



AASHTO Committee on Construction

Annual Meeting Minutes

August 13, 2018 – August 17, 2018

Pittsburgh Marriott City Center

Pittsburgh, Pennsylvania



Monday August 13th

Pennsylvania DOT Welcome – George McAuley, Penn DOT Deputy Secretary

- Pennsylvania DOT system has 40,000 miles of roadway, over 25,000 bridges, \$2.4 Billion of Construction a year, 11,000 employees (includes DMV with 7,000 of them in maintenance). Over 2,000 full time employees take care of program delivery.
- Penn DOT Connects is the big movement. They are working hard to improve diversity and inclusion throughout the department.
- Starting to add specifications requiring partnering on larger projects.
- 'Tybot' – a robot who ties rebar and can operate 24/7.
- Nondestructive paint is a hot topic – with so many steel bridges they are seeking innovation.

Central Susquehanna Valley Thruway – Ted Deptula Penn DOT

- \$670 Millions. Almost a mile long bridge on the project. Some of the piers are 45 feet tall.
- The causeway can only go halfway across the river at a time.
- They did a test shaft early in the project. The results validated the original design assumptions.
- For the land piers, the contractors did an innovative ring design. 30 feet down is where the footer starts.
- Some of the river bridge footers are enormous. One of the largest ones is 1,400 cubic yards.
- The project had challenging with the cooling tubes. Mice and water freezing were some of the items the project team overcame.
- The project had over \$1 million in mechanical couplers for the project.
- Over 1 million yards of dirt moved on the project. They had a couple fill sections that were 80 feet.
- They used A+BX where the contractor bid a year ahead of what they thought.
- They built a temporary bridge \$2 million to move dirt so they did not affect traffic.
- Penn DOT does a lot of composite pavement. This section is (9" PCC with 3" Binder and 2" SMA on top of it).

FHWA Update – Tom Everett, FHWA Office of Infrastructure

- Jeff Lewis with FHWA is going to be retiring in the next year. Jeff served 18 years as secretary of COC Safety, Environmental and Workforce Development. This subcommittee has changed names three times and had eight different chairs.
- \$47.5 Billion in funding for highways. There is an upcoming \$225M grant project for bundling rural bridges. Funds must be obligated by September 30, 2021. Population requirements kick out a bunch of states. They are close to issuing the NOFI through the federal register.
- UAS (Unmanned Aerial System) – is a hot topic. Many states are looking to supplement bridge inspection. Not replace it but work on it. There is a domestic scan upcoming on this topic. A national workshop and website is being developed.
- Asset Management – FHWA have certified or conditionally certified all 50 states asset management plan.

- Every Day Counts – Amid at helping partners advance topics of technology. E construction started in Round 3 of EDC and continued under Round 4. EDC4 has a lot of online information on partnering. EDC 5 Summit dates are coming later this fall.
- Next for e-Construction is Digital Construction Inspection.
- Operationalizing ID/IQ. They will mainstream this more going forward. The rule making process was published in June 26th. They are looking at low cost. No more than \$2million through work orders. Short term. Looking at one to two year contracts.
- Cost estimating guidance is undergoing an OIG audit. FHWA will be coming out with new estimating training that will be e-training.
- New DBE guidance on design build. Christine Thorkildsen is the point for FHWA.
- The bridge preservation guide was just updated. This is great guide for cities or counties who don't have much experience on this topic of setting up a good system.

NTPEP update – Dave Kuniega, Penn DOT

- APEL is officially part of NTPEP.
- PennDOT placed 150 pavement markings from 10 companies for a three-year field evaluation.
- NTPEP does product evaluation and audits. They are providing data. They do not pass or fail materials. They leave that to DOTs.
- Roughly 600 to 700 products/audits conducted yearly.
- DataMine for many product to make searches easier to find on products.

Recruitment and Retention of Construction Personnel for DOTs – Christofer Harper, LSU

- LSU is doing a ton of research on this topic. They were working closely with two other universities.
- Average age of DOT employees is 48. 15% of DOTs staff could retire today. 36% are eligible to retire over the next five years.
- Baby bomber vs Millennials and use of technologies. Changing skill sets from leading DOTs. Utah is hiring licenses pilots to lead and run the UAV side.
- LSU did interviews with many DOT staff. Over 1100 interviews. A large NCHRP study on this topic was conducted 20 years ago. Some of the principals from this study carry over.
- The way DOTs need to recruit is changing. Having a solid strategy is important.
- Primary reason why individuals are working for a state DOT is having great benefits.
- Morale is bad at many DOTs. Figuring out why is something they are working out.
- People are proud working for a public agency. Making a difference is something DOTs need to focus on. Especially with the younger engineers, making a difference is important to them.
- Arkansas DOT is quantifying benefits to new hires to show the big impacts.
- NCHRP workforce 02-25 will be completed in the near future. This is a large research project on the topic.

Report Back from Sections

Subcommittee on Integrated Construction and Technologies – Joe Squire, Oregon DOT

- Drone/UAVs was a hot topic
- Small cell (related to utilities) technology was something discussed in detail. The subcommittee is trying to find a way to leverage this increasing technology.
- Minnesota DOT is using a HYVE used to look at pipes. Very low cost.
- Discussed 3D plans and how states are incorporating the inspection aspect of technology.
- Source document is a topic states are hoping seeking more information in future conferences.

Subcommittee on Contract Administration – Gary Angles, Ohio DOT

- Certification and retention was discussed
- Discussion was had on the different skill sets for the workforce now and the future
- Material acceptance process. Not just how but who. It is important to know both for the process.
- New method process for inspection/acceptance. These include inelegant compaction and ground penetrating radar.
- Risk sharing best practices for various DOTs were covered. These included rain days, water level, etc.

Subcommittee for Safety, Environment and Workforce Development – Rachel Falsetti, California DOT

- Chris Harper from LSU came back and they worked with him.
- Agency staffing for alternative program staffing was discussed. This could be a possible NCHRP topic for next year.
- Upcoming there is a webinar on the domestic scan results.
- A large amount of time was spent discussing what items are important for the upcoming year.

Subcommittee on Roadway and Structures – Joe Robinson, Pennsylvania DOT

- Discussed research topics. The group went into detail on what sections they will be updating with the guide spec.
- Many were interested in is risk based inspection. A handful of states are already doing this to different degrees.
- Staffing challenges exist for almost every DOT. Discussion was held on how to overcome this.

COC Chair Welcome – Dallas Hammit, Arizona DOT

- Dallas welcomed the group to the annual meeting
- He informed everyone he started as a consultant and moved to the DOT after a couple of years
- The one thing he loves most about the DOT is the people. At DOTs, you have a cross section of such a diverse group. Experts in every area working hard for a common goal.

Don't be an ATM – Scott Lowe and Mark Nagata, Trauner

- Don't be an ATM because
 1. You don't know your contract
 2. You don't know the facts

3. You don't know how to measure delays.
 4. You don't know the law.
 5. You don't know when to settle
- The Daily Work Reports for DOTs use to be the best in industry. That is not the case anymore. These reports become a huge importance when disputing claims.

Tuesday August 14th

Research Subcommittee Meeting, Jason Humphrey, South Dakota DOT

- NCHRP has changed. What was once 20-7, has been eliminated. The new process is 20-123.
- NCHRP does have a pot for urgent need research. These funds are not utilized too often.
- It is important to have a good problem statement. Make sure there is not a duplicated effort.
- November 1st is the deadline for submitting research problem need statements.
- A list of possible topics included: leveraging 3D with LiDAR and application of LRFID with tracking, rubilization, fast tracking projects, staffing and skill sets, construction inspection workforce, FAH 15 on project delivery for P3, Progressive Design Build and Pre-Construction CMCG.
- Some of these topics already have recent research on the topic. If COC were to submit the topic having a good problem statement on how this would be different would be extremely helpful.
- Looking at two or three projects for the COC. Need to prioritize the project list.
- Jason is looking to establish a good process to better track what research statements are submitted. This will allow the COC to better-utilized projects selected.

Update on New Mexico DOT Performance-Based Contractor Prequalification – Sally Reeves and Lisa Vega, New Mexico DOT and Geraldine Aguila and Pam Gallego, New Mexico Office of Inspector General

- <http://dot.state.nm.us/content/nmdot/en/prequalification.html>
- Old rule was in place since 1998 where contractors signed up to become prequalified.
- In 2013 the state transportation commission requested the change.
- FHWA approved two three years durations on this process.
- A new contractor has a score of 1.00. Currently 26 contractors have scores ranging from 1.28 to 0.97. Contractors have to complete a project to get a score. They only apply the factors to projects greater than \$5million. Although data is gathered on every project.
- NM DOT has six factors which impact a score. Once a project is competed they check the score and then send it to OIG and they plug in the information.
- They have an equation to calculate the score. It takes into account where last year's score is factored in at 90%, Year 2 at 60% and Year 3 is 30%. They have had bid awards be impacted or different once the factors are included.
- Zero claims since this process started.
- 15% of the score each year is based on claims. 30% of the score is disincentives. 30% of the yearly score is Liquidated Damages. Contractors are making a much closer eye on time for schedule. 10% is performance factor with NC. NM DOT has a well-defined notice of potential NC. This helps gets quick action for items. They have five days to correct any significant non-conformance. 5% is safety. This is an external measure from the contractors bonding company. EMR is decreasing

over time. 10% is prompt payment to subcontractors. They have seen a great increase in prompt payment.

- In 2015 a contractor challenged their score about project close out. Debate on when the project was finally closed out was what was being challenged. NM DOT had to make the rule clearer to help provide better information.
- Another contractor legally challenged a 2017 score based on two non-conformances for not promptly paying sub-contractors
- NM DOT holds 5% retention on projects to get fast project close out.
- Overall NM DOT are seeing contractors much more responsive and responsible.
- Contractors are pushing DOTs to close jobs faster to get the score in for the next calendar year.
- ARTBA has looked at this for the last couple of years. Their board of directors is against this policy.
- The only way to gain ground is to add value to the situation. Contractors are against this process.
- AGC does not mind pre-qualification process. They do not like the pre-bid process.

Penn DOT Rapid Bridge Replacement PPP – Gary Kleist, Penn DOT

- Pennsylvania had to get legislative authority to allow them to do P3.
- For this specific project they required the contractor to do the NEPA document. The DOT reviews and approve it. They learned a lot of the process. This had to go very quickly. The SEP-15 allowed them to save a lot of time and make sure their ducks were in a row.
- Equity Group: Pienary Group was 80%; Walsh Group was 20%. \$900 million project. They did 558 bridges.
- From a staffing level PennDOT didn't want this project to disrupt normal staffing project. They hired consultants to help with the lift.
- They are pushing around 30,000 design submittals.
- In 2040 is when the bridge handback begins. September 2042 is when the project completion is completed. At the end of the term bridges are rated 7 or higher for 98% of all bridges. Rated at least 6 or higher for the remaining 2%.
- Proper risk allocation is critical. Ensure sufficient time and effort for management systems. Early discussion on expectation and agreed-upon responsibilities.
- They didn't co-locate for the project. The JV said for a project this size they absolutely would have co-located.
- Having a good document control and communication is critical.
- Streamlined field escalation is critical. Lessons learned need to be communicated quickly.
- Submitted 23 ATC and approved 14 of them.
- They are putting PPC overlays on every bridge.

Panel on CM/GC – Sharon Foerschler, Nevada DOT and Rachel Falsetti, CalTrans

- In Nevada they refer to CMGC as CMAR (Construction Manager at Risk). Nevada is set up as lump sum with potential increased costs defined up front (risk reserve) no change order.
- Contractor becomes partners with the department in assessing and mitigating risk.
- Having the contractor at the table early allows for earlier collaboration and innovation.
- Detailed attention needed to identify risk (risk reserve).

- CMAR challenges are local entities who are doing this delivery method but not following the current letter of the law.
- CMAR important part of the process is having an accurate and detailed cost estimate. They bring in an Independent Cost Estimator (ICE).
- Threshold is around 7% of the guarantee max price. Sometimes it helps to have multiple GMPs out. This can help with items such as getting materials. Nevada has done 7 CMAR with largest being \$30M. Design Build they have had 9 projects with largest being \$960 Million.
- Caltrans CMGC Pilot Projects. They are getting just a couple projects at a time.
- Caltrans likes this process because there is cost certainty. Reduces cost growth. It helps with a permitting process. We only need to go once and can have the contractor explain access areas, staging and means and methods.
- CalTrans track cost savings very closely with detailed estimates to report back to the legislators.
- CalTrans utilized CMGC on a foundation removal for bridge foundations. This helped saved considerable time and money.
- -Challenges with higher support cost (contractor and ICE)
- -CalTrans likes using this in the right place. It is not a perfect tool for every project.

Panel on CMGC – Ken Kubacki, Granite Construction

- Building trust is important! Trust between the DOT, owner and engineer is key. Sometimes the trust between builder and designer is not always there.
- Getting in the truck and driving the job is critical. Everyone sees the project from a different angle.
- Development of the Target Maximum Prices (TMP) is key. How to sell the scope growth or unforeseen items is key.
- The Contractor likes to get on board for the environmental stage and can help save value and fully understand. They often do not have opportunity to see the early project development details.
- Obtaining cost/schedule certainty as you start to better understand scope.
- Risk analysis for CMGC they are focused on third party items. These are items they want the owner to take care of it. From a contractor sometimes the owner has a bigger hammer.
- The contractors like being open to change when it make sense on the project.
- Price becomes the key factor. Everyone has to agree on the inputs. The contractor handle this process as JV where the DOT is part of the team. Having everyone agree on the baseline is critical. Being able to have a difficult conversation is something everyone wants to be able to have.

CMGC Open Question and Answer

- What are good and not so good projects for CMGC: good are the larger and more complex projects (3rd party and stakeholders).
- What factor should an owner have and should they conduct interviews? The interviews allow the owner to feel out the best team. Giving expectation of the feedback is great so the contractor can staff the project appropriately and not come in cold.
- Nevada at first gave contractors a problem. They hoped to see how they work under pressure. Results were not as intended. This process is something to think through. Many states don't want a PR pitch from the contractors top executives. Both Nevada and CalTrans still do the interviews and each has a good process.

- Should price be considered before the selection of the firm? Nevada price cannot be a part of the selection. From the contractor what are you pricing at that point? You pay for what you get for. What are you getting out of asking for the pricing model so early as it will change greatly.
- Have you had a CMCG project where you could not agree on the price? Nevada has not had this happen yet. CalTrans has almost done this but they figured it out. If they are not able to figure it out then it results to hard bid. In CalTrans the contractor is not allowed to build on the hard bid.
 - Arizona DOT had a CMCG project where they could not reach an agreement and it is going out to hard bid. The contractor was compensated for their time.
- Early work package (for northern states).....long lead times (light poles, girders), utilities, tree removal, etc.
- The payfacts are included in the CMCG for both states.
- Is contractor allowed markup overhead and profit on early work? Yes, everyone negotiates up front
- Some of these projects have massive DBE goals: CalTrans figures this out for each package. Nevada treats it as they do with a normal typical project. The owner can get commitments at each package so from FHWA this helps greatly

AASHTOWare Update – Janet Treadway, Ohio DOT

- Quick update of AASHTOWare
- AASHTOWARE Project 4.2 is rolling out in August 2019
- Michigan and Minnesota are currently in production and a handful of others are implementing
- AASHTOWare is looking at a project data analytics pool funded. They are hopeful to get a handful of states to develop a new platform for tracking data.

Liberty Bridge Fire – Doug Thompson, Penn DOT

- The location of the site is a half a mile from the conference hotel
- Large rehab project with a contract value of \$80million
- ADT of 55,000 with four lanes
- Grid deck and stringer and blasting and painting
- The person who was to watch for sparks failed to see the pipes. He didn't inform the painters.
- black corrugated pipe caught on fire. Then tarps caught on fire.
- Due to the fire the complete loading was adjusted.
- A member buckled. They were close to the entire bridge collapsing.
- Penn DOT shut down the bridge. They shut down the navigational channel with the coast guard. They set up way to monitor several points to make sure the bridge was not continuing to move. A couple 3D models were quickly done. This showed the process for jacking in order to make the repair.
- After they quickly came up with a fix they had a plan to repair it within 10 days.
- Getting the high strength bolts were not available as they had to be made. They came up with a jacking process to get a rotated member. Heat straighten was ruled out pretty quickly. They few in consultants to get the joint rotation.
- Engineers were working directly with iron workers to identify the different members and welds.

- 48 straight hours of welding. Getting material to the bridge was challenging. They barged material to the bridge. They were extremely concern about it collapsing.
- They had strain gauges on the bridge during the jacking operation from Lehigh University.
- During the jacking operation they were checking the 3D model with the engineer and the strain gauge readings.
- Over the weekend jacking operation, they moved the bridge 1.5 inches.
- Once completed this fall there will be no load restriction.
- The contractor is paying for all of this including contractor cost through insurance.
- During the initial stages they saw some big swing in movement readings. This was due to the sun and thermal expansion.
- Huge partnering effort where many came together to solve a problem and quickly get the bridge back in service for the traveling public.

I-85 Bridge Fire – John Hancock, Georgia DOT

- March 30, 2017 fire developed under the bridge. Early use of water under the bridge spread it. The foam did a better job once firefighters were finally able to get it to the location. After the investigation, the cause was found to be a chair was set on fire under the bridge by a couple of homeless people.
- Firefighters saw sections of the bridge starting to slowly fall. They lost an entire span of the bridge.
- Two contracts were quickly issued. The first was a force account to remove the existing structure. The second was a negotiation on rebuilding the new bridge.
- They used their traffic management center to help with this closure. Detours, advanced outreach, restriping, signal timing adjustments.
- They had 61 beams made quickly as they rebuilt the bridge. They had to manufacture each one individually as they were each different lengths and widths.
- 13 columns, 4 caps, 61 beams, 6 spans all in 42 days. Opened right before Memorial Day weekend.
- Having the bridge opened early was part of the contractor incentives.
- NTSB issued a report. Samples were taken from the site. Conduit was being stored under the bridge contributed to the fire. Georgia DOT inspected other locations to look for an stored material. They didn't find anything from other locations.

Pavement Warranties from Michigan DOT – Jason Gutting, Michigan DOT

- Michigan DOT has a project specific conflict resolution team for warranties. They are similar in nature to dispute review boards. Two individuals from the contractors, two from the DOT and one selected jointly.
- They make the contractor keep a warranty bond through the warranty period.
- Two year warranties for basic surface treatment.
- Three year warranties for a little more advanced projects.
- Five year warranties for reconstruction pavements.
- They have criteria for concrete and asphalt pavements as well as surface treatments. Very involved and detailed process. All of the specifications are on their website.
- They have completed 4100 hundred warranty projects in the past twenty years.
- 46% of corrective action needed is for bridge beam coating.
- They have a Statewide Warranty Administration Database (SWAD)

- Recent audit findings have discovered minor deficiencies. They are 97% compliant.
- They don't have a great database to know how much price increased when they went to warranties for everything.
- Staff resourcing for tracking and inspection the warranty work is extensive. They use a lot of consultants.
- Bridge coating has been the biggest benefit.

Pavement Warranties from West Virginia DOT – Jason Boyd, West Virginia DOT

- West Virginia DOT are doing nine-year warranty periods as their standards. For concrete or asphalt.
- Monitored and rated yearly. Bonuses and deducts are made on a yearly period.
- They looked initially at three-year warranties. They struggled with 12 years or longer.
- The construction industry was very much against this at first.
- They did the second project in 2015. Last year they did nine long-term warranty projects.
- They came up with a pavement performance plan.
- Six years of data shows the contractor is well above the bonus for the first every warranty project.
- The nine-year warranty projects that just came in were around \$60/square yard for non-warranties vs \$71/square yard for projects with the nine-year warranty.
- -They were getting 6 years out of their pavements. Now they are getting.
- -Industry doesn't like this process but they are still giving the DOT "good" quotes
- -Currently, the DOT plans to keep using this process.
- -They are leaving their jobs open for 9 years.
- -They hold retainage of 12%. This retainage drops a little each year.

Pavement Warranties from a Contractor – Jim Musselman, CRH Americas Materials

- -He comes from FLDOT
- -Contractors have the fear of the unknown.
- -They want to know who is doing the pavement design.
- -Three year pavement warranties is a good thing for design build. FL DOT stays away from pavement friction because they are concerned about
- -Florida DOT has challenges with tracking the warranties.
- -Industry likes they have 3 years warranties. They also said don't expect to get 20 years when you are currently getting 7 unless you are willing to pay for it.
- -Florida DOT doesn't require extended warranties.

Experience with UAS from Montana DOT – Fred Beal, Montana DOT

- Montana DOT own a couple different types of drones.
- Dave disused the new FAA regulations. Having someone who stays on top of all of this is critical.
- Dave walked through the different uses of a drone.
- Stockpile reports is a company the DOT contracts with in Montana.
- Montana sees the future uses of drones significant. Especially for areas which are challenging to get to by foot.

Wednesday August 15th

NCHRP Update – Amir Hanna, NCHRP/TRB

- NCHRP is part of Transportation Research Board (TRB)
- They are established to be Independent, non-partisan, objective
- Annual funding of around \$40-\$42million per year
- NCHRP Project 20-07/086: Proposed Guide Specifications for Highway Construction
- NCHRP Project 10-85: A guidebook for construction manager at risk contracting for highway projects
- NCHRP Project 14-37: A guide specifications for the construction of chip seals, microsurfacing and fog seals.
- NCHRP Project 10-83: Alternative QM systems for highway constructions
- NCHRP Project 10-100: Procedure and guidelines for validating contractor Test Data – In progress
- NCHRP can help with Implementation with assistance with publication, webinars, training and/or briefing material.

Update of the 2008 AASHTO Guide Specification for Highway Construction – Sidney Scott, HKA Global

- 437 pages of specifications. They tried to simplify and streamline the guide specs.
- There was a team with research, NCHRP, and the AASHTO/FHWA (VTrans, GDOT, RIDOT, AZDOT, Michigan DOT).
- Walked through the update of each section of the spec book.
- The slides provide an excellent overview of the updates made.

Domestic Scan Unmanned Aerial Systems (UAS) by DOTs – Amy Tootle, Florida DOT

- Four days of discussion on this topic summarized.
- Detailed report on this topic is coming out soon.
- This will be a good guide for if a DOT want to develop a USA system.
- Finding Number 1: Get Executive Support
- Finding Number 2: Organizational Structure is Important – often this is the aviation group as they are most aware. Increased efficiency through sharing resources between departments within the DOTs.
- Finding Number 3: Policy and Regulation
- Finding Number 4: Safety and Risk Management – want to take proactive measures
- Finding Number 5: Training and Crew Qualifications – This is not a one and done with certifications. Having continuing education is key.
- Finding Number 6: Public Relations
- Finding Number 7: Application and Operation – workflow process for data collection
- Conclusion – evaluate the data your state has and see if and how UAS can help with data collection. Everyone thinks that UAS are expensive but for \$20k or \$30k you can get up and running.

Curb Ramp ADA Compliance – Jonathon Duvall, University of Pittsburgh and Michael Grace, Penn DOT

- Oregon and California DOT have both recently been legally challenged on ADA compliance.
- University of Pittsburgh and Penn DOT worked to make an ADA device that looks like a metal detector. It has a handful of sensors. They are doing Beta testing currently
- Penn DOT is doing the testing to see if the measurements are more objective rather than subjective
- Research shows those in wheelchairs have lower back problems just like heavy equipment operators. The key was due to vibrations. Pathway Measurement Tool is used to measure roughness of sidewalks.
- Route Accessibility Index – takes into account distance, roughness, and a few other factors
- This tool will help inventory sidewalks. It can also help identify what types of sidewalks last the longest and show what types of surfaces are the best.
- Oregon uses 1.75% cross slope which helps take the bumps off. Having a cross slope at 2% makes it extremely challenging for the contractors.
- This device will save time with data entry. It is not great to sort data with the current process. This tool will be able to help them identify a priority list.

Intelligent Work Zone – Lamar Sylvester, North Carolina DOT

- Intelligent or Smart work zone. Centers around data collection and sharing this information with a workzone with the public.
- This specific project had an ADT of 40,000. Project was \$130m project with an unbounded concrete overlay.
- They would be reducing capacity in half while they worked on sections of the 21 mile overlay.
- The smart work zone was not part of the original contract.
- They went to the contractor and asked if they had any ideas on how to get the job sooner. The contractor said if you allowed them to a full 21 mile shut down they would be done one year earlier. The bid plans had four segments to work in.
- The traffic engineers said normal days they wouldn't have problems. The summer months however would be much more challenging. Using this technology would help reduce the rear end crashes.
- They had a few Changeable Message Signs (CMS) along the project. If there was a major incident. The CMS would help detour traffic. They had a Dynamic Message Sign as well on the project (DMS).
- This system provided real time traffic data (mileage and time) to anyone traveling through the work zone.
- Condition A was free flow. Condition B was speeds less than 40mph. Condition C was when a warning message would be displayed in addition to a detour.
 - Different individuals could sign up for text/e-mails for when conditions shifted from different conditions.
- -The sensors along the route would read every five min. These were used to automatically adjust the CMS sign.

- The detours were very lengthy 90 min of travel times, but at least it was free flow opposed to having hours of standing traffic.
- The severity rate of any crashes was much better as speeds were better on the smart work zone was implemented.
- They have used intelligent work zone on another project. North Carolina has a contract set up for this on call.
- VerMack is the manufacture of the system. The cost of the system was about \$600,000.

State of the Practice with e-Ticketing – Skip Powe Alabama DOT, Amy Tootle Florida DOT, Wes Musgrove Iowa DOT, Ryan Griffith Kentucky TC, Michael Grace Penn DOT

- The group answered the following five questions: What types of e-ticketing pilots has your state conducted, did you use the system to track material placement or solely to have an electronic ticket, what were your challenges, how did you contract the pilot project, and did anything happen you did not anticipate?
- Iowa DOT has done pilots for the past handful of years with asphalt and concrete. Iowa talked about the safety value from this. Iowa is looking for aggregate options from this going forward.
- Alabama has done a couple of these pilots for asphalt.
- Kentucky has done three projects. They are doing smart jobs on these projects. They have intelligent compaction and a couple other smart factors. Asphalt projects for all projects to date.
- Florida is after concrete and asphalt. They do material tracking of the trucks. This has helped to show where the material is placed and when.
- Alabama started with just ticket replacement. On the fourth project just starting tracking the station. FHWA was on board with their process.
- Penn DOT wants to know everything. Penn DOT does material retention.
- Kentucky originally saw this process for e-ticketing. They now see the other advantages.
- Florida and Penn have done this process with multiple pavers at once. It makes it more challenging but still possible.
- Alabama says there is a learning curve with inspectors.

Thursday August 16th

Environmental Commitments during Construction – Greg Henion, Virginia DOT

- Annually Virginia DOT does about \$1.5 Billion of work.
- They had a few environmental challenges, but the data always told the leaders they were doing great.
- The contractor had always filled out the erosion control inspection and signed off by the inspector.
- The process worked best when the contractor and the inspector walk the project hand and hand. Construction managers fill out a monthly visit form.
- VDOT does a lot of data tracking
- Identifying the problem was where the communication breakdown happened. Inspectors were identifying the problem but the way the form was structured it appeared everything was in compliance.

- When they did a more intensive inspection on erosion and sediment control, it was clear the job in question was not in compliance.
- Virginia DOT viewed this as a system problem not just a specific project issues.
- With the new process developed everyone talks to everyone. From field inspectors, to environmental, to the hydraulic engineer.
- The updated form came out with a green, yellow, orange, red system. This shows the degree of corrective action necessary to keep the program in compliance.
- At the end of the day a yellow isn't a bad thing, however the project just has to start to improve.
- Consistency is the biggest challenge going forward. They are over reporting big time to DEQ. Trying to figure out where the sweet spot is.

NEPA Assignment – Jason Jurgens, Nebraska DOT

- Meeting NEPA requirements is one of the big challenges large mega projects are challenged with.
- NEPA Assignment is when state DOTs assume lead agency in place of FHWA. The state DOT assumes legal responsibility. It doesn't cut any corners. It just removes FHWA from the process in the approval process.
- States can apply for CE only or full NEPA.
- Most states already have a CE programmatic agreement. To move into a NEPA for CE is easy and allows you to get your feet wet. This is the process Nebraska DOT is working on currently.
- A full NEPA assignment is where any findings are published in the federal register
- State DOTs can no longer make FHWA the bad guy.
- FHWA has been very supportive of this process. They want everyone to be successful in the process. FHWA doesn't go completely away. It will be more process and programmatic agreement help. They just won't be in the weeds for a projects specific decision.
- Nebraska wanted to be more reliable and alignment with statewide mission and goals.
- FHWA does an extremely comprehensive audit. Nebraska found tremendous value in this.
- An additional cost is to have an environmental attorney. Nebraska had someone dedicated to this. Helped with the formal MOU with FHWA on this process.
- Before the audit Nebraska DOT thought they had great communication in the DOT. From the audit they found they had silos and ended up hiring four new project managers who were focused on environmental. They also build in redundancy to avoid single point failure.
- Cost savings in Ohio as they have been doing it for a few years. \$17.7 millions in their first full year. They are now up to \$23million over three years. Their program for Ohio is \$2billion. Over the three year process they have zero legal challenges. Texas DOT says they have reduced time savings of 30%. Florida DOT said they are having 20% savings. Nebraska is estimating they are savings \$12 million when they are going full speed ahead.
- There is risk but if you want a better program it is a risk worth taking. DOTs who have entered into becoming a NEPA assigned.

Sustainable Highway Construction NCHRP – Steve Muench, Washington University

- Big research project on sustainability highway project. They were just focused on construction and what can they do now. Not focused on the UAV.

- The research process was to gather the data and then write the guide book. This should be completed soon.
- Three things impact sustainability: humans, environment and economic.
- The group compiled 367 responses from different organizations (great responses from DOTs, a handful of contractors).
- Their view on sustainability was less or minimize. Most said it was a core value.
- One day workshop to discuss the guidebook. Very little direction on how to get sustainability from construction.
- The guidebook will look like Pinterest. It will have ratings from industry experts on topics such as construction noise.
- Online delivery platform and marking is the difference between 500 views and 5 million views (paper vs great online platform).
- Looking at some ready to made JSPs for sustainability.

TC3 Quick Update – Darby Clayton, West Virginia DOT

- 43 states are in the program
- Getting up to speed to make it more appealing to the younger generation
- Excellent way to train younger staff
- Local now have access to TC3

Work Zone Safety – Crystal May, CRH Americas Materials

- In 2016 there were 143 highway construction works killed in a workzone.
- Five minute morning safety huddle to discuss safety and possible risk for the day work extremely well.
- Wearing a class 3 vest helps. Hallow lights around hard hats is a new best practice. They are very light and charged every night. Feedback has been extremely positive. Cost is around \$100/unit.
- Hand signals is something to get on the same page. Different parts of the country have different hand signals. Important to make sure everyone is on the same page.
- Paver lights are something they are working with. The operator controls it. Red light or green light.
- Blind Spot identification is important. Good to educate the employees great perceptive of where to stand when in the field. Companies are adding more reflective tape on equipment.
- Automatic flagger is a good system to have.
- Feedback about the rumble strips is they work well. They are heavy and hard to install.
- Provide law enforcement also has great benefits.
- Lighting at night is key. Driving the job at night to see if the lighting is working is key.
- Making sure the stop/slow paddles are retro reflective is key. The LED works even better but they have to be charged every night.
- 10 feet rule – They do not get within 10 feet of a piece of equipment unless you make eye contact with the operator.
- Back up cameras work well and they are very cheap.

- Internal Traffic Control Plan – This is required by OSHA. This is the plan of what is happening inside the workzone. If there is a crash or a fatality this is one of the first things OSHA will ask for.
- NAPA/ARTBA training program is one of the best trainings for contractors. It is free.
- AWRE system – alerts workers within the workzone and documents video when vehicles enter in the workzone.

Work Zone Data Initiative Update - FHWA

- Work Zone Data Initiative (WZDI) has 7 themes
- They have a schedule for upcoming events
- WZDI symposium is September 1, 2018
- They are hopeful to have an implementation guide in March 2019.
- Planning to have a pilot program from now through September 2020.
- Work Zone Data Exchange (WZDX) trying to get standard work zone safety data that can be published.
- Release draft ConOps and Data dictionary to collaboration site in August

Building People the New Design Build – Sydne Jacques

- If your employees were to rate you on a scale of 1-10, what would they rate you?
- Workforce Development “Buckets” – they have done a ton of research on the younger generation for construction. Contact Sydne if you want all of the great research she has on the topic. sydne@ja-today.com
- First step is marketing. Need to sell the industry. (Policy, public relations, parents and potential candidates)
- Second step is recruiting
- Third step is training and retaining
- Fourth step is building ambassadors.
- Number one complaint of millennials working in construction is the relationship between “veteran” employees and new, younger employees. It also includes a lack of mentoring.
- A simple survey – 2 Question that they ask every month. What is working well? What can we improve? This is a good exercise for a bigger project.
- Another good exercise is Start, Stop and Continue. Everyone gets five post it notes and they can put them in any of the three categorize.
- Don’t forget to celebrate victories.

AASHTO Comp TS 5B – Travis Walbeck, West Virginia DOT

- Construction, Materials, Materials – hot topic with the future of pavements. This will be a working group. Looking for 3-4 members from the Committee on Construction.
- Currently have one member Gary Angles. Still looking for 3-5 members. Utah might be sending someone; Oregon will likely be sending someone.

- Pavement preservations – COMP will take and maintain and publish pavement preservation construction guide specifications over the next five years.
- Dereck Plant (ME) and Travis Walbeck (WV) are leading this group effort.

COC Business Meeting

- Rob Wight thanks Pennsylvania DOT for being an excellent host.
- Tennessee introduced next year’s host city, Franklin. Currently planning to have one or two night in Nashville. It is only a twenty-minute drive.
- The host for 2020 is Washington State. The likely location will be Spokane or Vancouver (Washington).
- A vote was held for the 2021 location. The three final states were Illinois, Iowa and Missouri.
- Illinois listed Chicago as the main city. Getting rates downtown could become challenging.
- Iowa listed Des Moines, Quad Cities or Davenport as options.
- Missouri listed St. Louis, Kansas City or Branson as options.
- In an extremely close vote Missouri was selected for 2021.

[Appendix A - State Topics 2018](#)

1. “How are other states handling the costs for railroad flagging when working over or adjacent to the tracks? (Arkansas DOT)

OH/WA/CT/CA/FL/OR: Direct pay item
 AL: Reached agreement with RR, direct payment
 ME/NH: Pay up to a determined number of days
 MI: Adjusts rates post award.

2. “How are other states determining project schedules? Are you using Primavera? Other products? Do you have production rates that you maintain? Do you share the method of time determination with contractors? Do you prepare a CPM during the design phase? Has industry questioned your duration and overall schedules?” (Michigan DOT)

NV: Primavera P6, contractors determine number of working days.
 ME: Does not provide contractor-scheduling times. Use some historic data and I/D
 GA: Does not share information. Use P6 and production rates.
 FL: Maximum time calculations.
 UT: Almost exclusively use cost plus time bidding. Have challenges with max/min times.
 Comment: be careful about withholding information that could be considered “superior knowledge”

3. Does your state require that all contractors that work on a project that are not the prime be approved subcontractors or are there activities that are exempt from the subcontract provisions? (Nebraska DOT)

ME/UT: suppliers, professional services do not need subcontracts. Register all subs.

GA: prequalifies all subs over \$2 million; closely guarded list

CT: Doesn't prequalify or register; suppliers, professional services are exempt.

PA: prequalify all subs and primes; need sub approval for specialty services.

4. Subcontracts for truckers – Has anyone identified a way to efficiently, expeditiously handle the approval of independent truckers on contracts? (Nebraska DOT)

AR: Only review for DBE goals

AK: only certify subcontract, do not approve it

VT/KY/AL: unless onsite hauling, treat it as material delivery

IL: DBE approvals have become burdensome

5. Are any projects seeing significant impacts/delays/claims from the increasing steel prices? (AASHTO)

OR: De-escalation/Escalation is optional for contractor. Contractor must acknowledge with bid. Put in place in 2008. Most are opting in now.

CT: Attempting to buy raw materials.

WA: A lot of tariff calls from contractors in the last few months. Use ENR and DLS indexes to determine prices.

FL: No index, but industry has asked for an adjustment.

6. Are other states having any issues with faster quality degradation when using fluorescent sheeting on plastic drums? This is reflective sheeting per ASTM D 4956 for reboundable Type IV Fluorescent Orange and reboundable Type IV White. Our industry has also raised recent concerns that they are unable to recycle the drums that have this sheeting because different density drums are needed for applicability of the sheeting. Are other states experiencing any of these issues? (Michigan DOT)

-No issues from any states present.

7. CEI as a professional service (Brooks Act) and FAR rate implications. (Same individual can switch firms and the rate can go up an exorbitant amount due to FAR rate) (Virginia DOT)

GA: FHWA has instructed them that they need to conduct survey to establish rates. Informally negotiable.

UT: New employees, new firm= new contract (rare)

ME: Capped, but have services that can exceed.

8. OSHA safety records - Does anyone review or audit the OSHA 300 logs? (Virginia DOT)

VA/VT: Prequal committee reviews reports, but they are self-reported.

9. What states, if any, use low bid best value as their standard bidding procedures? (Penn DOT)

GA/FL- does some low bid D-B projects

10. What states, if any, bid jobs as 100% design build (no plans) but a narrative spec? (Penn DOT)

FL, MA- only one project with only a narrative (best value, bridge replacement- ABC, no utilities, no ROW needed)

PA- Tried it once with bridge bundling (locations with dots on the map)

MT- Mostly just an RFP without conceptual plans. Bridge replacements and rehabs

11. What states use performance specs for bituminous paving? (Penn DOT)

IL, KS, AZ,

12. How does your agency manage non-compliance with MOT plans, i.e. restrictions that are not adhered to? (Georgia DOT)

CT/MI- LDs based on user delay

AL- any paving after the time is free- no issues yet

GA- daily and hourly charges- having contractors paying the fines

MA- State police with corrective action plans. Contractor evaluations are impacted.

13. Does your agency incentivize IRI smoothness results? If so, how do you budget for it? (Georgia DOT)

OR: 3 potential incentives: smoothness, intelligent compaction, quality/density

UT: Have studied average bonus and add to budget. Same with time.

FL: IRI spec bonus, PWL bonus. Budget with 2.5% overage budget

MO: Add 2% to budget

ME: 3% bump after award. Most pay outs are on smoothness.

14. We have seen a significant increase in low cylinder breaks for concrete in the last several years. Fingers have been pointed from all sides about lack of cement, proper sampling, and proper curing. Are we experiencing this isolated or have other states experienced an increase in low cylinder breaks? (Alabama DOT)

UT: Experiencing same thing. Have tried to provide more training to get more consistent testing.

KS: Have spec for curing environment

NE: Have experienced problems the last two years. Have not figured it out.

15. Do you require calibration of distributor trucks? If so, quarterly, bi-annually, annually, or project-by project? (Alabama DOT)

AZ/PA/KS/NH: Certify tack trucks annually

UT: No calibration.

16. Do you have full time safety staff in your central office and/or region/district offices? (Alabama DOT)

States are split on whether they have a full time employee or not.

17. For those states who have done P3 DB jobs, how active a role was your State Construction Office once construction actually began? (Alabama DOT)

PA: Originally planned to be very limited, but quality issues caused PennDOT QA staff to be more engaged.

FL: Varied by contract. Consultant hired by FLDOT for quality review

18. Do any States have utility companies allowing utility relocation work to be done by the road/bridge builders? (Florida DOT)

LA/VT: water and sewer, but no overhead

ME: water, sewer and some gas

AR: water only

GA: everything

AL: mainly water and sewer, sometimes overhead.

19. Does anyone used tired level of certification for traffic control in work zones? Are states taking any measure to get better traffic control on design build projects (Colorado DOT)

OR- 2000 flagger hours to be certified plus exam on traffic zole layout as Traffic Control Supervisor

UT- ATTSA certification every 3 years

FL: ATTSA/FLDOT training for WZ supervisors. Compliance is part of contractor scores.

20. What percentage of your pavements are concrete pavements vs asphalt pavements (Michigan DOT)

MO/OR/UT/SD/AR- Over 10%

KS: Many major projects are concrete

MO: 80% of new construction for major projects is concrete (have reviewed the lifecycle cost)

21. Incentive/Disincentive clauses, have other states received new guidance from their FHWA counterparts?(Massachusetts DOT)

NO responses.

22. ACMs, how is the construction quality on Design-Build and P3 Projects? (Massachusetts DOT)

FL: Same quality for DB, varies for P3

23. Our industry wants us to utilize more cementitious overlays, how are they working in similar colder climates? (Massachusetts DOT)

MO: some success with unbonded, thick, overlays

PA: used bonded and unbonded

SD: recently started thinner overlays

IA: Unbonded 6", 10" on interstate

MN: 8-10" unbonded overlay

ME: 2-3" bonded on bridge deck only

UT/KS: success with unbonded for the past 10 years

24. What efficiencies have states implement to reduce the cost of state staff for contract administration/oversight? We continue to be pushed to reduce staffing on construction contracts. (CalTrans)

CA: iPads and tiered construction staffing depending on the project size.

VT: Reduced inspection on certain projects, using self-certification

WA: Moving away from material testing

ME: Contractor does all QC testing

UT: moving towards audit role; lean review of documentation

Appendix B – Attendees List

2018 AAASHTO Committee on Construction Attendee List (Pittsburgh, PA)			
Name	Company	Name	Company
Bill Adams	Hancock Concrete	J. Darby Clayton	West Virginia DOH
Kevin Adderly	FHWA	Aimee Connerton	Rinker Pipe
Geraldine Aguilar	New Mexico DOT	James Connery	Connecticut DOT
David Ahlvers	Missouri DOT	Matthew Corrigan	FHWA
Devin Anderson	Maine DOT	Chris Costello	Delaware DOT
Gary Angles	Ohio DOT	Matt Crum	West Virginia DOH
Armando Armendariz	New Mexico DOT	Brian Curran	Info Tech, Inc.
Markos Atamo	Colorado DOT	Gabriel Dadi	University of Kentucky
Joe Babcanec	Advanced Drainage Systems, Inc.	Angel De Jesus	County Materials Corporation
Dallas Ballmer	Louisiana DOTD	Brian Deery	AGC of America
Elwood Balog	Pennsylvania DOT	Oliver Delery	Forterra Building Products
Kerry Bates	Virginia DOT	Ted Deptula	Pennsylvania DOT
Charlie Bauer	Wyoming DOT	Kurt Dettman	Dispute Resolution Board Foundation
Frederick Beal	Montana DOT	Matthew DiGiovanni	FHWA - Vermont Division
Dan Bell	Michael Baker International	David Donoho	Smith, Seckman, Reid, Inc.
Matthew Bellgowan	Michigan DOT	Jonathan Duvall	University of Pittsburgh
Jeff Benefield	Alabama DOT	Susan Eiseman	Kansas DOT
Aric Bennett	The Mannik & Smith Group	Rob Elliott	FHWA
John Bilderback	Idaho TD	Christer Ericsson	Greenman-Pedersen, Inc. (GPI)
Darwin Bishop	Iowa DOT	Thomas Everett	FHWA
Jason Blankenship	Tennessee DOT	Rachel Falsetti	Caltrans
Steve Boggs	West Virginia DOH	Jim Ferguson	Info Tech, Inc.
Darrell Bost	Neel-Schaffer	Jamie Fitzpatrick	Tennessee DOT
Jason Boyd	West Virginia DOH	Lester Fletcher	Louisiana DOTD
Lisa Boyd Vega	New Mexico DOT	Tom Flowers	Ergon Asphalt & Emulsions, Inc.
John Boyle	ARTBA	Sharon Foerschler	Nevada DOT
Benjamin Browning	Arkansas DOT	James Forginer	Pennsylvania DOT
Andrea Bruce	Washington DOT	Ryan Fragapane	AASHTO
Tom Buchholz	Wisconsin DOT	Gina Gallegos	Texas DOT
Todd Buckles	Ergon Asphalt & Emulsions, Inc.	Anne Gorczyca	Massachusetts DOT
Ravi Chandran	Connecticut DOT	Rick Gordon	South Dakota DOT
Kevin Christensen	Montana DOT	Michael Grace	Pennsylvania DOT
Jenn Christman	Foley Products Company	Douglas Gransberg	Gransberg & Associates, Inc.

2018 AAASHTO Committee on Construction Attendee List (Pittsburgh, PA)

Name	Company	Name	Company
Pamela Gallegos	New Mexico DOT	Richard Juliano	American Road & Transportation Builders Association
Mark Gedris	CMAA	Matt Jeffers	Ergon Asphalt & Emulsions, Inc.
Jeffrey Girard	Concrete Pipe Association of Michigan	Matt Jones	Louisiana DOTD
Earl Glenn	Mississippi DOT	Jason Jurgens	Nebraska DOT
Jesse Gutierrez	Arizona DOT	Sydne Jacques	Jacques & Associates
Jason Gutting	Michigan DOT	Si Katara	Pavia Systems - HeadLight
Tracy Hamil	Alabama DOT	Kenneth Keel	Wyoming DOT
Dallas Hammit	Arizona DOT	Tim Kell	Illinois DOT
John Hancock	Georgia Department of Transportation	Theodore Kitsis	New Hampshire DOT
Thomas Hand	Volkert, Inc.	Brent Klaiber	Forterra Pipe & Precast
George Hand II	Oldcastle Precast, Inc.	Gary Kleist	Pennsylvania DOT
Amir Hanna	TRB / NCHRP	James Knott	Nebraska DOT
Christofer Harper	Louisiana State University	Eric Kopinski	AASHTO
Mike Harper	Volkert, Inc.	David Kopp	Ergon Asphalt & Emulsions, Inc.
Kevin Harrington	South Carolina DOT	Ken Kubacki	Granite Construction Company
Greg Henion	Virginia DOT	Dave Kunlega	Pennsylvania DOT
David Henning	Arkansas DOT	Heather Kwasnicka	Pennsylvania DOT
Jason Hewatt	Forterra Building Products	Lori Lange	Tennessee DOT
Carl Highsmith	FHWA	Steve Lawrence	Arkansas DOT
Jeffery Hite	Rinker Materials	Joseph Lawton	HNTB Corporation
Tryg Hoff	American Concrete Pipe Association	Patrick Leach	Michael Baker International
Al Hogan	American Concrete Pipe Association	John Leckie	Indiana DOT
Chip Hollis	NICET	Lorraine Legg	Nebraska DOT
Michele Horak	Michael Baker International	Tim Lemire	Greenman-Pedersen, Inc. (GPI)
Jason Humphrey	South Dakota DOT	Russel Lenz	Raba Kistner, Inc.
Sydne Jacques	Jacques & Associates	John Leonard	Oklahoma DOT
Matt Jeffers	Ergon Asphalt & Emulsions, Inc.	Donald Lepley	Forterra Building Products
Matt Jones	Louisiana DOTD	Jeff Lewis	FHWA
Richard Juliano	American Road & Transportation Builders Association	Lisa Little	Pennsylvania DOT

2018 AAASHTO Committee on Construction Attendee List (Pittsburgh, PA)

Name	Company	Name	Company
Christopher Lory	HNTB Corporation	Brian Owens	Louisiana DOTD
John "Scott" Lowe	Trauner Consulting Services, Inc.	Glenn Page	AASHTO
Carol Luschen	Texas DOT	Shailendra Patel	Virginia DOT
Robert Lutz	AASHTO	Gregory Pawlowski	Delaware River and Bay Authority
Shane Martin	Mississippi DOT	David Peake	Greenman-Pedersen, Inc. (GPI)
Marc Mastronardi	Georgia DOT	Randall S Over, P.E.	Columbus State Community College
David Matocha	Forterra Building Products	Mark Omelianiec	The Langley Concrete Group
Vanessa Matocha		Katherine Petros	FHWA
Crystal May	CRH Americas Materials	Winston Powe	Alabama DOT
George McAuley	Pennsylvania DOT	Matthew Price	HNTB Corporation
David McKee	PSS	Beau Quarles	Georgia DOT
Donald McNutt	American Concrete Pipe Association	Sumathi Ravindraraj	Global Quality & Engineering Consulting
Tony Mento	FHWA	Tom Ravn	Minnesota DOT
Scott Metcalf	Ergon Asphalt & Emulsions, Inc.	Alex Ray	Smith, Seckman, Reid, Inc.
Kathleen Michalic	Pennsylvania DOT	Jeremy Reed	Vermont Agency of Transportation
Lori Miles	Pennsylvania DOT	Sally Reeves	New Mexico DOT
David Moellering	Georgia Highway Contractors Association	Woodrow Rigdon	American Concrete Pipe Association
Mike Moorman	WSP	Joseph Robinson	Pennsylvania DOT
Dennis Morrison	Volkert	Evan Rothblatt	ASTM International
Steve Muench	Washington University	Stephen Rumbaugh	West Virginia DOH
Daniel Muirhead	Delaware DOT	Bradford Saborio	Delaware DOT
Amlan Mukherjee	Michigan Technological University	David Sadler	Florida DOT
Greg Mulder	ICPA	Jesus Sandoval-Gil	Arizona DOT
Scott Mullis	Arkansas DOT	Greg Schieber	Kansas DOT
Phillip Murdoff	North Dakota DOT	Nathan Schlegel	Jacobs
Wes Musgrove	Iowa DOT	Sidney Scott	HKA Global
Jim Musselman	CRH	Jeff Shelley	FHWA - Alabama Division
Lori Musto	Pennsylvania DOT	Roy Siegel	FHWA - USDOT
Mark Nagata	Trauner Consulting Services, Inc.	Shawn Smith	Maine DOT
Alicia Nolan	FHWA - USDOT	Shawn Smith	West Virginia DOH
Perry Nutter	Greenman-Pedersen, Inc. (GPI)	Steven Sneddon	Pennsylvania DOT

2018 AAASHTO Committee on Construction Attendee List (Pittsburgh, PA)	
Name	Company
Casey Soneira	AASHTO
Anthony Sprague	Alaska DOT
Joe Squire, P.E.	Oregon DOT
Robert Stewart	Utah DOT
Troy Strassburg	Minnesota DOT District 2
Bruce Street	Arkansas DOT
Larry Strzalka	Michigan DOT
Roy Sturgill	Kentucky TC
Richard Sullivan	Neel-Schaffer
John Susong	Rinker Pipe
Lamar Sylvester	North Carolina DOT
Denys Tak	Washington DOT
Chris Tams	Washington DOT
Tim Taylor	University of Kentucky
Cate Thompson	Advanced Drainage Systems, Inc.
Douglas Thompson	Pennsylvania DOT
Larry Tomkins	Ergon Asphalt & Emulsions, Inc.
Amy Tootle	Florida DOT
Janet Treadway	Ohio DOT
Russell Tripp	American Concrete Pipe Association
Brent Trivelpiece	Pennsylvania DOT
Paul Trusiak	Pennsylvania DOT
Jim Tymon	AASHTO
Vinay Uchil	Jacobs
Mike Vosburg	Louisiana DOTD
Shanna Waelty	Tennessee DOT
George White	Pavia Systems - HeadLight
Joe Wieseckel	Pennsylvania DOT
Rob Wight	Utah DOT
Stan Williams	Ergon Asphalt & Emulsions, Inc.
Susan Wimberly	FHWA - Washington Division
Gerald Yakowenko	FHWA
Connie Yew	FHWA
Tom Zagorski, P.E.	Michael Baker International

Appendix C – Officer List

AASHTO Committee on Construction Officer List for the Upcoming Year

Chair – Dallas Hammit, Arizona DOT

Vice Chair - Amy Tootle, Florida DOT

AASHTO Liaison - Casey Soneira

Technical Subcommittee for Integrated Construction Technologies

Chair: Skip Powe, Alabama DOT

Vice Chair: Jim Forginer, Pennsylvania DOT

Vice Chair: Lamar Sylvester, North Carolina DOT

Secretary: TBA

Technical Subcommittee for Safety, Environment and Workforce Development

Chair: Rachel Falsetti, California DOT

Vice Chair: Darby Clayton, West Virginia DOT

Secretary: TBA

Technical Subcommittee on Contract Administration

Chair: Earl Glenn, Mississippi DOT

Co-Vice Chair: Jason Blankenship, Tennessee DOT

Co-Vice Chair: Jason Gutting, Michigan DOT

Secretary: Susan Eiseman, Kansas DOT

Technical Subcommittee on Roadway and Structures

Chair: John Hancock, Georgia DOT

Co-Vice Chair: Mark Walls, Kentucky DOT

Co-Vice Chair: Shawn Smith, Maine DOT

Secretary: Steve Boggs, West Virginia DOT

Technical Subcommittee on Research

Chair: Jason Humphrey, South Dakota DOT

ICT Member: Jim Forginer or Lamar Sylvester

Safety, Environment and WD Member: Darby Clayton

Contract Administration Member: Jesus Sandoval-Gil (Arizona DOT)

Roadway and Structures Member: TBA