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Resource: Visual Quality	Revision 3 Issue Date: 4/3/2017	Page 1 of 3
<b>Title: Precast Manufacturing Plant Visual Quality Inspection</b>		

**1.0 PURPOSE:**

The purpose of this procedure is to describe the Visual Quality inspection, documentation and reporting required for precast manufacturing plant inspection when NTTA Special Specification 850 is a contractual requirement.

**2.0 RESPONSIBILITIES**

**2.1** Plant Quality Assurance Inspector (PQAI) - shall be a qualified individual with experience in concrete construction on transportation or architectural building projects, knowledgeable of heavy construction materials and techniques, in particular concrete materials and concrete work with aesthetic requirements and successfully complete training by the corridor Visual Quality Assurance Manager (VQAM) and approved by the Assistant Project Manager for Visual Quality. Although, not required but beneficial, if the PQAI possesses field testing certification from the Precast/Prestressed Concrete Institute (PCI), American Concrete Institute (ACI) or allied groups. The PQAI Inspector shall:

- Serve as the primary point-of-contact with precast concrete product supplier and is responsible for daily visual quality inspection and documentation of manufactured precast concrete products, including architectural precast, structural wall panels and trim units.
- Be responsible for documentation of visual quality inspections daily on form (VQ-01-F1) and that the reports are technically accurate. All generated inspection reports are to be submitted for review by the corridor Visual Quality Assurance Manager (VQAM) with any corrections necessary made prior to filing in NTTA Content Management system by the VQAM.
- Be responsible for the review of precast concrete products to ensure cast concrete color is within the prescribed approved tolerance.
- Be responsible for conducting forensic investigation activities to help improve processes for casting, curing, repair of precast concrete related to color, quality of surface finishes and other appearance characteristics, should this be necessary.

**2.2** Visual Quality Assurance Manager (VQAM) – the VQAM shall be responsible to determine if a NCR should be created with regard to visual quality and shall:

- Review all Visual Quality nonconforming conditions brought to them to determine if a NCR should be created.
- Open new NCR when required Approve / Reject all Visual Quality NCR in accordance with VQ-03.

**3.0 SCOPE/APPLICABILITY:**

- All NTTA projects shall comply with the NTTA Design Guidelines (DG) and approved corridor Visual Quality Management Plan(s) (VQMP) unless otherwise directed by the NTTA Board.

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- All NTTA projects where Gray Concrete Color and Finish will be utilized shall comply with NTTA Special Specification Item 850 Gray Concrete Color and Finish.
- All Inter Local Agreement (ILA) language shall include the statement that any NTTA system project/corridor shall adopt the DG for all aesthetic design and NTTA Special Specification Item 850 for Gray Concrete Color and Finish associated with the roadway corridor or project.

**4.0 REFERENCES:**

- [NTTA Design Guidelines Manual](#)
- NTTA Corridor Visual Quality Management Plan
- NTTA Special Specification 850 for Gray Concrete Color and Finish
- [VQ-03](#) Visual Quality Control of Nonconforming Product
- [DM-02](#) Project Delivery Records Management Requirements

**5.0 DEFINITIONS & ACRONYMS:**

**6.0 PROCEDURES:**

- 6.1** All concrete pre-cast plants used to supply structural concrete that are required to meet NTTA Special Specification Item 850 Gray Concrete Color and Finish will be subject to inspection in advance of the shipment date and performed in a timely manner allowing for on time shipment of concrete for use in structures subject to visual quality requirements. This inspection is to insure that the plant is complying with quality requirements that will offer the best opportunity for production and delivery of uniform product in terms of color, workability and formed surfaces characteristics.
- 6.2** In advance of scheduled concrete placement, a visual quality pre-cast plant inspection shall be scheduled and performed
- 6.3** The PQAI will conduct the required visual quality checks and inspections of the concrete pre-cast plant to ensure conformance to the requirements of the approved Construction Visual Quality Management Plan (CVQMP). In addition to the completion of the visual quality pre-cast plant inspection form the visual quality check and/or inspection will be verified as having been accomplished by submitting a completed Form (VQ-01-F1) Precast Manufacturing Plant Inspection Report (PMPiR) to the corridor VQAM prior to filing in NTTA Content Management system per DM-02.
- 6.4** In accordance with VQ-03 procedure, any corrective action deemed necessary to bring pre-cast plant into conformance with the CVQMP requirements will need to be satisfactorily completed and will be verified by the PQAI prior to shipment of concrete pre-cast product and recorded on form (VQ-01-F1).
- 6.5** The PQAI will retain a copy of the PMPiR for his/her file with, an electronic copy forwarded to the VQAM for filing in EPDS.

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**7 REGULATORY REQUIREMENTS:**

N/A

**8 RELATED BOARD POLICY:**

N/A

**9 COMPONENT DOCUMENTS:**

- [VQ-01-F1](#) Precast Manufacturing Plant Inspection Report

**10 FLOWCHART:**

N/A

**11 REVISION HISTORY:**

Revision	Revised by:	Date Issued	DRN NO.	Reason for Revision
0	Bryan Dennis	04/28/2011	<a href="#">10257</a>	Original Release
1	Bryan Dennis	10/10/2011	<a href="#">10338</a> & <a href="#">10363</a>	Replaced QM-09 with VQ-03 in this procedure. QM-09 became obsolete and was split into two separate procedures, VQ-03 and CON-07. Updated 1.0 Purpose, 2.0 Responsibilities, and 6.0 Procedures. Deleted irrelevant references from 4.0 References. Changed "PMO" to "PD", and included "Inter Local Agreement" in Scope/Applicability section.
2	Bryan Dennis	9/19/2016	<a href="#">10605</a>	Change 850.1 to 850. This change would eliminate the need to update this procedure every time a newer version of 850 is issued.
3	Bryan Dennis	4/3/2017	<a href="#">10641</a>	Updated title of SS 850 to reflect spec title revision.