



Welcome to the MAC video for the Project Administrator’s role in MAC. This video is intended to provide general guidance to users with the PA role. There are other videos with instructions for the PA role functions. For example, there is a video for FDOT Review of Contractor Quality Control Plans which describes the PA’s role in reviewing and accepting or rejecting Contractor QC Plans. There is also a video for Sample Finalization and Comparison Package Building which describes the functionality of the PA Role related to Sample Life Cycle.

Those videos focus on the “How” of MAC. This optional video provides detailed background instructions on the “WHY of MAC.



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Project Administrators and MAC

- What is the PA role in MAC?
- How is it different from LIMS?
- Who can be assigned the PA Role in MAC?
- Why does it matter?

This video will convey basic materials concepts for the PA and describe how the PA role in MAC is different from LIMS.

It will explain who can be assigned the PA role.

It will demonstrate how the PA role is vital to the Final Project Materials Certification Review.



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Project Administrators and MAC

- The Materials Acceptance and **Certification** system is designed around the requirements for Final Project Materials Certification Review

The Materials Acceptance and Certification System is designed around the Final Project Materials Certification Review. Almost all data, even program data may ultimately impact project samples and the Final Project Materials Certification Review. The Certification Review (known as the MC Review) is the Certification in Materials Acceptance and **Certification** system.



Project Administrators and MAC

- The PA is responsible for
 - Assuring that the contract requirements for material acceptance are met
 - The Project Materials Certification Letter (PMCL) is correct and complete

The PA is responsible for assuring that the contract requirements for materials acceptance are met. This is done through:

Finalizing project samples

Building Comparison packages

Both of these MAC functions together are equivalent to the LIMS

Sample approval process

Responding to MC Review issues

Making recommendations for material acceptance resolution (known as MAR) & providing documentation for MAR issues



Project Administrators and MAC

- In LIMS, the person approving samples could be different, depending on the district and/or material
- Known CPR Issue
 - Who is the PA's delegate

Speaking of LIMS Sample approval, in LIMS, the person approving samples could be different, depending on the district and/or material. In any case where the samples are not being approved by the PA, it is being performed by the PA's delegate.

Responsibilities that were handled by other users in LIMS will now be performed by the PA. This is in response to a CPR issue related to who should approve samples in LIMS.



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Project Administrators and MAC

- In response to the CPR Issue, the State Construction Office set the definition of the PA's delegate
- Still allowed in LIMS, but MAC will bring CPR

The State Construction Office has set a new definition for who can be the PA's delegate in MAC.

The current non-CPR issue has been allowed to continue in LIMS, but will be addressed in MAC.



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Project Administrators and MAC

- PA role can be delegated to:
 - Contract Specialist
 - Head Inspector

The definition of the PA's delegate is now restricted to a Contract Specialist or Head Inspector. No one else.



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Project Administrators and MAC

- NOT
 - VT Technician at the concrete lab
 - VT Technician at the soils lab
 - Earthwork Inspection Technician

This means that some users, like the Verification Technician working in the structural concrete Verification Lab will not be assigned the MAC Role of PA and will not have the functionality in MAC to finalize concrete samples and to create concrete comparison packages. The same is true for soils samples and the Verification Technician at the soils lab.



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Project Administrators and MAC

- Later added for asphalt samples:
 - Verification Technician
 - Resident Asphalt Specialist

Since the original definition was set, the State Construction Office has expanded it to include Asphalt Verification Technicians and/or Resident Asphalt Specialists.

In each district, the District Construction Engineer and District Materials and Research Engineer together will determine if the role may be assigned to Asphalt VTs, Resident Asphalt Specialists or both.



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Project Administrators and MAC

- Lots of new work in unfamiliar materials areas for the PA
- Ultimately Asphalt will also be the responsibility of PA

The addition of the delegates for asphalt samples is in recognition of the fact that MAC is bringing a lot of new work to some PAs. Also other new applications besides MAC are being implemented at the same time, like Project Solve. Add the fact that MAC replaces the Asphalt Plant Worksheet and that's a lot of new information for the PA all at once.

After the PAs have had time to absorb some of these changes, the asphalt sample process will be transitioned from the delegates of Asphalt VTs and/or RAS's to the PA and the official delegates, Contract Specialists and Head Inspectors.



Project Administrators and MAC

- **Contract Concepts**
 - Method of Measurement
 - Basis of Payment
 - Method of Acceptance

So what is the PA looking for in MAC? What areas need to be focused on?

There are 3 basic contract concepts employed by the Department that the PA should be familiar with. In many cases they are inter-related. So knowing all 3 will help with materials acceptance.

The concepts are:

Method of Measurement

Basis of Payment

Method of Acceptance



Project Administrators and MAC

- **Contract Concepts**
 - Method of Measurement
- How do we determine how much of something is on a contract
 - Plan Quantity
 - Final Measure
 - Lump Sum

Method of Measurement – How do we determine how much of something is on the contract

Plan Quantity
Final Measure
Lump Sum



Materials Acceptance and Certification (MAC)

- Contract Concepts
 - Method of Measurement (715-16)

(k) High Mast Lighting Pole Complete: The Contract unit price will include the pole, luminaires with lamps, lowering system, breakers and anchor bolts with lock nuts and washers, and foundation as indicated in the Plans and the Design Standards.

FACTS & CONDITIONS FOR BIDDING & WORK

715-6.1 Concrete Foundations: Provide foundations for light poles of the sizes and shapes shown in the Plans. Construct **precast or cast-in-place concrete foundations** in accordance with the Design Standards. Obtain precast foundations from a plant that is currently on the Department's list of Producers with Accepted Quality Control Programs. Producers seeking inclusion on the list shall meet the requirements of 105-3.

Here is an example of Method of Measurement that sounds more like basis of payment. We'll see this one again later. This is an example of an "included in the cost" phrase



Project Administrators and MAC

- **Contract Concepts**
 - Basis of Payment
- How we pay for something on the contract



Project Administrators and MAC

- **Contract Concepts**
 - Method of Acceptance
 - Specifications Section 6
 - Sampling and Testing
 - Certification

Method of Acceptance – How do we know what we are measuring and paying for is good in terms of **material quality**

Sampling and Testing

Certification – which includes

APL

Contractor Certifications

Delivery Tickets

Installation Certifications

Producer / Manufacturer Certifications

That's it.

Either someone is sampling and testing or someone is certifying.



Project Administrators and MAC

- Certification
 - APL
 - May also require manufacturer certification or labeling
 - Contractor/Producer/
 - Manufacturer Certifications

And sometimes there are multiple certification requirements – for example, APL items that also require a manufacturer or contractor certification or have specific label requirements.



Project Administrators and MAC

- Method of Acceptance can get tricky
 - A concrete delivery ticket is a certification

Concrete delivery ticket is a certification and is part of acceptance for structural concrete.

It IS the acceptance for non-structural concrete.



Project Administrators and MAC

- Method of Acceptance can get tricky
 - Sometimes the requirements are by reference
 - The acceptance requirements are found elsewhere
 - Can be connected to Basis of Payment
 - CPF
 - Reduced Payment for failing material

Method of acceptance isn't always a straightforward subarticle in the Specifications. In fact it almost never is. It can hide in things like the Materials Article in a Specification Section, references in method of measurement or basis of payment language or even standard indexes. It can also be project specific in the form of plan notes and change orders.



Project Administrators and MAC

- **Method of Acceptance by Reference**
 - Section 400 has no Method of Acceptance (MOA) details
 - Article 400-2 references Sections 346 and 347 for concrete
 - Section 346 MOA is Sampling and Testing
 - Section 347 MOA is certification

Here is an example of direct reference through the use of the Materials Article in a Specification Section.

Section 400 does not have a method of acceptance subarticle. Because of the reference to Section 346 and 347 in the Materials Article it requires that the material used in Section 400 must meet the requirements of 346 or 347.



Project Administrators and MAC

- Sometimes the references are not so direct
 - Article 400-2 References Section 415 for reinforcing steel
 - Section 415 has no MOA requirements
 - Article 415-2 references Section 931 for reinforcing steel
 - Section 931 has MOA requirements

Sometimes it is not so direct. Section 400 also references Section 415 in the Materials Article for Reinforcing for Concrete. But if we go to Section 415, there are no method of acceptance requirements in Section 415 and it references Section 931 in the 415 Materials Article.

Section 931 Accessory Materials for Concrete Pavement and Concrete Structures is where we see things like sampling and testing requirements including the definition of a lot size. There are also certified mill analysis requirements.



Project Administrators and MAC

- Method of Acceptance can get tricky
 - Sometimes a single pay item can have many references

Here's that example we saw earlier

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Materials Acceptance and Certification (MAC)

- Contract Concepts
 - Method of Measurement (715-16)
 - (k) High Mast Lighting Pole Complete: The Contract unit price will include the pole, luminaires with lamps, lowering system, breakers and anchor bolts with lock nuts and washers, and foundation as indicated in the Plans and the Design Standards.
 - Chemistry Lab
 - Physical
 - 715-6.1 Concrete Foundations: Provide foundations for light poles of the sizes and shapes shown on the Plans. Construct precast or cast-in-place concrete foundations in accordance with the Plans. Obtain precast foundations from a plant that is currently on the Department's list of plants with Accepted Quality Control Programs. Producers seeking inclusion on the list shall meet the requirements of 105-3.
 - Certification
 - Sampling and Testing

Here is an the example of a method of measurement This is a good example of our struggle when it comes to matching up pay items to materials.

Included:

Poles, Luminaires with lamps, Lowering Systems, Breakers

These are all under the Chemistry Lab because they are aluminum.

Anchor bolts with lock nuts and washers are under the Physical Lab because the bolt, nuts and washers are steel.

The Foundation is structural concrete and the method of acceptance is in a different place in the Section. The foundation can be precast or cast in place. If it's precast, the method of acceptance is a certification statement from the producer. If it is cast in place, it's sampling and testing.



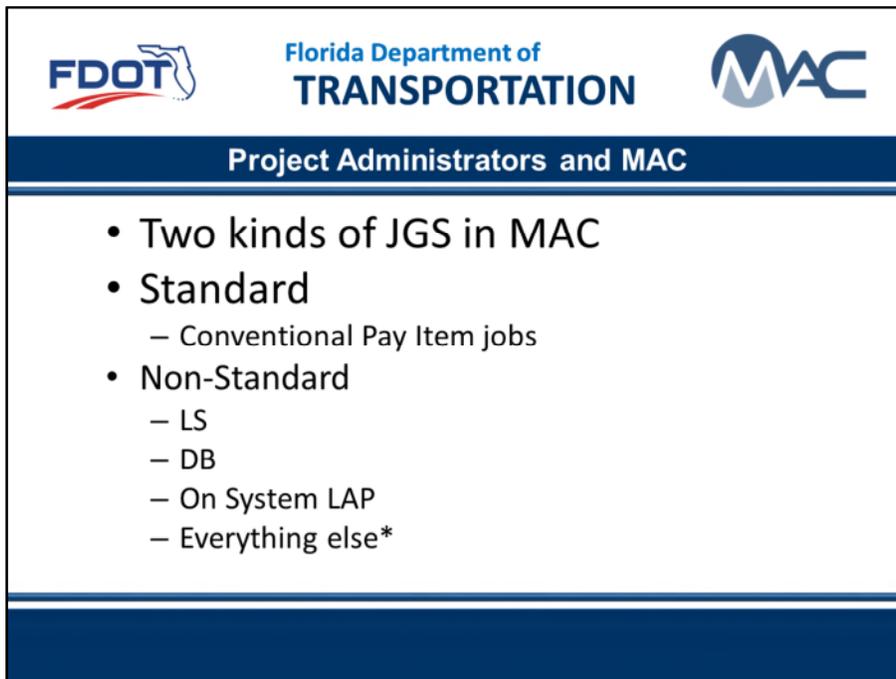
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Project Administrators and MAC

- The Job Guide Schedule is designed to assist with Method of Acceptance
- PA needs to review JGS to ensure it's complete
- PA needs to know which materials belong with which pay items to confirm JGS is complete

Because these requirements are peppered all through FDOT contract documents, the Job Guide Schedule is intended to gather those requirements in one source for convenience. Does that mean the project personnel don't need to review the contract documents? NO! Especially during the initial implementation period. As we will see in few minutes, there are a lot of background relationships that need to be in place and at first, some of these connections will be missed. The State Materials Office is relying on the PAs to assist with ensuring the JGS is 100% complete.



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Project Administrators and MAC

- Two kinds of JGS in MAC
- Standard
 - Conventional Pay Item jobs
- Non-Standard
 - LS
 - DB
 - On System LAP
 - Everything else*

Depending on the pay items on you contract, you will have one of two types of JGS's in MAC.

Standard JGS

Non-standard JGS

Before we get into how the Standard JGS is created, we need to define some MAC terms – Material and Material Id.

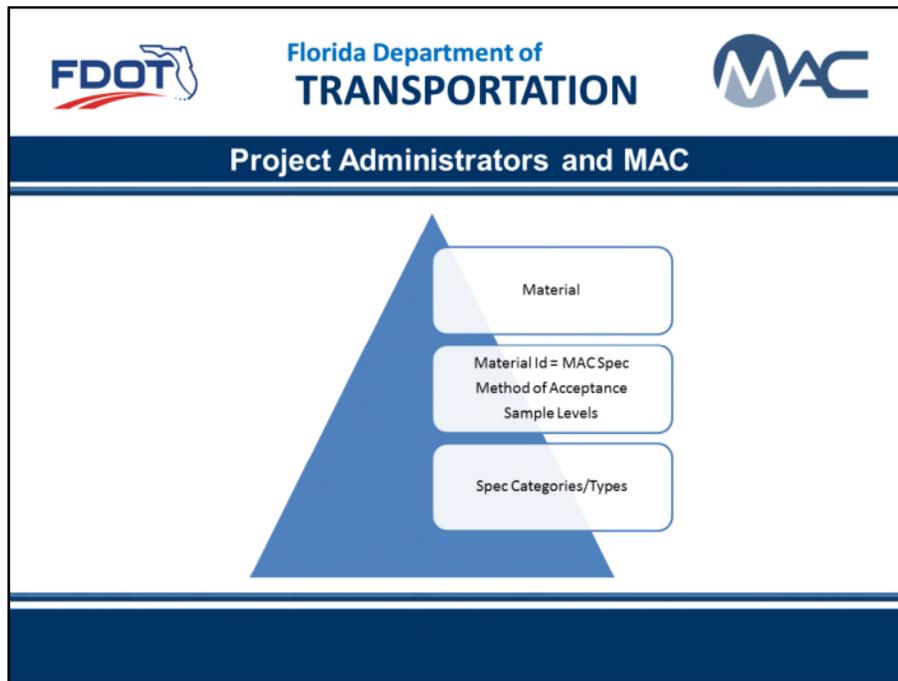


Project Administrators and MAC

- What is a material?
In MAC a material is the top of the pyramid and is based on the FDOT Specification Sections

To understand how the JGS is built, the PA needs to know the difference between a Material and a Material Id in MAC.

A material is the top of the pyramid. This is another difference from LIMS to MAC. In LIMS materials or material ids were based on old CQR codes. In MAC, materials are not the same as material ids. Materials are the Material number and descriptive title only. The MAC Spec Material Ids are based on the actual Specification Section or other governing document that houses the method of acceptance language for the material.



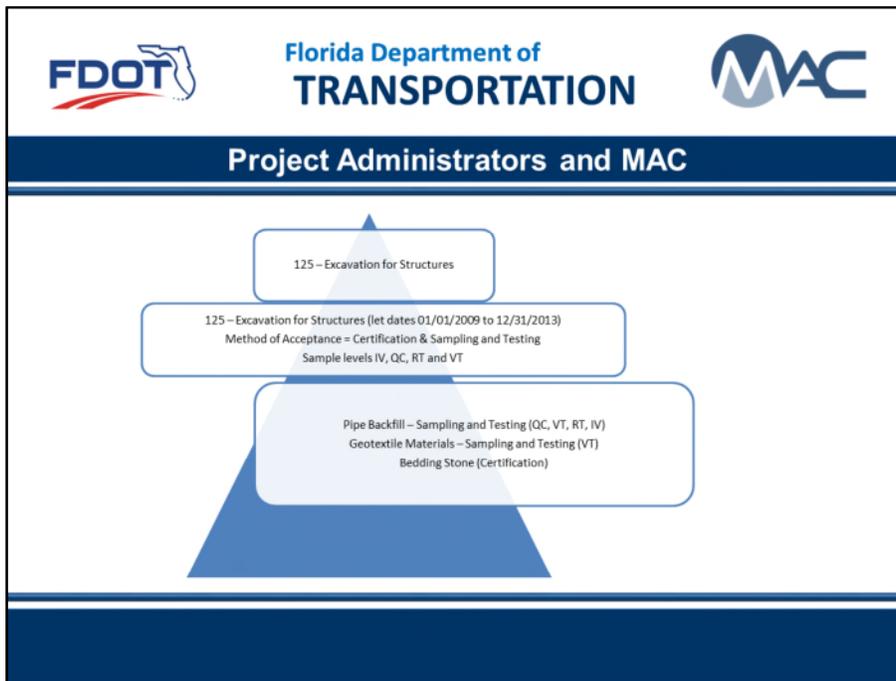
From the Material top of the pyramid, we branch off for Supplemental Specifications. Now we're talking MAC Material Ids. Off the Supplemental Specification entries are branches for Workbook Editions

There isn't a workbook edition for every Specification Section for every workbook. If the basic method of acceptance requirements don't change, a MAC Spec workbook edition can span multiple FDOT workbooks.

Method of Acceptance – two types

Then for Sampling and Testing MOA – Sample levels and MAC Spec Categories and types

Categories are a way to break down a specific MAC Spec further and is usually driven by MOA requirements. Types is a further breakdown of categories. Not all MAC Specs will have types and the categories and or types will be different for each MAC Spec. So there's no standard definition of what a category or type is. It's what makes sense for the specific governing document.



Here is a specific example of a familiar material.

The Material is 125 – Excavation for Structures.

The material id is 125 – Excavation for Structures. That’s the same thing, so what is the difference. The Material is only the listing of 125 – Excavation for Structures. . The Material id has all the details. For example it has two methods of acceptance, one for certification and one for sampling and testing. The certification is a certified delivery ticket for the bedding stone from the aggregate production facility.

The sampling and testing has categories of
 Pipe Backfill with sample levels of QC VT RT and IV
 Geotextile Materials with a sample level of VT
 There no types, just categories.

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Project Administrators and MAC

- How MAC creates a JGS:
 - 1. Standard JGS
 - State Materials Office Technical Unit
 - Maintains a table assigning materials to pay items
 - Maintains another table assigning APL materials to pay items
 - Creates MAC Spec entries for Supplemental Specification Material ids

So, what MAC does do with those materials and how does it use them to create a standard JGS?

There are two tables in MAC that these materials get assigned to. One is the pay item table where the SMO technical unit assigns the material to the pay item. The other is the APL materials to pay items. They also create the entries for the MAC Spec Material Ids themselves.

Based on these assignments, MAC creates entries on the JGS for the Supplemental Specifications and APL items for those materials.



Project Administrators and MAC

- 1. Standard JGS
- Based on Material Assignment, MAC does the following:
 - Looks at the contract let date
 - Looks at the pay items on the contract
 - Assigns the appropriate MAC Spec Material Id or APL Spec to the JGS based on the contract pay items and the let date

How does it know which ones?

It looks at the contract let date. It looks at the pay items on the contract. It assigns the MAC Spec or APL Spec to the JGS based on the pay items and the let date

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Project Administrators and MAC

- 1. Standard JGS
- What about requirements other than Supplemental Specifications?
- Must be added manually

You may be asking the question “What about Standard Specifications?”. The Standard Specifications are the Supplemental Specifications. Think of it in terms of workbooks. Supplemental Specifications are what is in the work book so that is what we base the MAC Spec Material Id entries on.

That explains how Supplemental Specifications get assigned. What about the other types of Spec? What about Change Orders and plan notes. There is no automatic process to add those materials. Even for Special Provisions with pay item usage notes, they don’t use this level of programming to get on a specific JGS. They must be added on a project by project basis.

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Project Administrators and MAC

- 1. Standard JGS
- Special Provisions
 - Modified Special Provisions
- Technical Special Provisions
- Developmental Specifications
- Change Orders
- Plan Notes

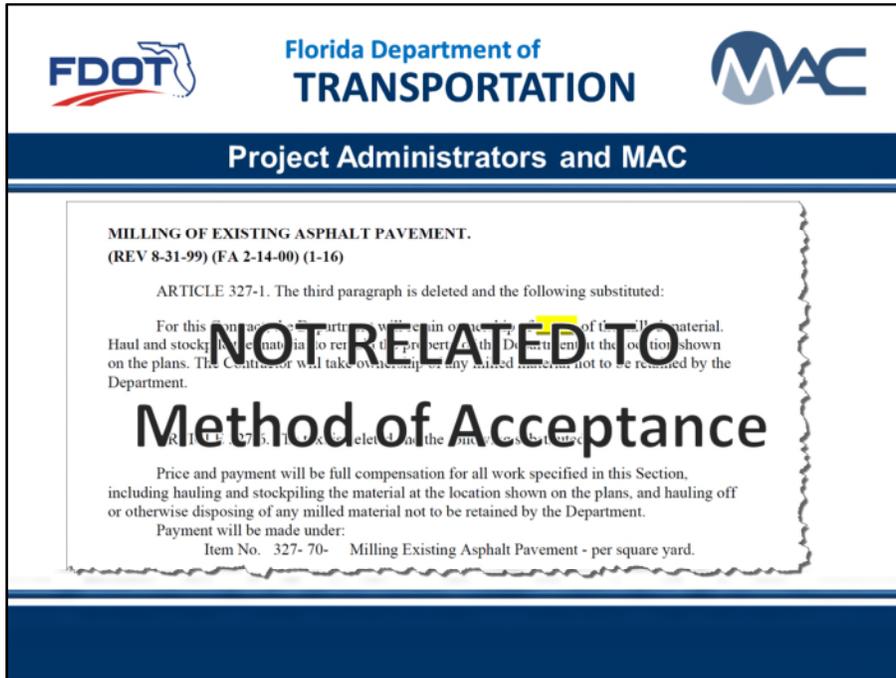
What types of project specific requirements are we talking about?

Special Provisions (including modified Special Provisions), Technical Special Provisions, Developmental Specifications, Plan Notes and Change Orders that add to or modify the Supplemental Specification method of acceptance.

For these, the State Materials Office Technical Unit must create a MAC Spec Material Id for those requirements. These are assigned on a project by project basis.

Note that this only applies to changes to contract language modifying or adding to the method of acceptance requirements. If you have a Special Provision that revises the method of measurement or basis of payment, etc., these do not need to have a MAC Spec Material Id.

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INTEGRAL PILE JACKETS.
(REV 11-16-11) (FA 12-8-11) (1-16)

The following new Section is added after Section 455:

SECTION 457
INTEGRAL PILE JACKETS

457-1 Description.

Furnish, fabricate and install an integral pile jacket in accordance with the Contract Documents.

457-2 Materials.

457-2.1 Stay-In-Place Forms: Use forms composed of a durable, inert, corrosion resistant material with an interlocking joint along one or two sides that permits the form to be assembled and sealed in place around the pile. Fabricate the forms from fiberglass and polyester resins, having a minimum thickness of 1/8 inches with a minimum thickness at the corners of 3/16 inches. Ensure the form is capable of maintaining its original shape without additional support or damage when placed around a pile. Ensure the inside face of the form has no bond inhibiting agents in contact with the filler material. Provide the forms with bonded or bolted-on, non-metallic standoffs to maintain the forms in the required positions. Sandblast or score the inside surface of the forms with an abrasive material to provide a rough surface texture. Equip

This is an example of an SP **needing** a Project Specific MAC Spec and project Assignment.

457-2.3.1 Portland Cement Grout: Use a mix design of portland cement, fine aggregate, water and an admixture containing a minimum of 940 pounds of cementitious material per cubic yard. Up to 30%, by weight of cement, may be replaced by fly ash for standard pile jackets. Do not use fly ash, slag, or silica fume for cathodic protection jackets.

Use silica sand fine aggregate meeting the requirements of Section 902.

Use portland cement meeting the requirements of Section 921.

Use admixtures meeting the requirements of Section 924, ASHTO M194,

Types A and D.

Use air-entraining admixtures meeting the requirements of Section 924 and containing no chlorides or other salts corrosive to metals.

Use fly ash meeting the requirements of Section 929, ASTM C618, Type F, except that loss on ignition shall not exceed 4%.

Provide a grout filler mix with a minimum compressive strength of 5,000 psi at 28 days and a slump of 7 inches to 9 inches. Submit the design mix to the Engineer for approval by the Department before placing any grout filler.

457-2.3.2 Class IV Concrete: Use Class IV Concrete meeting the requirements of Section 346 with an adjusted slump of 7 inches to 9 inches. Reduced size coarse aggregate may be used as approved by the Engineer. Do not use fly ash, slag, or silica fume for cathodic protection jackets.

Submit the design mix to the Engineer for approval by the Department before placing any concrete filler.

This is the specific method of acceptance language that describes the method of acceptance requirements. They are similar to Section 346, but not exactly the same so they need to have a different MAC Spec from Section 346 and the concrete samples under 457 need to be separate from 346 concrete samples.



Final Project Materials Certification

457 - Integral Pile Jackets, Special Provision [457], 012009, v1.1

Material Spec ID	Material Title	Specification Category	Spec Type	NumberID	Workbook ID	Version	Update Projects	Create New Version	Create New Spec from this Version	Details Material Spec Version	Disable
457	Integral Pile Jackets	Project	Special Provision	457	012009	1.1	Version Reason	Air Content of Grout is optional	None	Official	

Method of Acceptance
Certification, Certified Test Report, Sampling And Testing

Sample Levels
IV, GC, QR, VT, VR

Owner (Technical Unit)
Commission

Contact Email
SMAAC@commission.com

Last Updated By
Patrick Carlson

Last Updated On
3/10/2019 10:30:30 AM

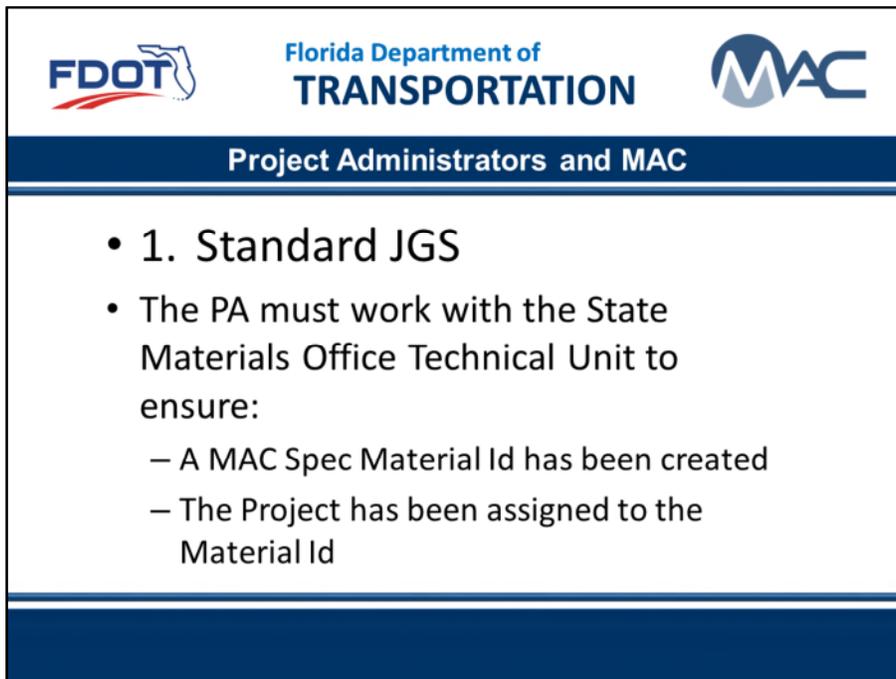
Project List

- 230406-9-02-01 DISTRICTWIDE "ON-CALL" BRIDGE REPAIR CONTRACT (Full Replacement)
- 421314-1-02-01 SR A1A BRIDGE #140005 OVER FPL DISCHARGE CANAL (Full Replacement)
- 42442-1-02-01 126 SR (SR BRUCKMAN & ST. JOHN'S RIVER BRIDGE #72049 SR & #72043 BR) (Full Replacement)
- 42616-1-02-01 SR 5 (US 17/PHILIPS) OVER TROUT RIVER & ROAD BRIDGE #72051 (Full Replacement)
- 42627-1-02-01 SR 5US-1 OVERSEAS HWY OVER BOCA CHICA CHNL BRD55R 90003 & 90074 (Full Replacement)
- 42840-1-02-01 SR 5US-1 FED HWY FR N OF CRA1A(AMP 10.86) TO S OF BEACH RD(AMP 10.84) (Full Replacement)
- 43009-1-02-01 INDEFINITE QUANTITY CONTRACT FOR BRIDGE REPAIR (Full Replacement)
- 43076-1-02-01 LONG BRIDGE REPAIR HILLSBOROUGH COUNTY VARIOUS LOCATIONS (Full Replacement)
- 43077-1-02-01 SR 606 WELCH CAUSEWAY BRW 15028 INTRACASTAL WATERWAY (Full Replacement)
- 43170-2-02-01 SUNSHINE SKYWAY PIER REPAIR BRW 15008 (Full Replacement)
- 43170-3-02-01 SUNSHINE SKYWAY PIER REPAIR BRW 13003 (Full Replacement)
- 43216-1-02-01 SR 26 AT 83 CHANNEL (SR NO: 34000 & 34001) (Full Replacement)
- 43242-2-02-01 SUBSTRUCTURE REPAIR HILLSBOROUGH COUNTY VARIOUS PROJECTS (Full Replacement)
- 43522-1-02-01 SR 9 (9-95) OVER TOMOKA RIVER BRIDGES # 79070 & 79077 (Full Replacement)
- 43543-1-02-01 SR15 (SR441) & SR600 (SR 1752) OVER BLUE CYPRESS SHINGLE CREEK BRIDGE (Full Replacement)

SR15 Instructions ?

← Will appear on JGS for these projects

Here is the MAC Spec equivalent of the 457 Special Provision with project assignments.



The slide features the FDOT logo on the left, the text "Florida Department of TRANSPORTATION" in the center, and the MAC logo on the right. Below these is a dark blue header bar with the text "Project Administrators and MAC". The main content area contains a bulleted list:

- 1. Standard JGS
- The PA must work with the State Materials Office Technical Unit to ensure:
 - A MAC Spec Material Id has been created
 - The Project has been assigned to the Material Id

That shows you what must be done to get the entry on the JGS.

The PA **MUST** work with the appropriate State Materials Office Technical Unit to ensure:

The MAC Spec Material Id has been created – if not, it will need to be built. The SMO Technical Unit may need copies of the specific contract language.

Then ensure the Project has been assigned to the MAC Spec Material Id.



Project Administrators and MAC

- 1. Standard JGS
- In LIMS there is a way to add a material to a sample “on the fly”

LIMS Sample Id: Resolution Sample:

Project ID Pay Item No Matl ID Sample Level

Year/Authority: Sub Matl ID

Matl ID (On Spec) Level: Auth: Year:

Destination LabID Date Sampled:

Sampled By (TIN#)

Manfr or Prod: Source (Shipped From):

Sample No: Batch No: Lot No: Sub Lot:

Why do you have to do this?

Because in LIMS there is a way to add a material to the contract on a sample “on the fly”.

The process for contacting the SMO technical unit and having the project specific requirements is the same in LIMS as it is in MAC. This is not new. But as long as a LIMS material id existed, the data entry person could assign it directly on the sample on any project. This is more convenient, but it leads to samples being associated to the wrong acceptance requirements.



Project Administrators and MAC

- **1. Standard JGS**
- There is no MAC equivalent to the LIMS Material Id on Spec functionality
- By design
- The Material **MUST** be on the JGS or the sample cannot be logged in

This functionality was intentionally not included in MAC. There is no “Material Id on Spec” feature. The PA **MUST** ensure that any project specific requirements are assigned ahead of time so that material is on the Job Guide Schedule. That way when it’s time to enter samples the material, the sample data entry personnel will have the entries needed to create the sample.



Project Administrators and MAC

- 1. Standard JGS
- Do not wait until a material with project specific requirements is being placed and sampled
- TOO LATE





Project Administrators and MAC

- **1. Standard JGS**
- We may need time to:
- Review the contract
- Possibly discuss with EOR
- Build the MAC Spec Material Id if it doesn't already exist



Project Administrators and MAC

- 1. Standard JGS
- The right time to notify SMO Technical Unit(s) is during preconstruction
- Review project specific material requirements at the preconstruction conference
- Make QC and VT personnel aware of the material and efforts being made to ensure it's on the JGS before sampling begins

Please note that this is also the process for LIMS for project specific requirements. Most LIMS users don't know they are supposed to be doing this because Material Id on Spec allows them a workaround. However sometimes when this workaround is used, the wrong LIMS Spec was selected and the sample gets processed and analyzed under the wrong requirements. The MAC process of requiring the material to be on the JGS for sample login makes the users at all levels be more conscientious about ensuring the sample is being processed under the appropriate requirements.



Project Administrators and MAC

- How MAC creates a JGS:
- 2. Non-Standard JGS
 - What about Non-Standard JGS?
 - LS
 - DB
 - On System LAP
 - Everything else*

What about contracts with only one pay item, like LS or DB? What about LAP contracts? What about other contract types? There is a non-standard process in MAC for contracts without conventional pay items to have a JGS created.



Project Administrators and MAC

- **2. Non-Standard JGS**
- What about Non-Standard JGS?
 - LS
 - DB
 - On System LAP
 - QC Data Entry Creates a Non-standard JGS

Someone, usually a QC data entry person indicates the materials on the contract. This is for Lump Sum Contracts, Design Build Contracts and on system LAP contracts.



Project Administrators and MAC

- **2. Non-Standard JGS**
- What about requirements other than Supplemental Specifications?
- Must be added manually
- Just like standard JGS, the PA and SMO technical unit need to communicate any project specific requirements before the material is placed and sampled

That takes care of the Supplemental Specifications. What about contract specific requirements?

Again the contract specific programming is used. The difference for non-standard JGS, is the project must be assigned to the MAC Spec Material Id to make the assignment available for the data entry person to select. In this case, the data entry person selects the specific Material Id.



Project Administrators and MAC

- 2. Non-Standard JGS
- Everything else*
 - Non-standard JGS process will be used for all other FDOT contract types to determine if this process will work
 - Send feedback to MAC Application Coordinator if non-standard process is used
 - SCRAP, SCROP, CGIP, etc.



Project Administrators and MAC

- 2. Non-Standard JGS
- Everything else*
- Contracts that don't go in MAC
 - LAP Off system
 - Non-FDOT contract (DEP, DOA)
 - If we're not certifying it, we don't need it in MAC
 - Except for FDOT contracts that would be certified except for FDOT policy (less than 250K, etc.)
 - They still go in MAC



Project Administrators and MAC

- So you've reviewed the JGS and all the materials are there, but at login the MAC Spec Material Ids aren't showing up
- Why Not?



Project Administrators and MAC

- Supplemental Specifications
 - There is no MAC Spec Material Id
 - The SMO hasn't assigned the Material to the pay item
 - The MAC Spec Material Id has not been made Official

Supplemental Specifications

There is no MAC Spec Material Id
Implementation

Can happen when a new workbook comes on

The SMO hasn't assigned the Material to the pay item

The MAC Spec Material Id has not been made official. The SMO Technical
Unit has created the MAC Spec Material Id but it is still in Draft status.

The PA should get with the SMO Technical Unit for any of these.



Project Administrators and MAC

- Project Specific Requirements
 - There is no MAC Spec Material Id
 - The SMO hasn't assigned the project to the MAC Spec Material Id
 - The MAC Spec Material Id has not been made Official

Project Specific Specifications

There is no MAC Spec Material Id
Implementation

Can happen when a new workbook comes on

The SMO hasn't assigned the project to the MAC Spec Material Id

The MAC Spec Material Id has not been made official. The SMO Technical
Unit has created the MAC Spec Material Id but it is still in Draft status.

The PA should get with the SMO Technical Unit for any of these.



Project Administrators and MAC

- Now that we have all our materials on the JGS, we are ready to start sampling and testing and collecting certifications





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Project Administrators and MAC

- Besides JGS, there is one other MAC entry that impacts Sample Life Cycle
- The Contractor Quality Control Plan



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Project Administrators and MAC

- There are two separate videos for Contractor QC Plans
- One details the creation and maintenance of the Contractor QC Plan by the QC Data Entry
- The other details the FDOT review of Contractor QC Plans

Another thing the PA needs to do to prepare for the work to begin is review the initial Contractor QC Plan entry and ensure the Contractor is keeping the Contractor QC Plan up to date. There are instructions and a video with the details.



Project Administrators and MAC

- Here are some highlights for the PA's review:
- Are there entries on the QC Plan for all the materials being ordered or delivered?
- Are there enough entries for technicians, labs and production facilities to cover all the QC Operations?
- Are there a number of "off-list" flags?
 - Okay you won't see this one until the samples start getting entered but to avoid them, make sure there are enough entries on the QC Plan.

Here are some highlights:

Are all the materials that are being delivered or ordered listed? Are the sources provided?

Are there a number of "off-list" entries on samples? If so, it might be an indicator that the Contractor QCP is not being kept up to date.



Project Administrators and MAC

- Now you have:
- A JGS
- A Contractor QC Plan
- Work has started
- Materials are being sampled and tested
- Certifications are being collected and reviewed





Project Administrators and MAC

- PA should:
- Review Sample status
 - Are samples being entered and processed timely?
 - VT no longer has to wait for QC to be done
- Finalize project samples – ALL Project Samples, even ones tested by SMO



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Project Administrators and MAC

- Sample Life Cycle training covers finalization in detail
- Here are some highlights



Project Administrators and MAC

- Most project samples cannot be multi-finalized:

PRACTICE SITE User: S...

 **Materials Acceptance and Certification System**

Reports MAC Spec STRG/GS Inspections Facilities Checklists Evaluations Material Certification

[Finalize Multiple Samples](#) [Create Comparison Package](#) [Create Test Comparison Package](#) [My Comparisons](#) [Search](#)

No Comparison Package Selected



Project Administrators and MAC

- Why not?
- Because sample and test data are used in the comparison logic
- Before you put the samples in a comparison package, you need to verify that the sample and test data is correct and complete



Project Administrators and MAC

- **MAC Sample Finalization Guidelists for**
 - Asphalt
 - PA role may be assigned to Asphalt VT or Resident Asphalt Specialists
 - Check with Local DAC
 - Earthwork
 - Concrete



Project Administrators and MAC

- Checklists are available on the MAC training website

State Materials Office / Programs and Services / MAC Development / Training
MAC Training

Access Instructions | Contacts | Documents for Industry | Presentations | Production Environment | **Training**

Training Materials

01 Pre-Registration/Pre-Training	<ul style="list-style-type: none">-- Company and System Role Definitions (PDF-107KB)-- Guidelines for the Project Administrator System Role (PDF-107KB)-- Registration Form-- What you need to do before class/What to bring to class (PDF-94.9KB)-- Master Schedule (XLSX-30KB)
02 Sample Life Cycle Information	<ul style="list-style-type: none">-- Sample Life Cycle How To (PDF-3.24MB)-- Concrete Sample Information (PDF-541KB)-- Concrete Sample Data - Example (PDF-442KB)-- Soils Sample Information-- Soils Sample Data - Example-- Materials Certifications Findings and Materials Acceptance Resolution (MAR) (PDF-6.309KB)
03 Training and Practice Environments	<ul style="list-style-type: none">-- Training Environment-- (For training preparation and sessions)-- Practice Environment-- (For attendees to practice skills learned in sessions after attending a session)
04 Sample Finalization Guide Lists	<ul style="list-style-type: none">-- Sample Finalization for Asphalt (PDF-543KB)-- Sample Finalization for Structural Concrete Materials (PDF-474KB)-- Sample Finalization for Soils/Earthwork Materials (PDF-474KB)



Project Administrators and MAC

- PA opens each sample
- PA reviews checklist information requirements on sample
- PA sends sample back for entries that don't align with checklist requirements
 - Sample Finalization video demos functionality

PA opens each sample

PA reviews checklist information requirements on sample

PA sends sample back for entries that don't align with checklist requirements



Project Administrators and MAC

- Sample Life Cycle end – Samples are considered closed – when
 - Samples that are not in a comparison package are finalized

When is a sample closed in MAC? It depends on the sample. Samples that are not included in a comparison package (like reinforcing steel) are considered closed when they are finalized.



Project Administrators and MAC

- Sample Life Cycle end – Samples are considered closed – when
 - Samples that are in a comparison package:
 - Compares Or Marked Comparison Not Performed
 - Does not Compare – Resolution is performed or Resolution is Marked not Performed

Samples that are in a comparison package are considered closed when they are in a comparison package and either
The comparison status is Compares or
The PA user indicates that the comparison was not performed

If the status is Does not Compare, the samples in the comparison package are not considered closed until the resolution is performed or the PA indicates the resolution was not performed

It is essential that the PA is creating comparison packages and running comparisons in a timely manner to ensure that if Resolution is needed, it is being performed within the time restraints for the material.



Project Administrators and MAC

- **Sample Life Cycle – Comparison Package Tips and Tricks**
 - You can create a comparison package at any time
 - You can add samples to the comparison package as they are finalized

So do you have to have a full set of samples, Original, Verification and all associated samples to create a comparison package?

The answer is No, you can create a comparison package at any time and add additional samples to the comparison package as they are finalized.



Project Administrators and MAC

- **Comparison Tips and Tricks**
 - Random number for concrete = LOT 1
 - QC takes LOT 1 sample & enters CC40001Q
 - VT takes LOT 1 sample & enters CC40001V
 - Test results complete, samples are finalized

Let's look at a specific example, Say the random number for VT lot came up as LOT 1.

Wait for QC and VT to process the samples and submit them to FDOT for finalization.



Project Administrators and MAC

- **Comparison Tips and Tricks**
 - Create the package with the Original Sample (QC) and the Verification Sample (VT)
 - MAC will determine if the two samples compare

You can create a comparison package with just these samples. MAC will determine if resolution is needed. This means the PA can use MAC to determine the comparison status and still meet the resolution time limits. You don't have to wait for all four lots to be complete.



Project Administrators and MAC

- **Comparison Tips and Tricks**
 - No comparison?
 - Start the resolution process by notifying QC and VT to send in the QR (QC Hold) and VR (VT hold) samples
 - Test results complete, samples are finalized
 - Add the QR and VR to the package

If MAC says that the QC and VT don't compare, now you have time to get the resolution process started. Notify QC to enter the QR sample level (this is the QC hold cylinder) and the VT to enter the VT sample level (this is the VT hold cylinder). When the QR and VR samples are finalized, you can add them to the comparison package. We still don't have the other QC samples for LOTS 2, 3, and 4 and that's okay.



Project Administrators and MAC

- **Comparison Tips and Tricks**
 - Await DMRO recommendation for Resolution Investigation
 - Set the Resolution Status
 - When associated samples for QC LOTs 2, 3 and 4 are finalized, add them to the Comparison package

Because resolution for concrete requires a resolution investigation that is conducted by the DMRO, await for their notification. Note: this happens outside of MAC via phone call or email. When you get the resolution status, go back in the system and set it manually. Assuming there will be more LOTs of concrete, you still don't have the QC associated samples for this comparison package. It may be quite some time before the rest of the LOTs are placed. As they are finalized, you can go back into the comparison package and add them as associated samples so they can be considered closed.



Project Administrators and MAC

- Comparison Tips and Tricks
 - Most materials will automatically determine resolution status based on logic
 - Concrete Resolution Investigation can't be programmed into logic
 - PA sets a manual resolution

The manual resolution status applies to concrete only. Other materials have programming logic to determine the resolution status. There's no way to program MAC for any of the considerable number of items that could be in a resolution investigation and they are all optional. So it's a manual selection made by the PA.



Project Administrators and MAC

- **Comparison Tips and Tricks**
 - Same would be true for Random Number in LOT 4
 - Enter QC 1, QC 2, QC 3 associated samples, but don't run comparison
 - When QC 4 and VT 4 are finalized, add to the comparison package and run comparison

Okay so what about when the random number says the VT sample should be taken in LOT 4. This is not as critical because it's not holding up resolution, but you can still add the samples to a comparison package so they can be considered closed. Just create the package and add the samples. But don't run comparison. The system won't let you anyway until you have a VT sample. When QC and VT for LOT 4 are available, add them to the package as the original and verification samples and run comparison.



Project Administrators and MAC

- What happens when things “go bad”?
- Material not meeting method of acceptance requirements
 - PAs should be tracking samples to ensure any issues are addressed as soon as they occur

The PA needs to be tracking samples to ensure that everything is going well according to the materials acceptance requirements and reacting when materials acceptance requirements are not met. As soon as materials acceptance issues arise, the PA should be addressing them.



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Project Administrators and MAC

- PAs don't have to wait for samples to be closed/finalized to begin work on issues/findings
- Automatic findings will be generated as soon as they exist in the system

Some issues will appear as soon as the sample is created. These are known as automatic findings. The PA does not have to wait for the sample to be closed to begin documenting how the issue is addressed.



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Project Administrators and MAC

- Automatic findings are generated based on conditions
- If the condition goes away, the finding can be excluded



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Project Administrators and MAC

- Materials Office Materials Certification personnel will generate the MC Review in MAC as soon as the contract begins
- This triggers the automatic findings



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Project Administrators and MAC

- Findings are things that could be issues, but may not be
- PA and MC Reviewer will determine if a finding warrants further action

Not all findings will need the PA's response. The MC Reviewer may indicate that a finding is excluded even before the PA has a chance to respond. If a finding needs a PA's response, the MC Reviewer may decide the finding needs no further action based on the PA's response.



Project Administrators and MAC

Item ID	Description	System	Test Method	Standard	Status	Submitted Date	Action
158	1600013629[Test ASTM C143 Slump of Hydraulic Cement Concrete is not Qualified]	System	1600013629 QC	ASTM	Submitted	7/7/2016	View Details
Automatic Findings							
159	1600013629[Test ASTM C139 Compressive Strength is not Qualified]	System	1600013629 QC	ASTM C139	Submitted	7/7/2016	View Details
160	1600013629[Test FM 5-01 - Early Sampling for W/C Ratio is not Qualified]	System	1600013629 QC	FM 5-01 - Early Sampling for W/C Ratio	Submitted	7/7/2016	View Details
161	1600013629[Test 14002179] on Sample 1600013629 is not Qualified	System	1600013629 QC		Submitted	7/7/2016	View Details
162	1600013630[Test ASTM C1064 Temperature of Freshly Mixed Portland Cement Concrete is not Qualified]	System	1600013630 QC	ASTM C1064	Submitted	7/7/2016	View Details
163	1600013630[Test ASTM C143 Slump of Hydraulic Cement Concrete is not Qualified]	System	1600013630 QC	ASTM C143	Submitted	7/7/2016	View Details



Project Administrators and MAC

- If the PA and MC Reviewer determine if a finding warrants further action
 - Promoted to MAR
- What is MAR?



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Project Administrators and MAC

- MAR stands for Materials Acceptance Resolution
- Something is wrong with material method of acceptance
- **Defective** Material

Let's discuss in more detail what makes a material defective.



Project Administrators and MAC

- Defective Material is defined as any material not meeting the Specification requirements
 - Not just failing test results
 - That is not the only thing that makes a material defective



Project Administrators and MAC

- Defective Material is defined as any material not meeting the Specification requirements
 - There are a lot of things that could “not meet the specifications” that has nothing to do with method of acceptance



Project Administrators and MAC

- NOT A MAR
 - Inspection Items
 - Rebar Placement
 - Cross Slope
 - MOT Items
 - Not enough devices
 - Striping not sufficient



Project Administrators and MAC

- Materials Acceptance Resolution (MAR)
- Is restricted to issues that would result in an Exception on the Project Materials Certification Letter
- What are Exceptions?



Project Administrators and MAC

- There are 3 categories of PMCL Exceptions (MM 5.4)
- Material Acceptance
 - Failing Test Results
 - Issues promoted to MAR
 - Missing Reports



Project Administrators and MAC

- **Minimum Frequency**
 - Not enough sampling and testing
 - Required tests not performed
 - Required comparisons not performed
 - Required Resolution not performed



Project Administrators and MAC

- Qualifications
 - Unqualified Technicians
 - Unqualified Labs
 - Producers with QC Plans in any status other than Accepted*
 - Not always picked up by an automatic finding
 - Need a manual finding for some producers



Project Administrators and MAC

- MAC has system programming to find and designate issues with some of these exceptions
- These are the automatic findings
- MAC can't find everything so MC Reviewers and PAs can add manual findings

Read from slide



Project Administrators and MAC

- Speaking of Manual Findings
- The PA can create a manual finding at any time
- Manual findings created by the PA go right to MAR
- Manual findings can be connected to a system finding later



Project Administrators and MAC

Add Manual Finding

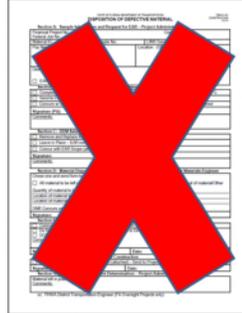
Finding Type	Description
Final Commercial Inspection Report	
Final Construction Compliance Report	
Final Quantity of all Reinforcing Steel on the Contract	
Final Sign Inspection Report	
Minimum Frequency	
Missing Certifications	
Process Open MAR Issues	
Process Open Samples	
Project Administrator's Material Statement	
Quantities Not Being Reported	
Sample Data Issues	
Other	

Create



Project Administrators and MAC

- So how is a MAR issue processed?
- What about DDM/EAR?



STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
DISPOSITION OF DEFECTIVE MATERIAL
TR-611-1-02
 CONSTRUCTION 9/13

Section A: Sample Information and Request for EAR - Project Administrator

Financial Project No.: _____ Contract No.: _____
 Federal Job No.: _____
 Material ID: _____ Sample No.: _____ LIMS Sample ID: _____
 Pay Item No.: _____ Quantity: _____ Location: (GPS, Lane, Station) _____

Description of Defective Material: _____
 EAR Scope attached

Section B: Proposal - Project Administrator/Resident Engineer

Complete Removal and Replace Material Follow
 Send to LIME for Concurrence with following Proposal. (EAR Scope attached)
 Concurs with EAR Rejects Proposal

Signature (PA): _____ Date: _____
 Comments: _____

Section C: DDM Selection - District Materials Engineer

Remove and Replace Material - EAR is not required. Send to PA
 Leave in Place - EAR not required. Send to DCE for Concurrence
 Concurs with EAR Scope (attached) - Send to PA

Signature: _____ Date: _____
 Comments: _____

Section D: Material Disposition Recommendation (EAR Perform) - District Materials Engineer

Choose one and send form to District Construction Engineer

All material to be left in place. All material to be removed. Partial removal of material/Other
 Quantity of material to be removed: _____
 Location of material to be left in place: _____
 DME Concurs with EAR Recommendations - Yes No

Signature: _____ Date: _____
 Comments: _____

Section E: Concurrence - District Construction Engineer

Concur with DME Recommendation - Send to Project Administrator
 Do Not Concur with DME recommendation - send to Director, Office of Construction
 DCE recommendation attached

Signature: _____ Date: _____
 Comments: _____

Section F: Decision - Director, Office of Construction

Director, Office of Construction Decision (attached) - Send to Project Administrator

Signature: _____ Date: _____

Section G: Record of Final Payment Determination - Project Administrator

Material left in place at _____ % pay
 Comments: _____

cc: FHWA District Transportation Engineer (FA Oversight Projects only)

Annotations:

- PA Completes when MAR issue is resolved (points to Section A)
- EAR / No EAR (or No EAR Delineation) is decided & documented first (points to Section B)
- Regardless of EAR/No EAR/Delineation - Final Resolution is documented after EAR or Delineation or when final resolution is known (points to Section D)
- PA Completes when MAR issue is resolved (points to Section G)

The form is replaced by an electronic process. The process does not match the form exactly but all the steps are in the process so the need for the form goes away. Like any process that moves from a paper process to an electronic process, some steps you may have done concurrently may now need to be documented in separate stages in the electronic process.



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Project Administrators and MAC

- Step 1 – Resolution by PA
- Some items can be resolved at the PA level and need no further action
 - No concurrence is needed

If PA selects any option besides EAR or No EAR
Of if for items that allow delineation, the PA selects any option besides EAR, No EAR or No EAR – Delineation,
The issue is complete. This recommendation becomes the final resolution and no additional steps are needed, like concurrence from the DCE and DMRE.



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Project Administrators and MAC

- DO NOT ADD A MANUAL FINDING FOR:
- Straightedge Deficiencies
- Materials that allow Delineation

Before we go further, let's talk about 2 distinct types of automatic findings the PA must not create a manual finding for:
Straightedge Deficiencies
Materials that allow delineation, like asphalt



Project Administrators and MAC

- Straightedge Deficiencies
- Materials that allow Delineation
 - These two automatic findings trigger specific functionality with the MAR process that you will not get when creating a manual finding



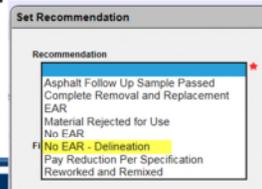
Project Administrators and MAC

- Straightedge Deficiencies
 - Has a different flow with different roles based on CPAM Chapter 11
 - Resident Engineer instead of PA
 - District Bituminous Engineer instead District Materials and Research Engineer
 - Recommendation is Final Resolution



Project Administrators and MAC

- Materials that allow Delineation
 - Has the same flow with the same roles as other MARs except for Straightedge
 - The difference is the option for No EAR – Delineation will not show up for a manual finding





Project Administrators and MAC

- Step 2 – EAR, No EAR, or No EAR – Delineation
 - PA makes recommendation on whether or not to allow an EAR or Delineation
 - DMRE makes recommendation
 - DCE makes recommendation

If the recommendation is EAR, No EAR or No – EAR delineation, then the issue goes to the DMRE and then the DCE for their recommendations. This recommendation establishes if an EAR will be performed or not or if delineation will be allowed. NEXT SLIDE TALKS ABOUT NON-CONCURRENCE.



Project Administrators and MAC

- Step 2 - EAR, No EAR, or No EAR – Delineation
 - If DMRE and DCE do not concur and PA and DCE say NO EAR
 - Director, Office of Construction makes final recommendation
 - Case where Construction requests lesser requirement, DOC breaks the tie
 - If Construction requires higher requirement and no concurrence, Contract Administration rules (EAR)
 - DCE's recommendation is final recommendation



Project Administrators and MAC

- Step 3 – Resolution when EAR or No EAR
or No EAR – Delineation
 - PA
 - DMRE
 - DCE
 - Director, Office of Construction
 - Always if no concurrence by DMRE and DCE

Once the decision to allow an EAR or delineation is made, then the action takes place

If No EAR, we're ready for the final resolution.

If EAR – Outside of MAC

PA forwards EAR scope to DMRE for review

DMRE returns scope to PA

Contractor performs EAR

PA receives EAR and attaches to MAR issue

Final Resolution is then provided.

If No EAR – Delineation

Contractor delineates material

Final Resolution is then provided.

PA recommends Final Resolution

Then DMRE

Then DCE

Always need concurrence or DOC breaks the tie



Project Administrators and MAC

- Step 3 – Resolution when EAR or No EAR
or No EAR – Delineation
 - What is being resolved?
 - Disposition of Material
 - 3 choices

The screenshot shows a web form titled "Set Resolution". It has a "Resolution" dropdown menu with three options: "Complete Removal of Material", "Leave in Place", and "Partial Removal of Material". A red asterisk is next to the dropdown. To the right of the dropdown is a "Comments" field.

So what is the resolution? There are 3 options.



Project Administrators and MAC

- Step 4 – Location Information
- PA needs to ensure the location information is correct and complete
- For Complete Removal and Replacement & Leave in Place – one set of entries



Project Administrators and MAC

Add Location of Representative Material [X]

Rci Lanes:

From Station: To Station:

Latitude: Longitude: Ending Latitude: Ending Longitude:

Offset Distance: Offset Direction:
Reference Line:

Placement Designation: Quantity: Unit Of Measure: ✖



Project Administrators and MAC

- Step 4 – Location Information
- PA needs to ensure the location information is correct and complete
- For Partial Removal and Replacement, enter sub-locations for material that was removed and material that was replaced



Project Administrators and MAC

- Step 4 – Location Information
- MC Reviewer will notify PA if additional information is needed for location information
- This gets used on the PMCL so it needs to be right



Exceptions for Project FIN: 429074-1-52-01

Non Standard Materials

This is an example of the location information on the PMCL Letter that is derived from MAC.

• **Other: For Location Information on PMCL**

Ref Material ID: -
Sample Level: -

Total Quantity:	2,000 Ton(s)	Accumulative Quantity:	2,000		
RCI Options (Lanes):	L1	From Station:	100+00	To Station:	250+00
Beginning Latitude:	21.000000	Longitude:	-82.000000		
Ending Latitude:	21.500000	Longitude:	-82.500000		
Placement Designation:	Partial Remove and Replace	Quantity:	2,000 Ton(s)		
RCI Options (Lanes):	L1	From Station:	100+00	To Station:	175+00
Beginning Latitude:	21.000000	Longitude:	-82.000000		
Ending Latitude:	21.520000	Longitude:	-82.600000		
Placement Designation:	Removed	Quantity:	500 Ton(s)		
RCI Options (Lanes):	L1	From Station:	175+00	To Station:	200+00
Beginning Latitude:	21.520000	Longitude:	-82.600000		
Ending Latitude:	21.250100	Longitude:	-82.412000		
Placement Designation:	Left in Place	Quantity:	750 Ton(s)		
RCI Options (Lanes):	L1	From Station:	200+00	To Station:	250+00
Beginning Latitude:	21.250100	Longitude:	-82.412000		
Ending Latitude:	21.500000	Longitude:	-82.500000		
Placement Designation:	Removed	Quantity:	750 Ton(s)		

The PA and MC Reviewer have agreed this location information is correct and complete.



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Project Administrators and MAC

- Reports the PA can use for project sampling and testing requirements and tracking



Project Administrators and MAC

- Sample Transmittal Information
- On the sample record

Sample ID	Sample Status	Sample was Auto-Finalized	Comparison Required
1000013485	Finalized	No	No

Sample Initiated By: Susan Musselwhite Sample Initiated Date: 6/17/2016 Last Updated By: Susan Musselwhite Last Updated On: 6/17/2016

For Approval of Mile Design: 00000750

[View Sample Transmittal Information for Print](#) [View History](#)



Florida Department of Transportation
Material Acceptance and Certification (MAC)
Sample Transmittal Information [7/15/2016]

Sample 1600013465 [Finalized]

Sample ID	Sample Status	Sample was Auto-Finalized	
1600013465	Finalized	No	
Comparison Required			
No			
Sample Initiated By	Sample Initiated Date	Last Updated By	Last Updated On
Susan Musselman	6/17/2016	Susan Musselman	6/17/2016
For Approval of Mix Design			
00008750			

Material Information

Sample Category	Contract/Project
Mix Design	
Material	MAC Spec
346 - Portland Cement Concrete	346 - Portland Cement Concrete, Mix Design [Standard Spec], v1.9

Sample Information



Project Administrators and MAC

- Sample Certificate of Analysis
- MAC Standard Reports





Project Administrators and MAC

- Sample Certificate of Analysis
- MAC Standard Reports

Sample	
Aggregate Sample Analysis Report	Aggregate product test data summary report which highlights specific test results with in a date range or the last 30 samples.
Sample Certificate Of Analysis	Reports all sample and test information for a given sample.
Asphalt Sample Pay Factor Report	Track and analyze calculated pay factors and production tonnage
Aggregate Duplicate Samples	A summary report that highlights aggregate control program duplicated samples



Project Administrators and MAC

- Sample Certificate of Analysis
- MAC

Sample Certificate Of Analysis

Sample
1600013465

R Excel PDF

The currently selected criteria will result in 8 records.

Submit



Sample Certificate Of Analysis

Generated: 7/15/2016 10:47:47 AM

MAC Sample ID: 1600013465

FDOT State Materials Office, 3207 N.E. 38th Avenue, Gainesville, FL 32609 (352) 495-4900



Project No:	State Materials Office
Contract ID:	DOT 16-100-00000
Pay Item:	DOT 16-100-00000
Material ID:	State of Florida
Sample Level: GC	Governor: FLORIDA 12009
FDOT Sample Number:	DOT 16-100-00000
Mo Design: 88880708	Lab ID: D88881
Mo Type: Class IV (888-PS) (Conventional)	
Production Facility ID:	
Source Facility:	Manufacturer:
Lot:	Sub Lot:
Product:	Process:
Aggregate Sample Test:	State Sample Taken: 6/17/2016 By
Sample Status: Finalized	Submitted for Lab Testing
Comparison Status:	Received: 6/17/2016 By Susan Macneilman
Resolution Status:	Submitted for FDOT Verification
	Printed: 6/17/2016 By Susan Macneilman

- Sample
- MAC Sta

1 of 3

Sample Certificate Of Analysis (MAC Sample ID: 1600013465)																			
ASTM C108 Heat of Hydration - Mix Design Producer	Test Status: Ready for Testing																		
Tested By:																			
Technician Qualification Status:																			
Test - Step # 1	Analysis Results																		
What is the heat of hydration?	<table border="1"> <tr> <td>Passing Limits</td> <td></td> </tr> <tr> <td>What is the heat of hydration? -- 01</td> <td></td> </tr> <tr> <td>What Mix Design value does Conclude</td> <td></td> </tr> <tr> <td>What is the heat of hydration? -- 01</td> <td></td> </tr> <tr> <td>What Mix Design value does Conclude</td> <td></td> </tr> <tr> <td>What is the heat of hydration? -- 01</td> <td></td> </tr> <tr> <td>What Mix Design value does Conclude</td> <td></td> </tr> <tr> <td>What is the heat of hydration? -- 01</td> <td></td> </tr> <tr> <td>What Mix Design value does Conclude</td> <td></td> </tr> </table>	Passing Limits		What is the heat of hydration? -- 01		What Mix Design value does Conclude		What is the heat of hydration? -- 01		What Mix Design value does Conclude		What is the heat of hydration? -- 01		What Mix Design value does Conclude		What is the heat of hydration? -- 01		What Mix Design value does Conclude	
Passing Limits																			
What is the heat of hydration? -- 01																			
What Mix Design value does Conclude																			
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What Mix Design value does Conclude																			
What is the heat of hydration? -- 01																			
What Mix Design value does Conclude																			
What is the heat of hydration? -- 01																			
What Mix Design value does Conclude																			
ASTM C1084 Temperature of Freshly Mixed Portland Cement	Test Status: Ready for Testing																		



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Project Administrators and MAC

- Concrete Sample Number Lot Number Report
- Project Reports Tab



Project Administrators and MAC

- Concrete Sample Number Lot Number

Project

[Concrete Project Mix](#)

[Concrete Sample Number – Lot Number Report](#)

[Asphalt Sample Number – Lot Number Report](#)

[Reduced Lot Analysis](#)

[Structural Concrete Mix Designs used on a Project](#)

[Concrete Pavement Core-out Averages](#)

[Earthwork Maximum Density Report](#)

Lists the results of approved concrete strength samples for a given

Financial Project Id and Mix design between a given date range.

Lists all concrete mix design samples on a specific project(s).

Lists all asphalt mix design samples on a specific project(s).

A statistical analysis of concrete results for a specific project that is used to help determine if the project QC can use reduced lots.

Summary of all of the concrete mix designs used on a specific project.

Summary of the measurements of cores taken for concrete pavement on a given project.

Summary of the soils maximum density reports for a specific project.



Project Administrators and MAC

Concrete Sample Number – Lot Number Report

Projects
201032-4-52-01: I-75 (SR93) AT UNIVERSITY INTERCHANGE ✕ 201032-4-56-01: I-75 (SR93) AT UNIVERSITY INTERCHANGE ✕

Type Item/Item Segment

Report Format
PDF

The currently selected criteria will result in 13 records.

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Concrete Sample Number – Lot Number Report

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FDOT State Materials Office, 5007 N.E. 39th Avenue, Gainesville, FL 32609 (352) 955-6600

Lot #	FDOT Sample #	Level	Production Facility ID	Sample ID	Date Sample Taken	Sample Status	Comparison Status	Quantity Represented
Mix Design: 02-9901								
Financial Project ID: 29193245201								
Material ID: 346								
1	CC40001V	VT	26-998	1600013539	6/13/2016	Finalized		50 Cubic Yards)
2	CC40002Q	QC	26-998	1600013513	6/13/2016	Finalized		50 Cubic Yards)
3	CC40003Q	QC	26-998	1600013514	6/13/2016	Finalized		50 Cubic Yards)
4	CC40004Q	QC	26-998	1600013515	6/13/2016	Finalized		50 Cubic Yards)
5	CC40005Q	QC	26-998	1600013516	6/13/2016	Finalized		50 Cubic Yards)
5	CC40005GR	GR	26-998	1600013522	6/13/2016	Finalized		50 Cubic Yards)
5	CC40005V	VT	26-998	1600013540	6/13/2016	Finalized		50 Cubic Yards)
5	CC40005VR	VR	26-998	1600013541	6/13/2016	Finalized		50 Cubic Yards)
6	CC40006Q	QC	26-998	1600013517	6/13/2016	Finalized		50 Cubic Yards)
7	CC40007Q	QC	26-998	1600013518	6/13/2016	Finalized		50 Cubic Yards)
8	CC40008Q	QC	26-998	1600013519	6/13/2016	Finalized		50 Cubic Yards)
9	CC40009Q	QC	26-998	1600013520	6/13/2016	Finalized		50 Cubic Yards)
10	CC40010Q	QC	26-998	1600013521	6/13/2016	Finalized		50 Cubic Yards)
Financial Project ID: 29193245401								
Material ID: 346								
1	CC40001V	VT	26-998	1600013539	6/13/2016	Finalized		50 Cubic Yards)
2	CC40002Q	QC	26-998	1600013513	6/13/2016	Finalized		50 Cubic Yards)
3	CC40003Q	QC	26-998	1600013514	6/13/2016	Finalized		50 Cubic Yards)
4	CC40004Q	QC	26-998	1600013515	6/13/2016	Finalized		50 Cubic Yards)
5	CC40005Q	QC	26-998	1600013516	6/13/2016	Finalized		50 Cubic Yards)
5	CC40005GR	GR	26-998	1600013522	6/13/2016	Finalized		50 Cubic Yards)
5	CC40005V	VT	26-998	1600013540	6/13/2016	Finalized		50 Cubic Yards)
5	CC40005VR	VR	26-998	1600013541	6/13/2016	Finalized		50 Cubic Yards)
6	CC40006Q	QC	26-998	1600013517	6/13/2016	Finalized		50 Cubic Yards)
7	CC40007Q	QC	26-998	1600013518	6/13/2016	Finalized		50 Cubic Yards)



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Project Administrators and MAC

- Concrete Reduced Lots Analysis Report
- Project Reports Tab



Project Administrators and MAC

- **Concrete Reduced Lots Analysis Report**

Project	
Concrete Project Mix	Lists the results of approved concrete strength samples for a given Financial Project Id and Mix design between a given date range.
Concrete Sample Number – Lot Number Report	Lists all concrete mix design samples on a specific project(s).
Asphalt Sample Number – Lot Number Report	Lists all asphalt mix design samples on a specific project(s).
Reduced Lot Analysis	A statistical analysis of concrete results for a specific project that is used to help determine if the project QC can use reduced lots.
Structural Concrete Mix Designs used on a Project	Summary of all of the concrete mix designs used on a specific project.
Concrete Pavement Core-out Averages	Summary of the measurements of cores taken for concrete pavement on a given project.
Earthwork Maximum Density Report	Summary of the soils maximum density reports for a specific project.



Project Administrators and MAC

Reduced Lot Analysis

Projects
201032-4-52-01: I-75 (SR93) AT UNIVERSITY INTERCHANGE ✕ 201032-4-56-01: I-75 (SR93) AT UNIVERSITY INTERCHANGE ✕
Type Item/Item Segment

Date Sample Taken On Or After
6/1/2016

Date Sample Taken Before
7/15/2016

Report Format
PDF

The currently selected criteria will result in 13 records.

Submit



Generated: 7/15/2016 10:54:05 AM

Reduced Lot Analysis [6/1/2016 to 7/15/2016]

FDOT State Materials Office, 5007 N.E. 39th Avenue, Gainesville, FL 32609 (352) 955-6600

Production Facility ID	Sample ID	FDOT Sample #	Test	Average Compressive Strength Results (psi)
Financial Project ID: 20103245201				
Mix Design: 02-9901		Category: Class II (3400 PSI) / Conventional		
26-998	1600013513	CC40002Q	ASTM C39 Compressive Strength	5,780
26-998	1600013514	CC40003Q	ASTM C39 Compressive Strength	6,670
26-998	1600013515	CC40004Q	ASTM C39 Compressive Strength	7,170
26-998	1600013516	CC40005Q	ASTM C39 Compressive Strength	7,200
26-998	1600013517	CC40006Q	ASTM C39 Compressive Strength	6,310
26-998	1600013518	CC40007Q	ASTM C39 Compressive Strength	5,450
26-998	1600013519	CC40008Q	ASTM C39 Compressive Strength	5,890
26-998	1600013520	CC40009Q	ASTM C39 Compressive Strength	5,980
26-998	1600013521	CC40010Q	ASTM C39 Compressive Strength	6,500
26-998	1600013522	CC40005GR	ASTM C39 Compressive Strength	6,990
26-998	1600013539	CC40001V	ASTM C39 Compressive Strength	6,880
26-998	1600013540	CC40005V	ASTM C39 Compressive Strength	4,810
26-998	1600013541	CC40005VR	ASTM C39 Compressive Strength	7,120
# of Samples: 13		Min: 4,810	Max: 7,200	Average: 6,370
Financial Project ID: 20103245601				
Mix Design: 02-9901		Category: Class II (3400 PSI) / Conventional		
26-998	1600013513	CC40002Q	ASTM C39 Compressive Strength	5,780
26-998	1600013514	CC40003Q	ASTM C39 Compressive Strength	6,670
26-998	1600013515	CC40004Q	ASTM C39 Compressive Strength	7,170
26-998	1600013516	CC40005Q	ASTM C39 Compressive Strength	7,200
26-998	1600013517	CC40006Q	ASTM C39 Compressive Strength	6,310
26-998	1600013518	CC40007Q	ASTM C39 Compressive Strength	5,450
26-998	1600013519	CC40008Q	ASTM C39 Compressive Strength	5,890

of Samples must be at least 5 samples for Class I, I Pavement, II, II (Bridge Deck) or III to start reduced frequency.
of Samples must be at least 10 samples for Class IV, IV (Drilled Shaft), V, V (Special) or IV to start reduced frequency.
Min Strength + 2 X STD Dev must be greater than Minimum Strength to start and to maintain reduced frequency.



Project Administrators and MAC

- MAC Notifications
- MAC will not give notifications to PA
- SMO is working with SCO to make notification via Project Solve

One final subject for the PAs is MAC notifications. Because MAC only knows the personnel with the role of PA, it is impossible at this time to provide meaningful notification to PAs. MAC doesn't know which of the personnel holding the role of PA PAs (delegates) are and it doesn't know which PA goes with which project.

SMO is working with SCO to create reports through project solve. Some of these notifications include:

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Project Administrators and MAC

- MAC Notifications
- MAC will not give notifications to PA
- SMO is working with SCO to make notification via Project Solve

Some of these notifications include:

When a Contractor QC Plan is submitted for the PA review

When the District Materials and Research Office Program Maintenance User has completed the review of the structural concrete portion of the Contractor QC Plan

When additional information has been added to a new QC Plan

When findings need the PA response

When findings have been promoted to MAR

After MAC is implemented, as a person with the role of PA, please familiarize yourself with the system and take notes about the system functions that you would like to see a system notification sent. Be specific. Instead of “QC Plan notifications” say I’d like to get notified on my projects when the contract has added a new production facility”.

This detail will assist us when we build the MAC enhancements for notifications. We need two things. First, we need users with experience in the system to have an understanding of the specific notifications that would be helpful. Two, we need the experienced users to provide

detailed feedback so we can program the appropriate notifications.



Project Administrators and MAC

- PAs should familiarize themselves with MAC
- Take notes of specific functions where notifications would be helpful
 - Be specific
- Send feedback to SMO MAC Application Coordinator

After MAC is implemented, as a person with the role of PA, please familiarize yourself with the system and take notes about the system functions that you would like to see a system notification sent. Be specific. Instead of “QC Plan notifications” say I’d like to get notified on my projects when the contract has added a new production facility”.



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Project Administrators and MAC

- Future notification enhancements will be initiated
- Feedback is needed to ensure the right notifications are developed

This detail will assist us when we build the MAC enhancements for notifications. We need two things. First, we need users with experience in the system to have an understanding of the specific notifications that would be helpful. Two, we need the experienced users to provide detailed feedback so we can program the appropriate notifications.



Project Administrators and MAC

- This concludes the MAC video on concepts for the PA role in MAC.
- For additional training information, visit the MAC website.



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Project Administrators and MAC

- If you have questions, there are a number of ways to get a response:
 - FAQs
 - Contact your Local DAC
 - Online form to submit a question to the MAC team



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Project Administrators and MAC

- If you have project specific requirements and need to contact the appropriate SMO Technical Unit, use the list.



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Project Administrators and MAC

Thank You