Right of Way Resource Assessment

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Streets
Right of Way
District of Columbia
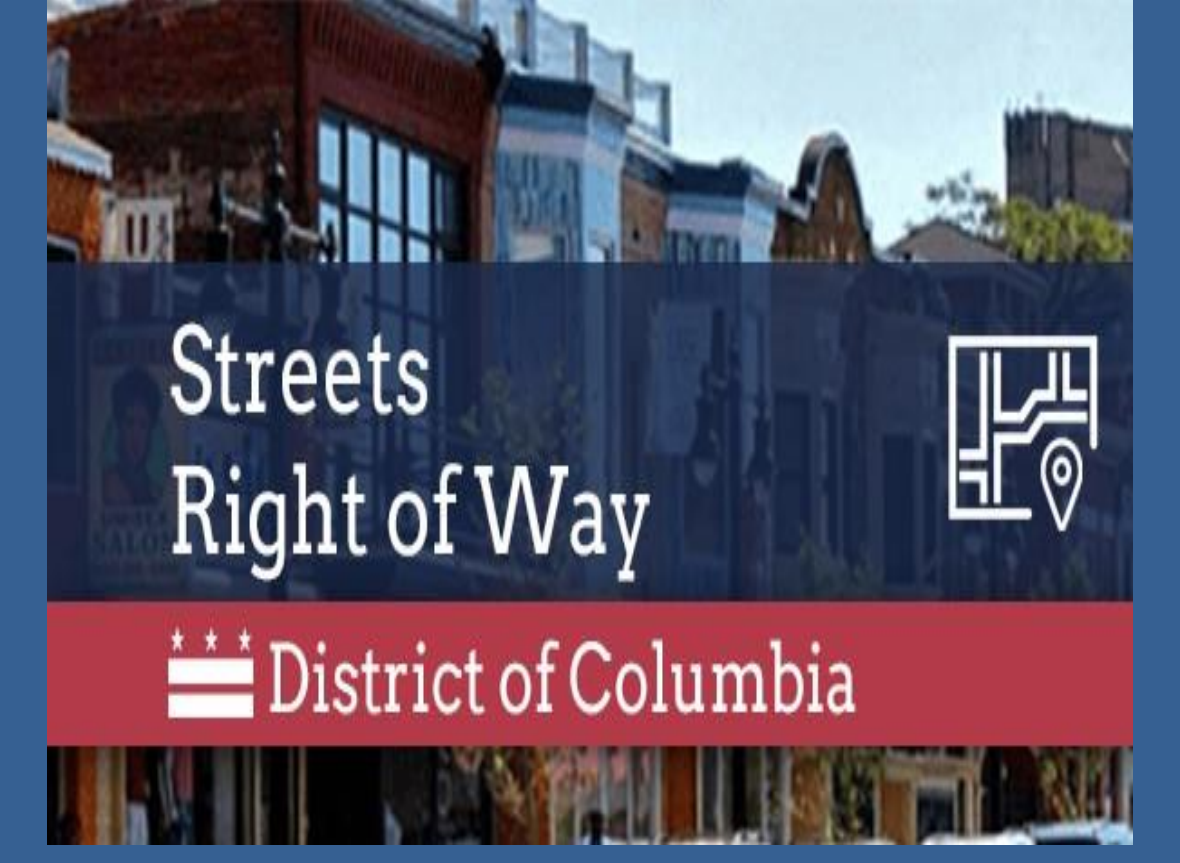
Abstract

This poster outlines the key findings and insights gained during a summer internship with the Right of Way (ROW) team at the District Department of Transportation (DDOT) in 2023. The internship involved comprehensive research and analysis of District ROW resources, exploring methodologies, and enhancing processes for solving ROW inquiries. The study delved into the use of various resources, including GIS maps, databases, and external validation sources, shedding light on the collaborative efforts and tools utilized for effective ROW management.

Introduction

Urban development and transportation infrastructure rely on accurate Right of Way (ROW) data to ensure proper land usage and project execution. The District Department of Transportation (DDOT) plays a vital role in maintaining and optimizing ROW processes. This poster presents the outcomes of a summer internship that focused on researching and analyzing ROW resources, investigating methodologies, and enhancing data visualization and validation techniques.

Methods

- Collaborated closely with the Right of Way (ROW) team at DDOT to understand their workflow and challenges.
- Designed a questionnaire targeting various DDOT departments to gather insights into ROW research methodologies, data visualization tools, collaboration practices, and validation sources.
- Analyzed survey responses and compared practices to identify trends and opportunities for enhancement.
- Explored and utilized resources like Surdocs, GIS maps, property databases, and field surveys to solve ROW inquiries.

Results and Discussions

Our investigation into how different departments at the District Department of Transportation (DDOT) handle Right of Way (ROW) matters has revealed diverse approaches. Some departments tend to do their own research, while others collaborate closely with the dedicated ROW team. This collaboration highlights the importance of combining skills for accurate ROW data management.

A significant facet of our findings revolves around ongoing initiatives to enhance the precision and accessibility of ROW resources. Noteworthy examples include the Public Space Regulation Department's (PSRD) utilization of the TOPS permitting database for ongoing Geographic Information System (GIS) enhancement. This innovative approach demonstrates a concerted effort to improve ROW accuracy by integrating permitting data. Moreover, the Information Technology (IT) team's application, Protrack+, offers a practical solution to streamline ROW processes. This ongoing initiative optimizes ROW management through advanced tracking and data integration. These efforts demonstrate DDOT's commitment to continuously improving ROW management, ultimately making urban planning more efficient for everyone involved.

Conclusions

The summer internship at DDOT yielded valuable insights into ROW research methodologies, data sources, and collaboration practices. The project contributed to the development of enhanced ROW processes through improved visualization, validation, and conflict resolution techniques. Furthermore, to ensure the consistency and accuracy of ROW information dissemination, several recommendations are put forth:

1. Training on different platforms including the layers or select specific platforms to be used
2. Cross referencing/checking/verifying data is consistent on all platform, and Surveys is the best source for verifying the data.
3 .Create Standard Operating Procedures (SOPs) to update recorded data and Project improvements (ROW Distribution) internally and other agencies until preferred platform/GIS is updated
4. IT/GIS option to report issue and/or discrepancy that can be updated with supporting data as verified.

Acknowledgement

Departments	Primary Visualization Tools and ROW Data Sources	Layers Used For Visualization	External Validation Sources	When is the External Validation Sources Used	Ongoing Initiatives For The Right of Way	Conflict Resolution Techniques
Public Space Regulation Department (PSRD)	- ArcGIS - Google Map Street View	Building restriction line layers, Street centerlines, Property owner information Permit data	Field inspections by the team	Always	Using TOPS (permitting database) for having ongoing GIS enhancement	Searching Governmental Records, Field Inspections, Collaboration with Right of Way and the Legal Team
Infrastructure Project Management Administration (IPMA)	- Cyclomedia - Zoning maps:maps.dcoz.dc.gov	Property lines, case report,measurements for finding the area, perimeters of the property and the right of way	Surveys	Beginning of Engineering Design	Training within the team to determine Right of Way information	DC Office of Surveys
Asset Management Team	- Google Map Street View - GIS map (ArcGIS) - Distribution Cards - Surface Maps	Measurement of Areas/Perimeter,, Historical right of way, right of way polygons, street right of way polygons, property ownership data	Field Inspections (No Surveys)	During Court Case	Training within the team to determine Right of Way information	Assistance from the Right of Way Department
Information Technology (IT) Team	- Launch on protrack and enter the locations in GIS module and get the location.	Squares, suffix and lots (SSL) in map	So far not integrated with ROW, but have developed a independent service module, which might be used in future	Surveys should be conducted ahead of right of way acquisition	Protrack+ Application where all the data in one database, easier for data sharing with multiple agencies.	Data Analysis, Collaboration with ROW Team
Right of Way	- DC Real Property Finder - Surface Maps - Distribution Cards - Surdocs - Google Map Street View	Street Right of way polygons, Street Right of Way, Highway Plan, Alley Frontage Lines, Alley and Street Changes	DC Lims - Legislation Surdocs Recorder of Deeds Surveys	Always	Coordination with Surveys, Coordination with Departments and Agencies to rectify discrepancies	Data Analysis Legal Interpretation Chronological orders of Data