PLANNING FOR SUSTAINABILITY

Planning Directions for St. George's 10,000-acre "South Block" Growth Area

Modeling of Land Use Impacts Associated with the Southern Corridor Project





City of St. George UDOT/Federal Highway Administration School and Institutional Trust Lands Administration







The St. George General Plan









White Dome - Location











Size - approximately 2,300 acres. Occupies nearly 25% of the South Block Copography - unique landform Geology - soils Rare Plants - Siler Pincushion Cactus & Dwarf Bearclaw Poppy Recreation - Popular area for ATV's, motorcycles, hikers, bikers, etc. Proximity to Future Development

















Biology









DIRECTIONS

- Preserve a sustainable component of rare habitat. .
- Create a truck route that does not create conflicts with residential development.
- .
- .
- residential development. Do a cost/benefit analysis of alternative truck routes. (Travel time, construction cost, maintenance cost, habitat fragmentation, increased public access, etc.) Preserve habitat corridors rather than isolated pockets. Designate OHV use on a regional basis, and as a trail in addition to a use area. (Mutually agreed-upon, that they won't get kicked out of in the future.) Conduct ongoing scientific .
- Conduct ongoing scientific study. .

- <u>Actions:</u> Document rarity, sustainability factors. . .
- Verify that pollinators won't cross roads
- Identify alternative truck routes
- Identify alternative truck routes
 Prepare region-wide habitat conservation plan and guidelines.
 Convene White Dome stakeholders to determine management/ownership options
 Meet with OHV organizations to test interest in funding/managing a trail system and practice area.
 Commission a comprehensive plan for OHV use, with a regional approach

Business, Industry and Transportation

[Employment Development]

Washington County Growth Projections

Population, Household and Employment Projections* Washington County, Utah

Year	Washington County Population	Population Increase	Washington County Households	Household Increase	Non- Agricultural Employment	Employment Increase
2003	101,797	N/A	33,725	N/A	37,318	N/A
2020	177,354	75,560	59,643	25,918	70,059	32,741
2030	218,840	117,046	75,679	41,954	87,977	50,659
Source:	State of Utah				└	

Fort Pierce Industrial Park

Recommendations:

- 1. Need more services for employees
- 2. Good access and circulation
- 3. Accelerate construction of alternative access
- 4. High speed internet accessibility
- 5. Primary site for industrial/manufacturing businesses
- 6. More attractive industrial buildings





Employment Development



Future Employment Sites

- 1. Large industrial areas are desirable with transition land uses or buffers to other uses
- 2. Smaller business park sites can work
- 3. Employment sites should be close to services
- 4. Employment enhanced by nearby college, medical campus and research center
- 5. Access to I-15 and Southern Corridor important

Employment Development Alternative 1

Large Industrial and Business Park Sites



Employment Development Alternative 2 Large Industrial and Smaller Business Park Sites



* Candidate sites for college campus, medical complex

Access to Southern Corridor and I-15

Recommendations:

- 1. Fort Pierce needs as direct access as possible to Southern Corridor and I-15
- 2. Separate truck and residential traffic
- 3. 4 lane roadway to allow for passing
- 4. Identify alternative truck routes (White Dome breakout group)

Fort Pierce Industrial Park Access Alternative 1





Fort Pierce Industrial Park Access Alternative 2





Fort Pierce Industrial Park Access Alternative 3



Fort Pierce Industrial Park Access Alternative 4



DIRECTIONS

- Fort Pierce to Southern Corridor access without traffic conflicts with residential areas.
- Manufacturing uses envisioned to dominate business development .
- For business parks, more small park areas rather than a few large ones.
- For industrial uses, large zones are desirable. .
- Transition buffers to other adjacent land uses. .
- Providing zoning is a good first . step.
- Include medical, educational campus, research park, tech college. .
- Convenient amenities for workers

- Actions: .
- .
- Actions: Conduct a cost/benefit analysis of the preferred alternative highway alignments (compare Amend the road Master Plan to reflect the alternative ultimately accepted by the City. Create a more detailed Master Plan and Zoning designations that reflect the different types of business uses and their location requirements (buffering, truck access, etc.) .

RESIDENTIAL DEVELOPMENT

GENERAL PLAN DIRECTIONS

 St. George's General Plan suggests a significant residential community, with commercial and industrial uses, and the drainages and White Dome left in open space.



ALTERNATIVE 1: INITIAL PROPOSAL

- Alt 1 creates 5 neighborhoods, each with a community center, with a school, park, 1acre church site.
- At a net density of 3.0 du/acre, residential uses decrease in density moving outward from the center.



ALTERNATIVE 2 COMPACT GROWTH

 Alt 2 reduces the gross size of residential pod 1, and increases the density of all the pods from 3.3 du/ac to 5.0 du/ac.





COMPARISON

- Alt 2 reduces the total acreage of development by only approximately 125 acres
- However, Alt 2 increased the total population by almost 10,000 people.

Total resid acres



SCHOOLS











Transit-Friendly

 Alt 2, by virtue of its higher density, locates significantly more people within a 5 minute walk to potential bus stops



Walkable to Bus

unib

2,452



CONCLUSIONS

- 1. Making a relatively self-sufficient community will:
- reduce overall travel
- lower vehicle miles traveled
- shorten commuting times,
- lower exhaust emissions, and
- reduce roadway construction



CONCLUSIONS cont'd

- 2. Increasing densities will support:
- a full range of schools (elementary through high)
- local commercial (convenienceoriented)
- a grocery store and intermediate-level shopping.



Major shopping still at: Downtown, Red Cliffs Mall, and Zion's Factory Outlet Stores.

CONCLUSIONS cont'd

3. Transit-friendly (could support segment of a bus system).



DIRECTIONS

- As self-sufficient as possible, with local jobs, housing, schools and commercial uses to minimize the out-of-valley travel for future residents. Preserve a sustainable component of rare habitats. Make habitat part of an open space system, with ducational Component. .

- **Document** rarity, sustainability factors of habitats.
- jactors of habitats. Increase **net density** of the development pods. Provide a **high degree of amenities** (parks, trails, plazas, streetscape, etc.) Xeric landscape Have of detailed the

- Have a detailed Sub-area Plan. Reserve areas for higher education, cultural facilities and recreation fields.

- The components of the vision for the South Block are:
- South Block are: thigher residential densities (5 to 7 diagross acre) an integrated mix of uses a full range of unit types open space areas adjacent to, and integrated within the community irrails that connect neighborhoods to community facilities and open space a water-conserving and energy: conserving community an overall design that is responsive to a desert condition and xeric Actions
- . •
- aesert condition and xeric Actions Amend the current zoning codes to allow as use-by-right the densities and mix of uses Adopt a more detailed General Plan designation. Continue studies of plants locations and habitat. •
- .
- Correlate residential planning with transportation and habitat studies. .

How?



St. George already has several attractive developments with dense clusters around amenities in a xeriscape setting.

Typical Recent St. George Development









Density

Small lot single family







Incentive: can result in smaller, more affordable lot



Density

Garden Court Single Family 5 -7 units per acre



Density

Townhouse - 7-12 units per acre



Density

Townhouse - 7-12 units per acre



♦ Woods Cross, Utah



* Provo Riverwoods





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Strategies for creating pleasant streets

- Provide higher % of front yard in landscaping through
 - ♦ Alleyways
 - Shared driveways
 - Hollywood driveways





Side-entry



Hollywood Driveway





Alley-fed



Residential Connectivity



Neighborhood Parks/Plazas





Mapleton, UT



Reduced street widths from 42' to 32'





GOAL: Safe place for kids to play, walk to school

- Auto speeds and traffic
- Safe walking routes
- Convenient walking routes



Mixing Uses

Mixing Uses



Typical Approach to Land Use

Duplexes,Townhouses

- Single Family15,000 min lot size
- Single Family10,000 min lot size

Alternative Approach



Compatible design enables variety



Mixing Uses Neighborhood Commercial



Provo Riverwoods



Celebration, FL



Benefits of Mixing Uses

- Sustainable communities can decrease or even eliminate the need to drive
 - ♦ Congestion can be reduced
 - ♦ Streets are pleasant and safe
 - ♦ Services are convenient
 - Various housing choices can exist in same neighborhood

The Importance of Design

The Importance of Design





St. George already has several attractive developments with dense clusters around amenities in a xeriscape setting.

















What is a great neighborhood?

- A. Beautiful place to live where property values are maintained
- B. Safe place for kids to play, walk to school
- C. Place where one can live in each stage of life

GOAL: Maintaining Values

- Typical Approach:
 Size of buildings
 - ♦ Size of lots
- Alternative Approach
 Focus on design
 - Create beautiful streets that are attractive to pedestrians



Increased Property Value



Only benefits homes on streets where there is a high percentage of street trees

Housing Needs Over a Lifetime



Demographics

- 19.2% of St. George population is over 65
- Projections show that by 2020 up to 40% of national population will be seniors
- For the elderly driving becomes difficult, if not impossible



Recent Trend in United States

Recent Trend in St. George





Connected vs. Through-streets



Accident Rates on Local Streets



* Average residential street pavement width= 32-35 feet

Public Safety and Residential Street Design









Employment Adjacent to Residential

Recommendations:

- 1. Transition zone to residential is essential
- 2. Affordable housing near employment
- 3. Separate employment and residential traffic

Employment Development

Transition to Residential Neighborhood







Employment Development Residential Neighborhood United States Barren Density Density Open Space Open Space United States Density Densi



Potential Future Development





Shared Driveway

