**STATEWIDE CRITICAL REQUIREMENTS - FISCAL YEAR 2013/2014**

**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 it be constructed. Discussion with project CEI staff, a review of project diaries and a field visit verify this. [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 disposal of materials in accordance with the specifications. A review of the project records and a project visit verifies this. [Spec 110-9]

## STATEWIDE CRITICAL REQUIREMENTS-FISCAL YEAR 2013/2014

### 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 documented on the Department's MOT Review Report Form 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 verifies that deficiencies are noted in the weekly MOT Review Report Forms. A project drive through and review of the MOT Review Report Forms 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, markings, barricades, rpm's, etc. A project drive through and review of projects records reflects that CEI monitoring is effective in maintaining clear traffic routes. [Specs. 102-1, 102-2, 102-3, 102-6, 102-9]

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 Review Report Forms 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. [Specs. 102-1, 102-3, 102-5 and 102-8, Index 660]

**STATEWIDE CRITICAL REQUIREMENT LIST – FISCAL YEAR 2013/2014**
**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 monitor 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 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 made 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 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. CEI staff is aware of and enforcing the requirement that inspections are made by qualified personnel who have completed the Florida Storm-water Erosion and Sediment Control Training and Certification Program and who have passed the examination (if required in the contract). 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 or siltation in 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 2013/2014**

**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. 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? [120-11]

3. 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]

4. 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]

5. Has the CEI enforced the requirement that all required density test results are documented on current forms provided by the department in an understandable format? [Spec 120-10]

6. Does the CEI have an appropriate process to ensure that the correct proctor is used when density tests results are evaluated for material acceptance? Are the appropriate materials used in each portion of the roadway? [Spec 120-10, 120-7]

7. 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]

8. Does the CEI enforce the requirement that all equipment is calibrated? [Spec 120-10]

9. Separate samples are used for Limerock Bearing Ratio (LBR) and Proctor by the CEI. [Spec 160-4.3.2.1]

**STATEWIDE CRITICAL REQUIREMENT LIST – FISCAL YEAR 2013/2014**
**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 filter fabric as required. Project records document any infractions. A review of project records and a field visit verifies CEI monitoring is effective. [Spec. 449-.4 and index 280]

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. [ Index 201]

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 dewaters, removes all silt, debris and obstructions, and provides the Engineer a video recording schedule. For pipes less than 48" in diameter provides 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 2013/2014**

**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 density 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, 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 2013/2014**
**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 LIMS entry is updated daily. A lab review shows that the above test results are documented and plotted on the Control Charts, which are posted in the lab. Verify that RAP stockpiles are approved by the District Bituminous Engineer. Verify that the materials listed on the mix design are being used to produce the mix in the correct proportions. Verify that mix temperature meets specification requirements. Verify that all samples are properly labeled, taped and signed, and stored properly. [Spec. 320-2, 320-6]

2. The Verification Technician is aware of and enforcing the requirements that when an individual QC test result of a sublot for air voids, or the average sublot 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, or two core densities within a sublot are less than 91% of $G_{mm}$ (for coarse mixes), 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].

3. The Verification Technician is aware of and enforcing the requirements for low Pay Factor (PF) materials as follows: If an individual PF falls below 0.90, steps shall be taken to correct the situation and the actions shall be reported to the Engineer. When two consecutive PFs or the Composite PF (CPF) falls below 0.90, production shall be stopped. If the CPF is less than 0.80 and greater than or equal to 0.75, the material shall be evaluated per 334-5.9.5. If the CPF is less than 0.75, the material will be removed and replaced unless otherwise approved by the Engineer to remain in place. A review of lab records verifies that all the input data for the calculation of the Pay Factors are correct and the low PF materials are handled in accordance with 334-5.9.5. [Spec. 334-5]

4. Verification Technician is aware of and performing the split sample verification testing in accordance with Specs 334-5.5 and 334-5.5 to determine the validity of the Contractor's QC test results for LOT acceptance. Those verification test results are documented in the Asphalt Plant Worksheet, Form 675-030-25. A discussion with the technician and a review of lab records verifies this. [Spec. 334-5].

**STATEWIDE CRITICAL REQUIREMENT LIST – FISCAL YEAR 2013/2014**
**Quality Assessment Category Number 7B**
**Asphalt Milling & Paving**

1. 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]

2. Smoothness Control and Cross Slope Control: The CEI staff is enforcing the following requirements: Trucks are not bumping the paver and after unloading the asphalt mixtures from the truck body to the paver, the remaining material in the truck shall not be cleaned and dumped on the tacked surface in front of the paver. The paving machine is equipped with automatic screed controls, which are being used during paving operation. The cross slopes are checked and documented regularly at a minimum frequency of one measurement every 100 feet during milling and paving operations, by the Contractor. The Department receives a copy of the documented results. All surface deficiencies exceeding the acceptable tolerance are corrected. A field review verifies this. [Spec. 330-4 and 330-9]

3. Compaction: The CEI staff is enforcing the following requirements: The pavement is compacted uniformly and meets the required density. The roller does not crush the aggregate during the compaction operations (especially for FC-5). Core holes shall be backfilled properly within 3 days of coring. Areas not requiring density testing for acceptance shall be compacted in accordance with the rolling procedure approved by the Engineer. In the event the rolling procedure deviates from the approved procedure, placement of the mix shall be stopped. The pavement outside edge meets the drop-off requirements specified on the Plan. A field review verifies the above requirements. [Spec 330-10, 337-8, and 334-5]

4. Tack Coat: The CEI staff is enforcing the following requirements: The roadway surface is cleaned prior to the application of tack coat and the tack coat is applied uniformly at the specified spread rate. The CEI staff is enforcing the requirement the tack coat emulsion has broken prior to the placement of asphalt. A field review of the paving operation and a review of the Asphalt Roadway – Verification Reports verify this. [Spec. 300-5 and 300-8]

**STATEWIDE CRITICAL REQUIREMENT LIST – FISCAL YEAR 2013/2014**
**Quality Assessment Category Number 8A**
**Concrete Pavement**

1. 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]

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? [Spec. 350-12]

3. Is the CEI staff aware of and enforcing the requirement that the Contractor's device for the application of membrane curing compound is self-propelled and capable of uniformly applying the curing compound at the specified rate? Are exceptions reported in the Daily Report of Construction? Does a field visit verify this? [Spec. 350-3]

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 2013/2014

### 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 verity this? [Spec. 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 the samples are taken from the back of the truck after an adjustment is made that is based on formal correlation analysis 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 verity 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? Is temperature monitoring continued until the maximum core temperature (must not exceed 180º) peaks and begins to diminish and are temperature control mechanisms left in place until the core temperature is within 50º of ambient? Is there documentation to substantiate that these requirements were met and does a field visit verity this? [Spec. 346-3]

**STATEWIDE CRITICAL REQUIREMENT LIST – FISCAL YEAR 2013/2014**

**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. When proprietary pile splices are used - is the CEI staff aware of and ensuring that threaded rebars penetrate into the splice plate at least the distance specified in the shop drawings as verified by measuring the distance from plate top to bar end. Is the splice listed on the QPL? Does project documentation and a field visit verify this [Good Practice] Verify Buy America provisions are met, if applicable. [Spec.6]

4. When driving with Open Diesel Hammers, does the CEI enforce that the contractor shall provide and maintain in working order an approved device (such as a saximeter) to automatically determine strokes?

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

5. 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]

6. 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]

7. 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)

8. 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]

9. 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]

10. 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***

11. 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.

12. 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.

13. 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.

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

## STATEWIDE CRITICAL REQUIREMENTS - FISCAL YEAR 2013/2014

### 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: conditions where continuous rails of bolsters are, or are not, permitted to be in direct contact with forms, moisture evaporation rate monitored properly, no lumps and balls with some exceptions, and Burlap-polyethylene sheeting is required to have a minimum weight of 9 ounces/square yard?. Is there documentation to substantiate that these requirements were met and does a field visit verify this? [Spec. 400-7]

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 which now applies to all contracts and not just to Federal Aid contracts? Is there documentation to substantiate that these requirements were met and does a field visit verify this? [Spec. 6-5.2]

## STATEWIDE CRITICAL REQUIREMENTS - FISCAL YEAR 2013/2014

### 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, that anchor bolt holes are not drilled through rebars, and that a substructure survey is performed prior to erection with discrepancies reported to the Project Administrator for resolution? Do elastomeric bearing pads have deformations that do not exceed 50% of pad thickness? Is there documentation to substantiate that these requirements were met and does a field visit verify this? [Spec. 460-7]

2. Does the CEI staff verify that detailed procedures are followed to establish the correct 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; that an inspector has witnessed the snugging of each bolt; and that the order in which bolts are to be tightened is according to the Structures Inspection Self Study Training Course Part Two? Is there documentation to substantiate that these requirements were met and does a field visit verify this? [Spec. 460-5 and Good Practice]

3. Does the CEI staff verify that each fastener assembly is tightened to at least the minimum tension shown in the specifications; that strict tightening procedures are adhered to; that bolts are not tensioned to more than 115% of the required minimum bolt tension; 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 false-work 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 false-work systems that seem to be inadequate, 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. 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, does the Contractor submit 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 and does a field visit verify this? [Spec. 6-5]

## STATEWIDE CRITICAL REQUIREMENTS - FISCAL YEAR 2013/2014

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

1. Does the Project Administrator confirm that continuous beam decks are placed according to the pouring sequence in the plans and is all deck concrete in place before initial set of any of the concrete begins? Is there documentation to substantiate that the required pouring sequence was used and does a field visit verify this? [Good Practice]

2. Does the Project Administrator confirm that the Contractor communicates with the concrete beam producer about the design camber prediction versus the actual camber in order to prevent excessive beam buildups 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]

3. Does the CEI staff confirm that Type 2 (white) curing compound is applied at a minimum spread rate of 0.06 gal/yd$^2$ 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 minimum weight of 9 ounces/square yard? Is there documentation to substantiate that these requirements were met and does a field visit verify this? [Spec. 400-16]

4. 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 2013/2014**
**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 is required within 5 days of grouting completion? 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. Does the CEI staff confirm that after grout is cured, all inlets and outlets are drilled and inspected with an endoscope 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. 462-11]

4. 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 the aforementioned? [Spec 400-21, CPAM 10.7]

5. 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 the aforementioned? [CPAM 10.7]

**STATEWIDE CRITICAL REQUIREMENT LIST – FISCAL YEAR 2013/2014**

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

1. Is the CEI staff enforcing the requirement that the fill is placed and compacted in accordance with plans and specifications? Does the density record system verify this? Does a field visit verify this? [Spec. 548-8]

2. Is the CEI staff enforcing the requirement that the batter of the MSE wall panels and the overall MSE wall batter be measured often and at regular intervals because the vertical alignment of the panels being installed may be affected by the compaction of the soil behind the panels being installed? Are exceptions reported in the Daily Report of Construction? Does a field visit verify this? [Spec. 548-8]

3. Is CEI staff enforcing requirement to use a structural extension to the connection of the wall panel wherever necessary to avoid cutting soil reinforcement straps or skewing them by more than 15 degrees from normal? Is CEI staff enforcing requirement to have shop drawings approved by the Engineer, which detail any cutting of the soil reinforcement grids before allowing such cutting? Is CEI staff enforcing requirement to have shop drawings approved by the Engineer which detail construction of the wall around obstructions including details addressing conflicts between the soil reinforcement and any obstructions within the wall volume? Is the Wall Design Engineer contacted immediately over any of the items described above which are missing from the shop drawings. Are exceptions reported in the Daily Report of Construction? Does a field visit verify this? [Indexes 6020-6130]

4. At the end of each day's operation, the contractor shall 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 2013/2014**

**Quality Assessment Category Number 12A**
**Signalization**

## *GENERAL*

1. Is CEI project staff aware of the need for and using the FDOT Minimum Specifications for Traffic Control Signals and Devices (MSTCSD), the 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 MSTCSD and 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 17781 and Spec. 660 Discussion with CEI staff, and a review of signalization plans, shop drawings and a field visit verify this. [Index 17781 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 insure 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 2013/2014

### 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? The seven day burn in period is completed satisfactorily. Provide an approved copy of all applicable shop drawings and 2 copies of the as-built plans 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, Index 17501 note 8]

2. Is CEI project staff aware of and enforcing the requirement that the Contractor install all lighting in accord with Indexes 17500 to 17515? Discussion with CEI staff and a review of lighting plans, shop drawings and a field visit verify this. [Indexes 17500 to 17515].

## STATEWIDE CRITICAL REQUIREMENT LIST – FISCAL YEAR 2013/2014

### 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 FATs to the Engineer for consideration and approval? [Spec. 784-1.4]

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. 784-2.4.2]

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. 784-3.4.2]

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. 784-4.2]

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. 784-4.3]

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. 784-4.4]

## STATEWIDE CRITICAL REQUIREMENT LIST – FISCAL YEAR 2013/2014

### 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 17344, 17345, 17346, 17347]. 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 600 Sheet 13, 17345, 17352 and 17359]. 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. When used without rubrail, guardrail is installed at the height of 1'-9" from the centerline of the beam to the pavement beneath the inside face of the beam. For guardrail used with rubrail, guardrail is to be installed at a height of 2' from the centerline of the beam to the pavement beneath the inside face of the beam. [Index 400, Sheet 1, General Note 4]. 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 11200, 11860, and 17302]

## STATEWIDE CRITICAL REQUIREMENTS - FISCAL YEAR 2013/2014

### 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 and Utility Work Schedule Utility Permit and are proceeding in accordance with CPAM attachment 5-6-2 (flow chart for unanticipated utility conflicts). This utility work is documented in the project records and no undocumented utility work is observed during a spot check field visit. [CPAM 5.6]

## STATEWIDE CRITICAL REQUIREMENTS-FISCAL YEAR 2013/2014

### 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 2013/2014

### 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 7.3.10]

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(8)(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 7.3.17, 7.4.9.2 and 7.4.9.8]

## STATEWIDE CRITICAL REQUIREMENT LIST – FISCAL YEAR 2013/2014

### 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 7.2.9]

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 2013/2014**
**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 one subcontract per contract to determine;

   a. that each subcontract contains all required pertinent provisions of the prime contract;

   b. that the subcontract contains the required certification clause, without modification titled "Certification regarding debarment, suspension, ineligibility and voluntary exclusion – lower tier coverage transaction"

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

## STATEWIDE CRITICAL REQUIREMENTS-FISCAL YEAR 2013/2014

### 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. 102-2 and 102-6]

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. 102-2 and 102-6]

## STATEWIDE CRITICAL REQUIREMENTS - FISCAL YEAR 2013/2014

### 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. 17302]

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 11860 Sheet 5, Index 11200 Sheet 2]

3. Is CEI staff aware of and enforcing the requirements that guardrail is installed at the proper height of 1'-9", without rub rail or 2', with rub rail 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 400 Sheet 1 General Note 4 and Index 400 Sheet 16]

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 2013/2014

### 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 304 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 immediately in front 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 – R403]

4. Is the Project CEI Staff aware that, for sidewalk closures, they should be checking pedestrian MOT to insure that an accessible alternate path is provided for pedestrians around the closed section of sidewalk? Does a check of sidewalk closures during a field visit show any closures, which do not provide an alternate accessible path around the closed section of sidewalk? If so, did the project staff document discussing a correction of this with the Contractor in their daily reports and was it shown in the project’s MOT reports? [36 CFR 1190 – Accessibility Guidelines for Pedestrian Facilities in the Accessible Public Rights-of - Way – R205, Spec. 102-3, and Index 660]

**STATEWIDE CRITICAL REQUIREMENTS-FISCAL YEAR 2013/2014**

**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 and address 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 a discussion with the Project CEI Staff, a review of any related project records and a field visit verify this? (CPAM 8.10.5)

2. Is the Project Administrator aware that he or she should discuss with the Resident Engineer the possible monitoring of noise and/or vibration 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 8.10.6)

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 8.10.6)