Frequently Asked Questions about MnDOT Railroad Maps

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Q: What were the main objectives of the project? What are the results and end products?

A: The purpose of this project was to index and preserve the sizeable collection of railroad documents held by MnDOT. These documents included railroad valuation maps, railroad station plats, and railroad right of way maps. The paper maps are fragile and it was difficult to find and retrieve documents for any given location. The maps were scanned and converted to a digital form. GIS technology was applied to create a spatial index. These documents can now be accessed from MnDOT's Right of Way Mapping and Monitoring website (found at http://www.dot.state.mn.us/maps/gisweb/row/) or on MnDOT's eDIGS site (found at: http://dotapp7.dot.state.mn.us/eDIGS_guest/Home/About)

Q: What can these railroad maps be used for? Who uses them?

A: The maps can help with determining an alignment of abandoned railroad lines or other boundary lines associated with the railroad. They can also be aid in restoration of Public Land Survey System (PLSS) corners or in determining title ownership of current or former railroad right of way. Users of these maps include various MnDOT offices involving surveys, right of way, land management, planning, design, maintenance, and utilities. The maps are also used by land surveyors, attorneys, engineers, utility companies, local governments, or anyone interested in railroad maps.

Q: Why is this project important?

A: The results of the project have increased the efficiency of retrieving information pertinent to legal rights and alignment of existing and abandoned railroads. Converting these maps into a digital, easily accessible format has helped in their long term preservation by substantially reducing the amount of their handling. The project has provided a basis for negotiating access to other records held by railroad companies and may help to foster more constructive relationships with them.

Q: What information does the data provide?

A: Collectively the maps provide a visual index map to historic railroad information. The digital files of scanned and georeferenced rail maps can be viewed online and are available for direct download. Historic railroad company names and other associated attributes relative to the digital maps are included. The web application enables railroad map data to be mixed and compared with other digital data sets for user reference and further analysis, thus providing customers a more comprehensive product. The maps can be downloaded in either TIF or PDF format.

Q: Who was involved in the project?

A: MnDOT's Office of Land Management worked in cooperation with MnDOT's Office of Freight, Rail, and Waterways (previously named Office of Freight and Commercial Vehicle Operations).

Q: How current is this information?

A: The time period of the maps ranges between 1918 and 1974. The Minnesota Department of Transportation received the maps from the Railroad and Warehouse Commission in 1974. For present-day information on rail ownership, do not rely on these historical maps; instead, contact the specific railroad company or the county where the rail line is located.

Q: Where do these maps come from?

A: The maps were created by surveyors and engineers in the early to middle 1900's. MnDOT received the printed paper maps in 1974 from the Railroad and Warehouse Commission which later became the Department of Public Service. Included in the original package of documents that MnDOT received were the Land Valuation Maps and Station Plats (MnDOT kept these); the profile maps MnDOT gave to the Minnesota Department of Natural Resources (in 2013 MnDOT got them back); and the ICC Accounting Reports and ICC Land and Engineering Reports which MnDOT gave to the Minnesota Historical Society. Another set of maps referred to as railroad right of way maps were acquired by MnDOT directly from the railroad companies in the early 1970's for use in developing Minnesota Transportation Data System.

Q: What is the difference between the valuation map, station plat, and RR r/w map?

A: The major differences between the three types of maps involve scale and the type of data they provide. Valuation and right of way maps are usually smaller in scale and cover more track than station plats. The station plat maps being of a larger scale contain much more detail for the area represented. Valuation maps contain the same type of data as the right of way maps plus detailed data relative to the acquisition of the railroad right of way.

Q: What is shown on the maps?

A: The right of way maps have the following data relative to the railroad right of way: land lines (e.g. Public Land Survey section lines, quarter lines and sixteenth lines), centerline alignment including curve

data used to define the right of way, land ties (e.g. distances and angles between the centerline and land lines) and the right of way width. The valuation maps contain the same data as the right of way maps plus data relative to the acquisition of the railroad right of way. This acquisition data includes: the grantor, grantee, type of acquisition (e.g. warranty deed, quit claim deed, easement, land grant, etc.), date of acquisition, purchase price and book and page where acquisition documents are recorded. The larger scale of the station plat maps enables the depiction of greater detail as such as physical improvements including utilities, buildings, and fences, with size and location measurements. If there are subdivision plats in the area, right of way is often located relative to platted lots and blocks with measurements shown.

Q: What are the earliest and most recent dated maps available?

A: The 4300 railroad maps range in age from 40-90 years old. For older or more recent maps, contact MnDOT's Office of Freight, Rail, and Waterways.

Q: Is there information on abandoned railroad lines?

A: The Office of Land Management has developed a centerline data set showing all abandoned rail lines involved in the Railroad Map Conversion Project (see link on main project page). Also useful are statewide railroad maps which are posted on this site dated 1917 and 1930. For additional information on abandoned railroads, contact MnDOT's Office of Freight, Rail, and Waterways or the Minnesota Historical Society.

Q: What is the scale of the mapping?

A: Valuation and right of way maps are typically a scale of 1 inch = 400 feet and station plats are a scaled of 1 inch = 100 feet or 1 inch = 200 feet.

Q: Where are the typical map extents? Does a single map cover an entire railway?

A: Maps very greatly in size across the state. Typically a valuation or right of way map will cover between 1-5 miles of track. A station plat usually covers anywhere from ¼ mile to 2 miles of track.

Q: How are the maps indexed?

A: The original paper maps have been indexed based on a system of numbers and letters (i.e. 805D, 1361aC) adopted by the Railroad and Warehouse Commission when they administered the maps. For this project the paper maps were separated based on their original coded sheet segment and scanned as individual TIF files. Each individual map segment or section was given a number (i.e. 1384Cs1, 13843Cs2, 1384Cs3, etc.) and indexed spatially. Prior to this project the process of locating a map for a specific location was extremely difficult and time consuming, even with finding aids and reference materials, thus the impetus for the conversion and spatial index.

Q: Is there a charge for the maps?

A: No. Each map is available for download free of charge at MnDOT's Right of Way Mapping and Monitoring site.

Q: Are the maps available on a website? Is there an FTP site?

A: The maps are available online but not through an FTP site. Digital maps can be found on MnDOT's Right of Way Mapping and Monitoring website (at: http://www.dot.state.mn.us/maps/gisweb/row/) or eDIGS (at: http://dotapp7.dot.state.mn.us/eDIGS_guest/Home/About).

Q: Where can I find a railroad basemap?

A: General <u>statewide index maps</u> showing existing and abandoned railroads, valuation map footprints, and station plats (found at: http://www.dot.state.mn.us/surveying/railroad.html). If you are interested in obtaining the shapefiles used to create this map, send email message describing the details of your request to: <u>LISRWMAP.dot@state.mn.us</u>. Other sources for statewide coverage include the 1917 and 1930 editions of statewide railroad maps available on Land Management's Historical Railroad Map website.

Q: Can I get a map for a specific location? What references are needed to find a map?

A: Using the Right of Way Mapping & Monitoring (RWMM) interactive viewer (found at: http://www.dot.state.mn.us/maps/gisweb/row), click "Launch RWMM Application", make sure you check "ROW Rail Footprints" and ROW Rail Station Plats under the "ROW Layers" folder and zoom into the desired area. Click the desired area. If a map exists it will appear in the pop-up along with several attributes for the map. If there is more than one map for the area selected click the small white arrow in the banner to change between the maps.

Q: I'm not sure of the name of the railroad. How do I find the map I'm looking for?

A: The railroad name is not needed to obtain the map desired. When selecting a given map the name of the railroad will appear in the attribute table.

Q: How do I know if I have the most current map?

A: If the railroad is still in use, a more current map may exist. Contacting the railroad company directly is advisable. Any alignment shown on the map that was used to purchase the right of way may or may not be current.

Q: How accurate are the images? What coordinate system do they use?

A: The images have been georeferenced to within approximately 200 feet of the rail line and the public land survey (PLS). All maps are georeferenced in UTM Extended Zone 15 coordinates, stored in meters, and referenced to NAD 83 and GRS 1980.

Q: Do you have metadata on the right of way map data?

A: Yes. General metadata for the railroad data and the conversion process exists online under the "Metadata" link in the attribute table.

Q: Are there other related documents that were not included in the conversion project?

A: The Office of Land Management has the corresponding railroad profile plans. Unfortunately the profile plans are not available electronically and exist only in their original rolled paper format. These maps are in boxes and are not indexed. Another map series, the Sectional County Maps provide a general perspective for the location of railroads as they existed in 1936 when this map collection of maps was prepared. The scale of these maps is 1 inch equals 1.3 miles and provided the basis for the centerline dataset of abandoned and active railroads in RWMM. The maps themselves can be viewed and downloaded from MnDOT's eDIGS website and are searched using the Railroad Maps section of this application. As far as other related documents, the Minnesota Historical Society holds the ICC (Interstate Commerce Commission) land and engineering reports and the Minnesota Department of Natural Resources holds profile maps related to MnDOT's railroad maps.

Q: Where do I go for current railroad right of way information?

A: MnDOT's <u>Freight, Railroads, and Waterways Section</u> contacts (website: http://www.dot.state.mn.us/ofrw/contacts.html)

The mailing address for the Office of Freight, Rail, and Waterways is:

Minnesota Department of Transportation Office of Freight, Rail, and Waterways 395 John Ireland Blvd St. Paul, MN 55155-1800