



LOVE EL PASO.
PLAN EL PASO.
PLAN THE FUTURE. NOW.

www.planelpaso.org

Planning for Health & Sustainability

Plan El Paso: A Model Comprehensive Plan for the 21st Century

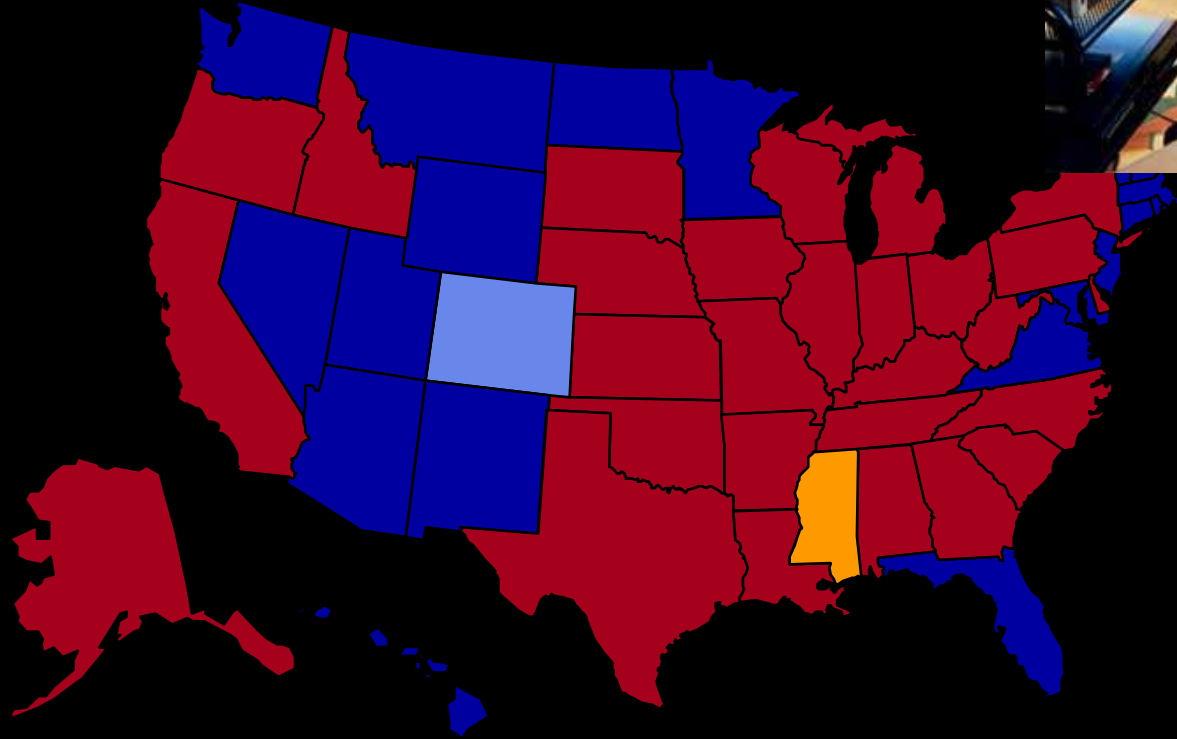
Carlos Gallinar, AICP, CNU-A
City of El Paso, Texas

**“TODAY’S CHILDREN WILL HAVE A SHORTER LIFE
SPAN THAN OUR OWN.”**

--DR. RICHARD JACKSON

national call to action

obesity trends among US adults



No Data <10% 10%-14% 15-19% ≥20% ≥25%

Source: Mokdad AH
CDC Behavioral Risk Factor Surveillance System
Source: Marla Hollander

Nearly 3 out of 10 El Paso children overweight (Center for Disease Control)



Childhood Obesity Facts:

- Childhood obesity has **more than tripled in the past 30 years.**
- The percentage of children aged 6–11 years in the United States who were obese increased **from 7% in 1980 to nearly 20% in 2008.** Similarly, the percentage of adolescents aged 12–19 years who were obese increased from 5% to 18% over the same period.
- In 2008, **more than one third of children and adolescents** were overweight or obese.
- Overweight and obesity are the result of “caloric imbalance”—too few calories expended for the amount of calories consumed—and are affected by various genetic, behavioral, **and environmental factors.**

Source: Centers for Disease Control

Environmental Facts:

- Based on Federal Transportation Surveys, the percentage of children ages 5 to 18 who walked to school **declined from 47% in 1969 to 16% in 2001.**
- Today, according to the 2009 National Household Travel Survey, among five to fourteen year-olds who live within a mile of school, **only 38% usually walk or bike—compared with 90% in 1969.**
- The rise in **rush hour traffic associated with school trips** has been identified by the US EPA as a **key contributor to air quality problems in a number of cities.** And the rising cost of busing students has become a budgetary issue facing schools around the country.

Source: “Walkability and Safe Routes to School”, www.realtor.org

Who's walking to school?

- Children living in urban areas
- Lower-income families are more likely to walk or ride a bicycle to school
- Children aged 6 to 10 were more likely to choose active transportation - walking or cycling over inactive transportation, like riding in a school bus, a car or taking public transportation.

"The study is important for the well-being of children because most children are not meeting physical activity guidelines needed for optimal growth and development," explained Roman Pabayo of the University of Montreal Hospital Research Centre and lead author of the study. "Active transportation to school represents an affordable and easy way to incorporate physical activity in the daily routines of children."

Source: *Pediatrics Journal*

Connecting the Dots

Obesity Rates

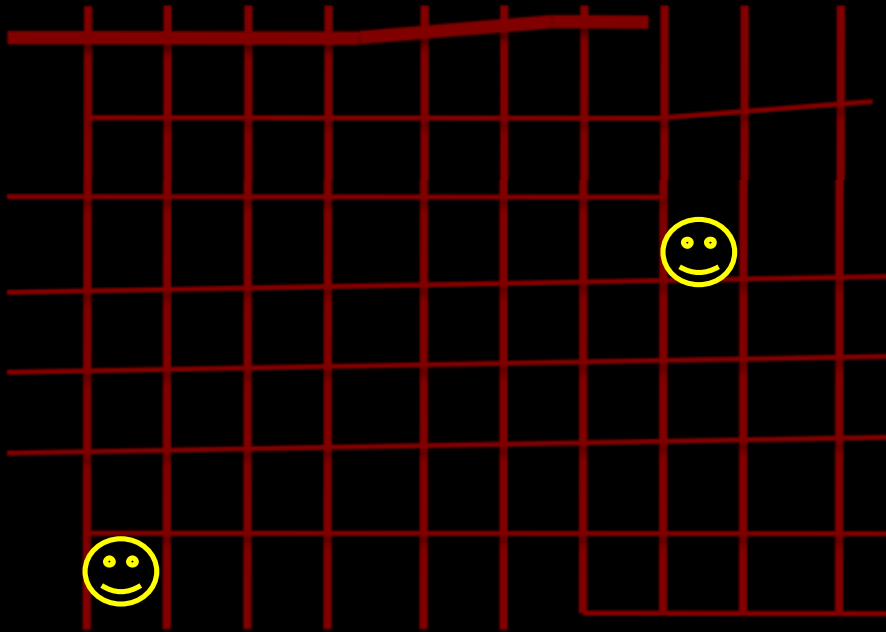
Walkability



The Transportation / Land Use Connection



The Transportation / Land Use Connection



Supports Active Transportation*

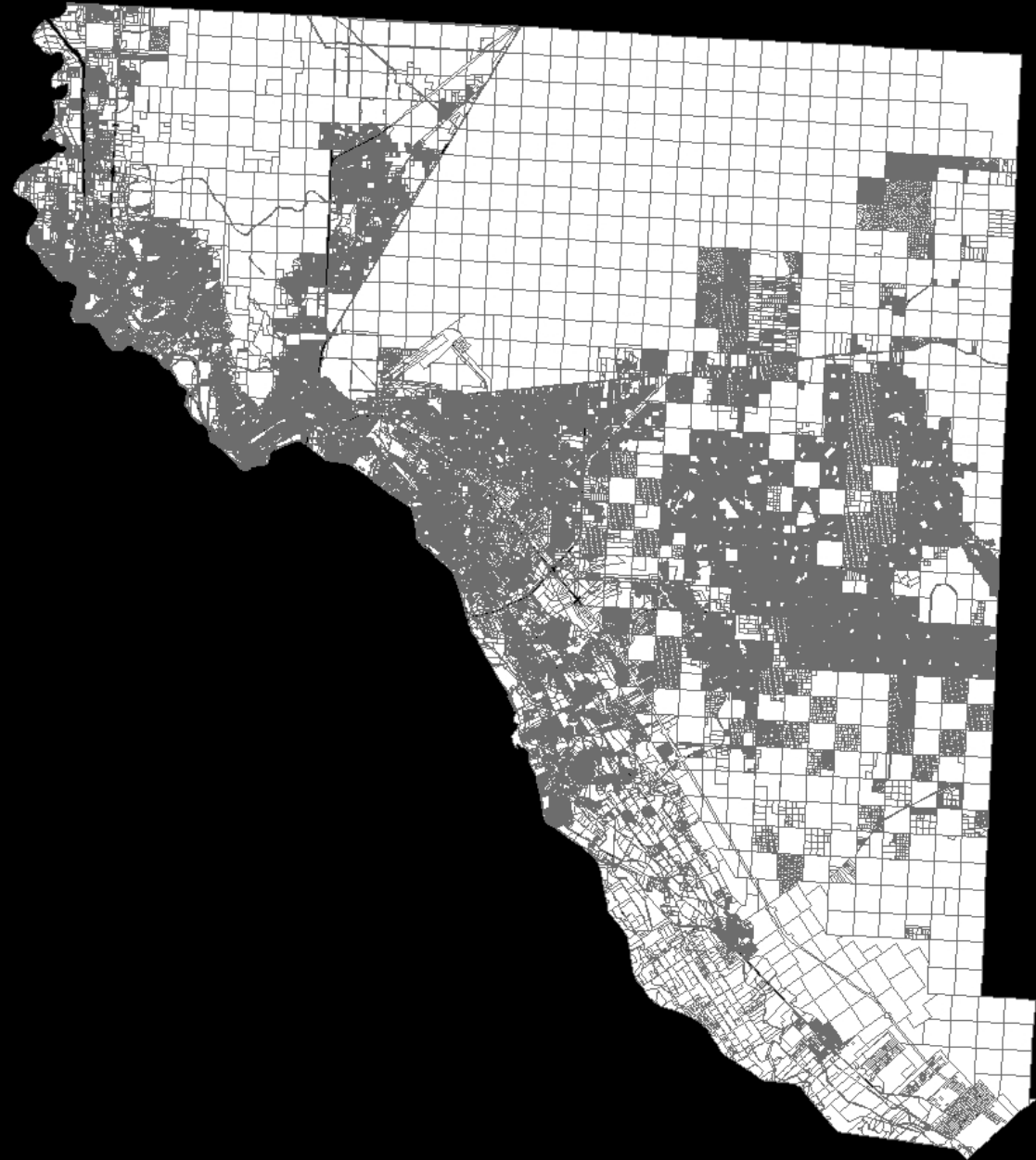
- 9% transit
- 9% walking
- 4% bicycling

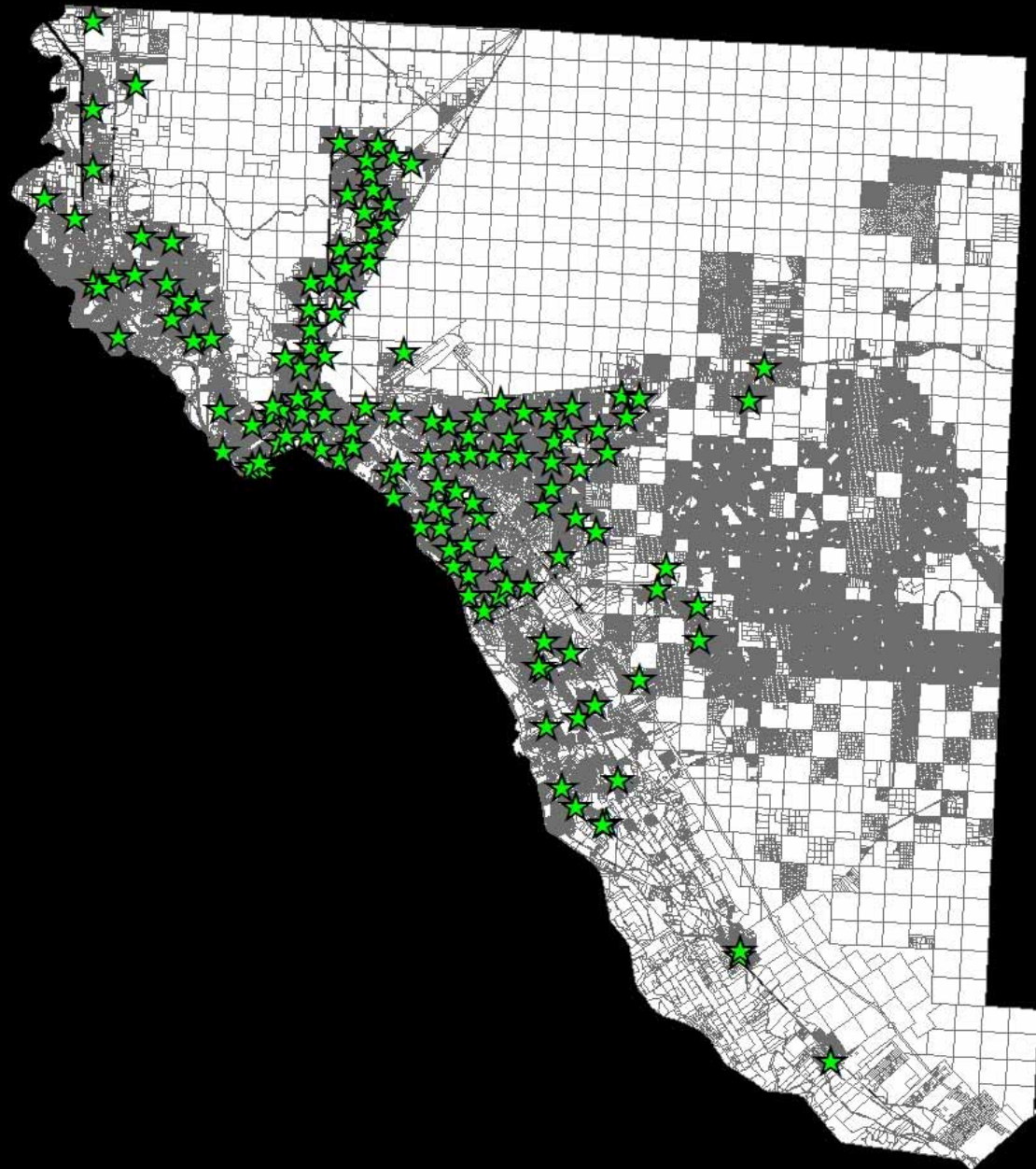


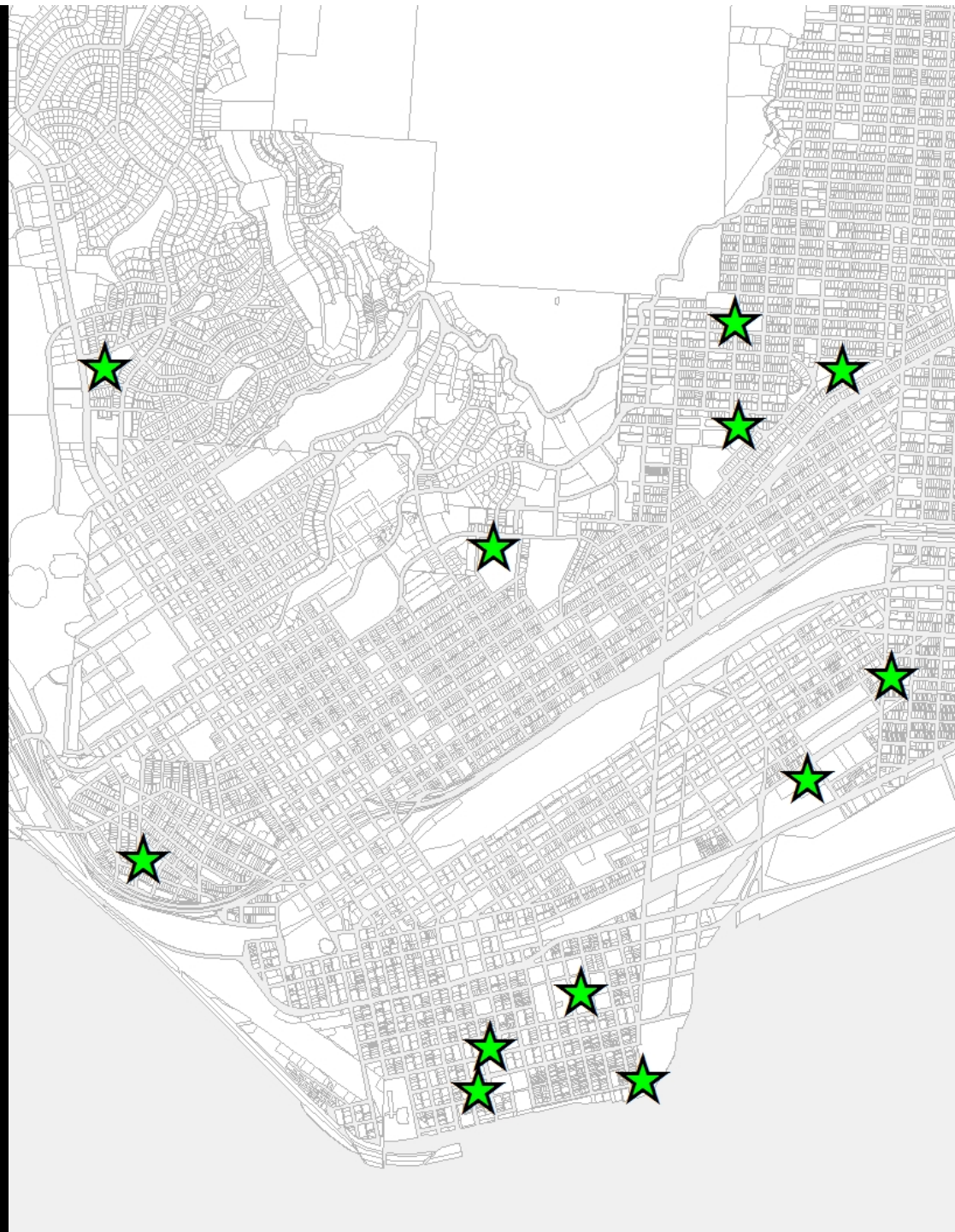
Discourages Active Transportation*

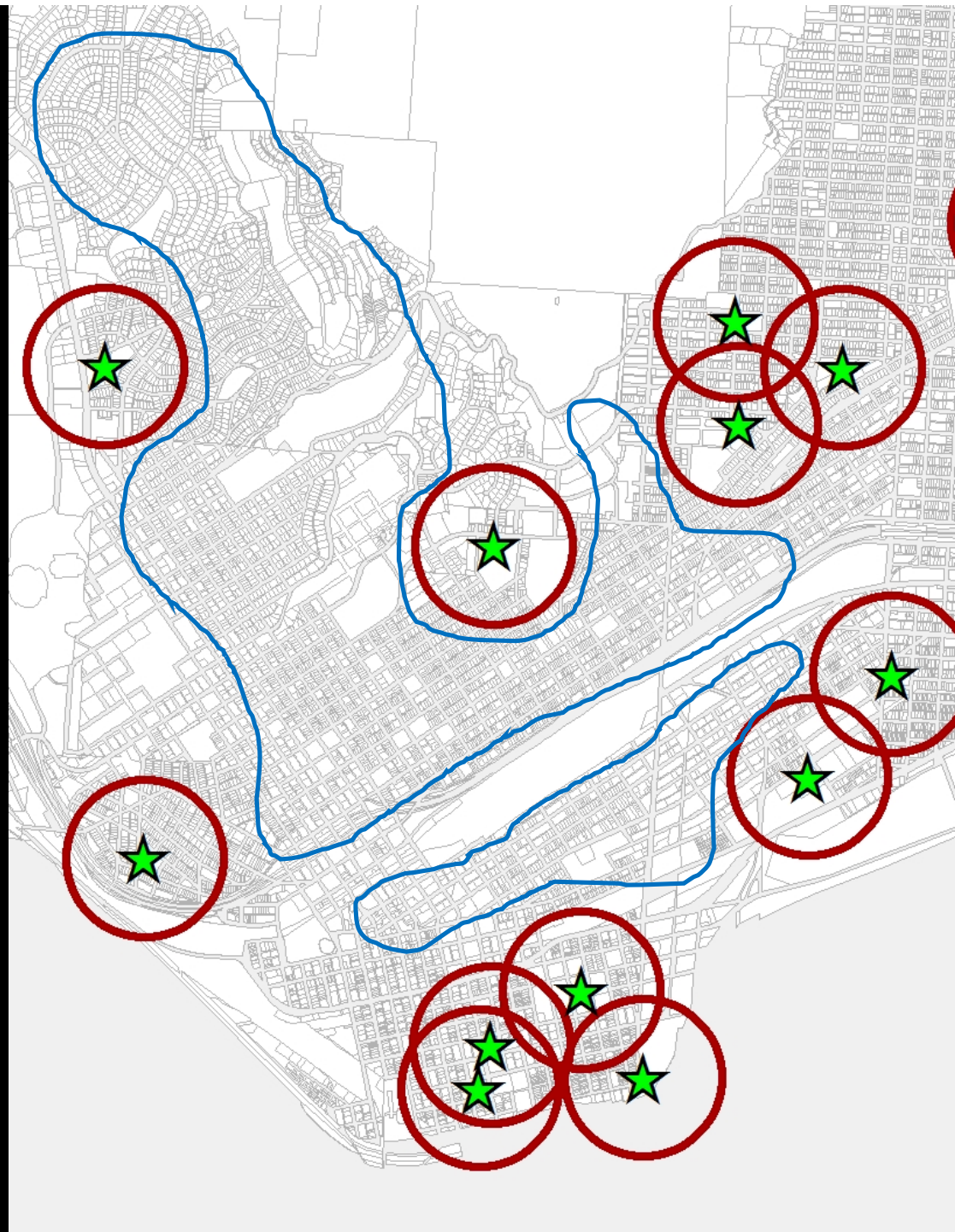
- 2% transit
- 2% walking
- 1% bicycling

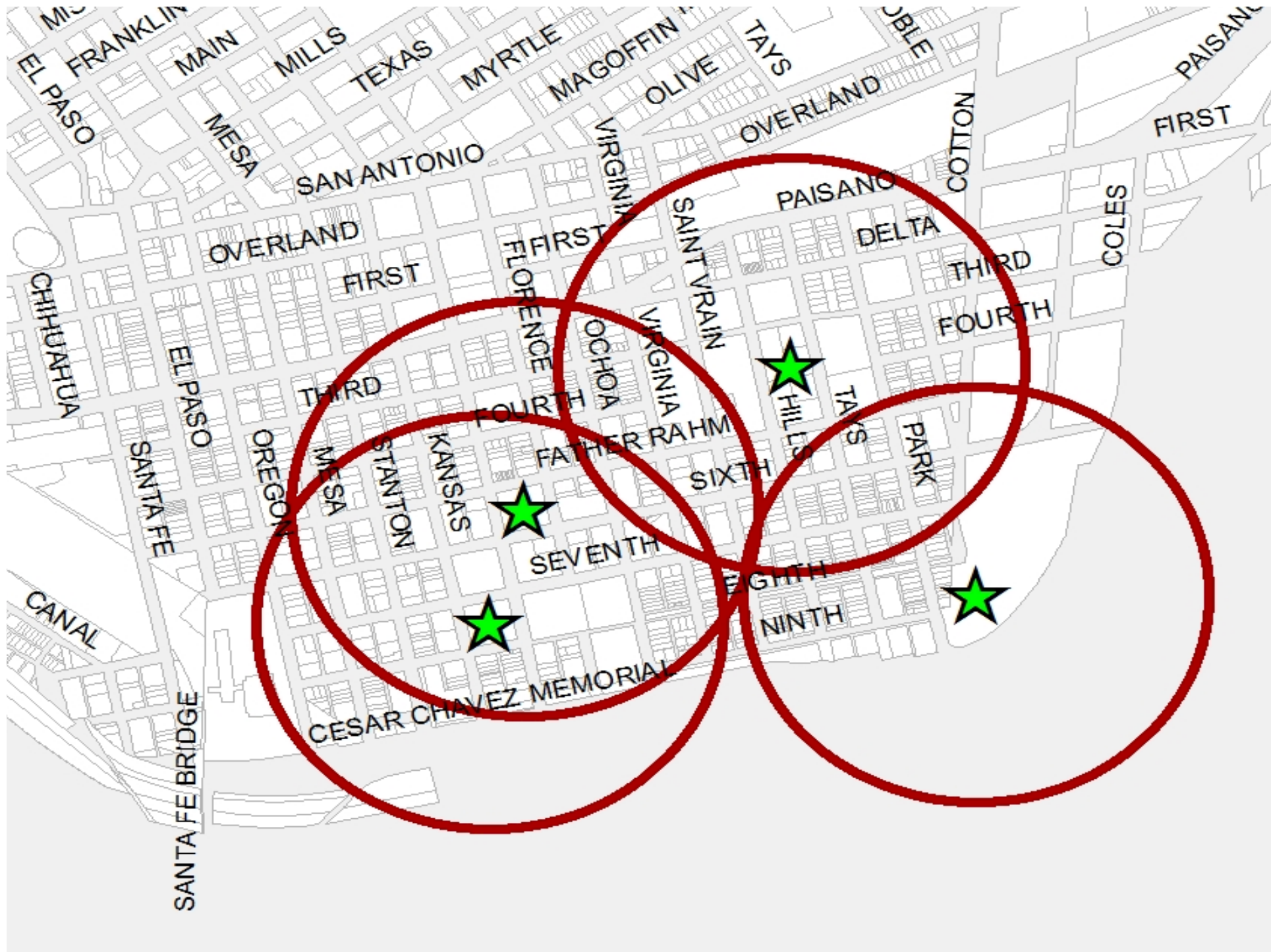
*Based on a study conducted by Norman Garrick in 114 California Cities







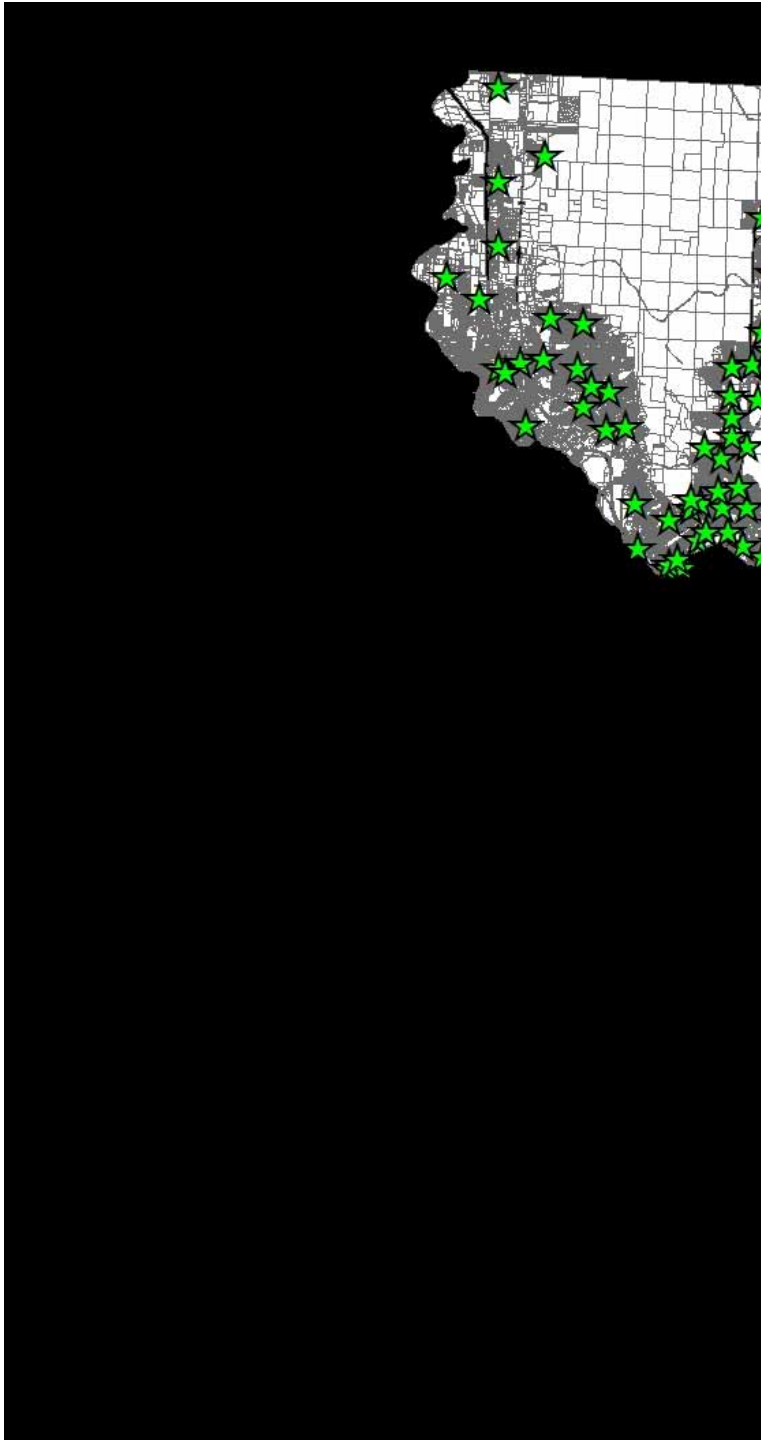






















Supports Active Transportation*

- 9% transit
- 9% walking
- 4% bicycling

Discourages Active Transportation*

- 2% transit
- 2% walking
- 1% bicycling

*Based on a study conducted by Norman Garrick in 114 California Cities



DEANNA DAVENPORT

BILL CHILDRESS

CANUTILLO

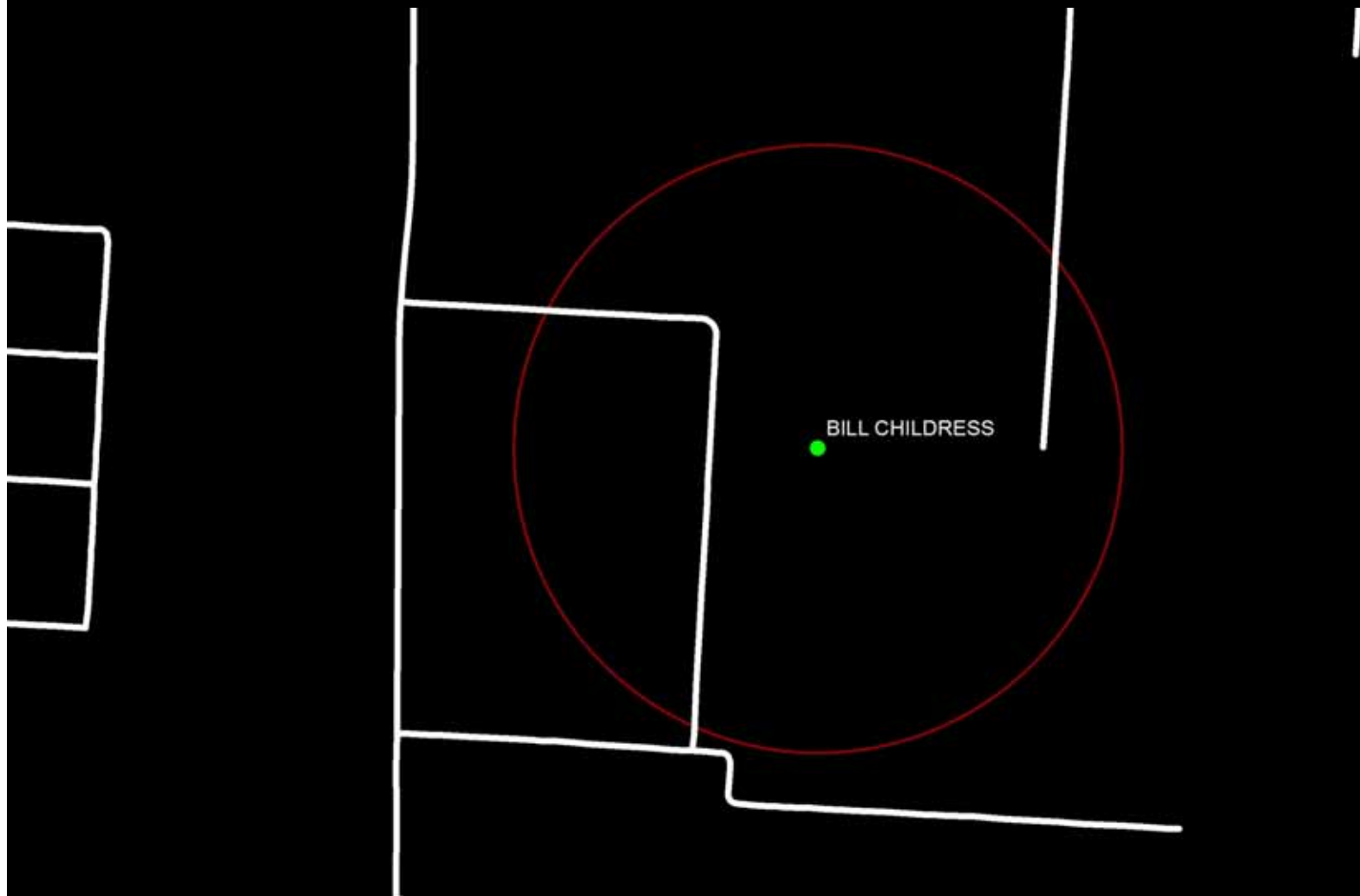
GARCIA

JOSE H. DAMIAN

Canutillo Elementary



Childress Elementary



Childress Elementary





Supports Active Transportation*

- 9% transit
- 9% walking
- 4% bicycling



Discourages Active Transportation*

- 2% transit
- 2% walking
- 1% bicycling

*Based on a study conducted by Norman Garrick in 114 California Cities

Planning for the Future--Alternatives



Economic Costs

A HEAVY LOAD:

The Combined Housing and Transportation Burdens of Working Families

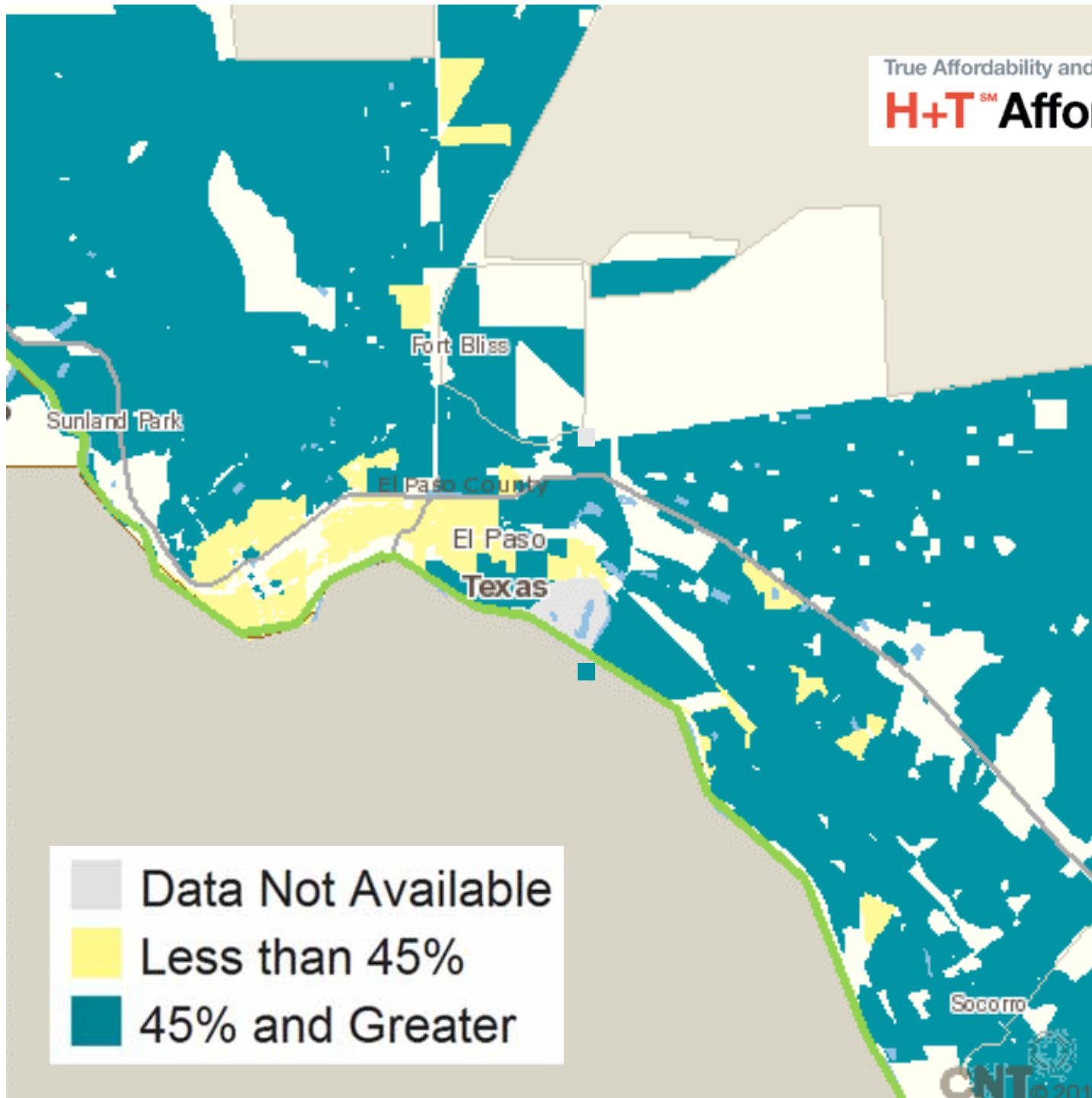


October 2006



True Affordability and Location Efficiency

H+TSM Affordability Index



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**
GRANDVIEW OREGON CORRIDOR SNOW HEIGHTS PARK KIDD FIELD
FORT BLISS AMERICAS 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
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



DRAFT

VOLUME I: CITY PATTERNS

01/12



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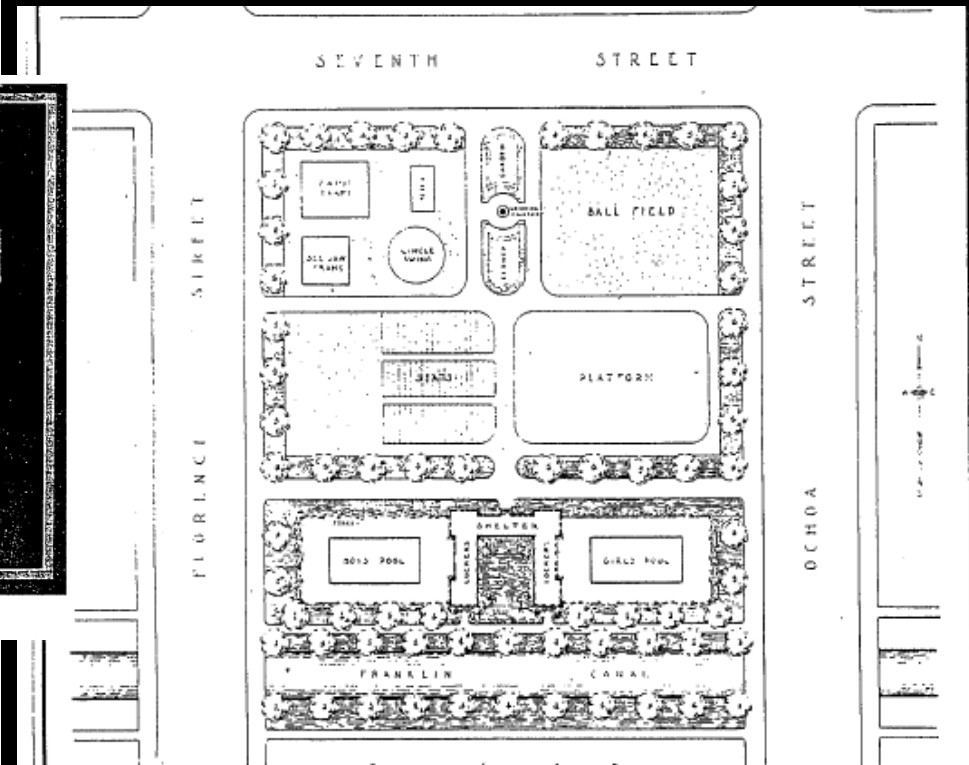
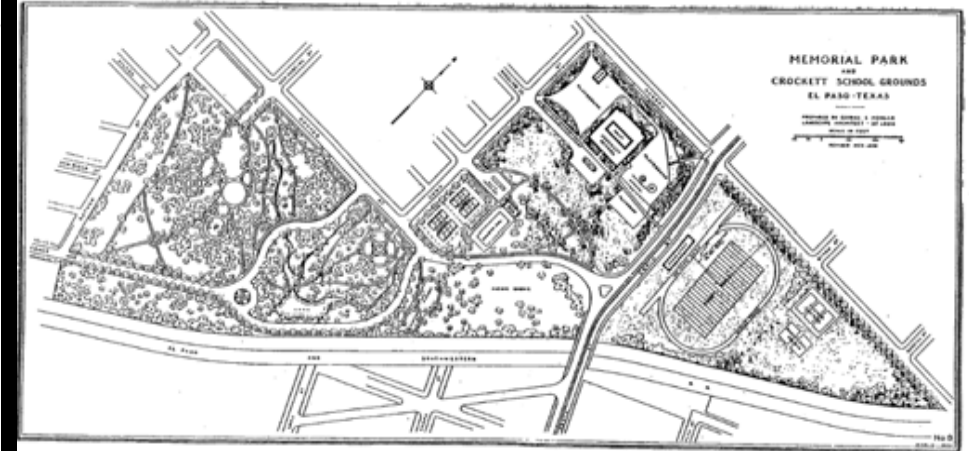
Era of Great Plans

THE 1925 CITY PLAN FOR EL PASO, TEXAS

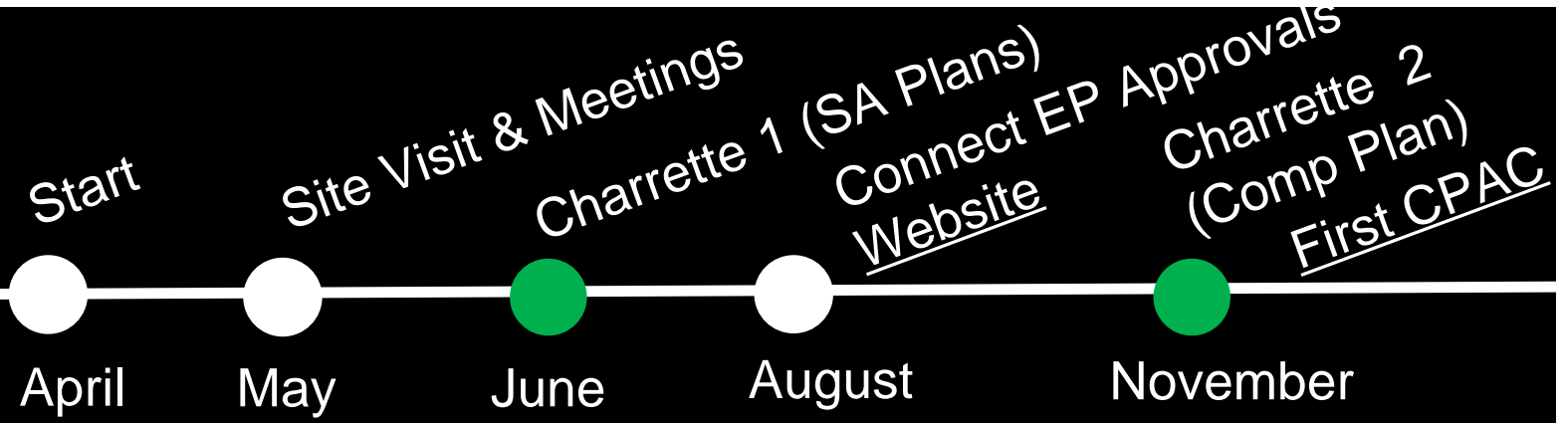


GEORGE E. KESSLER
1862-1923

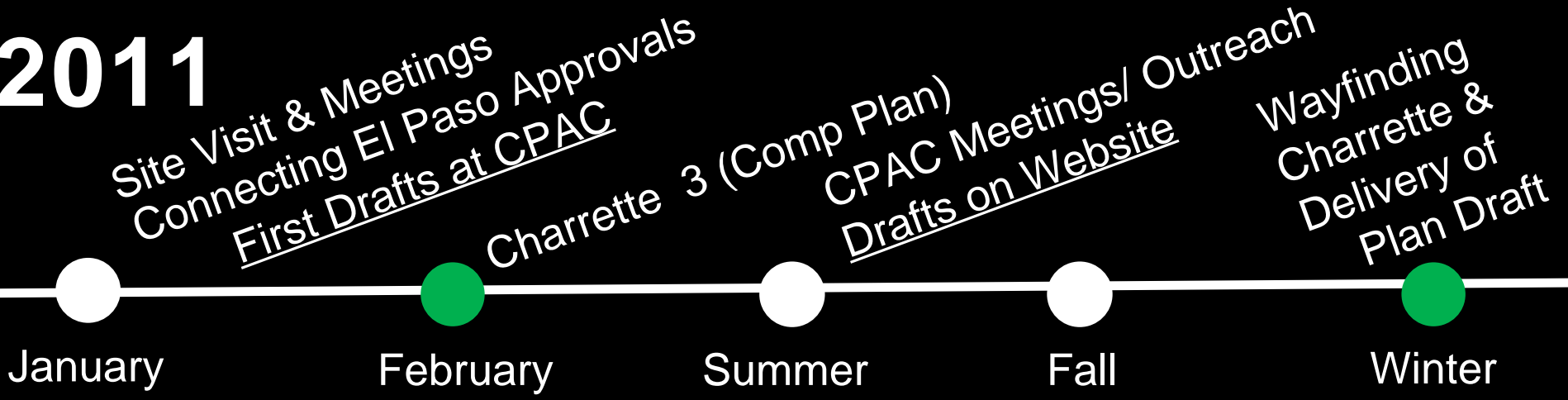
CITY PLAN COMMISSION



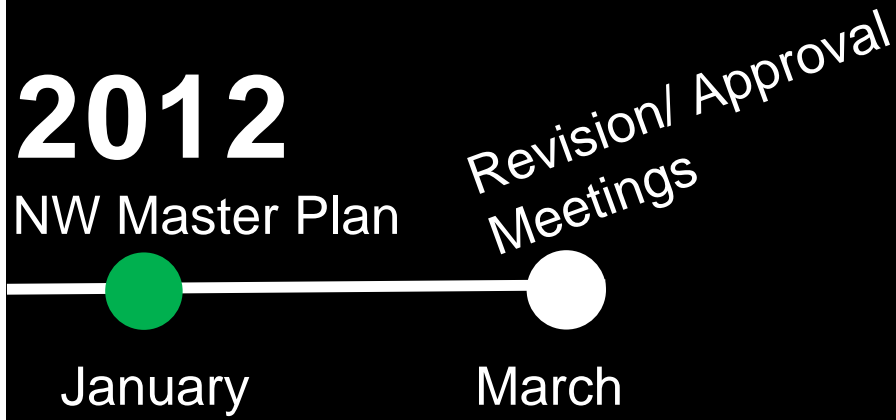
2010



2011



2012



 = Charrettes

1

Hands On 1: Central Planning Area

Bowie High School Cafeteria 801 South San Marcial

Thursday, February 10th 5:30PM to 8:00PM

2

Hands On 2: Northwest Planning Area

Franklin High School Cafeteria 900 North Resler Drive

Saturday, February 12th 9:00AM to 12:00PM

3

Hands On 3: Northeast & Fort Bliss Planning Areas

Wellington Chew Senior Center 4430 Maxwell Avenue

Wednesday, February 16th 5:30PM to 8:00PM

4

Open Design Studio

Pat O'Rourke Recreation Center (Former YMCA) 701 Montana Avenue

February 14-21 M-TH: 9:30AM to 7:00PM, Friday: 9:30AM to 5:00PM

5

Open House & Lecture

Pat O'Rourke Recreation Center (Former YMCA) 701 Montana Avenue

Thursday, February 17th 5:30PM to 7:30PM

6

Work-in Progress Presentation

Downtown Main Library 501 North Oregon Street

Tuesday, February 22nd 6:00PM to 8:00PM

5 charrettes



ASARCO/BRT Sites; Eastside + Mission Valley; Westside, Northeast & Central; Downtown Wayfinding; Northwest Master Plan

5 design studios



ASARCO/BRT Sites; Eastside + Mission Valley; Westside, Northeast & Central; Downtown Wayfinding; Northwest Master Plan

160+ stakeholder meetings



160+ stakeholder meetings

Paso Del Norte Health

Chamber of Commerce

TxDOT

Open Space Advisory Board

Neighborhood Associations

Ysleta Pueblo Comm Foundation

Bicycle Clubs

Sun Metro

Econ Dev Corporations

Local Developers

Save the Valley

Juarez Planners

Texas General Land Office

Comp Plan Advisory Committee

City Staff

Historic Preservation Office

Fort Bliss

Safety Officials

project total:

3,850+
studio visitors,
meeting attendees,
hands-on participants



hands on surveys

Plan El Paso
Transit-Oriented Development Hands-on Session
Thank you for your help and your ideas.
Please leave this at the sign-in table or hand it to a Dover-Kohl team member.

1. Do you live or work within roughly one mile of a Transit-Oriented Development Site? (please circle)

Live Work Neither

Which one? 5 pts
If so, for how long? 15 yrs

2. Do you use public transportation? Why or why not? No - too slow, inconvenient

3. Of the many ideas you heard today, which ones seem the most exciting?
Neighborhood street cars (historic)

4. What uses or amenities do you feel should be added near the City's bus transfer centers to improve the transit experience? (for example: civic uses, shops, housing, shaded sidewalks, parks)
food, shops, trees

5. What character should Transit-Oriented Development in El Paso have in the long-term future?
Smart growth type

6. Additional Comments & Suggestions (continue on back if necessary)

Plan El Paso
Transit-Oriented Development Hands-on Session
Thank you for your help and your ideas.
Please leave this at the sign-in table or hand it to a Dover-Kohl team member.

Do you live or work within roughly one mile of a Transit-Oriented Development Site? (please circle)

Live Work Neither

Which one? Monjona
If so, for how long? 30 yrs

Do you use public transportation? Why or why not? Yes
because it picks me up 4 blocks from my house and drops me off at my work dock.

Of the many ideas you heard today, which ones seem the most exciting?
dog parks downtown & additional access to I-10 west on the side.

What uses or amenities do you feel should be added near the City's bus transfer centers to improve transit experience? (for example: civic uses, shops, housing, shaded sidewalks, parks)
floor seating areas w/ a mixture of restaurants. Also having BI available within 1 mile of the station would enhance the transit experience.

What character should Transit-Oriented Development in El Paso have in the long-term future?
if the routes are frequent and simple, w/ reduced time on the road you will have success. Also incorporate bright building architecture at downtown & five corners.

Additional Comments & Suggestions (continue on back if necessary)
work hard on the westside Frimley & the integration of this section of street would be more desirable.

Plan El Paso
Transit-Oriented Development Hands-on Session
Thank you for your help and your ideas.
Please leave this at the sign-in table or hand it to a Dover-Kohl team member.

Do you live or work within roughly one mile of a Transit-Oriented Development Site? (please circle)

Live Work Neither

Which one? NEITHER - it depends on where the Montana station is located.
If so, for how long? 3 years

Do you use public transportation? Why or why not?
work may require me

Of the many ideas you heard today, which ones seem the most exciting?
density across the corridors
long walkability & pedestrian
highbeards.

What uses or amenities do you feel should be added near the City's bus transfer centers to improve the transit experience? (for example: civic uses, shops, housing, shaded sidewalks, parks)
Smart growth shops/housing,
sidewalks.

ONE WORD that describes EL PASO:

NOW: Desert hot area with many cars.

ONE WORD that describes EL PASO:

NOW: Unplanned

IN THE FUTURE:

of pedestrian friendly
(In my vision)

ONE WORD that describes EL PASO:

NOW: Unplanned

IN THE FUTURE:

Vibrant
(In my vision)

ONE WORD that describes EL PASO:

NOW: Spread out

IN THE FUTURE:

Divable
(In my vision)

400+

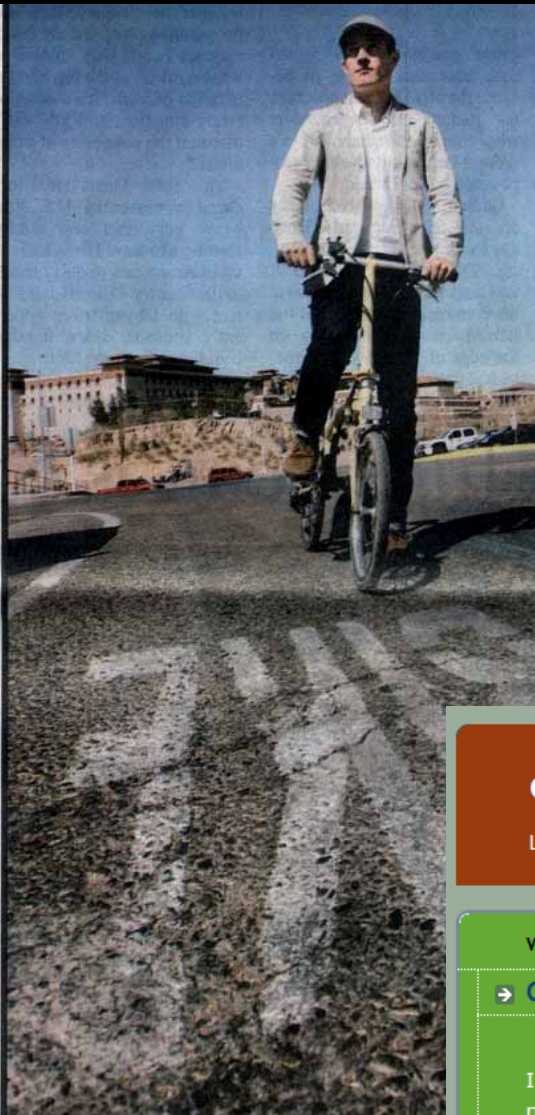
one-word cards

Designing in Public: Advisory Committee

Appointment	Board/Organization
Brooks Vandivort	City Plan Commission
Kristi Borden	City Plan Commission
Larry Nance	City Plan Commission
Charlie Wakeem	Open Space Advisory Board
Jennifer Barr	Parks and 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
Veronica Escobar	El Paso County
Michael Medina	Metropolitan Transportation Organization
Marty Howell	Sustainability Manager
Deborah Hamlyn	City Manager
John Neal	City Manager

- 12 Meetings
—Open to the Public
- Building Industry Representation

articles about & inspired by the process



Mike Lydon of The Street Plans Collaborati make the city a more bicycle-friendly comm

Fla. firm helps city

Opinion

elpasotimes.com

El Paso Times
Sunday, Feb. 13, 2011

7B

City manager explains Smart Growth

By Joyce Wilson
GUEST COLUMNIST

How would you build El Paso's next great neighborhood? You might include the things you liked about the place you grew up, the timeless places you've visited.

You might want children in your neighborhood to be able to walk to school, to the corner store, even the park.

And on warm days, you might build so people could walk if they wanted to, because seeing your neighbor might make the trip worthwhile.

This kind of neighborhood, the kind of neighborhood most people would build for themselves, is what planners call a traditional neighborhood; and many exist in El Paso.

Those traditional neighbor-



Wilson

hoods by design embody the tenets of Smart Growth — and are made legal by the SmartCode. Yet there exists a deliberate misrepresentation of Smart Growth — that it means everyone must live in crime-ridden high-rise buildings, devoid of parking, and grass, and that these developments would be far more expensive than what our market will support.

But even the casual citizen planner knows this isn't Smart Growth.

Nevertheless, misconceptions and resistance abound; but the facts are these. The SmartCode and higher density development do not cause crime.

Nowhere in any credible crime research is there a "direct" causal relationship between density and crime.

Crime experts see Community Policing Through Environmental Design (CEPTED), which focuses on the built environment, as a critical component of sprawl repair.

Where CEPTED is practiced, local officials have seen crime reductions of between 17 and 76 percent.

These reductions are attributable to Smart Growth-driven design, meaning more "eyes on the street" as streets are lined with windows, front doors and porches, not garages.

Where front porches give way to shops, the street is met with windows and shade trees instead of gas pumps and parking lots.

Sprawl also increases all

public-safety costs — more police and fire vehicles required to travel longer distances responding to calls, circling cul-de-sac after cul-de-sac.

SmartCode may be different, but that doesn't mean more expensive, because sprawl can also be very expensive.

SmartCode instead focuses on building complete neighborhoods where people can live for a lifetime. Each neighborhood

ing types, sized hou and more above she

And if \$ en mean I SmartCod

New Te Mo., a Sm ment kno sign, recr

room, two-bath condos sell for \$99,500 and starter homes for \$124,645.

The Village at Port Royal, S.C., which is a military town, first sold homes for \$75,000.

And list price is only one component of true cost, which must include transportation.

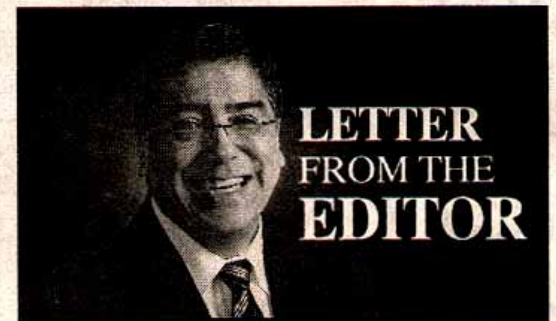
Because of design, SmartCode neighborhoods induce fewer automobile trips and provide job centers near where people live, making it possible to reduce miles travelled and the

choose to spend their money on groceries or college tuition for their children.

There are proven tax savings as well — narrower, safer streets mean lower maintenance costs.

Finally, walkable neighborhoods are healthier and lead to lower obesity and Type II diabetes rates.

As part of the city's new Comprehensive Plan, you have the opportunity to plan great neighborhoods, because



elpasonaturally

Leading the way for sustainable living in the El Paso Southwest

WEDNESDAY, FEBRUARY 22, 2012


→ CPC Meets Tomorrow at 1:30 City Hall 2nd Floor


It's hard to get people to a daytime meeting since so many people have to be at work. I'm hoping a few folks can show up at tomorrow's CPC and/or the other meetings coming up. Here's what I sent out to a large group in the conservation community just now:


Growth of El Paso on right track


The newspaper's voice on the opinion pages this morning ad-


plan el paso - virtual town hall


 **IDEAS** DISPLAY: [RANDOM](#) [MOST POPULAR](#) [NEWEST](#) [OLDEST](#)


 **Traditional Neighborhood Design** SUPPORT: 6 ✓
February 10, 2011 by Matt F COMMENTS: 2


 **Change Happens** SUPPORT: 2
February 10, 2011 by Ruben M COMMENTS: 0


 **Segundo Barrio** SUPPORT: 1
February 13, 2011 by velez COMMENTS: 0


 **Effective transportation schemes figure in effective development** SUPPORT: 0
February 18, 2011 by BIKERJOHN COMMENTS: 1

 **IDEAS** DISPLAY: [RANDOM](#) [MOST POPULAR](#) [NEWEST](#) [OLDEST](#)

 **Stop Desert Sprawl** SUPPORT: 10 ✓
February 11, 2011 by Robert S COMMENTS: 3

 **New Housing** SUPPORT: 2
February 11, 2011 by DowntownFan COMMENTS: 0

 **Srawl does not have to be an evil omen of wasteland!** SUPPORT: 2
February 18, 2011 by BIKERJOHN COMMENTS: 0

 **Plaza Theatre/ Arts Festival Plaza**
February 15, 2011 by The Rock

150+ posts

Many great ideas have been submitted and voted on by other El Pasoans

designing in public

PLAN EL PASO



ABOUT

SUGGESTION MAP

PLANS & PHOTOS

CONNECTING EL PASO REPORT

CHANGEOVER TIME

NEWS & INFO

Latest Press

2-15-2011, Plan El Paso:
Project of the Month,
Urban Lovers Newsletter:
A Vision of Europe

2-12-2011, Residents Plan
El Paso's Future, KFOX14
News

2-12-2011, Chris Lopez:
Growth of El Paso on
right track, El Paso Times

2-03-2011, Bus Plan:
Success Becoming
Evident, El Paso Times

1-20-2011, Could El Paso

Community Input Sought for El Paso Comprehensive Plan

Visit Our Virtual Town Hall

A community driven effort to rewrite the City's Comprehensive Plan is underway, giving the citizens of El Paso the opportunity to decide what the future of the City will look like. The Comprehensive Plan is the City's guiding document to direct capital improvements, evaluate development projects, guide public policy and ensure that the City of El Paso is the city its residents want it to be. The plan identifies goals, objectives and policies that will enhance the City's quality of life, respect its natural environs, and support complementary economic growth and development.

Community Hands-On Design Session Focuses on Northeast El Paso and Fort Bliss

Written on 17 February 2011

Translation



Upcoming Project

Mon	Tue	Wed	Thu
	1	2	3

63,437+ visitors

www.planelpaso.org

national recognition

CITIES
PLACE MATTERS

JOBS & ECONOMY / COMMUTE HOUSING ARTS & LIFESTYLE DESIGN / TECHNOLOGY

URBAN WONK

How El Paso Ended Up With America's Best Smart Growth Plan

KAID BENFIELD MAR 08, 2012 COMMENTS



Tweet

Share 33

Share

Print

Email

Earlier this week, the city council of El Paso, the nation's 19th-largest city, [unanimously adopted](#) a detailed comprehensive plan built around the principles of smart growth and green development. With significant economic importance and a rich cultural history, but plagued with sprawling recent development patterns coupled with alarming rates of land consumption and carbon pollution, the city constructed [Plan El Paso](#) over the past two years. It is among the best, most articulate comprehensive



US EPA

NATIONAL AWARD FOR
Smart Growth
ACHIEVEMENT

Atlantic Cities 2012

Award for Programs, Policies & Regulations 2010

Comprehensive Plan Elements

1. Land Use & Community Planning
2. Urban Design & Community Character
3. Historic Preservation
4. Economic Development
5. Housing
6. Transportation
- 7. Health**
- 8. Sustainability**
9. Infrastructure
10. Public Facilities & Services
11. International Coordination
12. Fort Bliss Relations

HEALTH

9

Overall Goal: Improve the overall physical and mental health of El Paso citizens by increasing the quality of life in the region.

- Current Conditions 9.2**
 - Issues and Challenges 9.2
 - Common Diseases 9.4
 - Health Factors 9.6
 - Resources 9.7
- Community Concerns 9.9**
- Strategies for Addressing**
- Community Concerns 9.11**
 - The Built Environment and its Effect on Health 9.11
 - Medical Facility Development 9.29
 - Alameda Avenue and Hammer Way 9.30
 - Medical Center of the Americas 9.32
 - Partnerships and Programming 9.38
- Goals & Policies 9.39**
 - Regional Coordination 9.39
 - Basic Nutritional Needs 9.39
 - Access to Healthcare 9.40
 - Environmental Risk Factors 9.40
 - Physical Activity 9.42
 - Psychological Well-Being 9.44
 - Substance Abuse 9.44
 - Obesity & Chronic Illness 9.44

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

- LEWIS MUMFORD

Health Chapter: Goal: to improve the overall physical and mental health of El Paso citizens by increasing the quality of life in the region.

Sustainability: 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.

SUSTAINABILITY

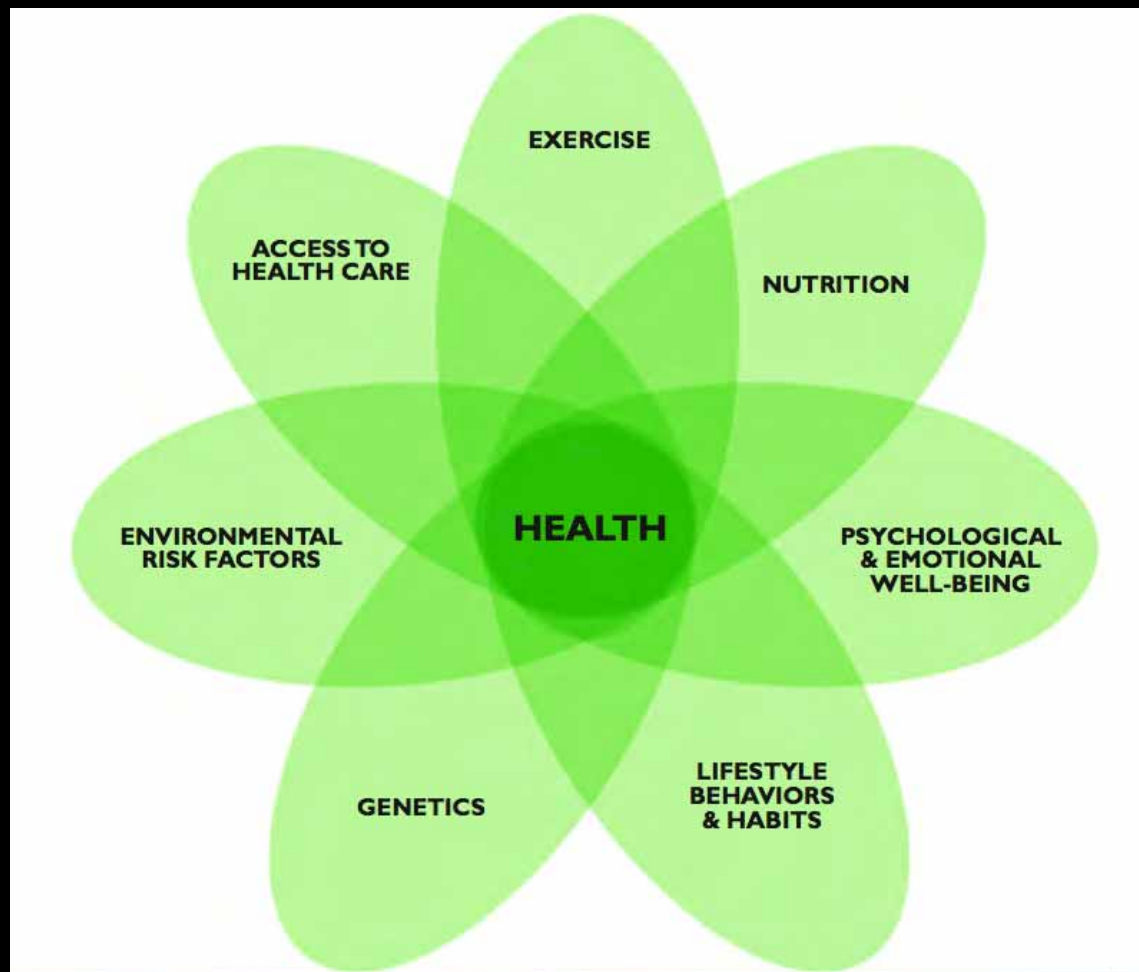
10

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**
 - Historic Conditions and Present Challenges 10.2
- Community Concerns 10.8**
- Strategies for Addressing**
- Community Concerns 10.14**
 - Diversifying the Energy Portfolio 10.16
 - The Solar Tansect 10.18
 - Renewable Energy Legislation and City Incentives 10.20
- Goals & Policies 10.23**
 - Water Supply 10.23
 - Water Conservation 10.23
 - Water Reclamation 10.23
 - Aquifer Storage & Recovery 10.24
 - Stormwater 10.24
 - Atmosphere 10.24
 - Energy 10.25
 - Habitat & Biodiversity 10.27
 - Hillside Development 10.28
 - Geological Hazards 10.28
 - Solid Waste 10.29
 - Hazardous Waste 10.29
 - Noise & Vibration 10.30
 - Lighting 10.30
 - Sustainable Architecture 10.30
 - Food Production 10.31
 - Coordination 10.31

"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



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.



PRESERVING OPEN SPACE

Preserve the arroyos that are currently sacrificed to development through bonuses for additional units. Homes shall face the spaces and walkways shall line their rims.



NEIGHBORHOOD CENTER

The historic plaza, the "placita", shall become a signature approach to new public spaces, showing a continuity through time of Hispanic urbanism.



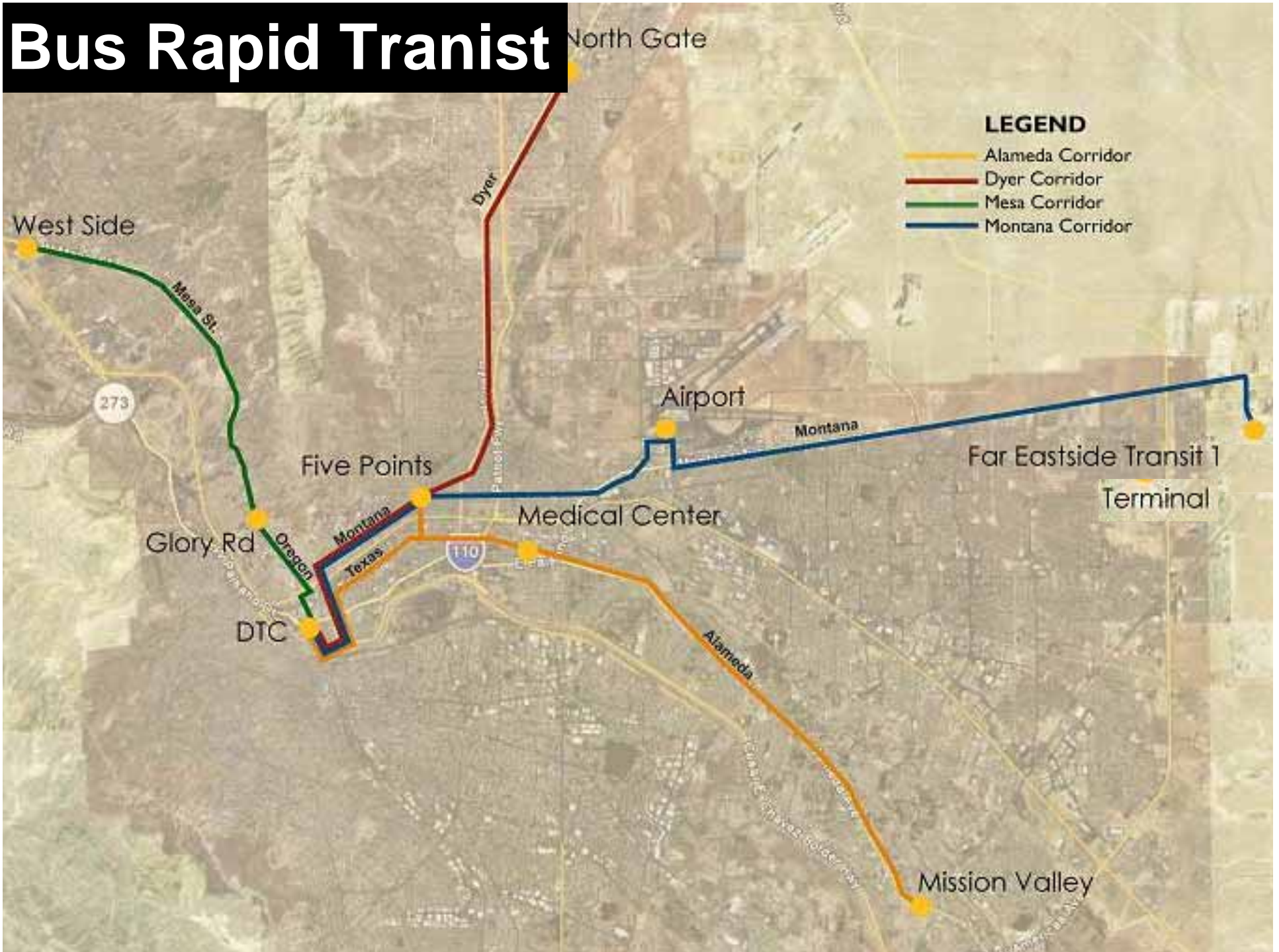
CLUSTERED DEVELOPMENT IN THE UPPER VALLEY

Clustering existing development rights onto a portion of the developable area allows the remaining agricultural uses on the site to be preserved in perpetuity.

Smart Growth Schools



Bus Rapid Transit



3-Mile Bicycle-Sheds

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 City and in locations easily accessible by low-income residents.



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

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.



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.

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.

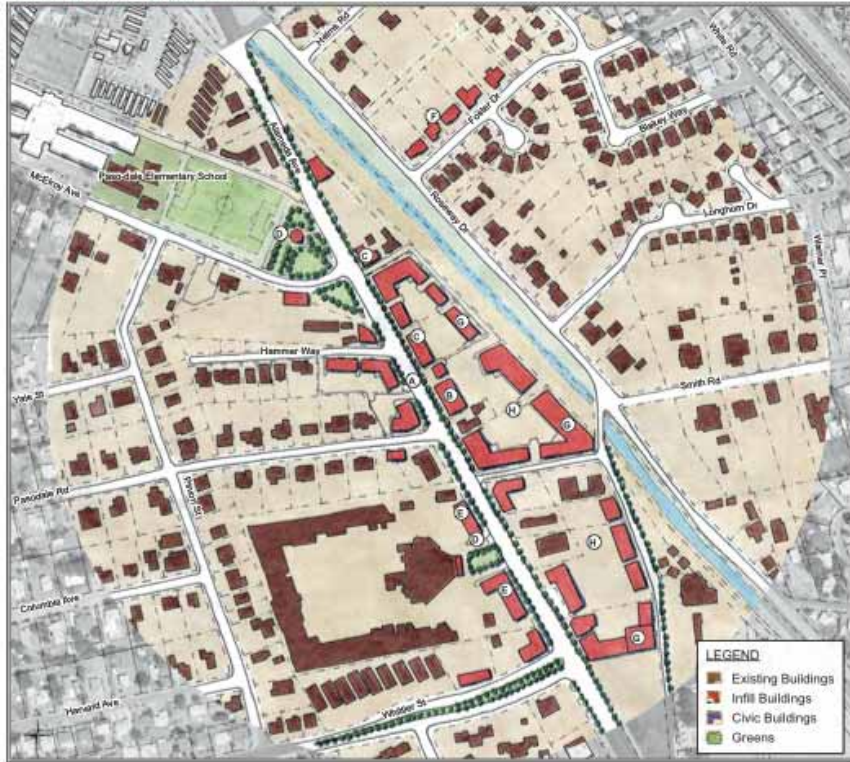


Organic farming methods decrease the use of agro-toxins, which is healthier for the soil, atmosphere, and human body.



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.

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, Pinon 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 Mees.
- 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.

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 to 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 EPWU-PSB 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, geoechange 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 of 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 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 EPWU-PSB.

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.



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.

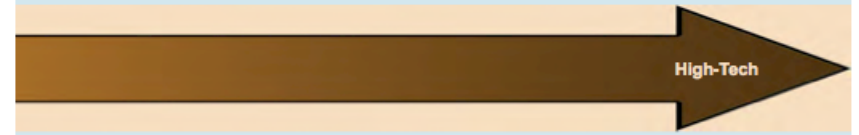


Solar Arrays

A solar array requires more land than the other technologies listed. 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.



Project done by Texas Solar Power Company, Austin, TX



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.

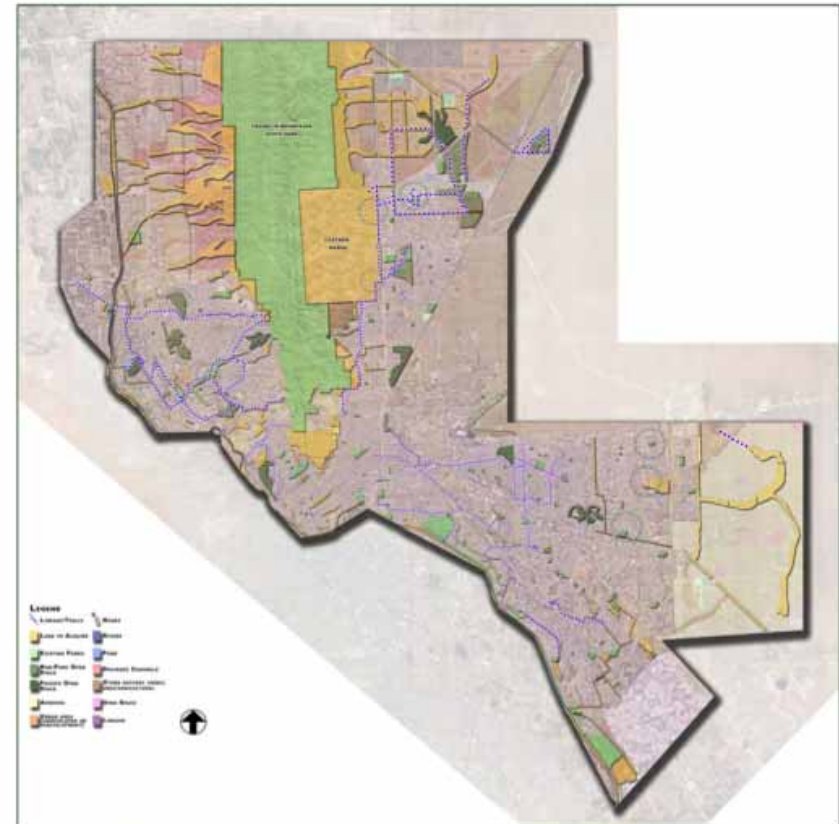


Sprawl generates higher VMT than walkable, transit-served development and therefore emits greater per capita quantities of greenhouse gases and other pollutants.

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 of the City 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 Hall Associates.

The Blue Network

The Blue Network, or network of water resources, is composed of visible and unseen resources; both 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

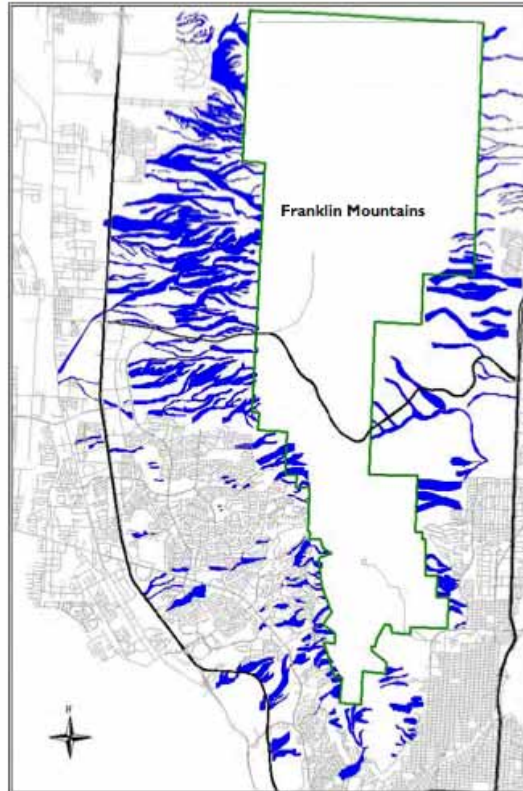
Hueco Bolson come true. Likewise, man-made interventions such as desalination plants will continue to be necessary if the population of the City continues to increase. Ditches, ponds, and channels are man-made storage and conveyance features. These, along with arroyos and other natural features, serve not only to move water around within the City, but may also recharge groundwater resources if managed properly.

Arroyo:

An arroyo is a naturally occurring elongated depression in the earth, including the sloping sides from rim to rim, following a historic waterflow that may temporarily fill with water after a stormwater runoff event.

Arroyos serve multiple purposes that include health, safety, and welfare goals including flood control, erosion, drainage, and sedimentation. Arroyos also fulfill multiple quality-of-life goals including the provision of views, animal and plant habitat, recreation areas, and aesthetic enjoyment.

Although arroyos serve many purposes, there are specific arroyos that are more critical for protection than others. In the immediate future, a map should be prepared by the City that shows critical arroyos and related ecologically sensitive lands. This critical arroyo map should supplement or replace the arroyo overlay map in Plan El Paso to more clearly define the critical arroyos that this plan intends to protect.



Source: *Arroyos and Open Space: Enhancing Quality of Life for our Neighborhoods* by R. Alan Shubert, P.E. Development Services. Blue shapes represent rim boundaries of arroyos.

Arroyo Inventory: By the Numbers

- 285 arroyos
- 8,910 acres of arroyos
- 41.5% of arroyos are on City-owned lands
- 12.1% of arroyos are on federally-owned lands
- 3.0% of arroyos are on State-owned lands
- 43.4% of arroyos are on privately-owned lands

Disclaimer: Arroyo inventory completed in 2005. Some arroyos have been removed or modified since the inventory was completed.



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.

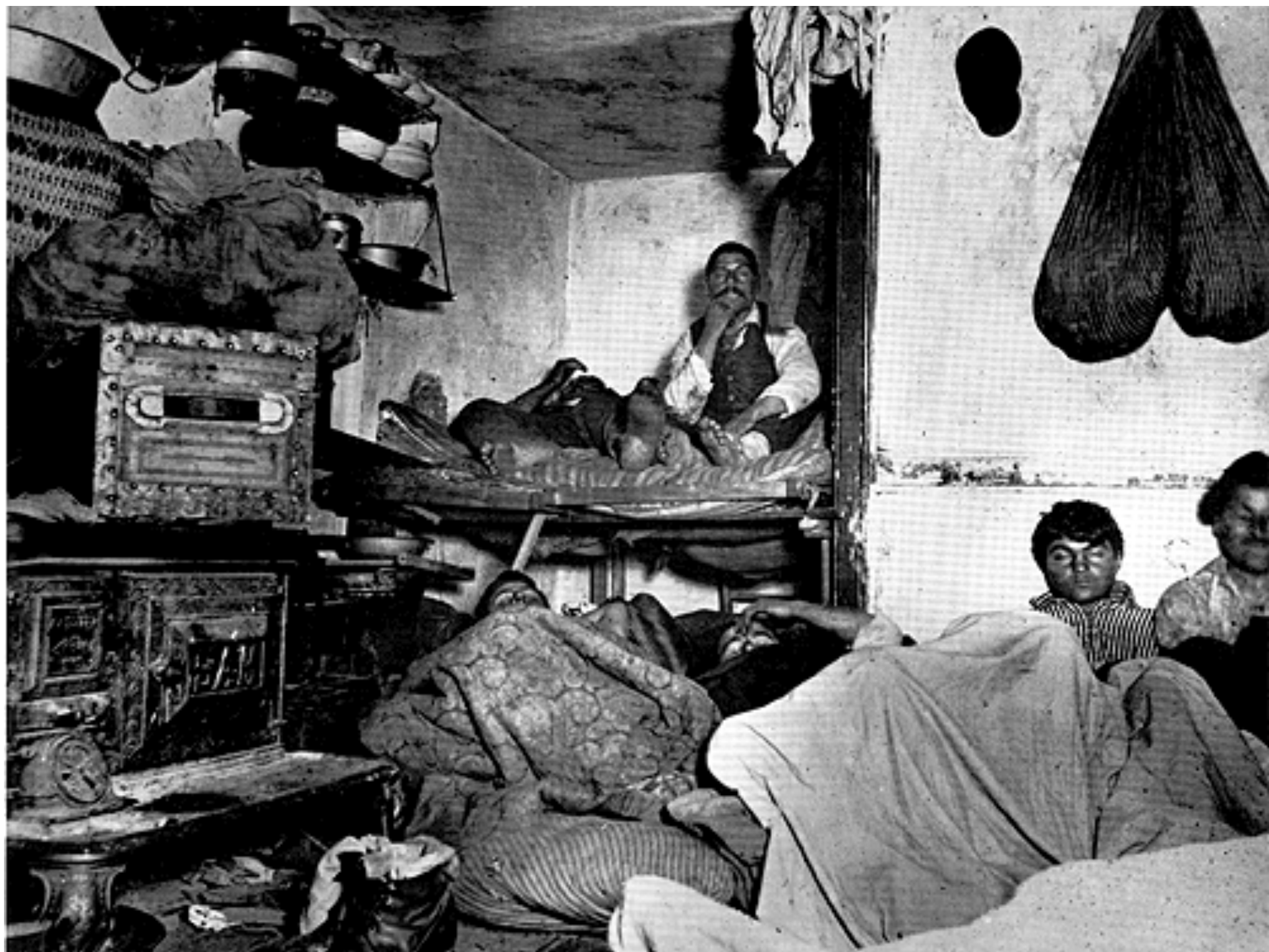


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Childhood pastimes are increasingly moving indoors

Fishing, biking and sports giving way to video games

By Dennis Cauchon
USA TODAY

BELLBROOK, Ohio — Being a kid isn't what it used to be. Dakota Howell, 9, went fishing in this town of 7,000 the other day with his mom, dad and little brother. "It's fun," he says, happily reeling in sunfish from Spring Lake during a fishing derby sponsored by Wal-Mart.

But, to be honest, he'd rather be doing something else: playing video games. "That was my first choice," he confides. "But mom says they rot your brain."

Misty Pollock, his mother, smiles. "When I was a kid, we wanted to be outdoors," she says. "Today, you have to push kids outside."

The fundamental nature of American childhood has changed in a single generation. The unstructured outdoor childhood — days of pick-up baseball games, treehouses and "be home for dinner" — has all but vanished.

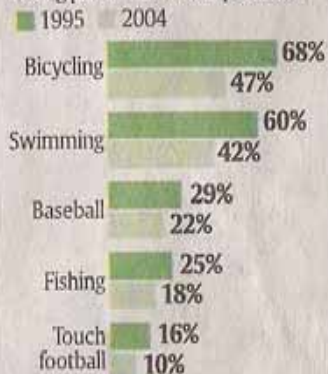
Today, childhood is spent mostly indoors, watching television, playing video games and working the Internet. When children do go outside, it tends to be for scheduled events — soccer camp or a fishing derby — held under the watch of adults. In a typical week, 27% of kids ages 9 to 13 play organized baseball, but only 6% play on their own, a survey by the Centers for Disease Control and Preven-



Fishing outdoors pursues

Activity in decline

Percentage of 7- to 11-year-olds taking part in traditional pastimes:



Source: USA TODAY analysis of National Sporting Goods Association annual survey

By Adrienne Lewis, USA TODAY

Cover story

Please see COVER STORY next page ►



Who's walking to school?

- Children living in urban areas
- Lower-income families are more likely to walk or ride a bicycle to school
- Children aged 6 to 10 were more likely to choose active transportation - walking or cycling over inactive transportation, like riding in a school bus, a car or taking public transportation.

The study also shows children's interest walking or cycling to school starts to decline at age 10.



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Planning for Health & Sustainability

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Carlos Gallinar, AICP, CNU-A
City of El Paso, Texas