2016 NoVA Traffic Signal Construction Industry Forum
11/1/2016
Summary of Q&A Session

Panel:

Mike Kroskie, NoVA Permits
Ivan Horodyskyj, NoVA Traffic Engineering
Bo Chen, NoVA Structure & Bridge
Edmund Okerchiri, NoVA Structure & Bridge
Karl Larson, Central Office Structure & Bridge
Marc Lipschultz, Central Office Traffic Engineering
Harry Campbell, Central Office Traffic Engineering
Ritchie Robbins, Central Office Traffic Engineering

Q&A

Responses are current as of the date of discussion in November 2016. As noted in the responses, some topics are being discussed internally within the Department and will be updated in the future.

Q1. In more recent VDOT IIMs, there are specific cutoff dates related to different types of project delivery. For permit projects, is the effective date based on: when the permit is applied for, when the draft plans are submitted, or when the final plans are submitted?	
A1:	• Requirements at Permit Application: This question initiated a conversation about the one-year approval expiration for signal design plans. The developer site plans are valid for two years but the signal plans expire after one year. The panel clarified that if a signal plan sits for longer than a year, too many items on the plan become out of date. One year helps to make sure the current standards, specifications, and preferences are used. More importantly, the one-year time frame helps ensure that other conflicting projects or geometric changes to the site are validated and corrected on the signal plan prior to construction. • Effective Dates for Plan Submissions: Regarding effective dates on IIMs, more recently new traffic engineering IIMs have included clarity for permit projects, specifically that it applies when signal plans are submitted.

Q2. When submitting questions through CABB (the Contractor Advertisement Bulletin Board), is there a timeline required for VDOT to turn around answers?	
A2:	• Central Office's Construction Division encourages a response from VDOT within 5 days, but there is no hard deadline. Central Office is not likely to push back the bid opening/close date if questions are not asked by contractors in a timely manner. • The audience asked what happens if the question is not answered. The panel advised the contractor to call and leave a message with the VDOT contract contact person in these cases where it is within a few days of the bid opening and there has not been an answer posted. The technical expert within VDOT has 72-hours to respond, and it may take a few days to find that person. • The CABB includes a posted deadline for each project where it is the last date to post questions where you are guaranteed to get a response. This is typically the Friday before the bids close.

Q3. Recently VDOT implemented the AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 6th Edition (LTS-6), 2013 with 2015 interims. For projects that were designed and/or construction initiated during the transition period between the older AASHTO specifications and these newer specifications, how are decisions being made by VDOT regarding design waivers and whether those transition projects may use signal poles based on the older specifications?	
A3:	• If you have a project that was designed before the 2013 with 2015 AASHTO Specifications (2016 VDOT Specifications) were available, VDOT will let them go forward under the 1994 AASHTO Specifications (2007 VDOT Specifications) since it would cost more to re-design the signal plans. • If you have a plan that was started in 2016, the new requirements should be used. There will be some projects going out to advertisement with the old specifications through December 2016. • However, this grace period will end; starting in January 2017, VDOT's Construction Division has stated that all projects being advertised will be using the 2016 VDOT Specifications. It was noted that the engineer's cost estimate needs to match the reality of signal equipment prices using the new specifications; several pay items have changed so historical prices may not match new prices.

Q4. When design plans refer to the "latest VDOT specifications" or "latest AASHTO specifications," how does a contractor know what that means? What should a contractor refer to and as of what date?	
A4:	• The panel stated VDOT has been trying to get the "latest specifications" information to the design community in order for designers to put together signal plans that do not have conflicting notes on the plans. • If the project is already out to bid, this would be a good CABB question. • For a developer/permit plan project, then this is a question for the engineer – however, the I&IM includes specific cutoff dates. For example, if the plan was approved under the 1994 AASHTO specifications, then the signal contractor can design for 1994 AASHTO specifications. VDOT Central Office is available to help provide additional guidance on the past effective dates. • There was discussion of the VDOT comment/review period. As a result of recent changes, the VDOT reviewer can now be contacted directly. This new process has been helping to remove the gray area as the designer can ask the question directly to the technical reviewer.

Q5. What is the process a contractor needs to follow for having underground VDOT lines located prior to construction? How is that process different in NoVA and the rest of the state?	
A5:	• VDOT is not part of Miss Utility. VDOT lines need to be marked independently from lines that Miss Utility designates. • In NoVA, Mark Hagan's maintenance group has been very active in this area. On the permit application, there is a web link to take you to the VDOT Utility Marking System; requests for NoVA should be made there. The account/job number will be the permit number. • Outside of NoVA, call 1-800- FOR-ROAD (VDOT Customer Service) to get the VDOT utility lines marked.

Q6. Many on-call regional signal construction contracts state we can set poles after a 7 day cure time using high early concrete. In this case, why are cylinders still required?	
A6:	Cylinders are used in order to make sure 28-day strength is obtained. VDOT wants to know what strength the concrete has obtained in these locations.

Q7. The new specifications include a requirement for a 3 percent mast arm rise, should calculations be based on design loading in the new MP-3 standard (i.e., maximum loading) or as-built (site-specific) loading?	

A7:	• The panel stated that the 3 percent rise should be based on the design loading (i.e., the maximum loadings shown in the standard drawings) and not the site-specific loading.
	  ○ The audience noted that if the maximum loading will not be in effect, the arms may rise too high and signal heads could be outside of the required elevations. The VDOT panel replied that if there is a problem with clearances that are too high, on a case by case basis the 3 percent rise may be calculated based on the site-specific loadings.
	  ○ VDOT does not want the signal heads too high when they're under the initial site-specific loadings. VDOT may look into changing the language from a 3% maximum rise to specifying the max signal head heights when arm and heads are first installed.
	  ○ The audience noted the size of the design likely will not change too much if the 3 percent rise is calculated based on maximum or site-specific loadings. The fabricators adjust the stiffness of the metal to meet the rise requirements.
	• The audience asked if they need to turn in two sets of calculations for the loadings, one set for the MP-3 maximum loadings and a second set for plan loads. This is what the contractor has been doing recently.
	  ○ The panel stated that the calculations only give the deflection, the contractors need to check to make sure the deflection meets VDOT requirements.
	  ○ The panel noted that if plan loadings exceed the standard loadings, then a non-standard pay item will be used for these installations.

A7 Cont:	○ VDOT will consider this question further to determine if two sets of calculations need to be completed (one for maximum loadings and one for site-specific loadings). Internally VDOT has been developing a spreadsheet which would let the VDOT designers know if maximum loadings or plan loadings are greater. ○ VDOT would eventually like to get pre-approved shop drawings for each fabricator for standard MP-3 maximum loadings. There is no anticipated timetable for this action though.

Q8. How are updates in standards, specifications, or other relevant VDOT policies being communicated to the external stakeholders and what options are available for contractors to receive or be notified of changes?	
A8:	• The industry wants to know how they will get updates without Randy's Google Group? The panel stated that this has been an on-going internal discussion. VDOT is working on this with their IT department. • In the interim, the industry should make sure VDOT has their up-to-date email addresses and VDOT will make an effort to distribute I&IM, supplemental specifications, etc. to them through the NoVA Land Development distribution.

Q9. As we move forward with 2013 with 2015 AASHTO Specifications, how are the contractors going to be able to install larger structures in Northern Virginia? From a construction standpoint, it is already more difficult to install structures designed for1994 AASHTO Specifications, additionally a lot of test pits are required at each location. New requirements (such as deflection) have been pushing the contractor's limits.	
A9:	• Utilities being the key issue, the panel asked if special test pitting should be put in the contracts. This is not something that has been done yet, but VDOT has been internally discussing this idea. It was noted that the new VDOT on-call regional signal contracts have pay standard items for test pits. For standalone contracts, VDOT said they will look into making sure test pits are included pay items. • Similarly, test bores may eventually be completed as part of the design phase. The panel asked if it would help the contract package to have the test bore information included. The audience said yes, but typically the test bores have only been 15-feet deep so the contractors have not always gotten all of the information they need. • The audience was asked if the constructability of larger structures was a statewide issue or an issue specific to Northern Virginia. It was clarified that for the 2013 with 2015 AASHTO Specifications, the foundations are likely getting deeper but not wider. Additionally, some locations may work with an alternative foundation design – these foundations do not have a minimum diameter but are only for arm lengths less than 50-feet. ○ The panel provided additional clarification. Since the I&IM was implemented, VDOT has <u>not</u> gotten feedback that required foundation sizes were made worse (which means hopefully they are better now). Additionally, the 2013 with 2015 AASHTO Specifications will add more size impacts for super structures (due to fatigue requirements) and may actually help the sizing for signal structures.