



# **2012 Construction Engineers Workshop Project Certification Session**

## **Materials & Tests Unit**

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# What Are We Going To Talk About?

- Project Certification
- Field Inspection Reports
- Material Received Reports / Alternate ID
- Minimum Sampling Guide
- Determining Proper Payment
- HiCAMS Projects vs. Non-HiCAMS Projects
- Buy America
- Penalty Process To Non-participation
- Handouts



# What Is Project Certification

- Process by which NCDOT certifies to FHWA that:
  - All Materials and workmanship on each Federal-aid project are in compliance with specifications
  - Covers Sampling and Testing (MSG)
  - Independent Assurance
  - QC/QA programs
  - Certified Laboratories, Sampling and Testing Technicians



# 23 CFR 637

- Title 23, Part 637 of the Code of Federal Regulations
  - Covers Quality Assurance Program
    - Acceptance Program
      - Sampling
      - Testing
      - Technician Certifications
    - Independent Assurance Program
      - Assessment of technicians
      - Assessment of laboratories
      - Comparative samples



# Acceptance Program

- A Minimum Sampling Guide – this is a frequency guide schedule that determines the number of samples and tests that are to be performed
  - This is set up for any material of significance to the project. The Minimum Sampling Guide is maintained in HiCAMS and is applicable to all projects.



# Acceptance Program

- Locations at which these samples and tests are to be performed
  - This is detailed in the Standard Specifications for Roads and Structures (Standard Specifications) and any applicable project special provisions or plans.



# Acceptance Program

- Specific criteria which reflect the quality of the finished product.
  - The Standard Specifications and/or plans will typically have specific requirements for what types of tests are to be performed to insure the quality of the finished project.



# Acceptance Program

- Contractor or Producer/Supplier Data can be used in the acceptance process provided the Department validates the results of their tests with random and independent sampling of their own.



# Independent Assurance Program

- An evaluation of the qualified sampling and testing personnel and the testing equipment.
  - These evaluations are the responsibility of Materials and Tests.
  - Use M&T personnel and consultants.



# Independent Assurance

- All inspectors (Department or Consultants) are required to be certified in the materials that they are inspecting.
- The Materials and Tests Unit conducts and administers all this training.



# Independent Assurance

- Assessments are performed on all qualified technicians actively working on any NCDOT projects.
- The program covers sampling procedures, testing procedures, and testing equipment.
- Assessments are used to insure that the proper sampling and testing procedures are being performed.



# Independent Assurance

- The schedule and frequency are either based on a unit of measure or a unit of time.
- Equipment is evaluated by using calibration checks, split samples and proficiency samples. When assessments are required, the assessor uses a standard checklist for the evaluation.



# Independent Assurance

- Testing personnel are evaluated by observations and split or proficiency samples.



# Project Certification Roles

- Project personnel is responsible for sampling and inspection of project produced materials.
- Also responsible for verifying that precertified/pretested materials have the proper documentation and approval (stamp or ID).



# Project Certification Roles

- M&T responsible for pretested materials
- Independent Assurance and most acceptance testing
- Area Materials Personnel responsible for project specific materials audits/reviews to insure compliance with MSG and Specifications



# Project Certification Roles

- M&T Federal Compliance Section and other M&T central staff conduct materials certifications reviews on each project (including state funded)
  - Also notes exceptions and shortages to the Quality Acceptance Program
  - Prepares Non-Participation letter for State Materials Engineer's signature



# Project Certification Roles

- Materials Certification (Non-Participation) Letter is combined with 1446B Project Close out form and signed by State Materials Engineer and either the State Construction Engineer or the Division Engineer (Federally Funded only)





# References

1. ***FHWA Materials Notebook: Chapter 1 - Materials Sampling and Testing*** 23 CFR 637, "23 CFR 637 ACTION: Final Rule and Questions & Answers on the Regulation,"  
[http://www.fhwa.dot.gov/pavement/materials\\_notebook/1sec1.htm](http://www.fhwa.dot.gov/pavement/materials_notebook/1sec1.htm).
2. ***Publication No. FHWA-RD-02-095 "Optimal Procedures for Quality Assurance Specifications"*** (see paragraph 18b),  
<http://www.tfhrc.gov/pavement/pccp/pubs/02095/>.
3. ***Memorandum from Chief, "INFORMATION: Laboratory Qualification,"*** October 9, 1998,  
<http://www.fhwa.dot.gov/pavement/labqual.htm>.
4. ***Memorandum from Chief, "INFORMATION: Technician Qualification,"*** July 17, 1998,  
<http://www.fhwa.dot.gov/pavement/techqual.htm>.

# Why Is It Important?

- Money
  - Federal Fund Reimbursements
  - State Fund Management
- Quality of Infrastructure
  - Quality Construction/Quality Product
  - Efficient





# Questions?



# **Contract Bill of Materials**

The Bottom Line?

# Contract Bill of Materials

- Think of it as a project's Recipe Book
- It lists all the contract line items
- What and how much of a material is needed to complete the line item work.
- Identifies items that need to be addressed by RE:
  - Unknown Conversion Factors
  - Substitutable Items
  - Lump Sum Items





Review Contract BOM (C201500)

Contract: C201500 Contractor: DANE CONSTRUCTION, INC.

Status: Accepted

Description (nickname): NC 8

Letting Date: 07/15/2008

Line Item	Contract Adj	Work Item	Description	Quantity	Unit of Measure	Check for Materials	Labor Only
1			MOBILIZATION	1.000	LS	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2			SEALING ABANDONED WELLS	1.000	EA	<input type="checkbox"/>	<input type="checkbox"/>
3			REINF BRG APPR ***** [(19+10 -L-)]	1.000	LS	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4			REINF BRG APPR ***** [(25+22 -L-)]	1.000	LS	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5			SUPP CLEARING & GRUBBING	1.000	ACR	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6			UNDERCUT EXCAVATION	750.000	CY	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7			GRADING	1.000	LS	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8			BORROW EXCAVATION	32,000.000	CY	<input type="checkbox"/>	<input type="checkbox"/>
9			DRAINAGE DITCH EXCAVATION	283.000	CY	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10			SELECT GRANULAR MATERIAL	3,250.000	CY	<input type="checkbox"/>	<input type="checkbox"/>
11			SOIL STABILIZATION FABRIC	2,500.000	SY	<input type="checkbox"/>	<input type="checkbox"/>

General MSG History

Row	Material	Master Conv Unknown	Incidental Material	Conversion Factor	Substitution Group	Quantity	Unit of Measure
1	Engineering Fabric, Type II (Under Rip Rap)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1.000		1.000	SY
2	Geomembrane	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1.000		1.000	SY
3	Select Material, Class V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	631.420		631.420	TON



Review Contract BOM (C201500)

Contract: C201500 Contractor: DANE CONSTRUCTION, INC. Status: Accepted  
 Description (nickname): NC 8 Letting Date: 07/15/2008

Line Item	Contract Adj	Work Item	Description	Quantity	Unit of Measure	Check for Materials	Labor Only
105			REMV EXIST STR ***** [(19+10.00-L-)]	1.000	LS	<input type="checkbox"/>	<input checked="" type="checkbox"/>
106			REMV EXIST STR ***** [(25+22.00-L-)]	1.000	LS	<input type="checkbox"/>	<input checked="" type="checkbox"/>
107			3'-6" DRILLD PIER IN SOIL	70.640	LF	<input type="checkbox"/>	<input type="checkbox"/>
108			3'-6" DRILLD PIER NO SOIL	59.000	LF	<input type="checkbox"/>	<input type="checkbox"/>
109			PERM STL CASING FOR 3'-6" PIER	32.100	LF	<input type="checkbox"/>	<input type="checkbox"/>
110			SID INSPECTION	2.000	EA	<input type="checkbox"/>	<input checked="" type="checkbox"/>
111			CROSSHOLE SONIC LOGGING	2.000	EA	<input type="checkbox"/>	<input type="checkbox"/>
112			REINF CONCRETE DECK SLAB	8,183.000	SF	<input type="checkbox"/>	<input type="checkbox"/>
113			CONCRETE WEARING SURFACE	3,340.000	SF	<input type="checkbox"/>	<input type="checkbox"/>
114			GROOVING BRIDGE FLOORS	12,837.000	SF	<input type="checkbox"/>	<input checked="" type="checkbox"/>
115			CLASS A CONCRETE (BRIDGE)	176.500	CY	<input type="checkbox"/>	<input type="checkbox"/>

General MSG History

Row	Material	Master Conv Unknown	Incidental Material	Conversion Factor	Substitution Group	Quantity	Unit of Measure
1	Concrete, Drilled Pier	<input type="checkbox"/>	<input checked="" type="checkbox"/>	.355		20.945	CY

Substitution group associated with the line item.



Review Contract BOM (C201500)

Contract: C201500 Contractor: DANE CONSTRUCTION, INC.

Status: Accepted

Description (nickname): NC 8

Letting Date: 07/15/2008

Line Item	Contract Adj	Work Item	Description	Quantity	Unit of Measure	Check for Materials	Labor Only
117			BRG APPR SLAB ***** [(25+22.00-L-)]	1.000	LS	<input checked="" type="checkbox"/>	<input type="checkbox"/>
118			REINF STEEL (BRIDGE)	37,695.000	LB	<input type="checkbox"/>	<input type="checkbox"/>
119			SPIRAL COL REINF STL BRG	4,714.000	LB	<input type="checkbox"/>	<input type="checkbox"/>
120			54" PRESTR CONCRETE GIRDR	862.670	LF	<input type="checkbox"/>	<input type="checkbox"/>
121			HP12X53 PILES	680.000	LF	<input type="checkbox"/>	<input type="checkbox"/>
122			STEEL PILE POINTS	24.000	EA	<input type="checkbox"/>	<input type="checkbox"/>
123			CONCRETE BARRIER RAIL	439.330	LF	<input type="checkbox"/>	<input type="checkbox"/>
124			VERT CONC BARRIER RAIL	195.500	LF	<input type="checkbox"/>	<input type="checkbox"/>
125			RIP RAP II (2'-0")	573.000	TON	<input type="checkbox"/>	<input type="checkbox"/>
126			FILTER FABRIC FOR DRAINAGE	636.000	SY	<input type="checkbox"/>	<input type="checkbox"/>
127			ELASTOMERIC BEARINGS	1.000	LS	<input type="checkbox"/>	<input type="checkbox"/>

General MSG History

Row	Material	Master Conv Unknown	Incidental Material	Conversion Factor	Substitution Group	Quantity	Unit of Measure
1	Concrete, Class A	<input checked="" type="checkbox"/>	<input type="checkbox"/>	26.300		26.300	CY
2	Concrete, Class AA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	72.800		72.800	CY
3	Reinforcing Steel Bar Supports	<input checked="" type="checkbox"/>	<input type="checkbox"/>	100.000		100.000	EA
4	Reinforcing Steel Bar Supports	<input checked="" type="checkbox"/>	<input type="checkbox"/>	280.000		280.000	LF
5	Reinforcing Steel, Epoxy Coated	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4,748.000		4,748.000	LB
6	Reinforcing Steel, Plain	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6,548.000		6,548.000	LB



Review Contract BOM (C201500)

Contract: C201500 Contractor: DANE CONSTRUCTION, INC.

Status: Accepted

Description (nickname): NC 8

Letting Date: 07/15/2008

Line Item	Contract Adj	Work Item	Description	Quantity	Unit of Measure	Check for Materials	Labor Only
117			BRG APPR SLAB ***** [(25+22.00-L-)]	1.000	LS	<input checked="" type="checkbox"/>	<input type="checkbox"/>
118			REINF STEEL (BRIDGE)	37,695.000	LB	<input type="checkbox"/>	<input type="checkbox"/>
119			SPIRAL COL REINF STL BRG	4,714.000	LB	<input type="checkbox"/>	<input type="checkbox"/>
120			54" PRESTR CONCRETE GIRDR	862.670	LF	<input type="checkbox"/>	<input type="checkbox"/>
121			HP12X53 PILES	680.000	LF	<input type="checkbox"/>	<input type="checkbox"/>
122			STEEL PILE POINTS	24.000	EA	<input type="checkbox"/>	<input type="checkbox"/>
123			CONCRETE BARRIER RAIL	439.330	LF	<input type="checkbox"/>	<input type="checkbox"/>
124			VERT CONC BARRIER RAIL	195.500	LF	<input type="checkbox"/>	<input type="checkbox"/>
125			RIP RAP II (2'-0")	573.000	TON	<input type="checkbox"/>	<input type="checkbox"/>
126			FILTER FABRIC FOR DRAINAGE	636.000	SY	<input type="checkbox"/>	<input type="checkbox"/>
127			ELASTOMERIC BEARINGS	1.000	LS	<input type="checkbox"/>	<input type="checkbox"/>

General MSG History

Row	Material	Master Conv Unknown	Incidental Material	Conversion Factor	Substitution Group	Quantity	Unit of Measure
1	Concrete, Class A	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1.000		1.000	CY
2	Concrete, Class AA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1.000		1.000	CY
3	Reinforcing Steel Bar Supports	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1.000		1.000	EA
4	Reinforcing Steel Bar Supports	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1.000		1.000	LF
5	Reinforcing Steel, Epoxy Coated	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1.000		1.000	LB
6	Reinforcing Steel, Plain	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1.000		1.000	LB



Select A Report

**Report Name**

- Concrete Cylinder Test Results
- Concrete Pavement Report
- Contract BOM Report
- Contract Claims
- Contract Level of Service Report
- Contract Line Item Quantity Report
- Contract Overrun/Underrun Computation Report
- Contract Progress Report
- Contract Time Extensions Report
- Contract Tracking Approval Report
- DBE Payment Report
- Density Asphalt % QA/QC
- Density Asphalt QA Summary
- Density Asphalt QC Lots
- Density Asphalt QC Lots Cumulative Averages
- Density Asphalt QC Summary
- Density Other Summary
- Documentation for Negotiated Prices
- Field Inspection Reports
- FIR Notice of Rejection
- Fuel Adjustment Report

Contract: C201500

Line Item: (All) Thru: (All)

Contract Location: BRIDGES OVER TOWN FORK CREEK & TOWN FORK CREEK OVERFLOW AND APPROACHES ON NC-8.

How Received: (All)

Criticality: (All)

Certification Type: (All)

- Show Only Non-Labor Line Items with no materials
- Show Only Incidental Materials Line Items

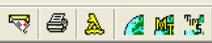


3 of 53 Rows



**Generate**

**Reset**



Contract BOM Report

Item ID	Description	Unit	Quantity	Critical	Material	Notes	Unit Price	Material Price	Material Type	Material Code		
117	BRG APPR SLAB ***** [(25+22.00-L-)]	LS	1.000	Non-Critical	N	Reinforcing Steel Bar Supports	Y	280.000	280.000	LF	Material	
				Non-Critical	N	Reinforcing Steel Bar Supports	Y	100.000	100.000	EA	Material	
				Critical	N	Reinforcing Steel, Epoxy Coated	Y	4,870.000	4,870.000	LB	Material	
				Critical	N	Reinforcing Steel, Plain	Y	6,634.000	6,634.000	LB	Material	
				Critical	N	Concrete, Class A	Y	26.300	26.300	CY	Material	
				Critical	N	Concrete, Class AA	Y	72.800	72.800	CY	Material	
118	REINF STEEL (BRIDGE)	LB	37,695.000	Non-Critical	N	Reinforcing Steel Bar Supports	Y	280.000	280.000	LF	Material	
				Non-Critical	N	Reinforcing Steel Bar Supports	Y	100.000	100.000	EA	Material	
				Critical	N	Reinforcing Steel, Epoxy Coated	Y	4,748.000	4,748.000	LB	Material	
				Critical	N	Reinforcing Steel, Plain	Y	6,548.000	6,548.000	LB	Material	
				Critical	N	Reinforcing Steel, Epoxy Coated	N	1.000	1	37,695.000	LB	Material
				Critical	N	Reinforcing Steel, Plain	N	1.000	1	37,695.000	LB	Material
119	SPIRAL COL REINF STL BRG	LB	4,714.000	Critical	N	Reinforcing Steel, Epoxy Coated	N	1.000	1	4,714.000	LB	Material
				Critical	N	Reinforcing Steel, Plain	N	1.000	1	4,714.000	LB	Material
120	54" PRESTR CONCRETE GIRDR	LF	862.670	Critical	N	Prestressed Concrete Girders, 54in (AASHTO Type IV)	N	1.000	862.670	LF	Material	
121	HP12X53 PILES	LF	680.000	Critical	N	HP 12 X 53 Steel Piles	N	1.000	680.000	LF	Material	

Zoom: 160





# Questions?



# Field Inspection Reports



# Field Inspection Reports

- Importance of FIRS:
  1. Materials Meet Specifications
    - ✓ NCDOT Standard Specifications
    - ✓ AASHTO Specifications
  2. Inspection/Verification
    - ✓ On-site
    - ✓ Off-site
  3. Documentation Needed (Most Items)
    - ✓ Mill Certification
    - ✓ Bill Of Ladings

# Field Inspection Reports

- On-Site Inspection
  - Guardrail
  - Stay In Place Forms
  - Metal Pipe
  - Selected Steel Items
    - Aluminum Handrail
    - Galvanized Piles
- FIR's must be performed on material prior to installation
- Notification – Notify M&T when materials arrives on jobsite.





# Field Inspection Reports

- Off-Site Inspection
  - Precast
  - Concrete Pipe
  - Prestressed Concrete
  - Steel Items
    - Structural Steel Girders
    - Structural Steel Accessories
    - Anchor Bolts
- All must have Alt. ID's

# Field Inspection Reports

- Alternate ID's (Handout)
  - Steel Grates and Frames
  - Gray Iron Castings
  - Prestressed Concrete
  - Concrete Pipe
  - Precast
  - Corrugated Metal Pipe



# Field Inspection Reports

- Issues To Remember
  - No FIR = Rejection/Non-acceptance of material.
  - Verify Required Documentation (BOL, Alternate ID).





Questions?



# Material Receipts and Alternate ID's



# Materials Receipts

- Material Received Reports
- Ticket Book Entries

# Material Receipts

- Timely Entry
  - Triggers notifications for timely inspections
  - Collects data for Technician Assessments
  - Collects data for Plant Inspections
- Confirms document/certifications received
  - Documents received box



# Alternate ID's

- Alternate ID Type
  - The Type of Alternate ID required by the MSG for this Material (Piece, Lot, Heat, etc)
- Alternate ID
  - The number that links the Material on the MRR to a Sample or Field Inspection Report.
- ***Note:** For assistance with Alternate IDs, contact Materials and Tests HiCAMS Support at 1-919-329-4357 or your local SMS*



# Alternate ID Markings

## Concrete Pipe

Alternate Type

LOT

Alternate ID

CP11-36-06

Status

Available

Facility ID

Size  
of  
pipe

Year produced  
– Last two  
digits ONLY!

## Precast Products

Alternate Type

Piece

Alternate ID

PC1-042210-1

Status

Available

Facility ID

Date made:  
April 22, 2010  
(mmddy) –  
MUST BE  
ENTERED  
LIKE THIS!!

Piece #  
of that  
day.





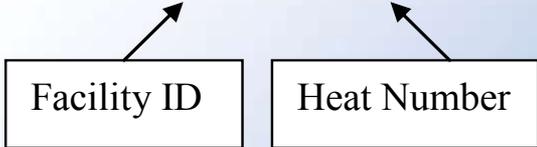
# Alternate ID Markings

## Corrugated Metal Pipe

Alternate Type  
Heat

Alternate ID  
MP1-7272051

Status  
Available

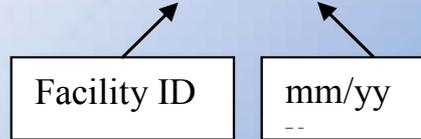


## Steel Grates

Alternate Type  
Lot

Alternate ID  
CI2-0709

Status  
Available





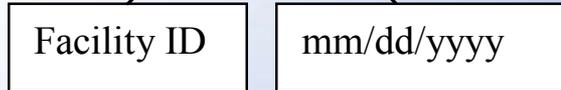
# Alternate ID Markings

## Gray Iron Castings

Alternate Type  
Lot

Alternate ID  
CI2-04262010

Status  
Available

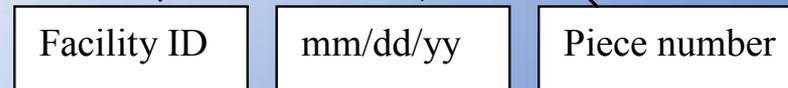


## Prestressed Concrete Members

Alternate Type  
Girder/Piles

Alternate ID  
PS2-042610-1

Status  
Available



# Alternate ID's

- Confirms Material Acceptability
- Tracks Material Usage
- Triggers Plant Inspections
- Needs To Be Accurate
- Helps Prevent Fraud
- Provides Historical Traceability
- Provides Long Term Material Durability Information



# Alternate ID's

- ✓ **Steel – Grates and Frames**
- ✓ **Gray Iron Castings**
- ✓ **Prestressed Concrete Members**
- ✓ **Concrete Pipe**
- ✓ **Precast Products**
- ✓ **Corrugated Metal Pipe**





Questions?

# Updates To MSG





# Cement Sampling

- Plants - Precast/Prestressed/Ready Mixed
  - NCDOT M&T Personnel
    - 1 Gallon per year
    - Review delivery tickets
    - Verification sampling bi-annually and low strength



# Cement Sampling

- Concrete Pavement
  - **RE Personnel (Acceptance Sample)**
    - 1 gallon per 1,250 tons
  - **M&T Personnel (Verification Sample)**
    - 1 gallon per 5,000 tons



# Cement Sampling

- Soil Stabilization and Cement Treated Base
  - **RE Personnel** (Acceptance Sample)
    - 1 gallon per 1,250 tons
- Structural Concrete
  - **M&T Personnel** (Verification Sample)
    - 1 cup per project per plant



# ABC Roadway Assurance

- Former frequency:
  - One Pair (A & B) per 5,000 tons  
(A from first 2,500 tons, B from second)
  - Average of A&B used for acceptance



# ABC Roadway Assurance

- Revised frequency:
  - One sample per 2,500 tons
  - Minimum one sample per 5 days
  - Minimum three (3) samples per project



# ABC Roadway Assurance

- Sample tracking
  - See sample book form in Appendix G of ABC Sampling Manual
  - Plan for sampling
    - Review ABC quantity and locations
    - Determine minimum number of required RA samples



# Other Changes

- Material Criticality Codes
  - Critical and Non Critical
- How Received
  - Everything will be able to be received
- Temporary Materials
  - Safety Related – will have to receive
  - Others will not have to receive
- Incidental Items



# Questions?



HiCAMS Administered  
Projects

vs.

Projects Not Administered In  
HiCAMS

# HiCAMS vs. Non HiCAMS

## HiCAMS

- ✓ Perform routine audits.
- ✓ Verify the materials on the CBOM.
- ✓ Obtain the required min samples.
- ✓ Utilize FIR's and MRR's.
- ✓ Verify required material certifications.
- ✓ Meets "Buy America".

## Non HiCAMS

- ✓ Perform routine audits.
- ✓ Verify the "List Of Materials".
- ✓ Obtain the required min samples.
- ✓ Document field inspections, material quantities, certifications.
- ✓ Meets "Buy America".

# HiCAMS vs. Non HiCAMS

- ✓ Conduct a project certification.
  - ✓ All information will be entered into HiCAMS.
- ✓ Conduct a project certification.
  - ✓ All documentation/files will be hard copy.



Questions?



# Buy America

## Domestic Steel and Iron Products

- Federal Law -23 C.F.R. 635.410
- (4) When steel and iron materials are used in a project the requirements of this section do not prevent a minimal use of foreign steel and iron materials, if the cost of such materials used does not exceed one-tenth of one percent (0.1 percent) of the total contract cost or \$2,500, whichever is greater. For purposes of this paragraph, the cost is that shown to be the value of the steel and iron products as they are delivered to the project.
- State Law -G.S. 136-28.7
- NCDOT Stand Specs -Article 106-1(B)

# State Law -G.S. 136-28.7

- - § 136-28.7. **Contract requirements relating to construction materials.**

(a) The Department of Transportation shall require that every contract for construction or repair necessary to carry out the provisions of this Chapter shall contain a provision requiring that **all** steel and iron permanently incorporated into the construction or repair project be produced in the United States.



# NCDOT Standard Specs - Article 106-1(B)

- The Contractor and all affected subcontractors shall maintain a separate file for steel products permanently incorporated into any project so that verification of the Contractor's efforts to purchase domestic steel and iron products can readily be verified by an authorized representative of the Department or the Federal Highway Administration





# Buy America

## **“Buy America” – Compliance**

- Review at all Preconstruction Meetings**
- Project Certification from Prime on file**
- Check invoices – Piles, Rebar, Guardrail, Fence, etc....**
- Materials Purchase Orders clearly state Buy America requirements.**
- Contractor required to maintain a file for all products.**

# *Buy America Letter*

March 8, 2012

Contractor Name  
Contractor Address

RE: CXXXXXX

Gentlemen:

Attached to this letter are Article 106-1B of the Standard Specifications entitled “Domestic Steel”, CFR 23-635.410 entitled “Buy America Requirements”, and State Law § 136-28.7 entitled “Contract Requirements Relating to Construction Materials”. These requirements are applicable to all steel or iron products permanently incorporated into any type of Federal or State funded construction projects except fasteners. The requirement is that all fasteners such as bolts, nuts, and washers shall be manufactured in the United States.

The Standard Specifications requires the Contractor to furnish the Resident Engineer a notarized certification stating the steel or iron products conform to the requirements of the provision. A Supplier’s Certification alone will not satisfy the requirements of this provision. The notarized certification will be required for each shipment of steel or iron products received and permanently incorporated into the project. In lieu of this, the Contractor may elect to furnish a blanket certification at the beginning of the project certifying that “all steel and iron products to be permanently incorporated into this project will be of domestic origin” and will meet the requirements of Article 106-1B of the Standard Specifications.

This Article also requires you and all subcontractors to place a statement in bold print on all purchase orders to material suppliers that all manufacturing processes to produce the steel or iron shall occur in the United States. Additionally, you and all subcontractors must maintain a separate file for steel and iron products permanently incorporated into the project. This applies to steel used in manufactured items as well (precast, concrete pipe, metal pipe, etc.).



The Department and FHWA require all project records and documentation to be retained for a period of three (3) years after the final voucher is paid. You will be notified from this office when the record retention period has expired. Until then, you must keep these records available for review.

If you have any questions, please feel free to contact me.

Sincerely,

C. David Greene, Jr., PE  
Structural Members Engineer

cc: Resident Engineer  
File

Attachments



Buy America  
(Steel and Iron Permanently  
Incorporated into Project)



YES

Notarized certification NOT  
needed for each shipment of  
material containing Steel or  
Iron

Recommend RE audit Contractor 's  
file during project

M&T Audits during Project  
Certification

NO

Contractor must furnish a  
notarized certification for  
each shipment of material  
containing Steel or Iron

M&T Audits RE's Records



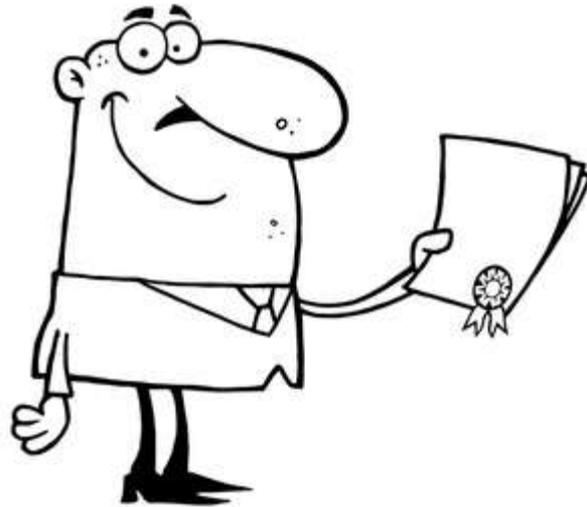
Questions?

# Determining Non - Participating Amounts

- Workmanship vs. Material Quality
- Initial Line Item Cost
- Potential Value to the Department
- Future Replacement Value
- Service Life
- Future Inflation %



# Types of Certifications



**2012**  
**Standard Specifications**  
**For**  
**Roads And Structures**

**Section 106-3**  
**Contractor Furnished Certification**

# Type 1 – Certified Mill Test Report

A certified mill test report shall be a certified report of tests conducted by the manufacturer on samples taken from the same heat or lot number as the material actually shipped to the project. The report shall identify the heat or lot number.

- Examples: Reinforcing steel (plain & epoxy), engineering fabric, fertilizer

## Type 2 – Typical Certified Mill Test Report

A typical certified mill test report shall be certified report of tests conducted by the manufacturer on samples taken from a lot which is typical of the material actually shipped to the project, but which may or may not be from the lot shipped.

- Examples: engineering fabric, subgrade stabilizers, pavement markings

## Type 3 – Manufacturer's Certification

A manufacturer's certification shall be a certified statement that the material actually shipped to the project was manufactured by production processes that are periodically and routinely inspected to assure conformance to specification requirements.

- Examples: paint markings, junction box, fiber optic cable, inductive loop

## Type 4 – Certified Test Reports

A certified test report shall be a certified report of tests conducted by an approved independent testing laboratory on samples taken from the same heat or lot number as the material actually shipped to the project. The report shall identify the heat or lot number.

- Examples: thermoplastics, timber piles, pavement markings, glass beads

Note: This certification type is similar to a Type 1, except the tests conducted are by an approved independent testing lab, not the manufacture.

## **Type 5 – Typical Certified Test Reports**

A certified test report shall be a certified report of tests conducted by an approved independent testing laboratory on samples taken from a lot which is typical of the material actually shipped to the project, but that may or may not be from the lot shipped.

- Example: emulsified asphalt, lighting and electrical material

Note: This certification type is similar to a Type 2, except the tests conducted are by an approved independent testing lab, not the manufacture.

## Type 6 – Supplier's Certification

A supplier's certification is a signed statement by the supplier that the material described in the certification is of the specification grade required and that the supplier has on hand Type 1 or Type 2 material certifications to cover the material that is included in the Type 6 supplier's certification.

- Example: cement, planting & landscape materials

# Type 7 – Contractor’s Certification

Contractor’s certification is a signed statement by a contractor that the used material described in the certification meets the current specifications to the best of the contractor’s knowledge and that the contractor had in his possession at the time of purchase a Type 1 or Type 2 material certification to cover the material that is included in the Type 7 Contractor’s Certification.

- Example: traffic control barricades & barriers

# Miscellaneous Certifications

- NCDA Certificate Of Inspection
- Domestic Steel Certification
- M&T Form 913
- M&T Form ER02

Questions?

# M&T Field Operations

## Contact Numbers

<u>Description</u>	<u>Name</u>	<u>Office</u>	<u>Cell</u>	<u>Divisions</u>
Materials Operation Manager	Randy Pace	919-329-4220	919-291-2319	1 – 14
Field Operation Engineer	Cabell Garbee	919-329-4224	919-906-6294	1 – 14
Field Concrete Engineer	Walton Jones	919-715-1746	336-392-5121	1 – 14
Area Materials Engineer	Henry Traywick	910-485-7196	910-303-3705	1,2,3,6
	Jessica Smith	919-329-4201	704-219-1455	4,5,7
	Pamela Carriker	704-636-3367	704-798-4332	8,9,10
	Kenneth Hamby	336-903-9107	336-984-0420	11,12,13,14
Williamston	Marie Long	252-792-7627	252-799-1056	1
Wilmington	Dan Allen	910-343-6460	910-279-0067	2&3
Wilson	Milton Rudd	252-296-3576	252-235-7069	4
Raleigh	Darrell Lumley	919-329-4221	919-614-1285	5
Fayetteville	Guy Christian	910-485-7196	910-322-0956	6
Greensboro	Robert Fosque	336-256-2567	336-312-3475	7
Salisbury	Rusty Tucker	704-636-3367	910-521-0939	8
Salisbury	Sandra Potts	704-636-3367	336-909-0127	9
Matthews	Mark Thomas	704-847-1314	704-201-3916	10
Wilkesboro	Tracy Church	336-903-9105	336-984-0421	11,12
Asheville	Charles Bullock	828-298-1516	704-838-3005	13, 14
Quality System Engineer	Samuel Frederick	919-715-1746	919-369-2148	1 – 14
Federal Compliance Engineer	Phil Stanberry	919-715-1746		1 – 14
Compliance and Assurance Tech.	Daniel Snoke	919-715-1746		1 - 14
Record Section Specialist	Margaret Lloyd	919-715-1746		3,4,5,6,7,8,12
	Gertrude Meacham	919-715-1746		1,2,9,10,11,13,14
	Sheri Greene	919-715-1746		

# M&T Field Operations

## Contact Numbers

<u>Description</u>	<u>Name</u>	<u>Office</u>	<u>Cell</u>	<u>Divisions</u>
Research and Investigations	Hesham El-Boulaki	919-329-4223	919-271-0074	1 – 14
Special Investigations Engineer	Vacant	919-329-4204		1 – 14
Special Investigations Technician	Jason Fragnito	919-329-4207		1 – 14

# M&T Contact Numbers

<b>Description</b>	<b>Name</b>	<b>Phone number</b>
Administration	Chris Peoples	919-329-4200
	Jack Cowser	919-329-4200
Asphalt	Todd Whittington	919-329-4060
	James Budday	
	Charles Colgate	
	Ted Naylor	
Chemical	Brian Hunter	919-329-4090
	Kelly Croft	
Phys Test	Owen Cordle	919-329-4120
	Dan Miller	
	Kara Bedoya	
Soils	Mehdi Haeri	919-329-4150
	Jim Sawyer	
	CK Su	
Structural Members	C. David Greene	919-329-4200
Metals	Steve Walton	336-993-2300
Prestressed	Trudy Mullins	919-715-1746
Stockroom	Larry Price	919-329-4050



# Areas Needing Attention

- Proper Certification
  - Type 1, Type 2, etc.
- Not Enough Samples
  - Following Minimum Sampling Guide
  - Sample Distribution
- Not Notified for Inspections
  - Guardrail
  - Metal Pipe
  - SIP's

# Areas Needing Attention

- Accurate Paperwork
  - BOL's
  - Alternate ID's
- HiCAMS Items
  - Conversion Factors
  - Correct Materials
  - Substitutable Materials
- Lump Sum Items



# Areas Needing Attention

- Timely Contract Activation
  - Pre-Inspected Items

