

**STATEWIDE CRITICAL REQUIREMENTS - FISCAL YEAR 2018/2019**

**Quality Assessment Category Number 1  
Clearing and Grubbing**

1. Is CEI staff aware of and enforcing requirement that the Contractor completely remove any stumps within the roadway right of way and remove all roots within 12 inches of the surface in any areas where excavation is to be performed or embankment is to be constructed? Discuss with project CEI staff, review of project diaries, and conduct a field visit to verify. [Spec. 110-2]
2. Is the CEI staff aware of and enforcing the requirements that all burning of debris is done in accordance with applicable laws, ordinances and regulations and the disposal of materials is done in accordance with the specifications. Review the project records and conduct a project visit to verify. [Spec 110-9]

**STATEWIDE CRITICAL REQUIREMENTS-FISCAL YEAR 2018/2019**  
**Quality Assessment Category Number 2**  
**Maintenance of Traffic (MOT)**

1. CEI staff is aware of and enforcing the requirement for the Worksite Traffic Supervisor (WTS) specified in the contract (usually the Contractor's employee) to perform an inspection during the opening of the work zone and for the opening of each subsequent MOT phase. For projects with predominant daytime work activities, the CEI staff is aware of and enforcing the requirement to have the WTS conducting daily daytime and weekly night time MOT inspections within the limits of the project . For projects with predominant nighttime work CEI staff is aware of and enforcing the requirement to have the WTS conducting daily nighttime and weekly daytime MOT inspections within the limits of the project. For both types of projects, the CEI staff documents all deficiencies in the weekly MOT Inspection Review Report. A project drive through and review of the MOT Inspection Review Report shows the CEI monitoring is effective in maintaining a safe work zone. [CPAM 9.1 and Specs. 102-3]

2. CEI staff is aware of and enforcing the requirement to have the Contractor provide clear traffic routes through the construction area which are well delineated for both day and night travel. This includes signs, pavement markings, barricades, rpm's, etc. A project drive through and review of project records (i.e. CDS monthly certification submittals and the Engineer's MOT Evaluation at Crash Site report) reflects that CEI monitoring is effective in maintaining clear traffic routes. [CPAM 9.3 and Specs. 102-1, 102-2, 102-3, 102-6, 102-9, 102-10]

3. CEI staff is aware of and enforcing the requirement for the Contractor to provide residential and business properties safe, stable, and reasonable access for vehicles and pedestrians (including sidewalks). A project drive through and review of the weekly MOT Inspection Review Report shows the CEI is insuring that the Contractor provides the access described above whenever construction interferes with the existing means of access and that the Contractor is placing material, as required, in business and residential walkways and driveways to maintain the access described above. [CPAM 9.1, Specs. 102-1, 102-2, 102-3, 102-5 and 102-8, Index 102-600 and 102-660]

**STATEWIDE CRITICAL REQUIREMENT LIST – FISCAL YEAR 2018/2019**  
**Quality Assessment Category Number 3**  
**Environmental Compliance**

1. CEI staff is aware of and enforcing the requirements that no construction activities may begin until the erosion control plan has been approved by the engineer and governing regulatory agency, if needed. Where a Storm Water Pollution Prevention Plan (SWPPP) is required CEI staff is aware of and enforcing the requirements that, under no circumstances, may any earth be disturbed in connection with the project until the prime Contractor and any Subcontractors who will install, maintain or inspect the erosion control measures used to implement the SWPPP, have signed the certification statement (Form No. 650-040-07). Any refusal by the Contractor and Subcontractors, mentioned above, to comply with this requirement is to be immediately reported to the DCE by the CEI staff. A review of contract documents, contract permits and a project visit verifies that CEI staff monitoring is effective. [CPAM 8.2 and Spec. 104-5]
  
2. Where an NPDES permit is required, the CEI staff is aware of and enforcing the requirement that routine inspections and required corrective actions are being completed and that these actions are documented on the SWPPP Construction Inspection Report (Form No. 650-040-03). The minimum frequency of these inspections is every seven days or within 24 hours of a 0.50 inch [12.7 mm] or greater of rainfall and all of the applicable items listed under the “Control Measure Codes” on Form No. 650-040-03 are to be inspected and corrected as required. The CEI staff is aware of and enforcing the requirement that inspections are conducted by qualified personnel who have completed the Florida StormWater Erosion and Sediment Control Training and Certification Program and who have passed the examination. A discussion with CEI staff, review of SWPPP inspector training certificate copies, SWPPP Construction Inspection Reports and a project visit verifies CEI monitoring is effective [CPAM 8.2.10 and Spec. 7-2]
  
3. CEI staff is aware of and enforcing the requirement that construction operations be conducted in a manner that prevents soil erosion runoff, siltation, or pollution to any off site location. Discussion with CEI Staff and a project visit verifies CEI monitoring is effective [Spec. 104-3]

## STATEWIDE CRITICAL REQUIREMENT LIST - FISCAL YEAR 2018/2019

### Quality Assessment Category Number 4 Earthwork

1. Is the CEI enforcing the requirement that the material used for embankment shall not contain muck, stump, roots, brush, vegetable matter, rubbish or other material that does not compact into a suitable and enduring roadbed? Are exceptions reported in the Daily Report of Construction? Does a field visit verify this? [Spec. 120-7]
2. Where thick lifts are used, is the CEI aware of and enforcing the requirements for thick lift placement of the embankment? A review of the project records and a project visit verifies this. [Spec. 120-8]
3. Has the CEI enforced the requirement that all required density test results are documented on current forms provided by the department in accordance with the **Materials Manual 2.3, Appendix A**? [Spec. 120-10]
4. Does the CEI have an appropriate process to ensure that the correct Proctor is used when density tests results are evaluated for materials acceptance? Are the appropriate materials used in each portion of the roadway? [Spec. 120-10, 120-7]
5. Is the CEI ensuring that all sampling and testing requirements are met and enforcing the requirement that all samples and test are taken randomly? Does the field test verify this? [Spec. 120-10]
6. Is initial equipment comparison performed and valid calibrations maintained for all equipment used on the project? [Spec 120-10]
7. Is the CEI enforcing the requirement that adequate drainage for the roadbed is maintained at all times while construction is in progress? Are exceptions reported in the Daily Report of Construction? Does a field visit verify this? [Spec. 120-11]
8. Is the CEI enforcing the requirement that the stabilized subgrade is to be firm and substantially unyielding to the extent that it will support construction equipment and will have the bearing value required upon completing the stabilizing and compacting operations? Are exceptions reported in the Daily Report of Construction? Does a field visit verify this? [Spec. 160-3]
9. Ensure the granular subbase in lieu of stabilized subgrade is treated as a separate operation from rock base and the sampling and testing is conducted separately [Spec. 160-3 and 160-4].
10. Separate samples are used for Limerock Bearing Ratio (LBR) and Proctor by the CEI. [Spec. 160-4.3.2.1]

11. Ensure densities comply with specifications including shoulder pad thickness. [Spec. 160-4]

**STATEWIDE CRITICAL REQUIREMENT LIST – FISCAL YEAR 2018/2019**  
**Quality Assessment Category Number 5**  
**Drainage**

1. The CEI staff is aware of and assuring that the Contractor observes the requirement that pipe joints are wrapped with the approved filter fabric as required. Project records document any infractions. A review of project records and a field visit verifies CEI monitoring is effective. [Spec. 430, 449, and Index 430-001]
2. The CEI staff is aware of and assuring that the Contractor observes the requirement that pipe to structure joints are wrapped with filter fabric and secured with bituminous coating. A review of project records and a field visit verifies CEI monitoring is effective. [Spec. 430 and Index 425-001]
3. The CEI staff is aware of and assuring that the Contractor observes the specification requirement that after backfill reaches 3 feet above the pipe crown or upon completion of the stabilized subgrade the contractor dewater, removes all silt, debris and obstructions, and provides the Engineer a video recording schedule. For pipes 48" or less in diameter, provide the Engineer a video DVD and report using low barrel distortion video equipment with laser profiling technology and non-contact Video Micrometer with associated software to the CEI staff to view as part of the final inspection of that pipe. [Spec. 430-4.8]

## STATEWIDE CRITICAL REQUIREMENT LIST - FISCAL YEAR 2018/2019

### Quality Assessment Category Number 6 Base

1. Is the CEI staff enforcing the requirement for multiple course base that density tests for the lower courses are taken and passed prior to spreading material for the top course? Does the Earthwork Record System verify this? Does a field visit verify this? [Spec. 200-6]
2. Is the CEI staff enforcing the requirement that cracks or checks appearing in the base before or after priming, which in the opinion of the engineer, impair the structural efficiency of the base, are removed by rescarifying, reshaping adding base material when necessary, and recompacting? Are exceptions reported in the Daily Report of Construction? Does a field visit verify this? [Spec. 200-6]
3. Is the CEI staff enforcing the requirement that density is met for the entire width and depth of the base? Does a review of the Earthwork Record System, including pads for mainline and shoulder verify this? [200-7]
4. Has the CEI enforced the requirement that all required density test results are documented on current forms provided by the Department in accordance with the **Materials Manual 2.3, Appendix A**? [Spec 200-7]
5. Is the CEI staff enforcing the requirement that, at the time of priming, the base is firm and unyielding, meets the specified density requirements and that moisture content in the top half of the base does not exceed the optimum moisture of the base material? Are exceptions reported in the Daily Report of Construction? Does a field visit verify this? [Spec. 200-8]

**STATEWIDE CRITICAL REQUIREMENT LIST – FISCAL YEAR 2018/2019**  
**Quality Assessment Category Number 7A**  
**Asphalt Plant / Lab**

1. The Verification Technician is aware of and verifying that the Contractor is following all aspects of his Producer QC Plan. Verify that all equipment calibrations are being performed at the specified intervals identified in the Producer QC Plan (including but not limited to gyratory internal angle, gyratory pressure and height, and Gmm vacuum). Additionally, verify that Contractor Control Charts and MAC entry is updated daily. Run the split sample verification testing in accordance with the requirements specified in 334-5.5.1 and the same sample verification testing as specified in 334-5.5.2 in order to determine the validity of the Contractor's QC test results for the LOT acceptance. Document the results in MAC. [Spec. 334-5]
2. The Verification Technician is aware of and enforcing the requirements that when an individual QC test result of a subplot for air voids, or the average subplot density, do not meet the requirements of the Table 334-5 (Master production range), then the LOT shall be automatically terminated and the production of the mixture shall be stopped until the problem is adequately resolved. The material represented by the failing test result shall be evaluated in accordance with 334-5.9.5. If two consecutive QC tests for gradation ( $P_{-200}$ ) or A/C content do not meet the requirements of Table 334-5, the LOT will be automatically terminated and production of the mixture stopped until the problem is adequately resolved and the material represented by the failing test result shall be evaluated in accordance with 334-5.9.5. [Spec. 334-5]. For FC-5 mixtures, the LOT shall be terminated when an individual QC test result for A/C content or two consecutive test results for gradation do not meet the requirements of Table 337-2. [Spec 337-6]
3. Ensure mix is correctly sampled, split, boxed, identified (project number, lot and subplot, date, mix type, sample type), sealed with tape (and signed by VT when present), and properly stored in a secure location.
4. Verify that haul trucks have tight beds coated with an acceptable asphalt release agent. Petroleum derivatives (such as diesel fuel), solvents, and any product that dissolves asphalt are prohibited. Truck bed shall have a tarpaulin that can cover the entire load and holes in the side of the bed for checking load temperatures. [Spec 320-6 and 320-7]



**STATEWIDE CRITICAL REQUIREMENT LIST – FISCAL YEAR 2018/2019**  
**Quality Assessment Category Number 7B**  
**Asphalt Milling & Paving**

1. A string line is being used for an accurate, uniform alignment of the pavement edge in areas where there is no curb and gutter. The deviation along the unsupported pavement edge shall be not more than +/- 1.5 inches from the stringline. [Spec. 330-6.1.1]
2. Do not allow the mixture to adhere to the wheels or tires of any rollers and do not use fuel or other petroleum distillates to prevent adhesion. Scrapers, pads, and moistening systems shall be functioning properly to avoid having HMA adhering to the wheels. [Spec. 330-5.3.3]
3. Do not dump embankment or base material directly on the pavement. Dress shoulders before placing the friction course on adjacent pavement. [Spec.120-12.2 and 330-10]
4. Texture of the Finished Surface of Pavement Layers: Produce a finished surface of uniform texture and compaction with no pulled, torn, crushed, raveled, or loosened portions and free of segregation, bleeding, flushing, sand steaks, sand spots, or ripples. Address any pavement not meeting the requirements of this specification in accordance with 330-9.5. [Spec. 330-9.2]

Quality Assessment Category Number 7B  
Asphalt Milling & Paving

**STATEWIDE CRITICAL REQUIREMENT LIST – FISCAL YEAR 2018/2019**  
**Quality Assessment Category Number 8A**  
**Concrete Pavement**

1. Dowel load-transfer devices are placed in all transverse joints and the position of the devices shall be confirmed by suitable means acceptable to the Engineer. Ensure the fasteners hold the dowel cage in place. Ensure method being used to confirm that the dowel bars are properly placed. [Spec. 350-12.4]
2. Is the CEI staff aware of and enforcing the requirements that the longitudinal joints and transverse joints are constructed in accordance with the details shown in the Plans and the tie bars or the bolt assemblies are placed correctly in depth, spacing, location and angles? Ensure the dowel bars are the correct diameter and length [Spec. 350-12]
3. Ensure if any uncontrolled cracks appear during the life of the Contract, the cracked concrete is removed and replaced and effective solutions are implemented immediately to eliminate further cracks. [Spec. 350-1]
4. Is the CEI staff aware of and enforcing the requirement that the Contractor saw transverse contraction joints by initial cut 1/8 inch wide by a depth of at least 1/3 of the pavement thickness and as soon as possible but in no case longer than 12 hours after placing the concrete, unless cutting the transverse joint would damage the surface by raveling or chipping? Should the contractor have to saw cut the concrete after the 12 hours allowed by specifications, is the CEI staff aware of and enforcing the requirement that the Contractor obtain the Engineer's approval of the additional curing time prior to saw cutting. Do the Daily Reports of Construction and/or a field visit verify this? [Spec. 350-12]

## STATEWIDE CRITICAL REQUIREMENTS - FISCAL YEAR 2018/2019

### Quality Assessment Category Number 8B Concrete Materials

1. Does the CEI staff confirm that the following requirements are adhered to for structural concrete: If slump is outside tolerance, the load shall be rejected; concrete placement may proceed for the QC truck and the next truck while concrete properties tests are being performed and concrete is in its final position within 15 minutes of truck discharge? Is there documentation to substantiate that these requirements were met and does a field visit verify this? [Spec. 346-6, 346-7 & 346-8]
2. Does the CEI staff confirm that initial and acceptance concrete samples are taken from the discharge end of the entire conveyor belt, trough, pump, or chute system or that prior to approval of sampling at the discharge of the mixer being granted a sampling correlation procedure has been submitted and approved by the District Materials Engineer? Are provisions to capture concrete lumps and balls in place for high slump mixes? Is there documentation to substantiate that these requirements were met and does a field visit verify this? [Spec. 346-6, 346-7]
3. Does the CEI staff confirm that the mass concrete Specialty Engineer is in charge of the mass concrete installation and monitoring process and is on the jobsite for installation and monitoring of the first placement of each size and type mass component? Is temperature monitoring continued until the maximum core temperature (must not exceed 180°) peaks and begins to diminish and are temperature control mechanisms left in place until the core temperature is within 50° of ambient? Is there documentation to substantiate that these requirements were met and does a field visit verify this? [Spec. 346-3]

## STATEWIDE CRITICAL REQUIREMENT LIST – FISCAL YEAR 2018/2019

### Quality Assessment Category Number 9 Structure Foundations

#### ***PILES***

1. Does the CEI staff ensure that pile driving requirements as outlined in Spec 455 and as established by the Geotechnical Engineer in reference to bearing penetration, pile and hammer cushion, blow count criteria, practical refusal, maximum strokes and equipment for driving has been complied with? Do the project records, the pile driving log and a field visit verify this? [Spec.455-5]
2. Does the CEI staff inspect prestressed piles for defects as soon as possible upon delivery to the project site? Are defects reported to the Project Administrator as soon as possible but, in any case, prior to use? Have the width, length, termination points, and precise location for any cracks or other defects been properly documented? Have the cause and need for correction of defects been addressed appropriately? Do project documentation and a field visit verify the aforementioned? [Good Practice]
3. Does the CEI enforce the requirement that the contractor shall provide and maintain in working order an approved device to automatically determine strokes when driving with Open Ended Diesel hammers or energy/equivalent strokes when driving with hydraulic hammers?
4. Does the CEI enforce that the proper number of lifting points and distances are used for concrete piles and that these are stored properly. [Spec. 455-7 & Standard Index 20600]
5. Does the CEI ensure the final pile top elevation and alignment are within tolerances?

#### ***ALL DRILLED SHAFTS INCLUDING SHAFTS UNDER MISCELLANEOUS STRUCTURES***

6. Does the CEI staff ensure the methods and equipment for drilled shaft construction are consistent with the contract plans and the approved drilled shaft installation plan and ensure proper alignment, cleanliness of shaft, over reaming, and slurry mixtures have been maintained and documented as required by contract documents? Do project records including the drilled shaft logs and a field visit verify this? Try to visit during drilled shaft installation if possible. [Spec. 455-15]
7. Does the CEI staff ensure that Drilled shaft concrete operations are consistent with slump loss test results, limits, pump requirements, curing requirements and duration of placement limits as outlined in Specs 346, 400 and 455? Does the CEI ensure that the concrete is over-poured until good concrete is evident? Do project records including the drilled shaft logs and a field visit verify this? [Spec. 455-17]
8. Does the CEI staff verify that the temporary casing in drilled shafts supporting miscellaneous structures provided at least one foot above the ground surface to at least five feet below the ground surface [455-15]?
9. Does the CEI verify that the proper reinforcement cage is assembled according to the plans, indexes or specifications with the proper number and dimension of bars, with the proper number, type and size of spacers, and that the number, length, top and bottom of the CSL tubes are according to the specifications? [Spec. 455-16]

10. Does the CEI enforce that the shafts are over-reamed when the excavation time exceeds the limits indicated in the specifications? [Section 455-15.11.5]

11. Does the CEI verify that the Contractor insert simulated or mock probes in each cross-hole-sonic access tube prior to concreting to ensure the serviceability of the tube? Does the CEI verify that the Contractor fills access tubes with clean potable water and recap prior to concreting? The Contractor must repair or replace any leaking, misaligned or unserviceable tube prior to concreting [Section 455-16.4].

### **AUGER CAST PILES**

12. Auger Cast Pile Installation Plan (ACPIP): Have an approved copy of the ACPIP on site. [Spec. 455-47]. Verify the auger flights are of the proper diameter and length, continuous and without breaks and gaps.

13. Ensure the demonstration Pile is performed successfully prior to the start of production piles [Spec. 455-39]. Document demonstration pile and production pile activities in the Auger Cast-in-Place Pile Installation Record (Form 700-011-03) and note problems in the Daily Report of Construction.

14. Ensure the pump is properly calibrated [455-42] and an accurate calibration factor in units of volume/stroke is obtained. Pump calibration must be performed prior to the installation of the demonstration pile, immediately after any significant pump maintenance or repair is performed or at any time the inspector suspects the pump is operating differently from the last calibration.

15. Ensure that at least 5 ft of head is established before withdrawing the auger [455-44, item 10].

16. Make sure Contractor re-drills and re-grouts in accordance with the specifications, when the return depth is less than 5 ft [455-44, item 11], when grouting is interrupted by any reason [455-44, item 11], or when the minimum over pour requirements are not met [section 455-44, item 12] in any segment of the pile.

## STATEWIDE CRITICAL REQUIREMENTS - FISCAL YEAR 2018/2019

### Quality Assessment Category Number 10A Bridge Structures - General Concrete

1. Does the CEI staff confirm that the following requirements are adhered to: for monitoring mass concrete, maximum temperature gradient (35°F), maximum core temperature (180°F), temperature control mechanisms must not be removed until the core temperature is within 50°F of the ambient temperature? When required, is there documentation to substantiate that these requirements were met and does a field visit verify this? [Spec. 346-3 and 346-8]
2. Does the CEI staff confirm that the following concrete placement concerns are complied with: use of appropriate bar support material for form type (SIP or removable), moisture evaporation rate monitored properly, no lumps and balls, and Burlap-polyethylene sheeting is required to have a minimum weight between 1-1.8 ounces/square feet for two layers or a weight between 0.6-0.7 ounces/square feet for four layers? Is there documentation to substantiate that these requirements were met and does a field visit verify this? [Spec. 415-5, 400-16, 346-6, 925-1]
3. Inspect concrete surfaces as soon as surfaces are fully visible after casting, between 7 and 31 days after the component has been burdened with full dead load, and a minimum of 7 days after the bridge has been opened to full unrestricted traffic. Inspect underwater components in accordance with CPAM 10.6. Is there documentation to substantiate that these requirements were met and does a field visit verify this? [Spec. 400-21]
4. Does the CEI staff confirm that the Contractor is in compliance with Buy America provision 6-5.2? Is there documentation to substantiate that these requirements were met? Is foreign-sourced steel being tracked in SiteManager? [Spec. 6-5.2, CPAM 5.8]

## STATEWIDE CRITICAL REQUIREMENTS - FISCAL YEAR 2018/2019

### Quality Assessment Category Number 10B Bridge Structures - Bearings/Beams/Bolts

1. Does the CEI staff verify that anchor bolts and bearing plates are in the correct location and are installed properly, that bolt material is per specifications, that expansion plate temperature adjustments are accurately performed, that the proper bolt setting method is used, and that a substructure survey is performed prior to erection with discrepancies reported to the Project Administrator for resolution? If anchor bolt hole locations must be relocated due to misalignment does the CEI staff verify that anchor bolt holes are not drilled through rebar and that grout tubes are installed correctly? Are elastomeric bearing pads within dimensional tolerances? Is there documentation to substantiate that these requirements were met and does a field visit verify this? [Spec. 460-7, 932-2]
2. Does the CEI staff verify that detailed procedures are followed to establish the correct job inspection snug tight torque for bolts; that for snugging bolts in the connection, when an impact wrench is used, that the wrench is set at or above the daily snug tight torque; and that an inspector has witnessed the snugging of each bolt? Is there documentation to substantiate that these requirements were met and does a field visit verify this? [Spec. 460-5]
3. Does the CEI staff verify that each fastener assembly is tightened to at least the minimum tension shown in the specifications plus 5%; that strict tightening procedures are adhered to; that bolts are not over-tensioned or over-torqued; that for final tightening of the connection, the turn-of-nut or DTI method is used and is in compliance with the detailed procedure required by the specifications; that an inspector witnesses the turning of every nut or verifies each DTI gap; and that a washer is under every element that is turned? Is there documentation to substantiate that these requirements were met and does a field visit verify this? [Spec. 460-5]
4. Does the CEI staff verify that assembly and disassembly of falsework used to temporarily support permanent structural components are in compliance with the Contractor's erection plan and approved shop drawings? Have any violations of the erection plan, or have falsework systems been immediately reported to the Project Administrator? Is there documentation to substantiate that these requirements were met and does a field visit verify this? [Spec. 5-1, 460-7]
5. Does the CEI staff verify that for construction affecting public safety, beam stability calculations have been submitted for Engineer review as well as an erection plan by a Specialty Engineer and has a Specialty Engineer or an

authorized designee inspected the initially erected structure in the field? Does the Contractor perform daily inspections of erected members until the deck is completed? For all steel, has the Contractor submitted an erection plan for Engineer review prior to the start of erection? Are shear studs installed in the field and are stud bend test records maintained? Is there documentation to substantiate that these requirements have been met and does a field visit verify this? [Spec. 460-7, 5-1, Good Practice]

6. Has the Buy America specification been complied with? Is there documentation to substantiate that these requirements have been met? Is foreign-sourced steel being tracked in SiteManager? [Spec. 6-5, CPAM 5.8]



## STATEWIDE CRITICAL REQUIREMENTS - FISCAL YEAR 2018/2019

### Quality Assessment Category Number 10C Bridge Structures - Concrete Decks

1. Does the Project Administrator confirm that the Contractor tracks monthly camber measurements from the concrete beam producer relating to design camber prediction versus actual camber to anticipate and make field adjustments if necessary to stay-in-place forms and/or other field corrections to accommodate the beam and was this issue discussed at the preconstruction conference? Is there documentation to substantiate that these discussions took place and does a field visit verify this? [Spec. 450-16, Good Practice]
2. Does the CEI staff confirm that Type 2 (white) curing compound is applied at a minimum spread rate of 0.06 gal/yd<sup>2</sup> to the deck surface not more than 2 hours after concrete placement for decks or 30 minutes for barriers and when the surface is damp; that saturated, properly sealed curing blankets are placed as soon as possible without affecting surface texture for a minimum of 7 days; and that blanket materials meet specifications and specifically that burlap-polyethylene sheeting is required to have a weight between 1-1.8 ounces/square feet for two layers or a weight between 0.6-0.7 ounces/square feet for four layers? Is there documentation to substantiate that these requirements were met and does a field visit verify this? [Spec. 400-16, 925-1]
3. Does the CEI staff confirm that the Contractor is using appropriate rails or bolsters based on environmental classification and form type? Is there documentation to substantiate that this requirement was met and does a field visit verify this? [Spec. 415-5]

**STATEWIDE CRITICAL REQUIREMENTS - FISCAL YEAR 2018/2019**  
**Quality Assessment Category Number 10D**  
**Bridge Structures – Post-tensioning (PT)**

1. Does the CEI staff confirm that the following requirements are adhered to: Internal ducts must be secured at not more than 30" intervals for steel pipes, 24" intervals for plastic ducts, and 12" intervals for flat plastic ducts? Ducts, joints, tendons, rebar and anchorages must be within specified position tolerances. Is there documentation to substantiate that these requirements were met and does a field visit verify this? [Spec. 462-7]
2. Does the CEI staff confirm that the following requirements are adhered to: contractor records of the tendon stressing operation are required and must contain 17 items required by the specification as well as any other relevant information and a grouting report or a wax injection report is required within 5 days of each grouting operation or wax injection operation? Is there documentation to substantiate that these requirements were met and does a field visit verify this? [Spec. 462-7, CPAM Section 10.7]
3. For grout, does the CEI staff confirm that after grout is cured, all inlets and outlets are drilled and inspected with a borescope or probe per spec. and any voids found are filled depending on void size, vacuum grouting may be required? Is there documentation to substantiate that these requirements were met and does a field visit verify this? [Spec. 462-8]
4. For wax, does the CEI staff confirm that the PT system, inlets and outlets at anchorages as well as all ports at high points along tendon are visually inspected and that any wax leaks found are repaired? Have all detected voids been filled? Have voids and/or exposed uncoated strands been addressed per the Wax Injection Operations Plan? Is there documentation to substantiate that these requirements were met and does a field visit verify this? [Spec. 462-8]
5. Does the CEI staff inspect all post-tensioned concrete box girder top slab, bottom slab, and web wall interior and exterior surfaces for cracks immediately after all post-tensioning for a span is complete? If the segmental cantilever erection method is used, is CEI staff inspecting all surfaces of web walls of all previously placed segments after each new segment is placed? Since these cracks can be very narrow and hard to see, are the surfaces sprayed with water to increase the visibility of the cracks and is a magnifying device and high intensity white light used during inspection? If cracks are found, are they reported to the Office of Construction immediately and is erection suspended until a satisfactory reason for the cracks is determined and a course of action established? Are individual cracks monitored over time to document growth? Does a field visit verify this? [Spec 400-21, CPAM 10.7]
6. For grout, does the CEI staff inspect external tendon ducts and couplers for grout voids, fractured grout, delamination, as well as duct and coupler material punctures,

splits or other damage by sounding them and by visual inspection of all visible duct and coupler surfaces? Does the CEI staff sound each duct and coupler a minimum of seven days after grouting is complete by tapping the surface using a 16 ounce hammer with a steel head? Does a field visit verify this? [462-8, CPAM 10.7]

7. For wax, does the CEI staff inspect external tendon ducts and couplers for wax voids, wax leaks, as well as duct and coupler material punctures, splits or other damage by sounding them and by visual inspection of all visible duct and coupler surfaces? Does the CEI staff sound each external duct between 24 and 48 hours after grouting is complete by tapping the surface using a rubber mallet? Does a field visit verify this? [Spec. 462-8, CPAM 10.7]

## STATEWIDE CRITICAL REQUIREMENT LIST - FISCAL YEAR 2018/2019

### Quality Assessment Category Number 11 Mechanically Stabilized Earth (MSE) Walls

1. Has the CEI ensured that the signed and sealed certification report for select backfill has been submitted and approved prior to placement? [Spec. 548-2].
2. Has the CEI ensured that MSE walls supporting bridge abutments on spread footings and MSE walls in which coarse aggregate reinforced backfill is used, geotextile fabric type D-2 is used in accordance with the specifications? [Spec. 548-2].
3. Is the CEI staff enforcing the requirement that the fill is placed and compacted in accordance with plans and specifications? Does the Earthwork Records System (ERS) verify this? Does a field visit verify this? [Spec. 548-8]
4. Is the CEI staff verifying the vertical and horizontal alignment of the wall at regular intervals to ensure tolerance compliance [Spec. 548-8]? Are exceptions reported in the Daily Report of Construction? Does a field visit verify this?
5. Does the CEI staff ensure that at the end of each day's operation, the contractor shape the last level of backfill to permit runoff of rainwater away from the wall face or provide a positive means of controlling run off away from the wall such as temporary pipe, etc.? [Spec. 548-6.5]

## STATEWIDE CRITICAL REQUIREMENT LIST – FISCAL YEAR 2018/2019

### Quality Assessment Category Number 12A Signalization

#### **GENERAL**

1. Is CEI project staff aware of the need for and using FDOT's Submittal Data – Traffic Control Equipment form (750-010-02) and the approved shop drawings to confirm items installed are listed on the Approved Product List (APL), or when APL listing is not required meet the Standard Specifications for Road and Bridge Construction? Discussion with CEI staff, a review of signal plans, form 750-010-02, shop drawings and a field visit verify this. [Spec. 603]

#### **ACCEPTANCE PROCEDURES (SECTION 611)**

2. Is CEI project staff aware of the need to witness the completion of all field testing with the Contractor's representative and, with a representative from the maintaining Agency if required? Discussion with CEI staff and a review of signal plans and project records related to traffic signal acceptance verify this. [Spec. 611-4]

#### **INDUCTIVE LOOP DETECTORS (SECTION 660)**

3. Is CEI project staff aware of and enforcing the requirement that the Contractor install all loop assemblies in accordance with Index 660-001 and Spec. 660. Discussion with CEI staff, and a review of signalization plans, shop drawings and a field visit verify this. [Index 660-001 and Spec. 660]

#### **PAINTED GALVANIZED STEEL STRAIN POLES, MAST ARMS AND MONOTUBE ASSEMBLIES (SECTION 649)**

4. CEI project staff should perform an inspection of all painted strain poles, mast arms and monotube assemblies to ensure that there are no defects upon delivery. Inspection should include both exterior and accessible interior areas. Ensure that structures are properly supported and protected during storage to prevent damage until installation. Ensure that any deficiencies have been documented in the Daily Report of Construction (DRC). [Spec. 649]

## **STATEWIDE CRITICAL REQUIREMENT LIST – FISCAL YEAR 2018/2019**

### **Quality Assessment Category Number 12B Lighting**

1. Is CEI project staff aware they are required to enforce the following requirements? All materials used comply with the approved shop drawings and the seven day burn in period is completed satisfactorily. Two copies of the as-built plans are provided to the maintaining agency before final acceptance. A project visit discussion with project staff and a review of project files verifies this. [Specs. 715-2, 715-14, 715-15]

2. Is CEI project staff aware of and enforcing the requirement that the Contractor install all lighting in accordance with Indexes 715-001 to 715-010, Index 639-001, and Index 700-031 and the Plans? Discussion with CEI staff and a review of lighting plans, shop drawings and a field visit verify this. [Indexes 715-001 to 715-010, 639-001, 700-031].

## STATEWIDE CRITICAL REQUIREMENT LIST – FISCAL YEAR 2018/2019

### Quality Assessment Category Number 12C Intelligent Transportation Systems

1. Is CEI project staff aware that the contractor is required to develop and submit a test plan for field acceptance testing (FAT) to the Engineer for consideration and approval? [Specs. 682-1.4.1, 684-1.4]
2. Is CEI project staff aware that the contractor is required to perform local field operational tests at device server field sites according to the test procedures stated herein? [Spec. 684-2.4.2]
3. Is CEI project staff aware that the contractor is required to perform local field operational tests at the device field site and end-to-end video streaming tests as required by the Engineer in order to demonstrate compliance with Department specifications? [Spec. 684-3.4.2]
4. Is CEI project staff aware that the contractor is required to provide an MFES having a manufacturer's warranty for equipment and parts furnished to be free from defects in fabrication, assembly, and materials for five years from the date of final acceptance by the Engineer in accordance with 5-11 of all work to be performed under the Contract? [Spec. 684-5.2]
5. Is CEI project staff aware that the contractor is required to provide a device server having a manufacturer's warranty for equipment and parts furnished to be free from defects in fabrication, assembly, and materials for five years from the date of final acceptance by the Engineer in accordance with 5-11 of all work to be performed under the Contract? [Spec. 684-5.3]
6. Is CEI project staff aware that the contractor is required to provide a DVE or DVD having a manufacturer's warranty for equipment and parts furnished to be free from defects in fabrication, assembly, and materials for two years from the date of final acceptance by the Engineer in accordance with 5-11 of all work to be performed under the Contract? [Spec. 684-5.4]

## STATEWIDE CRITICAL REQUIREMENT LIST – FISCAL YEAR 2018/2019

### Quality Assessment Category Number 13 Traffic Control Aids

1. Is the CEI staff aware of and enforcing the following requirements for Pavement Markings? Width and spacing of marking is in compliance with Contract Documents [Spec. 710-5, Index's 711-001 to 711-003]. Pavement marking retroreflectivity and thickness are in compliance with the contract documents [Specs. 102-10, 709-4, 709-9, 710-4, 711-4, 711-7, 713-4, 713-7, 971, and FM 5-541]. Raised Pavement Markers (RPM'S) are installed as required by contract documents [Specs. 102-10, 706-4, Indexes 102-600, 711-003, 706-001 and 700-106]. A project visit, discussion with project staff and review of the project files verifies this.
2. CEI staff is aware of and enforcing the requirements for guardrail installation heights in accordance with the Contract Documents and the APL. [Specs. 102, 536 and Index 536-001]. Discussion with CEI staff, a site visit and a review of project records assures the CEI staff's guardrail inspection activities are effective.
3. CEI staff is aware of and enforcing the plan requirements for proper location, offset height and angle of signs. Discussion with CEI staff, a review of project plans and a site visit will assure the CEI staff's sign inspection activities are effective. [Spec. 700 and Indexes 700-013, 700-010, and 700-101]



**STATEWIDE CRITICAL REQUIREMENT LIST – FISCAL YEAR 2018/2019**

**Quality Assessment Category Number 14A  
Performance Turf**

1. CEI staff is aware of and enforcing the requirement for turf establishment.

CEI staff is aware of and enforcing the requirement that all turf areas are monitored and maintained and free of competing vegetation, pest plants, and noxious weeds. Any refusal by the Contractor to comply with this requirement is noted in the Daily Report of Construction. A project visit and review of project records verifies that CEI staff monitoring is effective. [Spec. 570-4]

## STATEWIDE CRITICAL REQUIREMENT LIST – FISCAL YEAR 2018/2019

### Quality Assessment Category Number 14B Landscaping

1. CEI staff is enforcing the requirement to assure that only nursery grown plant material that complies with all required inspection, grading standards and plant regulations in accordance with the latest addition of the Florida Department of Agriculture's "Grades and Standards for Nursery Plants". Conduct a project visit (during planting if possible), review the project documents, and discuss with project staff to verify. [Spec. 580-2.1]
2. CEI staff is enforcing the requirement that no changes to layout, materials or any variations of plant materials are allowed without written approval from the Engineer. Conduct a project visit (during planting if possible), review of the project documents, and discuss with project staff to verify. [Spec. 580-3]
3. CEI staff is enforcing the requirements that the contractor provides an installation plan describing the methods, activities, materials, and schedule of the installation. A project visit (during planting if possible), review of project documents and discussion with project staff verifies this. [Spec. 580-4]

## **STATEWIDE CRITICAL REQUIREMENTS - FISCAL YEAR 2018/2019**

### **Quality Assessment Category Number 15 Utilities**

1. The CEI Staff is aware of and acting on the requirement to investigate potential conflicts between the proposed utility work and the physical roadway features of the project. Any conflicts noted are documented in the project records and no undocumented conflicts are observed during a spot check field visit. [CPAM 5.6]

2. The CEI Staff is aware of and acting on the requirement to insure that utilities conform to the Utility Accommodation Manual, Utility Agreements, Utility Permit and Utility Work Schedules in the areas of MOT, excavation, backfill and compaction. Any non-conformance noted is documented in the project records and no undocumented non-conformance is observed during a spot check field visit. [CPAM 5.6]

3. The CEI staff is aware of all needed utility work not covered by a Utility Agreement , Utility Work Schedule, or Utility Permit and are proceeding in accordance with CPAM 5.6 and no undocumented utility work is observed during a spot check field visit. [CPAM 5.6]

## STATEWIDE CRITICAL REQUIREMENTS-FISCAL YEAR 2018/2019

### Quality Assessment Category Number 16A Claims

1. Is Project CEI staff aware of and acting on the need to evaluate the completeness of the Contractor's claim package upon receipt? When an incomplete claim package is received, is CEI staff aware of and acting on the need to notify the Contractor that the package is incomplete and request any additional documentation required? Verify this by discussion with CEI project staff and a review of claim files and Daily Reports of Construction. [CPAM 7.5 and Spec 5-12]
2. Is Project CEI staff aware of and acting on the need to evaluate the merit and value of a Contractor's claim after receiving a complete submission by reviewing the claim file records and preparing an Entitlement Analysis and an Engineer's Estimate. Verify this by discussion with CEI project staff and a review of claim files and Daily Reports of Construction. [CPAM 7.5]
3. Is District Construction staff aware of and acting on the need to provide a written response to the Contractor for all claims on contracts of \$3,000,000 or less within 90 days of receipt of the Contractor's certified claim package, and within 120 days on contracts greater in original contract amount than \$3,000,000. Is Project CEI staff aware of these time constraints and providing recommendations to District Construction staff in time to meet them? Verify this by discussion with CEI staff and a review of claim files and Daily Reports of Construction. [Spec 5-12]

## STATEWIDE CRITICAL REQUIREMENTS - FISCAL YEAR 2018/2019

### Quality Assessment Category Number 16B Supplemental Agreements (SA's) and Work Orders

1. Is the CEI staff ensuring that the Comptroller's Office has certified the availability of funds prior to authorizing the Contractor to begin work? Discussion with CEI staff, and a review of project's correspondence, SA files and diaries will verify this [CPAM 7.3.11]
2. Is the CEI staff aware of and following the rules, which dictate that a Work Order cannot be processed until the Contingency SA, which funds that Work Order, is fully executed. The Contractor shall not begin the additional work until either the Work Order is fully executed or a Notice to Proceed has been issued to the Contractor by the Department. Discussion with CEI staff, and a review of project's correspondence, SA files and diaries will verify this. Note signature by the Contractor's Surety is not required to fully execute a Supplemental Agreement or a Contingency Supplemental Agreement unless the current contract dollar amount will exceed 125% of the original contract dollar amount as a result of the Supplemental Agreement being processed. [CPAM 7.4.8.1 and F.S. 337.11(9)(a)]
3. Is the CEI staff aware of and complying with the requirement that SA's and Work Orders are coded with accurate reason and description codes? Discussion with CEI staff, a review of the project's contract change files, diaries, Contract Change Tracking Program and job correspondence verifies this. [CPAM 7.3.16, 7.4.9.2 and 7.4.9.9]

## STATEWIDE CRITICAL REQUIREMENT LIST – FISCAL YEAR 2018/2019

### Quality Assessment Category Number 16C Contract Time Extensions

1. CEI staff is aware of and enforcing the requirement that Contractors requests to work on Holidays of Specification 8-6.4 and Special Events (as defined in the Contract Plans and or Request for Proposal document) are to be submitted within 10 days of the Holiday or Special Event. Discussion with CEI staff, a review of the project time files, project diaries and job correspondence verifies this. [Spec. 8-6.4]
2. CEI staff is aware of and enforcing the requirement that time extensions for Holidays and or Special Events are only to be granted when the suspension of operations prevents the contractor from productively performing controlling items of work for at least 50% of the normal work day on pre-determined controlling work items. Discussion with CEI staff, a review of the project time files, project diaries and job correspondence verifies this. [Spec. 8-7.3.2]
3. CEI staff is aware of and enforcing the requirement that, for non-weather related time extensions, preliminary notification must be received from the Contractor within 10 days of the commencement of a delay to a controlling item of work. Discussion with CEI staff, a review of the project time files, project diaries and job correspondence verifies this. [Spec. 8-7.3.2]
4. CEI staff is aware of and complying with the requirement that time extensions are coded with accurate description codes. Discussion with CEI staff, a review of the project's time files, diaries, time extension tracking report and job correspondence verifies this. [CPAM 7.2.10]
5. CEI Staff is aware and enforcing the requirement that a contractor must have a schedule accepted by the FDOT, including any required updates to that schedule, as a condition precedent to that Contractor having any right to the granting of an extension of contract time or any monetary compensation arising out of any delay. Discussion with CEI staff, a review of the project time files, project diaries and job correspondence verifies this. [Spec. 8-7.3.2]

**STATEWIDE CRITICAL REQUIREMENTS - FISCAL YEAR 2018/2019**  
**Quality Assessment Category Number 16D**  
**Subcontracts**

1. Is the CEI Staff examining the Certification of Sublet Work (Form No. 700-010-36) for each contract to ensure that the prime contractor's Certification of Sublet Work (Form No. 700-010-36) is complete and accurate and that the prime contractor has not knowingly entered into any lower tier covered transactions with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in a covered transaction, unless authorized by the Department? Discussion with CEI staff, and a review of project's contract files, Certification of Sublet Work Form & any subcontract files verifies this. [Spec. 8-1 & CPAM 5.3.]
  
2. Has the CEI staff or Resident Compliance Officer examined at least 20% of subcontracts per contract to determine;
  - a. that each subcontract contains all required pertinent provisions of the prime contract;
  
  - b. that the subcontracts on Federal-Aid jobs include FHWA 1273, and that all purchase orders, rental agreements, or agreements for other services reference FHWA 1273.

Discussion with CEI and Compliance staff, and a review of project's contract and subcontract files will verify this. [Required Contract Provisions Federal-Aid Construction Contracts, [FHWA-1273-I-1; Spec. 8-1, CPAM 5.3]

## **STATEWIDE CRITICAL REQUIREMENTS-FISCAL YEAR 2018/2019**

### **Quality Assessment Category Number 17 Public Information / Business Access**

1. CEI staff is aware of and enforcing the requirement for the Contractor to provide residential and business properties safe, stable, and reasonable access. A project drive through and review of project records shows the CEI is assuring that the Contractor provides access to all residences and businesses whenever construction interferes with the existing means of access and places material, as required, in business and residential driveways to provide safe, stable and reasonable access. A project visit verifies this. [Spec. 102-1, 102-2,102-3, 102-5, and 102-8]

2. CEI staff is aware of and enforcing the requirement for the Contractor to place appropriate visible business entry signs for all businesses with entry driveways impacted by the construction activities. A project visit verifies this. [Spec. 102-1, 102-2, and 102-9]



**STATEWIDE CRITICAL REQUIREMENTS - FISCAL YEAR 2018/2019**  
**Quality Assessment Category Number 19**  
**Maintenance Customer Concerns**

1. Is CEI staff aware of and enforcing the requirements that, (except for signs in medians too small to comply), the sign face is offset from the roadway with minimum skew, lateral clearance distance and mounting height above ground per index? The QA reviewer's discussion with project staff and the QA reviewer's random location check of jobsite sign offset distances and mounting heights is required to verify this. [Index. 700-101]
  
2. Is CEI staff aware of and enforcing the requirements regarding the elevation above finished ground surface for breakaway sign connections? Requirements are 4" to the upper tip of the breakaway stub of slip base connections. The QA reviewer's discussion with project staff and the QA reviewer's random location check of jobsite sign post bases is required to verify this. [Index 700-010 Sheet 5, Index 700-020 Sheet 2]
  
3. Is CEI staff aware of and enforcing the requirements that new guardrail is installed at the proper height of 2'-1" and is a 16d nail toe-nailed through top of timber offset block into guardrail timber posts to stop rotation? The QA reviewer's discussion with project staff and the QA reviewer's random location check of the jobsite guardrail heights is required to verify this. [Index 536-001 Sheet 1 General Note 2 and Index 536-001 Sheet 5]
  
4. Is CEI staff aware of and enforcing the requirements that front slopes provide a gradual transition from the edge of shoulder to the roadside ditch or toe of slope, as shown in the plans, with no ruts or washouts and that the grade is maintained within a tolerance of 0.3 ft above or below the plan cross section? The QA reviewer's discussion with project staff and the QA reviewer's random location review of completed front slopes on the jobsite is required to verify this. [Specs. 120-11 and 120-12]

## STATEWIDE CRITICAL REQUIREMENTS – FISCAL YEAR 2018/2019

### Quality Assessment Category Number 20 ADA – Accessibility Issues

1. Is the Project CEI Staff aware that they should be checking sidewalk forms to insure that maximum allowable sidewalk cross-slope is less than or equal to 1:50 (2%). Does a check of sidewalks during a field visit show any sidewalk cross-slopes with cross slopes greater than 2%? If so, did the project staff document discussing a correction of this with the Contractor in their daily reports? [36 CFR 1190 – Accessibility Guidelines for Pedestrian Facilities in the Accessible Public Rights-of - Way – R302.6]
2. Is the Project CEI Staff aware that they should be checking sidewalk forms to insure that maximum allowable slope for curb ramps is less than or equal to 1:12 (8.33%)? Does a check of curb ramps during a field visit show any curb ramp slopes greater than 8.33%. If so, did the project staff document discussing a correction of this with the Contractor and any reason for exceptions in their daily reports? [Index 522-002 General Note 3]
3. Is the Project CEI Staff aware that they should be checking sidewalk forms to insure that each pedestrian detector push-button control will have a 0.02 maximum cross slope maneuvering space within reach range of the push-button control at least 30” wide x 48” deep? Does a check of pedestrian detector push-button locations during a field visit show any maneuvering spaces immediately in front of the push button control less than 30” wide x 48”? If so, did the project staff document discussing a correction of this with the contractor in their daily reports? [36 CFR 1190 – Accessibility Guidelines for Pedestrian Facilities in the Accessible Public Rights-of - Way – R404, and Manual on Uniform Traffic Control Devices – Sections 4E.08.]
4. Is the Project CEI Staff aware that detectable warnings are required for curb ramps and flush transitions with a color contrast from surrounding materials? Does a check of the detectable warnings extend the full width of the curb ramp or sidewalk and extend 24” from the back of curb or street edge? If not, did the project staff document discussing a correction of this with the contractor in their daily reports? [36 CFR 1190 – Accessibility Guidelines for Pedestrian Facilities in the Accessible Public Rights-of - Way – R403, and Index 522-002.]
5. Is the Project CEI Staff aware that street crossings have specific cross slope requirements? Does a check of the street crossings have a max of 2% cross slope at stop controlled crossings, 5% cross slope at signal controlled crossings, and match existing roadway grade at mid-block crossings? If not, did the project staff document discussing a correction of this with the contractor in their daily reports? [36 CFR 1190 – Accessibility Guidelines for Pedestrian Facilities in the Accessible Public Rights-of - Way – R403]

**STATEWIDE CRITICAL REQUIREMENTS-FISCAL YEAR 2018/2019**

**Quality Assessment Category Number 21  
Noise and Vibration Abatement**

1. Is the Project CEI Staff aware that they should document any complaints received during construction including at a minimum; the nature of the complaint, the name, address and contact information of the individual making the complaint, the area affected by the problem and the type of construction operation generating the noise and/or vibration? Does the Project staff keep a time line of the complaint? Does a discussion with the Project CEI Staff, a review of any related project records and a field visit verify this? (CPAM 8.10)
  
2. Is the Project Administrator aware that he or she should discuss with the Resident Engineer the possible monitoring of noise and/or vibration prior and during construction operations, at noise and/or vibration sensitive sites, or during specific operations for which complaints have been received? Particularly if the complaints are wide spread or if a change of construction method is being considered. Does a discussion with the Project Administrator, a review of any related project records and a field visit verify this? (CPAM 8.10)
  
3. Is the Project Administrator aware that he or she should document any remedial action or modifications to the contractors' construction methods? Does a discussion with the Project Administrator, a review of any related project records and a field visit verify this? (CPAM 8.10)
  
4. Has the CEI ensured that the Contractor complies with the monitoring and inspection requirements of the contract documents and when the movement and vibration thresholds are exceeded the procedures stated in section 108 are followed? Has the CEI verified the Contractor has monitored settlements of adjacent structures **including structures owned by the Department** [108-2]?