Optimized Aggregate Gradation and Mixtures

• Currently a Wis.DOT STSP
  ▪ Should be inserted into all contracts that require slip-form paving.

• 2018 Construction
  • Very few questions on its use and application.
  • Positive feedback from contractors that used it.
  • Good results when reduced cementitious of 520 lbs/c.y. was used. Didn’t seem to affect opening strengths.

• The future of OAG
  • Pavements: Remaining as a STSP for 2019 Construction. Optional to the contractor with incentives
  • Structures: BTS is considering applying the shadow specification to structures also. Committee pending.
Flexural Strength Beams

• Used on some interstate and large projects in 2018.
• SPV available for use and recommended on projects:
  ▪ With gravel aggregate sources.
  ▪ ≥ 20,000 s.y of slip-formed pavement on an Interstate or USH.
• Contact BTS to discuss prior to including on a project.
• Statewide implementation is still being vetted within the department. No date set for full implementation.
Stringless Paving

• Was used on multiple projects in 2018.

• Inserted into contracts via ASP6 beginning with December 2018 LET’s.

• Could be in 2020 standard specifications.
MIT-SCAN-T2

• Common questions:
  ▪ Allowable difference between multiple measurements at the same location by the same user with 1 device?
    • 0.8%. 12” Pavement would be 2mm.
  ▪ Allowable difference between 2 gauges and/or 2 users?
    • 1.3%. 12” Pavement would be 4mm.

• Temps
  ▪ Operating range: 23° to 122°
  ▪ Storage range: 14° to 122°
• Repairs
  ▪ Batteries.
    • Ni-Mh. Can be overcharged or over-discharged. Try and charge once per month when needed.
  ▪ Devices have to be shipped to VA or Germany.
  ▪ Broken knuckle at the head of the lower unit repair cost is $1,400.
SAM – Super Air Meter

- WHRP project currently under way which will be completed in 2019.
- Shadow specification used during the 2018 construction season.
- Wis.DOT currently owns 8 SAM’s. 6 Additional units will be purchased in FY2019.
- No concrete timeline set for standard specification implementation.
- The department is going to discuss moving the shadow specification into structure contracts beginning with the Dec 2019 LETs.
- 2019 – one test required per lot.
2019 CONCRETE SPEC UPDATES

• 415.3.20(2) – UrbanJoints required to be filled
  ▪ Construction joints to be sawed at least $\frac{3}{4}$” before filling.

• 501.2.5.4.2(1) – Chert vs. Lightweight pieces
  ▪ Chert language replaced with Lightweight.
  ▪ Must perform and enter test results from AASHTO T113 to be listed for concrete use.

• 502.3.10.1.3.3(3) – Maturity Probes
  ▪ Probe represents all concrete prior to its placement.
2019 CONCRETE SPEC UPDATES

• 504.2 – Cast in place vs precast structures
  ▪ Concrete for cast in place structures remains the same.
  ▪ Concrete for precast structures must conform to ASTM C1577 and be manufactured in a plant on the departments APL.

• 505.2.6 – Dowel Bars
  ▪ Tubular dowels and alternative HP dowels added starting with March ASP-6.
Part 7 - QMP

• Section 701 – General
  ▪ Must obtain engineer approval before making process or material changes that differ from approved QC plan.
  ▪ QC plan must include unique aggregate identifier.
  ▪ Documentation submittals:
    • Same-Day submittals not required.
    • Electronic requirement removed.
Part 7 - QMP

Section 715 – Concrete Pavement and Structures

- SAM shadow testing add to standard specifications.
- QV testing updated to 1 per 5 QC tests.
- Report QV test results to the contractor within 2 days.
Part 7 - QMP

• Section 716 – Ancillary Concrete
  ▪ Base Patching testing frequency changed to every 100cy for air and slump and every 200cy for cylinders.
Questions

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