

### 7.4.3

#### The Development and Management of a Multi-Source Statewide Geo-LRS Database

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Nevada DOT has developed a process to compile and maintain a multi-source LRS, Street segment, and Intersection node database. This database (called CDS for County Data System) is comprised of commercial and local GIS datasets and is designed to manage both the temporal and quality changes within a street geometry and linear reference attributes. The construction and maintenance of the CDS database is accomplished through usage of COTS conflation and LRS tools (GeoMedia Transportation and Fusion) and staff procedures. Some of the CDS system procedures include data maintenance to update and replace wholesale sections of the state linear base map as new sections are developed or refined (either from constituent counties, NDOT GPS Surveys, or commercial sources)

The initial users of this coordinated spatial and linear reference database is the Safety Engineering section in order to manage, track, and mine the states collision and safety data. As the program progresses NDOT will try to standardize on this transportation “base map” and provide a web services platform for other departments and organization based on the CDS.

This paper will present the problems, resolutions, and lessons learned that NDOT, ITIS and Intergraph have encountered while developing this statewide geospatial LRS database.