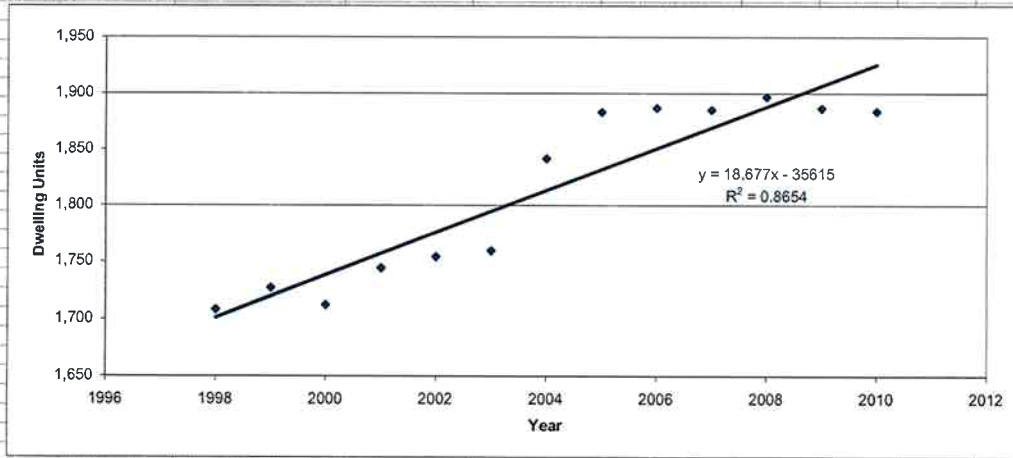


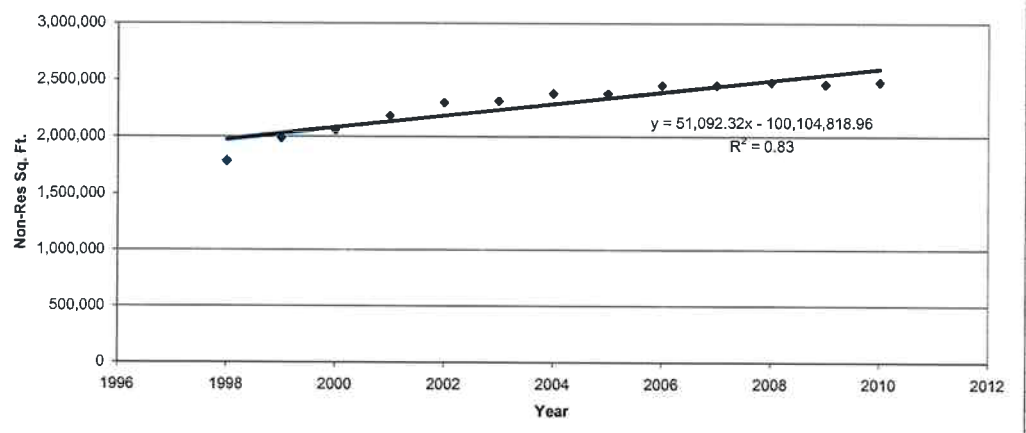
Appendix 5-5

**Regression Analysis of Land Use Data from
1998 through 2010 to Estimate Residential and
Non-Residential Growth Rates in Barnstable**

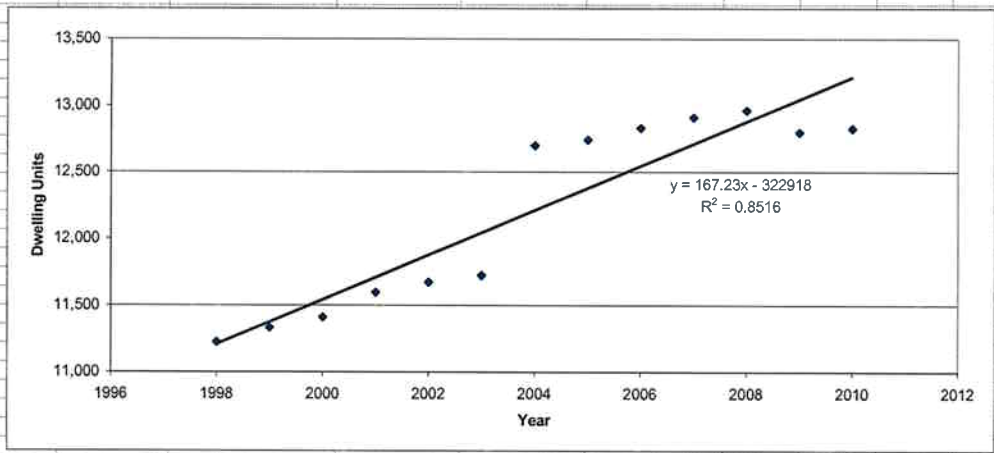


Year	DU	Fi	(Yi - Fi)^2	(Yi - Ybar)^2
1998	1,708	1,702	42	11,033
1999	1,727	1,720	49	7,375
2000	1,712	1,739	706	10,154
2001	1,745	1,758	170	4,699
2002	1,754	1,776	483	3,461
2003	1,760	1,795	1,247	2,859
2004	1,842	1,814	795	824
2005	1,883	1,832	2,601	4,927
2006	1,887	1,851	1,288	5,440
2007	1,885	1,870	245	5,213
2008	1,897	1,888	71	6,997
2009	1,887	1,907	423	5,378
2010	1,884	1,926	1,755	4,997
		1,813	9,875	73,357
m	b			
18.68	-35,615			
DU = m*year + b		R^2	0.865385774	

Year	Dwelling Units	Percentage of Buildout/Non-Res Sq. Ft	Percentage of Buildout/Date
2010	1,884	51%	28%
2015	2,019	55%	33%
2035	2,393	65%	45%
Buildout	3,703	2105	2129

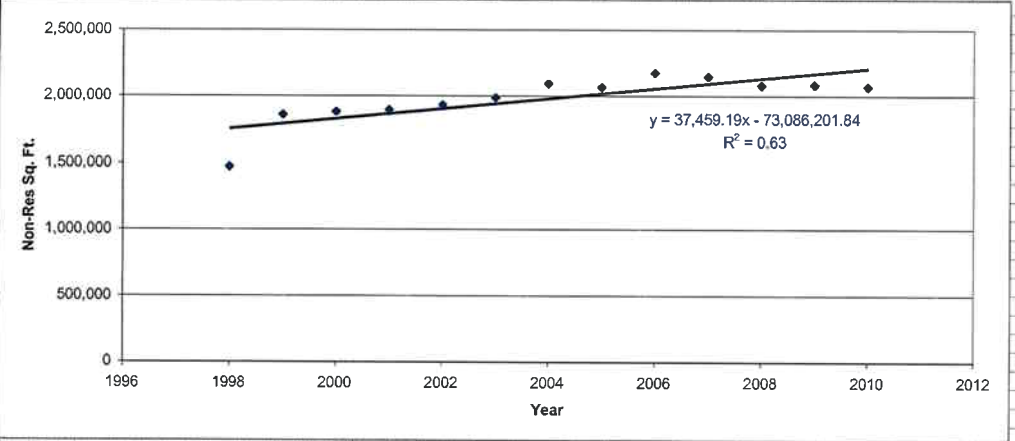


Year	Sq. Ft	Fi	(Yi - Fi)^2	(Yi - Ybar)^2
1998	1,786,187	1,977,645	36,656,069,510	248,015,645,675
1999	1,992,606	2,028,737	1,305,454,387	85,026,298,207
2000	2,059,157	2,079,829	427,347,957	50,643,763,277
2001	2,181,998	2,130,922	2,608,786,407	10,444,981,508
2002	2,297,145	2,182,014	13,255,137,163	167,606,883
2003	2,313,785	2,233,106	6,509,041,804	875,349,603
2004	2,378,743	2,284,199	8,938,626,399	8,938,626,117
2005	2,376,635	2,335,291	1,709,325,136	8,544,470,980
2006	2,449,049	2,386,383	3,926,985,167	27,175,623,946
2007	2,450,447	2,437,476	168,255,612	27,638,499,811
2008	2,475,440	2,488,568	172,344,006	36,573,237,768
2009	2,458,528	2,539,660	6,582,451,613	30,390,707,520
2010	2,474,863	2,590,753	13,430,407,038	36,352,878,228
		2,284,199	95,690,232,200	570,787,689,523
m	b			
51092	-100,104,818			
Sq. Ft. = m*year + b		R^2	0.832354071	

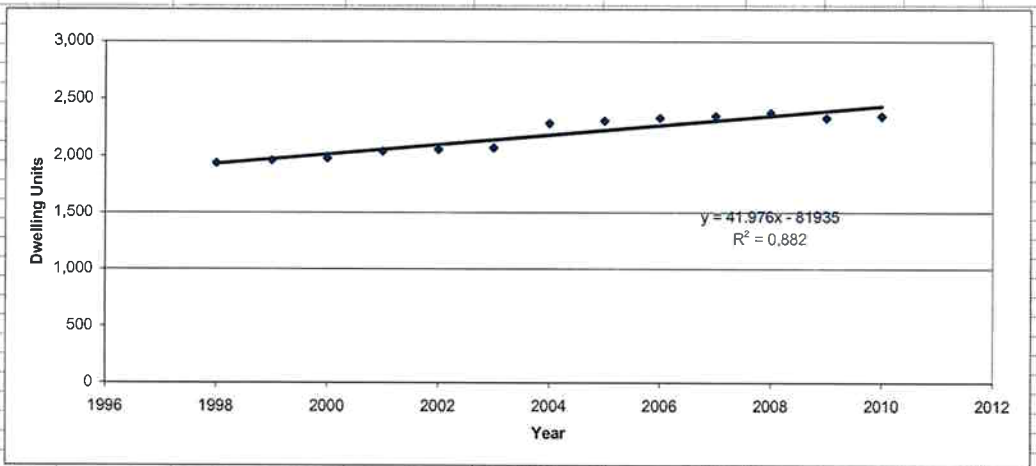


Year	DU	Fi	(Yi - Fi)^2	(Yi - Ybar)^2
1998	11,223	11,206	284	973,246
1999	11,330	11,374	1,888	773,684
2000	11,412	11,541	16,584	636,318
2001	11,596	11,708	12,526	376,518
2002	11,673	11,875	40,919	288,092
2003	11,724	12,043	101,767	236,428
2004	12,699	12,210	239,450	239,449
2005	12,742	12,377	133,080	283,057
2006	12,830	12,544	81,748	384,866
2007	12,911	12,712	39,744	491,467
2008	12,964	12,879	7,214	568,297
2009	12,797	13,046	62,235	344,191
2010	12,827	13,213	149,218	380,800
m		12,210	886,655	5,976,412
b	167.23	-322,918		
DU = m*year + b		R^2	0.851640874	

Year	Dwelling Units	Percentage of Buildout/Non-Res Sq. Ft	Percentage of Buildout/Date
2010	12,827	90%	2,071,000 49%
2015	14,049	99%	2,394,059 56%
2035	17,394	122%	3,143,243 74%
Buildout	14,256	2016	4,267,728 2065

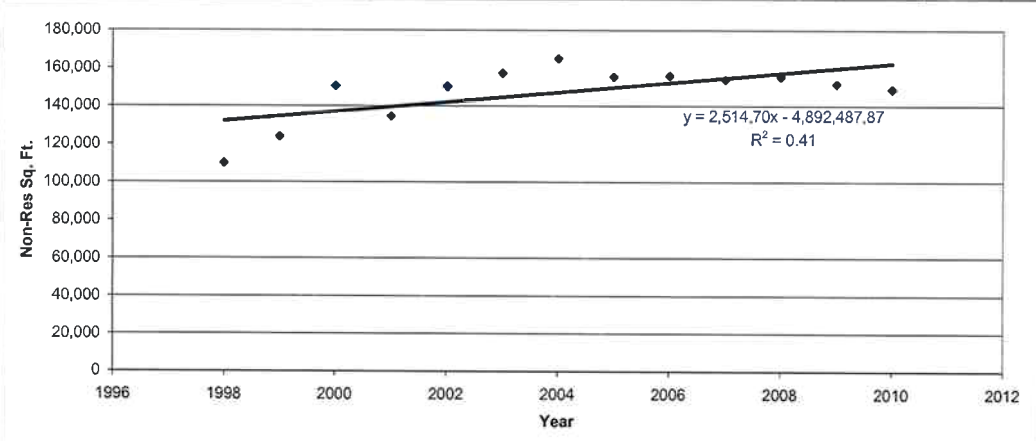


Year	Sq. Ft	Fi	(Yi - Fi)^2	(Yi - Ybar)^2
1998	1,474,340	1,757,253	80,040,031,281	257,727,344,944
1999	1,861,409	1,794,713	4,448,403,492	14,544,248,677
2000	1,882,246	1,832,172	2,507,423,045	9,952,564,080
2001	1,898,073	1,869,631	808,947,247	7,045,174,617
2002	1,933,902	1,907,090	718,873,716	2,314,239,043
2003	1,988,318	1,944,549	1,915,694,107	39,809,305
2004	2,096,286	1,982,009	13,059,339,117	13,059,338,216
2005	2,068,044	2,019,468	2,359,655,755	7,402,100,642
2006	2,176,058	2,056,927	14,192,221,491	37,655,193,523
2007	2,148,111	2,094,386	2,886,368,428	27,590,027,729
2008	2,082,131	2,131,845	2,471,506,103	10,024,507,305
2009	2,086,193	2,169,304	6,907,508,459	10,854,402,026
2010	2,071,000	2,206,764	18,431,754,932	7,919,480,227
m		1,982,009	150,747,727,173	406,128,430,333
b	37459.18	-73,086,183		
Sq. Ft. = m*year + b		R^2	0.628817596	

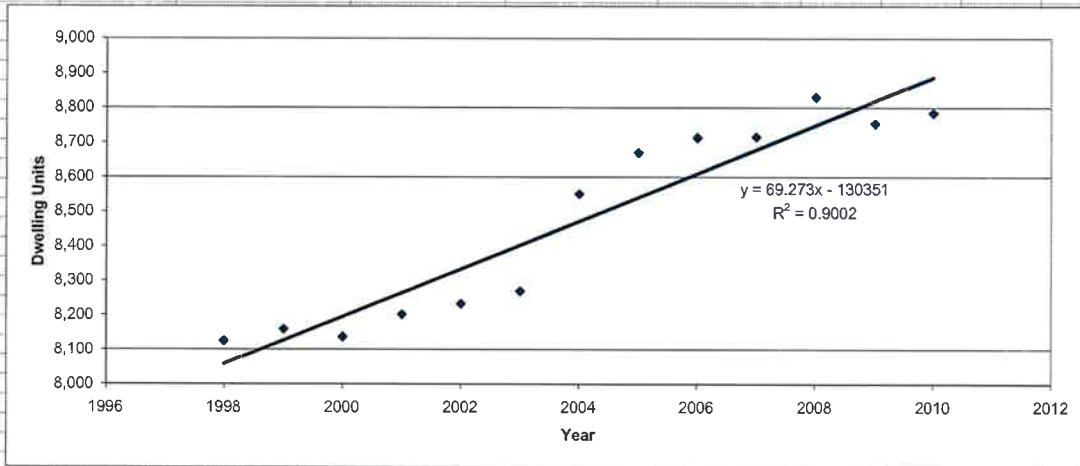


Year	DU	Fi	(Yi - Fi)^2	(Yi - Ybar)^2
1998	1,937	1,932	23	61,046
1999	1,962	1,974	144	49,224
2000	1,981	2,016	1,279	41,479
2001	2,041	2,058	289	20,425
2002	2,059	2,100	1,675	15,595
2003	2,073	2,142	4,786	12,355
2004	2,285	2,184	10,168	10,168
2005	2,309	2,226	6,782	15,457
2006	2,334	2,268	4,329	22,423
2007	2,352	2,310	1,713	27,996
2008	2,378	2,352	661	37,487
2009	2,335	2,394	3,471	22,789
2010	2,349	2,436	7,588	27,141
		2,184	42,907	363,585
m	b			
41.98	-81,935			
DU = m*year + b	R^2		0.881988044	

Year	Dwelling Units	Percentage of Buildout/Non-Res Sq. Ft	Percentage of Buildout/Date
2010	2,349	89%	50%
2015	2,646	100%	59%
2035	3,486	132%	76%
Buildout	2,634	2015	2063

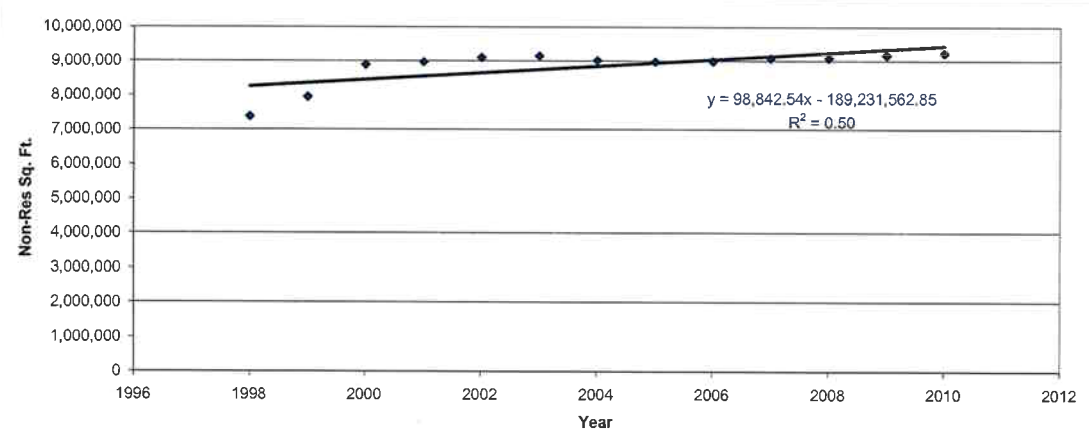


Year	Sq. Ft	Fi	(Yi - Fi)^2	(Yi - Ybar)^2
1998	109,754	131,889	489,972,314	1,385,591,816
1999	123,858	134,404	111,218,572	534,513,059
2000	150,527	136,919	185,185,149	12,598,677
2001	134,384	139,433	25,496,727	158,597,211
2002	150,215	141,948	68,341,111	10,481,157
2003	157,126	144,463	160,355,746	102,991,272
2004	164,846	146,978	319,281,919	319,281,918
2005	155,204	149,492	32,624,182	67,674,669
2006	155,651	152,007	13,279,136	75,228,935
2007	153,632	154,522	791,474	44,281,858
2008	155,312	157,036	2,973,389	69,463,249
2009	151,538	159,551	64,209,054	20,797,809
2010	148,661	162,066	179,687,553	2,834,043
		146,978	1,653,416,327	2,804,335,673
m	b			
2514.70	-4,892,488			
Sq. Ft. = m*year + b	R^2		0.410407127	

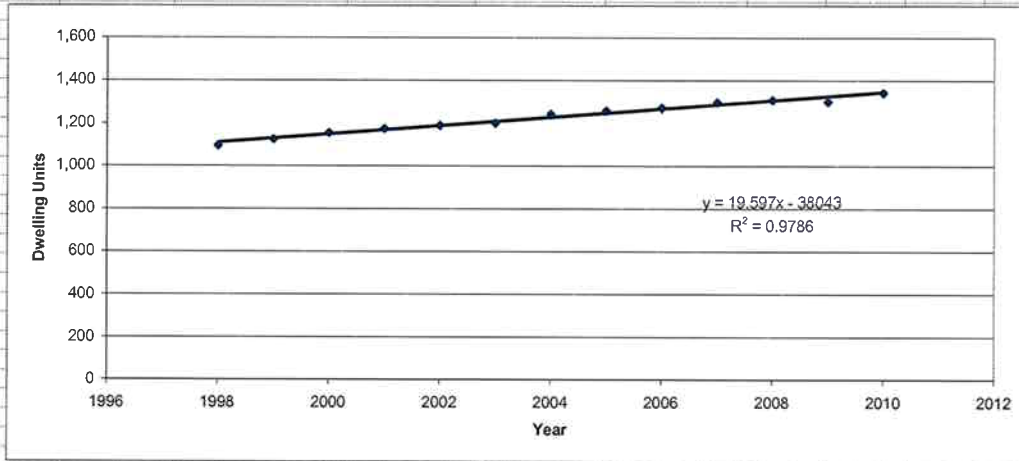


Year	DU	Fi	(Yi - Fi)^2	(Yi - Ybar)^2
1998	8,124	8,056	4,607	120,939
1999	8,157	8,125	1,022	98,848
2000	8,136	8,195	3,453	112,800
2001	8,201	8,264	3,954	73,278
2002	8,232	8,333	10,210	57,404
2003	8,269	8,402	17,762	41,025
2004	8,552	8,472	6,375	6,375
2005	8,668	8,541	16,134	38,531
2006	8,714	8,610	10,687	58,527
2007	8,716	8,680	1,345	59,777
2008	8,828	8,749	6,240	126,796
2009	8,751	8,818	4,475	78,103
2010	8,784	8,887	10,586	97,812
		8,472	96,849	970,214
m	b			
69.27	-130,351			
DU = m*year + b	R^2		0.900177534	

Year	Dwelling Units	Percentage of Buildout/E	Non-Res Sq. Ft	Percentage of Buildout/Date
2010	8,784	74%	9,232,741	32%
2015	9,234	78%	9,936,152	34%
2035	10,619	89%	11,913,003	41%
Buildout	11,897	2053	28,836,804	2206

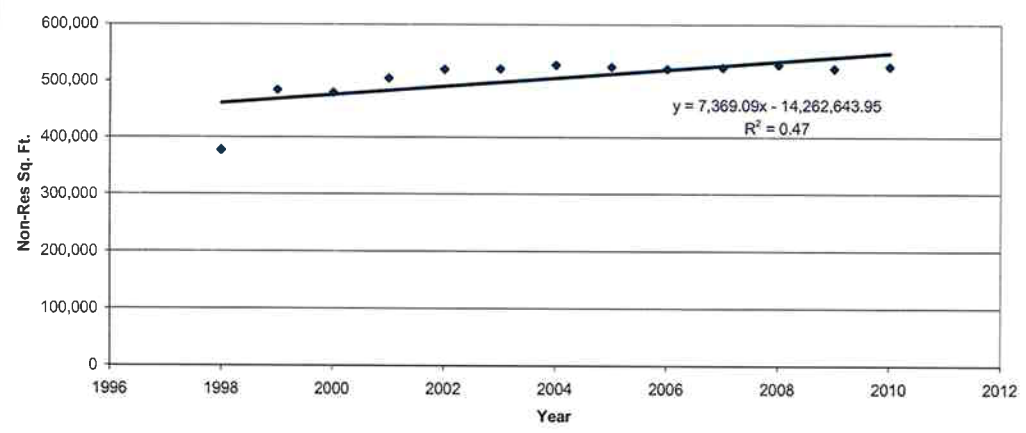


Year	Sq. Ft	Fi	(Yi - Fi)^2	(Yi - Ybar)^2
1998	7,380,968	8,255,829	765,381,765,644	2,154,778,060,556
1999	7,949,698	8,354,672	164,003,565,213	808,535,877,605
2000	8,895,962	8,453,514	195,760,166,361	2,216,316,356
2001	8,974,520	8,552,357	178,221,924,892	15,784,346,510
2002	9,100,239	8,651,199	201,636,785,049	63,179,220,015
2003	9,148,125	8,750,042	158,470,321,235	89,545,037,970
2004	9,018,890	8,848,884	28,901,962,132	28,901,961,572
2005	8,981,731	8,947,727	1,156,287,817	17,648,264,095
2006	8,996,668	9,046,569	2,490,140,360	21,840,042,448
2007	9,091,278	9,145,412	2,930,473,146	58,754,739,362
2008	9,089,071	9,244,254	24,081,882,444	57,689,684,114
2009	9,175,604	9,343,097	28,053,878,856	106,745,807,606
2010	9,232,741	9,441,939	43,763,995,811	147,346,019,284
		8,848,884	1,794,853,148,960	3,572,965,377,492
m	b			
98842.54	-189,231,563			
Sq. Ft. = m*year + b	R^2		0.497657279	

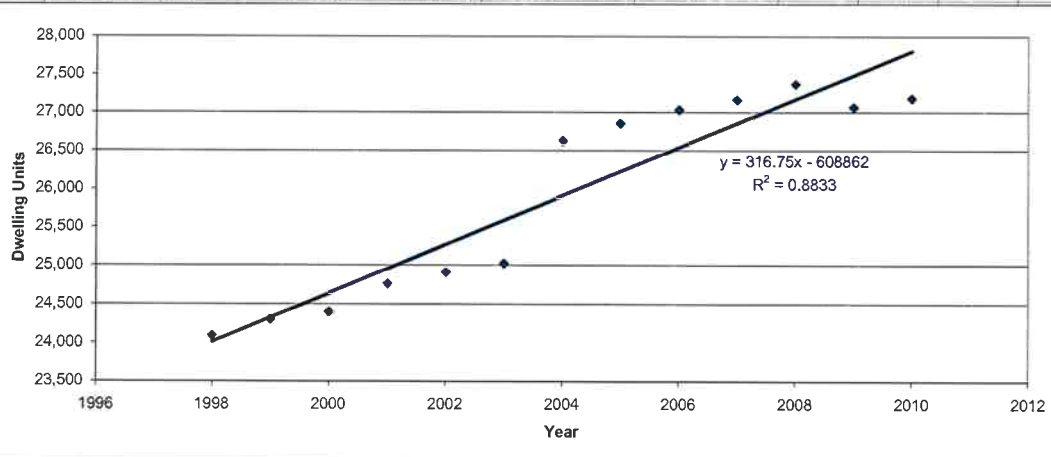


Year	DU	Fi	(Yi - Fi)^2	(Yi - Ybar)^2
1998	1,096	1,112	233	17,644
1999	1,126	1,131	25	10,609
2000	1,157	1,151	40	5,188
2001	1,176	1,170	31	2,830
2002	1,191	1,190	2	1,435
2003	1,201	1,209	67	772
2004	1,244	1,229	214	214
2005	1,259	1,249	115	919
2006	1,272	1,268	14	1,841
2007	1,299	1,288	135	4,956
2008	1,310	1,307	7	6,559
2009	1,302	1,327	638	5,287
2010	1,344	1,347	8	13,170
		1,229	1,530	71,424
m	b			
19.60	-38,040			
DU = m*year + b	R^2		0.978584756	

Year	Dwelling Units	Percentage of Buildout/Non-Res Sq. Ft	Percentage of Buildout/Date
2010	1,344	66%	45%
2015	1,445	70%	50%
2035	1,837	90%	62%
Buildout	2,051	2046	2095

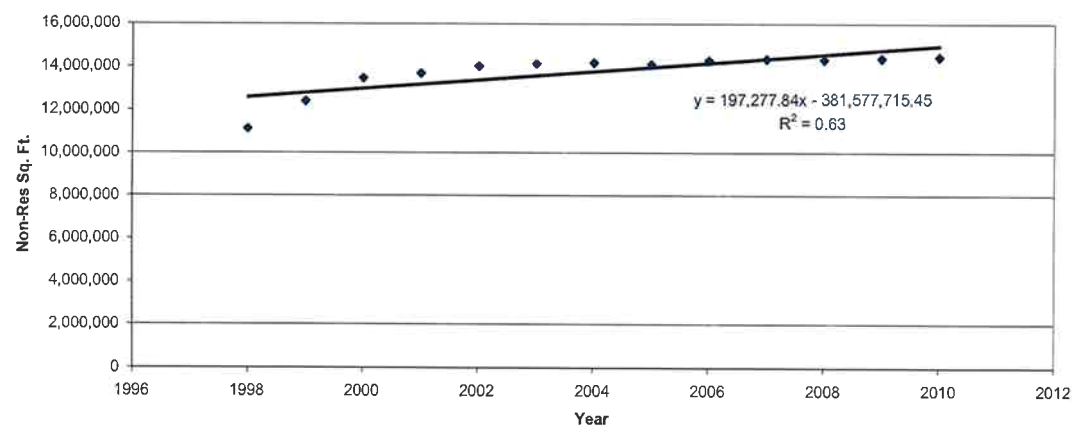


Year	Sq. Ft	Fi	(Yi - Fi)^2	(Yi - Ybar)^2
1998	377,245	460,794	6,980,385,793	16,323,443,137
1999	484,290	468,163	260,086,868	429,245,086
2000	479,474	475,532	15,540,318	651,996,941
2001	504,952	482,901	486,248,059	3,162
2002	520,866	490,270	936,111,858	251,468,845
2003	521,861	497,639	586,698,365	284,015,831
2004	528,592	505,008	556,194,172	556,194,171
2005	525,083	512,377	161,434,337	402,996,360
2006	521,632	519,746	3,555,462	276,349,703
2007	524,025	527,115	9,551,157	361,637,512
2008	529,149	534,485	28,468,441	582,776,739
2009	522,207	541,854	385,991,660	295,797,663
2010	525,731	549,223	551,862,713	429,433,165
		505,008	10,962,129,203	20,845,358,314
m	b			
7369.09	-14,262,644			
Sq. Ft. = m*year + b	R^2		0.474121335	



Year	DU	Fi	(Yi - Fi)^2	(Yi - Ybar)^2
1998	24,089	24,008	6,605	3,309,634
1999	24,303	24,324	440	2,575,175
2000	24,398	24,641	59,051	2,280,130
2001	24,759	24,958	39,486	1,320,123
2002	24,910	25,275	132,800	995,844
2003	25,027	25,591	318,595	776,503
2004	26,622	25,908	508,887	508,887
2005	26,861	26,225	405,010	908,506
2006	27,037	26,542	245,227	1,273,979
2007	27,164	26,858	93,151	1,576,182
2008	27,376	27,175	40,476	2,155,590
2009	27,071	27,492	176,910	1,352,920
2010	27,188	27,809	384,989	1,638,489
		25,908	2,411,626	20,671,964
m	b			
316.75	-608,862			
DU = m*year + b	R^2		0.883338301	

Year	Dwelling Units	Percentage of Buildout	Non-Res Sq. Ft	Percentage of Buildout/Date
2010	27,188	79%	14,452,996	33%
2015	29,392	85%	15,937,133	37%
2035	35,728	103%	19,882,690	46%
Buildout	34,541	2031	43,266,560	2154



Year	Sq. Ft	Fi	(Yi - Fi)^2	(Yi - Ybar)^2
1998	11,128,494	12,583,410	2,116,781,114,592	6,962,121,465,697
1999	12,411,861	12,780,688	136,033,377,027	1,836,611,032,140
2000	13,467,366	12,977,966	239,512,488,187	89,826,821,849
2001	13,693,927	13,175,244	269,032,355,874	5,350,956,262
2002	14,002,367	13,372,522	396,705,291,006	55,361,275,505
2003	14,129,215	13,569,799	312,945,824,332	131,143,763,903
2004	14,187,357	13,767,077	176,635,084,421	176,635,084,425
2005	14,106,697	13,964,355	20,261,224,692	115,341,587,652
2006	14,299,058	14,161,633	18,885,654,910	283,003,538,831
2007	14,367,493	14,358,911	73,654,979	360,499,095,941
2008	14,331,103	14,556,189	50,663,523,956	318,125,068,356
2009	14,394,070	14,753,466	129,165,796,014	393,119,932,668
2010	14,452,996	14,950,744	247,753,343,652	470,484,557,983
		13,767,077	4,114,448,733,644	11,197,624,181,212
m	b			
197277.84	-381,577,715			
Sq. Ft. = m*year + b	R^2		0.632560562	