

DRAFT - LAND USE ASSUMPTIONS

Prepared for:

City of Somerton, Arizona

September 25, 2013

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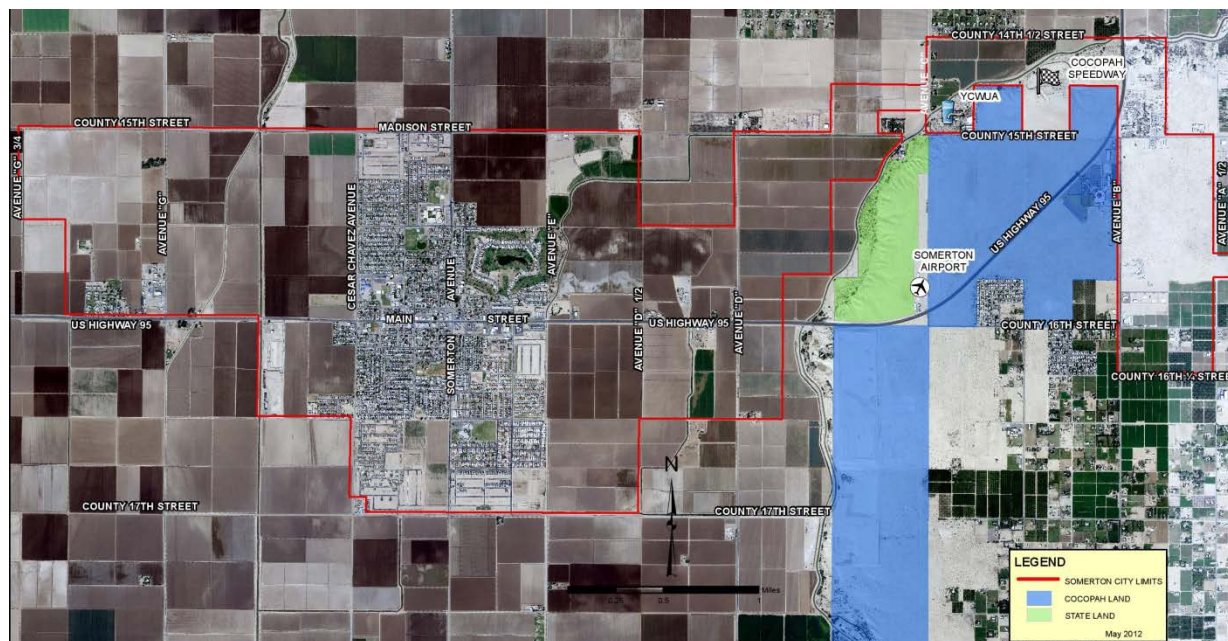
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INTRODUCTION

SERVICE AREA

The estimates and projections of residential and nonresidential development in this *Land Use Assumptions* document are for areas within the boundaries of the City of Somerton. The map below illustrates the area within the City's boundaries.

Figure 1: Map of City of Somerton Service Area



SUMMARY OF GROWTH INDICATORS

Arizona Revised Statutes (ARS) 9-463.05 (T)(6) requires the preparation of a *Land Use Assumptions* document which shows:

“projections of changes in land uses, densities, intensities and population for a specified service area over a period of at least ten years and pursuant to the General Plan of the municipality.”

TischlerBise has prepared this *Land Use Assumptions* document which details current demographic **estimates** and future development **projections** for both residential and nonresidential development that will be used in the infrastructure improvement plan (IIP) and calculation of the development fees. The development projections are used for calculating the LOS to be provided to future development by planned capital projects or existing infrastructure that was oversized in anticipation of new development. The development projections are also used in forecasting the amount and cost of infrastructure required by new development that will be documented in the cash flow analysis.

Impact fee methodologies are designed to reduce sensitivity to accurate development projections in the determination of the proportionate-share fee amounts. If actual development is slower than projected, impact fee revenues will also decline, but so will the need for growth-related infrastructure. In contrast,

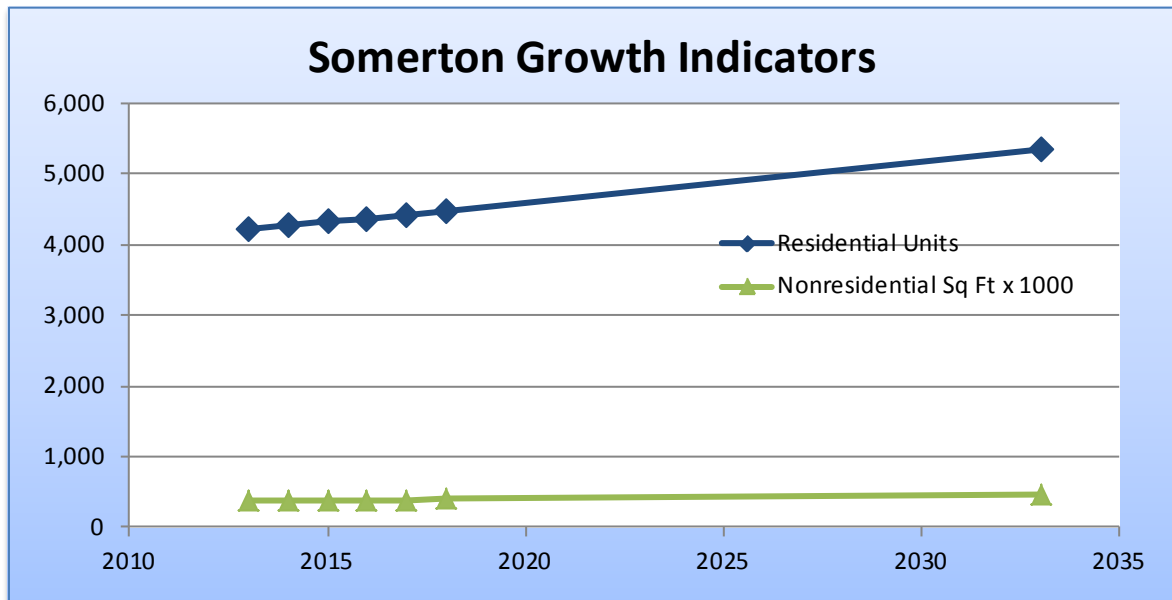
if development is faster than anticipated, the City will receive an increase in impact fee revenue, but will also need to accelerate the capital improvements program to keep pace with development.

Development Projections and growth rates are summarized in Figure 2. Somerton specific base data for the demographic analysis and development projections include 2010 census calculations of population and housing units and American Community Survey tables. The projected increase in housing units is based on a growth rate of 1.2%, projected by City of Somerton staff. Projected population was converted to housing units using the 2010 average of 3.53 year-round residents per housing unit. The Arizona Revised Statutes (ARS) 9-463.05 requires that “a municipality shall update the land use assumptions and infrastructure improvements plan at least every five years.” Therefore, the impact fee study did not vary the persons per housing unit ratio over time, nor assume any change to the residential vacancy rate in Somerton.

For nonresidential development, the impact fee study assumes a compound annual growth rate of 1.2% to align with development projections of City of Somerton staff. Projected jobs within Somerton were converted to nonresidential floor area using average square-feet-per-employee multipliers provided by the Institute of Transportation Engineers.

Figure 2: Development Projections and Growth Rates

	Year							2013 to 2018 Average Annual	
	2013	2014	2015	2016	2017	2018	2033	Increase	Compound Growth Rate
Residential Units	4,220	4,270	4,322	4,374	4,426	4,479	5,357	52	1.2%
Nonresidential Sq Ft x 1000	373	378	382	387	391	396	474	5	1.2%



RESIDENTIAL DEVELOPMENT

Current estimates and future projections of residential development are detailed in this section, including housing units by type and population.

CURRENT ESTIMATES OF RESIDENTIAL DEVELOPMENT

The 2010 census did not obtain detailed information using a “long-form” questionnaire. Instead, the U.S. Census Bureau has switched to a continuous monthly mailing of surveys, known as the American Community Survey (ACS) which is limited by sample-size constraints in areas with relatively few residents. For cities like Somerton, data on detached housing units are now combined with attached single units (commonly known as townhouses). One way to address this limitation is to derive fees by housing unit size, as discussed further below, is to address this ACS data limitation. Because townhouses and mobile homes generally have less floor area than detached units, fees by housing would ensure proportionality and facilitate construction of affordable units.

According to the U.S. Census bureau, a household is a housing unit that is occupied by year-round residents. Impact fees often use per capita standards and persons per housing unit or persons per household to derive proportionate-share fee amounts. When persons per housing unit are used in the fee calculations, infrastructure standards are derived using year-round population. When persons per household are used in the fee calculations, the impact fee methodology assumes all housing units will be occupied, thus requiring seasonal or peak population to be used when deriving infrastructure standards. TischlerBise recommends that impact fees for residential development in the City of Somerton be imposed according to the number of year-round residents per housing unit. As shown in the bottom of Figure 3, census data indicates that Somerton had 4,052 housing units in 2010. Dwellings with a single unit per structure (detached, attached, and mobile homes) averaged 3.72 persons per housing unit. Dwellings in structures with multiple units averaged 2.81 year-round residents per unit.

Figure 3: Person per Housing Unit by Type of Housing Unit

2008 Summary by Type of Housing from American Community Survey

Units in Structure	Renter & Owner			Persons per Housing Units	Persons per Housing Unit
	Persons	House-holds	Persons per Household		
Single Unit*	10,947	3,285	3.33	3,659	2.99
2+ Units	2,283	838	2.72	1,012	2.26
TOTAL	13,230	4,123	3.21	4,671	2.83

**Single-family includes detached, attached, and mobile homes.*
 Source: Tables B25024, B25032, and B25033.
 2006-2010 American Community Survey, U.S. Census Bureau.

2010 Census

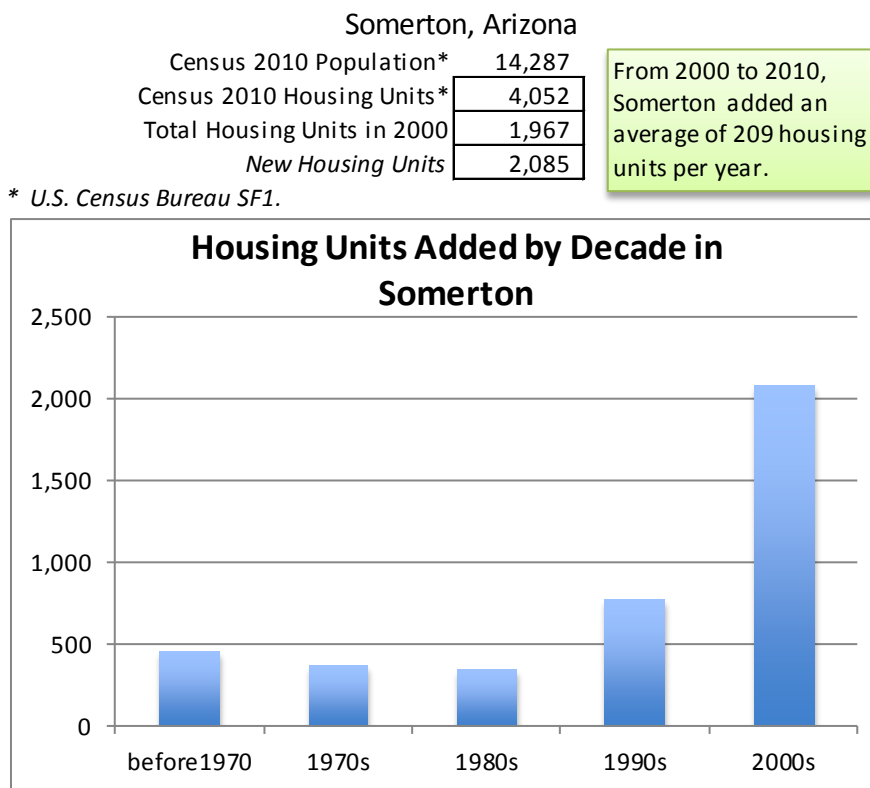
Single Unit*	11,822	3,020	3.91	3,174	3.72
2+ Units	2,465	771	3.20	878	2.81
Subtotal	14,287	3,791	3.77		
Group Quarters	0				
TOTAL	14,287			4,052	3.53

** Single unit includes detached, attached, and mobile homes.*
 Source: Totals from Summary File 1, U.S. Census Bureau.

RECENT RESIDENTIAL CONSTRUCTION

From 2000-2010, Somerton has increased by an average of 209 housing units per year. The chart at the bottom of Figure 4 indicates the estimated number of housing units added by decade in Somerton. Housing units per decade saw a large increase during the 2000’s, with most of the growth during the first half of the decade.

Figure 4. Housing Units by Decade



Source for 1990s and earlier is Table B25034, American Community Survey (2006-2010) scaled to equal total housing units in 2000.

POPULATION FORECAST

To provide context for population and job growth in Somerton, TischlerBise prepared comparisons to Yuma County projections. Yuma Metropolitan Planning Organization (YMPO) 2033 Transportation Plan expects 327,948 persons in Yuma County by 2033. Figure 5 indicates the City’s share of countywide population increased from 2000 to 2011, but is expected to decline from 2011 to 2033. The City population projection to 2033 is based on an exponential growth formula of 1.2%, provided by the City of Somerton. An exponential growth formula was derived to calculate the population for 2017 and 2022 for the County.

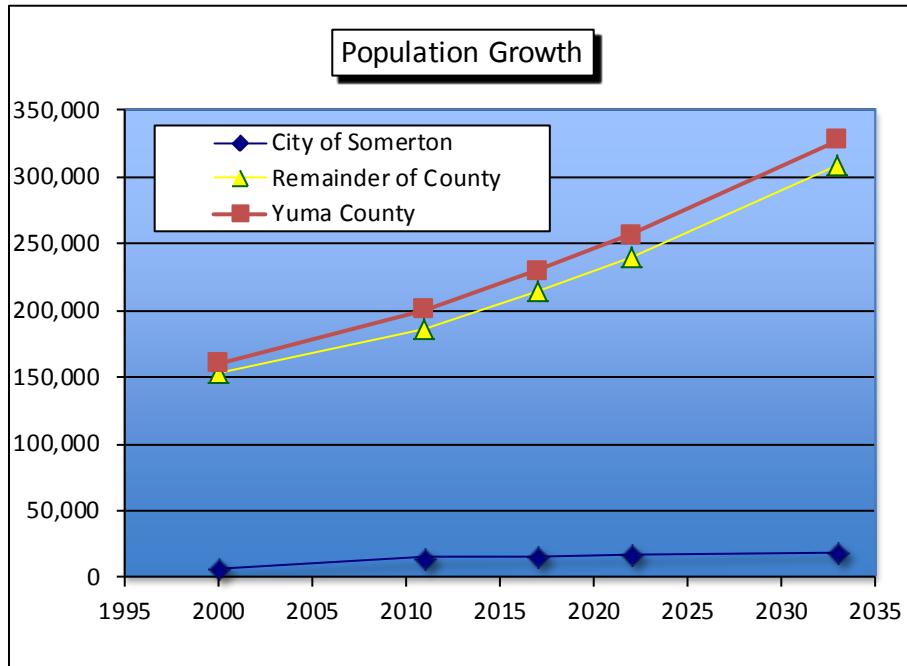
The City’s 2010 General Plan Update lists the medium scenario population projection for 2030 to be 24,122 residents. This is higher than the projected growth rate. However, the primary objective is to

obtain the growth rate to produce population projections up to 2017, and current City of Somerton staff believe a 1.2% growth rate aligns more closely with current projections.

Figure 5. City of Somerton Population Share

	2000	2011	2017	2022	2033
Yuma County	160,026	200,870	229,602	256,661	327,948
City of Somerton	7,266	14,528	15,606	16,565	18,888
Remainder of County	152,760	186,342	213,996	240,096	309,060
City Share	4.5%	7.2%	6.8%	6.5%	5.8%

Sources: Somerton and Yuma County 2000-2011 from U.S. Census Bureau. Yuma County 2033 from Table II-12, YMPO 2033 Regional Transportation Plan. Somerton's projection assumes a growth rate of 1.2%, provided by City of Somerton staff. An exponential growth formula derived 2017 and 2022 population for the County.



NON-RESIDENTIAL DEVELOPMENT

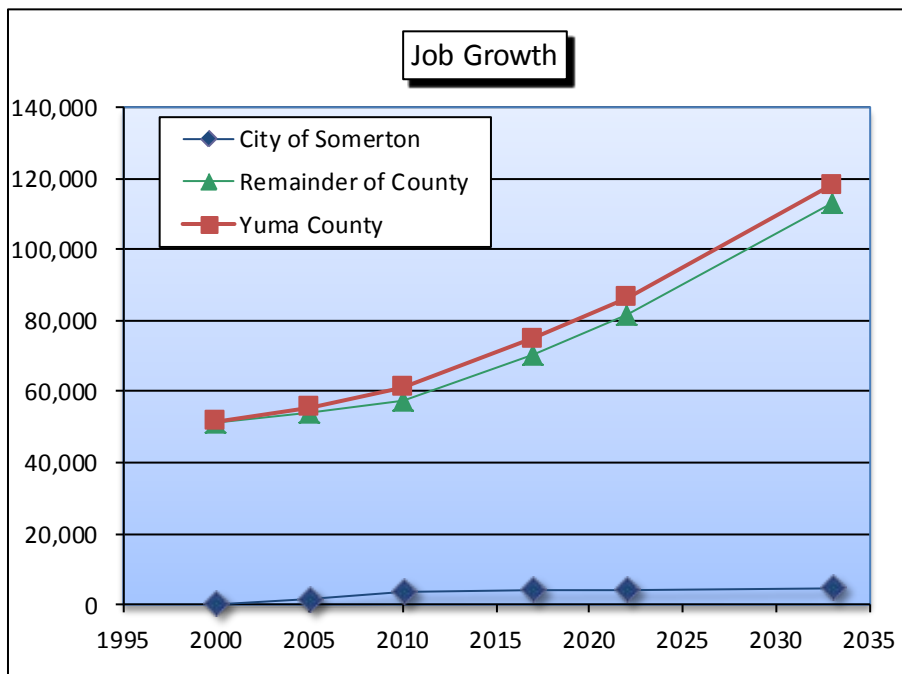
JOBS FORECAST

In addition to data on residential development, the calculation of impact fees requires data on nonresidential development. TischlerBise uses the term “jobs” to refer to employment by place of work. Similar to the population share evaluation discussed above, countywide jobs are shown in Figure 6 along with the City of Somerton share. Yuma County and City of Somerton jobs in 2000 are from the Census Transportation Package (CTPP). County and City data for 2005 and 2010 are from OnTheMap, the U.S. Census Bureau’s web application. OnTheMap estimates journey-to-work jobs used to analyze commuting patterns. Countywide jobs in 2033 are from Table II-13 of the Yuma Metropolitan Planning Organization 2033 Regional Transportation Plan. An exponential growth rate was derived to calculate job projections for 2017 and 2022. City projections assume a growth rate of 1.2%.

Figure 6. City of Somerton Job Share

	2000	2005	2010	2017	2022	2033
Yuma County	51,565	55,715	61,284	74,856	86,354	118,252
City of Somerton	610	1,805	4,022	4,372	4,641	5,292
Remainder of County	50,955	53,910	57,262	70,484	81,713	112,960
City Share	1.2%	3.2%	6.6%	5.8%	5.4%	4.5%

Sources: 2000 Yuma County and City of Somerton are from the Census Transportation Planning Package (CTPP). County and City data for all jobs 2005-2010 from OnTheMap, U.S. Census Bureau web application. County 2033 projections from Table II-13, 2033 Regional Transportation Plan, Yuma MPO. An exponential growth formula derived 2017 and 2022 job projections for both the County and City. Somerton's projection assumes a growth rate of 1.2%, provided by City of Somerton staff.



JOBS BY TYPE OF NONRESIDENTIAL DEVELOPMENT

Figure 7 indicates the City's 2010 job estimate and nonresidential floor area, estimated using square feet per employee multipliers from the Institute of Transportation Engineers (ITE 2012), except for industrial, where total square feet was provided by the City of Somerton. The prototype for Commercial is an average-size shopping center. For Office/ Other, the development prototype is an average-sized office. General land use types are based on two-digit industry sectors, with the percentage distribution of jobs by type of development from U.S. Census Bureau's OnTheMap web application.

Figure 7. Jobs and Floor Area Estimate

	2010		Sq Ft per	
	Jobs (1)	Job (2)	Job (2)	Floor Area
Industrial/Agricultural	2,963	74%	6.06	17,957
Commercial (3)	117	3%	500	60,000
Office/Other (4)	942	23%	301	280,000
TOTAL	4,022	100%	100	357,957

(1) OnTheMap web application, U.S. Census Bureau.

(2) Trip Generation, Institute of Transportation Engineers, 2012, except for Industrial/ Agricultural. For this category, total floor area was provided by City of Somerton, and sq ft per job was derived.

(3) Retail, Food and Accommodation Services.

(4) Major sectors are Health Care, Administration & Support (office jobs), and Professional/Scientific/Technical Services.

In Figure 8, gray shading indicates four nonresidential development prototypes used by TischlerBise to estimate commercial and office/other floor area in Somerton.

Figure 8. Employee and Building Area Ratios

ITE Code	Land Use / Size	Demand Unit	Wkdy Trip Ends Per Dmd Unit*	Wkdy Trip Ends Per Employee*	Emp Per Dmd Unit**	Sq Ft Per Emp
Commercial / Shopping Center						
820	Shopping Center (avg size)	1,000 Sq Ft	42.70	na	2.00	500
General Office						
710	General Office (avg size)	1,000 Sq Ft	11.03	3.32	3.32	301
Other Nonresidential						
770	Business Park***	1,000 Sq Ft	12.44	4.04	3.08	325
760	Research & Dev Center	1,000 Sq Ft	8.11	2.77	2.93	342
610	Hospital	1,000 Sq Ft	13.22	4.50	2.94	340
565	Day Care	student	4.38	26.73	0.16	na
550	University/College	student	1.71	8.96	0.19	na
540	Community College	student	1.23	15.55	0.08	na
530	High School	1,000 Sq Ft	12.89	19.74	0.65	1,531
520	Elementary School	1,000 Sq Ft	15.43	15.71	0.98	1,018
254	Assisted Living	bed	2.66	3.93	0.68	na
620	Nursing Home	1,000 Sq Ft	7.60	3.26	2.33	429
320	Motel	room	5.63	12.81	0.44	na
110	Light Industrial	1,000 Sq Ft	6.97	3.02	2.31	433
130	Industrial Park	1,000 Sq Ft	6.83	3.34	2.04	489
140	Manufacturing	1,000 Sq Ft	3.82	2.13	1.79	558
150	Warehousing	1,000 Sq Ft	3.56	3.89	0.92	1,093

* Trip Generation, Institute of Transportation Engineers, 9th Edition (2012).

** Employees per demand unit calculated from trip rates, except for Shopping Center data, which are derived from Development Handbook and Dollars and Cents of Shopping Centers, published by the Urban Land Institute.

*** According to ITE, a Business Park is a group of flex-type buildings served by a common roadway system. The tenant space includes a variety of uses with an average mix of 20-30% office/commercial and 70-80% industrial/warehousing.

DETAILED DEVELOPMENT PROJECTIONS

Demographic data shown in Figure 9 provides key inputs for updating development fees in the City of Somerton. Cumulative data are shown at the top and projected annual increases by type of development are shown at the bottom of the table. As discussed earlier, TischlerBise recommends the use of persons per housing unit to derive impact fees. Therefore, vacancy rates and number of households are not essential to the demographic analysis.

Figure 9. Annual Demographic Data

Somerton, Arizona	2010	2011	2012	2013	2014	2015	2016	2017	2018	2023	2028	2033
Cumulative				Base Yr	1	2	3	4	5	10	15	20
Year-Round Population	14,287	14,528	14,702	14,879	15,057	15,238	15,421	15,606	15,793	16,764	17,794	18,888
Jobs	4,022	4,070	4,119	4,169	4,219	4,269	4,320	4,372	4,425	4,697	4,985	5,292
Housing Units	4,052	4,120	4,170	4,220	4,270	4,322	4,374	4,426	4,479	4,754	5,047	5,357
SF	3,353	3,409	3,450	3,492	3,533	3,576	3,619	3,662	3,706	3,934	4,176	4,433
MF	699	711	720	728	737	746	755	764	773	820	871	924
Jobs to Housing Ratio	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Persons per Hsg Unit	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53	3.53
<u>Nonres Sq Ft in thousands (KSF)</u>												
Industrial/Agricultural	18	18	18	19	19	19	19	20	20	21	22	24
Commercial	60	59	60	61	61	62	63	64	64	68	73	77
All Other Services	280	287	290	294	297	301	305	308	312	331	351	373
Total	358	364	369	373	378	382	387	391	396	420	446	474
Avg Sq Ft Per Job	89	90	90	90	90	90	90	90	90	90	90	90
												2013-33
Annual Increase				12-13	13-14	14-15	15-16	16-17	17-18	22-23	27-28	Avg Anl
Population				176	179	181	183	185	187	199	211	200
Jobs				49	50	51	51	52	52	56	59	56
Housing Units				50	50	52	52	52	53	56	60	57
Industrial/Agricultural KSF				0	0	0	0	0	0	0	0	0
Commercial KSF				1	1	1	1	1	1	1	1	1
All Other Services KSF				3	4	4	4	4	4	4	4	4
Total Nonresidential KSF/Yr =>				4	4	5	5	5	5	5	5	5