SUDAS and PWSB Updates

2023 Municipal Streets Seminar

David Carney and Beth Richards

Complete Streets

- Began as an Iowa DOT initiative
  - Establish a complete streets policy for the DOT
  - Be as consistent as possible with SUDAS except for some tiered elements
- Take into account all users
  - Vehicle, pedestrian, bicyclists, etc.
- Review and update SUDAS Design Sections
  - Chapters 5, 12, and 13
**Section 5C-1 & 2 – Geometric Design Tables & Elements**

- Added language from the Green Book to highlight key points about designing streets for all users.
- Add discussion about setting design speeds for lower speed (< 45 mph) roadways to match the expected posted speed limit.
- No changes to the preferred or acceptable tables!
- Added language from the Green Book to highlight key points about designing streets for all users.
- Add discussion about setting design speeds for lower speed (< 45 mph) roadways to match the expected posted speed limit.
- No changes to the preferred or acceptable tables!
- Add discussion about design flexibility and level of service.

**Section 5M-1 – Complete Streets**

- Expand discussion on determining appropriate design speed when considering all user groups.
- Update Table 5M-1.01 (Preferred Design Elements for Complete Streets) based on Green Book minimums.
- Expand discussion on traffic calming measures.

**Table 5M-1.01: Preferred Design Elements for Complete Streets**

<table>
<thead>
<tr>
<th>Classification</th>
<th>Local</th>
<th>Collector</th>
<th>Arterial</th>
<th>Posted Speed (mph) &lt; 25</th>
<th>&lt; 35</th>
<th>35 &lt; 35</th>
<th>35 to 45</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land use</td>
<td>R/C</td>
<td>I</td>
<td>R/C</td>
<td>R/C</td>
<td>I</td>
<td>R/C</td>
<td>I</td>
</tr>
<tr>
<td>Travel lane width (ft)</td>
<td>10</td>
<td>2</td>
<td>11</td>
<td>10</td>
<td>11</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>Turn lane width (ft)</td>
<td>--</td>
<td>--</td>
<td>10</td>
<td>11</td>
<td>10</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>Two-way left-turn lanes width (ft)</td>
<td>--</td>
<td>--</td>
<td>10</td>
<td>11</td>
<td>10</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>Curb Offset (ft)</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0 to 2</td>
<td>0</td>
</tr>
<tr>
<td>Parallel parking width (no buffer) (ft)</td>
<td>88889898999</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sidewalk Width (ft)</td>
<td>See Section 12A-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bicycle lane width (ft)</td>
<td>See Section 12B-3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Chapter 12 – Pedestrian and Bicycle Facilities**

- Changed chapter from “Sidewalks and...” to “Pedestrian and...”
- No major changes in Sections 12A-1, 12A-2, 12A-3, or 12A-4
- **Section 12A-5 - Pedestrian Safety Measures and Crossings**
  - New section providing information on selecting pedestrian crossing locations and safety measures to ensure a safe crossing at uncontrolled and controlled locations.

**Chapter 12 (con’t)**

- **Section 12B-1 - Selecting Bicycle Facilities**
  - Expanded definitions for clarification; added e-bikes.
  - Added information on bicycle user profiles.
  - Expanded bikeway facility selection.
- **Section 12B-2 - Shared Use Path Design**
  - Modified the bicyclist design speed table to reflect the context of the shared use path including paved/unpaved, volume of diverse users, and terrain.
Chapter 12 (con't)

Section 12B-3 - On-Street Bicycle Facilities
• Expanded design considerations and design exceptions for on-street bicycle facilities – speed, stopping sight distance, shy space, tapers.
• Don’t increase shared lane widths because it encourages higher vehicle speeds!
• Curb and gutter sections of asphalt pavements should not be included in the bike lane width due to potential dangers with the longitudinal joint.
• Added extensive discussions of treatments at intersections for separated on-street bicycle lanes.
• Expanded discussion on design of traffic signals for bicyclists.
• Expanded discussion of bicyclist facilities at interchanges and roundabouts.

Chapter 13 – Traffic Control

Section 13A-3 - Traffic Signal Features
• Expanded requirements for installation of Accessible Pedestrian Signals (APS)

Section 13A-4 - Traffic Signal Design Considerations
• Expanded discussion on pedestrian considerations in traffic signal timing, including using Leading Pedestrian Interval (LPI) and Exclusive Pedestrian Phases (EPP)

Specifications Changes
• Identified the combinations of cement types that can be used with fly ash and GGBFS.
• Updated pavement smoothness quality control to reflect DOT deleting their specs on profilograph and adding inertial profiler.
• Adding an option for non-destructive thickness measurements (MIT scan) – based on Iowa DOT Specs.
• Clarified placement and opening temperatures for thin lift HMA overlays.

2024 Editions
• Approved in May 2023
  – Currently online as supplementals: https://iowasudas.org/supplemental-design/
  https://iowasudas.org/supplemental-specifications/
  – Emailed all contacts in June to let them know they were there
  • Not on the list? Link on homepage to “subscribe to our list”
  • Final versions will be posted in Dec.
What is the Public Works Service Bureau?

- The Public Works Service Bureau (PWSB) provides a resource for public works staff members from cities of all sizes to connect with and learn from others how best to improve work efficiencies, learn new techniques, and maximize available resources. Our goal is “communicate to innovate!”
- Currently funded by the Iowa Highway Research Board
  – One of our tasks is to establish permanent funding
- Website has been up and running since August 2021

Becoming a member is EASY and FREE!

- Step 1 – Create an Account
  ✓ Email
  ✓ Password
  ✓ Name
  [Anti-spam measure requires staff approval of account]
- Step 2 – Additional Contact Info
  ✓ Name
  ✓ Title
  ✓ Organization
  ✓ Contact Info
**PWSB Membership Breakdown**

<table>
<thead>
<tr>
<th>Population Range</th>
<th>Incorporated Cities</th>
<th>Cities with Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 100</td>
<td>127</td>
<td>0</td>
</tr>
<tr>
<td>101 - 250</td>
<td>211</td>
<td>4</td>
</tr>
<tr>
<td>251 - 500</td>
<td>170</td>
<td>7</td>
</tr>
<tr>
<td>501 - 1,000</td>
<td>167</td>
<td>12</td>
</tr>
<tr>
<td>1,001 - 2,000</td>
<td>108</td>
<td>5</td>
</tr>
<tr>
<td>2,001 - 5,000</td>
<td>85</td>
<td>28</td>
</tr>
<tr>
<td>5,001 - 10,000</td>
<td>43</td>
<td>26</td>
</tr>
<tr>
<td>10,001 - 25,000</td>
<td>24</td>
<td>17</td>
</tr>
<tr>
<td>25,001 - 50,000</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>50,000 - 99,999</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>100,000+</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

42 consulting firms
12 counties
20 partners/other

**Website Highlights**

- Contacts
- City policies
- City supplementals
- Reports
- Forums
- Funding opportunities
- Headlines
- Job board
- Newsletters
- Partner contacts
- Training opportunities
- Video Tutorials

**Reports**

- Financial
  - Capacity Improvements, Engineering and Professional Services, Principal and Interest, Road Use Spending, Snow Removal, Street Cleaning, Street Lighting, Street Maintenance, Street Preservation
- Street
  - Pavement Miles by Condition (Average and Total), Surface Breakdown, and Lane Mile Breakdown Report (newest)
- Iowa DOT Reports (links)
- Bridge Condition Report
- Bid Tabulation Report

Thank you to the Iowa DOT and the Iowa Pavement Management Program for providing data to generate these reports!

**Lane Mile Breakdown Report**

Unit Costs Based on 2022 Weighted Average PWSB Bid Tabulation Report.

Material:
- 12" stone 1.260" thick = 1.2 x 0.6 x 1 = line mile:
  - $142.26
- 10" stone 1.000" thick = 1.0 x 0.5 x 1 = line mile:
  - $117.50
- 8" stone 0.750" thick = 0.8 x 0.3 x 1 = line mile:
  - $92.70
- Pavement cost = $320 + ($142.26 + $117.50 + $92.70) x (lane miles)

Surface Treatments:
- 7.5" coarse mix = $25.00
- 5.5" coarse mix = $22.00
- 5" smooth mix = $20.00
- 5" coarse mix = $19.00
- 3.5" smooth mix = $17.00
- 3.5" coarse mix = $15.00

Average = $21 + $20.50 + $19 + $18.50
Materials cost = $41.50 + $40.50 + $38.50 + $37.50
Total cost per lane mile = $1,172.173
Forum Categories (9)
- Announcements
- Budgeting
- Just for Fun
- Open Forum
- Research
- Right-of-Way Management
- Staffing
- Streets
- Training

Recent Forum Discussions
- Surety bond and COI amounts
- Traffic calming
- Yearly reviews
- Sidewalk cost share program
- Utilities in the right-of-way
- Body camera policy
- Sealcoat alternative
- Leased parking stalls downtown
- Pavement management and PCI

How do I find out about forum posts?
1. Register as a member
2. Use our various features
3. Participate in the forums
4. Send us your suggestions
5. Utilize the job board
6. Send us your bid tabs
7. Follow us on social media
8. Spread the word!

Help us Help YOU!
Social Media

Facebook.com/iowaPWSB
LinkedIn.com/company/iowaPWSB
Twitter.com/iowaPWSB

Questions?

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