

Land Use Delineation through the Rectification of Historic Sanborn Maps.

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Overview: The Indiana Geographic Information Council IGIC has long recognized the importance of remotely sensed data. The latest effort to encourage the use of such data was through the collaborative project with Wayne County/City of Richmond GIS Interlocal.

With funding from IndianaView consortium a project was undertaken to demonstrate the feasibility and process to rectify each set of electronic Sanborn map pages within the communities of Wayne County to the GIS base map. Through this process, 310 non-georeferenced images now make up 16 rectified raster mosaic datasets. Comparisons can now be made between current GIS layers to historic property boundaries, street names, house numbers, along with building footprints, names, use and type of construction.

The Sanborn Map Company was the primary American publisher of fire insurance maps in the United States for nearly 100 years. These maps aided insurance agents in estimating fire insurance liabilities within the urban areas of communities. The maps provide a detailed account of urban development and change in communities from late 1800s through much of the 1900s.

In 2011 a joint venture between IU and the Historical Information Gatherers Inc. made available for download the electronic version of the Sanborn fire maps for over 300 communities within Indiana. Through the Indiana Spatial Data Portal (ISDP) these electronic copies are available for download at <http://gis.iu.edu/>.

It was through this availability that the effort was undertaken to download and rectify the electronic map files to the local GIS base map.

Justification: Here are just a few documented beneficiaries that have been identified over the years:

- Archeologists
- Educators
- Environmental assessment firms
- Historians
- Lawyers
- Utilities

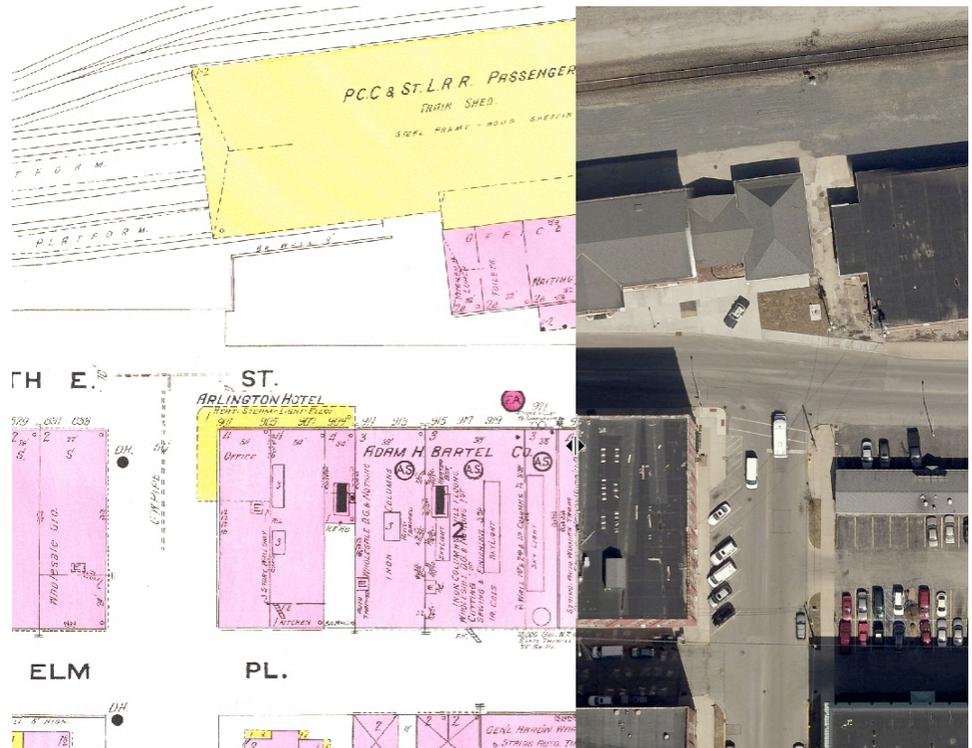


Figure Side by side comparison of the 1909 Sanborn map of the Pennsylvania railroad depot in Richmond Indiana.

These organizations routinely use this information for:

- Assessing environmental sites
- Determining historic land use
- Documenting historical sites
- Making of environmental studies/assessments

Results: Considering the amount of time and detail given to each image (on average one hour was spent to crop, edge match and rectify each original electronic Sanborn map) a project such as this is worth considering. Even as this project was drawing to a close, this imagery was used to explain a complication encountered requiring a construction project to be stop and re-scoped. Had this imagery been made available at the planning phase of this project, major costs and time overruns would have been avoided.

FOR FURTHER READING:

"Public access to Indiana's historic Sanborn maps provides treasure trove of information" September 30, 2013
<http://newsinfo.iu.edu/news/page/normal/20230.html>