



Florida Department of **TRANSPORTATION**



Method of Acceptance Construction Academy 2025

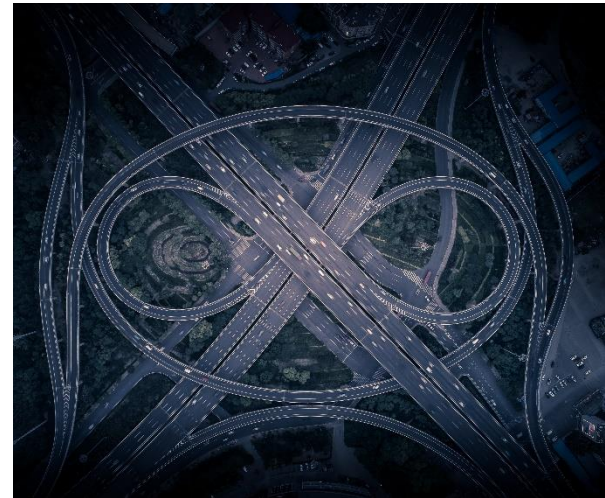


Materials Acceptance and Certification

- Objectives
 - Why do we care about materials?
 - What are the basic Material Method of Acceptance requirements?
 - What is MAC
 - Who is the PA in MAC

Materials Acceptance and Certification

- Why are Material requirements important?





Florida Department of TRANSPORTATION



FLORIDA TRANSPORTATION FAST FACTS

UPDATED MARCH 2025



SYSTEMS FORECASTING & TRENDS OFFICE

FLORIDA'S POPULATION

**23.0
MILLION**

(2024)

VISITORS TO FLORIDA

**142.9
MILLION**

(2024)

FLORIDA'S GDP

**\$1.60
TRILLION**

(2023)



SYSTEM PERFORMANCE

DAILY VEHICLE MILES TRAVELED

656 MILLION

ALL PUBLIC ROADS (2023)

362 MILLION

STATE HIGHWAY SYSTEM

[55%]

(2023)

SHS PAVEMENT

81%

IN GOOD CONDITION

(2024)

SHS CENTERLINE MILES

95%

NOT HEAVILY CONGESTED

AT PEAK HOURS

(2023)

STATE MAINTAINED

BRIDGES

95%

IN GOOD CONDITION

(2024)

PEDESTRIAN FACILITIES

72%

OF URBAN NON-LIMITED

ACCESS SHS HAVE

PEDESTRIAN FACILITIES

(2024)

SAFETY

CRASHES ON FLORIDA ROADWAYS

395,175

TOTAL CRASHES (CODABLE CRASHES (2023))

FATALITIES

3,375

TOTAL FATALITIES

(2023)

791

PEDESTRIAN
FATALITIES

(2023)

[23%]

234

BICYCLIST
FATALITIES

(2023)

[7%]

SERIOUS INJURIES

15,399

TOTAL SERIOUS INJURIES

(2023)

1,408

PEDESTRIAN
SERIOUS INJURIES

(2023)

[9%]

810

BICYCLIST SERIOUS
INJURIES

(2023)

[5%]

TRAVEL DEMAND

REGISTERED VEHICLES

24 MILLION

TOTAL REGISTERED VEHICLES INCLUDING 935,408 VESSELS (2025)

0.4 MILLION

EV REGISTRATIONS

(2024)

[1.7%]

PASSENGER TRIPS

105 MILLION

AIRCRAFT

(2023)

22 MILLION

CRUISE

(2024)

182 MILLION

TRANSIT

(2023)

6 MILLION

RAIL

(2023)

FREIGHT VOLUME

3 MILLION

AVIATION TONNAGE

(2023)

113 MILLION

SEAPORT TONNAGE

(2024)

899 MILLION

COMBINATION TRUCK

TONNAGE

(2022)

93

SPACE LAUNCHES

(2024)

TRANSPORTATION SYSTEM



Materials Acceptance and Certification

- FDOT has 3 basic contract concepts in Division 1 that apply to all contracts
 - Section 9
 - Method of Measurement
 - Basis of Payment



Materials Acceptance and Certification

- Method of Acceptance (MOA) - Specifications Section 6
- FDOT has 2 categories in the Specs
 - Somebody samples and tests or
 - Somebody certifies
 - APL is a subset of Certification MOA



Materials Acceptance and Certification

- Method of Acceptance (MOA) - CPAM
- CPAM has 3 categories
 - Sampling and Testing
 - Certification
 - Visual Inspection*



Materials Acceptance and Certification

- Visual Inspection*
 - Not normally documented in MAC
 - Except for
 - ***Guardrail stamps***
 - Stabilizing Mix Depth Checks
 - Asphalt sublots
 - For Lot Report



Florida Department of TRANSPORTATION



Materials Acceptance and Certification

MAC WEB

https://mac.fdot.gov/HomeView/Approve_17940_7662#


MAC Production MAC Training MAC WEB TEST FDOT: State Material... ISA AARF MAC Library CIM Standard Specificati... Home | Service Ope... AS IS My Apps OIT Cloud Moderniz... APL People First - Login

MAC Materials Acceptance and Certification System

User: Susan Musselman [System Admin + 17 others] Change Company

Field Help

Dashboard Reports MAC Spec STRGQJOS Inspections Facilities Checklists Evaluations Material Certification/MAR Samples Contractor QC Plan Mix Designs Earthwork Records System System Admin My Notifications



Access & Database Dashboard News & Tech Support and Contacts Training & Cloud Migration Project

Welcome to the MAC Application

The Department's official system of record for Quality Assurance Procedure for Construction data.

Want to know more about MAC? Visit the SMO MAC information website at <https://www.fdot.gov/materials/mac/default.shtm>.

Materials Acceptance and Certification

- **PA or delegate**
- **System user** in the PA role
 - Not necessarily the actual PA



Materials Acceptance and Certification

- The clay liner shall be of plastic soils consisting of A-5, A-6, A-7 or A-2-7 (AASHTO M145) material with more than 25% passing the No. 200 U.S. standard sieve. The clay soils shall be free of organic content and shall provide a minimum saturated unit weight of 115 pounds per cubic foot.

**MOA = Sampling and Testing
or Certification?**



Florida Department of TRANSPORTATION



T400-2 Materials.

T400-2.1 General: Meet the following requirements:

Water for Concrete
Non-Shrink Grout

Section 923 of the FDOT Standard Specifications
Section 934 of the FDOT Standard Specifications

Only non-metallic formulations of grouts designed for this specific application are allowed. Gas producing, metal oxidizing and expansive aggregate grouts are not allowed. All materials shall be supplied by the same manufacturer and submitted to the Engineer for written approval.

Materials shall be rejected at the point of use if the materials are caked, lumpy or show any signs of deterioration. Materials shall be rejected if the grout does not achieve the design fluidity or consistency when mixed according to the manufacturer's recommendations.

All broken or open packages shall be rejected.

T400-2.2 Sampling and Testing Methods: Perform concrete sampling and testing in accordance with manufacturer's recommendations and FDOT Standard Specifications Section 934-3.

T400-2.3 Requirements: Meet the requirements of FDOT Standard Specifications Section 934-4.

T400-2.4 Packaging: Cementitious materials for grouts must be packaged in suitable moisture-resistant containers and clearly labeled. Where applicable, the manufacturer's recommendations, limitations, and cautions shall be clearly visible on each label.



Materials Acceptance and Certification

- Sampling and Testing
 - What Test(s)?

Table 346-7
Concrete Sampling and Testing Methods

Description	Method
Low Levels of Chloride in Concrete and Raw Materials	FM 5-516
Density (Unit Weight), Yield and Air Content (Gravimetric) of Concrete	ASTM C138
Temperature of Freshly Mixed Portland Cement Concrete	ASTM C1064
Sampling Freshly Mixed Concrete ⁽⁴⁾	ASTM C172
Static Segregation of Self-Consolidating Concrete using Column Techniques	ASTM C1610
Slump Flow of Self-Consolidating Concrete	ASTM C1611
Relative Viscosity of Self-Consolidating Concrete	ASTM C1611
Visual Stability Index of Self-Consolidating Concrete	ASTM C1611
Passing Ability of Self-Consolidating Concrete by J-Ring	ASTM C1621
Rapid Assessment of Static Segregation Resistance of Self-Consolidating Concrete Using Penetration Test	ASTM C1712
Aggregate Distribution of Hardened Self-Consolidating Concrete	FM 5-617
Hardened Visual Stability Index of Self-Consolidating Concrete	AASHTO R 81
Fabricating Test Specimens with Self-Consolidating Concrete	ASTM C1758
Concrete Resistivity as an Electrical Indicator of its Permeability	AASHTO T 358
<p>(1) The Department will use the same type of meter for Verification testing as used for QC testing. When using pressure type meters, use an aggregate correction factor determined by the concrete producer for each mix design to be tested. Record and certify test results for correction factors for each type of aggregate at the concrete production facility.</p> <p>(2) Provide curing facilities that have the capacity to store all QC, Verification, and Resolution cylinders simultaneously for the initial curing. Cylinders will be delivered to the testing laboratory in their molds. The laboratory will remove the specimens from the molds and begin final curing.</p> <p>(3) Lightweight concrete also includes hardened specimen density. The ASTM C567 may be used in lieu of ASTM C39 to verify the density.</p> <p>(4) Take the test sample from the middle portion of the batch in lieu of collecting and compositing samples from two or more portions, as described in ASTM C172.</p>	



Materials Acceptance and Certification

- Sampling and Testing
 - Who tests?



Materials Acceptance and Certification

346-9 Acceptance Sampling and Testing.

346-9.1 General: Perform plastic properties tests in accordance with 346-8 and cast a set of three QC cylinders, for all structural concrete incorporated into the project. Take these acceptance samples randomly as determined by a random number generator acceptable to the Department. The Department will independently perform VT plastic properties tests and cast a set of VT cylinders. The VT cylinders will be the same size cylinder selected by the Contractor, from a separate sample from the same load of concrete as the Contractor's QC sample.

For each set of QC cylinders verified by the Department, cast two additional cylinders from the same sample, and identify them as the quality control resolution (QR) test cylinders. The Department will also cast two additional verification resolution (VR) test cylinders from each VT sample. All cylinders will be clearly identified as outlined in the Sample/LOT Numbering System instructions located on the State Materials Office website. Deliver the QC samples, including the QR cylinders to the final curing facility in accordance with ASTM C31. Concurrently, the Department will deliver the VT samples, including the VR cylinders, to their final curing facility.

Test the QC laboratory cured samples for compressive strength at the age of 28 days, in a laboratory meeting and maintaining at all times the qualification requirements listed in Section 105.

The Department will compare the VT sample compressive strength test results with the corresponding QC sample test results.



Materials Acceptance and Certification

- Sampling and Testing
 - How often?



Materials Acceptance and Certification

Table 346-9
Sampling Frequency

Class Concrete ⁽¹⁾	LOT Size
I (Seal)	Each seal placement
I (Pavement)	According to Section 350
II, II (Bridge Deck), III, IV, V, VI, VII	50 cubic yards, or one day's production, whichever is less
IV (Drilled Shaft)	50 cubic yards, or one day's production, whichever is less ⁽²⁾

(1) For any class of concrete used for roadway concrete barrier, the lot size is defined as 100 cubic yards, or one day's production, whichever is less.

(2) Start a new LOT when there is a gap of more than two hours between the end of one drilled shaft placement and the beginning of the next drilled shaft placement.



Materials Acceptance and Certification

- Sampling and Testing
 - Does it need a qualified sampler, tester, lab?



105-8.6 Concrete QC Personnel:

105-8.6.1 Concrete Field Technician - Level 1: Ensure technicians performing plastic property testing on concrete for materials acceptance at the project jobsite possess a CTQP Concrete Field Technician Level 1 qualification. Plastic property testing will include but not be limited to slump, temperature, air content, water-to-cementitious materials ratio calculation, and making and curing concrete cylinders. Duties include initial sampling and testing to confirm specification compliance prior to beginning concrete placements, ensuring timely commencement of initial curing, and providing for the transport of compressive strength samples to the designated laboratories.

105-8.6.2 Self-Consolidating Concrete (SCC) Field Technician - Level 1: Ensure technicians performing plastic property testing on self-consolidating concrete (SCC) for materials acceptance at the project jobsite possess a CTQP Self-Consolidating Concrete (SCC) Field Technician Level I qualification. Plastic property testing will include but not be limited to slump flow, rapid assessment of static segregation resistance, temperature, air content, water-to-cementitious materials ratio calculation, and making and curing SCC cylinders. Duties include initial sampling and testing to confirm specification compliance prior to beginning concrete placements, ensuring timely commencement of initial curing, and providing for the transport of compressive strength samples to the designated laboratories.



105-7 Lab Qualification Program.

Testing laboratories participating in the Department's Acceptance Program must have current Department qualification when testing materials that are used on Department projects. In addition, they must have one of the following:

1. Current AASHTO (AAP) accreditation.
2. Inspected on a regular basis per ASTM D3740 for earthwork, ASTM D3666 for asphalt and ASTM C1077 for concrete for test methods used in the Acceptance Program, with all deficiencies corrected, and under the supervision of a Specialty Engineer.
3. Current Construction Materials Engineering Council (CMEC) program accreditation or other independent inspection program accreditation acceptable to the Engineer and equivalent to (1) or (2) above.

After meeting the criteria described above, submit a Laboratory Qualification Application to the Department. The application is available from the Department's website:

<https://www.fdot.gov/materials/quality/programs/laboratoryqualification/index.shtm>. Obtain the Department's qualification prior to beginning testing. The Department may inspect the laboratory for compliance with the accreditation requirements prior to issuing qualification.

Meet and maintain the qualification requirements at all times. Testing without Department's qualification may result in a rejection of the test results. Continued qualifications are subject to satisfactory results from Department evaluations, including Independent Assurance evaluations. In case of suspension or disqualification, prior to resumption of testing, resolve the issues to the Department's satisfaction and obtain reinstatement of qualification. The following conditions may result in suspension of a laboratory's qualified status:



Materials Acceptance and Certification

STRG Information

	Normally Sampled By	Qualified Sampler Required	Qualification Areas
Alternate Soil and RAP Layer Construction, IV	Department Personnel	✓	QQ060301
Embankment Material using Modified Proctor, IV	Department Personnel	✓	QQ060301
Embankment Material using Standard Proctor, IV	Department Personnel	✓	QQ060301
ERS Density, IV	Department Personnel		
Alternate Soil and RAP Layer Construction, QC	QC Personnel	✓	QQ060301

)?



Materials Acceptance and Certification

- Sampling and Testing
 - Does it need a qualified sampler, tester, lab?

AASHTO T 89 and AASHTO T 90 Liquid Plastic Limit [Version 9]

Filter by Sample Level



View Options

☒ Just Base Set and Variations

☐ All Possible Combinations

	Normally Tested By	Qualified Tester Required	Qualification Areas	Test Size	Test Unit	Qualified Lab Required	Test Required	Field/Lab
IV	Verification Laboratory	✓	QQ060402			✓	No	Lab
QC	QC Laboratory	✓	QQ060402			✓	Yes	Lab
RT	Resolution Laboratory	✓	QQ060402			✓	No	Lab
VT	Verification Laboratory	✓	QQ060402			✓	Yes	Lab



Materials Acceptance and Certification

- Sampling and Testing
 - Does it need a qualified sampler, tester, lab?

AASHTO T 89 and AASHTO T 90 Liquid Plastic Limit [Version 9]

Filter by Sample Level



View Options

☒ Just Base Set and Variations

☐ All Possible Combinations

	Normally Tested By	Qualified Tester Required	Qualification Areas	Test Size	Test Unit	Qualified Lab Required	Test Required	Field/Lab
IV	Verification Laboratory	✓	QQ060402			✓	No	Lab
QC	QC Laboratory	✓	QQ060402			✓	Yes	Lab
RT	Resolution Laboratory	✓	QQ060402			✓	No	Lab
VT	Verification Laboratory	✓	QQ060402			✓	Yes	Lab



Materials Acceptance and Certification

- Sampling and Testing
 - Does it have to be produced at a facility under the Aggregate Control Program or QC Program?



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Asphalt Production Facility Listing

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

Production Facility ID and Description	Contact Information	Physical Address	Mailing Address	Status Date of Action	Company
A0103 AJAX PAVING INDUSTRIES OF FLORIDA, LLC - PUNTA GORDA, FL	RUSTY REYNOLDS rreynolds@ajaxpaving.com (239) 707-2808	40851 COOK BROWN ROAD PUNTA GORDA, Florida 33955	510 GENE GREEN ROAD NOKOMIS, Florida 34275	QC Plan Accepted for Asphalt [11/22/2022] 6/23/2015	Ajax Paving Industries of Florida LLC
A0108 AJAX PAVING INDUSTRIES OF FLORIDA, LLC - LAKE WALES, FL	AUSTIN WRIGHT awright@ajaxpaving.com (941) 525-8065	1800 Old Bartow Road Lake Wales, Florida 33859	1800 Old Bartow Road Lake Wales, Florida 33859	QC Plan Accepted for Asphalt [8/5/2021] 5/5/2021	Ajax Paving Industries of Florida LLC
A0139 COASTAL BRIDGE COMPANY		6225 Powell Road Gibsonton, Florida 33534	6225 Powell Road Gibsonton, Florida 33534	QC Plan Inactivated for Asphalt [3/30/2019] 10/24/2016	Coastal Bridge LLC
A0200 ANDERSON COLUMBIA COMPANY, INC.		6599 CR-218 JACKSONVILLE, Florida 32234	P.O. BOX 2128 LAKE CITY, Florida 32056	QC Plan Accepted for Asphalt [6/2/2023] 6/23/2015	Anderson Columbia Company, Inc.



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Aggregate Production Facility Listing

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

Production Facility ID and Description	Contact Information	Physical Address	Mailing Address	Status
01495 SOUTHWEST AGGREGATES - PUNTA GORDA, FL	Jeff Curry swaggregates@aol.com (239) 567-1800	16470 TAMIAMI TRAIL PUNTA GORDA, Florida 33955	16070 TAMIAMI TRAIL PUNTA GORDA, Florida 33955	Approved [12/6/2001] 12/6/2001
01730 FLORIDA SHELL - PUNTA GORDA, FL	Ernesto De La Osa ernestodelaosa@aol.com (941) 639-1434 Fax: (941) 639-1401	2351 SR 31 PUNTA GORDA, Florida 33982	41451 COOK BROWN ROAD PUNTA GORDA, Florida 33982	Approved [5/9/2013] 5/9/2013
01791 WATERMELON PIT, LLC. - PUNTA GORDA, FL	David Muncy david@earthdepot.com (941) 916-3342	2000 STATE ROAD 31 PUNTA GORDA, Florida 33982	1133 BAL HARBOR #1139 PUNTA GORDA, Florida 33950	Approved [11/16/2023] 11/16/2023
01794 BERMONT EXCAVATING, LLC. - PUNTA GORDA, FL		37390 BERMONT ROAD PUNTA GORDA, Florida 33982	37390 BERMONT ROAD PUNTA GORDA, Florida 33982	Approved [3/30/2015] 3/30/2015
01863 WILLIAMS FARMS SAND COLUMBIA COMPANY, INC.	DAVID SMITH williamsandandshell@gmail.com (941) 916-3342	3300 State Road 31 Punta Gorda, Florida 33982	3300 State Road 31 Punta Gorda, Florida 33982 6/23/2015	Approved [9/20/2019] 9/20/2019



Materials Acceptance and Certification

- Sampling and Testing
 - What is passing criteria?



Table 346-3
Compressive Strength, w/cm, and Slump of Concrete Classes

Class of Concrete	28-day Specified Minimum Compressive Strength (f'c) (psi)	Maximum Water to Cementitious Materials Ratio (pounds per pounds)	Target Slump Value (inches)
I (Seal)	3,000	0.53	8
I (Pavement) ^{(1) (5)}	3,000	0.50	1.5 or 3
II ⁽³⁾	3,400	0.53	3 ⁽²⁾
II (Bridge Deck)	4,500	0.44	3 ⁽²⁾
III	5,000	0.44	3 ⁽²⁾
IV	5,500	0.41 ⁽⁴⁾	3 ⁽²⁾
IV (Drilled Shaft)	4,000	0.41	8.5
V	6,500	0.37 ⁽⁴⁾	3 ⁽²⁾
VI	8,500	0.37 ⁽⁴⁾	3 ⁽²⁾
VII	10,000	0.37 ⁽⁴⁾	3 ⁽²⁾

Notes:

(1) Meet the requirements of Section 350.

(2) For increased slump concrete, flowing concrete, SCC and slip form concrete meet the requirements of 346-3.1.

(3) For precast three-sided culverts, box culverts, endwalls, inlets, manholes and junction boxes, the target slump value and air content will not apply. The maximum allowable slump is 6 inches, except as noted in (2). The Contractor is permitted to use concrete meeting the requirements of ASTM C478 (4,000 psi) in lieu of the specified Class II concrete for precast endwalls, inlets, manholes and junction boxes.

Targets and Limits

Select Test to see Targets/Limits for

ASTM C39 Compressive Strength [Version 13]

Filter by Sample Level

Filter by Spec Category

View Options

☒ Just Base Set

Target/Limit	Condition	Show on Test
Class I Seal (3000 PSI)		
Average Compressive Strength \geq 3,000		Yes
Class IV (5500 PSI)		
Average Compressive Strength \geq 5,500		Yes
Class IV Drilled Shaft (4000 PSI)		
Average Compressive Strength \geq 4,000		Yes
Class V (6500 PSI)		
Average Compressive Strength \geq 6,500		Yes
Class VI (8500 PSI)		
Average Compressive Strength \geq 8,500		Yes
Class VII (10000 PSI)		
Average Compressive Strength \geq 10,000		Yes



Materials Acceptance and Certification

- Sampling and Testing
 - What happens when there is a failure?
 - How bad is bad enough to remove & replace?
 - Examples?



Materials Acceptance and Certification

346-9.7 Structural Adequacy: The Engineer will evaluate the structural adequacy for verified concrete that does not meet the minimum specified compressive strength of Table 346-3.

For structural adequacy, with standard molded and cured compressive strength cylinders, the compressive strength of concrete is satisfactory provided that the two following criteria are met:

1. The average compressive strength does not fall below the specified minimum compressive strength by more than:
 - a. 500 psi if the specified minimum compressive strength is equal to or less than 5,000 psi.
 - b. 10% of the specified minimum compressive strength if the specified minimum compressive strength is greater than 5,000 psi.
2. The average compressive strength with the previous two LOTs is equal to or exceeds the specified minimum compressive strength. This condition only applies if there are two or more previous LOTs to calculate the average.



Materials Acceptance and Certification

- Sampling and Testing
 - What happens when there is a failure?
 - How bad is bad enough to remove & replace?
 - Examples?

334-5.9.2 CPFs Less Than 0.90 and Greater Than or Equal to 0.80: If the composite pay factor for the LOT is less than 0.90 and greater than or equal to 0.80, cease production of the asphalt mixture until the problem is adequately resolved (to the satisfaction of the Engineer), unless it can be demonstrated to the satisfaction of the Engineer that the problem can immediately be (or already has been) resolved. Actions taken must be approved by the Engineer before production resumes.



Materials Acceptance and Certification

346-10 Investigation of Low Compressive Strength Concrete.

When a verified concrete compressive strength test result falls below the specified minimum strength, and does not meet the structural adequacy described in 346-9.7, perform one of the following options:

1. Submit an Engineering Analysis Scope in accordance with 6-4 to establish structural and durability adequacy. When the scope is approved by the Engineer, submit an Engineering Analysis Report (EAR) in accordance with 6-4 that includes a full structural analysis. If the results of the structural analysis indicate adequate strength to serve its intended purpose with adequate durability, and is approved by the Engineer, the Contractor may leave the concrete in place subject to the requirements of 346-11, otherwise, remove and replace the LOT of concrete in question at no additional expense to the Department.

2. At the Engineer's discretion, obtain drilled core samples as specified in this Section to determine the in-place strength of the LOT of concrete in question, at no additional expense to the Department. The Engineer will determine whether to allow coring of the in-place concrete or require an engineering analysis based on the compressive strength of the test cylinders.



Materials Acceptance and Certification

- Sampling and Testing
 - What happens when there is a failure?

334-5.9.3 CPFs Less Than 0.80 and Greater Than or Equal to 0.75: If the CPF for the LOT is less than 0.80 and greater than or equal to 0.75, address the defective material in accordance with 334-5.9.5.

334-5.9.4 CPFs Less Than 0.75: If the CPF for the LOT is less than 0.75, remove and replace the defective LOT at no cost to the Department, or as approved by the Engineer.

334-5.9.5 Defective Material: Assume responsibility for removing and replacing all defective material placed on the project, at no cost to the Department.

As an exception to the above and upon approval of the Engineer, obtain an engineering analysis in accordance with Section 6 by an independent laboratory (as approved by the Engineer) to determine the disposition of the material. The engineering analysis must be



Materials Acceptance and Certification

- Certification
 - Who certifies?
 - Contractor, Producer, Manufacturer?

145-5 Certification.

For geosynthetic materials, submit to the Engineer a certification from the manufacturer confirming that the material is appropriate for the intended use. The manufacturer's certification shall be attested to within the past one year by a person having legal authority to bind the manufacturing company, and must include the project number, APL product number, LOT number, and product name.



Materials Acceptance and Certification

- Certification
 - What does it have to say?



MATERIAL CERTIFICATION
Geosynthetic for Drainage Applications
(Specification Number 985)

Date
Contractor's Name
Contractor's Address Line 1
City, State, Zip Code

Product Name:

APL Number:

Intended Use: [D-1, D-2, D-3, D-4, D-5]

Roll LOT Numbers:

FDOT Project Contract/FIN:

Project Location:

Product Description:

Property	Test Method	Minimum Average Roll Value (MARV)
Grab Tensile Strength	ASTM D4632	XXXX [units]
Grab Elongation	ASTM D4632	XXXX [units]
Trapezoidal Tear	ASTM D4533	XXXX [units]
CBR Puncture Strength	ASTM D6241	XXXX [units]
AOS	ASTM D4751	XXXX [units]
UV Stability	ASTM D4355	XXXX [units]
Permittivity	ASTM D4491	XXXX [units]

We certify that the above-listed product is the same product approved by the Florida D.O.T. and meets the requirements of the Contract Specifications.

Manufacturer Officer or Designee:

Name (print): _____

Signature: _____

Title: _____

(Notarized)



Materials Acceptance and Certification

Product Description:

Property	Test Method	Minimum Average Roll Value (MARV)
Grab Tensile Strength	ASTM D4632	XXXX [units]
Grab Elongation	ASTM D4632	XXXX [units]
Trapezoidal Tear	ASTM D4533	XXXX [units]
CBR Puncture Strength	ASTM D6241	XXXX [units]
AOS	ASTM D4751	XXXX [units]
UV Stability	ASTM D4355	XXXX [units]
Permittivity	ASTM D4491	XXXX [units]



Materials Acceptance and Certification

We certify that the above-listed product is the same product approved by the Florida D.O.T. and meets the requirements of the Contract Specifications.

Manufacturer Officer or Designee:

Name (print): _____

Signature: _____

Title: _____

(Notarized)



Materials Acceptance and Certification

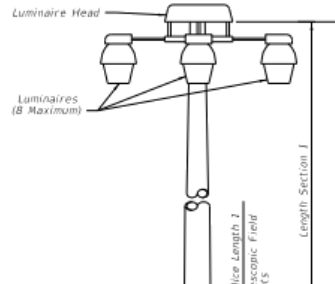
- Certification
 - How often?
 - You will see a specific example in the Structural Materials presentation**



Materials Acceptance and Certification

- What does method of measurement or basis of payment have to do with method of acceptance?
- The 3 concepts are related
 - You will find MOA requirements in Method of Measurement & Basis of Payment language

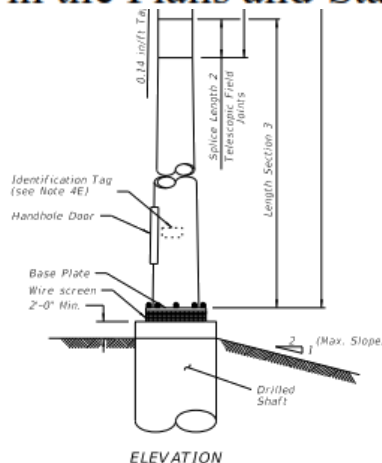
Materials Acceptance and Certification



715-18 Method of Measurement.

The quantities to be paid for will be as follows, completed and accepted:

7. 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 Standard Plans.





Materials Acceptance and Certification

0715 19 11 - HIGH MAST LIGHT POLE, FURNISH AND INSTALL, 80'

- | | |
|---|---|
| 1 | 346 - Portland Cement Concrete |
| 2 | 415 - Reinforcing Steel |
| 3 | 925 - Curing Materials for Concrete |
| 4 | 931 - Metal Accessory Materials for Concrete Pavement and Concrete Structures |
| 5 | 962 - Structural Steel and Miscellaneous Metal Items (Other than Aluminum) |
| 6 | 415 - Reinforcing for Concrete |
| 7 | 105 - Incidental Precast Concrete Product Certification |
| 8 | 346 - Structural Portland Cement Concrete |

MAC Materials have more than 1 MOA

Materials Acceptance and Certification



- 334 Structural
- 337 Friction
- 330 Smoothness



Materials Acceptance and Certification

Pay Item

0334 22 12 - SUPERPAVE ASPHALTIC CON

Material

Type Material Id or Name

Last Updated By

Start typing user name to get list

Pay Item	Last Updated By	On
330 - Hot Mix Asphalt – General Construction Requirements		
1 0334 22 12 - SUPERPAVE ASPHALTIC CONC (TRAFFIC 2) (1 1/4")	Marcus Madison	5/20/2016
334 - Superpave Asphalt Concrete		
2 0334 22 12 - SUPERPAVE ASPHALTIC CONC (TRAFFIC 2) (1 1/4")	Marcus Madison	4/28/2016
916 - Bituminous Materials		
3 0334 22 12 - SUPERPAVE ASPHALTIC CONC (TRAFFIC 2) (1 1/4")	Susan Musselman	9/29/2016

Pay Item

Material

Last Updated By

Type Pay Item Number/Description

346 - Structural Portland Cement Concrete *

Start typing user name to get list of u

Material

No 346 pay items

Last Updated By

On

0400 98 1 - FOUNDATION REDESIGN (VEHICULAR TRAFFIC SIGNAL)

92	346 - Structural Portland Cement Concrete	Susan Musselman	12/17/2019	Disassociate
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0400 98 2 - FOUNDATION REDESIGN (PEDESTRIAN TRAFFIC SIGNAL)

93	346 - Structural Portland Cement Concrete	Susan Musselman	12/17/2019	Disassociate
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0400 98 3 - FOUNDATION REDESIGN (LIGHT POLE)

94	346 - Structural Portland Cement Concrete	Susan Musselman	12/17/2019	Disassociate
----	---	-----------------	------------	------------------------------

0400158 1 - CONC CLASS IV (PLACEMENT)(2 1/2" OVERLAY)(VARIES)

95	346 - Structural Portland Cement Concrete	Susan Musselman	12/17/2019	Disassociate
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0400158 2 - CONC CLASS IV (PLACEMENT)(9" DECK W/DIAPHRAGMS)

96	346 - Structural Portland Cement Concrete	Susan Musselman	12/17/2019	Disassociate
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0425 1 91 - INLETS (CURB) (TYPE 9) (<10')

97	346 - Structural Portland Cement Concrete	Susan Musselman	12/17/2019	Disassociate
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0425 1201 - INLETS, CURB, TYPE 9, <10'

98	346 - Structural Portland Cement Concrete	Susan Musselman	12/17/2019	Disassociate
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0425 1202 - INLETS, CURB, TYPE 9, >10'

99	346 - Structural Portland Cement Concrete	Susan Musselman	12/17/2019	Disassociate
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Materials Acceptance and Certification

- Multiple scenarios and we don't know what the Contractor is going to use
- PA is responsible for identifying the MOA and noting when one isn't used

Materials Acceptance and Certification

- Optional material pay items:
- Base
 - Asphalt
 - Rock
 - Limerock, GAB, Shell Base, Shell-Rock





Materials Acceptance and Certification

Pay Item

0285701 - OPTIONAL BASE, BASE GROU *

Material

Last Updated By

Material		Last Updated By	On	
0285701 - OPTIONAL BASE, BASE GROUP 01				
1	200 - Rock Base	Dino Jameson	4/6/2016	Disassociate
2	204 - Graded Aggregate Base	John Shoucair	10/17/2016	Disassociate
3	234 - Superpave Asphalt Base	Marcus Madison	5/20/2016	Disassociate
4	911 - Limerock Material for Base and Stabilized Base	John Shoucair	4/18/2016	Disassociate
5	916 - Bituminous Materials	Susan Musselman	9/29/2016	Disassociate



Materials Acceptance and Certification

Pay Item

0285701 - OPTIONAL BASE, BASE GROU * x

Material

Type Material Id or Name

Last Updated By

Users

Material

Last Updated By

0285701 - OPTIONAL BASE, BASE GROUP 01

1	200 - Rock Base	Dino Jameson
2	204 - Graded Aggregate Base	John Shoucair
3	234 - Superpave Asphalt Base	Marcus Madison
4	911 - Limerock Material for Base and Stabilized Base	John Shoucair
5	916 - Bituminous Materials	Susan Musselman

Table
Optional Base G

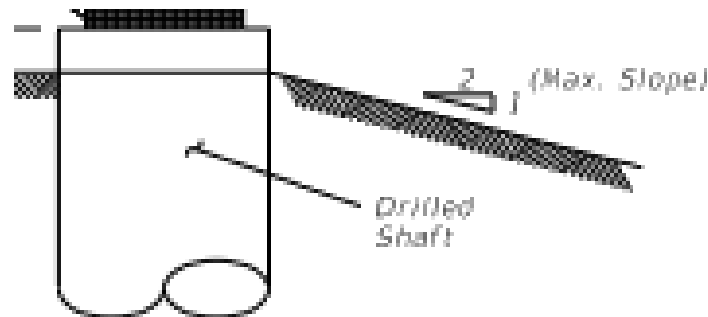
Base Materials	Optional Base G	
	1 (701)	2 (702)
Limerock, LBR 100	4"	5"
Cemented Coquina, LBR 100	4"	5"
Shell Rock, LBR 100	4"	5"
Bank Run Shell, LBR 100	4"	5"
Recycled Concrete Aggregate, LBR 150 ⁽¹⁾	4"	5"
Graded Aggregate Base, LBR 100	4-1/2"	5-1/2"
Type B-12.5	4" ⁽³⁾	4" ⁽³⁾
B-12.5 and 4" Granular Subbase, LBR 100 ⁽²⁾	-	-
RAP Base ⁽⁴⁾	5" ⁽⁴⁾	-

(1) Do not use on interstate roadways

Materials Acceptance and Certification

715-9 Foundations for Light Poles.

715-9.1 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 Standard Plans. Obtain precast foundations from a plant that is currently on the Department's Production Facility Listing. Producers seeking inclusion on the list shall meet the requirements of Section 105.





Materials Acceptance and Certification

- Precast
 - IPC Plant and 105 Certification
- Cast in Place
 - Structural Concrete Plant with Drilled Shaft Mix Design
 - Reinforcing Steel
 - Curing Compound



Materials Acceptance and Certification

- It's not just failing material
- You gotta know your contract
 - What Materials
 - What MOA(s)

Materials Acceptance and Certification



- Material
Method of
Acceptance