

PLANIMETRIC PROJECT 2016



What is planimetric data?

Planimetric data refers to stationary infrastructure features that can be identified from the air and outlined on aerial imagery. DRCOG contracts with a vendor that uses our high-resolution Denver Regional Aerial Photography Project (DRAPP) imagery to manually draw each detailed feature.

What features did we collect?

- building roofprints (polygons) – *shown at right*
- edge of pavement (polygons and lines)
- parking lots (polygons)
- sidewalks (polygons and lines)
- sidewalk ramps (points)
- trails (lines)
- driveways (polygons)

Why does DRCOG collect planimetrics?

DRCOG's partners and member governments have many uses for planimetric data but had struggled to collect and maintain data in their areas. When done in an ad hoc fashion, these data sets can become cost prohibitive to acquire. DRCOG facilitated a consortium purchase of this data to make it affordable and more consistent across the region. DRCOG has been successfully using this model to acquire regional imagery for the past 15 years, and – as a result – was uniquely suited for the role of facilitator.

DRCOG's first planimetric project collected features from 2014 DRAPP imagery. Since every feature had to be manually drawn, the project was time-consuming and expensive. To ensure that such a significant investment was fully leveraged, DRCOG initiated an update project based on the 2016 DRAPP imagery. This project captured changes from the original data set, but did not redraw anything that hadn't changed. The result is an updated suite of features at a fraction of the cost of the original project.



How is planimetric data used?

This foundational data has many uses, including modeling water runoff, identifying sidewalk gaps, inventorying assets, simulating energy usage in buildings and urban development scenario planning.

Read more about specific use cases in our [newsletter](#).

What new analyses can the data facilitate?

The 2016 data contains information on changes including modifications, additions and demolitions. Potential applications include quantifying new impervious surface or locating recent infrastructure investments.

The image below shows modifications to existing buildings (orange) and new buildings (green) in downtown Denver.



By the numbers

COST OF DATA	\$212,000
NUMBER OF PARTNERS	27
SQUARE MILES COVERED	approximately 1,100
FEATURES CAPTURED	9

Accessing data

All data produced as a result of this project is available for free public download from DRCOG's Regional Data Catalog: data.drcog.org

Funding provided by:

Adams County | Arapahoe County | City and County of Denver | Jefferson County | City of Arvada | City of Aurora | Town of Bennett | City of Boulder | City of Centennial | City of Commerce City | City of Englewood | Town of Erie | City of Fort Lupton | Town of Frederick | City of Glendale | City of Golden | City of Greenwood Village | City of Littleton | City of Lone Tree | City of Louisville | City of Thornton | City of Westminster | City of Wheat Ridge | Town of Windsor | Denver Water | Regional Transportation District | Denver Regional Council of Governments

If you have any questions or comments about the planimetric project, please contact Ashley Summers, DRCOG information systems manager, at asummers@drcog.org or 303-480-6746.