



sanborn

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3D Cities™

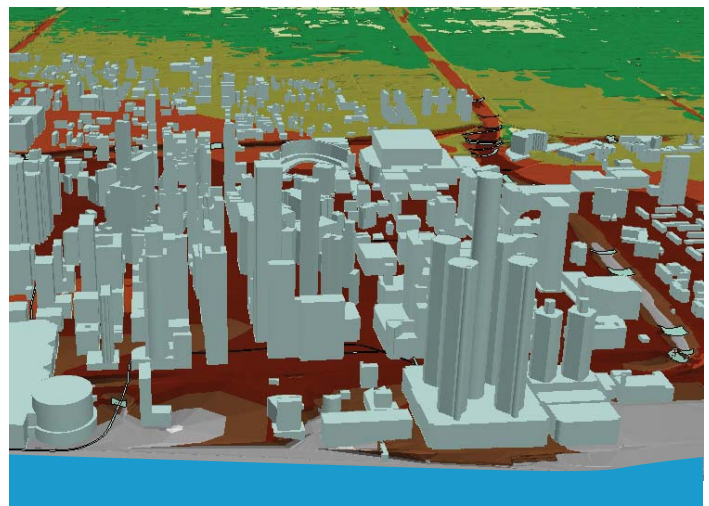
Off-The-Shelf 3D Metro Areas

Sanborn 3D Cities Products are an essential ingredient to virtual city implementations. Combining a strong visual appearance with a standards-compliant relational objects database, 3D Cities offers building and geospatial feature accuracy. The Sanborn product consists of off-the-shelf metro areas consisting of ortho imagery, buildings, elevation models and geospatial datasets covering the largest central business districts for over 60 of the major cities in the Americas and Europe. Committed to the improvement of city visualization and analysis, additional cities will become available from around the globe.

Sanborn 3D Cities can provide valuable geospatial and visualization data for users and organization involved with:

- State and major urban Fusion Centers
- Local, State and Federal Operations Ctrs.
- Homeland Security and National Defense
- Local law Enforcement
- Architectural / Engineering / Construction
- Real-Estate and Land Development
- Navigation Applications
- Urban and Transportation Planning
- Security Planning and Training
- Public and private utility providers
- Gaming and internet companies

3D Cities Products provide a variety of information that can be used in production environments for GIS or CAD software. In some cases the product has both current and archived historical components. The product contains imagery which has been orthorectified for use in applications of both visualization and as an accurate dataset for spatial analysis.



Top: Sanborn 3D Cities sample showing 3D buildings classified by occupancy attributes, placed over a draped ortho image.

Bottom: Sample showing a similar area with 3D buildings placed over a bare earth DEM.



| 3D Cities | Year Acquired | Area - km ² | Area - miles ² | # of Bldgs. | 3D Cities | Year Acquired | Area - km ² | Area - miles ² | # of Bldgs. | 3D Cities | Year Acquired | Area - km ² | Area - miles ² | # of Bldgs. | | | | | | |
|-----------------------|---------------|------------------------|---------------------------|-------------|-----------|---------------|------------------------|---------------------------|-------------|-----------|---------------|------------------------|---------------------------|------------------|-----------|------|--------|--------|---------|-------|
| Akron | OH | USA | 2013 | 1.90 | 0.73 | 536 | Kearney | NJ | USA | 2002 | 7.11 | 2.75 | 325 | Sacramento | CA | USA | 2004 | 7.95 | 3.07 | 3,047 |
| Albany | NY | USA | 2013 | 2.28 | 0.88 | 807 | Knoxville | TN | USA | 2013 | 2.16 | 0.83 | 490 | Saint Louis | MO | USA | 2002 | 12.66 | 4.89 | 2,164 |
| Arlington | VA | USA | 2002 | 6.04 | 2.33 | 3,591 | Las Vegas | NV | USA | 2010 | 16.57 | 6.40 | 2,842 | Saint Paul | MN | USA | 2002 | 2.93 | 1.13 | 491 |
| Atlanta | GA | USA | 2013 | 8.77 | 3.39 | 4,933 | Liberty Island | NY | USA | 2002 | 6.40 | 2.47 | 32 | Saint Petersburg | FL | USA | 2002 | 6.48 | 2.50 | 1,717 |
| Austin | TX | USA | 2007 | 11.76 | 4.54 | 4,482 | Little Rock | AR | USA | 2013 | 4.40 | 1.70 | 1,267 | Salt Lake City | UT | USA | 2013 | 4.61 | 1.78 | 938 |
| Baltimore | MD | USA | 2002 | 6.27 | 2.42 | 2,562 | Long Beach | NY | USA | 2008 | 8.09 | 3.12 | 4,012 | San Antonio | TX | USA | 2007 | 11.92 | 4.60 | 6,992 |
| Birmingham | AL | USA | 2013 | 3.40 | 1.31 | 843 | Los Angeles | CA | USA | 2008 | 27.06 | 10.45 | 26,903 | San Diego | CA | USA | 2002 | 5.32 | 2.05 | 1,308 |
| Boston | MA | USA | 2013 | 7.45 | 2.88 | 7,275 | Louisville | KY | USA | 2007 | 11.99 | 4.63 | 4,763 | San Francisco | CA | USA | 2008 | 15.03 | 5.80 | 9,223 |
| Bridgeport | CT | USA | 2007 | 4.86 | 1.88 | 1,922 | Manhattan | NY | USA | 2008 | 26.08 | 10.07 | 69,211 | San Jose | CA | USA | 2007 | 14.06 | 5.43 | 6,141 |
| Bronx | NY | USA | 2013 | 6.19 | 2.39 | 5,250 | Memphis | TN | USA | 2004 | 9.52 | 3.68 | 2,519 | Seattle | WA | USA | 2013 | 9.09 | 3.51 | 2,439 |
| Brooklyn | NY | USA | 2008 | 5.81 | 2.24 | 4,322 | Miami | FL | USA | 2013 | 9.95 | 3.84 | 7,175 | Springfield | MA | USA | 2013 | 0.58 | 0.22 | 161 |
| Buffalo | NY | USA | 2004 | 8.96 | 3.46 | 5,482 | Mill High Stadium | CO | USA | 2004 | 7.55 | 2.92 | 2,460 | Tacoma | WA | USA | 2013 | 0.85 | 0.33 | 240 |
| Century City (LA Co.) | CA | USA | 2013 | 0.12 | 0.05 | 28 | Milwaukee | WI | USA | 2007 | 16.62 | 6.42 | 5,993 | Tampa | FL | USA | 2002 | 2.13 | 0.82 | 256 |
| Charlotte | NC | USA | 2007 | 8.35 | 3.22 | 1,709 | Minneapolis | MN | USA | 2002 | 5.23 | 2.02 | 864 | Trenton | NJ | USA | 2013 | 1.64 | 0.63 | 648 |
| Chicago | IL | USA | 2008 | 39.31 | 15.18 | 19,018 | Nashville | TN | USA | 2007 | 6.19 | 2.39 | 1,066 | Tulsa | OK | USA | 2013 | 1.44 | 0.56 | 304 |
| Cincinnati | OH | USA | 2004 | 9.74 | 3.76 | 1,882 | New Bedford | CT | USA | 2013 | 0.30 | 0.12 | 119 | UCLA | CA | USA | 2013 | 0.17 | 0.07 | 207 |
| Cleveland | OH | USA | 2004 | 9.96 | 3.85 | 1,334 | New Haven | CT | USA | 2013 | 1.65 | 0.64 | 759 | USS Arizona | HI | USA | 2004 | 13.36 | 5.16 | 243 |
| Columbus | OH | USA | 2007 | 20.50 | 7.92 | 9,603 | New Orleans | LA | USA | 2004 | 7.89 | 3.05 | 4,412 | Virginia Beach | VA | USA | 2013 | 0.83 | 0.32 | 384 |
| Dallas | TX | USA | 2002 | 9.88 | 3.81 | 2,108 | Newark | NJ | USA | 2002 | 9.32 | 3.60 | 7,045 | Washington, D.C. | DC | USA | 2008 | 19.33 | 7.46 | 6,689 |
| Dayton | OH | USA | 2013 | 1.38 | 0.53 | 386 | Niagara Falls | NY | USA | 2004 | 20.95 | 8.09 | 3,954 | Waterbury | CT | USA | 2013 | 0.60 | 0.23 | 266 |
| Denver | CO | USA | 2002 | 5.63 | 2.17 | 1,774 | Norfolk | VA | USA | 2007 | 3.56 | 1.37 | 775 | West Palm Beach | FL | USA | 2013 | 2.48 | 0.96 | 695 |
| Detroit | MI | USA | 2008 | 7.39 | 2.85 | 1,423 | Oakland | CA | USA | 2013 | 1.68 | 0.65 | 1,316 | Wilmington | DE | USA | 2013 | 0.62 | 0.24 | 241 |
| Everett (Boston) | MA | USA | 2004 | 7.54 | 2.91 | 1,058 | Ogden | UT | USA | 2013 | 0.64 | 0.25 | 232 | Berlin | Germany | 2007 | 14.20 | 5.48 | 4,709 | |
| Fort Lauderdale | FL | USA | 2002 | 9.14 | 3.53 | 5,249 | O'Hare Airport | IL | USA | 2002 | 26.47 | 10.22 | 436 | Buenos Aires | Argentina | 2008 | 18.21 | 7.03 | 32,950 | |
| Fort Worth | TX | USA | 2013 | 0.87 | 0.33 | 194 | Oklahoma City | OK | USA | 2013 | 1.81 | 0.70 | 389 | Caracas | Venezuela | 2009 | 25.02 | 9.66 | 57,861 | |
| Fresno | CA | USA | 2013 | 2.02 | 0.78 | 645 | Omaha | NE | USA | 2013 | 4.19 | 1.62 | 923 | Comuna Santiago | Chile | 2008 | 25.51 | 9.85 | 54,419 | |
| Geo. Washington Br. | NY | USA | 2004 | 5.98 | 2.31 | 599 | Orlando | FL | USA | 2007 | 11.89 | 4.59 | 5,301 | Dubai | UAE | 2006 | 941.40 | 363.48 | 201,060 | |
| Glendale | CA | USA | 2013 | 0.64 | 0.25 | 386 | Pasadena | CA | USA | 2013 | 2.38 | 0.92 | 2,343 | Guadalajara | Mexico | 2010 | 10.71 | 4.14 | 32,130 | |
| Golden Gate Bridge | CA | USA | 2004 | 5.04 | 1.95 | 175 | Pawtucket | RI | USA | 2013 | 0.75 | 0.29 | 369 | Mexico City | Mexico | 2008 | 31.66 | 12.22 | 47,278 | |
| Grand Rapids | MI | USA | 2013 | 4.63 | 1.79 | 875 | Pentagon City | VA | USA | 2002 | 4.29 | 1.66 | 1,230 | Monterrey | Mexico | 2010 | 16.16 | 6.24 | 19,580 | |
| Hartford | CT | USA | 2007 | 11.90 | 4.59 | 2,136 | Philadelphia | PA | USA | 2010 | 14.12 | 5.45 | 16,109 | Montreal | QC/Canada | 2010 | 14.20 | 5.48 | 11,250 | |
| Honolulu | HI | USA | 2004 | 9.81 | 3.79 | 3,538 | Phoenix | AZ | USA | 2010 | 8.67 | 3.35 | 6,692 | Paris | France | 2007 | 14.23 | 5.49 | 14,590 | |
| Houston | TX | USA | 2010 | 8.44 | 3.26 | 1,872 | Pittsburgh | PA | USA | 2004 | 9.48 | 3.66 | 3,852 | Rio De Janeiro | Brazil | 2008 | 24.44 | 9.44 | 31,882 | |
| Huey Long Bridge | LA | USA | 2004 | 10.41 | 4.02 | 1,673 | Port of Miami | FL | USA | 2004 | 16.43 | 6.34 | 88 | Sao Paulo | Brazil | 2008 | 24.32 | 9.39 | 39,137 | |
| Indianapolis | IN | USA | 2007 | 11.31 | 4.37 | 3,325 | Portland | OR | USA | 2002 | 3.45 | 1.33 | 991 | Toronto | ON/Canada | 2010 | 14.35 | 5.54 | 9,164 | |
| Irvine | CA | USA | 2013 | 6.63 | 2.56 | 1,686 | Providence | RI | USA | 2007 | 10.29 | 3.97 | 7,349 | Vancouver | BC/Canada | 2009 | 8.94 | 3.45 | 2,265 | |
| Jacksonville | FL | USA | 2013 | 4.20 | 1.62 | 865 | Raleigh | NC | USA | 2013 | 2.25 | 0.87 | 638 | | | | | | | |
| Jersey City | NJ | USA | 2002 | 8.94 | 3.45 | 5,193 | Richmond | VA | USA | 2007 | 10.05 | 3.88 | 7,770 | | | | | | | |
| Kansas City | MO | USA | 2004 | 9.42 | 3.64 | 1,544 | Rochester | NY | USA | 2013 | 1.62 | 0.63 | 394 | | | | | | | |

Specifications

Imagery

- Imagery is RBG, positional accuracy no less than +/- 2' RMS
- Available for GIS and CAD software formats
- Digital Elevation Model provided

3D Buildings

- Buildings—positional accuracies of building models +/- 30cm
- Buildings developed illustrating external architectural structure
- Full topology—completely built and tested features dataset without gaps, dangles, overlaps, etc.
- Addresses (when available). In many cases all relevant address within each single structure are provided
- Optimized geometry for maximum efficiency and data storage capacity

Additional Attributes (when available)

- Surface elevation models and grids
- Transportation features and planimetric feature layers (streets, parks, etc)
- Building Photos and alternate address locations

Additional Available Customized Services

- Buildings may be textured using a variety of techniques to create generalized to highly realistic exterior facades
- Enhanced modeling provides buildings with generalized architectural structure detail:
 - 5 progressively realistic building types. Available as LOD0 though LOD5
 - Buildings are compliant per OGC CityGML standards.
- Full urban models complete with terrain, structures, imagery, and textured building models are available

Conditions and Deliverables

- Pricing catalog is subject to change and product is warranted for 90 days as defined in the EULA
- Several formats deliverable for use in GIS and CAD software
- Product deliverable via FTP or hard drive media
- Most orders can be shipped within 48 hours from date of purchase (depending on the size of the order). Tax, shipping and handling fees apply.

How to order

To order Sanborn 3D Cities products, or for information about cities not listed, cities to be updated, or for specific details and pricing, contact Sanborn customer service at 1.866.SANBORN or email information@sanborn.com.

About Sanborn

Sanborn is a 21st century industry leader in geospatial solutions and technology, offering superior services, program management, and customer support. For our clients we provide a national presence, extensive resources, quick responses, and exceptional value. For over a century, we have been a leader in the rapidly growing geospatial industry, with successful projects delivered worldwide. For more information, visit us online at www.sanborn.com, or call **1.866.726.2676** to speak with a representative.