Belle Chasse Bridge & Tunnel Replacement
State Project No. H.004791
Plaquemines Parish

Construction Quality Assurance Program (CQAP)
for LA DOTD
Design-Build Program

LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Revision to the Construction Quality Assurance Program Manual (CQAP) for LA DOTD Design-Build Projects (December 2016)

The following is an overview of the major changes:

- There will no longer be a Construction Quality Assurance Firm (CQAF) nor a Construction Quality Assurance Manager (CQAM).
- The Design Builder will now be required to have a Construction Quality Control Firm (CQCF), a Construction Quality Control Manager (CQCM), who will be an employee or subconsultant of the CQCF, and an Independent Engineering Testing Laboratory for Quality Control.
- The Independent Engineering Testing Laboratory for Quality Control will also be a sub consultant of the CQCF. Neither the CQCF, CQCM or Independent Engineering Testing Laboratory will be affiliated or owned by the Design-Builder.
- The CQCF will perform QC inspection and QC sampling and testing for the Design Builder.
- Both the CQCM and OVF will identify and document Non-Conformance work/materials.
- The Owners Verification Firm (OVF) will perform Quality Acceptance Inspection and verification sampling and testing.
- The Design Builder's CQCF QC test results and OV test results will be used for mathematical validation and material quality acceptance. Test results that validate will be used for Quality Acceptance.
- The Owner Verification Manager, (OVM) will perform Engineering Judgements.
- The LA DOTD's CQAP Documentation database will now consist of LA DOTD ProjectWise; LA DOTD Site Manager; LA DOTD Site Manager-Materials; LA DOTD LAPAVE and AASHTOWare Project-Civil Rights and Labor and Certified Payrolls.
- Table 4.2 Schedule of Allowable Deviation Values between split samples has been revised including making concrete cylinders for PCCP pavement split samples in lieu of coring.
- Table B.1: Acceptance Variance of QC and OV Means for Quarterly Validation has been revised including adding compressive strengths for PCCP cylinders.
- Appendix F-1: Minimum OVF Item Inspection Checklists has been added.
- Appendix G: Required Minimum Sampling and Testing has been revised to reflect that QC will be used for both QC/QA. QC sampling and testing rates are now the same sampling and testing rates for QA in previous CQAP Manuals.

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SECTION 1 - INTRODUCTION

1.1 General

The Construction Quality Assurance Program (CQAP) for Design-Build Projects established by the Louisiana Department of Transportation and Development (LA DOTD) ensures that materials and workmanship incorporated into the highway construction project are in reasonable conformance with the accepted plans and specifications, including any accepted changes. Prior to the commencement of any construction activities, the Design-Builder shall develop and implement a Construction Quality Management Plan (CQMP) for all phases of construction.

This program is developed based on CFR Title 23 637.207(b) and Federal Highway Administration (FHWA) Technical Advisory T6120.3, which are available at the following links:

23 CFR 637.207(b) –
https://www.fhwa.dot.gov/legsregs/directives/fapg/cfr0637b.htm

TA 6120.3 –https://www.fhwa.dot.gov/construction/t61203.cfm

The purpose of this program is to provide statewide consistency and a programmatic approach to quality assurance for design-build projects where the Design Builder's CQCF test results are used in the acceptance of the materials and Work in conjunction with the OVF test results. It clarifies federal requirements relating to quality assurance and mathematical analysis procedures.

Acronyms and definitions for terms used in the CQAP are provided in Appendix A Acronyms and Definitions.

1.2 Roles and Responsibilities under the Construction Quality Assurance Program (CQAP)

The Construction Quality Assurance Program (CQAP) consists of a Quality Control (QC) Program, an Acceptance Program (CQCF and OVF) and an Independent Assurance (IA) Program. Additional elements of CQAP are Dispute Resolution, Personnel Qualification, and Laboratory Accreditation/Qualification. The CQAP's components and the roles and relationships between the parties are shown in Figure 1.1.

Unlike Design Bid Build Projects, the Quality Assurance responsibilities are as follows:

- Quality Control testing is performed by the Design Builder's CQCF. When accepted, QC test results will be utilized for Quality Acceptance.
- Acceptance verification testing and inspection is performed by the LA DOTD or its representative.
- Independent Assurance testing is performed by the LA DOTD laboratory.

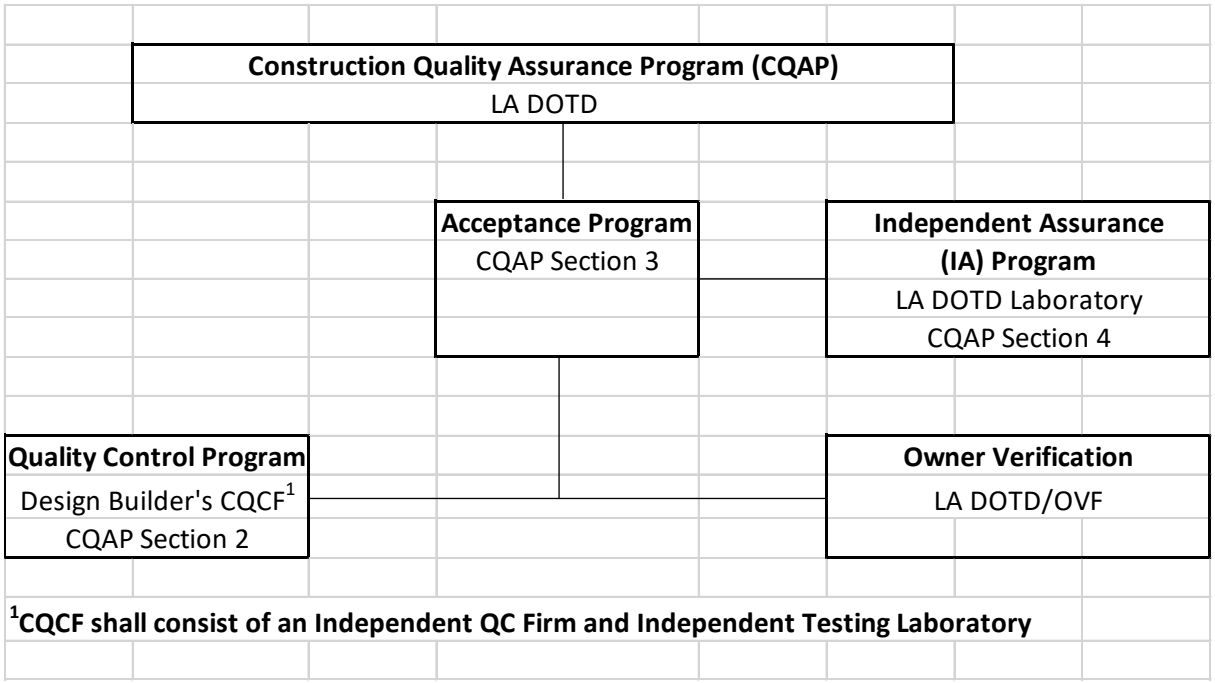


Figure 1.1 – Components and Relationship in the Construction Quality Assurance Plan (CQAP)

1.2.1 Quality Control

The Design-Builder is responsible for the Quality Control (QC) Program. The QC Program consist of internal procedures used by the Design Builder's Construction Quality Control Firm (CQCF) that will ensure that the materials and the Work is delivered in accordance with the released for construction plans, accepted shop drawings, working drawings, specifications and accepted Change Orders. The Design-Builder's QC is one of the critical elements of the CQAP and as such it comprises an important aspect of LA DOTD's determination of the quality of the product as specified in the contract requirements.

1.2.2 Quality Acceptance

The Design - Builder's Construction Quality Control Firm (CQCF) is responsible for the Quality Control (QC) testing. The CQCF provides the frontline material acceptance sampling and testing of the Work. The CQAP's Acceptance Program allows for the use of Design-Builder's CQCF performed Quality Control (QC) test results as part of the acceptance decision by LA DOTD. LA DOTD may use Design- Builder's CQCF performed QC test results for acceptance when they are mathematically validated and/or verified by the Owner Verification test results. Owner Verification tests (OV) and Quality Control tests (QC) together are the basis for the acceptance decision by LA DOTD.

1.2.3 Construction Quality Management Plan

The Design-Builder shall develop a Construction Quality Management Plan (CQMP) to include Quality Control (CQCF) procedures addressing the requirements of this CQAP and the Contract.

1.2.4 Owner Verification Testing and Inspection Plan

LA DOTD or its representative (Owner Verification Firm) will develop an Owner Verification Testing and Inspection Plan (OVTIP) addressing the requirements of this CQAP and the contract. The Owner Verification Firm (OVF) is responsible for all construction inspection and material acceptance validation/verification sampling and testing.

1.2.5 Independent Assurance Program

The Independent Assurance (IA) Program will be implemented by the LA DOTD District Laboratories. The IA Program evaluates all sampling and testing procedures, personnel, and equipment used as part of an acceptance decision.

1.3 Construction Quality Management Plan (CQMP)

The Design-Builder's Construction Quality Management Plan (CQMP) will be a living stand-alone document describing how the Design-Builder will comply with the obligations outlined in this document and the Contract Documents. The CQMP will be revised throughout the project for corrections, omissions and any changes at the discretion of the LA DOTD or it representative. The CQMP shall consist of both the Design-Builder's Quality Control (QC), through the CQCF and Quality Acceptance (QA) responsibilities with respect to performance of the Work. Requirements for the QC portion of the CQMP are described in Section 2 – Quality Control Program. Requirements for the QA portion of the CQMP are described in Section 3 – Acceptance Program. The CQMP shall establish a clear distinction for QC activities and the personnel performing QC functions. The CQMP shall be developed by the Design-Builder as described in the contract documents in coordination with the Construction Quality Control Firm. The CQMP shall present information clearly and concisely. Where procedures are requested, the expectations are to provide the actual procedures to be used with appropriate hold points. Hold points should include cursory inspection at the beginning of a major construction item so that all will develop an understanding of what will be considered acceptable to the CQCM and to the OVM.

The components and the relationships between the parties and functions responsible for the CQMP are shown in Figure 1.2. See Contract DB Sections 112 & 113 for additional details of the CQMP. Failure by the Design-Builder to follow the CQMP will result in suspension of work activity, which is noncompliant with the CQMP, by the Construction Quality Control Firm (CQCF), Owner Verification Firm (OVF), or LA DOTD.

1.3.1 CQMP Review and Acceptance Process

Within 30 calendar days of the execution of the contract, or soon thereafter at a time agreed to by the DOTD Project Manager, the Design-Builder shall schedule a CQMP Workshop to clarify any questions on the CQAP requirements, roles, and responsibilities with LA DOTD's and FHWA's personnel. The QM, CQCM and the Construction Quality Control Firm (CQCF) shall participate in the workshop. The LA DOTD and Design- Builder will jointly develop the agenda for the workshop. The intent of the workshop is to provide early guidance to the Design-Builder when developing the CQMP and reduce the need for lengthy review cycles.

A draft CQMP shall be submitted no later than 60 days prior to construction. Thirty (30) days before construction may begin, the Design-Builder shall obtain acceptance of the CQMP from LA DOTD, and provide a copy to FHWA.

Updates and changes submitted by the Design-Builder or recommended by OVR following initial acceptance of the CQMP shall be accepted by LA DOTD before its implementation. Any modifications to the accepted CQMP will be performed via addenda.

1.3.2 CQMP Format Requirements

The Design-Builder shall submit a CQMP following the organization and format requirements in this Section. Failure to submit the CQMP as described in this Section and that of the contract documents will result in rejection of the CQMP.

A. The CQMP shall include numbered sections and subsections.
B. The CQMP shall number each page in each section consecutively (i.e., 1-1, 1-2, 2- 1, 2-2).
C. The CQMP shall be organized in accordance with Sections 2.3 including all Subsections. All requirements shall be addressed under the pertinent Sections and Subsections.
D. During CQMP development and review phase, the Design-Builder shall submit a revised CQMP and a copy of the revised CQMP with “track-changes”.

1.4 Owner Verification Testing and Inspection Plan (OVTIP)

LA DOTD’s Owner Verification Testing and Inspection Plan (OVTIP) shall describe LA DOTD’s commitments to perform owner verification (OV) of the Design-Builder’s CQCF (QC) testing. The OVF will perform all construction inspection for quality acceptance. Requirements for the OVTIP are described in Section 3 – Acceptance Program and must be completed prior to beginning of construction of permanent work or incorporation of permanent materials.

1.4.1 OVTIP Format Requirements

The Owner Verification (OVF) Firm shall submit an OVTIP following the organization and format requirements in this Section. Failure to submit the OVTIP as described in this Section will result in rejection of the OVTIP.

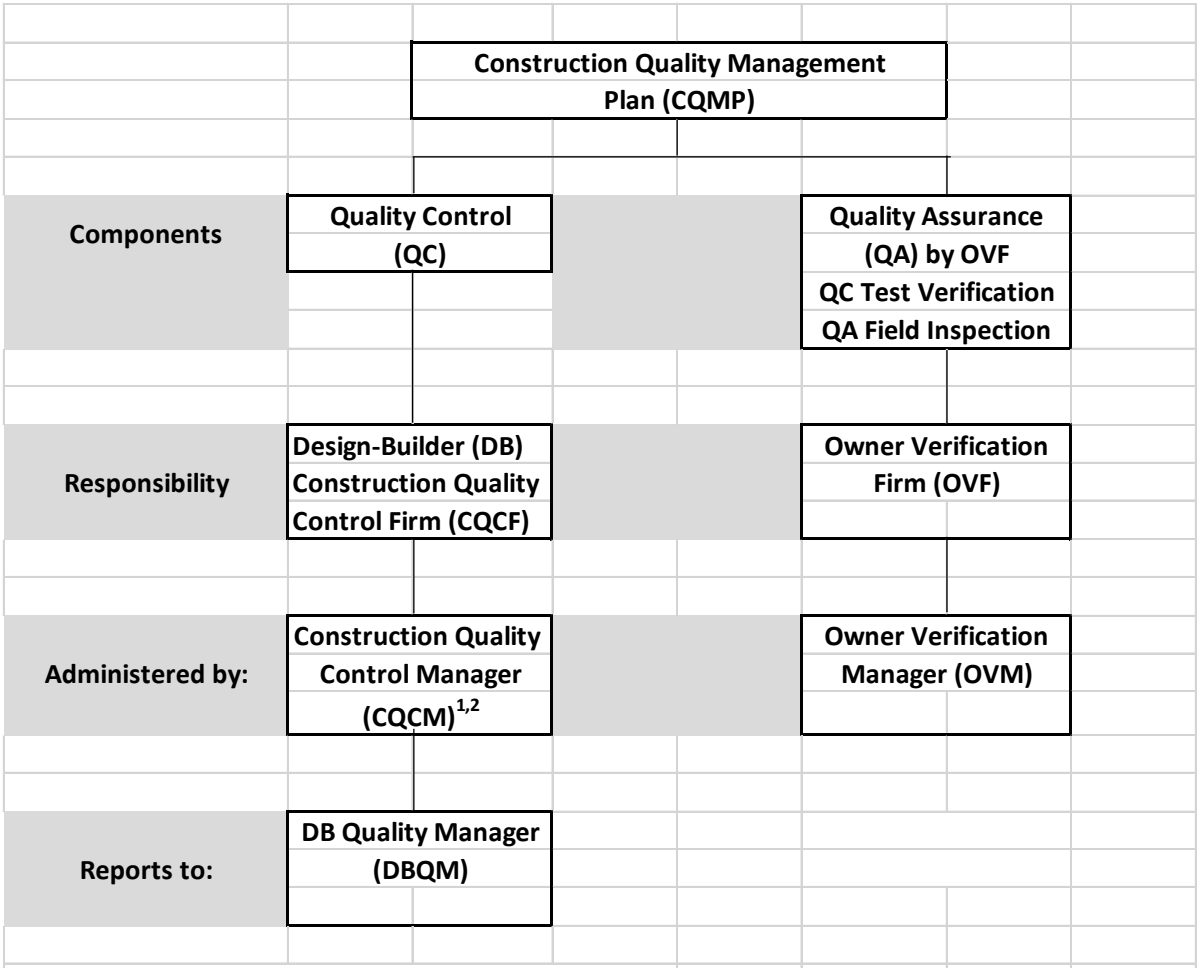
A. The OVTIP shall include numbered sections and subsections.
B. The OVTIP shall number each page in each section consecutively (i.e., 1-1, 1-2, 2- 1, 2-2).
C. The OVTIP shall be organized in accordance with Sections 3.6 including all Subsections. All requirements shall be addressed under the pertinent Sections and Subsections.
D. During OVTIP development and review phase, the OVF shall submit a revised OVTIP and a copy of the revised OVTIP with “track-changes”.

1.5 Conflict of Interest

To avoid an appearance of a conflict of interest, any independent qualified laboratory shall perform only one of the following types of testing on the same project:

A. Quality control testing;
B. Quality acceptance testing;
C. Owner verification testing*;
D. Independent assurance testing*; or
E. Referee testing*.

* LA DOTD may perform OV, IA, and referee testing as long as separate equipment and personnel are performing tests unless variance has been approved per Section 4 – Independent Assurance (IA) Program.



[1] CQCM is an employee or subconsultant of the CQCF

[2] CQCM reports to the DBQM and DOTD but does not take direction from either party

Figure 1.2- Construction Quality Management Plan (CQMP) Components and Relationships

SECTION 2 - QUALITY CONTROL (QC) PROGRAM

2.1 General

The Design-Builder is responsible for the quality of material and of the Work. Project quality is the responsibility of all the workers involved with the Work, guided by the Design-Builder's Construction Quality Management Plan (CQMP). Design-Builder's Quality Control (QC) portion of the CQMP shall include the internal procedures used by the Design-Builder to ensure that the Work is delivered in accordance with the released for construction plans, accepted shop drawings, working drawings, specifications and accepted change orders. This involves the active participation of the entire work force in working to achieve "quality" initially and to minimize/eliminate re-work.

The Design-Builder's QC is the first single most critical element of Construction Quality Assurance Program (CQAP). As such, it comprises an important aspect of LA DOTD's determination as the first line of defense in the quality of the product as specified in the contract requirements and specifications. The Design-Builder's CQCF shall perform the QC activities outlined in the accepted CQMP.

In addition, LA DOTD or its designated representative (OVF) may observe any sampling and testing activities performed by the Design-Builder's CQCF staff. If any deviation is observed from the specified sampling or testing procedures, LA DOTD or its designated representative (OVF) will verbally describe the observed deviation immediately to the QC representative on site and inform within one working day to the Design-Builder's CQCM, followed by a written Non-Conformance Report (NCR) covering the deviation as necessary to the Design-Builder's CQCM and the Design-Builder's Quality Manager.

2.2 Design-Builder's Quality Control (QC) Requirements

The Design-Builder's CQCF shall establish a systematic approach to define the processes, methods, procedures, and documentation for delivery of Quality Control (QC) on the Project. These methods and procedures all clearly define the authority and responsibility for the administration of the Design-Builder's QC plan as outlined in the accepted CQMP.

2.2.1 Staffing

Design-Builder's CQCF shall assign an on-site Construction Quality Control Manager (CQCM) who shall be responsible for management of the quality control and the acceptance aspect of the CQMP. The CQCM shall attend all pre-activity meetings, shall be on the jobsite during the startup of all activities, and always available on the project site upon four (4) hours' notice at all other times to administer the CQMP, unless otherwise accepted by the LA DOTD within the CQMP. **The CQCM shall be a Louisiana-licensed Professional Engineer and shall be an employee or subconsultant of the CQCF**. The CQCM shall report directly to the Design-Builder's Quality Manager and simultaneously to the LA DOTD. The CQCM shall not report to any person or party directly responsible for design or construction production.

The size of the CQCF's Quality Control staff shall reflect the volume of Quality Control activities necessary for the Work in progress and shall be maintained in accordance with the accepted CQMP. Testers and samplers will be allowed 90 working days from execution of the Contract to obtain the certifications. The CQCF must maintain a list of construction QC staff that indicates what test certifications each person currently holds.

The CQCM shall not be involved with scheduling or production activities and shall report directly to the Design-Builder's Quality Manager. The CQCM shall ensure that the methods and procedures contained in the accepted CQMP are implemented and followed by the Design- Builder, Subcontractors, Fabricators, Suppliers, and Vendors both on-site and off-site in the performance of the Work.

Design-Builder's and Subcontractors' construction work force are all considered to be members of Design-Builder's quality control staff as each and every one is responsible for the quality of the Work. Personnel responsible for performing the quality control inspection shall be knowledgeable and trained to perform their quality control duties and given the authority over the project foremen when quality is in question.

2.2.2 Sampling, Testing, and QC Inspection

Personnel performing quality control sampling, testing, and inspection shall be knowledgeable in the testing methods and procedures. QC testing and inspection shall ensure quality has been incorporated into all elements of work by the Construction Quality Control Firm (CQCF). The OVF will perform all construction inspection for quality acceptance.

QC sampling and testing of all materials must be performed during the production or manufacturing processes so that only materials meeting the specification are supplied for ultimate incorporation into the Work. Testing frequency must follow the accepted frequencies on the CQMP. Additional testing may be required to ensure quality is met. Actual sampling and testing frequencies that vary from those in Appendix G – Required Minimum Sampling and Testing must be identified for each test. If the Design Builder's Quality Control Firm (CQCF) opts to use a lesser frequency than that stated herein, the Design-Builder must get the approval of the LA DOTD for their proposed frequency. If chosen frequency results in repetitive failures of QC testing, then the OVF reserves the right to increase the Design-Builder's QC sampling and testing frequency. QC Material sampling/testing staff shall be provided under the direction of the CQCM to perform material sampling/testing of all Work performed and materials incorporated into the Project by any member of the Design-Builder's group.

The QC staff shall be employees of the CQCF and shall be certified in the applicable inspection and material sampling and testing procedures. The QC staff shall be experienced in highway inspection and material testing. The OVF will be performing field inspection for quality acceptance. The QC staff will be performing sampling and testing in accordance with Appendix G. The training and experience of the QC staff shall be commensurate with the scope, complexity, and nature of the activity to be tested. Qualifications shall include appropriate LA DOTD certifications for testing and inspection listed in Appendix C. Documentation of the training and certification shall be maintained by the CQCF and available for review and audit.

The CQCF's staffing requirements shall be updated as necessary throughout the term of the Work to reflect changes in the actual construction schedule. Design-Builder shall ensure that adequate CQCF staff is available and that CQMP activities are undertaken in a manner consistent with the Project Schedule and in a manner that will enable the Design-Builder to achieve the Final Acceptance deadline.

2.2.3 Continuous Quality Improvement Requirements

The QC program should be sufficient in scope to prevent non-conformant work by those performing acceptance inspection and testing. Repeated observations of QC quality shortfalls shall be considered a breakdown of the QC program and shall be cause for stopping production and required corrective action prior to commencement of work areas affected. Corrective action may include the addition of new QC procedures, revision to existing QC procedures, re-training of QC personnel, removal and replacement of QC personnel, or other such actions which will restore the effectiveness of the QC program.

2.2.4 Quality Control Facilities and Equipment

Certification must also be obtained for AASHTO and ASTM test methods that are modified or referenced by Louisiana test methods. Unless otherwise accepted by LA DOTD, the laboratory shall be located on site or within thirty (30) miles of the Project. The field laboratory should be on site or within a mile.

2.2.5 Reporting, Record Keeping, and Documentation

Design-Builder's CQCF shall maintain construction workmanship and materials quality records of all inspections and tests performed per the accepted CQMP. These records shall include factual evidence that the required inspections or tests have been performed, including type and number of inspections or tests involved; results of inspections or tests; nature of defects, deviations, causes for rejection, etc.; proposed remedial action; and corrective actions taken. These records shall cover both conforming and defective or deficient features and shall include a statement that all supplies and materials incorporated in the Work are in full compliance with the terms of the Contract Documents. These records shall be available for review and audit to LADOTD/OVF.

2.2.6 Notifications

The Design-Builder and CQCF shall, on a weekly basis, provide the LA DOTD with a three-week look-ahead schedule of planned activities (including pre-construction activities such as pit/source samples, plant activities, etc.) to include all anticipated material quantities for sampling, testing, and IA preparations. The three week look a-head schedule shall in include the CPM activity number. The Design-Builder and CQCF shall also, on a daily basis, communicate changes to the scheduled work, for each current day to the LA DOTD/OVF, and shall notify the OVF, and LA DOTD when materials are ready for sampling and testing.

2.3 CQMP's Quality Control Structure and Documentation Requirements

Design-Builder's CQMP's Quality Control Section is typically comprised of various components and shall clearly address, at the minimum, how the Design-Builder's CQCF QC staff will address the requirements set in this Section. The CQMP shall address Quality Control requirements clearly and concisely. Where procedures are requested, the expectations are to provide the actual procedures to be used. The procedure shall describe who, how and when, including hold points. The components of the CQMP's QC Section are summarized in Table 2.1.

The CQMP must include all applicable materials such as: Hot Mix Asphalt, Portland Cement Concrete (Structural), Earthwork, Cementitious Materials, Timber, Steel and Miscellaneous Metals, Galvanized Metal Products, Prestressed and/or Precast Concrete Products, and Drainage Products. For all applicable materials included in the Contract, a QC Plan must be prepared in accordance with the requirements of this Section. This includes all fabricated materials in which LADOTD or its representative may perform the QA inspection.

Steel and Miscellaneous Metal products, including aluminum, are defined as the metal components of bridges, including pedestrian and moveable bridges, overhead and cantilevered sign supports, ladders and platforms, bearings, end wall grates, roadway gratings, drainage items, expansion joints, roadway decking, shear connectors, handrails, galvanized products, fencing, guardrail, light poles, high mast light poles, standard mast arm assemblies and Monotube assemblies, stay in-place forms, casing pipe, strain poles, fasteners, connectors, and other hardware.

Table 2.1: Components of the CQMP's Quality Control Section

CQMP's Quality Control Sections	CQAP's Reference
General	Section 2.3.1
Personnel	Section 2.3.2
Raw Materials	Section 2.3.3
Production Equipment	Section 2.3.4
Plant Requirements	Section 2.3.5
Final Manufactured Product - Plant Operations	Section 2.3.6
Final Manufactured Product - Field Operations	Section 2.3.7
Testing Laboratories	Section 2.3.8
Miscellaneous	Section 2.3.9
Document Control	Section 2.3.10

2.3.1 General

Address the following under this Section:

A. Introduction**:** The Design-Builder shall provide a brief description of the systematic approach in which they plan to deliver the QC program on the Project.

B. Parties Involved**:** Provide a description of the Contractors and Subcontractors, including Suppliers and Fabricators, participating in the delivery of the project. Include a description of the extent of involvement in the project for each party.

C. Communication and Enforcement of QC Responsibilities among all Parties Involved**:** Provide a plan for communicating the Quality Control responsibilities included in the accepted CQMP to all the Design-Builder's and Subcontractors' construction work force performing work on the project. Identify procedures to ensure adherence with the CQMP by members of the Design-Builder's and Subcontractors' construction work force. Provide means to ensure that repeated discoveries of Nonconformance are addressed and remedial actions are taken during the duration of the project.

2.3.2 Personnel

Address the following under this Section:

A. Qualifications**:** Submit a copy of all QC Inspectors and Technicians including those with LA DOTD Inspector/Technician certifications and the experience/knowledge/skill level of each staff member. Include employed and subcontracted technicians. Include procedures to ensure that education, training, and Qualification of personnel performing CQMP activities are achieved and maintained and that all work is performed in accordance with the approved designs, plans, and specifications. This list is to be update yearly when the CQMP is reviewed and revisions made.

B. Level of Responsibility**:** Identify the primary contact to the LA DOTD. Identify roles and responsibilities of various positions involved in the QC process, including an organizational chart and period of time that the QC staff members will be present on the site. Provide contact information for each employee.

2.3.3 Raw Materials

For each individual material, address:

A. Source**:** Identify the sources of raw materials. Provide locations and plant or mine numbers when applicable. Pertaining to material pits, provide plat maps with each acre subdivided with established base line and corner markers.

B. Approval**:** Describe methods of verifying compliance of Monthly Certification (see Appendix E) with the specifications. Provide procedures detailing sampling and testing of all materials during the production or manufacturing processes so that only materials meeting the specification are supplied for ultimate incorporation

into the Work at the frequency defined in Appendix G. Actual sampling and testing frequencies that vary from those in Appendix G must be identified for each test; if chosen frequency results in the failure of a QC test, then the OVF reserves the right to increase the QC sampling and testing frequency. Procedures to indicate, by the use of markings such as stamps, tags, labels, routing cards, or other suitable means, the status of inspections and tests (passing and failing) performed upon individual materials so that material is not used until test results have been reviewed and approved.

C. Disposition of Failing Materials**:** Procedures to ensure that materials, equipment or elements of the work that do not conform to requirements of the applicable law, specification, or the design documents are not used or installed. These procedures shall include identification, isolation, disposition and notification to CQCF and OVF. Failing materials that remain incorporated thru use of an NCR or Engineering Judgement will be required to be entered into the Documentation Database.

D. Storage Facilities for Raw Materials**:** Describe measures and methods, including bedding details for preventing ponding of water, segregation, contamination, and degradation. Describe methods of identifying individual materials. Where applicable, submit a site plan showing the locations of various materials. Provide procedures to control the handling, storage, shipping, cleaning, and preservation of materials and equipment to prevent damage or deterioration.

2.3.4 Production Equipment

Address the following under this Section:

A. Certification of Equipment**:** If equipment that requires LA DOTD certification by specification and does not hold a current LA DOTD certification, provide procedures for certification of all profilographs, paving equipment, scales, meters, haul trucks, concrete trucks and all other equipment affecting quality including recertification schedules, dissemination of documentation and proposed checklists or forms to be used.

2.3.5 Plant Requirements

For each individual Fabrication or Production Plant that produces materials for the project (Concrete, Precast, HMA, Steel, Earthwork, drainage, etc.), address the following:

A. Plant Identification**:** Provide the mailing address, physical address, telephone and fax numbers, E-mail address, primary contact at the plant, responsible person in charge, facility number provided by the LA DOTD, owner information and Vendor number, and other information as required.

B. Process Control System**:** Describe the methods and measures established to ensure Contract compliance for the produced materials. These methods and measures will include, but are not limited to, equipment calibration, inspection schedule, sampling and testing, maintenance schedule, etc. Actual sampling and testing frequencies that vary from those in Appendix G must be identified for each test; if chosen frequency results in the failure of a QC test, then the OVF

reserves the right to increase the QC sampling and testing frequency. (This applies to materials in which LADOTD or its representative does not perform the QC.)

C. Loading and Shipping Control**:** Describe QC's methods and measures for preventing segregation, contamination, and degradation during loading and shipping operations. Describe the methods established for materials to be in compliance with the specifications at the point of use. (Example 1: Explain how a concrete supplier will prevent segregation, contamination and degradation of concrete from the time of batching to the point of delivery at the project. Example 2: Explain how a precast plant will prevent damage of the precast element during loading at the plant and during shipping.)

D. Types of Products Generated**:** Describe the products the plant is approved to produce under LA DOTD guidelines. Include any additional processes required to submit a mix, which has been designed by personnel holding the required certifications as specified in Appendix C, such as trial batches and Head of Hydration testing. Additionally, the designs shall be reviewed and signed by a Louisiana-Licensed Professional Engineer attesting that the design meets LA DOTD requirements, Project Special Provisions or Specifications, for the specified class or grade for which it was prepared. This does not apply to plants at which LADOTD or its representative is performing the QA inspection.

E. Information on Producers on LA DOTD AML**:** Identify the Producers of materials that are on the LA DOTD Approved Materials List (AML). Include the LA DOTD's List and Producer number as part of the identification. Producer must provide a Certificate of Analysis of the material for acceptance on the project; if an analysis does not show that material meets or exceeds project specifications, then QC and OVF sampling and testing per Appendix G will be required if the D-B desires to use the material. Any material used based on a Certification of Analysis is subject to verification testing by LADOTD.

F. Describing Documentation Procedure**:** Identify location and name of custodian of document storage to enable LA DOTD review. Include QC charts, qualification/accreditation records, inspection reports, and other pertinent/supporting documents.

G. Mix Design Submittals**:** Submit procedures for developing all Portland cement concrete (CIP and Precast), soil-lime treatment, soil-cement treatment, and hot mix asphaltic concrete mix designs for submission to the CQCF for review and approval. The mix design shall be approved by a Louisiana Licensed Professional Engineer. Trial batches will be required for new mix designs. In lieu of trial batches, historical data may be submitted by the Design-Builder to the CQCF for acceptance of mix designs used elsewhere in the State. All trial batches are to be witnessed and verified by the CQCF.

2.3.6 Final Manufactured Product - Plant Operations

Once the Plant has manufactured the product for project use but prior to delivery to the project, address the following for each type of manufactured product:

A. Inspection**:** Describe inspection schedule and methods for identifying defects and Nonconformance with the specifications. Describe corrective actions and methods to resolve them. Provide detailed inspection checklists for each activity of manufacturing including hold points. Describe sampling and testing of all materials during the production or manufacturing processes so that only materials meeting the specification are supplied for ultimate incorporation into the Work at the frequency defined in Appendix G.

B. Storage**:** When storage of the produced materials is required and it is not defined in the Contract Documents, describe the methods and duration for storage. Include measures and methods for preventing segregation, contamination and degradation during storage. (Example: Explain how a precast element will be stored in the precast yard, such as dunnage, tie downs, stacking.)

C. Disposition of Failing Materials**:** When not described in the specifications, describe the methods and measures for identifying and controlling the failing materials. Include preventive and corrective measures. Describe disposition of failing materials. Provide procedures to ensure that materials, equipment or elements of the Work that do not conform to requirements of the applicable law or the design documents are not used or installed. These procedures shall include identification, documentation, segregation, disposition and notification to LA DOTD and it representative and, if appropriate, Governmental Entities and other affected third parties, as well as procedures for LA DOTD to review Nonconforming work. Procedures are to ensure that condition adverse to quality such as failures, malfunctions, deficiencies, defective material and equipment; adverse weather conditions (hot, cold, rain, etc.), deviations and other Nonconforming Work are promptly identified and corrected. The procedures shall ensure that the cause of the condition is determined and all corrective action(s) taken shall be documented and reported in writing to LA DOTD/OVF and to appropriate levels of the Design-Builder's management to ensure corrective action is promptly taken.

D. Identification and Control of Materials**:** Provide procedures to ensure that identification of an item is maintained by appropriate means, either on the item or on records traceable to the item, as necessary, throughout fabrication and delivery of the item. Procedures are to control the handling, storage, shipping, cleaning, and preservation of materials and equipment to prevent damage or deterioration.

2.3.7 Final Manufactured Product - Field Operations

Address the following for each manufactured product from delivery to placement, including verification of materials left in place:

A. Receiving**:** Describe the method of delivery from the point of

production/storage to the point of placement. Provide procedures that transported material are inspected for damage caused during transporting. This inspection shall be performed at the time of delivery at the site and prior to incorporation of material in the project. Include measures taken to prevent damage. (Example 1: Describe the type of vehicle needed to haul a precast element, and any permits necessary to get the element to the project, include a work plan for placement. Example 2: Describe how plastic concrete will be delivered, including type of delivery truck, conveyors, concrete pumps, or buckets to be used to place concrete.)

B. Identification and Control of Materials: Procedures to ensure that identification of an item is maintained by appropriate means, either on the item or on records traceable to the item, as necessary, throughout transportation, erection, installation, and use of the item. Describe sampling and testing of all materials during the placement so that only materials meeting the specification are used for incorporation into the Work at the frequency defined in Appendix G.

C. Mix Design**:** Procedures to ensure that preparation of all mix designs mixed on site, such as soil-lime and soil-cement treatment are designed by personnel who hold the required certifications as specified in Appendix C. Additionally, the designs shall be reviewed and signed by a Louisiana-Licensed Professional Engineer attesting that the design meets LA DOTD requirements, Project Special Provisions or Specifications.

D. Storage**:** When storage of the produced materials is required and it is not defined in the Contract Documents, describe the methods and duration for storage. Include measures and methods for preventing segregation, contamination and degradation during storage. (Example 1: Explain how delivered rebar will be stored prior to use to prevent contamination and degradation. Example 2: Explain how precast pile will be stored on site, dunnage placement, and stacking allowances.)

E. Placement**:** Describe the methods and identify the type of equipment used in incorporation of the materials into the project. Include the following in procedures:
   1) Checking and verifying the accuracy and adequacy of construction stakes, lines, and grades established by the Design-Builder. As-built records for piling, deck grades, etc. is to be provided to QC and OV when requested.
   2) Inspecting, checking, and documenting the work. Inspection, examinations and measurements shall be performed for each operation of the work to assure quality and ensure that construction alignment and grades are in accordance with the Contract documents.
   3) All tools, gauges, instruments, and other measuring and testing devices used in activities affecting quality are properly maintained, controlled, calibrated, certified, and adjusted at specified period to maintain accuracy within industry standards.
   4) Ensure that elements of work are not started or continued without QC personnel on site for acceptance inspection and testing. Inspection, hold points and procedures to proceed beyond inspection or hold points shall be developed and identified.

5) Indicate, by the use of markings such as stamps, tags, labels, routing cards, or other suitable means, the status of inspections and tests performed (passing and failing) upon individual items of the work.
6) Program to ensure performance of all testing required to demonstrate that all materials, equipment, and elements of Work will perform satisfactorily for the purpose intended and meet the standards specified in the Contract Documents. The program shall specify written test procedures which include provisions for ensuring that all prerequisites for the given test have been met and adequate test instrumentation is available and used. Actual sampling and testing frequencies that vary from those in Appendix G must be identified for each test; if chosen frequency results in the failure of a QC test, then the OVF reserves the right to increase the QC sampling and testing frequency.

F. Disposition of Failing Materials**:** When not described in the specifications, describe the following:
1) Methods and measures for identifying and controlling the failing materials. Include preventive and corrective measures. Describe disposition of failing materials.
2) Procedures to ensure that materials, equipment, or elements of the work that do not conform to requirements of the applicable law or the design documents are not used or installed. These procedures shall include identification, documentation, segregation, disposition, and notification to LA DOTD and, if appropriate, Governmental Entities and other affected third parties, as well as procedures for LA DOTD/OVF to review Nonconforming work.
3) Procedures to ensure that those conditions adverse to quality such as failures, malfunctions, deficiencies, defective material and equipment, adverse weather conditions (hot, cold, rain, etc.), deviations and other causes are promptly identified and corrected. The procedures shall ensure that the cause of the condition is determined and corrective action taken shall be documented and reported in writing to LA DOTD/OVF and to appropriate levels of the Design-Builder's management to ensure corrective action is promptly taken.

G. Documentation**:** Procedures to ensure that the Design-Builder, Suppliers, and Subcontractors designate individuals on each crew responsible for performing daily field inspections of their own work and for preparing a daily QC report to document the inspection performed and applicable Progress Check Point code. Report forms to be used by the responsible QC personnel shall be included in the Design-Builder's CQMP. All test results must be documented and reviewed by the CQCM to ensure test requirements have been met.

2.3.8 Testing Laboratories

Identify the laboratories performing testing. Ensure that the testing laboratories comply with the laboratory qualification requirements of Section 4.3 – Laboratory Qualifications.

2.3.9 Miscellaneous

Address the following under this Section:

A. Request for Information**:** Procedures for processing a request for information to resolve discrepancies and/or questions in the plans and specifications so that all changes are documented and approved by the Design-Builder's design engineers and accepted by LA DOTD. RFI's are to be requested and accepted prior to performing the Work in question.

B. Receipt and Issuance of Documents**:** Measures to control the receipt and issuance of documents, such as instructions, procedures, training manuals and drawings, including change thereto which prescribe activities affecting quality. These measures shall ensure that approved documents, including authorized changes thereto are reviewed for adequacy and approved for release by authorized personnel of the Design-Builder and are distributed to and used at the location where the prescribed activity is performed. Changes to documents shall be reviewed and approved by the same Design Engineer that stamped the original work drawings unless LA DOTD consents, in writing to another responsible Design Engineer. Requirements and methods for controlling documents (such as Certificates of Delivery (CD), mill certs, batch certifications, dailies, test results, etc.).

C. Utility Coordination**:** Provide procedures, including coordinating with LA DOTD Districts, to ensure all operational permits are identified for coordination of all QC inspections and testing with Governmental Entities and Utility Owners.

2.3.10 Document Control

The Design Builder and CQCF shall utilize the LA DOTD's CQAP Documentation Database for submittal of all QC material sampling and testing required by Appendix G – Required Minimum Sampling and Testing. The LADOTD's CQAP documentation Database shall consist of the following:

- LADOTD Site Manager (OVF Daily Diaries, Change Orders & Traffic Control Inspections)
- LADOTD Site Manager- Materials (sampling and testing results)
- LADOTD ProjectWise (main depository for Design and Construction Documentation)
- LADOTD LAPAVE (mix design approval and recordation)
- AASHTOWare Project - Civil Rights and Labor (certified payrolls)

LADOTD Site Manager shall be utilized by the OVF to record the Design Builder's daily work activities. Traffic Control Inspection information shall be entered into Site Manager by the Design Builder.

Verification material samples shall be identified, tested and test results recorded by the OVF in LADOTD Site Manager-Materials. The OVF shall also enter QC test results from the CQCF into Site Manager-Materials. In addition, the Site Manager-Materials shall be utilized

by the OVF to perform required mathematical analyses.

LAPAVE shall be utilized for the tracking and acceptance of all mix designs for Structural Portland Cement Concrete, Portland Cement Concrete Pavement and Asphaltic Concrete Mixtures. The Design Builder will enter the mix design information into LAPAVE. After the mix design has been approved by the CQCF, OVF will review the information and the LADOTD District Lab Engineer will perform the final approval.

LADOTD ProjectWise shall be the master depository for the documentation control for the project for design drawings; audit results; Non-Conformance Reports (NCR's); personnel certifications; mix designs; OVF daily diaries; mathematical analyses; disposition of failing results and equipment calibration records.

AASHTOWare Project - Civil Rights and Labor (certified payrolls) information will be entered by the Design Builder and approved by OVF.

SECTION 3 - ACCEPTANCE PROGRAM

3.1 General

Under Design-Builder Performed Acceptance, both the Quality Control (QC) and Owner Verification (OV) testing make up the acceptance decision as part of the Acceptance Program. The Construction Quality Control Firm (CQCF) provides the frontline quality control testing. The Owner Verification Firm (OVF) will perform project field inspection for quality acceptance. Acceptance validation/verification of testing is performed by LA DOTD or its representative (Owner Verification Firm (OVF)).

The OVF will verify compliance of the Work with the released for construction plans, accepted shop drawings, working drawings, specifications and accepted Change Orders. The Construction QC Sampling and Testing shall meet the requirements in Appendix G– Required Minimum Sampling and Testing. The Construction QA Inspections will be performed by the OVF and must include the observations, measurements, and documentation specified in the Appendix F – Minimum OVF Construction Quality Acceptance Inspection.

LA DOTD's Owner Verification (OV) Program shall be documented in the Owner Verification Testing and Inspection Plan (OVTIP). The OVTIP shall include internal procedures used by LA DOTD or its representative (Owner Verification Firm (OVF)) to ensure that the Design- Builder's frontline Quality Control is performed in accordance with the accepted CQMP and to verify the Design-Builder's QC testing and inspection. The OV Sampling and Testing must meet the requirements in Appendix G – Required Minimum Sampling and Testing. In addition, the OV Inspections must also ensure the CQCF is meeting the QC testing requirements in Appendix G-Required Minimum Sampling and Testing.

3.2 Sampling and Testing

Q C sampling and testing by the CQCF and verification of QC test results by the LADOTD or its representative (OVF) used in the acceptance decision.

References in the Contract to a Louisiana test method or test designation of the American Association of State Highway and Transportation Officials (AASHTO), The American Society for Testing and Materials (ASTM), or any other recognized national organization means the latest revision of that test method or specification for the work in effect on the Proposal due date.

3.2.1 Design-Builder's Requirements

The Design-Builder's CQCF shall perform Quality Control sampling and testing as defined by Appendix G – Required Minimum Sampling and Testing. Quality Control sampling and testing results conducted by the CQCF will be used for acceptance purposes, if validated by the OVF or LA DOTD. Materials which are monitored or pre-accepted by LA DOTD under the Approved Materials List (AML) are subject to QC and OV sampling and testing as part of Design-Builder performed acceptance, unless otherwise specified by this document.

The Design-Builder's CQCF must not be owned by or be an affiliate of the Design-Builder, any principal participant, or construction Subcontractor (see Design-Build Contract Sections 101 and 112). The Construction Quality Control Manager (CQCM) must be an employee or subconsultant of the CQCF. An independent testing laboratory will be part of the CQCF and not affiliated with the Design-Builder.

3.2.2 LA DOTD's Requirements

LA DOTD or its designated representative (OVF) will perform verification sampling and testing as part of this Construction Quality Assurance Program (CQAP). The purpose of the verification sampling and testing is to validate the quality of the product, including the sampling and testing performed by the CQCF, as part of the Quality Control Program. Only CQCF's test results that are verified by the OV program will be used in the acceptance decision. The OV will also perform construction inspection for quality acceptance and make Engineering Judgement Decisions.

In addition, LA DOTD or its designated representative (OVF) may observe any sampling and testing activities performed by the Design-Builder's CQCF. If any deviation is observed from the specified sampling or testing procedures, LA DOTD or its designated representative (OVF) will verbally describe the observed deviation immediately to the QC representative on site and inform within one working day to the Design-Builder's CQCM, followed by a written Non-Conformance Report (NCR) covering the deviation to the Design-Builder's Quality Manager (QM), and copy the Design-Builder PM, LADOTD PM, and D-B's CQCM.

3.2.3 Sample Types and Uses

Sampling is either random or fixed, depending on whether the location was selected randomly (random) or if a specific location was subjectively identified (fixed). Sampling is also either independent or dependent, based on whether the location was independently selected (independent) or whether is based on the location of another sample (dependent/split).

However, split samples may be used outside of the mathematical analysis for owner verification of Design-Builder's performed acceptance tests under LA DOTD's Owner Verification Program. A comparison process for performing and analyzing split samples between LA DOTD and the CQCF is necessary during the startup operation of the CQAP as described in Appendix B – OVF Levels for Material Testing and Validation. These samples will be analyzed by LA DOTD and the results discussed with the CQCF to assure laboratory and technician test results compare favorably. When the acceptable tolerance limits in Section 4 – Table 4.2 Schedule of Allowable Deviation Values between Split Samples are exceeded, corrective actions for either or both parties will be identified and corrective actions will be incorporated as appropriate. This process will help provide initial alignment of the LA DOTD and CQCF laboratories and testing procedures.

Split samples may also be performed throughout the life of the project as deemed necessary by either party to investigate non-validating material categories and verify or realign testing equipment and personnel.

3.2.4 Pre-stressed Plants Sampling and Testing Requirements

Within a Pre-stressed Plant, the LA DOTD Fabrication Unit, or its representative, will perform all QA and OV requirements. LA DOTD may require the OVF to perform material sampling and testing on behalf of LA DOTD. In the event that LA DOTD Fabrication Unit does not have personnel at the chosen pre-stress plant, the OVF will be responsible for providing acceptance and verification inspection respectively. The the OVF's staff performing fabrication inspection must meet the certification requirements in Appendix C - LA DOTD Inspector/Technician Certification.

3.2.5 LA DOTD's Turnaround Timeframe for Acceptance Testing

When LA DOTD performs sampling and testing for the Acceptance Program, the timeframe for turnaround is the same as those timeframes (typical handling time) listed in the latest LA DOTD Material Sampling Manual. When these timeframes do not coincide with the Design-Builder's schedule, the D-B at their option can elect to have the CQCF perform the test at no additional cost to LA DOTD.

3.2.6 Notification

The CQCF shall provide the OVF with sufficient notification prior to any hold point inspections, sampling, testing, source approvals, or plant inspections.

The OVF shall provide the LA DOTD District Laboratory the three (3) week look ahead provided by the Design-Builder at the weekly progress meetings when there are materials

being placed on the look-ahead that require IA testing. The OVF is responsible for coordination with the LA DOTD District Laboratory for IA testing a minimum of prior work day notification of anticipated testing requirement so the LA DOTD District can schedule accordingly.

3.2.7 Quantities and Testing Frequency

The CQCF shall continuously track and record the quantity (in the same units and lots/lift/zones/etc. as identified in Appendix G for testing frequency) of material incorporated into the Project. The CQCF shall generate a weekly report to ensure compliance with Appendix G
– Required Minimum Sampling and Testing. Manufacturers' warranties, guarantees, Certificate of Compliance, Certificate of Analysis, Certificate of Delivery, instruction sheets, parts list, and other materials that are furnished with articles or materials incorporated into the Work, shall be made available to LA DOTD with the weekly report.

At a minimum, the CQCF shall perform material sampling and testing at locations and frequency defined in Appendix G – Required Minimum Sampling and Testing. This minimum testing frequency must be met with random independent samples as defined in Section 3.2.3 – Sample Types and Uses. During the start-up of new categories of work or when there are any concerns over the quality of material, the CQCF and OVF shall conduct testing at the frequency required by Appendix B.

While the testing of random independent samples is required to meet the guide schedule testing requirements, the CQCF shall perform additional (fixed) tests when the quality of material is questionable at a location other than the randomly selected location. This fixed test shall constitute an acceptance test and a failing result shall be addressed in a similar manner to a failing random independent test. Fixed tests shall not count towards meeting minimum CQCF testing frequencies.

LA DOTD or their designated representative (OVF) will perform field inspection for quality acceptance and material verification sampling and testing. To verify QC test results, OV testing shall be performed at a frequency shown in Appendix G – Required Minimum Sampling and Testing. Split sample testing defined in Appendix D does not replace or relieve the requirements found in Section 4.0 – Independent Assurance Program. Frequency will be based on each job mix formula source or class of concrete.

3.3 Design-Builder's Quality Acceptance (QA) Requirements

QC test results that validate will be used for quality acceptance.

3.3.1 Reporting, Record Keeping, and Documentation

The Design-Builder shall document and maintain documentation showing how the CQCF has complied with the CQMP requirements in Section 2.3. – CQMP's Quality Control(QC) Structure and Documentation Requirements. defects found, causes for rejection, and remedial or corrective actions taken or proposed, weather conditions, asserted occurrences, events and conditions causing or threatening to cause any significant delay or disruption or interference with the progress or any or the work, significant injuries to person or property, a listing of each Progress Check Points (PCP) activity depicted on the current monthly plan updated which is being actively prosecuted, and traffic accidents in the project area as well as lane closures in effect at the time of the accident. The responsible inspector and supervisor shall sign the daily inspection reports.

The CQCF shall be responsible for entering Quality Control materials test data into the LA DOTD's CQAP Documentation Database. The responsible technician and his/her supervisor shall sign the daily test reports and the results of the daily tests shall be entered into the database and electronically signed within one working day of test completion. This electronic reporting is intended to allow the Design-Builder and LA DOTD/OVF to make timely and accurate decisions on workmanship and material quality issues.

The CQCF material test results shall be simultaneously transmitted to both LA DOTD/OVF and the Design-Builder. The Design-Builder shall not receive the CQCF material test results prior to LA DOTD/OVF.

The Design-Builder's Project Manager will provide information to the LA DOTD's representative to verify that PCP are met as per the Design-Builder's Schedule of PCPs. A monthly audit of PCPs will be performed and any required correction will be made to the subsequent progress payment. The LA DOTD's designated representative's review and audit will assure that the PCP achievement and correct quantities are shown. The documentation for payment of Change Orders must also contain sufficient information to satisfy an audit. Documents for the closure of each Change Order will be reviewed and included in the final payment. Additionally, in accordance with the Design-build Contract Sections 105 and 109, the LA DOTD's Project Manager will have the authority to suspend the work if at any time the Manager determines that the Design-Builder is not in conformance with the contract requirements.

A. Engineering Judgment List: Engineering Judgements can be made on material test results that indicate reasonable conformance with specification requirements but did not meet the minimum specification requirements that may be adequate for their intended use. The OVM will exercise engineering judgement. There are two ways the OVM may exercise engineering judgement; pre-approval of common construction issues, or post approval through the NCR process.

   For pre-approval, the Design-Builder must provide a proposed list of Engineering Judgments, including tolerances, remedial actions for LA DOTD, and frequency that would require stop work (i.e., concrete truck out of time by *'x'* minutes but still workable, slump out of tolerance by *'x'* inches, aggregate sieve out of specification by *'x'%,* etc.). All proposed Engineering Judgments shall be stamped by the applicable Engineer of Record, or Materials Engineer, and approved by the Design-

Builder's Quality Manager prior to submitting to LA DOTD for acceptance. Once LA DOTD accepts the proposed list, the OVM m a y exercise pre-approved Engineering Judgments to accept such material(s) without requiring the NCR process. Each time a pre-approved Engineering Judgment is used, the OVM shall properly document each occurrence on the non-conformance log. Documentation shall include the location where the material is incorporated, the specification requirement, the recorded test value, and the pre-approved Engineering Judgment applied to allow use of that material. If the OVM does not choose to exercise any of the pre-approved Engineering Judgments or LA DOTD does not accept a proposed Engineering Judgment to accept material failing specifications, the material in question may still be accepted through the NCR process, brought into conformance with specifications, or removed from the project.

The availability of the pre-approved Engineering Judgment does not release the responsibility of the Design-Builder for the quality of the Work. Consistently failing the specification requirements and subsequent acceptance of the material with a pre-approved Engineering Judgment may require the development of an NCR. The OVF may initiate the NCR process to investigate the reasons of the QC failure and to bring the production process back under control.

Post approval thru the NCR process would follow Section 3.3.1.B, and the resolution would indicate that it would be included in the Engineering Judgement List. The resolution would need to satisfy all the requirements as the pre-approval (including tolerances, remedial actions for LA DOTD, and frequency that would require stop work).

B. Non-Conformance Process: Materials that do not meet the minimum specification requirements are subject to the review, approval, and acceptance by the Design-Build Engineer with the appropriate discipline; however, LA DOTD has final acceptance decision on the incorporation of this material. The acceptance decision process has to be documented through the Non-Conformance Report (NCR) process.

The CQCM shall identify, document, and report to LA DOTD or their representative (OVF) all instances of Work (in accordance with APPENDIX G and project specifications) that have not been constructed with the strictest adherence to the accepted drawings and specifications and with the requirements of the Contract Documents, the Governmental Approvals, and applicable Law. This reporting shall be in the form of an NCR as described below and shall be submitted to the Design-Builders Quality Manager (QM) in writing within one working day of the Design-Builder obtaining knowledge of the same. The CQCM shall simultaneously copy each NCR to the LA DOTD Project Manager, the Design-Builder's Project Manager and the Owner Verification Manager.

The NCR shall clearly describe the element of Work that is non-conforming and the reason(s) for the Nonconformance (in accordance with APPENDIX G and project specifications). The D-B Quality Manager will be responsible for the NCR resolution review and development process.

An NCR issued for material or geotechnical reasons that does not meet minimum specification shall be evaluated as described above by a Qualified Engineer within

that discipline. If the reviewing engineer determines remedial actions are necessary, the proposed remedial action shall be documented and bear the stamp of t h e Registered Professional Engineer that made the review. It is understood that any design changes should be made by the designer who originally stamped the Ready for Construction drawings when possible. Justification must be provided if the Engineer of Record or the reviewing engineer determines that no remedial actions are required. The NCR will then be submitted by the Quality Manager to LA DOTD for review and final acceptance. The Design-Builder will be responsible for the cost of the remedial actions.

C. Monthly CQCM Material Certification: The Construction Quality Control Manager (CQCM) shall provide a monthly written material certification, delivered to LA DOTD Project Manager and the Design-Builder's Quality Manager with each payment request, indicating that the Construction Quality Management Plan (CQMP) and all of the measures and procedures provided therein are being fully complied with and are functioning properly (see Appendix E – Material Certification Format Example). The CQCF shall maintain and submit records monthly that include factual evidence that required activities and tests have been performed, including the following:

(i) Nature of Nonconforming Work and causes for rejection;
(ii) Proposed corrective action for Nonconforming Work;
(iii) Corrective actions taken with respect to Nonconforming Work;
(iv) Results of such corrective actions; and
(v) Follow up to unresolved NCR's.

The monthly material certification must include a list of unresolved NCR's until they are completely closed out. The list must include a status of the NCRs and must include the PCP's affected by them.

At the completion of the Project, the Design-Builder shall submit with the final invoice a certificate of compliance signed by the Design-Builder's Project Manager and CQCM indicating that all material incorporated in the Project conform to Contract requirements with all exceptions listed and with disposition of all failing tests.

3.4 CQMP's Quality Acceptance (QA) Structure and Documentation Requirements

The CQMP shall address Quality Acceptance (QA) requirements clearly and concisely. Where procedures are requested, the expectations are to provide the actual procedures to be used including hold points. The components of the CQMP's QA Section will be incorporated into Section 2 as defined in Table 2.1. QC test results which validate will be utilized for quality acceptance.

3.5 LA DOTD's Owner Verification Requirements

LA DOTD has the final responsibility for verifying that the Project is designed and constructed in compliance with the Contract Documents. As such, LA DOTD or the Owner Verification Firm (OVF) will perform Owner Verification (OV) sampling, testing and inspection, and conduct audits to verify the Design-Builder's compliance with the accepted CQMP. **Owner Verification requirements as discussed in this Section are only applicable to LA DOTD and the OVF.**

LA DOTD has established a system for managing the materials acceptance and verification process. This system includes the performance and approval of OV tests at the stipulated test frequency, review of QC test results, performance of mathematical analysis on OV and QC test results, and any associated tasks arising out of the mathematical analysis.

Owner Verification laboratory shall meet the requirements described in Section 4.3 – Laboratory Qualifications.

3.5.1 Material Validation Reporting

The OVF shall submit quarterly reports to LA DOTD and FHWA to show compliance with the Construction Quality Assurance Program (CQAP) and the accepted Construction Quality Management Plan (CQMP). The report will be submitted three (3) weeks after the Design-Builder has provided all quarterly inspection and testing documentation. Accepted reports shall be distributed to the CQCF after receiving FHWA concurrence. The reporting period for specific pay items or materials is dependent on the pace of construction and the number of tests performed in each analysis category, the time period of the sampling, and the specification and quality requirements. Each report shall cover a period of construction not greater than three (3) months.

The Material Validation Report shall address the following areas:

1. Mathematical Validation Results, to include specification requirements and status of validation process during start-up and completion of an item;
2. Non-validation Investigation;
3. Nonconformance Log;
4. Engineering Judgment Log;
5. Monthly Construction Quality Control Manager (CQCM) Material Certification; and
6. Visual inspection.

A. Mathematical Validation Results

The OV firm will perform a comparative analysis of the OV and QC data of Level 1 materials. The analysis will be used to determine if the QC data is mathematically validated. In addition, independent verification and observation verification will also be used the validate the QC test results. This type of analysis is described in Appendix B – OVF Levels for Material Testing Validation.

B. Non-Validation Investigation

If the OV test results do not validate the QC test results, the Design-Builder may proceed working at their own risk until an investigation shall be conducted to determine the reason for not verifying. Assuming that the analysis categories were established appropriately, other areas for investigation include data integrity and accuracy, testing equipment and procedures, sampling variability and material variability. Material quality when non-validation occurs is further discussed in Section 3.7 – Dispute Resolution. Results of the investigation should be reported for the non-validating categories.

C. Engineering Judgment Log

The OVM will perform pre-approved Engineering Judgments. A copy of the latest Engineering Judgment Log must be submitted as part of the OVF quarterly reports to LA DOTD and FHWA. This list includes each occurrence in which the Engineering Judgment has been applied, including the location where the material is incorporated, the specification requirement, the recorded test value, and the reference to the approved Engineering Judgment applied to allow the use of that material. In addition, a list of approved Engineering Judgments, including tolerances and remedial actions must be included.

D. Non-Conformance Process

Materials that do not meet the minimum specification requirements are subject to the review and approval by the Engineer with the appropriate discipline per section 108 App A of the Contract; however, LA DOTD has final acceptance decision on the incorporation of this material. The acceptance decision process has to be documented through the Non-Conformance Report (NCR) process.

In addition to the CQCF, the OVF may identify, document, and report to LA DOTD all instances of Work that have not been constructed with the strictest adherence to the accepted drawings and specifications and with the requirements of the Contract Documents, the Governmental Approvals and applicable Law.

This reporting shall be through the NCR process as described below and shall be submitted to the Design-Builder's Quality Manager (QM) in writing within one working day of the Design-Builder obtaining knowledge of the same. The OVF shall simultaneously copy each NCR to the LADOTD Project Manager, the Design-Builder's Project Manager and the CQCM.

The NCR shall clearly describe the element of Work that is non-conforming and the reason(s) for the Nonconformance. The D-B Quality Manager will be responsible for the NCR resolution review and development process. The QM will submit the NCR to the appropriate engineer who stamped and sealed the drawings for the Work the NCR represents. That design engineer shall evaluate the effect of the Nonconformance on the performance, safety, durability, and effect of the long-term maintenance of the project and the specific element affected.

An NCR issued for material or geotechnical reasons that do not meet minimum

specification shall be evaluated as described above by a Qualified Engineer within that discipline. If the reviewing engineer determines if remedial actions are necessary, the proposed remedial action shall be documented and bear the stamp of the Registered Professional Engineer that made the review. It is understood that any design changes should be made by the designer who originally stamped the Ready for Construction drawings when possible. Justification must be provided if the Engineer of Record or the reviewing engineer determines that no remedial actions are required. The NCR will then be submitted by the Quality Manager to LA DOTD for review and final acceptance.

Each NCR shall be numbered sequentially, given a brief description, a status and, if it is not closed, an expected date for closure. All NCRs must be closed with the stamp of the Design Firm's qualified engineer in charge or the responsible Registered Professional Engineer from the same firm assigned to replace the original one and LA DOTD approval.

The OVF will maintain the official NCR Log which will include NCRs issued by the CQCF and the OVF. A copy of the latest NCRs log must be submitted as part of the OVF quarterly reports to LA DOTD and FHWA.

E. Monthly CQCM Material Certification

Copies of the CQCM's monthly written material certification for the reporting period shall be provided as part of the quarterly reports to LA DOTD and FHWA. At the completion of the Project, a certificate of compliance must be included with the final copy of the Material Validation Report. The certificate of compliance must be signed by the Design-Builder's Project Manager and CQCM indicating that all material incorporated in the Project conform to Contract requirements with all exceptions listed.

3.6 Owner Verification Testing and Inspection Plan (OVTIP) Structure and Documentation Requirements

The OVTIP shall address the Owner Verification Firm (OVF) requirements as described in this Section. This plan shall establish the system for managing the materials acceptance process. This process shall include the performance and approval of Owner Verification (OV) tests at the stipulated test frequency, review of QC test results, performance of mathematical analysis on OV and QC test results, and any associated tasks arising out of the mathematical analysis. The OVTIP shall address Verification requirements clearly and concisely. Where procedures are requested, the expectations are to provide the actual procedures to be used. The components of the OVTIP Section are summarized in Table 3.2.

Table 3.2: Components of the OVTIP

OVTIP's Sections	CQAP's Reference
General	Section 3.6.1
Personnel	Section 3.6.1
Mix Designs	Section 3.6.1
Field Operations	Section 3.6.1
Audits	Section 3.6.1
Coordination	Section 3.6.1

3.6.1 General

Address the following under this Section:

A. Introduction**:** The OVF shall provide a brief description of the systematic approach in which it plans to deliver the OV responsibilities on the project.

B. Parties Involved**:** Provide a description of the inspection firms, including testing laboratories and specialized inspection firms, participating in the delivery of the project. Include a description of the extent of involvement in the project for each party.

C. Communication and Enforcement of Owner Verification Responsibilities among all Parties Involved**:** Provide a plan for communicating the OV responsibilities included in the approved OVTIP to all OVF's work force performing testing, sampling, and inspection on the project. Identify procedures to ensure adherence with the OVTIP by members of the OVF's work force. Provide means to ensure that repeated discoveries of Nonconformance are addressed and remedial actions are taken during the duration of the project.

3.6.2 Personnel

A. Qualifications**:** Procedures to ensure that the education, training, and certification of personnel performing OV activities are achieved and maintained and that all Work is performed in accordance with the approved OVTIP.
   1) Provide copies of current certifications, a log for reference to each inspector, and plans for maintaining recertification.

B. Level of Responsibility: Clearly define the authority and responsibility for the administration of the OVTIP.
   1) Define Inspector responsibilities and duties, including inspection, sampling, and testing on-site, at material sources and precast fabricators. Define what authority will be given to the inspectors. Establish who the inspectors report to. Provide documentation requirements for inspections, sampling and testing and the time frame the documentation must be completed.
   2) Define the Owner Verification Manager's (OVM) authority, responsibilities,

and duties (including field issues, Design-Builder payments, engineering judgments, NCRs, verification of testing results and disputes, etc.). Define the process of disseminating documentation to CQCF, Design-Builder and LA DOTD (such as NCRs).

3) Define the Assistant Owner Verification Manager's (AOVM) authority, responsibilities, and duties. Define who the AOVM reports to. Define flow of documentation that is conducted by the AOVM (such as NCRs).

4) Define any other positions held by OVF's staff as it relates to the project, such as admins to track sampling and testing results on the LA DOTD's CQAP Documentation Database, those creating the quarterly reports, maintenance of personnel and equipment certification dates.

3.6.3 Mix Designs

A. Review and Acceptance**:** Procedures for reviewing PCC, soil-lime treatment, soil-cement treatment, and HMA concrete mix designs. The procedures shall include the process for documenting the acceptance of the mix designs through the LA DOTD's CQAP Documentation Database.

3.6.4 Field Operations

A. Inspection**:** Provide detailed procedures for the overseeing, inspecting, sampling and testing of each work component identified by the contract (including on-site and off-site work, such as precast or steel fabrication).

1) Include verification of compliance of work with the Design Builder's CQMP.

2) Include acceptance inspection requirements included in Appendix F – Minimum CQCF Construction Quality Acceptance Inspection and Appendix F-1-Minimum OVF Item Inspection Checklists. Verify that the CQCF and D-B has performed work in compliance with the RFC plans, approved change orders, specifications, and approved working and shop drawings.. The procedure should identify a target inspection rate for performing inspections for all QA and oversight of CQCF staff.

3) Include procedures for performing periodic inspection of all Work components at the time of placement or installation, including workmanship and quality of the finished product.

B. Sampling and Testing**:** Procedures on how OV material sampling and testing will be performed including the process for generating random test locations, tracking material samples, processing material samples, review and approval of test records, and tracking compliance with material testing frequency.

1) Provide random number generator for sample locations.

2) Provide a template for tracking material sampling and testing frequency.
3) Provide a flow chart for review and acceptance of material testing, including non-validating samples.
4) Provide procedures for ensuring the OV testing is performed at the frequencies required in the CQAP.

C. Mathematical Analysis Requirements**:** Include procedures to communicate the material description and sub-description to ensure data integrity for accurate mathematical analysis. (It is critical that both the OV and QC enter sample data into the LA DOTD's CQAP Documentation Database under the exact same Section/Description/Sub-description for the database to calculate the analyses correctly).
   1) Procedures to ensure that the continuous mathematical analysis is performed in accordance with the CQAP.

D. Disposition of Failing Materials**:** Procedures to oversee the status and disposition of any identified noncompliance with the plans and specifications.
   1) Include procedures for Nonconformance identified by CQCF and a procedure for Nonconformance identified by OVF.
   2) Include NCR Log template.

E. Equipment Calibration**:** Measures to ensure that tools, gauges, instruments, and other measuring and testing devices used in activities affecting quality are properly maintained, controlled, calibrated, certified, and adjusted at specific periods to maintain accuracy within industry standards.
   1) Include a log of all equipment, their last calibration date, and calibration expiration date, including certifications/calibrations for nuclear equipment.

F. Engineering Judgement List: Procedures to Perform Engineering Judgements (See Section 3.3.1.A and Section 3.5.1.C)

3.6.5 Audits

A. Periodic Audits**:** Procedures for a system of planned and periodic audits.
   1) Include audit of Design-Builder's procedures and processes to determine adherence to and the effectiveness of the CQMP QC Plan. Include reviewing of QC records and documentation.
   2) Include audit of CQCF procedures and processes to determine adherence to and the effectiveness of the CQMP QC Plan. Include reviewing QC records and documentation. Include observing and reviewing the CQCF's initial start- up testing operations and periodically during ongoing production operations verifying compliance with test procedures. Include procedures to verify that the CQCF testing is performed at the frequencies required

in the CQAP. Procedures for ensuring that only tests performed by qualified CQCF testing personnel are submitted to LA DOTD.

3) Include independent audit of OVF to determine adherence to and the effectiveness of the OVTIP.
4) Audit results shall be documented, reviewed, sent to LA DOTD and FHWA. Follow-up action, including re-audit of deficient areas following corrective action, shall be taken where indicated.

3.6.6 Coordination

A. LA DOTD District Laboratory**:** Procedures for notifying the LA DOTD's District Laboratory when construction activities requiring IA sampling and testing will be in progress in accordance with Section 4 – Independent Assurance Program.

B. Materials Laboratory**:** Procedures for coordinating with LA DOTD's Materials Laboratory, when construction activities requiring testing by the LA DOTD's Material Laboratory are performed. The procedure must include details of how the material samples will be handled by the OVF and transported to LA DOTD's Materials Laboratory.

3.7 Dispute Resolution

Through the life of the Project, there may be differences in material test results or mathematical sample populations between the Construction Quality Control Firm (CQCF) and the Owner Verification (OV) Firm. Due to the natural variability in construction materials testing and unavoidable biases in sampling and testing, these differences are often difficult to avoid. It is important to recognize the difference between material quality and mathematical validation.

Material quality is measured by whether a test passes or fails and is an indication of whether material will perform its intended purpose. Engineering judgment may be used to substantiate the use of material failing to meet the specification if the material still meets the intended purpose and does not affect the service life equivalent to design service life. Mathematical validation is a measure of whether the OV and Quality Control (QC) populations are mathematically equal. It does not represent the quality of material being incorporated into the Project. Table 3.3 includes a summary of the validation and material Quality Acceptance decision.

3.7.1 Non-Validation and Status of Material Quality

When OV test results do not mathematically validate the Quality Control (QC) test results as outlined in Section – 3.5.1.1 Mathematical Analysis Results, LA DOTD District Laboratory Engineer will investigate the source of non-validation. The OV Firm and CQCF will assist in the investigation. The LA DOTD District Laboratory Engineer, or an independent laboratory, will provide the LA DOTD Project Manager with a probable cause of the non-validation and a resolution recommendation. If the non-validation persists over two consecutive analyses as required in Appendix B, a NCR process shall

be issued by LA DOTD to formally document and seek resolution to the non- validation.

In addition to the need to investigate the non-validation, the material in question has to be immediately evaluated to determine if it can be left in place or has to be removed, reworked, or repaired. The material in question will be evaluated using the process described in this Section. The LA DOTD may exercise Engineering Judgment to determine that the material will perform its intended purpose. There are four possible combinations of passing and failing results between the QC and OV test results.

1. Both the QC and OV test results pass specification limits:

   Although mathematical validation has not occurred, both the CQCF and OV Firm test results are passing the established specification limits. Thus, material quality in question is considered acceptable.

2. QC test results fail and OV test results pass specification limits, the acceptance of material is subject to one of the two scenarios below.

   a. CQCM may exercise accepted Engineering Judgment to accept the material if results from all other levels of related OV material testing, within the same lot and pass specification limits.

   b. For those materials not on the Accepted Engineering Judgment Log, the CQCF needs to provide OVF an explanation of error and/or proposed correction for acceptance of materials thru the NCR process.

3. Both the QC and OV test results fail the specification limits:
   Material may be left in place if the LA DOTD determines that Engineering Judgment may be used to accept the material or if the material is accepted through the NCR process. Results from all other levels of related OV material testing, within the questionable area, will be included in Judgment decision. The acceptance of material is subject to one of the two scenarios below.

   a. OV test result indicates reasonable conformance with specification requirements for the lot in question, the CQCF shall provide to the OVF an explanation of error and/or proposed correction for acceptance of material thru the NCR process.
   b. OV test result and/or the results of other levels of related OV testing does not indicate reasonable conformance with specification requirement for the lot in question, the CQCF must perform additional testing within the lot in question to identify the problem area. Based on the results of CQCF testing, all local OV testing of related materials and subsequent investigation discussions between LA DOTD and the Design-Builder, a determination of the material disposition is made and documented through the NCR process.

4. QC test results pass but OV test results fail specification limits:

   Material may be left in place if the LA DOTD determines that Engineering Judgment may be used to accept the material or if the material is accepted

through the NCR process. Results from all other levels of related OV material testing, within the questionable area, will be included in Judgment decision. This is subject to LA DOTD response in the two scenarios below.

a. OV test result indicates reasonable conformance with specification requirements for the lot in question, the CQCF shall provide to the OVF an explanation of error and/or proposed correction for acceptance of material thru the NCR process.
b. OV test result and/or the results of other levels of related OV testing does not indicate reasonable conformance with specification requirement for the lot in question, the CQCF must perform additional testing within the lot in question to identify the problem area. Based on the results of CQCF testing, all local OV testing of related materials and subsequent investigation discussions between LA DOTD and the Design-Builder, a determination of the material disposition is made and documented through the NCR process.

3.7.2 Referee Testing

Disputes over specific test results may be resolved in a reliable, unbiased manner by referee testing and evaluation performed by a referee laboratory. The referee laboratory shall be the LA DOTD Materials and Testing Laboratory or a testing laboratory qualified according to Section 3.3.3 – Quality Acceptance Facilities and Equipment and accepted by LA DOTD. The decision by the referee laboratory shall be final and binding on both parties and not subject to dispute resolution under Design-Build Contract Section 107-28. The party whose sampling and testing results are not confirmed and/or supported by the referee laboratory will be responsible for payment for the referee services. If the Design-Builder is the unsuccessful party, the cost of the referee laboratory services will be deducted from payments otherwise due and the LA DOTD ill make payment to the referee laboratory on behalf of the Design-Builder.

Table 3.3: Validation and Material Quality Acceptance Decision Matrix

	Material Quality		Mathematical Validation$^{\Delta}$
	CQCF	OV	
Material is considered mathematical validated and acceptable. No additional investigation needed.	Pass	Pass	Pass
Both the QC and OV test results pass specification limits: Although mathematical validation has not occurred, both the CQCF and OV Firm test results are passing the established specification limits. Thus, material quality in question is considered acceptable.	Pass	Pass	Fail*
QC test results fail and OV test results pass specification limits: The acceptance of material is subject to one of the two scenarios below: 1. OVM may exercise approved Engineering Judgment to accept the material if results from all other levels of related OV material testing, within the same lot, pass specification limits. 2. For those materials not on the Approved Engineering Judgment Log, the CQCF needs to provide OVF an explanation of error and/or proposed correction for acceptance of materials thru the NCR process.	Fail	Pass	Pass/Fail*
Both the QC and OV test results fail the specification limits*: The acceptance of material is subject to one of the two scenarios below: 1. OV test result indicates reasonable conformance with specification requirements for the lot in question, the CQCF shall provide to the OVF an explanation of error and/or proposed correction for acceptance of material thru the NCR process. 2. OV test result and/or the results of other levels of related OV testing does not indicate reasonable conformance with specification requirement for the lot in question, the CQCF must perform additional testing within the lot in question to identify the problem area. Based on the results of CQCF testing, all local OV testing of related materials and subsequent investigation discussions between LA DOTD and the Design-Builder, a determination of the material disposition is made and documented through the NCR process.	Fail	Fail	Pass/Fail*
QC test results pass but OV test results fail specification limits*: The acceptance of material is subject to one of the two scenarios below: 1. OV test result indicates reasonable conformance with specification requirements for the lot in question, the CQCF shall provide to the OVF an explanation of error and/or proposed correction for acceptance of material thru the NCR process. 2. OV test result and/or the results of other levels of related OV testing does not indicate reasonable conformance with specification requirement for the lot in question, the CQCF must perform additional testing within the lot in question to identify the problem area. Based on the results of CQCF testing, all local OV testing of related materials and subsequent investigation discussions between LA DOTD and the Design-Builder, a determination of the material disposition is made and documented through the NCR process.	Pass	Fail	Pass/Fail*

*Material may be left in place if the LA DOTD determines that Engineering Judgment may be used to accept the material or if the material is accepted through the NCR process. Results from all other levels of related OV material testing, within the questionable area, will be included in Judgment decision.

$^{\Delta}$If the non-validation persists over two consecutive analyses as required in Appendix B, a NCR process shall be issued by LA DOTD to formally document and seek resolution to the non-validation.$^{+}$ LA DOTD District Materials Engineer or its designee will investigate the source of non-validation. The OV Firm and CQCF will assist in the investigation. The LA DOTD District Materials Engineer or its designee will provide the LA DOTD Project Manager with a probable cause of the non-validation and a resolution recommendation.

SECTION 4 - INDEPENDENT ASSURANCE (IA) PROGRAM

4.1 General

LA DOTD District Laboratories shall implement the Independent Assurance (IA) program. This IA program evaluates all sampling and testing procedures, personnel, and equipment used as part of an acceptance decision. The IA Program is required by the Federal Highway Administration (FHWA) and conducted for projects constructed on the National Highway System (NHS). The Louisiana NHS may be viewed at:

https://www.fhwa.dot.gov/planning/national_highway_system/nhs_maps/louisiana/index.cfm

This chapter establishes the administration of this program, including lines of responsibility, uniform reporting procedures, and the minimum number of samples and tests required.

Samples and test results from this program are used to independently analyze the reliability of acceptance program by ensuring that tests are performed by qualified personnel and that laboratory facilities and equipment are adequate to perform the required sampling and testing methods.

Personnel designated to conduct IA sampling and testing are not to be directly involved in QC and OV program sampling and testing. In addition, the IA test samples are not to be tested with the same equipment as QC and OV program samples, except when accepted by the Materials Engineer Administrator.

4.2 Personnel Qualifications

All personnel performing sampling and testing for the QC, OV, or IA program for the project must be qualified in the appropriate test method in accordance with Appendix C – LA DOTD Inspector/Technician Certification. Sampling and testing personnel must obtain and keep current their certifications during the time they a e involved for this project.

4.3 Laboratory Qualifications

Laboratories where IA tests will be performed must be qualified in accordance with this Section.

4.3.1 Laboratory Qualification Responsibility

The LA DOTD Central Laboratory will be accredited under the American Association of State Highway and Transportation Officials (AASHTO) Laboratory Accreditation Program.

LA DOTD Central Laboratory is responsible for overseeing the statewide Laboratory Qualification Program and for qualifying the IA laboratory and the LA DOTD District Laboratory for use of OV testing.

4.3.2 Accreditation

In addition to LA DOTD laboratory qualification, QC, OV (when a laboratory other than a LA DOTD District Laboratory is utilized) and referee laboratories shall be accredited under the AASHTO Accreditation Program (AAP). The accreditation must be maintained throughout the life of the project. The laboratory must also participate in the AASHTO Materials Reference Laboratory /Concrete and Cement Reference Laboratory (AMRL/CCRL) proficiency programs, or CMEC for HMA. A copy of AAP accreditation certificate(s) shall be transmitted to LA DOTD upon their receipt by the testing laboratory. Certification must also be obtained for AASHTO and ASTM test methods that are modified or referenced by Louisiana test methods.

4.4 Sampling and Testing

The samples for the IA program shall be taken by the LA DOTD District Laboratory personnel. In order to ensure that the IA program evaluates the sampling procedures, testing, and the testing equipment the samples taken by this program shall be either split sample or independent samples in close proximity to QC or OV samples.

Split samples shall be split or quartered in accordance with DOTD TR 108 and one portion randomly selected as the IA sample. The splitting or quartering of the sample will be observed by district laboratory personnel.

Independent samples shall be taken at the same time as the acceptance sample when practical in order to evaluate the sampling procedure.

The testing of IA samples shall be performed by the LA DOTD District Laboratory, with the exception of reinforcing steel which will be submitted to the Materials and Testing Section for testing. All the equipment use by the IA program will not be the same as that used for the QC and OV program samples.

The quantities and testing frequency for the IA program is listed in Table 4.1 Schedule of Independent Assurance Sampling and Testing. The frequencies listed in the schedule are minimums and are to be used as a general guide. The LA DOTD District Laboratory Engineer may increase these values as construction procedures and/or conditions warrant.

4.5 Responsibility of the LA DOTD's District Laboratory

The LA DOTD District Laboratory will be responsible for the implementation and administration of the Independent Assurance Sampling and Testing Program in each district. The LA DOTD District Laboratory shall address, at the minimum the following requirements:

A. At the beginning of construction of the Project, the LA DOTD District Laboratory Engineer will use Table 4.1 Schedule of Independent Assurance Sampling and Testing to establish the minimum required IA sampling and testing for the project. The LA DOTD District Laboratory Engineer will notify the CQCF and OV Firm of the anticipated IA sampling and testing by a Memorandum of Anticipated

Independent Assurance Sampling and Testing (Figure 4.1). This memorandum will list each phase of construction for which sampling and testing is anticipated and the number and types of samples required for each phase.

B. The LA DOTD District Laboratory personnel will review the QC and OV sampling & testing procedures when split samples or independent samples are part of the independent assurance program. The District Laboratory personnel will observe the sampling and testing procedures and compare them to the LA DOTD's standard procedures.

C. The LA DOTD District Laboratory personnel will compare the IA test results for the independent or split sample with the appropriate QC and OV test results. Table 4.2 Schedule of Allowable Deviation Values between Split Samples Test Results will be used to identify discrepancies. The LA DOTD District Laboratory Engineer shall report the IA test results to the Materials Engineer Administrator and the LA DOTD's Project Manager as soon as they are completed. Any discrepancies in procedures or test results shall be identified and explanations included on the test report.

D. The LA DOTD District Laboratory Engineer may adjust the sampling and testing schedule at any time during the construction. The LA DOTD District Laboratory personnel may take additional IA tests or samples to resolve concerns about the reliability of acceptance sampling and testing results. Any discrepancies will be resolved prior to the signing of the Independent Assurance Certification referenced in 4.8 D.

4.6 Responsibility of the CQCF and OV Firm

4.6.1 CQCF and OVF Responsibilities:

The CQCF and OV Firm will be responsible for:

1. Assisting the LA DOTD District Laboratory Engineer in resolving discrepancies between IA sampling and testing and acceptance sampling and testing. This assistance will include co-investigation, taking additional samples, performing additional tests, checking equipment, checking procedures, checking the qualifications of personnel performing sampling and testing, and other cooperative activities necessary to resolve any discrepancies in procedures or results.

4.6.2 OVF Responsibilities:

The OV will be responsible for:

1. Notifying the District Laboratory Engineer when construction activities requiring IA sampling and testing in accordance with the Memorandum of Anticipated Independent Assurance Sampling and Testing will be in progress. This notification is imperative due to the number of IA samples that require split sampling.
2. If the IA sampling was not accomplished due to the lack of notification by the CQCF or the OV Firm, they shall provide a written explanation to the District Laboratory Engineer of the causes and corrective actions implemented

to prevent a recurrence.

3. Notifying the District Laboratory Engineer of plan changes which will affect anticipated IA sampling and testing.

4.7 Responsibility of Materials and Testing Section

The Materials and Testing Section will monitor and review the IA program statewide to ensure standardization. Additionally, the Materials and Testing Section will implement modifications or updates to the program, as needed. The Materials and Testing Section is responsible for direct IA testing of reinforcing steel and identifying discrepancies between IA and acceptance results. The LA DOTD District Laboratory Engineer will be notified of these results.

4.8 Reporting

4.8.1 Documentation

The Independent Assurance Documentation will be maintained in the LA DOTD's CQAP Documentation Database. Exception reports, which may include copies of screens showing test results (Purpose Code 8, Spec Code 3) are to be used for reporting purposes. Each IA test report will reference the date and time of the sample along with the district and project number represented.

4.8.2 Test Reports

The review of the IA sampling and testing procedures and the test results will be documented on an IA test report as illustrated in Submittal 4.1. The report will include all explanations of discrepancies and corrective actions taken. If there are no discrepancies, the word "Verifies" is to be entered into Remarks. If there are discrepancies, the words "Does not verify" are to be entered into Remarks. Each person who reviews any portion of the report or makes comments will sign the reviewed section or comment.

The identification number (laboratory number, lot number, zone and test number, log number, etc.) of the acceptance test report will be referenced on the IA report. A copy of this acceptance report will be attached to the IA report. These documents will be placed in the LA DOTD District Laboratory IA file for the project but will not be included in the certification or otherwise distributed. When discrepancies occur, the information from this review will be included with the Supplement to the Certification at the completion of a phase of construction.

4.8.3 Supplement to the Certification

At the completion of the IA sampling and testing of a phase of construction, all data is to be compiled and checked for accuracy and completeness. When discrepancies occur, the data is to be reported by a memorandum to the Materials Engineer Administrator. A Supplement to the Certification which will include explanations of discrepancies between IA and acceptance test results (Submittal 4.1) will be attached to this memorandum. If

there are no discrepancies, a memorandum and Supplement to the Certification will not be required for this phase of construction, but the data will be included with memoranda for other phases of construction.

4.8.4 Independent Assurance Certification

After IA sampling and testing has been completed for a project, an Independent Assurance Certification (with a listing of all memoranda reporting completed phases of construction) will be completed and forwarded by memorandum to the Materials Engineer Administrator (Submittal 4.2). Any Supplement to the Certification and all memoranda will be attached to the Independent Assurance Certification.

When the Memorandum of Anticipated Sampling and Testing indicates there are no samples to be taken on a project, the Independent Assurance Certification will not be required.

4.8.5 Distribution

The distribution for the test reports and memoranda mentioned in this step and in step 4.4 shall be as outlined below

1. Memorandum of Anticipated Independent Assurance Sampling and Testing

Directed to:	OVF who is to advise CQCF
Copies to:	District Engineer Administrator
	Materials Engineer Admin
	District Area Engineer providing oversite
	FHWA Area Engineer

2. Independent Assurance Test Reports

With Test Results (Review and Comment)

Directed to:	OVF who is to advise CQCF
Copies to:	District Area Engineer providing oversite
	DOTD Project Manager

With Review and Comments (No Test Reports Included) - Placed in District Laboratory IA file with no distribution.

3. Supplement to the Certification

Directed to:	Materials Engineer Administrator
Copies to:	District Engineer Admin
	District Area Engineer providing over site
	OVF
	FHWA Area Engineer

4. Independent Assurance Certification

Directed to:	Materials Engineer Administrator
Copies to:	District Engineer Admin
	District Area engineer providing oversite
	OVF
	FHWA Area Engineer

4.9 Disqualification

If a concern arises as to the competence of any certified individual on this project, this concern must be documented in writing by the LA DOTD District Laboratory Engineer to the Materials Engineer Administrator and the LA DOTD's Project Manager. The concern will be investigated as deemed necessary by the LA DOTD. If this investigation substantiates the concern, corrective action, or decertification will be implemented in accordance with the procedures established by the LA DOTD. See also Design-Build Contract Section 108.

Table 4.1: Schedule of Independent Assurance Sampling and Testing

TYPE OF CONSTRUCTION	MATERIAL		TEST	FREQUENCY	REMARKS
EMBANKMENT	Non-Plastic Embankment		Gradation, PI, Foreign Matter	1/10,000 lin ft/rdwy/lift	
	All Embankments		Density	1/2 weeks of construction activity	
BASE OR SUBBASE	Soil, Aggregate, or Granular Material[1]		Classification and/or Gradation	1/10,000 lin ft/rdwy 1/20,000 lin ft/shoulder	Check % cement for stabilization or treatment if required
			Density	1/10,000 lin ft/rdwy	
ASPHALTIC CONCRETE WEARING AND BINDER COURSES	502 SUPERPAVE	Mixture[1]	G_{mm}	1/15,000 tons	
		Briquette	Voids, VMA	1/15,000 tons	
		Cores	Density		
CONCRETE PAVEMENT	601 Portland Cement Concrete Pavement	Flexural Beams	Flexural Strength; When used to reduce standard design thickness.	1 set of three flexural beams per zone	
STRUCTURAL PORTLAND CEMENT CONCRETE[2]	Fresh Concrete		Compressive Strength	1 set of 3/2,000 yd^3	
			Air (when used), Slump	1/2,000 yd^3	
	Aggregate: Fine and Coarse		Gradation	1/2,000 yd^3 of concrete	

[1]Split samples of acceptance samples will be taken at random location and used for Independent Assurance testing.
[2]Includes precast items. OVF coordinates with testing laboratories for testing.

Table 4.2: Schedule of Allowable Deviation Values between Split Samples

(Test Variations based on Louisiana Standard Specifications for Road and Bridges (2016 Edition))

TYPE OF CONSTRUCTION	MATERIAL	TEST	TEST VARIATION
EMBANKMENT	Non-Plastic Embankment[5]	Gradation PI Foreign Matter	No. 4 +- 5%; No. 200 +-2% passing +-2 +- 2%
	All Embankments	Density	+-3 lb/ft^3
BASE OR SUBBASE	Soil	Classification Gradation PI Density	Subgroup +-1 No. 4 & larger +-5%; No. 10 +-4%; No. 40 +-4%; No. 200 +-3% passing +-3 +-3 lb/ft^3
	Aggregate or Granular Material	Gradation PI Density	No. 4 & larger +-5%; No. 40 +-4%; No. 200 +-2% passing +-3 +-3 lb/ft^3
ASPHALTIC CONCRETE WEARING, BINDER & BASE COURSES	Mixture	G_{mm} [1,2,3]	+-0.015%
	Core	Density (Pavement)[1,2,3]	+-0.7% of individual core
STRUCTURAL PORTLAND CEMENT CONCRETE	Fresh Concrete	Compressive Strength, 28 days. Air	+-7% of average of set +-0.5%
	Aggregates Fine Coarse	Gradation Gradation	No. 4 & larger +-5%; No. 16 +-4%; No. 50 +-4%; No. 100 +-1% passing No. 4 & larger +-5%; No.8 +-4% passing
PORTLAND CEMENT CONCRETE PAVEMENT [4]	Fresh Concrete	Compressive Strength, 28 Days	+-7% of average set
PIPE BACKFILL	Type A Backfill Type B Backfill	Density	+-3 lb/ft^3

[1] Applies to Marshall
[2] Applies to Superpave
[3] Applies to SMA
[4] Based on cylinders made with fresh concrete (split samples between QC and OV). 3 cylinders per core location per lot. Compressive strength is 28 day break.
[5] 2016 LSSRB-Section 1003.02 Non-Plastic Embankment

Revised 6-25-2018

Figure 4.1

July 1, 1991
STATE PROJECT NO. 024-05-0031
F.A.P. NO. F-01-02(031)
LA 26 DERIDDER HIGHWAY - (SEC 2) ROUTE LA-US 171
BEAUREGARD PARISH

MEMORANDUM TO:

Owner Verification Firm (OVF)
&
Construction Quality Control Firm (CQCF)

This is to advise you of the anticipated independent assurance sampling and testing schedule for the above captioned project. Independent assurance samples will be taken and tests performed representing the following phases of construction:

EMBANKMENT:
A. One density test will be taken per two weeks of construction activity. (Please advise the District Laboratory Engineer at commencement of construction activity.)

SUBBASE (6" LIME OR CEMENT TREATED SUBGRADE LAYER):
A. Two density tests; one per roadway.

ASPHALTIC CONCRETE BASE COURSE (ROADWAY):
A. One loose mix sample for gradation and AC content.
B. Two cores for density; one per roadway.

ASPHALTIC CONCRETE WEARING OR BINDER COURSE (ROADWAY):
A. One loose mix sample for gradation and AC content.
B. Two cores for density; one per roadway.

STRUCTURAL PORTLAND CEMENT CONCRETE:
A. One set of concrete cylinders.
B. One slump test.
C. One fine aggregate sample for gradation.
D. One coarse aggregate sample for gradation.
E. One reinforcing steel sample.

Advise this office of any plan changes or work orders affecting quantities or material requirements. Note that this anticipated independent assurance sampling and testing schedule is only the minimum Independent Assurance tests required.

If additional information is needed, please advise this office.

NAME
DISTRICT ENGINEER ADMINISTRATOR

NAME - SIGNATURE
DISTRICT LABORATORY ENGINEER

cc: District Administrator
Materials Engineer Administrator
FHWA
District Area Engineer providing oversite

SUBMITTAL 4.1
July 21, 1991
STATE PROJECT NO. 024-05-0031
F.A.P. NO. F-01-02(031)
LA 26 DERIDDER HIGHWAY - (SEC 2) ROUTE LA-US 171
BEAUREGARD PARISH

MEMORANDUM TO:

NAME
MATERIALS ENGINEER ADMINISTRATOR

This is to report results of the Independent Assurance Sampling and Testing performed on the project referenced above.

EMBANKMENT:

A. One density test, zone and test number 07-801.

SUBBASE (6" LIME OR CEMENT TREATED SUBGRADE LAYER):

A. Two density tests, zone and test numbers 07-802 and 07-803.

ASPHALTIC CONCRETE BASE COURSE (ROADWAY):

A. One test of loose mix for gradation and asphalt content, Lab. No. 07-341051.
B. Two tests of cores for density, Lab. Nos. 07-341071 and 07-341072.

All IA test results verify except asphaltic concrete base course gradation test Lab. No. 07- 341051. See attached "Supplement to Certification" for explanation of non-verifying test.

This is the initial report. Additional reports will be submitted as phases of construction are completed.

NAME
DISTRICT ENGINEER ADMINISTRATOR

NAME - SIGNATURE
DISTRICT LABORATORY ENGINEER

cc: District Administrator
OVF
FHWA
District Area Engineer providing oversite

SUBMITTAL 4.1

STATE PROJECT NO.

F.A.P. NO. F-01-02(031)

SUPPLEMENT TO THE CERTIFICATION

The Independent Assurance loose mix sample (Lab. No. 07-341051) test does not verify the acceptance sample (Lab. No. 07-341021). The amount of material passing the No. 10 sieve for the independent assurance sample is 7% less than that for the acceptance sample. The allowable deviation is ±5%. To determine the cause of this deviation, the testing equipment and procedures used were checked. Procedures used were acceptable; however, the No. 10 sieve of the acceptance sample was found to be badly worn. The No. 10 sieve of the IA sample was found to be acceptable. The acceptance sample was retested using a new No. 10 sieve. The amount of material passing the No. 10 sieve was 51%. Thus, the independent assurance sample test results verified acceptance test results.

Gradation 341051	- 07-	
Marshall Test 341052	- 07-	NAME - SIGNATURE DISTRICT LABORATORY ENGINEER

These test results do not verify acceptance test results, Lab. No. 07341021. On the acceptance sample, the material passing the No. 10 was 54%. The allowable deviation value is ±5%.

COMMENT: Procedures used in sampling, splitting and sieving the acceptance and IA samples were done correctly. Both No. 10 sieves were checked. The No. 10 sieve of the acceptance sample was found to be badly worn. The No. 10 sieve of the IA sample was found to be OK. The acceptance sample was retested using a new No. 10 sieve checked by me. The amount of material passing the No. 10 sieve was 51%.

IA sample test results verified acceptance test results.

NAME - SIGNATURE
ENGINEERING TECHNICIAN

SUBMITTAL 4.2
September 1, 1991

STATE PROJECT NO.
F.A.P. NO. F-01-02(031)
LA 26 DERIDDER HIGHWAY - (SEC
2) ROUTE LA-US 171
BEAUREGARD PARISH

MEMORANDUM TO:

NAME
MATERIALS ENGINEER ADMINISTRATOR

This is to report results of the Independent Assurance Sampling and Testing performed on the project referenced above.

ASPHALTIC CONCRETE WEARING OR BINDER COURSE (ROADWAY):

A. One test of loose mix for gradation, % crushed and asphalt content, Lab. No. 07341115.
B. Two tests of cores for density, Lab. Nos. 07-341125 and 07-

341126. STRUCTURAL PORTLAND CEMENT CONCRETE:

A. Tests on one set of concrete cylinders, Lab. Nos. 07-341480, 07-341481 and 07-341482.
B. One slump test (See above referenced reports).
C. One test of fine aggregate for gradation, Lab. No. 07-341381.
D. One test of course aggregate for gradation, Lab. No. 07-341382.
E. One test of reinforcing steel, Lab. No. 22-512400.

The above Independent Assurance tests verify with the corresponding acceptance tests.

This is the final report to be submitted by this office, unless additional information is requested.

An Independent Assurance report was previously sent by memorandum, dated July 21, 1991, as follows:

EMBANKMENT
SUBBASE (6" LIME OR CEMENT TREATED SUBGRADE LAYER)
ASPHALTIC CONCRETE BASE COURSE (ROADWAY)

NAME
DISTRICT ENGINEER ADMINISTRATOR

NAME - SIGNATURE
DISTRICT LABORATORY ENGINEER

cc: District Administrator
OVF
FHWA
District Area Engineer providing oversite

SUBMITTAL 4.2
DOTD 03-22-1033 Rev 1/92
State of Louisiana
Department of Transportation and
Development

INDEPENDENT ASSURANCE CERTIFICATION

DISTRICT 07

DATE Sept.1, 1991
STATE PROJECT NO. 024050031

FEDERAL AID PROJECT NO. F-01-02(031)

PROJECT NAME LA 26-DeRidder Highway

ROUTE LA-US 171

PARISH Beauregard

CERTIFICATION
All independent assurance samples and test are within tolerance limits to the samples and tests that are used in the acceptance program, except as noted as supplement to this certification.

July 21, 1991	Embankment Subbase Asphaltic Concrete Base Course
September 1, 1991	Asphaltic Concrete Wearing or Binder Course Structural Portland Cement Concrete

DISTRICT ENGINEER ADMINISTRATOR

BY:

Independent assurance reports sent by memoranda listed below are attached:

DISTRICT LABORATORY ENGINEER

REMARKS: See attached supplement to this certification in memo dated July 21, 1991.

cc: District Administrator
Material Engineer Administrator
OVF
FHWA
District Area Engineer providing

APPENDIX A – ACRONYMS AND DEFINITIONS

The following terms and definitions are referenced in this manual and have the meanings set forth below:

AAP	AASHTO Accreditation Program
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
AML	Approved Materials List
AMRL	AASHTO Materials Reference Laboratory
AOVM	Assistant Owner Verification Manager's
CA	Certificate of Analysis
CC	Certificate of Conformance
CD	Certificate of Delivery
CQAP	Construction Quality Assurance Program
CCRL	Concrete and Cement Reference Laboratory
CQCF	Construction Quality Control Firm
CQCM	Construction Quality Control Manager
CQMP	Construction Quality Management Plan
DB	Design-Build
DBQM	Design-Build Quality Manager
FHWA	Federal Highway Administration, United States Department of Transportation
HMA	Hot Mix Asphalt
IA	Independent Assurance
LA DOTD	Louisiana Department of Transportation and Development
NCR	Non-Conformance R e p o r t
OV	Owner Verification
OVF	Owner Verification Firm
OVM	Owner Verification Manager
OVT	Owner Verification Test
OVTIP	Owner Verification Testing and Inspection Plan
PCC	Portland Cement Concrete
QA	Quality Acceptance
QC	Quality Control
RFI	Request for Information

Acceptance Program shall mean all factors that comprise the Louisiana Department of Transportation and Development's (LA DOTD) Construction Quality Assurance Program (CQAP) to determine quality of the product as specified in the contract requirements. These factors include the Design-Builder's acceptance and the Owner's verification sampling, testing, and inspection.

Construction Quality Control Firm shall mean an independent engineering/testing firm employed by the Design-Builder responsible for administering and managing the construction QC inspection, sampling, and testing. The CQCF and any Subcontractors

or subconsultants thereto must not be owned or controlled by the Design-Builder, any Principal Participant of the Design-Builder, any Affiliate of any Principal Participant, any Construction subcontractor, the Designer, a firm associated with or subsidiary to the Designer, or any design subcontractor or subconsultant of any tier to the Design-Builder.

Construction Quality Assurance Program shall mean the overall quality program and associated activities including the LA DOTD's Owner Verification and field inspection for QA, the Design-Builder's internal QC and independent Quality Control Firm's QC, the Contract quality requirements, and the Design-Builder's Construction Quality Management Plan.

Construction Quality Management Plan shall mean the Design-Builder's plan for complying with its obligations for construction quality control/process control and quality acceptance as required by the Construction Quality Assurance Program for LA DOTD Design-Build projects. This plan will be written as a stand-alone document, but will also be a part of the Design-Builder's overall Quality Plan required by the Contract documents. The plan must be provided and maintained in accordance with the Contract following Consultation and Written Comment thereof by the LA DOTD's Project Manager. The CQMP will be revised throughout the project for corrections, omissions and any changes at the discretion of the LA DOTD.

Design Firm shall mean the qualified Registered Professional Engineer's firm responsible for the design of the Project.

Design Documents shall mean all drawings (including plans, profiles, cross-sections, notes, elevations, sections, details, and diagrams), specifications, reports, studies, calculations, electronic files, records and submittals necessary for, or related to, the design of the Project and/or the Utility Adjustments in accordance with the Contract Documents, the Governmental Approvals and applicable Law.

Design Builder shall mean the entity contractually responsible for delivering the Project design and construction.

Engineering Judgment shall mean determinations as to whether a material failing to meet specification requirements and or not within applicable tolerances should be accepted, or not accepted for use. It shall be based upon sound engineering principles, experience, and/or related results of applicable material tests, and be made by a Louisiana Licensed Professional Engineer.

Final Acceptance shall mean the acceptance of the Work by the LA DOTD's designated representative upon the completion of the Work as defined in the Contract and through Oversight and Design Acceptance of that Work by the LA DOTD. Final Acceptance does not relieve the Design-Builder's obligations pursuant to any guaranty or warranty under the terms of the Contract.

Governmental Approval shall mean any permit, license, consent, concession, grant, franchise, authorization, waiver, variance or other approval, guidance, protocol, mitigation agreement, or memoranda of agreement/understanding, and any amendment or modification of any of them provided by Governmental Entities, including State, local,

or federal regulatory agencies, agents, or employees, which authorize or pertain to the

Work or the Project but excluding any such approvals given by or required from any Governmental Entity in its capacity as a Utility Owner.

Governmental Entities shall mean any federal, State, or local government and any political subdivision or any governmental, quasi-governmental, judicial, public or statutory instrumentality, administrative agency, authority, body, or entity other than LA DOTD.

Independent Assurance Program shall mean all activities that are included in an unbiased and independent (of the Design-Builder or Project staff) evaluation program for all the design, sampling, and testing procedures, equipment calibration, and qualifications or personnel (Design-Builder's or LA DOTD's) used in the Acceptance Program, including the Design-Builder's Quality Control (QC) and acceptance (QA), as well as Verification Sampling (OV) and Testing. The LA DOTD, or the designated Consultant retained by the LA DOTD, will perform Independent Assurance (IA).

LA DOTD Project Manager shall mean the LA DOTD primary point of contact for the Design-Build Project. All correspondence to/from LA DOTD shall be through this contact.

LA DOTD Representative shall mean the any designee acting for LA DOTD through delegated authority for the duration of the project.

LA DOTD Standard Specifications shall mean the Louisiana Department of Transportation and Development Standard Specifications for Construction of Highways, Streets and Bridges, adopted by the Louisiana Department of Transportation and Development including all revisions/Supplemental specifications thereto applicable on the effective date of the agreement.

Law or Laws means (a) any statute, law, code, regulation, ordinance, rule, or common law; (b) any binding judgment (other than regarding a Claim or Dispute); (c) any binding judicial or administrative order or decree (other than regarding a Claim or Dispute); (d) any written directive, guideline, policy requirement, or other governmental restriction (including those resulting from the initiative or referendum process, but excluding those by LA DOTD within the scope of its administration of the Contract Documents); or (e) any similar form of decision of or determination by, or any written interpretation or administration of any of the foregoing by, any Governmental Entity, in each case which is applicable to or has an impact on the Project or the Work, whether taking effect before or after the Effective Date, including Environmental Laws. "Laws", however, excludes Governmental Approvals.

Level of Significance (α) shall mean the probability of erroneously rejecting the null hypothesis when it should have been accepted.

Nonconforming Work (Nonconformance) shall mean Work that has not been constructed with the strictest adherence to the accepted drawings and specifications and with the requirements of the Contract Documents, the Governmental Approvals, and applicable Law.

Non-Conformance Report (NCR) shall mean a record of Nonconforming Work and the final resolution or action.

Owner Verification Firm shall mean the engineering/testing firm employed by LA DOTD to perform the owner's verification inspection, sampling and testing, and conducting audits to verify the Design-Builder's compliance with the approved CQMP.

Proficiency Samples shall mean homogenous samples that are distributed and tested by two or more laboratories and/or personnel. The test results are compared to assure that the laboratories and/or personnel are obtaining the same results.

Project shall mean the improvements to be designed and constructed by the Design-Builder and all other Work product to be provided by the Design-Builder in accordance with the Contract Documents.

Qualification shall mean a quality, ability, or accomplishment that makes a person technically competent for a particular position or task.

Quality Acceptance (QA) shall mean all planned and systematic actions performed by the CQCF and LA DOTD's Representative including design reviews and checks; inspection of material handling and construction; calibration and maintenance of sampling and testing equipment; working plan review; document control; and any inspection, sampling, and testing done for the LA DOTD's Acceptance Decision. The Design-Builder's QC test results that validate will be used as part of the LA DOTD's Acceptance Decision.

Quality Assurance shall mean all planned and systematic actions performed by the CQCF, Design-Builder, OVF, and IA necessary to provide confidence that a product or service will satisfy given requirements for quality including, Design-Builder's Quality Control, LA DOTD Acceptance, LA DOTD Independence Assurance, Dispute Resolution, Laboratory Accreditation and Qualification, and personnel Qualification/Certification.

Quality Control (QC) shall mean all Design-Builder process control and operational techniques/activities that are performed or conducted to fulfill the contract requirements.

Random Sampling shall mean a process whereby each element of the population has an equal chance of being selected.

Registered Professional Engineer shall mean a person who is duly licensed and registered by the Louisiana Board of Professional Engineers to engage in the practice of engineering in the State.

Rules shall mean Louisiana Administrative Code.

Split Samples are taken to compare the results obtain by different parties against an allowable degree of test result difference attributable to sampling and testing variability. The comparison is only valid for the specific procedure and equipment and does not identify discrepancies in the overall population.

Subcontractor shall mean an individual, partnership, corporation, or any other legal entity or any acceptable combination thereof, or JV or LLC, to which the Design-Builder sublets part of the Work. Any individual, partnership, corporation, or any other legal entity will not be considered to be a Subcontractor if it is a subsidiary which is wholly-owned or majority-owned by the Design-Builder or the Principal Participants of the Design-Builder, or an

Affiliate of the Design-Builder, or affiliated or otherwise controlled by the Design-Builder or Principal Participants of the Design-Builder such that a true and independent Subcontractor- Design-Builder relationship reached by bidding or arms- length negotiation does not result therefrom.

Supplier shall mean any Person/Vendor not performing work at or on the Site which supplies machinery, equipment, materials, hardware, software, systems, or any other appurtenance to the Project to Design Builder or to any Subcontractor in connection with the performance of the Work. Persons who merely transport, pick up, and deliver or carry materials, personnel, parts or equipment or any other items or persons to or from the Site shall not be deemed to be performing Work at the Site.

Utility shall mean a public, private, cooperative, municipal and/or government line, facility or system used for the carriage, transmission and/or distribution of cable television, electric power, telephone, telegraph, water, gas, oil, petroleum products, steam, chemicals, hydrocarbons, telecommunications, sewage, storm water not connected with the drainage of the Project, and similar substances that directly or indirectly serve the public.

Utility Owner shall mean the owner or operator of any Utility (including both privately held and publicly held entities, cooperative utilities, and municipalities and other governmental agencies).

Vendor shall mean a supplier of project-produced material that is not the Design-Builder.

Verification Testing shall mean sampling and testing performed to validate the quality of the product. The sampling and testing are to be performed by qualified testing personnel employed by the LA DOTD or its designated agent, excluding the Design-Builder.

Work shall mean the labor, materials, services, equipment, and incidentals necessary for successful completion of the Project and the carrying out of all obligations imposed by the Contract prior to Final Acceptance and excluding any warranty or guaranty work included under the Contract.

APPENDIX B – OVF LEVELS FOR MATERIALS TESTING VALIDATION

OV testing levels (Level 1, 2, and 3) are identified in Appendix G - Required Minimum Sampling and Testing

B.1 Start-Up Requirements

During start-up operations, the CQCF (Construction Quality Control Firm) and OV (owner verification) firm will perform split sample testing for all tests listed as Level 1 and Level 2. The OV firm will evaluate split sample results against LA DOTD's split sample tolerance limits contained in Section 4 – Table 4.2 Schedule of Allowable Deviation Values between Split Samples, and split sampling may be discontinued after 5 consecutive results meet within tolerance limits.

For those test methods that do not validate during start-up operations, both the CQCF and OV firm will collaborate to determine the cause(s) of the non-validation and will both take appropriate corrective actions during the early phases of material production to align the testing operations. When there is a failure to validate, the Design-Builder shall not proceed until appropriate action has been taken. For tests listed as Level 3, the OV firm will observe and review the CQCF's initial start-up testing operations.

Start-up split sampling procedures shall be repeated if requested by OV Manager due to phasing or other project circumstances.

NOTE: OV Use of QC Proctors:

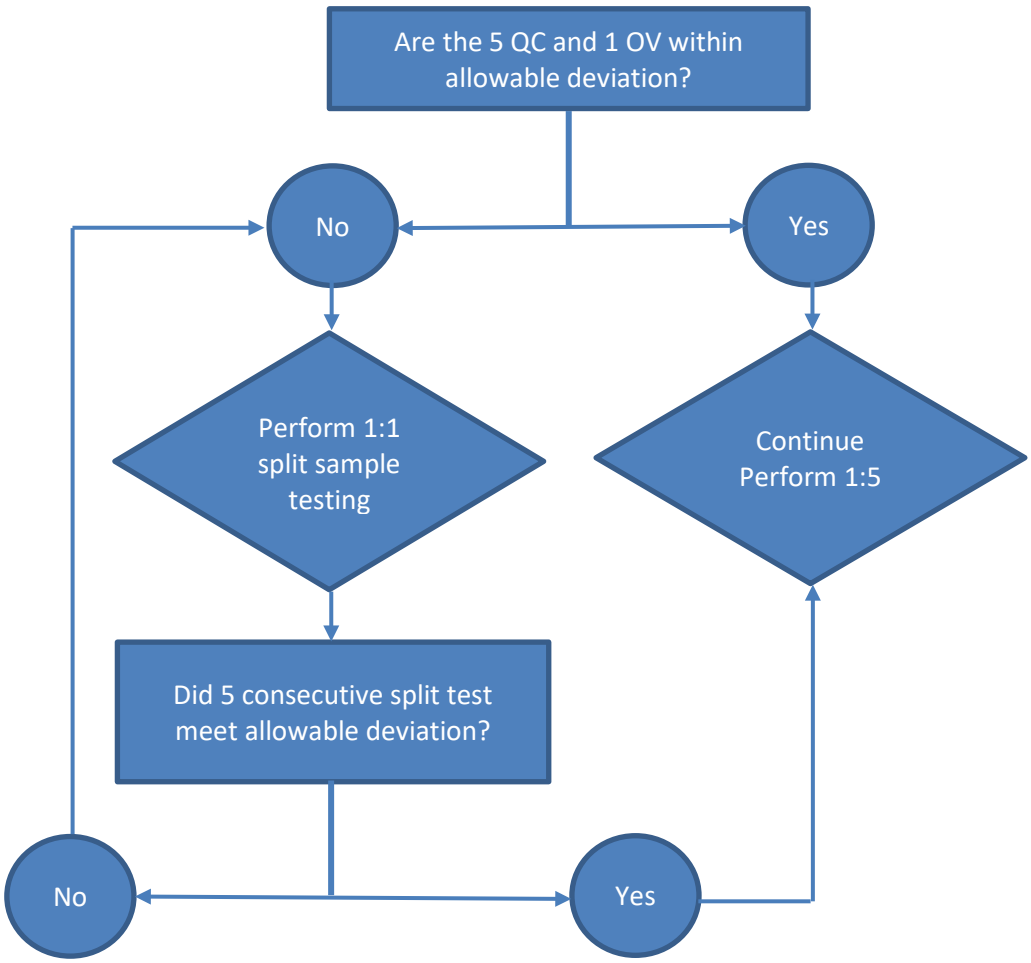
- During startup operations, test 5 split samples with the QC and ensure that all values are within the split sample tolerance, as specified in Section 4 – Table 4.2.
- The QC must provide OV laboratory with complete curve data for all proctor tests. Prior to testing in-place densities, QC shall furnish the selected curve for each in- place density point.
- The OV either agrees that the QC proctor is representative of the material being tested or the OV will obtain in-place density values and sample the material to conduct a one-point proctor to ensure that proctor values are within 3.0 pcf of curve estimates.

B.2 Level 1: Owner Verification Sampling and Testing

The OV firm will perform a comparative analysis on Level 1 tests with the Random OV testing frequency of one to five (1:5) ratio of the QC testing frequency for each Material Validation reporting quarter. This analysis shall be performed by comparing the OV test results with a group of corresponding QC test results.

Any time the Random OV test and respective 5 QC tests are not within the allowable deviation identified in Section 4-Table 4.2, split sampling per B.1 shall resume until 5 consecutive tests are within the allowable deviation, see Validation Procedure in Figure B.1.

Figure B.1 Validation Procedure



B.3 Level 2: Owner Verification Sampling and Testing

The OV firm will perform a comparative analysis on Level 2 tests with the Random OV testing frequency once per quarter with lower frequency tests missed during one quarter being specifically targeted the next quarter, or at a frequency specified by LA DOTD. This analysis shall be performed by comparing the OV test results with a group of corresponding QC test results.

B.4 Level 3: Observation Verification

The OV firm will observe and review the CQCF's initial start-up testing operations and periodically during ongoing production operations to verify compliance with test procedures.

B.5 Validation of QC Data

The following describes the procedure for the mathematical validation of the Level 1 QC test data compared to the Level 1 OV test results.

B.5.1 Quarterly Validation

After each quarter of construction operations, the OV Manager will compare the mean of all Level 1 QC tests conducted within the last 90 days to the mean of all corresponding Level 1 OV tests during the same period. If the means are within the limits shown in Table B.1 then the material is considered to be mathematically validated. The results of the comparison should be addressed as shown in Table 3.3.

B.5.2 Categorizing for Analysis

When a test sample is added, the first step is to assign it to any applicable analysis categories. A test sample must have Sample Type "Random" or "Non-Random" to be associated with any category. Assignment to a category is done immediately when the sample is taken and will correspond with Appendix G of this Manual. The sample will not be included in any analyses until the test results for the sample had been accepted for analysis (i.e., it is Accepted or intermediate break data is reviewed).

Note: A new version of an existing sample can actually belong to a different analysis category than a previous version if the header values were changed. This is not a problem, as an analysis run represents a snapshot of the current data in the system at the time the analysis was done.

B.5.3 Finding Categories to Analyze

Every time there is a new OV test, the LA DOTD's CQAP Documentation Database system will scan data in the system for categories that need to be analyzed. A category is triggered for analysis whenever a new OV sample appears. A sample is new if it had been accepted for analysis and has never been analyzed before. Some examples of new OV samples are:

- A test was added and accepted today.
- A test was added a month ago and accepted/reviewed today.
- A test that was added and analyzed last week was revised and reaccepted. This new version has never been analyzed, so it will trigger an analysis the same as if it were the first version of the sample.

B.5.4 Analyzing a Category

The date range of the Analysis Period shall mimic the OV quarterly reporting period, extending further to include any unanalyzed or revised tests older than the current quarterly reporting period.

The OV Manager shall compare OV test results for each sample within a category against the corresponding QC test results. Those samples that compare are to be considered validated. Those samples that do not validate, the Design-Builder shall not proceed until appropriate action has been taken.

Table B.1: Acceptable Variance of QC and OV Means for Quarterly Validation

MATERIAL CATEGORY	TEST FOR	MEAN VARIATION (%)
Embankment Cut and Fill (Including Non-Plastic Embankment and All Embankment Fill Materials)	In Place Density	2%
Base Materials on Roadway	In Place Density	2%
Soils on Roadway for Soils Cement	In Place Density	2%
Mixture with Cement on Roadway (soil cement)	In Place Density	2%
Asphaltic Concrete (Loose Material)	G_{mm}	2%
	In Place Density	2%
Concrete Pavement [1]	Compressive Strength	20%
Pipe Backfill (Type A or Type B)	In Place Density	2%
Structural Concrete	Compressive Strength	20%
Precast Concrete [2]	Compressive Strength	20%

[1] Based on cylinders made with fresh concrete (split samples between QC and OV). 3 cylinders per core location per lot. Compressive strength is 28-day break.

[2] Not Required under the following conditions:

a) If Precast Plant is self-certified by LADOTD
b) If Prestress-Precast Plant inspection is performed by LADOTD

Revised 4-4-2018

APPENDIX C – LA DOTD INSPECTOR/ TECHNICIAN CERTIFICATION

Testers and samplers will be allowed 90 working days from execution of the Contract to obtain the certifications. The CQCF must maintain a list of construction Quality Control staff that indicates what test certifications each person currently holds.

Embankment and Base Course

> Qualifies inspectors to perform complete inspection and acceptance on embankment and base course projects, excluding base courses constructed of hot mix or PCC.

Asphaltic Concrete Plant

> Qualifies technicians and inspectors to design mixes and perform QC and Acceptance operations at Asphalt Concrete Plant.

Asphaltic Concrete Paving

> Qualifies inspectors to perform complete inspection and acceptance on asphaltic concrete paving projects.

PCC Paving

> Qualifies inspectors to perform complete inspection and acceptance on PCC paving projects.

Structural Concrete

> Qualifies inspectors to perform complete inspection and acceptance on structural project using concrete as prime building material.

PCC Technician – Non Department Only

> Qualifies technicians to design mixes and perform QC operations at a Portland Cement Concrete Plant.

PCC Field Tester – Non Department Only

> Qualifies technicians to perform QC testing for PCC materials. Is reasonably equivalent to ACI – Level 1

Certified Welding Inspector (CWI)

> Qualifies a technician or inspector to perform steel fabrication inspection. CWI as defined by the American Welding Society.

Prestressed Fabrication Inspector (when plant inspection is not performed by DOTD)

> Lead Fabrication Inspector must meet one of the following requirements:

- PCI (Precast/Prestressed Concrete Institute) – Level III and minimum 1 year of prestress supervisory experience[1], or
- PCI – Level II and 5 years of prestress experience of which a minimum of 5 years must be supervisory experience[1], or
- Independent state certification and 5 years of prestress experience of which a minimum of 4 years must be supervisory experience[1], or
- Individual application approved by the DOTD Fabrication Engineer.

All other Fabrication Inspectors must meet a minimum of a PCI Level II or equivalent at the discretion of the LA DOTD.

[1]***NOTE:*** *For post tensioned operations or fabrication, additional requirements will be needed. Supervisory experience consists of the following:*

1) *Responsible charge for the daily inspection, material sampling and personnel scheduling of a prestress fabrication yard.*
2) *Capacity to read, interpret and enforce specifications, plans, associated shop drawings and other pertinent requirements for complicated pieces.*
3) *Familiarity with normal industry repair procedures and an ability to provide recommendations when appropriate.*

APPENDIX D – TEST METHODS FOR SPLIT / PROFICIENCY EVALUATION

The following chart is a list of test methods LA DOTD uses for Independent Assurance Testing. Results must compare to the IA test results to within the established tolerance as described in Section 4 – Table 4.2 Schedule of Allowable Deviation Values between Split Samples.

MATERIAL	TEST PROCEDURE	DESCRIPTION
Embankment	DOTD TR 407	Gradation
	DOTD TR 428	Plasticity Index
	DOTD TR 119	Foreign Matter
	DOTD TR 401	Density
Base or Sub-Base	DOTD TR 423	Classification
	DOTD TR 113	Gradation
	DOTD TR 401	Density
Asphalt	DOTD TR 327	Gmm
	DOTD TR 309	Gradation
	DOTD TR 306	Percent Crushed
	DOTD TR 303	AC Content
	DOTD TR 304	Voids
	DOTD TR 304	VMA
	DOTD TR 304	Density
Structural Concrete	DOTD TR 230	Compressive Strength
	DOTD TR 202	Air
	DOTD TR 207	Slump
	DOTD TR 113	Gradation
Portland Cement Concrete Pavement	DOTD TR 230	Compressive Strength
Pipe Backfill (Type A or B)	DOTD TR 401	Density

APPENDIX E – MATERIAL CERTIFICATION FORMAT EXAMPLE

The intent of the material certification is to ensure that the quality of all materials incorporated into the project is in conformance with the plans and specifications, thus ensuring a service life equivalent to the design life. Any material represented by an acceptance test that does not meet the criteria contained in the plans and specifications is considered an exception. Exceptions should be investigated to determine if in fact the material is in reasonably close conformity with the plans and specifications. Nonconforming materials and workmanship will be tracked, monitored and appropriately addressed.

Submit a monthly CQCM Material Certification Letter. Include monthly CQCM Material Certification Letters in the quarterly Material Validation Report for the months covered on the quarterly report. Additional information regarding this certification can be found in Section 3.3.1.B Monthly CQCM Material Certification. An example follows.

Date_____To_
_____ From_

Project
No._____
RE: Monthly CQCM Material
Certification

This is to certify that:
The results of the tests used in the acceptance program indicate that the materials incorporated in the construction work, and the construction operations controlled by sampling and testing, were conformity with the accepted plan and specifications.

Exceptions to the plans and specifications are as follows:

1. Nonconforming Work Item # 1
    a) Nature of Nonconforming Work and Causes for Rejection.
    b) Proposed Corrective Action for Nonconforming Work.
    c) Corrective Actions taken with respect to Nonconforming Work.
    d) Results of such Corrective Actions.
2. Nonconforming Work Item #
    a) Nature of Nonconforming Work and Causes for Rejection.
    b) Proposed Corrective Action for Nonconforming Work.
    c) Corrective Actions taken with respect to Nonconforming Work.
    d) Results of such Corrective Actions.

List of unresolved NCR's this report:

1. Unresolved NCR # 1
    a) Status of the NCR
    b) PCP's affected by NCR
2. Unresolved NCR # 2
    a) Status of the NCR
    b) PCP's affected by NCR

_____

CQCM Signature Block

APPENDIX F– MINIMUM OVF CONSTRUCTION QUALITY ACCEPTANCE INSPECTION

*All Documentation Forms for Sampling and DOTD Testing Procedures (TR's) can be found on the LA DOTD's CQAP Documentation Database unless otherwise noted herein.

ACTIVITY	INSPECTION REQUIREMENT	DOCUMENTATION FORM(S)*
All	Location and type of work Personnel and Equipment Weather and Site Conditions Checks for compliance with Design Plans and Project Specifications Extent of Work Problems Encountered	DOTD Form 03403093, Project Diary
Signs and Barricades	Location, stationing and distance from edge of road Visibility, height above road, condition of signs Daily to ensure condition Night inspections initial and periodic for reflectivity	
Clearing and Grubbing	Clearing and grubbing limits Disposal Protection of surroundings from damage Removal of large roots and stumps Blading the site to ensure drainage Temporary Erosion Control - Mulch - Seeding - Slope Drains - Silt Fencing - Hay Bales	
Removals	Ensure that only designated structures, facilities, or obstructions are removed or relocated. Obtain certificates of release Proper notifications given for removal of Underground Storage Tanks and other hazardous materials. Disposal of materials	DOTD Form 03400671, Certificate of Release
Utility Relocation	Location clear of Construction Backfills adequately compacted	

ACTIVITY	INSPECTION REQUIREMENT	DOCUMENTATION FORM(S)*
Culverts and Storm Drains	Adequate structure Backfill material, bedding material, and fabrics sampled and accepted Damage in transit Certificate of Delivery (CD) Excavation Laying Pipe Bedding and backfill Joints closed and wrapped Compaction and compactive effort Check pipe for acceptance (flaws)	Certificate of Delivery- Culverts
Earthwork	Area preparation Soils sampled and accepted Lift Thickness Compaction and compactive effort Slope and Grade	
Trench, Culvert, and Structural Excavation	Safety width Support and protective system Disposal of excavated material	
Geotextile	Brand name and type Protection of material Material acceptance	
Cement Stabilized Base and Sub-base Course	Subgrade accepted Select soils sampled and accepted Cement accepted Pulverization and moisture content Spread rate Shaping and finishing Time limitations Curing	Certificate of Delivery- Cement

Subgrade layer (Treated)	Area preparation Lime/Cement accepted Equipment used Compaction and compactive effort Spread rate Shaping and finishing Curing	Certificate of Delivery – Lime Certificate of Delivery – Cement

ACTIVITY	INSPECTION REQUIREMENT	DOCUMENTATION FORM(S)*
Stone Base	Area preparation Material Sampled and accepted Compaction and compactive effort Curing membrane	
Asphaltic Concrete	Surface prepared Materials sampled and accepted Plant and Equipment calibrated and accepted Temporary traffic tape Signing and flagging Certified technicians Weather Conditions Mix design submitted and accepted Plant operation Temperature of mix Spreading and finishing Compaction/pavement density Joints Surface tolerances	Certificate of Delivery – Asphaltic Materials Asphaltic Concrete Plant Report
Portland Cement Concrete Paving	Surface prepared Materials sampled and accepted Plant and Equipment calibrated and accepted Forms Dowels and load transfer devices Mix design submitted and accepted Placing and spreading concrete Finishing and texturing Joints Surface tolerance Slump and air Curing Removing forms (fixed form paving) Protection of pavement Sealing joints	DOTD Form 03224028, Batch Certification

ACTIVITY	INSPECTION REQUIREMENT	DOCUMENTATION FORM(S)*
Aggregate Surface Course	Surface prepared Materials sampled and accepted Equipment accepted Compaction and compactive effort	
Incidental Concrete Work – Sidewalks and Drives	Surface prepared Forms Mix design submitted and accepted Depth Cylinders Curing	
Driven Piles	Type, size, and length of pile Test piles driven and loaded Pile lengths accepted Installation plan and equipment accepted Location of piles Storing, handling, and damage to piles before and during driving. Adequate bearing capacity achieved	
Drilled Shafts	Installation Plan Safety Excavation methods Casings – temporary and/or permanent Slurry Location, size, and alignment Reinforcing steel Concrete placement and finishing Verification of integrity of shafts	
Structural Concrete	Forms, re-steel and equipment Weather Ambient Temperature Slump and Air tests Placement and vibrating Cylinders Surface finish Curing	

ACTIVITY	INSPECTION REQUIREMENT	DOCUMENTATION FORM(S)*
Reinforcing Steel	Storing and handling Sampled and accepted Placement and fastening Splices	
Prestressed Concrete Units	Fabrication (When acceptance testing is not performed by DOTD) - Equipment approval - Concrete mix design - Concrete placement and vibration - Accepted forms - Curing - Tensioning - Storage and Transportation When receiving units - Inspector's stamp of approval - Certificate of Delivery - Damage during shipment - Dimensional tolerance and camber - Visual defects Erection Repair of defects	
Structural Steel	Fabrication (When acceptance inspection is not performed by DOTD.) - Shop drawings - Mill test reports - Storage of materials and fabricated items - Shop assembly - Certified test reports for bolts and nuts	
Bridge Bearings	Materials Fabrication (When acceptance is not performed by DOTD)	

ACTIVITY	INSPECTION REQUIREMENT	DOCUMENTATION FORM(S)*
Structural Steel Paint Systems	Materials - Abrasive - Paint - Paint Inspection Equipment Cleaning Paint application methods Shop painting Field painting	
Superstructure Slabs and Approach Slabs	Forming - Forms - Support systems - Haunch depths - Joints - Drainage Placing and fastening reinforcing steel Concrete Operations - Prior to placing - Placing sequence - Adequacy of personnel and equipment - Concrete supply - Curing materials - Admixtures - Weather and temperature - Placing - Finishing - Curing	
Permanent Erosion Control	Final dressing of area Area determinations Spread rate for seed and fertilizer Watering Soil tested grass	

ACTIVITY	INSPECTION REQUIREMENT	DOCUMENTATION FORM(S)*
Maintenance and Protection of Traffic	Materials Surface condition Intersecting traffic Dust Control and spillages Flaggers Delineation and guiding devices Construction signs, temporary barriers, barricades and lighting Pavement markings Pavement drop-off protection	
Signs	Materials Fabrication (When not when inspected by DOTD) Sign face construction Work sequence Location Erection Transporting, handling, and storage	
Traffic Signals	Materials Underground facilities Schedule Excavation Pole excavation and concrete foundations Poles Grounding Conduit and direct burial cable Pull boxes Signal control cable and shielded communications cable Cable splices Span wire assemblies Messenger assemblies Buy assemblies Signal heads	

ACTIVITY	INSPECTION REQUIREMENT	DOCUMENTATION FORM(S)*
Traffic Signals- continued	Wiring color code Concrete base for controller assembly Power meter base Overhead traffic signs	
Pavement Markings	Atmospheric conditions General requirements Materials Surface cleaning and preparation Equipment Application of markings	

Category Description Section 105	**Check List Number**	**Check List Description**
Utilities	1	Verify that the top of the utility is being buried at a depth below the final grade sufficient to provide the minimum required by the Utility Permit.
Utilities	2	Oversee the work in accordance with the contract.
Utilities	3	Allow Utility Owner personnel to inspect the specific Utility Adjustment Work done by DB.
Utilities	4	Ensure that all Utility Adjustment Work was in accordance with the Utility Accommodation Manual, Utility Agreements, and Utility Permit.
Utilities	5	Investigate potential conflicts between the proposed Utility Adjustment Work and the physical roadway features of the Project prior to the beginning of the Utility Adjustment Work.
Utilities	6	Ensure that Utility Adjustment Work shall conform to the Utility Accommodation Manual, the Utility Agreement, and the Utility Permit.
Utilities	7	Ensure no Utility Adjustment Work shall begin without an approved Utility Permit and the Utility Adjustment Work shall conform to all permit conditions.
Utilities	8	All activities involved in the Utility Agreements and Utility Permits shall be recorded on a Daily Work Report under the remarks category for utilities.
Utilities	9	All utility conflicts with DB's operation shall be recorded on the Daily Work Report.
Utilities	10	Reimbursable Utility work shall be in accordance with the latest version of the Utility Work Agreements and Certification Process
Utilities	11	Notification of beginning and ending of Utility Adjustment Work were made in accordance with the Utility Work Agreements and Utility Permits.

Category Description Section 107; 2016 Edition	**Check List Number**	**Check List Description**
Environmental Compliance	1	Does DB have all environmental permits approved and posted as required by the permitting agency?
Environmental Compliance	2	No construction activities can begin until the erosion control plan has been approved by the EOR and governing regulatory agency, if needed. Where an NPDES permit is required, under no circumstances can any earth be disturbed until Concessionaire installs, maintains or monitor erosion control devices to implement the Storm Water Pollution Prevention Plan (SWPPP)
Environmental Compliance	3	Confirm DB has posted and is maintaining a copy of the notice of intent in a prominent location on the construction site for public viewing.
Environmental Compliance	4	Limit the area in which clearing and grubbing, and excavation and filling operations, are being performed so that the capacity to prevent storm water pollution is not exceeded.
Environmental Compliance	5	The CQAM shall monitor permit expiration dates and assure they do not expire before the permitted activity is complete.
Environmental Compliance	6	A copy of the Stormwater Pollution Prevention Plan (SWPPP) must be kept on the construction site for the life of the project.
Environmental Compliance	7	When an NPDES permit is required, the CQAM shall make routine inspections every seven days or within 24 hours of a 0.50 inch or greater rainfall, of all erosion prevention and sediment control devices installed on the project and document all deficiencies in the daily work reports.
Environmental Compliance	8	If deficiencies are noted in the daily work report, the CQAM shall make sure DB begins to correct them immediately.
Environmental Compliance	9	If DB fails to comply with any federal and state environmental regulations, including permit conditions, and does not promptly (within 24 hours) identify and correct all deficiencies on the project site, the CQAM shall document all environmental noncompliance.
Environmental Compliance	10	CQAM shall assure construction operations are conducted in a manner that prevents soil erosion runoff or siltation in any off-site location.
Environmental Compliance	11	The CQAM shall survey surface water management systems, bridge clearances, and authorized work as directed by the permit conditions and Contract Documents and include the information on the As-Built Record Plans.
Environmental Compliance	12	The CQAM shall assist and assure all permits are satisfactorily closed at the completion of permitted activities.

Category Description Section 201; 2016 Edition	**Check List Number**	**Check List Description**
Clearing and Grubbing	1	Clearing and grubbing limits are established according to the Plans.
Clearing and Grubbing	2	Verify that sufficient devices are in place to commence the clearing and grubbing operation
Clearing and Grubbing	3	Check location of selective clearing and grubbing areas designated in the Plans.
Clearing and Grubbing	4	Stumps and roots within the limits shown are removed and standard clearing and grubbing meets requirements shown in contract sections.
Clearing and Grubbing	5	Existing structures, including foundations are removed to accommodate new construction.
Clearing and Grubbing	6	Verify temporary erosion control measures are in place in accordance with Section 204; 2016 Edition

Category Description Section 202; 2016 Edition	**Check List Number**	**Check List Description**
Bridge Demolition	1	Verify limits are properly identified before demolition.
Bridge Demolition	2	Verify utilities clearances have been accomplished.
Bridge Demolition	3	Verify that the limits of demolition performed are in accordance with the Plans.
Bridge Demolition	4	Verify that there is no indication of structural damage to structure elements left in place.
Bridge Demolition	5	Verify the existence of neat cut lines where required.
Bridge Demolition	6	Verify that no debris is present in adjacent traveled ways or waterways.
Bridge Demolition	7	Does the removal of existing piles or footing meet the min. depth called out for in the plans or prevailing specifications?

Category Description Section 202; 2016 Edition	**Check List Number**	**Check List Description**
Removal of Structures and Obstructions	1	Verify on plans structures and/or obstructions that are to be removed
Removal of Structures and Obstructions	2	Verify (if warranted) certificates of release have been obtained DOTD Form 03400671-Certificate of Release)
Removal of Structures and Obstructions	3	Verify if any salvageable materials are to be retained by LADOTD
Removal of Structures and Obstructions	4	Verify proper procedures are followed if any hazardous materials are discovered on the project site
Removal of Structures and Obstructions	5	Verify materials are properly disposed of

Category Description Section 203; 2016 Edition	**Check List Number**	**Check List Description**
Excavation/Embankment	1	If borrow pit is used, the location must be approved (samples and Test results).
Excavation/Embankment	2	No work can be performed at an off-site construction activity area prior to obtaining clearance
Excavation/Embankment	3	Material used for embankment shall not contain muck, Stumps, roots, brush, vegetable matter, rubbish or other material that does not compact into a suitable and enduring roadbed.
Excavation/Embankment	4	Maximum particle size cannot exceed the specified limits.
Excavation/Embankment	5	Where thick lifts are demonstrated and approved, maximum lift thickness may not exceed 12 inches uncompacted thickness.
Excavation/Embankment	6	Uniformly compact each layer, using equipment that shall achieve the required density.
Excavation/Embankment	7	Initial equipment comparison and valid calibrations for all equipment used on this project?
Excavation/Embankment	8	Is the CQAM 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?
Excavation/Embankment	9	Does the CQAM 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?
Excavation/Embankment	10	Has the CQAM enforced the requirement that all required density test results are documented on current forms provided by LADOTD in an understandable format?
Excavation/Embankment	11	While construction is in progress, adequate drainage for the roadbed must be maintained at all times.
Excavation/Embankment	12	Maintenance and protection of earthwork construction must be in accordance with Specs.
Excavation/Embankment	13	Construction tolerances for embankment must be adhered to during final shaping of the earthwork.
Excavation/Embankment	14	Grassing of shoulder areas must be completed prior to placing the final wearing course.
Excavation/Embankment	15	The manipulation of embankment material on a pavement surface is not permitted.
Excavation/Embankment	16	The stabilizing materials meet spec. requirements.
Excavation/Embankment	17	Prior to beginning stabilizing operations, the roadbed grading must conform to the lines, grades and cross-sections shown in the Plans.
Excavation/Embankment	18	When additive stabilizing materials are required, spread material uniformly over the area to be stabilized.
Excavation/Embankment	19	Rotary tillers and/or approved equals must be used when thoroughly mixing the stabilized areas to full depth and width.
Excavation/Embankment	20	At the completion of the mixing the material must meet the specified gradation, plasticity index and liquid limit.

Excavation/Embankment	21	The completed stabilized subgrade must conform with the finished lines, grades and cross-sections indicated in the Plans.
Excavation/Embankment	22	The subgrade must be firm and substantially unyielding upon completing the stabilizing and compacting operations.
Excavation/Embankment	23	Maintenance and protection of stabilized subgrade until the placement of base and subbase in place, must be in accordance with specification.
Excavation/Embankment	24	For any area where the bearing value obtained after mixing is deficient, the reprocessing efforts must be as specified.
Excavation/Embankment	25	Densities must comply with specifications.
Excavation/Embankment	26	Verify that excavation is completed to the limits shown on the plans or as designated by the CQAM.
Excavation/Embankment	27	Verify that the material excavated was disposed of in an approved manner.
Excavation/Embankment	28	Verify that the unsuitable material has been completely removed and that the area is stable.
Excavation/Embankment	29	Verify density tests 1/1000 LF/2 lane rdwy/lift are in documentation system (1:5 ratio for verification) (documentation audit)
Excavation/Embankment	30	Verify lift thickness tests 1/1000 LF/2 lane rdwy/lift are in documentation system (1:5 ratio for verification) (documentation audit)
Excavation/Embankment	31	Verify moisture content at time of compaction tests 1/1000 LF/2 lane rdwy/lift are in documentation system (1:5 ratio for verification) (documentation audit)
Excavation/Embankment	32	Verify select soil tested for PI, % silt and % organic for 1/1000 CY (stockpile) or 1/1000 LF/2 lane rdwy or1/2000 LF/2 shoulder (in place) documentation system (1:5 ratio for verification) (documentation audit)

Category Description Section 203; 303; 2016 Edition	**Check List Number**	**Check List Description**
Cement Stabilized Base and Subbase course	1	Verify that the subgrade is accepted. Verify that the subgrade is firm and substantially unyielding.
Cement Stabilized Base and Subbase course	2	Verify that selected soils have been sampled and tested.
Cement Stabilized Base and Subbase course	3	Verify cement have been sampled and tested.
Cement Stabilized Base and Subbase course	4	Verifying mixing of stabilized material by an approved means throughout the entire depth and width of the stabilizing limits.
Cement Stabilized Base and Subbase course	5	Verify that cement is spread uniformly at correct spread rate and pulverization and moisture content are within acceptable limits
Cement Stabilized Base and Subbase course	6	Verify that the completed stabilized subgrade conforms to the finished lines, grades, and cross-section indicated in the Plans.
Cement Stabilized Base and Subbase course	7	Verify time limitations
Cement Stabilized Base and Subbase course	8	Verify curing membrane is applied in accordance with Section 506; 2016 Edition
Cement Stabilized Base and Subbase course	9	Verify density, width and depth requirements per Section 303; 2016 Edition
Cement Stabilized Base and Subbase course	10	Verify Density requirements 1/1000 LF/ 2 lane roadway or 1/2000 LF/shoulder) and results are in documentation system (1:5 ratio for verification) (documentation audit)
Cement Stabilized Base and Subbase course	11	Verify moisture content requirements 1/1000 LF/ 2 lane roadway or 1/2000 LF/shoulder) and results are in documentation system (1:5 ratio for verification) (documentation audit)

Category Description Section 302; 2016 Edition	**Check List Number**	**Check List Description**
Stone Base	1	Verify base material from approved sources and has been sampled and tested
Stone Base	2	Equipment, transporting, and construction requirements are generally per Section 302; 2016 Edition.
Stone Base	3	Stone is spread uniformly.
Stone Base	4	Areas where the base has segregated are replaced.
Stone Base	5	Stone is transported to the point where it is used.
Stone Base	6	Base course is constructed meeting the required number and thickness of courses.
Stone Base	7	Subgrade is not disturbed by base construction operation.
Stone Base	8	Stone base for the shoulder is placed prior to the placing of the final course of pavement on the roadway.
Stone Base	9	Stone for shoulder base is not dumped on the roadway pavement, if so, it must be swept off immediately.
Stone Base	10	The first course is bladed to a cross section parallel to the finished base.
Stone Base	11	Density tests for the lower course are taken and pass prior to spreading material for the top course.
Stone Base	12	The top course is finished to grade and cross section after compaction and is free of scabs and laminations.
Stone Base	13	When wetting or drying is required, the entire depth and width of the course involved is manipulated.
Stone Base	14	Base contaminated by the subgrade, is removed and replaced.
Stone Base	15	Base widening strips are compacted in lifts prior to spreading the overlying course.
Stone Base	16	Conduct verification sampling and testing at the minimum frequency required.
Stone Base	17	Irregularities greater than 1/4-inch (6 mm), using a 15-foot (4.572m) straightedge, are corrected by scarifying, removing or adding rock.
Stone Base	18	At the time of priming, base is firm and unyielding, meets the specified density requirement and the moisture content in the top half is not over the optimum moisture of the base material.
Stone Base	19	Verify width, thickness and density requirements
Stone Base	20	Base deficient areas of more than 3/4 inch are corrected by scarifying and adding rock.
Stone Base	21	If cracks or checks appeared in the base, either before or after priming, which, in the opinion of the CQAM, impaired the structural efficiency of the base, the cracks or checks are removed by rescarifying, reshaping, adding base material where necessary, and recompacting.
Stone Base	22	Verify Density requirements 1/1000 LF/ 2 lane roadway or 1/2000 LF/shoulder) and results are in documentation system (1:5 ratio for verification) (documentation audit)
Stone Base	23	Verify moisture content requirements 1/1000 LF/ 2 lane roadway or 1/2000 LF/shoulder) and results are in documentation system (1:5 ratio for verification) (documentation audit)

Stone Base	24	Verify thickness and width requirements 1/1000 LF/ 2 lane roadway or 1/2000 LF/shoulder) and results are in documentation system (1:5 ratio for verification) (documentation audit)
Stone Base	25	Verify density, width and depth requirements per Section 302; 2016 Edition Table 302-1; Table 302-2 and Table 302-3 and results are in documentation system (documentation audit)

Category Description Section 203; 304; 2016 Edition	**Check List Number**	**Check List Description**
Lime Treatment	1	Verify that the subgrade is accepted. Verify that the subgrade is firm and substantially unyielding.
Lime Treatment	2	Verify percent of lime to be constructed
Lime Treatment	3	Verify lime have been sampled and tested and Certificates of Delivery (CD'S) obtained
Lime Treatment	4	Verifying mixing of material by an approved means throughout the entire depth and width of the treatment limits.
Lime Treatment	5	Verify that lime is spread uniformly at correct spread rate and pulverization and moisture content are within acceptable limits
Lime Treatment	6	Verify that the completed treatment area conforms to the finished lines, grades, and cross-section indicated in the Plans.
Lime Treatment	7	Verify dust control measures are taken
Lime Treatment	8	Verify density, width and depth requirements per Section 304; 2016 Edition

Category Description Section 203; 305; 2016 Edition	**Check List Number**	**Check List Description**
Subgrade Layer (Treated)	1	Verify that the subgrade is accepted. Verify that the subgrade is firm and substantially unyielding.
Subgrade Layer (Treated)	2	Verify that soils have been sampled and tested.
Subgrade Layer (Treated)	3	Verify lime/cement have been sampled and tested.
Subgrade Layer (Treated)	4	Verifying mixing of stabilized material by an approved means throughout the entire depth and width of the stabilizing limits.
Subgrade Layer (Treated)	5	Verify that lime/cement is spread uniformly at correct spread rate and pulverization and moisture content are within acceptable limits
Subgrade Layer (Treated)	6	Verify that the completed stabilized subgrade conforms to the finished lines, grades, and cross-section indicated in the Plans.
Subgrade Layer (Treated)	7	Verify time limitations
Subgrade Layer (Treated)	8	Verify curing membrane is applied in accordance with Section 56; 2016 Edition
Subgrade Layer (Treated)	9	Verify density, width and depth requirements per Section 303; 2016 Edition
Subgrade Layer (Treated)	10	Verify Density requirements 1/1000 LF/ 2 lane roadway or 1/2000 LF/shoulder) and results are in documentation system (1:5 ratio for verification) (documentation audit)
Subgrade Layer (Treated)	11	Verify moisture content requirements 1/1000 LF/ 2 lane roadway or 1/2000 LF/shoulder) and results are in documentation system (1:5 ratio for verification) (documentation audit)

Category Description Section 503; 2016 Edition	**Check List Number**	**Check List Description**
Asphalt Plant/Lab	1	Design mixes have been verified and approved.
Asphalt Plant/Lab	2	Verify that viscosity samples have been obtained and submit the samples to the Materials Lab in a timely manner. Insure that appropriate materials testing data has been entered.
Asphalt Plant/Lab	3	Plant scales are certified every six months and the required monthly weight comparison checks have been conducted and documented properly.
Asphalt Plant/Lab	4	The haul trucks have asphalt tight beds coated with acceptable asphalt release agent (not petroleum-based products such as diesel oil). Truck bed shall have a tarpaulin that can cover the entire load and holes in the side of the bed for checking load temperatures.
Asphalt Plant/Lab	5	The stockpiles including RAP material are free from contamination, segregation and are separated and identified as shown on the mix design.
Asphalt Plant/Lab	6	When present at the plant, perform verification measurements of mix temperature to ensure that the temperature of the mix at the plant is checked and recorded in accordance with the procedures stated in the specifications. Reject a load or portion of the load of HMA, when a mix temperature exceeds the acceptance limits.
Asphalt Plant/Lab	7	The maximum period that any mix may be kept in a hot storage or surge bin is 18 hours.
Asphalt Plant/Lab	8	Do not transport asphalt mix from the plant to the roadway unless all weather conditions are suitable for the paving operations.
Asphalt Plant/Lab	10	Ensure that mix is correctly sampled, split, boxed, identified (project number, lot and sublot, date, mix type, sample type), sealed with tape (and signed by QA when present), and properly stored in a secure location.
Asphalt Plant/Lab	11	Ensure the Asphalt Mix Design Summary Report is maintained up-to-date and monitor trends/variations of the critical material characteristics.
Asphalt Plant/Lab	12	Maintain good communication between plant personnel and roadway personnel. CQAM, personnel, and LADOTD. Obtain verification samples as required.
Asphalt Plant/Lab	13	Randomly (minimum once per project) check/verify DB's QC process control. Ensure a copy of the approved Asphalt Producer's Quality Control Plan is available at the Plant.
Asphalt Plant/Lab	14	The Asphalt Producer's Quality Control Plan has been approved and the technicians performing Quality Control, Verification, and Resolution tests are LADOTD qualified. All documents are adequately filed.
Asphalt Plant/Lab	15	Testing Laboratory must be qualified under LADOTD's Laboratory Qualification Program.
Asphalt Plant/Lab	16	The area of laboratory is a minimum of 400 square feet

Asphalt Plant/Lab	17	The lighting, temperature control, ventilation, equipment and supplies, personal computer, communication system shall be equipped in accordance with the specification requirements.
Asphalt Plant/Lab	18	Calibration of the Superpave Gyratory Compactor is performed in accordance with manufacturer's recommendations at frequencies established in the Asphalt Producer's Quality Control Plan and the records are documented in the lab file.
Asphalt Plant/Lab	19	The laboratory is furnished with the necessary sampling and testing equipment and supplies for performing quality control, acceptance and verification sampling and testing.
Asphalt Plant/Lab	20	The gradations of incoming aggregate (including RAP and each size fraction for fractionated RAP), aggregate moisture content from stockpiles and / or combined cold feed aggregate shall be tested by DB for process control at a minimum frequency specified in his QC Plan. The testing of RAP material shall include A/C content and gradation of extracted aggregate.
Asphalt Plant/Lab	21	The A/C content, mix gradation and volumetric properties of HMA shall be determined by DB for daily process control at a frequency in accordance with the Asphalt Producer's QC Plan.
Asphalt Plant/Lab	22	All QC sampling and testing are completed and the Control Charts are updated daily in accordance with the Asphalt Producer's QC Plan and the results are shown in a conspicuous place in the asphalt lab. The QC results shall be documented
Asphalt Plant/Lab	23	Run the split sample verification testing in accordance with the requirements and the same sample verification testing in order to determine the validity of DB's QC test results for the LOT acceptance. Document the results in the Asphalt Plant Worksheet
Asphalt Plant/Lab	24	In the event that an individual QC test result of a sublot for air voids, or the average sublot density for coarse graded mixes, do not meet the requirements of Table 502-6; 2016 Edition, the LOT shall be automatically terminated and the production of the mixture shall be stopped until the problem is adequately resolved to the satisfaction of the QC Manager(s) and/or the Asphalt Plant Technician(s) responsible for the decision to resume production after a quality control failure. The material represented by the failing test result shall be evaluated in accordance summary of dispositions
Asphalt Plant/Lab	25	In the event that two consecutive QC tests for gradation, A/C content, or the average sublot density (for two consecutive sublots) for fine graded mixes do not meet the requirements of Table 502-6; 2016 Edition, or two individual core densities within a sublot are less than 91.00% of Gmm (for coarse mixes), the LOT shall be automatically terminated and production of the mixture stopped until the problem is adequately resolved to the satisfaction of the QC Manager(s) and/or the Asphalt Plant Technician(s) responsible for the decision to resume production after a quality control failure . In the event that it can be demonstrated that the problem can immediately be or already has been resolved, it shall not be necessary to stop production. When a LOT is

		terminated, make all necessary changes to correct the problem. Do not resume the production until appropriate corrections have been made. Inform the CQAM of the problem and corrections made to correct the problem. After resuming production, sample and test the material to verify that changes have corrected the problem. Summarize this information and provide it to the CQAM prior to the end of the work shift when production resumes. In the event that a QC failure is not addressed as defined above, the CQAM's approval shall be required prior to resuming production after any future QC failures. Address any material represented by a failing test result
Asphalt Plant/Lab	26	Take necessary actions for the materials defective material in accordance with the requirements of Section 502; 2016 Edition. DB's evaluation of the defective material shall be performed
Asphalt Plant/Lab	27	Ensure that QC personnel are recording raw test data on LADOTD approved forms or approved equal and that this data is transferred to the appropriate forms, database, and spreadsheet. Any corrections made to the raw data shall be made by striking through the incorrect data with a single line and writing the correct data above the struck through data. Erasing any data is prohibited.
Asphalt Plant/Lab	28	Use a liquid anti-strip additive at a rate of 0.5% by weight of the asphalt binder for mixtures containing stone aggregate. Other rates of anti-strip additive may be used upon approval of the CQAM.
Asphalt Plant/Lab	29	Verify Certificate of Delivery (CD) for materials
Asphalt Plant/Lab	30	Take necessary actions for the materials defective material in accordance with the requirements of Section 502; 2016 Edition. DB's evaluation of the defective material shall be performed
Asphalt Plant/Lab	31	Ensure that QC personnel are recording raw test data on LADOTD approved forms or approved equal and that this data is transferred to the appropriate forms, database, and spreadsheet. Any corrections made to the raw data shall be made by striking through the incorrect data with a single line and writing the correct data above the struck through data. Erasing any data is prohibited.
Asphalt Plant/Lab	32	Use a liquid anti-strip additive at a rate of 0.5% by weight of the asphalt binder for mixtures containing stone aggregate. Other rates of anti-strip additive may be used upon approval of the CQAM.
Asphalt Plant/Lab	33	Verify CD’s for all materials are in documentation system (documentation audit)

Category Description Section 502-504; 2016 Edition	**Check List Number**	**Check List Description**
Asphalt Paving - General	1	A pre-paving conference is held before the milling and paving operation and a written report is distributed.
Asphalt Paving - General	2	A Certified Asphalt Paving technician shall be on the roadway at all times when placing HMA at the job site (except when placing miscellaneous or temporary asphalt). All testing shall be performed by a Certified Asphalt Paving technician with the exception that cross-slope, temperature and spread rate can be performed by someone under the supervision of a Certified Asphalt Paving technician.
Asphalt Paving - General	3	A copy of the approved DB's Construction QA/QC Plan shall be present on the project and the DB's roadway QC technician is required to have a copy of the mix design for the HMA being placed at paving site.
Asphalt Paving - General	4	The paving machine is equipped with automatic longitudinal and transverse screed controls with a min. length of 25 feet that are being used during paving operation. Establish the forward speed of the asphalt paver based on the rate of delivery of the mix to the roadway to maintain a constant supply of mix (head of material) at the augers in front of the screed.
Asphalt Paving - General	5	Do not place asphalt mixtures while rain is falling or when there is water on the surface to be paved.
Asphalt Paving - General	6	Ensure trucks are not bumping the paver. After releasing the HMA material from the truck's body to the paver, the remaining material in the truck shall not be dumped on the tacked surface in front of the paver.
Asphalt Paving - General	7	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 string line.
Asphalt Paving - General	8	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 function properly to avoid having HMA adhering to the wheels.
Asphalt Paving - General	9	Pneumatic-tire rollers (traffic rollers) are using tires inflated 50 to 55 PSI or as specified by the manufacturer.
Asphalt Paving - General	10	When using an extendable screed device to extend the screed's width on the full width lane or shoulder by 24 inches or greater, an auger extension, paddle, or kicker device shall be equipped and used during paving unless DB provides written documentation from the manufacturer that these are not necessary.
Asphalt Paving - General	11	Protect the last structural layer placed prior to the friction course and newly finished dense-graded friction course from traffic until the surface temperature of these layers has cooled below 160 F.
Asphalt Paving - General	12	The lift thickness meets the specification requirements.
Asphalt Paving - General	13	Document the roadway density random numbers and ensure that the 5 cores are cut from each sublot. Do not obtain cores any closer than 12

		inches from an unsupported edge. After coring, core holes are patched properly within three days of coring.
Asphalt Paving - General	14	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 Section 502; 2016 Edition
Asphalt Paving - General	15	Monitor the profilograph operations and corrective actions
Asphalt Paving - General	16	The transverse joint, longitudinal joint and pavement approaches to the bridge joints are constructed properly and checked by 15-foot manual straightedge to achieve smooth and compacted surfaces. The 15- foot manual straightedge shall also be used to check the smoothness on crossovers, intersections, tapers, transitions at beginning and end of project, parking lots and similar areas.
Asphalt Paving - General	17	For night paving, sufficient lighting shall be provided at the job site.
Asphalt Paving - General	18	Keep sections of newly compacted asphalt concrete, which are to be covered by additional courses, clean until the successive course is laid.
Asphalt Paving - General	19	Do not dump embankment or base material directly on the pavement. Dress shoulders before placing the friction course on adjacent pavement.
Asphalt Paving - General	20	Perform the verification measurements at a min. frequency of twice per day to ensure that the temperature of the mix at the paving site is checked and recorded in accordance with the procedures stated in the specifications. Reject a load or portion of a load of HMA, when a mix temperature exceeds the acceptance limits. Document the results
Asphalt Paving - General	21	For process control, DB shall monitor the pavement temperature with an infrared temperature device. The roadway density shall be monitored by either 4- inch diameter roadway cores, a nuclear density gauge, or other density measuring device at a min. frequency of once per 1500 feet of pavement.
Asphalt Paving - General	22	Perform the verification activities at a min. frequency of once per layer per day to ensure that the spread rate (yield) is in compliance with the Contract requirements. In case of verification with deficiencies, DB shall take corrective action immediately and a recheck shall be made afterward. If the recheck indicates that the operations are still out of control, the operation shall be stopped and the quality of the defective areas shall be evaluated separately. The results shall be documented
Asphalt Paving - General	23	Perform the verification activities by randomly taking a minimum of ten measurements of the cross slope per mile in tangent sections, control points in transition sections, and a minimum of three cross slope measurements on fully superelevated sections over a day's production to ensure that DB's measurements are within the acceptable tolerances listed in Table 502-5; 2016 Edition Acceptable Cross Slope Tolerance.
Asphalt Paving - General	24	Verify tack coat is on AML and CD is in documentation system (documentation audit)
Asphalt Paving - General	25	Verify tack coat spread rate is in documentation system (documentation audit)

Asphalt Paving - General	26	Verify Validation Cores are taken (1 core per validation sublot- 5 total) and results are in documentation system (verification and documentation audit)
Asphalt Paving - General	27	Verify core for dispute resolution is sent to District Lab and is in documentation system
Asphalt Paving - General	28	Verify one acceptance core at random is taken for Gmm and JMF verification and results are in documentation system (documentation audit)
Asphalt Paving - General	29	Verify cores (3/1000 tons/mix type) are taken for density tests and results are in documentation system (documentation audit)
Asphalt Paving - General	30	Verify joint density readings (3 per acceptance) are taken and results are in documentation system (documentation audit)
Asphalt Paving - General	31	Verify longitudinal surface tolerance (profilograph) results are in documentation system (documentation audit)
Asphalt Paving - General	32	Verify loose mix temperatures (2/1000 LF) are taken and are in documentation system (documentation audit)
Asphalt Paving - General	33	Verify Transverse surface tolerance and cross slope are taken and are in documentation system (documentation audit)
Asphalt Paving - General	34	Verify depth measurements (1/1000 LF) are taken and are in documentation system (documentation audit)
Asphalt Paving - General	35	Verify thickness and width measurements (1/1000 LF) are taken and are in documentation system (documentation audit)

Category Description Section 509; 2016 Edition	**Check List Number**	**Check List Description**
Asphalt Milling	1	The milled surface is swept with a power broom or other approved equipment. A street sweeper is used in urban and other sensitive areas. Any surface delamination or scaling pieces shall be removed.
Asphalt Milling	2	The milling surface has a uniform texture with no deviation in excess of 1/4 inch. The depth of cut and the cross slope are checked periodically to ensure that the results are in compliance with the Contract Documents.
Asphalt Milling	3	Repave all milled surfaces no later than the day after the surface was milled or as specified in the Contract Documents.
Asphalt Milling	4	Perform the cross-slope verification measurements in accordance with Section 509; 2016 Edition to ensure that DB checks the cross slopes at a frequency of one measurement every 100 feet during milling operations.
Asphalt Milling	5	Verify longitudinal surface tolerance is performed and results are in documentation system (documentation audit)
Asphalt Milling	6	Verify transverse surface tolerance and cross slope (2/ half day) are performed and results are in documentation system (documentation audit)

Category Description Section 601; 2016 Edition	**Check List Number**	**Check List Description**
Concrete Pavement	1	A detailed sequence and schedule of concrete placement operations is provided in the Construction QA/QC Plan and the Construction QA/QC Plan is approved prior to paving operations.
Concrete Pavement	2	Ensure the electronic delivery ticket is furnished for each batch of concrete from an agitating truck mixer.
Concrete Pavement	3	The pavement is constructed by a slip-form paver or fixed form.
Concrete Pavement	4	Ensure the procedure for the protection of the fresh concrete pavement from inclement weather included in the Construction QA/QC Plan is being used.
Concrete Pavement	5	Ensure the defined provisions for lighting during night work included in the Construction QA/QC Plan are being used.
Concrete Pavement	6	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.
Concrete Pavement	7	The slip-form paver is self-propelled and equipped to spread, strike-off, consolidate screed, and float-finish the freshly placed concrete in one complete pass.
Concrete Pavement	8	The slip-form paver uses automatic guidance and grade controls with the exceptions noted in the Spec.
Concrete Pavement	9	The concrete is consolidated for the full width of the strip being placed with a correct surface pan type or internal type vibrator.
Concrete Pavement	10	For surface vibrators, the frequency is at least 3500 impulses per minute.
Concrete Pavement	11	If using internal type tube or spud vibrators, then for tube vibrators use a frequency of at least 5000 impulses per minute and for spud vibrators use a frequency of at least 7000 impulses per minute.
Concrete Pavement	12	The device for application of membrane curing compound is self-propelled and capable of uniformly applying the curing compound at the specified rate.
Concrete Pavement	13	When using a hot-poured sealer, the heating kettle is of the indirect heating or double boiler type, using oil as a heat transfer medium.
Concrete Pavement	14	The subgrade is completed for a distance of at least 500 feet ahead of the paving operation.
Concrete Pavement	15	The subgrade is maintained in a smooth and compact condition and is moist at the time concrete is placed.
Concrete Pavement	16	The forms are set to line and grade and such that they rest firmly on grade, throughout their entire length.
Concrete Pavement	17	Forms are maintained 500 feet on each side of the roadway in advance of the concrete pavement being placed and are true to line and grade.
Concrete Pavement	18	Forms are clean and a release agent is applied in accordance with the manufacturer's recommendations after each use and prior to placing concrete against them.
Concrete Pavement	19	Where the Plans call for reinforced concrete pavement (RCP), ensure the re-bars are free from any material which can impair bonding of the

		steel with the concrete such as dirt, oil, paint, grease, mill scale, and any loose or thick rust.
Concrete Pavement	20	Ensure all the re-bars of RCP are placed in accordance with the Plans and the bars are securely wired together at the transverse and longitudinal intersections. Lap splices are not less than 20 times the nominal diameter of the bar and only in the longitudinal members.
Concrete Pavement	21	All paving operations cease when rain is imminent and have all available personnel cover the surface of the unhardened concrete with a protective covering, to protect the finish.
Concrete Pavement	22	The pavement is constructed to the full width of the lane or slab in a single construction operation.
Concrete Pavement	23	The concrete is thoroughly consolidated against and along the faces of all forms, and along the full length on both sides of all joint assemblies by means of hand-operated, spud-type vibrators.
Concrete Pavement	24	The final finish is applied using a seamless length of damp burlap over the full width of the strip of constructed pavement as the water sheen disappears from the surface of the pavement and just before the concrete achieves its initial set.
Concrete Pavement	25	Ensure all joints are checked with straightedge before concrete becomes non-plastic and make corrections if any smoothness deficiency is found.
Concrete Pavement	26	Ensure the concrete is cured in accordance with the requirements of the Specifications. Do not leave the concrete exposed for a period in excess of 30 minutes between stages of curing or during the curing period.
Concrete Pavement	27	Ensure the forms are not removed from freshly placed concrete for at least 12 hours after placement. After removing the forms, immediately apply curing compound to the sides of the slab.
Concrete Pavement	28	Ensure the freshly placed concrete is continuously cured for a period of 72 hours, exclusive of any periods when the temperature of the surface of the concrete falls below 45 F.
Concrete Pavement	29	Ensure the longitudinal joints are constructed in accordance with the details shown in the Plans and the tie bars or tie bolt assemblies are placed correctly in depth, spacing, location and angles.
Concrete Pavement	30	Transverse construction joints are placed at the end of all pours and other locations where paving operations are stopped for as long as 30 minutes.
Concrete Pavement	31	Accomplish the transverse contraction joint sawing in two steps. Make the initial cut 1/8-inch-wide by a depth at least 1/3 of the pavement thickness and as soon as possible 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 DB have to saw cut the concrete after the 12 hours allowed by specifications, obtain the CQAM's approval of the additional curing time prior to saw cutting.
Concrete Pavement	32	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 CQAM.

Concrete Pavement	33	For sawed joints that shall receive sealant, ensure the joint is flushed with a jet of water to remove any remaining slurry.
Concrete Pavement	34	Determine the thickness by one of the methods in Section 601 If the pavement is cored, the pavement removed by the borings shall be repaired properly.
Concrete Pavement	35	After placement of the concrete, traffic is kept off the pavement for a minimum of 14 calendar days or for such period as otherwise provided in the Contract Documents.
Concrete Pavement	36	Ensure the pavement surface is true to grade and uniform in appearance with a longitudinal line type texture by grinding operation and the smoothness is tested by the 10-foot straightedge and a California Type Profilograph for acceptance. All deficiencies shall be corrected and retested to ensure conformity.
Concrete Pavement	37	Verify cores for thickness and compressive strength (in accordance with APPLICATION OF QUALITY ASSURANCE SPECIFICATIONS FOR PORTLAND CEMENT CONCRETE AND STRUCTURES-2016) are taken (verification) and are in documentation system (documentation audit)
Concrete Pavement	38	Verify Beams for Flexural Strength/thickness (1/1000 LF) are taken for verification and are in documentation system (documentation audit)
Concrete Pavement	39	Verify surface tolerance (in accordance with APPLICATION OF QUALITY ASSURANCE SPECIFICATIONS FOR PORTLAND CEMENT CONCRETE AND STRUCTURES-2016) and are in documentation system (documentation audit)
Concrete Pavement	40	Verify tine texturing measurements (cured PCCP) are taken (2/1500 LF of 2 lane roadway or 1/1000 LF of shoulder) and are in documentation system (documentation audit)
Concrete Pavement	41	Verify application rate of curing compound (1 gal/100 SF) (1/day) is taken and is in documentation system (documentation audit)
Concrete Pavement	42	Verify straight edge surface finish (plastic PCCP) is performed and are in documentation system (documentation audit)
Concrete Pavement	43	Verify thickness measurements (plastic PCCP) (1/lane/100 LF) is performed and are in documentation system (documentation audit)
Concrete Pavement	44	Verify tine texturing measurements (plastic PCCP) are taken (1/lane/100 LF) and are in documentation system (documentation audit)
Concrete Pavement	45	Verify curing compound is on AML and CD is in documentation system (documentation audit)
Concrete Pavement	46	Verify geotextile fabric is on AML and test results are in documentation system (documentation audit)
Concrete Pavement	47	Verify joint sealant materials and lubricant adhesive are on AML and CD’s are in documentation system (documentation audit)
Concrete Pavement	48	Verify dowel bars have been tested and results are in documentation system (documentation audit)

Category Description Section 701; 805; 2016 Edition	**Check List Number**	**Check List Description**
Drainage - Box Culverts	1	All precast structures are accompanied with a QC signed and certificate of delivery (CD) ticket providing the description and the list of the products.
Drainage - Box Culverts	2	Trench is de-watered as necessary.
Drainage - Box Culverts	3	Trench is wide and deep enough for compactors.
Drainage - Box Culverts	4	Material not classified as suitable backfill material is removed.
Drainage - Box Culverts	5	Proper bedding is provided.
Drainage - Box Culverts	6	Trench box or shore protection is used when excavation is in excess of 5 ft. or more.
Drainage - Box Culverts	7	Sediment basins are constructed in accordance with Contract Documents.
Drainage - Box Culverts	8	Heavy construction equipment is not permitted to cross over culverts or pipes until the backfill material has been placed and compacted to the finished earthwork grade or 4 ft. above the pipe or culvert.
Drainage - Box Culverts	9	Verify backfill material, bedding material, and geotextile fabric has been sampled and tested
Drainage - Box Culverts	10	Cut back is achieved for tie in length on culvert extensions.
Drainage - Box Culverts	11	Form removal performed per Contract Documents.
Drainage - Box Culverts	12	Do not begin backfilling against any masonry until permission is given by the CQAM or concrete has been in place 7 days.
Drainage - Box Culverts	13	Reinforcing Steel is tied and supported correctly.
Drainage - Box Culverts	14	Ensure proper curing on all concrete surfaces.
Drainage - Box Culverts	15	Cast bottom slab and set prior to forming walls.
Drainage - Box Culverts	16	With walls of at least 6 ft. high, let concrete set at least 12 hrs. prior to casting the top.
Drainage - Box Culverts	17	Any construction joints in the wing-walls to be horizontal and below ground level.
Drainage - Box Culverts	18	For All box culverts, have weep holes been installed.

Category Description Section 701; 2016 Edition	**Check List Number**	**Check List Description**
Drainage - Pipe and Drainage Structures	1	Trench is de-watered as necessary.
Drainage - Pipe and Drainage Structures	2	Trench is wide and deep enough for backfilling with compactors.
Drainage - Pipe and Drainage Structures	3	Trench box or shore protection is used when excavation is in excess of 5 ft. or more.
Drainage - Pipe and Drainage Structures	4	Unsuitable backfill material is removed.
Drainage - Pipe and Drainage Structures	5	Verify that precast pipe and structures have the producer's QC Stamp and Certificates of Delivery (CD)
Drainage - Pipe and Drainage Structures	6	Verify backfill material, bedding material, and geotextile fabric has been sampled and tested
Drainage - Pipe and Drainage Structures	7	Contractor's checklist has been completed for hold point release.
Drainage - Pipe and Drainage Structures	8	The Drainage Excavation is ready for placement of structure and/initial pipe sections. This Hold Point should be checked prior to the placement of each drainage structure. Check list items 1 thru 7 needed to be checked and verified to release this Hold Point.
Drainage - Pipe and Drainage Structures	9	First Pipe from Structure- At the time of the first QA density test, verify trench is de-watered as necessary.
Drainage - Pipe and Drainage Structures	10	First Pipe from Structure- At the time of the first QA density test, verify trench is wide and deep enough for backfilling with compactors.
Drainage - Pipe and Drainage Structures	11	First Pipe from Structure- At the time of the first QA density test, verify trench box or shore protection is used when excavation is in excess of 5 ft. or more.
Drainage - Pipe and Drainage Structures	12	First Pipe from Structure- At the time of the first QA density test, verify unsuitable backfill material is removed.
Drainage - Pipe and Drainage Structures	13	First Pipe from Structure- At the time of the first QA density test, verify that precast pipe and structures have the producer's QC Stamp
Drainage - Pipe and Drainage Structures	14	First Pipe from Structure- At the time of the first QA density test, verify proper bedding is provided.
Drainage - Pipe and Drainage Structures	15	First Pipe from Structure- At the time of the first QA density test, verify that Precast pipe and structures are free from damage prior to placement.
Drainage - Pipe and Drainage Structures	16	First Pipe from Structure- At the time of the first QA density test, verify the pre-cast drainage structure matches the RFC drawings and is set in the proper orientation. (Check the cross sections). Verify location by measuring from the contractor's off-set survey stakes.
Drainage - Pipe and Drainage Structures	17	First Pipe from Structure- At the time of the first QA density test, verify that the pipe run from the structure is set to the proper line and flow line by checking upgrade line hubs and measuring pipe slope with a level. Slope measured: _____%

Drainage - Pipe and Drainage Structures	18	First Pipe from Structure- At the time of the first QA density test, verify the 1st pipe out of the structure is properly sealed and mortar allowed to set in accordance with the manufacturer's recommendations.
Drainage - Pipe and Drainage Structures	19	First Pipe from Structure- At the time of the first QA density test, verify pipes entering the structure are flush with inside walls and properly sealed using approved product.
Drainage - Pipe and Drainage Structures	20	Contractor's checklist has been completed for hold point release.
Drainage - Pipe and Drainage Structures	21	First Pipe - At the time of the lowest QA density for each drainage structure and pipe run. Check list items 9 thru 20 need to be checked and verified to release this Hold Point.
Drainage - Pipe and Drainage Structures	22	There is a passing test on the first dry lift of the pipe and one on each side of the pipe.
Drainage - Pipe and Drainage Structures	23	Verify the contractor is hand tamping the material below the pipe haunch that cannot be reached by mechanical tampers.
Drainage - Pipe and Drainage Structures	24	Verify the contractor is installing gaskets properly and they are connecting the pipe in manner that seats the spigot into the bell and a uniform joint gap is achieved. Measure the joint gap at the time of QA density. Measurement of joint gap: _____inches.
Drainage - Pipe and Drainage Structures	25	Verify that the pipe run from the structure is set to the proper line and flow line by checking upgrade line hubs and measuring pipe slope with a level. Slope measured: _____%
Drainage - Pipe and Drainage Structures	26	Pipe joints are wrapped with a filter fabric jacket as required.
Drainage - Pipe and Drainage Structures	27	Elliptical Concrete Pipe Joints - A minimum of two pieces of gasket material for each joint.
Drainage - Pipe and Drainage Structures	28	For 15" or larger OD pipe, insure pipe trench backfill materials and compaction according to the 4 zones specified.
Drainage - Pipe and Drainage Structures	29	Contractor backfills using granular material when backfilling under wet conditions in accordance with the specifications.
Drainage - Pipe and Drainage Structures	30	Obtain a minimum quality control density of 95% within 3 ft. of structures or 95% for pipe densities in the cover zone. If pipe and structure is tested with the same compactive effort ensure that the log book indicates as such and that a minimum density of 95% is achieved.
Drainage - Pipe and Drainage Structures	31	If QA density tests fails, QC retests within a 5' radius of the failing QA test location.
Drainage - Pipe and Drainage Structures	32	When pipe is placed above the original ground line elevation, embankment is placed and compacted to at least 2 ft. above the top of proposed pipe and to a width of at least four pipe diameters prior to excavation of the trench.
Drainage - Pipe and Drainage Structures	33	Heavy construction equipment is not permitted to cross over culverts or pipes until the backfill material has been placed and compacted to the finished earthwork grade or 4 ft. above the pipe or culvert.
Drainage - Pipe and Drainage Structures	34	Inverts are properly constructed.

Drainage - Pipe and Drainage Structures	35	Cast in place tops formed to the plan dimension and tolerance with required reinforcing steel.
Drainage - Pipe and Drainage Structures	36	For construction of top, verify that structure is cleaned out.
Drainage - Pipe and Drainage Structures	37	For construction of top, verify that concrete meets the specification.

Category Description Section 703; 2016 Edition	**Check List Number**	**Check List Description**
Drainage -Underdrains	1	All precast structures are accompanied with a QC signed or stamped delivery ticket providing the description and the list of the products.
Drainage -Underdrains	2	Trench is de-watered as necessary.
Drainage -Underdrains	3	For 15" or larger OD pipe, insure pipe trench backfill materials and compaction according to the 4 zones specified.
Drainage -Underdrains	4	Trench is wide and deep enough for compactors.
Drainage -Underdrains	5	Material not classified as suitable backfill material is removed.
Drainage -Underdrains	6	Proper bedding is provided.
Drainage -Underdrains	7	Trench box or shore protection is used when excavation is in excess of 5 ft. or more.
Drainage -Underdrains	8	Sediment basins are constructed in accordance with Contract Documents.
Drainage -Underdrains	9	Heavy construction equipment is not permitted to cross over culverts or pipes until the backfill material has been placed and compacted to the finished earthwork grade or 4 ft. above the pipe or culvert.
Drainage -Underdrains	10	DB backfills using granular material in accordance with the specifications and after approval by the CQAM in writing.
Drainage -Underdrains	11	Install underdrains per plan and/or Index 286.
Drainage -Underdrains	12	Construct underdrain inspection boxes in accord with the Contract Documents.
Drainage -Underdrains	13	The pipe is perforated with no open joints in the pipe system.
Drainage -Underdrains	14	The filter material is placed and compacted around the pipe for the full width of the trench in layers not exceeding 6 in.
Drainage -Underdrains	15	Install french drains in accord with spec. & design standards.
Drainage -Underdrains	16	Coarse aggregates used meet specified graduation requirements.
Drainage -Underdrains	17	Verify granular material (1/1000 CY) used meet specified graduation requirements. (Verification 1:5 ratio) Verify results in documentation system (documentation audit)
Drainage -Underdrains	18	Verify geocomposite wall drains and pipe have CA/CC/CD and are in documentation system (documentation audit)
Drainage -Underdrains	19	Verify geotextile cloth is on AML and test results are in documentation system (documentation audit)
Drainage -Underdrains	20	Verify precast headwall are on AML and CD is are in documentation system (documentation audit)

Category Description Section 704; 729; 2016 Edition	**Check List Number**	**Check List Description**
Traffic Control Aids (Permanent) - Delineators	1	Delineators are installed correctly.
Traffic Control Aids (Permanent) - Delineators	2	The color of delineators corresponds with the color of the traffic stripe.

Category Description Section 711; 2016 Edition	**Check List Number**	**Check List Description**
Riprap	1	Verify that area is graded in accordance with plans.
Riprap	2	Verify that soil has been tested, if required.
Riprap	3	Does filter fabric, meet the requirements shown on Design Standards, Index No. 199.
Riprap	4	Verify that fabric is lapped and anchored in accordance with 514-3.4.
Riprap	5	Verify that fabric covers the area indicated in the plans.
Riprap	6	Verify that fabric is embedded along perimeter, if applicable.
Riprap	7	Is the riprap composed of material as shown in the Design Standards and in the Plans?
Riprap	8	Requirements of Section 921. Certify that cement meets the requirements of the Contract Documents.
Riprap	9	Fine Aggregate meets the requirements of 902-3.3.
Riprap	10	Sacks designed as specified in Spec 530-2.1.
Riprap	11	Rubble has a bulk specific gravity of at least 2.20.

Category Description Section 712;806;901; 2016 Edition	**Check List Number**	**Check List Description**
4” Cast in Place Revetment	1	The ground on which concrete or formwork must be prepared and compacted properly, prior to form setting.
4” Cast in Place Revetment	2	Verify mix design for Class R concrete
4” Cast in Place Revetment	3	Verify all materials (bedding, WWF, geotextile fabric; etc.) are sampled and tested
4” Cast in Place Revetment	4	Storing, placing, and tying rebar must be done properly.
4” Cast in Place Revetment	5	Concrete shall not be placed until forms, WWF and rebars have been inspected and approved.
4” Cast in Place Revetment	6	Unhardened concrete must be completely protected from rain and runoff by an approved system. Do not place concrete during rain.
4” Cast in Place Revetment	7	Proper application of an approved membrane curing compound at 1 gallon/100 square feet (.09gal/Sq. Yd) of surface area.
4” Cast in Place Revetment	8	Covers for continuous moisture curing shall be kept continuously wet for at least 7 days

Category Description Section 713; 2016 Edition and MOT Plan	**Check List Number**	**Check List Description**
Maintenance of Traffic (MOT)	1	Has a TCP has been developed and incorporated into the Plans? Has the TCP been signed and sealed by a Professional Engineer and approved before being used. Verify signs and barricades installed in accordance with TCP.
Maintenance of Traffic (MOT)	2	DB has provided the name and telephone number(s) of the Traffic Control Supervisor (TCS) in writing.
Maintenance of Traffic (MOT)	3	The TCS has provided a valid certificate of successfully completing an approved Advanced TCS training course.
Maintenance of Traffic (MOT)	4	Verify all flaggers are certified
Maintenance of Traffic (MOT)	5	The TCS is on site during all set up and take down, and performs a drive through inspection immediately after set up.
Maintenance of Traffic (MOT)	6	The TCS does an initial inspection and evaluation of the work zone for each phase of construction and conducts daily daytime and weekly nighttime inspections within the limits of the project for projects with predominant daytime work activities and daily nighttime and weekly daytime inspections for projects with predominant nighttime work. The TCS notes any deficiencies in the TCP Review Report Form
Maintenance of Traffic (MOT)	7	The CQAM has reviewed DB's weekly TCP Review Report for reasonableness and accuracy by conducting a field project inspection of the work zone.
Maintenance of Traffic (MOT)	8	The TCS immediately corrects all safety deficiencies and does not allow minor deficiencies that are not immediate safety hazards to remain uncorrected for more than 24 hours.
Maintenance of Traffic (MOT)	9	The CQAM has completed a traffic evaluation at crash site, for crashes occurring within the project limits.
Maintenance of Traffic (MOT)	10	DB has provided access to all residences and businesses whenever construction interferes with the existing means of access, and material has been placed, as needed, for driveways and sidewalks to residences and businesses to continuously provide safe, stable and reasonable access for vehicles and pedestrians.
Maintenance of Traffic (MOT)	11	DB is controlling dust during construction operations.
Maintenance of Traffic (MOT)	12	DB has removed all existing pavement markings in conflict with the adjusted vehicle path without damaging the surface texture and without the use of black paint.
Maintenance of Traffic (MOT)	13	The DQAM has verified that DB's certified initial retroreflectivity readings meet the minimum requirements throughout the work zone. Refer to other sections of the specifications for different pavement marking products.
Maintenance of Traffic (MOT)	14	DB has maintained Type A, C and D warning lights so as to be capable of being visible on a clear night from a distance of 3000 feet, and Type B warning lights so as to be capable of being visible on a sunny day when viewed without the sun directly on or behind the device from a distance of 1,000 feet.

Maintenance of Traffic (MOT)	15	DB has provided temporary traffic control devices that have been permanently marked with a valid AML number.
Maintenance of Traffic (MOT)	16	DB has maintained temporary traffic control devices in accordance with ATSSA's Quality Guidelines for Temporary Traffic Control Devices and Features.
Maintenance of Traffic (MOT)	17	DB has correctly installed work zone sign supports (post-mounted and portable) that have been permanently marked with a valid AML number.
Maintenance of Traffic (MOT)	18	DB has placed business access signs as required by the Plans.
Maintenance of Traffic (MOT)	19	The CQAM has verified that the crash cushions are installed in accordance with the Plans, Design Standards, and AML vendor drawings.
Maintenance of Traffic (MOT)	20	The CQAM has verified that the temporary lane separator has been installed properly.
Maintenance of Traffic (MOT)	21	Temporary signs on barrier or traffic railing are installed in accordance with specs
Maintenance of Traffic (MOT)	22	Verify that MOT is in accordance with the approved plan.
Maintenance of Traffic (MOT)	23	Verify that warning lights, drums, cones are on AML and CC is in documentation system (documentation audit)
Maintenance of Traffic (MOT)	24	Verify that warning signs, barricades, temporary striping tape are on AML and CC/CA is in documentation system (documentation audit)

Category Description Section 713-719;738;739; 2016 Edition	**Check List Number**	**Check List Description**
Grass, Sod and Landscaping	1	Verify that a proper plant bedding has been prepared.
Grass, Sod and Landscaping	2	Verify that any required testing (pH, etc.) has been completed and approved.
Grass, Sod and Landscaping	3	If treatment is required, verify that has been completed in accordance with specifications.
Grass, Sod and Landscaping	4	Verify that the surface of the earthwork has been placed to line and grade in accordance with the plans.
Grass, Sod and Landscaping	5	Verify that the types of seed, landscape plants and sod are placed in accordance with the plans.
Grass, Sod and Landscaping	6	Verify that all the seed, sod and landscaping plants meet requirements
Grass, Sod and Landscaping	7	Verify that the seed is was harvested from the previous year's crop. The seed bags shall have a label attached stating the date of harvest, LOT number, percent purity, percent germination, noxious weed certification and date of test. Verify seed spread rates
Grass, Sod and Landscaping	8	If applicable, the sod shall be sufficiently thick to secure a dense stand of live turf. Verify that it was planted within 48 hours after being cut and kept moist from the time it is cut until it is planted.
Grass, Sod and Landscaping	9	Verify that the mulch meets the requirements of Section 987, hardwood barks, shavings or chips; or inorganic mulch materials in accordance with the plans.
Grass, Sod and Landscaping	10	Verify that the fertilizers comply with the State fertilizer laws.
Grass, Sod and Landscaping	11	Verify that a certified test report from the manufacturer of the commercial fertilizer confirming that the requirements of this Section are met.
Grass, Sod and Landscaping	12	Verify that the fertilizers are applied at the proper rate.
Grass, Sod and Landscaping	13	Verify that the water used in the grassing, sodding and landscaping operations is obtained from an approved source.
Grass, Sod and Landscaping		
Grass, Sod and Landscaping	14	Verify analysis tag and test report for seed is in documentation system (documentation audit). DOTD Roadside Development to determine seed selection
Grass, Sod and Landscaping	15	Verify CA for agricultural lime and fertilizer is in documentation system (documentation audit).
Grass, Sod and Landscaping	16	Verify DB Landscape Architect has determined plant selection in consultation with Baton Rouge Green and documented in documentation system (documentation audit). Plants accepted after one complete growing season

Category Description Section 704; 729; 2016 Edition	**Check List Number**	**Check List Description**
Traffic Control Aids (Permanent) - Guardrail	1	Guardrail is installed at the proper height of 1'-9" to the center of the beam, without rubrail, or 2' to the center of the beam with rub rail.
Traffic Control Aids (Permanent) - Guardrail	2	Galvanized nails are installed in offset blocks.
Traffic Control Aids (Permanent) - Guardrail	3	End anchorages are properly installed.
Traffic Control Aids (Permanent) - Guardrail	4	Panels, end sections and special end shoes are lapped in the direction of adjacent traffic.
Traffic Control Aids (Permanent) - Guardrail	5	Guardrail reflectors are in compliance and mounted at the correct spacing and location. Guardrail reflector color conforms to the near lane edge line.
Traffic Control Aids (Permanent) - Guardrail	6	Guardrail holes are enlarged by drilling and not by flame cut. All new edges have been galvanized.
Traffic Control Aids (Permanent) - Guardrail	7	The correct washers are used for guardrail.
Traffic Control Aids (Permanent) - Guardrail	8	Guardrail blocks and posts are plumb.
Traffic Control Aids (Permanent) - Guardrail	9	Certification for guardrail materials and Certificate of Compliance is provided.
Traffic Control Aids (Permanent) - Guardrail	10	Offset blocks are in conformance with the specified materials and sizes. All timber blocks are dressed on all four sides.
Traffic Control Aids (Permanent) - Guardrail	11	The EOR approves any field changes to guardrail lengths and locations.
Traffic Control Aids (Permanent) - Guardrail	12	The backup plate is installed at all non-splice post locations for Modified Thrie Beam Guardrail Systems.

Category Description Section 729; 2016 Edition	**Check List Number**	**Check List Description**
Traffic Control Aids(Permanent) - Signing	1	Signs are installed at proper location, offset, height and angle.
Traffic Control Aids(Permanent) - Signing	2	Signs are mounted on breakaway posts or frangible sign supports.
Traffic Control Aids(Permanent) - Signing	3	All nuts and bolts on signs are installed and tightened to their appropriate torque.
Traffic Control Aids(Permanent) - Signing	4	Sign bolt threads are burred to prevent nut loosening.
Traffic Control Aids(Permanent) - Signing	5	Signs conform to the approved shop drawing or standard index.
Traffic Control Aids(Permanent) - Signing	6	Sign posts are mounted plumb and have the correct diameter.
Traffic Control Aids(Permanent) - Signing	7	Span wire signage is in compliance with Index 17356.
Traffic Control Aids(Permanent) - Signing	8	Manufacturer's certifications are on file.
Traffic Control Aids(Permanent) - Signing	9	Relocated signs are properly maintained and protected.
Traffic Control Aids(Permanent) - Signing	10	Color is in compliance with the Standard Highway Signs Manual.
Traffic Control Aids(Permanent) - Signing	11	Sign foundations are installed at the correct depth.
Traffic Control Aids(Permanent) - Signing	12	Verify CC and Construction Inspection Fab. Report for sign mounts and all permanent traffic signs is in documentation system (documentation audit)

Category Description Section 729; 2016 Edition	**Check List Number**	**Check List Description**
Permanent Signs -Ground Mounted	1	Furnish and erect roadway signs, at the locations shown in the Plans, in accordance with the details shown in the Plans. (See Section 729; 2016 Edition and AML
Permanent Signs -Ground Mounted	2	Obtain concrete from a fabrication facility that is listed on the Department's list of concrete producers
Permanent Signs -Ground Mounted	3	Multi-post and overhead sign structures shall be fabricated in a facility that is listed on the Department's list of fabricators with an accepted quality control program, meeting the requirements of Section 729; 2016 Edition.
Permanent Signs -Ground Mounted	4	If signs are stored prior to installation, store them in accordance with the manufacturer's recommendations. Properly package signs to protect them during storage, shipment and handling to prevent damage to the sign face and panel.
Permanent Signs -Ground Mounted	5	The Contractor shall provide certification that the sign assembly meet the material and installation requirements of the contract.
Permanent Signs -Ground Mounted	6	Shop Drawings have been submitted and approved.
Permanent Signs -Ground Mounted	7	Foundations shall be constructed in accordance with applicable Design Standards.
Permanent Signs -Ground Mounted	8	If applicable, Signs not erected until the concrete strength in the support footing is at least 2,500 psi.
Permanent Signs -Ground Mounted	9	Support posts for all frangible sign assemblies consisting of aluminum tubes up to 3 1/2 inches outside diameter with 3/16-inch wall thickness in accordance with the requirements in the Design Standards.
Permanent Signs -Ground Mounted	10	All slip bases must be fabricated in accordance with the requirements of the Design Standards.
Permanent Signs -Ground Mounted	11	Verify the length of the column supports in the field prior to fabrication to permit the appropriate sign mounting height. Fabricate the supports and wind beams in accordance with the Design Standards. Panels must be level with the proper orientation.
Permanent Signs -Ground Mounted	12	Verify dimensions of ground-mount posts.
Permanent Signs -Ground Mounted	13	Verify that breakaway supports are used where indicated.
Permanent Signs -Ground Mounted	14	Verify that posts/columns are installed plumb.
Permanent Signs -Ground Mounted	15	Signs and sign structures erected in accordance with the details shown in the Plans.
Permanent Signs -Ground Mounted	16	Verify that signs are properly stenciled with fabrication date, fabricator, and installation date.
Permanent Signs -Ground Mounted	17	Verify that bolt is tightened to the required torque. Verify all bolt threads are burred after tightening of the nuts.

Permanent Signs -Ground Mounted	18	Verify CC and Construction Inspection Fab. Report for sign mounts and all permanent traffic signs is in documentation system (documentation audit)
Permanent Signs -Ground Mounted	19	All nuts and bolts on signs are installed and tightened to their appropriate torque. Verify CC for all hardware is in documentation system (documentation audit)

Category Description Section 729; 2016 Edition	**Check List Number**	**Check List Description**
Permanent Signs -Overhead	1	Furnish and erect roadway signs, at the locations shown in the Plans, in accordance with the details shown in the Plans. (See Section 729; 2016 Edition and AML
Permanent Signs -Overhead	2	Obtain concrete from a fabrication facility that is listed on the Department's list of concrete producers with an accepted quality control program, meeting the requirements of Section 729; 2016 Edition.
Permanent Signs -Overhead	3	Multi-post and overhead sign structures shall be fabricated in a facility that is listed on the Department's list of fabricators with an accepted quality control program, meeting the requirements of Section 729; 2016 Edition.
Permanent Signs -Overhead	4	If signs are stored prior to installation, store them in accordance with the manufacturer's recommendations. Properly package signs to protect them during storage, shipment and handling to prevent damage to the sign face and panel.
Permanent Signs -Overhead	5	The Contractor shall provide certification that the sign assembly meet the material and installation requirements of the contract.
Permanent Signs -Overhead	6	Shop Drawings have been submitted and approved.
Permanent Signs -Overhead	7	Obtain reinforcing steel, multi-post and overhead sign structures from a fabrication facility that is listed on the Department's list of steel producers with an accepted quality control program
Permanent Signs -Overhead	8	Only use structural steel, including bolts, nuts, and washers, that have been hot dip galvanized or metalized after fabrication. Perform hot dip galvanizing in accordance with Section 811.08; 2016 Edition and metalizing in accordance with Section 811.08.2; 2016 Edition
Permanent Signs -Overhead	9	For galvanized steel members, meet the general requirements of Section. Obtain galvanized steel from a fabrication facility that is listed on the Department's list of galvanizers with an accepted quality control program, meeting the requirements of Section 811.08; 2016 Edition.
Permanent Signs -Overhead	10	Foundations meet the requirements of Section 805; 2016 Edition.
Permanent Signs -Overhead	11	Verify that posts/columns are installed plumb.
Permanent Signs -Overhead	12	Verify that all nut and anchor bolts are installed as per plan
Permanent Signs -Overhead	13	Signs not erected until the concrete strength in the support footing is at least 2,500 psi.
Permanent Signs -Overhead	14	Signs and sign structures erected in accordance with the details shown in the Plans.
Permanent Signs -Overhead	15	Verify that signs are properly stenciled with fabrication date, fabricator, and installation date.
Permanent Signs -Overhead	16	Verify that bolt is tightened to the required torque.
Permanent Signs -Overhead	17	Verify all bolt threads are burred after tightening of the nuts.
Permanent Signs -Overhead	18	All nuts and bolts on signs are installed and tightened to their appropriate torque. Verify CC for all hardware is in documentation system (documentation audit)

Category Description Section 731; 732; 2016 Edition	**Check List Number**	**Check List Description**
Traffic Control Aids (Permanent) - Pavement Markings	1	Width and spacing of marking is per plans.
Traffic Control Aids (Permanent) - Pavement Markings	2	The retro-reflectivity is in accordance with Specs.
Traffic Control Aids (Permanent) - Pavement Markings	3	Verify surface is cleaned and prepared according to specs
Traffic Control Aids (Permanent) - Pavement Markings	4	Raised Pavement Markers (RPM's) are installed per Spec. and Indexes.
Traffic Control Aids (Permanent) - Pavement Markings	5	Pavement markings which do not appear to meet the initial retro-reflectivity are tested by LADOTD within 3 days of receipt of DB's certification.
Traffic Control Aids (Permanent) - Pavement Markings	6	Verify certifications for materials, including manufacturer's name and lot numbers for paint and spheres.
Traffic Control Aids (Permanent) - Pavement Markings	7	Verify surface cleanliness prior to application of materials.
Traffic Control Aids (Permanent) - Pavement Markings	8	Verify stripe alignment, width, thickness, and spacing is in accordance with plans.
Traffic Control Aids (Permanent) - Pavement Markings	9	Verify pavement messages are in accordance with plans and standards.
Traffic Control Aids (Permanent) - Pavement Markings	10	Verify application rate of paint and glass spheres.
Traffic Control Aids (Permanent) - Pavement Markings	11	Verify equipment used for heating of bituminous adhesive (Striping Materials) is compliant with specifications 711-3.
Traffic Control Aids (Permanent) - Pavement Markings	12	Verify plumbness of object markers and delineators.

Category Description Section 736; 1020; 2016 Edition	**Check List Number**	**Check List Description**
Signalization - Mast Arms	1	See Section 736 and 1020; 2016 Edition.
Signalization - Mast Arms	2	A pre-installation meeting should be conducted with DB maintaining agency, etc. to discuss signalization issues.
Signalization - Mast Arms	3	Confirm Drilled Shaft Installation Plan is submitted and approved.
Signalization - Mast Arms	4	Mast arm foundations constructed in accordance with the Contract Documents.
Signalization - Mast Arms	5	Upon delivery, verify mast arm dimensions match the shop drawings and Plans.
Signalization - Mast Arms	6	Wire the signal cable in the mast arms in accordance with the Contract Documents and/or the maintaining agency's color code.
Signalization - Mast Arms	7	Verify that mast arms are secured with nuts that are approved by the manufacturer.

Category Description Section 736; 1020; 2016 Edition	**Check List Number**	**Check List Description**
Signalization - Acceptance Procedures	1	See Section 736 and 1020; 2016 Edition and AML
Signalization - Acceptance Procedures	2	A pre-installation meeting should be conducted with DB & LADOTD District Traffic Operations Engineer to discuss signalization issues.
Signalization - Acceptance Procedures	3	Witness completion of all field testing with DB representative.
Signalization - Acceptance Procedures	4	Warranty Period: Meet with DB and the District Traffic Operations Engineer to discuss method of handling warranty period. Record model and serial numbers of electronic equipment. Establish a method to track all trouble calls during the warranty period. Notify DB of equipment malfunctions during the life of the contract and document DB response times. Record and track all equipment malfunctions and repairs during the life of the contract. Provide a letter to the maintaining agency and DB documenting the beginning and anticipated end of the warranty period.

Category Description Section 736; 1020; 2016 Edition	**Check List Number**	**Check List Description**
Signalization - Signal Installation Grounding	1	See Section 736 and 1020; 2016 Edition and AML
Signalization - Signal Installation Grounding	2	Installation of the required number and length of ground rods to be observed.
Signalization - Signal Installation Grounding	3	The resistance of each ground rod is to be measured and recorded (if required by contract Specifications) and the buried location of each ground rod is to be staked.
Signalization - Signal Installation Grounding	4	Ensure that all separately grounded elements at an intersection are bonded to form an intersection grounding network.
Signalization - Signal Installation Grounding	5	Verify that as-built placement of ground rods is recorded.
Signalization - Signal Installation Grounding	6	Witness the grounding test.

Category Description Section 736; 1020; 2016 Edition	**Check List Number**	**Check List Description**
Signalization - Conduit and Signal and Interconnect Cable	1	See Section 736 and 1020; 2016 Edition and AML
Signalization - Conduit and Signal and Interconnect Cable	2	Conduit used is the proper type for the type of installation being performed. The conduit is installed at the proper depth.
Signalization - Conduit and Signal and Interconnect Cable	3	The proper number of conduit stub-outs, including spares, is provided through the cabinet base.
Signalization - Conduit and Signal and Interconnect Cable	4	All conduit trenches are appropriately backfilled.
Signalization - Conduit and Signal and Interconnect Cable	5	Seal conduit ends in a controller base, pole, pull box, junction box, or pedestal with approved moisture resistant material
Signalization - Conduit and Signal and Interconnect Cable	6	Signal and interconnect cables meet standard requirements.
Signalization - Conduit and Signal and Interconnect Cable	7	Continuous lengths of cable between the controller cabinets, disconnect hangers (or signal heads for nonspan wire installations), pedestrian signal heads, and pedestrian detectors shall be provided.
Signalization - Conduit and Signal and Interconnect Cable	8	The interconnect cable is to be installed in continuous lengths to and between controller cabinets and junction boxes.
Signalization - Conduit and Signal and Interconnect Cable	9	The signal cable is to be properly attached to the messenger wire.
Signalization - Conduit and Signal and Interconnect Cable	10	Pull wire or cord is installed per Section 736 and 1020; 2016 Edition and AML
Signalization - Conduit and Signal and Interconnect Cable	11	Verify that conduit is placed in accordance with plans and shop drawings.
Signalization - Conduit and Signal and Interconnect Cable	12	Verify size and number of wires in each conduit run.
Signalization - Conduit and Signal and Interconnect Cable	13	Verify that there are no splices between elements in signal wires.

Category Description Section 736; 1020; 2016 Edition	**Check List Number**	**Check List Description**
Signalization - Pull and Fiber Optic Boxes	1	See Section 736 and 1020; 2016 Edition and AML
Signalization - Pull and Fiber Optic Boxes	2	Verify that box is listed on AML and is marked with the AML certification number.
Signalization - Pull and Fiber Optic Boxes	3	For fiber optic pull boxes, install ground rods and tone wire as required and shown in the Plans. Tone wire is to be terminated at the first and last pull boxes in the conduit run or as shown in the Plans.
Signalization - Pull and Fiber Optic Boxes	4	Store a total of 200 feet of fiber optic cable in fiber optic splice boxes, with 100 feet of cable on each side of the cable splice point or as shown in the Plans.
Signalization - Pull and Fiber Optic Boxes	5	Store 45 Feet of spare fiber optic cable in fiber optic pull boxes.
Signalization - Pull and Fiber Optic Boxes	6	Do not place the pull or fiber optic boxes in roadways, driveways, parking areas, ditches, or public sidewalk curb ramps.
Signalization - Pull and Fiber Optic Boxes	7	Ensure that all pull box covers include words describing the application for which it is to be used, such as "LADOTD TRAFFIC SIGNAL" (signalized intersection applications), LADOTD FIBER OPTIC CABLE (fiber optic cable applications), LADOTD ELECTRICAL (other electrical applications), LADOTD LIGHTING (highway lighting applications), LADOTD TRAFFIC MONITORING (traffic monitoring applications), or text as shown in the Plans permanently cast into their top surface.
Signalization - Pull and Fiber Optic Boxes	8	Never place expansion material around pull boxes in sidewalk. The pull box must bond to the sidewalk to avoid differential settlement.

Category Description Section 736; 1020; 2016 Edition	**Check List Number**	**Check List Description**
Signalization - Signal Head Assemblies	1	See Section 736 and 1020; 2016 Edition and AML
Signalization - Signal Head Assemblies	2	Verify that the Light Emitting Diodes (LEDs) modules are listed on the AML.
Signalization - Signal Head Assemblies	3	Traffic signal heads are installed in the proper location, aimed properly, and set with the proper horizontal and vertical clearances.
Signalization - Signal Head Assemblies	4	For vertically mounted 5-section clusters, construct the signal assembly so that door hinges are located along the outside edges of the complete signal assembly and each section opens away from the horizontally adjacent section.

Category Description Section 736; 1020; 2016 Edition	**Check List Number**	**Check List Description**
Signalization - Inductive Loop Detectors	1	See Section 736 and 1020; 2016 Edition and AML.
Signalization - Inductive Loop Detectors	2	Use inductive loop detectors, preformed loop assemblies and loop sealant on LADOTD's AML.
Signalization - Inductive Loop Detectors	3	Confirm that loop wire, lead-in cable, and splicing materials meet the standard requirements.
Signalization - Inductive Loop Detectors	4	The required number and type of inductive loop assemblies is installed in accordance with the Plans.
Signalization - Inductive Loop Detectors	5	All loop assemblies are installed at the proper distance from the stop bars.
Signalization - Inductive Loop Detectors	6	All loop assemblies to be installed in accordance with Section 736 and 1020; 2016 Edition and AML
Signalization - Inductive Loop Detectors	7	All loop wires are held down to the bottom of the saw cut with proper hold down material and then properly sealed.
Signalization - Inductive Loop Detectors	8	All wires are megged out for correct resistance values.
Signalization - Inductive Loop Detectors	9	Loop wires are spliced as detailed in index and spec.
Signalization - Inductive Loop Detectors	10	Verify that the proper number of loops are installed at each location shown on the plans.
Signalization - Inductive Loop Detectors	11	Verify resistance testing of loops.

Category Description Section 736; 1020; 2016 Edition	**Check List Number**	**Check List Description**
Signalization - Controller Cabinets	1	See Section 736 and 1020; 2016 Edition and AML.
Signalization - Controller Cabinets	2	Controller cabinet is on the AML.
Signalization - Controller Cabinets	3	Controller cabinet is sealed at its contact to the concrete base and all field wiring is neatly bundled and labeled.
Signalization - Controller Cabinets	4	Make sure that Contractor is connecting all fork or ring terminals to the cable conductor ends (signal cable, interconnect cable, loop wires) using a calibrated ratchet crimping tool.

Category Description Section 736; 1020; 2016 Edition	**Check List Number**	**Check List Description**
Signalization - Electrical Power Service	1	See Section 736 and 1020; 2016 Edition.
Signalization - Electrical Power Service	2	For the service disconnect (main circuit breaker) between the meter and the controller cabinet (usually located on a power service pole) use a manually re-settable circuit breaker which has a larger amperage rating than the amperage rating of the equipment circuit breaker to which electrical power is being provided. Note the minimum allowable size for this main circuit breaker is 40 amps where the rating of the equipment circuit breaker to which electrical power is being provided is less than 40 Amps. Use a surge lighting arrestor rated for a maximum permissible line to ground voltage of 175 VAC.

Category Description Lighting Performance Spec.	**Check List Number**	**Check List Description**
Signalization - Final Inspection	1	Verify that proper notice was provided for final inspection.
Signalization - Final Inspection	2	Verify that a punch list was prepared.

Category Description Section 802; 2016 Edition	**Check List Number**	**Check List Description**
Mechanically Stabilized Earth Walls (MSE)	1	Verify the area of the foundation has been proof rolled properly.
Mechanically Stabilized Earth Walls (MSE)	2	Verify that the leveling pad has been constructed in accordance with the shop drawings. (6-inch-thick and 1-foot wide).
Mechanically Stabilized Earth Walls (MSE)	3	Verify that the contractor's surveyor has laid out the leveling pad's beginning, grade breaks, angle points, and end with off-set stakes.
Mechanically Stabilized Earth Walls (MSE)	4	Verify that horizontal gaps in the leveling pad, at grade breaks, are less than 9 inches wide.
Mechanically Stabilized Earth Walls (MSE)	5	Has the contractor marked the MSE Wall panel control points on the leveling pad?
Mechanically Stabilized Earth Walls (MSE)	6	Has the contractor handled and stored and all components in a manner that prevents chipping, cracks, fractures, excessive bending stresses, mud, dirt and debris?
Mechanically Stabilized Earth Walls (MSE)	7	Are precast panels and straps in storage on firm blocking on level ground located immediately adjacent to the attachment device?
Mechanically Stabilized Earth Walls (MSE)	8	Verify all geotextile fabric are covered and protected from sunlight prior to placement and properly stored to prevent damage.
Mechanically Stabilized Earth Walls (MSE)	9	Panels - Verify that the type of panel installed is the panel specified in the approved shop drawings.
Mechanically Stabilized Earth Walls (MSE)	10	Panels - Verify that no panels with bent connector tabs are used, unless approved repair procedure is followed.
Mechanically Stabilized Earth Walls (MSE)	11	Soil Reinforcement (Straps) as per plan. Is the contractor installing the MSE Wall straps in accordance with the shop drawings? Verify size, length, skew angle (15 degrees max) and type of material. If reinforcement needs to be skewed more than 15 degrees, notify the CQAM.
Mechanically Stabilized Earth Walls (MSE)	12	Are strap bolts connected to the MSE Wall Panel tab with nut on the top.
Mechanically Stabilized Earth Walls (MSE)	13	MSE Wall Joints - Have all joints and other wall openings been covered with geotextile fabric. Apply an adhesive approved by the Engineer to the back of the precast component for attachment of the fabric material.
Mechanically Stabilized Earth Walls (MSE)	14	Contractor's checklist has been completed for hold point release.
Mechanically Stabilized Earth Walls (MSE)	15	The First Row of MSE Wall Straps has been installed in accordance with the plans and specifications. This HP should be checked prior to placing fill on top of the first row of MSE Wall Straps. Multiple HP will be required for phased construction. Check List items 1 thru 14 need to be checked and verified to release this Hold Point.
Mechanically Stabilized Earth Walls (MSE)	16	Is contractor slightly battering panels toward the backfill? (approx. 1/2 inch in 4 ft.)
Mechanically Stabilized Earth Walls (MSE)	17	At the time of QA density testing, verify that the horizontal and vertical joints between MSE panels are within design tolerance 3/4 inch + or - 1/4 inch (shop drawing). Measure and the horizontal and vertical joint width at least 4 panels each day. _____ inches

Mechanically Stabilized Earth Walls (MSE)	18	At the time of QA density testing, check top row of panels for level with a 4-ft. level. Anticipated frequency at least 4 panels per day.
Mechanically Stabilized Earth Walls (MSE)	19	At the time of QA density testing, verify that the vertical tolerances (plumbness) and horizontal alignment tolerances do not exceed 3/4 inch when measured with a 10-foot straightedge. Measure at 4 panels each day. _____ inches
Mechanically Stabilized Earth Walls (MSE)	20	At the time of QA density testing, verify the contractor's maximum lift thickness does not exceed 6 inches. Lifts thicker than 6 inches (150 mm) require more energy to compact and may move the panels out of alignment.
Mechanically Stabilized Earth Walls (MSE)	21	At the time of QA density testing, verify the contractor has removed the wooden wedges as soon as the panel above the wedged panel is completely erected and backfilled.
Mechanically Stabilized Earth Walls (MSE)	22	Has the contractor shaped the last level of backfill of the day to direct runoff of rainwater away from the wall face or has provided a positive means of controlling run off away from the wall, such as temporary pipe, etc.?
Mechanically Stabilized Earth Walls (MSE)	23	Are all concrete piling in the MSE Wall fill wrapped with two independent layers of 6 mil plastic with lubricating oil between the layers?
Mechanically Stabilized Earth Walls (MSE)	24	Has the Panel Arrest System (PAS) been installed in accordance with the approved shop drawings and is Panel Arrest System (PAS) connection to the pile made properly?
Mechanically Stabilized Earth Walls (MSE)	25	Is an All-Thread Tension Bar used at locations where the PAS strap is skewed
Mechanically Stabilized Earth Walls (MSE)	26	Verify that the final overall vertical tolerance of the completed wall (plumbness from top to bottom) does not exceed 1/2 inch per 10 feet of wall height.
Mechanically Stabilized Earth Walls (MSE)	27	Is potable water being used for soil compaction (Spec. 923) (No salt or brackish water)? Water testing is required if non-potable water is used.
Mechanically Stabilized Earth Walls (MSE)	28	DO NOT allow excavations in close proximity in front of the wall once the wall construction has started without the CQAM approval. Also, excavations in front of the wall should not be allowed without protection to the wall (i.e. sheet piles, etc.).
Mechanically Stabilized Earth Walls (MSE)	29	Verify soil reinforcement near the top of the wall is installed parallel to the lifts of fill, unless a slight bending (within 15 degrees) is indicated in the shop drawings to accommodate a structure or subgrade.
Mechanically Stabilized Earth Walls (MSE)	30	If there is a conflict with a structure not show in the shop drawings, has direction been provided by the EOR.
Mechanically Stabilized Earth Walls (MSE)	31	If Flowable Fill is used - Make sure any metallic components of the wall are not in partial contact with the flowable fill. Metallic components must be completely encapsulated by the flowable fill.
Mechanically Stabilized Earth Walls (MSE)	32	Do the RFC plans call for corner panels at all corners? If corner panels are not indicated on the Plans, contact the QAM immediately.
Mechanically Stabilized Earth Walls (MSE)	33	Coping - If precast coping is used, ensure top panels have dowels that shall extend into the cast-in-place Buildup concrete. Ensure the

		placement of one-half inch minimum preformed expansion material between wall panels and cast-in-place concrete.

Category Description Section 802;807; 2016 Edition	**Check List Number**	**Check List Description**
Temporary Critical Sheet Pile Wall	1	The contractor shall protect existing structures, including MSE walls and embankments.
Temporary Critical Sheet Pile Wall	2	Steel sheet piling shall be ASTM A328 or ASTM A572
Temporary Critical Sheet Pile Wall	3	The contractor has suitable equipment and takes appropriate measures to achieve the required tip elevation.
Temporary Critical Sheet Pile Wall	4	Excavate soils to a depth of no more than 2 feet below waler/anchor elevation, as shown in the plan.
Temporary Critical Sheet Pile Wall	5	Prestressed soil anchors shall be constructed and tested in accordance of the standard specifications.
Temporary Critical Sheet Pile Wall	6	Adjustment to anchor spacing shall not exceed 3" without approval and to be included in the shop drawings.
Temporary Critical Sheet Pile Wall	7	Waler beam shall be continuous across a minimum of three anchors.
Temporary Critical Sheet Pile Wall	8	If abandoned, the steel sheet piling shall be cut off a minimum of 1 foot below the bottom of the roadway sub-base with engineers' approval.

Category Description Section 802; 2016 Edition	**Check List Number**	**Check List Description**
Mechanically Stabilized Earth Walls (MSE)- Cast In Place Coping	1	Verify that form dimensions are in accordance with the plans.
Mechanically Stabilized Earth Walls (MSE)- Cast In Place Coping	2	Verify that forms are clean.
Mechanically Stabilized Earth Walls (MSE)- Cast In Place Coping	3	Verify size and clearance of reinforcing steel.
Mechanically Stabilized Earth Walls (MSE)- Cast In Place Coping	4	Verify that reinforcing steel is tied at the proper intersections.
Mechanically Stabilized Earth Walls (MSE)- Cast In Place Coping	5	Verify that forms are adequately braced.
Mechanically Stabilized Earth Walls (MSE)- Cast In Place Coping	6	Contractor's checklist has been completed for hold point release.
Mechanically Stabilized Earth Walls (MSE)- Cast In Place Coping	7	Hold Point - Cast in Place MSE Wall Coping forms and reinforcing steel have been installed in accordance with the plans and specifications. Frequency: This HP should be checked prior to placement of concrete.

Category Description Section 803; 2016 Edition	**Check List Number**	**Check List Description**
Drilled Shafts	1	Drilled Shaft Installation Plan: Have an approved copy of the drilled shaft installation plan on site. Review Experience and Personnel Submittal
Drilled Shafts	2	When drilled shaft concrete is placed in any wet shaft, the Geotechnical Foundation Inspector shall provide slump loss test results before drilled shaft concrete operations begin. The tests shall demonstrate that the drilled shaft concrete maintains a slump of at least 5 inches throughout the concrete elapsed time. Inform the CQAM at least 48 hours before performing such tests in order to allow proper Verification of the results. DB shall perform slump loss testing of the drilled shaft mix using a laboratory acceptable to the CQAM.
Drilled Shafts	3	Drilled Shaft Test Hole (method shaft) and Production Shafts: document activities in the Drilled Shaft log forms and note problems in the Daily Report of Construction, test shafts must be removed to 2 ft. [0.6 m] below ground line.
Drilled Shafts	4	Slurry properties: Verify DB performs properly slurry testing at both premix conditions and prior to placement concrete. Density, pH, viscosity and sand content must be within acceptable limits.
Drilled Shafts	5	Verify DB uses proper sample tool to sample and test the slurry prior to placing concrete. Verify that samples are taken at the correct depths.
Drilled Shafts	6	Shaft inspection: when using a shaft inspection device, assist inspector as needed; when shaft inspection device is not used, the shaft bottom must be probed with a solid bar, if possible, or with a weighted line to check for sediments, unevenness and firmness.
Drilled Shafts	7	Temporary casing in drilled shafts supporting miscellaneous structures must be provided with at least one foot above the ground surface to at least five feet below the ground surface.
Drilled Shafts	8	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?
Drilled Shafts	9	Drilled shaft concrete placement must conform to all applicable Specs, including method of placement, pump line requirements, duration of placement, and slump. Concrete must be over-poured until good quality concrete is evident at the top of the shaft.
Drilled Shafts	10	Curing of the top surface of the shaft shall be as specified in Section 803; 2016 Edition and shafts exposed to a body of water shall be protected from the action of the water by leaving the forms or casings in place for a minimum of 7 days unless the concrete has attained a compressive strength of 2500 psi or greater.
Drilled Shafts	11	Reinforcement bars, dimensions, length, spacing and number, must be in accordance with the Contract Documents. Spacers, with the size, frequency and spacing meeting the specifications, must be installed in the cage. CSL access tubes must be installed in all shafts in required numbers and configuration.

Drilled Shafts	12	Verify that Contractor inserts simulated or mock probes in each cross-hole-sonic access tube prior to concreting to ensure the serviceability of the tube. Verify that DB fills access tubes with clean potable water and recap prior to concreting. DB must repair or replace any leaking, misaligned or unserviceable tube prior to concreting.
Drilled Shafts	13	CSL testing performed as required.
Drilled Shafts	14	If the time of excavation exceeds the limits specified in the specifications, over-reaming must be performed.
Drilled Shafts	15	Verify that equipment on site matches the approved Drilled Shaft Installation Plan
Drilled Shafts	16	Verify that the template is adequate to maintain the position of the shaft, If Applicable.
Drilled Shafts	17	Verify that monitoring of existing structures is taking place
Drilled Shafts	18	Verify that the inside diameter of the casing is equal to or greater than the shaft diameter.
Drilled Shafts	19	Verify that embankment has been placed prior to the start of shaft excavation.
Drilled Shafts	20	If wet method is employed, verify that slurry is approved type and properly mixed.
Drilled Shafts	21	Verify that the hole is within 3 inches laterally of the plan location.
Drilled Shafts	22	Verify the vertical alignment of the hole (within 1/4 inch per foot of depth).
Drilled Shafts	23	Verify Contractor is checking of excavation dimensions and alignment. Final depth must be measured.
Drilled Shafts	24	Verify that the bottom of the shaft does not have sedimentary deposits greater than allowed per Spec.
Drilled Shafts	25	Verify that the bottom of the shaft is level.
Drilled Shafts	26	Verify that reinforcing steel is tied at every intersection prior to placement.
Drilled Shafts	27	Verify that side clearances are maintained with the use of approved spacers.
Drilled Shafts	28	Verify that the cage is placed per Section 803; 2016 Edition.
Drilled Shafts	29	Verify that the top of the cage is at the proper elevation.

Category Description Section 804; 2016 Edition	**Check List Number**	**Check List Description**
Pre-Pile Driving	1	When pre-forming pile holes, verify that DB complies with hole sizes and depths covered in the Contract Documents. The void between pile and hole must be filled with approved sand or grout.
Pre-Pile Driving	2	For concrete piles, verify that the proper number of lifting points is used. Piles must also be stored properly.
Pre-Pile Driving	3	Prestressed concrete piles must be inspected for defects as soon as possible upon delivery to the project site. Defects must be reported to the CQAM as soon as possible, but in any case, prior to use.
Pre-Pile Driving	4	Verify jetting operations. Jetting requirements include: no jetting in completed embankments, jetting and driving with external jets requires 2 jets, specific jet nozzle placement; all piles in a group must be jetted prior to driving where practical; and pumps, supply lines and jet pipes per Pile Installation Plan (PIP).
Pre-Pile Driving	5	Verify that Pre-drilling of holes through compacted fill or as starter holes complies with the specifications.
Pre-Pile Driving	6	For proprietary mechanical pile splices - threaded rebars must penetrate into the splice plate at least the distance specified in the shop drawings - verify by measuring the distance from plate top to bar end. (Good practice). Verify that the splice is listed on the AML. Verify Buy America provisions are met, if applicable.
Pre-Pile Driving	7	Verify jetting operations. Jetting requirements include: no jetting in completed embankments, jetting and driving with external jets requires 2 jets, specific jet nozzle placement; all piles in a group must be jetted prior to driving where practical; and pumps, supply lines and jet pipes per Pile Installation Plan (PIP).
Pre-Pile Driving	8	Verify that Pre-drilling of holes through compacted fill or as starter holes complies with the specifications.
Pre-Pile Driving	9	For proprietary mechanical pile splices - threaded rebars must penetrate into the splice plate at least the distance specified in the shop drawings - verify by measuring the distance from plate top to bar end. (Good practice). Verify that the splice is listed on the AML. Verify Buy America provisions are met, if applicable.

Category Description Section 804; 2016 Edition	**Check List Number**	**Check List Description**
Pile Driving	1	Verify Pile Installation Plan and WEAP data
Pile Driving	2	Verify pile type, size, and approved lengths and Certificate of Delivery (CD)
Pile Driving	3	Comply with the pile driving criteria, making sure of not exceeding the maximum strokes defined in the driving criteria letter. Do not drive under refusal conditions.
Pile Driving	4	Verify that DB maintains proper alignment of leads and pile within tolerances.
Pile Driving	5	Verify pile driving log, keeping special driving procedures and precautions in mind. For open-end diesel hammers, a device to determine ram stroke is required. Detailed bearing and penetration requirements are covered in the specifications. Detailed set check and redrive procedures are covered in the Specifications related to blow count interval, same pile cushion, and hammer warm up.
Pile Driving	6	Splices and Buildups for concrete and steel piles must be performed properly. Verify condition and alignment of pile
Pile Driving	7	Final pile top elevation and alignment must be within tolerance, (strands and reinforcement must be severed prior to breaking of piles that require cut off and pile must be visually checked for deficiencies after driving is complete).
Pile Driving	8	Verify bearing capacity as per plans

Category Description Section 805;806; 2016 Edition	**Check List Number**	**Check List Description**
Bridge Structures - General Concrete - Forming and Placing and Tying Rebars	1	The ground on which concrete or formwork shall be supported for pile and drilled shaft footings must be prepared and compacted properly, prior to form setting.
Bridge Structures - General Concrete - Forming and Placing and Tying Rebars	2	Form material must be approved and must have the proper dimensions, chamfers, positioning, bracing, friction collars, release agent, and be free of dirt or any other debris. CQAM must approve forms, including Stay-In-Place (SIP), prior to concrete placement. Check for coating defects on all surfaces of polymer coated SIP form elements prior to their installation.
Bridge Structures - General Concrete - Forming and Placing and Tying Rebars	3	Falsework should be reviewed by the CQAM prior to any concrete placements. Falsework and shoring requiring shop drawings must be inspected and certified by the Specialty Engineer prior to concrete placement.
Bridge Structures - General Concrete - Forming and Placing and Tying Rebars	4	Storing, placing, and tying rebar must be done properly.
Bridge Structures - General Concrete - Forming and Placing and Tying Rebars	5	Rebar placing, tying and support concerns: placement tolerances, securing and lapping of splices, mortar block composition and fastening. If form bottom is 12 feet or less above mean high water and environment is extremely aggressive, use of metal chairs or bolsters in contact with forms is not permitted. In slightly aggressive environments, continuous rails of steel bolsters are permitted to be in direct contact with removable forms. Molded plastic rails may not be in contact with removable forms.
Bridge Structures - General Concrete - Forming and Placing and Tying Rebars	6	Footing rebars: use double strand single tie at all perimeter intersections and at alternating interior intersections.
Bridge Structures - General Concrete - Forming and Placing and Tying Rebars	7	Column hoops shall be tied to the vertical bars at every intersection by a cross or figure 8 tie.
Bridge Structures - General Concrete - Forming and Placing and Tying Rebars	8	Verify that bars are placed within 1" of plan position.
Bridge Structures - General Concrete - Forming and Placing and Tying Rebars	9	For footing: Verify that bottom mat of reinforcing steel is supported.
Bridge Structures - General Concrete - Forming and Placing and Tying Rebars	10	For Footing: Verify that bottom clearance of reinforcing steel is within 1/2 inch of vertical plan position
Bridge Structures - General Concrete - Forming and Placing and Tying Rebars	11	For Footing: Verify top clearance of top mat.
Bridge Structures - General Concrete - Forming and Placing and Tying Rebars	12	For Footing: Verify that spacing between mats is per plan.

Bridge Structures - General Concrete - Forming and Placing and Tying Rebars	13	For Footing: Verify that top mat is adequately supported.
Bridge Structures - General Concrete - Forming and Placing and Tying Rebars	14	For Footing/Stems/Columns/Backwalls: Verify that reinforcing steel in tied 100% at periphery and at alternating intersections inside.
Bridge Structures - General Concrete - Forming and Placing and Tying Rebars	15	For Caps: Verify that reinforcing steel is tied 100% at every intersection.
Bridge Structures - General Concrete - Forming and Placing and Tying Rebars	16	Verify that clearances at ends and sides of bars are within 1" of plan clearance.
Bridge Structures - General Concrete - Forming and Placing and Tying Rebars	17	Verify that bars are clean and free from loose rust, scale, etc.
Bridge Structures - General Concrete - Forming and Placing and Tying Rebars	18	Verify that extended bars are located within 1/2 inch of plan location and held securely.
Bridge Structures - General Concrete - Forming and Placing and Tying Rebars	19	For Stems/columns/backwalls: Verify that age/strength requirements are met for the footing prior to placing forms.
Bridge Structures - General Concrete - Forming and Placing and Tying Rebars	20	For Stems/Columns/Backwalls and CAPs: Verify that reinforcing is held off of forms.
Bridge Structures - General Concrete - Forming and Placing and Tying Rebars	21	For CAPS: Verify that age/strength requirements are met for column prior to placing forms.
Bridge Structures - General Concrete - Forming and Placing and Tying Rebars	22	For CAPS: Verify the pedestal elevation is per plan.
Bridge Structures - General Concrete - Forming and Placing and Tying Rebars	23	Wall rebars shall be tied with a cross or figure 8 tie at all perimeter intersections and at a minimum, every third interior intersection.
Bridge Structures - General Concrete - Forming and Placing and Tying Rebars	24	Beam and cap rebars: Heavy beam bolsters must be used for bottom and top mats of rebars and spacing and positioning is critical. Tying shall be double strand single ties at all intersections.
Bridge Structures - General Concrete - Forming and Placing and Tying Rebars	25	Verify bars and spirals are on AML and CA is on file. Sample if CA not provided (OVF to submit to Materials Lab)
Bridge Structures - General Concrete - Forming and Placing and Tying Rebars	26	Verify mechanical butt splices are on AML. OVF to submit to Materials Lab. Verify in documentation system.

Category Description Section 805;806; 2016 Edition	**Check List Number**	**Check List Description**
Bridge Structures - General Concrete - Placing Concrete	1	There are temperature restrictions for mixing and placing concrete when very hot or very cold, requirements for keeping concrete warm when cold and for retarding when hot, and for monitoring mass concrete temperature gradient. Do not remove the temperature control mechanisms until the core temperature is within 50 degrees F of the ambient temperature.
Bridge Structures - General Concrete - Placing Concrete	2	Concrete shall not be placed until foundations, forms, falsework and rebars have been inspected and approved.
Bridge Structures - General Concrete - Placing Concrete	3	Placement concerns: placement in the final position and in level layers, no movement with a vibrator, no displacement of rebars, no aggregate segregation or separation, and vibrations from adjacent equipment or operations must be controlled.
Bridge Structures - General Concrete - Placing Concrete	4	Belt conveyors for concrete placement must be approved.
Bridge Structures - General Concrete - Placing Concrete	5	If concrete is pumped, the spec. requirements must be met.
Bridge Structures - General Concrete - Placing Concrete	6	Special requirements for placement in successive layers. Ensure vibrator penetration into underlying layer.
Bridge Structures - General Concrete - Placing Concrete	7	Number, type and size of vibrators must be approved and they shall be inserted and withdrawn as near to plumb as possible in a slow and steady manner. Circles of vibrator influence shall overlap to ensure that the entire placement is adequately vibrated. Proper vibration is particularly critical in areas where concrete flow is restricted by dense reinforcement or where concrete shall not readily flow since these areas have a high probability of forming voids or honeycomb.
Bridge Structures - General Concrete - Placing Concrete	8	Columns shall be placed in one continuous operation unless construction joints are shown in the Plans.
Bridge Structures - General Concrete - Placing Concrete	9	For slabs, screeding system must be demonstrated and approved prior to placement and concrete must be placed in continuous strips (transverse or longitudinal) with no time for initial set between strips except at planned joints.
Bridge Structures - General Concrete - Placing Concrete	10	Unhardened concrete must be completely protected from rain and runoff by an approved system. Do not place concrete during rain.

Category Description Section 805; 901; 2016 Edition	**Check List Number**	**Check List Description**
Bridge Structures - General Concrete - Curing, Form Removal, and Final Finishing	1	No further curing is required if forms are kept in place, without loosening, for a least 72 hours but if before 72 hours, an approved curing method must be used.
Bridge Structures - General Concrete - Curing, Form Removal, and Final Finishing	2	Proper application of an approved membrane curing compound at 1 gallon/100 square feet (.09gal/Sq. Yd) of surface area.
Bridge Structures - General Concrete - Curing, Form Removal, and Final Finishing	3	Covers for continuous moisture curing shall be kept continuously wet for at least 7 days; 14 days for decks
Bridge Structures - General Concrete - Curing, Form Removal, and Final Finishing	4	Construction joints must be cured using either continuous moisture or curing blankets method.
Bridge Structures - General Concrete - Curing, Form Removal, and Final Finishing	5	Time of removal of forms shall be determined from compressive strength tests as per Section 805.07; 2016 Edition.
Bridge Structures - General Concrete - Curing, Form Removal, and Final Finishing	6	Concrete in cofferdams must not be exposed to the action of water prior to final set and must not be exposed to salt or brackish water for 7 days after placement.
Bridge Structures - General Concrete - Curing, Form Removal, and Final Finishing	7	Remove form tie ends and irregular projections and patch void, honeycomb and form tie voids with mortar material and use methods that comply with specs.
Bridge Structures - General Concrete - Curing, Form Removal, and Final Finishing	8	For mass elements, the Contractor is required to provide temperature readings to the CQAM as they are determined.
Bridge Structures - General Concrete - Curing, Form Removal, and Final Finishing	9	For mass elements Section 901.12; 2016 Edition and the requirements of the mass concrete plan.

Category Description Section 805; 901; 2016 Edition	**Check List Number**	**Check List Description**
Bridge Structures - General Concrete - Crack Inspection	1	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.
Bridge Structures - General Concrete - Crack Inspection	2	Measure the width, length, depth (coring may be needed), termination points and precise location of all cracks and display, to scale, the results on a drawing referred to as a crack map. After initial inspection determine the cause of the cracks, monitor the cracks and document the growth of individual cracks. Use a pocket microscope to measure crack widths of 25 mils or less. Determine if cracks are structural or nonstructural and determine the repair of nonstructural cracks.

Category Description Section 807; 2016 Edition	**Check List Number**	**Check List Description**
Bridge Structures - Beams	1	Verify that MOT setup is per approved plan.
Bridge Structures - Beams	2	Verify Certificate of Delivery (CD) and inspector's stamp of approval
Bridge Structures - Beams	3	Verify shop drawings and mill test reports
Bridge Structures - Beams	4	Store concrete beams in an upright position on proper dunnage, support at the proper locations under the beam and report excess camber or sweep. Prestressed beams must be inspected for defects upon delivery to the project site and defects must be reported to the CQAM immediately.
Bridge Structures - Beams	5	Concrete Beams shall be handled carefully and lifted only at pickup points identified in the Contract Documents.
Bridge Structures - Beams	6	Verify that the crane leads are securely attached and lifting is done in a safe manner.
Bridge Structures - Beams	7	Concrete and steel beams should be erected according to the framing plan and the centerline of beam bearing point must coincide with the centerline of the bearing area, longitudinally and transversely. For construction affecting public safety, beam stability calculations must be submitted for CQAM review as well as an erection plan by a Specialty Engineer who must personally inspect the initially erected structure in the field. Daily Contactor inspections of erected members are required until diaphragms and cross frames or decks are in place. For all steel, erection plan must be reviewed by the CQAM prior to the start of erection.
Bridge Structures - Beams	8	Store steel beams according to item 5 above, and surfaces should be kept free of dirt, oil or any other foreign matter. Shear studs must be installed in the field only and results of shear stud bend tests must be recorded.
Bridge Structures - Beams	9	Field assembly of steel beam component parts shall be done by the use of methods and devices unlikely to produce damage by twisting, bending or otherwise deforming the metal and if weathering steel, meet special requirements. For all beams, assembly and disassembly of falsework that temporarily supports any permanent structural component must be in compliance with erection plan and approved shop drawings. Immediately report violations of the erection plan, or falsework systems that seem to be inadequate, to the CQAM.
Bridge Structures - Beams	10	During steel beam erection, before bolting, beams shall be adjusted to correct grade and alignment and field connections shall be securely drift-pinned before bolting - at least 50% of bolts should be in place at major connections prior to release. Conduct a substructure survey prior to erection and report discrepancies to the CQAM for resolution. Correction of significant beam misalignments must be approved by the EOR before implementation.
Bridge Structures - Beams	11	Concerns for all beams: damage or flaws such as kinks, warps, bends, cracks, plates out of plumbness or squareness; pickup points in proper location; producer acceptance stamp, certification and beam identification; proper storage; correct beam lengths prior to shipment;

		erect beams at fixed bearings first; and do not place the weight of the superstructure or of beams on the caps until the cap concrete has reached allowable compressive strength.

Category Description Section 805; 806; 2016 Edition	**Check List Number**	**Check List Description**
Bridge Structures - Concrete Decks - Forming, Placing and Tying Rebars, and Screed Dry Run	1	Removable form concerns: form material and dimensions, accurate positioning, and adequate capacity to support the load of plastic concrete.
Bridge Structures - Concrete Decks - Forming, Placing and Tying Rebars, and Screed Dry Run	2	Stay-in-place (SIP) metal form systems must conform to Section 805.03.5 and 1013.28; 2016 Edition. Check for coating defects on all surfaces of polymer coated SIP form elements prior to their installation.
Bridge Structures - Concrete Decks - Forming, Placing and Tying Rebars, and Screed Dry Run	3	For prestressed concrete beam superstructures, check beam cambers and adjust forms for deviations in camber from those shown in the Plans. Discuss this issue at the preconstruction conference.
Bridge Structures - Concrete Decks - Forming, Placing and Tying Rebars, and Screed Dry Run	4	Expansion joints may be placed before or after grinding but must be within strict tolerances in either case.
Bridge Structures - Concrete Decks - Forming, Placing and Tying Rebars, and Screed Dry Run	5	Rebars shall be stored properly and be free of foreign matter. Hot bending, welding or flame cutting are not allowed.
Bridge Structures - Concrete Decks - Forming, Placing and Tying Rebars, and Screed Dry Run	6	Each rebar shall be tied within 1" of plan position and splices shall be securely clamped or tied.
Bridge Structures - Concrete Decks - Forming, Placing and Tying Rebars, and Screed Dry Run	7	Tying for each mat: a double strand single tie used at every intersection on the periphery and for all other intersections, every third location.
Bridge Structures - Concrete Decks - Forming, Placing and Tying Rebars, and Screed Dry Run	8	Use of metal chairs, ties, hangers for reinforcement support. Precast concrete blocks have to be approved by CQAM
Bridge Structures - Concrete Decks - Forming, Placing and Tying Rebars, and Screed Dry Run	9	Performed after rebars have been placed and screed rails and headers are set. Thickness and clearances should be checked in every bay at longitudinal intervals not greater than 10 ft.
Bridge Structures - Concrete Decks - Forming, Placing and Tying Rebars, and Screed Dry Run	10	Deck thickness and rebar clearance measurements should be taken from the bottom of the screed rollers and the screed rollers should be directly over the point where the measurement is to be taken. No deck concrete placement shall be allowed if the deck thickness measurement during the dry run is less than the required plan thickness. Check haunch depths.
Bridge Structures - Concrete Decks - Forming, Placing and Tying Rebars, and Screed Dry Run	11	Verify dimension of overhangs.
Bridge Structures - Concrete Decks - Forming, Placing and Tying Rebars, and Screed Dry Run	12	Verify shape, slope, and drip-notch at overhangs.
Bridge Structures - Concrete Decks - Forming, Placing and Tying Rebars, and Screed Dry Run	13	Verify chamfers are used where required.
Bridge Structures - Concrete Decks - Forming, Placing and Tying Rebars, and Screed Dry Run	14	Verify side forms are vertical.

Bridge Structures - Concrete Decks - Forming, Placing and Tying Rebars, and Screed Dry Run	15	Verify cross-slope of forms at several locations.
Bridge Structures - Concrete Decks - Forming, Placing and Tying Rebars, and Screed Dry Run	16	Verify spacing of overhang bucks is close enough to prevent deflection.
Bridge Structures - Concrete Decks - Forming, Placing and Tying Rebars, and Screed Dry Run	17	Verify that panels are not bent or damaged.
Bridge Structures - Concrete Decks - Forming, Placing and Tying Rebars, and Screed Dry Run	18	Verify that construction joints are located at the bottom of a flute.
Bridge Structures - Concrete Decks - Forming, Placing and Tying Rebars, and Screed Dry Run	19	Verify that 1/4-inch holes are drilled at no more than 12 inches spacing for drainage.
Bridge Structures - Concrete Decks - Forming, Placing and Tying Rebars, and Screed Dry Run	20	Verify that re-bars splices are lapped in accordance with plans.
Bridge Structures - Concrete Decks - Forming, Placing and Tying Rebars, and Screed Dry Run	21	Verify that re-bar is tied 100% on periphery and at every third intersection elsewhere.
Bridge Structures - Concrete Decks - Forming, Placing and Tying Rebars, and Screed Dry Run	22	Verify that slab bolsters for the bottom mat are not more than four feet apart.
Bridge Structures - Concrete Decks - Forming, Placing and Tying Rebars, and Screed Dry Run	23	Verify that bottom mat clearance is within 1/4 inch of plan.
Bridge Structures - Concrete Decks - Forming, Placing and Tying Rebars, and Screed Dry Run	24	Verify clearances at ends of bars.
Bridge Structures - Concrete Decks - Forming, Placing and Tying Rebars, and Screed Dry Run	25	Verify certification of welders installing the shear studs.
Bridge Structures - Concrete Decks - Forming, Placing and Tying Rebars, and Screed Dry Run	26	Verify spacing of shear studs in accordance with shop drawings and plans.
Bridge Structures - Concrete Decks - Forming, Placing and Tying Rebars, and Screed Dry Run	27	Verify that arc-shields are in place prior to start of welding.
Bridge Structures - Concrete Decks - Forming, Placing and Tying Rebars, and Screed Dry Run	28	Verify cleanliness of studs and beam flanges.
Bridge Structures - Concrete Decks - Forming, Placing and Tying Rebars, and Screed Dry Run	29	Perform 45-degree bend test on first two studs on each beam.

Bridge Structures - Concrete Decks - Forming, Placing and Tying Rebars, and Screed Dry Run	30	Verify that screed does not dislocate barrier reinforcing steel.
Bridge Structures - Concrete Decks - Forming, Placing and Tying Rebars, and Screed Dry Run	31	Verify that screed is set to proper cross-slope.
Bridge Structures - Concrete Decks - Forming, Placing and Tying Rebars, and Screed Dry Run	32	Verify that there are no leaks (hydraulic fluid, fuel) from the screed.
Bridge Structures - Concrete Decks - Forming, Placing and Tying Rebars, and Screed Dry Run	33	Verify that there is sufficient run-off for the screed to completely finish the deck.

Category Description Section 805; 901; 2016 Edition	**Check List Number**	**Check List Description**
Bridge Structures - Concrete Decks - Placing Deck Concrete, Screeding and Finishing	1	Do not place bridge deck concrete if during placement the average wind velocity forecast exceeds 15 mph as reported by the National Weather Service.
Bridge Structures - Concrete Decks - Placing Deck Concrete, Screeding and Finishing	2	Approvals required for screed or strike off device and concrete placed in continuous strips (transverse or longitudinal) with no time for initial set between strips except at planned joints.
Bridge Structures - Concrete Decks - Placing Deck Concrete, Screeding and Finishing	3	Continuous beam decks must be placed according to the pouring sequence in the Plans. For continuous slabs placed in accordance with a pouring sequence, locate transverse construction joints at the bottom of a stay-in-place form flute.
Bridge Structures - Concrete Decks - Placing Deck Concrete, Screeding and Finishing	4	Minimum concrete placement rate specified in Table 805-5; 2016 Edition. All deck concrete between construction joints must be in place before initial set of any of the concrete begins.
Bridge Structures - Concrete Decks - Placing Deck Concrete, Screeding and Finishing	5	Temporary erection supports must be released for steel beams before deck placement. Intermediate diaphragms must be poured at least 48 hours before deck placement.
Bridge Structures - Concrete Decks - Placing Deck Concrete, Screeding and Finishing	6	Unhardened concrete must be completely protected from rain and runoff by a system that does not make contact with the concrete. Do not place concrete during rain.
Bridge Structures - Concrete Decks - Placing Deck Concrete, Screeding and Finishing	7	Forms and rebar shall be sprayed with fresh cool water just prior to placement of concrete for decks in hot weather. If re-spraying of forms and rebars is required after concrete placement starts, never spray onto the fresh concrete unless specifically authorized by the CQAM.
Bridge Structures - Concrete Decks - Placing Deck Concrete, Screeding and Finishing	8	Prior to all concrete placements, all bulkheads and rails must be set to proper grade and the screed must adjust for all variances.
Bridge Structures - Concrete Decks - Placing Deck Concrete, Screeding and Finishing	9	Intermediate screed rails are not permitted and the screed must comply with the specification.
Bridge Structures - Concrete Decks - Placing Deck Concrete, Screeding and Finishing	10	For short and miscellaneous bridges, the deck must be longitudinally straight edged with a 10-ft. straightedge, half lapped, 5 ft. transversely.
Bridge Structures - Concrete Decks - Placing Deck Concrete, Screeding and Finishing	11	the deck must meet or exceed the profilograph smoothness criteria in LADOTD APPLICATION OF QUALITY ASSURANCE SPECIFICATIONS FOR PORTLAND CEMENT CONCRETE AND STRUCTURES
Bridge Structures - Concrete Decks - Placing Deck Concrete, Screeding and Finishing	12	For short and miscellaneous bridges after water sheen and before initial set, the deck surface must be finished with burlap drag, fine broom or float. No blemishes, marks, or scratches are allowed greater than 1/16" in depth.
Bridge Structures - Concrete Decks - Placing Deck Concrete, Screeding and Finishing	13	Verify tine texturing (1/span/day) (documentation audit)

Bridge Structures - Concrete Decks - Placing Deck Concrete, Screeding and Finishing	14	Proper application of an approved membrane curing compound at 1 gallon/100 square feet (.09gal/Sq. Yds.) of surface area. Verify membrane on AML and CC in documentation system (documentation audit)
Bridge Structures - Concrete Decks - Placing Deck Concrete, Screeding and Finishing	15	Verify pre-pour conference is held and in doc documentation system (documentation audit)

Category Description Section 805; 810; 2016 Edition	**Check List Number**	**Check List Description**
Barrier Wall (Permanent)	1	Falsework should be reviewed by the CQAM prior to any concrete placements. Falsework and shoring requiring shop drawings must be inspected and certified by the Specialty Engineer prior to concrete placement.
Barrier Wall (Permanent)	2	Form material must be approved and must have the proper dimensions, chamfers, positioning, bracing, friction collars, release agent, and be free of dirt or any other debris. CQAM must approve forms, including Stay-In-Place (SIP), prior to concrete placement. Check for coating defects on all surfaces of polymer coated SIP form elements prior to their installation.
Barrier Wall (Permanent)	3	Verify that forms are smooth and mortar-tight.
Barrier Wall (Permanent)	4	Verify alignment of forms, vertically and horizontally.
Barrier Wall (Permanent)	5	Verify that forms are securely in place and will withstand concrete flow and vibration.
Barrier Wall (Permanent)	6	Verify that forms are securely held down to prevent uplift.
Barrier Wall (Permanent)	7	Slip formed traffic barrier concerns: guide string alignment, adequate slip forming machine operation and vibrators, clean deck surface, and rebar cover adjustments made just before the slip former passes.
Barrier Wall (Permanent)	8	Verify clearances on reinforcing steel (back, front, and ends).
Barrier Wall (Permanent)	9	Verify that reinforcing steel is tied sufficiently in accordance with the specifications.
Barrier Wall (Permanent)	10	Verify that spacers used to hold reinforcing steel off of forms have plastic tips.
Barrier Wall (Permanent)	11	Verify location of expansion and contraction joints.
Barrier Wall (Permanent)	12	Verify that all inserts for lighting, etc. are located in accordance with the plans.
Barrier Wall (Permanent)	13	Verify that all inserts are held securely in place.
Barrier Wall (Permanent)	14	Verify that expansion couplings are in place on conduits where the barrier wall has expansion joints.
Barrier Wall (Permanent)	15	Verify that all conduits and piping are water-tight and will not allow intrusion of concrete paste.
Barrier Wall (Permanent)	16	Verifying that concrete being delivered is of an approved mix design for this project.
Barrier Wall (Permanent)	17	Verify the finished concrete surfaces meet specs
Barrier Wall (Permanent)	18	Verify bars are on AML and CA is in documentation system (documentation audit). Sample if CA not provided (OVF to submit to Materials Lab)
Barrier Wall (Permanent)	19	Verify sampling and testing of concrete in accordance Concrete Materials - Sampling and Testing (structural concrete) module

Category Description Section 807; 2016 Edition	**Check List Number**	**Check List Description**
Bridge Structures - Bolts	1	Fastener assemblies shall comply with all materials specs including all required certifications, bolt material test reports, rotational-capacity test reports done by the manufacturer or distributor and be sampled and tested properly.
Bridge Structures - Bolts	2	A bolt LOT tracking and enforcement system shall be maintained during every operation until complete.
Bridge Structures - Bolts	3	Approved bolt lubricants shall be used and proper procedures shall be used for lubricating the required fastener components.
Bridge Structures - Bolts	4	Fastener assembly components shall be packaged, handled and stored properly.
Bridge Structures - Bolts	5	A bolt rotational-capacity per Section 807.05.2.1; 2016 Edition shall be performed at the project site on a minimum of two units of each combination of high strength fastener assemblies prior to their installation.
Bridge Structures - Bolts	6	For general bolt installation, each fastener assembly shall be tightened to at least the tension shown in the specs and there are strict procedures for performing tightening.
Bridge Structures - Bolts	7	Detailed procedures must be followed to establish the correct snug tight torque.
Bridge Structures - Bolts	8	Before bolting begins, connection plate surfaces must be in the proper condition, unless otherwise shown in the Plans, the bolt holes must meet the bolt hole geometry specified in the specification. The plate and hole alignment methods must be done properly.
Bridge Structures - Bolts	9	For snugging bolts in the connection, if an impact wrench is used, the wrench must be set at or above the daily snug tight torque - the inspector should witness the snugging of each bolt. Bolts should be tightened per the spec. requirements for snugging.
Bridge Structures - Bolts	10	For final tightening of the connection, the Turn-Of-Nut or DTI (twist-off bolts are not permitted) method requires very detailed procedures. An inspector must witness the turning of every nut and a washer must be under the element that is turned.
Bridge Structures - Bolts	11	Detailed procedures must be followed for mating and final tightening of bolts for highway sign, traffic signal and lighting structures.
Bridge Structures - Bolts	12	Detailed procedures must be followed for setting, mating and final tightening of nuts on anchor bolts for beam bearings, steel poles, steel mast arms, monotube assemblies and highway sign structures.
Bridge Structures - Bolts	13	Verify that bolts threads are not damaged when placed in connections.
Bridge Structures - Bolts	14	Witness testing of in-place bolts for snug-tight torque.
Bridge Structures - Bolts	15	Verify that the nut is the element being turned unless unable to do so. If bolt head is turned, verify placement of a washer under the bolt head.
Bridge Structures - Bolts	16	Verify that all bolts are all least flush with the flat of the nuts, with no recess, after tightening.
Bridge Structures - Bearings/Beams/Bolts - Buy America	17	Except for steel with a cost of less than 0.1% of total contract amount or $2,500.00, whichever is greater, steel and iron must be produced in

		the U.S. for federally funded projects. Approval to be obtained from LADOTD Construction Engineering Administrator.
Bridge Structures – Bolts	18	Copy of CA to be submitted to Materials Lab with samples (1/type/diameter/heat). Verify results are in documentation system (documentation audit)
Bridge Structures – Bolts	19	Verify Rotational Capacity tests are in documentation system (documentation audit)
Bridge Structures – Bolts	20	Verify wrench calibration and job inspection torque results are in documentation system (documentation audit)

Category Description Section 811; 2016 Edition	**Check List Number**	**Check List Description**
Steel Coating (Painting)	1	Verify that the coating products and systems meet the requirements of Section 811; 2016 Edition and listed on the Departments AML. Use thinners, solvents and cleaners listed on the coating manufacturer's product data sheet. Use caulks that are paintable, compatible with the coating system and recommended by the coating manufacturer as part of the coating system. Store materials in conformance with the manufacturer's recommendations.
Steel Coating (Painting)	2	Isolate the work areas with containment devices, canvasses, tarpaulins or screens during all surface preparation and coating application operations. Dispose of all debris and waste products generated in accordance with all Federal, State and Local regulations.
Steel Coating (Painting)	3	Ensure all surfaces to be coated are clean, dry, and free from oil, grease, dirt, dust, soluble salts, corrosion, peeling coating, caulking, weld spatter, mill scale and any other surface contaminants.
Steel Coating (Painting)	4	For areas requiring blast cleaning, verify that profile has been accepted.
Steel Coating (Painting)	5	Verify that non-welded, plate connections are caulked or sealed per Section 811; 2016 Edition.
Steel Coating (Painting)	6	Do not spray coating when the measured wind speed in the immediate coating area is above 15 miles per hour. Do not apply coatings when contamination from rainfall is imminent or when the ambient air temperature, relative humidity, dew point temperature, or temperature of the steel is outside limits of the coating manufacturer's product data sheet.
Steel Coating (Painting)	7	Verify the coating is applied by certified applicators, if applicable.
Steel Coating (Painting)	8	Protect all surfaces and working mechanisms not intended to be coated during the application of coatings. Clean surfaces that have been contaminated with coatings until all traces of the coating have been removed.
Steel Coating (Painting)	9	Verify paint is mixed according to the manufacturer's recommendation.
Steel Coating (Painting)	10	Use coating application equipment and apply coatings per the coating manufacturer's product data sheet. Apply coatings to the thickness as identified in the manufacturer's product data sheet. After application of each coat, thoroughly inspect the surfaces and measure the dry film thickness (DFT) in accordance with SSPC-PA 2.
Steel Coating (Painting)	11	Apply each coat free of runs, sags, blisters, bubbles, and mud cracking; variations in color, gloss, or texture; holidays; excessive film buildup; foreign contaminants; orange peeling; and overspray.

Category Description Section 813;806; 2016 Edition	**Check List Number**	**Check List Description**
Approach Slabs - General Concrete - Forming and Placing and Tying Rebars	1	The ground on which concrete or formwork must be prepared and compacted properly, prior to form setting.
Approach Slabs - General Concrete - Forming and Placing and Tying Rebars	2	Form material must be approved and must have the proper dimensions, release agent, and be free of dirt or any other debris.
Approach Slabs - General Concrete - Forming and Placing and Tying Rebars	3	Storing, placing, and tying rebar must be done properly.
Approach Slabs - General Concrete - Forming and Placing and Tying Rebars	4	Rebar placing, tying and support concerns: placement tolerances, securing and lapping of splices, mortar block composition and fastening
Approach Slabs - General Concrete - Forming and Placing and Tying Rebars	6	use double strand single tie at all perimeter intersections and at alternating interior intersections.
Approach Slabs - General Concrete - Forming and Placing and Tying Rebars	7	Verify that bars are placed within 1" of plan position.
Approach Slabs - General Concrete - Forming and Placing and Tying Rebars	8	Verify that bottom mat of reinforcing steel is supported.
Approach Slabs - General Concrete - Forming and Placing and Tying Rebars	9	Verify that bottom clearance of reinforcing steel is within 1/2 inch of vertical plan position
Approach Slabs - General Concrete - Forming and Placing and Tying Rebars	10	For Footing: Verify top clearance of top mat.
Approach Slabs - General Concrete - Forming and Placing and Tying Rebars	11	For Footing: Verify that spacing between mats is per plan.
Approach Slabs - General Concrete - Forming and Placing and Tying Rebars	12	For Footing: Verify that top mat is adequately supported.
Approach Slabs - General Concrete - Forming and Placing and Tying Rebars	13	Verify that reinforcing steel in tied 100% at periphery and at alternating intersections inside.
Approach Slabs - General Concrete - Forming and Placing and Tying Rebars	14	Verify that clearances at ends and sides of bars are within 1" of plan clearance.
Approach Slabs - General Concrete - Forming and Placing and Tying Rebars	15	Verify that bars are clean and free from loose rust, scale, etc.
Approach Slabs - General Concrete - Forming and Placing and Tying Rebars	16	Verify that extended bars are located within 1/2 inch of plan location and held securely.
Approach Slabs - General Concrete - Forming and Placing and Tying Rebars	17	Verify bedding material has been approved and results are in documentation system (documentation audit)

Category Description Section 813;806; 2016 Edition	**Check List Number**	**Check List Description**
Approach Slabs - General Concrete - Placing Concrete	1	Verify all materials have been sampled and tested
Approach Slabs - General Concrete - Placing Concrete	2	Concrete shall not be placed until forms and rebars have been inspected and approved.
Approach Slabs - General Concrete - Placing Concrete	3	Placement concerns: placement in the final position and in level layers, no movement with a vibrator, no displacement of rebars, no aggregate segregation or separation, and vibrations from adjacent equipment or operations must be controlled.
Approach Slabs - General Concrete - Placing Concrete	4	If concrete is pumped, the spec. requirements must be met.
Approach Slabs - General Concrete - Placing Concrete	5	Number, type and size of vibrators must be approved and they shall be inserted and withdrawn as near to plumb as possible in a slow and steady manner. Circles of vibrator influence shall overlap to ensure that the entire placement is adequately vibrated. Proper vibration is particularly critical in areas where concrete flow is restricted by dense reinforcement or where concrete shall not readily flow since these areas have a high probability of forming voids or honeycomb.
Approach Slabs - General Concrete - Placing Concrete	6	For slabs, screeding system must be demonstrated and approved prior to placement and concrete must be placed in continuous strips (transverse or longitudinal) with no time for initial set between strips except at planned joints.
Approach Slabs - General Concrete - Placing Concrete	7	Unhardened concrete must be completely protected from rain and runoff by an approved system. Do not place concrete during rain.
Approach Slabs - General Concrete - Placing Concrete	8	Verify bars are on AML and CA is in documentation system (documentation audit). Sample if CA not provided (OVF to submit to Materials Lab)
Approach Slabs - General Concrete - Placing Concrete	9	Verify compressive strength (3 cylinders/pour) and results are in documentation system (documentation audit)
Approach Slabs - General Concrete - Placing Concrete	10	Verify straight edge surface tolerance is taken and results are in documentation system (documentation audit)
Approach Slabs - General Concrete - Placing Concrete	11	Verify joint sealant materials and lubricant adhesive are on AML and CD's are in documentation system (documentation audit)

Category Description Section 813; 805; 901; 2016 Edition	**Check List Number**	**Check List Description**
Approach Slabs - General Concrete - Curing, Form Removal, and Final Finishing	1	No further curing is required if forms are kept in place, without loosening, for a least 72 hours but if before 72 hours, an approved curing method must be used.
Approach Slabs - General Concrete - Curing, Form Removal, and Final Finishing	2	Proper application of an approved membrane curing compound at 1 gallon/100 square feet (.09gal/Sq. Yd) of surface area.
Approach Slabs - General Concrete - Curing, Form Removal, and Final Finishing	3	Covers for continuous moisture curing shall be kept continuously wet for at least 7 days
Approach Slabs - General Concrete - Curing, Form Removal, and Final Finishing	4	Construction joints must be cured using either continuous moisture or curing blankets method.
Approach Slabs - General Concrete - Curing, Form Removal, and Final Finishing	5	Time of removal of forms shall be determined from compressive strength tests as per Section 805.07; 2016 Edition.
Approach Slabs - General Concrete - Curing, Form Removal, and Final Finishing	6	Verify tine texturing is taken (2/slab) and results are in documentation system (documentation audit)

Category Description Section 814; 2016 Edition	**Check List Number**	**Check List Description**
Bridge Structures - Bearings	1	Verify bearing design, fabrication, and installation plan
Bridge Structures - Bearings	2	Verify materials sampling and testing and certificates
Bridge Structures - Bearings	3	Beam seat/pedestal concerns: proper elevation, concrete bearing surface planeness and levelness, surface free of irregularities, proper placement of bearings relative to survey marks.
Bridge Structures - Bearings	4	Anchor bolt and bearing plate concerns: location, tolerances and installation of anchor bolts and bearing plates, bolt material per spec., expansion plate adjustments for temperature, proper setting method, bolt holes not through rebars.
Bridge Structures - Bearings	5	Neoprene pads shall meet material specs including tolerances, pot/disc bearings shall be manufacturer certified and conform to specs and be protected from the elements prior to placement, manufacturer's representative on site during installation, installation by manufacturer's recommendations and the shop drawings.
Bridge Structures - Bearings	6	Verify that dimensions match the shop drawings.

Category Description Section 901; 2016 Edition	**Check List Number**	**Check List Description**
Concrete Materials - Mixing and Delivery of Concrete	1	Cold weather placements: mixing and not permitted if below 45 F.
Concrete Materials - Mixing and Delivery of Concrete	2	Hot weather placements: approved hot weather mix required if concrete temperature is above 85 F. Concrete rejected if over 90 F.
Concrete Materials - Mixing and Delivery of Concrete	3	Transit time: reject concrete in agitator trucks that exceeds 90 minutes (retarded) prior to discharge.
Concrete Materials - Mixing and Delivery of Concrete	4	When concrete placement stops for 90 min. or more, perform initial plastic properties tests on the next batch.
Concrete Materials - Mixing and Delivery of Concrete	5	Concrete delivery ticket information is completely and accurately entered with required signatures prior to start of concrete placement.
Concrete Materials - Mixing and Delivery of Concrete	6	Batch weights are within 1% of the design mix quantities and all cementitious materials are added together for the verification. Coarse and fine aggregate are verified separately. If any are out of tolerance, DB notified and Plant notified so corrective action can be taken.
Concrete Materials - Mixing and Delivery of Concrete	7	Batch ticket must be in ready mix truck, if not, load rejected
Concrete Materials - Mixing and Delivery of Concrete	8	Drum revolution counter must be operating properly, if not, note on Batch Ticket card.
Concrete Materials - Mixing and Delivery of Concrete	9	Water measuring device on truck must operate properly and calibration information must be in truck.
Concrete Materials - Mixing and Delivery of Concrete	10	Water must not be added at the jobsite prior to slump testing and if the test is within the tolerance slump range, water may be added.
Concrete Materials - Mixing and Delivery of Concrete	11	If jobsite water is added, mix concrete an additional 30 revolutions at mixing speed per spec.; however, do not add water after the total number of drum revolutions exceeds 130.
Concrete Materials - Mixing and Delivery of Concrete	12	If slump is within tolerance, the load can be placed but if slump is outside tolerance, reject the load. Concrete placement may proceed for the QC truck and the load after the QC truck while plastic properties tests are in progress.
Concrete Materials - Mixing and Delivery of Concrete	13	For high slump or self-consolidating concrete, a grate must be placed over conveyance equipment to capture lumps and balls.
Concrete Materials - Mixing and Delivery of Concrete	14	Verify ready mixer is certified

Category Description Section 901; 2016 Edition	**Check List Number**	**Check List Description**
Concrete Materials - Sampling and Testing	1	Verify all materials and admixtures have been sampled and approved
Concrete Materials - Sampling and Testing	2	Verify all mix designs have been submitted and accepted
Concrete Materials - Sampling and Testing	3	Cold weather placements: mixing and not permitted if below 45 F.
Concrete Materials - Sampling and Testing	4	Hot weather placements: approved hot weather mix required if concrete temperature is above 85 F. Concrete rejected if over 90 F.
Concrete Materials - Sampling and Testing	5	Transit time: reject concrete in agitator trucks that exceeds 90 minutes (retarded) prior to discharge.
Concrete Materials - Sampling and Testing	6	When concrete placement stops for 90 min. or more, perform initial plastic properties tests on the next batch.
Concrete Materials - Sampling and Testing	7	Samples must be taken at the point of final placement: end of buckets, convey or belts, pump hoses or chutes except that when discharged directly from mixer into bucket within 20 minutes, samples may be taken directly from mixer. Samples must be the composite of two portions.
Concrete Materials - Sampling and Testing	8	Maximum LOT size must be per spec. and acceptance samples must be randomly selected by load number then taken from center of load.
Concrete Materials - Sampling and Testing	9	Sampling and testing equipment in proper condition and calibration: thermometers, slump cones, pressure meters (PM)/rollameters (RM), cylinder molds.
Concrete Materials - Sampling and Testing	10	Concrete temperature must be measured correctly.
Concrete Materials - Sampling and Testing	11	W/C ratio must be computed correctly.
Concrete Materials - Sampling and Testing	12	Percent air test must be performed correctly.
Concrete Materials - Sampling and Testing	13	Slump test must be performed correctly.
Concrete Materials - Sampling and Testing	14	Concrete sample cylinders must be prepared properly at the site, curing boxes and tanks at the site must be maintained according to specs and all cylinders shall be clearly identified as outlined in the Sample/Lot Numbering System instructions
Concrete Materials - Sampling and Testing	15	Cylinder transported from field to lab in proper manner and must be at the lab within 48 hours of placement in molds.
Concrete Materials - Sampling and Testing	16	Provide Sample ID’s properly filled out.
Concrete Materials - Sampling and Testing	17	Concrete Admixtures-Verify in AML and CC is in documentation system

Concrete Materials - Sampling and Testing	18	Aggregates (Pavement)- Fine & Course-Verify in AML. 1/five pavement lot (1:5 ratio) Verification. 1/pavement lot (documentation audit). No sample for Type B or D. Blended Type B and D: Verify in AML; 1/five pavement lot (1:5 ratio) Verification. 1/pavement lot (documentation audit)
Concrete Materials - Sampling and Testing	19	Aggregates (Structural and Minor concrete)-Verify in AML. 1/five lots (1:5 ratio) Verification. 1/ lot (documentation audit)
Concrete Materials - Sampling and Testing	20	Cement- verify on AML and CD is in documentation system
Concrete Materials - Sampling and Testing	21	Concrete (Minor): Compressive strength- 3cyl/250 CY (1:5 ratio) verification; Compressive strength-3cyl/50 CY (documentation audit); Mix Design-1/mix class or type/material source/plant-perform acceptance & Verify in document system. Slump- 1/250 CY (1:5 ratio) verification; Slump- 1/50 CY (documentation audit); Air- 1/250 CY (1:5 ratio) verification (if req'd); Air- 1/50 CY (documentation audit) (if req'd)
Concrete Materials - Sampling and Testing	22	Concrete (Paving): Mix Design-1/mix class or type/material source/plant-perform acceptance & Verify in document system; Slump- 1/two and half day (1:5 ratio) verification; Slump- 1/half day (documentation audit); Air- 1/two and half day (1:5 ratio) verification (if req'd); Air- 1/half day (documentation audit) (if req'd); Unit Weight-Observation verificationTemperature-1/5 trucks (documentation audit); Temperature-1/25 trucks (1:5 ratio) verification; Unit Weight-Observation verification
Concrete Materials - Sampling and Testing	23	Concrete (Structural): Compressive strength/surface resistivity- 3cyl/5 batches; 2 batches per lot (1:5 ratio) verification; Compressive strength /surface resistivity- 3cyl/ batches; 2 batches per lot (documentation audit); Mix Design-1/mix class or type/material source/plant-perform acceptance & Verify in document system; Slump- 1/set of compressive cylinders (documentation audit)Slump- 1/five sets of compressive cylinders (1:5 ratio) verification; Air- 1/five sets of compressive cylinders (1:5 ratio) verification; Air- 1/set of compressive cylinders (documentation audit); Temperature-1/25 trucks (1:5 ratio); Temperature-1/5 trucks (documentation audit); Unit Weight-Observation verification;
Concrete Materials - Sampling and Testing	24	Fly ash-verify AML and submit 1 sample per shipment to Materials Lab-verify in documentation system
Concrete Materials - Sampling and Testing	25	Water- verify potable water being used

Category Description Section 805; 901; 2016 Edition	**Check List Number**	**Check List Description**
Concrete Materials - Mass Concrete	1	Cold weather placements: mixing and not permitted if below 45 F.
Concrete Materials - Mass Concrete	2	Hot weather placements: approved hot weather mix required if concrete temperature is above 85 F. Concrete rejected if over 90 F.
Concrete Materials - Mass Concrete	3	Transit time: reject concrete in agitator trucks that exceeds 90 minutes (retarded) prior to discharge.
Concrete Materials - Mass Concrete	4	When concrete placement stops for 90 min. or more, perform initial plastic properties tests on the next batch.
Concrete Materials - Mass Concrete	5	Temperature control plan or revised temperature control plan approved by CQAM.
Concrete Materials - Mass Concrete	6	If 35 F differential or the maximum 160 F core limit is exceeded, adjustments must be made immediately, while heat is high, and subsequent mass placements must not proceed until CQAM approves revised plan.
Concrete Materials - Mass Concrete	7	Temperature monitoring data must be recorded at intervals of 6 hours or less until there is certainty that the maximum temperature differential and maximum core temperature has peaked and is diminishing. Data must be transmitted to the CQAM within 3 days.
Concrete Materials - Mass Concrete	8	A structural integrity and durability analysis must be performed to evaluate the component condition if the 35 F differential is exceeded.

Category Description Lighting Performance Spec.	**Check List Number**	**Check List Description**
Lighting	1	All of the materials used comply with the approved shop drawings and Plans.
Lighting	2	Test all components of the installation in accordance with the Contract Documents, and manufacturer's recommendations.
Lighting	3	A pre-installation meeting is conducted by CQAM with DB, maintaining agency, etc. to discuss highway lighting issues.
Lighting	4	Obtain from DB a certification from the producer of steel or iron, or any product containing steel or iron as a component, stating that all steel or iron furnished or incorporated into the furnished product was manufactured in the United States in accordance with the requirements of this specification and the Buy America provisions of 23 CFR 635.410, as amended, for the appropriate items.
Lighting	5	Conduit and/ or cable trenches are in straight lines at the proper depth and in accord with the layout shown in the Plans.
Lighting	6	Installation of all lighting is done in accord with approved plans and AML.
Lighting	7	Trench backfill is done per Spec. and Index.
Lighting	8	Ground rods for poles installed per Spec & Index.
Lighting	9	Provide an approved copy of all applicable shop drawings and 2 copies of the As-Built Record Plans to the maintaining agency before Final Acceptance.
Lighting	10	Ensure the surge protection devices used are approved and installed properly.
Lighting	11	Where the location of the electrical service pole requires an extension of the power company's lines, ensure DB bears all line-extension costs.
Lighting	12	All wiring shall be color coded.
Lighting	13	Make all necessary splices or connections with solderless connectors or compression sleeves. Do not use twist-on connectors if any of the conductors involved are larger than No.10.All splices shall be made in a pull box or pole base with compressive sleeves or split bolt connectors properly taped and weatherproofed.
Lighting	14	Ground rods and wires are connected properly.
Lighting	15	When placing slabs around the pull boxes and light poles, make provisions to remove forms without injury to concrete surfaces. Also, do not leave any portion of the forms in the concrete.
Lighting	16	Verify that the foundation certification package has been approved, If Applicable.
Lighting	17	Verify that the continuity testing meets the project requirements
Lighting	18	Sample anchor bolts, nuts and washers and submit to Materials Lab. Verify CA and test results are in documentation system. (documentation audit)
Lighting	19	Verify conduit has been approved by Bridge Design and is in documentation system (documentation audit)

Lighting	20	Verify CA for electrical conductors is in documentation system (documentation audit)
Lighting	21	Verify QC's guaranty and manufacturer's warranty has been approved by Bridge Design and is in documentation system (documentation audit)
Lighting	22	Verify High Mast Poles have been inspected and stamped and that CA and inspection reports are in documentation system (documentation audit)
Lighting	23	Verify System Tests are in documentation system (documentation audit)

SECTION 201 CLEARING & GRUBBING

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY / METHOD	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
BACKFILL SOIL (HOLES)	Usable Soil	201.03	Quality Control/Acceptance/ Acceptance	-----	**REFER TO SECTION 203 OF THIS APPENDIX**							
	Density	201.03	Quality Control/Acceptance/ Acceptance	-----	**REFER TO SECTION 203 OF THIS APPENDIX**							
EROSION CONTROL MATERIALS		201.01	Quality Control/Acceptance/ Acceptance	-----	**REFER TO SECTION 203 OF THIS APPENDIX**							

SECTION 202 REMOVING OR RELOCATING STRUCTURES AND OBSTRUCTIONS

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
BACKFILL	Usable Soil	202.02	Quality Control/Acceptance	-----	REFER TO SECTION 203 OF THIS APPENDIX							
	Density	202.02	Quality Control/Acceptance									
FRIABLE ASBESTOS		202.05(b) CQCF	Quality Control/Acceptance	-----	-----	1 ADVF/ structure	-----	-----	-----	-----	3 OVF verifies if the document is in the system.	DEQ to provide Confirmation Letter & Asbestos Disposal Verification Form (ADVF). Documents added to CQAP Documentation Database by CQCF.
UST'S	Environmentally Regulated Material	202.05(c) CQCF	Quality Control/Acceptance	-----	-----	-----	-----	-----	-----	-----	3 OVF verifies if the document is in the system.	Chain of Custody Record to become part of Permanent Project Records. Documents added to CQAP Documentation Database by CQCF.
	Tank Fill Material	205.05(c) CQCF	Quality Control/Acceptance	-----	-----	1/tank	-----	-----	-----	-----	3 OVF verifies if the document is in the system.	Fill material test report provided by Design Builder. Documents added to CQAP Documentation Database by CQCF.
CONTAMINATED SOIL		202.05(d) CQCF	Quality Control/Acceptance	-----	-----	1/site	-----	-----	-----	-----	3 OVF verifies if the document is in the system.	Certificate of Disposal to become part of Permanent Project Records. Documents added to CQAP Documentation Database by CQCF.
		202.05(d) CQCF	Quality Control/Acceptance	-----	-----	1/site	-----	-----	-----	-----	3 OVF verifies if the document is in the system.	Chain of Custody Record to become part of Permanent Project Records. Documents added to CQAP Documentation Database by CQCF.
CONTAMINATED FLUIDS		202.05(d) CQCF	Quality Control/Acceptance	-----	-----	1/site	-----	-----	-----	-----	3 OVF verifies if the document is in the system.	Chain of Custody Record to become part of Permanent Project Records. Documents added to CQAP Documentation Database by CQCF.
PAINT & TIMBER		202.05(f)(g) CQCF	Quality Control/Acceptance	-----	-----	1/site	-----	-----	-----	-----	3 OVF verifies if the document is in the system.	Certificate of Disposal to become part of Permanent Project Records. Documents added to CQAP Documentation Database by CQCF.

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SECTION 203 EXCAVATION & EMBANKMENT

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
EMBANKMENT, CUT & FILL AREAS	Density	203.06 203.07 203.08 203.12 CQCF	Quality Control/Acceptance	In-Place Density TR 401 In-Test Method Field Max Density TR 415 or TR 418	-----	1/1,000 lin ft./ 2-lane rdwy /lift*	-----	-----	-----	1/2 hr.	1 2 for TR415 or TR418	Visual inspection to be performed prior to taking density test. Visual inspection include proof rolling with equipment acceptable to CQCF/OVF. Shall check sufficient to ensure specifications are met
	Embankment lift (Uncompacted Thickness) or Subgrade Preparation	203.07 203.08 203.12 CQCF	Quality Control/Acceptance	-----	-----	1/1,000 lin ft./ 2-lane rdwy /lift*	-----	-----	-----	-----	3	CQCF to verify thickness. Shall check sufficient to ensure specifications are met
	Moisture Content @ time of compaction	203.07 203.08 203.12 CQCF	Quality Control/Acceptance	In-Place Moisture TR 403	CQCF S 401	1/1,000 lin ft./ 2-lane rdwy /lift*	-----	-----	-----	1 hr.	1	Test taken during or just prior to compaction operation. Shall check sufficient to ensure specifications are met
	Soil on Cut Slope (for pH and PI)	203.06 CQCF	Quality Control/Acceptance	PI TR 428 ph TR 430	CQCF S 401	1/1,000 lin ft./ slope/soil type	1 full sample sack	-----	-----	5 days	-----	To determine the need for plastic soil blanket or soil modification option.

SECTION 203 EXCAVATION & EMBANKMENT (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
GEOTEXTILE FABRIC		203.11 1019.01 Mat. Lab	Quality Control/Acceptance	Table 1019-1	CQCF S 601	1/type/ shipment/ source	3 lin ft. of full width of fabric roll*	CC		10 days	3 OVF to submit to Mat. Lab for CQCF. OVF to verifies if document is in the system.	CQCF verify material is on the AML Visually inspect seams & UV damage. Seams other than 401 or "J" shall be approved by the Materials & Testing Section. Sample only when questionable. * Sample a minimum of 18 ft2. Avoid sampling at end of roll. Visual inspection by CQCF. Documents added to CQAP Documentation Data base by CQCF.
LIME	Agricultural	203.06 1018.17	Quality Control/Acceptance	**REFER TO SECTION 718 OF THIS APPENDIX**								
	Hydrated or Quick Lime	203.06 1018.03	Quality Control/Acceptance	**REFER TO SECTION 304 OF THIS APPENDIX**								
NON-PLASTIC EMBANKMENT	Density	203.07 203.12 CQCF	Quality Control/Acceptance	In-Place Density TR 401 In-Test Method Field Max Density TR 415 or TR 418	CQCF* S401	1/1,000 lin ft./ 2 lane rdwy/ lift *	-----	-----	-----	1/2 hr.	1 2 for TR415 or TR418	*Shall check sufficient to ensure specifications are met Visual inspection to performed prior to taking density test. Visual inspection includes proof rolling with equipment acceptable to CQCF/OVF.
	Embankment Lift (Uncompacted Thickness)	203.07 203.12 CQCF	Quality Control/Acceptance	-----	-----	1/1,000 lin ft./ 2 lane rdwy/ lift *	-----	-----	-----	-----	3	* Shall check sufficient to ensure specifications are met. * Check lift thickness during placement.
	Moisture Content @ time of Compaction	203.07 203.12 CQCF	Quality Control/Acceptance	In-Place Moisture TR 403	CQCF S401	1/1,000 lin ft./ 2 lane rdwy/ lift	1 gal Friction top can	-----	-----	1 hr.	1	* Shall check sufficient to ensure specifications are met.

SECTION 203 EXCAVATION & EMBANKMENT (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
NON-PLASTIC EMBANKMENT (Cont'd)	Blended Calcium Sulfate	203.09 203.12 1003.02 CQCF	Quality Control/Acceptance	pH TR430 Gradation TR113 % Organic TR413	CQCF S 101	1/2,000 yd^3 *	1 full sample sack	-----	500 yd^3	4 days	2 for TR113 and TR413 3 for TR430	* Source shall be approved by the Materials and Testing Lab prior to use. Design-Builder may propose a lower frequency after 8 consecutive passing tests and provided CQCF maintain their minimum sampling testing frequency. Shall check sufficient to ensure specifications are met
	Sand	203.09 203.12 1003.02 CQCF	Quality Control/Acceptance	PI TR428 Gradation TR112/TR113 % Organic TR413	CQCF* S 401	1/2,000 yd^3 *	1 full sample sack	-----	500 yd^3	4 days	2	* Shall check sufficient to ensure specifications are met. Design-Builder may propose a lower frequency after 8 consecutive passing tests and provided CQCF maintain their minimum sampling testing frequency.
	Stone	203.09 203.12 1003.02 CQCF	Quality Control/Acceptance	Gradation TR113 % Organic TR413 Dry Rod Unit Weight AASHTO T19	CQCF S 101	1/2,000 yd^3 *	3 full sample sacks	-----	500 yd^3	4 days	2	CQCF to verify material on AML * Design Build may propose a lower frequency after 8 consecutive passing tests and provided CQCF maintains their minimum sampling & testing frequency. Shall check sufficient to ensure specifications are met
PLASTIC SOIL BLANKET	Thickness (Compacted)	203.10 CQCF	Quality Control/Acceptance/ Acceptance	-----	-----	1/1,000 lin ft. /slope*	-----	-----	-----	-----	2	* Shall check sufficient to ensure specifications are met.

SECTION 203 EXCAVATION & EMBANKMENT (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
PLASTIC SOIL BLANKET (Cont'd)	Plastic Soil	203.10 203.12 CQCF	Quality Control/Acceptance**	PI TR428 % Silt TR407 pH TR430 % Organic TR413	CQCF S 401	1/1,000 yd^3*	1 full sample sack	-----	300 yd^3	5 days	3	* Not required if tested & approved as excavation or borrow pit material. Shall check sufficient to ensure specifications are met Pit approval allowed if identifiable strata can be isolated. **Shall support a satisfactory stand of grass in accordance with Sections 714 or 717. Design-Builder may propose a lower frequency after 8 consecutive passing tests and provided CQCF maintain their minimum sampling testing frequency.
SELECTED SOIL	In-Place on Roadway	203.06 203.12 CQCF	Quality Control/Acceptance	PI TR428 % Silt TR407 % Organic TR413	CQCF S 401	1/1,000 lin ft./ 2-lane rdwy or 1/2,000 lin ft. / shoulder	1 full sample sack	-----		5 days	2-TR 428 2-TR 413 2-TR 407	* Shall check sufficient to ensure specifications are met.
	Stockpile	203.06 CQCF	Quality Control/Acceptance	PI TR428 % Silt TR407 % Organic TR413	CQCF S 401	1/1,000 yd3 *	-----	-----	-----	5 days	2-TR 428 2-TR 413 2-TR 407	* Design Build may propose a lower frequency after 8 consecutive passing tests and provided CQCF maintains their minimum sampling & testing frequency. Shall check sufficient to ensure specifications are met.
USABLE SOIL	Borrow Pits	203.05 CQCF	Quality Control/Acceptance	PI TR428 % Silt TR407 % Organic TR413	CQCF S 401	1/strata/ boring/ acre	1/2 sample sack*	-----	100 yd^3	6 days	3	CQCF results shall be submitted with boring log and sketch to OVF.

SECTION 203 EXCAVATION & EMBANKMENT (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
USABLE SOIL (Cont'd)	Excavation	203.06 203.12 CQCF	Quality Control/Acceptance/ Acceptance	PI TR428 % Silt TR407 % Organic TR413	CQCF S 401	as required*	1 full sample sack	-----	-----	5 days	3	May be accepted by subgrade soil survey upon approval of the CQCF. * Sample full depth of excavation.
	Stockpile	203.06 203.12 CQCF	Quality Control/Acceptance	PI TR428 % Silt TR407 % Organic TR413	CQCF S 401	1/1,000 yd^3 *	1 full sample sack	-----	-----	5 days	3	Will be approved in stockpile before placing on project. * Design Build may propose a lower frequency after 8 consecutive passing tests and provided CQCF maintains their minimum sampling & testing frequency. Shall check sufficient to ensure specifications are met.
USABLE SOIL FOR HEADERS	Borrow Pits	203.05 203.12 CQCF	Quality Control/Acceptance	PI TR428 % Silt TR407 % Organic TR413	CQCF S 401	1/strata/ boring/ acre*	1/2 sample sack	-----	-----	6 days	3	*CQCF results shall be submitted with boring log and sketch to OVF.
	Excavation	203.06 203.12 CQCF	Quality Control/Acceptance	PI TR428 % Silt TR407 % Organic TR413	CQCF S 401	as required*	1 full sample sack	-----	-----	5 days	3	May be accepted by subgrade soil survey upon approval of the CQCF. * Sample full depth of excavation.

SECTION 203 EXCAVATION & EMBANKMENT (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
USABLE SOIL FOR HEADERS (Cont'd)	Stockpile	203.06 203.12 CQCF	Quality Control/Acceptance	PI TR428 % Silt TR407 % Organic TR413	CQCF S 401	1/1,000 yd^{3} **	1 full sample sack	-----	-----	5 days	3	Will be approved in stockpile before placing on project. * Design Build may propose a lower frequency after 8 consecutive passing tests and provided QC maintains their minimum sampling & testing frequency. Shall check sufficient to ensure specifications are met.
Water		1018.01 Mat. Lab	Quality Control/Acceptance	-----	CQCF S 303	1/source	1 qt plastic bottle	-----	-----	21 days	3 OVF to submit to Mat. Lab for CQCF.	Drinkable water need not be sampled

SECTION 204 TEMPORARY EROSION CONTROL

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
BURLAP		204.03 CQCF	Quality Control/Acceptance	*	-----	-----	-----	-----	-----	-----	3	*Visual inspection by CQCF. Replace as necessary.
FERTILIZER		1018.16 CQCF	Quality Control/Acceptance	**REFER TO SECTION 718 OF THIS APPENDIX**								
HAY BALES		204.03 CQCF	Quality Control/Acceptance	*	-----	-----	-----	-----	-----	-----	3	*Visual inspection by CQCF. Replace as necessary.
SILT FENCE	Geotextile Fabric (Wire Supported)	204.03 1019 Class F CQCF	Quality Control/Acceptance	*	-----	-----	-----	-----	-----	-----	-----	CQCF verifies material is on AML *Visual inspection by CQCF. Replace as necessary.
	Geotextile Fabric (Self Supported)	204.03 1019 Class G CQCF	Quality Control/Acceptance	*	-----	-----	-----	-----	-----	-----	3	Visual inspection by CQCF. CQCF to verify material is on the AML. Replace as necessary.
JUTE FABRIC		204.03 CQCF	Quality Control/Acceptance	*	-----	-----	-----	-----	-----	-----	3	*Visual inspection by CQCF. Replace as necessary.
LIME (Agricultural)		1018.17 CQCF	Quality Control/Acceptance	**REFER TO SECTION 718 OF THIS APPENDIX**								
LIVESTOCK WIRE		204.03 CQCF	Quality Control/Acceptance	*	-----	-----	-----	-----	-----	-----	3	*Visual inspection by CQCF. Replace as necessary.
TEMPORARY CONSTRUCTION ENTRANCE	Geotextile Fabric	204.03 1019 CQCF	Quality Control/Acceptance	*	-----	-----	-----	-----	-----	-----	3	Visual inspection by CQCF. CQCF to verify material is on the AML. Replace as necessary.
	Recycled PCC	204.03 711.02 1003.01 CQCF	Quality Control/Acceptance	*	**VISUAL INSPECTION AND/OR GRADATION CHECK (SOURCE, PROJECT SITE, OR BOTH, AT CQCF'S OPTION.)***			-----	-----	-----	3	*Visual inspection by CQCF. Sample size and unit weight determined by CQCF. CQCF to verify material is an approved source.

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SECTION 204 TEMPORARY EROSION CONTROL (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
TEMPORARY CONSTRUCTION ENTRANCE (Cont'd)	Stone	204.03 711.02 1003.01 CQCF	Quality Control/Acceptance	*	**VISUAL INSPECTION AND/OR GRADATION CHECK (SOURCE, PROJECT SITE, OR BOTH, AT CQCF'S OPTION.)***			-----	-----	-----	3	CQCF to verify material is on AML *Visual inspection by CQCF. Sample size and unit weight determined by CQCF.
MULCH	Emulsified Asphalt	204.03 1002.01	Quality Control/Acceptance	**REFER TO SECTION 716 OF THIS APPENDIX**								
	Fiber Mulch	204.03 1018.19	Quality Control/Acceptance	**REFER TO SECTION 716 OF THIS APPENDIX**								
	Tacking Agent	204.03 1018.19	Quality Control/Acceptance	**REFER TO SECTION 716 OF THIS APPENDIX**								
	Hay or Straw	204.03	Quality Control/Acceptance	**REFER TO SECTION 716 OF THIS APPENDIX**								
POSTS	Wood or Steel	204.03 CQCF	Quality Control/Acceptance	*	-----	-----	-----	-----	-----	-----	3	*Visual inspection by CQCF. Replace as necessary.
SEED		204.03 CQCF	Quality Control/Acceptance	**REFER TO SECTION 717 OF THIS APPENDIX**								
SLOPE DRAINS	Fiber Mats	204.03 CQCF	Quality Control/Acceptance	*	-----	-----	-----	-----	-----	-----	3	*Visual inspection by CQCF. Replace as necessary.
	Pipe	204.03 CQCF	Quality Control/Acceptance	*	-----	-----	-----	-----	-----	-----	3	*Visual inspection by CQCF. Replace as necessary.

SECTION 301 CLASS I BASE COURSE

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANTITY CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
AGGREGATE BASES (DEDICATED STOCKPILE)	Recycled PC Concrete	301.02 1003.03 CQCF	Design*	Max Density TR 418	CQCF S 101	**1/source	6 full sample sacks	-----	-----	4 days	2	Material must be source approved. For moisture-density relationships **and as the material changes. Design Builder may propose a lower frequency after 8 consecutive passing test and provided CQCF maintain their minimum sampling testing frequency. Must be controlled so that materials placed in stockpile will conform to specifications when tested by the CQCF.
		301.02 301.07 1003.03 CQCF	Quality Control/Accept.	Gradation TR 113 PI TR 428	CQCF S 101	1/ 1000 yd^3	1 full sample sack	-----	-----	4 days	2	Material must be source approved. Design Builder may propose a lower frequency after 8 consecutive passing test and provided CQCF maintain their minimum sampling testing frequency. Must be controlled so that materials placed in stockpile will conform to specifications when tested by the CQCF.
	Blended Calcium Sulfate (BCS)	301.02 301.07 1003.03 CQCF	Quality Control/Accept.	Gradation TR 113 PI TR 428	CQCF S 101 or S 401	1/ 1000 yd^3 **	1 full sample sack	-----	-----	5 days	2	Must be accepted prior to mixing with cement. If individual components are to be mixed in the pugmill, approval procedure shall be approved by the Materials Engineer Administrator. Design Builder may propose a lower frequency after 8 consecutive passing test and provided CQCF maintain their minimum sampling testing frequency.*Must be controlled so that materials placed in stockpile will conform to specifications when tested by the CQCF.
		301.02 1003.03 CQCF	Design*	Max Density TR 418	CQCF S 101 or S 401	**1/source	6 full sample sacks	-----	-----	10 days	2	Moisture-Density Relationship **and as the material changes.

SECTION 301 CLASS I BASE COURSE (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANTITY CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
AGGREGATE BASES (DEDICATED STOCKPILE) (Cont'd)	Stone	301.02 1003.03 CQCF	Design*	Max Density TR 418	CQCF S 101	**1/source	6 full sample sacks	-----	-----	4 days	2	CQCF to verify material is on AML For moisture-density relationships **and as the material changes. *Must be controlled so that materials placed
		301.02 1003.03 CQCF	Quality Control/Accept.	Gradation TR 113 PI TR 428	CQCF S 101	1/ 1000 yd^3	1 full sample sack	-----	-----	4 days	2	CQCF to verify material is on AML Design Builder may propose a lower frequency after 8 consecutive passing test and provided QC maintain their minimum sampling testing frequency. *Must be controlled so that materials placed in stockpile will conform to specifications when tested by the CQCF
ASPHALTIC CONCRETE BASES			Quality Control/Accept.	**FOR ALL RELATED MATERIALS, REFER TO SECTION 502 OF THIS APPENDIX.**								
ASPHALTIC MATERIAL	Curing Membrane		Quality Control/Accept.	**REFER TO SECTION 506 OF THIS APPENDIX.**								
	Prime Coat		Quality Control/Accept.	**REFER TO SECTION 505 OF THIS APPENDIX.**								
CEMENT (HYDRAULIC)	Types I, II & IP	301.02 1001.01 CQCF	Quality Control/Accept.	-----	-----	1/shipment	-----	CD	-----	-----	3 OVF verifies if the document is in the system.	CQCF to verify material is on the AML. Documents added to CQAP Documentation Data base by CQCF.
PORTLAND CEMENT CONCRETE BASES		301.01 301.16	Quality Control/Accept.	REFER TO SECTION 706 & 901 OF THIS APPENDIX.								
MIXTURE WITH CEMENT AT CENTRAL MIX PLANT	Percent Cement	301.16 CQCF	Quality Control/Accept.	% Cement TR 436	CQCF S 101	1/half day	-----	-----	-----	1 hr	3	-----
	Gradation	301.07 301.16 CQCF	Quality Control/Accept.	Gradation TR 113	CQCF S 101	1/day*	1 full sample sack	-----	-----	4 hr.	3	*Gradation will be run when questionable or individual components of SCG are mixed in a pugmill.
	Moisture Content	301.07 CQCF	Quality Control/Accept.	Moisture Content TR 403	CQCF S 101 S 401	1/half day*	-----	-----	-----	-----	-----	*In addition to start-up of plant each day and after each shut down.

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SECTION 301 CLASS I BASE COURSE (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANTITY CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
MIXTURE WITH CEMENT AT CENTRAL MIX PLANT (Cont'd)	Proportions	301.07 301.16 CQCF	Quality Control/Accept.	-----	-----	1/half day	-----	-----	-----	1 hr.	3	Shall check sufficient to ensure specifications are met.
	Pulverization	301.07 301.16 CQCF	Quality Control/Accept.	% Pulverization TR 431	CQCF S 401	2/half day	-----	-----	-----	1/2 hr.	3	Shall check sufficient to ensure specifications are met.
BASE MATERIAL ON ROADWAY	Density	301.11 301.16 CQCF	Quality Control/Accept.	In-Place Density TR 401	-----	1/ 1000 lin ft/ 2 lane rdwy or 1/ 2000 lin. ft/ shoulder	-----	-----	-----	1/2 hr.	1	*Shall test sufficiently to ensure specifications will be met.
	Cross Slope & Grade	301.11 301.16 CQCF	Quality Control/Accept.	-----	-----	1/half day	-----	-----	-----	1/4 hr.	3	Use an approved 10-ft metal static straightedge or other approved device. Shall take measurements sufficient to ensure specifications are met
	Moisture Content (For Soil Cement or Cement Stabilized Mixtures)	301.11 301.16 CQCF	Quality Control/Accept.	% Moisture TR 403	CQCF S 101 S 401	1/half day	-----	-----	-----	1 hr.	3	*Shall test sufficient to ensure specifications are met.
	Thickness & Width	301.11 301.16 CQCF	Quality Control/Accept. Monitor	Thickness/ Width TR 602	CQCF	1/half day	-----	-----	-----	1/4 hr.	3	During construction of section.Shall take measurements sufficient to ensure specifications are met.
		301.11 301.16 CQCF	Quality Control/Accept. **	Thickness/ Width TR 602	CQCF	1/ 1000 lin. ft./ 2-lane rdwy or 1/ 2000 lin. Ft./ shoulder*	-----	-----	300 lin ft per location	3 days	3	*REFER TO DOTD TR 602. For small quantity, CQCF Documents in field book. ** When Section is Completed.

SECTION 301 CLASS I BASE COURSE (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANTITY CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
SOIL (RAW)	Dedicated Stockpile	301.02 301.05 301.11 CQCF	Quality Control/Accept.	Classify TR 423 PI TR 428 % Silt TR 407 % Organic Content TR 413	CQCF S 401	1/1000 yd^3	1 full sample sack**	-----	-----	21 days max	2	**When soils are to be blended, each component must meet specifications before blending. Design and final acceptance will be conducted on the blend. Control uniformity of moisture and soil type while stockpile is being built.
		301.02 301.05 CQCF	Design*	Max Density TR 418 % Cement TR 432	CQCF S 401	1/source*	6 full sample sacks	-----	-----	-----	3	*For cement content & moisture-density relationships. Design and final acceptance will be conducted on the blend.
WATER		1018.01 Mat. Lab	Quality Control/Accept.		CQCF S 303	1/source*	1 qt plastic bottle	-----	-----	21 days	3 OVF to submit to Mat. Lab for CQCF.	*Drinkable water need not be sampled.

SECTION 302 CLASS II BASE COURSE

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
NOTE: WHEN A CLASS II BASE COURSE IS PRODUCED BY CENTRAL PLANT MIXING, USE THE SAMPLING SCHEDULES IN SECTION 301 OF THIS APPENDIX.												
AGGREGATE BASES/ SOILS/ SOIL AGGREGATE	Recycled PC Concrete	302.02 302.08 CQCF	Design*	Max Density TR 418	CQCF S 101	**1/source	6 full sample sacks	-----	-----	4 days	2	Material must be source approved. For moisture-density relationships **and as the material changes.
		302.02 302.08 CQCF	Quality Control/Accept.	Gradation TR 113 PI TR 428	CQCF S 101	1/1000 yd^3	1 full sample sack	-----	-----	4 days	2	Material must be source approved. Design Builder may propose a lower frequency after 8 consecutive passing test and provided CQCF maintain their minimum sampling testing frequency. Must test sufficient to ensure materials being delivered meet specification requirements.
	Stone	320.01 302.02 302.08 CQCF	Design*	Max Density TR 418	CQCF S 101	**1/1000 yd^3	6 full sample sacks	-----	-----	10 days	2	*For moisture-density relationships ** and as material source changes.
		320.01 302.02 302.08 CQCF	Quality Control/Accept.	Gradation TR 113 PI TR 428	CQCF S 101	1/1000 yd^3	1 full sample sack	-----	-----	4 days	2	CQCF to verify material is on AML Design Builder may propose a lower frequency after 8 consecutive passing test and provided CQCF maintain their minimum sampling testing frequency. Must test sufficient to ensure materials being delivered meet specification requirements.

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SECTION 302 CLASS II BASE COURSE (cont'd)

MATERIAL		REF. / TESTED BY	PURP.	TEST METHOD	SAMPLED BY / METHOD	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
NOTE: WHEN A CLASS II BASE COURSE IS PRODUCED BY CENTRAL PLANT MIXING, USE THE SAMPLING SCHEDULES IN SECTION 301 OF THIS APPENDIX.												
AGGREGATE BASES/ SOILS/ SOIL AGGREGATE (Cont'd)	BLENDED CALCUM SULFATE	302.01 302.02 302.08 CQCF	Design*	-----	CQCF S 101	**1/source	6 full sample sacks	-----	-----	10 Days	2	For moisture/ density relationship **and as material changes.
			Quality Control/Accept.	Gradation TR 113 PI TR 428 Organic TR 413 pH TR 430	CQCF S 101	1/1000 yd^3	1 full sample sacks	-----	-----	4 Days	2	Design Builder may propose a lower frequency after 8 consecutive passing test and provided CQCF maintain their minimum sampling testing frequency. CQCF to verify material is an approved source. Shall check sufficient to ensure specifications are met.
	Soil/ Soil Aggregate on Roadway	302.01 302.02 302.05 CQCF	Quality Control/Accept.	Classify TR 423 PI TR 428 % Silt TR 407 % Organic TR 413 % Cement TR 432	CQCF S 401	1/1000 linear ft. for roadway or 1/2000 linear ft. for shoulder	1 full sample sack**	-----	-----	5 Days	2	**When soils are to be blended, each component must meet specifications before blending. Design and final acceptance will be conducted on the blend. For central plant mixing the frequency is 1/ 1000 yd^3. Design Builder may propose a lower frequency after 8 consecutive passing test and provided CQCF maintain their minimum sampling testing frequency. Shall test sufficient to ensure specifications will be met when placed on roadway.
		302.02 302.05 CQCF	Design*	Max Density TR 418 or TR 415 % Cement TR 432	CQCF S 401	1/1000 linear ft. for roadway or 1/2000 linear ft. for shoulder	6 full sample sacks	-----	-----	21 days See note	3	*For cement content and moisture-density relationships. Design and final acceptance will be conducted on the blend. Design Builder may propose a lower frequency after 8 consecutive passing test and provided CQCF maintain their minimum sampling testing frequency. For central plant mixing the frequency is 1/ 1000 yd^3.

SECTION 302 CLASS II BASE COURSE (cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
NOTE: WHEN A CLASS II BASE COURSE IS PRODUCED BY CENTRAL PLANT MIXING, USE THE SAMPLING SCHEDULES IN SECTION 301 OF THIS APPENDIX.												
AGGREGATE BASES/ SOILS/ SOIL AGGREGATE (Cont'd)	Soils (Raw) in Stockpile for Soil Cement	302.01 302.02 302.05 CQCF	Quality Control/Accept.	Classify TR 423 PI TR 428 % Silt TR 407 % Organic TR 413 % Cement TR 432	CQCF S 401	1/1000yd^3	1 full sample sack of blend & 1 full sample sack of each component**	-----	-----	5 Days	2	**blending of soils prior to mixing with cement will not be allowed for adjustment of LL or PI Shall test sufficient to ensure specifications will be met when placed on roadway. Check MC% before spreading cement (TR 403)
		302.01 302.02 302.05 CQCF	Design*	Max Density TR 418 or TR 415 % Cement TR 432	CQCF S 401	1/1000yd^3	6 full sample sacks of blend & 1 full sample sack of each component*	-----	-----	21 days See note	3	*For cement content and moisture-density relationships. Design and final acceptance will be conducted on the blend. Design Builder may propose a lower frequency after 8 consecutive passing test and provided CQCF maintain their minimum sampling testing frequency. For central plant mixing the frequency is 1/ 1000 yd^3.
ASPHALTIC CONCRETE			Quality Control/Accept.	**FOR ALL MATERIALS, REFER TO 502 OF THIS APPENDIX.**								
ASPHALTIC MATERIALS	Curing Membrane		Quality Control/Accept.	**REFER TO SECTION 506 0F THIS APPENDIX.**								
	Prime Coat		Quality Control/Accept.	**REFER TO SECTION 505 0F THIS APPENDIX.**								

SECTION 302 CLASS II BASE COURSE (cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
NOTE: WHEN A CLASS II BASE COURSE IS PRODUCED BY CENTRAL PLANT MIXING, USE THE SAMPLING SCHEDULES IN SECTION 301 OF THIS APPENDIX.												
CEMENT (Hydraulic)	Types I, II & IP	302.02 1001.01 CQCF	Quality Control/Accept.		-----	1/shipment	-----	CD			3 OVF verifies if the document is in the system.	CQCF to verify material is on the AML. Documents added to CQAP Documentation Data base by CQCF.
CONCRETE, PORTLAND CEMENT, BASE		302.01 302.12 CQCF	Quality Control/Accept.	**REFER TO SECTION 706 & 901 OF THIS APPENDIX.**								
BASE MATERIAL ON ROADWAY	Cement Spread Rate (For soil cement or cement treated bases only)	302.01 302.08 302.12 CQCF	Quality Control/Accept.	Spread Rate TR 436	CQCF	1/day	-----	-----	-----	-----	2	*The CQCF shall determine the length of spread prior to mixing. additional testing shall be performed when cement content changes. Use an approved sampling device.
	Cross Slope & Grade	302.01 302.08 302.12(d) CQCF	Quality Control/Accept.		CQCF	1/half day	-----	-----	-----	1/4 hr.	3	Use an approved 10 ft. metal static. straightedge or other approved device. Shall check to ensure specifications are met
	Density	302.01 302.08 302.12 CQCF	Quality Control/Accept.	Density TR 401	CQCF	1/1000 lin ft./ 2-lane rdwy or 1/2000 lin ft./ shoulder*	-----	-----	-----	1/2 hr.	1	*Shall test sufficient to ensure specifications are met.

SECTION 302 CLASS II BASE COURSE (cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
BASE MATERIAL ON ROADWAY (Cont'd)	Moisture Content (For Soil Cement or Blended Calcium Sulfate)	302.01 302.05 302.07 302.08 302.12 CQCF	Quality Control/Accept.	Moisture TR 403	CQCF S 101	1/1000 lin ft./ 2-lane rdwy or 1/2000 lin ft./ shoulder	1 gal friction top can*	-----	-----	1 hr.	1	*May be obtained by M.C. % determined during application of TR 415 B, if available on in-place moisture at the time of compaction (TR 403). Shall test sufficient to ensure specifications are met.
	Pulverization (For soil-cement only)	302.01 302.05 302.07 302.08 302.12 CQCF	Quality Control/Accept.	Pulver. TR 431	CQCF S 401	1/500 lin ft./ 2-lane rdwy or 1/1000 lin ft./ shoulder	1 gal friction top can	-----	-----	1/2 hr.	3	*Soil cement shall be tested sufficiently to ensure specifications are met.
	Thickness & Width	302.01 302.08 302.12 CQCF	Monitor	Thickness & Width TR 602	CQCF	1/half day	-----	-----	-----	1/4 hr.	-----	During construction of section. Shall be measured sufficiently to ensure specifications are met.
		302.01 302.08 302.12 CQCF	Quality Control/Accept.	Thickness & Width TR 602	CQCF	1/1000 lin ft./ 2-lane rdwy or 1/2000 lin ft./ shoulder	-----	-----	-----	3 days	2	REFER TO DOTD TR 602. For small quantity, CQCF documents in field book. When section is complete.
GEOTEXTILE SEPARATOR FABRIC*	Class D	203.11 302.04 1019 Mat. Lab	Quality Control/Accept.	**REFER TO SECTION 203 OF THIS APPENDIX.**								*Only required when aggregate base course placed on un-treated or lime-treated soils or with Blended Calcium

SECTION 302 CLASS II BASE COURSE (cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
(RAW) ON ROADWAY	Density (93%) (In-Place Mixing)	302.05 302.08 CQCF	Quality Control/Accept.	In-Place Density TR 401 Max. Density TR 418 or TR 415	CQCF	1/half day	-----	-----	-----	1/2 hr.	1	*Shall test sufficient to ensure specifications are met. Minimum density is required on roadway prior to spreading cement. Check M.C. % before mixing with cement (TR 403).
Water		1018.01 Mat. Lab CQCF	Quality Control/Accept.	AASHTO T 26	CQCF S 303	1/source*	1 qt plastic bottle	-----	-----	21 days	3 OVF to submit to Mat. Lab. for CQCF	*Drinkable water need not be sampled.

SECTION 303 IN-PLACE CEMENT STABILIZED BASE COURSE

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
FOR DETAILS ON HYDRAULIC CEMENT AND WATER, REFER TO SECTION 301 OF THIS APPENDIX. FOR DETAILS ON ASPHALTIC CURING MEMBRANE, REFER TO SECTION 506 OF THIS APPENDIX. FOR DETAILS ON ASPHALTIC CONCRETE OR PORTLAND CEMENT CONCRETE, REFER TO SECTIONS 502 AND 901 OF THIS APPENDIX, AS APPLICABLE.												
MATERIAL FOR BASE PRIOR TO SPREADING CEMENT (Existing or Furnished Soils/ Soil-Aggregate)	Design Builder Furnished Soil	303.02 303.07 CQCF	Quality Control/Accept.	% Silt TR 407 % Organic TR 413 Classify TR 423 PI TR 428	CQCF S 401	1/1000 yd^3	1 full sample sack	-----	-----	4 days	3	DB furnished material will be approved before incorporation into existing material. Furnished material not meeting the requirement of specification Subsection 302.02(a) will not be incorporated in the base. Design Builder may propose a lower frequency after 8 consecutive passing tests provided CQCF maintain their minimum sampling testing frequency.Must test sufficient to ensure material will meet specification requirements before placing on roadway. Check M.C.% on all materials before spreading cement.
	Raw Soil Density (93%)	303.04 303.07 CQCF	Quality Control/Accept.	In-Place Density TR 401 Max Density TR 418 or TR 415	-----	1/half day	-----	-----	-----	30 min.	1	*Shall be tested frequently enough to ensure specifications are met. Minimum density is required on roadway prior to mixture with cement. All blending of soils materials will be accomplished before testing.

SECTION 303 IN-PLACE CEMENT STABILIZED BASE COURSE (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
FOR DETAILS ON HYDRAULIC CEMENT AND WATER, REFER TO SECTION 301 OF THIS APPENDIX. FOR DETAILS ON ASPHALTIC CURING MEMBRANE, REFER TO SECTION 506 OF THIS APPENDIX. FOR DETAILS ON ASPHALTIC CONCRETE OR PORTLAND CEMENT CONCRETE, REFER TO SECTIONS 502 AND 901 OF THIS APPENDIX, AS APPLICABLE.												
MATERIAL FOR BASE PRIOR TO SPREADING CEMENT (Existing or Furnished Soils/ Soil-Aggregate) (Cont'd)	In-Place Material on Roadway	303.04 303.05 CQCF	Design	Max Density TR 418 or TR 415 % Cement TR 432	CQCF S 401	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder	6 full sample sacks	-----	-----	14 days	2	*For cement content and moisture-density relationships (if needed). Design will be conducted on the final blend.
		303.04 303.05 CQCF	Quality Control/Accept.	Classify TR 423 PI TR 428 % Silt TR407 Organic TR 413	CQCF S 401	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder	-----	-----	-----	1 hours	2	Design Builder may propose a lower frequency after 8 consecutive passing tests and provided CQCF maintain their minimum sampling testing frequency.Must test sufficient to ensure material will meet specification requirements before placing on roadway. Check M.C.% on all materials before spreading cement.
	Pulverization	303.04 303.11 CQCF	Quality Control/Accept.	Pulverization TR 431	CQCF S 401	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder	-----	-----	-----	1/2 hr.	3	Shall be obtained after blending of any DB furnished material.Shall be tested frequently enough to ensure specifications are met Pulverization shall be approved prior to spreading cement.

SECTION 303 IN-PLACE CEMENT STABILIZED BASE COURSE (Cont'd)

MATERIAL		REF. / TESTED BY	PURP.	TEST METHOD	SAMPLED BY / METHOD	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
FOR DETAILS ON HYDRAULIC CEMENT AND WATER, REFER TO SECTION 301 OF THIS APPENDIX. FOR DETAILS ON ASPHALTIC CURING MEMBRANE, REFER TO SECTION 506 OF THIS APPENDIX. FOR DETAILS ON ASPHALTIC CONCRETE OR PORTLAND CEMENT CONCRETE, REFER TO SECTIONS 501,501 AND 901 OF THIS APPENDIX, AS APPLICABLE.												
MIXTURE WITH CEMENT ON ROADWAY	Cement Spread	303.07 303.11 CQCF	Quality Control/Accept.	Spread Rate * TR 436	-----	1/ day	-----	-----	-----	1/2 hr.	2	*The CQCF. will verify the length of spread prior to mixing. Use an approved sampling device.
	Cross Slope & Grade	303.11 CQCF	Quality Control/Accept.	-----	-----	*	-----	-----	-----	1/4 hr.	-----	*Shall test sufficient to ensure specifications are met. Use an approved 10 ft metal static straightedge.
	Density	303.07 303.11 CQCF	Quality Control/Accept.	In-Place Density TR 401	-----	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder	-----	-----	-----	1/2 hr.	1	*Shall test sufficient to ensure specifications are met.

SECTION 303 IN-PLACE CEMENT STABILIZED BASE COURSE (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
FOR DETAILS ON HYDRAULIC CEMENT AND WATER, REFER TO SECTION 301 OF THIS APPENDIX. FOR DETAILS ON ASPHALTIC CURING MEMBRANE, REFER TO SECTION 506 OF THIS APPENDIX. FOR DETAILS ON ASPHALTIC CONCRETE OR PORTLAND CEMENT CONCRETE, REFER TO SECTIONS 502 AND 901 OF THIS APPENDIX, AS APPLICABLE.												
MIXTURE WITH CEMENT ON ROADWAY (Cont'd)	Moisture Content	303.05 303.07 303.11 CQCF	Quality Control/Accept.	Moisture TR 403	CQCF S 401	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder	1 gal friction top can*	-----	-----	1 hr.	1	*May be obtained by M.C.% determined during application of TR 415 B, if available on in-place moisture at the time of compaction (TR 403). Shall test sufficient to ensure specifications are met.
	Thickness & Width	303.07 303.11 CQCF	Quality Control/Accept. Monitor	Thickness TR 602	CQCF	1/half day	-----	-----	-----	1/4 hr.	-----	During construction of section.
		303.07 303.11 CQCF	Quality Control/Accept.	Thickness TR 602	CQCF	*1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder	-----	-----	-----	3 days	3	*REFER TO DOTD TR 602. For small quantity, CQCF documents in field book. When section is complete.

SECTION 304 LIME TREATMENT

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
FOR DETAILS ON HYDRAULIC CEMENT AND WATER, REFER TO SECTION 301 OF THIS APPENDIX. FOR DETAILS ON ASPHALTIC CURING MEMBRANE, REFER TO SECTION 506 OF THIS APPENDIX. FOR DETAILS ON ASPHALTIC CONCRETE OR PORTLAND CEMENT CONCRETE, REFER TO SECTIONS 502 AND 901 OF THIS APPENDIX, AS APPLICABLE.												
CURING MEMBRANE	Type B (only)	304.05 1002.01 Mat. Lab.	Quality Control/Accept.	**REFER TO SECTION 506 OF THIS APPENDIX.**								
LIME (Hydrated and Quicklime)		304.02 1018.03 Mat. Lab	Quality Control/Accept.	-----	-----	1/shipment	-----	CD	-----	-----	3 OVF verifies if the document is in the system	CQCF to verify material is on the AML Documents added to CQAP Documentation Data base by CQCF.
MIXTURE ON ROADWAY	Density- (Type B & C)	304.07 304.08 CQCF	Quality Control/Accept.	Density TR 401 Max Density TR 418 or TR 415	CQCF	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder	-----	-----	-----	30 min	1 TR 401 3 TR 415 or TR418	*Shall Check sufficient to ensure specifications are met. % Moisture Content checked sufficient to satisfaction of CQCF.
	Density- (Type D)	304.07 304.08 CQCF	Quality Control/Accept.	Density TR 401	CQCF	-----	-----	-----	-----	-----	3	Compact to the satisfaction of the CQCF
	Density- (Type E)	304.07 304.08 CQCF	Quality Control/Accept.	**REFER TO SECTION 203 OF THIS APPENDIX.**								
	Lime Spread	304.08 CQCF	Quality Control/Accept.	Spread Length	CQCF	Each transport	-----	-----	-----	-----	3	The CQCF will verify the length of spread prior to mixing.
				Spread Rate TR 436		1/500 lin ft/2-lane rdwy or 1/1000 lin ft/ shoulder*	-----	-----	-----	30 min	3	At the discretion of the CQCF additional testing shall be performed when % lime content changes.

SECTION 304 LIME TREATMENT (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
MIXTURE ON ROADWAY (cont'd)	Pulverization (Type B & C)	304.06 304.08 CQCF	Quality Control/Accept.	Pulverization TR 431	CQCF S 101	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder	1 gal friction top can	-----	-----	1/2 hr.	2	Shall Check sufficient to ensure specifications are met.
	Pulverization (Type D & E)	304.06 304.08 CQCF	Quality Control/Accept.	Pulverization TR 431	CQCF	*	-----	-----	-----	-----	-----	*To the satisfaction of CQCF
	Thickness & Width (Type B)	304.11 CQCF	Monitor	Thickness TR 602	CQCF	1/half day	-----	-----	-----	1/4 hr.	-----	During construction of section. Shall be measured sufficiently to ensure specifications are met
		304.11 CQCF	Quality Control/Accept.	Thickness TR 602	CQCF	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder*	-----	-----	-----	3 days	3	REFER TO DOTD TR 602 for small quantity. CQCF documents in field book when section is complete.
	Thickness & Width (Type C & D)	304.08 304.11 CQCF	Quality Control/Accept.	Thickness TR 602	CQCF	*	-----	-----	-----	-----		*Shall be measured sufficiently to ensure specifications are met. To the satisfaction of CQCF. Document in field book
	Thickness & Width (Type E)		Quality Control/Accept.	**FOR LIFT THICKNESS REQUIREMENTS REFER TO SECTION 203 OF THIS APPENDIX.**								
SOIL OR SOIL-AGGREGATE	% Lime* (Type B & E)	304.04 304.05 CQCF	Design	% Lime TR 416	CQCF S 101 or S 401	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder*	6 full sample sacks	-----	-----	10 days	3	*Not required when percent lime is specified in plans or project specifications.
Water		304.02 1018.01 Mat Lab	Quality Control/Accept.	-----	CQCF S 303	1/source*	1 qt plastic bottle	-----	-----	21 days	3 OVF to submit to Mat. Lab for CQCF.	*Drinkable water need not be sampled.

SECTION 305 SUBGRADE LAYER

MATERIAL		REF. / TESTED BY	PURP.	TEST METHOD	SAMPLED BY / METHOD	MIN. FREQ.	MIN. QUANTITY / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
NOTE: WHEN A SUBGRADE LAYER IS PRODUCED BY CENTRAL PLANT MIXING, USE THE SAMPLING SCHEDULES IN SECTION 301 OF THIS APPENDIX. FOR PLACEMENT AND CONSTRUCTION REFER TO APPLICABLE SECTIONS OF THIS APPENDIX.												
AGGREGATES/ SUBGRADE LAYER	Stone, Recycled PC Concrete, Crushed Slag	CQCF	Quality Control/Accept.	**REFER TO SECTION 302 OF THIS APPENDIX**								
	Blended Calcium Sulfate	1003.10 CQCF	Design*	Max Density TR 415 or TR 418	CQCF S 101	1/source**	6 full sample sacks	-----	-----	4 days	3	*For moisture-density relationships. Must be source approved. **As material changes,
		1003.10 CQCF	Quality Control/Accept.	Gradation TR 113 PI TR 428 % Organic TR 413 pH TR 430	QC S 101	*1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder	1 full sample sack	-----	-----	4 days	2	*Must test sufficiently to ensure materials being delivered meet specification requirements. DB note frequency can adjust, but pH will be performed every 1000 yd³. Design Builder may propose a lower frequency after 8 consecutive passing tests and provided QC maintain their minimum sampling testing frequency.
		1003.10 CQCF	Quality Control/Accept.	In-Place Density TR 401 Max Density TR 415 or TR 418		1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder	-----	-----	-----	4 days	1	
			Quality Control/Accept./ Monitor	Thickness/ Width TR 602	**REFER TO SECTION 304 OF THIS APPENDIX.**							

SECTION 305 SUBGRADE LAYER (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANTITY CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
ASPHALTIC CONCRETE		-----	Quality Control/Accept.	**REFER TO SECTION 502 OF THIS APPENDIX.**								
ASPHALTIC MATERIALS	Curing Membrane	-----	Quality Control/Accept.	**REFER TO SECTION 506 OF THIS APPENDIX.**								
	Prime Coat	-----	Quality Control/Accept.	**REFER TO SECTION 505 OF THIS APPENDIX.**								
CEMENT		-----	Quality Control/Accept.	**REFER TO SECTION 302 OF THIS APPENDIX.**								
GEOTEXTILE FABRIC		305.02 1018.19 Mat. Lab.	Quality Control/Accept.	**REFER TO SECTION 203 OF THIS APPENDIX**								
LIME (Hydrated or Quicklime)		-----	Quality Control/Accept.	**REFER TO SECTION 304 OF THIS APPENDIX.**								
MIXTURE WITH LIME AND/OR CEMENT ON ROADWAY	Pulverization*	305.04 CQCF	Quality Control/Accept.	Pulveriz. TR 431	CQCF S 401	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/shoulder	-----	-----	-----	1/2 hr.		*For soil after mixing with cement and / or lime. *Shall check sufficient specification requirements.
	Thickness & Width		Quality Control/Accept.	**REFER TO SECTION 302, 303 and 304 OF THIS APPENDIX. TR 602 MEASUREMENT NOT REQUIRED.**								
	Density		Quality Control/Accept.	**REFER TO SECTION 302 AND 309 OF THIS APPENDIX.**								
SOIL		305.04 CQCF	Design*	Max. Density TR 418 or TR 415	CQCF S 401	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/shoulder	6 full sample sacks	-----	-----	10 days		*For Moisture Density relationships.
		305.04 CQCF	Quality Control/Accept.*	% Silt TR 407 PI TR 428	CQCF TR 602	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/shoulder	1 full sample sack	-----	-----	4 days	3	*When soils are to be blended, each component must meet specifications before blending. Design and final acceptance will be conducted on the blend.Shall check
WATER		305.02 1018.01 Mat. Lab	Quality Control/Accept.	-----	CQCF S 303	*1/source	1 qt plastic bottle	-----	-----	21 days	3 OVF to submit to Mat. Lab. for CQCF	*Drinkable water need not be sampled.

T305 - 2/2

SECTION 306 SCARIFYING & COMPACTING ROADBED

T 306 - 1/1

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
EXISTING MATERIAL	Density	306.02 CQCF	Quality Control/Accept.	In-Place Density TR 401 Max Density TR 418 or TR 415	CQCF	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder	-----	-----	-----	1/2 hr.	1	*Shall check sufficient to ensure specifications are met. Section shall be proof rolled prior to taking Density Test. CQCF and OVF to approve equipment used to proof roll.
ASPHALTIC MATERIAL	Prime Coat	306.02	Quality Control/Accept.	**REFER TO SECTION 505 TO THIS APPENDIX**								

SECTION 307 PERMEABLE BASES

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
AGGREGATE	Stone	307.02 1003.06 CQCF	Quality Control/Accept.	Gradation TR 113	CQCF S 101	1/1000 yd^3	1 full sample sack	-----	-----	4 days	3	CQCF to verify material is on the AML Design Builder may propose a lower frequency after 8 consecutive passing tests and provided QC maintain their minimum sampling testing frequency.Shall check sufficient to
ASPHALTIC MATERIALS	Asphalt Cement	307.02 1002 CQCF	Quality Control/Accept.	**REFER TO SECTION 502 OF THIS APPENDIX**								CQCF to verify material is on the AML
ANTI-STRIP		307.02 1002.02 CQCF	Quality Control/Accept.	**REFER TO SECTION 502 OF THIS APPENDIX**								CQCF to verify material is on the AML
ADMIXTURE		307.02 1011.02 CQCF	Quality Control/Accept.	**REFER TO SECTION 901 OF THIS APPENDIX**								CQCF to verify material is on the AML
CEMENT (HYDRAULIC)			Quality Control	**REFER TO SECTION 901 OF THIS APPENDIX**								CQCF to verify material is on the AML
		307.02 1001 CQCF	Quality Control/Accept.									
CURING COMPOUND		307.03 601.10 1011.01 CQCF	Quality Control/Accept.	**REFER TO SECTION 601 OF THIS APPENDIX**								CQCF to verify material is on the AML

SECTION 307 PERMEABLE BASES (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
PERMEABLE ASPHALT BASE (PLANT)	JMF	307.02 CQCF	Design*	-----	QC S 101, S 201, S 601	1/ mix/ plant	-----	-----	-----	-----	-----	* CQCF will approve and submit the proposed job mix formula with supporting design data. Approval from CQCF and OVF is required prior to starting work.
		307.02 CQCF	Quality Control/Accept.	-----	CQCF S101, S201, S601	1/ JMF	-----	-----	-----	-----	3 OVF verifies if the document is in the system	CQCF verifies % retained coating in accordance with TR 317. Approval from CQCF and OVF is required prior to starting work. Documents added to CQAP Documentation Data base by CQCF.
	Anti-Strip Additive %	307.02 CQCF	*Quality Control/Accept.	-----	CQCF	1/ 2500 tons	-----	-----	-----	-----	3	*% AS from meter. Shall check sufficient to ensure specifications are met.
	Asphalt Cement	307.02 CQCF	*Quality Control/Accept.	-----	CQCF	1/ 2500 tons	-----	-----	-----	-----	3	*% AC from meter. Shall check sufficient to ensure specifications are met.
	Loose Mixture (Gradation, % AC, & % Crushed	307.02 CQCF	Monitoring	-----	CQCF S 203 and S 605	1/ 5000 tons	1 gal friction top can	-----	-----	3 days	3	Shall check sufficient to ensure specifications are met.

SECTION 307 PERMEABLE BASES (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
PERMEABLE CONCRETE BASE (PLANT)	Mix Design	307.02 CQCF	Design	-----	*	1/ mix/ plant	-----	-----	-----	3 days	-----	* CQCF will approve and submit the proposed job mix formula with supporting design data. Approval from CQCF and OVF is required prior to starting work.
		307.02 CQCF	Quality Control/Accept. Monitor	-----	*	1/ truck	-----	-----	-----	-----	3 OVF verifies if the document is in the system	Obtain "batch tickets" to verify quantities from mix design. Approval from CQCF and OVF is required prior to starting work. Documents added to CQAP Documentation Data base by CQCF.
PERMEABLE BASES	Cross Slope & Grade	307.05 CQCF	Quality Control/Accept.	-----	CQCF*	1/ day	-----	-----	-----	-----	3	*Shall check sufficient to ensure specifications are met. Grade shall not vary more than 0.05 ft. Cross slope shall not vary by more more than 0.003 ft./ ft.
	Thickness & Width	307.06 CQCF	Quality Control/Accept.	Thickness TR 602	CQCF	1/ 2000 linear ft	-----	-----	-----	-----	3	*Shall measure sufficiently to ensure specifications are met.
	Temperature	307.03 CQCF	Quality Control/Accept.*	-----	CQCF	1/ 5000 tons	-----	-----	-----	-----	3	*Required for Asphaltic Concrete only.
WATER		1018.01 CQCF	Quality Control/Accept.	-----	CQCF S 303	1/ source*	1 qt plastic bottle	-----	-----	21 days	3 OVF to submit to Material Lab for	*Drinkable water need not be sampled.

SECTION 309 IN-PLACE CEMENT TREATED SUBGRADE

MATERIAL		REF. / TESTED BY	PURP.	TEST METHOD	SAMPLED BY / METHOD	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
FOR DETAILS ON HYDRAULIC CEMENT AND WATER, REFER TO SECTION 302 OF THIS APPENDIX. FOR DETAILS ON ASPHALTIC CURING MEMBRANE, REFER TO SECTION 506 OF THIS APPENDIX. FOR DETAILS ON ASPHALTIC CONCRETE OR PORTLAND CEMENT CONCRETE, REFER TO SECTIONS 502 AND 901 OF THIS APPENDIX, AS APPLICABLE.												
MATERIAL FOR BASE PRIOR TO SPREADING CEMENT (Existing Soils/Soil-Aggregate)	In-Place Material on Roadway	309.02 309.04 CQCF	Quality Control/Accept.	Soil Analysis TR 407 % Organic TR 413 Classify. TR 423 PI TR 428 % Cement TR 432	CQCF S 101	1/1000 yd^3	1 full sample sack	-----	-----	4 days	3	*Must test sufficient to ensure material will meet specification requirements before placing on roadway. Check M.C.% on all materials before spreading cement. DB furnished material will be approved before incorporation into existing material. Furnished material not meeting the requirement of specification Subsection 302.02(a) will not be incorporated in the base. Material must be source approved. Design Builder may propose a lower frequency after 8 consecutive passing tests provided QC maintain their minimum sampling testing frequency.
	Raw Soil Density (93%)	309 303.04 CQCF	Quality Control/Accept.	In-Place Density TR 401 Moisture/ Density TR 415 or TR 418	CQCF S 401	1/half day	-----	-----	-----	30 min.	1	*Shall be tested frequently enough to ensure specifications are met. Minimum density is required on roadway prior to mixture with cement. All blending of soils materials will be accomplished before testing.

SECTION 309 IN-PLACE CEMENT TREATED SUBGRADE(Con'td)

MATERIAL		REF. / TESTED BY	PURP.	TEST METHOD	SAMPLED BY / METHOD	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
FOR DETAILS ON HYDRAULIC CEMENT AND WATER, REFER TO SECTION 301 OF THIS APPENDIX. FOR DETAILS ON ASPHALTIC CURING MEMBRANE, REFER TO SECTION 506 OF THIS APPENDIX. FOR DETAILS ON ASPHALTIC CONCRETE OR PORTLAND CEMENT CONCRETE, REFER TO SECTIONS 502 AND 901 OF THIS APPENDIX, AS APPLICABLE.												
MATERIAL FOR BASE PRIOR TO SPREADING CEMENT (Existing or Furnished Soils/ Soil-Aggregate) (Cont'd)	In-Place Material on Roadway	309.02 303.04 303.05 CQCF	Design*	% Cement TR 432 Classify Soil TR 423 % Silt TR 407 PI TR 428 Organic TR413	CQCF S 401	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder	6 full sample sacks	-----	-----	14 days	3	*For cement content and moisture-density relationships (if needed). Design will be conducted on the final blend.
	Pulverization	303.04 309.04 CQCF	Quality Control/Accept.	Pulverization TR 431	CQCF	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder	-----	-----	-----	1/2 hr.	3	Shall be obtained after blending of any Design Building furnished material. Pulverization shall be approved prior to spreading cement.
MIXTURE WITH CEMENT ON ROADWAY	Cement Spread	303.07 303.11 CQCF	Quality Control/Accept.	Spread Length	-----	each transport*	-----	-----	-----	-----	-----	*The CQCF. will verify the length of spread prior to mixing. Use an approved sampling device.
				Spread Rate TR 436	-----	1/ day*	-----	-----	-----	1/2 hr.	2	Use an approved sampling device.
	Cross Slope & Grade	303.11 CQCF	Quality Control/Accept. Monitor	-----	-----	1 per 1/half day	-----	-----	-----	1/4 hr.	-----	*Shall test sufficient to ensure specifications are met. Use an approved 10 ft metal static straightedge.

SECTION 309 IN-PLACE CEMENT TREATED SUBGRADE(Cont'd)

MATERIAL		REF. / TESTED BY	PURP.	TEST METHOD	SAMPLED BY / METHOD	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
FOR DETAILS ON HYDRAULIC CEMENT AND WATER, REFER TO SECTION 301 OF THIS APPENDIX. FOR DETAILS ON ASPHALTIC CURING MEMBRANE, REFER TO SECTION 506 OF THIS APPENDIX. FOR DETAILS ON ASPHALTIC CONCRETE OR PORTLAND CEMENT CONCRETE, REFER TO SECTIONS 502 AND 901 OF THIS APPENDIX, AS APPLICABLE.												
MIXTURE WITH CEMENT ON ROADWAY	Density	303.11 309.04 CQCF	Quality Control/Accept.	In-Place Density TR 401 Moisture/ Density TR 415 or TR 418	CQCF S 401	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder	-----	-----	-----	1/2 hr.	1	*Shall test sufficient to ensure specifications are met.
	Moisture Content	303.11 309.04 CQCF	Quality Control/Accept.	Moisture TR 403	CQCF S 101 or S 401	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder	1 gal friction top can*	-----	-----	1 hr.	1	*May be obtained by M.C.% determined during application of TR 415 B, if available on in-place moisture at the time of compaction (TR 403).
	Thickness & Width	303.11 CQCF	Quality Control/Accept. Monitor	Thickness TR 602	CQCF	1/half day	-----	-----	-----	1/4 hr	-----	During construction of section.Shall be measured sufficiently to ensure specifications are met.
		303.11 CQCF	Quality Control/Accept.	Thickness TR 602	CQCF	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder	-----	-----	-----	3 days	3	*REFER TO DOTD TR 602. For small quantity, CQCF documents in field book. When section is complete.

SECTION 401 AGGREGATE SURFACE COURSE

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
AGGREGATES	Sand- Clay- Gravel (Lime-treated), Stone, Recycled Portland Cement Concrete, Reclaimed Asphaltic Pavement, Crushed Slag	401.02 CQCF	Quality Control/Accept.	Gradation TR 113 PI TR 428	CQCF S 101	1/1000 yd^3 dedicated stockpile*	1 full sample sack	-----	-----	5 days 5 weeks for Recycled PCC)	2	CQCF to verify stone is on the AML and RPCC shall be from an approved source. *For sampling on roadway, minimum frequency shall be 1 per 1,000 lin ft per two lanes of roadway or 1 per 2,000 lin ft per shoulder. Shall test sufficient to ensure specifications are met.
AGGREGATES ON ROADWAY	Thickness & Width	401.08 CQCF	Quality Control/Accept.	Thickness TR 602*	CQCF	1/1000 lin ft/2 lane roadway or 1/2000 lin ft of shoulders	-----	-----	-----	3 days	3	*Shall test sufficient to ensure specifications are met.
LIME (Hydrated and Quicklime)		401.02 1018.03 CQCF	Quality Control/Accept.	-----	-----	1/ shipment	-----	CD	-----	-----	3 OVF verifies if the document is in the system	CQCF to verify material is on the AML Documents added to CQAP Documentation Data base by CQCF.

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SECTION 401 AGGREGATE SURFACE COURSE (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
SUBGRADE SOIL (New or Reconstructed)	Usable Soil*	401.04(b),(c) 203.06 CQCF	Quality Control/Accept.	Silt Content TR 407 PI TR 428 % Organic TR 413	CQCF S 401	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft shoulder	1 full sample sack	-----	-----	5 days	2	*For existing shoulder or roadway, no sample is required. Design Builder may propose a lower frequency after 8 consecutive passing test and provided CQCF maintain their minimum sampling testing frequency. Shall check sufficient to ensure specifications are met.
	Density*	401.04(b),(c) CQCF	Quality Control/Accept.	Density TR 401 % Moisture TR 403 Max. Density TR 415 or TR 418	CQCF S 401	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft shoulder*	-----	-----	-----	1/2 hr.	1	*Shall check sufficient to ensure specifications are met. For existing shoulders and roadway, compact to the satisfaction of the CQCF. Visual inspection to performed prior to taking density. Visual inspection includes proof rolling with equipment acceptable to CQCF/OVF.
WATER		401.02 1018.01 Mat. Lab	Quality Control/Accept.	-----	CQCF S 303	1/source*	1 qt plastic bottle	-----	-----	21 days	3 OVF to submit to Mat. Lab for CQCF.	*Drinkable water need not be sampled.

SECTION 402 TRAFFIC MAINTENANCE AGGREGATE

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MATERIAL		REF. / TESTED BY	PURP.	TEST METHOD	SAMPLED BY / METHOD	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
AGGREGATES		402.02 CQCF	Quality Control/Accept.			-----	-----	-----	-----	-----	3	Visual inspection to the satisfaction of the CQCF. Test when questionable. Visual inspection.

SECTION 501 THIN ASPHALTIC CONCRETE (2016 SPECIFICATIONS)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
			Quality Control/Accept.	**FOR PROJECTS, OR SEPARATE LOCATIONS WITHIN A PROJECT, REQUIRING LESS THAN 250 TONS, THE JMF, MATERIALS, AND PLANT AND PAVING OPERATIONS SHALL BE SATISFACTORY TO CQCF. REFER TO SUBSECTION 502.14 FOR FURTHER DETAILS.**								
ADDITIVES	Anti-Stripping	502.02 1002.02(a) Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/shipment	1 pt friction top can	CD	-----	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML Sample when not accompanied by CD or when questionable. Documents added to CQAP Documentation Data base by CQCF.
	Fibers	502.02 508.02 1002.02 Mat. Lab	Quality Control/Accept.	-----	CQCF S 102	1/shipment	1 gallon friction top can	CC	-----	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	Shipment must be accompanied by a CA. Sample only when questionable. Documents added to CQCF Documentation Data base by CQCF. CQCF to verify material is from a pre-approved source.
	Hydrated Lime	502.02 1018.03(a) Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/shipment*	1 gallon friction top can	CD	-----	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML Sample when not accompanied by CD or when questionable. Documents added to CQAP Documentation Data base by CQCF.
	Silicon Additive	508.02 Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/shipment	1 gallon friction top can	CA	-----	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML Shipment must be accompanied by a CA Sample on when questionable. Documents added to CQAP Documentation Data base by CQCF.

SECTION 501 THIN ASPHALTIC CONCRETE (2016 SPECIFICATIONS) (Cont.)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
AGGREGATES	Combined Aggregates (Moisture Content)*	503.03 c CQCF	Quality Control/Accept.	Moisture TR 106	CQAF	1/day/plant	-----	-----	-----	-----	3	CQCF to provide results for use.'Shall check sufficient to ensure specifications are met. *For plant control
	All Aggregates	502.02 1003.06(1) CQCF	Quality Control/Accept. Monitor	T-84 T-85 Gradation TR 113	CQCF S 101	1/source/ plant/size	3 full sample sack	-----	-----	10 days	3	CQCF to verify material is on the AML Bulk Specific Gravity Gsb. CQCF may elect to use Dist. Lab results.
	Reclaimed Asphaltic Pavement (RAP)	502.02(c)(2) 1003.06 CQCF	Quality Control/Accept. Monitor	GMM TR 327 % AC TR 323 Gradation TR 309 % Crushed TR 306 (G_{SB}) (T-84, T-85)	CQCF	1/stockpile	3 full sample sacks	-----	-----	10 days	3	CQCF to verify material is on the AML GSE (or GSB) as required by specifications. CQCF may elect to use Dist. Lab results.
ASPHALT MIX RELEASE AGENT		1018.25 502.02	Quality Control/Accept. Monitor	-----	-----	continuously	-----	-----	-----	-----	3	CQCF to verify material is on the AML CQCF may elect to use Dist. Lab results.

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SECTION 501 THIN ASPHALTIC CONCRETE (2016 SPECIFICATIONS) (Cont.)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
ASPHALTIC CONCRETE (PLANT)	Anti-Strip Additive, %	502.01	Quality Control/Accept.*	-----	-----	1/half lot (-----)	-----	-----	-----	-----	3	*% AS from meter. Shall check sufficient to ensure specifications are met.
	Asphalt Cement, %	502.01	Quality Control/Accept.*	-----	-----	1/half lot	-----	-----	-----	-----	3	*% AC from meter. Shall check sufficient to ensure specifications are met.
	Gyratory Specimens Moisture Sensitivity LWT	502.03 CQCF	Quality Control/Accept.*	LWT AASHTO T-324	CQCF	1 set /10,000 tons	(4 briquettes/set for LWT)	-----	-----	-----	-----	
	Gyratory Specimens Moisture Sensitivity LWT	502.04 Dist. Lab	Validation	LWT AASHTO T-324	CQCF	1set/JMF	(4 briquettes/set for LWT)	-----	-----	3 days	OVF to submit sample to Dist. Lab for CQCF	Sample and test during validation
	Job Mix Formula (JMF)	502.03 CQCF	Quality Control/Accept.	-----	CQCF	1/mix type/ Blend of material	-----	-----	-----	-----	3 OVF verifies if the document is in the system.	CQCF shall submit to the OVF the proposed job mix formula with supporting design data. Acceptance by Dist. Lab Engineer s required before starting work. Documents added to CQAP Documentation Data base by CQCF.
	Loose Mixture	502.08 CQCF	Quality Control/Accept (Monitor)	Gmm TR 327	CQCF	1/sublot	suitable sampling bucket	-----	-----	-----	1	
		502.08 CQCF	Quality Control/Accept.	Particle Coating TR 328	CQCF	1/job mix	1 gal friction top can	-----	-----	-----	3	Also sample when coating is questionable.
		502.08 CQCF	Quality Control/Accept.	Gradation TR 309	CQCF	1/sublot	suitable sampling bucket	-----	-----	-----	3	-----
		502.08 CQCF	Quality Control/Accept.	% AC TR 323	CQCF			-----	-----	-----	3	-----
		502.08 CQCF	Quality Control/Accept.	% Crushed TR 306	CQCF			-----	-----	-----	3	-----
		502.08 CQCF	Quality Control/Accept.	Moisture Content TR 319	CQCF	1/sublot	1 gal friction top can	-----	-----	-----	3	Shall check sufficient to ensure specifications are met.
		502.08 CQCF	Quality Control/Accept.	Temperature*	CQCF	1/sublot	-----	-----	-----	-----	3	*Temperature of mixture at discharge chute. Shall check sufficient to ensure specifications are met.

SECTION 501 THIN ASPHALTIC CONCRETE (2016 SPECIFICATIONS) (Cont.)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
ASPHALTIC CONCRETE (IN-PLACE)	Longitudinal Surface Tolerance Ride Quality	502.11(b) CQCF	Quality Control/Accept.	TR 644	CQCF	*2/job	-----	-----	-----	-----	3	*Perform once prior to placement and once after placement
	Loose Mixture* (Temperature)	502.08 CQCF	Quality Control/Accept.	-----	CQCF	2/1000 lin ft	-----	-----	-----	-----	3	*At paver hopper or on roadway. Shall check sufficient to ensure specifications are met.
	Yield	502.11(b) CQCF	Quality Control/Accept.	-----	CQCF	1/sublot	-----	-----	-----	-----	3	Shall check sufficient to ensure specifications are met.

SECTION 502 SUPERPAVE ASPHALTIC CONCRETE MIXTURES (2016 Specifications)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
			Quality Control/Accept.	**FOR PROJECTS, OR SEPARATE LOCATIONS WITHIN A PROJECT, REQUIRING LESS THAN 250 TONS, THE JMF, MATERIALS, AND PLANT AND PAVING OPERATIONS SHALL BE SATISFACTORY TO CQCF. REFER TO SUBSECTION 502.14 FOR FURTHER DETAILS.**								
ADDITIVES	Anti-Stripping	502.02 1002.02(a) Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/shipment	1 pt friction top can	CD	-----	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML Sample when not accompanied by CD or when questionable. Documents added to CQAP Documentation Data base by CQCF.
	Hydrated Lime	502.02 1018.03(a) Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/shipment*	1 gallon friction top can	CD	-----	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML Sample when not accompanied by CD or when questionable. Documents added to CQAP Documentation Data base by CQCF.
	Waste Tire Crumb Rubber	502.02 1002.02.2 CQCF	Quality Control/Accept.	Gradation	CQCF S 601	1/shipment	1 gallon friction top can	CA	-----	30 days	3 OVF verifies if the document is in the system.	Shipment must be accompanied by CA. Sample only when questionable. Documents added to CQAP Documentation Data base by CQCF.

SECTION 502 SUPERPAVE ASPHALTIC CONCRETE MIXTURES (Cont'd)(2016 Specifications)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
ADDITIVES (Cont'd)	Latex	508.02 Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/shipment	1 gallon friction top can	CA	-----	30 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	Shipment must be accompanied by a CA. Sample on when questionable. Documents added to CQAP Documentation Data base by CQCF.
	Fiber	502.02 508.02 1002.02 Mat. Lab	Quality Control/Accept.	-----	QC with CQCF S 102	1/shipment	1 gallon friction top can	CA	-----	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	Shipment must be accompanied by a CA. Sample only when questionable. Documents added to CQCF Documentation Data base by CQCF. CQCF to verify material is from a pre-approved source.

SECTION 502 SUPERPAVE ASPHALTIC CONCRETE MIXTURES (Cont'd)(2016 Specifications)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
ADDITIVES (Cont'd)	Warm Mix Additives	50202 1002.02 Mat. Lab	Quality Control/Accept.		CQCF S 601	1/shipment /plant	1 pt friction top can	CA	-----	10 days	OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML Shipment must be accompanied by a CA. Sample only when questionable. Documents added to CQAP Documentation Data base by CQCF. When this material is used in the blending process, the process must be accepted by DOTD/OVF prior to use.
AGGREGATES	Combined Aggregates (Moisture Content)	503.03 c CQCF	Quality Control/Accept.	Moisture TR 106	CQAF	1/day/plant	-----	-----	-----	-----	3	Shall check sufficient to ensure specifications are met.
	All Aggregates	502.02 1003.06(1) CQCF	Quality Control/Accept. Monitor	T-84 T-85 Gradation TR 113	CQCF S 101	1/source/ plant/size	3 full sample sack	-----	-----	10 days	3	CQCF to verify material is on the AML. Results submitted to CQCF/OVF upon request.

SECTION 502 SUPERPAVE ASPHALTIC CONCRETE MIXTURES (Cont'd)(2016 Specifications)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
AGGREGATES (Cont'd)	Reclaimed Asphaltic Pavement (RAP)	502.02(c)(2) 1003.06 CQCF	Quality Control/Accept. Monitor	GMM TR 327 % AC TR 323 Gradation TR 309 % Crushed TR 306 (G_{SB}) (T-84, T-85)	CQCF	1/stockpile	3 full sample sacks	-----	-----	10 days	3	CQCF to verify material is on the AML GSE (or GSB) as required by specifications. CQCF may elect to use Dist. Lab results.
ASPHALT MIX RELEASE AGENT		1018.25 502.02 CQCF	Quality Control/Accept. Monitor	-----	-----	continuously	-----	-----	-----	-----	3	CQCF to verify material is on the AML Visual inspection for performance by CQCF.

SECTION 502 SUPERPAVE ASPHALTIC CONCRETE MIXTURES (Cont'd) (2016 Specifications)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
ASPHALTIC CONCRETE (PLANT)	Anti-Strip Additive, %	502.01	Quality Control/Accept.*	-----	-----	1/half lot	-----	-----	-----	-----	3	*% AS from meter.Shall check sufficient to ensure specifications are met.
	Asphalt Cement, %	502.01	Quality Control/Accept.*	-----	-----	1/half lot	-----	-----	-----	-----	3	*% AC from meter. Shall check sufficient to ensure specifications are met.
	Gyratory Specimens Moisture Sensitivity LWT	502.03 CQCF	Quality Control/Accept.*	LWT AASHTO T-324	CQCF	1 set /20,000 tons	4 briquettes/set for LWT	-----	-----	-----	-----	
	Gyratory Specimens Moisture Sensitivity LWT	502.04 Dist. Lab	Validation	LWT T-324	CQCF	1set/JMF	4 briquettes/set for LWT	-----	-----	3 days	OVF to submit sample to Dist. Lab for CQCF	Sample and test during validation
	Gyratory Specimens (Volumetric)	502.05 CQCF	Quality Control/Accept.	Volumetric TR 304	CQCF	1/1000 tons	-----	-----	-----	-----		%Gmm@NI, Voids, VMA,VFA, abd %Gmm@NM (1/lot)
		502.06 CQCF	Quality Control/Accept. (Monitor)	Volumetric TR 304	CQCF	1/month	6 briquettes	-----	-----	-----	OVF to submit sample to Dist. Lab for CQCF	%Gmm@NI, Voids, VMA,VFA, Plant Quality Report on File at District Lab
		502.04 CQCF	Validation	Volumetric TR 304	CQCF	2/Sublot*	6 briquettes	-----	-----	2 days	3	%Gmm@NI,Voids,VMA,VFA and % Gmm@NM (1/validation lot) *1 add'l sample if desired

SECTION 502 SUPERPAVE ASPHALTIC CONCRETE MIXTURES (Cont'd)(2016 Specifications)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
ASPHALTIC CONCRETE (PLANT) (Cont'd)	Job Mix Formula (JMF)	502.03 CQCF	Quality Control/Accept.	-----	-----	1/mix type/ Blend of material	-----	-----	-----	-----	3 OVF verifies if the document is in the system.	CQCF shall submit to the OVF the proposed job mix formula with supporting design data. Acceptance by Dist. Lab Engineer s required before starting work. Documents added to CQAP Documentation Data base by CQCF.
	Loose Mixture	502.08 CQCF	Quality Control/Accept Monitor	Gmm TR 327	CQCF	1/1000 tons	suitable sampling bucket	-----	-----	-----	1	
		502.08 CQCF	Quality Control/Accept.	Particle Coating TR 328	CQCF	1/job mix	1 gal friction top can	-----	-----	-----	3	Also sample when coating is questionable.
		502.05 CQCF	Quality Control/Accept.	Gradation TR 309	CQCF	1/1000 tons	suitable sampling bucket	-----	-----	-----	3	-----
				% AC TR 323	CQCF			-----	-----	-----	3	-----
				% Crushed TR 306	CQCF			-----	-----	-----	3	-----

SECTION 502 SUPERPAVE ASPHALTIC CONCRETE MIXTURES (Cont'd)(2016 Specifications)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
ASPHALTIC CONCRETE (PLANT) (Cont'd)	Loose Mixture (Cont'd)	502.05 CQCF	Quality Control/Accept.	Moisture Content TR 319	CQCF	1/lot (1/1000 tons)	1 gal friction top can	-----	-----	-----	3	Shall check sufficient to ensure specifications are met.
		502.08 CQCF	Quality Control/Accept.	Temperature*	CQCF	2/1000 tons	-----	-----	-----	-----	3	*Temperature of mixture at discharge chute. Shall check sufficient to ensure specifications are met.
ASPHALTIC CONCRETE (IN-PLACE)	Roadway Cores (Mainline Roadway)	502.05 CQCF	Quality Control/Accept.	TR 304	CQCF**	(1/7500 Linear lane feet)*	4 or (6)* in. diameter core	-----	-----	-----		QC to use nuclear gauge to establish rolling pattern that produces required density. Core should be taken to ensure calibration of density gauge. **As required by specifications. Shall check sufficient to ensure specifications are met. *When required by specifications.
		502.11(a) CQCF	Quality Control/Accept.	TR 304	CQCF	+3/sublot* (1/2500 Linear lane feet)	4 or (6) in. diameter core	-----	-----	3 days	1	For different mix uses, take 1 additional core/mix use. For validation lots take, 1 core/validation sublot, 5 total. *as required by specifications. (For projects with less than 2500 linear feet will required 3 cores. 4 fold testing shall not apply. For projects between 2500 and 5000 Linear feet take 2 cores/sublot)

SECTION 502 SUPERPAVE ASPHALTIC CONCRETE MIXTURES (Cont'd)(2016 Specifications)

Roadway) (Cont'd)		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
ASPHALTIC CONCRETE (IN-PLACE) (Cont'd)	Roadway Cores (Mainline Roadway) (Cont'd)	Dist. Lab	*(Conflict Resolution)	(Gmm TR 327)	CQCF	(5/37,500 linear lane feet)	(6 in. diameter core)	-----	-----	-----	OVF to submit to Dist. Lab for CQCF.	*To be tested for dispute resolution when necessary. CQCF to provide sample to QVF.
		CQCF	(Verify.)	(Gmm TR 327)	CQCF	(1/37,500 ft/lane ft*3/37,500 linear lane feet)	(6 in. diameter core)	-----	-----	-----	3	(One acceptance core selected at random for purpose of Gmm JMF verification. *For samples outside of tolerance, 2 additional core to be selected and their results averaged for comparison to JMF.)
	Roadway Core, Minor with Density Requirement	502.11 CQCF	Quality Control/Accept.	TR 304	CQCF	3/1000 tons/ mix type)	(6" diameter core)	-----	-----	2 days	2	QC to use the nuclear gauge to establish rolling pattern that produces required density. Core should be taken to ensure calibration
	Roadway Core, Minor without Density Requirement	502.11 CQCF	Verify	Gmm TR 327	CQCF	* (3/1000 tons)	(6" diameter core)	-----	-----	5 days	3	To the satisfaction of the CQCF. When compactive effort is questioned, additional cores to be tested for density.
	Joint Density	CQCF		Non-destructive density reading	CQCF	(1/2500 ft/ lane/paving edge)					3	3 readings per acceptance core taken at corresponding paving edge and extracted core location must be within 2% of adjacent wheel path. Reading to be taken in the presence of CQCF and documented by QC. Copy to be given to CQCF/OVF.

SECTION 502 SUPERPAVE ASPHALTIC CONCRETE MIXTURES (Cont'd)(2016 Specifications)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
ASPHALTIC CONCRETE (IN-PLACE) (Cont'd)	Longitudinal Surface Tolerance Ride Quality	502.11(b) CQCF	Quality Control/Accept.	TR 644	CQCF	*Each wheel path for entire project	-----	-----	-----	-----	3	*Applies to travel lane wearing and binder.
	Loose Mixture* (Temperature)	502.08 CQCF	Quality Control/Accept.	-----	-----	2/1000 lin ft	-----	-----	-----	-----	3	*At paver hopper or on roadway. Shall check sufficient to ensure
	Transverse Surface Tolerance, Cross Slope	502.11(b) CQCF	Quality Control/Accept.	10' Metal static straightedge	CQCF	2/day	-----	-----	-----	1 day	2	Shall check sufficient to ensure specifications are met. *(For bike paths, detour roads, parking lots and shoulders)
	Depth	502.08	Quality Control/Accept. Monitor	-----	-----	1/1000 ft	-----	-----	-----	-----	3	Shall check sufficient to ensure plan thickness is met.
	Thickness & Width	502.1 CQCF	Quality Control/Accept.	-----	CQCF	1/1000 linear lane feet	-----	-----	-----	-----	3	Width to be measured at the same location of the cores. If differences are noted, TR 602 will be used to isolate area. Results to be documented and submitted to OVF.

SECTION 502 SUPERPAVE ASPHALTIC CONCRETE MIXTURES (Cont'd)(2016 Specifications)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
ASPHALTIC MATERIAL	Asphalt Cement	1002 Dist. Lab	Quality Control/Accept.	T 315	CQCF S 201	(1/month) 1/plant working tank/ day of production	(Plant/working tank/month) 2 qt friction top can	CD	-----	5 days	3 OVF to submit to Dist. Lab for CQCF. OVF verifies if the document is in the system	CQCF to verify material is on the AML Test original binder DSR, including phase angle. If same does not meet criteria, the plant will be investigated and the Dist. Lab will notify the OVF, the HMA producer and the Mat. Lab. A record of results will be kept on file. Documents added to CQAP Documentation Data base by CQCF.
	Plant Produced Modified Asphalt Cement	Mat. Lab1002	Validation	T 315	CQCF S - 201	5/2000 tons/ source/ Base AC/ Plant/ Not required if blending process has been validated within 6 months	2 qt friction top can	-----	-----	30 days	3 OVF to submit to Mat. Lab for CQCF.	CQCF to provide sample to OVF. Blending process must be accepted by DOTD prior to validation. After validation sampling, production is to be suspended until passing results are obtained.
	Curing Membrane			**REFER TO SECTION 506 OF THIS APPENDIX.**								
	Prime Coat			**REFER TO SECTION 505 OF THIS APPENDIX.**								
	Tack Coat			**REFER TO SECTION 504 OF THIS APPENDIX.**								

SECTION 504 ASPHALTIC TACK COAT

MATERIAL		REF. / TESTED BY	PURP.	TEST METHOD	SAMPLED BY / METHOD	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
THIS SECTION IS TO BE USED AS A GUIDE FOR OTHER ITEM NUMBERS WHEN REFERENCE IS MADE TO SECTION 504 OF THIS APPENDIX.												
ASPHALTIC TACK COAT	Emulsified Asphalt	1002 Mat. Lab	Quality Control/Accept.	-----	CQCF	1/shipment	1 gal plastic bottle	CD No CD required if less that 250 gal.	-----	-----	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab. for CQCF.	CQCF to verify material is on the AML Visual inspection by CQCF. Sample only when questionable. Documents added to CQAP Documentation Data base by CQCF.
	Rate of Application	504.06	Quality Control/Accept.	-----	-----	1/day	-----	-----	-----	-----	2	Shall check sufficient to ensure specifications are met.

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SECTION 505 ASPHALTIC PRIME COAT

MATERIAL		REF. / TESTED BY	PURP.	TEST METHOD	SAMPLED BY / METHOD	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
THIS SECTION IS TO BE USED AS A GUIDE FOR OTHER ITEM NUMBERS WHEN REFERENCE IS MADE TO SECTION 504 OF THIS APPENDIX.												
ASPHALTIC TACK COAT	Emulsified Asphalt/ Cutback	1002 Mat. Lab	Quality Control/Accept.	-----	CQCF	1/shipment	1 gal plastic bottle for Emulsion 1 qt. screw top can for Cutback	CD No CD required if less that 250 gal.	-----	-----	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab. for CQCF	CQCF to verify material is on the AML Visual inspection by CQCF. Sample only when questionable. Documents added to CQAP Documentation Data base by CQCF.
	Rate of Application	504.06 CQCF	Quality Control/Accept.	-----	CQCF	1/day	-----	-----	-----	-----	2	Shall check sufficient to ensure specifications are met.

SECTION 506 ASPHALTIC CURING MEMBRANE

MATERIAL		REF. / TESTED BY	PURP.	TEST METHOD	SAMPLED BY / METHOD	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
THIS SECTION IS TO BE USED AS A GUIDE FOR OTHER ITEM NUMBERS WHEN REFERENCE IS MADE TO SECTION 506 OF THIS APPENDIX.												
ASPHALTIC CURING MEMBRANE	Emulsified Petroleum Resin/ Emulsified Asphalt	1002 506.02 Mat. Lab	Quality Control/Accept.	-----	CQCF S 201	1/shipment	1 gal plastic bottle	CD	-----	-----	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML Visual inspection by CQCF. Sample only when questionable. Documents added to CQCF Documentation Data base by CQCF.
	Rate of Application	506.06	Quality Control/Accept.	-----	-----	1 day	-----	-----	-----	-----	2	Shall check sufficient to ensure specifications are met.
	Water	506.02 1018.01 Mat. Lab	Quality Control/Accept.	AASHTO T26	-----	1/source	1 qt plastic bottle	-----	-----	11 days	3 OVF to submit to Mat. Lab for CQCF.	Drinkable water need not be sampled.

SECTION 507 ASPHALTIC SURFACE TREATMENT

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
AGGREGATES	Rate of Application	507.06(b) CQCF	Quality Control/Accept.	-----	-----	First pass of aggregate spreader*	-----	-----	-----	1 day	3	*Must check sufficient to ensure materials being applied meet specification requirements for rate of application.
	Size 1,2,3 (for cold application)	507.01 1003.05	Quality Control/Accept.	Gradation TR 113 Deleterious Material TR 119	CQCF S 101	1/1000yd^3/ size	1 full sample sack	-----	-----		3	CQCF to verify material is on the AML Design-Builder may propose a lower frequency after 8 consecutive passing tests and provided CQCF maintain their minimum sampling testing frequency.
	Size 1,2,3 (for hot application)	507.01 1003.05 CQCF	Quality Control/Accept.	-----	CQCF S 101	-----	-----	CA		-----	3 OVF verifies if the document is in the system.	CQCF to verify material is on the AML Certification from supplier for asphalt coating & gradation. Documents added to CQAP Documentation Data base by CQCF.
		507.01 1003.05 CQCF	Quality Control/Accept. Monitor	Gradation TR 113 Deleterious TR 119	CQCF S 101	*1/Project	1 full sample sack	-----	-----	5 day	-----	*Prior to beginning of operation.

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SECTION 507 ASPHALTIC SURFACE TREATMENT (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
ASPHALTIC MATERIAL	Emulsified Asphalt	1002 507.02 Dist. Lab	Quality Control/Accept.	T 59	CQCF S 201	1/transport or storage tank	2-1 gal plastic bottles	CD	-----	3 days	3 OVF verifies if the document is in the system. OVF to submit to Dist. Lab for CQCF.	CQCF to verify material is on the AML Design-Builder may propose a lower frequency after 8 consecutive passing tests and provided CQCF maintain their minimum sampling testing frequency. Documents added to CQAP Documentation Data base by CQCF.
		1002 507.02 Mat. Lab	Quality Control/Accept.	T 59	CQCF S 201	1/type/project	2 gal plastic bottle**	-----	-----	10 days	3 OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML For complete analysis.
	Asphalt Cement	507.02 1002 Mat. Lab	Quality Control/Accept.	-----	CQCF S 201	1/shipment	1 qt friction top can	CD	-----	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML Documents added to CQAP Documentation Data base by CQCF.
	Rate of Application	507.06(a) CQCF	Quality Control/Accept.	-----	-----	1/half day	-----	-----	-----	-----	2	Shall check sufficient to ensure specifications are met.

SECTION 508 STONE MATRIX ASPHALT (2016 Specifications)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
ADDITIVES	Anti-Stripping	508.02(c)(1) 1002.02(a) Mat. Lab	Quality Control/Accept.	-----	-----	1/shipment/ plant*	1 pt friction top can	CD	-----	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML Sample when not accompanied by CD or when questionable. Documents added to CQAP Documentation Data base by CQCF.
	Mineral Filler	508.02(c)(2) 1003.06(a)(6) Mat. Lab	Quality Control/Accept.	-----	CQCF	1/500 tons*	1 gal friction top can	CD*	-----	-----	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML *Sampling not required for Portland cement or hydrated lime when accompanied by CD. Documents added to CQAP Documentation Data base by CQCF.

SECTION 508 STONE MATRIX ASPHALT (Cont'd) (2016 Specifications)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
ADDITIVES (Cont'd)	Fibers (Mineral or Cellulose)	502.02 508.02 1002.02 Mat. Lab	Quality Control/Accept.	-----	CQCF S 102	1/shipment	1 gallon friction top can	CA	-----	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	Shipment must be accompanied by a CA. Sample only when questionable. Documents added to CQCF Documentation Data base by CQCF. CQCF to verify material is from a pre-approved source.
AGGREGATES	Combined Aggregates	503.03 c	Quality Control/Accept.	Moisture TR 106	CQCF S 101	1/day/plant	-----	-----	-----	-----	3	
	All Aggregates	508.01 1003.06(1) CQCF	Quality Control/Accept. Monitor	T-84 T-85 Gradation TR 113	CQCF S 101	1/source/ plant/size*	3 full sample sack	-----	-----	10 days	3	CQCF to verify material is on the AML Bulk Specific Gravity Gsb. *CQCF may elect to use Dist. Lab results. 'Shall check sufficient to ensure specifications are met.
	Coarse Aggregate (+ No. 4)	1003.06 CQCF	Quality Control/Accept. Monitor	CAA TR 306 F & E ASTM D-4791	CQCF S 101	1/source/ plant/size*	1 full sample sack	-----	-----	10 days	3	CQCF to verify material is on the AML *CQCF may elect to use Dist. Lab results.
	Fine Aggregate (- No. 4)	1003.06 CQCF	Quality Control/Accept. Monitor	FAA TR 121	CQCF S 101	1/source/ plant/size*	1 full sample sack	-----	-----	10 days	3	*CQCF may elect to use Dist. Lab results.

SECTION 508 STONE MATRIX ASPHALT (Cont'd) (2016 Specifications)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
ASPHALT MIX RELEASE AGENT		503.13 1018.25	Quality Control/Accept. Monitor	-----	-----	continuously	-----	-----	-----	-----	3	CQCF to verify material is on the AML Visual inspection for performance by CQCF.
ASPHALTIC CONCRETE (PLANT)	Anti-Strip Additive, %	508.03 508.04 508.06 CQCF	Quality Control/Accept.		CQCF	1/sublot	*	-----	-----	-----	3	*Range given on JMF, % AS from meter. See QA Manual.
	Asphalt Cement, %	508.05 503.09 CQCF	Quality Control/Accept.		CQCF	1/sublot					3	*% AC from meter or scales. See QA Manual.
	Gyratory Specimens	508.03 CQCF	Design	TSR TR 322	CQAF S 203	1 set/JMF	6 briquettes/ set	-----	-----	-----		Results submitted with JMF.
	Gyratory Specimens (Moisture Sensitivity) (TSR) (Lottman)	508.04 CQCF	Valid.	TSR TR 322	CQAF S 203	1 set/JMF	6 briquettes/ set	-----	-----	-----	3	Sampled on first production day after validation by CQCF.
	Gyratory Specimens Volumetric	508.06 CQCF	Quality Control/Accept.	Volumetric TR 304	CQCF S 203 & S 605	1/sublot	suitable sampling bucket	-----	-----	1 day	3	Aged N_{design}.

SECTION 508 STONE MATRIX ASPHALT (Cont'd) (2016 Specifications)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
ASPHALTIC CONCRETE (PLANT) (cont'd)	Job Mix Formula (JMF)	508.03 CQCF	Design		-----	1/mix type/plant				10 days		Contractor shall submit to the Design-Builder the proposed job mix formula with supporting design data. Acceptance by the Dist. Lab Engr. is required prior to starting work.
		508.04 CQCF	Valid.	Gmm TR327 Draindown ASTM D6390 % Asphalt TR 323 Gradation TR 309 Volumetric TR 304 TSR TR 322	CQCF	1/JMF	-----	-----	-----	-----	3	Three (3) samples on 1st days production for a maximum of 1,000 tons for validation.
	Loose Mixture (Maximum Theoretical Specific Gravity) G_{mm}	508.06(a) CQCF	Quality Control/Accept.	Gmm TR 327	CQCF S 203	1/sublot	suitable sampling bucket	-----	-----	1 day	1	4 fold testing does not apply.
	Loose Mixture (Asphalt Coating)	503.08 CQCF	Design/ Quality Control	Ross Count TR 328	CQCF S 203	1/JMF*	1 gal friction top can	-----	-----	-----		*Sample only when coating is questionable.
		503.08 CQCF	Quality Control/Accept.	Ross Count TR 328	CQCF S 203	1/JMF*	1 gal friction top can	-----	-----	1 day	3	4 fold testing does not apply. *Sample only when coating is questionable.
	Loose Mixture (Asphalt Draindown)	503.08 CQCF	Design	Draindown ASTM D6390	CQCF S 203	1/JMF	1 gal friction top can	-----	-----	-----		-----
		508.06(c) CQCF	Quality Control/Accept.	Draindown ASTM D6390	CQCF S 203	1/lot	1 gal friction top can	-----	-----	-----	3	-----

SECTION 508 STONE MATRIX ASPHALT (Cont'd) (2016 Specifications)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
ASPHALTIC CONCRETE (PLANT) (Cont'd)	Loose Mixture (Gradation)	508.06 CQCF	Quality Control/Accept.	Gradation TR 309 % Asphalt TR 323	CQCF S 203 & S 605	1/sublot	-----	-----	-----	1 day	3	-----
	Loose Mixture* (Temperature)	503.03 508.08 CQCF	Quality Control/Accept.	-----	CQCF 605	1/sublot	-----	-----	-----	1 day	3	*Temperature of mixture at discharge chute. Shall check sufficient to ensure specifications are met.
	Density	508.06(d) CQCF	Quality Control/Accept.	-----	CQCF S 203 & S 605	3/sublot	4 or 6 in. diameter core	-----	-----	5 days	1	QC to use the nuclear gauge to establish rolling pattern that produces require density. Core should be taken to ensure calibration of density gauge. Discontinue rolling once matt has cooled to 220°F. 4 folding test does not apply
ASPHALTIC CONCRETE (IN-PLACE)	Longitudinal Surface Tolerance	508.06(e) 502.11(b) CQCF	Quality Control/Accept.	TR 644	CQCF TR 644	each sublot	-----	-----	-----	2 days	3	Applies to travel lane wearing and binder. Applies to shoulder, parking, airport runway and taxiway wearing.

SECTION 508 STONE MATRIX ASPHALT (Cont'd) (2016 Specifications)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
ASPHALTIC CONCRETE (IN-PLACE) (Cont'd)	Temperature of Mixture	508.08 CQCF	Quality Control/Accept.	-----	CQCF	2/sublot	-----	-----	-----	1 day		*Temperature of mixture at entry of MTV. Discontinue rolling once the matt has reached 220°F.Shall check sufficient to ensure specifications are met.
	Transverse Surface Tolerance, Cross Slope and *Longitudinal Surface Tolerance	508.05 CQCF	Quality Control/Accept.	10' Metal static straightedge	CQCF	2/day	-----	-----	-----	1 day	2	Shall check sufficient to ensure specifications are met.Results to be documented. *(For bike paths, detour roads, parking lots and shoulders)
	Depth	502.08	Quality Control/Accept. Monitor	-----	-----	1/1000 Linear lane feet	-----	-----	-----	-----	3	Shall check sufficient to ensure plan thickness is met.Results to be documented
	Thickness & Width	502.12 508.01 CQCF	Quality Control/Accept.		CQCF	1/1000 Linear lane feet	-----	-----	-----	-----	3	Width to be measured at the same location of the cores. If differences are noted, TR 602 will be used to isolate area. Results to documented and submitted to OVF.
ASPHALTIC MATERIAL	Asphalt Cement (PG 76-22M)	1002 CQCF	Quality Control/Accept.	-----	-----	-----	-----	CD	-----	-----		CQCF to verify material is on the AML. One CD to accompany each transport. Documents added to CQCF Documentation Data base by CQCF.

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SECTION 508 STONE MATRIX ASPHALT (Cont'd) (2016 Specifications)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
ASPHALTIC MATERIAL (Cont'd)	Asphalt Cement (PG 76-22M) (Cont'd)	1002 Dist. Lab	Quality Control/Accept.	DSR T-315	CQCF S 201	1/plant working tank/day of production	1 qt friction top can	-----	-----	5 days	3 OVF verifies if the document is in the system. OVF to submit to Dist. Lab for CQCF.	CQCF to verify material is on the AML Test original binder DSR, including Phase Angle. If sample does not meet criteria, the plant will investigated and the Dist. Lab will notify the CQCF/OVF, the HMA Producer, and the Mat. Lab. Documents added to CQAP Documentation Data base by CQCF.
	Tack Coat	REFER TO SECTION 504 OF THIS APPENDIX										

SECTION 509 COLD PLANING ASPHALTIC PAVEMENT

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
COLD PLANED SURFACE	Longitudinal Surface Tolerance (for single lift overlays only)	502.10(b) 509.03(b)	Quality Control/Accept. Monitor	TR 644	CQCF	each wheelpath segment	-----	-----	-----	-----	3	When a single lift is to be placed over the cold planed surface it must meet the requirements of binder course in Section 502 of this Appendix. See table 502-8b. IRI to be witnessed by CQCF and documentation provided to CQCF/OVF.
	Transverse Surface Tolerance, Cross Slope	502.10(b)	Quality Control/Accept.	-----	-----	2/day*	-----	-----	-----	-----	3	*As needed to meet requirements of binder. See table 502-4
TEMPORARY PAVEMENT MARKING			Quality Control/Accept.	**REFER TO SECTION 713 OF THIS APPENDIX.**								

SECTION 510 ASPHALTIC CONCRETE PAVEMENT PATCHING, WIDENING AND JOINT REPAIR

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MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
ASPHALTIC CONCRETE			Quality Control/Accept.	**For details on Additives, Aggregates, Asphalt Cements, Asphaltic Concrete, Asphaltic Tack Coat, Asphalt Mix Release Agent and Mineral Filler, Refer to Section 502 of this Appendix.**								
	Density	502.11(a) CQCF	Quality Control/Accept.	TR 304	CQCF	3/sublot	4 or (6) in. diameter core	-----	-----	1 day	3	CQCF to use nuclear gauge to ensure specifications are met. Top 4 inches of finished section.

SECTION 601 PORTLAND CEMENT CONCRETE PAVEMENT

MATERIAL		REF. / TESTED BY	PURP.	TEST METHOD	SAMPLED BY / METHOD	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
FOR DETAILS ON CONCRETE MIX DESIGNS, TESTS AND MATERIALS, REFER TO SECTION 901 OF THIS APPENDIX.												
ADHESIVE-LUBRICANT	For Preformed Elastomeric Compression Joint Seal	1005.03(b) Mat. Lab	Quality Control/Accept.	ASTM D4070	CQCF S 601	1/lot or shipment	1 qt friction top can	-----	2000 yd^2 PCCP	10 days	3 OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML. Mix well before sampling. Seal can tightly.
BOLSTER BLOCKS	Concrete	601.09(h)	Quality Control/Accept.	**REFER TO SECTION 901 OF THIS APPENDIX. (CLASS A STRUCTURAL OR PAVEMENT TYPE)**								
CONCRETE-CURED	Cores - Thickness & Compressive Strength	601.18 CQCF	Quality Control/Accept.	Core Testing TR 225	CQCF	5/lot	5 cores*	-----	For less than 2000 yd^2 make cylinders and record depth measurements	dependent upon completion of lot & curing min. 3 days	2	See "Application of Quality Assurance Specifications for Portland Cement Concrete Pavement and Structures" for details. For pavement plan thickness 10.0 inches (250 mm) or less, 4" diameter (nominal) cores may be used. Coring to be witnessed by OVF. Alternative non-distructive method of verifying thickness for DOTD acceptance when used in conjunction with Flexural Strength Beams. CQCF to provided compressive strengths and thickness results to OVF. No split sampling is required for core testing.
	Beams-Flexural Strength/ Thickness	601.07 CQCF	Quality Control/Accept.	Concrete Test T-140	CQCF	1/1000 lin ft	-----	-----	-----	-----	2	Non-destructive testing required for testing acceptance measurement. Design-Builder and CQCF to submit plan with frequency for DOTD/OVF Acceptance.
	Surface Tolerance	601.11 CQCF	Quality Control/Accept.	Surface Tolerance TR 644	-----	1/lane	Entire Lot	-----	-----	-----	3	*Refer to QA manual for details. OVT to witness testing. **Shoulders, turnouts and crossovers shall be checked with an approved 10 ft. metal static straightedge at 1 location/300 ft. *Testing to be performed after all corrective work is complete.

SECTION 601 PORTLAND CEMENT CONCRETE PAVEMENT (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
CONCRETE-CURED (Cont'd)	Tine Texturing	601.08(h) CQCF	Quality Control/Accept.	Surface Texture TR 229	CQCF	2/lot*	-----	-----	-----	1 day	3	*See DOTD TR 229
CONCRETE-PLASTIC	Compressive Strength	601.07 601.17 CQCF	Quality Control/Accept. Early Break	Concrete Test TR 230	CQCF S 301	*1 set of 3 cyl/location/ day	4 in. x 8 in. cylinder mold	-----	-----	1 day	-----	*Used to determine early opening date for traffic or construction equipment.
		601.07 601.17 CQCF	Quality Control/Accept. Monitor	Concrete Test TR 230	CQCF S 301	**1 set of 3 cyl/core location/lot	4 in. x 8 in. cylinder mold	-----	-----	1 day	1	*28 day compressive strength to be used for Quarterly Validation (CQAP Table B.1)
	Rate of Application for Curing Compound	601.10 CQCF	Quality Control/Accept.	Rate Check	-----	1/day	*	-----	-----	1 day	3	Shall check sufficient to ensure specifications are met. Visual inspection by CQCF *(Check gallon/sq. yd.)
	Surface Finish (Straight Edge)	601.08(f) CQCF	Quality Control/Accept. Monitor	-----		*entire surface area	-----	-----	-----	-----	3	*Tested for trueness with an approved 10 ft. metal static straightedge. Shall check sufficient to ensure specifications are met.
	Thickness	601.18(b)(3) CQCF	Quality Control/Accept.	Depth Check	CQCF	1/ lane/100 lin ft	-----	-----	-----	-----	3	Shall test sufficient to ensure specifications are met.

SECTION 601 PORTLAND CEMENT CONCRETE PAVEMENT (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
CONCRETE-PLASTIC (Cont'd)	Tine Texturing	601.08(h) CQCF	Quality Control/Accept. Monitor	Surface Texture TR 229	CQCF	* 1/500 Ft.	-----	-----	-----	-----	3	*Shall check sufficient to ensure specifications are met.
	Liquid Membrane Forming Compound	601.02 1011.01(a) Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/shipment*	1 qt friction top can	CC	-----	10 days	3 OVF to submit to Mat. Lab for CQCF. OVF verifies if the document is in the system.	CQCF to verify material is on the AML *Visual inspection by CQCF Documents added to CQAP Documentation Data base by CQCF. Sample when not accompanied by certificate or when questionable.
EPOXY RESIN SYSTEMS	Type I, Grade C	601.02 1017.02 Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/lot or shipment	1 qt each component friction top can	CC	-----	11 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML *Visual inspection by CQCF Documents added to CQAP Documentation Data base by CQCF. Sample when not accompanied by certificate or when questionable.

SECTION 601 PORTLAND CEMENT CONCRETE PAVEMENT (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
GEOTEXTILE FABRIC		601.02 1019 Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/type/ source/ shipment	3 lin ft/roll width of fabric (minimum of 18 Sq. Ft.)	CC	150 yd^2 of fabric	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML Documents added to CQAP Documentation Data base by CQCF.
JOINT FILLERS	Preformed Polyurethane Foam/ Wood	601.02 1005.02 Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/5000 lin ft/ type	36 in. length	-----	2000 yd^2 PCCP	10 days	3 OVF to submit to Mat. Lab for CQCF.	
JOINT FORMER/ SEALER (Combination)	Preformed Joint Former/ Sealer	1005.04 Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/5000 lin ft/ type	6 ft. length	-----	2000 yd^2 PCCP	11 days	3 OVF to submit to Mat. Lab for CQCF.	-----

SECTION 601 PORTLAND CEMENT CONCRETE PAVEMENT (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
JOINT SEALANT (Extruded)/ (Hot Poured)	Silicone Polymer (single or two-component rapid cure)/ Rubberized Asphaltic Type	1005.02(c), (d) Mat. Lab	Quality Control/Accept.	-----	CQCF S 611	1/batch/ shipment	1 gal friction top can	CD	2000 yd^2 PCCP	30 days/ 11 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML Sample when not accompanied by a certificate or when questionable. Documents added to CQCF Documentation Data base by CQCF.
JOINT SEALANT (Backing Material)	Rods	1005.02(a) (c) (d) Mat. Lab	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	3	CQCF to verify material is on the AML For use with polyurethane silicone polymer joint seals. For Hot poured joint sealants, use heat resistant rods. Visual inspection by CQCF.
JOINT SEALANTS (Primer)		1005.02(b), (c),(d) CQCF	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	3	CQCF to verify material is on the AML Visual inspection by CQCF

SECTION 601 PORTLAND CEMENT CONCRETE PAVEMENT (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
JOINT SEAL (Preformed)	Elastomeric Compression	1005.03(a) Mat. Lab CQCF	Quality Control/Accept.	-----	CQCF S 601	1/lot or shipment	8 ft. length	CA	2000 yd^2 PCCP	14 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML CQCF forwards CA with sample to OVF. Documents added to CQAP Documentation Data base by CQCF.
LIME	Hydrated	1018.03	Quality Control/Accept.	-----	-----	1/shipment	-----	CD	-----	-----	3 OVF verifies if the document is in the system.	CQCF to verify material is on the AML Visual inspection by CQCF. Documents added to CQAP Documentation Data base by CQCF.
LUBRICANT-ADHESIVE		1005.03(b) 1005.07	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	3	CQCF to verify material is on the AML For use with preformed polyurethane foam joint seal. Visual inspection by CQCF.
NON-SHRINK PATCHING SYSTEM	Non-Shrink Grout	601.13(a) 1018.26 Mat. Lab	Quality Control/Accept. / Early Breaks	-----	CQCF S 601	1/source	1 sack	-----	-----	16 days	3 OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML Sample shall be submitted in an unbroken moisture proof sack. To be tested for early strength when required.
REINFORCEMENT	Adhesive Anchor System	601.09 Mat. Lab	Quality Control/Accept.	-----	CQAP S 501	1/type	-----		2000 yd^2 PCCP	12 days	3 OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML

SECTION 601 PORTLAND CEMENT CONCRETE PAVEMENT (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
REINFORCEMENT (Cont'd)	Dowel Bars (Cont'd)	601.09 1009.04 Mat. Lab	Quality Control/Accept.	-----	CQCF S 501	1/shipment	2 bars *	-----	2000 yd^2 PCCP	9 days	3 OVF to submit to Mat. Lab for CQCF.	*For mechanical placement, only one dowel bar required. Basket assemblies checked for dimensional conformance by CQCF. Visual inspection by CQCF
	Mechanical Butt Splicing Devices	806.07 Mat. Lab	Quality Control/Accept.	-----	CQCF	1/size/ shipment	-----	-----	2000 yd^2 PCCP	9 days	3 OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML.
	Tie Bars	1009.03 Mat. Lab	Quality Control/Accept.		CQCF S 501	1/size/grade/ 150,000lb/ source	2 bars	CA	2000 yd^2 PCCP	9 days	3 OVF to submit to Mat. Lab for CQCF. OVF verifies if the document is in the system.	CQCF to verify material is on the AML. Documents added to CQAP Documentation Data base by CQCF. Sample when not accompanied by certificate or when questionable.
TAR PAPER		601.09 (b),(h) Mat. Lab	Quality Control/Accept.	-----	CQCF	1/source*	2 ft. x 2 ft.	-----	-----	9 days	3 OVF to submit to Mat. Lab for CQCF.	For Bolster Blocks. *Visual inspection by CQCF. Sample only when questionable.

SECTION 602 PORTLAND CEMENT CONCRETE PAVEMENT REHABILITATION

MATERIAL		REF. / TESTED BY	PURP.	TEST METHOD	SAMPLED BY / METHOD	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
FOR DETAILS ON CONCRETE MIX DESIGNS, TESTS AND MATERIALS, REFER TO SECTION 901 OF THIS APPENDIX.												
ADHESIVE-LUBRICIANT	For Preformed Elastomeric Compression Joint Seal	1005.03(b) Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/lot or shipment	1 qt. friction top can	-----	-----	10 days	3 OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML. Mix well before sampling. Seal can tightly.
BOLSTER BLOCKS	Concrete	601.09(h)	Quality Control/Accept.		**REFER TO SECTION 901 OF THIS APPENDIX. (CLASS A STRUCTURAL OR PAVEMENT TYPE)**							
CONCRETE-CURED	Surface Tolerance (Grinding)	601.11 602.11 CQCF	Quality Control/Accept.	Surface Tolerance TR 644	-----	1/location/ 300 ft.**	-----	-----	-----	-----	3	*See QA manual for details. **Shoulders, turnouts and crossovers shall be checked with an approved 10 ft. metal static straightedge. To be tested prior to, as well as after corrective work complete by Design-Builder. For patching, test each patched area. CQCF must furnish a DOTD approved profiler and an approved 10 ft. metal static straightedge.
		601.11 602.11 CQCF	Quality Control/Accept.	Surface Tolerance TR 644	-----	Each lane/each wheel path	-----	-----	-----	2 days	3 OVF verifies if the document is in the system	Travel lane and associated pavement will be tested after quality control testing and corrective work completed by Design-Builder. CQCF will be present for the final test run and will immediately receive a copy of the test result. For patching, test each patched area. Documents added to CQAP Documentation data base by CQCF.
	Tine Texturing (Patching)	602.07 602.08 602.09 602.10 CQCF	Quality Control/Accept.	Surface Texture TR 229	-----	For each patched area	-----	-----	-----	1 day	3	Shall check sufficient to ensure specifications are met. Match texture of adjoining pavements.

SECTION 602 PORTLAND CEMENT CONCRETE PAVEMENT REHABILITATION (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
CONCRETE-PLASTIC	Compressive Strength	602.07 to 602.10 901.12 CQCF	Quality Control/Accept.	Compressive Strength TR 230	CQCF S 301	3 cyl/pour/ 100yd^3 max.	4 in. x 8 in. cylinder mold	-----	-----	-----	-----	-----
		602.07 to 602.10 CQCF	Quality Control/Accept. Early Break	Compressive Strength TR 230	CQCF S 301	*1 set of 3 cyl/ day	4 in. x 8 in. cylinder mold	-----	-----	1 day	-----	*Used to determine early opening date for traffic or construction equipment.
	Rate of Application for Curing Compound	601.10 CQCF	Quality Control/Accept.	-----	CQCF	1/day	-----	-----	-----	-----	3	Shall check sufficient to ensure specifications are met. Visual inspection by QC. Check Gal/sq. yd.
	Surface Finish (Patching)	602.11 CQCF	Quality Control/Accept.	-----	CQCF	2/Each patched area	-----	-----	-----	-----	3	Tested for trueness with an approved 10 ft. metal static straightedge. Be witnessed by OVT
	Thickness	601.18(b)(3) CQCF	Quality Control/Accept.	Depth Check of Excavated Area	CQCF	Each patched area	-----	-----	-----	-----	3	Shall test sufficient to ensure specifications are met. Design-Builder may propose a lower frequency after 8 consecutive matching test results provided CQCF maintains minimum sampling and testing frequency.
	Tine Texturing	601.08(h) CQCF	Monitor	Surface Texture TR 229	CQCF	* 1/500 Sq. Ft.	-----	-----	-----	-----	3	Shall check sufficient to ensure specifications are met.

SECTION 602 PORTLAND CEMENT CONCRETE PAVEMENT REHABILITATION (Cont'd)

MATERIAL		REF. / TESTED BY	PURP.	TEST METHOD	SAMPLED BY / METHOD	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
CURING MATERIALS (Cont'd)	Liquid Membrane Forming Compound	601.02 1011.01(a) Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/shipment*	1 qt friction top can	CC	-----	10 days	3 OVF to submit to Mat. Lab for CQCF. OVF verifies if the document is in the system.	CQCF to verify material is on the AML *Visual inspection by CQCF Documents added to CQAP Documentation Data base by CQCF. Sample when not accompanied by certificate or when questionable.
EPOXY RESIN SYSTEMS	Type I, Grade C	602.02 1017.02 Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/lot or shipment	-----	CC	-----	11 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML Documents added to CQCF Documentation Data base by CQCF. Sample when not accompanied by certificate or when questionable.

SECTION 602 PORTLAND CEMENT CONCRETE PAVEMENT REHABILITATION (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
JOINT FILLERS	Preformed Polyurethane Foam/ Wood	601.02 1005 Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/5000 lin ft/ type	36 in. length	-----	-----	10 days	3 OVF to submit to Mat. Lab for CQCF.	
JOINT FORMER/ SEALER (Combination)	Preformed Joint Former/ Sealer	1005.04 Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/5000 lin ft/ type	6 ft. length	-----	-----	11 days	3 OVF to submit to Mat. Lab for CQCF.	-----
JOINT SEALANT (Extruded)/ (Hot Poured)	Silicone Polymer (single or two-component rapid cure)/ Rubberized Asphaltic Type	1005.02(c), (d) Mat. Lab	Quality Control/Accept.	-----	CQCF S 611	1/batch/ shipment	1 gal friction top can	CD	-----	30 days/ 11 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML Sample when not accompanied by a certificate or when questionable. Documents added to CQCF Documentation Data base by CQCF.

SECTION 602 PORTLAND CEMENT CONCRETE PAVEMENT REHABILITATION (Cont'd)

MATERIAL		REF. / TESTED BY	PURP.	TEST METHOD	SAMPLED BY / METHOD	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
JOINT SEALANT (Backing Material)	Rods	1005.02(a)(c)(d) Mat. Lab	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	3	CQCF to verify material is on the AML For use with polyurethane silicone polymer joint seals. For Hot poured joint sealants, use heat resistant rods. Visual inspection by CQCF.
JOINT SEALANTS (Primer)		1005.02(b)(c)(d) CQCF	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	3	CQCF to verify material is on the AML Visual inspection by CQCF
JOINT SEAL (Preformed)	Elastomeric Compression	1005.03(a) Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/lot or shipment	8 ft. length	CA	-----	14 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML CQCF forwards CA with sample to OVF. Documents added to CQAP Documentation Data base by CQCF.

SECTION 602 PORTLAND CEMENT CONCRETE PAVEMENT REHABILITATION (Cont'd)

MATERIAL		REF. / TESTED BY	PURP.	TEST METHOD	SAMPLED BY / METHOD	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
LIME	Hydrated	1018.03	Quality Control/Accept.	-----	-----	1/shipment	-----	CD	-----	-----	3 OVF verifies if the document is in the system.	CQCF to verify material is on the AML Visual inspection by CQCF. Documents added to CQAP Documentation Data base by CQCF.
LUBRICANT-ADHESIVE		1005.03(b) 1005.07	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	3	CQCF to verify material is on the AML For use with preformed polyurethane foam joint seal. Visual inspection by CQCF.
LOW-SHRINK PATCHING MATERIAL	Rapid Set Compressive Strength/ Shrinkage	602.15 Mat. Lab	Quality Control/Accept.	Compressive Strength C 109 Shrinkage ASTM C157	-----	1/source	1 bag Sample shall be submitted in unbroken moisture proof sack.	CC	-----	-----	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML Documents added to CQAP Documentation Data base by CQCF. CQCF to submit proposed water content value to be used at job site with sample.
	Compressive Strength	602.15 Dist. Lab	Quality Control/Accept./ Monitor	Compress. Strength ASTM C109	CQCF	1/1st day production for acceptance	6 cubes	-----	-----	-----	3 OVF to submit to Dist. Lab for CQCF.	For preapproval of design. Tested at 3 and 24 hours.

SECTION 602 PORTLAND CEMENT CONCRETE PAVEMENT REHABILITATION (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
REINFORCEMENT	Adhesive Anchor System	601.09 Mat. Lab	Quality Control/Accept.	-----	CQCF	1/type	-----	-----		12 days	3 OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML
	Dowel Bars	1009.04 Mat. Lab	Quality Control/Accept.	-----	CQCF S 501	1/shipment	2 bars *	-----	-----	9 days	3 OVF to submit to Mat. Lab for CQCF.	*For mechanical placement, only one dowel bar required. Basket assemblies checked for dimensional conformance by CQCF. Shall check sufficient to ensure specifications are met
	Tie Bars	1009.03	Quality Control	-----	-----	-----	-----	CA	-----	-----	-----	QC to verify material is on the AML. Visual inspection by QC. QC to provide document to CQCF.
	Tie Bars	1009.03 Mat. Lab	Quality Control/Accept.		CQCF S 501	1/size/grade/ 150,000lb/ source	2 bars	CA	-----	9 days	3 OVF to submit to Mat. Lab for CQCF. OVF verifies if the document is in the system.	CQCF to verify material is on the AML. Documents added to CQAP Documentation Data base by CQCF. Sample when not accompanied by certificate or when questionable.

SECTION 602 PORTLAND CEMENT CONCRETE PAVEMENT REHABILITATION (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
REINFORCEMENT (Cont'd)	Steel Fibers	602.09 Mat. Lab*	Quality Control/Accept.		CQCF	1/shipment	1 qt. can	CC			3 OVF to submit to Mat. Lab for CQCF. OVF verifies if the document is in the system.	*Visual inspection by CQCF. Sample when questionable. Documents added to CQAP Documentation Data base by CQCF.
TAR PAPER		601.09(b)(h)	Quality Control/Accept.	S 601	CQCF	1/source*	2 ft x 2 ft	-----	-----	9 days	3 OVF to submit CQCF sample to DOTD Mat. Lab.	For Bolster Blocks. *Visual inspection by CQCF Sample only if questionable.
POWERED AMMONIUM LIGNIN SULPHONATE		CQCF 602.14	Quality Control/Accept.		1/lot or batch	-----	CC	-----	-----	-----	3 OVF verifies if the document is in the system.	Documents added to CQAP Documentation Data base by CQCF.
SURRY	Time of Efflux	CQCF 602.14	Quality Control/Accept.	Efflux	COAF TR 633	2/half day	3 gal. suitable container	-----	-----	1/2 hr	3 OVF verifies if the document is in the system.	To be witnessed and documented by CQCF. Documents added to CQAP Documentation Data base by CQCF.

SECTION 701 CULVERTS & STORM DRAINS

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
BACKFILL	Density, when required by specifications (Other than Type A)	701.08 CQCF	Quality Control/Accept.	In-Place Density TR 401	-----	1/200 Ln. Ft. Pipe/Location/side of pipe/3' of backfill	-----	-----	-----	-----	1	*Test first lift a 1/3 the pipe height and at least 1 test for each additonal 3' of backfill thickness. Shall check sufficient to ensure specifications are met for each lift of backfill CQCF to do TR 415 or TR 418
	Density (Non-Paved Areas)	701.08 CQCF	Quality Control/Accept.	In-Place Density TR 401	-----	1/pipe/ location	-----	-----	-----	-----	-----	*Visual inspection & compaction to the density of the surrounding soil to the satisfaction of the CQCF. Shall check sufficient to ensure specifications are met
	Flowable Fill	701.08(1)	Quality Control/Accept.	**REFER TO SECTION 710 OF THIS APPENDIX.**								
	Moisture Content	701.08 CQCF	Quality Control/Accept.	Moisture Content TR 403	CQCF S 401	*1/Location	-----	-----	-----	-----	1	*Test taken during or just prior to compaction. Shall check sufficient to ensure specifications are met at the time of compaction. CQCF to do TR 415 or TR 418
		701.08 CQCF	Design	Max. Density TR 415 or TR 418	CQCF S 401	*1/source	6 sacks	-----	-----	-----	3	*Required as material changes.

SECTION 701 CULVERTS & STORM DRAINS (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
BACKFILL (Cont'd)	Selected Soil*	203.06 701.02 CQCF	Quality Control/Accept.	Liquid Limit, Plastic Limit, PI TR 428 Hydrometer TR 407 %Organic TR 413 pH TR 430* Resistivity TR 429*	CQCF S 403	1/1,000 yd^3	1 full sample sack	-----	-----	10 days	3	*pH and resistivity required for metal pipe. Design Builder may propose a lower frequency after 8 consecutive passing test and provided CQCF maintain their minimum sampling testing frequency. Shall check sufficient to ensure specifications are met.
	Type A Backfill (Stone, RPCC, RAP)	701.02 CQCF	Quality Control/Accept.	Gradation TR 113 PI TR 428	CQCF	1/1,000 yd^3	1 full sample sack	-----	-----	-----	2	CQCF to verify material is on the AML RPCC must be from an approved source. TR 428 is not required for RAP. Design-Builder may propose a lower frequency after 8 consecutive passing tests and provided CQCF maintain their minimum sampling testing frequency. Shall check sufficient to ensure specifications are met.
BEDDING MATERIAL			Quality Control/Accept.	**REFER TO SECTION 726 OF THIS APPENDIX.**								

SECTION 701 CULVERTS & STORM DRAINS (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
CONCRETE PIPE AND PIPE ARCH	Non-Reinforced (Concrete Sewer Pipe)	701.02 1006	Quality Control/Accept.	-----	**Inspected and stamped by DOTD Const. Fab. prior to use.**			CD	-----	-----	3 OVF verifies if the document is in the system.	Visual inspection by CQCF. CD to include lot number for gasket materials. CQCF to verify stamp by DOTD Const. Fab. Insp. Documents added to CQAP Documentation Data base by CQCF.
	Reinforced	701.02 1006	Quality Control/Accept.	-----	**Inspected and stamped by DOTD Const. Fab. prior to use.**			CD	-----	-----	3 OVF verifies if the document is in the system.	Visual inspection by CQCF. CQCF to provide document to OVT. CQCF to verify material is on the AML. CQCF to verify stamp by DOTD Const. Fab. Insp.
CONDUIT PLUG & COLLARS	Concrete (Class R)		Quality Control/Accept.	**REFER TO SECTION 901 OF THIS APPENDIX.**								
GASKET MATERIAL (For Pipe)	Flexible Plastic Gasket	701.02 1006.06(b)	Quality Control/Accept.	-----	-----	-----	-----	CC*	-----	-----	3 OVF verifies if the document is in the system.	CQCF to verify material is on the AML *Gasket lot no. listed on pipe CC. Primer used according to gasket manufacturer's recommendation; sample not required. Documents added to CQAP Documentation Data base by CQCF.
	Rubber Gaskets	701.02 1006.06(a)	Quality Control/Accept.	-----	-----	-----	-----	CC*	-----	-----	3 OVF verifies if the document is in the system.	CQCF to verify material is on the AML *Gasket lot no. listed on pipe CC. Lubricant used according to gasket manufacturer's recommendation; sample not required. Documents added to CQAP Documentation Data base by CQCF.

SECTION 701 CULVERTS & STORM DRAINS (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
GEOTEXTILE FABRIC		701.02 1019.01 Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/type/source/ shipment	3 Ln. Ft./roll width of fabric (min 18 ft^2)	CC	-----	11 days	3 OVF to submit to Mat. Lab for CQCF. OVF verifies if the document is in the system.	CQCF to verify material is on the AML For pipe wrap visual inspection by CQCF. Documents added to CQAP Documentation Data base by CQCF. Sample when not accompanied by certificate or when questionable.
METAL PIPE	Bituminous Coated Corrugated Steel Pipe & Pipe Arch	701.02 1007.02	Quality Control/Accept.	-----	**Inspected, approved and marked by MFR. prior to use.**			CD	-----	10 days	3 OVF verifies if the document is in the system.	Visual inspection by CQCF. CD includes gage, diameter, coupling bands, gasket materials and hardware. Documents added to CQAP Documentation Data base by CQCF.
	Corrugated. Aluminum Pipe & Pipe Arch	701.02 1007.05	Quality Control/Accept.	-----	**Inspected, approved and marked by MFR. prior to use.**			CD	-----	11 days	3 OVF verifies if the document is in the system.	Visual inspection by CQCF. CD includes gage, diameter, coupling bands, gasket materials and hardware. Documents added to CQAP Documentation Data base by CQCF.
	Structural Plate For Pipe & Pipe Arch	701.02 1007.04	Quality Control/Accept.	-----	**Inspected, approved and marked by MFR prior to use.**			CD	-----	11 days	3 OVF verifies if the document is in the system.	Visual inspection by CQCF. CD includes gage, diameter, coupling bands, gasket materials and hardware. Documents added to CQAP Documentation Data base by CQCF.
	Galvanizing Repair Compound	1007.01 1008.05	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	3	CQCF to verify material is on the AML Visual inspection by CQCF.

SECTION 701 CULVERTS & STORM DRAINS (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
MORTAR	Cement, Sand & Water	701.02 702.02	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	3	Visual inspection by CQCF.
PLASTIC CULVERT PIPE		701.02 1006.07	Quality Control/Accept.	-----	-----	-----	-----	CC	-----	-----	3 OVF verifies if the document is in the system	CQCF to verify material is on the AML Visual inspection by CQCF. CC includes split coupling bands, straps and gasket material.
	Mandrel Test	701.09(a)	Quality Control/Accept.	-----	CQCF S 601	1/line of pipe	-----	-----	-----	-----	3	For 36 in. diameter or less. CQCF to observe and approve. For pipe larger than 36 inches in diameter deflection shall be determine by a method approved by the Design Builder.
PLASTIC YARD DRAIN PIPE & JOINTS		701.02 1006.09 Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/type/size/ shipment	6 ft length	CA	-----	10 days	3 OVF to submit to Mat. Lab for CQCF. OVF verifies if the document is in the system.	CQCF to verify material is on the AML For corrugated Polyethylene 4 pieces 5 ft. length. Sample when not accompanied by certificate or when questionable. Documents added to CQAP Documentation Data base by CQCF.
FITTINGS FOR PLASTIC YARD DRAIN PIPE & JOINTS		701.02 1006.09 Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/type/size/ shipment	1 item	CC	-----	10 days	3 OVF to submit to Mat. Lab for CQCF. OVF verifies if the document is in the system.	Sample when not accompanied by certificate or when questionable. Document added to CQAP Documentation Data base by CQCF.

SECTION 701 CULVERTS & STORM DRAINS (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
PLASTIC SOIL BLANKET	Thickness (Compacted)	203.10 CQCF	Quality Control/Accept.			1/1,000 lin ft. /slope	-----	-----	-----	-----	2	Shall check sufficient to ensure specifications are met.
	Plastic Soil	203.10 CQCF	Quality Control/Accept.**	PI TR428 % Silt TR407 pH TR430 % Organic TR413	CQCF S 401	1/1,000 yd^3*	1 full sample sack	-----	-----	5 days	3	*Not required if tested & approved as excavation or borrow pit material. Pit approval allowed if identifiable strata can be isolated. **Shall support a satisfactory stand of grass in accordance with Sections 714 or 717. Design-Builder may propose a lower frequency after 8 consecutive passing tests and provided CQCF maintain their minimum sampling testing frequency. Shall check sufficient to ensure specifications are met.

SECTION 702 MANHOLES, JUNCTION BOXES, CATCH BASINS & END TREATMENTS

MATERIAL		REF. / TESTED BY	PURP.	TEST METHOD	SAMPLED BY / METHOD	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
FOR DETAILS ON CONCRETE TEST, MIX DESIGNS AND MATERIALS (ADMIXTURES, AGGREGATES, CEMENT AND WATER) REFER TO SECTION 901 OF THIS APPENDIX. (CLASS M)												
BACKFILL	Density	702.04 701.08(c) CQCF	Quality Control/Accept.	**REFER TO SECTION 701 OF THIS APPENDIX.**								
	Flowable Fill	701.08(c) 702.04 CQCF QC	Quality Control/Accept.	**REFER TO SECTION 710 OF THIS APPENDIX.**								
	Granular Material	702.04 701.08(c) CQCF QC	Quality Control/Accept.	**REFER TO SECTION 701 OF THIS APPENDIX.**								
	Selected Soil	702.04 701.08(c) CQCF QC	Quality Control/Accept.	**REFER TO SECTION 701 OF THIS APPENDIX.**								
BRICK	Sewer	702.04 1004.01 Mat. Lab.	Quality Control/Accept.	ASTM C139 or AASHTO M91	CQCF S 601	*1/25,000/ type	5 bricks	-----	-----	10 days	3 OVF to submit to Mat. Lab for CQCF.	*Visual inspection by CQCF. Sample only when questionable.
COVERS, FRAMES & GRATES		702.02 1018.04 Mat. Lab	Quality Control/Accept.	-----	-----	*1 bar	-----	CA	-----	10 days	3 OVF to submit to Mat. Lab for CQCF. OVF verifies if the document is in the system.	Visual inspection by CQCF. CQCF to receive form 4148 and CA for physical and chemical properties, from the QC. Documents added to CQAP Documentation Data base by CQCF. When questioned by CQCF; one tension test bar, ASTM A 48, specimen B, (threaded) representing lot of material from which item is cast to be submitted to Const. Fab. Refer Section 807 of this appendix.

SECTION 702 MANHOLES, JUNCTION BOXES, CATCH BASINS & END TREATMENTS (Cont'd)

MATERIAL		REF. / TESTED BY	PURP.	TEST METHOD	SAMPLED BY / METHOD	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
FOR DETAILS ON CONCRETE TEST, MIX DESIGNS AND MATERIALS (ADMIXTURES, AGGREGATES, CEMENT AND WATER) REFER TO SECTION 901 OF THIS APPENDIX. (CLASS M)												
CULVERT SAFETY ENDS	Pipe Runners & Hardware	702.04(c)	Quality Control/Accept.	-----	-----	-----	-----	CA	-----	-----	3 OVF verifies if the document is in the system.	Visual inspection by CQCF. document added to CQAP Documentation Data base by CQCF.
	Epoxy Resin Systems	702.04(c) 1017.02 Mat. Lab	Quality Control/Accept.	Table 1017-1 and 2	CQCF S 601	1/lot or shipment*	1 qt each component friction top can	CC	1 gal	11 days	3 OVF to submit to Mat. Lab for CQCF. OVF verifies if the document is in the system.	CQCF to verify material is on the AML *Visual inspection by CQCF. Documents added to CQAP Documentation Data base by CQCF. Sample when not accompanied by certificate or when questionable.
	Adhesive Anchor Systems	702.04(c) 1017.02 Mat. Lab	Quality Control/Accept.	Table 1017-1 and 2	CQCF S 601	1/lot or shipment	1 qt each component friction top can	-----	1 gal	11 days	3 OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML Visual inspection by CQCF. Sample only when questionable.
DRY-BATCHED SACKED CONCRETE	Compressive Strength	702.04(b) 712.02(e) CQCF	Quality Control/Accept.	Compressive Strength TR 230	CQCF	1 set/1,000 sacks 3 cyl/set	1 sack 6 in. x 12 in. cylinder mold*	CC**	-----	-----	3 OVF verifies if the document is in the system.	CQCF to verify material is on the AML *Cylinders made by DB from contents of sack mixed with water to produce a slump of 2 to 5 inches. **CC should show mix proportions. Documents added to CQCF Documentation Data base by CQCF.

SECTION 702 MANHOLES, JUNCTION BOXES, CATCH BASINS & END TREATMENTS (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
FOR DETAILS ON CONCRETE TEST, MIX DESIGNS AND MATERIALS (ADMIXTURES, AGGREGATES, CEMENT AND WATER) REFER TO SECTION 901 OF THIS APPENDIX. (CLASS M)												
GASKET MATERIALS	Flexible Plastic Gasket	702.04 1006.06(b) Mat. Lab	Quality Control/Accept.	AASHTO M198	CQCF	-----	3 ft length	CC**	-----	-----	3 OVF verifies if the document is in the system.	CQCF to verify material is on the AML *Visual inspection by CQCF Sample only if questionable. **Gasket Lot no. listed on precast unit CC. document added to CQAP Documentation Data base by CQCF.
GEOTEXTILE FABRIC		702.02 1019.01 Mat. Lab	Quality Control/Accept.	Table 1019-1	CQCF S 601	1/type/ source/ shipment	3 lin ft/roll width of fabric* (min 18 ft^2)	CC	-----	10 days	3 OVF to submit to Mat. Lab for CQCF. OVF verifies if the document is in the system.	CQCF to verify material is on the AML Documents added to CQAP Documentation Data base by CQCF. For wrap, visual inspection by CQCF. Sample when not accompanied by certificate or when questionable.
JOINT FILLER		702.04 1005.01(c)	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	3	*Visual inspection by CQCF. Sample only when questionable.
METAL WORK COATINGS	Metal Work Paint	702.04(a) 702.02 1008.05 Mat. Lab	Quality Control/Accept.	ASTM B117	CQCF	1/batch	1 qt friction top can	-----	-----	10 days	3	Visual inspection by CQCF
	Asphaltic Varnish	702.02 1008.03 Mat. Lab	Quality Control/Accept.	ASTM D1640	CQCF S 601	1/batch	1 qt friction top can	-----	-----	10 days	3 OVF to submit to Mat. Lab for CQCF.	*Visual inspection by CQCF. Sample only when questionable.

SECTION 702 MANHOLES, JUNCTION BOXES, CATCH BASINS & END TREATMENTS (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
FOR DETAILS ON CONCRETE TEST, MIX DESIGNS AND MATERIALS (ADMIXTURES, AGGREGATES, CEMENT AND WATER) REFER TO SECTION 901 OF THIS APPENDIX. (CLASS M)												
MORTAR	Cement, Sand & Water	702.02	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	3	Visual inspection by CQCF. Sample only when questionable.
PRECAST REINFORCED CONCRETE UNITS		702.02 1016	Quality Control/Accept.	**Inspected approved and stamped by MFR. prior to use.**				CD	-----	-----	3 OVF verifies if the document is in the system.	CQCF to verify material is on the AML Visual inspection by CQCF. CC to include lot number for Gasket Materials. Documents added to CQAP Documentation Data base by CQCF.
REINFORCEMENT	Bars	702.02 1009 Mat. Lab	Quality Control/Accept.	ASTM A615	CQCF S 501	1/size/grade/ 150,000 lb/ source*	48 in. length	CA	-----	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML. Sample when not accompanied by certificate or when questionable. Documents added to CQAP Documentation Data base by CQCF.
	Chairs	702.04 805 806.06 Mat. Lab	Quality Control/Accept.	-----	CQCF S 501	1/type	1 chair	-----	-----	9 days	3 OVF to submit to Mat. Lab for CQCF.	*Visual inspection by CQCF. Sample only when questionable. Chairs with plastic coated tips need not be sampled. Metal chairs in contact with exterior surfaces of concrete shall be hot-dipped galvanized electroplated with zinc (GS Grades), plastic coated or stainless steel.

SECTION 702 MANHOLES, JUNCTION BOXES, CATCH BASINS & END TREATMENTS (Cont'd)

MATERIAL		REF. / TESTED BY	PURP.	TEST METHOD	SAMPLED BY / METHOD	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
FOR DETAILS ON CONCRETE TEST, MIX DESIGNS AND MATERIALS (ADMIXTURES, AGGREGATES, CEMENT AND WATER) REFER TO SECTION 901 OF THIS APPENDIX. (CLASS M)												
REINFORCEMENT (Cont'd)	Wire Fabric	702.02 702.04 1009.01(d) Mat. Lab	Quality Control/Accept.	ASTM D185	CQCF* S 501	1/shipment	48 in. x 48 in.	-----	-----	11 days	3	*Sampled by Const. Fab. for precast items. Except for MSEW and other non-typical pre-cast items. 'Visual inspection by CQCF.
SACKS		702.04(b) 1018.20 Mat. Lab	Quality Control/Accept.	AASHTO M182	CQCF S 501	1/type/ source	1 sack	-----	-----	9 days	3 OVF to submit to Dist. Lab for CQCF.	*Visual inspection by CQCF. Sample only when if questionable.
STONE		702.04(b) 712.02(d) CQCF	Quality Control/Accept.	**Visual inspection and/or gradation check (at source, Proj. Site, or both, at CQCF's option).***				-----	-----	-----	-----	CQCF to verify material is on the AML *Materials Lab available for assistance prior to use.

SECTION 703 UNDERDRAIN SYSTEMS

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
ASPHALTIC CONCRETE BASE COURSE & SURFACING		-----	Quality Control/Accept.	**REFER TO SECTIONS 502 AND 510 OF THIS APPENDIX.**								
BACKFILL	Aggregate (Size 3)	703.02 1003.07 CQCF	Quality Control/Accept.	%Crushed TR 306 Gradation TR113 Deleterious TR 119	CQCF S 101	1/1,000 yd^3	1 full sample sack	-----	-----	4 days	2	Design Builder may propose a lower frequency after 8 consecutive passing test and provided CQCF maintain their minimum sampling testing frequency. Shall check sufficient to ensure specifications are met.
	Granular Material	703.02 1003.07 CQCF	Quality Control/Accept.	Gradation TR 113 PI TR 428	CQCF S 101	1/1,000 yd^3	1 full sample sack	-----	-----	4 days	2	Design Builder may propose a lower frequency after 8 consecutive passing test and provided CQCF maintain their minimum sampling testing frequency.Shall check sufficient to ensure specifications are met.
GEOCOMPOSITE WALL DRAINS		703.02 1019.02 Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/ type/ lot or fittings: 1/ type/ shipment	4 ft^2	CA	-----	11 days	3 OVF to submit to Mat. Lab for CQCF. OVF verifies if the document is in the system.	CQCF to verify material is on the AML Documents added to CQAP Documentation Data base by CQCF.
GEOTEXTILE FABRIC		703.02 1019.01 Mat. Lab	Quality Control/Accept.	Table 1019-1	CQCF S 614	1/type/ source/ shipment	3 lin ft/roll width of fabric*	CC	150 yd^2	10 days	3 OVF to submit to Mat. Lab for CQCF. OVF verifies if the document is in the system.	CQCF to verify material is on the AML *Sample a minimum of 18 ft^2. Documents added to CQAP Documentation Data base by CQCF.

SECTION 703 UNDERDRAIN SYSTEMS (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
HARDWARE CLOTH	Rodent Screen	703.02 1018.21 Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/shipment*	1 screen	-----	-----	10 days	3 OVF to submit to Mat. Lab for CQCF	*Visual inspection by CQCF. Sample only when questionable.
METAL PIPE	Perforated Bituminous Coated Corrugated Steel	703.02 1018.22 CQCF	Quality Control/Accept.	-----	-----	-----	-----	CD	-----	-----	3 OVF verifies if the document is in the system.	Visual inspection by CQCF. CD includes gage, diameter, coupling bands, gasket material and hardware. Documents added to CQAP Documentation Data base by CQCF.
	Perforated Corrugated Aluminum	703.02 1007.06 CQCF	Quality Control/Accept.	-----	-----	-----	-----	CD	-----	-----	3 OVF verifies if the document is in the system.	Visual inspection by CQCF. CD includes gage, diameter, coupling bands, gasket material and hardware. Documents added to CQAP Documentation Data base by CQCF.
PLASTIC PIPE		703.02 1006.08 Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/type/size/ shipment	6 ft. length*	CA	less than 1,000 ft	10 days	3 OVF to submit Mat. Lab. for CQCF. OVF verifies if the document is in the system.	CQCF to verify material is on the AML *For corrugated Polyethylene 4 pieces 5 ft. length. Documents added to CQAP Documentation Data base by CQCF.
PLASTIC PIPE FITTINGS		703.02 1006.08 Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	3/type/size/ shipment	-----	CC	less than 1,000 ft	10 days	3 OVF to submit Mat. Lab. for CQCF. OVF verifies if the document is in the system.	CQCF to verify material is on the AML Visual inspection by CQCF. Sample only when questionable. Documents added to CQAP Documentation Data base by CQCF.

SECTION 703 UNDERDRAIN SYSTEMS (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
PORTLAND CEMENT CONCRETE	Headwalls (Class M)	703.03(b) CQCF	Quality Control/Accept.	**REFER TO SECTION 901 OF THIS APPENDIX.**								
PRECAST CONCRETE HEADWALLS		703.02 1016.03 CQCF	Quality Control/Accept.	-----	**Inspected, stamped and approved by MFR prior to use.**			CD	-----	-----	3 OVF verifies if the document is in the system.	Visual inspection by CQCF. CQCF to verify stamp. When questionable, contact Const. Fab. Unit prior to use. Documents added to CQAP Documentation Data base by CQCF.
REINFORCING STEEL	Bars	1009.01 Mat. Lab	Quality Control/Accept.	-----	CQCF S 501	1/source*	48 in. length	CA	-----	10 days	3 OVF to submit Mat. Lab for CQCF. OVF verifies if the document is in the system.	*CQCF to verify material is on the AML *For corrugated Polyethylene 4 pieces 5 ft. length. If listed on AML material with CA need not be sampled. Sample for verification when questionable. Documents added to CQAP Documentation Data base by CQCF.
	Wire Fabric	1009.01(d) Mat. Lab	Quality Control/Accept.	ASTM A185	CQCF S 501	1/shipment	48 in. X 48 in.	-----	-----	11 days	3 OVF to submit Mat. Lab for CQCF.	Visual inspection by CQCF. Sample only when questionable.

SECTION 704 GUARD RAIL

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
CONCRETE (Class M)	Mix Designs, Materials & Tests	704.02	Quality Control/Accept.	**REFER TO SECTION 901 OF THIS APPENDIX.**								
GALVANIZING REPAIR COMPOUND		704.03(b) 811.12 Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/type	1 can	-----	-----	-----	3 OVF to submit to Mat. Lab for CQCF.	*CQCF to verify material is on the AML Visual inspection by CQCF. Sample only when questionable.
HARDWARE	Accessories, Bolts, End Anchor Rods, Fittings, Nuts and Washers	704.02 1010.10 Mat. Lab	Quality Control/Accept.	-----	CQCF S 501	1/size/type/ shipment*	1 of each item	CC	-----	12 days	3 OVF to submit to Mat. Lab for CQCF.	Visual inspection sample by CQCF only if not listed on CC or when questionable. Documents added to CQAP Documentation Data base by CQCF.
METAL BEAM RAIL AND END TREATMENTS		704.02 1010.08	Quality Control/Accept.	-----	-----	-----	-----	CC	-----	-----	3 OVF verifies if the document is in the system.	*CQCF to verify material is on the AML Visual inspection by CQCF. Rail shall be stamped with the name or brand of manufacturer, ID symbol or code for heat, no. and coating of lot, AASHTO spec. no., and class and type. Documents added to CQAP Documentation Data base by CQCF.
POSTS AND SPACER BLOCKS	Steel	704.02 1010.09(b)	Quality Control/Accept.	-----	-----	-----	-----	CC	-----	-----	3 OVF verifies if the document is in the system.	Visual inspection by CQCF. Documents added to CQAP Documentation Data base by CQCF.
	Timber	704.02 1010.09(a)	Quality Control/Accept.	-----	-----	-----	-----	CC	-----	-----	3 OVF verifies if the document is in the system.	Visual inspection by CQCF. Documents added to CQAP Documentation Data base by CQCF.

SECTION 704 GUARD RAIL (Cont'd)

MATERIAL		REF. / TESTED BY	PURP.	TEST METHOD	SAMPLED BY / METHOD	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
REINFORCEMENT	Wire Fabric	1009.01(d) Mat. Lab	Quality Control/Accept.	ASTM A185	CQCF S 501	1/shipment	48 in. x 48 in.	-----	-----	11 days	3 OVF to submit to Mat. Lab for CQCF.	Visual inspection by CQCF. Sample only when questionable.
WIRE ROPE & FITTINGS		1010.11 Mat. Lab	Quality Control/Accept.	-----	-----	-----	-----		-----	-----	3 OVF verifies if the document is in the system.	*Wire rope only. CQCF visually inspects fittings. Documents added to CQAP Documentation Data base by CQCF.
WELDING		704.02	Quality Control/Accept.	**REFER TO SECTION 809 OF THIS APPENDIX.**								

SECTION 705 FENCES

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
CHAIN LINK FENCE, GATES AND APPURTENANCES	Fabric (Wire)	705.02 1010.07 Standard Plans Mat. Lab	Quality Control/Accept.	AASHTO M 181	CQCF S 501	1/lot or shipment	36 in. length	-----	1,000 lin ft of fence*	11 days	3 OVF to submit to Mat. Lab for CQCF.	Visual inspection by CQCF. Sample only when questionable.
	Fittings and Misc. Hardware	705.02 1010.07 Standard Plans Mat. Lab	Quality Control/Accept.	AASHTO M 181	CQCF S 501	1/type/size*	1 of each item**	-----	-----	11 days	3 OVF to submit to Mat. Lab for CQCF.	*Visual inspection by CQCF. Sample only when questionable. **One piece of each type of fitting or hardware used is to be submitted.
	Gate Frames, Posts, Rails	705.02 1010.07 Standard Plans Mat. Lab	Quality Control/Accept.	AASHTO M 181	CQCF S 501	1/type/lot or shipment	1 post or 7 ft section	-----	1,000 lin ft of fence*	11 days	3 OVF to submit to Mat. Lab for CQCF.	*Visual inspection by CQCF. Sample only when questionable.
	Hog Rings, Tension Wire, Wire Fabric Ties, & Wire Ties	705.02 1010.07 Standard Plans Mat. Lab	Quality Control/Accept.	AASHTO M 181	CQCF S 501	1/type/lot or shipment	48 in. length or 3 pieces*	-----	1,000 lin ft of fence**	11 days	3 OVF to submit to Mat. Lab for CQCF.	*Wire ties, wire fabric ties and hog rings require only 3 precut pieces for samples. **Visual inspection by CQCF. Sample only when questionable.
CONCRETE (Class R)	Mix Designs, Materials & Tests	705.02	Quality Control/Accept.	**REFER TO SECTION 901 OF THIS APPENDIX.**								
FIELD & LINE TYPE FENCE	Barbed Wire	705.02 1010.01(a) Standard Plans Mat. Lab	Quality Control/Accept.	-----	CQCF S 501	1/lot or shipment*	30 ft length	CC or MFR Label	1,000 lin ft of fence	10 days	3 OVF to submit to Mat. Lab for CQCF.	*Visual inspection by CQCF. Sample only when questionable. Documents added to CQAP Documentation Data base by CQCF.

SECTION 705 FENCES (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
FIELD & LINE TYPE FENCE (Cont'd)	Gates	705.02 1010.06(a) Standard Plans	Quality Control/Accept.	-----	-----	-----	-----	CC	-----	-----	3 OVF verifies if the document is in the system.	Visual inspection and dimensional check by CQCF. Documents added to CQAP Documentation Data base by CQCF.
	Gate Hardware	705.02 1010.06(c) Standard Plans Mat. Lab.	Quality Control/Accept.	-----	CQCF S 501	1/ type*	1 of each item	-----	1,000 lin ft of fence	10 days	3 OVF to submit to Mat. Lab for CQCF.	*Visual inspection by CQCF. Sample only when questionable.
	Metal Fasteners	705.02 1010.05 Standard Plans Mat. Lab	Quality Control/Accept.	ASTM A 90	CQCF S 501	1/ type/ shipment*	12 fasteners	-----	1,000 lin ft of fence	10 days	3 OVF to submit to Mat. Lab for CQCF.	*Visual inspection by CQCF. Sample only when questionable.
	Staples & Nails	705.02 1010.04 Standard Plans Mat. Lab	Quality Control/Accept.	ASTM A 90	CQCF S 501	1/ size/ shipment*	12 staples	-----	1,000 lin ft of fence	10 days	3 OVF to submit to Mat. Lab for CQCF.	*Visual inspection by CQCF. Sample only when questionable.
	Steel Braces	705.02 1010.06(b)(2) Standard Plans Mat. Lab	Quality Control/Accept.	ASTM A 53	CQCF S 501	1/ type/ lot or shipment*	1 brace	-----	1,000 lin ft of fence	10 days	3 OVF to submit to Mat. Lab for CQCF.	*Visual inspection by CQCF. Sample only when questionable.

SECTION 705 FENCES (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
FIELD & LINE TYPE FENCE (Cont'd)	Steel Gate Posts	705.02 1010.06(b)(2) Standard Plans Mat. Lab	Quality Control/Accept.	ASTM A 53	CQCF S 501	1/ type/ lot or shipment*	1 post	-----	1,000 lin ft of fence	-----	3 OVF to submit to Mat. Lab for CQCF.	*Visual inspection by CQCF. Sample only when questionable.
	Steel Gate Stops	705.02 1010.06(d)(2) Standard Plans Mat. Lab	Quality Control/Accept.	-----	CQCF S 501	1/ type/ lot or shipment*	1 stop	-----	1,000 lin ft of fence	10 days	3 OVF to submit to Mat. Lab for CQCF.	*Visual inspection by CQCF. Sample only when questionable.
	Steel Posts with Anchor Plates	705.02 1010.03(b) Standard Plans Mat. Lab	Quality Control/Accept.	-----	CQCF S 501	1/ type/ lot or shipment*	1 post with plate	CC or MFR Label	1,000 lin ft of fence	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	*Visual inspection by CQCF. Sample only when questionable. Documents added to CQAP Documentation Data base by CQCF.
	Timber Posts	705.02 1010.03(a) Mat. Lab.	Quality Control/Accept.	-----	CQCF S 501	-----	-----		-----	-----	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	*Visual inspection by CQCF. Sample only when questionable. Documents added to CQAP Documentation Data base by CQCF.
	Woven Wire	705.02 1010.02 Mat. Lab	Quality Control/Accept.	-----	CQCF S 501	1/lot or shipment*	36 in. length	CC or MFR Label	1,000 lin ft of fence	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	*Visual inspection by CQCF. Sample only when questionable. Documents added to CQAP Documentation Data base by CQCF.

SECTION 705 FENCES (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
FIELD & LINE TYPE FENCE (Cont'd)	Timber Gate Posts, Timber Gate Stops, Timber Stop Posts	705.02 1010.06(b)(1) Mat. Lab.	Quality Control/Accept.	-----	-----	-----	-----	CC	-----	-----	3 OVF verifies if the document is in the system.	*Visual inspection by CQCF. Documents added to CQAP Documentation Data base by CQCF.
GALVANIZING REPAIR COMPOUND		705.06(d) 1008.05 Mat. Lab.	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	-----	CQCF to verify material is on the AML Visual inspection by CQCF.
GROUND ROD ASSEMBLY	Ground Rod, Wire & Clamp	705.02 1018.05 Mat. Lab	Quality Control/Accept.	-----	CQCF S 501	1/ item*	1 of each item Wire 18 in. length	-----	-----	9 days	3 OVF to submit to Mat. Lab for CQCF.	*Visual inspection by CQCF. (NOTE: Coated steel hardware is not permitted.) Sample only when questionable.

SECTION 706 CONCRETE WALKS, DRIVES AND INCIDENTAL PAVING

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
CONCRETE (Class M)	Mix Designs, Materials &	706.02	Quality Control/Accept.	**REFER TO SECTION 901 OF THIS APPENDIX.**								
CURING MATERIALS		706.02 1011.01 Mat. Lab	Quality Control/Accept.	**REFER TO SECTION 601 OF THIS APPENDIX.**								
JOINT FILLER	Preformed Bituminous Type	706.02 706.03(e)(1) 1005.01(c) Mat. Lab	Quality Control/Accept.		CQCF S 501	-----	36 in. length	-----	-----	10 days	3 OVF to submit to Mat. Lab for CQCF.	*Visual inspection by CQCF. Sample only when questionable.
REINFORCING STEEL		706.02 1009.01 Mat. Lab	Quality Control/Accept.	**REFER TO SECTION 601 OF THIS APPENDIX.**								
DETECTABLE WARNING SURFACE FOR HANDICAP RAMPS (Truncated Domes)		706.03(g) Mat. Lab	Quality Control/Accept.		CQCF S 501	-----	1 section	CC	-----	-----	3 OVF to submit to Mat. Lab for CQCF. OVF verifies if the document is in the system.	Visual inspection by CQCF. Sample only when questionable. Documents added to CQAP Documentation Data base by CQCF.

SECTION 707 CURBS AND GUTTERS

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
ASPHALTIC CURB			Quality Control/Accept.	**For details on Additives, Aggregates, Asphalt Cement, Asphaltic Concrete, Asphaltic Tack Coat, Asphalt Mix Release Agent and Mineral Filler, REFER TO SECTION 502 of this Appendix.**								Visual inspection by and to the satisfaction of the CQCF.
BACKFILL	Usable Soil	707.02 203.06(a) CQCF	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	-----	Visual inspection by CQCF.
CONCRETE (Class M)	Mix Designs, Materials & Tests	707.02	Quality Control/Accept.	**REFER TO SECTION 901 OF THIS APPENDIX.**								
CURING MATERIALS		707.02 1011.01	Quality Control/Accept.	**REFER TO SECTION 601 OF THIS APPENDIX.**								
FORM RELEASE AGENT		707.02 1018.24 Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/lot	1 qt plastic bottle	-----	-----	9 days	3 OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML Visual inspection by CQCF. Sample only when questionable.
JOINT MATERIALS (Sealants, Filler, & Seals)		707.02 1005 Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/5,000 lin ft*	35 in. length or 1 gal	-----	-----	17 days	3 OVF to submit to Mat. Lab for CQCF.	*Visual inspection by CQCF. Sample only when questionable.
REINFORCEMENT	Tie Bars	1009.03 Mat. Lab	Quality Control/Accept.	-----	CQCF S 501	1/size/ source*	1 bar	-----	-----	10 days	3 OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML *Visual inspection by CQCF. Sample only when questionable.

SECTION 708 RIGHT-OF-WAY MONUMENTS

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY / METHOD	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
RIGHT-OF-WAY MONUMENTS	Monuments, Steel Stakes & Witness Posts	708.02 Mat. Lab/ Const. Fab.	Quality Control/Accept.	-----	**Type as shown on plans or approved by the DOTD Location & Survey Section Administrator.**			-----	-----	-----	3 OVF to submit to Mat. Lab for CQCF. OVF verifies if the document is in the system.	DB to obtain approval letter from DOTD Location & Survey Section Administrator for substitutions. Visual inspection by CQCF. Documents added to CQAP Documentation Data base by CQCF.

SECTION 709 STEEL CATTLE GUARDS

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
BACKFILL	Density	709.03 CQCF	Quality Control/Accept.	-----	CQCF	1/location	-----	-----	-----	-----	-----	Six (6) inch layer to the density of surrounding soil, if in roadway REFER TO SECTION 203.07.
CONCRETE (Class M)	Mix Designs, Materials &	709.02	Quality Control/Accept.	**REFER TO SECTION 901 OF THIS APPENDIX.**								
HARDWARE	Bolts, Nuts and Washers	709.02 Mat. Lab	Quality Control/Accept.	ASTM A 307 and 536	CQCF S 501	1/size/type/ shipment*	1 of each item**	-----	-----	12 days	3 OVF to submit to Mat. Lab for CQCF.	*Visual inspection by CQCF. Sample only when questionable. **One piece of each size and type of hardware used is be submitted.
PAINT PROTECTIVE		709.02	Quality Control/Accept.	**REFER TO SECTION 811 OF THIS APPENDIX.**								
REINFORCING STEEL	Bars	709.02 1009.01 Mat. Lab	Quality Control/Accept.	-----	CQCF S 501	1/size/ source*	48 in. length	-----	-----	10 days	3 OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML *Visual inspection by CQCF. Sample only when questionable.
STEEL CATTLE GUARD	Rails & Pipe Wings	709.02 1007.13 Std. Pl. KG-01 Const. Fab.	Quality Control/Accept.	-----	**Inspected by DOTD Const. Fab. Insp. prior to use.**			-----	-----	-----	3 OVF verifies if the document is in the system.	CQCF to receive inspection report form DOTD Const. Fab. Engr. Documents added to CQAP Documentation Data base by CQCF.
TREATED TIMBER		1014.01 Mat. Lab/ Const. Fab.	Quality Control/Accept.	-----	-----	-----	-----	CC	-----	-----	3 OVF to submit to Mat. Lab for CQCF. OVF verifies if the document is in the system.	Visual inspection at project site by CQCF. Documents added to CQAP Documentation Data base by CQCF.

SECTION 710 FLOWABLE FILL

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
ALL MATERIALS USED MUST MEET THE APPROPRATE REQUIREMENTS OF SECTION 901												
ADMIXTURES		710.02 1011.02 Mat. Lab.	Quality Control/Accept.	**REFER TO SECTION 901 OF THIS APPENDIX.**								
PORTLAND CEMENT		710.02 1001.01 Mat. Lab.	Quality Control/Accept.	**REFER TO SECTION 901 OF THIS APPENDIX.**								
FLOWABLE FILL	Mix Design	710.02 CQCF	Design	-----	*	1/mix design	-----	-----	-----	3 days		CQCF to verify material is on the AML CQCF to submit mix design to for acceptance. Trial batch required by design builder & witnessed by CQCF.
		710.02 CQCF	Quality Control/Accept.	-----	-----	1/ mix design	-----	-----	-----	3 days	3 OVF verifies if the document is in the system.	Documents added to CQAP Documentation Data base by CQCF. Acceptance by the OVF is required prior to starting work.
FLY ASH		710.02 1018.15	Quality Control/Accept.	**REFER TO SECTION 901 OF THIS APPENDIX.**								
SAND		710.02 1003.02	Quality Control/Accept.	**REFER TO SECTION 901 OF THIS APPENDIX.**								
WATER		710.02 1018.01	Quality Control/Accept.	-----	CQCF S 303	1/source*	1 qt. plastic bottle	-----	-----	11 days	3 OVF to submit to Mat. Lab for CQCF.	*Drinkable water need not be sampled.

SECTION 711 RIPRAP

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
GEOTEXTILE FABRIC		711.02 1019.01 Mat. Lab	Quality Control/Accept.	Table 1019-1	CQCF S 601	1/type/ source/ shipment	3 lin ft/roll width of fabric*	CC	150 yd^2	10 days	3 OVF to submit to Material Lab for CQCF. OVF verifies if the document is in the system.	CQCF to verify material is on the AML *Sample a minimum of 18 ft2. Documents added to CQAP Documentation Data base by CQCF.
RECYCLED CONCRETE		711.02 1003.01 CQCF	Quality Control/Accept.	-----	**Visual inspection and/or gradation check (at source, project site, or both, at CQCF's option.)**			-----	-----	-----	3	Gradation and unit weight provided suppliers. Must be from an approved source.
STONE		711.02 1003.01 QC	Quality Control	-----	-----	-----	-----	-----	-----	-----	-----	CQCF to verify material is on the AML.
STONE		711.02 1003.01 CQCF	Quality Control/Accept.	-----	**Visual inspection and/or gradation check (at source, project site, or both, at CQCF's option.)**			-----	-----	-----	3	CQCF to verify material is on the AML

SECTION 712 REVETMENTS

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
BACKFILL	Usable Soil	712.03 CQCF	Quality Control/Accept.	Classification TR 423	CQCF S 401	1/1,000 yd^3	1 full sample sack	-----	-----	10 days	3	*Shall check sufficient to ensure specifications are met.
CONCRETE (Class R)	Mix Designs, Materials & Test	712.02	Quality Control/Accept.	**REFER TO SECTION 901 0F THIS APPENDIX.**								
CURING MATERIALS		1011.01 Mat. Lab	Quality Control/Accept.	**REFER TO SECTION 601 0F THIS APPENDIX.**								
DRY-BATCHED PREPACKAGED SACKED CONCRETE	Compressive Strength	712.02(e) CQCF	Quality Control/Accept.	Compress. Strength TR 226 or TR 230	CQCF S601	1 set of 3 cy/set/1,000 sacks*	1 sack 4 in. x 8 in. cylinder mold	CC	-----	-----	3 OVF verifies if the document is in the system	CQCF to verify material is on the AML *Cylinders made from contents of sack mixed by CQCF. Water to produce a slump of 2 to 5 inches. CC should show mix proportions. Documents added to CQAP Documentation Data base by CQCF.
GEOTEXTILE FABRIC		1019.01 Mat. Lab	Quality Control/Accept.	Table 1019-1	CQCF S 601	1/type/source/ shipment	3 lin ft/roll width of fabric*	CC	150 yd^2	10 days	3 OVF to submit to Material Lab for CQCF. OVF verifies if the document is in the system.	CQCF to verify material is on the AML *Sample a minimum of 18 ft2. Documents added to CQAP Documentation Data base by CQCF.

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SECTION 712 REVETMENTS (cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
JOINT FILLER		1005.01 Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/5,000 lin ft/ type*	36 in. length	-----	-----	11 days	3 OVF to submit to Material Lab for CQCF.	*Visual inspection by CQCF. Sample only when questionable.
RECYCLED CONCRETE & STONE		712.02(d)	Quality Control/Accept.	**REFER TO SECTION 711 OF THIS APPENDIX.**								
SACKS		1018.20 Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/type/ source*	1 sack	-----	-----	9 days	3 OVF to submit to Material Lab for CQCF.	*Visual inspection by CQCF. Sample only when questionable.
USABLE SOIL		712.02(F)	Quality Control/Accept.	**REFER TO SECTION 203 OF THIS APPENDIX.**								

SECTION 713 TEMPORARY TRAFFIC CONTROL

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
PORTABLE WORK ZONE DEVICES			Quality Control/Accept.	**REFER TO SPECIFICATIONS FOR DETAILS ON NCHRP 350 REQUIREMENTS FOR PORTABLE WORK ZONE DEVICES**								
ADVANCE WARNING ARROW PANEL		713.04(b) CQCF	Quality Control/Accept.	-----	-----	-----	-----	CC	-----	-----	3 OVF verifies if the document is in the system	Visual inspection by CQCF. Documents added to CQAP Documentation Data base by CQCF. Required documentation is detailed in 713.07.
BARRICADE WARNING LIGHTS		713.02 1018.12 Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/type*	1 unit	CC*	-----	-----	3 OVF verifies if the document is in the system	CQCF to verify material is on the AML *Visual inspection by CQCF. Documents added to CQAP Documentation Data base by CQCF. *See Specification Subsection 1018.12(c) for certification requirements. Sample only when questionable.
DRUMS, CONES, TUBULAR MARKERS, AND FLEXIBLE DELINEATORS		Std. Pl. TC Series Mat. Lab	Quality Control/Accept.	-----	-----	-----	-----	CC	-----	-----	3 OVF verifies if the document is in the system.	CQCF to verify material is on the AML Visual inspection by CQCF. Sample only when questionable. Documents added to CQAP Documentation Data base by CQCF. Replace as necessary. Required documentation is detailed in 713.07.
GLASS BEADS FOR THERMOPLASTIC PAVEMENT MARKINGS AND TRAFFIC PAINT	Drop-on Application	713.06 1015.13 Mat. Lab	Quality Control/Accept.	Gradation ASTM D1214	CQCF S 608	1/lot	1-50 lb bag	CD*	-----	10 days	3 OVF to submit to Mat. Lab for CQCF. OVF verifies if the document is in the system.	*CD issued when presampled by Dist. Lab and preapproved. Sample if not accompanied by certificate or when questionable. Documents added to CQAP Documentation Data base by CQCF.

SECTION 713 TEMPORARY TRAFFIC CONTROL (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
PORTABLE FLASHER SUPPORTS		Std. Pl. TC Series	Quality Control/Accept.	-----	-----	-----	-----	CC	-----	-----	3 OVF verifies if the document is in the system.	Visual inspection by CQCF. Documents added to CQAP Documentation Data base by CQCF. Required documentation is detailed in 713.07.
RAISED PAVEMENT MARKERS & ADHESIVES		713.02 1015.09 Mat. Lab	Quality Control/Accept.	**REFER TO SECTION 731 OF THIS APPENDIX.**								
TEMPORARY PAVEMENT MARKING TAPE	Temporary Striping Tape (Type I & II)	1015.08 Mat. Lab	Quality Control/Accept.	ASTM D4592 Type I or II	CQCF S 601	-----	-----	CC	-----	10 days	3 OVF verifies if the document is in the system.	CQCF to verify material is on the AML Visual inspection by CQCF. Documents added to CQAP Documentation Data base by CQCF. Replace as necessary.
TEMPORARY SIGNS, VERTICAL PANELS & BARRICADES	Barricades, Vertical Panels & Signs	MUTCD, Project Plans DOTD Const. Fab 713.07*	Quality Control/Accept.	-----	-----	-----	-----		-----	-----	3 OVF verifies if the document is in the system.	Visual inspection by CQCF. *Required documentation is detailed in 713.07 . Documents added to CQAP Documentation Data base by CQCF. Replace as necessary. CA for aluminum, CC for wood, no certification for plastic.
THERMOPLASTIC PAVEMENT MARKINGS		713.02 Mat. Lab	Quality Control/Accept.	**REFER TO SECTION 732 OF THIS APPENDIX.**								
TRAFFIC PAINT		713.02 Mat. Lab	Quality Control/Accept.	**REFER TO SECTION 737 OF THIS APPENDIX.**								

SECTION 713 TEMPORARY TRAFFIC CONTROL (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
BARRIERS	Precast Concrete	713.05 DOTD Const. Fab	Quality Control/Accept.	**REFER TO SECTION 733 OF THIS APPENDIX.**								
	Water Filled	713.07* Std. Pl. TC Series CQCF	Quality Control/Accept.	-----	-----	-----	-----	CA/CC**	-----	-----	3 OVF verifies if the document is in the system.	Visual inspection by CQCF. *Required documentation is detailed in 713.07. **CA for aluminum, CC for wood, no certification for plastics. Documents added to CQAP Documentation Data base by CQCF.

SECTION 714 SODDING

T 714 - 1/1

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
AGRICULTURAL LIME		714.02 1018.17 Mat. Lab	Quality Control/Accept.	**REFER TO SECTION 718 OF THIS APPENDIX.**								
FERTILIZER		714.02 1018.16 CQCF	Quality Control/Accept.	**REFER TO SECTION 718 OF THIS APPENDIX.**								
SOD		714.02* CQCF	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	-----	*Visual inspection by CQCF or DOTD/OVF Roadside Development personnel.
WATER		714.02 1018.01 Mat. Lab	Quality Control/Accept.	AASHTO T26	CQCF S 303	1/source*	1 qt plastic bottle	-----	-----	11 days	OVF to submit to Mat. Lab for CQCF.	*Drinkable water need not be sampled.

SECTION 715 TOPSOIL

T 715 - 1/1

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
AGRICULTURAL LIME		715.02 1018.17 Mat. Lab	Quality Control/Accept.	**REFER TO SECTION 718 OF THIS APPENDIX.**								
TOPSOIL		715.02 CQCF	Quality Control/Accept.	-----	-----	1/1,000 yd3	1 full sample sack	CA	200 yd^3	-----	3 OVF verifies if the document is in the system.	CQCF to provide report from established soil testing entity.Visual inspection by CQCF. Documents added to CQAP Documentation Data base by CQCF.

SECTION 716 VEGETATIVE & FIBER MULCH

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
TACKING AGENTS	Emulsified Asphalt	716.03(a) 1002.01 CQCF	Quality Control/Accept.	-----	CQCF	1/shipment	1 gal plastic bottle	CD	-----	4 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML Visual inspection by CQCF. *Sample when not accompanied by CD or when questionable. Documents added to CQAP Documentation Data base by CQCF.
	Tacking Agent	713.03(a) CQCF	Quality Control/Accept.	-----	-----	-----	-----	CA	-----	-----	OVF verifies if the document is in the system.	CQCF to verify material is on the AML Visual inspection by CQCF. Documents added to CQAP Documentation Data base by CQCF.
VEGETATIVE MULCH		716.03(a) 1018.19(a)	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	-----	Visual inspection by CQCF or DOTD Roadside Development personnel.
FIBER MULCH		716.03(b) 1018.19(b)	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	-----	CQCF to verify material is on the AML Visual inspection by CQCF or DOTD/OVF Roadside Development personnel.

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SECTION 717 SEEDING

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
AGRICULTURAL LIME		717.02 1018.17 Mat. Lab	Quality Control/Accept.	**REFER TO SECTION 718 OF THIS APPENDIX.**								
FERTILIZER		717.02 1018.16 Mat. Lab	Quality Control/Accept.	**REFER TO SECTION 718 OF THIS APPENDIX.**								
SEED		1018.18 CQCF	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	3 OVF verifies if the document is in the system.	Consult DOTD Roadside Development personnel for seed selection. Analysis tag plus test report for LA Department of Agriculture. Seed test reports from other states are acceptable provided specification requirements are met Analysis test report only to be added to CQAP. Documents added to CQAP Documentation Data base by CQCF.
TOPSOIL		715.02	Quality Control/Accept.	**REFER TO SECTION 715 OF THIS APPENDIX.**								
WATER		717.02 Mat. Lab	Quality Control/Accept.	AASHTO T26	CQCF S 303	1/source*	1 qt plastic bottle	-----	-----	11 days	3 OVF to submit to Mat. Lab for CQCF.	*Drinkable water need not be sampled.

SECTION 718 FERTILIZER AND AGRICULTURAL LIME

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
AGRICULTURAL LIME		718.03(b) 1018.17	Quality Control/Accept.	-----	-----	-----	-----	CA	10 tons	-----	OVF verifies if the document is in the system.	Visual inspection by CQCF. Documents added to CQAP Documentation Data base by CQCF.
FERTILIZER		718.03(a) 1018.16	Quality Control/Accept.	-----	-----	-----	-----	CA*	-----	-----	OVF verifies if the document is in the system	For bag shipments, visual inspection of bag markings by CQCF. *For bulk shipments, CQCF to receive CA. Documents added to CQAP Documentation Data base by CQCF.

T 718 - 1/1

SECTION 719 LANDSCAPING

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
AGRICULTURAL LIME		719.03 1018.17	Quality Control/Accept.	**REFER TO SECTION 718 OF THIS APPENDIX.**								
BACKFILL SOIL	Mortar Sand, Pine Bark, Water Management Gel, Manure, Mycorrhizal Inoculant & Topsoil	719.03(b)	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	3	Visual inspection by CQCF of all ingredients prior to mixing. Proportions of mixture verified by CQCF.
FERTILIZER		719.03 1018.16 CQCF	Quality Control/Accept.	**REFER TO SECTION 718 OF THIS APPENDIX.**								
MULCHING	Other Materials	719.03	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	3	Visual inspection by CQCF.
	Pine Bark	719.03	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	3	Visual inspection by CQCF.
PLANTS	Containered	719.05(e) Design Builder	Quality Control/Accept.	**Documented visual determination of specification compliance by Design Builder Landscape Architect at nursery source. All plants shall be legibly tagged. Acceptance is based on inspection at the end of one full growing season.**								
	Native Stock	719.05(e) Design Builder	Quality Control/Accept.	**Documented visual determination of specification compliance by Design Builder Landscape Architect at nursery source. All plants shall be legibly tagged. Acceptance is based on inspection at the end of one full growing season.**								
SOIL	Planting Area	719.06(c)	Quality Control/Accept.	-----	-----	1/planting area	-----	CA	-----	-----	3 OVF verifies if the document is in the system.	CQCF to provide report from established soil testing entity. Visual inspection by CQCF. Documents added to CQAP Documentation Data base by CQCF.

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SECTION 719 LANDSCAPING (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
TOPSOIL		719.03(e)	Quality Control/Accept.	-----	-----	-----	-----	CA	200 yd^3	-----	3 OVF verifies if the document is in the system.	CQCF to provide report from established soil testing entity Visual inspection by CQCF. Documents added to CQAP Documentation Data base by CQCF.
WATER		719.03 719.06(i) Mat. Lab	Quality Control/Accept.	AASHTO T26	CQCF S 303	1/source*	1 qt plastic bottle	-----	-----	11 days	3 OVF to submit to Mat.Lab for CQCF.	*Drinkable water need not be sampled.

SECTION 720 EROSION CONTROL SYSTEMS

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
EROSION CONTROL SYSTEMS	Rolled Products	720.02(b) 1018.23 Mat. Lab	Quality Control/Accept.	-----	CQCF S 613	1/200 rolls/ Mfr.'s Lot	3 yd^2**	CD**	-----	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	*When sampling moisture sensitive material use moisture proof bag. CQCF to verify material is on the AML Documents added to CQAP Documentation Data base by CQCF. **Sample when not accompanied by a CD or when questionable.
	Bagged Products	720.02(b) 1018.23 Mat. Lab	Quality Control/Accept.	-----	CQCF S 613	1/200 bags/ Mfr.'s Lot	1 bag	CD*	-----	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML Documents added to CQAP Documentation Data base by CQCF. *Sample when not accompanied by a CD or when questionable.
	Hardware	720.02(b) 1018.23	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	3	CQCF to verify material is on the AML Visual inspection by CQCF.
	Additives	720.02 1018.23 Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1 quart/mfr's lot	1 item or 1 quart	CD*	-----	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML Documents added to CQAP Documentation Data base by CQCF. *Sample when not accompanied by a CD or when questionable.

SECTION 721 MOWING, TRIMMING & DEBRIS COLLECTION

T 721 - 1/1

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
HERBICIDES		721.03(e) QC	Quality Control/Accept.		DOTD Dist. Roadside Development Coordinator	-----	-----	-----	-----	-----	-----	Consult the District's Roadside Development Coordinator for use, type & rate of application.

SECTION 723 GRANULAR MATERIAL

T 723 - 1/1

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
GRANULAR MATERIAL		723.02 1003.07 CQCF	Quality Control/Accept.	PI TR 428 Gradation TR 113	CQCF S 101	1/1,000 yd^3	1 full sample sack	-----	50 yd^3	4 days	2	Shall check sufficient to ensure specifications are met. Design Builder may propose a lower frequency after 8 consecutive passing tests and provided CQCF maintain their minimum sampling testing frequency.
MATERIAL ON ROADWAY	Density	723.03 CQCF	Quality Control/Accept.	In-Place Density TR 401	CQCF	1/1,000 lin ft/ 2-lane rdwy or 1/2,000 lin ft/ shoulder	-----	-----	-----	1/2 hr.	1	TR 415 or TR 418 will completed for each section as need for optimum moisture content and determining % compaction.
	Thickness & Width	723.04 CQCF	Quality Control/Accept. Monitoring	Thickness/ Width TR 602	CQCF	1/half day	-----	-----	-----	-----	3	Shall check sufficient to ensure specifications are met. During construction of section.
	Thickness & Width	723.04 CQCF	Quality Control/Accept.	Thickness/ Width TR 602	CQCF	1/1,000 lin ft/ 2-lane rdwy or 1/2,000 lin ft/ shoulder	-----	-----	-----	3 days	3	When section is completed. For small quantity, CQCF documents in field book.

SECTION 725 TEMPORARY DETOUR ROADS AND BRIDGES

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
			Quality Control/Accept.	**For details on Temporary Signs, Barricades and Pavement Markings, REFER TO SECTION 713 of this APPENDIX.** **For details on Guard Rail, REFER TO SECTION 704 of this APPENDIX.** **For details on Median Roadway Barriers, REFER TO SECTION 733 of this APPENDIX.** **For details on Seed, REFER TO SECTION 717 of this APPENDIX.** **For details on Fertilizer, REFER TO SECTION 718 of this APPENDIX.** **For details on Embankments, REFER TO SECTION 203 of this APPENDIX.**								
BASE COURSE (Roadway)			Quality Control/Accept.	**REFER TO SECTION 300 OF THIS APPENDIX.**								
PILES & TIMBER		752.02 1014.01	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	-----	Visual inspection by CQCF.
SURFACE COURSE (Roadway)			Quality Control/Accept.	**REFER TO SECTIONS 400, 500, AND 600 OF THIS APPENDIX.**								
TEMPORARY CULVERT PIPE		752.02	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	-----	Visual inspection by CQCF.

SECTION 726 BEDDING MATERIAL

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
AGGREGATES	Bedding Material	726.02 1003.01 1003.08 CQCF	Quality Control/Accept.	Gradation TR 113 Plasticity Index TR 428	CQCF S 101	1/1,000 yd^3 stockpile*	1 full sample sack	-----	50 yd^3	4 days	2	CQCF to verify material is on the AML *For Mixtures each ingredient shall be sampled and approved prior to mixing. Recycled PCC must be from an approved source. Design Builder may propose a lower frequency after 8 consecutive passing tests and provided QC maintain their minimum sampling testing frequency.
GEOTEXTILE FABRIC		726.02 1019.01	Quality Control/Accept.	Table 1019-1	CQCF S 601	-----	-----	-----	-----	-----	-----	CQCF to verify material is on the AML. Visual inspection by QC.
PLASTIC SOIL BLANKET		726.02 203.10 CQCF	Quality Control/Accept.	**REFER TO SECTION 203 OF THIS APPENDIX.**								Sampling not required if accepted for another item.

SECTION 728 JACKED OR BORED PIPE

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
GROUT		728.03	Quality Control/Accept.	**REFER TO SECTION 901 OF THIS APPENDIX.**								
PIPE & JOINTS		701.02	Quality Control/Accept.	**REFER TO SECTION 701 OF THIS APPENDIX.**								

SECTION 729 TRAFFIC SIGNS AND DEVICES

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
BACKFILL(SOIL)		701.08 802.09 CQCF	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	-----	Visual inspection by CQCF.
CONCRETE	Mix Designs, Materials & Tests	729.02(g)	Quality Control/Accept.	**REFER TO SECTION 901 OF THIS APPENDIX.**								
DELINEATORS		713.07* 729.02(a) 1015.05 Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	-----	-----	CC	**-----**	10 days	3 OVF verifies if the document is in the system.	*Required documentation is detailed in 713.07. Documents added to CQAP Documentation Data base by CQCF.
GALVANIZING REPAIR COMPOUND	Ferrous Metal	729.02(b) CQCF	Quality Control/Accept.	**REFER TO SECTION 811 OF THIS APPENDIX.**								
GROUND ROD ASSEMBLY	Ground Rod, Wire & Clamp	Traffic Sign Plan Details Mat. Lab	Quality Control/Accept.	-----	CQCF S 501	1/item	1 of each item wire-10 in. length	**-----**	**-----**	9 days	3 OVF to submit to Mat. Lab for CQCF.	Visual inspection by CQCF. Sample only when questionable. Coated steel hardware is not permitted.
DEAD END ROAD INSTALLATION	Hardware/ Steel Posts and Spacer Blocks	729.02 729.06 1010 Mat. Lab	Quality Control/Accept.	-----	-----	-----	-----	CC	**-----**	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mate. Lab for CQCF.	CQCF to verify material is on the AML Documents added to CQAP Documentation Data base by CQCF.
	Guard Rail	729.02(e) 729.06 1010.08 Mat. Lab	Quality Control/Accept.	AASHTO M180	-----	-----	-----	CC	-----	-----	3 OVF verifies if the document is in the system.	Fabricator must file Brand Registration and guarantee with Mat. Lab. Visual inspection by CQCF. Documents added to CQAP Documentation Data base by CQCF.

SECTION 729 TRAFFIC SIGNS AND DEVICES (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
DEAD END ROAD INSTALLATION (Cont'd)	Wood Posts & Spacer Blocks/ Timber	729.02 1010 Mat. Lab/ DOTD Const. Fab	Quality Control/Accept.	-----	-----	-----	-----	CC	-----	-----	3 OVF verifies if the document is in the system.	Visual inspection by CQCF. Documents added to CQAP Documentation Data base by CQCF.
HARDWARE	Bolts, Nuts & Washers	729.02(d) 1015.02(c)	Quality Control/Accept.	-----	-----	-----	-----	CC	-----	11 days	3 OVF verifies if the document is in the system.	Visual inspection by CQCF. Documents added to CQAP Documentation Data base by CQCF.
	Mounting Bracket, Strap, Seal	729.02(d) 1015.02(c)	Quality Control/Accept.	-----	-----	-----	-----	CC	-----	-----	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	Visual inspection by CQCF. Sample only when questionable. Documents added to CQAP Documentation Data base by CQCF.

SECTION 729 TRAFFIC SIGNS AND DEVICES (Cont'd)

MATERIAL		REF. / TESTED BY	PURP.	TEST METHOD	SAMPLED BY / METHOD	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
PILING	Timber	729.02(f) 1014	Quality Control/Accept.	**Inspected and stamped by DOTD prior to use.**				CD	-----	-----	OVF verifies if the document is in the system.	Visual inspection by CQCF. Documents added to CQAP Documentation Data base by CQCF. CQCF to verify stamp by DOTD Const. Fab. Insp.
POSTS (Sign, Marker & Delineator)	Flexible	729.02(h) 1015.03 Mat. Lab	Quality Control/Accept.	-----	CQCF S 501	1/shipment* (not to exceed 500 pieces)	1 post	CC	-----	10 days	OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	* CQCF to verify material is on the AML Visual inspection by CQCF. Sample only when questionable. Documents added to CQAP Documentation Data base by CQCF.
	Steel, U-Channel & Square Post for small signs	729.02(j) 1015.02(a)(3) Mat. Lab	Quality Control/Accept.	ASTM A499 Grade 60 or ASTM A576 Grade 1080	CQCF S 501	1/shipment* (not to exceed 500 pieces)	1 post	CC	-----	11 days	OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	Visual inspection by CQCF. Sample only when questionable. Documents added to CQAP Documentation Data base by CQCF.
	Aluminum, Steel, other than U-Channel & Square posts	1015.02(a)(1) 1015.02(b) 729.02(b) 729.02(c)	Quality Control/Accept.	**REFER TO STRUCTURAL STEEL & ALUMINUM IN SECTION 807 OF THIS APPENDIX.**								

SECTION 729 TRAFFIC SIGNS AND DEVICES (Cont'd)

MATERIAL		REF. / TESTED BY	PURP.	TEST METHOD	SAMPLED BY / METHOD	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
OBJECT MARKERS		1015 Mat. Lab	Quality Control/Accept.	-----	-----	-----	-----	CC	-----	-----	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	Visual inspection by CQCF. Sample only when questionable. Documents added to CQAP Documentation Data base by CQCF.
REINFORCEMENT	Bars	729.02(b) 1009 Mat. Lab	Quality Control/Accept.	ASTM A615	CQCF S 501	1/size/source*	48 in. length	CA	-----	10 days	OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	*CQCF to verify material is on the AML. Sample when not accompanied by certificate or when questionable. Documents added to CQAP Documentation Data base by CQCF.
	Stirrups	729.02(b) 1009.03 Mat. Lab	Quality Control/Accept.	ASTM A615	CQCF S 501	1/size/source*	2 stirrups	CA	-----	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	*CQCF to verify material is on the AML Sample when not accompanied by certificate or when questionable. Documents added to CQAP Documentation Data base by CQCF.
SIGN MOUNTING		729.02 DOTD Const. Fab.	Quality Control/Accept.	-----	**Inspected and stamped by DOTD Const. Fab. Insp. prior to use.**			CA	-----	-----	3 OVF verifies if the document is in the system	CQCF receives document form DOTD Const. Fab. Insp. CQCF to verify stamp by DOTD Const. Fab. Insp. Documents added to CQAP Documentation Data base by CQCF.

SECTION 729 TRAFFIC SIGNS AND DEVICES (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
TRAFFIC SIGNS & MILEPOST MARKERS	All Permanent Signs	729.07 CQCF	Quality Control/Accept.		**Inspected and stamped by DOTD Const. Fab. Insp. prior to use.**			CC	-----	10 days	3 OVF verifies if the document is in the system.	Visual inspection of all incidental Permanent Signs and Markers by CQCF. CQCF to verify stamp by DOTD Const. Fab. Insp. Documents added to CQAP Documentation Data base by CQCF.
	Sign & Marker Sheeting, Paste, Paint and Overlay Film	729.02(a) 1015.05 1015.07 Mat. Lab	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	3	CQCF to verify material is on the AML
WELDING			Quality Control/Accept.	**REFER TO SECTION 809 OF THIS APPENDIX.**								

SECTION 730 ELECTRICAL SYSTEMS

MATERIAL		REF. / TESTED BY	PURP.	TEST METHOD	SAMPLED BY / METHOD	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
ALL ELECTRICAL COMPONENTS & MATERIALS NOT SPECIFICALLY MENTIONED IN THIS SECTION SHALL BE HANDLED IN ACCORDANCE WITH THE REQUIREMENTS FOR ELECTRICAL EQUIPMENT BELOW.												
ANCHOR BOLTS, NUTS AND WASHERS		730.02 1018.08(c) Mat. Lab	Quality Control/Accept.	ASTM A193 Grade B8; ASTM A194 Grade 8 or 8A	CQCF	1/size/type	1 of each item*	CA	-----	11 days	OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	Visual inspection by CQCF *One of each size and type of bolt, nut and washer is to be submitted. Documents added to CQAP Documentation Data base by CQCF.
BACKFILL	Soil or Granular Material	730.02	Quality Control/Accept.	**REFER TO SECTION 701 OF THIS APPENDIX.**								
CONCRETE	Mix Designs, Materials & Tests	730.02	Quality Control/Accept.	**REFER TO SECTION 901 OF THIS APPENDIX.**								
CONDUIT		730.02 1018.09 Bridge Design	Quality Control/Accept.	**BRIDGE DESIGN APPROVES AND DISTRIBUTES TO CQCF/OVF**								
ELECTRICAL CONDUCTORS		730.02 CQCF	Quality Control/Accept.	-----	-----	-----	-----	CA	-----	-----	3 OVF verifies if the document is in the system.	Visual inspection by CQCF. Documents added to CQAP Documentation Data base by CQCF.
ELECTRICAL EQUIPMENT	Brochures, Certified Dimension Sheets & Description Data	730.04 801.03 Design Bridge	Quality Control/Accept.		**BRIDGE DESIGN APPROVES AND DISTRIBUTES TO CQCF/OVF**							
GROUND ROD ASSEMBLY	Ground Rod, Wire & Clamp	730.02 1018.05 Mat. Lab	Quality Control/Accept.	-----	CQCF S 501	1/item	1 of each item Wire - 18 in. length	-----	-----	9 days	3	Visual inspection by CQCF. Sample only when questionable. Coated steel hardware is not permitted.
GUARANTY	QC's Guaranty	104.05 CQCF	Quality Control/Accept.		**CQCF/OVF DISTRIBUTES TO BRIDGE DESIGN- BRIDGE DESIGN APPROVES AND FILES**							
	Manufacturer's Standard Warranty	104.05 CQCF	Quality Control/Accept.		**CQCF/OVF DISTRIBUTES TO BRIDGE DESIGN- BRIDGE DESIGN APPROVES AND FILES**							

SECTION 730 ELECTRICAL SYSTEMS (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
HIGH MAST POLES		730.02 DOTD Const. Fab. Insp.	Quality Control/Accept.	-----	**Inspected and stamped by DOTD Const. Fab. Insp. Prior to use.**			CA	-----	-----	OVF verifies if the document is in the system.	Inspection report from DOTD Const. Fab. Insp.shall be sent to the CQCF/OVF. CQCF to verify stamp by DOTD Const. Fab. Insp. Documents added to CQAP Documentation Data base by CQCF.
LIGHT POLES	Brochures, Certified Dimension Sheets & Description Data	730.04 801.03 Design Builder CQCF	Quality Control/Accept.	-----	**BRIDGE DESIGN APPROVES AND DISTRIBUTES TO CQCF/OVF**				-----	-----	-----	Copy sent to OVF, DOTD Project Manager and DOTD Bridge Design.
REINFORCING STEEL	Bars	730.02 1009.01 Mat. Lab	Quality Control/Accept.	-----	CQCF S 501	1/size/ source*	48 in. length	CA	**-----**	11 days	OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML *If listed on AML, material with a CA need not be sampled. Sample for verification when questionable. Documents added to CQAP Documentation Data base by CQCF.
SYSTEM TESTS		730.06 Design-Builder	Quality Control	-----	-----	-----	-----	-----	-----	-----	-----	Visual inspection by QC. QC to provide document to CQCF.
SYSTEM TESTS		730.06 Design-Builder CQCF	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	OVF verifies if the document is in the system.	CQCF to observe tests and receive report of test results. Documents added to CQAP Documentation Data base by CQCF.
TIMBER		730.02 1014 Mat. Lab/ DOTD Const. Fab. Insp.	Quality Control/Accept.	-----	**Inspected stamped by DOTD Const. Fab. Insp. Prior to use.**			CD	-----	11 days	OVF verifies if the document is in the system.	Visual inspection by CQCF. CQCF to verify stamp by DOTD Const. Fab. Insp. Documents added to CQAP Documentation Data base by CQCF.

SECTION 731 RAISED PAVEMENT MARKERS

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
ADHESIVE (For Pavement Markers)	Bituminous	731.02(b)(2) 1015.09 Mat. Lab	Quality Control/Accept.	-----	CQCF S 606	*	0.5 gal friction top can	CD	-----	11 days	OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML. *When not accompanied by CD, see S 606 for details. document added to CQAP Documentation Data base by CQCF.
	Epoxy	731.02(b)(1) 1017.02 Mat. Lab	Quality Control/Accept.	-----	CQCF S 606	*	0.5 gal friction top can	CD	-----	11 days	OVF verifies if the document is in the system.	CQCF to verify material is on the AML *When not accompanied by CD, see S 606 for details. Documents added to CQAP Documentation Data base by CQCF.
RAISED PAVEMENT MARKERS		731.02(a) 1015.09 Mat. Lab	Quality Control/Accept.	-----	CQCF S 607	*	20 markers	CD	-----	10 days	OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML *When not accompanied by CD, see S 607 for details. Documents added to CQAP Documentation Data base by CQCF.

SECTION 732 PLASTIC PAVEMENT MARKINGS

MATERIAL		REF. / TESTED BY	PURP.	TEST METHOD	SAMPLED BY / METHOD	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
SURFACE PRIMER		732.02(c) CQCF	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	3	Visual inspection by CQCF to ensure that manufacturer recommendations are being followed.
GLASS BEADS		732.02(d) 1015.13 Mat. Lab	Quality Control/Accept.	Gradation ASTM D1214	CQCF S 608	1/lot	1 - 50 lb bag 1 gal can	CD* & CA, CD (Physical) CA (Chemical)	-----	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	*CD issued when presampled by CQCF and preapproved. Sample only when questionable. Use Sampling Method S 608 when glass beads are shipped in 50 lb bags. Use AASHTO TP 97-11 Section 4 when glass beads are shipped in bulk containers. Documents added to CQAP Documentation Data base by CQCF.
PREFORMED PLASTIC MARKING TAPE		732.02(b) 1015.11 Mat. Lab	Quality Control/Accept.	ASTM D 4505 Type I D 4061 E 303	CQCF S 609	1/lot	2 - 6 ft lengths*	CD	-----	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML *Coiled and placed in a gallon can. Sample only when questionable. Documents added to CQAP Documentation Data base by CQCF.
THERMOPLASTIC MARKING (Hot Applied)		732.02(a) 1015.10 Mat. Lab	Quality Control/Accept.	AASHTO M249; ASTM D 6628	CQCF S 610	1/lot	1 gal can (app. 9 -12 lbs.)	CD*	-----	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML. *CD issued when presampled by DOTD District Lab. and preapproved. QC to provide document to CQCF.

SECTION 733 CONCRETE ROADWAY BARRIERS

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
BARRIER (Precast)		733.01 733.02 CQCF	Quality Control/Accept.	-----	**Inspected and stamped by DOTD Const. Fab. Insp. prior to use.**			CD	-----	-----	OVF verifies if the document is in the system	Visual inspection by CQCF. CQCF to verify stamp by DOTD Const. Fab. Insp. Documents added to CQAP Documentation Data base by CQCF.
CONCRETE	Mix Designs, Materials & Tests	733.02	Quality Control/Accept.	**REFER TO SECTION 901 OF THIS APPENDIX.**								Air entrainment is required for slip forming.
CURING MATERIALS		733.02 1011.01 Mat. Lab	Quality Control/Accept.	**REFER TO SECTION 805 OF THIS APPENDIX.**								
JOINT MATERIALS		733.02 1005 Mat. Lab	Quality Control/Accept.	**REFER TO SECTION 805 OF THIS APPENDIX.**								
REINFORCING STEEL	Deformed Steel Bars	733.02 1009.01 Mat. Lab	Quality Control/Accept.	ASTM A615	CQCF S 501	1/size/ source*	48 in. length	CA	-----	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML *If listed on AML, materials with a CA (Dist. 1) need not be sampled. Sample for verification when questionable. Documents added to CQAP Documentation Data base by CQCF.
SPECIAL SURFACE FINISH	Masonry Finish	733.02 1011.03 Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/lot or shipment	1 qt friction top can	CC	-----	11 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML Sample if not accompanied by CC or when questionable. Documents added to CQAP Documentation Data base by CQCF.

SECTION 734 RUBBLIZING PORTLAND CEMENT CONCRETE PAVEMENT

T 734 - 1/1

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
BACKFILL MATERIAL	Base Course Aggregate	1003.03 CQCF	Quality Control/Accept.	Gradation TR 113 Liquid Limit and PI T 428	CQCF	1/1,000 yd^3	1 full sample sack	-----	-----	4 days	2	Shall check sufficient to ensure specifications are met. Design Builder may propose a lower frequency after 8 consecutive passing tests and provided CQCF maintains their minimum sampling testing frequency.
TEST PIT		734.03 CQCF	Quality Control/Accept.	-----	CQCF	-----	-----	-----	-----	-----	-----	Design-Builder to stake out Test Pit. For purpose of approving equipment and pattern. CQCF to document results in Field Book.

SECTION 735 MAILBOXES AND MAILBOX SUPPORTS

T 735 - 1/1

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
MAILBOXES AND MAILBOX SUPPORTS			Quality Control/Accept.	**VISUAL INSPECTION BY CQCF. MAILBOXES TO BE IN ACCORDANCE WITH STANDARD PLANS.**								

SECTION 736 TRAFFIC SIGNALS

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
ANCHOR BOLTS (Pedestal)		736.02 1020.03 Mat. Lab	Quality Control/Accept.	-----	CQCF S 501	1/type/lot or shipment	1 bolt	-----	-----	11 days		Visual inspection by CQCF. document added to CQAP Documentation Data base by CQCF.
BACKFILL	Usable Soil	736.02 203.06(a)	Quality Control/Accept.	**REFER TO SECTION 701 OF THIS APPENDIX.**								
CONCRETE	Mix Designs, Materials & Tests	736.02	Quality Control/Accept.	**REFER TO SECTION 901 OF THIS APPENDIX.**								
ELECTRICAL CONDUCTORS		736.02 1018.10 CQCF	Quality Control/Accept.	-----	-----	-----	-----	CA	-----	-----	3 OVF verifies if the document is in the system.	Visual inspection by CQCF. document added to CQAP Documentation Data base by CQCF.
ELECTRICAL JUNCTION BOX		736.02 1020.03(g)	Quality Control/Accept.	-----	-----	-----	-----	CC	-----	10 days	OVF to submit CC to Traffic Services for CQCF. OVF verifies if the document is in the system.	Traffic Services will return approved copy to OVF/CQCF. Visual inspection by CQCF. Documents added to CQAP Documentation Data base by CQCF.
GROUND RODS		736.02 1018.05 Mat. Lab	Quality Control/Accept.	-----	CQCF S 501	1/item*	1 of each item Wire - 18 in. length	-----	-----	9 days	3 OVF to submit to Mat. Lab for CQCF.	*Visual inspection by CQCF. Sample only when questionable. Coated steel hardware is not permitted.
GUY COMPONENTS (Hardware)		736.02 1020.03 Mat. Lab	Quality Control/Accept.	ASTM A123 or A153	CQCF S 501	1/type/lot or shipment	1 of each item*	-----	-----	12 days	3	*One piece of each type of hardware used is to be submitted. Visual inspection by CQCF. document added to CQAP Documentation Data base by CQCF.

SECTION 736 TRAFFIC SIGNALS (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
MANHOLE FRAMES AND COVERS		736.02 1018.04 DOTD Const. Fab. Insp.	Quality Control/Accept.	**REFER TO SECTION 807 (CASTINGS) OF THIS APPENDIX.**								
METAL POLES FOR TRAFFIC SIGNAL SYSTEMS		736.02 1020.04 Traffic Services and Operations Engineer	Quality Control/Accept.	-----	-----	-----	-----	CA	-----	-----	3 OVF to submit CA to Traffic Services for CQCF. OVF verifies if the document is in the system.	Visual inspection by CQCF. Traffic Services will return approved copy to OVF/CQCF. Documents added to CQAP Documentation Data base by CQCF.
PRECAST REINFORCED CONCRETE JUNCTION BOXES & MANHOLES		736.02 1016.03	Quality Control/Accept.	-----	-----	-----	-----	CC	-----	-----	3 OVF to submit CC to Traffic Services for CQCF. OVF verifies if the document is in the system.	Visual inspection by CQCF. Traffic Services will return approved copy to OVF/CQCF. Documents added to CQAP Documentation Data base by CQCF.
REINFORCING STEEL	Bars	736.02 1009.01 Mat. Lab	Quality Control/Accept.	-----	CQCF S 501	1/size/ source*	48 in. length	CA	**-----**	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML Sample when not accompanied by certificate or when questionable. Documents added to CQAP Documentation Data base by CQCF.
RIGID METAL ELECTRICAL CONDUIT	Brochures, Drawings, Equipment Submittals	736.02 1018.09 Traffic Services and Operations Engr.	Quality Control/Accept.	-----	-----	-----	-----	CA	-----	-----	3 OVF to submit CA to Traffic Services for CQCF. OVF verifies if the document is in the system.	Visual inspection by CQCF. Traffic Services will return approved copy to OVF/CQCF. Documents added to CQAP Documentation Data base by CQCF.

SECTION 736 TRAFFIC SIGNALS (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
STEEL STANDARDS & MAST ARMS		736.02 1020.04(c) Traffic Services and Operations Engr.	Quality Control/Accept.	-----	-----	-----	-----	CC	-----	-----	3 OVF to submit CC to Traffic Services for CQCF. OVF verifies if the document is in the system.	Visual inspection by CQCF. Traffic Services will return approved copy to OVF/CQCF. Documents added to CQAP Documentation Data base by CQCF.
SUPPORT CABLE		736.02 1020.03(d)	Quality Control/Accept.	-----	-----	-----	-----	CC	-----	-----	3 OVF to submit CC to Traffic Services for CQCF. OVF verifies if the document is in the system.	Visual inspection by CQCF. Traffic Services will return approved copy to OVF/CQCF. Documents added to CQAP Documentation Data base by CQCF.
TIMBER POLES		736.10 1014 1020.04	Quality Control/Accept.	-----	**Inspected and stamped by DOTD Const. Fab. Insp. prior to use.**			CD	-----	-----	3 OVF verifies if the document is in the system	Visual inspection by CQCF. CQCF to verify stamp by DOTD Const. Fab. Insp. Documents added to CQAP Documentation Data base by CQCF.
TRAFFIC SIGNAL CABLE, SIGNAL HEADS, DETECTORS, SIGNAL HARDWARE AND EQUIPMENT	Brochures, Drawings, Equipment Submittals	736.02 1020 Traffic Services and Operations Engr.	-----	-----	-----	-----	-----	CC	-----	-----	3 OVF to submit CC to Traffic Services for CQCF. OVF verifies if the document is in the system.	Visual inspection by CQCF. Traffic Services will return approved copy to OVF/CQCF. Documents added to CQAP Documentation Data base by CQCF.

SECTION 737 PAINTED TRAFFIC STRIPING

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
GLASS BEADS		737.02 1015.13 Mat. Lab	Quality Control/Accept.	-----	CQCF S 608	1/lot	1 - 50 lb bag 1 gal can	CD (Physical) CA (Chemical)	-----	10 days	OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CD issued when presampled by CQCF and preapproved. Sample when questionable. Use Sampling Method S 608 when glass beads are shipped in 50 lb bags. document added to CQAP Documentation Data base by CQCF. Use AASHTO TP 97-11 Section 4 when glass beads are shipped in bulk containers.
TRAFFIC PAINT	Water-based	737.02 1015.12(b) Mat. Lab	Quality Control/Accept.	-----	CQCF S 608	1/lot	1 pt friction top can	CD*	-----	11 days	OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML. *CD issued when presampled by CQCF and preapproved. Sample when not accompanied by certificate or when questionable. Documents added to CQAP Documentation Data base by CQCF.

SECTION 738 MULCH SODDING

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
AGRICULTURAL LIME		738.02 1018.17 Mat. Lab	Quality Control/Accept.		**REFER TO SECTION 718 OF THIS APPENDIX.**							
FERTILIZER		738.02 1018.16	Quality Control/Accept.		**REFER TO SECTION 718 OF THIS APPENDIX.**							
MULCH SOD		738.02* DOTD Roadside Development Personnel	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	-----	*Visual inspection by CQCF/OVF or DOTD Roadside Development personnel prior to mulching.
WATER		738.02 Mat. Lab	Quality Control/Accept.	AASHTO T26	CQCF S 303	1/source*	1 qt plastic bottle	-----	-----	11 days	OVF to submit to Mat. Lab for CQCF.	Drinkable water need not be sampled.
TOPSOIL			Quality Control/Accept.		**REFER TO SECTION 715 OF THIS APPENDIX.**							

SECTION 739 HYDRO-SEEDING

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
AGRICULTURAL LIME		739.02 1018.17 Mat. Lab	Quality Control/Accept.	**REFER TO SECTION 718 OF THIS APPENDIX.**								
FERTILIZER		739.02 1018.16 Mat. Lab	Quality Control/Accept.	**REFER TO SECTION 718 OF THIS APPENDIX.**								
MULCHING	Other Materials	739.03 Mat. Lab	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	3	*Visual inspection by CQCF. Must be acceptable to CQCF.
	Wood Fiber	739.03 Mat. Lab	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	3	*Visual inspection by CQCF. Must be acceptable to CQCF.
SEED		739.03 CQCF	Quality Control/Accept.	**REFER TO SECTION 717 OF THIS APPENDIX.**								
WATER		739.03 Mat. Lab	Quality Control/Accept.	AASHTO T26	CQCF S 303	1/source*	1 qt plastic bottle	-----	-----	11 days	3 OVF to submit to Mat. Lab for CQCF.	*Drinkable water need not be sampled.
WATER MANAGEMENT GEL, POLYACRYLAMIDE TACKIFIER, AND MYCORRHIZAL INOCULUM		739.03 CQCF	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	3	Visual inspection of all ingredients prior to mixing. Must be acceptable to CQCF.

SECTION 802 STRUCTURAL EXCAVATION AND BACKFILL

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
BACKFILL	Reinforced Box Culverts		Quality Control/Accept.	**REFER TO SECTION 701 OF THIS APPENDIX.**								
	Structures other than Reinforced Box Culverts	802.09 CQCF	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	3	Visual inspection by QC. Material shall be of acceptable quality and uniformly compacted by approved methods to the satisfaction of the CQCF
CONCRETE	Compressive Strength	809.09(e) CQCF	*Quality Control/Accept. Monitor	Compressive Strength TR 230	CQCF S 301	3 cyl/ location	4 in. x 8 in. cylinder mold	-----	-----	-----	3	*Used to determine earliest date for placement of backfill next to structures.

SECTION 803 SHEET PILES

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
HARDWARE		803.02 1018.08 Mat. Lab	Quality Control/Accept.	Bolts-ASTM A307 Dowels-AASHTO M270	CQCF S 501	1/size/type/ shipment	2 of each item*	-----	-----	10 days	3 OVF to submit to Mat. Lab for CQCF	Visual inspection by CQCF *Two (2) pieces of each size and type of hardware used are to be submitted. Not to be used until passing results are received
PAINT AND PROTECTIVE COATINGS	Coal Tar Epoxy	803.02 803.06 1008.04	Quality Control/Accept.	**REFER TO SECTION 811 OF THIS APPENDIX.**								
SHEET PILES	Aluminum or Steel	803.02(b) 1013.10 DOTD Const. Fab. Insp.	Quality Control/Accept.	-----	-----	-----	-----	CD or CC*	-----	-----	3 OVF verifies if the document is in the system.	Visual inspection by QC.'Documents added to CQAP Documentation Data base by CQCF. *CC if inspected by DOTD
	Precast Concrete	803.02(a) DOTD Const. Fab. Insp.	Quality Control/Accept.	-----	**Inspected and stamped by DOTD Const. Fab. Insp. prior to use.**			CD	-----	-----	3 OVF verifies if the document is in the system.	Visual inspection by CQCF. CQCF to verify stamp by DOTD Const. Fab. Insp. Documents added to CQAP Documentation Data base by CQCF.
	Timber Treated & Untreated	803.02(c) 1014 DOTD Const. Fab. Insp.	Quality Control/Accept.	-----	**Inspected and stamped by DOTD Const. Fab. Insp. prior to use.**			CD	-----	-----	3 OVF verifies if the document is in the system.	Visual inspection by CQCF. CQCF to verify stamp by DOTD Const. Fab. Insp. Documents added to CQAP Documentation Data base by CQCF.
TREATMENT OF PILE HEADS		803.05	Quality Control/Accept.	**REFER TO SECTION 812 OF THIS APPENDIX.**								
WELDING			Quality	**REFER TO SECTION 809 OF THIS APPENDIX.**								

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SECTION 804 DRIVEN PILES

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
BACKFILL	Granular Type Material	804.08(a) CQCF	Quality Control/Accept.	Gradation TR 113	CQCF S 101	*1/1,000 yd^3	1 full sample sack	-----	-----	-----	3	*Visual inspection by CQCF Sample only when questionable.
CONCRETE PILES (Cast-in-place)	Concrete (Mix Design, Material and	804.02 804.03	Quality Control/Accept.	**REFER TO SECTION 901 OF THIS APPENDIX.**								
	Reinforcing Steel	804.02 804.03 1009 Mat. Lab	Quality Control/Accept.	-----	CQCF S 501	1/size/grade/ 150,000 lb/ source	48 in. length	CA	-----	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML Sample when not accompanied by certificate or when questionable. Documents added to CQAP Documentation Data base by CQCF.
	Steel Shell	804.06	Quality Control/Accept.	-----	-----	-----	-----	CA	-----	-----	3 OVF verifies if the document is in the system.	Visual inspection by CQCF. Documents added to CQAP Documentation Data base by CQCF.
CONCRETE PILES (Precast)	Pile	804.02 805.14 DOTD Const. Fab. Insp.	Quality Control/Accept.	-----	**Inspected and stamped by DOTD Const. Fab. Insp. Unit prior to use.**			CD	-----	-----	3 OVF verifies if the document is in the system.	Visual inspection by CQCF. CQCF to verify stamp by DOTD Const. Fab. Insp. Documents added to CQAP Documentation Data base by CQCF.
HYDRAULIC JACKS		804.11 (g) (3)	Quality Control/Accept.	-----	**Calibrated by an approved, independent calibration service and a certified lab report to CQCF/OVF for approval/acceptance.**			CA	-----	12 days	OVF verifies if the document is in the system.	The system must be calibrated at the beginning of each project and as required. Documents added to the CQAP Documentation Data base by CQCF.
PAINT AND PROTECTIVE COATINGS	Coal Tar Epoxy	804.02 804.07(b)(3) 1008.04	Quality Control/Accept.	**REFER TO SECTION 811 OF THIS APPENDIX.**								

SECTION 804 DRIVEN PILES (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
STEEL PILES, STEEL PIPE PILES		804.02 1013.09 1013.11 DOTD Const. Fab. Insp.	Quality Control/Accept.	-----	-----	-----	-----	CA	-----	-----	3 OVF verifies if the document is in the system.	Visual inspection by CQCF. Documents added to CQAP Documentation Data base by CQCF.
TIMBER PILES	Treated and Untreated	804.02 1014 DOTD Const. Fab. Insp.	Quality Control/Accept.	-----	**Inspected and stamped by DOTD Const. Fab. Insp. prior to use. See Section 812 of this Appendix.**			CD	-----	-----	3 OVF verifies if the document is in the system.	Visual inspection by CQCF. CQCF to verify stamp by DOTD Const. Fab. Insp. Documents added to CQAP Documentation Data base by CQCF.
TREATMENT OF PILE HEADS	Canvas	804.08(I)(3) 812.06(b) Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/shipment*	18 in. x 18 in.	-----	-----	10 days	3 OVF to submit to Mat. Lab for CQCF	*Visual inspection by CQCF. Sample only when questionable.
	Coal Tar Pitch, Creosote Oil, Asphalt & Copper Napthanate	804.08(I)(3) 812.06(b) Mat. Lab	Quality Control/Accept.	-----	CQCF S 201	1/shipment*	1 qt friction top can	-----	-----	10 days	3 OVF to submit to Mat. Lab for CQCF	*Visual inspection by CQCF. Sample only when questionable.
	Fabric Covering	804.08(I)(3) 812.06(b) Mat. Lab	Quality Control/Accept.	ASTM D173	CQCF S 601	1/shipment*	18 in. x 18 in.	-----	-----	10 days	3 OVF to submit to Mat. Lab for CQCF	*Visual inspection by CQCF. Sample only when questionable.
	Galvanized Metal Covering	804.08(I)(3) 812.06(b) Mat. Lab	Quality Control/Accept.	-----	CQCF S 501	1/shipment*	6 in. x 6 in.	-----	-----	10 days	3 OVF to submit to Mat. Lab for CQCF	*Visual inspection by CQCF. Sample only when questionable.
	Galvanized Nails, Staples & Wire	812.06(C) Mat. Lab	Quality Control/Accept.	-----	CQCF S 501	1/size/type/ shipment*	**12 of each item** **wire - 24 in. length	-----		10 days	3 OVF to submit to Mat. Lab for CQCF	*Visual inspection by CQCF. Sample only if questionable. **Twelve nails and twelve staples are to be submitted.
WELDING			Quality Control/Accept.	**REFER TO SECTION 809 OF THIS APPENDIX.**								

SECTION 805 STRUCTURAL CONCRETE

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
FOR DETAILS ON CONCRETE TESTS, MIX DESIGNS AND MATERIALS (ADMIXTURES, AGGREGATES, CEMENT AND WATER) REFER TO SECTION 901 0F THIS APPENDIX.												
BACKFILL		802.09 805.01	Quality Control/Accept.	**REFER TO SECTION 802 OF THIS APPENDIX.**								
BEARING PADS	Electromeric	805.02 1018.14 Mat. Lab	Quality Control/Accept.	AASHTO M251	CQCF S 601	*1/100 pads/type /lot	1 pad	CA	-----	14 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML Documents added to CQAP Documentation Data base by CQCF. Plain or Laminated. Visual inspection by CQCF.
	Masonry	805.02 1018.06 Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/type	1 pad	CA	-----	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	Documents added to CQAP Documentation Data base by CQCF. Visual inspection by CQCF.
BOX CULVERT UNITS (Precast)	Gasket Material	805.02 1006.06(b) Mat. Lab	Quality Control/Accept.	-----	**REFER TO SECTION 701 OF THIS APPENDIX.**			CC	-----	-----	3 OVF verifies if the document is in the system.	CQCF verify material is on the AML. Gasket test report lab no. listed on precast unit CC. Documents added to CQAP Documentation Data base by CQCF.
	Precast Concrete Unit	805.03(b) 1016.02 CQCF	Quality Control/Accept.		**Inspected and stamped by MFR prior to use.**			CD	-----	-----	3 OVF verifies if the document is in the system.	CQCF verify material is on the AML. Visual Inspection by CQCF. CD to include lot number for Gasket Materials. Documents added to CQAP Documentation Data base by CQCF. CQCF to verify stamp by DOTD Const. Fab. Insp.

SECTION 805 STRUCTURAL CONCRETE (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
BRIDGE MEMBERS	Concrete Precast	805.14	Quality Control/Accept.	-----	Inspected and stamped by DOTD Const. Fab. Inspect. Prior to use	-----	-----	CD	-----	-----	3 OVF verifies if the document is in the system.	Visual inspection by CQCF. For specific details see EDSM III.2.5.7. Documents added to CQAP Documentation Data base by CQCF.
CONCRETE ANCHOR SYSTEMS	Anchor Bolts	805.15 1018.22 Plans Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/size/ shipment	2 nuts and bolts	-----	-----	11 days	3 OVF to submit to Mat. Lab for CQCF.	Visual inspection by CQCF.
	Cartridge Systems	805.15 1018.22 Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/size/type/ lot or shipment**	2 of each item*	-----	-----	14 days	3 OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML *Includes bolts & nuts intended to be used with the system. *Two pieces of each size and type of item used are to be submitted. **Visual inspection by CQCF. Sample only when questionable.
	Grout Systems (Resin or Cementitious)	805.15 1018.22 Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/lot or shipment	1 qt friction top can	-----	-----	14 days	3 OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML Visual inspection by CQCF. Sample only when questionable.
	Mechanical Systems	805.15 1018.22 Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/size/type/ lot or shipment**	3 of each item*	CD	-----	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML *Three of each size and type of item used are to be submitted. **Visual inspection by CQCF. Sample only when questionable.

SECTION 805 STRUCTURAL CONCRETE (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
CONCRETE (In-Place)	Compressive Strength	805.03(a),(c) 805.11 CQCF	*Quality Control/Accept. Monitor	Compress. Strength TR 230	CQCF S 301	3 cyl/ structural member	4 in. x 8 in. cylinder mold	-----	-----	10 days	1	*To determine strength for form removal or exposure to construction traffic.
	Surface Resistivity	805 CQCF	*Quality Control/Accept.	Surface Resistivity TR 233	CQCF	Average S.R. reading per each cylinder tested for compressive strength	-----	-----	-----	-----	1	*Surface Resistivity when required by specification.
	Deck Surface Finish	805.13(d) CQCF	Quality Control/Accept. Monitor	-----	CQCF	each span	-----	-----	-----	-----	-----	CQCF to observe QC check bridge deck surface. Shall check sufficient to ensure specifications are met.
	Tine Texturing	805.13(d) CQCF	Quality Control/Accept. Monitor	Tine Texturing TR 229	CQCF	2/Lot	-----	-----	-----	-----	-----	Performed on plastic concrete. Sufficient number of random checks to assure the required texture depth is achieved.
		805.13(d) CQCF	Quality Control/Accept.	Tine Texturing TR 229	CQCF	2/Lot	-----	-----	-----	-----	3	Performed on hardened concrete.

SECTION 805 STRUCTURAL CONCRETE (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
CURING MATERIALS	Burlap Cloth/Burlap & White Polyethylene Sheeting/ Waterproof Paper/ White Polyethylene Sheeting	805.02 1011.01	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	3	Visual inspection by CQCF. Material to be presoaked. Material to perform satisfactorily as determined by CQCF.
	Liquid Membrane-Forming Compounds	805.02 1011.01(a) Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/shipment*	1 qt friction top can	CC	-----	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML. Visual by CQCF Documents added to CQAP Documentation Data base by CQCF. *Sample when not accompanied by certificate or when questionable.
EPOXY RESIN SYSTEMS	Epoxy	805.02 1017.02 Mat. Lab	Quality Control/Accept.	Table 1017-1	-----	1/lot or shipment	1 qt each component friction top can	CC	-----	11 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML Documents added to CQAP Documentation Data base by CQCF. Sample when not accompanied by certificate or when questionable.
FORM RELEASE AGENTS		805.02 1018.24 CQCF	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	-----	CQCF to verify material is on the AML Product performance verification by CQCF.

SECTION 805 STRUCTURAL CONCRETE (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
GEOTEXTILE FABRIC		805.02 1019 Mat. Lab	Quality Control/Accept.	Table 1019-1	CQCF S 601	1/type/ source/ shipment	3 lin ft/roll width of fabric	CC	150 yd^2	-----	3 OVF to submit to Mat. Lab for CQCF. OVF verifies if the document is in the system.	CQCF to verify material is on the AML Visual inspection, sample only when questionable. Documents added to CQAP Documentation Data base by CQCF.
JOINT MATERIALS	Adhesive-Lubricant	805.12(c) 1005.03(b) Mat. Lab	Quality Control/Accept.	ASTM D4070	-----	1/lot or shipment	1 qt friction top can	-----	-----	-----	3 OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML For use with preformed elastomeric compression joint seal. Visual inspection by CQCF. Sample only when questionable.
	Polyurethane Polymer	1005.02(b) Mat. Lab	Quality Control/Accept.	-----	CQCF S 611	1/shipment*	-----	CD	-----	14 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML Documents added to CQAP Documentation Data base by CQCF. Sample if not accompanied by certificate or when questionable.
	Reinforced Elastomeric Joint Seal	805.02 1005.06 Mat. Lab	Quality Control/Accept.	ASTM D3204	-----	-----	-----	CC & CA	-----	-----	3 OVF verifies if the document is in the system.	Elastomeric - CA; Steel - CC. Visual inspection by CQCF. Documents added to CQAP Documentation Data base by CQCF.
	Steel Joint	805.02 805.12(f)	Quality Control/Accept.	-----	**Inspected and stamped by DOTD Const. Fab. Insp. Unit prior to use.**			-----	-----	-----	3	Visual inspection by CQCF. CQCF to verify stamp by DOTD Const. Fab. Insp.

SECTION 805 STRUCTURAL CONCRETE (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
JOINT MATERIALS (Cont'd)	Strip Seal Joint	805.02 805.12(d) 1005.05	Quality Control/Accept.	-----	**Inspected and stamped by DOTD Const. Fab. Insp. Unit prior to use.**			-----	-----	-----	3	Visual inspection by CQCF. CQCF to verify stamp by DOTD Const. Fab. Insp.
NON-SHRINK GROUT		805.15 1018.26 Mat. Lab	Quality Control/Accept. Early Break	ASTM C1107	CQCF S 601	1/source	1 full sack, 15 lb min.*	-----	-----	16 days	3 OVF to submit to Material Lab for CQCF.	CQCF to verify material is on the AML *Sample shall be submitted in an unbroken moisture proof sack.
PRECAST CONCRETE (Non-Prestressed - Other than Bridge Members)	Precast Unit	805.03 DOTD Const. Fab. Insp.	Quality Control/Accept.		**Inspected and stamped by DOTD Const. Fab. Insp. prior to use.**			CD	-----	-----	3 OVF verifies if the document is in the system.	CD must include lot no. for elastomeric bearing pads if applicable. Documents added to CQAP Documentation Data base by CQCF. CQCF to verify stamp by DOTD Const. Fab. Insp.
PRECAST CONCRETE (Prestressed & Non-Prestressed Bridge Members) [**CQCF and OVF requirements only if not performed by LA DOTD Fabrication Unit]	Precast Unit	805.03 DOTD Const. Fab. Insp.	Quality Control/Accept.		**Inspected and stamped by DOTD Const. Fab. Insp. prior to use.**			CD	-----	-----	3 OVF verifies if the document is in the system.	CD must include lot no. for elastomeric bearing pads if applicable. Documents added to CQAP Documentation Data base by CQCF. CQCF to verify stamp by DOTD Const. Fab. Insp.
	Epoxy Resin Systems	805.02 1017.02	Quality Control/Accept.	Table 1017-1	CQCF S 601	1/lot or shipment	1 qt/ component friction top can	-----	-----	-----	3 OVF to submit to Material Lab for CQCF.	CQCF to verify material is on the AML
	Strands for Prestressing**	805.02 1009.05	Quality Control/Accept.	ASTM A416	CQCF S 501	1/size/ grade/ source/proj.* per heat no.	3 strands 5 ft length	-----	-----	11 days	2 OVF to submit to Material Lab for CQCF.	*Not to exceed 200 tons. Manufacturer's Load/Elongation curve to accompany sample.
	Welded Wire Fabric**	805.02 1009.01	Quality Control/Accept.	ASTM A185	CQCF S 601	1/shipment	48 in. x 48 in.	CA 6	-----	11 days	3 OVF to submit to Material Lab for CQCF.	Visual inspection by CQCF. Sample if questionable.
PRECAST PRESTRESSED FORMS	Bearing Strips and Adhesive	805.14(k) CQCF	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	-----	Visual inspection by CQCF
	Concrete Deck Forms (Stay In Place Panels)	805.14(k) DOTD Const. Fab. Insp.	Quality Control/Accept.	-----	**Inspected and stamped by DOTD Const. Fab. Insp. Unit prior to use.**			CD	-----	-----	3 OVF verifies if the document is in the system.	Visual inspection by CQCF For specific details see EDSM III.2.5.7. Documents added to CQAP Documentation Data base by CQCF. CQCF to verify stamp by DOTD Const. Fab. Insp.

SECTION 805 STRUCTURAL CONCRETE (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
REINFORCEMENT	Bars	805.02 1009	Quality Control/Accept.	**REFER TO SECTION 806 OF THIS APPENDIX.**								
SPECIAL SURFACE FINISH	Concrete	805.02 1011.03 Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/lot or shipment*	1 qt. component friction top can	CC	-----	10 days	3 OVF verifies if the document is in the system.	CQCF to verify material is on the AML Documents added to CQAP Documentation Data base by CQCF. *Sample if not accompanied by certificate or when questionable.
WATER STOPS	Copper	805.07 1005.08(a) Mat. Lab	Quality Control/Accept.	ASTM B370	CQCF S 601	*1/lot or shipment	24 in. length	CA	-----	-----	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	Visual inspection by CQCF. Documents added to CQAP Documentation Data base by CQCF. *Sample if not accompanied by certificate or when questionable.
	Polyvinyl Chloride	805.07 1005.08(b) Mat. Lab	Quality Control/Accept.	CRD-C 572	CQCF S 601	1/shipment*	36 in. length	CC	-----	-----	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	Visual inspection by CQCF. Documents added to CQAP Documentation Data base by CQCF. *Sample if not accompanied by certificate or when questionable.
	Rubber	805.07 1005.08(c) Mat. Lab	Quality Control/Accept.	CRD-C 572	CQCF S 601	1/lot or shipment*	36 in. length	CA	-----	-----	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	Visual inspection by CQCF. Documents added to CQAP Documentation Data base by CQCF. *Sample if not accompanied by certificate or when questionable.

SECTION 806 REINFORCEMENT

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
REINFORCEMENT	Bars (Epoxy Coated)	806.02(b) 1009.01(f) Mat. Lab	Quality Control/Accept.	ASTM A615 AASHTO M284	CQCF S 501	1/size/grade/ 150,000 lb /source	2 bars approx. 48 in. in length	CC	-----	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML Certificate of compliance provided by the applicator. Documents added to CQAP Documentation Data base by CQCF.
	Bars & Spirals	806.02 1009 Mat. Lab	Quality Control/Accept.	ASTM A615	CQCF S 501	1/size/grade/ 150,000 lb /source*	48 in. length	CA	-----	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML Sample if not accompanied by certificate or when questionable. Documents added to CQAP Documentation Data base by CQCF.
	Chairs or Metal Bar Supports	806.02(b) 1009.01(f) Mat. Lab	Quality Control/Accept.	AASHTO M284	CQCF S 501	1/type*	1 chair	-----	-----	10 days	3 OVF to submit to Mat. Lab for CQCF.	*Visual inspection by CQCF and sample when questionable.
	Patching Material (Epoxy Coated Bars)	806.02(a) 1009.01 1009.03 Mat. Lab	Quality Control/Accept.	AASHTO M284	CQCF S 601	1/source	1 qt friction top can	CC	-----	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML Documents added to CQAP Documentation Data base by CQCF.

SECTION 806 REINFORCEMENT (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
REINFORCEMENT (Cont'd)	Stirrups, Tie Bars	806.02(a) 1009.03 Mat. Lab	Quality Control/Accept.	-----	CQCF S 501	1/size/ 150,000 lb.*	2 of each item	CA	-----	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML *Sample if not accompanied by certificate or when questionable. Documents added to CQAP Documentation Data base by CQCF.
SPLICING	Mechanical Butt Splice	806.07 Mat. Lab	Design Builder/CQCF Qualification	-----	CQCF S 501	1/size*	2 splices/each size	-----	-----	10 days	OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML *Separate samples per horizontal and vertical positions. Test prior to use.
		806.07 Mat. Lab	Quality Control/Accept.	-----	CQCF S 501	1/size/25 splices*	1 splice 3 ft length	-----	-----	10 days	3 OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML May be reduced to 1 per size per 100 splices after the first hundred splices.
	Welded Butt Splice		Quality Control/Accept.	REFER TO SECTION 809 OF THIS APPENDIX.								

SECTION 807 STRUCTURAL METALS

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
BEARING & EXPANSION	Bronze	807.02 1013.07(a) DOTD Const. Fab. Insp.	Quality Control/Accept.	-----	-----	-----	-----	CA	-----	-----	3 OVF verifies if the document is in the system.	CQCF to verify material is on the AML Visual inspection by CQCF. Documents added to CQAP Documentation Data base by CQCF.
	Copper-Alloy (Rolled)	807.02 1013.07(b) DOTD Const. Fab. Insp.	Quality Control/Accept.	-----	-----	-----	-----	CA	-----	-----	3 OVF verifies if the document is in the system.	CQCF to verify material is on the AML Visual inspection by CQCF. Documents added to CQAP Documentation Data base by CQCF.
	PTFE Bearing Assembly	807.05 807.46(c) DOTD Const. Fab. Insp.	Quality Control/Accept.	-----	-----	-----	-----	CA	-----	-----	3 OVF verifies if the document is in the system.	CQCF to verify material is on the AML Visual inspection by CQCF. Documents added to Documentation Data base by CQCF.
BEARING PADS	Elastomeric	807.46(a) 1018.14 Mat. Lab	Quality Control/Accept.	AASHTO M251	CQCF S 601	1/100 pads/type* /lot	1 pad	CA	-----	14 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML CQCF samples at destination if not sampled at site of source or supplier by DOTD Const. Fab. Insp. Plain or Laminated. Documents added to Documentation Data base by CQCF. Visual inspection by CQCF.
	Masonry	807.46 1018.06 Mat. Lab	Quality Control/Accept.	MIL-C-882C	CQCF S 601	1/type/size	1 pad	CA	-----	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	Documents added to CQAP Documentation Data base by CQCF.

SECTION 807 STRUCTURAL METALS (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
CASTINGS	Metal for Castings	807.02 1013.06	Quality Control/Accept.	-----	-----	-----	-----	CA	-----	-----	3 OVF verifies if the document is in the system.	Visual inspection by the CQCF. Form 4148-Certificate of Cast Iron Covers, Grates, etc. will be received by the Design-Builder. Documents added to CQAP Documentation Data base by CQCF.
	Unit	807.20	Quality Control/Accept.	AASHTO M270 Grade 36	-----	-----	-----	CA	-----	-----	3 OVF verifies if the document is in the system.	Visual inspection by the CQCF. Form 4148-Certificate of Cast Iron Covers, Grates, etc. will be received by the Design-Builder. Documents added to CQAP Documentation Data base by CQCF.
CONCRETE ANCHOR STUDS		807.02 1013.24	Quality Control/Accept.	-----	-----	-----	-----	CA	-----	-----	3 OVF verifies if the document is in the system.	Visual inspection by CQCF. 'Documents added to CQAP Documentation Data base by CQCF.
FASTENERS (Field Installation)	Bolts, Nuts & Washers	807.20 1013.08 Mat. Lab	Quality Control/Accept.	ASTHM A307 Grade A	CQCF S 501	1/diameter/ shipment	2 of each item	CC	-----	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	Visual inspection by CQCF. Copy of CC to accompany sample and ID. Documents added to CQAP Documentation Data base by CQCF.

SECTION 807 STRUCTURAL METALS (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
FASTERNERS (Field Installation) (Cont'd)	High Strength Bolts, Nuts & Washers and Tension Device Indicators	807.02 807.21 1013.08 Mat. Lab	Quality Control/Accept.	ASTM A325 or A490	CQCF S 501	1/type/ diameter/ heat	2 of each item with Tension Device Indicator	CA	-----	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	Visual inspection by CQCF. Copy of CA to accompany sample and ID. Documents added to CQAP Documentation Data base by CQCF.
	Rotational Capacity	807.21 Design-Builder/CQCF	Quality Control/Accept.	ASTM A325	-----	2 assemblies/ each combination bolt lot, nut lot & washer lot	-----	-----	-----	-----	3 OVF verifies if the document is in the system.	Test to be witnessed by CQCF. Documents added to CQAP Documentation Data base by CQCF.
	Steel Lockpins and Collars	802.02 1013.08 Mat. Lab	Quality Control/Accept.		CQCF S 501	1/lot or shipment	1 pin and collar	CC	-----	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	Copy of CC to accompany sample ID. Documents added to CQAP Documentation Data base by CQCF.
FASTENERS (Shop Installation)	Bolts, Nuts & Washers/ High Strength Nuts and Washers and Tension Device	807.20 807.21 1013.08 Mat. Lab	Quality Control/Accept.	-----	-----	1/type/ diameter/ heat	3 of each item with Tension Device Indicator	CC/ CA for high strength	-----	10 days	3 OVF verifies if the document is in the system.	Visual inspection by CQCF. CQCF to receive inspection report from Const. Fab. Insp. Documents added to CQAP Documentation Data base by CQCF.
	Indicators/ Steel Lockpins and Collars	807.02 1013.08 Mat. Lab	Quality Control/Accept.	-----	-----	1/lot or shipment	1 pin and collar	CA	-----	10 days	3 OVF verifies if the document is in the system.	Visual inspection by CQCF. CQCF to receive inspection report from Const. Fab. Insp. Documents added to CQAP Documentation Data base by CQCF.

SECTION 807 STRUCTURAL METALS (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
GROUT (Non-Shrink)			Quality Control/Accept.	**REFER TO SECTION 805 OF THIS APPENDIX.**								
PAINT AND PROTECTIVE COATINGS			Quality Control/Accept.	**REFER TO SECTION 811 OF THIS APPENDIX.**								
SHEAR CONNECTORS		807.02 807.42 1013.23	Quality Control/Accept.	-----	-----	-----	-----	CA	-----	-----	3 OVF verifies if the document is in the system.	Shop and field inspection requirements per Specification Subsection 807.42. Visual inspection by CQCF. Documents added to CQAP Documentation Data Base by CQCF. *CQCF to receive an approved copy from Const. Fab for documentation.
STEEL FORGINGS & SHAFTING		807.02 809.07	Quality Control/Accept.	-----	**Inspected and stamped by the DOTD Const. Fab. Insp. Unit prior to use.**			CA	-----	-----	3 OVF verifies if the document is in the system.	CQCF to receive inspection report from DOTD Const. Fab. Insp. Visual inspection by CQCF. CQCF to verify stamp by DOTD Const. Fab. Insp. Documents added to CQAP Documentation Data base by CQCF.
STRUCTURAL STEEL & ALUMINUM	Metal for Fabrication	807.02 807.05	Quality Control/Accept.	AASHTO M270	**Inspected and stamped by the DOTD Const. Fab. Insp. Unit prior to use.**			CA	-----	-----	3 OVF verifies if the document is in the system.	CQCF to receive inspection report from DOTD Const. Fab. Insp. Visual inspection by CQCF. CQCF to verify stamp by DOTD Const. Fab. Insp. Documents added to CQAP Documentation Data base by CQCF.
WELDING			Quality Control/Accept.	**REFER TO SECTION 809 OF THIS APPENDIX.**								

SECTION 807 STRUCTURAL METALS (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
WRENCH	Calibrated Wrench	*807.21	Quality Control/Accept.	-----	-----	* For calibration frequency, see subsection 807.21 (h-k)	3 assemblies/ size	-----	-----	-----	3 OVF verifies if the document is in the system.	Design-Builder's calibration procedure to be witnessed by CQCF. Documents added to CQAP Documentation Data base by CQCF.
	Job Inspection Torque Wrench	*807.21 Design-Builder/CQCF	Quality Control/Accept.	-----	-----	* For calibration frequency, see subsection 807.21 (h-k)	5 assemblies/ size	-----	-----	-----	3 OVF verifies if the document is in the system.	Design-Builder's calibration procedure to be witnessed by CQCF. *See Specification Subsection 807.22(h)(2). Documents added to CQAP Documentation Data base by CQCF.

SECTION 808 STEEL GRID FLOORING

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
CONCRETE (Structural)	Mix Designs, Materials & Tests	808.02	Quality Control/Accept.	**REFER TO SECTION 901 OF THIS APPENDIX.**								
PAINT AND PROTECTIVE COATINGS		808.13 1008 Mat. Lab	Quality Control/Accept.	**REFER TO SECTION 811 OF THIS APPENDIX.**								
STRUCTURAL STEEL	Flooring	808.02 1013.21	Quality Control/Accept.	-----	**Inspected and stamped by the DOTD Const. Fab. Insp. Unit prior to use.**			CA	-----	-----	3 OVF verifies if the document is in the system.	CQCF to receive inspection report from DOTD Const. Fab. Insp. Visual inspection by CQCF. Documents added to CQAP Documentation Data base by CQCF. CQCF to verify stamp by DOTD Const. Fab. Insp.
WELDING		808.12	Quality Control/Accept.	**REFER TO SECTION 809 OF THIS APPENDIX.**								

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SECTION 809 WELDING

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
THIS SECTION IS TO BE USED AS A GUIDE FOR OTHER ITEM NUMBERS WHEN REFERENCE IS MADE TO SECTION 809. THERE ARE NO PAY ITEMS UNDER SECTION 809.												
WELDING QUALIFICATION AND TESTING	Field	807.50 815 .02 CQCF	Quality Control/Accept.	-----	**Welders and procedure qualified by licensed, bonded testing laboratory.**			-----	-----	-----	3	Design-Builder to provide document to CQCF/OVF for acceptance. Visual inspection by CQCF.
	Shop	807.23 815.02	Quality Control/Accept.	-----	**Qualified, inspected and approved by licensed, bonded testing laboratory prior to use.**			-----	-----	-----	3 OVF verifies if the document is in the system.	CQCF receives inspection report from DOTD Const. Fab. Insp. Unit. Visual inspection of visible welds upon delivery of fabricated metal work to job site. Documents added to CQAP Documentation Data base by CQCF.

SECTION 810 BRIDGE RAILINGS AND BARRIERS

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
CONCRETE AND ASSOCIATED MATERIALS			Quality Control/Accept.	**REFER TO SECTIONS 805 AND 901 OF THIS APPENDIX AND SECTION 1012 OF THE STANDARD SPECIFICATIONS.**								
HARDWARE	Galvanized Steel	810.02 1012.04 Mat. Lab	Quality Control/Accept.	-----	CQCF S 501	1/size/type/ shipment	2 of each item	-----	-----	10 days	3 OVF to submit to Mat. Lab. for CQCF.	Visual inspection by CQCF
METAL CASTINGS, FITTINGS, POSTS & RAILINGS	Steel	810.02 1012.03	Quality Control/Accept.	-----	**Inspected and stamped by the Const. Fab. Unit prior to use.**			CA	-----	-----	OVF verifies if the document is in the system	CQCF to receive inspection report from DOTD Const. Fab. Insp. Documents added to CQAP Documentation Data base by CQCF. CQCF to verify stamp by DOTD Const. Fab. Insp.
	Pipe (Galvanized)	810.02 1012.04 DOTD Const. Fab. Insp.	Quality Control/Accept.	-----	**Inspected and stamped by the Const. Fab. Unit prior to use.**			CA	-----	-----	OVF verifies if the document is in the system	CQCF to receive inspection report from DOTD Const. Fab. Insp. Documents added to CQAP Documentation Data base by CQCF. CQCF to verify stamp by DOTD Const. Fab. Insp.
PAINT AND PROTECTIVE COATINGS		810.03 1008	Quality Control/Accept.	**REFER TO SECTION 811 OF THIS APPENDIX**								
WELDING			Quality Control/Accept.	**REFER TO SECTION 809 OF THIS APPENDIX**								
SPECIAL SURFACE FINISH	Concrete	805.13(b) 1011.03 Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1 lot or shipment*	1 each friction top can	CC	-----	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML Documents added to CQAP Documentation Data base by CQCF. Sample if not accompanied by certificate or when questionable.

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SECTION 811 PAINTING AND PROTECTIVE COATINGS

MATERIAL		REF. / TESTED BY	PURP.	TEST METHOD	SAMPLED BY / METHOD	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
THIS SECTION IS TO BE USED AS A GUIDE FOR OTHER ITEM NUMBERS WHEN REFERENCE IS MADE TO SECTION 811.												
PAINT AND PROTECTIVE COATINGS	Paint for Field Painting	811.03 811.10 1008 Mat. Lab	Quality Control/Accept.	SSPC SP 11	CQCF S 604	1/batch	1 pt each component friction top can	*CD	-----	14 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab. for CQCF.	*Sample when not accompanied by CD. Multiple component paints must be submitted in separate containers with the mixing proportions indicated on the sample identification and cans. Sampling technique is sensitive, contact Dist. Lab prior to sampling. Documents added to CQAP Documentation Data base by CQCF.
	Galvanizing Repair Compound	811.03(c) 1008.05 Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/type*	1 bar, can or rod	-----	-----	-----	3 OVF to submit to Mat. Lab. for CQCF.	CQCF to verify material is on the AML *Visual inspection by CQCF. Sample only when questionable.
	Paint for Shop Painting	811.03 811.09 1008 Mat. Lab	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	-----	Design Builder to notify DOTD Bridge Design Engineer of the paint system to be used prior to submitting shop drawings.

SECTION 812 TREATED TIMBER

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
CONNECTORS		812.02 1018.07 Mat. Lab	Quality Control/Accept.	ASTM A711, Grade 1015 or ASTM A47 Grade 32510	CQCF S 501	1/type/ shipment*	1 of each item	-----	-----	10 days	3 OVF to submit to Mat. Lab. for CQCF.	*Visual inspection by CQCF. Sample only when questionable.
CASTINGS		812.02 1013.05(a) 1013.06(a) Mat. Lab	Quality Control/Accept.	ASTM A27 Grade 70-26 or ASTM A148 or ASTM A743	CQCF S 501	1/type/ shipment	1 of each item	-----	-----	10 days	3 OVF to submit to Mat. Lab. for CQCF.	-----
HARDWARE & STRUCTURAL SHAPES		812.02 1018.08 Mat. Lab	Quality Control/Accept.	ASTM A307 AASHTO M270	CQCF S 501	1/type/ shipment	1 of each item	CA	-----	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	Documents added to CQAP Documentation Data base by CQCF. CA to accompany sample.
PAINT AND PROTECTIVE COATINGS		812.18	Quality Control/Accept.	**REFER TO SECTION 811 OF THIS APPENDIX**								
ROOFING PITCH		812.02 1018.13 CQCF	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	-----	Visual inspection by CQCF. To the satisfaction of the CQCF.
TIMBER & LUMBER (Treated)		812.02 1014	Quality Control/Accept.	-----	**Inspected and stamped (Hammered) by DOTD Const. Fab. Insp. Unit prior to use.**			CD	-----	-----	3 OVF verifies if the document is in the system.	Visual inspection by CQCF and verify stamp by DOTD Const. Fab. Insp. Documents added to CQAP Documentation Data base by CQCF.

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SECTION 812 TREATED TIMBER (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
TREATMENT OF PILE HEADS	Canvas	812.06(b) Mat. Lab	Quality Control/Accept.	-----	CQCF S 601	1/shipment*	18 in x 18 in.	-----	-----	10 days	3 OVF to submit to Mat. Lab. for CQCF.	*Visual inspection by CQCF. Sample only when questionable.
	Coal Tar Pitch, Creosote Oil, Asphalt & Copper Napthanate	812.06(a) Mat. Lab	Quality Control/Accept.	-----	CQCF S 201	1/shipment*	1 qt friction top can	-----	-----	10 days	3 OVF to submit to Mat. Lab. for CQCF.	*Visual inspection by CQCF. Sample only when questionable.
	Fabric Covering	812.06(c) Mat. Lab	Quality Control/Accept.	ASTM D173	CQCF S 601	1/shipment*	18 in. x 18 in.	-----	-----	10 days	3 OVF to submit to Mat. Lab. for CQCF.	*Visual inspection by CQCF. Sample only when questionable.
	Galvanized Metal Covering	812.06(b) Mat. Lab	Quality Control/Accept.	-----	CQCF S 501	1/shipment*	6 in. x 6 in.	-----	-----	10 days	3 OVF to submit to Mat. Lab. for CQCF.	*Visual inspection by CQCF. Sample only when questionable.
	Galvanized Nails, Staples & Wire	812.06(c) Mat. Lab	Quality Control/Accept.	-----	CQCF S 501	1/size/type/ shipment*	12 of each item Wire - 24 in. length	-----	-----	10 days	3 OVF to submit to Mat. Lab. for CQCF.	*Visual inspection by CQCF. Sample only when questionable.

SECTION 813 CONCRETE APPROACH SLABS

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
			Quality Control/Accept.	**FOR DETAILS ON CONCRETE TESTS, MIX DESIGNS AND MATERIALS (ADMIXTURES, AGGREGATES, CEMENT AND WATER) REFER TO SECTION 901 OF THIS APPENDIX**								
AGGREGATES	Bedding Material	813.02 1003.08 CQCF	Quality Control/Accept.	Gradation TR 113 PI TR 428	CQCF S 101	1/1,000 yd^3	1 full sample sack	-----	-----	4 days	3	'Shall check sufficient to ensure specifications are met. Design Builder may propose a lower frequency after 8 consecutive passing tests and provided CQCF maintain their minimum sampling testing frequency.
BEARING PILES	Timber	813.02 813.06 1014 CQCF	Quality Control/Accept.	-----	**Inspected and stamped by the DOTD Const. Fab. Insp. Unit prior to use.**			CD	-----	-----	3 OVF verifies if the document is in the system	Visual inspection by CQCF. Documents added to CQAP Documentation Data base by CQCF. CQCF to verify stamp by DOTD Const. Fab Insp.
CONCRETE (In-Place)	Compressive Strength	805.03(a) 805.03(c) 813.07 CQCF	Quality Control/Accept. Early Break	Compress. Strength TR 230	CQCF S 301	3 cylinder/ pour	Three 4 in. x 8 in. cylinder mold	-----	-----	-----	3	*To determine strength for form removal or exposure to construction traffic.
	Surface Tolerance	805.13(d) 813.07	Quality Control/Accept.	-----	-----	Each slab	entire lot	-----	-----	-----	3	Plastic Concrete Surface must be checked using an approved 10 ft metal static straightedge. Straightedge testing to be witnessed by CQCF for acceptance.
	Tine Texturing	805.13(d) 813.08 CQCF	Quality Control/Accept. Monitor	Texturing TR 229	CQCF	1/slab	-----	-----	-----	-----	-----	Performed on Plastic Concrete by CQCF
	Tine Texturing	805.13(d) 813.08 CQCF	Quality Control/Accept.	Texturing TR 229	CQCF	2/slab	-----	-----	-----	-----	3	Performed on hardened concrete by CQCF
CURING MATERIALS		813.07 1011.01 Mat. Lab	Quality Control/Accept.	**REFER TO SECTION 601 OF THIS APPENDIX**								

SECTION 813 CONCRETE APPROACH SLABS (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
GEOTEXTILE FABRIC		813.03 1019.01 Mat. Lab	Quality Control/Accept.	Table 1019-1	CQCF S 601	1/type	3 lin ft/roll width of fabric. Min. of 18 ft^2	CC	150 yd^2	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab. For CQCF.	CQCF to verify material is on the AML Documents added to CQAP Documentation Data base by CQCF.
HARDWARE CLOTH		813.02 1018.22 Mat. Lab	Quality Control/Accept.	ASTM A470	CQCF S 601	1/shipment*	18 in x 18 in.	-----	-----	10 days	3 OVF to submit to Mat. Lab for CQCF.	*Visual inspection by CQCF. Sample only when questionable.
JOINT MATERIAL	Preformed Closed Cell Polyethylene	813.02 1005.01(e) Mat. Lab	Quality Control/Accept.	ASTM D7174 Type 1	CQCF S 601	1/5,000 lin ft/ Width	36 in. length	-----	-----	10 days	3 OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML
JOINT SEAL (Preformed)	Elastomeric Compression	813.02 1005.03 Mat. Lab	Quality Control/Accept.	Compress. Deflection TR 612	CQCF S 601	1/lot or shipment	8 ft length* when width is over 2 in., 4 ft. length is sufficient	CA**	-----	14 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML Documents added to CQAP Documentation Data base by CQCF. **CA to accompany sample to lab.
ADHESIVE LUBRICANT-	For Preformed Closed Cell polyethylene Joint Filler	813.02 1005.01(e) CQCF	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	3	CQCF to verify material is on the AML Visual inspection by CQCF.
	For Preformed Elastomeric	813.02 1005.03	Quality Control	-----	-----	-----	-----	-----	-----	-----	-----	QC to verify material is on the AML.
	For Preformed Elastomeric Compression Joint Seal	813.02 1005.03 Mat. Lab	Quality Control/Accept.	ASTM D4070	CQCF S 601	1 Project/lot	1qt friction top can	-----	-----	10 days	3 OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML Mix well before sampling. Seal can tightly.

SECTION 813 CONCRETE APPROACH SLABS (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
POLYETHYLENE FILM		813.02	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	3	Visual inspection by CQCF.
REINFORCING STEEL		813.02 1009.01 Mat. Lab	Quality Control/Accept.	ASTM A615	CQCF S 501	1/size/ source	48 in. length	CA	-----	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML Visual inspection by CQCF. Sample if not accompanied by certificate or when questionable. Documents added to CQAP Documentation Data base by CQCF.
UNDERDRAIN PIPE		813.04	Quality Control/Accept.	**REFER TO SECTION 703 OF THIS APPENDIX**								

SECTION 814 DRILLED SHAFT FOUNDATIONS

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
CONCRETE (Structural)	Mix Designs, Materials & Test	814.02	Quality Control/Accept.	**REFER TO SECTION 901 OF THIS APPENDIX**								
GRANULAR MATERIAL	Pea Gravel or Granular Material	814.02 1003.07 CQCF	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	-----	3	Visual inspection by CQCF
REINFORCEMENT		814.02 1009 Mat. Lab	Quality Control/Accept.	ASTM A615	CQCF S 501	1/size/ source	48 in. length	CA	-----	10 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML Visual inspection by CQCF. Sample if not accompanied by certificate or when questionable. Documents added to CQCF Documentation Data base by CQCF.
SLURRY		814.12 Design-Builder/CQCF	Quality Control/Accept.	-----	CQCF*	-----	-----	-----	-----	-----	3	*QC tests to be observed by the CQCF & documented in field book. Sampling and testing shall be in accordance with the Design-Builder's accepted Drilled Shaft Installation Plan.
DRILLED SHAFT INSTALLATION PLAN		814.05 CQCF	Quality Control/Accept.	-----	-----	-----	-----	-----	-----	10 days	3	Design-Builder to submit Drilled Shaft Installation Plan four weeks prior to start of construction. Must be accepted by CQCF/OVF/DOTD.

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SECTION 820 MOVABLE BRIDGES

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
CONCRETE (Structural)	Mix Designs, Materials & Tests (For Counter Weights)	809.38 Design-Builder/CQCF	Quality Control/Accept.	**REFER TO SECTION 901 OF THIS APPENDIX.**						21 days	3 OVF to submit to DOTD Bridge Design	CQCF to witness test for unit weight as per Specification Subsection 809.38 for counterweights. DOTD Bridge Design must accept mix design and calculations for determining unit weight prior to use.
ELECTRICAL EQUIPMENT	Brochures, Certified Dimension Sheets & Descriptive Data	801.03 809.04 809.05 Bridge Design	Quality Control/Accept.	**DOTD Bridge design accepts and distributes to OVF/CQCF for all items listed in Bridge Electrical Equipment List.**				-----	-----	-----	3 OVF to submit to DOTD Bridge Design	Design Builder to submit to CQCF.No component shall be incorporated into the work without acceptance from DOTD Bridge Design. CQCF to review and submit to OVF.
GUARANTY	Design Build's Guarantee	104.05 809.02 CQCF	Quality Control/Accept.	-----	**OVF and DOTD Bridge Design accepts and files.**		-----	-----	-----	-----	3 OVF to submit to DOTD Bridge Design	Design Builder to submit to CQCF. CQCF to review and submit to OVF. Documents added to CQAP Documentation Data base by CQCF.
	Manufacturer's Standard Warranty	104.05 809.02 CQCF	Quality Control/Accept.	-----	**OVF and DOTD Bridge Design accepts and files.**		-----	-----	-----	-----	3 OVF to submit to DOTD Bridge Design	Design Builder to submit to CQCF. CQCF to review and submit to OVF. Documents added to CQAP Documentation Data base by CQCF.
HARDWARE	Bolts, Fasteners, Fittings, Nuts, Washers & Misc. Hardware	809.07 1013.08 1018.08 Mat. Lab	Quality Control/Accept.	-----	CQCF* S 501	1/size/type/ shipment	2 of each item	-----	-----	10 days	3	Visual inspection by QC. *When sampled by DOTD Const. Fab. Insp. and listed on report to CQCF, project samples are not required.
MAINTENANCE & OPERATION INSTRUCTION BOOKLETS		801.03(e) 809.05 Bridge Design	Quality Control/Accept.	-----	**OVF submits to DOTD Bridge Design for acceptance, then distributes in accordance with EDSM III.2.5.6.**			-----	-----	-----	OVF to submit to DOTD Bridge Design	Design Builder to submit to CQCF. CQCF to submit to OVF.
MECHANICAL EQUIPMENT	Brochures, Certified Dimension Sheets & Descriptive Data	801.03 809.04 809.05 Bridge Design	Quality Control/Accept.	-----	**DOTD Bridge Design accepts and distributes to OVF/CQCF**				-----	-----	OVF to submit to DOTD Bridge Design	Design Builder to submit to CQCF. CQCF inspects materials and components to ensure conformance. CQCF to submit to OVF.

SECTION 820 MOVABLE BRIDGES (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
MECHANICAL EQUIPMENT (Cont'd)	Parts List (Gears & Bearing in Gear Box)	809 Bridge Design	Quality Control/Accept. Monitor	-----	**Bridge Design accepts and distributes to OVF/CQCF**				-----	-----	3 OVF to review and submit to DOTD	Design Builder to provide document to CQCF. CQCF shall verify list.
OPERATING HOUSE (All Furnishings)	Brochures	809.04 Bridge Design/ CQCF	Quality Control/Accept. Monitor	-----	**Bridge Design accepts and distributes to OVF/CQCF**				-----	-----	3 OVF to review and submit to DOTD	CQCF to provide documents to OVF. CQCF shall monitor QC's verification of list.
PAINT AND PROTECTIVE COATINGS		809.09 807.44 1008	Quality Control/Accept.	**REFER TO SECTION 811 OF THIS APPENDIX.**								
POWER PLANT		809.36	Quality Control/Accept.	**REFER TO SECTION 730 OF THIS APPENDIX.**								
STRUCTURAL METALS		809.07 1013	Quality Control/Accept.	**REFER TO SECTION 807 OF THIS APPENDIX.**								
TRAFFIC BARRIERS	Drawings & Brochures	729.02 809.04 Bridge Design	Quality Control/Accept.	-----	**Bridge Design accepts and distributes to OVF/CQCF.**				-----	-----	3 OVF to review and submit to DOTD	Design Builder to submit to CQCF. CQCF inspects materials and components to ensure conformance. CQCF to submit to OVF.
WELDING			Quality	**REFER TO SECTION 809 OF THIS APPENDIX.**								
WIRE ROPE & ATTACHMENTS	Counterweight Rope Assemblies	809.08 DOTD Const. Fab. Insp.	Quality Control/Accept.	-----	**Inspected and stamped by DOTD Const. Fab. Insp. Unit prior to use.**			-----	-----	-----	3 OVF to distribute inspection report to Design Builder. OVF verifies if the document is in the system.	CQCF to receive inspection report on counterweight ropes and sockets from DOTD Const. Fab. Insp. and submit to OVF/CQCF. CQCF to verify stamp by DOTD Const. Fab Insp. Documents added to CQAP Documentation Data base by CQCF.
	Wire Rope	809.08 1009.10 Mat. Lab	Quality Control/Accept.	-----	CQCF S 501	1/type or class/ shipment	6 ft. length	-----	-----	11 days	3 OVF to submit to Mat. Lab for CQCF.	Visual inspection by QC. Does not include counterweight ropes.

SECTION 901 PORTLAND CEMENT CONCRETE

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
			Quality Control/Accept.	**THIS SECTION IS TO BE USED AS A GUIDE FOR OTHER ITEM NUMBERS WHEN REFERENCE IS MADE TO SECTION 901 OF THIS APPENDIX.**								
ADMIXTURES		901.02 1011.02 1018.28 Mat. Lab	Quality Control/Accept.	IR TR 610 %Solids TR 524	CQCF S 601	*	1 pt. friction top can	CC	-----	-----	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML Sample when not accompanied by certificate or when questionable. Documents added to CQAP Documentation Data base by CQCF.
AGGREGATES (Pavement)	Fine & Coarse	901.02 1003.01 1003.02 CQCF	Quality Control/Accept.	Gradation TR 113 Deleterious TR 119	CQCF S 101	1/pavement lot	-----	-----	50 yd^3	3 days	2	CQCF to verify material is on the AML Shall check sufficient to ensure specifications are met. No sample required for type B or D Pavement Aggregate. Check gradation and foreign matter. See " Application of Quality Assurance Specifications for Portland Cement Concrete Pavement and structural" for
	Blended Aggregate Type B & D	901.06 1003.02(c) CQCF	Quality Control/Accept. Monitoring	Gradation TR 113	CQCF S 101	1/aggregate size/ pavement /lot (max of 1/agg. size/day)	-----	-----	50 yd^3	3 days	2	CQCF to verify material is on the AML. Shall check sufficient to ensure specifications are met. Gradation results may be used to calculate blended gradation for plotting control charts. Gradations for each component used to calculated blended gradation based on mix proportions. Report combined gradation of adjacent sieves as required by specifications.

SECTION 901 PORTLAND CEMENT CONCRETE (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
AGGREGATES Structural and Minor Structures	Fine & Coarse	901.02 1003.01 1003.02 CQCF	Quality Control/Accept.	Gradation TR 113 Deleterious TR 119	CQCF S 101	1/every 5 day of production or 400 y^3 of aggregate*	1 full sample sack	-----	50 yd^3	3 days	2	Shall check sufficient to ensure specifications are met. CQCF to verify material is on the AML. Lot to be identifiable pour up to 200 yd3 max of concrete. Gradation results shall be plotted on control charts which are required for documentation. See "Application of Quality Assurance Specifications for Portland Cement Concrete Pavement and Structures" for details. Check gradation and foreign matter.For structural concrete produced from non-dedicated stockpiles.
CEMENT (Hydraulic)	Types I, II,IP & IS (Pavement & Structural) Types I, II, IP, IS & III (Precast) (cont'd)	901.02 1001.01 1001.02 1001.04 Mat. Lab	Quality Control/Accept.	-----	-----	1/shipment	1 gallon friction type can	CC	50 yd^3	17 days	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML Sample when not accompanied by certificate or when questionable. Documents added to CQAP Documentation Data base by CQCF.

SECTION 901 PORTLAND CEMENT CONCRETE (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
CONCRETE (Minor Structure)	Compressive Strength	Table 901-3 CQCF	Quality Control/Accept.	Compressive Strength TR 230	CQCF S 301	3cyl/50yd^3	4 in. x 8 in. cylinder mold	-----	50 yd^3	30 days	1	-----
	Mix Design	901.06(a) CQCF	Quality Control/Accept.	-----	-----	1/mix class or type/material source/plant	-----	-----	-----	-----	3 OVF verifies if the document is in the system.	CQCF to verify materials are on the AML Acceptance by the CQCF/OVF is required prior to starting work. Documents added to CQAP Documentation Data base by CQCF. The Design-Builder shall submit to the CQCF Engr. the standard Mix Design form indicating the intended source of all materials and the mix design
	Slump and Air	Table 901-3 CQCF	Quality Control/Accept.	Slump TR 207	CQCF S 301	1/50 yd^3	0.5 ft^3	-----	50 yd^3	-----	3	When required in Table 1 or individual section. 'Shall check sufficient to ensure
				Air TR 202	CQCF S 301	1/50 yd^3	0.5 ft^3	-----	50 yd^3	-----	2	When required in Table 1 or individual section. 'Shall check sufficient to ensure

SECTION 901 PORTLAND CEMENT CONCRETE (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
CONCRETE (Pavement)	Entrained Air	Table 901-3 CQCF	Quality Control/Accept.	Air TR 202	CQCF S 301	1/half day	0.25 ft^3	-----	-----	-----	2	Shall check sufficient to ensure specifications are met.Air tests will only be required when an air-entraining admixture is used. Test results shall be plotted on control charts which are required for documentation
	Mix Design	901.06(a) CQCF	Quality Control/Accept.	-----	-----	1/mix type/material source/plant	-----	-----	-----	3 days	3 OVF verifies if the document is in the system.	The CQCF shall submit the standard Mix Design form indicating material sources, proportions, and composite gradation calculations. Acceptance by the CQCF/OVF is required prior to starting work. Documents added to CQAP Documentation Data base by CQCF.
	Mix Temperature	901.06(b) 901.11 CQCF	Quality Control/Accept.	-----	-----	*1/ 5 trucks	-----	-----	-----	-----	3	*When temperature control is needed, testing must be sufficient to prevent exceeding appropriate limits.
	Slump	Table 901-3 CQCF	Quality Control/Accept.	Slump TR 207	CQCF S 301	1/half day	0.5 ft^3	-----	-----	1/2 hr.	3	*Shall check sufficient to ensure specifications are met. Test results shall be plotted on control charts which are required for documentation.
	Unit Weight	901.06(b) *QC	Quality Control/Accept.	Unit Weight TR 201	CQCF	2/lot	1.5ft^3 0.5 or 1 ft^3 yield bucket	-----	-----	-----	3	Shall check sufficient to ensure specifications are met. Unit weight will be run as necessary. Test results are to be plotted on control charts which are required for documentation. To be witnessed by CQCF.

SECTION 901 PORTLAND CEMENT CONCRETE (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
CONCRETE (Structural)	Entrained Air	Table 901-3 CQCF	Quality Control/Accept.	Air Content TR 202	CQCF S 301	1/lot	0.25 ft^3	-----	-----	1 day	2	Test results shall be plotted on control charts which are required for documentation. When pump placement is used, see "Application of Quality Assurance Specifications for Portland Cement Concrete Pavement and Structures" for details.
	Compressive Strength/ (Surface Resistivity)	Table 901-3 CQCF	Quality Control/Accept.	Compressive Strength TR 230 (Surface Resistivity TR 233)	CQCF S 301	3 cyl/batch 2 batches/lot	4 in. x 8 in. cylinder mold	-----	-----	30 days	1	A lot is an identifiable pour not to exceed 200 yd^3. For specific details see Specification 805 & 901. (When required by specifications)
	Mix Design	901.06(a)	Quality Control/Accept.	-----	-----	1/mix class/material source/plant	-----	-----	-----	3 days	3 OVF verifies if the document is in the system.	The CQCF shall submit the standard Mix Design form indicating the intended source of all materials and the mix design. Acceptance by the CQCF/OVF Engineer is required prior to starting work. Documents added to CQAP Documentation Data base by CQCF.
	Mix Temperature	901.06(b) 901.11 CQCF	Quality Control/Accept.	-----	CQCF S 301	*1/5 trucks	-----	-----	-----	-----	3	*When temperature control is required, testing must be sufficient to prevent exceeding appropriate limits.

SECTION 901 PORTLAND CEMENT CONCRETE (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
CONCRETE (Structural) (Cont'd)	Slump	Table 901-3 CQCF	Quality Control/Accept.	Slump TR 207	CQCF S 301	1/lot	0.5 ft^3	-----	-----	1/2 hr.	3	Test results shall be plotted on control charts which are required for documentation. When pump placements used, see "Application of Quality Assurance Specifications for Portland Cement Concrete Pavement and Structures" for details.
	Unit Weight	901.06 CQCF	Quality Control/Accept.	TR 201	CQCF	1/ lot	1.5 ft^3 0.5 or 1 ft^3 yield bucket	-----	-----	-----	3	Shall check sufficient to ensure specifications are met. Test result shall be plotted on control charts which are required for documentation. To be witnessed by CQCF.
FLY ASH	Cement Replacement	901.02 1018.15 Mat. Lab	Quality Control/Accept.	-----	-----	1/shipment	1 gallon friction top can	CC	50 yd^3	-----	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify materials are on the AML. Shall check sufficient to ensure specifications are met. Documents added to CQAP Documentation Data base by CQCF. Sample when not accompanied by certificate or when questionable.
GROUND GRANULATED BLAST-FURNACE SLAG	Cement Replacement	901.08 1018.27	Quality Control/Accept. Mat. Lab	-----	-----	1/shipment	1 gallon friction top can	CC	50 yd^3	-----	3 OVF verifies if the document is in the system. OVF to submit to Mat. Lab for CQCF.	CQCF to verify material is on the AML. Documents added to CQAP Documentation Data base by CQCF. Sample when not accompanied by certificate or when questionable.

SECTION 901 PORTLAND CEMENT CONCRETE (Cont'd)

MATERIAL		REF. TESTED BY	PURP.	TEST METHOD	SAMPLED BY METHOD	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	OVT LEVEL	REMARKS
WATER		901.02 1018.01 Mat. Lab	Quality Control/Accept.	-----	CQCF S 301	*1/source	1 qt plastic bottle	-----	-----	11 days	3 OVF to submit to Mat. Lab for CQCF.	*Drinkable water need not be sampled.