The Louisiana Department of Transportation & Development
Roadway Base Mapping Project

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Topics to be Discussed

• Project Goal
• Two-Phased Approach
• A Few of the Issues Faced
• Summary & Schedule
Project Goal

“...develop an accurate, geo-referenced, and topologically correct public road feature...”

• In other words: A good statewide road layer!
• Needed for:
  – Support Road Inventory Program
  – Pavement Management Needs
  – Common Base Map for exchanging Information between the State and Local Government
Two-Phase Approach

• Phase One: Public Road Feature Adjustment
  – Conflation of Two Data Sets
    • State maintained roads
    • Non-state maintained roads
  – Ensure direction and position of roads

• Phase Two: Assignment of LRS ID
  – State maintained roads = 12-digit LRS ID
  – Non-state maintained roads = 18 digit LRS ID
Phase One: State Maintained Roads

- Pavement Management System Data
  - GPS Collected, Right Hand Travel Lane
- Centerline created
- Assigned Tiger Line Identifier
- Assigned & Split into proper Address Ranges
Phase One: Non-state Maintained Roads

• Best Available Source Data
  – Local Data from Parishes
    • Contact Database
    • Data Sharing
  – TIGER Data
    • Check for orientation
    • Correcting address ranges & coordinating segments
    • Adjust Positional Accuracy against the DOQQs
LaDOTD Roadway Base Map
Project Status
as of April 26, 2010

Data Source
- Local
- Mixed
- Tiger

Parishes are labeled with their name and FIPS code.
Phase One Result

• State & Non-state maintained roads merged

• Topology checked and double checked

• Meticulous internal QA/QC
Phase Two: LRS ID

- State Maintained Roads = 12 Digit Code
  XXX-XX-F-LLL, Ex: 819-12-1-010
  X = Control Section
  F = Feature Type Code
  L = Sequential Occurrence

- Non-state Maintained Roads = 18 Digit Code
  PPPXNNNNNNNTTTSFLLL, Ex: 037900973203691010
  P = Parish FIPS, X = Prefix Code
  N = Road Name Code, T = Type code, S = Suffix
  F = Feature Type Code, L = Sequential Occurrence
Issues Overcome

• Three new ESRI Bugs Recorded
  – 2 Critical
• Efficient LRS ID Assignment
• QA/QC of the Dataset
• Getting Paid by the Mile
• Aerial Photo Acquisition
Summary

- Project Totals
  - Over 95,000 miles of Roadway Spatially Adjusted
  - Over 185,000 Unique LRS ID Assignments
  - Over 12,000 Man Hours
  - Over 60,000 Un-Named Roadways
  - Final Delivery Expected Early and Under Budget
Summary

• Project scheduled to be complete June 2010
• All Parishes have been approved by DOTD
• Project will result in an accurate Road Base Map for use throughout the State of Louisiana
  – Linear Referencing
  – Planning
  – Engineering
  – Emergency Operations Support
Special Thank You

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Thank you for your time. Feel free to contact the team with any questions.

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