

“Managing Oversize/Overweight Load Movements in Texas”

Adequate management of oversize/overweight (OS/OW) permit loads throughout the state of Texas is critical to maintaining a vibrant state economy. The growth in the number and size of permit loads in recent years is clear evidence that new tools and new techniques are needed to match this growth without causing undue delays to permit applicants. Problems such as increasing prevalence of reroutes due to maintenance and other district activities, along with potential damage to the highway infrastructure from permit loads led to this research project. One other significant achievement to help resolve these issues which came online in August 2011, is a new automated routing program—Texas Permit Routing Optimization System (TxPROS).

Research objectives are to:

- Identify the most common OS/OW dimension and weight groups.
- Identify criteria for assigning these OS/OW groups to existing road networks.
- Identify criteria for assigning current and projected OS/OW groups to the future road network upgraded to meet future demand.

The research team investigated historical OS/OW routes throughout the state of Texas using a six-year database of over 3 million permits from the Texas Department of Transportation (TxDOT) Motor Carrier Division (MCD). Using a Geographic Information System (GIS) made this analysis feasible and allowed the research team to create a large number of maps for further analysis. After establishing the primary OS/OW routes, researchers used a restriction database from the TxPROS contractor to investigate why existing routes were longer than optimal routes. The results include a statewide map indicating the primary and alternate OS/OW route networks and tools to optimize the future movement of OS/OW loads. These results offer possibilities for managing OS/OW loads that have heretofore not been available.