HMA Inspector’s Tips and Tricks

What to look for in a quality Asphalt paving project.
What will we discuss?

• Pre-paving Planning
• Project Inspection
• Production/Placement
• Compaction
• Testing
Pre-Pave Planning

- **Items for discussion**
  - Know the difference between Specification and “Best Practices”
    - Are these “Best Practice” or Specification?
      » Do Not Dump the wings of the paver between loads
      » The asphalt at the joint should only be bumped not raked
  - Unusual items in the plans and specifications
    - Special provisions within the plans
  - Coordination with the public
  - Traffic Control
    - Has the traffic control plan been approved?
    - Any expected additions to the TCP?
Pre-Pave Planning

• **Items for discussion**
  
  • Unusual items in the plans and specifications
    • Special provisions within the plans
  
  • Coordination with the public
  
  • Traffic Control
    • Is there a traffic control plan?
      • Work Zone Safety App
        • Available on Google Play or in the I-tunes app store
    • Has the traffic control plan been approved?
    • Any expected additions to the TCP?
Pre-Pave Planning

• **Items for discussion**
  
  • Expected equipment to be on site  
    (This is a general list not specific pieces of equipment)
    
    – Paver
    – Rollers
    – Tack Truck
    – Miscellaneous
  
  • Weather issues/requirements
    
    – Temperature restrictions
    – Moisture restrictions
Pre-Pave Planning

• Items for discussion
  • Proof Roll requirements
    – What will be available to apply loading for a proof roll?
      » Single axel water truck is best
    – What is the acceptable amount of deflection during the proof roll?
      » Make this a known number and be consistent during the actual proof roll procedures
  • Release agent to be used?
    – Who will supply the release agent?
  • Expected minimum production/placement in a normal day
    – It is generally better to place material in a large quantity than small quantities for a more consistent product.
Pre-Pave Planning

• Items for discussion
  – What specification book will be referenced for this project?
Pre-Pave Planning

• Items for discussion
  – Any special Provisions which should be discussed during the Pre-Construction conference?
  – Testing sequence discussed
    • All labs performing tests in a similar time frame?
Project Inspection

• Plant visit/Check
  – Plant visit/Check
    • Distance from project
    • Loading procedure for aggregates
      – Fines on the bottom/ fines on the top?
    • Loading procedure for HMA for transport
      – Single dump, multi dump, Etc.?
Project Inspection

- Introduction of additives
  - Lime
  - RAP
  - Warm mix additives
  - Fillers, fibers, or other products
Project Inspection

- **Binder storage**
  - Horizontal tanks?
  - Vertical tanks?

- **Where are the QC/QA labs related to the plant and project?**
  - This will be important when production and placement begin
Project Inspection

- Site visit
  - Review plans
  - Understand obstacles (The contractor will know all of them)
  - Check signage
    » Does it match the approved Traffic Control Plan
    • If not, has the plan been changed?
    » Have signs been added, removed or altered?
    » Signs covered/down when not being used?
Project Inspection

• Subsurface preparation
  – Has the subsurface been properly prepared
    » Milling completed?
  • Surface one consistent condition?
    • No rips, tears or scabbing?
      » Concrete rubblized?
      » Density tests performed (if necessary) on soil/aggregate base course?
Subsurface preparation (Continued)

- Test results relayed from the QC/QA testers prior to placement?
- Proof roll observed (If required) (should have been discussed in the pre-paving meeting what is acceptable)?
- If placement is going to be delayed, what is the contractor proposing to do to protect the surface to be paved. This is especially important for soil or ABC surfaces.
- What is allowable time between acceptance for placement and actual placement of HMA?
Production/Placement

- **Equipment on site as expected from the pre-paving meeting?**
- **Trucks scheduled?**
  - Type of trucks proposed for the haul (general, Tandem, Trailers, Bellies, Conveyor, etc)
    - Expected production for the day
  - Tack coat placed
  - Proper grade
  - Proper application rate per plans and specifications
    - Trucks should avoid driving on tack if at all possible until needed?
      » Trucks driving on the tack may pick up the tack coat material. The recommended film coating may not be left in place. Contaminates, dirt or other foreign products may left on the surface and cause the layers to not bond.
Production/Placement

– **What release agent is being used in the trucks?** Ask the driver, smell, and check for slime on tail gate and box area.
  - Diesel and release agents don’t mix the release agent will encapsulate the diesel fuel

– **Are the trucks charging the tailgate prior to discharge?**
  - The HMA should be up against the tailgate prior to the driver releasing the HMA from the truck. This will help to eliminate truck caused segregation.

– **Trucks not bumping the paver**
  - Trucks bumping the paver may cause the mat to deviate from plane
Production/Placement

- MTV/MTD being used?
- Paver starting and stopping quickly if no MTV/MTD being used?
- Wings not dumped on paver during day (Best Practice)
Compaction

- **Roller pattern established by the paving contractor**
  - Roller pattern documented
    - Types of rollers being used on the project to establish the roller pattern
    - Number of passes with each roller
    - Temperatures during each phase of compaction
    - Distance between pieces of equipment when establishing the roller pattern and during production/placement
    - Mat texture during each phase of rolling
      - Note any areas which are exhibiting differences, i.e. check cracking, shoving, tenderness, etc.
– **Samples obtained by QC and split for testing and secured by QC/QA technicians?**

  • Testing sequence and processes similar by all labs (Discussed in the pre-paving meeting)?
  • In-place density tests being performed as described in the QC plan and pre-paving meeting, according to the random schedule?
  • Coring, if required, being done and results being reported in a timely manner?
  • Test results being reported by both labs in a timely manner. Results should be reported the same day if obtained before noon and by 8:30 am the next day if sampled after noon at minimum for all labs involved.
More Training?

- RMAEC Webinars
  - Subjects will be varied and vast
  - Check out the training opportunities at
    - [www.co-asphalt.com/education/webinar-home.htm](http://www.co-asphalt.com/education/webinar-home.htm)
More information?

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