TDOT Data and Studies for Transportation Planning

TN-MUG Meeting 10/9/2014
Introduction

- Data Access
- Data Available
  - Roadway Information
  - Safety/Crashes
  - Planning
  - Modeling/Freight
  - MISC
- Recent Studies
Data Access

• TDOT Website
  http://www.tdot.state.tn.us/

• VPN Account
  – TDOT.Helpdesk@state.tn.us (615-770-1700)

• transPORTAL
  – http://intranet.tdot.tn.gov/

• OIR http://www.tn.gov/finance/oir/
  – TNMAP http://tnmap.tn.gov/
  – Parcel and More tnmap.gis@tn.gov

• Requests
Roadway Information

- E-TRIMS/TRIMS
  - https://e-trims.tdot.tn.gov/
- Volume Counts
  - http://www.tdot.state.tn.us/traffichistory/
  - TRIMS Traffic layer
- HPMS
  - http://www.tdot.state.tn.us/hpms/
  - TRIMS HPMS Layer
- Class Counts
  - ADAM (transPortal)
  - TRIMS Traffic Layer
  - Database (Req.)
Safety / Crashes

- Crash Data
  - Titan
    - Christopher Osbourn
      (Christopher.Osbourn@tn.gov)
  - TRIMS Crash Layer
    - Jeff Murphy
      (Jeff.Murphy@tn.gov)
Here’s an Easy One.....
Planning

- Project Status
  - PPRM (APP VPN)
  - Database (req.)
  - Project Tracker
- Project Tracker
  - PAMs (VPN, transPortal)
  - CTS (VPN, transPortal)
- Project Estimation / LOS
  - EVE (APP VPN)
Models/Freight

- Freight Plan
- Transearch
- ATRI
Socio-Economic data

• Woods and Poole (Req.)
  – TN County level detail projections

• InfoUSA (Req.)
  – Detail Business info and the locations
Recent Studies

Studies
http://www.tdot.state.tn.us/projects/studies.htm

Completed
• Pedestrian Oriented Transit: A New Criteria for Pedestrian Network Building
• Air Quality Emission Issues Assessment of Composting as an Alternative to Open Burning in Tennessee

In Progress
• Statewide Pedestrian and Bicyclist Safety Analysis and Safety Investment Policy
• A Guidebook for Best Practices on Integrated Land Use and Travel Demand Modeling
• Short Line Railroad Geographic Baseline and Economic Assessment
• All-Hazards Risk Assessment of Critical Transportation Infrastructure in the State of Tennessee
• Input Data Development for Motor Vehicle Emissions Simulator (MOVES)
Glad you asked, Matt..... 😊
GIS Framework
Typical GIS Framework

The Real World

GIS World Model

- Imagery
- Elevation
- Transportation
- Addresses
- Boundaries
- Water Features
- Survey Control
- Your Data
Transportation GIS Framework
TDOT LRS Network

TDOT LRS
(Linear Referencing System)
County = 19 (2) +
Route = SR012 (5) +
Special Case = 0 (1) +
County Sequence = 01 (2) +
=
IDNUMBER (LRS Primary Key, 10 digit)
Logmile = 1.050

TRIMS Route Feature

<table>
<thead>
<tr>
<th>Log Mile</th>
<th>Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.000</td>
<td>Cheatham-Davidson County Line</td>
</tr>
<tr>
<td>0.670</td>
<td>A327 RT. &amp; LT.</td>
</tr>
<tr>
<td>1.060</td>
<td>Bridge (19SR012001): Branch</td>
</tr>
<tr>
<td>1.470</td>
<td>Enter City Limits</td>
</tr>
<tr>
<td>1.810</td>
<td>3486 N. 6\textsuperscript{TH} ST RT. &amp; LT</td>
</tr>
</tbody>
</table>
LRS DATA COLLECTION
Map IT – Crash Location (Lat/Long, Address)

TRIMS data collection (logmile and Lat/Long)

Classification Counts
3344/5yr cycle

Permanent or Continuous Counts
62 ATR/121 EDL

Short or Volume Counts
12,327/1yr cycle
Bridge Clearance (Logmile & Lat/Long)

Maintenance Asset data collection (Logmile and Lat/Long)

Pavement Distress (Logmile)

LiDAR is used to collect Asset Information (Logmile and Lat/Long)

Pavement Data (Logmile and Lat/Long)

Photo-log Images (Logmile and Lat/Long)
Linear Referenced Data

- Road System Table
- Road Segment Table
- Roadway Description Table
- Roadway Geometrics Table
- Route Feature Table
- Capacity Data Pipe
- HPMS Data Pipe
- Traffic Data Pipe
- Railroad Crossing Data Pipe
Linear Referenced Data

- Safety
  - Crash Data Pipe (TITAN)
  - HSIP Data Pipe (TRIMS)

- Structures
  - Structures Data Pipe (TRIMS)

- Operations
  - Maintenance Data Pipe (MMS)
  - Pavement Data Pipe (HPMA)

- Engineering
  - Project Data Pipe (PPRM)
  - Construction (CMS) Future

- Design/ROW
  - ROW (Future)
  - Design (Future)

TRIMS
Contacts

• Modeling/Misc
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• GIS/TRIMS
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