STATE OF NEVADA DEPARTMENT OF TAXATION



2006-2007

IMPROVEMENT FACTOR REPORT

August 1, 2005

Prepared by: Division of Assessment Standards

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2006-2007 Improvement Factor Report Executive Summary

This executive summary does not include the spreadsheets of data supporting the analysis of the Marshall-Swift Costing Service Cost Manual. If you desire a copy of this material, please contact the Division of Assessment Standards.

In 2003, the Legislature amended NRS 361.260 (5) and added NRS 361.261. Under the amended NRS 361.260(5), assessors may either apply a factor to improvements in non-reappraisal areas or they have the option of determining the replacement cost and subtracting all applicable depreciation and obsolescence for improvements in non-reappraisal areas. If an assessor chooses to apply a factor, the factor "must reasonably represent the change, if any, in the taxable value of typical improvements in the area since the preceding year, and must take into account all applicable depreciation and obsolescence."

NRS 361.261 now requires the Department to propose any improvement factors on or before February 1 of each year. Then, on or before May 15th of the same year, each county assessor shall notify the Tax Commission that he either approves or objects to the proposed factors that are applicable to the county he represents. If any county assessor objects, the Tax Commission shall hold a hearing on the proposed factors and make every effort to reconcile the objections.

Legislative history and the minutes of Tax Commission meetings since 1981 indicate the purpose of the factor is to keep properties not reappraised at a similar level of assessment with properties that are reappraised. Typically, reappraised properties reflect the inflationary trends affecting new construction. However, the county assessors are only required to reappraise once every five years. If an improvement factor is not applied to non-reappraised properties during the interim between reappraisals, over time there is the potential of a large upward spike in assessed value in order to catch up with the inflationary trends of the previous four years. The improvement factor provides a means to ensure a stable property tax environment, and avoids unanticipated valuation increases.

The Department annually conducts a comprehensive study to determine the increases or decreases in typical building costs. For the 2006-2007 tax year, the Department used the following sources of information to estimate the rate of change in costs:

Sources

- 1. Study of Marshall-Swift Costing Service cost manual, by region
- 2. Survey of Area Contractors
- 3. Consumer Price index

Until 2001, the Department recommended a "composite factor" to be approved by the Nevada Tax Commission. The composite factor was comprised of a calculated weighted average of cost trends, less the 1.5% rate of annual depreciation required by NRS 361.227. Since NRS 361.260(5) requires that all applicable depreciation *and obsolescence* must be taken into account, the Department since 2001 has only recommended the trend factor, without making a

mathematical calculation for depreciation for purposes of a composite factor. Since obsolescence can only be calculated at the local level, the Department has not recommended a composite factor since 2002, and instead instructs the county assessors to take into account all applicable depreciation and obsolescence.

For the 2006-2007 tax year, the Department recommends that a statewide factor of 1.12 be applied to non-reappraised improvements. This is a statewide average supported by the sources listed above. The factor represents building cost trends but does not include all applicable depreciation and obsolescence, which must be calculated at the local level. The factor is contained within the range of reasonable representations of cost changes. Although slightly less than the Marshall Swift study of 1.13, a 1.12 statewide factor is, nevertheless, a conservative reflection of the other sources of cost change indicators, including the area contractor survey, and the consumer price index. It also is appropriate given the rising inflation factors for virtually all construction materials.

A statewide factor displays less volatility than regional factors while still maintaining values between the mandated range of 32% to 36% required by NRS 361.333 and improving uniformity among jurisdictions.

Area Contractor Survey

Area contractors are annually surveyed to determine whether building costs have gone up, down, or stayed the same, as well as to determine the approximate percentage change the contractors experienced during the period from September 2003 to September 2004. This year the Division obtained a "Licensed Contractors" list from the Nevada State Contractors Board. There were over 2000 contractors licensed to do business in the state of Nevada. This list was pared down to approximately 900 contractors that do business entirely within Nevada. The survey contained the following question, the type of construction they are engaged in, whether residential or commercial, or both. Finally, they were asked to identify the geographic areas in which they build. Over 550 contractors responded to the survey. The results of this survey can be found on pages 16 and 17.

Consumer Price Index

According to the Bureau of Labor Statistics:

The consumer price index (CPI) is a measure of the average change in prices over time of goods and services purchased by households. The CPIs are based on prices of food, clothing, shelter, and fuels, transportation fares, charges for doctors' and dentists' services, drugs, and other goods and services that people buy for day-to-day living. Prices are collected in 87 urban areas across the country from about 50,000 housing units and approximately 23,000 retail establishments – department stores, supermarkets, hospitals, filling stations, and other types of stores and service establishments.

The CPI Table indicates the overall CPI percent change from October 2003 to October 2004 was 2.9%. The percent change for the housing category was 3.0%, but for shelter alone, the percentage change was 3.1%.

Study of Marshall-Swift Costing Service Cost Manual

Tracking changes in costs reported by the Marshall and Swift Costing Service is important because, pursuant to NAC 361.128 (2)(b), county assessors are required to use:

the standards in the cost manuals, including modifiers of local costs, published through or furnished by the Marshall and Swift Publication Company, as they existed on October 1 of the year preceding the current assessment year, if the executive director approves it for use by county assessors in determining the costs of improvements.

The methodology used to calculate the weighted average cost changes is described on pages 21 and 22. The study of the Marshall-Swift Costing Service has been conducted by the Department annually for the last twenty-two years. The steps include an analysis of the rate of change of regional factors for each class of construction, including 5 types of commercial construction and 2 types of residential construction. The local cost modifiers are also studied to determine the rate of change, from October 1st of 2003 to October 1st of 2004, for each building type and applied to the regional change.

The resulting forty-nine factors are mathematically accurate, but unwieldy for assessors to apply, because it would require an individual analysis and data entry on each property to see which of the forty-nine factors is the most appropriate. To simplify the process, the Department weights the factors on the basis of the type of construction observed statewide. This reduces the number of factors to five for commercial and two for residential. A second weighting is applied, based on the relative total assessed value of commercial to residential properties reported in the Statistical Analysis of the Roll. This results in an overall weighted factor for commercial properties and an overall weighted factor for residential properties. These two are added to produce an improvement factor by region. The average of all the regions except Las Vegas produces a weighted statewide factor. The Summary Table on page 3 shows the regional weighted average factors, as well as the weighted statewide factor of 1.13.

These factors are produced based on data from October 1, 2003 to October 1, 2004 and applied to improvements for a lien date in July, 2006. The gap in time is required to compile data, process it, get it approved by the Tax Commission, and then disseminated to assessors for assessments prepared in advance of the July 1, 2006 lien date.

Conclusions and Recommendations

Regional factors based on the study of Marshall-Swift Costing Service Cost Manual are accurate and provide equalized values. However, the acceptable range of resulting ratios has a greater spread between regions. Statewide factors, barring unusual local conditions, not only provide equalized values, but also tighter uniformity among regions. Given the results of the various sources of information, the Department recommends a statewide factor of 1.12%.

NEVADA DEPARTMENT OF TAXATION IMPROVEMENT FACTOR STUDY, FEBRUARY, 2005 2006-2007 PROPOSED IMPROVEMENT FACTORS

COMPUTED FROM THE MARSHALL SWIFT RESIDENTIAL & COMMERCIAL MANUALS

FACTOR AREA	ROUNDED FACTOR	RAW FACTOR	WEIGHT	FACTOR WEIGHT
CARSON CITY	1.13	1.130	16.1%	0.1816
ELKO	1.10	1.103	7.5%	0.0825
FALLON	1.13	1.131	7.6%	0.0859
LINCOLN COUNTY	1.10	1.102	0.4%	0.0043
NYE COUNTY	1.14	1.135	3.2%	0.0358
RENO - SPARKS	1.13	1.128	57.5%	0.6490
LAKE TAHOE	1.12	1.118	7.8%	0.0870
STATEWIDE	1.13	1.128	100.0%	1.1262
LAS VEGAS	1.10	1.101	N/A	N/A

06-07 Proposed factors.xlsFACTOR 1 7/17/2005 10:22 AM

NEVADA DEPARTMENT OF TAXATION NTC APPROVED IMPROVEMENT FACTORS

AREA FACTORS WERE DEVELOPED BASED ON THE AREAS ESTABLISHED BY MARSHALL & SWIFT.

IMPROVEMENT FACTORS

YEAR	CARSON CITY	ELKO	FALLON	LINCOLN	NYE	RENO/SPARKS	TAHOE	STATEWIDE
2006-07	1.1300	1.1000	1.1300	1.1000	1.1400	1.1300	1.1200	1.1214
2005-06	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
2004-05	1.0250	1.0250	1.0250	1.0250	1.0250	1.0250	1.0250	1.0250
2003-04	0.9900	1.0350	0.9900	1.0150	1.0000	0.9900	1.0000	1.0029
2002-03	1.0300	1.0350	1.0250	1.0450	1.0300	1.0250	1.0300	1.0314
2001-02	1.0150	1.0150	1.0150	1.0150	1.0150	1.0150	1.0150	1.0150
2000-01	1.0150	1.0150	1.0150	1.0150	1.0150	1.0150	1.0150	1.0150
1999-00	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
1998-99	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
1997-98	1.0150	1.0150	1.0150	1.0150	1.0150	1.0150	1.0150	1.0150
1996-97	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300	1.0300
1995-96	1.0400	1.0400	1.0400	1.0400	1.0150	1.0400	1.0400	1.0364
1994-95	1.0250	1.0250	1.0300	1.0250	1.0000	1.0300	1.0200	1.0221
1993-94	1.0150	1.0250	1.0200	1.0450	1.0000	1.0100	1.0150	1.0186
CUMULATIVE TOTAL	1.4894	1.5381	1.4967	1.5527	1.4238	1.4821	1.4838	1.4953
AVG FACTOR	1.0289	1.0312	1.0292	1.0319	1.0256	1.0285	1.0286	1.0292

NEVADA DEPARTMENT OF TAXATION NTC APPROVED IMPROVEMENT FACTORS

AREA FACTORS WERE DEVELOPED BASED ON THE AREAS ESTABLISHED BY MARSHALL & SWIFT.

PERCENTAGE CHANGE

YEAR	CARSON CITY	ELKO	FALLON	LINCOLN	NYE	RENO/SPARKS	TAHOE	STATEWIDE
2006-07	13.00%	10.00%	13.00%	10.00%	14.00%	13.00%	12.00%	12.14%
2005-06	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
2004-05	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
2003-04	-1.00%	3.50%	-1.00%	1.50%	0.00%	-1.00%	0.00%	0.29%
2002-03	3.00%	3.50%	2.50%	4.50%	3.00%	2.50%	3.00%	3.14%
2001-02	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
2000-01	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
1999-00	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
1998-99	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
1997-98	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
1996-97	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
1995-96	4.00%	4.00%	4.00%	4.00%	1.50%	4.00%	4.00%	3.64%
1994-95	2.50%	2.50%	3.00%	2.50%	0.00%	3.00%	2.00%	2.21%
1993-94	1.50%	2.50%	2.00%	4.50%	0.00%	1.00%	1.50%	1.86%
TOTAL CHANGE	48.94%	53.81%	49.67%	55.27%	42.38%	48.21%	48.38%	49.53%
AVG INCREASE	2.89%	3.12%	2.92%	3.19%	2.56%	2.85%	2.86%	2.92%

NEVADA DEPARTMENT OF TAXATION NTC APPROVED IMPROVEMENT FACTORS

AREA FACTORS WERE DEVELOPED BASED ON THE AREAS ESTABLISHED BY MARSHALL & SWIFT.

CUMULATIVE COST INDEX

YEAR	CARSON CITY	ELKO	FALLON	LINCOLN	NYE	RENO/SPARKS	TAHOE	STATEWIDE
2006-07	1.1300	1.1000	1.1300	1.1000	1.1400	1.1300	1.1200	1.1214
2005-06	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200	1.0200
2004-05	1.0455	1.0455	1.0455	1.0455	1.0455	1.0455	1.0455	1.0455
2003-04	1.0350	1.0821	1.0350	1.0612	1.0455	1.0350	1.0455	1.0485
2002-03	1.0661	1.1200	1.0609	1.1089	1.0769	1.0609	1.0769	1.0814
2001-02	1.0821	1.1368	1.0768	1.1256	1.0930	1.0768	1.0930	1.0977
2000-01	1.0983	1.1538	1.0930	1.1425	1.1094	1.0930	1.1094	1.1141
1999-00	1.1313	1.1884	1.1258	1.1767	1.1427	1.1258	1.1427	1.1475
1998-99	1.1652	1.2241	1.1596	1.2120	1.1770	1.1596	1.1770	1.1820
1997-98	1.1827	1.2424	1.1769	1.2302	1.1946	1.1769	1.1946	1.1997
1996-97	1.2182	1.2797	1.2123	1.2671	1.2305	1.2123	1.2305	1.2357
1995-96	1.2669	1.3309	1.2607	1.3178	1.2489	1.2607	1.2797	1.2807
1994-95	1.2986	1.3642	1.2986	1.3507	1.2489	1.2986	1.3053	1.3091
1993-94	1.3180	1.3983	1.3245	1.4115	1.2489	1.3115	1.3249	1.3334
CUMULATIVE TOTAL	1.4894	1.5381	1.4967	1.5527	1.4238	1.2731	1.2797	1.2834
AVG FACTOR	1.0289	1.0312	1.0292	1.0319	1.0256	1.0285	1.0286	1.0292

CARSON CITY IMPROVEMENT FACTOR COMPUTATION

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	LOCAL	LOCAL	PRICE RELATIVE	COMPARATIVE	CONSTRUCTION	PERCENTAGE OF	WEIGHTED		WEIGHTED
CONSTRUCTION	MULTIPLIER	MULTIPLIER	10/03 / 10/02	COST MULTIPLIER	TYPE FACTOR	CONSTRUCTION	FACTOR	PERCENTAGE OF	FACTOR
TYPE	10/02 *	10/03 *	(C / B)	10/02>10/03 **	(D * E)	TYPE ***	(F * G)	TAX ROLL ****	(I * J)
COMMERCIAL									
Α	1.10	1.13	1.027273	1.107	1.137191	0.040	0.045488		
В	1.08	1.09	1.009259	1.109	1.118965	0.040	0.044759		
С	1.07	1.09	1.018692	1.092	1.112412	0.500	0.556206		
D	1.07	1.10	1.028037	1.097	1.127757	0.250	0.281939		
S	1.09	1.12	1.027523	1.115	1.145688	0.170	0.194767		
ALL COMMERCIAL						1.000	1.123158	0.3294	0.369994
RESIDENTIAL									
FRAME	1.07	1.10	1.028037	1.106	1.137009	0.800	0.909607		
MASONRY	1.07	1.09	1.018692	1.095	1.115468	0.200	0.223094		
ALL RESIDENTIAL						1.000	1.132701	0.6706	0.759563
									_
					CARSON CITY CO	DMPOSITE IMPROVE	MENT FACTOR	1.0000	1.129557

PROPOSED CARSON CITY IMPROVEMENT FACTOR 1.130000

WEIGHTED MEDIAN STATEWIDE IMPROVEMENT FACTOR

1.130000

^{*} MARSHALL-SWIFT COMMERCIAL MANUAL SECTION 99 PAGE 8 & MARSHALL-SWIFT RESIDENTIAL MANUAL PAGE F-7

^{**} MARSHALL-SWIFT COMMERCIAL MANUAL SECTION 98 PAGE 5 & MARSHALL-SWIFT RESIDENTIAL MANUAL PAGE F-12

^{***} BASED ON ESTIMATES SUPPLIED BY COUNTY ASSESSOR

^{**** 2003-04} STATISTICAL ANALYSIS OF THE TAX ROLL

ELKO IMPROVEMENT FACTOR COMPUTATION

							'		
	LOCAL	LOCAL	PRICE RELATIVE	COMPARATIVE	CONSTRUCTION	PERCENTAGE OF	WEIGHTED	-	WEIGHTED
CONSTRUCTION	MULTIPLIER	MULTIPLIER	10/03 / 10/02	COST MULTIPLIER	TYPE FACTOR	CONSTRUCTION	FACTOR	PERCENTAGE OF	FACTOR
TYPE	10/02 *	10/03 *	(C / B)	10/02>10/03 **	(D * E)	TYPE ***	(F * G)	TAX ROLL ****	(I * J)
COMMERCIAL									
Α	1.07	1.07	1.000000	1.107	1.107000	0.040	0.044280		
В	1.07	1.06	0.990654	1.109	1.098338	0.040	0.043934		
С	1.09	1.08	0.990826	1.092	1.081982	0.500	0.540991		
D	1.08	1.07	0.990741	1.097	1.086843	0.250	0.271711		
S	1.07	1.07	1.000000	1.115	1.115000	0.170	0.189550		
ALL COMMERCIAL						1.000	1.090465	0.4660	0.508115
RESIDENTIAL									
FRAME	1.07	1.08	1.009346	1.106	1.116337	0.800	0.893070		
MASONRY	1.08	1.09	1.009259	1.095	1.105139	0.200	0.221028		
ALL RESIDENTIAL				•		1.000	1.114097	0.5340	0.594971

ELKO COMPOSITE IMPROVEMENT FACTOR

1.0000

WEIGHTED MEDIAN STATEWIDE IMPROVEMENT FACTOR

PROPOSED ELKO IMPROVEMENT FACTOR

1.130000

1.103086

1.100000

* MARSHALL-SWIFT COMMERCIAL MANUAL SECTION 99 PAGE 8 & MARSHALL-SWIFT RESIDENTIAL MANUAL PAGE F-7

** MARSHALL-SWIFT COMMERCIAL MANUAL SECTION 98 PAGE 5 & MARSHALL-SWIFT RESIDENTIAL MANUAL PAGE F-12

** BASED ON ESTIMATES SUPPLIED BY COUNTY ASSESSOR

FALLON IMPROVEMENT FACTOR COMPUTATION

	LOCAL	LOCAL	PRICE RELATIVE	COMPARATIVE	CONSTRUCTION	PERCENTAGE OF	WEIGHTED	-	WEIGHTED
CONSTRUCTION	MULTIPLIER	MULTIPLIER	10/03 / 10/02	COST MULTIPLIER	TYPE FACTOR	CONSTRUCTION	FACTOR	PERCENTAGE OF	FACTOR
TYPE	10/02 *	10/03 *	(C / B)	10/02>10/03 **	(D * E)	TYPE ***	(F * G)	TAX ROLL ****	(I * J)
COMMERCIAL									
Α	1.02	1.05	1.029412	1.107	1.139559	0.040	0.045582		
В	1.01	1.02	1.009901	1.109	1.119677	0.040	0.044787		
С	1.02	1.04	1.019608	1.092	1.113412	0.500	0.556706		
D	1.01	1.04	1.029703	1.097	1.129584	0.250	0.282396		
S	1.03	1.06	1.029126	1.115	1.147475	0.170	0.195071		
ALL COMMERCIAL						1.000	1.124542	0.3262	0.366814
RESIDENTIAL									
FRAME	1.01	1.04	1.029703	1.106	1.138852	0.800	0.911082		
MASONRY	1.02	1.04	1.019608	1.095	1.116471	0.200	0.223294		
ALL RESIDENTIAL						1.000	1.134376	0.6738	0.764354

FALLON COMPOSITE IMPROVEMENT FACTOR

1.131168

1.130000

1.0000

WEIGHTED MEDIAN STATEWIDE IMPROVEMENT FACTOR 1.130000

PROPOSED FALLON IMPROVEMENT FACTOR

* MARSHALL-SWIFT COMMERCIAL MANUAL SECTION 99 PAGE 8 &

MARSHALL-SWIFT RESIDENTIAL MANUAL PAGE F-7

* MARSHALL-SWIFT COMMERCIAL MANUAL SECTION 98 PAGE 5 &

MARSHALL-SWIFT RESIDENTIAL MANUAL PAGE F-12

*** BASED ON ESTIMATES SUPPLIED BY COUNTY ASSESSOR

LAS VEGAS IMPROVEMENT FACTOR COMPUTATION

	LOCAL	LOCAL	PRICE RELATIVE	COMPARATIVE	CONSTRUCTION	PERCENTAGE OF	WEIGHTED	-	WEIGHTED
CONSTRUCTION	MULTIPLIER	MULTIPLIER	10/03 / 10/02	COST MULTIPLIER	TYPE FACTOR	CONSTRUCTION	FACTOR	PERCENTAGE OF	FACTOR
TYPE	10/02 *	10/03 *	(C / B)	10/02>10/03 **	(D * E)	TYPE ***	(F * G)	TAX ROLL ****	(I * J)
COMMERCIAL									
Α	1.12	1.12	1.000000	1.107	1.107000	0.040	0.044280		
В	1.10	1.11	1.009091	1.109	1.118779	0.040	0.044751		
С	1.12	1.12	1.000000	1.092	1.092000	0.500	0.546000		
D	1.13	1.13	1.000000	1.097	1.097000	0.250	0.274250		
S	1.12	1.11	0.991071	1.115	1.105044	0.170	0.187857		
ALL COMMERCIAL						1.000	1.097139	0.3486	0.382478
RESIDENTIAL									
FRAME	1.13	1.13	1.000000	1.106	1.106000	0.800	0.884800		
MASONRY	1.12	1.12	1.000000	1.095	1.095000	0.200	0.219000		
ALL RESIDENTIAL			•		•	1.000	1.103800	0.6514	0.71900

LAS VEGAS COMPOSITE IMPROVEMENT FACTOR

1.0000 1.101478

PROPOSED LAS VEGAS IMPROVEMENT FACTOR

WEIGHTED MEDIAN STATEWIDE IMPROVEMENT FACTOR 1

1.130000

1.100000

* MARSHALL-SWIFT COMMERCIAL MANUAL SECTION 99 PAGE 8 &

MARSHALL-SWIFT RESIDENTIAL MANUAL PAGE F-7
MARSHALL-SWIFT COMMERCIAL MANUAL SECTION 98 PAGE 5 &

MARSHALL-SWIFT RESIDENTIAL MANUAL PAGE F-12

*** BASED ON ESTIMATES SUPPLIED BY COUNTY ASSESSOR

LINCOLN COUNTY IMPROVEMENT FACTOR COMPUTATION

	LOCAL	LOCAL	PRICE RELATIVE	COMPARATIVE	CONSTRUCTION	PERCENTAGE OF	WEIGHTED	-	WEIGHTED
CONSTRUCTION	MULTIPLIER	MULTIPLIER	10/03 / 10/02	COST MULTIPLIER	TYPE FACTOR	CONSTRUCTION	FACTOR	PERCENTAGE OF	FACTOR
TYPE	10/02 *	10/03 *	(C / B)	10/02>10/03 **	(D * E)	TYPE ***	(F * G)	TAX ROLL ****	(I * J)
COMMERCIAL									
Α	1.01	1.01	1.000000	1.107	1.107000	0.040	0.044280		
В	1.01	1.02	1.009901	1.109	1.119677	0.040	0.044787		
С	1.04	1.04	1.000000	1.092	1.092000	0.500	0.546000		
D	1.04	1.04	1.000000	1.097	1.097000	0.250	0.274250		
S	1.01	1.01	1.000000	1.115	1.115000	0.170	0.189550		
ALL COMMERCIAL						1.000	1.098867	0.4523	0.497069
RESIDENTIAL									
FRAME	1.04	1.04	1.000000	1.106	1.106000	0.800	0.884800		
MASONRY	1.04	1.04	1.000000	1.095	1.095000	0.200	0.219000		
ALL RESIDENTIAL						1.000	1.103800	0.5477	0.604500

LINCOLN COUNTY COMPOSITE IMPROVEMENT FACTOR

1.0000

PROPOSED LINCOLN COUNTY IMPROVEMENT FACTOR

WEIGHTED MEDIAN STATEWIDE IMPROVEMENT FACTOR

1.130000

1.101569

1.100000

* MARSHALL-SWIFT COMMERCIAL MANUAL SECTION 99 PAGE 8 & MARSHALL-SWIFT RESIDENTIAL MANUAL PAGE F-7

** MARSHALL-SWIFT COMMERCIAL MANUAL SECTION 98 PAGE 5 & MARSHALL-SWIFT RESIDENTIAL MANUAL PAGE F-12

BASED ON ESTIMATES SUPPLIED BY COUNTY ASSESSOR

NYE COUNTY IMPROVEMENT FACTOR COMPUTATION

		TTL CO		ICO V LIVILI	1111010		7111011		
	LOCAL	LOCAL	PRICE RELATIVE	COMPARATIVE	CONSTRUCTION	PERCENTAGE OF	WEIGHTED	-	WEIGHTED
CONSTRUCTION	MULTIPLIER	MULTIPLIER	10/03 / 10/02	COST MULTIPLIER	TYPE FACTOR	CONSTRUCTION	FACTOR	PERCENTAGE OF	FACTOR
TYPE	10/02 *	10/03 *	(C / B)	10/02>10/03 **	(D * E)	TYPE ***	(F * G)	TAX ROLL ****	(I * J)
COMMERCIAL									
Α	0.96	0.98	1.020833	1.107	1.130062	0.040	0.045202		
В	0.95	0.95	1.000000	1.109	1.108700	0.040	0.044348		
С	0.93	0.95	1.021505	1.092	1.115483	0.500	0.557742		
D	0.89	0.92	1.033708	1.097	1.133978	0.250	0.283495		
S	0.95	0.98	1.031579	1.115	1.150211	0.170	0.195536		
ALL COMMERCIAL						1.000	1.126322	0.2720	0.306336
RESIDENTIAL									
FRAME	0.89	0.92	1.033708	1.106	1.143281	0.800	0.914625		
MASONRY	0.93	0.95	1.021505	1.095	1.118548	0.200	0.223710		
ALL RESIDENTIAL						1.000	1.138334	0.7280	0.828732
		•	•		•	•	•		

NYE COUNTY COMPOSITE IMPROVEMENT FACTOR

1.0000

PROPOSED NYE COUNTY IMPROVEMENT FACTOR
WEIGHTED MEDIAN STATEWIDE IMPROVEMENT FACTOR

1.130000

1.135068

1.140000

* MARSHALL-SWIFT COMMERCIAL MANUAL SECTION 99 PAGE 8 & MARSHALL-SWIFT RESIDENTIAL MANUAL PAGE F-7

** MARSHALL-SWIFT COMMERCIAL MANUAL SECTION 98 PAGE 5 & MARSHALL-SWIFT RESIDENTIAL MANUAL PAGE F-12

BASED ON ESTIMATES SUPPLIED BY COUNTY ASSESSOR

RENO - SPARKS IMPROVEMENT FACTOR COMPUTATION

	LOCAL	LOCAL	PRICE RELATIVE	COMPARATIVE	CONSTRUCTION	PERCENTAGE OF	WEIGHTED	-	WEIGHTED
CONSTRUCTION	MULTIPLIER	MULTIPLIER	10/03 / 10/02	COST MULTIPLIER	TYPE FACTOR	CONSTRUCTION	FACTOR	PERCENTAGE OF	FACTOR
TYPE	10/02 *	10/03 *	(C / B)	10/02>10/03 **	(D * E)	TYPE ***	(F * G)	TAX ROLL ****	(I * J)
COMMERCIAL									
Α	1.10	1.13	1.027273	1.107	1.137191	0.040	0.045488		
В	1.09	1.09	1.000000	1.109	1.108700	0.040	0.044348		
С	1.07	1.09	1.018692	1.092	1.112412	0.500	0.556206		
D	1.06	1.09	1.028302	1.097	1.128047	0.250	0.282012		
S	1.09	1.12	1.027523	1.115	1.145688	0.170	0.194767		
ALL COMMERCIAL						1.000	1.122820	0.3219	0.361413
RESIDENTIAL									
FRAME	1.06	1.09	1.028302	1.106	1.137302	0.800	0.909842		
MASONRY	1.08	1.09	1.009259	1.095	1.105139	0.200	0.221028		
ALL RESIDENTIAL	•					1.000	1.130869	0.6781	0.766865

RENO - SPARKS COMPOSITE IMPROVEMENT FACTOR

1.128278

1.0000

PROPOSED RENO - SPARKS IMPROVEMENT FACTOR

WEIGHTED MEDIAN STATEWIDE IMPROVEMENT FACTOR

1.130000

1.130000

MARSHALL-SWIFT COMMERCIAL MANUAL SECTION 99 PAGE 8 & MARSHALL-SWIFT RESIDENTIAL MANUAL PAGE F-7

MARSHALL-SWIFT COMMERCIAL MANUAL SECTION 98 PAGE 5 &

MARSHALL-SWIFT RESIDENTIAL MANUAL PAGE F-12 BASED ON ESTIMATES SUPPLIED BY COUNTY ASSESSOR

2003-04 STATISTICAL ANALYSIS OF THE TAX ROLL

LAKE TAHOE IMPROVEMENT FACTOR COMPUTATION

				Ito v Eiviei v			1111011		
	LOCAL	LOCAL	PRICE RELATIVE	COMPARATIVE	CONSTRUCTION	PERCENTAGE OF	WEIGHTED	-	WEIGHTED
CONSTRUCTION	MULTIPLIER	MULTIPLIER	10/03 / 10/02	COST MULTIPLIER	TYPE FACTOR	CONSTRUCTION	FACTOR	PERCENTAGE OF	FACTOR
TYPE	10/02 *	10/03 *	(C / B)	10/02>10/03 **	(D * E)	TYPE ***	(F * G)	TAX ROLL ****	(I * J)
COMMERCIAL									
Α	1.18	1.20	1.016949	1.107	1.125763	0.040	0.045031		
В	1.17	1.18	1.008547	1.109	1.118176	0.040	0.044727		
С	1.16	1.18	1.017241	1.092	1.110827	0.500	0.555414		
D	1.17	1.19	1.017094	1.097	1.115752	0.250	0.278938		
S	1.18	1.20	1.016949	1.115	1.133898	0.170	0.192763		
ALL COMMERCIAL						1.000	1.116872	0.3025	0.337886
RESIDENTIAL									
FRAME	1.17	1.19	1.017094	1.106	1.124906	0.800	0.899925		
MASONRY	1.18	1.18	1.000000	1.095	1.095000	0.200	0.219000		
ALL RESIDENTIAL						1.000	1.118925	0.6975	0.780418

LAKE TAHOE COMPOSITE IMPROVEMENT FACTOR

1.0000

PROPOSED LAKE TAHOE IMPROVEMENT FACTOR

WEIGHTED MEDIAN STATEWIDE IMPROVEMENT FACTOR

1.130000

1.118304

1.120000

^{*} MARSHALL-SWIFT COMMERCIAL MANUAL SECTION 99 PAGE 8 & MARSHALL-SWIFT RESIDENTIAL MANUAL PAGE F-7

^{**} MARSHALL-SWIFT COMMERCIAL MANUAL SECTION 98 PAGE 5 & MARSHALL-SWIFT RESIDENTIAL MANUAL PAGE F-12

^{***} BASED ON ESTIMATES SUPPLIED BY COUNTY ASSESSOR

^{**** 2003-04} STATISTICAL ANALYSIS OF THE TAX ROLL

STATEWIDE IMPROVEMENT FACTOR COMPUTATION

	STITE WIDE IN INC. VENIENT THE TORK COMM CITITION					111011			
	LOCAL	LOCAL	PRICE RELATIVE	COMPARATIVE	CONSTRUCTION	PERCENTAGE OF	WEIGHTED	-	WEIGHTED
CONSTRUCTION	MULTIPLIER	MULTIPLIER	10/03 / 10/02	COST MULTIPLIER	TYPE FACTOR	CONSTRUCTION	FACTOR	PERCENTAGE OF	FACTOR
TYPE	10/02 *	10/03 *	(C / B)	10/02>10/03 **	(D * E)	TYPE ***	(F * G)	TAX ROLL ****	(I * J)
COMMERCIAL									
Α	1.04	1.06	1.019231	1.107	1.128289	0.040	0.045132		
В	1.05	1.05	1.000000	1.109	1.108700	0.040	0.044348		
С	1.05	1.06	1.009524	1.092	1.102400	0.500	0.551200		
D	1.03	1.05	1.019417	1.097	1.118300	0.250	0.279575		
S	1.05	1.07	1.019048	1.115	1.136239	0.170	0.193161		
ALL COMMERCIAL						1.000	1.113415	0.3316	0.369237
RESIDENTIAL									
FRAME	1.02	1.04	1.019608	1.106	1.127686	0.800	0.902149		
MASONRY	1.05	1.06	1.009524	1.095	1.105429	0.200	0.221086		
ALL RESIDENTIAL						1.000	1.123235	0.6684	0.750741
					STATEWIDE CO	OMPOSITE IMPROVE	MENT FACTOR	1.0000	1.119978

PROPOSED STATEWIDE IMPROVEMENT FACTOR

WEIGHTED MEDIAN STATEWIDE IMPROVEMENT FACTOR

1.130000

1.120000

^{*} MARSHALL-SWIFT COMMERCIAL MANUAL SECTION 99 PAGE 8 & MARSHALL-SWIFT RESIDENTIAL MANUAL PAGE F-7

^{**} MARSHALL-SWIFT COMMERCIAL MANUAL SECTION 98 PAGE 5 & MARSHALL-SWIFT RESIDENTIAL MANUAL PAGE F-12

^{***} BASED ON ESTIMATES SUPPLIED BY COUNTY ASSESSOR

^{**** 2003-04} STATISTICAL ANALYSIS OF THE TAX ROLL

NEVADA DEPARTMENT OF TAXATION 2006-07 BUILDERS COST SURVEY

STATEWIDE

CHANGE	COUNT	%TOTAL	%CHANGE
DOWN	4	0.72%	-3.33%
NONE	24	4.31%	0.75%
UP	529	94.97%	9.66%
UNKWN	0	0.00%	0.00%
TOTAL	557	100.00%	9.26%

TYPE	COUNT	%TOTAL	%CHANGE
СОМ	50	8.98%	14.86%
RES	319	57.27%	8.91%
BOTH	187	33.57%	8.44%
UNKWN	1	0.18%	15.00%
TOTAL	557	100.00%	9.26%

CARSON CITY

CHANGE	COUNT	%TOTAL	%CHANGE
DOWN	0	0.00%	0.00%
NONE	3	2.50%	0.67%
UP	117	97.50%	10.63%
UNKWN	0	0.00%	0.00%
TOTAL	120	100.00%	10.34%

TYPE	COUNT	%TOTAL	%CHANGE
COM	11	9.17%	17.28%
RES	70	58.33%	9.59%
BOTH	38	31.67%	9.58%
UNKWN	1	0.83%	15.00%
TOTAL	120	100.00%	10.34%

ELKO

CHANGE	COUNT	%TOTAL	%CHANGE
DOWN	0	0.00%	0.00%
NONE	0	0.00%	0.00%
UP	28	100.00%	11.41%
UNKWN	0	0.00%	0.00%
TOTAL	28	100.00%	11.41%

TYPE	COUNT	%TOTAL	%CHANGE
COM	5	17.86%	30.10%
RES	9	32.14%	6.81%
BOTH	14	50.00%	7.36%
UNKWN	0	0.00%	0.00%
TOTAL	28	100.00%	11.41%

FALLON

CHANGE	COUNT	%TOTAL	%CHANGE
DOWN	0	0.00%	0.00%
NONE	4	5.56%	1.50%
UP	68	94.44%	9.79%
UNKWN	0	0.00%	0.00%
TOTAL	72	100.00%	9.28%

TYPE	COUNT	%TOTAL	%CHANGE
COM	2	2.78%	12.00%
RES	45	62.50%	9.48%
BOTH	25	34.72%	8.58%
UNKWN	0	0.00%	0.00%
TOTAL	72	100.00%	9.28%

LAS VEGAS

CHANGE	COUNT	%TOTAL	%CHANGE
DOWN	3	0.73%	-6.33%
NONE	16	3.91%	1.31%
UP	390	95.35%	11.99%
UNKWN	0	0.00%	0.00%
TOTAL	409	100.00%	11.45%

TYPE	COUNT	%TOTAL	%CHANGE
COM	139	33.99%	10.15%
RES	126	30.81%	11.78%
BOTH	144	35.21%	12.48%
UNKWN	0	0.00%	0.00%
TOTAL	409	100.00%	11.45%

[.] DOES NOT INCLUDE LAS VEGAS

NEVADA DEPARTMENT OF TAXATION 2006-07 BUILDERS COST SURVEY

LINCOLN

CHANGE	COUNT	%TOTAL	%CHANGE		
DOWN	0	0.00%	0.00%		
NONE	1	3.85%	0.00%		
UP	25	96.15%	7.80%		
UNKWN	0	0.00%	0.00%		
TOTAL	26	100.00%	7.48%		

TYPE	COUNT	%TOTAL	%CHANGE	
COM	3	11.54%	4.67%	
RES	14	53.85%	9.25%	
BOTH	9	34.62%	6.06%	
UNKWN	0	0.00%	0.00%	
TOTAL	26	100.00%	7.48%	

NYE

CHANGE	COUNT	%TOTAL	%CHANGE		
DOWN	1	6.25%	-5.00%		
NONE	1	6.25%	0.00%		
UP	14	87.50%	9.18%		
UNKWN	0	0.00%	0.00%		
TOTAL	16	100.00%	8.15%		

	TYPE	COUNT	%TOTAL	%CHANGE		
	COM	2	12.50%	12.00%		
	RES	7	43.75%	8.67%		
	вотн	7	43.75%	6.00%		
ľ	UNKWN	0	0.00%	0.00%		
Ī	TOTAL	16	100.00%	8.15%		

RENO/SPARKS

	CHANGE	COUNT	%TOTAL	%CHANGE		
	DOWN	2	2.00%	-2.50%		
	NONE	11	4.66%	0.63%		
	UP	223	94.49%	9.38%		
	UNKWN	0	0.00%	0.00%		
I	TOTAL	236	100.00%	8.98%		

TYPE	COUNT	%TOTAL	%CHANGE	
COM	27	11.44%	11.92%	
RES	128	54.24%	8.62%	
BOTH	81	34.32%	8.80%	
UNKWN	0	0.00%	0.00%	
TOTAL	236	100.00%	8.98%	

LAKE TAHOE

CHANGE	COUNT	%TOTAL	%CHANGE		
DOWN	1	1.85%	N/S		
NONE	3	5.56%	0.67%		
UP	50	92.59%	8.40%		
UNKWN	0	0.00%	0.00%		
TOTAL	54	100.00%	7.90%		

TYPE	COUNT	%TOTAL	%CHANGE		
COM	0	0.00%	0.00%		
RES	41	75.93%	8.13%		
BOTH	13	24.07%	7.25%		
UNKWN	0	0.00%	0.00%		
TOTAL	54	100.00%	7.90%		

CONSUMER PRICE INDEXES

Consumer Price Index - All Urban Consumers

Series Id: CUUR0400SA0,CUUS0400SA0

Not Seasonally Adjusted
Area: West urban
Item: All items

Base Period: 1982-84=100 Public Data Query

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	HALF1	HALF2	ANNUAL
																FACTOR
1994	148.1	148.3	149	148.9	148.8	148.9	149.5	150.1	150.6	151	151.1	151.2	149.6	148.7	150.6	
1995	152	152.4	152.8	153.2	153.5	153.6	153.5	153.7	154.1	154.6	154.4	154.3	153.5	152.9	154.1	
1996	155.3	155.8	156.4	157.1	157.6	157.5	157.9	158	158.6	159.1	159.2	158.7	157.6	156.6	158.6	1.027
1997	159.6	160.1	160.8	161.1	161.1	161	161.1	161.5	162.1	162.8	162.8	162.8	161.4	160.6	162.2	1.024
1998	163	163.2	163.3	163.6	164.3	164.2	164.3	164.8	165.1	165.5	165.8	165.8	164.4	163.6	165.2	1.019
1999	166.4	166.9	167.3	169	168.7	168.3	168.9	169.5	170	170.4	170.4	170.5	168.9	167.8	170	1.027
2000	171	172	173.5	173.7	174	174.3	175.2	175.9	176.6	177.2	177.2	177.1	174.8	173.1	176.5	1.035
2001	178.3	179.3	180.1	180.4	181.3	182	182	181.9	182.5	182.5	182.3	181.6	181.2	180.2	182.1	
2002	182.4	183.2	184	185.1	184.8	184.5	184.7	185.3	185.7	185.8	185.8	185.5	184.7	184	185.5	
2003	186.6	188.1	189.3	188.8	188.5	188.1	188.4	189.2	189.6	189.4	188.5	188.3	188.6	188.2	188.9	
2004	189.4	190.8	192.2	192.3	193.4	193.3	192.9	193	193.8	195	195.1	•		191.9		

Series Id: CUURX400SAH, CUUSX400SAH

Not Seasonally Adjusted

Area: West - Size Class B/C

Item: Housing

Base Period: DECEMBER 1997=100 Public Data Query

Yea	ar	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	HALF1	HALF2
199	77												100			
199	98	100.3	100.3	100.6	100.3	100.2	100.6	100.8	101.2	101.4	101.3	102	101.9	100.9	100.4	101.4
199	99	101.8	102.1	102.3	102.4	102.4	102.4	102.8	102.9	103	102.8	102.9	102.9	102.6	102.2	102.9
200	00	103.4	103.8	103.9	103.9	104.5	105.2	105.3	105.4	105.9	106.1	106.4	106.3	105	104.1	105.9
200	01	108	108.1	108.7	108.3	108.9	109.1	109.8	110	110.1	110.2	110.6	110.9	109.4	108.5	110.3
200)2	111.5	112.5	112.7	113.5	110.7	111	111.1	111.8	111.8	111.7	110.9	111.3	111.7	112	111.4
200	03	113	113.4	113.4	112.6	112.9	112.5	113.8	114.4	113.5	114	113.1	113.6	113.4	113	113.7
200)4	114.9	115.8	116.3	115.6	115.5	115	116	116.6	117.1	117.4	116.9			115.5	

Series Id: CUURX400SAH1,CUUSX400SAH1

Not Seasonally Adjusted

Area: West - Size Class B/C

Item: Shelter

Base Period: DECEMBER 1997=100

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	HALF1	HALF2
1997												100			
1998	100.6	100.7	100.9	100.8	100	100.5	100.8	101.1	101.6	101.7	102.4	102.3	101.1	100.6	101.7
1999	102.2	102.6	102.9	103.2	102.7	102.8	103.2	103.4	103.4	103.6	103.8	103.8	103.1	102.7	103.5
2000	104.2	104.6	104.7	104.8	105	105.5	105.6	105.8	106.2	106.5	106.8	106.7	105.5	104.8	106.3
2001	107.5	107.7	108.4	108.2	108	108.3	108.9	109.4	109.7	110	110.6	111.1	109	108	110
2002	111.9	113.3	113.6	114.7	110.9	111.3	111.6	112.6	112.5	112.1	111.3	111.8	112.3	112.6	112
2003	113.7	114	114	113.3	113.6	113.3	114.7	115.4	114.2	114.9	114	114.6	114.1	113.7	114.6
2004	115.9	117.3	118.1	117.2	116.6	115.7	117.3	117.7	118.2	118.5	118.1			116.8	

NEVADA DEPARTMENT OF TAXATION 2006-2007 IMPROVEMENT FACTOR STUDY CONSUMER PRICE INDEXES

	COMMERCIAL		RESIDENTIAL	
CPI	OCTOBER	CHANGE	SEPTEMBER	CHANGE
2003	189.4		189.6	
2004	195.0	1.0296	193.8	1.0222
HOUSING				
2003	114.0		113.5	
2004	117.4	1.0298	117.1	1.0317
SHELTER				
2003	114.9		114.2	
2004	118.5	1.0313	118.2	1.0350
AVERAGE CHANGE		1.0302		1.0296

STUDY OF MARSHALL-SWIFT COSTING SERVICE

Improvement Factor Methodology

All improvements in the state of Nevada are valued for tax purposes based on the cost components provided by Marshall-Swift Valuation Service.

Several approaches are utilized to arrive at the improvement factors to be applied to the current roll values to reflect the annual change in building cost.

- **1.** The residential and commercial manuals provided by Marshall-Swift are examined. The service provides a regional change factor for each class of construction.
 - (a) The commercial classes include the following:

A class buildings have fireproofed structural steel frames with reinforced concrete or masonry floors and roofs.

B class buildings have reinforced concrete frames and concrete or masonry floors and roofs.

C class buildings have masonry or concrete exterior walls, and wood or steel roof and floor structures, or a slab floor on grade.

D class buildings generally have wood or metal frame and wood floor and roof structure.

S class buildings have frames, roofs, and walls of incombustible metal.

(b) The residential classes include:

Frame construction.

Masonry bearing wall construction.

Marshall-Swift also provides local cost modifiers for each construction type to modify the regional costs to local conditions. Nine local area modifiers are provided for Nevada and are as follows:

Carson City

Elko

Fallon

Las Vegas

Lincoln County

Nye County

Reno-Sparks

Lake Tahoe

Nevada average

The yearly change in the local multiplier from October to October is calculated for each building type and applied to the regional change. A factor for the yearly change in building cost for each construction type is determined.

The resulting forty-nine factors are mathematically accurate, however, they would be unwieldy for the assessors to apply. The process would require the assessors to manually determine which factor to apply to each property in the county and to each individual improvement on every property. To simplify the process, the Division allocates a percentage of type of construction, which could be applied to each construction type to determine a single factor for each designated area. The percentage is based on statewide appraisal observations. The percentages utilized are:

Commercial construction

Class A 4%

Class B 4%

Class C 50%

Class D 25%

Class S 17%

Residential construction

Frame 80% Masonry 20%

The result of the application of the construction percentage is a commercial factor and a residential factor for each designated area. To arrive at a single factor for each area, the Statistical Analysis of the Roll is used to determine the percentage of commercial and residential value, which exists in each county. Those percentages are then applied to the factors to arrive at a single factor for each designated area. To arrive at a single statewide factor, the same process is utilized using the Statistical Analysis of the Roll.

2. The second phase of the process involves Marshall-Swift computerized residential and commercial programs. Valuation runs are processed for groups of various properties, which include all construction types and quality classes. Each type of construction compares the values to identical runs from the previous year to determine the change.

The results of the forty-nine factors are then calculated by applying the same percentages as are utilized in the first example.

- **3.** Step three is to research local markets. A mail survey of construction companies throughout the state is conducted. The results of the survey are tabulated to determine the industry's experience of change. This step is used to lend support to steps one and two.
- **4.** In step four the Consumer Price Index is examined to determine change year to year.

After all of the above processes have been compared and evaluated, the Division submits the most logical and accurate factor that it has been able to determine. The factor is submitted as a whole factor exclusive of depreciation. The assessor is allowed to apply the whole factor or deduct 1.5 percent depreciation and apply a composite factor with additional depreciation already deducted.