

**CITY OF SARATOGA SPRINGS
CITY COUNCIL WORK SESSION AGENDA - Amended**

Tuesday, December 1, 2015

Meeting held at the City of Saratoga Springs City Offices
1307 North Commerce Drive, Suite 200, Saratoga Springs, Utah 84045

Councilmembers may participate in this meeting electronically via video or telephonic conferencing

City Council Work Session

6:00 p.m.

1. Northwest Utah County Study: Socio-Economic Growth and Transportation Study – Presentation from Consultants for FRI and SITLA
2. Agenda Review:
 - a. Discussion of City Council policy agenda items.
 - b. Discussion of future City Council policy and work session agenda items.
3. Adjourn to Policy Session.

Northwest Utah County Study

Socio-Economic Growth & Transportation Analysis

Prepared for:
Utah School and Institutional Trust Land Administration
& Farmland Reserve, Inc.



October, 2015

UT15-1076

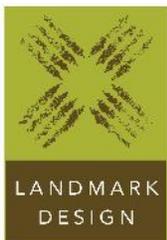


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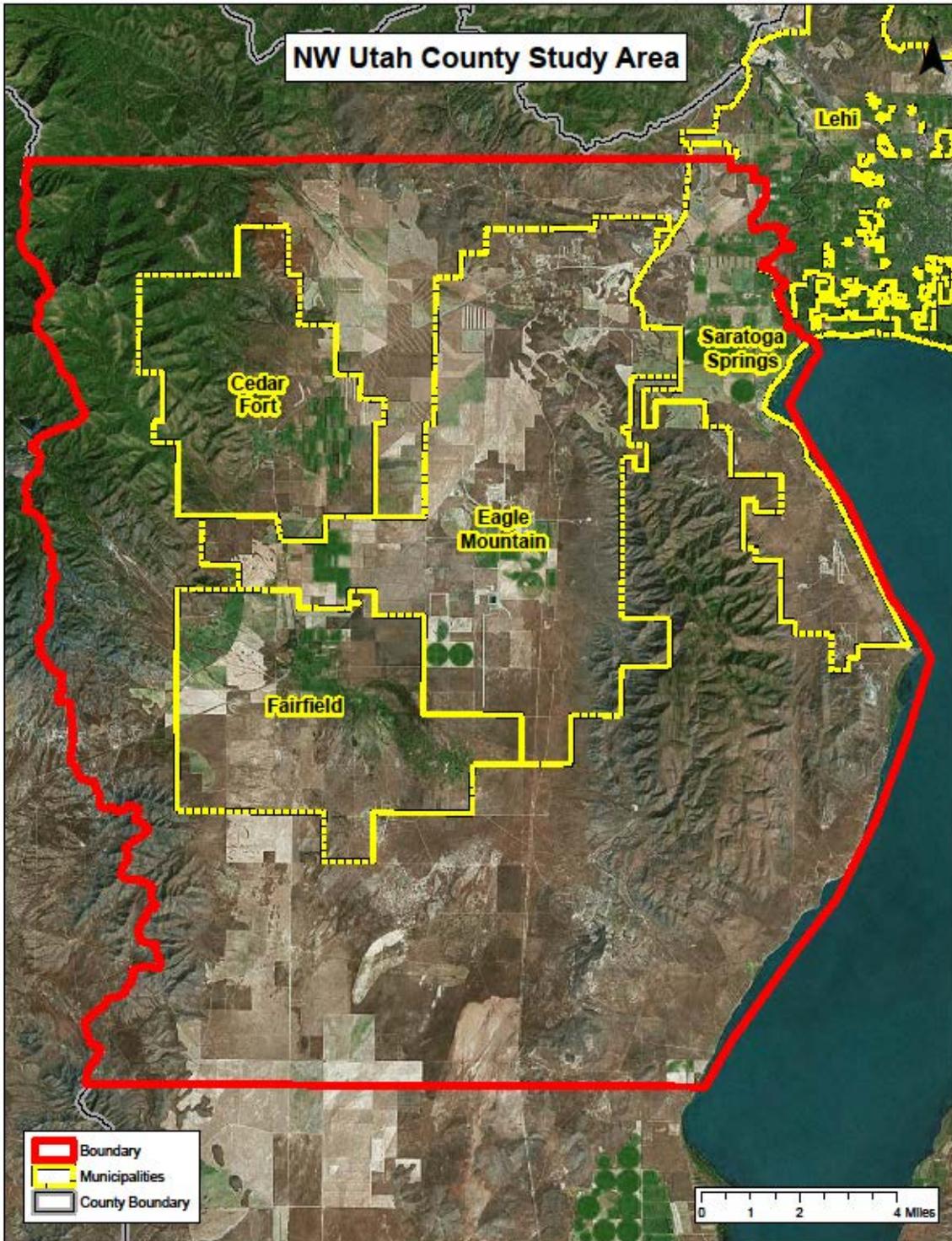
EXECUTIVE SUMMARY

The Utah School and Institutional Trust Lands Administration (SITLA) and Farmland Reserve, Inc. (FRI) commissioned a study to explore socio-demographic growth projections as well as transportation and land use impacts in Northwest Utah County. The analysis was completed to support sound regional planning for the area and understand the implications of a “market driven” growth scenario. This scenario anticipates higher population but lower employment growth than currently projected by the Governor’s Office of Management and Budget (GOMB) and Mountainland Association of Governments (MAG).

OBJECTIVE

SITLA and FRI want to better understand how population growth and transportation impacts might affect their properties in Northwest Utah County, primarily in Saratoga Springs, Eagle Mountain and the Cedar Valley. Simultaneously, both groups want to support thoughtful, long-term regional planning beyond their property interests and partner with regional planning agencies and local municipal governments to develop solutions to regional challenges. Within the Northwest Utah County study area (see Figure 1), SITLA and FRI desired to explore sociodemographic growth projections, land use scenarios, reasonable employment and economic alternatives, and critical transportation corridors suitable for moving both workforce and residents within and out of the study area.

Figure 1: Study Area



KEY FINDINGS FROM THE MARKET ANALYSIS

- By 2050, Utah County could need to accommodate an additional:
 - 310,000 residential units (132% of GOMB's projection)
 - 40 million square feet of commercial space, supporting 115,000 jobs (38% of GOMB's projection)
- The study area remains primarily a bedroom community, but develops some office and industrial real estate to serve local uses
- Two predominant "cores" emerge within the study area:
 - Saratoga Springs at the intersection of Pioneer Crossing and Redwood Road likely serves the western Utah County area with office and regional retail uses
 - Northern Eagle Mountain may become predominantly retail, but could also offer office and higher density residential

The impact of this growth creates challenges both to the local and regional transportation networks, particularly on constrained east-west connections between Saratoga Springs and Eagle Mountain, even with additional widening and new road facilities.

KEY FINDINGS FROM THE TRANSPORTATION ANALYSIS

- East/West corridors need to be preserved now
 - Demand for additional 150,000 average daily vehicles
- Revisit high-capacity east/west transit service
- Encourage balance of population and employment in the study area
- A north/south Cedar Valley Freeway alignment study and corridor preservation is needed

To try and mitigate transportation impacts, alternative land use concepts were also developed to redistribute commercial clusters to better benefit communities and focus on mixed-use centers and a greater mix of housing types. Economic drivers were also explored to foster more balance between housing and jobs.

FINAL RECOMMENDATIONS AND CONCLUSIONS

- Observations
 - Reduce out-of-area trips for jobs
 - Increase internal trips for jobs, goods, and services

- Cluster commercial and higher density to support transit nodes
- Recommendations
 - Conduct detailed analysis of Cedar Valley Freeway to better identify its alignment and future intersections
 - Preserve rights-of-way on existing and new corridors, particularly for the constrained east-west roadways
 - Focus an economic development effort for job creation in the study area

PROJECT PURPOSE

As large landowners in Northwest Utah County, SITLA and FRI are interested in better understanding how population growth and transportation impacts might impact their properties. Moreover, both groups wish to support sound regional planning beyond their independent interests and partner with regional planning agencies and local municipal governments to develop solutions to regional challenges. To this end, SITLA and FRI contracted with a consulting team made up of RCLCO, Fehr & Peers, and Landmark Design to explore socio-demographic growth projections, likely residential and commercial land use scenarios, and employment and economic opportunities and constraints for Northwest Utah County study. Based on this exploration, the team was also asked to identify key transportation corridors that enable suitable movement of the workforce and residents both internal to the area and externally to the larger region.

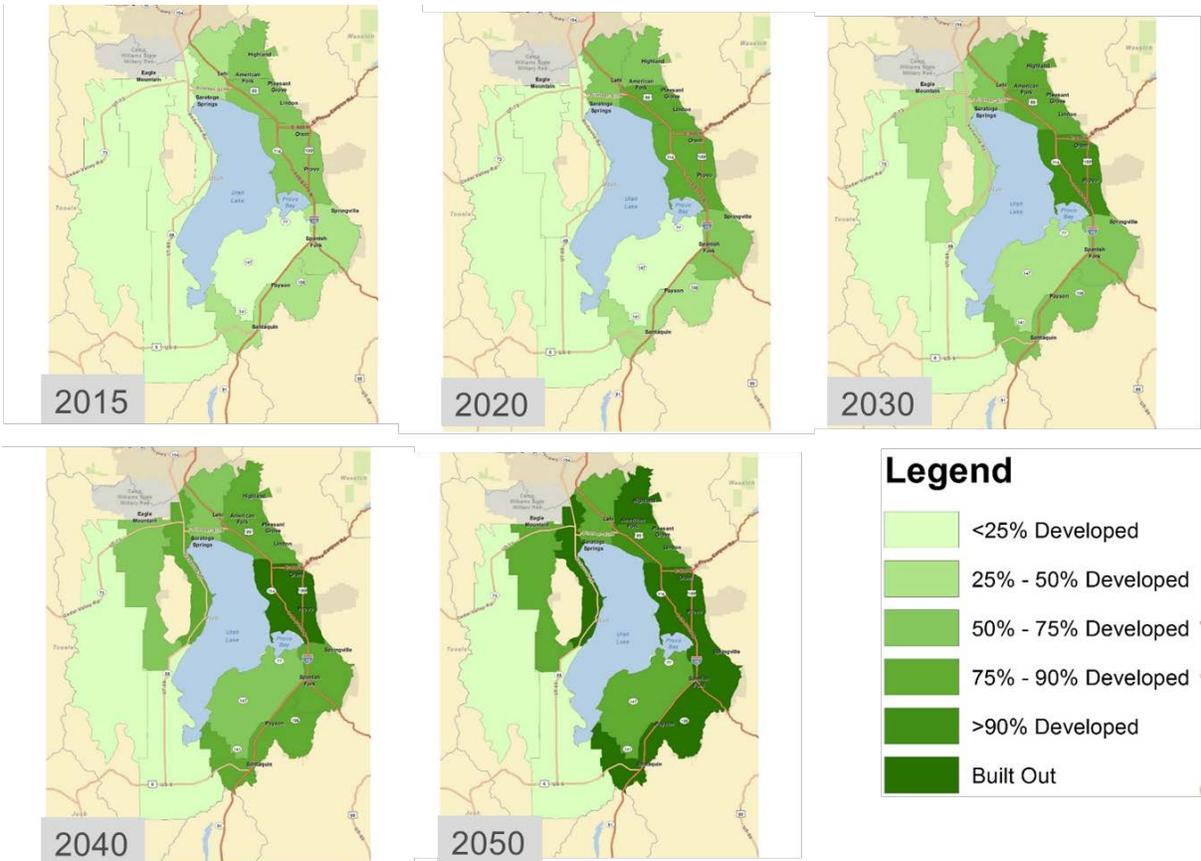
GROWTH PROJECTIONS¹

The first step in the process was the development of market-driven growth scenarios for Utah County and the study area. This analysis builds upon growth scenarios previously completed for the entire Wasatch Front (Utah through Weber Counties), which found that Utah County likely experiences significantly greater population and household growth than what the Governor's Office of Management & Budget (GOMB) projects. Using these numbers, RCLCO estimated demand for a range of residential and commercial real

¹ After this study was completed, RCLCO presented this section's data to Pam Perlich, PhD, of the University of Utah's Kem C. Gardner Policy Institute ("Institute"). Dr. Perlich acknowledged that her Institute group would be using a similar analysis of creating county projections informed by land use and commuting modeling, somewhat in keeping with RCLCO's process. Her group intends to integrate work like RCLCO's into the forthcoming Legislature-funded Demographic Decision Support work program that is being coordinated and executed at the Institute with the Metropolitan Research Center working as a partner.

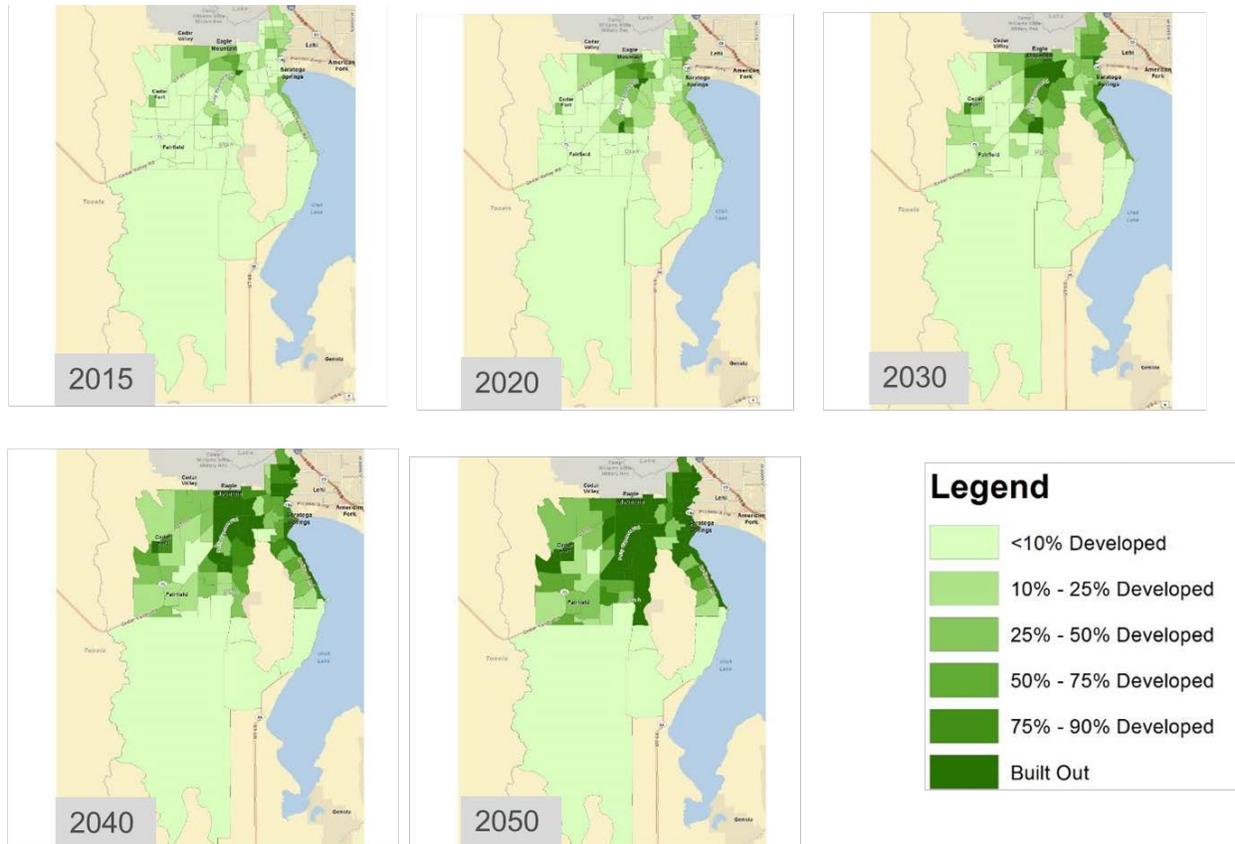
estate uses based on land availability, current and anticipated demand-supply dynamics, long-term consumer and demographic trends, and modified transportation networks. The analysis distributed this residential, commercial office and retail, and industrial space demand by decade to Utah County's different submarkets (see Figure 2).

Figure 2: Land Use Consumption in Utah County by Submarket and Decade



The analysis further refined the geographic distribution of real estate demand within the study area by projecting demand by decade for each Transportation Analysis Zone (TAZ) (see Figure 3).

Figure 3: Cumulative Land Consumption in Study Area by TAZ and Decade



Some of the key findings of the market-driven scenario for Utah County are:

- By 2050, Utah County could need to accommodate an additional:
 - 310,000 residential units (132% of GOMB's projection)
 - 40 million square feet of commercial space, supporting 115,000 jobs (38% of GOMB's projection)
- Eastern Utah County submarkets continue to capture the lion's share of growth through 2050
- Starting in the 2020s, however, development increasingly shifts to Eagle Mountain and, eventually, Cedar Fort, driven by:
 - Land values rising in eastern submarkets
 - Demand for affordable single-family housing
- The west Utah County area should see significant retail development following these new rooftops

- Office/flex development primarily serves local users
- Eastern Utah County captures most employment due to office users' desire to cluster along major infrastructure and near "executive housing"
- Relatively little warehouse and flex development occur in western Utah County because the region offers few logistical advantages relative to other areas in the Wasatch Front

Within the study area, the market-driven scenarios suggest:

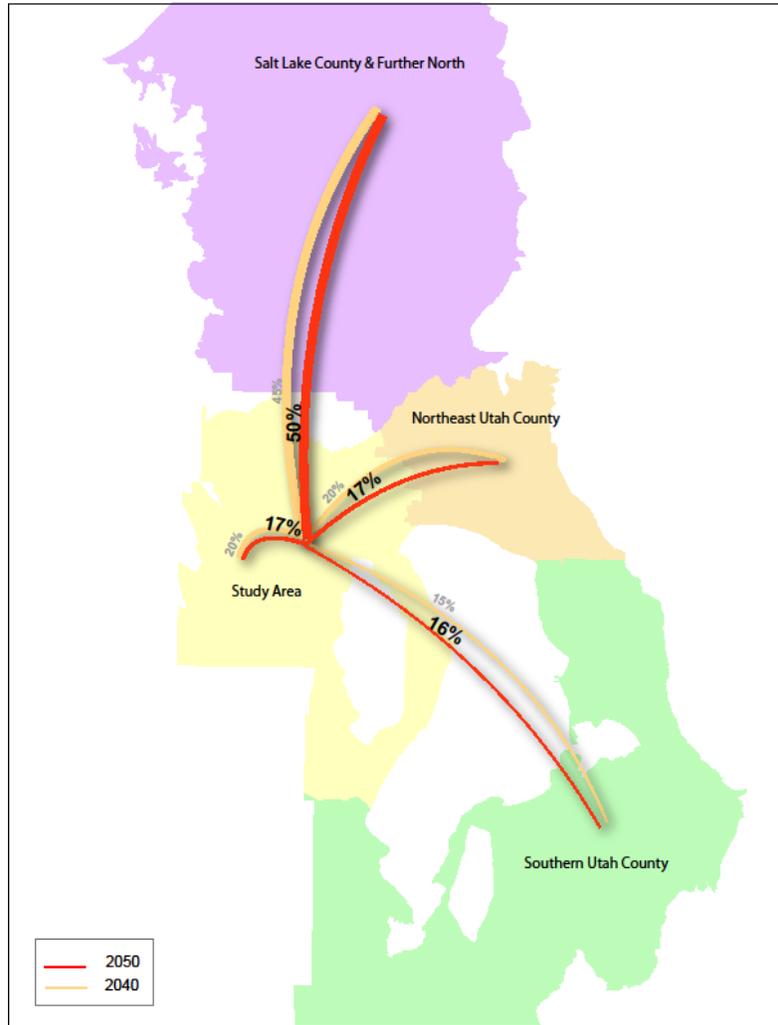
- The study area remains primarily a bedroom community, but develops some office and industrial real estate to serve local uses
- The area features a gradient of land values/densities from east to west, from Saratoga Springs (currently closest to existing development) to Cedar Fort (still occupying the edge of the region)
- Two predominant "cores" emerge within the study area:
 - Saratoga Springs at the intersection of Pioneer Crossing and Redwood Road likely serves the western Utah County area with office and regional retail uses
 - Northern Eagle Mountain may become predominantly retail, but could also offer office and higher density residential
- Local retail follows households
- Regional retail clusters in cores near freeway interchanges

TRANSPORTATION RESPONSE

To understand the implications of the market-drive projections, Fehr & Peers took the 2040 and 2050 projections for the study area and used the Wasatch Front Regional Council Travel Demand Model to analyze how the current Mountainland Association of Governments (MAG) long-range transportation plan network performed.

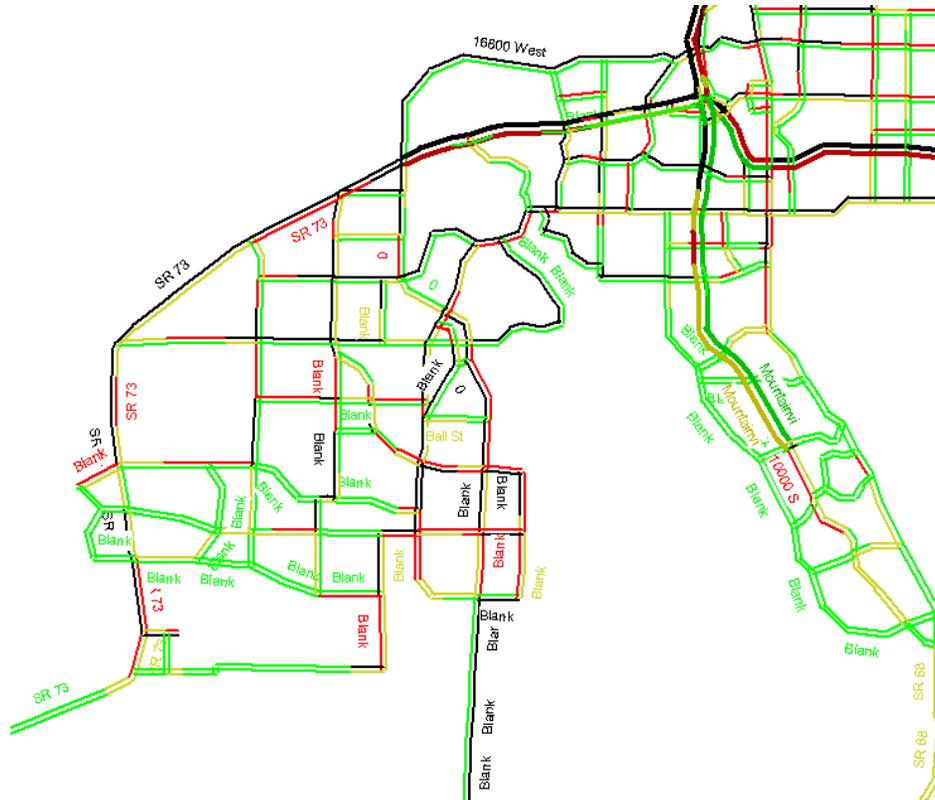
The results of the market-driven scenarios suggest a much larger population in the study area than currently projected by MAG as well as lower employment projections. This creates a considerable job/housing balance challenge for the region and, therefore, it is not surprising that the baseline MAG network experienced significant congestion issues. The model suggests that the study area only captures 17% of home-based work trips in 2050, while 50% of those trips are exported to Salt Lake County and further north and another 33% are to north east Utah County (17%) or southern Utah County (16%) (see Figure 4).

Figure 4: Home-Based Work Trip Distribution



Consequently, as shown in Figure 5, congestion problems were especially pronounced on east/west roadways. The results also suggested the need for a larger north/south facility within the Cedar Valley.

Figure 5: 2050 PM Volume/Capacity



Fehr & Peers used the travel demand model to test several iterations of additional and adjusted corridors in the study area to relieve this congestion. Comparisons between the MAG baseline network and the final adjusted network are provided in Figure 6 and Figure 7².

² The maps of new transportation corridors do not represent specific alignments. Further study will be needed to determine final alignments, specifically for the proposed Cedar Valley Freeway/Expressway.

Figure 6: Network Functional Classes

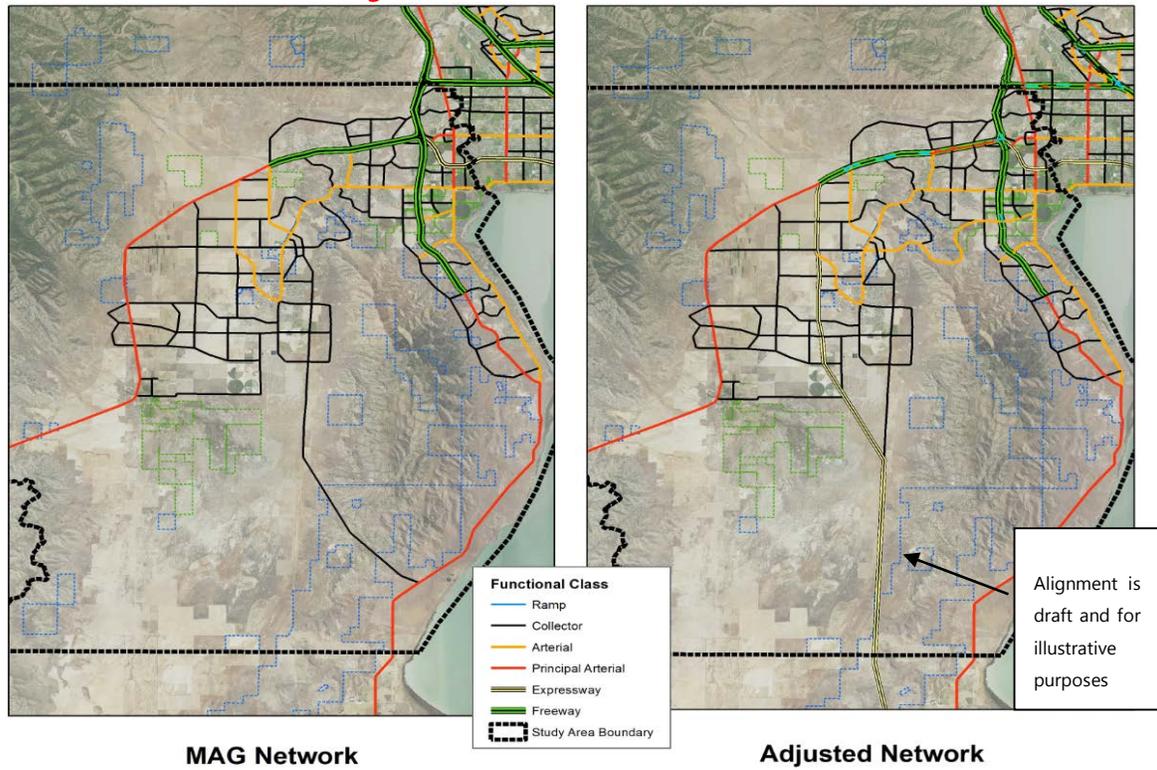
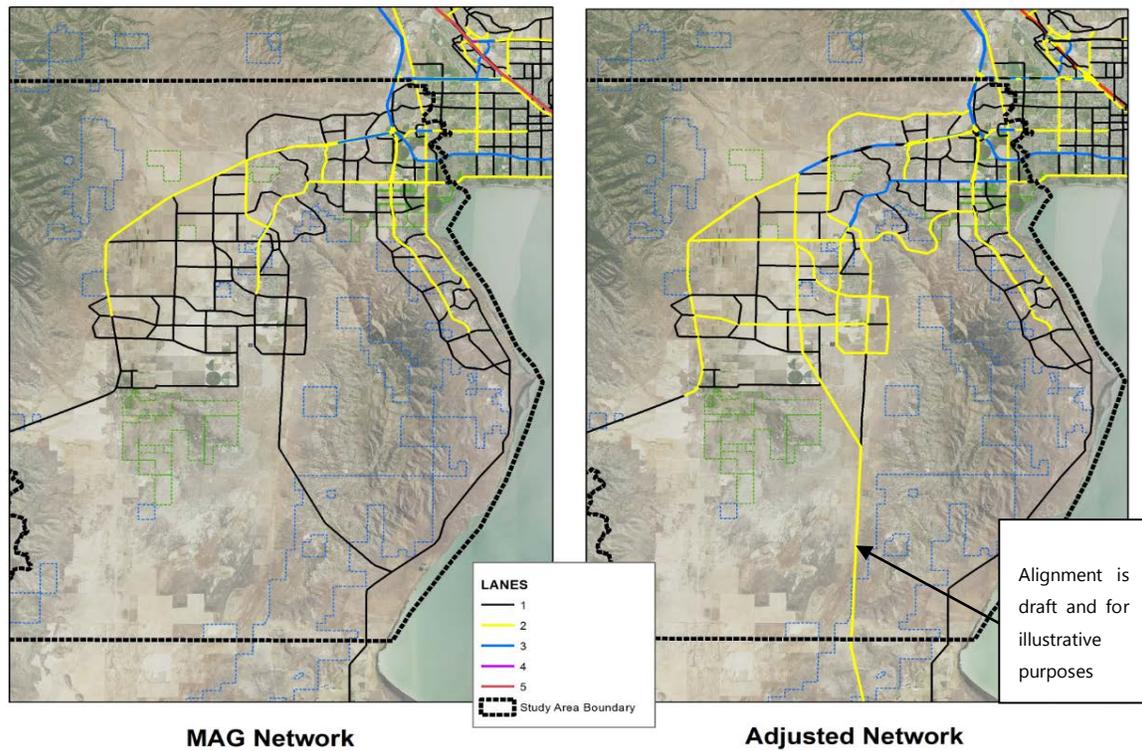


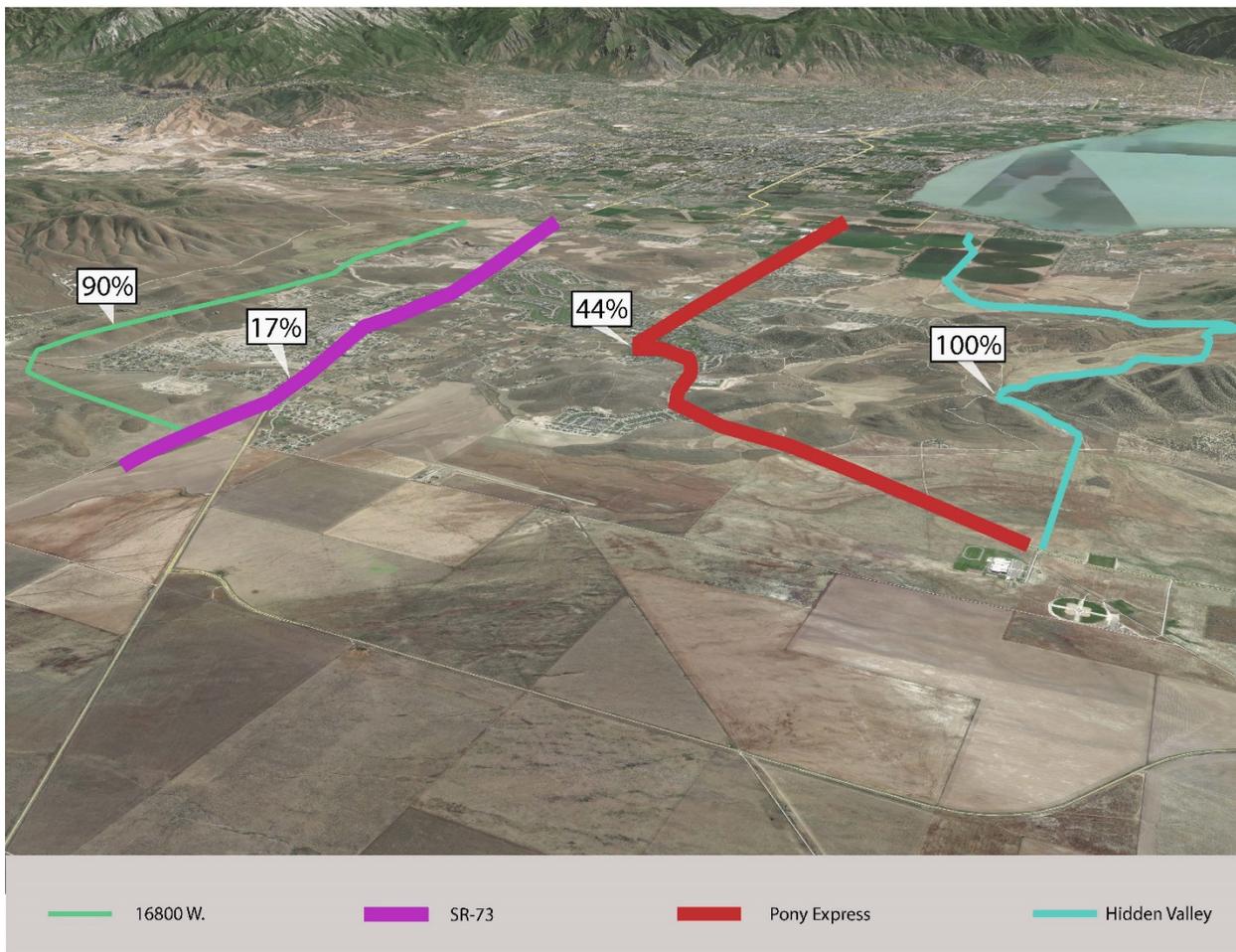
Figure 7: Network Number of Lanes



In total, this adjusted network provided the following:

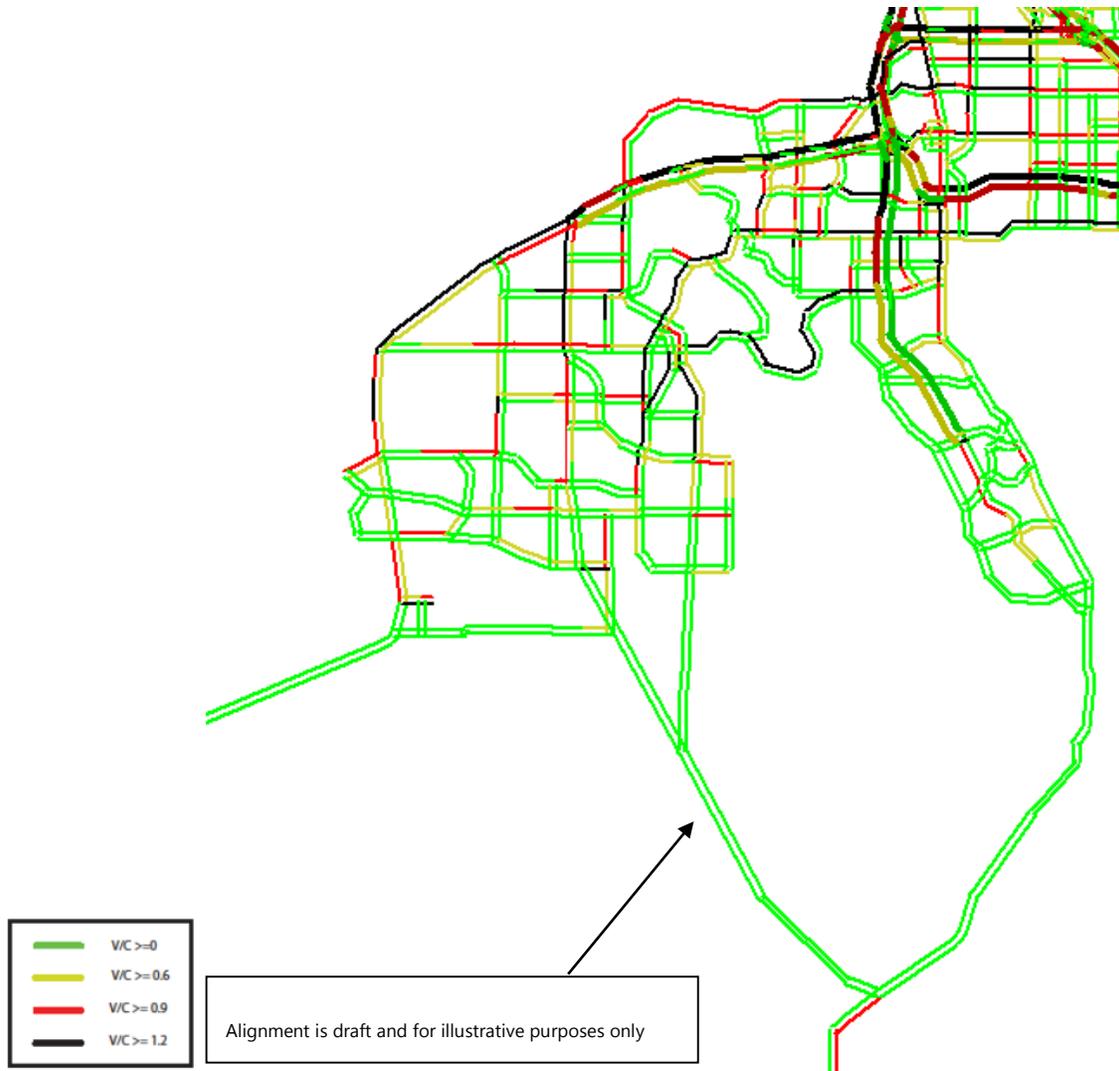
- 28% more lane miles in the study area
- 34% additional east/west capacity (see Figure 8)

Figure 8: Additional East/West Capacity



While the adjusted network significantly reduced congestion, some segments, especially the limited east/west connections, still experience heavy congestion (see Figure 9).

Figure 9: Final Adjusted Network Volume/Capacity



Ultimately, the transportation analysis provides some key takeaways for regional transportation and land use planning.

- Preserve east/west corridors now
 - Substantial congestion even with six-lane Pony Express, four-lane Hidden Valley, two-lane 16800 W., and six-lane SR-73 freeway
 - Demand for additional 150,000 average daily vehicles
- Revisit high-capacity east/west transit

- Ensure ROW preservation for future fixed-guideway transit
- Determine shorter term-strategies for increased transit service
- Design development to foster transit investment
- Encourage balance of population and employment in the study area
- A north/south Cedar Valley Freeway alignment study and corridor preservation is needed

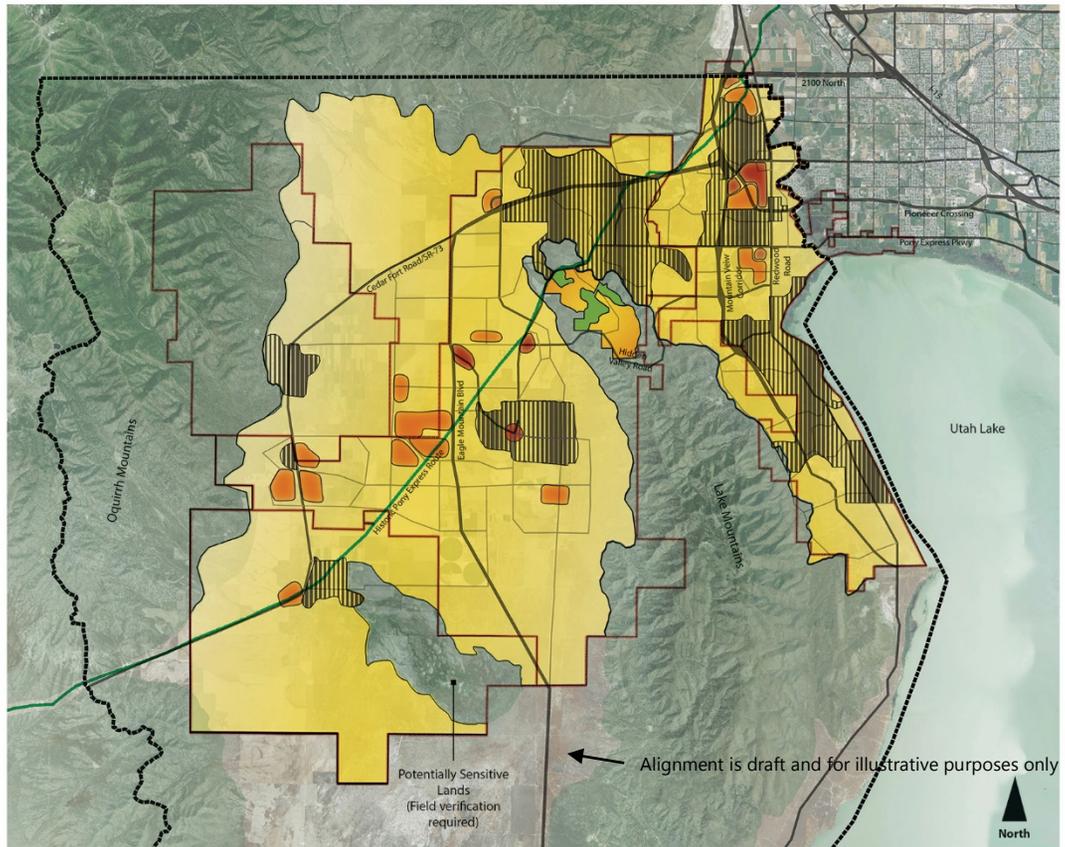
LAND USE

Based on the RCLCO market-driven scenario and the transportation analysis, Landmark Design explored alternative land use concepts. The baseline, provided in Figure 10 and Figure 11, reflects more traditional development patterns that have occurred over the past 30 years assumed in the market-driven model. In response, two alternatives were explored (see Figure 12 through Figure 15), which are based on creating a more sustainable future land use model and attempt to accomplish the following:

- Redistribute commercial clusters to better benefit communities
- Focus on mixed-use centers and a greater mix of housing types
 - The two alternatives reflect general principles of the Wasatch Choice for 2040 planning and place-making criteria, adjusted to fit into the context of northwest Utah County. This includes the elimination of inappropriate (highly urban) development types and the adjustment (reduction) of FARs and units-per-acre to reflect likely conditions. The alternatives also reflect the following conditions: the encouragement of local jobs and enhanced non-residential development; the reduction of growth along main roadways; and the preservation of local features, open space and "Sense of Place" as part of creative land use planning

In order for these or other alternative development patterns to emerge that are more sustainable, new ideas and directions are necessary.

Figure 10: Baseline Land Use



Baseline

Commercial

- Retail
0.45 FAR 
- Office Park
0.45 FAR 
- Light Industrial
0.45 FAR 

Density Residential

- Multi-Family
18 Units per Acre 
- Town Homes
10 Units per Acre 

Single-Family Residential

- Single-Family
3.5 Units per Acre 

 Established development area

 Historic Pony Express route (Potential future regional trail)



Northwest Utah County Study Land Use Concepts

Figure 11: Baseline Images

Low-density Residential



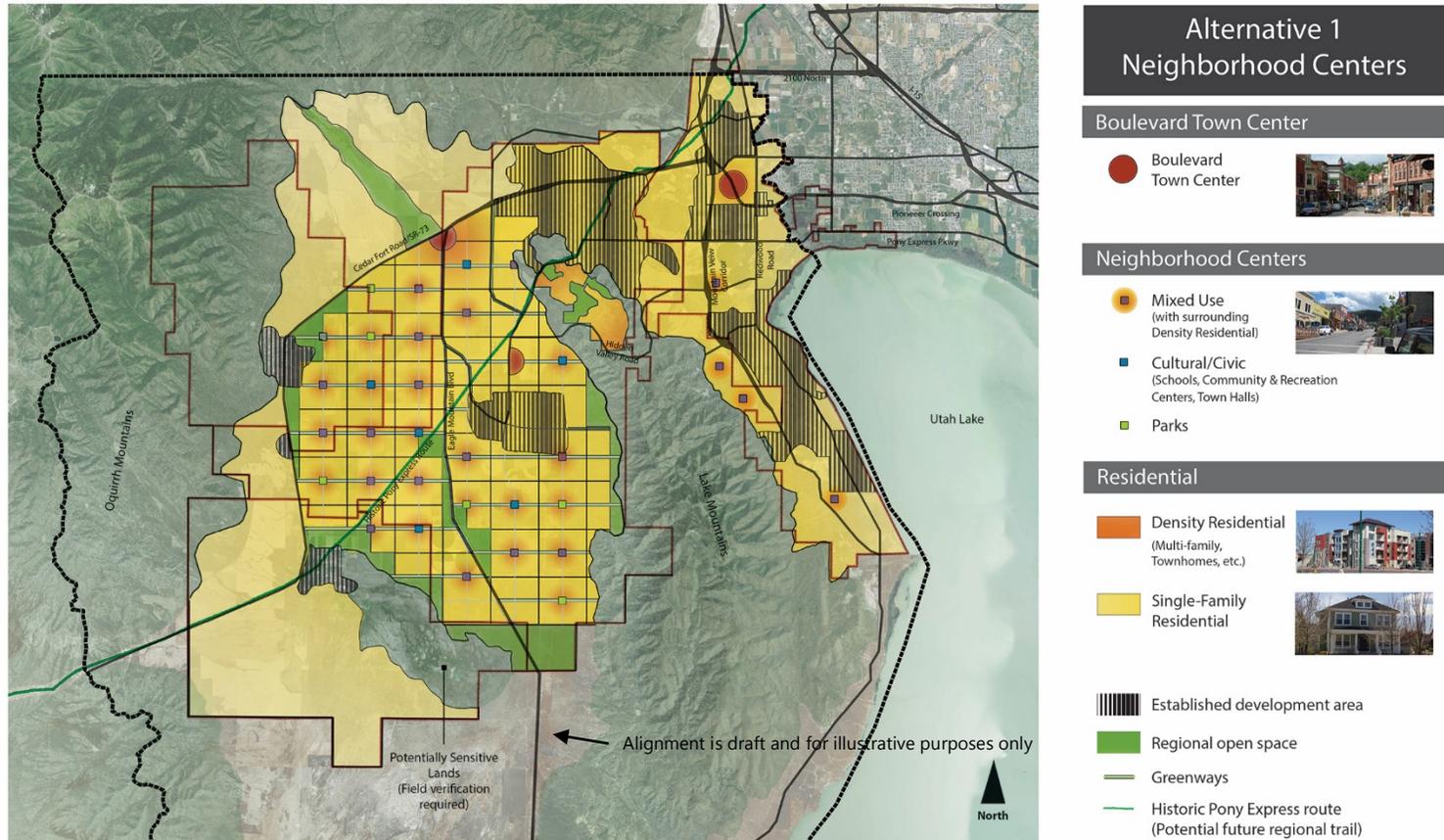
Freeways/ Big Roads



Freeway Commerce Clusters



Figure 12: Alternative Land Use 1 – Neighborhood Centers



Northwest Utah County Study Land Use Concepts



Figure 13: Neighborhood Center Concept Images

Mixed Housing Types and Densities



Parkways, not Freeways



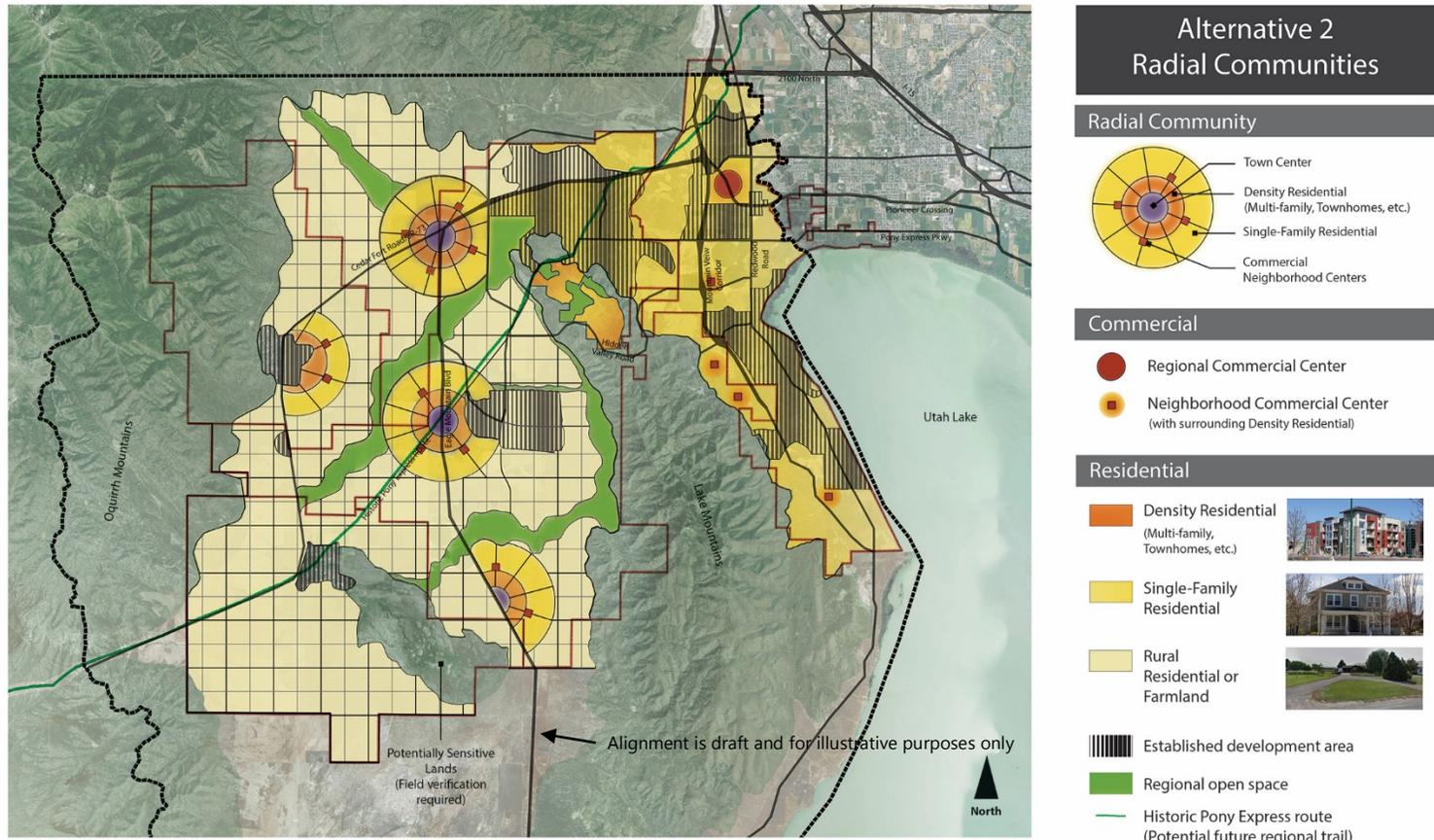
Neighborhood Centers



Boulevard Town Centers



Figure 14: Alternative Land Use 2 – Radial Communities



Northwest Utah County Study Land Use Concepts



Figure 15: Radial Community Concept Images



Rural Residential/Farmland/Open Space Preservation



Mixed Use Centers



Parkways



Transitional Residential from Center to Periphery

ECONOMIC DRIVERS

Because achieving a favorable housing-jobs balance may be critical in alleviating the region's transportation challenges, RCLCO provided some initial counsel on methods the region could consider to attract jobs to this fast-growing area. While these would require significant effort and collaboration, they offer some early ideas for addressing the transportation and land use challenges that the market-driven scenario presents.

- Establish a dedicated economic development organization/taskforce
 - Mission is to attract high quality jobs to Northwest Utah County
 - Likely associated with state/regional economic development organizations but dedicated to Northwest Utah County
 - Requires an executive director, plus limited support staff
 - Efforts may include
 - Lobbying state governments for infrastructure
 - Identifying key industries to attract
 - Attending employer site selection conferences
 - Marketing the region in business literature
 - Recommend policy and public investments to make the area more attractive to businesses.
- Pursue economic development catalysts (provided in Table 1 below)

Table 1: Economic Drivers

Economic Driver	Degree of Impact on Regional Growth	Likelihood/Probability	Degree of Effort / Expense	Job Creation / Traffic Abatement	Required Steps
Airport 	XX	X	XXX	XX	Likely requires state and local political and financial backing; significant lobbying effort
College/University 	XX	X	XX	XX	Outreach to Utah colleges and universities with expansion plans
Large AAC – Active Adult Community (ex: Sun City) 	XX	X	XX	X	Developer recruitment, demographic market studies
Recreational Resort 	X	X	XX	X	Developer recruitment
Aggressive Employment Recruitment -Target Regional HQ of Large Corp 	XXX	XX	XXX	XXX	Set up an “economic development machine,” identify financial incentives
“Back of House” Tech 	XX	XX	X	XX	Tax breaks, financial incentives, recruitment efforts
Agriculture (Potentially Research Based) 	X	XX	X	X	Partner with Ag. researchers from academic, public, or private sectors
Concert/Musical Festival Venue 	X	XX	X	X	Identify a public or private sponsor, recruitment efforts
Elite Sports Training Facility 	X	X	XX	X	Identify a public or private sponsor, recruitment efforts
Outlet Mall 	X	X	X	XX	Developer incentives, demographic market studies

SUMMARY OF RECOMMENDATIONS & CONCLUSIONS

Based on this analysis, the final observations and recommendations are

- Observations
 - Reduce out-of-area trips for jobs
 - Increase internal trips for jobs, goods, and services
 - Cluster commercial and higher density to support transit nodes
- Recommendations
 - Conduct detailed analysis of Cedar Valley Freeway to better identify its alignment and future intersections
 - Preserve rights-of-way on existing and new corridors, particularly for the constrained east-west roadways
 - Focus an economic development effort for job creation in the study area

APPENDIX

Growth Projections and Transportation Alternatives in Utah County Technical Appendix

Prepared for FRI SITLA | September 24, 2015

LIST OF EXHIBITS

- Exhibit I-1A* Methodology: Demand and Submarket Distribution; Utah County; 2015-2050
- Exhibit I-1B* Methodology: Demand and Submarket Distribution; Utah County; 2015-2050
- Exhibit I-2* Total Demand by Decade; Utah County; 2015-2050
- Exhibit I-3* Residential Submarket Score Comparison; Utah County; 2015
- Exhibit I-4* Office Submarket Score Comparison; Utah County; 2015
- Exhibit I-5* Retail Submarket Score Comparison; Utah County; 2015
- Exhibit I-6* Industrial Submarket Score Comparison; Utah County; 2015
- Exhibit I-7* Flex Submarket Score Comparison; Utah County; 2015
- Exhibit I-8* Land Supply and Consumption by Decade; Utah County; 2015-2050
- Exhibit I-9* Residential Units Developed by Submarket, Decade, and Product Type; Utah County; 2015-2050
- Exhibit I-10* Commercial Square Feet (SF) Developed by Submarket, Decade, and Product Type; Utah County; 2015-2050
- Exhibit I-11* Comparison to GOMB Projections by County; Utah County; 2015-2050
- Exhibit I-12* Product Type Matrix; Utah County; 2015-2050
- Exhibit I-13* Submarket Typology; Utah County; 2015-2050
- Exhibit I-14* Submarket Land Analysis; Utah County; 2015-2050
- Exhibit I-15* Development Summary by Product Type (Acres); Utah County; 2015-2050
- Exhibit I-16* Demand by Price, Product Type, and Density; Utah County; 2015-2050

Exhibit I-17A Residential Scores by Taz; Study Area; 2015

Exhibit I-17B Office Scores by Taz; Study Area; 2015

Exhibit I-17C Retail Scores by Taz; Study Area; 2015

Exhibit I-17D Industrial Scores by Taz; Study Area; 2015

Exhibit I-17E Flex Scores by Taz; Study Area; 2015

Exhibit I-1A

METHODOLOGY: DEMAND AND SUBMARKET DISTRIBUTION
UTAH COUNTY
2015-2050

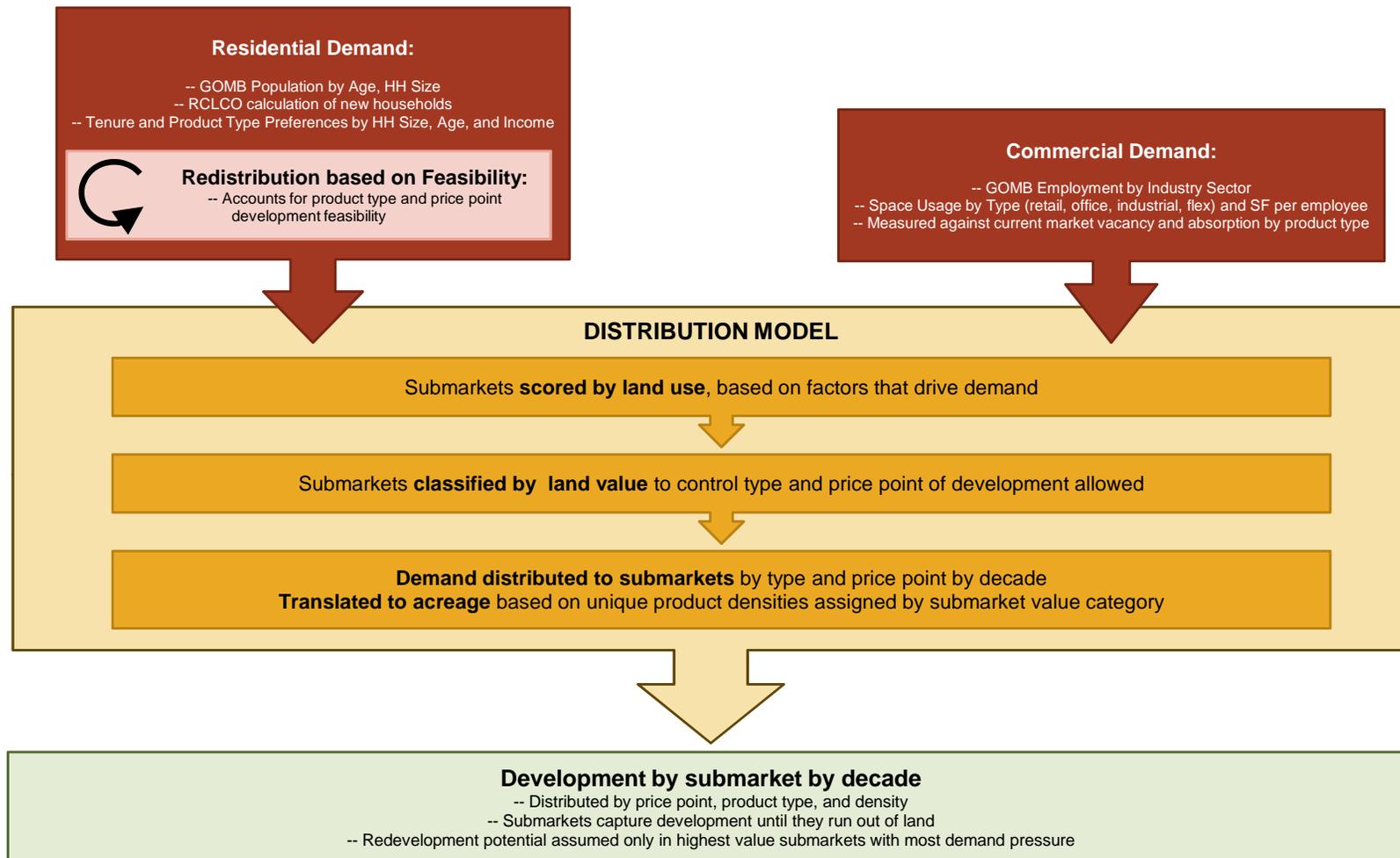


Exhibit I-1B

**METHODOLOGY: DEMAND AND SUBMARKET DISTRIBUTION
UTAH COUNTY
2015-2050**

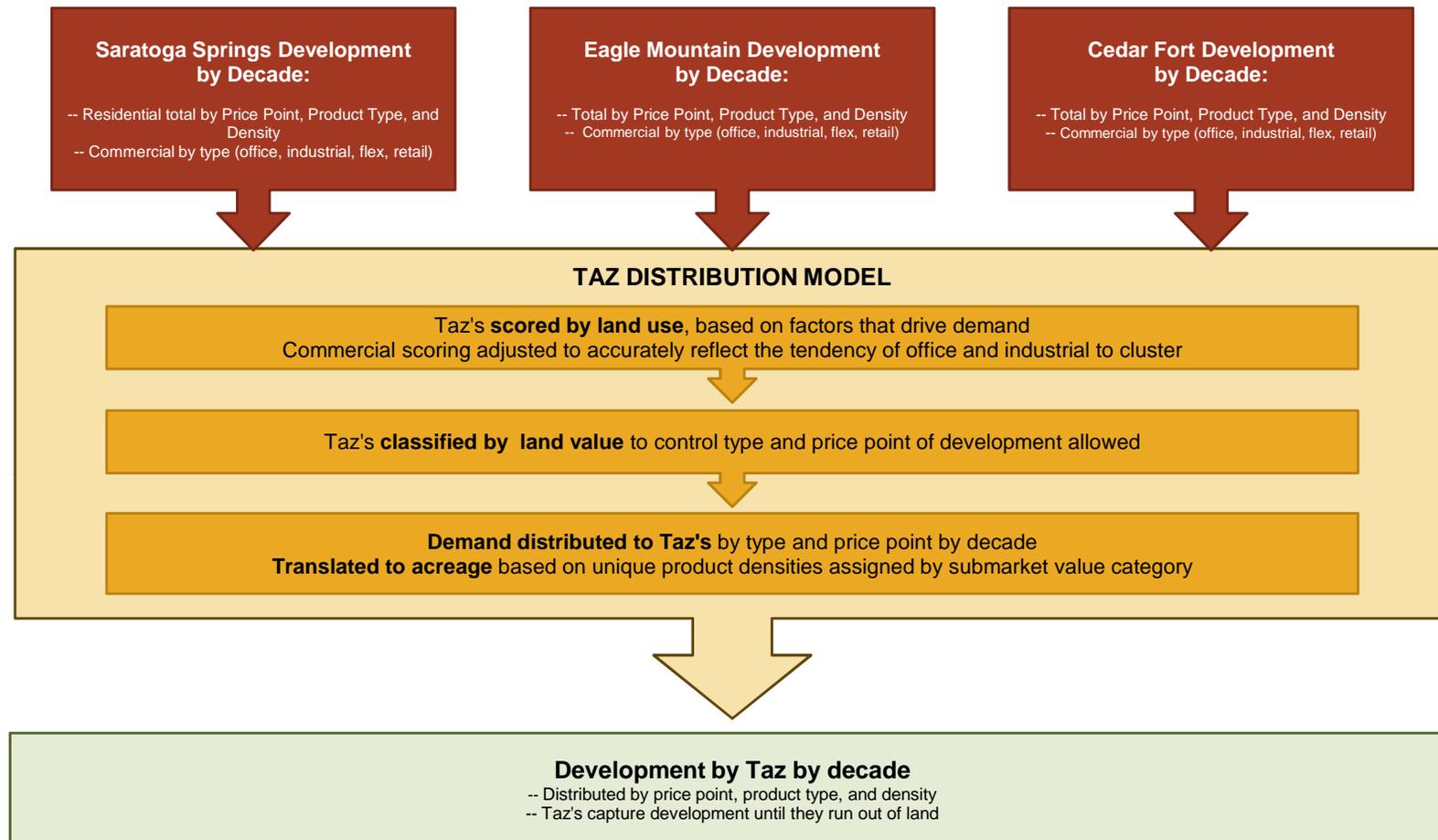
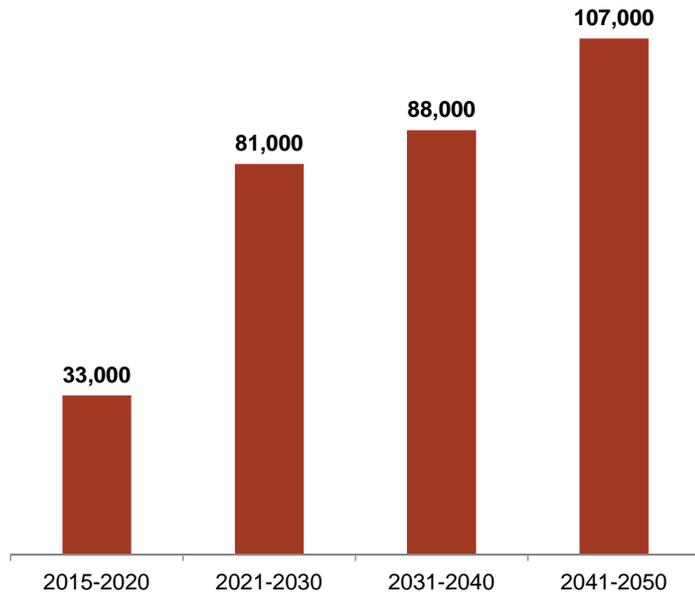


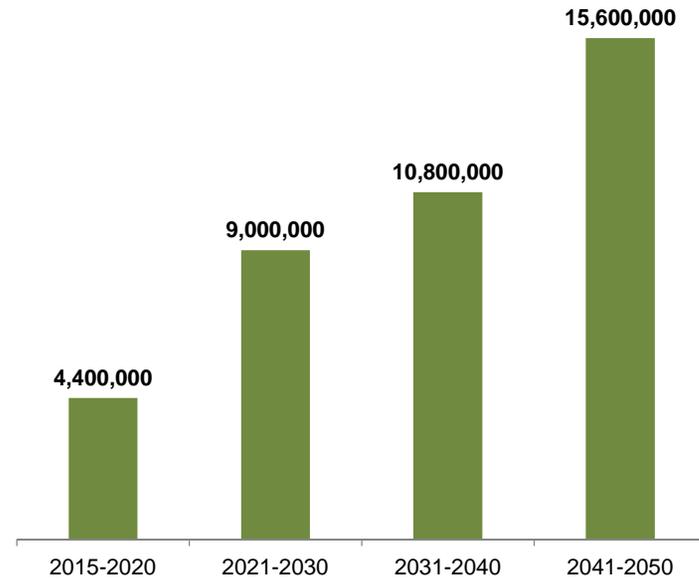
Exhibit I-2

**TOTAL DEMAND BY DECADE
UTAH COUNTY
2015-2050**

309,000 Residential Units



39.8 Million Commercial SF



	Total Demand by Decade				Total
	2015-2020	2021-2030	2031-2040	2041-2050	
Residential Units	33,000	81,000	88,000	107,000	309,000
Commercial SF	4,400,000	9,000,000	10,800,000	15,600,000	39,800,000

Exhibit I-3

**RESIDENTIAL SUBMARKET SCORE COMPARISON
UTAH COUNTY
2015**

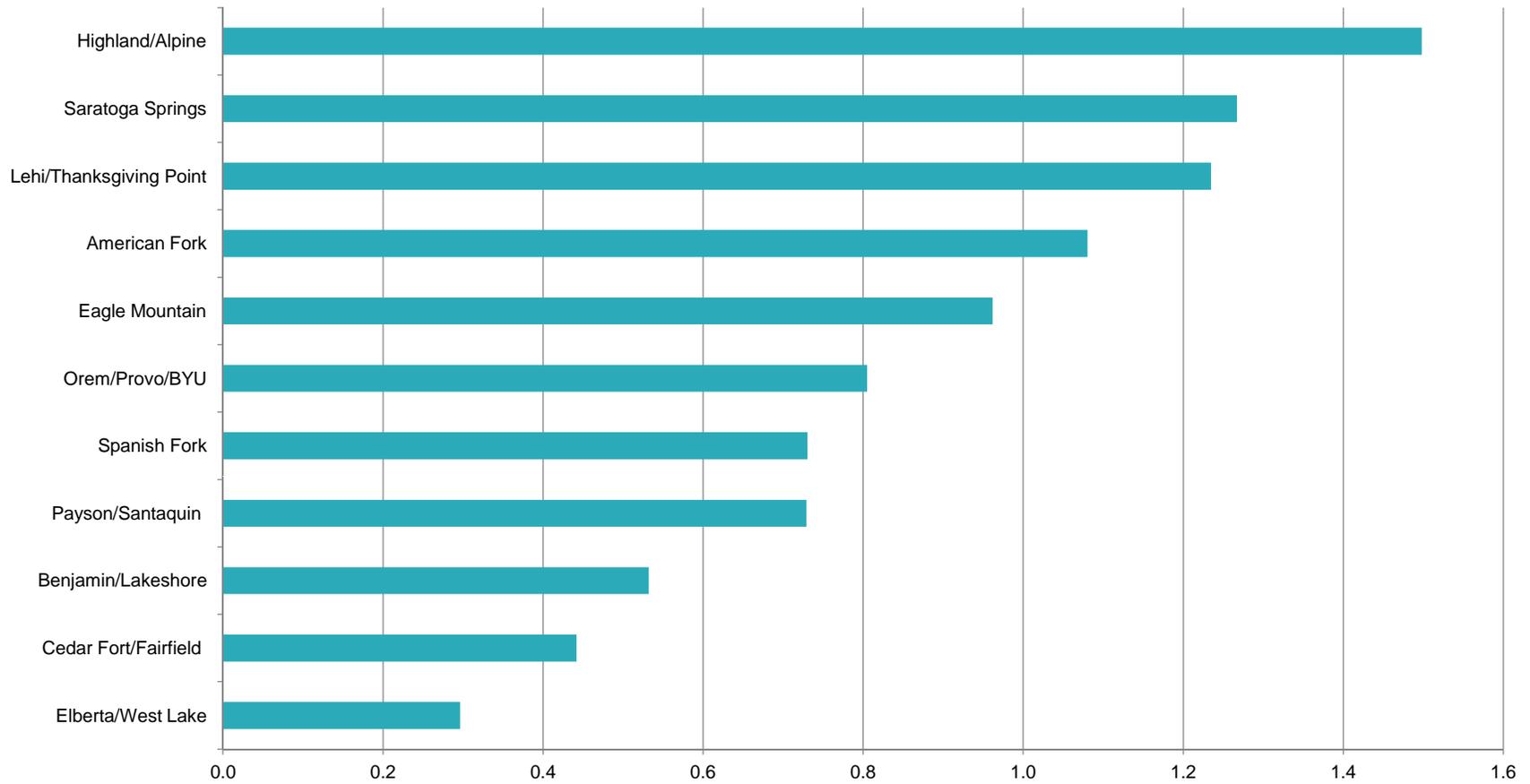


Exhibit I-4

**OFFICE SUBMARKET SCORE COMPARISON
UTAH COUNTY
2015**

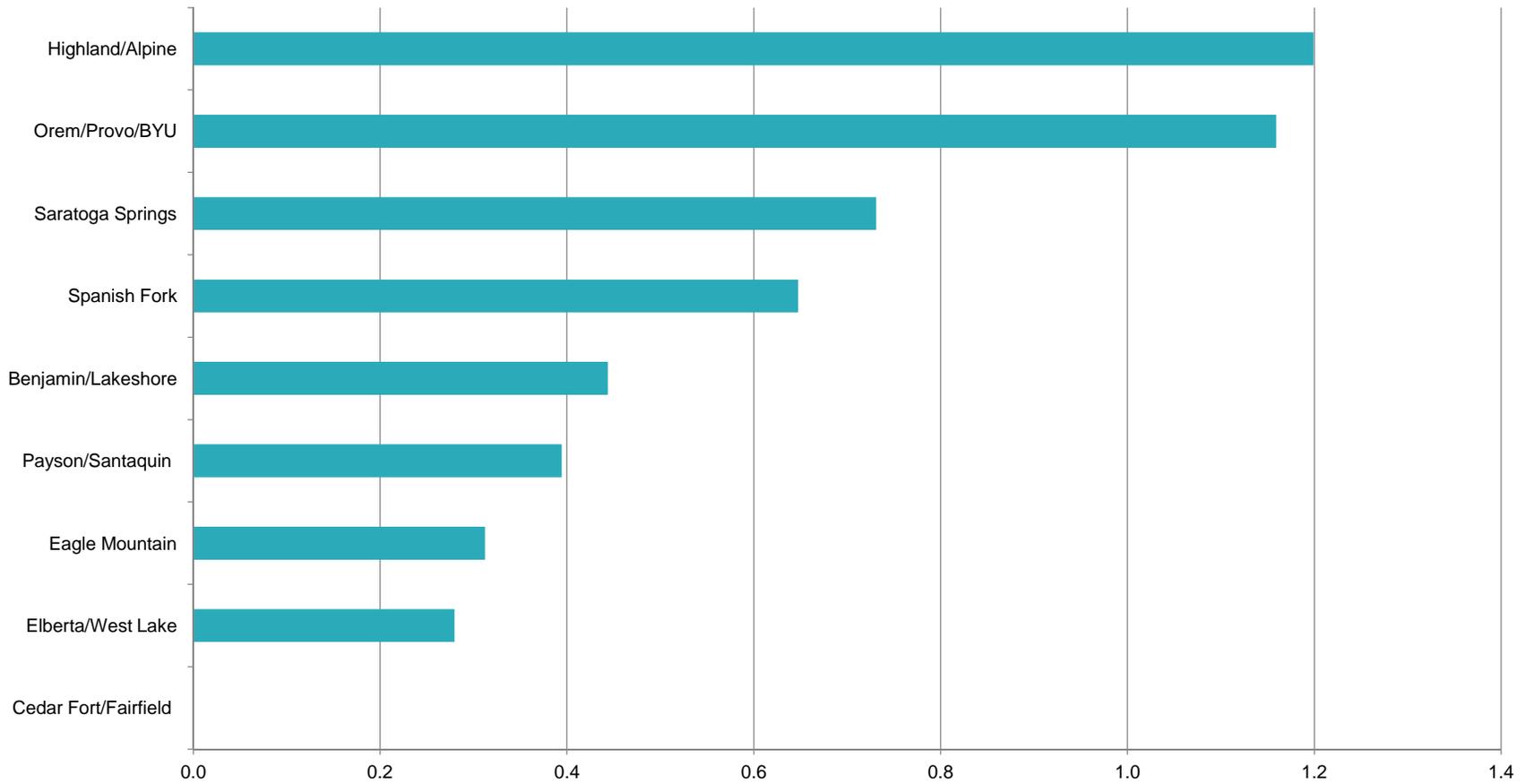


Exhibit I-5

**RETAIL SUBMARKET SCORE COMPARISON
UTAH COUNTY
2015**

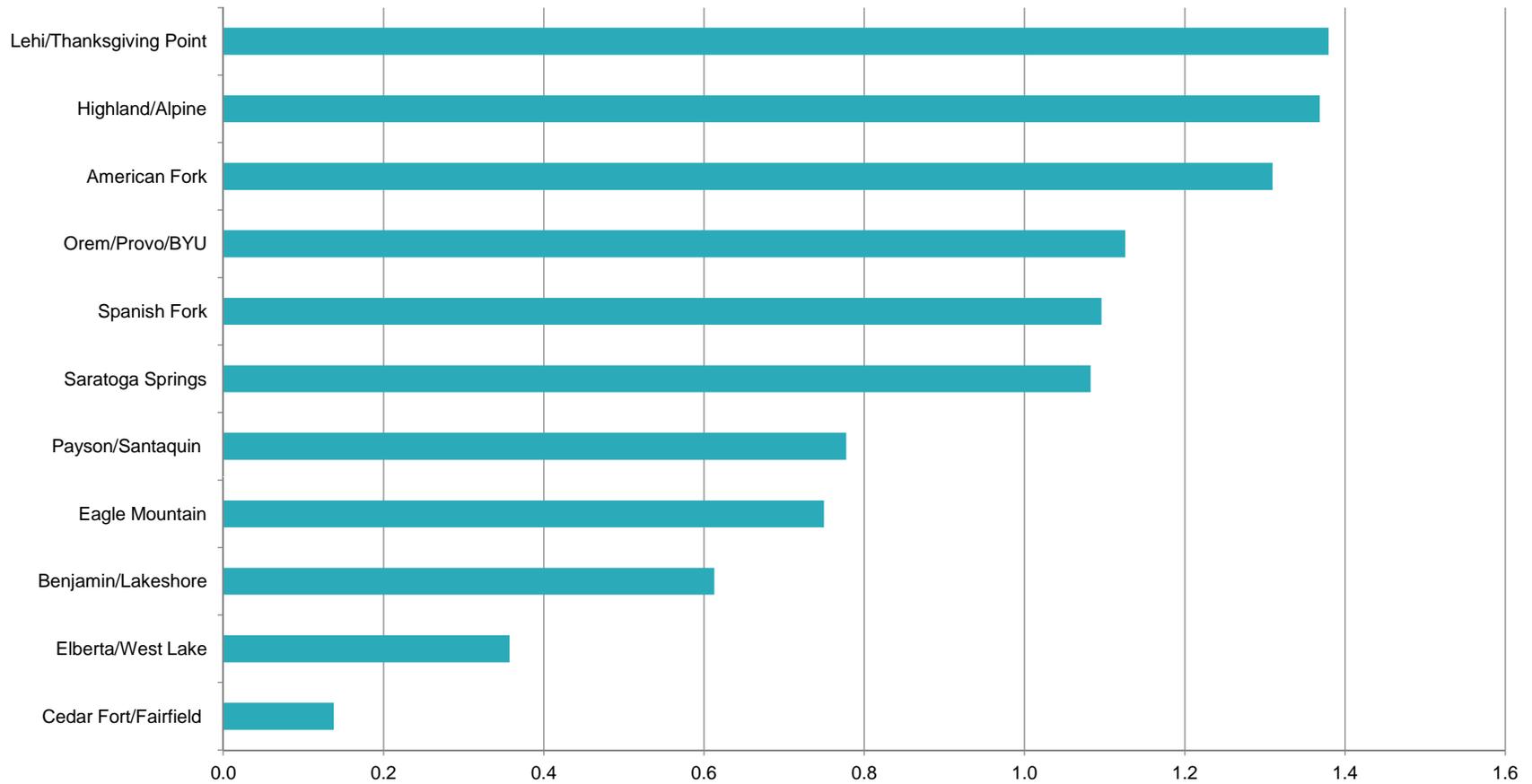


Exhibit I-6

**INDUSTRIAL SUBMARKET SCORE COMPARISON
UTAH COUNTY
2015**

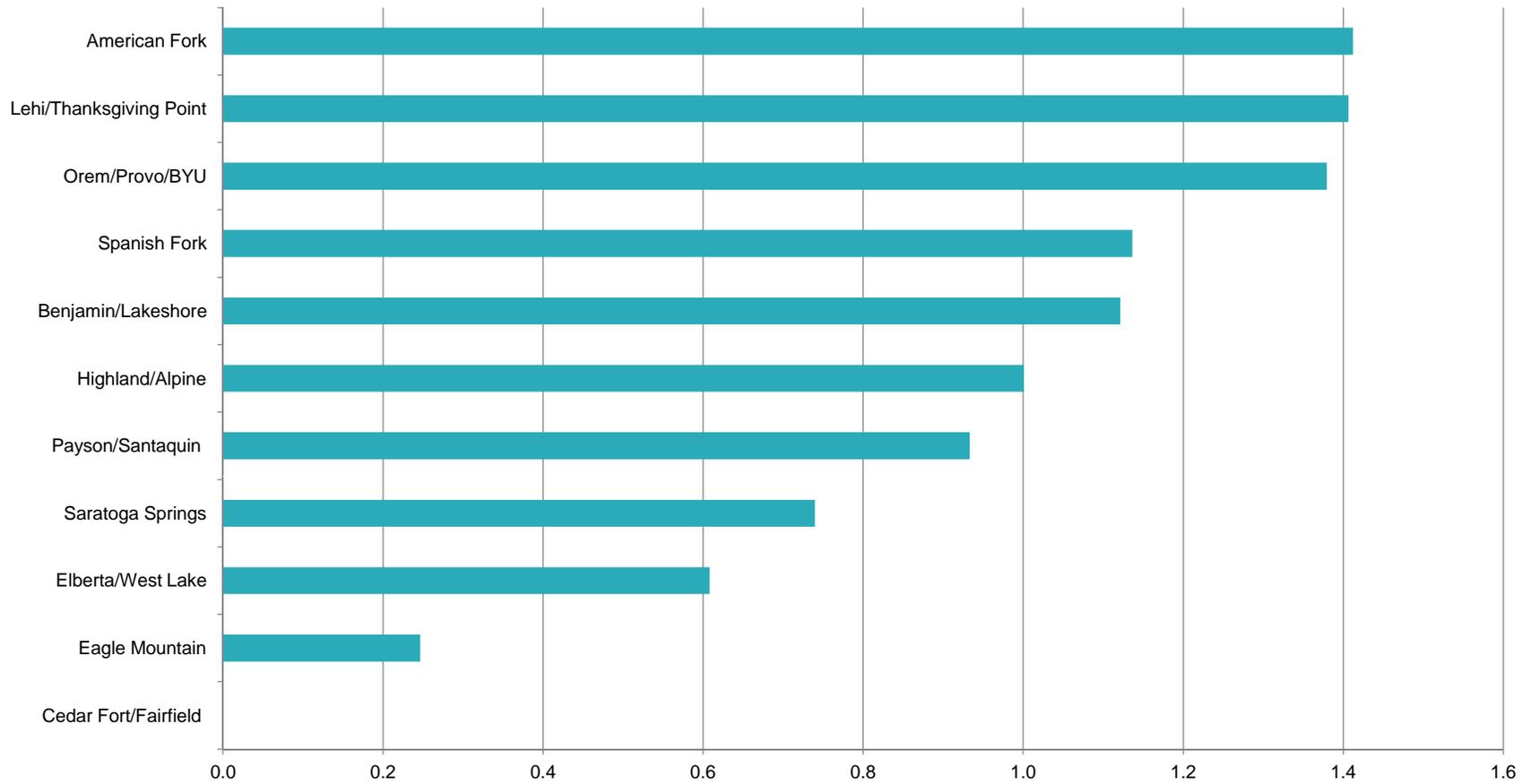


Exhibit I-7

**FLEX SUBMARKET SCORE COMPARISON
UTAH COUNTY
2015**

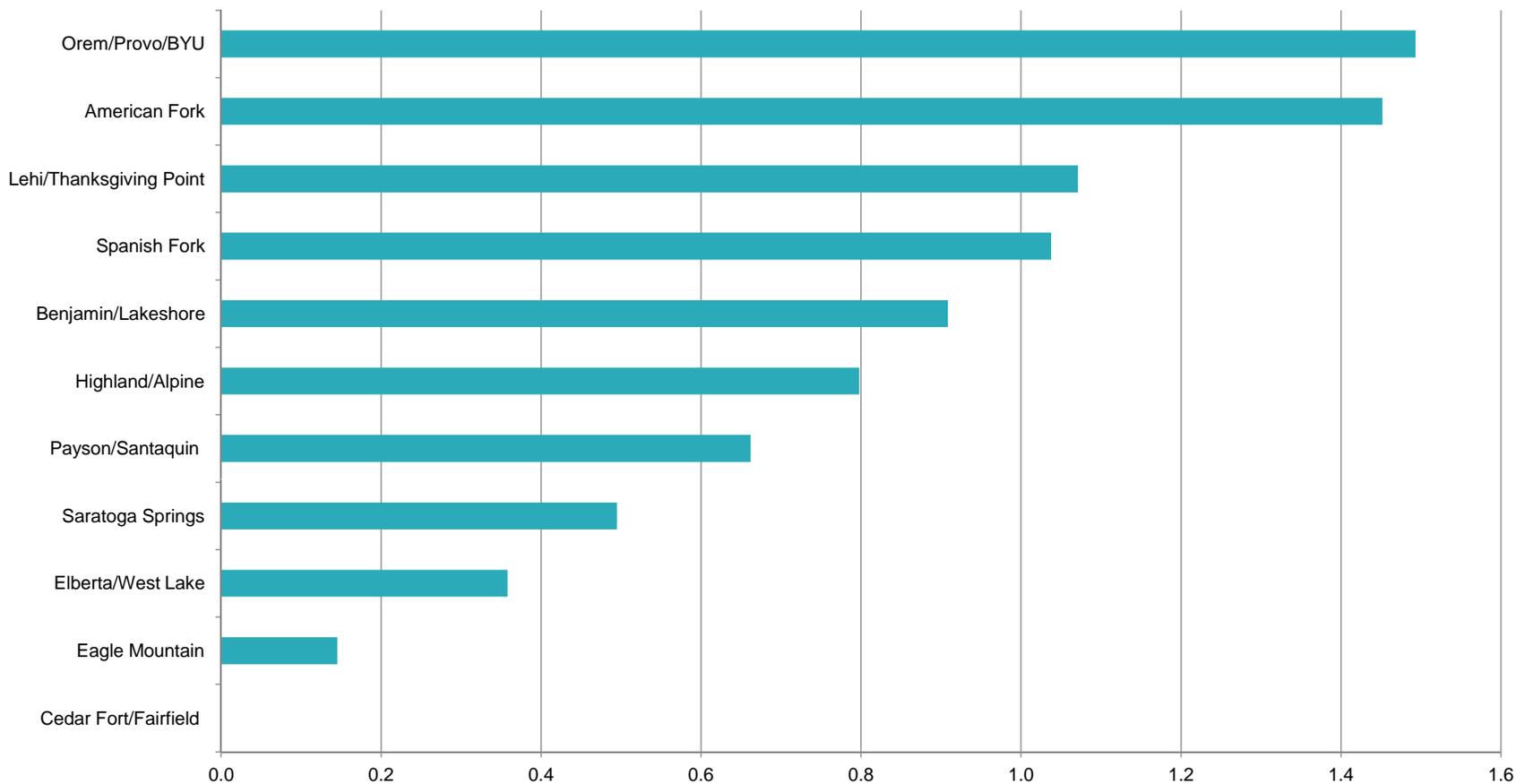


Exhibit I-8

**LAND SUPPLY AND CONSUMPTION BY DECADE
UTAH COUNTY
2015-2050**

	TOTAL DEVELOPABLE ACRES	ACRES REMAINING					RESIDENTIAL DENSITY (DU/ACRE)				COMMERCIAL DENSITY (FAR)			
		2015	2020	2030	2040	2050	2015	2020	2030	2040	2015	2020	2030	2040
Utah County	302,623	238,259	226,962	196,219	160,939	118,156	3.0	2.7	2.6	2.6	0.32	0.32	0.33	0.35
Cedar Fort/Fairfield	81,142	79,602	79,600	76,719	73,116	67,614		2.3	2.2	2.2	0.27	0.27	0.27	0.27
Eagle Mountain	30,029	27,064	24,976	19,594	13,269	3,606	2.4	2.3	2.2	2.2	0.30	0.29	0.29	0.30
Saratoga Springs	15,187	13,408	11,802	7,900	3,482	0	3.4	3.2	3.1	2.9	0.31	0.30	0.30	0.30
Lehi/Thanksgiving Point	10,731	5,658	4,072	3,468	2,822	1,632	3.4	4.8	5.0	5.0	0.32	0.38	0.40	0.46
Highland/Alpine	9,714	3,337	2,995	2,314	1,572	157	5.3	4.8	5.0	4.8	0.41	0.38	0.39	0.44
American Fork	12,549	4,201	2,809	2,284	1,723	694	3.4	4.8	5.0	5.0	0.31	0.38	0.40	0.46
Orem/Provo/BYU	17,613	4,818	3,772	443	0	0	3.4	3.2	5.0		0.32	0.31	0.37	
Spanish Fork	18,611	9,944	8,336	5,323	1,972	0	2.4	3.2	3.1	2.9	0.31	0.30	0.30	0.30
Payson/Santaquin	27,323	19,447	17,852	11,923	5,123	142	2.4	2.3	2.2	3.3	0.31	0.30	0.29	0.33
Elberta/West Lake	52,106	48,588	48,577	48,551	45,488	40,659			2.2	2.2	0.30	0.29	0.30	0.29
Benjamin/Lakeshore	27,617	22,192	22,171	17,700	12,372	3,653		2.3	2.2	2.0	0.30	0.31	0.29	0.27

Exhibit I-9

**RESIDENTIAL UNITS DEVELOPED BY SUBMARKET, DECADE, AND PRODUCT TYPE
UTAH COUNTY
2015-2050**

Submarket	Single-Family Detached				Townhome				Multifamily				Total Housing Units				Population Growth			
	2015-2020	2021-2030	2031-2040	2041-2050	2015-2020	2021-2030	2031-2040	2041-2050	2015-2020	2021-2030	2031-2040	2041-2050	2015-2020	2021-2030	2031-2040	2041-2050	2015-2020	2021-2030	2031-2040	2041-2050
Utah County																				
24 Cedar Fort/Fairfield	0	5,521	6,916	10,490	0	569	594	927	0	411	353	393	0	6,502	7,862	11,810	0	23,595	28,756	43,319
25 Eagle Mountain	3,902	10,226	12,048	18,264	644	1,054	1,034	1,614	462	762	615	685	5,008	12,042	13,698	20,564	17,869	43,700	50,098	75,426
26 Saratoga Springs	2,928	7,453	8,514	6,727	1,041	1,904	1,973	1,273	1,460	2,721	2,724	1,686	5,429	12,077	13,211	9,685	18,083	41,093	45,303	33,676
27 Lehi/Thanksgiving Point	2,854	1,411	1,418	2,664	1,015	343	532	964	1,423	819	923	1,654	5,291	2,573	2,873	5,281	17,624	8,537	9,418	17,371
28 Highland/Alpine	782	1,670	1,678	3,154	408	406	629	1,141	501	969	1,093	1,958	1,691	3,045	3,400	6,253	5,523	10,103	11,145	20,568
29 American Fork	2,497	1,221	1,226	2,302	888	297	460	833	1,245	709	798	1,429	4,629	2,226	2,484	4,564	15,418	7,386	8,142	15,013
30 Orem/Provo/BYU	1,860	6,267	892	0	661	1,601	334	0	928	2,288	581	0	3,449	10,155	1,808	0	11,489	34,553	5,927	0
31 Spanish Fork	2,964	5,713	6,422	3,792	489	1,460	1,488	718	351	2,086	2,055	951	3,804	9,259	9,966	5,461	13,573	31,502	34,174	18,986
32 Payson/Santaquin	2,958	11,246	12,948	10,647	488	1,159	1,111	2,226	350	838	661	3,241	3,797	13,243	14,720	16,114	13,547	48,057	53,839	55,476
33 Elberta/West Lake	0	0	5,836	9,022	0	0	501	836	0	0	298	355	0	0	6,635	10,213	0	0	24,268	37,420
34 Benjamin/Lakeshore	0	8,483	10,110	15,394	0	875	868	1,361	0	632	516	577	0	9,990	11,494	17,332	0	36,253	42,040	63,573

Exhibit I-10

COMMERCIAL SQUARE FEET (SF) DEVELOPED BY SUBMARKET, DECADE, AND PRODUCT TYPE
UTAH COUNTY
2015-2050

Submarket	Office				Industrial (Warehouse and Flex)				Retail				Total Commercial SF				Total Jobs			
	2015-2020	2021-2030	2031-2040	2041-2050	2015-2020	2021-2030	2031-2040	2041-2050	2015-2020	2021-2030	2031-2040	2041-2050	2015-2020	2021-2030	2031-2040	2041-2050	2015-2020	2021-2030	2031-2040	2041-2050
Utah County																				
24 Cedar Fort/Fairfield	0	0	0	0	0	0	0	3,011	23,691	13,862	161,492	303,710	23,691	13,862	161,492	306,720	47	28	323	612
25 Eagle Mountain	58,928	119,149	179,919	487,741	32,593	75,186	91,110	52,027	128,819	421,753	627,016	1,104,590	220,340	616,088	898,044	1,644,357	589	1,527	2,252	4,607
26 Saratoga Springs/S. Lehi	138,009	234,684	317,305	448,842	100,600	209,012	172,378	44,354	186,064	521,757	723,558	665,719	424,673	965,453	1,213,241	1,158,915	1,186	2,486	3,225	3,532
27 Lehi/Thanksgiving Point	276,484	486,747	608,393	1,543,097	197,535	0	0	0	237,089	684,803	696,499	1,119,233	711,108	1,171,549	1,304,892	2,662,330	2,097	3,681	4,282	9,565
28 Highland/Alpine	226,387	361,455	466,440	1,213,503	0	0	0	0	235,181	489,489	626,123	1,013,068	461,567	850,944	1,092,563	2,226,571	1,545	2,695	3,467	7,788
29 American Fork	249,897	428,933	532,325	1,341,707	216,341	0	0	0	225,050	624,820	625,818	970,431	691,288	1,053,753	1,158,142	2,312,138	1,977	3,286	3,779	8,311
30 Orem/Provo/BYU	218,836	431,159	517,614	0	214,903	435,268	0	0	193,492	604,174	824,809	0	627,231	1,470,602	1,342,423	0	1,764	3,940	4,107	0
31 Spanish Fork	122,200	208,642	269,056	282,373	167,824	339,357	244,190	45,869	188,365	476,368	646,030	435,323	478,389	1,024,367	1,159,276	763,565	1,221	2,477	2,953	2,283
32 Payson/Santaquin	74,481	148,168	199,399	535,076	128,758	265,303	192,653	105,232	133,601	406,280	625,652	1,091,887	336,840	819,750	1,017,704	1,732,195	823	1,933	2,501	4,890
33 Elberta/West Lake	0	0	70,755	230,410	80,379	174,137	129,905	72,712	61,388	167,045	226,287	846,786	141,767	341,183	426,948	1,149,909	249	608	993	2,902
34 Benjamin/Lakeshore	0	106,094	158,073	441,795	160,094	324,958	235,758	128,355	105,333	193,635	622,882	1,096,312	265,427	624,688	1,016,713	1,666,462	462	1,402	2,367	4,492

Exhibit I-11

**COMPARISON TO GOMB PROJECTIONS BY COUNTY
UTAH COUNTY
2015-2050**

County	Household Growth				Total	Population Growth ²				Total	Commercial Real Estate-Using Employment Growth ¹				Total
	2015-2020	2021-2030	2031-2040	2041-2050		2015-2020	2021-2030	2031-2040	2041-2050		2015-2020	2021-2030	2031-2040	2041-2050	
GOMB Projections w/ RCLCO Assumptions															
Utah County	37,776	60,549	67,977	68,296	234,599	125,276	164,537	186,727	196,867	673,407					
Market-Driven Scenario															
Utah County	33,099	81,112	88,151	107,278	309,639	113,126	284,780	313,110	380,828	1,091,844	11,961	24,063	30,248	48,982	115,254

¹ RCLCO analysis projects the distribution of approximately 40% of total GOMB projected employment, based on industries that typically use commercial real estate. For example, jobs such as construction, mining and military employees are not included in this distribution.

² Population growth is estimated based on projected HH size by product type. SFD homes are estimated at 3.76 persons per unit, TH are estimated at 3.05 persons per unit, and MF units are estimated at 2.67 persons per unit.

SOURCE: RCLCO; GOMB

Exhibit I-12

**PRODUCT TYPE MATRIX
UTAH COUNTY
2015-2050**

CODE	PRODUCT TYPE	LOT SIZE (SF)	LAND EFFICIENCY	UNITS PER ACRE	TYPICAL PROJECT SIZE (UNITS)	GROSS ACRES PER UNIT
Residential						
SFS	Single-Family Detached - Small Lot	7,500	60%	3.5		0.29
SFM	Single-Family Detached - Medium Lot	12,000	60%	2.2		0.46
SFL	Single-Family Detached - Large Lot	15,000	60%	1.7		0.57
TH	Townhome	3,000	70%	10.2		0.10
MSG	Multifamily - Suburban Garden			25	300	0.04
MUL	Multifamily - Urban Low Rise			35	300	0.03
MMR	Multifamily - Midrise			50	300	0.02
MHR	Multifamily - Highrise			80	300	0.01

CODE	PRODUCT TYPE	BUILDING SIZE (SF)	LAND EFFICIENCY	FAR	DEVELOPABLE SF PER ACRE	GROSS ACRES PER PROJECT/UNIT
Commercial						
OS	Office - Suburban	80,000	90%	0.4	15,682	5.1
OM	Office - Midrise	150,000	90%	1	39,204	3.8
OH	Office - Highrise	300,000	90%	3.0	117,612	2.6
FL	Flex	100,000	80%	0.4	13,939	7.2
WH	Warehouse	200,000	80%	0.4	13,939	14.3
RG	Retail - General	30,000	90%	0.5	19,602	1.5
RN	Retail - Neighborhood Center	100,000	80%	0.3	10,454	9.6
RP	Retail - Power Center	350,000	80%	0.3	10,454	33.5
RM	Retail - Regional Mall	750,000	80%	0.4	13,939	53.8
RSL	Retail - Specialty/Lifestyle	800,000	80%	0.5	17,424	45.9
CV	Civic					

SOURCE: RCLCO

Exhibit I-13

**SUBMARKET TYPOLOGY
UTAH COUNTY
2015-2050**

SUBMARKET	VALUE CATEGORY				PRODUCT EXCLUSIONS:
	2015 Value	2020 Value	2030 Value	2040 Value	SFD
SALT LAKE COUNTY					
Airport/International Center	Very Low	Very Low	Very Low	Very Low	
201/California	Very Low	Very Low	Very Low	Very Low	
West Valley City	Low	Low	Low	Low	
Magna	Low	Low	Low	Low	
Taylorsville	Medium	Medium	Medium	Medium	
Kearns	Low	Low	Low	Low	
West Jordan	Low	Medium	Medium	Medium	
Jordan Landing	Low	Medium	Medium	Medium	
Daybreak	Medium	Medium	Medium	Medium	
Herriman	Low	Medium	Medium	Medium	
South Jordan	High	High	High	High	
Riverton/Bluffdale	Low	Medium	Medium	Medium	
Draper	High	High	High	High	
Sandy	High	High	High	High	
Midvale	High	High	High	High	
Ft Union	High	High	High	High	
Cottonwood Heights	High	High	High	High	
Interchange	Medium	Medium	Medium	Medium	X
West Salt Lake	Low	Low	Low	Low	
Downtown	Very High	Very High	Very High	Very High	X
Sugarhouse	Very High	Very High	Very High	Very High	X
Univ of Utah/Foothill	Very High	Very High	Very High	Very High	
Millcreek/Holladay	High	High	High	High	
UTAH COUNTY					
Cedar Fort/Fairfield	Very Low	Low	Low	Low	
Eagle Mountain	Low	Low	Low	Low	
Saratoga Springs	Medium	Medium	Medium	Medium	
Lehi/Thanksgiving Point	Medium	High	High	High	
Highland/Alpine	High	High	High	High	
American Fork	Medium	High	High	High	
Orem/Provo/BYU	Medium	Medium	High	High	
Spanish Fork	Low	Medium	Medium	Medium	
Payson/Santaquin	Low	Low	Low	Medium	
Elberta/West Lake	Very Low	Very Low	Low	Low	
Benjamin/Lakeshore	Very Low	Low	Low	Low	
DAVIS COUNTY					
Bountiful	Medium	Medium	High	High	
West Davis	Low	Medium	Medium	Medium	
Layton Hills/Clearfield	Low	Low	Medium	Medium	
Clinton/Sunset	Low	Low	Medium	Medium	
WEBER COUNTY					
South Ogden	Low	Low	Low	Low	
West Ogden	Low	Low	Low	Low	
Downtown Ogden	Low	Low	Low	Low	X
Far West Weber	Low	Low	Low	Low	
North Ogden	Low	Low	Low	Low	

Exhibit I-14

**SUBMARKET LAND ANALYSIS
UTAH COUNTY
2015-2050**

Submarket	Total Developable Acres	Developed	Ripe for Redevelopment	Vacant	Final Available Land (Acres)					Value Category				
					2015	2020	2030	2040	2050	2015 Value	2020 Value	2030 Value	2040 Value	2050
TOTAL ACRES BY LAND VALUE														
VERY LOW	160,866	10,484		150,382	150,382	48,577	0	0	0					
LOW	75,964	19,509		56,455	56,455	144,599	174,487	144,245	115,532					
MEDIUM	56,079	28,195		27,885	28,085	23,910	13,223	10,577	142					
HIGH	9,714	6,376		3,337	3,337	9,876	8,509	6,117	2,482					
VERY HIGH	0	0		0	0	0	0	0	0					
Utah County														
Cedar Fort/Fairfield	81,142	1,540	0	79,602	79,602	79,600	76,719	73,116	67,614	Very Low	Low	Low	Low	Low
Eagle Mountain	30,029	2,965	0	27,064	27,064	24,976	19,594	13,269	3,606	Low	Low	Low	Low	Low
Saratoga Springs	15,187	1,779	0	13,408	13,408	11,802	7,900	3,482	0	Medium	Medium	Medium	Medium	Medium
Lehi/Thanksgiving Point	10,731	5,073	0	5,658	5,658	4,072	3,468	2,822	1,632	Medium	High	High	High	High
Highland/Alpine	9,714	6,376	0	3,337	3,337	2,995	2,314	1,572	157	High	High	High	High	High
American Fork	12,549	8,348	0	4,201	4,201	2,809	2,284	1,723	694	Medium	High	High	High	High
Orem/Provo/BYU	17,613	12,996	200	4,618	4,818	3,772	443	0	0	Medium	Medium	High	High	High
Spanish Fork	18,611	8,667	0	9,944	9,944	8,336	5,323	1,972	0	Low	Medium	Medium	Medium	Medium
Payson/Santaquin	27,323	7,876	0	19,447	19,447	17,852	11,923	5,123	142	Low	Low	Low	Medium	Medium
Elberta/West Lake	52,106	3,518	0	48,588	48,588	48,577	48,551	45,488	40,659	Very Low	Very Low	Low	Low	Low
Benjamin/Lakeshore	27,617	5,426	0	22,192	22,192	17,700	12,372	3,653		Very Low	Low	Low	Low	Low
Total Acres Available			200	238,059	238,259	226,962	196,219	160,939	118,156					
Total Acres Consumed						11,296	42,040	77,320	120,103					
Redevelopment as % of Land Consumption									0.2%					

SOURCE: RCLCO; Fregonese Associates; Local parcel data

Exhibit I-15

**DEVELOPMENT SUMMARY BY PRODUCT TYPE (ACRES)
UTAH COUNTY
2015-2050**

Submarket	Single-Family Detached				Townhome				Multifamily			
	2015-2020	2021-2030	2031-2040	2041-2050	2015-2020	2021-2030	2031-2040	2041-2050	2015-2020	2021-2030	2031-2040	2041-2050
SUMMARY BY ACRES OF DEVELOPMENT												
UTAH COUNTY												
24 Cedar Fort/Fairfield	0	2,807	3,517	5,369	0	56	58	91	0	16	14	16
25 Eagle Mountain	1,989	5,199	6,128	9,349	63	104	102	159	18	30	25	27
26 Saratoga Springs	1,420	3,545	4,036	3,213	102	187	194	125	51	96	94	57
27 Lehi/Thanksgiving Point	1,384	478	496	920	100	34	52	95	50	21	24	42
28 Highland/Alpine	263	566	587	1,089	40	40	62	145	13	25	28	65
29 American Fork	1,211	413	429	795	87	29	45	82	44	18	20	37
30 Orem/Provo/BYU	902	2,981	312	0	65	158	33	0	32	81	15	0
31 Spanish Fork	1,511	2,718	3,045	1,811	48	144	146	71	14	73	71	32
32 Payson/Santaquin	1,508	5,717	6,586	4,565	48	114	109	197	14	34	26	98
33 Elberta/West Lake	0	0	2,968	4,641	0	0	49	82	0	0	12	14
34 Benjamin/Lakeshore	0	4,313	5,142	8,387	0	86	85	156	0	25	21	34
SUMMARY BY UNITS/SQUARE FEET												
UTAH COUNTY												
24 Cedar Fort/Fairfield	0	5,500	6,900	10,500	0	600	600	900	0	400	400	400
25 Eagle Mountain	3,900	10,200	12,000	18,300	600	1,100	1,000	1,600	500	800	600	700
26 Saratoga Springs	2,900	7,500	8,500	6,700	1,000	1,900	2,000	1,300	1,500	2,700	2,700	1,700
27 Lehi/Thanksgiving Point	2,900	1,400	1,400	2,700	1,000	300	500	1,000	1,400	800	900	1,700
28 Highland/Alpine	800	1,700	1,700	3,200	400	400	600	1,100	500	1,000	1,100	2,000
29 American Fork	2,500	1,200	1,200	2,300	900	300	500	800	1,200	700	800	1,400
30 Orem/Provo/BYU	1,900	6,300	900	0	700	1,600	300	0	900	2,300	600	0
31 Spanish Fork	3,000	5,700	6,400	3,800	500	1,500	1,500	700	400	2,100	2,100	1,000
32 Payson/Santaquin	3,000	11,200	12,900	10,600	500	1,200	1,100	2,200	400	800	700	3,200
33 Elberta/West Lake	0	0	5,800	9,000	0	0	500	800	0	0	300	400
34 Benjamin/Lakeshore	0	8,500	10,100	15,400	0	900	900	1,400	0	600	500	600

Exhibit I-15

**DEVELOPMENT SUMMARY BY PRODUCT TYPE (ACRES)
UTAH COUNTY
2015-2050**

Submarket	Office				Industrial (Flex and Warehouse)			
	2015-2020	2021-2030	2031-2040	2041-2050	2015-2020	2021-2030	2031-2040	2041-2050
SUMMARY BY ACRES OF DEVELOPMENT								
UTAH COUNTY								
24 Cedar Fort/Fairfield	0	0	0	0	0	0	0	0
25 Eagle Mountain	4	8	11	31	2	5	7	4
26 Saratoga Springs	9	15	20	29	7	15	12	3
27 Lehi/Thanksgiving Point	18	12	16	39	14	0	0	0
28 Highland/Alpine	6	9	12	31	0	0	0	0
29 American Fork	16	11	14	34	16	0	0	0
30 Orem/Provo/BYU	14	27	13	0	15	31	0	0
31 Spanish Fork	8	13	17	18	12	24	18	3
32 Payson/Santaquin	5	9	13	31	9	19	14	7
33 Elberta/West Lake	0	0	5	15	6	12	9	5
34 Benjamin/Lakeshore	0	7	10	32	11	23	17	10
SUMMARY BY UNITS/SQUARE FEET								
UTAH COUNTY								
24 Cedar Fort/Fairfield	0	0	0	0	0	0	0	3,000
25 Eagle Mountain	59,000	119,000	180,000	488,000	33,000	75,000	91,000	52,000
26 Saratoga Springs	138,000	235,000	317,000	449,000	101,000	209,000	172,000	44,000
27 Lehi/Thanksgiving Point	276,000	487,000	608,000	1,543,000	198,000	0	0	0
28 Highland/Alpine	226,000	361,000	466,000	1,214,000	0	0	0	0
29 American Fork	250,000	429,000	532,000	1,342,000	216,000	0	0	0
30 Orem/Provo/BYU	219,000	431,000	518,000	0	215,000	435,000	0	0
31 Spanish Fork	122,000	209,000	269,000	282,000	168,000	339,000	244,000	46,000
32 Payson/Santaquin	74,000	148,000	199,000	535,000	129,000	265,000	193,000	105,000
33 Elberta/West Lake	0	0	71,000	230,000	80,000	174,000	130,000	73,000
34 Benjamin/Lakeshore	0	106,000	158,000	442,000	160,000	325,000	236,000	128,000

Exhibit I-15

**DEVELOPMENT SUMMARY BY PRODUCT TYPE (ACRES)
UTAH COUNTY
2015-2050**

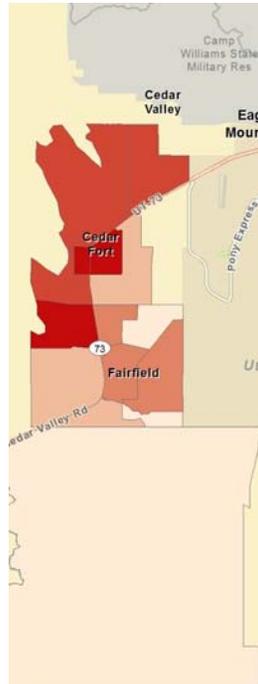
Submarket	Retail				New Housing (Acres/Units)			
	2015-2020	2021-2030	2031-2040	2041-2050	2015-2020	2021-2030	2031-2040	2041-2050
SUMMARY BY ACRES OF DEVELOPMENT					2020	2030	2040	2050
UTAH COUNTY								
24 Cedar Fort/Fairfield	2	1	14	26	0	2,880	3,590	5,476
25 Eagle Mountain	11	36	53	93	2,071	5,333	6,254	9,535
26 Saratoga Springs	16	45	61	56	1,574	3,828	4,324	3,395
27 Lehi/Thanksgiving Point	20	58	59	94	1,534	533	572	1,057
28 Highland/Alpine	20	42	53	85	316	630	677	1,299
29 American Fork	19	53	53	82	1,342	461	495	913
30 Orem/Provo/BYU	16	52	69	0	1,000	3,219	360	0
31 Spanish Fork	16	41	54	37	1,573	2,935	3,262	1,914
32 Payson/Santaquin	11	35	53	83	1,570	5,865	6,721	4,860
33 Elberta/West Lake	5	14	19	71	0	0	3,030	4,737
34 Benjamin/Lakeshore	9	17	52	101	0	4,425	5,248	8,577
SUMMARY BY UNITS/SQUARE FEET					2020	2030	2040	2050
UTAH COUNTY								
24 Cedar Fort/Fairfield	24,000	14,000	161,000	304,000	0	6,500	7,900	11,800
25 Eagle Mountain	129,000	422,000	627,000	1,105,000	5,000	12,000	13,700	20,600
26 Saratoga Springs	186,000	522,000	724,000	666,000	5,400	12,100	13,200	9,700
27 Lehi/Thanksgiving Point	237,000	685,000	696,000	1,119,000	5,300	2,600	2,900	5,300
28 Highland/Alpine	235,000	489,000	626,000	1,013,000	1,700	3,000	3,400	6,300
29 American Fork	225,000	625,000	626,000	970,000	4,600	2,200	2,500	4,600
30 Orem/Provo/BYU	193,000	604,000	825,000	0	3,400	10,200	1,800	0
31 Spanish Fork	188,000	476,000	646,000	435,000	3,800	9,300	10,000	5,500
32 Payson/Santaquin	134,000	406,000	626,000	1,092,000	3,800	13,200	14,700	16,100
33 Elberta/West Lake	61,000	167,000	226,000	847,000	0	0	6,600	10,200
34 Benjamin/Lakeshore	105,000	194,000	623,000	1,096,000	0	10,000	11,500	17,300

Exhibit I-17A

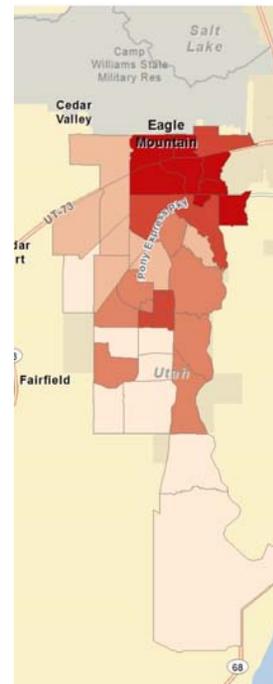
**RESIDENTIAL SCORES BY TAZ
STUDY AREA
2015**

Scoring Factors:

- 30% Desired Corridor
- 20% Median Home Value
- 20% Access to Employment
- 15% Per Capita Income
- 7.5% HH to Jobs Ratio
- 7.5% Total Households
- 5% Transit Access
- 5% Interstate Access
- 10% Total Warehouse SF



**Cedar Fort
- 0.44 overall**



**Eagle Mountain
- 0.96 overall**



**Saratoga Springs
- 1.27 overall**

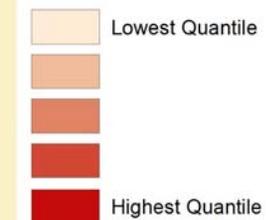


Exhibit I-17B

**OFFICE SCORES BY TAZ
STUDY AREA
2015**

Scoring Factors:

- 25% Total Office SF
- 20% Proximity to Executive Housing
- 15% Access to Educated Workforce
- 15% Per Capita Income
- 10% Desired Corridor
- 10% Interstate Access
- 5% Transit Access
- 5% Total Retail SF
- 5% Total Employment
- 10% Total Warehouse



Exhibit I-17C

**RETAIL SCORES BY TAZ
STUDY AREA
2015**

Scoring Factors:
 35% Household Growth
 17.5% Interstate Access
 15% Per Capita Income
 10% Median Home Value
 7.5% Transit Access
 5% Desired Corridor
 5% Total Retail SF
 5% Total Employment

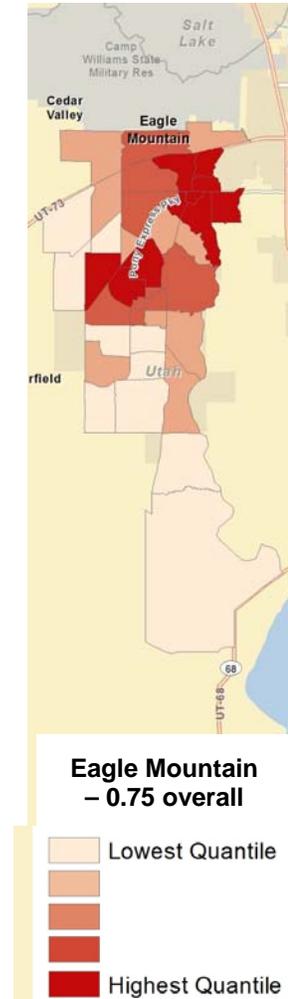
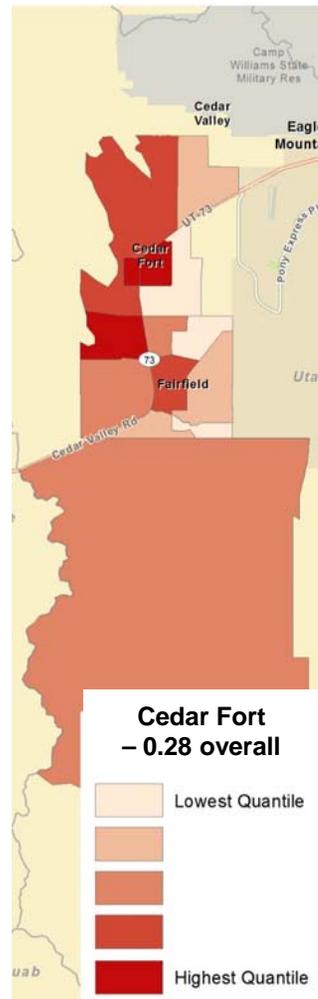


Exhibit I-17D

**INDUSTRIAL SCORES BY TAZ
STUDY AREA
2015**

Scoring Factors:
 50% Interstate Access
 25% Jobs to HH Ratio
 20% Total Warehouse SF
 5% Total Employment

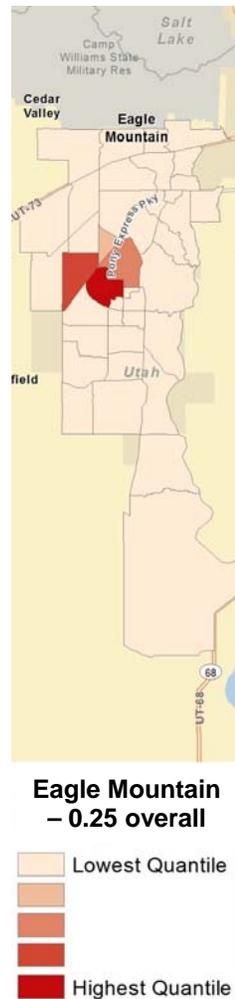


Exhibit I-17E

**FLEX SCORES BY TAZ
STUDY AREA
2015**

Scoring Factors:
25% Interstate Access
25% Jobs to HH Ratio
20% Total Flex SF
15% Total Warehouse SF
10% Total Employment
5% Total Office SF

