

Reshaping Cities 2+

Design for the Youngest to the Oldest Resident



Ecocity World Summit, Montreal 2011

Human Sustainability



Nature and the family form an interlocking support structure to sustain our cities.

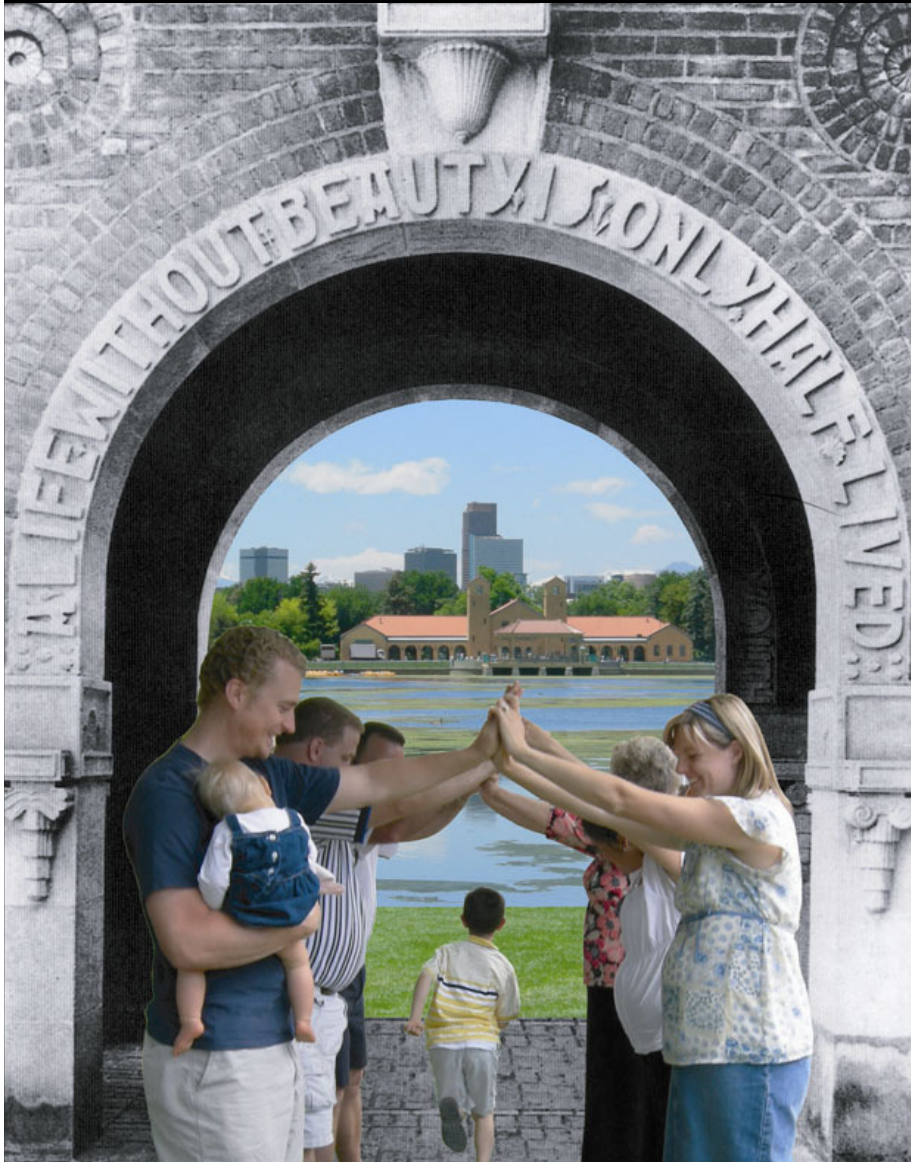
Natural and Built Environment

- **Renewable Energy**
- **Green Building**
- **Public Transportation**
- **Recycling**
- **Biodiversity**
- **Parks and Recreation**
- **Pedestrian and Bicycle-Friendly**
- **Local Food**

What is missing?

- **Family**
- **Culture**
- **Social**
- **Education**

2+ Generations



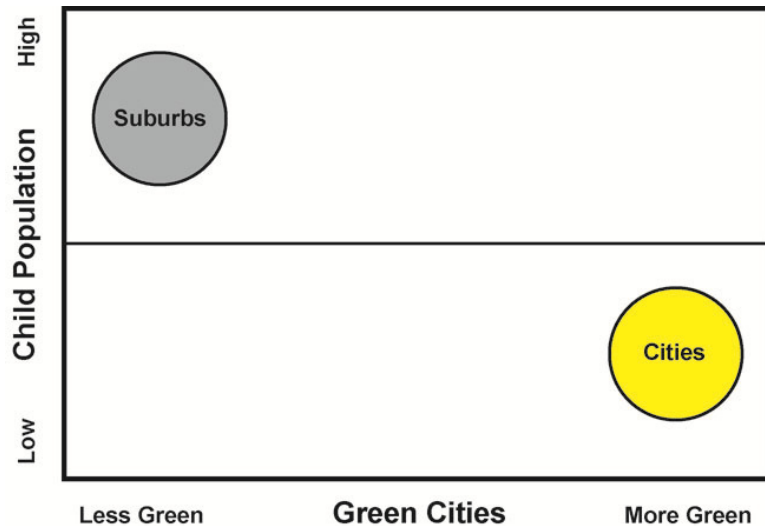
Part of our shared humanity is the generational cycle. Households with 2+ generations are essential for a city's sustainability.

2+ Generation Household Groups

- **Parents Raising Children - 2 Generations**
- **Adult Children Caring for Aging Parents - 2 Generations**
- **Extended Family including Senior Adults, Adults, and Children - 3 Generations**

The family is the human gateway to our cities. The family gateway symbolizes children entering through parents' arching arms flanked by relatives, friends, and neighbors.

Demographic Trends



A study of cities in the United States reveals troubling demographic trends. Top ranked cities for environmental stewardship are not leaders in attracting and retaining family households raising children.

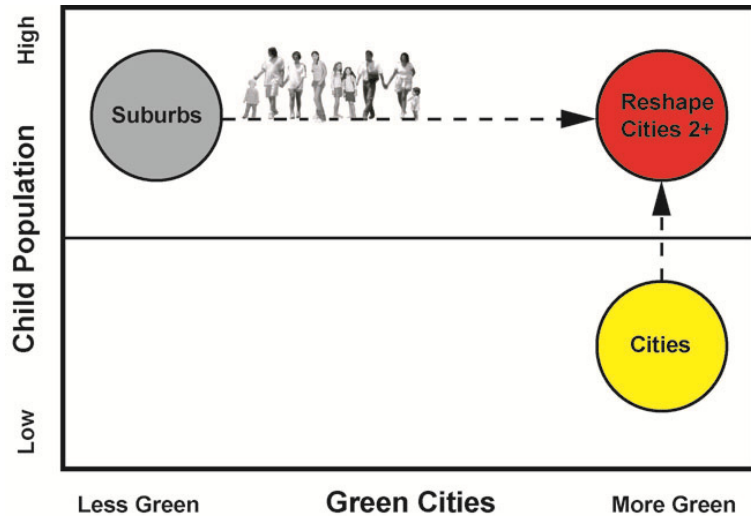
SustainLane U.S. Top Sustainable Cities	% Total Population Change 1990-2010	% Population Change Under Age 18 1990-2010
1. Portland, OR	34%	16%
2. San Francisco, CA	11%	-8%
3. Seattle, WA	18%	10%
4. Chicago, IL	-3%	-14%
5. New York, NY	12%	5%
6. Boston, MA	8%	-6%
7. Minneapolis, MN	4%	2%
8. Philadelphia, PA	-4%	-9%
9. Oakland, CA	5%	-10%
10. Baltimore, MD	-16%	-26%
11. Denver, CO	28%	25%

SustainLane 2008 U.S. City Rankings

U.S. Census Bureau, 2010 Census

Kids Count Special Report 2004: City and Rural Kids Count Data Book

Demographic Trends



There are a few top green cities growing the child population. The city of Denver tops the list.

How can we reshape our cities to better support family households raising children close to jobs?

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City of Denver



The Denver metropolitan region is an excellent example to show the complexities and possibilities of reshaping cities 2+.

Denver Metropolitan Region Data

Population City of Denver: 600,158

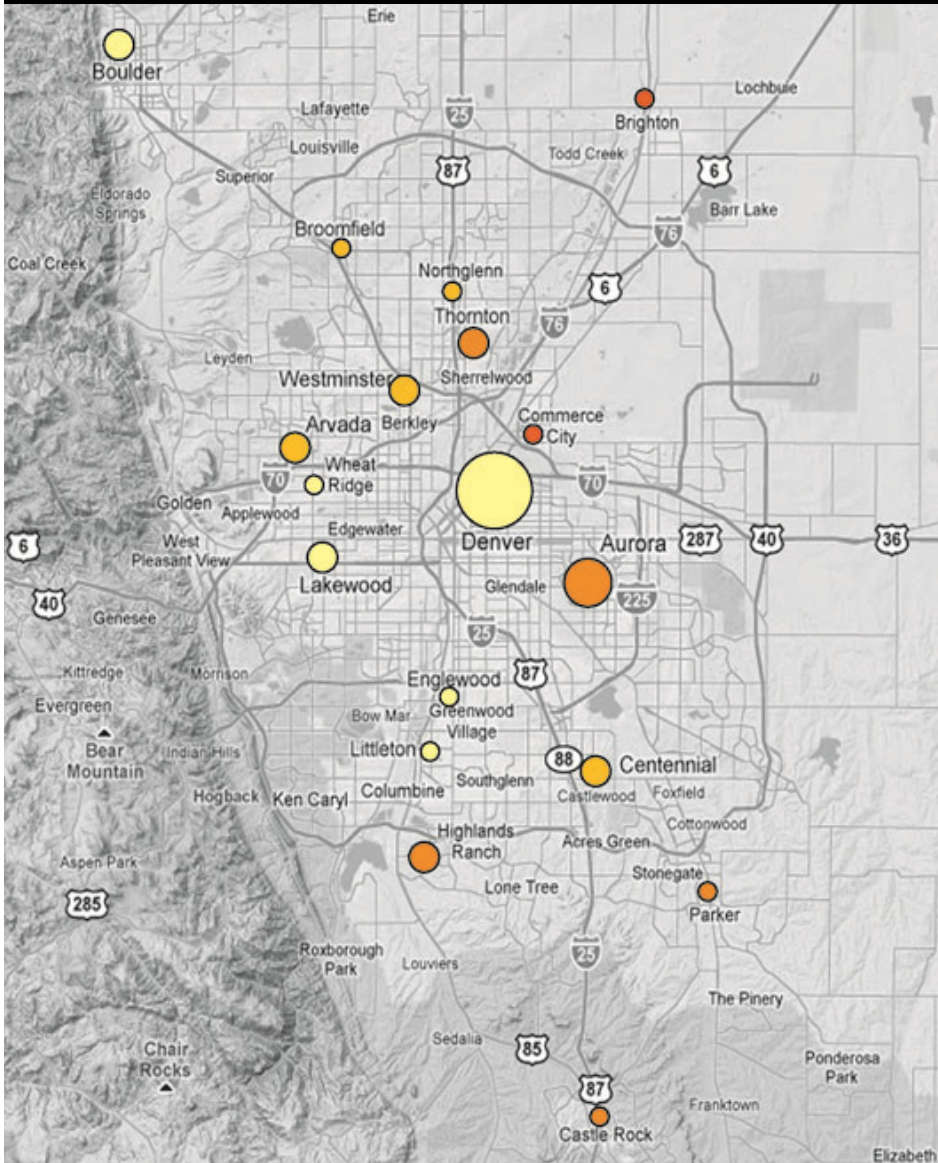
Population Denver Metro: 2 Million +

Elevation: Mile High (1.6 Km)

Location: High plains at the base of the Colorado Rocky Mountains

Climate: Semi-arid with 300 sunny days a year

2 + Average Households Denver



Average Household

- 2.1 - 2.3
- 2.4 - 2.6
- 2.7 - 2.9
- 3.0 - 3.3

Population

- 30,000 - 70,000
- 80,000 - 150,000
- 330,000
- 600,000

The average household size correlates to the demographic population: the higher the number, the greater the population under age 18.

Travel Distance From Denver

Boulder - 28 Miles (45 Km)

Littleton - 10 Miles (16 Km)

Highlands Ranch - 20 Miles (32 Km)

Castle Rock - 30 Miles (48 Km)

City Centers

Planning the city center and business center is not complete without the integration of the family center and natural resource centers.

Family Center: Hub of Daily Living Activity

Encourage a high degree of social interaction such as schools, cultural venues, and recreation centers clustered together in close proximity to residential neighborhoods, business center, and natural resource centers.

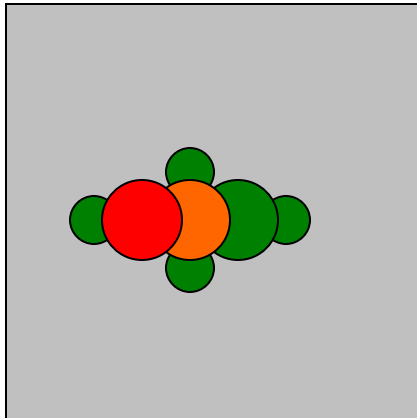
Business Center: Hub of Economic Activity

Provide a high concentration of jobs and offer shopping opportunities including commercial offices and retail.

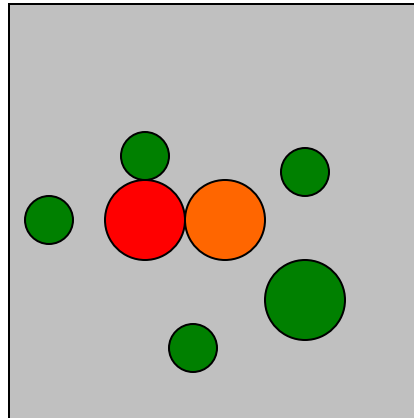
Natural Resource Centers: Hub of Supply Activity

Supply community with local resources including food, land, water, energy, and building materials

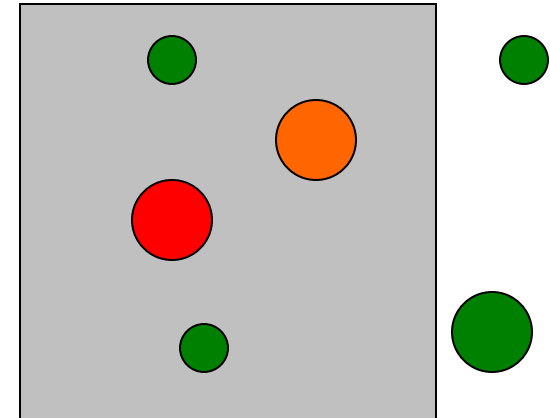
High Connectivity



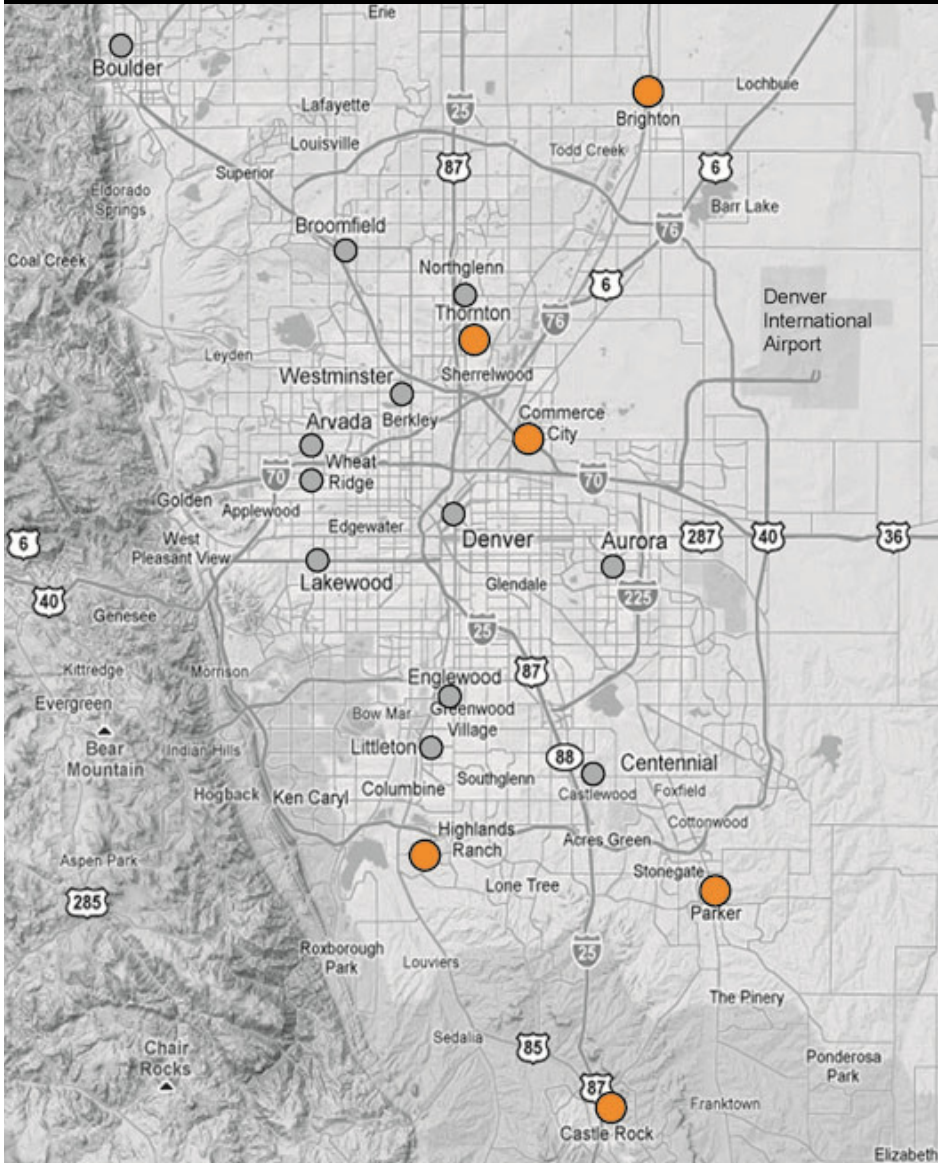
Medium Connectivity



Low Connectivity



Denver Family Centers

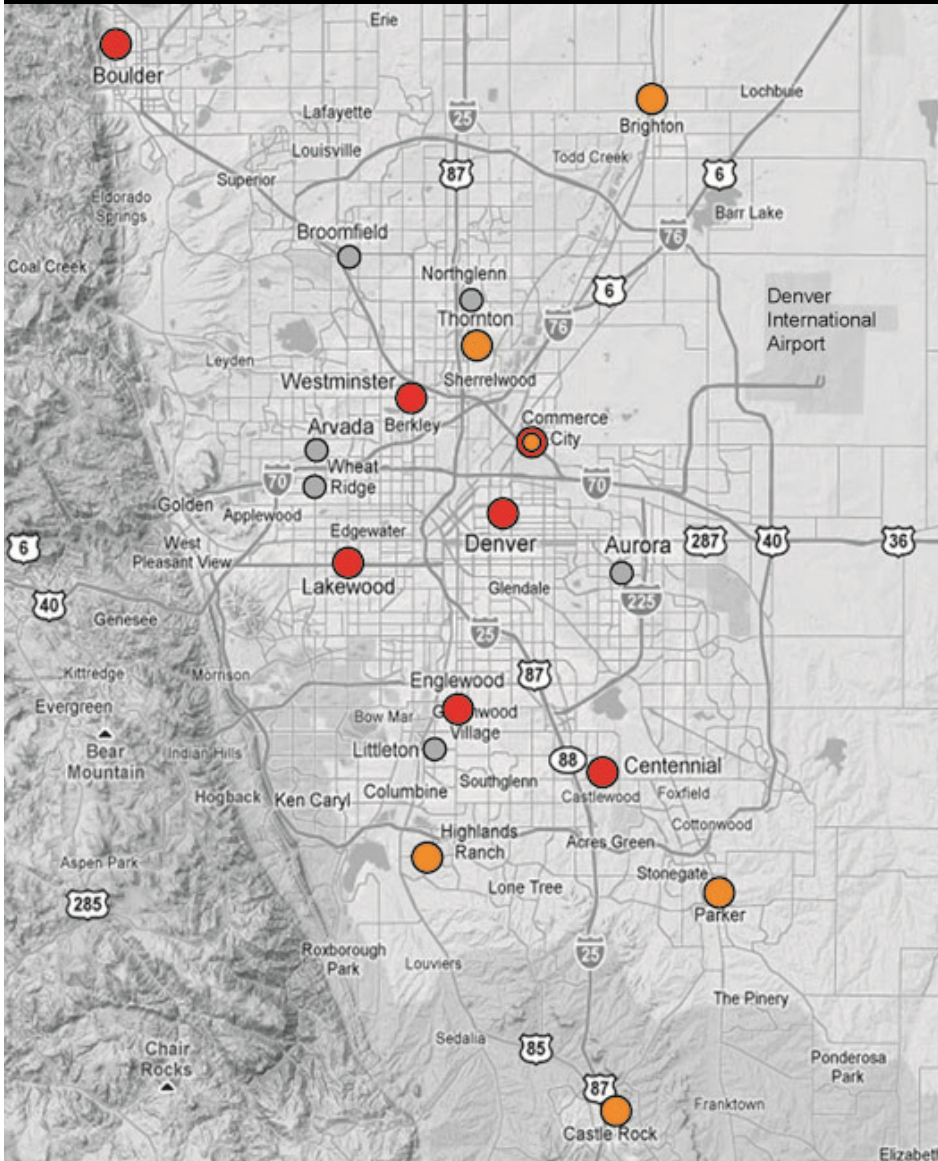


3 or More People
Per Household %

● 50 % +

Cities with the highest percent of family households offer more cost effective housing options. One prominent contributing factor is land availability to accommodate new growth.

Denver Business Centers



3 or More People
Per Household %

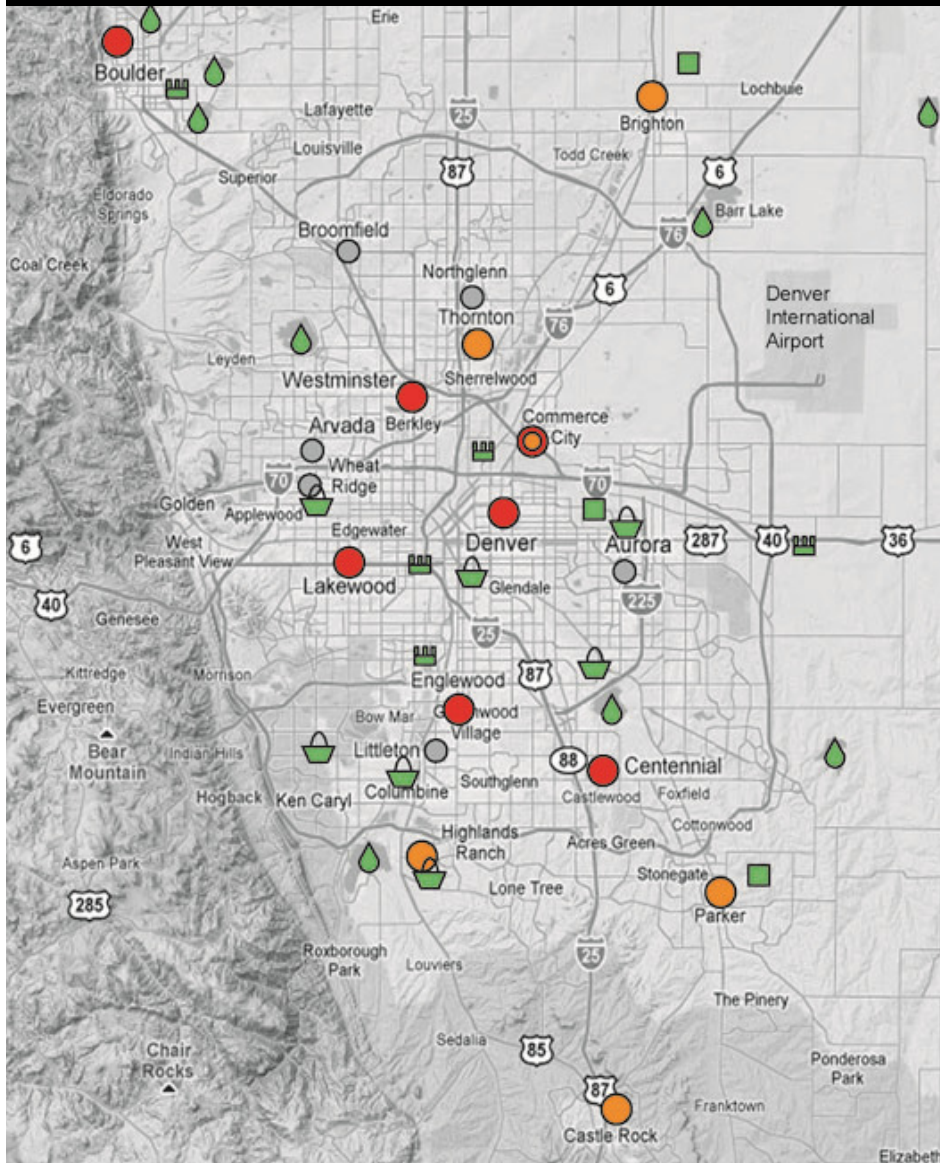
50 % +

Jobs Per Square Mile

More than 3,000

Cities with the most jobs are not the cities with the highest percent of family households. The relationship between prominent business and family centers is essential to a cities sustainability. The closer the two are located the greater the benefits including supporting business growth, reduction in commute time to work, and reduction in resource usage.

Denver Resource Centers



3 or More People Per Household %

50 % +

Jobs Per Square Mile

More than 3,000

Universal Resources

Water

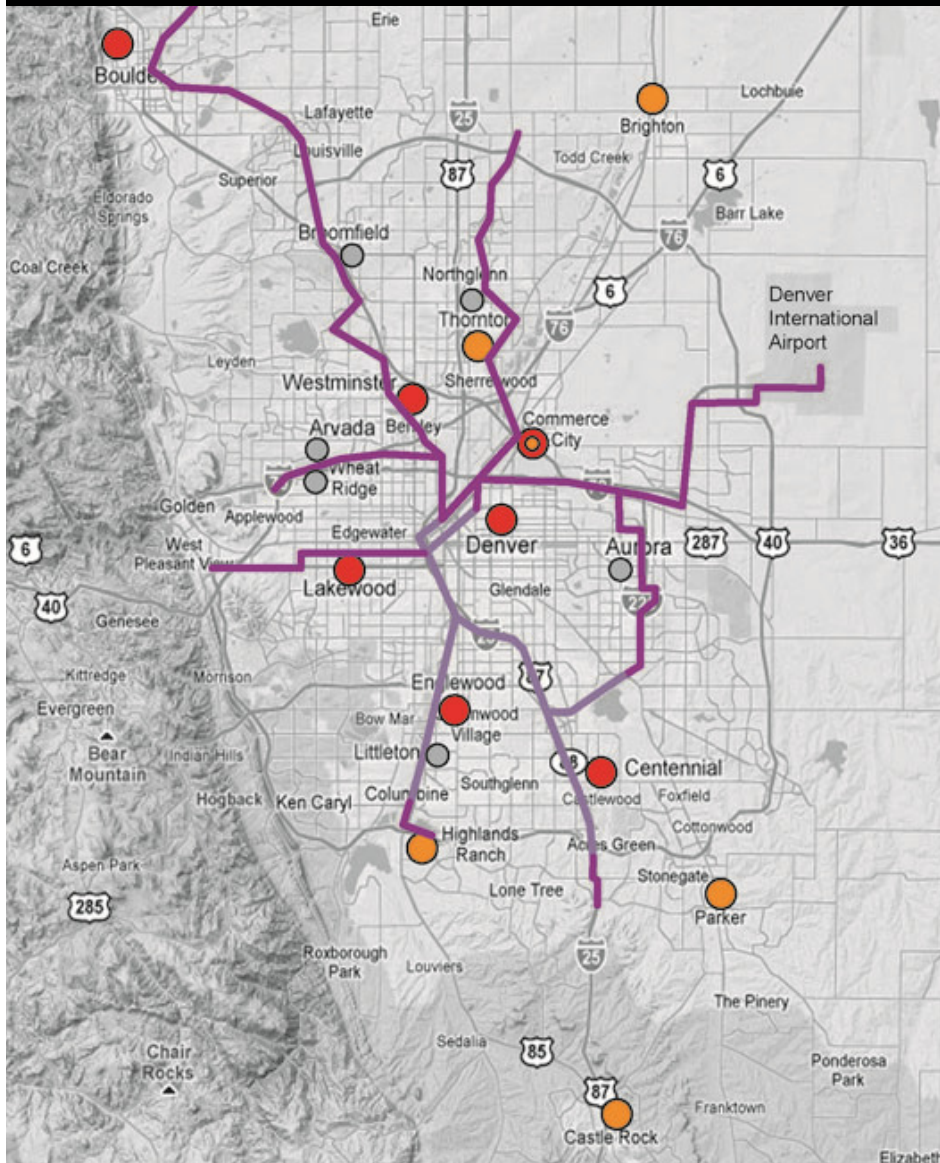
Power Generation

Urban Farms

Farmers Markets

In a metropolitan area, universal resources are shared between cities. Again, the closer the resources are located to the people the greater the overall human sustainability.

Transit Connections to City Centers



3 or More People Per Household %

● 50 % +

Jobs Per Square Mile

● More than 3,000

Public Transportation

— Existing Light Rail

— FasTracks Light Rail & Commuter Rail

FasTracks

One of the largest regional transit expansion programs in North America, planning to build in Denver Metro 122 miles/196 Km of new commuter rail and light rail by 2018.

FasTracks, once fully complete, will connect all the major business centers and most cities with a population over 30,000. The exercise of identifying the family and business centers in conjunction with public transportation shows the possibilities and opportunities for future transit expansion. FasTracks is a major step towards reducing reliance on the automobile as the primary mode of transportation.

Guiding Principles for Reshaping Cities 2+



1. **Interdependency:** Cities endure over time by designing for the youngest to the oldest resident, acknowledging the interdependency between families, businesses, and natural resources.
2. **Social:** Enliven social interaction with community events, central gathering spaces, festivals, neighborhood social networks, and community programs.
3. **Education:** Improve lifelong learning opportunities in education including quality schools, colleges, and libraries.
4. **Culture:** Enhance daily living by museums, performing arts, and places of worship.
5. **Recreation:** Offer recreational opportunities for people of all ages by providing parks with playgrounds, practice fields, pools, bicycle lanes, trails, and recreation centers.
6. **Housing:** Build a diversity of housing that includes 2 + bedrooms across a spectrum of income levels.
7. **Health and Safety:** Provide access to health care, maintain healthy living environment and low crime rates.
8. **Employment:** Offer a diversity of employment opportunities in close proximity to housing.
9. **Cost of Living:** Cost effective housing and basic services.
10. **Services:** Provide convenient services including shopping for daily living and child care.
11. **Transportation:** Expand modes of transportation to include environmental-friendly alternatives to the automobile with all options safe and accessible for families with children and senior adults.
12. **Resources:** Develop local resources that supply the community with food, water, energy, land, and materials.

Stapleton Development, Denver



Stapleton Development is America's largest urban infill project, with over 50% of the residents representing family households. The average household size is 2.85, comparable to surrounding suburban cities with the highest household sizes.

Location: 6 Miles
(10 Km) East of
Downtown Denver

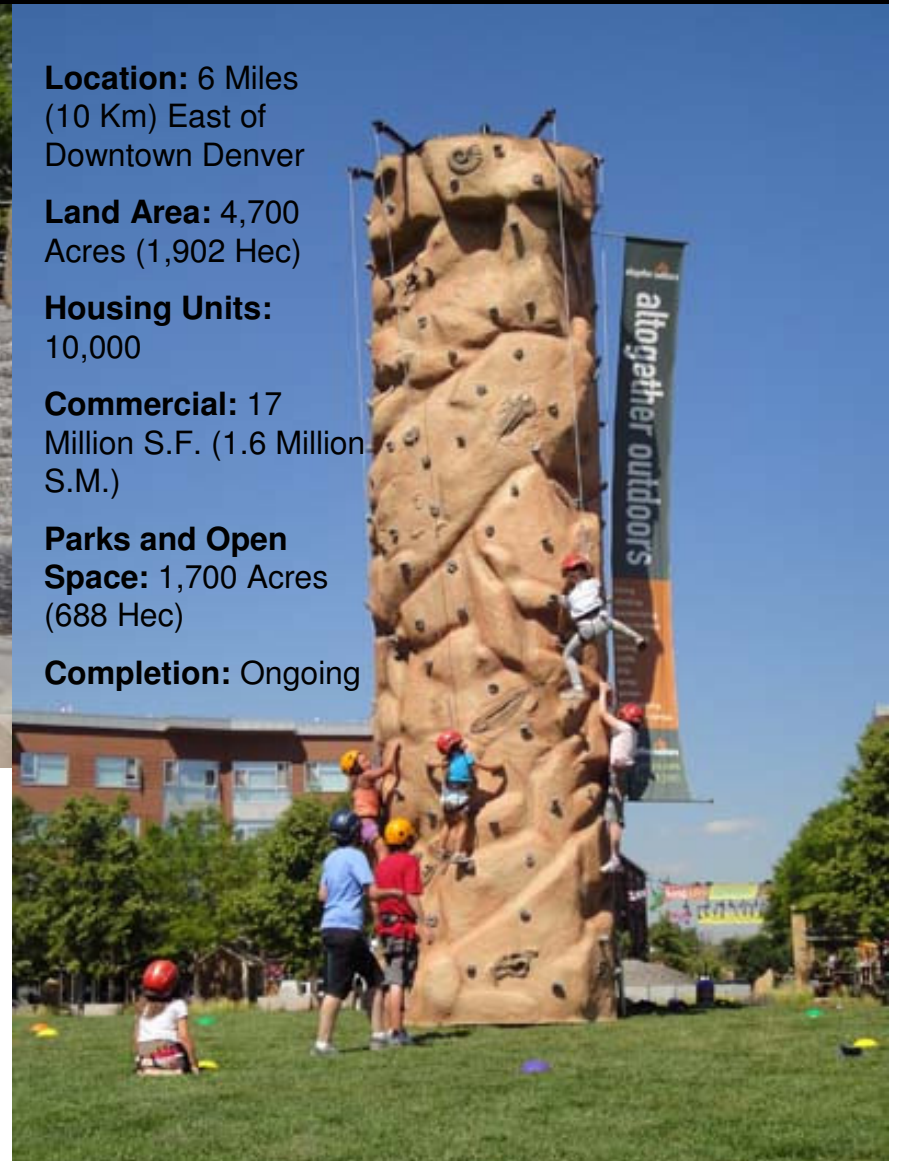
Land Area: 4,700
Acres (1,902 Hec)

Housing Units:
10,000

Commercial: 17
Million S.F. (1.6 Million
S.M.)

**Parks and Open
Space:** 1,700 Acres
(688 Hec)

Completion: Ongoing



Stapleton Development, Denver



Guiding Principles

- ☑ Interdependency
 - ☑ Social
 - ☑ Education
 - Culture
 - ☑ Recreation
 - ☑ Housing
 - ☑ Health & Safety
 - Employment
 - ☑ Cost of Living
 - ☑ Services
 - ☑ Transportation
 - ☑ Resources
-
- ☑ Fully Addressed
 - Partially Addressed

Stapleton Development, Denver



Stapleton's strength is offering a diversity of housing options, with a high percent of affordable 2+ bedrooms. Homes are designed to conserve natural resources from water to energy, proving a 40-70 percent savings over conventional design.

Sustainability Awards: Stockholm Partnerships for Sustainable Cities 2002 and Urban Land Institute 2006 Award for Excellence.



Benedict Park Place, Denver



Location: Downtown Denver

Land Area: 14.9 Acres (6 Hec)

Housing Units: 688

Retail: 15,000 S.F. (1,390 S.M.)

Completion: 2011

Benedict Park Place is within walking distance of Denver's business center as well as schools, parks, and public transportation.

Green Building and Design: LEED for HOMES Pilot (Platinum), LEED ND Pilot (Gold), Enterprise Green Communities



Benedict Park Place, Denver



Guiding Principles

- ☐ Interdependency
 - ☐ Social
 - ☐ Education
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Reshaping Cities 2+ Key Concepts



Design for the youngest to the oldest resident

Planning the city center and business center is not complete without the integration of the family center and natural resource centers.

Reshaping Cities for 2+ makes it possible for families to live and work in the city.

2+ Generations

2+ Average Household

2+ Bedrooms

Reshaping Cities 2+



Human Life Project

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