Understanding the Importance of the Local Road Inventory

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Asset Management...

- Asset Management is a systematic process of maintaining, upgrading, and operating physical assets cost effectively.
  - An Inventory
  - A Smart Inventory
  - Total Asset Management

Asset Management...

- The asset management process is shifting from a dire need basis to a more proactive process of maintenance and renewal.

Who started this?

- Better Informed and Active Public
- Better Informed and Active Public Officials
  - Both Elected and Appointed
- Deterioration of Infrastructure Assets
- New Government Standards and Mandates
- Emerging and Affordable Technology
  - Hardware
  - Software
  - GIS

Internal Motivations

- Better ability to manage your assets
- Better service to the public
- Better able to budget for maintenance/rehabilitation
- Easier to prepare required reports
- Better able to defend requests for increased funding
- Better able to defend your decisions for project selection for roads and bridges

External Motivations

- EPA Regulations
  - NPDES Phase II (Stormwater)
  - CMOM (Sanitary)
- GASB 34
- Millennium MUTCD Retroreflectivity
- FEMA Disaster Assistance
Mileage and use inventories
- Sec. 1. The department shall periodically inventory the mileage and use of the local road systems under the jurisdiction of the counties and the street systems under the jurisdiction of municipalities.
- As added by P.L.18-1990, SEC.224.

INDOT Local Road Inventory
- Good Data
  - IR number
  - Certified mileage
  - Functional class
  - Federal aid system

- Questionable data
  - Surface type
  - Lanes
  - Road width
  - Sr
  - Right of way width
  - Aadt

State inventory may include
- Private roads
- Driveways
- Abandoned roads

State inventory may not include
- Existing county roads
- County fairgrounds
- Recent annexations

"Maintain" defined
- Sec. 29. "Maintain" means allow to exist.

Funding
- Budgeting
- Planning
- Reporting
Funding

- Accurate Road Inventory
  - Verification of Certified Mileage
  - Operational Reports: 67,825 mi
  - State Inventory: 66,799 mi
  - More than 1000 mi not getting credit

Value per mile – examples for counties

- Income gained per mile (approximate)
  - Ohio: $1,915
  - Parke: $1,894
  - Monroe: $2,067
  - Knox: $1,961
  - Daviess: $1,935
  - Rush: $2,715

Value per mile – examples for cities/towns

- City/town
  - Pop: ~$/mi
  - Ft. Wayne: 202,904, $875
  - Lafayette: 44,622, $671
  - Greencastle: 8,984, $438
  - Salem: 5,619, $370
  - Newtown: 243, $268

Budgeting

- Reality
  - Whatever is left!

- Ideal world
  - Calculation of necessary funds

Planning

- Short and long term plans
  - Statutory responsibility for county engineers
  - IC 8-17-5-6

- Manpower and equipment needs
  - Motor graders, drags

- Districts
### Planning

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### Setting priorities

- Annual operational report
  - SBOA Form 16 – counties
  - SBOA Form 225 – certain cities/towns
- Work management
- Reimbursement

### Create Branch ID’s

- Branch ID’s should be determined in the office and labeled on the INDOT IR map for data entry in the field

### Naming a Branch/Section

- Sections are subdivisions of a branch with significant endpoints, such as intersections, bridges, grade crossings, township lines, or anything that needs to be located along the length
  - Section data is needed to reconcile with the INDOT data
- Branch is the longest possible string of sections with consistent characteristics along the entire length
  - Consistent characteristics include geometry, surface, traffic, and maintenance procedures
  - Each branch must have a unique name
  - Necessary if using work management
Naming Branches

- 1200S 1200S 1200S no, not unique
- 1200S1 1200S2 1200S3 ok, hard to update
- 1200S/SR42 1200S/US231 1200S/600E good

Branch Data

- Branch
- Road
- Beg
- End
- Nickname
- Surface
- LPAclass
- District
- Traffic Data, or
- Connectivity
- Pavement Markings

- Calculated from Section data
  - Length (sum)
  - Rdwidth (ave)
  - Rwwidth (ave)
  - Traffic (ave)

- Condition Data
  - Surface Distress (Visual)
  - Structural Capacity (GPR)
  - Roughness (IRI)
  - Skid Resistance (Friction)

Branch/Section Size

- Putnam County, IN
- 755 miles of county roads
  - 468 branches (1.6 miles/branch)
  - 1,840 sections (0.4 miles per section)
  - Average of 4 sections/branch

Sample Data Page

How to Update your State Certified Mileage

- Required Information
  - Scaled plats, showing new streets/roads
  - Current IR map
    - New roads shown in red
    - Deletions shown in orange
  - Minutes of governing body - acceptance
  - Listing of mileage requested (each road)
  - Ordinance for annexations

- Send to
  - INDOT Program Development Division
  - Hwy Inventory and Systems Supervisor
  - Attn: Steve Brockmann
  - 100 N. Senate Ave (IGCN), Room N808
  - Indianapolis, IN 46204
  - 317-232-5482