Florida Department of Transportation

DISTRICT 5

Asphalt Roadway Reporting

Focus on QC & VT Technicians documenting the daily activities of the asphalt roadway paving

Presented by District 5

Introductions

By: Lorie Matthews

- Who are you?
- Where do you work?
- What is your role?

Goals

Consistent

Predictable

Repeatable

http://www.dot.state.fl.us/construction/CPR/CPR_Main.shtm

Goals

Bold

Inspirational

Innovative

Agenda

- **Asphalt Roadway QC/VT Activities**
  By: Tim Carter, Julie Brown *Tim McGlone, Jeffrey Hinkle, & Kermit Ramdial*
- **Break**
- **Asphalt in General**
  By: Robert Parker & Joe Somlitz
- **Lunch**
- **Asphalt Roadway Reporting Exercise**
  By: Lori Jones & Karen Madrid
- **Break**
- **Importance of Accuracy**
  By: John Burnette

Florida Department of Transportation

DISTRICT 5

Asphalt Roadway QC/ VT Activities

Focus on daily activities of the Asphalt Roadway QC & VT Technicians

Presented By:
Tim Carter, Julie Brown Tim McGlone,
Jeffrey Hinkle,& Kermit Ramdial

Asphalt Roadway QC/VT Activities

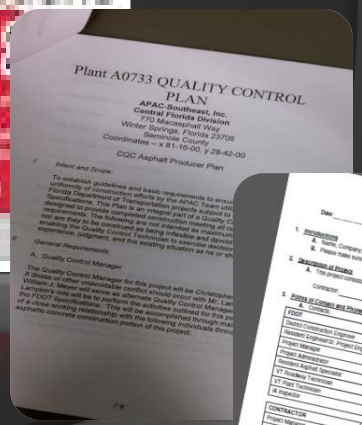
- Before paving starts, be familiar with the following:

Plans
- Plan Sheets
- Typicals
- Striping

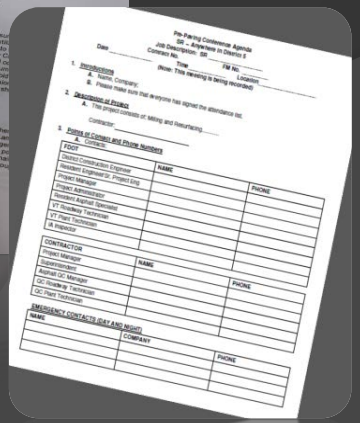
Contract

Asphalt Specifications

Asphalt QC Plan



Pre-Pave Meeting Minutes



Asphalt Roadway QC/VT Activities

- Have contact number for:

  Paving Superintendent/Foreman

  Roadway QC/VT

  Plant QC/VT

  QC Manager

  Project Administrator

  Resident Asphalt Specialist

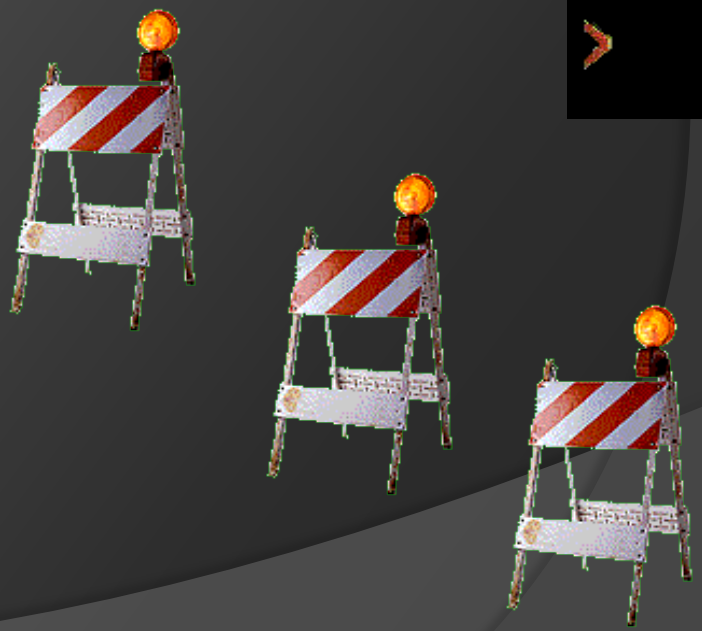
Asphalt Roadway QC/VT Activities

- Onsite Pre-Production Meeting with QC & VT:

LET'S DISCUSS SAFETY!!

Identify possible hazards such as:

- **Lane Closures**
- **Taking temperatures**
- **Side streets and driveways**
- **Local activity**
- **Orientation of personnel (clear zone, work zone, location of vehicles, & staff)**
- **Complacency**
- **Equipment Operations (night time, lighting, and eye contact)**
- **Plan escape route**



Asphalt Roadway QC/VT Activities

- Onsite Pre-Production Meeting with QC & VT:

Prior to beginning each shift:

- Meet to discuss the intended paving operations.
- Discuss any unique or special items that may need to be addressed.
- Check and compare 4 foot smart level.
- Compare Thermometers

This information can also be referred to after the shift to make sure nothing was missed.

Asphalt Roadway QC/VT Activities

- Monitor Milling Operation (327):

What are we milling for?

Cross Slope Correction
Match Existing (Depth)

Where do we measure cross slope?

Check to ensure cross slope is within Specification tolerance
After milling machine
CPR Website Item #26 Response:

Accumulating errors of milling depth and paving depth can result in cross slope that does not match existing. Physically measuring the milling and paving cross slopes (rather than depths) provides more accurate cross slope readings and better assurance "match existing" occurs.

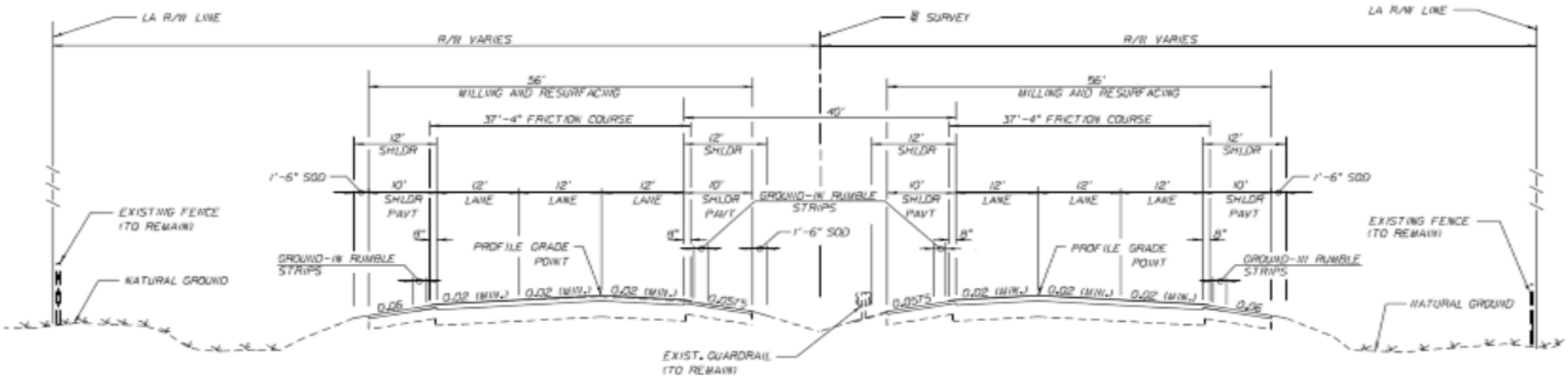
Where do we measure for depth?

Both QC & VT check depth at random locations

Compare results with targets in table 327-1

Asphalt Roadway QC/VT Activities

- Review the Typical Section Sheets



TYPICAL SECTION NO. 1

NORTHBOUND / SOUTHBOUND
MP 13.991 TO MP 15.180
MP 15.203 TO MP 16.359
MP 16.528 TO MP 17.739
MP 17.907 TO MP 18.436

TYPICAL SECTION NOTES:

1. REFER TO TYPICAL SECTION DETAILS SHEET FOR CROSS SLOPE CORRECTION DETAILS.

MILLING (L1 & R1)

MILL EXISTING ASPHALT PAVEMENT (3 1/4" AVG. DEPTH)

RESURFACING (L1 & R1)

TYPE SP STRUCTURAL COURSE (TRAFFIC D)(2")
TYPE SP STRUCTURAL COURSE (TRAFFIC D)(1 1/2")(PG 76-22)
AND FRICTION COURSE FC-5 (3/4")(PG 76-22)

MILLING (L2 & R2)

MILL EXISTING ASPHALT PAVEMENT (3 5/8" AVG. DEPTH)

RESURFACING (L2 & R2)

TYPE SP STRUCTURAL COURSE (TRAFFIC D)(2")
TYPE SP STRUCTURAL COURSE (TRAFFIC D)(1 1/2")(PG 76-22)
AND FRICTION COURSE FC-5 (3/4")(PG 76-22)

MILLING (L3 & R3)

MILL EXISTING ASPHALT PAVEMENT (4" AVG. DEPTH)

RESURFACING (L3 & R3)

TYPE SP STRUCTURAL COURSE (TRAFFIC D)(2")
TYPE SP STRUCTURAL COURSE (TRAFFIC D)(1 1/2")(PG 76-22)
AND FRICTION COURSE FC-5 (3/4")(PG 76-22)

INSIDE SHOULDER MILLING

MILL EXISTING ASPHALT PAVEMENT (1" AVG. DEPTH)

INSIDE SHOULDER RESURFACING

TYPE SP 9.5 (TRAFFIC B) OVERBUILD (VARIES)
TYPE SP STRUCTURAL COURSE (TRAFFIC B)(1")

OUTSIDE SHOULDER PAVEMENT MILLING

MILL EXISTING ASPHALT PAVEMENT (1 1/2" AVG. DEPTH)

OUTSIDE SHOULDER RESURFACING

TYPE SP STRUCTURAL COURSE (TRAFFIC B)(1 1/2")

TRAFFIC DATA

CURRENT YEAR = 2005 AADT = 83300
ESTIMATED OPENING YEAR = 2009 AADT = 90800
ESTIMATED DESIGN YEAR = 2022 AADT = 114400
K = 10.68% D = 54.78% T = 21.78% (24 HOUR)
DESIGN HOUR T = 10.89%
DESIGN SPEED = 70 MPH

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID

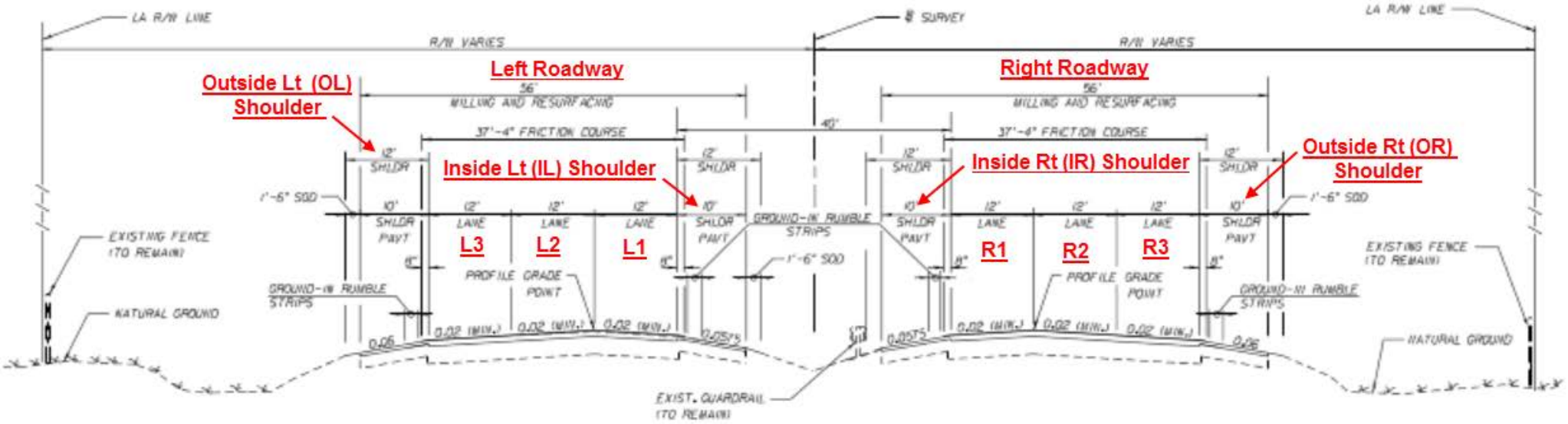
TYPICAL SECTION

SHEET NO. 3

Asphalt Roadway QC/VT Activities

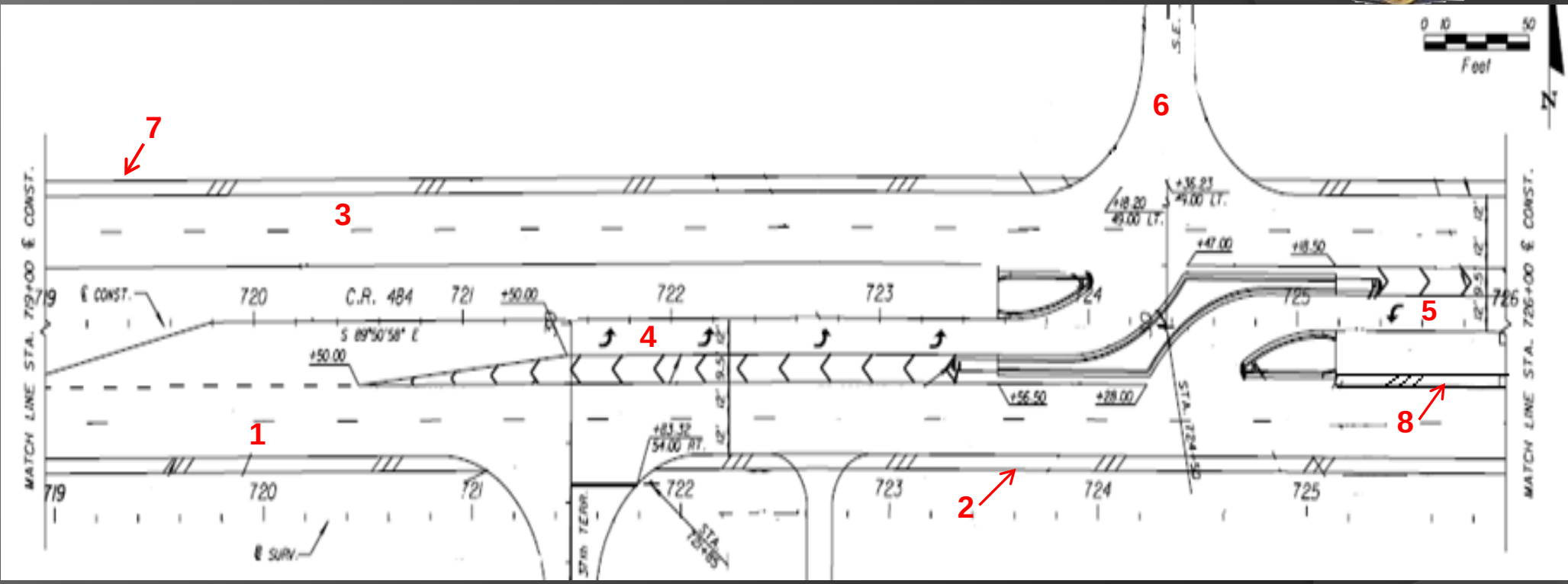
- Where am I?

Sometimes there is confusion on what each lane designation is called.



Asphalt Roadway QC/VT Activities

- Where are you on these plans?



1._____ 2._____

3._____ 4._____

5._____ 6._____

7._____ 8._____

Asphalt Roadway QC/VT Activities

- What to look for on a Mix Design

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
ASPHALT MIX DESIGN
SUBMIT TO THE STATE MATERIALS ENGINEER, CENTRAL ASPHALT LABORATORY, 5007 NE 39TH AVE, GAINESVILLE, FL 32609

Contractor _____ Address _____

Phone No. _____ Fax No. _____ E-mail _____

Submitted By _____ Type Mix 12.5 Intended Use of Mix Structural

Design Traffic Level C Gyrations @ Ndes 75

Product Description	Product Code	Producer Name	Product Name	Plant/Pit Number	Terminal
1. Crushed R.A.P.	334-CR		1-10		
2. S1A Stone	C47		#78 Stone		
3. S1B Stone	C53		#89 Stone		
4. Screenings	F22		W-10 Screenings		
5. Local Sand	334-LS		Grandin		
6.					
7. PG 76-22	916-76		PG 76-22		

PERCENTAGE BY WEIGHT TOTAL AGGREGATE PASSING SIEVES

	Blend Number	20% 1	22% 2	11% 3	40% 4	7% 5	6	JOB MIX FORMULA	CONTROL POINTS	PRIMARY CONTROL SIEVE
WEIGHT	3/4" 19.0mm	100	100	100	100	100		100	100	
	1/2" 12.5mm	98	100	100	100	100		100	90 - 100	
	3/8" 9.5mm	96	60	100	100	100		90	- 90	
	No. 4 4.75mm	72	15	35	100	100		69		
	No. 8 2.36mm	55	4	5	75	100		49	28 - 58	39
	No. 16 1.18mm	45	2	3	45	99		35		
	No. 30 600µm	39	1	2	28	97		26		
	No. 50 300µm	26	1	2	18	68		18		
	No. 100 150µm	18	1	2	10	12		9		
	No. 200 75µm	11.0	1.0	1.0	5.2	1.0		5.3	2 - 10	
	G_{sb}	2.564	2.775	2.764	2.710	2.626		2.693		

The mix properties of the Job Mix Formula have been conditionally verified, pending successful final verification during production at the assigned plant, the mix design is approved subject to F.D.O.T. specifications.

JMF reflects aggregate changes expected during production.

SPM XX-XXXX

Valid only on projects governed by the January 2010 or later Specifications.

Continue

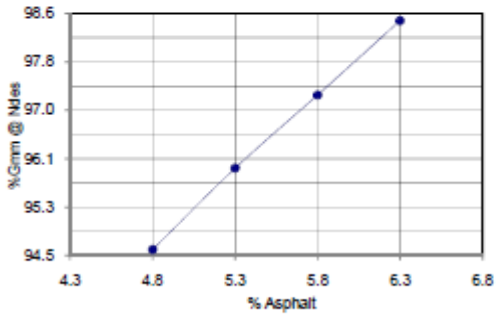
Asphalt Roadway QC/VT Activities

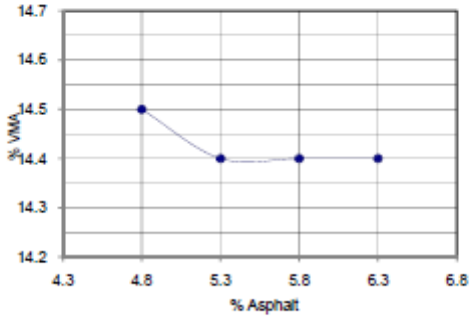
- What to look for on a Mix Design

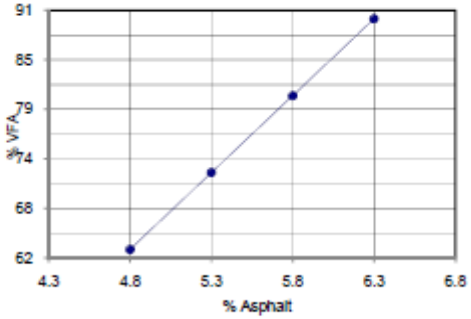
HOT MIX DESIGN DATA SHEET

SPM

P_b	G_{mb} @ N_{des}	G_{mm}	V_a	VMA	VFA	P_{be}	$P_{0.075}$ / P_{be}	%G_{mm} @ N_{ini}	%G_{mm} @ N_{max}
4.8	2.419	2.557	5.4	14.5	63	3.9	1.4	87.6	95.6
5.3	2.435	2.537	4.0	14.4	72	4.4	1.2	89.0	97.0
5.8	2.447	2.517	2.8	14.4	81	4.9	1.1	90.2	98.2
6.3	2.460	2.498	1.5	14.4	90	5.4	1.0	91.5	99.6







Total Binder Content 5.3 %

Spread Rate @ 1" 110 lbs/yd²

VMA 14.4 %

FAA 45.0 %

%G_{mm} @ N_{des} 96.0

NCAT Oven Calibration Factor -0.08
(+To Be Added)/(-To Be Subtracted)

(Plant) Mixing Temperature 330 °F 166 °C

(Roadway) Compaction Temperature 325 °F 163 °C

Additives Antistrip 0.5 % _____ %

Optimum Asphalt = 5.30%
Asphalt using 20% Crushed R.A.P. @ 6.8% = 1.40%
PG 76-22 to be added = 3.90%

Asphalt Roadway QC/VT Activities

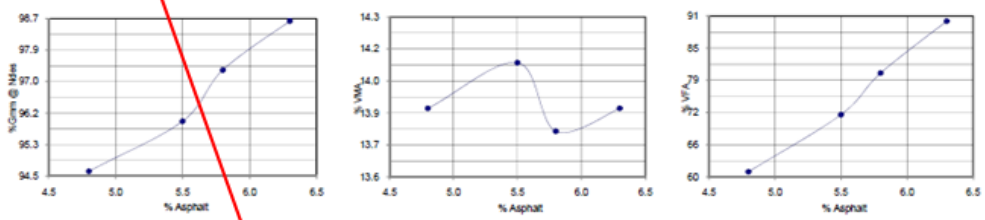
- How to Calculate Spread Rate from the Mix Design

334-1.4 (SP Asphalt & FC-12.5 & 9.5)

HOT MIX DESIGN DATA SHEET

SPM XX-XXXXA (TLC)

P_b	G_{mb} @ N_{des}	G_{mm}	V_a	VMA	VFA	P_{be}	$P_{0.075}$ / P_{be}	%G_{mm} @ N_{ini}	%G_{mm} @ N_{max}
4.8	2.342	2.475	5.4	13.9	61	3.8	1.2	87.6	95.6
5.5	2.354	2.453	4.0	14.1	72	4.4	1.0	89.0	97.0
5.8	2.370	2.435	2.7	13.8	80	4.9	0.9	90.3	98.3
6.3	2.382	2.415	1.4	13.9	90	5.4	0.9	91.6	99.6



Total Binder Content 5.5 %

Spread Rate @ 1" 106 lbs/yd²

VMA 14.1 %

FAA 45.0 %

%G_{mm} @ N_{des} 96.0

NCAT Oven Calibration Factor -0.05
(+To Be Added)(-To Be Subtracted)

(Plant) Mixing Temperature 325 °F 163 °C

(Roadway) Compaction Temperature 325 °F 163 °C

Additives Antistrip 0.5 % _____ %
Air-Maz Ad-Here LOF 65-00 (G916-1012)

Optimum Asphalt = 5.50%
Asphalt using 20% Crushed R.A.P. @ 5.4% = 1.10%
PG 76-22 to be added = 4.40%

T x Gmm x 43.3
T=Thickness per plan, individual lift
Gmm=found on the mix design
43.3=established constant

Example: 1.5 x 2.453 x 43.3 = 159.32235, or **159 lbs/sy** (round to whole number)

Continue

Asphalt Roadway QC/VT Activities

- How to Calculate Spread Rate from the Mix Design

337-8.2 (FC-5 only)

Submitted By _____ Type Mix FC-5 Intended Use of Mix Friction Course

Product Description	Product Code	Producer Name	Product Name	Plant/Pit Number	Terminal
1. S1A Stone	C47		#78 Stone		
2. S1B Stone	C53		#89 Stone		
3. Screenings	F23		M-10 Screenings		
4. Hydrated Lime	337-HL		Macon Georgia		
5.					
6.					
7. PG 76-22	916-76		PG 76-22		

PERCENTAGE BY WEIGHT TOTAL AGGREGATE PASSING SIEVES

	Blend Number	64% 1	30% 2	5% 3	1% 4	5	6	JOB MIX FORMULA	CONTROL POINTS
SIEVE	3/4" 19.0mm	100	100	100	100			100	100
	1/2" 12.5mm	100	100	100	100			100	85 - 100
	3/8" 9.5mm	60	100	100	100			74	55 - 75
	No. 4 4.75mm	10	35	100	100			23	15 - 25
	No. 8 2.36mm	4	5	75	100			9	5 - 10
	No. 16 1.18mm	2	3	50	100			6	
	No. 30 600µm	1	2	35	100			4	
	No. 50 300µm	1	2	23	100			3	
	No. 100 150µm	1	1	17	100			3	
	No. 200 75µm	1.0	1.0	16.1	100.0			2.7	2 - 4
	G_{sb}	2.775	2.764	2.710	2.600			2.767	

The mix properties of the Job Mix Formula have been conditionally verified, pending successful final verification during production at the assigned plant, the mix design is approved subject to F.D.O.T. specifications.

XX-XXXX

T x Gsb x 40.5

T=Thickness per plan, individual lift

Gsb=found on mix design

40.5=established constant

Example: 0.75 x 2.767 x 40.5 = 84.047625, or **84 lbs/sy** (round to whole number)

Asphalt Roadway QC/VT Activities

- QC Roadway Report

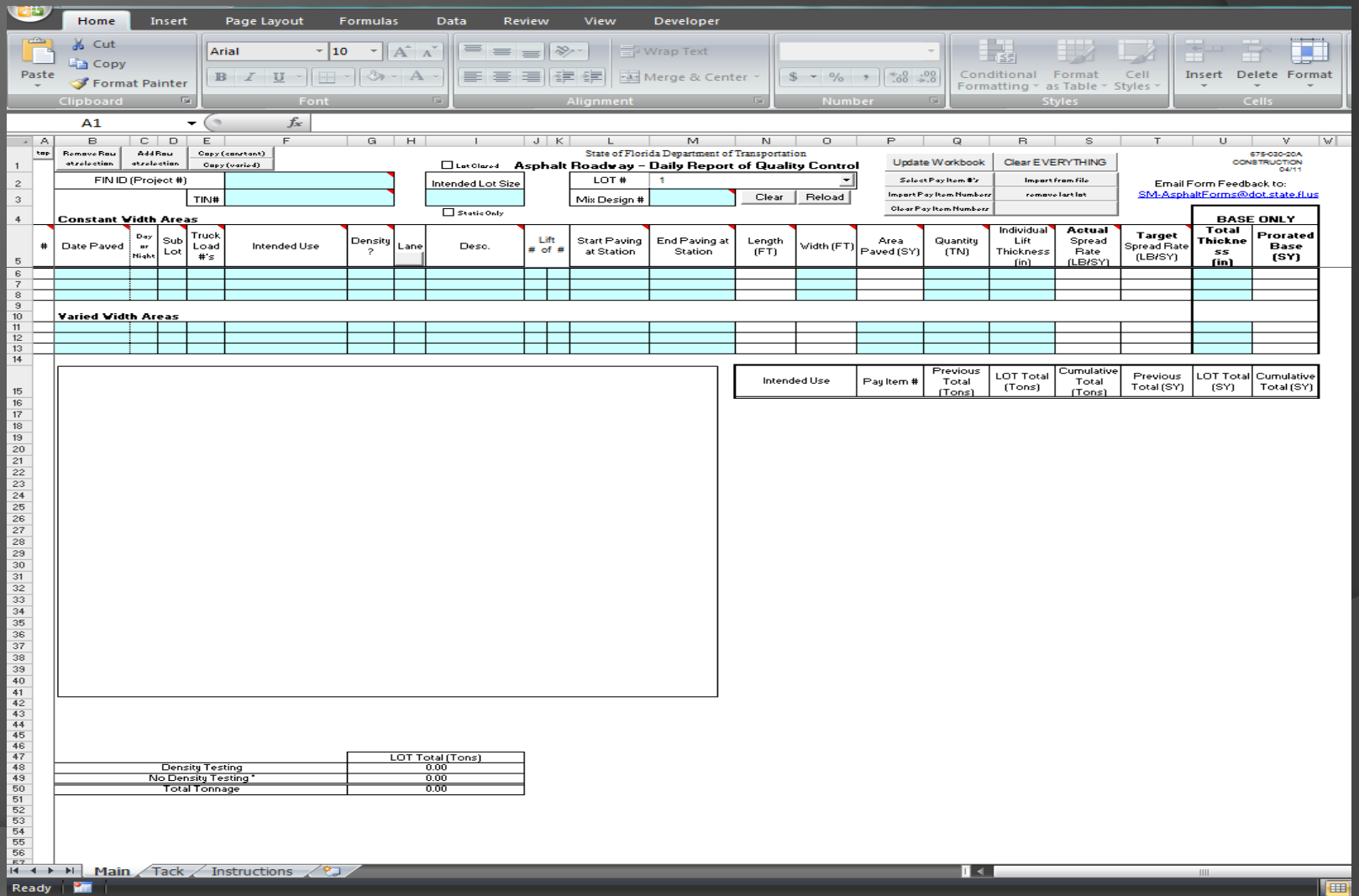
Form #675-030-20A

Automated Version

Asphalt Roadway QC/VT Activities

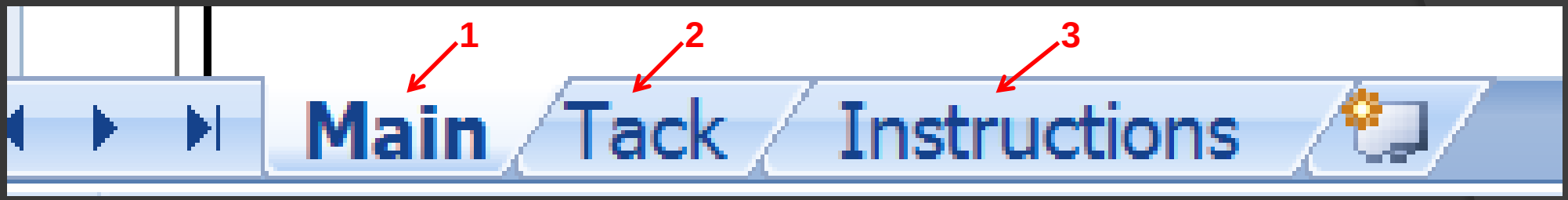
- QC Roadway Report

  Latest Version Excel 2007



Asphalt Roadway QC/VT Activities

- What are the Tabs at the Bottom?



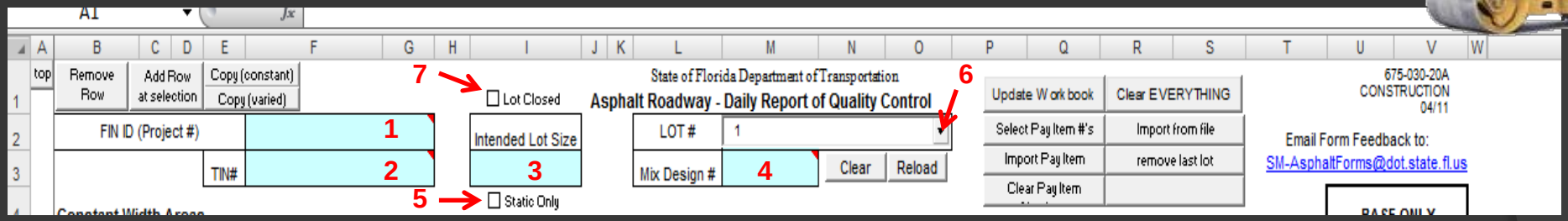
1. This is where the line entries are placed. You will spend most of your time here. This will be covered in detail in just a few moments.

2. Tack spread rate information goes here. How many spread rates are required per day? **300-8.4 Rate of Application**

3. If you get lost, there are handy instructions for you. If you have any questions about this form, contact your QC Manager or the Local Resident Asphalt Specialist.

Asphalt Roadway QC/VT Activities

- The Basics



1. This is where you place the 11 digit project number (hyphens not required).
2. This is where the QC technician would place his TIN # (Driver License). If there is more than one QC technician working on a project, we will show you later how to designate different QC Technicians.
3. This is your intended lot size. Depending on what type of mix, age of mix 334-5.1.2 is what your lot size will be. There are two options, 2000 or 4000 tons. Remember FC-5 can only have 2000 ton lots 337-6.2.1 paragraph 3.
4. This is where the design mix information goes. When you click on this box, another sub-form appears for you to fill in the appropriate information (Gmm).
5. Is this a static mode lot. You cannot mix a static mode lot/area with a non-static lot.
6. This is a drop down box that you can select your lot. Remember each design mix gets a new lot number
7. This is the box that is to be checked when the lot closes. A lot will close for any of the following reasons:
   a. Time expired (30 calendar days)
   b. Intended lot size met
   c. Lot termination due to a failure
   d. Change in design mix
   e. Plant change
   f. Project over!!!

Asphalt Roadway QC/VT Activities

- Asphalt Placement Tracking

Constant Width Areas 1

#	Date Paved	Day or Night	Sub Lot	Truck Load #'s	Intended Use	Density ?	Lane	Desc.	Lift # of #		Start Paving at Station	End Paving at Station	Length (FT)	Width (FT)	Area Paved (SY)	Quantity (TN)	Individual Lift Thickness (in)	Actual Spread Rate (LB/SY)	Target Spread Rate (LB/SY)	Total Thickness (in)	Prorated Base (SY)
3	4	5	6	7	8	9	10														

Varied Width Areas 2

1. **Constant Width Area.** This is mainline, shoulder, ramps, bike paths, bike lanes. Anywhere the width does not change.
2. **Varied Width Areas.** This is gore areas, turnouts, radius.
3. **#.** This is where you place a number to put a note for additional information. If there happens to be more than one QC Technician during a lot of paving, this is where the different TIN numbers will be listed.
4. **Date Paved.** If you have night paving, the date paved will stay the same even if you run past midnight
5. **Day or Night.** If you have 24 hour shifts, it is critical this be filled out so the correct delivery tickets can be compared with the correct paving shift.
6. **Sublot.** There are 4 sublots per lot. The sublot size is either 500 tons or 1000 tons. See Spec. 334-5.1.2.
7. **Truck Load #'s**. Record trucks in the order of load placement.
8. **Intended Use.** A drop down box appears. Fill in required information. What is the difference between No Pay Tonnage and Waste? Waste leaves the job….. No Pay Tonnage stays on the job, i.e., temporary asphalt, corrections.
9. **Density.** Is Density required in this area? See Spec. 334-5.1.1.2
10. **Lane.** Drop Down Box.

Asphalt Roadway QC/VT Activities

• Asphalt Placement Tracking (cont.)

Constant Width Areas

#	Date Paved	Day or Night	Sub Lot	Truck Load #'s	Intended Use	Density ?	Lane	Desc.	Lift # of #	Start Paving at Station	End Paving at Station	Length (FT)	Width (FT)	Area Paved (SY)	Quantity (TN)	Individual Lift Thickness (in)	Actual Spread Rate (LB/SY)	Target Spread Rate (LB/SY)	BASE ONLY Total Thickness (in)	BASE ONLY Prorated Base (SY)
								11	12	13	14	15	16	17	18					

Varied Width Areas

11. **Description.** This is NOT a drop down box. You will need to put some kind of description in here, i.e., Mainline, Street name, radius.
12. **Lift # of #.** This is where you put what lift you are on and how many lifts are planned for in the plans.
13. **Start Paving at Station.** This is where you place the station number where the spread rate check begins. Unfortunately all mile post projects need to be converted to station numbers. How many station boards are required on a project? See Spec. 5-7.4
14. **End Paving at Station.** This is where you place the station number where the spread rate check ends.
15. **Length.** The computer automatically fills this in for you based off your beginning and ending station numbers.
16. **Width.** The QC Technician fills in the width of the paving pass. Under the "Varied" width section, place the average width in here.
17. **Area Paved (SY).** The computer automatically fills this in for you.
18. **Quantity (TN)**. The QC Technician fills in this field. What is the maximum that can be placed here? See Spec 330-2.2.

Asphalt Roadway QC/VT Activities

• Asphalt Placement Tracking (cont.)

Constant Width Areas																					BASE ONLY	
#	Date Paved	Day or Night	Sub Lot	Truck Load #'s	Intended Use	Density ?	Lane	Desc.	Lift # of #		Start Paving at Station	End Paving at Station	Length (FT)	Width (FT)	Area Paved (SY)	Quantity (TN)	Individual Lift Thickness (in)	Actual Spread Rate (LB/SY)	Target Spread Rate (LB/SY)	Total Thickness (in)	Prorated Base (SY)
																	19	20	21	22	23
Varied Width Areas																					

19. **Individual Lift Thickness.** QC Technician fills in this information.
20. **Actual Spread Rate.** The Excel sheet calculates this field for you.
21. **Target Spread Rate.** The Excel sheet calculates this field for you.
22. **Base Only (Total Thickness).** The QC Technician fills this field in.
23. **Base Only (Prorated Base)** The Excel sheet calculates this field for you. Remember to pick the correct Base type under Intended Use.

Now we have finished the spread rate calculations. But, we have another area to fill in if needed.

Asphalt Roadway QC/VT Activities

- Comments Section and Totals

* All Mix produced for this days production (131.30) was used for temporary paving. Tack shown for 3/14/11 will be paved on 3/15/11.

1

Intended Use	Pay Item #	Previous Total (Tons)	LOT Total (Tons)	Cumulative Total (Tons)	Previous Total (SY)	LOT Total (SY)	Cumulative Total (SY)
Base Group 10	285 7 10	0.00	105.02	105.02	0.00	0.00	0.00
SP TL-C	2 50 2	7,780.11	484.50	8,264.61	78,536.95	5,426.06	83,963.01
Misc.	339 1	0.00	24.80	24.80	0.00	185.33	185.33
Temporary (MOT)		0.00	231.59	231.59	0.00	0.00	0.00
No Pay Tonnage		0.00	0.00	0.00	0.00	0.00	0.00
Waste		819.01	131.30	950.31	0.00	0.00	0.00

	LOT Total (Tons)
Density Testing	393.31
No Density Testing *	196.21
Total Tonnage	589.52

1. **The Comments Section.** This is a sample from another project where comments were placed. In this section the QC Technician would give explanations of anything out of the ordinary, i.e., if a different QC Technician was covering the project, asphalt in lieu of stabilized sub grade, explanation why spread rates are too high or too low, multiple crews, what happened to a missing load or trucks out of order.

Asphalt Roadway QC/VT Activities

- Asphalt Roadway Verification Report (form 675-030-21)

VT to verify asphalt spread rate <u>at least once/layer/day</u>

Asphalt Roadway - Verification Report

Page No. 1 of

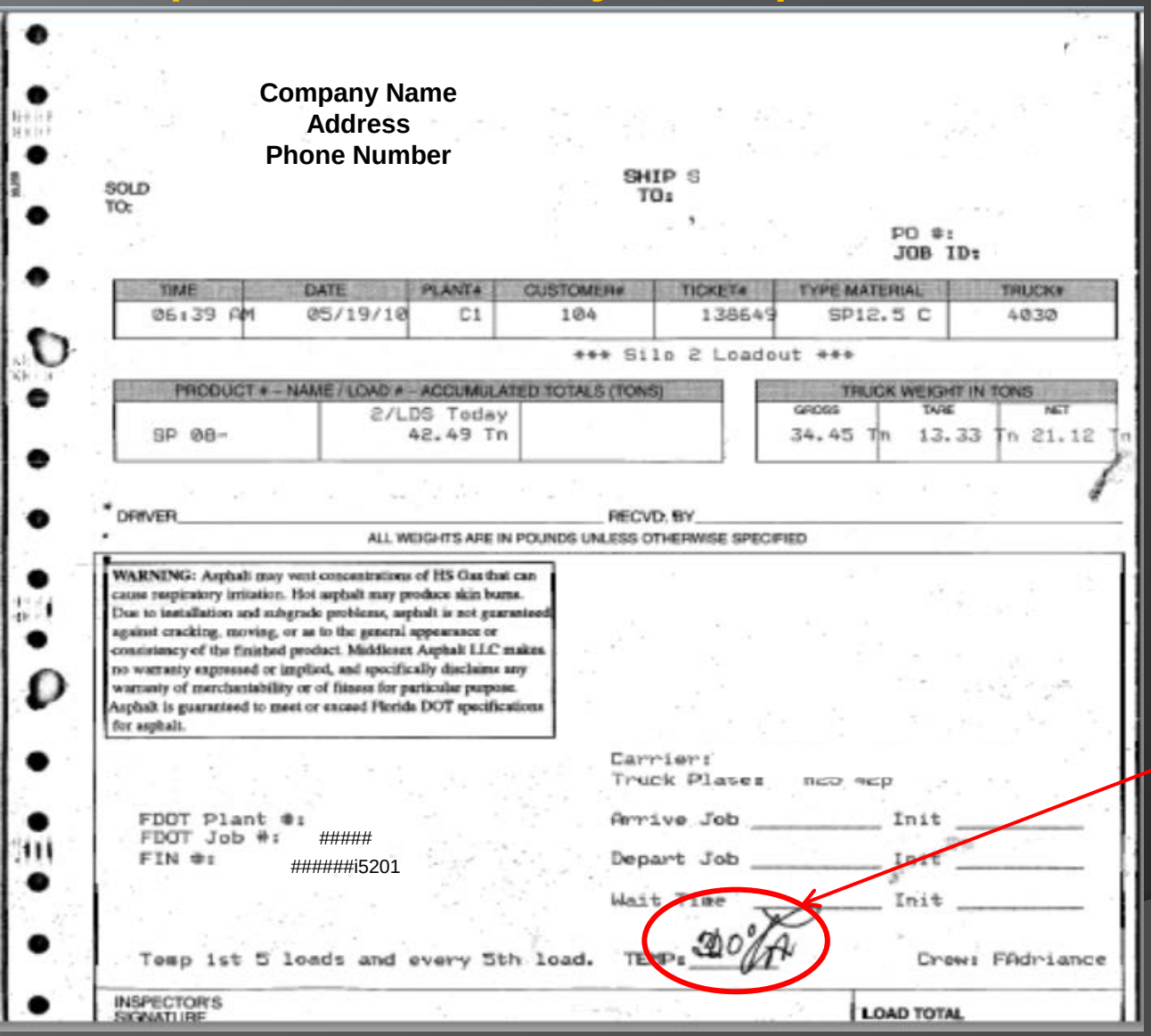
Fin. Project ID: Material No.: 123L Type of Mix: FC 12.5 Mix Design No.:

Intended use: Friction Plant No. Lot No.: 9 Intended Lot Size: 4000

Verification of Spread Rate									Verification Results Y/N	
Date	Sublot	Lane / Lift # of #	Station To Station		Loads	Linear Ft	Width	SY	Tons	Spread	
6/28/2011	1	L1	150 + 94	139 + 75	1..5	1119.00	11.50	1429.83	108.01	151.1	N
6/29/2011	1	L1	128 + 82	118 + 43	11..15	1039.00	11.50	1327.61	107.76	162.3	Y
6/30/2011	1	L1	98 + 43	85 + 50	1..6	1293.00	11.00	1580.33	124.45	157.5	Y
7/5/2011	2	R1	38 + 01	48 + 62	1..5	1061.00	11.50	1355.72	108.01	159.3	Y
7/6/2011	2	R1	93 + 36	103 + 70	1..5	1034.00	11.00	1263.78	105.69	167.3	Y
			+	+							
			+	+							

Asphalt Roadway QC/VT Activities

- Asphalt Roadway Temperature



Company Name
Address
Phone Number

SOLD TO:

SHIP S TO:

PO #:
JOB ID:

TIME	DATE	PLANT#	CUSTOMER#	TICKET#	TYPE MATERIAL	TRUCK#
06:39 AM	05/19/10	C1	104	138649	SP12.5 C	4030

*** Silo 2 Loadout ***

PRODUCT # – NAME / LOAD # – ACCUMULATED TOTALS (TONS)		
SP 08-	2/LDS Today 42.49 Tn	

TRUCK WEIGHT IN TONS		
GROSS	TARE	NET
34.45 Tn	13.33 Tn	21.12 Tn

DRIVER _____ RECVD. BY _____

ALL WEIGHTS ARE IN POUNDS UNLESS OTHERWISE SPECIFIED

WARNING: Asphalt may vent concentrations of HS Gas that can cause respiratory irritation. Hot asphalt may produce skin burns. Due to installation and subgrade problems, asphalt is not guaranteed against cracking, moving, or as to the general appearance or consistency of the finished product. Middlesex Asphalt LLC makes no warranty expressed or implied, and specifically disclaims any warranty of merchantability or of fitness for particular purpose. Asphalt is guaranteed to meet or exceed Florida DOT specifications for asphalt.

Carrier:
Truck Plates: nco ncp

FDOT Plant #:
FDOT Job #: #####
FIN #: ######i5201

Arrive Job _____ Init _____
Depart Job _____ Init _____
Wait Time _____ Init _____

Temp 1st 5 loads and every 5th load. TEMP: 320°A

Crew: FAdriance

INSPECTOR'S SIGNATURE

LOAD TOTAL

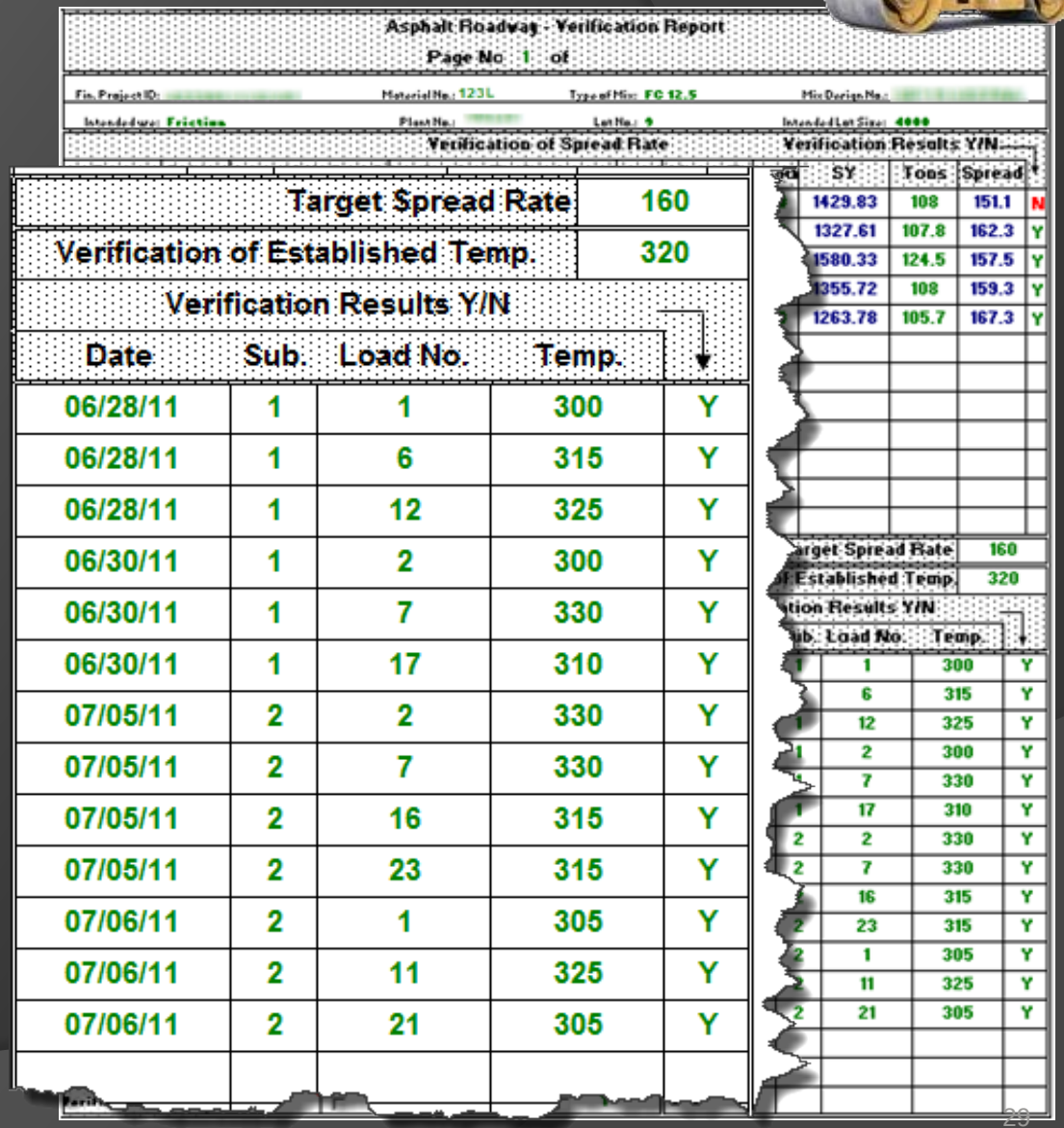
Roadway QC is to record asphalt temperature for the first five loads and one out of every five loads thereafter onto the delivery ticket (Specification 330)

Continue

Asphalt Roadway QC/VT Activities

- Asphalt Roadway Temperature

VT to verify asphalt temperature at least twice/day (CPAM 5.10)



Asphalt Roadway - Verification Report

Page No. 1 of

Fin. Project ID: Material No.: 123L Type of Mix: FC 12.5 Mix Design No.:

Intended Use: Friction Plant No.: Lot No.: 9 Intended Lot Size: 4000

Verification of Spread Rate

Target Spread Rate	160
Verification of Established Temp.	320

Verification Results Y/N

Date	Sub.	Load No.	Temp.	
06/28/11	1	1	300	Y
06/28/11	1	6	315	Y
06/28/11	1	12	325	Y
06/30/11	1	2	300	Y
06/30/11	1	7	330	Y
06/30/11	1	17	310	Y
07/05/11	2	2	330	Y
07/05/11	2	7	330	Y
07/05/11	2	16	315	Y
07/05/11	2	23	315	Y
07/06/11	2	1	305	Y
07/06/11	2	11	325	Y
07/06/11	2	21	305	Y

Verification Results Y/N

SY	Tons	Spread	
1429.83	108	151.1	N
1327.61	107.8	162.3	Y
1580.33	124.5	157.5	Y
1355.72	108	159.3	Y
1263.78	105.7	167.3	Y

Asphalt Roadway QC/VT Activities

- QC Tack Spread Rate Information

QC to check and record the tack spread rate at least twice/day (Specification 300)

Remove Row at selection | Add Row at selection | Copy Last Row

State of Florida Department of Transportation

Asphalt Roadway - Daily Report of Quality Control (Tack Page)

675-030-20A
CONSTRUCTION
04/11

FIN ID (Project #)	000000-0-00-00
TIN#	000000-0-00-00

LOT #	1

Date Tacked	Grade	FDOT Calibration Tank #	Beginning Reading (inches)	Beginning Volume (Gallons)	Ending Reading (inches)	Ending Volume (Gallons)	Time After Unloading	Temperature (°F)	Net Gallons (Hot)	Correction Factor	Gallons Used (@ 60°F)	Cumulative Gallons (@ 60°)	Area Covered (SY)	Spread Rate (Gal/SY)
3/14/2011	RS-1	27511	29	1082	30	1028	2:00 PM	160 °F	54	0.00025	53	53	680.0	0.077
3/16/2011	RS-1	3144	25 /5	1362	21 /9	1259	2:00 PM	165 °F	103	0.00025	100	153	2178.7	0.046

Continue

Asphalt Roadway QC/VT Activities

- VT Tack Spread Rate Information

VT to verify tack spread rate at least once/day (CPAM 5.10)

Asphalt Roadway - Verification Report

Page No 1 of

Fin. Project ID: Material No.: 123L Type of Mix: FC 12.5 Mix Design No.:

Intended use: Friction Plant No.: Lot No.: 9 Intended Lot Size: 4000

Verification of Spread Rate / Verification Results Y/N

Date	Sublot	Lane / Lift # of #	Station To Station		Loads	Linear Ft	Width	SY	Tons	Spread	Y
6/28/2011	1	1 1	150 + 94	129 + 75	1.5	1119.00	8.8	1429.83	108	151.1	N
								1327.61	107.8	162.3	Y
								1580.33	124.5	157.5	Y
								1355.72	108	159.3	Y
								1263.78	105.7	167.3	Y

Verification of Tack

Record Of Bituminous Materials

Date	06/26/11	06/30/11	07/05/11	07/06/11
Sublot	1	1 and 2	2	2
Pay Item No.				
Grade Of Asphalt	NTSS-1hm	NTSS-1hm	NTSS-1hm	NTSS-1hm
FDOT Calibration Tank No	3137	3125	3137	3137
Beginning IN	26/9	29/4	20/10	20/4
Gallons	1212	1069	1523	1542
Ending IN	35/8	38/9	30/11	29/11
Gallons	734	575	991	1045
Time of Day after Unloading	4:30 AM PM	4:45 AM PM	3:30 AM PM	3:45 AM PM
Temperature F	180	175	180	180
Net Hot Gallons	478.00	494.00	532.00	497.00
Correction Factor	0.9709	0.9721	0.9709	0.9709
Gallons @ 60F	464.0902	480.2174	516.5188	482.5373
SY Covered	6709.6	7436	6765	7040
Spread Rate Gal/SY	0.069	0.065	0.076	0.069
Verification Results	☐ Y	☐ Y	☐ Y	☐ Y

Target Spread Rate 160

of Established Temp. 320

tion Results Y/N

Sub.	Load No.	Temp.	Y
1	1	300	Y
1	6	315	Y
1	12	325	Y
1	2	300	Y
1	7	330	Y
1	17	310	Y
2	2	330	Y
2	7	330	Y
2	16	315	Y
2	23	315	Y
2	1	305	Y
2	11	325	Y
2	21	305	Y

Asphalt Roadway QC/VT Activities

- Why is Tack Important?

Too Little

Too Much

Asphalt Roadway QC/VT Activities

- During & at the end of the day's paving, the VT is to check the QC Report for accuracy & consistency

top | Remove Row at selection | Add Row at selection | Copy (constant) | Copy (varied)

State of Florida Department of Transportation
Asphalt Roadway - Daily Report of Quality Control

675-030-20A
CONSTRUCTION
04/11

Email Form Feedback to:
SM-AsphaltForms@dot.state.fl.us

Update Work book | Clear EVERYTHING | Select Pay Item #'s | Import from file | Import Pay Item | remove last lot | Clear Pay Item Numbers

FIN ID (Project #): 12345678-9-10-11
TIN#: M00000000

☐ Lot Closed
Intended Lot Size: 2000 tons
☐ Static Only

LOT #: 1
Mix Design #: SP 10-0000A | Clear | Reload
Gmm: 2.474

Constant Width Areas

#	Date Paved	Day or Night	Sub Lot	Truck Load #'s	Intended Use	Density ?	Lane	Desc.	Lift #	of #	Start Paving at Station	End Paving at Station	Length (FT)	Width (FT)	Area Paved (SY)	Quantity (TN)	Individual Lift Thickness (in)	Actual Spread Rate (LB/SY)	Target Spread Rate (LB/SY)	BASE ONLY Total Thicknes s (in)	BASE ONLY Prorated Base (SY)
	8/3/2011	Night	1	1-3	SP TL-C	Y	R2	Mainline w/Shldr	1	1	965+14.00	971+00.00	586	17.0	1106.89	56.20	1.0	101.55	107		
1	8/3/2011	Night	1	4-5	SP TL-C	N	R2	Overbuild	1	3	971+00.00	973+00.00	200	17.0	377.78	38.19	1.9	202.18	204		
	8/3/2011	Night			Waste											2.00					
→	08/03/2011 DAILY TOTALS: 96.39 Total Tons 2.00 Tons Not in Lot 94.39 net tons (56.20 tons Require Density 38.19 tons Non-Density)																				
	8/4/2011	Night	1	1-2	Base Group 15	N	LT	LTL Widening	1	3	972+45.00	975+85.00	340	1.0	37.78	6.40	3.0	338.82	321	9.0	12.59
	8/4/2011	Night			Misc.		LT	Guardrail Pad	1	1	972+25.00	972+55.00	30	2.0	6.67	0.84	2.0	252.00	214		
→	08/04/2011 DAILY TOTALS: 7.24 Total Tons 0.84 Tons Not in Lot 6.40 net tons (0.00 tons Require Density 6.40 tons Non-Density)																				

Varied Width Areas

	8/5/2011	Night	1	1	SP TL-C	N	LT	Lt RW LTL	1	2	977+73.00	975+83.00	190	11.0	232.23	19.00	1.5	163.63	161		
→	08/05/2011 DAILY TOTALS: 19.00 Total Tons 0.00 Tons Not in Lot 19.00 net tons (0.00 tons Require Density 19.00 tons Non-Density)																				

1. This is Overbuild of Intersection areas of SR-55 / US-33 & Racetrack Ave.

Intended Use	Pay Item #	Previous Total (Tons)	LOT Total (Tons)	Cumulative Total (Tons)	Previous Total (SY)	LOT Total (SY)	Cumulative Total (SY)
Base Group 15	285 7 15	0.00	6.40	6.40	0.00	12.59	12.59
SP TL-C	334 113	0.00	113.39	113.39	0.00	1,716.90	1,716.90
Misc.	339 1	0.00	0.84	0.84	0.00	6.67	6.67
Waste		0.00	2.00	2.00	0.00	0.00	0.00

	LOT Total (Tons)
Density Testing	56.20
No Density Testing *	63.59
Total Tonnage	119.79

Asphalt Roadway QC/VT Activities

- Observe the following <u>during</u> paving:

1. Is the tack uniform, has correct spread rate, and has it broken (turns from brown to black)?
2. When unloading, the trucks should not bump the paver
3. Is the paving operation continuously moving with a sufficient supply of trucks?
4. Is straightedge on jobsite and calibrated daily?

Continue →

Asphalt Roadway QC/VT Activities

- Observe the following <u>during</u> paving:

5. Are the transverse and longitudinal joints being rolled correctly?
6. Is the proper rolling pattern and procedure being followed?
7. Is safe and efficient traffic control being maintained?
8. Is the spread rate being monitored as required by Specification 330 (QC) and CPAM 5.10 (VT)?
9. Is the cross slope being checked regularly?

Continue →

Asphalt Roadway QC/VT Activities

- Observe the following <u>during</u> paving:

Is the paving operations in compliance with the QC Plan?

If non-compliance → Notify QC Manager and/or PA

If non-compliance not corrected in the same day's operation → Notify PA

PA has option to pull that portion of QC Plan that is in non-compliance

Continue →

Asphalt Roadway QC/VT Activities

- Observe the following during paving:

Is the paving operations in compliance with the QA/QC Guide List?

FDOT-Construction-QA/QC Guide List:
http://www.dot.state.fl.us/construction/CONSTADM/guidelist/GuideIndex.shtm

Asphalt Roadway QC/VT Activities

- Observe the following <u>after</u> paving:

1. Straightedge
2. VT to layout cores for the QC and IV immediately after finish roller (use template for laying out core locations).
3. VT to secure random numbers when not being used.
4. Are the cores being cut where marked?
5. Check and verify cross slope

Asphalt Roadway QC/VT Activities

Questions

Florida Department of Transportation

DISTRICT 5

Asphalt in General

Focus on the Do’s and Don’ts of paving.

Prepared By:
Robert Parker & Joe Somlitz

Asphalt in General

- Who is the “Engineer”

CPR Website Item #16 Response: Per Specification 1-3 Definitions, the Engineer is, *"The Director, Office of Construction, acting directly or through duly authorized representatives; such representatives acting within the scope of duties and authority assigned to them."*

In practice, it depends on the issue involved and who has been delegated authority to make the decision. This is done in order to avoid requiring the Director of the Office of Construction make every decision on every project. Decisions are delegated to the appropriate personnel. This allows project decisions to be made at the lowest possible level in an efficient timeframe. However, if agreement cannot be reached at any level, the contractor is afforded the ability to raise the issue up the ladder within the District or State Offices. This system allows more efficient decision making to occur at the project level, and also affords alternatives to address major decisions and disagreements at higher levels within the Department.

Asphalt in General

- Paving Operations – Do's

Asphalt in General

- Paving Operations – Do's

1. For paving operations, keep a qualified CTQP Asphalt Paving Level II technician on the roadway at all times when placing asphalt mix for the Department, and perform all testing with a CTQP Asphalt Paving Level I technician. <u>As an exception, measurements of cross-slope, temperature and yield (spread rate), as well as the inspection of the placement of miscellaneous asphalt, can be performed by someone under the supervision of a CTQP Paving Level II technician.</u>

Continue

Asphalt in General

- Paving Operations – Do's

2. Construct a smooth pavement with good surface texture and the proper cross-slope.

3. Look at the plans and plan your work (before you pave) so that everyone knows what you are paving.

4. Place the mix only when the surface has been previously prepared, is intact, firm, properly cured, clean, and dry.

Continue

Asphalt in General

- Paving Operations – Do's

5. Place the mix only when the air temp is at least 40 degrees F for layers greater than 1 inch and at least 45 degrees for layers 1 inch or less.

6. Minimum temp for leveling courses with a spread rate of 50 lb/sy or less is 50 degrees F.

7. Provide sufficient lighting for night operations.

8. Provide a Level 2 Roadway Verification Technician and Level 2 Roadway Quality Control Technician.

Continue →

Asphalt in General

- Paving Operations – Do's

9. Record truck loads in the order of load placement.

10. Report all sub-lots to even 500 or 1000 ton increments.

11. Record the ending station of the paving operation at the location of the saw cut butt joint for the next night's starting station. The QC & VT are to agree upon the ending and starting station.

Continue

Asphalt in General

- Paving Operations – Do's

12. Use the manual straight-edge to locate the flattest section at the end of the paving operation to mark the saw-cut.

13. Show varied width areas (not included in the mainline) on QC Roadway Report on section marked "Varied Width Areas".

14. Make sure there is a reference line to follow for the paver.

Continue

Asphalt in General

- Paving Operations – Do's

15. Think about and look ahead where the layer joints are going to fall. They are to be offset 6" to 12" of each other in reference to the lane line.

16. Use electronic screed controls.

17. QC & VT are to agree on the tons when paver picks up from pull.

18. QC & VT should be in communication with each other in regards to Sub-Lots (starting and ending stations) during the paving operation.

Continue

Asphalt in General

- Paving Operations – Do's

19. Check the temperature of the first 5 loads and one out of the next 5 loads minimum.

20. All reports need to be reflective of what was actually placed on the roadway. (Not average out at end of shift)

21. Report placed lift thickness.

22. Maintain a continuous paving operation per Specification Section 330.

Asphalt in General

- Paving Operations – Don’ts

Asphalt in General

- Paving Operations – Don’ts

1. Transport mix to the roadway unless all weather conditions are suitable for the laying operations.

2. Place friction course until the adjacent shoulder has been dressed and grassed.

3. Spread the mix when the wind is blowing so proper compaction cannot be maintained or sand and dust on the surface diminish the bond.

Continue

Asphalt in General

- Paving Operations – Don’ts

4. Place the mix while rain is falling or there is water on the surface to be covered.

5. Place mix with a temp that is outside of the master range.

6. Mix up the truck load order on QC Roadway Report (make a note on the report of the actual order but try to keep the truck in order).

7. Get the paver too far ahead of the rollers; this will just cause problems with densities.

Continue

Asphalt in General

- Paving Operations – Don’ts

8. Roll the mix while it’s too hot (in the tender zone).

9. Let trucks dump out in-front of the paver. Have an area for them to clean out.

10. Make entries of pulls over 200 tons on a single line of the Roadway Report.

Asphalt in General

- Overbuild

1. Record all overbuild as a separate line item on the QC Roadway Report .

2. Record correct lane number, starting and ending station numbers, width, lift number, and average lift thickness.

Asphalt in General

- Bike Lanes vs. Bike Paths

1. Bike Lanes are adjacent/connected to mainline lanes. These lanes are or could be subjected to traffic, therefore they are eligible for density testing and straightedging.

2. Bike Paths are separate pathways physically separated from mainline pavement. Since they experience very little (if any) vehicular traffic, density testing is not required. Bike paths are exempt straightedge requirements unless a surface irregularity is determined to be objectionable.

3. Report both areas on QC Roadway Report.

Continue

Asphalt in General

- Bike Lane

Continue

Asphalt in General

- Bike Path

Asphalt in General

- Density Reporting

It is very important for the QC to correctly note which areas are density or non-density on QC Roadway Report.

Asphalt in General

- Density Coring

1. Obtain five 6 inch diameter roadway cores within 24 hours of placement at random locations as directed by the Engineer within each sublot. In situations where it is impractical to cut five cores per sublot, obtain a minimum of three cores per sublot at random locations as identified by the Engineer (VT to layout and mark core locations).

2. Do not obtain cores any closer than 12 inches from an unsupported edge.

3. Patch the core holes within three days of coring.

Continue

Asphalt in General

- Density Coring

4. Compact the end of the mat with the same effort as the beginning of the mat. (Note: A core location can fall at the end of a day's production within 12" of the stopping point.)

5. The VT is to layout the IV core locations and they are independent from QC core locations.

6. Cut core at exact location marked on pavement (must be within the paint area).

Continue

Asphalt in General

- Density Coring Exceptions

1. When the total combined quantity of hot mix asphalt for the project, as indicated in the plans for Type SP and Type FC mixtures only, is less than 2000 tons, the Engineer will accept the mix on the basis of visual inspection.

2. Density testing for acceptance will not be performed on widening strips or shoulders with a width of 5 feet or less, open-graded friction courses, variable thickness overbuild courses, leveling courses, any asphalt layer placed on subgrade (regardless of type), miscellaneous asphalt pavement, bike/shared use paths, crossovers, or any course with a specified thickness less than 1 inch or a specified spread rate that converts to less than 1 inch.

Continue

Asphalt in General

- Density Coring Exceptions

3. Density testing for acceptance will not be performed on asphalt courses placed on bridge decks or approach slabs; compact these courses in static mode only.

4. Density testing for acceptance will not be performed on the following areas when they are less than 1,000 feet (continuous) in length: turning lanes, acceleration lanes, deceleration lanes, shoulders, parallel parking lanes or ramps.

Continue

Asphalt in General

- Density Coring Exceptions

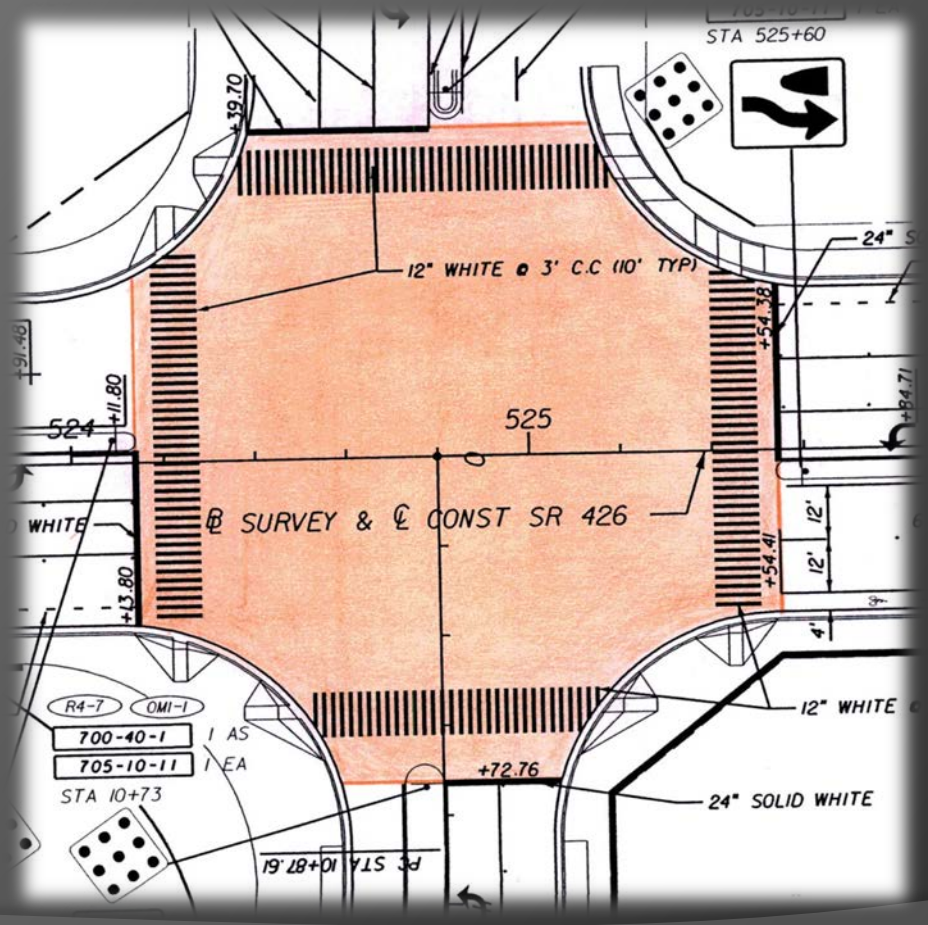
5. Density testing for acceptance will not be performed in intersections. The limits of the intersection will be from stop bar to stop bar for both the mainline and side streets. A random core location that occurs within the intersection shall be moved forward or backward from the intersection at the direction of the Engineer (Specification 334-5).

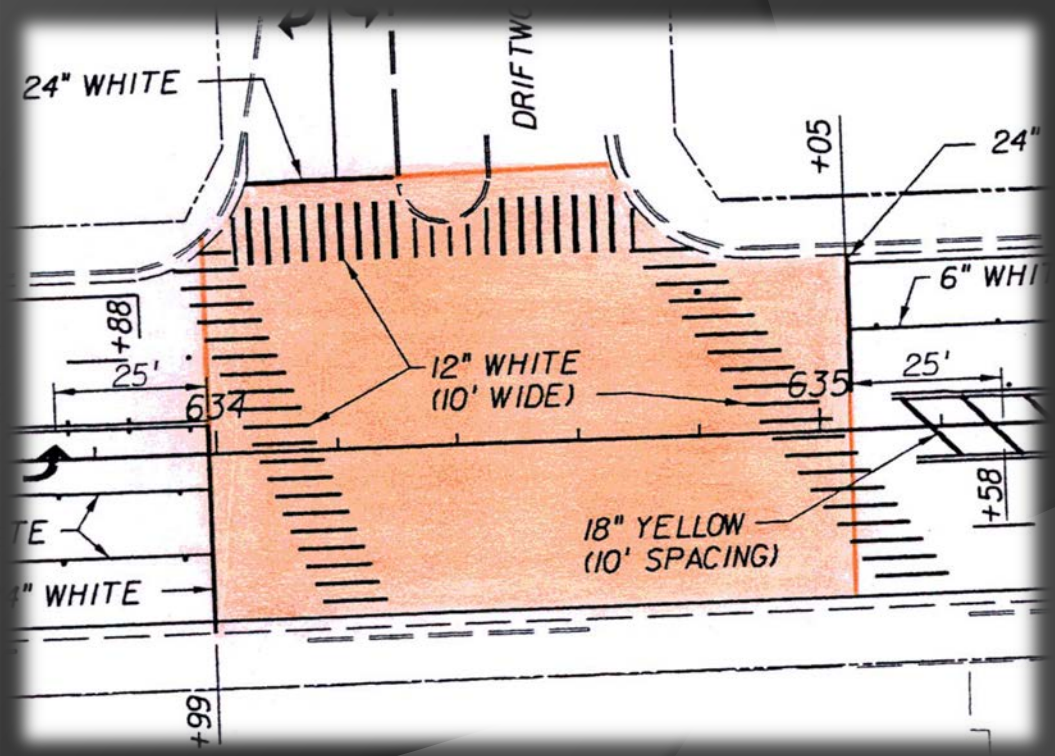
Continue

Asphalt in General

- Density Cores

Intersection Exception Areas





Continue

Asphalt in General

- Density Cores

Asphalt in General

- Misc Asphalt

Asphalt in General

- Cross Slope Checks

Asphalt in General

- Straightedge

1. Final Type SP structural and friction course layers, pavement lanes, and ramps with constant width to 3/16 inch.

2. Exceptions (Spec. 330-9):
   a. Shoulders, intersections, tapers, crossovers, parking lots and similar areas.
   b. Areas less than 250 LF as in turn lanes, acceleration & deceleration lanes and side-streets.
   c. Any area in the exceptions that is objectionable in excess of 3/8 inch.

Continue

Asphalt in General

- Straightedge

3. Final Type SP structural and friction course layers, pavement lanes, and ramps with constant width to 3/16 inch.

4. Engineer may waive requirements: transverse joints at the beginning and end of the project, manholes, utility structures, ramps and super-elevated sections that may result in an inaccurate measurement.

Continue

Asphalt in General

- Straightedge

5. Intermediate layers and temporary pavement with design speed of 55mph or more, opened to traffic in excess of 3/8 inch.

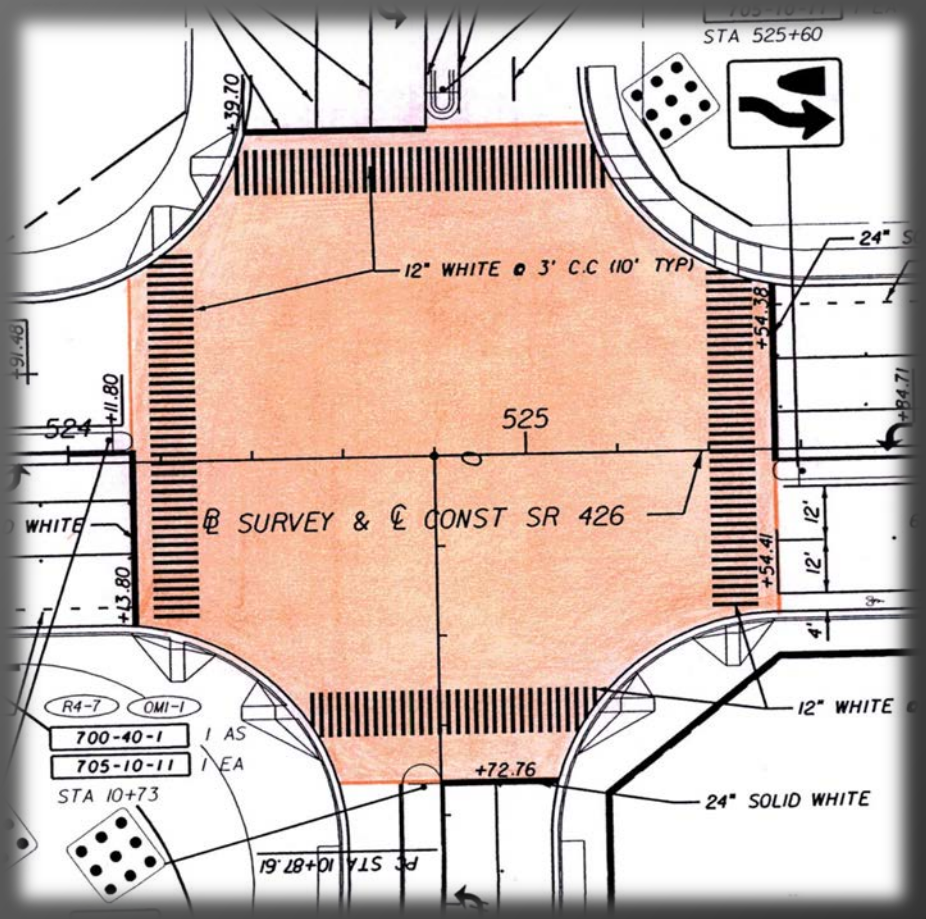
6. Outside wheel path or as requested by the Eng. (May be requested to pull the straightedge in both wheel paths).

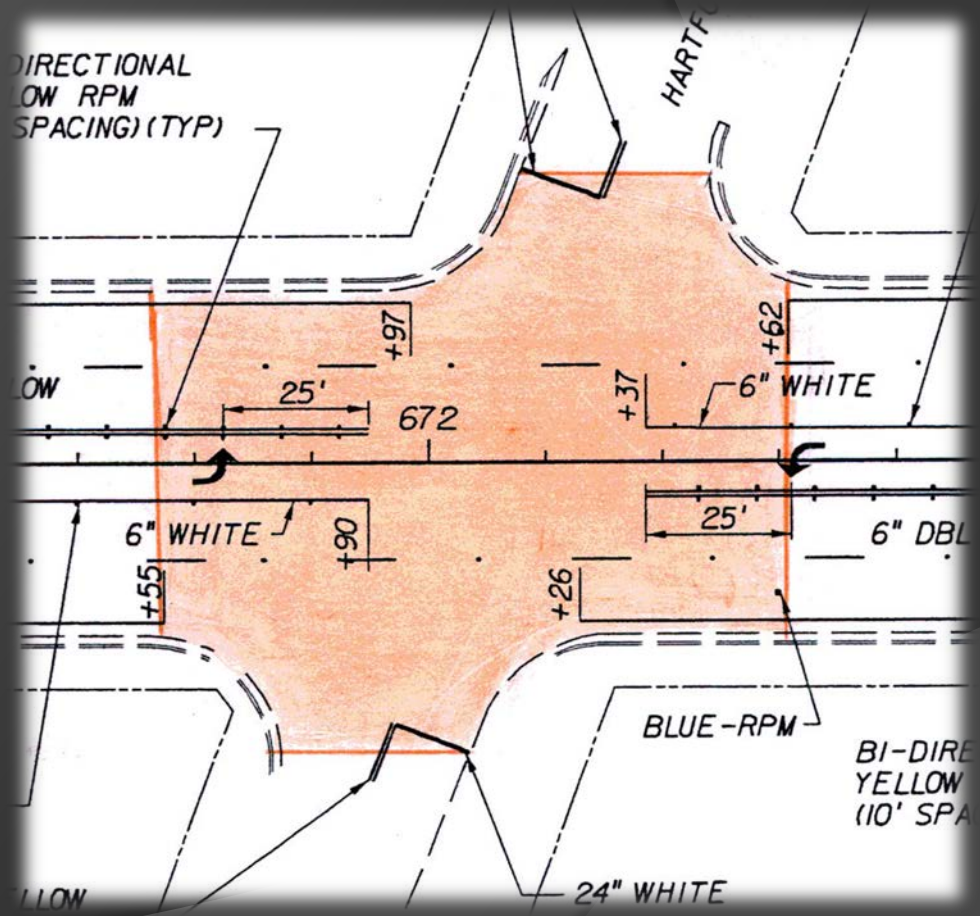
7. Laser acceptance: friction course on mainline only with design speed of 55mph or greater.

Continue

Asphalt in General

- Straightedge
  - Exception Areas

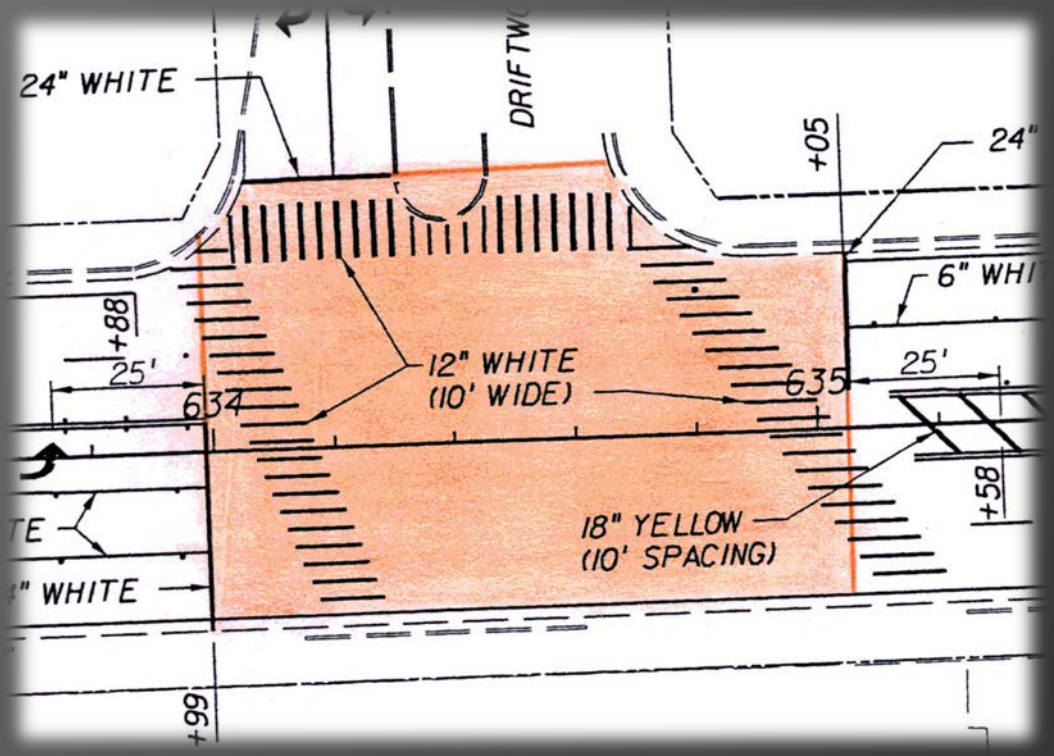


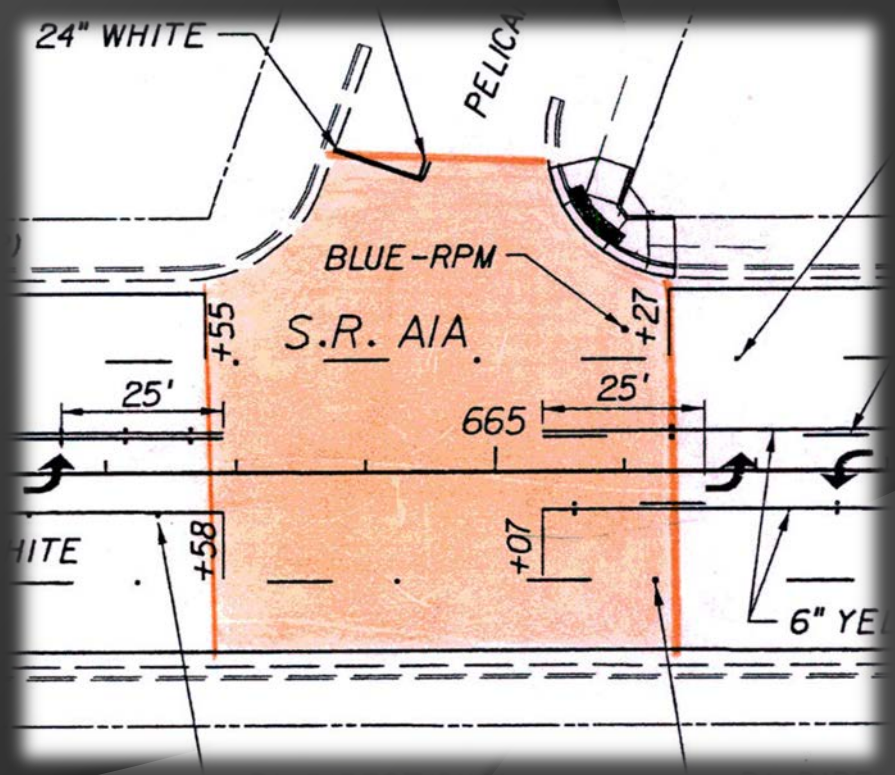


Continue

Asphalt in General

- Straightedge
  - Exception Areas





Continue

Asphalt in General

- Straightedge

Continue

Asphalt in General

- Straightedge

Continue

Asphalt in General

- Straightedge

Asphalt in General

Questions

Florida Department of Transportation

DISTRICT 5

QC Asphalt Roadway Report Exercise

Focus on completing a QC Road Report

Prepared By:
Lori Jones & Karen Madrid

QC Road Report Exercise

- QC Roadway Report

top | Remove Row at selection | Add Row at selection | Copy (constant) | Copy (varied)

State of Florida Department of Transportation

☐ Lot Closed

Asphalt Roadway - Daily Report of Quality Control

Update Workbook | Clear EVERYTHING

675-030-20A
CONSTRUCTION
04/11

FIN ID (Project #) | TIN#

Intended Lot Size | ☐ Static Only

LOT # 1 | Mix Design # | Clear | Reload

Select Pay Item #'s | Import from file | Import Pay Item | remove last lot | Clear Pay Item Numbers

Email Form Feedback to:
SM-AsphaltForms@dot.state.fl.us

Constant Width Areas

#	Date Paved	Day or Night	Sub Lot	Truck Load #'s	Intended Use	Density ?	Lan	Desc.	Lift # of #	Start Paving at Station	End Paving at Station	Length (FT)	Width (FT)	Area Paved (SY)	Quantity (TN)	Individual Lift Thickness (in)	Actual Spread Rate (LB/SY)	Target Spread Rate (LB/SY)	BASE ONLY Total Thickness (in)	BASE ONLY Prorated Base (SY)

Varied Width Areas

QC Road Report Exercise

- Objectives:

Consistent

Predictable

Repeatable

QC Road Report Exercise

- Goals for Exercise:
  - Truck Load #'s
  - Density?
  - Lane / Description
  - Lifts
  - Stations
  - Widths
  - Overbuild

QC Road Report Exercise

- Tools:
  - Typical Section
  - Plan Sheets
  - Striping Sheets

QC Road Report Exercise

- Paving Operations:
  - **9-6-2011 (Day 1):** *Lift 1 / 2 widening only*
    1. Outside Left Roadway at Sta. 1330+00 paving west continuing to Sta. 1324+40
    2. Outside Right Roadway at Sta. 1324+40 paving east continuing to Sta. 1332+39
       - Do not include the side street radius
    3. Inside Left Roadway at Sta. 1330+00 paving west continuing to Sta. 1324+40
       - Do not include the crossovers
    4. Inside Right Roadway at Sta. 1324+40 paving east continuing to Sta. 1328+71
       - Include the crossovers
  - **9-7-2011 (Day 2):** *Lift 1 / 2 and 2 / 2 widening only and overbuild*
    1. Inside Right Roadway from 9-6-2011 end of day, paving east to Sta. 1332+28
    2. Inside Right Roadway at Sta. 1330+00 paving east continuing to Sta. 1332+28
    3. Outside Right Roadway at Sta. 1330+00 paving east continuing to 1332+39
    4. Place overbuild between Sta. 1330+00 paving east continuing to 1332+39

QC Road Report Exercise

- Check List for Future Paving
  - Truck Load #’s
  - Density?
  - Lane / Description
  - Lifts
  - Stations
  - Widths
  - Overbuild
  - GMM

QC Road Report Exercise

- Objectives:

Consistent

Predictable

Repeatable

QC Road Report Exercise

Questions

Florida Department of Transportation

DISTRICT 5

Importance of Accuracy

Focus on the importance of reporting asphalt activities accurately

Prepared By:
John Burnette

Importance of Accuracy

- Why Is Accuracy Important For Final Estimates?
  - CPF
  - DDM Remove/Replace specify in road report
  - Square Yards
  - Pay Item/Lump Sum Stacking
  - Importance of Accuracy (penalties, As-Builts)

Importance of Accuracy

CPF’s and the Affect of How the Road Report is Filled Out.

Importance of Accuracy

- Non-Density Tonnage Affect on CPF

State of Florida Department of Transportation

Asphalt Roadway - Daily Report of Quality Control

Lot Closed

FIN ID (Project #)	[redacted]
TIN#	[redacted]

Intended Lot Size
4000 tons
Static Only

LOT #	3
Mix Design #	[redacted]
Gmm:	2.455

Email Form Feedback to: SM-AsphaltForms@dot.state.fl.us

Constant Width Areas

#	Date Paved	Sub Lot	Truck Load #'s	Intended Use	Density ?	Lane	Desc.	Lift #	of #	Start Paving at Station	End Paving at Station	Length (FT)	Width (FT)	Area Paved (SY)	Quantity (TN)	Individual Lift Thickness (in)	Actual Spread Rate (LB/SY)	Target Spread Rate (LB/SY)	BASE ONLY Total Thicknes s (in)	BASE ONLY Prorated Base (SY)
	9/20/2010	1	10-16	SP TL-D	Y	L2	MAINLINE	1	2	579+97.00	569+40.00	1057	8.0	939.56	129.35	2.5	275.34	266		
	9/20/2010	1	16	SP TL-D	Y	L4	BIKEPATH	1	2	610+15.00	609+75.00	40	6.0	26.67	3.67	2.5	275.25	266		
	9/20/2010	1	16-19	SP TL-D	Y	L2	BIKEPATH	1	2	609+75.00	603+40.00	635	6.0	423.33	58.12	2.5	274.58	266		
	9/20/2010	1	19-24	SP TL-D	Y	L3	MAINLINE	1	2	609+75.00	603+40.00	635	12.0	846.67	115.99	2.5	273.99	266		
	9/20/2010	1	24-26	SP TL-D	N	L2	OVERBUILD	1	2	603+40.00	599+20.00	420	7.0	326.67	44.91	N/A	274.96	#VALUE!		
	9/20/2010	1	26	SP TL-D	N	L2	OVERBUILD	1	2	597+10.00	596+20.00	90	7.0	70.00	9.60	N/A	274.29	#VALUE!		
→	09/20/2010 DAILY TOTALS: 361.64 Total Tons 0.00 Waste Tons 361.64 net tons (307.13 tons Require Density 54.51 tons Non-Density)																			
	9/22/2010	1	1-3	SP TL-D	N	L2	OVERBUILD	1	2	591+60.00	587+60.00	400	10.0	444.44	57.99	N/A	260.96	#VALUE!		
	9/22/2010	1	3-5	SP TL-D	N	L2	OVERBUILD	1	2	585+20.00	581+90.00	330	10.0	366.67	47.95	N/A	261.55	#VALUE!		
→	09/22/2010 DAILY TOTALS: 105.94 Total Tons 0.00 Waste Tons 105.94 net tons (0.00 tons Require Density 105.94 tons Non-Density)																			
	9/23/2010	1	1-2	SP TL-D	N	L2	OVERBUILD	1	1	609+75.00	603+50.00	625	7.0	486.11	26.49	N/A	108.99	#VALUE!		
	9/23/2010	1	2	SP TL-D	N	L2	OVERBUILD	1	1	609+75.00	607+00.00	275	5.0	152.78	8.47	N/A	110.88	#VALUE!		
	9/23/2010	1	2	SP TL-D	N	L1	OVERBUILD	1	1	609+75.00	607+00.00	275	2.0	61.11	3.54	N/A	115.85	#VALUE!		
	9/23/2010			Waste											25.06					
→	09/23/2010 DAILY TOTALS: 63.56 Total Tons 25.06 Waste Tons 38.50 net tons (0.00 tons Require Density 38.50 tons Non-Density)																			
	11/16/2010	1	1-2	SP TL-D	Y	L4	Bikepath	1	2	770+70.00	766+40.00	430	6.0	286.67	38.11	2.5	265.88	266		
	11/16/2010	1	2-3	SP TL-D	Y	L3	Mainline	1	2	770+70.00	766+40.00	430	2.0	95.56	12.70	2.5	265.81	266		
	11/16/2010	1	3-7	SP TL-D	Y	L4	Bikepath	1	2	766+40.00	756+90.00	950	6.0	633.33	83.59	2.5	263.97	266		
	11/16/2010	1	7-15	SP TL-D	Y	L3	Mainline	1	2	766+40.00	756+90.00	950	12.0	1266.67	167.20	2.5	264.00	266		
	11/16/2010	1	15-16	SP TL-D	Y	L4	Bikepath	1	2	756+90.00	753+45.00	345	6.0	230.00	30.25	2.5	263.04	266		
	11/16/2010	1	16-17	SP TL-D	Y	L3	Mainline	1	2	756+90.00	753+45.00	345	3.0	115.00	15.12	2.5	262.96	266		
	11/16/2010	1	17-21	SP TL-D	N	OL	Turnlane	1	2	758+62.00	753+40.00	522	11.4	662.94	87.84	2.5	265.00	266		
	11/16/2010	1	21-24	SP TL-D	Y	L4	Bikepath	1	2	752+60.00	745+91.00	669	6.0	446.00	59.11	2.5	265.07	266		
	11/16/2010	2	24-28	SP TL-D	Y	L4	Bikepath	1	2	745+91.00	736+40.00	951	6.0	634.00	84.15	2.5	265.46	266		
	11/16/2010	2	28-38	SP TL-D	Y	L3	Mainline	1	2	752+60.00	741+37.00	1123	12.0	1497.33	200.00	2.5	267.14	266		
	11/16/2010	2	38-42	SP TL-D	Y	L3	Mainline	1	2	741+37.00	736+40.00	497	12.0	662.67	88.62	2.5	267.46	266		
	11/17/2010	2	[illegible]	[illegible]	Y	[illegible]	[illegible]	1	2	[illegible]	725+60.00	[illegible]	[illegible]	[illegible]	7.00	2.5	262.50	266		
	11/17/2010	2	[illegible]	[illegible]	Y	[illegible]	[illegible]	1	2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	9.91	2.5	262.32	266		
	11/17/2010	2	26	SP TL-C	Y	L4	Bikepath	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	40.79	2.5	267.96	266		
→	11/17/2010	2	26-27	SP TL-C	Y	L3	Mainline	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
	11/17/2010	2	27-29	SP TL-C	Y	OL	Turnlane	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	67.90	2.5	263.97	266		
	11/17/2010	3	29-32	SP TL-C	Y	OL	Turnlane	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	200.00	2.5	263.93	266		
	11/17/2010	3	32-33	SP TL-C	Y	L2	Mainline	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	80.61	2.5	264.30	266		
	11/17/2010	3	33-34	SP TL-C	Y	L4	Bikepath	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	114.28	2.5	264.49	266		
	11/17/2010	3	34-35	SP TL-C	Y	L3	Mainline	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	76.85	2.5	264.97	266		
	11/17/2010	3	35-37	SP TL-C	Y	L3	Mainline	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2.20	2.5	264.00	266		
	11/17/2010	3	37-38	SP TL-C	Y	L2	Mainline	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.12	2.5	264.28	266		
→	[illegible]/2010	3	38-40	SP TL-C	[illegible]	L3	Mainline	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	24.57	2.5	274.29	266		
	[illegible]/2010	3	1	SP TL-D	Y	L4	Bikepath	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	99.03	2.5	272.68	266		
	11/18/2010	3	1-2	SP TL-D	Y	L3	Mainline	[illegible]	[illegible]	723+50.00	721+50.00	200	[illegible]	133 [illegible]	5.46	2.5	265.62	266		
	11/18/2010	3	2-4	SP TL-D	Y	L2	Mainline	1	2	718+20.00	716+00.00	220	9.5	232 [illegible]	26.25	2.5	266.95	266		
															26.26	2.5	267.05	266		
															40.63	2.5	264.98	266		
															20.31	2.5	264.91	266		
															51.34	2.5	266.0[illegible]			
															17.87	2.5	268.05	266		
															17.88	2.5	268.20	266		
															31.34	2.5	269.91	266		

Continue →

Importance of Accuracy

- Non-Density Tonnage Affect on CPF

11/18/2010	3	4-5	SP TL-D	Y	L4	Bikepath	1	2	718+60.00	716+00.00	260	6.0	173.33	23.22	2.5	267.92			
11/18/2010	3	5-7	SP TL-D	Y	L3	Mainline	1	2	718+60.00	716+00.00	260	12.0	346.67	46.45	2.5	267.98			
11/18/2010	3	7-10	SP TL-D	Y	L4	Bikepath	1	2	716+00.00	709+90.00	610	6.0	406.67	55.10	2.5	270.98	266		
11/18/2010	3	10-13	SP TL-D	Y	L3	Mainline	1	2	716+00.00	709+90.00	610	9.0	610.00	82.96	2.5	272.00	266		
[illegible]	[illegible]	13-18	SP TL-D	Y	L2	Mainline	1	2	709+90.00	[illegible]	706	9.0	[illegible]	96.46	2.5	273.26	266		
11/18/2010	3	15-18	SP TL-D	Y	L4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	266		
11/18/2010	3	18-21	SP TL-D	Y	L4	Mainline	1	2	709+90.00	702+84.00	706	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	266		
11/18/2010	3	21-27	SP TL-D	Y	L3	Mainline	1	2	709+90.00	702+84.00	706	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	266		
11/18/2010	3	27-28	SP TL-D	Y	OL	* Turnlane	1	2	702+84.00	701+80.00	104	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	266		
11/18/2010	3	28	SP TL-D	Y	L4	Bikepath	1	2	702+84.00	699+90.00	294	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
11/18/2010	3	28-29	SP TL-D	Y	L3	Mainline	1	2	702+84.00	699+90.00	294	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	#VALUE!		
11/18/2010 DAILY TOTALS: 615.42 Total Tons 0.00 Waste Tons 615.42 net tons (615.42 tons Require Density 0.00 tons No[illegible]																	#VALUE!		
																	#VALUE!		
11/21/2010	3	1-3	SP TL-D	N	L3	OVERBUILD	1	1	756+81.00	753+78.00	303	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	239		
11/21/2010	3	3-7	SP TL-D	N	L3	OVERBUILD	1	1	731+74.00	728+56.00	318	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	239		
11/22/2010	[illegible]	4-9	SP TL-D	N	L3	[illegible]BUILD	1	[illegible]	[illegible]	709+90.00	592	15.0	966.67	[illegible]	[illegible]	[illegible]	239		
11/22/2010 DAILY TOTALS: 190.12 Total Tons 0.00 Waste Tons 190.12 net tons (0.00 tons Require Density 190.12 tons Non-Density)																			

Varied Width Areas

* These areas do not require Density.

137.6 tons to be taken out.

Continue

Importance of Accuracy

- Non-Density Tonnage Affect on CPF

9/23/10: 25.06 TONS WASTE WERE TO CORRECT OVERMILL. THE AREA WAS TACKED THE PRIOR DAY AND WAS INCLUDED ON THE 9/22/10 DAYS PRODUCTION.
11/16/10 : No Tack required paved on primed limerock.
11/17/10 : No Tack required paved on primed limerock.

Density Testing	2453.16
No Density Testing *	877.82
Total Tonnage	3330.98

All Pay Items (if needed)

Intended Use	Pay Item #	Previous Total (Tons)	LOT Total (Tons)	Cumulative Total (Tons)	Previous Total (SY)	(SY)	Cumulative Total (SY)
SP TL-D	334 1 14	4000	3330.98	7330.98	31,104.00	25270.56	56374.56
SP TL-D 76-22	334 1 24	4000	0.00	4000.00	32,327.08		32327.08
Waste		0	25.06	25.06		0.00	

prorated

not prorated

All Pay Items (if needed)

Continue

Importance of Accuracy

- Non-Density Tonnage Affect on CPF

675-030-22
MATERIALS
APW: 07/11

Florida Department of Transportation

Asphalt Plant - Lot Verification and Pay Factor Worksheet for Superpave Mixtures

January, 2009 Specs Acceptance Option 1			
Contractor: [redacted]	3330.98	Date Reported: 12/1/2010	
Mix Type: SP-12.5	Design N		
LOT #: 3	Intended Tor	Tons in this lot requiring no density:	877.82	26.4%
Verification Sublot: 3	Start Date:		
Proj. Description: [redacted]			

Lot Verif

Property	P_{-8}	P_{-200}	P_b	Rice G_{mm}	Lab G_{mb}
QC	52.35	4.64	5.42	2.454	2.352
Verification	50.55	4.46	5.41	2.453	2.354
Tolerance	IN	IN	IN	IN	IN
Property	Core 1 G_{mb}	Core 2 G_{mb}	Core 3 G_{mb}	Core 4 G_{mb}	Core 5 G_{mb}
QC	2.326	2.327	2.308	2.319	
Verification	2.323	2.321	2.298	2.316	
Tolerance	IN	IN	IN	IN	

Was This Lot Terminated? No

Lot Pay Factor Calculations

Property	P_{-8}	P_{-200}	P_b	Va	Density
Sublot 1	50.16	4.70	5.38	4.35	93.25
Sublot 2	51.24	4.98	5.35	4.27	93.94
Sublot 3	52.35	4.64	5.42	4.16	94.54
Sublot 4					
Target	50.00	4.70	5.40	4.0	93.0
n=	3.00	3.00	3.00	3.00	
Mean	**51.25**	**4.77**			
SD	1.095	0.181			
Qu	1.69	5.12			
Pu	100.00	100.00			
Ql	3.97	5.90			
Pl	100.00	100.00			
PWL	100.00	100.00			
PF	**1.05**	**1.05**			

	100.00	100.00	
	100.00	100.00	
	1.05	1.04	
,posite Pay Factor		1.05	
Composite Pay Fac			1.05

Note: Sublot values which appear in RED are outside of the Master Production Range as specified in Table 334-5, refer to 334-5.1.4.4.

Continue

Importance of Accuracy

- Non-Density Tonnage Affect on CPF

State of Florida Department of Transportation

Asphalt Roadway - Daily Report of Quality Control

☐ Lot Closed

FIN ID (Project #)	[redacted]
TIN#	[redacted]

Intended Lot Size	LOT #	3
4000 tons	Mix Design #	[redacted]

☐ Static Only

Gmm: 2.455

Email Form Feedback to: SM-AsphaltForms@dot.state.fl.us

Constant Width Areas

#	Date Paved	Sub Lot	Truck Load #'s	Intended Use	Density ?	Lane	Desc.	Lift #	of #	Start Paving at Station	End Paving at Station	Length (FT)	Width (FT)	Area Paved (SY)	Quantity (TN)	Individual Lift Thickness (in)	Actual Spread Rate (LB/SY)	Target Spread Rate (LB/SY)	BASE ONLY Total Thickness (in)	BASE ONLY Prorated Base (SY)
	9/20/2010	1	10-16	SP TL-D	Y	L2	MAINLINE	1	2	579+97.00	569+40.00	1057	8.0	939.56	129.35	2.5	275.34	266		
	9/20/2010	1	16	SP TL-D	Y	L4	BIKEPATH	1	2	610+15.00	609+75.00	40	6.0	26.67	3.67	2.5	275.25	266		
	9/20/2010	1	16-19	SP TL-D	Y	L2	BIKEPATH	1	2	609+75.00	603+40.00	635	6.0	423.33	58.12	2.5	274.58	266		
	9/20/2010	1	19-24	SP TL-D	Y	L3	MAINLINE	1	2	609+75.00	603+40.00	635	12.0	846.67	115.99	2.5	273.99	266		
	9/20/2010	1	24-26	SP TL-D	N	L2	OVERBUILD	1	2	603+40.00	599+20.00	420	7.0	326.67	44.91	N/A	274.96	#VALUE!		
	9/20/2010	1	26	SP TL-D	N	L2	OVERBUILD	1	2	597+10.00	596+20.00	90	7.0	70.00	9.60	N/A	274.29	#VALUE!		
→	09/20/2010 DAILY TOTALS: 361.64 Total Tons 0.00 Waste Tons 361.64 net tons (307.13 tons Require Density 54.51 tons Non-Density)																			
	9/22/2010	1	1-3	SP TL-D	N	L2	OVERBUILD	1	2	591+60.00	587+60.00	400	10.0	444.44	57.99	N/A	260.96	#VALUE!		
	9/22/2010	1	3-5	SP TL-D	N	L2	OVERBUILD	1	2	585+20.00	581+90.00	330	10.0	366.67	47.95	N/A	261.55	#VALUE!		
→	09/22/2010 DAILY TOTALS: 105.94 Total Tons 0.00 Waste Tons 105.94 net tons (0.00 tons Require Density 105.94 tons Non-Density)																			
	9/23/2010	1	1-2	SP TL-D	N	L2	OVERBUILD	1	1	609+75.00	603+50.00	625	7.0	486.11	26.49	N/A	108.99	#VALUE!		
	9/23/2010	1	2	SP TL-D	N	L2	OVERBUILD	1	1	609+75.00	607+00.00	275	5.0	152.78	8.47	N/A	110.88	#VALUE!		
	9/23/2010	1	2	SP TL-D	N	L1	OVERBUILD	1	1	609+75.00	607+00.00	275	2.0	61.11	3.54	N/A	115.85	#VALUE!		
	9/23/2010			Waste											25.06					
→	09/23/2010 DAILY TOTALS: 63.56 Total Tons 25.06 Waste Tons 38.50 net tons (0.00 tons Require Density 38.50 tons Non-Density)																			
	11/16/2010	1	1-2	SP TL-D	Y	L4	Bikepath	1	2	770+70.00	766+40.00	430	6.0	286.67	38.11	2.5	265.88	266		
	11/16/2010	1	2-3	SP TL-D	Y	L3	Mainline	1	2	770+70.00	766+40.00	430	2.0	95.56	12.70	2.5	265.81	266		
	11/16/2010	1	3-7	SP TL-D	Y	L4	Bikepath	1	2	766+40.00	756+90.00	950	6.0	633.33	83.59	2.5	263.97	266		
	11/16/2010	1	7-15	SP TL-D	Y	L3	Mainline	1	2	766+40.00	756+90.00	950	12.0	1266.67	167.20	2.5	264.00	266		
	11/16/2010	1	15-16	SP TL-D	Y	L4	Bikepath	1	2	756+90.00	753+45.00	345	6.0	230.00	30.25	2.5	263.04	266		
	11/16/2010	1	16-17	SP TL-D	Y	L3	Mainline	1	2	756+90.00	753+45.00	345	3.0	115.00	15.12	2.5	262.96	266		
	11/16/2010	1	17-21	SP TL-D	N	OL	Turnlane	1	2	758+62.00	753+40.00	522	11.4	662.94	87.84	2.5	265.00	266		
	11/16/2010	1	21-24	SP TL-D	Y	L4	Bikepath	1	2	752+60.00	745+91.00	669	6.0	446.00	59.11	2.5	265.07	266		
	11/16/2010	2	24-28	SP TL-D	Y	L4	Bikepath	1	2	745+91.00	736+40.00	951	6.0	634.00	84.15	2.5	265.46	266		
	11/16/2010	2	28-38	SP TL-D	Y	L3	Mainline	1	2	752+60.00	741+37.00	1123	12.0	1497.33	200.00	2.5	267.14	266		
	11/16/2010	2	38-42	SP TL-D	Y	L3	Mainline	1	2	741+37.00	736+40.00	497	12.0	662.67	88.62	2.5	267.46	266		
	11/16/2010	2	42	SP TL-D	Y	L4	Bikepath	1	2	736+40.00	735+60.00	80	6.0	53.33	7.00	2.5	262.50	266		
	11/16/2010	2	42-43	SP TL-D	Y	L3	Mainline	1	2	736+40.00	735+60.00	80	8.5	75.56	9.91	2.5	262.32	266		
	11/16/2010	2	43-44	SP TL-D	Y	L2	Mainline	1	2	763+75.00	756+90.00	685	4.0	304.44	40.79	2.5	267.96	266		
→	11/16/2010 DAILY TOTALS: 924.39 Total Tons 0.00 Waste Tons 924.39 net tons (836.55 tons Require Density 87.84 tons Non-Density)																			
	11/17/2010	2	1-4	SP TL-D	N	OL	Turnlane	1	2	770+10.00	765+10.00	500	9.3	514.44	67.90	2.5	263.97	266		
	11/17/2010	2	4-13	SP TL-D	Y	[illegible]	L4	Bikepath	[illegible]	[illegible]	736+40.00	1705	8.0	[illegible]	200.00	2.5	263.93	266		
	11/17/2010	[illegible]	13-17	SP TL-D	Y	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	736+45.00	915	[illegible]	[illegible]	[illegible]	2.5	264.30	266		
	11/17/2010	2	26-27	SP TL-D	Y	L3	Mainline	1	2	[illegible]	726+20.00	25	[illegible]	[illegible]	[illegible]	2.5	264.49	266		
	11/17/2010	2	27-29	SP TL-D	N	OL	Turnlane	1	2	726+95.00	725+56.00	139	[illegible]	[illegible]	[illegible]	2.5	264.97	266		
	11/17/2010	3	29-32	SP TL-D	N	OL	Turnlane	1	2	725+56.00	719+91.00	565	[illegible]	[illegible]	[illegible]	2.5	264.00	266		
	11/17/2010	3	32-33	SP TL-D	Y	L2	Mainline	1	2	727+00.00	725+15.00	185	[illegible]	[illegible]	[illegible]	2.5	264.28	266		
	11/17/2010	3	33-34	SP TL-D	Y	L4	Bikepath	1	2	726+45.00	723+50.00	295	[illegible]	[illegible]	[illegible]	2.5	274.29	266		
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2.5	272.68	266		
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2.5	265.62	266		
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2.5	266.95	266		
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2.5	267.05	266		
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2.5	264.98	[illegible]		
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2.5	264.91	[illegible]		
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2.5	266.01	[illegible]		
→	[illegible] DAILY TOTALS: [illegible] Total Tons 0.00 Waste Tons 838.81 [illegible] 35 tons Non-Density)																			
	11/18/2010	3	1	SP TL-D	Y	L4	Bikepath	1	2	723+50.00	721+50.00	200	6.0	133.33	17.87	2.5	268.05	266		

Continue →

Importance of Accuracy

- Non-Density Tonnage Affect on CPF

11/18/2010	3	1-2	SP TL-D	Y	L3	Mainline	1	2	723+50.00	721+50.00	200	6.0	133.33	17.88	2.5	268.20	266		
11/18/2010	3	2-4	SP TL-D	Y	L2	Mainline	1	2	718+20.00	716+00.00	220	9.5	232.22	31.34	2.5	269.91	266		
11/18/2010	3	4-5	SP TL-D	Y	L4	Bikepath	1	2	718+60.00	716+00.00	260	6.0	173.33	23.22	2.5	267.92	266		
11/18/2010	3	5-7	SP TL-D	Y	L3	Mainline	1	2	718+60.00	716+00.00	260	12.0	346.67	46.45	2.5	267.98	266		
11/18/2010	3	7-10	SP TL-D	Y	L4	Bikepath	1	2	716+00.00	709+90.00	610	6.0	406.67	55.10	2.5	270.98	266		
11/18/2010	3	10-13	SP TL-D	Y	L3	Mainline	1	2	716+00.00	709+90.00	610	9.0	610.00	82.96	2.5	272.00	266		
11/18/2010	3	13-18	SP TL-D	Y	L4	Mainline	1	2	[illegible]	702+84.00	706	9.0	706.00	96.46	2.5	273.26	266		
11/18/2010	3	21-27	SP TL-D	Y	L3	Mainline	1	2	709+90.00	702+84.00	706	[illegible]	[illegible]	63.31	2.5	269.02	266		
11/18/2010	3	27-28	SP TL-D	N	OL	Turnlane	1	2	702+84.00	701+80.00	104	[illegible]	[illegible]	127.08	2.5	270.00	266		
11/18/2010	3	28	SP TL-D	Y	L4	Bikepath	1	2	702+84.00	699+90.00	294	[illegible]	[illegible]	14.00	2.5	269.23	266		
11/18/2010	3	[illegible]	SP TL-D	Y	L3	[illegible]	[illegible]	[illegible]	702+84.00	699+90.00	294	[illegible]	[illegible]	17.62	2.5	269.69	266		
11/[illegible]/2010	3	[illegible]	SP TL-D	Y	L3	[illegible]	[illegible]	[illegible]	702+84.00	699+90.00	294	[illegible]	[illegible]	22.13	2.5	270.98	266		
11/[illegible] DAILY TOTALS: [illegible] 615.42 T[illegible] [illegible] Waste To[illegible] (601.42 tons Require D[illegible]																			
11/21/2010	3	1-3	SP TL-D	N	L3	OVERBUILD	1	1	756+81.00	753+78.00	303	9.5	319.83	48.61	N/A	303.97	#VALUE!		
11/21/2010	3	3-7	SP TL-D	N	L3	OVERBUILD	1	1	731+74.00	728+56.00	318	15.0	530.00	66.69	N/A	251.66	#VALUE!		
11/21/2010	4	7-9	SP TL-D	N	L3	OVERBUILD	1	1	728+56.00	727+00.00	156	15.0	260.00	39.52	N/A	304.00	#VALUE!		
11/21/2010	4	9-12	SP TL-D	N	L2	OVERBUILD	1	1	725+08.00	722+00.00	308	18.5	633.11	101.34	N/A	320.13	#VALUE!		
11/21/2010 DAILY TOTALS: 256.16 Total Tons 0.00 Waste Tons 256.16 net tons (0.00 tons Require Density 256.16 tons Non-Density)																			
11/22/2010	4	1-2	SP TL-D	N	L2	OVERBUILD	1	2	722+00.00	720+61.00	139	18.5	285.72	34.85	2.3	243.94	239		
11/22/2010	4	2-4	SP TL-D	N	L2	OVERBUILD	2	2	722+00.00	720+61.00	139	18.5	285.72	34.85	2.3	243.94	239		
11/22/2010	4	4-9	SP TL-D	N	L3	OVERBUILD	1	1	715+82.00	709+90.00	592	15.0	986.67	120.42	2.3	244.09	239		
11/22/2010 DAILY TOTALS: 190.12 Total Tons 0.00 Waste Tons 190.12 net tons (0.00 tons Require Density 190.12 tons Non-Density)																			

Varied Width Areas

Continue

Importance of Accuracy

• Non-Density Tonnage Affect on CPF

9/23/10: 25.06 TONS WASTE WERE TO CORRECT OVERMILL. THE AREA WAS TACKED THE PRIOR DAY AND WAS INCLUDED ON THE 9/22/10 DAYS PRODUCTION.
11/16/10 : No Tack required paved on primed limerock.
11/17/10 : No Tack required paved on primed limerock.

	LOT Total (Tons)
Density Testing	2315.56
No Density Testing *	1015.42
Total Tonnage	3330.98

	Intended Use	Pay Item #	Previous Total (Tons)	LOT Total (Tons)	Cumulative Total (Tons)	Previous Total (SY)		
Alt Pay Items (if needed)	SP TL-D	334 1 14	4000	3330.98	7330.98	31,099.89	25270.56	56370.45
	SP TL-D 76-22	334 1 24	4000	0.00	4000.00	32,327.08		32327.08
Alt Pay Items (if needed)	Waste		0	25.06	25.06		0.00	

prorated

not prorated

Continue

Importance of Accuracy

- Non-Density Tonnage Affect on CPF

675-030-22
MATERIALS
APW: 07/11

Florida Department of Transportation

Asphalt Plant - Lot Verification and Pay Factor Worksheet for Superpave Mixtures

January, 2009 Specs Acceptance Option 1	Project Information		
Contractor: [redacted]			Fin. Project ID: [redacted]
Mix Type: SP-12.5	Design No.: [redacted]	3336198	Date Reported: 12/1[redacted]
LOT #: 3	Intended Tons: 4000	A[redacted]	
Verification Sublot: 3	Start Date: 9/20/2010	End Date: [redacted]	
Proj. Description: [redacted]			

Tons in this lot requiring no density: 1015.42 30.5%

Lot Ve[redacted]n					
Property	P_{-8}	P_{-200}	P_b	Rice G_{mm}	Lab G_{mb}
QC	52.35	4.64	5.42	2.454	2.352
Verification	50.55	4.46	5.41	2.453	2.354
Tolerance	IN	IN	IN	IN	IN
Property	Core 1 G_{mb}	Core 2 G_{mb}	Core 3 G_{mb}	Core 4 G_{mb}	Core 5 G_{mb}
QC	2.326	2.327	2.308	2.319	
Verification	2.323	2.321	2.298	2.316	
Tolerance	IN	IN	IN	IN	

Was This Lot Terminated? No

Lot Pay Factor Calculations

Property	P_{-8}	P_{-200}	P_b	Va	Density
Sublot 1	50.16	4.70	5.38	4.35	93.25
Sublot 2	51.24	4.98	5.35	4.27	93.94
Sublot 3	52.35	4.64	5.42	4.16	94.54
Sublot 4					
Target	50.00	4.70	[redacted]	[redacted]	[redacted]
n=	3.00	3.00			
Mean	**51.25**	**4.77**			
SD	1.095	0.181			
Qu	1.69	5.12			
Pu	100.00	100.00			
Ql	3.97	5.90			
Pl	100.00	100.00			
PWL	100.00	100.00			
PF	**1.05**	**1.05**			

[redacted]posite Pay Factor **1.04**

Note: Sublot values which appear in RED are outside of the Master Production Range as specified in Table 334-5, refer to 334-5.1.4.4.

Continue

Importance of Accuracy

- Non-Density Tonnage Affect on CPF
  - 3330.98 Tons x 1.05 = 3497.50 Tons
    3497.50 – 3330.98 = 166.52 Tons
    166.5 Tons x $73.75 = $12,279.38
  - 3330.98 Tons x 1.04 = 3464.22 Tons
    3464.22 – 3330.98 = 133.24 Tons
    133.2 Tons x $73.75 = $9,823.50
  - $12,279.38 - $9,823.50 = **– $ 2,455.88**

Importance of Accuracy

- Non-Density Tonnage Affect on CPF

Remove Row | Add Row at selection | Copy (constant) | Copy (varied)

State of Florida Department of Transportation

Asphalt Roadway - Daily Report of Quality Control

☑ Lot Closed

FIN ID (Project #): [redacted]

TIN#: [redacted]

Intended Lot Size: 2000 tons

☐ Static Only

LOT #: 4

Mix Design #: [redacted]

Clear | Reload

Gmm: 2.543

Update Work book | Clear EVERYTHING | Select Pay Item #'s | Import from file | Import Pay Item | remove last lot | Clear Pay Item

Email Form Feedback to: SM-AsphaltForms@dot.state.fl.us

Constant Width Areas

#	Date	Day	Sub	Truck	Interval	Density	Desc.	Lift # of	Start Paving	End Paving at Station	Length	Width (FT)	Area Paved (SY)	Overlap	Individual Lift Thickness	Actual Spread Rate (LB/SY)	Target Spread Rate (LB/SY)	BASE ONLY Total Thickness (in)	BASE ONLY Prorated Base (SY)
	6/22/2011	Night	1	1-2	SP TL-D	N	R2	OVERBUILD	1	2	1358+00.00	1359+61.00	161			210.19	220		
	6/22/2011	Night	1	2	SP TL-D	Y	R2	OVERBUILD	1	2	1357+18.00	1359+61.00	243			209.55	220		
	6/22/2011	Night	1	2-3	SP TL-D	Y	R1	OVERBUILD	1	2	1357+18.00	1359+61.00	243			206.81	220		
	6/22/2011	Night	1	3-7	SP TL-D	Y	R3	OVERBUILD	1	1	1358+03.00	1362+00.00	397			[illegible]	220		
	6/22/2011	Night	1	7	SP TL-D	Y	R3	ML/BL	2	2	1357+22.00	1358+03.00	81			[illegible]	165		
	6/22/2011	[illegible]	[illegible]	[illegible]	SP TL-D	[illegible]	R3	OVERBUILD	2	2	1357+22.00	1358+03.00	81			[illegible]	220		
	[illegible]	[illegible]	[illegible]	8-12	[illegible]	[illegible]	[illegible]	OVERBUILD	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	212.73	220		
	6/22/2011	Night	1	12	SP TL-D	N	OR	DRVWY/CHEVY	1	1	1353+00.00	[illegible]	83	[illegible]	[illegible]	160.48	165		
	6/22/2011	Night	1	12-13	SP TL-D	N	R1	OVERBUILD	1	2	1341+25.00	1342+25.00	100	12.0	133.33	14.20	2.0	213.00	220		
	6/22/2011	Night	1	13-14	SP TL-D	N	OR	DRVWY/OUTBACK	1	1	1334+92.00	1335+81.00	89	26.0	257.11	20.20	1.5	157.13	165		
	6/22/2011	Night	1	14-16	SP TL-D	[illegible]	RT	LTL/OVERBUILD	3	[illegible]	1326+89.00	1331+83.00	494	7.0	[illegible]	51.10	2.5	265.99	275		
	6/22/2011	Night	1	16-17	SP TL-D	N	RT	LTL	2	2	[illegible]	1331+83.00	[illegible]	5.0	[illegible]	[illegible]	1.5	157.41	165		
	6/22/2011	Night	1	17-21	SP TL-D	N	R1	OVERBUILD	3	3	1327+52.00	1331+83.00	431	[illegible]	[illegible]	[illegible]	[illegible]	265.55	275		
	6/22/2011	Night	1	21-22	SP TL-D	Y	OR	ENTRANCE RD	1	1	1324+92.00	1326+22.00	130	[illegible]	[illegible]	[illegible]	[illegible]	156.92	165		
	6/22/2011	Night	1	22-23	SP TL-D	N	OR	DRVWY	1	1	1311+49.00	1312+34.00	85	[illegible]	[illegible]	[illegible]	[illegible]	167.93	165		
	6/22/2011	Night	1	23	SP TL-D	N	OR	RTL/TAPER	2	2	1314+75.00	1315+25.00	50	[illegible]	[illegible]	[illegible]	[illegible]	171.00	165		
	6/22/2011	Night	1	23	SP TL-D	N	OR	RTL/BL	2	2	[illegible]	1316+00.00	75	[illegible]	[illegible]	[illegible]	[illegible]	171.14	165		
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	OR	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	24.0	[illegible]	[illegible]	[illegible]	238.35	165		
1	6/26/2011	Night	[illegible]	[illegible]	SP TL-D	[illegible]	R3	ML/BL	1	1	[illegible]	1361+78.00	112	16.0	[illegible]	[illegible]	[illegible]	157.35	165		
	6/26/2011	Night	2	2	SP TL-D	N	RT	LTL	1	2	1346+26.00	1346+05.00	21	12.0	28.00	2.28	1.5	159.71	165		
2	6/26/2011	Night	2	2-3	No Pay Tonnage		R1	OVERBUILD	1	1	1346+00.00	1346+33.00	33	12.0	44.00	3.78	1.5	162.86	165		
	6/26/2011	Night	2	3	SP TL-D	N	R1	OVERBUILD	1	2	1346+00.00	1346+33.00	33	12.0	44.00	2.42	1.0	171.82	165		
	6/26/2011	Night	2	3-4	SP TL-D	N	OR	DRVWY/FL EXEC	1	1	1340+98.00	1342+19.00	121	24.0	322.67	25.30	1.5	110.00	110		
	6/26/2011	Night	2	4	SP TL-D	N	R1	OVERBUILD	2	2	1331+83.00	1332+18.00	35	12.0	46.67	4.84	2.5	156.82	165		
	6/26/2011	Night	2	4	SP TL-D	N	RT	LTL/OVERBUILD	2	2	1331+83.00	1332+20.00	37	7.0	28.78	3.00	2.5	207.43	275		
	6/26/2011	Night	2	4	SP TL-D	N	RT	LTL	2	2	1331+83.00	1332+20.00	37	5.0	20.56	1.70	1.5	208.49	275		
	6/26/2011	Night	2	5	SP TL-D	N	OR	DRVWY/FORD	1	1	1303+58.00	1304+66.00	108	24.0	288.00	22.67	1.5	165.41	165		
	6/26/2011	Night	2	5-6	SP TL-D	N	OR	RTL/BL	2	2	1316+00.00	1318+20.00	220	13.0	317.78	25.42	1.5	157.43	165		
	6/26/2011	Night	2	6	SP TL-D	N	R3	ML/BL	2	2	1358+03.00	1358+22.00	19	16.0	25.33	2.03	1.5	159.99	165		

Continue →

Importance of Accuracy

- Non-Density Tonnage Affect on CPF

top | Remove Row | Add Row at selection | Copy (constant) | Copy (varied)

☑ Lot Closed

State of Florida Department of Transportation

Asphalt Roadway - Daily Report of Quality Control

Update Work book | Clear EVERYTHING | Select Pay Item #'s | Import from file | Import Pay Item | remove last lot | Clear Pay Item

Email Form Feedback to: SM-AsphaltForms@dot.state.fl.us

FIN ID (Project #): [redacted]

TIN#: [redacted]

Intended Lot Size: 2000 tons

☐ Static Only

LOT #: 4

Mix Design #: [redacted] | Clear | Reload

Gmm: 2.543

Constant Width Areas

#	Date Paved	Day or Night	Sub Lot	Truck Load #'s	Intended Use	Density ?	Lane	Desc.	Lift # of #	Start Paving at Station	End Paving at Station	Length (FT)	Width (FT)	Area Paved (SY)	Quantity (TN)	Individual Lift Thickness (in)	Actual Spread Rate (LB/SY)	Target Spread Rate (LB/SY)	BASE ONLY Total Thickness (in)	BASE ONLY Prorated Base (SY)

Varied Width Areas

NOTE: RT INDICATES "RIGHT ROADWAY"
1. Straightedge Correction
2. [redacted] Overmill
3. Area was milled of Friction (replaces lift 1 of 2) ([redacted] needed TL for Traffic Switch)
4. Temp placed to complete LTL for Traffic Swiitch

Intended Use	Pay Item #	Previous Total (Tons)	LOT Total (Tons)	Cumulative Total (Tons)	Previous Total (SY)	LOT Total (SY)	Cumulative Total (SY)
SP TL-D	334 114	3,633.58	1,351.68	4,985.26	37,362.60	14,706.67	52,069.26
No Pay Tonnage		220.92	8.93	229.85	2,501.22	79.56	2,580.78
Waste		12.00	0.00	12.00	0.00	0.00	0.00

	LOT Total (Tons)
Density Testing	284.91
No Density Testing *	1066.77
Total Tonnage	1351.68

Continue →

Importance of Accuracy

- Non-Density Tonnage Affect on CPF

675-030-22
MATERIALS
APW: 06/11

Florida Department of Transportation

Asphalt Plant - Lot Verification and Pay Factor Worksheet for Superpave Mixtures

July 2010 Spec Acceptance Option 1	Project Information			
Contractor: [redacted]			Fin. [redacted] ID: [redacted]	
Mix Type: SP-12.5	Design No.: [redacted]	Plant No.: [redacted]	Date Reported: 7/6/2011	
LOT #: 4	Intended Tons: 2000	Actual Tons: 1351.68	D[redacted]	
Verification Sublot: 2	Start Date: 6/22/2011	End Date: 6/30/2011	Tons in this lot [redacted] requiring no density:	1066.8	78.9%
Proj. Description: [redacted]				

Lot Verification

Property	P_{-8}	P_{-200}	P_b	[redacted]	[redacted]
QC	52.37	6.54	5.17	[redacted]	2.[redacted]
Verification	51.06	6.52	5.16	[redacted]	2.466
Tolerance	IN	IN	IN	IN	IN
Property	Core 1 G_{mb}	Core 2 G_{mb}	Core 3 G_{mb}	Core 4 G_{mb}	Core 5 G_{mb}
QC	2.391		2.240	2.264	2.256
Verification	2.390		2.238	2.268	2.253
Tolerance	IN		IN	IN	IN

Lot Pay Factor Calculations

Property	P_{-8}	P_{-200}	P_b	Va	Density
Sublot 1	53.02	6.33	5.24	3.57	92.75
Sublot 2	48.31	6.58	4.96	2.60	90.01
Sublot 3	50.46	6.10	4.86	3.37	90.24
Sublot 4					
Target	49.00	5.40	5.10	4.0	93.0
n=	3.00	3.00	3.00	3.00	3.00
Mean	**50.60**	**6.34**	**5.02**	**3.18**	**91.00**
SD	2.358	0.240	0.197	[redacted]	34.82
Q_u	0.64	0.25	2.44	[redacted]	[redacted]
P_u	68.70	56.95	100.00	[redacted]	0.94
Q_l	1.99	8.08	1.62	[redacted]	[redacted]
P_l	100.00	100.00	100.00	[redacted]	[redacted]
PWL	68.70	56.95	100.00	[redacted] Factor	0.95
PF	0.89	0.83	1.05	[redacted]	[redacted]

Note: Sublot values which appear in RED are outside of the Master Production Range as specified in Table 334-5, refer to 334-5.1.4.4.

Con[redacted] P200 PF < 0.90 at end of lot see 334-5.1.9

If P8 PF < 0.90 at end of lot see 334-5.1.9

Continue

Importance of Accuracy

- Non-Density Tonnage Affect on CPF

Remove Row | Add Row at selection | Copy (constant) | Copy (varied)

FIN ID (Project #): [redacted]

TIN#: [redacted]

☑ Lot Closed

Intended Lot Size: 2000 tons

☐ Static Only

State of Florida Department of Transportation

Asphalt Roadway - Daily Report of Quality Control

LOT #: 4

Mix Design #: [redacted] | Clear | Reload

Gmm: 2.543

Update Work book | Clear EVERYTHING | Select Pay Item #'s | Import from file | Import Pay Item | remove last lot | Clear Pay Item

Email Form Feedback to: SM-AsphaltForms@dot.state.fl.us

Constant Width Areas

Date	Day	Night Truck														Target Spread Rate (LB/SY)	BASE ONLY Total Thickness (in)	BASE ONLY Prorated Base (SY)
6/22/2011	Night	1	1	SP TL-D	N	R3	OVERBUILD	1	2	1358+00.00	1359+61.00	161				220		
6/22/2011	Night	1	1-2	SP TL-D	N	R2	OVERBUILD	1	2	1358+00.00	1359+61.00	161				220		
6/22/2011	Night	1	2	SP TL-D	N	R2	OVERBUILD	1	2	1357+18.00	1359+61.00	243				220		
6/22/2011	Night	1	2-3	SP TL-D	N	R1	OVERBUILD	1	2	1357+18.00	1359+61.00	243				220		
6/22/2011	Night	1	3-7	SP TL-D	N	R3	OVERBUILD	1	1	1358+03.00	1362+00.00	397				220		
6/22/2011	Night	1	7	SP TL-D	Y	R3	ML/BL	2	2	1357+22.00	1358+03.00	81				165		
6/22/2011	Night	1	12	SP TL-D	N	OR	DRVWY/CHEVY	1	1	1350+00.00	1352+17.00		25.0	230.56	18.50	1.5		165
6/22/2011	Night	1	12-13	SP TL-D	N	R1	OVERBUILD	1	2	1341+25.00	1342+25.00	100	12.0	133.33	14.20	2.0	213.00	220
6/22/2011	Night	1	13-14	SP TL-D	N	OR	DRVWY/OUTBACK	1	1	1334+92.00	1335+81.00	89	26.0	257.11	20.20	1.5	157.13	165
6/22/2011	Night	1	14-16	SP TL-D	N	[illegible]	[illegible]	[illegible]	3	[illegible]	1331+83.00	[illegible]	7.0	384.22	[illegible]	[illegible]	[illegible]	275
6/22/2011	Night	1	16-17	SP TL-D	N	[illegible]	LTL	2	2	1326+89.00	1331+83.00	494						165
6/22/2011	Night	1	17-21	SP TL-D	N	R1	OVERBUILD	3	3	1327+52.00	1331+83.00	431						275
6/22/2011	Night	1	21-22	SP TL-D	N	OR	ENTRANCE RD	1	1	1324+92.00	1326+22.00	130						165
6/22/2011	Night	1	22-23	SP TL-D	N	OR	DRVWY	1	1	1311+49.00	1312+34.00	85						165
6/22/2011	Night	1	23	SP TL-D	N	OR	RTL/TAPER	2	2	1314+75.00	1315+25.00	50						
6/22/2011	Night	1	23	SP TL-D	N	OR	RTL/BL	2	2	1315+25.00	1316+00.00	75						165
06/22/2011 DAILY TOTALS: 498.27 Total Tons 0.00 Tons Not in Lot 498.27 net tons (8.20 tons Require Density 490.07 to																		
6/26/2011	Night	2	3	SP TL-D	N	R1	OVERBUILD	1	2	1346+00.00	1346+[illegible]	33	[illegible]	44.00	[illegible]	1.0	110.00	110
6/26/2011	Night	2	3-4	SP TL-D	N	OR	DRVWY/FL EXEC	1	1	1340+98.00	1342+19.00	121	24.0	322.67	25.30	1.5	156.82	165
6/26/2011	Night	2	4	SP TL-D	N	R1	OVERBUILD	2	2	1331+83.00	1332+18.00	35	12.0	46.67	4.84	2.5	207.43	275
6/26/2011	Night	2	4	SP TL-D	N	RT	LTL/OVERBUILD	2	2	1331+83.00	1332+20.00	37	7.0	28.78	3.00	2.5	208.49	275
6/26/2011	Night	2	4	SP TL-D	N	RT	LTL	2	2	1331+83.00	1332+20.00	37	5.0	20.56	1.70	1.5	165.41	165
6/26/2011	Night	2	5	SP TL-D	N	OR	DRVWY/FORD	1	1	1303+58.00	1304+66.00	108	24.0	288.00	22.67	1.5	157.43	165
6/26/2011	Night	2	5-6	SP TL-D	N	OR	RTL/BL	2	2	1316+00.00	1318+20.00	220	13.0	317.78	25.42	1.5	159.99	165
6/26/2011	Night	2	6-7	SP TL-D	N	R3	OVERBUILD	1	3	1346+55.00	1346+27.00	28	12.0	37.33	5.00	2.5	267.86	[illegible]
6/26/2011	Night	2	7	SP TL-D	Y	R3	ML/BL	1	2	1346+34.00	1346+55.00	21	12.0	28.00	2.40	1.5	171.43	[illegible]
6/26/2011	Night	2	7	SP TL-D	Y	R3	ML/BL	1	2	1347+27.00	1347+00.00	27	12.0	36.00	3.00	1.5	166.67	165
6/26/2011	Night	2	7	SP TL-D	N	R3	OVERBUILD	2	3	1346+55.00	1346+27.00	28	12.0	37.33	4.98	2.5	266.79	275
6/26/2011	Night	2	7-8	SP TL-D	N	OR	CITRUS TOWER	1	2	1346+55.00	1346+78.00	23	78.0	199.33	15.64	1.5	156.92	165
6/26/2011	Night	2	8	SP TL-D	N	OR	GORE	1	2	1346+78.00	1346+88.00	10	78.0	86.67	7.20	1.5	166.15	165
6/26/2011	Night	2	8-9	SP TL-D	N	OR	CITRUS TOWER	1	2	1346+88.00	1347+27.00	39	78.0	338.00	26.51	1.5	156.86	165

Continue →

Importance of Accuracy

- Non-Density Tonnage Affect on CPF

top | Remove Row | Add Row at selection | Copy (constant) | Copy (varied)

FIN ID (Project #) [redacted]

TIN# [redacted]

☑ Lot Closed

Intended Lot Size: 2000 tons

☐ Static Only

State of Florida Department of Transportation

Asphalt Roadway - Daily Report of Quality Control

LOT # 4

Mix Design # [redacted] | Clear | Reload

Gmm: 2.543

Update Work book | Clear EVERYTHING | Select Pay Item #'s | Import from file | Import Pay Item | remove last lot | Clear Pay Item

675-030-20 MATERIAL 01/1

Email Form Feedback to: SM-AsphaltForms@dot.state.fl.us

Constant Width Areas

#	Date Paved	Day or Night	Sub Lot	Truck Load #'s	Intended Use	Density ?	Lane	Desc.	Lift # of #	Start Paving at Station	End Paving at Station	Length (FT)	Width (FT)	Area Paved (SY)	Quantity (TN)	Individual Lift Thickness (in)	Actual Spread Rate (LB/SY)	Target Spread Rate (LB/SY)	BASE ONLY Total Thickness (in)	BASE ONLY Prorated Base (SY)

NOTE: RT INDICATES "RIGHT ROADWAY"
1. Straightedge Correction
2. [redacted] Overmill
3. Area was milled of Friction (replaces lift 1 of 2) ([redacted] needed TL for Traffic Switch)
4. Temp placed to complete LTL for Traffic Swiitch

Intended Use	Pay Item #	Previous Total (Tons)	LOT Total (Tons)	Cumulative Total (Tons)	Previous Total (SY)	LOT Total (SY)	Cumulative Total (SY)
SP TL-D	334 114	3,633.58	1,351.68	4,985.26	37,362.60	14,706.67	52,069.26
No Pay Tonnage		220.92	8.93	229.85	2,501.22	79.56	2,580.78
Waste		12.00	0.00	12.00	0.00	0.00	0.00

	LOT Total (Tons)
Density Testing	147.28
No Density Testing *	1204.40
Total Tonnage	1351.68

Continue →

Importance of Accuracy

- Non-Density Tonnage Affect on CPF

Florida Department of Transportation

MATERIALS
APW: 06/11

Asphalt Plant - Lot Verification and Pay Factor Worksheet for Superpave Mixtures

July 2010 Spec Acceptance Option 1	Project Information			
Contractor: [redacted]			Fin. Project ID: [redacted]	
Mix Type: SP-12.5	Design No.: [redacted]	Plant N	Date Report	Reporte
LOT #: 4	Intended Tons: 2000	Actual Ton		
Verification Sublot: 2	Start Date: 6/22/2011	End Date: 6/30/2011	requiring no density:	1204.4 / 89.1%
Proj. Description: [redacted]				

Lot Verificatio

Property	P_{-8}	P_{-200}			
QC	52.37	6.54	5.		
Verification	51.06	6.52	5.16		
Tolerance	IN	IN	IN		
Property	Core 1 G_{mb}	Core 2 G_{mb}	Core 3 G_{mb}	Core 4 G_{mb}	Core 5 G_{mb}
QC	2.391		2.240	2.264	2.256
Verification	2.390		2.238	2.268	2.253
Tolerance	IN		IN	IN	IN

Lot Pay Factor Calculations

Property	P_{-8}	P_{-200}	P_b	Va	Density
Sublot 1	53.02	6.33	5.24	3.57	92.75
Sublot 2	48.31	6.58	4.96	2.60	90.01
Sublot 3	50.46	6.10	4.86	3.37	90.24
Sublot 4					
Target	49.00	5.40	5.10	4.0	93.0
n=	3.00	3.00	3.00	3.00	3.00
Mean	**50.60**	**6.34**	**5.02**	**3.18**	**91.00**
SD	2.358	0.240	0.197	0.5	1.6
Q_u	0.64	0.25	2.44		
P_u	68.70	56.95	100.00		
Q_l	1.99	8.08	1.62		
P_l	100.00	100.00	100.00		
PWL	68.70	56.95	100.00		
PF	0.89	0.83	1.05		

0.91	0.97	
Factor	0.96	

Note: Sublot values which appear in RED are outside of the Master Production Range as specified in Table 334-5, refer to 334-5.1.4.4.

Compr

200 PF < 0.90 at end of lot see 334-5.1.3

If P8 PF < 0.90 at end of lot see 334-5.1.3

Continue

Importance of Accuracy

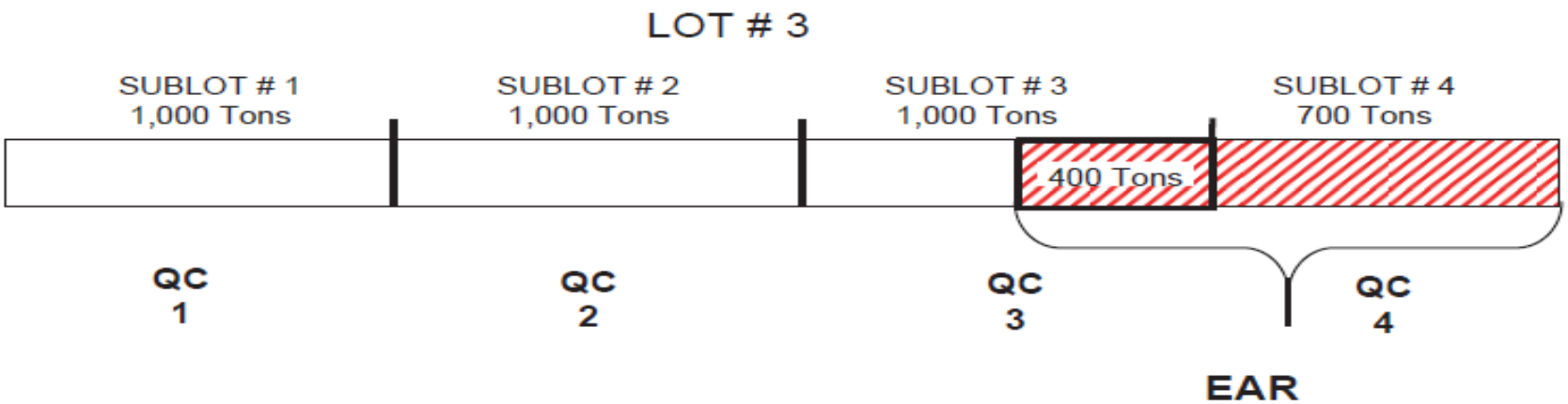
- Non-Density Tonnage Affect on CPF
  - $90.00 x 0.05 = -$4.50
    1,351.7 Tons x -$4.50 = -$6,082.65
  - $90.00 x 0.04 = -$3.60
    1,351.7 Tons x -$3.60 = -$4,866.12
  - $6,082.65 - $4,866.12 = **$ 1,216.53**

DDM Remove and Replace

Importance of Accuracy

- DDM Remove and Replace

Example of documenting Low Pay Factor Material due to Quality Control Test Failure



The production was shut down at 700 tons production in Sublot #4 due to a QC failure. After an EAR was performed it was determined that 400 tons in Sublot #3 was also affected.

All of Sublot #4 was removed therefore the remaining 3 QC test results are utilized to determine the CPF. The 3 QC test results represent the remainder of the Lot.

Total production for pay will be: 2,600 tons in Lot #3 based on the 3 QC tests. The 1,100 tons (400 tons Sublot #3 & 700 tons in Sublot #4) will be removed and replaced. The deduction will be handled in the remarks column of the ***Lot Submittal Package*** for Lot #3 with reference to the ***Lot Submittal Package*** where the replacement tonnage occurred. The replacement tonnage (1100 tons) will be paid at the CPF for the Lot that produced the replacement tonnage with explanation in the remarks column referencing this material to Lot #3.

Continue

- DDM

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

DISPOSITION OF DEFECTIVE MATERIAL

700-011-01
CONSTRUCTION
04/10

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

Financial Project No [redacted]
Contract No [redacted]
Federal Job No [redacted]

Material ID 123L	Sample No [redacted]	LIMS Sample ID [redacted]
Pay Item No 2 50 2	Quantity 154 12 TN	Location 596+30 to 666+25 IL, R1 and R3

Description of Defective Material On 4/7/11 the air-voids fell outside of the master production range (1 8% for mix SP08-8609C) Due to the air-voids being outside of the MPR on a pay test, the lot was terminated

☐ EAR Scope attached

Section B: Proposal - Project Administrator/Resident Engineer

☒ Remove and Replace Material ☐ Follow up Sample Passed (MM 3 1)
☐ Send to DME for Concurrence with following Proposal, (EAR Scope attached)
☐ Concurs w/ EAR ☐ Rejects (See Comments Below) ☐ Leave in Place, EAR not required

Signature (PA): [redacted] **Date:** 4/12/11

Comments This LOT was placed on 3/30 and 4/7 The failing material on 4/7 to be Removed and Replaced

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
☐ Concur with EAR Scope (attached) – Send to PA

Signature: **Date**

Comments

Section D Material Disposition Recommendation (EAR Performed) – District Materials Engineer

☐ Chose 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 removed

DME Concurs with EAR Recommendations - Yes ☐ No ☐

Signature. **Date**

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

Comments

Signature. **Date**

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 0.00 % pay [redacted]

Comments The material has been removed and replaced in LOT #12 (154.12 TN)

cc FHWA District Transportation Engineer (FA Oversight Projects only)

Continue

Importance of Accuracy

top | Remove Row at selection | Add Row at selection | ☐ Lot Closed | State of Florida Department of Transportation | Clear EVERYTHING | Import from file | remove last lot | Import Tickets (beta)

Asphalt Roadway - Daily Report of Quality Control

FIN ID (Project #): [redacted]

TIN#: [redacted]

Intended Lot Size: 2000 tons

☐ Static Only

LOT #: 9 | Update Work book

Mix Design #: [redacted] | Clear | Reload

Gmm: 2.480

Em SM-Asphalt [illegible] state.fl.us

Constant Width Area | Copy (constant) | Copy (varied)

#	Date Paved	Sub Lot	Truck Load #'s	Intended Use	Density ?	Lane	Desc.	Lift #	of #	Start Paving at Station	End Paving at Station	Length (FT)	Width (FT)	Area Paved (SY)	Quantity (TN)	Individual Lift Thickness (in)	Actual Spread Rate (LB/SY)	Target Spread Rate (LB/SY)	BASE ONLY Total Thickness (in)	BASE ONLY Prorated Base (SY)
	3/30/2011	1	1-2	SP TL-D	N	OR	Overbuild	2	2	643+00.00	648+00.00	500	12.0	666.67	41.67	1.2	125.01	129		
	3/30/2011	1	2-4	SP TL-D	N	R3	Overbuild	2	2	643+00.00	648+00.00	500	12.0	666.67	42.40	1.2	127.20	129		
	3/30/2011	1	4-7	SP TL-D	N	R2	Overbuild	1	1	644+20.00	637+80.00	640	12.0	853.33	52.45	1.2	122.93	129		
	3/30/2011	1	7-10	SP TL-D	N	R2	Overbuild	1	1	636+80.00	630+00.00	680	12.0	906.67	56.00	1.2	123.53	129		
	3/30/2011	1	10-12	SP TL-D	N	R2	Overbuild	1	1	629+00.00	624+00.00	500	12.0	666.67	62.93	1.7	188.79	183		
→	03/30/2011 DAILY TOTALS: 255.45 Total Tons 0.00 Waste Tons 255.45 net tons (0.00 tons Require Density 255.45 tons Non-Density)																			
	4/7/2011	1	1-2	SP TL-D	N	R3	Overbuild	1	1	596+30.00	598+45.00	215	13.0	310.56	23.41	1.4	150.76	150		
	4/7/2011	1	2	SP TL-D	N	R3	Overbuild	1	1	601+80.00	603+00.00	120	9.0	120.00	9.30	1.4	155.00	150		
	4/7/2011	1	2	SP TL-D	N	R1	Overbuild	1	2	604+80.00	606+00.00	120	8.0	106.67	8.30	1.4	155.63	150		
	4/7/2011	1	3-6	SP TL-D	N	R1	Overbuild	2	2	604+80.00	606+00.00	120	15.0	200.00	15.61	1.4	156.10	150		
	4/7/2011	1	6	SP TL-D	N	R1	Overbuild	1	1	606+00.00	609+90.00	390	15.0	650.00	50.00	1.4	153.85	150		
	4/7/2011	1	6	SP TL-D	N	IL	Overbuild	1	1	665+00.00	666+25.00	125	12.0	166.67	19.00	2.2	228.00	231		
	4/7/2011	1	6-8	SP TL-D	N	R1	Overbuild	1	1	665+00.00	666+25.00	125	18.0	250.00	28.50	2.2	228.00	236		
	4/7/2011			Waste											55.00					
→	04/07/2011 DAILY TOTALS: 209.12 Total Tons 55.00 Waste Tons 154.12 net tons (0.00 tons Require Density 154.12 tons Non-Density)																			

154.12

Varied Width Areas

Continue →

- DDM

Export Report

675-030-22
MATERIALS
APW: 07/11

Florida Department of Transportation

Asphalt Plant - Lot Verification and Pay Factor Worksheet for Superpave Mixtures

January, 2009 Spec Acceptance Option 1

Project Information

Contractor: [redacted]				Fin. Project ID: [redacted]	
Mix Type: SP-12.5	Design No.: [redacted]		Plant No.: [redacted]	Reported By: [redacted]	
LOT #: 9	Intended Tons: 2000		Actual Tons: 409.57	Date Reported: 4/11/2011	
Verification Sublot: 1	Start Date: 3/30/2011	End Date: 4/7/2011		Tons in this lot requiring no density: 409.57	100.0%
Proj. Description: SR25/US27					

☑ Highlight Data Entry Cells Lot Verification Auto CPF Function Input / Clear CPF Data

Property	P_{-8}	P_{-200}	P_b	Rice G_{mm}	Lab G_{mb}
QC	46.97	5.44	5.64	2.449	2.405
Verification	46.63	5.56	5.59	2.449	2.407
Tolerance	IN	IN	IN	IN	IN
Property	Core 1 G_{mb}	Core 2 G_{mb}	Core 3 G_{mb}	Core 4 G_{mb}	Core 5 G_{mb}
QC					
Verification					
Tolerance					

Was This Lot Terminated? Yes

Lot Pay Factor Calculations

Property	P_{-8}	P_{-200}	P_b	Va	Density
Sublot 1	46.97	5.44	5.64	1.80	
Sublot 2					
Sublot 3					
Sublot 4					
Target	49.00	5.70	5.10	4.0	93.0
n=	1.00	1.00	1.00	1.00	
Mean	**46.97**	**5.44**	**5.64**	**1.80**	
SD					
Q_u					
P_u					
Q_l					
P_l					
PWL					
PF	**1.00**	**1.00**	**0.90**	**0.70**	**1.00**
Note: Sublot values which appear in RED are outside of the Master Production Range as specified in Table 334-5, refer to 334-5.1.4.4.			Composite Pay Factor		**0.90**

LOT Terminated

If Va PF < 0.90 at end of lot see 334-5.1.3

Comments:

Continue

Importance of Accuracy

Remove Row at selection | Add Row at selection

☐ Lot Closed

State of Florida Department of Transportation

Asphalt Roadway - Daily Report of Quality Control

Clear EVERYTHING | Import from file | remove last lot | Import Tickets (beta)

FIN ID (Project #): [redacted]

TIN#: [redacted]

Intended Lot Size: 4000 tons

☐ Static Only

LOT #: 12

Mix Design #: [redacted]

Update Workbook | Clear | Reload

Gmm: 2.455

Ema[redacted]

SM-Asphalt[redacted]state.fl.us

Constant Width Areas | Copy (constant) | Copy (varied)

#	Date Paved	Sub Lot	Truck Load #'s	Intended Use	Density ?	Lan	Desc.	Lift # of #		Start Paving at Station	End Paving at Station	Length (FT)	Width (FT)	Area Paved (SY)	Quantity (TN)	Individual Lift Thickness (in)	Actual Spread Rate (LB/SY)	Target Spread Rate (LB/SY)	BASE ONLY Total Thicknes s (in)	BASE ONLY Prorated Base (SY)
1	4/11/2011	1	1-2	SP TL-D	N	R3	Overbuild	1	1	596+30.00	598+45.00	215	13.0	310.56	23.41	1.4	150.76	149		
1	4/11/2011	1	2	SP TL-D	N	R3	Overbuild	1	1	601+80.00	603+00.00	120	9.0	120.00	9.30	1.4	155.00	149		
1	4/11/2011	1	2	SP TL-D	N	R1	Overbuild	1	2	604+80.00	606+00.00	120	8.0	106.67	8.30	1.4	155.63	149		
1	4/11/2011	1	2-3	SP TL-D	N	R1	Overbuild	2	2	604+80.00	606+00.00	120	15.0	200.00	15.40	1.4	154.00	149		
1	4/11/2011	1	3-6	SP TL-D	N	R1	Overbuild	1	1	606+00.00	609+90.00	390	15.0	650.00	50.21	1.4	154.49	149		
1	4/11/2011	1	6	SP TL-D	N	IL	Overbuild	1	1	665+00.00	666+25.00	125	12.0	166.67	19.00	2.2	228.00	234		
1	4/11/2011	1	6-8	SP TL-D	N	R1	Overbuild	1	1	665+00.00	666+25.00	125	18.0	250.00	29.50	2.2	236.00	234		
	4/11/2011	1	8	SP TL-D	N	IL	Overbuild	1	1	664+70.00	665+00.00	30	12.0	40.00	3.08	1.4	154.00	149		
	4/11/2011	1	8	SP TL-D	N	R1	Overbuild	1	1	664+70.00	665+00.00	30	18.0	60.00	4.68	1.4	156.00	149		
	4/11/2011	1	8	SP TL-D	N	IL	Overbuild	1	1	666+25.00	666+65.00	40	12.0	53.33	4.00	1.4	150.00	149		
	4/11/2011	1	8-9	SP TL-D	N	R1	Overbuild	1	1	666+25.00	666+65.00	40	18.0	80.00	6.12	1.4	153.00	149		
	4/11/2011	1	9-11	SP TL-D	N	R2	Overbuild	1	1	661+90.00	666+65.00	475	12.0	633.33	49.01	1.4	154.77	149		
→	04/11/2011 DAILY TOTALS: 222.01 Total Tons 0.00 Waste Tons 222.01 net tons (0.00 tons Require Density 222.01 tons Non-Density)																			

155.12

Varied Width Areas

Continue

[redacted]

#1 Replace asphalt removed for DDM failure Lot #9

Intended Use	Pay Item #	Previous Total (Tons)	LOT Total (Tons)	Cumulative Total (Tons)	Previous Total (SY)	LOT Total (SY)	Cumulative Total (SY)

- DDM

675-030-22
MATERIALS
APW: 07/11

Florida Department of Transportation

Asphalt Plant - Lot Verification and Pay Factor Worksheet for Superpave Mixtures

January, 2009 Specs Acceptance Option 1	Project Information			
Contractor: [redacted]				Fin. Project ID: [redacted]
Mix Type: SP-12.5	Design No. [redacted]	Plant No.: [redacted]		Reported By: [redacted]
LOT #: 9	Intended Tons: 2000	Actual Tons: ~~409.57~~ 254.45		Date Reported: 4/11/2011
Verification Sublot: 1	Start Date: 3/30/2011	End Date: 4/7/2011	Tons in this lot requiring no density: ~~409.57~~ 254.45	100.0%
Proj. Description: [redacted]				

Lot Verification					
Property	P_{-8}	P_{-200}	P_b	Rice G_{mm}	Lab G_{mb}
QC	46.97	5.44	5.64	2.449	2.405
Verification	46.63	5.56	5.59	2.449	2.407
Tolerance	IN	IN	IN	IN	IN
Property	Core 1 G_{mb}	Core 2 G_{mb}	Core 3 G_{mb}	Core 4 G_{mb}	Core 5 G_{mb}
QC					
Verification					
Tolerance					

Was This Lot Terminated? Yes

Lot Pay Factor Calculations					
Property	P_{-8}	P_{-200}	P_b	Va	Density
Sublot 1	46.97	5.44	5.64	1.80	
Sublot 2					
Sublot 3					
Sublot 4					
Target	49.00	5.70	5.10	4.0	93.0
n=	1.00	1.00	1.00	1.00	
Mean	**46.97**	**5.44**	**5.64**	**1.80**	
SD					
Q_u					
P_u					
Q_l					
P_l					
PWL					
PF	**1.00**	**1.00**	**0.90**	**0.70**	**1.00**
Note: Sublot values which appear in RED are outside of the Master Production Range as specified in Table 334-5, refer to 334-5.1.4.4.			Composite Pay Factor		**0.90**

LOT Terminated

If Va PF < 0.90 at end of lot see 334-5.1.9

Comments:

Contractor removed defective material that was produced on 04/07/11(154.12 tons) Material was replaced on 04/11/2011 in lot 12 and included in the lot total. Deducted 155.12 Tons. (409.57 - 155.12 = 254.45 Tons)

Continue

Importance of Accuracy

- DDM Remove and Replace
  - Stations on the Replacement Asphalt Need to Match the Stations on the DDM.
  - Tonnage that Replaced the Asphalt that was Removed, Needs to be Taken Away from the Original Lot that the DDM was Assessed Against.

Importance of Accuracy

Square Yards

Importance of Accuracy

- Why is it so Important to have Good Square Yards on the Road Report?
  - Asphalt Base is a Square Yard Pay Item, and the Square Yards from the Road Report's are used for each Lot's CPF.
  - The Maximum Deficiency for Asphalt Base of 2 ½ " or More is 50 Lbs./SY., so your Square Yards being incorrect could require Removal and Replacement or Coring for Thickness.
  - Good Square Yards are needed to make sure the spread rate for base stays within 5% of Target. Per Specs it is not allowed to pay for any tonnage over 5% of the Target Spread Rate.
  - On Lump Sum Projects, Good Square Yards are needed to make sure the spread rate stays within 5% of Target. Per Specs, if the Spread for the Sub-Lot is Shy by more than 5%, the layers of Asphalt will have to be stacked in the Area that is Shy to determine if a Penalty is to be assessed.

Importance of Accuracy

Lump Sum/Stacking

Importance of Accuracy

- Lump Sum/Stacking

9-2.2.2 Asphalt Design Thickness/Spread Rate: The average spread rate per sublot will be used to determine if the amount of asphalt placed on the project meets the minimum requirements specified in the Contract Documents. Before placing asphalt mix, propose a target spread rate for each layer, which when combined with other layers, will meet the design thickness or spread rate specified in the Contract Documents. The weight of the mixture will be determined as provided in 330-2 (including the provisions for automatic recordation of the asphalt mix weighed mix by 73.3 lbs/sy for every inch of asphalt.

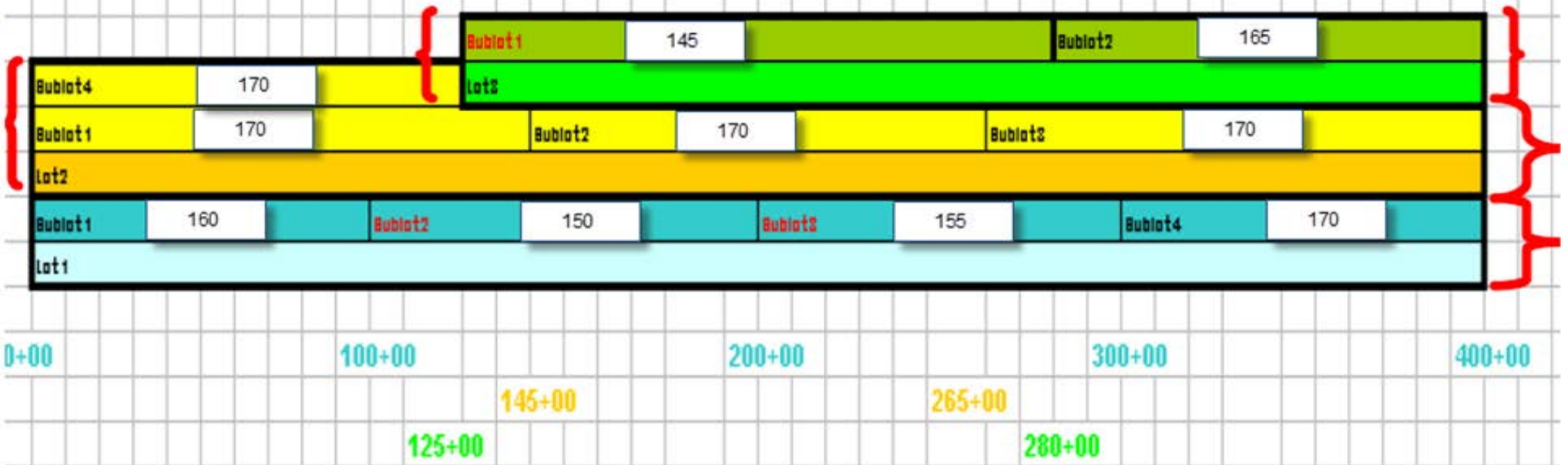
On projects specifying a total spread rate of mix in the Contract

During construction, monitor the mix spread rate of each sublot at frequent intervals in accordance with 330-2.2 in order to meet the target spread rate for each sublot. Document the actual spread rate of each sublot on the Roadway QC Form.

The Engineer will determine the material of the roadway pavement in the Department. Final disposition of the finished roadway pavement will be based upon the comparison between the design spread rate specified in the Contract Documents and the combined value of the average spread rate of each sublot at the same area (including FC-6, but excluding FC-5). The acceptable tolerance of the combined spread rate evaluation of the roadway pavement is ± 5%.

Reductions in pay will be determined per sublot by applying a spread rate for the sublot to the design spread rate, which will then be applied using the unit price(s) as shown in Table 9-1. Any quantity over the designed spread rate specified in the Contract Documents shall not be paid.

Continue



Spreadrates **Target 165 #/sy** **-5% rate = 157 #/sy**

Total = 4.5" **+5% rate = 173 #/sy**

Total spread = 495 #/sy

-5% total = 470 #/sy

+5% total = 520 #/sy

	Sublot 1	Sublot 2	Sublot 3	Sublot 4
Lot 1	160	150	155	170
Lot 2	170	170	170	170
Lot 3	145	165		

Deficiency Adjustments

Stations	Total Spreadrate		
0+00 to 100+00	160+170+170 =	500	
100+00 to 125+00	150+170+170 =	490	
125+00 to 145+00	150+170+145 =	465	Deficiency applied to this location
145+00 to 200+00	150+170+145 =	465	Station 125+00 to 200+00
200+00 to 265+00	155+170+145 =	470	
265+00 to 280+00	155+170+145 =	470	
280+00 to 300+00	155+170+165 =	490	
300+00 to 400+00	170+170+165 =	505	

Continue →

Importance of Accuracy

- Lump Sum - Target Spread Rate
  - Example
  - Sta. 125 +00 – STA. 200+00 = 7,500 Ft.
  - (7,500 Ft X 12 Ft) ÷9 = 10,000 SY Deficient Area
  - deficient = 495 – 465 = 30 #/SY
  - (10,000 SY X 30 #/SY) ÷ 2000 #/Ton = 150 Tons
  - Per Specifications: reduction in pay will be determined per sublot by applying a proportional reduction in payment based on a ratio of the avg. spread rate to the design spread rate, and the ratio will be applied to the unit price shown in Table-9-1.
  - 465 / 495 = 0.94
  - 0.94 X $ 46.59 = $ 43.79
  - $43.79 X 150 Tons = **– $ 6,568.50** This will be entered as a negative line item adjustment

Continue

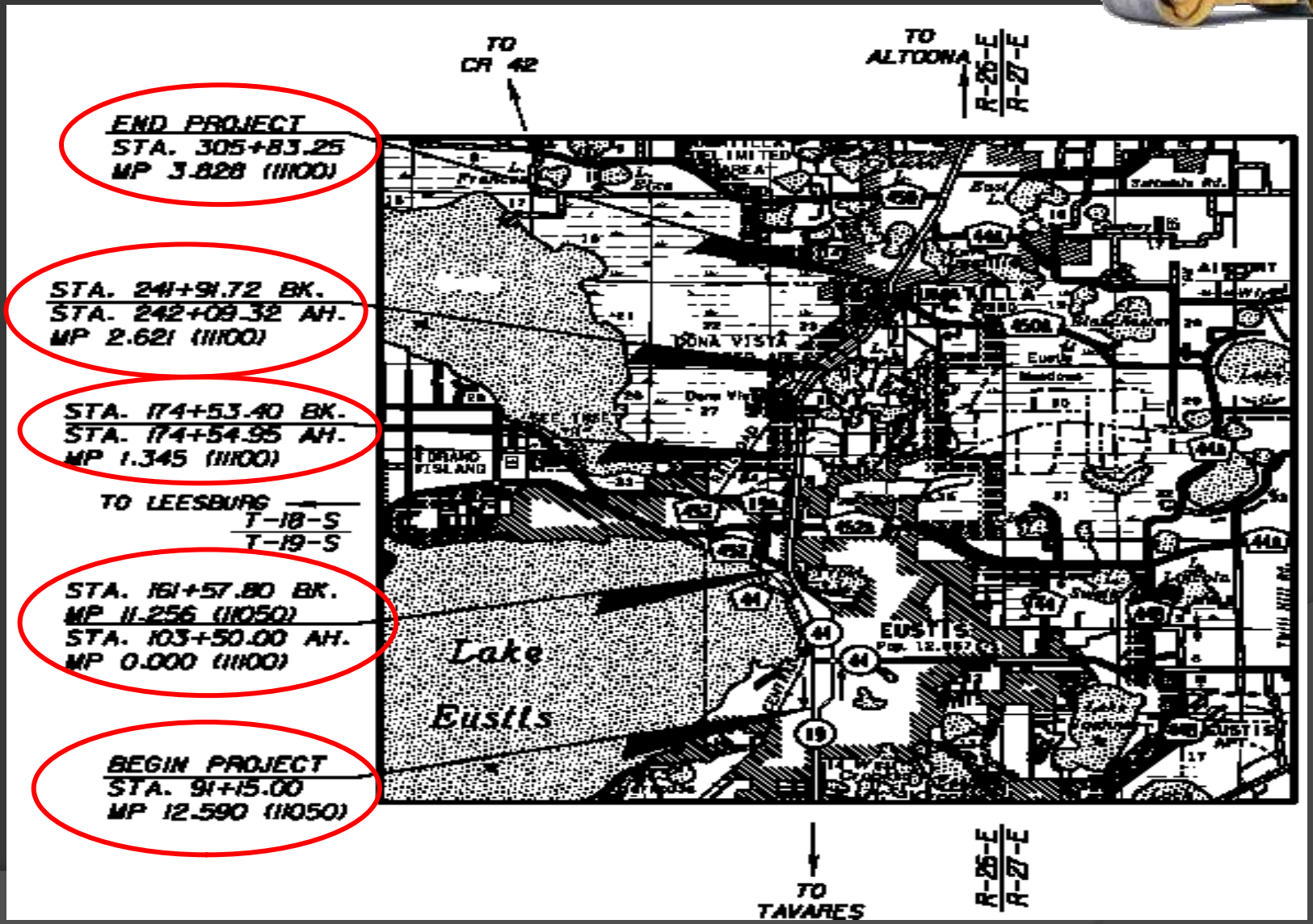
Importance of Accuracy

- Penalties & As-Builts
  - Accuracy of Stations for Begin, End, Equations & Exceptions on the Road Reports are Important because the Department can not pay for Quantities off of the Project.
  - Widths need to be Documented Correctly so that any Straightedge Penalty can be Assessed Correctly.
  - Lanes and Lifts Need to be Accurate in Case of Shy Areas or DDM's for Remove and Replacement or Leave in Place at No Pay.

Continue →

Importance of Accuracy

- As-Builts



Importance of Accuracy

Questions

Exercise Answers

QC Road Report Exercise

- Tools:
  - Typical Section
    - Widening Areas
      - Outside Lanes 11’ (R3/L3 = 7’ and Bike Lane = *4’)
      - Inside Lanes 5’
  - Plan Sheets
    - Shows where the widening is
  - Striping Sheets
    - Lane designation
    - Bike Lane = *5’ (at Sta. 1328+50 to 1332+00+/-)

QC Road Report Exercise

- ANSWERS: Day 1 – 1

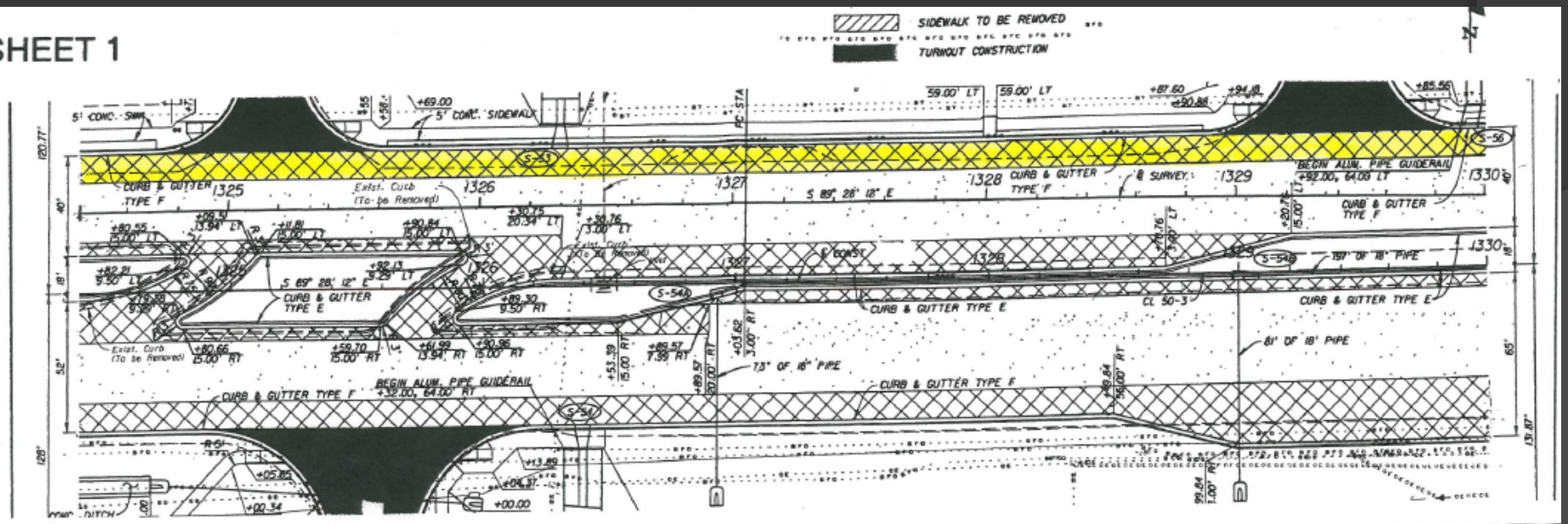
State of Florida Department of Transportation

Asphalt Roadway - Daily Report of Quality Control

FIN ID (Project #)		Intended Lot Size	LOT #	1	675-030-20A
TIN#			Mix Design #		

#	Date Paved	Day or Night	Sub Lot	Truck Load #'s	Intended Use	Density ?	Lane	Desc.	Lift # of #		Start Paving at Station	End Paving at Station	Length (FT)	Width (FT)	Area Paved (SY)	Quantity (TN)	Individual Lift Thickness
Constant Width Areas																	
	9/6/2011			1-3		Y	L3	ML 7' / BL 4'	1	2	1330+00.00	1324+40.00		11.0		56.71	1.5

PLAN SHEET 1



QC Road Report Exercise

- ANSWERS: Day 1 – 2a

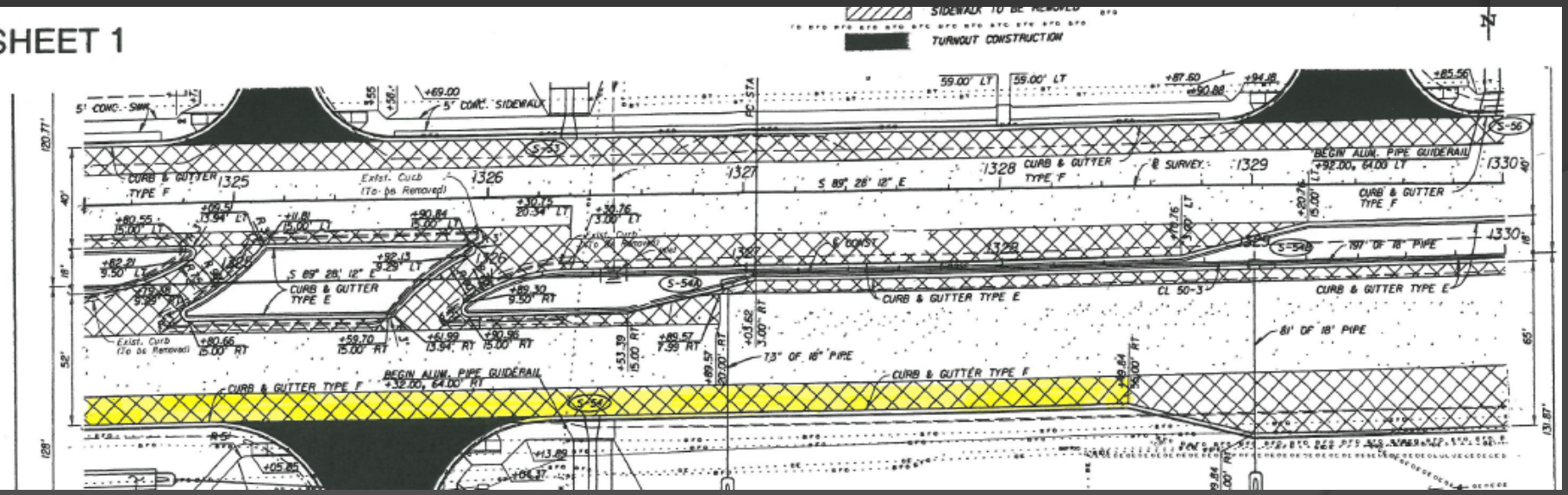
State of Florida Department of Transportation

Asphalt Roadway - Daily Report of Quality Control

FIN ID (Project #)		Intended Lot Size	LOT #	1	675-030-20A
TIN#			Mix Design #		

#	Date Paved	Day or Night	Sub Lot	Truck Load #'s	Intended Use	Density ?	Lane	Desc.	Lift # of #		Start Paving at Station	End Paving at Station	Length (FT)	Width (FT)	Area Paved (SY)	Quantity (TN)	Individual Lift Thickness
	Constant Width Areas																
	9/6/2011			1-3		Y	L3	ML 7' / BL 4'	1	2	1330+00.00	1324+40.00		11.0		56.71	1.5
	9/6/2011			**3-5**		**Y**	**R3**	**ML 7' / BL 4'**	**1**	**2**	**1324+40.00**	**1328+50.00**		**11.0**		**42.33**	**1.5**

PLAN SHEET 1



QC Road Report Exercise

- ANSWERS: Day 1 – 2b

State of Florida Department of Transportation

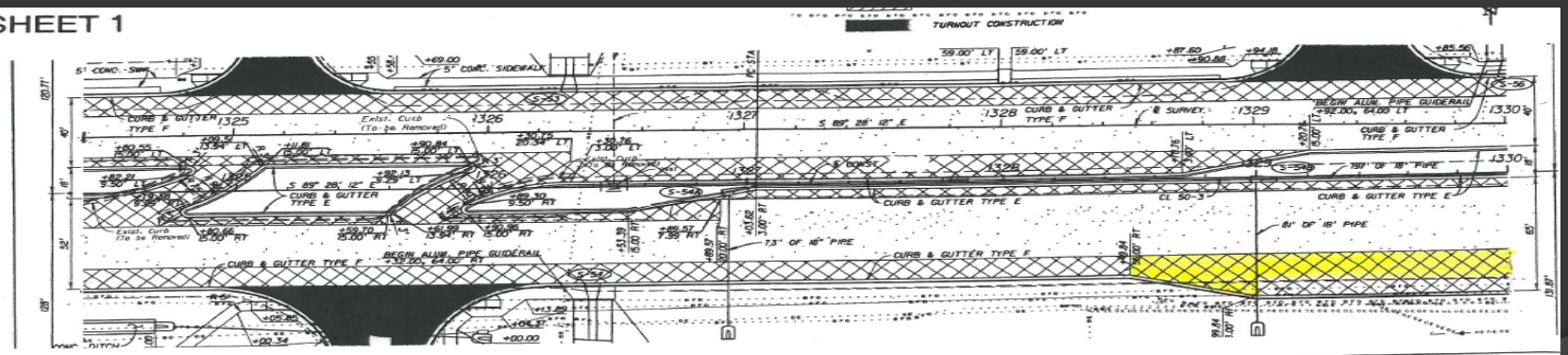
Asphalt Roadway - Daily Report of Quality Control

FIN ID (Project #)		Intended Lot Size	LOT #	1
	TIN#		Mix Design #	

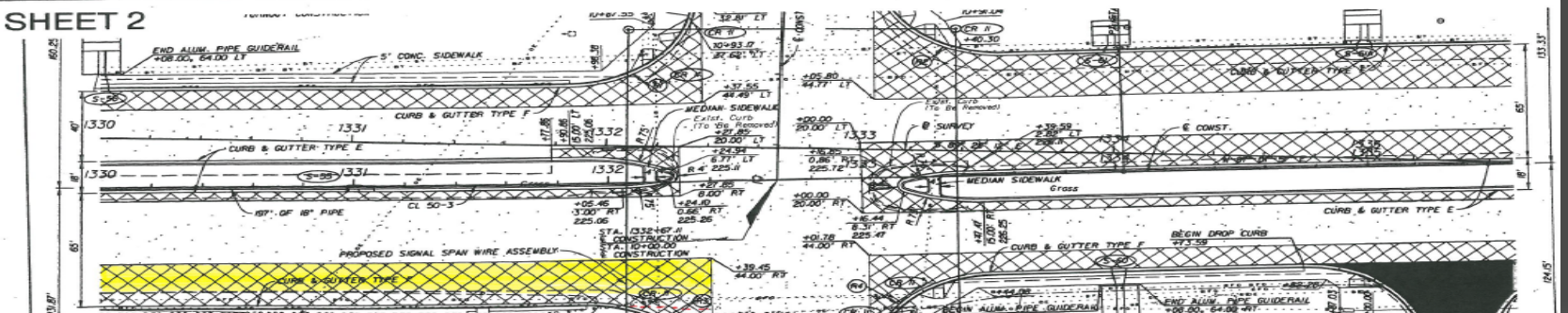
675-030-20A

Date Paved	Day or Night	Sub Lot	Truck Load #'s	Intended Use	Density ?	Lane	Desc.	Lift # of #		Start Paving at Station	End Paving at Station	Length (FT)	Width (FT)	Area Paved (SY)	Quantity (TN)	Individual Lift Thickness
Constant Width Areas																
9/6/2011			3-5		Y	R3	ML 7' / BL 4'	1	2	1324+40.00	1328+50.00		11.0		42.33	1.5
9/6/2011			**5-7**		**Y**	**R3**	**ML 7' / BL 5'**	**1**	**2**	**1328+50.00**	**1332+39.00**		**12.0**		**43.92**	**1.5**
Varied Width Areas																
9/6/2011			**5**		**N**	**RT**	**Outside TL**	**1**	**2**	**1328+50.00**	**1329+00.00**		**6.0**		**2.75**	**1.5**

PLAN SHEET 1



PLAN SHEET 2



QC Road Report Exercise

- ANSWERS: Day 1 – 2c

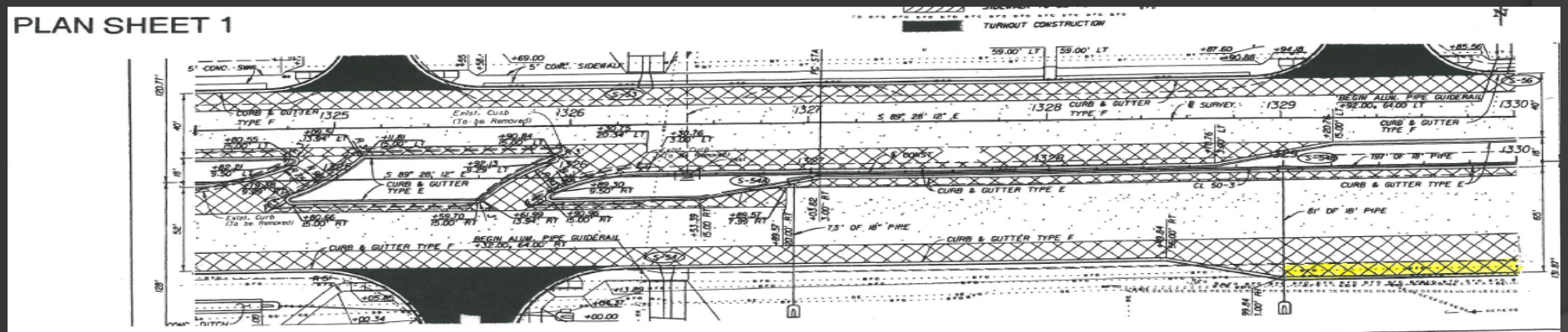
State of Florida Department of Transportation

Asphalt Roadway - Daily Report of Quality Control

FIN ID (Project #)		Intended Lot Size	LOT #	1	675-030-20A
	TIN#		Mix Design #		

#	Date Paved	Day or Night	Sub Lot	Truck Load #'s	Intended Use	Density ?	Lane	Desc.	Lift #	of #	Start Paving at Station	End Paving at Station	Length (FT)	Width (FT)	Area Paved (SY)	Quantity (TN)	Individual Lift Thickness
	Constant Width Areas																
	9/6/2011			5-7		Y	R3	ML 7' / BL 5'	1	2	1328+50.00	1332+39.00		12.0		43.92	1.5
	9/6/2011			**7-9**		**N**	**RT**	**Outside TL**	**1**	**2**	**1329+00.00**	**1332+39.00**		**12.0**		**37.78**	**1.5**

PLAN SHEET 1



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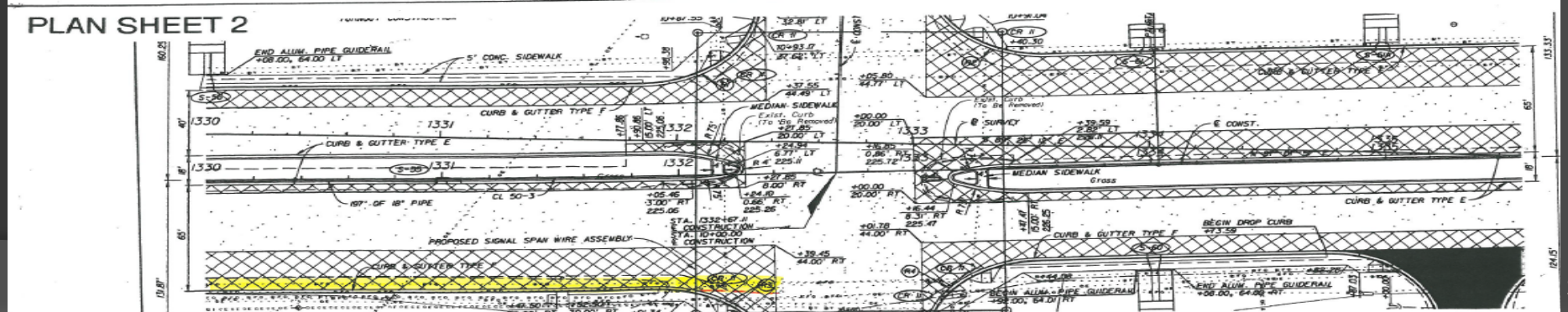


QC Road Report Exercise

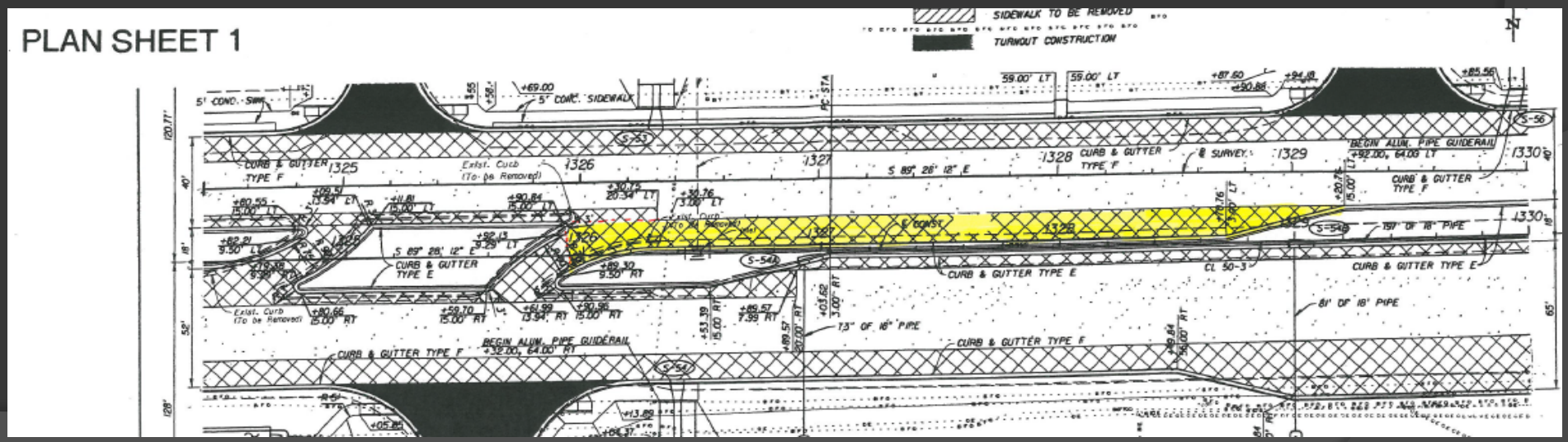
- ANSWERS: Day 1 – 3a

State of Florida Department of Transportation

Asphalt Roadway - Daily Report of Quality Control

FIN ID (Project #)		Intended Lot Size	LOT #	1	675-030-20A
	TIN#		Mix Design #		

Date Paved	Day or Night	Sub Lot	Truck Load #'s	Intended Use	Density ?	Lane	Desc.	Lift #	of #	Start Paving at Station	End Paving at Station	Length (FT)	Width (FT)	Area Paved (SY)	Quantity (TN)	Individual Lift Thickness
Constant Width Areas																
9/6/2011			7-9		N	RT	Outside TL	1	2	1329+00.00	1332+39.00		12.0		37.78	1.5
9/6/2011			**9-11**		**N**	**LT**	**Inside TL**	**1**	**2**	**1328+71.00**	**1325+91.00**		**12.0**		**31.96**	**1.5**
Varied Width Areas																
9/6/2011			5		N	RT	Outside TL	1	2	1328+50.00	1329+00.00		6.0		2.75	1.5
9/6/2011			**9**		**N**	**LT**	**Inside TL**	**1**	**2**	**1329+21.00**	**1328+71.00**		**6.0**		**2.75**	**1.5**



QC Road Report Exercise

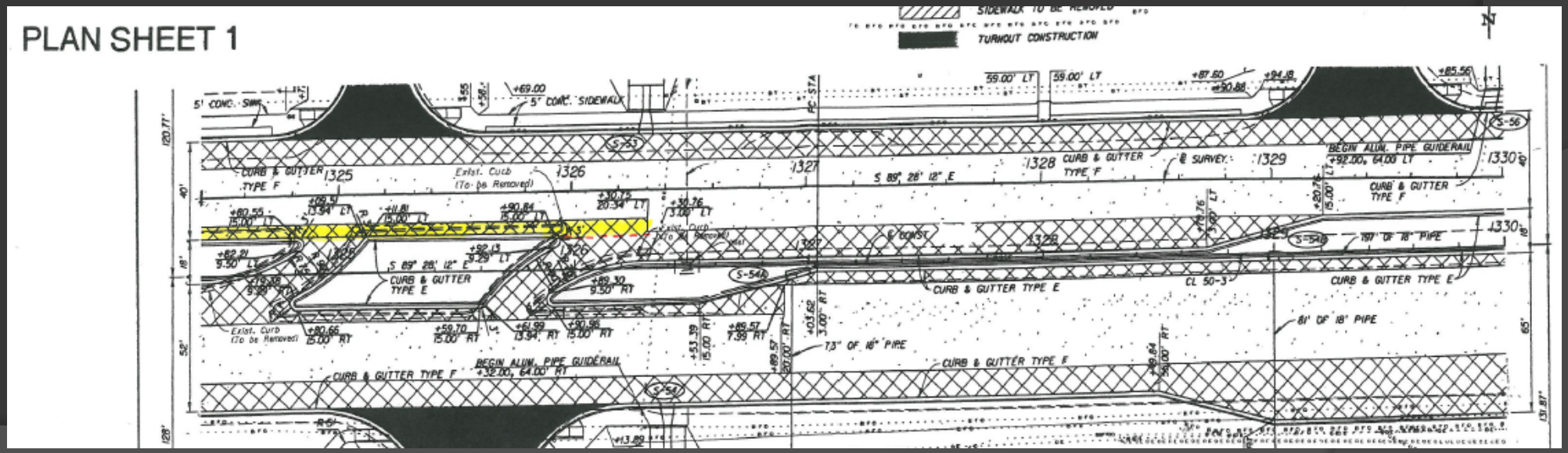
- ANSWERS: Day 1 – 3b

State of Florida Department of Transportation

Asphalt Roadway - Daily Report of Quality Control

FIN ID (Project #)		Intended Lot Size	LOT #	1	675-030-20A
TIN#			Mix Design #		

#	Date Paved	Day or Night	Sub Lot	Truck Load #'s	Intended Use	Density ?	Lane	Desc.	Lift #	of #	Start Paving at Station	End Paving at Station	Length (FT)	Width (FT)	Area Paved (SY)	Quantity (TN)	Individual Lift Thickness
Constant Width Areas																	
	9/6/2011			9-11		N	LT	Inside TL	1	2	1328+71.00	1325+91.00		12.0		31.96	1.5
	9/6/2011			11		N	L1	ML	1	2	1326+31.00	1324+40.00		5.0		7.22	1.5



QC Road Report Exercise

- ANSWERS: Day 1 – 4a

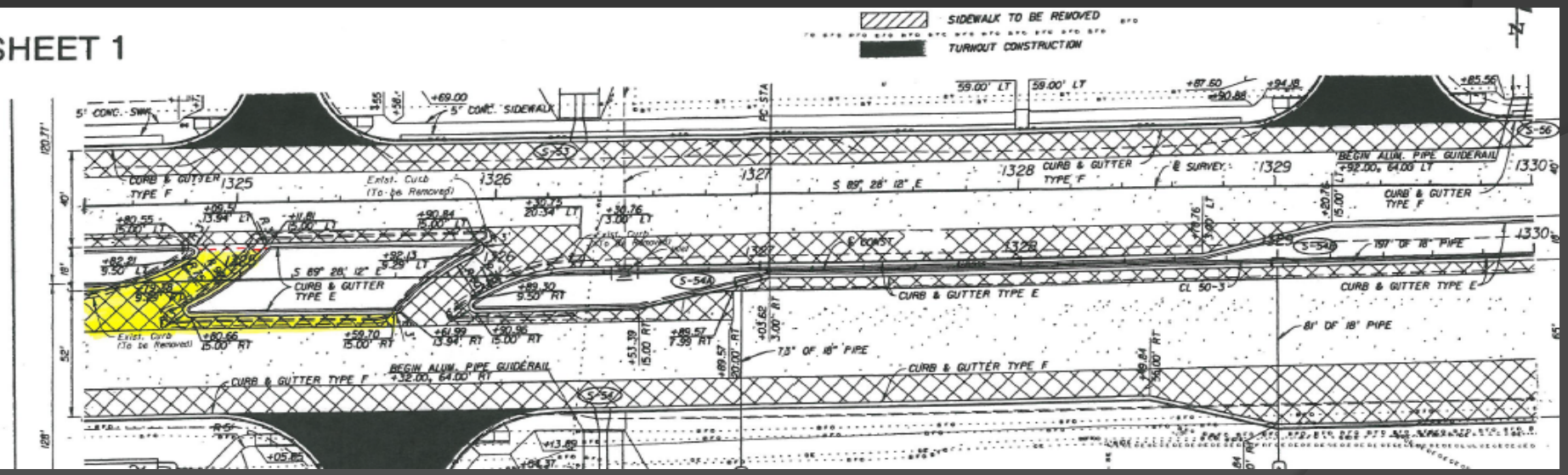
State of Florida Department of Transportation

Asphalt Roadway - Daily Report of Quality Control

FIN ID (Project #)		Intended Lot Size	LOT #	1	675-030-20A
TIN#			Mix Design #		

#	Date Paved	Day or Night	Sub Lot	Truck Load #'s	Intended Use	Density ?	Lane	Desc.	Lift #	of #	Start Paving at Station	End Paving at Station	Length (FT)	Width (FT)	Area Paved (SY)	Quantity (TN)	Individual Lift Thickness
Constant Width Areas																	
	9/6/2011			11		N	L1	ML	1	2	1326+31.00	1324+40.00		5.0		7.22	1.5
	9/6/2011			**11-12**		**N**	**R1**	**ML**	**1**	**2**	**1324+40.00**	**1325+60.00**		**5.0**		**5.69**	**1.5**
Varied Width Areas																	
	9/6/2011			**11**		**N**	**RT**	**Crossover**	**1**	**2**	**1324+40.00**	**1325+10.00**		**18.0**		**11.60**	**1.5**

PLAN SHEET 1



QC Road Report Exercise

- ANSWERS: Day 1 – 4b

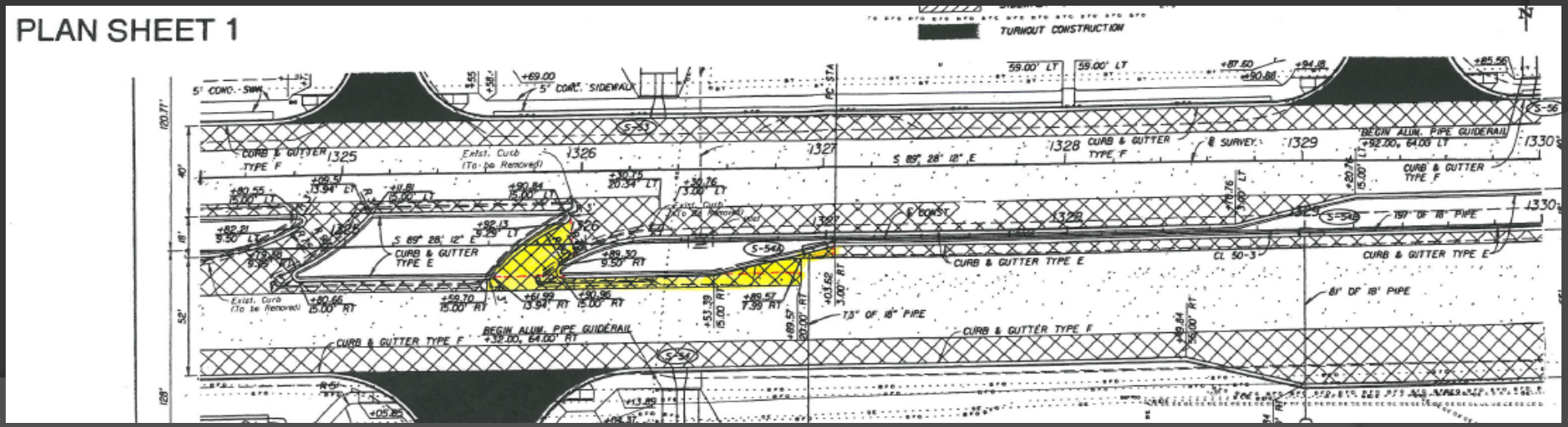
State of Florida Department of Transportation

Asphalt Roadway - Daily Report of Quality Control

FIN ID (Project #)		Intended Lot Size		LOT #	1	675-030-20A
	TIN#			Mix Design #		

#	Date Paved	Day or Night	Sub Lot	Truck Load #'s	Intended Use	Density ?	Lane	Desc.	Lift #	of #	Start Paving at Station	End Paving at Station	Length (FT)	Width (FT)	Area Paved (SY)	Quantity (TN)	Individual Lift Thickness
	Constant Width Areas																
	9/6/2011			11-12		N	R1	ML	1	2	1324+40.00	1325+60.00		5.0		5.69	1.5
	9/6/2011			12-13		N	R1	ML	1	2	1325+60.00	1326+90.00		5.0		6.23	1.5
	Varied Width Areas																
	9/6/2011			12-13		N	RT	Crossover	1	2	1325+60.00	1325+91.00		29.0		8.47	1.5
	9/6/2011			12-13		N	RT	Inside TL	1	2	1326+54.00	1326+90.00		3.5		1.18	1.5
	9/6/2011			12-13		N	RT	Inside TL	1	2	1326+90.00	1327+04.00		2.5		0.33	1.5

PLAN SHEET 1



QC Road Report Exercise

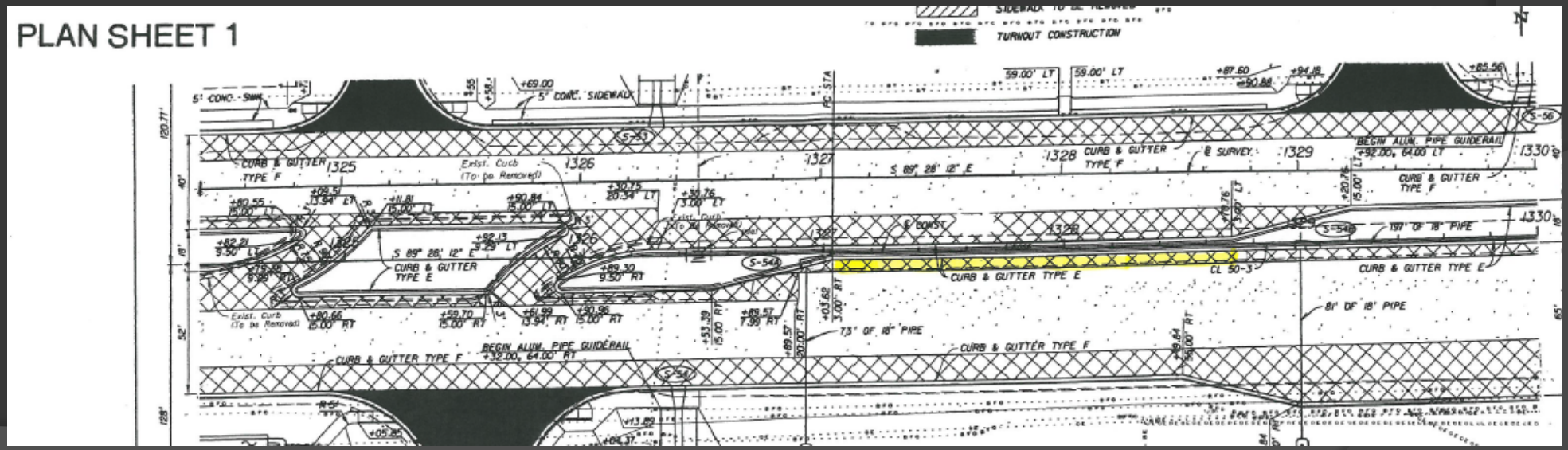
- ANSWERS: Day 1 – 4c

State of Florida Department of Transportation

Asphalt Roadway - Daily Report of Quality Control

FIN ID (Project #)		Intended Lot Size	LOT #	1	675-030-20A
TIN#			Mix Design #		

#	Date Paved	Day or Night	Sub Lot	Truck Load #'s	Intended Use	Density ?	Lane	Desc.	Lift # of #		Start Paving at Station	End Paving at Station	Length (FT)	Width (FT)	Area Paved (SY)	Quantity (TN)	Individual Lift Thickness
Constant Width Areas																	
	9/6/2011			12		N	R1	ML	1	2	1325+60.00	1326+90.00		5.0		6.23	1.5
	9/6/2011			**12-13**		**N**	**RT**	**Inside TL**	**1**	**2**	**1327+04.00**	**1328+71.00**		**5.0**		**7.84**	**1.5**



QC Road Report Exercise

- ANSWERS: Day 2 – 1

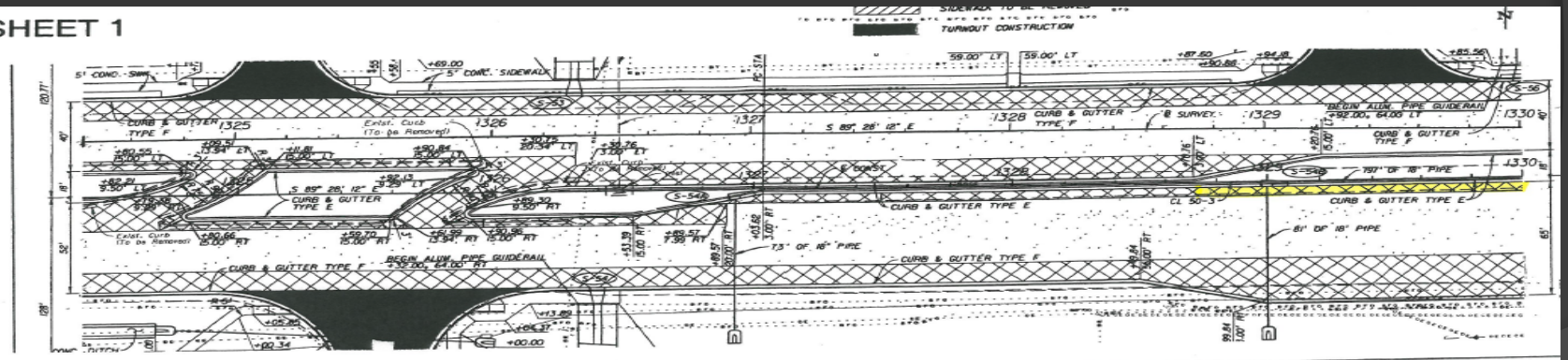
State of Florida Department of Transportation

Asphalt Roadway - Daily Report of Quality Control

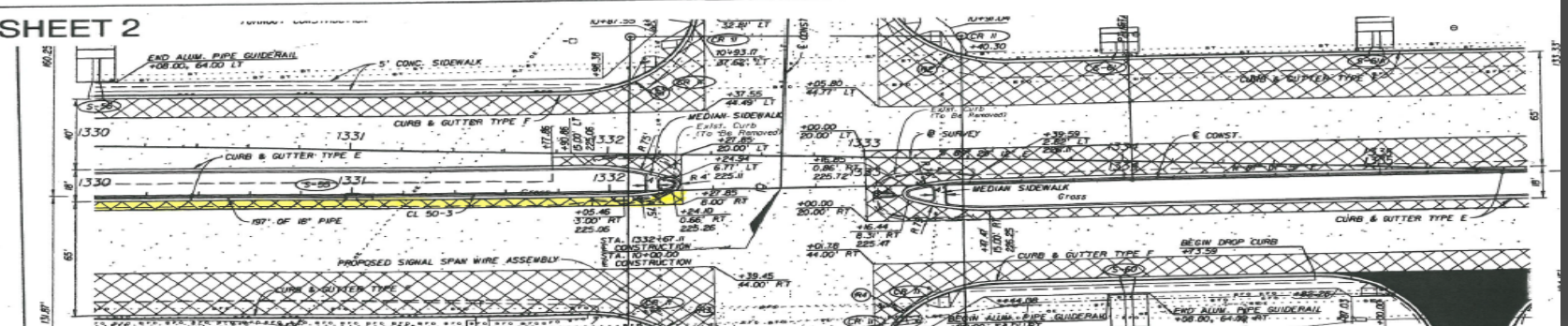
FIN ID (Project #)		Intended Lot Size	LOT #	1	675-030-20A
	TIN#		Mix Design #		

#	Date Paved	Day or Night	Sub Lot	Truck Load #'s	Intended Use	Density ?	Lane	Desc.	Lift # of #		Start Paving at Station	End Paving at Station	Length (FT)	Width (FT)	Area Paved (SY)	Quantity (TN)	Individual Lift Thickness
Constant Width Areas																	
	9/6/2011			12-13		N	RT	Inside TL	1	2	1327+04.00	1328+71.00		5.0		7.84	1.5
	9/7/2011			**1**		**N**	**RT**	**Inside TL**	**1**	**2**	**1328+71.00**	**1332+28.00**		**5.0**		**16.77**	**1.5**

PLAN SHEET 1



PLAN SHEET 2



QC Road Report Exercise

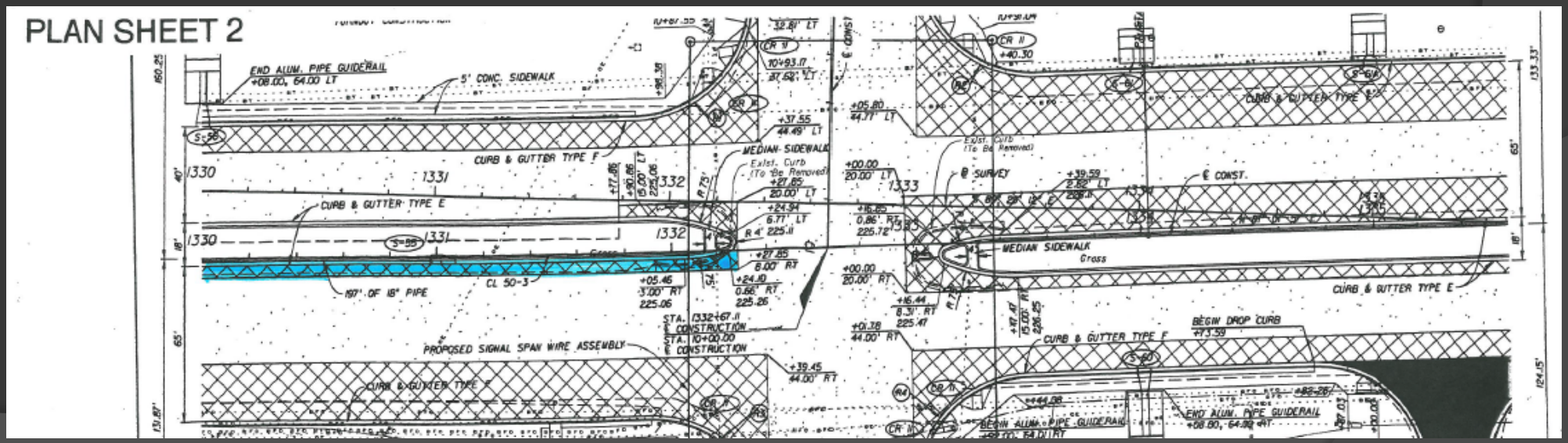
- ANSWERS: Day 2 – 2

State of Florida Department of Transportation

Asphalt Roadway - Daily Report of Quality Control

FIN ID (Project #)		Intended Lot Size	LOT #	1	675-030-20A
	TIN#		Mix Design #		

#	Date Paved	Day or Night	Sub Lot	Truck Load #'s	Intended Use	Density ?	Lane	Desc.	Lift #	of #	Start Paving at Station	End Paving at Station	Length (FT)	Width (FT)	Area Paved (SY)	Quantity (TN)	Individual Lift Thickness
Constant Width Areas																	
	9/7/2011			1		N	RT	Inside TL	1	2	1328+71.00	1332+28.00		5.0		16.77	1.5
	9/7/2011			**1-2**		**N**	**RT**	**Inside TL**	**2**	**2**	**1330+00.00**	**1332+28.00**		**5.0**		**10.53**	**1.5**



QC Road Report Exercise

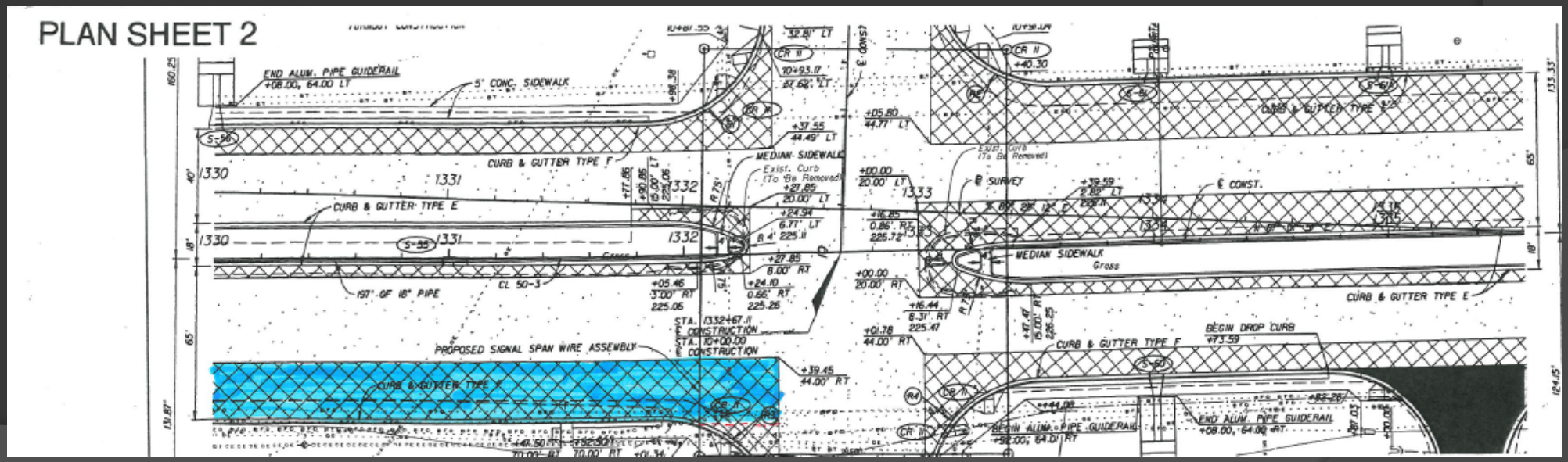
- ANSWERS: Day 2 – 3

State of Florida Department of Transportation

Asphalt Roadway - Daily Report of Quality Control

FIN ID (Project #)		Intended Lot Size	LOT #	1	675-030-20A
TIN#			Mix Design #		

#	Date Paved	Day or Night	Sub Lot	Truck Load #'s	Intended Use	Density ?	Lane	Desc.	Lift # of #		Start Paving at Station	End Paving at Station	Length (FT)	Width (FT)	Area Paved (SY)	Quantity (TN)	Individual Lift Thickness
Constant Width Areas																	
	9/7/2011			1-2		N	RT	Inside TL	2	2	1330+00.00	1332+28.00		5.0		10.53	1.5
	9/7/2011			**2-3**		**N**	**RT**	**Outside TL**	**2**	**2**	**1330+00.00**	**1332+39.00**		**12.0**		**26.50**	**1.5**
	9/7/2011			**3-4**		**Y**	**R3**	**ML 7' / BL 5'**	**2**	**2**	**1330+00.00**	**1332+39.00**		**12.0**		**26.50**	**1.5**

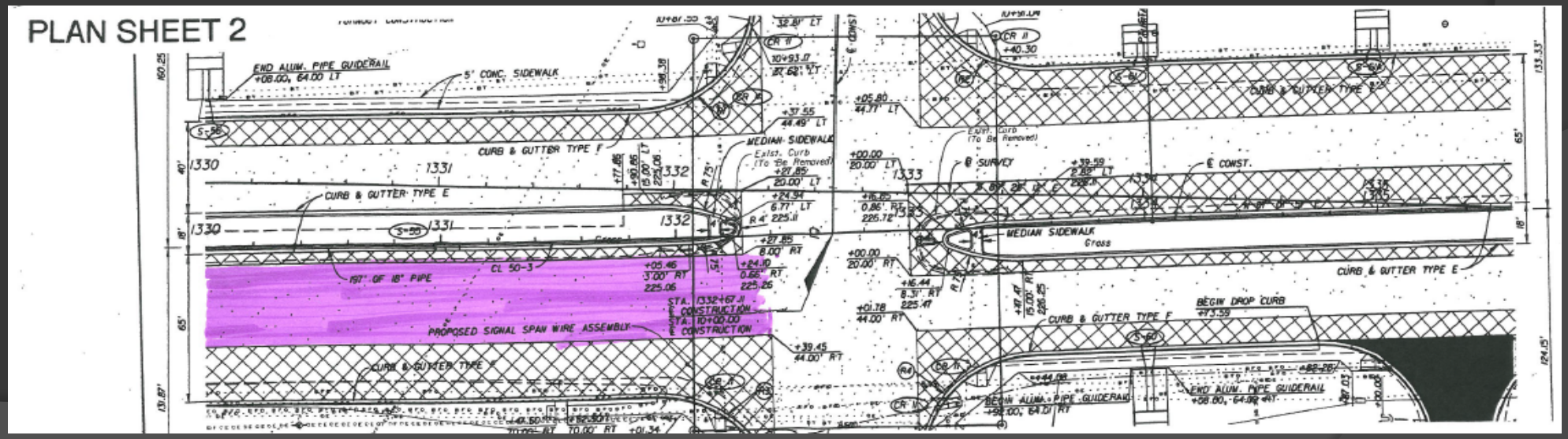


QC Road Report Exercise

- ANSWERS: Day 2 – 4

State of Florida Department of Transportation

Asphalt Roadway - Daily Report of Quality Control

FIN ID (Project #)		Intended Lot Size	LOT #	1	675-030-20A
	TIN#		Mix Design #		

#	Date Paved	Day or Night	Sub Lot	Truck Load #'s	Intended Use	Density ?	Lane	Desc.	Lift #	of #	Start Paving at Station	End Paving at Station	Length (FT)	Width (FT)	Area Paved (SY)	Quantity (TN)	Individual Lift Thickness
Constant Width Areas																	
	9/7/2011			3-4		Y	R3	ML 7' / BL 5'	2	2	1330+00.00	1332+39.00		12.0		26.50	1.5
	9/7/2011			4-6		N	R3	ML O/B	1	1	1330+00.00	1332+39.00		5.0		18.43	2.5
	9/7/2011			4-6		N	R2	ML O/B	1	1	1330+00.00	1332+39.00		7.0		25.89	2.5
	9/7/2011			6-8		N	R2	ML O/B	1	1	1330+00.00	1332+39.00		5.0		18.43	2.5
	9/7/2011			6-8		N	R1	ML O/B	1	1	1330+00.00	1332+39.00		7.0		25.89	2.5