

Fort Bliss is adding to the local economy in several ways. The expansion adds population and households that need housing off base and will spend money at local retail and service businesses. The influx of personnel has resulted in \$3.2 billion in construction contracts at the base from 2006 to 2009. According to the Federal Reserve Bank, 40% of that contracting was carried out by local contractors, helping the local economy weather the national recession. Another \$500 million was ex-

pected to be spent from 2010 through 2012. The Army is also building state of the art health facilities for a new William Army Medical Center that may add another \$1 billion in construction contracts.

According to the El Paso Regional Economic Development Corporation (REDCo), approximately 95% of manufacturing employment in the region takes place in the maquiladoras of Juárez. According to the Dallas Federal Reserve Bank, a 10% gain in maquiladora output creates for El Paso a 5.4% increase in transportation services employment, a 3% increase in total non-farm employment, and a 1.2% decrease in manufacturing employment.

Located at the furthest western point of Texas, El Paso is nevertheless at a central point for shipping and distribution. It is approximately equidistant to Los Angeles and Denver, with direct rail lines to both and direct access to the Midwest and upper Midwest. Access to Los Angeles by rail offers local outbound shipments to reach the largest and most efficient port on the Pacific coast. Access to the center of the United States opens the markets for manufacturers to locate research facilities, headquarters, and supply centers near the regional manufacturing base. It also allows for efficient technology transfer from UTEP, and research and development associated with Fort Bliss, as well as distribution of finished products across the United States.

El Paso has been gaining in technology employment, is at the nexus of the three electrical grids, and is located on a major fiber optics backbone. It is also well-placed to take advantage of new technical initiatives at Fort Bliss as discussed later in this element.



Growth in the medical sector, such as the construction of the new medical campus for Texas Tech University, is fueling economic growth in El Paso.

¹ According to statewide economic reports from the Dallas Federal Reserve.

DEMOGRAPHIC CHANGE

The following tables show demographic change in El Paso with two sets of estimates from three sources: the US Census, Institute for Policy and Economic Development (IPED), and ESRI Business Information Services (ESRI BIS). ESRI BIS is a national data provider whose projection methodology does not take into account community innovation that may produce change. More robust estimates and projections came from IPED at the University of Texas (UTEP). The 2010 Census presents data from actual counts and are deemed the most accurate for the subjects counted. These sources present differing pictures of the future in El Paso. For the purposes of planning for the longer term, locally generated forecasts are more likely to reflect current activities that will affect future trends.

In the year 2000, the City of El Paso population was approximately 83% of the County, while the number of households was approximately 87%. The 2010 Census shows that the City's percentage population had dropped to 81% of the County. The fact that population share is greater than household share indicates that the household size in the City is slightly smaller than in the County.

Median household income in the City of El Paso in 2009 was \$36,147, up from \$32,124 in 1999, but still approximately 72% of the 2010 national average median income of \$50,221.

Demographic Change: El Paso County, TX

	2000 Census	2010 Estimate	Change
Population from Census	679,622	800,647	121,025
Population IPED	679,622	775,771	96,149
Population ESRI	679,622	765,357	85,735
Estimated Households from Census	210,022	224,770	38,748
Imputed Households from IPED	210,022	247,850	37,828
Estimated Households from ESRI	210,022	240,237	30,215

Source: US Census 2010, IPED, ESRI BIS

Demographic Change: City of El Paso, TX

	2000	2010	Change	Annual θ %
Population	563,662	649,121	85,459	1.4%
Households	182,063	216,894	34,831	1.8%
Average Household Size	3.07	2.95	- 0.12	

Sources: US Census 2000 & 2010

Demographic Change: City of El Paso, TX

	1999	2005 - 2009	Change
Mean Household Income	\$42,904	\$50,203	\$7,299
Median Household Income	\$32,124	\$36,147	\$4,023

Sources: US Census 2000; American Community Survey for 2005-2009 income data

Demographic Change: El Paso County, TX

	2000	2010	Change	Annual %
Population	679,622	800,647	121,025	1.7%
Households	210,022	256,557	46,535	2.0%
Average Household Size	3.18	3.12		
City of El Paso Share of County	2000	2010	Change	
Population	82.9%	81.1%	-1.9%	
Households	86.7%	84.5%	-2.1%	

Source: US Census 2010

DEMOGRAPHIC PROJECTIONS

El Paso has grown through births and international in-migration rather than by internal migration from other states in the US. According to the US Census, domestic migration was a negative number through the last decade, with 50,088 people migrating to other areas in the US between 2000 and 2010.

Long-term projections for El Paso County by IPED are positive, showing both growth in households and growth in household income. Over the long term, according to the IPED input/output model, El Paso County is expected to grow to 1.026 million persons including further expansions at Fort Bliss. This is a projected increase of approximately 249,890 people over the current population by year 2030. Over the next twenty years this will add approximately 83,300 households to the County.

Employment is projected to increase by over 88,000 jobs between 2010 and 2030 in El Paso County. This increase in population and employment will increase the needs for housing, employment, and retail space.

As noted in the housing report by Zimmerman Volk Associates, the largest demographic shift since the “boomer” generation is the group called Millennials, those born from 1977 to 1996:

“Millennials are now leaving their parents’ homes. The Millennials are the first generation to have been largely raised in the post-1970s world of the cul-de-sac as neighborhood, the mall as village center, and the driver’s license as a necessity of life. In far greater numbers than predecessor generations, Millennials are moving to walkable traditional neighborhoods at every scale.”²

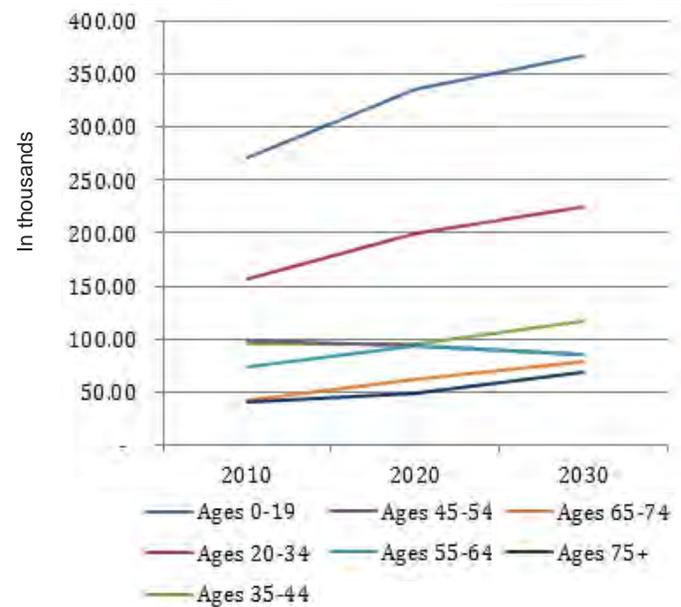
The increase in persons from 20 to 34 years of age is an expression of this national trend. The 20-somethings of 2030, if they follow the housing trends favored by Millennials, will care more about neighborhood lifestyle and amenities than about unit size. As household size declines, demand for housing will shift to smaller units for smaller households. This demographic change indicates a continuing strong market for housing, but also a need for smaller units in walkable neighborhoods.

**El Paso Metropolitan Statistical Area
Population Trends**

Year	Pop	Births	Deaths	International Migration	Domestic Migration
2000	679,622				
2001	684,780	17,692	5,023	5,836	(12,893)
2002	688,771	14,004	4,179	3,848	(9,234)
2003	694,672	14,119	4,160	2,300	(5,584)
2004	702,433	14,606	4,345	3,989	(5,796)
2005	708,683	14,401	4,216	3,467	(6,716)
2006	720,756	14,383	4,558	3,811	(990)
2007	727,828	14,255	4,299	3,026	(5,865)
2008	738,416	14,573	4,453	3,083	(2,531)
2009	751,296	15,045	4,625	2,980	(479)
2010	800,647	NA	NA	NA	NA

Source: US Census, Real Estate Center Texas A&M University

El Paso County Population Projections by Age



	2010	2020	2030	Change 2010-2030
Ages 0-19	270.89	336.85	367.39	96.50
Ages 20-34	156.41	200.65	224.55	68.14
Ages 35-44	95.63	94.78	116.87	21.24
Ages 45-54	97.99	94.05	85.27	(12.72)
Ages 55-64	73.50	93.76	85.41	11.91
Ages 65-74	41.64	62.37	77.99	36.35
Ages 75+	39.71	48.12	68.18	28.47
Totals	775.77	930.58	1,025.66	249.89

Source: IPED UTEP

2 ZVA, An Analysis of Residential Market Potential, The City of El Paso, El Paso County, Texas, November, 2010

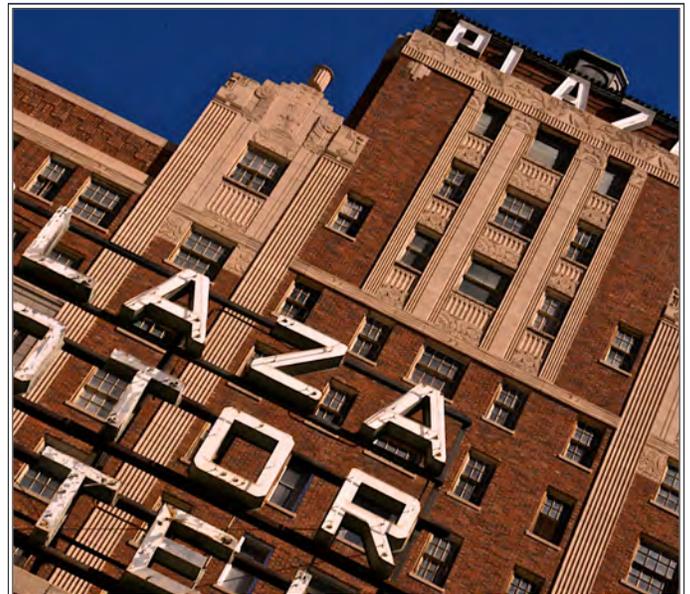
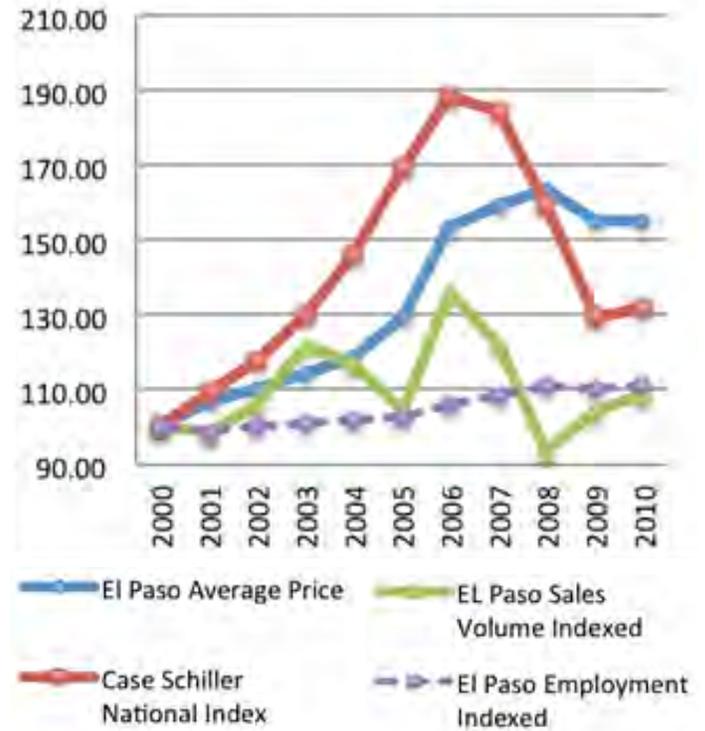
DEMOGRAPHICS AND HOUSING CHOICE IN EL PASO

The housing market in El Paso is robust and has been increasing at a steady rate since 2000. The average price of housing sold has risen from approximately \$98,000 per unit in 2000 to approximately \$152,000 per unit in 2010. While housing markets peaked and fell nationally, the El Paso market peaked later and then leveled without experiencing the sharp drop seen elsewhere in the United States. Sales volume has followed the national downturn, but not because of a drop in employment or as a reaction to a pricing bubble. The relative stability in pricing tracks with the relative stability of employment, while the fact that local sales volume reflects the national pricing index suggests that other factors such as consumer and lender caution may have had an impact on sales.

The current market for rental units in El Paso is strong. In 2000, rentals were approximately 36% of all units. As illustrated in the Housing Element, 48% of new demand over the next five years will be for multi-family rental units, approximately 11% for multi-family ownership units and the remaining 41% for single-family ownership units. This estimate of demand is based on projected demographic change that shows preferences shifting away from standard single-family housing toward multi-family units and attached housing types.

Using the IPED projections, there will be a need for housing for over 72,000 new households in the City of El Paso by 2030. The trends highlighted by Zimmerman-Volk indicate that the preferences of people moving to El Paso are not the same as the current housing mix. If these trends continue, there will be a need for between 34,000 and 35,000 units of multi-family rental housing and between 37,000 and 38,000 ownership units. Of ownership units, approximately 25,000 would be traditional single-family detached, with 12,000 to 13,000 attached or multi-family ownership units.

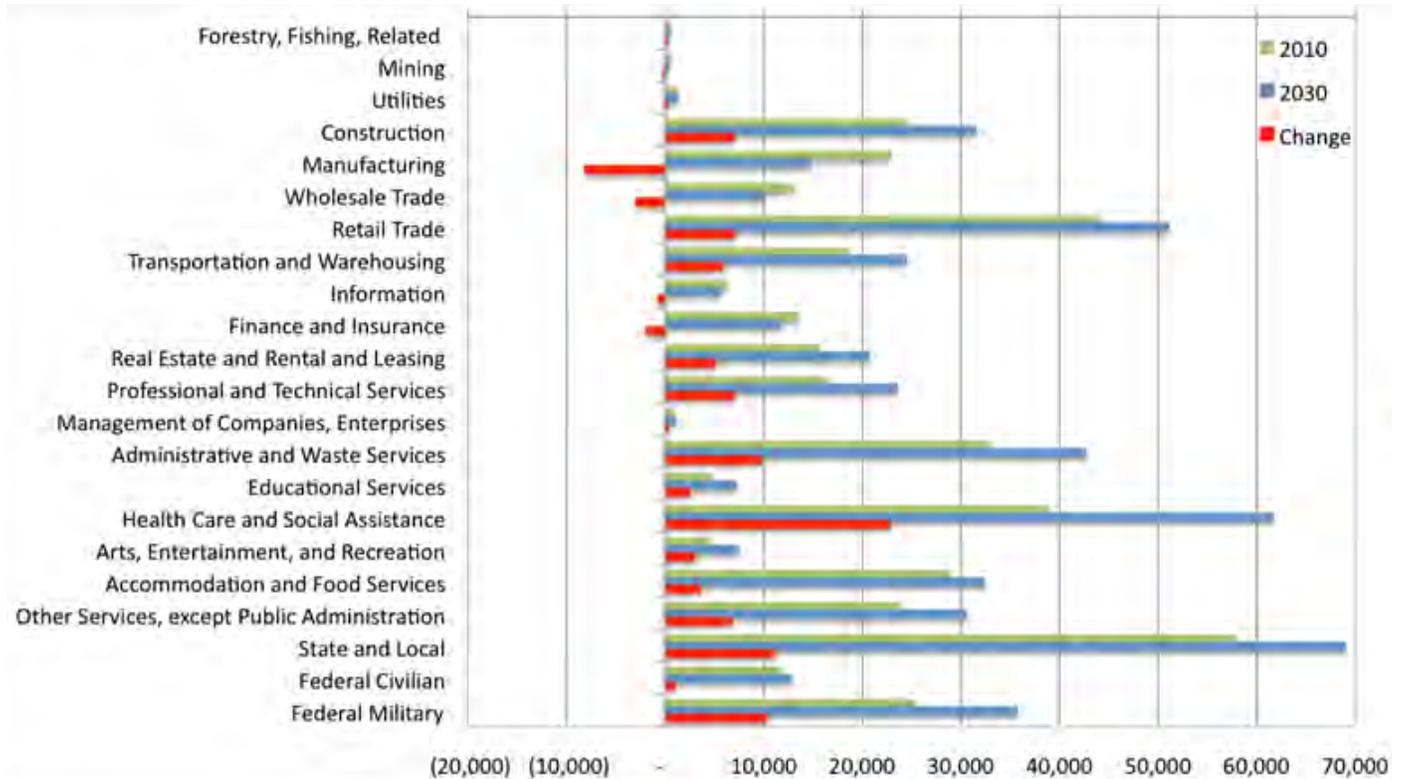
El Paso Housing Prices Indexed to Year 2000



Millennials will have different lifestyle preferences from earlier generations and will favor more urban, dynamic environments such as Downtown and Central El Paso.

EMPLOYMENT TRENDS

Metropolitan area employment projections are shown in the following chart and table.



Source: Bureau of Economic Analysis and IPED

Employment projections by IPED were reviewed to understand the need for future space.

When the military employment, retail space, and hotel and restaurant space³ are excluded, the approximate additional demand for occupied space by 2030 over 2010 based upon change in employment will be approximately 41.5 million square feet.

A large component of the proposed space need is in transportation and warehousing. As the need for manufacturing and wholesale trade space declines, some of this demand may go into existing industrial buildings, but there will be a need for locations that can accommodate this use. These are facilities that are usually located in special districts and require road standards for safe truck access. This type of use is not suited to incorporation in neighborhoods, but can be placed in block structures that are alternately pedestrian and auto friendly as opposed to being for

³ Military is excluded because it will take place on Fort Bliss, outside of the jurisdiction of the City. Retail and restaurant space are excluded because their space requirements are calculated as a function of consumer spending rather than by projected employment.

Employment Category	2010	2030	Change	Space/Emp	Change in Space Demand
Forestry, Fishing, Related Activities	522	480	(42)	695	(29,190)
Mining	504	318	(186)	695	(129,270)
Utilities	1,214	1,164	(50)	695	(34,750)
Construction	24,512	31,462	6,950	695	4,830,250
Manufacturing	22,841	14,688	(8,153)	695	(5,666,335)
Wholesale Trade	12,948	9,992	(2,956)	736	(2,175,616)
Transportation and Warehousing	18,610	24,407	5,797	1680	9,738,960
Information	6,205	5,532	(673)	381	(256,413)
Finance and Insurance	13,544	11,612	(1,932)	381	(736,092)
Real Estate and Rental and Leasing	15,557	20,653	5,096	381	1,941,576
Professional and Technical Services	16,540	23,491	6,951	381	2,648,331
Management of Companies, Enterprises	823	970	147	381	56,007
Administrative and Waste Services	32,931	42,645	9,714	736	7,149,504
Educational Services	4,765	7,218	2,453	857	2,102,221
Health Care and Social Assistance	38,811	61,659	22,848	374	8,545,152
Arts, Entertainment, and Recreation	4,495	7,438	2,943	753	2,216,079
Other Services, except Public Administration	23,868	30,565	6,697	736	4,928,992
State and Local	57,888	68,935	11,047	530	5,854,910
Federal Civilian	11,804	12,720	916	530	485,480
Totals	308,382	375,949	67,567	614	41,469,796

Source: Bureau of Economic Analysis, IPED and Urban Advisors Ltd

RETAIL AND SERVICE SPACE PROJECTIONS

The following table shows current and projected spending by residents of El Paso in selected categories (not including spending on automobiles and automotive supplies). The categories listed are those that use shop space and cater to the public. Categories of spending not included are insurance, utilities and public services, automobile and recreational vehicle sales, day care and other items such as travel expenses that would not be spent in El Paso. To estimate future space needed, consumer spending in constant dollars was calculated from the demographic and income information provided by IPED.

Based upon household change projected by IPED, change in spending by 2030 could support up to approximately 4.5 million square feet of retail space in the categories listed in the following table. Not all of that space is likely to be new space; demand will also be absorbed by existing retail outlets. In programming for new development, new households alone could support approximately 2.9 million square feet.

The future retail space demand in the long term is sufficient to create complete neighborhoods, to support transit oriented development locations, and to revitalize existing areas such as Downtown and existing neighborhood centers.

	Household Spending	2010 Total	2030 Estimate	Change 2010 - 2030	Sales/ SF	Change in SF
Apparel and Services						
Men's	\$ 218.64	\$ 52,525,851	\$ 87,108,245	\$ 34,582,394	350	98,807
Women's	\$ 363.91	\$ 87,423,771	\$ 144,982,540	\$ 57,558,769	350	164,454
Children's	\$ 236.93	\$ 56,919,033	\$ 94,393,846	\$ 37,474,813	350	107,071
Footwear	\$ 157.73	\$ 37,891,712	\$ 62,839,164	\$ 24,947,452	350	71,278
Watches & Jewelry	\$ 129.95	\$ 31,218,732	\$ 51,772,773	\$ 20,554,041	350	58,726
Apparel Products and Services	\$ 120.72	\$ 29,002,608	\$ 48,097,579	\$ 19,094,971	350	54,557
Computer						
Computers and Hardware for Home Use	\$ 139.38	\$ 33,484,859	\$ 55,530,891	\$ 22,046,032	1,000	22,046
Software and Accessories for Home Use	\$ 20.22	\$ 4,858,679	\$ 8,057,575	\$ 3,198,896	1,000	3,199
Entertainment & Recreation						
Membership Fees for Clubs	\$ 104.51	\$ 25,108,163	\$ 41,639,078	\$ 16,530,915	NA	NA
Fees for Participant Sports, excl. Trips	\$ 75.20	\$ 18,065,703	\$ 29,959,947	\$ 11,894,244	NA	NA
Movie/Theatre/Opera/Ballet	\$ 109.04	\$ 26,194,921	\$ 43,441,345	\$ 17,246,424	NA	NA
Admission to Sporting Events	\$ 40.16	\$ 9,648,814	\$ 16,001,478	\$ 6,352,664	NA	NA
Fees for Recreational Lessons	\$ 88.13	\$ 21,171,327	\$ 35,110,276	\$ 13,938,949	NA	NA
Dating Services	\$ 0.47	\$ 111,858	\$ 185,504	\$ 73,646	NA	NA
TV/Video/Audio						
Televisions	\$ 146.03	\$ 35,081,409	\$ 58,178,591	\$ 23,097,182	450	51,327
VCRs, Video Cameras, and DVD Players	\$ 15.13	\$ 3,634,041	\$ 6,026,650	\$ 2,392,609	450	5,317
Video Cassettes and DVDs	\$ 39.26	\$ 9,430,820	\$ 15,639,959	\$ 6,209,139	450	13,798
Video/Computer Games	\$ 40.57	\$ 9,746,517	\$ 16,163,508	\$ 6,416,991	450	14,260
Satellite Dishes	\$ 0.97	\$ 233,006	\$ 386,414	\$ 153,408	450	341
Rental of Video Cassettes and DVDs	\$ 31.37	\$ 7,537,435	\$ 12,499,992	\$ 4,962,557	450	11,028
Audio	\$ 100.82	\$ 24,221,856	\$ 40,169,237	\$ 15,947,381	450	35,439

(continued on next page)

	Household Spending	2010 Total	2030 Estimate	Change 2010 - 2030	Sales/ SF	Change in SF
Pets	\$ 368.38	\$ 88,499,455	\$ 146,766,441	\$ 58,266,986	350	166,477
Toys and Games	\$ 104.89	\$ 25,197,334	\$ 41,786,958	\$ 16,589,624	350	47,399
Sports/Recreation/Exercise Equipment	\$ 98.29	\$ 23,612,063	\$ 39,157,964	\$ 15,545,901	350	44,417
Photo Equipment and Supplies	\$ 71.47	\$ 17,170,524	\$ 28,475,392	\$ 11,304,868	350	32,300
Reading	\$ 98.70	\$ 23,710,844	\$ 39,321,781	\$ 15,610,937	350	44,603
Food at Home	\$ 3,343.12	\$ 803,141,894	\$ 1,331,920,943	\$ 528,779,049	450	1,175,065
Food Away from Home	\$ 2,381.53	\$ 572,131,493	\$ 948,816,048	\$ 376,684,555	650	579,515
Alcoholic Beverages	\$ 397.39	\$ 95,468,333	\$ 158,323,545	\$ 62,855,212	450	139,678
Nonalcoholic Beverages at Home	\$ 330.38	\$ 79,369,333	\$ 131,625,156	\$ 52,255,823	350	149,302
Health						
Nonprescription Drugs	\$ 76.80	\$ 18,451,088	\$ 30,599,064	\$ 12,147,976	350	34,709
Prescription Drugs	\$ 343.10	\$ 82,425,752	\$ 136,693,885	\$ 54,268,133	350	155,052
Eyeglasses and Contact Lenses	\$ 53.11	\$ 12,759,223	\$ 21,159,743	\$ 8,400,520	350	24,001
Household Furnishings and Equipment						
Household Textiles	\$ 94.41	\$ 22,681,631	\$ 37,614,946	\$ 14,933,315	350	42,667
Maintenance and Remodeling Materials	\$ 249.56	\$ 59,953,612	\$ 99,426,355	\$ 39,472,743	350	112,779
Furniture	\$ 438.82	\$ 105,420,781	\$ 174,828,567	\$ 69,407,786	350	198,308
Floor Coverings	\$ 47.58	\$ 11,430,208	\$ 18,955,721	\$ 7,525,513	350	21,501
Major Appliances	\$ 214.59	\$ 51,551,838	\$ 85,492,954	\$ 33,941,116	350	96,975
Housewares	\$ 56.47	\$ 13,566,307	\$ 22,498,202	\$ 8,931,895	350	25,520
Small Appliances	\$ 23.12	\$ 5,555,191	\$ 9,212,663	\$ 3,657,472	350	10,450
Luggage	\$ 6.21	\$ 1,491,016	\$ 2,472,683	\$ 981,667	350	2,805
Telephones and Accessories	\$ 22.56	\$ 5,418,914	\$ 8,986,662	\$ 3,567,748	350	10,194
Lawn and Garden	\$ 277.75	\$ 66,726,867	\$ 110,659,041	\$ 43,932,174	350	125,520
Housekeeping Supplies	\$ 525.53	\$ 126,252,870	\$ 209,376,255	\$ 83,123,385	350	237,495
Personal Care Products	\$ 311.46	\$ 74,824,692	\$ 124,088,377	\$ 49,263,685	350	140,753
School Books and Supplies	\$ 78.59	\$ 18,880,703	\$ 31,311,533	\$ 12,430,830	350	35,517
Smoking Products	\$ 290.44	\$ 69,775,545	\$ 115,714,932	\$ 45,939,387	350	131,255
Totals	\$12,483.42	\$ 2,998,978,626	\$4,973,470,405	\$ 1,974,491,779	439	4,495,903

COMMUNITY CONCERNS

Downtown and Neighborhood Revitalization

The Downtown once provided proud office spaces, housing, and shopping. Many El Paso residents remember the City in its pre-1970 heyday, but once offices started to relocate outside of the Downtown, other uses followed. Many suburban offices are getting older and reaching the end of their structural life. Instead of remote corporate campuses, businesses should be encouraged to reoccupy city centers. In time, other uses will again follow.

Reinforcing Education

El Paso residents are aware that the US has undergone a transformation from an industrial economy to one that is informational and knowledge-based. They see this with the out-migration of higher educated younger generations to other cities in search of increased educational opportunities. Retaining younger generations requires a strong educational system from early grades to secondary education.

Increased Tourism in El Paso

El Paso residents are proud of their City, understanding that it has a unique location, climate, and culture. Residents are eager to host visitors for reasons both economic and convivial. In previous generations, the City's pleasant weather attracted visitors from many places. Residents discussed the advertising campaign they remember from its tagline, "El Paso: where the sun spends the winter." Residents are encouraging City leaders to "get the word out" about the City's charm and attractions to begin reversing the recent low rates of tourism.

City of Industry and Community Life

When asked as part of the hands-on charrette exercises to re-envision the City's industrial districts, citizen planners drew "retail streets" in industrial districts bordering neighborhoods that alternate with truck oriented streets and could allow retail industrial outlets as well as coffee shops, lunch counters, and other amenities for the people working in the district. Industrial districts were connected to surrounding residential areas through transit, bicycle, and pedestrian access to reunite the working class neighborhoods that arose from the employment with the employment district. These ideas would require a Citywide effort to position employment and industry as an integral part of a more walkable city.

A Better Life, Every Generation

Many residents of the City have roots in Mexico and they, or their parents or grandparents, came to the United States for a better life for their families. Many recognize that economic advancement is achieved only through successive generations. Economic diversification and new forms of employment would help El Paso to be more than a gateway City. Residents expressed a desire for generations of families to live and advance economically in the same place to keep family ties strong.

El Paso Economic Development System

In December 2011, El Paso officials were advised that the region's economic development efforts were compromising prospects for improved levels of prosperity and quality of life.¹ Part of the problem stems from uncertainty over the city's economic development mission, plus limited support for REDCo, the private group tasked with marketing and recruiting for the region. The largest problem, however, is the absence of a broad-based, transparent, and continually updated regional economic development strategy that can be implemented at all levels of government and private industry.

The recommendations of this report include:

- Re-tool the City's Economic Development Division to better align the City's planning, development services, and economic development functions.
- Form or (re)form an organization to coordinate and update a regional economic development strategy.
- Integrate physical, land use, and economic development planning activities to support economic development instead of relying so heavily on traditional marketing, business recruitment, and business retention strategies.

This Economic Development Element, and this entire Comprehensive Plan, can be used as a source of ideas for community leaders as they jointly formulate and then update a new regional economic development strategy.

¹ El Paso Economic Development System: Review and Recommendations by Edward Feser, PhD, December 2011

STRATEGIES FOR ADDRESSING COMMUNITY CONCERNS

The US economy has changed dramatically in the last 50 years from an industrial economy to one that is knowledge and information based. Yet industrial activity is not disappearing from North America and metro areas like El Paso/Juárez, which successfully attract and retain economically resilient jobs in both blue-collar goods production and white-collar services.

Lasting economic development must focus on framework elements that facilitate both spheres of employment while at the same time encouraging **innovation** which allows cities to stay economically competitive as the market changes further. Framework elements include: **quality of life**, **infrastructure**, and **education**.

Economic development is often thought of as simply attracting more jobs. This is not, however, how the private sector usually perceives economic development. Most businesses seek places with conditions that foster business innovation, greater productivity, and also offer a **high quality of life** for employees. If the local environment can provide the conditions for innovation and productivity and provide the quality of life desired by new residents, El Paso will continually attract new businesses and the jobs they create.

A CITY OF INNOVATION

One theory of innovation in regard to cities is that cities that do not innovate will grow to the carrying capacity yielded by their existing technology. Put another way, resources are limited. The use of existing resources continuing in a straight-line trend with existing practices, growth will eventually cause resources to become exhausted, causing existing systems to reach a point of failure whether physical or financial. At that point, if there is no innovation to achieve change, the city will decline as it is outstripped by competition from other regions.

The increasing cost of energy, for example, is one trend that cities must innovate to adapt to with its **infrastructure** investments. Cities that plan for compact development that lowers automobile trips and congestion will be better able to respond to the future economy. Cities that fail to meet this challenge will see rising commuting and production costs that will inevitably affect the bottom line of their businesses. These costs range from manufacturing and transportation costs to retail and services demand beings constrained by consumers whose income is increasingly spent on gasoline.

The ability of a local workforce to learn and adapt is best measured by the quality of the **education** offered by the City. The provision of quality education requires resources and commitment. El Paso's educational system must be structured to provide both for blue-collar goods production and transportation and white-collar services. Manufacturing itself, a stable provider of blue-collar jobs, is becoming increasingly fragmented into different countries in different locations with shorter product

cycles. New products are invented, developed, and phased-out more quickly than in the past. This requires a nimble workforce. Manufacturing is also becoming more niche-oriented and broadly-capable workers are sought as the economic focuses of regions or cities narrow. A workforce ready to exploit a newly developed niche may be impossible to find or they must be specially trained. The quality of a City's educational system is thus the best indicator of a capable and flexible workforce.

The capacity for cities and regions to **innovate** has been measured in a variety of ways and includes a series of factors that can be measured to estimate the capacity for innovation. Under a pilot project of the Bureau of Commerce, these factors have been calculated and mapped for the United States and for every metropolitan area so that regions may use the information to assist in economic development policy. These factors include regional human capital, regional economic dynamics, regional productivity and employment, and economic well-being.

El Paso is emerging as a city of innovation. Indicators of innovation are offered to lead to actions that will increase the trend of innovation, increase productivity for business, and expand the economy. According to United States Innovation Index research sponsored by the Department of Commerce, El Paso has an innovation index that is approximately 80% of the overall index for the nation. The full tabulation is shown in the table "Comparison of Innovation Factors."

Of the factors that drive innovation, several issues stand out. Establishment churn is a measure of the ability of small businesses to respond to changing economic realities. El Paso surpasses the national index on this capability. At the same time, there is a lack of venture capital in Texas in general and a lack of local venture capital investment in El Paso. While the proportion of workers in high-tech industries is increasing, it is still below the national average. This is in keeping with the proportion of workers with college degrees, which is lower than the national average. The increase in business proprietor earnings is a positive indicator for doing business in El Paso. In the past, according to the Census data used for this study, El Paso has not captured a rising share of the important workforce age population between 25 and 44 in comparison to areas with a higher innovation index number.

Several options exist to provide funding for future initiatives. One is Small Business Investment Company (SBIC), chartered through the Small Business Administration (SBA). Another is a Community Development Funding Institution (CDFI). SBICs are venture capital funds that require a minimum funding by private capital of \$5 million, which is then matched two-to-one by the SBA. CDFI's are entities that can be organized as for-profit or non-profit, as consortia of local funders, or as typical single entities. They are authorized to apply for and distribute tax credits, but can also serve to promote investing by local funders while lowering the individual risk of any one lender or investor.

Comparison of Innovation Factors

	El Paso	Texas	Austin	USA
Overall Innovation Index	79.5	94.6	124.5	100
Human Capital	80.4	101.4	146.2	100
Population with Bachelors Degree or Higher	17.7%	24.7%	29.1%	26.5%
Growth in 25-44 Age Demographic	-0.2%	0.9%	3.1%	-0.2%
Average High Tech Employment 1997-2009	2.6%	5.0%	10.3%	4.8%
Tech-Based Knowledge Share of Employment 2009	7.0%	8.4%	12.4%	8.4%
Economic Dynamics	75.9	82.7	111.3	100
Venture Capital per \$10,000 GDP 2003-2008	\$ 0	\$ 27.55	\$ 214.08	\$ 52.45
Broadband Density	500	500	727	700
Establishment Churn/Indicator of Change	80.2%	76.9%	82.7%	77.50%
Small Establishments per 10,000 Workers	317.8	328.6	328.2	372.6
Large Establishments per 10,000 Workers	1.02	1.10	0.99	1.10
Productivity and Employment	75.7	97.2	122.5	100
Change in High Tech Employment Share	1.20%	-1.90%	-3.20%	-0.3%
Job Growth to Employment Growth Ratio	1.05	0.72	0.62	0.87
GDP per Worker 2008	\$ 69,391	\$ 84,556	\$ 74,323	\$ 79,057
% change in GDP/Worker 1997 to 2008	2.36%	4.13%	3.37%	3.48%
Average Patents per 1,000 Workers	0.03	0.47	1.06	0.51
Economic Well-Being	99.2	101.9	101.2	100
Poverty Rate (3 year Average 2007 to 2009)	27.0%	16.3%	12.6%	13.2%
Unemployment (3 year Average 2007 to 2009)	7.1%	5.7%	5.0%	6.6%
Average Internal Net Migration per 10,000 Residents 2000 to 2009	(70.6)	37.3	159.6	0%
% Change Per Capita Income 1997-2008	4.8%	4.2%	3.4%	4.1%
Change in Wage Earnings 1997-2008	3.4%	4.0%	3.90%	3.8%
Change in Proprietor Income 1997-2008	3.4%	1.8%	0.8%	1.2%

Source: StatsAmerica.org, Bureau of Commerce

Fort Bliss: Capturing the Innovation Economy

Fort Bliss is the setting for the consolidation of programs and a series of changes in military operations that will continue to generate significant change in the local industrial and research economy. Fort Bliss has every type of brigade on-site, a new practice for the Army. As a major testing center, this means that testing for every technology involved in a modern army can and will occur at Fort Bliss. Taking advantage of this opportunity, the Army is creating three new initiatives at Fort Bliss: an Evaluation Brigade is being added to assess new technology, a Future Force Integration Directorate is being centered on the base, and a new Center for Network Integration is being created. These changes mean that virtually all technology for the Army, no matter where created, will be evaluated, field tested, and coordinat-

ed for field use at Fort Bliss. The net result is that companies in defense-related research and development can locate near Fort Bliss and gain a competitive advantage by being able to interact with the evaluation, testing and coordination teams on a regular basis. The industries involved came from high technology to manufacturing including emerging vehicle technology.

In considering the impact of these consolidations, it is worth noting that the first startup in Silicon Valley, Varian, developed the Klystron tube that was used for both military technology and medical technology. Its first use was in aircraft radar, Varian's first large contract after World War II was with the United States government. Varian was soon joined by Fairchild, Lockheed, and eventually, Hewlett Packard. Allied with a university,

cutting edge medical technology research, and defense industries, the area became a hub for venture capital and the future computer revolution.

There is suitable land to address potential technology providers at the airport adjacent to Fort Bliss. This site would allow for a secure area next to the base for rapid field checking for technology. An adjoining non-secure area would be more like a new business district for research and development, computer programming, operations for high tech equipment and services, and a small amount of manufacturing to support prototype development. An outgrowth of this sector aside from research employment would be programming, even car parts now require programming, and some technology requires millions of lines of code that will need to be revised on the spot as testing proceeds.

Regional Economic Efficiency

El Paso and Juárez operate as one regional economy in spite of the border and the current security problems in northern Mexico. In the best of all possible worlds, El Paso and Juárez would operate as a single international city with borders outside of the cities edges. Free travel of people, goods, and services would occur between the two places, increasing local economic efficiency, and creating a unique destination for industry, business, and even tourism, as the only international city in North America. Broken transportation networks would be re-linked and new ones formed to allow easy passage for employment, education, health care, shopping, entertainment, and dining. Feasibility of profitably investing in either place would increase due to this efficiency.

An additional opportunity is presented by Mexico's plans to construct a new container port on the Pacific Ocean at Punta Colonet, about 200 miles south of the border. This port would be served by a new railroad which would enter the United States as far east as Santa Teresa where it could connect to the Union Pacific rail yard now under construction. If these plans proceed, it would reinvigorate the concept of constructing a rail loop around Juárez and El Paso. A rail loop would allow most freight trains to bypass urban portions of both cities while retaining the economic advantages of El Paso's key location on both national rail networks. The configuration could be a complete rail loop as envisioned by City officials in 2003, or just a southerly loop through Mexico, or just a northerly loop through the Anthony or Web Gap. The advantages of a rail loop are discussed further in the Transportation Element of this plan.

Another opportunity for moving freight through El Paso is a proposed automated monorail facility for containers that would operate between truck transfer and inspection points in Juárez and El Paso. This system would eliminate trucking delays at border crossings and increase shipping efficiency dramatically. According to REDCo, capacity for container shipping by truck could double

with the increased efficiency. Security would be improved because of the ability to inspect containers at a dedicated facility away from the border.

Changing Nature of Industrial Use

Industrial developments were once planned with wide streets and large widely separated buildings in dedicated "industrial park" districts. In the past this land use pattern was seen as necessary to avoid conflicts between industrial uses that may have caused noise or possibly were hazardous and which operated at a scale that was seen as incompatible with other uses. While warehouse and distribution and heavy manufacturing still require separation and buffering from all other uses, many other categories of manufacturing have changed. There are many categories labeled as industrial which are actually creators and users of technology at the front end of the manufacturing process and need more office space than fabrication or storage space. These businesses are now often in flex space that can fit among other land uses and may only need access to shipping for small items of high value.

Approximately three quarters of the future employment space need is in categories that do not require typical industrial zoning, street standards, and land use restrictions. Among such categories are the new industrial and tech businesses which, like other office users, seek walkable amenities such as places for coffee, lunch, dry cleaners, banking services, child care, and retail. Even for more traditional industrial uses, businesses can exist in blocks with alternating access for trucks and more walkable block faces. There is no longer a need for these uses to be specifically segregated since much of their production is in industrial programming and design.

These land uses can be placed adjacent to neighborhoods or in neighborhood centers with transitional housing forms, such as live-work, row houses, or multi-family units, to buffer them from existing single-family residential uses. They can also co-exist with arts districts that allow semi-industrial use and contain other urban amenities.



QUALITY OF LIFE: BECOMING A WALKABLE CITY

Economic prosperity is a key component of quality of life, and quality of life, in turn, leads to increased economic prosperity. With the exception of weather (and El Paso is endowed with a very pleasant climate), quality of life is generally measured based on the quality of certain elements: neighborhoods, schools, parks, proximity of natural places for recreation, shopping opportunities, cultural and historic places, and streets that allow the luxury of walking short distances for conveniences and daily needs. Quality elements also require a sufficient user base. When these elements are built together in a coordinated manner a sufficient residential user base is available and a high quality of place is the result.

El Paso's historic neighborhoods were organized around the streetcar system which emphasized Downtown as the central location for retail services and office employment. These neighborhoods were convenient places to live for anyone working Downtown due to the short commute and all of the amenities of Downtown being accessible by a short walk to the streetcar.

As the automobile became the dominant transit mode this pattern of development changed and the centrality of Downtown became less important for location than places with good freeway access. The result of this change is today's pattern of retail centers disconnected from Downtown and from neigh-

borhoods, strung along major roads designed to take advantage of passing traffic.

The current model of development is designed around the requirements of the automobile and relies almost totally on automobile travel. Subdivisions are created with a small range of unit sizes and prices for people of similar incomes. Retail and services are based on a model of capture that relies upon passing cars rather than surrounding population. These models of development built and shaped postwar El Paso, pushing development outward from the core and resulting in a loss of vitality in Downtown and the older core area neighborhoods.

In planning for the future, a major concern is the creation of land use patterns that support economic development. Higher intensity land use occurs in cities with vital economies that rely less upon widespread infrastructure and more upon the proximity of people to services and employment to raise land values and rents. The efficient use of land allows more amenities such as parks and open space while still providing land for schools, churches and other civic uses. As a long-term goal, the ability to access employment and services with fewer and shorter automobile trips will allow the local economy and the citizens of El Paso to thrive even as energy prices rise or there are future shortfalls in supply.



Before - Large parcels along Zaragoza Road

One way to evaluate land use intensity is to take a gross estimate of households per acre that includes all ancillary uses. Residential intensity per gross acre can be used as a proxy for all land use efficiency because the total area includes all land uses such as employment, schools, roads, drainage, churches, government offices, etc. Since all cities contain these elements, gross residential density allows comparison to other cities to understand the relative efficiency of land use that is feasible in the modern auto-oriented American economy.

Current residential land use intensity in El Paso is approximately 1.39 units per gross acre in the City limits. For the County as a whole it is approximately 0.5 households per acre. By census tract, El Paso County gross residential density varies from 0.01 households per acre to almost six households per acre. As a comparison, gross residential density for all of Austin is approximately 1.75 households per acre, while San Antonio is approximately 1.9 households per acre. Portland, Oregon, is at 2.71 households per acre.

At the household density of Portland, El Paso could accommodate a population of 1.56 million people within its current City limits. Development in Portland is not especially unusual or high density; this comparison implies that it is possible to accommodate growth within the City without pursuing infeasible

patterns of development or especially different densities from those seen in existing areas of El Paso.

The illustrative plans presented in the Urban Design and Downtown Elements propose a different solution, by creating complete walkable neighborhoods when planning new greenfield development, and by proposing infrastructure that reworks the urban framework in existing neighborhoods to reinforce their character and vitality.

A compact model of development is not new—it is how El Paso was built in the days of its streetcar system. It does not suggest losing the advantages of auto-oriented development but rather adding an extra dimension, using both the passing traffic and an intensification of land use to achieve viability for businesses.

The compact model offers multiple modes of customer capture and increases the potential base of customers for existing retail nodes. It creates destinations that attract residents and non-residents alike through the re-establishment of a welcoming and attractive public realm, attractive walkable streets, retail and service clusters, room for sidewalk cafes, and access by alternate means of transportation to increase access. Parking is managed on a district basis rather than being an on-site requirement for every use.



After - Zaragoza Road redevelops to be a walkable neighborhood.

The basic difference in the two models is in access. Auto-only access requires large amounts of parking, as much as five spaces per thousand square feet of floor space, and large streets with high traffic volumes. Parking is a proxy for access and density. When all modes of transport are available, and parking is solved on a district-wide basis, individual sites can increase the building density and the leasable square footage, making the land itself more valuable to investors.

Street widths can be smaller and more walkable and thus more attractive. Retail businesses can be financed and operated with little or no parking depending upon surrounding density and the proximity to transit.

For this model to work, there must be a sufficient area population of both residents and employees (for daytime activity), within a half-mile radius to support approximately 60% of the sales required for a retail or service business. Zaragoza Road and the Ysleta area already have significant daytime employment populations, and vitality can be increased through infill and redevelopment that adds to the number of housing units.

The illustrative plans do not propose completely new building types. They envision a different arrangement and location of buildings and land uses in a traditional urban form—neighborhoods that are more self-sufficient and walkable. Building cost for individual structures need not be any different than they are now for single houses, apartment buildings, or commercial structures.

However, this urban development model does present a challenge for developers used to the requirements presented by credit tenants in suburban areas. Chain retail and service companies that rely upon a suburban model of capture will locate based upon the car trips available or the density, income, and educational characteristics of the local area. However, almost all of these chain retailers also have urban models that they place in districts that are destinations. These retailers build outlets in city neighborhoods with no on-site parking if the area has district parking and if surrounding density and access are sufficient. If the conditions for new or revitalized destinations can be met, then attracting credit tenants will not only be possible, it will be inevitable. Where conditions have been met, banks will also finance small businesses without parking and will finance residential buildings with parking at less than one car per unit.

One factor that contributes to long-term neighborhood viability is having housing stock that addresses the life cycle of neighborhood residents. This life cycle starts with household formation as a single person or young couple needing an apartment or small house. As a family grows, the need for space becomes more important, so the neighborhood needs housing with more bedrooms or perhaps a detached unit with a yard for

children. As households grow in income they may want housing with more amenities, and the neighborhood should be able to provide that. As households age, there may be a desire to move to a smaller unit but still stay in the neighborhood near friends and family. Finally there may be a need for the elderly to find units within their neighborhood that can accommodate their needs within walking distance of shopping and services and near transit for trips to the doctor.

A good neighborhood serves a mix of incomes and offers a range of appropriate housing types. The presence of middle and high-income households ensures that retail and services are also available to those of lower income. When designed well, the mix of unit types need not conflict or have adverse effects on property values if the main difference in cost is size and interior quality of finishes. This is true of the historic neighborhoods in El Paso where attractive large houses and small houses inhabit the same blocks and the difference in cost is based upon unit size and condition.

Achieving a varied mix of housing and services is critical for neighborhood survival in the long term. Current policy and economics pose difficulties for growth in the core areas of the City. The economics of land cost tend to favor growth at the edges of the City. The demographic center of El Paso is shifting as a result and this encourages and enables outlying retail locations at the expense of retail within the central areas. Building at the edges of the City also promotes auto orientation because of the style of development and City policy mandates street widths in suburban development that are not based upon a walkable design paradigm.

QUALITY OF LIFE: AVAILABILITY OF PARKING

One barrier to more intensive land use is parking. Parking presents a chicken and egg problem for developers in that parking will be less important as a walkable neighborhood develops, but before all of the amenities and population are there, higher parking ratios may still be necessary. Phasing is important in order to address developer risk and mitigate the cost of parking. In the plan, a full block development built now might require construction of expensive parking that could push costs above the level needed to gain a reasonable return on leases. Phasing allows developers to respond to the market and to mitigate risk.

In a first phase of full block development, for instance, the most important side of the block would be developed and surface parking would be built behind the building. This would allow a first phase to be built at the same cost as competing development, while still producing a good street frontage. As time passes the other block faces could be developed as the market allows. To finish the project a simple parking deck would be built over the asphalt parking and the block could be finished. Phasing of this sort would need to be planned before the first phase, but would then allow a long-term strategy to the developer.

Acceptance of a different model of development requires confidence that it will produce results. Many developers are justifiably wary when they see plans for which the required infrastructure does not exist yet, and may perceive working within neighborhoods as more difficult than similar projects on open, vacant land.

There are several ways to address these concerns. First, investing in the infrastructure will convince local tenants, owners, and developers that the City is serious about revitalization. Second, if the City has an available parcel and can partner with a local developer to build a demonstration project, the success of that project will spur interest by others. In addition, an example becomes a comparable for future development; the sales or leasing history is present, the demographics and business tenant profiles are there. This is information that can be distributed to appraisers and used by the next developer to support financing. Third, development of neighborhood parking strategies, and possibly strategic parking locations built by the City as part of its infrastructure program, would ensure that projects at higher intensity could gain financing during the transition period between auto-oriented and walkable places.

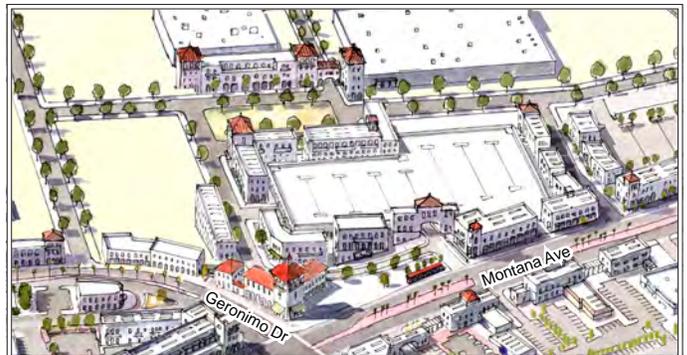
The Future Land Use Map in this Comprehensive Plan proposes ideal locations for future compact neighborhoods where employment, residential, and retail are balanced to provide more walkable neighborhoods with a mix and range of unit types.



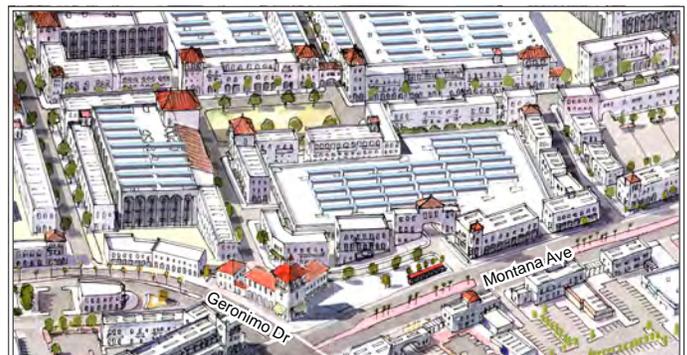
The enclosed mall is surrounded by acres of surface parking lots.



A parking deck is constructed in the existing surface lot creating building pads that can be developed.



New buildings face Montana Avenue and surround the parking deck creating a block with internal parking that can be used by the new and existing uses.



Lots are filled with new buildings.

QUALITY OF LIFE: GROWTH SCENARIO

Population, employment, and personal income projections for the City were provided by IPED at UTEP and have been used to formulate the scenarios for land needed for each type of use. Land use statistics for the area required for schools and churches, were derived from the City’s geographic information system. Open space and parks allocations were based upon typical estimates for planning. Drainage and easements are based upon data from subdivision engineering.

The following growth scenario is for the City of El Paso. The IPED estimates and projections provided were for the entire County; the City has only a share of this total and for the purposes of this scenario, it was assumed that there would still be growth in the other cities and the unincorporated County as well as in the City of El Paso. The population numbers and household numbers have been adjusted accordingly.

In order to yield a conservative estimate, it is also assumed that most employment growth would be captured by the City allowing the unincorporated County to remain rural in nature. The reason for this assumption is that if the City policies recommended in this plan are successful, employment is more likely to locate close to the majority of the labor force rather than in outlying locations.

The gross density proposed in this land use scenario is less than many neighborhoods in El Paso currently, but presupposes that some areas, such as Downtown and the Oregon corridor will have higher density, while other outlying areas may still be developed at much lower densities. The efficient use of land combined with smart growth that allows for a mix of uses on large sites and at transit centers can add greatly to the capacity of El Paso without significantly altering existing residential neighborhoods. These projections illustrate that there is plenty

of underutilized or skipped over parcels within the developed portions of the City to accommodate growth until 2030.

A somewhat different methodology described in the Regional Land Use Patterns element results in a similar conclusion as to the capacity of existing developed and approved areas to accommodate growth through 2030.

El Paso Growth Scenario

Future Growth 2010 to 2030		207,253	Persons
Households at persons of	2.87	72,208	Households
Housing Land - Units per Net Acre Average	10	7,221	Net Acres
New Employment Projections (from IPED)		88,452	Jobs
Employment Space at Average SF/Employee	709	62,712,468	Square Feet
Employment Footprint at Average Stories of	2.0	31,356,234	Square Feet
Employment Area at Coverage of	0.3	104,520,780	Square Feet
Acres for Employment		2,399	Net Acres
Retail Spending at Average \$ per Household	\$15,370	\$1,109,834,900	Spending
Retail SF at Sales per Square Foot of	\$439	2,528,100	Square Feet
Retail Land at FAR of	0.4	145	Net Acres
	Percent	Net Acres	
	Land Area		
Total for Housing, Employment and Retail	50%	9,765	Acres
Area for New Parks	10%	1,959	Acres
New Open Space	5%	979	Acres
Area for New Schools at SF/Child	4%	811	Acres
Area for New Churches	1%	196	Acres
Area for New Roads, Easements	25%	4,896	Acres
Drainage, Ponds etc.	5%	979	Acres
Total Land Area	100%	19,586	Acres
Acres per 1,000 Households		271.24	
Persons per Gross Acre		10.58	
Households per Gross Acre		3.69	

INFRASTRUCTURE: REVITALIZING CORRIDORS

The City of El Paso was named after a transportation convenience, “the pass” between the Rocky Mountains to the north and the Sierra Madre mountains to the south. The City’s identity may forever be linked conceptually to its transportation solutions as it transitions from a place to pass through, in the minds of potential new corporations, businesses, and residents, to a destination place in itself. For this reason the plan recommends streets of both capacity and expediency *as well as* character and livability.

Concerns were expressed regarding auto-oriented uses and their potential as a barrier to revitalizing the Zaragoza and Alameda corridors. Both corridors carry a great deal of traffic, and technical solutions for making these corridors complete streets are discussed in the Transportation Element of this plan. One solution for these corridors is to configure them as complete streets with commercial nodes at neighborhood centers and more auto-oriented uses between the nodes.

A complete street is one that works for all modes of access: pedestrian, bicycle, transit, and automobile. Creating complete streets requires more than calculating traffic capacity. Complete streets offer an economic advantage to their neighborhoods by enabling small businesses to aggregate together to create and capture pedestrian traffic. Slower traffic speeds allow smaller façade signage since sight times are longer and drivers have time to see and access businesses with shorter, pedestrian-oriented frontages. The aggregation of a wide variety of businesses at nodes makes a diverse and economically viable business environment by creating a retail or commercial destination. This typology best characterizes the goals for improvements to support neighborhood revitalization in corridors like Zaragoza Road and Alameda Avenue.

Another economic factor is that vital retail districts on complete streets tend to draw from their region rather than having a more limited trade area. They are authentically public, active places where people get to watch other people because they are not in cars. Complete streets offer both drive-by traffic volume and pedestrian volume, enabling two modes of market capture and increasing local capture through higher economic utility and higher social value. Zaragoza Road and Alameda Avenue could benefit from reconfiguration into complete streets. These streets could become economic generators for the individual districts through which they pass.

Residents expressed concern about automobile dealerships and the potential for change in the Alameda Avenue corridor. In places where urban revitalization is desired, such as nodes or neighborhood centers, a possible solution is to find an alternate



Existing conditions on Zaragoza Road include high speed travel lanes and wide dirt medians making vehicular transportation the only option.



Zaragoza Road is reconfigured into a multiway boulevard.



The blocks are filled in with street-oriented mixed-use development.

location to aggregate the auto dealers outside of the sensitive area. This can offer advantages to the neighborhood and to the auto dealers. An example of this was accomplished in Renton, Washington, where the city partnered to relocate automobile dealers to a location outside the downtown. The results have been increased automobile sales and a revitalized downtown. The land for the relocation was paid for with a portion of the sales tax generated from new development and the increased automobile sales.

INFRASTRUCTURE: THE VALUE OF EFFICIENT LAND USE

Efficient land use can generate more land profit for developers and help to create neighborhood centers and destinations with more retail, entertainment, and services for residents. This type of development allows more efficient transit, more walkable neighborhood destinations, more opportunities for small businesses, and also addresses the potential for Millennials and retirees who wish to live with reduced automobile use.

Union Station as an Economic Example

The area around Union Station was selected for a conceptual design and demonstrates the economic advantage of building at a higher intensity. There are three sites shown within the area around Union Station. One is owned by the City while two are on railroad land adjoining the station. The site programs formulated assume that these sites can be acquired by the City for reuse and that the cost to the developer will be for finished land ready for development. The purpose of the programs and the financial scenario is to evaluate the feasibility of development within the parameters of the economic policy recommendations in the plan. For this area, it has been posited that a district wide parking solution will be implemented such that parking on the individual building sites is not necessary.

Costs for this scenario are based upon existing cost research in El Paso and information from Builders Journal on regional costs for commercial and residential development of the type described. Leasing rates were researched for El Paso. For commercial and retail development, leasing rates in El Paso vary from under \$6 per square foot to over \$25 per square foot for retail in prime locations. Residential leasing rates for high-quality projects run from approximately \$0.32 per square foot to approximately \$1.20 per square foot.



View of Union Plaza redeveloped with new buildings and a central green.



Union Station Area Sites

Union Station Area - Site Programs

Site 1	
Site Coverage	60%
Building Footprint	60,113 SF
Ground Floor Commercial	30,056 SF
Residential	210,395 SF
Residential Leasable	172,500 SF
Average Unit	750 SF
Efficiency	0.8
Units	230

Site 2	
Site Coverage	90%
Building Footprint	15,682 SF
Ground Floor Commercial	10,977 SF
Residential	51,749 SF
Residential Leasable	42,750 SF
Average Unit	750 SF
Efficiency	0.8
Units	57

Site 3	
Site Coverage	90%
Building Footprint	9,409 SF
Ground Floor Commercial	8,939 SF
Residential	28,697 SF
Residential Leasable	23,250 SF
Average Unit	750 SF
Efficiency	0.8
Units	31

Site Totals	
Site Coverage	67%
Building Footprint	85,203 SF
Ground Floor Commercial	49,972 SF
Residential	290,841 SF
Residential Leasable	238,500 SF
Average Unit	750 SF
Efficiency	0.8
Units	318

Union Station Area - Costs

Land Acquisition Cost	\$8 SF	\$ 1,024,531
Construction		
Commercial*	\$85 SF	\$ 4,247,623
Tenant Improvements	\$40 SF	\$ 1,998,881
Fire Separation	\$20 SF	\$ 1,704,067
Residential*	\$75 SF	\$ 21,813,106
Parking		
Soft Costs	25%	\$ 7,440,919
Base Cost Commercial		\$ 10,333,158
Base Cost Residential		\$ 27,895,969
Total Base Estimate		\$ 38,229,127
Commercial Equity Required	30%	\$ 3,099,948
Residential Equity Required	20%	\$ 5,579,194
Total Equity Required	23%	\$ 8,679,141
Residential Loan Rate**	2.8%	
Commercial Loan Rate**	7.5%	
Period	25 years	
Commercial Loan Amount		\$ 7,233,211
Residential Loan Amount		\$ 22,316,775
Commercial Gross Rent	\$13.50 SF/year	\$ 1,150,245
Residential Gross Rent†	\$1.00 SF/month	\$ 2,862,000
Gross Rent		\$ 4,012,245
Commercial Vacancy Credit Loss	10%	\$ (115,025)
Residential Vacancy	5%	\$ (143,100)
Effective Gross Rent		\$ 3,754,121
Less Commercial Management	4%	\$ (46,010)
Less Residential Expenses	2,100 \$/unit	\$ (667,800)
Less Maintenance Reserve	3%	\$ (112,624)
Net Income		\$ 2,927,687
Less Commercial Debt Service		\$ (641,433)
Less Residential Debt Service		\$ (1,242,262)
Cash Flow Before Tax		\$ 1,043,992
Return on Equity	12.0%	
Return on Asset	7.7%	

* Construction costs from Builders Journal

** Loan rates from RealtyRates.com

† Residential rents vary from \$.32 to \$1.20 per square foot per month in El Paso

INFRASTRUCTURE: CREATING TRANSIT-READY DEVELOPMENT

Another strategy for creating less auto-only oriented development is to create walkable neighborhoods around existing and planned transit. This can be accomplished before the transit is in place by creating transit-ready neighborhoods. This model of development is not new to El Paso—the historic neighborhoods around the Downtown grew as a result of streetcars rather than automobile transit. It also does not suggest losing the advantages of auto-oriented development. Instead, it offers multiple modes of customer capture, by foot, transit, and automobile, and increases the potential base of customers for existing retail services within walking distance of transit areas.

Projects that are built to maximize walkability can start with surface parking lots behind street-oriented building, in effect banking the land used for surface parking to use later for higher value uses as the area develops. Over time, as the area develops further, surface parking can be replaced by parking decks or structures on the interior or backsides of blocks, or replaced by

district parking lots that allow full site development of individual parcels.

When transit-ready neighborhoods are created, they can be connected to other nodes of similar intensity. The transit becomes efficient because of the density of residences and services. The land use intensity lowers the cost of infrastructure per capita and therefore the cost of service per capita. Connected nodes are more easily linked to sub-regional destinations like the central business district in Downtown or the airport. Having transit ready neighborhoods that can become connected by transit to the Downtown increases the viability of the Downtown to compete with outlying employment concentrations, offering a commuting cost advantage in time and money to every employee who lives and works on the transit network. Creating transit-ready neighborhoods is a first step in an economic development strategy to strengthen and revitalize both neighborhoods and the Downtown.

Alameda Corridor RTS Stations

Stations	Acres	Site Square Footage	Average Value per Square Foot	Site Value	Development Square Footage
Raynolds	9.3	405,069	\$5.15	\$2,087,094	405,069
Buena Vista	52.5	2,288,415	\$4.11	\$9,397,885	1,830,732
Clark	17.9	778,217	\$6.56	\$5,104,346	306,166
Carolina	46.4	2,023,299	\$0.28	\$570,324	796,007
Flicker	11.8	512,678	\$6.11	\$3,133,208	201,698
Orr-Croom	40.7	1,773,049	\$3.53	\$6,257,181	697,553
Midway	14.8	643,304	\$5.74	\$3,695,187	253,089
Yarborough	56.5	2,461,905	\$4.06	\$9,990,617	968,563
Ysleta Transfer	170.1	7,407,852	\$2.93	\$21,738,094	2,914,397
Totals	420.0	18,293,789	\$3.39	\$61,973,936	8,373,274

Montana Corridor RTS Stations

Stations	Acres	Site Square Footage	Value per Square Foot	Site Value	Development Square Footage
Hawkins	146.6	6,387,071	\$0.47	\$2,970,420	2,512,802
Dieter	29.0	1,261,284	\$3.18	\$4,009,475	496,214
Lorne	39.4	1,716,305	\$4.61	\$7,918,638	675,229
McCrae	26.4	1,150,370	\$5.69	\$6,542,903	452,579
Yarborough-Trevino	11.2	488,342	\$3.39	\$1,657,196	192,124
Kleinfelder	10.9	475,825	\$0.44	\$208,843	187,199
Viramontes	201.6	8,782,118	\$2.59	\$22,733,953	3,455,062
Far East Transfer	92.5	4,029,582	\$4.21	\$16,962,815	1,585,318
Totals	557.6	24,290,898	\$2.59	\$63,004,243	9,556,526

All	977.6	42,584,687	\$2.93	124,978,179	17,929,800
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Another advantage of transit-ready development is that it achieves higher land use intensity and higher returns for local businesses while also creating a higher tax base. To evaluate the potential impact of transit oriented development, land values were assessed using the City of El Paso geographic information system. Programs were developed and the results in the change of building and land values for higher intensity development were calculated for the areas surrounding the RTS transfer stations and stops along the Alameda Avenue and Montana Avenue Corridors.

The scenario presented assumes that development at these sites is a process that will take up to 20 years to build out. The scenarios are intended as an example of what the capacity for development in underused areas can yield. Currently, the local development community is only familiar with low-intensity building models that do not account for changes in demograph-

ics and preference that are illustrated in the Housing Element and in the IPED statistics of population by age. As these changes occur, transit-oriented development will be in higher demand and pricing and leasing rates will respond accordingly, allowing development at transit ready intensities (typically a minimum or 7 units per acre). Given the market in El Paso and the development expertise locally, no building types have been proposed that are beyond the local capability. As an example, the highest intensity residential use is 35 units per acre, a density that has been achieved by Trammel Crow, a national developer, as standard multi-family development.

From the example, higher intensity transit-oriented development yields values far higher than current assessed value. Higher intensity and efficient development yields between five and ten times the value for the City.

Low Value	Median Value	High Value	Number of Units	Employment	Retail
32,405,492	48,608,238	60,760,298	114	41,691	3,980
146,458,578	219,687,867	274,609,834	642	235,532	22,487
24,493,292	36,739,938	45,924,922	218	80,097	7,647
63,680,527	95,520,791	119,400,989	568	208,245	19,882
16,135,840	24,203,760	30,254,700	144	52,767	5,038
55,804,247	83,706,370	104,632,963	498	182,489	17,422
20,247,101	30,370,652	37,963,314	181	66,211	6,321
77,485,035	116,227,552	145,284,440	691	253,388	24,191
233,151,790	349,727,684	437,159,605	2,079	762,443	72,792
669,861,902	1,004,792,853	1,255,991,066	5,135	1,882,862	179,760

Low Value	Median Value	High Value	Number of Units	Employment	Retail
201,024,134	301,536,200	376,920,250	1,793	657,380	62,761
39,697,144	59,545,717	74,432,146	354	129,816	12,394
54,018,319	81,027,479	101,284,348	482	176,648	16,865
36,206,282	54,309,423	67,886,778	323	118,400	11,304
15,369,886	23,054,829	28,818,537	137	50,262	4,799
14,975,937	22,463,906	28,079,882	134	48,974	4,676
276,404,925	414,607,387	518,259,234	2,465	903,887	86,296
126,825,477	190,238,216	237,797,770	1,131	414,739	39,596
764,522,104	1,146,783,156	1,433,478,945	6,818	2,500,106	238,689
1,434,384,006	2,151,576,009	2,689,470,011	11,952	4,382,968	418,449

EDUCATION AND WORKFORCE DEVELOPMENT

By providing improved educational opportunities, El Paso may benefit by improving its educational levels, improving employability and income levels, fostering community pride, attracting economic opportunity, and providing a research base to develop business and industry. This, in turn, will help to provide a greater quality of life for the entire community.

Identifying the total needs of the student

The National Education Association identifies many reasons why students leave school prior to graduation, including environmental, academic experience, physiological needs, and social factors. Environmental factors include family economic needs, low parental education levels, lack of family support for continued education, conditions surrounding migrant lifestyles, and lack of interpersonal relationships supportive of remaining in school. Poor academic performance, learning difficulties, authority conflicts, and negative responses to a school atmosphere account for academic experience factors related to recidivism. Physiological and social factors, respectively, include the need for a stable income source, marriage or pregnancy, and factors related to drugs, alcohol, or interactions with the legal system. Any efforts to improve the educational system’s ability to retain students through graduation should address these issues.

Varied programs for a variety of skills and interests

The ever-changing working environment makes it necessary to provide job skill training programs which will allow El Paso’s workforce to keep up-to-date on the latest training and technological advances. Such training may take several forms; three of the most common forms of training are:

- Vocational and industrial, including the obtaining of associate degrees;
- Advanced education, including the obtaining of four-year and graduate degrees; and
- Continuing education, for those wishing to remain up to date in a given field.

Vocational training and re-training for displaced workers should also be offered so that residents have the option to continue working and re-establish themselves, when necessary, into jobs which will provide them with opportunities for stability, growth and improved employment options.

The library network serves as a depository for the literature of our culture and provides a research base for those studying both specialized and general subjects. The City library branches offer a fairly comprehensive reference service, a wide choice of books, and multi-media products which supplement the resources of the local branches. Local branches should be dispersed between major branches to provide book lending service and limited reference service to well established residential districts.

Non-profit community-based arts education organizations such as Creative Kids Inc. also provide experiential, non-traditional educational formats. Creative Kids extends the reach of art and digital media resources to various student population groups throughout the City.

There are many institutions which provide educational opportunities for residents in the El Paso region. The El Paso Community College (EPCC) offers Associate Degrees or Certificates of Compliance in many programs, as well as non-credit programs such as Continuing Education, and English as a Second Language. EPCC currently has four campuses and two central service centers. Institutions which offer four-year college degrees include: The University of Texas at El Paso (UTEP), Park College on Fort Bliss, New Mexico State University in Las Cruces, New Mexico, the University of Juárez, Chihuahua, and several specialized colleges in Juárez. Three other institutions — Texas Tech Regional Academic Health Center, Texas A & M Extension Campus, and Webster University at Fort Bliss and Santa Teresa, New Mexico — offer research services and facilities for specific types of post-graduate education, but do not offer associate degrees or four-year degrees.



TOURISM IN EL PASO

El Paso offers many of the experiences that make a great tourism venue: active recreation, access to culture and art, a unique historical character, access to unique natural features, and diverse offerings in dining, lodging, and shopping. As such, El Paso is a successful tourism destination and tourism is an important element in the economy of El Paso. According to the Texas Department of Economic Development and Tourism, direct spending in El Paso on tourism in 2010 was \$1.4 billion. Spending and employment generated from tourism are shown in the table below.

El Paso Metropolitan Statistical Area

Spending From Tourism (in millions)	Dollars	Percent
Accommodations	\$ 167	11.8%
Food Service	\$ 206	14.5%
Food Stores	\$ 48	3.4%
Local Transportation and Gas	\$ 476	33.5%
Arts, Entertainment, Recreation	\$ 83	5.8%
Retail Sales	\$ 194	13.7%
Visitor Air Transportation	\$ 107	7.5%
Resident Travel, Agencies	\$ 140	9.8%
Total	\$1,421	100%

Direct Employment Generated by Tourism	Jobs	Percent
Accommodations and Food Service	6,260	52.7%
Arts, Entertainment and Recreation	2,850	24.0%
Retail Including Gas	1,850	15.6%
Ground Transportation	370	3.1%
Visitor Air Transportation	200	1.7%
Resident Travel, Agencies	340	2.9%
Total	11,870	100%

Centered Tourism as a Strategy to Capture Spending

An aspect of tourism that is similar to the economics of shopping but sometimes overlooked is the economic efficiency of the experience. The more there is in one place to see and do, the more successful the experience. El Paso has a wide variety of attractions spread over a very large area, requiring automobile travel between discrete experiences. The more that the individual elements can be combined or connected, the better the experience will be for travelers.

The figures for spending show that local transportation and gas take up 33.5% of tourism spending. As a comparison, the same figure for Austin, where tourism is concentrated in the center, is approximately 15%. If tourists to El Paso spent the same proportion on transportation and gasoline as they do in Austin, tourists in El Paso would spend \$211 million on transportation and gas, leaving \$265 million more in their pockets for other types of spending. Since most people travel on some sort of budget, the spending on transportation and gas ensures to some extent that less will be spent on shopping, entertainment, experiences, and restaurants. Employment produced by spending shows that entertainment and the arts produce more jobs per dollars spent than spending on gasoline with 34 employees per million dollars spent versus approximately 8 employees per million dollars spent toward retail and gasoline.

The recommendations in this plan for Downtown include the creation of a viable center for shopping, an entertainment district, a cultural district, and an adjoining local arts district. If these efforts are carried out, a more compact event-filled tourism experience will be created and some spending on gasoline can be replaced with spending on other categories, as tourists will be able to walk between venues or park once to experience a number of venues.

A Vital Downtown

As part of a Citywide strategy for encouraging and capturing tourism spending, a vital Downtown can be one of the greatest assets. Downtown is the living room of the City. When people visit and are invited into the living room, it needs to be a welcoming, comfortable, attractive place. Downtown El Paso has extremely significant architecture and intact building stock that is of historic and architectural interest in virtually every block.

Adjacent to Downtown are several historic districts, along with older industrial areas that are ripe for adaptive re-use and in-fill as the City grows over the next twenty years. Revitalizing Downtown and reinforcing Downtown by adding residents and activity to adjacent areas like the properties near Union Station will create a vibrant experience for travelers and improve visitation to the museums, theaters, and restaurants already located in the area.

Transit and Wayfinding for Tourism

A typical visitor's day consists of seeing sights during the day and then enjoying food and entertainment at night. Enhancing entertainment and food Downtown and providing transit to the daytime destinations is one way to increase the viability of tourism in El Paso.

Salt Lake City is 28 miles from the ski slopes but hotels in the Downtown still fill with skiers during ski season. Part of the reason is that there is a ski shuttle that stops at the major hotels and takes skiers from the lobbies of their hotels to the slopes, making it possible to stay Downtown and enjoy its amenities after a day skiing.

El Paso is in the midst of an effort to create a flexible, modern system of transportation links. Planning several tourism routes starting from the major hotels to deliver visitors directly to the fascinating historic, cultural, and natural assets that abound in El Paso would reinforce Downtown and enhance a visitor's experience.

When walking around Downtown, tourists find the Convention Center to be a barrier because it blocks the way to the Union Plaza District, which is becoming a popular dining and nightlife area. The creation of a convenient pathway to the Union Plaza District would make it easier for pedestrians to walk from one area to another, increasing the number of interesting venues for visitors without getting in a car. The proposed Downtown pathway is presented in the Downtown Element.

Wayfinding and markers would also improve the visitor experience. As an example, visitors don't know that Pancho Villa came to Downtown El Paso and would be interested to know where he stayed. There is a wealth of history in El Paso that is of both local and national significance, but unless one is lucky enough to walk with a local historian of the City, it is invisible. Wayfinding is essential to reveal the true character of El Paso to visitors.

Wayfinding should take place at two scales: a larger more general scale for those in cars, and a walkable scale for those arriving at destinations and historic districts. Markers should explain the significance of each place. From the pre-Spanish cultures, to the Spanish missions, to the Mexican revolution and the settlement of the southwest, to the remarkable architecture in Downtown, El Paso has a story to tell, and it should be easily discovered by anyone who visits.

Eco Tourism

Eco Tourism typically involves travel to destinations where flora, fauna, and cultural heritage are the primary attractions, as opposed to visiting cities, commercial resorts, or mass activities in fragile areas. El Paso has the potential to attract substantial number of eco-tourists as a result of the Franklin Mountains, the Mission Valley, and farming throughout the Rio Grande valley. The Public Facilities Element discusses an ambitious River-park and Trail System which could be a significant eco-tourism draw. County Judge Veronia Escobar has formed an Eco-tourism Committee to advance eco-tourism in the El Paso region.

Bicycling and Tourism

Bicycling can be a draw for some kinds of tourists. El Paso already has a significant sporting event for mountain biking, the El Paso Puzzler, a grueling 48 mile ride that circumnavigates Franklin Mountains State Park. The majority of bicycle tourism, however, is not by athletes. According to studies in Colorado, Canada, and the European Union, most cyclists are between the ages of 25 and 49, many travel with children, most have higher than median income, and they are looking for places where natural, historical, and cultural attractions can be reached safely by bicycle. El Paso is in the unique position of being able to offer bicycle tourists beautiful natural areas, history spanning

350 years, and a diversity of cultures unmatched by many other cities. With bicycle-oriented wayfinding and improved bicycle routes, El Paso can market itself as an exciting venue for all cyclists, from families and the occasional rider to athletes who want a challenge.

GOALS & POLICIES

Overall Goal: Build a foundation for economic prosperity that nurtures an atmosphere of innovation, increases quality of life to attract national and international talent, offers high-quality infrastructure, improves education and workforce development, and increases tourism.

Economic Framework

Goal 7.1: Increase economic development opportunities in El Paso to support a diverse and robust local economy that benefits from federal support and international economic trends but does not rely on them as a sole means of support.

Policy 7.1.1: Increase the number of college educated people by 20% by 2030.

Policy 7.1.2: Use land use policy to create places and neighborhoods that are attractive to young college educated people.

Policy 7.1.3: Develop a public - private El Paso venture capital funding pool; explore the creation of a Community Development Funding Institution (CDFI) to act as a conduit for public/private investment.

Policy 7.1.4: Establish a Small Business Investment Company (SBIC) to leverage venture capital through federal assistance.

International Trends

Goal 7.2: Take advantage of national and international trends such as the expansion of Fort Bliss, the resurgence of the maquiladora industry, and the border controls on international transport of goods to bolster El Paso's economy.

Policy 7.2.1: Support efforts to improve rail infrastructure for cargo to increase regional efficiency, stabilize the centrality of El Paso in shipping, and reduce congestion on existing roads and rail lines.

Policy 7.2.2: Continue to partner with REDCo and other economic development partners to take advantage of technology trends at Fort Bliss.

Policy 7.2.3: Encourage the airport to have a secure industrial/tech facility to draw future research and development to Fort Bliss and the City of El Paso.

Dynamic Neighborhoods

Goal 7.3: Make El Paso a city of dynamic walkable neighborhoods attractive to the coming Millennial population.

Policy 7.3.1: Reinforce transit and develop innovative zoning for job-based transit-oriented development.

Policy 7.3.2: Investigate the potential of a dedicated community funds for new development that can take advantage of tax credits and funding consortiums.

Policy 7.3.3: Develop new areas to be self-sustaining units that balance housing opportunities, retail, services, and employment in a walkable communities. Make El Paso once again a city of neighborhoods.

Centers of Activity

Goal 7.4: Use retail demand to support innovative sustainable neighborhood development rather than auto-oriented destinations.

Policy 7.4.1: Develop district-wide parking strategies to allow more intense development on individual sites.

Policy 7.4.2: Use district stormwater strategies that utilize existing drainage ways to lower costs for individual developments.

Policy 7.4.3: Cluster retail in community centers or near transit rather than along strips so that each neighborhood has multimodal access to a core area of services.

Downtown Offices

Goal 7.5: Enhance the market for Downtown office space.

Policy 7.5.1: Development policies should require that all buildings address the street with main entrances, doors, and windows, and shopfronts where appropriate. Parking should be located behind buildings.

Policy 7.5.2: To support Downtown revitalization and investment, the City should be prepared to continue to develop public parking. Removing parking costs will reduce the rent required to make investment sense. However, parking garages should be lined with commercial or office space at least along the bottom floor to keep streets safe and interesting for pedestrians.

Policy 7.5.3: The City should prepare capital incentive programs to make the renovation of older buildings financially feasible. In exchange for the subsidy, the City can influence the quality of the renovation.

Downtown Shopping

Goal 7.6: Protect and fortify the market for Downtown retail, particularly in the historic Golden Horseshoe district.

Policy 7.6.1: Market the Golden Horseshoe District to prospective shoppers, as well as to prospective tenants and entrepreneurs. An updated information source regarding store mix, square footage, and sales data from Golden Horseshoe merchants would be valuable in this market effort. Over time, this information can become an important source of data by which the character and performance of the Golden Horseshoe District can be measured.

Policy 7.6.2: The City of El Paso should recruit unique, high-quality retailers and/or eating and drinking establishments which currently operate in Juárez. El Paso offers a safe environment that is relatively convenient to the Juárez market.

Policy 7.6.3: The Golden Horseshoe District and Downtown contribute significantly to the City's economy but its market is vulnerable to border security policies and other unforeseen forces. These resources must be marketed to tourists and other groups of potential shoppers with similar tastes and preferences. Marketing this resource is of interest to the City, the Convention and Visitors Bureau, the Chamber of Commerce, the Downtown Management District, and the Central Business Association. The Downtown should seek to provide creative weekend packages that include shopping and entertainment as a way to draw markets to the Downtown.

Policy 7.6.4: Marketing has to be followed-up by human and physical infrastructure designed to serve visitors. High amenity streetscape, wayfinding signs, well-designed walking maps, and a visible and convenient Visitors Center are needed. Those persons serving the visitor market (hotel employees, bus drivers) should be knowledgeable about Downtown resources.

Policy 7.6.5: The City and the Central Business Association must continue to advocate for smooth and efficient border crossing operations. The Downtown's retail economy is negatively impacted each time the pedestrian crossing process becomes more burdensome.

New Industrial Neighborhoods

Goal 7.7: Create locations attractive to new industrial/tech employers in amenity rich environments.

Policy 7.7.1: Allow industrial as a special exception or special permit use in walkable destination areas with services and retail, contingent on the use category having no conflicts because of hazards or large-scale transportation needs. This will require a finer grained definition of industrial use to identify appropriate uses such as specialized software and programming, industrial design, and small-scale manufacturing.

Specialty Shopping Destinations

Goal 7.8: Develop a specialty shopping destination for the region and tourists.

Policy 7.8.1: Art dealers, artist studios and galleries, home accessories stores, and specialty stores that sell unique apparel, jewelry and gifts are store-types which should be targeted for the Downtown. These stores should target the middle- to upper-income household and younger households.

Policy 7.8.2: Because specialty stores often require lower overhead to survive, target areas in the Downtown such as Texas Avenue, where rents are lower.

Policy 7.8.3: Develop a cluster of at least three specialty stores within a geographic area. Some Downtown management corporations control a series of storefronts that could be used to facilitate tenant clustering.

Entertainment Destination

Goal 7.9: Develop an eating and drinking destination known throughout the region.

Policy 7.9.1: Encourage a cluster of eating and drinking establishments in the Central Business District around San Jacinto Plaza, Texas Avenue, and in the Union Plaza District. In addition to refreshing San Jacinto Plaza itself, it is imperative that early eating and drinking establishment recruitment efforts target vacant storefronts surrounding this central plaza. Three to four new, destination restaurants on San Jacinto Plaza could effectively transform it into a dynamic urban destination.

Policy 7.9.2: Develop Texas Avenue between Oregon Street and Stanton Street as an arts and entertainment district. The east end of Texas Avenue can be anchored by the re-use of Bassett Tower as residential and the Blue Flame Building as office space. The west end can be anchored by the re-use of the American Furniture building.

Development Incentives

Goal 7.10: Ensure that the SmartCode allows flexibility to respond to market conditions.

Policy 7.10.1: Expedite the approvals of SmartCode development by assigning City Staff to help developers prepare SmartCode applications.

Policy 7.10.2: Continue to reward SmartCode development with tax incentives, rebates, and infrastructure assistance.

Complete Streets

Goal 7.11: Revitalize the Alameda corridor as a complete street.

Policy 7.11.1: Use the ITE Walkable Thoroughfares manual when making upgrades to the Alameda corridor to create a complete street.

Policy 7.11.2: Cluster retail and services at neighborhood nodes rather than allowing all uses along the entire corridor.

Policy 7.11.3: Identify a location to cluster automobile dealerships that are currently in future neighborhood centers.

Educational Opportunities

Goal 7.12: Provide educational opportunities at all levels to allow children and adults to reach their fullest potential to enhance the City's workforce skills.

Policy 7.12.1: Support programs which encourage the completion of high school, or its equivalent, for all residents of the City.

Policy 7.12.2: Aggressively promote and support high school retention programs throughout the City.

Policy 7.12.3: Support a wide variety of job skill training programs that provide stable, higher paying job opportunities to residents at different skill levels.

Policy 7.12.4: Support literacy programs including the expansion of library resources.

Policy 7.12.5: Encourage higher education institutions in the El Paso area to provide a variety of new educational programs.

Policy 7.12.6: Encourage and help to increase the training capabilities of local colleges and universities, including increasing the types of graduate programs and degrees offered.

Policy 7.12.7: Support local colleges and universities in increasing their research capabilities in areas that will benefit the residents of El Paso and the United States/Mexico border region, both socially and economically.



HISTORIC PRESERVATION

8

Overall Goal: Preserve, renew and evolve historic buildings, districts and landscapes for the use and enjoyment of future generations.

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"THE PAST IS NOT THE PROPERTY OF HISTORIANS; IT IS A PUBLIC POSSESSION. IT BELONGS TO ANYONE WHO IS AWARE OF IT, AND IT GROWS BY BEING SHARED."

- CARL FEISS

CURRENT CONDITIONS

EL PASO'S ARCHITECTURAL HERITAGE

The City of El Paso is rich in historic resources. The area has long been considered favorable for human settlement, from Native American maize farmers to Spanish traders and missionaries. American and Mexican railroad workers, soldiers, businessmen and retirees have also been drawn to El Paso throughout its history. Some of the City's most notable historic resources include the Mission Trail, with its 18th century churches, and the Chihuahuita/Segundo Barrio, neighborhood some of the first settled areas of El Paso. Downtown contains a collection of early 20th century skyscrapers, surrounded by extensive early streetcar neighborhoods, built to house the growing population of the booming railroad town. Other notable resources include the City's extensive collection of historic industrial and transportation infrastructure, including 19th and early 20th century factories, warehouses, smelters, refineries, train depots and bridges. Fort Bliss, which has been located in El Paso at various sites since 1849, has also left an important imprint on the City's built heritage.



Ysleta Mission, established in 1682 and rebuilt in 1908



Augustus Koch's 1886 view of El Paso. Note that early development was clustered near San Jacinto Plaza, today's Central Business District. The City is defined by the Rio Grande River to the south and the Franklin Mountains to the north. Railroad infrastructure played an important role in the growth and shape of the City at this time.



The Plaza Hotel, built in 1930, was Hilton's first high rise hotel.



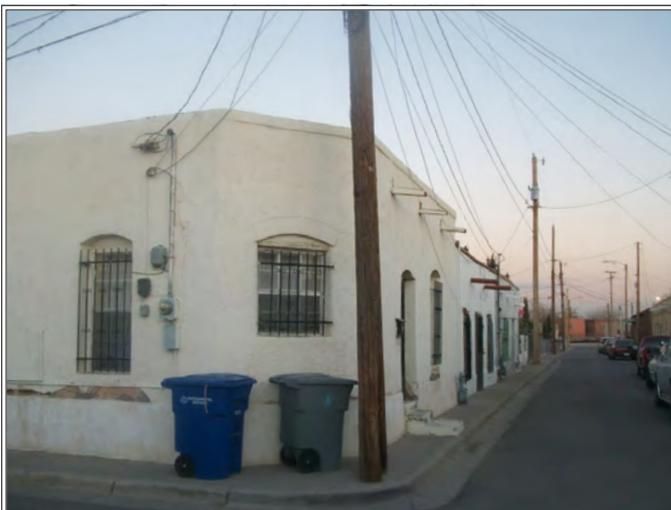
Historic barracks on the Main Post at Fort Bliss



Manhattan Heights, an early streetcar neighborhood



The ASARCO smelter hosts notable 19th century industrial buildings.



Chihuahuita, located on the edge of the Rio Grande River, is El Paso's oldest settled area and likely its oldest residential neighborhood.



Union Depot, completed in 1906

AUTHORITY AND ADMINISTRATION

In 1978, the City of El Paso created a Historic Preservation Ordinance that gave authority to promote, designate, and protect historic buildings throughout the City. The Ordinance gave authority to a Historic Preservation Office, as well as a Historic Landmark Commission, while outlining responsibilities. In 1996, the Ordinance was amended to allow the City’s Planning Division administrative authority to approve basic alterations to designated properties, such as fences and lighting.

Historic Preservation Office

The Historic Preservation Office today is part of the City of El Paso Planning and Economic Development Department. It is responsible for designating historic buildings and historic districts throughout the City, and for reviewing the alteration, demolition, or removal of designated buildings.

The Historic Preservation Office’s stated mission is as follows:

- To protect, enhance and preserve historic landmarks which represent important aspects of the city, state or nation.
- Safeguard the city’s historic and cultural heritage.
- Stabilize and improve property values.
- To foster civic pride in beauty and past accomplishments.
- Prevent the uprooting and demolition of architectural resources of distinct periods.

To date, the City of El Paso has locally designated nine historic districts, and is responsible for overseeing all alterations and demolitions to properties within these districts. In addition, the City has a number of locally-designated buildings that it administers. There are also five historic districts on the National Register of Historic Places within the City proper and in its immediate surroundings.

In 2007, the City implemented a Historic Property Tax Exemption program to promote the restoration and preservation of historically designated structures and buildings. If a property owner restores their building to the standards set forth in the Historic Preservation Ordinance, the City exempts the owner from paying a portion of their property taxes from four to ten years.

Applications for major alterations, demolitions, and Property Tax Exemption for locally-designated properties require review by the Historic Landmark Commission at a public hearing. Otherwise, much of the office’s work consists of in-house, administrative review of basic alterations to historic properties. These alterations include landscape, fencing, security grills, accessibility ramps, skylights, signs, window/door replacement, exterior paint, walkways and curb cuts, swimming pools in rear yards, routine maintenance, and accessory structures of less than 120 square feet.



Sunset Heights Historic District

HISTORIC DISTRICTS IN THE CITY OF EL PASO

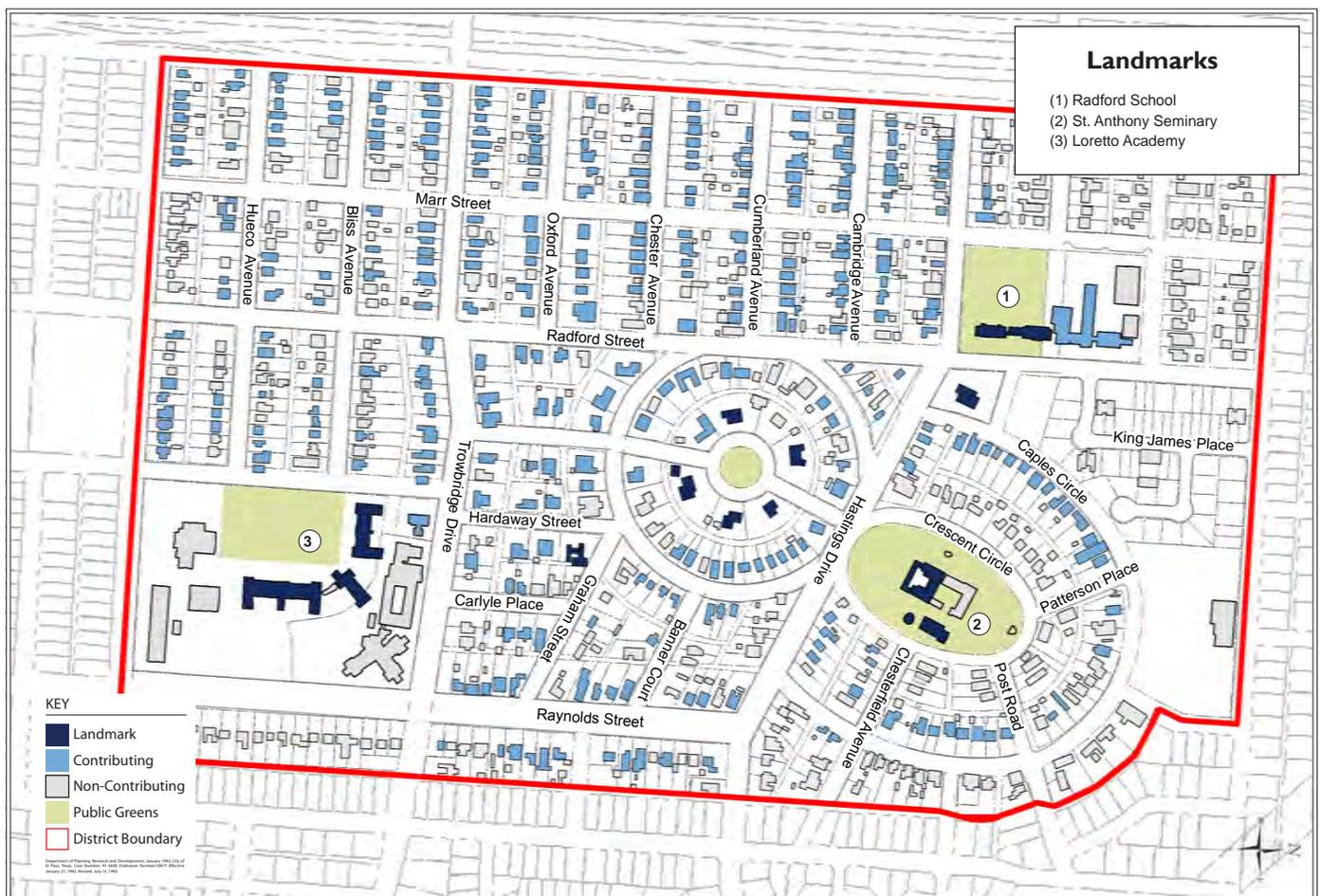
Austin Terrace

Austin Terrace was developed during the 1910s and 1920s on rolling sand hills at the edge of east El Paso and adjacent to Fort Bliss. This subdivision featured landscaped divided arterials on Hastings, Trowbridge, and Reynolds Streets and circular streets around the McNary House and Pennsylvania Circle Park. The James McNary House occupies an entire elliptical block on 3 1/2 acres of land (now St. Anthony's Seminary) and was designed by the California architect Myron C. Hunt. Across the street is the entrance to Pennsylvania Circle and Cumberland Circle with many revival homes designed by Otto H. Thorman and Mabel Welch.

Two private girls' schools are prominent landmarks in the neighborhood. The first to be built in 1917 was Radford School for Girls at the corner of Hastings and Radford Streets. The second school is Loretto Academy, constructed and designed by Henry Trost for Mother Superior Praxedes in 1922 on 19 1/2 acres of desert land.

These landmarks, the great variety of revival styles, and the curvilinear layout have all contributed to making Austin Terrace a unique neighborhood.

The Austin Terrace Historic District was created on April 17, 1990.



Austin Terrace Historic District, map of district boundaries, landmark buildings, and contributing buildings.

Chihuahuita

Chihuahuita is very likely the oldest residential neighborhood in what is now El Paso. It began to form shortly after Juan Maria Ponce de Leon was given a land grant on the east side of the Rio Bravo del Norte in 1827.

In 1848, the residents on the east bank became American citizens, at least politically. Culturally, they remained Chihuahuan. This identity was continually reinforced as immigrants from Chihuahua moved into the neighborhood.

The railroads came to the neighborhood's west side in 1881, with the offices of the Santa Fe Railroad occupying a two-story frame building at Fifth and Santa Fe Streets. This structure also served the Mexican Central Railway.

During the Mexican Revolution of 1910, Chihuahuita sheltered dozens of organizers, agents, undercover workers, and exiles from Mexico. The local residents were largely in sympathy with the insurrectionists, gave them refuge, and otherwise encouraged them.

The next decade brought prohibition to the border. Night after night throughout the 1920s and early 1930s, the crack of bullets whipped through the neighborhood as U.S. Border Patrol and Customs agents attempted to block the flow of illegal alcohol across the border and the smugglers fought back.

The Chamizal Treaty of 1964 settled a one-hundred year boundary dispute between the United States and Mexico and transferred over 600 acres of land from the United States (and the City of El Paso) to Mexico. As part of the same transaction, Mexico transferred about 193 acres of the Cordova Island sector to the United States. Chihuahuita lost Ninth and Tenth Streets in this settlement.

The Chihuahuita Historic District was created on March 25, 1991.



Chihuahuita Historic District, map of district boundaries, landmark buildings, and contributing buildings.

Downtown

In 1854, El Paso (then called Franklin) was a small village of adobe houses. Houses were scattered along an old trail called the Alameda, stretching from the plaza to the river crossing, a segment of the ancient Camino Real Highway from Mexico City to Santa Fe. Acequias (irrigation ditches) ran along the dirt streets beside cottonwoods to fields and orchards of grapes, peaches, and apricots.

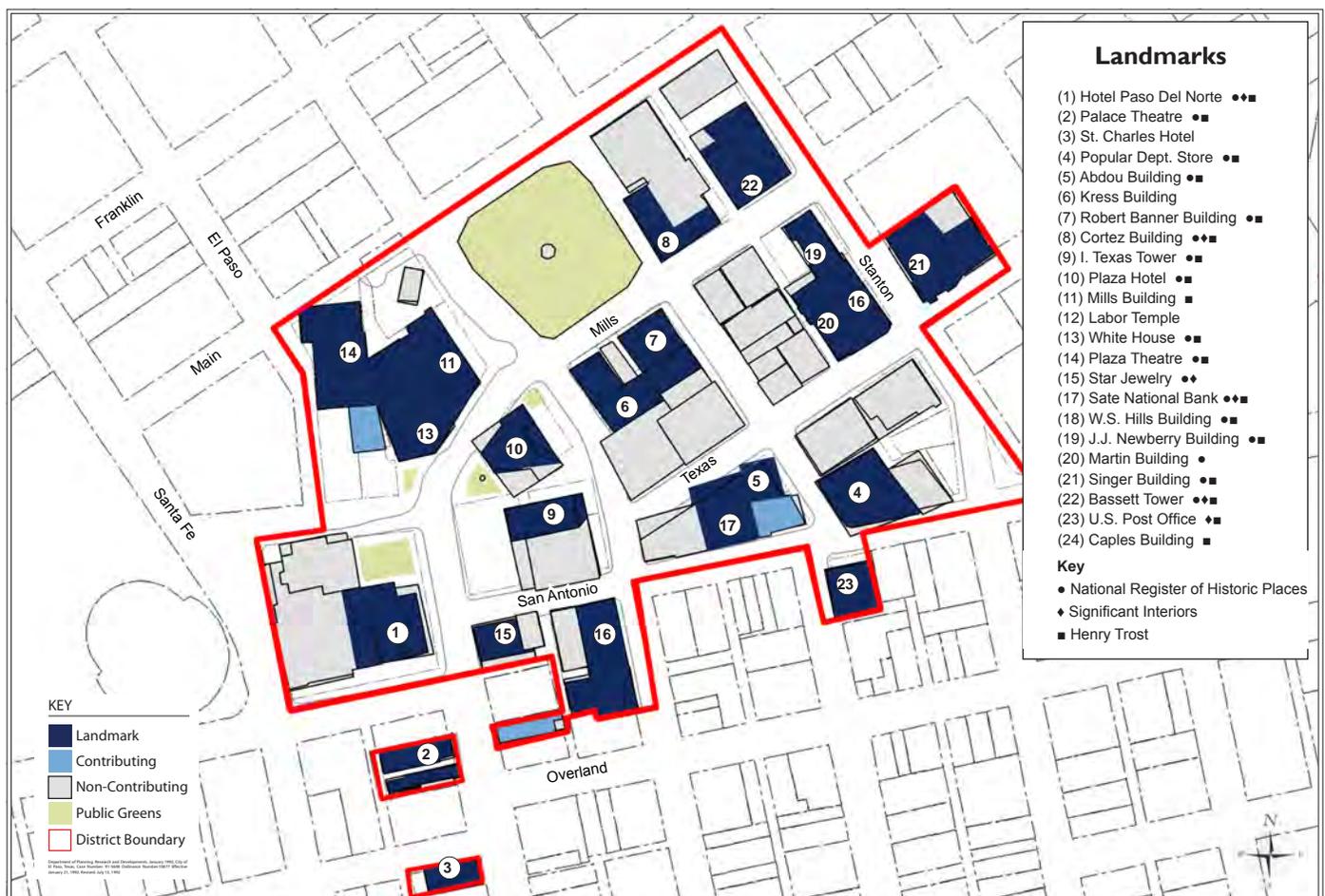
The Mexican side of the Rio Grande (Juárez) had an estimated population of 8,000 people by 1900. There was active commerce between the two communities by ferry.

Anson Mills came to El Paso before the Civil War and, in June of 1859, platted what is now the Downtown area. The El Paso City Government was established in 1873. During the same time frame, Pioneer Plaza was considered the center of town. Nearby, a bar owned by El Paso's future first mayor, Ben Dowell, served as the town's social center.

In 1885, the original Downtown commercial district began at Second Street (Paisano) and extended north on El Paso Street to Pioneer Plaza. By 1890, this business core began to migrate north and east, around San Jacinto Plaza and on to Mills Avenue. Many prominent buildings which form the El Paso skyline today were constructed in the 1910s, 20s, and 30s.

In the 1980s several historic landmarks were restored or rehabilitated. Taking advantage of liberal Federal tax credits and the Urban Development Action Grants (UDAG) program, the Hotel Paso del Norte, the Cortez Hotel, the old White House department store, the State National Bank, the W. S. Hills Building, the Singer Sewing Machine Building, the U.S. Post Office, the Roberts Banner Building, and the First National Bank Building were restored.

The Downtown Historic District was established on January 21, 1992.



Downtown Historic District, map of district boundaries, landmark buildings, and contributing buildings.

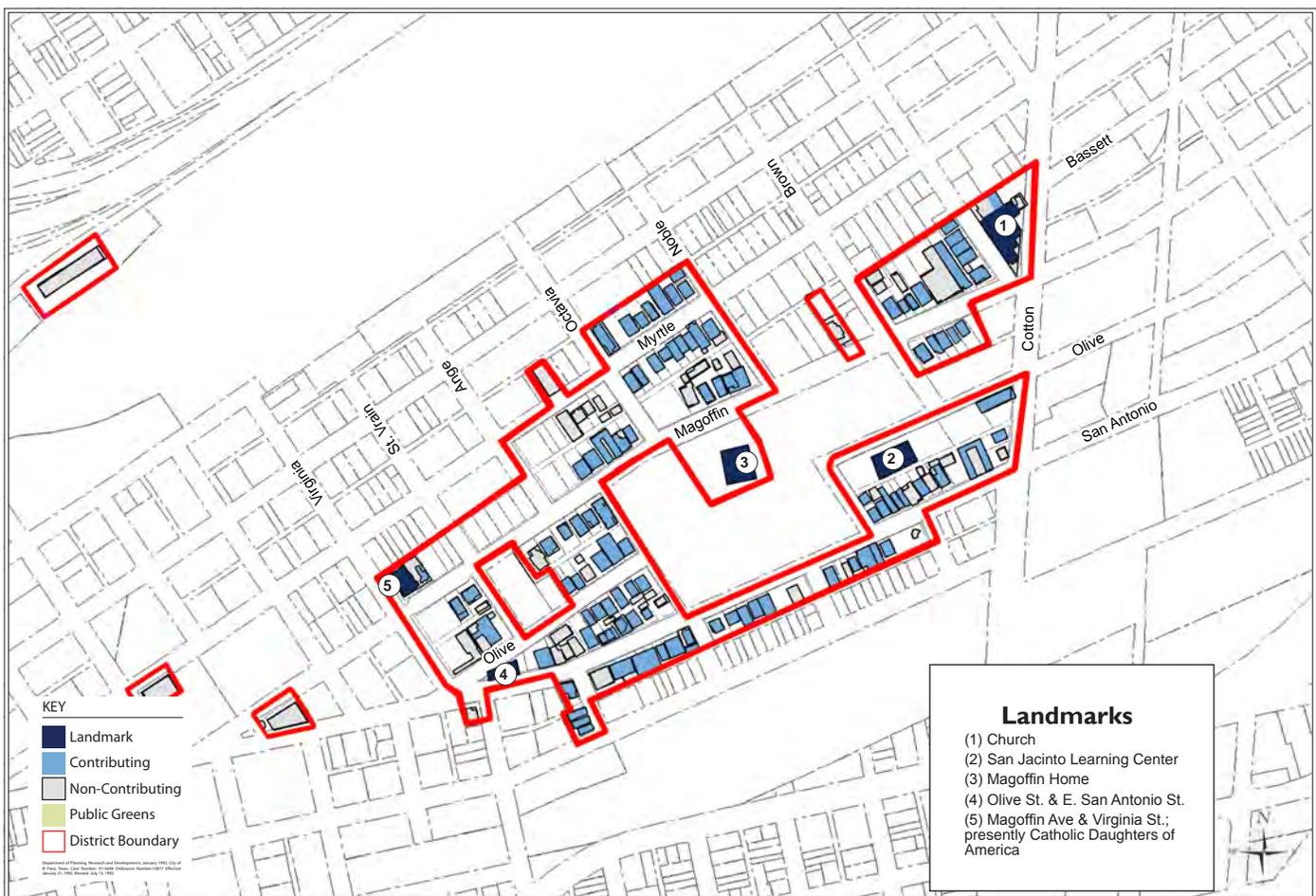
Magoffin

In 1849, James Wiley Magoffin settled on the banks of the Rio Grande and established a trading post to the east of the present Downtown El Paso area. This area became Magoffinsville. In 1854, a military post was established in Magoffinsville and named Fort Bliss.

An 1884 birds-eye view of El Paso County shows the Magoffin Home located in an orchard. Streets are laid out in a grid-like pattern and named, but only a dozen other houses are adjacent to the homestead area. The Magoffin Home, built in 1875, is the most significant building in the district and one of the most historical in the City. It displays a regional architectural style developed in the Southwest between 1865 and 1880. The Magoffin Home, a rare Texas example of this style, is built of sun-dried adobe with Greek Revival details apparent in its pediments and pilasters on doors and windows.

The Magoffinsville area was the first neighborhood to be developed after the arrival of the railroads between 1880-1890. Its houses reflect the styles and materials imported from the Midwest and East Coast. High Victorian was the prevalent style. Two examples of the Queen Anne design are found at 912 and 1129 Magoffin Avenue. The Beall House at 817 Olive Avenue, constructed in 1882, is unique for its all-redwood construction.

A lack of restrictive zoning policies in the Magoffin neighborhood resulted in a mixture of incompatible uses: residential, commercial, and industrial. This mixture of uses only served to hasten deterioration in the area. In an effort to stop this blight, revitalize the neighborhood, and preserve the remaining landmark buildings, the City Council created the Magoffin Historic District on February 19, 1985 with the recently restored Magoffin Home at the heart of the District.



Magoffin Historic District, map of district boundaries, landmark buildings, and contributing buildings.

Manhattan Heights

In 1912, Leo C. Dessar helped establish the Manhattan Heights Addition to the City of El Paso. Reflecting the mining history of the property, developers named the streets: Federal, Copper, Silver, Gold, and Bronze. An architect who received many residential commissions in the new subdivision was Mabel Welch. Mrs. Welch came to El Paso in 1916 from Mississippi and became the City's first female architect and builder.

Manhattan and Castle Heights featured lots that afforded scenic views of the City and surrounding mountains. The terrain just north and west of the park (the location of the original smelter) is more irregular than the outlying areas and is divided into larger lots with houses of individual design. The bungalow, prominent in numbers, appeared in developments of this type in the early 20th century. Generally small in size, simple in design and detailing, and affordable, the bungalow evolved as the outstanding American house form for years. It is the forerunner of the familiar suburban design today.

During the early years of development, the 43 acre area, designated as Memorial Park, remained practically unimproved. The

remains of slag dumps from the smelter caused uneven terrain with poor soil quality. Noted City planner, George Kessler, created the 1925 City Plan of El Paso, the first such plan in the nation. In it, Kessler outlined a detailed program for improvements to the park as funds became available. The reclamation of an old smelter site for park use was quite innovative at the time.

In the 1930s, during the time of the Works Projects Administration (WPA), retaining walls were constructed to accommodate extensive planting. Walks and paths of gravel and brick were laid. Electric lighting was installed and a lookout point was created.

Although the district is relatively young and contains few houses exhibiting a pure architectural style, it remains intact today as an early 20th century planned residential development. Uniformity exists in the structures' overall scale and their setback from the street. The predominance of the Spanish Colonial revival and bungalow styles, often comprising entire blocks, has created a character unique within the City. The Manhattan Heights Historic District was created on May 26, 1981.



Manhattan Heights Historic District, map of district boundaries, landmark buildings, and contributing buildings.

The Missions

The Mission Historic District contains some of the oldest Spanish missions on the continent. Three missions lie in this district. The oldest, Ysleta del Sur, was established in 1682. The Socorro Mission was also established in 1682. The San Elizario Mission, established in the 1770s, is located to the east, outside the limits of El Paso.

Ysleta del Sur Mission

The Mission of Corpus Christi de la Isleta del Sur (Ysleta del Sur Mission) is Texas' oldest mission. It was established in 1682 by Mexico Governor Antonio de Otermin and Fray Francisco de Ayeta. It isn't known where the mission was first located but one reliable source places it about 9 miles from the Guadalupe Mission. In 1691, Governor Diego de Vargas, in the name of King Charles II of Spain, gave the mission its official name: Corpus Christi de los Tiguas de Ysleta.

In 1774, a new church was built using the some of the walls of the previous structure. During the 18th century, many travelers went through the valley and left descriptions of the beautiful gardens and fruit trees of the Ysleta Mission and the El Paso Valley.

The 19th century was one of great change for the mission. As a result of the shifting of the Rio Grande and the signing of the treaty that ended the war between the U.S. and Mexico, Ysleta, Socorro, and San Elizario were placed in American territory and became subject to rule by the bishop appointed from the U.S. The Franciscans, who had been tending to the spiritual needs of the people there, were replaced by Jesuits and in 1874, Our Lady of Mount Carmel was named the patroness of the mission in place of Saint Anthony.

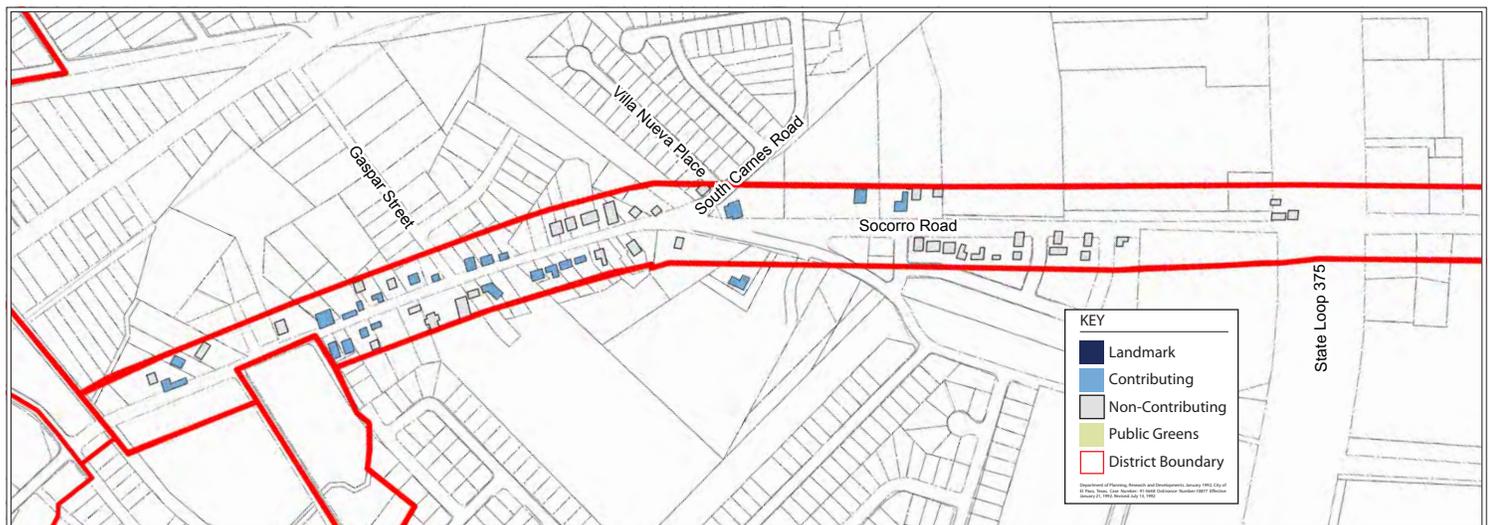
In May, 1902, the mission suffered the last of a series of disasters. Having survived the Rio Grande's floods and other crises, the building burned. Chemicals that were used to rid the belfry of bats caught fire, consuming a large part of the mission. Although many priceless objects and religious paintings were lost, some remnants of the walls did remain. Against the advice of his superiors, Rev. Juan Cordova had the mission rebuilt. In 1982, the Ysleta Mission observed its 300th birthday.

Socorro Mission

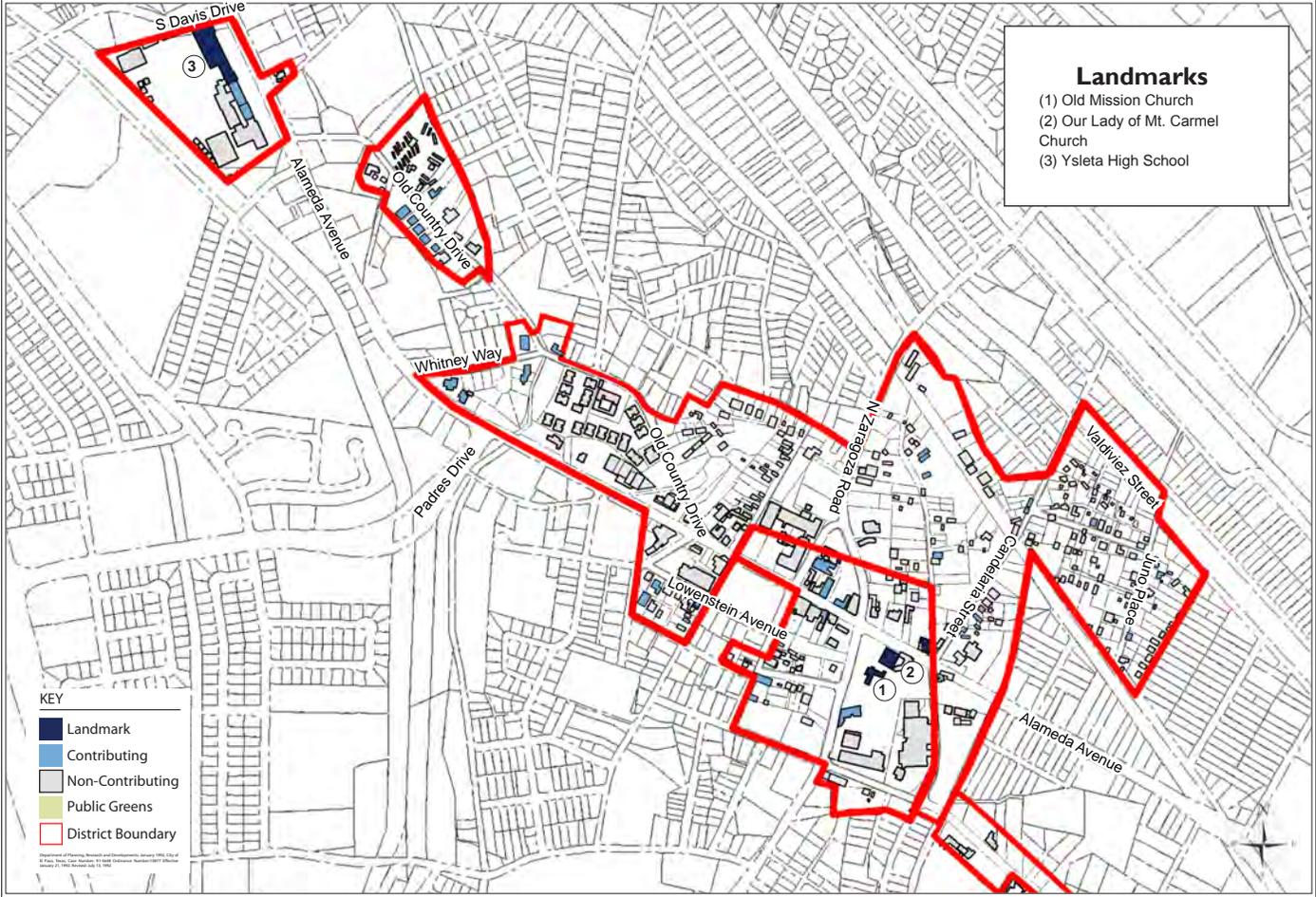
Nuestra Señora del Socorro (Socorro Mission) was established in 1682 as a mission for Piro, Thanos, and James Indians. Originally it was located about 30 miles from the Guadalupe Mission at Paso del Norte and about 19 miles from Ysleta. However, when a group of Indians threatened to revolt, the mission was moved to a new location about 2.5 miles from the Ysleta Mission.

In 1705, a friar passing through the valley wrote that Fray Antonio Guerra, the pastor, was constructing a new church. The area continued to grow. During a 1760 visit by the Bishop of Durango, Mexico, there were about 600 people in Socorro and a nearby hacienda.

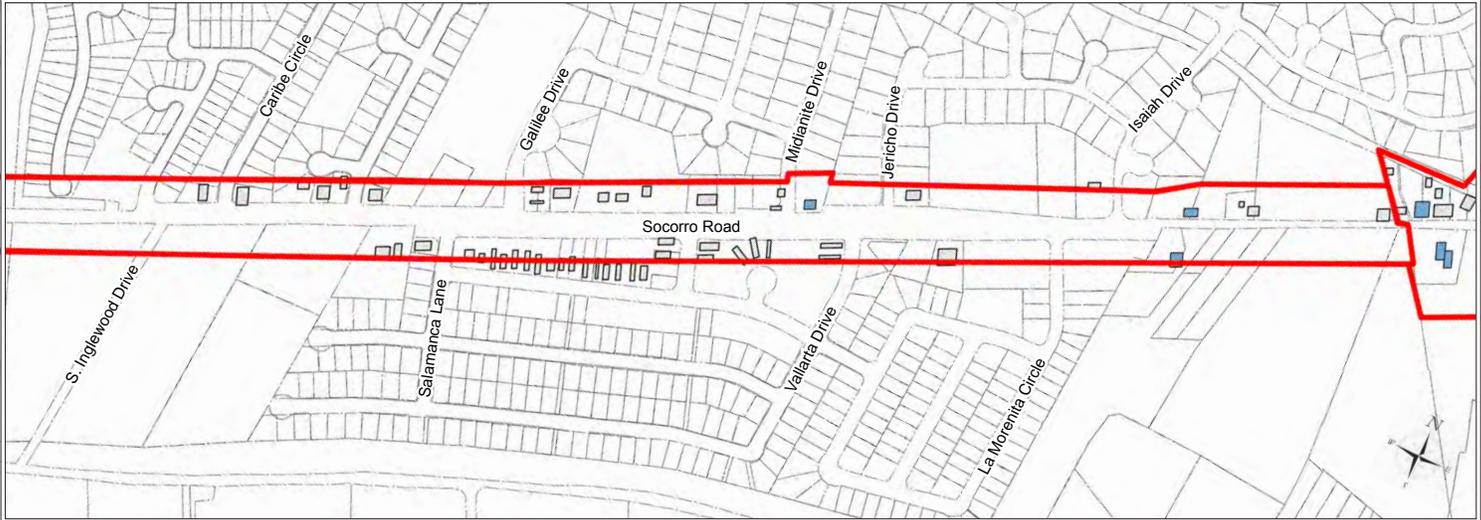
In 1829 the Socorro Mission was destroyed by flood. Using the vigas (beams) from the original church, the present church was built about half-a-mile closer to Ysleta and was completed about 1843. Because the mission has not been greatly altered over the years, it is considered to be the most representative of the early El Paso valley missions.



Mission Historic District, map of district boundaries, landmark buildings, and contributing buildings.



Ysleta del Sur Mission Historic District, map of district boundaries, landmark buildings, and contributing buildings.



Old San Francisco

Old San Francisco Historic District in the Stevens Addition lies just southeast of Sunset Heights and northwest of the original Downtown area on the scenic lower foothills of the Franklin Mountains. The name “San Francisco” evidently comes from the terrain developed on the northern side of the route used by the El Paso to San Francisco stage coaches during the 1800s.

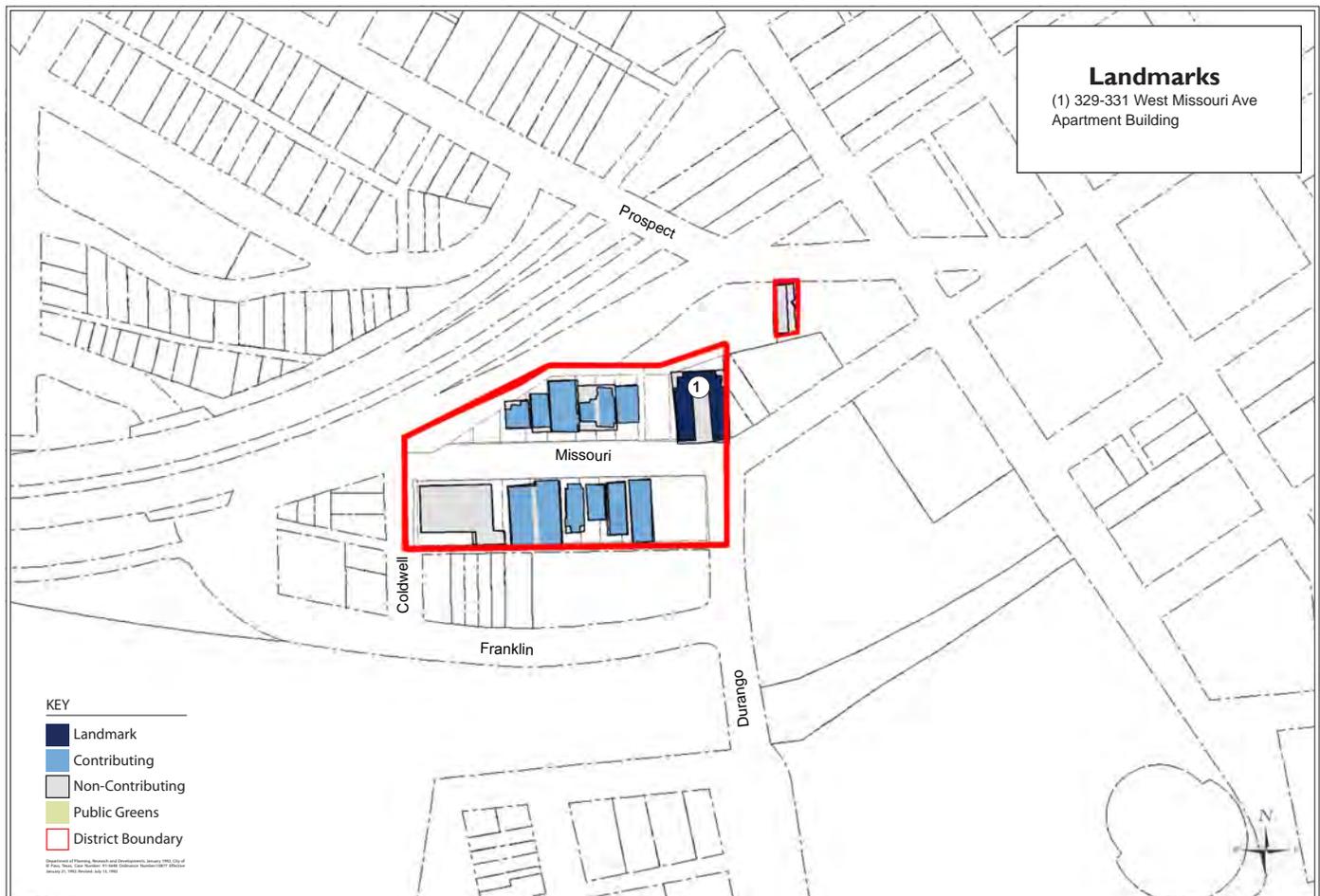
All but one of the extant sixteen buildings in the tiny Old San Francisco Historic District were constructed between 1908 and 1923.

Old San Francisco Historic District was and is an area of architectural and historical integrity. It is composed of a coherent group of apartment houses with the same basic architectural style and form. As the southern part of Sunset Heights, Old San Francisco Historic District provided a much needed area of multi-family housing for the growing City of El Paso in the early 1900s.

For the residents of the district itself, the area provided good temporary accommodations at reasonable cost for individuals who came to El Paso either to work or for their health.

In the 1960s, Interstate 10 was cut through Wyoming Street separating this neighborhood from Sunset Heights. During the 1970s, two adjoining blocks were razed for the construction of the new City Hall. These two blocks contained numerous apartments and boarding houses similar to those on Missouri Street.

The Old San Francisco Historic District was established on December 6, 1983.



Old San Francisco Historic District, map of district boundaries, landmark buildings, and contributing buildings.

Sunset Heights

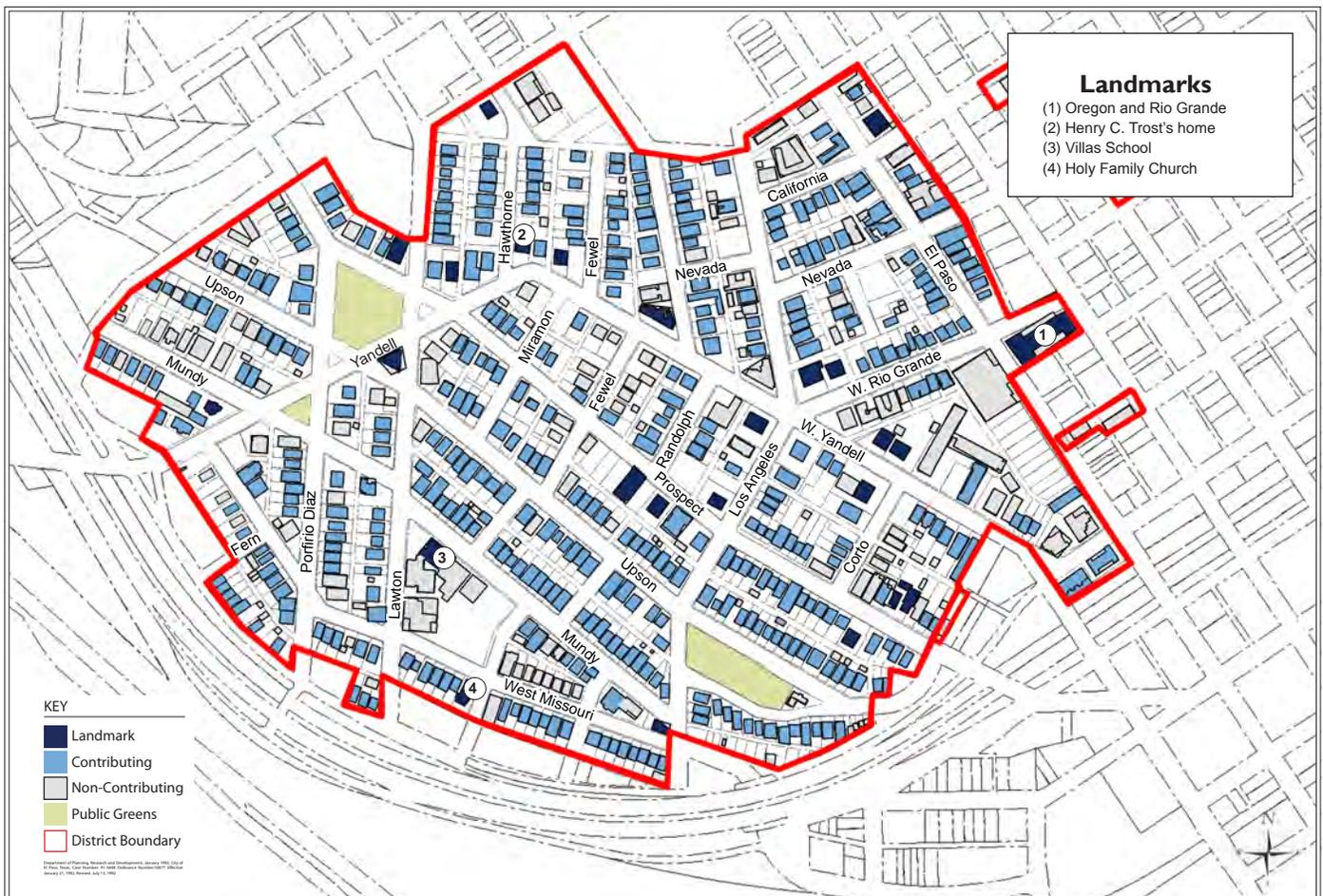
Sunset Heights was developed by J. Fisher Satterthwaite, an emigre from New York, who purchased the land for the development of a fine residential area. Water and gas mains were installed by 1884, and the neighborhood was platted. Soon after, the neighborhood was named “Sunset Heights” from a winning *El Paso Herald* naming contest entry. By 1901, full scale development was under-way. A dozen teams of horses and forty men went to work to cut down the rocky terrain, fill in arroyos, and lay out approximately 1,200 new building lots.

At its peak, Sunset Heights was the elite section of El Paso, and offered residents a view over the Rio Grande River and into Mexico. Residents were described as a “melting pot of ethnic cultures,” and fell into two primary groups: wealthy Mexicans who fled their native country because of political revolution, and prominent Anglo-Americans.

Henry Trost, El Paso’s pioneer architect, built his home here and designed several of Sunset Height’s residences. He is believed to have worked with the firm of Sullivan and Adler in Chicago when Frank Lloyd Wright was there.

When the original home owners died, their heirs sold many properties to real estate speculators. By 1970 half of the buildings in this area were in a deteriorating and dilapidated condition. In an effort to stop this blight, the City Council created the Sunset Heights Historic District in 1984. Since then several prominent homes have been completely restored and the grandeur of the neighborhood is re-emerging.

Because of the topography of the district, few streets run straight for more than a few blocks. Only one block is perfectly rectangular, the others vary from diamond to irregular in shape. The irregularity of the blocks produces a pleasing visual texture and a cityscape that is unique in El Paso.



Sunset Heights Historic District, map of district boundaries, landmark buildings, and contributing buildings.

PLANNING EFFORTS

El Paso Historic Preservation Action Plan

In 2008, the Texas Historical Commission sponsored a Citywide planning process to map the future of historic preservation in El Paso. The process was funded through the State’s Visionaries in Preservation (VIP) program. The program was created with the intent of empowering “Texas communities to shape the future of their historic preservation efforts through visioning and planning, and [providing] training and assistance tailored to achieve local preservation goals.” The ultimate intent of the program was to promote historic preservation as part of a dynamic economic development program in order to create jobs, provide affordable housing, increase property values, and revitalize downtowns.

Some of the goals of the VIP process were to:

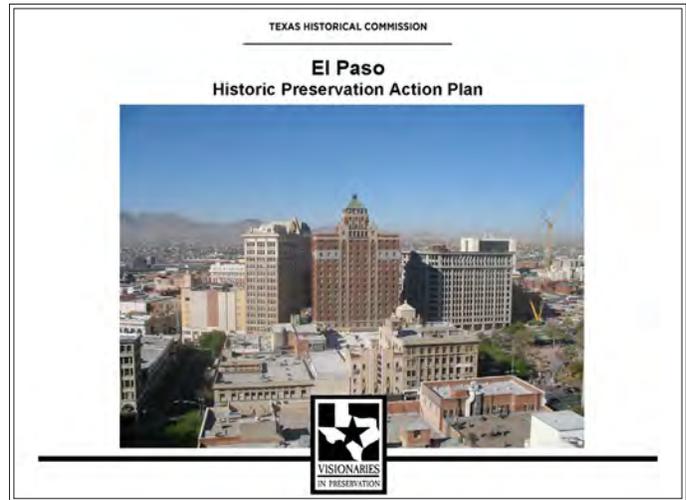
- Build partnerships among diverse groups and interests.
- Foster preservation leadership.
- Develop unified preservation goals and action plans.
- Receive priority status for local training and assistance from the Texas Historical Commission.
- Enhance capability to secure grants and funds for preservation projects.

As part of the VIP process, citizen task forces were created to promote different aspects of historic preservation. These task forces include Public Policy, Civic Tourism, Historic Survey, Education and Communication, and Planning. Each group drafted goals and action steps for historic preservation and served as the community network responsible for ensuring their implementation.

As a result of the VIP process, the El Paso community created the Historic Preservation Action Plan, which is intended to serve as the roadmap for future preservation efforts, both by the City and other preservation groups in El Paso. Some of the key recommendations of the Action Plan include short term goals, mid term goals, and long-term goals. Numerous action steps for achieving these goals are also detailed in the Plan.

Short Term Goals:

- Identify El Paso’s “Sense of Place” to establish a strong local identity
- Revise and create illustrated design guidelines to encourage context-sensitive new development and appropriate preservation work
- Compile a list of underutilized historic commercial buildings and encourage appropriate development of the structures
- Investigate opportunities to create multi-income housing, loft and apartment living in Downtown El Paso
- Market existing historic preservation incentives and services to encourage rehabilitation and adaptive re-use projects



The El Paso Historic Preservation Action Plan was created by the community with the assistance of the Texas Historical Commission. It serves as a guide for City efforts, as well as the efforts of other historic preservation partners in the community.

- Investigate funding options for historic rehabilitation, including grants, low interest loans and tax credits
- Review, revise and enforce City ordinances to support preservation and aesthetic goals
- Implement economic strategies to revitalize Downtown El Paso and enhance the local business markets
- Initiate a marketing campaign to highlight the benefits of historic rehabilitations of Downtown commercial and residential properties

Mid Term Goals:

- Survey and identify all historical assets in the community, including commercial, industrial, residential and religious properties
- Utilize survey of historic assets to initiate the creation of new historic districts
- Beautify the entrances, gateways and main corridors in El Paso
- Facilitate the permitting process for development in historically significant regions of El Paso
- Increase community and organizational involvement in preservation planning and historic preservation efforts
- Establish and expand financial incentives for preservation and property maintenance

Long Term Goals:

- Develop a heritage-based interpretive master plan for El Paso’s historic, cultural and natural assets
- Initiate a campaign to encourage El Paso citizens to take advantage of their historical, cultural and natural resources

RECENTLY COMPLETED INITIATIVES

A number of notable preservation and adaptive reuse projects have recently been completed in the City. The 1903 El Paso & Southwestern Railroad and Freight Depot, possibly designed by Daniel H. Burnham, is visible from I-10 just east of Downtown. This building was converted into a nightclub. The Mills Building, a twelve-story 1911 Trost office building located on San Jacinto Plaza, was rehabilitated as Downtown's premier business address. In addition, a 1925 Trost & Trost warehouse building at Florence and Third Streets was converted into a mixed-use / residential condo project called First Avenue Lofts. All projects were completed in partnership with the City of El Paso, and all have been used innovative financing tools for historic preservation, including tax credits, tax exemptions, and grant funding.



El Paso & Southwestern Railroad Freight Depot, planned to be restored and reused as a restaurant



The Mills Building in 2000, following a historically-insensitive renovation



The Mills Building today, restored to its original appearance



Trost & Trost warehouse building before rehabilitation



Trost & Trost warehouse building, rehabilitated as a mixed-use/loft space

COMMUNITY CONCERNS

Revitalize Downtown

El Pasoans agree that Downtown should be revitalized to live up to its historic role as the heart of the City. Many of the City's most important historic events took place in Downtown and its adjacent neighborhoods such as Segundo Barrio and Chihuahuita. Because of Downtown's important role in the City's history, it is home to a wealth of valuable cultural resources that can still be visited today, such as San Jacinto Plaza, Union Depot, historic churches and civic buildings, and blocks upon blocks of early 20th century skyscrapers, 19th century mercantile buildings, and 19th and 20th century housing stock. A surprisingly high percentage of Downtown's historic structures have survived the test of time through a lucky combination of economic stagnation and an extremely dry climate, leaving many of these grand old buildings in sound structural condition.

Despite Downtown's countless assets, it has not yet experienced the urban revival that many of El Paso's peer cities have enjoyed in recent years. There is no significant housing stock and the Downtown and office buildings have high vacancy rates. Accordingly, Downtown streets are deserted after 5:00 PM, giving the impression that Downtown is unsafe. Because Downtown is underutilized overall, its abundant and commendable civic facilities – theatres, museums, cultural centers – are underutilized as well. The El Paso community agrees that a Downtown renaissance is long overdue, and they hope to see the vacant buildings filled with occupants, the streets busy with people throughout the day and week, and the businesses and cultural facilities thriving. They believe that public investment is a key step in revitalization.

Restore Historic Buildings

Most El Pasoans want to see historic buildings throughout the City restored, occupied, and reused. The City has an extensive stock of pre-WWII buildings throughout the central City, with a rich variety of building types, from adobe apartments and townhouses to brick and concrete skyscrapers, to countless bungalows and mission-style homes in streetcar neighborhoods. While El Paso's stock of historic architecture is unmatched by most peer cities, and while the City has been fortunate to retain the majority of its original building stock, many of these historic buildings are undervalued, in poor condition, and are vacant or underutilized. The City's citizens believe that restoration of El Paso's historic buildings will increase property values in the central City and help to improve El Paso's image. In addition, reusing historic buildings and encouraging more people to move back into the City's original in-town neighborhoods is an excellent way for the City to evolve as a modern, environmentally sustainable place to live.

Invest in Historic Neighborhoods First

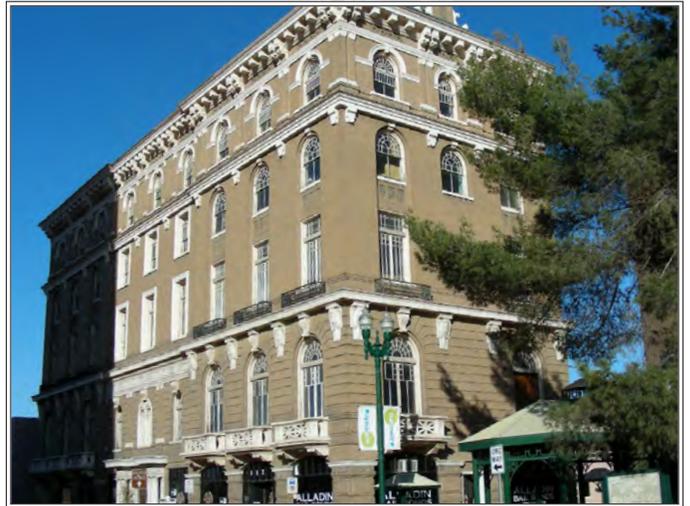
Most El Pasoans agree that the City's core historic neighborhoods, particularly those built prior to WWII, should be preserved, repaired, and completed first, before building new suburban neighborhoods on the outskirts of town. Citizens feel that the historic neighborhoods are better located adjacent to goods, services, and transportation resources, and that the neighborhoods themselves are better designed, with walkable streets, sidewalks, central parks with neighborhood amenities, and a range of housing types. They feel that City investment should focus on these areas to prevent far-flung tracts of desert, arable valley, or mountainsides from being developed for single-use, drive-to subdivisions.

Learn from the Past

As discussed above, most El Pasoans feel that the City's historic neighborhoods were better designed than the subdivisions that have been constructed since the 1950s. There is a clear preference for the neighborhoods themselves, their location, and the amenities that they provide such as integrated parks, walkable streets, and a mix of uses and housing types. In particular, El Pasoans express a preference for the buildings themselves in these historic neighborhoods. They admire the high-quality construction, the long-lasting materials, and the timeless design of these homes, particularly in comparison to the newer, more quickly and oftentimes more cheaply constructed homes built today. In many cases, El Pasoans remarked that they wish not only to preserve these historic neighborhoods and homes for continued use, but even more, they wish that contemporary designers and home builders would "learn from the past" and revive the tradition of making high-quality buildings and neighborhoods which respond to the local climate and culture.

Make El Paso's History Accessible

Many El Pasoans feel that the City doesn't promote its assets well enough. In particular, the City's colorful 500-year history is relatively unknown to outsiders and to residents themselves. There are few tourism programs or initiatives that highlight the City's history and attract visitors interested in learning more about the City itself. Despite the vast historic resources available, the historic border areas, links to the Mexican Revolution, the Mission Trail, and the historic railroad infrastructure, most are inaccessible or unknown. Residents wish to see the City's historical features highlighted in revitalization projects and made more a part of the day-to-day life of the City. They also want to see the unique character of the City's historic core promoted as a distinctive place for people to visit from around the country.



The stately buildings pictured above are just a few of the underutilized structures whose vacancy hinders the vitality of Downtown. El Pasoans recognize that the vacant upper floors of buildings are a problem and are seeking ways to make them useful again.

Bring Back the Trolleys

El Pasoans look back with great sentiment to the days of the streetcar and the trolley, which operated in El Paso as late as 1974, much later than other cities in the country. There is great popular support for a revival of trolley service in the historic core of El Paso, to serve regional residents, workers, and shoppers, and to complement a heritage tourism initiative to highlight destinations in Central El Paso.

Many El Pasoans would like to see the City's nine original Presidents' Conference Committee (PCC) streetcars, which are currently in storage in various locations around the City, restored and brought back into service as part of the trolley revival. These cars are a 1938 vintage that operated as part of El Paso City lines from the mid 20th century until 1974. They were part of the last trolley route remaining in the City, the international El Paso-Juárez line. When the line was shut down, the City put many of the cars in storage in the hopes that service might one day be restored. El Pasoans have a great fondness for these cars and feel that incorporating them into the trolley revival would add cultural significance and pure enjoyment to the transit experience.

Revitalize Alameda Avenue and Lower Valley Neighborhoods

The Alameda Avenue Corridor is of primary concern to many El Pasoans. This corridor is one of the most historic in the City, as it connected the major settlements of Ysleta (once the seat of government in the region) and Franklin (the site of Downtown today). The Avenue was once known for the dense canopy of large cottonwood trees that were planted on either side of the roadway, as well as its landmark theatres, restaurants, and hotels. Since the middle of the 20th-century, Alameda Avenue has deteriorated substantially. The trees were cut down to make way for road widening and utilities, significantly degrading the image of the street. Today, the corridor is used as a primary truck route and is known as the address for used cars lots. El Pasoans want to see the original beauty of the corridor restored through significant plantings of shade trees, and would prefer to see more attractive, neighborhood-oriented uses along the Avenue. Where there are historic buildings along Alameda, residents would like to see these buildings preserved and reused. El Pasoans would like to see revitalization of Alameda Avenue be implemented hand-in-hand with the preservation and restoration of the adjacent historic neighborhoods.

Preserve and Enhance Ysleta

El Pasoans feel strongly about Ysleta, the historic center of the City. They want to see the historic resources in this area preserved, restored, and reused as a way to revitalize the area. They would like to see greater coordination with the Tigua tribe to promote the area and provide a greater sense of identity both for the tribe and the City. El Pasoans feel that restoration of historic buildings, renovation of existing businesses, creation of parks and green space, and sensitive infill construction in this area will benefit the Tigua and City, and will put forth a more positive identity for the area.

Preserve Segundo Barrio without Gentrification

El Pasoans feel strong ties to Segundo Barrio and would like to see the neighborhood preserved and protected. The area hosts an abundance of unique urban building types, including original adobe rowhouses and tenements. Many in the community feel that the best way to protect Segundo Barrio is to locally designate it as a historic district, however there is widespread fear that historic status will cause the neighborhood to be gentrified, threatening the low-income families and recent immigrants from Mexico who currently reside there. El Pasoans do wish to see Segundo Barrio's important role in the Mexican Revolution and the neighborhood's unique Mexican-American heritage better understood by residents and visitors through education and accessibility.

STRATEGIES FOR ADDRESSING COMMUNITY CONCERNS ASSESSMENT

Take Stock of El Paso's Historic Resources

The City of El Paso is home to a wealth of historic resources, unprecedented by most cities of its size. These historic resources, however, are relatively unknown or are under appreciated. As a first step towards strengthening El Paso's sense of place and community identity, and spurring on economic development and revitalization, the City must have a baseline survey of all historic resources that exist.

Step 1: Conduct Blitz Surveys

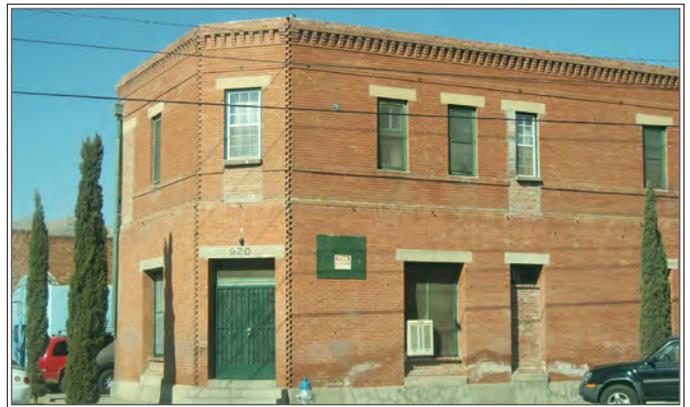
The best way to undertake a comprehensive historic resources survey of a city the size of El Paso is to undertake "blitz," or sketch surveys, that are comprised of photographs, quick notes, and addresses for candidate historic properties. These blitzes can be organized by City staff, but the field work itself is conducted by community historic preservation partners and concerned citizens who are simply doing a first round of identification. City staff can compile the materials collected by volunteer groups and use them as a basis to revisit properties and conduct further research to identify candidates for historic designation. From this survey, City staff can create an endangered building list, comprised of the City's most at-risk properties that have not yet been designated. It would then be possible to prioritize actions such as local designation of key properties, public awareness campaigns, outreach to property owners, and financial incentive packages.

Step 2: Gather Supporting Documentation

Once an initial blitz survey has been conducted, it would be possible to prioritize specific neighborhoods, streets, and buildings that are either particularly endangered or merit special attention based on historic significance or architectural distinction. Documentation supporting historic designation of these places should be gathered, including original architectural drawings of the buildings, and/or drawings of subsequent renovations, additions, and remodelings. Oral history should be gathered from El Pasoans that remember the early days of these buildings. Sanborn maps and any original plat maps should be gathered to help understand the original urban form of neighborhoods, as well as the placement of historic buildings and some of their distinguishing features. Historic City phone directories can aid in determining residency as well as the types of businesses that were located in specific buildings. Finally, historic photographs and paintings should be gathered to determine the original appearance of the building, as well as features such as landscaping, streetscape and road design.



Windshield surveys and photographic surveys conducted by community groups can serve as a first step towards identifying and protecting historic resources, such as this duplex in Chamizal.



Historic mixed-use building in Segundo Barrio. To date, community opinion has been against historic preservation, because residents fear it will lead to gentrification.



This historic apartment building on Oregon near UTEP has been poorly maintained but still expresses its original grandeur. Historic designation may assist the property owner with financial incentives to restore the structure.

ECONOMIC DEVELOPMENT

Use Historic Landmarks to Leverage Economic Development

The City of El Paso is home to numerous impressive monuments of historic architecture as well as significant amounts of intact historic urban fabric. These resources can be used to anchor new development and leverage economic development initiatives.

Union Depot in the emerging Union Plaza District is one of El Paso's most impressive and significant monuments. It was designed by Daniel Burnham in 1903 and was an important passenger and cargo terminal on the rail line connecting the eastern and western halves of the country. Today, the building remains one of the most distinguished and stately buildings in the City and its tower serves as an icon of the Downtown skyline. The building is currently used as an Amtrak station and houses SunMetro's administrative offices. The building is surrounded by parking lots that are owned by the City and used by employees and Amtrak passengers.

Union Depot could host into an interactive tourist information center and conference center, and be used to anchor a new mixed-use infill project that could include urban housing types, bringing 18-hour activity back to Downtown. The structure itself would serve as an attraction and amenity to potential investors and new residents, and could be marketed as such.

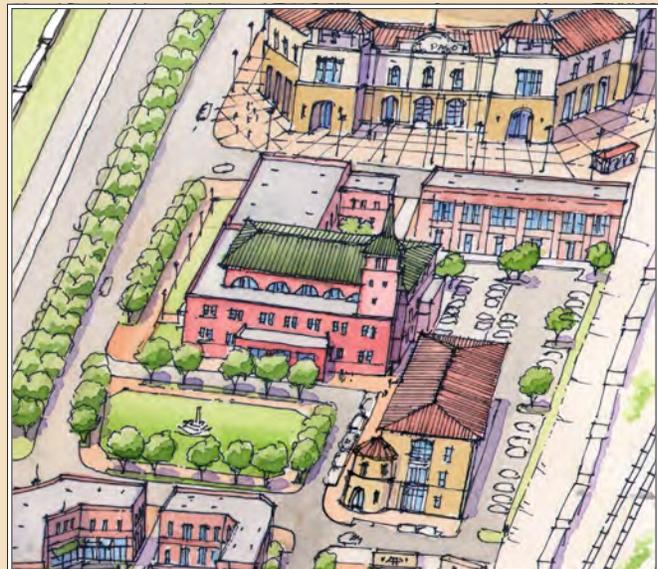


CityPlace, a mixed-use infill project in Downtown West Palm Beach, FL, features the adaptive reuse of a 1926 church. The church was restored and reused as a theatre and community event space, with small retail spaces and a restaurant integrated into its ground level. The former church serves as the architectural anchor for the entire mixed-use project, with plazas, and urban streets planned around the building. The former church adds character and a sense of timelessness to an otherwise entirely 21st century infill project.

There are numerous other historic resources in El Paso that could be restored and put to work in a similar fashion, such as San Jacinto Plaza and other historic parks, and the historic industrial buildings on the former ASARCO site. Historic areas such as Ysleta, Magoffin or Sunset Heights could be used to leverage smaller-scale infill and adaptive reuse projects such as mixed-use buildings, small apartment buildings, rowhouses, and new homes.



Union Depot - Existing Conditions. The train station stands alone and underutilized, separated from Downtown activity by a sea of parking lots.



Union Depot - Proposed. The train station could be used to anchor a mixed-use infill project with housing, office, and commercial space, as well as a public green and a stadium.

Create an Arts or Architecture College in Downtown

The first step towards successful preservation of Downtown's historic buildings - one of the largest concentrations of historic architecture in the State of Texas and the United States - is to re-populate the Downtown and begin filling the vacancies in these historic buildings.

One strategy that has proven successful for Downtown revitalization in cities such as Savannah, New York, Providence, and Charleston has been the integration of a college campus, particularly an art or architecture college, into the Downtown fabric. Colleges in the Downtown can help to saturate vacant historic buildings by restoring and occupying them with student housing, classroom space, and administrative offices. The recently started architecture program of Texas Tech University in El Paso could be an opportunity for such synergy.

With the introduction of college life during the day and residential life at night, more retail, restaurants, and services can relocate to the ground floor of historic buildings Downtown. These amenities will be available throughout the day and week, not just from 9 to 5 during weekdays. The overall effect can snowball, with more residents, offices, and retail moving into historic buildings Downtown, attracted by the vitality already created by the college's presence.

The benefit of a Downtown art or architecture college, as opposed to other programs such as UTEP's Downtown Graduate Business Center, is that art schools have the tools and the drive to work with historic resources as a hands-on learning experience for students. This benefits the college, but even more, it benefits the City by creating a dependable stream of public/private/university partnerships, and by injecting the Downtown with the creativity and zeal of student work.

It is important that an Arts or Architecture college teach in a way that is respectful of the Downtown with its stock of traditional American mercantile buildings. Many schools do not teach the technique of traditional architecture and urban design, or even a sympathy for it. This is one of the reasons that when the majority of architects find that their livelihood demands the practice of traditional architecture in historic districts or in places in which traditional architecture is valued, they practice it inexpertly.

By contrast, in Savannah, Georgia, the creation of the Savannah College of Art & Design (SCAD) in 1978 was a watershed moment for Savannah's Downtown, and the college has since played an important role in the restoration and revitalization of the historic City. Student housing and academic buildings are integrated throughout the Downtown and many of the college's programs use the City as a living laboratory for their work. In particular, the college's Historic Preservation program has made significant contributions to the restoration and reuse of Downtown historic buildings and places.

Savannah College of Art & Design

Preservation projects undertaken within the city of Savannah

- Massie School
- Unitarian Universalists Church
- Flannery O'Conner House
- Kennedy Pharmacy Building
- Federal Courthouse
- Custom House Historic Courtroom
- MLK Corridor
- Scottish Rite Building
- Historic Buildings, Savannah State University
- Historic Powder Magazine
- SCAD Buildings
- Broughton Street Retail Development Project
- Berrien House



SCAD injected new life into Downtown Savannah by restoring and reusing historic buildings, such as this mid-century theatre.



Historic Preservation students participate in the opening of the restored Kennedy Pharmacy Building in Downtown Savannah.

DOWNTOWN ECONOMIC DEVELOPMENT: ENHANCING THE STREET ENVIRONMENT

El Paso’s Downtown is an overlooked urban design treasure that must be promoted in order to establish stable economic prosperity for the area. Investment in Downtown in the early 20th century created a vibrant urban fabric with a mix of uses, street-oriented buildings, proud architecture of distinctive character, and numerous public and civic gathering spaces. A vast streetcar system provided a highly functioning transportation network that spanned from Downtown to the outer limits of the City. However, the Downtown suffered from disinvestment as auto-oriented development on the edges of town became the preferred location to live and work for wealthier El Pasoans. Further complicating the Downtown story is the impact of international trade agreements and the relationship between El Paso and Juárez. Downtown El Paso was traditionally a popular shopping location for visitors from Juárez, and much of the business conducted there depended on stable and constant trade with Mexico.

Today, Downtown El Paso’s infrastructure is remarkably intact, with most of the historic buildings standing, and the traditional street grid largely in place. These buildings, however, are underutilized, with primarily discount or wholesale retail outlets filling the ground floors, and the majority of the upper floors remaining vacant. Due to the lack of housing in the Downtown, retail stores and restaurants are typically closed at night and on weekends, resulting in deserted streets and a sense of desolation. Today, in an era where most American cities have rediscovered their Downtowns and are enjoying increased econom-

ic prosperity in these areas, Downtown El Paso has been slow to reclaim its most valuable asset as a 21st century destination.

Redevelopment opportunities abound Downtown; given appropriate incentives, developers can realize projects both large and small within the patchwork of individual properties, with each property contributing to a unified whole. These reinvestment efforts, which include adaptive reuse of historic properties, general façade improvements, and infill, should focus on providing housing options, office and retail opportunities. In particular, focus should be placed on renovating and leasing the upper floors of mixed-use buildings, many of which lay vacant. Redevelopment and infill efforts should be coordinated with streetscape improvements, including street trees, awnings, and street furniture. City investments in streetscape projects will inspire confidence on the part of developers and property owners, as well as attract visitors.

Change does not happen overnight and requires a coordinated effort between City leaders, business owners, and residents. As with any long-term strategy, redevelopment of El Paso’s in-town neighborhoods is a project including action steps to undertake immediately, and steps to address over a longer timeframe. The following sequence illustrates the potential transformation of North Mesa Street between Texas and Mills Avenues, following public and private investment. Key steps to implement over time, as opportunities arise, are illustrated. Each phase introduces elements that enhance the public realm.



EXISTING CONDITIONS: Untapped Potential
This image reveals the lack of street vitality in Downtown. There are few shopfronts, windows along building façades that are physically walled off in certain areas, and little investment has been made for street trees and street lighting. Key steps to implement over time, as opportunities arise, are illustrated. Each phase introduces elements that enhance the public realm.



STEP 1: Pedestrian Infrastructure
Add regularly planted shade trees along the sidewalk and add pedestrian-scaled lighting to enhance the safety and character of Downtown. Pedestrian-scaled lighting should be designed to also create safe conditions for drivers. The addition of on-street parking will also create a calmer pedestrian environment and make shopping Downtown more convenient.

Strategies for Addressing Community Concerns



STEP 2: Initial Rehabilitation Project

Spurred by confidence in the Downtown following significant public infrastructure improvements, the first adaptive reuse project is initiated. Façade improvements are made with windows and doors that face the street, and local retail is integrated along the ground floor.

STEP 3: Revitalization Continues

Long-term improvements include additional façade improvements and greater recruitment of retail, dining and entertainment options that appeal to residents, workers, and visitors. A range of housing options and office spaces are provided on upper levels of buildings, creating a diverse neighborhood for people of different lifestyles and incomes. This variety will transform Downtown into an 18-hour destination serving an entire community. This transformation from a business district that functions only during traditional work hours will also generate far greater economic returns for the City.



TOURISM

El Paso's role in early American history is in many ways as significant as that of Southeastern Virginia, St. Augustine, and New England, all locations typically considered draws for historical tourism. There is no reason why El Paso should not be added to the list of priority destinations to learn more about the history of the United States, as well as Mexico.

El Paso has already made great headway in preserving and promoting its Mission Trail, and the City should continue to coordinate with the County to promote the entire route between Ysleta, Socorro and San Elizario as an important historical, cultural, and educational experience. In particular, the City should focus on the settlement within its boundaries - Ysleta - and support economic development, tourism, and the unique needs of the Tigua settlement that continues to thrive there today. Organized tours of the trail should be promoted within El Paso and throughout the country, and special events should be promoted there, such as festivals, concerts, and parades. Coordination between area hotels, restaurants, and cultural destinations should be encouraged to ensure that the entire tourism experience

is a positive and cohesive one. Especially important is viable transportation options for visitors. Although the area is currently quite auto-oriented, the recent completion of the Mission Valley bus transfer center and the upcoming completion of the Alameda Rapid Transit System (RTS) route will significantly improve mobility from Downtown and throughout the Mission Valley and may provide tourists with alternatives to the car when they visit.

In addition to Mission Valley, El Paso has the opportunity to promote its role in the Mexican Revolution as well as the early industrial and railroad era. Greater efforts should be made to highlight the location of significant Revolution events in Downtown, Segundo Barrio, and along the US-Mexico border, through walking tours, guided tours, trails, and historical markers. Similar efforts could be made to promote the City's role in the industrial and railroad revolution, from the historic ASARCO smelter site to historic train stations such as Union Depot.



A popular Mexican restaurant next to the Socorro Mission serves local residents and tourists alike and rounds out a day on the Mission Trail.



The Ysleta Mission is still run by the Tigua Indian tribe that settled here under a Spanish land grant.



A cluster of galleries and artists workshops are located around the San Elizario Mission, creating an attractive venue for tourism and shopping.



Near the Ysleta Mission, a Tigua cultural center has been built with a museum, meeting rooms, and space for traditional Tigua performances.

Chihuahuita

Chihuahuita is the oldest residential neighborhood in El Paso with historic buildings unlike any others in the City. Structures speak of the area’s involvement in the Mexican Revolution and Prohibition Era, and the neighborhood’s historic and continuing ties to Mexico. The Chihuahuita Improvement Association utilizes grants and loans for upkeep in the historic district yet Chihuahuita remains a quiet, often overlooked part of the City.

Visitors to El Paso seeking historic buildings are rewarded in every part of the Downtown, but for total immersion in a historic area that conveys the binational, border town history of the City, Chihuahuita is unparalleled. Similar districts throughout the Southwest have seen increased investment in terms of resident artists and tourism. Very little additional vitality would be necessary to make small public spaces like the streets of Chihuahuita feel active. Chihuahuita should be a focus of City investment as a City destination and repository of history.



Chihuahuita is home to adobe and brick buildings and many of these are vacant and underutilized.



The streets of Chihuahuita are unique in El Paso in that they were clearly designed for pedestrians with a close, comfortable building-to-street relationship.

El Presidio Historic District, Tucson Arizona

El Presidio Historic District is a residential neighborhood containing historic adobe and brick buildings. The district hosts a museum, galleries and restaurants. The area contains:

- Multiple art galleries
- Tucson Museum of Art
- Historic block with five preserved houses
- Summer art classes for children and adults
- Locally inspired Mexican cantina
- Year-round events at the cantina and on the street
- World Imports Store
- Native Arts and Crafts Shop
- Jewelry Store
- Pottery and Glass Shop



Restored buildings in the El Presidio Historic District house a museum, art galleries and crafts shops.



A restaurant, cantina and coffee bar in the El Presidio Historic District offers local food, live music and a venue for community events.

PRESERVATION POLICY

Forge a Partnership Between Historic Preservationists and Contemporary “Place-Makers”

Historic preservationists and New Urbanists both believe in conserving resources through the preservation of existing urban and architectural fabric. They oppose disinvestment in the historic heart of cities and towns. They oppose placeless sprawl. Both historic preservationists and New Urbanists value historic places for their contribution to a sense of uniqueness and identity for the communities living there. However, the ways that these values are applied is quite different.

While historic preservationists feel that well-designed historic places are worthy of preserving, New Urbanists feel that these sound design principles are worth both preserving and reviving in contemporary practice. New Urbanists feel that rather than creating a break with the past and simply celebrating historic places as an isolated phenomenon, independent from their evolving context, that remarkable historic places should inform a “living tradition” of good design today and into the future. Just as the historic preservation movement supports a sustainable way of life, by preserving and caring for existing resources, the New Urbanist movement supports creating lovable places

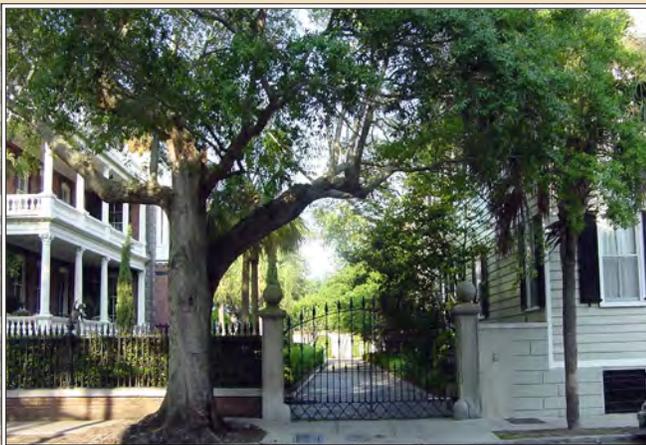
today that will be preserved and cared for by future generations, ensuring that current resources are used to their fullest potential.

There is currently disagreement among historic preservationists as to whether or not the lessons of historic places should be applied in contemporary design. The City of El Paso should recognize the merit of applying the lessons of historic neighborhood patterns and architecture to new development, and should support a partnership between historic preservationists in the community and the “place-makers” (planners, architects, builders, and developers) who are working to carry on this tradition of design in the present day. The place-makers can learn from the vast knowledge and resources of preservationists on local building traditions that have proven the test of time socially, environmentally, and aesthetically. In turn, the place-makers can fulfill the historic preservationists’ desire to provide time-tested, lovable places for future generations to cherish. Historic preservationists can assist place-makers in fulfilling this mission by supporting new development projects that apply traditional design principles.

New Urbanism and Historic Preservation: Shared Origins

The Historic Preservation and New Urbanism movements share many of the same ideals and goals. From the very start, the Charter of the New Urbanism upholds the “*preservation of our built legacy*” as one of its basic principles. In many ways, the New Urbanism was born out of the Historic Preservation movement. In the 1970s, the historic preservation movement was gaining strength and sparking the rediscovery of entire historic districts and cities in places such as Key West, Savannah, and Charleston. These historic places caught the attention of architects and urban planners, who began searching

for the ingredients that made these places so lovable, walkable, and valuable in the real estate market. These early New Urbanists rediscovered historic cities, and studied the details that made them work, from block patterns and street widths, to the mix of uses and housing types, and the setbacks, building heights, and materials of buildings. They then began applying these lessons to the construction of new places, capitalizing on the success of these historic communities.



New Urbanists document historic places like Charleston to understand the physical features that make these places successful.



Lessons learned from Charleston were applied in the design and construction of I’On, a new neighborhood outside the City.

Emphasize Qualitative Standards When Designating Post-WWII Landmarks

One of the more controversial historic preservation standards is the 50-year threshold required for eligibility on the National Register of Historic Places. This rule was first established by the Historic Sites Act of 1935 and was created so that Civil War monuments would be eligible for designation but controversial Gilded Age monuments could be considered later. At the time, the architectural and social merit of places (such as quality of life) was not a significant factor in historic designations, therefore the question of whether or not to designate an entire neighborhood was not relevant.

The National Preservation Act of 1966 retained the 50-year threshold, but took a more integrated, community-driven approach to historic preservation. As a result, the role of historic preservation changed dramatically from that of preserving nationally-significant structures to preserving locally-cherished places, from historic homes and commercial buildings to entire neighborhoods, parks, and streets. This community-driven approach has taken on an element of NIMBY-ism, resulting in large swaths of urban fabric being designated historic simply to prevent any future redevelopment. As a result, one of the most common historic designations in communities across the country is the historic district, or the preservation of entire neighborhoods, typically created to prevent road construction, redevelopment projects, or incompatible new construction, additions and alterations.



The Sunset Heights historic district has significance for the particular events that took place there, the people that lived there, as well as the unique architecture that is found there. Even more important from an economic, environmental, and social perspective: the neighborhood was designed to be walkable and mixed-use, and therefore affords a high quality of life for residents today.

The community-involvement approach to historic preservation has had great success in preserving compact, walkable, mixed-use districts from the pre-WWII era, particularly downtowns and 19th and early 20th-century neighborhoods. Preservation has proven to have positive environmental and social benefits for towns and cities across the country. However, as the decades progress, the 50-year threshold is opening up more and more post-WWII construction for preservation, including public housing, the interstate highway system, and monotonous automobile-oriented suburban sprawl. The environmental and social consequences of preserving these auto-dependant places could be very serious, particularly in the face of diminishing oil reserves. Historic designation of auto-oriented sprawl will hinder future possibilities for walkable retrofit, and could lock these areas into auto dependence for the long term.

In the face of this challenge, it is essential that the 50-year threshold for historic designation is supplemented with a stronger consideration of all-around qualitative standards. For instance, designation of post-WWII buildings should be carefully weighed in relation to the vast numbers of post-WWII buildings present today. Even more importantly, auto-oriented districts such as entire suburban neighborhoods should only be granted historic status in exceptional cases, such as Levittown in New York, which served as the model for mass-production settlements around the country. Preserving post-WWII neighborhoods simply to avoid retrofit towards greater walkability or density should not be supported, since these neighborhoods require high levels of energy consumption and will not prove adaptable in the coming era of reduced energy resources. In these cases, it is important that historic and architectural merit are weighed with environmental and social considerations.



This neighborhood in East El Paso will be eligible for historic designation around 2030, according to the 50-year threshold. Just because it will be eligible does not mean that it should be considered. The neighborhood is a mono-culture of single-family homes lacking architectural merit and its street network forces residents to be auto-dependent, both features that will render the neighborhood obsolete in the long term.

Use Discernment When Evaluating the “Compatible but Distinct” Clause

Historic preservationists, according to current thinking, value contemporary design that is “of its time” and is “compatible but distinct” from historic places. They have been known to support sleek glass boxes as appropriate additions to Georgian mansions, and to oppose urban infill projects that appear to be too similar to their historic context.

This ideological preference for contrast in historic environments should be kept in check. Oftentimes historic buildings were designed to be environmentally adapted, with operable windows spaced for cross-ventilation, sloped roofs provided to shed rain and snow, and arcades built to shade the ground floor and passing pedestrians. Moreover, most historic buildings were designed to be street-oriented and serve a pedestrian population. These important lessons should not be thrown away

in contemporary additions, reconstruction, and infill, and they definitely should not be thrown away for the sake of fulfilling a standard to be “compatible but distinct.”

When weighing the benefits of “distinction” in design, the end goal should not be aesthetic distinction for its own glory, but instead should consider economic, environmental, or social benefits of distinction. If the contemporary design fails to improve upon the economic, environmental, and social contributions of the original historic design, then it should not be considered, and the designers should return to the drawing board to integrate the lessons of the historic design.

Additionally, the merit of distinction in historic contexts should be reconsidered entirely, as the notion of architecture being “of its time” and “expressing its age” is a modern concept that is proving itself outdated for our contemporary design challenges.

The City of Continuity versus the City of Contrasts: New Urbanism and Historic Preservation

from an academic paper presented by Steven W. Semes at the Congress for the New Urbanism in Atlanta (2010)

Although preservationists today are committed to sustaining the historic character of buildings and districts, current thinking – based on the Venice Charter and the Secretary of the Interior’s Standards for Rehabilitation – tends to prioritize contrast between new and old elements. This stance is justified not by a desire to impose a new political framework on an ancient city or in order to facilitate mobility and efficiency, but in order to avoid “the falsification of the historic evidence.” While the consequences of an uncritical insistence on “differentiation” in additions to individual buildings are clear, the same issue pertains to the urban scale and the way entire neighborhoods are planned or rehabilitated. The choice of either contrast or continuity sends a potent message about the relationship between the past and the present.

New Urbanist proposals for infill development in historic urban centers (like Battery Park City in New York or Downcity in Providence, RI) have prompted unexpected resistance. As official preservation thinking requires new infill development to be self evidently differentiated, the tendency of New Urbanist proposals to seek continuity of character at both the scale of the urban plan and the scale of the individual buildings has prompted skepticism from some preservation authorities. In other cases, preservation authorities have encouraged new infill development in harmony with adjacent historic buildings or districts, seeing New Urbanism as an ally in their struggle to defend the historic character of the neighborhood conceived as an urban ensemble, rather than as merely a collection of individual historic buildings.



The El Paso County Courthouse is unquestionably “of its time” and distinct from its setting in historic Downtown El Paso, however the utility of glass curtain wall construction in El Paso’s desert setting is inconsistent with climate-sensitive vernacular wisdom.

IMPLEMENTATION**Update the City's Historic Preservation Design Guidelines**

In order to better assist property owners, the City should take stock of its existing Historic Preservation Design Guidelines and assess how well they are functioning in each historic district throughout the City. These Guidelines should be strengthened or updated as needed, or in the case of historic districts that do not currently have their own design guidelines, they should be created. When updating the various design guideline documents, it is important to incorporate the goals identified in the Visionaries in Preservation document of 2010.

Use the SmartCode as a Tool to Ensure Compatible In-fill in Historic Neighborhoods

As the SmartCode becomes adopted in more places throughout El Paso, it can be used as a tool to protect community character both in currently-designated historic districts as well as historic neighborhoods that may never be designated. Because the SmartCode is calibrated to be compatible with the traditional development patterns and construction techniques of

each community, and because it focuses on the regulation of form over the regulation of use, it proves to be a far more effective tool for preserving and achieving a desired community character rather than conventional zoning codes.

For instance, many of El Paso's specially-created Historic Preservation Design Guidelines were created to override vague or simply incompatible zoning designations, and therefore protect historic properties from degradation by code. Thus, historic designation and the accompanying design guidelines have been used as tools to protect properties from their inherent zoning. The SmartCode will also add objectivity to the approval process in the same way that historic district guidelines inform the permitting of new structures in areas with an established historic character. Unlike historic district guidelines however, the SmartCode facilitates more completely the vision for the City articulated by its citizens. Because of the shared purpose and function of the City's SmartCode and its Historic Preservation Design Guidelines, it is possible that the two tools could be streamlined and combined in the future.

Integrating Historic Preservation Design Guidelines with Form-Based Codes: Bluffton, South Carolina

In Bluffton, South Carolina, the town's Form-Based Code (similar to the SmartCode) actually is used in lieu of Historic Preservation Design Guidelines for new construction. The Historic Preservation Board administers the Form-Based Code, applying it to new construction/development in the

town. This replaces the historic preservation guidelines for new construction and simplifies the number of different review processes needed for approval. Essentially each tool has the same intent and effect: controlling the scale and character of a neighborhood by ensuring predictable new development.



These two new mixed-use buildings were designed, approved, and constructed in Bluffton's Old Town Historic District according to the town's Form-Based Code. The Historic Preservation Board administers the Form-Based Code and uses it as a tool to ensure that all new construction within the Historic District is compatible with the contributing structures.

Enforce and Monitor the Vacant Building Ordinance

One of the ways that the City is addressing vacant and underutilized properties is the creation of a Vacant Building Ordinance, which is being applied to the City’s most impacted neighborhoods - Downtown, Segundo Barrio, Chamizal, Lower Dyer, and the El Paso Empowerment Zone. The Vacant Building Ordinance requires property owners to register their vacant buildings with the City and have them inspected by officials, create a long-term plan for the building’s use, bring the buildings up to fire and safety code, maintain the façade and exterior walls, and finally, to provide insurance coverage for the building. The Ordinance is designed to make it harder work and more expensive to maintain a vacant building, therefore pressuring property owners to occupy their buildings, sell them, or in some cases, (only if the building is determined to have no historic value,) demolish them. Since the target of the Vacant Building Ordinance is older buildings in central El Paso, it has the potential to rejuvenate historic neighborhoods and improve the image of the City.

It is important that the Vacant Building Ordinance is actively enforced as a powerful tool for revitalization. Equally important, the effects of the Ordinance should be monitored closely to ensure that it does not have unintended consequences, such as insensitive alterations to historic façades, including alteration of doors and windows, or destruction of historic features for the installation of safety upgrades. This is a particular risk for buildings that have no historic designation, which is the case for most of Segundo Barrio, Chamizal, and the Empowerment Zone. First and foremost, it is critical to monitor the requests for demolition of vacant properties to make sure that the Vacant Building Ordinance does not result in the demolition of significant and/or contributing historic buildings.

Reform Tax Appraisal System for Income Properties

A great majority of Downtown’s historic multi-story commercial buildings are vacant or underutilized. The primary influence on this phenomenon is the State of Texas’ tax appraisal system. This system allows income properties to be appraised according to the income produced annually by the property, rather than according to the value of the property. For commercial and mixed-use buildings, this system rewards property owners who make little or no income on their property by charging them very low taxes, sometimes lower than the taxes paid on a modest single-family home. This system provides owners with incentives to keep their buildings vacant, or to only rent the ground floor for retail and to leave the upper floors vacant. Reform of this tax appraisal phenomenon will require examination of local appraisal practices and may require reform of State law.

Educate Property Owners

Another serious roadblock to historic preservation is ignorance. Many property owners in El Paso do not know that Historic Preservation programs exist, or if they do, they view them as a burden on their property rather than a benefit. It is important to educate property owners on the multiple benefits of historic preservation – economic, social, cultural, environmental, and aesthetic. In addition, property owners should be educated on the tools and resources available to help them finance the preservation and restoration of historic buildings, and to make responsible decisions on how to properly restore or alter these structures.

In order to entice more property owners to seek historic designation for their property and to ensure that more properties are successfully restored and re-used, it is important that the toolbox of historic preservation incentives is well-understood by the public. Incentives, such as federal, state, and local tax exemptions and grants, should be packaged in an understandable and user-friendly manner so that property owners can be sure what their options are for funding rehabilitation work. Financial, logistical, and technical resources available to property owners should be advertised. This promotion can be done through the City’s historic preservation website, through informational brochures, and through direct communication with owners of currently-designated or should-be-designated historic properties.



This vacant, neglected apartment building at 906 N. Mesa was destroyed by fire in the summer of 2011. The vacant building ordinance seeks to prevent unnecessary loss of historic resources such as this by requiring property owners to bring their buildings up to code.



GOALS & POLICIES

Overall Goal: Preserve, renew and evolve historic buildings, districts and landscapes for the use and enjoyment of future generations.

Historic Resources

Goal 8.1: Preserve the City of El Paso's valuable historic resources.

Policy 8.1.1: Support the preservation of El Paso's historic resources through public information, advocacy and leadership within the community and through the use of regulatory tools.

Policy 8.1.2: Provide widespread cultural and educational resources and information programs on historic preservation techniques and benefits.

Policy 8.1.3: Continue to encourage adaptive reuse of historic buildings.

Policy 8.1.4: Continue to collaborate with various entities to promote historic preservation landmarks and historic events as tourist attractions.

Policy 8.1.5: Encourage development planning and design to sensitively incorporate preservation of historic structures and artifacts.

Policy 8.1.6: Encourage the development of attractive and unique characteristics which help each neighborhood in developing its individual historic value and identity.

Policy 8.1.7: Inform the public of tax benefits and funding sources available for restoration.

Policy 8.1.8: Continue to collaborate with various entities to promote historic commemorative events marking significant landmarks in El Paso's development.

Preservation as Economic Development

Goal 8.2: Reposition the role of Historic Preservation as an economic development and community-building tool.

Policy 8.2.1: Implement the recently adopted Historic Preservation Action Plan as a living guide for the Historic Preservation Division. Create a timeframe for achieving its goals and pursuing its policies.

Policy 8.2.2: Continue to work with Historic Preservation partners and the local community to implement the Action Plan.

Policy 8.2.3: Maintain a regular schedule of meetings with Action Plan task force members to track the progress of the Plan and implement its recommendations.

Revitalize Downtown First

Goal 8.3: Revitalize Downtown first.

Policy 8.3.1: The City should provide financial incentives, regulatory guidance, and technical support for the adaptive reuse of Downtown buildings for use as housing.

Policy 8.3.2: Promote Downtown El Paso as a living classroom for historic preservation and architecture education, and encourage partnerships with universities on research, documentation, and restoration projects. The Historic Preservation Division and the Department of Planning and Economic Development should work to attract a professional arts school to Downtown El Paso, for instance an art or architecture school with a historic preservation program.

Policy 8.3.3: Lobby State officials to reform the tax structure for vacant Downtown buildings, which is currently based on a property's net income rather than its assessed value, thereby encouraging property owners to only lease the ground floor of their buildings and allow the upper floors to remain vacant. Work with City leaders and the County Tax Assessor-Collector. If necessary, also work with El Paso's State representatives and senator to address the issue at the State level.

Policy 8.3.4: Monitor the performance of the City's recently-adopted Vacant Building Ordinance to ensure that the intended goals are being achieved. If it is found that the ordinance results in degradation or insensitive changes to historic buildings, take measures to address them, such as:

- a. Designate historic buildings that are not currently protected and could be insensitively altered as a result of the Vacant Building Ordinance.
- b. Work with the Building Department to adjust the terms of the Vacant Building Ordinance to require the sensitive repair and rehabilitation of buildings older than 50 years of age.

Preservation and Revitalization

Goal 8.4: Historic Preservation should be embraced as an effective economic development and revitalization tool for the City of El Paso.

Policy 8.4.1: Use El Paso's designated historic districts and structures as an integral element in Citywide revitalization and economic development efforts.

- a. Chihuahuita should be a focus of City investment as a destination and repository of history.

Policy 8.4.2: Promote the value of historic preservation to spark interest in designating additional properties and districts throughout the City.

Policy 8.4.3: Preserve architecturally or culturally significant structures which are not historically designated and lie outside of the historic districts.

Historic Designations

Goal 8.5: Improve public perception of Historic District Designation so that more neighborhoods will seek and embrace preservation of their historic resources.

Policy 8.5.1: Educate property owners on the economic, social and cultural benefits of historic preservation.

Policy 8.5.2: Provide workshops on how to care for a historic property in compliance with The Secretary of the Interior's Standards for Rehabilitation.

Policy 8.5.3: Ensure that City practices uphold and support historic designation as a benefit to property owners, and not a burden.

Policy 8.5.4: Promote historic preservation and El Paso history in local schools. Create programs to educate children through field trips, workshops, and curriculum.

Historic Districts

Goal 8.6: Improve the performance of El Paso's existing Historic Districts.

Policy 8.6.1: Systematically reassess historic district boundaries and consider shifting boundaries to include additional properties, fewer properties, or to combine or split up districts as needed to more effectively administer the historic preservation program.

Policy 8.6.2: Work with federal, state, and local governments, non-profits, and private groups to identify additional funding resources for the rehabilitation of historic properties.

Policy 8.6.3: Provide a clearinghouse of existing financial resources for owners of historic properties in order to provide incentives for appropriate renovation and rehabilitation projects. Make this information accessible through the Historic Preservation website and brochures, and work with neighborhood leaders to spread the word on these resources to other property owners in their districts.

Policy 8.6.4: Improve Code Enforcement efforts in Historic Districts so that properties are consistently maintained, and owners can be assured that inclusion in a historic district guarantees a certain neighborhood character and higher level of maintenance.

- a. Ensure that Code Enforcement Officers are trained in the Secretary of the Interior's Guidelines for Rehabilitation, and that refresher courses are available for new and veteran officers.

Policy 8.6.5: Educate the owners of historic properties on how to properly maintain and rehabilitate their property.

- a. Provide a historic preservation resource group that consists of the neighborhood association leaders for each historic district, and set up a regular schedule of meetings.
 - i. Use this group to disseminate new information and resources as they are available, and to hold training and education programs.
 - ii. Use this group to track the performance of each of the individual historic districts and to provide advice to City leaders as challenges arise.

Policy 8.6.6: Amend the Building Code for existing structures within historic districts to make it easier for property owners to undertake renovations and improvements.

Policy 8.6.7: Encourage new commercial and live/work uses within historic districts to make them more economically viable and livable.

Traditional Building Techniques

Goal 8.7: Promote historic preservation as part of a holistic strategy to promote walkable, livable, and humane place making.

Policy 8.7.1: Promote training programs for architects, designers, and builders to work with traditional buildings and learn traditional building techniques. As these professionals gain experience in rehabilitating historic buildings, they will learn how to transfer these lessons into a new generation of high-quality buildings and places throughout the City.

Policy 8.7.2: Promote educational programs for the financial sector to learn the benefits of investing in historic properties, particularly irregular, small, or mixed-use properties that may not have market comparables according to conventional financing practices. As financing for these types of properties becomes more mainstream, it will become easier for developers to obtain financing for new walkable communities with small units and mixed-use products.

Policy 8.7.3: Market historic districts to potential homeowners and property owners for the walkable, complete lifestyle that these neighborhoods offer. These homeowners spark a new generation of homeowners who will enjoy the benefits of mixed-use walkable communities, and can increase the market for new walkable communities throughout El Paso.

Historic Public Space

Goal 8.8: Recognize that public spaces and streets within the City's historic districts are themselves prime contributors to the vitality and appearance of the districts.

Policy 8.8.1: Ensure that the redevelopment and enhancement of plazas, greens, playgrounds, paseos, and other public spaces within historic districts are done in a way which is sensitive to the context.

Policy 8.8.2: Seek to improve streets within the historic districts to make them more walkable, complete, and comfortable for pedestrians.



HEALTH

9

Overall Goal: Improve the overall health and quality of life for all residents in the City.

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"RESTORE HUMAN LEGS AS A MEANS OF TRAVEL. PEDESTRIANS RELY ON FOOD FOR FUEL AND NEED NO SPECIAL PARKING FACILITIES."

- LEWIS MUMFORD

CURRENT CONDITIONS ISSUES AND CHALLENGES

El Paso is facing many of the same health issues and challenges at the local level as those at the national level – diabetes, heart disease, stress, depression, and infectious diseases. In addition, El Paso’s geographic location on the United States/Mexico border provides additional challenges and opportunities. Border residents may possess different economies and politics; however, they share a common culture, language, environment, and health status. In general, the United States/Mexico border region is one of the fastest growing areas in the nation, with a majority Hispanic population. The population in the border region generally has lower educational attainment, lower income status, higher rates of unemployment and poverty, and a significant shortage of health care providers. These unique border challenges contribute to diminished health, well-being, and access to health care.

Access to Health Care

El Paso County is federally designated as a “medically underserved” area. By definition, these are areas or populations that are designated by the Health Resources & Services Administration (HRSA) of the U.S. Department of Health & Human Services as having: too few primary care providers, high infant mortality, high poverty, and/or a high elderly population.

The delivery of social and health care services to residents is fragmented throughout the El Paso community. Residents in need of unemployment benefits or training usually begin at the Texas Employment Commission. In order to apply for nutritional benefits they must visit a second facility for Women, Infants and Children (WIC), then continue to yet another facility for Temporary Assistance for Needy Families (TANF) for food stamp benefits. This process continues for all social and health care services including disability, educational, housing, and health care. At each of the various locations, the resident is required to “tell their story” through a unique application process for each entity. The physical fragmentation of various local, state, and federal offices and the redundancy of the application process are both tremendous obstacles in the delivery of services. Reliable, efficient, and affordable transportation must be available

for someone to physically access each office to apply for benefits. Transit is also critical for benefit recipients to attend required training and educational programs to keep their benefits.

Lack of Health Insurance

Most recent estimates indicate that approximately 42% of El Paso County residents, between the age of 18 to 64, do not have health insurance. Many lower income jobs do not offer individual or family health care coverage. Lack of health insurance is a huge barrier to health care and results in reactive health care, not proactive. Lack of health insurance has led to higher rates of severe complications in the border Hispanic population. This is especially true with diabetes-related complications. Residents without insurance are often forced to manage chronic diseases such as diabetes through emergency room visits versus regular check-ups.¹

Access to Nutrition & Exercise

Proper nutrition and adequate exercise are key elements in any healthy lifestyle. Preventing and managing most chronic diseases, particularly diabetes, requires a healthy lifestyle. In El Paso County, approximately 27.2% of the adult population is obese. Specific to El Paso, obesity and diabetes are major areas in which such preventative methods as good nutrition and daily exercise could have significant effects on the community.

Fortunately, El Paso is leading the area on health-related community issues and recently adopted a resolution making obesity prevention a top priority. Over the next five years, the City will implement an Obesity Prevention Action Plan designed to improve nutrition and increase physical activity. City staff will make policy recommendations toward obesity prevention and report progress annually to the City Council.

Another valuable program in El Paso is the Coordinated Approach to Child Health (CATCH) program, sponsored by the Paso del Norte Health Foundation and the Region 19 Education Service Center. The two organizations have funded the pilot program in the El Paso school system and it has proved to be effective in lowering childhood obesity rates. The program is being implemented across Texas and the United States. Teachers and staff receive training on the four major components of the program including curriculum, physical education, school food service, and family partnerships. The CATCH program is unique in that it takes cues from all facets of life to educate children on how to live healthy, active lives. In addition, the program’s success is contingent upon the participation and involvement of parents and teachers.

WHAT IS A HEALTH ELEMENT?

The Health Element is not meant to function as a Comprehensive Health Plan for the City of El Paso. Up until recently, Municipal or County Comprehensive Plans did not contain elements pertaining to health. Yet, more and more people are beginning to recognize the relationship between health and the built environment, public policy, and the management of the City and its environment. The Health Element seeks to describe these relationships and how they can be improved.

¹ Centers for Disease Control and Prevention. “Geographic Disparities in Diabetes-Related Amputations—Texas-México Border, 2003.” *Journal of the American Medical Association*. 297.10 (March 14, 2007): 1051-1052.



Recreation trails link some neighborhoods within the City.



Recreation facilities such as El Barrio Park in Chamizal provide access to exercise.



Walkable environments like Downtown El Paso allow shoppers, workers, and inhabitants to get their daily exercise by simply running errands and travelling from one place to another.

COMMON DISEASES

Diabetes

Diabetes is a chronic disease that requires regular medical treatment in order to manage its effects and complications. Type II diabetes is 2.5% more prevalent among adults along the border than elsewhere in the United States. Type II diabetes is two to three times higher in Mexican-Americans, and the mortality rate is higher for diabetic Mexican-Americans than non-diabetic Mexican Americans.² This is particularly important in El Paso given that 81.3% of the population of El Paso County is Hispanic.

Existing binational programs for diabetes focus on prevention, diagnosis, and treatment. Basic medical treatment required to manage diabetes includes office visits, quarterly blood work, daily blood sugar testing, annual foot exams, annual vision exams, annual dental exams, and flu and pneumonia vaccinations. This basic care can be extremely costly for even those with insurance to deal with the chronic disease proactively. People that do not have insurance are often forced to manage their diabetes on a reactive basis through emergency care. Preventing diabetes and managing it through lifestyle and diet is especially important for a city in which approximately 41.6%³ of the population is uninsured and 28.2% lives below the federal poverty level.⁴

Heart Disease

In El Paso County, heart disease occurs at a rate of 139.7 cases per 100,000 people. Many behavioral risk factors for heart disease, such as inactivity, smoking, and obesity can be treated through preventative methods. Implementing lifestyle strategies that help residents modify their behavior will have a direct effect on the occurrence and treatment of heart disease. In 2006, El Paso received a Heart & Stroke Healthy Cities award by the Texas Department of State Health Services. The award is based upon ten elements including education and prevention programs.⁵

Stress

Stress is a difficult factor to measure especially when it comes to its effect on our daily lives. However, given the pressures of a family's normal activities, time to de-stress is not always incorporated. Increased usage of outdoor walking trails and parks facilities is directly related to reducing stress and increasing vitamin D absorbency.

Depression

Populations that suffer from chronic diseases such as heart disease and diabetes often require additional mental health care. People with diabetes are twice as likely to suffer from depression.⁶ The funding of mental health care in El Paso has been affected by the current economic downturn and cuts into local, state, and federal funding. In 2010, the County and Hospital District cut approximately \$2 million in preventative care and crisis services for the mentally ill population of El Paso. These programs have no other funding sources. Due to these drastic local cuts, the Nueva Esperanza Clinic and crisis diversion systems have been deeply affected. It is projected by the local Mental Health and Mental Retardation (MHMR) office that mentally ill individuals in acute crisis will now end up in emergency rooms or the legal system as a result of the funding cuts.

Infectious Diseases

Specific infectious diseases such as tuberculosis (TB), influenza, and sexually transmitted diseases are prevalent in both Juárez and El Paso. Compared to West Texas, Juárez has far higher rates of death from influenza, diabetes, and AIDS.⁷ With respect to tuberculosis, both Mexico and the United States consider their southern borders to be areas of the greatest risk for migration of TB patients. So for Mexico, their common border with the U.S. is not their highest priority for funding TB programs. The opposite is true for the United States.

With more than 22 million north-bound legal border crossings recorded each year through El Paso by U.S. Customs officials, a "floating" border population shares infectious disease agents. Tuberculosis is among the most significant infectious disease problems in the El Paso, Texas/Juárez, Chihuahua area because of the easy trans-border travel of the disease.⁸

To address the problem of border TB transmission, the City of El Paso Department of Public Health, the Texas Department of State Health Services (DSHS), and the Mexican Secretariat of Health (Secretaria de Salud)(SSA) agreed that the two countries must work collectively to control and prevent TB in El Paso and Juárez. A proposal was submitted to the Centers for Disease Control and Prevention (CDC) to enhance binational TB control. The CDC approved a modest grant in August 1991 and the Binational Tuberculosis Prevention and Control Project "Juntos" was born. The funding from the CDC provided the EPCCHED

² Stern, M. and Mitchell, B. "Diabetes in Hispanic Americans." Diabetes in America. 1995.

³ CDC Behavioral Risk Factor Surveillance System

⁴ 2009 El Paso Annual Health Report, December 2009, "Where Health Knows No Borders."

⁵ Texas Council on Cardiovascular Disease and Stroke 2008 Annual Legislative Report, Texas Department of State Health Services.

⁶ "Regional Health Assessment for West Texas," May 2008, Texas Department of Health Services.

⁷ "Regional Health Assessment for West Texas," May 2008, Texas Department of Health Services.

⁸ The Texas Department of State Health Services (formerly the Texas Department of Health), Office of Border Health, online: www.dshs.state.tx.us/borderhealth/.

the opportunity to begin building the infrastructure and developing the capacity needed to enhance binational TB control in the greater El Paso/Juárez area. This project has been recognized internationally as a model project for binational TB control.⁹

Pollution and the Environment

The El Paso/Juárez region is affected by the effects of rapid population growth, high levels of heavy industry, and high levels of vehicular emissions. These factors have resulted in air and water pollution from inadequate water and sewage treatment, improper management of pesticides, and the presence of hazardous and solid wastes.

As a result of regional environmental degradation, some border residents suffer from environmental health problems, including waterborne and respiratory diseases such as asthma. The elderly and children are especially at risk. Tribal communities and residents of some unincorporated communities are also at a greater risk as they are more likely to have an inadequate water supply and treatment systems.

Birth defects have long been attributed to pollution and environmental issues along the United States and Mexico border. Since the early 1990s, clusters of neural tube defects were identified in the colonias along the border. Many believed the defects were caused by environmental pollution by manufacturing plants. New research now suggests that the defects may have been caused by a toxic contaminant in tortillas made from moldy corn.

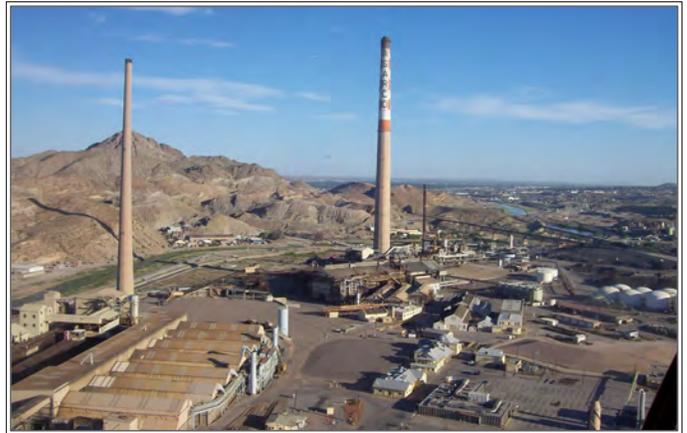
In response to these environmental and health effects, federal, state, and local governments in the United States and Mexico, along with U.S. border tribes, established the Border 2012 program “to protect the environment and public health in the U.S.-Mexico border region, consistent with the principles of sustainable development.” The following Guiding Principles were designed to support the mission statement, ensure consistency among all aspects of Border 2012, and continue successful elements of previous border programs.

- Reduce the highest public health risks and preserve and restore the natural environment.
- Adopt a bottom-up approach for setting priorities and making decisions through partnerships with state, local and U.S. tribal governments.
- Address disproportionate environmental degradation in border communities.
- Improve stakeholder participation and ensure broad-based

⁹ Texas Department of State Health Services (formerly the Texas Department of Health), Office of Border Health, online: www.dshs.state.tx.us/borderhealth/BHC.shtm.



Rapid population growth at the edge of the City increases vehicle miles travelled and car emissions. This in turn contributes to air pollution, increasing risks for respiratory disease.

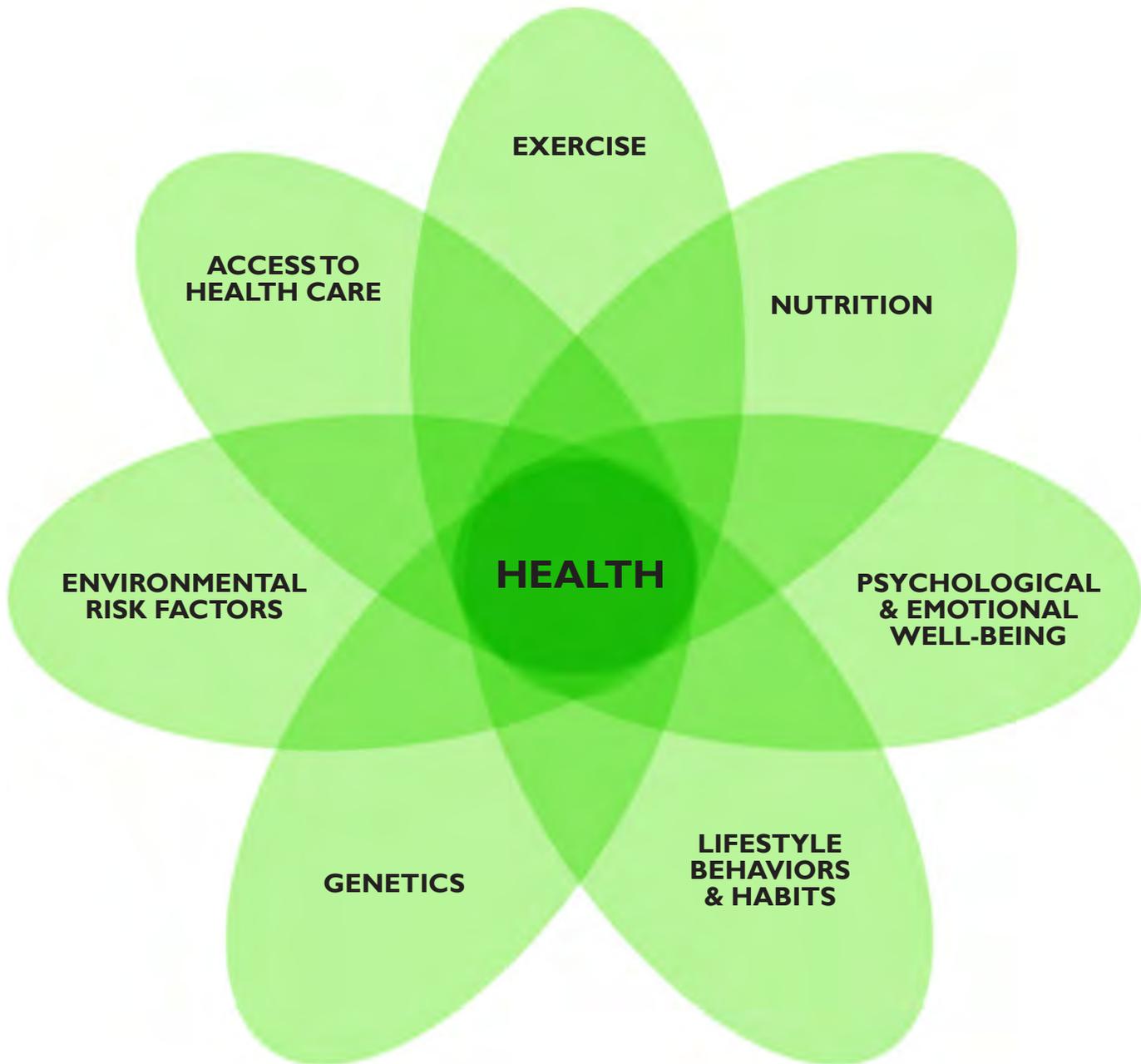


The ASARCO smelter facility, now closed, is one of many industrial uses in the El Paso/Juárez region that is blamed for air and water pollution along the border.



Views of the border skyline reveal a persistent haze over both cities, resulting from particulate matter from the dry, dusty environment, combined with emissions from industries and automobile traffic. The high levels of particulates can lead to respiratory problems for inhabitants.

HEALTH FACTORS



FACTORS AFFECTING HEALTH

Health is affected by many overlapping factors, some internal, others external. A comprehensive plan may address some of these quite directly, especially those that help create a physical environment that encourages good health rather than one that thwarts it. However, certain factors such as genetics can only be addressed tangentially by this document, if at all. Since “genetics” refers to the hand of cards dealt to us at the moment of conception, it is reasonable that one of the few ways that government can encourage genetic health is by protecting people from exposure to mutagens, especially man-made ones or natural ones that are concentrated in populated places due to human activity.

representation from the environmental, public health, and other relevant sectors.

- Foster transparency, public participation and dialogue through provision of accessible, accurate, and timely information.
- Strengthen capacity of local community residents and other stakeholders to manage environmental and environmentally-related public health issues.
- Achieve concrete, measurable results while maintaining a long-term vision.
- Measure program progress through the development of environmental and public health-based indicators.
- The United States recognizes that U.S. tribes are separate sovereign governments, and that equity issues affecting tribal governments must be addressed in the United States on a government-to-government basis.
- Mexico recognizes the historical debt it has with its indigenous peoples. Therefore, appropriate measures will be considered to address their specific concerns, as well as to protect and preserve their cultural integrity within the broader environmental purposes of this program.

Other Health Issues

Sexually Transmitted Diseases (STDs)

The City's Health Department has a prevention program that conducts strategic outreach services to decrease the incidence of STDs in the community. Services provided in the program include testing and treatment for specific STDs, conducting pap smears, and administering adult vaccinations. In 2009, over 6,000 patients participated in the program with over 2,500 STD treatments provided and over 1,000 adult vaccines given.

Teenage Pregnancy

In El Paso County, approximately 6.2 cases per 1,000 births were to adolescents less than 18 years of age. Approximately 55.9% of these pregnant women received care during their first trimester. The City of El Paso has published a "Teen Resource Handbook" created for teens by teens providing contact information for various agencies and resources in the community. The YWCA El Paso Del Norte Region offers a program called Project Redirection to reduce the occurrence of teen pregnancy. The program began in September 1985 with extensive community support to provide case management services to pregnant and/or parenting adolescents, ages 12-20. Both male and female teen parents are provided services. Project Redirection has three main objectives: case managers assist students to graduate or receive a GED, access to health care, and postpone a subsequent pregnancy.

Substance Abuse

Addiction and substance abuse is an area of focus and binational concern. El Paso continues to be the "Pass to the North" for people, goods, and all manner of controlled substances. Drugs are often warehoused in "stash houses" in El Paso before they make their way on the interstate to cities throughout the U.S. and Canada. Among adults, alcohol dependence continues to be the primary reason for entering treatment in El Paso, although there is an increasing proportion seeking treatment for opiate dependence. Among youth, marijuana is the primary reason for seeking treatment; alcohol is in second place. Problems with cocaine and heroin abuse among youth remain limited.¹⁰

RESOURCES

United States-Mexico Border Health Commission

The United States-Mexico Border Health Commission (USMBHC) is an organization that is dedicated to border regions and optimizing health and quality of life along the border. The USMBHC was established through a binational agreement in 2000 and provides leadership to develop coordinated and binational actions to improve the health of border residents. Although public health officials had wanted such an office for various reasons for a long time, the immediate impetus was national concern about several outbreaks in the border areas in the early 1990s, including a cluster of neural tube defects in the Lower Rio Grande valley and an increase in animal rabies in South Texas.

The USMBHC developed the Healthy Border 2010 program in 2003. The program established ten-year objectives for binational health promotion and specific disease prevention. There were eleven focus areas in which base line data has been collected and progress tracked:

- Access to health care
- Cancer
- Diabetes
- Environmental health
- HIV/AIDS
- Immunizations & infectious diseases
- Injury prevention
- Maternal, infant & child health
- Mental health
- Oral health
- Respiratory diseases

¹⁰ "Patterns and Trends of Drug Abuse in El Paso, Texas," G. William Luckner, Ph.D., Department of Psychology, UTEP.

The Commission is currently considering the next steps for the Healthy Border 2020 program that will include a final analysis of the 2010 initiatives. The mission of the USMBHC is to unite efforts, to gather and share information, and combine resources to create a healthy environment in the Paso del Norte Region. As such, the council identified top priorities in April of 2008. A two-day workshop was held in El Paso and Juárez, Chihuahua, respectively, to identify the principal public health issues, characterize the Local Public Health Systems, identify current and future public health programs and plans, present principal public health issues, prioritize binational public health issues, and perform gap analysis within the USMBC region. The binational priority public health issues identified were:

- Diabetes
- Obesity
- Tuberculosis
- Sexually Transmitted Disease
- Addiction & Substance Abuse Agenda

City of El Paso Public Health Department

The City’s Health Department provides a wide array of health services to the community including health education and promotion, as well as identifying and treating specific health issues. Health services generally follow the focus areas of the USMBHC’s Healthy Border 2010 program with the exception of mental health. The following are performance indicators for health services provided in 2010:¹¹

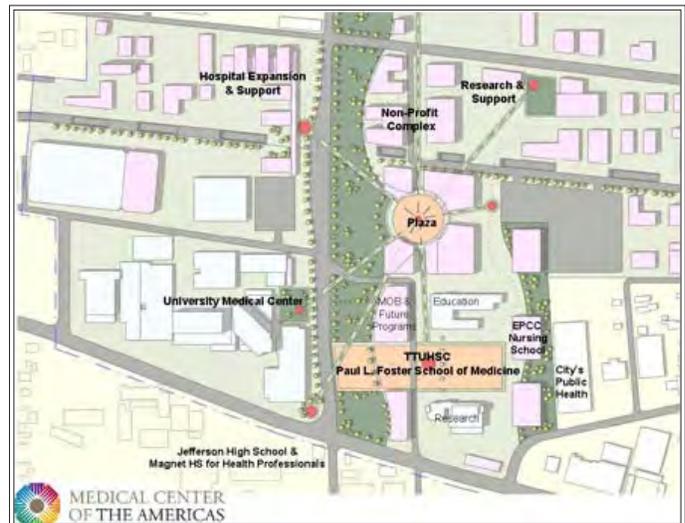
• Vaccines administered	112,716
• Clients served via Dental Clinics	4,444
• Clients served through TB Program	6,330
• Clients served through STD Clinics	5,475
• Laboratory Tests for STD’s	19,199
• Participants in WIC Program	46,148 ave./month

Total funding of the City’s Health Department in 2010 was approximately \$19.8 million. Local tax dollars fund approximately 24% of the budget, \$4.7 million, with the remaining \$15.1 million received through state and federal funding sources, program revenue, and grants.

Texas Breastfeeding Coalition

The Texas Breastfeeding Coalition consists of a state-level organization as well as local chapters. There is an active local chapter serving the El Paso and Juárez areas. The State of Texas pro-

notes three basic ways to encourage breastfeeding – legislative (preserve a mother’s right to breastfeed in public), education (public awareness of the benefits of breastfeeding and overall tolerance), and adequate resources (provide resources at the time of birth and beyond to support breastfeeding mothers). El Paso is also home to a Baby Café, one of only three in the United States. Located within the Texas Tech University School of Nursing, the Baby Café is a drop-in center free to all who attend with no appointment needed. Mothers support other mothers and a lactation professional is available for consultation. The emphasis on breastfeeding is predicated on evidence that children who were breastfed as babies have a significantly lower risk of becoming obese later in life. Approximately three out of four new mothers in the United States start out breastfeeding; however, the rates of mothers who are still breastfeeding at three, six and twelve months remains low.



The Medical Center of the Americas is expanding to serve a wider geographic range.



Texas Tech University is undergoing a significant expansion, with a new medical campus and state-of-the-art facilities.

¹¹ City of El Paso, Department of Public Health

Medical Infrastructure & Initiatives

El Paso has strategically expanded its medical resources through investments in the Medical Center of the Americas (MCA). MCA is a unified medical campus leading health care research and expanded educational opportunities on the issues and challenges of the El Paso region, focusing upon the Hispanic population, border issues, and military operations. Representatives believe that the campus will bring numerous biomedical jobs, research opportunities and healthcare opportunities to the area.

The campus is anticipated to contribute \$1.3 billion to the local economy by 2013. (Housing Needs Assessment for the El Paso Metropolitan Area, Vogt, Williams & Bowen Research, June 2009.) The MCA Campus not only provides services to the immediate area; but, will be an international medical destination. The MCA medical campus is home to the following:

- Paul L. Foster School of Medicine, Texas Tech University Health Sciences Center - This is the first four year medical school built on the United States/Mexico border and the first medical school built in Texas in thirty years. The medical school leads research focusing on border populations including diseases affecting the Hispanic community such as diabetes, obesity and depression. Research conducted at the Health Sciences Center will inform the national health-care community on how best to meet the challenges faced by the growing Hispanic population.
- University Medical Center of El Paso – The existing teaching hospital is undergoing a major \$154 million expansion and remodeling project. The construction that began in November 2009 includes a 354,5000 square foot bed tower, new women’s and infant’s bed tower, and expansions of the existing emergency and operating facilities. The University Medical Center is integrated with the medical school to provide teaching opportunities within a hospital setting.
- El Paso Children’s Hospital – Construction began on a new children’s hospital in February 2009. The \$119 million 224,500 square foot hospital will include a bed tower and specialized pediatric surgery operating rooms.
- Anita Thigpen Perry School of Nursing, Texas Tech University Health Sciences Center
- Maxine L. Silva Magnet High School for Health Care Professions – Jefferson High School has been a magnet high school for health care professions for the past 15 years.
- El Paso Psychiatric Center
- Office of the Medical Examiner & Forensic Laboratory
- Texas Department of Human Services
- West Texas Regional Poison Center
- El Paso City/County Health Department Administration

COMMUNITY CONCERNS

El Paso residents agreed that quality of life should be improved by making El Paso a healthier City. During the charrette, there were five main areas of focus suggested by the public in order of prevalence:

Create Safe Places To Walk and Ride Bikes

Overwhelmingly, residents requested more areas to safely walk and ride their bikes. Citizens had varied suggestions on where and how to improve walkability, but the one area where they agreed was that people should be able to live, walk, and ride their bikes without being afraid. Residents asked that the City focus on reducing reliance on automobiles and incorporate land uses that encourage walking. In addition to adding more bike trails and walking paths, citizens suggested making major corridor improvements so that El Paso streets are more bike and pedestrian friendly. Two corridors identified by residents as in need of safety improvements, lighting, street trees, and other pedestrian improvements are Alameda Avenue and Zaragoza Road. Parking lots along these corridors should be reduced and relocated in favor of providing safe areas to walk and bike. Several residents commented that the 10 minute walkability circle should be explored further in making neighborhoods more walkable.

Many residents felt that there could be better walking and cycling infrastructure in the City. Though this could mean off-road trails and separate lanes, it could also mean streets designed at lower design speeds so that cyclists may share the roadway and pedestrians may feel comfortable using the street as well. Some residents were just as interested in destination walking and cycling (walking and cycling to accomplish a certain task) as in recreational walking and cycling. Whether residents were “destination” or “recreation” pedestrians and cyclists, all agreed that there was a need for more tree canopy on certain routes, a more complete trail network, and increased park and recreational space. Some residents also wanted to set aside hiking and biking trails in the desert, even beyond the current edge of the urbanized area. Residents asked for physical changes to El Paso that would reduce the urban heat island affect. This implied minimizing dark light-absorptive surfaces such as asphalt in favor of reflective, light materials and more greenery. This would serve not only to increase pedestrian and cyclist comfort but also help reduce cooling bills in the summer.

Provide More Recreational Opportunities Through More Parks and Green Areas

Another area suggested by residents to make El Paso a healthier city is the addition of parks, recreational opportunities, and green areas. Public trails and parks should be added along the Rio Grande River. More sports-related activities and family-oriented recreational opportunities should be provided for the general public including safe recreational centers for teenagers. In addition, the City should be more pet-friendly. The community overwhelmingly supported the addition of both traditional and non-traditional parks and recreational areas in El Paso. Incorporating plazas, walkable urban areas, and tree-lined streets are important elements of encouraging residents to be more active. Increased outdoor activity is one key factor in addressing behavioral health issues.

Improve Flood Management

Flooding issues in the Mission Valley area are of concern to many homeowners. Standing, stagnant water along the Rio Grande results in mosquito problems and incidents of the West Nile virus. Residents also identified needed improvements near Yarbrough. Issues such as flood management and pest control are borderless health issues that require action from both nations.

Improve Access to Medical Care

Residents expressed concern regarding the lack of access to medical facilities in El Paso – both physical access and the availability of adequate facilities. Many residents suggested that the City continue to invest around the hospital in Downtown. Economic opportunities and incentives should be provided near the Medical Center of the Americas. Compatible quality uses should be added including high density housing for nearby medical school students, hospital employees, and families of patients receiving care. The City should continue to support the hospital and medical school by investing in the Alameda Avenue corridor improvements. Additional hospitals and medical facilities were suggested for the Mission Valley area and Eastside of El Paso. Existing facilities such as the Physicians Medical Center are not adequate to meet the needs of East El Paso. Given the growth on the Eastside, Physicians Medical Center is already expanding its recently constructed emergency room.

Address Specific Diseases and Health Conditions

Three areas were identified by the public that should be addressed. Obesity is a citywide risk factor in both adults and children for other chronic diseases. The City should tackle the obesity epidemic through many different avenues. Residents also identified specific cancer clusters and asthma-related illnesses in the east/central neighborhoods near refinery and industrial uses.

Maximize the Delivery of Health Services

There are many health organizations in El Paso that provide vital health services to the community; however, it is difficult to find the specific organization even amongst other non profit groups. A comprehensive database should be developed for referrals between agencies that includes accurate contact information, and the services they provide.



A number of El Pasoans desire more parks and access to fresh food.



The Boys and Girls Club park provides exercise and recreation opportunities for children in the Chamizal neighborhood/.

STRATEGIES FOR ADDRESSING COMMUNITY CONCERNS

THE BUILT ENVIRONMENT AND ITS EFFECT ON HEALTH

Lower the Risk of Health Problems Through Walkable Urban Design

Those who live in completely unwalkable sprawl often have to drive for all of life's daily necessities, including commuting to school and work, purchasing food, attending services at places of worship, visiting friends and relatives, and even visiting health and fitness centers. This, combined with industrialized food distribution networks that facilitate the consumption of unhealthy foods while creating impediments to a healthy diet, can partially explain the rise in obesity and many related conditions.

A sedentary lifestyle and poor diet not only puts people at risk for obesity but also at greater risk of diabetes, heart disease, cancers, and depression. Therefore, considering that one's health may be one's most precious asset, it would be wise to avoid unwalkable forms of development such as sprawl and instead pursue patterns of development conducive to walking and other forms of physical activity, such as running and cycling. In order to achieve walkability, each neighborhood should be studied in order to determine how it could be made more complete. Some may be exclusively residential and may need additional retail or civic uses to achieve equilibrium. Others may have a predominance of workplace or retail, and could easily accommodate residences so that households could be within easy walking or short driving distance of these amenities.

It is often not possible to fit all types of uses and buildings within each neighborhood, but if the most important uses, such as places of employment, health care providers, schools, and mixed-use districts are located at transit nodes, then access to these amenities can be increased for many more users and customers beyond the pedestrian shed. Another way to shorten walking and cycling distances, and thereby encourage physical activity, is by establishing an interconnected networks of streets. In addition to streets, a network of open spaces consisting of parks, trails, and cycle tracks can increase convenience for walkers and cyclists, and entice people to spend more time exercising outdoors. The less people drive, the more likely air quality and community health will improve, and chronic illness will be reduced.

Minimize Risk Factors in the Environment

Safer Streets

One of the leading causes of preventable death in the United States is injury involving a motor vehicle. There are several ways that the design of the built environment can lead to a safer environment. From the viewpoint of the pedestrian and cyclist, this includes the provision of clearly marked crosswalks at frequent intervals. Where traffic lights exist, the pedestrian crossing time should be long enough to accommodate even the slowest crossers, such as children or the elderly. Movements and traffic patterns at intersections should be enforced in favor

of the pedestrian. Curb-to-curb width should be minimized in order to shorten crossing distances and increase the sense of "visual friction" and spatial enclosure along the street, leading to slower vehicular speeds. Intersections can be designed with tighter turning radii so that drivers must put on the brakes to make a turn.

Roundabouts, when designed correctly, minimize head-on and broad-side type accidents by causing drivers to deflect and decelerate at intersections. They also have been shown to reduce pedestrian fatalities when installed. Sidewalks should be wide, generally protected from moving traffic lanes by a zone of parked cars, street trees, and a curb. Blocks should be small, implying a finely grained network of interconnected streets. This minimizes the walking, cycling, and driving distance between origin and destination and results in frequent intersections that can calm traffic.



Typical neighborhood street in Ysleta – existing conditions



Typical neighborhood street in Ysleta – after infrastructure improvements

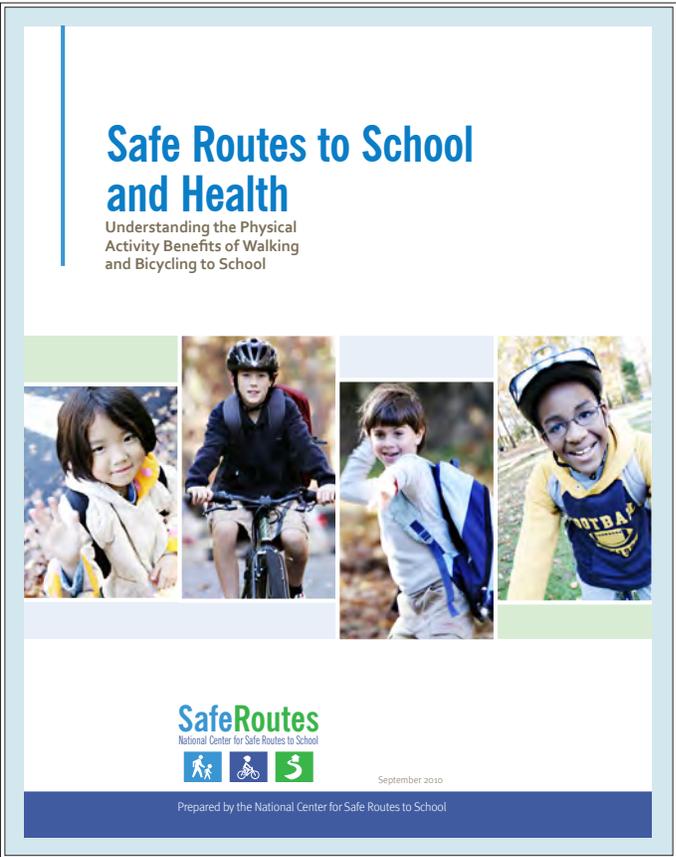
A more dispersed pattern of narrow streets lessens the need for large arterial roadways. Large, wide arteries are barriers to pedestrian and cyclist movement; they may sever neighborhoods from other neighborhoods by discouraging pedestrians who wish to reach shared amenities such as schools, retail, or parks. Slower design speeds, as well as slower posted speeds, can reduce crashes between vehicles and pedestrians, but also will result in less grave injuries in vehicle to vehicle crashes. When designing neighborhoods, decision-makers should ask, “Can a child easily walk from any house to a school, playground, or tot-lot without crossing a street more than two lanes wide?”

Slow-moving environments give drivers more time to react, take evasive maneuvers, or apply the brakes. Narrow streets with low design speeds allow drivers, cyclists, and pedestrians the time and proximity that is necessary if eye contact is to be made. This non-verbal communication reminds all of a street’s users of each other’s humanity, which is easy to forget if all users are driving, especially since window tinting has become commonplace. Healthy street designs acknowledge the needs of the most vulnerable segments of the population, such as children, the elderly, and the disabled. Additional information may be found in the Transportation and Urban Design Elements.

Improving Air Quality

Respiratory ailments can be lessened by reducing vehicular emissions and their underlying cause, excessive Vehicle Miles Traveled (VMT). Ozone, carbon monoxide, particulate matter, and nitrogen oxides are produced by the combustion engines of cars and other vehicles. Such pollutants can be reduced by providing a neighborhood and citywide urban structure where walking, cycling, or transit usage are viable alternatives to cars.

Many other choices in building maintenance and operation can improve air quality and user comfort. Schools should feature no-idling zones. Interior finishes such as wood, stone, and tile may be cleaner than carpets, which may harbor allergens and insects. Pest control and cleaning fluids and powders should be organic or non-toxic. Paints and other interior finishes should be low volatile organic compound (VOC). HVAC, plumbing, and septic tank systems should be maintained. Increasing the extent of smoke-free environments, both in buildings and in public spaces, along with an expanded campaign against smoking, will continue to discourage this health threat. Pulmonary and cardiovascular diseases are linked to both polluted air and smoking. Sulfur dioxide, largely a result of fossil fuel-burning power plants, can be addressed by emphasizing renewable energy rather than carbon-intensive modes for producing energy.



An example of a curbless intersection that features bollards and a high degree of spatial enclosure, resulting in slow driving speeds.

Ultraviolet Exposure

While vitamin D deficiency poses health risks, excessive exposure to ultraviolet spectrum rays does as well. Even one blistering sunburn in childhood can increase the risk of developing skin cancer in adulthood. In order to reduce the risk of skin cancer, it is important that shade be increased. While clothing and sun-block offer a first line of defense against UV rays that may lead to melanoma and other malignancies, the urban environment can also contribute to reducing exposure.

In parks, playgrounds should be shaded either by trees or by canvas shading devices. Routes to and from parks, mixed-use centers, and ideally, all streets should offer some degree of shade. This can be best accomplished by establishing a tree canopy. Where this may be difficult due to irrigation needs and soil conditions, buildings can provide shade as well. By minimizing setbacks from the sidewalk, incorporating tall garden walls, arcades, colonnades, awnings, galleries, balconies and other integrated sheltering features, architecture can provide shade for the public realm where there is a lack of trees.

The U.S. Department of Public Health provides recommendations regarding how to avoid dehydration, sun-sickness, and other conditions that are common on hot, sunny days.

Safer Water

Drinking water in El Paso currently receives fluoride treatment, which contributes to dental health. Additionally, water quality should continue to be monitored frequently for both contaminants and pathogens. A certain amount of chlorine is desirable in order to disinfect water and to improve taste and odor. Pathogens that are removed by chlorination and other disinfection processes include bacteria, protozoa, and viruses. Water utilities also test for a number of inorganic chemicals and monitor water to ensure that levels do not exceed certain limits. Tests are also performed for organic chemicals such as agro-toxins, along with disinfectants and radioactive chemicals.

Reducing the Risk of Infection and Poisoning

The U.S. Department of Public Health has emphasized the concept of “preparedness,” or readiness to confront infectious outbreaks or bio-terrorist attacks. The Department maintains information on the major infectious agents such as anthrax, botulism, plague, pneumonic plague, smallpox, and tularemia. It provides similar information on toxins such as chlorine, ricin, and sarin, along with isolation and quarantine protocols. Aside from infectious agents and toxins that can be used in an attack, the Department has published instructions on food preparation and food safety. There is also information regarding how to avoid and respond to household poisoning events and proper disposal of hazardous chemicals. The City’s Epidemiology Program focuses on the prevention, detection, and investigation of communicable diseases and environmental hazards.



Until the trees mature, this playground lacks shade.



Shade devices protect sensitive skin from sunburns.

Insects and Illness

Other forms of infrastructure can influence mortality rates from infectious diseases. For instance, certain areas prone to mosquito infestation and West Nile virus can benefit from drainage improvements to prevent flooding and standing water. Where standing water is desirable in wetlands or agricultural contexts, the deliberate creation of habitat can assist native predators to keep insect populations under control. The City's Vector Control Program is managed by the Code Compliance Division. The Vector Control Program combats mosquito breeding in El Paso County in order to reduce the spread of West Nile virus and other infections transmitted by mosquitoes.

Reducing Exposure to Mercury

The largest contributors to anthropogenic mercury are coal-fired power plants. They are followed by cement plants, chlorine plants, metal smelting, and mining. By reducing dependence on coal-fired power plants, El Pasoans can help reduce their exposure and neighboring cities' and state's exposure to mercury. Mercury released into the atmosphere due to energy generation and other industrial activities tends to bio-accumulate, or concentrate, as one moves higher up in the food chain. Mercury is readily ab-

sorbed by and concentrated by bacteria, fish and other sea life, even if they are thousands of miles away from the source of the mercury. This is yet another reason to increase the share of non-polluting modes of energy generation, thereby reducing demand for dirty, non-renewable operations such as coal-fired plants.

Reducing Exposure to Radon and Radionucleotides

Radon, one of the most common sources of radiation, is a major carcinogen. El Paso and other cities near the Rocky Mountains have higher than usual radon concentrations due to the higher levels of uranium found in granite formations. Uranium eventually decays to radium and then to radon. Inhalation of radon gas can increase the risk of lung cancer, while ingesting radon in water can lead to cancer of the stomach. Testing for radon is the first step in reducing households' exposure. Builders of new homes, and contractors and architects who are involved in renovations of older homes, should be aware of ways to decrease the risk of radon exposure. A level of four pico-curies is considered the threshold for taking action to mitigate radon gas. The City should continue to work with El Paso County in order to monitor radon levels and educate citizens on how to test and mitigate for radon and other radionucleotides.



A hypothetical playground is fronted by houses and mixed-use development, thereby improving natural surveillance. Understory plants at the edge of the playground should be kept low in order to maintain sightlines into the playground. Benches should be provided to allow for parents, relatives, siblings, or other responsible adults to watch over the play area. Attaching the playground to the end of a block rather than having it be defined by streets on all sides helps at least some of the children reach it without having to cross a road. Clearly marked crosswalks and sidewalks shielded from vehicles by trees and on-street parking are necessary details to ensure pedestrian safety. Canvas tent-like devices create shade for the playground equipment and its users while trees are immature or if they are not yet planted in the park.

Reducing Exposure to Endocrine Disruptors

Endocrine Disrupting Chemicals, or EDCs, are present in insecticides, herbicides, fumigants, fungicides, detergents, resins, and plasticizers. While some of these should be considered occupational hazards, others may subject the population to unsafe exposure levels due to routine cleaning, pest control, and agricultural processes. One way to lessen the amount of EDC exposure is to substitute organic products and methods for EDC-intensive ones. Regarding organic agriculture, the more control a community or household has over growing its own food supply, the smaller the chance that EDCs will be consumed. This creates a strong argument for reducing barriers to food production within neighborhoods, yards, and public spaces. This approach would help El Paso meet Federal requirements concerning the reduction of pollutants due to commercial farming.

Reducing Exposure to Lead

El Pasoans are exposed to lead through a number of different ways. One of these is the leaching of lead from corroding plumbing systems. Infants who consume formula may be exposed to unsafe levels of lead in water. Also, paint chips, dust, and other particles containing traces of lead are sometimes directly inhaled. Soils near major roadways and highways may contain traces of lead from when leaded gasoline was used. These areas should be avoided for planting food gardens. Chipping, decaying, or crumbling paint from pre-1978 paint jobs should receive special scrutiny, as most lead-based paints were used before this year.

Reducing the Risk of Fire

The risk of fire can be reduced through building design, landscaping, and fire response. Buildings should incorporate non-burning materials such as certain types of masonry and fire retardant interior finishes. Current building ordinances already provide guidance and regulations on designing with fire safety in mind. This includes a broad range of considerations, from proper wiring to providing sprinklers and fire escape routes. Landscapes can be designed to reduce the jumping of fires from trees to buildings or from building to building. Siting and pruning trees properly are two examples of a landscape strategy for fire safety. Vacant buildings and alleys should be kept clear of brush, weeds, and other debris. Water from the municipal supply or from rain barrels and cisterns can be used to quickly douse structures and landscape when there is extreme drought or fire. The U.S. Department of Public Health publishes information on how to prevent, and how to protect life and property from wildfires.

Reducing the Dangers Associated with Weather

The U.S. Department of Public Health publishes safety tips regarding how to avoid injury and loss of life due to flash floods, hot weather, thunderstorms, hail, lightning, tornados, and winter and ice storms.

Reducing the Risks Associated with the Electrical Grid

Updating the aging electrical grid can potentially reduce several environmental risk factors. Risk of electrocution can be minimized by placing utilities underground. Where they are located above ground, transmission lines and wires should be installed at the rear property lines, in alleys, rear access lanes, or rear easements. By removing electrical lines from the front property lines, shade trees may be planted along the street without regard to conflicts with overhead wires. This does not eliminate the need to be aware of underground utilities when planting trees near the front property line. Also high tension wires and major electrical easements should be located at greater distances from neighborhoods. Also, where such easements already exist, a buffer zone well beyond the width of the easement should be set aside in order to keep residents at a safe distance from electromagnetic fields. The U.S. Department of Public Health provides instructions for how to respond to downed power lines.



Lighting and electrical distribution infrastructure can minimize El Paso's citizens to exposure to electrocution and other hazards by hiding wires and by incorporating on-site energy generation. Off-grid infrastructure is also less-polluting. *Image courtesy of Multipole Global.*

Nutrition

Increase Access To Quality Food Sources

El Paso residents should have immediate access to affordable and nutritious food. Limited access to nutritious food and relatively easier access to less nutritious food may be linked to poor diets which ultimately lead to obesity and diet-related diseases.

The City could use economic development tools and site facilitation to promote the location of grocery stores and farmers' markets within close proximity to underserved areas. In conjunction, the City could work with local transit providers to facilitate access to food shopping for low-income residents through incentives. The City could encourage farmers' markets and other healthy food retailers to accept federal nutrition programs (WIC and SNAP).¹²

¹² "Access to Affordable and Nutritious Food: Measuring and Understanding Food Deserts and Their Consequences," a Report to Congress by the United States Department of Agriculture, June 2009.

Home and Community Gardens

Community gardens should be encouraged throughout the City on both private and public lands to give citizens the opportunity to grow their own food. Community gardens in City parks and schools can provide nutritious food for neighborhood families. Often used as a catalyst for neighborhood and community development, community gardens also provide opportunities for recreation, exercise and education.

One group in Central Texas uses community gardens as part of a larger sustainable local food system. To improve access to healthy food, the Sustainable Food Center (SFC) of Central Texas focuses on several key initiatives such as organic food gardening, relationships with area farmers, interactive cooking classes and nutrition education. The SFC has developed a "Farm Direct" program that promotes access to fresh, healthy food by making locally-grown produce available in the heart of the



A community garden in Central El Paso is one of the first in the City.

City and in locations easily accessible by low-income residents. Other farm direct programs include “Farm to School,” “Farm to Work,” and “Farm to Cafeteria,” connecting local farmers with local buyers. (www.sustainablefoodcenter.org)

Given the land use strategy of preserving rich agricultural land in Mission Valley, there could be an expanded opportunity for farmers’ markets and community gardens to provide for fresh, local produce. Community gardens should also be encouraged in other areas of the City, including schools, to provide citizens with opportunities to grow their own food. Local and federal assistance programs could offer vouchers for qualifying families to purchase local healthy goods. The City can also provide training to support home and community gardening through local organizations. Currently, community gardens are not allowed in public parks. In order to encourage better access to quality food sources, El Paso should consider allowing garden activities in public parks.

Farmers’ Markets

Access to local produce could be improved through traditional produce stands, food coops and farmers’ markets. Modern zoning codes and standards typically prohibit road side produce stands. El Paso should consider establishing reasonable standards for farmers’ markets so that they are permitted within close proximity to residential areas and that design standards not be cost prohibitive. The City could encourage local markets and other healthy food retailers to accept federal nutrition programs such as WIC and SNAP. Agricultural land that is preserved in Mission Valley could provide fresh local produce for markets throughout El Paso.



Farm Direct program developed by the Sustainable Food Center of Central Texas connecting local farmers with local buyers.



Changing the way our children eat

The Recipe for Success Logo. Recipes for Success creates healthful eating habits from an early age.



A modest road-side produce stand sells pistachio, pine nuts, corn-on-the-cob, gourds, and prickly pear fruits. Such combinations of products represent nutritious, native, or adapted plants that can only be found in El Paso and its surroundings.

Breastfeeding

Breastfeeding is the ultimate nutritious food source for infants and provides total food security for infants up to six months of age. Not only is it a means of delivering antibodies to the infant during the first months of life, but it is also an activity that strengthens trust and forms a bond between mother and child. The direct health benefits of breastfeeding could translate into substantial savings to our health care system through decreased hospitalizations and pediatric clinic visits. Approximately 3 out of 4 new mothers in the United States start out breastfeeding; however, the rates of mothers who are still breastfeeding at 3, 6 and 12 months remains low.¹³ El Paso can substantially improve the health of children by supporting breastfeeding programs and facilities.

“Baby-Friendly” hospitals and “Mother-Friendly” worksites are examples of physical and programmatic efforts to promote breastfeeding through a comprehensive strategic framework. A mother-friendly worksite is a designation granted by the Texas Department of Health to employment centers that meet the following criteria:

- Have flexible work schedules to provide for the expression of milk.
- Provide an accessible location with privacy.
- Provide access to a nearby clean and safe water source and a sink for washing hands and rinsing out any breast pump equipment.
- Provide access to hygienic storage alternatives for the mother to store her breast milk.

There are many benefits of being mother-friendly including healthier infants reducing current and future health insurance claims, increased job productivity, and recruitment incentives.

¹³ Sources: World Alliance for Breastfeeding Action, www.waba.org; Texas Mother-Friendly Work Site Program, Texas Department of State Health Services, www.dshs.state.tx.us; and Interview with lactation consultant Lizabeth Berkeley at the Baby Café, February 2011, www.thebabycafe.org

BABY CAFÉS

El Paso is also home to one of three Baby Cafés in the United States. Based upon the United Kingdom model, Baby Cafés provide a free drop-in center and support system for breastfeeding mothers. A certified lactation consultant is available to counsel mothers on a variety of issues including physical needs and troubleshooting. Nursing mothers are also encouraged to visit with other mothers regarding the challenges of breastfeeding.”



Texas Tech University School of Nursing's Baby Café provides resources for breastfeeding mothers.



El Paso's Baby Café located in the Texas Tech School of Nursing – local volunteers and mothers supporting each other.



El Paso Baby Café in the Texas Tech School of Nursing – a certified lactation consultant troubleshooting with a new breastfeeding mother.

Community Food Assessment

Community food assessment (CFA) is a tool to locate and identify “food deserts,” which are districts that have little or no access to fresh and healthful food. Commonly, food deserts are characterized by a lack of farmers’ markets, no grocers that carry whole food products, and a reliance upon outlets such as fast food restaurants and gas stations, which often supply highly processed food laden with sodium, sugars, and fats.

Research performed at the University of Texas at El Paso within El Paso County indicates that residents of low socioeconomic status neighborhoods have an increased risk of obesity. “The retail food environment is one aspect of low socioeconomic status neighborhoods that may contribute to increased obesity risk. Emerging evidence suggests that the availability of food stores varies by neighborhood socioeconomic status and race/ethnicity, with fewer supermarkets available in low-income, high minority neighborhoods.”¹⁴ City leaders and community leaders can use CFAs to focus on those areas that need rebalancing of the “foodscape.” The USDA published a CFA Toolkit can help communities assess food security:

www.ers.usda.gov/publications/efan02013/

Food Safety

Community food security refers not only to the local availability of nutritious foods, but also to the safety and cleanliness of those food products. The industrial food supply chain, though highly regulated, has not been entirely successful in eliminating food-borne pathogens. Some even attribute the large-scale food processing plants and concentrated animal feeding operations (CAFOs) to the increase in such disease outbreaks. Often, small farming operations have the benefit of pride of ownership on the part of the farmer and the sense of personal responsibility for the safety of the food products. In addition, there is a personal relationship and face-to-face contact between the food grower and those that consume food. Restoring personal relationships in the food system is key to creating a viable and healthy agricultural system. By carefully scrutinizing and eliminating harmful practices in the industrial food chain, one can minimize the risk of exposure to certain pathogens. By ensuring that government-run food outlets, such as schools, do not emphasize industrial food products at the expense of local products grown by small farmers, government can send a signal to the market that sustainable and healthful food is an important community value.

¹⁴ Teresa M Anchondo, “Neighborhood deprivation, neighborhood acculturation, and the retail food environment in a U.S.-Mexico border urban area” - January 1, 2010. ETD Collection for University of Texas, El Paso. Paper AAI1477768.

THE IMPORTANCE OF NUTRITION

“Our physical nature is such that we need foods that are whole, not refined and denatured, to grow, prosper and reproduce. As the consumption of sugar has increased, so have all the “civilized” diseases. In 1821, the average sugar intake in America was 10 pounds per person per year; today it is 170 pounds per person, representing over one-fourth the average caloric intake. Another large portion of total calories comes from white flour and refined vegetable oils. This means that less than half the diet must provide all the nutrients to a body that is under constant stress from its intake of sugar, white flour and rancid and hydrogenated vegetable oils. Herein lies the root cause of the vast increase in degenerative diseases that plague modern America.”

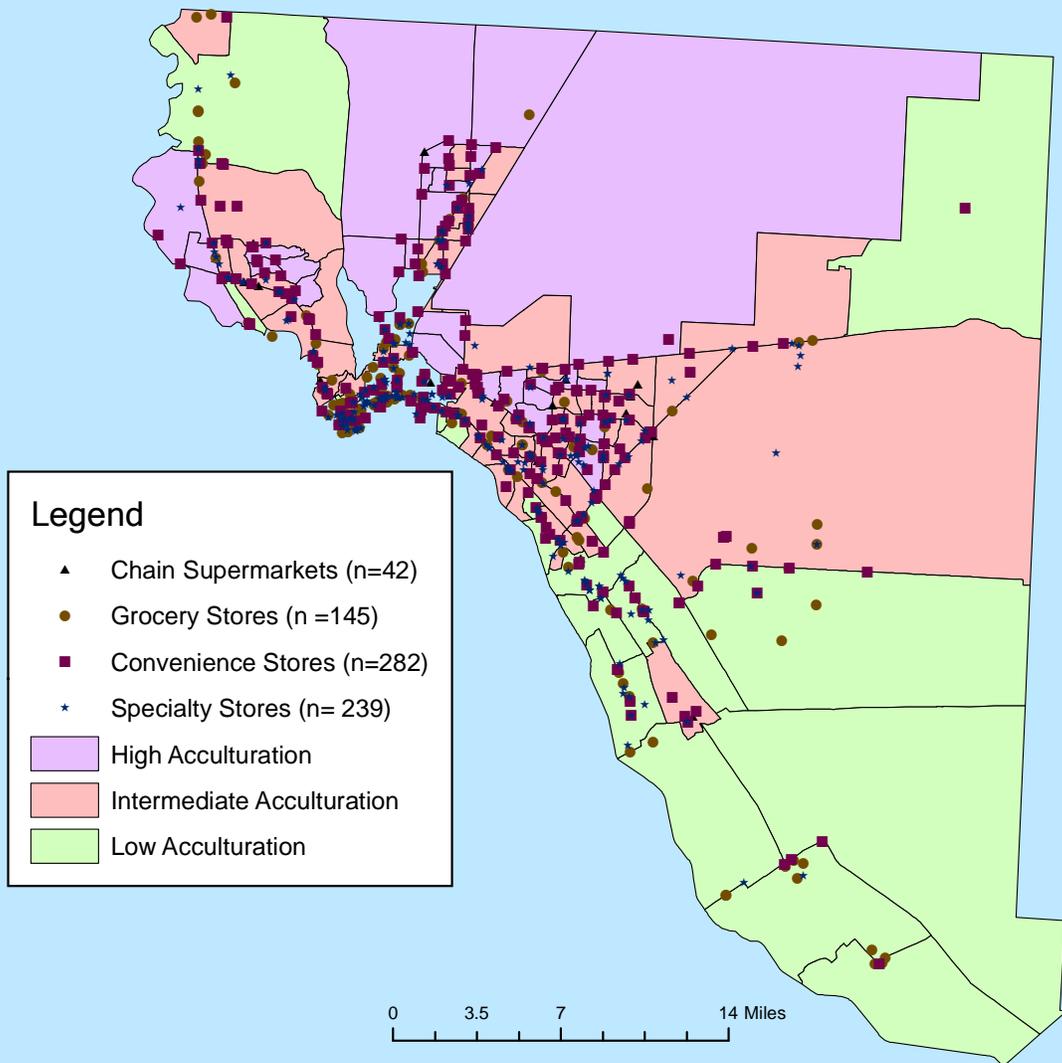
Fallon, Sally, and Mary G. Enig, Ph.D. *Nourishing Traditions*. Washington, DC: New Trends Publishing, Inc., 1999.



Capsaicin, a compound found in locally produced chili peppers, may suppress cancer cell reproduction, assist in the management of pain and inflammation, and may even help prevent ulcers of the digestive tract.

COMMUNITY FOOD ASSESSMENT

Neighborhood Acculturation and Store Availability El Paso County, Texas



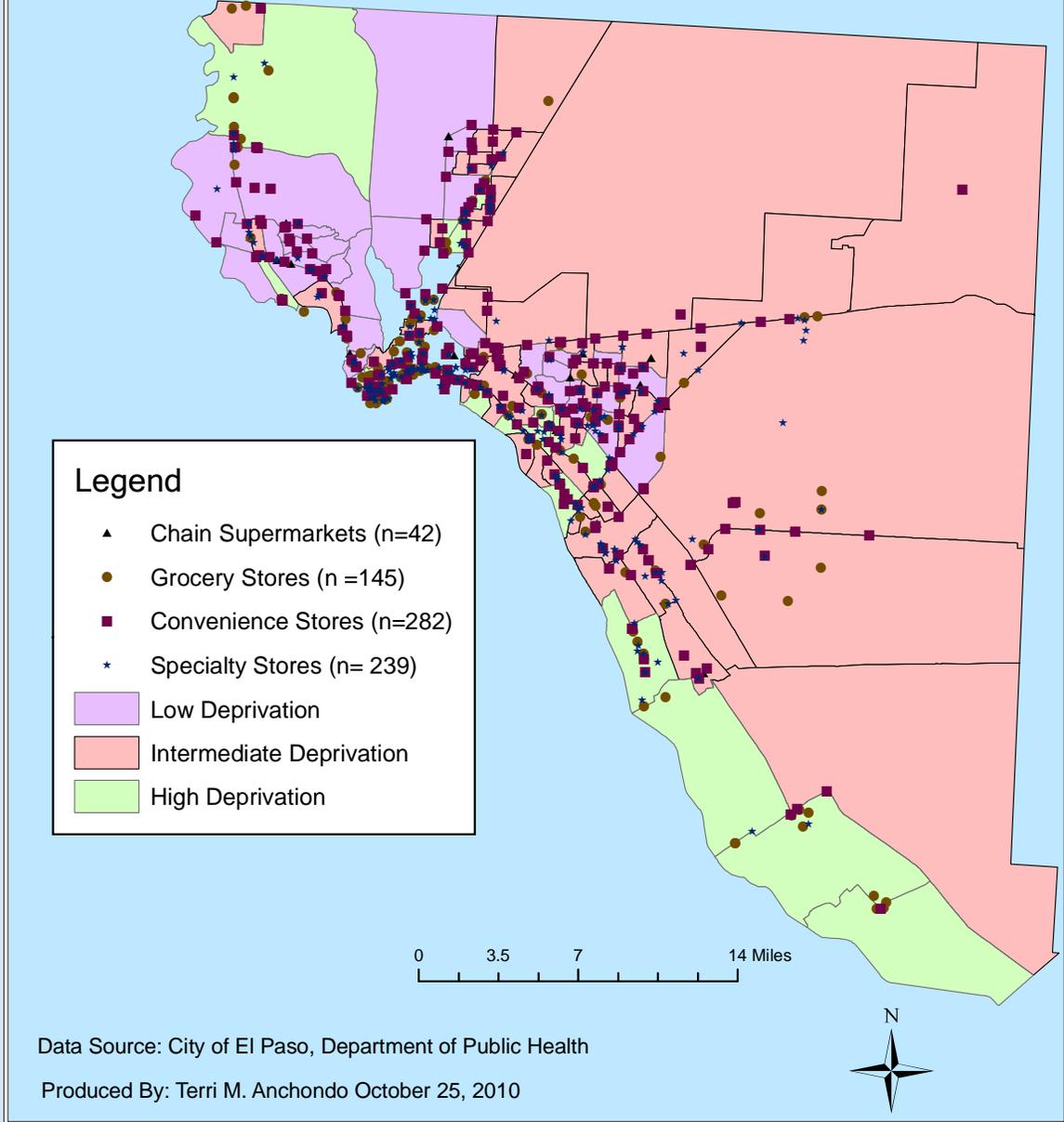
Data Source: City of El Paso, Department of Public Health

Produced By: Terri M. Anchondo October 25, 2010



COMMUNITY FOOD ASSESSMENT

Neighborhood Deprivation and Store Availability El Paso County, Texas



COMMUNITY GARDENS & FARMERS MARKETS

Allow local residents and service organizations to develop community gardens within existing parks. A community garden provides a catalyst for neighborhood and community development. In addition to producing nutritious and affordable food, community gardens stimulate social interaction and beautify neighborhoods. Residents of the Chamizal and Segundo Barrio neighborhoods expressed interest in developing community gardens in existing parks and vacant lots. A community-managed garden could be the foundation of a neighborhood sustainable food program. Produce from the garden could be sold at a local farmers' market, utilized in educational programs such as youth cooking classes and other entrepreneurial efforts. A community garden could create income opportunities and economic development within neighborhoods.



Segundo Barrio typical block – existing conditions



Segundo Barrio typical block – proposed infill housing, community garden, and farmers' market

COMMUNITY GARDENS & FARMERS MARKETS

The multiple benefits of local food production, particularly community gardens, include physical activity, strengthening friendships and social bonds, food security, and residents' ability to limit or eliminate pesticide use. Food production can be integrated into urban districts but also is accomplished efficiently in large contiguous rural belts. In the Valley, there is development pressure on rural tracts due to their size, resemblance of a "clean slate," scenic qualities, and lack of complexity relative to infill development. It is a grave er-

ror, however, to allow their complete development, on the grounds that development is more profitable than farming. If the city is to remain "nourishable" and viable into a long and uncertain future, one in which it is difficult to import all the calories needed to sustain a large population, nearby productive farmland and places to produce food within the City will be seen as precious resources that should be permanently defended and preserved.



Suburban sprawl is rapidly consuming productive farms and threatening El Paso's access to nutrient-rich, local food products.



By clustering rural settlements into compact villages, agrarian settlements can remain in the business of producing food for El Paso while conserving the scenic landscapes of the Valley.



Organic farming methods decrease the use of agro-toxins, which is healthier for the soil, atmosphere, and human body.



Pecans, an iconic crop of the region, provide vitamins A, B, and E, folic acid, antioxidants, plant sterols, fiber, minerals (calcium, magnesium, phosphorus, potassium, zinc), mono and polyunsaturated fats, fiber, and protein. Some of these substances lower cholesterol and protect cells from oxidative stress and free-radical damage.

Psychological & Emotional Well-being

It would be wrong to exclude psychological and emotional well-being from a discussion of health and how the City’s physical form and management can improve health. Much of a person’s emotional and psychological well-being is a result of internal conditions that are related to the structure and chemistry of the brain, and which are shaped by life’s experiences. Yet, there are occasions in which external events and patterns may either help or thwart this type of well-being. It is important that decision-makers are aware of the social implications of each proposed change to the physical environment.

For example, the physical framework of neighborhoods should be inclusive of different generations and household types. The presence of grandparents and great grandparents can help both the younger members of the family as well as the elderly. The younger relatives are able to learn oral traditions, culinary traditions, and benefit from the advice and wisdom of their older relatives. The elderly are able to rely upon younger generations for support and fellowship, rather than be left in isolation. A high degree of social interaction may be correlated to longevity. Houses can be designed with “granny flats,” “in-laws quarters,” or other spaces that can provide privacy but togetherness for extended, multi-generational families living together.

Often relatives, whether they be elderly or not, can assist with child-care for working parents. Whether or not this is for pay, a physical framework that acknowledges these demands on mod-

ern families and facilitates interdependencies can help lessen the pain of finding good quality, affordable child care. “Family compounds” or courtyard homes can also feature multiple household units that can be built incrementally, often around a common patio or yard.

Conventional, gated subdivisions that feature one house type repeated by the hundreds or the thousands, and that are built for one demographic or income group, do not offer the same flexibility as do the diverse and traditionally designed neighborhoods of El Paso. Often, downsizing households such as empty nesters cannot find high-quality, smaller, low-maintenance homes. Young singles, or couples who wish to live independently, but in close proximity to parents or siblings, often cannot do so due to monocultural subdivisions. By including a range of housing types and sizes in close proximity to each other in each neighborhood, neighborhoods can allow for El Pasoans to “age in place,” that is, be able to stay within their neighborhoods as their needs and household size changes throughout their lives. This can help maintain family and community stability.

Time is a scarce resource for families. Reducing average commuting times should be a long-term goal for El Paso. By providing housing in close proximity to workplaces, there is a better chance that one would be able to shorten commutes and perhaps switch to walking, cycling, or transit. Also, new workplaces should be located along existing or planned transit corridors. When the design and siting assumes that all users will drive, most users probably will drive. When a project is designed and sited with other modes of travel in mind, then there is a chance that they will be activated as well.

Major employment centers such as Downtown, Fort Bliss, and suburban nodes are already beginning, or are poised to have, a housing renaissance in order to restore the balance between workplace and home. Some places have a healthy amount of workplace and lack the housing, while others have abundant housing and lack employment centers and retail. Each district should be studied to determine how it can be made more balanced in order to shorten commutes and encourage walking. The notion of “bedroom communities” should be phased out in El Paso; neighborhoods should be regarded as not merely places where families sleep, but where they may satisfy many of their daily needs, which may even include their places of employment.

Nurturing school environments can also assist in psychological and emotional well-being. Though the trend has been towards ever larger school campuses which may have thousands of students, many studies show that smaller schools may be better. While the economy of scale would seem to show that larger campuses perform better, student performance is optimal in smaller, more approachable school buildings and campuses.

THE PSYCHOLOGICAL STRUCTURE OF COMMUNITY

“The life, work, and happiness of all societies depend on certain ‘psychological structures’ which are infinitely precious and highly vulnerable. Social cohesion, cooperation, mutual respect, and above all, self-respect, courage in the face of adversity, and the ability to bear hardship- all this and much else disintegrates and disappears when these ‘psychological structures’ are gravely damaged. A man is destroyed by the inner conviction of uselessness. No amount of economic growth can compensate for such losses – though this may be an idle reflection, since economic growth is normally inhibited by them.”

Schumacher, Ernst Friedrich. *Small is Beautiful – Economics as if People Mattered*. London: Blond & Briggs Ltd., 1973.

Sick building syndrome (in which mildew, mold, and other respiratory irritants accumulate in ducts) has been attributed to the windowless, sealed designs that characterize many modern schools. Not only do sick-buildings seem to contribute to asthma, but windowless classrooms may also work against alertness. School buildings should be embedded thoughtfully within neighborhoods or between neighborhoods. “Safe Routes to School” provides guidance on the proper integration of schools into the community fabric.

Homes for the elderly and assisted-care facilities can be designed to appear as cheerful and home-like as any other house on the block, even if they are a bit larger. Providers of mental health care or substance-abuse professionals such as psychiatrists, psychologists, counselors, and nurses should be able to attend to patients in dignified, easy-to-access locations that remove the stigma, and therefore a major barrier to treatment or rehabilitation.

Veterans of war and members of the armed forces have special needs, especially when returning from long deployments. PTSD (Post Traumatic Stress Disorder) is occurring more frequently than ever as deployments are longer while memories of experiences on the battlefield can be difficult to reconcile with civilian life. For this reason, a serene, supportive network of relatives, mental health care providers, and other extended networks of support are necessary to help heal the acute pain, sense of loss, and disorientation that members of the Armed Forces may suffer upon return from combat.

Families of those who have been deployed experience increased stress, worry, and sometimes grief. Some families have experienced multiple or continuous deployments for several years. Victims of domestic violence and drug-related violence and their relatives, whether they live in Juárez or El Paso, have also experienced PTSD. In 2010 the Education Service Center and University Behavioral Health of El Paso conducted public outreach sessions that discussed how to identify and overcome debilitating PTSD. These organizations also provide guidance on overcoming addictions, especially when in conjunction with PTSD.

Reducing Acoustical and Light Pollution

Noise and light pollution can be environmental stressors. Sleep is an important regenerative and healing activity for the human body. Endocrine levels, metabolism, and alertness can all be helped by preventing sleep debt and preventing disruptions to R.E.M. phase of sleep. Alert drivers and operators of heavy machinery cause fewer accidents than sleep-deprived ones do. Airports, construction sites, wide roads, highways, and freeways can generate tremendous acoustical pollution. Each of these can minimize acoustical pollution through different strategies. Airports should do this through careful study of acoustical profiles and take-off and landing approaches. Developers and the

City also have a responsibility to encourage development in areas that are less likely to be affected by flight paths.

Construction sites should concentrate louder activities during daylight hours. Major highways and interstate freeways should be planned with acoustical barriers, or be located below the surrounding street network so that they can be capped in the future with park space or development sites. Likewise, lighting on thoroughfares and upon private property should be designed with Dark-Sky principles in mind. This entails providing no more luminosity than that which is necessary and also entails preventing upward glare. Downward-pointing lanterns and subtle lighting can help prevent disruptions to circadian rhythms for trees, animals, and humans. Further information and requirements can be found in the City's Dark Sky Ordinance.



Downward-pointing, widely-spaced, energy-efficient street lamps can diminish light pollution, which obliterates the view of the stars, and can adversely affect sleeping patterns and disrupt circadian rhythms.

DOES COMPACT, WALKABLE URBANISM EVER ADVERSELY AFFECT THE HEALTH OF SOCIETY?

As compact, walkable urbanism has become more common, some have questioned the claim that it consistently affects health, social fabric, the environment, and the economy in a positive way. The counter-argument – that sprawl and auto-centric dispersed patterns are more healthy or sustainable – raises questions that merit contemplation and analysis. The type of urbanism embraced by Plan El Paso has several origins. Some of these include “Smart Growth,” which is a shorthand for the framework of policies that enable development to improve rather than degrade quality of life and natural environments.

“New Urbanism” or “Traditional Urbanism” is often confused with “traditional architecture” or “historical revival architecture.” New Urbanism has less to do with the style or character of buildings than it does with the arrangement of buildings and the design of the public realm. It is a set of design principles derived from the study and observation of precedent that allows for the creation of walkable, human-scaled places.

Not only does the New Urbanism offer tools to accomplish the design of individual neighborhoods, corridors, and districts, but it also offers the tools to guide overall issues of metropolitan compactness and sector planning. Such principles can be applied at a range of intensities (described by the urban-to-rural transect), from the most pristine and untouched wilderness to the Downtown Core. Policies and designs informed by Smart Growth and the New Urbanism would yield to localized higher densities, especially around transit hubs, and walkable neighborhood plans as the citywide “default” setting for development, rather than sprawl.

The larger environmental goal would be increased compactness of the metropolitan region and conservation of farmland and wilderness. As El Paso makes the transition from a mostly auto-centric city to a more walkable, cyclist-friendly, and transit-friendly future, it is likely that residents and planners will notice several trends that may lead to tension or concern. Here we will examine some of the typical questions regarding planning and its affect on health, the environment, and city life.

I. “Won’t increased density worsen air pollution?”

Very dense, walkable, and transit-served neighborhoods may still suffer from air pollution. While per capita emissions are usually far less than those produced in sprawling cities, the total output of emissions and pollution may remain high. For instance, the historic cities in Europe, such as Rome and Barcelona, may experience air pollution even though car usage and per capita emissions is quite low compared to sprawling North American cities.

Though they have enviable urban fabric in their ancient cores and pre-WWII expansion areas, beyond this lies a dense, but disconnected ring of “slab-urbs.” These peripheral districts are largely auto-dependent, and not pedestrian-friendly, though not to the same degree as North American sprawl. While their metropolitan transit systems are more mature than many newer cities, they are often not pervasive enough to abate the number of automobiles circulating in the city. Many of the older European capitals have responded to the emissions problem by establishing a plan to phase out fossil fuel use in vehicles over the next few decades, and some have already embarked on the beginning steps of this project.

Increasing the concentration of people in the city must be accompanied by an equally ambitious expansion of non-automobile transportation options and a commitment to both non-polluting forms of industry and energy generation. Transit should be pervasive and just as convenient or more convenient to use than private automobiles; the automobiles that do remain in circulation should be of the low-emitting variety. The affects of high concentrations of vehicles that use combustion engines in cities in the developing world are well documented. Countries in which catalytic converters are not commonly used may have unbearable pollution even though the urbanism is compact, walkable, transit-served, and interconnected. Conversely, dispersed and auto-centric sprawl may result in very high citywide and per capita emissions, though the local concentration of air pollution may be lower due to the dispersed pattern. While some claim that the sprawl pattern benefits respiratory health in highly localized studies, there is no escaping other larger regional or global health and environmental results of increased driving and pollution, such as acid rain, increased greenhouse gasses, and decreased levels of physical activity.

Often, in places where auto-centric sprawl is the predominant pattern of development, the local air conditions are no better or may be worse than places in which walkable, transit-served urbanism is the norm. Sprawling cities that lack transportation options may report higher concentrations of ground-level ozone, particulate pollution, and carbon monoxide. In addition to the character of the urbanism, other factors such as wind patterns, topography, and precipitation influence the air quality of a city.

2. “Won’t increased density worsen flooding and stormwater runoff?”

Increased density and compactness of a development will not worsen flooding and will assist with groundwater recharge, as long as it is accompanied by the preservation of large unbuilt areas, especially those that have high ecological or hydrological value. One mistake that should be avoided is to use the tools of Smart Growth and the New Urbanism simply to fit more units in an ecologically sensitive area, or to increase the development potential of land that provides other irreplaceable ecological services like groundwater recharge. Compact, dense development can have a much lower imprint on ecology and hydrology than its sprawl counterparts if the overall footprint of development is reduced and if low-imprint techniques of street design and neighborhood planning are applied in conjunction with increased densities.

3. “Won’t increased density lead to overcrowding and miserable living conditions?”

“Density” is often erroneously equated with “overcrowding.” Density is often defined as the number of households or dwelling units per measure of land (in our case, the acre). “Level of crowding” is the number of people or families that inhabit a dwelling unit or who occupy a certain square footage. It is possible to have overcrowding in a building located in a sparsely populated district as well as in densely populated districts. Similarly, very spacious living accommodations are possible in both sparsely populated areas and intensely occupied urban districts.

Districts that have a high percentage of attached housing types, such as rowhouses and apartment buildings, can offer more privacy than districts composed solely of detached

houses. This is because windows often face either the street or to private rear yards and patios, but often are minimized, or in the case of rowhouses, eliminated toward side neighbors. Detached houses, if not located on exceptionally large lots, may, often create awkward sightlines where windows of private zones of neighboring houses face each other.

4. “Doesn’t increased density mean more high-rises and giving up our back yards?”

There are many ways to increase overall metropolitan compactness and localized density without sacrificing spaciousness or access to private outdoor space such as yards. High-rises are only one way to accomplish density, and are probably not appropriate for all but the most valuable and centrally-located urban sites. Many mature, walkable cities achieve livability, walkability, and density without structures higher than four or five stories. Historic places around the world attest to the ability to achieve density at a “walk-up” scale.

Other strategies include narrowing rights-of-way while increasing the overall connectivity of the street network, thereby devoting more space to buildable lots. By moving houses toward the front of the lot, usable and private backyard space can be maximized. High densities can be achieved by low-rise and mid-rise buildings if districts are tightly platted and feature a diverse range of dwelling unit types and sizes. This diversity is crucial to accommodate all the different household types and needs in a city and in order to give people of different income levels and socioeconomic backgrounds the opportunity to be neighbors.

Even attached housing types such as rowhouses and multi-family buildings can have spacious back yards. Some may not want to have to maintain a yard at all, and for this type of household, small hard-scaped patios, roof terraces, or balconies may be an appealing way to enjoy private outdoor space. These building types should be located in close proximity to a park, plaza, or other common public space so that many different households can share and enliven it.

5. “Will compact urbanism lead to greater vulnerability to disasters, epidemics, and outbreaks?”

Some of the many stated purposes of federal policies that lead to sprawl (such as the National Interstate and Defense Highways Act) include increased vehicular access between population centers and also dispersal of population in order to lessen the death toll of a nuclear attack. Though the Cold War is over, there is still a threat of bio-terrorism and nuclear proliferation. Some contend that increased concentrations of people facilitate infection, whether natural or part of a bio-terrorism attack, and contamination by “dirty bombs” or other weapons. Other voices contend that urbanism allows for disaster preparedness and the spreading of vital information to be efficient and quick, and provides benefits of community resilience when communication networks have ceased to function.

Anti-social behaviors such as rioting, vandalism, and looting, have been shown to occur in both walkable, urban places and suburban sprawl, and may be more of a symptom of a breakdown in social cohesion rather than a result of the physical environment. It has been observed that while anti-social behaviors may erupt in the absence of law-enforcement, there are also many acts of altruism and compassion shown between neighbors and strangers following disasters and emergencies. Interdependence in tightly-knit communities may aid survival in emergency situations, as close proximity of households to each other can make it easier to distribute and share food, fuel, medication, and information.

6. “Aren’t sprawling subdivisions a more wholesome place to raise our children?”

Because sprawl subdivisions tend to be monocultures featuring only dwellings, and only dwellings of a certain size and price point, they often lack the diversity of urban districts. This may result in boredom for young children and adolescents. There is no evidence to suggest that substance abuse is reduced by promoting sprawl and its disconnected, dispersed patterns. Likewise, predatory behaviors have been reported in urban districts and sprawl developments alike. Because sprawl is inherently drivable and almost always unwalkable, those under driving age and

elderly individuals who no longer drive are marooned and dependent on siblings, parents, or grown children who do drive. These driving members often must act as chauffeurs for the non-driving members of the family, who are unable to access even basic services or recreation without a car. As discussed elsewhere in the Health Element, the sedentary lifestyle that goes hand-in-hand with unwalkable sprawl does not help us combat obesity, diabetes, cardiovascular conditions, and other chronic diseases.

7. “Aren’t gated subdivision with culs-de-sac safer and a better crime deterrent than neighborhoods that feature open street networks?”

Culs-de-sac, typical of the disconnected sprawl arrangement, should not be thought of as necessarily safer than interconnected urban districts. Because they eliminate thru-traffic, houses facing them may experience lower traffic counts, but always at the expense of collector streets and the houses that face them due to their increased traffic burden. A cul-de-sac may provide children with a false sense of security when it is assumed to be a play space. Cars that are backing out of driveways and garages have decreased visibility in such dead-end places.

Interconnected street networks should feature a high degree of spatial enclosure and visual friction to deter anti-social and dangerous driving behaviors such as speeding. Furthermore, crime can flourish within gated subdivisions just like it does in connected urban districts. Many times the perpetrators may live within the gated development. The response time for police, paramedics, or firefighters is reduced by guard-gates and dead-ends, thus increasing the advantage that thieves and other criminals may have, especially if they live within the gate, are escaping on foot, or if the escape vehicle is located just outside the gate.

Crime Prevention Through Environmental Design (CPTED) is a way to thwart crime by increasing natural surveillance (eyes on the street) and increasing residents’ healthy sense of territoriality. A clear delineation of the private and public realms is often neglected in sprawl subdivisions and insensitively designed low-income housing projects. Many publications and design case studies are available to show how to correct and avoid such situations.

8. “Do the New Urbanism and Smart Growth lead to gentrification, lack of affordability, and increased strain on household budgets?”

Visually coherent, walkable, well-located neighborhoods are scarce in many modern cities. For this reason, they are considered desirable by those who are seeking to purchase or rent real estate. As long as they are scarce, they will continue to feature higher value than surrounding sprawl, especially sprawl at the outer suburban fringe of the city. Traditional neighborhoods do offer a diverse range of housing types that acknowledge the varying incomes of city districts. The ability of a household to eliminate even one vehicle can save hundreds or thousands of dollars per month, money which can be saved, spent on necessities, or applied to living expenses. The savings gained by eliminating

a vehicle or even reducing the amount of driving per household if the household is unable to reduce the number of vehicles, can be significant to the attaining the household’s budgetary and financial goals. Affordability should never be secured by purposefully making neighborhoods less attractive, less environmentally sustainable, less walkable, or less convenient. Instead of suppressing superior neighborhood planning techniques, affordability should be a policy matter that seeks to bridge the gap between market rate and affordability thresholds through many different mechanisms that have been developed over the last few decades. Each region and city must decide what the appropriate strategies are to secure affordability, while understanding that the price of the dwelling unit is only one of many factors that determine a household’s ability to afford a particular living arrangement.

MEDICAL FACILITY DEVELOPMENT

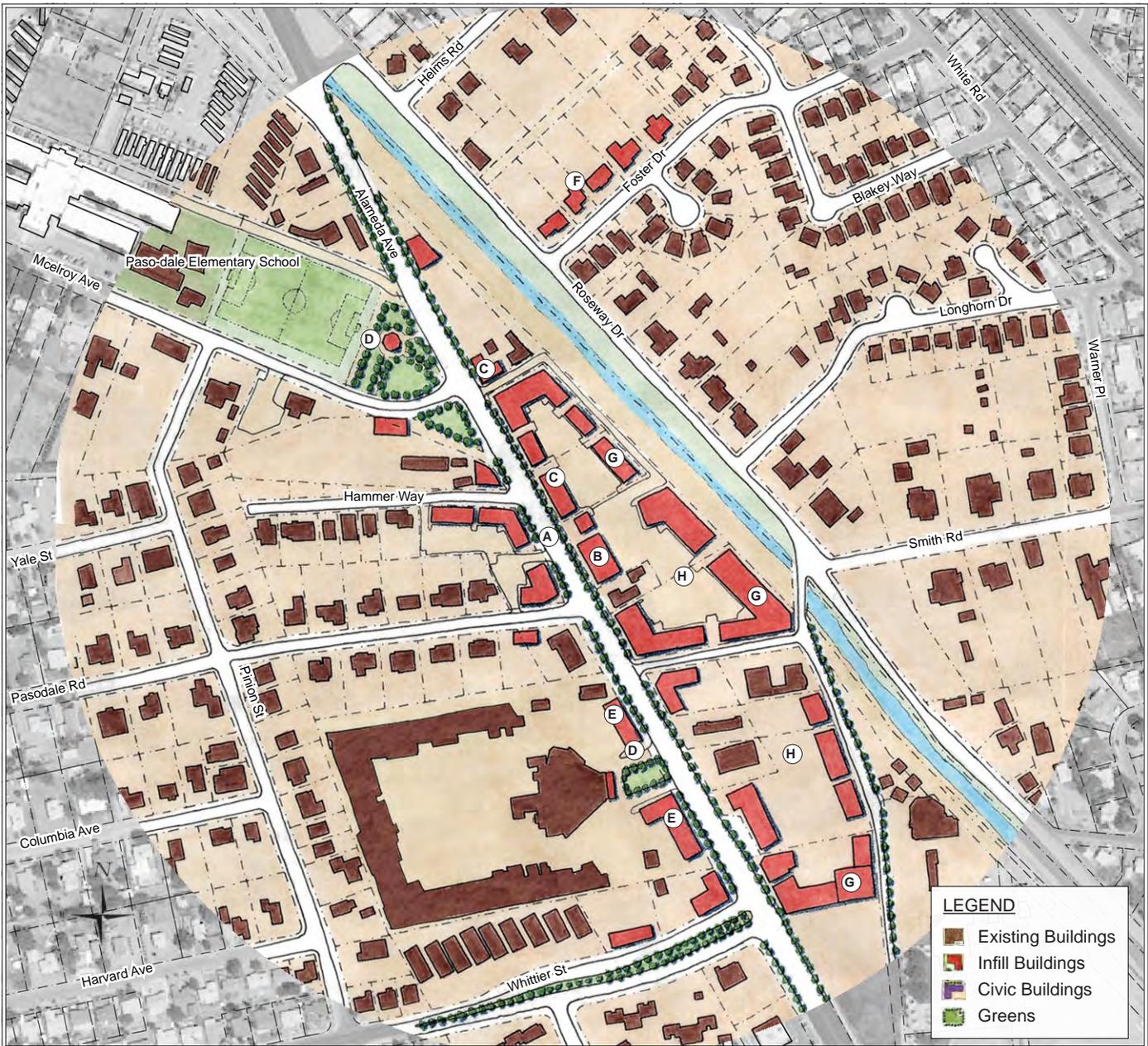
Improve Access To Health Care Facilities

Support initiatives and programs that improve access to health care facilities and health care professionals. Additional transit linkages should be added to improve the physical access to health care facilities by all residents. El Paso should also consider consolidating local, state and federal social services into one location. Ultimately, this shared location could also include medical services such as community health clinics, pharmacies and immunization facilities. Co-location opportunities in community hubs could improve access and transportation options for El Paso residents. Walkability should be improved in and around existing and future health care facilities through urban design standards. Other communities in Texas have successfully combined various social service providers into one location. The Resource Connection of Tarrant County consolidated state offices into one facility that includes Medicaid services, temporary assistance to needy families, food stamp programs and community care services. (www.tarrantcounty.com; Resource Connection of Tarrant County)

Establish And Enhance The International Medical Destination Of The MCA Campus Through Strategic Improvements, Including Transportation Elements

Corridor improvements for Alameda proposed in the Transportation Element will enhance the MCA master plan through improved transit. Additional stops will be incorporated into the Rapid Transit System to serve visitors to the campus. Lowered design speeds, Complete Streets, and multimodal street design will help to address safety issues and minimize traffic hazards, especially the threat to pedestrians and cyclists. Safe Routes to School should be established in the vicinity of Jefferson High School; these would also benefit those arriving to the MCA on foot, and may help high-school age students arrive at internship and volunteering jobs at the Center. In order to be a true international medical destination, however, international transit linkages must be incorporated. Given the violence along the border, many non-profit medical organizations are choosing not to cross into Mexico to provide medical services. Instead, patients must obtain visas and travel to El Paso for medical treatment. Reliable and affordable international transportation options are critical to serving the binational region. For conceptual images of the type of corridor improvements proposed along Alameda (see pages 7.30-7.33).

ALAMEDA AVENUE & HAMMER WAY



General Recommendations

- A** The Alameda Avenue and Hammer Way bus stop can become a neighborhood hub.
- B** New mixed-use development is located adjacent to transit connections.
- C** Street-oriented, mixed-use buildings front Alameda Avenue, creating a pedestrian-oriented environment.
- D** Unplanned open spaces should be replanned and reorganized as parks and plazas. McElroy Avenue, Pinion Street, and Whittier Street Should be designated and configured as safe routes to school.
- E** New buildings at the Swap Meet help to redefine the street frontage and the public areas of the Meet.
- F** Neighborhood infill consists of building types that match the existing fabric.
- G** New residential development should be located with close proximity to transit options.
- H** Parking is located in the middle of the block and lined with buildings that face the street.

ALAMEDA AVENUE & HAMMER WAY

Change Over Time



The following sequence illustrates the potential transformation of Alameda Avenue at its intersection with Hammer Way.



Upper right, Existing Conditions: The current conditions on Alameda Avenue do little to encourage pedestrian activity. Narrow sidewalks (often with ill-placed utilities), haphazard curb-cuts for adjacent parking lots, and high traffic speeds all prioritize vehicular mobility. The bus stop consists of only a bench and a sign. In turn, the surroundings fail to capitalize on the neighborhood's transit connection.



Right: A crosswalk, street trees, clear lane markings, on-street parking, and a median are added to the thoroughfare. A new bus shelter will help to dignify the transit stop. These new road improvements rebalance the street for increased pedestrian activity and lay the groundwork for new transit-oriented development.



Above: As the focus on transit increases and improvements to the public realm enhance the area, new mixed-use developments will emerge. These new projects can incorporate commercial uses which cater to transit riders, and residential uses which allow for increased population centers near transit. Completing the pattern of road improvements and new development, new mixed-use buildings can be built directly adjacent to the transit stop.

MEDICAL CENTER OF THE AMERICAS

The Medical Center of the Americas and surrounding medical buildings are expanding their campus, increasing beds, and enhancing cross border relations to make El Paso a leading health center. The area surrounding the campus is primarily residen-

tial along with a few large warehouses nearby. Along with the expansion of the medical facilities, an expansion of uses such as locations to eat and shop should be located within walking and biking distance of the hospitals and classrooms.



General Recommendations

- A** New public plaza is paved with stamped concrete at the heart of the Medical Center of the Americas campus.
- B** A reconfigured intersection removes the “flyover” on Alameda Avenue and replaces it with a large central green space, formalizing the space and creating better addresses for new buildings.
- C** A new green space on the Fox Plaza Shopping Center site is surrounded by new and renovated buildings. A bus rapid transit pavilion is located at the southern end of the green.
- D** The Fox Plaza Shopping Center is reimagined as a mixed-use neighborhood center with shops and residences.
- E** A prominent site has been set aside for a new civic structure, set within a green and surrounded by a terrace of new townhouses.
- F** Trailways are added along the drainage canals, fronted by new homes and apartments.
- G** New street connecting Alameda Avenue and El Paso Drive.
- H** Expanded parking garage for the hospital adjacent to the railroad tracks.

MEDICAL CENTER OF THE AMERICAS

Fox Plaza Shopping Center: Change Over Time

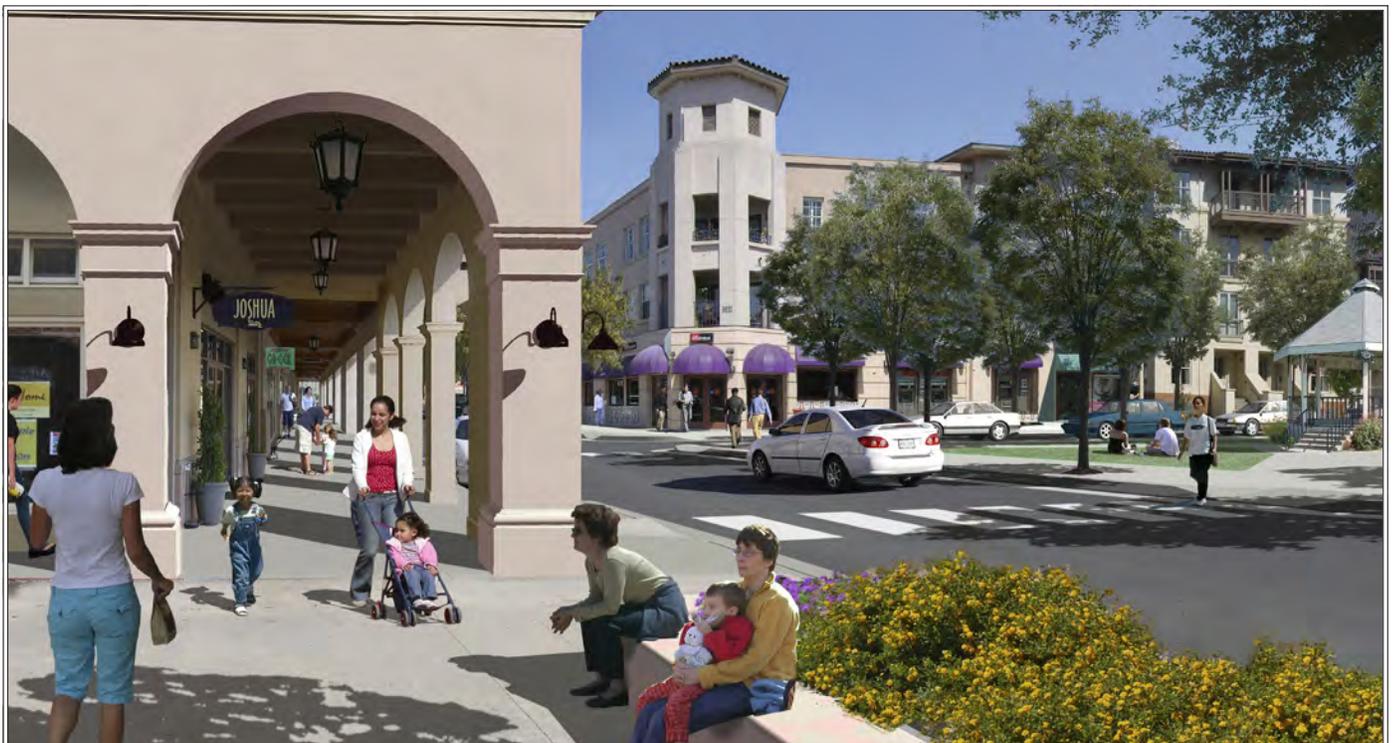


The following sequence illustrates the potential transformation of the Fox Plaza Shopping Center along Alameda Avenue.

Existing conditions: Close to the Medical Center of the Americas and to future improved rapid transit services expected along Alameda Avenue (Rt 20), the Fox Plaza Shopping Center sits at a key site for more intensive development at the intersection of Paisano Drive. The existing shopping center consists of one-story retail buildings behind a large field of parking. Several outparcels contain fast-food restaurants.



Right: Without altering any of the existing structures, a new grid of tree-lined streets is laid out around the current parking lots. A portion of the parking area is transformed into a public green space with the bus stop at the end of the green. Minor alterations such as these would set up proper addresses for future infill development while having little effect on the function of the shopping center in the short term.



Above: The remaining parking field is replaced by mixed-use buildings containing shops, offices, and residences which mask a mid-block parking structure. Structured parking would meet current and future needs, freeing up subsequent parcels in the area for street-oriented development. Existing commercial buildings are renovated, with new arcades, shopfronts, and windows facing the sidewalk. A small pedestrian plaza replaces a service lane, which has been relocated to the interior of the block.

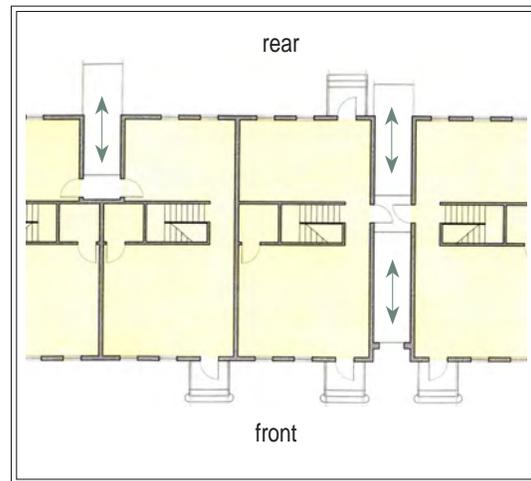
Visitability and the Disabled

Visitability is an important consideration for inclusive, multi-generational development. It is not possible to predict within which homes a resident will develop a disability. Over a home's lifespan it may accommodate many different families, each having different needs. Creating basic access at the time of construction costs relatively little compared to the cost of a future retrofit. If a building or dwelling is to be made visitable, the following are design considerations that are informed by ADA requirements but which also take into account the formation of legible street walls, aesthetics of ramps, and the shallow setbacks and elevated finished floors that are desirable in higher transect zones of urban environments:

1. There should be provided one zero-step entrance from an accessible path at the front, side, or rear of each building.
2. There should be a half or full bath provided on the first story of each visitable unit.
3. All first floor interior doors (including bathrooms) should provide at least 32 inches of clear passage.
4. Configurations – There are many methods with which visitability to residential units can be achieved while maintaining an elevated finished floor, which is vital to privacy in urbanized areas. Several recommended configurations are outlined below.
 - i. On alley-served lots: The ground may be sloped or raised to provide a zero-step entrance at the rear, convenient to parking. This may be accomplished by grading the alley or lane higher than the thoroughfare (providing visitability at the block level), by sloping individual lots toward the alley or lane, or by providing well-integrated rear-access ramps.
 - i. Well-integrated ramps may be provided at the side of the unit, leading to a side or rear porch. For apartment and townhouse configurations, side or rear ramps are encouraged to be shared between units. The entrance to the ramp at the sidewalk could be through a doorway, or integrated into the building design as an archway.
 - i. In cases where visitability cannot be met by rear grading or access ramps, one alternative is to provide an at-grade entrance at the front of the building with an exterior stair leading to the entrance of the unit above.
 - i. An additional alternative is to provide an at-grade entrance at the front of the building with an interior ramp up to the first finished floor level.



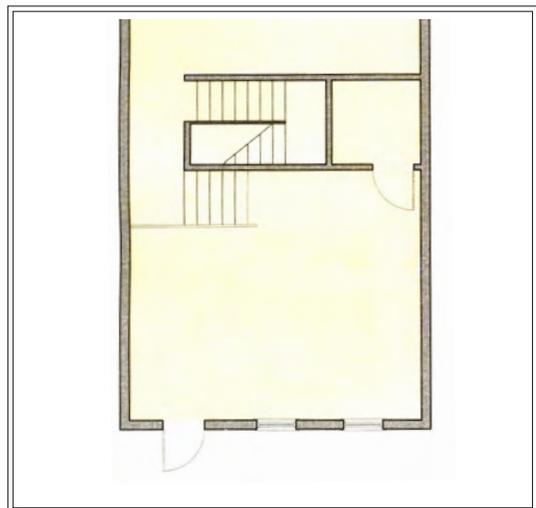
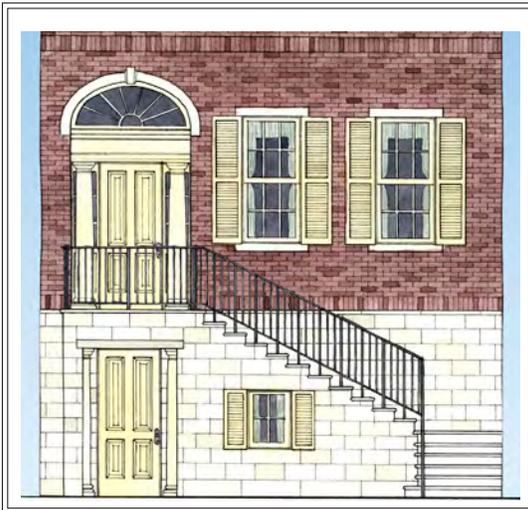
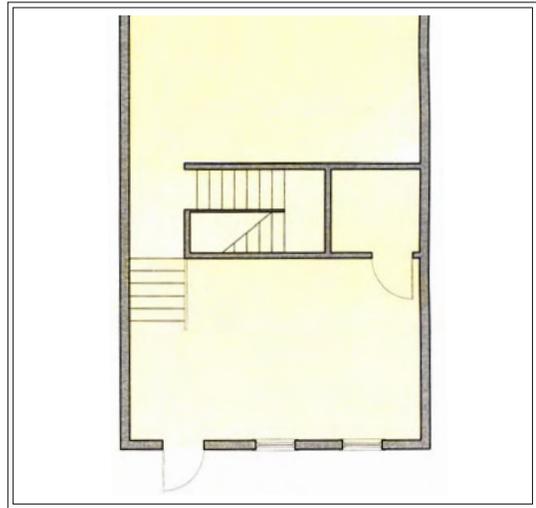
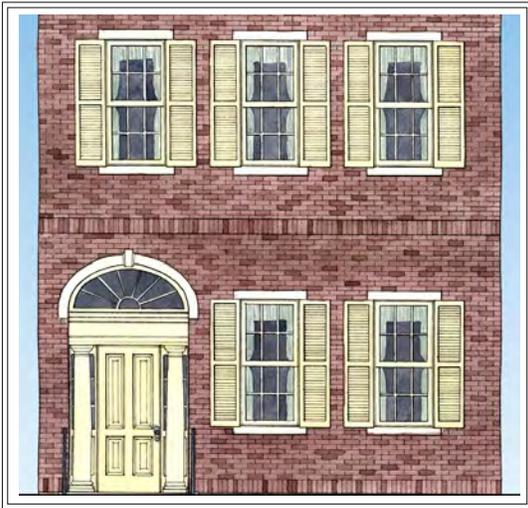
A ramp can be shared by multiple units in the same building.



Ramps can provide access from the front or rear of a building.



Shared ramps can provide access to multiple buildings.



There are multiple design solutions for providing an accessible entrance to a building, three of which are illustrated above.

Physical Access to Medical Care

When discussing access to medical care and treatment, the Comprehensive Plan addresses the physical access to health care in El Paso; the removal of financial obstacles to health care can only be addressed by substantial commitments from the state and federal governments.

Medical care can be accessed at several different types of facilities including hospitals, clinics, urgent care clinics, doctor’s offices, and laboratories. These should be distributed throughout the City. Land should be set aside for health-related buildings when planning new development or repurposing “grayfield” commercial sites. Larger healthcare providers, such as hospitals, should be located on major corridors and mass-transit nodes so that they can be more accessible to a larger base of patients, which may extend beyond the borders of the City.

Efficient and compact multi-story buildings should be the norm rather than low-slung campuses. When siting hospitals along transit-served corridors, parking footprint can be reduced, thereby lessening the costs of development. Savings in the development of hospital sites can potentially contribute to savings in the overall cost of the service. Likewise, hospitals can be designed to allow for views and sunlight for each patient. By using courtyards and smaller building footprints than conventional large floor-plate hospital designs, daylight can be brought into interior spaces.

One strategy that could reduce mortality is the reduction of response times for emergency vehicles. Fire trucks, ambulances, and police vehicles would benefit by a ban on dead-ends, cul-de-sac, and gated subdivisions. Rather an open network of interconnected streets that offer multiple routes for accessing properties should be the norm. Where alleyways or rear access lanes are present first responders have another way to access people or properties in distress.

Caution must be taken in not designing streets only for the occasional passage of emergency vehicles, however. By increasing turning radii at intersections, or excessively widening standard curb-to-curb dimensions, streets may inadvertently become speedways that are more dangerous for residents on a day-to-day basis. Strategies to accommodate emergency response vehicles without sacrificing pedestrian safety include:

1. Recognizing the difference between actual and effective turning radius.
2. Using mountable curbs or clear-zones.
3. Elimination of curbs at corners of “shared-space” intersections.
4. Providing staging areas for fire trucks at key mid-block locations rather than widening the entire block frontage.

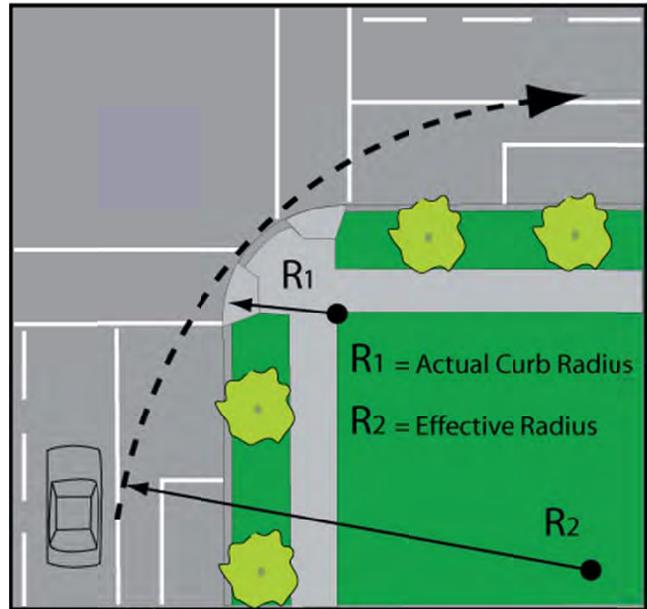
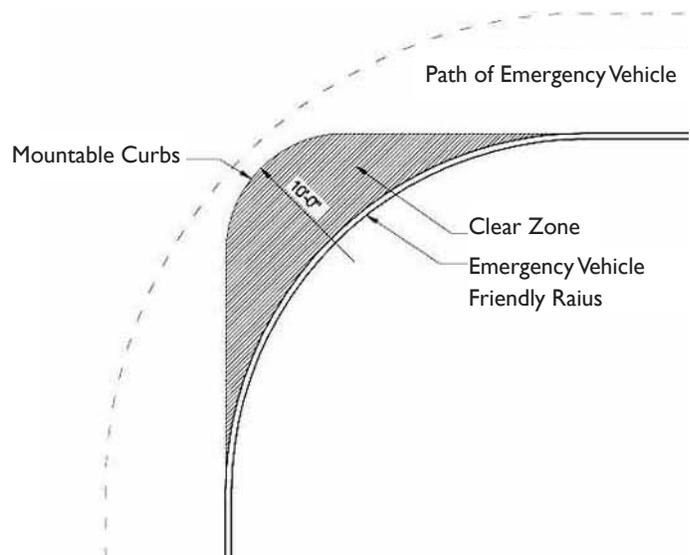


Diagram of Actual Curb Radius and Effective Radius based on AASHTO Policy on Geometric Design of Highways and Streets, 2004, Exhibit 5-10. Courtesy of Hall Planning and Engineering, Inc.



If on-street parking is not present, then a mountable curb or clear zone can create the appearance of a tighter turning radius to which most drivers would adhere, although a large vehicle could easily and quickly cross it in an emergency.

5. Eliminating speed bumps and speed humps, which are particularly disliked by paramedics and ambulance drivers as they may needlessly shake patients and equipment. A better strategy for traffic calming is to build in a high degree of spatial enclosure rather than retrofit or “hobble” streets with bumps.
6. Minimize dead-ends, culs-de-sac, gated subdivisions, and promote interconnected networks.
7. Establish service routes through communities that can more easily accommodate larger vehicles, thereby freeing other streets from the need to do so. These other streets can therefore have a higher degree of spatial enclosure and feature narrow curb-to-curb dimensions.
8. Downsize fire trucks so that they fit the street dimensions found in traditional and historic neighborhoods, rather than designing streets and intersections to fit the vehicle. Distribute smaller fire stations with fewer and smaller trucks in neighborhoods rather than consolidating them in larger facilities.
9. Reduce the risk of fire by using non-inflammable and soakable construction materials, and deploying sprinklers in buildings rather than relying solely upon fire hydrants to douse fires.
10. Educate homeowners on the importance of keeping and knowing how to use fire extinguishers, establishing escape routes, minimizing the use of bars on windows, and other methods for reducing the risk of fire in the home. Many risks arise from the use of cooking appliances, cigarettes, lighters, matches, candles, and faulty electrical systems. Maintaining smoke detectors and changing their batteries are also necessary habits which each household and business should cultivate.



Some peer cities have kept curb radii tight, even placing objects such as lanterns and signs at corners so that turning is accomplished very slowly and with caution. There is an increased awareness of pedestrians in such urban environments. Often, emergency response vehicles are designed or ordered to fit the urban design.



A curbside intersection with bollards allows for pedestrian confidence while accommodating the turning radius of emergency response vehicles.

PARTNERSHIPS & PROGRAMMING**Partner With The School Districts To Prevent Health-Related Problems**

Strategic partnerships with the school district can be effective in preventing health-related problems through the built-environment and educational programs. Childhood Obesity health issues are very complex and require complex solutions. The most effective strategies have come from a combination of strategies including the built environment, lifestyle changes and better access to facilities. The City should continue to partner with the school districts to further implement the National Safe Routes to School (SRTS) program. This national program was signed into law in August 2005 and dedicated a total of \$612 million towards SRTS from 2005 to 2009.¹⁵ El Paso received funding through this program to plan bicycle and pedestrian improvements around existing and proposed schools throughout the County. Federal funds are distributed to states based on student enrollment, with no state receiving less than \$1 million per year. These funds may be used for both infrastructure projects and non-infrastructure activities. However, additional funding sources still need to be identified for implementing specific improvements in El Paso.

The State's Coordinated Approach to Child Health (CATCH) program is a coordinated school health program designed to promote physical activity, healthy food choices and prevent tobacco use in elementary school aged children. Establishing healthy habits in childhood can promote behavioral changes that carry into adulthood. There are multiple sources for CATCH grants and mini-grants available at the state and federal level. Given the competitive process to win these grants, there may be periods in which CATCH funding is not available to El Paso. However, per the Texas Education Agency's requirement that schools provide effective, coordinated health programs, the City of El Paso should stay committed to the CATCH program as well as other programs focused on improving childhood health.

The Recipe for Success (RfS) Foundation in Houston has been successful increasing the number of servings of fruit and vegetables school children consume each day. RfS is attempting to prevent childhood obesity by changing the way kids eat. Approximately 3,500 Houston-area students grow, harvest and prepare their own dishes.¹⁶ RfS offers hands-on nutrition education through after school sessions, summer camps and nutrition education classes for parents. The program has been so popular that seventy-five Houston area schools are on the waiting list for their own chapter. Founder Gracie Cavnar continues to expand the framework through a partnership with the city to convert abandoned properties into organic plots. Volunteers of the program include gourmet chefs, teachers and farmers.

¹⁵ "Safe Routes to School and Health - Understanding the Physical Activity Benefits of Walking and Bicycling to School," September 2010, www.saferoutesinfo.org

¹⁶ "Serving Up a Solution," Sondra Forsyth, Family Circle, February 2011 and the Recipe for Success Foundation, www.recipe4success.org

Use Health Impact Assessments (HIA's) As A Tool For Reviewing And Addressing Health Issues In El Paso

HIA's are a systematic method for reviewing the health issues facing a population. Assessments establish agreed priorities and resource allocation that will improve health and reduce inequalities. HIA's are used to determine the priority of local health service needs. El Paso has already taken the first steps towards implementing this strategy by adopting the Obesity Prevention Action Plan. The plan recommends developing programs geared to improving nutrition and increasing physical activity, and making policy recommendations toward obesity prevention. The Director of Public Health will perform an HIA for new large scale developments studying the potential effects upon physical activity, availability of nutritious foods, and other health consequences on the population in the area of the new project.

Increase Prevention Efforts With Respect To Key Health Issues

Provide innovative and effective prevention programs focusing on binational health priorities including obesity, chronic diseases, infectious diseases, and immunization programs. Prevention programs should be administered through a variety of outlets including nursing homes, schools, senior centers, nutrition programs, faith-based groups, and other community based health care providers.

Include Public Health Officials In Planning Decisions

Support the participation of public health officials in land use decision making and transportation planning to help identify and mitigate potential health problems. El Paso was recognized in 2009 by the National Association of City and County Health Officials (NACCHO) for model and promising programs in extreme weather response, binational tuberculosis case management and establishing measurable health indicators.¹⁷ This leadership should continue in the areas of land use and transportation. The formation of a Land Use and Health Team should be explored in order to educate and engage the community regarding the effect of community design upon health. One model program that could be researched is in Ingham County, Michigan. Their team is increasing awareness in local planning and development communities and among residents about the correlation of land use and health issues.

¹⁷ National Association of City and County Health Officials, Model Practice Database, www.naccho.org (Model Land Use & Health Team in Ingham County, Michigan, www.cacvoices.org)

GOALS & POLICIES

Overall Goal: Improve the overall health and quality of life for all residents in the City.

Collaboration and Coordination

Goal 9.1: Address the health needs of all residents in the region through collaboration and coordination among local, binational, and bi-state entities.

Policy 9.1.1: Conduct a regional health study and develop a strategic framework to aggressively improve the health within the region.

Policy 9.1.2: Partner with local, binational, and bi-state entities to prevent health-related problems through prevention programs and policies.

Policy 9.1.3: The Planning Division should educate developers, neighborhood associations, and other building permit applicants for major projects on the connection between the built environment and public health.

Nutrition

Goal 9.2: Create a food system in which City residents can meet their proper nutritional needs.

Policy 9.2.1: Initiate research, policies, and programs that increase food security, improve health outcomes, and create social and economic opportunities to ensure that every resident has access to fresh, healthy, and affordable food.

a. Perform Community Food Assessments to determine where “food deserts” exist in El Paso. Food deserts are areas in the City lacking access to fresh, unprocessed, whole food products, especially fruits and vegetables. Target food deserts as areas to start focusing food production, farmers’ markets, and small community-based grocers.

b. Ensure that schools have access to local, organic, and unprocessed whole food products. Incorporate cultivation plots on school grounds for the education of students and to potentially supply schools, food banks, needy households, and local retailers with fresh products.

c. Ensure that Homeowner’s Associations may not prohibit food production and the growing of crops

such as fruits, vegetables, and herbs in front, back, or side yards.

d. Encourage the integration of farmer’s markets and CSA (community supported agriculture) pick up points into the planning of new and old community centers, schools, and public spaces.

e. Encourage Parks and Recreation Department’s efforts to integrate food gardens into parks.

f. Integrate produce markets and supermarkets into the community fabric, especially those that carry locally grown products.

g. Integrate farmers’ markets at major transit stations and hubs, such as bus transfer facilities.

h. Encourage the production of food across the urban-to-rural transect, especially by citizens and residents. Remove obstacles to food production upon City lots and public spaces. Enhance the ability of residents to produce a portion of their own food supply, and encourage area farmers to produce food for consumption in the City and the County.

i. Encourage development of community food gardens through grant or partner funding.

j. Improve access to direct or whole sale buying for low-income and limited-mobility residents.

k. Remove barriers to the raising of poultry on private lots in suburban areas.

l. Encourage breastfeeding and provide incentives for businesses that create “Mother-Friendly Work-sites,” “Baby-Friendly” hospitals, and “Baby Cafés.”

m. Continue to ensure that food service establishments and grocery stores are inspected by a registered sanitarian at least twice each year.

n. Continue to support the Women, Infants, and Children Program (WIC) to improve the nutrition of vulnerable members of the population.

Access to Health Care

Goal 9.3: Improve access to medical care.

Policy 9.3.1: Distribute offices, clinics, laboratories, and hospitals amongst the various districts and neighborhoods that make up the City. Encourage consolidation of medical facilities to create efficiencies in providing care, such as the co-location of laboratories, diagnostic centers, and hospitals.

Policy 9.3.2: Locate medical care providers and human services at transit nodes and designated Transit Oriented Development sites.

- a. Encourage medical providers to locate at stations or bus stops with reduced parking footprints.

Policy 9.3.3: Create an international medical destination with the Medical Center of the Americas unified campus as the anchor and construct strategic transportation improvements to and around the campus.

Policy 9.3.4: Allow access by emergency response vehicles without sacrificing walkable, traffic-calmed street designs.

Policy 9.3.5: Advocate for policies that create parity for medical reimbursement rates in the region.

Environmental Risk Factors

Goal 9.4: Reduce exposure to environmental risk factors.

Policy 9.4.1: Reduce risk of injury and fatality due to vehicular accidents.

- a. Lower design speeds on existing and proposed streets and highways. Retrofit streets to be more pedestrian-friendly. Include on-street parking and street trees as barriers between pedestrians and moving travel lanes and which increase visual friction to discourage speeding. Include wide sidewalks and narrower travel lanes. Minimize crossing distance at intersections with pedestrian refuges, bulb-outs, speed tables, and other strategies.
- b. Convert signalized or geometrically complex intersections to modern roundabouts or fully-circulating intersections in order to reduce or eliminate turn-lanes, slow traffic while improving flow, and reduce the incidence of broadside and head-on collisions.

c. Increase the frequency of crosswalks and increase signal time in favor of pedestrians crossing streets, especially multi-lane arterials and other major streets.

d. Create a network of safe routes to school for all existing and proposed schools.

e. Promote the use of *woonerven* (a *woonerf* is a street in which pedestrians and cyclists have legal priority over automobile drivers, and which exhibit extremely low design speeds), shared spaces, curbless streets, and stripe-free zones as ways to create very traffic calmed residential streets that need less right-of-way than conventional streets. Use highly textured road beds to slow traffic.

f. As silent hybrids and electric vehicles become more common, expand the City's use of Audible Pedestrian Signals (APS) to assist blind pedestrians at intersections and crosswalks.

Policy 9.4.2: Reduce exposure to air pollution.

a. Minimize VMT through increased walking, cycling, and transit usage. Strategies to accomplish this are found in the Regional Land Use Patterns, Transportation, Urban Design, and Housing Elements.

b. Work with federal entities to reduce bridge congestion, especially by means other than road widening.

c. Coordinate with Juárez on strategies to reduce VMT.

Policy 9.4.3: Reduce exposure to excess ultraviolet rays.

a. Provide for shade along sidewalks and pedestrian pathways with one or more of the following: high degree of spatial enclosure formed by buildings and narrow right-of-way, street trees, canopies, awnings, colonnades, arcades, and galleries, according to appropriateness within the urban-to-rural transect.

b. Provide shade devices for playgrounds to protect children from sunburn and increased risk of skin cancers.

c. Educate citizens on the importance of sunscreen, clothing, and avoiding peak sunlight hours for outdoor activity as a first line of defense against melanoma and other skin cancers.

d. Educate citizens on the need for adequate exposure to sunlight in order to avoid Vitamin D deficiencies and how to achieve this without damaging the skin.

e. Plan to tackle tree attrition and replacement by conducting a tree/canopy survey of parks and other public spaces, with annual updates.

Policy 9.4.4: Increase access to safe water.

a. Continue to monitor water for contaminants.

b. Continue to educate citizens and visitors on practices that reduce groundwater pollution, such as proper disposal of medicines, chemicals, batteries, and hazardous materials.

Policy 9.4.5: Reduce infectious and communicable diseases and infection.

a. Continue to coordinate with the Department of Public Health and its efforts to combat the spread of infectious diseases.

b. Continue disease mapping.

c. Continue to coordinate with governmental entities south of the border to identify and prevent pathogens that may spread in either direction across the border.

d. Continue to support efforts to immunize the uninsured and underinsured population of El Paso and the surrounding areas and to prevent the spread of vaccine-preventable diseases in all ages.

e. Continue to support efforts to educate and test for HIV, syphilis, and other STDs, in addition to education and provision of contraceptives.

f. Continue to support the MPowerment Program's efforts (M-Factor) to reduce the rates of unprotected sex and the spread of HIV among young gay/bi-sexual men and support safer sex.

g. Continue to support efforts to halt the spread of tuberculosis.

h. Continue to support dental care programs for children

Policy 9.4.6: Reduce exposure to heavy metals, radio-

nucleotides, lead, and mercury.

a. Continue to embrace clean, renewable energy generation in order to reduce the demand for electricity produced by coal-fired plants.

b. Continue to monitor levels of radon and educate households on how to test for and mitigate radon gas.

c. Continue to educate households, contractors, and real estate professionals on how to identify, remove, or stabilize lead-based paints and other sources of lead in construction.

Policy 9.4.7: Continue to allow farming as a commercial operation, however, seek to reduce exposure to endocrine disruptors and agro-toxins such as pesticides, fertilizers, fumigants, and other by-products of non-organic agricultural practices.

a. Continue to support the State of Texas in the regulation of sprayed pesticides, herbicides, and fertilizers through agricultural and soil conservation services and the Environmental Services Department.

b. Continue to support the efforts of the El Paso Agricultural Research and Extension Center to promote safe, non-polluting agriculture.

c. Expand the use of pest-resistant varieties of plants without resorting to GMO (genetically modified) strains.

d. Promote the use of sustainable agriculture practices to reduce or eliminate agro-toxin use including:

i. Crop rotation, letting fields be fallow for a season, and cover crops.

ii. Biodiverse crops rather than monoculture crops.

iii. Non-genetically modified seed.

iv. Hand weeding, animal husbandry, mulching, and other techniques to substitute pesticides.

v. Encouraging no-till or reduced tilling methods to preserve soil microbes and other organisms essential to aeration, drainage, and soil fertility.

- vi. Using species selection to fix nitrogen and supply other minerals and nutrients rather than resorting to petro-chemical and synthetic fertilizers.
 - vii. Composting and cycling nutrients amongst crops and between animals and crops.
- e. Reduce exposure to food-borne pathogens.
- i. Prevent Concentrated Animal Feeding Operations (CAFO) from being established in El Paso. Work with El Paso County to discourage their establishment in the County.
 - ii. Work with farmers to promote pasture raised, free-range livestock and poultry at safe densities rather than in confined, crowded facilities.
 - iii. Work with food retailers, farmers, suppliers and the community to minimize the prevalence of food-borne illnesses.
 - iv. Establish partnerships between representatives of the food supply chain and health care providers in order to educate the community, prevent contamination, and treat infected individuals.
 - v. Discourage the use of antibiotics in agriculture as these lead to antibiotic-resistant, virulent strains.
 - vi. Work with schools to eliminate the use of CAFO products in school meals.
- f. Reduce exposure to endocrine-disruptors.
- i. Work with farmers to raise livestock without adding hormones. Keep meat and milk supply free of added hormones. Educate the community on how to select hormone-free products.
 - ii. Work with schools to eliminate the use of hormone-laden milk and meat products in school meals.
 - iii. Educate citizens on how to choose products and containers (such as food cans, plastic bottles, and cutlery) that are free of endocrine disruptors.
 - iv. Work with retailers, distributors, and manufacturers to reduce chemicals such as dioxins, cadmium, parabens, bisphenol A (BPA), phthalates, polychlorinated biphenyls (PCBs), agricultural

chemicals, and other endocrine disruptors.

Policy 9.4.8: Reduce risks associated with the electrical grid.

- a. Continue to support El Paso Electric Company's instructions on how to respond to downed power lines.
- b. Continue to strengthen the electrical distribution grid.
- c. Locate electrical wires at the rear property line or in alleys or rear easements in order to lessen conflicts between street trees and electrical infrastructure while reducing the blight caused by wires.
- d. Continue to provide incentives for the relocation of existing above ground electrical wires underground.
- e. Reduce exposure to electromagnetic fields by locating residences at a safe distance from high voltage transmission lines and easements.

Exercise

Goal 9.5: Encourage physical activity through the design of the built environment.

Policy 9.5.1: Study existing neighborhoods and determine if residents can easily walk to retail, especially a grocer, where they may obtain daily necessities. Determine if residents are less than a five-minute walk from public facilities such as schools, parks, libraries, and transit stops. Work with communities to increase density, connectivity, and completeness (mixture of uses).

- a. Utilize the Complete Streets approach to pedestrian and bike accommodation.

Policy 9.5.2: Adjust land development regulations in order to make neighborhoods more complete and walkable.

Policy 9.5.3: Improve streetscapes so that traffic speeds are reduced and pedestrians' and cyclists' comfort and safety is increased.

Policy 9.5.4: Design new neighborhoods to be amenity-rich, mixed use, interconnected, dense, and compact. Neighborhoods should be able to supply most of life's daily necessities on foot or on bike, with easy access to premium transit service. Streets should be designed with low-design speeds.

Policy 9.5.5: Transform existing streets, both large and small, restoring balance to their design so that pedestrians and cyclists feel safe and comfortable. Instead of using conventional traffic-calming techniques such as speed humps/bumps, or chicanes, pursue traffic calming that is built in to the street design, and which increases the sense of spatial enclosure and visual friction experienced by drivers. Techniques include textured roadbeds, narrower curb-to-curb dimensions, on-street parking, street trees, shallower dooryards, and avoiding squat proportions in the architecture that defines the street.

Policy 9.5.6: Integrate walkable neighborhood design with transit stations according to techniques and policies described in Regional Land Use Patterns, Urban Design, and Housing Elements.

Policy 9.5.7: Work with Parks and Recreation Department, and TxDOT where appropriate, to increase pedestrian and cyclist connectivity across natural and man-made barriers such as freeways, ravines, river beds, canyons, and arroyos. Provide a shorter and more convenient route for non-motorized traffic across barriers.

Policy 9.5.8: Work with Parks and Recreation Department, and TxDOT where appropriate, to invest in a recreational infrastructure that provides not only recreational walking, jogging, and cycling, but also may provide an alternative to car trips. Such infrastructure may include trails (multi-use, hiking, equestrian, jogging), cycle tracks, bike lanes, parks, and restored or conserved wild areas. Consider using the Rio Grande or canal networks that run roughly parallel to it, as a multi-use recreational amenity stretching from County line to County line.

Policy 9.5.9: Work with Parks and Recreation Department to integrate fixed, durable outdoor fitness equipment in parks that allow for flexibility and resistance training.

Policy 9.5.10: Encourage workplace fitness by including fitness centers within or in close proximity to employment centers.

Policy 9.5.11: Encourage employers to remove subsidies for parking and provide financial incentives to cycling, transit, and walking as a commuting alternative.

Policy 9.5.12: Encourage the inclusion of showers, lockers, and changing areas at places of employment.

Policy 9.5.13: Create “visitable” building types for the disabled that also satisfy the goal of creating walkable street frontages.

Policy 9.5.14: Create safe routes to school using mapping tools, the planning of street networks, and walkable and multimodal street designs. The Safe Routes to School Program (SRTS) has improved conditions for almost every elementary school in El Paso.

Policy 9.5.15: Encourage schools to provide open campuses. At a minimum, recreational fields should be open to the community after school hours and on weekends.

Psychological and Emotional Well-being

Goal 9.6: Encourage psychological and emotional well-being.

Policy 9.6.1: Coordinate with Fort Bliss, Department of Defense, Health Care Providers, Psychologists, and Researchers to provide therapy for sufferers of stress, depression, and Post Traumatic Stress Disorder arising from:

- a. Combat experiences
- b. Drug-related violence
- c. Domestic violence
- d. Deployment of a loved one

Policy 9.6.2: Seek to reduce commuting times to maximize quality time with friends and family.

Policy 9.6.3: Seek to improve sleep by reducing light and acoustical pollution.

- a. Continue to enforce the City's Dark Sky Ordinance.
- b. Erect acoustical barriers and implement sound mitigation.
- c. Locate residential areas at a safe distance from major sound and light polluters or limit hours and levels of illumination to allow for a period of darker skies between midnight and sunrise.
- d. Discourage commercial uses that have intrusive levels of lighting from locating adjacent to residential land uses.

Policy 9.6.4: Encourage residential building types that accommodate extended or non-conventional households.

Policy 9.6.5: Encourage small schools embedded within the neighborhood fabric rather than large drive-only campuses.

Policy 9.6.6: Strengthen extended support networks by reducing land use patterns that lead to social isolation.

Policy 9.6.7: Integrate assisted-living facilities into neighborhood fabric and design them as dignified home-like facilities.

Policy 9.6.8: Support efforts to train owner-less canines and match them with PTSD sufferers and the visually impaired.

Policy 9.6.9: Continue to educate patients and family members of patients on the symptoms, therapy, rehabilitation, and medications associated with mental health disorders.

Policy 9.8.1: Enact the recommendations of the Obesity Prevention Action Plan including developing programs geared to improving nutrition and increasing physical activity, and making policy recommendations toward obesity prevention.

Policy 9.8.2: Map Citywide prevalence of diabetes and examine where diabetes-related services (such as dialysis, insulin, and diet counseling) are needed.

Policy 9.8.3: Map cancer clusters in order to identify anomalies and environmental factors such as carcinogens.

Substance Abuse

Goal 9.7: Discourage substance abuse.

Policy 9.7.1: Work on policy to discourage retailers of alcohol and tobacco products within the sight of school entrances or access points.

Policy 9.7.2: Continue to expand no-smoking zones to outdoor public spaces that are owned by the City.

Policy 9.7.3: Continue to enforce existing laws related to sale and use of tobacco and alcohol to minors.

Policy 9.7.4: Continue to collaborate with local and bi-national entities to discourage and prevent the trade of drugs, drug moneys, and arms across the border.

Policy 9.7.5: Continue to encourage programs focused upon drug counseling, rehabilitation, and sobriety.

Policy 9.7.6: Continue to support efforts to educate and prevent the use of tobacco.

Obesity and Chronic Illnesses

Goal 9.8: Reduce obesity and the chronic illnesses associated with obesity, such as type 2 diabetes, cancers, and heart disease.

SUSTAINABILITY

10

Overall Goal: Secure the viability of environmental resources for El Paso’s people, flora, and fauna so that future generations may experience a constantly improving, environment that is always more resilient than that of the previous generation.

Current Conditions	10.2
<i>Historic Conditions and Present Challenges</i>	<i>10.2</i>
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“SUSTAINABLE DEVELOPMENT IS DEVELOPMENT THAT MEETS THE NEEDS OF THE PRESENT WITHOUT COMPROMISING THE ABILITY OF FUTURE GENERATIONS TO MEET THEIR OWN NEEDS”

- UNITED NATIONS GENERAL ASSEMBLY

CURRENT CONDITIONS

HISTORIC CONDITIONS AND PRESENT CHALLENGES

El Paso's citizens and leaders are enthusiastic about tackling the unprecedented and acute environmental challenges that face the City. They realize that the solutions can be found not only through innovation and technology but also through a careful study of the sustainable development patterns that characterized the City's early history. As most cities that developed before World War II, El Paso's early history was characterized by centripetal forces. Centripetal forces are those that lead to compact, walkable urban form, and which focus development inward. El Paso's urban form was shaped by such forces until World War II. They include: water constraints, lack of fossil fuels, and the absence of building technology to easily mitigate the taming of a harsh landscape.

Today, El Paso's privileged geographical setting has caused it to attract new residents even while peer cities languish. Its newcomers are aware of the unique constraints imposed on the City by its geography. For its early settlers, their response to these constraints did not only affect their comfort, but their ability to survive. The water budget, that is, the total water available from precipitation, the Rio Grande, and the *bolsons*, or aquifers, from which the City draws its water, established a natural limit to the rate of growth.

Growth Patterns and Urban Development

Likewise, in the absence of fossil fuels, the City's early growth was characterized by compact, walkable, interconnected neighborhoods. In the context of constrained resources, it seemed only natural that an intricate web of horse-drawn, then later, electric streetcars would emerge to serve this walkable urban fabric. At its peak, the system even included cross-border service to and from Juárez, Mexico, acknowledging that El Paso and Juárez are one metropolitan region that shares both natural resources and urban infrastructure.

Anecdotes from this era have shown us that a high degree of social cohesion, interdependency amongst neighbors, and fluid movement across the border was supported by the urban form of the City.

Agriculture and Food Sources

Because the City grew in the form of compact neighborhoods and districts, much of the moist, arable land of the upper and lower valleys in both Texas and close-by parts of New Mexico remained in agricultural use. Large contiguous tracts of farmland, irrigated by ditches that branched from the river, constituted a nourishing agricultural belt of pecan trees, vineyards, vegetable farms, livestock grazing, and fruit orchards. El Pasoans had once enjoyed a certain degree of self-sufficiency. In addition to the produce of the Rio Grande, the food shed of El Paso included the Chihuahua State to the south.

Post World War II

After World War II, forces shaping El Paso could be characterized as centrifugal rather than centripetal. A series of decisions led to the geographic dispersal of the City. Events that could be thought of as centrifugal, that sent growth outward away from the historic, central parts of town can be grouped into broad categories: transportation, economic and development policies, and shifting resources use and policies. Transportation events include the dismantling of the streetcar system; the introduction of grade-separated freeways through the core and suburbs of the City; blight in certain locations near the border and its crossings; and the decline of intercity passenger and freight rail in relation to trucking and interstate traffic.

Economic and development policies include those federal and state policies that favor financing and investment on the fringe rather than in older neighborhoods; tax policies that hinder investment in the urban core; development regulations that make sprawl the default type of development; and an entitlement process in which developers are not expected to pay the full cost of externalities and lifetime costs associated with sprawl development.

Resource-related issues include weak protection of arroyos, desert landscapes, and agricultural areas; local, national, and international economic policies that discourage local agriculture; the City's taking a larger share of the available water budget and advances in desalinization; and an inexpensive and stable supply of gasoline which has begun to experience price volatility.

In the period following World War II, the urban form that resulted from these centrifugal forces have led to a series of environmental challenges that El Pasoans must tackle not only to maintain and improve their quality of life, but also so that future generations will be able to experience the wondrous natural resources that attracted settlers here originally.

These environmental challenges include atmospheric concerns such as poor air quality (ozone, carbon monoxide, particulate pollution) and increasing greenhouse gas emissions (carbon dioxide, methane). There are resource constraints such as the depletion of water resources, declining access to fresh, local produce, loss of topsoil through sedimentation and erosion, habitat loss, and declining biodiversity. There are energy constraints such as the households', businesses', and government's vulnerability to volatility in gas and utility prices.

Finally, an increasing distance and psychological alienation from the ecosystems and habitat that had once been the defining features of El Paso has been noted. There are also concerns about chronic health problems associated with diet and a sedentary lifestyle that may arise where the built environment is not conducive to walking.

Growth Pressure

Many of these development challenges have overlapping causes and solutions, and should not be thought of as independent problems but rather as closely related topics. El Paso is currently experiencing both centrifugal and centripetal forces. Large stakeholders such as Fort Bliss, for example, have breathed new life into the economy of El Paso. This has, in turn, created a demand for housing and services not only near the base but throughout the City. At the same time, the extensive lands that are part of the military base are an important protection against sprawl and represent some of the largest unbuilt tracts of flat land (and habitat) close to the City.

Climate Change

The need to address climate change through the reduction of greenhouse gas (GHG) emissions is a global problem which can best be dealt with at a local scale. Most greenhouse gases emanate from the transportation and construction/building sectors. Local stakeholders, such as Fort Bliss, have already begun to address the construction/building sector through the construction of a number of green buildings, especially Leadership in Energy and Environmental Design (LEED) certified buildings, on the base. They have also led the way in on-site, non-polluting energy generation. Regarding the transportation sector, it is important that a citywide reduction in vehicle miles traveled (VMT) be a pillar of the City's greenhouse gas mitigation strat-



The legacy: connected, compact, complete, convivial



Clues about how to arrive at a low-carbon future can be drawn from El Paso's history.



Sun-baked, mostly treeless asphalt surface parking lots, along with low albedo surfaces such as dark roofs, contribute to the urban heat island effect. This leads to higher cooling bills and greater discomfort for pedestrians on hot days.



Arroyos, dry stream beds during most of the year but lush during the monsoon, are threatened by insensitive development practices.

egy. VMT reduction is accomplished not only through a significant investment in lower-emitting modes of travel such as electric rail, hybrid, biofuel, natural gas buses, and electric car fleets, but also entails a reshaping and planning of neighborhoods to be walkable. Combining this with energy-efficient, climate-responsive buildings, and a broadening of the region's renewable energy portfolio (at the expense of fossil fuels such as coal and petroleum), El Paso will be equipped to face GHG reduction goals while improving local air quality and reducing respiratory ailments. In addition to mitigating greenhouse gases, El Paso will also have to confront the need to adapt to unavoidable climate change. Scientists predict that climate change will continue to increase the frequency of extreme weather conditions such as droughts, floods and freezes.

The Peak Oil Possibility

Peak oil is the theory that we have passed the point of peak global oil production and are entering into a period of steady decline in petroleum. The petroleum that remains will be deeper, more costly to extract, and derived from less dependable deposits such as tar sands, shale, or nations who are increasingly hostile to our country's interests. Though peak oil and climate change are two separate challenges, the action we take to respond to one will often work to solve the other. By learning to sip rather than guzzle fossil fuels, and by using cleaner fossil fuels such as natural gas, the City can reduce its vulnerability to volatile prices and supplies of petroleum while also cutting GHG emissions.

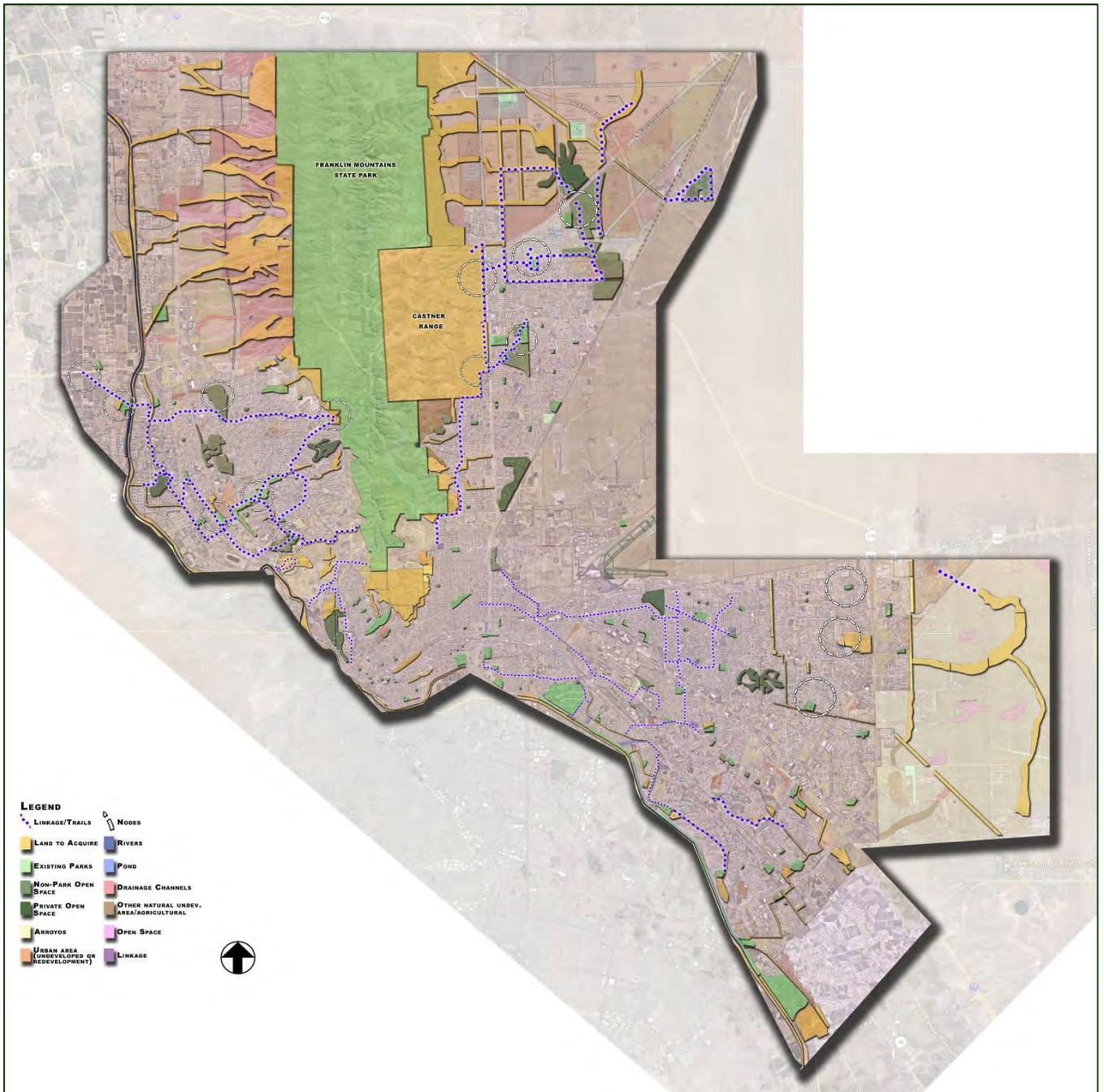


Sprawl generates higher VMT than walkable, transit-served urbanism and therefore emits greater per capita quantities of greenhouse gases and other pollutants.

A Seamless Network of Open Spaces

The City continues to push outward, and as it does so, it must anticipate the recreational needs of residents before neighborhoods are developed. At the same time, the City should examine the already built portions for opportunities to expand or

improve the open space network. The quality of life of current and future residents, as well as the ecological health of the City, is threatened by the lack of adequate, protected, and connected open spaces.

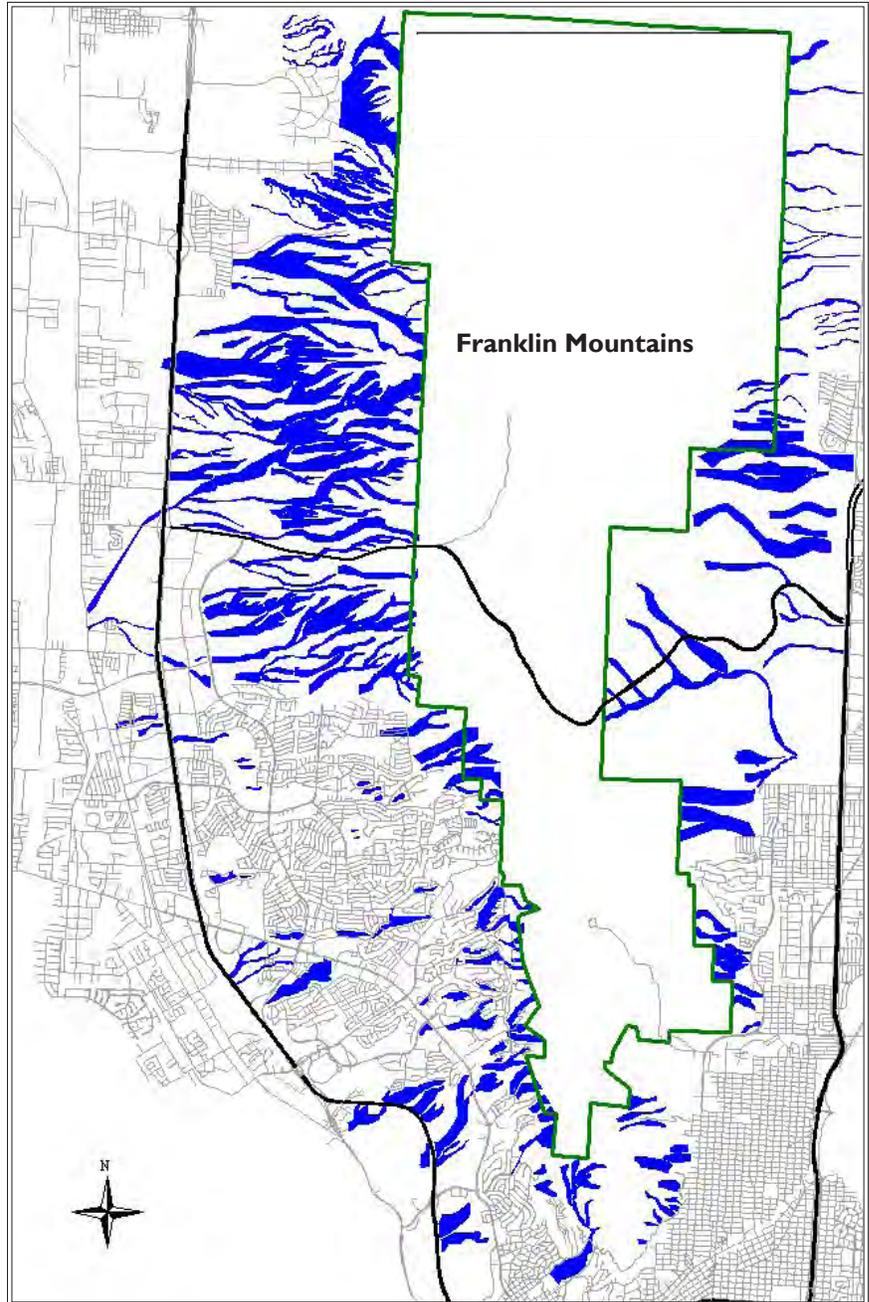


El Paso's Green Network as proposed in the January 2007 Document *Towards a Bright Future: A Green Infrastructure Plan for El Paso, Texas* by Half Associates.

The Blue Network

The Blue Network, or network of water resources, is composed of visible and unseen resources; natural and man-made resources. It is the physical system whose characteristics lead to the calculation of the City's water budget, or the total amount of water available to the City during the year. The City draws much of its water from the Hueco Bolson (Aquifer). The Rio Grande has historically been an important source, and will likely come to the forefront again if predictions of the depletion of the

Hueco Bolson come true. Likewise, man-made interventions such as desalinization plants will continue to be necessary if the population of the City continues to increase. Ditches, ponds, and channels are man-made storage and conveyance features. These, along with arroyos and other natural features, serve not only to move water around within the City, but may also re-charge groundwater resources if managed properly.



Arroyo Inventory: By the Numbers

285: number of arroyos

8,910: number of acres of arroyos

41.5%: percentage of arroyos on City-owned lands

12.1%: percentage of arroyos on federal-owned lands

3.0%: percentage of arroyos on State-owned lands

43.4%: percentage of arroyos on private-owned lands

Source: *Arroyos and Open Space: Enhancing Quality of Life for our Neighborhoods* by R. Alan Shupert, P.E. Development Services. Blue shapes represent rim boundaries of arroyos.



Many arroyos in urban areas have been hardened, channelized, and fenced off. Rather than serving as habitat and a public amenity, they are relegated to the rears of houses and seem to be nothing more than engineered stormwater conveyance infrastructure.



Arroyos should be conserved or restored to a state that closely resembles their native, pristine condition. Rather than channelize them into concrete ditches, they should be left wide and impervious. Rather than place the backs of houses along them, they should be fronted by public walkways and the front façades of houses and other buildings.

COMMUNITY CONCERNS

When El Pasoans discuss environmental concerns they tend to frame the discussion in terms of quality of life and local challenges rather than global ones, though success in tackling local challenges will also help address environmental concerns that are global in scale.

The following are the themes and desires that the citizens identified at the many different community meetings held during 2010 and 2011:

Water

Atmosphere and climate change affect the quantity and quality of water available to the metropolitan area. Because water and its natural conveyance features are the very basis for survival in the region, El Pasoans have become more interested in protecting and healing these features. As arroyos have become more threatened by development, they have been more ardently defended.

While desalinization has allowed El Paso to become more populous than its water budget would have naturally allowed, this technology has not removed the need to treat water as a precious and scarce resource.



Drainage pits: a missed opportunity. There are few access points for either maintenance or enjoyment of the potential open space that the pit represents. Slopes have been left without vegetation, which may increase vulnerability to erosion and Citywide non-attainment of air pollutant PM-10 (particulate matter).



Drainage pits: add more access points, landscape the terraces and slopes, provide trails, and consider connecting these to habitat corridors such as arroyos. Stabilizing pit walls with native plants will also lessen erosion and sedimentation.

There are many different interests competing for water in El Paso. These include agriculture, advocates for continuous flow in the Rio Grande, industry and businesses, government, energy generation plants and utilities, and households. Natural habitats and ecosystems have needs that are indifferent to the other interests vying for water. This implies a series of important questions that must be revisited by each generation of El Pasoans:

1. How should the City and its citizens determine the proper and equitable distribution of precious water amongst the various interests that are competing for a share of the water budget?
2. How can El Paso sustainably diversify and expand the current contributors to its water budget: aquifers/bolsons, the river, desalinization plants, and water harvesting/reclamation technologies?
3. Are there ways that El Paso can reduce water consumption given its current population and prognosis for population growth?
4. How can the cost of infrastructure and water delivery be used to prevent suburban sprawl and encourage metropolitan compactness?
5. How can natural groundwater recharge and conveyance features be conserved, restored, and inform the design of new infrastructure or retrofits?



Stitching together a citywide network of multi-purpose trails should be thought of as a public health, environmental, and transportation initiative. Trails can be viewed as biodiverse corridors that encourage physical fitness and psychological well-being. Some users may have non-recreational objectives, thereby replacing car trips and reducing VMT and greenhouse gas emissions.

Air Quality

Though aware of the need to reduce greenhouse gases, El Pasoans are aware of the need to reduce all forms of air pollution, both gaseous and particulate matter. Understanding that air flow recognizes no borders, increased coordination is needed between Juárez and El Paso in attaining pollution and greenhouse gas reduction goals.

Currently much of the air pollution emanates from tailpipes of vehicles, energy generation plants, burning, non-organic agriculture spraying, and industrial and construction activities.

Many of the strategies to accomplish VMT reduction can be found in the Transportation, Regional Land Use Patterns, and Urban Design Elements, as well as *Connecting El Paso – Building Transit-Oriented Neighborhoods at Remcon Circle, Oregon Corridor, and Five Points, and Redeveloping ASARCO*. These cross-referenced elements and documents provide a Juárez-pronged strategy that includes upgrading non-automobile mobility modes such as walking, cycling, bus, and rail while proposing that walkable, complete, compact neighborhoods be integrated with those diverse mobility modes.



Every passenger or ton of freight that moves by rail rather than by truck, airplane, or private automobile represents savings in fuel, pollution, and greenhouse gas emissions.

Habitat and Biodiversity

El Paso has distinct habitats and ecosystems based on the different geographies of the region, such as mountain, valley, and desert. The differences in moisture, altitude, temperature, and geology have resulted in conditions that allow for these different ecosystems to thrive in close proximity; the level of biodiversity is high within and around the metropolitan region. In addition to the array of native plants and animals which make up these ecosystems, there is a subset of native species, namely endemic species, that cannot be found anywhere else on earth but in El Paso and its environs.

Arroyos are particularly rich in biodiversity. Arroyos are to be protected not only for their function in conveying water from the upper slopes toward the valleys, but also for the vegetation and wildlife that thrive in the higher moisture that they offer during and following the rains. Many residents recall childhoods spent exploring rocky, dry stream beds transformed by seasonal monsoons into living streams. Rather than let them be channeled and privatized, El Pasoans are dedicated to the idea that arroyos should be preserved, restored, and integrated into new development as intact, living, public amenities.

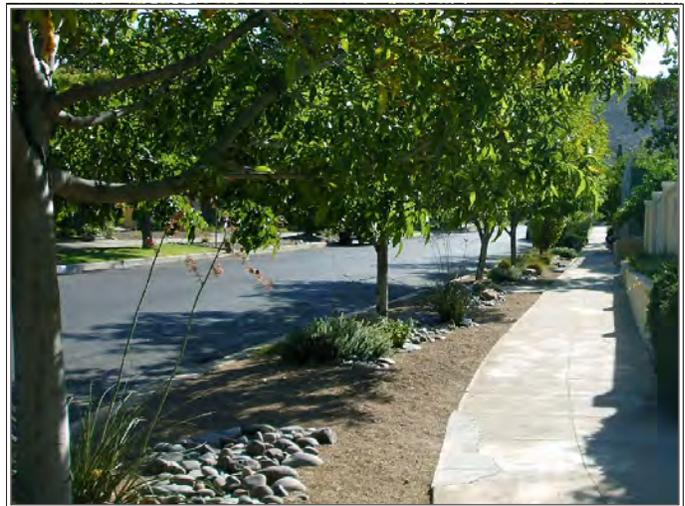
El Pasoans have begun to embrace the plants that are native and endemic to the region. Not only do landscapes composed of such plants offer an alternative to the “rocks over tarp” treatment so common in parts of the City, but they also help reduce the need to water yards once the plants are established. These landscapes also provide critical habitat for butterflies, birds, and other wildlife, allowing urban areas to serve as habitat even after they have been developed. Though urban land can be thought

of as valuable habitat, there is no substitute for protecting sensitive natural areas from development. Preserving these areas goes hand-in-hand with keeping the City compact and dense. A thriving and contiguous natural realm will be more likely if the City is intensified with high-quality urbanism.

Due to the way the U.S. – Mexico border is designed, it is often an obstacle to migration routes. It also may divide populations of wildlife and cause genetic isolation. The City should work with the County and U.S. Customs and Border Protection to explore ways to facilitate the passage of wildlife across the border. Relying more upon surveillance, patrolling, and other intangible controls and less upon insurmountable walls and fences would be crucial in restoring wildlife movement. Another concern regarding border design is the erosion and sedimentation occurring along certain stretches due to insensitive alternations to the topography. Bridges or gaps in the border for wildlife should be more frequent and larger in order to facilitate migration and strengthen the gene pool. The design and configuration of the border should be studied to minimize erosion, sedimentation, and damming. The City should produce or commission a plan for biological corridors and habitat that identifies existing habitats and corridors and candidate sites and routes for restoration. The plan should acknowledge that the ecosystems that constitute the Chihuahuan Desert, wildlife corridors, and migration routes are independent of political boundaries such as state and county lines or the national border with Mexico. The Critical Habitat and Biological Corridors Element of the Sonoran Desert Ecoregion Plan is a precedent that is worthy of emulation.



By limiting turf grass and instead planting mostly native species and exotic species that are drought-tolerant and non-invasive, homeowners can help create habitat and conserve water.



Swales and planting strips present opportunities to create habitat and encourage biodiversity. Ideally, stormwater runoff would be allowed to drain into swales and recharge groundwater resources. Boulders, pebbles, grasses, wildflowers, succulents, shrubs, and trees can be combined in artful ways.

Nourishment

Lately, a resurgence in knowledge and interest in medicinal and edible plants of the Chihuahuan Desert and Rio Grande Valley has added to the viability of local farms. The Slow Food, Farm-to-Table, and Localvore movements have begun to reverse the trend of El Paso and other American cities to rely upon produce trucked or flown in from thousands of miles away. By reducing “food-miles” and transportation times, such movements contribute to improved air quality, maximize nutritional value, and reinvigorate rural economies. Similarly, interest in organic farming methods has shown that there is a market for organic produce. Many residents have begun to turn away from

pesticide-laden, genetically-modified counterparts that threaten biodiversity and the health of water, soil, and the human body.

El Pasoans are interested in supporting local farmers at farmers’ markets and other outlets. Many are enthusiastic about cultivating their own fruits and vegetables in community gardens or participating in community supported agriculture (CSA). There is a need to identify where both outdoor markets and gardens could be established. There is also much interest in making sure agriculture is viable and sustainable in the Rio Grande Valley.



Some degree of food self-sufficiency can be achieved in most urban neighborhoods. An edible landscape is nutritious, benefits the environment, and eases the strain on household budgets.



Smaller farms tend to avoid crop monocultures. This species diversity combined with organic methods of farming may maximize yield and control pests without polluting the Rio Grande Valley.



Occasionally flooded pecan groves require a dedicated share of the water budget.



A field of peppers is typical of scenic, contiguous farmland that characterizes the Valley, and which is threatened by suburban sprawl.

Transit and the Pedestrian-friendly City

Many residents stated their frustration at the lack of alternatives to driving. The elderly, children, and other groups unable to drive are less mobile and more isolated due to the lack of mobility options in parts of the City. Citizens have asked for a multimodal environment where households need not own and maintain one automobile per family member, but one in which daily needs could be satisfied with fewer car trips and fewer vehicles. Along with a more complete and efficient transit system, development should reinforce transit ridership rather than hinder it. A large part of the historic City already has the basic features of transit-ready urban fabric: an interconnected network of streets, perimeter blocks that produce a high degree of spatial enclosure for streets and squares, a mix of uses, and neighborhoods planned around the 5-minute walk. Residents asked that City leaders fix and intensify existing infrastructure and neighborhoods before expanding the City into the desert, mountains, or Valley. Build up, not out.

Energy and Industry

The green economy does not resemble the previous generations' vision of industry. Contaminated sites like ASARCO are already scheduled to be capped, cleaned to a certain degree, and repurposed. As City leaders seek to attract new business, they will be doing so with energy-saving and energy generating buildings and business models. Many existing businesses and households also want to retrofit their properties to be more efficient and more economical. While such innovation is occurring at the scale of the building, open spaces should be set aside for renewable energy generation such as solar and wind farms on plains and along ridges outside the City. Rising fuel prices will likely be more effective than protectionist tariffs in reversing, to some degree, the outsourcing of most manufacturing to distant shores. As manufacturing and other enterprises return to this hemisphere, Mexico, the United States, Texas, and El Paso will likely find that energy and resource-efficient modes of industry and logistics will help them remain competitive.



Transit systems are most effective when they have low “headways” (frequent service) and are integrated into walkable, mixed-use urban fabric.

Preservation

Historic buildings are not merely a nostalgic reminder of previous decades or centuries; they represent a significant amount of embodied materials, energy, time, and labor that were put into their creation. It would be more economical to preserve historic treasures than to replace them with buildings of a similar quality. Historic buildings can help inform today's developers and architects in creating street-friendly, climate-responsive structures of enduring quality. Peer cities have realized that historic, architecturally coherent districts can also attract a steady stream of tourists that seek out such immersive environments.

The Historic Preservation Element provides additional guidance on the rescue and adaptive reuse of El Paso's historic buildings.

The Way Forward

El Pasoans are aware that some of the projects implied by this list would require a trade-off or at least innovative solutions in order to not harm another aspect of environmental sustainability. For instance, while residents expressed a desire for increased urban tree canopy, they also recognized that labor and precious water would have to be spent in order to establish the plants, and that this process could last years.

When seeking to implement the seemingly difficult changes needed to address environmental challenges, it may be more productive to regard these as a series of smaller projects to be accomplished by many neighbors working together. Some of these can start at the scale of the individual or the household; others can be best accomplished at the neighborhood scale; while the largest issues will require the resources and attention of the City and its leaders.



Adaptive reuse of historic buildings is the greenest architecture of all. Historic architecture represents embodied energy, materials, effort, and investment.

STRATEGIES FOR ADDRESSING COMMUNITY CONCERNS

CONCEPTUAL SUSTAINABILITY STRATEGIES

Protect and Restore Nature

Consider the network of natural and wild places, where they exist, as permanent and irreplaceable. Defend the interconnectivity of habitats with the same fervor with which the interconnected network of streets is defended. When developing land, consider that natural places are eons in the making. Such places offer multiple benefits to humans and the environment. The ecology of El Paso is healthier as a result of their protection; biodiversity is maintained or increased. Additionally, wild areas provide the benefits of water recharge and needed contrast to the realities of the built world and its stresses.

Tourism is partially dependent upon travelers seeking out what is unique to the region. Travelers often spend more time and money in a place that they perceive to be authentic, which has an identifiable character, and which offers them tastes, sounds, and sites that cannot be experienced elsewhere. The built environment contributes to some of this unique “El Paso” character, but the natural environment is the complement. The canyons, arroyos, mountain ranges, salt flats, river valleys, and desert plant communities are a collection of “tourist experiences” that make El Paso and its region like no other in the world.

The restoration and conservation of native habitats can be undertaken by households, developers, and city government. Every resident can create “stepping stones” for fragile species even where continuous habitat corridors cannot be established. Every yard, median, and planting strip, can contribute to this job of habitat restoration. El Paso can reap the benefits of lower heating and cooling loads, long-term water conservation, contact with plants and creatures, and the satisfaction that comes with bringing back that which had been feared to be lost.



Celebrating the native species, including those that are endemic to the region, increases resilience to drought and provides a food source for wildlife.

Make the Most of Available Water

Because of its constrained water budget, El Paso must look not only to protect and enhance natural sources, such as the Rio Grande and the bolsons, but also to high-tech sources such as desalination plants. Between these two major sources are a multitude of water harvest strategies that can be adopted by all El Pasoans.

Starting at the scale of the individual and household, the first step is changing behavior. Low-flow faucets and fixtures, efficient or composting toilets, shorter showers, and efficient dishwashers and washing machines can help the City to live within its water budget. Gutters, rain barrels, and cisterns can keep precious rainwater for on-site use and also reduce stormwater runoff. Developers, too, have become aware that minimizing impervious surfaces can reduce flash flooding and increase the recharge of bolsons and other groundwater resources. Xeriscaping and native plants appropriate to hydro zones are becoming the norm in most landscape plans. Landscapes that are less thirsty help consumers use less water and lower energy costs.

In agriculture, techniques such as drip and micro irrigation, mulching, and selecting hardy crop species can slow evaporation, preserve moisture, and reduce water demand. At the level of City planning decisions, water conveyance features including the Rio Grande, canals, and ditches, and other conduits should be studied to prevent leakage, unless this is part of a deliberate recharge strategy or part of a natural feature where percolation into the bolsons is desirable and deliberate. Water scarcity, and the constraints it places upon development, can help keep the metropolitan area from spreading out. The Regional Land Use Patterns Element provides further guidance on how to accomplish this.

In addition, the EPWU and PSB should utilize the use of water rights easements on agricultural lands in addition to the need for outright purchase. This will allow the PSB to accept an agricultural easement that will allow the continued use of farming, except in extreme cases of drought. In the case of drought, the PSB would restrict the use of water for agricultural purposes and create a Forbearance Contract to temporarily use the water elsewhere in the City. This strategy may not work with certain agricultural crops such as pecans that would not survive a year without water.

Reduce Pollution and Greenhouse Gas Emissions

The strategies to reduce pollution and greenhouse gas emissions spans many aspects of the daily life of the city. Consequently, the strategies needed to accomplish this task are not only found in the Sustainability Element but in many other Elements throughout this Comprehensive Plan, such as Urban Design, Land Use, Transportation, Historic Preservation, and Downtown.

VMT reduction is the pillar of the pollution and greenhouse gas reduction strategy. El Paso needs to make multiple modes of mobility just as convenient as automobile usage. These include walking, cycling, buses, electric rail, and other forms of travel. Moving towards lower carbon vehicles and mass transit should be complemented by walkable, compact urban fabric, especially around transit nodes. This theme was detailed in the 2011 document *Connecting El Paso*.

Switching from high-carbon modes such as coal towards renewable modes such as wind, solar, and geothermal, along with significant upgrades to the electric grid, will contribute to long-term climate change goals.

Reducing food miles and promoting organic methods that eliminate petroleum-based pesticides and fertilizers benefits the atmosphere as well as nutrition.

The production of concrete and the habit of transporting building materials from distant locations contribute to greenhouse gases. Careful selection of building materials and sourcing them as close to the City as is possible is one way to fight this trend.

The design and operation of buildings can contribute to the reduction of greenhouse gases and other pollutants.



Sun Metro's natural gas powered buses emit fewer greenhouse gases per passenger mile than single-occupant vehicles powered by gasoline.

Pursue Renewable Energy and Upgrade the Grid

The question of sustainable energy needs to encompass the technology by which energy is generated, where the energy is produced, the storing of that energy, and optimizing its distribution.

The City should commit to expanding energy derived from renewable sources such as sun, wind, and geothermal/geoexchange. The modes of energy generation that should be discouraged are coal and petroleum-burning, as well as nuclear. Wherever possible, district heating and cooling can reduce distribution inefficiencies by shortening the trip from generating plant to consumer, or by generating heat as a community rather than each individual household converting electricity into heat. Though district heating can be accomplished by burning fossil fuels, it can have a lower carbon footprint by using biomass and renewable energies. By creating on-site renewable generation, such as with roof-mounted photovoltaic panels, the distance between the point of consumption and the point of generation is shortened, thereby increasing efficiency and decreasing pollution.

The City should consider implementing a smart grid, or at least aspects of a smart grid. Meters could take into account peak loads, mode of energy generation, and reduce distribution inefficiencies associated with the aging, conventional grid. Off-peak usage and non-polluting modes would be rewarded monetarily. A smart grid would also ideally include capacity upgrades in order to accommodate a larger City fleet of electric or hybrid vehicles, which would increase loads during nighttime charging. Net metering would allow consumers to produce renewable energy and sell the excess power back to the grid and to the utilities, thereby rolling back meters and their electric bills.



The aging and inefficient electric distribution grid should be upgraded simultaneously with conversion to renewable energy generation.

DIVERSIFYING THE ENERGY PORTFOLIO

El Paso gets most of its electricity from fossil fuel-burning and nuclear plants. A long-term sustainability goal for the City and the region that depends upon it is to diversify its energy portfolio, especially with renewable energy. The following are considerations for each of the current and proposed methods of generating energy that could enrich or diversify the City's energy portfolio.

Fossil Fuel: Coal

Coal is one of the most abundant American fossil fuels. One of coal's advantages is its ease of transport and its potential to help the country achieve short-term energy independence. Its disadvantages are that it is intensely polluting, producing more greenhouse gases than other modes of electricity generation. Clean Coal, or the practice of reducing greenhouse gas emissions through carbon sequestration, is a theoretical concept which may not be impossible to implement. This is due to the cost and difficulty of injecting and imprisoning the gas in sealed rock chambers. El Paso Electric has a partial interest in two of the five units at Four Corners Generating Station, a coal-fired plant in Farmington, NM. El Paso Electric receives 104 megawatts from the Four Corners Plant.

Fossil Fuel: Petroleum

Petroleum, its by-products, and related hydrocarbons are often used to fuel electric plants, cars, trucks, lawn mowers, and generators. Such liquid fossil fuels may come from domestic sources in Texas and neighboring states. They also may be extracted from Canadian tar sands at great environmental cost due to deforestation and pollution. In addition to these friendly sources, there is still a great reliance upon oil from politically unstable countries that are openly hostile to America's interests.

Fossil Fuel: Natural Gas

Of the fossil fuels, the burning of natural gas may have the lowest carbon footprint. Natural gas is not only a viable source of energy in electric plants, but also powers Sun Metro's bus fleet. Natural gas has come under national scrutiny due to the common practice of "fracking." This practice is extremely water intensive, and involves forcing high pressure water and chemical mixtures into rock strata in order to free gas deposits. Often times, fracking has resulted in pollution of groundwater and may result in contamination of watersheds.

Biomass and Biofuel

Biomass generally refers to the incineration of plants and organic material in order to generate power. This

may include the burning of certain waste products such as agricultural detritus. Biomass can also serve as the basis for extracting liquid fuels, or biofuels. Many different plant species can provide the raw materials for biofuel production. Currently, corn-based ethanol, due to the characteristics of the corn plant and the enormous chemical inputs of fertilizers that are necessary, may have a similar carbon footprint than gasoline. Research is being carried out on many other crops in the United States. Recently, laboratory tests have shown that certain types of algae may hold promise in the field of biofuel production, if this technology can be scaled up to compete with conventional fossil fuels.

Landfill Gas

Landfills release methane as the disposed trash decays. As methane is a potent and malodorous regulated greenhouse gas, it is often harvested to create electricity or provide power for industrial processes. Based on a study of the City's two landfills (McCombs landfill in the northeast and Clint landfill located east of El Paso), the City installed a landfill gas recovery system at the Clint landfill. The City will install electrical generation equipment at the landfill and may install a system at the McCombs landfill once the initial system has run enough to generate good data. The El Paso Water Utility is currently installing three methane recovery systems at City wastewater treatment plants to capture methane generated during treatment of wastewater and use the energy in the methane in the treatment process.

Solar

Fort Bliss, the City of El Paso, and UTEP have been leaders in incorporating solar generation into their buildings and site plans. El Paso, the "Sun City," is located in an area with the highest solar potential in the nation. The boxes entitled "Renewable Energy Legislation and City Incentives" and "The Solar Transect" in this element provide guidance on the implementation of solar energy in El Paso. Another document that could be considered a handbook for the City is *The Solar Task Force Report* published by Senator Eliot Shapleigh in November 2010.

Wind

Wind farms have been installed on flat areas and ridges in nearby counties. Wind farms rely upon transmission lines to deliver power to cities and should be erected where the wind is steady enough to justify their cost.

Geothermal

The Texas Renewable Energy Resource Assessment has identified Geothermal as a promising energy horizon for the state. Geothermal comprises three different technologies: geothermal HVAC systems, direct use of heated water, and electrical power production. West Texas contains hot spots associated with the Rio Grande Rift that would make this technology particularly relevant for El Paso. In addition to these technologies, geoexchange or thermal exchange technologies take advantage of temperature gradients between the building and underlying geology in order to heat or cool buildings.

Hydroelectric

The Elephant Butte Dam in New Mexico does generate hydroelectric power. Yet, because hydroelectric power depends upon proximity to large, dammable rivers, the expansion of this mode of renewable energy is probably less promising to El Paso than others. While large scale hydroelectric generation is not likely feasible in El Paso, the recent innovation of micro-hydroelectric generation that takes advantage of the energy in stored water could be well suited for El Paso's geography. Micro-hydroelectric power generation would require the removal the valves that release pressure on downhill water conduits and use the increased pressure at those sites to generate electricity.

Nuclear

El Paso Electric currently has a partial interest in the Palo Verde reactors in Arizona and receives almost half of its energy from that plant. As El Paso continues to experience population growth, the question of whether to embrace nuclear energy or not is likely to face the City and the region. This decision should not be taken lightly; the nuclear disaster in Japan in 2011 has demonstrated that there is no such thing as a 100% safe reactor. One must acknowledge both the pros and cons of nuclear energy while deciding if future generations should continue to include it or expand its share of the portfolio of methods for generating electricity for El Paso:

Pros:

- Nuclear energy produces only a negligible amount of greenhouse gases, and very few pollutants, if no disaster occurs during the life of a nuclear plant.
- Nuclear energy is extremely efficient in the conversion of mass into energy, more so than most forms of energy generation.
- Once plants have been paid for, each watt of energy is inexpensive when compared to other methods of energy generation.

- If no natural disasters ever occur during the life of the plant, and if safety protocols are maintained at all times, nuclear may be considered reliable.

Cons:

- Until long-term storage may be secured at Yucca Mountain or another similarly remote site, spent fuel rods have to be stored and cooled on-site, sometimes indefinitely. Multiple, redundant power sources such as generators need to be operational at all times in order to prevent failure of cooling systems if an earthquake or a power outage occurs.
- If a security breach occurs at a plant or while waste is being transported to a different long-term storage facility, radioactive isotopes and waste can become raw material for proliferation of nuclear bombs and weapons of mass destruction such as "dirty bombs."
- If an explosion, meltdown, or other malfunction occurs, vast territories can be contaminated and rendered uninhabitable for tens of thousands of years due to the slow rate of decay of isotopes (long half-life). Unlike other types of contamination, the damage caused by radiation and radioactive particles is often irreversible. Genetic problems, cancers, and contamination of food products may persist for generations, as evidenced by the Chernobyl disaster.
- Nuclear is not a renewable resource. Radioactive elements are difficult to obtain, rare, costly, and sometimes mined in distant or politically unstable countries. These elements are a finite resource.
- Nuclear plants are expensive to construct and operate, requiring significant subsidies potentially at the federal, state, and local level. When factoring the cost to human life, agriculture, ecology, and the economic cost of a contamination event, nuclear energy may be the most expensive method to generate a watt of electricity.
- Radiation poisoning is a risk not only at a plant, but also where the mining, processing, and transport occur, even if these activities take place in a distant country. Therefore, production for electricity on the local market has global consequences. The U.S. Nuclear Regulatory Commission reports that the majority of plants are leaking radioactive substances into groundwater from corroded, buried pipes.
- Nuclear plants may be vulnerable to terrorist attacks. Renewable sources such as solar and wind are not volatile if attacked.

THE SOLAR TRANSECT

There is a considerable range of solar responses that can reduce demand for electricity, or conventionally produced electricity as shown on the spectrum below. Low-tech solutions can be undertaken by individuals, households, business owners and any other building owner, including government. High-tech solutions, due to their complexity and space requirements, may require partnership with entities such as the City, County, Fort Bliss, and Utility Companies.

Passive Solar Design

El Paso already has a rich history of building in response to the sun. Passive solar design strategies include designing façades with the movement of the sun in mind; designing deep porches to shade doors and windows; high albedo façades and roofs to reflect sunlight; high ceilings so that hotter air rises; abundant windows to provide cross-ventilation; deep overhangs or projecting cornices; adobe construction; courtyards with fountains; and thick masonry walls that insulate in the winter but which are slow to heat up in the summer. Contemporary architecture may also include light shelves and adjustable exterior louvers, or “brise-soleil.” Additionally, skylights and solar tubes can direct natural sunlight into interior spaces that lack windows, thereby reducing demand for electric lighting.

Solar Water Heaters

Unlike photovoltaic panels, which convert sunlight into electricity, solar water heaters convert sunlight directly into heat, which in turn heats water. Solar water heaters are relatively inexpensive compared with higher-tech solutions, and can be installed on most rooftops with ease. Such devices can pay for themselves very quickly due to their cost and their potential to reduce electricity loads for hot showers, dishwashers, clothes washing machines, and sinks.



Low-Tech



Roof-Mounted Photovoltaics

Photovoltaic panels can be added to most building roofs. These not only convert sunlight to electricity, but also may provide shading of roof surfaces, thereby reducing loads on air conditioning systems. Photovoltaic panels may be fixed, or may incorporate sun tracking technology. Advances in photovoltaic technology may soon make solar generated electricity inexpensive enough to compete with conventionally generated energy. The next generation may include solar films, in which light-absorptive membranes replace today's rigid photovoltaic panels. There are grants and tax incentives at the local, state, and federal level that encourage the installation of photovoltaics and other means of harnessing solar energy.



Solar Arrays

A solar array requires more land than the other technologies listed on these pages. Also, as is the case with conventional generation plants, solar arrays require transmission lines in order to connect consumers of electricity with its source. Solar arrays may employ different technologies. Photovoltaic panels, similar to those that are mounted on buildings, convert sunlight into electricity. Other arrays employ reflectors, or mirrors, which direct and concentrate sunlight to a central water tank, converting heat energy into steam, which then generates electricity. The performance of solar arrays is optimized by sun tracking technology, in which computers and motors keep mirrors or photovoltaics oriented toward the sun as the surface of the earth changes its relative angle to the sun throughout the day.



High-Tech

RENEWABLE ENERGY LEGISLATION AND CITY INCENTIVES

The most promising State legislation regarding renewable, low-carbon, energy generation has been authored by El Paso's own former State Senator Eliot Shapleigh. The Texas Senate unanimously passed SB 211, 427, 618, 619, 620, 670, and 677 under the larger SB 541 and 545. The bills did not pass in the Texas House of Representatives. This legislation deserves to be revisited by a future session of Congress. Also, City leaders should consider that aspects of the legislation could influence City policies as well. As the example of California shows, sometimes State initiatives for sustainability influence federal policies and legislation. El Paso may emerge as not only a local but also a national leader in the question of how to increase renewable energy, become more self-sufficient and competitive, and address the need to reduce pollutants emanating from the energy and utility sector. The following is a summary of passed and proposed legislation regarding renewable energy:

HB 1937 passed in 2009, allows homeowners to pay for energy efficiency improvements and solar power as an long-term assessment on property tax bills. The payment stays with the property, rather than with the individual. This allows subsequent owners to reap the benefits and share in the cost of the energy upgrades. The City is interested in magnifying the results of this State of Texas legislation with tax incentives and low-interest funds for business and homeowners in order to finance energy improvements and solar technology.

SB 211 would make increased efficiency standards a condition for public utilities that intend to raise rates. Public Utilities would have to demonstrate that they have satisfied each target in the existing Public Utilities Code.

SB 427 would require utilities to provide financial incentives to include renewable energy generation (including solar and geothermal) at homes and commercial properties. The utilities would also have to provide educational materials to customers.

SB 618 by making net metering a standard, would provide for consumers the option to sell household generated renewable energy back to the grid and back to the utility company. Those households that generate more energy than they consume could even achieve negative bills.

SB 619 would allow consumers to purchase solar energy technology without paying sales tax.

SB 620 would increase the goal for non-wind renewable energy by over 1000 megawatts by 2015. Currently the goal is 500 megawatts. The new goal would be 1,500 megawatts. Additionally, by 2025, the goal would be raised to 11,000 megawatts.

SB 670 would make sure that each new State building be LEED certified.

SB 677 would require subdivisions that have more than fifty houses to offer to install solar energy technology to homebuyers.

Since the Senator's term ended, El Paso has not stopped pursuing the solar agenda.

SB 1910 was passed and provides for net metering on a monthly basis in El Paso.

SB 981 was passed and allows the use of "third party providers" for renewable energy systems in Texas up to 2 megawatts in size, facilitating solar purchase agreements and solar leases for all Texans.

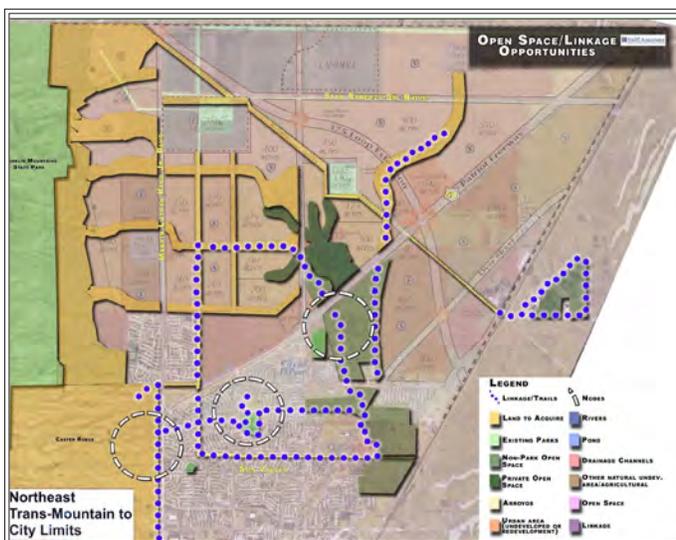


Harnessing renewable, low-carbon energy such as wind, solar, and geothermal power can make the region less vulnerable to an increasingly volatile oil market while reducing atmospheric pollutants.

Increase and Strengthen the Urban Green Network

El Paso's green network is much more than just its existing parks. A seamless system should also include trails, wild areas, tree-lined streets, hardscaped plazas, arroyos, the Franklin Mountains, and agricultural lands in the River Valley. All of these open space types can provide benefits such as increasing and preserving habitat, recreation and relaxation, public health and fitness, and providing psychological counterpoint to the intense urbanity of the city. A more complete green network would also provide ecological services such as carbon sequestration (carbon sinks), polishing the air of gaseous and particulate pollutants, aiding in groundwater recharge, and mitigating the urban heat island effect. VMT reduction due to trail users choosing to bike or walk instead of drive is also an important benefit of the green network. Economic considerations include higher real estate values and higher tax revenue for the City. El Paso has the opportunity to set aside land for parks and trails on its expanding periphery before it is developed. The City should also strategically insert or improve such places in the already-built portions of the City. The City has passed an ordinance that allows utility corridors to be used as recreational trails and is eager to implement a pilot project.

The January 2007 document *Towards A Bright Future: A Green Infrastructure Plan for El Paso, Texas* provides timely and needed guidance on how and where to implement the Citywide green network. The existing green network is analyzed, and then there are proposals for the acquisition and repurposing of different corridors and parcels across the City in order to create the seamless network that El Paso deserves.



A part of the Vision of El Paso's future Green Network from the document *Towards a Bright Future: A Green Infrastructure Plan for El Paso, Texas*, January 2007 by Halff Associates.

Greener Buildings

There are many reasons to incorporate sustainable construction practices into new construction, especially when many of these are no more costly than unsustainable designs, and others generally pay for themselves in a short time frame. Some low-tech, common sense ways to construct more sustainably include using locally produced construction materials, using renewable or very durable materials, and designing buildings to be climate-responsive. El Paso's historic and vernacular building traditions offer many pointers on how to accomplish these things.

Some typical climate-responsive design techniques include cross-ventilation, high ceilings, use of daylight, and acknowledging solar orientation. Of course, the location and siting of buildings is also crucial. A designer or building owner should strive to build mostly in walkable or transit-served contexts. Unbuilt portions of the site can have roles in recharging groundwater and providing for habitat.

For those that can afford to build or retrofit using high-tech solutions, these may include on-site energy generation, integrated plumbing systems that recycle and differentiate water based upon intended use, or next generation of thermostats that may be controlled remotely. The ability to increase the use of timers and sensors for lighting, air-conditioning, and other building systems, which can greatly reduce consumption and demand, already exists.

“Weatherization” should be considered low hanging fruit in the process of making buildings greener. Without even upgrading building systems, large savings can be gained from easy and inexpensive improvements to insulation and by sealing cracks in windows and doors. Regular maintenance of air conditioning and heating systems, such as coil and duct cleaning and filter replacement, are important practices when trying to reduce Citywide electricity loads. Installing shade devices such as awnings and shutters, planting deciduous trees in appropriate sites, using high-albedo (reflective) roof surfaces also contribute. The latter two practices also mitigate the urban heat island effect.

Recycling should become standard practice; the “Drop it in the Blue” curbside recycling program that serves single-family houses should be expanded to include all buildings. City government already sets the example by mandating any building over five thousand square feet to achieve LEED Silver certification. Fort Bliss has led the way in recent years with a significant number of LEED certified buildings. The United States Green Building Council's (USGBC) Chihuahuan Desert Chapter is an excellent resource for green building.

Keep the Region Nourishable

In order to keep the City and region nourishable, local food production capacity and access should be built into planning policy and decisions.

Each transect zone should have a different strategy for food production. For instance, rural areas like those found along the Rio Grande Valley, are mostly T2. They are configured as multi-acre farms with a variety of orchards, fields, and pastures. In suburban El Paso, which is mostly T3, food production may take the form of community gardens and backyard cultivation. This is also true for the general urban fabric of El Paso, T4, and even T5, urban centers. The more intense and attached building types associated with T4 and T5 generally accomplish food production through window boxes, rooftop gardens, and community plots, when the space is available.

Where T4, T5, and T6 may lack in arable ground, these transect zones often have the best public spaces and easily accessible commercial frontages. Therefore, they excel at providing the market and distribution side of the local food web, taking the form of small grocers, farmers' markets, and other outlets that are less dependent on the fossil fuel-intensive, industrial food supply.

Also, while reducing the distance from farm to table is an important goal, there is also a need to reduce the amount of agrotoxins and infectious agents in the food supply. Synthetic or petroleum-based pesticides and fertilizers should be reduced in order to keep the soil and the people healthy. Though USDA Organic certification is the ideal, even small changes toward organic, biodynamic, and ethical agriculture can make a difference.

When submitting or reviewing all new development applications, all parties involved should ask the question, "How does this development achieve some degree of nourishment self-sufficiency? How does the proposed development contribute to reducing food-miles, agro-toxins, and risk of infection for all El Pasoans?"



Pecans from the Rio Grande Valley show that the production of high-quality, nutrient-rich foods could provide benefits to the local economy and encourage the preservation of scenic agricultural lands.

The Way Forward

The American Institute of Architects (AIA) Committee on the Environment once defined "Sustainable Design" thus:

"The linked domains of sustainability are environmental (natural patterns and flows), economic (financial patterns and equity), and social (human, cultural, and spiritual). Sustainable design is a collaborative process that involves thinking ecologically—studying systems, relationships, and interactions—in order to design in ways that remove rather than contribute stress from systems. The sustainable design process holistically and creatively connects land use and design at the regional level and addresses community design and mobility; site ecology and water use; place-based energy generation, performance, and security; materials and construction; light and air; bio-climatic design; and issues of long life and loose fit. True sustainable design is beautiful, humane, socially appropriate, and restorative." *AIA Committee on the Environment, Definition of Sustainable Design, 2007*

"Sustainability" has come to mean different things to different people. To some, it means making sure that resources do not deteriorate or deplete from generation to generation. To others, it means striving to establish long-lived patterns of settlement that will improve and heal the environment. Others understand that our ability to survive in this region and on this planet will be determined by our willingness to lessen our own environmental footprint. The proper design and management of the physical environment – both the natural and man-made realms – will determine if we are able to provide an even better El Paso to our children and grandchildren than the one we know today. Living within our means or our constrained resources does not mean that El Pasoans would be deprived in any way. Rather, the low-imprint lifestyle probably offers many joys, including the knowledge that those who come after us will be able to experience these as well.

Whatever the scope of the challenges and the solutions that are needed to address them, El Pasoans have the unique ability to draw from the collective wisdom of two nations, two cultures, and two cities that can be thought of as one creative and energetic metropolitan region. The following pages contain Goals and Policies relating to the improvement of the natural environment and its sustenance.

GOALS & POLICIES

Overall Goal: Secure the viability of environmental resources for El Paso's people, flora, and fauna so that future generations may experience a constantly improving, environment that is always more resilient than that of the previous generation.

Water

Goal 10.1: Continue developing options to provide a sustainable water supply for the City of El Paso for the use and enjoyment of future generations.

Policy 10.1.1: Continue development of policies that promote and bolster the development of surface water treatment, conveyance systems, reclamation, and implementation programs developed by the El Paso Water Resource Management Plan and the El Paso-Las Cruces Regional Sustainable Water Project of the New Mexico-Texas Water Commission.

Policy 10.1.2: Strive to conserve the Hueco and Mesilla Bolson Aquifers, shared by Chihuahua, Mexico, New Mexico, and Texas.

Policy 10.1.3: Recognize that climate change will affect water supplies in western and southwestern states and that the annual flows of the Rio Grande are expected to decline as population increases.

Goal 10.2: Improve and expand the existing conservation policy to create a more comprehensive conservation program.

Policy 10.2.1: Implement a resource conservation landscape ordinance that provides multiple benefits of water conservation, habitat recreation, pollutant, and heat island mitigation.

Goal 10.3: Integrate drought contingency planning into all aspects of City government, business, and residential sectors.

Policy 10.3.1: Continually improve the drought contingency plan developed and adopted by Public Service Board (PSB) and City Council so that the City is always ready to manage water shortages.

Policy 10.3.2: Continue to develop and implement communication integration so all City departments and citizens understand potential drought severity and so that the community may be prepared to implement water saving measures.

Policy 10.3.3: Enhance the drought contingency plan to manage water shortages.

Policy 10.3.4: Permit conservancy easements on agricultural lands as an option for obtaining water rights in times of severe drought.

Goal 10.4: Continue to develop cost effective processes to reuse and reclaim water and utilize new technologies, such as desalinization, to expand capacity and lessen the effects of scarcity situations.

Policy 10.4.1: Continue to expand the use of reclaimed water, nonpotable water, and desalinated water to provide opportunities for survivability and economic viability of the City and region.

Policy 10.4.2: Continue to pursue active and passive water harvesting techniques and designs such as rain barrels and cisterns.

Policy 10.4.3: Continue to convert irrigation systems for parks, ballfields and golf courses to reclaimed water, where feasible.

Policy 10.4.4: Continue to minimize turf grass and maximize the use of drought resistant species native to the Chihuahuan Desert, or in agricultural areas, exotic species adapted to local climate and rainfall conditions.

Policy 10.4.5: Continue to encourage the use of permeable surfaces.

Goal 10.5: Use off-peak and other surplus supplies of surface water to restore groundwater aquifers through aquifer storage and recovery (ASR) and manage the resource by employing computer modeling and best groundwater management practices.

Policy 10.5.1: Design well systems to simultaneously protect groundwater and integrate changing City land use features.

Policy 10.5.2: Create and improve design standards for integration of ASR well-fields so that they are understandable to City Departments, EPWU-PSB, land owners and developers.

Policy 10.5.3: Complete models, maps, and databases defining the extent and dynamic of the hydrologic cycle and aquifers. El Paso water utilities, in cooperation with various federal and state agencies, universities, and consultants, are constructing a set of models to predict and understand these systems. This is particularly crucial for implementation of an aquifer storage and recovery system.

- a. Continue to update and monitor the MODFLOW modeling of the Hueco Bolson.
- b. Continue mutual development between Mexico and Texas on managing the Hueco Bolson.
- c. Continue research and implementation of management strategies of the Hueco Bolson and development of ASR to ensure sustainable use.
- d. Use Geographic Information Technology to track threats to groundwater and other water sources and manage interrelationships between land uses and water resources.

Goal 10.6: Expand cooperation on development of comprehensive regional water resource management so all national, international, and local participants can mutually achieve sustainability of water resources.

Policy 10.6.1: Continue to seek expanded cooperation and explore options to include Mexican, Texan, and New Mexican entities while adjusting water management to accommodate the necessary changes in usage and flow.

- a. Using plans developed through regional cooperation, establish a cooperative agreement to provide year-round flow in the Rio Grande.

Goal 10.7: Continue to ensure that agriculture has sufficient water rights in order to maintain productive farms.

Policy 10.7.1: Use the best available data to ensure that productive agricultural lands or fallow lands that have productive potential are maintained.

Goal 10.8: Protect the community from floods and reduce the risk of flood damage.

Policy 10.8.1: The City Stormwater Utility, El Paso Water Utility, is entrusted with the responsibility of ensuring adequate drainage and flood protection for the City. The primary means of accomplishing this is through review of proposed developments and subdivision drainage plans to ensure adequate drainage for new developments.

Policy 10.8.2: Locate development out of flood plains, arroyos, ephemeral streams, and other areas susceptible to flash floods.

Policy 10.8.3: Work with the County of El Paso to develop a regional strategy to protect the community from flood damage.

Policy 10.8.4: Work with developers of adjacent parcels to agglomerate and reduce required ponding area and coordinate stormwater infrastructure.

Policy 10.8.5: The City shall create a program by which Park Credits shall be accepted for the dedication of arroyo acreage when the arroyo is maintained in a relatively natural state, is unfenced, is lined by walking paths at its ridge and is faced by the fronts of homes along the dedicated portions.

Atmosphere

Goal 10.9: Reduce greenhouse gas emissions and meet the national ambient air quality standards for all air pollutants in the El Paso area.

Policy 10.9.1: Continue to meet or exceed federal air quality standards for greenhouse gases and other common pollutants.

Policy 10.9.2: Support other governmental jurisdictions in attaining and maintaining or exceeding federal air quality standards for greenhouse gases and other common pollutants. El Paso has removed non-attainment designation for ozone and carbon monoxide but continues to have designation for non-attainment for PM-10 (particulate matter).

- a. Continue to work closely with regional air quality task forces on both sides of the border.
- b. Continue to restrict outdoor burning.

Goals & Policies

c. In order to reduce particulate pollution, convert unpaved alleys into paved alleys. Pavement may be permeable. New alleys should be paved unless they are part of a rural location in which pervious surfaces such as gravel or earth are the norm.

d. The design of infrastructure and open spaces should be done with the goal of PM-10 (particulate matter) reduction in mind. This includes the landscaping of trails and slopes.

Policy 10.9.3: Promote new development that encourages a sustainable lifestyle such as walking, cycling, the use of public transit, and reducing dependence upon automobiles.

a. Promote Citywide car and van pooling programs.

b. Enact policies and actions found in the Regional Land Use Patterns, Urban Design, Housing, and Transportation Elements.

Policy 10.9.4: Promote low-emission industrial and business development.

a. Continue to regulate quarrying and manufacturing operations, and energy generation to mitigate particulate matter pollution caused by dust and burning.

Policy 10.9.5: Promote research and education that focuses on improving air quality.

Policy 10.9.6: Encourage the use and conversion to cleaner-burning fuels.

Policy 10.9.7: Continue regulation and promote the decreased use of sprayed pesticides, herbicides, and fertilizers through agricultural and soil conservation, the City's Health Department, and the Environmental Services Department. Increase the prevalence of organic agricultural methods.

Goal 8.10: Mitigate the urban heat island effect.

Policy 8.10.1: Promote both roof and non-roof strategies to mitigate the urban heat island effect.

a. Roof Strategies. Create shade for roofs by using:

i. Vegetated roofs.

ii. High albedo materials.

iii. Trees to shade roofs.

iv. Pergolas, solar panels, and other devices to shade parking garages, and flat and sloped roofs.

b. Non-roof Strategies. Create shade for the ground by:

i. Installing vegetative ground cover and trees in planting strips, swales, and verges instead of pavement or dark rocks.

ii. Using high albedo materials for paved surfaces.

iii. Minimizing surface parking lots and the size of expanses of asphalt and other low albedo paving surfaces.

iv. Installing trees and groundcover in parking lots.

Energy

Goal 10.11: Secure sufficient energy resources to meet present and future community needs without degrading the local, regional, or global ecology.

Policy 10.11.1: Consider the energy efficiency of proposed new development when land use and development review decisions are made. This would include both energy consumed by buildings and their users, but also energy used by commuting and vehicle trips generated due to new development.

a. Continue to promote participation in the Green Building Grant Program, which covers commercial buildings. Expand the program to include residential buildings in the future.

b. Implement programs to use energy more efficiently in existing buildings.

c. Enhance energy efficiency measures in local government operations.

Policy 10.11.2: Emphasize infill and higher density developments located in areas served by public transit to reduce dependency on automobiles.

a. Enact goals, policies and actions of Regional Land Use Patterns, Urban Design, Housing, and Transportation Elements.

- b. Promote LEED-ND (LEED for Neighborhood Development) in order to rate proposed developments. Provide incentives to developers for creating LEED certified communities.

Policy 10.11.3: Facilitate the adoption of on-site and renewable energy sources by households, government, and businesses.

Policy 10.11.4: Promote the use of renewable energy sources that reduce demand upon fossil fuels and other forms of energy generation that produce unsafe waste.

- a. Pursue renewable or non-conventional sources of energy generation such as:

- i. Solar
- ii. Wind
- iii. Geothermal and geo-exchange
- iv. Biofuels and biomass
- v. Landfill gas capture

- b. The City should continue to improve the way energy is distributed by:

- i. Working with utility providers to upgrade the grid in order to prepare for electrification of car fleet and promote increased efficiency in distribution networks. Coordinate with federal government and local entities in order to implement the “smart grid.”
- ii. Exploring recharge stations, battery swap stations, and vehicle biofuel programs.
- iii. Continuing to take the lead in energy efficiency as an example to El Pasoans. Continue to retrofit City buildings and infrastructure with energy saving measures, such as the successfully completed changing of traffic signal bulbs to LEDs.
- iv. Continuing to meet or exceed 2009 IECC and IRC building codes.
- v. Continuing to maintain or expand Sun Metro natural gas fleet. Natural gas buses emit fewer tons of greenhouse gases per passenger mile than vehicles fueled by conventional gasoline or diesel.

- vi. Continuing the TCEQ smoking car hotline to help reduce pollution from existing vehicles.

vii. Continuing to establish partnerships with Fort Bliss and the Department of Defense as they have been regional co-leaders in on-site renewable energy and green building.

viii. Continuing to explore the viability of waste-energy projects with Fort Bliss.

ix. Continuing to establish partnerships with US-GBC's Chihuahuan Desert Chapter for the promotion of green building techniques.

Policy 10.11.5: Promote behavioral changes and consumption patterns that conserve energy. Promote:

- a. Energy-efficient building systems, fixtures, and appliances.
- b. Weatherization techniques such as adding weather strips on doorways, caulking, sealing, and insulating buildings.
- c. Public education programs, especially in schools, which stress the responsibility of each person to conserve energy resources.

Policy 10.11.6: Promote architecture that exhibits sustainable design and technological innovations that conserve or generate energy.

- a. Develop standards to encourage the development of buildings that use solar energy systems.
- b. Continue efforts to adopt the latest edition of the Model Energy Code.
- c. Protect residential solar access from taller adjacent buildings that would deprive homeowners of solar power.

Habitat and Biodiversity

Goal 10.12: Protect and promote ecologically sensitive areas such as aquifer recharge zones, hillsides, bosques, arroyos, and wetlands.

Goals & Policies

Policy 10.12.1: Allow high-density land uses and cluster developments that protect ecologically sensitive areas. Encourage “light-imprint development” where development cannot be avoided adjacent to or within ecologically sensitive areas.

- a. Identify and protect ecologically sensitive areas in the planning of new developments.
- b. Concentrate development rights of overall parcel(s) to be developed on portions of parcel that have lowest ecological value, or facilitate transfer of development rights to other parcels.

Policy 10.12.2: Encourage retention of land that is in a natural, undisturbed condition.

- a. Implement the use of conservation easements to preserve ecologically sensitive areas.
- b. Plan new parks and open spaces to preserve ecologically sensitive areas.

Goal 10.13: Conserve, protect, and enhance El Paso’s plant and wildlife resources.

Policy 10.13.1: Encourage the establishment and maintenance of wildlife and nature preserves. Existing protected wildlife habitats include: Rio Bosque Park, Feather Lake Wildlife Sanctuary, and the Franklin Mountains State Park. Secure additional preserves, such as the Castner Range in Northwest El Paso and Keystone Wetlands Area in West El Paso.

- a. Assure preservation of natural habitats for wildlife, especially in riparian corridors, wetlands, and hillside areas, and protect threatened/endangered species of plants and animals.
- b. Enhance and enforce the tree preservation ordinance.

Policy 10.13.2: Encourage the conservation, creation, or restoration of native habitat in urban areas such as public parks and publicly and privately owned lots.

- a. Require that the majority of plants used on private lots, rights of way, and unbuilt portions of developments be native species appropriate to the ecosystem viable for the particular site.

- b. Include some amount of unmanicured native habitat in all new parks. If none exists, recreate or restore it.

- c. Retain and replenish natural vegetation wherever possible. Allow cluster development and higher density uses that provide sufficient open space to preserve natural vegetation and functioning habitat.

Policy 10.13.3: Create opportunities to reduce the disruption of animal migratory patterns and isolation of gene pools caused by the international border.

- a. Work with the appropriate federal and local officials to explore increasing porosity of the border for animal species. This may include increasing frequency and size of gates, creating a virtual border in some places that features less of a physical barrier and more of an intangible, patrolled border.

- b. Coordinate with biologists and ecologists from Mexico to develop a strategy for strengthening gene pools and migratory patterns of the most at-risk species whose range spans both sides of the border.

Policy 10.13.4: Develop a coherent and complete Green Infrastructure Plan for the entire City

Geological Conditions

Goal 10.14: Encourage development practices that retain the natural terrain features.

Policy 10.14.1: Identify slopes, rock formations, and other natural features worthy of protection.

Goal 10.15: Preserve the valuable natural resources of the mountain and hillside areas and minimize the exposure of potential environmental hazards associated with their development.

Policy 10.15.1: Update and enhance regulations to promote safe development practices which minimize grading of natural topography.

Policy 10.15.2: Promote development regulations that allow for design flexibility to ensure that development may respond to site specific constraints and the preservation or restoration of natural features such as slopes and watersheds.

a. Permit development of mountain and hillside lands at densities consistent with minimizing environmental hazards and maximizing resource conservation.

b. Promote clustering of developments and strict architectural and site design controls on developments to avoid adverse visual or environmental consequences.

c. Encourage mountain zoning regulations to govern developments to minimize damage to the natural environment.

d. Limit grading or recontouring of the terrain to preserve the natural character of the area and to minimize the removal of natural vegetation.

e. Promote construction techniques and housing types adaptable to variable terrain.

f. Continue to encourage development practices that do not accelerate the erosion process and which preserve existing flora. Continue to monitor performance of site design resulting from grading ordinances.

Goal 10.16 Protect the community from risks associated with natural geologic conditions.

Policy 10.16.1: Encourage protective ordinances to minimize structural damage to buildings caused by geologic hazards.

a. Implement a special permitting zone in documented active fault zones that will require geotechnical studies as part of the development review process.

b. Develop setback standards for areas adjacent to the East Franklin Fault, or set aside a large conservation easement or linear park along the Fault.

Policy 10.16.2: Discourage development where a severe potential for landslides or mass movement exists.

a. Identify and map areas with unstable or adverse soil conditions and geologic hazards.

b. Avoid locating vital public facilities, including utilities, in areas with identified geologic hazards, and develop standards to limit what type of structures can be built in these areas.

Goal 10.17: Prevent damage to structures or natural terrain features from the erosion process.

Policy 10.17.1: Protect river and stream banks from excessive erosion.

a. Retain river, arroyo, and stream channels in their natural state to prevent undue erosion and sedimentation.

b. Soften the angle of the slopes of steeply banked channels, rivers, and streams to resemble a natural condition. In places with year-round moisture, plant emergent grasses and other vegetation to stabilize banks.

Policy 10.17.2: Continue to prevent premature or unnecessary grading practices to discourage removal of ground cover through existing grading ordinance.

a. Require erosion control measures, including re-vegetation, in conjunction with all new development. To counteract water erosion, silt fencing diversion berms, and contouring should be employed. To counteract wind erosion, stabilized construction entrances, watering, and wind fencing should be used. To counteract both water and wind erosion, vegetation should be planted.

Goal 10.18: Protect the community from the risk of flood damage.

Policy 10.18.1: Discourage new development from locating in flood-prone areas.

a. Restrict development in flood-prone areas so only certain types of recreational, agricultural, or open space uses are allowed.

Policy 10.18.2: Consider the effect that new developments may have on existing development downstream.

a. Maintain natural stream corridors' and arroyos' original alignment and cross section.

Policy 10.18.3: Preserve designated floodway areas for non-urban uses.

Goals & Policies

a. Design necessary flood control facilities to blend with and enhance developments through concepts such as park-ponds and retention of natural arroyos. Design stormwater retention facilities such as pits so that they may be accessed during dry months.

b. Continue to work with the U.S. Army Corps of Engineers to maintain and ensure adequate flood protection facilities.

Waste

Goal 10.19: Assure adequate solid waste disposal capacity to serve El Paso's present and future needs.

Policy 10.19.1: Locate and operate solid waste sites in a manner which protects environmental resources.

a. Expand the capacity of existing landfills prior to developing any new landfill sites.

b. Locate and maintain solid waste sites to mitigate negative effects upon surrounding land uses.

Goal 10.20: Continue to increase recycling, salvage, reuse, and reduction as a way to reduce the output of waste.

Policy 10.20.1: Integrate recycling and composting centers into neighborhood fabric.

Policy 10.20.2: Work with large buildings such as schools to implement waste reduction programs.

Policy 10.20.3: Work with retailers and suppliers to reduce packaging and reward customers to choose biodegradable, recycled bags and packages rather than plastic based ones.

Policy 10.20.4: Consider enacting a City-wide ban on plastic bags or enact an ordinance that requires retailers to charge for plastic bags in order to reduce demand for them.

Policy 10.20.5: Continue to expand curbside recycling programs. Currently, 19.2% of the waste stream is diverted from landfills. Include businesses and multi-family in pick-up program. Consider comingled recycling bins in order to encourage participation.

Policy 10.20.6: Increase the number of building and construction salvage sites such as the El Paso Construction & Demolition Plant while continuing to enforce measures against illegal or informal dumping sites in the City, arroyos, and desert.

Policy 10.20.7: Match manufacturers with waste producers in order to facilitate the conversion of recyclable material into raw material for new products.

Policy 10.20.8: Support public education programs such as "Keep El Paso Beautiful" which promote solid waste reduction strategies.

Goal 10.21: Protect the public and the environment from the risks inherent in the use, storage, and handling of hazardous materials.

Policy 10.21.1: Promote international and interstate environmental protection policies through continued cooperation and joint programs with other states and Mexico.

a. Maintain a strategic plan for the evacuation of citizens in the event of an accident involving hazardous materials.

b. Continue to enforce hazardous cargo routes to minimize travel near neighborhoods.

c. Require that all facilities managing hazardous materials and waste be posted with warning signs in English and Spanish as to the danger of the materials within.

Policy 10.21.2: Protect surface water, groundwater, sanitary sewer systems, and storm water management systems from contamination by hazardous materials.

a. Require that all proposals for new and expanded hazardous waste management facilities provide adequate mitigation for identified environmental risks.

b. Require proper storage and disposal of hazardous materials to prevent leakage, explosions, fires, or the escape of harmful gases.

Policy 10.21.3: Continue to cap, reclaim, or transform contaminated sites such as ASARCO in order to protect current and future generations from exposure to hazardous materials and from increased seepage into surrounding lands.

Policy 10.21.4: Continue to expand the six citizen collection stations for recycling, e-waste, and household hazardous waste.

Policy 10.21.5: Continue to expand the use of renewable alternative energies to decrease and discourage the demand for expansion or construction of nuclear reactors in El Paso or neighboring states. Storage of spent fuel rods and radioactive waste is an unavoidable by-product of nuclear energy generation.

Light and Vibration

Goal 10.22: Protect City residents from the effects of excessive noise or vibration.

Policy 10.22.1: Discourage residential development in areas with high noise generators such as airports, freight railway tracks, or grade separated highways, without noise mitigation measures.

a. Include appropriate noise attenuation devices and acoustical barriers in the design of all freeways, expressways, railroads, and other noise generators.

b. Study the capping of freeways, expressways, and freight rail lines with parkland or urban development, especially where these exist below grade.

Policy 10.22.2: Discourage land uses that create damaging or annoying earthborn vibrations.

a. Require consultation with utility companies prior to activities that can cause excessive vibration.

Goal 10.23: Improve public safety by developing appropriate lighting and control standards.

Policy 10.23.2: Amend the Land Development Ordinance to provide adequate street lighting to protect the public and deter crime.

Policy 10.23.3: Continue to work toward a “dark sky” condition that reduces light pollution and which reduces disruption to circadian rhythms.

a. Continue to meet or exceed the City’s Dark Sky Ordinance and discourage lighting systems, either on public right of way or on lots that produce glare. Encourage downward facing lanterns. Discourage light trespass, or the illumination of parking lots, garages, play fields, and other buildings upon residential units or native habitat that contains species sensitive to nocturnal light.

b. Continue to upgrade the City’s streetlights to LED

Architecture

Goal 10.24: Create and resurrect a sustainable architecture for the City and surrounding regions.

Policy 10.24.1: Embrace technological responses to the green building challenge.

Policy 10.24.2: In addition to technology, embrace low-tech responses to the green building challenge. Develop standards to encourage buildings to be designed with inexpensive, simple characteristics representing passive solar design, climate-responsive architecture, and vernacular design that are adapted to El Paso.

Policy 10.24.3: Buildings, both large and small, should be designed to be habitable and comfortable, even in the absence of functioning mechanical systems. Strategies to accomplish this include fully operable and openable windows, high ceilings, shading devices, appropriate thermal mass for exterior walls, cross-ventilation, landscaping, and smaller building footprints.

Policy 10.24.4: Promote durable materials and architectural designs with a long life and loose fit.

Policy 10.24.5: Encourage certification under applicable green building rating systems.

Policy 10.24.6: City government should continue to lead the way in new construction and remodeling with green building principles.

Policy 10.24.7: Continue to encourage and learn from Fort Bliss’ track record as having the most significant collection of green buildings in the region.

Goals & Policies

Nourishment

Goal 10.25: Reduce “Food Miles” or the distance that food must travel to El Paso, and the associated pollution and fuel consumption associated with long-distance food transport.

Policy 10.25.1: Increase access to local and organic food and bolster food production capacity in the region of El Paso.

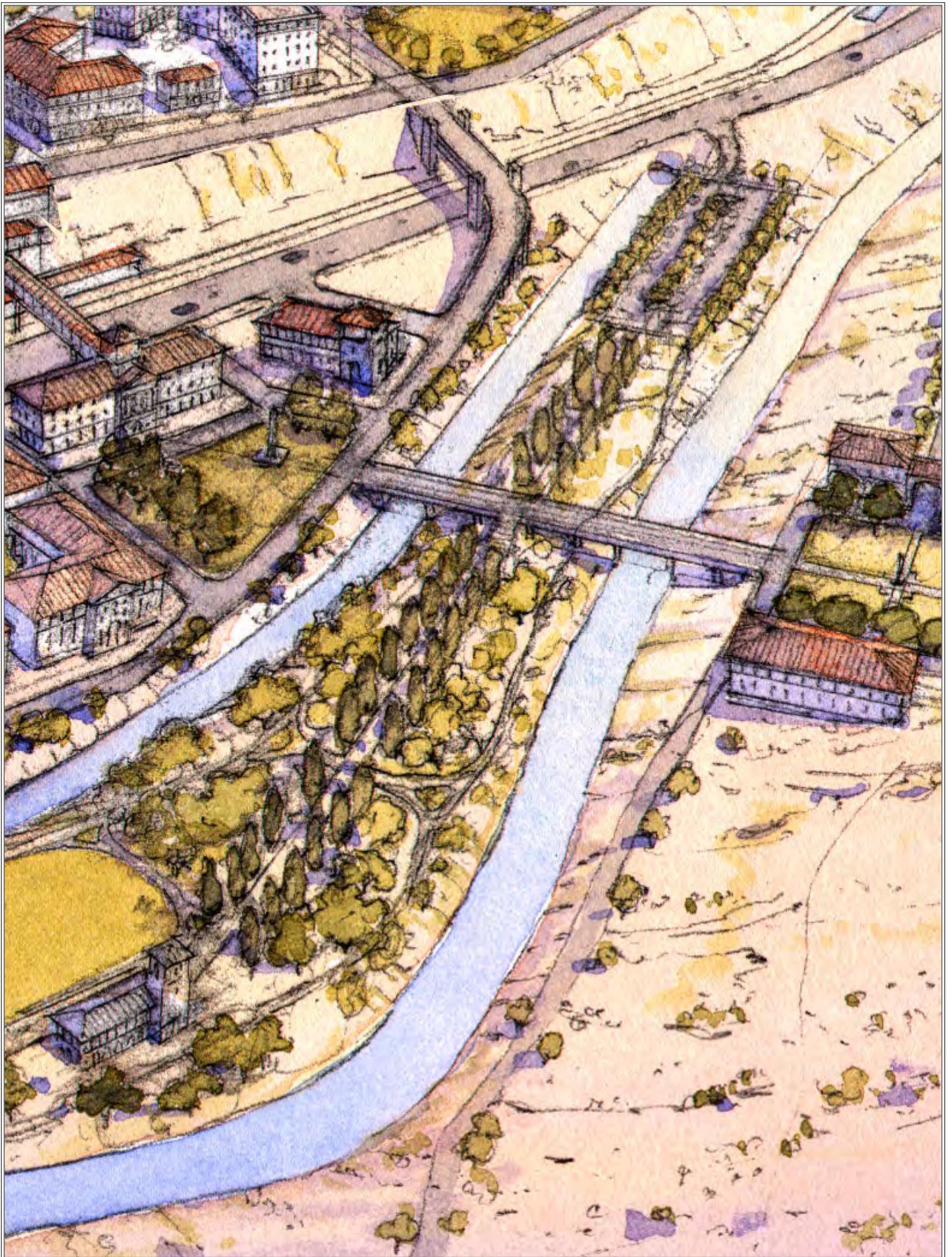
- a. Encourage land use and development patterns that make agriculture more profitable in the Valley than conversion of agricultural lands into large-lot sprawl development.
- b. If development in agricultural areas is unavoidable, promote clustering of developments in the form of hamlets, villages, and towns, with strict architectural and site design controls to preserve contiguous swaths of viable farmland. For multi-acre tracts, maintain at least half of each tract as agriculture.
- c. Ensure that agricultural lands may be irrigated.
- d. Encourage the production of food across the urban-to-rural transect. Remove obstacles to food production upon City lots and public spaces.
 - i. The City has conducted a survey of best practices in urban farming in order to implement food production in one or more urban parks.
 - ii. The City intends to expand food production upon vacant or underutilized lots.
 - iii. Examine existing and proposed ordinances for clauses that add difficulty to or prohibit food production upon built or unbuilt urban lots. Modify or remove such clauses in order to encourage food production.
 - iv. Consider passing an ordinance that prevents a Home Owners Association from prohibiting food gardens or fruit/nut trees on private lots or upon common grounds of condominiums.
- e. Remove obstacles for farmers to access urban markets or farmer’s markets and remove obstacles for farmers to sell directly to the public.
- f. Integrate value-added processing centers into neighborhood fabric and rural areas.

g. Acknowledge and encourage trade of products from the extended food shed encompassing New Mexico and Chihuahua, Mexico.

h. Market “Edible El Paso” and agricultural resources within the County, along the valley, and in New Mexico. Produce an Edible El Paso Map that identifies restaurants that subscribe to the farm-to-table movement, grocers that feature local products, farms, community gardens, and farmer’s markets.

i. When developments are approved to replace active or inactive farmland, consider requiring developers to contribute to food security by investing in farmer’s markets, community food gardens, or other food producing infrastructure for the surrounding community.

Policy 10.25.2: Farmers’ markets should be encouraged within the Rio Grande river valley. Farmers’ markets should operate at least once weekly for at least five months each year and vendors should sell primarily items grown within 150 miles of the market.



BORDER RELATIONS

11

Overall Goal: El Paso will be a world class, highly competitive international border community that draws trade, technology and tourism to its cultural, geographic and environmental attractions through unparalleled interregional and binational cooperation.

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"THE TIME WILL COME WHEN CIUDAD JUÁREZ WILL BE A SHOW CITY CREDITABLE TO MEXICO AND AN ASSET TO EL PASO AS WELL. IT IS IN EL PASO'S INTEREST TO COOPERATE MOST ENERGETICALLY WITH THE PEOPLE OF CIUDAD JUÁREZ AND THE GOVERNMENT OF MEXICO TO PROMOTE THE LEGITIMATE AND ADMIRABLE DEVELOPMENT OF THE MEXICAN CITY AND TO ENCOURAGE THE GROWTH OF A SPIRIT OF TRUE NEIGHBORLINESS AT THIS POINT ON THE BORDER."

- 1925 PLAN OF EL PASO

CURRENT CONDITIONS

There's a long history of interjurisdictional coordination in the region that has laid the foundation for new opportunities economically, socially, and culturally. The El Paso region must continue this tradition as well as provide new opportunities for collaboration and participation.

The history of this entire region dates back to the 16th century when Spanish explorers named El Paso del Norte (the Pass to the North). The region became the location of two future border cities - Juárez on the south (or right bank) of the Rio Grande and El Paso, Texas on the opposite side of the river. The Rio Grande became an international boundary in 1836 when Texas won its independence from Mexico. However, the people of El Paso del Norte and their culture, traditions, and customs are intertwined without regard for the international border. The recent violence in Juárez, Mexico has placed a significant strain on the entire region making it difficult for the people of the Borderplex to maintain close economic, cultural, and family ties.¹

Violence in Juárez

The ongoing clash between rival drug cartels in Mexico along the Texas border has resulted in unparalleled levels of violence since 2006. Along the entire Texas/Mexico border, approximately 28,000 people have been killed since 2006 - a statistic comparable to that of a war zone. While border security is a federal responsibility, it is a state and a local problem as well. The state of Texas has spent over \$230 million over the past several years trying to improve border security through new technology, improved communications equipment, aviation assets, officers and other resources.

The death toll in drug related violence in Juárez rose to over 3,000 in 2010. The city saw 1,623 people killed in drug related violence in 2008, and the toll increased to 2,763 in 2009. The Chihuahua State Prosecutor reported a total of 7,386 people have died in the city of 1.3 million people across the border from El Paso, in three years. Most were members of rival drug gangs, but civilians, police, and recovering drug addicts have also been targeted.

Increased border security efforts since September 11, 2001 have had significant impacts on the day to day operations along the United States – Mexico border. Wait times for all traffic, vehicular and pedestrian, have increased creating social, economic, and environmental impacts to border residents. In the last ten years, the average wait time for passenger vehicles to cross the international bridges in El Paso have jumped from an average of 20 minutes at peak periods to two hours or longer. In addition, new passport requirements and more extensive inspections contribute to the extended wait times and delays.



This satellite photo of the El Paso/Juárez metropolitan area shows the strong relationship between the two cities, despite the international border between them. Image source: Image Science and Analysis Laboratory, NASA-Johnson Space Center



These 2009 population estimates reveal the dense population cluster found in El Paso and Juárez, in comparison to the outlying areas. Image source: Texas State Data Center

City data shows that a total of 10,862,401 individuals crossed the border into El Paso by car and on foot from January to June 2008. In part because of more stringent procedures crossing the international bridge, tighter controls, and enhanced requirements imposed on individuals, 8,997,922 people crossed during the same time frame in 2009,

¹ (Reference: C. L. Sonnichsen, Pass of the North: Four Centuries on the Rio Grande, 1990).

Security is a major concern for all Mexican workers. Residential compounds where 24 hour security guards stand vigilant have become popular. Violence has had more of an impact on how businesses conduct their daily affairs in terms of changing routes to work and varying schedules. Meanwhile, the maquiladora industry has continued to be strong in Juárez. As of August 2010, there were 338 maquiladoras in Juárez, up from 336 in December 2009. The average wage for assembly line workers is between \$1.60 to \$2 an hour.

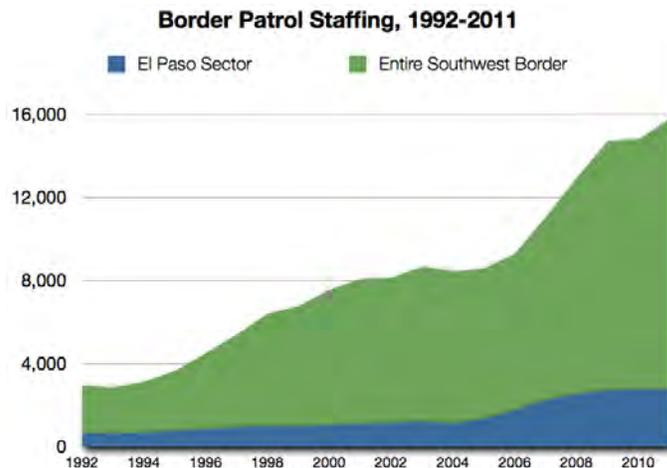
From the beginning of 2009 through mid-December 2010, a score of doctors were abducted in Juárez. In addition, Juárez hospitals have been the scene of numerous recent attacks in which patients receiving emergency medical care have been executed by assailants who break into the clinics. As a direct result a 24 hour strike with hundreds of doctors, nurses, and other health-care personnel was held in December 2010 demanding enhanced security after the killings of three doctors. The governor of Chihuahua determined that Juárez clinics are high-risk areas and instructed the state Attorney General's Office reinforce security and vigilance at those facilities.²

Due to violence and extortion there has been a mass exodus of medical clinic operators and practitioners in Juárez – to the point where only government owned hospitals and clinics are currently operating in the city. These public health facilities are guarded by Mexican army personnel.

In a 2009 study conducted by the Texas-Mexico Trade Competitiveness Consortium headed by Texas A&M University, several maquila and twin plants indicated “private” primary care clinics to serve their employees within their facilities. This resulted in an effective recruiting tool given the fact that line laborers typically only have access to the national healthcare system – where they have to spend long hours waiting to be attended by clinic staff for minor care such as colds and flu vaccinations. Minor interventions now take a few minutes and the employees can be back at work right away.³

“Communities like El Paso need to understand the long-term goals and objectives of our federal government so that we can prepare and assist. Comprehensive immigration reform with a shared vision of local communities along the border is indispensable to ensure the prosperity of our country.”

– El Paso County Sheriff, Richard D. Wiles



As the United States – Mexico border has become more militarized, border patrol staffing levels have grown significantly along with the rise in violence in Ciudad Juárez. (Source: the Washington Office on Latin America, www.wola.org)



International fence along the United States/Mexico border in the historic Chihuahuita neighborhood.

² Sources: Fox News, Ciudad Juárez Hits 3,000 Murders in 2010, published December 15, 2010, online: latino.foxnews.com/latino/news/2010/12/15/border-city-hits-dead/, Hospitals, clinics offer no safe haven in Mexico's murder capital, online: latino.foxnews.com/latino/news/2010/12/17/hospitals-clinics-offer-safe-haven-mexicos-murder-capital; El Paso Times (Juárez Archives) online: www.elpaso-times.com/Juárez

³ Reference for this section: “An Uneasy Coexistence: Security and Migration Along the El Paso-Ciudad Juárez Border”, The Washington Office on Latin America, www.wola.org, December 10, 2011

Migration Trends

In 2011, the violence in Juárez slowed, down by approximately a third since 2010, though it still remains at unsatisfactory levels. Meanwhile, in early December El Paso was once again named the safest large city in the United States. El Paso has seen an extremely sharp drop in cross-border migration. While the decline in attempted border crossings is a national trend, it is especially notable in El Paso. Apprehensions of migrants in the El Paso sector fell in 2011 to their lowest level since 1966. The number of people who cross successfully into the United States is obviously unknowable. Nevertheless the number who are apprehended by the United States Border Patrol is a fair indicator of migration trends. In 2006, 122,256 undocumented people were apprehended in the El Paso area. By 2011 this number had fallen by 91%, to 10,345. Mexican and American researchers say that the current decline is due to security concerns along the border as well as a lack of jobs in the United States.

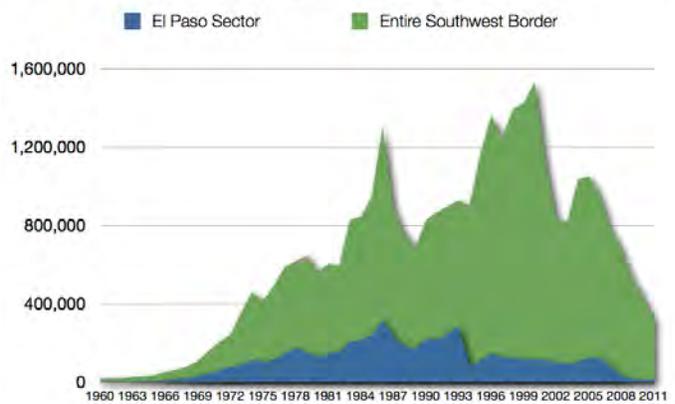
Census data from the Mexican government indicates an extraordinary decline in the number of Mexican immigrants traveling to the United States. Data shows that about 226,000 fewer people emigrated from Mexico to other countries during the year that ended in August 2008 than during the previous year, a decline of 25%. All but a very small fraction of emigration, both legal and illegal, from Mexico is to the United States. Census data in both countries show that because of surging immigration, the Mexican-born population in the United States has grown steeply year after year since the early 1990s, dipping briefly only after the attacks of September 11, 2001.

Mexican and American researchers say that the current decline, which has also been manifested in a decrease in arrests along the border, is largely a result of Mexicans’ deciding to delay illegal crossings because of the lack of jobs in the American economy.

In 2009, there were approximately 11,478,000 foreign born from Mexico residing in the United States according to the 2009 American Community Survey. Mexican immigrants accounted for 29.8% of all immigrants in the United States in 2009. Mexican immigrants were overwhelmingly concentrated in the West and Southwest with approximately 21% in Texas. The foreign born from Mexico accounted for over half of the immigrant population in Texas, approximately 60%. According to Mexico’s National Survey of Occupations and Employment (ENOE), the emigration rate from Mexico appears to have slowed from 10.8 migrants per 1,000 Mexican residents in spring 2007 to 4.6 per 1,000 Mexican residents in spring 2010.⁴

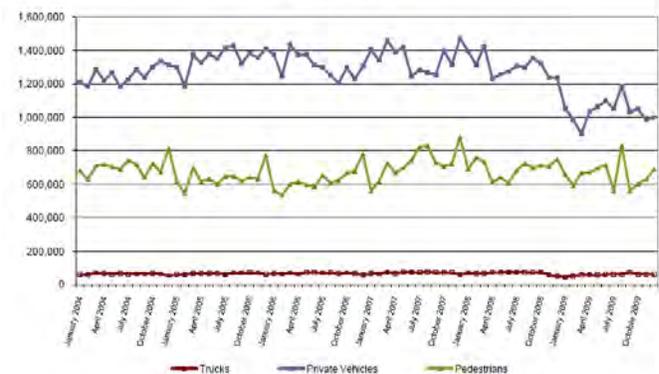
⁴ Source & Reference: “Frequently Requested Statistics on Immigrants and Immigration in the United States”, Jeanne Batalova and Aaron Terrazas, Migration Policy Institute, December 2010
Also Reference: New York Times, “Mexican Data Show Migration to U.S. in Decline”, By Julia Preston, May 14, 2009.

In the El Paso Sector, Border Patrol migrant apprehensions have returned to mid-1960s levels.



Migration trends along the United States – Mexico border indicate a significant decrease in cross-border migration. Apprehensions of migrants in the El Paso sector fell in 2011 to their lowest level since 1966. (Source: the Washington Office on Latin America, www.wola.org)

Northbound Crossings: Regional Bridges and Ports of Entry 2004 - 2009



As shown in the graph above, border crossings between Juárez and El Paso have been significantly impacted in recent years.

Image source: *Regional Bridges and Ports of Entry 2004 -2009*



Following the Federal Government’s Secure Fence Act of 2006, a fence was constructed along major stretches of the US-Mexico border, including between El Paso and Juárez.

Economic Opportunities

Given recent economic development indicators, El Paso has the unique opportunity to enhance its presence in the global marketplace. Existing coordinating bodies and efforts are introduced below.

El Paso Regional Economic Development Corporation (REDCo)

The greater El Paso region is the focus of economic and business activity in West Texas, Northern Mexico and Southern New Mexico. This region is the largest metropolitan area on the United States/Mexico border with a population of 2.6 million people. REDCo is a non-profit organization that provides a wide range of professional services for businesses and industries wanting to expand or locate within the Greater El Paso area. REDCo serves as a professional no-fee consultant and provides up to date research data on the area, access to political decision makers, site selection analysis and supplier assistance through local contacts and resources. Because of REDCo's focus on the greater El Paso area, resources from both sides of the border are pooled and available to assist and make the best decisions for the region as a whole. Resources and efforts are consolidated into this one stop shop responsible for recruiting and assisting existing and new businesses in the area. REDCo has identified five target industries for the region: Defense & Homeland Security, Automotive, Life Sciences, Clean Technology and High Technology Electronics.⁵

El Paso Metropolitan Planning Organization

The El Paso Metropolitan Planning Organization (EPMPO) is the regional transportation planning agency responsible for working with local, state, and federal agencies, including transportation providers and neighborhood groups in El Paso County. The EPMPO conducts population projections utilizing Traffic Analysis Zones (TAZ). TAZ's differ from census tracts in size, location and other factors making direct comparisons with census numbers for specific areas difficult.

In June 2006 the EPMPO released its "Camino Real Corridor Border Improvement Plan" in order to address the pressure resulting from a decade of robust growth in El Paso's trans-border economy and population. The plan focuses on the El Paso/Juárez metroplex's transportation system at its six Ports of Entry (POE), all experience high traffic congestion, which results in the impairment of efficient commerce and worsening air quality.

The Border Improvement Plan identifies issues and opportunities affecting the accommodation and productivity of trans-border people and freight movement in the BIP Study area, and

considers how public transportation infrastructure, management, and investment can address them. The BIP recommendations can be divided into two sets, the first one dealing with technology augmented methods designed to increase efficiencies in Ports of Entry traffic flow (short term remediation), and the second set recommends the creation of two new Ports of Entry to address the expected traffic demands in 2030 and beyond. Funding sources are also identified, including the potential availability of up to 90% federal matching funds.⁶

Paso Del Norte Group

The Paso Del Norte Group (PDNG) is a private organization of approximately 360 business and civic leaders of El Paso. The group, meant to be representative of the El Paso region, also includes members from Juárez, Mexico, and Southern New Mexico. The PDNG has been supporting several key projects in El Paso including the Downtown Redevelopment Plan and its connectivity with Juárez. Within the last year, the PDNG has split into several groups including La Red, which is a group of Mexican nationals from Juárez interested in conducting business in El Paso.⁷

Border Environmental Commission and TCEQ

The Texas Commission on Environmental Quality (TCEQ) has a Border Affairs team that focuses on border-related activities, especially cross-border and binational efforts. Communities along the border are confronted with a host of environmental problems, including illegal dumping, agricultural drainage, and degradation of natural resources and ecosystems. Water is the most limited resource in this arid region. Surface and groundwater resources are threatened by contamination originating from agricultural runoff, industrial discharge, and untreated sewage. Increasing demand for water has led to the rapid depletion of aquifers. Inadequate water supply and inefficient use of water could limit future regional development.

In the border region, as in the rest of Texas, TCEQ works to improve the environment in a number of ways, including monitoring air and water quality and enforcing regulations and permits. Much of this is done through TCEQ's regional offices in El Paso, Laredo, and Harlingen. In addition, the Border Affairs team supports TCEQ's programs in the border region by working with multiple parties in Texas and Mexico. This team collaborates with local communities, environmental groups, industry, trade associations, and other agencies, and acts as Texas's lead agency in the U.S.-Mexico Border 2012 Environmental Program, a partner-

⁵ El Paso Regional Economic Development Corporation (REDCo) Online: www.elpasoredco.org

⁶ El Paso Metropolitan Planning Organization, online: www.elpasompo.org

⁷ Phone interview with Larry Peterson, Executive director at Texas Foundation for Innovative Communities and former member of the Paso Del Norte Group; Online archive <http://replay.waybackmachine.org/20071008083735/http://www.pasodelnortegroup.org/> * official website has been offline for the last three months www.pasodelnortegroup.org

ship between federal, state, and local governments in the region. The Border 2012 Program began in 2003 as a partnership of U.S. EPA, Mexico's SEMARNAT (federal environmental agency and EPA counterpart), the four U.S. border states (Texas, New Mexico, Arizona, and California) and the six Mexican border states (Tamaulipas, Nuevo León, Coahuila, Chihuahua, Sonora, and Baja California), plus 26 U.S. border tribes.

Border 2012 has goals and objectives related to water quality, air quality, land contamination, environmental health, joint readiness for environmental response, and compliance and pollution prevention. The Border 2012 Program divides the border region into four Regional Workgroups. The Border 2012 Plan incorporates the following goals along with implementation objectives and candidate funding sources:

- Reduce Water Contamination
- Reduce Air Pollution
- Reduce Land Contamination
- Improve Environmental Health
- Reduce Exposure to Chemicals as a Result of Accidental Chemical Releases and/or Acts of Terrorism
- Improve Environmental Performance through Compliance, Enforcement, Pollution Prevention
- Promotion of Environmental Stewardship⁸

International Boundary and Water Commission

The mission of the International Boundary and Water Commission (IBWC) is to apply the rights and obligations which the governments of the United States and Mexico assume under the numerous boundary and water treaties and related agreements, and to do so in a way that benefits the social and economic welfare of the peoples on the two sides of the boundary and improves relations between the two countries.

As provided for in the treaties and agreements, those rights and obligations include: distribution of the waters of the Rio Grande between the two countries; regulation and conservation of the waters of the Rio Grande for use by the two countries by joint construction, operation and maintenance of international storage dams, reservoirs, and plants for generating hydroelectric energy at the dams; solution of border sanitation and other border water quality problems; preservation of the Rio Grande as the international boundary; and demarcation of the land boundary.

As a result of regional environmental degradation, some border residents suffer from environmental health problems, including waterborne and respiratory diseases. These health problems can be attributed to air pollution, inadequate water and sewage treatment, improper management of pesticides, and hazardous

and solid wastes. The elderly and children are especially at risk. Tribal communities and residents of some unincorporated communities also are at greater risk, as they are more likely to have inadequate water supply and treatment systems.

Recognizing these environmental and public health problems, the United States and Mexico have agreed to act jointly to address them, consistent with principles of environmental protection, resource conservation, and sustainable development.⁹

BORDER 2012 GUIDING PRINCIPLES OF SUSTAINABLE DEVELOPMENT

- In order to protect the environment and public health in the United States-Mexico border region, the following guiding principles were developed to be consistent with the principles of sustainable development.
- Reduce the highest public health risks, and preserve and restore the natural environment.
- Adopt a bottom-up approach for setting priorities and making decisions through partnerships with state, local and U.S. tribal governments.
- Address disproportionate environmental impacts in border communities.
- Improve stakeholder participation and ensure broad-based representation from the environmental, public health, and other relevant sectors.
- Foster transparency, public participation, and open dialogue through provision of accessible, accurate, and timely information.
- Strengthen capacity of local community residents and other stakeholders to manage environmental and environmentally-related public health issues.
- Achieve concrete, measurable results while maintaining a long-term vision.
- Measure program progress through development of environmental and public health-based indicators.
- The United States recognizes that U.S. tribes are separate sovereign governments, and that equity issues impacting tribal governments must be addressed in the United States on a government-to-government basis.
- Mexico recognizes the historical debt it has with its indigenous peoples. Therefore, appropriate measures will be considered to address their specific concerns, as well as to protect and preserve their cultural integrity within the broader environmental purposes of this program.

⁸ Texas Commission on Environmental Quality. TCEQ Border Initiative (GI-392); Border Areas (www.tceq.state.tx.us/border)

⁹ International Boundary Water Commission, online: www.ibwc.gov

Binational Health Council (BHC)

The Binational Health Council's mission is to unite efforts to gather and share information and combine resources to create a healthy environment in the Paso del Norte Region. The Council identified top priorities in April of 2008. The binational priority public health issues identified were:

- Diabetes
- Obesity
- Tuberculosis
- Sexually Transmitted Disease (STDs)
- Addiction & Substance Abuse

With more than 22 million north-bound legal border crossings recorded each year through El Paso by U.S. Customs officials, a “floating” border population shares infectious disease agents. Tuberculosis is among the most significant infectious disease problems in the El Paso, Texas/Juárez, Chihuahua area because of the trans-border travel.¹⁰

To address the problem of border TB transmission, the El Paso City-County Health and Environmental District, the Texas Department of State Health Services, and the Mexican Secretariat of Health agreed that the two countries must work collectively to control and prevent TB in El Paso and Juárez. A proposal was submitted to the Centers for Disease Control (CDC) and Prevention to enhance binational TB control. The CDC approved a grant in August 1991 and the Binational Tuberculosis Prevention and Control Project “Juntos” was born. The funding from CDC provided the El Paso City-County Health and Environmental District the opportunity to begin building the infrastructure and developing the capacity needed to enhance binational TB control in the greater El Paso/ Juárez area. The project has been recognized internationally as a model project for binational TB control.

Water Resources

Given the importance of water in the border region, water resources must be managed in a sustainable manner. Tools available to promote this approach include analysis of the links between water quality and quantity, studies of groundwater availability, improved measurement of surface flows, removal of invasive species, and increased efficiency measures.

This effort requires coordination between organizations having complementary jurisdictions. For example, regulation of water quality is the responsibility of the respective national environmental agencies, EPA and SEMARNAT, while regulation of water quantity (i.e., source development and allocation of supplies)

Ratio of Population to Health Professional

	El Paso County	Border	Texas
Physicians	907:1	851:1	661:1
Registered Nurses	194:1	244:1	156:1
Dentists	5,784:1	6,535:1	2,820:1

El Paso County and the border regions are significantly underserved by medical professionals in comparison to the rest of the state.

Image source: Texas Department of State Health Services Office of Border Health, Demographic and Health Profile, El Paso County

for certain transboundary rivers is the binational responsibility of IBWC. In the United States, source development falls under the Department of the Interior and allocation is done within the framework of state law. In Mexico, source development and allocation are overseen by the National Water Commission (CNA).

Residents in the El Paso/Juárez region have pointed to the need for region-wide plans for air basins and watersheds, such as the Paso del Norte Air Basin, or in the Big Bend/Maderas del Carmen/Cañón de Santa Elena area. Water quality and quantity is of concern in the Juárez-El Paso area, mostly due to the steady overdraft of the Hueco Bolson aquifer, and waste pollution in the Conchos and Rio Grande basins.¹¹

¹⁰ The Texas Department of State Health Services (formerly the Texas Department of Health), Office of Border Health, online: www.dshs.state.tx.us/borderhealth/BHC.shtm

¹¹ United States Environmental Protection Agency, U.S.-Mexico Border 2012, online: www.epa.gov/Border2012/framework/background.html; International Boundary Water Commission, online: www.ibwc.gov

COMMUNITY CONCERNS

Downtown Revitalization

Downtown revitalization is the top priority. El Paso should be a walkable city with specific vibrant areas focusing on the Downtown. The Downtown area is the heart of El Paso and the front door to visitors from Mexico. Improvements should be made to the Downtown area to make it more vibrant and welcoming to all visitors.

Rio Grande Improvements

Improvements should be planned and made to the Rio Grande. The river is an excellent international opportunity for shared amenities and recreational facilities. Trails and other recreational improvements should be developed with public parks. In addition, much needed drainage improvements could be addressed. Due to the natural soil composition in the region, and the propensity of flash floods, enhancements to waste water and drainage systems should be implemented in the near future with support from the federal government.

Marketing and Image Improvements

El Paso's image needs to be improved in order to stimulate economic development and tourism, and to improve the quality of life. The border violence has given El Paso an unsafe reputation. El Paso is one of the safest American cities; many Americans believe that it is an unsafe destination, however. In addition, many major retailers overlook the buying power of the larger region, Juárez, and the north central region of Mexico who consider El Paso as their shopping hub. Many Juárez residents travel to El Paso to purchase basic goods and groceries. This is especially true in Downtown El Paso just south of San Antonio Street. The retail success in this area is based upon shoppers who are Mexican nationals.

More Efficient Border Crossings

International transportation/transit options should be explored. The border is a physical constraint; nevertheless, moving across the border should be much more efficient. As outlined in the Point of Entry [POE] enhancements section of the Border Improvement Plan (BIP) developed by the El Paso Metropolitan Planning Organization (EPMPO), marked improvements in cross-border traffic flow can be achieved in the short term with changes to operations and by incorporating chain of custody technologies (which track shipping containers from the manufacturer to the point of destination and can detect and alert authorities if a container has been tampered with) and tractability automation.

“We have strengthened the southwest border in a way that many would not have thought possible. Our partnership with Mexico on border security is strong.”

– Homeland Security Secretary Janet Napolitano

From a speech at the University of Texas at El Paso on January 31, 2011.



The El Paso skyline, viewed from the border. The grassy trench in the foreground is the Rio Grande. (Photo courtesy of the Washington Office on Latin America, www.wola.org)



Border crossings at the two Downtown bridges, the Paso del Norte International Bridge and the Good Neighbor International Bridge can take up to three hours for traffic coming north from Mexico.

STRATEGIES FOR ADDRESSING COMMUNITY CONCERNS

FEDERAL STRATEGIES

Border Security

Continue to plan for a vibrant, interconnected international community. Although the violence along the border is a significant current issue affecting all facets of daily life in the El Paso region, for the purposes of planning the future, the extraordinary violence of the last five years is presumably an anomaly, to be regarded as a temporary condition in the history of border relations. The future of El Paso and its sister City Juárez is “One people, one community” as referenced in the 1999 Comprehensive Plan. El Paso & Juárez are linked culturally, socially, and physically. The United States assists Mexico with aid for education and health programs. In addition the US military is cooperating with the Mexican government in order to help combat the violence across the border.¹²

Continue to work with federal agencies and support border security efforts beneficial to both El Paso and Juárez.

The communities remain economically, socially, and culturally interdependent. There are many new technologies that should be explored and implemented along the border to relieve wait times and improve border crossing efficiency. A zone for Binational Economic Development (BINED) should be explored similar to the zone adopted by the City of Brownsville, Texas and Matamoros, Mexico.

The purpose of this united effort is to stress the critical importance of including economic development along with traditional security control measures to effectively address security and immigration issues along the border. The Zone will serve as a binational producer and consumer – a true community, as opposed to serving solely as a point of distribution and exportation. The Zone not only provides secure and efficient trade corridors; but, also secure border economic development centers to allow capital improvements, education workforce training, and economic development initiatives to span the border.

The goal is to transform the existing low-wage border economy to a more integrated, investment-drive economy fueled by industrial clusters in manufacturing, logistics and other competitive industries. The BINED Zone utilizes economic development as the foundation for creating prosperity and security. The BINED model is a sustainable border community development effort that attempts to address the overlapping concerns of both businesses and citizenry as a single, binational urban zone. Such cooperation between the United States and Mexico could make significant progress in immigration policy while stimulating border employment and regional wellness.¹³

Trade

In 2010, more than \$71.1 billion in trade value moved through the ports that Juárez shares with El Paso, representing 18% of the total trade between the United States and Mexico. That number represents a 50% increase in total trade value over 2009. Trade value is projected to be even higher in 2012. One of the fastest growing industries is the high technology electronics including electronic tablets, laptops and HD technology products.¹⁴

Maintain regional stability and a robust economy through meaningful binational coordination and efficient Ports of Entry.

The maquiladora program has affected the economic development of El Paso. This binational business model brings together the natural and political aspects particular to both the US and Mexico, in the form of access to markets, technology, and infrastructure on the US side – and the inexpensive and vast labor pool available in Mexico. As proven in other Mexico/US ports, border relations play an ever increasingly role in the delicate

TOP IMPORTS & EXPORTS THROUGH EL PASO - 2010

Top Ten Imports

1. Television and Radio Broadcast Receivers
2. Automatic Data Processing Machines
3. Ignition Wiring sets
4. Motor Vehicles for the Transport of persons
5. Motor Vehicles for the Transport of goods
6. Compression-ignition internal combustion engines
7. Telephone sets, incl. telephones for cellular networks
8. Refrigerators, household type (electric or other)
9. Syringes, needles, catheters, cannulae, etc.
10. AC motor (Including universal AC/DC) motors but excluding motors of an output not exceeding 37.5W

Top Ten Exports

1. Parts of Automatic Data Processing Machines
2. Memories, converters, logic circuits, amplifiers, clock, and timing circuits.
3. Television and Radio Broadcast Receivers
4. Copper Wire - of refined copper
5. Motor vehicles for the transport of persons
6. Electronic Integrated Circuits
7. Telephone sets, incl. telephones for cellular networks
8. Printed Circuits
9. Articles of Iron or steel
10. Textile fabrics impregnated, coated or covered or laminated with plastics

¹² “Why Mexico’s Violence is America’s Problem,” by April 11, 2011|By Raj Kumar, CNN.com

¹³ Washington, DC, April 7, 2011—Patton Boggs LLP, www.pattonboggs.com/media, “United Brownsville Engages Patton Boggs to Establish Binational Economic Development Zone Between the U.S. and Mexico”

¹⁴ (“El Paso/Juárez Borderplex – Economic Barometers 2011” published by elpasoredco.org and via interview with REDCo President Bob Cook in February 2011.)

balance of trade, production outputs, and the transportation of goods. Ports of Entry become vulnerable under unhealthy and adversarial conditions. It is here where binational cooperation and prosperity becomes critical in order to maintain regional stability and a robust economy.

Continue to excel in the fields of adaptive and flex manufacturing models and explore the creation of designated manufacturing (campus) zones.

In the 1999 plan, a goal for trade stated, “Establish the region as a competitive international gateway center for trade.” Given our current economic and socio-political global climate, corporations are realizing that the production of goods for ‘closer-to-home-markets’ is not only less costly but strategically important as well. Just-in-time manufacturing and the need to support the development of rapidly evolving products have become critical competitive advantages in the electronic goods and automotive sector. Currently, a two-month lead time associated with off-shore manufacturing in China, for example, can result in product obsolescence and the failure of one’s company to rapidly incorporate features and design modifications to products. Market advantages start to diminish when critical components and raw materials have to make extended trips, in addition to the cost of transporting finished goods as fuel prices continue to rise. El Paso should continue to excel in the fields of adaptive and flex manufacturing models and explore the creation of designated manufacturing (campus) zones that make use of advanced security and chain-of-custody technologies in order to not only provide safe working environments, but also to expedite the transportation of goods.

Labor

Support the maquiladora industry in Juárez and capitalize on supporting industry such as warehousing, shipping and distribution.

From 2009 to September 2010, more than 24,000 manufacturing jobs were added in Juárez with a slowdown in new hires in the maquiladora sector starting in September. The amount of goods hauled by tractor trailer through the region increased by a 4% annualized rate (as of November 2010) reflecting the growth slowdown in manufacturing goods production in Juárez. Although the jobs added in the last year and a half are only a quarter of what was lost during the height of the recession, and violence on the border continues, it would seem that commerce in the region remains stable. El Paso should continue support for the Juárez maquiladora industry and seek out ways to better support the logistics industry as a competitive advantage in global markets.

Immigration

Provide incentives and actively pursue investors taking advantage of the EB5 federal immigration program.

A new class of immigrant has emerged; wealthy Mexican nationals escaping the drug violence and seeking safe haven for their families and themselves are purchasing dwellings in the United States, and some are taking advantage of the EB5 federal immigration program. Investors willing to front between \$500,000 and \$1,000,000 to businesses that generate 10 or more full-time jobs can now qualify for residency in short order. El Paso should consider the creation of a resource to help channel opportunities to such investors, preferably with projects of high need such as Downtown redevelopment initiatives.

Support legislation and immigration reform that improves opportunities for immigrants.

Strengthen the entire border community by supporting legislation and immigration reform that provides training and educational opportunities for legal residents and immigrants. Programs that allow existing hard working and talented students in the United States to become legal citizens could benefit El Paso and improve the earning potential in the local economy. Additional training and educational opportunities along the border will help to address a critical issue facing residents of border communities – increasing individual incomes. Improving individual earning potential will lead to the entire borderplex being more competitive in the global market place. Legislation such as the Dream Act that supports the City of El Paso’s position on immigration should be supported at the local, state, and federal levels.

Ports of Entry/Transportation

Facilitate the movement of goods and people across the border in an environmentally responsible manner.

Wait times at the border should be alleviated through new, planned border crossings and new technologies. The City of El Paso should support efforts that facilitate the movement of goods across the border for ease of trade. One recent example is the pedestrian border crossing, which opened in November 2011, that deploys a combination of gate systems, mobile handheld devices, and radio frequency identification technology to more efficiently identify and process pedestrians crossing the border into El Paso. Ten fingerprint biometric capture devices are included in the gates nearest the inspection booth for future integration into the pedestrian system.

The environmental impacts of border crossing congestion and extended wait times must be considered with new transportation strategies. A number of Border 2012 projects are yielding pollution reductions from specific sources such as diesel engines, old vehicles, unpaved roads, brick kilns, and power plants.

Unpaved roads contribute to high levels of particulate pollution in several communities along the border. Border 2012 projects are working to demonstrate new paving applications, such as using rubberized asphalt in Juárez. In addition, the North American Development Bank has recently funded road paving projects in several municipalities in Baja California, Sonora, Chihuahua, and Tamaulipas, through \$90 million in loan monies to fund \$221 million in paving projects.

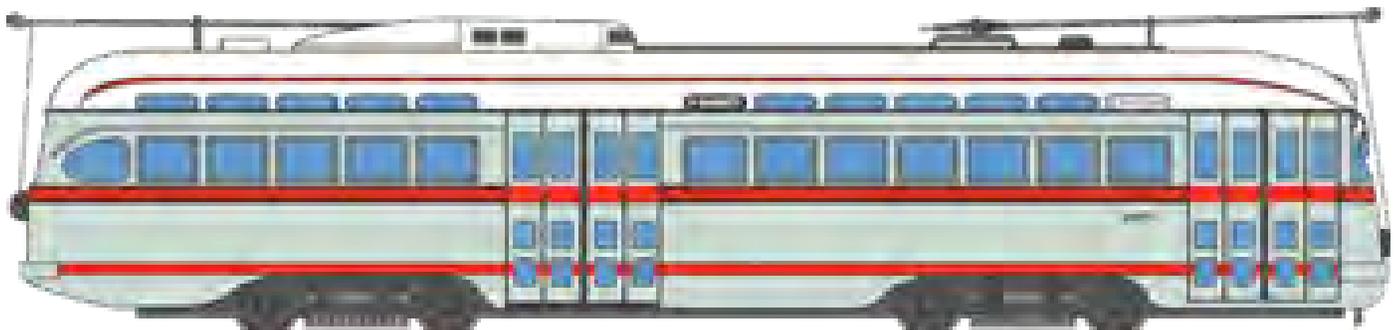
While diesel emissions, older vehicles, and unpaved roads all present air quality challenges along the border, many other challenges exist. For example, projects in Chihuahua, Sonora, and Baja California focus on reducing emissions from traditional brick kilns. Recently, a private company invested nearly \$1 million to construct new brick kilns in Juárez based on design work supported by the Border 2012 Program.

Additional Border 2012 projects are demonstrating the potential for producing biodiesel in border communities to reduce particle emissions. The Ysleta del Sur Pueblo Tribe has implemented a pilot project to collect waste vegetable oil and use the fuel on a test vehicle. Other border projects are exploring ways to increase fuel efficiency through measures such as the Smartway Program that lowers fuel consumption in trucks fitted with fuel saving devices.

In June 2005, the Texas Transportation Institute of Texas A&M University led a study to measure emissions from diesel trucks at ports of entry in El Paso and Juárez. In a similar project in Nogales, opacimeters and other remote devices were used to estimate the emissions from 13,000 trucks passing through the Nogales port of entry. The objective of these studies was to demonstrate the use of emerging technologies to assist in developing emissions profiles of trucks crossing the border. This information will be used to develop strategies to minimize wait times on these bridges, thereby reducing air emissions due to idling.

Create and promote the most efficient and reliable international passenger and commercial transportation systems to facilitate the movement of goods, services, and people across the United States/ Mexico border.

Increased wait times at the international border have significant negative impacts on the entire region including economic, social, and environmental. Air quality levels have suffered in recent years with increased wait times for both passenger and commercial crossings. The proposed cross border Universal Freight Shuttle (UFS) will improve freight efficiency and environmental impacts tremendously. This innovative transportation option would allow both countries to ship securely through an electric monorail system from secure points in both El Paso and Juárez. These secure points would provide remote inspection. Freight will then proceed along an elevated monorail through an existing port of entry without delay. In addition to relieving congestion at the border, there will be substantial environmental benefits. Similar technologies should be applied to passenger transportation systems to facilitate the movement of people in an environmentally responsible manner.



Streetcar No. 1073 built in 1947 and currently undergoing restoration. This car is painted to honor El Paso, Texas and Juárez, Mexico, which ran PCC streetcars across the border from 1950 to 1973

LOCAL STRATEGIES

Education

Implement binational educational programs that benefit both American and Mexican students by preparing them for the future.

Safety and quality education are at this time critical needs in Juárez. A primary goal in the City of El Paso's 1999 Comprehensive Plan was to "raise education levels in the region in order to compete in the global arena. Any vision for the future must include education as a priority. Quality education serves to support economic development, creates informed consumers, fosters citizen participation at all levels of community life, leads to greater affluence and prosperity and contributes to a greater quality of life for the whole community." Juárez ranks as the lowest city in educational performance in the state of Chihuahua. With the advent of technology, public schools in El Paso should consider 'adopting' schools in Juárez and coordinate binational educational projects that result in both American and Mexican students learning by teaching. Plan Juárez identifies education as one of its top priorities and as such the office of the Governor of Chihuahua has expressed support for a wide array of educational initiatives.

The same principles should apply to institutions of higher learning in both El Paso and Juárez. The region should build upon existing successful collaborative efforts. One such effort is the Binational Outreach Social designed to encourage collaboration between the University of Texas at El Paso (UTEP) and the Universidad Autonoma de Juárez (UACJ). Professors within the colleges of education discuss avenues for research, opportunities for collaboration, and work among graduate students on both sides of the border. Projects and results from these collaborative efforts will be presented at the Conference for International Research on Cross-Cultural Learning and Education. Another successful collaborative effort between UTEP and UACJ promotes binational education and research in social work. Students studying social work on both sides of the border are allowed to participate in:

- a social work student exchange program,
- a practicum placement at an agency in Juárez,
- UACJ students can be placed at an El Paso agency,
- a collaborative research project on family violence and violence against women in El Paso and Juárez; and
- a binational forum on family violence.

Medical

Assure that there are sufficient preventive and health resources on both sides of the border.

This strategy is quoted from the 1999 Plan and is still applicable today. Portions of El Paso County are federally designated as "medically underserved areas." The City of El Paso should continue to work with local and binational health organizations to ensure sufficient health resources in both the United States and Mexico.

Maximize medical tourism opportunities in the region.

Juárez was previously a destination for medical services specializing in dental, vision and surgical procedures. Americans travel to Juárez for non-emergency medical treatment at costs well below medical charges in the United States. The industry has suffered losses due to the increase in border violence during recent years. Instead of covering it up, the medical tourism industry should be formalized and promoted. El Paso is in a position to capitalize on this industry by providing state of the art equipment and facilities. In addition, the proximity to Medical Center of the Americas, efficient transportation methods and consolidated research facilities could create an international medical destination and model border city.

Spur research in key locations like the medical school, airport, and the University of Texas at El Paso.

Establishing a network of higher education parks and research facilities could help spur new businesses that could benefit El Paso. The private sector can benefit from the research that is occurring at the Texas Tech Medical School, Fort Bliss, and UTEP. Encouraging the private sector to begin developing new products based on the research being conducted by these entities may eventually lead to manufacturing products. The manufacturing of new products could occur in El Paso within close proximity to research and industry experts. This methodology is particularly important in the Northeast/Airport area to tap into the Department of Defense momentum with research and development opportunities.

Capitalize and further develop the Life Sciences industry.

There is a foundation of medical device manufacturing in this region. Currently there are more than 300 FDA approved medical devices that are being manufactured in this region. Approximately 75% of those devices are FDA Class II and III, which are higher technology devices. There are opportunities to build on this foundation in specific areas associated with the MCA Campus, primarily Texas Tech, in which four centers of excellence are located:

- Diabetes - Type II diabetes, focusing on complications such as eye problems & heart disease.
- Cancer - Breast cancer, specifically as it manifests itself in Hispanics.
- Infectious Diseases - Diseases prevalent in border communities such as tuberculosis and sexually transmitted diseases.
- Neuro Sciences - Brain injuries and post-traumatic stress disorders that are prevalent in the El Paso region due to the concentration of military personnel.

El Paso should capitalize on the opportunities surrounding these four topics including product and technology development based upon research occurring at Texas Tech. The City

could also consider incorporating a biomedical research building near the medical school that directly markets to these four areas of focus.¹⁵

Planning (Plan Estratégico de Juárez, also known as “Plan Juárez”)

Coordinate with entities responsible for Plan Juárez to streamline the implementation of both comprehensive plans.

After an extensive public involvement process in which 14,000 citizens provided input, Plan Juárez was adopted in 2004. There were four strategic visions to provide direction for the City:

- Head of a metropolitan binational region.
- A socially-integrated place with a high quality of life.
- Center of educational excellence and cultural creation.
- A thriving, high-value-added and wealth-generating economy.

El Paso and Juárez have shared visions for the entire region. In an effort to implement both plans, the alliance between the two cities should be strengthened. Other common interests include international transit, cultural affairs, and tourism opportunities.

Support Governance in the Implementation of Plan Juárez.

With respect to the future of Plan Juárez, governance has been a major issue in implementing the plan. Governance was referenced as a major public concern in the original document. This proved to be true as implementation efforts in 2005 and 2006 failed primarily due to lack of government support and competition for limited resources. Many projects identified in the Plan conflicted with projects identified by the Mayor and Governor resulting in reallocation of funds away from Plan Juárez. As a result, the citizens instrumental in Plan Juárez established a task force to address governance issues, shine a light on elected officials and revalidate the community’s support of the Plan. This effort to refocus the Plan is called “El Pacto.”

In 2010, the directors established a base line for where El Pacto stands and how to achieve multiple projects with limited resources. They developed a system to follow in 2011 to implement the four original visions (now called “platforms”) and added “governance” as a fifth platform. In 2011, leaders will focus on working with existing community organizations who can take a leadership role in each of the five platforms continuing the community-led theme of the Plan. They will keep the strategic framework of the plan with different implementation methodologies through existing community leaders. The role of Plan Juárez will become more administrative to support and oversee the five implementation groups to allow the community to take the lead and organize around each platform.

Provide efficient binational transit options.

El Paso shares many common goals and policies with Juárez including improved transportation, border crossings, and international transit systems. In order to improve transportation and implement an international transit system, a metropolitan organization should be established. The existing Metropolitan Planning Organization could serve as this organization to lead the international transit efforts. The previous rail system in El Paso was binational. Streetcars ran between El Paso and Juárez from 1950 to 1973. Currently, the only international transit is a bus line that runs between El Paso and Juárez with the hopes of reinstating an international rail system in the near future. The key to efficient regional transit is to keep binational options open in the future and not prevent those connections.

One area in need of immediate international transit improvements is the new Medical Center of the Americas campus. The newly expanded campus is an international medical destination. Efficient innovative transit options are needed for staff, patients, students, and families to move from Mexico into the MCA campus. In the short term, a Rapid Transit System (RTS) line is planned along Alameda and Mesa. Both lines could be transitioned to light rail over time.

Maximize the region’s cultural and environmental resources to promote an international tourism component.

Build upon the success of El Paso’s Museums and Cultural Affairs Department (MCAD) and expand to include an international component. MCAD’s mission is to develop a world-class arts community in El Paso. To accomplish this goal, MCAD has established the Museums Division comprised of the El Paso Museum of Art, the El Paso Museum of Archaeology and the El Paso Museum of History each dedicated to providing exhibitions and educational activities that recognize the region’s multi-cultural heritage and contributors. The Cultural Affairs Division implements funding programs, public art programs, cultural tourism initiatives, and performing/visual arts events. Such programs and events provide a variety of opportunities to engage in arts and cultural activities that enliven and celebrate the City of El Paso and the region. MCAD has played a major role in fostering binational relationships with like agencies and institutions in the Mexico region, including the El Paso Museum of History as it promotes the understanding and significance of the rich multi-cultural and multi-national history of the border region.

Explore the possibility of a “binational enterprise zone” through an international park or recreational area that could provide key opportunities for tourism and cultural events.

Such a recreational area was illustrated on the ASARCO plan in *Connecting El Paso, Building Transit-Oriented Neighborhoods at Remcon Circle, Oregon Corridor, and Five Points and Redeveloping ASARCO (2010)* along the border with Juárez. Citizens requested a binational area to celebrate the region’s rich history and people.

¹⁵ Interview with REDCo’s President Bob Cook in February 2011.

Public safety and emergency response may be a concern within a binational enterprise zone. A good model to follow may be found in Brewster County in Texas where public officials negotiated an emergency response agreement with the state of Coahuila in Mexico. The agreement provides for rural fire fighters, nicknamed “Los Diablos,” in Mexico, to expediently cross the border to fight forest fires in Brewster County.

“Under an agreement between the National Park Service and the Department of Homeland Security, members of Los Diablos are able to respond at a moment’s notice from their riverside villages in Mexico directly adjacent to Big Bend National Park, which is located in a beautiful yet sparsely-populated region several hours distant from any major city.”¹⁶

Environment

Improve the health of all border residents through binational environmental organizations that target environmental issues unique to the United States/Mexico border.

The Environmental Protection Agency (EPA) and Mexico’s Secretary for the Environment and Natural Resources (SEMARNAT) released a draft of the next binational environmental program on September 19, 2011 entitled “Border 2020: U.S.-Mexico Environmental Program.” The public comment period starts on September 19, 2011 and closes on November 30, 2011.¹⁷

Public Safety and Health

Develop a program in conjunction with a local health organization such as the Medical Center of the Americas to utilize displaced medical personnel from Juárez to fill the current shortage in El Paso.

Many doctors, nurses and other medical personnel have fled Juárez due to the recent violence. A work program could be established that utilizes the displaced medically-trained professionals from Mexico to fill the current shortage in El Paso. There is currently a significant need for more medical professionals in the entire El Paso region.

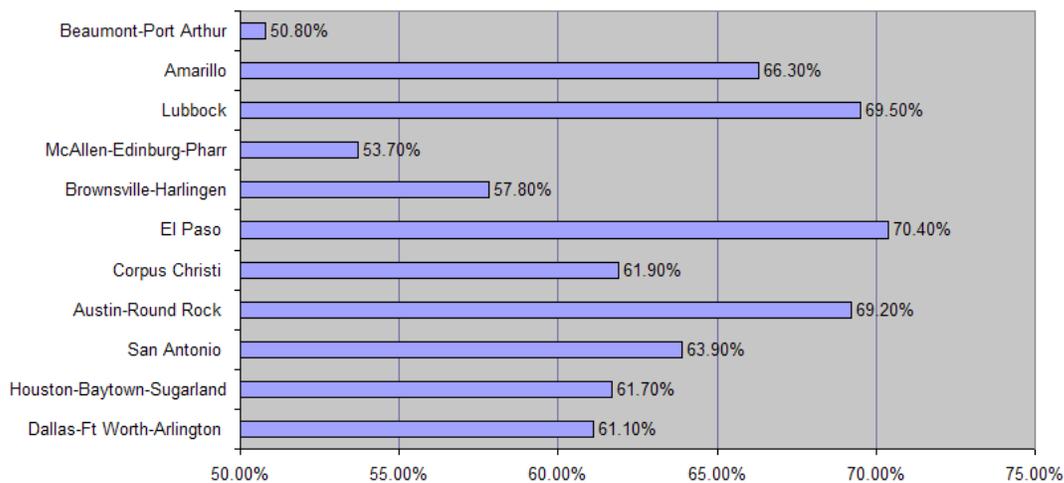
Improve the health of all border residents through local, bi-state and binational health organizations that target health issues unique to the United States/Mexico border. Support binational health organizations such as the United States-Mexico Border Health Commission through local organizations such as the City of El Paso and El Paso County’s Health Department and the Paso del Norte Health Foundation. Provide leadership to develop coordinated actions to improve the health of all border residents.

Tourism

Adopt and deploy new technology-supported channels to promote El Paso’s rich heritage tourism assets.

El Paso has the tremendous opportunity to capitalize on ecotourism resources in the area. On-demand technologies could be incorporated in both English and Spanish to maximize existing resources such as the Texas Mountain Trail, El Paso Del Norte, El Camino Real de Tierra Adentro, Old Spanish Trail & the redevelopment of El Camino de la Plata international trail based on the Mexican silver trade routes initiated in the late 1600s.

¹⁶ United States National Parks Service
¹⁷ EPA.com/Border 2020, October 1, 2011



During the latest hotel performance quarterly report (Q2 2011) for the state of Texas, El Paso MSA showed a decline in hotel revenue (37 million in Q2 2011 down from 39.2 million in Q2 2010 for a negative 3.1% growth change after a marked 9% growth the previous year). Despite the negative growth rate in hotel revenue, El Paso had the highest occupancy rate, at 70.4% of MSAs in Texas for the same period (Q2 2011)

Maximize the use of hotel tax revenues and align tourism strategies with City priorities.

The City could conduct a survey of local tourism & hospitality businesses to develop a strategy for the deployment and best use of hotel tax revenues. This process should result in the identification of best developmental opportunities based on financial modeling and quality of life improvement drivers. Such a study could help align tourism strategies with City priorities.

Pollution

Improve the environmental health of the entire region through sustainable local, bi-state and binational programs.

Support the pollution-reduction efforts outlined in the Border 2020 Draft policies. Local, state, and federal officials have recently modified and updated the Border 2012 environmental program. The mission of the new Border 2020 program is to protect the environment and public health in the United States/Mexico border region, consistent with the principles of sustainable development. Five fundamental strategies of the updated plan include climate change, disadvantaged and underserved communities, children's health, environmental education and strengthening international partnerships. Improving air quality in the El Paso region through reducing air pollutants and greenhouse gas emissions is a primary goal of the Border 2020 plan. Reducing wait times at the border will have a direct impact on improving regional air quality. Future initiatives include energy efficiency and alternative/renewable energy projects.¹⁸

Water Resources

Manage water resources in the region in a sustainable manner.

The Border 2020 plan recognizes the importance of water in the El Paso region. Specific tools are recommended such as the comparison between water quality and quantity, studies of groundwater availability, improved measurement of surface flows, removal of invasive species, and increased efficiency measures. A comprehensive approach managing existing and future water resources requires coordination between organizations having complementary jurisdictions. For example, regulation of water quality is the responsibility of the respective national environmental agencies, EPA and SEMARNAT, while regulation of water quantity (i.e., source development and allocation of supplies) for certain transboundary rivers is the binational responsibility of the International Boundary and Water Commission (IBWC). In the United States, source development falls under the Department of the Interior and allocation is done within the framework of state law. In Mexico, source development and allocation are overseen by the National Water Commission.¹⁹

Wildlife

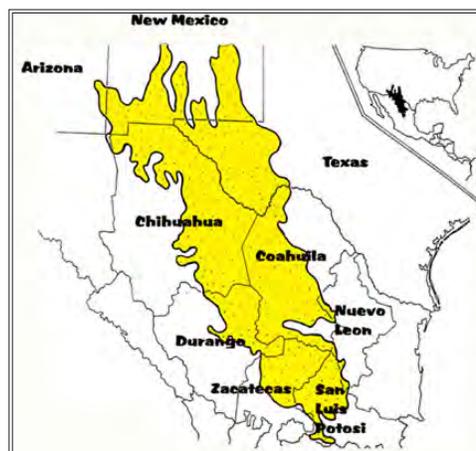
Protect native wildlife through the preservation of the Chihuahuan Desert habitat.

The Chihuahuan Desert region stretches from the Rio Grande Valley in southern New Mexico and the San Simon Valley of southeastern Arizona to an area just north of Mexico City. The entire region is approximately 800 miles long and 250 miles wide. Wildlife groups unique to this area include invertebrates, amphibians, lizards, birds, fish species and mammals. The border fence disrupts migration patterns and may isolate gene pools, weakening certain species. The natural diversity of the Chihuahuan Desert region should be preserved through research and education.²⁰

Economic

Support the facilitation and expansion of existing businesses and recruit new businesses to maximize and capitalize on the unique characteristics of the area, such as geographic location, work force, and technologies.

A study conducted by the Institute for Policy and Economic Development at UTEP reviewed REDCo's five-year track record. The study shows that REDCo's efforts in El Paso alone have generated 9,836 new jobs, \$11.3 million in new state and local taxes, \$1.3 billion in new labor income and \$4.4 billion in total output. Opportunities in the retirement industry should be explored such as assisted living facilities, retirement resorts and recreational vehicle (RV) communities. Access to medical care and the demand for medical tourism gives El Paso an advantage over other communities. El Paso could be a medical destination servicing both sides of the border and offering state of the art equipment in many fields including dentistry, cosmetic surgery, diabetes treatment, and long-term care.



Graphic of the Chihuahuan Desert courtesy of the Chihuahuan Desert Research Institute, www.cdri.org.

¹⁸ Border 2020, www.epa.gov/border2020, draft for public comment posted September 5, 2011.

¹⁹ Border 2020, www.epa.gov/border2020, draft for public comment posted September 5, 2011.

²⁰ Chihuahuan Desert Nature Center, www.cdri.org/desert-explorer, "The Chihuahuan Desert".

Establish and promote El Paso as a regional cultural center to enhance the cultural vitality and image of the area.

There is an obvious connection to the Mexican culture given the physical proximity to Juárez. However, there are also other groups that have helped shape El Paso that could be celebrated. For example, the original “China Town” in Downtown could be celebrated where Chinese nationals were brought to El Paso in order to construct the railroad. African Americans also made significant contributions in the Downtown area. There is also a strong Asian and European presence in El Paso including the Taiwanese Chamber of Commerce. Fort Bliss trains citizens from more than 100 nations.

Develop a binational innovative incubation program.

This strategy could be utilized to attract high-tech start-up companies in the area. There are several programs that should be leveraged from both the United States and Mexico such as NSF in the US and CONACYT (National Counsel for Science and Technology) and FUMEC (Mexico-US Science Foundation) whose mission is to “Promote binational collaboration in science and technology to solve problems and address opportunities for both Mexico and the United States.” New models, such as “co-working” spaces in Downtown and historic districts, that provide opportunities for binational collaboration should be embraced.

Pursue a brand development and identity development effort. A program that includes identity development and identity preservation should incorporate Mexican heritage, address security and safety concerns and, focus on El Paso’s uniqueness in Texas and the southwest. This strategy is directly related to the marketing and image improvements voiced by the public.

GOALS & POLICIES

Overall Goal: El Paso will be a world class, highly competitive international border community that draws trade, technology and tourism to its cultural, geographic and environmental attractions through unparalleled interregional and binational cooperation.

International Business and Trade

Goal 11.1: Leverage El Paso’s binational border location and unique assets to draw more businesses and trade to the area including preserving and expanding existing businesses.

Policy 11.1.1: Develop research technology areas near the airport to spur future development and manufacturing opportunities in the areas of homeland security and military technologies.

Policy 11.1.2: Provide incentives and actively pursue investors taking advantage of the EB5 federal immigration program for key target areas including Downtown El Paso.

Policy 11.1.3: Continue to excel in the fields of adaptive and flex manufacturing models and explore the creation of designated manufacturing (campus) zones.

Policy 11.1.4: Develop a binational innovative incubation program to attract high-tech start-up companies to the region in such key areas as Downtown and other historic districts.

Border Health Issues

Goal 11.2: Improve the health of all border residents through binational health organizations that target health issues unique to the United States/Mexico border to ensure there are sufficient preventive and health resources on both sides of the border.

Policy 11.2.1: Establish an international medical destination anchored by the Medical Center of the Americas unified campus.

Policy 11.2.2: Develop medical research technology areas near the medical school to spur future development and manufacturing opportunities in the medical and life sciences industry.

Cultural Vitality

Goal 11.3: Portray a strong identity that includes the unique Mexican/American cultural vitality and historical integration of both El Paso and Juárez.

Policy 11.3.1: Maximize the region's cultural and environmental resources to promote an international tourism component through key border opportunities such as implementing the comprehensive plans for both El Paso and Juárez and developing a common vision for the Rio Grande and international parks and recreational areas.

Policy 11.3.2: Promote the region's rich heritage tourism assets through new technology supported channels: leverage the Texas Mountain Trail, El Paso Del Norte, El Camino Real de Tierra Adentro, Old Spanish Trail, and the redevelopment of El Camino de la Plata international trail based on the Mexican silver trade routes initiated in the late 1600s.

Policy 11.3.3: Establish and promote El Paso/Juárez as a regional cultural center to enhance the cultural vitality and image of the area.

Binational Education

Goal 11.4: Raise education levels in the region in order to compete in the global arena.

Policy 11.4.1: Implement binational educational programs that benefit both American and Mexican students preparing them for the future.

Policy 11.4.2: Develop educational research technology areas near the University of Texas at El Paso campus to spur future development and manufacturing opportunities in the educational industry.

Policy 11.4.3: Enhance and strengthen the collaboration between Texas and Mexican schools.

Border Transportation

Goal 11.5: Create the most efficient and reliable international passenger and commercial transportation systems to facilitate the movement of goods, services and people across the US/Mexico border.

Policy 11.5.1: Maintain regional stability and a robust economy through highly efficient ports of entry utilizing state of the art technology, new border crossings and other efforts that facilitate the movement of goods across the border and decrease wait times.

Policy 11.5.2: Provide efficient transit options on both sides of the border for international destinations such as the Medical Center of the Americas unified campus. Other policies regarding international transit linkages are found in the Transportation Element.

Policy 11.5.3: The 1999 plan recommended an "International Long Range Metropolitan Transportation Plan" as a logical venue for El Paso/Juárez to begin addressing transportation issues jointly. The City should continue to pursue joint planning opportunities, particularly for transportation.

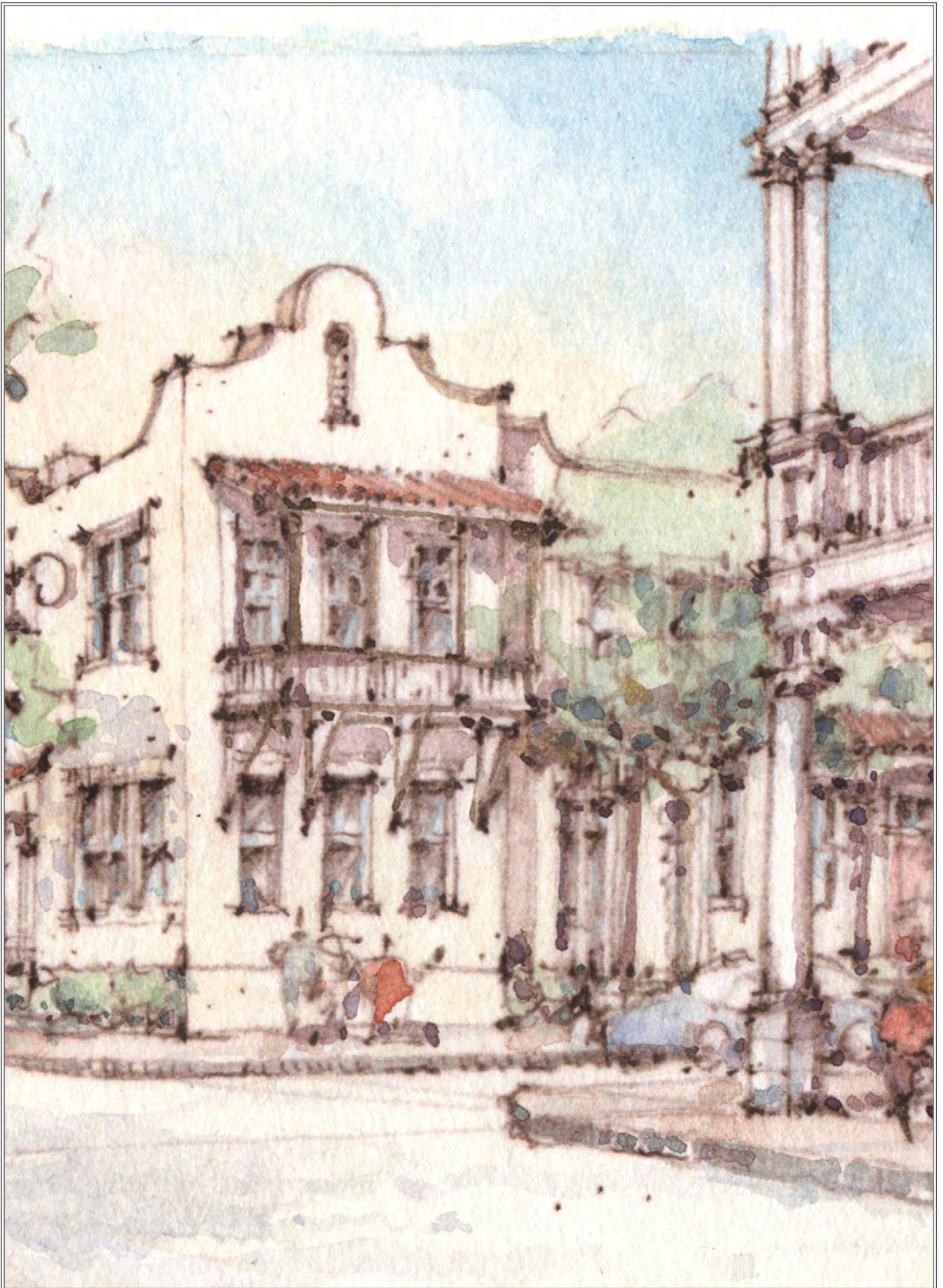
Policy 11.5.4: Create cross-border multimodal transportation alternatives such as a light-rail, street cars, or transportation options.

Immigration Reform

Goal 11.6: Strengthen the entire border community by supporting innovative immigration reform through training and educational opportunities.

Policy 11.6.1: Improve individual earning potential for residents and immigrants.

Policy 11.6.2: Become a leader in supporting national immigration reform initiatives such as the Dream Act and labor reform.



FORT BLISS

12

Overall Goal: The City and Fort Bliss shall continue to grow together in a way that is mutually beneficial.

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"FOR OVER 130 YEARS, FORT BLISS AND EL PASO HAVE GROWN TOGETHER, EACH EXPERIENCING DRAMATIC CHANGES RESULTING FROM CHANGES TO MILITARY MISSION REQUIREMENTS, BUT NONE THAT WILL RIVAL THOSE ANTICIPATED OVER THE NEXT FIVE YEARS."

- EL PASO REGIONAL GROWTH
MANAGEMENT PLAN

CURRENT CONDITIONS
INTRODUCTION

A key factor in El Paso's continuing economic vibrancy is Fort Bliss. Some parts of this Army installation are actually within the City limits while vast training areas and base camps extend north to, and across, the New Mexico state line, over a million acres deep into neighboring Doña Ana and Otero Counties.

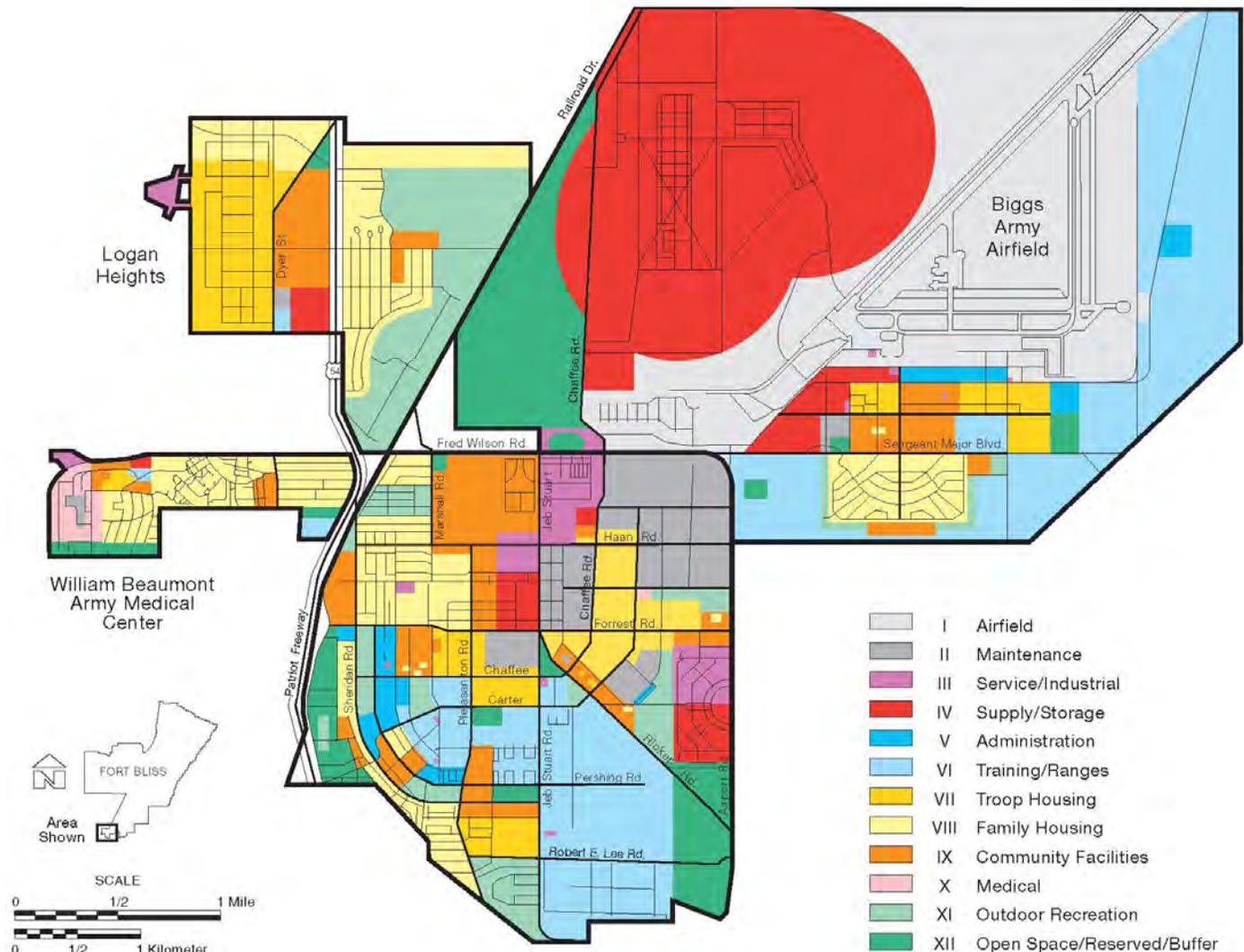
The effects of Fort Bliss extend well beyond its boundaries. In addition to nearly 3,500 units of on-post housing in fifteen neighborhoods, a large proportion of military housing is located off-post throughout the City. The current population at Fort Bliss includes 30,800 active-duty soldiers, 2,100 reservists, 38,150 family members, and 7,950 civilians. The post is so large that the El Paso Independent School District operates three elementary schools plus a unique high school, half of whose students are not from military families.

Fort Bliss was originally located near Downtown El Paso and later at several other locations within today's City limits. In

1893 the post was moved to the main post of today's Fort Bliss, just west of the El Paso International Airport.

Fort Bliss became a major military training center as the onset of World War II triggered a boom in El Paso's economy. By 1942 Fort Bliss was the largest Army base in the nation. After the war, Biggs Air Force Base established itself as an important military post in the region. Biggs was closed in 1966 and reactivated as Biggs Army Airfield in 1973. Fort Bliss is currently the largest air defense center in the world.

Fort Bliss is now immersed in its largest transformation ever, with an anticipated tripling of population between 2005 and 2012 to accommodate units being relocated from other bases in the United States and from Germany and Korea. The Army is investing \$5 billion in the construction of new facilities, much of it to the east of Biggs Army Airfield where most soldiers will be stationed.



Land uses at Fort Bliss prior to current expansion.

PHYSICAL COMPONENTS OF FORT BLISS

Main Post

There are several adjoining components that make up today's Fort Bliss. The main post is located north of Interstate 10 between US Highway 54 (Patriot Freeway) and the International Airport.

The main post currently houses the headquarters, garrison command, classrooms, administrative space, barracks, and family housing. The main post no longer houses the Air Defense Artillery functions which have been relocated to Fort Sill near Lawton, Oklahoma. The main post also includes historic areas, parade grounds, and the Fort Bliss National Cemetery. The main post even contains its own shopping center, Freedom Crossing, with major retailers and a movie theater.

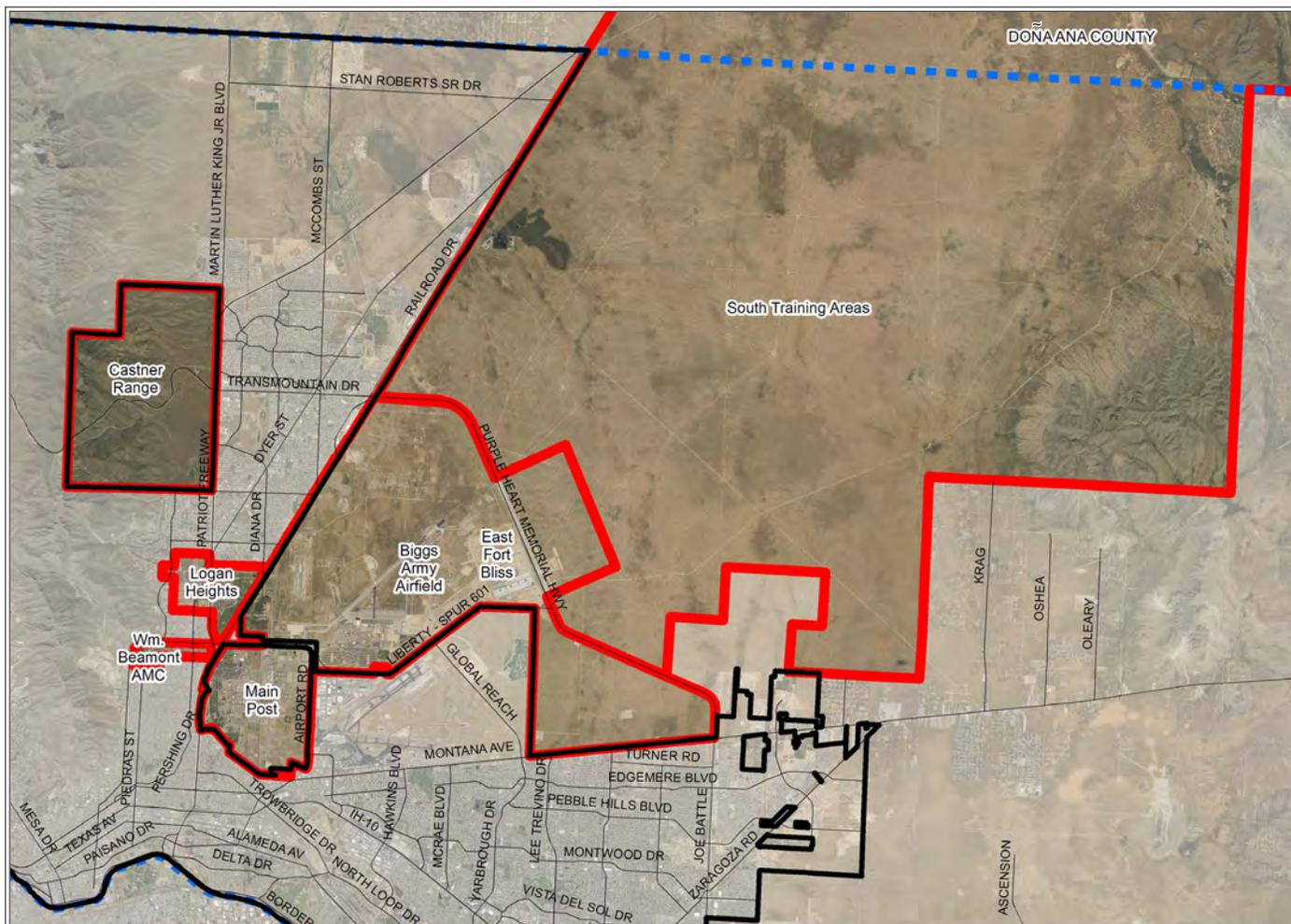
Biggs Army Airfield

Biggs is dominated by the airfield and aviation facilities but also includes munitions storage and some family housing. A new rail terminal has been constructed to the northwest of the runway. About 500 acres between Biggs and the International Airport have been redeveloped to support a heavy brigade combat team.

East Fort Bliss

To the north and east of Biggs Army Airfield is the rapidly expanding portion of the post that will eventually contain at least two-thirds of the soldiers stationed at Fort Bliss. About 4,000 acres of land has been experiencing some level of development or redevelopment, with 2,100 acres being converted from open space into developed land. New uses include administrative, barracks/housing, troop training, industrial, commercial, and community functions. Permanent facilities for new brigade combat teams have been constructed between Biggs and Loop 375. Further expansion has begun to the east of Loop 375.

East Fort Bliss is accessible via Sergeant Major Boulevard, from the new Liberty Expressway (Spur 601), or from Loop 375. There is a shuttle bus on base for commuting throughout the installation, but due to the expansiveness of Fort Bliss, most travel is by private vehicle.



Map of major physical components at Fort Bliss.

Logan Heights

Logan Heights, separated from the main post by US 54 and the railroad, is primarily used for family housing and for community facilities and recreation. Most of the old substandard troop housing on the west side of Dyer Street has been demolished. The north end of this area has new family housing. The eastern portion of Logan Heights has two golf courses and family housing. Many older housing units have been renovated or replaced.

William Beaumont Army Medical Center

William Beaumont provides a 364-bed medical center for military personnel, retirees, and dependents. Adjoining uses include a large VA ambulatory care center and family housing on the eastern most parcel. About 90 acres may be leased in the future for commercial (offices and retail) and residential uses, including preservation of historic buildings.

South Training Areas

Most of the remainder of Fort Bliss in El Paso County is designated by the Army as its south training area, which is used primarily for on- and off-road vehicle maneuvers and for training of soldiers on foot. The main military use is tracked vehicle maneuvers because this training area is easily accessible from East Fort Bliss. There is a designated drop zone for paratroopers and portions of the south training areas support weapons firing.

Training is conducted at Fort Bliss by active, reserve, and National Guard units; other military services; and law enforcement agencies.

Certain non-military uses are permitted in the south training area. These include public recreational uses near residential areas of El Paso and a large brackish-water desalination plant.

Castner Range

Castner Range in northeast El Paso was used for small arms and artillery training between 1926 and 1966. A portion of the range to the east of US 54/Patriot Freeway is now the Transmountain Campus of the El Paso Community College, the Cohen Stadium, City parkland, and private development.

The remaining 7,081 acres between US 54/Patriot Freeway and the Franklin Mountains State Park have been largely untouched since 1966 except for the addition of a small Texas Department of Transportation unit, a Border Patrol Station, and two museums alongside Transmountain Road, the Museum of Archaeology, and the Border Patrol Museum.

Previous use for extensive military training resulted in an accumulation of munitions, explosives, and unexploded ordnance throughout portions of the range. Currently, the Army has no plans for future use or disposition of Castner Range; the obstacle to disposition is the high cost of removing the unexploded ordnance.



The main post is the historic heart of Fort Bliss, with administrative offices, training fields, and officer housing arranged in a campus setting that dates from the late 1800s.



Freedom Crossing on the main post is Fort Bliss' new shopping and entertainment center, which features street-oriented buildings along a landscaped street, with the intent of creating a gathering place for soldiers and their families.



New barracks at East Fort Bliss are LEED-certified, however they are located in the center of large parking lots and disconnected from other uses, requiring that all soldiers own a car and drive for nearly all of their daily trips.

COMMUNITY CONCERNS

The expansion of Fort Bliss has been widely supported in the El Paso community. This support has included expensive infrastructure improvements not funded by the military including:

- Construction of an inner loop, known initially as Spur 601 and now as the Liberty Expressway, a 9.5-mile route beginning at the junction of US 54 at Fred Wilson Avenue and extending Fred Wilson Avenue east to terminate at Loop 375.
- Realignment and extension of Global Reach Drive from Montana Avenue to the Liberty Expressway.
- Construction of full interchanges along Liberty Expressway at Global Reach Drive, Loop 375, and Sergeant Major Boulevard.
- Fort Bliss entered into a partnership with El Paso Water Utilities to construct the world's largest inland desalination plant north of Montana Avenue, which produces 27.5 million gallons of fresh water daily. The plant draws previously unusable brackish groundwater and treats it with a reverse osmosis process.

In addition to these efforts, there remain numerous planning issues that are of concern to El Paso residents and landowners.

HOUSING

The important issue of additional housing for military personnel has not been fully resolved. The Army has entered into a long-term exclusive contract with Balfour Beatty Communities LLC for on-post housing, which is scattered across approximately 500 acres in different areas of Fort Bliss. Balfour Beatty manages the pre-existing housing (not including barracks) and has a 50-year land lease on which they can rehabilitate and build new housing for military personnel.

This housing contract implements the Fort Bliss “residential community initiative” (RCI) which set out to demolish 1,215 substandard housing units, build 1,850 new homes, rehabilitate 206 historical homes, and renovate 1,331 other existing homes for military families. New swimming pools, community centers, parks, trails, and playgrounds are integrated with the residential areas.

There is currently a waiting list for the 3,500 dwellings now managed by Balfour Beatty, which includes about 1,000 dwellings that have been constructed recently. Although there had been plans for a total of 4,000 to 7,000 units on-post, further construction by Balfour Beatty is unlikely. Military personnel who qualify and can find a unit in the RCI inventory pay just their basic allowance for housing, which can be as low as \$930/month for rent and utilities.

A detailed housing market analysis for 2008-2013 was published in 2009 and is included as Appendix B of the Regional Growth Management Plan (see next page).

REGIONAL LAND USE PATTERNS

The Army has extremely ambitious energy conservation and environmental goals for Fort Bliss. Bike paths and electric vehicles are being introduced and 20,000 trees are being planted. Fort Bliss is one of two Army bases in the nation with a goal to produce more energy than it consumes by 2015.

Ironically, several aspects of the Fort Bliss expansion run directly counter to those philosophies. Placement of the new combat brigade teams to the east of Biggs Army Airfield was logical due to the availability of space there and its proximity to military training areas. However, other facilities are being moved to the far east and southeast without compelling reasons. For example, the new William Beaumont Army Medical Center, a \$1 billion construction project that will open in 2016, is being built in the southwest quadrant of Loop 375 and the Liberty Expressway. Without convenient access to public transit, hospital staff and visitors will have to make long drives essentially forever, wasting energy far beyond what will be saved with the latest building technologies.

Another example is the site proposed for a new El Paso Community College campus immediately south of the new hospital. Although this site will be convenient for military personnel stationed at East Fort Bliss, its accessibility is poor for faculty and for all other students.

The new hospital and college campus would be placed on very large and physically separated sites, forcing nearly all access to be by private car and eliminating opportunities for nearby housing and commercial services.

FUTURE BASE EXPANSION AND CONTRACTION

The expansion of Fort Bliss has been underway since Base Realignment and Closure (BRAC) decisions in 2005 and is still not complete. The new hospital is just one example of ongoing projects. An additional brigade combat team could be relocated from Germany to Fort Bliss by 2015, which could add 3,500 to the 3,800 additional soldiers.

Less discussed is the potential for future contraction of Fort Bliss should the nation's military presence be reduced. The effects of contraction on El Paso could be enormous, given the recent investment in roads, utilities, schools, and health care to accommodate the expansion. Another aspect of contraction would be the potential for re-use of military facilities such as housing, schools, and medical facilities. If these facilities are designed and constructed with this possibility in mind, they will continue to serve the community when they are no longer needed for military purposes.

**STRATEGIES FOR ADDRESSING COMMUNITY CONCERNS
REGIONAL GROWTH MANAGEMENT PLAN**

To address the local impacts of the expansion of Fort Bliss, a Regional Growth Management Plan was prepared in 2008 and 2009. This plan compared the previously anticipated growth in El Paso to three growth scenarios for Fort Bliss, looking at economic development, land use, transportation, utilities, housing, education, health and social services, public safety, quality of life, and fiscal structure.

The three most urgent priorities identified in this plan were:

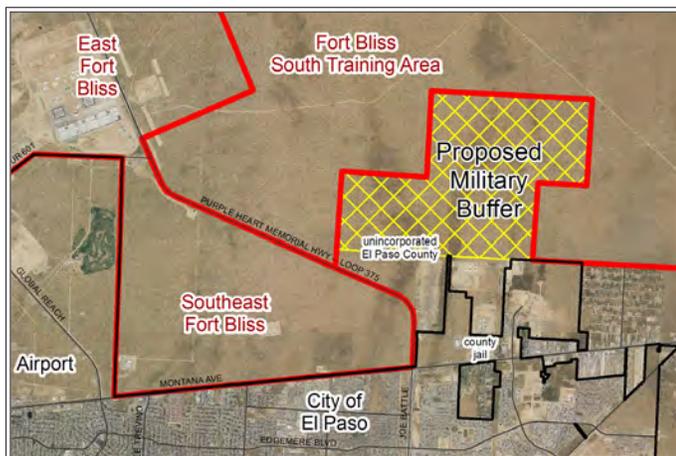
- Housing – a potential shortfall of 13,000 units by 2012.
- Education – the need for new schools and personnel (most likely 2,200 teachers and 2,100 support personnel by 2025).
- Health Care – the need for as many as 5,100 additional provider personnel by 2025.

The Regional Growth Management Plan has provided excellent guidance to community leaders since its publication in October 2009. As an example, City officials have since instituted a program to offer financial incentives to encourage developers to build privately funded housing suitable for military personnel. Many aspects of this Comprehensive Plan implement recommendations of the Regional Growth Management Plan.

MILITARY BUFFER

Approximately 2,800 acres of non-federal land northeast of Loop 375 are surrounded on three sides by Fort Bliss training areas (see yellow crossed-hatching on the map below). Future development on this tract could severely restrict military training activities and/or cause continuing noise and dust impacts on civilian uses. Fort Bliss officials would like to acquire this tract to avoid either outcome; one possibility is a swap for land just inside Loop 375.

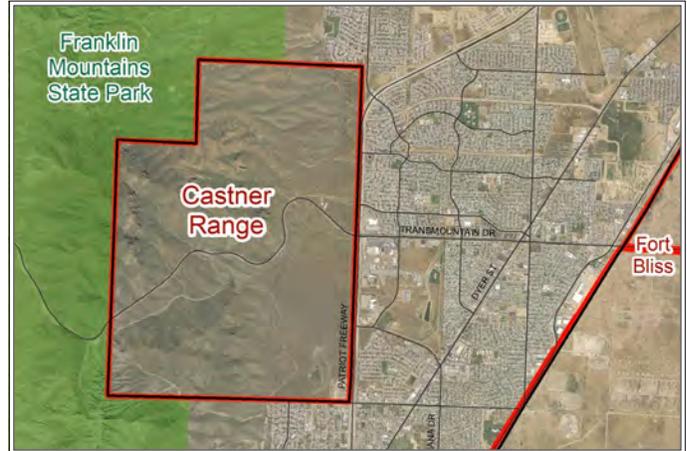
To discourage civilian development of this tract, El Paso officials are designating this tract as a “proposed military buffer” on the Future Land Use Map (see Regional Land Use Patterns element).



Proposed military buffer northeast of Loop 375

CASTNER RANGE

Castner Range in northeast El Paso was used for small arms and artillery training until 1966. A former portion of the range east of US 54/Patriot Freeway has since developed. The remaining 7,081 acres between US 54 and the Franklin Mountains State Park have been largely untouched since 1966.



Location of Castner Range in northeast El Paso

Castner Range contains some of the most geologically complex and visually striking parts of the Franklin Mountains and is prized for its wild gold poppies and concentration of springs. Franklin Mountains State Park surrounds much of Castner Range; the park’s management plan envisions a network of trails in the range’s canyons and at higher and lower elevations.

The Army has no plans to use Castner Range again. City, county, and state officials have strongly supported the transfer of the entire range to the state park system. An ideal interim step would be a conservation conveyance to the non-profit Frontera Land Alliance, which would ensure the ultimate transfer to the state park system once military officials are able to remove unexploded ordnance and make the land safe for public use.



Blooming poppies accentuate the breathtaking beauty of Castner Range

SOUTHEAST FORT BLISS

Fort Bliss includes about 4,170 acres of undeveloped land east of the El Paso International Airport and south of the Liberty Expressway and Loop 375. This land, although little used today, had been considered part of the Fort Bliss training areas, but it is no longer designated as such by the Army.

In recent years, the Texas Army National Guard has moved to a new facility on Montana Avenue, and the El Paso Water Utilities operates a desalination plant that provides drinking water to the City residents and Fort Bliss.

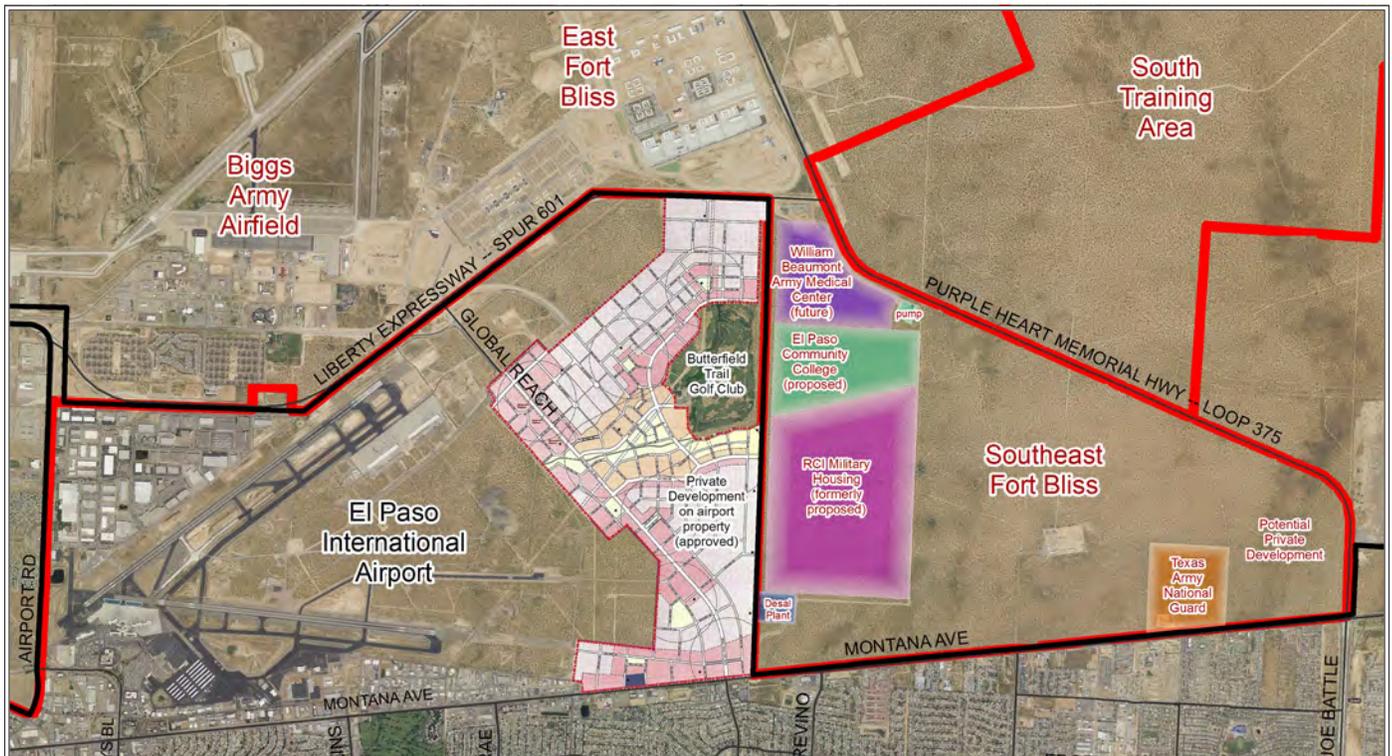
By 2016, the Army plans to relocate the William Beaumont Army Medical Center onto 200 acres in the northwest corner of this land. El Paso Community College hopes to build a new campus on 200 leased acres immediately to the south of the hospital. To the south of the college, the Army had designated 675 acres for future military housing under the RCI program, as described earlier. In early 2011, Army officials sought interest by developers to use some of the remaining uncommitted 1,800 acres; land would be sold to developers for mixed commercial and residential development, but instead of paying cash for the land, developers would be required to invest that money in housing for military personnel in the same general area.

Clearly the 4,170 acres, sometimes called Southeast Fort Bliss, will have a very different character than the developed military portions of the base or the vast training areas that extend into New Mexico.

Several planning issues are immediately apparent:

- How can future development of Southeast Fort Bliss be physically integrated with adjoining development planned at the International Airport?
- How will El Paso’s transportation systems respond to this unanticipated development?
- How should municipal services be provided to non-military development? Fort Bliss has its own water utility but it seems an unlikely long-term provider to non-military uses.
- How will non-military municipal services be funded? Sales taxes, property taxes, and impact fees will not be paid if this land remains outside the City limits of El Paso.

If the Army would require that all new development on Southeast Fort Bliss meet the “LEED for Neighborhood Development” smart location standards contained in the Urban Design element of this Comprehensive Plan, that development would be essentially compatible with El Paso’s smart growth planning strategies. Non-military development could then be made eligible for annexation into the City of El Paso, with all service and taxation issues resolved in the same manner as for all other annexed land. As a commitment to this arrangement, this land is being designated as Fort Bliss Mixed Use (G-8) on the Future Land Use Map (see Policies I.10.3, I.11.4, and I.11.5).



Potential development at El Paso International Airport and Southeast Fort Bliss

ARMY COMPATIBLE USE BUFFERS

The military buffer described on page 11.6 is land that should be acquired by the Army and added to Fort Bliss to protect the functioning of the south training areas, which are located on three sides of that land.

In other situations, federal ownership of land is not necessary to preclude incompatible uses around an Army installation. For instance, land may have strong ecological values and be sought by a land trust (or another government agency) to protect those values. In such cases, the Army has a program where it can contribute toward outright acquisition by the land trust or toward acquisition of a conservation easement that would restrict potentially incompatible uses.

This program is known as the Army Compatible Use Buffer (ACUB) program. At present, it is contemplated for use near Chaparral in New Mexico on land near the Doña Ana Range Complex. Other land that qualifies for this program could be added to the ACUB plan for Fort Bliss.

GOALS & POLICIES

Overall Goal: The City and Fort Bliss shall continue to grow together in a way that is mutually beneficial.

Fort Bliss Coordination

Goal 12.1: Continue to cooperate with Fort Bliss officials to provide essential services and to integrate non-military functions of the base into the City.

Policy 12.1.1: The City of El Paso will continue to use the 2009 Regional Growth Management Plan as guidance for accommodating the expansion of Fort Bliss.

Policy 12.1.2: To protect the viability of future training operations at Fort Bliss, the City of El Paso is designating approximately 2,800 acres north of the Sanchez State Jail as a Military Buffer on the Future Land Use Map to discourage civilian development that is incompatible with training operations on nearby land (see Policy 1.10.4).

Policy 12.1.3: The City of El Paso strongly supports the transfer of the entire Castner Range to the Franklin Mountains State Park. The City supports the interim step of a conservation conveyance to the Frontera Land Alliance, which would ensure the ultimate transfer of the range to the park once military officials are able to remove unexploded ordnance and make the land safe for public use.

Policy 12.1.4: The City of El Paso supports the development of surplus land in Southeast Fort Bliss for compact, complete, and connected communities that meet the "LEED

for Neighborhood Development" smart location standards contained in the Urban Design element of this Comprehensive Plan.

a. These new communities should have multiple neighborhoods, each with an identifiable center and edge and designed for the pedestrian and transit as well as the car. Neighborhoods should be compact, pedestrian friendly, and mixed-use, with a broad range of housing types and price levels. Interconnected networks of streets will encourage walking, reduce the number and length of automobile trips, and conserve energy. Denser areas should be within walking distance of transit stops. Districts that emphasize a special single use such as a hospital or college should follow the same principles whenever possible rather than being isolated in single-use complexes.

b. Land that is developed in accordance with these principles will be eligible for annexation into the City of El Paso.

Policy 12.1.5: Fort Bliss land is being designated in the following manner on the City's Future Land Use Map.

a. O-2 Natural: Castner Range

b. O-4 Military Reserve: South training areas in El Paso County

c. G-8 Fort Bliss Mixed Use: Southeast Fort Bliss, Logan Heights, and the existing William Beaumont Army Medical Center.

d. G-9 Fort Bliss Military: The main cantonment, Biggs Army Airfield, and East Fort Bliss.

Policy 12.1.6: The City of El Paso encourages Fort Bliss officials to reconsider its decision to relocate the William Beaumont Army Medical Center from its current location to the northern edge of Southeast Fort Bliss. This important facility would be better placed closer to El Paso's urban heart where it can be easily reached by its staff, suppliers, and visitors without excessive travel by private automobile.

Policy 12.1.7: Fort Bliss is strongly encouraged to consider the long-term potential of military contraction when planning and constructing facilities. If housing, schools, and medical facilities are designed with this possibility in mind, they can continue in service after they are no longer needed for military purposes.

Policy 12.1.8: The City of El Paso encourages Fort Bliss officials to identify ecologically or historically sensitive lands near Fort Bliss that might be eligible for acquisition by potential partners through the Army Compatible Use Buffer (ACUB) program.

CITY OF EL PASO, TEXAS COMPREHENSIVE PLAN

SEGUNDO BARRIO DESERT TRAIL ANDERSON HEIGHTS MINER VILLAGE ASARCO
AUSTIN HIGH SCHOOL MISSION VALLEY JACKSON
EASTON **NORTHEAST** PLACE SAN JACINTO PLAZA NORTHGATE
PIEDRAS DRIVE RIM ROAD NEIGHBORHOOD MADELINE DRIVE MUNDY PARK
BURGESS HIGH SCHOOL SUNSET HEIGHTS **WESTSIDE** YSLETA
ARROYO PARK HUECO TANKS STATE PARK **PLAN EL PASO** CORK
FRANKLIN MOUNTAINS PARK TOM LEA PARK
CATHEDRAL HIGH **WESTSIDE** LORETTO ACADEMY
GRANDVIEW PARK OREGON CORRIDOR SNOW HEIGHTS PARK KIDD FIELD
FORT BLISS AMERCIAS HIGH SCHOOL ALTHEA PARK KERN PLACE
HOUSTON PARK MISSION HILLS SOUTH RIDGECREST
BANDOLERO TARASCAS LOMAS DEL REY MESA HILLS FESTIVAL HILLS
LAMBKA PARK FALCON HILLS ROSEDALE **LOWER VALLEY** FARMS
HIGH RIDGE CRESTMONT PARK LAKEHURST **LOWER VALLEY**
BELVIDERE BEAR **CENTRAL** RIDGE REMCON MONTOYA HEIGHTS
THREE HILLS SUNSET **CENTRAL** VIEW WEST GREEN BORDERLAND
MARWOOD PARK RIVERBEND EASTWOOD MEMORIAL PARK ARMSTRONG FIELD
AUSTIN TERRACE MILITARY HEIGHTS HIGHLAND PARK **EASTSIDE**
FIVE POINTS LOGAN HEIGHTS SUNRISE **EASTSIDE**
NATIONS TOBIN PARK PARKLAND SUN VALLEY TERRACE HILLS
DOLPHIN PARK APOLLO HEIGHTS PLEASANT HILLS TIMBERWOLF
BUENA VISTA WASHINGTON PARK SAMBRANO STILES GARDEN
MEDINA CLARDY FOX DELLA PARK COLLINGSWORTH
GARDENS RIVERSIDE PARK
LAFAYETTE PLACE



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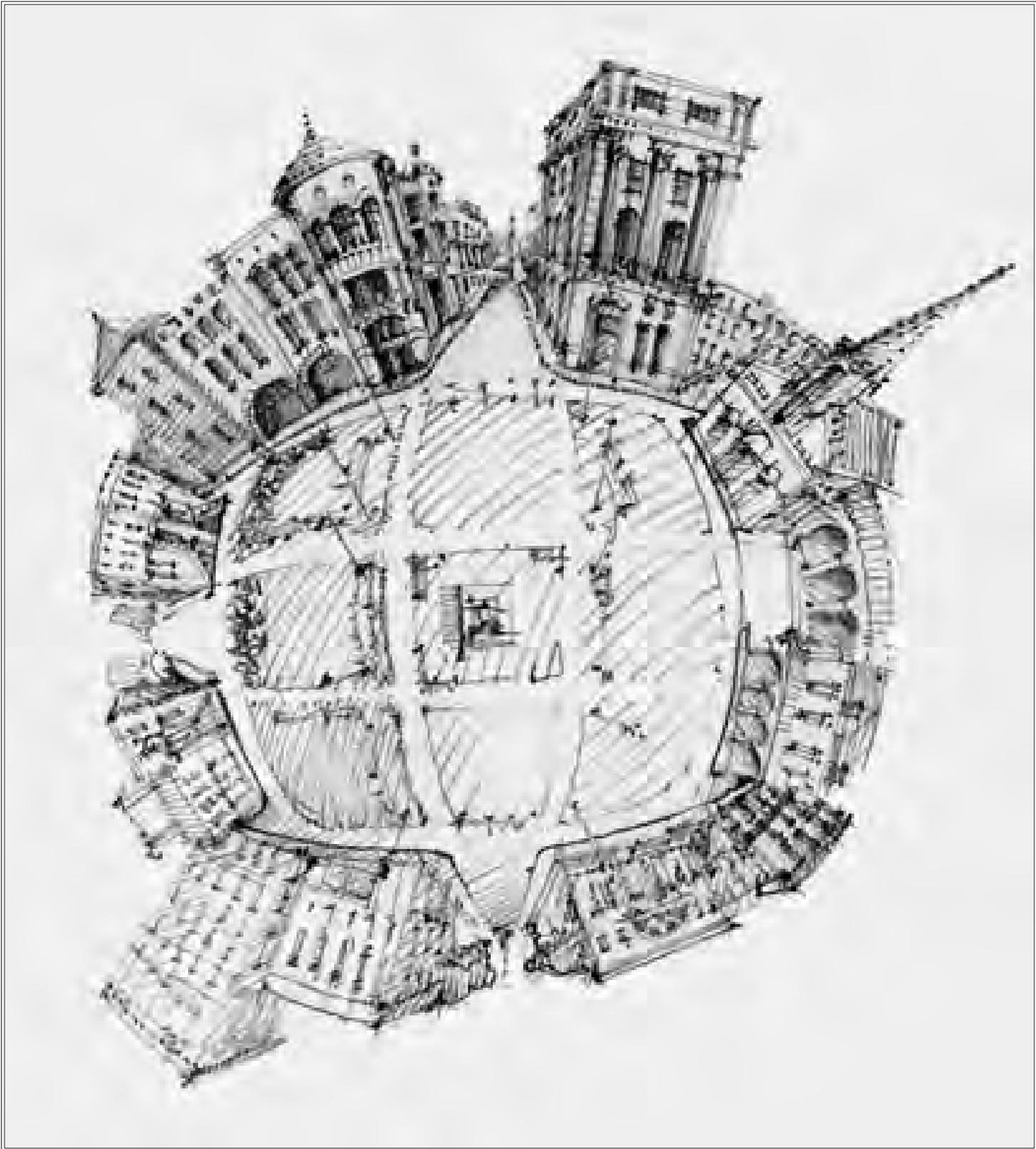
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1. REGIONAL LAND USE PATTERNS

Goals and Policies for Regional Land Use Patterns

Overall Goal: Encourage infill development within the existing City over peripheral expansion to conserve environmental resources, spur economic investment, repair social fabric, reduce the cost of providing infrastructure and services, and reclaim abandoned areas.

Goal	Policy	Responsible Department(s)
Downtown		
<p>Goal 1.1: The City of El Paso places the highest priority on the reinvigoration of Downtown, whose strategic location, walkable blocks, and historic buildings will once again make Downtown a vibrant destination and center of culture, shopping, government, and the arts. These policies apply to land in the G-1 “Downtown” growth sector on the Future Land Use Map (see Goal 1.10).</p>	<p>Policy 1.1.1: City policies and programs will encourage the rehabilitation of upper stories of existing Downtown buildings as office, retail, entertainment, and residential space. Financial incentives will be considered to encourage investment from the private sector.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Historic Preservation
	<p>Policy 1.1.2: The City encourages new multi-story mixed-use buildings with windows and doors facing all sidewalks to be constructed on vacant lots. The City will not require any on-site parking for buildings Downtown.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 1.1.3: Downtown redevelopment strategies will include new and improved civic buildings and civic spaces, plus shared parking for residents, employees, and visitors.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 1.1.4: As public buildings are added, updated, or replaced, they will be integrated into El Paso’s original street network and other land uses rather than being isolated in large complexes of civic buildings.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 1.1.5: The City’s historic landmark design regulations will be expanded to highlight Downtown’s architectural heritage, to avoid unnecessary damage to this valuable resource, and to ensure that new buildings maintain and improve this historic character.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Historic Preservation
Traditional Neighborhoods		
<p>Goal 1.2: The City of El Paso highly values the traditional neighborhoods that were laid out in all directions from Downtown and will maintain and improve their highly walkable character, transit accessibility, diverse mix of land uses, and historic building stock. These policies apply to land in the G-2 “Traditional Neighborhood” growth sector on the Future Land Use Map.</p>	<p>Policy 1.2.1: The City will maintain and strengthen the historic landmark status of Austin Terrace, Chihuahuita, Magoffin, Manhattan Heights, Old San Francisco, Sunset Heights, Ysleta, and the Mission Trail Historic Corridor and District.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Historic Preservation
	<p>Policy 1.2.2: The City will actively consider historic landmark status for additional qualifying neighborhoods.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Historic Preservation
	<p>Policy 1.2.3: Vacant and underutilized parcels in and around the City’s traditional neighborhoods can be excellent locations for redevelopment that adds housing, shopping, employment, entertainment, and recreational options for nearby residents and transit patrons. Redevelopment of such sites must mesh with the scale and character of these existing neighborhoods rather than imposing a suburban or high-rise model on traditional neighborhoods. The City’s zoning and development regulations will be modified accordingly. Additional infill incentives will be provided by the City.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Engineering & Construction management
Neighborhood Retrofits		
<p>Goal 1.3: The City of El Paso wishes to diversify its post-war and suburban neighborhoods in strategic locations in order to increase the variety of housing options, including rowhouses, apartments, and condominiums, and to expand opportunities for employment and neighborhood shopping without requiring long car trips.</p>	<p>Policy 1.3.1: Most neighborhoods, even new ones, would benefit from a greater variety of activities within walking and bicycling distance. For instance, a greater number of smaller parks are preferable to a few larger ones that are accessible only to those with a private vehicle. Likewise, smaller schools often become the centerpiece of their neighborhoods rather than distant facilities to which most students must be driven or bused each day. This policy is most applicable within the G-3 “Post-War” and G-4 “Suburban” growth sectors on the Future Land Use Map.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Parks & Recreation • School District
	<p>Policy 1.3.2: Sun Metro bus routes and rapid transit system (RTS) transfer centers offer independence to those who live in drivable neighborhoods but do not have access to a car. The land near transfer centers and major stopping points offer major redevelopment opportunities to take special advantage of those facilities. These locations are designated as overlays on the Future Land Use Map (see Goal 1.10).</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Sun Metro

Goal	Policy	Responsible Department(s)
	<p>Policy 1.3.3: The City has adopted the following special study area plans pursuant to the 1999 Comprehensive Plan:</p> <ul style="list-style-type: none"> a. Rim/University (2001) b. Northwest Upper Valley (2004) c. Chihuahuita (2004) d. PSB Westside Master Plan (2005) e. PSB Northeast Master Plan (2005; amended 2007 & 2008) f. Downtown 2015 (2006) g. Medical Center of the Americas (2008, amended 2011) h. Connecting El Paso (2011) <p>These special study area plans will remain in effect, except for any provisions that may conflict with this Comprehensive Plan, until such time as any of these study area plans are amended or repealed by the City Council.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • El Paso City Commission
New Neighborhoods		
<p>Goal 1.4: The City of El Paso notes that recent development patterns have created isolated and oversized concentrations of homogeneous land uses which force residents into automobile travel for daily needs and make it difficult for residents to stay within the same neighborhood when they need a different type or size of housing. The City wishes to ameliorate these patterns in existing neighborhoods and intends to modify them for new neighborhoods. This goal and policy apply to land in the G-4 “Suburban” growth sector and to future development in the O-6 “Potential Annexation” and O-7 “Urban Expansion” open-space sectors on the Future Land Use Map.</p>	<p>Policy 1.4.1: The City’s zoning and land development regulations will be reviewed and amended to require new neighborhoods to have:</p> <ul style="list-style-type: none"> a. Greater interconnection of internal streets; b. Provision of small parks and civic functions within neighborhoods; c. A greater variety of housing types within each neighborhood; and d. Protection of natural features such as arroyos. 	<ul style="list-style-type: none"> • Planning & Economic Development • Engineering & Construction management • Parks & Recreation
Outward Expansion		
<p>Goal 1.5: The City of El Paso has grown primarily by outward expansion. This pattern has become untenable because the undevelopable wedges created by Fort Bliss and the Franklin Mountains have forced outward expansion so far from central El Paso. The amount of commuting required by this development pattern throughout the City will be increasingly impractical in an era of high gasoline prices and the need to control climatic changes caused in part by overuse of fossil fuels. The City of El Paso will be cautious about authorizing further outward expansion until it can be demonstrated to be essential to accommodate growth and the land to be developed is an excellent location for urban expansion.</p>	<p>Policy 1.5.1: The City will be insistent that further outward expansion take the form of complete new neighborhoods that meet or exceed the standards of El Paso’s most revered older neighborhoods. This policy applies to future development in the O-6 “Potential Annexation” and O-7 “Urban Expansion” open-space sectors on the Future Land Use Map.</p> <p>Policy 1.5.2: This plan discourages urban development of irrigated farmland along the Rio Grande, which is designated in the O-3 “Agriculture” open-space sector; through the following means:</p> <ul style="list-style-type: none"> a. Land outside the City limits and designated O-3 shall be removed from the impact fee service areas, from the City’s official map of preferred annexation areas, and from the State’s map of certificates of convenience and necessity. b. The City will not extend water and sewer service to land that is outside the City limits and designated O-3 unless the proposed development commits to permanently keep at least 50% of the land for farming or to subdivide the land into tracts that are themselves large enough to support small-scale farming. 	<ul style="list-style-type: none"> • Planning & Economic Development • Planning & Economic Development • Engineering & Construction management • Public Works

I. Regional Land Use Patterns

Goal	Policy	Responsible Department(s)
	<p>Policy 1.5.3: Arroyos are shallow, moist ravines carved over many years by rainfall moving across the earth. Arroyos feature a high degree of biodiversity and are an important part of the local ecology and landscape and the regional drainage pattern. This plan discourages urban development of remaining arroyos, which are designated as overlays on the Future Land Use Map:</p> <ul style="list-style-type: none"> a. Under nearly all circumstances, arroyos should be maintained in their natural state rather than being filled, channelized, or piped. b. The location of arroyos is generalized on the Future Land Use Map overlay; the precise location shall be determined during rezoning and site planning processes. c. Arroyos can form attractive public spaces that add value to adjacent neighborhoods provided continuous access remains available abutting the rim of the arroyos and private lots are arranged so that fronts of buildings face the arroyos. 	<ul style="list-style-type: none"> • Planning & Economic Development • Parks & Recreation
	<p>Policy 1.5.4: The City wishes to begin a new era of cooperation with El Paso County on the management of growth. The City will seek an interlocal agreement with El Paso County that might relieve the County of responsibility for regulating subdivisions in the City's extraterritorial jurisdiction, that could provide City water and fire hydrants to existing development, and that could assist the County in other growth-related tasks.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • El Paso Metropolitan Planning Organization
Extraterritorial Jurisdiction		
<p>Goal 1.6: The City of El Paso will use the limited authority granted by Texas law to regulate the subdivision of land within its ETJ in order to shape future growth in accordance with this comprehensive plan.</p>	<p>Policy 1.6.1: The City will strengthen its existing regulations that regulate the subdivision of land within the ETJ. Future subdivisions will be required to have smaller blocks and better connectivity to surrounding development than is currently required.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • El Paso Metropolitan Planning Organization
	<p>Policy 1.6.2: Future subdivisions also need to be fully interconnected with each other and with a suitable regional road network. This comprehensive plan's major thoroughfare plan has been improved with a more tightly interconnected road network for the ETJ so that future subdivisions will not create isolated pods of development that are unlikely to become an integrated part of El Paso.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • El Paso Metropolitan Planning Organization • Department of Transportation
Annexation		
<p>Goal 1.7: The City of El Paso will use the annexation authority granted by Texas law to cautiously shape the future City boundaries in accordance with this comprehensive plan.</p>	<p>Policy 1.7.1: Since 1999, the City of El Paso has maintained a policy against forcing unilateral annexations of already-developed land or vacant land. Should circumstances change, the City may revisit this policy and modify its formal annexation plan.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • El Paso Metropolitan Planning Organization
	<p>Policy 1.7.2: The City of El Paso also maintains a separate annexation policy that defines areas where voluntary annexations would be considered upon petition by affected landowners. In 2009 this policy was revised to require that voluntarily annexed land:</p> <ul style="list-style-type: none"> a. Must be contiguous with the existing City limits; b. The landowners must agree to build all local, collector and arterial roads at their expense and must submit a general development plan for the area; and c. The landowners must pay water and sewer impact fees plus an additional per-unit annexation fee toward fire, police, libraries, and recreation centers. <p>This annexation policy should be revised to require a stronger Smart Growth commitment on the larger tracts in the development agreements that accompany formal annexation, for instance by agreeing to develop using the El Paso SmartCode instead of conventional zoning.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • El Paso Metropolitan Planning Organization

I. Regional Land Use Patterns

Goal	Policy	Responsible Department(s)
	<p>Policy 1.7.3: This annexation policy should be revised to remove from its preferred annexation map the large irrigated tracts in the upper valley that are actively being farmed, particularly west of Doniphan Drive and north of Borderland Road. This removal is intended to help keep this valuable resource from being displaced by urban expansion.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • El Paso Metropolitan Planning Organization
	<p>Policy 1.7.4: In addition to the adjustment in Policy 1.7.3, the preferred annexation map should be revised after formal consideration of the annexation potential of land in Southeast Fort Bliss that military officials may make available for private development.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Fort Bliss
Water And Sewer Service		
<p>Goal 1.8: The City of El Paso will continue using access to its water and sewer utility as a tool to shape growth in and around the City in accordance with this comprehensive plan.</p>	<p>Policy 1.8.1: El Paso Water Utilities will obtain City Council approval prior to agreeing to provide utility service outside the City limits and prior to granting any renewals to past agreements that would extend utilities for new development without formal annexation.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • El Paso Water Utilities
	<p>Policy 1.8.2: Within two years, the City will modify its impact fee service areas as follows:</p> <p>a. In the northwest, the service area will be adjusted to eliminate upper valley farmland that lies outside the City limits and is being removed from the revised map of preferred annexation areas pursuant to Policy 1.7.3.</p> <p>b. In the northeast, the service area will be adjusted to eliminate land that is designated as O-1 “Preserve,” O-2 “Natural,” and O-5 “Remote” on the Future Land Use Map.</p> <p>c. In the far east, the service area will be adjusted to match the new “Potential Annexation” boundary on the Future Land Use Map so that utility expansion policy reinforces and carries out City growth policy.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 1.8.3: The land-use assumptions upon which the impact fee rates are based will be adjusted to reflect the revised impact fee service areas and the other outward growth strategies in this comprehensive plan. The impact fee rates would then be re-adopted following a reexamination of the 2009 decision to provide a 25% discount.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 1.8.4: El Paso Water Utilities shall request a modification to its state-issued Certificate of Convenience and Necessity (CCN) so that its outer boundaries will match the “Potential Annexation” sector (O-3 on the Future Land Use Map). Future expansion to the CCN should only take place if amendments to this comprehensive plan modify El Paso’s outward growth policies.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • El Paso Water Utilities
Industrial Lands		
<p>Goal 1.9: The regional economy depends heavily on manufacturing. The City of El Paso will designate ample land that is well-suited for industrial facilities that are best located north of the border and will ensure that industrial facilities do not adversely affect the health, safety, or welfare of the community. These policies apply to land in the G-7 “Industrial” growth sector on the Future Land Use Map.</p>	<p>Policy 1.9.1: Designate locations for industrial development in each planning area to reduce travel time for employees.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 1.9.2: Encourage the development of new industrial areas and the redevelopment of existing older or marginal industrial areas.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 1.9.3: Allow recreational, educational, and community uses to locate in light industrial and office parks and allow service commercial facilities in all industrial and office parks.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 1.9.4: Discourage access to industrial development through residential areas.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 1.9.5: Obsolete industrial sites and railyards pose technical challenges to redevelopment but are often ideally located within the City to offer new choices and opportunities for El Paso residents. The City will take affirmative steps to maximize this potential. These sites are generally in the G-7 “Industrial” growth sector on the Future Land Use Map.</p>	<ul style="list-style-type: none"> • Planning & Economic Development

I. Regional Land Use Patterns

Goal	Policy	Responsible Department(s)
Future Land Use Map		
<p>Goal 1.10: The City of El Paso will base relevant future decisions on a new Future Land Use Map that is an integral part of this comprehensive plan. This map has been created to assist City officials and private developers in understanding the growth management goals and policies of this plan, particular as to the form, direction, and timing of future development.</p>	<p>Policy 1.10.1: The City of El Paso’s Future Land Use Map contains two separate but related components. The first is a base map that defines seven open-space sectors and nine growth sectors for all of El Paso County.</p> <p>Open-Space Sectors</p> <p>Policy 1.10.2: The seven open-space sectors on the base map are defined as follows:</p> <p>O-1 Preserve: Publicly owned land such as the Franklin Mountains and Hueco Tanks State Parks, all City and County parks and public drainage areas, and cemeteries (even if private). These lands will not be developed due to their ownership and current use.</p> <p>O-2 Natural: Foothills, bosques, wetlands, major arroyos, and other natural features owned by private or public entities but currently without protected status. Examples include the Castner Range and private tracts in and around the Franklin Mountains and Hueco Tanks State Parks. City regulations should help keep these lands in their natural state for drainage, natural habitat, and scenic protection. Public acquisition should be considered in the future especially when key drainage features can be protected.</p> <p>O-3 Agriculture: Active farmland in the Rio Grande Valley. City utilities will not be extended for urban development beyond the City limits unless such extension simultaneously protects significant portions of farmland.</p> <p>O-4 Military Reserve: Fort Bliss training areas north and east of the main cantonment, Biggs Army Air Field, and East Fort Bliss. To the extent possible, these lands will not be developed because they are needed for military training.</p> <p>O-5 Remote: Remote land in the desert and mountains. Some of this land is within the City limits; City regulations should not allow urban development.</p> <p>O-6 Potential Annexation: Potentially developable land that is not needed for urban expansion at this time but is available if expansion is needed. Land can be redesignated from O-6 to a growth sector through a formal amendment to the Future Land Use Map.</p> <p>O-7 Urban Expansion: Developable land currently owned by the City of El Paso that is master-planned for potential urban expansion using Smart Growth principles.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Planning & Economic Development

Goal	Policy	Responsible Department(s)
	<p>Growth Sectors</p> <p>Policy 1.10.3: The nine growth sectors on the base map are defined as follows:</p> <p>G-1 Downtown: This sector includes the historic core of Downtown plus the larger Downtown area from Paisano Drive north to I-10, including the arts and convention center, Union Depot, City Hall, County Courthouse, United States courthouse, and Mexican Consulate. El Paso's "Invest First in Downtown" policies will apply in this sector.</p> <p>G-2 Traditional Neighborhood: This sector includes the remainder of central El Paso as it existed through World War II. Blocks are small and usually have rear alleys; buildings directly faced streets; schools, parks, and small shops are integrated with residential areas. This sector is well-suited for use of the SmartCode as a replacement for current zoning.</p> <p>G-3 Post-War: This sector applies to transitional neighborhoods typically developed from the 1950s through the 1980s. Streets were laid out with curvilinear patterns without alleys and shopping centers are located at major intersections behind large parking lots. This sector is generally stable but would benefit from strategic suburban retrofits to supplement the limited housing stock and add missing civic and commercial uses.</p> <p>G-4 Suburban: This sector applies to modern single-use residential subdivisions and office parks, large schools and parks, and suburban shopping centers. This sector is generally stable but would benefit from strategic suburban retrofits to supplement the limited housing stock and add missing civic and commercial uses.</p> <p>G-5 Independent City: This sector identifies the incorporated cities of Anthony, Clint, Horizon, Socorro, and Vinton. El Paso plans and regulations have no effect in these cities.</p> <p>G-6 Rural Settlement: This sector applies to existing scattered subdivisions in non-urban locations. Some rural settlements are becoming suburbanized but most are still rural in character with a large percentage of vacant lots and very limited public services. Additional rural settlements are neither needed nor desirable due to excessively long commutes, difficulty in providing services to scattered homes, and an enormous surplus of existing vacant lots.</p> <p>G-7 Industrial: This sector applies to industrial parks, large free-standing industrial uses, refineries, non-military airfields, trucking terminals, and mines, all on large tracts in areas dominated by vehicles. This sector is essential to El Paso's economy; however, when an industrial use becomes obsolete, there can be potential for mixed-use redevelopment of the site. This sector also includes the existing rail yards which could be redeveloped as mixed-use communities if the rail yards were moved out of town.</p> <p>G-8 Fort Bliss Mixed Use: This sector identifies non-military portions of Fort Bliss that are or can become integral parts of El Paso. Non-military development will be eligible for annexation into the City of El Paso provided it meets the "LEED for neighborhood Development" smart location standards contained in the Urban Design element of this Comprehensive Plan.</p> <p>G-9 Fort Bliss Military: This sector identifies the main cantonment of Fort Bliss, Biggs Army Air Field, and East Fort Bliss, all located outside the El Paso City limits. Despite El Paso's lack of jurisdiction, healthy development at Fort Bliss is as important to El Paso as any other economic sector.</p>	<ul style="list-style-type: none"> • Planning & Economic Development

2. URBAN DESIGN

Goals and Policies for Urban Design

Overall Goal: Incentivize development projects of exemplary location and design throughout the City.

Goal	Policy	Responsible Department(s)
Smart Location Principles		
<p>Goal 2.1: The City of El Paso will change its growth pattern away from continuous outward expansion and toward integrated growth that minimizes environmental damage, reduces the need for excessive travel by private automobile, and can be served by public transportation.</p>	<p>Policy 2.1.1: City officials will consider the following “smart location” principles when evaluating rezoning requests and subdivision plats and when locating and designing development on public land, seeking to achieve compliance with as many principles as possible.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 2.1.2: Preferred locations for new development are sites near areas with 90 intersections per square mile, as measured within ½-mile of the project’s boundary.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 2.1.3: Preferred locations for higher density development and re-development are sites within a ½-mile walk of Rapid Transit System (RTS) stops, or ¼-mile walk of bus and streetcar stops, or within Future Compact Neighborhoods as designated on the Future Land Use Map.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Sun Metro
	<p>Policy 2.1.4: High-rise buildings should be constructed only in areas well-served by public transit.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 2.1.5: Development is encouraged to integrate jobs into or near residential neighborhoods, or to re-balance existing communities by adding jobs within a ½-mile walk of residential neighborhoods or by adding residences within a ½-mile walk of concentrations of jobs.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 2.1.6: Development is encouraged on brownfields if site contamination can be remediated.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 2.1.7: Development is encouraged along existing or planned bicycle networks where additional segments and/or secure bicycle storage can be added to the network.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Department of Transportation
	<p>Policy 2.1.8: Development is discouraged on sites or portions of sites within the 100-year or moderate-risk floodplains as defined by the Federal Emergency Management Agency (FEMA). Where development must occur within floodplains, locate development on previously developed floodplains or in nonconveyance areas without flooding potential.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 2.1.9: Development is discouraged on land outside the current city limits. Policies for land with El Paso’s extra-territorial jurisdiction and for annexation of land into the City are provided in the Regional Land Use Patterns Element under Goals 1.6 and 1.7.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 2.1.10: Development is strongly discouraged within arroyos.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 2.1.11: Development is discouraged on land with slopes greater than 15% and on land designated O-2 “Natural” on the Future Land Use Map.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 2.1.12: Development is discouraged on sites where imperiled species or ecological communities have been identified.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 2.1.13: Development is strongly discouraged on irrigated farmland unless the proposed development commits to permanently keep at least 50% of the land for farming or to subdivide the land into tracts that are themselves large enough to support small-scale farming (see Policies 1.5.2 and 2.6.3).</p>	<ul style="list-style-type: none"> • Planning & Economic Development

2. Urban Design

Goal	Policy	Responsible Department(s)
Neighborhood Patterns		
<p>Goal 2.2: The City of El Paso will change its growth pattern away from homogeneous land uses and return to a pattern of compact well-connected mixed-use neighborhoods.</p>	<p>Policy 2.2.1: City officials will consider the following ideal neighborhood patterns when evaluating rezoning requests and subdivision plats and when locating and designing development on public land, seeking to achieve compliance with as many patterns as possible. The illustrative plans in the Urban Design Element demonstrate the application of these patterns to a wide variety of sites within El Paso.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 2.2.2: The design of new neighborhoods and additions to existing neighborhoods should strive for a balance of housing, jobs, shopping, recreation, and civic uses to avoid unnecessary travel and reduce infrastructure and public services costs.</p> <ul style="list-style-type: none"> a. Ideally, 50% of new residences will be within a 1/4-mile walk of at least 4 diverse uses such as community-serving retail, services, civic/community facilities, and food retail. b. New neighborhoods of 300 units or more on an arterial road should provide a viable location for a corner store. c. Live-work units and a corner store to meet daily needs should be available within a 1/2-mile walk of all residences. d. Home offices and accessory dwelling units should be allowed on every lot. 	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 2.2.3: The design of new neighborhoods and additions to existing neighborhoods should strive for a mix of housing types to create neighborhoods that accommodate diverse ages and incomes and allow residents to trade up, downsize, or create multi-generational households without being forced to leave the neighborhood. Housing types include both small and large single-family detached homes, duplexes, townhouses, multi-family buildings, live-work units, and accessory dwelling units, and include both rental apartments and units that can be owned by their occupants.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 2.2.4: Neighborhoods should have a clearly defined center and edges that vary in intensity and character.</p> <ul style="list-style-type: none"> a. Each new neighborhood should have a primary civic space such as a square or green near its physical center. b. Commercial and office uses at intersections should have direct paths to greens and squares. c. When edges of neighborhoods lie along major roads, smaller lots can be placed facing the arterial road to accommodate attached dwelling units. d. When edges of neighborhoods lie along natural features or farmland, larger lots can be placed there to increase the variety of the neighborhood's housing. 	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 2.2.5: Before beginning preliminary design, developers are strongly encouraged to meet with adjacent property owners, residents, workers, business owners, and local officials at the site to share ideas and solicit input. The best new developments are thoughtful neighbors from the beginning.</p>	<ul style="list-style-type: none"> • Planning & Economic Development

Goal	Policy	Responsible Department(s)
Street Design Principles		
<p>Goal 2.3: The City of El Paso wishes to create complete networks of multimodal streets with ample shaded sidewalks and frequent on-street parking.</p>	<p>Policy 2.3.1: City officials will consider the following street design principles when evaluating rezoning requests and subdivision plats and when locating and designing development on public land, seeking to achieve compliance with as many principles as possible. The illustrative plans in the Urban Design Element demonstrate the application of these street design principles to a wide variety of sites within El Paso.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Engineering & Construction Management
	<p>Policy 2.3.2: Street networks should contain multiple paths for vehicular movement and should be designed using the following principles:</p> <ul style="list-style-type: none"> a. New neighborhood streets should connect to the existing street network in all adjoining areas. b. Bend new streets with restraint. Bending streets creates deflected vistas, but exaggerated curves are disorienting and difficult to connect to adjoining street networks. c. No single length of roadway should be completely straight for longer than 2,000 feet to slow the movement of vehicles, and provide visual terminations to streets to make them more appealing to walk. Challenging intersections can calm traffic, such as pinwheel intersections, small roundabouts, triangular intersections, and staggered intersections. d. Provide rear alleys for access to mid-block parking spaces, to provide an out-of-sight location for utility equipment, and to allow the fronts of buildings to be free of garage doors and parked cars. 	<ul style="list-style-type: none"> • Planning & Economic Development • Engineering & Construction Management • Department of Transportation
	<p>Policy 2.3.3: Street spaces should be designed to create prominent public spaces with a comfortable sense of enclosure using the following principles:</p> <ul style="list-style-type: none"> a. Provide street trees on both sides of at least 60% of streets, between the travel lanes and sidewalk, at intervals averaging no more than 40 feet. b. Provide 90% of streets with sidewalks at least 8' wide on retail or mixed-use streets and 5' wide on all other streets. c. Provide on-street parking on at least 70% of both sides of all new and existing streets. d. Limit driveway crossings to no more than 10% of the length of sidewalks. 	<ul style="list-style-type: none"> • Planning & Economic Development • Engineering & Construction Management
	<p>Policy 2.3.4: Neighborhood streets should be designed for pedestrians and bicyclists by moderating the speed of motorized vehicles:</p> <ul style="list-style-type: none"> a. 75% of new residential-only streets should be designed for a maximum target speed of 20 mph. b. 70% of new non-residential and/or mixed-use streets should be designed for a maximum target speed of 25 mph. c. Design neighborhood streets using pedestrian-friendly street section assemblies from the City SmartCode (Title 21). Design arterials using the manual Designing Walkable Urban Thoroughfares: A Context Sensitive Approach. 	<ul style="list-style-type: none"> • Planning & Economic Development • Engineering & Construction Management
	<p>Policy 2.3.5: The following street connectivity principles should become mandatory through amendments to Title 19 of the City's code:</p> <ul style="list-style-type: none"> a. Increase the required link-to-node ratio for Roadway Network Connectivity from 1.4 to 1.7 to increase the density of intersections. b. Limit average block perimeters in new development of no more than 2,000 linear feet. c. The connectivity of new streets in subdivision plats must be at least 120 intersections per square mile, counting only streets that are open to the public. d. Dead-end streets and cul-de-sacs can be constructed only when required by topographic constraints or when conditions on adjoining property prevent existing or future connections. 	<ul style="list-style-type: none"> • Planning & Economic Development • Engineering & Construction Management

Goal	Policy	Responsible Department(s)
Building and Site Design Principles		
<p>Goal 2.4: The City of El Paso supports designing buildings and sites in a complementary manner so that buildings contribute to convivial street spaces.</p>	<p>Policy 2.4.1: The relationships between the fronts and backs of buildings are critical to ensure that public spaces have natural surveillance from buildings and to avoid the blighting influence created when the backs of buildings face public spaces.</p> <ul style="list-style-type: none"> a. Fronts of buildings should face the fronts of other buildings, or the sides where necessary; fronts should never face the backs of other buildings. b. 90% of their principal entries to buildings should face public spaces such as streets, squares, parks, or plazas instead of facing parking lots. c. No more than 20% of building walls that face streets should contain garage doors or service bays. d. Residences may face minor and major arterials to avoid presenting blank walls to streets. Alleys may be necessary to create a vehicular entry to the lots instead of vehicular access directly from the arterial. 	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 2.4.2: The careless placement of off-street surface parking lots can blight surrounding properties and public spaces. This blight can be avoided by using the following principles:</p> <ul style="list-style-type: none"> a. Non-residential and multi-family buildings should have their surface parking lots placed at the side or rear of buildings. b. Buildings should have no more than 20% of their lots devoted to surface parking lots, with no individual lot larger than 2 acres. c. Parking lots should be designed for pedestrians as well as cars with pathways with double-allees of trees. 	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 2.4.3: New developments should place buildings close to streets using the following principles:</p> <ul style="list-style-type: none"> a. At least 80% of the total linear feet of building façades should be within 25 feet of the sidewalk, and at least 50% of mixed-use and non-residential building façades should be within one foot of the sidewalk. b. Buildings should have functional entries an average of every 75 feet along non-residential or mixed-use buildings or blocks. 	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 2.4.4: To achieve a sense of spacial enclosure, ideal building-height-to-street-width ratios are as follows:</p> <ul style="list-style-type: none"> a. At least 15% of street frontages should have a ratio of 1:1 or greater (a minimum of one foot of building height for every one foot of street width). b. At least 40% of all street frontage should have a ratio of 1:3 or greater (a minimum of one foot of building height for every three feet of street width). c. Alleys are excluded from these measurements. 	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 2.4.5: In non-residential and mixed-use developments, businesses and other community services on the ground floor should be accessible directly from sidewalks along a public space, such as a street, square, paseo, or plaza, instead of accessible from a parking lot.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 2.4.6: Semi-public building elements such as porches and balconies add to the congeniality of neighborhoods and should be allowed within front setbacks. This applies to porches, stoops, bay windows, and balconies on residences and to awnings, arcades, galleries, and wide balconies in areas with mixed-use and attached buildings.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 2.4.7: Awnings, balconies, arcades, galleries, and colonnades should be allowed to extend into the right-of-way of City streets provided that adequate clearances are provided for pedestrian movement and for right-of-way maintenance.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 2.4.8: Outdoor dining should be allowed on City sidewalks provided that chairs and tables are placed in a manner that allows a minimum 5 foot clear path for pedestrian movement.</p>	<ul style="list-style-type: none"> • Planning & Economic Development

Goal	Policy	Responsible Department(s)
Civic Space Principles		
<p>Goal 2.5: The City of El Paso wishes to supplement its neighborhood and regional park system with small civic spaces that are accessible to all citizens and are memorably placed in all new neighborhoods and mixed-use developments.</p>	<p>Policy 2.5.1: Civic spaces are outdoor gathering places for public use. Civic spaces can be defined by a combination of physical factors including their size, intended use, landscaping, and the character of their edges, as described in the Public Facilities Element.</p> <p>a. A civic space, such as a square, park, or plaza, of at least 1/6 acre in size should be lie within a 1/4-mile walk of 90% of dwelling units and non-residential building entrances.</p> <p>b. New neighborhoods should be designed around optimal locations for civic spaces. Civic spaces should not be designated in awkward locations on residual tracts of land that are left over during the subdivision process.</p> <p>c. Scale civic spaces comfortably for users, avoiding civic spaces that are too large. Enclose most civic spaces with building fronts to create a comfortable sense of enclosure; 75% of the perimeter of civic spaces should have a minimum building-height-to-street-width ratio of 1:6 (a minimum of one foot of building height for every 6 feet of width of the street that circumscribes the civic space).</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Parks & Recreation
	<p>Policy 2.5.2: Civic buildings achieve prominence by strategic placement at the ends of streets, across greens, or at the center of greens, and by having grander proportions and materials than surrounding buildings, as described in the Public Facilities Element. Schools, recreational facilities, places of worship, and other civic buildings should be embedded within communities or on the edges of communities within walking distance.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
Rural and Open Space Design Principles		
<p>Goal 2.6: The City of El Paso will protect and enhance arroyos leading from the Franklin Mountains and farmlands along the Rio Grande valley.</p>	<p>Policy 2.6.1: The City will protect arroyos and farmland through policies of this Comprehensive Plan, parkland dedication requirements, conservation neighborhood design, conservation easements, and outright acquisition of land.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 2.6.2: The City shall create a program by which Park Credits shall be accepted for the dedication of any arroyo acreage when the arroyo is preserved in a relatively natural state rim to rim, is unfenced, is lined by walking paths at its ridge, and is faced by the fronts of homes along the dedicated portions.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Parks & Recreation
	<p>Policy 2.6.3: When farmland is developed in accordance with Policies 1.5.2, the tradition of farming and open space in the Rio Grande valley should be continued by:</p> <p>a. Mitigating the loss of farmland by placing perpetual agricultural conservation easements on an equal amount of comparable farmland within one mile of the project's boundary, and</p> <p>b. Providing permanent and viable growing space or greenhouses within the development of at least 80 square feet per residence, and</p> <p>c. Integrating the development into the Rio Grande Riverpark and Trail System, as described in the Sustainability Element.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Parks & Recreation

3. DOWNTOWN

Goals and Policies for Downtown

Overall Goal: Direct public funding and private development of exemplary design to the Downtown where it will have economic and social benefits shared by the entire City.

Goal	Policy	Responsible Department(s)
Urban Design		
<p>Goal 3.1: Increase the walkability, livability, sociability, and sustainability of Downtown El Paso, while maximizing public infrastructure investment.</p>	<p>Policy 3.1.1: Develop and use smart design principles for the City as a guideline to evaluate rezoning requests and design public projects. Evaluate new development and infrastructure proposals based upon adherence to these goals and policies.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 3.1.2: Use the illustrative plans and renderings in this Downtown element as examples to guide land use, development, and infrastructure decisions.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Engineering & Construction Management
	<p>Policy 3.1.3: Increase overall Downtown street connectivity. Create multiple pathways for vehicular and pedestrian movement.</p> <ul style="list-style-type: none"> a. Do not allow the permanent closure of streets. Keep block sizes small and limit the use of dead-end streets. b. Connect new Downtown streets to existing adjacent streets where possible. c. With the exception of closed streets that have become functional public spaces, look for opportunities to reopen formerly closed streets in order to bring more economic vitality to surrounding properties. d. Convert one-way streets to two-way streets to increase the economic viability of both sides of the street to times besides the commute hours, make the Downtown more intuitively navigable for visitors. e. Decrease roadway speed and allow for safe pedestrian movement. f. Coordinate traffic lights to reduce the number of red lights during weekends when long red light wait times on empty streets discourage Downtown visitation. 	<ul style="list-style-type: none"> • Planning & Economic Development • Engineering & Construction Management • Department of Transportation
	<p>Policy 3.1.4: Amend City code to add provisions that would reestablish the relationship between the fronts and backs of buildings to ensure that public spaces have a natural surveillance from buildings and help avoid the blighting influence of the backs of buildings facing public spaces.</p> <ul style="list-style-type: none"> a. Design buildings to have their principal entries fronting public spaces such as streets, squares, parks, paseos, or plazas (but not parking lots) and be connected to sidewalks. b. Fronts of buildings should face fronts, fronts can face sides where necessary, fronts should never be designed to permanently face backs. c. Locate parking lots out of sight at the interior of blocks or underground in structures. All vehicular entrances from a parking lot should be considered to be at the backs of buildings. 	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 3.1.5: Scale civic spaces comfortably for users. Avoid open spaces that are too large. Enclose public spaces with building fronts to create “outdoor rooms” with a comfortable sense of enclosure.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Parks & Recreation

Goal	Policy	Responsible Department(s)
	<p>Policy 3.1.6: Provide multimodal, pedestrian-friendly streets with ample sidewalks, on-street parking, and tree cover or shaded sidewalks.</p> <ul style="list-style-type: none"> a. Design Downtown streets using pedestrian-friendly cross-sections from the El Paso SmartCode (Title 21) and arterials using the manual <i>Designing Walkable Urban Thoroughfares: A Context Sensitive Approach</i>. b. Design Downtown streets for pedestrians, bicyclists, and the automobile. Design streets to function at low vehicular speeds to improve safety. c. Provide street trees on both sides of at least 60% of streets, in tree wells between the vehicle travel way and walkway, at intervals averaging no more than 40 feet. d. 90% of Downtown streets should have sidewalks of 12 feet minimum width on retail or mixed-use frontages and 8 feet minimum width on all other streets. e. Design Downtown buildings to have at least 70% of the total linear feet frontages of mixed-use and nonresidential building façades within one foot of a sidewalk. f. Design Downtown buildings to have functional entries to buildings occur at an average of 75 feet or less along nonresidential or mixed-use buildings or blocks. g. Design Downtown projects to have on-street parking provided on a minimum of 70% of both sides of all new and existing streets. h. Design Downtown buildings which have ground-floor dwelling units such that at least 50% of those units have an elevated finished floor no less than 24 inches above the sidewalk grade. i. Permit and encourage the sharing of parking spaces between various Downtown uses in order to reduce the total number of parking spaces needed. 	<ul style="list-style-type: none"> • Planning & Economic Development • Engineering & Construction Management • Department of Transportation
	<p>Policy 3.1.7: Encourage mixed uses to create a balance of housing, working, shopping, recreation, and civic uses. This mixing reduces traffic impacts, infrastructure costs, and later public services costs.</p> <ul style="list-style-type: none"> a. Locate and/or design Downtown projects such that 80% of its dwelling units are within a quarter mile walking distance of at least 4 diverse uses such as community-serving retail, services, civic/community facilities, and food retail. b. Design Downtown buildings so that all ground-level retail, service, and trade uses that face a public space have clear glass on at least 60% of their façades between 3 and 8 feet above grade. c. Design Downtown buildings such that if the façade extends along a sidewalk, no more than 30% of its length or 30 feet, whichever is less, is blank (without doors and windows). d. Ensure that ground-level retail, service, or trade buildings windows be kept visible (unshuttered) at night; this must be stipulated in covenants, conditions, and restrictions (CC&R) or other binding documents. e. Design projects that are nonresidential or mixed-use as follows: <ul style="list-style-type: none"> i. Mixed-use buildings must include ground-floor retail, live-work spaces, and/or ground-floor dwelling units along at least 60% of the street-level façade. ii. All businesses and/or other community services on the ground floor must be accessible directly from sidewalks along a public space, such as a street, square, paseo, or plaza. 	<ul style="list-style-type: none"> • Planning & Economic Development

3. Downtown

Goal	Policy	Responsible Department(s)
	<p>Policy 3.1.8: Encourage a mix of residential types Downtown to allow a diversity of ages and incomes, which allows residents to trade up or downsize without having to move away. Multi-generational neighborhoods and life-cycle neighborhoods create strong social networks, avoid concentrations of poverty or wealth, and lead to safer communities.</p> <p>a. Design Downtown projects to include at least three different housing types. Types may include arrangements such as: studio units, one bedroom units, two bedroom units, three bedroom units, duplexes, townhouses, multi-unit buildings, live-work spaces, accessory dwelling units, and apartment-ownership units.</p> <p>b. Before commencing design, meet with adjacent property owners, residents, business owners, and workers; local planning and community development officials; and any current residents or workers at the project site to solicit and document their input. The best new developments are good, thoughtful neighbors from the beginning.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 3.1.9: Amend City code to add provisions that would designate civic sites in Downtown, sited memorably.</p> <p>a. Civic facilities such as schools, recreational facilities, places of worship etc. should be embedded within the urban fabric of Downtown and should, when possible, be located on high ground and at the terminal axis of streets to increase their visibility.</p> <p>b. Design public facilities with civic art as a focus of community pride.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • El Paso City Commission
	<p>Policy 3.1.10: Amend City code to add provisions that would allow for and encourage the artful design of Downtown buildings. Encourage semi-public building elements like entrance porticos that add to the congeniality of the street. More convivial and aesthetically pleasing building design increases overall regional economic competitiveness by offering more choiceworthy places within the City to live.</p> <p>a. Allow building appurtenances above the first floor to encroach within the right-of-way, provided they have enough clear height to allow safe pedestrian passage, and they don't extend so far out as to interfere with vehicular traffic. This applies to arcades, colonnades, galleries, balconies, canopies, marquees, and awnings.</p> <p>b. Utilize artfully designed traffic calming measures Downtown to slow the movement of vehicles and, where possible, provide visual terminations to streets to make them more appealing for pedestrians. Methods include narrowing streets in segments and paving patterns.</p> <p>c. Where possible, provide rear alleys Downtown to allow walkable frontages in which the front entry is the most dominant visual image on the street.</p> <p>d. Locate utility equipment out of sight on rear alleys, in mid-block parking lots, and shielded by structures.</p> <p>e. Design parking lots to include pedestrian path- ways with shade trees.</p> <p>f. Parking garages should be architecturally screened from view from public spaces such as streets, squares, and plazas.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • El Paso City Commission

Goal	Policy	Responsible Department(s)
Transit		
Goal 3.2: Restore Downtown as the best transit-served area in El Paso.	Policy 3.2.1: Incentivize mixed-use development Downtown along multi-modal networks such as transit routes, bike routes, and pedestrian paths	• Planning & Economic Development
	Policy 3.2.2: Incentivize higher residential density Downtown within walking distance of transit stops.	• Planning & Economic Development
	Policy 3.2.3: Encourage Downtown projects within quarter mile of existing or planned transit service to have 40 or more dwelling units per acre.	• Planning & Economic Development
Enhance Existing Character		
Goal 3.3: Enhance and improve Downtown in accordance with its existing character.	Policy 3.3.1: Create a downtown parking strategy plan that continues to utilize and improve upon the provision of shared parking, public parking lots, and on-street parking with clear signage and mapping.	• Planning & Economic Development
	Policy 3.3.2: Adjust parking requirements to reduce car dependence. Reduce or eliminate off-street parking requirements Downtown.	• Planning & Economic Development
	Policy 3.3.3: Avoid relocating public facilities such as courthouses, post offices, schools, and administration buildings from urban centers and city neighborhoods to suburban areas.	• Planning & Economic Development
	Policy 3.3.4: Return housing to the Downtown to create a 24 hour center of activity.	• Planning & Economic Development
	Policy 3.3.5: Continue to identify, protect, and encourage the preservation and rehabilitation of El Paso's existing historic resources.	• Planning & Economic Development • Historic Preservation
Existing Building Stock		
Goal 3.4: Re-use Downtown's existing building stock to its maximum potential.	Policy 3.4.1: Adopt the International Existing Building Code as the code governing existing buildings.	• Planning & Economic Development • El Paso City Commission

4. TRANSPORTATION

Goals and Policies for Transportation

Overall Goal: El Paso will strive to become the most walkable and least car-dependent City in the Southwest through sustainable mobility. The City seeks to implement a balanced transportation system with meaningful travel options to prioritize person-based mobility, and land use patterns that support walkability, livability, and sustainability. In time, El Paso will strive to join the ranks of the most walkable and multi-modal metropolitan areas in the country.

Goal	Policy	Responsible Department(s)
Street Network		
<p>Goal 4.1: Develop a well-connected network of complete streets that support a multimodal transportation network. The street network should enable safe, efficient, accessible, and comfortable travel for driving, transit, walking, and bicycling.</p>	<p>Policy 4.1.1:The City shall use LEED-ND as the basis for developing street connectivity standards for all new subdivision and land use development and redevelopment. No-outlet, dead-end, culs-de-sac, and other non-through streets shall be prohibited unless deemed necessary by City staff to accommodate specific site conditions. If a cul-de-sac or dead-end is unavoidable, it should be designed to resemble a “close” and should feature a pedestrian connection to areas beyond the dead-end.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Engineering & Construction Management
	<p>Policy 4.1.2: The City shall identify corridors of critical significance to transit operations, walking, and bicycling, and coordinate with the El Paso MPO and TxDOT to prioritize travel choices and a balanced transportation network as the primary objective in planning, design, implementation, and operation of these corridors.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Engineering & Construction Management • El Paso Metropolitan Planning Organization • Department of Transportation
	<p>Policy 4.1.3: Implement access management strategies to increase safety for all travel modes, balance efficient traffic flow with land use access and multimodal travel, and to optimize route options and connections between individual land uses, such as through shared driveways, side street access, and other strategies.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Engineering & Construction Management • Department of Transportation
	<p>Policy 4.1.4: Include alleys into blocks so that buildings may be serviced from the rear, driveways and curb cuts can be minimized, and parking can be consolidated at mid-block locations.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Engineering & Construction Management
	<p>Policy 4.1.5: Provide non-motorized connections to improve route directness and reduce walking and bicycling trip lengths.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Engineering & Construction Management
	<p>Policy 4.1.6: Adopt a City-wide context Map that augments the Functional Classification area types, used by Engineering Departments to assign thoroughfare standards, to include a “Compact Urban” area for walkable thoroughfare design.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Engineering & Construction Management • El Paso Metropolitan Planning Organization • Department of Transportation

Goal	Policy	Responsible Department(s)
Sustainable Mobility Plan		
<p>Goal 4.2: Transform the Major Thoroughfare Plan into a Sustainable Mobility Plan that integrates all major travel modes with land use character and urban design, as well as multi-modal, federal-compatible, functional classification.</p>	<p>Policy 4.2.1: Rename the Major Thoroughfare Plan as the Sustainable Mobility Plan (SMP).</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 4.2.2: Integrate land use character and urban design within the SMP to distinguish existing and future:</p> <ul style="list-style-type: none"> a. Urban and rural areas b. Smart growth (SmartCode, TOD, TND, walkable, historic) neighborhoods and conventional suburban areas c. Areas of growth and areas of preservation 	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 4.2.3: Update the SMP's functional classification designations to conform to those used by the MPO to meet federal funding requirements.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 4.2.4: Expand the functional classification to emphasize SmartCode, smart growth, multimodal travel, and similar concepts.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 4.2.5: Update the SMP to revise the location of future facilities and functional classification (existing and future facilities) to address the City's growth and infill objectives, topography, vested development rights, and related considerations.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 4.2.6: Evolve the SMP to incorporate major transit infrastructure (RTS lines and transit trunk line corridors), major bikeways and pedestrian sheds, and freight, aviation, and Port of Entry infrastructure.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 4.2.7: Designate those corridors with a specific and unique regional mobility purpose, such as the RTS corridors as Transit Boulevards.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 4.2.8: Use the updated SMP as the basis for new, revised, and updated SmartCode - and complete street-based cross-section designs that integrate travel choices and land use/urban design context.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 4.2.9: Implement place type-specific design standards to regulate the following elements of the pedestrian environment:</p> <ul style="list-style-type: none"> a. Sidewalk presence and width b. The presence and location of street trees, on-street parking, pedestrian-scale lighting, pedestrian-oriented signage (wayfinding), street furniture, and other amenities. c. The location and design of crosswalks d. Building heights and setbacks 	<ul style="list-style-type: none"> • Planning & Economic Development • Engineering & Construction Management • Department of Transportation
	<p>Policy 4.2.10: Ensure that the City's street system is compatible with adjacent land uses and not "over-designed" in a way that will change the character of areas to be protected.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
<p>Policy 4.2.11: Implement the Major Streets Plan in a way that adds character, rather than just vehicle capacity. When seeking to expand capacity, consider the potential increase in capacity that can be gained by activating modes of mobility other than automobile capacity.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Engineering & Construction Management • Department of Transportation 	
<p>Policy 4.2.12: Use the updated SMP as the basis to prepare a regional Transportation Master Plan (TMP) that transitions the Comprehensive Plan towards multimodal project-based implementation. The TMP's objective is an integrated, project-based multimodal transportation plan that becomes a regional transportation planning, project, and priority compact between the City, MPO, TxDOT, and others, similar to the role served by the 2008 Comprehensive Mobility Plan (CMP).</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Department of Transportation • El Paso Metropolitan Planning Organization 	

4. Transportation

Goal	Policy	Responsible Department(s)
Street Design & Parking		
<p>Goal 4.3: The City will “design from the outside in,” rather than “from the inside out” for all new City streets – local and functionally-classified streets – to assess equally all major travel modes in street design, function, and operation.</p>	<p>Policy 4.3.1: Further, the City adopts this direction in collaborating with TxDOT, MPO, CRRMA, and other regional transportation partners for all transportation infrastructure planning and projects within or affecting El Paso.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Department of Transportation • El Paso Metropolitan Planning Organization • El Paso City Commission
	<p>Policy 4.3.1: Invest in the ongoing maintenance and refinement of the street system to adequately serve all users: drivers, transit riders, bicyclists and pedestrians.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
<p>Goal 4.4: The City establishes maximum landscaping and aesthetics on state and federal highways and freeways (existing and future) as a priority throughout El Paso to address effects upon traffic and facilities, pedestrian safety, noise, pollution, stormwater, and related issues.</p>	<p>Policy 4.4.1: Adopt the ITE Recommended Practice “Designing Walkable Urban Thoroughfares: A Context Sensitive Approach” as a tool for providing a range of street types and travel modes to allow increased design in neighborhoods and along corridors that desire enhanced neighborhood character, safety or walkability.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • El Paso City Commission
	<p>Policy 4.4.2: Adopt a Complete Streets ordinance to allow SmartCode and complete street cross-sections to be used to address the planning, design, and implementation of new streets and retrofit/reconstruction of existing streets.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • El Paso City Commission
	<p>Policy 4.4.3: Street design shall optimize safe, accessible, and meaningful travel choices – driving, transit, walking, and bicycling – and shall prioritize walkability through wide, buffered sidewalks, shade, and street-facing access to adjacent land uses.</p> <ul style="list-style-type: none"> a. Widen sidewalks where appropriate and feasible, and plant regularly-spaced trees along streets according to standards. b. Provide streetlights that improve safety for drivers, cyclists, and pedestrians while maintaining a dark sky. c. Curb and gutter construction should be used to prevent flooding on streets and sidewalks where appropriate. d. Curb radii should be small to discourage drivers from turning corners quickly. e. Provide safe and convenient crosswalks at intersections, and mid-block crossings, where feasible and needed. f. Allow City streets to host outdoor dining by allowing use of the sidewalk right-of-way for tables and chairs provided a minimum of five feet of clearance is provided for pedestrian movement. 	<ul style="list-style-type: none"> • Planning & Economic Development • Engineering & Construction Management
	<p>Policy 4.4.4: The City will make safety for all travel modes and users the priority, especially for the most vulnerable users (pedestrians, children, and those physically impaired) as a primary element in designing, building, and operating all streets.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Engineering & Construction Management
	<p>Policy 4.4.5: Ensure the most efficient use of transit by creating a set of context-sensitive street design criteria to evaluate specific roadway design and encourage walking and biking to transit stops.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Engineering & Construction Management
	<p>Policy 4.4.6: Develop a Citywide plan that establishes priority locations for sidewalks and sidewalk improvements. Establish priorities for sidewalk improvements in the vicinity of schools, parks, transit routes, high density residential and commercial areas, and other areas with high (or potentially high) levels of pedestrian activity.</p>	<ul style="list-style-type: none"> • Planning & Economic Development

Goal	Policy	Responsible Department(s)
	Policy 4.4.7: The City shall implement multiway boulevard street where feasible along major corridors that must balance regional through traffic, multimodal travel, and adjacent land use access and where other SmartCode street designs are not feasible.	<ul style="list-style-type: none"> • Planning & Economic Development • Engineering & Construction Management
	Policy 4.4.8: The City shall study the possible advantages of converting one-way street couplets in Downtown to two-way operation.	<ul style="list-style-type: none"> • Planning & Economic Development
	Policy 4.4.9: To the maximum extent feasible, the City shall require new and retrofitted streets to incorporate Low-Impact Development (LID) and “Green Streets” principles regarding stormwater, drainage, retention, infiltration, and landscaping.	<ul style="list-style-type: none"> • Planning & Economic Development • Engineering & Construction Management
	Policy 4.4.10: The City shall utilize Universal Design techniques to accommodate pedestrians of all ages and abilities and ensure compliance with the Americans with Disabilities Act (e.g. avoid clear path zone obstruction, provide truncated domes on curb ramps, etc.)	<ul style="list-style-type: none"> • Planning & Economic Development • Engineering & Construction Management
	Policy 4.4.11: As part of a long-term strategy, land devoted to surface parking lots in existing, developed areas, should be reduced through the construction of structured parking and the use of infill development, to the greatest extent practical.	<ul style="list-style-type: none"> • Planning & Economic Development
	Policy 4.4.12: Parking garages should of an appropriate size and lined with habitable or storefront space to provide a safe, interesting environment for pedestrians.	<ul style="list-style-type: none"> • Planning & Economic Development
Goal 4.5: Employ design-based speed management measures to reduce speeds and protect drivers, cyclists and pedestrians, while creating great public spaces.	Policy 4.5.1: New streets or redesigned streets in Compact Urban areas should be two-way (unless they are designed as a narrow, slow-speed, one-way streets) and have on-street parking in order to increase access to properties while calming traffic.	<ul style="list-style-type: none"> • Planning & Economic Development • Engineering & Construction Management
	Policy 4.5.2: Encourage the use of roundabouts to calm traffic, increase safety, diminish the need for traffic lights, and create sites for public art and monuments.	<ul style="list-style-type: none"> • Planning & Economic Development • Engineering & Construction Management • El Paso Metropolitan Planning Organization
Public Transportation and Transportation Demand Management		
Goal 4.6: El Paso shall have a safe, convenient, and viable mass transit system that optimizes personal mobility, strengthens community character, economic vitality, and seamlessly integrates with other travel modes.	Policy 4.6.1: Evolve the existing transit network to a multi-faceted regional transit network through implementation of the Rapid Transit System (RTS) and, over time, other potential forms of high capacity transit service.	<ul style="list-style-type: none"> • Planning & Economic Development • Sun Metro
	Policy 4.6.2: As part of its strategy to “re-invest in Downtown first,” the City shall expedite implementation of a modern streetcar network within and/or serving Downtown El Paso to catalyze economic revitalization and expanded travel mobility.	<ul style="list-style-type: none"> • Planning & Economic Development • Engineering & Construction Management

4. Transportation

Goal	Policy	Responsible Department(s)
<p>Goal 4.7: The City's highest priority mobility investments are regional RTS and Downtown streetcar implementation. Accordingly, the City and Sun Metro shall also make Transit-Oriented Development (TOD) a priority along all planned and future High Capacity Transit corridors (beginning with RTS and streetcar corridors) to leverage transit investment to create mixed use and income, walkable, livable communities. The City and Sun Metro shall collaborate with the El Paso MPO, TxDOT, and other stakeholders to prioritize TOD as both land use and transportation strategies in conjunction with RTS and all future high capacity transit investments.</p>	<p>Policy 4.7.1: The City and Sun Metro shall continue to invest in and optimize its network of bus service to serve neighborhoods, commercial and employment centers, major travel sheds and corridors, other major origins and destinations, and to connect to planned (RTS) and future high capacity transit service. Transit investment should be used to provide mobility across El Paso, especially in areas planned for walkable, mixed use development or redevelopment.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Sun Metro
	<p>Policy 4.7.2: The City and Sun Metro shall continue to prioritize implementation of its RTS network, in terms of the service itself, as well as efforts to create TODs around the stations and to retrofit the RTS street corridors as walkable and complete streets.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Sun Metro
	<p>Policy 4.7.3: In addition to the RTS and streetcar investments already cited, the City and Sun Metro shall continue to evolve the region's public transportation system by assessing the feasibility of, and planning for, the following regional and intercity high capacity transit investments:</p> <ul style="list-style-type: none"> a. Potentially converting the RTS network, in whole or part, over time, to Light Rail Transit (LRT); b. Establishing LRT within other corridors and areas as technically feasible; c. Expanding the streetcar network to connect Downtown El Paso with other major destinations within the City; d. Extending the streetcar, RTS, and/or LRT to Juárez as feasible; e. Establishing commuter rail service, first between El Paso and Las Cruces, and expanding over time as feasible, and f. Exploring opportunities for intercity passenger rail (high-speed or otherwise) to other Southwestern metropolitan areas (El Paso-Albuquerque-Denver and El Paso-Tucson-Phoenix). 	<ul style="list-style-type: none"> • Planning & Economic Development • Sun Metro
	<p>Policy 4.7.4: The City and Sun Metro shall collaborate with the El Paso MPO, TxDOT, and other transportation partners to advocate for planning, funding, and building these high capacity transit investments, as well as for preserving the opportunity and ability to do so over time. This is particularly important regarding corridor and ROW preservation in terms of other potentially-conflicting transportation investments, new land development, and other precluding barriers.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Sun Metro • Department of Transportation • EL Paso Metropolitan Planning Organization
	<p>Policy 4.7.5: All bus stops shall be safe, attractive, and pedestrian-accessible. Link sidewalks and bicycle routes/trails with transit stops.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Sun Metro
	<p>Policy 4.7.6: The City shall require major commercial and residential development to provide areas for public transit stops, bicycle storage, and adequate sidewalks.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 4.7.7: Public and private Transportation Demand Management (TDM) strategies, such as car- and van-pooling, telecommuting, transportation allowances, and others, should be implemented as part of an integrated approach to managing travel demand.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
<p>Air Quality</p>		
<p>Goal 4.8: Improve the El Paso region's air quality through more sustainable and energy-efficient transportation and land use practices.</p>	<p>Policy 4.8.1: Implement land use patterns and urban design (locally-appropriate higher densities, compact mixed uses) that increase travel choice options, reduce the need for single-occupant vehicle travel, and reduce overall VMT.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 4.8.2: Make travel choices, mode share, mode shift, TDM, and related strategies a priority in transportation planning and performance measurement to reduce GHG emissions by providing meaningful options to single-occupant vehicle travel.</p>	<ul style="list-style-type: none"> • Planning & Economic Development

Goal	Policy	Responsible Department(s)
	Policy 4.8.3: Make bus transit, high capacity transit, and other transportation investments a priority in order to reduce pollution and greenhouse gas (GHG) emissions through transportation technology and infrastructure.	• Planning & Economic Development
	Policy 4.8.4: Reduce single-occupant vehicle travel frequency, distance, and duration in transportation planning and performance measurement.	• Planning & Economic Development
	Policy 4.8.5: Implement intelligent transportation systems (ITS) to reduce congestion. Target points of entry for initial/pilot ITS programs.	• Planning & Economic Development • Department of Transportation
	Policy 4.8.6 Support the production and distribution of alternative energy sources.	• Planning & Economic Development
Bikability		
Goal 4.9: Accommodate bicyclists through the ongoing development of a context-sensitive bicycle network and infrastructure.	Policy 4.9.1: Coordinate planning, design, and implementation of bicycle improvements within the City, surrounding municipalities, and El Paso County, and the State in order to effectively promote regional connectivity.	• Planning & Economic Development • Department of Transportation • EL Paso Metropolitan Planning Organization
	Policy 4.9.2: Utilize the Proposed Bicycle Atlas to guide network connectivity.	• Planning & Economic Development
	Policy 4.9.3: Utilize the Comprehensive Plan to guide planning, design and implementation of bicycle infrastructure in conjunction with other City plans and projects.	• Planning & Economic Development
	Policy 4.9.4: Enhance the bikeway network by adopting additional bikeway design standards that include advanced bikeway types and countermeasure treatments.	• Planning & Economic Development
	Policy 4.9.5: Use physical design (i.e. bikeway width, type, signing) to promote safer bikeways and increased awareness of bicycle-related traffic laws.	• Planning & Economic Development
Goal 4.10: Increase the availability and quality of bicycle parking and support facilities (i.e., showers and lockers) at destinations across the City.	Policy 4.10.1: Update bicycle parking requirements to include a Citywide bicycle parking and facilities plan.	• Planning & Economic Development
	Policy 4.10.2: Update bicycle parking requirements to include short-and long-term parking facilities and standards.	• Planning & Economic Development
	Policy 4.10.3: Update bicycle parking requirements to include graphic standards depicting bicycle parking type, placement and location standards.	• Planning & Economic Development
	Policy 4.10.4: Update bicycle parking requirements with refined bicycle parking ratios.	• Planning & Economic Development
Goal 4.11: Increase bikeway, safety, and wayfinding signing.	Policy 4.11.1: Enhance the safety and visibility of the bicycle network through the implementation of safety and wayfinding signing improvements.	• Planning & Economic Development
	Policy 4.11.2: Install safety and wayfinding signs along all current and future bikeways.	• Planning & Economic Development
Goal 4.12: Develop and implement a process to collect, review, and improve bicycle initiatives.	Policy 4.12.1: Implement a system for tracking and mapping installed bicycle infrastructure and facilities to be available in print and online for the general public.	• Planning & Economic Development
	Policy 4.12.2: Develop a strategy to acquire designation as a Bicycle-Friendly Community by the League of American Bicyclists by 2015.	• Planning & Economic Development
	Policy 4.12.3: Monitor bicyclist traffic statistics on a bi-annual basis and publish data in print and on the City website.	• Planning & Economic Development

4. Transportation

Goal	Policy	Responsible Department(s)
<p>Goal 4.13: Develop a framework and implementation plan for the routine accommodation of bicyclists in the City of El Paso's capital projects and programs.</p>	<p>Policy 4.13.1: Update the 1997 Regional Bikeways Plan.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 4.13.2: Fund a bicycle and pedestrian coordinator position to be the steward of the bicycle master plan and all of its individual components.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 4.13.3: Coordinate with other municipal departments and El Paso MPO to ensure bicycle infrastructure is included in capital improvement and the TIP.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • El Paso Metropolitan Planning Organization
<p>Goal 4.14: Improve the safety of cyclists through education and community outreach.</p>	<p>Policy 4.14.1: Increase awareness of bicycle options and safety through trainings, public events, public service announcements, educational materials, and partnerships.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 4.14.2: Create and distribute print and online version of the El Paso Bikeways map on an annual basis. Include wayfinding, safety, and facility type information.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 4.14.3: Create and implement a partnership with the Safe Routes to School program.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • School District
	<p>Policy 4.14.4: Train select City staff to design bikeways consistent with best practices.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
<p>Goal 4.15: Encourage increased bicycling by promoting health, recreation, transportation, tourism opportunities, and environmental benefits.</p>	<p>Policy 4.15.1: Develop a City of El Paso bicycle programs website to house and store all bicycle-related information.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 4.15.2: Promote bicycling for commuting, running errands and other short trips and socializing through social media/web-based communication tools and traditional communication outlets to position bicycling as a viable option for people who are interested in bicycling, but concerned about safety.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 4.15.3: Continue to support, fund, and expand Scenic Sundays.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
<p>Goal 4.16: Make El Paso a safe city for all modes of transportation.</p>	<p>Policy 4.16.1: Work with the El Paso Police Department to address bicycle-vehicle safety measures through enforcement of the laws in partnership with the City of El Paso Police Department.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Police Department
	<p>Policy 4.16.2: Provide on-going training for City of El Paso police officers regarding bicycle safety laws and issues.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Police Department
	<p>Policy 4.16.3: Maintain the number of bicycle patrol officers and consider the possibility of expanding the force.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Police Department
	<p>Policy 4.16.4: Identify the most common conflicts between bicycle and motor vehicle users and create strategies to educate all roadway users.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
<p>Goal 4.17: Ensure bicycling is safe and accessible for all people in the City of El Paso.</p>	<p>Policy 4.17.1: Establish as a priority the development of bicycle facilities, policies, and programs that address geographic, racial, economic, environmental and public health disparities.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
<p>Goal 4.18: Develop and maintain a citywide network of safe, connected, attractive and appropriate bicycle facilities to facilitate and encourage bicycling for transportation and recreation.</p>	<p>Policy 4.18.1: Develop and maintain a system of bicycle lanes, bicycle routes and multi-use pathways in accordance with the City's Bicycle Master Plan and Bicycle Facilities Design Manual.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 4.18.2: Make non-motorized connections the most important type of connection to major transit stops and stations.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Sun Metro

Goal	Policy	Responsible Department(s)
	Policy 4.18.3: Provide an adequate quantity of secure, properly positioned bicycle parking at key trip attractors and generators throughout the community. Design should be in accordance with the City's Bicycle Facilities Design Manual.	<ul style="list-style-type: none"> • Planning & Economic Development
	Policy 4.18.4: Implement a regular street sweeping program, with priority given to bicycle lanes and primary bicycle routes.	<ul style="list-style-type: none"> • Public Works
International Transportation & Ports of Entry (POEs)		
Goal 4.19: Strengthen multimodal connections with Juárez for binational mobility, economic development and commerce, familial bonds, tourism, and other travel objectives and connections between the two cities and countries.	Policy 4.19.1: Continue to manage the Ports of Entry as an integrated network to balance travel needs (employment, commerce, tourism, and others), traffic demand and flows, and to minimize traffic in surrounding areas.	<ul style="list-style-type: none"> • Planning & Economic Development • U.S. Customs & Border Protection
	Policy 4.19.2: Make multimodal travel a priority – facilities, opportunities, and convenience – at all Ports of Entry as meaningful alternatives to single-occupant vehicle travel.	<ul style="list-style-type: none"> • Planning & Economic Development • U.S. Customs & Border Protection
	Policy 4.19.3: Assess the feasibility of and strive to implement a new non-vehicle (pedestrian) Port of Entry in conjunction with redevelopment of the ASARCO area.	<ul style="list-style-type: none"> • Planning & Economic Development • U.S. Customs & Border Protection
	Policy 4.19.4: Within the confines of applicable laws and regulations, assess the feasibility of and strive to implement innovative strategies that optimize cross-border travel convenience, especially for transit, pedestrian, and bicycle travel.	<ul style="list-style-type: none"> • Planning & Economic Development • U.S. Customs & Border Protection
	Policy 4.19.5: Redevelop El Paso's side of the Rio Grande as a waterfront park and public space, and strive to eventually integrate it as part of a binational park with Juárez.	<ul style="list-style-type: none"> • Planning & Economic Development • U.S. Customs & Border Protection
	Policy 4.19.6: As discussed in the Public Transportation & TDM section, invest in binational transit service to reconnect El Paso and Juárez via transit.	<ul style="list-style-type: none"> • Planning & Economic Development • U.S. Customs & Border Protection
Aviation		
Goal 4.20: Maximize the use of airports as intermodal hubs to efficiently and safely move people and goods, increase "airfront" and "aerotropolis" economic development of areas adjacent to and surrounding airports, and serve as a welcoming gateway to the El Paso region.	Policy 4.20.1: Coordinate the development of airport infrastructure with intermodal facilities and compatible land uses.	<ul style="list-style-type: none"> • Planning & Economic Development
	Policy 4.20.2: Support new mixed-use, walkable development and redevelopment improving access to and services within airport lands and economic vitality around airports.	<ul style="list-style-type: none"> • Planning & Economic Development
	Policy 4.20.3: Use street network connectivity, RTS, and multimodal strategies to improve travel access, modes/options, and quality to and from airports.	<ul style="list-style-type: none"> • Planning & Economic Development
Railroads and Freight		
Goal 4.21: Improve, maintain, and manage freight-related infrastructure to ensure timely and efficient delivery of goods to/from and through the El Paso region.	Policy 4.21.1: Coordinate the development of railroad infrastructure with intermodal facilities and compatible land uses.	<ul style="list-style-type: none"> • Planning & Economic Development • Department of Transportation
	Policy 4.21.2: Encourage greater use of freight rail for the regional and international transportation of goods in order to reduce truck traffic on the interstates.	<ul style="list-style-type: none"> • Planning & Economic Development • Department of Transportation

4. Transportation

Goal	Policy	Responsible Department(s)
	<p>Policy 4.21.3: Relocate railyards away from developed areas of El Paso, reclaiming this land for parks, public space, redevelopment, or other locally-supported investment.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Department of Transportation
	<p>Policy 4.21.4: Preserve the ability and opportunity to transform unused or potentially “shared-use” railroads and railroad ROW for other transportation uses.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Department of Transportation

5. PUBLIC FACILITIES

Goals and Policies for Public Facilities

Overall Goal: Provide community services and facilities that meet the physical, educational, and recreational needs of all segments of the City's community.

Goal	Policy	Responsible Department(s)
Raw Water Sources		
Goal 5.1: Manage diverse sources of raw water so that El Paso enjoys a continuing supply of drinking water that is healthful, affordable, sustainable over time, and shared with other users of common sources.	Policy 5.1.1: Minimize the impact, cost, and effects of drought conditions by carefully managing surface water and balancing available water resources in the Mesilla and Hueco Bolsons. Reduce groundwater pumping as necessary to maintain or improve aquifer conditions.	• Planning & Economic Development
	Policy 5.1.2: Continue with regional water resource planning to evaluate the cost and benefits of desalinating additional water in El Paso County versus importing groundwater from other West Texas counties. Expand demand assessment and groundwater modeling to include southeast New Mexico and Juárez.	• Planning & Economic Development
Conserving Potable Water		
Goal 5.2: Conserve water by continuing to lower water consumption rates over time.	Policy 5.2.1: Reduce overall per-capita water consumption to 130 gallons per person per day or less by 2015.	• Planning & Economic Development
	Policy 5.2.2: Price water as a precious resource. Monitor the impact of the rate structure on water demand and adjust rates to encourage conservation.	• Planning & Economic Development
	Policy 5.2.3: Promote the availability of xeriscape and native plant materials and water-efficient turf grasses.	• Planning & Economic Development
Irrigation Water		
Goal 5.3: Make wise use of El Paso's allocation of irrigation water from the Rio Grande to support agriculture, public water supply, and the natural environment.	Policy 5.3.1: Make sustained attempts at reducing agricultural water use without sacrificing agricultural output. Potential methods include soil water sensors, drip irrigation, improved irrigation scheduling, tailwater recovery improvements, lining of irrigation canals, and water district delivery systems strategies.	• Planning & Economic Development
	Policy 5.3.2: The natural environment requires a share of Rio Grande water that has been diverted for agriculture and municipal water supply. With proper irrigation and management, the Rio Bosque Wetlands Park and the fallow farmland now owned by El Paso Water Utilities could provide exceptional habitat for migrating waterfowl.	• Planning & Economic Development
Wastewater & Reclaimed Water		
Goal 5.4: Stretch El Paso's limited water supply by continually reusing water.	Policy 5.4.1: Develop maintenance programs for turf management on municipal property such as golf courses, parks, and rights of way.	• Planning & Economic Development • Public Works
	Policy 5.4.2: Reduce the amount of potable water used for irrigation and industrial purposes by recruiting new customers who are located on existing reclaimed water lines.	• Planning & Economic Development
	Policy 5.4.3: Expand the reclaimed water "purple pipe" program wherever feasible. Identify potential users including school districts and residential irrigators.	• Planning & Economic Development • Public Works
	Policy 5.4.4: Measure success by increasing water reuse usage from 10% of total wastewater to 15% by 2020.	• Planning & Economic Development • Public Works

5. Public Facilities

Goal	Policy	Responsible Department(s)
Stormwater		
Goal 5.5: Manage El Paso's limited rainfall to maximize its benefits for nature, irrigation, and aquifer recharge while preventing localized flooding after heavy storms.	Policy 5.5.1: Continue to implement the 2009 Stormwater Master Plan. In addition to expanding and improving the drainage system, blockages and overflows should be corrected along with other maintenance activities that will reduce unexpected flooding.	<ul style="list-style-type: none"> • Planning & Economic Development • Public Works
	Policy 5.5.2: Employ green infrastructure design (GID) techniques when designing all drainage improvements. These techniques use an interconnected network of parks, preserves, arroyos, wetlands, and native vegetation to direct stormwater where it can be re-used or it can evaporate or recharge aquifers. Natural materials are used instead of or along with conventional detention basins and concrete-lined channels to slow runoff and to create wildlife habitat and a natural feel for surrounding neighborhoods	<ul style="list-style-type: none"> • Planning & Economic Development • Public Works
	Policy 5.5.3: Ultimate GID techniques combine civic spaces with stormwater management. One is to create park/ponds whose recreation fields and other civic spaces can detain stormwater after heavy rainfall. Another is to create linear parks and trails that parallel drainage channels, either newly constructed or alongside arroyos or irrigation canals.	<ul style="list-style-type: none"> • Planning & Economic Development • Public Works
	Policy 5.5.4: Update the 2009 Stormwater Master Plan to evaluate two additional large-scale stormwater projects: a. One project, which could be funded by the Army Corps of Engineers, could be constructed on Union Pacific's Dallas railyard, many of whose current functions are being relocated to Santa Teresa, New Mexico. This project could create a new Central Park for El Paso while relieving chronic flooding along I-10. b. Another project could identify opportunities to create new streams and bosques using existing irrigation canals and potentially unneeded railroad rights-of-way. These new streams could run through linear parks, re-routing typical stormwater flows parallel to the Rio Grande instead of disposing it by speeding or pumping it along the flat valley floor into the border channel.	<ul style="list-style-type: none"> • Planning & Economic Development
	Policy 5.5.5: Assure the safety of all dams in El Paso by upgrading dangerous conditions.	<ul style="list-style-type: none"> • Planning & Economic Development • Public Works
	Policy 5.5.6: Cooperate with El Paso County and other governmental entities in regional stormwater planning.	<ul style="list-style-type: none"> • Planning & Economic Development
Energy		
Goal 5.6: Improve the reliability, efficiency, and cost-effectiveness of public energy providers through careful use of the City's regulatory authority.	Policy 5.6.1: El Paso's electric power and natural gas systems must be upgraded to withstand extreme weather to forever avoid a repeat of the February 2011 outages and resulting damage to the potable water system and private property.	<ul style="list-style-type: none"> • Planning & Economic Development • El Paso Electric • Public Works
	Policy 5.6.2: Support and pursue the development of renewable energy sources such as solar, wind, geothermal, biofuels, and landfill gas capture.	<ul style="list-style-type: none"> • Planning & Economic Development • El Paso Electric
Solid Waste		
Goal 5.7: Efficiently manage the disposal of solid waste to protect the natural and human environment while extracting reusable materials and energy from the waste stream.	Policy 5.7.1: Extract and resell landfill gases that are generated by the Clint Landfill. Consider a similar gas recovery system if the McCombs Landfill is put back into service.	<ul style="list-style-type: none"> • Planning & Economic Development • Rio Grande Council of Governments • Texas Commission on Environmental Quality

Goal	Policy	Responsible Department(s)
	<p>Policy 5.7.2: Investigate the feasibility of constructing a waste-to-energy plant that would burn solid waste and use the heat to generate electricity. Waste-to-energy plants can reduce the amount of solid waste deposited into landfills by 90% and they create a salable product from the heat generated.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Rio Grande Council of Governments • Texas Commission on Environmental Quality
	<p>Policy 5.7.3: Participate in regional solid waste planning with the Rio Grande Council of Governments, the Texas Commission on Environmental Quality, and other agencies.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Rio Grande Council of Governments • Texas Commission on Environmental Quality
Neighborhood Greens & Parks		
<p>Goal 5.8: Provide a wide variety of neighborhood parks and recreational programs that are integrated with neighborhoods and accessible to most residents and visitors to El Paso</p>	<p>Policy 5.8.1: The City will create extraordinary parks that express the natural beauty and cultural diversity of El Paso and will fund the park system at a level that corresponds to its significant importance to El Paso residents.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Parks & Recreation
	<p>Policy 5.8.2: The City will provide a balanced parks system with a variety of park sizes and facilities, including trails, open spaces, and indoor recreation facilities.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Parks & Recreation
	<p>Policy 5.8.3: The City will use the 2006 parks and recreation master plan as a guide to improving the City of El Paso park system and recreational programs. Update this plan by 2012 to incorporate the strategies and policies in this comprehensive plan and to establish new short- and mid-term objectives.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Parks & Recreation
	<p>Policy 5.8.4: The City will convert portions of existing parks to drought-tolerant designs to reduce water consumption.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Parks & Recreation
	<p>Policy 5.8.5: The City will continue to require improved neighborhood greens or parks when land is subdivided, with adequate regulations that ensure they will become important features in the new neighborhood:</p> <ol style="list-style-type: none"> a. The edges of small greens and parks are critical to their success; the fronts and sides of buildings, not the backs, must face the park to provide natural surveillance and a well-maintained edge. b. Greens and parks must be separated from private buildings with a street or public path. c. Drought-tolerant shade trees should define the edges. 	<ul style="list-style-type: none"> • Planning & Economic Development • Parks & Recreation
	<p>Policy 5.8.6: The City shall create a program by which Park Credits shall be accepted for the dedication of any arroyo acreage when the arroyo is preserved in a relatively natural state rim to rim, is unfenced, is lined by walking paths at its ridge, and is faced by the fronts of homes along the dedicated portions.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Parks & Recreation
	<p>Policy 5.8.7: The City shall map priority arroyos for protection and guarantee Park Credit and City maintenance for priority arroyos. These arroyo parks shall also meet the design requirements of Policy 5.8.6.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Parks & Recreation
	<p>Policy 5.8.8: Create partnerships for the future success of the park system, involving every governmental entity, the school systems, the county, and the state. Recreational facilities at schools should be integrated into El Paso parks system for the mutual benefit of schools and the community. Storm-water detention areas can often be integrated with parks.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Parks & Recreation

5. Public Facilities

Goal	Policy	Responsible Department(s)
Regional Parks		
<p>Goal 5.9: Significantly expand the City's regional parks, which combine natural areas with developed facilities that draw from very large areas.</p>	<p>Policy 5.9.1: Seek new funding sources for regional parks, such as a regional parks authority that would serve all of El Paso County.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Parks & Recreation
	<p>Policy 5.9.2: Work with El Paso County government to redevelop Ascarate Park, at present the only true regional park in the City.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Parks & Recreation
	<p>Policy 5.9.3: Conduct the necessary feasibility studies for a new Central Park for El Paso on the Union Pacific's Dallas railyard that could relieve severe flooding around I-10 while providing a major regional park with informal and active play fields, pavilions, gardens, and grand civic structures.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Parks & Recreation • Department of Transportation
Zoological Park		
<p>Goal 5.10: Provide the best zoological facilities and experience possible for residents and visitors to El Paso.</p>	<p>Policy 5.10.1: Promote the zoo as a regional center for education, recreation and tourism.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Parks & Recreation
	<p>Policy 5.10.2: Develop the zoo as a place for scientific study and conservation of wildlife and the natural environment.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Parks & Recreation
Open Spaces		
<p>Goal 5.11: Permanently preserve open spaces that represent the full range of El Paso County's natural features, including mountains, arroyos, valley and desert environments, wetlands, and wildlife habitats.</p>	<p>Policy 5.11.1: Preserve all sides of the Franklin Mountains as El Paso's signature physical feature. Mountain lands not yet protected are shown in the O-2 open space sector on this plan's Future Land Use Map.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Parks & Recreation
	<p>Policy 5.11.2: Permanently preserve Castner Range as an expansion to the Franklin Mountains State Park (see Fort Bliss policy 12.1.3).</p>	<ul style="list-style-type: none"> • Fort Bliss • Parks & Recreation • Texas Parks & Wildlife Department
	<p>Policy 5.11.3: Preserve at least 75% of all remaining arroyos in El Paso, either in their natural state or modified to also serve as parks and stormwater detention areas. Remaining arroyos are shown as an overlay on the Future Land Use Map.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Parks & Recreation
	<p>Policy 5.11.4: Restore significant bosque areas along the upper and lower Rio Grande to provide natural open space, stormwater detention, and wildlife habitat.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Parks & Recreation
	<p>Policy 5.11.5: Incorporate stormwater detention facilities in an interconnected network of parks, preserves, arroyos, wetlands, and native vegetation</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Parks & Recreation
	<p>Policy 5.11.6: Create trails, greenbelts, and linear parks for their inherent value and to provide connections between other parks, schools, neighborhoods, and natural open spaces.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Parks & Recreation
	<p>Policy 5.11.7: Detailed strategies to carry out these policies are found in El Paso's 2007 open space master plan.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
Museums & Cultural Affairs		
<p>Goal 5.12: Promote quality art and cultural programming that enlivens and celebrates the City and region and encourages the participation of diverse groups with varying interests and backgrounds.</p>	<p>Policy 5.12.1: Position El Paso's Museums and Cultural Affairs Department (MCAD) as a leader in building partnerships that advance El Paso's cultural prosperity.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Convention & Visitors Bureau

Goal	Policy	Responsible Department(s)
	Policy 5.12.2: Structure MCAD to provide operational support to all three museums – Art, History, and Archeology – and achieve accreditation for all three museums.	<ul style="list-style-type: none"> • Planning & Economic Development • Convention & Visitors Bureau
	Policy 5.12.3: Provide exemplary museum programming that is representative of the City's diverse cultures.	<ul style="list-style-type: none"> • Planning & Economic Development • Convention & Visitors Bureau
	Policy 5.12.4: Place new museums within walkable distances in central locations so they become part of City life rather than being isolated in large campuses of civic buildings.	<ul style="list-style-type: none"> • Planning & Economic Development
	Policy 5.12.5: Continue the City's cultural funding program that assists artists and cultural organizations and supports access to arts and culture for residents and visitors.	<ul style="list-style-type: none"> • Planning & Economic Development • Convention & Visitors Bureau
	Policy 5.12.6: Continue the City's program of integrating public artworks by setting aside a percentage of the cost of all capital improvement projects.	<ul style="list-style-type: none"> • Planning & Economic Development • Convention & Visitors Bureau
Libraries		
Goal 5.13: Improve the El Paso Public Library system until it is among the best in the nation.	Policy 5.13.1: Identify the best public libraries in the nation and select quality benchmarks that can be used to assess progress in improving library services in El Paso	<ul style="list-style-type: none"> • Library Department
	Policy 5.13.2: Expand the library system to match demands created by El Paso's growth. Joint use of facilities with schools and parks is encouraged.	<ul style="list-style-type: none"> • Library Department
	Policy 5.13.3: New libraries should be served by public transit and should be in regionally central locations or in neighborhoods where they will be conveniently accessible to local patrons.	<ul style="list-style-type: none"> • Planning & Economic Development • Library Department
	Policy 5.13.4: New libraries should be important contributions to El Paso's public realm. Library buildings should look dignified to indicate their importance to the community and should be convenient and welcoming to users. Libraries, like other civic buildings, should be sited within or adjoining civic spaces.	<ul style="list-style-type: none"> • Planning & Economic Development • Library Department
	Policy 5.13.5: Continually evaluate library services to supplement traditional media with emerging technologies and reconsider older techniques such as mobile libraries and mini-libraries that could be located within other neighborhood facilities.	<ul style="list-style-type: none"> • Library Department
Schools		
Goal 5.14: Provide the best possible educational facilities and services possible to serve all residents of the community.	Policy 5.14.1: Encourage use of smaller school sites for schools that have smaller enrollments, and/or incorporate space-saving design features such as multi-story buildings.	<ul style="list-style-type: none"> • Planning & Economic Development • School District
	Policy 5.14.2: Eliminate school siting criteria that require large acreage and thus eliminate most urban neighborhoods as potential school sites.	<ul style="list-style-type: none"> • Planning & Economic Development • School District
	Policy 5.14.3: Coordinate with the independent school districts and higher education institutions in siting facilities, minimizing unnecessary travel, sharing facilities and playfields, using reclaimed water for irrigation, etc.	<ul style="list-style-type: none"> • Planning & Economic Development • School District
	Policy 5.14.4: Build proud, dignified schools with a timeless architecture that provides a clear sense of location and affirms continuity of enduring values through time.	<ul style="list-style-type: none"> • Planning & Economic Development • School District

5. Public Facilities

Goal	Policy	Responsible Department(s)
Public Safety & Emergency Response		
<p>Goal 5.15: Protect the health, safety, and welfare of all residents and visitors to El Paso through effective and efficient police, fire, and emergency medical services.</p>	<p>Policy 5.15.1: Invest in technological advances and quality personnel to enhance the City's ability to deliver these services more efficiently and cost-effectively.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Public Health Department
	<p>Policy 5.15.2: Continue support and participation with other agencies in the provision of emergency preparedness.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Public Health Department
	<p>Policy 5.15.3: Maintain El Paso's achievement as the "Safest Large City in the United States" through strong leadership, community partnerships, dedicated officers and civilian personnel, and community volunteers.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Public Health Department
	<p>Policy 5.15.4: Continue responding to all fire, emergency medical, and hazardous materials calls in the City and providing mutual aid to Fort Bliss and the unincorporated county. Continue improving the specialized teams that respond to water, mountain, and technical rescues.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Public Health Department
	<p>Policy 5.15.5: Maintain the Fire Department's recently obtained ISO Class 1 rating.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Fire Department
	<p>Policy 5.15.6: Use the fire department's strategic plan as updated from time to time to aid decision-making regarding to the physical development of the City.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Fire Department
Civic Spaces		
<p>Goal 5.16: Provide all citizens access to high-quality civic spaces that are thoroughly integrated into existing neighborhoods and new development.</p>	<p>Policy 5.16.1: Civic spaces are outdoor gathering places dedicated for public use. Civic spaces can be defined by a combination of physical factors including their size, intended use, landscaping, and the character of their edges.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 5.16.2: El Paso development regulations should define the following types of civic spaces:</p> <ul style="list-style-type: none"> a. Parks, both passive and active; neighborhood parks often have buildings on at least one side. b. Greens, for structured or unstructured recreation; greens are defined by buildings on at least one side. c. Squares, which are located at the intersection of important thoroughfares and clearly defined by adjoining buildings. d. Plazas, which are usually hardscaped and are clearly defined by adjoining buildings. e. Playfields, community gardens, and other types which are defined more by their intended use than by their surroundings. 	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 5.16.3: Allow City streets to host outdoor dining by allowing use of the sidewalk right-of-way for tables and chairs provided a minimum of five feet of clearance is provided for pedestrian movement.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
Civic Buildings		
<p>Goal 5.17: Construct and nurture civic buildings that are both traditional and distinctive and which clearly signal their important civic and cultural functions within the City.</p>	<p>Policy 5.17.1: Civic buildings should have grander proportions and materials than the surrounding urban fabric.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 5.17.2: Civic buildings also achieve prominence by strategic placement at the ends of streets, across greens, or at the center of greens. Sites for civic buildings should be reserved even before there is a need to construct them.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 5.17.3: Where feasible, provide distinctive public open space, public art, greens, and/or plazas around civic buildings such as courthouses, libraries, post offices, and community centers to enhance the character of these civic and public buildings.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
<p>Public Art <small>DRAFT • PLAN EL PASO • Dover, Kohl & Partners • January 2012 • Page A.32</small></p>		

Goal	Policy	Responsible Department(s)
<p>Goal 5.18: Continue to support the local arts community in El Paso with the encouragement of murals, sculpture, and other outdoor art installations.</p>	<p>Policy 5.18.1: Encourage temporary outdoor art installations which allow a rotating display of exhibitions. Endeavor to make those art pieces that are particular favorites of the public part of the City's permanent collection.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Convention & Visitors Bureau
	<p>Policy 5.18.2: Increase the City's commitment to the El Paso Downtown Arts District by making it a focal point for community investment. Seek to provide employment, attract residents and tourists, expand the tax base, and build housing that attracts a resident art community.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Convention & Visitors Bureau
	<p>Policy 5.18.3: Increase the City's commitment to the El Paso Downtown Arts District by making it a focal point for community investment. Seek to provide employment, attract residents and tourists, expand the tax base, and build housing that attracts a resident art community.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Convention & Visitors Bureau
	<p>Policy 5.18.4: Design the Stanton Street International Port of Entry as a place of art demonstration that also urbanistically facilitates pedestrian movement from other points within the Downtown.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Convention & Visitors Bureau

6. HOUSING

Goals and Policies for Housing

Overall Goal: To provide housing in El Paso through complete, connected neighborhoods containing quality, affordable, and accessible choices to serve all income levels and age groups.

Goal	Policy	Responsible Department(s)
Housing Supply		
Goal 6.1: Maintain a sustainable and efficient housing supply for all residents of El Paso.	Policy 6.1.1: Distribute a variety of housing types throughout the City to expand choices available to meet the financial, lifestyle, and cultural needs of El Paso's diverse population. Encourage housing types that take into account non-traditional households and multi-generational families.	<ul style="list-style-type: none"> • Planning & Economic Development
	Policy 6.1.2: Encourage the redevelopment of areas within existing neighborhoods for accessible village centers.	<ul style="list-style-type: none"> • Planning & Economic Development
	Policy 6.1.3: Adopt a permanent supportive housing program that focuses on a mix of target populations including the chronically homeless, veterans, people who were recently institutionalized, and youth who are aging out of foster care.	<ul style="list-style-type: none"> • Planning & Economic Development
	Policy 6.1.4: Allow, by-right, a variety of residential lot sizes and housing types within existing and new neighborhoods.	<ul style="list-style-type: none"> • Planning & Economic Development
	Policy 6.1.5: The City should develop and utilize a rating system as a tool to rank new housing projects and determine which projects should receive incentives such as fee waivers, density bonuses, City investment in infrastructure, and other public financing incentives.	<ul style="list-style-type: none"> • Planning & Economic Development
	Policy 6.1.6: Encourage green practices in housing construction and rehabilitation that support durable, healthy, and energy-efficient homes.	<ul style="list-style-type: none"> • Planning & Economic Development
	Policy 6.1.7: The City will ensure that accessible housing that meets ADA standards is available. The City should adopt universal design and visitability standards for accessible housing without sacrificing walkable urban design principles.	<ul style="list-style-type: none"> • Planning & Economic Development
	Policy 6.1.8: Support housing that demonstrates simplicity, practicality, permanence, and creativity as described in the Community Design Manual in the Appendix D of this plan.	<ul style="list-style-type: none"> • Planning & Economic Development
Existing Neighborhoods		
Goal 6.2: Preserve and revitalize El Paso's existing neighborhoods.	Policy 6.2.1: Retrofit suburban subdivisions to improve connectivity, add high quality parks, and introduce limited commercial uses where possible.	<ul style="list-style-type: none"> • Planning & Economic Development
	Policy 6.2.3: Develop programs to focus on infill and rehabilitation of existing neighborhoods.	<ul style="list-style-type: none"> • Planning & Economic Development
	Policy 6.2.4: Approach increased density as a neighborhood preservation strategy and allow by-right density increases through the use of accessory dwelling units, duplexes, townhouses, and small apartment buildings that are integrated into the fabric of the neighborhood in a manner similar to Sunset Heights and other historic neighborhoods.	<ul style="list-style-type: none"> • Planning & Economic Development

Goal	Policy	Responsible Department(s)
Walkable Neighborhoods		
Goal 6.3: El Paso's neighborhoods will become the most connected and walkable in the southwest.	Policy 6.3.1: The City should require all new residential developments to be complete, compact, and connected, using the design principles under Goal 2.1 through 2.6 or a City-developed rating system as tools to assess the design of proposed developments.	• Planning & Economic Development
	Policy 6.3.2: Require the master planning of newly developing or redeveloping areas to promote healthy living through walkable environments.	• Planning & Economic Development
	Policy 6.3.3: Encourage mixed use developments that allow people to live without requiring everyday use of an automobiles.	• Planning & Economic Development
	Policy 6.3.4: Support higher density housing in designated future compact neighborhoods on this plan's Future Land Use Map.	• Planning & Economic Development
Housing Affordability		
Goal 6.4: Expand opportunities for affordable housing through new tools, technologies, and partnerships.	Policy 6.4.1: Adopt the "Housing + Transportation" formula developed by the Center for Neighborhood Technology as a tool to determine the true cost of living in various locations around El Paso.	• Planning & Economic Development
	Policy 6.4.2: Expand the availability of affordable housing throughout the City of El Paso and preserve existing affordable housing opportunities.	• Planning & Economic Development
	Policy 6.4.3: The City should partner with local non-profits and pursue grants for weatherizing and renovation programs for the existing affordable housing stock. This will reduce utility and maintenance costs for owners and occupants.	• Planning & Economic Development
	Policy 6.4.4: Encourage home-ownership alternatives beyond single-family housing.	• Planning & Economic Development
	Policy 6.4.5: Conduct a "completeness" audit in low-income neighborhoods to determine action steps to improve quality and affordability of life for residents.	• Planning & Economic Development

7. ECONOMIC DEVELOPMENT

Goals and Policies for Economic Development

Overall Goal: Build a foundation for economic prosperity that nurtures an atmosphere of innovation, increases quality of life to attract national and international talent, offers high-quality infrastructure, improves education and workforce development, and increases tourism.

Goal	Policy	Responsible Department(s)
Economic Framework		
Goal 7.1: Increase economic development opportunities in El Paso to support a diverse and robust local economy that benefits from federal support and international economic trends but does not rely on them as a sole means of support.	Policy 7.1.1: Increase the number of college educated people by 20% by 2030.	• Planning & Economic Development
	Policy 7.1.2: Use land use policy to create places and neighborhoods that are attractive to young college educated people.	• Planning & Economic Development
	Policy 7.1.3: Develop a public - private El Paso venture capital funding pool; explore the creation of a Community Development Funding Institution (CDFI) to act as a conduit for public/private investment.	• Planning & Economic Development
	Policy 7.1.4: Establish a Small Business Investment Company (SBIC) to leverage venture capital through federal assistance.	• Planning & Economic Development
International Trends		
Goal 7.2: Take advantage of national and international trends such as the expansion of Fort Bliss, the resurgence of the maquiladora industry, and the border controls on international transport of goods to bolster El Paso's economy.	Policy 7.2.1: Support efforts to improve rail infrastructure for cargo to increase regional efficiency, stabilize the centrality of El Paso in shipping, and reduce congestion on existing roads and rail lines.	• Planning & Economic Development • Juárez
	Policy 7.2.2: Continue to partner with REDCo and other economic development partners to take advantage of technology trends at Fort Bliss.	• Planning & Economic Development • Fort Bliss
	Policy 7.2.3: Encourage the airport to have a secure industrial/tech facility to draw future research and development to Fort Bliss and the City of El Paso.	• Planning & Economic Development • Fort Bliss
Dynamic Neighborhoods		
Goal 7.3: Make El Paso a city of dynamic walkable neighborhoods attractive to the coming Millennial population.	Policy 7.3.1: Reinforce transit and develop innovative zoning for job-based transit-oriented development.	• Planning & Economic Development
	Policy 7.3.2: Investigate the potential of a dedicated community funds for new development that can take advantage of tax credits and funding consortiums.	• Planning & Economic Development
	Policy 7.3.3: Develop new areas to be self-sustaining units that balance housing opportunities, retail, services, and employment in a walkable communities. Make El Paso once again a city of neighborhoods.	• Planning & Economic Development
Centers of Activity		
Goal 7.4: Use retail demand to support innovative sustainable neighborhood development rather than auto-oriented destinations.	Policy 7.4.1: Develop district-wide parking strategies to allow more intense development on individual sites.	• Planning & Economic Development
	Policy 7.4.2: Use district stormwater strategies that utilize existing drainage ways to lower costs for individual developments.	• Planning & Economic Development
	Policy 7.4.3: Cluster retail in community centers or near transit rather than along strips so that each neighborhood has multimodal access to a core area of services.	• Planning & Economic Development
Downtown Offices		
Goal 7.5: Enhance the market for Downtown office space.	Policy 7.5.1: Development policies should require that all buildings address the street with main entrances, doors, and windows, and shopfronts where appropriate. Parking should be located behind buildings.	• Planning & Economic Development

Goal	Policy	Responsible Department(s)
	Policy 7.5.2: To support Downtown revitalization and investment, the City should be prepared to continue to develop public parking. Removing parking costs will reduce the rent required to make investment sense. However, parking garages should be lined with commercial or office space at least along the bottom floor to keep streets safe and interesting for pedestrians.	<ul style="list-style-type: none"> • Planning & Economic Development
	Policy 7.5.3: The City should prepare capital incentive programs to make the renovation of older buildings financially feasible. In exchange for the subsidy, the City can influence the quality of the renovation.	<ul style="list-style-type: none"> • Planning & Economic Development • Historic Preservation
Downtown Shopping		
Goal 7.6: Protect and fortify the market for Downtown retail, particularly in the historic Golden Horseshoe district.	Policy 7.6.1: Accurate data on Golden Horseshoe establishments and their performance can be used to market to prospective shoppers as well as to prospective tenants and entrepreneurs. An updated information source regarding store mix, square footage, and sales data would be valuable. Over time, this information can become an important source of data by which the character and performance of the Golden Horseshoe District can be measured.	<ul style="list-style-type: none"> • Planning & Economic Development
	Policy 7.6.2: The City of El Paso should recruit unique, high-quality retailers and/or eating and drinking establishments which currently operate in Juárez. El Paso offers a safe environment that is relatively convenient to the Juárez market.	<ul style="list-style-type: none"> • Planning & Economic Development
	Policy 7.6.3: The Golden Horseshoe District and Downtown Contribute significantly to the City's economy but its market is vulnerable to border security policies and other unforeseen forces. These resources must be marketed to tourists and other groups of potential shoppers with similar tastes and preferences. Marketing this resource is of interest to the City, the Convention and Visitors Bureau, the Chamber of Commerce, the Downtown Management District, and the Central Business Association. The Downtown should seek to provide creative weekend packages that include shopping and entertainment as a way to draw markets to the Downtown.	<ul style="list-style-type: none"> • Planning & Economic Development • Convention & Visitors Bureau
	Policy 7.6.4: Marketing has to be followed-up by human and physical infrastructure designed to serve visitors. High amenity streetscape, wayfinding signs, well-designed walking maps, and a visible and convenient Visitors Center are needed. Those persons serving the visitor market (hotel employees, bus drivers) should be knowledgeable about Downtown resources.	<ul style="list-style-type: none"> • Planning & Economic Development • Convention & Visitors Bureau
	Policy 7.6.5: The City and the Central Business Association must continue to advocate for smooth and efficient border crossing operations. The Downtown's retail economy is negatively impacted each time the pedestrian crossing process becomes more burdensome.	<ul style="list-style-type: none"> • Planning & Economic Development • U.S. Customs & Border Protection
New Industrial Neighborhoods		
Goal 7.7: Create locations attractive to new industrial/tech employers in amenity rich environments.	Policy 7.7.1: Allow industrial as a special exception or special permit use in walkable destination areas with services and retail, contingent on the use category having no conflicts because of hazards or large-scale transportation needs. This will require a finer grained definition of industrial use to identify appropriate uses such as specialized software and programming, industrial design, and small-scale manufacturing.	<ul style="list-style-type: none"> • Planning & Economic Development
Specialty Shopping Destinations		
Goal 7.8: Develop a specialty shopping destination for the region and tourists.	Policy 7.8.1: Art dealers, artist studios and galleries, home accessories stores, and specialty stores that sell unique apparel, jewelry and gifts are store-types which should be targeted for the Downtown. These stores should target the middle- to upper-income household and younger households.	<ul style="list-style-type: none"> • Planning & Economic Development
	Policy 7.8.2: Because specialty stores often require lower overhead to survive, target areas in the Downtown such as Texas Avenue, where rents are lower.	<ul style="list-style-type: none"> • Planning & Economic Development

7. Economic Development

Goal	Policy	Responsible Department(s)
	Policy 7.8.3: Develop a cluster of at least three specialty stores within a geographic area. Some Downtown management corporations control a series of storefronts that could be used to facilitate tenant clustering.	<ul style="list-style-type: none"> • Planning & Economic Development
Entertainment Destination		
Goal 7.9: Develop an eating and drinking destination known throughout the region.	Policy 7.9.1: Encourage a cluster of eating and drinking establishments in the Central Business District around San Jacinto Plaza, Texas Avenue, and in the Union Plaza District. In addition to refreshing San Jacinto Plaza itself, it is imperative that early eating and drinking establishment recruitment efforts target vacant storefronts surrounding this central plaza. Three to four new, destination restaurants on San Jacinto Plaza could effectively transform it into a dynamic urban destination.	<ul style="list-style-type: none"> • Planning & Economic Development
	Policy 7.9.2: Develop Texas Avenue between Oregon Street and Stanton Street as an arts and entertainment district. The east end of Texas Avenue can be anchored by the re-use of Bassett Tower as residential and the Blue Flame as office space, and the west end can be anchored by the re-use of the American Furniture building.	<ul style="list-style-type: none"> • Planning & Economic Development
Development Incentives		
Goal 7.10: Ensure that the SmartCode allows flexibility to respond to market conditions.	Policy 7.10.1: Expedite the approvals of SmartCode development by assigning City Staff to help developers prepare SmartCode applications.	<ul style="list-style-type: none"> • Planning & Economic Development
	Policy 7.10.2: Continue to reward SmartCode development with tax incentives, rebates, and infrastructure assistance.	<ul style="list-style-type: none"> • Planning & Economic Development
Complete Streets		
Goal 7.11: Revitalize the Alameda corridor as a complete street.	Policy 7.11.1: Use the ITE Walkable Thoroughfares manual when making upgrades to the Alameda corridor to create a complete street.	<ul style="list-style-type: none"> • Planning & Economic Development • Department of Transportation
	Policy 7.11.2: Cluster retail and services at neighborhood nodes rather than allowing all uses along the entire corridor.	<ul style="list-style-type: none"> • Planning & Economic Development
	Policy 7.11.3: Identify a location to cluster automobile dealerships that are currently in future neighborhood centers.	<ul style="list-style-type: none"> • Planning & Economic Development
Educational Opportunities		
Goal 7.12: Provide educational opportunities at all levels to allow children and adults to reach their fullest potential to enhance the City's workforce skills.	Policy 7.12.1: Support programs which encourage the completion of high school, or its equivalent, for all residents of the City.	<ul style="list-style-type: none"> • Planning & Economic Development • School District
	Policy 7.12.2: Aggressively promote and support high school retention programs throughout the City.	<ul style="list-style-type: none"> • Planning & Economic Development • School District
	Policy 7.12.3: Support a wide variety of job skill training programs that provide stable, higher paying job opportunities to residents at different skill levels.	<ul style="list-style-type: none"> • Planning & Economic Development • School District
	Policy 7.12.4: Support literacy programs including the expansion of library resources.	<ul style="list-style-type: none"> • Library Department
	Policy 7.12.5: Encourage higher education institutions in the El Paso area to provide a variety of new educational programs.	<ul style="list-style-type: none"> • School District
	Policy 7.12.6: Encourage and help to increase the training capabilities of local colleges and universities, including increasing the types of graduate programs and degrees offered.	<ul style="list-style-type: none"> • School District
	Policy 7.12.7: Support local colleges and universities in increasing their research capabilities in areas that will benefit the residents of El Paso and the United States/Mexico border region, both socially and economically.	<ul style="list-style-type: none"> • School District

8. HISTORIC PRESERVATION

Goals and Policies for Historic Preservation

Overall Goal: Preserve, renew and evolve historic buildings, districts and landscapes for the use and enjoyment of future generations.

Goal	Policy	Responsible Department(s)
Historic Resources		
Goal 8.1: Preserve the City of El Paso's valuable historic resources.	Policy 8.1.1: Support the preservation of El Paso's historic resources through public information, advocacy and leadership within the community and through the use of regulatory tools.	<ul style="list-style-type: none"> • Planning & Economic Development • Historic Preservation • Citizen Groups
	Policy 8.1.2: Provide widespread cultural and educational resources and information programs on historic preservation techniques and benefits.	<ul style="list-style-type: none"> • Planning & Economic Development • Historic Preservation
	Policy 8.1.3: Continue to encourage adaptive reuse of historic buildings.	<ul style="list-style-type: none"> • Planning & Economic Development • Historic Preservation
	Policy 8.1.4: Continue to collaborate with various entities to promote historic preservation landmarks and historic events as tourist attractions.	<ul style="list-style-type: none"> • Planning & Economic Development • Historic Preservation • Convention & Visitors Bureau
	Policy 8.1.5: Encourage development planning and design to sensitively incorporate preservation of historic structures and artifacts.	<ul style="list-style-type: none"> • Planning & Economic Development • Historic Preservation
	Policy 8.1.6: Encourage the development of attractive and unique characteristics which help each neighborhood in developing its individual historic value and identity.	<ul style="list-style-type: none"> • Planning & Economic Development
	Policy 8.1.7: Inform the public of tax benefits and funding sources available for restoration.	<ul style="list-style-type: none"> • Planning & Economic Development • Historic Preservation
	Policy 8.1.8: Continue to collaborate with various entities to promote historic commemorative events marking significant landmarks in El Paso's development.	<ul style="list-style-type: none"> • Planning & Economic Development • Historic Preservation
Preservation as Economic Development		
Goal 8.2: Reposition the role of Historic Preservation as an economic development and community-building tool.	Policy 8.2.1: Implement the recently adopted Historic Preservation Action Plan as a living guide for the Historic Preservation Division. Create a time-frame for achieving its goals and pursuing its policies.	<ul style="list-style-type: none"> • Planning & Economic Development • Historic Preservation
	Policy 8.2.2: Continue to work with Historic Preservation partners and the local community to implement the Action Plan.	<ul style="list-style-type: none"> • Planning & Economic Development • Historic Preservation
	Policy 8.2.3: Maintain a regular schedule of meetings with Action Plan task force members to track the progress of the Plan and implement its recommendations.	<ul style="list-style-type: none"> • Planning & Economic Development • Historic Preservation

8. Historic Preservation

Goal	Policy	Responsible Department(s)
Revitalize Downtown First		
<p>Goal 8.3: Revitalize Downtown first.</p>	<p>Policy 8.3.1: The City should provide financial incentives, regulatory guidance, and technical support for the adaptive reuse of Downtown buildings for use as housing.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Historic Preservation
	<p>Policy 8.3.2: Promote Downtown El Paso as a living classroom for historic preservation and architecture education, and encourage partnerships with universities on research, documentation, and restoration projects. The Historic Preservation Division and the Department of Planning and Economic Development should work to attract a professional arts school to Downtown El Paso, for instance an art or architecture school with a historic preservation program.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Historic Preservation
	<p>Policy 8.3.3: Lobby State officials to reform the tax structure for vacant Downtown buildings, which is currently based on a property's net income rather than its assessed value, thereby encouraging property owners to only lease the ground floor of their buildings and allow the upper floors to remain vacant. Work with City leaders and the County Tax Assessor-Collector. If necessary, also work with El Paso's State representatives and senator to address the issue at the State level.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 8.3.4: Monitor the performance of the City's recently-adopted Vacant Building Ordinance to ensure that the intended goals are being achieved. If it is found that the ordinance results in degradation or insensitive changes to historic buildings, take measures to address them, such as:</p> <ul style="list-style-type: none"> a. Designate historic buildings that are not currently protected and could be insensitively altered as a result of the Vacant Building Ordinance. b. Work with the Building Department to adjust the terms of the Vacant Building Ordinance to require the sensitive repair and rehabilitation of buildings older than 50 years of age. 	<ul style="list-style-type: none"> • Planning & Economic Development • Historic Preservation
Preservation as Revitalization		
<p>Goal 8.4: Historic Preservation should be embraced as an effective economic development and revitalization tool for the City of El Paso.</p>	<p>Policy 8.4.1: Use El Paso's designated historic districts and structures as an integral element in Citywide revitalization and economic development efforts.</p> <ul style="list-style-type: none"> a. Chihuahuita should be a focus of City investment as a destination and repository of history. 	<ul style="list-style-type: none"> • Planning & Economic Development • Historic Preservation
	<p>Policy 8.4.2: Promote the value of historic preservation to spark interest in designating additional properties and districts throughout the City.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Historic Preservation
	<p>Policy 8.4.3: Preserve architecturally or culturally significant structures which are not historically designated and lie outside of the historic districts.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Historic Preservation
Historic Designations		
<p>Goal 8.5: Improve public perception of Historic District Designation so that more neighborhoods will seek and embrace preservation of their historic resources.</p>	<p>Policy 8.5.1: Educate property owners on the economic, social and cultural benefits of historic preservation.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Historic Preservation
	<p>Policy 8.5.2: Provide workshops on how to care for a historic property in compliance with The Secretary of the Interior's Standards for Rehabilitation.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Historic Preservation
	<p>Policy 8.5.3: Ensure that City practices uphold and support historic designation as a benefit to property owners, and not a burden.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Historic Preservation
	<p>Policy 8.5.4: Promote historic preservation and El Paso history in local schools. Create programs to educate children through field trips, workshops, and curriculum.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Historic Preservation

Goal	Policy	Responsible Department(s)
Historic Districts		
Goal 8.6: Improve the performance of El Paso's existing Historic Districts.	Policy 8.6.1: Systematically reassess historic district boundaries and consider shifting boundaries to include additional properties, fewer properties, or to combine or split up districts as needed to more effectively administer the historic preservation program.	<ul style="list-style-type: none"> • Planning & Economic Development • Historic Preservation
	Policy 8.6.2: Work with federal, state, and local governments, non-profits, and private groups to identify additional funding resources for the rehabilitation of historic properties.	<ul style="list-style-type: none"> • Planning & Economic Development • Historic Preservation
	Policy 8.6.3: Provide a clearinghouse of existing financial resources for owners of historic properties in order to provide incentives for appropriate renovation and rehabilitation projects. Make this information accessible through the Historic Preservation website and brochures, and work with neighborhood leaders to spread the word on these resources to other property owners in their districts.	<ul style="list-style-type: none"> • Planning & Economic Development • Historic Preservation
	Policy 8.6.4: Improve Code Enforcement efforts in Historic Districts so that properties are consistently maintained, and owners can be assured that inclusion in a historic district guarantees a certain neighborhood character and higher level of maintenance. <ul style="list-style-type: none"> a. Ensure that Code Enforcement Officers are trained in the Secretary of the Interior's Guidelines for Rehabilitation, and that refresher courses are available for new and veteran officers. 	<ul style="list-style-type: none"> • Planning & Economic Development • Historic Preservation • Code Enforcement
	Policy 8.6.5: Educate the owners of historic properties on how to properly maintain and rehabilitate their property. <ul style="list-style-type: none"> a. Provide a historic preservation resource group that consists of the neighborhood association leaders for each historic district, and set up a regular schedule of meetings. <ul style="list-style-type: none"> i. Use this group to disseminate new information and resources as they are available, and to hold training and education programs. ii. Use this group to track the performance of each of the individual historic districts and to provide advice to City leaders as challenges arise. 	<ul style="list-style-type: none"> • Planning & Economic Development • Historic Preservation
	Policy 8.6.6: Amend the Building Code for existing structures within historic districts to make it easier for property owners to undertake renovations and improvements.	<ul style="list-style-type: none"> • Planning & Economic Development
	Policy 8.6.7: Encourage new commercial and live/work uses within historic districts to make them more economically viable and livable.	<ul style="list-style-type: none"> • Planning & Economic Development
Traditional Building Techniques		
Goal 8.7: Promote historic preservation as part of a holistic strategy to promote walkable, livable, and humane place making.	Policy 8.7.1: Promote training programs for architects, designers, and builders to work with traditional buildings and learn traditional building techniques. As these professionals gain experience in rehabilitating historic buildings, they will learn how to transfer these lessons into a new generation of high-quality buildings and places throughout the City.	<ul style="list-style-type: none"> • Planning & Economic Development • Historic Preservation
	Policy 8.7.2: Promote educational programs for the financial sector to learn the benefits of investing in historic properties, particularly irregular, small, or mixed-use properties that may not have market comparables according to conventional financing practices. As financing for these types of properties becomes more mainstream, it will become easier for developers to obtain financing for new walkable communities with small units and mixed-use products.	<ul style="list-style-type: none"> • Planning & Economic Development • Historic Preservation
	Policy 8.7.3: Market historic districts to potential homeowners and property owners for the walkable, complete lifestyle that these neighborhoods offer. These homeowners spark a new generation of homeowners who will enjoy the benefits of mixed-use walkable communities, and can increase the market for new walkable communities throughout El Paso.	<ul style="list-style-type: none"> • Planning & Economic Development • Historic Preservation

8. Historic Preservation

Goal	Policy	Responsible Department(s)
Historic Public Spaces		
<p>Goal 8.8: Recognize that public spaces and streets within the City's historic districts are themselves prime contributors to the vitality and appearance of the districts.</p>	<p>Policy 8.8.1: Ensure that the redevelopment and enhancement of plazas, greens, playgrounds, paseos, and other public spaces within historic districts are done in a way which is sensitive to the context.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Historic Preservation • Parks & Recreation
	<p>Policy 8.8.2: Seek to improve streets within the historic districts to make them more walkable and complete.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Historic Preservation • Parks & Recreation • Department of Transportation

9. HEALTH

Goals and Policies for Health

Overall Goal: Improve the overall health and quality of life for all residents in the City.

Goal	Policy	Responsible Department(s)
Collaboration and Coordination		
<p>Goal 9.1: Address the health needs of all residents in the region through collaboration and coordination among local, binational, and bi-state entities.</p>	<p>Policy 9.1.1: Conduct a regional health study and develop a strategic framework to aggressively improve the health within the region.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Public Health Department
	<p>Policy 9.1.2: Partner with local, binational, and bi-state entities to prevent health-related problems through prevention programs and policies.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Public Health Department
	<p>Policy 9.1.3: The Planning Division should educate developers, neighborhood associations, and other building permit applicants for major projects on the connection between the built environment and public health.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
Nutrition		
<p>Goal 9.2: Create a food system in which City residents can meet their proper nutritional needs.</p>	<p>Policy 9.2.1: Initiate research, policies, and programs that increase food security, improve health outcomes, and create social and economic opportunities to ensure that every resident has access to fresh, healthy, and affordable food.</p> <p>a. Perform Community Food Assessments to determine where “food deserts” exist in El Paso. Food deserts are areas in the City lacking access to fresh, unprocessed, whole food products, especially fruits and vegetables. Target food deserts as areas to start focusing food production, farmers’ markets, and small community-based grocers.</p> <p>b. Ensure that schools have access to local, organic, and unprocessed whole food products. Incorporate cultivation plots on school grounds for the education of students and to potentially supply schools, food banks, needy households, and local retailers with fresh products.</p> <p>c. Ensure that Homeowner’s Associations may not prohibit food production and the growing of crops such as fruits, vegetables, and herbs in front, back, or side yards.</p> <p>d. Encourage the integration of farmer’s markets and CSA (community supported agriculture) pick up points into the planning of new and old community centers, schools, and public spaces.</p> <p>e. Encourage Parks and Recreation Department’s efforts to integrate food gardens into parks.</p> <p>f. Integrate produce markets and supermarkets into the community fabric, especially those that carry locally grown products.</p> <p>g. Integrate farmers’ markets at major transit stations and hubs, such as bus transfer facilities.</p> <p>h. Encourage the production of food across the urban-to-rural transect, especially by citizens and residents. Remove obstacles to food production upon City lots and public spaces. Enhance the ability of residents to produce a portion of their own food supply, and encourage area farmers to produce food for consumption in the City and the County.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Public Health Department

9. Health

Goal	Policy	Responsible Department(s)
	<p>i. Encourage development of community food gardens through grant or partner funding.</p> <p>j. Improve access to direct or whole sale buying for low-income and limited-mobility residents.</p> <p>k. Remove barriers to the raising of poultry on private lots in suburban areas.</p> <p>l. Encourage breastfeeding and provide incentives for businesses that create “Mother-Friendly Worksites,” “Baby-Friendly” hospitals, and “Baby Cafés.”</p> <p>m. Continue to ensure that food service establishments and grocery stores are inspected by a registered sanitarian at least twice each year.</p> <p>n. Continue to support the Women, Infants, and Children Program to improve the nutrition of vulnerable members of the population.</p>	
Access to Health Care		
<p>Goal 9.3: Improve access to medical care.</p>	<p>Policy 9.3.1: Distribute offices, clinics, laboratories, and hospitals amongst the various districts and neighborhoods that make up the City. Encourage consolidation of medical facilities to create efficiencies in providing care, such as the co-location of laboratories, diagnostic centers, and hospitals.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Public Health Department
	<p>Policy 9.3.2: Locate medical care providers and human services at transit nodes and designated Transit Oriented Development sites.</p> <p>a. Encourage medical providers to locate at stations or bus stops with reduced parking footprints.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 9.3.3: Create an international medical destination with the Medical Center of the Americas unified campus as the anchor and construct strategic transportation improvements to and around the campus.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Public Health Department
	<p>Policy 9.3.4: Allow access by emergency response vehicles without sacrificing walkable, traffic-calmed street designs.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Engineering & Construction Management • Department of Transportation
	<p>Policy 9.3.5: Advocate for policies that create parity for medical reimbursement rates in the region.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Public Health Department

Goal	Policy	Responsible Department(s)
Environmental Risk Factors		
Goal 9.4: Reduce exposure to environmental risk factors.	<p>Policy 9.4.1: Reduce risk of injury and fatality due to vehicular accidents.</p> <p>a. Lower design speeds on existing and proposed streets and highways. Retrofit streets to be more pedestrian-friendly. Include on-street parking and street trees as barriers between pedestrians and moving travel lanes and which increase visual friction to discourage speeding. Include wide sidewalks and narrower travel lanes. Minimize crossing distance at intersections with pedestrian refuges, bulb-outs, speed tables, and other strategies.</p> <p>b. Convert signalized or geometrically complex intersections to modern roundabouts or fully-circulating intersections in order to reduce or eliminate turn-lanes, slow traffic while improving flow, and reduce the incidence of broadside and head-on collisions.</p> <p>c. Increase the frequency of crosswalks and increase signal time in favor of pedestrians crossing streets, especially multi-lane arterials and other major streets.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Engineering & Construction Management • Department of Transportation
	<p>Policy 9.4.2: Reduce exposure to air pollution.</p> <p>a. Minimize VMT through increased walking, cycling, and transit usage. Strategies to accomplish this are found in the Regional Land Use Patterns, Transportation, Urban Design, and Housing Elements.</p> <p>b. Work with federal entities to reduce bridge congestion, especially by means other than road widening.</p> <p>c. Coordinate with Juárez on strategies to reduce VMT.</p> <p>d. Create a network of safe routes to school for all existing and proposed schools.</p> <p>e. Promote the use of <i>woonerven</i> (a <i>woonerf</i> is a street in which pedestrians and cyclists have legal priority over automobile drivers, and which exhibit extremely low design speeds), shared spaces, curbless streets, and stripe-free zones as ways to create very traffic calmed residential streets that need less right-of-way than conventional streets. Use highly textured road beds to slow traffic.</p> <p>f. As silent hybrids and electric vehicles become more common, expand the City's use of Audible Pedestrian Signals (APS) to assist blind pedestrians at intersections and crosswalks.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Engineering & Construction Management • Department of Transportation • Juárez

9. Health

Goal	Policy	Responsible Department(s)
	<p>Policy 9.4.3: Reduce exposure to excess ultraviolet rays.</p> <p>a. Provide for shade along sidewalks and pedestrian pathways with one or more of the following: high degree of spatial enclosure formed by buildings and narrow right-of-way, street trees, canopies, awnings, colonnades, arcades, and galleries, according to appropriateness within the urban-to-rural transect.</p> <p>b. Provide shade devices for playgrounds to protect children from sunburn and increased risk of skin cancers.</p> <p>c. Educate citizens on the importance of sunscreen, clothing, and avoiding peak sunlight hours for outdoor activity as a first line of defense against melanoma and other skin cancers.</p> <p>d. Educate citizens on the need for adequate exposure to sunlight in order to avoid Vitamin D deficiencies and how to achieve this without damaging the skin.</p> <p>e. Plan to tackle tree attrition and replacement by conducting a tree/canopy survey of parks and other public spaces, with annual updates.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Engineering & Construction Management • Public Health Department
	<p>Policy 9.4.4: Increase access to safe water.</p> <p>a. Continue to monitor water for contaminants.</p> <p>b. Continue to educate citizens and visitors on practices that reduce groundwater pollution, such as proper disposal of medicines, chemicals, batteries, and hazardous materials.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Public Works • Public Health Department
	<p>Policy 9.4.5: Reduce infectious and communicable diseases and infection.</p> <p>a. Continue to coordinate with the Department of Public Health and its efforts to combat the spread of infectious diseases.</p> <p>b. Continue disease mapping.</p> <p>c. Continue to coordinate with governmental entities south of the border to identify and prevent pathogens that may spread in either direction across the border.</p> <p>d. Continue to support efforts to immunize the uninsured and under-insured population of El Paso and the surrounding areas and to prevent the spread of vaccine-preventable diseases in all ages.</p> <p>e. Continue to support efforts to educate and test for HIV, syphilis, and other STDs, in addition to education and provision of contraceptives.</p> <p>f. Continue to support the MPowerment Program's efforts (M-Factor) to reduce the rates of unprotected sex and the spread of HIV among young gay/bi-sexual men and support safer sex.</p> <p>g. Continue to support efforts to halt the spread of tuberculosis.</p> <p>h. Continue to support dental care programs for children</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Public Health Department
	<p>Policy 9.4.6: Reduce exposure to heavy metals, radionucleotides, lead, and mercury.</p> <p>a. Continue to embrace clean, renewable energy generation in order to reduce the demand for electricity produced by coal-fired plants.</p> <p>b. Continue to monitor levels of radon and educate households on how to test for and mitigate radon gas.</p> <p>c. Continue to educate households, contractors, and real estate professionals on how to identify, remove, or stabilize lead-based paints and other sources of lead in construction.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Public Health Department

Goal	Policy	Responsible Department(s)
	<p>Policy 9.4.7: Continue to allow farming as a commercial operation, however, seek to reduce exposure to endocrine disruptors and agro-toxins such as pesticides, fertilizers, fumigants, and other by-products of non-organic agricultural practices.</p> <ul style="list-style-type: none"> a. Continue to support the State of Texas in the regulation of sprayed pesticides, herbicides, and fertilizers through agricultural and soil conservation services and the Environmental Services Department. b. Continue to support the efforts of the El Paso Agricultural Research and Extension Center to promote safe, non-polluting agriculture. c. Expand the use of pest-resistant varieties of plants without resorting to GMO (genetically modified) strains. d. Promote the use of sustainable agriculture practices to reduce or eliminate agro-toxin use including: <ul style="list-style-type: none"> i. Crop rotation, letting fields be fallow for a season, and cover crops. ii. Biodiverse crops rather than monoculture crops. iii. Non-genetically modified seed. iv. Hand weeding, animal husbandry, mulching, and other techniques to substitute pesticides. v. Encouraging no-till or reduced tilling methods to preserve soil microbes and other organisms essential to aeration, drainage, and soil fertility. vi. Using species selection to fix nitrogen and supply other minerals and nutrients rather than resorting to petro-chemical and synthetic fertilizers. vii. Composting and cycling nutrients amongst crops and between animals and crops. e. Reduce exposure to food-borne pathogens. <ul style="list-style-type: none"> i. Prevent Concentrated Animal Feeding Operations (CAFO) from being established in El Paso. Work with El Paso County to discourage their establishment in the County. ii. Work with farmers to promote pasture raised, free-range livestock and poultry at safe densities rather than in confined, crowded facilities. iii. Work with food retailers, farmers, suppliers and the community to minimize the prevalence of food-borne illnesses. iv. Establish partnerships between representatives of the food supply chain and health care providers in order to educate the community, prevent contamination, and treat infected individuals. v. Discourage the use of antibiotics in agriculture as these lead to antibiotic-resistant, virulent strains. vi. Work with schools to eliminate the use of CAFO products in school meals. 	<ul style="list-style-type: none"> • Planning & Economic Development

9. Health

Goal	Policy	Responsible Department(s)
	<p>Policy 9.4.8: Reduce risks associated with the electrical grid.</p> <ul style="list-style-type: none"> a. Continue to support El Paso Electric Company's instructions on how to respond to downed power lines. b. Continue to strengthen the electrical distribution grid. c. Locate electrical wires at the rear property line or in alleys or rear easements in order to lessen conflicts between street trees and electrical infrastructure while reducing the blight caused by wires. d. Continue to provide incentives for the relocation of existing above ground electrical wires underground. e. Reduce exposure to electromagnetic fields by locating residences at a safe distance from high voltage transmission lines and easements. 	<ul style="list-style-type: none"> • Planning & Economic Development • El Paso Electric
Exercise		
<p>Goal 9.5: Encourage physical activity through the design of the built environment.</p>	<p>Policy 9.5.1: Study existing neighborhoods and determine if residents can easily walk to retail, especially a grocer, where they may obtain daily necessities. Determine if residents are less than a five-minute walk from public facilities such as schools, parks, libraries, and transit stops. Work with communities to increase density, connectivity, and completeness (mixture of uses).</p> <ul style="list-style-type: none"> a. Utilize the Complete Streets approach to pedestrian and bike accommodation. 	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 9.5.2: Adjust land development regulations in order to make neighborhoods more complete and walkable.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 9.5.3: Improve streetscapes so that traffic speeds are reduced and pedestrians' and cyclists' comfort and safety is increased.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Engineering & Construction Management
	<p>Policy 9.5.4: Design new neighborhoods to be amenity-rich, mixed use, interconnected, dense, and compact. Neighborhoods should be able to supply most of life's daily necessities on foot or on bike, with easy access to premium transit service. Streets should be designed with low-design speeds.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 9.5.5: Transform existing streets, both large and small, restoring balance to their design so that pedestrians and cyclists feel safe and comfortable. Instead of using conventional traffic-calming techniques such as speed humps/bumps, or chicanes, pursue traffic calming that is built in to the street design, and which increases the sense of spatial enclosure and visual friction experienced by drivers. Techniques include textured roadbeds, narrower curb-to-curb dimensions, on-street parking, street trees, shallower dooryards, and avoiding squat proportions in the architecture that defines the street.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Engineering & Construction Management
	<p>Policy 9.5.6: Integrate walkable neighborhood design with transit stations according to techniques and policies described in Regional Land Use Patterns, Urban Design, and Housing Elements.</p>	<ul style="list-style-type: none"> • Planning & Economic Development

Goal	Policy	Responsible Department(s)
	Policy 9.5.7: Work with Parks and Recreation Department, and TxDOT where appropriate, to increase pedestrian and cyclist connectivity across natural and man-made barriers such as freeways, ravines, river beds, canyons, and arroyos. Provide a shorter and more convenient route for non-motorized traffic across barriers.	<ul style="list-style-type: none"> • Planning & Economic Development • Parks & Recreation • Department of Transportation
	Policy 9.5.8: Work with Parks and Recreation Department, and TxDOT where appropriate, to invest in a recreational infrastructure that provides not only recreational walking, jogging, and cycling, but also may provide an alternative to car trips. Such infrastructure may include trails (multi-use, hiking, equestrian, jogging), cycle tracks, bike lanes, parks, and restored or conserved wild areas. Consider using the Rio Grande or canal networks that run roughly parallel to it, as a multi-use recreational amenity stretching from County line to County line.	<ul style="list-style-type: none"> • Planning & Economic Development • Parks & Recreation • Department of Transportation
	Policy 9.5.9: Work with Parks and Recreation Department to integrate fixed, durable outdoor fitness equipment in parks that allow for flexibility and resistance training.	<ul style="list-style-type: none"> • Planning & Economic Development • Parks & Recreation
	Policy 9.5.10: Encourage workplace fitness by including fitness centers within or in close proximity to employment centers.	<ul style="list-style-type: none"> • Planning & Economic Development
	Policy 9.5.11: Encourage employers to remove subsidies for parking and provide financial incentives to cycling, transit, and walking as a commuting alternative.	<ul style="list-style-type: none"> • Planning & Economic Development
	Policy 9.5.12: Encourage the inclusion of showers, lockers, and changing areas at places of employment.	<ul style="list-style-type: none"> • Planning & Economic Development
	Policy 9.5.13: Create “visitable” building types for the disabled that also satisfy the goal of creating walkable street frontages.	<ul style="list-style-type: none"> • Planning & Economic Development
	Policy 9.5.14: Create safe routes to school using mapping tools, the planning of street networks, and walkable and multimodal street designs. The Safe Routes to School Program (SRTS) has improved conditions for almost every elementary school in El Paso.	<ul style="list-style-type: none"> • Planning & Economic Development • School District
	Policy 9.5.15: Encourage schools to provide open campuses. At a minimum, recreational fields should be open to the community after school hours and on weekends.	<ul style="list-style-type: none"> • Planning & Economic Development • School District
Psychological and Emotional Well-being		
Goal 9.6: Encourage psychological and emotional well-being.	Policy 9.6.1: Coordinate with Fort Bliss, Department of Defense, Health Care Providers, Psychologists, and Researchers to provide therapy for sufferers of stress, depression, and Post Traumatic Stress Disorder arising from: <ul style="list-style-type: none"> a. Combat experiences b. Drug-related violence c. Domestic violence d. Deployment of a loved one. 	<ul style="list-style-type: none"> • Planning & Economic Development • Fort Bliss • Department of Defense • Public Health Department
	Policy 9.6.2: Seek to reduce commuting times to maximize quality time with friends and family.	<ul style="list-style-type: none"> • Planning & Economic Development

9. Health

Goal	Policy	Responsible Department(s)
	<p>Policy 9.6.3: Seek to improve sleep by reducing light and acoustical pollution.</p> <ul style="list-style-type: none"> a. Continue to enforce the City's Dark Sky Ordinance. b. Erect acoustical barriers and implement sound mitigation. c. Locate residential areas at a safe distance from major sound and light polluters or limit hours and levels of illumination to allow for a period of darker skies between midnight and sunrise. d. Discourage commercial uses that have intrusive levels of lighting from locating adjacent to residential land uses. 	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 9.6.4: Encourage residential building types that accommodate extended or non-conventional households.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 9.6.5: Encourage small schools embedded within the neighborhood fabric rather than large drive-only campuses.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • School District
	<p>Policy 9.6.6: Strengthen extended support networks by reducing land use patterns that lead to social isolation.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 9.6.7: Integrate assisted-living facilities into neighborhood fabric and design them as dignified home-like facilities.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 9.6.8: Support efforts to train owner-less canines and match them with PTSD sufferers and the visually impaired.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 9.6.9: Continue to educate patients and family members of patients on the symptoms, therapy, rehabilitation, and medications associated with mental health disorders.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Public Health Department
Substance Abuse		
<p>Goal 9.7: Discourage substance abuse.</p>	<p>Policy 9.7.1: Work on policy to discourage retailers of alcohol and tobacco products within the sight of school entrances or access points.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Public Health Department
	<p>Policy 9.7.2: Continue to expand no-smoking zones to outdoor public spaces that are owned by the City.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Public Health Department
	<p>Policy 9.7.3: Continue to enforce existing laws related to sale and use of tobacco and alcohol to minors.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 9.7.4: Continue to collaborate with local and binational entities to discourage and prevent the trade of drugs, drug moneys, and arms across the border.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 9.7.5: Continue to encourage programs focused upon drug counseling, rehabilitation, and sobriety.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Public Health Department
	<p>Policy 9.7.6: Continue to support efforts to educate and prevent the use of tobacco.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Public Health Department

Goal	Policy	Responsible Department(s)
Obesity and Chronic Illness		
Goal 9.8: Reduce obesity and the chronic illnesses associated with obesity, such as type 2 diabetes, cancers, and heart disease.	Policy 9.8.1: Enact the recommendations of the Obesity Prevention Action Plan including developing programs geared to improving nutrition and increasing physical activity, and making policy recommendations toward obesity prevention.	<ul style="list-style-type: none"> • Planning & Economic Development • Public Health Department
	Policy 9.8.2: Map Citywide prevalence of diabetes and examine where diabetes-related services (such as dialysis, insulin, and diet counseling) are needed.	<ul style="list-style-type: none"> • Planning & Economic Development • Public Health Department
	Policy 9.8.3: Map cancer clusters in order to identify anomalies and environmental factors such as carcinogens.	<ul style="list-style-type: none"> • Planning & Economic Development • Public Health Department

10. SUSTAINABILITY

Goals and Policies for Sustainability

Overall Goal: Secure the viability of environmental resources for El Paso’s people, flora, and fauna so that future generations may experience a constantly improving, environment that is always more resilient than that of the previous generation.

Goal	Policy	Responsible Department(s)
Water		
Goal 10.1: Continue developing options to provide a sustainable water supply for the City of El Paso for the use and enjoyment of future generations.	Policy 10.1.1: Continue development of policies that promote and bolster the development of surface water treatment, conveyance systems, reclamation, and implement programs developed by the El Paso Water Resource Management Plan and the El Paso-Las Cruces Regional Sustainable Water Project of the New Mexico-Texas Water Commission.	• Planning & Economic Development
	Policy 10.1.2: Strive to conserve the Hueco and Mesilla Bolson Aquifers, shared by Chihuahua, Mexico, New Mexico, and Texas.	• Planning & Economic Development
	Policy 10.1.3: Recognize that climate change will affect water supplies in western and southwestern states and that the annual flows of the Rio Grande are expected to decline as population increases.	• Planning & Economic Development
Goal 10.2: Improve and expand the existing conservation policy to create a more comprehensive conservation program.	Policy 10.2.1: Implement a resource conservation landscape ordinance that provides multiple benefits of water conservation, habitat recreation, pollutant, and heat island mitigation.	• Planning & Economic Development
Goal 10.3: Integrate drought contingency planning into all aspects of City government, business, and residential sectors.	Policy 10.3.1: Continually improve the drought contingency plan developed and adopted by Public Service Board (PSB) and City Council so that the City is always ready to manage water shortages.	• Planning & Economic Development
	Policy 10.3.2: Continue to develop and implement communication integration so all City departments and citizens understand potential drought severity and so that the community may be prepared to implement water saving measures.	• Planning & Economic Development
	Policy 10.3.3: Enhance the drought contingency plan to manage water shortages.	• Planning & Economic Development
	Policy 10.3.4: Permit conservancy easements on agricultural lands as an option for obtaining water rights in times of severe drought.	• Planning & Economic Development
Goal 10.4: Continue to develop cost effective processes to reuse and reclaim water and utilize new technologies, such as desalinization, to expand capacity and lessen the effects of scarcity situations.	Policy 10.4.1: Continue to expand the use of reclaimed water, nonpotable water, and desalinated water to provide opportunities for survivability and economic viability of the City and region.	• Planning & Economic Development • Public Works
	Policy 10.4.2: Continue to pursue active and passive water harvesting techniques and designs such as rain barrels and cisterns.	• Planning & Economic Development • Public Works
	Policy 10.4.3: Continue to convert irrigation systems for parks, ballfields and golf courses to reclaimed water, where feasible.	• Planning & Economic Development • Public Works • Parks & Recreation
	Policy 10.4.4: Continue to minimize turf grass and maximize the use of drought resistant species native to the Chihuahuan Desert, or in agricultural areas, exotic species adapted to local climate and rainfall conditions.	• Planning & Economic Development
	Policy 10.4.5: Continue to encourage the use of permeable surfaces.	• Planning & Economic Development

Goal	Policy	Responsible Department(s)
<p>Goal 10.5: Use off-peak and other surplus supplies of surface water to restore groundwater aquifers through aquifer storage and recovery (ASR) and manage the resource by employing computer modeling and best groundwater management practices.</p>	<p>Policy 10.5.1: Design well systems to simultaneously protect groundwater and integrate changing City land use features.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 10.5.2: Create and improve design standards for integration of ASR well-fields so that they are understandable to City Departments, EPWU-PSB, land owners and developers.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 10.5.3: Complete models, maps, and databases defining the extent and dynamic of the hydrologic cycle and aquifers. El Paso water utilities, in cooperation with various federal and state agencies, universities, and consultants, are constructing a set of models to predict and understand these systems. This is particularly crucial for implementation of an aquifer storage and recovery system.</p> <ul style="list-style-type: none"> a. Continue to update and monitor the MODFLOW modeling of the Hueco Bolson. b. Continue mutual development between Mexico and Texas on managing the Hueco Bolson. c. Continue research and implementation of management strategies of the Hueco Bolson and development of ASR to ensure sustainable use. d. Use Geographic Information Technology to track threats to groundwater and other water sources and manage interrelationships between land uses and water resources. 	<ul style="list-style-type: none"> • Planning & Economic Development
<p>Goal 10.6: Expand cooperation on development of comprehensive regional water resource management so all national, international, and local participants can mutually achieve sustainability of water resources.</p>	<p>Policy 10.6.1: Continue to seek expanded cooperation and explore options to include Mexican, Texan, and New Mexican entities while adjusting water management to accommodate the necessary changes in usage and flow.</p> <ul style="list-style-type: none"> a. Using plans developed through regional cooperation, establish a cooperative agreement to provide year-round flow in the Rio Grande. 	<ul style="list-style-type: none"> • Planning & Economic Development • Public Works
<p>Goal 10.7: Continue to ensure that agriculture has sufficient water rights in order to maintain productive farms.</p>	<p>Policy 10.7.1: Use the best available data to ensure that productive agricultural lands or fallow lands that have productive potential are maintained.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
<p>Goal 10.8: Protect the community from floods and reduce the risk of flood damage.</p>	<p>Policy 10.8.1: The City Stormwater Utility, El Paso Water Utility, is entrusted with the responsibility of ensuring adequate drainage and flood protection for the City. The primary means of accomplishing this is through review of proposed developments and subdivision drainage plans to ensure adequate drainage for new developments.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 10.8.2: Locate development out of flood plains, arroyos, ephemeral streams, and other areas susceptible to flash floods.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 10.8.3: Work with the County of El Paso to develop a regional strategy to protect the community from flood damage.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 10.8.4: Work with developers of adjacent parcels to agglomerate and reduce required ponding area and coordinate stormwater infrastructure.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 10.8.5: The City shall create a program by which Park Credits shall be accepted for the dedication of arroyo acreage when the arroyo is maintained in a relatively natural state, is unfenced, is lined by walking paths at its ridge and is faced by the fronts of homes along the dedicated portions.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Parks & Recreation

Goal	Policy	Responsible Department(s)
Atmosphere		
<p>Goal 10.9: Reduce greenhouse gas emissions and meet the national ambient air quality standards for all air pollutants in the El Paso area.</p>	<p>Policy 10.9.1: Continue to meet or exceed federal air quality standards for greenhouse gases and other common pollutants.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Public Health Department
	<p>Policy 10.9.2: Support other governmental jurisdictions in attaining and maintaining or exceeding federal air quality standards for greenhouse gases and other common pollutants. El Paso has removed non-attainment designation for ozone and carbon monoxide but continues to have designation for non-attainment for PM-10 (particulate matter).</p> <ul style="list-style-type: none"> a. Continue to work closely with regional air quality task forces on both sides of the border. b. Continue to restrict outdoor burning. c. In order to reduce particulate pollution, convert unpaved alleys into paved alleys. Pavement may be permeable. New alleys should be paved unless they are part of a rural location in which pervious surfaces such as gravel or earth are the norm. d. The design of infrastructure and open spaces should be done with the goal of PM-10 (particulate matter) reduction in mind. This includes the landscaping of trails and slopes. 	<ul style="list-style-type: none"> • Planning & Economic Development • Public Health Department
	<p>Policy 10.9.3: Promote new development that encourages a sustainable lifestyle such as walking, cycling, the use of public transit, and reducing dependence upon automobiles.</p> <ul style="list-style-type: none"> a. Promote Citywide car and van pooling programs. b. Enact policies and actions found in the Regional Land Use Patterns, Urban Design, Housing, and Transportation Elements. 	<ul style="list-style-type: none"> • Planning & Economic Development • Public Health Department
	<p>Policy 10.9.4: Promote low-emission industrial and business development.</p> <ul style="list-style-type: none"> a. Continue to regulate quarrying and manufacturing operations, and energy generation to mitigate particulate matter pollution caused by dust and burning. 	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 10.9.5: Promote research and education that focuses on improving air quality.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 10.9.6: Encourage the use and conversion to cleaner-burning fuels.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 10.9.7: Continue regulation and promote the decreased use of sprayed pesticides, herbicides, and fertilizers through agricultural and soil conservation, the City's Health Department, and the Environmental Services Department. Increase the prevalence of organic agricultural methods.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Public Health Department
<p>Goal 8.10: Mitigate the urban heat island effect.</p>	<p>Policy 8.10.1: Promote both roof and non-roof strategies to mitigate the urban heat island effect.</p> <ul style="list-style-type: none"> a. Roof Strategies. Create shade for roofs by using: <ul style="list-style-type: none"> i. Vegetated roofs. ii. High albedo materials. iii. Trees to shade roofs. iv. Pergolas, solar panels, and other devices to shade parking garages, and flat and sloped roofs. b. Non-roof Strategies. Create shade for the ground by: <ul style="list-style-type: none"> i. Installing vegetative ground cover and trees in planting strips, swales, and verges instead of pavement or dark rocks ii. Using high albedo materials for paved surfaces. iii. Minimizing surface parking lots and the size of expanses of asphalt and other low albedo paving surfaces. iv. Installing trees and groundcover in parking lots. 	<ul style="list-style-type: none"> • Planning & Economic Development

Goal	Policy	Responsible Department(s)
Energy		
<p>Goal 10.11: Secure sufficient energy resources to meet present and future community needs without degrading the local, regional, or global ecology.</p>	<p>Policy 10.11.1: Consider the energy efficiency of proposed new development when land use and development review decisions are made. This would include both energy consumed by buildings and their users, but also energy used by commuting and vehicle trips generated due to new development.</p> <ul style="list-style-type: none"> a. Continue to promote participation in the Green Building Grant Program, which covers commercial buildings. Expand the program to include residential buildings in the future. b. Implement programs to use energy more efficiently in existing buildings. c. Enhance energy efficiency measures in local government operations. 	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 10.11.2: Emphasize infill and higher density developments located in areas served by public transit to reduce dependency on automobiles.</p> <ul style="list-style-type: none"> a. Enact goals, policies and actions of Regional Land Use Patterns, Urban Design, Housing, and Transportation Elements. b. Promote LEED-ND (LEED for Neighborhood Development) in order to rate proposed developments. Provide incentives to developers for creating LEED certified communities. 	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 10.11.3: Facilitate the adoption of on-site and renewable energy sources by households, government, and businesses.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 10.11.4: Promote the use of renewable energy sources that reduce demand upon fossil fuels and other forms of energy generation that produce unsafe waste</p> <ul style="list-style-type: none"> a. Pursue renewable or non-conventional sources of energy generation such as: <ul style="list-style-type: none"> i. Solar ii. Wind iii. Geothermal and geo-exchange iv. Biofuels and biomass v. Landfill gas capture b. The City should continue to improve the way energy is distributed by: <ul style="list-style-type: none"> i. Working with utility providers to upgrade the grid in order to prepare for electrification of car fleet and promote increased efficiency in distribution networks. Coordinate with federal government and local entities in order to implement the “smart grid.” ii. Exploring recharge stations, battery swap stations, and vehicle bio-fuel programs. iii. Continuing to take the lead in energy efficiency as an example to El Pasoans. Continue to retrofit City buildings and infrastructure with energy saving measures, such as the successfully completed changing of traffic signal bulbs to LEDs. iv. Continuing to meet or exceed 2009 IECC and IRC building codes. v. Continuing to maintain or expand Sun Metro natural gas fleet. Natural gas buses emit fewer tons of greenhouse gases per passenger mile than vehicles fueled by conventional gasoline or diesel. vi. Continuing the TCEQ smoking car hotline to help reduce pollution from existing vehicles. vii. Continuing to establish partnerships with Fort Bliss and the Department of Defense as they have been regional co-leaders in on-site renewable energy and green building. viii. Continuing to explore the viability of waste-energy projects with Fort Bliss. ix. Continuing to establish partnerships with USGBC’s Chihuahuan Desert Chapter for the promotion of green building techniques. 	<ul style="list-style-type: none"> • Planning & Economic Development • Texas Commission on Environmental Quality

Goal	Policy	Responsible Department(s)
	<p>Policy 10.11.5: Promote behavioral changes and consumption patterns that conserve energy. Promote:</p> <ul style="list-style-type: none"> a. Energy-efficient building systems, fixtures, and appliances. b. Weatherization techniques such as adding weather strips on doorways, caulking, sealing, and insulating buildings. c. Public education programs, especially in schools, which stress the responsibility of each person to conserve energy resources. 	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 10.11.6: Promote architecture that exhibits sustainable design and technological innovations that conserve or generate energy.</p> <ul style="list-style-type: none"> a. Develop standards to encourage the development of buildings that use solar energy systems. b. Continue efforts to adopt the latest edition of the Model Energy Code. c. Protect residential solar access from taller adjacent buildings that would deprive homeowners of solar power. 	<ul style="list-style-type: none"> • Planning & Economic Development
Habitat and Biodiversity		
<p>Goal 10.12: Protect and promote ecologically sensitive areas such as aquifer recharge zones, hillsides, bosques, arroyos, and wetlands.</p>	<p>Policy 10.12.1: Allow high-density land uses and cluster developments that protect ecologically sensitive areas. Encourage “light-imprint development” where development cannot be avoided adjacent to or within ecologically sensitive areas.</p> <ul style="list-style-type: none"> a. Identify and protect ecologically sensitive areas in the planning of new developments. b. Concentrate development rights of overall parcel(s) to be developed on portions of parcel that have lowest ecological value, or facilitate transfer of development rights to other parcels. 	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 10.12.2: Encourage retention of land that is in a natural, undisturbed condition.</p> <ul style="list-style-type: none"> a. Implement the use of conservation easements to preserve ecologically sensitive areas. b. Plan new parks and open spaces to preserve ecologically sensitive areas. 	<ul style="list-style-type: none"> • Planning & Economic Development
<p>Goal 10.13: Conserve, protect, and enhance El Paso’s plant and wildlife resources.</p>	<p>Policy 10.13.1: Encourage the establishment and maintenance of wildlife and nature preserves. Existing protected wildlife habitats include: Rio Bosque Park, Feather Lake Wildlife Sanctuary, and the Franklin Mountains State Park. Secure additional preserves, such as the Castner Range in Northwest El Paso and Keystone Wetlands Area in West El Paso.</p> <ul style="list-style-type: none"> a. Assure preservation of natural habitats for wildlife, especially in riparian corridors, wetlands, and hillside areas, and protect threatened/endangered species of plants and animals. b. Enhance and enforce the tree preservation ordinance. 	<ul style="list-style-type: none"> • Planning & Economic Development • Texas Parks & Wildlife Department
	<p>Policy 10.13.2: Encourage the conservation, creation, or restoration of native habitat in urban areas such as public parks and publicly and privately owned lots.</p> <ul style="list-style-type: none"> a. Require that the majority of plants used on private lots, rights of way, and unbuilt portions of developments be native species appropriate to the ecosystem viable for the particular site. b. Include some amount of unmanicured native habitat in all new parks. If none exists, recreate or restore it. c. Retain and replenish natural vegetation wherever possible. Allow cluster development and higher density uses that provide sufficient open space to preserve natural vegetation and functioning habitat. 	<ul style="list-style-type: none"> • Planning & Economic Development • Parks & Recreation

Goal	Policy	Responsible Department(s)
	<p>Policy 10.13.3: Create opportunities to reduce the disruption of animal migratory patterns and isolation of gene pools caused by the international border.</p> <p>a. Work with the appropriate federal and local officials to explore increasing porosity of the border for animal species. This may include increasing frequency and size of gates, creating a virtual border in some places that features less of a physical barrier and more of an intangible, patrolled border.</p> <p>b. Coordinate with biologists and ecologists from Mexico to develop a strategy for strengthening gene pools and migratory patterns of the most at-risk species whose range spans both sides of the border.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Texas Parks & Wildlife Department
	<p>Policy 10.13.4: Develop a coherent and complete Green Infrastructure Plan for the entire City</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Parks & Recreation
Geological Conditions		
<p>Goal 10.14: Encourage development practices that retain the natural terrain features.</p>	<p>Policy 10.14.1: Identify slopes, rock formations, and other natural features worthy of protection.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
<p>Goal 10.15: Preserve the valuable natural resources of the mountain and hillside areas and minimize the exposure of potential environmental hazards associated with their development.</p>	<p>Policy 10.15.1: Update and enhance regulations to promote safe development practices which minimize grading of natural topography.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 10.15.2: Promote development regulations that allow for design flexibility to ensure that development may respond to site specific constraints and the preservation or restoration of natural features such as slopes and watersheds.</p> <p>a. Permit development of mountain and hillside lands at densities consistent with minimizing environmental hazards and maximizing resource conservation.</p> <p>b. Promote clustering of developments and strict architectural and site design controls on developments to avoid adverse visual or environmental consequences.</p> <p>c. Encourage mountain zoning regulations to govern developments to minimize damage to the natural environment.</p> <p>d. Limit grading or recontouring of the terrain to preserve the natural character of the area and to minimize the removal of natural vegetation.</p> <p>e. Promote construction techniques and housing types adaptable to variable terrain.</p> <p>f. Continue to encourage development practices that do not accelerate the erosion process and which preserve existing flora. Continue to monitor performance of site design resulting from grading ordinances.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
<p>Goal 10.16 Protect the community from risks associated with natural geologic conditions.</p>	<p>Policy 10.16.1: Encourage protective ordinances to minimize structural damage to buildings caused by geologic hazards.</p> <p>a. Implement a special permitting zone in documented active fault zones that will require geotechnical studies as part of the development review process.</p> <p>b. Develop setback standards for areas adjacent to the East Franklin Fault, or set aside a large conservation easement or linear park along the Fault.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 10.16.2: Discourage development where a severe potential for landslides or mass movement exists.</p> <p>a. Identify and map areas with unstable or adverse soil conditions and geologic hazards.</p> <p>b. Avoid locating vital public facilities, including utilities, in areas with identified geologic hazards, and develop standards to limit what type of structures can be built in these areas.</p>	<ul style="list-style-type: none"> • Planning & Economic Development

10. Sustainability

Goal	Policy	Responsible Department(s)
<p>Goal 10.17: Prevent damage to structures or natural terrain features from the erosion process.</p>	<p>Policy 10.17.1: Protect river and stream banks from excessive erosion.</p> <p>a. Retain river, arroyo, and stream channels in their natural state to prevent undue erosion and sedimentation.</p> <p>b. Soften the angle of the slopes of steeply banked channels, rivers, and streams to resemble a natural condition. In places with year-round moisture, plant emergent grasses and other vegetation to stabilize banks.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 10.17.2: Continue to prevent premature or unnecessary grading practices to discourage removal of ground cover through existing grading ordinance.</p> <p>a. Require erosion control measures, including re-vegetation, in conjunction with all new development. To counteract water erosion, silt fencing diversion berms, and contouring should be employed. To counteract wind erosion, stabilized construction entrances, watering, and wind fencing should be used. To counteract both water and wind erosion, vegetation should be planted.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
<p>Goal 10.18: Protect the community from the risk of flood damage.</p>	<p>Policy 10.18.1: Discourage new development from locating in flood-prone areas.</p> <p>a. Restrict development in flood-prone areas so only certain types of recreational, agricultural, or open space uses are allowed.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 10.18.2: Consider the effect that new developments may have on existing development downstream.</p> <p>a. Maintain natural stream corridors' and arroyos' original alignment and cross section.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 10.18.3: Preserve designated floodway areas for non-urban uses.</p> <p>a. Design necessary flood control facilities to blend with and enhance developments through concepts such as park-ponds and retention of natural arroyos. Design stormwater retention facilities such as pits so that they may be accessed during dry months.</p> <p>b. Continue to work with the U.S. Army Corps of Engineers to maintain and ensure adequate flood protection facilities.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
<p>Waste</p>		
<p>Goal 10.19: Assure adequate solid waste disposal capacity to serve El Paso's present and future needs.</p>	<p>Policy 10.19.1: Locate and operate solid waste sites in a manner which protects environmental resources.</p> <p>a. Expand the capacity of existing landfills prior to developing any new landfill sites.</p> <p>b. Locate and maintain solid waste sites to mitigate negative effects upon surrounding land uses.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
<p>Goal 10.20: Continue to increase recycling, salvage, reuse, and reduction as a way to reduce the output of waste.</p>	<p>Policy 10.20.1: Integrate recycling and composting centers into neighborhood fabric.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 10.20.2: Work with large buildings such as schools to implement waste reduction programs.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • School District
	<p>Policy 10.20.3: Work with retailers and suppliers to reduce packaging and reward customers to choose biodegradable, recycled bags and packages rather than plastic based ones.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 10.20.4: Consider enacting a City-wide ban on plastic bags or enact an ordinance that requires retailers to charge for plastic bags in order to reduce demand for them.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
<p>Policy 10.20.5: Continue to expand curbside recycling programs. Currently, 19.2% of the waste stream is diverted from landfills. Include businesses and multi-family in pick-up program. Consider comingled recycling bins in order to encourage participation.</p>	<ul style="list-style-type: none"> • Planning & Economic Development 	

Goal	Policy	Responsible Department(s)
	<p>Policy 10.20.6: Increase the number of building and construction salvage sites such as the El Paso Construction & Demolition Plant while continuing to enforce measures against illegal or informal dumping sites in the City, arroyos, and desert.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 10.20.7: Match manufacturers with waste producers in order to facilitate the conversion of recyclable material into raw material for new products.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 10.20.8: Support public education programs such as “Keep El Paso Beautiful” which promote solid waste reduction strategies.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
<p>Goal 10.21: Protect the public and the environment from the risks inherent in the use, storage, and handling of hazardous materials.</p>	<p>Policy 10.21.1: Promote international and interstate environmental protection policies through continued cooperation and joint programs with other states and Mexico.</p> <ul style="list-style-type: none"> a. Maintain a strategic plan for the evacuation of citizens in the event of an accident involving hazardous materials. b. Continue to enforce hazardous cargo routes to minimize travel near neighborhoods. c. Require that all facilities managing hazardous materials and waste be posted with warning signs in English and Spanish as to the danger of the materials within. 	<ul style="list-style-type: none"> • Planning & Economic Development • Juárez
	<p>Policy 10.21.2: Protect surface water, groundwater, sanitary sewer systems, and storm water management systems from contamination by hazardous materials.</p> <ul style="list-style-type: none"> a. Require that all proposals for new and expanded hazardous waste management facilities provide adequate mitigation for identified environmental risks. b. Require proper storage and disposal of hazardous materials to prevent leakage, explosions, fires, or the escape of harmful gases. 	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 10.21.3: Continue to cap, reclaim, or transform contaminated sites such as ASARCO in order to protect current and future generations from exposure to hazardous materials and from increased seepage into surrounding lands.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 10.21.4: Continue to expand the six citizen collection stations for recycling, e-waste, and household hazardous waste.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 10.21.5: Continue to expand the use of renewable alternative energies to decrease and discourage the demand for expansion or construction of nuclear reactors in El Paso or neighboring states. Storage of spent fuel rods and radioactive waste is an unavoidable by-product of nuclear energy generation.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • El Paso Electric
<p>Light and Vibration</p>		
<p>Goal 10.22: Protect City residents from the effects of excessive noise or vibration.</p>	<p>Policy 10.22.1: Discourage residential development in areas with high noise generators such as airports, freight railway tracks, or grade separated highways, without noise mitigation measures.</p> <ul style="list-style-type: none"> a. Include appropriate noise attenuation devices and acoustical barriers in the design of all freeways, expressways, railroads, and other noise generators. b. Study the capping of freeways, expressways, and freight rail lines with parkland or urban development, especially where these exist below grade. 	<ul style="list-style-type: none"> • Planning & Economic Development • Department of Transportation
	<p>Policy 10.22.2: Discourage land uses that create damaging or annoying earthborn vibrations.</p> <ul style="list-style-type: none"> a. Require consultation with utility companies prior to activities that can cause excessive vibration. 	<ul style="list-style-type: none"> • Planning & Economic Development

10. Sustainability

Goal	Policy	Responsible Department(s)
<p>Goal 10.23: Improve public safety by developing appropriate lighting and control standards.</p>	<p>Policy 10.23.2: Amend the Land Development Ordinance to provide adequate street lighting to protect the public and deter crime.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 10.23.3: Continue to work toward a “dark sky” condition that reduces light pollution and which reduces disruption to circadian rhythms.</p> <p>a. Continue to meet or exceed the City’s Dark Sky Ordinance and discourage lighting systems, either on public right of way or on lots that produce glare. Encourage downward facing lanterns. Discourage light trespass, or the illumination of parking lots, garages, play fields, and other buildings upon residential units or native habitat that contains species sensitive to nocturnal light.</p> <p>b. Continue to upgrade the City’s streetlights to LED</p>	<ul style="list-style-type: none"> • Planning & Economic Development
<p>Architecture</p>		
<p>Goal 10.24: Create and resurrect a sustainable architecture for the City and surrounding regions.</p>	<p>Policy 10.24.1: Embrace technological responses to the green building challenge.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 10.24.2: In addition to technology, embrace low-tech responses to the green building challenge. Develop standards to encourage buildings to be designed with inexpensive, simple characteristics representing passive solar design, climate-responsive architecture, and vernacular design that are adapted to El Paso.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 10.24.3: Buildings, both large and small, should be designed to be habitable and comfortable, even in the absence of functioning mechanical systems. Strategies to accomplish this include fully operable and openable windows, high ceilings, shading devices, appropriate thermal mass for exterior walls, cross-ventilation, landscaping, and smaller building footprints.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 10.24.4: Promote durable materials and architectural designs with a long life and loose fit.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 10.24.5: Encourage certification under applicable green building rating systems.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 10.24.6: City government should continue to lead the way in new construction and remodeling with green building principles.</p>	<ul style="list-style-type: none"> • Planning & Economic Development
	<p>Policy 10.24.7: Continue to encourage and learn from Fort Bliss’ track record as having the most significant collection of green buildings in the region.</p>	<ul style="list-style-type: none"> • Planning & Economic Development • Fort Bliss

Goal	Policy	Responsible Department(s)
Nourishment		
<p>Goal 10.25: Reduce “Food Miles” or the distance that food must travel to El Paso, and the associated pollution and fuel consumption associated with long-distance food transport.</p>	<p>Policy 10.25.1: Increase access to local and organic food and bolster food production capacity in the region of El Paso.</p> <ul style="list-style-type: none"> a. Encourage land use and development patterns that make agriculture more profitable in the Valley than conversion of agricultural lands into large-lot sprawl development. b. If development in agricultural areas is unavoidable, promote clustering of developments in the form of hamlets, villages, and towns, with strict architectural and site design controls to preserve contiguous swaths of viable farmland. For multi-acre tracts, maintain at least half of each tract as agriculture. c. Ensure that agricultural lands may be irrigated. d. Encourage the production of food across the urban-to-rural transect. Remove obstacles to food production upon City lots and public spaces. <ul style="list-style-type: none"> i. The City has conducted a survey of best practices in urban farming in order to implement food production in one or more urban parks. ii. The City intends to expand food production upon vacant or underutilized lots. iii. Examine existing and proposed ordinances for clauses that add difficulty to or prohibit food production upon built or unbuilt urban lots. Modify or remove such clauses in order to encourage food production. iv. Consider passing an ordinance that prevents a Home Owners Association from prohibiting food gardens or fruit/nut trees on private lots or upon common grounds of condominiums. e. Remove obstacles for farmers to access urban markets or farmer’s markets and remove obstacles for farmers to sell directly to the public. f. Integrate value-added processing centers into neighborhood fabric and rural areas. g. Acknowledge and encourage trade of products from the extended food shed encompassing New Mexico and Chihuahua, Mexico. h. Market “Edible El Paso” and agricultural resources within the County, along the valley, and in New Mexico. Produce an Edible El Paso Map that identifies restaurants that subscribe to the farm-to-table movement, grocers that feature local products, farms, community gardens, and farmer’s markets. i. When developments are approved to replace active or inactive farmland, consider requiring developers to contribute to food security by investing in farmer’s markets, community food gardens, or other food producing infrastructure for the surrounding community. 	<ul style="list-style-type: none"> • Planning & Economic Development • Juárez
	<p>Policy 10.25.2: Farmers’ markets should be encouraged within the Rio Grande river valley. Farmers’ markets should operate at least once weekly for at least five months each year and vendors should sell primarily items grown within 150 miles of the market.</p>	<ul style="list-style-type: none"> • Planning & Economic Development

11. BORDER RELATIONS

Goals and Policies for Border Relations

Overall Goal: El Paso will be a world class, highly competitive international border community that draws trade, technology and tourism to its cultural, geographic and environmental attractions through unparalleled interregional and binational cooperation.

Goal	Policy	Responsible Department(s)
International Business and Trade		
Goal 11.1: Leverage El Paso's binational border location and unique assets to draw more businesses and trade to the area including preserving and expanding existing businesses.	Policy 11.1.1: Develop research technology areas near the airport to spur future development and manufacturing opportunities in the areas of homeland security and military technologies.	<ul style="list-style-type: none"> • Planning & Economic Development • El Paso Metropolitan Planning Organization
	Policy 11.1.2: Provide incentives and actively pursue investors taking advantage of the EB5 federal immigration program for key target areas including Downtown El Paso.	<ul style="list-style-type: none"> • Planning & Economic Development • El Paso Metropolitan Planning Organization
	Policy 11.1.3: Continue to excel in the fields of adaptive and flex manufacturing models and explore the creation of designated manufacturing (campus) zones.	<ul style="list-style-type: none"> • Planning & Economic Development • El Paso Metropolitan Planning Organization
	Policy 11.1.4: Develop a binational innovative incubation program to attract high-tech start-up companies to the region in such key areas as Downtown and other historic districts.	<ul style="list-style-type: none"> • Planning & Economic Development • El Paso Metropolitan Planning Organization • Juárez
Border Health Issues		
Goal 11.2: Improve the health of all border residents through binational health organizations that target health issues unique to the United States/Mexico border to ensure there are sufficient preventive and health resources on both sides of the border.	Policy 11.2.1: Establish an international medical destination anchored by the Medical Center of the Americas unified campus.	<ul style="list-style-type: none"> • Planning & Economic Development • Public Health Department
	Policy 11.2.2: Develop medical research technology areas near the medical school to spur future development and manufacturing opportunities in the medical and life sciences industry.	<ul style="list-style-type: none"> • Planning & Economic Development • Public Health Department
Cultural Vitality		
Goal 11.3: Portray a strong identity that includes the unique Mexican/American cultural vitality and historical integration of both El Paso and Juárez.	Policy 11.3.1: Maximize the region's cultural and environmental resources to promote an international tourism component through key border opportunities such as implementing the comprehensive plans for both El Paso and Juárez and developing a common vision for the Rio Grande and international parks and recreational areas.	<ul style="list-style-type: none"> • Planning & Economic Development • Convention & Visitors Bureau
	Policy 11.3.2: Promote the region's rich heritage tourism assets through new technology supported channels: leverage the Texas Mountain Trail, El Paso Del Norte, El Camino Real de Tierra Adentro, Old Spanish Trail, and the redevelopment of El Camino de la Plata international trail based on the Mexican silver trade routes initiated in the late 1600s.	<ul style="list-style-type: none"> • Planning & Economic Development • Convention & Visitors Bureau
	Policy 11.3.3: Establish and promote El Paso/Juárez as a regional cultural center to enhance the cultural vitality and image of the area.	<ul style="list-style-type: none"> • Planning & Economic Development • Convention & Visitors Bureau

Goal	Policy	Responsible Department(s)
Binational Education		
Goal 11.4: Raise education levels in the region in order to compete in the global arena.	Policy 11.4.1: Implement binational educational programs that benefit both American and Mexican students preparing them for the future.	<ul style="list-style-type: none"> • School District • Department of Education
	Policy 11.4.2: Develop educational research technology areas near the University of Texas at El Paso campus to spur future development and manufacturing opportunities in the educational industry.	<ul style="list-style-type: none"> • School District • Department of Education
	Policy 11.4.3: Enhance and strengthen the collaboration between Texas and Mexican schools.	<ul style="list-style-type: none"> • School District • Department of Education
Border Transportation		
Goal 11.5: Create the most efficient and reliable international passenger and commercial transportation systems to facilitate the movement of goods, services and people across the US/Mexico border.	Policy 11.5.1: Maintain regional stability and a robust economy through highly efficient ports of entry utilizing state of the art technology, new border crossings and other efforts that facilitate the movement of goods across the border and decrease wait times.	<ul style="list-style-type: none"> • Planning & Economic Development • El Paso Metropolitan Planning Organization • Juárez
	Policy 11.5.2: Provide efficient transit options on both sides of the border for international destinations such as the Medical Center of the Americas unified campus. Other policies regarding international transit linkages are found in the Transportation Element.	<ul style="list-style-type: none"> • Planning & Economic Development • El Paso Metropolitan Planning Organization • Juárez
	Policy 11.5.3: The 1999 plan recommended an “International Long Range Metropolitan Transportation Plan” as a logical venue for El Paso/Juárez to begin addressing transportation issues jointly. The City should continue to pursue joint planning opportunities, particularly for transportation.	<ul style="list-style-type: none"> • Planning & Economic Development • El Paso Metropolitan Planning Organization • Juárez
	Policy 11.5.4: Create cross-border multimodal transportation alternatives such as a light-rail, street cars, or transportation options.	<ul style="list-style-type: none"> • Planning & Economic Development • El Paso Metropolitan Planning Organization • Juárez
Immigration Reform		
Goal 11.6: Strengthen the entire border community by supporting innovative immigration reform through training and educational opportunities.	Policy 11.6.1: Improve individual earning potential for residents and immigrants.	<ul style="list-style-type: none"> • Planning & Economic Development
	Policy 11.6.2: Become a leader in supporting national immigration reform initiatives such as the Dream Act and labor reform.	<ul style="list-style-type: none"> • Department of Homeland Security • U.S. Customs & Border Protection

12. FORT BLISS

Goals and Policies for Fort Bliss

Overall Goal: The City and Fort Bliss shall continue to grow together in a way that is mutually beneficial.

Goal	Policy	Responsible Department(s)
Fort Bliss Coordination		
Goal 12.1: Continue to cooperate with Fort Bliss officials to provide essential services and to integrate non-military functions of the base into the City.	Policy 12.1.1: The City of El Paso will continue to use the 2009 Regional Growth Management Plan as guidance for accommodating the expansion of Fort Bliss.	<ul style="list-style-type: none"> • Fort Bliss Relations
	Policy 12.1.2: To protect the viability of future training operations at Fort Bliss, the City of El Paso is designating approximately 2,800 acres north of the Sanchez State Jail as a Military Buffer on the Future Land Use Map to discourage civilian development that is incompatible with training operations on nearby land (see Policy 1.10.4).	<ul style="list-style-type: none"> • Fort Bliss
	Policy 12.1.3: The City of El Paso strongly supports the transfer of the entire Castner Range to the Franklin Mountains State Park. The City supports the interim step of a conservation conveyance to the Frontera Land Alliance, which would ensure the ultimate transfer of the range to the park once military officials are able to remove unexploded ordnance and make the land safe for public use.	<ul style="list-style-type: none"> • Fort Bliss • Parks & Recreation • Texas Parks & Wildlife Department
	Policy 12.1.4: The City of El Paso supports the development of surplus land in Southeast Fort Bliss for compact, complete, and connected communities that meet the "LEED for Neighborhood Development" smart location standards contained in the Urban Design element of this Comprehensive Plan. <ul style="list-style-type: none"> a. These new communities should have multiple neighborhoods, each with an identifiable center and edge and designed for the pedestrian and transit as well as the car. Neighborhoods should be compact, pedestrian friendly, and mixed-use, with a broad range of housing types and price levels. Interconnected networks of streets will encourage walking, reduce the number and length of automobile trips, and conserve energy. Denser areas should be within walking distance of transit stops. Districts that emphasize a special single use such as a hospital or college should follow the same principles whenever possible rather than being isolated in single-use complexes. b. Land that is developed in accordance with these principles will be eligible for annexation into the City of El Paso. 	<ul style="list-style-type: none"> • Planning & Economic Development • Fort Bliss
	Policy 12.1.5: Fort Bliss land is being designated in the following manner on the City's Future Land Use Map. <ul style="list-style-type: none"> a. O-2 Natural: Castner Range b. O-4 Military Reserve: South training areas in El Paso County c. G-8 Fort Bliss Mixed Use: Southeast Fort Bliss, Logan Heights, and the existing William Beaumont Army Medical Center. d. G-9 Fort Bliss Military: The main cantonment, Biggs Army Airfield, and East Fort Bliss. 	<ul style="list-style-type: none"> • Planning & Economic Development • Fort Bliss
	Policy 12.1.6: The City of El Paso encourages Fort Bliss officials to reconsider its decision to relocate the William Beaumont Army Medical Center from its current location to the northern edge of Southeast Fort Bliss. This important facility would be better placed closer to El Paso's urban heart where its can be easily reached by its staff, suppliers, and visitors without excessive travel by private automobile.	<ul style="list-style-type: none"> • Planning & Economic Development • Fort Bliss
	Policy 12.1.7: Fort Bliss is encouraged to consider the long-term potential of military contraction when planning and constructing facilities. If housing, schools, and medical facilities are designed with this possibility in mind, they can continue in service after they are no longer needed for military purposes.	<ul style="list-style-type: none"> • Planning & Economic Development • Fort Bliss
	Policy 12.1.8: The City of El Paso encourages Fort Bliss officials to identify ecologically or historically sensitive lands near Fort Bliss that might be eligible for acquisition by potential partners through the Army Compatible Use Buffer (ACUB) program.	<ul style="list-style-type: none"> • Planning & Economic Development • Fort Bliss

PROCESS

B

Planning in Public	B.3
Eastside & Mission Valley Charrette	B.4
<i>Site Tour</i>	<i>B.4</i>
<i>Kick – off Presentation</i>	<i>B.5</i>
<i>East Central Hands–On Design Session</i>	<i>B.6</i>
<i>Mission Valley Hands–On Design Session</i>	<i>B.6</i>
<i>Open Design Studio</i>	<i>B.8</i>
<i>Technical Meetings</i>	<i>B.9</i>
<i>Special Events and Presentations</i>	<i>B.9</i>
<i>Community Open House</i>	<i>B.10</i>
<i>Work-in-Progress Presentation</i>	<i>B.10</i>
Westside, Northeast & Central Charrette	B.11
<i>Site Tour</i>	<i>B.11</i>
<i>Central Planning Area Hands–On Design Session ...</i>	<i>B.12</i>
<i>Northwest Planning Area Hands–On</i>	<i>B.13</i>
<i>Fort Bliss Hands–On Design Session</i>	<i>B.14</i>
<i>Children’s Hands–On Design Session</i>	<i>B.14</i>
<i>Northeast and Fort Bliss Hands–On Design Session</i>	<i>B.15</i>
<i>Open Design Studio</i>	<i>B.16</i>
<i>Technical Meetings</i>	<i>B.17</i>
<i>Special Events and Presentations</i>	<i>B.17</i>
<i>Work-in-Progress Presentation</i>	<i>B.18</i>
Gathering Community Input	B.19
<i>Project Website and Virtual Town Hall</i>	<i>B.19</i>
<i>Press Coverage</i>	<i>B.19</i>
<i>Comprehensive Plan Action Committee</i>	<i>B.20</i>
<i>Community Feedback – Keypad Polling</i>	<i>B.21</i>
<i>Community Feedback – Community Image Survey ..</i>	<i>B.23</i>

“IT IS CLEAR THAT NO SELECTION OF CITIZENS IS LIKELY TO BE WISER, IN PRACTICE, THAN THE WHOLE BODY...THIS IS THE ULTIMATE REASON FOR DEMOCRACY.”

– BERTRAND RUSSELL

PLANNING IN PUBLIC

Why Plan in Public?

Planning in public is vital to the long-term success of a planning initiative; having full community support ensures that long after the planners are gone, there will be an active group of people helping to implement the plan's concepts and strategies. Many planning processes are carried out behind closed doors; the hired planners, municipal staff, and sometimes elected officials work diligently and carefully to craft a plan that matches the needs of the City. Unfortunately, due to the exclusive nature of some processes, it's possible that not all points of view or concerns are adequately addressed. While the planning team likely had the City's best interest in mind, when the plan is unveiled there can often be a backlash from those who feel disenfranchised from the process. This backlash can stall and easily derail the implementation of a plan which probably only needed small additions or revisions.

On the contrary, plans which are created as part of a community-based process have, from their inception, incorporated a full range of ideas and input from various constituent groups into their policies. While the adoption process often still involves adjustments to the plan, because the community has participated every step of the way, these changes are easy to make without upsetting the flow of plan adoption.

Creating an Innovative Comprehensive Plan with Community Support

As the guiding document for the City of El Paso, it was important that the Plan El Paso Comprehensive Plan be created with the input and collaboration of the El Paso citizenry, public officials, and staff members. In order to achieve this goal, Plan El Paso was created using an open planning process that included two 14-day public design charrettes. For the purposes of the charrettes, El Paso was divided into the Westside (which included: the Northwest, Central, Northeast, and Fort Bliss areas) and the Eastside (which included: East-Central, Eastside, and Mission Valley areas). While Plan El Paso charts a course for growth and policy decisions that affect the entire City, these geographic sub-areas allowed the planning team and constituency to carefully assess the opportunities and constraints of each specific area. The result is a Comprehensive Plan which is responsive to the needs of the City as a whole and its distinct neighborhoods.

In addition to being created with a high-level of community input and support, the Plan El Paso Comprehensive Plan is also innovative in its approach to planning policy. While many comprehensive plans simply talk about how growth or preservation should occur, Plan El Paso addresses policy decisions by first studying the implications of policy on the built environment. The foundation of Plan El Paso is established by more than twenty small area urban design plans. The focus areas of these plans were chosen to encompass the full range of planning challenges in the City. By carefully studying and planning these areas, the team was able to make policy recommendations that were based on the established and depicted vision. The level of physical planning and illustration of design and planning con-

cepts included in Plan El Paso represent the foremost thinking in comprehensive planning.

What is a Charrette?

Design charrettes are intensive, multi-day, collaborative design workshops that are organized with a specific goal; the Plan El Paso charrettes helped form the foundation of the Comprehensive Plan which guides the City's planning policy decisions and long-term growth. One of the benefits of using charrettes for planning is that all interested parties come together to tackle hard issues. The parties often include citizens, key stakeholders, designers, staff, and public officials. Charrettes are located near the project site and are operated out of a temporary design studio which is open to the public; each Plan El Paso charrette was held in a location central to the specific planning areas of that process.

The onset of the charrette provides an opportunity to incorporate a wide range of ideas; throughout the process, the initial ideas are tested, refined, and presented in draft form. Charrettes are often effective at helping participants look past a single issue and instead work to identify consensus and common ground on big picture items. The charrette is not the only component to a successful planning process. Rather, it establishes the foundation from which the plan is derived.

The work conducted both before and after the charrette is also essential to ensuring a positive and meaningful public planning process. The identification of constituent groups, creation of public awareness about the process, background research, preparation of base information, stakeholder interviews, review of existing planning documents, and other activities allow the planning team to conduct a charrette that takes into consideration the institutional knowledge which already exists in the City.

Planning charrettes feature a variety of event types specifically designed to encourage feedback during every step of the process. Charrettes may include informational presentations, hands-on sessions (where participants can draw their ideas), open houses, surveys, and keypad polling. Each of these events allows the planning team to monitor feedback on the emerging plan concepts.

The hands-on sessions are vital to the charrette process. In El Paso, the design team conducted six hands-on sessions, as well as several sessions with students in various El Paso schools. Each session was focused on a specific study area and the issues that affect it. By strategically addressing the City in smaller planning areas, the design team was able to receive very detailed input from those who know each area best. City-wide planning opportunities were also addressed at each session.

This appendix includes a summary of the public planning process that were used to create the Comprehensive Plan.

EASTSIDE & MISSION VALLEY CHARRETTE, NOVEMBER 3 - 17, 2010
SITE TOUR WEDNESDAY, NOVEMBER 3, 2010

At the beginning of the charrette week, the Dover, Kohl & Partners team toured El Paso's Eastside. The tour included stops at important locations within the City, many of which became the subject of detailed special area plans. Among the stops were Socorro, Yselta, San Elizario, the UTEP Medical Campus, Basset Mall, Zaragoza Road, Lee Trevino Drive, and the Alameda Cor-

ridor. By conducting detailed analysis of the study area, with guidance from City personnel, team members arrived at a better understanding of the opportunities and challenges that exist in the various neighborhoods of El Paso's Eastside.



KICK-OFF PRESENTATION FRIDAY, NOVEMBER 5, 2010



The design charrette for El Paso’s Eastside began with an evening Kick-Off Presentation at Bel Air High School. Among the attendees were Jang Shang, Deputy City Manager for Mobility Services, Katie Updike, City Planning Commission Chair, and Steve Ortega, District 7 Representative, along with many El Paso citizens. Mathew McElroy, Deputy Director of Planning & Economic Development for the City of El Paso, welcomed the assembly and explained the significance of the Comprehensive Plan process. Joseph Kohl, Principal of Dover, Kohl & Partners, began the presentation with a brief history on traditional town planning. Joseph showed examples of best planning practices in peer communities and discussed the project team’s approach towards creating the Comprehensive Plan.

Participants were then briefed by Dover-Kohl Project Director Jason King about the history of planning in El Paso, the region, and throughout the country. During his presentation, Jason focused on the regional traditions of signature public spaces, such as plazas, placitas, and alamedas, and the possibility of reviving planning traditions with the use of El Paso’s SmartCode (zoning regulations which prioritize the form of buildings and public spaces). Rick Hall of Hall Planning & Engineering then spoke about the principles of livable transportation, focusing on the creation of walkable streets. Rick addressed a context-sensitive approach towards transportation planning. This method involves understanding the character of a particular area and designing a transportation plan that fits with the neighborhood.

At the end of the presentation the design team held a question and answer session about the Plan with the meeting participants.

EAST CENTRAL HANDS-ON DESIGN SESSION SATURDAY, NOVEMBER 6, 2010



On the morning of November 6, citizens gathered at Eastwood High School for a Hands-On Design Session to plan the future of the Eastside. Carlos Gallinar, Comprehensive Plan Manager for the City of El Paso, opened the meeting, while Dover-Kohl Project Director Jason King and Principal Joseph Kohl provided an overview of the Comprehensive Plan process and a food-for-thought presentation on the principles of community building and urban design. Following the presentation attendees participated in an interactive design exercise.

Working side-by-side in small groups, neighbors, business owners, City staff and public officials, including TxDOT staff and District 7 representative Steve Ortega, worked together on three planning exercises. The first exercise was a community image survey, in which participants were asked to assign red and green stickers (corresponding to things they like/dislike) on photographs of different types of housing, streets, civic buildings, and commercial properties around the City. The second exercise focused on big-picture Comprehensive Plan issues and their application throughout the Eastside of El Paso. Participants provided input on issues ranging from long-term growth and development to transportation, economic development, and coordination with Fort Bliss. The third exercise focused on urban

design and community character for six different small areas within East Central El Paso. At the end of the exercises, a representative from each table presented their group's ideas to the entire assembly. As each presenter shared the results of their table's discussion, a series of common themes and consensus on many issues became apparent.

Some of the concepts that emerged from the East Central Hands-On Session included:

- Don't expand further east into the desert, infill existing areas instead
- Make Eastside safe for walking and biking
- Provide better transit options
- Invest and improve the area around the airport
- Provide a better mix of uses in previously developed areas
- Make El Paso greener
- Improve street connectivity
- Front streets with buildings, not parking lots

MISSION VALLEY HANDS-ON DESIGN SESSION WEDNESDAY, NOVEMBER 10, 2010



On the evening of Wednesday, November 10, citizens gathered at Ysleta High School for a Hands-On Design Session to plan the future of the Eastside, in particular Mission Valley, and the Ysleta neighborhood. Mathew McElroy, Deputy Director of Planning & Economic Development for the City of El Paso opened the meeting, while Dover-Kohl Principal Joe Kohl and Project Director Jason King gave an overview of the Comprehensive Plan process and an introductory presentation on planning principles and approaches. Transportation Planner Jacob Riger of Charlier Associates shared information on creating sustainable transportation plans. Jacob described peer communities as well as a brief synopsis of El Paso's existing transportation paradigm. City Council Representative Eddie Holguin Jr. was in attendance, as well as Jang Shang, Deputy City Manager for Mobility Services and Katie Updike, City Planning Commission Chair.

Working in small groups, residents and stakeholders participated in three planning exercises. The first two exercises were similar to the first Hands-On Session, including a community image survey, and a focus on big-picture Comprehensive Plan issues. However, the third exercise focused on urban design and community character for different small areas in Mission

Valley and along the Alameda Corridor. With over 60 people in attendance, the community generated consensus around several ideas regarding future growth and redevelopment, which became evident as representatives from each table presented a recap of their table's discussions.

Some of the concepts that emerged from the Mission Valley Hands-On Session included:

- Provide hiking and biking trails in the desert
- Restore historic buildings
- Create mixed-use development around transit
- Improve walkability along Alameda Avenue with lights, shade trees, and sidewalks
- Create public trails and parks along the Rio Grande
- Integrate community facilities such as libraries and parks into the neighborhood fabric
- Enhance neighborhoods in Mission Valley
- Revitalize the intersection of Paisano & Alameda Avenues
- Improve infrastructure to better handle flooding
- Provide economic development opportunities near the Medical Center of the Americas

OPEN DESIGN STUDIO, NOVEMBER 8, 12 - 15

An important aspect of on-location planning was to establish the foundations of Plan El Paso. Working directly in El Paso, rather than creating the Plan out-of-town, was integral in the development of sound principles and recommendations. By working out of a temporary design studio on the Eastside, the team had immediate access to the various focus areas within East Central and Mission Valley. This allowed for easy field verification during the detailed physical planning of these areas and also enabled the team to observe many of the community's concerns first-hand over the course of the charrette.

Another benefit of working in El Paso, was the accessibility and transparency of the planning process to the community. For the Eastside Charrette, the planning team set up an Open Design Studio located in two empty storefronts (Suites 153 - 154) in the Zaraplex Shopping Center. The studio was located in the heart of the planning area and was in an easy to access location for many constituents.

Throughout the course of the charrette, the open studio played host to a variety of meetings and presentations, and was also open for drop-by visitors. Many residents, business owners, and property owners simply stopped in to observe the work in progress, ask questions, and offer suggestions. Members of the design team were available to guide visitors through the various exhibits and to discuss emerging concepts. The continual feedback received from studio visitors provided the design team with many opportunities to verify their work.



TECHNICAL MEETINGS

In addition to community meetings, the design team also conducted a variety of technical meetings with experts in many disciplines. Meetings with various constituent groups such as the Chamber of Commerce, the State Senator’s office, the School Board, City staff, and the AARP are some examples of who the team met with during the charrette. Each technical meeting provided an opportunity to learn more about specific issues in El Paso and for the team to share the emerging plan hypotheses with community leaders, City staff, public officials, and representatives from state agencies. For example, in meetings with the Texas Department of Transportation the team was able to receive input on draft concepts for road design and transportation issues while they were still being developed.

With the information gleaned at these meetings the design team worked to create a plan that carefully addressed all of the City’s opportunities and constraints. Balancing the needs of the City’s constituents is the key to creating a Comprehensive Plan that can truly serve as the guiding document for El Paso.



SPECIAL EVENTS AND PRESENTATIONS

Throughout the course of the Charrette there were several opportunities for members of the design team to share their expertise with the El Paso community. One such event was James Dougherty’s presentation (held in the design studio on November 9) of “A Brief History of Planning in America.” James, Dover, Kohl & Partners’ Director of Design, presented the factors which led to the current growth/planning paradigm across the country and in El Paso. He also described the way in which newer planning processes are helping pave the way for more sustainable growth.



COMMUNITY OPEN HOUSE SATURDAY, NOVEMBER 13, 2010

On Saturday, November 13, the planning team conducted an open house event at the design studio to share the work produced to-date. Multiple exhibits displaying the public input received, including surveys, one-word cards, and table drawings from the Hands-On Sessions, were pinned-up around the studio to explain the process to the public and update residents who participated in the charrette events. In addition to the public input on display, plans (including several urban design plans for specific sites within the Eastside), sketches, three-dimensional computer models, and hand-drawn renderings were displayed around the studio to present the planning team's work on the Comprehensive Plan and encourage citizen feedback. Exhibits were organized by the various elements of the plan, including housing, transportation, urban design, economics, housing, and others. El Paso residents, elected officials, City Planning staff, members of the development community, and neighborhood associations visited the studio and reviewed and provided feedback on the emerging concepts.



WORK-IN-PROGRESS PRESENTATION TUESDAY, NOVEMBER 16, 2010

In the evening of Tuesday, November 16, El Paso residents and stakeholders joined the design team at Riverside High School for the Work-in-Progress Presentation. After an introduction from Deputy Director of Planning & Economic Development Mathew McElroy, members of the planning team presented the draft planning concepts that were developed during the charrette process.

Victor Dover, Principal at Dover, Kohl & Partners, and Jason King provided a summary of the public input received and then presented the emerging Comprehensive Plan concepts. Illustrative plan drawings and renderings were used to demonstrate the various urban design strategies applied to specific sites. Jacob Riger (Charlier Associates, Inc., transportation planning) presented the draft transportation planning issues, including a look at the proposed rapid transit system (RTS) system. Jacob showed the way in which the correlation between transit and urban design and placemaking has the potential to enhance various locations throughout the City. Todd Zimmerman, housing market expert and Principal of Zimmerman/Volk Associates, provided information related to El Paso's current and future housing market. His analysis demonstrated the need for additional housing types as well as the emerging trends in consumer preference.

Following the team's presentation, a question and answer session was held with the more than 50 participants in attendance. The open microphone session provided the team with valuable input that was used to refine the plan after the charrette.



WESTSIDE, NORTHEAST & CENTRAL CHARRETTE, FEBRUARY 9 - 22, 2011

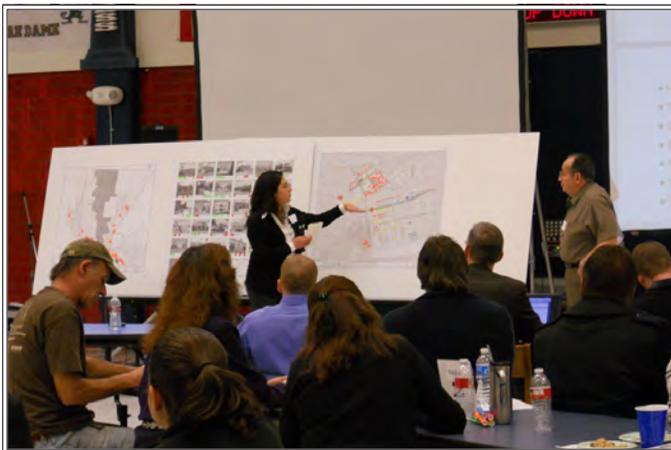
SITE TOUR WEDNESDAY, FEBRUARY 9, 2011

Similar to the start of the Eastside Charrette, the project team conducted a tour of the Westside, including Northwest, Central, Northeast El Paso, and Fort Bliss. Throughout the tour, the team had an opportunity to examine various types of development conditions ranging from the most urban areas to rural, undeveloped parts of the City. While documenting the study areas with maps and photographs, the team observed traffic and pe-

destrian circulation patterns; the team even used a radar gun to gauge vehicle speeds. Experiencing various study areas on foot and by car, and establishing an inventory of existing conditions, was vital to the creation of detailed physical urban design plans which helped establish the foundation of Plan El Paso's policy recommendations.



CENTRAL PLANNING AREA HANDS-ON DESIGN SESSION THURSDAY, FEBRUARY 10, 2011



On Thursday, February 10 the community gathered at Bowie High School for a Hands-On Design Session to plan El Paso's future, with special focus on the Central El Paso and Alameda Avenue. Mathew McElroy, Deputy Director of Planning & Economic Development for the City of El Paso, opened the meeting and described the City's ongoing public process to update the Comprehensive Plan. Dover-Kohl Principal Victor Dover and Project Director Jason King provided a summary of the Comprehensive Plan process (including the work produced during the Eastside Charrette) and presented background information on building highly liveable, choiceworthy, economically competitive communities.

In table groups, neighbors, business owners, City staff, and public officials worked together on three planning exercises. The first exercise was a community image survey, in which participants were asked to evaluate the different elements that make up the City's collective urban design. The second exercise focused on big-picture Comprehensive Plan issues and their application throughout the City. Participants provided input on issues ranging from transportation to economic development and preferred locations for future population growth.

The third exercise focused on urban design and community character in Central El Paso and along Alameda Avenue. More than 40 people participated in the event and worked together to reach consensus on a variety of issues affecting El Paso's future.

Some of the concepts that emerged from the Central Planning Area Hands-On Session included:

- Concentrate development in the downtown and restore historic buildings
- Reuse / reclaim under-utilized rail yards
- Take better advantage of Downtown parking lots by allowing shared parking
- Improve lighting, sidewalks, and cultural opportunities
- Build housing that is in keeping with the context of existing neighborhoods
- Consider light rail to connect different areas of El Paso

NORTHWEST PLANNING AREA HANDS-ON DESIGN SESSION SATURDAY, FEBRUARY 12, 2011



The second Hands-On Design Session of the Westside Charrette was held on Saturday, February 12 at Franklin High School. The event focused on the future of the City, but with special emphasis on the Northwest area of El Paso. Carlos Gallinar, Comprehensive Plan Manager for the City of El Paso, opened the meeting and described the City's ongoing Comprehensive Planning Process.

In addition to a wide cross section of El Pasoans, members of City staff and other El Paso officials also joined the session. Participating in the workshop were: El Paso City Manager, Joyce Wilson; City Representative for District 1, Ann Lilly; Metropolitan Planning Organization Executive Director, Roy Gilyard; and Deputy Director of Planning & Economic Development, Mathew McElroy. Victor Dover and Jason King described the components of the Comprehensive Plan and briefed participants on planning principles and concepts.

Following the short introductory presentation participants worked on a community image survey and Comprehensive Plan mapping exercise similar to previous Hands-On Sessions. The third exercise focused on urban design and community character along Mesa Street near the Glory Road bus stop and the Transmountain Area.

Over 60 people participated in the table exercises and shared their thoughts on El Paso's future. At the end of the session each table shared the ideas they generated; many tables and participants shared similar views on the opportunities and challenges facing the City.

Some of the concepts that emerged from the Northwest Planning Area Hands-On Session included:

- Concentrate development in new villages
- Preserve arroyos and farmland in the Upper Valley
- Adopt special design considerations for horse riders
- Build a destination resort for eco-tourism along Transmountain Road
- Run express buses from downtown to the Upper Valley
- Plant native trees along streets
- Along Mesa Street, move parking to backs of buildings and put outdoor seating in front

FORT BLISS HANDS-ON DESIGN SESSION - TUESDAY, FEBRUARY 15, 2011



On February 15 the design team held a special Hands-on Design Session at Fort Bliss with a select group of representatives from the base. The City and Fort Bliss have a strong relationship and it was important to get the input of military personnel in the planning process. Fred Lopez, the City’s Comprehensive Plan Manager, participated in the session to hear the soldiers’ input and ideas. The selected soldiers took part in a Hands-On Design Exercise that was very similar to the other community sessions, but with an increased focus on Fort Bliss. The soldiers worked in small groups to create both Citywide and Fort Bliss

specific plans. As a major population center, with even more soldiers slated to be stationed at the post, the participants were helpful in providing ideas to address the City and Fort Bliss’ future needs. At the conclusion of the exercise representatives from each table reported back to the group. Throughout the course of the presentations, consensus emerged on a variety of issues, including:

- Providing better access to daily needs for soldiers
- Locating more parks and open spaces in the neighborhoods

CHILDREN’S HANDS-ON DESIGN SESSION AT MOYE ELEMENTARY WEDNESDAY, FEBRUARY 16, 2011

Students from Moye Elementary School participated in a Hands-On Design Session on Wednesday, February 16. Students from several fifth grade classes joined members of the planning team for an interactive planning exercise. Carlos Gallinar from the City began the presentation followed by a presentation from planning team member Natalie Ruiz (from planning firm IPS Group). Natalie explained the planning process and also conducted an interactive poll with the students in order to help them understand the questions that the planning team was working to answer.



Following the presentation the students worked in small groups to address several planning questions. The map provided to the students depicted the area around their school. The planners received input on what the students thought needed to change in their neighborhood. While planning concepts may seem difficult to understand, the students were very receptive to discussions about walkability and public space.

After the table exercise each group presented, as a whole, their table’s ideas. The session was a great learning experience for the students and also provided the planning team with a new, fresh perspective on emerging planning concepts.



NORTHEAST & FORT BLISS PLANNING AREA HANDS-ON DESIGN SESSION WEDNESDAY, FEBRUARY 16, 2011



Area residents met on Wednesday, February 16 at the Wellington Chew Senior Center for a Hands-On Design Session to focus on Northeast El Paso, including the Northgate Mall site and the areas around Fort Bliss. Carlos Gallinar, Comprehensive Plan Manager for the City of El Paso, opened the meeting and described the City's ongoing Comprehensive Plan public process. Joining the community participants were City Representatives Susie Byrd and Carl Robinson. Victor Dover and Jason King provided an overview of the Comprehensive Plan process and a food-for-thought presentation on building highly livable, choiceworthy, economically competitive communities.

The first exercise was a community image survey, while the second exercise focused on City-wide Comprehensive Plan objectives. Participants provided input on issues ranging from transportation to economic development and preferred locations for future population growth. The third exercise focused on urban design and the community character of the Northgate Mall area and the Fort Bliss area.

The more than 50 citizen planners worked together to identify big picture concepts for El Paso's future as well as a variety of ideas for the reinvention of the former mall site.

Some of the concepts that emerged from the Northeast and Fort Bliss Hands-On Session included:

- More shopping, stores, coffee shops, and restaurants
- Additional parks and outdoor recreation
- Improve look of buildings along Dyer Street and add street trees
- Mixed-use center at Northgate Mall
- Better bus service and possibly light rail to connect different areas of El Paso

OPEN DESIGN STUDIO, FEBRUARY 14 - 21

Similarly to the Eastside Charrette, which featured an open design studio in the study area, the Westside Charrette was conducted from a studio set up in the Pat O'Rourke Recreation Center (former YMCA). The studio served as the location for daily work sessions, technical meetings, an open house, and community presentations. The studio space was adorned with

a variety of exhibits including the drawings prepared during the Hands-on Design Sessions. Visitors took the opportunity to review the work of their fellow El Pasoans or to converse with the design team as the plan was being creating.



TECHNICAL MEETINGS

During the Westside Charrette the planning team held technical meetings on a range of special topics with many important groups in and around El Paso. The Ysleta Pueblo Community Development Corporation, Save the Valley, Historic Preservation, Texas General Land Office, and the Downtown Management District were just some of the groups that the team met with. The meetings helped shed light on specific issues and provided an opportunity to constructively work towards a Comprehensive Plan that takes a holistic approach towards the future.



SPECIAL EVENTS AND PRESENTATIONS

The Westside Charrette featured two special events with national experts in their respective fields. Karen Minkel, Director of Strategic Planning from Fayetteville, Arkansas shared her insight on Comprehensive Planning with the design team, community, and City staff. In Fayetteville, Karen is charged with implementing their plan, known as City Plan 2025. Karen has been instrumental in helping the City achieve zoning reform and has helped continue the planning efforts by conducting several neighborhood planning events.

The other special guest was Christian Sottile, a nationally respected architect from Savannah, Georgia. Christian focused his energy on an architectural assessment of El Paso, attempting to catalog the various styles and their emergence throughout the City. He began his process by establishing a matrix of styles and prominent architectural details and then presented his findings to the community (during the charrette), in an insightful and coherent way. His observations and conclusions helped the design team better understand El Paso's architectural roots as they worked to envision the City's future.



WORK-IN-PROGRESS PRESENTATION TUESDAY, FEBRUARY 22, 2011



On Tuesday, February 22 the El Paso community gathered at the Main Library in Downtown to review the draft Comprehensive Plan concepts developed during the West El Paso Charrette. The presentation addressed urban design, town planning, architecture, market analysis, and transportation planning work completed during the intensive two-week public process.

Over 150 community members were in attendance, including City Representatives Steve Ortega, Susie Byrd, and Beto O'Rourke, and County Judge Veronica Escobar. Mathew McElroy, Deputy Director of Planning & Economic Development for the City of El Paso opened the meeting and described the City's ongoing public process to update the Comprehensive Plan.

Victor Dover, Principal of Dover-Kohl, described the charrette process and the many forms of public input that shaped the plan over the two weeks; he then introduced the plan's main concepts. Laurie Volk, Principal from housing market analyst firm Zimmerman\ Volk Associates, spoke of the market potential for housing in the Downtown. Sarah Woodworth, with commercial market analyst firm w-ZHA, presented findings regarding the existing commercial strengths of the Downtown and the public-private partnerships that could result in increased vitality for the area.

Jason King, Project Director from Dover-Kohl, discussed detailed plans for specific priority areas in West El Paso, such as the former Northgate Mall property, Mesa Street, the Union Pacific rail yards, and numerous sites in Downtown. Mike Lydon with the Street Plans Collaborative presented a draft City-wide Bicycle Action Plan with key steps that the City can take to become more bike-friendly.

At this juncture in the process the Plan El Paso project had involved over 500 participants at Hands-On Sessions, over 50 stakeholder meetings were held, and more than 18,000 people participated in the process via the project website and Virtual Town Hall. Attendees provided feedback to the City and the Plan El Paso team through keypad polling, questionnaires, and one-on-one conversations following the presentation.

At the close of the evening, participants were asked, "Is the plan generally on the right track?" 96% of the audience responded on their keypads "yes" or "probably yes."

GATHERING COMMUNITY INPUT

PROJECT WEBSITE & VIRTUAL TOWN HALL



The Comprehensive Plan Charrettes and additional charrettes for small area plans featured extensive public input with over eight weeks of on-site planning and meetings. In addition to this on-the-ground input of hundreds of El Pasoans, the Plan also received input from thousands of online visitors. Online outreach mechanisms are becoming a major component to providing various opportunities for community participation.

PlanElPaso.org served as the project’s main online presence. The site, which was launched at the inception of the planning process, featured information on all aspects of the Comprehensive Planning Process. Previous plans and studies were made available through the site as were ideas generated throughout the

process. During each charrette, the project website allowed visitors to read press releases, review presentations and plans, see photos, and find other pertinent information.

The El Paso Virtual Town Hall served as another online outreach mechanism. The site facilitated public feedback allowing participants to share their own ideas and build on the ideas of others. The Virtual Town Hall organized ideas into a variety of topics, and allowed both the creation of new ideas and the ability to comment on or suggest improvements to other ideas. Users were also able to vote on the 30+ individual ideas that were shared on the site. The design team carefully reviewed each idea shared on the Virtual Town Hall to ensure that the items

PRESS COVERAGE

The El Paso Comprehensive Plan process received extensive coverage from a variety of local and national press outlets. *El Paso Times*, *El Paso Inc.*, *The New York Times*, *Borderzine.com*, and *KFOX 14* are just some of the various newspapers, websites, and news channels to feature the plan.

Each of the planning sessions, including both public presentations and the various hands-on design sessions were prominently featured in the El Paso media. Press releases were issued for each event and helped to spread the word. The City also utilized advertisements and newspaper inserts prior to each charrette. The insert was a bilingual Town Paper publication that described all aspects of the planning process. It profiled City staff and the design team, and featured a variety of articles on comprehensive planning and the goals and objectives for the charrettes and comprehensive plan.

Additionally, the Natural Resources Defense Council’s Blog (www.switchboard.nrdc.org) prominently featured the Connecting El Paso plan (adopted in 2011). The blog’s author, Kaid Benfield, says that “it is hard to imagine a much better vision to begin with than Connecting El Paso.”

PLAN EL PASO: PRE-CHARRETTE EDITION II
West Side Comprehensive Plan
 FOR THE PLANNING AREAS OF NORTHWEST, CENTRAL, NORTHEAST & FORT BLISS

Help Plan The Future Of El Paso
Feb. 9 - Feb. 22, 2011

Thursday, Feb. 10
 5:30 p.m. to 8:00 p.m.
 Hands-On Design Session #1:
 Central Planning Area
 Blaine High School Cafeteria (801 South San Marcial)

Saturday, Feb. 12
 9:00 a.m. to 2:00 p.m.
 Hands-On Design Session #2:
 Northwest Planning Area
 Franklin High School Cafeteria (500 North Foster Drive)

Wednesday, Feb. 16
 5:30 p.m. to 8:00 p.m.
 Hands-On Design Session #3:
 Northeast & Fort Bliss Planning Areas
 Wellington Choe Senior Center (6430 Maxwell Avenue)

Thursday, Feb. 22
 6:00 p.m. to 8:00 p.m.
 Work in Progress Presentation
 Downtown Library (501 North Oregon Street)

STUDIO LOCATION:
Open Design Studio
 Open Design Studio (Former YMCA) (701 Montana Avenue)
 Tuesday, February 14-21
 M: 9:30 a.m. to 7:00 p.m.
 Friday: 9:30 a.m. to 5:00 p.m.

Greetings Paseños:
 One of the priorities for the administration and this City Council has been to improve our quality of life through our built-environment. The built-environment includes the physical structures, the parks, the streets,

Process to Create New Comprehensive Plan for El Paso Begins, City Seeks Community Input

As the next chapter of El Paso's history unfolds, the involvement of its citizens is instrumental in creating a successful new long-range plan.

Members of the development community and other stakeholders to gain feedback and input that the plan is a consensus document that will be ready to be implemented upon adoption.

As the next chapter of El Paso's history unfolds, the involvement of its citizens is instrumental in creating a successful new long-range plan. The upcoming two week comprehensive planning charrette will focus on the Northwest, Central, Northeast & Fort Bliss. Multiple public events are designed to inform the community about the planning challenges and options, while giving the planning team insight into the El Paso of the future that citizens envision. An initial part of the comprehensive plan's public involvement process took place in November 2010 and focused on the East Side and Mission Valley.

The planning process will be led by the nationally recognized town planning firm of Dover, Kohl & Partners. Working with a team of experts in a wide range of fields, the multi-disciplinary planning team will translate the goals and visions established during the charrettes into a set of strategies

Mayor John Cook
 El Paso

THE COMPREHENSIVE PLAN ADVISORY COMMITTEE

In addition to the varied and thorough public planning process, the City Council approved the formation of an ad-hoc advisory committee to augment the input of citizens and stakeholders. The Comprehensive Plan Advisory Committee (CPAC) was created in November 2010 and is comprised of industry experts, City staff, City Plan Commission members, and neighborhood association leaders.

Meeting on a monthly basis—in a public forum—the CPAC was responsible for suggesting policies, reviewing drafts of several chapters, and ensuring Citywide industry buy-in. By providing direction, focus, and suggestions/recommendations the CPAC assisted the City of El Paso’s Planning and Economic Development staff and Dover Kohl & Partners (DKP) consultants and served as one of the many other voices and public participation utilities, augmenting, and complimenting the varied public participation methodologies.

ROLE OF COMMITTEE MEMBERS

An advisory committee is a collection of individuals who bring unique knowledge and skills which complement the knowledge and skills of the formal body, in this case, the City of El Paso’s Planning and Economic Development Department and DKP. The input provided by the membership helped guide the overall process, content of the plan (in relation to other public input), and serve as advocates for a particular group or organization.

While the advisory committee did not have formal authority to govern, nevertheless, the CPAC’s final recommendation will be made to the City Plan Commission, which in turn will make a formal recommendation to the City Council. The CPAC’s other duties included:

- to provide suggestions and recommendations on the planning process,
- to provide feedback on various plan elements,
- to assist in shaping policy recommendations, goals, and objectives,
- to review plan drafts as they become available; offer constructive changes and provide feedback to ensure inclusivity of various public comments,
- to attend regularly scheduled meetings, and
- to attend public meetings or charrette events when possible.

CPAC MEMBERS

The members of the CPAC included:

Brooks Vandivort	City Plan Commission
Kristi Borden	City Plan Commission
Larry Nance	City Plan Commission
Charlie Wakeem	Open Space Advisory Board
Jennifer Barr	Parks & Recreation Advisory Board
Mary Frances Keisling	Neighborhood Coalition
Juan Olvera	Housing Authority of the City of El Paso
Bradley Roe	El Paso Association of Builders
Roland Correa	El Paso Association of Realtors
Michael Kelly	Paso Del Norte Group Health Foundation
Geoffrey Wright	American Institute of Architects - El Paso Chapter
Robert Moreno	Texas Council of Engineering Companies - El Paso Chapter
Linda Troncoso	El Paso Chamber Infrastructure & Development Committee
Jay Banasiak	Mass Transit Department
Ruben Vogt	El Paso County
Michael Medina	Metropolitan Transportation Organization
Marty Howell	Sustainability Manager, City of El Paso
Deborah Hamlyn	City Manager
John Neal	City Manager

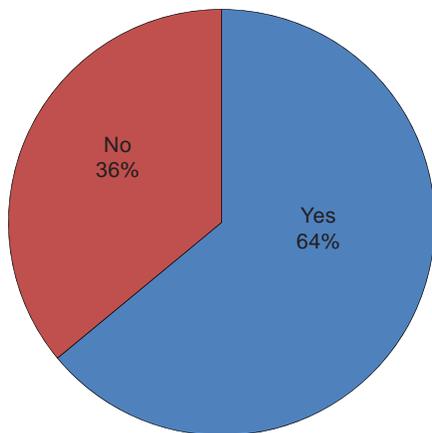
The CPAC’s role in the implementation of comprehensive plan will be a vital one. It is recommended that the CPAC continue to meet on a quarterly basis to review the implementation process and ensure the timely delivery of the many recommended policies and projects.

KEYPAD POLLING

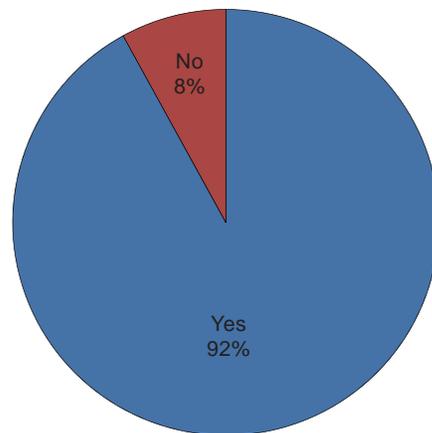
The El Paso Comprehensive Plan is the result of an extensive, wide-reaching public planning process. As described by this Appendix, the Plan foundations were established during the many public meetings conducted during the more than four weeks of on-site public planning. The various charrette events provided multiple opportunities for feedback using drawings created by the community, one-word cards, and surveys. Additionally, keypad polling devices were used to interactively collect input. Keypad polling is unique in that it allows the team to receive immediate responses which are simultaneously shared with the audience.

At the beginning of each meeting electronic keypad devices were distributed to attendees. The keypads were used to electronically transmit participants' answers in real-time during the presentation. The planning team utilized the keypads to learn more about the attendees of each meeting and to solicit feedback on emerging plan concepts. Questions addressed topics like the prioritization of improvements, architectural preference, and also asked participants whether they thought the plan was on track. Following is a small sample of some of the questions asked and the responses that were received. Each question indicates the public session in which it was asked.

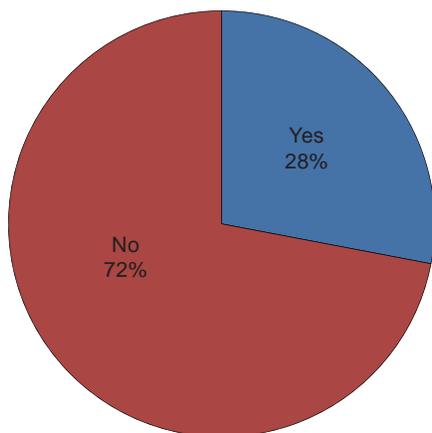
As a child did you walk to school? (Northwest Hands-on Session)



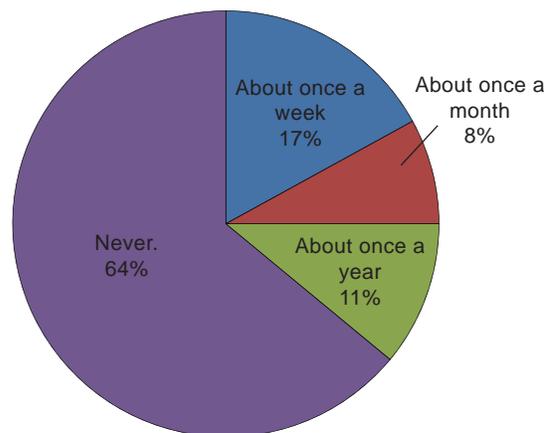
Did your parents ever walk to school? (Northwest Hands-on Session)



If you have kids, do they ever walk to school? (Northwest Hands-on Session)

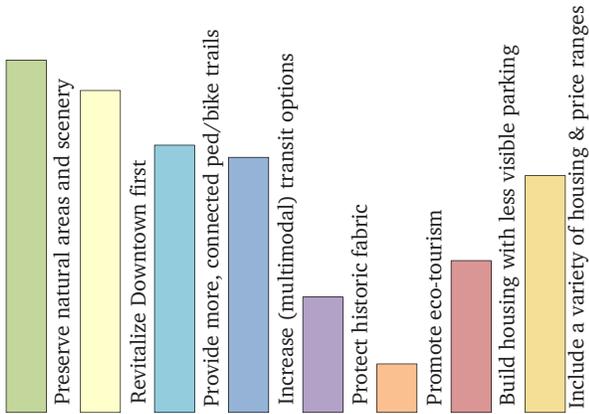


How often do you (or any member of your family) walk to a store? (Northwest Hands-on Session)

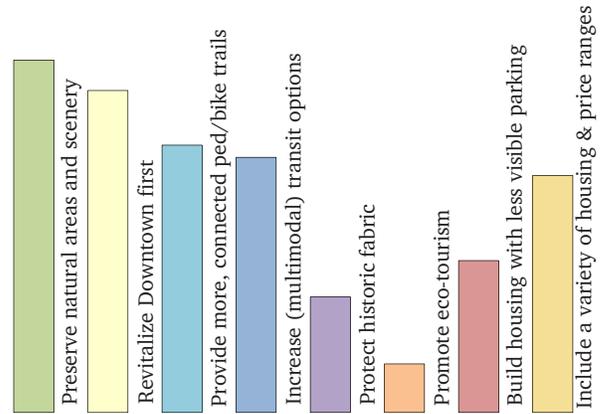


KEYPAD POLLING

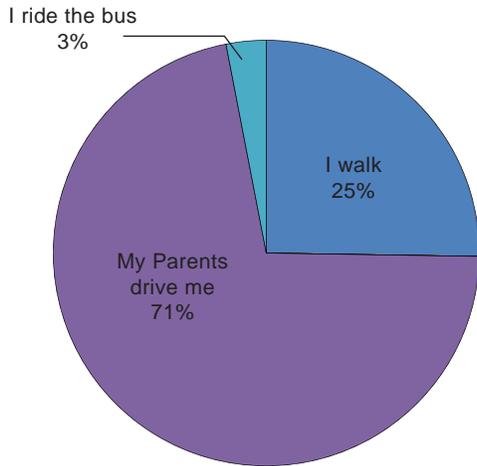
Of the ideas you heard today, which are most important to you? (Northeast & Fort Bliss Hands-on Session)



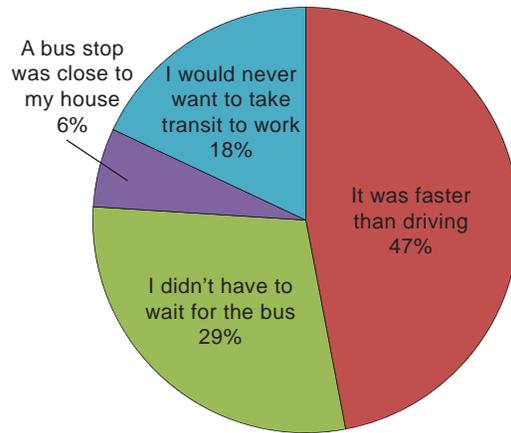
Of the ideas you heard today, which are most important to you? (Northwest Hands-on Session)



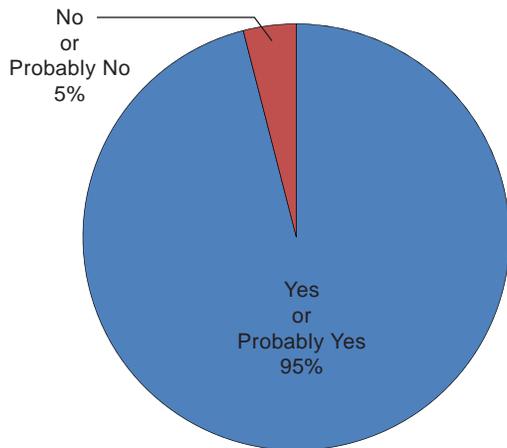
How do you get to school? (Moye Elementary Hands-on Session)



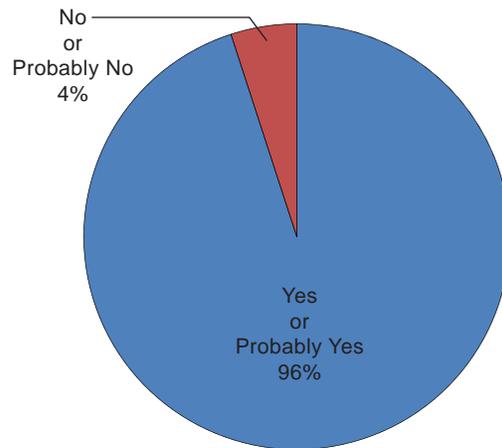
I would take transit to work if: (East Kick-off Presentation)



Are the plans generally on the right track? (Eastside Work-in Progress Session)



Are the plans generally on the right track? (Westside Work-in Progress Session)



COMMUNITY IMAGE SURVEYS

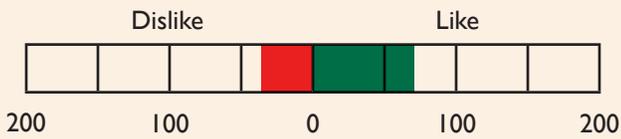
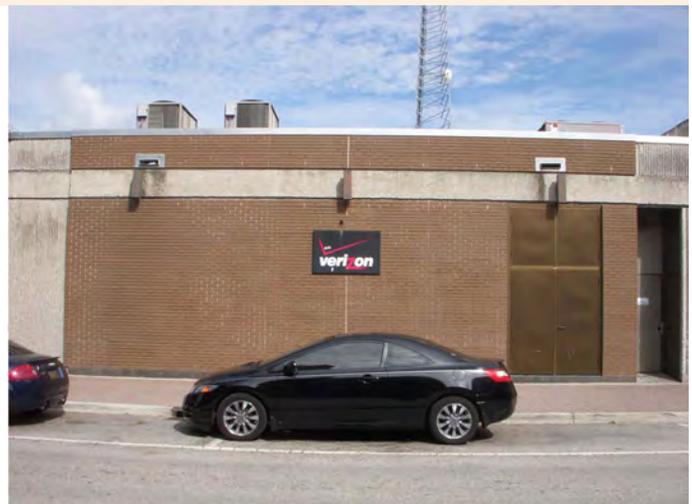
It can often be difficult for the community to use words to describe the types of architecture, public spaces, streets, or sidewalks that they prefer. To solicit input on these important components of the City's public realm, each Hands-On Session table exercise began by asking participants to indicate their preferences on a community image survey. Each participant was given a finite number of green ("like") and red ("dislike") stickers and placed them on images that depicted a variety of conditions, including types of houses, building configurations, and urban conditions. The photos used in the survey were presented to the community in a random order; however, the twenty four seemingly random images were actually comprised of sets of comparative images pertaining to specific subsets of design.

These pairings allowed the team to compare, for example, two styles of single-family homes and determine which the community prefers. The assessment of community preferences helped guide the emerging plan concepts.

The results of the survey are shown below and have been organized by each photo-comparison pair to illustrate themes which emerged as a result of the community's preferences. The bar below each photo, and the corresponding numbers, indicate the amount of red stickers ("dislike") and green stickers ("like") that each photo received. The number of responses below each image includes the results of all community image surveys administered during the charrettes.

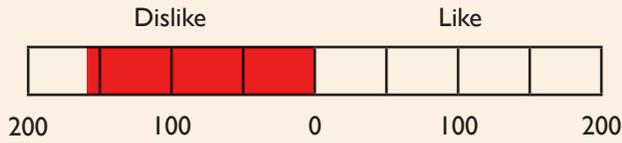
In total the survey was conducted with over 200 members of the general public as part of the hands-on exercises. The result indicate preferences incorporated into design elements of the plan.

Centers

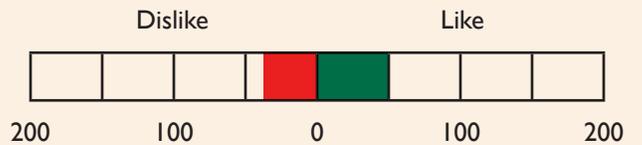
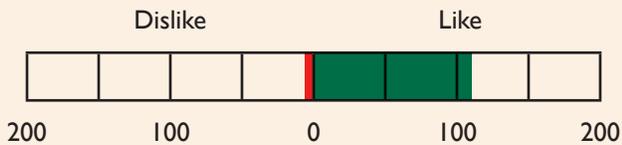


COMMUNITY FEEDBACK - COMMUNITY IMAGE SURVEY

Parking (front lot or mid block with some on-street)

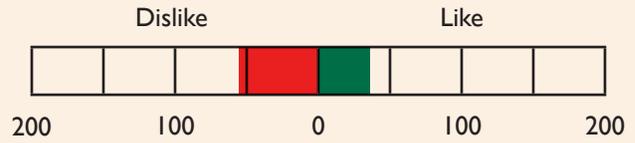
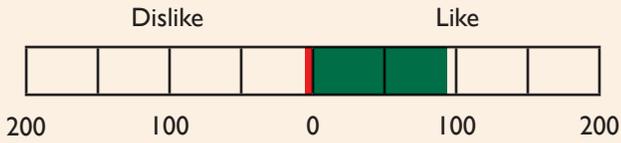


Large Houses

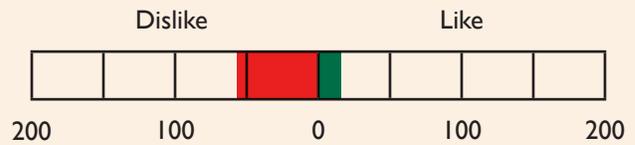
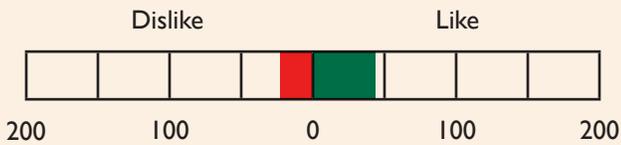


COMMUNITY FEEDBACK - COMMUNITY IMAGE SURVEY

Mid-size Houses

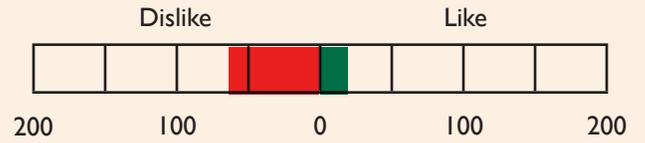
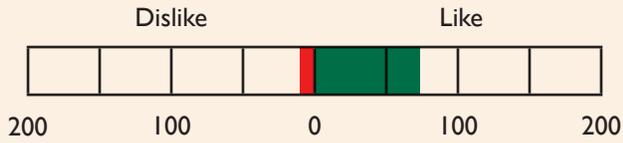


Small Houses

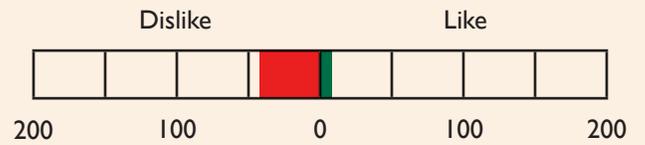
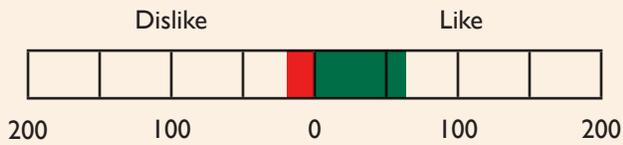


COMMUNITY FEEDBACK - COMMUNITY IMAGE SURVEY

Small Houses

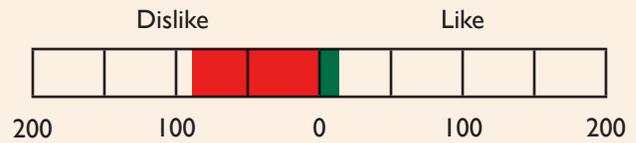
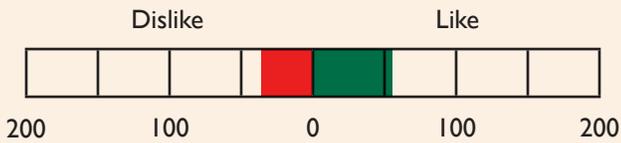


Multi-family Houses

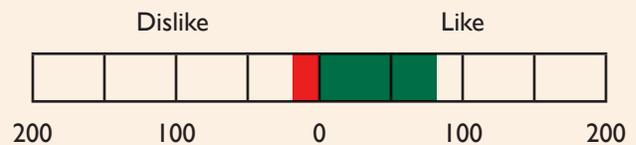
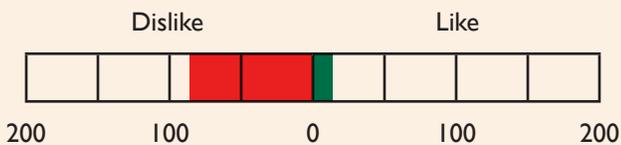


COMMUNITY FEEDBACK - COMMUNITY IMAGE SURVEY

Streetscapes

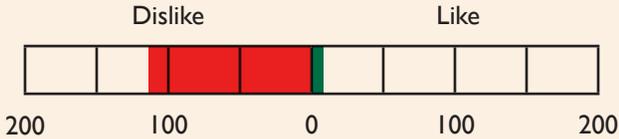


Streets

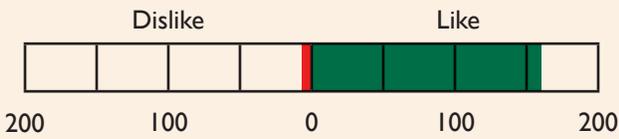


COMMUNITY FEEDBACK - COMMUNITY IMAGE SURVEY

Public spaces



Public spaces



COMMUNITY FEEDBACK - COMMUNITY IMAGE SURVEY

Schools



Dislike Like



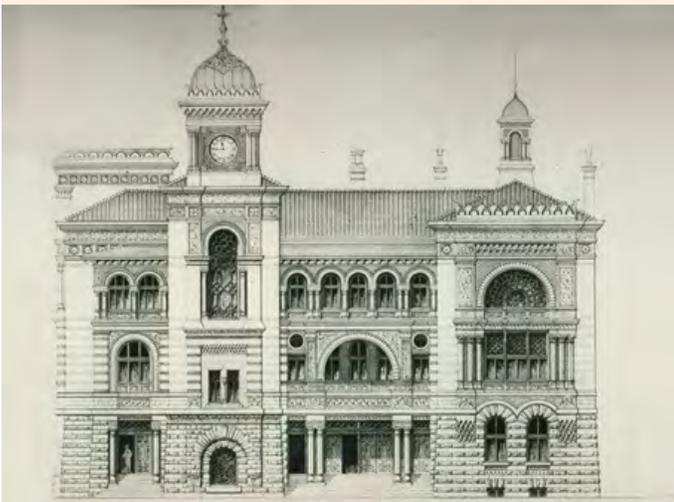
200 100 0 100 200

Dislike Like



200 100 0 100 200

Architecture



Dislike Like



200 100 0 100 200

Dislike Like

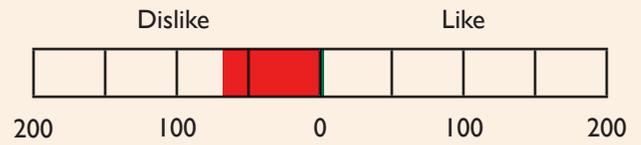
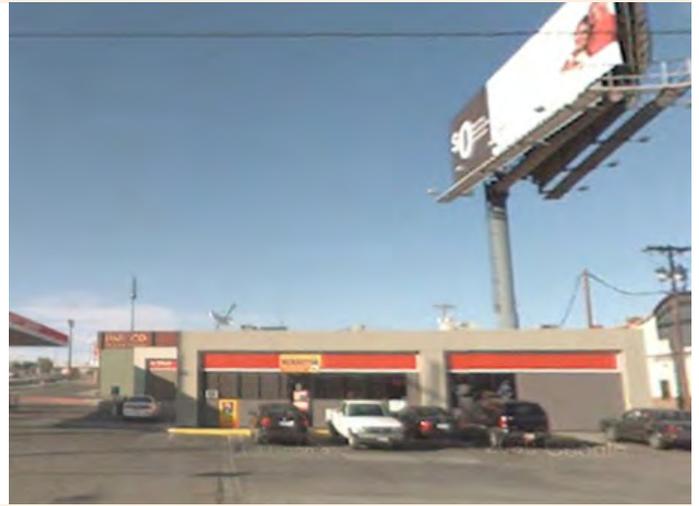
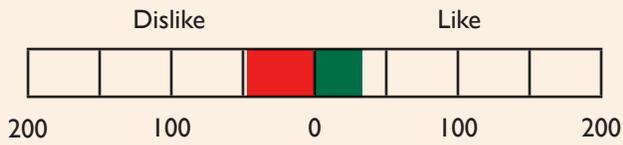


200 100 0 100 200

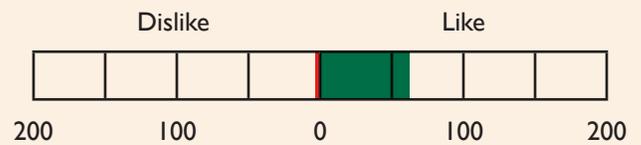
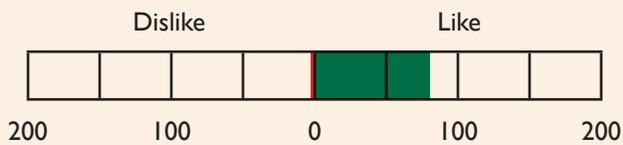
Gathering Community Input

COMMUNITY FEEDBACK - COMMUNITY IMAGE SURVEY

Features in the landscape



Placement of Civic Buildings



ECONOMIC DEVELOPMENT REPORTS



<i>Dynamics of Master-Planned Communities</i>	C.2
<i>Residential Market Potential by District</i>	C.5
<i>Downtown El Paso Market Analysis</i>	C.22
<i>Socio-Economic Forecast Estimates</i>	C.41

DYNAMICS OF MASTER-PLANNED COMMUNITIES

By Laurie Volk and Todd Zimmerman

Density and a well-integrated mix of land uses in master-planned communities provide development efficiency and flexibility.

Density and a well-integrated mix of land uses are important principles of New Urbanism (NU), also known as traditional neighborhood development, that can lead to significant development advantages in new planned communities. Yet the potential advantages and disadvantages of NU remain largely misunderstood, not only by experienced builders, developers, and lenders, but also by many advocates.

The long-term value enhancement that is often at the core of the investment strategy of NU is antithetical to the trend toward standardization and securitization, in which the thinking on the debt side can be aggressively short term. Building the long-term residual value associated with NU requires, among other things, a long term, which is one thing for which many financing sources currently have no patience.

Master-planned communities have always been difficult to finance, as large developments lack a clear, near-term exit strategy at competitive rates of return. A greater understanding of NU would help investors and lenders make informed decisions.

The advantages of NU can be simply summarized: Density + Diversity = Efficiency + Flexibility. Density carries negative connotations for many citizens and planning officials. Yet density can be a virtue, creating the sorts of places that the public appreciates. Many of our most cherished historic tourist destinations were built at relatively high densities: Annapolis, Savannah, Charleston, New Orleans. However, to be a virtue, density must be responsive not only to market fundamentals, but also to location, climate, topography, and cultural heritage. Above all, density must be combined with a good design and a well-integrated mix of uses, building types, housing types, and lot sizes.

One of the best examples of an artful blend of housing types is a 1.4-acre block of a new planned community, Kentlands, in Gaithersburg, Maryland. The block includes 21 dwelling units: a few small accessory apartments at monthly rents between \$750 and \$900, rowhouses that sold for ap-

proximately \$250,000, and large detached houses that sold for up to \$500,000. The block's net density of 15 units to the acre is offset by alley-loaded parking and a location on one of the Kentlands town greens.

Development Advantages

A mixture of house types and market segments is one of the hallmarks of a well-executed NU property. The combination of density and diversity creates a number of development advantages: lower land cost per unit; lower infrastructure cost per unit; lower first-phase infrastructure cost; greater development flexibility; and lower costs for public services.

Lower land cost per unit

Since no buffers are required between housing segments, the close proximity of different residential types leads to more efficient land yields. In NU plans there are no collector roads without developable frontage; for that reason the street network also contributes to the lower land cost per unit.

Lower infrastructure cost per unit

Including tree-planting strips, sidewalks and alleyways, a NU community can have higher infrastructure cost per linear foot of street than the typical conventional subdivision. However, due to the higher density, the cost per dwelling unit is actually lower. In a study of costs conducted for the Canada Mortgage and Housing Corporation, a portion of Barrhaven, a master-planned community near Ottawa, was redesigned using NU principles (Essiambre-Phillips-Desjardins Associates Ltd. et al., *Conventional and Alternative Development Patterns; Phase I: Infrastructure Costs*, Canada Mortgage and Housing Corporation, 1997). The higher total infrastructure cost of the new plan was more than offset by the significantly higher unit yield, and resulted in a 24% lower infrastructure cost per dwelling unit.

Lower first-phase infrastructure cost

A common perception is that NU properties require heavy up-front costs. Press accounts typically focus on the amenities that contribute to a "sense of community," but ignore the fact that these amenities are common to most master-

DYNAMICS OF MASTER-PLANNED COMMUNITIES

planned communities. In fact, first-phase infrastructure cost can be lower in an NU master-planned community. Conventional communities usually require the creation of entire pods and collector roads. In the first phase of an NU development, the only investment required is the completion of both sides of a single street. This street serves a variety of housing types in close proximity, perhaps including a small formal civic space such as a green or plaza. Not only are initial infrastructure costs reduced, but the virtue of density is demonstrated at the same time. Thus, the street itself functions as an amenity.

Greater development flexibility

Optimally designed streets and blocks can accommodate a range of housing types with the same lot depth, from small apartment buildings and rowhouses to low density, detached houses. If market demand shifts, housing types on any given street can shift in response without the need for elaborate changes. Conventional master-planned communities are based on separation of housing types in separate development “pods,” with road layouts specific to each type of pod. Changing just a portion of a pod is difficult. However, when blocks are designed with common lot depths, changes in market preferences can be accommodated simply by adjusting lot widths.

For example, the lots surrounding Nursery Park at Harbor Town in Memphis underwent such a transition. The relatively large lots surrounding the park were reduced in size when the developer realized that smaller lots were not only marketable but preferred by a number of buyers; utility lines were ripped out to accommodate the larger number of lots. The net gain justified the extra expense. Even though the smaller lots individually had a lower value than the larger ones they replaced, their aggregate value was greater after the replatting.

A similar development flexibility extends to buildings. For example, the “mansion” prototype – based on buildings that have made up the commercial fabric of American small towns – is often used in NU plans to accommodate a wide range of uses on a single lot type. One NU prototype is three floors with a total of 7,500 square feet that can be a small office building, office or housing over retail, or a small bed-and-breakfast inn. The essential point is that buildings are strictly regulated in form, but very flexible in use. They are an increment of development that the smallest development entities

can easily manage, yet each prototype building supports the quality and character of the downtown fabric. Of course, flexible zoning and land-use regulations are required.

Lower costs for public services

The Canada Mortgage and Housing Corporation study examined life-cycle costs over a 75-year period (Hemson Consulting Ltd., *Conventional and Alternative Development Patterns; Phase II: Municipal Revenues*. Canada Mortgage and Housing Corporation, 1997). The public sector costs relating to non-residential uses were 48% lower in the NU plan compared to the conventional plan, with costs for residential uses 5% lower. The most significant savings related to roads, stormwater management, and water distribution. However, the study found that the NU plan was not always more efficient. For example, the cost of snow clearing was projected to be nearly five times higher in the NU plan because of the more numerous intersections.

The Revenue Side

Although the effect on cost due to density, diversity, efficiency, and flexibility is significant, NU developments can have an even greater effect on revenue. Analysis of several new communities that have generated sufficient performance data suggests three inter-related market advantages of a well-executed NU development: a housing value premium; a higher, long-term value for income property; and a location premium.

Housing value premium

A well-designed NU land plan can add value to residential development, either through unit price premiums, increased sales paces, or some combination of the two. A recent study of 1,850 sales in the Kentlands market area attributed a premium of approximately 12-13% of the purchase price of single-family houses in Kentlands directly to NU principles (C. Tu & M. Eppli. *Valuing the New Urbanism: The Case of Kentlands*, 1998). The analysis used a hedonic pricing model in which size, construction quality, and other variables were held constant. It identified a \$24,000 to \$30,000 price premium for Kentlands houses compared to the houses located in nearby conventionally designed communities.

At Seaside – the NU resort village on the Florida panhandle – the annual price escalation of the various lot types

DYNAMICS OF MASTER-PLANNED COMMUNITIES

ranges from 9% for waterfront lots to 87% for interior lots. The market value of the waterfront lots was widely recognized at the outset. However, the value of the interior lots was created solely through the quality of the built environment. A 1982-1997 comparison of Seaside resales with an adjacent conventionally-planned property, Seagrove Beach, found an average annual appreciation rate of 40.4% for Seaside lots compared to 26.0% for Seagrove lots, and an average annual appreciation rate of 20.5% for Seaside houses compared to 17.9% for Seagrove houses. Seaside buyers have reaped similar rewards, with same-house resales showing a 20% annual appreciation and same-lot resales appreciating at a 40% annual rate.

The NU premium can add to land value. For example, the average 12,000-square-foot lots at Newpoint, near Beaufort, South Carolina, are half the size of typical lots in the area. Yet Newpoint's waterfront lots have sold for an average of \$10.10 per square foot, compared to \$3.77 per square foot for waterfront lots at Cottage Farm, a comparable, adjacent property. Interior lots at Newpoint sold for an average of \$3.36 per square foot, compared to \$1.77 per square foot for interior lots at Cottage Farm. Revenue per net acre is 84% higher at Newpoint, at \$193,000 compared with \$105,000 at Cottage Farm.

Higher long-term value for income property

A well-designed environment enhances the value of all income property. Once established, retail and office uses increase in value, benefiting from the synergy of uses. Institutional investors are beginning to target assets in locations that take advantage of this synergy. Decades of investment experience has shown that frequently a stand-alone "A"-quality apartment or retail property slips to "B" and then to "C," as the property ages and new development moves away. However, according to *Emerging Trends in Real Estate 1998* (Equitable Real Estate Investment Management, Inc., & Real Estate Research Corporation), real estate assets in mixed-use central business districts of healthy 24-hour cities are now considered to be less risky than single-use assets in their suburbs. Assets within NU communities are similarly expected to retain value.

Location premium

The residents of existing NU communities reflect the long-standing American dynamic of selecting neighborhood first and house second. ERE Yarmouth (now Lend Lease Real Estate Investments), the nation's largest manager of real estate for pension funds, has found that buyers are willing to pay more for houses in NU communities, explaining that "It's the age-old concept of living in a town setting, which suddenly has renewed attraction for an increasing number of American suburb dwellers."

In conclusion, to be effective, NU development must be approached as pragmatically as any real estate venture. Once the advantages inherent in the form are better understood by developers and investors, the New Urbanism will move more rapidly from the margins to the mainstream.

AN ANALYSIS OF RESIDENTIAL MARKET POTENTIAL BY DISTRICT

Prepared by: Zimmerman/Volk Associates, Inc. - February 2011

MARKET POTENTIAL FOR DOWNTOWN EL PASO AND THE CENTRAL DISTRICT

This analysis has determined the market potential over the next 5 years for new and existing market-rate and affordable housing units within Downtown El Paso and the Central District, an area approximately bounded by the Franklin Mountain State Park and Fred Wilson Road to the north; the Fort Bliss Military Reservation to the northeast and east and through the oil refineries to encompass Ascarate Park; the Rio Grande to the south; and Interstate 10 and Executive Center Boulevard to the west.

The Central District encompasses zip codes 79901, 79902, 79903, 79905, and 79930, an area which includes all or part of 34 neighborhoods, including the historic districts of Downtown El Paso, Austin Terrace, Chihuahueta, Magoffin, Manhattan Heights, Old San Francisco, and Sunset Heights. Downtown El Paso is the location of the cultural institutions of the city, including the Museum of Art, Science Museum, Museum of History, Railroad Museum, the Plaza Theatre, and the Main Public Library, as well as the Union Depot, the Convention and Performing Arts Center, and the Golden Horseshoe Shopping District, home to more than 300 shops and restaurants.

The Central District is also the location of major institutions—such as the University of Texas El Paso and Rim University, Providence Memorial Hospital, Las Palms Rehabilitation Hospital, El Paso Specialty Hospital, and the William Beaumont Army Medical Center—as well as numerous public parks, including the Chamizal National Memorial and Ascarate Park. Although the Central District has lost population over the past several years, the Census Bureau estimates it will begin to grow again over the next 5 years.

NOTE: For the purposes of this analysis, market-rate is defined as affordable to households with incomes above 80% of the El Paso Area Median Family Income (AMFI), which, in 2010, is \$40,900 for a family of four. Based on household size, the income limits to qualify for affordable housing would be \$26,050 for a one-person household; \$29,800 for a two-person household; \$33,500 for a three-person household; \$37,200 for a four-person household; and so on.

Where do the potential renters and buyers of new and existing housing units in Downtown El Paso and the Central District currently live?

As derived from migration, mobility and target market analysis, the draw area distribution of market potential (those households with the potential to rent or purchase new and existing housing units within Downtown El Paso and the Central District) is as follows:

Market Potential by Draw Area DOWNTOWN EL PASO & THE CENTRAL DISTRICT

City of El Paso:	54.7%
Balance of El Paso County:	1.8%
Don Ana, Maricopa, and Los Angeles Counties:	6.2%
Balance of US and Mexico:	37.3%
<hr/>	
Total:	100.0%

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

How many households have the potential to move within or to Downtown El Paso and the Central District each year over the next 5 years?

As derived by the target market methodology, up to 7,570 households represent the annual potential market for new and existing housing units in Downtown El Paso and the Central District. These households comprise 19.4% of the approximately 38,950 households that represent the annual potential market for new and existing housing units in the City of El Paso as a whole.

What are their housing preferences in aggregate?

The distribution of the tenure and housing preferences of the target households with incomes at or above 30% of the area median family income is shown on the following table.

**Annual Potential Market
For New and Existing Housing Units
DOWNTOWN EL PASO & THE CENTRAL DISTRICT**

Number Type	# of Households	% of Total
Multi-family for-rent*	1,250	22.6%
Multi-family for-rent† (lofts/apartments, leaseholder)	1,430	26.0%
Multi-family for-sale*	340	6.2%
Multi-family for-sale† (lofts/apartments, condo/co-op ownership)	780	14.2%
Single-family attached for-sale*	250	4.5%
Single-family attached for-sale† (townhouses/live-work, fee-simple/ condominium ownership)	570	10.3%
Single-family detached for-sale*	330	6.0%
Single-family detached for-sale† (houses, fee-simple ownership)	560	10.2%
Total	5,510	100.0%

* Affordable to households with incomes between 30% and 80% of AMI in 2010, calibrated by household size.

† Affordable to households with incomes above 80% of AMI in 2010, calibrated by household size.

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

The tenure preferences include more than 48% rental housing units, and 52% ownership housing units. Of the 2,830 households with preferences for ownership units, just under 40% represent the market for condominiums (multi-family for-sale), 29% represent the market for townhouses (single-family attached for-sale), and 31.4% represent the market for single-family detached houses.

Since there are so few residential units located in the Downtown, and a variety of underutilized or vacant buildings, it will be important to establish the Downtown residential option with market-rate rental and for-sale multi-family units created by adaptive re-use of existing vacant buildings. In addition to vacant buildings, the residential conversion of Class B office buildings, can have a salutary effect on the Downtown. These buildings are likely to yield a greater number of dwelling units than two- and three-story conversions, increasing the downtown population at a more rapid pace.

Focusing on households with incomes above 80% of the area median family income, the multi-family tenure preferences of the target households are shown on the following table.

**Annual Potential Market
For New Market-Rate Multi-Family Units
DOWNTOWN EL PASO & THE CENTRAL DISTRICT**

Number Type	# of Households	% of Total
Multi-family for-rent (lofts/apartments, leaseholder)	1,430	64.7%
Multi-family for-sale (lofts/apartments, condo/co-op ownership)	780	35.3%
Total	2,210	100.0%

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

Focusing on households with incomes above 80% of the area median family income, the preferences of the target households for single-family attached and detached units are shown on the table on the next page.

**Annual Potential Market
For New Market-Rate Single-Family Attached and
Detached Units
DOWNTOWN EL PASO & THE CENTRAL DISTRICT**

Number Type	# of Households	% of Total
Single-family attached for-sale (townhouses/live-work, fee-simple/ condominium ownership)	570	50.4%
Single-family detached for-sale (houses, fee-simple ownership)	560	49.6%
Total	1,130	100.0%

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

Who are those households that represent the potential Downtown and Central District housing market?

The household groups that comprise the potential market for new and existing market-rate and affordable housing units in Downtown and the District are:

- Younger singles and childless couples (63%);
- Empty nesters and retirees (25%); and
- Traditional and non-traditional families (12%).

It is important to note that, for the most part, younger singles and couples prefer to live in downtowns and in-town neighborhoods for their diversity, and for the availability of employment, entertainment, and cultural opportunities within walking distance of their residences. The continuing challenge in capturing

ing this potential market is to introduce units, either through adaptive re-use of existing non-residential buildings or through new construction that are attractive to young people (lofts, not suburban-style apartments), at rents and prices the majority can afford. Since land costs and the costs of construction and adaptive re-use in downtowns are typically higher than in other neighborhoods, this remains difficult to achieve without some form of development incentives.

How many new dwelling units could be leased or sold within the District over the next 5 years?

Based on the assumption that 15% of the potential market prefers newly-created housing units, whether through new construction or adaptive re-use, Downtown and the Central District should be able to support up to 827 new market-rate and workforce housing units per year over the next 5 years:

Annual Capture of Market Potential DOWNTOWN EL PASO & THE CENTRAL DISTRICT

Housing Type	# of Households	Capture Rate	# of New Units
Multi-Family For-Rent*	1,250	15%	187
Multi-Family For-Rent† (lofts/apartments, leaseholder)	1,430	15%	215
Multi-Family For-Sale*	340	15%	51
Multi-Family For-Sale† (lofts/apartments, condo/co-op ownership)	780	15%	117
Single-Family Attached For-Sale*	230	15%	37
Single-Family Attached For-Sale† (townhouses/duplexes/live-work, fee-simple ownership)	520	15%	86
Single-Family Detached For-Sale*	350	15%	50
Single-Family Detached For-Sale† (houses, fee-simple ownership)	640	15%	84
Total	5,510		827

* Affordable to households with incomes between 30% and 80% of AMI in 2010, calibrated by household size.

† Affordable to households with incomes above 80% of AMI in 2010, calibrated by household size.

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

Again, focusing only on those target households with annual incomes at or above 80% of the area median income, Downtown El Paso and the Central District could support up to 332 newly-created market-rate multi-family rental and for-sale housing units per year over the next 5 years, as detailed on the following

page. The majority of these units should be created through the adaptive re-use of existing Downtown buildings.

Annual Capture of Market Potential New Market-Rate Multi-Family Units DOWNTOWN EL PASO & THE CENTRAL DISTRICT

Housing Type	# of Households	Capture Rate	# of New Units
Multi-Family For-Rent (lofts/apartments, leaseholder)	1,430	15%	215
Multi-Family For-Sale (lofts/apartments, condo/co-op ownership)	780	15%	117
Total	2,210		332

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

From the market perspective, and limited to target households with incomes above 80% of the area median family income, Downtown El Paso and the Central District could support up to 170 new market-rate single-family attached and detached housing units per year over the next 5 years, as detailed on the following table. These are most likely to be created on infill sites in the neighborhoods surrounding the Downtown.

Annual Capture of Market Potential New Market-Rate Single-Family Attached and Detached Units DOWNTOWN EL PASO & THE CENTRAL DISTRICT

Housing Type	# of Households	Capture Rate	# of New Units
Single-Family Attached For-Sale (townhouses/duplexes/live-work, fee-simple ownership)	570	15%	86
Single-Family Detached For-Sale (houses, fee-simple ownership)	560	15%	84
Total	1,130		170

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

These numbers represents net new units, not net new households.

NOTE: Target market capture rates are a unique and highly-refined measure of feasibility. Target market capture rates are not equivalent to—and should not be confused with—penetration rates or traffic conversion rates.

The **target market capture rate** is derived by dividing the annual forecast absorption—in aggregate and by

housing type—by the number of households that have the potential to purchase or rent new housing within a specified area in a given year. The **target market capture rate** is a measure developed over nearly two decades of empirical, site-specific analysis that establishes the feasible percentages that can reasonably be applied to the potential market for each housing type.

The **penetration rate** is derived by dividing the total number of dwelling units planned for a property by the total number of draw area households, sometimes qualified by income. The **penetration rate** is largely an academic measure that establishes the percentage of households from within a defined area that must move to a housing project to achieve 100% occupancy.

The **traffic conversion rate** is derived by dividing the total number of buyers or renters by the total number of prospects that have visited a site. The **traffic conversion rate** is a measure of the effectiveness of sales and leasing efforts.

Because the prospective market for a location is more precisely defined, target market capture rates are higher than the more grossly-derived penetration rates. However, the resulting higher capture rates are well within the range of prudent feasibility.

What is the market currently able to pay for the new units?

—Rental Distribution—

Based on the target household mix and the incomes and financial capabilities of the target households, the distribution by rent ranges of the 402 new market-rate and affordable rental units that could be absorbed each year over the next 5 years within Downtown El Paso and the Central District would be as follows:

**Rental Apartment Distribution by Rent Range
DOWNTOWN EL PASO & THE CENTRAL DISTRICT**

Monthly Rent Range	Units Per Year	Percentage
\$500–\$600	34	8.4%
\$600–\$700	36	9.0%
\$700–\$800	38	9.5%
\$800–\$900	43	10.7%
\$900–\$1,000	50	12.3%
\$1,000–\$1,100	45	11.2%
\$1,100–\$1,200	43	10.7%
\$1,200–\$1,300	32	8.0%
\$1,300–\$1,400	32	8.0%
\$1,400–\$1,500	27	6.7%
\$1,500 and up	22	5.5%
Total:	402	100.0%

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

—For-Sale Distribution—

Based on the target household mix and the incomes and financial capabilities of the target households, the distribution by price ranges of the 168 new market-rate and affordable for-sale apartments that could be absorbed each year over the next 5 years within Downtown El Paso and the Central District:

**For-Sale Apartment Distribution by Price Range
DOWNTOWN EL PASO & THE CENTRAL DISTRICT**

Price Range	Units Per Year	Percentage
\$150,000–\$200,000	16	9.5%
\$200,000–\$250,000	24	14.3%
\$250,000–\$300,000	36	21.5%
\$300,000–\$350,000	24	14.3%
\$350,000–\$400,000	20	11.9%
\$400,000–\$450,000	18	10.7%
\$450,000–\$500,000	16	9.5%
\$500,000 and up	14	9.3%
Total:	168	100.0%

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

Based on the target household mix and incomes and financial capabilities of the target groups, the distribution by price ranges of the 123 new townhouses/duplexes (single-family attached) that could be absorbed each year over the next 5 years within Downtown El Paso and the Central District would be as follows:

Townhouse/Duplex Distribution by Price Range DOWNTOWN EL PASO & THE CENTRAL DISTRICT

Price Range	Units Per Year	Percentage
\$150,000–\$200,000	6	4.9%
\$200,000–\$250,000	15	12.1%
\$250,000–\$300,000	24	19.5%
\$300,000–\$350,000	24	19.5%
\$350,000–\$400,000	16	13.0%
\$400,000–\$450,000	14	11.4%
\$450,000–\$500,000	12	9.8%
\$500,000 and up	12	9.8%
Total:	123	100.0%

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

Based on the target household mix and incomes and financial capabilities of the target groups, the distribution by price ranges of the 134 new detached houses that could be absorbed each year over the next 5 years within Downtown El Paso and the Central District would be as follows:

Detached House Distribution by Price Range DOWNTOWN EL PASO & THE CENTRAL DISTRICT

Price Range	Units Per Year	Percentage
\$150,000–\$200,000	14	10.5%
\$200,000–\$250,000	20	14.9%
\$250,000–\$300,000	26	19.4%
\$300,000–\$350,000	16	11.9%
\$350,000–\$400,000	16	11.9%
\$400,000–\$450,000	16	11.9%
\$450,000–\$500,000	14	10.5%
\$500,000 and up	12	9.0%
Total:	134	100.0%

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

How many net new households could Downtown El Paso and the Central District expect to gain each year over a 5-year timeframe?

Based on the migration data and internal and external mobility rates, the production of 827 new units a year, and including households with incomes below 30% of AMI, Downtown El Paso and the Central District could experience an average increase of 420 additional households per year over the 5 year timeframe:

Annual Net New Households DOWNTOWN EL PASO & THE CENTRAL DISTRICT

Housing Type	# of New Units	# of Net New HHs
Multi-Family For-Rent*	187	70
Multi-Family For-Rent† (lofts/apartments, leaseholder)	215	104
Multi-Family For-Sale*	51	20
Multi-Family For-Sale† (lofts/apartments, condo/ co-op ownership)	117	58
Single-Family Attached For-Sale*	37	12
Single-Family Attached For-Sale† (townhouses/duplexes/ live-work, fee-simple ownership)	86	44
Single-Family Detached For-Sale*	50	20
Single-Family Detached For-Sale† (houses, fee-simple ownership)	84	42
Total	827	370
Households with incomes below 30% AMI:		50
Total		420

*Affordable to households with incomes between 30% and 80% of AMI in 2010, calibrated by household size.

†Affordable to households with incomes above 80% of AMI in 2010, calibrated by household size.

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

NOTE: Net new households are the number of households that are new to Downtown El Paso and the Central District. The difference between the number of new market-rate and workforce units (827) and the number of units occupied by net new households with incomes above 30% of AMI (370) represents the number of new market-rate and workforce units occupied by existing or newly-formed Downtown El Paso and Central District households. In addition, approximately 50 households are new to the Central District, but with incomes below 30% AMI and therefore unable to afford newly-constructed dwelling units.

Based on the Team Bliss Task Force Next forecasts, citywide, an average annual increase of 1,500 military households is likely over the next 5 years, of which an average of approximately 200 households per year would be likely to live in Downtown El Paso and the Central District. Downtown El Paso and the Central District could therefore expect to gain approximately 620 new households per year over the next 5 years, and approximately 420 households per year over the following 5 years.

MARKET POTENTIAL FOR THE MISSION VALLEY DISTRICT

This analysis has determined the market potential over the next 5 years for new and existing market-rate and affordable housing units within El Paso’s Mission Valley District, an area bounded by Interstate 10 to the northeast; just beyond the city limits to the southeast, incorporating the neighborhoods of Las Placitas del Rey, Richard Lee, and Vista del Prado; the Rio Grande to the southwest; and through the oil refineries and along the eastern edge of Ascarate Park to the west.

The Mission Valley District encompasses zip codes 79907, 79915, and portions of zip code 79927 (excluding Socorro), an area which includes 33 neighborhoods and the Historic Districts of Ysleta and Mission Trail; numerous strip shopping centers along Alameda Avenue, North Loop Drive and Interstate 10; a branch of El Paso Community College; the Del Sol Medical Center, Sierra Medical Center, and University Medical Center—and several public parks. At just under 2%, the Mission Valley District has the lowest projected growth rate over the next 5 years of any District in the city.

Where do the potential renters and buyers of new and existing housing units in the Mission Valley District currently live?

As derived from migration, mobility and target market analysis, the draw area distribution of market potential (those households with the potential to rent or purchase new and existing housing units within the Mission Valley District) is as follows:

**Market Potential by Draw Area
THE MISSION VALLEY DISTRICT**

City of El Paso:	78.5%
Balance of El Paso County:	3.5%
Don Ana, Maricopa, and Los Angeles Counties:	3.1%
Balance of US and Mexico:	14.9%
Total:	100.0%

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

How many households have the potential to move within or to the Mission Valley District each year over the next 5 years?

As derived by the target market methodology, over 4,800 households represent the annual potential market for new and existing housing units in the Mission Valley District. These households comprise 12.4% of the approximately 38,950 households that represent the annual potential market for new and existing housing units in the City of El Paso as a whole.

What are their housing preferences in aggregate?

The distribution of the tenure and housing preferences of the target households with incomes at or above 30% of the area median family income is as follows:

**Annual Potential Market
For New and Existing Housing Units
THE MISSION VALLEY DISTRICT**

Housing Type	# of Households	% of Total
Multi-family for-rent*	840	26.7%
Multi-family for-rent† (lofts/apartments, leaseholder)	370	11.8%
Multi-family for-sale*	220	7.0%
Multi-family for-sale† (lofts/apartments, condo/co-op ownership)	200	6.4%
Single-family attached for-sale*	110	3.5%
Single-family attached for-sale† (townhouses/live-work, fee-simple/ condominium ownership)	150	4.8%
Single-family detached for-sale*	560	17.8%
Single-family detached for-sale† (houses, fee-simple ownership)	690	22.0%
Total	3,140	100.0%

* Affordable to households with incomes between 30% and 80% of AMI in 2010, calibrated by household size.

† Affordable to households with incomes above 80% of AMI in 2010, calibrated by household size.

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

The tenure preferences include approximately 38.5% rental housing units, and 61.5% ownership housing units. Of the 1,930 households with preferences for ownership units, just under 22% represent the market for condominiums (multi-family for-sale), 13.5% represent the market for townhouses (single-family attached for-sale), and just under 65% represent the market for single-family detached houses.

Who are those households that represent the potential Mission Valley District housing market?

The household groups that comprise the potential market for new and existing market-rate and affordable housing units in the District are:

- Empty nesters and retirees (53%);
- Traditional and non-traditional families (40%); and
- Younger singles and childless couples (7%).

How many new dwelling units could be leased or sold within the Mission Valley District over the next 5 years?

Based on the assumption that 15% of the potential market prefers newly-constructed housing units, the Mission Valley District could support up to 473 new market-rate and workforce housing units per year over the next 5 years:

Annual Capture of Market Potential THE MISSION VALLEY DISTRICT

Housing Type	# of Households	Capture Rate	# of New Units
Multi-Family For-Rent*	840	15%	126
Multi-Family For-Rent† (lofts/apartments, leaseholder)	370	15%	56
Multi-Family For-Sale*	220	15%	33
Multi-Family For-Sale† (lofts/apartments, condo/co-op ownership)	200	15%	30
Single-Family Attached For-Sale*	110	15%	17
Single-Family Attached For-Sale† (townhouses/duplexes/live-work, fee-simple ownership)	150	15%	23
Single-Family Detached For-Sale*	560	15%	84
Single-Family Detached For-Sale† (houses, fee-simple ownership)	690	15%	104
Total	3,140		473

* Affordable to households with incomes between 30% and 80% of AMI in 2010, calibrated by household size.

† Affordable to households with incomes above 80% of AMI in 2010, calibrated by household size.

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

This number represents net new units, not net new households.

What is the market currently able to pay for the new units?

—Rental Distribution—

Based on the target household mix and the incomes and financial capabilities of the target households, the distribution by rent ranges of the 182 new market-rate and affordable rental units that could be absorbed each year over the next 5 years within the Mission Valley District:

Rental Apartment Distribution by Rent Range THE MISSION VALLEY DISTRICT

Monthly Rent Range	Units Per Year	Percentage
\$500–\$600	50	27.5%
\$600–\$700	40	22.0%
\$700–\$800	26	14.3%
\$800–\$900	12	6.6%
\$900–\$1,000	12	6.6%
\$1,000–\$1,100	12	6.6%
\$1,100–\$1,200	9	4.9%
\$1,200–\$1,300	9	4.9%
\$1,300–\$1,400	6	3.3%
\$1,400 and up	6	3.3%
Total:	182	100.0%

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

—For-Sale Distribution—

Based on the target household mix and the incomes and financial capabilities of the target households, the distribution by price ranges of the 63 new market-rate and affordable for-sale apartments that could be absorbed each year over the next 5 years within the Mission Valley District:

For-Sale Apartment Distribution by Price Range THE MISSION VALLEY DISTRICT

Price Range	Units Per Year	Percentage
\$100,000–\$150,000	9	14.3%
\$150,000–\$200,000	12	19.0%
\$200,000–\$250,000	16	25.4%
\$250,000–\$300,000	9	14.3%
\$300,000–\$350,000	9	14.3%
\$350,000 and up	8	12.7%
Total:	63	100.0%

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

Based on the target household mix and incomes and financial capabilities of the target groups, the distribution by price ranges of the 40 new townhouses/duplexes (single-family attached) that could be absorbed each year over the next 5 years within the Mission Valley District:

**Townhouse/Duplex Distribution by Price Range
THE MISSION VALLEY DISTRICT**

Price Range	Units Per Year	Percentage
\$100,000–\$150,000	6	15.0%
\$150,000–\$200,000	6	15.0%
\$200,000–\$250,000	10	25.0%
\$250,000–\$300,000	9	22.5%
\$300,000–\$350,000	6	15.0%
\$350,000 and up	3	7.5%
Total:	40	100.0%

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

Based on the target household mix and incomes and financial capabilities of the target groups, the distribution by price ranges of the 188 new detached houses that could be absorbed each year over the next 5 years within the Mission Valley District would be as follows:

**Detached House Distribution by Price Range
THE MISSION VALLEY DISTRICT**

Price Range	Units Per Year	Percentage
\$100,000–\$150,000	21	11.2%
\$150,000–\$200,000	39	20.7%
\$200,000–\$250,000	50	26.5%
\$250,000–\$300,000	24	12.8%
\$300,000–\$350,000	24	12.8%
\$350,000–\$400,000	18	9.6%
\$400,000 and up	12	6.4%
Total:	188	100.0%

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

How many net new households could the Mission Valley District expect to gain each year over a 5-year timeframe?

Based on the migration data and internal and external mobility rates, the production of 473 new units a year, and including households with incomes below 30% of AMI, the Mission Valley District could experience an average increase of 168 additional households per year over the 5-year timeframe:

**Annual Net New Households
THE MISSION VALLEY DISTRICT**

Housing Type	# of New Units	# of Net New HHs
Multi-Family For-Rent*	126	25
Multi-Family For-Rent† (lofts/apartments, leaseholder)	56	17
Multi-Family For-Sale*	33	7
Multi-Family For-Sale† (lofts/apartments, condo/co-op ownership)	30	10
Single-Family Attached For-Sale*	17	3
Single-Family Attached For-Sale† (townhouses/duplexes/live-work, fee-simple ownership)	23	8
Single-Family Detached For-Sale*	84	17
Single-Family Detached For-Sale† (houses, fee-simple ownership)	104	31
Total	473	118
Households with incomes below 30% AMI:		50
Total		168

* Affordable to households with incomes between 30% and 80% of AMI in 2010, calibrated by household size.

† Affordable to households with incomes above 80% of AMI in 2010, calibrated by household size.

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

NOTE: Net new households are the number of households that are new to the Mission Valley District. The difference between the number of new market-rate and workforce units (473) and the number of units occupied by net new households with incomes above 30% of AMI (118) represents the number of new market-rate and workforce units occupied by existing or newly-formed Mission Valley District households. In addition, approximately 50 households are new to Mission Valley, but with incomes below 30% AMI and therefore unable to afford newly-constructed dwelling units.

Based on the Team Bliss Task Force Next forecasts, citywide, an average annual increase of 1,500 military households is likely over the next 5 years, of which an average of approximately 150 households per year would be likely to live in the Mission Valley District. The Mission Valley District could therefore expect to gain approximately 318 new households per year over the next 5 years, and approximately 168 households per year over the following 5 years.

MARKET POTENTIAL FOR THE EAST DISTRICT

This section of the analysis has determined the market potential over the next 5 years for new and existing market-rate and affordable housing units within El Paso's East District, an area bounded by and including El Paso International Airport and Montana Avenue to the north; Zaragoza Road and Joe Battle Road to the east, and including the neighborhoods of Sun Ridge South, Montwood Heights, Paseos del Sol, and Southview; Interstate 10 to the south; and the electric transmission lines to the west.

The East District encompasses zip codes 79925, 79935, 79936, and portions of zip code 79938, an area which includes 58 neighborhoods; the Las Palma Marketplace, Trevino Mall, Cielo Vista Mall, as well as extensive commercial and retail uses along Interstate 10; several hospitals—the Highlands Regional Rehabilitation Hospital, Del Sol Medical Center, East El Paso Medical Center, and the Fresenius Medical Center—and multiple public parks. It is the fastest-growing district in the city.

Where do the potential renters and buyers of new and existing housing units in the East District currently live?

As derived from migration, mobility and target market analysis, the draw area distribution of market potential (those households with the potential to rent or purchase new and existing housing units within the East District) is as follows:

**Market Potential by Draw Area
THE EAST DISTRICT**

City of El Paso:	60.0%
Balance of El Paso County:	18.2%
Don Ana, Maricopa, and Los Angeles Counties:	5.7%
Balance of US and Mexico:	16.1%
Total:	100.0%

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

How many households have the potential to move within or to the East District each year over the next 5 years?

As derived by the target market methodology, up to 12,200 households represent the annual potential market for new and existing housing units in the East District. These households comprise just over 31% of the approximately 38,950 households that represent the annual potential market for new and existing housing units in the City of El Paso as a whole.

What are their housing preferences in aggregate?

The distribution of the tenure and housing preferences of the target households with incomes at or above 30% of the area median family income is as follows:

**Annual Potential Market
For New and Existing Housing Units
THE EAST DISTRICT**

Housing Type	# of Households	% of Total
Multi-family for-rent*	2,210	28.3%
Multi-family for-rent† (lofts/apartments, leaseholder)	1,160	14.8%
Multi-family for-sale*	430	5.5%
Multi-family for-sale† (lofts/apartments, condo/co-op ownership)	320	4.1%
Single-family attached for-sale*	190	2.4%
Single-family attached for-sale† (townhouses/live-work, fee-simple/con- dominium ownership)	250	3.2%
Single-family detached for-sale*	1,580	20.2%
Single-family detached for-sale† (houses, fee-simple ownership)	1,680	21.5%
Total	7,820	100.0%

* Affordable to households with incomes between 30% and 80% of AMI in 2010, calibrated by household size.

† Affordable to households with incomes above 80% of AMI in 2010, calibrated by household size.

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

The tenure preferences include approximately 43% rental housing units, and 57% ownership housing units. Of the 4,450 households with preferences for ownership units, just under 17% represent the market for condominiums (multi-family for-sale), nearly 10% represent the market for townhouses (single-family attached for-sale), and just over 73% represent the market for single-family detached houses.

Who are those households that represent the potential East District housing market?

The household groups that comprise the potential market for new and existing market-rate and affordable housing units in the District are:

- Traditional and non-traditional families (60%);
- Empty nesters and retirees (28%); and
- Younger singles and childless couples (12%).

How many new dwelling units could be leased or sold within the area over the next 5 years?

Based on the assumption that 15% of the potential market prefers newly-constructed housing units, the East District should be able to support up to 1,173 new market-rate and workforce housing units per year over the next 5 years:

**Annual Capture of Market Potential
THE EAST DISTRICT**

Housing Type	# of Households	Capture Rate	# of New Units
Multi-Family For-Rent*	2,210	15%	332
Multi-Family For-Rent† (lofts/apartments, leaseholder)	1,160	15%	174
Multi-Family For-Sale*	430	15%	64
Multi-Family For-Sale† (lofts/apartments, condo/co-op ownership)	320	15%	48
Single-Family Attached For-Sale*	190	15%	28
Single-Family Attached For-Sale† (townhouses/duplexes/live-work, fee-simple ownership)	250	15%	38
Single-Family Detached For-Sale*	1,580	15%	237
Single-Family Detached For-Sale† (houses, fee-simple ownership)	1,680	15%	252
Total	7,820		1,173

* Affordable to households with incomes between 30% and 80% of AMI in 2010, calibrated by household size.
 † Affordable to households with incomes above 80% of AMI in 2010, calibrated by household size.
 SOURCE: Zimmerman/Volk Associates, Inc., 2011.

This number represents net new units, not net new households.

What is the market currently able to pay for the new units?

—Rental Distribution—

Based on the target household mix and the incomes and financial capabilities of the target households, the distribution by rent ranges of the 506 new market-rate and affordable rental units that could be absorbed each year over the next 5 years within the East District would be as follows:

**Rental Apartment Distribution by Rent Range
THE EAST DISTRICT**

Monthly Rent Range	Units Per Year	Percentage
\$500–\$600	108	21.2%
\$600–\$700	100	19.7%
\$700–\$800	70	13.8%
\$800–\$900	62	12.3%
\$900–\$1,000	52	10.3%
\$1,000–\$1,100	44	8.7%
\$1,100–\$1,200	20	4.0%
\$1,200–\$1,300	15	3.0%
\$1,300–\$1,400	12	2.4%
\$1,400–\$1,500	12	2.4%
\$1,500 and up	11	2.2%
Total:	506	100.0%

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

—For-Sale Distribution—

Based on the target household mix and the incomes and financial capabilities of the target households, the distribution by price ranges of the 112 new market-rate and affordable for-sale apartments that could be absorbed each year over the next 5 years within the East District:

**For-Sale Apartment Distribution by Price Range
THE EAST DISTRICT**

Price Range	Units Per Year	Percentage
\$100,000–\$150,000	11	9.8%
\$150,000–\$200,000	30	26.8%
\$200,000–\$250,000	26	23.2%
\$250,000–\$300,000	23	20.5%
\$300,000–\$350,000	10	8.9%
\$350,000–\$400,000	6	5.4%
\$400,000 and up	6	5.4%
Total:	112	100.0%

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

Based on the target household mix and incomes and financial capabilities of the target groups, the distribution by price ranges of the 66 new townhouses/duplexes (single-family attached) that could be absorbed each year over the next 5 years within the East District would be as follows:

Townhouse/Duplex Distribution by Price Range THE EAST DISTRICT

Price Range	Units Per Year	Percentage
\$100,000–\$150,000	4	6.1%
\$150,000–\$200,000	12	18.2%
\$200,000–\$250,000	16	24.1%
\$250,000–\$300,000	12	18.2%
\$300,000–\$350,000	10	15.2%
\$350,000–\$400,000	6	9.1%
\$400,000 and up	6	9.1%
Total:	66	100.0%

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

Based on the target household mix and incomes and financial capabilities of the target groups, the distribution by price ranges of the 489 new detached houses that could be absorbed each year over the next 5 years within the East District would be as follows:

Detached House Distribution by Price Range THE EAST DISTRICT

Price Range	Units Per Year	Percentage
\$100,000–\$150,000	28	5.7%
\$150,000–\$200,000	77	15.7%
\$200,000–\$250,000	89	18.2%
\$250,000–\$300,000	120	24.6%
\$300,000–\$350,000	68	13.9%
\$350,000–\$400,000	68	13.9%
\$400,000 and up	39	8.0%
Total:	489	100.0%

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

How many net new households could the East District expect to gain each year over a 5-year timeframe?

Based on the migration data and internal and external mobility rates, the production of 1,109 new units a year, and including households with incomes below 30% of AMI, the East District could experience an average increase of 619 additional households per year over the 5-year timeframe:

Annual Net New Households THE EAST DISTRICT

Housing Type	# of New Units	# of Net New HHs
Multi-Family For-Rent*	332	115
Multi-Family For-Rent† (lofts/apartments, leaseholder)	174	78
Multi-Family For-Sale*	64	25
Multi-Family For-Sale† (lofts/apartments, condo/co-op ownership)	48	18
Single-Family Attached For-Sale*	28	10
Single-Family Attached For-Sale† (townhouses/duplexes/live-work, fee-simple ownership)	38	15
Single-Family Detached For-Sale*	237	90
Single-Family Detached For-Sale† (houses, fee-simple ownership)	252	118
Total	1,173	469
Households with incomes below 30% AMI:		150
Total		619

* Affordable to households with incomes between 30% and 80% of AMI in 2010, calibrated by household size.

† Affordable to households with incomes above 80% of AMI in 2010, calibrated by household size.

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

NOTE: Net new households are the number of households that are new to the East District. The difference between the number of new market-rate and workforce units (1,173) and the number of units occupied by net new households with incomes above 30% of AMI (469) represents the number of new market-rate and workforce units occupied by existing or newly-formed East District households. In addition, approximately 150 households are new to the East, but with incomes below 30% AMI and therefore unable to afford newly-constructed dwelling units.

Based on the Team Bliss Task Force Next forecasts, citywide, an average annual increase of 1,500 military households is likely over the next 5 years, of which an average of approximately 500 households per year would be likely to live in the East District. The East District could therefore expect to gain approximately 1,119 new households per year over the next 5 years, and approximately 619 households per year over the following 5 years.

MARKET POTENTIAL FOR THE NORTHEAST DISTRICT

This section of the analysis has determined the market potential over the next 5 years for new and existing market-rate and affordable housing units within El Paso’s Northeast District, an area bounded by the Texas state line to the north; Railroad Drive to the east; Fred Wilson Avenue to the south; and the Franklin Mountains to the west.

The Northeast District encompasses zip codes 79904, 79924, and 79934, an area which includes 41 neighborhoods; the Kenworthy Crossing shopping center, the defunct Northpark Mall, and dozens of small strip shopping centers and commercial uses along Dyer Street; the Del Sol Medical Center—and several public parks. The Northeast District is sandwiched between the Fort Bliss Military Reservation to the east and the Fort Bliss Castner Range and the Franklin Mountains to the west.

Where do the potential renters and buyers of new and existing housing units in the Northeast District currently live?

As derived from migration, mobility and target market analysis, the draw area distribution of market potential (those households with the potential to rent or purchase new and existing housing units within the Northeast District) is as follows:

**Market Potential by Draw Area
THE NORTHEAST DISTRICT**

City of El Paso:	44.8%
Balance of El Paso County:	4.6%
Don Ana, Maricopa, and Los Angeles Counties:	2.5%
Balance of US and Mexico:	48.1%
Total:	100.0%

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

How many households have the potential to move within or to the Northeast District each year over the next 5 years?

As derived by the target market methodology, over 5,600 households represent the annual potential market for new and existing housing units in the Northeast District. These households comprise 14.41% of the approximately 38,950 households that represent the annual potential market for new and existing housing units in the City of El Paso as a whole.

What are their housing preferences in aggregate?

The distribution of the tenure and housing preferences of the target households with incomes at or above 30% of the area median family income is as follows:

**Annual Potential Market
For New and Existing Housing Units
THE NORTHEAST DISTRICT**

Housing Type	# of Households	% of Total
Multi-family for-rent*	920	22.7%
Multi-family for-rent† (lofts/apartments, leaseholder)	500	12.3%
Multi-family for-sale*	160	4.0%
Multi-family for-sale† (lofts/apartments, condo/co-op ownership)	200	4.9%
Single-family attached for-sale*	60	1.5%
Single-family attached for-sale† (townhouses/live-work, fee-simple/con- dominium ownership)	120	3.0%
Single-family detached for-sale*	830	20.5%
Single-family detached for-sale† (houses, fee-simple ownership)	1,260	31.1%
Total	4,050	100.0%

* Affordable to households with incomes between 30% and 80% of AMI in 2010, calibrated by household size.

† Affordable to households with incomes above 80% of AMI in 2010, calibrated by household size.

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

The tenure preferences include 35% rental housing units, and 65% ownership housing units. Of the 2,630 households with preferences for ownership units, just under 14% represent the market for condominiums (multi-family for-sale), 6.8% represent the market for townhouses (single-family attached for-sale), and 79.5% represent the market for single-family detached houses.

Who are those households that represent the potential Northeast District housing market?

The household groups that comprise the potential market for new and existing market-rate and affordable housing units in the District are:

- Traditional and non-traditional families (38%);
- Empty nesters and retirees (36%); and
- Younger singles and childless couples (26%).

How many new dwelling units could be leased or sold within the area over the next 5 years?

Based on the assumption that 15% of the potential market prefers newly-constructed housing units, the Northeast District

could support up to 608 new market-rate and workforce housing units per year over the next 5 years:

Annual Capture of Market Potential THE NORTHEAST DISTRICT

Housing Type	# of Households	Capture Rate	# of New Units
Multi-Family For-Rent*	920	15%	138
Multi-Family For-Rent† (lofts/apartments, leaseholder)	500	15%	75
Multi-Family For-Sale*	160	15%	24
Multi-Family For-Sale† (lofts/apartments, condo/co-op ownership)	200	15%	30
Single-Family Attached For-Sale*	60	15%	9
Single-Family Attached For-Sale† (townhouses/duplexes/live-work, fee-simple ownership)	120	15%	18
Single-Family Detached For-Sale*	830	15%	125
Single-Family Detached For-Sale† (houses, fee-simple ownership)	1,260	15%	189
Total	4,050		608

* Affordable to households with incomes between 30% and 80% of AMI in 2010, calibrated by household size.

† Affordable to households with incomes above 80% of AMI in 2010, calibrated by household size.

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

This number represents net new units, not net new households.

What is the market currently able to pay for the new units?

—Rental Distribution—

Based on the target household mix and the incomes and financial capabilities of the target households, the distribution by rent ranges of the 213 new market-rate and affordable rental units that could be absorbed each year over the next 5 years within the Northeast District would be as follows:

Rental Apartment Distribution by Rent Range THE NORTHEAST DISTRICT

Monthly Rent Range	Units Per Year	Percentage
\$500–\$600	28	13.1%
\$600–\$700	38	17.8%
\$700–\$800	32	15.0%
\$800–\$900	32	15.0%
\$900–\$1,000	24	11.3%
\$1,000–\$1,100	13	6.1%
\$1,100–\$1,200	12	5.6%
\$1,200–\$1,300	12	5.6%
\$1,300–\$1,400	10	4.7%
\$1,400–\$1,500	6	2.9%
\$1,500 and up	6	2.9%
Total:	213	100.0%

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

—For-Sale Distribution—

Based on the target household mix and the incomes and financial capabilities of the target households, the distribution by price ranges of the 54 new market-rate and affordable for-sale apartments that could be absorbed each year over the next 5 years within the Northeast District:

For-Sale Apartment Distribution by Price Range THE NORTHEAST DISTRICT

Price Range	Units Per Year	Percentage
\$100,000–\$150,000	3	5.6%
\$150,000–\$200,000	11	20.4%
\$200,000–\$250,000	12	22.2%
\$250,000–\$300,000	10	18.5%
\$300,000–\$350,000	6	11.1%
\$350,000–\$400,000	6	11.1%
\$400,000–\$450,000	4	7.4%
\$450,000 and up	2	3.7%
Total:	54	100.0%

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

Based on the target household mix and incomes and financial capabilities of the target groups, the distribution by price ranges of the 27 new townhouses/duplexes (single-family attached) that could be absorbed each year over the next 5 years within the Northeast District would be as follows:

**Townhouse/Duplex Distribution by Price Range
THE NORTHEAST DISTRICT**

Price Range	Units Per Year	Percentage
\$100,000–\$150,000	2	7.4%
\$150,000–\$200,000	4	14.8%
\$200,000–\$250,000	4	14.8%
\$250,000–\$300,000	6	22.2%
\$300,000–\$350,000	4	14.8%
\$350,000–\$400,000	4	14.8%
\$400,000 and up	3	11.2%
Total:	27	100.0%

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

Based on the target household mix and incomes and financial capabilities of the target groups, the distribution by price ranges of the 314 new detached houses that could be absorbed each year over the next 5 years within the Northeast District would be as follows:

**Detached House Distribution by Price Range
THE NORTHEAST DISTRICT**

Price Range	Units Per Year	Percentage
\$100,000–\$150,000	36	11.5%
\$150,000–\$200,000	49	15.6%
\$200,000–\$250,000	51	16.2%
\$250,000–\$300,000	50	15.9%
\$300,000–\$350,000	40	12.7%
\$350,000–\$400,000	36	11.5%
\$400,000–\$450,000	20	6.4%
\$450,000–\$500,000	18	5.7%
\$500,000 and up	14	4.5%
Total:	314	100.0%

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

How many net new households could the Northeast District expect to gain each year over a 5-year timeframe?

Based on the migration data and internal and external mobility rates, the production of 608 new units a year, and including households with incomes below 30% of AMI, the Northeast District could experience an average increase of 535 additional households per year over the 5-year timeframe:

**Annual Net New Households
THE NORTHEAST DISTRICT**

Housing Type	# of New Units	# of Net New HHs
Multi-Family For-Rent*	138	69
Multi-Family For-Rent† (lofts/apartments, leaseholder)	75	47
Multi-Family For-Sale*	24	12
Multi-Family For-Sale† (lofts/apartments, condo/co-op ownership)	30	18
Single-Family Attached For-Sale*	9	6
Single-Family Attached For-Sale† (townhouses/duplexes/live-work, fee-simple ownership)	18	10
Single-Family Detached For-Sale*	125	69
Single-Family Detached For-Sale† (houses, fee-simple ownership)	189	104
Total	608	335
Households with incomes below 30% AMI:		200
Total		535

* Affordable to households with incomes between 30% and 80% of AMI in 2010, calibrated by household size.

† Affordable to households with incomes above 80% of AMI in 2010, calibrated by household size.

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

NOTE: Net new households are the number of households that are new to the Northeast District. The difference between the number of new market-rate and workforce units (608) and the number of units occupied by net new households with incomes above 30% of AMI (335) represents the number of new market-rate and workforce units occupied by existing or newly-formed Northeast District households. In addition, approximately 200 households are new to the Northeast, but with incomes below 30% AMI and therefore unable to afford newly-constructed dwelling units.

Based on the Team Bliss Task Force Next forecasts, citywide, an average annual increase of 1,500 military households is likely over the next 5 years, of which an average of approximately 500 households per year would be likely to live in the Northeast District. The Northeast District could therefore expect to gain approximately 1,035 new households per year over the next 5 years, and approximately 535 households per year over the following 5 years.

MARKET POTENTIAL FOR THE WEST DISTRICT

This section of the analysis has determined the market potential over the next 5 years for new and existing market-rate and affordable housing units within El Paso’s West District, an area approximately bounded by the Texas state line to the north; Franklin Mountain State Park to the east; Executive Center Drive to the south; and the Texas/New Mexico border and the town Anthony, Village of Vinton, and Canutillo to the west.

The West District encompasses zip codes 79911, 79912, 79922, and 79,933, an area which contains 43 neighborhoods; the Sunland Park Mall, the Airway Junction Shopping Center, the Outlet Shoppes at El Paso, and, like all districts in El Paso, dozens of small strip shopping centers and commercial uses; branches of the Del Sol Medical Center and Providence Memorial Hospital—and several public parks. The West District also includes the Upper Valley, the area of the city west of Interstate 10.

Where do the potential renters and buyers of new and existing housing units in the West District currently live?

As derived from migration, mobility and target market analysis, the draw area distribution of market potential (those households with the potential to rent or purchase new and existing housing units within the West District) is as follows:

**Market Potential by Draw Area
THE WEST DISTRICT**

City of El Paso:	44.0%
Balance of El Paso County:	6.7%
Don Ana, Maricopa, and Los Angeles Counties:	8.3%
Balance of US and Mexico:	41.0%
Total:	100.0%

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

How many households have the potential to move within or to the West District each year over the next 5 years?

As derived by the target market methodology, 7,350 households represent the annual potential market for new and existing housing units in the West District. These households comprise 18.9% of the approximately 38,950 households that represent the annual potential market for new and existing housing units in the City of El Paso as a whole.

What are their housing preferences in aggregate?

The distribution of the tenure and housing preferences of the target households with incomes at or above 30% of the area median family income is as follows:

**Annual Potential Market
For New and Existing Housing Units
THE WEST DISTRICT**

Housing Type	# of Households	% of Total
Multi-family for-rent*	940	16.5%
Multi-family for-rent† (lofts/apartments, leaseholder)	1,460	25.7%
Multi-family for-sale*	190	3.4%
Multi-family for-sale† (lofts/apartments, condo/co-op ownership)	520	9.2%
Single-family attached for-sale*	220	3.9%
Single-family attached for-sale† (townhouses/live-work, fee-simple/condominium ownership)	460	8.2%
Single-family detached for-sale*	740	13.1%
Single-family detached for-sale† (houses, fee-simple ownership)	1,140	20.0%
Total	5,670	100.0%

* Affordable to households with incomes between 30% and 80% of AMI in 2010, calibrated by household size.

† Affordable to households with incomes above 80% of AMI in 2010, calibrated by household size.

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

The tenure preferences include 42.2% rental housing units, and 57.8% ownership housing units. Of the 3,270 households with preferences for ownership units, 21.7% represent the market for condominiums (multi-family for-sale), 20.8% represent the market for townhouses (single-family attached for-sale), and 57.5% represent the market for single-family detached houses.

Who are those households that represent the potential West District housing market?

The household groups that comprise the potential market for new and existing market-rate and affordable housing units in the District are:

- Traditional and non-traditional families (42%);
- Younger singles and childless couples (37%); and
- Empty nesters and retirees (21%).

How many new dwelling units could be leased or sold within the area over the next 5 years?

Based on the assumption that 15% of the potential market prefers newly-constructed housing units, the West District could support up to 852 new market-rate and workforce housing units per year over the next 5 years:

**Annual Capture of Market Potential
THE WEST DISTRICT**

Housing Type	# of Households	Capture Rate	# of New Units
Multi-Family For-Rent*	940	15%	141
Multi-Family For-Rent† (lofts/apartments, leaseholder)	1,460	15%	219
Multi-Family For-Sale*	190	15%	29
Multi-Family For-Sale† (lofts/apartments, condo/co-op ownership)	520	15%	78
Single-Family Attached For-Sale*	220	15%	34
Single-Family Attached For-Sale† (townhouses/duplexes/live-work, fee-simple ownership)	460	15%	69
Single-Family Detached For-Sale*	740	15%	111
Single-Family Detached For-Sale† (houses, fee-simple ownership)	1,140	15%	171
Total	5,670		852

* Affordable to households with incomes between 30% and 80% of AMI in 2010, calibrated by household size.

† Affordable to households with incomes above 80% of AMI in 2010, calibrated by household size.

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

This number represents net new units, not net new households.

What is the market currently able to pay for the new units?

—Rental Distribution—

Based on the target household mix and the incomes and financial capabilities of the target households, the distribution by rent ranges of the 360 new market-rate and affordable rental units that could be absorbed each year over the next 5 years within the West District would be as follows:

**Rental Apartment Distribution by Rent Range
THE WEST DISTRICT**

Monthly Rent Range	Units Per Year	Percentage
\$600–\$700	66	18.3%
\$700–\$800	53	14.7%
\$800–\$900	49	13.6%
\$900–\$1,000	48	13.3%
\$1,000–\$1,100	36	10.0%
\$1,100–\$1,200	20	5.6%
\$1,200–\$1,300	20	5.6%
\$1,300–\$1,400	20	5.6%
\$1,400–\$1,500	18	5.0%
\$1,500–\$1,600	16	4.4%
\$1,600 and up	14	3.9%
Total:	360	100.0%

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

—For-Sale Distribution—

Based on the target household mix and the incomes and financial capabilities of the target households, the distribution by price ranges of the 107 new market-rate and affordable for-sale apartments that could be absorbed each year over the next 5 years within the West District:

**For-Sale Apartment Distribution by Price Range
THE WEST DISTRICT**

Price Range	Units Per Year	Percentage
\$150,000–\$200,000	10	9.3%
\$200,000–\$250,000	11	10.3%
\$250,000–\$300,000	19	17.8%
\$300,000–\$350,000	20	18.7%
\$350,000–\$400,000	20	18.7%
\$400,000–\$450,000	12	11.2%
\$450,000–\$500,000	9	8.4%
\$500,000 and up	6	5.6%
Total:	107	100.0%

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

Based on the target household mix and incomes and financial capabilities of the target groups, the distribution by price ranges of the 103 new townhouses/duplexes (single-family attached) that could be absorbed each year over the next 5 years within

the West District would be as follows:

**Townhouse/Duplex Distribution by Price Range
THE WEST DISTRICT**

Price Range	Units Per Year	Percentage
\$150,000–\$200,000	6	5.8%
\$200,000–\$250,000	12	11.7%
\$250,000–\$300,000	26	25.3%
\$300,000–\$350,000	19	18.4%
\$350,000–\$400,000	12	11.7%
\$400,000–\$450,000	10	9.7%
\$450,000–\$500,000	9	8.7%
\$500,000 and up	9	8.7%
Total:	103	100.0%

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

Based on the target household mix and incomes and financial capabilities of the target groups, the distribution by price ranges of the 282 new detached houses that could be absorbed each year over the next 5 years within the West District would be as follows:

**Detached House Distribution by Price Range
THE WEST DISTRICT**

Price Range	Units Per Year	Percentage
\$150,000–\$200,000	24	8.5%
\$200,000–\$250,000	26	9.2%
\$250,000–\$300,000	50	17.7%
\$300,000–\$350,000	51	18.1%
\$350,000–\$400,000	50	17.7%
\$400,000–\$450,000	33	11.7%
\$450,000–\$500,000	28	9.9%
\$500,000 and up	20	7.2%
Total:	282	100.0%

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

How many net new households could the West District expect to gain each year over a 5-year timeframe?

Based on the migration data and internal and external mobility rates, the production of 852 new units a year, and including households with incomes below 30% of AMI, the West District could experience an average increase of 528 additional households per year over the 5-year timeframe:

**Annual Net New Households
THE WEST DISTRICT**

Housing Type	# of New Units	# of Net New HHs
Multi-Family For-Rent*	141	70
Multi-Family For-Rent† (lofts/apartments, leaseholder)	219	130
Multi-Family For-Sale*	29	15
Multi-Family For-Sale† (lofts/apartments, condo/co-op ownership)	78	46
Single-Family Attached For-Sale*	34	18
Single-Family Attached For-Sale† (townhouses/duplexes/live-work, fee-simple ownership)	69	42
Single-Family Detached For-Sale*	111	55
Single-Family Detached For-Sale† (houses, fee-simple ownership)	171	102
Total	852	478
Households with incomes below 30% AMI:		50
Total		528

* Affordable to households with incomes between 30% and 80% of AMI in 2010, calibrated by household size.

† Affordable to households with incomes above 80% of AMI in 2010, calibrated by household size.

SOURCE: Zimmerman/Volk Associates, Inc., 2011.

NOTE: Net new households are the number of households that are new to the Northeast District. The difference between the number of new market-rate and workforce units (852) and the number of units occupied by net new households with incomes above 30% of AMI (478) represents the number of new market-rate and workforce units occupied by existing or newly-formed West District households. In addition, approximately 50 households are new to the West, but with incomes below 30% AMI and therefore unable to afford newly-constructed dwelling units.

Based on the Team Bliss Task Force Next forecasts, citywide, an average annual increase of 1,500 military households is likely over the next 5 years, of which an average of approximately 150 households per year would be likely to live in the West District. The Northeast District could therefore expect to gain approximately 678 new households per year over the next 5 years, and approximately 528 households per year over the following 5 years.

DOWNTOWN EL PASO COMMERCIAL MARKET ANALYSIS

Prepared by: W-ZHA, LLC - March, 2011

INTRODUCTION

Study Purpose

W-ZHA was retained to analyze the market for office and retail uses in El Paso's Downtown. The findings of the market analyses identify the potential quantity and character of such uses over the next 10 years. The market findings are intended to inform City planning processes and policies.

KEY FINDINGS

Office Market Analysis

Existing Conditions

With approximately 2 to 2.5 million square feet of private, multi-tenant office space, Downtown El Paso contains the largest single concentration of office space in the market. Tenants in Downtown's Class-A buildings include businesses serving corporate clientele as well as a substantial number of government agencies, nonprofits, and other businesses serving household clientele.

Vacancy rates in Downtown El Paso generally range from 15% to 20%. Downtown lease rates range from \$13-\$15 per square foot on a gross basis, which represents a net-equivalent of roughly \$6-7 per square foot. Most of the multi-tenant office buildings Downtown were built over 40 years ago.

Competitive Context

Suburban El Paso multi-tenant office buildings are located in the "east" or "west" submarkets. Each of these submarkets contains roughly 800,000 to 1 million square feet of multi-tenant office space. Most of the space is contained in buildings with 20,000 to 80,000 square feet. The largest multi-tenant buildings in the El Paso suburban market are approximately 100,000 square feet. While suburban office tenants include a broad range of professional service providers, contact center operators comprise a significant share of large suburban tenancies.

Suburban office lease rates are competitive with Downtown rates. However, suburban office rent includes free parking. Suburban office vacancy rates are similar to Downtown's -- 15 to 20%. As in Downtown, there has been very little recent office development activity in suburban locations.

Downtown's Competitive Assets and Constraints

Constraints

- Downtown's Mix of Uses and Environment Fails to Generate Significant Rent Premiums
- Low Rents Make Office Development and/or Renovation Economically Challenging
- Downtown's Lack of Convenient Parking and Parking Costs are a Competitive Disadvantage

Assets

- Downtown Courthouses and Government-Related Operations Generate Office Demand
- Downtown's Potential as a High-Quality Mixed-Use Center Make Downtown Unique in the Marketplace

Market Opportunities

Over ten years the market will likely support an additional 100,000 to 200,000 square feet of new Downtown office space. New office projects will serve existing tenants' demand for up-graded space and new office tenants generated by Metropolitan Area growth.

New office development Downtown will most likely take one of two forms:

1. New Small-Scale, Class-B Projects Located Outside the Existing Core Area

Such buildings will most likely occupy suburban-scale lots with sufficient space for surface parking lots. These buildings will likely be 20,000 – 50,000 square feet in size.

2. Existing Building Renovation

Such projects will update old and underutilized buildings Downtown. While such renovations will likely not constitute entire makeovers such as those undergone at the Mills and Central buildings, they may be able to profitably provide new marketable office space Downtown.

Retail Market Analysis

Existing Conditions

There are three distinct retail and entertainment districts in Downtown El Paso: the Golden Horseshoe, the Central Business District and Union Plaza. The Golden Horseshoe district is a unique retail environment that primarily caters to the Mexican national market and discount shoppers. The Central Business District services the employee market, but it is challenged by vacant buildings and a lack of critical mass. The Union Plaza district is primarily a weekend entertainment destination with a small, but important, cluster of eating and drinking establishments. While it is the economic center of the Region, Downtown El Paso is not a place where Metropolitan Area residents come to shop or dine on a regular basis.

The Golden Horseshoe district is an important economic engine supporting the City. The analysis of existing conditions suggests that Downtown retail, because it mostly caters to the Mexican national market, likely contributes a billion dollars in visitor retail sales to the City and region.

Eating and drinking sales are not as robust as retail sales Downtown. While Downtown appears to be a successful entertainment destination particularly for younger households, Downtown's capture of Metropolitan Area eating and drinking sales is well below its retail sales capture.

Competitive Context Conclusions

The area surrounding the Downtown is densely populated, not growing and relatively low income. Two major retail nodes are within an easy 10-minute drive from the Downtown. Demographics and competitive shopping centers will make it difficult for the Downtown to compete for conventional shopper's goods tenants.

There is no specialty retail destination in the City. Specialty stores either sell one-of-a-kind merchandise (like art galleries) or occupy a very specific retail niche (like vintage clothing). Because they are unique, these stores tend to be destinations -- patrons will pass-by chain retail to go to the specialty shop. Given the absence of a competitive specialty shopping environment, Downtown may be well positioned to pursue this retail niche.

The only significant non-suburban eating and drinking cluster is located on Cincinnati Street near the University of Texas El Paso. Downtown is well-positioned to increase its capture of resident eating and drinking expenditures.

Downtown's Competitive Strengths and Challenges

Strengths

- Established Super-Regional Shopping Center
- Well-Located Between the Ciudad Juarez and the El Paso Market Areas
- A Government and Professional Office Hub
- Cultural and Civic Center of El Paso
- Emerging as an Entertainment Destination for Young Adults
- Attractive Buildings, Is Pedestrian Friendly and Safe

Challenges

- Downtown's Retail is Narrowly Targeted to a) the Mexican National Market and b) the Discount Shopper
- The Mexican National Market is On the Decline
- Competitive Shopping Centers are Better Located to Capture A Majority of Resident Retail Demand
- There is Considerable Vacancy in Downtown's Central Business District which Deters Shoppers and Investors
- The Lack of Downtown Housing Limits the Cycle of Activ-

ity Downtown, Particularly the Central Business District

- There are Very Few Quality Restaurants Downtown Open During Weekday Nights
- Downtown's Public Spaces (Sidewalks, Parks, Plazas) Need to be Refreshed

Market Opportunities

The El Paso Metropolitan Area is projected to grow over the next ten years. If there is limited growth in the Mexican market, new shopper's goods sales Downtown will be driven by Metropolitan Area residents. Under this scenario, there will be less net new shopper's goods sales potential. If the Mexican market grows and continues to support shopper's goods sales Downtown, shopper's goods sales in the Metropolitan Area will be higher. Depending upon the Mexican national market, the Downtown can support between 125,000 and 225,000 square feet of new shopper's goods stores over the next 10 years.

Sales estimates indicate that Downtown captures approximately 4% of Metropolitan Area's eating and drinking sales. Strong Downtowns can capture 6% to 10% of Metro Area sales. Applying a 6% capture rate, the market can support an additional 63,000 square feet of eating and drinking space Downtown over the next 10 years.

Market Niches

A Shopping Center for the Mexican National Market and the Discount Shopper

Downtown El Paso's Golden Horseshoe area currently fulfills this role and contributes significantly to the City's economy. However, as increased security at the border and troubles in Juarez have demonstrated, this market is vulnerable to unforeseen market forces. Efforts need to be made to protect and fortify this unique market niche. Discount store and stores targeting the Mexican national market should be located in the Golden Horseshoe, not the Central Business District.

A Specialty Shopping Destination for the Metropolitan Area & Tourists

There is no specialty retail destination in the El Paso Metropolitan Area. Specialty retail can be successful in Downtown because of its central location, access to the El Paso and Juarez markets, and mix of uses. Art dealers, artist studios and galleries, home accessories stores, and specialty stores that sell unique apparel, jewelry and gifts are store-types to be targeted for the Downtown. These stores should target the middle- to upper-income household and younger households.

Because Downtown El Paso is already a strong retail center, one challenge to developing an arts and specialty store cluster is Downtown's relatively high rent. The Central Business District

(such as Texas Avenue) where rents are lower is the appropriate location for such a cluster of stores.

An Eating and Drinking Destination for the Region

Like specialty retail, restaurants and entertainment uses tend to cluster to create a “destination”. Eating and drinking establishments are best located in the Central Business District around San Jacinto Plaza or Texas Avenue and in the Union Plaza district.

**OFFICE MARKET ANALYSIS
EXISTING CONDITIONS**

Downtown Office Supply

Downtown El Paso contains approximately 2 to 2.5 million square feet of private, multi-tenant office space.¹ This comprises the largest single concentration of office space in the El Paso market. The largest and most prestigious among Downtown’s office buildings include the following: Kayser, Chase, Wells Fargo, Mills and Centre buildings. Generally regarded as “Class-A” properties, these buildings contain a total of approximately 1.4 million square feet.

Major Private Office Buildings, Downtown El Paso

Building Name	Address	YOC	Gross Sq. ft.
Kayser	100 North Stanton	1979	415,100
Chase	201 E Main	1963	361,000
Wells Fargo	221 North Kansas	1971	332,300
Mills	303 North Oregon	2011	160,000
Centre	123 Pioneer Plaza	2010	139,000

Large tenants in the El Paso multi-tenant office market occupy 10,000 square feet. Tenants larger than this are rare.

Downtown lease rates generally range from \$13-\$15 per square foot on a gross basis, which represents a net-equivalent of roughly \$6-7 per square foot. A small number of leases have exceeded this range, with gross rates as high as \$18 and in excess of \$20 in some cases.²

1 No “official” supply estimate exists. In the absence of such figure, this general range is based on consultations with commercial real estate firms, including Best Real Estate, as well as visual inventories. The estimated total excludes government buildings, owner-occupied buildings, and buildings containing fewer than 15,000 square feet. Other informal supply estimates range from 3.4 to 3.9 million square feet, but these include government buildings, owner-occupied buildings, and inactively marketed spaces

2 Specific terms of these leases (involving allowances for parking, tenant improvement costs, etc.) make them difficult to compare on a “dollar-for-dollar” basis.

There is little differentiation among the various market tiers. While many lower-quality buildings maintain lease rates in a single-digit range, rents in the “Class-B” market tiers are often comparable to those in “Class-A” buildings. Vacancy rates are also comparable in various market tiers; commercial brokers informally estimate that among buildings being marketed for office, vacancy rates in Downtown El Paso as well as in suburban properties generally range from 15% to 20%.

Background Context

A number of important factors influence the existing Downtown office market. These include the following:

- **El Paso’s Economy:** The El Paso economy features strengths in manufacturing, military activity, and cross-border retail activity. Office sectors, however, play a relatively minor role in the local economy. In most markets, the major sources of demand for downtown office space include professional service providers engaged in legal, financial and insurance services, and well as other businesses such as advertising, design, technology and others. As shown in the following table, these industry sectors represent 10% of El Paso area employment. This share of total employment ranks below corresponding shares in the State of Texas and the nation, as well as four selected Texas metro areas, where the shares range from 17% to 19% of total regional employment.

	Selected Metropolitan Areas						
	El Paso	Texas	U.S.	Austin	Dallas	Houston	San Antonio
Finance/Insurance	3.6%	5.3%	5.7%	5.8%	7.8%	4.9%	8.8%
Real Estate	1.8%	2.0%	1.9%	2.7%	2.4%	2.4%	2.1%
Professional/Sci/Technical Services	4.6%	6.2%	6.8%	10.1%	7.5%	9.4%	6.1%
Subtotal	10.0%	13.5%	4.4%	18.6%	17.7%	16.8%	17.0%

Source: U.S. Census Bureau

- **Historic:** Most of the major office buildings in Downtown El Paso were built more than 30 years ago. As shown in the following table, 36% of the current supply was built prior to 1950 (mostly prior to 1930). Then, more than half the current supply was added in the 1960s and 1970s.

Downtown Office Building Construction Periods

Period	Bldgs Sq. ft.	Share
1900-1950*	7 804,700	35.8%
1950s	1 202,000	9.0%
1960s	2 495,600	22.0%
1970s	2 747,400	33.2%
Total	12 2,249,700	100.0%

* Includes original Mills Bldg and Centre bldg, as well as Bassett Tower.
 Source: Best Real Estate; W-ZHA, LLC.

The underlying support for this 1960s-70s construction was provided in large part by the presence of El Paso Natural Gas. With its national headquarters in El Paso, this tenant was the largest in Downtown El Paso; brokers informally estimate that it occupied well over 1 million square feet in several buildings, including the entire “Blue Flame” building. In addition, professional service providers (e.g., legal, financial) serving El Paso Natural Gas also accounted for a substantial share of Downtown occupancies.

Since that time, El Paso Natural Gas moved its operations out of El Paso, officially moving its headquarters to Houston in 1996. This left substantial office vacancies throughout the Downtown office core. Lacking new corporate influxes (see following paragraph), there was little fundamental demand for office space, and development activity fell dormant.

- **Recent Activity:** Since 2000, one broker’s records indicate that total city-wide multi-tenant office construction amounted to 103,000 square feet. This amount featured just one building with more than 15,000 square feet, and three buildings with more than 10,000 square feet; only two buildings were located in Downtown El Paso.

Two recent renovation projects comprise the most significant Downtown office development activity since the 1970s. The Centre Building re-opened after extensive renovations in 2007 and the adjacent Mills building is planned to re-open in early 2011. These buildings command the highest lease rates in Downtown El Paso. The Centre Building’s office space maintains roughly full occupancy. The Mills Building, while not full, has leased four

full floors to federal agencies moving to El Paso.

- **Corporate Presence:** The El Paso region currently contains relatively few headquarters offices. In other markets of comparable size, the presence of decision-making executives attracts office tenants providing services in law, finance, accounting, advertising, management, and a broad range of other professional occupations. The relatively minor presence of regional and national headquarters in El Paso limits multi-tenant office potential.
- **Tenant Profiles:** Tenants in Class-A buildings include corporations providing financial, legal, and other professional services, but they also include substantial presences of government agencies, nonprofits, and various businesses serving household (as opposed to corporate) clientele. While Class-A building tenancies are typically driven by image-related considerations, in El Paso they are driven by practical considerations involving cost and parking availability.
- **Tenant Sizes:** Even tenants occupying just 10,000 square feet are considered large in the El Paso market. Class-A buildings in other markets of comparable scale are likely to contain “anchor” tenants occupying 20,000 to 40,000 square feet.

COMPETITIVE CONTEXT

Suburban El Paso office buildings are categorized in “east” and “west” submarkets. Each of these contains roughly 800,000 to 1 million square feet of private multi-tenant office space.³ The very largest of these buildings contain roughly 100,000 square feet. Most of the space in these submarkets is contained in buildings with 20,000 to 80,000 square feet.⁴

The following table summarizes office supply in El Paso’s suburban and overall office markets. In the east submarket, office buildings are scattered, with minor concentrations on major corridors such as Geronimo Drive, Lee Trevino Drive and George Dieter Drive. In the west submarket, the largest concentration of office space is in the Executive Center Park, in the area off North Mesa Street and Executive Center Drive. This area contains more than 600,000 square feet of private usable space, comprising roughly 80% of the west submarket inventory.

3 As with Downtown supply estimates, no “official” figures exist. The estimated figures provided herein exclude government buildings, medical office buildings, owner-occupied buildings, office space in industrial buildings, and buildings containing less than 15,000 square feet.

4 Many of the larger suburban office buildings are owner-occupied contact centers, operated by corporations such as State Farm Insurance, Verizon Wireless, and various third-party service providers.

El Paso Office Market Supply

Submarket	Space(M sq. ft.)
Central/Downtown	1.95
East	0.80
West	0.95
Total	3.65

Source: Best Real Estate; W-ZHA, LLC.

Additional office space (excluded from the supply figures shown in the table) in suburban El Paso includes medical offices, government buildings, and industrial properties containing offices. With the exception of a concentration of medical buildings along North Mesa near the University of Texas-El Paso, these offices are located in scattered locations.

Suburban office lease rates are competitive with Downtown rates. While many suburban leases are quoted on a net basis, gross-equivalent rates for high-quality space range from \$15-\$16 per square foot. This rate, however, includes free parking; when parking costs are added to Downtown lease rates, Downtown tenant costs in many instances reach \$17 per square foot.

Vacancy rates are consistent with Downtown conditions, ranging from 15% to 20%.

As in Downtown, there has been very little recent office development activity in suburban locations. Since the mid-1980s, substantial suburban office developments have been primarily medical offices, a 55,000 square foot building on Hawkins Drive (1993), and owner-occupied buildings such as a facility for ADP (third-party back office operations) and the Helen of Troy headquarters building.

While suburban office tenants include a broad range of professional service providers, contact center operators comprise a significant share of large suburban tenancies. Such operators include a third-party call center service providers as well as in-house operations for corporations such as AT&T, State Farm, and others.

DOWNTOWN'S COMPETITIVE ASSETS AND CONSTRAINTS

Constraints

- **Downtown's Mix of Uses and Environment Fail to Generate Significant Rent Premiums:**

As mentioned previously, suburban lease rates are generally equal to Downtown lease rates. Even in its most visible and prestigious buildings, with the exception of parking cost, there is no significant premium for a Downtown El Paso location. The Downtown product is

not yet of a quality to achieve rent premiums.

- **Low Rents Make Office Development and/or Renovation Economically Challenging:**

While financial pro forma analysis is beyond the scope of this document, development costs for high-end Downtown buildings are likely to exceed \$200 per square foot – excluding costs for land and parking structures. At these cost levels, most developers would need to achieve net lease rates of at least \$20; prevailing net-equivalent rates approximate just \$6-7 per square foot. Under these circumstances, new development is likely to favor less costly suburban low-rise formats and locations.

- **Lack of Convenient Parking and Parking Costs are a Downtown Constraint:**

Various sources involved in office leasing and development identify a lack of convenient parking as a problem for Downtown offices. In addition to monthly costs, which present a competitive disadvantage vis-à-vis suburban office space, convenient locations are scarce. The Mills and Centre buildings will be connected to a new 838-space parking garage, and this garage will be able to serve other Downtown buildings as well. The other major parking facilities, however, are the Union Plaza and Civic Center parking garages. These facilities contain a combined total of nearly 1,400 spaces, but are situated more than five blocks away from most of the core area office buildings. If not addressed, this lack of convenient parking facilities will constrain leasing and development potential for many prospective Downtown tenants.

Assets

- **Downtown Courthouses and Government-Related Operations Generate Office Demand:**

These provide advantages for law firms and some other service providers that need convenient access to courts and various government offices. Even for such practitioners, however, visits to courts and government offices are infrequent, and are easily accessible from suburban offices.

- **Downtown's Potential as a High-Quality Mixed-Use Center Make Downtown Unique in the Marketplace:**

This is perhaps Downtown's strongest asset. Suburban locations rarely generate the synergies that can emerge from a downtown setting, where various types of activity and amenities can be concentrated in close proximity to one another. Where the City can provide and/or

upgrade amenities (e.g., San Jacinto Plaza, connections to Union Plaza), address constraints (e.g., parking), and present an achievable vision for revitalization, prospective tenants and developers may be induced to invest in Downtown locations. Relatively recent investments in the Centre Building and Mills Building, along with recent restaurant and entertainment successes in the Union Plaza district, provide initial grounds for optimism. If these lead to further investments and realized visions, Downtown El Paso may be able to regain its stature as a vibrant, premium location for office uses.

MARKET OPPORTUNITIES

Multi-tenant office demand is derived from growth in office employment, which in most instances is provided by growth in the “financial activities” and “professional services” industry sectors. Businesses in these sectors provide services involving law, finance, accounting, insurance, management, architecture, and others. Other office-inclined sectors encompass a broad range of business types, but these professional service providers furnish the major source of support for most Downtown office development.⁵

Forecasted growth in El Paso’s “office-inclined” sectors is shown as follows:

Step 1: Current Employment in Office Sectors

The following table shows 2008 office sector employment as estimated by Moody’s economy.com. It should be noted that these figures are derived primarily from the U.S. Bureau of Labor Statistics, which focuses on workers for whom employers pay unemployment insurance coverage (and which are most likely to need new office space).⁶

El Paso County Employment in Office Sectors: 2008

Sector Jobs	(in 000s)
Finance and Insurance	7.66
Real Estate and Rental and Leasing	4.50
Professional and Technical Services	8.35
Management of Companies and Enterprises	0.50
Subtotal	21.01

Source: Moody’s economy.com

Step 2: Projected Growth

Different sources provide a range of employment growth projections. Moody’s economy.com projects growth at an average annualized rate of 1.0% among the office sectors; the University of Texas at El Paso’s Institute for Policy and Economic Development presents a more aggressive (incorporating full consideration of ongoing growth anticipated for Fort Bliss) forecast of 2.2% annualized growth.

Office Sector Growth Rate Scenarios

Sector	2008 - 2020 CAGR*	
	Moody’s economy.com	UTEP IPED
Finance and Insurance	1.9%	0.0%
Real Estate and Rental and Leasing	1.0%	2.0%
Professional and Technical Services	0.1%	4.0%
Management of Companies and Enterprises	1.3%	1.5%
Subtotal	1.0%	2.2%

*CAGR = compounded average annual growth rate.

Source: Moody’s economy.com; University of Texas at El Paso Institute for Policy and Economic Development; W-ZHA, LLC.

Using these employment forecasts as a growth factor for occupied office space⁷, occupied office space would be projected to increase by roughly 200,000 to 400,000 square feet, as shown in the following table. Despite this increase in occupied space, however, currently vacant Downtown office space is estimated at 322,500 to 430,000 square feet (applying a vacancy rate of 15 to 20%). Allowing for stabilized vacancy rate of 8%, the supply of vacant space would range from 150,500 to 258,000 square feet. When these are subtracted from projected new demand, the market would support roughly 50,000 to 150,000 square feet of new office space over the next 10 years.

⁷ Application of projected office sector employment growth as the growth factor for Downtown office occupancy implies that (1) current distribution between Downtown and suburban space would remain constant; and (2) the current space/worker ratio would remain constant.

⁵ This analysis excludes health and “administrative/waste remediation” services. Health care offices are not typically included in general office statistics, and their location decisions are driven by considerations (proximity to hospitals, convenience for patients) that are not relevant to Downtown locations. Administrative/waste remediation services include contact center uses, which typically locate in lower-cost properties with large floorplates and ample parking availability. Contact centers comprise a significant source of employment in El Paso, but do not comprise a significant presence in Downtown office buildings.

⁶ Bureau of Labor Statistics shows “payroll employment.” Bureau of Economic Analysis figures, in contrast, include interns, temporary and part-time workers who are not included in payroll accounting.

10-Year Office Market Demand Projection for Downtown El Paso

	Scenario	
	A	B
Existing Market Supply (sq. ft.)	2,150,000	2,150,000
Current Occupancy (rate)	85%	80%
Current Occupancy (sq. ft.)	1,827,500	1,720,000
10-Yr.Avg.Annual Growth*	1.0%	2.2%
Projected Occupancy (sq. ft.)	2,025,020	2,131,760
Increase (projected occ. less current occ. In sq. ft.)	197,520	411,760
Existing Vacancy (rate)	15%	20%
Existing Vacancy (sq. ft.)	322,500	430,000
Existing Vacancy (sq. ft., with allowance for 8% vac.)	150,500	258,000
New demand less available space	47,020	153,760

*Lower growth rate provided by Moody's economy.com; higher growth scenario based on rate provided by UTEP IPED.

In addition to this projected demand for new space, development opportunities would be augmented by tenants' interest in upgraded offices. Currently available space, as well as a substantial amount of occupied space, is in aging buildings. Over a ten-year time frame, a portion of existing office tenants will seek to upgrade their offices.

Overall, over ten years the market would likely support an additional 100,000 to 200,000 square feet of new office space in Downtown El Paso. New office projects would serve existing tenants' demand for upgraded space and new office tenants.

Notwithstanding projected new demand, the requisite net lease rates of roughly \$20 per square foot would not be achievable. Consequently, new office development Downtown would most likely take one of two forms:

1. Small-scale, Class-B projects located outside the existing core area: Such buildings would most likely occupy suburban-scale lots with sufficient space for surface parking lots. Examples of such projects include the Morgan Stanley building at 641 Stanton and the State of Texas office building at 401 East Franklin.⁸ Under prevailing conditions, the market may support similar projects; most would contain roughly 20,000 – 50,000 square feet.

⁸ This 120,000 square-foot government property is not included in the supply figures reported earlier.

2. Improvements to existing buildings: Such projects would update old and underutilized buildings, satisfying building code requirements, replacing outdated infrastructure (e.g., elevators, HVAC, wiring), and replacing features such as windows, carpets, and fixtures. While such renovations would not constitute entire makeovers such as those undergone at the Mills and Central buildings, they may be able to profitably provide new marketable office space.

Overall, while Downtown El Paso would not likely support the development of large-scale Class-A office buildings, over the next ten years it could support up to 200,000 square feet of new low-rise or rehabilitated space in Downtown El Paso. Given the limited supply and small size of El Paso's "anchor" tenants, most new buildings would range from roughly 20,000 to 50,000 square feet in size. Consequently, the potential demand for new space would most likely accommodate about three to six buildings.

PLANNING ISSUES AND ACTION STEPS

From the development outlook, two planning issues emerge: (1) the need for Downtown amenities (including parking); and (2) the preservation of a compact Downtown core area.

- **Amenities:** Where Downtown provides a district of concentrated, mutually enhancing amenities (e.g., parks, parking facilities) and a mix of uses (e.g., eating & drinking, office uses, residential uses, retail uses, entertainment), the resulting vitality provides an advantage that cannot be replicated in suburban office environments. This gives Downtown a position as the prestigious location for high-end office tenants. This drives lease rates higher and ultimately leads to new development.
- **Compact Core:** There is a substantial gap between currently attainable lease rates and those that will support new high-end development. Consequently, the market tendencies would be to develop in locations at the fringes of the existing Downtown core. If this pattern of development emerges, it would limit the synergies derived from new development. Moreover, as new development occurs in a more scattered pattern, it would draw tenants from existing buildings, leaving vacancies – and possibly empty buildings – behind.

At the very least, zoning should require that all buildings abut the street and that parking be provided behind the building. To support Downtown revitalization and investment, the City should be prepared to develop public parking. Removing parking costs will reduce the rent required to make investment sense. Capital incentive programs will be necessary to make the renovation of older buildings financially feasible. In exchange for the subsidy, the City can influence the quality of the renovation.

RETAIL MARKET ANALYSIS

Definitions

This section analyzes the market for retail and eating and drinking establishments. The definition of “eating and drinking establishment” includes fast food, take-out and full-service restaurants as well as bars and clubs. Retail is defined by the following store-types:

- Motor Vehicle Dealerships
- Home Furnishings
- Electronics and Appliances
- Building Materials and Garden Supplies
- Food and Beverage (for consumption at home)
- Health and Personal Care
- Gasoline Stations
- Clothing and Accessories
- Sport/Hobby/Books
- General Merchandise
- Miscellaneous (like florists, gift and card shops)
- Non-Store Retail

Home furnishings, electronics and appliances, clothing and accessories, sport/hobby/books, general merchandise stores and miscellaneous retail stores are “shopper’s goods” stores. Shopper’s goods stores are the types of stores where people gather information about a particular product and comparison shop before purchasing. Because they rely on comparison shopping, these types of stores cluster to offer the breadth and depth of merchandise necessary to create a shopping destination. With suburbanization relatively few Downtowns have managed to retain sufficient shopper’s goods stores to remain shopping destinations.

Food and beverage stores, like supermarkets and liquor stores as well as drug stores (health and beauty products), are considered “convenience” retail. These store-types offer merchandise targeted to the day-to-day needs of the consumer. Convenience retail stores seek locations close to residential neighborhoods and employment clusters.

Building materials, garden supply stores, gas stations and auto dealerships are retail-types not typically found in Downtown environments.

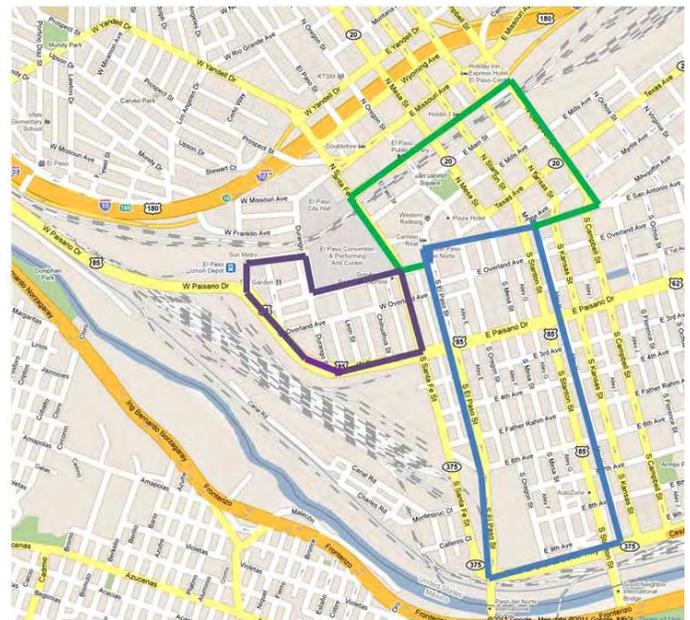
EXISTING CONDITIONS

Downtown Supply

From a market perspective there are three major retail and eating/drinking districts in the Downtown Area: the Golden Horseshoe, the Central Business District and Union Plaza.

Downtown retail is clustered in the “Golden Horseshoe”, an area bounded by El Paso Street to the west, San Antonio Avenue to the north and Stanton Street to the east and the Mexico border to the south. This district has very low vacancy and stores offer everything from apparel to electronics to duty-free products. El Paso Street is the strongest retail street with retail rents ranging from \$20 to \$30 per square foot in a mix of net leases and full service leases.

Downtown Retail and Eating and Drinking Districts



The Golden Horseshoe operates like an open-air bazaar. Low price merchandise is displayed within the store as well as on the sidewalk. Field work indicates a vast majority of the storefronts in the Golden Horseshoe District are shopper’s goods stores. The remaining storefronts are occupied by bank and finance establishments, tax preparation services, and convenience stores.

Retail in the Golden Horseshoe is targeted to the Mexican national market. Shoppers come from across the border to Downtown El Paso because quality products can be obtained for lower prices. Interviews suggest that anywhere from 70 to 90% of the retail sales in the Golden Horseshoe are generated from people crossing into El Paso from Mexico.

South of Paisano Street the Golden Horseshoe District is characterized by small “mom & pop” stores. The area from Paisano

Street to San Antonio Street contains larger floorplate stores like JC Penney, Fallas, and the Texas Store. While the physical character of the stores differs between these two areas, both cater to the Mexican national market.

The second Downtown district is the Central Business District. This zone is generally bounded by Santa Fe Street to the west, West Franklin Avenue to the north, Campbell Street to the east, and San Antonio Avenue to the south. This district incorporates San Jacinto Plaza, Pioneer Plaza, the Plaza Theatre, prominent Downtown hotels and Downtown’s largest office buildings. Abutting this zone is the Williams Convention Center, the Abraham Chavez Theatre, the Visitor’s Center and various museums.

The Central Business District storefront mix is not retail-oriented, but, instead, mostly consists of convenience and eating and drinking establishments. There is considerable storefront vacancy in this zone and many empty buildings.

The third district is Union Plaza bounded by West Paisano Street to the south and west, the railroad tracks to the north, and El Paso Street to the east. There are a number of restaurants and clubs in this district. The clubs in Union Plaza cater to young adults. There are very few shops in this district.

Downtown’s shopper’s goods stores target the Mexican national market and discount shoppers. Other than the large department stores, there are very few stores selling mid- to high-price-point merchandise. Except for near-in residents, Downtown is not a destination for conventional shopping.

Downtown eating and drinking establishments are supported by Downtown employees, the young adult market, and visitors.

Retail Sales

Households spend a certain amount in retail stores each year (“retail expenditure”) and that amount is largely a function of household income. Comparing household retail expenditure potential to actual retail sales can reveal whether there is a surplus (“inflow”) or shortage (“outflow”) of retail sales in an area. When retail sales are higher than household expenditure potential, households from outside the area are coming to the area to shop. When retail sales are lower than household expenditure potential, either residents are leaving the area to shop or there is not sufficient supply retail to service the demand.

According to the Texas State Comptroller of Public Accounts the Metro Area’s retail sales totaled \$7.65 billion in 2009. Approximately 90% of these sales (\$6.85 billion) occurred in the City of El Paso. City households (the spending unit for retail) comprised 85% total Metropolitan Area households.

Metropolitan Area sales data are available by store-type from the Texas State Comptroller of Public Accounts. 3rd quarter 2009 retail sales data was extrapolated to estimate total 2009 sales by store-type. The Metropolitan Area experienced a significant retail sales “surplus” among shopper’s goods stores.

In shopper’s goods alone (electronics, apparel, sporting goods et al, general merchandise, and miscellaneous retail), the Metropoli-

**Retail Sales By Store Type Inflow and Outflow Analysis
El Paso Metro Area 2009**

	Expenditure Potential	Estimated Sales	Inflow/(Outflow)	
			Amount	Share of Sales
Auto Sales and Gas/Service	\$1,913,038,000	\$1,987,916,000	\$74,878,000	4%
Furniture & Home Furnishings	\$149,261,000	\$157,636,000	8,375,000	5%
Electronics and Appliance	\$173,224,000	\$231,594,000	58,370,000	25%
Bldg Material, Garden Equipment	\$711,604,000	\$527,675,000	(183,929,000)	-35%
Food and Beverage	\$1,107,820,000	\$835,576,000	(272,244,000)	-33%
Health and Personal Care	\$490,165,000	\$421,302,000	(68,863,000)	-16%
Clothing and Accessories	\$371,814,000	\$521,474,000	149,660,000	29%
Sporting Goods, Hobby, Book, Music	\$144,891,000	\$159,670,000	14,779,000	9%
General Merchandise	\$1,089,666,000	\$1,986,961,000	897,295,000	45%
Miscellaneous	\$203,404,000	\$481,479,000	278,075,000	58%
Non-Store**	\$556,230,000	\$330,436,000	(225,794,000)	-68%
Shopper's Goods	\$2,132,260,000	\$3,538,814,000	1,406,554,000	40%

** Census 2007 data applied on non-store sales.

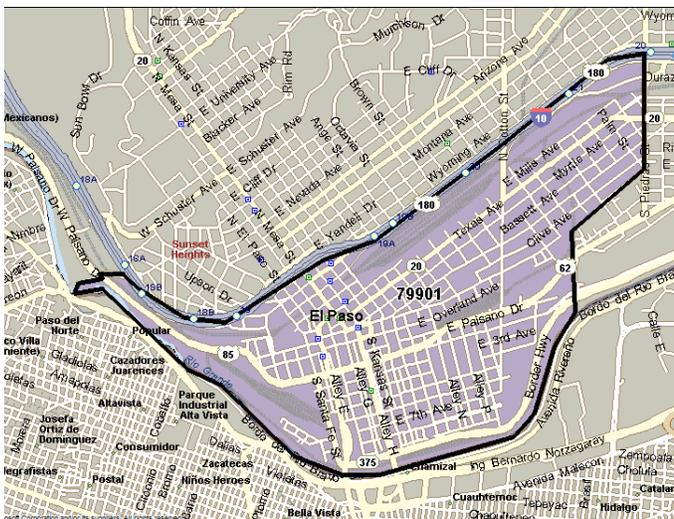
Source: Texas State Comptroller of Public Accounts, “State Sales and Use Tax Analysis: El Paso MSA”; 2010 Census; W-ZHA

tan Area experienced sales volumes 40% higher than what would be expected given the size and buying power of the market.

This “surplus” is likely driven by Mexican nationals coming to El Paso to shop. According to an analysis that measured Mexico’s impact on El Paso’s retail market, Mexicans contributed \$1.7 to \$1.8 billion to El Paso retail sales.⁹ The date of this study is unknown, but the 2009 data appear to corroborate the finding that the Mexican retail market is a significant economic engine for El Paso.

Most of this important economic activity is occurring in El Paso’s Downtown. The smallest geographic area for which reliable retail sales information is available is the zip code area. The Downtown is located in the 79901 zip code area. As the following map illustrates, the boundary of the 79901 zip code area is larger than the Downtown. However, the Downtown contains most of the retail in the 79901 zip code area.

79901 Zip Code Boundaries



With less than 2% of Metropolitan Area households, the Downtown Area accounted for 18% of the Metro Area’s retail sales and 20% of the City’s retail sales. This is a remarkable capture rate.

Retail Sales

Zip Code 79901, City of El Paso and the Metro Area 2009

	Metro	City
79901 Retail Sales	\$1,372,557,000	\$1,372,557,000
City Retail Sales in 2009	\$7,649,897,000	\$6,852,504,000
79901 Share of Sales	18%	20%

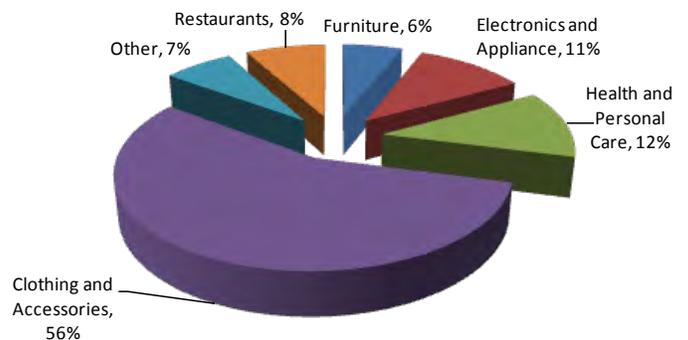
Source: Texas State Comptroller of Public Accounts website “Window on State Government”; WZHA

Retail sales in the 79901 zip code area totaled \$1.37 billion in 2009 which closely approximates the \$1.4 billion in shopper’s goods store sales “surplus”.

Retail sales by store-type are not available for zip code level geography, but the number of stores by store-type is available from the 2007 Economic Census. According to the 2007 Census approximately 78% of the retail stores in the 79901 zip code area were shopper’s goods establishments (as opposed to auto-oriented, health and beauty, food and beverage, building materials and non-store retailers). In 2007, the 79901 zip code contained 17% of all shopper’s goods stores in the Metro Area.

The chart below illustrates that 80% of the spending by persons from Mexico is in shopper’s goods stores, particularly clothing and accessories.

Spending Pattern Mexican Visitors



Eating and Drinking Sales

The Texas State Comptroller of Public Accounts combines sales in eating and drinking establishments with leisure and hospitality sales. Therefore, 2009 sales in eating and drinking establishments are not readily available for the City or the Metropolitan Area. Data from the 2007 Economic Census was used to estimate El Paso’s 2009 eating and drinking sales.

⁹ City of El Paso, Development Services Department, “Cross Border Retail Studies”.

In the 2007 Economic Census, eating and drinking sales in the Metro Area accounted for 87% of total leisure and hospitality sales.

**Eating and Drinking Sales
El Paso Metro Area 2007**

	Sales	
Leisure and Hospitality	\$1,031,298,000	100%
Accomodation	\$135,579,000	13%
Eating and Drinking	\$895,719,000	87%

Source: 2007 Economic Census; W-ZHA

There were \$1 billion in leisure and hospitality sales in the El Paso Metropolitan Area in 2009. Using 2007 share of sales as a proxy for 2009, Metropolitan Area sales in eating and drinking establishment are estimated to be approximately \$872.6 million. This sales volume is consistent with data from Sales Marketing and Management's "Survey of Buying Power" which estimated El Paso Metro's 2009 eating and drinking sales at \$871.5 million.

**Estimated Eating and Drinking Sales
El Paso Metro Area 2009**

	Sales	
Actual Leisure and Hospitality	\$1,004,687,000	100%
Estimated Accomodation	\$132,081,000	13%
Estimated Eating and Drinking	\$872,606,000	87%

Source: Texas State Comptroller of Public Accounts website "Window on State Government"; 2007 Economic Census; W-ZHA

Metropolitan Area eating and drinking sales closely approximate area's expenditure potential. Unlike shopper's goods where there was a considerable sales "surplus", there does not appear to be considerable visitor spending in eating and drinking establishments.

**Eating and Drinking Sales Compared to Household
Expenditure Potential
El Paso Metro Area 2009**

	Expenditure Potential	Estimated Sales	Inflow/(Outflow)	
			Amount	Share of Sales
Eating and Drinking Establishments	869,322,384	872,606,000	3,283,616	0.4%

Source: Texas State Comptroller of Public Accounts, "State Sales and Use Tax Analysis: El Paso MSA"; 2009 American Community Survey; W-ZHA

In the 2007 Economic Census, eating and drinking sales in the City accounted for 84% of total leisure and hospitality sales. Applying this share of sales to actual 2009 leisure and hospitality sales results in City eating and drinking sales of approximately \$795.8 million. Over 90% of the eating and drinking sales that occur in the Metro Area take place in the City.

**Estimated Eating and Drinking Sales
City of El Paso 2009**

	Sales	
Actual Leisure and Hospitality	\$948,021,825	100%
Estimated Accomodation	\$152,189,470	13%
Estimated Eating and Drinking	\$795,832,355	84%

Source: Texas State Comptroller of Public Accounts website "Window on State Government"; 2007 Economic Census; W-ZHA

The City does experience some inflow of eating and drinking sales.

**Eating and Drinking Sales Compared to Household
Expenditure Potential
City of El Paso 2009**

	Expenditure Potential	Estimated Sales	Inflow/(Outflow)	
			Amount	Share of Sales
Eating and Drinking Sales	737,497,465	795,832,355	58,334,890	7.3%

Source: Texas State Comptroller of Public Accounts, "State Sales and Use Tax Analysis: El Paso MSA"; 2009 American Community Survey; WZHA

Eating and drinking sales by zip code level are estimated by Claritas, Inc., a recognized national consumer research company. According to Claritas, Inc. sales in the 79901 zip code area totaled \$38.5 million in 2009. Therefore, the Downtown Area represented approximately 4% of the Metro Area's eating and drinking sales.

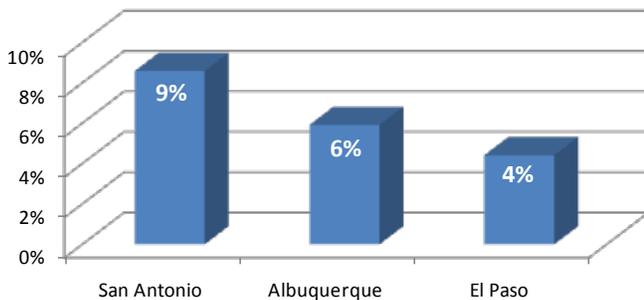
**Downtown Area's Capture of Eating & Drinking Sales
 El Paso, Texas 2009**

	City	
79901 Eat/Drink Sales	\$38,519,083	\$38,519,083
Eating and Drinking Sales	\$795,832,355	\$795,832,355
Downtown Area Capture	5%	5%
	Metro Area	
79901 Eat/Drink Sales	\$38,519,083	\$38,519,083
Eating and Drinking Sales	\$872,606,000	\$872,606,000
Downtown Area Capture	4%	4%

Source: Texas State Comptroller of Public Accounts website "Window on State Government"; W-ZHA

Successful downtowns can achieve capture rates of 6% to 10% of Metro sales. San Antonio's Downtown zip code area captures 9% of Metro Area eating and drinking sales. Downtown San Antonio is a major convention destination. Downtown Albuquerque's zip code area captures 6% of Metro Area eating and drinking sales.

**Downtown Zip Code Share of Eating
 and Drinking Sales**



At a 4% capture rate, El Paso's Downtown eating and drinking sales appear low given its retail power.

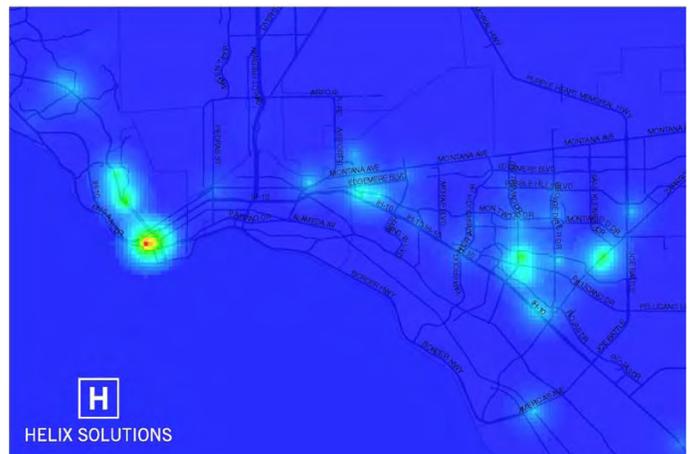
The following was assembled by Christopher Villa using State alcohol sales data as provided on alcoholsales.com. The data indicate that Downtown El Paso had higher alcohol sales in November 2010 than any other entertainment cluster in the

Metropolitan Area. This information suggests that Downtown is already an entertainment destination, particularly Union Plaza.¹⁰

**November 2010 Alcohol Sales
 El Paso Entertainment Districts**

District	Establishments		Alcohol Sales
El Paso Total	319		\$9,419,879
Downtown	34	11%	\$1,237,236
University	29	9%	\$1,081,000
Airport	27	8%	\$928,400
Lee Trevino	19	6%	\$804,942
Montwood-Zaragoza	17	5%	\$694,706
Las Palmas Center	14	4%	\$482,235
Mesa-Sunland Park	15	5%	\$454,664

Source: Christopher Villa; alcoholsales.com



According to Claritas, Inc., a national consumer research company, sales in drinking establishments account for 22% of the 79901 zip codes area's total eating and drinking sales. As a point of reference, drinking establishments in San Antonio's Downtown zip code area accounted for 7% of eating and drinking sales and in Albuquerque 10% of Downtown eating and drinking sales.

¹⁰This analysis was conducted by Helix Solutions (www.helixeval.com) and was initially released on January 5, 2011.

Existing Conditions Conclusions

There are three distinct retail and entertainment districts in Downtown El Paso. The Golden Horseshoe district is unique retail environment that primarily caters to the Mexican national market and discount shoppers. The Central Business District services the employee market, but it is challenged by vacant buildings and a lack of critical mass. The Union Plaza or warehouse district is primarily a weekend entertainment destination with a small, but important, cluster of eating and drinking establishments. While it is the economic center of the Region, Downtown El Paso is not a place where Metropolitan Area residents come to shop or dine on a regular basis.

The Golden Horseshoe district is an important economic engine supporting the City. The analysis of existing conditions suggests that Downtown retail, because it mostly caters to the Mexican national market, likely contributes a billion dollars in visitor retail sales to the City and region.

Eating and drinking sales are not as robust as retail sales Downtown. While Downtown appears to be a successful entertainment destination particularly for younger households, Downtown’s capture of Metropolitan Area eating and drinking sales is well below its retail capture.

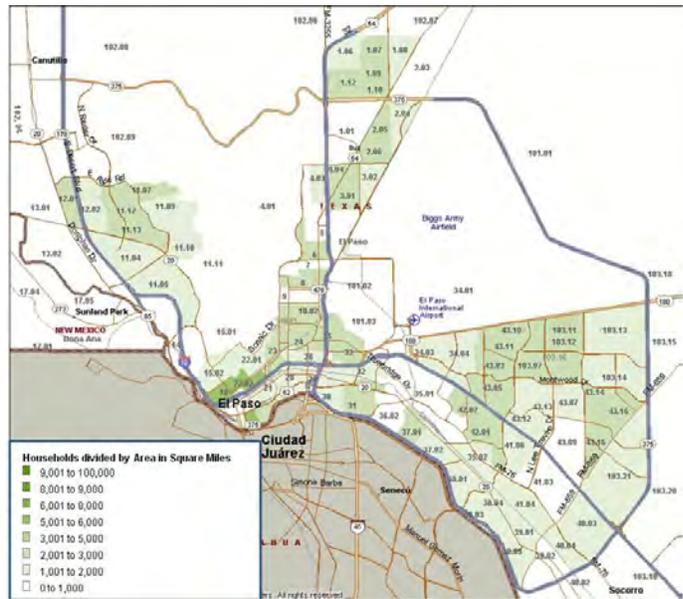
COMPETITIVE CONTEXT

Demographic Landscape

Downtown is strategically located in the center of the Ciudad Juarez and El Paso market. Accurate demographic information is not readily available for Ciudad Juarez at this time. However, with over a million people, the Ciudad Juarez is very large. Average income in Ciudad Juarez is likely below the average for El Paso. There were over 7.5 million pedestrian crossings over the bridge between El Paso and Juarez in 2009. While a massive market, the Juarez opportunity is being threatened by violence in that City and security intensification at the border.

Household density is high near the Downtown. The following map illustrates household density by census tract. The darker the color, the higher household density in the census tract.

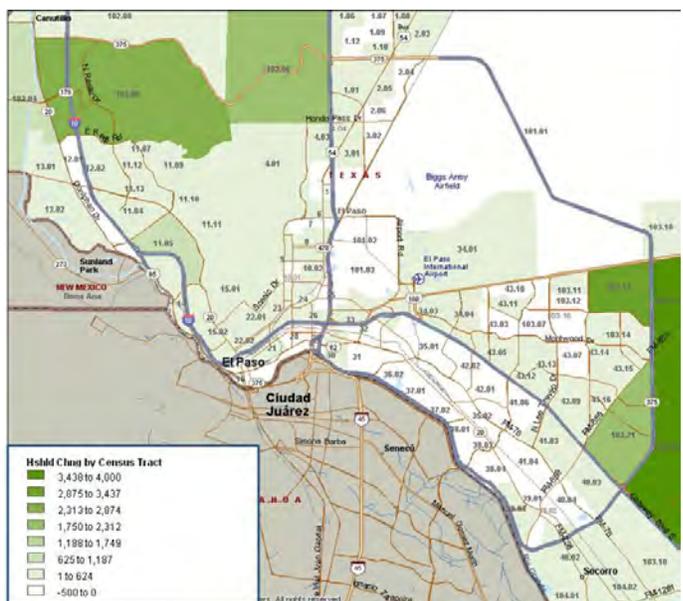
Household Density (2007)



Source: Microsoft MapPoint; W-ZHA

The following map illustrates household growth in each census tract between 2000 and 2010. Darker colors represent more household growth. Census tracts near the Downtown have not experienced growth over the last ten years. Instead, most of the household growth has been occurring far west, north and east of Downtown. Many retailers seek locations where the market is growing.

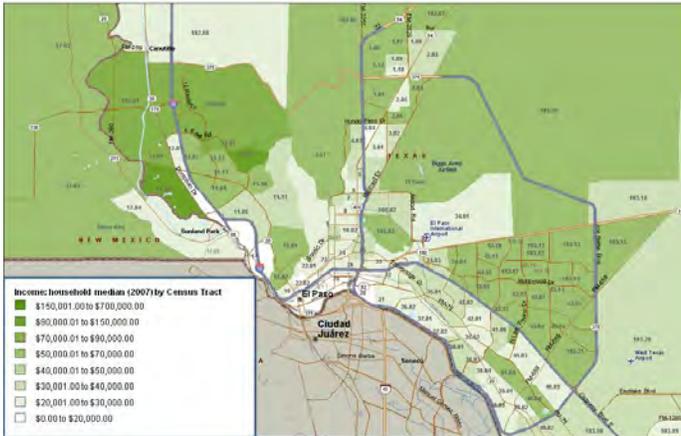
Household Change 2000-2010



Source: Microsoft MapPoint; Claritas, Inc.; W-ZHA

The following map illustrates median income by census tract for the Metropolitan Area. The household median income near the Downtown is low. Median household income is highest west of the Downtown and north of Interstate 10 to the east.

Median Income 2007



Retail Supply

The premiere shopping center in the El Paso Metropolitan market is the Cielo Vista Mall. Owned by Simon Malls, Cielo Vista Mall is a traditional 1.2 million square foot enclosed mall anchored by Dillard’s, JC Penney, Sears and Macy’s. The Cielo Vista Mall is convenient to the Downtown and higher income neighborhoods to the north and east on Interstate 10 (see map of the 10-Minute drive time).

**Cielo Vista Mall
Median Income and 10-Minute Drive Time**



Source: MapPoint; W-ZHA

Near Cielo Vista is Bassett Place Mall, also located on Interstate 10. Bassett Place Mall is also a traditional, 920,000 square foot enclosed mall anchored by Target, Kohls, and Marshalls. Bassett Place Mall is within an eight minute drive from the Downtown. Bassett Place serves the same households as Cielo Vista Mall.

Within a 10-minute drive west of the Downtown is the Sunland Park Mall and Sunland Town Center retail node. Sunland Park Mall is a traditional enclosed mall with 918,000 square feet. Also owned by Simon Malls, Sunland Park Mall is anchored by Dillard’s, Sears and Macy’s.

**Sunland Park Mall
Median Income and 10-Minute Drive Time**



Sunland Town Center is a 303,000 square foot power center across the street from Sunland Park Mall. Sunland Town Center anchors include Target, Best Buy, K-Mart, Petsmart, and Bed Bath & Beyond.

None of the retail clusters in the Metropolitan Area are particularly distinctive with regard to ambiance, mix of uses, or store mix. There are no formidable specialty retail clusters (for example, arts, home accessories, specialty retail) within a 15-minute drive of the Downtown. As compared to the Downtown, the two major regional retail nodes within easy driving distance from the Downtown have better access to growth areas and neighborhoods with higher income households.

Competitive Positioning for Conventional Retail

Given the proximity of the large east and west retail nodes, to compete for the same kind of tenants found in these shopping centers, the Downtown’s primary trade area is small (see map). The trade area illustrated on the map incorporates 15,000 households with a median household income of less than \$18,000.

**Primary Trade Areas
Conventional Shopper's Goods Stores**



Convenience retail and discount retail establishments can work with this demographic profile. This demographic profile will not satisfy higher volume, shopper's goods stores that are typically found in a mall or lifestyle center.

Eating and Drinking Establishments

Most of the eating and drinking establishments in the Metropolitan Area are co-located with retail concentrations. Eating and drinking clusters occur in the malls and on Lee Trevino Drive, Montwood Drive-Zargoza Roads, Las Palmas Center, and around Sunland Mall. Except in cases where the eating or drinking establishment is part of the shopping center, the eating and drinking clusters are mostly comprised of stand-alone, chain restaurants.

The only significant non-suburban eating and drinking cluster is located on Cincinnati Street near the University of Texas El Paso. Only about two blocks in length, Cincinnati Street is a destination for residents and students. Albeit quite limited in terms of the number of establishments, Cincinnati Street is attractive, pedestrian friendly and memorable.

Competitive Context Conclusions

The area surrounding the Downtown is densely populated, not growing and relatively low income. Two major retail nodes are within an easy 10-minute drive from the Downtown. Demographics and competitive shopping centers will make it difficult for the Downtown to compete for conventional shopper's goods tenants.

There is no specialty retail destination in the City. Specialty stores either sell one-of-a-kind merchandise (like art galleries) or occupy a very specific retail niche (like vintage clothing). Because they are unique, these stores tend to be destinations -- pa-

trons will pass-by chain retail to go to the specialty shop. Given the absence of a competitive specialty shopping environment, Downtown may be well positioned to pursue this retail niche.

The only significant non-suburban eating and drinking cluster is located on Cincinnati Street near the University of Texas El Paso. Downtown is well-positioned to increase its capture of resident eating and drinking expenditures.

DOWNTOWN'S COMPETITIVE STRENGTHS AND CHALLENGES

Strengths

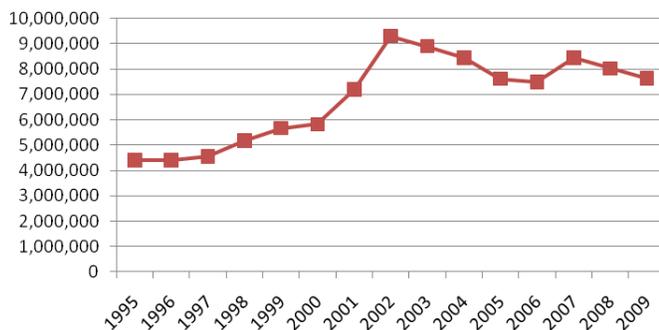
- **Downtown is an Established Super-Regional Shopping Center:** El Paso is fortunate to have maintained its function as a super-regional shopping center. There is a critical mass of retail available Downtown. The opportunity is to build on this economy and diversify the retail mix.
- **Downtown is Well-Located Between the Ciudad Juarez and the El Paso Market Areas:** Downtown is central and accessible to a very large consumer base. Ciudad Juarez and the El Paso Metropolitan Area represent a market of approximately 2 million people.
- **Downtown is a Government and Professional Office Hub:** City, the County and the Federal offices and functions are located in Downtown El Paso. Downtown contains the largest single concentration of office space in the market with 2 to 2.5 million square feet of multi-tenant office space. According to the Census, there were approximately 17,000 employees in the 79901 zip code area. These uses are important for retail and restaurants because they create a daytime market for goods and services.
- **Downtown is the Cultural and Civic Center of El Paso:** The Williams Convention Center, the Chavez Theater, the Plaza Theater and museums are located in Downtown. These uses are important activity generators that support both retail and eating and drinking establishments during the day, evening and night.
- **Downtown is Emerging as an Entertainment Destination for Young Adults:** Downtown is within a five- to ten-minute drive from the University of Texas El Paso. Students and younger households are often important early adopters of Downtown living and commerce.
- **Downtown has Attractive Buildings and is Pedestrian Friendly, and Safe:** Most of Downtown El Paso's historic buildings remain leaving blocks intact. Unlike many Downtowns that experienced considerable

demolition during urban renewal, El Paso's urban fabric and character remains. Downtown El Paso is also safe.

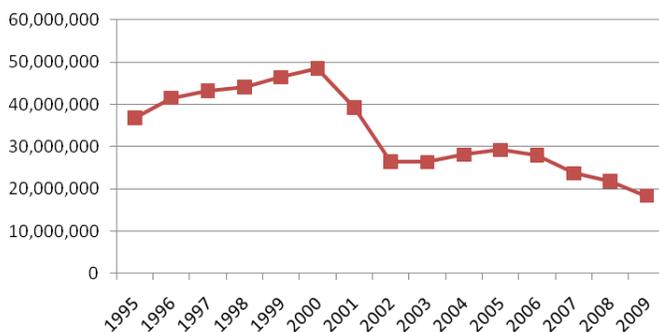
Challenges

- **Downtown's Retail is Narrowly Targeted to a) the Mexican National Market and b) the Discount Shopper:** While a retail powerhouse, the Golden Horseshoe District is narrowly focused on the Mexican National market and the discount shopper. There are very few stores oriented to the higher-end shopper. Downtown is not a shopping destination for most El Paso residents.
- **The Mexican National Market is On the Decline:** Increased security and Juarez violence have had an impact on the Mexican National market. Both pedestrian and vehicle crossings have declined over the last nine years.

Pedestrian Crossings /Year



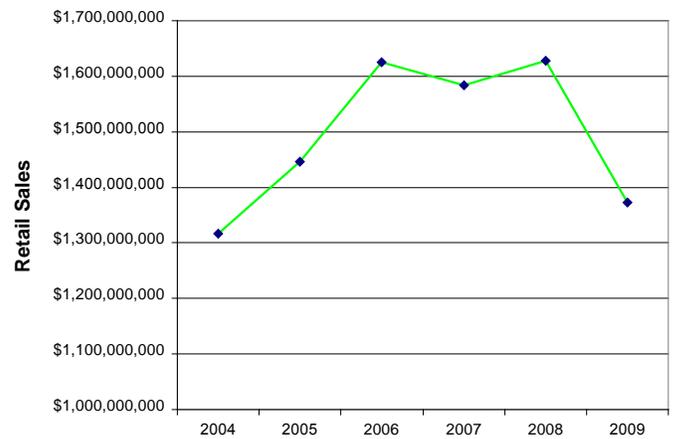
Personal Vehicle Passengers /Year



Source: U.S. Department of Transportation Bureau of Transportation Statistics; W-ZHA

Wait-times for bridge crossings have increased making El Paso less convenient to the Mexican national market. Juarez violence has narrowed the Mexican shopping window to mostly daylight hours. As the following chart illustrates, 2009 retail sales in the 79901 zip code area were below sales in recent years.

**Retail Sales
 79901 Zip Code Area**



Source: Texas State Comptroller of Public Accounts; City of El Paso; W-ZHA

Thus, as important as it is to grow and diversify Downtown retail, efforts must also be made to maintain and support existing retail businesses in the Downtown. The market can be supported by recruiting more office tenants, developing more Downtown housing and expanding the Downtown visitor market.

Competitive Shopping Centers are Better Located to Capture A Majority of Resident Retail Demand: To diversify Downtown's offerings some suggest bringing higher-end retail chains into the Downtown. A real problem with this strategy is that the Metro Area's two strongest regional retail shopping nodes are within a 10-minute drive from Downtown. It is convenient for Downtown households and border crossers with cars to shop at these competitive locations. Household income within Downtown's primary trade area makes the concept of attracting mid- to high-end, chain retail to Downtown El Paso unlikely in the near term.

There is Considerable Vacancy in Downtown's Central Business District which Deters Shopper's and Investors: Highly visible, well-located Downtown properties are vacant. Vacancy signals market weakness which, in turn, translates into a perception of investment risk. Key vacant properties like the Kress Building on San Jacinto Plaza; the four vacant buildings at the intersection of Stanton Street and Texas Street; the American Furniture Building and the Caples Building represent real challenges to Downtown revitalization.

The Lack of Downtown Housing Limits the Cycle of Activity Downtown, Particularly the Central Business District: There are very few housing units located in the commercial core of the Downtown. Resident households are an

important market for Downtown retail. The residential market analysis suggests that over the next ten years, there is the potential for 3,300 Downtown housing units. Households extend Downtown activity through the evening and night as well as on weekends when offices are typically closed.

There are Very Few Quality Restaurants Open During Weekday Nights: With some exceptions, the restaurants in the Central Business District are mostly targeted to the daytime worker population. With the exception of the Garden Restaurant, the restaurants and clubs in the Union Plaza area mostly target the weekend market. The restaurants in the Golden Horseshoe area target the Mexican national market. There are relatively few restaurants that are open during weeknights and these restaurants cater to hotel visitors and event patrons. Downtown is not an eating and drinking destination for most El Paso residents.

Downtown’s Public Spaces (Sidewalks, Parks, Plazas) Need to be Refreshed: Where building vacancy creates a perception that the Downtown is not a thriving private investment location, outdated public spaces symbolize that Downtown is not a public investment location either. Many cities initiate Downtown revitalization efforts by investing in streetscape and public spaces to signal the communities’ commitment to Downtown revitalization.

**MARKET OPPORTUNITIES
Projected Growth**

The El Paso Metropolitan Area is projected to grow over the next ten years. Assuming no real increase in per capita income over time, population growth alone will result in over \$1.5 billion of net new retail expenditure potential and \$180 million of net new eating and drinking potential.

**Metropolitan Area Projections
2009-2020**

	2009	2020	New Expenditure Potential
Population	787,630	950,540	
Retail Sales Expenditure Potential	\$7,439,402,000	\$8,978,135,000	\$1,538,733,000
Eating & Drinking Expenditure Potential	\$869,322,000	\$1,049,129,000	\$179,807,000

Source: American Community Survey 2009; ITEP; Claritas, Inc.; W_ZHA

Shopper’s Goods Stores

Downtown El Paso currently captures approximately 18% of Metropolitan Area retail sales. Most of the retail sales that occur in the Downtown are driven by Mexican residents, not Metropolitan residents. Population projections for Juarez are not available.

Currently, in the El Paso Metropolitan Area marketplace, shopper’s goods stores account for 50% of all retail sales. Typically, shopper’s goods stores account for 30% of a households retail expenditure. El Paso’s high share of shopper’s goods sales is driven by the Mexico market.

Given the uncertainty related to the Mexico market, it seems reasonable for the Downtown to target a 10% capture rate of net new Metropolitan Area shopper’s goods sales. If there is limited growth in the Mexican market, new shopper’s goods sales Downtown will be driven by Metropolitan Area residents. Thus, there will be less net new shopper’s goods sales. At a 10% capture rate, the market will support approximately 125,000 square feet of net new shopper’s goods retail Downtown.

If the Mexican market grows and continues to support shopper’s goods sales Downtown, shopper’s goods sales in the Metropolitan Area will be higher. Assuming industry standard sales per square foot, at a 10% capture rate, the market will support approximately 225,000 square feet of shopper’s goods retail.

**Downtown Shopper’s Goods Store Potential
2009-2020**

	Resident Market Growth	Current Market Dynamic W/ Strong Mexico
Retail Sales Expenditure Potential	\$1,538,733,000	\$1,538,733,000
Shopper’s Goods Share of Expenditure Potential/Sales	31%	51%
	<hr/>	<hr/>
	\$474,739,000	\$787,903,000
Downtown Capture	10%	10%
New Downtown Shopper’s Goods Sales Potential	\$47,473,900	\$78,790,300
Square Feet @ \$350 /Square Foot	136,000	225,000

Source: W-ZHA

Eating and Drinking Establishments

Sales estimates indicate that Downtown captures approximately 4% of Metropolitan Area’s eating and drinking sales. This is low for any downtown and particularly El Paso with a million-plus market across the Border in Mexico. Strong downtowns can capture 6% to 10% of Metro Area sales.

Given the relative weakness of the Downtown's daytime office and visitor market, a reasonable capture rate for Downtown El Paso is 6% of Metro Area eating and drinking sales. At this capture rate, Downtown could support \$13.8 million additional eating and drinking sales or assuming industry standard sales per square foot, approximately 35,000 square feet. Given population and per capita income projections by ITEP, over the next ten years this capture rate would translate into an additional \$8.9 million in sales or another 27,000 square feet of eating and drinking space.

Eating and Drinking Potential Downtown El Paso 2009 to 2020

	2009	Net New 2020	Total
Metro Area Eating and Drinking Sales	\$872,606,000	\$179,807,000	\$1,052,413,000
Downtown Area Target Capture	6.0%	6.0%	6.0%
	\$52,356,000	\$10,788,000	\$63,144,000
Less: Existing Sales Estimate	(\$38,519,000)	\$0	(\$38,519,000)
Net New Sales Potential	\$13,837,000	\$10,788,000	\$24,625,000
Square Feet @ \$400 /sf	35,000	27,000	62,000

Source: Texas State Comptroller of Public Accounts website "Window on State Government"; W-ZHA

RETAIL NICHEs AND PLANNING ISSUES

Given existing market conditions and Downtown's strengths and challenges from a market perspective, the Downtown is well-positioned to capitalize on the following niches:

- A Shopping Center for the Mexican National Market and the Discount Shopper
- A Specialty Shopping Destination for the Region and Tourists
- An Eating and Drinking Destination for the Region

A Shopping Center for the Mexican National Market and the Discount Shopper

Downtown El Paso's Golden Horseshoe area currently fulfills this role and contributes significantly to the City's economy. However, as increased security at the border and troubles in Juarez have demonstrated, this market is vulnerable to unforeseen market forces. Efforts need to be made to protect and fortify this unique market niche.

Information is power and there is relatively little information currently available on Golden Horseshoe establishments and their performance. Accurate data can be used to market to prospective shoppers as well as to prospective tenants and entrepreneurs. An up-to-date information regarding store mix, square footage and sales data would be valuable. Over time, this information can become an important source of data by which the character and performance of the Golden Horseshoe District can be measured.

Target tenants for the Golden Horseshoe may not be United States retail companies, but Mexican retail companies and entrepreneurs. There may be an opportunity for El Paso to recruit retailers and/or eating and drinking establishments that currently operate in Juarez. El Paso offers a safe environment that is relatively convenient to the Juarez market.

The Golden Horseshoe District and Downtown resources must be marketed to tourists and groups with similar tastes and preferences. Marketing this resource is of interest to the City, the Convention and Visitors Bureau, the Chamber of Commerce and the Central Business Association. Many Downtowns are inventing creative weekend packages that include shopping and entertainment as a way to draw markets to the Downtown.

Marketing has to be followed-up by human and physical infrastructure designed to serve the visitor. High amenity streetscape, wayfinding signs, well-designed walking maps and a visible and convenient Visitors Center are needed. From a human capital standpoint, those serving the visitor market (hotel employees, bus drivers) should be knowledgeable about Downtown resources.

The City and the Central Business Association must continue to advocate for smooth and efficient border crossing operations. Downtown's retail economy is negatively impacted each time the pedestrian crossing process becomes more burdensome.

A Specialty Shopping Destination for the Region and Tourists

There is no specialty retail destination in the El Paso Metropolitan Area. Specialty retail can be successful in Downtown because of its central location, access to the El Paso and Juarez markets, and mix of uses. Art dealers, artist studios and galleries, home accessories stores, and specialty stores that sell unique apparel, jewelry and gifts are store-types to be targeted for the Downtown. These stores should target the middle- to upper-income household and younger households.

Downtown El Paso offers a slightly different set of advantages to these types of tenants. Downtown El Paso offers a central accessible location and it offers a moderately strong mixed-use environment. Unlike other downtowns, however, Downtown El

Paso also offers an established retail trade that certain tenant-types should be able to capitalize on.

Because Downtown El Paso is already a strong retail center, one challenge to developing an arts and specialty store cluster is Downtown's relatively high rent. The Central Business District (such as Texas Avenue) where rents are lower is the appropriate location for such a cluster of stores.

As with most shopper's goods stores, these types of stores perform best when clustered in a geographic area. Because these types of stores are destinations clusters do not need to be as large as they are with conventional retail; clusters can be meaningful with only three stores. Some Downtown management corporations control a series of storefronts to facilitate tenant clustering. There are a number of opportunities in the Central Business District where clusters could be developed.

An Eating and Drinking Destination for the Region

Like specialty retail, restaurants and entertainment uses tend to cluster to create a "destination". Eating and drinking establishments are best located in the Central Business District around San Jacinto Plaza or Texas Avenue and in the Union Plaza district. San Jacinto Plaza is the emblem of the Central Business District and the Downtown, as a whole. In addition to refreshing San Jacinto Plaza itself, it is imperative that early eating and drinking establishment recruitment efforts target vacant storefronts surrounding this central plaza. Three to four new, destination restaurants on San Jacinto Plaza could effectively transform it into a dynamic urban destination.

Texas Avenue is a great urban, walkable street in the Central Business District. Texas Avenue between Oregon Street and Stanton Street has the potential to evolve into an arts and entertainment district. The re-use of Bassett Tower as residential and the Blue Flame as office space will anchor the east end of Texas Avenue. The re-use of the American Furniture building will anchor the west end. This two-block area is convenient to the Downtown's office core, cultural destinations, the convention center, hotels and the Golden Horseshoe District.

Socio-Economic Forecast Estimates: El Paso County through 2030

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Institute for Policy and Economic Development

El Paso County through 2030

Summary Table

Socio-Economic Forecast Estimates: El Paso County through 2030

	Year			Average Annual Growth Rate	
	2010	2015	2030	2010-15	2010-30
Population (in thousands)	775.8	878.6	1,025.7	2.7%	1.6%
% under 25 years	42.9%	44.0%	44.5%	X	X
Employment (in thousands)	407.4	476.0	495.6	3.4%	1.1%
Local Government	48.5	56.5	57.7	3.3%	0.9%
Retail Trade	44.0	48.9	51.1	2.2%	0.8%
Healthcare & Social Assist.	38.8	46.9	61.7	4.2%	3.0%
Admin. & Waste Management	32.9	40.9	42.6	4.9%	1.5%
Personal Income (billions of current dollars)	24.1	35.8	78.8	9.7%	11.3%
Gross Regional Product (billions of chained 2000 dollars)	19.7	26.6	37.1	7.0%	4.4%

*Institute for Policy and Economic Development**El Paso County through 2030*

Socio-Economic Forecast Estimates for El Paso County through 2030

Introduction

The Institute for Policy and Economic Development (IPED) at the University of Texas at El Paso made a sub-consultant agreement with Dover, Kohl & Partners to assist them in the combined effort of *CONNECTING EL PASO: Building Transit-Oriented Neighborhoods and Redeveloping ASARCO* and the El Paso Comprehensive Plan Update. IPED assistance is provided in the form of socio-economic forecast estimates for El Paso County that incorporated data with respect to the Fort Bliss expansion. These forecast estimates also included external employment data related to industry recruitment efforts within the county.

The present report describes the estimated forecasts for El Paso County through 2030. The following section provides a brief explanation of the methodology and data used in developing these estimates. Subsequently, socio-economic forecast estimates for population, employment (total and occupational), personal income, and gross regional product are presented and followed by the conclusion.

Methodology and Data

To develop socio-economic forecast estimates for El Paso County, IPED used its Regional Economic Modeling, Inc. (REMI) model. The REMI model is a dynamic forecasting and policy analysis tool that incorporates the strengths of four modeling approaches: **1) Econometrics**, **2) Input-Output**, **3) General Equilibrium**, and **4) Economic Geography**. More specifically, **Econometric** procedures are used to estimate the underlying equations and responses that quantify the structural relationships in the model. **Input-Output** techniques capture transactions between industries which in turn define the industry structure of a particular region. Moreover, **General Equilibrium** properties allow for the evaluation of policy changes that may have an effect on regional prices and competitiveness. Finally, **Economic Geography** features represent the spatial dimension of a given economy to account for transportation costs and labor accessibility.

The overall structure of the model consists of five major blocks interacting simultaneously: 1) Output and Demand, 2) Labor and Capital Demand, 3) Population and Labor Supply, 4) Wages, Prices and Costs, and 5) Market Shares. The last historical year incorporated in the REMI model data sets utilized for this project was 2007. Accordingly, the model was adjusted to account for demographic and employment data updates not captured by the 2007 data sets used to build the original REMI model. Data updates were obtained from the U.S. Census Bureau (2008-09) and the U.S. Bureau of Economic Analysis (2008). Once the model was adjusted with data updates, additional data from the Fort Bliss Transformation Office, El Paso Regional Economic Development Corporation, and IPED estimates, were integrated into the REMI model to develop the estimated forecasts. For instance, in addition to incoming troop and dependent estimates, data added to the model included external employment estimates from private industries that are likely to operate within the region in the near future. Also included in the model are employment figures for local capital improvement or expansion projects that have been approved for funding by UTEP, hospitals, and the State legislature.

Of particular importance in developing these forecasts, as well as in terms of regional economic development, is the expected influx of soldiers. Fort Bliss anticipates accommodating over 35,000 troops by 2012 (Table 1). Similarly, almost 49,000 dependents (19,386 spouses and 29,507 children) are estimated to accompany these troops, with the largest year-to-year increase in 2011. Over the next two years, military troops and dependents are estimated to rise by more than 24,000. No military deployments are expected after 2012, therefore, it is assumed that military troop and dependent levels will remain constant from 2012 onward.

Table 1. Fort Bliss Troops and Dependents

Fort Bliss Troops and Families	2009	2010	2011	2012	Net Growth (2010 - 2012)
Military Troops	21,113	25,382	31,876	35,663	10,281
Military Dependents	29,279	35,034	43,787	48,893	13,859
Military Spouses	10,947	13,423	17,189	19,386	5,963
Military Children	18,332	21,611	26,598	29,507	7,896
Children 0 - 5 Years	6,782	7,996	9,840	10,918	2,922
Children 6 - 12 Years	6,233	7,348	9,044	10,032	2,684
Children 13 - 18 Years	5,317	6,267	7,714	8,557	2,290
TOTAL	50,392	60,416	75,663	84,556	24,140

Source: Fort Bliss Transformation Office – FMWRC/MCEC Model with IPED estimates.

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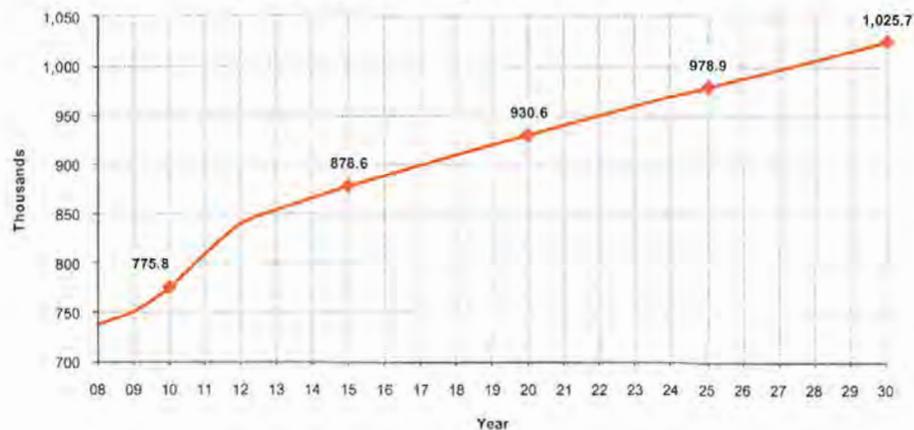
El Paso County through 2030

Forecast Estimates

Population

The projections for El Paso County population shown in Figure 1 anticipate an overall steady growth for the span of the forecast period. In particular, between 2010 and 2012, population is expected to increase over three percent per year. It is projected that this year (2011) will have the highest population increase compared to all other years, with an additional 34,221 people. This population increase is mostly attributed to the expected influx of military troops and their dependents expected to account for over 24,000 persons. After 2013, population in El Paso County is projected to increase on average about one percent per year. This translates to a forecasted total population of 1,025,661 by 2030.

Figure 1. El Paso County Population Forecast

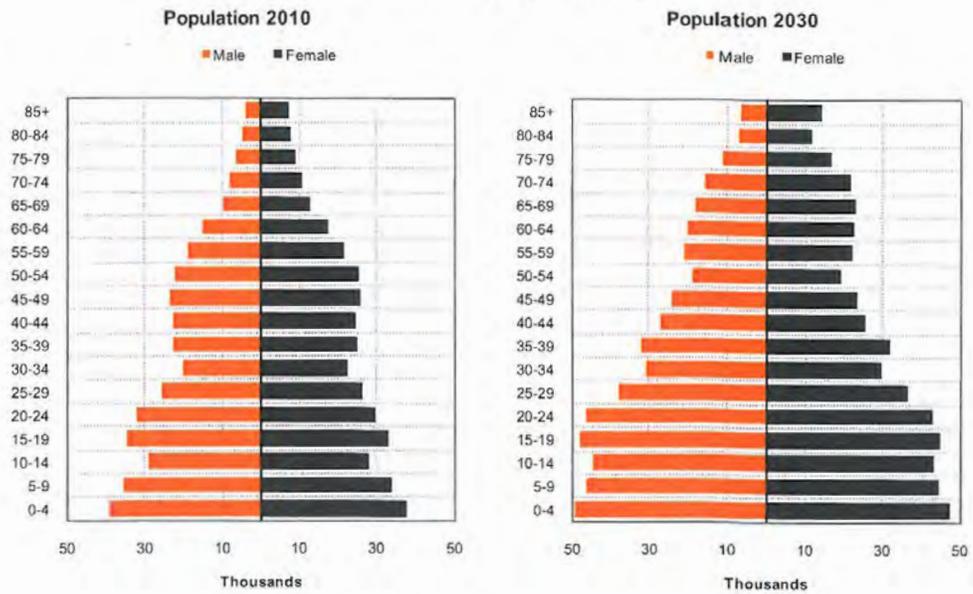


Source: U.S. Census Bureau (2008-09); Institute for Policy and Economic Development, UTEP

El Paso County is expected to continue to have a relatively young population base. Forty-three percent of the El Paso population is forecasted to be under 25 years old in 2010 (Figure 2). This percentage is expected to increase to 45 percent by 2030, implying that the El Paso population will become younger over time. A growing young population can have significant impacts on education over the short-term horizon; therefore, it is important to describe how certain age groups are expected to change over time. Accordingly, Figure 3 illustrates the anticipated growth of El Paso County's school age population. Specifically, population from 18 to 24 years old and children less than 12 years old are expected to experience the greatest growth between 2010 and 2014. This growth is mostly attributable to the additional troops and

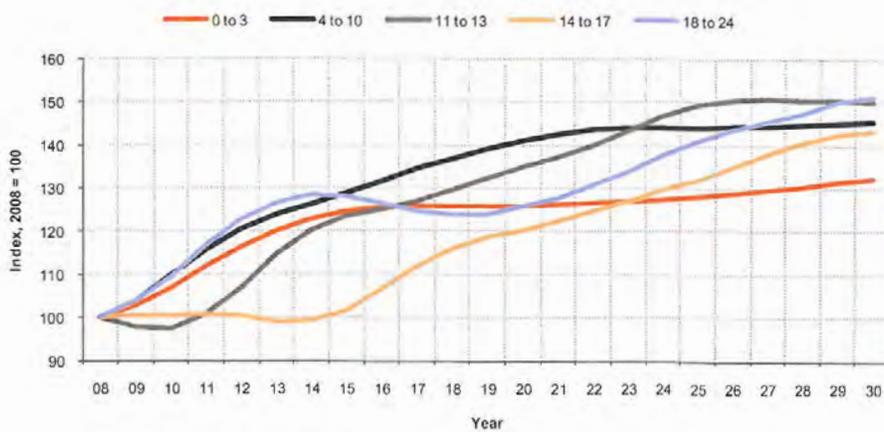
their dependents that are predicted to relocate within the county through 2012. Such considerable growth for those less than 12 years old is likely to noticeably increase the demand for child care and elementary education services within the region over the next few years.

Figure 2. El Paso County Population Age Cohorts



Source: Institute for Policy and Economic Development, UTEP

Figure 3. El Paso County School Age Population Growth



Source: Institute for Policy and Economic Development, UTEP

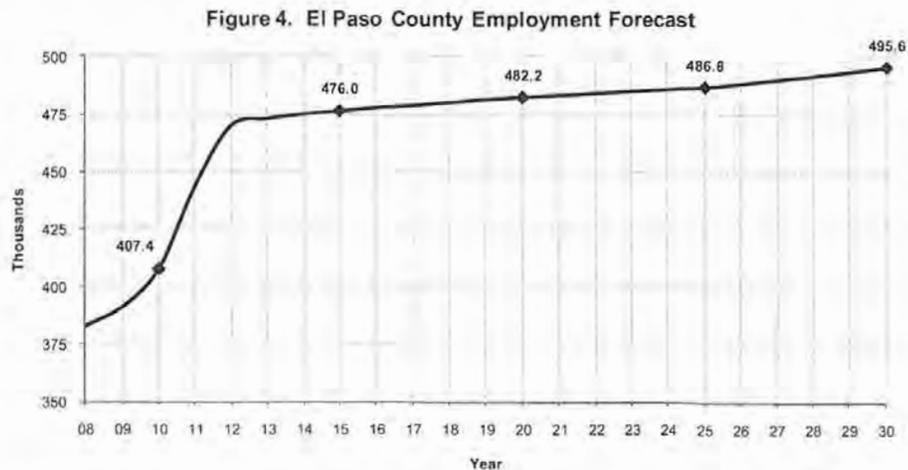
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El Paso County through 2030

Also depicted in Figure 3 is what might be called an “echo effect” of the baby boomers that creates a decline on some of the age cohorts. This echo effect is mainly caused by relatively smaller female cohorts during the late 1960s and early 1970s; this reduced the female population at child-bearing years in subsequent years, consequently, reducing some of the age cohorts afterward.¹ The first decline is observed in the 11 to 13 age group which is later reflected in the 14 to 17 age cohort and moves forward through succeeding age groups following national forecast trends.²

Employment

Total employment in El Paso is forecasted to grow from 382,591 in 2008 to 495,597 in 2030 (Figure 4); this represents an increase of almost 30 percent. The projected Fort Bliss expansion will be the main driver of this growth, especially in the short-term. For instance, employment in El Paso County is estimated to increase by nearly 23 percent between 2008 and 2012 when the last of the brigades is planned to relocate to the region. After 2012, employment continues to increase, but at a slower and relatively constant rate.



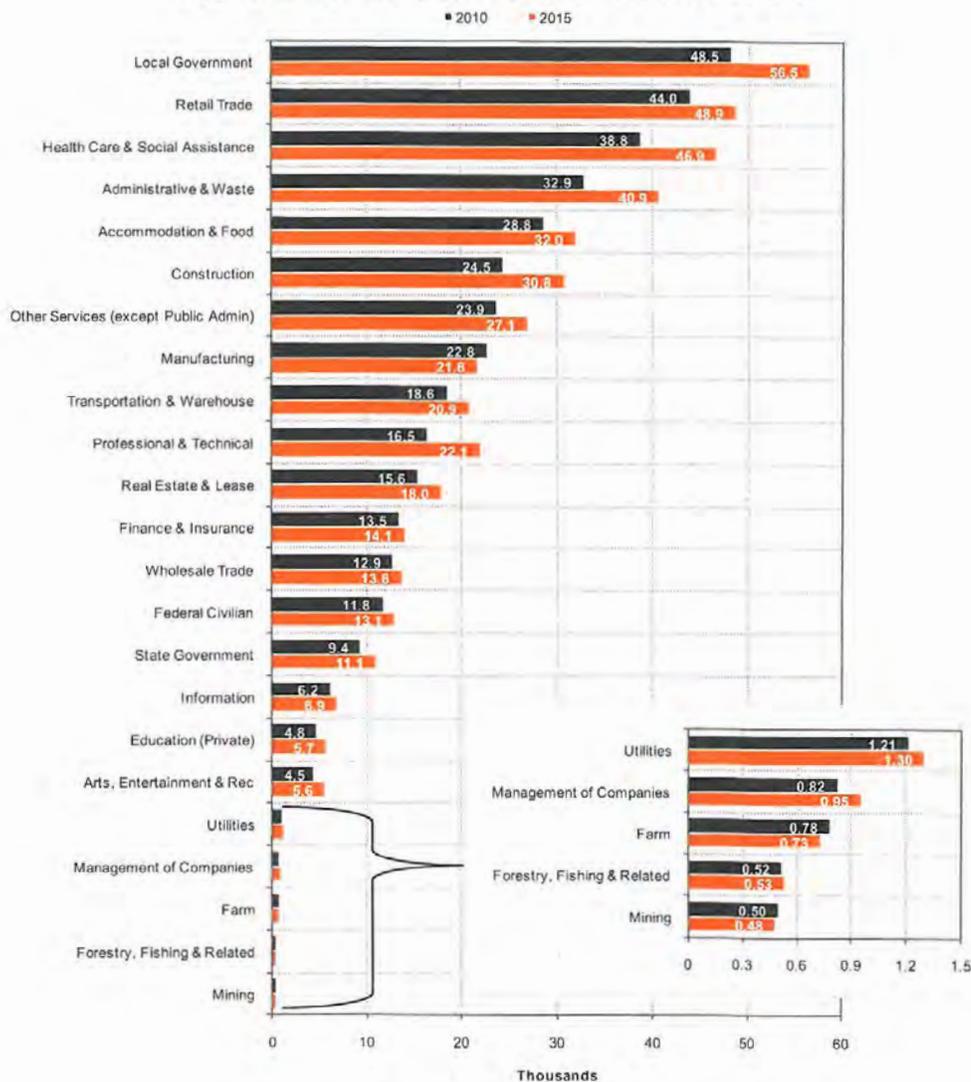
Source: U.S. Bureau of Economic Analysis (2008); Institute for Policy and Economic Development, UTEP

¹ Interview with Karl Eschbach, Ph.D., State Demographer of Texas, Director, Texas State Data Center, University of Texas at San Antonio. November 1, 2008.

² U.S. Census Bureau, 2009 National Population Projections.

It is estimated that the arrival of military troops and their dependents will increase the demand for goods and services offered within the El Paso region, thus increasing private and public-sector employment. Not surprisingly, the largest industry employment sectors in 2010 and 2015 are expected to be the local government and retail trade sectors followed by health care and social assistance (Figure 5), each of them critical to meet the needs of a growing population.

Figure 5. El Paso County Sector Employment in 2010 and 2015



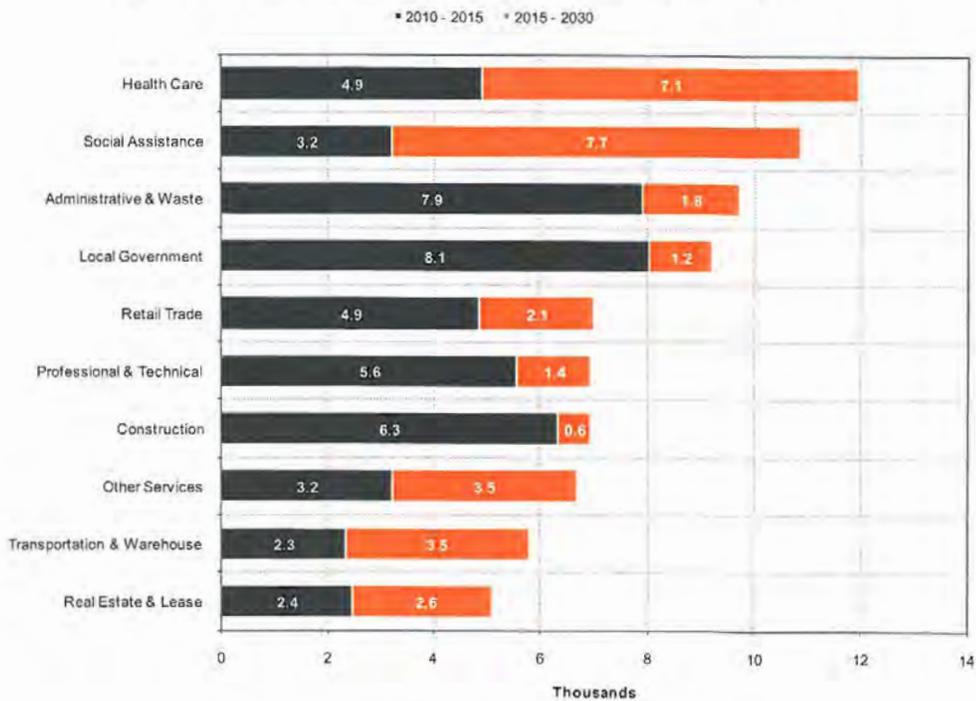
Source: Institute for Policy and Economic Development, UTEP

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El Paso County through 2030

In addition to being the largest sector, local government is forecasted to observe the highest employment growth over the next five years (Figure 6). Employment growth for administrative and waste services placed second, followed by construction with over 7,900 and 6,300 additional jobs projected by 2015, respectively. The health care and social assistance sectors gain the most jobs over the forecast period (2010-2030). However, the more significant increase for both sectors is expected to occur after 2015 with more than 14,700 additional jobs combined. These employment growth forecasts seem to reflect the El Paso short- and long-term needs with respect to public and support services, physical infrastructure, and health care access.

Figure 6. El Paso Top Employment Growth by Industry Sector, 2010-2030



Source: Institute for Policy and Economic Development, UTEP

Considering the above employment forecasts, it is expected that certain occupations will be more likely to exhibit considerable increases. Table 2 presents the top 50 occupations projected to observe the highest growth, in addition to the highest subsistence wages and transferable skills. Overall, education-related occupations are estimated to have the greatest

job gains followed by healthcare support professions. Specifically, teachers at all schools levels, teaching assistants, and home health and nursing aides, are predicted to have significant employment growth. Healthcare practitioner and office and administrative support occupations have the third and fourth largest growth rates. Included in these groups are registered nurses and secretaries who account for most of the occupational increases.

Table 2. El Paso County Top 50 Occupations

SOC Code	Occupation Title	2009 Mean Annual Wage	2009 Employment	Employment Growth		
				2009-15	2009-30	% Change 2009-15
11-9021	Construction managers	69,420	580	224	269	38.6
11-9032	Education administrators, elem. & secondary school	80,860	700	196	423	27.9
11-9111	Medical & health services managers	79,270	390	114	193	29.3
13-1041	Compliance officers, exc ag, con, health, safe, trans	54,170	1,730	531	559	30.7
13-1111	Management analysts	58,670	500	222	275	44.4
13-2011	Accountants & auditors	54,210	1,380	424	466	30.7
15-1021	Computer programmers	55,700	530	195	216	36.8
15-1041	Computer support specialists	38,530	1,090	373	440	34.2
15-1051	Computer systems analysts	59,720	440	153	182	34.8
15-1071	Network & computer systems administrators	55,910	490	160	183	32.6
17-2051	Civil engineers	73,250	430	164	183	38.1
21-1021	Child, family, & school social workers	34,340	400	102	204	25.4
21-1093	Social & human service assistants	30,300	740	209	452	28.3
25-1042	Biological science teachers, postsecondary	119,730	250	81	190	32.3
25-1071	Health specialties teachers, postsecondary	119,770	310	100	236	32.3
25-1194	Vocational education teachers, postsecondary	44,410	550	177	419	32.3
25-2011	Preschool teachers, exc. special education	25,280	1,240	317	855	25.6
25-2012	Kindergarten teachers, exc. special education	49,670	440	112	303	25.6
25-2021	Elementary school teachers, exc. special education	51,640	5,760	1,444	3,048	25.1
25-2022	Middle school teachers, exc. special & vocational ed.	50,940	2,780	697	1,471	25.1
25-2031	Secondary school teachers, exc. special & voc. ed.	52,850	3,770	976	1,429	25.9
25-9041	Teacher assistants	24,060	2,090	592	1,493	28.3
29-1051	Pharmacists	113,500	470	135	216	28.7
29-1111	Registered nurses	60,850	4,610	1,300	2,244	28.2
29-1127	Speech-language pathologists	79,990	510	134	251	26.2

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El Paso County through 2030

Table 2. El Paso County Top 50 Occupations (Continued)

SOC Code	Occupation Title	2009 Mean Annual Wage	2009 Employment	Employment Growth		
				2009-15	2009-30	% Change 2009-15
29-2052	Pharmacy technicians	26,630	760	237	357	31.2
29-2061	Licensed practical & licensed vocational nurses	42,090	1,230	311	580	25.2
31-1011	Home health aides	18,330	2,340	784	2,074	33.5
31-1012	Nursing aides, orderlies, & attendants	19,600	2,300	606	1,355	26.4
31-9091	Dental assistants	25,330	510	113	213	22.2
31-9092	Medical assistants	21,970	1,450	322	606	22.2
33-9032	Security guards	24,420	3,390	905	1,201	26.7
39-5012	Hairdressers, hairstylists, & cosmetologists	20,320	660	150	217	22.8
39-9011	Child care workers	18,490	1,090	228	596	20.9
43-3011	Bill & account collectors	24,910	570	153	182	26.8
43-3021	Billing & posting clerks and machine operators	26,480	1,010	198	250	19.6
43-3031	Bookkeeping, accounting, & auditing clerks	28,540	2,950	647	791	21.9
43-4171	Receptionists & information clerks	20,240	1,410	329	454	23.4
43-6011	Executive secretaries & administrative assistants	37,060	2,760	512	526	18.5
43-6013	Medical secretaries	23,790	780	120	203	15.4
43-6014	Secretaries, except legal, medical, & executive	24,620	5,660	1,038	1,222	18.3
47-2031	Carpenters	25,660	970	295	328	30.4
47-2061	Construction laborers	20,150	3,070	938	1,062	30.6
47-2111	Electricians	38,060	960	257	277	26.7
49-3031	Bus & truck mechanics & diesel engine specialists	28,860	630	149	194	23.6
49-9021	Heating, air cond., & refrigeration mech. & installers	40,870	710	224	250	31.5
49-9042	Maintenance & repair workers, general	26,270	2,490	510	716	20.5
53-3022	Bus drivers, school	22,590	1,310	302	381	23.0
53-3032	Truck drivers, heavy & tractor-trailer	39,350	4,830	817	1,363	16.9
53-3033	Truck drivers, light or delivery services	23,900	1,830	310	517	16.9

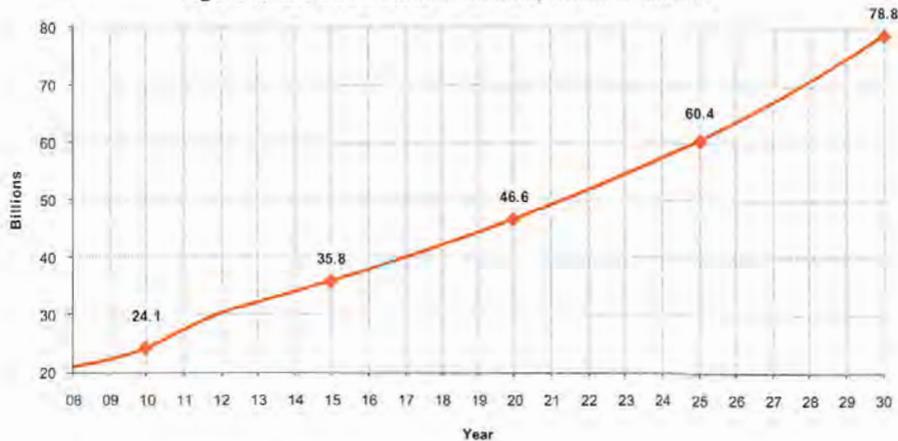
Source: Institute for Policy and Economic Development; 2009 Employment and Wages from Labor Market Information, Texas Workforce Commission and Occupational Employment Statistics, U.S. Bureau of Labor Statistics.

Note: SOC codes highlighted in orange denote occupations in the 2009 Targeted and Demand Occupations Lists used by Workforce Solutions Upper Rio Grande.

Personal Income

Figure 7 illustrates the El Paso County personal income projections through 2030. The anticipated increases in population and employment stimulated by the arrival of military troops and their dependents will translate to an increase in personal income. Between 2010 and 2015, personal income is forecasted to increase on average almost ten percent per year. During 2011, personal income is projected to exhibit the highest increase (about 13 percent); this is the same year that most of the military-related population is expected to relocate to El Paso. After 2015, personal income is estimated to increase at an annual average of about eight percent. By the end of the forecast period, personal income is predicted to exceed \$75 billion, representing a net gain of over \$50 billion.

Figure 7. El Paso Personal Income, Nominal Dollars



Source: Institute for Policy and Economic Development, UTEP

Gross Regional Product

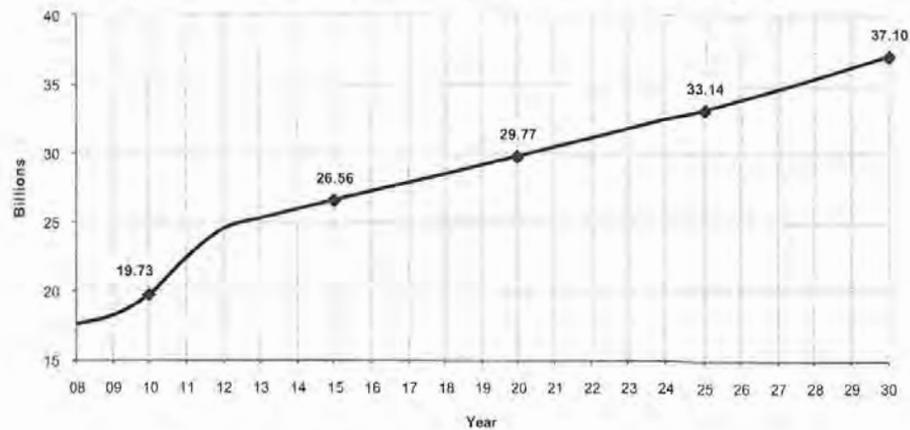
Gross regional product is estimated to increase by about \$6.8 billion over the next five years, after adjusting for inflation (Figure 8). This implies that the El Paso economy will increase on average over six percent per year between 2010 and 2015. In pace with personal income, 2011 is expected to observe the greatest economic expansion with a 13 percent increase in gross regional product. Yearly growth is anticipated to be stable after 2015, increasing at an average of over two and a half percent per year. This translates to steady economic growth for El Paso

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El Paso County through 2030

County, with a gross regional product expected to reach over \$37 billion (Chained 2000 dollars) by 2030.

Figure 8. El Paso Gross Regional Product, Chained (2000) Dollars



Source: Institute for Policy and Economic Development, UTEP

Conclusion

The Institute for Policy and Economic Development (IPED) at the University of Texas at El Paso developed socio-economic forecast estimates for El Paso County incorporating data concerning the anticipated Fort Bliss expansion, in addition to external employment data related to industry recruitment efforts and data that accounts for capital improvement or expansion projects occurring or scheduled to occur within the county. All forecast estimates were developed using IPED's Regional Economic Modeling, Inc. (REMI) model. First, the model was calibrated to account for demographic and employment data updates not captured by the 2007 data sets used to build the original REMI model. Once the model was adjusted with data updates, data from the Fort Bliss Transformation Office, El Paso Regional Economic Development Corporation, and IPED estimates were integrated to develop the final estimated forecasts.

The overall projections for El Paso County predict steady growth. Most of this growth can be attributed to the expected influx of military troops and their dependents which are anticipated to account for over 24,000 additional persons between 2010 and 2012. This translates to a total

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population estimate surpassing the one million mark by 2028. Similarly, total employment in El Paso is forecasted to grow from 382,591 in 2008 to 495,597 in 2030. For the most part, this growth is anticipated to occur during the coming years when the last of the military brigades is planned to relocate into the region. On average, local government, health and social assistance, and retail trade are predicted to be the largest industry employment sectors throughout the forecast period. Correspondingly, education-related occupations, healthcare support, and healthcare practitioner professions are estimated to have the greatest job gains.

The anticipated expansion of population and employment will in turn increase personal income forecasts from nearly \$21 billion in 2008 to over \$75 billion in 2030. In the same way, El Paso economic activity, measured by gross regional product, is predicted to increase from \$17.6 billion in 2008 to over \$37 billion by the end of the forecast period, with both figures adjusted for inflation in chained 2000 dollars. In general, these forecast estimates indicate a bright future for El Paso County. However, this outlook will also require developing timely and sound strategies that enhance the overall regional education, workforce and needed infrastructure to accommodate and take advantage of current and future opportunities mostly driven by the Fort Bliss expansion.

COMMUNITY DESIGN MANUAL

D

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"FIRMITAS, UTILITAS, VENUSTAS."

- VITRUVIUS

INTRODUCTION

The Community Design Manual is composed of three sections containing standards and guidelines: Neighborhood Design Standards, General Architectural Standards and Architectural Styles of El Paso. Additionally, there is a section which describes the basic characteristics of a neighborhood unit. Though included as part of the Comprehensive Plan, none of these three sections that make up the Community Design Manual is to be regarded as regulatory. Yet, the whole manual or parts thereof could become regulatory if the City chooses to use it in order to assess the architectural and urban design qualities of a development proposal. The goals of the Community Design Manual are to promote livable neighborhoods, dignified compositions, articulate façades, authentic construction details, and durable and honest materials. These goals serve not only to enrich the enjoyment and usefulness of the interiors of buildings, but also to enrich the culture and built heritage of the City while creating a coherent and attractive public realm.

Neighborhood Design Standards

The Neighborhood Design Standards are meant to lay the groundwork for sound, sustainable new neighborhoods. These standards describe best practices for the placement and design of streets, public open spaces, and various building types. These Standards are meant to be used when parcels of any size are being subdivided and new streets or street segments are created.

General Architectural Standards

General Architectural Standards are meant to illustrate design principles that may be thought of as universal to many styles and building types. These standards compare and contrast the ideal vs. the inappropriate way to execute many aspects of a building's design. Design aspects covered by this section include: building massing, raised first floor, façade composition, façade transparency, materials, brick detailing, roofs, arcades, columns, column placement, column & pier spacing, windows, window surrounds, awnings, residential parking & garages, garage doors, and mechanical equipment.

At first glance, it seems as if the Architectural Standards encourage or discourage a particular practice on purely aesthetic grounds. Rather, there are many other considerations that are even more important than aesthetics when determining the best practices in architectural composition and design. These include: promoting natural surveillance through façade transparency, promoting spatial enclosure without sacrificing privacy, creating climate-responsive designs that mitigate the need for mechanized equipment and energy uses, and the promotion of architecture that will convey a sense of stability, authenticity, and dignity. These last qualities, though difficult to quantify, are essential in order to create an architecture that is likely to be cherished by El Pasoans and therefore preserved and adapted long into the future.

General Architectural Standards are presented through a combination of photographs and hand-drawn diagrams.

Architectural Styles of El Paso

The Architectural Styles of El Paso are meant to serve as a brief introduction to some of the stylistic elements of the styles that are "native" to El Paso. This section is not meant to be an exhaustive catalog of all architectural styles ever built in the city, but rather a sampling of some styles and their corresponding details that recur with some frequency in both old and new construction. Some of these may have fallen out of favor due to the withering away of building craftsmanship and the advent of mechanized production of building components. Nevertheless, these have been included because we believe that as the City matures and rediscovers the elegance and durability of its older building stock, there are many architectural details that deserve to be revisited, but in a way that embraces authenticity rather than kitsch.

Architectural Styles that are illustrated in sketch form are: Mission, Spanish Revival, Pueblo, Italianate, Victorian, Neoclassical, Craftsman, Prairie, Contemporary and Eclectic. The architectural styles of El Paso tell a story about the City's position at a cultural cross-roads, but also tell about its aspirations and the image that it has invented for itself over many generations. No matter how divergent architectural trends may prove to be in the future, it is crucial that designers be aware of the historical, cultural, and climate context surrounding a particular building site. By careful study of precedent, decision-makers such as those responsible for design review, architects, owners, and developers can strive to capture at least the spirit of the common-sense building techniques that characterized much of El Paso's best urban fabric.

While other aspects of the Comprehensive Plan and form-based codes such as the Smart Code address convenience and the artful design of the public realm at the scale of the street, block, neighborhood, and district, the Community Design Manual extends these efforts to the scale of the building and tectonic elements. By seeking out the building traditions of El Paso and dissecting them in a way that makes them easy to replicate and execute convincingly, decision-makers can help with sharpen the identity of the City and its neighborhoods.

THE NEIGHBORHOOD UNIT

The building block of all successful cities is the neighborhood unit. The Plan El Paso Comprehensive Plan aims to establish a city of neighborhoods within El Paso. A genuine neighborhood is not the disconnected, single-use development that characterizes sprawl. Complete neighborhoods, unlike the stand-alone apartment complex or the subdivision tract, provide housing, workplaces, shopping, civic functions, and more. Pedestrian-friendly and mixed-use, these communities are designed to be compact, complete, connected, and ultimately more sustainable. Although the parameters of an ideal neighborhood vary in terms of size, density, and mix of dwelling types, there are five basic design conventions that provide a common thread linking great neighborhoods.

1. Identifiable Center and Edge to the Neighborhood

One should be able to tell when one has arrived in the neighborhood and when one has reached its center. A proper center has places where the public feels welcome and encouraged to congregate. Typically, at least one outdoor public environment exists at the center that spatially acts as the most well-defined outdoor room in the neighborhood. While it most often takes the form of a square or plaza, it is also possible to give shape to the neighborhood center with just a special “four corners” intersection of important streets that include shade and other protection from the elements.

The best centers are within walking distance of surrounding residential areas, possess a mix of uses, and include higher-density buildings at a pedestrian scale. Discernible centers are important because they provide some of people’s daily needs and foster social connections.

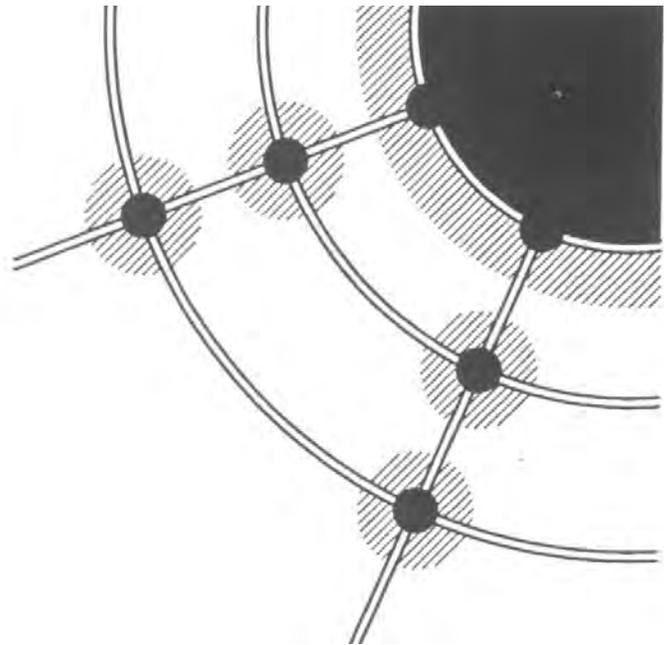
2. Walkable Size

The overall size of the neighborhood, which typically ranges from 40 to 200 acres, should be suitable for walking. Most people will walk approximately one-quarter mile before turning back or opting to drive or ride a bike. Most neighborhoods built before World War II were approximately one quarter mile from center to edge.

Neighborhoods of many shapes and sizes can satisfy the quarter mile radius test. Civic spaces requiring a great deal of acreage such as schools with play fields can be situated where they are shared by more than one neighborhood. Larger planned communities can satisfy the quarter mile radius test by establishing several distinct neighborhoods within the community, being sure to place different neighborhood centers one-half mile apart or less.

3. Mix of Land Uses & Housing Types with Opportunities for Shopping & Workplaces Close to Home

Great neighborhoods have a fine-grained mix of land uses and housing types. This condition enables residents to dwell, work,



From *The Lexicon of the New Urbanism*
Interconnected satellite communities with an identifiable center and edge can coexist with unspoiled and productive landscapes.



From *The Lexicon of the New Urbanism*
Implicit within the circular symbol used traditionally to represent communities are multiple neighborhoods. Each neighborhood is designed as a 1/4 mile radius from center to edge.

socialize, exercise, shop, and find some daily needs and services within walking distance. Variety-rich neighborhoods, in comparison with the single-use, single “pod” developments, have multiple benefits.

Mixing uses is a powerful way to alleviate traffic congestion as it reduces the number of car trips needed throughout the day. A mix of housing is better socially, allowing people with diverse lifestyles and incomes to live in the same neighborhood. Residents have the choice to move elsewhere within their community as their housing needs change over time, while families of modest means are no longer forced into segregated concentrations. In addition, households with varied schedules and interests will activate the neighborhood at different times of day, adding both to the vibrancy and security of a place.

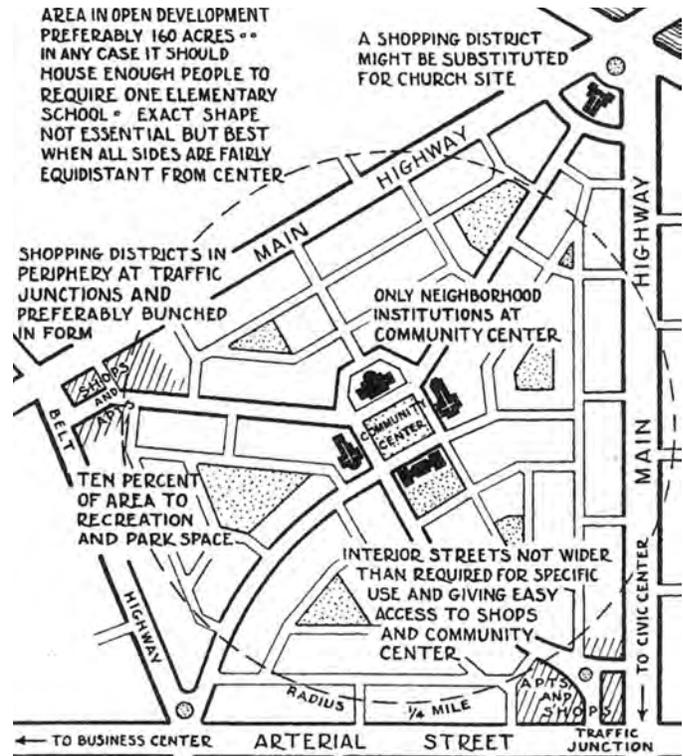
4. Integrated Network of Walkable Streets

A network of streets allows pedestrians, cyclists, and motorists to move safely and comfortably through a neighborhood. The maximum average block perimeter to achieve an integrated network is 1,500 feet with a maximum uninterrupted block face of, ideally, 450 feet, with streets at intervals no greater than 600 feet apart along any one single stretch.

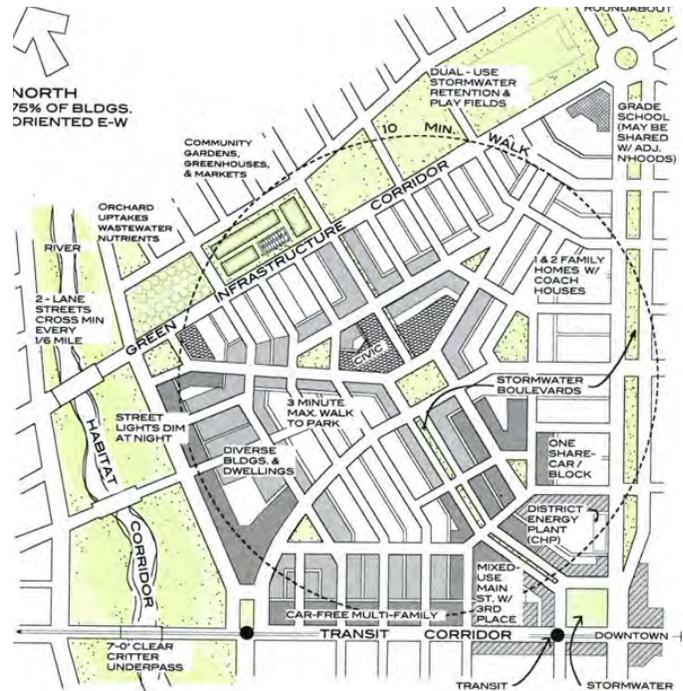
A street network forms blocks that set up logical sites for private development, provides routes for multiple modes of transportation, and provides non-motorized alternatives to those under the driving age as well as for senior citizens. Streets should be designed to be walkable first while also serving cars and emergency vehicles. Slow traffic speeds, coupled with features such as narrow curb-to-curb cross sections, street trees, on-street parking, architecture close to the street edge, and tight radii at the street corners, work together to create highly walkable environments. A connected web of streets then allows for numerous driving patterns and the orderly management of traffic.

5. Special Sites are Reserved for Civic Purposes

In complete neighborhoods, some of the best real estate is set aside for community purposes. These locations are made significant by the geometry of the town plan. Unique settings such as terminated vistas or locations with greater activity should be reserved for landmark buildings that will act as permanent anchors for community pride. Similarly, special sites should be set aside for parks, greens, squares, plazas, and playgrounds (each of which has its own distinct character). Each neighborhood should have one special gathering place at its center, such as a village green.



Clarence Perry's neighborhood diagram from 1929 organizes all community functions within an area of a five-minute walk, or a quarter-mile radius.



From *Sustainable Urbanism: Urban Design with Nature* This Sustainable Neighborhood diagram, which is an adaptation of Clarence Perry's 1929 illustration, shows how the traditional neighborhood block, coupled with new infrastructure, added mix and density of housing, and new transit modes can serve our modern needs.

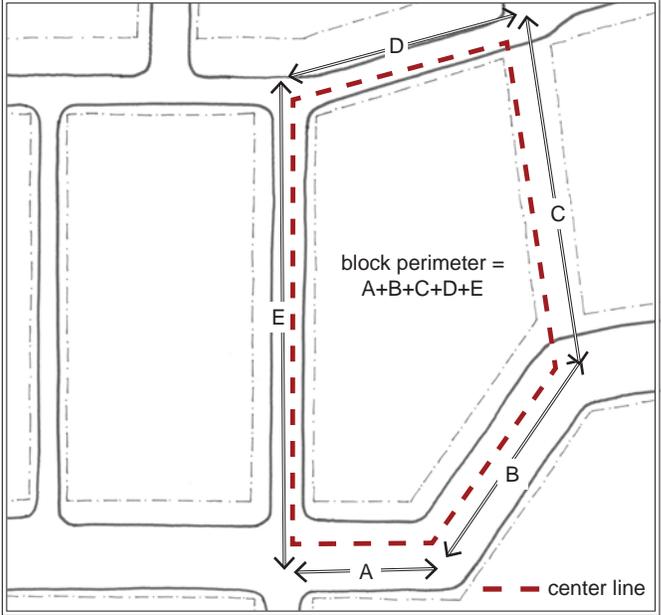
NEIGHBORHOOD DESIGN STANDARDS
CONNECTIVITY

Block Size

Block size is a critical feature of neighborhood design that contributes to the connectivity of both the vehicular and public realm. It is also an important component in the creation of a walkable community. Block sizes in new development shall not exceed 2,500 linear feet total. This minimum block size includes new blocks which are created adjacent to existing development.

Street Network

Increase overall street connectivity. Create multiple pathways for vehicular movement, connect new neighborhood streets to existing adjacent streets, keep block sizes small, and limit the use of dead-end streets. All new neighborhood streets must connect to adjacent streets where connecting street stubs are available. A minimum of 25% of new roadways must end in street stubs to allow for future connections. Allow dead-ends and culs-de-sac only when required by hydrological constraints. Bend streets with restraint. Exaggerated curves are disorienting and difficult to connect to networks adjacent to the site.



Block measurements are taken along the center lines between right-of-ways regardless of roadway pavement locations.

ORIENTATION OF BUILDINGS

Building orientation is the first step in making great streets and public spaces. Buildings have fronts, sides, and backs; the appropriate and most carefully designed faces of buildings should front streets and public spaces. Building rears or sides, which often incorporate a building’s service functions and typically have less doors and windows, should not face the public realm. The façade of all buildings shall be built parallel to a front lot line or to the tangent of a curved front lot line.

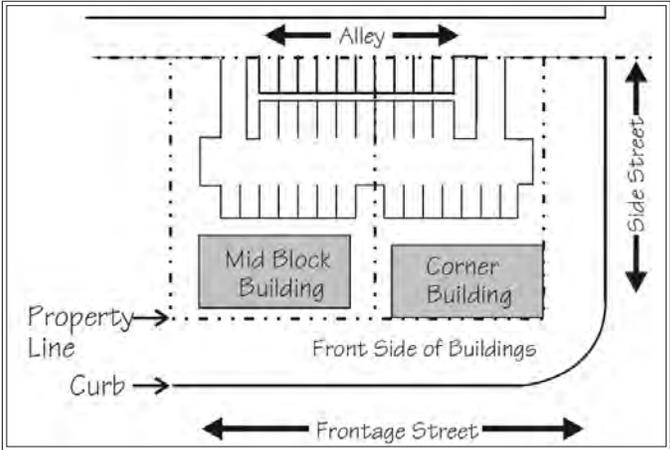
Fronts facing Fronts	Acceptable (Preferred)
Backs facing Backs	Acceptable (Preferred)
Fronts facing Sides	Acceptable
Sides facing Backs	Acceptable
Fronts facing Backs	Not Permitted

Building Orientation Configurations

Reestablish the relationship between the fronts and backs of buildings to insure that public spaces have natural surveillance from buildings and to avoid the blighting influence of the backs of buildings facing public spaces. Building fronts display a building’s principal façade and shall face either streets or public spaces. Fronts of buildings shall face fronts of other buildings; fronts may face sides where necessary; fronts may never face backs.

Buildings with frontage on two thoroughfares, shall have their building front on the thoroughfare most likely to accommodate pedestrian traffic.

Site all buildings along streets, not within parking lots. Parking shall be located behind or to the sides of all buildings, and shielded from view of adjacent sidewalks and public spaces.



Parking located behind structures, along an alley ideally and shared among businesses.

PROVISION OF PUBLIC OPEN SPACES

Neighborhoods should have a defined center and provide ample and varied public open spaces. New neighborhoods should use the following guidelines for the provision of public open space.

A combined 2% of newly developed sites between 20 and 100 acres must be configured as public open spaces as described on page D.7.

A combined 4% of newly developed sites between 100 and 300 acres must be configured as public open spaces as described on page D.7.

A combined 5% of newly developed sites over 300 acres must be configured as public open spaces as described on page D.7.

Design new neighborhoods to have primary open spaces near the physical center of the community to identify the centers of neighborhoods.

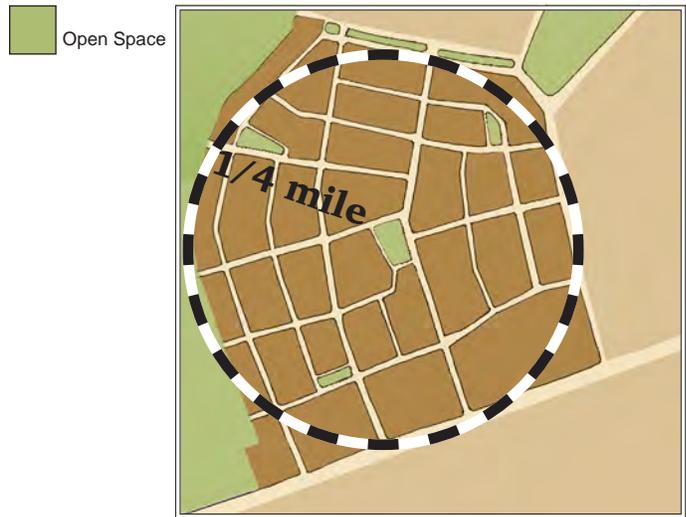
The design of neighborhoods should clearly have begun with the location of public greens and squares (open spaces) so that the City does not become the steward of public open spaces planned in inconvenient locations on residual tracts of land left-over from the subdivision process.

Design public spaces on the sites of existing natural features and incorporate existing trees into the design.

Design projects so that a civic or passive-use space, such as a square, park, or plaza, at least 1/6 acre in area lies within a 1/4-mile walk distance of 90% of planned and existing dwelling units and nonresidential building entrances.

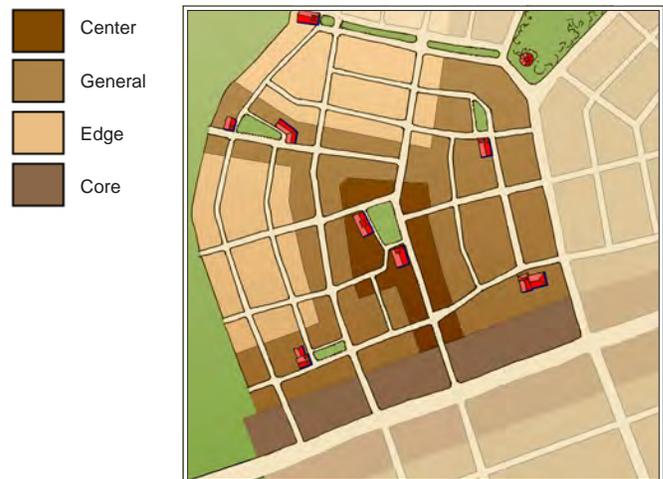
Locate and design projects so that a publicly accessible outdoor recreation facility at least 1 acre in area, or a publicly accessible indoor recreational facility of at least 25,000 square feet, lies within a 1/2-mile walk distance of 90% of new and existing dwelling units and nonresidential building entrances.

Create direct paths with streets from commercial and office uses at intersections to greens and squares at the center of neighborhoods to create a coherent connection between center and edge.



Designate general locations and sizes of public spaces for community use and enjoyment. These spaces can vary in size and shape and should not be limited to a specific minimum size.

Typically, neighborhoods are 1/4 mile radius across, from the center to the edge. Natural features and thoroughfares create the boundaries to the neighborhood, there is no perfectly rounded neighborhoods, so actual distances within different neighborhoods will vary.



Placement of Civic Buildings

Prominent locations, like the end of a street or the top of a hill, should be set aside for civic buildings. Civic buildings could include churches, schools, shared pool facilities, community halls, or simple pavilions. Civic buildings provide a community's social infrastructure. Neighborhoods should be densest at the core and demonstrate an urban to rural gradation in terms of density and intensity of development.

OPEN SPACE TYPES

Certain types of open spaces have been used throughout the history of town making in the United States, primarily because they are functional and pleasant. Open spaces must be configured generally as described below.

Park

A *Park* is natural preserve available for unstructured recreation. A park may be independent of surrounding building frontages. Its landscape shall consist of paths and trails, meadows, water bodies, woodland and open shelters, all naturalistically disposed. Parks may be linear, following the trajectories of natural corridors. The minimum size shall be 8 acres. Parks shall be located on the edges of settlements.

Green

A *Green* is available for unstructured recreation. A *Green* may be spatially defined by landscaping rather than building frontages. Its landscape shall consist of lawn and trees, naturalistically disposed. The minimum size shall be 1/4 acre and the maximum shall be 8 acres.

Square

A *Square* is available for unstructured recreation and civic purposes. A square is spatially defined by building frontages. Its landscape shall consist of paths, lawns and trees, formally disposed. Squares shall be located at the intersection of important thoroughfares. The minimum size shall be 1/4 acre and the maximum shall be 5 acres.

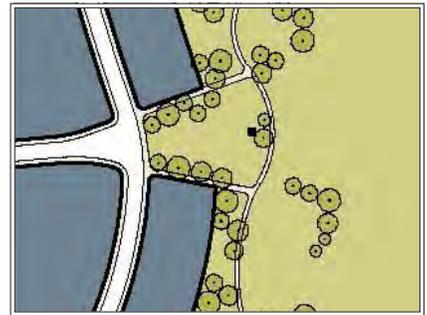
Plaza

A *Plaza* available for civic purposes and commercial activities. A plaza shall be spatially defined by building frontages. Its landscape shall consist primarily of pavement. Trees are optional. Plazas should be located at the intersection of important streets. The minimum size shall be 1/4 acre and the maximum shall be 2 acres.

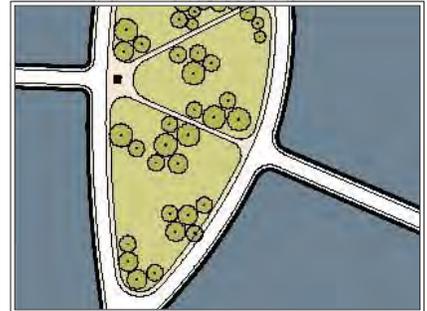
Playground

A *Playground* is an open space designed and equipped for the recreation of children. A playground should be fenced and may include an open shelter. Playgrounds shall be interspersed within residential areas and may be placed within a block. Playgrounds may be included within parks and greens. There shall be no minimum or maximum size.

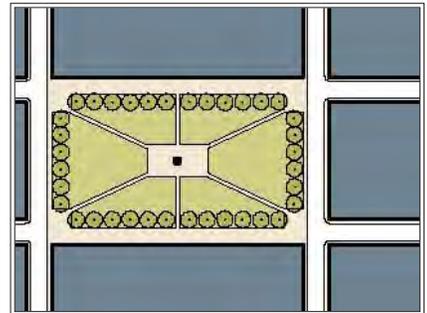
Park



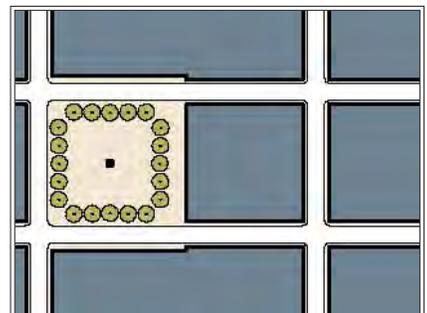
Green



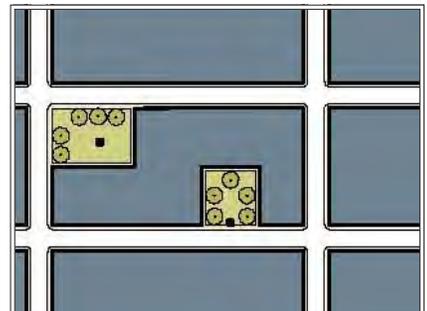
Square



Plaza



Playground



BUILDING / LOT TYPES

A mix of building types creates neighborhoods which allow a diversity of ages and incomes, and permit residents to trade up or downsize their homes without having to move away. Multi-generational neighborhoods and life-cycle neighborhoods create strong social networks, avoid concentrations of poverty or wealth, and lead to safer communities.

Following are descriptions of building / lot types which should be the components of new neighborhoods.

House

A single family detached residence which occupies a single building lot.

Typical Height: 1 - 2.5 stories

Typical Lot Frontage Width: 50' - 80'

Typical Uses: residential

Accessory Dwelling Unit

A subordinate living unit detached from a single family dwelling that provides basic requirements for independent living. An Accessory Dwelling Unit may be a stand-alone structure, or located above a garage or workshop behind the primary residence.

Typical Height: 1 - 2 stories

Typical Uses: residential

Accessory Dwelling Units shall have a maximum foot print of 600 square feet.

Cottage

A small single-family residence.

Typical Height: 1 - 1.5 stories

Typical Lot Frontage Width: 25' - 40'

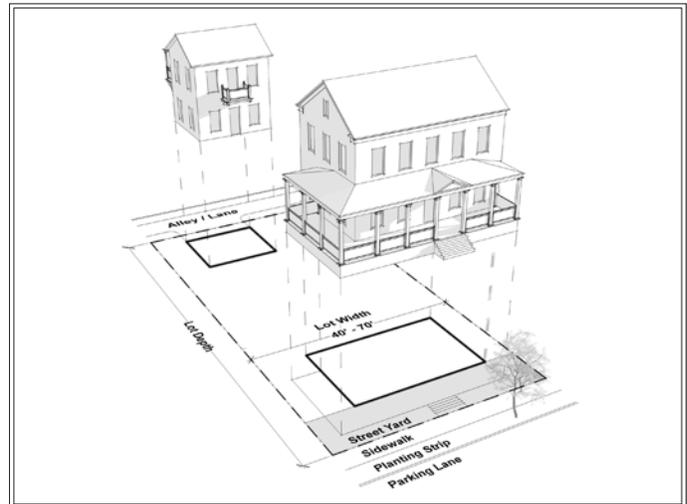
Typical Uses: residential

Required Features: A front porch or stoop is required along at least 50% of the building's street frontage.

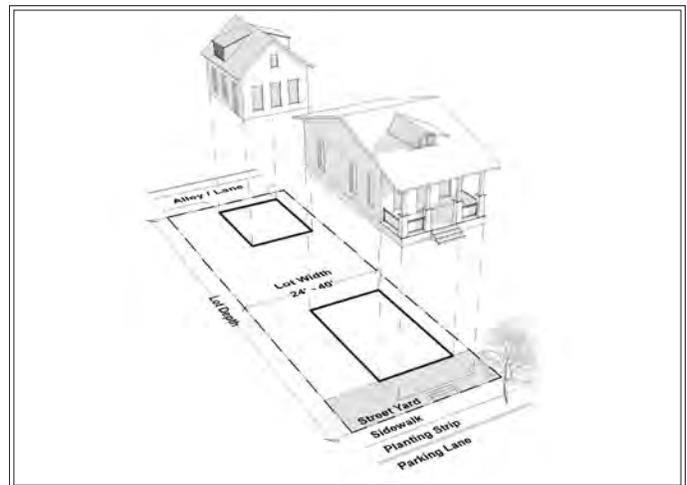
Duplex

Two single family semi-detached dwelling units which occupy a single building lot.

Typical Height: 1.5 - 2.5 stories



House with Rear Accessory Dwelling Unit



Cottage



Duplex

Typical Lot Frontage Width: 40' - 80'

Typical Uses: residential

Each dwelling unit shall have its own primary entrance which must face the street.

Required Features: Stoop or Front Porch

Apartment House

Multifamily attached dwelling units which occupy a single building lot.

Typical Height: 1.5 - 2.5 stories

Typical Lot Frontage Width: 80' - 150'

Typical Uses: residential

Required Features: Stoop or Front Porch

Courtyard Apartment Building

Apartment building which wraps around a central common courtyard that opens to the street.

Typical Height: 1 - 3 stories

Typical Lot Frontage Width: 100' - 200'

Typical Uses: residential

Rowhouse

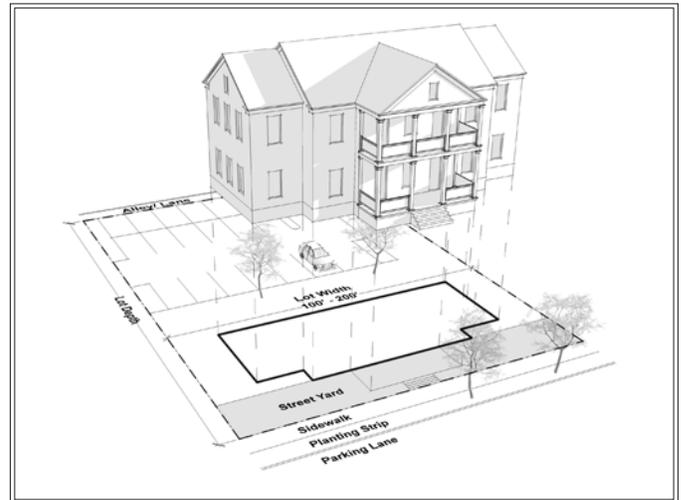
Also known as a Townhouse. Single family attached residences which each occupy a single lot.

Typical Height: 2 - 3 stories

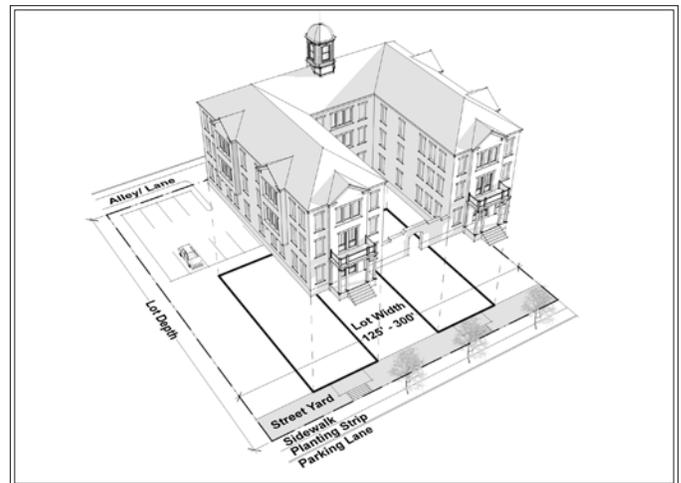
Typical Lot Frontage Width: 16' - 32'

Typical Uses: residential

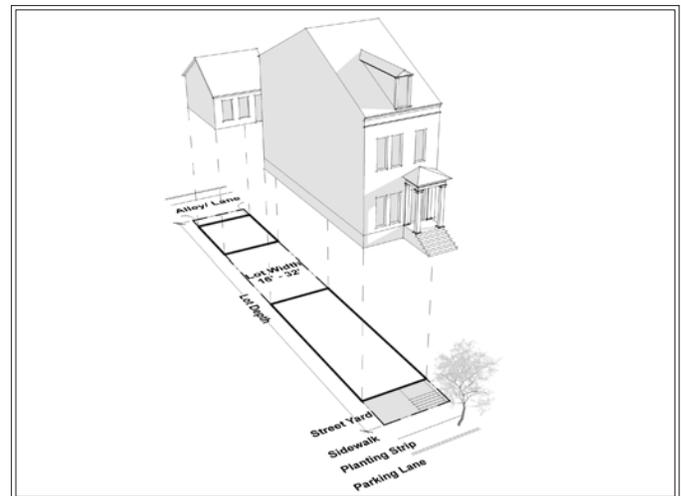
Required Features: Stoop or Front Porch



Apartment House



Courtyard Apartment Building



Rowhouse

Mixed-Use Building

A building type that is mixed-use in nature and features shop-fronts along the sidewalk at the street level, with office or residential spaces in the upper floors.

Typical Height: 2 - 5 stories

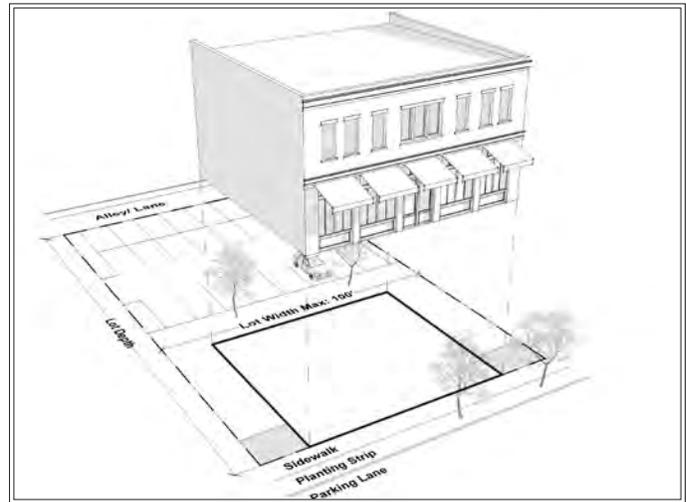
Typical Lot Frontage Width: 40' - 300'

Typical Uses: retail or office at street level, office or residential in upper levels.

Shopfronts are required along the sidewalk over at least 60% of the building's primary street frontage.

The sidewalks adjacent to shopfronts must be covered by either arcades or marquees.

Parking shall be located in the rear of the building, out of view from adjacent streets.



Mixed-Use Building

Corner Store

A building type that is mixed-use in nature and features shop-fronts along the sidewalk at the street level with residential spaces in the upper floors. This building is specifically designed to fit in character and scale with a single-family residential neighborhood.

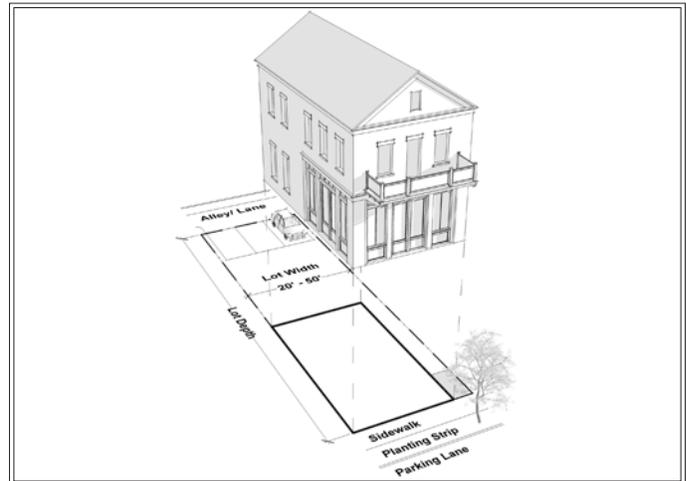
Typical Height: 1 - 2.5 stories

Typical Lot Frontage Width: 20' - 50'

Typical Uses: retail or office at street level, office or residential in upper levels.

Required Features: Arcade or Awnings.

Parking shall be located in the rear of the building, out of view from adjacent streets.



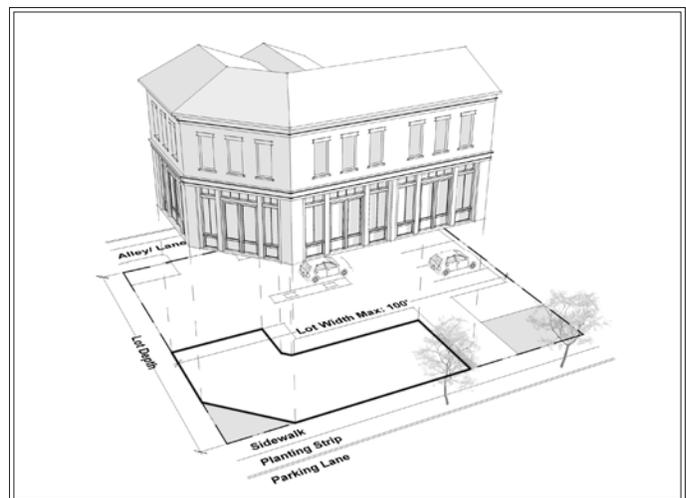
Corner Store

Small Market / Gas Station

A building primarily devoted to the sale of automotive gasoline. The primary building is mixed-use in nature and features shop-fronts along the sidewalk at the street level, with office space in the upper floors. Gas pumps are located in the rear of the building.

Typical Height: 1 - 2.5 stories

Typical Lot Frontage Width: 50' - 100'



Small Market / Gas Station

Typical Uses: retail at street level, office in upper levels.

Shopfronts are required along the sidewalk over at least 60% of the building's primary street frontage.

Gas pumps and parking shall be located in the rear of the building, out of view from adjacent streets.

Park-Under Building

A shallow building type with parking on the ground floor and residential or office spaces in the upper floors.

Typical Height: 2 - 3 stories

Typical Lot Frontage Width: 40' - 100'

Typical Uses: parking at street level, office or residential in upper levels.

There shall be a minimum of one primary entrance to the building at the ground floor which must face the street.

Large-Footprint Building

A large commercial building over 10,000 square feet in footprint.

Typical Height: 1-2 stories

Typical Lot Frontage Width: 100' - 500'

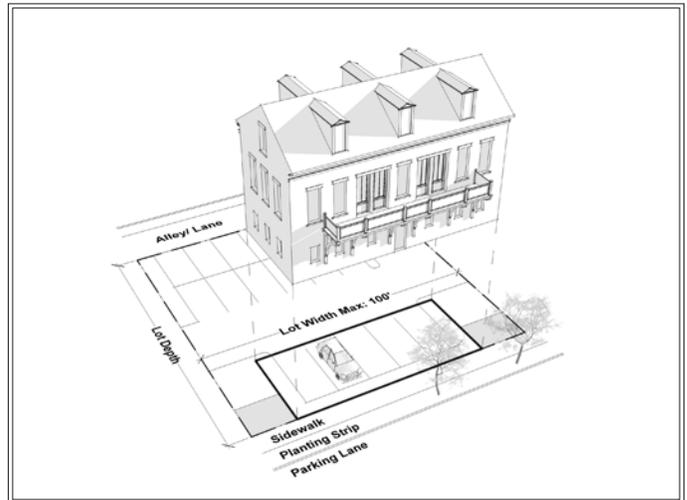
Typical Uses: retail, industrial, office and/or lobby space at street level, office in upper levels (if applicable).

Shopfronts are required along the sidewalk over at least 50% of the buildings street frontage.

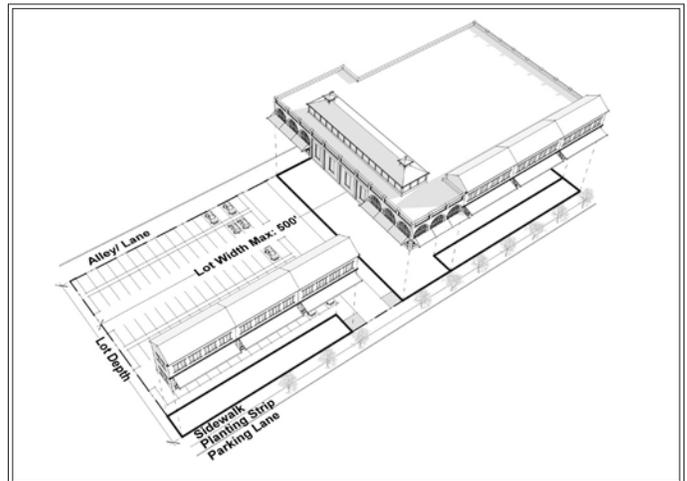
The sidewalks adjacent to shopfronts must be covered by either awnings, arcades, or marquees.

Blank walls and parking lots must be masked from the street by Liner Buildings or Park Under Buildings.

If parking is provided on site, it shall be located in the side or rear of the building, out of view from adjacent streets.



Park-Under Building



Large-Footprint Building

Tall Building

A landmark mixed-use building of seven stories or more, with shopfronts along the sidewalk at the street level and either residences or offices in the upper levels.

Typical Height: 7+ stories

Typical Lot Frontage Width: 50' - 300'

Typical Uses: retail, office and/or lobby space at street level, office or residential in upper levels.

Shopfronts are required along the sidewalk over at least 50% of the buildings street frontage.

The sidewalks adjacent to shopfronts must be covered by either awnings, arcades, or marquees.

If parking is provided on site, it shall be located in the rear of the building, out of view from adjacent streets.

Parking Structure with Liner Building

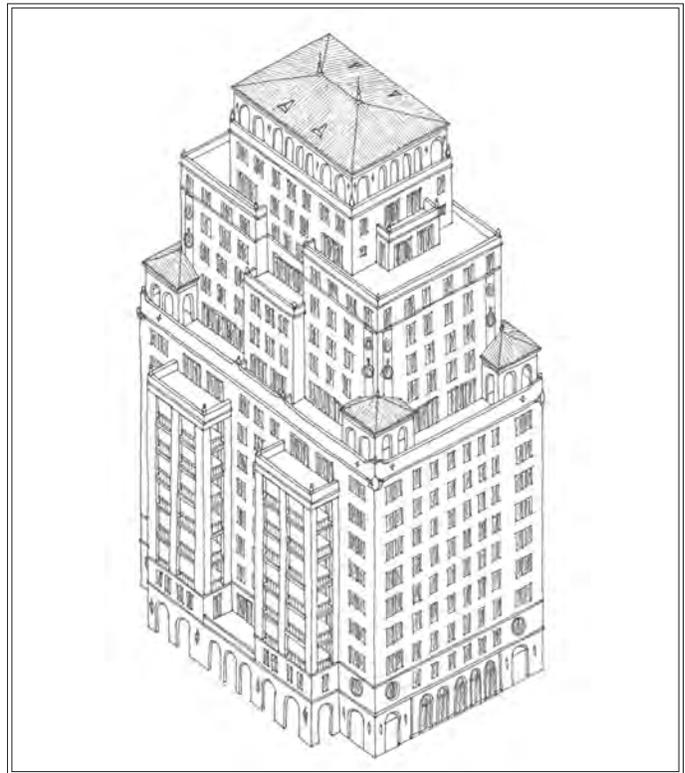
A parking structure specifically designed to minimize any negative impact on the vitality of the adjacent streets. The garage shall be masked by liner buildings containing habitable space on all levels to a minimum of 15' in depth. No portion of the parking structure shall be visible from adjacent streets, aside from the vehicular entrances. A liner building may be apartments, office space, rowhouses, or mixed-use.

Typical Height: 2+ stories

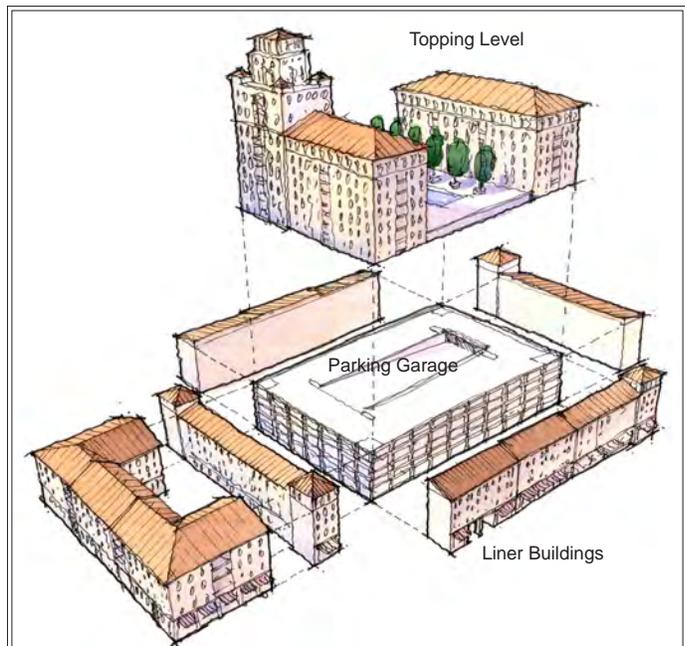
Typical Lot Frontage Width:Varies

Typical Uses: retail, office or residential at street level; office or residential in upper levels.

Liner buildings must mask the entire height of the garage. Because parking structures' floor-to-ceiling heights may be shorter than liner buildings' floor-to-ceiling heights, a liner building may be tall enough to mask a parking structure even if it has fewer stories than the parking structure. Habitable space may also be placed on the top of a parking structure if desired.



Tall Building



Parking Structure with Liner Building(s)

Civic Building

A building type operated for the use of the public, such as a school, municipal building, park pavilion, or church.

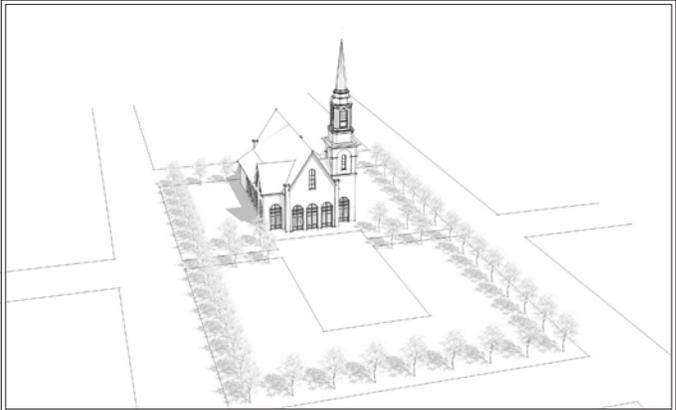
Typical Height: Varies

Typical Lot Frontage Width: Varies

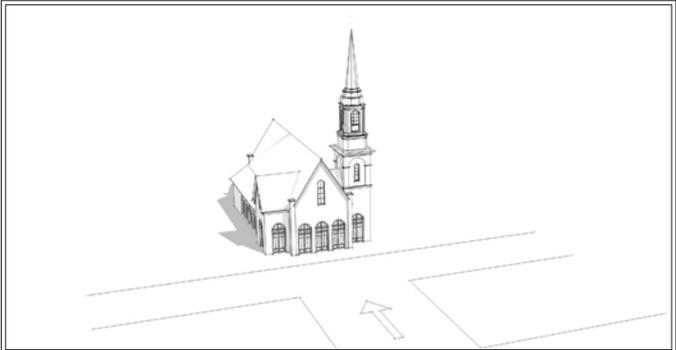
Civic Buildings should be sited prominently, such as on a lot that terminates a view, anchoring a public space, or at a corner location.



Civic building adjacent to a green



Civic building within a green



Civic building terminating a street.

THOROUGHFARE DESIGN AND ASSEMBLY

Public thoroughfares should support a range of transportation alternatives. Transit, pedestrian, and bicycle systems should maximize access and mobility while reducing dependence on the automobiles. All streets should be safe, comfortable, and interesting to the pedestrian.

Thoroughfare Design

Extensive, well designed and maintained thoroughfares and streetscapes are the first sign of a quality community and one of the most critical elements to softening the built environment, specifically, the appearance of those areas where buildings, parking, pavement, and service areas predominate.

Consideration shall be given to the scale of thoroughfares, the placement of landscaping to provide for visual interest, definition of outdoor spaces, enhancement of architecture, as well as to achieve other functional and aesthetic goals for the development while ensuring a pedestrian-scaled environment.

The following provides detailed dimensional requirements for the creation of context sensitive streets within newly planned neighborhoods. Street design details vary depending on the street hierarchy and this section allows for the development of a varied set of streets.

New streets shall comply with the specifications on page D.15. The resulting assemblage of these components is the specific thoroughfare design. (Sample thoroughfare designs are included in the next section).

Provide multi-modal, pedestrian-friendly streets with ample sidewalks, on-street parking, and tree cover or shaded sidewalks.

- a. Design streets using pedestrian-friendly sections from using the Institute for Traffic Engineers Recommended Practice: Designing Walkable Urban Thoroughfares: A Context Sensitive Approach.
- b. Design projects to provide street trees on both sides of at least 60% of streets, between the vehicle travel way and walkway, at intervals averaging no more than 40 feet.
- c. Design projects to have 90% of streets with sidewalks of 8' minimum width on retail or mixed-use and 5' minimum width on all other streets.
- d. Design projects to have on-street parking provided on a minimum of 70% of both sides of all new and existing streets.
- e. Design projects for safe pedestrian and bicycle

travel:

1. 75% of new residential-only streets within the project should be designed for a target speed of no more than 20 mph.
2. 70% of new nonresidential and/or mixed-use streets within the project should be designed for a target speed of no more than 25 mph.
3. At-grade crossings with driveways should account for no more than 10% of the length of sidewalks within the project.

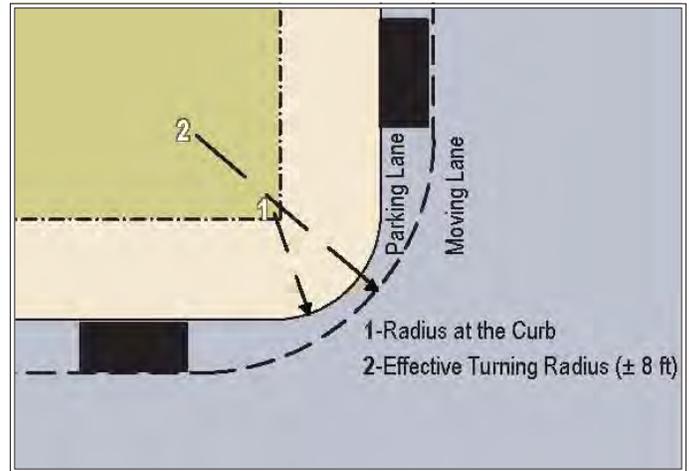
Thoroughfare Assembly Components

Thoroughfares should support a multi-modal sustainable environment.

- Right-of-way is comprised of all the components of both the vehicular and pedestrian realms
- The Transportation Way is comprised of travel lanes, on-street parking, bike lanes or other components within the curbed area.
- Travel Lane Configuration indicates the number of lanes that are appropriate for the section and whether the street is to accommodate one-way or two-way traffic.
- Travel Lane Width specifies the size range for vehicular travel lanes.
- Parking Type specifies what type of parking is allowed on this type of street.
- Parking Configuration indicates the number of sides of the street where parking is allowed.
- Parking Width specifies the size range for parking.
- Select any combination of allowed travel lanes and parking that the chart specifies to create the final pavement section.
- Pavement Width is provided as a check on vehicular realm width. The final pavement section shall lie within this range.
- Curb Type specifies the type of curbing material that shall be used.
- Curb Radius provides a range for the curb radius at intersections. When two Street Frontage Types

intersect, the highest of the indicated curb radius ranges for either Type shall be used.

- The Public Frontage is comprised of sidewalks and planters.
- Sidewalk Configuration indicates the number of sides where sidewalks are required.
- Sidewalk Width specifies the range of allowable sidewalk sizes.
- Planter Configuration indicates the number of sides where planters are required.
- Planter Type specifies the type of planter that is to be used.
- Planter/Tree Well Width indicates the appropriate size range for planters.



Curb Radii

		Primary Streets	Secondary Streets	Tertiary Streets
Transportation Way	Design Speed	20-30 MPH	20-25 MPH	5-20 MPH
	Travel Lane Configuration ¹	2-way / variable number of lanes each direction	2-way / 2 lanes each direction ² 2-way / 1 lane each direction 1-way / 1 lane	2-way / 1 lane each direction 1-way / 1 lane
	Travel Lane Width ³	9' - 11'	9' - 10'	8' - 10'
	Parking Type	Parallel/Angled	Parallel / Angled	Parallel/None
	Parking Configuration	2 sides	0, 1 or 2 sides ⁵	0, 1 or 2 sides
	Parking Width	Parallel: 7' - 8' Angled: 18'	Parallel: 7' - 8' Angled: 18'	Parallel: 7' - 8'
	Pavement Width	36' - 110'	18' - 48'	18' - 36'
	Curb Type	Concrete Curb	Concrete Curb	Concrete Curb/ None
Public Frontage	Curb Radius	5' - 25' ⁶	5' - 15'	5' - 15'
	Sidewalk Configuration	2 sides	2 sides	2 sides/None
	Sidewalk Width	10' - 20'	5' - 20'	4' - 8'/None
	Median	Allowed	Allowed	Not Allowed
	Planter Configuration	2 sides	2 sides	2 sides/None
	Planter Type	Tree Well ⁷	Continuous Planting Strip	Continuous Planting Strip/None
Planter Width /Tree Well Dimension	6' maximum	4' - 8' Tree Well: 6' maximum	4' - 10'/ None Tree Well: 6' maximum	

¹ Travel lane configurations do not account for turn lanes or bus lanes, which shall be included as required and allowed within the Pavement Width.

² General streets may consist of up to 2 lanes in each direction as indicated on the Regulating Plan. In addition, bicycle lanes of 4' - 5' are encouraged along Primary and Secondary Streets.

³ The width of the Right-of-Way is defined by the specific street design and is affected by the number of travel lanes.

⁵ Parking may only be excluded in travel lane configurations that contain 4 lanes.

⁶ Curb radii may exceed the 25' maximum on intersections where bulb-outs are not present. The effective turning radius for these curbs shall not exceed 35'. The effective curb radius shall be calculated as shown in the figure above. If a bulb-out is present on only one corner of an intersection the curb radius may be up to 35', provided that the next parallel parking space after the bulb-out be located a minimum of 10' from the end of the radius. Curb radius limitations do not apply within parking lots.

⁷ Tree wells are allowed in sidewalks greater than 8' in width and shall provide a continuous underground trench.

THOROUGHFARE TYPES

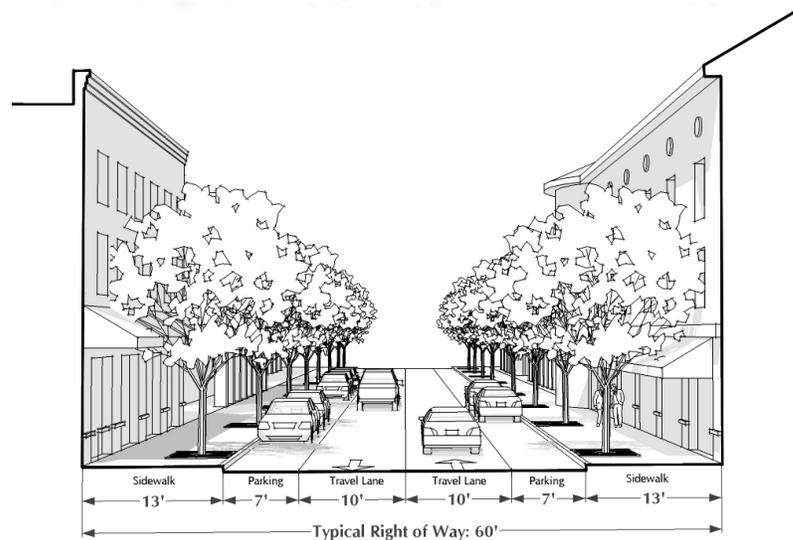
Boulevard
Primary Street Type



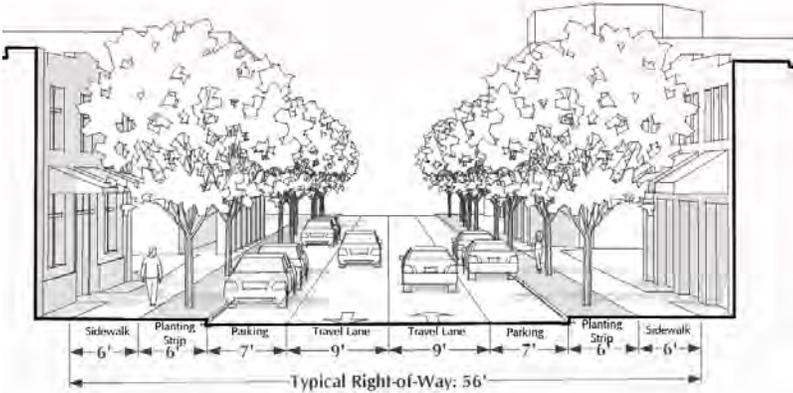
Avenue
Primary Street Type



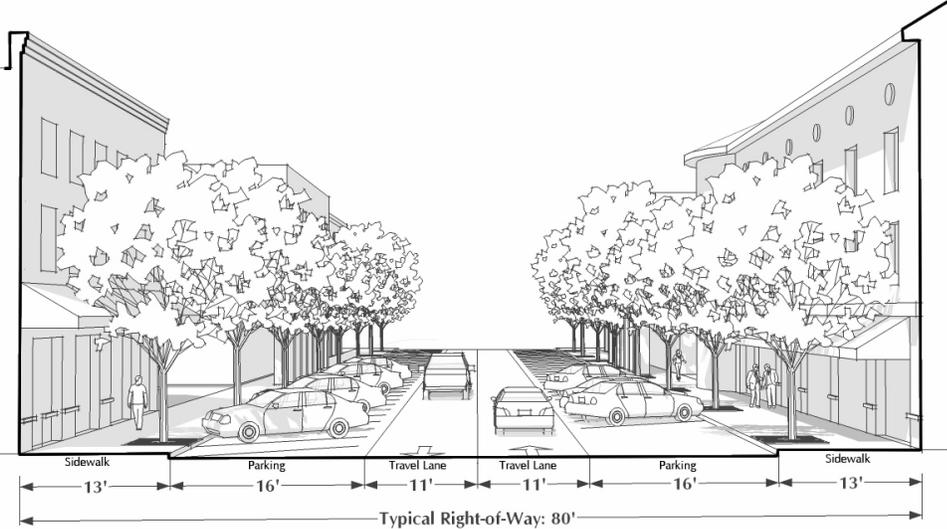
60' Street
Primary Street Type



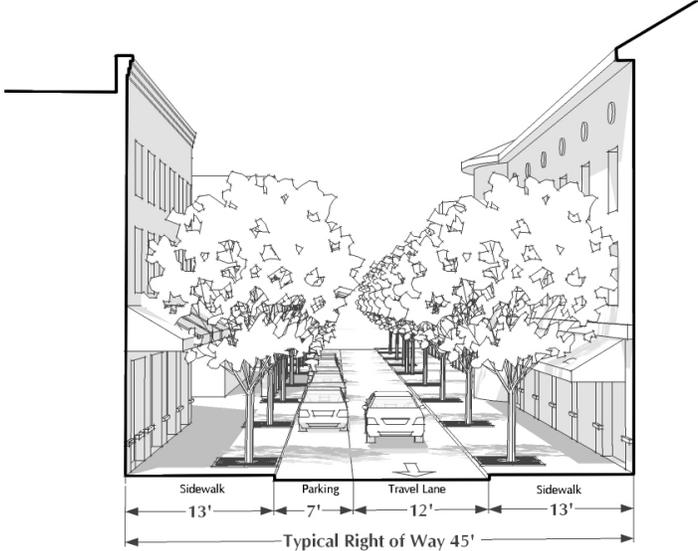
56' Street
Secondary Street Type



80' Street
Secondary Street Type

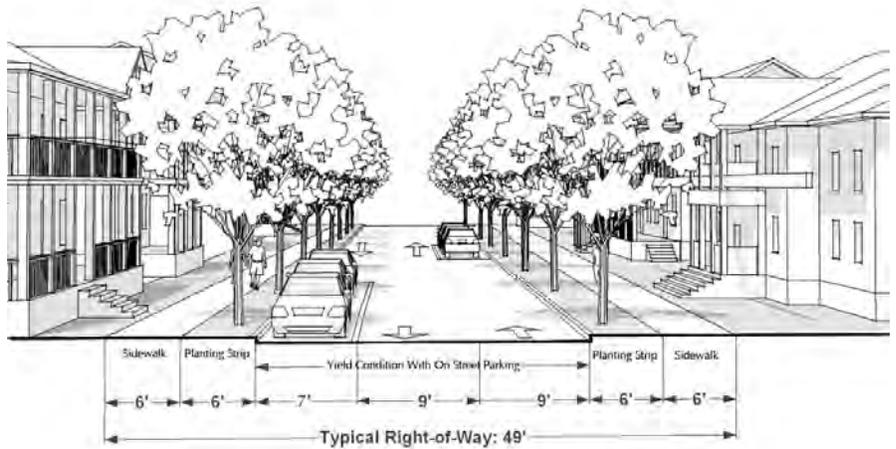


One-way Street
Secondary Street Type

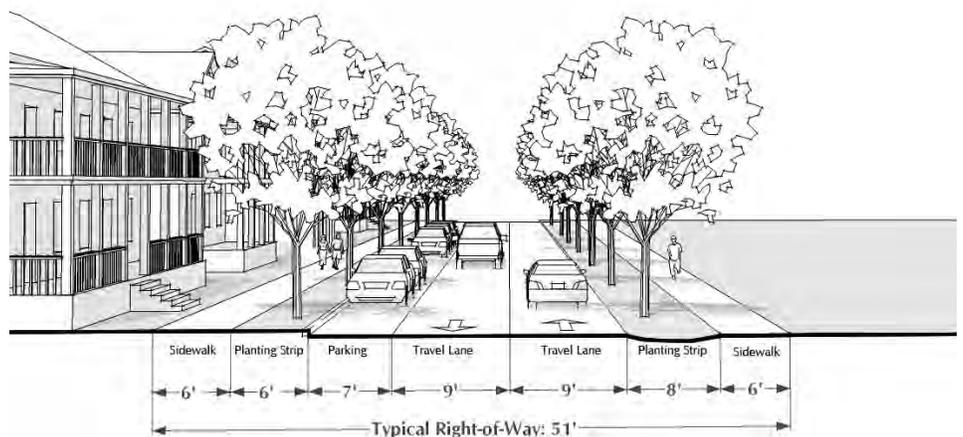




Access Street
Primary Street Type

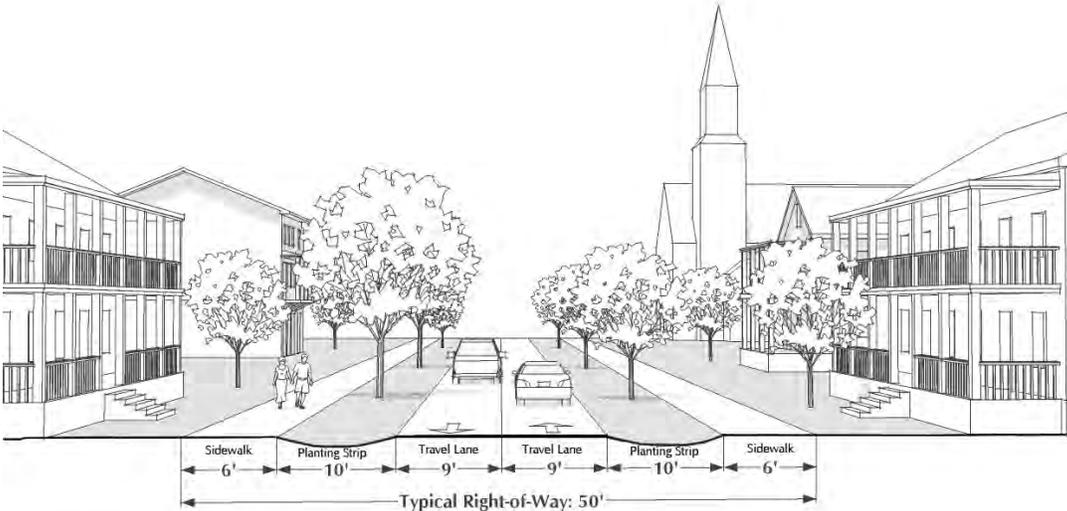


Yield Street
Secondary Street Type



Drive
Secondary Street Type

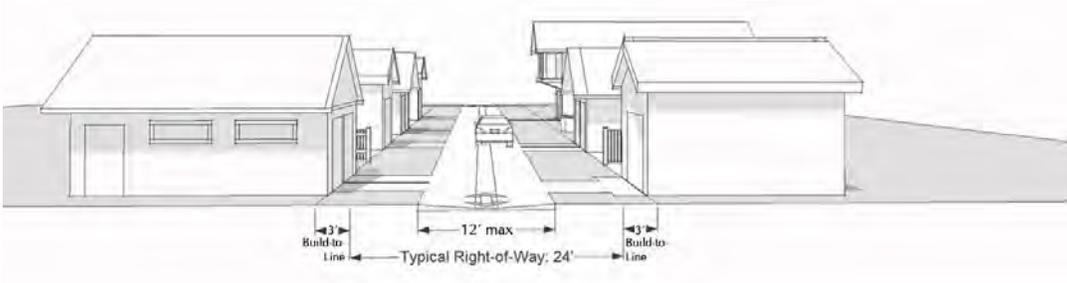
50' Road
Secondary Street Type



Alley
Tertiary Street Type



Rear Lane
Tertiary Street Type

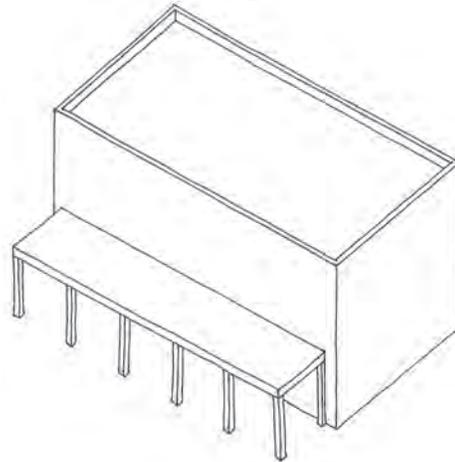
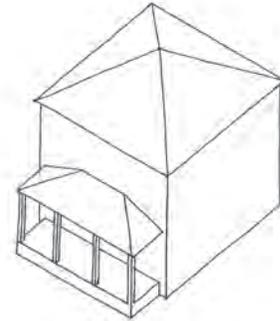


GENERAL ARCHITECTURAL STANDARDS

BUILDING MASSING

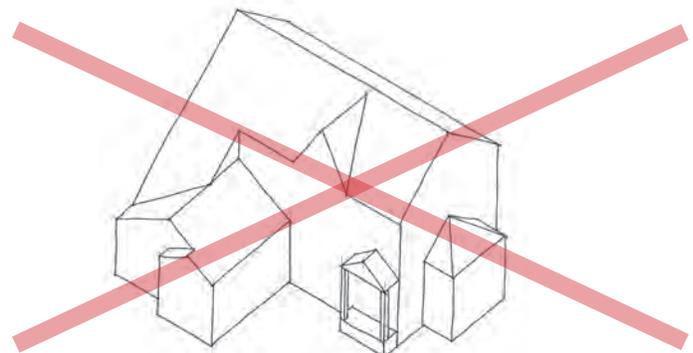
DO

Do keep the massing and roofs of structures as simple as possible. Every building shall have a clear primary mass to which appurtenances (such as porches, arcades, small additions) and architectural details are affixed. The primary mass of a building should have four sides and be clearly discernible.



DON'T

Don't use overly complicated building forms or superfluous step-backs or bump-outs. Roofs should be designed to cover a structure as economically and simply as possible. Avoid roof configurations which require valleys.



APPROPRIATE



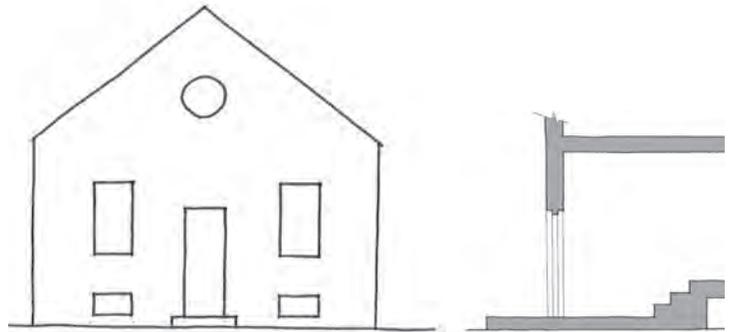
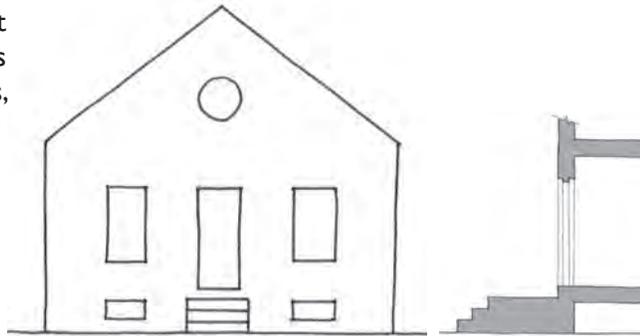
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RAISED FIRST FLOOR

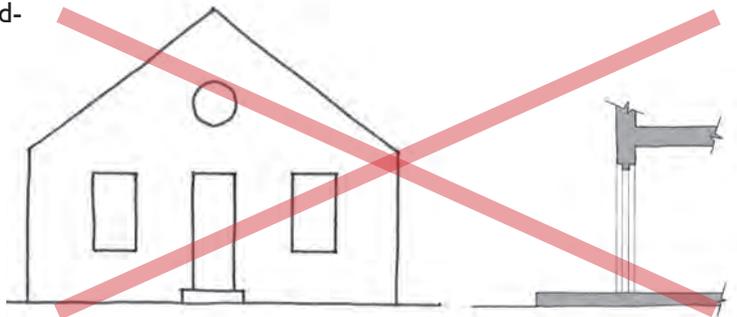
DO

Do raise the first finished floor of residential structures up a minimum of twenty-four (24) inches above the adjacent sidewalk. Where a zero-step entry is necessary, doorways may be located on the ground level, with interior stairs, ramps or lifts for reaching the raised first floor level.



DON'T

Don't place the first floor of a house or residential building directly on a slab at ground level.



APPROPRIATE



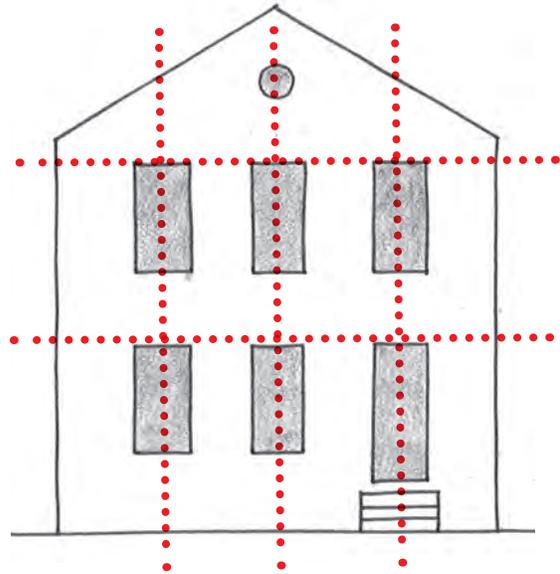
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FAÇADE COMPOSITION

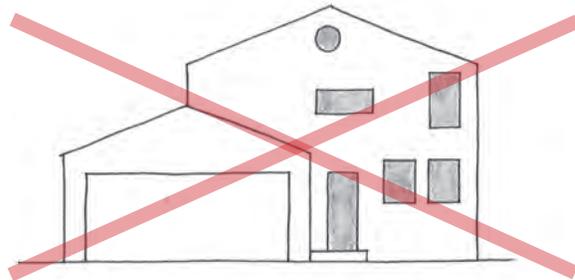
DO

Do align window and door openings both vertically and horizontally at regular intervals. There should be a clear facade arrangement which reveals the underlying structural pattern of the building.

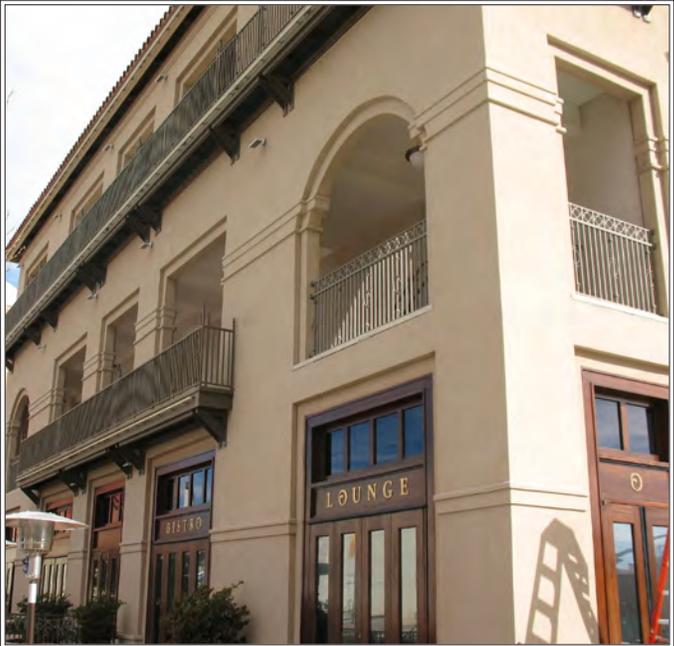


DON'T

Don't arbitrarily arrange doors, windows and other features on the front facade of a building.



APPROPRIATE



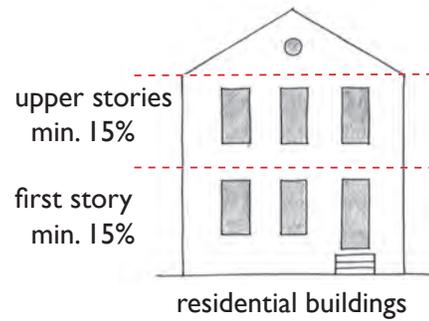
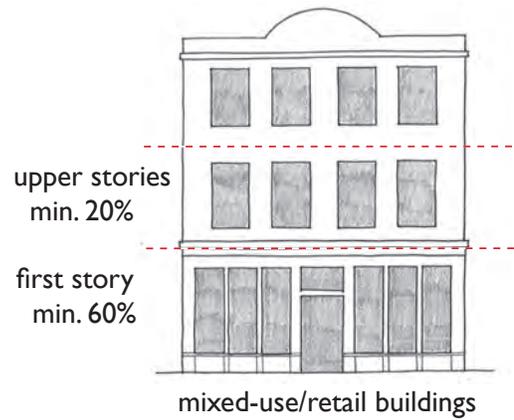
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FAÇADE TRANSPARENCY

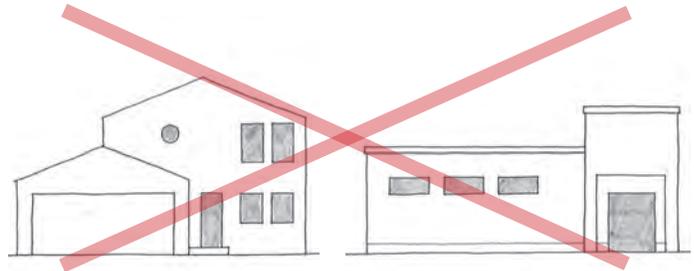
DO

Do ensure that facades which face streets and public spaces have a minimum amount of transparency and openings, per the diagram (right). Facade transparency for each story shall be calculated between floor levels. Parapets and the gable ends of a roof are exempt from minimum transparency requirements.



DON'T

Don't leave street-facing facades blank or with window configurations which don't promote adequate surveillance of the street from inside.



APPROPRIATE



NOT APPROPRIATE



MATERIALS

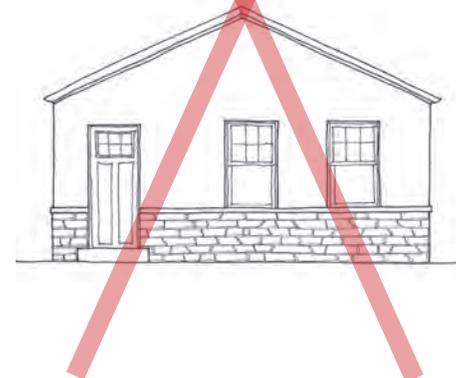
DO

Do keep the cladding of building facades simple. If a change in material occurs, it shall happen only horizontally at the floor line, preferably between the foundation and first floor on residential structures. Lighter materials shall always be placed above heavier materials.



DON'T

Don't combine more than two materials on the same building, excluding windows and doors. Changes in material on the front facade of a building should never happen vertically.



APPROPRIATE



NOT APPROPRIATE

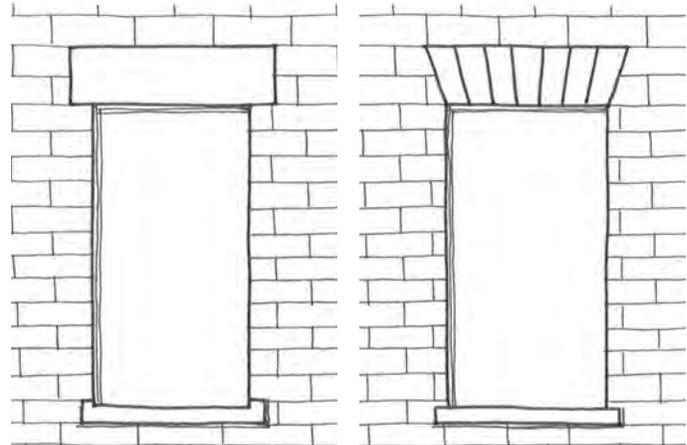


BRICK DETAILS

DO

Do use a header for all openings in masonry walls. Headers shall be visually capable of supporting the weight of the wall above. Headers may be comprised of either brick, stone, cast stone or metal. Acceptable headers include a lintel (which may be of solid stone, cast stone, or metal), a jack arch (flat “arch” made up of individually angles bricks), or segmental arch. Header shall be a minimum of four (4) inches in height and slightly wider than the opening they span.

All window openings within masonry walls shall have a sill comprised of solid stone, cast stone or brick.

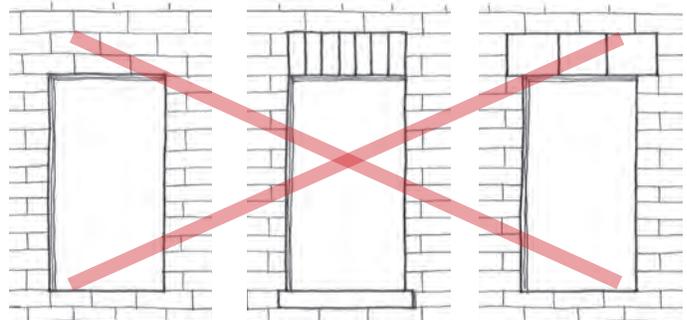


Lintel

Jack Arch

DON'T

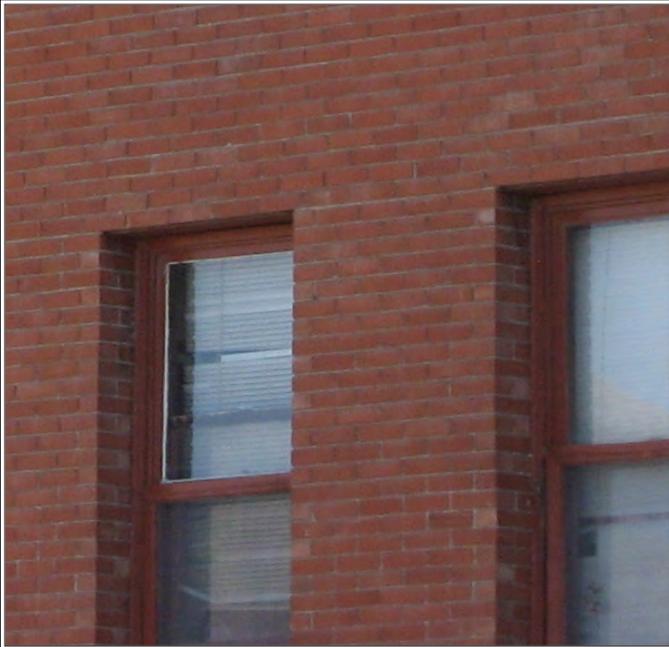
Don't omit headers and sills from window openings within masonry walls. Don't use headers comprised of vertically jointed materials, which do not visually support the load of the wall above.



APPROPRIATE



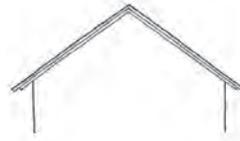
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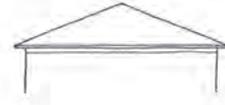
ROOFS

DO

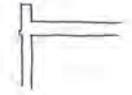
Do use roofs which are symmetrically pitched and meet at a ridge. Gabled roofs shall have a minimum slope of 35 degrees and a maximum slope of 55 degrees. Hipped roofs shall have a minimum slope of 25 degrees and a maximum slope of 45 degrees. Flat roofs shall have a parapet wall on at least three sides, facing the front and sides of the structure. Parapet walls shall be an extension of the building walls below and shall rise a minimum of two (2) feet above the adjacent roof.



Gable Roof



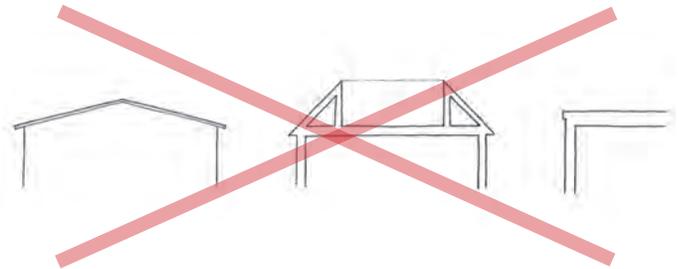
Hipped Roof



Flat Roof with Parapet

DON'T

Don't use asymmetrically sloped roofs, flat roofs with no parapet walls, or false mansard roofs. Don't use ornamental roofs which are affixed to the walls of a building.



APPROPRIATE



NOT APPROPRIATE



SHOPFRONTS

DO

Do build retail frontage storefronts (shopfronts) to be functional and attractive. Buildings with ground floor retail or office uses shall have untinted transparent storefront windows and/or doors covering no less than 60% of the wall area, between 3 and 8 feet above grade. Storefront windows shall extend to at least 8 feet above the adjacent sidewalk. A shopfront shall have a continuous bulk head between 1 foot and 3 feet above sidewalk grade. Various door and storefront configurations shall be allowed, including, but not limited to: protruding, inverted, and flush entryways. Entrances shall be placed at a minimum of every 50 feet along the length of a shopfront or series of shopfronts.

All shopfronts shall be protected from above by either an awning, arcade or marquee. The sidewalk adjacent to all shopfronts shall maintain a minimum clear path of five feet.



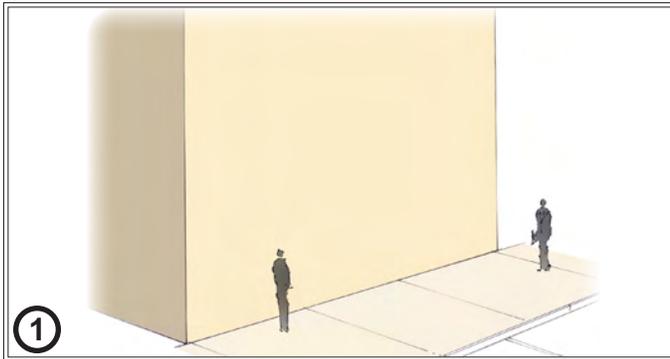
Elements of a Storefront



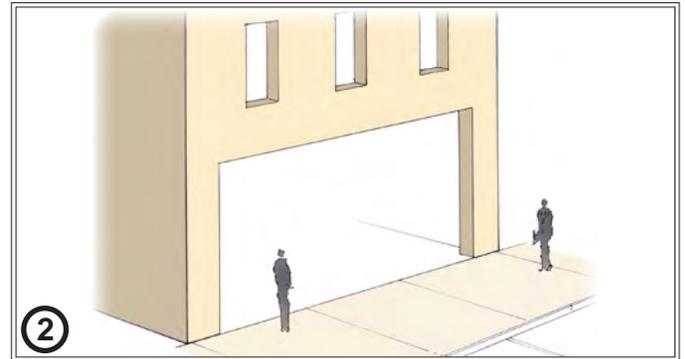
Clear glass is required of 60% of wall area between 3 and 8 feet above the ground.



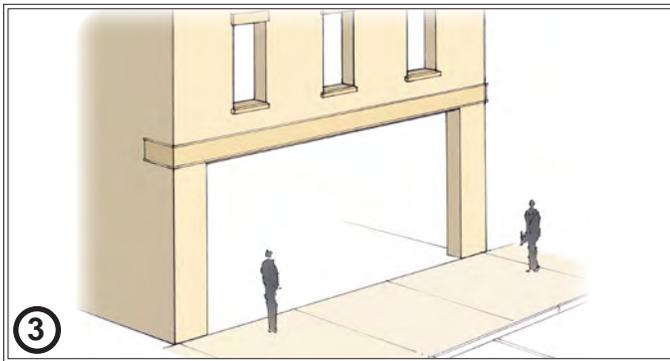
Five feet of pedestrian clearance is required. Wide sidewalks can provide a greater length for greater pedestrian comfort.



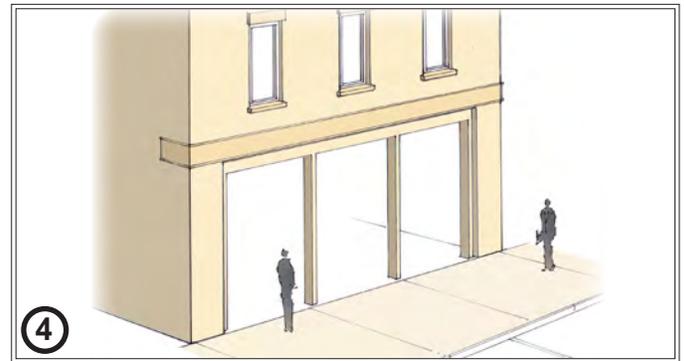
① The basic building mass - placed close to the street



② Generous shopfront with vertically-oriented windows above



③ Lintels and window sills provide a sense of structure



④ Columns sub-divide the shopfront opening



⑤ Transoms help achieve well-proportioned shopfront windows



⑥ Cased windows sit atop knee-height bulkheads



⑦ Pedestrian-oriented entrance, signage and lighting

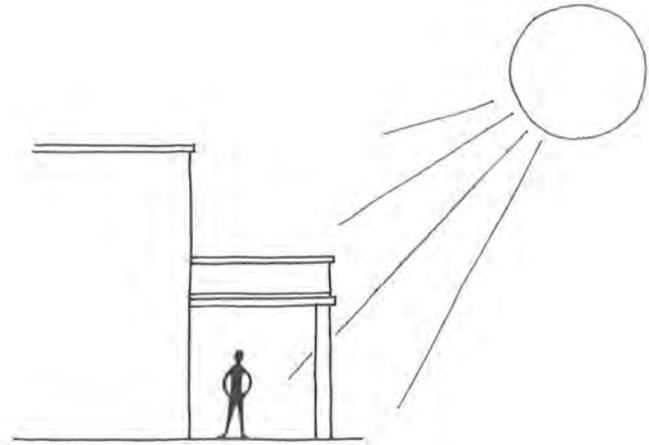


⑧ Awnings provide shade and rain protection

ARCADES

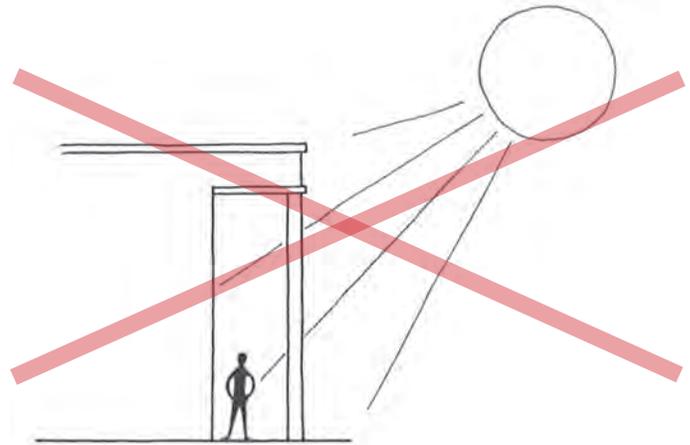
DO

Do make arcades that are low and deep, to provide adequate shelter from the sun as well as ample space for pedestrians and sidewalk furniture. Arcades shall be a minimum of ten (10) feet in depth, as measured from the wall face to the outside edge of the supporting column or pier. Arcades shall be a minimum of ten (10) feet and a maximum of fifteen (15) in height, as measured from the sidewalk to the underside of the arcade ceiling. In keeping with the architectural traditions of El Paso, the roof of arcades should always be separate from and lower than the roof of the building to which it's attached.



DON'T

Don't make arcades which are narrow and too high to adequately shield pedestrians, shopfronts, and windows from the sun.



APPROPRIATE



NOT APPROPRIATE

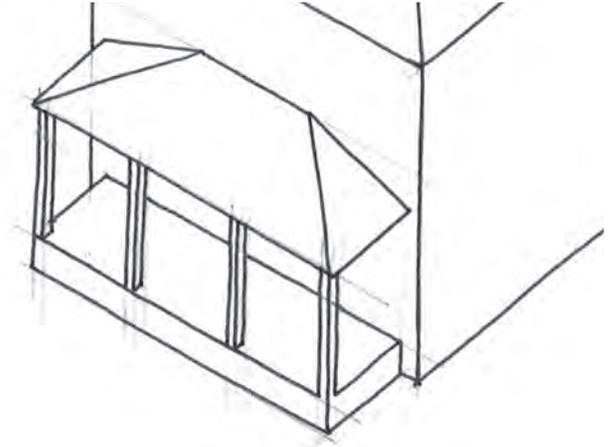


PORCHES AND STOOPS

DO

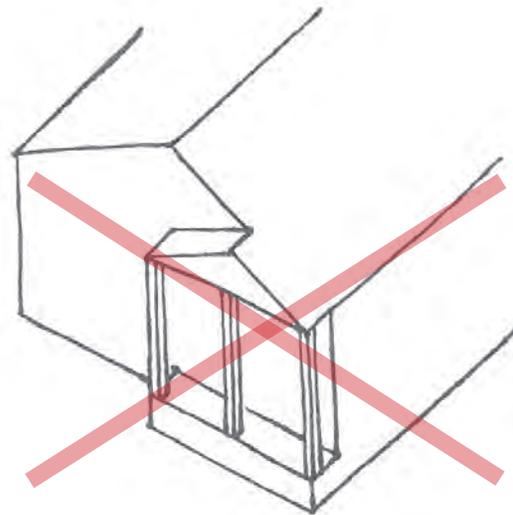
Do create porches which are deep enough to accommodate furniture and be used in pleasant weather. Porches shall be a minimum of seven (7) feet in depth, as measured from the wall face to the outside edge of the supporting column or pier. Front porches, when used, shall occupy at least 30% of the length of the front facade of a house.

Front stoops which are meant to shelter the front entrance shall be at least two (2) feet in depth and four (4) feet wide. A stoop may either be recessed into the mass of the building or covered with a separate roof.

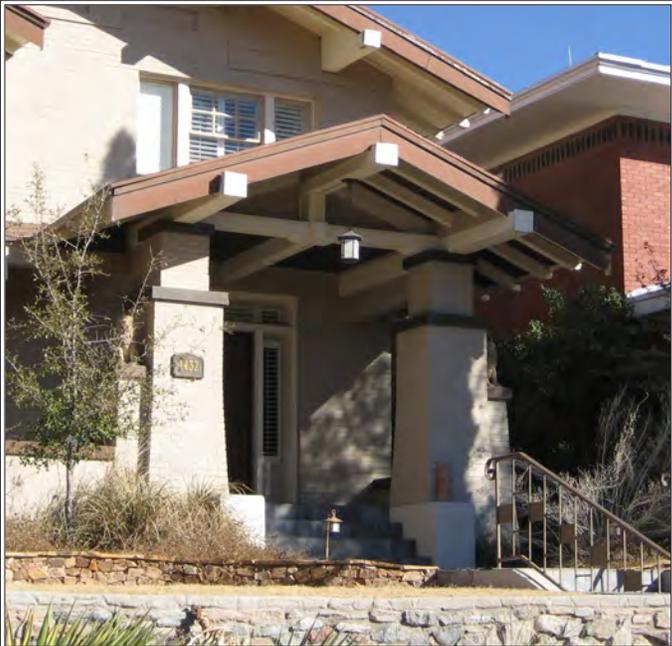


DON'T

Don't create superficial porches which are too narrow to be used.



APPROPRIATE



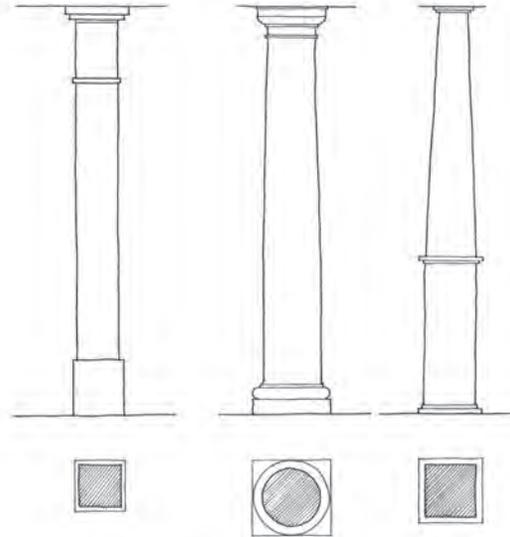
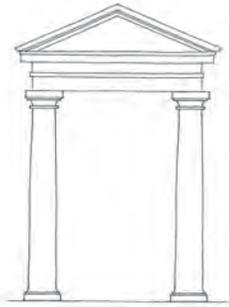
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COLUMNS

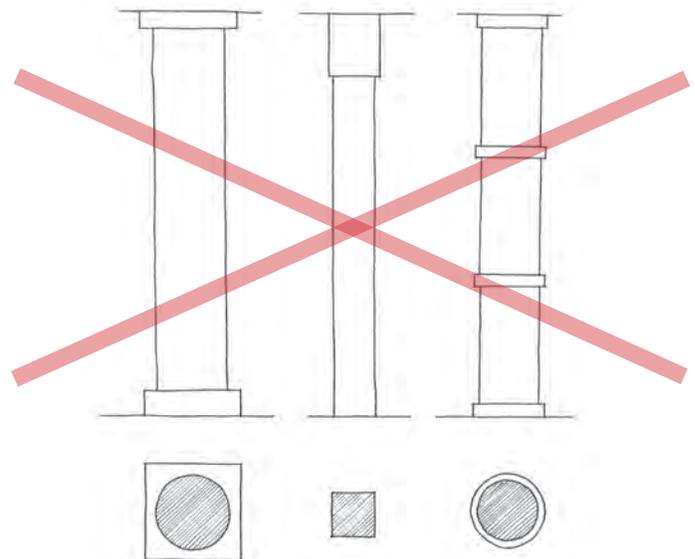
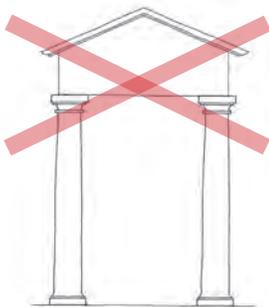
DO

Do be sure that all columns have a base and a capital, which shall not be identical. All columns which are round in section shall adhere to the established proportions and details of one of the classical orders (Greek Doric, Roman Doric, Tuscan, Ionic, Corinthian, Composite). Publications such as “Architectural Graphic Standards”, “The Four Books of Architecture” by Andrea Palladio, and “The American Vignola” by William Ware shall be referenced for correct specifications on each of the orders. Columns which are square in section can be simpler in form and shall be based on traditional forms found in El Paso.



DON'T

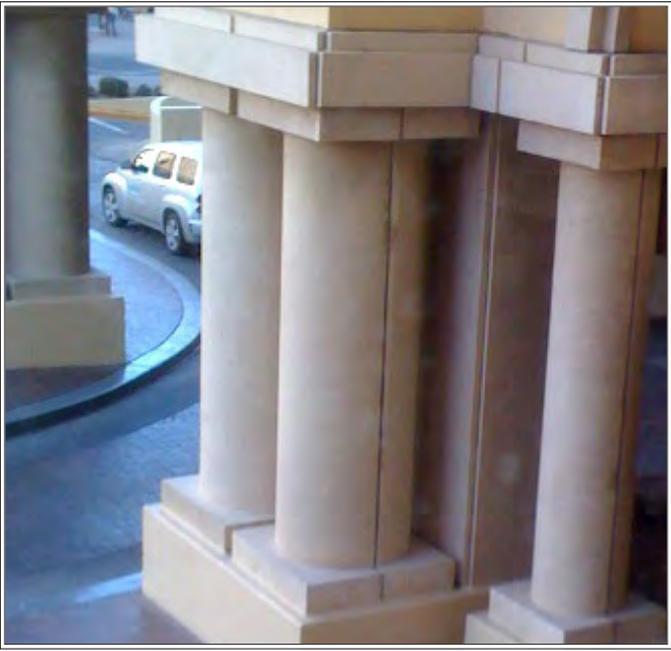
Don't invent new orders, or employ columns which are abstractions of or deviations from long established patterns in El Paso. Don't use extruded round columns which are the same diameter along their entire length.



APPROPRIATE



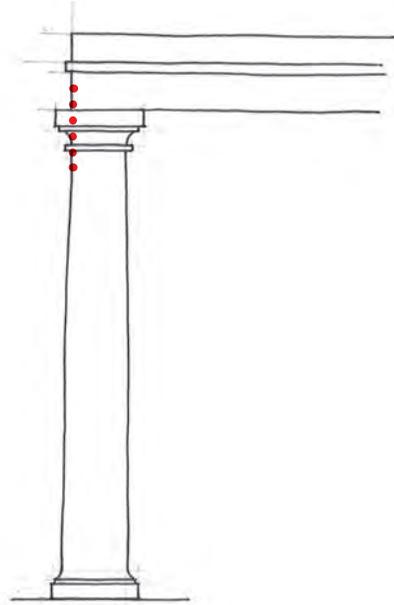
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COLUMN & PIER PLACEMENT

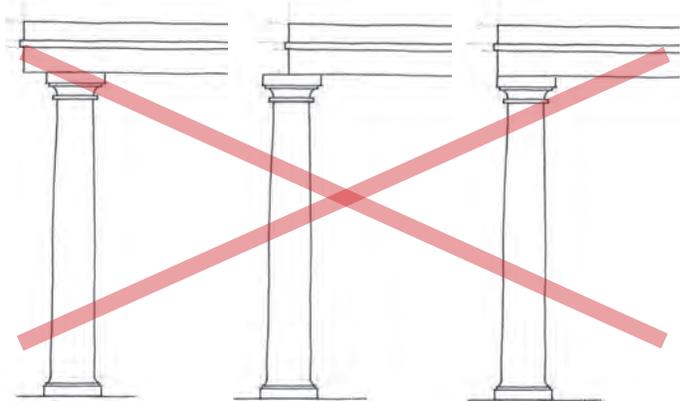
DO

Do place all columns and piers with the neck even with the entablature above. See diagram for correct positioning.



DON'T

Don't place columns or piers with the capital inward from the edge of the entablature above. Don't place columns or piers with the center line even with the entablature above. Don't place columns or piers with the capital edge even with the edge of the entablature above. See diagrams for common incorrectly placed columns.



APPROPRIATE



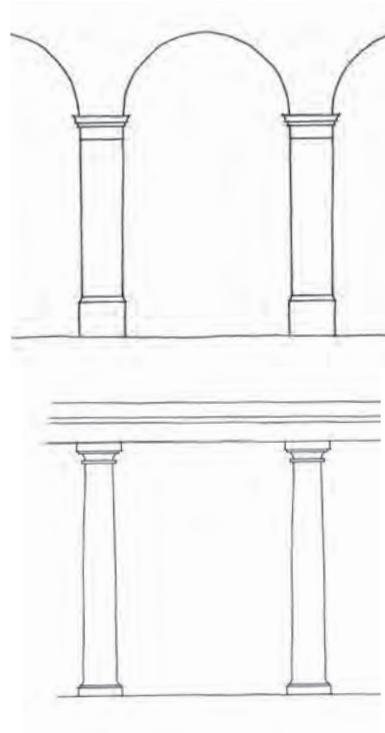
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COLUMN AND PIER SPACING

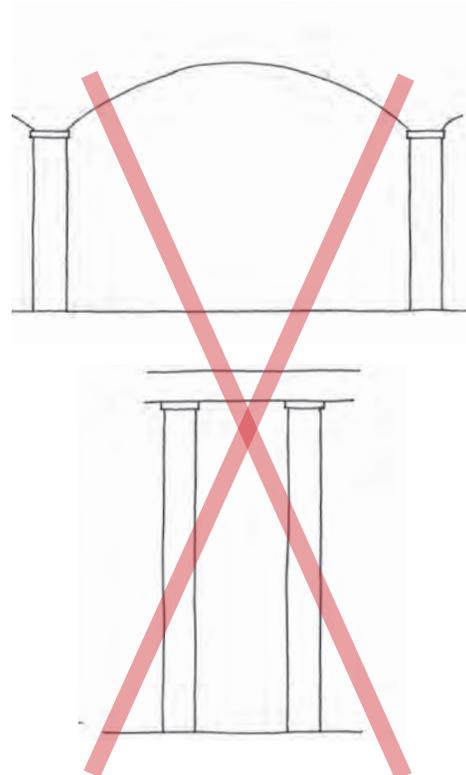
DO

Do place identical columns and piers at regular intervals. The space between columns and piers shall be either square or vertically proportioned, with a height to width ratio of no more than 3 to 1. Door and window openings shall be centered on the spaces between columns/piers.



DON'T

Don't place columns or piers at random intervals, or spaced in such a way that makes the openings between them horizontally proportioned. Columns and piers shall not be placed so close together that they create vertically proportioned openings with a height to width ratio greater than 3 to 1.



APPROPRIATE



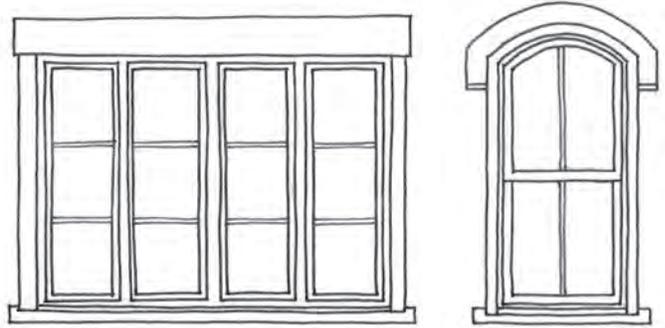
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WINDOWS

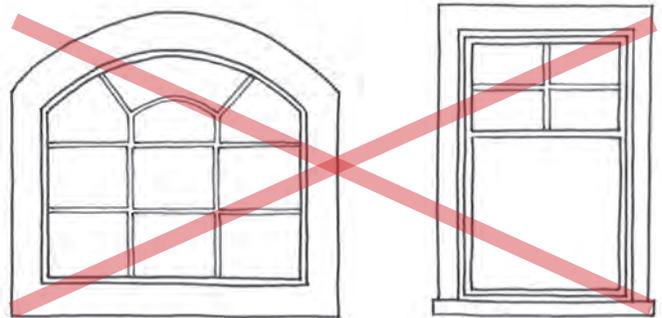
DO

Do use windows which are either square or vertically proportioned and made up of components which are also square or vertically proportioned. Horizontal openings shall be composed of individual identical operable windows which are each vertically proportioned.

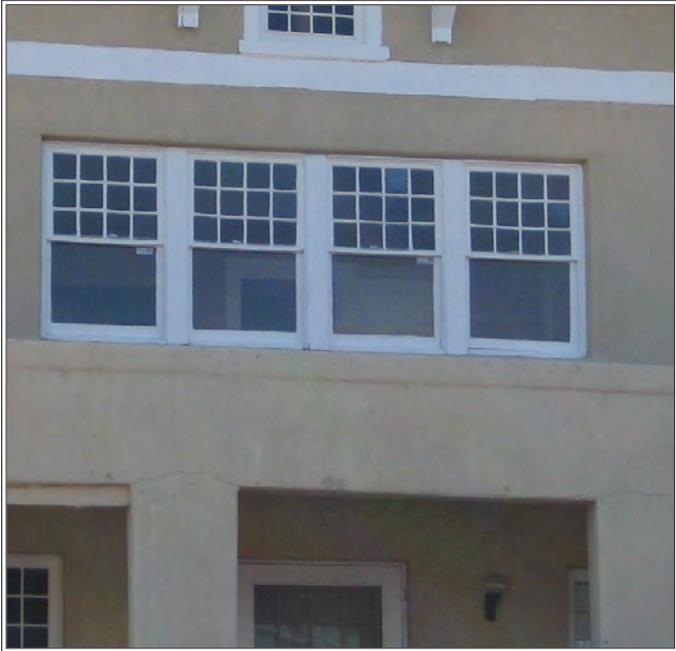


DON'T

Don't use squat windows or windows which are composed of irregular or horizontally proportioned components.



APPROPRIATE



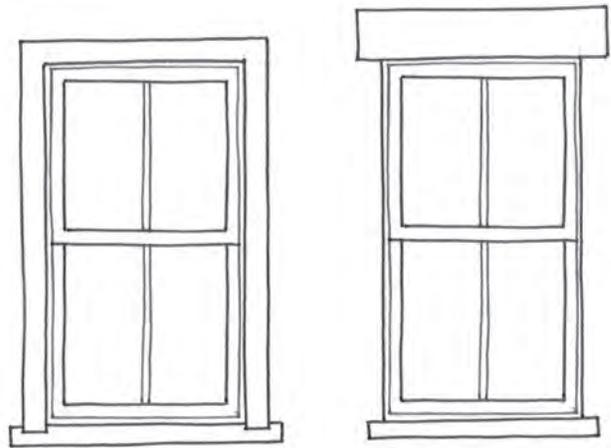
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WINDOW SURROUNDS

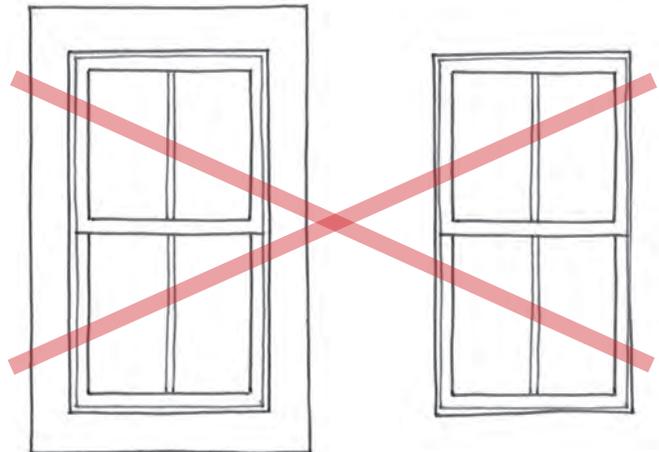
DO

Do design window surrounds which are sensitive to the cladding of the building they adorn. Window surrounds shall be consistent throughout a structure. Windows on masonry (brick or stone) structures shall have at least a sill and header. Windows on all wood clad structures shall have a distinct sill with a simple wooden surround on the sides and top. Buildings faced in stucco shall have at a minimum a distinct sill.



DON'T

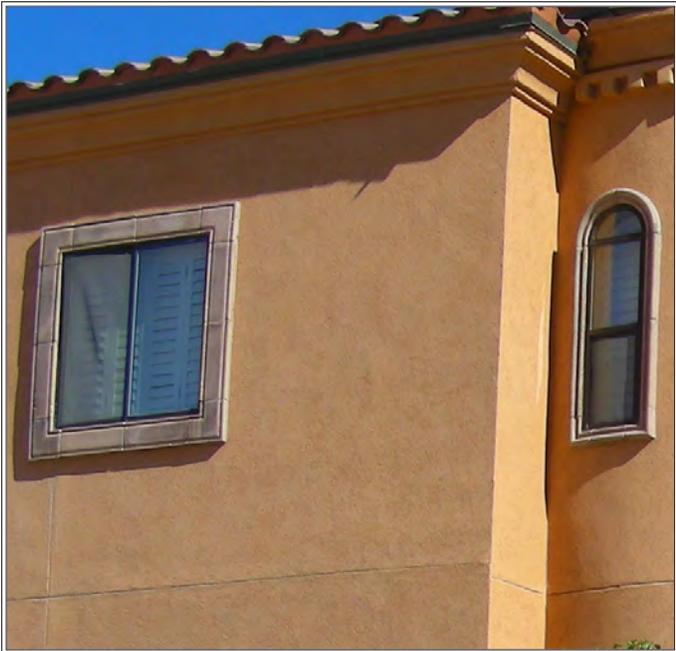
Don't use window surrounds which are the same all the way around the opening. Window surrounds shall not protrude more than two (2) inches from the wall face. Stone, tile, styrofoam and cast concrete shall never be used for a window surround. Don't fail to use at least a sill on each window opening.



APPROPRIATE



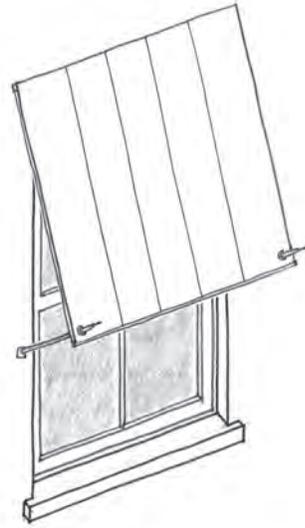
NOT APPROPRIATE



AWNINGS

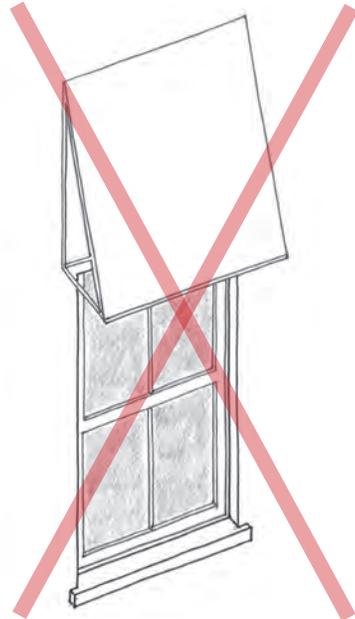
DO

Do place awnings with the top aligned with or just above the top of the opening below. Awnings shall extend out a minimum of three (3) feet from the wall face. Awnings shall be made of a durable fabric and may be either fixed or retractable.



DON'T

Don't place awnings with the bottom edge higher than the window or door opening. Don't use awnings which are too shallow to adequately shield the opening below from the sun. Don't use backlit awnings. Don't use high-gloss, plasticized or quarter-round awnings.



APPROPRIATE



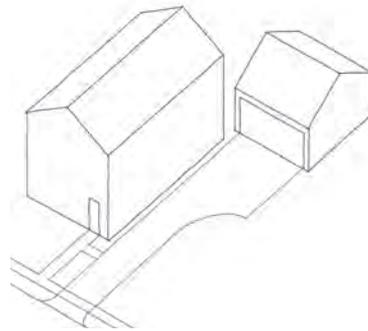
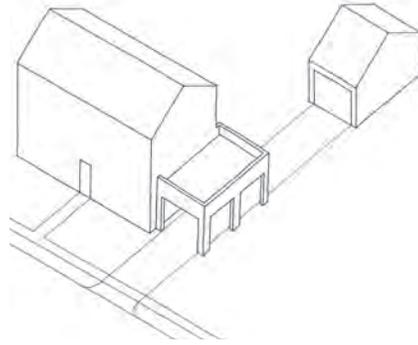
NOT APPROPRIATE



RESIDENTIAL PARKING AND GARAGES

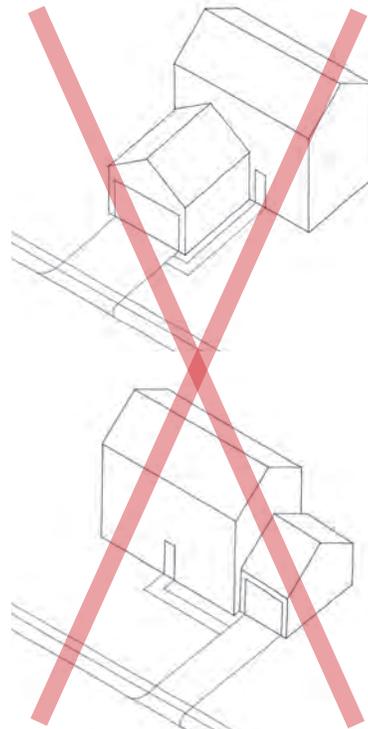
DO

Do place the garage to the rear of a house. Where no alley is available, driveways should run along the side of the lot, with parking to the side and rear of the structure. Side porte-cocheres are encouraged.



DON'T

Don't place garages or carports on the front or immediately to the side of a house. Don't locate driveways or vehicle parking forward of the front facade of a home.



APPROPRIATE



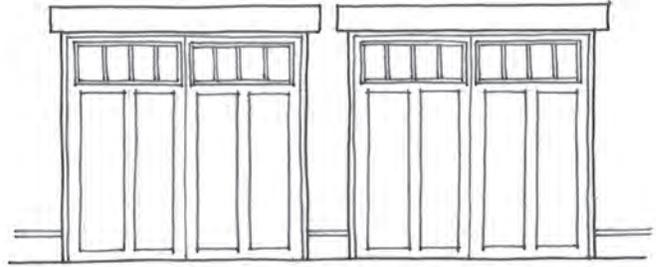
NOT APPROPRIATE



GARAGE DOORS

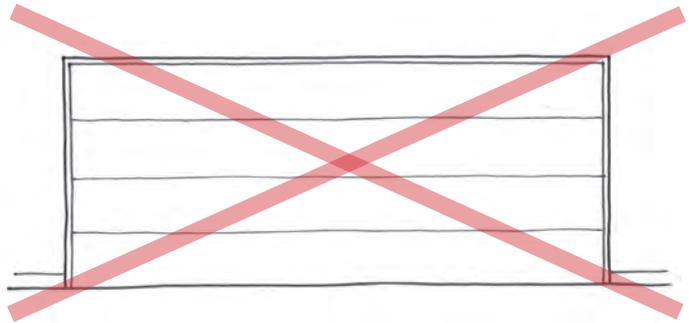
DO

Do use garage doors which are a maximum of nine (9) feet wide. Where access to a multi-car garage is needed, separate identical doors shall be used.



DON'T

Don't use garage doors wider than nine (9) feet or taller than nine (9) feet. Double-wide garage doors shall not be used.



APPROPRIATE



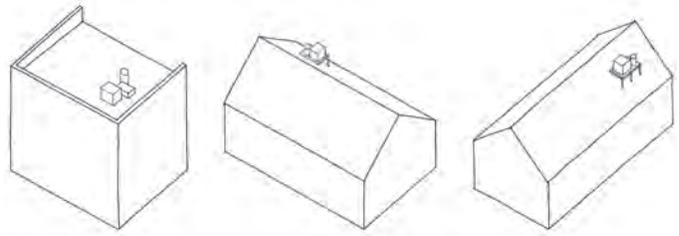
NOT APPROPRIATE



MECHANICAL EQUIPMENT

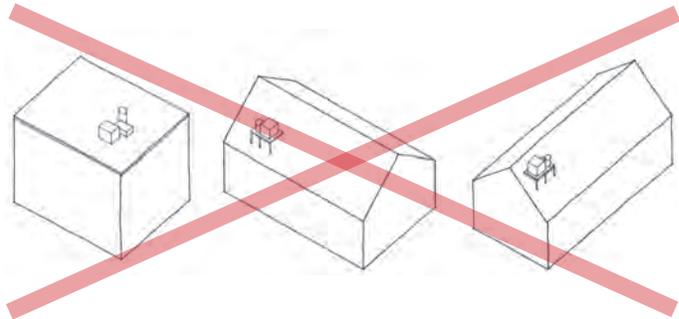
DO

Do conceal all mechanical equipment. On flat roofs, mechanical equipment shall be placed behind a parapet wall. On sloping roofs which run parallel to the front of a building, mechanical equipment shall be placed on the rear facing slope of the roof. On sloping roofs which run perpendicular to the front of a building, mechanical equipment shall be placed as far from the front as possible along the rear 25% of the roof. When placed on the ground, mechanical equipment shall be on the sides or rear of a building and enclosed by a fence or wall where necessary.



DON'T

Don't place any mechanical equipment (including condensing units, ductwork, generators, electrical meters, water meters, etc.) where it will be visible from adjacent sidewalks or streets.



APPROPRIATE



NOT APPROPRIATE



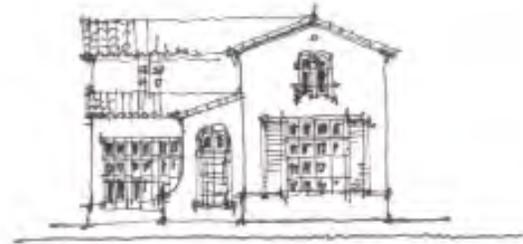
ARCHITECTURAL STYLES OF EL PASO

MISSION & SPANISH STYLES

These styles can be traced back to the late 1800's. The greatest concentration of Mission and Spanish style buildings is found in the southwestern states. An Example of these styles in El Paso includes the Wallace Apartments (1903) in Sunset Heights.

Characteristics of the Mission & Spanish Styles:

- Low Pitched Roof
- Open, wide eaves, or short eaves
- Red tile roof
- Prominent arches; usually above main entryway or window
- Stucco used for outside wall finish
- Asymmetrically composed façades
- Mission-shaped dormer or parapet
- Large square columns supporting porch roof

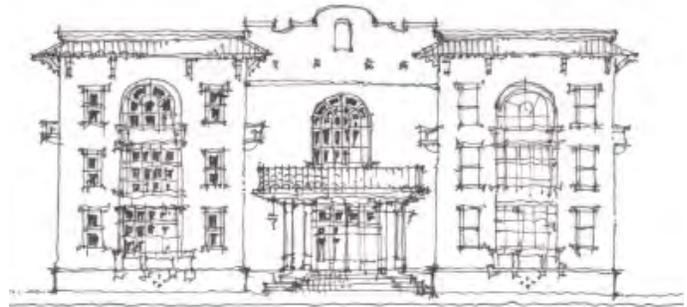


Example of a small house in the Spanish Revival style

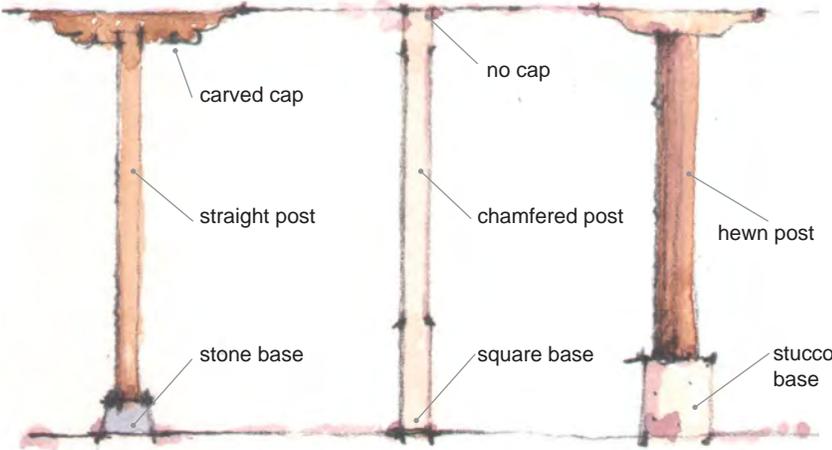
Building Type Compatibility Chart

The Mission & Spanish Styles in El Paso are appropriate for use with a number of building types. The following chart shall be used to determine appropriateness of style application for the building types listed. Example elevations are shown (right) for two representative building types.

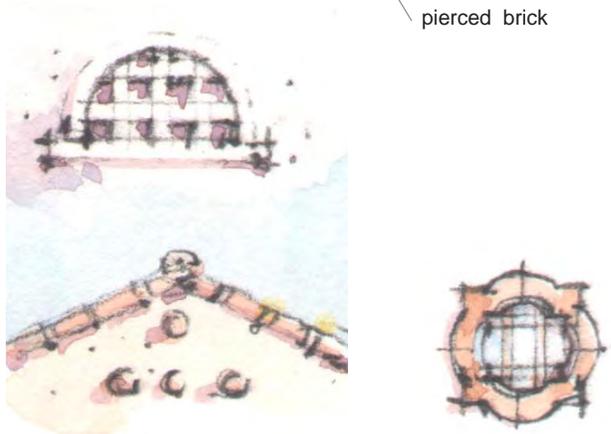
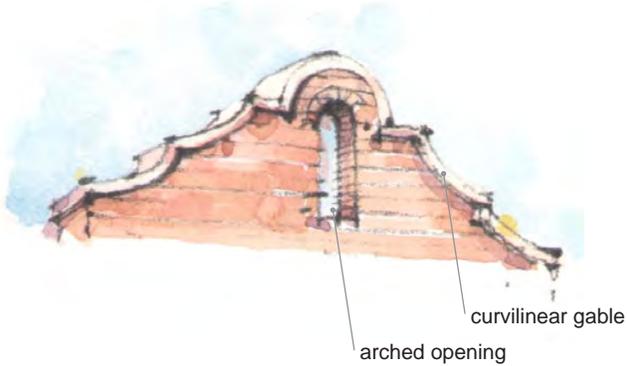
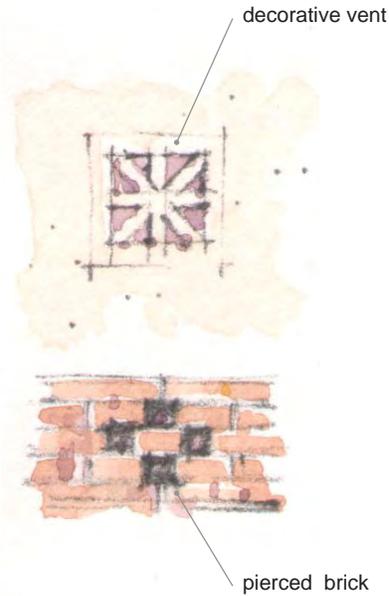
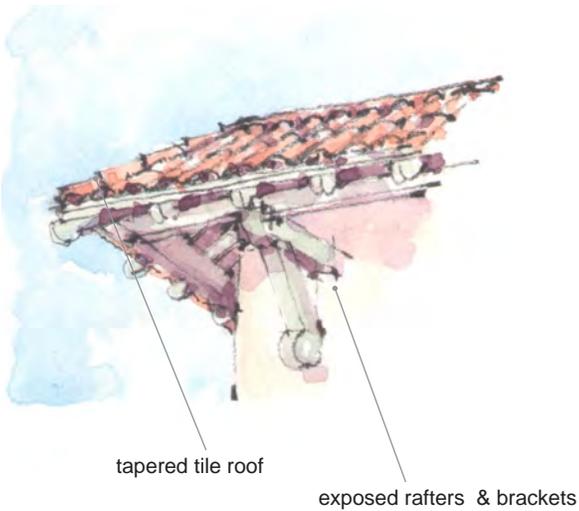
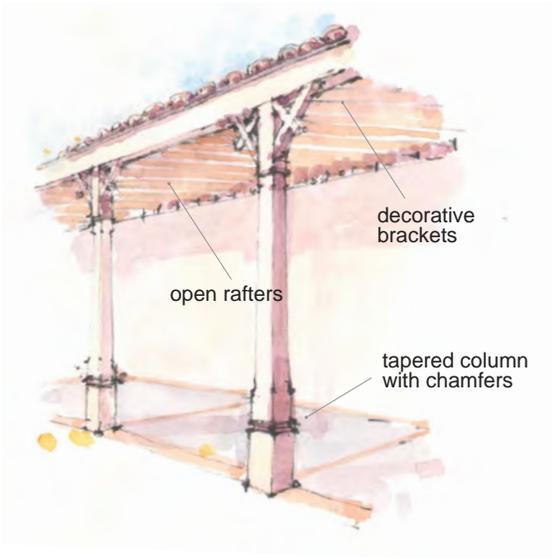
☼	☼	☼	☼	☼	☼	☼	☼	☼	☼	☼
Cottage	House	Duplex / Rowhouse	Apartment House	Courtyard Apartment	Mixed-Use Building	Corner Store	Small Market / Gas Station	Large-Footprint Building	Tall Building	Civic Building



An apartment building with both Mission and Spanish Revival influence



Column Variations

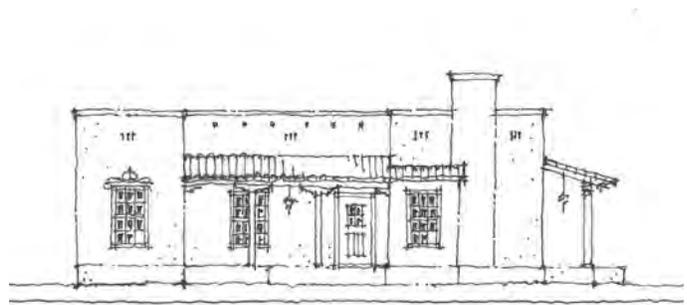


PUEBLO STYLE

This style is inspired by Spanish Colonial and Native American Pueblo architecture. The style can be traced back to the late 1800's early 1900's. Most of the original Pueblo style buildings remain in Arizona and New Mexico, however, the style can be found in other southwestern states.

Characteristics of the Pueblo Style:

- Flat roof with parapet walls
- Corners are rounded
- Projected wooden beams or “vigas” piercing walls
- Stucco, earth-colored exterior finish
- One or two story buildings

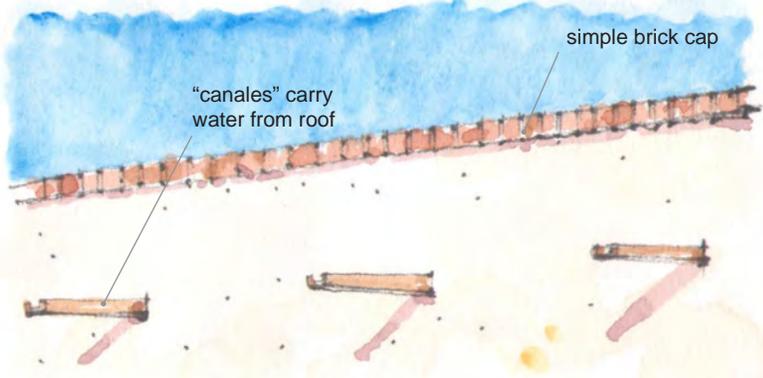
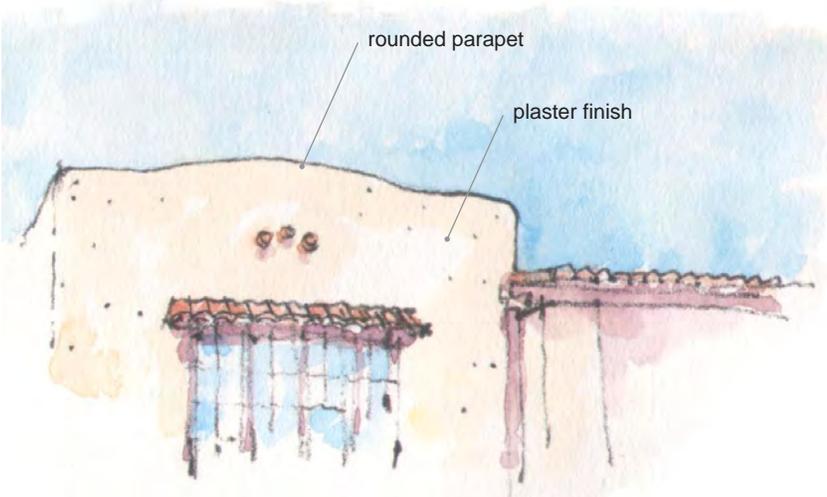


Corner Duplex in the Pueblo Style

Building Type Compatibility Chart

The Pueblo Style in El Paso is appropriate for use with a number of building types. The following chart shall be used to determine appropriateness of style application for the building types listed. An example elevation is shown (right) for one representative building type.

☀	☀	☀		☀		☀	☀				
Cottage	House	Duplex / Rowhouse	Apartment House	Courtyard Apartment	Mixed-Use Building	Corner Store	Small Market / Gas Station	Large-Footprint Building	Tall Building	Civic Building	

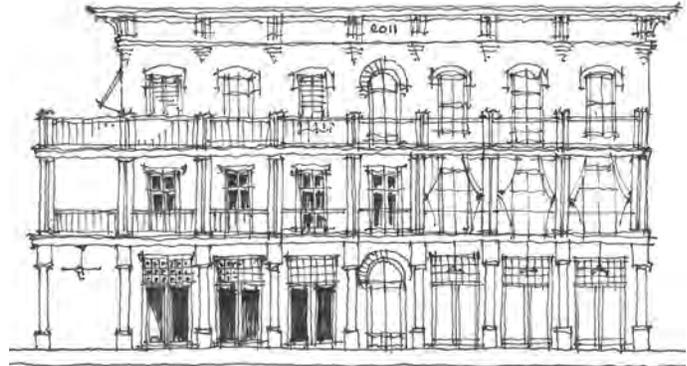


ITALIANATE & VICTORIAN STYLES

These styles were most prevalent from 1850-1880. Frequently used in expanding cities in the midwest and northeastern seaboard. Examples of these styles in El Paso include the old Officers' Homes at Fort Bliss and many of the original mixed-use buildings along El Paso Street.

Characteristics of the Italianate & Victorian Styles:

- Low pitched roof with wide overhangs
- Overhangs have decorative brackets
- Tall, narrow windows; usually arched or curved
- Windows are ornamented with crowns motifs
- Square cupola or tower

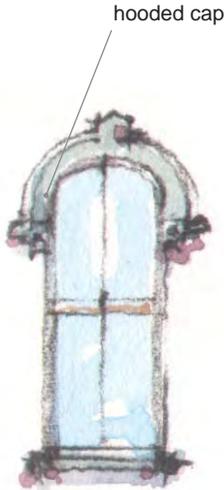


An Italianate mixed-use building

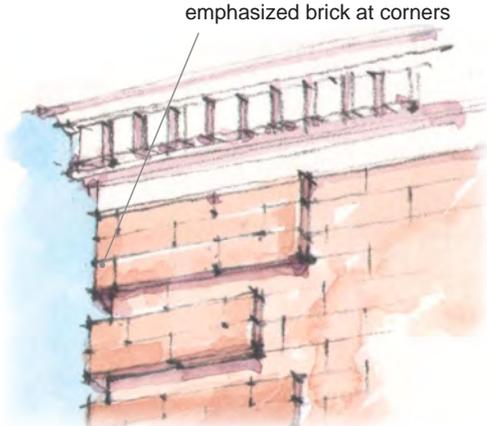
Building Type Compatibility Chart

The Italianate & Victorian styles in El Paso are appropriate for use with a number of building types. The following chart shall be used to determine appropriateness of style application for the building types listed. An example elevation is shown (right) for a representative building type.

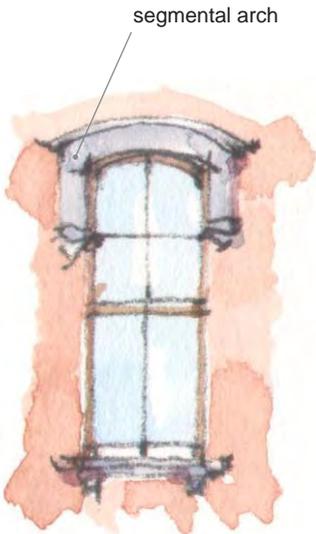
☀	☀		☀		☀	☀	☀			
Cottage	House	Duplex / Rowhouse	Apartment House	Courtyard Apartment	Mixed-Use Building	Corner Store	Small Market / Gas Station	Large-Footprint Building	Tall Building	Civic Building



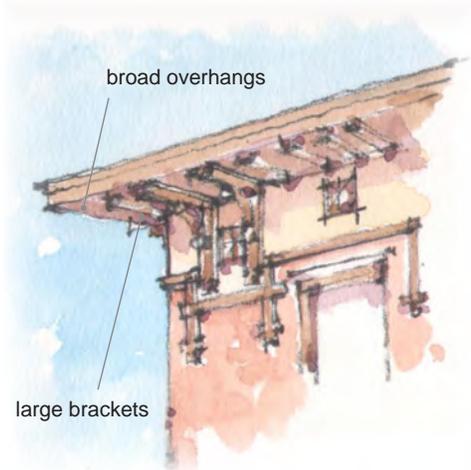
hooded cap



emphasized brick at corners

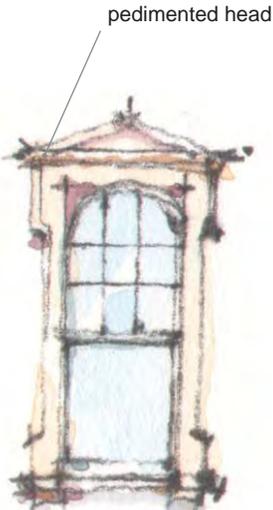


segmental arch

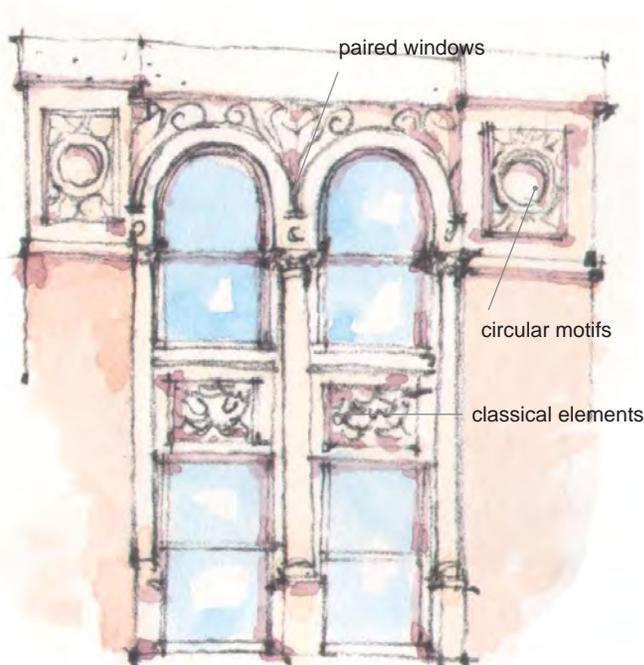


broad overhangs

large brackets



pedimented head



paired windows

circular motifs

classical elements

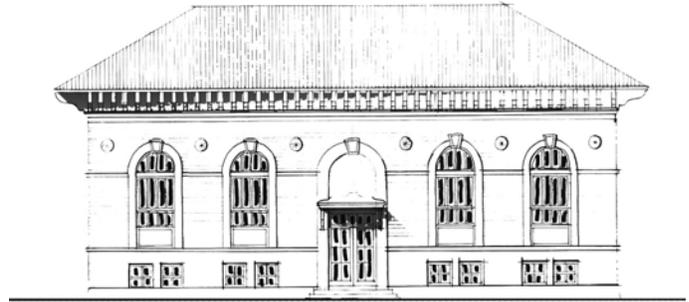
Italianate Windows

NEOCLASSICAL STYLE

This style draws from early classical Roman and Greek precedents. Generally, the style is described as having had two phases. Phase I (from 1900-1920's) in which hipped roofs and elaborate columns were emphasized and Phase II (from 1925-1950's) in which side-gabled roofs and simple slender columns were highlighted. Some examples of this style in El Paso include the Scottish Rite Temple (1921) on Santa Fe Street and El Paso High School (1916).

Characteristics of the Neoclassical Style:

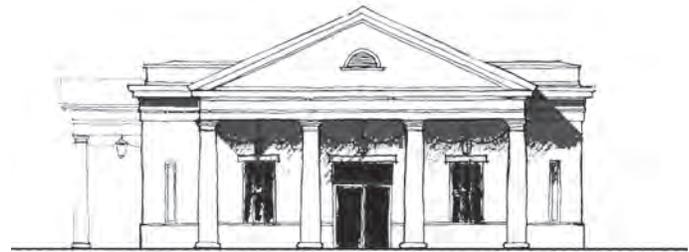
- Full height front porch with classical columns
- Corinthian or Ionic column capitals used
- Symmetrically composed façades



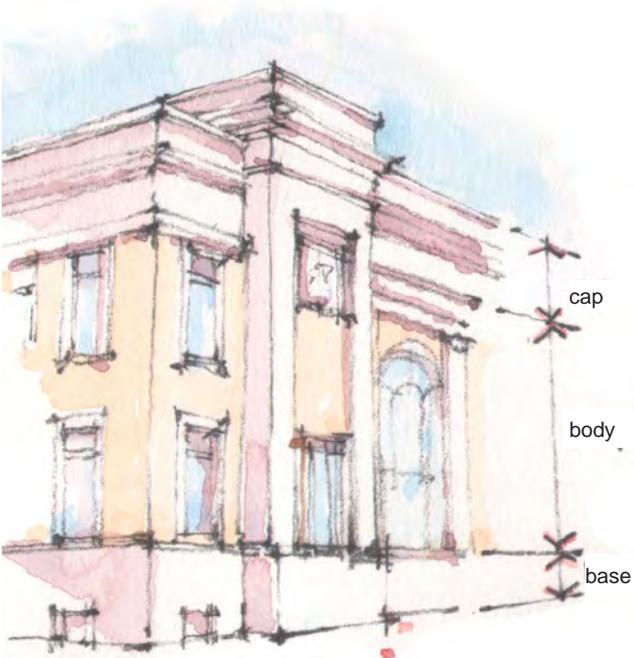
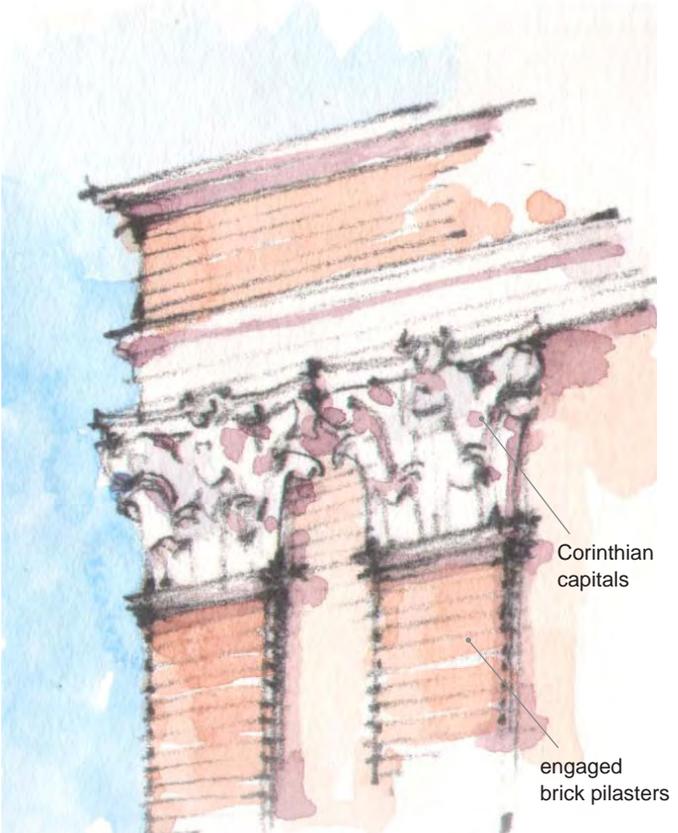
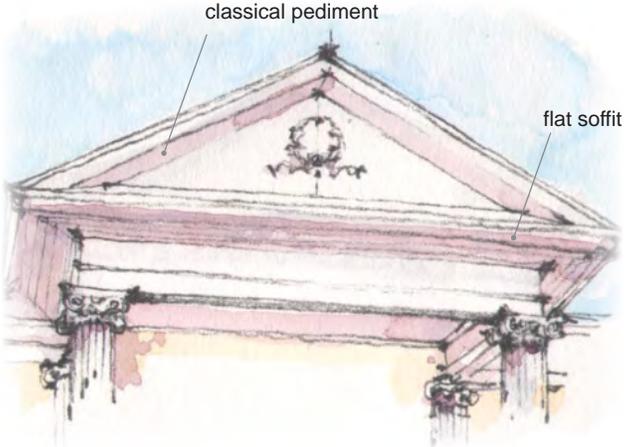
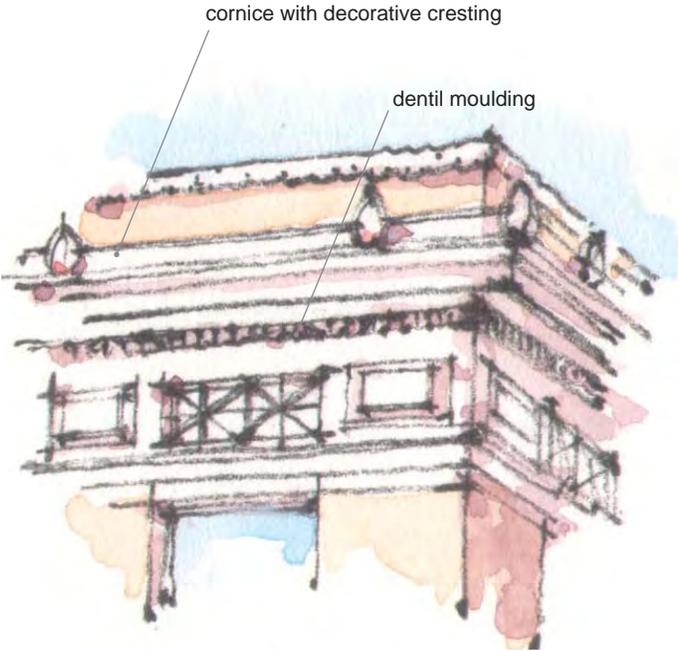
Building Type Compatibility Chart

The Neoclassical style in El Paso is appropriate for use with a number of building types. The following chart shall be used to determine appropriateness of style application for the building types listed.

	☀	☀	☀	☀	☀		☀	☀	☀	
Cottage	House	Duplex / Rowhouse	Apartment House	Courtyard Apartment	Mixed-Use Building	Corner Store	Small Market / Gas Station	Large-Footprint Building	Tall Building	Civic Building



Examples of two civic buildings in the Neo-Classical style



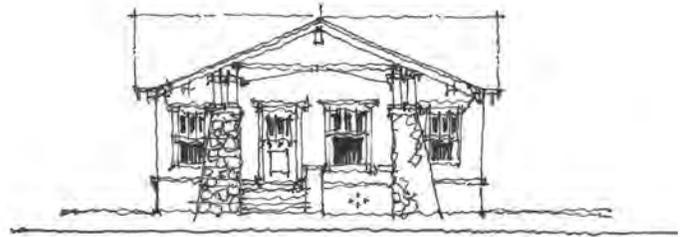
Tri-partite composition

CRAFTSMAN & PRAIRIE STYLES

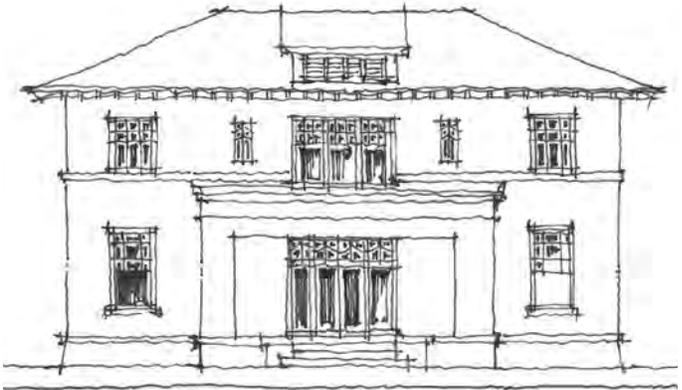
These styles were wide-spread during the first quarter of the 1900's in the early American suburbs. The style quickly spread through the country by pattern books and magazines. Examples of these styles in El Paso include many homes in the Sunset Heights Neighborhood, such as the Bruce Seeton Home (1906).

Characteristics of the Craftsman & Prairie Styles:

- Low-pitched roof; hipped or gabled
- Wide, open overhangs
- Exposed roof rafters
- False beams or braces under gables
- Two-stories with one story wing or porch
- Front porch roof supported by large square, tapered columns extending to the ground
- Details such as columns, eaves, cornices emphasize horizontal lines on the façade



A small Craftsman Style house

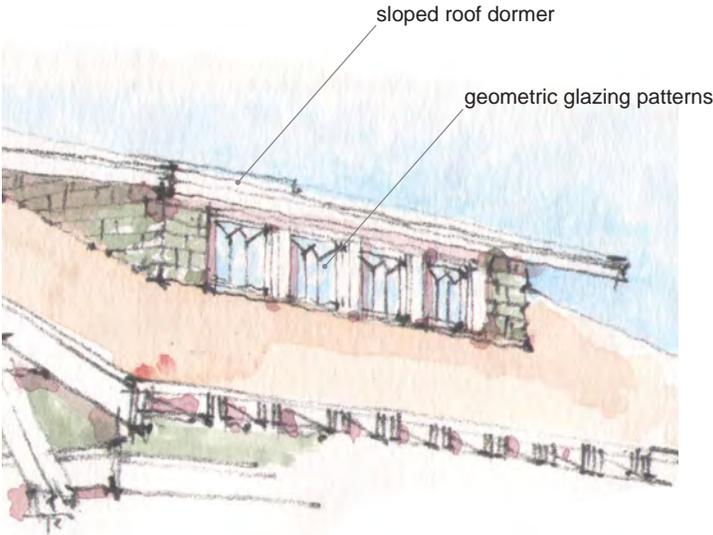
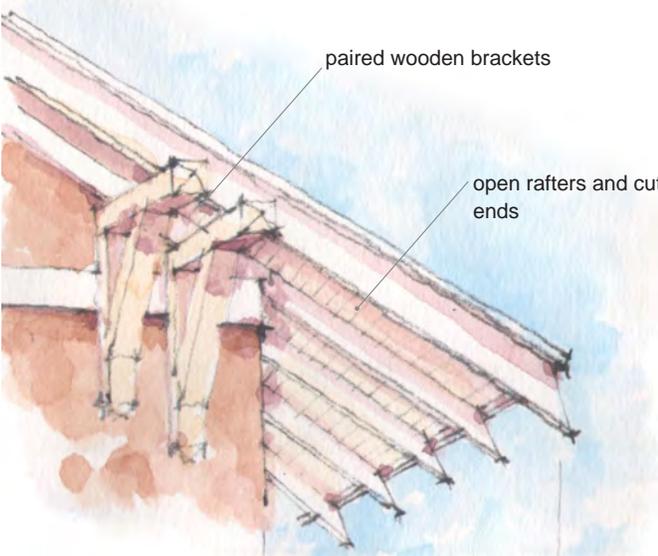


A large Prairie Style house

Building Type Compatibility Chart

The Craftsman & Prairie Styles in El Paso are appropriate for use with a number of building types. The following chart shall be used to determine appropriateness of style application for the building types listed. Example elevations are shown (right) for several representative building types.

☀	☀		☀			☀	☀			
Cottage	House	Duplex / Rowhouse	Apartment House	Courtyard Apartment	Mixed-Use Building	Corner Store	Small Market / Gas Station	Large-Footprint Building	Tall Building	Civic Building



CONTEMPORARY & ECLECTIC STYLES

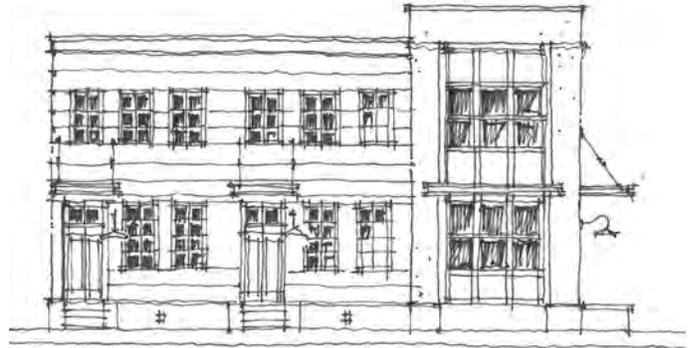
These styles cover a wide range of architectural types which have been prevalent since the middle of the 20th century.

Characteristics of the Contemporary & Eclectic Styles:

- Simple volumes
- Little or no ornamentation
- Large expanses of glass

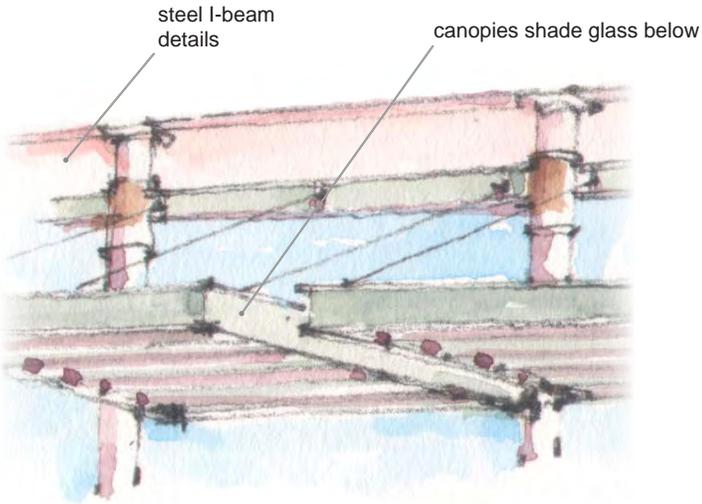
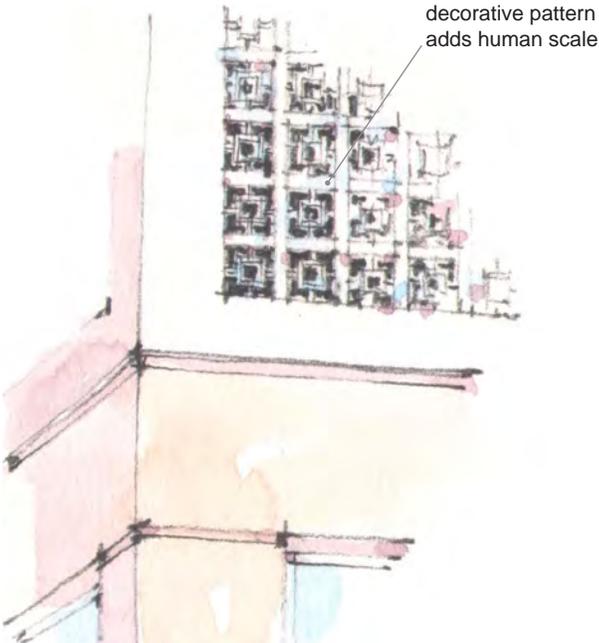
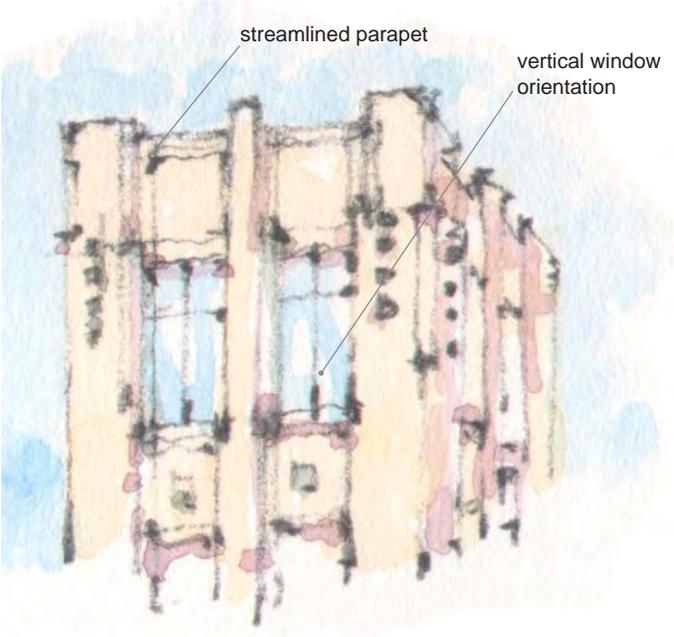
Building Type Compatibility Chart

The Contemporary & Eclectic Styles in El Paso are appropriate for use with a number of building types. The following chart shall be used to determine appropriateness of style application for the building types listed. An example elevation is shown (right) for a representative building type.



Contemporary rowhouses

	☀	☀			☀	☀	☀	☀	☀	
Cottage	House	Duplex / Rowhouse	Apartment House	Courtyard Apartment	Mixed-Use Building	Corner Store	Small Market / Gas Station	Large-Footprint Building	Tall Building	Civic Building



STAFF CHECKLIST

When going through the checklist, mark the answer that applies for each of the questions. If the question isn't applicable, mark the "N/A" box (if provided) or leave blank, and move on to the next question. If a project meets all of the requirements, none of the grey boxes should be marked. In each case, the response in the red box is the desired response.

FOR NEW NEIGHBORHOODS, SUBDIVISIONS AND ANY DEVELOPMENT INVOLVING THE CREATION OF NEW STREETS:

In order to review a project under this section, staff will need from the applicant a site plan showing the locations and sections of proposed new roads, the locations and design of new public open spaces (if applicable), and the calculated block perimeter length for each newly created block.

- 1. Are the perimeters of all newly created blocks less than 2500 linear feet in length (as calculated using the technique shown on page D.5)?

YES	NO
-----	----
- 2. Do any streets end in a cul-de-sac or dead-end?

YES	NO
-----	----
- 3. If yes to #2, is it due to topographic or hydrological conditions?

YES	NO
-----	----
- 4. If yes to #3, are cul-de-sacs and/or dead-end streets less than 200 linear feet in length?

YES	NO
-----	----
- 5. Are street stubs or new right-of-ways provided for future street connections to adjacent vacant sites?

YES	NO
-----	----
- 6. Are all newly created streets, alleys and rear lanes configured in accordance with the thoroughfare designs on page D.16-D.19?

YES	NO
-----	----
- 7. Are all newly created streets, alleys and rear lanes detailed using the appropriate thoroughfare assembly components described on pages D.14-D.15?

YES	NO
-----	----
- 8. Do all newly created non-residential lots and at least 50 percent of residential lots have access to a rear alley/lane?

YES	NO
-----	----
- 9. Is the site between 20 and 100 acres?

YES	N/A
-----	-----
- Is at least 2 percent of the site configured as public open space, according to one or more of the types described on page D.7?

YES	NO
-----	----
- 10. Is the site between 100 and 300 acres?

YES	N/A
-----	-----
- Is at last 4 percent of the site configured as public open space, according to one or more of the types described on page D.7?

YES	NO
-----	----
- 11. Is the site over 300 acres?

YES	N/A
-----	-----
- Is at last 5 percent of the site configured as public open space, according to one or more of the types described on page D.7?

YES	NO
-----	----

FOR ALL NEW NEIGHBORHOODS, SUBDIVISIONS AND DEVELOPMENT INVOLVING THE CREATION OF NEW STREETS AND THE PLATTING OF NEW BUILDING LOTS:

In order to review a project under this section, staff will need from the applicant a site plan indicating all proposed new building lots with labels indicating the type of building which will occupy each lot.

- 12. Do all newly created lots and intended building types meet the descriptions for building / lot types described on pages D.8-D.13?

YES	NO
-----	----

- 13. Do the fronts of any buildings face the backs of any other buildings across streets or public spaces?
- 14. Is the site between 100 and 300 acres?
- Is there at least one site reserved for a civic building, as described on page D.13?
- Are there at least 3 residential lot types, according to the types described on paged D.8-D.9?
- Is there at least one corner store, small market / gas station, or mixed-use building?
- 15. Is the site over 300 acres?
- Are there at least two sites (one of which is a school) reserved for civic buildings, as described on page D.13?
- Are there at least 5 residential lot types, according to the types described on page D.8-D.9?
- Are there at least three of the following: corner store, gas station or mixed-use building, large footprint building?

YES	NO
YES	N/A
YES	NO
YES	NO
YES	NO
YES	N/A
YES	NO
YES	NO
YES	NO

FOR THE CREATION OF ANY NEW STRUCTURE, INCLUDING THE REPLACEMENT OF AN EXISTING STRUCTURE:

In order to review a project under this section, staff will need from the applicant a building site plan (indicating building footprints, all sidewalks and driveways, and garden walls) and complete building elevations for all structures on the site (front, sides and rear) which include the locations of all mechanical equipment.

- 16. If a new parking structure is being proposed, is the structure lined by at least a 15 foot deep habitable space on all sides and on all floors facing a street?
- 17. If the structure contains shopfronts, are all shopfronts sheltered by either an arcade, awning or marquee?
- 18. If the structure has a pitched roof, does the roof configuration require the use of any valleys beyond those to accommodate dormers and chimneys?
- 19. For residential structures, is the first finished floor raised up a minimum of 24 inches above the adjacent level of the sidewalk?
- 20. Do all door and window openings align in logical patterns, and at regular intervals?
- 21. Does the opacity of the buildings' facades which face adjacent streets or public open spaces meet the minimum requirements described on page D.26?
- 22. Does the exterior of the building use more than two cladding materials, excluding those of windows and doors?
- 23. Does the structure have masonry (stone or brick) facades ?
- Do all openings have a header?
- Is the header comprised either of a solid lintel, jack arch, or segmental arch?

YES	NO
YES	N/A
YES	NO
YES	NO

Do all openings have a sill?	YES	NO
24. Does the structure have a flat roof(s)?	YES	N/A
Is there a parapet wall extending up at least 24 inches above the roof around the front and sides of the structure?	YES	NO
25. Does the structure have a gabled roof(s)?	YES	N/A
Is the roof symmetrically pitched on both sides?	YES	NO
Is the pitch of the roof between 35 degrees and 55 degrees?	YES	NO
26. Does the structure have a hipped roof(s)?	YES	N/A
Is the roof symmetrically pitched on all four sides?	YES	NO
Is the pitch of the roof between 25 degrees and 45 degrees?	YES	NO
27. Does the structure have an arcade(s)?	YES	N/A
Is the arcade at least 10 feet deep?	YES	NO
Is the arcade less than 15 feet in height?	YES	NO
Is the roof of the arcade separate from and lower than the roof of the structure to which it's attached?	YES	NO
28. Does the structure have a front porch?	YES	N/A
Is the porch at least 7 feet in depth?	YES	NO
Does the porch stretch across at least 30% of building facade?	YES	NO
29. Does the structure have a front stoop?	YES	N/A
Is the stoop at least 2 feet in depth and 4 feet wide?	YES	NO
Is the stoop covered, either by a separate roof or being recessed into the mass of the building? ...	YES	NO
30. Does the structure have any exterior columns or piers?	YES	N/A
Are the columns or piers positioned correctly under the entablature according to the diagram on page D.42?	YES	NO
Are the columns or piers identical and spaced at regular intervals?	YES	NO
Are the spaces created between the columns or piers either square, or vertically proportioned, with a height to width ratio of no more than 3 to 1?	YES	NO
Are all window openings either square, vertically proportioned, or comprised of vertically proportioned elements?	YES	NO

CHARTER OF THE NEW URBANISM

E

Charter of the New Urbanism E.2

CHARTER OF THE NEW URBANISM

The Congress for the New Urbanism views disinvestment in central cities, the spread of placeless sprawl, increasing separation by race and income, environmental deterioration, loss of agricultural lands and wilderness, and the erosion of society's built heritage as one interrelated community-building challenge.

WE STAND for the restoration of existing urban centers and towns within coherent metropolitan regions, the reconfiguration of sprawling suburbs into communities of real neighborhoods and diverse districts, the conservation of natural environments, and the preservation of our built legacy.

WE ADVOCATE the restructuring of public policy and development practices to support the following principles: neighborhoods should be diverse in use and population; communities should be designed for the pedestrian and transit as well as the car; cities and towns should be shaped by physically defined and universally accessible public spaces and community institutions; urban places should be framed by architecture and landscape design that celebrate local history, climate, ecology, and building practice.

WE RECOGNIZE that physical solutions by themselves will not solve social and economic problems, but neither can economic vitality, community stability, and environmental health be sustained without a coherent and supportive physical framework.

WE REPRESENT a broad-based citizenry, composed of public and private sector leaders, community activists, and multidisciplinary professionals. We are committed to reestablishing the relationship between the art of building and the making of community, through citizen-based participatory planning and design.

WE DEDICATE ourselves to reclaiming our homes, blocks, streets, parks, neighborhoods, districts, towns, cities, regions, and environment

We assert the following principles to guide public policy, development practice, urban planning, and design:

The region: Metropolis, city, and town

- 1) Metropolitan regions are finite places with geographic boundaries derived from topography, watersheds, coastlines, farmlands, regional parks, and river basins. The metropolis is made of multiple centers that are cities, towns, and villages, each with its own identifiable center and edges.
- 2) The metropolitan region is a fundamental economic unit of the contemporary world. Governmental cooperation, public policy, physical planning, and economic strategies must reflect this new reality.
- 3) The metropolis has a necessary and fragile relationship to its agrarian hinterland and natural landscapes. The relationship is environmental, economic, and cultural. Farmland and nature are as important to the metropolis as the garden is to the house.
- 4) Development patterns should not blur or eradicate the edges of the metropolis. Infill development within existing urban areas conserves environmental resources, economic investment, and social fabric, while reclaiming marginal and abandoned areas. Metropolitan regions should develop strategies to encourage such infill development over peripheral expansion.
- 5) Where appropriate, new development contiguous to urban boundaries should be organized as neighborhoods and districts, and be integrated with the existing urban pattern. Noncontiguous development should be organized as towns and villages with their own urban edges, and planned for a jobs/housing balance, not as bedroom suburbs.
- 6) The development and redevelopment of towns and cities should respect historical patterns, precedents, and boundaries.
- 7) Cities and towns should bring into proximity a broad spectrum of public and private uses to support a regional economy that benefits people of all incomes. Affordable housing should be distributed throughout the region to match job opportunities and to avoid concentrations of poverty.
- 8) The physical organization of the region should be supported by a framework of transportation alternatives. Transit, pedestrian, and bicycle systems should maximize access and mobility throughout the region while reducing dependence upon the automobile.
- 9) Revenues and resources can be shared more cooperatively among the municipalities and centers within regions to avoid destructive competition for tax base and to promote rational coordination of transportation, recreation, public services, housing, and community institutions.

The neighborhood, the district, and the corridor

- 1) The neighborhood, the district, and the corridor are the essential elements of development and redevelopment in the metropolis. They form identifiable areas that encourage citizens to take responsibility for their maintenance and evolution.
- 2) Neighborhoods should be compact, pedestrian friendly, and mixed-use. Districts generally emphasize a special single use, and should follow the principles of neighborhood design when possible. Corridors are regional connectors of neighborhoods and districts; they range from boulevards and rail lines to rivers and parkways.
- 3) Many activities of daily living should occur within walking distance, allowing independence to those who do not drive, especially the elderly and the young. Interconnected networks of streets should be designed to encourage walking, reduce the number and length of automobile trips, and conserve energy.
- 4) Within neighborhoods, a broad range of housing types and price levels can bring people of diverse ages, races, and incomes into daily interaction, strengthening the personal and civic bonds essential to an authentic community.
- 5) Transit corridors, when properly planned and coordinated, can help organize metropolitan structure and revitalize urban centers. In contrast, highway corridors should not displace investment from existing centers.
- 6) Appropriate building densities and land uses should be within walking distance of transit stops, permitting public transit to become a viable alternative to the automobile.
- 7) Concentrations of civic, institutional, and commercial activity should be embedded in neighborhoods and districts, not isolated in remote, single-use complexes. Schools should be sized and located to enable children to walk or bicycle to them.
- 8) The economic health and harmonious evolution of neighborhoods, districts, and corridors can be improved through graphic urban design codes that serve as predictable guides for change.
- 9) A range of parks, from tot-lots and village greens to ballfields and community gardens, should be distributed within neighborhoods. Conservation areas and open lands should be used to define and connect different neighborhoods and districts.

The block, the street and the building

- 1) A primary task of all urban architecture and landscape design is the physical definition of streets and public spaces as places of shared use.
- 2) Individual architectural projects should be seamlessly linked to their surroundings. This issue transcends style.
- 3) The revitalization of urban places depends on safety and security. The design of streets and buildings should reinforce safe environments, but not at the expense of accessibility and openness.
- 4) In the contemporary metropolis, development must adequately accommodate automobiles. It should do so in ways that respect the pedestrian and the form of public space.
- 5) Streets and squares should be safe, comfortable, and interesting to the pedestrian. Properly configured, they encourage walking and enable neighbors to know each other and protect their communities.
- 6) Architecture and landscape design should grow from local climate, topography, history, and building practice.
- 7) Civic buildings and public gathering places require important sites to reinforce community identity and the culture of democracy. They deserve distinctive form, because their role is different from that of other buildings and places that constitute the fabric of the city.
- 8) All buildings should provide their inhabitants with a clear sense of location, weather and time. Natural methods of heating and cooling can be more resource-efficient than mechanical systems.
- 9) Preservation and renewal of historic buildings, districts, and landscapes affirm the continuity and evolution of urban society.

GLOSSARY

F

Definitions F.2

DEFINITIONS

This Element provides definitions for terms in the Comprehensive Plan that are technical in nature, or that otherwise may not reflect a common usage of the term. If a term is not defined, then the City shall determine the correct definition.

ACCESSORY DWELLING UNIT: A subordinate living unit added to, created within, or detached from a single family dwelling that provides basic requirements for independent living, (i.e. sleeping, eating, cooking and sanitation).

ALBEDO: the fraction of solar energy reflected by an object. High albedo surfaces reflect solar energy and are lighter in color; low albedo surfaces absorb energy and are darker in color.

ALLEY: a vehicular way located the rear of Lots providing a location for utility easements and access to service areas, parking, and outbuildings.

APARTMENT: a residential unit sharing a building and a Lot with other units and/or uses; may be for rent, or for sale as a condominium.

AQUIFER: a water-bearing geologic formation, sometimes confined between clay layers and sometimes on the surface. Aquifers are typically the source of ground water for drinking and irrigation.

ARCADE: a Private Frontage conventional for retail use wherein the Façade is a colonnade supporting habitable space that overlaps the sidewalk, while the Façade at sidewalk level remains at the Frontage Line.

ARROYO: a shallow, moist ravine carved over many years by rainfall moving across the earth. Arroyos feature a high degree of biodiversity and are an important part of the local ecology and landscape and the regional drainage pattern.

ARTERIAL: a Thoroughfare that is intended to provide the highest level of service at suburban speeds for the longest uninterrupted distance with some degree of access control. Arterials, therefore, provide higher levels of vehicle mobility and lower levels of land access.

AVENUE: a Thoroughfare of high vehicular capacity and low to moderate speed, acting as a short distance connector between urban centers, and usually equipped with a landscaped median.

BABY CAFÉ: a free drop-in center and support system for breastfeeding mothers. A certified lactation consultant is available to counsel mothers on a variety of issues including physical needs and troubleshooting. Nursing mothers are also encouraged to visit with other mothers regarding the challenges of breastfeeding.

BASE REALIGNMENT AND CLOSURE (BRAC): a process of the United States federal government directed at the administration and operation of the Armed Forces, used by the United States Department of Defense (DoD) and Congress to close excess military installations and realign the total asset inventory to reduce expenditures on operations and maintenance, aimed at achieving increased efficiency in line with Congressional and DoD objectives.

BICYCLE BOULEVARD: a low-speed street that prioritizes bicycle travel over other modes, though also allows local vehicle traffic.

BICYCLE TREATMENTS: typically on-street bicycling improvement strategies, such as signed bicycle routes or striped bicycle lanes; on-street bicycle lanes can also be buffered, separated, colored or otherwise made distinct from general travel lanes

BICYCLE SHED: an area that is centered on a Common Destination. Its size is related to average cycling distances for the applicable Community type.

BIODIVERSITY: the variety of living things; it includes the variety of living organisms and the communities and ecosystems in which they occur.

BIOFUEL: a type of fuel whose energy is derived from biological carbon fixation. Biofuels include fuels derived from Biomass conversion, as well as solid Biomass, liquid fuels and various biogases.

BIOMASS: the incineration of plants and organic material in order to generate power. This may include the burning of certain waste products such as agricultural detritus. Biomass can also serve as the basis for extracting liquid fuels, or Biofuels.

BLOCK: the aggregate of private Lots, passages, Alleys and rear lanes, circumscribed by Thoroughfares.

BOLSON: a desert valley surrounded by mountains, with a shallow lake at the centre. (See Aquifer).

BOSQUE: the name for areas of forest found along the Riparian Flood Plains of stream and river banks.

BUS RAPID TRANSIT (BRT): a rubber tire system with its own Right-of-Way or dedicated lane along at least 70% of its route, providing transit service that is faster than a regular bus.

CAMINO REAL REGIONAL MOBILITY AUTHORITY(CRRMA): an authority that funds and implements regionally-significant transportation projects.

CAPACITY EXPANSION: typically, a transportation investment that increases vehicular capacity, such as widening a roadway

COLLECTOR: in conventional roadway classification terms, surface streets (non-freeways) that typically connect residential areas to arterials; local examples include Festival Drive, Rutherford Drive, and Bob Mitchell Drive

- COMPREHENSIVE MOBILITY PLAN (CMP):** the Camino Real Regional Mobility Authority's list of funded regional projects
- COMMUNITY:** a regulatory category defining the physical form, density, and extent of a settlement.
- CONCENTRATED ANIMAL FEEDING OPERATION (CAFO):** a term that was first coined by the United States' Environmental Protection Agency (EPA) to describe animal agricultural facilities that have a potential pollution profile. Specifically, the EPA defines a CAFO as an animal feeding operation (AFO) that (a) confines animals for more than 45 days during a growing season, (b) in an area that does not produce vegetation, and (c) meets certain size thresholds.
- CALICHE:** a sedimentary rock, a hardened deposit of calcium carbonate. This calcium carbonate cements together other materials, including gravel, sand, clay, and silt.
- CARBON FOOTPRINT:** a measure of the total amount of carbon dioxide (CO₂) and methane (CH₄) emissions of a defined population, system or activity, considering all relevant sources, sinks and storage within the boundary of the population, system or activity of interest.
- CARBON SEQUESTRATION:** the long-term storage of carbon dioxide (CO₂) or other forms of carbon to either mitigate or defer global warming and avoid dangerous climate change. It has been proposed as a way to slow the atmospheric and marine accumulation of Greenhouse Gases, which are released by burning Fossil Fuels.
- CARBON SINK:** a natural or artificial reservoir that accumulates and stores some carbon-containing chemical compound for an indefinite period. The process by which carbon sinks remove carbon dioxide (CO₂) from the atmosphere is known as Carbon Sequestration.
- CERTIFICATE OF CONVENIENCE AND NECESSITY (CCN):** a certificate from a public board or commission required by federal or state statute before engaging in certain public undertakings or services to protect existing franchises against injurious competition.
- CHARRETTE:** a planning session in which participants brainstorm and visualize solutions to a design issue. Charrettes provide a forum for ideas and offer the unique advantage of giving immediate feedback to designers while giving mutual authorship to the plan by all those who participate. The term "charrette" comes from the French term for "little cart" and refers to the final intense work effort expended by architects to meet a project deadline. At the Ecole de Beaux Arts in Paris during the 19th century, proctors circulated with little carts to collect final drawings, and students would jump on the charrette to put finishing touches on their presentations minutes before their deadlines.
- CIVIC ART:** monuments, statuary, sculpture, memorials, fountains, and other architectural elements sited in public spaces visible to all. A broader definition is the sum total of the architecture, public spaces, monuments, urban design, and landscape of a city. See Public Art.
- CIVIC BUILDING:** a building operated by not-for-profit organizations dedicated to arts, culture, education, recreation, government, transit, and municipal parking, or for use approved by the legislative body.
- CIVIC SPACE:** an outdoor area dedicated to public activities. Civic spaces may be Parks, Plazas, playgrounds, or Civic Building sites.
- CLUSTERED LAND DEVELOPMENTS (CLD):** a Community type structured by a Standard Pedestrian Shed oriented toward a Common Destination such as a general store, meeting hall, schoolhouse, or church. CLD takes the form of a small settlement standing free in the countryside.
- COLLECTOR ROAD:** A Thoroughfare that provides a less highly developed level of service at a lower speed for shorter distances than an Arterial, by collecting traffic from Local Roads and connecting them with Arterials. Collectors specifically balance vehicle mobility and land access.
- COLONNADE:** a long sequence of columns joined by their entablature, often free-standing, or part of a building.
- COMMON DESTINATION:** an area of focused Community activity, usually defining the approximate center of a Pedestrian Shed. It may include without limitation one or more of the following: a Civic Space, a Civic Building, a commercial center, or a transit station, and may act as the social center of a neighborhood.
- COMMUNITY:** a regulatory category defining the physical form, density, and extent of a settlement. The three Community types are CLD, TND, and RCD. Variants of TND and RCD for Infill are called Infill TND and Infill RCD. The TOD Community type may be created by an overlay on TND or RCD.
- COMMUNITY FOOD ASSESSMENT (CFA):** a tool to locate and identify Food Deserts, which are districts that have little or no access to fresh and healthful food.
- COMMUNITY SUPPORTED AGRICULTURE (CSA):** a community of individuals who pledge support to a farming operation where the growers and consumers share the risks and benefits of food production. CSAs usually consist of a system of weekly delivery or pick-up of vegetables and fruit, in a vegetable box scheme, and sometimes includes dairy products and meat.

COMMUNITY GARDEN: A Community Garden is a piece of land gardened by a group of people. Community gardens provide access to fresh produce and plants as well as neighborhood improvement, sense of community, and connection to the environment. They are publicly functioning in terms of ownership, access and management, as well as typically owned in trust by local governments or non-profits.

COMPLETE STREETS: a policy for the design and operation of Thoroughfares enabling safe access for all users. By adopting a Complete Streets policy, communities direct their transportation planners and engineers to routinely design and operate the entire right of way to enable safe access for all users, regardless of age, ability, or mode of transportation.

CONDOMINIUM: a for sale residential unit sharing a building and a Lot with other units and/or uses.

CONGESTION PRICING: the concept of charging a toll that varies by the amount of congestion on a transportation facility, usually on a freeway during rush hour.

CONGESTION PRICING: the concept of charging a toll that varies by the amount of congestion on a transportation facility, usually on a freeway during rush hour.

CONNECTIVITY: the number of publicly accessible street intersections per square mile, including intersections of streets with dedicated alleys and transit rights-of-way, and intersections of streets with non-motorized rights-of-way. If one must both enter and exit an area through the same intersection, such an intersection and any intersections beyond that point are not counted; intersections leading only to culs-de-sac are also not counted.

CONTEXT SENSITIVE SOLUTIONS (CSS): the planning, design, and implementation of transportation infrastructure and facilities that are in scale and character with surrounding land uses in a way that minimizes negative transportation effects and provides value to adjacent land uses through design, aesthetics, and other techniques.

CORRIDOR: a lineal geographic system incorporating transportation and/or greenway trajectories. A transportation Corridor may be a lineal Transect Zone.

CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN (CPTED): a multi-disciplinary approach to deterring criminal behavior through environmental design. CPTED strategies rely upon the ability to influence offender decisions that precede criminal acts.

CUL-DE-SAC: a dead-end street with only one inlet/outlet.

CYCLE TRACK: an exclusive bike facility that has elements of a separated path and on-road bike lane. A Cycle Track, while still within the roadway, is physically separated from motor traffic and is distinct from the sidewalk.

DARK SKY: a movement to reduce light pollution so people can see the stars, to reduce the effects of unnatural lighting on the environment, and to cut down on energy usage.

DESALINATION: any of several processes that remove some amount of salt and other minerals from water.

DISCRETIONARY RIDERS: riders who choose to ride transit though they have other travel options.

DROUGHT-TOLERANT: adapted to arid or drought conditions

EDIBLE LANDSCAPE: the replacement of plants that are strictly ornamental with plants that produce food. Edible landscaping allows the creation of a multi-functional landscape that provides returns (fruits, vegetables, etc.) on the investment of water, fertilizer, and time.

ENDEMIC SPECIES: a species that cannot be found anywhere else on earth.

EUCLIDEAN ZONING: the segregation of land uses into specified geographic districts and dimensional standards stipulating limitations on development activity within each type of district.

EXOTIC SPECIES: a plant introduced from another geographic region to an area outside its natural range. For the purpose of this plan, this term shall be used primarily to describe conventionally cultivated and hybridized species of non-native plants that are non-invasive.

EXTRA TERRITORIAL JURISDICTION (ETJ): the legal ability of a government to exercise authority beyond its normal boundaries.

FAÇADE: the exterior wall of a building that is set along a Frontage Line.

FARM-TO-TABLE: a movement concerned with producing food locally and delivering that food to local consumers. Linked to the local food movement, the movement is promoted by some in the agriculture, food service, and restaurant communities. It may also be associated with Organic Farming initiatives, Sustainable agriculture, and Community Supported Agriculture.

FEDERAL HIGHWAY ADMINISTRATION (FHWA): the federal agency, part of the US Department of Transportation, charged with funding and regulating the nation's roadways, freeways and highways.

FIXED GUIDEWAY RAIL TRANSIT: any transit service that uses exclusive or controlled Rights-of-Way or rails, entirely or in part. The term includes heavy rail, commuter rail, and light rail.

FLAT: See Apartment.

FLOODPLAIN: the land adjacent to a water body such as a stream, river, lake or ocean that experiences occasional flooding.

FOOD DESERT: A district that has little or no access to fresh and healthful food.

- FOOD MILES:** the distance that food must travel, and the associated pollution and fuel consumption associated with long-distance food transport.
- FOSSIL FUEL:** fuel formed by natural processes such as anaerobic decomposition of buried dead organisms. The age of the organisms and their resulting fossil fuels is typically millions of years, and sometimes exceeds 650 million years. The fossil fuels, which contain high percentages of carbon, include coal, petroleum, and natural gas.
- FRONTAGE LINE:** a Lot line bordering a Public Frontage. Façades facing Frontage Lines define the public realm and are therefore more regulated than the elevations facing other Lot lines.
- GALLERY:** a Private Frontage conventional for retail use wherein the Façade is aligned close to the Frontage Line with an attached cantilevered shed or lightweight colonnade overlapping the sidewalk.
- GAZEBO:** a pavilion structure, sometimes octagonal, that may be built, in Parks, gardens, and public areas. Gazebos are freestanding or attached to a garden wall, roofed, and open on all sides; they provide shade, shelter, ornamental features in a landscape, and a place to rest
- GEOTHERMAL:** thermal energy generated and stored in the Earth. Geothermal power is considered to be sustainable because any projected heat extraction is small compared to the Earth's heat content.
- GRAYFIELD:** a shopping mall with a high vacancy rate or a low consumer traffic level, or that is dated or deteriorating in some manner.
- GREEN:** a Civic Space for unstructured recreation, spatially defined by landscaping rather than building frontages.
- GREEN INFRASTRUCTURE DESIGN (GID):** a general term for managing stormwater through an interconnected network of parks, preserves, arroyos, wetlands, and native vegetation.
- GREENHOUSE GAS (GHG):** gases which contribute to the greenhouse effect. The gases may be caused by natural processes or from human activities such as the burning of Fossil Fuels. Greenhouse gases include carbon dioxide, methane, nitrous oxide, and ozone.
- GROUNDWATER:** all water below the surface of the land. It is water found in the pore spaces of bedrock or soil, and it reaches the land surface through springs or it can be pumped using wells.
- GROUNDWATER RECHARGE:** a hydrologic process where water moves downward from surface water to groundwater. Recharge occurs both naturally (through the water cycle) and anthropologically (i.e., "artificial groundwater recharge"), where rainwater and or reclaimed water is routed to the subsurface.
- GROWTH MANAGEMENT:** a term that encompasses a whole range of policies designed to control, guide, or mitigate the effects of growth.
- GROWTH SECTOR:** areas where new growth should be directed. Typically along the intersections of major or minor Arterial roads which could eventually host potential Transit routes.
- HANDLEBAR SURVEY:** the technique of assessing bicycling facilities and conditions while riding a bicycle.
- HEADWAY:** a measurement of the distance/time between vehicles in a transit system. It is most commonly measured as the distance from the tip of one vehicle to the tip of the next one behind it, expressed as the time it will take for the trailing vehicle to cover that distance. A "shorter" headway signifies a more frequent service.
- HIGHWAY:** a rural and suburban Thoroughfare of high vehicular speed and capacity. This type is allocated to the more rural Transect Zones (T1, T2, and T3).
- IMPACT FEE:** A cost imposed on new development to fund public facility improvements required by new development and ease fiscal burdens on localities.
- IMPERVIOUS SURFACE:** any surface through which rainfall cannot pass or be effectively absorbed such as roads, buildings, paved parking lots, sidewalks etc.
- INFILL:** noun – new development on land that had been previously developed, including most greyfield and brownfield sites and cleared land within urbanized areas; verb – to develop such areas.
- INTELLIGENT TRANSPORTATION SYSTEMS (ITS):** the use of technology-based strategies to improve transportation operations and performance.
- INTERCITY TRAVEL:** travel between cities of distance, such as between El Paso and Las Cruces, as distinct from travel within cities or between adjacent cities.
- INTERNAL CAPTURE:** the trips that occur within a specific area, such as a neighborhood, that therefore does not burden the regional transportation network; an example is the ability to walk from home to a coffee shop within a neighborhood instead of having to drive to one farther away .
- INVASIVE PLANT SPECIES:** a noxious exotic plant reproducing outside its natural range and outside cultivation that disrupts naturally occurring plant communities by altering structure, composition, natural processes or habitat quality.
- ISTEA, TEA-21, SAFETEA-LU:** : iterations of federal transportation funding authorization and legislation, which provides funding and regulations for transportation planning and projects; SAFETEA-LU is the current version.

ISTEA, TEA-21, SAFETEA-LU: : iterations of federal transportation funding authorization and legislation, which provides funding and regulations for transportation planning and projects; SAFETEA-LU is the current version.

LANDFILL GAS: a complex mix of different gases created by the action of microorganisms within a landfill. The gases produced within the landfill can be collected and flared off or used to produce heat or electricity.

LAW OF THE INDIES: a comprehensive guide composed of 148 ordinances to aid Spanish colonists in locating, building, and populating settlements. They codified the city planning process and represented some of the first attempts at a general plan. Signed in 1573, the Laws of the Indies are seen as the first wide-ranging guidelines towards design and development of communities. These laws were heavily influenced by Vitruvius' Ten Books of Architecture and Alberti's treatises on the subject.

LEED: Leadership in Energy and Environmental Design Green Building Rating System is a nationally accepted benchmark for the design, construction, and operation of high performance green buildings. Administered by the U.S. Green Building Council, LEED promotes a whole-building approach to sustainability by recognizing performance in five key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality.

LEED-ND: the LEED for Neighborhood Development Rating System integrates the principles of smart growth, urbanism and green building into the first national system for neighborhood design. LEED for Neighborhood Development is a collaboration among USGBC, Congress for the New Urbanism, and the Natural Resources Defense Council. LEED-ND certification provides independent, third-party verification that a development's location and design meet accepted high levels of environmentally responsible, sustainable development.

LIGHT RAIL: is a form of urban rail public transportation that generally has a lower capacity and lower speed than heavy rail and metro systems, but higher capacity and higher speed than traditional street-running tram systems. The term is typically used to refer to rail systems with rapid transit-style features that usually use electric rail cars operating mostly in private Rights-of-Way separated from other traffic but sometimes, if necessary, mixed with other traffic in city streets.

LEVEL OF SERVICE (LOS): : a measure of congestion and performance, typically on an A through F scale; a very congested freeway, for example, would have a "low" level of service (such as LOS F); LOS can also be applied to transit, bicycle, and pedestrian travel modes.

LIFE-CYCLE MAINTENANCE COSTS: the concept that transportation infrastructure maintenance occurs throughout its useful life; for example, a street rebuilt every 15 years will still need regular maintenance during that time.

LIFESTYLE MODEL: a type of regional traffic model that attempts to quantify trip rates by time of day, trip activity, or other factors; lifestyle models are more complex than conventional traffic models with the objective of increasing the accuracy of the model's traffic forecasts.

LINEAR GREEN: See Linear Park.

LINEAR PARK: a park that is much longer than wide. Linear Parks make use of strips of public land next to canals, streams, electrical lines, highways, and shorelines.

LINEAR PEDESTRIAN SHED: A Pedestrian Shed that is elongated along an important Mixed-Use Corridor such as a main street. A Linear Pedestrian Shed extends approximately 1/4 mile from each side of the Corridor for the length of its Mixed-Use portion. The resulting area is shaped like a lozenge. It may be used to structure a TND, RCD, Infill TND, or Infill RCD. (Syn: elongated Pedestrian Shed.)

LINER BUILDING: a building specifically designed to mask a parking lot or a parking structure from a frontage.

LIVABLE: pleasant and convenient to inhabit, preferably without the need for a vehicle to meet daily needs.

LIVE-WORK: a Mixed-Use unit consisting of a commercial and residential function. The commercial function may be anywhere in the unit. It is intended to be occupied by a business operator who lives in the same structure that contains the commercial activity or industry. (Syn.: flexhouse.)

LOCAL ROAD: a Thoroughfare that primarily provides access to land with little or no through movement.

LOCALVORE: those who prefer to eat locally grown/produced food.

LOGGIA: a Gallery or corridor at ground level, sometimes higher, on the Façade of a building and open to the air on one side, where it is supported by columns or pierced openings in the wall.

LONG PEDESTRIAN SHED: a Pedestrian Shed that is an average 1/2 mile radius or 2640 feet, used when a transit stop (bus or rail) is present or proposed as the Common Destination. A Long Pedestrian Shed represents approximately a ten-minute walk at a leisurely pace. It is applied to structure an RCD Community type. See Pedestrian Shed.

LOT: a parcel of land accommodating a building or buildings of unified design. The size of a Lot is controlled by its width in order to determine the grain (i.e., fine grain or coarse grain) of the urban fabric.

- MANSION APARTMENT:** a building that appears to be a large house from the exterior, while on the interior is divided into rental units. This building type allows higher densities while maintaining the appearance of a single family detached house.
- MAQUILADORA:** a concept often referred to as an operation that involves manufacturing in a country that is not the client's. It normally requires a factory, that may import materials and equipment on a duty-free and tariff-free basis for assembly or manufacturing and then "re-exports" the assembled or manufactured product, sometimes back to the originating country. A maquila is also referred to as a "twin plant."
- METROPOLITAN PLANNING ORGANIZATION (MPO):** a federally-mandated and federally-funded transportation policy-making organization that is made up of representatives from local government and governmental transportation authorities.
- MIXED-USE DEVELOPMENT:** development that includes a mixture of complementary land uses. The most common mix of land uses include housing, retail, office, commercial services, and civic uses.
- MONOCULTURE:** the practice of producing or growing one single plant species over a wide area.
- MULTI-FAMILY:** a structure that contains three or more dwelling units that share common walls or floor/ceilings with one or more units. The land underneath the structure is not divided into separate zoning lots. Multi-dwellings include structures commonly called garden apartments and condominiums.
- MULTIMODAL:** the combination of several travel modes within a single corridor or facility; also refers to the ability to choose among several travel modes.
- MULTIWAY BOULEVARD:** a Thoroughfare designed for high vehicular capacity and moderate speed, traversing an urbanized area. Boulevards are usually equipped with slip roads buffering sidewalks and buildings.
- MTP:** The El Paso Metropolitan Planning Organization's Mission Transportation Plan, the agency's federally-required long range transportation plan; also, the City of El Paso's Major Thoroughfare Plan, which shows the location and function of existing and future major transportation facilities.
- NAAQS:** National Ambient Air Quality Standards, the federal requirements and standards for air quality and pollution.
- NATIVE PLANT SPECIES:** a plant occurring within the El Paso region prior to European contact, according to the best scientific and historical documentation. This includes species that are considered indigenous, occurring in natural associations with habitats that existed prior to significant anthropogenic effects.
- NEIGHBORHOOD:** a Neighborhood is compact, pedestrian-friendly, and Mixed-Use. There are five basic design conventions that provide a common thread linking Neighborhoods: identifiable center and edge, walkable size, integrated network of walkable streets, mix of land uses and building types, and special sites for civic purposes. The Neighborhood is the basic increment of town planning. One Neighborhood alone in the countryside is a village. Two or more Neighborhoods grouped together sharing a specialized hub or Main Street is a town. The Neighborhood concept remains in force even as the size increases to city scale. Coupled with special districts and Corridors, Neighborhoods are the building block from which cities are formed.
- NEIGHBORHOOD CENTER:** A proper center has places where the public feels welcome and encouraged to congregate. Typically, at least one outdoor public environment exists at the center of a Neighborhood that spatially acts as the most well-defined outdoor room in the Neighborhood. The best centers are within walking distance of surrounding residential areas, possess a mix of uses, and include higher-density buildings at a pedestrian scale.
- NET EXTERNAL VEHICLE TRIP GENERATION:** the amount of "remaining" vehicle traffic produced within a given area, such as a subdivision, that travel beyond that area after accounting for walking, bicycling, and transit ridership.
- NET METERING:** the practice that allow consumers to produce renewable energy and sell the excess power back to the grid and to the utilities, thereby rolling back meters and their electric bills.
- NEW URBANISM:** a planning movement that promotes the creation and restoration of diverse, walkable, compact, vibrant, Mixed-Use Communities composed of the same components as conventional development, but assembled in a more integrated fashion, in the form of complete Communities.
- NIMBY:** an acronym for the phrase "not in my back yard". The term is typically used to describe opposition by residents to a proposal for a new development close to them.
- OPEN SPACE:** undeveloped land or land that is used for recreation. Farmland as well as all natural habitats (forests, fields, wetlands etc.) are often included in this category.
- ORGANIC FARMING:** the form of agriculture that relies on techniques such as crop rotation, green manure, compost and biological pest control to maintain soil productivity and control pests on a farm.
- PARATRANSIT SERVICE:** also known as "demand response service," a type of transit service for those unable to use or access fixed-route transit service; paratransit is point-to-point transit service that eligible passengers reserve in advance on an as-needed basis.

PARK: a Civic Space type that is a natural preserve available for unstructured recreation.

PARTICULATE MATTER: also known as particle pollution, a mix of very small particles and liquid droplets that together can include acids, organic chemicals, metals, and soil or dust particles.

PASEO: a pedestrian connector that passes between buildings to provide shortcuts through long Blocks and connect rear parking areas to frontages.

PEAK OIL: the notion that we have passed the point of peak global oil production and are entering into a period of steady decline in petroleum.

PEDESTRIAN SHED: an area that is centered on a Common Destination. Its size is related to average walking distances for the applicable Community type. Pedestrian Sheds are applied to structure Communities.

PERIMETER BLOCK: a Block where buildings are built up to the front Property Line along the Street Frontage, reserving the interior of the block as public or private space, or for surface parking or Structured Parking.

PERVIOUS SURFACE: a surface which allows water to filter into the ground, which enables natural groundwater to recharge, helps with filtration of pollutants, and reduces erosion and flooding. The use of pervious asphalt and concrete for parking lots, roads and sidewalks is an important part of stormwater management that conserves precious natural resources.

PLACITA: small plaza. See Plaza.

PLANTING STRIP: a strip of land within the Right-of-Way that separates the sidewalk from the vehicular lanes.

PLAZA: a Civic Space type designed for civic purposes and commercial activities in the more urban Transect Zones, generally paved and spatially defined by building frontages.

POCKET PARK: a small Park accessible to the general public. Although they are too small for physical activities, Pocket Parks provide greenery, a place to sit outdoors, and sometimes a children's playground. They may be created around a monument, historic marker or Civic Art.

POTABLE WATER: water of a quality that is sufficient for human consumption.

PRIVATE FRONTAGE: the privately held layer between the Frontage Line and the principal building Façade.

PROPERTY LINE: the legal boundary of a parcel of land.

PUBLIC ART: any work of art or design that is created by an artist specifically to be sited in a public space or visible from a public space.

PUBLIC FRONTAGE: the area between the curb of the vehicular lanes and the Frontage Line.

PUBLIC SERVICE BOARD (PSB): the Public Service Board was established May 22, 1952, by City Ordinance No. 752 to completely manage and operate the water and wastewater system for the City of El Paso.

PURPLE PIPE: pipe used to distribute reclaimed water in a dual piping network that keeps reclaimed water pipes completely separate from Potable Water pipes. Reclaimed water or recycled water, is former wastewater (sewage) that is treated to remove solids and certain impurities, and used in sustainable landscaping irrigation or to recharge groundwater aquifers.

QUARTER MILE NEIGHBORHOOD: the overall size of a neighborhood, which typically ranges from 40 to 200 acres, that is suitable for walking. Most people will walk approximately one-quarter mile, or five minutes, before turning back or opting to drive or ride a bike.

QUEUE JUMP LANES: Special lanes at intersections that allow buses to bypass vehicle stacking at red lights (known as queues) to improve their on-time performance and "time-competitiveness" with auto travel.

RAIN BARREL: a water tank used to collect and store rain water runoff, typically from rooftops via rain gutters.

RAPID TRANSIT SYSTEM (RTS): a high-quality transit service, more commonly known as Bus Rapid Transit, that offers similar benefits to light rail transit, such as improved speed and reliability, but at a much lower implementation cost.

RECHARGE: water that infiltrates into the ground, usually from above, that replenishes groundwater reserves, provides soil moisture, and affords evapotranspiration.

RECLAIMED WATER: former wastewater (sewage) that is treated to remove solids and certain impurities, and used in sustainable landscaping irrigation or to recharge groundwater aquifers.

REGIONAL CENTER DEVELOPMENTS (RCD): a Community type structured by a Long Pedestrian Shed or Linear Pedestrian Shed, which may be adjoined without buffers by one or several Standard Pedestrian Sheds, each with the individual Transect Zone requirements of a TND. RCD takes the form of a high-density Mixed-Use center connected to other centers by transit.

REGIONAL GROWTH MANAGEMENT PLAN: to address the local impacts of the expansion of Fort Bliss, a Regional Growth Management Plan was prepared in 2008 and 2009. This plan compared the previously anticipated growth in El Paso to three growth scenarios for Fort Bliss, looking at economic development, land use, transportation, utilities, housing, education, health and social services, public safety, quality of life, and fiscal structure.

- RENEWABLE ENERGY:** generation of power from naturally replenished resources such as sunlight, wind, and tides. Renewable energy technologies include solar power, wind power, hydroelectric power, Geothermal, and Biomass.
- RESIDENTIAL COMMUNITY INITIATIVE (RCI):** The RCI program is the cornerstone of the Army's plan to eliminate inadequate military family housing in the U.S. and ensure adequate housing for the long term.
- RIGHT-OF-WAY (ROW):** the strip of land dedicated to public use for pedestrian and vehicular movement, which may also accommodate public utilities. This strip of land is either publicly owned or subject to an easement for Right-of-Way purposes benefiting the general public.
- RIO BRAVO:** the Rio Grande River
- RIPARIAN:** vegetated ecosystems along a waterbody through which energy, materials, and water pass. Riparian areas characteristically have a high water table and are subject to periodic flooding.
- ROAD:** a local, rural and suburban Thoroughfare of low-to-moderate vehicular speed and capacity. This type is allocated to the more rural Transect Zones (T1-T3).
- ROWHOUSE:** a single-family dwelling that shares a party wall with another of the same type and occupies the full Frontage Line. (Syn: Townhouse)
- SAFETY STRIP:** a tool used by traffic engineers to manage vehicular speed while providing flexibility for atypical vehicle movements on a narrow thoroughfare. Safety strips are made of a cobbled texture and are placed between two lanes of opposite direction, and can function as an informal left-turn lane.
- SANBORN MAP:** an American publisher of historical and current maps of U.S. cities and towns that were initially created to estimate fire insurance liabilities. The company's maps are frequently used for preservation and restoration efforts.
- SECTOR MAP:** a map that prioritizes growth in established, compact, complete neighborhoods within the city.
- SHARED USE PATH:** a wide pathway, separated from the street, that is used for both walking and bicycling.
- SHARROW:** shared lane marking, per the Manual of Uniform Traffic Control Devices (MUTCD).
- SHED:** in transportation planning, an area of influence or importance for access and travel using a specific mode, such as a transit shed along a transit route; there are general travel sheds, as well as transit, bicycle, and pedestrian sheds.
- SIGNAL PRIORITIZATION:** an Intelligent Transportation Systems (ITS) technique that extends the "green time" at traffic signals for approaching buses to improve their on-time performance and "time-competitiveness" with auto travel.
- SINGLE FAMILY ATTACHED:** a building that contains one primary dwelling unit per zoning lot in which the dwelling unit shares common walls with its neighbor or in which the side wall(s) abut the adjacent building.
- SINGLE FAMILY DETACHED:** a detached dwelling unit located on an individual zoning lot, designed for, or intended to be occupied by one family.
- SLOW FOOD:** an international movement that strives to preserve traditional and regional cuisine and encourages farming of plants, seeds and livestock characteristic of the local ecosystem.
- SMART GRID:** a digitally enabled electrical grid that gathers, distributes, and acts on information about the behavior of all participants (suppliers and consumers) in order to improve the efficiency, reliability, economics, and sustainability of electricity services.
- SMART GROWTH:** well-planned development that protects Open Space and farmland, revitalizes communities, keeps housing affordable and provides transportation choices. The principles of Smart Growth are based on compact and multi-use development, Infill and redevelopment, expansion of infrastructure, enhanced Livability, expanded mobility, and conservation of Open Space.
- SMART CODE:** a model form-based unified land development ordinance designed to create Walkable Neighborhoods across the full spectrum of human settlement, from the most rural to the most urban, incorporating a Transect of character and intensity within each.
- SOLAR FARM:** a facility where solar powered devices, either photovoltaic (PV) or turbine systems, are clustered. It should be large enough to generate at least one megawatt.
- SOLID WASTE:** a waste type consisting of everyday items that are consumed and discarded. It predominantly includes food wastes, yard wastes, containers and product packaging, and other miscellaneous inorganic wastes from residential, commercial, institutional, and industrial sources.
- SPRAWL:** development patterns where rural land is converted to urban/suburban uses more quickly than needed to house new residents and support new businesses that result in higher than necessary infrastructure or transportation costs.
- SQUARE:** a Civic Space designed for unstructured recreation and civic purposes, spatially defined by building frontages and consisting of paths, lawns, and trees, formally disposed.
- STANDARD PEDESTRIAN SHED:** a Pedestrian Shed that is an average 1/4 mile radius or 1320 feet, about the distance of a five-minute walk at a leisurely pace. See Pedestrian Shed.

STATEWIDE TRANSPORTATION IMPROVEMENT PROGRAM (STIP): a State Department of Transportation’s multi-year listing by timeframe of transportation projects and services for funding and construction; similar to TIP (see below).

STORMWATER: water that originates during precipitation events. Stormwater that does not soak into the ground becomes surface runoff, which either flows directly into surface waterways or is channeled into storm sewers, which eventually discharge to Surface Waters.

STORY: a habitable level within a building, excluding an attic or raised basement.

STREET: a local urban Thoroughfare of low speed and capacity.

STREET FRONTAGE: the private frontage designated to bear the address and principal entrance to the building.

STREETCAR: a passenger rail vehicle which runs on tracks along public urban streets and also sometimes on separate Rights of Way.

STREETS SPACE: the space between the buildings on either side of a street that defines its character. The elements of a streetscape include: building frontage/Façade; landscaping (trees, yards, bushes, plantings, etc.); sidewalks; street paving; street furniture (benches, kiosks, trash receptacles, fountains, etc.); signs; awnings; and street lighting.

STRUCTURED PARKING: a building containing two or more stories of parking above natural grade.

SUBDIVISION: a Subdivision occurs as the result of dividing land into Lots for sale or development.

SUBURBAN RETROFIT: the process of entirely revamping, and in many cases completely replacing, conventional zoning, encompassing the idea of systemic, long-lasting, transformative change. It includes directing new growth into existing areas in keeping with the principles of both New Urbanism and Smart Growth.

SUPERBLOCK: a type of city Block that is much larger than a traditional city Block.

SURFACE WATER: water collecting on the ground or in a stream, river, lake, wetland, or ocean; it is related to water collecting as groundwater or atmospheric water.

SUSTAINABILITY: The basis upon which an organism or a community can manage its own continuing viability, meeting the needs of the present without compromising the ability of future generations to meet their own needs.

SWALE: a low or slightly depressed natural area for drainage.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ): the agency charged with protecting the state’s environmental lands and resources.

THOROUGHFARE: a way for use by vehicular and pedestrian traffic and to provide access to Lots and Open Spaces, consisting of vehicular lanes and the Public Frontage.

TRADITIONAL NEIGHBORHOOD DEVELOPMENT (TND): a Community type structured by a standard Pedestrian Shed oriented toward a Common Destination consisting of a Mixed-Use center or Corridor, and in the form of a medium-sized settlement near a transportation route.

TRANSPORTATION IMPROVEMENT PROGRAM (TIP): the MPO’s multi-year listing by timeframe of transportation projects and services for funding and construction; similar to STIP.

TRANSPORTATION IMPROVEMENT PROGRAM (TIP): the MPO’s multi-year listing by timeframe of transportation projects and services for funding and construction; similar to STIP (see above).

TRAILHEAD: the point at which a trail begins, where the trail is often intended for hiking, biking, horseback riding, or off-road vehicles.

TRANSECT: a cross-section of the environment showing a range of different habitats. The rural-urban Transect of the human environment used in the Comprehensive Plan is divided into Transect Zones. These zones describe the physical form and character of a place, according to the density and intensity of its land use and urbanism.

TRANSECT ZONE: one of several areas on a zoning map regulated by a form-based code. Transect Zones are administratively similar to the land use zones in conventional codes, except that in addition to the usual building use, density, height, and setback requirements, other elements of the intended habitat are integrated, including those of the private Lot and building and Public Frontage.

TRANSIT-ORIENTED DEVELOPMENT (TOD): an overlay on all or part of a TND or RCD, or by designation on a regional plan, permitting increased density, mixture of uses, and special design features to support ridership and usage of rail or Rapid Transit System (RTS).

TRANSPORTATION CONFORMITY REPORT: a report prepared by an MPO documenting that the funded projects contained in its long range transportation plan and TIP will meet federal air quality standards once constructed.

TURFGRASS: a continuous plant coverage consisting of a grass species that is regularly mowed to maintain a desired height. Usually turfgrass consists of one or more exotic species. Native, unmowed grass is not considered Turfgrass.

TxDOT: Texas Department of Transportation.

URBAN HEAT ISLAND EFFECT: the elevated temperatures in developed areas compared to more rural surroundings. Urban heat islands are caused by development and the changes in radiative and thermal properties of urban infrastructure as well as the effects buildings can have on the local micro-climate.

V/C RATIO: the ratio of traffic volume to roadway capacity, used to measure a roadway's congestion level over a defined period of time (such as hourly or daily).

VEHICLE MILES TRAVELED (VMT): refers to vehicle miles traveled and is a standard measure of transportation activity.

VISITABILITY: an international movement to change home construction practices so that virtually all new homes, whether or not designated for residents who currently have mobility impairments, offer three specific accessibility features:

1. At least one zero-step entrance on an accessible route leading from a driveway or public sidewalk,
2. All interior doors providing at least 31 ¾ inches (81 cm) of unobstructed passage space, and
3. At least a half bathroom on the main floor.

VOLATILE ORGANIC COMPOUND (VOC): an organic chemical that has a high vapor pressure at ordinary, room-temperature conditions. The high vapor pressure results from a low boiling point, which causes large numbers of molecules to evaporate or sublime from the liquid or solid form of the compound and enter the surrounding air. VOCs have compounding long-term health effects.

WALKABILITY: a measure of how friendly an area is to walking. Walkability has many health, environmental, and economic benefits. Factors influencing walkability include the presence or absence and quality of footpaths, sidewalks, or other pedestrian Right-of-Ways, traffic and road conditions, land use patterns, building accessibility, and safety, among others.

WASTEWATER: any water that has been adversely affected in quality by anthropogenic influence. It comprises liquid waste discharged by domestic residences, commercial properties, industry, and/or agriculture, and can encompass a wide range of potential contaminants and concentrations.

WATER BUDGET: the scientific method for measuring the amount of water entering, stored within, and leaving a watershed, and it is also called a hydrologic budget or a water balance.

WATER HARVESTING: the accumulating and storing of rainwater for reuse before it reaches the Aquifer.

WAYFINDING: signs, symbols, arrows, markers, textures, and other elements to guide travelers, typically pedestrians, to a destination.

WETLAND: an area having specific hydric soil and water table characteristics supporting or capable of supporting wetlands vegetation.

WIND FARM: a group of wind turbines in the same location used to produce electric power.

WOONERF: a street where pedestrians and cyclists have legal priority over motorists. The techniques of shared spaces, traffic calming, and low speed limits are intended to improve pedestrian, bicycle, and automobile safety.

XERISCAPE: a method of landscaping that emphasizes water conservation, accomplished by following sound horticultural and landscaping practices, such as grouping plants that have similar water needs, choosing drought resistant species, soil improvement, limited or no turf areas, use of mulches, use of low-water demand plants, efficient irrigation practices and appropriate maintenance.