

GEOGRAPHIC INFORMATION SYSTEMS (GIS)



Geographic Information Systems (GIS) software is used to visualize, analyze and synthesize spatial data such as transit routes, demographics, and travel patterns. Nelson\Nygaard's GIS expertise has become integrated into the transportation planning process, providing strong quantitative data to support difficult planning decisions. Using ESRI's ArcGIS software, the firm offers:

Geospatial Statistical Analysis

How many employees can walk to a train station or bus stop? How many trips originate outside the ADA boundary? Nelson\Nygaard uses GIS to answer these and other geographic questions. The firm analyzes statistics for a variety of transportation projects, from bus service design to parking studies. We work with clients to frame questions, develop a methodology to find answers, and communicate results clearly and concisely.

Transit Evaluations and Service Design

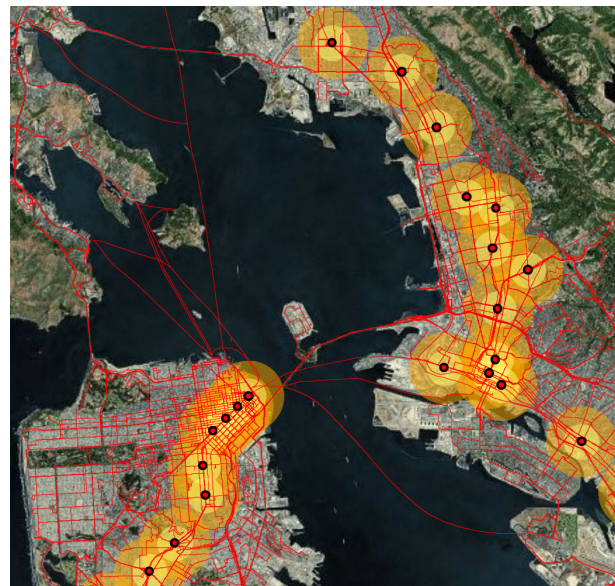
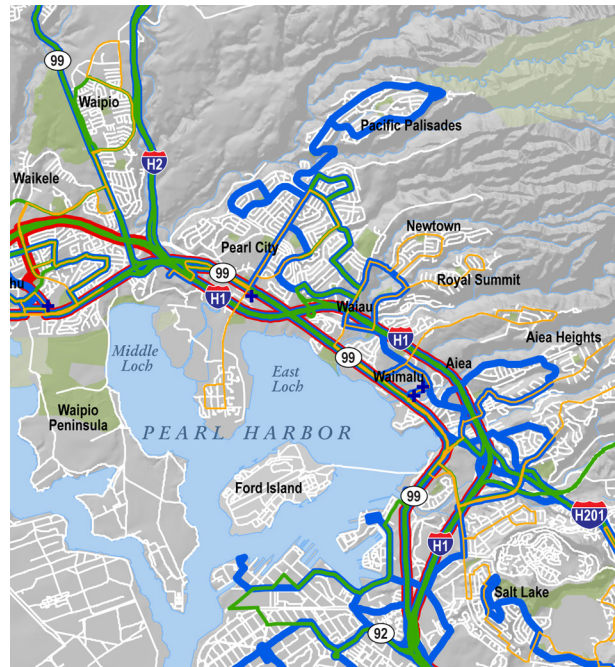
Analysis of the spatial relationships between existing transit routes and potential riders indicate the optimal locations for future transit routes and areas for route realignment. Using GIS, we map present and future population and employment concentrations against existing route structures to identify areas that are or will be under-served.

GIS Database Development

GIS databases are often developed as part of project analyses and can be provided as deliverables. We can build on what you have, whether you already have a robust enterprise GIS or are just starting out.

Cartography and Map Production

The firm's cartographers produce exceptional, high-quality maps that communicate geographic information successfully, as user-end products (brochures, station displays) or process tools visually representing planning goals.



Recent Projects include:

- **Transit Cooperative Research Project, Washington DC** — Car-Sharing Market Analysis
- **California Department of Transportation, California** — Rail Right-of-Way GIS Database
- **Seattle, Washington** — Urban Village Transit Network Study