

## Rights-of-Way Digital Data Management

Managing R-O-W at a County scale requires ready access to precise data over hundreds of miles of roads. In many rural road cases, for capacity expansion purposes, the R-O-W is significantly wider than current paving width. (In situations with beach erosion over decades on e.g. Birch Bay Drive, the current paved width is no longer centered within the R-O-W. To complicate this situation for County enforcement of abandoned cars, in some cases public parking spaces have been created beyond where power poles are located, thus making these poles an unreliable indicator of where the public R-O-W extends. Similarly across from Birch Bay beach some home owners have built fences on public R-O-W, with no safe shoulder for public to walk on).

The key internal users of R-O-W within the County will be Planning and Development Services, Public Works, and Sheriffs, but Assessors and Parks & Recreation are also data users/providers.

The basic ROW data is currently available through scanned land property records, available in electronic form as either high-resolution TIFF or zoomable PDF files. Street center-lines have also been stored as vector data in GIS, but currently no publicly accessible electronic display records exist for county roads showing lane widths, presence of bike lanes, shoulder width etc.

For publicly controlled utilities such as electrical poles, natural gas lines and cable, data exists solely within the records of utility companies: e.g. PSE, Cascade Natural Gas, ComCast, Verizon

Take for example the case of a road becoming urbanized: changing from two-lane road with ditch on both sides and power poles on one side, to buried power and cables plus sidewalk, median, gutter and storm-water sewers.

As more portions of Whatcom County UGA's become urbanized, the County faces an increasing need to keep track of where buried utilities are located in public space, thus greatly increasing a need to keep track of construction information. This may include the County keeping track of where the utilities branch off a buried main to a private property boundary, or negotiating ready access to utility spatial data as required in a "federated" spatial data partnership with the utilities.

To do this effectively requires GIS to be more fully deployed within transportation, showing all widths, shoulders etc, as well as separate data layers for all buried infrastructure; for which the sources typically are CAD drawings from either Whatcom County Engineering or by developers.

Other documents that it will be vital to "georeference", for any given road line segment, are the source paper documents which are the legal source of the R-O-W dimensions being displayed.

This is an area where it would be smart to partner with both the City of Bellingham and WSDOT Mount Baker Office on data exchange standards and geospatial systems architecture. To be fully effective, such data is best handled within an enterprise spatial database structure, with the ability to accommodate vectors, aerial imagery, CAD data, survey data and georeferenced documents.

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