

Wisconsin Program Presentation

P UNIVERSITY OF WISCONSIN
PLATTEVILLE

Highway Technician
Certification Program

2024

Agenda

- Introductions
- Wisconsin's HTCP Program
 - Program Set-up
 - Certification Recap
 - Mentoring Program
 - What's New/Building Momentum/Continued Success
 - Status update on electronic testing
 - Registration/Communities Project

HTCP Team

- Housed at University of Wisconsin – Platteville
 - Three-person department:

Director:
Jodi Pluemer



Associate Director:
Amy Pennekamp

Outreach Specialist:
Sandi Pitzen

WisDOT

- Wisconsin Department of Transportation



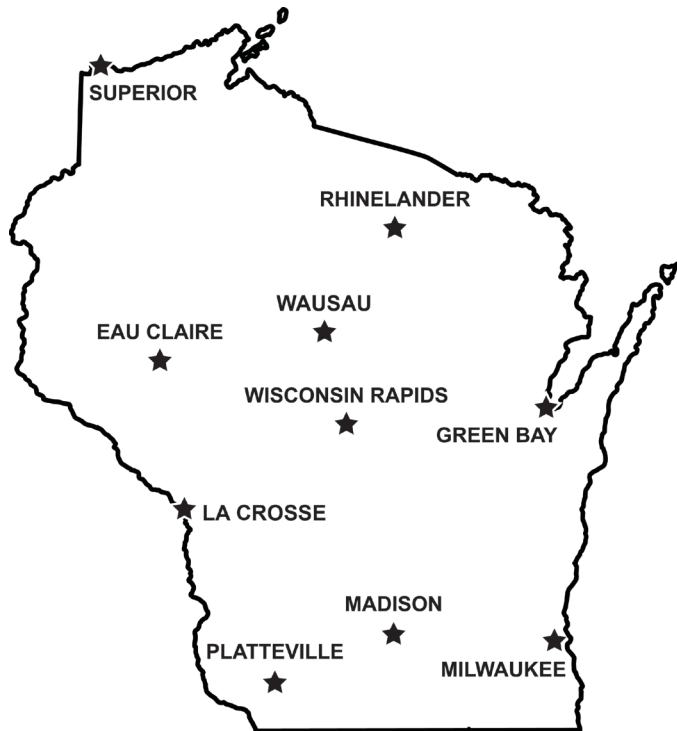
IA Coordinator:
Adam Johnson

Program Set-up

Wisconsin Highway Technician Certification Program

- Memorandum of Understanding (MOU) w/ WisDOT
- Established in 1991: 33 years
- Advisory Board:
 - FHWA, WisDOT, Industry & Associations
- 14 different certifications:
 - Aggregate, Concrete, Asphalt, Soils, Nucleon Density, Profiling
 - 3-year term
- In Person and Online Training
 - Approximately 70 events a year

Wisconsin Highway Technician Certification Program



- Over 50 HTCP Instructors made up of Industry, Associations and WisDOT
- Offer training at 10 sites throughout Wisconsin
- Approximately 2,000 certifications a year
- Approximately 8,000 active certifications on file

Wisconsin Highway Technician Certification Program

- 2025 Schedule Details:
 - Schedule Go Live: September
 - Registration Go Live: October
 - Classroom Training: January – June
 - Online Training: All Year Round
 - Materials Coordinator
 - Assistant Certification Technician (ACT) Program



Wisconsin Highway Technician Certification Program

Aggregate

TMS: Transportation Materials Sampling: **\$325**

AGGTEC-I: **\$725**

ATTS: Aggregate Transportation Testing System: **\$550**

Portland Cement Concrete

PCC MIX DESIGN: **\$TBD**

PCCTEC-I: **\$550**

PCCTEC-II: **\$800**

CST: Concrete Strength Tester: **\$325**

Hot Mix Asphalt

HMA-IPT: Introduction to Production Testing: **\$800**

HMA-TPC: Trouble Shooting/Control: **\$550**

HMA-MD: Mix Design: **\$800**

Other

GRADINGTEC-I: **\$725**

NUCDENSITYTEC-I: **\$425**

Profiler: **\$400**

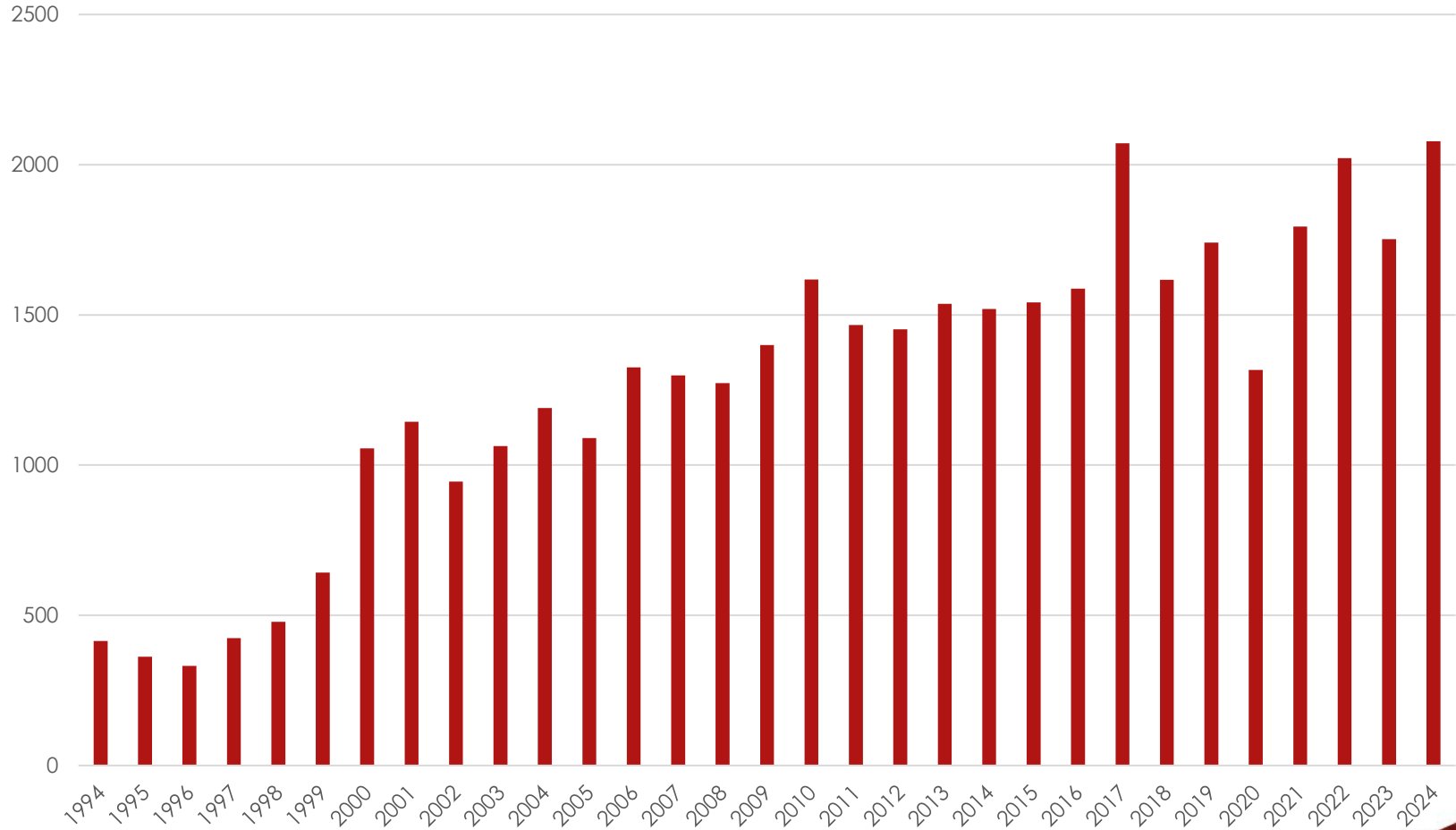
Materials Coordinator Training – **(ONLINE ONLY): \$150**



Certification Recap

HTCP 3 Year Program

3-Year Certifications by Year



Approx. 8,000 Active Certifications



Mentoring Program



Instructors

Retirement/Replacement

- Retirement/New Positions:
 - Hitting 50% of the certifications + Courier
- Recruiting methods:
 - Attending variety of conferences, engaged interest level
 - Leveraged existing instructor input from WisDOT and Industry pool
- New instructor mentoring/training:
 - Began in 2022 with online as TA role
 - Continued in 2023 F2F with mentoring under main instructor
 - 2022/23 New Instructors: 12 across main/lab
 - 2024 New Instructors: 5 main/lab
 - 2025 continue to recruit with continued retirements



-What's New
-What's Building Momentum
-Continued Strength



What's New

IA Aggregate Sampling (TMS) Rodeo

- First Rodeo, learnings to take concept forward
- Two dates in 2024
- Two separate locations in state (Northeast and Northwest)
- Email communication sent to sign up active testers
- Gave time for IA's to review/sign off on technicians sampling to achieve 90% and build relationships





What's New

New PCC Certification for 2025

- Concrete Mix Design Course:
 - Need to improve and drive knowledge/awareness around the process of reviewing Concrete Mix Design paperwork/documentation
 - Incorrect units
 - Missing information
 - Incorrect information
 - How to locate correct forms
 - Who: Technicians reviewing/approving concrete mix designs
 - 1 day course
 - No prerequisite needed
 - No laboratory – lecture only
 - Minimal Fee



What's New

2025 Classroom Engagement: Kahoot

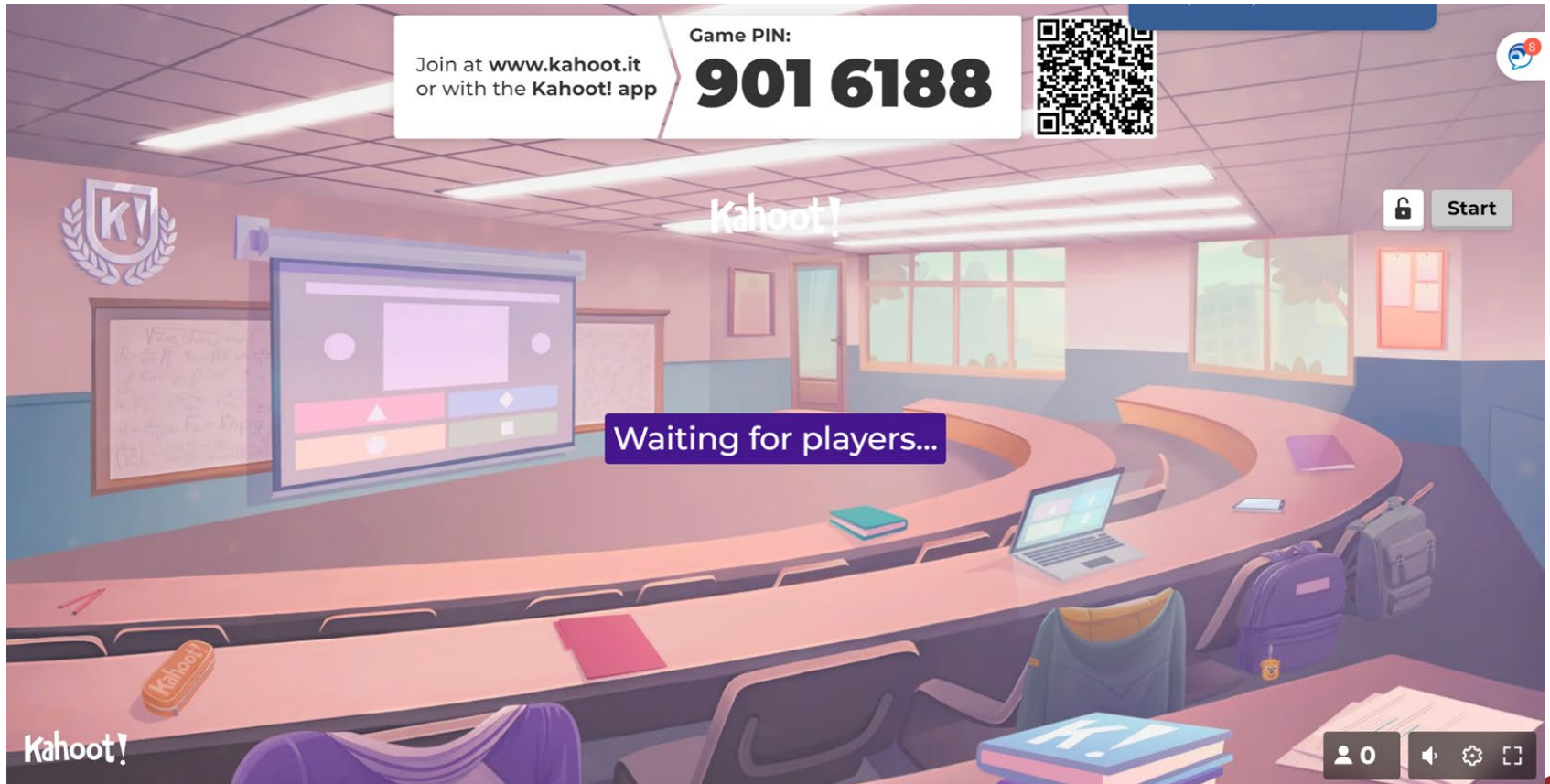
A game-based student response system where the classroom is temporarily transformed into a game show where the teacher is the host and the students are the contenders using either their phone, tablet, or computer.



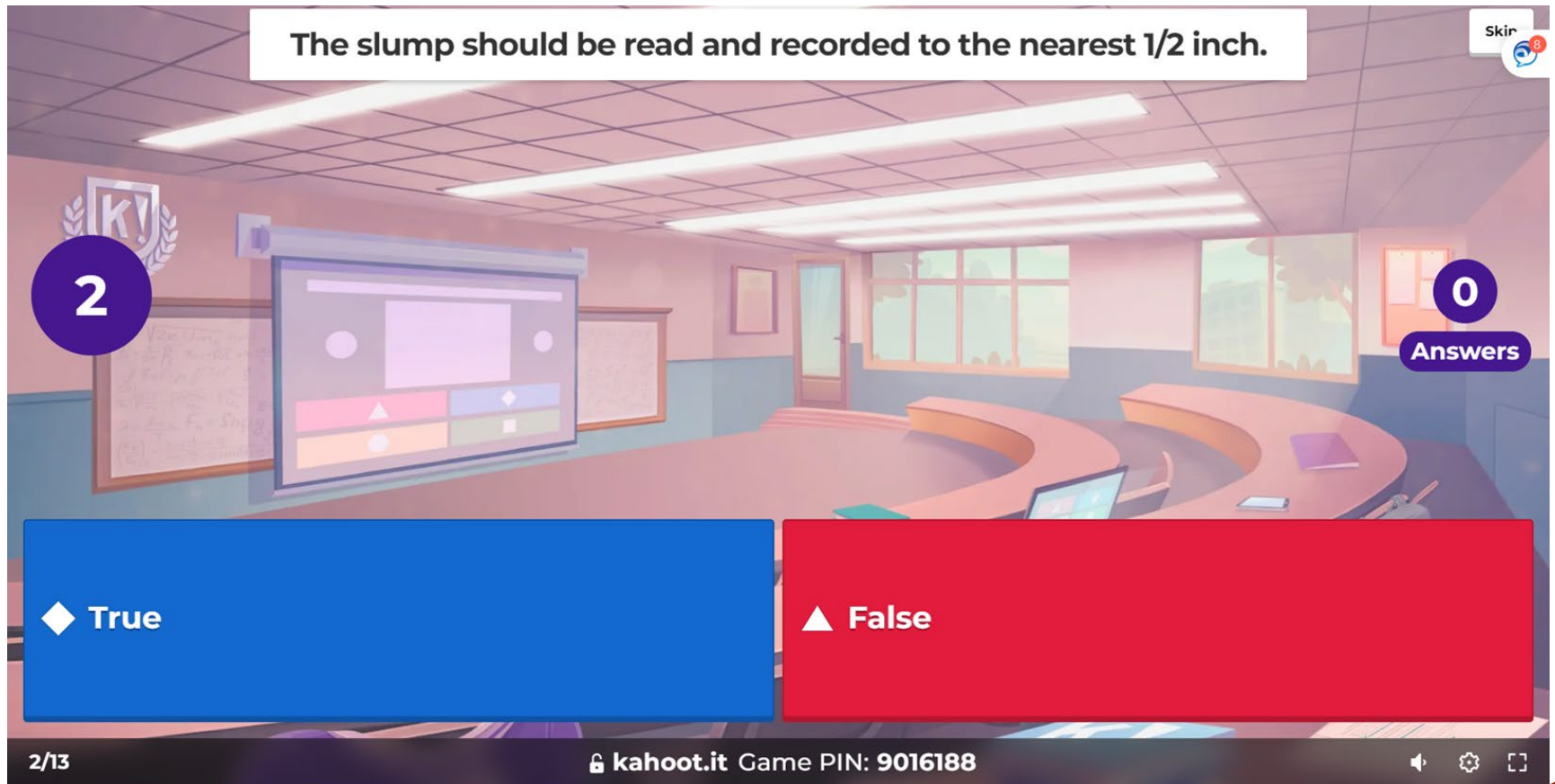
What's New

- **Benefits of Using Kahoot in Adult Learning**
 - Increased engagement and participation
 - Instant feedback from learners
 - Promotes collaboration and teamwork
 - Fun and interactive way to reinforce concepts

Kahoot



Kahoot





What's New

Technology/Online Strategies

- 2018: Launched Salesforce Database
- 2025: Building Communities portal
 - Layering in self servicing portal:
 - Creates password protected registration and corrects security risk
 - Creates transcript capabilities
 - View historical class detail
 - View current registrations
 - Ability to review/print certificates

What's New

MOTP (Manual of Test Procedures)

- Manual summarizes WisDOT modifications to AASHTO and ASTM test methods.
- These “WisDOT Test Modifications” (WTMs) do not list the test step by step, but rather list the referenced AASHTO or ASTM sections which are modified.
 - Example: AASHTO R90 to WTM R90
- If there is no WisDOT modification, it is inferred that the technician will follow the AASHTO or ASTM verbatim.
- Instances where there is no AASHTO or ASTM, WisDOT created “Wisconsin Test Procedures” (WTP) which describe the test step by step in the manual.

WTM R90

Effective Date: 01/01/24

Revised Date:

Follow AASHTO R90 *Standard Practice for Sampling Aggregate Products*
with the following modifications:

AASHTO R90-18 Section	WisDOT Modification:																																												
2.1	<i>Replace the AASHTO T 11 and T 27 references with the following WisDOT Modified versions:</i> WTM T11 – Finer than No.200 WTM T27 – Sieve Analysis																																												
2.2	<i>Revise Section 2.2 to replace the reference to ASTM D75/D75M with the WTM R90 reference.</i>																																												
3.3	<i>Revise Section 3.3 to replace the reference to ASTM D75 with the WisDOT Modified R90 reference.</i>																																												
Table 1	<i>Replace Table 1 with the following:</i> <table><tr><th rowspan="2">Nominal Maximum Aggregate Size</th><th colspan="2">Minimum Weight of Field Samples*</th></tr><tr><th>kg</th><th>lb.</th></tr><tr><td colspan="3">Fine Aggregate</td></tr><tr><td>#10 (2.0mm)</td><td>5</td><td>10</td></tr><tr><td>#4 (4.75mm)</td><td>5</td><td>10</td></tr><tr><td colspan="3">Coarse Aggregate</td></tr><tr><td>½ in. (9.5mm)</td><td>5</td><td>10</td></tr><tr><td>¾ in. (12.5mm)</td><td>10</td><td>25</td></tr><tr><td>1 in. (25.0mm)</td><td>15</td><td>35</td></tr><tr><td>1 in. (25.0mm)</td><td>25</td><td>55</td></tr><tr><td>1 ¼ in. (31.75mm)</td><td>25</td><td>55</td></tr><tr><td>1 ½ in. (37.5mm)</td><td>30</td><td>70</td></tr><tr><td>2 in. (50mm)</td><td>40</td><td>90</td></tr><tr><td>2 ½ in. (62.5mm)</td><td>45</td><td>100</td></tr><tr><td>Larger than 2 ½ in. (62.5mm)</td><td>115</td><td>250</td></tr></table> <p>*When split samples are taken, the field sample size shown above is doubled.</p>	Nominal Maximum Aggregate Size	Minimum Weight of Field Samples*		kg	lb.	Fine Aggregate			#10 (2.0mm)	5	10	#4 (4.75mm)	5	10	Coarse Aggregate			½ in. (9.5mm)	5	10	¾ in. (12.5mm)	10	25	1 in. (25.0mm)	15	35	1 in. (25.0mm)	25	55	1 ¼ in. (31.75mm)	25	55	1 ½ in. (37.5mm)	30	70	2 in. (50mm)	40	90	2 ½ in. (62.5mm)	45	100	Larger than 2 ½ in. (62.5mm)	115	250
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Note 2	Delete Note 2																																												



Building Momentum

Electronic Exams in Classroom Setting

- 2024 Beta test:
 - LMS: Canvas
 - Focused on variety of location set up across state
 - Across Level 1 certifications
 - ***Success!***
- 2025 Roll out:
 - Layering into future
 - Need larger screen: Computers vs Tablets
 - Need additional HTCP resource to execute



Continued Success

Instructional Development Workshops

- Hosted at UW-Platteville: Upcoming 4th annual
- Main/Lab Instructors
- Agenda:
 - HTCP Updates/ How To's (IT/Kahoot)
 - Principles of Adult Learning
 - Motivation and Inclusive Instruction
 - Effective Communication Skills
 - Overcoming challenges in the classroom
 - Brainstorming by certification

Instructor Workshop



What's Coming

AASHTOWare

- **Progress Report from WisDOT:**

- WisDOT is continuing implementation activities for the AWP Materials Module.
- The Goal(s): Provide input capability to capture Agency/Contractor/Supplier test results, and to more efficiently Track/Document/Support/Report contract acceptance actions.
 - Construction Staff and Materials Personnel have formed additional collaborative Teams to review proposed AWP System Configurations.
 - Material Users training tools are concurrently being drafted to be incorporated into the existing WisDOT AWPKB site: [WisDOT AASHTOWare Project™ \(AWP\) home](#)
 - Shadow project selection phase (Fall/Winter 2024).
 - Pilot project selection phase (Spring 2025).



Questions?

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