

# Data Needs and Collection Tools

*prepared for*

An Introduction to Asset Management and  
GASB 34 for Transportation Agencies

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# Outline

- Why do we need data?
- What data do we need?
- How can we get the data?
- What are the implications?

# Why do we need data?



# Why do we need data?

- Who?
  - Who is making decisions?
  - To whom do they report?
- What?
  - What decisions do they make?
  - What do they report?
- When?
  - How often do they make decisions?
  - How current must the data be?

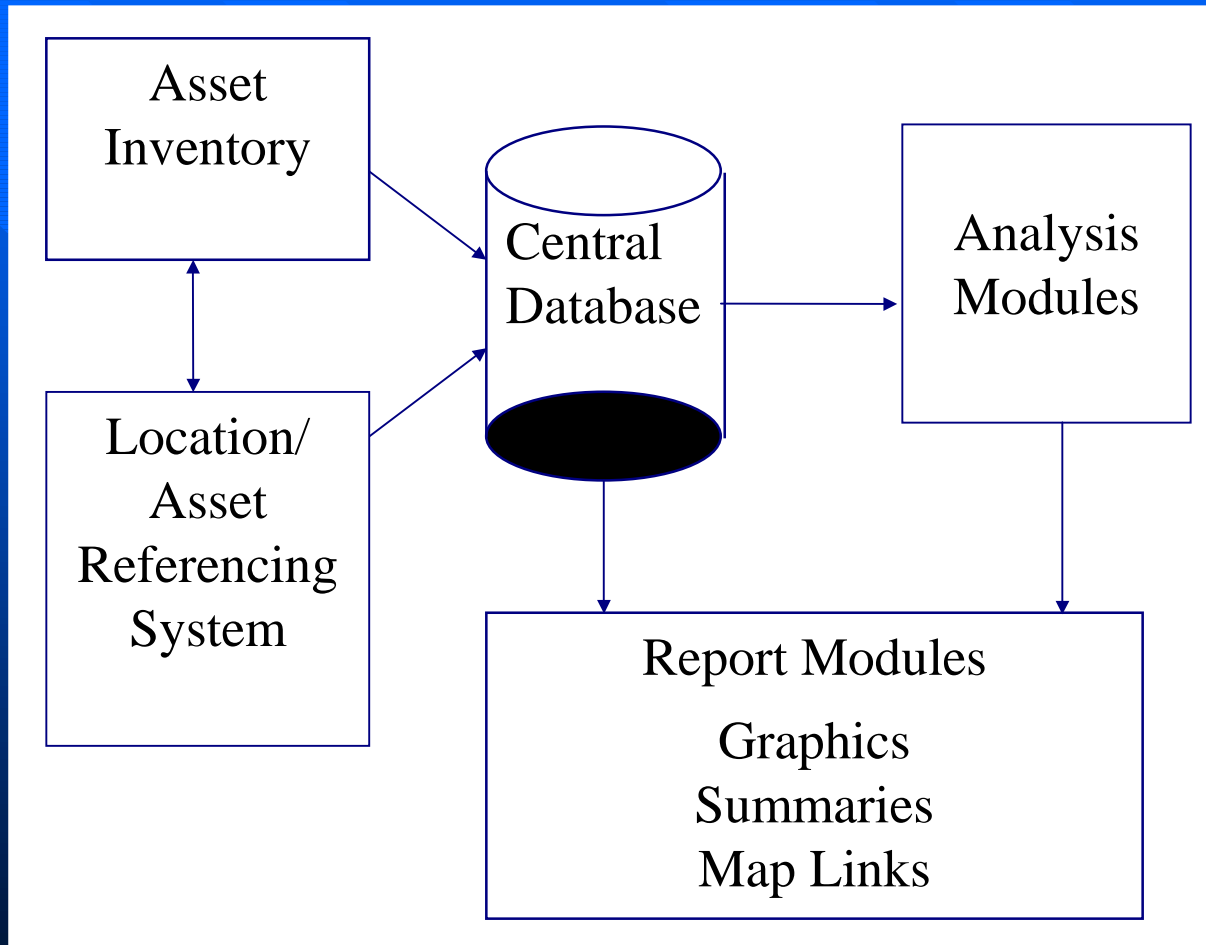
# Why do we need data?

- External needs
  - GASB 34
  - Legislators
  - Public
- Internal needs
  - Planning/Budgeting
  - Programming/Scheduling
  - Project Design/Operations
  - Evaluation/Reporting

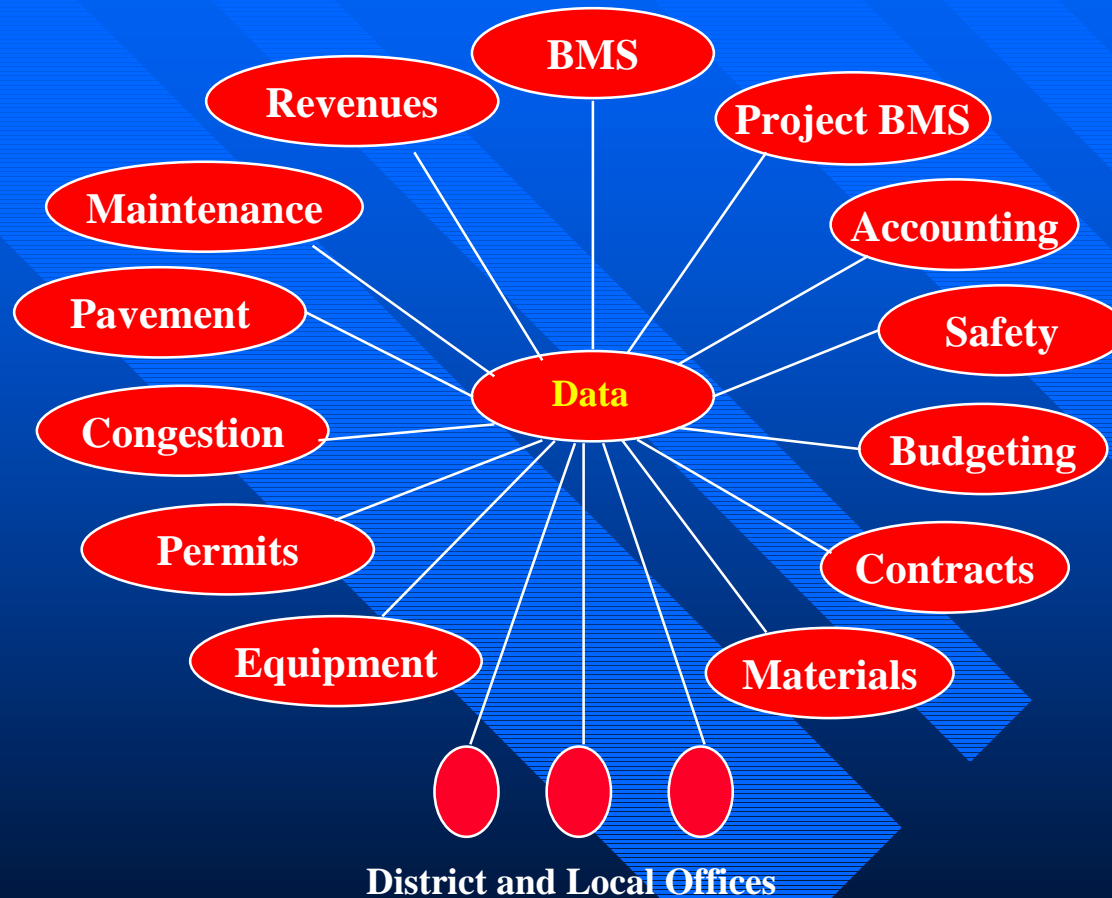
# Why do we need data?

- Types of decisions
  - Business
  - Engineering
  - Economic
- Levels of decisions
  - Maintenance
  - Engineering
  - Management
  - Administration

# Why do we need data?



# Why do we need data?



# What data do we need?



# What data do we need?

- Data support decisions
- Data collection/analysis is expensive
  - Time-consuming
  - Costly
- Plan for future

# What data do we need?

## ■ Inventory

- Location
- Facility type
- Age
- Size
- Value

## ■ Performance

- Condition
- Congestion
- Reliability
- Use
- Safety

# What data do we need?

- Cost
  - User
  - New construction
  - Maintenance
  - Asset value
    - » Original purchase cost?
    - » Replacement cost?
  - Lifecycle

How can we get the  
data?



# How can we get the data?

## ■ Issues

- Temporal Frequency
- Spatial Frequency and Extent
- Consistency
- Quality
- Availability
- Intrusion into operation

# How can we get the data?

- Inventory
  - Global positioning
  - Paper records
  - BMS
  - PMS
  - Other existing management systems

# How can we get the data?

## ■ Performance

### – Condition assessment

#### » Visual inspection

- Manual

- Automated

#### » Non-destructive evaluation (NDE)

#### » Destructive evaluation

### – Congestion

#### » Traffic management systems

#### » ITS

# How can we get the data?

- Performance (cont.)
  - Reliability
    - » Maintenance records
    - » Engineering analysis
  - Use
    - » Traffic counts
    - » ITS
    - » Ridership surveys

# How can we get the data?

- Cost
  - Accounting systems
  - Maintenance records
  - Valuation
  - Engineering economic principles

What are the  
implications?



# What are the implications?

- Beware of DRIP
- Cost
  - Collection
  - Storage
  - Analysis
- Data *are* a corporate asset

# Summary

- Identify
  - Who?
  - What?
  - Where?
  - When?
  - Why?
  - How?
- Data should meet needs identified
- Analyze costs and benefits of data
- Treat data as an asset

# Questions?

