

# **SUDAS: The What – The Why – The How**

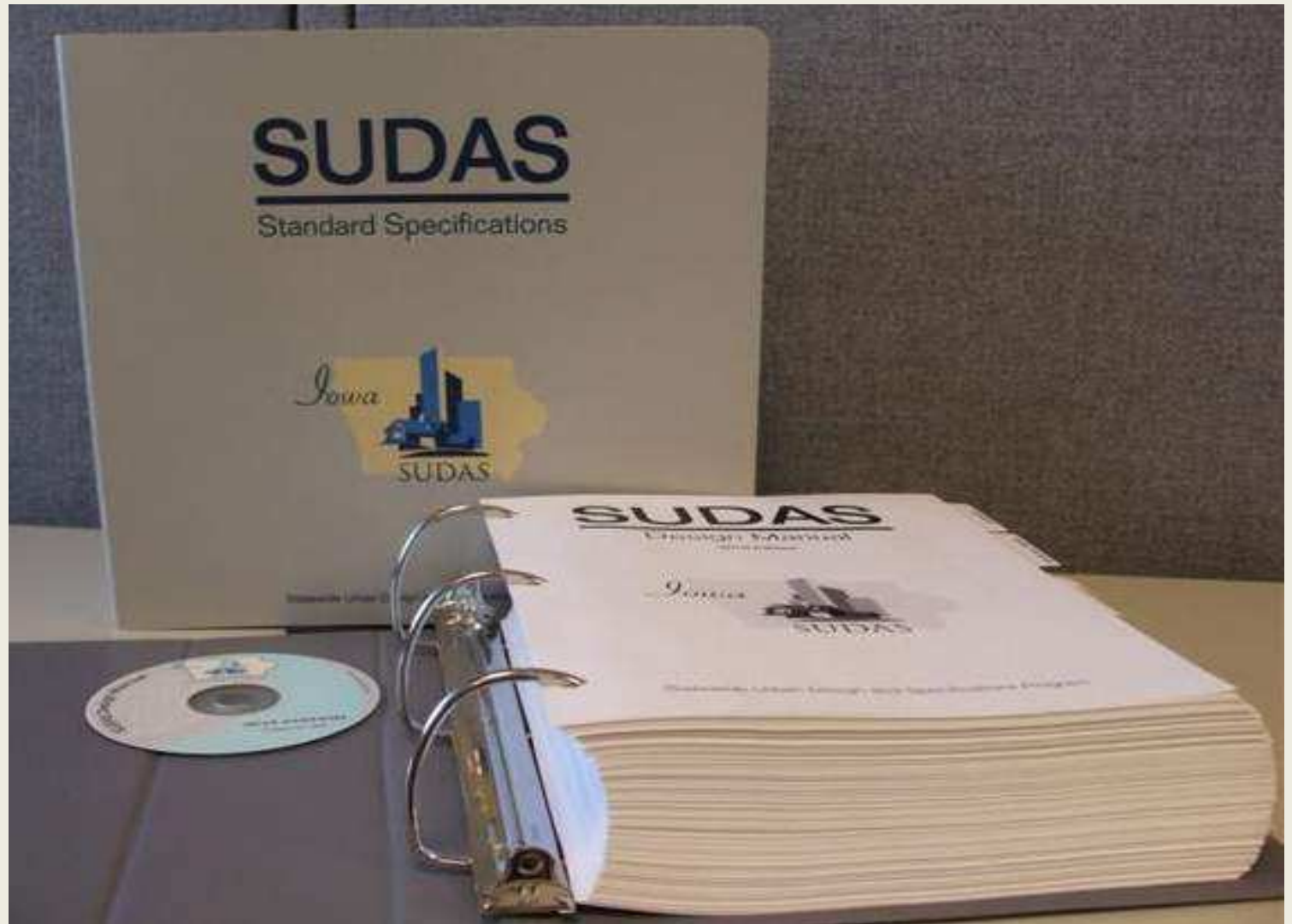
Midwest Pavement Preservation Partnership  
October 27, 2010



# Statewide Urban Design and Specifications



# SUDAS – Two Manuals



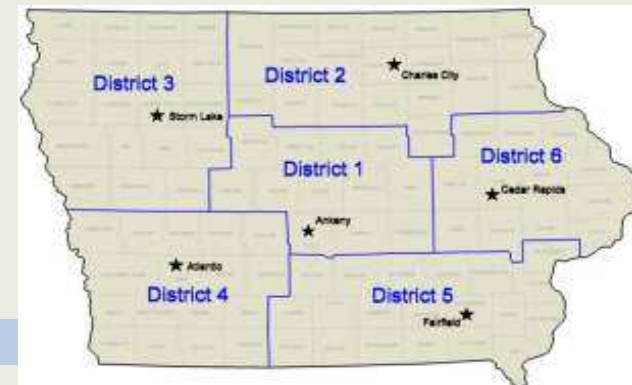
# History

- 1976 to 1989 Sixteen cities and two counties (Des Moines and surrounding area) join together to develop the Des Moines Metropolitan Design and Specifications Manuals.
- 1995 The Governor's Blue Ribbon Task Force,, recommended: "Adopt common standards for construction specifications and construction equipment."
- 1998 Manual use expanded to 34 cities forming the Central Iowa Committee to own and manage the manuals. Statewide interest continues to mount
- May 2004 The Iowa SUDAS Corporation is created to provide statewide ownership of the manuals.
- February 2005 SUDAS Corporation contracts with Iowa State for Manual maintenance and updating



# Statewide Involvement

- Users – cities, counties, Iowa DOT, contractors, material suppliers, industry representatives
- Technical committees – 14
  - e.g. sanitary sewer, water main, paving, etc.
- District committees – 6
  - Meet 4 times per year
- Board of Directors – 37 members
  - Meet twice a year

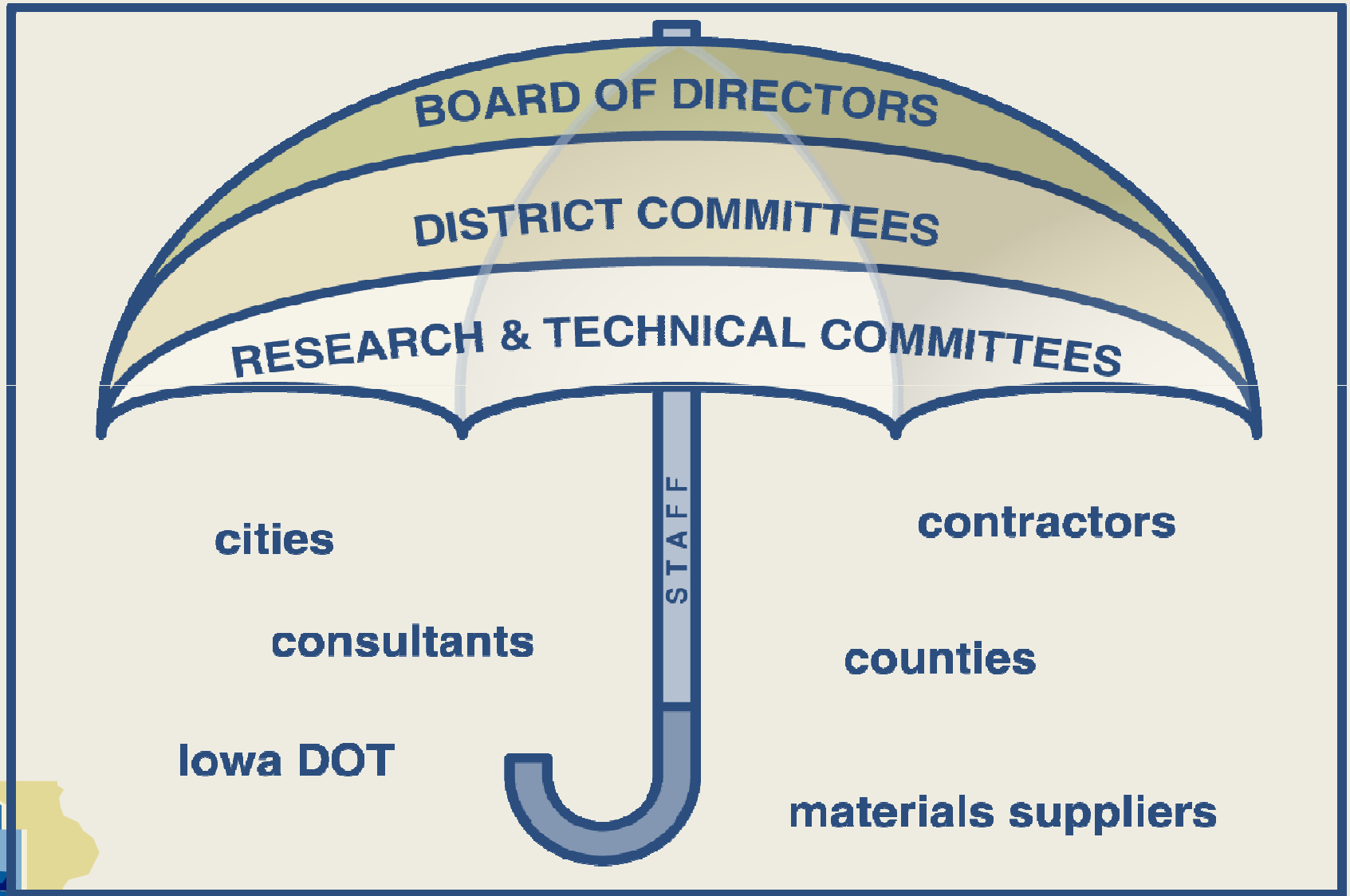




**Over 300 engineers  
and other public  
works professionals  
directly involved!!!**



# Organizational Structure



# Usage

- Today there are over 1,000 Standard Specifications and nearly 600 Design Manuals in circulation
- Both Manuals also available:
  - On CD
  - On the SUDAS website



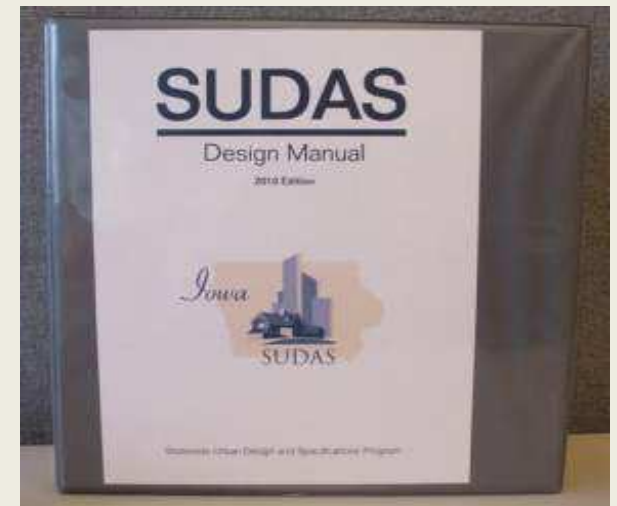
# Benefits of Statewide Standard Design and Specifications

- Uniformity of design and specifications
- Reduction of contractor confusion and mistakes
- Encourages more bidders
- Mechanism to be proactive in research
- Rapid statewide implementation of latest techniques and materials
- State and local government collaboration
- Better allocation of staff to projects -not updating specs



# Design Manual

- Chapter 1 General Provisions
- Chapter 2 Stormwater
- Chapter 3 Sanitary Sewer
- Chapter 4 Water Mains
- Chapter 5 Roadway Design
- Chapter 6 Geotechnical
- Chapter 7 Erosion & Sediment Control
- Chapter 8 Recreational Trails & Sidewalks
- Chapter 9 Utility Location
- Chapter 10 Street Trees
- Chapter 11 Street Lighting
- Chapter 12 Parking Lots
- Chapter 13 Signalization
- Chapter 14 Trenchless Construction



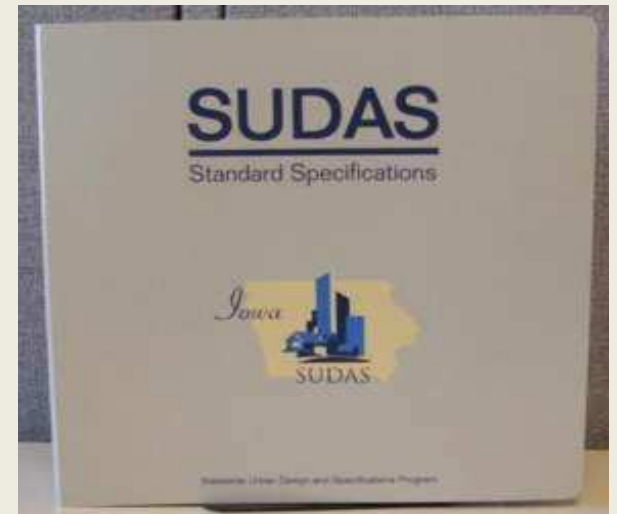
# Design Manual

- Information relevant to the design of urban public improvements
- Nothing limits the designer's options in specifying new and innovative technologies and materials
- Includes requirements for plan set organization and information that should be shown by type of project, i.e. water, paving, etc.
- Identifies actions to minimize potential confusion and errors by the contractors and/or extra costs for public agency



# Standard Specifications

- Division 1 General Provisions and Covenants
- Division 2 Earthwork
- Division 3 Trench, Backfill, and Trenchless
- Division 4 Sewers and Drains
- Division 5 Water Mains and Appurtenances
- Division 6 Structures for Sanitary and Storm Sewers
- Division 7 Streets and Related Work
- Division 8 Traffic Signals
- Division 9 Site Work & Landscaping
- Division 10 Utility Service Location Details
- Division 11 Demolition



# Specifications Manual

- Division 1 - General Provisions and Covenants
  - Relationship between Contracting Agency and the Contractor
    - Definitions
    - Proposal requirements
    - Control of the work
    - Legal relationships
    - Bonds and Insurance
    - Measurement and Payment



# Specifications Manual

- Three part format:
  - Part 1 General
    - Description of the work
    - Special requirements
    - Measurement and payment
  - Part 2 Products
    - Listing of acceptable products
  - Part 3 Execution
    - Specifics on construction requirements
    - Figures relating to the construction



# Updating Process

- Subject is raised by a user or research project such as the TMS research
- Item is sent to a technical or research advisory committee for review and comment
  - Technical committee makes a recommendation
- Discussion and action at each District Committee meeting (minimum of twice)
  - Recommendation forwarded to the Board
- Board of Directors votes on recommendation
- From research report to published specification – 10 MONTHS!



# SUDAS Funding

- Public agencies have a vested interest in the SUDAS program
  - Iowa DOT
  - Cities and counties, funding funneled through:
    - Transportation Management Agencies (TMA)
    - Metropolitan Planning Agencies (MPO)
    - Regional Planning Alliances (RPA)
  - Research (Iowa Highway Research Board, DNR)



# Common SUDAS/Iowa DOT Specifications

Trench Excavation and Backfill	Water Main Pipe and Fittings
Trenchless Construction	Valves, Fire Hydrants, and Appurtenances
Sanitary Sewers	Water Main Testing and Disinfection
Storm Sewers	Structures for Sanitary and Storm Sewers
Pipe Rehabilitation	Rehabilitation of Existing Manholes
Cleaning, Inspection, and Testing of Sewers	Cleaning, Inspection, and Testing of Structures



# Common SUDAS/Iowa DOT Figures

- 41 Common Figures
  - Trench and Backfill (5)
  - Sewers (3)
  - Sanitary Sewer Manholes (7)
  - Storm Sewer Manholes (5)
  - Intakes (14)
  - Castings (4)
  - Thrust Blocks & Tracer Wire (2)
  - Fire Hydrants (1)

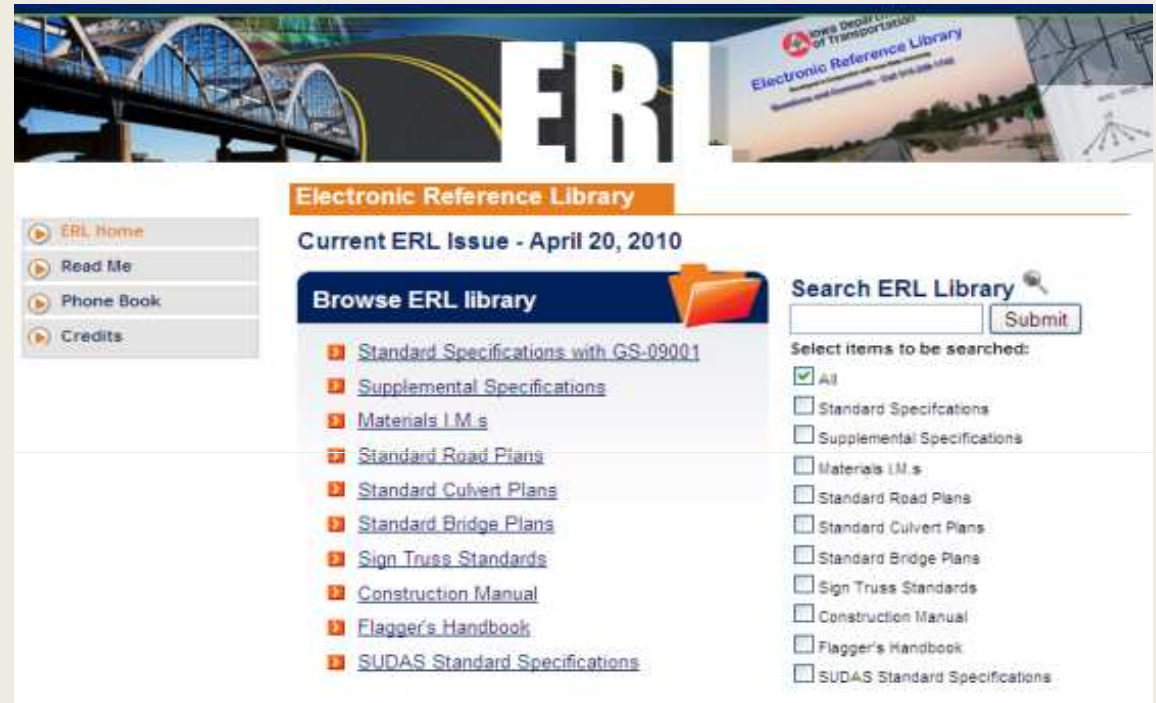
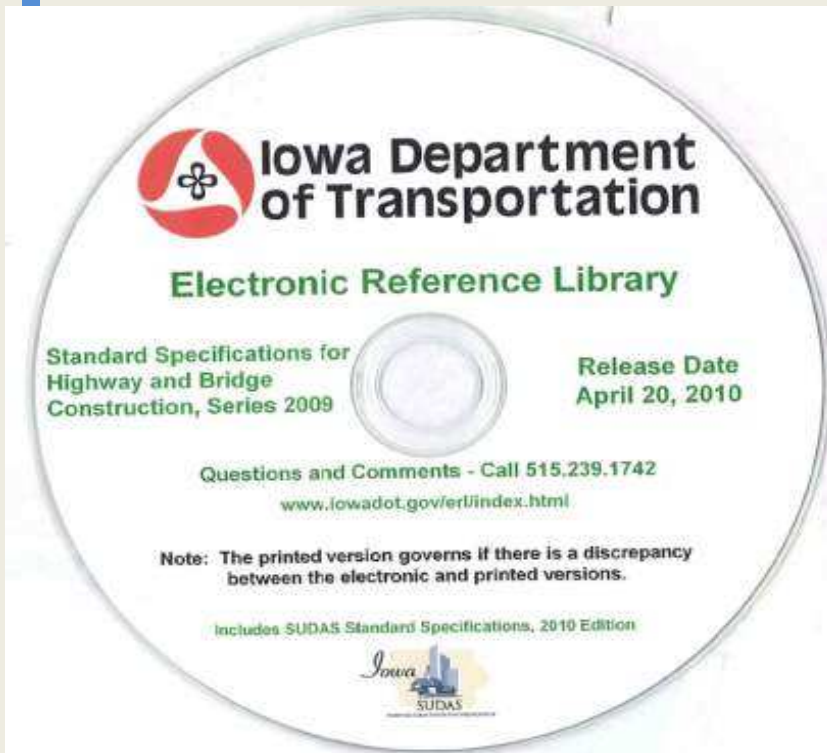


# Common SUDAS/Iowa DOT Specifications

- Other joint specs/figures coming soon
  - Seeding
  - Plant Materials and Planting
  - Retaining walls
  - Gabions and Revet Mattresses
- Many others sections are very similar with slight differences reflecting urban/rural focus



# Collaboration with Iowa DOT



We implement common requirements wherever possible and jointly share information with users



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