Wisconsin TOPS Lab
ITS Program Overview

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January 2014
TOPS Lab Transportation Operations and ITS Services

- System Development
  - E.g., 511 Traveler Information
- Planning for Operations
  - E.g., TOIP, Probe Data
- Systems Engineering
  - E.g., ITS Architecture
- ITS & ITS Net Inventory
  - E.g., SpatialInfo
- GIS
  - E.g., Mapping Applications and Products
- ITS Evaluations
  - E.g., Ramp Metering, Bluetooth
- Multistate Operations
  - E.g., GLRTOC, LMIGA, NWP
- Emerging R&D Initiatives
The ITS Process Cycle

- Construction, Deployment
- Systems Engineering, Design
- ITS Architecture
- Planning, Investment
- GIS, Analysis
- Spatial Inventory, Asset Management
- Systems Integration, Documentation
- Configuration Management
The ITS Process Cycle - Planning

Recommendations, Requests, Investments

Planning, Investment

Spatial Information

Deployment Density Classes
- Baseline
- Low
- Medium
- High
Wisconsin Traffic Operations Infrastructure Plan
The ITS Process Cycle - ITS Architecture

Systems Engineering, Design

ITS Architecture

Recommendations, Requests, Investments
The ITS Process Cycle - Implementation

- Systems Engineering, Design
- Construction, Implementation
- Systems Integration, Documentation

Configuration Management Loop
511 Traveler Information

Zoo Interchange Project

Overview

About History

Project features

Overview Map Travel Times Closures Gallery News Resources Schedule

Utility coordination

In addition to the improvements to local roads and the freeway system, the Zoo Interchange project involves the relocation of many area utilities. The power corridor that shares geology with the Zoo freeway provides reliable power to the most impervious areas of the state. WSDOT is working closely with local and regional governments, utility infrastructure, the American Transmission Company (ATC) regarding the impact to the transmission lines, and WPS Energy regarding their infrastructure.

The replacement of utility infrastructure will result in more modern, reliable equipment in the Zoo interchange, saving the cost of the region. ATC is replacing the lattice towers with poles resulting in a smaller footprint and cleaner look along the freeway.

Starting in 2012, drivers using the Zoo freeway system will see construction and relocation activities at the area substations and along the power corridors.

Utilities at a glance

- Transmission Lines & Substations
- WE Energies – Tunnels, Electric, Gas, Steam, Power Plant
- Local governments
- MPS
- Communications – 13 Companies
- Railroads, Petroleum Pipelines

Railroad coordination

WSDOT will reconstruct railroad bridges and a railroad tunnel underneath the intersection of Highway 190 and Blumond Road. To close a railroad for a full weekend would add about 12 million to the project cost. Instead, we are building the new segment parallel to the existing railroad so we can minimize impacts to the rail service to build the connections.

Locations:

- Railroad bridge over I-94, built on a new alignment
- Tunnel beneath West 100 and Blumond Road intersection
- US 45 railroad bridge near North Avenue

511W1 Southeast

511W1, Southeast: Avoid I-94 near the Lake Front Bridge over the Labor Day holiday, especially during peak travel times: noon – 5PM tonight & Monday. 5 hours ago – traffic remains normal.
The ITS Process Cycle - Spatial Assets

Systems Integration, Documentation
Spatial Inventory, Asset Management
Spatial Data
The ITS Process Cycle - GIS

Spatial Data

 GIS, Analysis

Visualizations, Mapping Products

Spatial Information
The ITS Process Cycle - Planning Loop

Strategic Planning Loop

Planning, Investment

GIS, Analysis

TOIP

ArcGIS
Growing Operations Support

- Third Party and Private Partnerships
- Active Transportation and Demand Management
- Performance Monitoring and Management
- Connected Vehicle Initiative
Multistate Coalition Support

- Great Lakes Regional Transportation Operations Coalition (GLRTOC)
- Lake Michigan Interstate Gateway Alliance (LMI GA)
- North/West Passage (NWP)