SUDAS Update
November 2019

Municipal Streets Seminar

Paul Wiegand, PE

October 2018
• Tubular dowels
  – Added as an option for contraction joint transfer
    • 1/8” larger than solid dowels
    • Not used for RD or expansion joints

October 2018
• Plastic PCC cylinders
  – Removed the restriction of using only 6” cylinders
    and matched Iowa DOT Materials I.M. 315, which
    allows 4” or 6” diameter cylinders

October 2018
• Added Foamed Cellular Concrete as an
  additional material for grouting and filling
  annular spaces
• Clarified that dewatering included all
  equipment and operations to accomplish the
  work
• Added a linear trench drain as a shared figure
  with the Iowa DOT (SW-521)
Board Leadership Changes

- New Board President
  - Long-time (only) President, Greg Reeder, retired
  - New President is Scott Larson, City of Coralville
- New Board Vice President
  - Dave Carney, City of Sioux City
- John Joiner (City of Ames) and Michelle Sweeney (AECOM) remain as Secretary and Treasurer

2020 Edition

- No printed revision packets
- Will post the revision packet on the SUDAS website (iowasudas.org) – print yourself as needed
- Subscribe to our email list – subscriber button on SUDAS homepage
- Updated manuals on website
- Saving of about $20,000 annually in printing and mailing costs

2020 Edition

- Added internal manhole drop
  - Minimize excavation

2020 Edition

- Rock subbase for all cast-in-place structures to match precast
2020 Edition
- Complete rewrite of Section 4050 - Pipe Rehabilitation
  - Updated to current products and practices
  - Focused on cured-in-place pipe (CIPP)
    • Mainline, spot, service
  - Added clarification on pipe cleaning
    • Standard/heavy

2020 Edition
- Steps in manholes/intakes
  - Changed default to no steps
  - Left standards for steps if specified

2020 Edition
- Clear zones on low-speed (40 mph) roadways
  - Previously set based on street classification – arterial, collector, local
  - Varied from 5.5’ to 10’
  - Preferred = 6’
  - Acceptable = 4’
- Iowa DOT will accept as design exception

2020 Edition
- Updated Design Chapter 11 - Street Lighting for LED lights
  - Previously included but focus was high pressure sodium lights
  - Update to Illuminating Engineering Society standards
  - Lists recommended LED lighting levels based on illuminance method taking into account roadway classification, pavement surface, and presence of pedestrians
2020 Edition
• Added new sections to Design Chapter 13 on work zone traffic control
  – Previously added 19 typical layouts to Specifications Manual
  – Uses MUTCD and the Temporary Traffic Control Handbook
    • Work duration – 3 days
    • Black/orange Speed Limit signs - enforcement

October 2019
• Design Manual Chapter 1
  – Complete rewrite
    • Worked with an active committee
  – Modified classifications of improvements
    • Added erosion and sediment control
    • Added accessibility/curb ramps
  – New section on preliminary plan prep
    • Added list of items designer needs to know from jurisdiction
    • Deleted submittal checklist

October 2019
• Design Manual Chapter 1 (cont.)
  – Modified plan sheet designations
    • Matched Iowa DOT when appropriate
    • M sheets – utilities
  – Created new sections:
    • Items to be specified
    • Incidental or included items
    • Bid items
  – New section on identifying bid items especially supplemental bid items

October 2019
• Design Manual Chapter 1 (cont.)
  – Added info on the pre-construction meeting
    • Who’s in charge
    • Who should attend
    • What should be discussed
  – Plans of record (as-buils)
    • Added info on what to include for stormwater management facilities, sidewalks and curb ramps, and traffic signals
    • Propose deleting proprietary products list
October 2019

• New intake/added intakes
  – Adding new triple rectangular area intake –
    • SW-515
    • Capable of use in paving
  – Also adding Iowa DOT open-throat under pavement and extension
    • SW-541 and SW-542
  – Adding Iowa DOT SW-545 single open-throat intake with extension

October 2019 Discussion Items

• Width of residential curb cuts
  – On local streets, maximum width at 10’ back of curb = 24’
  – With 5’ flares, maximum curb opening = 34’

October 2019

• PCC joint spacing
  – Iowa DOT had 14’ longitudinal and 20’ transverse
  – Now 12’ longitudinal and 17’ transverse spacing
  – Many changes in both Specifications and Design Manual

October 2019 Discussion Items

• Local residential street width standards
  – Current standards
    • 26'/31’ with parking on one side
    • Cul-de-sac diameter = 90’
  – International Fire Code:
    • Minimum 27’ with one side parking
    • Minimum cul-de-sac diameter = 96’
  – Des Moines Fire Department
  – Others facing concerns?
October 2019 Discussion Items

- Water main pipe materials
  - Add fusible HDPE?
  - Currently fusible PVC in Developmental Specifications (Section 5011 – on website)
  - Rewrite and move to Standard Specifications?

October 2019 Discussion Items

- Replacement of core hole for vacuum excavation
  - Reinsert core plug and seal it?
  - Full/partial panel patch?

Iowa Public Works Service Bureau Update

Iowa Public Works Service Bureau

- With over 900 cities, level of communications for public works activities/issues is lacking
- County Engineers Service Bureau provides value to users
- Is their interest in a Public Works Service Bureau?
- If so, what are appropriate organizational and financing elements?
Technical Advisory Committee

<table>
<thead>
<tr>
<th>Name</th>
<th>City/Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jon Burgstrum, Scott County</td>
<td>Randy Krauel, City of Carroll</td>
</tr>
<tr>
<td>David Carney, City of Sioux City</td>
<td>Jeff May, City of Clive</td>
</tr>
<tr>
<td>Pamela Cooksey, City of Des Moines</td>
<td>Brian Moore, ICEA Service Bureau</td>
</tr>
<tr>
<td>Eric Cowles, Iowa DOT</td>
<td>Nicole Moore, Iowa DOT</td>
</tr>
<tr>
<td>Jon Dienst, City of Dubuque</td>
<td>Erin Mullenix, Iowa League of Cities</td>
</tr>
<tr>
<td>John Dostart, Iowa DOT</td>
<td>Sarah Okerlund, Iowa DOT</td>
</tr>
<tr>
<td>Jason Etnyre, City of Indianola</td>
<td>Greg Reeder, City of Council Bluffs</td>
</tr>
<tr>
<td>Matt Ferrier, Bolton &amp; Menk</td>
<td>Brian Schadt, City of Davenport</td>
</tr>
<tr>
<td>Keith Knapp, Iowa LTAP</td>
<td>Larry Stevens, HR Green, Inc.</td>
</tr>
<tr>
<td>Ron Knoche, City of Iowa City</td>
<td>Danny Waid, ICEA Service Bureau</td>
</tr>
</tbody>
</table>

Iowa Public Works Service Bureau

- Developed database of contacts from cities 250 population and above
- Developed 4 questions
- Sent 744 questionnaires
- Responses from 182 (24%)

Question 1

Would you use a searchable database of public works contacts from all cities in the state from which you could sort in different manners, such as population, and ask questions or do surveys to help solve problems?

Question 1 Results

Searchable database of public works contacts?

Note that the combined “likely” response equals 80%
Question 2
Would you use a database connecting a survey of physical assets (such as miles of paved streets or miles of sanitary sewer) with other public works contacts who have similar-sized systems so you could communicate questions or comments with them?

Question 2 Results
Likelihood of using physical asset database?

Note that the combined “likely” responses equals 78%

Question 3
Would you use a system where you could review a series of management tools such as:
• Job descriptions and current pay levels of public works positions from other cities?
• Sample ordinances, resolutions, and policies on public works topics?
• Organizational charts for cities of all sizes to compare with yours to determine if you can improve your chain of command?

Question 3 Results
Likelihood of using management tools system?

Note that the combined “likely” response equals 90%
Question 4
Would you use a system that would enhance communications with Iowa DOT staff for submitting reports, making inquiries, and receiving updates on grant and other programs?

Question 4 Results
Likelihood of using a system to communicate with Iowa DOT staff?

Note that the combined “likely” response equals 76%

Results by Job Title
“Likely” responses by job title

Questionnaire Results by Population Range
Numbers in parenthesis compare responses from each population category versus the total number of Iowa cities in that category
### Potential Organizational Structure

- Fully independent organization (#1)
- New program within InTrans (#2)
- New activity within SUDAS with application development contracted with the County Engineers Service Bureau (#3)
- New activity within SUDAS with programming staff additions (#4)

### Cost Summary for Alternative Options

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Annual cost w/2 programmer FTEs</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1 - Independent</td>
<td>$527,200</td>
</tr>
<tr>
<td>#2 - New InTrans</td>
<td>$571,000</td>
</tr>
<tr>
<td>#3 - SUDAS/Subcontract</td>
<td>$549,000</td>
</tr>
<tr>
<td>#4 - SUDAS/Internal Staff</td>
<td>$276,500</td>
</tr>
</tbody>
</table>

### Financing Options

- Expand existing SUDAS funding
  - Iowa DOT currently provides 42% of SUDAS funding – potential increase = $115,200 per year
  - Cities and Counties through Planning Agencies currently provide 58% of funding – potential increase = $161,300
- Road Use Tax
  - Develop an off-the-top allocation from the city portion of RUT – 1/8 of 1%
  - County Engineers Service Bureau uses 1/4 of 1% for their funding

### Recommendation

- Based on responses to questionnaire, pursue development of an Iowa Public Works Service Bureau (IPWSB)
- Organize the IPWSB within SUDAS with additional programming staff
- Fund the IPWSB with an off-the-top allocation from the city portion of the Road Use Tax
- Apply for a two-year grant from IHRB to get started