

EMS

Easement Mapping Solution

AUTOMATED MAPPING OF RIGHT-OF-WAY AND EASEMENTS USING AI/ML

Key Business Drivers

1. Delivers high precision easement data extraction from deeds, plats, and handwritten records using AI

2. Reduces upto 80% costs through AI-powered automation

3. Speeds up easement clearance with streamlined data for faster permits, legal reviews, and deployments

4. Provides spatially validated, audit-ready records that meet legal and regulatory compliance

5. Integrates effortlessly with open source tools and enterprise systems to unify geospatial workflows

Accessing right-of-way and easements is essential for utility operators managing infrastructure assets. However, much of this critical information - some dating as far back as the 1890s - exists only as handwritten notes or linework on physical Public Land Survey (PLS) grids. Interpreting and converting these legacy records manually is slow, error-prone, and costly. In such scenarios, easement mapping is essential for identifying, managing, and understanding land rights - crucial for property transactions, construction, and infrastructure development.

EMS is a proprietary easement mapping solution that leverages advanced AI/ML and Natural Language Processing (NLP) technologies to automatically detect and map legal descriptions, bearings, and distances. These AI/ML based techniques train models, validate and interpret the lines and text to convert raster easements into digital information.

Solution Highlights

- Leverages multimodal AI models for intelligent text extraction from scanned documents
- Automatically detects and maps legal descriptions, bearings, and distances
- Stores extracted spatial data in a structured database
- Uses open-source tools to generate polygons on georeferenced grids

Business Benefits

- Efficiency: Significantly reduces manual effort through automation
- Accuracy: Enhances precision in text extraction & spatial mapping using AI/ML
- Reduced Cost: Automation reduces the TAT and increases cost efficiency
- Visual Representation: Provides a single resource for researching easement data. Enables visual representations of the data via mapping application

Key Industries



Utilities



Cities



Public Works

USE CASES

BEGINNING at the Northeast Corner of said Section 4, Thence North 89°29'40" West, 50.02 feet along the North line of said Section 4 to the existing Westerly Right-of-Way of _____ as described on the plat of Barnstorm Second Addition recorded at Rec. No. 86044345 of the records of _____, Thence South 01°20'51" West, 193.72 feet along said existing Westerly Right-of-Way, Thence North 45°41'44" West, 85.33 feet; Thence North 00°00'00" East, 218.62 feet; Thence North 45°41'44" East, 75.53 feet; Thence North 89°34'26" East, 60.59 feet to the East line of the Southeast Quarter of said Section 33; Thence South 00°24'41" East, 138.20 feet along said East line to the **POINT OF BEGINNING**;

COMMENCING at the Northeast Corner of said Section 4, Thence North 89°29'40" West, 50.02 feet along the North line of said Section 4 to the existing Westerly Right-of-Way of _____ as described on the plat of Barnstorm Second Addition recorded at Rec. No. 86044345 of the records of _____, Thence South 01°20'51" West, 193.72 feet along said existing Westerly Right-of-Way to the **TRUE POINT OF BEGINNING**; Thence North 45°41'44" West, 85.33 feet; Thence North 00°00'00" East, 218.62 feet; Thence North 45°41'44" East, 75.53 feet; Thence North 89°34'26" East, 60.59 feet to the East line of the Southeast Quarter of said Section 33; Thence North 00°24'41" West, 14.00 feet along said East line; Thence South 89°34'26" West, 66.20 feet; Thence South 45°41'44" West, 115.02 feet; Thence South _____

Legal Deeds with Bearings & Distances in Text Format

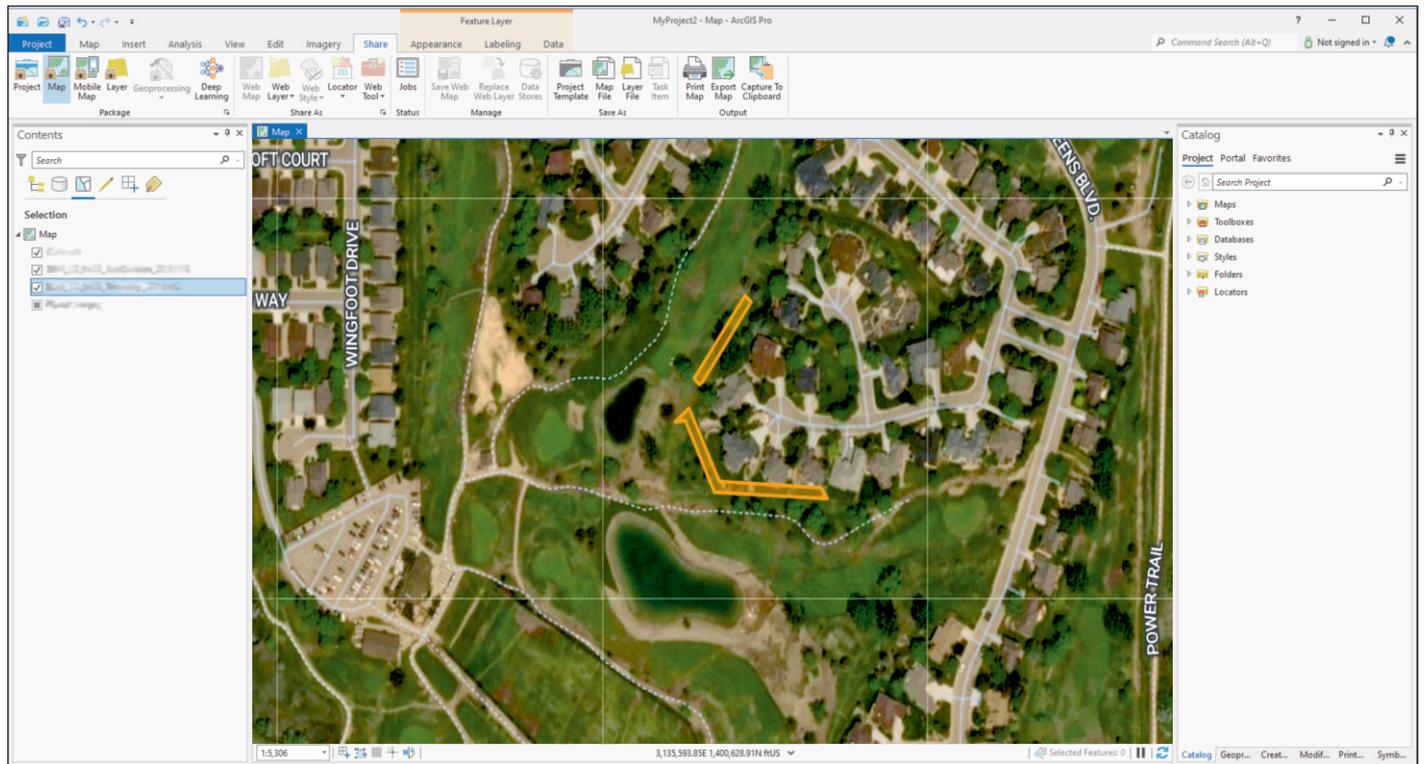
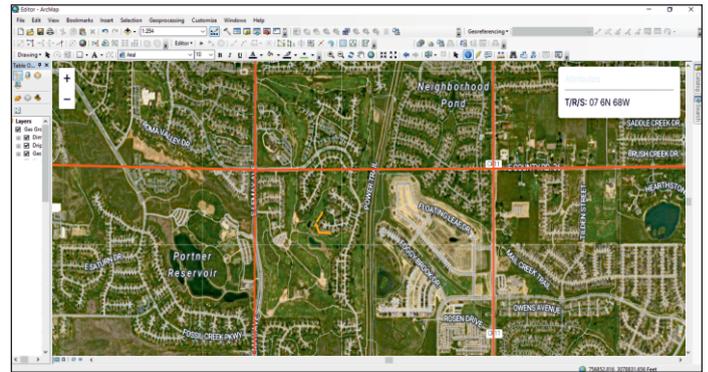
COGO Engine



AI / ML



PLSS Grid Map Showing Township Boundaries



Easements Generated Automatically in GIS

For further information, please contact info@rmsi.com or visit www.rmsi.com