

REDUCING BALANCE DEPRECIATION TABLE

COMMERCIAL AND INDUSTRIAL

(Please review Chapter 13, Volume III, of the *Michigan Assessor's Manual* for detailed guidance in the correct use of this table.)

Depreciation Rates

| Age of Building | 1-1/2% | 2% | 2-1/2% | 3% | Age of Building |
|-----------------|--------|----|--------|----|-----------------|
| 1 | 99 | 98 | 98 | 97 | 1 |
| 2 | 97 | 96 | 95 | 94 | 2 |
| 3 | 96 | 94 | 93 | 91 | 3 |
| 4 | 94 | 92 | 90 | 89 | 4 |
| 5 | 93 | 90 | 88 | 86 | 5 |
| 6 | 91 | 89 | 86 | 83 | 6 |
| 7 | 90 | 87 | 84 | 81 | 7 |
| 8 | 89 | 85 | 82 | 78 | 8 |
| 9 | 87 | 83 | 80 | 76 | 9 |
| 10 | 86 | 82 | 78 | 74 | 10 |
| 11 | 85 | 80 | 76 | 72 | 11 |
| 12 | 83 | 78 | 74 | 69 | 12 |
| 13 | 82 | 77 | 72 | 67 | 13 |
| 14 | 81 | 75 | 70 | 65 | 14 |
| 15 | 80 | 74 | 68 | 63 | 15 |
| 16 | 79 | 72 | 67 | 61 | 16 |
| 17 | 77 | 71 | 65 | 60 | 17 |
| 18 | 76 | 69 | 63 | 58 | 18 |
| 19 | 75 | 68 | 62 | 56 | 19 |
| 20 | 74 | 67 | 60 | 54 | 20 |
| 21 | 73 | 65 | 59 | 53 | 21 |
| 22 | 72 | 64 | 57 | 51 | 22 |
| 23 | 71 | 63 | 56 | 50 | 23 |
| 24 | 70 | 62 | 54 | 48 | 24 |
| 25 | 69 | 60 | 53 | 47 | 25 |
| 26 | 68 | 59 | 52 | 45 | 26 |
| 27 | 66 | 58 | 50 | 44 | 27 |
| 28 | 65 | 57 | 49 | 43 | 28 |
| 29 | 65 | 56 | 48 | 41 | 29 |
| 30 | 64 | 55 | 47 | 40 | 30 |
| 31 | 63 | 53 | 46 | 39 | 31 |
| 32 | 62 | 52 | 44 | 38 | 32 |
| 33 | 61 | 51 | 43 | 37 | 33 |
| 34 | 60 | 50 | 42 | 35 | 34 |
| 35 | 59 | 49 | 41 | | 35 |
| 36 | 58 | 48 | 40 | | 36 |
| 37 | 57 | 47 | 39 | | 37 |
| 38 | 56 | 46 | 38 | | 38 |
| 39 | 55 | 45 | 37 | | 39 |
| 40 | 55 | 45 | 36 | | 40 |
| 41 | 54 | 44 | 35 | | 41 |
| 42 | 53 | 43 | | | 42 |
| 43 | 52 | 42 | | | 43 |
| 44 | 51 | 41 | | | 44 |
| 45 | 51 | 40 | | | 45 |
| 46 | 50 | | | | 46 |
| 47 | 49 | | | | 47 |
| 48 | 48 | | | | 48 |
| 49 | 48 | | | | 49 |
| 50 | 47 | | | | 50 |
| 51 | 46 | | | | 51 |
| 52 | 46 | | | | 52 |
| 53 | 45 | | | | 53 |

COST INDEXES (1926 = 100) EQUIPMENT – NATIONAL AVERAGE

FOR USE IN 2014 EQUALIZATION STUDIES

These indexes can be used for analysis purposes. However, the valuation of machinery, equipment, furniture, fixtures, etc., for assessment purposes will usually be determined by applying the appropriate State Tax Commission personal property multipliers to the original cost, by year installed, of equipment, as discussed in Chapter 15 of the *Michigan Assessor's Manual*.

| INDUSTRY | 2013 | 2012 | 2011 | 2010 | 2009 | 2008 | 2007 | 2006 | 2005 | 2004 | 2003 |
|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Average of all | 1558.7 | 1545.9 | 1503.2 | 1457.4 | 1468.6 | 1427.3 | 1373.3 | 1302.3 | 1244.5 | 1157.3 | 1118.6 |
| Airplane mfg. | 1860.6 | 1859.2 | 1806.1 | 1741.6 | 1770.4 | 1721.2 | 1653.7 | 1566.6 | 1489.2 | 1375.5 | 1325.1 |
| Apartment | 1109.7 | 1088.5 | 1060.4 | 1032.9 | 1027.0 | 1005.1 | 976.8 | 942.4 | 903.7 | 856.7 | 836.1 |
| Bakery | 1516.0 | 1502.5 | 1461.6 | 1415.5 | 1426.6 | 1392.1 | 1338.3 | 1249.7 | 1194.7 | 1110.9 | 1070.6 |
| Bank | 1136.5 | 1128.5 | 1102.0 | 1073.2 | 1078.7 | 1050.7 | 1019.3 | 979.4 | 943.7 | 887.3 | 859.8 |
| Bottling | 1602.8 | 1595.4 | 1552.8 | 1503.6 | 1517.9 | 1479.8 | 1417.4 | 1336.9 | 1271.6 | 1172.9 | 1131.2 |
| Brewery & distillery | 1966.8 | 1950.4 | 1900.0 | 1848.8 | 1860.0 | 1808.7 | 1731.7 | 1634.2 | 1554.6 | 1438.6 | 1390.9 |
| Candy | 1953.9 | 1935.6 | 1882.7 | 1823.7 | 1834.9 | 1792.2 | 1722.1 | 1604.0 | 1534.0 | 1427.3 | 1377.5 |
| Cannery (fish) | 1913.8 | 1897.6 | 1844.6 | 1786.0 | 1802.1 | 1755.8 | 1687.7 | 1575.7 | 1507.3 | 1398.4 | 1347.0 |
| Cannery (fruit) | 1893.0 | 1869.9 | 1819.6 | 1762.6 | 1769.9 | 1735.6 | 1672.4 | 1570.3 | 1504.6 | 1403.1 | 1353.0 |
| Cement mfg. | 1628.6 | 1612.5 | 1559.1 | 1516.4 | 1536.7 | 1469.8 | 1407.4 | 1337.2 | 1274.5 | 1172.4 | 1127.6 |
| Chemical | 1575.3 | 1572.5 | 1531.1 | 1490.9 | 1512.0 | 1460.7 | 1397.2 | 1319.5 | 1256.1 | 1157.7 | 1118.7 |
| Church | 1269.3 | 1245.8 | 1215.4 | 1186.6 | 1185.6 | 1157.6 | 1127.6 | 1092.5 | 1053.8 | 993.4 | 962.1 |
| Clay products | 1617.3 | 1598.6 | 1548.3 | 1503.6 | 1514.9 | 1448.3 | 1388.7 | 1317.9 | 1258.0 | 1165.3 | 1125.0 |
| Contractor's. equip. | 1788.0 | 1754.3 | 1698.1 | 1650.9 | 1657.3 | 1609.6 | 1560.1 | 1506.6 | 1441.9 | 1349.7 | 1311.7 |
| Creamery & dairy | 1679.1 | 1663.4 | 1618.7 | 1568.4 | 1575.0 | 1540.6 | 1478.0 | 1380.9 | 1315.7 | 1222.8 | 1181.5 |
| Dwelling | 1070.2 | 1051.1 | 1024.8 | 999.1 | 993.4 | 973.8 | 946.2 | 913.0 | 874.5 | 831.8 | 813.5 |
| Elec. equip. mfg. | 1566.0 | 1577.2 | 1537.3 | 1465.9 | 1486.0 | 1462.1 | 1394.4 | 1302.8 | 1227.2 | 1126.3 | 1080.4 |
| Elec. power equip. | 1492.8 | 1510.2 | 1477.2 | 1400.0 | 1411.2 | 1405.6 | 1332.3 | 1230.8 | 1147.3 | 1048.5 | 1002.6 |
| Flour, cereal & feed | 1575.6 | 1562.8 | 1519.1 | 1471.0 | 1483.2 | 1445.0 | 1385.8 | 1300.7 | 1238.0 | 1147.0 | 1106.3 |
| Garage | 1691.4 | 1679.6 | 1636.2 | 1587.7 | 1600.1 | 1558.4 | 1501.0 | 1434.1 | 1370.3 | 1280.9 | 1241.2 |
| Glass mfg. | 1512.4 | 1503.8 | 1460.1 | 1412.0 | 1427.1 | 1381.5 | 1320.5 | 1246.4 | 1182.3 | 1086.8 | 1045.3 |
| Hospital | 1438.3 | 1426.7 | 1388.7 | 1344.9 | 1346.4 | 1312.2 | 1264.5 | 1195.8 | 1142.3 | 1070.8 | 1038.4 |
| Hotel | 1343.4 | 1323.5 | 1290.0 | 1257.2 | 1254.2 | 1224.4 | 1185.9 | 1129.6 | 1084.9 | 1025.6 | 997.7 |
| Laundry & cleaning | 1345.7 | 1335.7 | 1298.1 | 1257.4 | 1268.9 | 1227.6 | 1178.7 | 1118.0 | 1070.0 | 991.8 | 957.3 |
| Library | 1458.2 | 1449.1 | 1410.3 | 1366.8 | 1379.2 | 1338.9 | 1291.3 | 1231.7 | 1181.3 | 1096.7 | 1058.3 |
| Logging equip. | 1593.2 | 1577.1 | 1531.2 | 1488.5 | 1509.2 | 1460.7 | 1411.1 | 1354.1 | 1296.8 | 1206.3 | 1165.0 |
| Metalworking | 1727.3 | 1727.7 | 1676.9 | 1621.4 | 1653.2 | 1593.2 | 1534.0 | 1453.4 | 1392.3 | 1289.9 | 1250.3 |
| Mining & milling | 1716.3 | 1683.9 | 1612.8 | 1561.5 | 1562.8 | 1494.8 | 1434.3 | 1373.8 | 1309.8 | 1208.0 | 1164.2 |
| Motion picture | 1698.8 | 1682.3 | 1639.7 | 1580.1 | 1583.4 | 1559.2 | 1501.9 | 1430.6 | 1363.5 | 1268.8 | 1225.3 |
| Office equip. | 1221.8 | 1218.7 | 1190.9 | 1161.3 | 1164.3 | 1132.4 | 1096.7 | 1053.1 | 1012.4 | 957.7 | 933.6 |
| Packing (fruit) | 1747.7 | 1715.0 | 1668.6 | 1620.1 | 1621.2 | 1589.9 | 1536.7 | 1467.7 | 1409.3 | 1320.2 | 1276.1 |
| Packing (meat) | 1665.1 | 1646.2 | 1599.4 | 1553.3 | 1561.0 | 1512.5 | 1455.3 | 1366.1 | 1309.5 | 1222.1 | 1182.1 |
| Paint mfg. | 1630.7 | 1622.4 | 1574.8 | 1524.7 | 1542.3 | 1490.9 | 1427.6 | 1349.2 | 1285.3 | 1184.8 | 1141.7 |
| Paper mfg. | 1531.0 | 1516.8 | 1472.5 | 1426.7 | 1442.0 | 1397.5 | 1343.5 | 1278.6 | 1223.3 | 1128.6 | 1086.5 |
| Petroleum | 1725.8 | 1714.6 | 1665.9 | 1624.0 | 1650.3 | 1584.6 | 1510.4 | 1419.8 | 1340.9 | 1234.2 | 1192.0 |
| Printing | 1347.8 | 1342.6 | 1308.0 | 1269.1 | 1281.5 | 1253.9 | 1211.5 | 1148.0 | 1104.0 | 1035.3 | 1006.1 |
| Refrigeration | 1912.9 | 1900.2 | 1844.5 | 1783.4 | 1795.4 | 1736.3 | 1664.4 | 1572.7 | 1500.2 | 1391.2 | 1343.0 |
| Restaurant | 1274.4 | 1256.8 | 1224.2 | 1192.1 | 1192.5 | 1162.8 | 1124.4 | 1065.1 | 1023.4 | 963.4 | 934.7 |
| Rubber | 1653.6 | 1652.5 | 1609.1 | 1563.8 | 1586.7 | 1531.4 | 1473.5 | 1398.3 | 1342.8 | 1252.0 | 1209.4 |
| School | 1438.8 | 1422.8 | 1384.7 | 1346.8 | 1349.6 | 1311.3 | 1268.9 | 1207.4 | 1159.7 | 1088.9 | 1056.9 |
| Shipbuilding | 1811.5 | 1801.0 | 1743.9 | 1692.5 | 1726.4 | 1659.5 | 1594.5 | 1515.4 | 1444.8 | 1322.7 | 1275.4 |
| Steam power | 1580.5 | 1580.6 | 1537.0 | 1484.0 | 1498.4 | 1448.9 | 1382.6 | 1295.4 | 1229.9 | 1128.4 | 1088.3 |
| Store | 1469.7 | 1454.7 | 1417.2 | 1377.5 | 1383.5 | 1346.7 | 1305.1 | 1252.1 | 1204.5 | 1126.7 | 1090.3 |
| Textile | 1554.5 | 1546.1 | 1507.8 | 1471.1 | 1491.4 | 1447.0 | 1398.7 | 1341.0 | 1292.5 | 1207.2 | 1173.0 |
| Theater | 1256.6 | 1249.7 | 1218.1 | 1181.8 | 1186.1 | 1153.6 | 1114.0 | 1062.7 | 1019.0 | 952.3 | 922.6 |
| Warehousing | 1235.2 | 1216.6 | 1182.2 | 1148.7 | 1155.8 | 1120.6 | 1082.6 | 1044.1 | 1009.0 | 942.8 | 910.9 |
| Woodworking | 1459.8 | 1435.0 | 1397.6 | 1356.3 | 1367.1 | 1335.8 | 1293.6 | 1243.4 | 1198.5 | 1122.1 | 1088.7 |

COST INDEXES (1926 = 100) EQUIPMENT – NATIONAL AVERAGE

FOR USE IN 2014 EQUALIZATION STUDIES

| INDUSTRY | 2002 | 2001 | 2000 | 1999 | 1998 | 1997 | 1996 | 1995 | 1994 | 1993 | 1992 |
|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Average of all | 1100.0 | 1093.4 | 1084.3 | 1065.0 | 1061.8 | 1052.7 | 1036.0 | 1020.4 | 985.0 | 958.0 | 939.8 |
| Airplane mfg. | 1301.4 | 1296.7 | 1287.8 | 1264.7 | 1263.2 | 1253.4 | 1238.5 | 1221.8 | 1174.9 | 1145.3 | 1127.6 |
| Apartment | 826.3 | 818.3 | 812.4 | 797.8 | 793.1 | 787.1 | 774.1 | 763.5 | 739.5 | 714.2 | 696.1 |
| Bakery | 1052.6 | 1045.7 | 1034.3 | 1014.0 | 1010.5 | 1000.3 | 983.4 | 969.1 | 930.9 | 903.0 | 886.3 |
| Bank | 847.6 | 842.1 | 837.0 | 822.9 | 821.3 | 816.3 | 803.6 | 794.9 | 773.4 | 749.3 | 732.5 |
| Bottling | 1111.3 | 1105.9 | 1096.3 | 1075.6 | 1073.5 | 1065.4 | 1049.4 | 1033.6 | 994.3 | 968.5 | 952.8 |
| Brewery & distillery | 1366.5 | 1357.7 | 1343.2 | 1318.6 | 1311.5 | 1298.7 | 1278.1 | 1254.3 | 1208.9 | 1181.0 | 1162.7 |
| Candy | 1354.6 | 1346.2 | 1330.6 | 1304.8 | 1300.4 | 1286.5 | 1263.5 | 1244.2 | 1194.7 | 1159.1 | 1138.2 |
| Cannery (fish) | 1323.3 | 1314.5 | 1300.6 | 1275.2 | 1271.4 | 1258.5 | 1235.8 | 1217.8 | 1169.9 | 1133.3 | 1111.7 |
| Cannery (fruit) | 1331.7 | 1322.2 | 1308.8 | 1282.1 | 1277.8 | 1266.2 | 1240.9 | 1225.1 | 1180.1 | 1140.3 | 1114.4 |
| Cement mfg. | 1104.9 | 1098.1 | 1087.6 | 1069.6 | 1065.1 | 1054.1 | 1041.2 | 1022.3 | 987.5 | 965.9 | 951.0 |
| Chemical | 1096.6 | 1090.6 | 1080.3 | 1063.0 | 1057.8 | 1047.0 | 1033.9 | 1014.0 | 977.9 | 958.3 | 946.1 |
| Church | 949.4 | 939.3 | 933.2 | 914.7 | 909.6 | 901.6 | 881.5 | 870.9 | 847.9 | 813.4 | 787.1 |
| Clay products | 1103.5 | 1095.5 | 1083.8 | 1066.1 | 1062.2 | 1051.2 | 1035.1 | 1015.8 | 981.8 | 959.3 | 942.3 |
| Contractor's. equip. | 1291.6 | 1281.5 | 1274.0 | 1252.1 | 1242.2 | 1228.3 | 1204.6 | 1185.1 | 1153.4 | 1125.2 | 1095.3 |
| Creamery & dairy | 1162.3 | 1154.6 | 1142.1 | 1119.1 | 1114.6 | 1103.5 | 1084.9 | 1066.4 | 1023.6 | 996.5 | 980.5 |
| Dwelling | 804.2 | 796.9 | 790.2 | 776.2 | 770.9 | 764.4 | 753.0 | 741.6 | 717.5 | 694.2 | 678.2 |
| Elec. equip. mfg. | 1062.3 | 1063.4 | 1055.9 | 1036.9 | 1040.7 | 1036.0 | 1026.5 | 1015.1 | 968.7 | 945.8 | 935.7 |
| Elec. power equip. | 986.3 | 990.0 | 983.0 | 963.9 | 968.4 | 966.7 | 961.5 | 953.6 | 905.8 | 887.4 | 881.5 |
| Flour, cereal & feed | 1087.9 | 1081.9 | 1070.3 | 1049.4 | 1045.0 | 1034.9 | 1019.4 | 1003.6 | 964.9 | 939.4 | 924.8 |
| Garage | 1223.6 | 1215.1 | 1205.0 | 1184.3 | 1180.8 | 1172.9 | 1157.5 | 1140.5 | 1102.0 | 1073.9 | 1054.2 |
| Glass mfg. | 1025.2 | 1020.0 | 1010.1 | 991.4 | 989.1 | 981.1 | 968.3 | 952.2 | 914.9 | 894.6 | 881.6 |
| Hospital | 1022.3 | 1015.2 | 1005.2 | 986.4 | 983.2 | 974.4 | 960.2 | 944.0 | 908.8 | 883.1 | 866.8 |
| Hotel | 984.0 | 975.9 | 965.7 | 947.6 | 941.7 | 931.5 | 915.1 | 899.4 | 869.8 | 842.0 | 822.7 |
| Laundry & cleaning | 940.0 | 934.9 | 927.1 | 909.9 | 908.4 | 901.3 | 887.1 | 873.5 | 843.0 | 820.9 | 805.7 |
| Library | 1039.4 | 1033.7 | 1026.4 | 1007.1 | 1007.0 | 999.4 | 982.5 | 969.6 | 937.2 | 906.6 | 887.3 |
| Logging equip. | 1147.0 | 1139.9 | 1133.4 | 1113.3 | 1109.0 | 1099.9 | 1082.9 | 1067.9 | 1034.9 | 1006.4 | 984.7 |
| Metalworking | 1230.0 | 1227.7 | 1219.5 | 1202.9 | 1203.1 | 1191.7 | 1176.6 | 1156.4 | 1113.4 | 1085.9 | 1070.3 |
| Mining & milling | 1142.1 | 1128.7 | 1120.7 | 1102.2 | 1097.2 | 1085.4 | 1068.2 | 1051.3 | 1019.8 | 992.7 | 971.8 |
| Motion picture | 1207.4 | 1201.6 | 1195.5 | 1173.2 | 1172.7 | 1167.1 | 1145.9 | 1135.1 | 1097.9 | 1065.0 | 1039.6 |
| Office equip. | 922.0 | 918.5 | 910.7 | 896.1 | 894.2 | 887.1 | 876.8 | 863.1 | 838.6 | 818.1 | 805.9 |
| Packing (fruit) | 1257.4 | 1246.1 | 1236.2 | 1210.4 | 1204.9 | 1195.3 | 1167.7 | 1153.5 | 1118.6 | 1079.2 | 1047.7 |
| Packing (meat) | 1162.3 | 1153.5 | 1141.3 | 1120.1 | 1114.6 | 1102.3 | 1082.9 | 1064.3 | 1025.8 | 996.3 | 977.6 |
| Paint mfg. | 1118.6 | 1112.2 | 1102.2 | 1081.7 | 1078.6 | 1068.4 | 1052.7 | 1034.3 | 995.7 | 971.8 | 955.9 |
| Paper mfg. | 1066.2 | 1057.3 | 1050.8 | 1030.2 | 1027.5 | 1018.8 | 998.8 | 985.5 | 953.2 | 925.2 | 904.4 |
| Petroleum | 1169.0 | 1157.2 | 1142.9 | 1126.8 | 1121.2 | 1106.2 | 1088.4 | 1066.5 | 1028.9 | 1008.3 | 998.6 |
| Printing | 990.0 | 989.0 | 980.6 | 967.1 | 966.2 | 961.0 | 945.7 | 931.9 | 898.6 | 877.0 | 863.7 |
| Refrigeration | 1316.4 | 1305.6 | 1293.5 | 1268.6 | 1263.6 | 1251.1 | 1231.2 | 1209.6 | 1165.9 | 1135.6 | 1114.2 |
| Restaurant | 920.7 | 913.1 | 903.7 | 886.4 | 881.5 | 871.8 | 855.5 | 840.8 | 812.8 | 786.7 | 769.0 |
| Rubber | 1185.2 | 1181.8 | 1171.9 | 1154.6 | 1150.0 | 1137.6 | 1121.9 | 1101.2 | 1063.7 | 1039.1 | 1019.2 |
| School | 1041.1 | 1033.5 | 1024.4 | 1005.7 | 1002.3 | 992.6 | 975.6 | 959.8 | 927.9 | 899.0 | 880.1 |
| Shipbuilding | 1250.3 | 1244.3 | 1236.8 | 1216.9 | 1212.5 | 1199.4 | 1180.7 | 1162.4 | 1122.8 | 1097.2 | 1078.7 |
| Steam power | 1066.7 | 1063.1 | 1054.5 | 1038.4 | 1037.3 | 1029.9 | 1019.3 | 1002.9 | 964.5 | 944.5 | 933.8 |
| Store | 1073.9 | 1066.5 | 1060.2 | 1040.2 | 1039.0 | 1031.8 | 1012.7 | 1000.6 | 970.9 | 937.5 | 914.3 |
| Textile | 1156.2 | 1151.1 | 1142.2 | 1125.3 | 1123.6 | 1114.6 | 1095.7 | 1081.1 | 1049.2 | 1022.7 | 1003.2 |
| Theater | 907.8 | 903.3 | 896.6 | 880.6 | 879.7 | 872.9 | 860.0 | 847.7 | 820.3 | 795.1 | 779.2 |
| Warehousing | 900.4 | 897.1 | 892.0 | 875.8 | 874.8 | 871.7 | 857.7 | 850.1 | 826.7 | 800.2 | 782.0 |
| Woodworking | 1072.7 | 1063.0 | 1062.1 | 1044.4 | 1042.9 | 1038.3 | 1013.3 | 1002.9 | 975.0 | 942.9 | 911.6 |

COMPARATIVE COST MULTIPLIERS

FOR USE IN 2014 EQUALIZATION STUDIES

These multipliers can be used to trend historical costs to the current level for rough estimating or checking. Example: a Class C structure which cost \$1,000,000 to build in July 2005 would cost approximately \$1,278,000 (i.e., \$1,000,000 x 1.278) for 2014 equalization purposes. The factors on this sheet do not allow for depreciation.

| YEAR OF FORMER COST | CLASS A Fireproofed Steel Frame | CLASS B Reinforced Concrete Frame | CLASS C Masonry Bearing Walls | CLASS D Wood Frame | CLASS S Metal Frame and Walls | YEAR OF FORMER COST | CLASS A Fireproofed Steel Frame | CLASS B Reinforced Concrete Frame | CLASS C Masonry Bearing Walls | CLASS D Wood Frame | CLASS S Metal Frame and Walls |
|---------------------|---------------------------------|-----------------------------------|-------------------------------|--------------------|-------------------------------|---------------------|---------------------------------|-----------------------------------|-------------------------------|--------------------|-------------------------------|
| 2014 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | JUL 2003 | 1.493 | 1.479 | 1.465 | 1.454 | 1.435 |
| | | | | | | JAN 2003 | 1.493 | 1.482 | 1.468 | 1.455 | 1.437 |
| OCT 2013 | 1.001 | 1.000 | 1.001 | 1.000 | 0.999 | | | | | | |
| JUL 2013 | 1.004 | 1.005 | 1.008 | 1.011 | 1.001 | JUL 2002 | 1.515 | 1.505 | 1.492 | 1.481 | 1.456 |
| APR 2013 | 1.012 | 1.014 | 1.021 | 1.028 | 1.005 | JAN 2002 | 1.532 | 1.521 | 1.509 | 1.496 | 1.471 |
| JAN 2013 | 1.019 | 1.023 | 1.030 | 1.039 | 1.010 | | | | | | |
| | | | | | | JUL 2001 | 1.553 | 1.543 | 1.529 | 1.520 | 1.486 |
| OCT 2012 | 1.023 | 1.029 | 1.037 | 1.049 | 1.011 | JAN 2001 | 1.552 | 1.545 | 1.533 | 1.529 | 1.491 |
| JUL 2012 | 1.030 | 1.038 | 1.049 | 1.066 | 1.017 | | | | | | |
| APR 2012 | 1.037 | 1.044 | 1.058 | 1.079 | 1.024 | JUL 2000 | 1.554 | 1.546 | 1.530 | 1.520 | 1.486 |
| JAN 2012 | 1.044 | 1.052 | 1.064 | 1.085 | 1.028 | JAN 2000 | 1.575 | 1.564 | 1.555 | 1.546 | 1.505 |
| | | | | | | | | | | | |
| OCT 2011 | 1.049 | 1.058 | 1.070 | 1.090 | 1.033 | JUL 1999 | 1.630 | 1.620 | 1.620 | 1.624 | 1.556 |
| JUL 2011 | 1.057 | 1.065 | 1.077 | 1.097 | 1.041 | JAN 1999 | 1.645 | 1.638 | 1.639 | 1.644 | 1.567 |
| APR 2011 | 1.069 | 1.076 | 1.084 | 1.102 | 1.052 | | | | | | |
| JAN 2011 | 1.076 | 1.082 | 1.087 | 1.103 | 1.058 | JUL 1998 | 1.673 | 1.666 | 1.665 | 1.676 | 1.590 |
| | | | | | | JAN 1998 | 1.688 | 1.683 | 1.675 | 1.678 | 1.603 |
| OCT 2010 | 1.080 | 1.085 | 1.090 | 1.105 | 1.061 | | | | | | |
| JUL 2010 | 1.092 | 1.096 | 1.103 | 1.121 | 1.064 | JUL 1997 | 1.720 | 1.718 | 1.709 | 1.710 | 1.628 |
| APR 2010 | 1.109 | 1.114 | 1.121 | 1.143 | 1.080 | JAN 1997 | 1.753 | 1.755 | 1.747 | 1.756 | 1.652 |
| JAN 2010 | 1.115 | 1.120 | 1.128 | 1.150 | 1.086 | | | | | | |
| | | | | | | JUL 1996 | 1.781 | 1.783 | 1.779 | 1.800 | 1.668 |
| OCT 2009 | 1.117 | 1.123 | 1.131 | 1.154 | 1.086 | JAN 1996 | 1.793 | 1.789 | 1.779 | 1.791 | 1.678 |
| JUL 2009 | 1.082 | 1.094 | 1.110 | 1.137 | 1.047 | | | | | | |
| APR 2009 | 1.045 | 1.061 | 1.084 | 1.113 | 1.002 | JUL 1995 | 1.816 | 1.805 | 1.792 | 1.796 | 1.707 |
| JAN 2009 | 1.038 | 1.055 | 1.079 | 1.105 | .992 | JAN 1995 | 1.837 | 1.828 | 1.813 | 1.814 | 1.732 |
| | | | | | | | | | | | |
| OCT 2008 | 1.053 | 1.067 | 1.090 | 1.111 | 1.006 | JUL 1994 | 1.861 | 1.857 | 1.837 | 1.826 | 1.757 |
| JUL 2008 | 1.108 | 1.116 | 1.130 | 1.143 | 1.063 | JAN 1994 | 1.919 | 1.914 | 1.900 | 1.920 | 1.807 |
| APR 2008 | 1.129 | 1.133 | 1.139 | 1.144 | 1.084 | | | | | | |
| JAN 2008 | 1.136 | 1.139 | 1.141 | 1.141 | 1.089 | JUL 1993 | 1.909 | 1.900 | 1.876 | 1.871 | 1.798 |
| | | | | | | JAN 1993 | 1.974 | 1.966 | 1.953 | 1.985 | 1.849 |
| OCT 2007 | 1.142 | 1.145 | 1.146 | 1.145 | 1.096 | | | | | | |
| JUL 2007 | 1.157 | 1.159 | 1.159 | 1.157 | 1.109 | JUL 1992 | 2.003 | 2.000 | 1.986 | 2.020 | 1.876 |
| APR 2007 | 1.165 | 1.168 | 1.165 | 1.163 | 1.117 | JAN 1992 | 2.024 | 2.024 | 2.017 | 2.069 | 1.889 |
| JAN 2007 | 1.170 | 1.172 | 1.165 | 1.159 | 1.120 | | | | | | |
| | | | | | | JUL 1991 | 2.050 | 2.053 | 2.052 | 2.115 | 1.908 |
| OCT 2006 | 1.180 | 1.180 | 1.171 | 1.161 | 1.129 | JAN 1991 | 2.046 | 2.049 | 2.051 | 2.104 | 1.905 |
| JUL 2006 | 1.216 | 1.213 | 1.208 | 1.195 | 1.164 | | | | | | |
| APR 2006 | 1.235 | 1.231 | 1.224 | 1.208 | 1.179 | JUL 1990 | 2.060 | 2.064 | 2.055 | 2.101 | 1.914 |
| JAN 2006 | 1.255 | 1.249 | 1.242 | 1.224 | 1.198 | JAN 1990 | 2.063 | 2.068 | 2.058 | 2.096 | 1.916 |
| | | | | | | | | | | | |
| OCT 2005 | 1.276 | 1.271 | 1.268 | 1.251 | 1.220 | JUL 1989 | 2.078 | 2.091 | 2.084 | 2.126 | 1.927 |
| JUL 2005 | 1.282 | 1.277 | 1.278 | 1.262 | 1.226 | JAN 1989 | 2.079 | 2.094 | 2.093 | 2.134 | 1.929 |
| APR 2005 | 1.294 | 1.289 | 1.291 | 1.277 | 1.239 | | | | | | |
| JAN 2005 | 1.302 | 1.296 | 1.298 | 1.282 | 1.248 | JUL 1988 | 2.101 | 2.116 | 2.111 | 2.158 | 1.950 |
| | | | | | | JAN 1988 | 2.180 | 2.185 | 2.165 | 2.194 | 2.043 |
| OCT 2004 | 1.331 | 1.323 | 1.326 | 1.311 | 1.272 | | | | | | |
| July 2004 | 1.370 | 1.360 | 1.355 | 1.339 | 1.309 | JUL 1987 | 2.218 | 2.217 | 2.184 | 2.204 | 2.083 |
| APR 2004 | 1.430 | 1.411 | 1.392 | 1.371 | 1.363 | JAN 1987 | 2.218 | 2.216 | 2.183 | 2.203 | 2.083 |
| JAN 2004 | 1.445 | 1.425 | 1.404 | 1.383 | 1.380 | | | | | | |

ARCHITECTS' FEE

The architects' fees listed on the next page are based on averages of fees actually charged or recommended. Actual fees, since they are based on the size of the project, the technical difficulty, the artistic requirements, the reputation of the architect and his willingness to accept the assignment, vary greatly and the estimate of the fee is a matter for the valuator's judgment.

Architects fees normally will include part or all of the following:

1. Plans and specifications including consultations, estimates and engineering studies.
2. General administration and overall supervision of construction, not including superintending construction.
3. Approving payment vouchers to the contractor.
4. Approval and acceptance of completed construction.

Regardless of the size and type of construction, all of these services must be performed by someone. On some projects the owner or the general contractor may do the supervision. On governmental projects, many services are performed by government employees; however, in replacing the building, the cost of these services, whether performed by the architect or others, must be included.

The architects' fee multipliers given here are only a guide. On a simple pre-engineered structure, stock plans and specifications may be purchased for under \$250, and on a large multi-house development, the architect may get full fees for each individual design and payments as low as \$300 per unit for additional uses of the plans, or he may work as a corporate employee. Also, many shed, farm and utility buildings are commonly built without plans or from standard plans which can be obtained free or at a small price, and to add a full architects' fee would be unsuitable.

In actual practice, architects' fees normally are based, by contract, either on a percentage of the entire cost, on a multiplier of the technical payroll plus incidental expenses, or on a fixed sum plus listed expenses.

In the final analysis, the architect's function, when fully performed, is a proper cost of construction. A well-considered matching of structure to land may enhance the end value by more than the fees involved. However, when poorly performed, the cost of design and drafting work may be wasted and result in functional obsolescence in a brand-new structure. This determination is a matter of judgment.

The average fees listed for buildings do not include fees for design of furniture, built-in equipment or appliances, plant or off-site, utilities or subdivision layout, or other detailed special items designed for a specific trade or personal use.

| SECTION | QUALITY AVERAGE |
|---------|-----------------|
| SEG 1 | 7.0 |
| SEG 2 | 7.0 |
| SEG 3 | 7.0 |
| SEG 4 | 6.0 |
| SEG 5 | 7.0 |
| SEG 6 | 7.0 |
| SEG 7 | 5.5 |
| SEG 8 | 7.0 |

Architectural fees for most UIP components are commensurate with the general SEG building types.

The following special supplemental cost section items already include architects' fees:

- Manufactured Housing Parks
- Service Stations
- Golf Courses
- Drive-in Theaters
- Ski Lifts
- Recreational Enclosures

ARCHITECTS' FEE

TABLE I

| | |
|---------------------------|--------------------------|
| Furnishings and Interiors | Mausoleums and Memorials |
| Special Lighting | |

TABLE II

| | |
|----------------------------------|---------------------------------|
| Airport Terminals | Laboratories & Computer Centers |
| Convention Centers | Museums, Galleries & Aquariums |
| Hospitals and Outpatient Centers | Storefronts |

TABLE III

| | |
|----------------------------------|-----------------------------------|
| Banks and Financial Institutions | Luxury Apartments |
| Amphitheaters | Medical/Dental Office Buildings |
| Communications & Broadcasting | Major Post Office Buildings |
| Convalescent Hospitals | Public Health and Service Centers |
| Country Clubs and Marinas | Restroom and Shower Buildings |
| Firing Range Buildings | Specialty Shops |
| Fieldhouses and Natatoriums | Stadiums and Sports Facilities |
| Emergency Response Stations | Theaters, Auditoriums & Casinos |
| Fraternal Buildings | Veterinary Hospitals |
| Hotels, City Clubs/Resort Lodges | Vocational Schools |

TABLE IV

| | |
|----------------------------------|----------------------------------|
| Apartments and Dormitories | Group Care Homes |
| Bars and Lounges | Health Clubs and Fitness Centers |
| Branch Post Offices | Homes for the Elderly |
| Bus Stations and Visitor Centers | Hotels – Limited Service |
| Clubhouses and Gymnasiums | Laundries and Cleaners |
| Cold Storage Buildings | Maintenance Hangars |
| Rooming Houses | Mortuaries |
| Day Care Centers | Motels, Inns and Cottages |
| Department Stores | Office Buildings |
| Relocatable Classrooms | Public Recreation Facilities |
| Engineering & Research | Racquetball and Tennis Clubs |
| Industrial Buildings | Regional Shopping Centers |
| Equestrian Centers | Restaurants and Clubs |
| Fraternity and Sorority Houses | |

TABLE V

| | |
|-------------------------------------|------------------------------------|
| Arcade Buildings | Grain Elevators |
| Armories | Loft and Industrial Flex Buildings |
| Automotive Centers | Manufacturing Industrial Buildings |
| Barber and Beauty Shops | Markets and Convenience Stores |
| Bowling Centers | Multiples/Row Houses, Indiv. Des. |
| Car Washes | Neighborhood & Mixed Shop. Cent. |
| Community Shopping Centers | Retail Stores and Florist Shops |
| Creameries | Senior Citizen Residences |
| Dairies | Showrooms |
| Discount and Warehouse Stores | Complete Auto Dealerships |
| Dispensaries and Kennels | Skating Rinks/Rec. Enclosures |
| Distribution Warehouses | Stables and Horse Arenas |
| Docks and Wharfs | Storage Hangars |
| Fast Food, Truck Stops & Snack Bars | |

TABLE VI

| | |
|----------------------------------|----------------------------------|
| Garages, Minilube and Service | Shipping Docks & Transfer Points |
| Greenhouse Structures | Storage & Emergency Response |
| Prefab. Booths and Shelters | Garages |
| Recycling, Waste Transfer Struc. | Storage Warehouses |
| Roadside Markets | |
| Service Stations/Pkg. Structures | |

EXPLANATION

The tables of architects' fees are based on composite curves for new construction derived from many actual fees charged, recommendations of several architectural committees in various states, and architectural time studies. In cases where superior quality and detail are required, the fee may be higher than the average, while very low quality and standardized buildings may call for a fee which is lower. Renovation or rehab work may require considerably more time, and fees can run 20% to 60% above those listed due to the many variables and complexities involved.

The fee schedules contain approximately 30% (20% to 40%) for contract administration and supervision. In many cases, this function may be performed by the contractor, an employee of the owner or an outside consultant. In any case, this is a proper charge against the building and the total fee should be added to building costs computed from the Unit-in-Place or the Segregated Costs.

| PROJECT COST Up To | TABLE | | | | | |
|-----------------------|-------|-----|-----|-----|-----|-----|
| | I | II | III | IV | V | VI |
| \$ 50,000 | 10.7 | 9.7 | 8.7 | 7.9 | 7.1 | 6.4 |
| 100,000 | 10.3 | 9.4 | 8.4 | 7.6 | 6.9 | 6.2 |
| 200,000 | 10.0 | 9.1 | 8.2 | 7.4 | 6.7 | 6.0 |
| 500,000 | 9.5 | 8.7 | 7.8 | 7.1 | 6.4 | 5.8 |
| 1,000,000 | 9.2 | 8.4 | 7.6 | 6.9 | 6.2 | 5.6 |
| 2,000,000 | 8.9 | 8.1 | 7.3 | 6.6 | 6.0 | 5.5 |
| 3,000,000 | 8.7 | 7.9 | 7.2 | 6.5 | 5.9 | 5.4 |
| 5,000,000 | 8.4 | 7.7 | 7.0 | 6.4 | 5.8 | 5.3 |
| 10,000,000 | 8.1 | 7.5 | 6.8 | 6.2 | 5.6 | 5.1 |
| 20,000,000 | 7.9 | 7.2 | 6.6 | 6.0 | 5.4 | 5.0 |
| 50,000,000 | 7.5 | 6.9 | 6.3 | 5.7 | 5.2 | 4.8 |
| and up | 7.3 | 6.8 | 6.2 | 5.6 | 5.1 | 4.7 |

The following are the approximate percentages included in the manual costs for multifamily residences and miscellaneous light commercial structures not listed in the above table.

| | LOW COST | FAIR | AVERAGE | GOOD |
|--|----------|------|---------|------|
| Multiple-Residential Structures | 1.5% | 1.9% | 2.4% | 3.9% |
| Light Commercial Utility-Shop Structures | 1.7% | 2.1% | 2.5% | 3.5% |