

NJ Digital Tax Maps Computer-Aided Drafting (CAD) Standards

All digital tax maps shall be referenced to the North American Datum of 1983 (NAD 83) New Jersey State Plane Coordinate system (Feet). Control points shall be included within the tax map digital files on the appropriate layer/level, with the coordinates annotated to the nearest foot. Relationship of Control Points to Tax Map line work shall be shown. A minimum of four control points shall be included on each tax map sheet. The control points shall be spread as far apart as practical. Tax Map sheets shall be prepared so that all common lines on different sheets are coincident with each other. Unreferenced digital tax maps are not acceptable.

The Grid System shall not be used to create detail sheet for the tax maps. Detail sheets shall be laid out as systematically as possible to make the tax map easy to understand. Streets, roads, highways, streams, and railroads must be used as sheet limits, unless it is impractical to do so.

To facilitate the production of digital tax maps, the New Jersey Digital Tax Map Task Force has prepared a standard template for creation of digital tax maps that will meet the State of New Jersey Tax Map Standards. This will also simplify other future processes of data extraction from the digital tax maps, including such statewide cadastral datasets as parcels, easements, and right-of-ways. Uniform layer/level structure will enable the appropriate data to be picked up by any data extraction application with very little manual work, dramatically reducing the cost, as well as any possible errors or omissions.

The use of this template in tax map preparation by municipalities will help standardize how tax maps are prepared statewide, greatly improving the approval process for tax maps by the State of New Jersey. The amount of time needed to obtain tax map approval would be greatly reduced. As an example, one New Jersey municipality recently used the beta version of the tax map template to prepare their latest tax maps. Their tax maps were approved by the state with very little comments or corrections needed. This will also reduce the cost of tax map preparation for municipalities. By creating this template, municipalities will no longer have to invest the time or money into preparing their own CAD standards for tax map preparation.

The beta version of this template has been distributed to licensed land surveyors throughout the state over the last several months. Very little negative feedback was received from land surveyors in regards to the template. The task force did incorporate any feedback from land surveyors in its discussions on the finalization of the template.

The template was created for use in the two predominant CAD platforms (AutoCAD and Microstation). The template consists of the following files:

- Library File
- Seed Files
- Pen Table

The Library File contains all of the Layer/Level information including layer/level name, color, line type, and line width. The Library file is linked to the seed files. As long as the user uses the by-layer or by-level settings in production of their maps, the digital tax map will always have the appropriate settings for all of the objects.

The layer/level names developed by the task force were adapted from the Surveyor Layer/Level Structure found in the National CAD Standard developed by the National Institute of Building Science.

The line types are based on the current State of New Jersey Tax Map Standards. The line widths are based the Metro Washington Airport Authority's CADD Standards. These line widths are the on-screen line widths only, but they are a substantial part of the control for the plotting of the tax maps using the Pen Table.

The Seed File contains the blank map sheet template and text styles. There are two seed files one for the index sheet and one for the detail sheets. The seed file uses the Library File to obtain the layer/level information. The text styles contain all of the information for constructing the required text at each of the scales used for tax map production. The text styles are set-up to meet the State of New Jersey's Tax Map Standards.

The Pen Table is attached during the plot set-up process for each map. It controls what will plot and the final plotted line type/line widths. Both of these items are based on the State of New Jersey's Tax Map Standards.