

This chapter contains the valuation procedures for determining the assessed value for residential and commercial land valued using the cost approach.

SAMA's 2011 Cost Guide provides direction for the valuation of property by the cost approach; it does not have the force of law.

Summary

This section contains the valuation procedures for determining the base land rate of urban land by the sales comparison method or the allocation method.

Sales Comparison Method

The sales comparison method is the primary method of land valuation for property valued using the cost approach.

Where there are insufficient land sales in the neighbourhood to determine a reliable base land rate, the number of sales may be supplemented with, for example, the following sales:

- older sales adjusted for time;
- land residual sales; and/or
- sales from a comparable neighbourhood.

The allocation method of site valuation may be used if there are no sales of land available for comparison.

The base land rate by the sales comparison method may be determined by application of the following calculation procedure:

1. Identify land sales, which are representative of the typical parcel in the neighbourhood.
2. Determine the units of comparison.
3. Determine the sale price per unit of comparison for each land sale:
 - i. Determine the land sale price.
 - ii. Determine the number of units of comparison.
 - iii. Calculate the sale price per unit of comparison by dividing the land sale price by the number of units of comparison.
4. Calculate the base land rate for the neighbourhood by selecting the most probable sale price per unit of comparison.

Land Residual Sales

Land residual sales may be used as a supplement or alternative to land sales in the application of the sales comparison method for determining the base land rate.

Land residual sales are used where:

- land sales in both the subject and comparable neighbourhoods are limited;
- there are sufficient improved sales in the subject neighbourhood.

The sale price of land using land residual sales is determined by application of the following formula:

$$SP_{LAND} = SP_{TOTAL} - RCNLD_{IMPR}$$

where: SP_{LAND} = sale price of the land
 SP_{TOTAL} = sale price of an improved land parcel
 $RCNLD_{IMPR}$ = replacement cost new less physical deterioration of improvements on the improved land parcel

Allocation Method

The Allocation method may be used as an alternative to the sales comparison method for determining the base land rate.

The allocation method is used where:

- there are limited land sales in the subject neighbourhood;
- there are sufficient land sales and improved sales in a comparable neighbourhood.

The sale price of land is determined by application of the following formula:

$$SP_{LAND} = SP_{TOTAL} \times \frac{LV_{COMP}}{PV_{COMP}}$$

where: SP_{LAND} = sale price of the land
 SP_{TOTAL} = sale price of an improved land parcel in the subject neighbourhood
 LV_{COMP} = land value in a comparable neighbourhood
 PV_{COMP} = value of improved land parcels in the comparable neighbourhood

Units of Comparison

The sale price per unit of comparison is used to provide a common basis for determining the sale price and base land rate for urban land.

The sale price per unit of comparison for each sale is determined by dividing the sale price by the number of land units.

The units of comparison may be determined taking into consideration the following rules for general application:

Urban Land

Base Land Rate

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Type	Units of Comparison	Application
Land Area	Square feet	Parcels where frontage is not an important factor, or where parcels possess greater uniformity with respect to shape than with respect to size.
	Acres	
Land Frontage	Front feet	Uniformly shaped parcels with similar frontages and depths.
Land Unit	Parcels	Parcels where values are consistent, irrespective of variations in frontage, shape, size or other site attributes.
	Lots	
Building Unit	Buildable units	Larger parcels where zoning allows a specified number of units or sites.
	Sites	
Condominium Unit	Condominium Unit Factors	Bare land condominiums.

The units of comparison may be determined by taking into consideration the present use of the property in accordance with the following:

Present Use	Units of Comparison
Residential	Front feet, parcels or lots, square feet or acres, and condominium unit factors.
Commercial	Square feet or acres, front feet, and condominium unit factors.
Agricultural	Acres.
Industrial	Square feet or acres.
Transportation, Communication and Utilities	Square feet or acres. Miles for railway roadway.
Recreational and Cultural	Square feet or acres, and front feet.
Institutional	Square feet or acres, and front feet.
Undeveloped Land and Water Areas	Square feet or acres.

Summary

This section contains the valuation procedures for determining site adjustments specific to individual land parcels. Adjustments for infrastructure may be split between land and site improvements.

Description

Site adjustments may be applied for characteristics such as depth, size, irregular shape, corner influence, location, infrastructure, environmental contamination, and other site adjustments. Other site adjustments may include but are not limited to, view, topography, limited access, susceptibility to flooding, and soil conditions. See No. 1.4 for details on the environmental contamination adjustment.

Site adjustments are used to account for variations in the value of individual land parcels that are attributable to characteristics specific to the individual parcel.

Site adjustments are applied when the parcel varies from the typical characteristics for the neighbourhood. When all of the parcels in the neighbourhood have similar site characteristics the value of the common features should be reflected in the base land rate for the neighbourhood.

More than one site adjustment may be applied to the base land rate to account for any gain or loss in value that is not already accounted for in the base land rate or another site adjustment. When additional site adjustments are being determined, first apply the previously calculated site adjustments to the base land rate.

Site adjustments may be determined by sales comparison method, residual lump sum site improvement adjustment, comparable neighbourhood analysis, or specified rate schedules.

Sales Comparison Method

Sales comparison method may be used to determine site adjustments where there are sufficient sales within the neighbourhood to calculate a variation in sale price attributable to a specific site characteristic.

Comparable Neighbourhoods

Where there are insufficient sales within the neighbourhood to calculate a site adjustment, comparable neighbourhoods may be used to calculate the adjustment if there is a neighbourhood comparable to the subject neighbourhood where there are sufficient sales to determine an adjustment.

The site adjustment determined for the comparable neighbourhood may be applied to comparable land in the subject neighbourhood.

Rate Schedules

Rate schedules are used to determine unit value, factored and lump sum site adjustments where there are insufficient sales in the subject or comparable neighbourhood for the sales comparison method.

Summary

This section contains the valuation procedures for determining depth adjustments.

Description

A depth adjustment may be applied where land is valued on a front foot basis to adjust the value of parcels with non-standard depths. The depth adjustment may also be used when it is determined that the sale price of larger parcels is less per unit than the sale price of smaller parcels.

The depth adjustment factor is applied to land parcels that are deeper or shallower than the standard depth.

Depth adjustments may be determined by sales comparison method where there are sufficient land sales in the neighbourhood to establish reliable adjustment factors.

Where there are insufficient land sales in the neighbourhood, and there are sufficient land sales in a comparable neighbourhood to establish reliable adjustment factors, the depth adjustments from the comparable neighbourhood may be used.

Where there are insufficient land sales in both the neighbourhood and comparable neighbourhoods to establish reliable adjustment factors, the depth adjustments are determined using the depth factor formulas.

Standard Depth

The standard depth is normally the modal land depth for the neighbourhood.

Maximum Depth

The maximum land depth to which a depth adjustment can be applied is 300 feet. Where the land depth exceeds 300 feet, the square foot or acreage units of comparison should be used.

Residential Depth Factor

The residential depth factor formula may be used for residential use land and any closely associated non-residential use lands, such as recreational and cultural land, and institutional land, that are valued as comparable to residential use land.

Commercial Depth Factor

The commercial depth factor formula may be used for commercial use land and any closely associated non-commercial use lands, such as industrial; transportation, communication and utility land; recreational and cultural land; and institutional land, that are valued as comparable to commercial or industrial use land.

Application

Residential Depth Factor

Use the “Residential Depth Factor Schedule” on the following three pages to determine the residential depth factor.

Commercial Depth Factor Formula

The commercial depth factor is calculated as follows:

$$CDF = \sqrt{LD/SD}$$

Where: CDF = commercial depth factor
LD = land depth
SD = standard depth

Residential Depth Factor Schedule

Depth	Standard Depth (ft)							
	80	85	90	95	100	105	110	115
≤25	0.1466	0.1410	0.1344	0.1295	0.1250	0.1196	0.1158	0.1122
30	0.1866	0.1795	0.1711	0.1648	0.1590	0.1522	0.1474	0.1428
35	0.2399	0.2308	0.2200	0.2119	0.2045	0.1957	0.1895	0.1836
40	0.3066	0.2949	0.2811	0.2707	0.2613	0.2500	0.2422	0.2346
45	0.3866	0.3718	0.3544	0.3413	0.3294	0.3152	0.3054	0.2958
50	0.4666	0.4487	0.4277	0.4119	0.3976	0.3804	0.3685	0.3570
55	0.5865	0.5641	0.5377	0.5179	0.4998	0.4783	0.4633	0.4488
60	0.7065	0.6795	0.6477	0.6238	0.6021	0.5761	0.5581	0.5406
65	0.7998	0.7692	0.7332	0.7062	0.6816	0.6522	0.6318	0.6120
70	0.8931	0.8589	0.8187	0.7886	0.7611	0.7283	0.7055	0.6834
75	0.9464	0.9102	0.8676	0.8357	0.8066	0.7718	0.7476	0.7242
80	0.9998	0.9615	0.9165	0.8828	0.8520	0.8153	0.7897	0.7650
85	1.0397	1.0000	0.9532	0.9181	0.8861	0.8479	0.8213	0.7956
90	1.0931	1.0512	1.0020	0.9651	0.9315	0.8913	0.8635	0.8364
95	1.1330	1.0897	1.0387	1.0004	0.9656	0.9240	0.8950	0.8670
100	1.1730	1.1282	1.0754	1.0358	0.9997	0.9566	0.9266	0.8976
105	1.2264	1.1794	1.1242	1.0828	1.0451	1.0000	0.9688	0.9384
110	1.2664	1.2179	1.1609	1.1182	1.0792	1.0327	1.0004	0.9690
115	1.3063	1.2564	1.1976	1.1535	1.1133	1.0653	1.0319	0.9996
120	1.3330	1.2820	1.2220	1.1770	1.1360	1.0870	1.0530	1.0200
125	1.3597	1.3076	1.2464	1.2005	1.1587	1.1087	1.0741	1.0404
130	1.3730	1.3205	1.2587	1.2123	1.1701	1.1196	1.0846	1.0506
135	1.3997	1.3461	1.2831	1.2359	1.1928	1.1414	1.1057	1.0710
140	1.4263	1.3717	1.3075	1.2594	1.2155	1.1631	1.1267	1.0914
145	1.4396	1.3846	1.3198	1.2712	1.2269	1.1740	1.1372	1.1016
150	1.4530	1.3974	1.3320	1.2829	1.2382	1.1848	1.1478	1.1118
155	1.4796	1.4230	1.3564	1.3065	1.2610	1.2066	1.1688	1.1322
160	1.4930	1.4358	1.3686	1.3182	1.2723	1.2174	1.1794	1.1424
165	1.5063	1.4487	1.3809	1.3300	1.2837	1.2283	1.1899	1.1526
170	1.5196	1.4615	1.3931	1.3418	1.2950	1.2392	1.2004	1.1628
175	1.5329	1.4743	1.4053	1.3535	1.3064	1.2500	1.2109	1.1730
180	1.5463	1.4871	1.4175	1.3653	1.3178	1.2609	1.2215	1.1832
185	1.5596	1.4999	1.4297	1.3771	1.3291	1.2718	1.2320	1.1934
190	1.5729	1.5128	1.4420	1.3889	1.3405	1.2827	1.2425	1.2036
195	1.5863	1.5256	1.4542	1.4006	1.3518	1.2935	1.2531	1.2138
200	1.5996	1.5384	1.4664	1.4124	1.3632	1.3044	1.2636	1.2240
225	1.6129	1.5512	1.4786	1.4242	1.3746	1.3153	1.2741	1.2342
250	1.6396	1.5769	1.5031	1.4477	1.3973	1.3370	1.2952	1.2546
275	1.6663	1.6025	1.5275	1.4712	1.4200	1.3587	1.3163	1.2750
300	1.6796	1.6153	1.5397	1.4830	1.4314	1.3696	1.3268	1.2852

Urban Land

Depth Adjustment

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Residential Depth Factor Schedule

Depth	Standard Depth (ft)							
	120	125	130	135	140	145	150	160
≤25	0.1100	0.1078	0.1068	0.1047	0.1029	0.1019	0.1009	0.0982
30	0.1400	0.1372	0.1359	0.1333	0.1309	0.1296	0.1284	0.1250
35	0.1800	0.1764	0.1748	0.1714	0.1683	0.1667	0.1651	0.1607
40	0.2300	0.2254	0.2233	0.2190	0.2151	0.2130	0.2109	0.2054
45	0.2900	0.2842	0.2816	0.2761	0.2711	0.2685	0.2659	0.2590
50	0.3500	0.3430	0.3399	0.3332	0.3273	0.3241	0.3210	0.3126
55	0.4400	0.4312	0.4272	0.4189	0.4114	0.4074	0.4035	0.3929
60	0.5300	0.5194	0.5146	0.5046	0.4955	0.4908	0.4860	0.4733
65	0.6000	0.5880	0.5826	0.5712	0.5610	0.5556	0.5502	0.5358
70	0.6700	0.6566	0.6506	0.6378	0.6264	0.6204	0.6144	0.5983
75	0.7100	0.6958	0.6894	0.6759	0.6638	0.6575	0.6511	0.6340
80	0.7500	0.7350	0.7282	0.7140	0.7012	0.6945	0.6878	0.6698
85	0.7800	0.7644	0.7574	0.7426	0.7293	0.7223	0.7153	0.6965
90	0.8200	0.8036	0.7962	0.7806	0.7667	0.7593	0.7519	0.7323
95	0.8500	0.8330	0.8254	0.8092	0.7948	0.7871	0.7795	0.7591
100	0.8800	0.8624	0.8545	0.8378	0.8228	0.8149	0.8070	0.7858
105	0.9200	0.9016	0.8933	0.8758	0.8602	0.8519	0.8436	0.8216
110	0.9500	0.9310	0.9225	0.9044	0.8883	0.8797	0.8712	0.8484
115	0.9800	0.9604	0.9516	0.9330	0.9163	0.9075	0.8987	0.8751
120	1.0000	0.9800	0.9710	0.9520	0.9350	0.9260	0.9170	0.8930
125	1.0200	0.9996	0.9904	0.9710	0.9537	0.9445	0.9353	0.9109
130	1.0300	1.0094	1.0001	0.9806	0.9630	0.9538	0.9445	0.9198
135	1.0500	1.0290	1.0196	0.9996	0.9818	0.9723	0.9629	0.9377
140	1.0700	1.0486	1.0390	1.0186	1.0004	0.9908	0.9812	0.9555
145	1.0800	1.0584	1.0487	1.0282	1.0098	1.0001	0.9904	0.9644
150	1.0900	1.0682	1.0584	1.0377	1.0191	1.0093	0.9995	0.9734
155	1.1100	1.0878	1.0778	1.0567	1.0378	1.0279	1.0179	0.9912
160	1.1200	1.0976	1.0875	1.0662	1.0472	1.0371	1.0270	1.0002
165	1.1300	1.1074	1.0972	1.0758	1.0565	1.0464	1.0362	1.0091
170	1.1400	1.1172	1.1069	1.0853	1.0659	1.0556	1.0454	1.0180
175	1.1500	1.1270	1.1167	1.0948	1.0752	1.0649	1.0546	1.0270
180	1.1600	1.1368	1.1264	1.1043	1.0846	1.0742	1.0637	1.0359
185	1.1700	1.1466	1.1361	1.1138	1.0939	1.0834	1.0729	1.0448
190	1.1800	1.1564	1.1458	1.1234	1.1033	1.0927	1.0821	1.0537
195	1.1900	1.1662	1.1555	1.1329	1.1127	1.1019	1.0912	1.0627
200	1.2000	1.1760	1.1652	1.1424	1.1220	1.1112	1.1004	1.0716
225	1.2100	1.1858	1.1749	1.1519	1.1313	1.1205	1.1096	1.0805
250	1.2300	1.2054	1.1943	1.1710	1.1501	1.1390	1.1279	1.0984
275	1.2500	1.2250	1.2137	1.1900	1.1688	1.1575	1.1463	1.1163
300	1.2600	1.2348	1.2235	1.1995	1.1781	1.1668	1.1554	1.1252

Residential Depth Factor Schedule

Depth (ft)	Standard Depth (ft)							
	170	180	190	200	225	250	275	300
≤25	0.0965	0.0948	0.0932	0.0917	0.0909	0.0894	0.0880	0.0873
30	0.1228	0.1207	0.1186	0.1168	0.1156	0.1138	0.1120	0.1112
35	0.1579	0.1552	0.1525	0.1501	0.1487	0.1463	0.1440	0.1429
40	0.2017	0.1983	0.1948	0.1918	0.1900	0.1870	0.1840	0.1826
45	0.2543	0.2500	0.2456	0.2419	0.2395	0.2358	0.2320	0.2303
50	0.3070	0.3017	0.2965	0.2919	0.2891	0.2846	0.2800	0.2779
55	0.3859	0.3793	0.3727	0.3670	0.3634	0.3577	0.3520	0.3494
60	0.4648	0.4569	0.4489	0.4420	0.4378	0.4309	0.4240	0.4208
65	0.5262	0.5172	0.5082	0.5004	0.4956	0.4878	0.4800	0.4764
70	0.5876	0.5775	0.5675	0.5588	0.5534	0.5447	0.5360	0.5320
75	0.6227	0.6120	0.6014	0.5921	0.5865	0.5772	0.5680	0.5637
80	0.6578	0.6465	0.6353	0.6255	0.6195	0.6098	0.6000	0.5955
85	0.6841	0.6724	0.6607	0.6505	0.6443	0.6341	0.6240	0.6193
90	0.7191	0.7068	0.6945	0.6839	0.6773	0.6667	0.6560	0.6511
95	0.7455	0.7327	0.7200	0.7089	0.7021	0.6911	0.6800	0.6749
100	0.7718	0.7586	0.7454	0.7339	0.7269	0.7154	0.7040	0.6987
105	0.8068	0.7930	0.7792	0.7673	0.7599	0.7480	0.7360	0.7305
110	0.8332	0.8189	0.8047	0.7923	0.7847	0.7724	0.7600	0.7543
115	0.8595	0.8448	0.8301	0.8173	0.8095	0.7967	0.7840	0.7781
120	0.8770	0.8620	0.8470	0.8340	0.8260	0.8130	0.8000	0.7940
125	0.8945	0.8792	0.8639	0.8507	0.8425	0.8293	0.8160	0.8099
130	0.9033	0.8879	0.8724	0.8590	0.8508	0.8374	0.8240	0.8178
135	0.9209	0.9051	0.8894	0.8757	0.8673	0.8537	0.8400	0.8337
140	0.9384	0.9223	0.9063	0.8924	0.8838	0.8699	0.8560	0.8496
145	0.9472	0.9310	0.9148	0.9007	0.8921	0.8780	0.8640	0.8575
150	0.9559	0.9396	0.9232	0.9091	0.9003	0.8862	0.8720	0.8655
155	0.9735	0.9568	0.9402	0.9257	0.9169	0.9024	0.8880	0.8813
160	0.9822	0.9654	0.9486	0.9341	0.9251	0.9106	0.8960	0.8893
165	0.9910	0.9741	0.9571	0.9424	0.9334	0.9187	0.9040	0.8972
170	0.9998	0.9827	0.9656	0.9508	0.9416	0.9268	0.9120	0.9052
175	1.0086	0.9913	0.9741	0.9591	0.9499	0.9350	0.9200	0.9131
180	1.0173	0.9999	0.9825	0.9674	0.9582	0.9431	0.9280	0.9210
185	1.0261	1.0085	0.9910	0.9758	0.9664	0.9512	0.9360	0.9290
190	1.0349	1.0172	0.9995	0.9841	0.9747	0.9593	0.9440	0.9369
195	1.0436	1.0258	1.0079	0.9925	0.9829	0.9675	0.9520	0.9449
200	1.0524	1.0344	1.0164	1.0008	0.9912	0.9756	0.9600	0.9528
225	1.0612	1.0430	1.0249	1.0091	0.9995	0.9837	0.9680	0.9607
250	1.0787	1.0603	1.0418	1.0258	1.0160	1.0000	0.9840	0.9766
275	1.0963	1.0775	1.0588	1.0425	1.0325	1.0163	1.0000	0.9925
300	1.1050	1.0861	1.0672	1.0508	1.0408	1.0244	1.0080	1.0004

Summary

This section contains the valuation procedures for determining size adjustments.

Application

When:

- (a) land is valued on a square foot or acreage basis; and
- (b) it is determined that the sale price of a larger parcel in a neighbourhood is less per unit than the sale price of smaller parcel;

then a land size multiplier is applied to land parcels that are other than the standard size parcel.

The standard size parcel may be a specific size or a size range.

Where there are sufficient land sales in a neighbourhood to establish a reliable land size multiplier, the size adjustments are determined by sales comparison method.

Where there are insufficient land sales in the neighbourhood, and there are sufficient land sales in a comparable neighbourhood to establish a reliable land size multiplier, the land size multiplier curve from the comparable neighbourhood is used.

Sales Comparison Method

Apply the following calculation procedure to determine the land size multiplier:

1. Determine:
 - the standard size parcel for the neighbourhood, and;
 - the standard size parcel sale price per unit in accordance with No. 2.2 - Base Land Rate, Sales Comparison Method.
2. Calculate the sale price per unit for all comparable land sales in the neighbourhood.
3. Calculate a comparable sale price to standard sale price ratio for the land sales in the neighbourhood by dividing the sale price per unit for each land sale by the sale price per unit of the standard parcel.
4. Graph the comparable sale price to standard sale price ratio, (y-axis) versus parcel size (x-axis).
5. Determine the Land Size Multiplier Curve that best fits the comparable sale price to standard sale price ratio, using the following formula with different values for *u*:

$$Y = \frac{A_{STD}^u / u A_{STD}}{A_{COMP}^u / u A_{COMP}}$$

Urban Land

Size Adjustment

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where: Y = comparable sale price to standard sale price ratio for each land sale
A_{STD} = area of the standard parcel
A_{COMP} = area of the comparable land sales
u = land size multiplier curve

6. Determine the land size multiplier for the subject parcel using the formula:

$$\text{LSM} = \frac{A_{\text{STD}}^{u'} / A_{\text{STD}}}{A_{\text{SUB}}^{u'} / A_{\text{SUB}}}$$

where: LSM = land size multiplier
A_{STD} = area of the standard parcel
A_{SUB} = area of the subject
u' = best fit land size multiplier curve

Summary

This section contains the valuation procedures for determining shape adjustments for irregular parcels.

Application

An irregular shape adjustment may be applied to triangular shaped parcels or triangular portions of parcels that are valued on a front foot basis.

The adjustment accounts for the loss in value due to the lost utility for construction of improvements on the triangular area. In general, a triangular parcel is worth less than a rectangular parcel of the same area and frontage.

Irregularly shaped parcels are segmented into rectangular and triangular areas with lines drawn perpendicular to the facing street. The value of each area is found using delta and nabla factors on the triangular areas, and the value of all areas are added to obtain the value of the parcel.

Delta and nabla factors may be determined by sales comparison method where there are sufficient land sales in the neighbourhood to establish reliable adjustment factors.

Where there are insufficient land sales in the neighbourhood, and there are sufficient land sales in a comparable neighbourhood, the delta and nabla factors from the comparable neighbourhood may be used.

Where there are insufficient land sales in both the neighbourhood and comparable neighbourhoods to establish reliable adjustment factors, the delta and nabla factors are determined as follows:

Present Use	Delta Factor	Nabla Factor
Residential	0.5	0.5
Commercial	0.65	0.35

Delta Factor

The delta factor is used on triangular areas where the base of the triangle is on or towards the street.

Nabla Factor

The nabla factor is used on triangular areas where the apex of the triangle is on or towards the street.

Residential Delta and Nabla Factors

The residential delta and nabla factors are used for residential use land and any closely associated non-residential use lands, such as recreational and cultural land, and institutional land, that are valued as comparable to residential use land.

Commercial Delta and Nabla Factors

The commercial delta and nabla factors are used for commercial use land and any closely associated non-commercial use lands, such as industrial; transportation, communication and utility land; recreational and cultural land; and institutional land, that are valued as comparable to commercial use land.

Summary

This section contains the valuation procedures for determining corner influence adjustments.

Application

A corner influence adjustment may be applied where the value of parcels is influenced by corner locations.

Corner influence is a function of property types and location. It is most commonly associated with commercial use land. The adjustment accounts for gains or loss in value due to items such as greater accessibility to pedestrian and street traffic, and increased display window and advertising space; or poor location.

Corner influence is determined by the sales comparison method where there are sufficient land sales in the neighbourhood to establish reliable corner influence factors.

Where there are insufficient land sales in the neighbourhood, and there are sufficient land sales in a comparable neighbourhood, the corner influence adjustment from the comparable neighbourhood may be used.

Summary

This section contains the valuation procedures for determining location adjustments.

Application

The location adjustment may be applied to account for any gain or loss in value that is not accounted for in the neighbourhood base land rate, due to the proximity of the parcel to factors such as:

- a value influence centre;
- schools, shopping, public transport and other attractions; or
- high traffic roadways, railways, industrial parks, high density residential housing, and other nuisances.

Location adjustments are determined by sales comparison method where there are sufficient land sales in the neighbourhood to establish reliable location adjustment factors.

Where there are insufficient land sales in the neighbourhood, and there are sufficient land sales in a comparable neighbourhood, the location adjustment factors from the comparable neighbourhood may be used.

Summary

This section contains the valuation procedures for determining infrastructure adjustments.

Application

An infrastructure adjustment may be applied to account for any gain or loss in value that is not accounted for in the neighbourhood base land rate, due to the existence or lack of infrastructure, such as survey, street, sewer, water, sidewalk, and curb and gutter services.

Infrastructure adjustments may be determined by the sales comparison method where there are sufficient land sales in the neighbourhood to establish infrastructure adjustments.

Where there are insufficient land sales in the neighbourhood, and there are sufficient land sales in a comparable neighbourhood, the infrastructure adjustments from the comparable neighbourhood may be used.

Where there are insufficient land sales in both the neighbourhood and comparable neighbourhoods to establish infrastructure adjustments, local infrastructure replacement costs as of the base date may be used.

Where there are insufficient land sales in both the neighbourhood and comparable neighbourhoods and insufficient local infrastructure replacement costs to establish infrastructure adjustments, the infrastructure adjustments may be determined using the following infrastructure adjustment schedules.

Descriptions

Type	Description
Survey	Surveying, preparing maps and registering the survey with the chief surveyor for Saskatchewan
Street	Grading and gravelling the street base and surfacing the street with either oil or pavement.
Sewer	Installation of either regular or plastic sanitary sewer pipes, or septic tank sewer systems. Storm sewers are not included in the infrastructure adjustment except where the sanitary and storm sewer are one system.
Water	Installation of a municipal domestic water system, or a well or cistern water system.
Sidewalk	Installation of a sidewalk adjacent to the street for general public use. Sidewalks that service improvements on the land are not included in the infrastructure adjustment.
Curb and Gutter	Installation of a curb and gutter adjacent to the street.

Infrastructure Unit Value Adjustment Method

The unit value of the adjustment is determined on the same basis as the units of comparison for the base land rate.

Unit value adjustments are used when the neighbourhood base land rate is determined on the basis of land that is not fully serviced.

Unit value adjustments are used to account for either a gain or loss in value due to the existence or lack of infrastructure relative to the infrastructure that is accounted for in the neighbourhood base land rate.

Infrastructure Unit Value Adjustment Schedule

Type of Infrastructure	Unit Value Adjustment	
	Front Foot (\$/ff)	Square Foot (\$/sq.ft.)
Survey	18.50	0.16
Street:		
- Grading	33.75	0.28
- Gravel Base	26.00	0.22
- Oiled Surface	29.75	0.25
- Pavement	102.50	0.85
Sewer		
- Regular	50.75	0.42
- Plastic/Septic	50.75	0.42
Water	55.75	0.46
Sidewalk	30.00	0.25
Curb and Gutter	30.00	0.25
Total	347.25	2.89
Square foot rates based on a 6,000 square foot parcel.		
Total based on survey, grading, gravel base, pavement, regular sewer, water, sidewalk, and curb and gutter.		

Infrastructure Adjustment Factor Method

The infrastructure adjustment factor method is used to account for the loss in value due to the lack of infrastructure in neighbourhoods where the base land rate is less than \$347.25 per front foot or less than \$2.89 per square foot.

Where the neighbourhood base land rate is determined on the basis of fully serviced land, the adjustment for lack of infrastructure is determined using the infrastructure rate schedule.

Where the neighbourhood base land rate is determined on the basis of land that is not fully serviced, the adjustment for lack of infrastructure is determined by prorating the infrastructure rate schedule so that the existing services total 1.0.

Infrastructure Adjustment Factor Schedule

Type of Infrastructure	Adjustment Factor
Survey	0.05
Street:	
- Grading	0.10
- Gravel Base	0.07
- Oiled Surface	0.09
- Pavement	0.29
Sewer	
- Regular	0.15
- Plastic/Septic	0.15
Water	0.16
Sidewalk	0.09
Curb and Gutter	0.09
Total	1.00
Total based on survey, grading, gravel base, pavement, regular sewer, water, sidewalk, and curb and gutter.	

Summary

This section contains the valuation procedures for determining the value of land used for residential purposes.

Residential Land

Residential use property includes:

- (a) land and improvements used or reasonably capable of being used for residential purposes, such as single-family residences, multi-family residences, apartments, residential condominiums, mobile homes, summer cottages and seasonal dwellings, and dormitories or other group living accommodations; and
- (b) ancillary improvements used or reasonably capable of being used in conjunction with a residential purpose;

but does not include rented accommodations such as hotels and motels, other than the portion of the improvement used or reasonably capable of being used as a residence by the owner or occupant, under lease, licence, permit or contract.

Residential base land rates and units of comparison are determined in accordance with the valuation procedures in No. 2.2.

Residential land site adjustments are determined in accordance with the valuation procedures in No. 2.3 to No. 2.9.

Single-Family Residential Land

Single-family residential land includes residentially zoned land and land associated with detached single-family residences, duplexes, and semi-detached.

Multi-Family Residential Land

Multi-family residential land may include land zoned for multi-family, four-plex, row-housing, apartments and condominiums. Zoning land use development plans and regulations determine the type and density of multi-family residential development.

Multi-family desirability and value can be influenced by: the supply of sites and development plans; parking; economic status of tenants; vacancy and tenant turnover rate; access to work places; transportation services; access to shopping and cultural facilities; school facilities; residential appearance and protection against commercial intrusion; and proximity to parks, water or other natural features.

Resort Land

Neighbourhoods in resort type municipalities are generally established in relationship to their access to the lake.

Factors influencing the value of resort land include distance from the lake, view, topography, tree cover, and accessibility.

Lake Front Neighbourhood

This neighbourhood is in close proximity to the lake. The land may be directly adjoining to the lake or there may be a public reserve between the land and the lake. Generally access to the lake from the land is not restricted.

Where the units of comparison are front feet, the frontage is determined based on the lake frontage.

Other Neighbourhoods

These neighbourhoods do not have direct access to the lake. The land is generally located behind the lake front neighbourhood. Access to the lake is generally limited to public beaches.

When there are too few sales to establish reliable results, the comparable neighbourhood method should be used to supplement the number of sales.

Mobile Home Parks

Mobile home land parcels are primarily developed for multiple residency. The parcels of land are usually large, and while not subdivided into lots and blocks are designed for individual sites for mobile home residential occupancy.

Mobile home parks provide semi-permanent sites for mobile home housing. The parcel is characterized by common infrastructure, public use and service areas. Generally there will be utility buildings, an office, and some recreational facilities.

Individual sites are provided with the infrastructure necessary to accommodate a residential housing unit. Each site will accommodate a mobile home up to 80 feet long.

The income approach is recommended for the valuation of Mobile Home Parks (See the "Market Value Assessment in Saskatchewan Handbook" for details). In order of priority, the sales comparison or the cost approach can be used if there is not sufficient data to use the income approach.

Multiple Tenant Land Leases

Multiple land lease tenants on one site are valued in the same way as Mobile Home Parks.

Cost Approach

Land development costs are added to the undeveloped land value. Site improvement development costs are added to the improvement value.

The value for mobile home park land using the development cost method is determined by the application of the following formula:

$$LV = (R \times U) \pm A + (LDC - PHYS)$$

where: LV = value of mobile home park land
R = base land rate
A = site adjustments
U = number of land units
LDC = land development costs
PHYS = physical deterioration

The value for mobile home park site improvements using the development cost method is determined by the application of the following formula:

$$SI = SIDC$$

where: SI = assessed value of mobile home park site improvements
SIDC = site improvement development costs

The sales comparison method may be used to establish a base land rate for the land as unsubdivided land that would be suitable for a mobile home park. Adjacent land uses should be considered in the valuation of mobile home park land. Some allowances may be required when adjusting alternate use lands to mobile home park land.

See development cost schedule on the following page.

Urban Land

Residential Land

2.10

Mobile Home Park Development Cost Schedule

Description	Rate (\$/Site)
Engineering - Plans, site survey, simple specifications, permits - Minimal plans and permits only	960
	310
Grading - Graded for drainage, roads roughed in, some trailer site levelling - Minimal roads	680
	230
Street Paving - Typically 20" feet wide, asphalt on good base, some edging or curb, some common parking - Oil surface on gravel	960
	310
Sewer - Typically 4" service, 6" mains, adequate vents, good code installation - Septic tank for each site - Shared septic tank	960
	5,060
	960
Water - Typically 3" - 4" mains, valve connection and hydrant at sites - Shallow light plastic, seasonal water supply	1,190
	450
Natural Gas - Low pressure gas to sites	310
Electrical - Underground conduit, 60 to 100 amperes per site. - Telephone extensions in buildings and most sites. - Lighted recreation areas and street. - Minimal electrical service	1,490
	510

The rates in this table are replacement cost new (RCN). Physical deterioration is determined using the procedures in No. 3.9.

Station Grounds

Station grounds include unsubdivided station grounds, subdivided station ground parcels and leased station ground parcels.

Station grounds are valued by the sales comparison method . Station ground base land rates and units of comparison are determined in accordance with the valuation procedures in No. 2.2.

Station ground site adjustments are determined in accordance with the valuation procedures in No. 2.3 to No. 2.9.

Abandoned Railway Roadway

Abandoned railway roadway is valued in accordance with the valuation procedures for comparable residential, agricultural, commercial or industrial land.

Railway Roadway

Railway roadway is valued using the Saskatchewan Assessment Manual (2011 Base Year).

Airport Land

Airport land includes runways; taxiways; aprons; and the land associated with operational buildings such as general offices, terminals, hangars, fire stations and weather stations, and buffer areas; but does not include land leased for residential, commercial, industrial or agricultural purposes.

The assessed value of airport land can be determined by the income, sales comparison or cost approaches to value. Where there is insufficient data to use the income or sales comparison approach, the cost approach is used.

The intensity of use should be considered in determining the value of land used for buildings on airport land. Areas used for buildings on airport lands and parking lots, including an area for reasonable access to and from the buildings may be valued similarly to industrial or commercial land in the municipality.

Runways, taxiways and aprons are those areas within the liner designated on the Ministry of Transport airport maps as the limit of graded areas. When the cost approach is used, the base land rate is comparable to unserviced industrial or commercial land in the municipality.

Buffer land applies to peripheral areas outside the runway and building areas that are not necessary for airport operation but are located within the airport due to municipal zoning regulating building height restrictions and Ministry of Transport Regulations. These lands should be valued in accordance with the valuation procedures for agricultural land.

Cost Approach

Land development costs are added to the undeveloped land value. Site improvement development costs are added to the improvement value.

The assessed value for airport land using the development cost method is determined by the application of the following formula:

$$LV = (R \pm A) \times U + (LDC - PHYS)$$

- where: LV = value of airport land
- R = base land rate
- A = site adjustments
- U = number of land units
- LDC = land development costs
- PHYS = physical deterioration

The value for airport site improvements using the development cost method is determined by the application of the following formula:

$$SI = SIDC$$

- where: SI = value of airport site improvements
- SIDC = site improvement development costs

The sales comparison method is used to determine a base land rate for unsubdivided transportation, communication and utility land that would be suitable for airport land. Adjacent land use should be considered in the valuation of undeveloped airport land.

Airport Land Development Cost Schedule

Load Rating ¹	Rates for Runways, Taxiways, Aprons (\$/sq.ft.)		
	Concrete ²	Asphalt ³	Gravel ⁴
12	12.21	7.73	
11	12.21	6.87	
10	12.21	5.98	
9	12.21	5.11	
8	8.73	3.74	2.17
7	8.73	3.36	1.88
6	8.73	3.00	1.66
5	8.73	2.88	1.46
4		2.50	1.17
3		2.50	1.17
2		2.50	1.17
1		2.50	1.17

¹ Classification by Aircraft Load Rating from "Pavement Evaluation for Aircraft Loading" Transport Canada Table: AK-68-30-100

² Typically constructed of specified thickness of concrete over base materials to load specifications.

³ Typically 12 inch subgrade, 8-12 inch base, 3-4 inches of strict quality asphalt.

⁴ Typically subgrade material, 6-12 inch base material (compacted) dependent on soil conditions and load specifications.

The rates in this table are replacement cost new (RCN). Physical deterioration is determined using the procedures in No. 3.9.

Summary

This section contains the valuation procedures for determining the assessed value for golf courses valued using the cost approach method.

The assessed value of golf courses can be determined by the income, sales comparison, and cost approaches to value. Where there is insufficient data to use the income approach or sales comparison approach, the cost approach is used.

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