

6110202 SPECIFICATION
COMMENTS FROM INTERNAL/INDUSTRY REVIEW

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Comments: (12-7-20 Internal)

This spec still needs work.

See the comment below:

Ananth, there is a lot to digest here but what sticks out is 611-5 & the 60 days for a System Acceptance Test (basically a60 day burn-in). For reference, what's being proposed is changing the historical Std. Spec that only required 30 days of burn in for DMS's to now requiring 60 days of burn-in for every ITS device on a job. As you know the various durations, device types, etc of burn-ins (along with our 90 day warranty) is an age old LESS discussion that books could be written about... so I don't know repeating it all here is worth it but making this change will be a VERY BIG deal on many jobs.

That said, I would expect if the road contractors pay attention to this proposed change they are not going to be happy with this. Hopefully their voice will be heard? Is DOT going to add 60+ calendar days to all future jobs to account for this 'new' activity as ITS burn-in is almost always on the critical path?

Also, what I recall was agreed to in previous LESS meetings was an outage of the greater of 10% OR 1 UNIT.

Response:

1. Through further discussion with the parties of interest, it has been decided the test time for the system acceptance test will be 30 days.
2. We will be modifying the spec language to reflect "10% or one unit, whichever is greater"..

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Comments: (12-8-21 Internal)

More comments:

First Issue

Spec. excerpt: 611-4.2.2 Standalone Test: ...”Complete approved data forms and turn them over to the Engineer for approval. Provide a minimum notice of 30 (10) calendar days prior to all tests to permit the Engineer or their representative to observe each test.”

Comment: The ITS Spec writers have a “administrative view” and lack “actual ITS contract execution conditions/timing.” I suggest that our ITS/Communication operations are routinely completing testing in the “very final DAYS (stages)” of every large FDOT project. These activities are always dependent upon precedent activity and many administrative officials don't realize we don't have items completed and therefore can't give a 30 day notice to test as just getting items completed is “extremely fluid” and we routinely don't have 30 days left to give a notice.

An observation, GIVEN the FDOT has a CEI contracted for every job who is ON the project inspecting ITS operations, so why should we have to give more than 1, 2, 3 day notice, not a 30 day one. At a minimum I would suggest this spec be reduced from 30 to 10 days.

Second Issue

Spec. excerpt: 611-6.2 Contractor's Responsibilities: During the warranty period, the Contractor is responsible for the following:

1. Repair or replacement of equipment that fails to function properly due to defective materials or workmanship.

Comment: As expounded on today, we won't even be around once the job ends but we have given the warranty to the FDOT. I can say for one, will NOT participate in any warranty replacement once we transfer operation to the FDOT and it's collective MAINTENANCE staff who will default to warranty issue if this happens when in FACT many times it is an Act of God (Lightning); and, maintenance activity (or lack thereof) could also contributing factor that we Contractors have NO control over and cannot be responsible for.

I PRESUME the intent is for Contractor to replace during a construction period under product warranty; and that the product warranty will be transferred to the FDOT after final acceptance where the FDOT assumes all warranty responsibility.

Third Issue

Spec. excerpt: 611-5 ITS System Acceptance Test: ..." Conduct an approved 60 day System Acceptance Test during which all ITS Systems, Sub-Systems and, at a minimum, all control, monitoring, and communication functions of the field equipment are evaluated from a Transportation Management Center (TMC)."

Comment: I completely agree with the other comments ...and his reference to previous lengthy discussions on this topic. One comment by Fred in previous call was the FDOT needed 60 days as some devices didn't fail within 30 days but did later. I call that a WARRANTY problem of an APL device IF that happens that their MAINTENANCE contractor should deal with. As a Network Engineer, Contractor, the comment that electronics need to run for 60 days is not merited. A Contractor places APL approved devices and if they operate for 30 days that PROVES their installation, configuration and functionality. Extending to 60 days does nothing functionally but adds substantial ANGST to General Contractors as they are now extending time at the end of a project.

Fourth Issue

Spec. excerpt: 611-9.2 ITSFM Sub-surface Documentation: ..." The Contract unit price per mile of documented conduit, cable, boxes, vaults, enclosures, and all other subsurface utilities will include furnishing all hardware, tools, and materials and all data collection, verification, and submission as specified in this Section and the Contract Documents, and all labor, travel, MOT, programs, training, equipment, and other requirements necessary for a complete and accepted

documentation submission. Payment for facilities located underground will be based on the linear length of the project as stated in the Contract Documents regardless of the length or number of conduits, cables, enclosures, or other subsurface facilities documented. No allowance will be made for sweeps or vertical distances below the ground.

Comment: What happens when the job is only an intersection or less than a mile in overall length but has several “backbone links and device/TS drops”? Actually I agree a per mile is likely the only real way but noting EVERY job needs a Pay Item of ATLEAST 1 Mile to cover all the infrastructure placed on a job no matter how small.

Response:

First Issue: The Department is okay with a notice period of ten days. The proposed specification language will be changed from 30 days to ten days.

Second Issue: Sub-article 611-6.3 states that during the warranty period, the Department is responsible for “repair or replacement of any part of the installation damaged as a result of natural causes...”. The sub-article commented upon by the LESS Committee pertains to failures due to defective materials or workmanship.

Third Issue: Through further discussion with the parties of interest, it has been decided the test time for the system acceptance test will be 30 days.

Fourth Issue: In instances where a job is less than one-mile partial quantities of the per-mile pay-item may be used, e.g. 0.2 miles.

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Comments: (12-18-21 Industry)

The 60 day burn in for ITS devices can extent contract time. General Contractors can spend from \$2,000 to \$10,000 a day on project overhead for each added calendar day. Please consider staying with the standard 30 day burn in, if any.

Response: Through further discussion with the parties of interest, it has been decided the test time for the system acceptance test will be 30 days.

Anonymous

Comments: (12-21-20 Industry)

This spec adds an ITS system burn-in of 60-calendar days to be conducted within the contract time. This will be required on all contracts and will be unduly burdensome. Presently, the FDOT’s Standard Specifications requires a 30 day burn-in on DMS’s. No other ITS devices require a burn-in. All other ITS devices are subjected to standalone tests and system tests that provide for acceptance of an ITS device. While some RFP’s on Design Build projects do add burn-ins to those contracts, having this requirement on every contract will require additional contract time and add to the difficulty of closing a project timely. The trouble is that some of the ITS devices cannot be installed, are not properly functioning, or cannot be tested until the roadway is in its final configuration - this usually comes late in a project. For example, the

MVDS devices installed detect and classify the vehicles on the roadway. However, these devices cannot be tested until the roadway is in its final configuration, which sometimes does not happen until the last weeks of a project. We are concerned that contractors will now have to complete the roadway work on projects at least 90 days earlier to allow enough time for ITS systems to be completed and then burned-in for 60 days. We suspect this will oftentimes be overlooked when determining contract time.

Response: Through further discussion with the parties of interest, it has been decided the test time for the system acceptance test will be 30 days.

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Comments: (1-4-21 Industry)

Section 611-5, 1. Should the first sentence read “After the Standalone Tests have been completed...” since the section 611-4.2.2 defines the tests as standalone? Also since the assumed workflow is field test, then standalone test, then system acceptance test. 2. It is recommended to state that the contractor must submit a system acceptance plan for the Engineer’s review and approval that the contractor and Engineer can follow while completing this testing. The last sentence of the second paragraph talks about the system acceptance test documentation but it is not clear who provides that documentation. 3. It seems there would need to be a system acceptance test for each ITS device type, is this the intent? If so recommend clarifying

Response:

1. Field tests will be changed to stand-alone tests.
2. The first sentence in the second paragraph requires the Contractor to conduct an approved 45-day System Acceptance Test. The word “approved” implies that the Department has approved the System Acceptance Test.
3. The first sentence, second paragraph, states that the System Acceptance Test evaluates all ITS Systems, Subsystems, and all control, monitoring, and communication functions. The word “all” includes each ITS device type.
