APPENDIX C
INSTRUCTIONS FOR COMPLETING DAILY ACC PLANT REPORT

PROJECT NO.

Enter the project number listed on the project plans.

CONTRACT ID

Enter the nine-digit contract number listed on the contract. This is **not** the five-digit accounting ID number.

MIX DESIGN NO.

Enter the mix design number listed on Form #956, for the mix being produced for the day.

COUNTY

Enter the county listed on the project plans.

CONTRACTOR

A group of people or company must perform the work being done, either a prime contractor or a subcontractor. Enter the name of the contractor performing the work. If it is a subcontractor, list this after the contractor name.

RECYCLE SOURCE

When RAP is used on a project, it must come from a known source, list the source of where the RAP material came from. Example: "project grade" - "stockpile."

CLASS

Base courses are classified by class 1 or 2. If no mix class is listed on the Form #956, leave it blank.

SIZE

Each mix is designed at a certain size. Example: 1 in. (26.5 mm), 3/4 in. (19 mm), 1/2 in. (13.2 mm) or 3/8 in. (9.5 mm). Enter the proper mix size listed on the 956 form.

MIX TYPE

List the type of mix specified for the project listed in the contract documents.

PAGE NO.

Leave this line blank; it is used for filing when the project is completed.

REPORT NO.

Start with number 1 at the beginning of work for each contractor on each project for each mix placed. The ending report number shall coincide with the last day of production for each mix. Example: If it takes 15 days to place a binder mix, you shall have to report 1 through 15. If it takes 12 days to place a surface mix, you shall have to report 1 through 12. If work carries over into another construction season, do not start the sequence over; continue the numbering system until work is completed.

DESIGN BLOWS, DESIGN GYRATIONS

Either a mix is designed by using traffic count or ESALs. When the mix being used is based on traffic count, the Form #956 will have a designed Marshall blows and a triple hammer machine will be used for testing. When the mix being used is based on ESALs, the Form #956 will have a designed Gyrations and a Gyratory machine will be used for testing. Report the appropriate information listed on the Form #956.

TEST SUMMARY INFORMATION

This section is located on the left-hand side of the report. This section consists of six columns for data entries. The first column is reserved for target and specification limit information. The second, third, fourth, and fifth columns are reserved for actual test information.

HOT BOX ID NO.

During production each day, a sample of the hot mix is taken from the grade at different intervals according to the amount of mix being produced for each mix type. This sample shall be given a serial identification number for each mix tested. Example: "QMA, QMA-1, QMA-2" or " GYR-1, GYR-2, GYR-3."

DATE SAMPLED

Enter the date the hot box sample is taken and tested.

GRADATION ID

Enter the cold-feed gradation identification number for each sample tested on a given day of production in the second, third, and fourth columns. The fifth column shall say "Avg." if an average is calculated.

1 in. (26.5 mm), 3/4 in. (19 mm), 1/2 in. (13.2 mm), 3/8 in. (9.5 mm), #4 (4.75 mm), #8 (2.36 mm), #16 (1.18 mm), #30 (600 µm), #50 (300 µm), #100 (150 µm), #200 (75 µm).

Enter the specification limits for the proper sieves in the first column. Enter the final % passing for each sieve in the second, third, or fourth column. The second column is for the first test, the third column is for the second test, and the fourth column is for the third test. If RAP is used in the mix, the final composite % passing each sieve shall be entered in the appropriate column. The fifth column is for the average final % passing if needed.

MOVING AVERAGES

The moving averages for the #4 (4.75 mm), #8 (2.36 mm), #30 (600 µm) and #200 (75 µm) sieves are based on the last actual four tests performed divided by four. Enter the moving average directly below the gradation. These figures shall be entered in the appropriate rows provided.

COMPLIANCE

After a cold-feed gradation has been tested, it is compared to the specifications for compliance. If the gradation complies, enter a Y in the appropriate column. If the gradation does not comply, enter an N in the appropriate column.

INTENDED ADDED PERCENT AC

Each mix is designed with a percentage of virgin AC added to the mix. This percent is entered in the first column. This percentage is found on Form #956.

ACTUAL ADDED PERCENT AC

The % of virgin AC added to a mix is kept track of by tank stick or by an approved ticket printout. This calculated actual % virgin AC figure shall be entered in the second column.

INTENDED TOTAL PERCENT AC

When RAP is used in a mix, the RAP contains a percentage of AC. This percentage of AC, along with the virgin AC added, equals the total design AC content. Enter this calculated figure in the first column.

ACTUAL TOTAL PERCENT AC

The actual total percent AC is calculated by the percent of actual virgin AC and the percentage of AC in the RAP material. Enter this figure in the second column.

Gmb (BULK SPECIFIC GRAVITY)

This figure is arrived from the hot box samples tested throughout the day of production. The first hot box tested shall have the Gmb data entered in the second column. The second hot box tested shall have the Gmb data entered in the third column.

Gmm (MAXIMUM SPECIFIC GRAVITY)

This figure is also arrived from the hot box samples tested throughout the day of production. Enter the test results the same way as listed for the Gmb test data.

Pa (% OF AIR VOIDS)

The Pa figure is calculated by using the Gmb and Gmm test results. Enter the Pa results in the second, third, fourth, and fifth columns.

MOVING AVERAGE

After four Pa figures have been calculated, a moving average is established for each mix placed. Enter the moving average figure in the appropriate column the average pertains to.

TIME

Enter the time of day each hot box sample is taken from the grade in the second, third, fourth, or fifth columns.

STATION

Enter the station number where each hot box sample is taken.

SIDE

On a two-lane road there is a left and right of centerline looking up station. On a divided or four-lane road, there is northbound, southbound, westbound, and eastbound. Each lane has a left and right looking up station. Enter the side where the hot box sample is taken.

Example: NB LT = northbound left side, RT = right side

SAMPLE MEGAGRAMS (TONS)

Enter the megagrams (tonnage) of mix placed which represents where the hot box sample is taken.

SUBLOT MEGAGRAMS (TONS)

A day's production is divided into sublots according to the amount of mix being produced. Enter the size of each sublot according to IM 511 requirements.

MEGAGRAMS (TONS) TO DATE

The megagrams (tons) to date is a running total of each mix placed on the roadway throughout the project. This running total does not include plant or road waste.

FINES/BITUMEN RATIO

Enter the Fines/Bitumen Ratio calculated from the percent passing #200 (75 µm) sieve and the total percent AC figure on Marshall mixes. Enter the Fines/Bitumen Ratio calculated from the percent passing #200 (75 µm) sieve and the Effective % AC figure on Superpave mixes. This calculation is entered in the second column provided on the report. If an average gradation is calculated, show the average Fines/Bitumen Ratio figure in the fifth column.

Gsb

Enter the bulk specific gravity on the combined aggregate listed on Form #956.

Gb

Enter the specific gravity of the asphalt cement at 25°C (77°F).

EFFECTIVE % AC

Enter the effective asphalt content %, mix basis.

MIX CHANGE INFO

Enter any mix changes that occur during production of a mix.

Example: An aggregate proportion change was made at 9:05 a.m. today. 235 Mg of mix had been produced before the change.

TEMPERATURES & DENSITY INFORMATION

AIR TEMPERATURE

Record the air temperature at the time intervals shown on the report.

AC TEMPERATURE

Record the virgin AC temperature at the time intervals shown on the report.

MIX TEMPERATURE

Record the mix temperature at the time intervals shown on the report.

DATE PLACED

Enter the date the mix was placed on the roadway.

DATE TESTED

Enter the date the roadway cores are tested.

COURSE PLACED

Enter the mix placed. Example: Base, Binder, and Surface.

TESTED BY

Enter the name of the person testing the roadway cores.

STATION

Enter the station where each roadway core was cut from the mat for testing.

CL REFERENCE

A roadway core is obtained at random, a distance from centerline according to where the mix is placed. Enter the distance and side from centerline where each core is cut.

Example: 4 ft. (1.22 m) RT, 3.05 m (10 ft.) LT, District.

W1 DRY

Enter the mass of each roadway core under the appropriate core number.

W2 in H_20

Enter the mass of each roadway core under the appropriate core number.

W3 WET

Enter the mass of each core, after excess water has been blotted off.

DIFFERENCE

Enter the figure obtained by subtracting the W2 mass from the W3 mass for each core.

FIELD DENSITY

Enter the field density for each core under the appropriate core number.

PERCENT DENSITY

Enter the percent density for each core under the appropriate core number.

PERCENT VOIDS

Enter the percent voids for each core under the appropriate core number.

THICKNESS

Enter the thickness of each roadway core tested under the appropriate core number.

Gmb (LOT AVG.)

Enter the Marshall specific gravity average by adding the individual test results performed during the day of production, and divide by the number of tests performed that day.

Gmm (LOT AVG.)

Enter the maximum specific gravity average by adding the individual test results performed during the day of production, and dividing by the number of tests performed that day.

DISTRICT LABS Pa

Only use this cell when the District Materials Department does the testing on the hot box samples taken. Enter the percent air voids figure calculated by the District Materials Department.

TARGET % RAP

Enter the target % RAP for each day of production when RAP is used in the mix.

AVERAGE FIELD DENSITY

Enter the average field density by adding the seven individual field density figures together and divide by 7.

AVERAGE PERCENT DENSITY

Enter the average percent density by adding the seven individual percent density figures together and divide by 7.

AVERAGE PERCENT FIELD VOIDS

Enter the average percent field voids obtained by dividing the Average Density by the Maximum Specific Gravity figure and multiply by 100. Then subtract this figure from 100.

SPECIFIED DENSITY PERCENT

Enter the minimum density required by specification for type of compaction. Example: 94, 95, 96.

QUALITY INDEX (QI)

Three numbers are needed to calculate the Quality Index for the roadway cores. Show work.

$$\frac{\text{Enter the Avg. \% Density - Enter Specified Density \%}}{\text{Enter Standard Deviation}} = \text{Enter QI}$$

LOW OUTLIER

If the QI result is less than 0.73, a possible low outlier shall be calculated and entered.

HIGH OUTLIER

If the QI result is less than 0.73, a possible high outlier shall be calculated and entered.

NEW QI

If the original QI is below 0.73 and one of the outlier calculations is 1.80 or higher, a new QI shall be calculated by removing the test result data of the lowest density core or highest density core, depending if you have a low outlier or high outlier.

FILM THICKNESS (FT)

Enter the microns calculation.

VMA

Enter the percent Voids in Mineral Aggregates calculation.

REMARKS

Enter remarks of delays at the plant site, non-compliant test results, District. Example: Production was stopped for 35 minutes because of a mechanical problem on the grade.

CPI

Enter the Certified Plant Inspector name. Do not use initials.

CERT NO.

Enter the Certified Plant Inspector certification number.

QMA TECHNICIAN

Enter the Quality Management Asphalt Technician name. Do not use initials.

CERT NO.

Enter the Quality Management Asphalt Technician certification number.

Attached are examples of completed reports for different types of mix. Refer to the Remarks Section on each example for the type of use.

800241M - 01/98

DAILY ACC PLANT REPORT

Project No.: STP-69-7(23)--2C-99 | County: Wright | Class: | Report No.: 6
Contract ID: 99-0697-023 | Contractor: Mathy Construction | Size: 19mm | Design Blows:
Mix Design No.: ABD7-55R4 | Recycle Source: | Mix Type: A | Design Gyrations: 86

Hot Box I.D. No.:		10-1-SP	10-2-SP	10-3-SP	10-4-SP	
Date Sampled:		07/29/97	07/29/97	07/29/97	07/29/97	
Gradation ID:	Specs	CF10-1SP				
25mm Sieve	100	100				
19mm Sieve	90-100	100				
12.5mm Sieve		91				
9.5mm Sieve		77				
* 4.75mm Sieve		42				
* Moving Average		**41**				
* 2.36mm Sieve	23-35	24				
* Moving Average		**25**				
1.18mm Sieve		18				
* 600um Sieve		11				
* Moving Average		**11**				
300um Sieve		6.2				
150um Sieve		3.8				
* 75um Sieve	2.0-8.0	3.0				
* Moving Average		**3.0**				
Compliance (Y/N)		Y				
Intended Added, % AC	5.80					
Actual Added, % AC		5.81				
Intended Total, % AC	5.80					
Actual Total, % AC		5.81				
Gmb:		2.297	2.321	2.296	2.301	
Gmm:		2.413	2.398	2.402	2.414	
Pa:		4.8	3.2	4.4	4.7	
Moving Average	3.0-5.0	**4.3**	**4.2**	**4.1**	**4.3**	
Time		07:30	09:30	11:30	02:30	
Station		430+00	380+00	320+00	235+00	
Side		Rt	Rt	Rt	Rt	
Sample Mg's		252.00	857.00	1,437.00	2,203.00	
Sublot Mg's		500.00	833.33	833.33	964.95	
Mg's to Date		19,005.00	19,838.33	20,671.66	21,636.61	
Fines / Bitumen Ratio	0.6-1.20	0.65				

Gsb: 2.544 Gb: 1.0250 Effective % AC: 4.64

Mix Change Info:

Time	7:00	9:00	11:00	1:00	3:00	5:00	7:00
Air Temp. (°C)	15	19	22	24	25	25	
A.C. Temp. (°C)	151	146	149	151	153	154	
Mix Temp. (°C)	146	141	138	139	143	142	

Date Placed: 07/29/97 Date Tested: 07/30/97

Course Placed: Surface Tested By: George Seward

Density Record

Core No.:	1	2	3	4	5	6	7
Station	46+65	63+95	70+25	91+95	97+98	113+35	128+45
CL Reference	1.2m Rt	3.0m Rt	1.8m Rt	2.4m Rt	2.4m Rt	0.6m Rt	1.8m Rt
W 1 Dry	552.4	656.6	573.4	529.3	608.0	549.3	545.0
W 2 in H20	302.3	356.5	316.2	292.3	338.7	298.6	304.4
W 3 Wet	552.5	657.3	573.9	530.2	608.3	550.3	545.6
Difference	250.2	300.8	257.7	237.9	269.6	251.7	241.2
Field Density	2.208	2.183	2.225	2.225	2.255	2.182	2.260
% Density	95.833	94.748	96.571	96.571	97.873	94.705	98.090
% Voids	8.3	9.3	7.6	7.6	6.3	9.3	6.1
Thickness	38	44	38	38	38	38	35

Gmb (Lot Avg.): 2.304 Avg. Field Density: 2.220
Gmm (Lot Avg.): 2.407 Avg. % Density: 96.342
TC Labs Pa: Avg. % Field Voids: 7.0
Target % RAP: Specified % Density: 95

Q.I. = 96.342 − 95.000 / 1.353 = 0.99

Low Outlier: High Outlier: New Q.I. =

Film Thickness (FT): 14.4 VMA: 14.7

Remarks: **This is an example of a sharp mix using the Gyratory.**

C.P.I.: George Seward CI095 Cert. No.
QMA Tech: Michael Gullickson NE119 Cert. No.

Distribution: ___ Central Materials ___ TC Materials ___ Proj. Engineer ___ Contractor ___ Plant

800241M - 01/98

DAILY ACC PLANT REPORT

Project No.: STPN-9-6(45)--2J-66 | County: Mitchell | Class: 1 | Report No.: 7
Contract ID: 66-0096-045 | Contractor: Fred Carlson Co. | Size: 13.2mm | Design Blows: 50
Mix Design No.: ABD7-2011R2 | Recycle Source: | Mix Type: B | Design Gyrations:

Hot Box I.D. No.:		QMA-18	QMA-19	QMA-20	QMA-21	
Date Sampled:		05/30/97	05/30/97	05/30/97	05/30/97	
Gradation ID:	Specs	SU-7A		SU-7C		
25mm Sieve	100	100		100		
19mm Sieve	100	100		100		
12.5mm Sieve	92-100	92		94		
9.5mm Sieve	79-92	84		85		
* 4.75mm Sieve	61-75	68		69		
* Moving Average		**68**		**68**		
* 2.36mm Sieve	49-59	53		55		
* Moving Average		**54**		**54**		
1.18mm Sieve		37		38		
* 600um Sieve	18-26	24		25		
* Moving Average		**24**		**25**		
300um Sieve		12		13		
150um Sieve		6.7		7.1		
* 75um Sieve	3.0-5.8	4.8		5.0		
* Moving Average		**4.5**		**4.7**		
Compliance (Y/N)		Y		Y		
Intended Added, % AC	6.10					
Actual Added, % AC		5.91				
Intended Total, % AC	6.10					
Actual Total, % AC		5.91				
Gmb:		2.355	2.366	2.350	2.344	
Gmm:		2.443	2.448	2.439	2.440	
Pa:		3.6	3.3	3.6	3.9	
Moving Average	3.0-4.0	**3.6**	**3.5**	**3.5**	**3.6**	
Time		08:00	11:00	02:00	04:30	
Station		289+00	278+00	262+00	249+50	
Side		LT	LT	LT	LT	
Sample Mg's		123.00	717.00	1,265.00	2,347.00	
Sublot Mg's		500.00	666.67	666.67	686.84	
Mg's to Date		9,956.08	10,622.75	11,289.42	11,976.26	
Fines / Bitumen Ratio	0.3-1.20	0.81				

Gsb: 2.609 Gb: 1.0248 Effective % AC: 4.99

Mix Change Info: A 2% aggregate proportion change was made before production started today.

Time	7:00	9:00	11:00	1:00	3:00	5:00	7:00
Air Temp. (°C)	12	16	20	22	23	22	
A.C. Temp. (°C)	149	149	149	149	149	149	
Mix Temp. (°C)	144	145	144	143	140	144	.

Date Placed: 05/30/97 Date Tested: 06/02/97

Course Placed: Surface Tested By: Jay Haas

Density Record

Core No.:	1	2	3	4	5	6	7
Station	296+12	290+39	275+63	268+82	260+64	252+88	243+21
CL Reference	2.0m Lt	3.2m Lt	2.8m Lt	2.3m Lt	0.4m Lt	2.7m Lt	2.1m Lt
W 1 Dry	977.4	984.6	867.4	889.6	930.8	1,019.5	807.5
W 2 in H20	551.3	556.4	493.3	499.5	520.6	575.5	455.8
W 3 Wet	977.8	984.9	867.8	889.9	931.3	1,019.9	807.9
Difference	426.5	428.5	374.5	390.4	410.7	444.4	352.1
Field Density	2.292	2.298	2.316	2.279	2.266	2.294	2.293
% Density	97.366	97.621	98.386	96.814	96.262	97.451	97.409
% Voids	6.2	5.9	5.2	6.7	7.2	6.1	6.1
Thickness	54	55	48	49	53	56	43

Gmb (Lot Avg.): 2.354 Avg. Field Density: 2.291
Gmm (Lot Avg.): 2.443 Avg. % Density: 97.330
TC Labs Pa: Avg. % Field Voids: 6.2
Target % RAP: Specified % Density: 95

$$Q.I. = \frac{97.330 - 95.000}{0.662} = 3.52$$

Low Outlier: High Outlier: New Q.I. =

Film Thickness (FT): 9.0 VMA: 15.1

Remarks: Die roll gradation tested.

This is a completed report for a Marshall Mix.

C.P.I.: Jay Haas NE208 Cert. No.
QMA Tech: Al Forde NE118 Cert. No.

Distribution: Central Materials ___ TC Materials ___ Proj. Engineer ___ Contractor ___ Plant

800241M - 01/98

DAILY ACC PLANT REPORT

Project No.: STPN-9-6(45)--2J-66 | County: Mitchell | Class: 1 | Report No.: 4
Contract ID: 66-0096-045 | Contractor: Fred Carlson, Co. | Size: 19mm | Design Blows: 50
Mix Design No.: ABD7-2003 R1 | Recycle Source: | Mix Type: B | Design Gyrations:

Hot Box I.D. No.:		QMA-13	QMA-14	QMA-15	QMA-16	
Date Sampled:		05/05/97	05/05/97	05/05/97	05/05/97	
Gradation ID:	Specs	BI-4A	BI-4B	BI-4C	Avg.	
25mm Sieve		100	100	100	100	
19mm Sieve	98-100	97	99	100	99	
12.5mm Sieve	83-97	93	90	90	91	
9.5mm Sieve	74-88	78	78	80	79	
* 4.75mm Sieve	57-71	61	61	65	62	
* Moving Average		**61**	**61**	**62**		
* 2.36mm Sieve	41-53	45	45	48	46	
* Moving Average		**44**	**45**	**46**		
1.18mm Sieve		35	35	37	36	
* 600um Sieve	16-26	23	23	25	24	
* Moving Average		**23**	**23**	**23**		
300um Sieve		10	9.9	10	10	
150um Sieve		5.4	5.4	4.9	5.2	
* 75um Sieve	3.0-6.3	4.1	4.0	3.7	3.9	
* Moving Average		**3.9**	**4.0**	**4.0**		
Compliance (Y/N)		N	Y	Y	3	
Intended Added, % AC	5.90					
Actual Added, % AC		5.76			5.76	
Intended Total, % AC	5.90					
Actual Total, % AC		5.76			5.76	
Gmb:		2.374	2.341	2.344	2.363	
Gmm:		2.441	2.441	2.441	2.444	
Pa:		2.7	4.1	4.0	3.3	
Moving Average	3.0-4.5	**3.3**	**3.6**	**3.6**	**3.5**	
Time		08:15	10:45	01:45	02:44	
Station		337+00	325+00	314+00	300+00	
Side		Lt	Lt	Lt	Lt	
Sample Mg's		252.00	854.00	1,460.00	2,333.00	
Sublot Mg's		500.00	666.67	666.67	910.02	
Mg's to Date		7,985.96	8,652.63	9,319.30	10,229.32	
Fines / Bitumen Ratio	0.3-1.20	0.71			0.68	

Gsb: 2.598 Gb: 1.0248 Effective % AC: 4.80

Mix Change Info:

Time	7:00	9:00	11:00	1:00	3:00	5:00	7:00
Air Temp. (°C)	10	13	17	18	19	21	
A.C. Temp. (°C)	149	149	149	149	149	149	
Mix Temp. (°C)	140	144	141	136	138	139	

Date Placed: 05/05/97 Date Tested: 05/06/97

Course Placed: Binder Tested By: Jay Haas

Density Record

Core No.:	1	2	3	4	5	6	7
Station	291+15	295+22	303+86	318+29	318+70	329+19	334+85
CL Reference	3.3m Lt	1.2m Lt	0.5m Lt	2.5m Lt	3.2m Lt	3.2m Lt	2.1m Lt
W 1 Dry	993.2	922.0	930.8	943.0	816.2	939.4	798.1
W 2 in H20	564.3	525.8	523.2	534.2	459.1	530.4	453.7
W 3 Wet	993.3	922.3	931.4	943.4	816.7	939.7	798.5
Difference	429.0	396.5	408.2	409.2	357.6	409.3	344.8
Field Density	2.315	2.325	2.280	2.304	2.282	2.295	2.315
% Density	98.260	98.684	96.774	97.793	96.859	97.411	98.260
% Voids	5.2	4.8	6.6	5.7	6.6	6.0	5.2
Thickness	48	47	47	48	43	47	42

Gmb (Lot Avg.): 2.356 Avg. Field Density: 2.302
Gmm (Lot Avg.): 2.442 Avg. % Density: 97.720
TC Labs Pa: Avg. % Field Voids: 5.7
Target % RAP: Specified % Density: 95

Q.I. = 97.720 − 95.000 / 0.736 = 3.70

Low Outlier: High Outlier: New Q.I. =

Film Thickness (FT): 9.9 VMA: 14.5

Remarks: **This is a completed example of a Marshall Mix Report were the first gradation is non-compliant, backups were tested, an average gradation & new FBR was calculated.**

C.P.I.: Jay Haas NE208 Cert. No.
QMA Tech: Al Forde NE118 Cert. No.

Distribution: Central Materials TC Materials Proj. Engineer Contractor Plant

800241M - 01/98

DAILY ACC PLANT REPORT

Project No.: STPN-9-6(45)--2J-66 | County: Mitchell | Class: 1 | Report No.: 7
Contract ID: 66-0096-045 | Contractor: Fred Carlson Co. | Size: 13.2mm | Design Blows: 50
Mix Design No.: ABD7-2011 | Recycle Source: | Mix Type: B | Design Gyrations:

Hot Box I.D. No.:		DS-12A	DS-12B	DS-12C		
Date Sampled:		05/30/97	05/30/97	05/30/97		
Gradation ID:	Specs	SU-7A				
25mm Sieve	100	100				
19mm Sieve	100	100				
12.5mm Sieve	92-100	92				
9.5mm Sieve	79-92	84				
* 4.75mm Sieve	61-75	68				
* Moving Average						
* 2.36mm Sieve	49-59	53				
* Moving Average						
1.18mm Sieve		37				
* 600um Sieve	18-26	24				
* Moving Average						
300um Sieve		12				
150um Sieve		6.7				
* 75um Sieve	3.0-5.8	4.8				
* Moving Average						
Compliance (Y/N)		Y				
Intended Added, % AC	6.10					
Actual Added, % AC		5.91				
Intended Total, % AC	6.10					
Actual Total, % AC		5.91				
Gmb:						
Gmm:						
Pa:						
Moving Average	3.0-4.0					
Time		08:00	12:00	02:00		
Station		289+00	271+50	258+75		
Side		Rt	Rt	Rt		
Sample Mg's		167.00	1,305.00	1,680.00		
Sublot Mg's						
Mg's to Date				9,956.08		
Fines / Bitumen Ratio	0.3-1.20	0.81				

Gsb: 2.609 Gb: 1.0248 Effective % AC: 4.99

Mix Change Info:

Time	7:00	9:00	11:00	1:00	3:00	5:00	7:00
Air Temp. (°C)	12	16	20	22	23	22	
A.C. Temp. (°C)	149	149	149	149	149	149	
Mix Temp. (°C)	144	145	144	143	140	144	

Date Placed: 05/30/97 Date Tested: 06/02/97

Course Placed: Surface Tested By: Danny Steenhard

Density Record

Core No.:	1	2	3	4	5	6	7
Station	296+12	290+39	275+63	268+82	260+64	252+88	243+21
CL Reference	2.0m Lt	3.2m Lt	2.8m Lt	2.3m Lt	0.4m Lt	2.7m Lt	2.1m Lt
W 1 Dry	977.4	984.6	867.4	889.6	930.8	1,019.5	807.5
W 2 in H20	551.3	556.4	493.3	499.5	520.6	575.5	455.8
W 3 Wet	977.8	984.9	867.8	889.9	931.3	1,019.9	807.9
Difference	426.5	428.5	374.5	390.4	410.7	444.4	352.1
Field Density	2.292	2.298	2.316	2.279	2.266	2.294	2.293
% Density	97.366	97.621	98.386	96.814	96.262	97.451	97.409
% Voids	6.2	5.9	5.2	6.7	7.2	6.1	6.1
Thickness	54	55	48	49	53	56	43

Gmb (Lot Avg.): 2.354 Avg. Field Density: 2.291
Gmm (Lot Avg.): 2.443 Avg. % Density: 97.330
TC Labs Pa: 3.6 Avg. % Field Voids: 6.2
Target % RAP: Specified % Density: 95

$$Q.I. = \frac{97.330 - 95.000}{0.662} = 3.52$$

Low Outlier: High Outlier: New Q.I. =

Film Thickness (FT): 9.0 VMA: 15.1

Remarks:
This is a completed report for a non-QMA tested mix.
Hot box testing performed by TC Materials Department.

C.P.I.: Jay Haas NE208 Cert. No.
QMA Tech: N.E.I.T.C. Materials Cert. No.

Distribution: Central Materials ___ TC Materials ___ Proj. Engineer ___ Contractor ___ Plant