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Final Report

HOT MIX ASPHALT GRADATION ACCEPTANCE REVIEW OF QC/QA DATA 2000 THROUGH 2004

Eric Chavez, CDOT Pavement Design Unit



November 2005

**COLORADO DEPARTMENT OF TRANSPORTATION
RESEARCH BRANCH**

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16. Abstract <p>This report analyzes the Quality Control/Quality Assurance (QC/QA) data for hot mix asphalt using gradation acceptance awarded in the years 2000 through 2004. Analysis of the overall project performance is accomplished by reviewing the Calculated Pay Factor Composite (CPFC) and Incentive/Disincentive Payments (I/DP) calculations. A detailed analysis of each of the test elements: mat density, percent asphalt, gradation, and joint density is also presented in tables, figures, and sub-reports. Various data groupings are used to evaluate the data including: year, region, & grading.</p> <p>Continued improvements can be measured for the hot mix asphalt in the years 2000 through 2004. When evaluating the overall results for the projects the Calculated Pay Factor Composite has increased 0.007 over the five years. The pay factors for the individual elements have increased in the mat density, gradation, and joint density elements. The pay factor for the asphalt content element has remained constant. Likewise, the quality levels have increased for each of the elements except for that of the asphalt content which showed a slight decrease. When ranking the elements by quality levels we find that the ranking is the same as the importance given the element, the W factor. The mat density element has the best quality levels. Next best quality levels are reported in the percent asphalt element. The gradation element continues to rank below that of the mat density and percent asphalt elements. After the initial two years of testing the joint density element has the lowest reported quality levels of any of the elements. When analyzing the test elements by grading we see that all of the quality levels are improving or at least remaining constant. The only exception to this is in the percent asphalt results for grading SX which showed a decline over five years. However, the results for the last two years have been very close to those for grading S. The results for the joint density element by grading after two years are mixed. The quality levels for grading S have improved. The results for grading SX decreased. More test results are needed to better analyze this element.</p>					
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**Hot Mix Asphalt Gradation Acceptance
Review of QC/QA Data
2000 Through 2004**

by

Eric Chavez

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1.0 INTRODUCTION AND COMMENTS

The Colorado Department of Transportation (CDOT) began Quality Control/Quality Assurance (QC/QA) construction for hot mix asphalt (HMA) in 1992 with the implementation of a three-year pilot program which was essentially completed in 1994 (several projects were held over and completed in 1995).

In 1994 a revised and updated specification was written, designated as QPM 2. It was used on a few projects completed in 1995 and essentially all HMA projects completed in 1996 and 1997. Reports have been published for 1992 through 1996. These are available from the CDOT Library. The 1995 construction report contains summaries for both QPM 1 & 2.

This report continues the annual analysis of the QC/QA data for hot mix asphalt paving projects using gradation acceptance and covers the years 1991 through 2004. Detailed analysis is given for the years 2000 through 2004. Recap reports showing different data groupings are also presented for the years 2000 through 2004. Detailed reports for the projects with a start date of 2004 are included in this report, Appendix B. Reports evaluating the percent asphalt, mat density, gradation, & joint density elements are detailed by grading & region. Charts comparing the quality level and pay factor information for the years 1991 to 1997 and 2000 to 2004 are displayed for the percent asphalt, mat density, gradation, & mat density elements. The previous reports in this series titled *Hot Bituminous Pavement Gradation Acceptance Review of QC/QA Data 2000 to 2002, Report No. CDOT-DTD-R-2004-04* and *Hot Bituminous Pavement Gradation Acceptance Review of QC/QA Data 2000 to 2003, Report No. CDOT-DTD-R-2005-7* are available from the CDOT Library.

A major change in the format of this report compared to the previous reports is that the major data grouping is now by start date, the date the paving began, instead of bid date, date on which the project was awarded to contract. On numerous projects the paving began in the following year after the project was awarded to contract. The new data grouping more accurately groups the projects according to the time of their construction.

The information presented in this report for the years 2000 through 2003 will not match that of previous reports since the grouping is different. Also, additional project data has been received and added to the data base for these years. Five projects awarded in 1999 with a start date of 2000 have been added to the analysis. Otherwise, the general format and presentation of data in this report are similar to that used in previous QC/QA reports. Information on the background, development, philosophy and rationale involved can be found in the previous reports and is not repeated here.

2.0 SPECIFICATIONS

Specifications - Revision of Sections 105 and 106, Quality of Hot Bituminous Pavement.
 The Revision to Sections 105 & 106 governs the QC/QA calculations. A major change to the specification was made with the release of the specification dated December 20, 2002. Joint density testing was included in the calculation for Incentive/Disincentive Payments (I/DP) in this release. The joint density element now accounts for 15 percent of the total I/DP calculation. The weights associated with the other test elements were adjusted to account for the new testing element. Table 1 shows the old and new weights and test elements. No other changes were made in the specification that affected the calculations for quality level, pay factor, or I/DP at that time.

Table 1. “W” Factors for Various Elements

Specification	W Factor			
	Percent Asphalt	Mat Density	Gradation	Joint Density
10/4/01 & Older	30	50	20	
12/20/02 & Newer	25	45	15	15

Prior to the changes made with the release of the 12/20/02 specification the only other change made in calculations was a change to the calculation for pay factor in February of 1997 with the incorporation of Formula 1 into the calculation. At the same time Table

105-2, Formulas for Calculating PF Based on Pn, was modified to include additional equations for calculating Pn. The revision to sections 105 and 106 was released as a standard specification beginning in 1995. The calculation for quality levels has remained unchanged since the beginning. The specification has been revised numerous times over the years but the changes were in other areas and did not affect the QC/QA calculations. Use of CDOT's QC/QA computer program is a requirement of the specification. The computer program is based on this specification.

3.0 CALCULATIONS AND DEFINITIONS

Process Quantities – Process quantities of material are used for all calculations in this report except for the calculation of the Calculated Pay Factor Composite. In general, processes group like material or construction techniques together. As long as the material being evaluated remains unchanged it will be added to the current process. If a change to the material or the construction technique occurs then a new process will be created. Please see the Revision to Sections 105 & 106, Quality of Hot Bituminous Pavement for details on processes.

Bid Date – The date the project was awarded to contract.

Calculated Pay Factor Composite – The Calculated Pay Factor Composite (CPFC) is a way to evaluate the overall quality of the HMA used on the project. The CPFC represents the percentage increase or decrease to the unit price for hot mix asphalt paid on the project. Projects with a CPFC greater than 1.0 will have received an incentive payment. Projects with a CPFC less than 1.0 will have received a disincentive payment. The CPFC is back calculated from the project's Final Incentive/Disincentive Payment (I/DP). This calculation is used rather than an overall quality level calculation since a project can contain processes in which no quality level is calculated, processes with less than three tests. The calculation used here also addresses the problem which occurred in some of the reported projects in which the final element quantities were not equal. The main reason this calculation is used is to avoid the problems associated

with averaging of the data. The calculation is as follows:

$$CPFC = (I/DP / ((UP_p) * (QR_p))) + 1$$

Where: CPFC = Calculated Pay Factor Composite.

I/DP = Incentive/Disincentive Payment for the project.

UP_p = Calculated Unit Price for the project.

QR_p = Quantity Represented Project, average of the tons reported in the percent asphalt and gradation elements.

$$UP_p = (\sum (UP_n * T_n)) / \sum T_n$$

Where: UP_n = Unit Price for the process.

T_n = Tons represented by the process, average of the tons reported in the percent asphalt and gradation elements.

Note: The quantities used in the calculation of average tons and average price are the quantities reported in the percent asphalt and gradation elements. After a review of the project data it was determined that these quantities most accurately represented the actual produced quantity when the reported quantities were not equal in the test elements.

CTS (Compaction test section) – A compaction pavement test section used to establish the number of rollers and rolling pattern needed to achieve specified densities, see Revision of Section 401, Compaction Test Section for details.

CTS Tons (Compaction test section tons) – Tons of material accounted for in the mat density test element by the construction of compaction test sections within the project.

CTS I/DP (Compaction test section Incentive/Disincentive Payment) – The calculated I/DP for compaction test sections.

I/DP (Incentive/Disincentive Payment) - The amount of increase or decrease paid for a quantity of material within a test element, based on the calculated pay factor for the

element. The I/DP for a project is the summation of all calculated element I/DPs.

Joint Density – Density measurements taken on the longitudinal joint between paving passes, see Revision of Section 401, Plant Mix Pavements – General for details.

Key Sieve – In the gradation element, a quality level is calculated on each of the specification sieves. The lowest calculated QL is used to determine the PF for the gradation element. The sieve with the lowest QL has been labeled the Key Sieve in this report.

Mean – Or Average, the sum of all test values divided by the number of tests.

Mean to TV - The absolute value of the difference between the mean for the process and the target value for the test element. The lower the value the closer the mean for the process approaches the target value of the specification. This is one of the two factors that affects the quality level calculation. The other factor is the standard deviation for the process.

Pay Factor - The amount of increase or decrease, displayed as a percentage, applied to the unit price of the pavement. Multiplied by the W Factor for the element to calculate I/DP for an element.

Note: There is not a direct correlation between pay factor and quality level. The calculations for pay factors are dependent on the number of tests and the calculated quality level for the process. The equations for pay factor change as the number of tests increases. Also, the maximum pay factor increases as the number of tests in the process increases. Larger runs of production, processes, have the potential to receive higher pay factors. Differences in the number of tests in two processes can result in a different pay factor being calculated even if the quality levels are the same. Please refer to the Revision to Sections 105 and 106 for details on the calculations.

PF 1.0 Tons (Pay factor 1.0 tons) – Used in the mat density element to account for tons of material in which the pay factor is set to 1.0 by specification. Usually used on a project when the thickness of the mat being placed becomes too thin to be accurately tested.

Quality Level – Quality levels (Percent within limits) are calculated in accordance with Colorado Procedure 71. Quality level analysis is a statistical procedure for estimating the percent compliance to specification limits and is affected by shifts in the arithmetic mean and by the sample standard deviation. Analysis of both factors is essential whenever evaluating quality level results.

Slope of the regression line equation:
$$b = \frac{\sum (x - \bar{x})(y - \bar{y})}{\sum (x - \bar{x})^2}$$

Slope shows both steepness and direction. With positive slope the line moves upward when going from left to right. With negative slope the line moves down when going from left to right. The higher the value the steeper the line.

Start Date – The date the HMA paving began on the project.

Std. Dev. (Standard Deviation) equation:
$$s = \sqrt{\frac{\sum (x - \bar{x})^2}{n - 1}}$$

Std. Dev. – V (Standard Deviation minus the V Factor) - A comparison of the standard deviation for the process to the historical standard deviation for the element, the V Factor. Negative values indicate that the process has a smaller standard deviation than historically reported. The lower the number the better. The second factor that affects the quality level calculations.

Subaccount – A unique five digit numeric identifier for a project.

Trendline equation: $y = mx + b$

Where: m = slope of the line.

b = y-intercept.

TV (Target Value) - The midpoint of the specification range.

V (V Factor) - One standard deviation for the test element based on historical data.

W Factor – The weight given the test element. Used in the calculation of I/DP's, see Table 1.

Weighted Average – The weighted average used in this report is based on tons of material represented.

4.0 DESCRIPTION OF REPORTS

Report Criteria – At the beginning of each report the selection criteria are listed for the data contained in the report. The primary grouping of projects is by their start date. Quality levels are not calculated on processes that contain less than three test results. Therefore, those processes are excluded from the reports that contain quality level calculations. Other justifications as to why a project or process is excluded from the report are detailed in the report criteria.

Sample Size – Not too many conclusions should be drawn when the number of observations, sample size, is small. Generally speaking, an evaluation of five or less samples is not considered very reliable. Always check the number of samples included in the evaluation when doing comparisons of the data. Most of the reports presented will indicate the number of samples included in the various data groupings. Figures that appear in this report will have associated tables that give the number of samples included in the data groupings.

Reports 1 to 5 - Recap Reports by Grading/Year/Region 2000 through 2004: Asphalt Content, Mat Density, Gradation – Process Information, Gradation – Standard Deviation, and Joint Density, Appendix A. For each of the test elements a report that recaps the information 2000 through 2004 is presented. The information is grouped first by grading and then by year. Region information is displayed for each year. Information presented includes: processes, tons, and tests along with the weighted averages for price, quality level, pay factor, and standard deviation. These reports are very useful for tracking the performance of a grading of HMA through the years and by each region. The information from these reports is used throughout the body of this report.

2004 REPORTS (PROJECTS WITH START DATES OF 2004), APPENDIX B

Project Listing by Region/Subaccount, Report 6. This report contains information for the projects included in the evaluation for 2004. The subaccount, project code, location, region, supplier, bid date, start date, total bid, and plan quantity are listed for each project. The report is grouped by region and sorted by project code. A region recap is displayed. A statewide recap is given at the end of the report.

Project Data, Report 7. The Project Data report displays all of the QC/QA data reported for each project. The projects are sorted by subaccount number. Each project's data is detailed by mix design and process number. The number of tests, quantity in tons, quality levels, pay factors, and Incentive/Disincentive Payment are given for each mix design and process. A summary for each project is also displayed and shows the CPFC. This report contains all of the project's data and is the best report to review when concerned about an individual project. All of a project's data may not be contained in supplementary reports if the data does not meet that report's individual criteria.

Calculated Pay Factor Composite and I/DP by Region, Report 8. This report evaluates two key calculations for each project, the Calculated Pay Factor Composite

(CPFC) and the project Incentive/Disincentive Payment (I/DP). The CPFC gives an index of the overall quality of the HMA used on the project; see Calculations for details on the calculation of the CPFC. The I/DP is the incentive or disincentive amount the project received for the HMA. The report groups the projects by region and contains a region recap. A statewide recap of the information is given at the end of the report.

Asphalt Content – Process Information, Report 9. Asphalt content information is detailed in this report. The information is grouped by grading and sorted by quality level. For each process the quality level, pay factor, target value, mean, and standard deviation are given. The mean to target value and standard deviation minus V factor calculations are important whenever evaluating the quality level for the process. A recap for each grading is calculated. A recap that combines the information for all of the gradings is given at the end of the report.

Mat Density – Process Information, Report 10. Mat density information is detailed in this report. The information is grouped by grading and sorted by quality level. For each process the quality level, pay factor, target value, mean, and standard deviation are given. The mean to target value and standard deviation minus V factor calculations are important whenever evaluating the quality level for the process. A recap for each grading is calculated. A recap that combines the information for all of the gradings is given at the end of the report.

GRADATION REPORTS

The gradation element is covered in two reports: *Gradation Process Information* and *Gradation Standard Deviation Information*. The second report contains information on each of the specification sieves that is not detailed in the first report.

Gradation – Process Information, Report 11. Project information for the gradation element with the exception of standard deviation information is detailed in this report. The information is grouped by grading and sorted by quality level. The Key Sieve listed

for each process is the specification sieve with the lowest calculated quality level. The lowest calculated quality level is the one used for the gradation element as a whole. A recap for each grading is calculated. A recap that combines the information for all of the gradings is given at the end of the report.

Gradation – Standard Deviation Information, Report 12. For each process the standard deviation information for the specification sieves is detailed in this report. The information is grouped by grading and sorted by bid date. A recap for each grading is calculated. A recap that combines the information for all of the gradings is given at the end of the report.

Joint Density – Process Information, Report 13. Joint density information is detailed in this report. The information is grouped by grading and sorted by quality level. For each process the quality level, pay factor, target value, mean, and standard deviation are given. The mean to target value and standard deviation minus V factor calculations are important whenever evaluating the quality level for the process. A recap for each grading is calculated. A recap that combines the information for all of the gradings is given at the end of the report.

5.0 DATA FOR THE YEARS 1991 TO 1997

Data presented in this report for the years 1991 to 1997 was obtained from Report No. CDOT-DTD-R-98-4, Hot Bituminous Pavement QC&QA Projects Constructed in 1997 Under QPM 2 Specifications, Bud A. Brakey, P. E., May 1998. For information concerning this data please see the referenced report.

6.0 DISCUSSION OF THE DATA

6.1 Projects Evaluated

Table 2 lists the number of projects and tons of material by bid date included in the evaluations. Table 3 lists the projects evaluated by start date, the date the paving

began. The start date is used as the primary grouping of projects used in this report. A relatively small number of projects was evaluated in the years 1992, 1993, & 1997. This may account for the high results reported in these years. The data for the years 1998 & 1999 was not maintained by the Pavement Design Unit and is currently unavailable. Additional project data will be added to the database as the Pavement Design Unit receives it.

Table 2. Projects Evaluated by Bid Date

			Evaluated			
	Awarded		Gradation Acceptance		Voids Acceptance	
Year	Projects	Tons	Projects	Tons	Projects	Tons
1991				2,000,000		
1992			7	282,000		
1993			18	482,000		
1994			58	1,496,000		
1995			40	1,104,000		
1996			--	830,000		
1997			17	378,000		
2000	78	2,258,407	50	1,186,203	10	663,818
2001	53	1,306,757	40	954,646	3	155,270
2002	71	1,974,106	42	880,699	20	811,523
2003	74	2,327,464	33	879,370	18	750,986
2004	78	2,348,013	26	530,005	15	642,283

Table 3. Project Evaluated by Start Date

Projects by Start Date	Gradation Acceptance	
Year	Projects	Tons
2000	36	995,567
2001	45	1,121,918
2002	36	822,079
2003	41	865,241
2004	30	809,310

6.2 Calculated Pay Factor Composite by Year and Region

The Calculated Pay Factor Composite (CPFC) information for the years 2000 through 2004 is displayed in Table 4. The information is grouped by year and then by region. Calculations covering the five-year time period are given at the end of the table. The weighted average is calculated for each of the data groupings. The maximum and minimum values are also displayed. The CPFC represents the percentage increase or decrease to the unit price for hot mix asphalt paid on the projects, see the section Calculations and Definitions for details on the calculation of the CPFC. A CPFC above 1.0 indicates that an incentive payment was paid for the HMA. A CPFC below 1.0 indicates that a disincentive was applied to the HMA. Figure 1 displays the overall CPFC, all gradings of HMA included, by year for the years 2000 through 2004. Figure 2 displays the same CPFC results and adds the calculated trendline. Improvements in the CPFC can be seen over the five-year time period. The rate of improvement is calculated at 0.007 over the five years. The average for each year is above the neutral mark of 1.0 showing that more incentive payments have been made than disincentive payments. Figures 3, 4, and 5 display the CPFC results for each of the regions by year. The number of projects included in the grouping is also displayed. Decisive trends are hard to determine since many of the data groupings contain fewer than five projects. The overall results, 2000 through 2004, for each region are shown in Figure 6. All of the regions except region 2 have an average CPFC above 1.0 showing that more incentive payments have been made than disincentives.

Table 4. Calculated Pay Factor Composite by Year/Region

Criteria: Projects with Start Dates from 1/1/00 to 12/31/04.

PFC is back calculated from the Project's I/DP

A Calculated Average Unit Price is used in the calculation

				Calculated Pay Factor Composite		
2000	Region	Projects	Tons	Average	Minimum	Maximum
	1	8	94,024	0.99614	0.91509	1.04477
	2	12	288,555	0.98610	0.81968	1.04209
	3	11	350,506	1.02231	0.99241	1.05149
	4					
	5	2	215,932	1.01998	1.01563	1.02432
	6	3	44,897	1.01702	0.97898	1.04014
	Totals	36	993,914	1.00386	0.81968	1.05149
				Calculated Pay Factor Composite		
2001	Region	Projects	Tons	Average	Minimum	Maximum
	1	8	233,967	1.01576	0.97436	1.04174
	2	8	164,419	0.95281	0.78941	1.01872
	3	15	409,723	1.01368	0.96192	1.04569
	4	3	57,020	1.01063	0.99692	1.03670
	5	3	40,684	0.99452	0.95729	1.02168
	6	8	160,447	1.01553	0.97634	1.03753
	Totals	45	1,066,260	1.00208	0.78941	1.04569
				Calculated Pay Factor Composite		
2002	Region	Projects	Tons	Average	Minimum	Maximum
	1	4	89,168	1.00338	0.99725	1.01661
	2	10	116,737	1.01621	0.93965	1.03800
	3	6	211,253	1.01945	0.99215	1.04191
	4	3	137,605	1.01714	1.00871	1.03345
	5	4	149,780	1.02996	1.01916	1.04596
	6	9	127,724	0.97557	0.83596	1.02577
	Totals	36	832,267	1.00677	0.83596	1.04596
				Calculated Pay Factor Composite		
2003	Region	Projects	Tons	Average	Minimum	Maximum
	1	10	334,053	1.01929	0.94635	1.04708
	2	11	144,645	0.98663	0.92137	1.0606
	3	7	130,336	1.00938	0.99696	1.02865
	4	4	120,496	1.02048	0.99607	1.04182
	5	6	116,222	0.99602	0.87280	1.03800
	6	3	60,267	1.02793	1.00765	1.04234
	Totals	41	906,019	1.00618	0.87280	1.04708

Table 4. Continued

				Calculated Pay Factor Composite		
	Region	Projects	Tons	Average	Minimum	Maximum
2004	1	4	80,656	1.01869	1.01058	1.03357
	2	2	80,197	1.02998	1.02744	1.03253
	3	11	321,633	1.01127	0.98327	1.02916
	4	3	107,263	1.01964	1.00794	1.02594
	5	5	81,303	0.99388	0.96734	1.02219
	6	5	95,910	1.00812	0.97821	1.02042
	Totals	30	766,962	1.01092	0.96734	1.03357

				Calculated Pay Factor Composite		
	Region	Projects	Tons	Average	Minimum	Maximum
2000 to 2004	1	34	831,868	1.01107	0.91509	1.04708
	2	43	794,553	0.98909	0.78941	1.04209
	3	50	1,423,451	1.01514	0.96192	1.05149
	4	13	422,384	1.01724	0.99607	1.04182
	5	20	603,921	1.00444	0.87280	1.04596
	6	28	489,245	1.00285	0.83596	1.04234
	Totals	188	4,565,422	1.00562	0.78941	1.05149

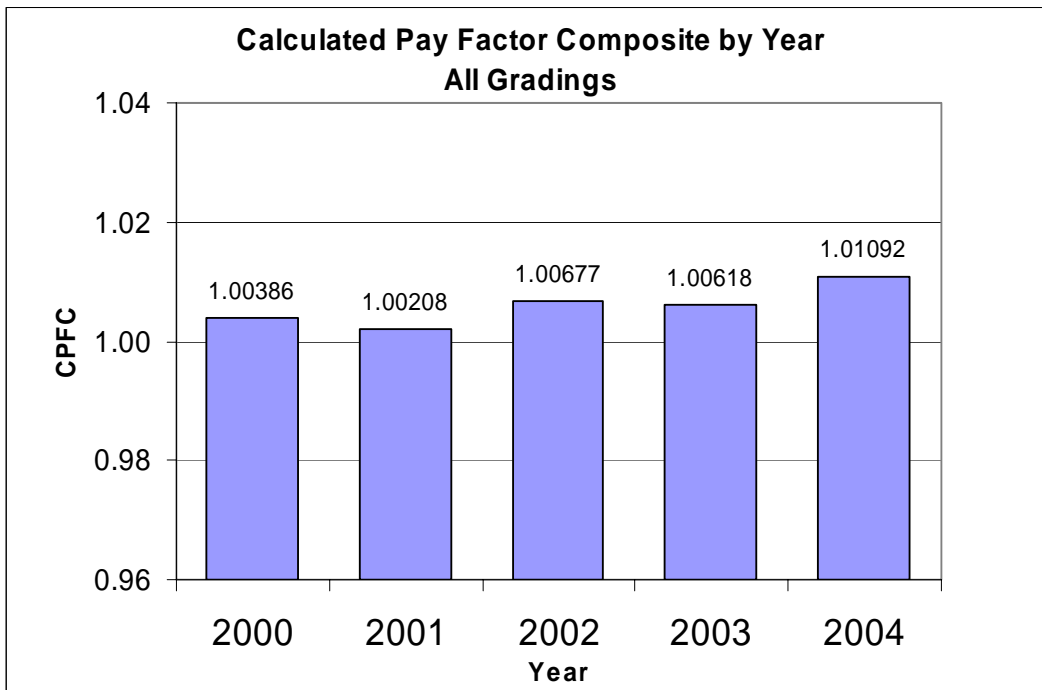


Figure 1. Calculated Pay Factor Composite by Year

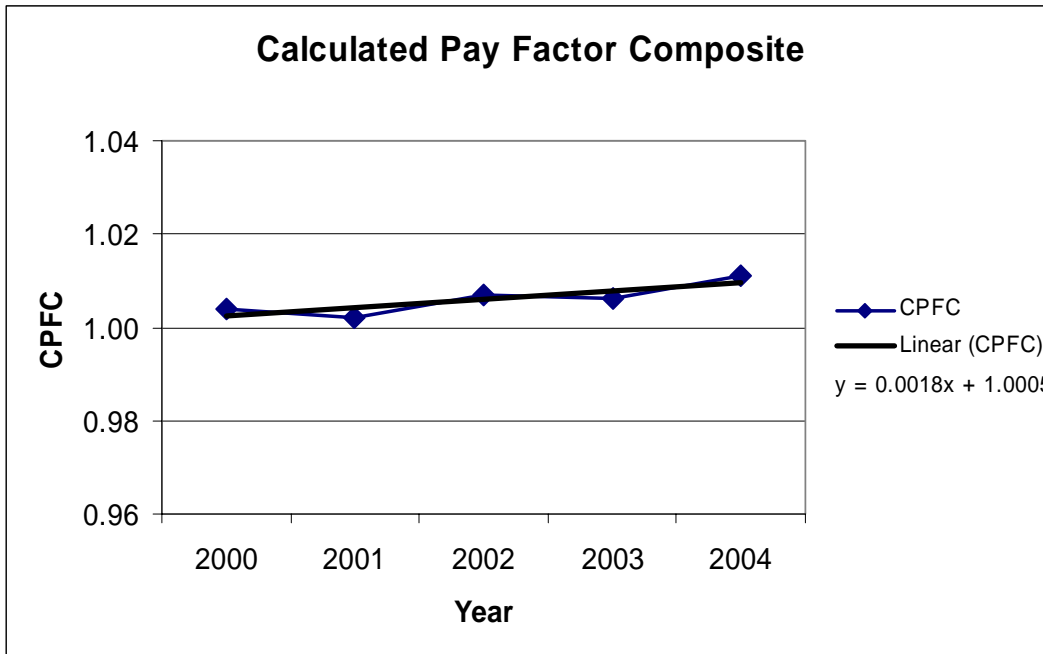


Figure 2. Calculated Pay Factor Composite by Year with Trendline

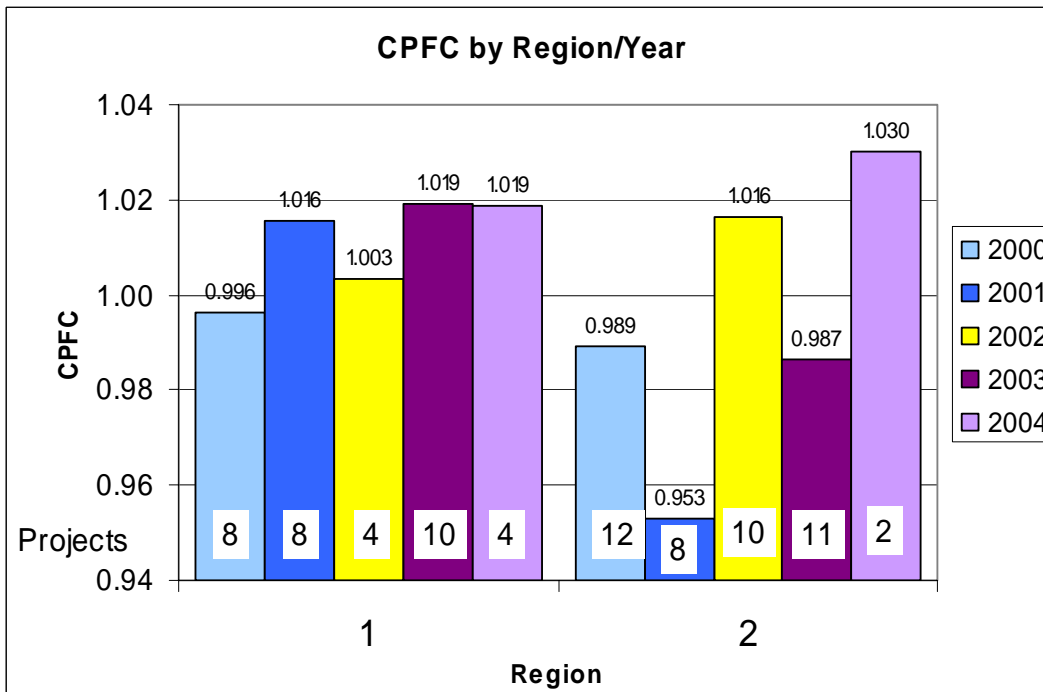


Figure 3. Calculated Pay Factor Composite by Region/Year

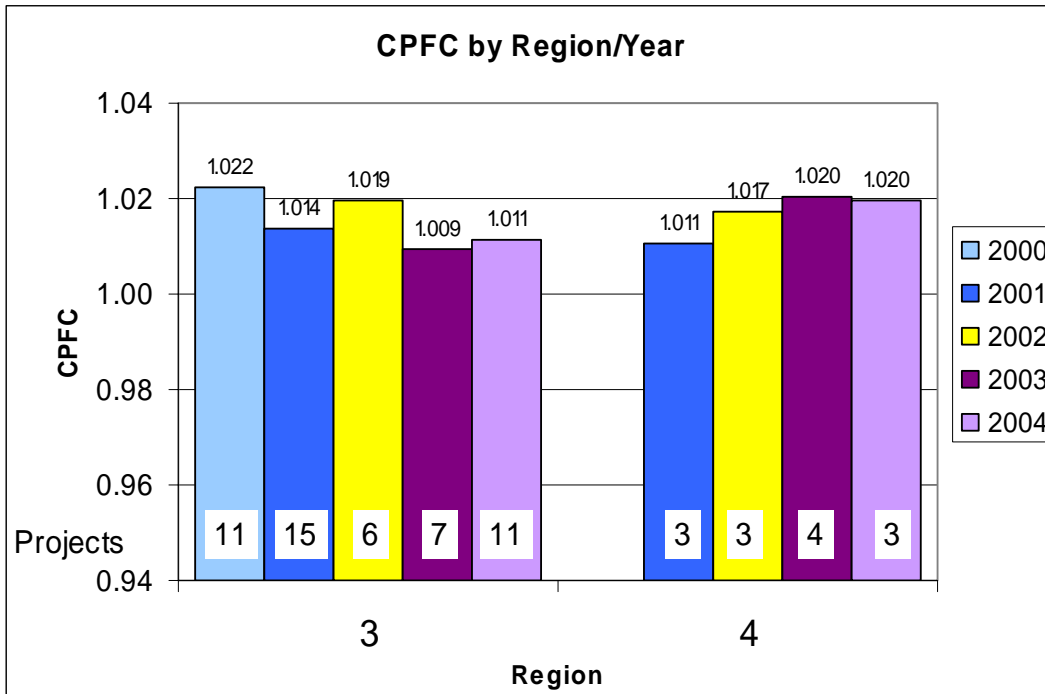


Figure 4. Calculated Pay Factor Composite by Region/Year

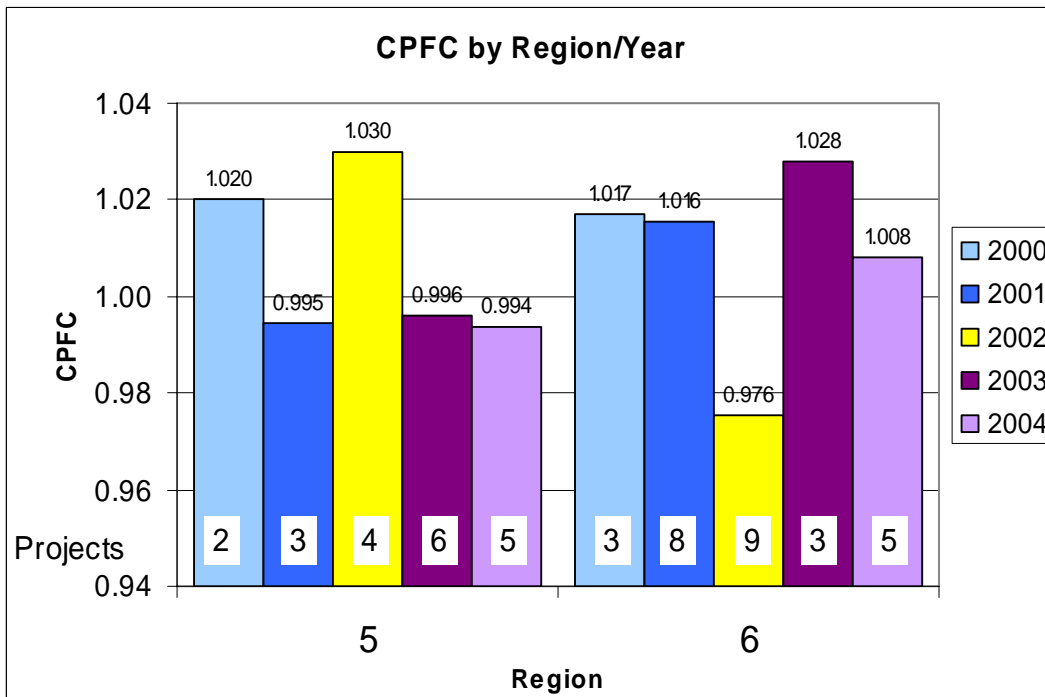


Figure 5. Calculated Pay Factor Composite by Region/Year

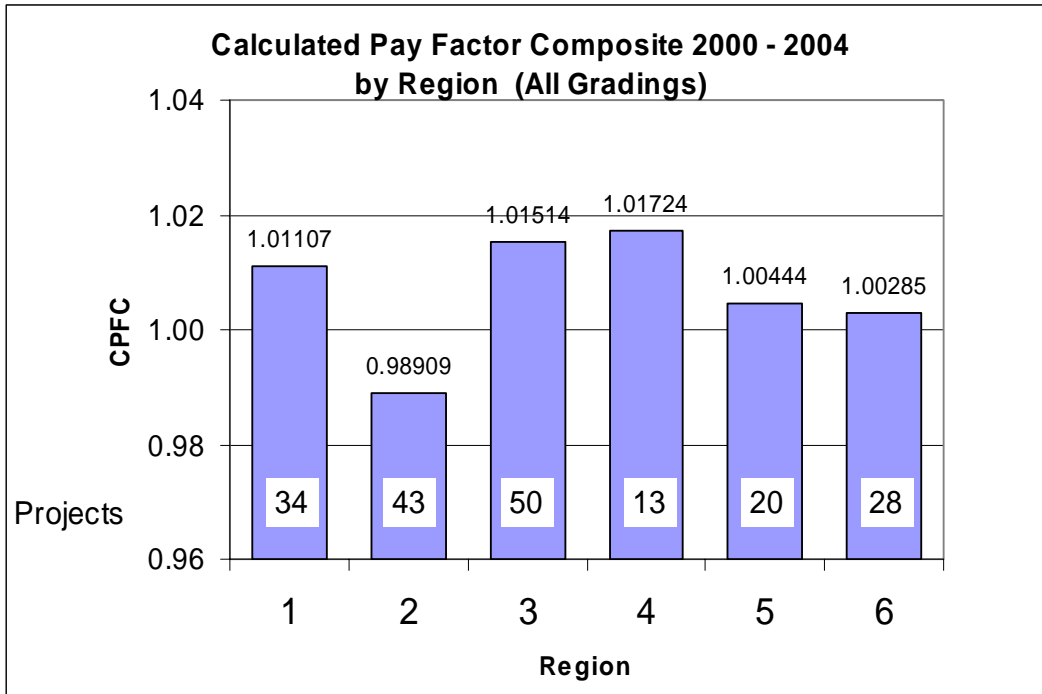


Figure 6. Calculated Pay Factor Composite 2000 to 2004 by Region

6.3 Calculated Pay Factor Composite by Grading

The Calculated Pay Factor Composite (CPFC) information by grading for the years 2000 through 2004 is displayed in Table 5. Projects that contained more than one grading of mix were excluded from this evaluation to make the groupings and calculations less complicated. A CPFC above 1.0 indicates that an incentive payment was paid for the HMA. A CPFC below 1.0 indicates that a disincentive was applied to the pavement. Figure 7 displays the CPFC for gradings S and SX by year. Grading SX has outperformed S in each of the year except 2004. The difference between the two gradings has been just over 1% in each year except for 2004 when the difference was 0.6%. Over the five-year time period the difference in the averages of the two gradings is calculated at 0.014. The CPFC for grading S is 0.998, just slightly under the neutral mark of 1.0. Grading SX has a CPFC of 1.012. Figure 8 displays the CPFC results by grading and the calculated trendlines. The trendline for grading SX is essentially flat. Over the five-year time period the CPFCs have remained constant. A positive trendline is calculated for grading S. A close to 2% improvement was reported in 2004 as

compared to the previous years. Improvements can be shown in grading S calculated as an increase in the CPFC of 0.014 over the five years. A comparison of the individual test elements by grading is presented in Section 6.6.

Table 5. Calculated Pay Factor Composite by Year and Grading

Criteria: Projects with Bid Dates from 1/1/00 to 12/31/04.

Projects that contain more than one grading are EXCLUDED from this Report

CPFC is back calculated from the Project's I/DP.

			Calculated Pay Factor Composite			
Year	Projects	Tons	Average	Minimum	Maximum	
2000	Grading S	21	416,222	0.99774	0.81968	1.04477
	Grading SX	15	577,692	1.01242	0.91509	1.05149
	Totals 2000	36	993,914	1.00386	0.81968	1.05149
				Calculated Pay Factor Composite		
2001	Grading S	25	591,800	0.99642	0.78941	1.04174
	Grading SX	18	388,864	1.00860	0.95729	1.04569
	Totals 2001	43	980,664	1.00152	0.78941	1.04569
				Calculated Pay Factor Composite		
2002	Grading S	20	260,132	0.99613	0.83596	1.03800
	Grading SX	13	451,172	1.02184	0.99215	1.04596
	Totals 2002	33	711,304	1.00625	0.83596	1.04596
				Calculated Pay Factor Composite		
2003	Grading S	17	320,902	0.99549	0.92137	1.04300
	Grading SMA	2	47,945	1.03808	1.03381	1.04234
	Grading SX	19	422,401	1.01225	0.87280	1.04708
	Totals 2003	38	791,248	1.00611	0.87280	1.04708
			Calculated Pay Factor Composite			
2004	Grading S	8	227,577	1.01523	0.97821	1.03253
	Grading SMA	1	12,165	1.01106	1.01106	1.01106
	Grading SX	16	326,555	1.00937	0.97779	1.03357
	Totals 2004	25	566,297	1.01132	0.97779	1.03357

Table 5. Continued

		Calculated Pay Factor Composite				
		Projects	Tons	Average	Minimum	Maximum
2000 to 2004	Grading S	91	1,816,633	0.99814	0.78941	1.04477
	Grading SMA	3	60,110	1.02907	1.01106	1.04234
	Grading SX	81	2,166,684	1.01244	0.87280	1.05149
	Totals	175	4,043,427	1.00529	0.78941	1.05149

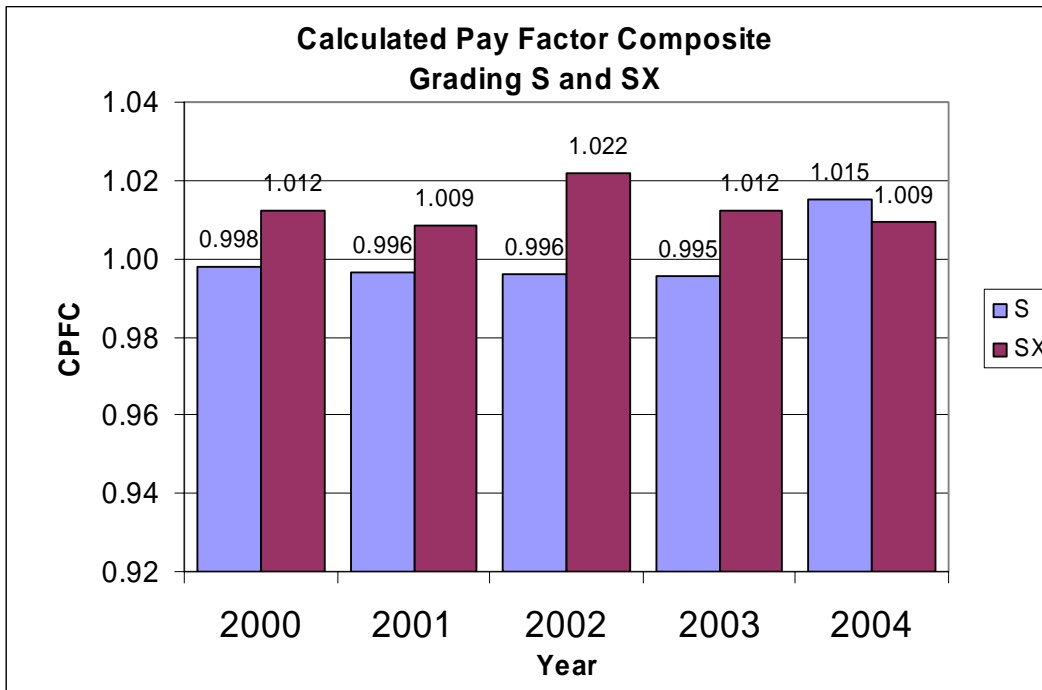


Figure 7. Calculated Pay Factor Composite by Year, Grading S & SX

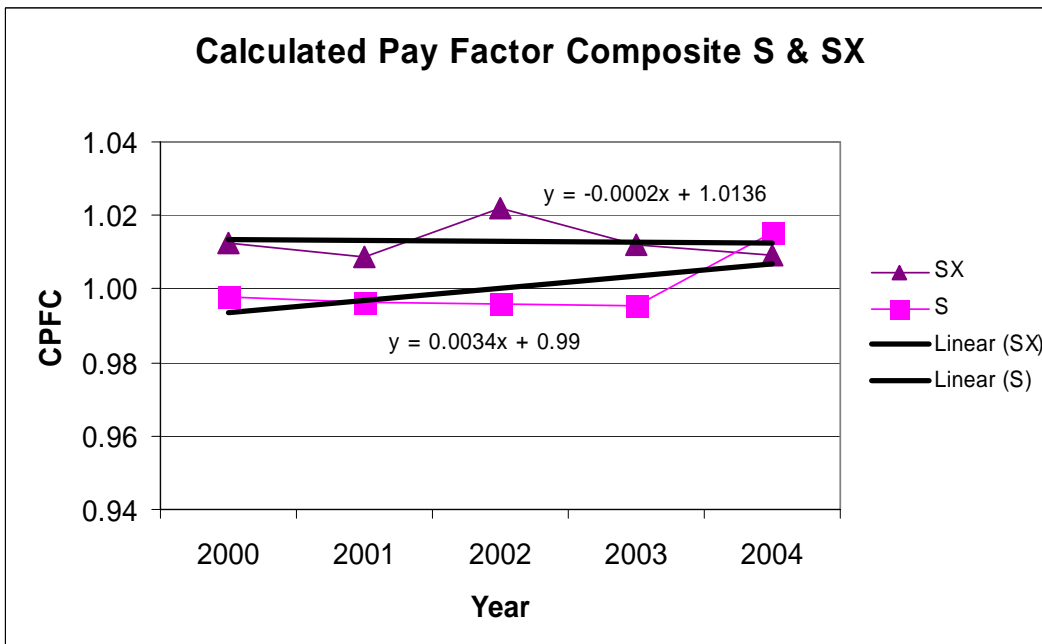


Figure 8. Calculated Pay Factor Composite, Grading S & SX with Trendlines

6.4 Incentive/Disincentive Payments

A recap of the Incentive/Disincentive Payments (I/DP) for the years 2000 through 2004 is presented in Table 6. The total number of projects, the number that received incentives, and the number with disincentives are displayed for each year. The total tons of material evaluated are also displayed. I/DP information presented includes: the summation of all I/DPs, the maximum, minimum and average values are given for each year. The I/DP is the total dollar amount of incentive or disincentive the project received for the hot mix asphalt and is directly related to the tons of material. The size of the projects, tons of material, included in the evaluations can skew the results. Large projects have the potential to receive large I/DPs purely based on the tons of material multiplied by the pay factor. The projects with the largest I/DPs do not necessarily equate to the projects with the best quality levels. It is important to consider the dollar amounts being paid but a better way of evaluating the HMA is to review the Calculated Pay Factor Composite (CPFC). The calculations for the five-year period are shown at the end of the table. The percentage of projects receiving disincentive payments is also calculated for each year and for the five-year time period. Overall 30% of the projects have received a disincentive payment. The percentage was 36% and 33% in the first two years. In 2004 the percentage dropped to 23%.

Table 6. Incentive/Disincentive Payments – Recap by Year

2000				Incentive/Disincentive Payment	
Number of Projects	36			Sum I/DP's	\$541,583.21
Positive I/DPs	23			Maximum	\$146,425.34
Negative I/DPs	13	36%		Minimum	(\$46,207.36)
Total Tons	993,914			Average I/DP	\$15,043.98
2001				Incentive/Disincentive Payment	
Number of Projects	45			Sum I/DP's	\$403,773.20
Positive I/DPs	30			Maximum	\$110,449.67
Negative I/DPs	15	33%		Minimum	(\$161,120.55)
Total Tons	1,066,260			Average I/DP	\$8,972.74
2002				Incentive/Disincentive Payment	
Number of Projects	36			Sum I/DP's	\$609,188.98
Positive I/DPs	27			Maximum	\$98,417.44
Negative I/DPs	9	25%		Minimum	(\$30,824.74)
Total Tons	832,267			Average I/DP	\$16,921.92
2003				Incentive/Disincentive Payment	
Number of Projects	41			Sum I/DP's	\$643,179.78
Positive I/DPs	28			Maximum	\$110,997.34
Negative I/DPs	13	32%		Minimum	(\$39,746.99)
Total Tons	906,019			Average I/DP	\$15,687.31
2004				Incentive/Disincentive Payment	
Number of Projects	30			Sum I/DP's	\$417,253.55
Positive I/DPs	23			Maximum	\$95,542.19
Negative I/DPs	7	23%		Minimum	(\$31,863.90)
Total Tons	766,962			Average I/DP	\$13,900.05
2000 to 2004				Incentive/Disincentive Payment	
Number of Projects	188			Sum I/DP's	\$2,614,726.61
Positive I/DPs	131			Maximum	\$146,425.34
Negative I/DPs	57	30%		Minimum	(\$161,120.55)
Total Tons	4,565,422			Average I/DP	\$13,908.12

6.5 Recap of Data by Test Element 1991 to 2004

The overall results, all gradings included, for each of the test elements for the years 1991 to 1997 and 2000 to 2004 are listed in Table 7, joint density testing is included for the years 2003 and 2004. The quality level and pay factor for each element are shown in the table. The standard deviation is displayed for the percent asphalt, mat density, and joint density elements. The standard deviation information for the gradation element is contained in Report 4 in Appendix A and Report 12 in Appendix B. A relatively small number of projects were evaluated in the years 1991, 1992, & 1996. This may account for some of the high quality levels reported in these years. Also, projects prior to 1995 were constructed under either the pilot specification or a project specification. In 1995 the revision to sections 105 and 106 was released as a standard specification to be used on all projects. A more detailed review of the test elements for the years 2000 through 2004 is presented in Section 6.6.

Table 7. Recap of Yearly Data by Test Element

Criteria: Processes with less than 3 tests are EXCLUDED from this Table.

Percent Asphalt

Year	Projects	Tons	Quality Level	Pay Factor	Std Dev
1991		2,000,000	87.000	1.00000	0.180
1992	7	282,000	96.300	1.04200	0.140
1993	18	482,000	93.200	1.02800	0.150
1994	58	1,496,000	90.600	1.02200	0.150
1995	40	1,104,000	86.872	0.99508	0.173
1996	--	830,000	89.800	1.00800	0.160
1997	17	378,000	91.980	1.01900	0.150
2000	36	973,034	92.323	1.02378	0.149
2001	45	1,050,121	90.632	1.01515	0.154
2002	36	806,106	90.031	1.01274	0.153
2003	41	893,493	92.526	1.02890	0.150
2004	30	749,884	90.146	1.01647	0.160

Mat Density

Year	Projects	Tons	Quality Level	Pay Factor	Std Dev	Mean
1991		900,000	84.000	0.96000	1.050	
1992	7	282,000	88.900	0.99000	1.000	
1993	18	482,000	92.400	1.01800	0.960	
1994	58	1,400,000	90.310	1.00700	0.958	
1995	40	1,071,000	84.208	0.96964	1.096	
1996	--	830,000	91.900	1.01500	0.910	
1997	17	343,000	93.765	1.01900	0.910	
2000	36	906,947	92.662	1.01893	0.957	93.58
2001	45	951,117	92.137	1.02133	0.983	93.72
2002	36	762,330	94.518	1.03591	0.899	93.84
2003	41	815,331	93.414	1.02839	0.930	93.85
2004	30	660,581	93.088	1.02901	0.950	93.88

Table 7. Continued

Gradation

Year	Projects	Tons	Quality Level	Pay Factor
1991		2,000,000	85.700	0.98900
1992	7	282,000	90.000	1.01400
1993	18	482,000	88.800	1.01000
1994	58	1,496,000	88.300	1.01400
1995	40	1,104,000	87.771	1.00757
1996	--	830,000	89.600	1.01200
1997	17	378,000	82.556	0.98100
2000	36	953,308	87.530	1.00670
2001	45	985,803	85.176	1.00195
2002	36	741,717	87.989	1.01166
2003	41	855,054	88.201	1.01473
2004	30	719,290	88.615	1.01421

Joint Density

Year	Projects	Tons	Quality Level	Pay Factor	Std Dev	Mean
2003	41	426,516	83.813	0.97909	1.639	89.860
2004	30	616,790	85.174	0.98760	1.691	90.008

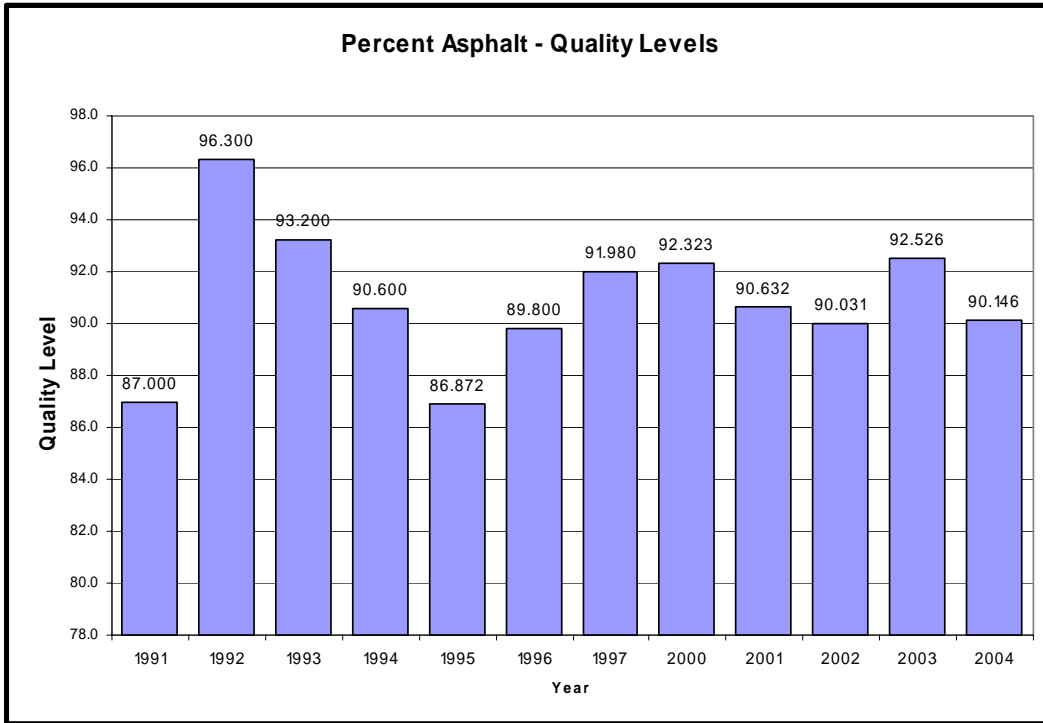


Figure 9. Percent Asphalt Quality Levels

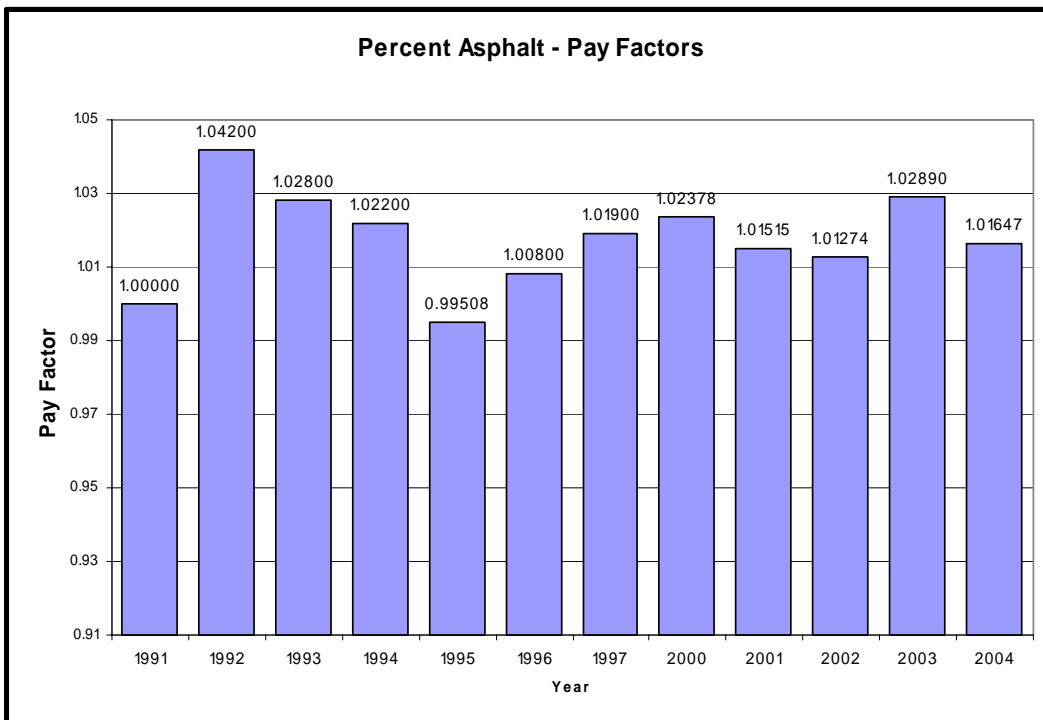


Figure 10. Percent Asphalt Pay Factors

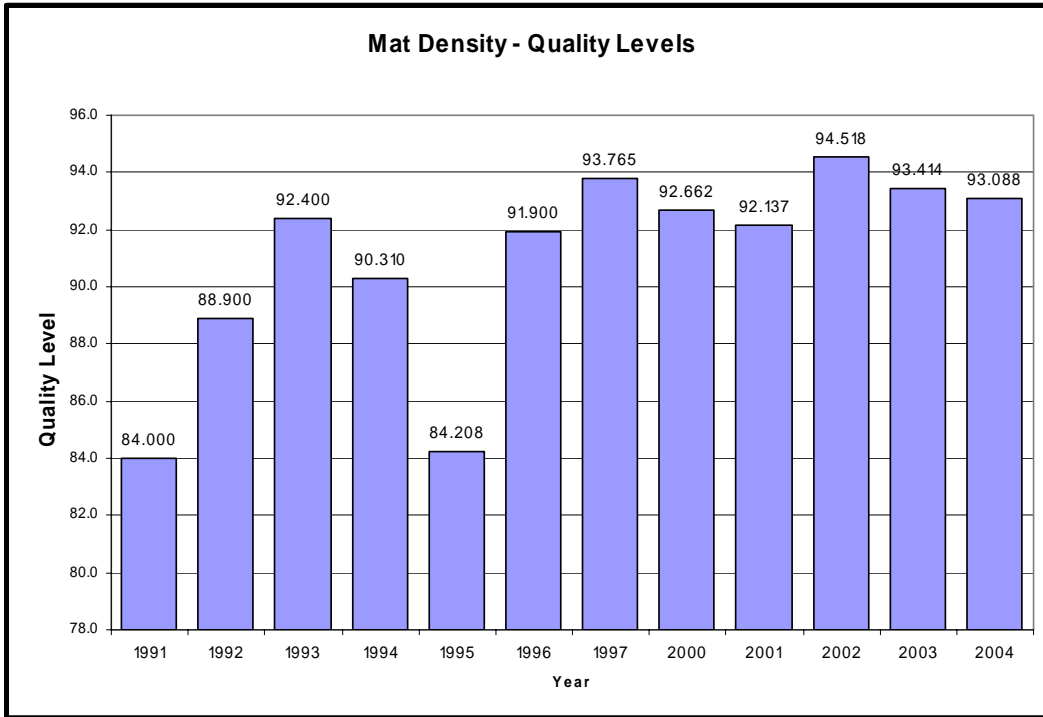


Figure 11. Density Quality Levels

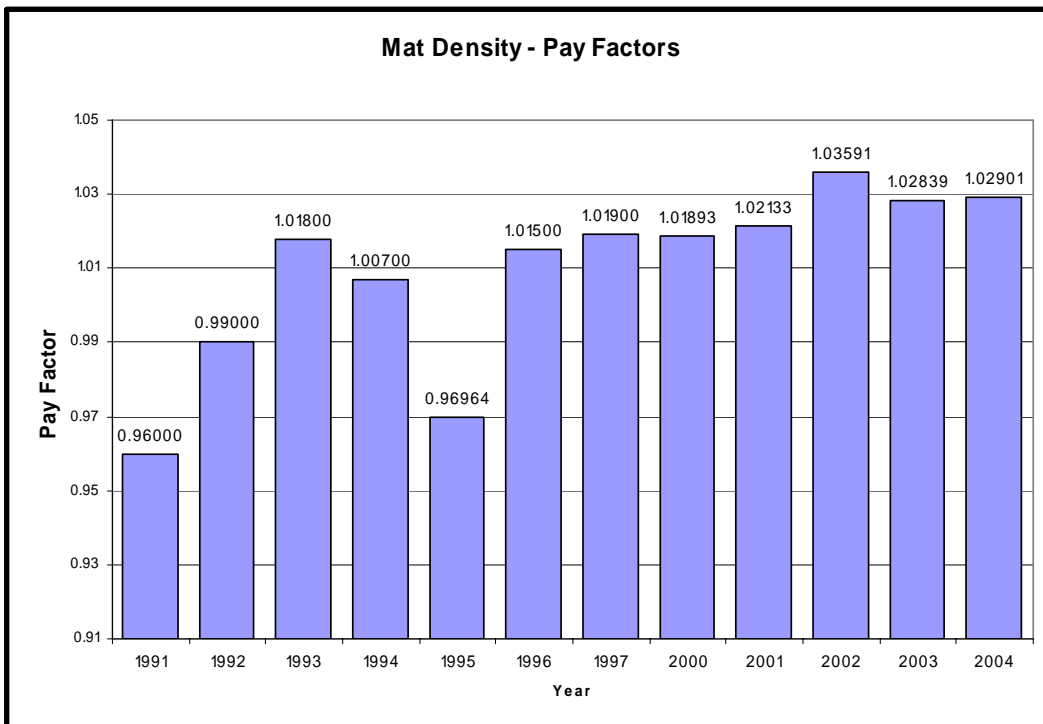


Figure 12. Density Pay Factors

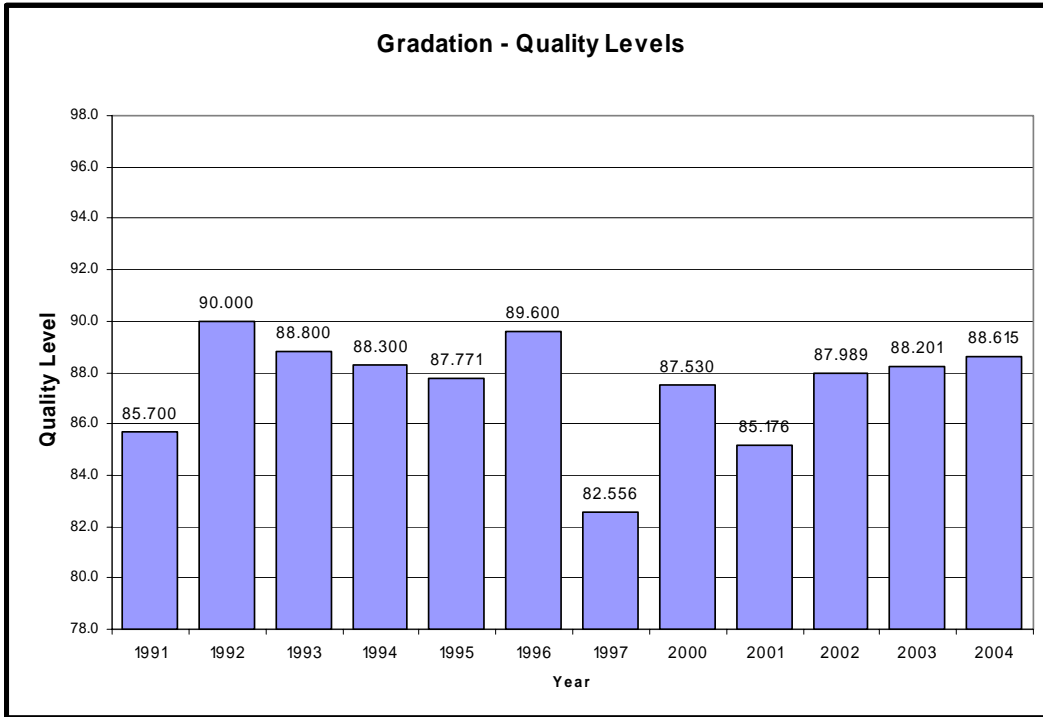


Figure 13. Gradation Quality Levels

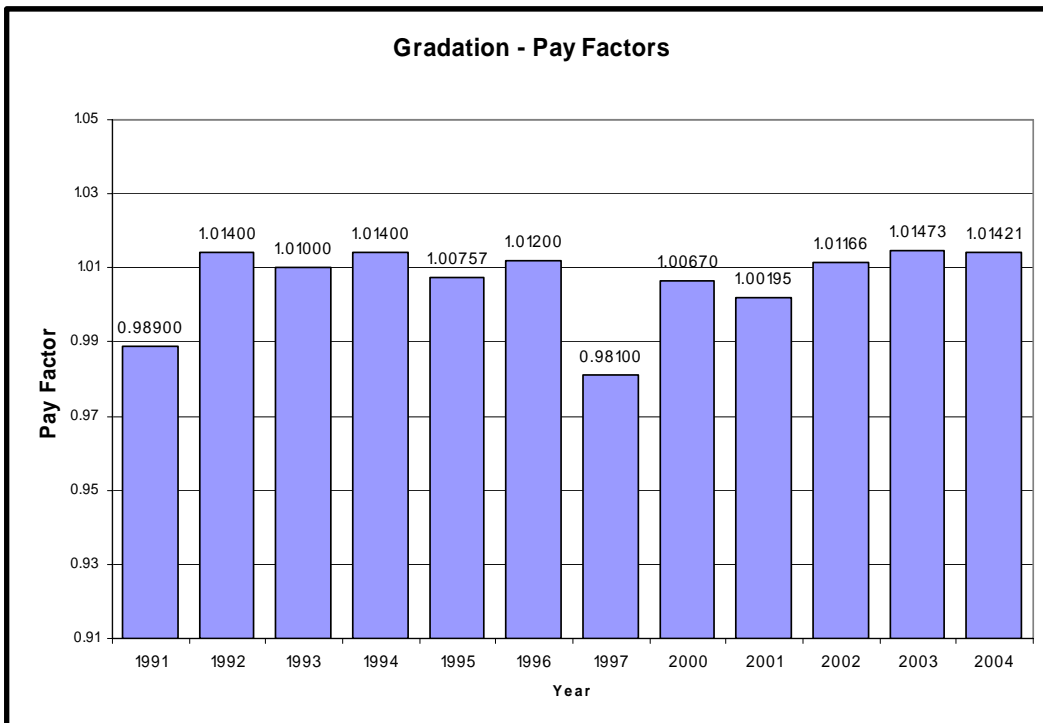


Figure 14. Gradation Pay Factors

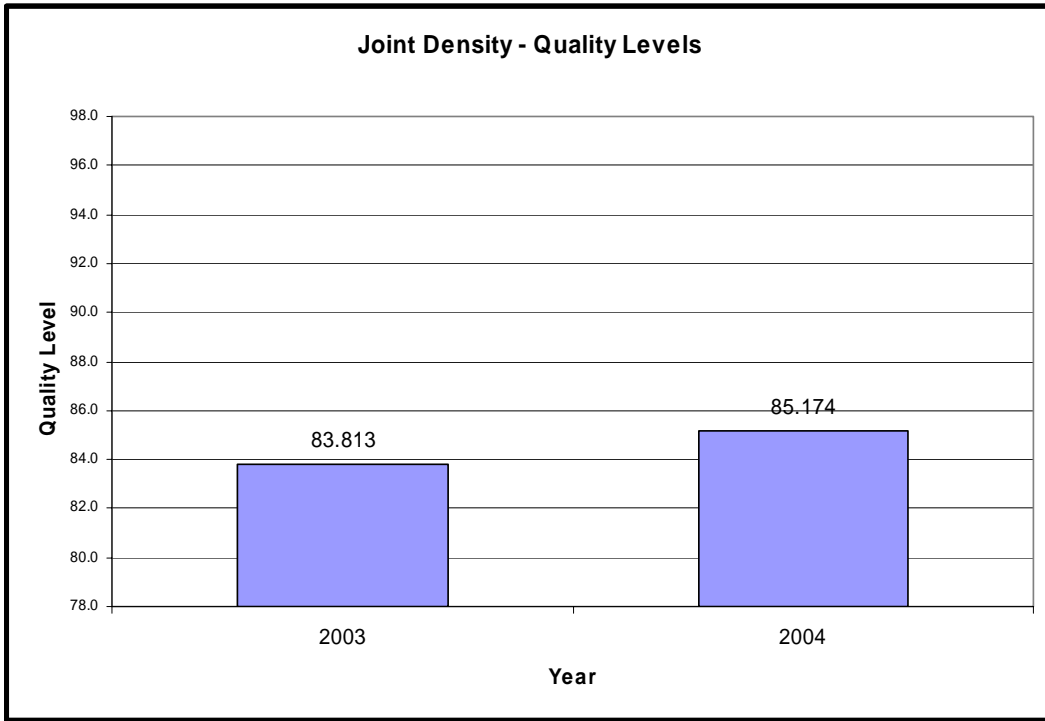


Figure 15. Joint Density Quality Levels

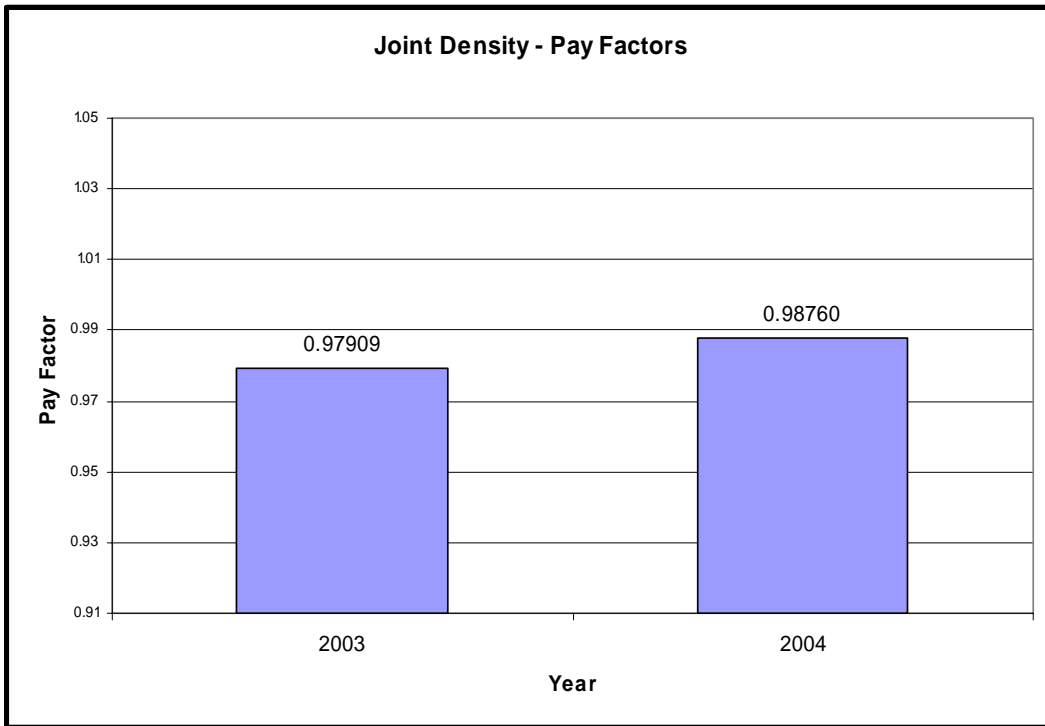


Figure 16. Joint Density Pay Factors

6.6 Review of Test Element Quality Levels 2000 through 2004

The test element quality levels for the years 2000 through 2004 are displayed in Figure 17, data from Table 7. The ranking of the test elements, lowest to highest, by quality level is the same in each year. Overall the mat density element has the highest quality levels. Asphalt content is second and gradation is ranked third. The joint density element is ranked last in the years 2003 and 2004. The ranking of the elements by quality level places them in the same order as the weight, W factor, that is given to the element: 50% mat density, 30% asphalt content, & 20% gradation prior to October 10, 2001 and 45% mat density, 25% asphalt content, 15% gradation, & 15% joint density after December 12, 2002. There appears to be a direct correlation between the importance given the element, its weight, and the quality level results. The overall weighted average quality level for each of the test elements for the years 2000 through 2004 is as follows: mat density 93.104, asphalt content 91.189, and gradation 87.383, data from reports 1, 2, & 3 in Appendix A.

The quality level information showing the calculated trendlines for each of the elements is presented in Figure 18. Figure 19 shows three key attributes of the test element quality levels. First is to see if the quality levels are improving, upward sloping trendlines left to right and positive values in the slope calculations. Improvements can be measured in each of the elements with the exception of the asphalt content element. Asphalt content showed quality levels above 92 in years 2000 and 2003. In the years 2002 and 2004 the levels were closer to 91. Over the five-year time period the result is a negative slope. The second attribute shown the figure is to see how the elements rank in terms of quality level. Mat density has the highest quality levels followed by asphalt content and then by gradation. Joint density, when tested, is ranked the lowest. The third attribute is to review the range of quality levels reported for each of the elements. None of the trendlines cross each other and are distinctly gapped. The elements are always ranked in the same order by quality level with some amount of difference between them and the next element.

An improvement can be shown in each of the elements except for asphalt content. The mat density element has shown improvements over the five-year time period. The quality levels have increased by a calculated amount of 0.852% over this time period. The mean values for this element continue to move towards the target value of the specification, 94.0 percent compaction. The mean for 2004 is 93.88%. Producing material close to the target value of the specification increases the probability that the material will be in specification. This element has always shown good results having a pay factor consistently above the 1.0 mark. The average quality level over the last five years is 93.104%, see Report 2. The percent asphalt element did not show an improvement over the five-year time period. There was a decrease in quality level of 2.38% reported from 2003 to 2004. Over the five-year time period the calculated decrease is just under 1.0%. The average quality level over the five-year time period is 91.189%, Report 1. This quality level is very respectable and results in incentive payments being calculated. The gradation element has shown the most improvement in the five years calculated at an increase of 2.078%. However, this element continues to rank below the mat density and asphalt content elements in terms of quality levels. The average quality level over the five-year time period is 87.383%. The results for this element still result in incentive payments being calculated. Joint density testing has been a requirement starting in 2003. The mean values have increased by 1.361% from 2003 to 2004. This element has the lowest reported quality levels of any of the elements. The average pay factor for this element in 2004 is 0.9876%.

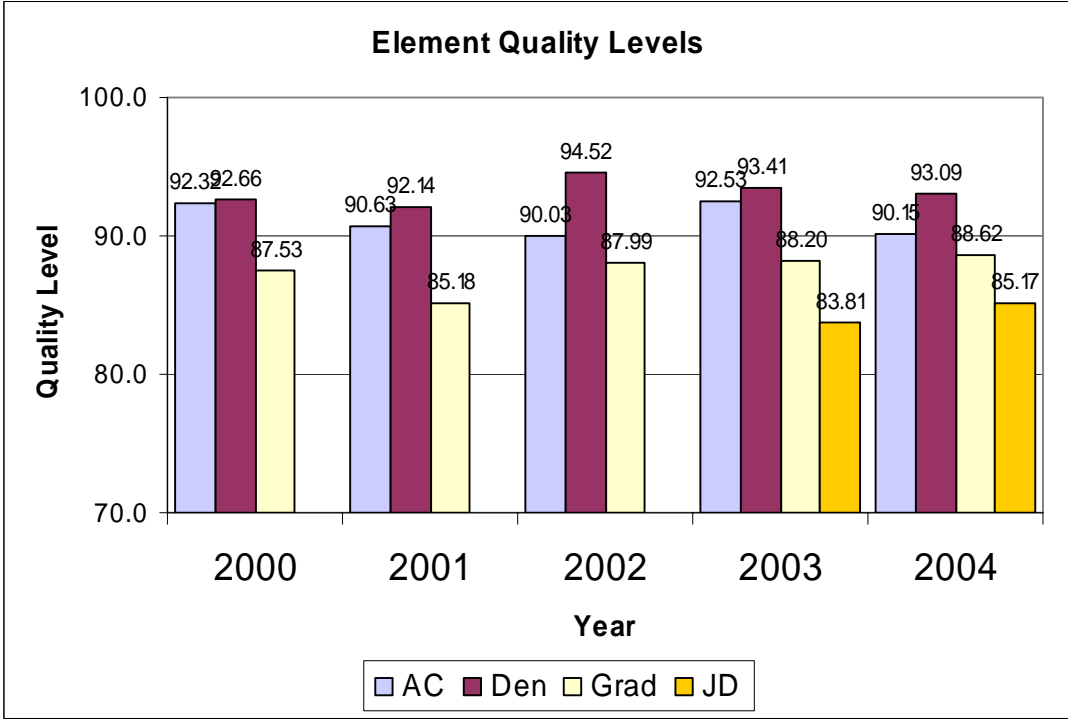


Figure 17. Quality Levels by Test Element by Year

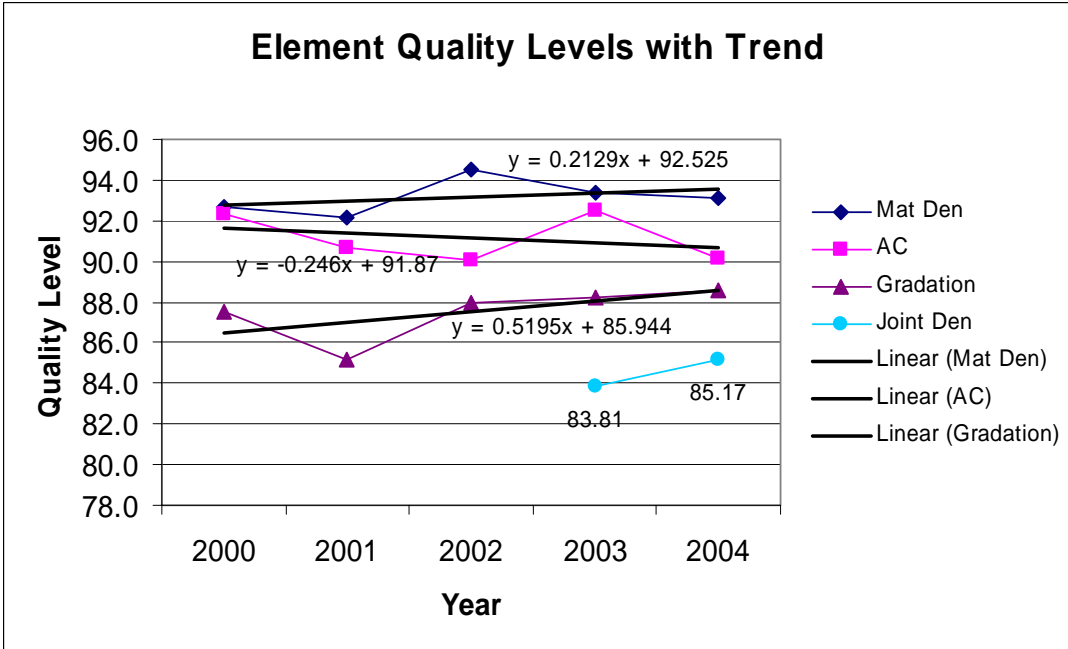


Figure 18. Element Quality Levels with Trendline

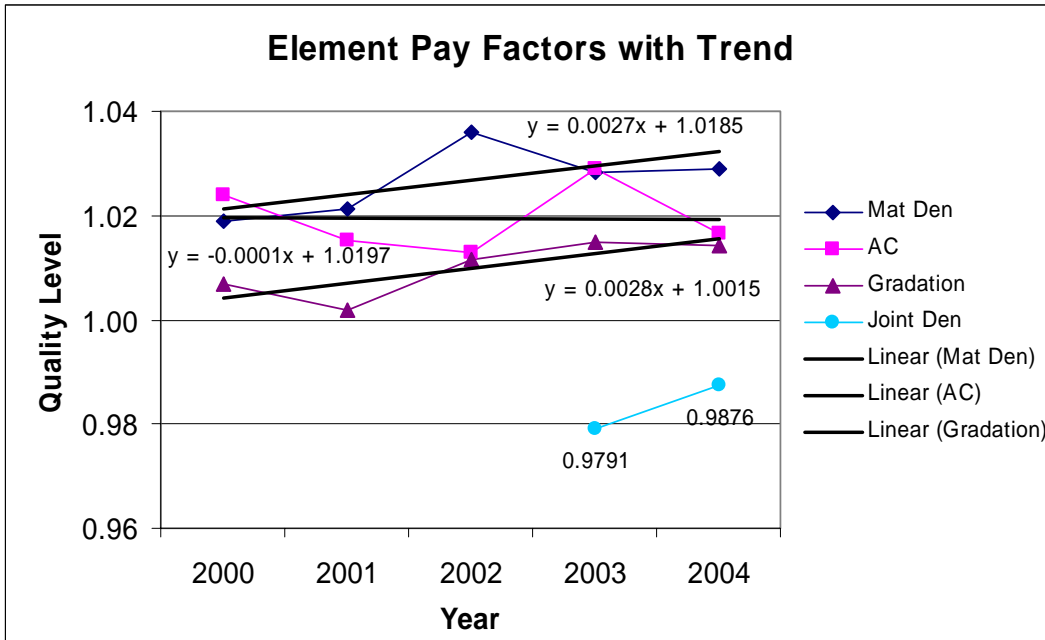


Figure 19. Element Pay Factors with Trendline

6.7 Test Element Quality Levels for Gradings S & SX 2000 through 2004

Information for the test elements for gradings S and SX by year is detailed in Table 8. Figure 20 presents the percent asphalt quality level information by year. Grading SX showed higher quality levels in each of the first three years. In 2003 the reported quality levels were about equal and in 2004 grading S had a higher reported quality level. Figure 21 shows the quality level information and the calculated trendlines. Grading S has shown improvements over the five years. Grading SX has shown decreasing quality levels over the same time. The difference between the reported quality levels was over 5.0% in 2000. That difference has declined and in the last two years it has been 0.03% and 1.70% respectively. The quality levels for each of the gradings is at a high level being close to or above 90%. The mat density results are presented in Figures 22 & 23. The results for grading SX are better than S in each year except 2001. Grading SX shows a calculated increase in quality levels of 2.29% over the five-year time period. Grading S shows a slight decline in quality levels of -0.43% over the same time period. All quality levels reported are above 91.5% except for one in this element.

The difference between the two gradings is fairly similar in each year. The greatest difference is just over 3% in two of the years. This element shows constant results at high quality levels. The results for the gradation element are presented in Figures 24 & 25. Grading S has shown improvements over the five-year time period. The calculated improvement is 5.21% over five years. Grading SX shows a slight decline of 0.69% over five years. However, excluding 2000, which had results above 90, the results over the last four years show an improvement. Excluding 2000 the difference between the reported quality levels each year is very small. In 2002 and 2004 the difference is just over 1.0%. In the other years the difference is less than 1.0%. This element has the smallest difference between the two gradings by year of any of the elements. However, the reported quality levels are lower than those of the asphalt content and mat density elements. Joint density testing became a requirement of the specification in 2003. The results for 2003 and 2004 are included in Table 8 and presented in Figure 26. After two years the results for this element are somewhat mixed. The quality levels for grading S have increased. The quality levels for grading SX have decreased. The overall results, all grading included, have shown an increase in quality levels. As more projects are constructed continued improvements should be seen in this element.

Table 8. Review of Test Elements – Gradings S & SX

Criteria: Processes with less than 3 tests are EXCLUDED from this Table.

Percent Asphalt							
Grading	Year	Projects	Processes	Tests	Tons	Quality Level	Pay Factor
S	2000	21	30	422	407,624	89.358	1.01195
	2001	25	46	622	582,592	89.047	1.00804
	2002	21	37	290	276,108	87.507	1.00494
	2003	18	28	368	355,424	92.810	1.03168
	2004	11	23	279	266,467	90.946	1.02164
SX	2000	15	33	585	565,410	94.460	1.03230
	2001	20	42	519	447,370	93.283	1.02700
	2002	14	27	467	460,021	92.284	1.01973
	2003	18	34	459	441,745	92.777	1.02788
	2004	18	32	404	384,482	89.246	1.01069

Mat Density							
Grading	Year	Projects	Processes	Tests	Tons	Quality Level	Pay Factor
S	2000	20	32	796	393,932	91.945	1.01636
	2001	24	47	1148	560,702	93.507	1.03024
	2002	22	45	604	291,086	92.910	1.02753
	2003	18	31	648	315,573	91.760	1.01981
	2004	11	24	524	243,587	92.276	1.02489
SX	2000	15	30	1047	513,015	93.213	1.02090
	2001	17	34	752	373,382	90.133	1.00768
	2002	14	24	801	397,291	95.872	1.04223
	2003	21	35	841	403,216	94.893	1.03723
	2004	18	29	682	330,224	93.698	1.03331

Table 8. Continued

Gradation

Grading	Year	Projects	Processes	Tests	Tons	Quality Level	Pay Factor
S	2000	20	28	217	405,991	83.922	0.98876
	2001	22	38	286	552,858	84.984	1.00187
	2002	17	24	131	236,555	87.526	1.00358
	2003	14	20	176	333,076	87.677	1.01319
	2004	11	20	144	260,512	89.093	1.02010
SX	2000	14	28	287	547,317	90.205	1.02001
	2001	15	34	256	421,870	85.668	1.00283
	2002	13	21	227	436,185	88.815	1.01651
	2003	16	30	241	425,229	88.494	1.01472
	2004	17	24	194	362,343	87.934	1.00834

Joint Density

Grading	Year	Projects	Processes	Tests	Tons	Quality Level	Pay Factor
S	2003	8	11	106	193,073	77.700	0.94446
	2004	10	15	197	291,181	87.859	1.00039
SX	2003	7	10	183	233,443	88.869	1.00772
	2004	16	19	204	299,759	81.428	0.96981

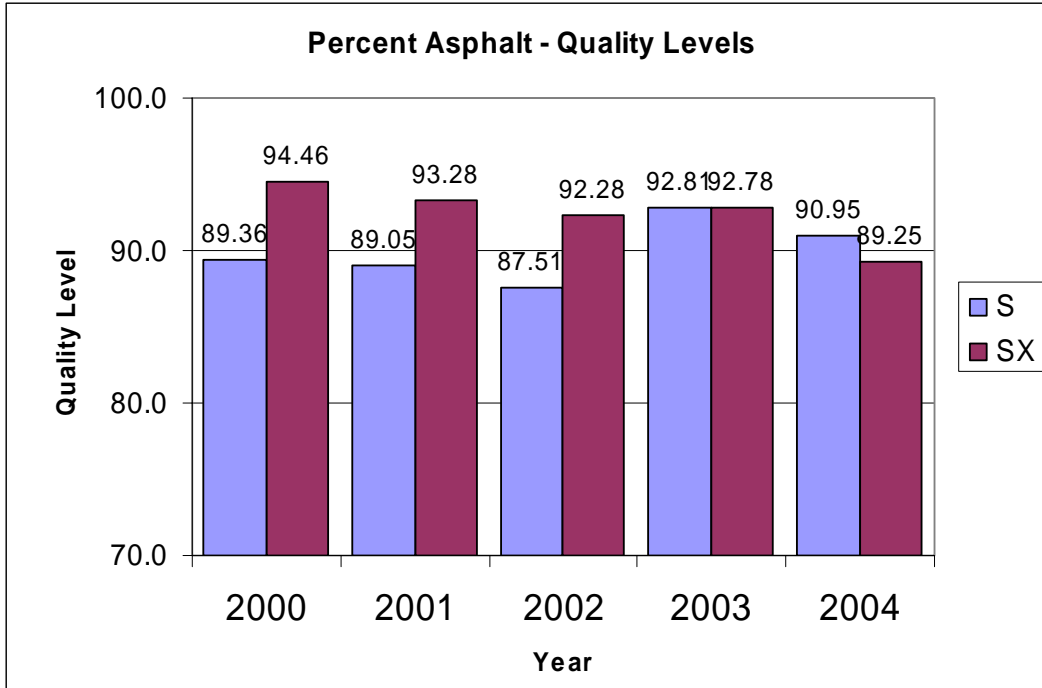


Figure 20. Percent Asphalt Quality Levels – Gradings S & SX

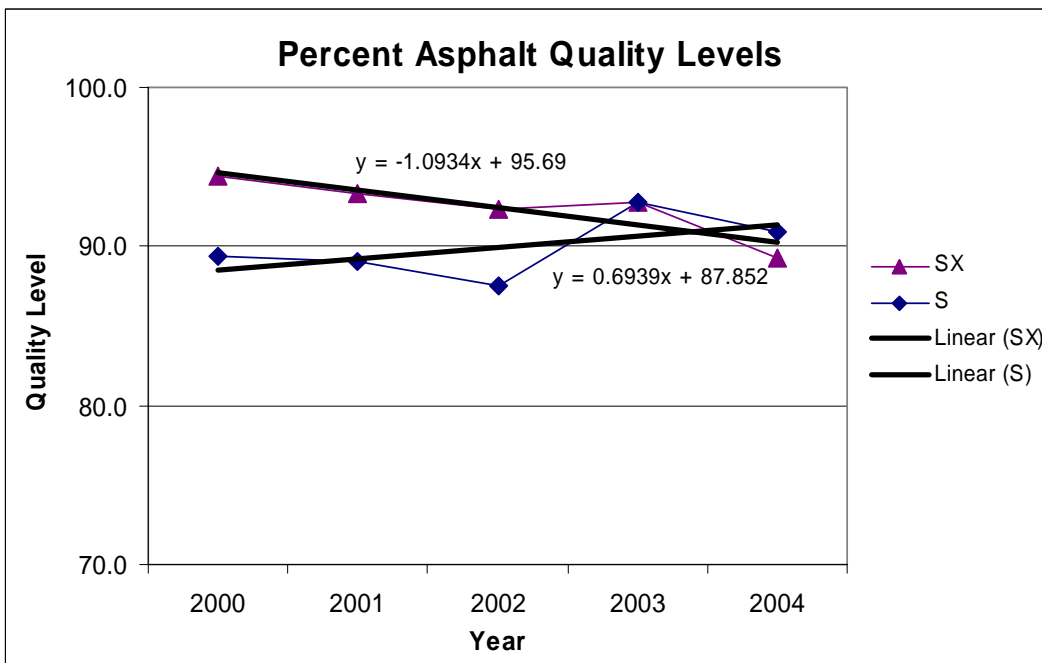


Figure 21. Percent Asphalt Quality Levels – Gradings S & SX with Trendlines

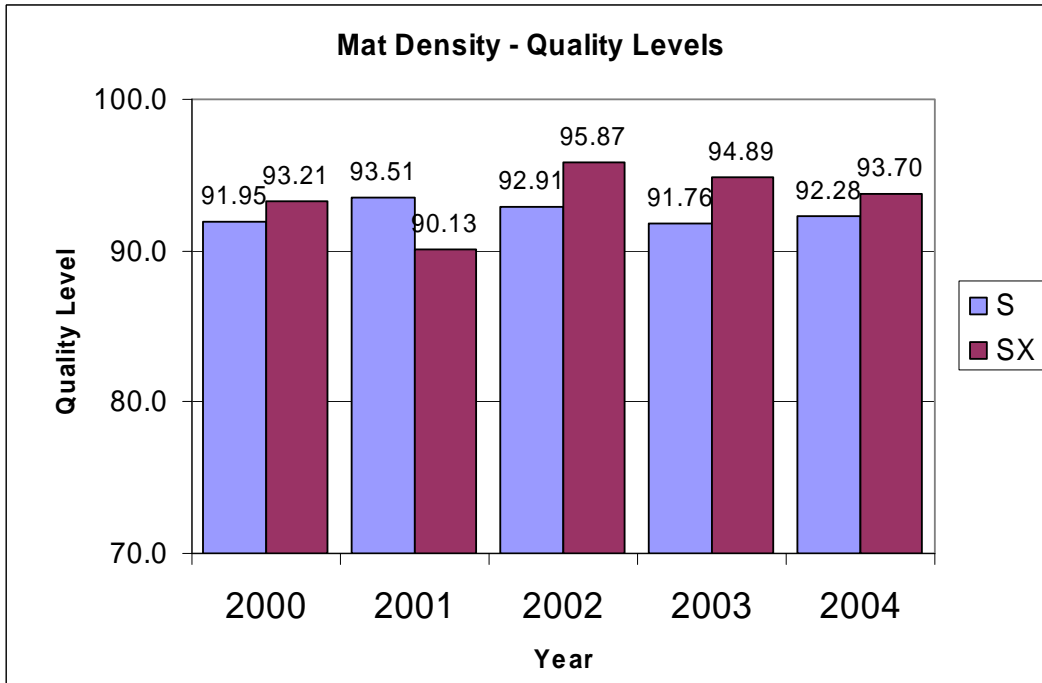


Figure 22. Mat Density Quality Levels – Gradings S & SX

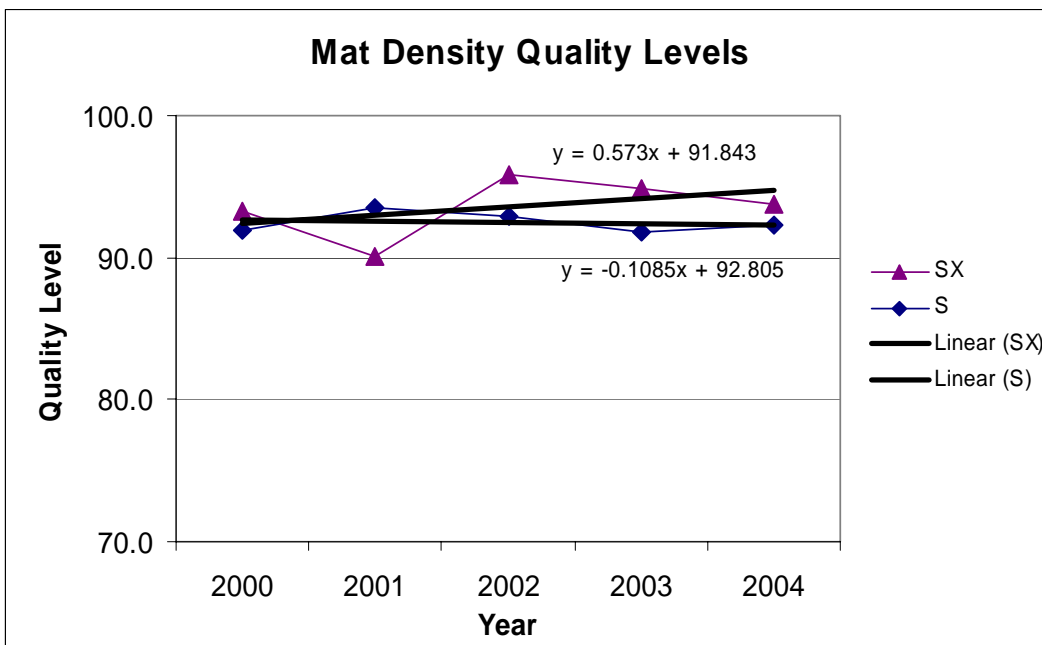


Figure 23. Mat Density Quality Levels – Gradings S & SX with Trendlines

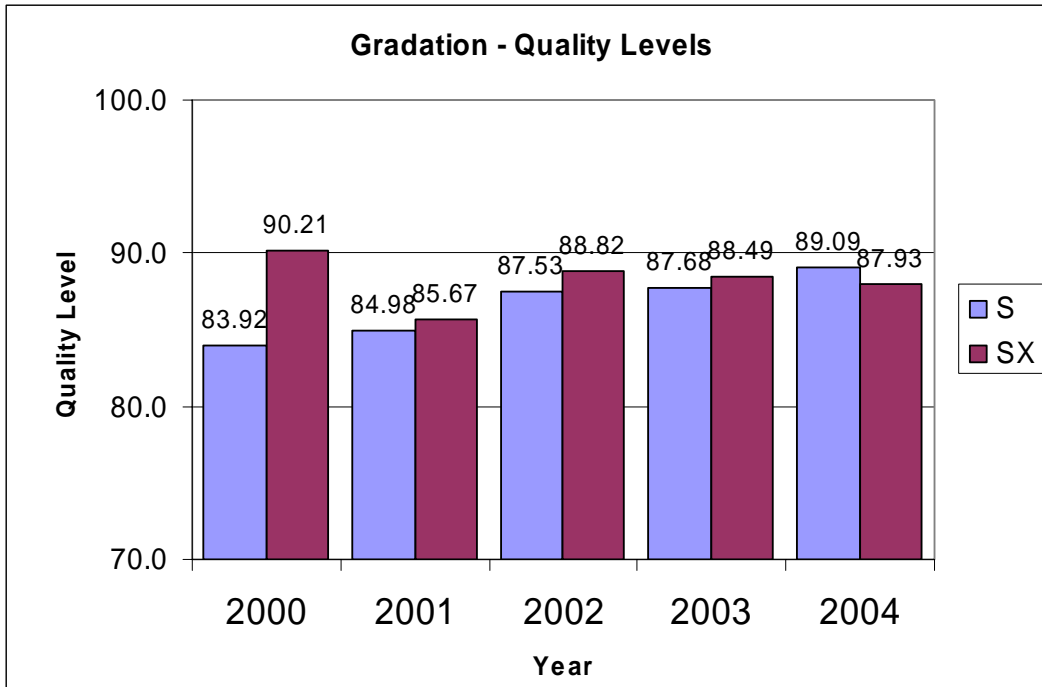


Figure 24. Graduation Quality Levels – Gradings S & SX

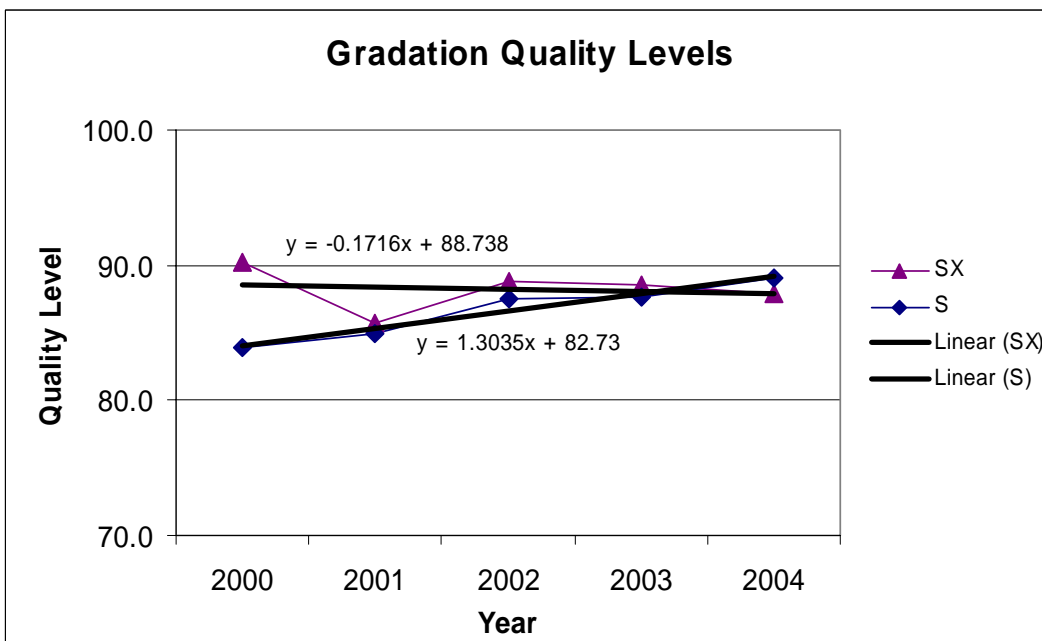


Figure 25. Graduation Quality Levels – Gradings S & SX with Trendlines

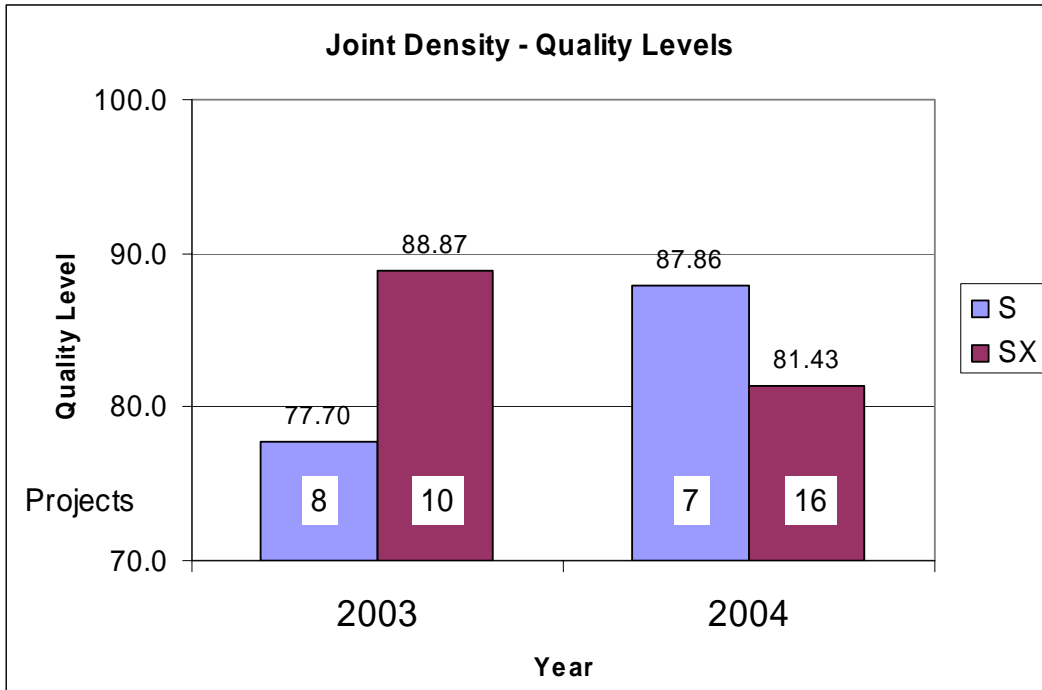


Figure 26. Joint Density Quality Levels – Gradings S & SX

6.8 Recap Reports, 2000 to 2004 Data

Additional reports on the information contained in this report are presented in Appendix A. A recap report for each of the test elements for the years 2000 through 2004 is given in which the data is grouped by grading, year, and then region. The standard deviation information for the gradation element is detailed in a separate report, Report 4.

6.9 Reports for 2004

Appendix B contains a series of detailed reports for projects with start dates in 2004. A project listing is generated for the year showing the projects evaluated. The Project Data report, Report 7, contains all of the test data for each project broken out by mix design and process number. This is the best report to review when concerned about any single project. The Calculated Pay Factor Composite and Incentive/Disincentive Payment information by region is contained in Report 8. There are detailed reports for

each of the test elements. These reports detail the calculations that are used throughout this report for the year 2004.

7.0 SUMMARY

Continued improvements can be measured in the hot mix asphalt in the years 2000 through 2004. When evaluating the overall results for the projects, by reviewing the Calculated Pay Factor Composite, there is a 0.007 improvement over the five years. The pay factors for the individual elements have increased in the mat density, gradation, and joint density elements. The increase in the mat density and gradation elements was 1.1%. In the joint density element the increase was 0.85% over two years. The pay factor in the asphalt content element has remained constant at 1.02%. Likewise, quality levels have increased in each of the elements except for that of the asphalt content element which has shown a slight decrease over the five years. The mat density element has shown an improvement in quality levels of 0.852% over the five-year time period. Asphalt content decreased in quality level by just under 1.0% over the same time period. The gradation element showed the best improvements measured at 2.078%. Two years of joint density testing information is included in this report. In the second year the quality level had increased by 1.36%. When ranking the elements by quality levels we find that the ranking is the same as the importance given the element, the W factor. The mat density element has the best quality levels. The five-year average is 93.104%. Next best quality levels are reported in the percent asphalt element with a five-year average of 91.189%. The gradation element continues to rank below that of the mat density and percent asphalt elements. The five-year average is 87.383%. Joint density has the lowest reported quality levels with a two-year average of 84.617%. Overall grading SX has shown better test results as compared to grading S in each year when reviewing the Calculated Pay Factor Composite. Grading SX has remained at a constant level while grading S has increased. The difference between the two gradings is decreasing. When analyzing the test elements by grading we see that all of the quality levels are improving or at least remaining constant. The only exception to this is in the percent asphalt results for grading SX which showed a decline over five years. However, the results for the last two years have been very close to

those for grading S. The results for the joint density element by grading after two years are mixed. The quality levels for grading S have improved. The results for grading SX decreased. More test results are needed to better analyze this element.

8.0 UPDATES AND CONTACT

The QC database will be updated as additional project data is received. Project data that was received after the cut-off date was not able to be included in this report. If you have any questions concerning this report please contact Eric Chavez at 303 757-9308, Eric.Chavez@dot.state.co.us. If you find any errors in the project data please report them to Eric Chavez.

REFERENCES

1. Revisions of the Standard Specifications, Sections 105, Control of Work and 106, Control of Material; to be used with the 1992 Pilot Projects, by the Staff Materials Branch, CDOT, March 1992. (QPM 1)
2. Revision of Sections 105 and 106, Quality of Hot Bituminous Pavement, April 25, 1995 (Reissued with minor editorial changes, March 7, 1996). CDOT, 4201 East Arkansas Avenue, Denver, CO 80222. (QPM 2)
3. HBP QA/QC Pilot Projects Construction in 1992, Interim Report. Report No. CDOT-DTD-R-93-14, by Bud A. Brakey, Colorado Department of Transportation, 4201 East Arkansas Avenue, Denver, CO 80222.
4. HBP QA/QC Pilot Projects Construction in 1993, Second Interim Report, by Bud A. Brakey, Colorado Department of Transportation, 4201 East Arkansas Avenue, Denver, CO 80222.
5. Hot Bituminous Pavement QC/QA Projects Constructed in 1994 and Summary of the 1992-1994 QC/QA Pilot Program, Final Report, June 1995, by Bud A. Brakey,
6. HBP QC&QA Projects Constructed in 1995 Under QPM 1 and QPM 2 Specifications, (1996 fourth annual report by Bud A Brakey, Colorado Department of Transportation, 4201 East Arkansas Avenue, Denver, CO 80222.), Report No. CDOT-R-96-9.
7. HBP QC&QA Projects Constructed in 1996 Under QPM 2 Specifications, (May 1997, fifth annual report by Bud A. Brakey, Colorado Department of Transportation, 4201 East Arkansas Avenue, Denver, CO 80222), Report No. CDOT-DTD-R-97-9.
- 8 HBP QC&QA Projects Constructed in 1997 Under QPM 2 Specifications, (sixth annual report, May 1998, Bud A Brakey, Colorado Department of Transportation, 4201 East Arkansas Ave, Denver, CO 80222), Report No. CDOT-DTD-R-98-4.
- 9 Hot Bituminous Pavement Gradation Acceptance Review of QC/QA Data 2000 to 2002, (March 2004, Eric Chavez, Colorado Department of Transportation, 4201 East Arkansas Ave, Denver, CO 80222), Report No. CDOT-DTD-R-2004-04.
- 10 Hot Bituminous Pavement Gradation Acceptance Review of QC/QA Data 2000 through 2003, (April 2005, Eric Chavez, Colorado Department of Transportation, 4201 East Arkansas Ave, Denver, CO 80222), Report No. CDOT-DTD-R-2005-7.

URLs

CDOT Library: <http://www.dot.state.co.us/Publications/Library.htm>

CDOT Standard Special Provisions:

http://www.dot.state.co.us/DesignSupport/Construction/2005SpecsBook/2005SSP/2005_SSP_Index.htm

CDOT Application Software: <http://www.dot.state.co.us/ecsu/Products.asp>

Appendix A

Recap Reports for Project Data 2000 through 2004

Report 1	Asphalt Content – Recap by Grading/Year/Region	A - 1
Report 2	Mat Density – Recap by Grading/Year/Region	A - 6
Report 3	Gradation Process Information, Recap by Grading/Year/Region	A - 11
Report 4	Gradation Standard Deviation, Recap by Grading/Year/Region	A - 16
Report 5	Joint Density – Recap by Grading/Year/Region	A - 21

Asphalt Content - Recap by Grading/Year/Region

Criteria: Projects with Bid Dates from 1/1/2000 to 12/31/2004.

Processes with less than 3 tests not included.

<i>Grading: F</i>	Processes	Tons	Tests	Weighted Average:			
				Price	Quality Level	Pay Factor	St. Dev.
2001							
<i>Region: 3</i>	1	3,126	3	\$37.26	100.000	1.02500	0.046
<i>Totals 2001</i>	1	3,126	3	\$37.26	100.000	1.02500	0.046
<i>Grand Totals - Grading: F</i>	1	3,126	3	\$37.26	100.000	1.02500	0.046

Asphalt Content - Recap by Grading/Year/Region

<i>Grading: S</i>	Processes	Tons	Tests	Weighted Average:			
				Price	Quality Level	Pay Factor	St. Dev.
2000							
<i>Region: 1</i>	7	82,198	82	\$40.03	89.312	1.01027	0.148
<i>Region: 2</i>	18	281,529	292	\$37.95	88.780	1.00910	0.173
<i>Region: 6</i>	5	43,897	48	\$45.03	93.147	1.03340	0.133
<i>Totals 2000</i>	30	407,624	422	\$39.13	89.358	1.01195	0.164
2001							
<i>Region: 1</i>	14	209,914	239	\$44.76	94.994	1.03839	0.137
<i>Region: 2</i>	14	158,948	165	\$36.41	80.749	0.95582	0.194
<i>Region: 4</i>	6	54,111	57	\$41.55	89.355	1.02267	0.168
<i>Region: 6</i>	12	159,619	161	\$40.82	89.386	1.01516	0.155
<i>Totals 2001</i>	46	582,592	622	\$41.11	89.047	1.00804	0.160
2002							
<i>Region: 1</i>	5	15,938	18	\$41.30	86.517	0.99528	0.111
<i>Region: 2</i>	13	111,408	114	\$38.55	89.442	1.01467	0.150
<i>Region: 4</i>	11	83,886	90	\$37.93	85.924	0.99671	0.186
<i>Region: 6</i>	8	64,876	68	\$39.41	86.473	1.00123	0.180
<i>Totals 2002</i>	37	276,108	290	\$38.72	87.507	1.00494	0.166
2003							
<i>Region: 1</i>	4	97,096	100	\$37.11	95.983	1.04563	0.137
<i>Region: 2</i>	18	143,645	150	\$36.61	87.858	1.01141	0.175
<i>Region: 4</i>	6	114,683	118	\$37.52	96.325	1.04526	0.131
<i>Totals 2003</i>	28	355,424	368	\$37.04	92.810	1.03168	0.150
2004							
<i>Region: 2</i>	3	80,197	80	\$38.24	92.494	1.02650	0.147
<i>Region: 4</i>	9	105,263	114	\$37.44	90.430	1.01893	0.160
<i>Region: 5</i>	1	13,468	14	\$31.35	86.556	1.00612	0.198
<i>Region: 6</i>	10	67,539	71	\$33.41	90.789	1.02320	0.153
<i>Totals 2004</i>	23	266,467	279	\$36.35	90.946	1.02164	0.156
Grand Totals - Grading: S	164	1,888,215	1981	\$38.90	89.865	1.01480	0.159

Asphalt Content - Recap by Grading/Year/Region

<i>Grading: SG</i>	Processes	Tons	Tests	Weighted Average:			
				Price	Quality Level	Pay Factor	St. Dev.
2002							
<i>Region: 1</i>	2	19,809	19	\$35.08	86.818	1.00611	0.170
<i>Totals 2002</i>	2	19,809	19	\$35.08	86.818	1.00611	0.170
2003							
<i>Region: 1</i>	1	11,470	15	\$36.50	82.776	0.98518	0.120
<i>Region: 4</i>	1	5,813	7	\$29.35	85.433	1.01756	0.199
<i>Totals 2003</i>	2	17,283	22	\$34.10	83.670	0.99607	0.147
Grand Totals - Grading: SG	4	37,092	41	\$34.62	85.351	1.00143	0.159

<i>Grading: SMA</i>	Processes	Tons	Tests	Weighted Average:			
				Price	Quality Level	Pay Factor	St. Dev.
2001							
<i>Region: 3</i>	2	17,033	17	\$48.36	73.488	0.94554	0.191
<i>Totals 2001</i>	2	17,033	17	\$48.36	73.488	0.94554	0.191
2002							
<i>Region: 6</i>	4	50,168	50	\$49.11	84.534	0.99417	0.150
<i>Totals 2002</i>	4	50,168	50	\$49.11	84.534	0.99417	0.150
2003							
<i>Region: 1</i>	2	31,814	32	\$48.70	90.569	1.02191	0.167
<i>Region: 6</i>	2	47,227	43	\$46.57	92.605	1.03426	0.161
<i>Totals 2003</i>	4	79,041	75	\$47.43	91.785	1.02929	0.164
2004							
<i>Region: 1</i>	3	41,076	43	\$48.83	89.739	1.02418	0.154
<i>Region: 3</i>	2	30,297	31	\$47.70	95.948	1.04294	0.128
<i>Region: 6</i>	2	27,562	29	\$42.68	89.198	1.00639	0.160
<i>Totals 2004</i>	7	98,935	103	\$46.77	91.490	1.02497	0.147
Grand Totals - Grading: SM	17	245,177	245	\$47.57	88.911	1.01454	0.156

Asphalt Content - Recap by Grading/Year/Region

<i>Grading: SX</i>	Processes	Tons	Tests	Weighted Average:			
				Price	Quality Level	Pay Factor	St. Dev.
2000							
<i>Region: 1</i>	2	11,254	14	\$42.78	78.552	0.98619	0.227
<i>Region: 3</i>	26	341,018	356	\$38.80	95.014	1.03576	0.131
<i>Region: 5</i>	5	213,138	215	\$36.64	94.415	1.02920	0.145
<i>Totals 2000</i>	33	565,410	585	\$38.07	94.460	1.03230	0.138
2001							
<i>Region: 1</i>	3	22,053	23	\$35.53	83.201	0.98779	0.212
<i>Region: 3</i>	34	384,633	452	\$41.93	93.493	1.02781	0.143
<i>Region: 5</i>	5	40,684	44	\$36.73	96.762	1.04057	0.128
<i>Totals 2001</i>	42	447,370	519	\$41.14	93.283	1.02700	0.145
2002							
<i>Region: 1</i>	2	45,139	46	\$45.02	78.416	0.93912	0.206
<i>Region: 3</i>	17	211,253	216	\$34.37	92.989	1.02617	0.142
<i>Region: 4</i>	1	45,000	45	\$39.00	94.111	1.03472	0.159
<i>Region: 5</i>	6	149,780	151	\$38.11	94.466	1.02924	0.129
<i>Region: 6</i>	1	8,849	9	\$52.00	99.994	1.04000	0.109
<i>Totals 2002</i>	27	460,021	467	\$37.43	92.284	1.01973	0.145
2003							
<i>Region: 1</i>	9	191,644	201	\$37.22	93.306	1.03078	0.155
<i>Region: 3</i>	15	126,608	128	\$40.34	94.209	1.03086	0.116
<i>Region: 5</i>	8	111,171	114	\$39.47	91.510	1.02332	0.160
<i>Region: 6</i>	2	12,322	16	\$34.00	81.265	0.99342	0.231
<i>Totals 2003</i>	34	441,745	459	\$38.59	92.777	1.02788	0.148
2004							
<i>Region: 1</i>	4	37,607	38	\$39.64	88.961	1.01321	0.142
<i>Region: 3</i>	22	280,040	291	\$39.18	90.500	1.01467	0.163
<i>Region: 5</i>	6	66,835	75	\$50.97	84.153	0.99261	0.197
<i>Totals 2004</i>	32	384,482	404	\$41.28	89.246	1.01069	0.167
Grand Totals - Grading: SX	168	2,299,028	2434	\$39.17	92.600	1.02429	0.147

Asphalt Content - Recap by Grading/Year/Region

Totals All Gradings

			Weighted Average:			
Processes	Tons	Tests	Price	Quality Level	Pay Factor	St. Dev.
354	4,472,638	4704	\$39.48	91.189	1.01956	0.153

Mat Density - Recap by Grading/Year/Region

Criteria: Projects with Start Dates from 1/1/2000 to 12/31/2004.

Processes with less than 3 tests not included.

Grading: S	Processes	Total Tons	Tests	Weighted Average				
				Price	Quality Level	Pay Factor	St. Dev.	Mean
2000								
Region: 1	7	80,270	160	\$39.94	94.360	1.03320	0.912	93.71
Region: 2	20	268,765	545	\$38.27	90.658	1.00684	0.983	93.41
Region: 6	5	44,897	91	\$44.70	95.329	1.04330	0.844	93.59
Totals: 2000	32	393,932	796	\$39.34	91.945	1.01636	0.953	93.50
2001								
Region: 1	15	207,716	425	\$44.79	93.456	1.02922	0.972	93.69
Region: 2	15	163,223	336	\$36.43	93.556	1.02916	0.934	93.76
Region: 4	5	31,644	68	\$33.29	97.159	1.04870	0.854	93.77
Region: 6	12	158,119	319	\$40.77	92.794	1.02901	0.910	93.58
Totals: 2001	47	560,702	1,148	\$40.57	93.507	1.03024	0.936	93.69
2002								
Region: 1	6	17,459	36	\$40.86	94.691	1.02743	0.872	93.85
Region: 2	16	116,073	235	\$38.92	94.316	1.03563	0.910	93.81
Region: 4	13	89,963	191	\$38.04	92.696	1.02604	1.002	93.90
Region: 6	10	67,591	142	\$39.41	90.322	1.01562	0.796	93.12
Totals: 2002	45	291,086	604	\$38.88	92.910	1.02753	0.910	93.68
2003								
Region: 1	4	80,210	169	\$37.51	92.884	1.01767	1.020	93.62
Region: 2	21	133,644	275	\$36.79	87.468	1.00260	1.107	93.45
Region: 4	6	101,719	204	\$38.05	96.512	1.04411	0.810	93.66
Totals: 2003	31	315,573	648	\$37.38	91.760	1.01981	0.989	93.56

Mat Density - Recap by Grading/Year/Region

2004								
<i>Region: 2</i>	4	77,697	155	\$38.05	94.468	1.03693	0.815	93.72
<i>Region: 4</i>	10	98,164	204	\$37.46	92.276	1.02345	1.034	93.85
<i>Region: 5</i>	1	1,687	4	\$31.35	54.540	0.88623	1.652	92.22
<i>Region: 6</i>	9	66,039	161	\$33.52	90.660	1.01639	0.873	93.46
Totals: 2004	24	243,587	524	\$36.54	92.276	1.02489	0.925	93.69

Grand Totals Grad S	179	1,804,880	3,720	\$38.93	92.598	1.02423	0.943	93.62
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<i>Grading: SG</i>	Processes	Total Tons	Tests	Weighted Average				
				Price	Quality Level	Pay Factor	St. Dev.	Mean
2002								
<i>Region: 1</i>	4	24,785	51	\$35.08	94.640	1.03646	0.836	93.94
Totals: 2002	4	24,785	51	\$35.08	94.640	1.03646	0.836	93.94
2003								
<i>Region: 1</i>	1	10,970	24	\$36.50	90.491	1.01920	0.785	93.02
<i>Region: 4</i>	1	5,813	12	\$29.35	99.553	1.04500	0.705	93.60
Totals: 2003	2	16,783	36	\$34.02	93.630	1.02814	0.757	93.22
Grand Totals Grad SG	6	41,568	87	\$34.65	94.232	1.03310	0.804	93.65

Mat Density - Recap by Grading/Year/Region

<i>Grading: SMA</i>	Processes	Total Tons	Tests	Weighted Average				
				Price	Quality Level	Pay Factor	St. Dev.	Mean
2001								
<i>Region: 3</i>	2	17,033	34	\$48.36	90.952	1.02727	1.020	95.15
<i>Totals: 2001</i>	2	17,033	34	\$48.36	90.952	1.02727	1.020	95.15
2002								
<i>Region: 6</i>	4	49,168	99	\$49.11	93.035	1.03421	1.040	95.03
<i>Totals: 2002</i>	4	49,168	99	\$49.11	93.035	1.03421	1.040	95.03
2003								
<i>Region: 1</i>	2	31,814	63	\$48.70	84.429	0.96768	1.352	94.62
<i>Region: 6</i>	2	47,945	95	\$46.61	97.760	1.05090	0.783	95.14
<i>Totals: 2003</i>	4	79,759	158	\$47.44	92.442	1.01770	1.010	94.94
2004								
<i>Region: 1</i>	2	28,911	58	\$44.55	93.922	1.02853	0.871	95.68
<i>Region: 3</i>	2	30,297	62	\$47.70	93.239	1.02865	0.919	94.67
<i>Region: 6</i>	2	27,562	55	\$42.68	91.910	1.01479	1.109	94.77
<i>Totals: 2004</i>	6	86,770	175	\$45.06	93.045	1.02421	0.963	95.04
Grand Totals Grad SMA	16	232,730	466	\$46.97	92.683	1.02432	1.000	95.01

Mat Density - Recap by Grading/Year/Region

Grading: SX	Processes	Total Tons	Tests	Weighted Average				
				Price	Quality Level	Pay Factor	St. Dev.	Mean
2000								
Region: 1	2	11,168	26	\$42.79	72.132	0.92013	1.643	93.32
Region: 3	22	288,612	592	\$40.04	94.349	1.02999	0.900	93.61
Region: 5	6	213,235	429	\$36.71	92.779	1.01388	1.007	93.72
Totals: 2000	30	513,015	1,047	\$38.72	93.213	1.02090	0.960	93.65
2001								
Region: 1	3	24,053	49	\$35.33	92.793	1.03625	1.034	93.66
Region: 3	26	309,645	620	\$43.12	91.337	1.01413	1.023	93.78
Region: 5	5	39,684	83	\$36.63	79.123	0.94005	1.275	93.18
Totals: 2001	34	373,382	752	\$41.92	90.133	1.00768	1.050	93.71
2002								
Region: 1	2	45,139	91	\$45.02	98.739	1.05500	0.743	93.73
Region: 3	16	183,968	371	\$35.01	95.511	1.04161	0.904	93.90
Region: 4	1	44,000	89	\$39.00	95.087	1.03680	0.837	93.38
Region: 5	4	115,335	232	\$38.77	96.480	1.04435	0.924	93.94
Region: 6	1	8,849	18	\$52.00	84.732	0.98922	0.596	92.61
Totals: 2002	24	397,291	801	\$38.06	95.872	1.04223	0.878	93.81
2003								
Region: 1	11	192,173	402	\$37.18	96.752	1.04958	0.808	93.88
Region: 3	14	100,593	210	\$42.01	92.932	1.02758	0.957	94.21
Region: 5	8	98,128	201	\$39.99	94.071	1.02593	0.908	93.68
Region: 6	2	12,322	28	\$34.00	88.446	1.01331	0.995	93.31
Totals: 2003	35	403,216	841	\$38.97	94.893	1.03723	0.875	93.89

Mat Density - Recap by Grading/Year/Region

2004								
<i>Region: 1</i>	4	39,080	81	\$39.52	94.347	1.03472	0.956	93.87
<i>Region: 3</i>	20	239,064	494	\$39.73	94.219	1.03606	0.942	93.70
<i>Region: 5</i>	5	52,080	107	\$50.90	90.819	1.01962	1.075	93.60
<i>Totals: 2004</i>	29	330,224	682	\$41.47	93.698	1.03331	0.965	93.71
Grand Totals Grad SX	152	2,017,128	4,123	\$39.68	93.582	1.02795	0.944	93.75

Statewide Totals All Gradings

Processes	Total Tons	Tests	Weighted Average				
			Price	Quality Level	Pay Factor	St. Dev.	Mean
353	4,096,306	8,396	\$39.71	93.104	1.02616	0.946	93.76

Gradation - Process Information - Recap by Grading/Year/Region

Criteria: Projects with Start Dates from 1/1/2000 to 12/31/2004.

Processes with less than 3 tests not included.

<i>Grading: S</i>	Processes	Tons	Tests	Price	Pay Factor	Quality Level		
						Avg.	High	Low
2000								
<i>Region 1</i>	7	80,770	42	\$39.97	0.95499	76.028	96.476	10.615
<i>Region 2</i>	16	280,324	149	\$37.98	0.99292	85.418	95.217	0.000
<i>Region 6</i>	5	44,897	26	\$44.70	1.02349	88.789	100.000	84.907
Totals: 2000	28	405,991	217	\$39.12	0.98876	83.922	100.000	0.000
2001								
<i>Region 1</i>	13	209,339	107	\$44.84	1.00594	86.874	98.803	0.000
<i>Region 2</i>	8	139,059	72	\$36.20	0.98950	82.471	100.000	54.873
<i>Region 4</i>	5	43,841	25	\$38.63	0.98499	76.572	90.404	50.000
<i>Region 6</i>	12	160,619	82	\$40.89	1.01187	86.993	100.000	67.817
Totals: 2001	38	552,858	286	\$41.03	1.00187	84.984	100.000	0.000
2002								
<i>Region 1</i>	2	7,659	6	\$43.54	1.01023	87.000	100.000	66.667
<i>Region 2</i>	10	102,140	53	\$37.96	1.01332	88.519	100.000	68.231
<i>Region 4</i>	7	73,641	40	\$38.38	1.02795	92.467	100.000	75.249
<i>Region 6</i>	5	53,115	32	\$39.34	0.95012	78.843	98.319	35.200
Totals: 2002	24	236,555	131	\$38.58	1.00358	87.526	100.000	35.200
2003								
<i>Region 1</i>	4	97,478	53	\$37.13	1.00552	87.709	90.825	73.663
<i>Region 2</i>	13	129,663	68	\$36.05	0.99986	82.559	100.000	54.428
<i>Region 4</i>	3	105,935	55	\$37.71	1.03655	93.912	98.550	72.699
Totals: 2003	20	333,076	176	\$36.90	1.01319	87.677	100.000	54.428

Gradation - Process Information - Recap by Grading/Year/Region

<i>Grading: S</i>	Processes	Tons	Tests	Price	Pay Factor	Quality Level		
						Avg.	High	Low
2004								
<i>Region 2</i>	3	80,197	41	\$38.24	1.02073	90.928	99.521	77.777
<i>Region 4</i>	8	103,438	60	\$37.50	1.01996	89.367	100.000	73.495
<i>Region 5</i>	1	13,468	7	\$31.35	1.03500	93.648	93.648	93.648
<i>Region 6</i>	8	63,409	36	\$33.49	1.01635	85.358	100.000	69.591
Totals: 2004	20	260,512	144	\$36.43	1.02010	89.093	100.000	69.591
Grand Totals: S	130	1,788,992	954	\$38.83	1.00388	86.179	100.000	0.000

<i>Grading: SG</i>	Processes	Tons	Tests	Price	Pay Factor	Quality Level		
						Avg.	High	Low
2002								
<i>Region 1</i>	2	19,809	11	\$35.08	0.98848	78.450	86.107	50.000
Totals: 2002	2	19,809	11	\$35.08	0.98848	78.450	86.107	50.000
2003								
<i>Region 1</i>	1	11,470	6	\$36.50	1.02977	87.942	87.942	87.942
<i>Region 4</i>	1	5,813	3	\$29.35	0.98531	66.265	66.265	66.265
Totals: 2003	2	17,283	9	\$34.10	1.01482	80.651	87.942	66.265
Grand Totals: SG	4	37,092	20	\$34.62	1.00075	79.475	87.942	50.000

Gradation - Process Information - Recap by Grading/Year/Region

Grading: SMA

	Processes	Tons	Tests	Price	Pay Factor	Quality Level		
						Avg.	High	Low
2001								
<i>Region 3</i>	1	11,075	7	\$48.53	0.97274	75.968	75.968	75.968
Totals: 2001	1	11,075	7	\$48.53	0.97274	75.968	75.968	75.968
2002								
<i>Region 6</i>	4	49,168	24	\$49.11	1.01684	86.731	100.000	69.443
Totals: 2002	4	49,168	24	\$49.11	1.01684	86.731	100.000	69.443
2003								
<i>Region 1</i>	2	31,812	16	\$48.70	0.99783	86.898	100.000	82.115
<i>Region 6</i>	2	47,654	22	\$46.59	1.03691	92.854	93.841	92.154
Totals: 2003	4	79,466	38	\$47.44	1.02126	90.470	100.000	82.115
2004								
<i>Region 1</i>	3	38,576	21	\$49.11	1.00585	89.056	100.000	40.679
<i>Region 3</i>	2	30,297	16	\$47.70	1.03287	91.248	91.753	89.620
<i>Region 6</i>	2	27,562	16	\$42.68	1.02690	89.544	91.509	59.866
Totals: 2004	7	96,435	53	\$46.83	1.02036	89.884	100.000	40.679
Grand Totals: SM	16	236,144	122	\$47.59	1.01770	88.772	100.000	40.679

Gradation - Process Information - Recap by Grading/Year/Region

Grading: SX

	Processes	Tons	Tests	Price	Pay Factor	Quality Level		
						Avg.	High	Low
2000								
<i>Region 1</i>	1	7,032	4	\$43.00	1.03000	100.000	100.000	100.000
<i>Region 3</i>	23	330,765	177	\$38.81	1.00730	86.705	100.000	36.518
<i>Region 5</i>	4	209,520	106	\$36.68	1.03975	95.403	99.768	41.559
Totals: 2000	28	547,317	287	\$38.05	1.02001	90.205	100.000	36.518
2001								
<i>Region 1</i>	2	21,497	11	\$33.20	0.91526	68.445	89.389	37.090
<i>Region 3</i>	28	365,155	225	\$41.71	1.01178	88.076	100.000	34.490
<i>Region 5</i>	4	35,218	20	\$35.87	0.96349	71.206	81.684	56.623
Totals: 2001	34	421,870	256	\$40.79	1.00283	85.668	100.000	34.490
2002								
<i>Region 1</i>	2	45,139	23	\$45.02	0.99039	82.689	83.949	81.324
<i>Region 3</i>	13	196,650	105	\$34.71	1.01052	86.658	100.000	46.341
<i>Region 4</i>	1	44,000	22	\$39.00	1.02580	91.415	91.415	91.415
<i>Region 5</i>	4	141,547	73	\$37.62	1.02944	92.257	98.350	58.043
<i>Region 6</i>	1	8,849	4	\$52.00	1.03000	100.000	100.000	100.000
Totals: 2002	21	436,185	227	\$37.51	1.01651	88.815	100.000	46.341
2003								
<i>Region 1</i>	9	191,643	100	\$37.22	1.02189	90.321	100.000	77.281
<i>Region 3</i>	13	117,514	79	\$40.22	1.00154	85.248	100.000	50.000
<i>Region 5</i>	7	108,504	57	\$39.12	1.01568	89.066	100.000	65.983
<i>Region 6</i>	1	7,568	5	\$34.00	1.02414	84.441	84.441	84.441
Totals: 2003	30	425,229	241	\$38.48	1.01472	88.494	100.000	50.000

Gradation - Process Information - Recap by Grading/Year/Region

Grading: SX

	Processes	Tons	Tests	Price	Pay Factor	Quality Level		
						Avg.	High	Low
2004								
<i>Region 1</i>	4	39,580	24	\$39.49	1.03118	95.641	100.000	78.535
<i>Region 3</i>	16	261,145	137	\$39.42	1.00445	86.809	100.000	47.724
<i>Region 5</i>	4	61,618	33	\$50.06	1.01014	87.751	100.000	81.380
Totals: 2004	24	362,343	194	\$41.24	1.00834	87.934	100.000	47.724
Grand Totals: SX	137	2,192,944	1205	\$39.08	1.01306	88.349	100.000	34.490

Statewide Totals All Gradings

Processes	Tons	Tests	Price	Pay Factor	Quality Level		
					Avg.	High	Low
287	4,255,172	2301	\$39.41	1.00935	87.383	100.000	0.000

Gradation - Standard Deviation - Recap by Grading/Year/Region

Criteria: Projects with Start Dates from 1/1/2000 to 12/31/2004.

Processes with less than 3 tests not included.

Grading: S	Weighted Average										
	Processes	Tons	Tests	Price	3/4"	1/2"	3/8"	No. 4	No. 8	No. 30	No. 200
2000											
<i>Region 1</i>	7	80,770	42	\$39.97	1.038	2.173	2.105	2.319	2.532	1.767	0.666
<i>Region 2</i>	16	280,324	149	\$37.98	1.598	2.516	2.608	2.573	2.240	1.485	0.620
<i>Region 6</i>	5	44,897	26	\$44.70	1.241	2.509	2.491	2.282	2.200	1.161	0.378
Totals: 2000	28	405,991	217	\$39.12	1.439	2.447	2.495	2.490	2.294	1.506	0.602
2001											
<i>Region 1</i>	13	209,339	107	\$44.84	1.167	2.252	2.556	2.426	2.221	1.465	0.576
<i>Region 2</i>	8	139,059	72	\$36.20	1.292	2.208	2.401	2.390	2.346	1.725	0.808
<i>Region 4</i>	5	43,841	25	\$38.63		2.167	2.978	2.789	2.387	1.088	0.404
<i>Region 6</i>	12	160,619	82	\$40.89	1.117	2.620	2.652	2.525	2.440	1.529	0.698
Totals: 2001	38	552,858	286	\$41.03	1.181	2.338	2.578	2.474	2.329	1.519	0.656
2002											
<i>Region 1</i>	2	7,659	6	\$43.54	0.756	1.380	1.500	1.383	1.671	1.515	0.360
<i>Region 2</i>	10	102,140	53	\$37.96	1.052	2.865	2.930	2.619	2.376	1.309	0.683
<i>Region 4</i>	7	73,641	40	\$38.38	0.899	1.921	2.196	1.943	1.684	1.094	0.500
<i>Region 6</i>	5	53,115	32	\$39.34	0.945	2.726	2.740	2.700	2.228	1.438	0.436
Totals: 2002	24	236,555	131	\$38.58	0.970	2.492	2.613	2.387	2.104	1.277	0.560
2003											
<i>Region 1</i>	4	97,478	53	\$37.13	1.138	2.313	2.514	2.586	2.251	1.301	0.597
<i>Region 2</i>	13	129,663	68	\$36.05	0.587	1.741	2.215	2.493	2.320	1.651	0.635
<i>Region 4</i>	3	105,935	55	\$37.71	0.327	1.899	2.509	1.984	1.512	1.121	0.479
Totals: 2003	20	333,076	176	\$36.90	0.737	1.959	2.396	2.358	2.043	1.380	0.574

Gradation - Standard Deviation - Recap by Grading/Year/Region

2004

<i>Region 2</i>	3	80,197	41	\$38.24	0.300	1.845	2.616	2.696	2.482	1.581	0.660
<i>Region 4</i>	8	103,438	60	\$37.50	0.300	1.768	2.266	2.155	1.871	1.097	0.670
<i>Region 5</i>	1	13,468	7	\$31.35			1.700	2.600	3.000	1.700	0.550
<i>Region 6</i>	8	63,409	36	\$33.49	0.774	2.363	2.262	2.710	2.697	1.546	0.583

Totals: 2004	20	260,512	144	\$36.43	0.521	1.946	2.344	2.480	2.319	1.386	0.640
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Grand Totals S	130	1,788,992	954	\$38.83	1.076	2.257	2.496	2.446	2.237	1.439	0.614
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Grading: SG

Weighted Average

Processes	Tons	Tests	Price	3/4"	1/2"	3/8"	No. 4	No. 8	No. 30	No. 200
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2002

<i>Region 1</i>	2	19,809	11	\$35.08		4.233	3.497	2.506	2.600	1.627	0.933
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Totals: 2002	2	19,809	11	\$35.08		4.233	3.497	2.506	2.600	1.627	0.933
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2003

<i>Region 1</i>	1	11,470	6	\$36.50		2.100	2.900	3.000	1.400	1.000	1.170
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<i>Region 4</i>	1	5,813	3	\$29.35		4.200	3.800	4.000	4.000	1.700	1.360
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Totals: 2003	2	17,283	9	\$34.10		2.806	3.203	3.336	2.274	1.235	1.234
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Grand Totals SG	4	37,092	20	\$34.62		3.568	3.360	2.893	2.448	1.445	1.073
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Gradation - Standard Deviation - Recap by Grading/Year/Region

Grading: SMA

	Processes	Tons	Tests	Price	Weighted Average						
					3/4"	1/2"	3/8"	No. 4	No. 8	No. 30	No. 200
2001											
<i>Region 3</i>	1	11,075	7	\$48.53			1.100	2.100	1.700	1.000	0.800
Totals: 2001	1	11,075	7	\$48.53			1.100	2.100	1.700	1.000	0.800
2002											
<i>Region 6</i>	4	49,168	24	\$49.11		1.823	2.052	2.399	1.645	0.920	0.789
Totals: 2002	4	49,168	24	\$49.11		1.823	2.052	2.399	1.645	0.920	0.789
2003											
<i>Region 1</i>	2	31,812	16	\$48.70		2.865	3.206	2.240	1.693	0.947	0.630
<i>Region 6</i>	2	47,654	22	\$46.59		2.519	3.268	2.249	1.700	1.291	0.632
Totals: 2003	4	79,466	38	\$47.44		2.657	3.243	2.245	1.697	1.153	0.631
2004											
<i>Region 1</i>	3	38,576	21	\$49.11		1.918	2.882	1.369	1.324	0.735	0.585
<i>Region 3</i>	2	30,297	16	\$47.70			2.205	1.900	1.824	0.924	0.397
<i>Region 6</i>	2	27,562	16	\$42.68		1.625	3.237	2.881	2.206	1.294	0.550
Totals: 2004	7	96,435	53	\$46.83		1.768	2.771	1.968	1.733	0.954	0.516
Grand Totals SMA	16	236,144	122	\$47.59		2.170	2.702	2.157	1.701	1.016	0.625

Gradation - Standard Deviation - Recap by Grading/Year/Region

Grading: SX

	Processes	Tons	Tests	Price	Weighted Average						
					3/4"	1/2"	3/8"	No. 4	No. 8	No. 30	No. 200
2000											
<i>Region 1</i>	1	7,032	4	\$43.00		1.500	0.500	1.400	1.700	1.000	0.590
<i>Region 3</i>	23	330,765	177	\$38.81		0.951	1.925	2.394	2.083	1.238	0.557
<i>Region 5</i>	4	209,520	106	\$36.68		1.334	2.023	2.305	1.934	1.189	0.491
Totals: 2000	28	547,317	287	\$38.05		1.106	1.944	2.348	2.021	1.216	0.532
2001											
<i>Region 1</i>	2	21,497	11	\$33.20		1.720	2.980	2.640	2.559	1.760	0.918
<i>Region 3</i>	28	365,155	225	\$41.71		1.042	1.847	2.340	2.100	1.356	0.566
<i>Region 5</i>	4	35,218	20	\$35.87		1.288	2.799	3.436	2.205	1.195	0.855
Totals: 2001	34	421,870	256	\$40.79		1.096	1.984	2.447	2.132	1.363	0.608
2002											
<i>Region 1</i>	2	45,139	23	\$45.02		1.192	2.236	3.016	3.696	1.904	0.525
<i>Region 3</i>	13	196,650	105	\$34.71		0.862	1.982	2.566	2.302	1.379	0.578
<i>Region 4</i>	1	44,000	22	\$39.00		0.800	1.700	2.900	2.400	1.400	0.730
<i>Region 5</i>	4	141,547	73	\$37.62		1.330	2.504	2.144	1.998	1.230	0.423
<i>Region 6</i>	1	8,849	4	\$52.00			1.000	0.600	1.700	1.000	0.240
Totals: 2002	21	436,185	227	\$37.51		1.057	2.129	2.470	2.345	1.379	0.531
2003											
<i>Region 1</i>	9	191,643	100	\$37.22		1.146	2.036	2.398	2.252	1.595	0.523
<i>Region 3</i>	13	117,514	79	\$40.22		1.452	2.151	2.409	1.857	1.271	0.646
<i>Region 5</i>	7	108,504	57	\$39.12		1.392	1.553	2.307	2.422	1.540	0.756
<i>Region 6</i>	1	7,568	5	\$34.00		1.300	1.800	2.100	3.100	1.600	1.190
Totals: 2003	30	425,229	241	\$38.48		1.289	1.940	2.373	2.201	1.492	0.628

Gradation - Standard Deviation - Recap by Grading/Year/Region

2004

<i>Region 1</i>	4	39,580	24	\$39.49	0.500	1.513	2.084	1.950	1.323	0.459
<i>Region 3</i>	16	261,145	137	\$39.42	1.108	1.859	2.168	2.066	1.230	0.525
<i>Region 5</i>	4	61,618	33	\$50.06	0.947	2.014	2.456	2.323	1.570	0.630

<i>Totals: 2004</i>	24	362,343	194	\$41.24	1.067	1.848	2.208	2.097	1.298	0.535
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<i>Grand Totals SX</i>	137	2,192,944	1205	\$39.08	1.122	1.972	2.373	2.154	1.344	0.566
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Statewide Totals All Gradings

Processes	Tons	Tests	Price	Weighted Average						
				3/4"	1/2"	3/8"	No. 4	No. 8	No. 30	No. 200
287	4,255,172	2301	\$39.41		1.688	2.245	2.396	2.166	1.366	0.594

Joint Density - Recap by Grading/Year/Region

Criteria: Projects with Start Dates from 1/1/2000 to 12/31/2004.

Processes with less than 3 tests not included.

Weighted average used for: Price, Pay Factor, St. Dev., Mean, and Quality Level

	Processes	Tons	Tests	Weighted Average				
				Price	Quality Level	Pay Factor	Std Dev	Mean
Grading: S								
2003								
<i>Region: 2</i>	9	105,442	67	\$36.72	73.218	0.91883	1.632	89.401
<i>Region: 4</i>	2	87,631	39	\$38.01	83.092	0.97530	1.657	89.603
Totals: 2003	11	193,073	106	\$37.31	77.700	0.94446	1.643	89.493
2004								
<i>Region: 2</i>	4	142,958	93	\$34.29	94.040	1.03117	1.473	90.455
<i>Region: 4</i>	6	83,853	54	\$35.64	88.354	1.00932	1.473	89.941
<i>Region: 6</i>	5	64,370	50	\$33.13	73.490	0.92038	2.160	89.663
Totals: 2003	15	291,181	197	\$34.42	87.859	1.00039	1.625	90.132
Grand Totals Grading: S	26	484,254	303	\$35.57	83.809	0.97809	1.632	89.877
Grading: SMA								
2004								
<i>Region: 6</i>	1	25,850	15	\$40.95	98.364	1.05000	0.751	89.500
Totals: 2004	1	25,850	15	\$40.95	98.364	1.05000	0.751	89.500
Grand Totals Grading: SMA	1	25,850	15	\$40.95	98.364	1.05000	0.751	89.500

Joint Density - Recap by Grading/Year/Region

Grading: SX	Weighted Average							
	Processes	Tons	Tests	Price	Quality Level	Pay Factor	Std Dev	Mean
2003								
<i>Region: 1</i>	5	98,915	56	\$41.28	89.999	1.02318	1.630	90.230
<i>Region: 3</i>	2	45,203	38	\$38.32	80.920	0.95327	1.820	89.744
<i>Region: 5</i>	3	89,325	89	\$38.20	91.641	1.01816	1.546	90.305
Totals: 2002	10	233,443	183	\$39.53	88.869	1.00772	1.635	90.164
2004								
<i>Region: 1</i>	4	37,334	26	\$39.62	69.666	0.92546	1.762	89.066
<i>Region: 3</i>	11	206,034	142	\$39.27	84.994	0.98635	1.881	90.166
<i>Region: 5</i>	4	56,391	36	\$51.23	76.187	0.93874	1.727	89.644
Totals: 2003	19	299,759	204	\$41.56	81.428	0.96981	1.837	89.931
Grand Totals Grading: SX	29	533,202	387	\$40.67	84.686	0.98641	1.748	90.033

Joint Density Totals	1/1/2000 to 12/31/20			Weighted Average				
	Processes	Tons	Tests	Price	Quality Level	Pay Factor	Std Dev	Mean
	56	,043,306	705	\$38.31	84.617	0.98412	1.670	89.947

Appendix B

Reports for 2004 Projects

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Report 13	Joint Density Process Information	B - 56

Project Listing by Region/Subaccount - Gradation Acceptance

Projects with Start Dates from 1/1/2004 to 12/31/2004.

Region: 1

<i>Subacct.</i>	<i>Project Code</i>	<i>Location</i>	<i>Supplier</i>	<i>Bid Date</i>	<i>Start Date:</i>	<i>Total Bid</i>	<i>Plan Quant.</i>
14465	STA 0092-017	SH 9 2 miles N	68	05/20/04	7/12/2004	\$455,674.34	5,692
14549	STA 086A-040	SH 86 Elbert County	49	07/01/04	9/24/2004	\$2,716,510.75	32,140
14587	IM 0703-286	I-70 Fall River Rd to Hidden	13	01/29/04	7/6/2004	\$2,797,791.89	34,603
14826	NH 0741-015	SH 74, Evergreen	13	04/29/04	5/27/2004	\$876,645.35	12,165

Number of Projects 4

Total Plan Quantity 84,600

Region: 2

<i>Subacct.</i>	<i>Project Code</i>	<i>Location</i>	<i>Supplier</i>	<i>Bid Date</i>	<i>Start Date:</i>	<i>Total Bid</i>	<i>Plan Quant.</i>
12833	NH 1603-016	West of Walsenburg	53	07/24/03	5/19/2004	\$1,834,141.75	19,652
14208	NH 0242-039	Manitou & Lake George	49	12/18/03	5/4/2004	\$4,015,672.69	62,414

Number of Projects 2

Total Plan Quantity 82,066

Region: 3

<i>Subacct.</i>	<i>Project Code</i>	<i>Location</i>	<i>Supplier</i>	<i>Bid Date</i>	<i>Start Date:</i>	<i>Total Bid</i>	<i>Plan Quant.</i>
12606	BR 0402-056	Kremmling	70	08/07/03	9/8/2004	\$2,590,348.59	4,022
12711	NH 0501-041	Escalante East	16	11/06/03	3/31/2004	\$9,449,707.65	80,279
13228	NH 0403-041	Winter Park	16	04/25/02	5/26/2004	\$9,268,350.00	36,915
13594	STA 006A-035	In Fruita	16	05/20/04	10/15/2004	\$3,131,076.40	22,173
14011	STA 133A-028	Paonia Dam N & S	16	03/25/04	9/8/2004	\$2,698,614.40	46,539
14439	STA 131A-030	Wolcott North	11	05/08/03	6/9/2004	\$1,960,680.57	36,296
14690	STA 009A-023	Summit County Line North	17	03/11/04	9/13/2004	\$1,543,440.90	29,192
14691	STA 014A-030	Walden East	19	03/04/04	7/7/2004	\$1,762,456.25	34,996
14692	STA 0063-016	Clifton to Palisade	16	03/25/04	6/28/2004	\$1,526,492.50	15,943
14700	STA 131A-031	State Bridge North	11	02/26/04	6/24/2004	\$2,153,005.84	37,158
14759	STA M555-023	North Ave Widening	12	04/15/04	8/11/2004	\$383,745.49	1,135

Number of Projects 11

Total Plan Quantity 344,648

Project Listing

Region: 4

<i>Subacct.</i>	<i>Project Code</i>	<i>Location</i>	<i>Supplier</i>	<i>Bid Date</i>	<i>Start Date:</i>	<i>Total Bid</i>	<i>Plan Quant.</i>
14149	STA 0853-051	US 85 Bus, 22nd	19	04/15/04	7/12/2004	\$1,773,238.40	17,800
14461	STA 059A-028	SH 59 N of Haxtun	60	06/19/03	7/7/2004	\$2,549,141.55	52,159
14708	NH 0361-076	US 36 N & S of Boulder	13	06/10/04	8/24/2004	\$2,657,256.14	45,655

Number of Projects 3

Total Plan Quantity 115,614

Region: 5

<i>Subacct.</i>	<i>Project Code</i>	<i>Location</i>	<i>Supplier</i>	<i>Bid Date</i>	<i>Start Date:</i>	<i>Total Bid</i>	<i>Plan Quant.</i>
12803	NH 1601-050	Jct US 160 & SH	57	09/04/03	5/6/2004	\$3,278,955.35	24,220
13969	NH 1602-090	Lonesome Dove	45	12/04/03	9/10/2004	\$14,496,678.07	15,116
14381	STA 003A-001	SH 3 East of Durango	57	02/26/04	8/18/2004	\$860,821.65	9,671
14426	STA 2911-001	SH 291	17	01/08/04	4/13/2004	\$1,463,025.85	28,480
14775	STA 114A-009	SH 114 Cochetopa Pass	18	01/08/04	8/4/2004	\$1,261,139.90	3,542

Number of Projects 5

Total Plan Quantity 81,029

Region: 6

<i>Subacct.</i>	<i>Project Code</i>	<i>Location</i>	<i>Supplier</i>	<i>Bid Date</i>	<i>Start Date:</i>	<i>Total Bid</i>	<i>Plan Quant.</i>
12022	NH 2854-072	US 285, Morrison Rd	19	04/01/04	7/26/2004	\$2,529,827.74	46,709
12324	NH 4701-089	c-470 @ I-70 Phase II	33	07/17/03	3/30/2004	\$7,787,777.77	25,590
13076	DEMO R600-14	I-25, 23rd to 17th	37	10/23/03	5/20/2004	\$3,606,289.56	10,489
13804	IM 0252-354	I-25/Broadway Viaduct	10	08/01/02	4/27/2004	\$9,818,081.20	9,241
14135	STU M055-016	SH 40 Peoria to Potomac	10	04/08/04	9/14/2004	\$1,328,899.94	9,324

Number of Projects 5

Total Plan Quantity 101,353

Totals: Projects with Start Dates from 1/1/2004 to 12/31/2004.

Number of Projects 30

Total Plan Quantity 809,310

Project Data

Projects with Start Dates from 1/1/04 to 12/31/04.

Subaccount: 12022

NH 2854-072

US 285, Morrison Rd

Region: 6

Supplier: 19

Bid Date: 04/01/04

Start Date: 7/26/2004

Mix Design No: 147068		Process No: 1		Grading: S (100) PG 76-28		Price Per Ton: \$32.00							
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
AC	15	15,000	98.615	1.05000	\$6,000.00	5.300	5.344	0.044	0.124	0.200	-0.076	CTS Tons	500
Density	50	24,856	92.641	1.02324	\$8,317.07	94.000	93.250	0.750	0.865	1.100	-0.235	I/DP	(\$80.38)
Gradation	8	16,000	83.048	1.00160	\$123.06	Key Sieve: No. 30						PF 1.0 Tons	0
				I/DP:	\$14,359.75								

Mix Design No: 147068		Process No: 2		Grading: S (100) PG 76-28		Price Per Ton: \$32.00							
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
AC	11	10,356	94.634	1.04500	\$3,728.16	5.300	5.459	0.159	0.091	0.200	-0.109	CTS Tons	0
Density		0			\$0.00	94.000				1.100		I/DP	\$0.00
Gradation	5	9,356	90.635	1.03000	\$1,347.26	Key Sieve: No. 8						PF 1.0 Tons	0
				I/DP:	\$5,075.42								

Mix Design No: 147071		Process No: 1		Grading: SMA (100) PG 76-28		Price Per Ton: \$40.95							
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
AC	26	25,850	88.483	1.00516	\$1,366.53	6.300	6.202	0.098	0.165	0.200	-0.035	CTS Tons	0
Density	51	25,850	91.374	1.01378	\$6,564.80	95.000	94.939	0.061	1.176	1.100	0.076	I/DP	\$0.00
Gradation	13	25,850	91.509	1.03181	\$5,050.17	Key Sieve: No. 4						PF 1.0 Tons	0
				I/DP:	\$12,981.50								

Joint Density

Grad.	Price	Proc. No	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std Dev	V	St Dev. - V
S	\$32.00	1	16	25,356	75.333	0.93256	(\$8,207.71)	92.000	89.530	2.470	2.200	1.600	0.600
SMA	\$40.95	2	15	25,850	98.364	1.05000	\$7,939.18	92.000	89.500	2.500	0.751	1.600	-0.849
							(\$268.53)						

Project Totals: 12022

	Tons	I/DP
Asphalt Content	51,206	\$11,094.69
Mat Density	51,206	\$14,801.49
Gradation	51,206	\$6,520.49
Joint Density	51,206	(\$268.53)
Total I/DP:		\$32,148.14
CPFC:		1.01719

Comments:

Project Data

Subaccount: 12324 NH 4701-089 c-470 @ I-70 Phase II Region: 6 Supplier: 33

Bid Date: 07/17/03 Start Date: 3/30/2004

Mix Design No: 147015		Process No: 1		Grading: S (100) PG 64-22		Price Per Ton: \$33.00							
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
AC	6	4,030	93.770	1.03500	\$1,163.66	5.300	5.247	0.053	0.174	0.200	-0.026	CTS Tons	0
Density	10	4,030	86.066	1.01056	\$631.83	94.000	94.620	0.620	1.242	1.100	0.142	I/DP	\$0.00
Gradation	3	4,030	75.612	1.02035	\$405.89	Key Sieve: No. 8					PF 1.0 Tons	0	
											I/DP:	\$2,201.38	

Mix Design No: 147053		Process No: 1		Grading: S (100) PG 64-22		Price Per Ton: \$33.00							
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
AC	7	10,478	97.934	1.04000	\$3,457.74	4.900	4.954	0.054	0.137	0.200	-0.063	CTS Tons	0
Density	26	10,478	89.256	1.01017	\$1,583.00	94.000	93.238	0.762	0.998	1.100	-0.102	I/DP	\$0.00
Gradation	5	10,478	81.460	1.01345	\$697.54	Key Sieve: No. 8					PF 1.0 Tons	0	
											I/DP:	\$5,738.28	

Mix Design No: 147059		Process No: 1		Grading: S (100) PG 76-28		Price Per Ton: \$38.00							
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
AC	7	7,000	72.178	0.95134	(\$3,235.69)	4.700	4.674	0.026	0.276	0.200	0.076	CTS Tons	0
Density	18	7,000	81.031	0.96579	(\$4,094.50)	94.000	92.650	1.350	0.736	1.100	-0.364	I/DP	\$0.00
Gradation	5	7,000	86.697	1.03000	\$1,197.00	Key Sieve: No. 4					PF 1.0 Tons	0	
											I/DP:	(\$6,133.19)	

Mix Design No: 147087		Process No: 1		Grading: S (100) PG 64-22		Price Per Ton: \$33.00							
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
AC	1	809			\$0.00	5.100				0.200		CTS Tons	0
Density	2	809			\$0.00	94.000				1.100		I/DP	\$0.00
Gradation	1	809	0.91071		(\$357.55)	Key Sieve:					PF 1.0 Tons	0	
											I/DP:	(\$357.55)	

Mix Design No: 147088		Process No: 1		Grading: S (100) PG 76-28		Price Per Ton: \$38.00							
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
AC	3	1,960	100.000	1.02500	\$465.50	5.300	5.267	0.033	0.040	0.200	-0.160	CTS Tons	0
Density	4	1,960	82.013	1.02643	\$885.88	94.000	92.425	1.575	0.443	1.100	-0.657	I/DP	\$0.00
Gradation	2	1,960		1.00000	\$0.00	Key Sieve:					PF 1.0 Tons	0	
											I/DP:	\$1,351.38	

Joint Density

Grad.	Price	Proc. No	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std Dev	V	St Dev. - V
S	\$33.00	1	9	9,932	67.629	0.90547	(\$4,647.49)	92.000	89.090	2.910	2.298	1.600	0.698
S	\$38.00	2	12	13,242	59.275	0.82716	(\$13,045.58)	92.000	88.490	3.510	2.038	1.600	0.438
S	\$38.00	3	1	1,103		0.43750	(\$3,536.49)	92.000				1.600	
(\$21,229.56)													

Project Data

Project Totals: 12324			Tons	I/DP	
	Asphalt Content	24,277		\$1,851.21	
	Mat Density	24,277		(\$993.79)	
	Gradation	24,277		\$1,942.88	
	Joint Density	24,277		(\$21,229.56)	
	Total I/DP:			(\$18,429.26)	CPFC: 0.97821

Comments:

Subaccount: 12606	BR 0402-056	Kremmling	Region: 3	Supplier: 70
Bid Date: 08/07/03	Start Date: 9/8/2004			

Mix Design No: 36708-04	Process No: 1	Grading: SX (75) PG 58-34	Price Per Ton: \$54.90										
	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	Std. Dev. V	Std. Dev. - V	Other			
Tests	Tons									CTS			
AC	5	4,436	69.845	0.96032	(\$2,415.88)	5.700	5.524	0.176	0.219	0.200	0.019	Tons	0
Density	8	4,436	99.732	1.04000	\$4,383.26	94.000	93.862	0.138	0.868	1.100	-0.232	I/DP	\$0.00
Gradation	3	4,436	47.724	0.87195	(\$4,677.30)	Key Sieve: No. 8					PF 1.0		
					I/DP: (\$2,709.92)							Tons	0

Joint Density													
Grad.	Price	Proc. No	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std Dev	V	St Dev. - V
SX	\$56.81	1	5	4,436	70.521	0.96391	(\$1,364.20)	92.000	89.520	2.480	2.588	1.600	0.988
							(\$1,364.20)						

Project Totals: 12606			Tons	I/DP	
	Asphalt Content	4,436		(\$2,415.88)	
	Mat Density	4,436		\$4,383.26	
	Gradation	4,436		(\$4,677.30)	
	Joint Density	4,436		(\$1,364.20)	
	Total I/DP:			(\$4,074.12)	CPFC: 0.98327

Comments:

Project Data

Subaccount: 12711

NH 0501-041

Escalente East

Region:3

Supplier:16

Bid Date: 11/06/03

Start Date: 3/31/2004

Project Data

Mix Design No: SMA1		Process No: 1		Grading: SMA (100) PG 76-28			Price Per Ton: \$47.24					
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other	
AC	1	500	0.75000	(\$1,476.38)	7.300				0.200		CTS	500
Density		0		\$0.00	94.000				1.100		I/DP	\$372.05
Gradation	1	500	1.00000	\$0.00	Key Sieve:						PF 1.0	0
				I/DP:	(\$1,104.33)							

Mix Design No: SMA2		Process No: 1		Grading: SMA (100) PG 76-28			Price Per Ton: \$47.60						
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
AC	7	7,177	99.355	1.03500	\$2,989.33	6.800	6.929	0.129	0.088	0.200	-0.112	CTS	0
Density	15	7,177	76.569	0.94377	(\$8,644.56)	95.000	93.840	1.160	1.144	1.100	0.044	I/DP	\$0.00
Gradation	4	7,177	89.620	1.03000	\$1,537.37	Key Sieve: No. 8						PF 1.0	0
				I/DP:	(\$4,117.86)								

Mix Design No: SMA3		Process No: 1		Grading: SMA (100) PG 76-28			Price Per Ton: \$47.73						
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
AC	24	23,120	94.891	1.04541	\$12,529.17	6.900	6.973	0.073	0.140	0.200	-0.060	CTS	0
Density	47	23,120	98.414	1.05500	\$27,314.78	95.000	94.932	0.068	0.849	1.100	-0.251	I/DP	\$0.00
Gradation	12	23,120	91.753	1.03376	\$5,589.36	Key Sieve: 3/8						PF 1.0	0
				I/DP:	\$45,433.31								

Mix Design No: 101700EB		Process No: 1		Grading: SX (100) PG 64-28			Price Per Ton: \$29.78					
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other	
AC	1	136	1.00000	\$0.00	6.200				0.200		CTS	0
Density	1	136	1.00000	\$0.00	94.000				1.100		I/DP	\$0.00
Gradation	1	136	1.00000	\$0.00	Key Sieve:						PF 1.0	0
				I/DP:	\$0.00							

Mix Design No: FinSX1		Process No: 1		Grading: SX (100) PG 64-28			Price Per Ton: \$36.92						
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
AC	6	5,184	97.531	1.03500	\$1,674.72	6.200	6.103	0.097	0.123	0.200	-0.077	CTS	0
Density	11	5,184	83.284	0.99475	(\$452.36)	94.000	93.382	0.618	1.340	1.100	0.240	I/DP	\$0.00
Gradation	3	5,184	72.719	1.01109	\$318.29	Key Sieve: No. 4						PF 1.0	0
				I/DP:	\$1,540.65								

Mix Design No: FinSX2		Process No: 1		Grading: SX (100) PG 64-28			Price Per Ton: \$36.86						
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
AC	44	43,229	98.678	1.05500	\$21,911.60	6.100	6.067	0.033	0.120	0.200	-0.080	CTS	0
Density	87	43,229	95.676	1.04152	\$29,774.40	94.000	93.668	0.332	0.941	1.100	-0.159	I/DP	\$0.00
Gradation	22	43,229	92.105	1.02984	\$7,133.27	Key Sieve: No. 4						PF 1.0	0
				I/DP:	\$58,819.27								

Project Data

Mix Design No: FinSXC		Process No: 1		Grading: SX (100) PG 64-28			Price Per Ton: \$37.68					
	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other
	AC	1	500	1.00000	\$0.00	6.200				0.200		CTS
	Density		0		\$0.00	94.000				1.100		Tons 500
	Gradation	1	500	1.00000	\$0.00	Key Sieve:						I/DP \$296.74
				I/DP:	\$296.74							PF 1.0
												Tons 0

Joint Density

Grad.	Price	Proc. No	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std Dev	V	St Dev. - V
SX	\$37.79	1	31	49,049	85.429	0.98085	(\$5,325.59)	92.000	90.270	1.730	2.135	1.600	0.535
SMA	\$47.69	2	1	30,797		1.00000	\$0.00	92.000				1.600	
							<u>(\$5,325.59)</u>						

Project Totals: 12711

	Tons	I/DP
Asphalt Content	79,846	\$37,628.44
Mat Density	79,846	\$48,661.05
Gradation	79,846	\$14,578.29
Joint Density	79,846	(\$5,325.59)
Total I/DP:		<u>\$95,542.19</u>
		CPFC: 1.02916

Comments:

Project Data

Subaccount: 12803 NH 1601-050 Jct US 160 & SH Region:5 Supplier:57
Bid Date: 09/04/03 Start Date: 5/6/2004

Mix Design No: 12803-2		Process No: 1		Grading: SX (75) PG 58-28			Price Per Ton: \$38.66						
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
AC	20	19,453	91.556	1.02756	\$5,181.14	6.100	6.100	0.000	0.179	0.200	-0.021	CTS Tons	0
Density	41	20,453	94.529	1.03832	\$13,633.49	94.000	93.834	0.166	1.045	1.100	-0.055	I/DP	\$0.00
Gradation	11	20,453	81.669	0.98615	(\$1,643.02)	Key Sieve: No. 200					PF 1.0 Tons	0	
				I/DP:	\$17,171.61								

Mix Design No: 12803-2		Process No: 2		Grading: SX (75) PG 58-28			Price Per Ton: \$38.66						
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
AC	1	1,000			(\$4,953.05)	6.100				0.200		CTS Tons	0
Density		0			\$0.00	94.000				1.100		I/DP	\$0.00
Gradation					\$0.00	Key Sieve:					PF 1.0 Tons	0	
				I/DP:	(\$4,953.05)								

Joint Density

Grad.	Price	Proc. No	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std Dev	V	St Dev. - V
SX	\$38.61	1	11	20,453	99.226	1.04500	\$5,330.41	92.000	91.450	0.550	1.626	1.600	0.026
							\$5,330.41						

Project Totals: 12803

	Tons	I/DP
Asphalt Content	20,453	\$228.09
Mat Density	20,453	\$13,633.49
Gradation	20,453	(\$1,643.02)
Joint Density	20,453	\$5,330.41
Total I/DP:		\$17,548.97
		CPFC: 1.02219

Comments: 1 test 2xV out.

Project Data

Subaccount: 12833 NH 1603-016 West of Walsenburg Region: 2 Supplier: 53
Bid Date: 07/24/03 Start Date: 5/19/2004

Mix Design No: 12833	Process No: 1	Grading: S	(100)	PG 64-28	Price Per Ton: \$46.00							
	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	Std. Dev. - V	Other			
Tests	Tons								CTS			
AC	19	18,997	96.716	1.05000	\$10,923.28	5.600	5.694	0.094	0.116	0.200	-0.084	Tons 500
Density	1	500		1.00000	\$0.00	94.000				1.100		I/DP \$362.25
Gradation	10	18,997	77.777	0.96727	(\$4,290.22)	Key Sieve: 3/8						PF 1.0
				I/DP:	\$6,995.31							Tons 0

Mix Design No: 12833	Process No: 2	Grading: S	(100)	PG 64-28	Price Per Ton: \$46.00							
	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	Std. Dev. - V	Other			
Tests	Tons								CTS			
AC			\$0.00					0.200	Tons 500			
Density	15	7,500	93.032	1.03729	\$5,789.29	94.000	93.173	0.827	0.811	1.100	-0.289	I/DP \$294.61
Gradation					\$0.00	Key Sieve:						PF 1.0
				I/DP:	\$6,083.90							Tons 0

Mix Design No: 12833	Process No: 3	Grading: S	(100)	PG 64-28	Price Per Ton: \$46.00							
	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	Std. Dev. - V	Other			
Tests	Tons								CTS			
AC			\$0.00					0.200	Tons 500			
Density	19	9,497	94.287	1.04289	\$8,431.17	94.000	93.132	0.868	0.732	1.100	-0.368	I/DP \$362.25
Gradation					\$0.00	Key Sieve:						PF 1.0
				I/DP:	\$8,793.42							Tons 0

Joint Density

Grad.	Price	Proc. No	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std Dev	V	St Dev. - V
S	\$46.00	1	16	18,997	96.944	1.05000	\$6,553.97	92.000	90.530	1.470	1.412	1.600	-0.188
							\$6,553.97						

Project Totals: 12833

	Tons	I/DP
Asphalt Content	18,997	\$10,923.28
Mat Density	18,997	\$15,239.57
Gradation	18,997	(\$4,290.22)
Joint Density	18,997	\$6,553.97
Total I/DP:		\$28,426.60
		CPFC: 1.03253

Comments:

Project Data

Subaccount: 13076 DEMO R600-144 I-25, 23rd to 17th Region:6 Supplier:37
Bid Date: 10/23/03 Start Date: 5/20/2004

Mix Design No: 147062		Process No: 1		Grading: S (100) PG 64-22		Price Per Ton: \$35.00							
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
AC	9	7,622	80.154	0.98297	(\$1,135.79)	5.100	5.189	0.089	0.221	0.200	0.021	CTS Tons	0
Density	20	7,622	98.929	1.05000	\$6,002.33	94.000	93.780	0.220	0.809	1.100	-0.291	I/DP	\$0.00
Gradation	4	7,622	100.000	1.03000	\$1,200.47	Key Sieve: All QLS100						PF 1.0 Tons	0
												I/DP:	\$6,067.01

Joint Density

Grad.	Price	Proc. No	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std Dev	V	St Dev. - V
S	\$35.00	1	5	7,622	100.000	1.03000	\$1,200.47	92.000	92.860	0.860	1.549	1.600	-0.051
							\$1,200.47						

Project Totals: 13076

	Tons	I/DP
Asphalt Content	7,622	(\$1,135.79)
Mat Density	7,622	\$6,002.33
Gradation	7,622	\$1,200.47
Joint Density	7,622	\$1,200.47
Total I/DP:		\$7,267.48
		CPFC: 1.02724

Comments:

Project Data

Subaccount: 13228 NH 0403-041 Winter Park Region: 3 Supplier: 16
Bid Date: 04/25/02 Start Date: 5/26/2004

Mix Design No: 103003-2A		Process No: 1		Grading: SX (75) PG 58-28			Price Per Ton: \$43.37						
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
AC	24	24,282	79.899	0.94884	(\$16,164.98)	6.100	6.190	0.090	0.218	0.200	0.018	CTS Tons	500
Density	50	23,782	94.784	1.03872	\$19,966.81	94.000	93.398	0.602	0.864	1.100	-0.236	I/DP	\$379.49
Gradation	12	24,282	91.949	1.03461	\$7,290.48	Key Sieve: No. 30					PF 1.0 Tons	0	
				I/DP:	\$11,471.80								

Mix Design No: 103003C		Process No: 1		Grading: SX (75) PG 58-34			Price Per Ton: \$47.08						
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
AC	16	12,662	88.085	1.01150	\$2,056.57	6.000	5.951	0.049	0.191	0.200	-0.009	CTS Tons	500
Density	31	12,162	94.980	1.04376	\$12,530.21	94.000	92.741	1.259	0.457	1.100	-0.643	I/DP	\$411.95
Gradation	8	12,662	77.559	0.97402	(\$3,097.36)	Key Sieve: No. 30					PF 1.0 Tons	0	
				I/DP:	\$11,901.37								

Project Totals: 13228

	Tons	I/DP	
Asphalt Content	36,944	(\$14,108.41)	
Mat Density	36,944	\$33,288.46	
Gradation	36,944	\$4,193.12	
Joint Density			
Total I/DP:		\$23,373.17	CPFC: 1.01417

Comments:

Project Data

Subaccount: 13594

STA 006A-035

In Fruita

Region:3

Supplier:16

Bid Date: 05/20/04

Start Date: 10/15/200

Project Data

Mix Design No:		Process No:		Grading:			Price Per Ton:					Other	
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	CTS	Tons	
103404A		1		SX (100) PG 64-28			\$37.92						
AC	2	1,562		\$0.00	5.400				0.200			500	
Density	2	1,062		\$0.00	94.000				1.100			(\$506.80)	
Gradation	1	1,562		\$0.00	Key Sieve:							PF 1.0	
				I/DP:	(\$506.80)							Tons	0
103404A-2		1		SX (100) PG 64-28			\$37.49						
AC	7	6,610	0.98845	(\$715.48)	5.200	5.067	0.133	0.201	0.200	0.001		500	
Density	13	6,110	1.02053	\$2,116.38	94.000	93.592	0.408	1.220	1.100	0.120		(\$177.47)	
Gradation	4	6,610	1.03000	\$1,115.26	Key Sieve: All QLs100							PF 1.0	
				I/DP:	\$2,338.69							Tons	0
103404B-2		1		SX (100) PG 76-28			\$38.48						
AC	2	2,255		\$0.00	5.300				0.200			500	
Density	3	1,755	1.02500	\$759.76	94.000	94.333	0.333	0.115	1.100	-0.985		\$303.04	
Gradation	1	2,255		\$0.00	Key Sieve:							PF 1.0	
				I/DP:	\$1,062.80							Tons	0
103404B-3		1		SX (100) PG 76-28			\$37.86						
AC	3	2,865	1.02500	\$677.99	5.100	5.013	0.087	0.187	0.200	-0.013		0	
Density	6	2,865	1.03500	\$1,708.53	94.000	94.017	0.017	0.542	1.100	-0.558		\$0.00	
Gradation	1	2,865		\$0.00	Key Sieve:							PF 1.0	
				I/DP:	\$2,386.52							Tons	0
103404B-4		1		SX (100) PG 76-28			\$37.18						
AC	3	3,289	0.98484	(\$463.28)	5.000	4.783	0.217	0.148	0.200	-0.052		0	
Density	7	3,289	1.03500	\$1,925.79	94.000	93.500	0.500	0.779	1.100	-0.321		\$0.00	
Gradation	2	3,289		\$0.00	Key Sieve:							PF 1.0	
				I/DP:	\$1,462.51							Tons	0
103404B-5		1		SX (100) PG 76-28			\$37.71						
AC	3	2,802	1.02500	\$660.39	5.000	4.977	0.023	0.132	0.200	-0.068		0	
Density	6	2,802	1.02191	\$1,041.73	94.000	93.883	0.117	1.452	1.100	0.352		\$0.00	
Gradation	2	2,802	0.77679	(\$3,537.81)	Key Sieve:							PF 1.0	
				I/DP:	(\$1,835.69)							Tons	0

Project Data

Mix Design No: 103404B5		Process No: 1		Grading: SX (100) PG 76-28			Price Per Ton: \$37.58							
	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
	AC	4	3,543	100.000	1.03000	\$998.55	5.000	5.093	0.093	0.080	0.200	-0.120	CTS Tons	0
	Density	8	3,543	82.783	1.00036	\$21.64	94.000	93.925	0.075	1.510	1.100	0.410	I/DP	\$0.00
	Gradation	2	3,543		0.68750	(\$6,240.92)	Key Sieve:					PF 1.0 Tons	0	
					I/DP:	(\$5,220.73)								

Joint Density

Grad.	Price	Proc. No	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std Dev	V	St Dev. - V
SX	\$39.64	1	3	8,172	94.541	1.02500	\$1,214.77	92.000	89.330	2.670	1.172	1.600	-0.428
SX	\$40.23	2	7	11,211	68.343	0.92768	(\$4,892.77)	92.000	88.810	3.190	1.621	1.600	0.021
SX	\$39.64	3	5	3,543	75.543	0.98867	(\$238.75)	92.000	90.700	1.300	3.338	1.600	1.738
							(\$3,916.75)						

Project Totals: 13594

	Tons	I/DP
Asphalt Content	22,926	\$1,158.17
Mat Density	22,926	\$7,192.60
Gradation	22,926	(\$8,663.47)
Joint Density	22,926	(\$3,916.75)
Total I/DP:		(\$4,229.45)
		CPFC: 0.9951

Comments:

Project Data

Subaccount: 13804 IM 0252-354 I-25/Broadway Viaduct Region:6 Supplier:10

Bid Date: 08/01/02 Start Date: 4/27/2004

Mix Design No: 146999-1		Process No: 1		Grading: S (100) PG 76-28		Price Per Ton: \$47.30							
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
AC	4	2,875	78.408	1.01436	\$586.02	5.100	4.912	0.188	0.132	0.200	-0.068	CTS Tons	0
Density	6	2,875	100.000	1.03500	\$2,379.78	94.000	93.183	0.817	0.319	1.100	-0.781	I/DP	\$0.00
Gradation	3	2,875	100.000	1.02500	\$679.94	Key Sieve: All QLs100					PF 1.0 Tons	0	
				I/DP:	\$3,645.74								

Mix Design No: 147033		Process No: 1		Grading: SMA (100) PG 76-28		Price Per Ton: \$68.84							
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
AC	3	1,712	100.000	1.02500	\$883.91	6.200	6.247	0.047	0.083	0.200	-0.117	CTS Tons	0
Density	4	1,712	100.000	1.03000	\$1,767.81	94.000	92.225	1.775	0.096	1.100	-1.004	I/DP	\$0.00
Gradation	3	1,712	59.866	0.95278	(\$1,113.02)	Key Sieve: No. 8					PF 1.0 Tons	0	
				I/DP:	\$1,538.70								

Project Totals: 13804

	Tons	I/DP
Asphalt Content	4,587	\$1,469.93
Mat Density	4,587	\$4,147.59
Gradation	4,587	(\$433.08)
Joint Density		
Total I/DP:		\$5,184.44
CPFC:	1.02042	

Comments: Two suppliers used.

Project Data

Subaccount: 13969 NH 1602-090 Lonesome Dove Region: 5 Supplier: 45
Bid Date: 12/04/03 Start Date: 9/10/2004

Mix Design No:	13969SX2	Process No:	1	Grading:	SX (75)	PG	58-34	Price Per Ton:	\$94.00				
	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other	
AC	21	15,082	84.719	0.98533	(\$5,198.71)	6.900	6.832	0.068	0.201	0.200	0.001	CTS Tons 500	
Density	16	8,000	90.869	1.02621	\$8,868.38	94.000	93.862	0.138	1.215	1.100	0.115	I/DP (\$3,164.28)	
Gradation	8	15,082	92.970	1.04000	\$8,506.25	Key Sieve: No. 8					PF 1.0 Tons 0		
					I/DP:	\$9,011.64							

Mix Design No:	13969SX2	Process No:	2	Grading:	SX (75)	PG	58-34	Price Per Ton:	\$94.00				
	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other	
AC					\$0.00					0.200		CTS Tons 500	
Density	12	5,582	94.880	1.04500	\$10,625.34	94.000	93.933	0.067	1.096	1.100	-0.004	I/DP \$15.49	
Gradation					\$0.00	Key Sieve:					PF 1.0 Tons 0		
					I/DP:	\$10,640.83							

Mix Design No:	13969SX2	Process No:	3	Grading:	SX (75)	PG	58-34	Price Per Ton:	\$94.00				
	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other	
AC					\$0.00					0.200		CTS Tons 0	
Density	1	500		0.45455	(\$11,536.27)	94.000				1.100		I/DP \$0.00	
Gradation					\$0.00	Key Sieve:					PF 1.0 Tons 0		
					I/DP:	(\$11,536.27)							

Joint Density

Grad.	Price	Proc. No	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std Dev	V	St Dev. - V
SX	\$94.00	1	13	15,082	72.877	0.92582	(\$15,774.23)	92.000	88.930	3.070	1.502	1.600	-0.098
							(\$15,774.23)						

Project Totals: 13969

	Tons	I/DP
Asphalt Content	15,082	(\$5,198.71)
Mat Density	15,082	\$4,808.66
Gradation	15,082	\$8,506.25
Joint Density	15,082	(\$15,774.23)
Total I/DP:		(\$7,658.03)

CPFC: 0.9946

Comments:

Project Data

Subaccount: 14011 STA 133A-028 Paonia Dam N & S Region: 3 Supplier: 16
Bid Date: 03/25/04 Start Date: 9/8/2004

Mix Design No: 103604A		Process No: 1		Grading: SX (75) PG 58-28		Price Per Ton: \$35.54							
	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other	
	AC	2	2,111		\$0.00	6.900				0.200		CTS Tons	0
	Density		0		\$0.00	94.000				1.100		I/DP	\$0.00
	Gradation	1	2,111		\$0.00	Key Sieve:						PF 1.0 Tons	2,111
					I/DP:	\$0.00							

Mix Design No: 103604A-2		Process No: 1		Grading: SX (75) PG 58-28		Price Per Ton: \$34.74								
	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
	AC	10	9,188	89.544	1.02610	\$2,083.32	6.300	6.254	0.046	0.188	0.200	-0.012	CTS Tons	0
	Density		0			\$0.00	94.000			1.100			I/DP	\$0.00
	Gradation	5	9,188	100.000	1.03000	\$1,436.54	Key Sieve: All QLs100						PF 1.0 Tons	9,188
					I/DP:	\$3,519.86								

Mix Design No: 103604B		Process No: 1		Grading: SX (75) PG 64-28		Price Per Ton: \$38.52								
	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
	AC	6	4,820	90.282	1.03500	\$1,624.51	6.300	6.162	0.138	0.129	0.200	-0.071	CTS Tons	500
	Density	10	4,320	90.819	1.03142	\$2,352.69	94.000	94.060	0.060	1.252	1.100	0.152	I/DP	\$303.33
	Gradation	3	4,820	60.615	0.95695	(\$1,198.94)	Key Sieve: No. 4						PF 1.0 Tons	0
					I/DP:	\$3,081.59								

Mix Design No: 103604B-2		Process No: 1		Grading: SX (75) PG 64-28		Price Per Ton: \$38.38								
	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
	AC	30	29,278	87.432	0.99543	(\$1,285.13)	6.200	6.117	0.083	0.179	0.200	-0.021	CTS Tons	0
	Density	58	29,278	97.722	1.05500	\$27,811.70	94.000	93.829	0.171	0.878	1.100	-0.222	I/DP	\$0.00
	Gradation	15	29,278	96.845	1.05000	\$8,427.79	Key Sieve: No. 4						PF 1.0 Tons	0
					I/DP:	\$34,954.36								

Joint Density

Grad.	Price	Proc. No	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std Dev	V	St Dev. - V
SX	\$38.62	1	18	32,265	71.066	0.89542	(\$19,546.96)	92.000	89.490	2.510	2.617	1.600	1.017
SX	\$38.62	2	1	11,299			\$0.00	92.000					1.600
SX	\$38.62	3	1	1,833		0.46875	(\$5,641.11)	92.000					1.600
													(\$25,188.07)

Project Totals: 14011

	Tons	I/DP
Asphalt Content	45,397	\$2,422.70
Mat Density	45,397	\$30,467.72
Gradation	45,397	\$8,665.39
Joint Density	45,397	(\$25,188.07)
Total I/DP:	\$16,367.74	CPFC: 1.00961

Comments: One JD test > 2xV out

Project Data

Subaccount: 14135 STU M055-016 SH 40 Peoria to Potomac Region: 6 Supplier: 10

Bid Date: 04/08/04 Start Date: 9/14/2004

Mix Design No: 147050	Process No: 1	Grading: S	(100)	PG 64-22	Price Per Ton: \$27.18							
	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
Tests	Tons									CTS		
AC	3	2,170	100.000	1.02500	\$368.63	5.400	5.280	0.120	0.052	0.200	-0.148	Tons 500
Density	14	1,670	97.815	1.04500	\$919.16	94.000	94.236	0.236	0.913	1.100	-0.187	I/DP \$214.04
Gradation	2	2,170		0.86607	(\$1,184.88)	Key Sieve:					PF 1.0	
				I/DP:	\$316.95							Tons 0

Mix Design No: 147050-1	Process No: 1	Grading: S	(100)	PG 64-22	Price Per Ton: \$27.18							
	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
Tests	Tons									CTS		
AC	6	6,048	84.965	1.01927	\$791.92	5.400	5.318	0.082	0.205	0.200	0.005	Tons 500
Density	13	5,548	84.619	0.99760	(\$162.94)	94.000	94.885	0.885	1.089	1.100	-0.011	I/DP \$214.04
Gradation	3	6,048	69.591	0.99948	(\$12.79)	Key Sieve: No. 4					PF 1.0	
				I/DP:	\$830.23							Tons 0

Joint Density

Grad.	Price	Proc. No	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std Dev	V	St Dev. - V
S	\$27.18	1	8	8,218	73.202	0.94933	(\$1,697.67)	92.000	89.690	2.310	2.634	1.600	1.034
							(\$1,697.67)						

Project Totals: 14135

	Tons	I/DP
Asphalt Content	8,218	\$1,160.55
Mat Density	8,218	\$1,184.30
Gradation	8,218	(\$1,197.67)
Joint Density	8,218	(\$1,697.67)
Total I/DP:		(\$550.49)
		CPFC: 0.99754

Comments:

Project Data

Subaccount: 14149 STA 0853-051 US 85 Bus, 22nd Region: 4 Supplier: 19
Bid Date: 04/15/04 Start Date: 7/12/2004

Mix Design No: 115745B		Process No: 1		Grading: S (100)		PG 64-22		Price Per Ton: \$28.00					
	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other	
	AC	2	2,000	1.00000	\$0.00	5.400				0.200		CTS Tons 500	
	Density	3	1,500	100.000	1.02500	\$472.50	94.000	93.267	0.733	0.924	1.100	-0.176	I/DP \$220.50
	Gradation	1	2,000	1.00000	\$0.00	Key Sieve:						PF 1.0 Tons 0	
					I/DP:	\$693.00							

Mix Design No: 115745BA		Process No: 1		Grading: S (100)		PG 64-22		Price Per Ton: \$28.00					
	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other	
	AC	5	4,564	91.838	1.03000	\$958.44	5.200	5.044	0.156	0.111	0.200	-0.089	CTS Tons 0
	Density	10	4,564	99.985	1.04500	\$2,587.79	94.000	93.290	0.710	0.500	1.100	-0.600	I/DP \$0.00
	Gradation	3	4,564	100.000	1.02500	\$479.22	Key Sieve: All QLs100						PF 1.0 Tons 0
					I/DP:	\$4,025.45							

Mix Design No: 115746		Process No: 1		Grading: S (100)		PG 64-28		Price Per Ton: \$34.85					
	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other	
	AC	10	9,576	100.000	1.04500	\$3,754.39	5.400	5.324	0.076	0.065	0.200	-0.135	CTS Tons 500
	Density	5	2,500	98.721	1.03000	\$1,176.19	94.000	93.600	0.400	0.970	1.100	-0.130	I/DP \$274.44
	Gradation	5	9,576	89.598	1.03000	\$1,501.76	Key Sieve: No. 8						PF 1.0 Tons 0
					I/DP:	\$6,706.78							

Mix Design No: 115746		Process No: 2		Grading: S (100)		PG 64-28		Price Per Ton: \$34.85					
	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other	
	AC				\$0.00					0.200		CTS Tons 500	
	Density	13	6,076	99.021	1.04500	\$4,287.91	94.000	93.438	0.562	0.680	1.100	-0.420	I/DP \$274.44
	Gradation				\$0.00	Key Sieve:						PF 1.0 Tons 0	
					I/DP:	\$4,562.35							

Joint Density

Grad.	Price	Proc. No	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std Dev	V	St Dev. - V
S	\$28.00	1	6	6,564	98.326	1.03500	\$964.91	92.000	90.900	1.100	1.678	1.600	0.078
S	\$34.85	2	8	9,576	69.989	0.92954	(\$3,527.12)	92.000	89.410	2.590	2.591	1.600	0.991
								<u>(\$2,562.21)</u>					

Project Totals: 14149

	Tons	I/DP
Asphalt Content	16,140	\$4,712.83
Mat Density	16,140	\$9,293.77
Gradation	16,140	\$1,980.98
Joint Density	16,140	(\$2,562.21)
Total I/DP:	\$13,425.37	CPFC: 1.02594

Comments:

Project Data

Subaccount: 14208 NH 0242-039 Manitou & Lake George Region:2 Supplier: 49

Bid Date: 12/18/03 Start Date: 5/4/2004

Mix Design No: 14208A	Process No: 1	Grading: S	(100)	PG 76-28	Price Per Ton: \$34.82							
	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
Tests	Tons									CTS	Tons	
AC	31	31,109	86.915	0.99117	(\$2,392.06)	5.500	5.384	0.116	0.162	0.200	-0.038	0
Density	62	31,109	94.273	1.03271	\$15,944.34	94.000	94.526	0.526	0.927	1.100	-0.173	I/DP \$0.00
Gradation	16	31,109	90.647	1.02507	\$4,072.87	Key Sieve: No. 4					PF 1.0	Tons 0
				I/DP:	\$17,625.15							

Mix Design No: 14208B	Process No: 1	Grading: S	(75)	PG 58-28	Price Per Ton: \$36.87							
	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
Tests	Tons									CTS	Tons	
AC	30	30,091	95.596	1.04819	\$13,365.49	5.800	5.777	0.023	0.151	0.200	-0.049	500
Density	59	29,591	95.095	1.03936	\$19,324.50	94.000	93.192	0.808	0.726	1.100	-0.374	I/DP \$240.24
Gradation	15	30,091	99.521	1.05000	\$8,320.91	Key Sieve: No. 4					PF 1.0	Tons 0
				I/DP:	\$41,251.14							

Joint Density

Grad.	Price	Proc. No	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std Dev	V	St Dev. - V
S	\$34.82	1	26	31,109	82.113	0.96186	(\$6,197.09)	92.000	89.380	2.620	1.502	1.600	-0.098
S	\$36.87	2	14	30,091	99.039	1.04500	\$7,488.82	92.000	90.610	1.390	1.220	1.600	-0.380
							<u>\$1,291.73</u>						

Project Totals: 14208

	Tons	I/DP
Asphalt Content	61,200	\$10,973.43
Mat Density	61,200	\$35,509.08
Gradation	61,200	\$12,393.78
Joint Density	61,200	<u>\$1,291.73</u>
Total I/DP:		\$60,168.02
		CPFC: 1.02744

Comments:

Project Data

Subaccount: 14381 STA 003A-001 SH 3 East of Durango Region: 5 Supplier: 57

Bid Date: 02/26/04 Start Date: 8/18/2004

Mix Design No: 14381RAP	Process No: 1	Grading: SX (75)	PG 58-28	Price Per Ton: \$37.26									
	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	Other					
Tests	Tons						V	- V					
AC	12	11,379	77.829	0.96120	(\$4,113.37)	5.500	5.467	0.033	0.246	0.200	0.046	CTS	Tons 500
Density	2	811		0.75000	(\$3,399.73)	94.000				1.100		I/DP	(\$3,028.93)
Gradation	6	11,379	100.000	1.03500	\$2,226.05	Key Sieve: All QLS100						PF 1.0	Tons 5,227
				I/DP:	(\$8,315.98)								

Mix Design No: 14381RAP	Process No: 2	Grading: SX (75)	PG 58-28	Price Per Ton: \$37.26									
	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	Other					
Tests	Tons						V	- V					
AC					\$0.00				0.200			CTS	Tons 500
Density	10	4,341	86.889	1.01438	\$1,046.37	94.000	93.370	0.630	1.205	1.100	0.105	I/DP	\$293.44
Gradation					\$0.00	Key Sieve:						PF 1.0	Tons 0
				I/DP:	\$1,339.81								

Joint Density

Grad.	Price	Proc. No	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std Dev	V	St Dev. - V
SX	\$37.35	1	5	6,152	64.405	0.92915	(\$2,442.02)	92.000	89.060	2.940	2.596	1.600	0.996
SX	\$37.35	2	1	5,227			\$0.00	92.000				1.600	
							(\$2,442.02)						

Project Totals: 14381

	Tons	I/DP
Asphalt Content	11,379	(\$4,113.37)
Mat Density	11,379	(\$5,088.85)
Gradation	11,379	\$2,226.05
Joint Density	11,379	(\$2,442.02)
Total I/DP:		(\$9,418.19)
		CPFC: 0.97779

Comments:

Project Data

Subaccount: 14426 STA 2911-001 SH 291 Region: 5 Supplier: 17
 Bid Date: 01/08/04 Start Date: 4/13/2004

Mix Design No: 14426SF3		Process No: 1		Grading: S (75)		PG 58-28		Price Per Ton: \$31.35				Other	
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	CTS	Tons	
AC	14	13,468	86.556	1.00612	\$646.04	6.200	6.148	0.052	0.198	0.200	-0.002	500	
Density	4	1,687	54.540	0.88623	(\$2,707.26)	94.000	92.225	1.775	1.652	1.100	0.552	1,876.66	
Gradation	7	13,468	93.648	1.03500	\$2,216.35	Key Sieve: No. 8						PF 1.0 Tons 10,781	
												I/DP: (\$1,721.53)	

Mix Design No: 14426SF3		Process No: 2		Grading: S (75)		PG 58-28		Price Per Ton: \$31.35				Other	
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	CTS	Tons	
AC				\$0.00					0.200			0	
Density	1	500		0.36364	(\$4,488.10)	94.000			1.100			I/DP \$0.00	
Gradation				\$0.00		Key Sieve:						PF 1.0 Tons 0	
												I/DP: (\$4,488.10)	

Mix Design No: 14426SX3		Process No: 1		Grading: SX (75)		PG 58-28		Price Per Ton: \$30.76				Other	
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	CTS	Tons	
AC	15	14,704	83.278	0.98586	(\$1,598.93)	5.800	5.822	0.022	0.220	0.200	0.020	500	
Density	28	13,704	84.844	0.97920	(\$3,945.29)	94.000	93.021	0.979	0.990	1.100	-0.110	I/DP \$70.34	
Gradation	8	14,704	81.380	0.99364	(\$431.86)	Key Sieve: No. 200						PF 1.0 Tons 0	
												I/DP: (\$5,905.74)	

Mix Design No: 14426SX3		Process No: 2		Grading: SX (75)		PG 58-28		Price Per Ton: \$30.76				Other	
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	CTS	Tons	
AC				\$0.00					0.200			0	
Density	1	500		0.40909	(\$4,090.18)	94.000			1.100			I/DP \$0.00	
Gradation				\$0.00		Key Sieve:						PF 1.0 Tons 0	
												I/DP: (\$4,090.18)	

Mix Design No: 14426SX3		Process No: 1		Grading: SX (75)		PG 58-28		Price Per Ton: \$34.00				Other	
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	CTS	Tons	
AC	3	2,970	53.494	0.91348	(\$2,184.24)	5.800	6.077	0.277	0.184	0.200	-0.016	0	
Density		0			\$0.00	94.000			1.100			I/DP \$0.00	
Gradation	2	2,970		0.96875	(\$473.34)	Key Sieve:						PF 1.0 Tons 2,970	
												I/DP: (\$2,657.58)	

Joint Density

Grad.	Price	Proc. No	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std Dev	V	St Dev. - V
SX	\$30.73	1	7	14,704	52.463	0.80819	(\$13,000.77)	92.000	88.110	3.890	1.736	1.600	0.136
S	\$30.74	2	1	16,438			\$0.00	92.000				1.600	
							(\$13,000.77)						

Project Data

Project Totals: 14426

	Tons	I/DP
Asphalt Content	31,142	(\$3,137.13)
Mat Density	31,142	(\$17,037.15)
Gradation	31,142	\$1,311.15
Joint Density	31,142	(\$13,000.77)

Total I/DP: (\$31,863.90) **CPFC:** 0.96734

Comments: 2 tests 2 x V out.

Subaccount: 14439 STA 131A-030 Wolcott North Region: 3 Supplier: 11

Bid Date: 05/08/03 Start Date: 6/9/2004

Mix Design No: WCT6035 **Process No:** 1 **Grading:** SX (75) PG 64-28 **Price Per Ton:** \$40.76

	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other
AC	16	15,295	94.533	1.04418	\$6,886.95	6.300	6.233	0.067	0.148	0.200	-0.052	CTS Tons 500
Density	31	14,795	93.375	1.03397	\$9,218.61	94.000	94.139	0.139	1.102	1.100	0.002	I/DP \$29.01
Gradation	8	15,295	72.803	0.94695	(\$4,961.50)	Key Sieve: 3/8						PF 1.0 Tons 0
					I/DP:	\$11,173.07						

Joint Density

Grad.	Price	Proc. No	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std Dev	V	St Dev. - V
SX	\$40.81	1	9	15,295	95.100	1.04000	\$3,745.13	92.000	91.270	0.730	2.077	1.600	0.477
							<u>\$3,745.13</u>						

Project Totals: 14439

	Tons	I/DP
Asphalt Content	15,295	\$6,886.95
Mat Density	15,295	\$9,247.62
Gradation	15,295	(\$4,961.50)
Joint Density	15,295	\$3,745.13

Total I/DP: \$14,918.20 **CPFC:** 1.02393

Comments: Final Quantities

Project Data

Subaccount: 14461 STA 059A-028 SH 59 N of Haxtun Region: 4 Supplier: 60
Bid Date: 06/19/03 Start Date: 7/7/2004

Mix Design No:	149855	Process No:	1	Grading:	S (75)	PG	58-28	Price Per Ton:	\$33.50				
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
AC	11	9,000	96.592	1.04500	\$3,391.87	5.300	5.204	0.096	0.119	0.200	-0.081	CTS Tons	0
Density	18	9,000	81.988	0.97199	(\$3,799.83)	94.000	93.317	0.683	1.338	1.100	0.238	I/DP	\$0.00
Gradation	6	9,000	98.651	1.03500	\$1,582.87	Key Sieve: No. 200					PF 1.0 Tons	0	
				I/DP:	\$1,174.91								

Mix Design No:	149855A	Process No:	1	Grading:	S (75)	PG	58-28	Price Per Ton:	\$33.50				
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
AC	18	18,013	87.291	1.00456	\$688.31	5.200	5.202	0.002	0.201	0.200	0.001	CTS Tons	0
Density	36	18,013	89.818	1.00785	\$2,131.11	94.000	93.367	0.633	1.058	1.100	-0.042	I/DP	\$0.00
Gradation	10	18,013	89.233	1.02478	\$2,242.74	Key Sieve: No. 4					PF 1.0 Tons	0	
				I/DP:	\$5,062.16								

Mix Design No:	149856	Process No:	1	Grading:	S (75)	PG	64-28	Price Per Ton:	\$38.00				
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
AC	31	26,632	89.572	1.01039	\$2,629.49	5.100	5.128	0.028	0.185	0.200	-0.015	CTS Tons	0
Density	58	26,632	96.154	1.04775	\$21,743.64	94.000	93.752	0.248	0.949	1.100	-0.151	I/DP	\$0.00
Gradation	17	26,632	95.022	1.04636	\$7,037.69	Key Sieve: No. 4					PF 1.0 Tons	0	
				I/DP:	\$31,410.82								

Joint Density

Grad.	Price	Proc. No	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std Dev	V	St Dev. - V
S	\$33.50	1	4	9,000	100.000	1.03000	\$1,356.75	92.000	92.330	0.330	0.350	1.600	-1.250
S	\$38.00	2	16	26,632	92.135	1.03383	\$5,136.16	92.000	89.560	2.440	1.128	1.600	-0.472
S	\$33.50	3	10	18,013	93.681	1.04259	\$3,855.07	92.000	89.230	2.770	0.837	1.600	-0.763
							\$10,347.98						

Project Totals: 14461

	Tons	I/DP
Asphalt Content	53,645	\$6,709.67
Mat Density	53,645	\$20,074.92
Gradation	53,645	\$10,863.30
Joint Density	53,645	\$10,347.98
Total I/DP:		\$47,995.87
		CPFC: 1.02504

Comments:

Project Data

Subaccount: 14465 STA 0092-017 SH 9 2 miles N Region: 1 Supplier: 68

Bid Date: 05/20/04 Start Date: 7/12/2004

Mix Design No: 161776		Process No: 1		Grading: SX (75) PG 58-28		Price Per Ton: \$43.18							
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
AC	6	5,904	92.023	1.03500	\$2,230.68	6.200	6.203	0.003	0.193	0.200	-0.007	CTS Tons	0
Density	12	5,904	99.943	1.04500	\$5,162.43	94.000	94.458	0.458	0.593	1.100	-0.507	I/DP	\$0.00
Gradation	6	5,904	78.535	0.99234	(\$293.09)	Key Sieve: No. 8					PF 1.0 Tons	0	
				I/DP:	\$7,100.02								

Joint Density

Grad.	Price	Proc. No	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std Dev	V	St Dev. - V
SX	\$43.18	1	8	5,631	97.517	1.04000	\$1,458.88	92.000	91.510	0.490	1.995	1.600	0.395
							\$1,458.88						

Project Totals: 14465

	Tons	I/DP
Asphalt Content	5,904	\$2,230.68
Mat Density	5,904	\$5,162.43
Gradation	5,904	(\$293.09)
Joint Density	5,631	\$1,458.88
Total I/DP:		\$8,558.90
		CPFC: 1.03357

Comments: Final quantities

Project Data

Subaccount: 14549 STA 086A-040 SH 86 Elbert County Region:1 Supplier: 49
Bid Date: 07/01/04 Start Date: 9/24/2004

Mix Design No: 153928-1		Process No: 1		Grading: SX (75) PG 58-28			Price Per Ton: \$37.45						
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
AC	20	19,593	98.557	1.05000	\$9,171.97	5.700	5.654	0.046	0.121	0.200	-0.079	CTS Tons	0
Density	40	19,593	93.717	1.03300	\$10,897.44	94.000	93.662	0.338	1.037	1.100	-0.063	I/DP	\$0.00
Gradation	10	19,593	98.402	1.04500	\$4,952.87	Key Sieve: No. 4					PF 1.0 Tons	0	
				I/DP:	\$25,022.28								

Mix Design No: 153928-2		Process No: 1		Grading: SX (75) PG 64-28			Price Per Ton: \$43.10						
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
AC	9	9,110	84.051	1.00268	\$263.06	5.800	5.646	0.154	0.145	0.200	-0.055	CTS Tons	0
Density	20	9,110	97.650	1.05000	\$8,834.42	94.000	94.285	0.285	0.883	1.100	-0.217	I/DP	\$0.00
Gradation	5	9,110	98.411	1.03000	\$1,766.88	Key Sieve: No. 8					PF 1.0 Tons	0	
				I/DP:	\$10,864.36								

Joint Density

Grad.	Price	Proc. No	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std Dev	V	St Dev. - V
SX	\$37.45	1	10	19,593	71.124	0.92619	(\$8,124.11)	92.000	88.890	3.110	1.555	1.600	-0.045
SX	\$43.10	2	5	9,110	60.203	0.90232	(\$5,752.71)	92.000	88.580	3.420	2.014	1.600	0.414
							(\$13,876.82)						

Project Totals: 14549

	Tons	I/DP	
Asphalt Content	28,703	\$9,435.03	
Mat Density	28,703	\$19,731.86	
Gradation	28,703	\$6,719.75	
Joint Density	28,703	(\$13,876.82)	
Total I/DP:		\$22,009.82	CPFC: 1.01954

Comments:

Project Data

Subaccount: 14587 IM 0703-286 I-70 Fall River Rd to Hidde Region: 1 Supplier: 13

Bid Date: 01/29/04 Start Date: 7/6/2004

Mix Design No: 62504	Process No: 1	Grading: SMA ()	PG 76-28	Price Per Ton: \$44.55								
	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
Tests	Tons									CTS		
AC	3	2,500	47.985	0.87394	(\$4,211.84)	5.900	6.217	0.317	0.228	0.200	0.028	Tons 0
Density	5	2,500	98.944	1.03000	\$1,670.63	95.000	95.180	0.180	1.092	1.100	-0.008	I/DP \$0.00
Gradation	1	2,500			\$0.00	Key Sieve:						PF 1.0
					I/DP: (\$2,541.21)							Tons 0

Mix Design No: 62504-2	Process No: 1	Grading: SMA ()	PG 76-28	Price Per Ton: \$44.55								
	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
Tests	Tons									CTS		
AC	27	26,411	94.638	1.04330	\$15,283.10	6.200	6.226	0.026	0.157	0.200	-0.043	Tons 0
Density	53	26,411	93.447	1.02839	\$16,699.75	95.000	95.723	0.723	0.850	1.100	-0.250	I/DP \$0.00
Gradation	3	6,000	40.679	0.81357	(\$9,966.57)	Key Sieve: 1/2						PF 1.0
					I/DP: \$22,016.28							Tons 0

Mix Design No: 62504-2	Process No: 2	Grading: SMA ()	PG 76-28	Price Per Ton: \$44.55								
	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
Tests	Tons									CTS		
AC					\$0.00					0.200		Tons 0
Density		0			\$0.00	94.000				1.100		I/DP \$0.00
Gradation	11	20,411	96.755	1.04500	\$8,183.79	Key Sieve: 3/8						PF 1.0
					I/DP: \$8,183.79							Tons 0

Mix Design No: 62404	Process No: 1	Grading: SX (75)	PG 58-28	Price Per Ton: \$36.50								
	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
Tests	Tons									CTS		
AC	3	3,000	35.169	0.76205	(\$6,513.90)	5.600	5.990	0.390	0.173	0.200	-0.027	Tons 500
Density	9	4,473	82.997	0.99755	(\$179.66)	94.000	93.189	0.811	1.228	1.100	0.128	I/DP \$287.44
Gradation	3	4,973	100.000	1.02500	\$680.68	Key Sieve: All QLs100						PF 1.0
					I/DP: (\$5,725.44)							Tons 0

Mix Design No: 62404	Process No: 2	Grading: SX (75)	PG 58-28	Price Per Ton: \$36.50								
	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
Tests	Tons									CTS		
AC	2	1,973		0.98125	(\$337.57)	5.600	5.765	0.165		0.200		Tons 0
Density		0			\$0.00	94.000				1.100		I/DP \$0.00
Gradation					\$0.00	Key Sieve:						PF 1.0
					I/DP: (\$337.57)							Tons 0

Joint Density

Grad.	Price	Proc. No	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std Dev	V	St Dev. - V
SX	\$36.50	1	3	3,000	36.604	0.77597	(\$3,679.76)	92.000	87.100	4.900	1.908	1.600	0.308
SX	\$36.50	2	2	1,973		0.77344	(\$2,447.37)	92.000	86.550	5.450		1.600	
							(\$6,127.13)						

Project Data

Project Totals: 14587

	Tons	I/DP	
Asphalt Content	33,884	\$4,219.79	
Mat Density	33,884	\$18,478.16	
Gradation	33,884	(\$1,102.10)	
Joint Density	4,973	(\$6,127.13)	
	Total I/DP:	<u>\$15,468.72</u>	CPFC: 1.01058

Comments: Asphalt98 used for SMA?

Project Data

Subaccount: 14690 STA 009A-023 Summit County Line North Region:3 Supplier: 17

Bid Date: 03/11/04 Start Date: 9/13/2004

Mix Design No: 601004-2	Process No: 1	Grading: SX (75)	PG 58-28	Price Per Ton: \$32.55										
	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	Other						
Tests	Tons					Std. Dev.	V	- V						
AC	4	3,415	93.874	1.03000	\$833.59	5.800	5.682	0.118	0.139	0.200	-0.061	CTS	Tons	0
Density		0			\$0.00	94.000				1.100		I/DP	\$0.00	
Gradation	2	3,415			\$0.00	Key Sieve:						PF 1.0	Tons	5,969
					I/DP:	\$833.59								

Mix Design No: 601004-2	Process No: 2	Grading: SX (75)	PG 58-28	Price Per Ton: \$32.55										
	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	Other						
Tests	Tons					Std. Dev.	V	- V						
AC	2	2,554			\$0.00	5.800				0.200		CTS	Tons	0
Density		0			\$0.00	94.000				1.100		I/DP	\$0.00	
Gradation	2	2,554			\$0.00	Key Sieve:						PF 1.0	Tons	0
					I/DP:	\$0.00								

Mix Design No: 601004C	Process No: 1	Grading: SX (75)	PG 58-34	Price Per Ton: \$37.29										
	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	Other						
Tests	Tons					Std. Dev.	V	- V						
AC	20	19,415	82.081	0.96926	(\$5,564.38)	5.900	5.997	0.097	0.203	0.200	0.003	CTS	Tons	500
Density	38	18,915	97.901	1.05500	\$17,459.30	94.000	93.550	0.450	0.776	1.100	-0.324	I/DP	\$14.32	
Gradation	10	19,415	72.254	0.93356	(\$7,215.93)	Key Sieve: No. 4						PF 1.0	Tons	0
					I/DP:	\$4,693.31								

Mix Design No: WCT6010	Process No: 1	Grading: SX (75)	PG 58-28	Price Per Ton: \$33.06										
	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	Other						
Tests	Tons					Std. Dev.	V	- V						
AC	3	2,981	100.000	1.02500	\$615.98	6.000	6.013	0.013	0.180	0.200	-0.020	CTS	Tons	0
Density		0			\$0.00	94.000				1.100		I/DP	\$0.00	
Gradation	1	2,981		0.82143	(\$2,639.93)	Key Sieve:						PF 1.0	Tons	2,981
					I/DP:	(\$2,023.95)								

Joint Density

Grad.	Price	Proc. No	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std Dev	V	St Dev. - V
SX	\$1.00	1	1	8,950			\$0.00	92.000				1.600	
SX	\$37.80	2	12	19,415	86.364	1.00853	\$938.76	92.000	89.480	2.520	1.356	1.600	-0.244
							<u>\$938.76</u>						

Project Totals: 14690

	Tons	I/DP
Asphalt Content	28,365	(\$4,114.81)
Mat Density	28,365	\$17,473.62
Gradation	28,365	(\$9,855.86)
Joint Density	28,365	\$938.76
Total I/DP:	\$4,441.71	CPFC: 1.00437

Comments:

Project Data

Subaccount: 14691 STA 014A-030 Walden East Region:3 Supplier: 19
Bid Date: 03/04/04 Start Date: 7/7/2004

Mix Design No:	58-34	Process No:	1	Grading:	SX (75)	PG	58-34	Price Per Ton:	\$39.38					
	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
												CTS	Tons	
AC	9	9,341	97.317	1.04000	\$3,678.80	6.300	6.248	0.052	0.141	0.200	-0.059		0	
Density		0			\$0.00	94.000				1.100		I/DP	\$0.00	
Gradation	5	9,341	100.000	1.03000	\$1,655.46	Key Sieve: All QLS100						PF 1.0	Tons 9,341	
													I/DP:	\$5,334.26

Mix Design No:	58-34-2	Process No:	1	Grading:	SX (75)	PG	58-34	Price Per Ton:	\$39.00					
	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
												CTS	Tons	
AC	26	26,452	86.911	0.99480	(\$1,340.88)	6.100	6.096	0.004	0.201	0.200	0.001		500	
Density	39	19,500	97.025	1.05500	\$18,822.51	94.000	94.318	0.318	0.886	1.100	-0.214	I/DP	\$307.13	
Gradation	13	26,452	98.009	1.04500	\$6,963.54	Key Sieve: No. 4						PF 1.0	Tons 2,500	
													I/DP:	\$24,752.30

Mix Design No:	58-34-2	Process No:	2	Grading:	SX (75)	PG	58-34	Price Per Ton:	\$39.00					
	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
												CTS	Tons	
AC					\$0.00					0.200			500	
Density	6	3,452	76.946	0.98478	(\$921.97)	94.000	95.150	1.150	1.104	1.100	0.004	I/DP	\$307.13	
Gradation					\$0.00	Key Sieve:						PF 1.0	Tons 0	
													I/DP:	(\$614.84)

Joint Density

Grad.	Price	Proc. No	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std Dev	V	St Dev. - V
SX	\$38.75	1	21	23,099	90.669	1.02194	\$2,945.18	92.000	89.910	2.090	1.459	1.600	-0.141
SX	\$1.00	2	1	12,694			\$0.00	92.000				1.600	
							\$2,945.18						

Project Totals: 14691

	Tons	I/DP
Asphalt Content	35,793	\$2,337.92
Mat Density	35,793	\$18,514.80
Gradation	35,793	\$8,619.00
Joint Density	35,793	\$2,945.18
Total I/DP:		\$32,416.90

CPFC: 1.02316

Comments:

Project Data

Subaccount: 14692 STA 0063-016 Clifton to Palisade Region:3 Supplier: 16
Bid Date: 03/25/04 Start Date: 6/28/2004

Mix Design No: WCT1		Process No: 1		Grading: SX (75) PG 64-22			Price Per Ton: \$33.45				
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other
AC	1	540		\$0.00	5.700				0.200		CTS Tons 500
Density	1	40		\$0.00	94.000				1.100		I/DP \$263.43
Gradation	1	540		\$0.00	Key Sieve:						PF 1.0 Tons 0
				I/DP:	\$263.43						

Mix Design No: WCT2		Process No: 1		Grading: SX (75) PG 64-22			Price Per Ton: \$33.21					
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other	
AC	14	13,799	99.331	1.04500	\$5,155.49	5.500	5.416	0.084	0.097	0.200	-0.103	CTS Tons 0
Density	28	13,799	85.536	0.98398	(\$3,303.64)	94.000	93.329	0.671	1.203	1.100	0.103	I/DP \$0.00
Gradation	7	13,799	97.164	1.03500	\$2,405.90	Key Sieve: No. 4						PF 1.0 Tons 0
				I/DP:	\$4,257.75							

Joint Density

Grad.	Price	Proc. No	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std Dev	V	St Dev. - V
SX	\$34.58	1	12	14,339	99.939	1.04500	\$3,346.94	92.000	93.380	1.380	1.011	1.600	-0.589
							\$3,346.94						

Project Totals: 14692

	Tons	I/DP
Asphalt Content	14,339	\$5,155.49
Mat Density	14,339	(\$3,040.21)
Gradation	14,339	\$2,405.90
Joint Density	14,339	\$3,346.94
Total I/DP:		\$7,868.12
		CPFC: 1.01652

Comments:

Project Data

Subaccount: 14700 STA 131A-031 State Bridge North Region: 3 Supplier: 11
Bid Date: 02/26/04 Start Date: 6/24/2004

Mix Design No: 58-28		Process No: 1		Grading: SX (75)		PG 58-28		Price Per Ton: \$37.54					
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
AC	12	11,944	98.316	1.04500	\$5,043.90	6.400	6.337	0.063	0.121	0.200	-0.079	CTS Tons	0
Density		0			\$0.00	94.000				1.100		I/DP	\$0.00
Gradation	6	11,944	70.451	0.95023	(\$3,346.97)	Key Sieve: No. 4					PF 1.0 Tons	11,944	
				I/DP:	\$1,696.93								

Mix Design No: 64-28		Process No: 1		Grading: SX (75)		PG 64-28		Price Per Ton: \$43.10					
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
AC	26	25,210	92.507	1.03069	\$8,336.85	6.400	6.477	0.077	0.153	0.200	-0.047	CTS Tons	500
Density	50	24,710	93.091	1.02647	\$12,685.64	94.000	93.620	0.380	1.045	1.100	-0.055	I/DP	(\$1,231.21)
Gradation	13	25,210	77.434	0.95570	(\$7,220.29)	Key Sieve: No. 4					PF 1.0 Tons	0	
				I/DP:	\$12,570.99								

Joint Density

Grad.	Price	Proc. No	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std Dev	V	St Dev. - V
SX	\$42.64	1	19	25,210	89.268	1.01498	\$2,414.78	92.000	90.010	1.990	1.627	1.600	0.027
SX	\$42.64	2	1	11,944			\$0.00	92.000				1.600	
							<u>\$2,414.78</u>						

Project Totals: 14700

	Tons	I/DP	
Asphalt Content	37,154	\$13,380.75	
Mat Density	37,154	\$11,454.43	
Gradation	37,154	(\$10,567.26)	
Joint Density	37,154	\$2,414.78	
Total I/DP:		\$16,682.70	CPFC: 1.01087

Comments:

Project Data

Subaccount: 14708 NH 0361-076 US 36 N & S of Boulder Region:4 Supplier: 13

Bid Date: 06/10/04 Start Date: 8/24/2004

Mix Design No: 157153A	Process No: 1	Grading: S	(100)	PG 58-28	Price Per Ton: \$35.50							
	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
Tests	Tons									CTS		
AC	5	4,774	82.567	1.01756	\$743.95	5.000	4.876	0.124	0.183	0.200	-0.017	Tons 0
Density		0			\$0.00	94.000				1.100		I/DP \$0.00
Gradation	3	4,774	92.139	1.02500	\$635.54	Key Sieve: No. 200					PF 1.0	Tons 4,774
					I/DP:						\$1,379.49	

Mix Design No: 164053	Process No: 1	Grading: S	(100)	PG 58-28	Price Per Ton: \$39.40							
	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
Tests	Tons									CTS		
AC	14	14,068	89.704	1.02223	\$3,079.80	5.000	4.872	0.128	0.138	0.200	-0.062	Tons 500
Density	5	2,500	70.241	0.96243	(\$1,665.20)	94.000	93.180	0.820	1.799	1.100	0.699	I/DP \$310.27
Gradation	7	14,068	73.495	0.95900	(\$3,408.57)	Key Sieve: 1/2					PF 1.0	Tons 0
					I/DP:						(\$1,683.70)	

Mix Design No: 164053	Process No: 2	Grading: S	(100)	PG 58-28	Price Per Ton: \$39.40							
	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
Tests	Tons									CTS		
AC					\$0.00				0.200			Tons 500
Density	22	10,568	93.298	1.03671	\$6,878.80	94.000	93.664	0.336	1.069	1.100	-0.031	I/DP (\$427.01)
Gradation					\$0.00	Key Sieve:					PF 1.0	Tons 0
					I/DP:						\$6,451.79	

Mix Design No: 5282004	Process No: 1	Grading: S	(75)	PG 58-28	Price Per Ton: \$34.11							
	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
Tests	Tons									CTS		
AC	3	1,825	93.213	1.02500	\$389.07	6.400	6.153	0.247	0.047	0.200	-0.153	Tons 0
Density		0			\$0.00	94.000				1.100		I/DP \$0.00
Gradation	1	1,825		1.00000	\$0.00	Key Sieve:					PF 1.0	Tons 1,825
					I/DP:						\$389.07	

Mix Design No: 62504-2	Process No: 1	Grading: S	()	PG 76-28	Price Per Ton: \$46.20							
	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
Tests	Tons									CTS		
AC	17	16,811	88.560	1.01299	\$3,026.88	6.200	6.146	0.054	0.187	0.200	-0.013	Tons 0
Density	34	16,811	90.729	1.01520	\$5,902.12	95.000	95.394	0.394	1.138	1.100	0.038	I/DP \$0.00
Gradation	9	16,811	85.058	1.00743	\$1,154.90	Key Sieve: No. 4					PF 1.0	Tons 0
					I/DP:						\$10,083.90	

Joint Density

Grad.	Price	Proc. No	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std Dev	V	St Dev. - V
S	\$39.40	1	10	14,068	74.773	0.94942	(\$4,205.20)	92.000	89.960	2.040	2.800	1.600	1.200
S	\$34.11	2	1	6,599		1.00000	\$0.00	92.000				1.600	
								(\$4,205.20)					

Project Data

Project Totals: 14708			Tons	I/DP
Asphalt Content	37,478		37,478	\$7,239.70
Mat Density	37,478		37,478	\$10,998.98
Gradation	37,478		37,478	(\$1,618.13)
Joint Density	20,667		20,667	(\$4,205.20)
			Total I/DP:	\$12,415.35
			CPFC:	1.00794

Comments: Asphalt 98 and Asphalt03 used.

Subaccount: 14759 STA M555-023 North Ave Widening Region: 3 Supplier: 12
Bid Date: 04/15/04 Start Date: 8/11/2004

Mix Design No: 1	Process No: 1	Grading: SX (100) PG 76-28	Price Per Ton: \$72.22										
Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other		
AC	2	1,138		\$0.00	5.300				0.200		CTS	0	
Density	4	1,138	100.000	1.03000	\$1,109.51	94.000	94.700	0.700	0.698	1.100	-0.402	I/DP	\$0.00
Gradation	2	1,138			\$0.00	Key Sieve:						PF 1.0	0
			I/DP:	\$1,109.51									

Joint Density													
Grad.	Price	Proc. No	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std Dev	V	St Dev. - V
SX	\$50.00	1	1	1,138			\$0.00	92.000				1.600	
							\$0.00						

Project Totals: 14759			Tons	I/DP
Asphalt Content	1,138		1,138	\$0.00
Mat Density	1,138		1,138	\$1,109.51
Gradation	1,138		1,138	\$0.00
Joint Density	1,138		1,138	\$0.00
			Total I/DP:	\$1,109.51
			CPFC:	1.0135

Comments:

Project Data

Subaccount: 14775 STA 114A-009 SH 114 Cochetopa Pass Region:5 Supplier: 18
Bid Date: 01/08/04 Start Date: 8/4/2004

Mix Design No: 14775SX1		Process No: 1		Grading: SX (75) PG 58-28			Price Per Ton: \$80.00						
	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other	
	AC	4	3,247	91.341	1.03000	\$1,948.20	7.300	7.027	0.273	0.022	0.200	-0.178	CTS Tons 0
	Density		0			\$0.00	94.000				1.100		I/DP \$0.00
	Gradation	2	3,247		1.00000	\$0.00	Key Sieve:					PF 1.0 Tons 3,247	
					I/DP:	\$1,948.20							

Joint Density

Grad.	Price	Proc. No	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std Dev	V	St Dev. - V
SX	\$80.00	1	1	3,247		1.00000	\$0.00	92.000				1.600	
							\$0.00						

Project Totals: 14775

	Tons	I/DP
Asphalt Content	3,247	\$1,948.20
Mat Density	3,247	\$0.00
Gradation	3,247	\$0.00
Joint Density	3,247	\$0.00
Total I/DP:		\$1,948.20

CPFC: 1.0075

Comments: PF 1.0 mat density & joint density

Subaccount: 14826 NH 0741-015 SH 74, Evergreen Region:1 Supplier: 13
Bid Date: 04/29/04 Start Date: 5/27/2004

Mix Design No: 5272004		Process No: 1		Grading: SMA () PG			Price Per Ton: \$59.00						
	Tests	Tons	Quality Level	Pay Factor	I/DP	TV	Mean	Mean to TV	Std. Dev.	V	Std. Dev. - V	Other	
	AC	13	12,165	87.684	1.01354	\$2,914.62	6.300	6.448	0.148	0.131	0.200	-0.069	CTS Tons 0
	Density		0			\$0.00	94.000				1.100		I/DP \$0.00
	Gradation	7	12,165	100.000	1.03500	\$5,024.14	Key Sieve: All QLs100					PF 1.0 Tons 12,165	
					I/DP:	\$7,938.76							

Project Totals: 14826

	Tons	I/DP
Asphalt Content	12,165	\$2,914.62
Mat Density	12,165	\$0.00
Gradation	12,165	\$5,024.14
Joint Density		
Total I/DP:		\$7,938.76

CPFC: 1.01106

Comments: Paid by the square yard. Density testing waived.

Project Data

Totals for all Projects Projects with Bid Dates from 1/1/04 to 12/31/04.

Number of Projects	30	Tons:	I/DP:
Asphalt Content		766,962	\$111,858.02
Mat Density		766,962	\$334,699.70
Gradation		766,962	\$47,848.24
Joint Density		667,271	(\$77,404.52)
		Total I/DP:	\$494,405.96

Calculated Pay Factor Composite and I/DP by Region

Criteria: Projects with Start Dates from 1/1/2004 to 12/31/2004.

PFC is back calculated from the Project's I/DP.

A Calculated Average Unit Price is used in the calculation.

Region 1

Subacct.	Bid Date	Start Date	Project Code	Reg.	Grading	Total Tons	Average Price	CPFC	Project I/DP	Supplier
14465	05/20/04	07/12/04	STA 0092-017	1	SX	5,904	\$43.18	1.03357	\$8,558.90	68
14549	07/01/04	09/24/04	STA 086A-04	1	SX	28,703	\$39.24	1.01954	\$22,009.82	49
14826	04/29/04	05/27/04	NH 0741-015	1	SMA	12,165	\$59.00	1.01106	\$7,938.76	13
14587	01/29/04	07/06/04	IM 0703-286	1	SMA	33,884	\$43.37	1.01058	\$15,468.72	13

Region 1

Number of Projects: 4 **CPFC: Maximum:** 1.03357
Total Tons: 80,656 **Minimum:** 1.01058
Average: 1.01869

Incentive/Disincentive Payments **Sum I/DPs:** \$53,976.20
Positive I/DPs: 4 **Maximum:** \$22,009.82
Negative I/DPs: 0 **Minimum:** \$7,938.76
Average IDP: \$13,494.05

Region 2

Subacct.	Bid Date	Start Date	Project Code	Reg.	Grading	Total Tons	Average Price	CPFC	Project I/DP	Supplier
12833	07/24/03	05/19/04	NH 1603-016	2	S	18,997	\$46.00	1.03253	\$28,426.60	53
14208	12/18/03	05/04/04	NH 0242-039	2	S	61,200	\$35.83	1.02744	\$60,168.02	49

Region 2

Number of Projects: 2 **CPFC: Maximum:** 1.03253
Total Tons: 80,197 **Minimum:** 1.02744
Average: 1.02998

Incentive/Disincentive Payments **Sum I/DPs:** \$88,594.62
Positive I/DPs: 2 **Maximum:** \$60,168.02
Negative I/DPs: 0 **Minimum:** \$28,426.60
Average IDP: \$44,297.31

Region 3

Subacct.	Bid Date	Start Date	Project Code	Reg.	Grading	Total Tons	Average Price	CPFC	Project I/DP	Supplier
12711	11/06/03	03/31/04	NH 0501-041	3	SMA	79,846	\$41.03	1.02916	\$95,542.19	16
14439	05/08/03	06/09/04	STA 131A-03	3	SX	15,295	\$40.76	1.02393	\$14,918.20	11
14691	03/04/04	07/07/04	STA 014A-03	3	SX	35,793	\$39.10	1.02316	\$32,416.90	19
14692	03/25/04	06/28/04	STA 0063-016	3	SX	14,339	\$33.22	1.01652	\$7,868.12	16
13228	04/25/02	05/26/04	NH 0403-041	3	SX	36,944	\$44.64	1.01417	\$23,373.17	16
14759	04/15/04	08/11/04	STA M555-02	3	SX	1,138	\$72.22	1.01350	\$1,109.51	12
14700	02/26/04	06/24/04	STA 131A-03	3	SX	37,154	\$41.31	1.01087	\$16,682.70	11
14011	03/25/04	09/08/04	STA 133A-02	3	SX	45,397	\$37.53	1.00961	\$16,367.74	16
14690	03/11/04	09/13/04	STA 009A-02	3	SX	28,365	\$35.85	1.00437	\$4,441.71	17
13594	05/20/04	10/15/04	STA 006A-03	3	SX	22,926	\$37.66	0.99510	(\$4,229.45)	16
12606	08/07/03	09/08/04	BR 0402-056	3	SX	4,436	\$54.90	0.98327	(\$4,074.12)	70

Region 3

Number of Projects: 11 **CPFC: Maximum:** 1.02916
Total Tons: 321,633 **Minimum:** 0.98327
Average: 1.01124

Incentive/Disincentive Payments **Sum I/DPs:** \$204,416.67
Positive I/DPs: 9 **Maximum:** \$95,542.19
Negative I/DPs: 2 **Minimum:** (\$4,229.45)
Average IDP: \$18,583.33

Region 4

Subacct.	Bid Date	Start Date	Project Code	Reg.	Grading	Total Tons	Average Price	CPFC	Project I/DP	Supplier
14149	04/15/04	07/12/04	STA 0853-051	4	S	16,140	\$32.06	1.02594	\$13,425.37	19
14461	06/19/03	07/07/04	STA 059A-02	4	S	53,645	\$35.73	1.02504	\$47,995.87	60
14708	06/10/04	08/24/04	NH 0361-076	4	S	37,478	\$41.70	1.00794	\$12,415.35	13

Region 4

Number of Projects: 3 **CPFC: Maximum:** 1.02594
Total Tons: 107,263 **Minimum:** 1.00794
Average: 1.01964

Incentive/Disincentive Payments **Sum I/DPs:** \$73,836.59
Positive I/DPs: 3 **Maximum:** \$47,995.87
Negative I/DPs: 0 **Minimum:** \$12,415.35
Average IDP: \$24,612.20

Region 5

Subacct.	Bid Date	Start Date	Project Code	Reg.	Grading	Total Tons	Average Price	CPFC	Project I/DP	Supplier
12803	09/04/03	05/06/04	NH 1601-050	5	SX	20,453	\$38.66	1.02219	\$17,548.97	57
14775	01/08/04	08/04/04	STA 114A-00	5	SX	3,247	\$80.00	1.00750	\$1,948.20	18
13969	12/04/03	09/10/04	NH 1602-090	5	SX	15,082	\$94.00	0.99460	(\$7,658.03)	45
14381	02/26/04	08/18/04	STA 003A-00	5	SX	11,379	\$37.26	0.97779	(\$9,418.19)	57
14426	01/08/04	04/13/04	STA 2911-001	5	S	31,142	\$31.32	0.96734	(\$31,863.90)	17

Region 5

Number of Projects: 5 **CPFC: Maximum:** 1.02219
Total Tons: 81,303 **Minimum:** 0.96734
Average: 0.99388

Incentive/Disincentive Payments **Sum I/DPs:** (\$29,442.95)
Positive I/DPs: 2 **Maximum:** \$17,548.97
Negative I/DPs: 3 **Minimum:** (\$31,863.90)
Average IDP: (\$5,888.59)

Region 6

Subacct.	Bid Date	Start Date	Project Code	Reg.	Grading	Total Tons	Average Price	CPFC	Project I/DP	Supplier
13076	10/23/03	05/20/04	DEMO R600-1	6	S	7,622	\$35.00	1.02724	\$7,267.48	37
13804	08/01/02	04/27/04	IM 0252-354	6	S	4,587	\$55.34	1.02042	\$5,184.44	10
12022	04/01/04	07/26/04	NH 2854-072	6	S	51,206	\$36.52	1.01719	\$32,148.14	19
14135	04/08/04	09/14/04	STU M055-01	6	S	8,218	\$27.18	0.99754	(\$550.49)	10
12324	07/17/03	03/30/04	NH 4701-089	6	S	24,277	\$34.85	0.97821	(\$18,429.26)	33

Region 6

Number of Projects: 5 **CPFC: Maximum:** 1.02724
Total Tons: 95,910 **Minimum:** 0.97821
Average: 1.00812

Incentive/Disincentive Payments **Sum I/DPs:** \$25,620.31
Positive I/DPs: 3 **Maximum:** \$32,148.14
Negative I/DPs: 2 **Minimum:** (\$18,429.26)
Average IDP: \$5,124.06

Statewide Totals: 1/1/2004 to 12/31/20

Number of Projects: 30 **CPFC Maximum:** 1.03357
Total Tons: 766,962 **Minimum:** 0.96734
Average: 1.01091

Incentive/Disincentive Payments **Sum I/DPs:** \$417,001.44
Positive I/DPs: 23 **Maximum:** \$95,542.19
Negative I/DPs: 7 **Minimum:** (\$31,863.90)
Average IDP: \$13,900.05

Asphalt Content - Process Information, Gradation Acceptance

Criteria: Projects with Start Dates from 1/1/2004 to 12/31/2004.

Processes with less than 3 tests not included.

Grading: S

Subacct	Reg.	Plan Quant.	Mix Design	Price	Process No.	Tons	Tests	Quality Level	Pay Factor	TV	Mean	Mean to TV	St. Dev.	V	StDev - V
12324	6	25590	147088	\$38.00	1	1,960	3	100.000	1.02500	5.300	5.267	0.033	0.040	0.200	-0.160
14135	6	9324	147050	\$27.18	1	2,170	3	100.000	1.02500	5.400	5.280	0.120	0.052	0.200	-0.148
14149	4	17800	115746	\$34.85	1	9,576	10	100.000	1.04500	5.400	5.324	0.076	0.065	0.200	-0.135
12022	6	46709	147068	\$32.00	1	15,000	15	98.615	1.05000	5.300	5.344	0.044	0.124	0.200	-0.076
12324	6	25590	147053	\$33.00	1	10,478	7	97.934	1.04000	4.900	4.954	0.054	0.137	0.200	-0.063
12833	2	19652	12833	\$46.00	1	18,997	19	96.716	1.05000	5.600	5.694	0.094	0.116	0.200	-0.084
14461	4	52159	149855	\$33.50	1	9,000	11	96.592	1.04500	5.300	5.204	0.096	0.119	0.200	-0.081
14208	2	62414	14208B	\$36.87	1	30,091	30	95.596	1.04819	5.800	5.777	0.023	0.151	0.200	-0.049
12022	6	46709	147068	\$32.00	2	10,356	11	94.634	1.04500	5.300	5.459	0.159	0.091	0.200	-0.109
12324	6	25590	147015	\$33.00	1	4,030	6	93.770	1.03500	5.300	5.247	0.053	0.174	0.200	-0.026
14708	4	45655	5282004	\$34.11	1	1,825	3	93.213	1.02500	6.400	6.153	0.247	0.047	0.200	-0.153
14149	4	17800	15745BA	\$28.00	1	4,564	5	91.838	1.03000	5.200	5.044	0.156	0.111	0.200	-0.089
14708	4	45655	164053	\$39.40	1	14,068	14	89.704	1.02223	5.000	4.872	0.128	0.138	0.200	-0.062
14461	4	52159	149856	\$38.00	1	26,632	31	89.572	1.01039	5.100	5.128	0.028	0.185	0.200	-0.015
14708	4	45655	62504-2	\$46.20	1	16,811	17	88.560	1.01299	6.200	6.146	0.054	0.187	0.200	-0.013
14461	4	52159	149855A	\$33.50	1	18,013	18	87.291	1.00456	5.200	5.202	0.002	0.201	0.200	0.001
14208	2	62414	14208A	\$34.82	1	31,109	31	86.915	0.99117	5.500	5.384	0.116	0.162	0.200	-0.038
14426	5	28480	4426SF3	\$31.35	1	13,468	14	86.556	1.00612	6.200	6.148	0.052	0.198	0.200	-0.002
14135	6	9324	147050-1	\$27.18	1	6,048	6	84.965	1.01927	5.400	5.318	0.082	0.205	0.200	0.005
14708	4	45655	157153A	\$35.50	1	4,774	5	82.567	1.01756	5.000	4.876	0.124	0.183	0.200	-0.017
13076	6	10489	147062	\$35.00	1	7,622	9	80.154	0.98297	5.100	5.189	0.089	0.221	0.200	0.021
13804	6	9241	146999-1	\$47.30	1	2,875	4	78.408	1.01436	5.100	4.912	0.188	0.132	0.200	-0.068
12324	6	25590	147059	\$38.00	1	7,000	7	72.178	0.95134	4.700	4.674	0.026	0.276	0.200	0.076

Totals Grading: S

	Quality Level	Pay Factor	Mean to TV	St. Dev.	V	StDev - V
Processes: 23	Best: 100.000	1.05000	0.002	0.040	0.200	-0.160
Tests: 279	Worst: 72.178	0.95134	0.247	0.276	0.200	0.076
Total Tons: 266,467	Weighted Average: 90.946	1.02164	0.071	0.156	0.200	-0.044

AC Process Information

Grading: SMA

Subacct	Reg.	Plan Quant.	Mix Design	Price	Process No.	Tons	Tests	Quality Level	Pay Factor	TV	Mean	Mean to TV	St. Dev.	V	StDev - V
13804	6	9241	147033	\$68.84	1	1,712	3	100.000	1.02500	6.200	6.247	0.047	0.083	0.200	-0.117
12711	3	80279	SMA2	\$47.60	1	7,177	7	99.355	1.03500	6.800	6.929	0.129	0.088	0.200	-0.112
12711	3	80279	SMA3	\$47.73	1	23,120	24	94.891	1.04541	6.900	6.973	0.073	0.140	0.200	-0.060
14587	1	34603	62504-2	\$44.55	1	26,411	27	94.638	1.04330	6.200	6.226	0.026	0.157	0.200	-0.043
12022	6	46709	147071	\$40.95	1	25,850	26	88.483	1.00516	6.300	6.202	0.098	0.165	0.200	-0.035
14826	1	12165	5272004	\$59.00	1	12,165	13	87.684	1.01354	6.300	6.448	0.148	0.131	0.200	-0.069
14587	1	34603	62504	\$44.55	1	2,500	3	47.985	0.87394	5.900	6.217	0.317	0.228	0.200	0.028

Totals Grading: SMA

	Quality Level	Pay Factor	Mean to TV	St. Dev.	V	StDev - V
Processes: 7	Best: 100.000	1.04541	0.026	0.083	0.200	-0.117
Tests: 103	Worst: 47.985	0.87394	0.317	0.228	0.200	0.028
Total Tons: 98,935	Weighted Average: 91.490	1.02497	0.086	0.147	0.200	-0.053

AC Process Information

Grading: SX

Subacct	Reg.	Plan Quant.	Mix Design	Price	Process No.	Tons	Tests	Quality Level	Pay Factor	TV	Mean	Mean to TV	St. Dev.	V	StDev - V
13594	3	22173	3404B-5	\$37.71	1	2,802	3	100.000	1.02500	5.000	4.977	0.023	0.132	0.200	-0.068
13594	3	22173	3404B5A	\$37.58	1	3,543	4	100.000	1.03000	5.000	5.093	0.093	0.080	0.200	-0.120
14690	3	29192	T601004	\$33.06	1	2,981	3	100.000	1.02500	6.000	6.013	0.013	0.180	0.200	-0.020
14692	3	15943	WCT2	\$33.21	1	13,799	14	99.331	1.04500	5.500	5.416	0.084	0.097	0.200	-0.103
12711	3	80279	FinSX2	\$36.86	1	43,229	44	98.678	1.05500	6.100	6.067	0.033	0.120	0.200	-0.080
14549	1	32140	153928-1	\$37.45	1	19,593	20	98.557	1.05000	5.700	5.654	0.046	0.121	0.200	-0.079
14700	3	37158	58-28	\$37.54	1	11,944	12	98.316	1.04500	6.400	6.337	0.063	0.121	0.200	-0.079
12711	3	80279	FinSX1	\$36.92	1	5,184	6	97.531	1.03500	6.200	6.103	0.097	0.123	0.200	-0.077
14691	3	34996	58-34	\$39.38	1	9,341	9	97.317	1.04000	6.300	6.248	0.052	0.141	0.200	-0.059
13594	3	22173	3404B-3	\$37.86	1	2,865	3	94.876	1.02500	5.100	5.013	0.087	0.187	0.200	-0.013
14439	3	36296	3503C-3	\$40.76	1	15,295	16	94.533	1.04418	6.300	6.233	0.067	0.148	0.200	-0.052
14690	3	29192	301004-2	\$32.55	1	3,415	4	93.874	1.03000	5.800	5.682	0.118	0.139	0.200	-0.061
14700	3	37158	64-28	\$43.10	1	25,210	26	92.507	1.03069	6.400	6.477	0.077	0.153	0.200	-0.047
14465	1	5692	161776	\$43.18	1	5,904	6	92.023	1.03500	6.200	6.203	0.003	0.193	0.200	-0.007
12803	5	24220	12803-2	\$38.66	1	19,453	20	91.556	1.02756	6.100	6.100	0.000	0.179	0.200	-0.021
14775	5	3542	4775SX1	\$80.00	1	3,247	4	91.341	1.03000	7.300	7.027	0.273	0.022	0.200	-0.178
14011	3	46539	103604B	\$38.52	1	4,820	6	90.282	1.03500	6.300	6.162	0.138	0.129	0.200	-0.071
14011	3	46539	3604A-2	\$34.74	1	9,188	10	89.544	1.02610	6.300	6.254	0.046	0.188	0.200	-0.012
13228	3	36915	103003C	\$47.08	1	12,662	16	88.085	1.01150	6.000	5.951	0.049	0.191	0.200	-0.009
14011	3	46539	3604B-2	\$38.38	1	29,278	30	87.432	0.99543	6.200	6.117	0.083	0.179	0.200	-0.021
14691	3	34996	58-34-2	\$39.00	1	26,452	26	86.911	0.99480	6.100	6.096	0.004	0.201	0.200	0.001
13969	5	15116	3969SX2	\$94.00	1	15,082	21	84.719	0.98533	6.900	6.832	0.068	0.201	0.200	0.001
14549	1	32140	153928-2	\$43.10	1	9,110	9	84.051	1.00268	5.800	5.646	0.154	0.145	0.200	-0.055
14426	5	28480	4426SX3	\$30.76	1	14,704	15	83.278	0.98586	5.800	5.822	0.022	0.220	0.200	0.020
14690	3	29192	601004C	\$37.29	1	19,415	20	82.081	0.96926	5.900	5.997	0.097	0.203	0.200	0.003
13228	3	36915	3003-2A	\$43.37	1	24,282	24	79.899	0.94884	6.100	6.190	0.090	0.218	0.200	0.018
13594	3	22173	3404A-2	\$37.49	1	6,610	7	79.003	0.98845	5.200	5.067	0.133	0.201	0.200	0.001
14381	5	9671	381RAP3	\$37.26	1	11,379	12	77.829	0.96120	5.500	5.467	0.033	0.246	0.200	0.046
12606	3	4022	36708-04	\$54.90	1	4,436	5	69.845	0.96032	5.700	5.524	0.176	0.219	0.200	0.019
13594	3	22173	3404B-4	\$37.18	1	3,289	3	66.162	0.98484	5.000	4.783	0.217	0.148	0.200	-0.052
14426	5	28480	426SX3F	\$34.00	1	2,970	3	53.494	0.91348	5.800	6.077	0.277	0.184	0.200	-0.016
14587	1	34603	62404	\$36.50	1	3,000	3	35.169	0.76205	5.600	5.990	0.390	0.173	0.200	-0.027

Totals Grading: SX

Processes:	32	Best:	Quality Level	Pay Factor	Mean to TV	St. Dev.	V	StDev - V
Tests:	404	Worst:	35.169	0.76205	0.390	0.246	0.200	0.046
Total Tons:	384,482	Weighted Average:	89.246	1.01069	0.068	0.167	0.200	-0.033

AC Process Information

Asphalt Content - Totals 1/1/2004 to 12/31/2004.

		Quality Level	Pay Factor	Mean to TV	St. Dev.	V	StDev - V	
Processes:	62	Best:	100.000	1.05500	0.000	0.022	0.200	-0.178
Tests:	786	Worst:	35.169	0.76205	0.390	0.276	0.200	0.076
Total Tons:	749,884	Weighted Average:	90.146	1.01647	0.071	0.160	0.200	-0.040

Mat Density - Process Information, Gradation Acceptance

Criteria: Projects with Start Dates from 1/1/2004 to 12/31/2004.

Processes with less than 3 tests not included.

Grading: S

Subacct.	Reg.	Plan Quant.	Mix Design	Process Price	No.	Tons	Tests	Quality Level	Pay Factor	TV	Mean	Mean to TV	St. Dev.	V	StDev - V
13804	6	9,241	46999-1	\$47.30	1	2,875	6	100.000	1.03500	94.000	93.183	0.817	0.319	1.100	-0.781
14149	4	17,800	15745B	\$28.00	1	1,500	3	100.000	1.02500	94.000	93.267	0.733	0.924	1.100	-0.176
14149	4	17,800	5745BA	\$28.00	1	4,564	10	99.985	1.04500	94.000	93.290	0.710	0.500	1.100	-0.600
14149	4	17,800	115746	\$34.85	2	6,076	13	99.021	1.04500	94.000	93.438	0.562	0.680	1.100	-0.420
13076	6	10,489	147062	\$35.00	1	7,622	20	98.929	1.05000	94.000	93.780	0.220	0.809	1.100	-0.291
14149	4	17,800	115746	\$34.85	1	2,500	5	98.721	1.03000	94.000	93.600	0.400	0.970	1.100	-0.130
14135	6	9,324	147050	\$27.18	1	1,670	14	97.815	1.04500	94.000	94.236	0.236	0.913	1.100	-0.187
14461	4	52,159	149856	\$38.00	1	26,632	58	96.154	1.04775	94.000	93.752	0.248	0.949	1.100	-0.151
14208	2	62,414	14208B	\$36.87	1	29,591	59	95.095	1.03936	94.000	93.192	0.808	0.726	1.100	-0.374
12833	2	19,652	12833	\$46.00	3	9,497	19	94.287	1.04289	94.000	93.132	0.868	0.732	1.100	-0.368
14208	2	62,414	14208A	\$34.82	1	31,109	62	94.273	1.03271	94.000	94.526	0.526	0.927	1.100	-0.173
14708	4	45,655	164053	\$39.40	2	10,568	22	93.298	1.03671	94.000	93.664	0.336	1.069	1.100	-0.031
12833	2	19,652	12833	\$46.00	2	7,500	15	93.032	1.03729	94.000	93.173	0.827	0.811	1.100	-0.289
12022	6	46,709	147068	\$32.00	1	24,856	50	92.641	1.02324	94.000	93.250	0.750	0.865	1.100	-0.235
14708	4	45,655	62504-2	\$46.20	1	16,811	34	90.729	1.01520	95.000	95.394	0.394	1.138	1.100	0.038
14461	4	52,159	149855A	\$33.50	1	18,013	36	89.818	1.00785	94.000	93.367	0.633	1.058	1.100	-0.042
12324	6	25,590	147053	\$33.00	1	10,478	26	89.256	1.01017	94.000	93.238	0.762	0.998	1.100	-0.102
12324	6	25,590	147015	\$33.00	1	4,030	10	86.066	1.01056	94.000	94.620	0.620	1.242	1.100	0.142
14135	6	9,324	47050-1	\$27.18	1	5,548	13	84.619	0.99760	94.000	94.885	0.885	1.089	1.100	-0.011
12324	6	25,590	147088	\$38.00	1	1,960	4	82.013	1.02643	94.000	92.425	1.575	0.443	1.100	-0.657
14461	4	52,159	149855	\$33.50	1	9,000	18	81.988	0.97199	94.000	93.317	0.683	1.338	1.100	0.238
12324	6	25,590	147059	\$38.00	1	7,000	18	81.031	0.96579	94.000	92.650	1.350	0.736	1.100	-0.364
14708	4	45,655	164053	\$39.40	1	2,500	5	70.241	0.96243	94.000	93.180	0.820	1.799	1.100	0.699
14426	5	28,480	1426SF3	\$31.35	1	1,687	4	54.540	0.88623	94.000	92.225	1.775	1.652	1.100	0.552

Totals - Grading: S

			Quality Level	Pay Factor	TV	Mean	Mean to TV	St. Dev.	V	StDev - V
Processes:	24	Best:	100.000	1.05000			0.220	0.319	1.100	-0.781
Tests:	524	Worst:	54.540	0.88623			1.775	1.799	1.100	0.699
Total Tons:	243,587	Weighted Average:	92.276	1.02489	94.069	93.690	0.379	0.925	1.100	-0.175

Mat Density Process Information

Grading: SMA

Subacct.	Reg.	Plan Quant.	Mix Design	Price	Process No.	Tons	Tests	Quality Level	Pay Factor	TV	Mean	Mean to TV	St. Dev.	V	StDev - V
13804	6	9,241	147033	\$68.84	1	1,712	4	100.000	1.03000	94.000	92.225	1.775	0.096	1.100	-1.004
14587	1	34,603	62504	\$44.55	1	2,500	5	98.944	1.03000	95.000	95.180	0.180	1.092	1.100	-0.008
12711	3	80,279	SMA3	\$47.73	1	23,120	47	98.414	1.05500	95.000	94.932	0.068	0.849	1.100	-0.251
14587	1	34,603	62504-2	\$44.55	1	26,411	53	93.447	1.02839	95.000	95.723	0.723	0.850	1.100	-0.250
12022	6	46,709	147071	\$40.95	1	25,850	51	91.374	1.01378	95.000	94.939	0.061	1.176	1.100	0.076
12711	3	80,279	SMA2	\$47.60	1	7,177	15	76.569	0.94377	95.000	93.840	1.160	1.144	1.100	0.044

Totals - Grading: SMA

			Quality Level	Pay Factor	TV	Mean	Mean to TV	St. Dev.	V	StDev - V
Processes:	6		Best: 100.000	1.05500			0.061	0.096	1.100	-1.004
Tests:	175		Worst: 76.569	0.94377			1.775	1.176	1.100	0.076
Total Tons:	86,770	Weighted Average:	93.045	1.02421	94.980	95.038	-0.058	0.963	1.100	-0.137

Mat Density Process Information

Grading: SX

Subacct.	Reg.	Plan Quant.	Mix Design	Process Price	No.	Tons	Tests	Quality Level	Pay Factor	TV	Mean	Mean to TV	St. Dev.	V	StDev - V
13594	3	22,173	3404B-3	\$37.86	1	2,865	6	100.000	1.03500	94.000	94.017	0.017	0.542	1.100	-0.558
14759	3	1,135	1	\$72.22	1	1,138	4	100.000	1.03000	94.000	94.700	0.700	0.698	1.100	-0.402
13594	3	22,173	3404B-2	\$38.48	1	1,755	3	100.000	1.02500	94.000	94.333	0.333	0.115	1.100	-0.985
14465	1	5,692	161776	\$43.18	1	5,904	12	99.943	1.04500	94.000	94.458	0.458	0.593	1.100	-0.507
12606	3	4,022	6708-04	\$54.90	1	4,436	8	99.732	1.04000	94.000	93.862	0.138	0.868	1.100	-0.232
13594	3	22,173	3404B-4	\$37.18	1	3,289	7	99.220	1.03500	94.000	93.500	0.500	0.779	1.100	-0.321
14690	3	29,192	101004C	\$37.29	1	18,915	38	97.901	1.05500	94.000	93.550	0.450	0.776	1.100	-0.324
14011	3	46,539	3604B-2	\$38.38	1	29,278	58	97.722	1.05500	94.000	93.829	0.171	0.878	1.100	-0.222
14549	1	32,140	53928-2	\$43.10	1	9,110	20	97.650	1.05000	94.000	94.285	0.285	0.883	1.100	-0.217
14691	3	34,996	58-34-2	\$39.00	1	19,500	39	97.025	1.05500	94.000	94.318	0.318	0.886	1.100	-0.214
12711	3	80,279	FinSX2	\$36.86	1	43,229	87	95.676	1.04152	94.000	93.668	0.332	0.941	1.100	-0.159
13228	3	36,915	03003C	\$47.08	1	12,162	31	94.980	1.04376	94.000	92.741	1.259	0.457	1.100	-0.643
13969	5	15,116	1969SX2	\$94.00	2	5,582	12	94.880	1.04500	94.000	93.933	0.067	1.096	1.100	-0.004
13228	3	36,915	3003-2A	\$43.37	1	23,782	50	94.784	1.03872	94.000	93.398	0.602	0.864	1.100	-0.236
12803	5	24,220	12803-2	\$38.66	1	20,453	41	94.529	1.03832	94.000	93.834	0.166	1.045	1.100	-0.055
14549	1	32,140	53928-1	\$37.45	1	19,593	40	93.717	1.03300	94.000	93.662	0.338	1.037	1.100	-0.063
14439	3	36,296	3503C-3	\$40.76	1	14,795	31	93.375	1.03397	94.000	94.139	0.139	1.102	1.100	0.002
14700	3	37,158	64-28	\$43.10	1	24,710	50	93.091	1.02647	94.000	93.620	0.380	1.045	1.100	-0.055
13969	5	15,116	1969SX2	\$94.00	1	8,000	16	90.869	1.02621	94.000	93.862	0.138	1.215	1.100	0.115
14011	3	46,539	103604B	\$38.52	1	4,320	10	90.819	1.03142	94.000	94.060	0.060	1.252	1.100	0.152
13594	3	22,173	3404A-2	\$37.49	1	6,110	13	89.104	1.02053	94.000	93.592	0.408	1.220	1.100	0.120
14381	5	9,671	81RAP3	\$37.26	2	4,341	10	86.889	1.01438	94.000	93.370	0.630	1.205	1.100	0.105
13594	3	22,173	3404B-5	\$37.71	1	2,802	6	85.681	1.02191	94.000	93.883	0.117	1.452	1.100	0.352
14692	3	15,943	WCT2	\$33.21	1	13,799	28	85.536	0.98398	94.000	93.329	0.671	1.203	1.100	0.103
14426	5	28,480	426SX3	\$30.76	1	13,704	28	84.844	0.97920	94.000	93.021	0.979	0.990	1.100	-0.110
12711	3	80,279	FinSX1	\$36.92	1	5,184	11	83.284	0.99475	94.000	93.382	0.618	1.340	1.100	0.240
14587	1	34,603	62404	\$36.50	1	4,473	9	82.997	0.99755	94.000	93.189	0.811	1.228	1.100	0.128
13594	3	22,173	404B5A	\$37.58	1	3,543	8	82.783	1.00036	94.000	93.925	0.075	1.510	1.100	0.410
14691	3	34,996	58-34-2	\$39.00	2	3,452	6	76.946	0.98478	94.000	95.150	1.150	1.104	1.100	0.004

Totals - Grading: SX

	Processes:	29	Best:	100.000	Pay Factor	1.05500	TV	Mean	0.017	Mean to TV	0.115	St. Dev.	1.100	V	StDev - V
	Tests:	682	Worst:	76.946	Pay Factor	0.97920			1.259	Mean to TV	1.510	St. Dev.	1.100	V	0.410
	Total Tons:	330,224	Weighted Average:	93.698	Pay Factor	1.03331	94.000	93.707	0.293	Mean to TV	0.965	St. Dev.	1.100	V	-0.135

Mat Density Process Information

Mat Density - Totals 1/1/2004 to 12/3

			Quality Level	Pay Factor	TV	Mean	Mean to TV	St. Dev.	V	StDev - V
Processes:	59	Best:	100.000	1.05500			0.017	0.096	1.100	-1.004
Tests:	1381	Worst:	54.540	0.88623			1.775	1.799	1.100	0.699
Total Tons:	660,581	Weighted Average:	93.088	1.02901	94.154	93.876	0.279	0.950	1.100	-0.150

Gradation - Process Information

Criteria: Projects with Start Dates from 1/1/2004 to 12/31/2004.

Processes with less than 3 tests not included.

Grading: S

Subacct.	Reg.	Plan Quant.	Price	Mix Design	Process No.	Tons	Tests	Quality Level	Pay Factor	Key Sieve
13076	6	10489	\$35.00	147062	1	7,622	4	100.000	1.03000	All QLS100
14149	4	17800	\$28.00	15745BA	1	4,564	3	100.000	1.02500	All QLS100
13804	6	9241	\$47.30	146999-1	1	2,875	3	100.000	1.02500	All QLS100
14208	2	62414	\$36.87	14208B	1	30,091	15	99.521	1.05000	No. 4
14461	4	52159	\$33.50	149855	1	9,000	6	98.651	1.03500	No. 200
14461	4	52159	\$38.00	149856	1	26,632	17	95.022	1.04636	No. 4
14426	5	28480	\$31.35	4426SF3	1	13,468	7	93.648	1.03500	No. 8
14708	4	45655	\$35.50	157153A	1	4,774	3	92.139	1.02500	No. 200
14208	2	62414	\$34.82	14208A	1	31,109	16	90.647	1.02507	No. 4
12022	6	46709	\$32.00	147068	2	9,356	5	90.635	1.03000	No. 8
14149	4	17800	\$34.85	115746	1	9,576	5	89.598	1.03000	No. 8
14461	4	52159	\$33.50	149855A	1	18,013	10	89.233	1.02478	No. 4
12324	6	25590	\$38.00	147059	1	7,000	5	86.697	1.03000	No. 4
14708	4	45655	\$46.20	62504-2	1	16,811	9	85.058	1.00743	No. 4
12022	6	46709	\$32.00	147068	1	16,000	8	83.048	1.00160	No. 30
12324	6	25590	\$33.00	147053	1	10,478	5	81.460	1.01345	No. 8
12833	2	19652	\$46.00	12833	1	18,997	10	77.777	0.96727	3/8
12324	6	25590	\$33.00	147015	1	4,030	3	75.612	1.02035	No. 8
14708	4	45655	\$39.40	164053	1	14,068	7	73.495	0.95900	1/2
14135	6	9324	\$27.18	147050-1	1	6,048	3	69.591	0.99948	No. 4

Totals Grading: S

			Quality Level	Pay Factor	Key Sieve Count
Processes	20	Best:	100.000	1.05000	1/2" 1
Tests	144	Worst:	69.591	0.95900	3/8" 1
Total Tons	260,512	Weighted Average:	89.093	1.02010	No. 4 7
					No. 8 5
					No. 30 1
					No. 200 2

Gradation Process Information

Grading: SMA

Subacct.	Reg.	Plan Quant.	Price	Mix Design	Process No.	Tons	Tests	Quality Level	Pay Factor	Key Sieve
14826	1	12165	\$59.00	5272004	1	12,165	7	100.000	1.03500	All QLs100
14587	1	34603	\$44.55	62504-2	2	20,411	11	96.755	1.04500	3/8
12711	3	80279	\$47.73	SMA3	1	23,120	12	91.753	1.03376	3/8
12022	6	46709	\$40.95	147071	1	25,850	13	91.509	1.03181	No. 4
12711	3	80279	\$47.60	SMA2	1	7,177	4	89.620	1.03000	No. 8
13804	6	9241	\$68.84	147033	1	1,712	3	59.866	0.95278	No. 8
14587	1	34603	\$44.55	62504-2	1	6,000	3	40.679	0.81357	1/2

Totals Grading: SMA

		Quality Level	Pay Factor	Key Sieve Count	
				1/2"	1
				3/8"	2
Processes	7	Best: 100.000	1.04500	No. 4	1
Tests	53	Worst: 40.679	0.81357	No. 8	2
Total Tons	96,435	Weighted Average: 89.884	1.02036	No. 30	0
				No. 200	0

Gradation Process Information

Grading: SX

Subacct.	Reg.	Plan Quant.	Price	Mix Design	Process No.	Tons	Tests	Quality Level	Pay Factor	Key Sieve
14381	5	9671	\$37.26	381RAP3	1	11,379	6	100.000	1.03500	All QLs100
13594	3	22173	\$37.49	33404A-2	1	6,610	4	100.000	1.03000	All QLs100
14011	3	46539	\$34.74	33604A-2	1	9,188	5	100.000	1.03000	All QLs100
14691	3	34996	\$39.38	58-34	1	9,341	5	100.000	1.03000	All QLs100
14587	1	34603	\$36.50	62404	1	4,973	3	100.000	1.02500	All QLs100
14549	1	32140	\$43.10	153928-2	1	9,110	5	98.411	1.03000	No. 8
14549	1	32140	\$37.45	153928-1	1	19,593	10	98.402	1.04500	No. 4
14691	3	34996	\$39.00	58-34-2	1	26,452	13	98.009	1.04500	No. 4
14692	3	15943	\$33.21	WCT2	1	13,799	7	97.164	1.03500	No. 4
14011	3	46539	\$38.38	33604B-2	1	29,278	15	96.845	1.05000	No. 4
13969	5	15116	\$94.00	3969SX2	1	15,082	8	92.970	1.04000	No. 8
12711	3	80279	\$36.86	FinSX2	1	43,229	22	92.105	1.02984	No. 4
13228	3	36915	\$43.37	33003-2A	1	24,282	12	91.949	1.03461	No. 30
12803	5	24220	\$38.66	12803-2	1	20,453	11	81.669	0.98615	No. 200
14426	5	28480	\$30.76	4426SX3	1	14,704	8	81.380	0.99364	No. 200
14465	1	5692	\$43.18	161776	1	5,904	6	78.535	0.99234	No. 8
13228	3	36915	\$47.08	103003C	1	12,662	8	77.559	0.97402	No. 30
14700	3	37158	\$43.10	64-28	1	25,210	13	77.434	0.95570	No. 4
14439	3	36296	\$40.76	33503C-3	1	15,295	8	72.803	0.94695	3/8
12711	3	80279	\$36.92	FinSX1	1	5,184	3	72.719	1.01109	No. 4
14690	3	29192	\$37.29	601004C	1	19,415	10	72.254	0.93356	No. 4
14700	3	37158	\$37.54	58-28	1	11,944	6	70.451	0.95023	No. 4
14011	3	46539	\$38.52	103604B	1	4,820	3	60.615	0.95695	No. 4
12606	3	4022	\$54.90	36708-04	1	4,436	3	47.724	0.87195	No. 8

Totals Grading: SX

		Quality Level	Pay Factor	Key Sieve Count	
				1/2"	0
				3/8"	1
Processes	24	Best: 100.000	1.05000	No. 4	10
Tests	194	Worst: 47.724	0.87195	No. 8	4
Total Tons	362,343	Weighted Average:	87.934	1.00834	No. 30 2
					No. 200 2

Gradation Process Information

Gradation Totals 1/1/2004 to 12/31/2004.

				Key Sieve Count	
		Quality Level	Pay Factor	1/2"	
Processes	51	Best: 100.000	1.05000	3/8"	4
Tests	391	Worst: 40.679	0.81357	No. 4	18
Total Tons	719,290	Weighted Average: 88.615	1.01421	No. 8	11
				No. 30	3
				No. 200	4

Gradation - Standard Deviation Information

Criteria: Projects with Start Dates from 1/1/2004 to 12/31/2004.

Processes with less than 3 tests not included.

Standard Deviations of zero on 100% passing sieves not included in calculations.

Grading S

Subacct.	Reg.	Plan Quant.	Price	Tons	Tests	Key Sieve	Standard Deviation						
							3/4"	1/2"	3/8"	No. 4	No. 8	No. 30	No. 200
12324	6	25,590	\$33.00	4,030	3	No. 8		4.000	5.100	4.600	3.600	1.500	0.700
12324	6	25,590	\$33.00	10,478	5	No. 8		2.700	1.600	3.000	3.800	2.100	0.560
12324	6	25,590	\$38.00	7,000	5	No. 4		2.300	3.000	3.500	2.600	1.300	0.550
14426	5	28,480	\$31.35	13,468	7	No. 8			1.700	2.600	3.000	1.700	0.550
13804	6	9,241	\$47.30	2,875	3	QLs100	1.000	1.700	0.600	2.100	1.500	1.000	0.650
14208	2	62,414	\$34.82	31,109	16	No. 4		2.400	2.600	3.000	2.800	1.800	0.920
14208	2	62,414	\$36.87	30,091	15	No. 4	0.300	1.300	2.200	2.000	1.700	0.900	0.310
12833	2	19,652	\$46.00	18,997	10	3/8		1.800	3.300	3.300	3.200	2.300	0.790
13076	6	10,489	\$35.00	7,622	4	QLs100	1.000	1.900	2.400	2.200	1.000	0.500	0.610
14461	4	52,159	\$33.50	9,000	6	No. 200		1.200	1.500	1.700	2.000	1.300	0.790
14461	4	52,159	\$33.50	18,013	10	No. 4	0.300	2.600	2.900	2.600	1.500	0.800	0.630
14461	4	52,159	\$38.00	26,632	17	No. 4		2.100	2.400	2.600	2.500	1.400	0.670
14149	4	17,800	\$28.00	4,564	3	QLs100		1.000	2.600	1.200	0.600	0.600	0.590
14149	4	17,800	\$34.85	9,576	5	No. 8		1.800	1.900	1.100	1.500	0.800	0.330
12022	6	46,709	\$32.00	16,000	8	No. 30	0.500	2.100	2.300	3.000	3.200	2.100	0.490
12022	6	46,709	\$32.00	9,356	5	No. 8	1.100	1.300	0.700	0.900	2.100	1.100	0.890
14708	4	45,655	\$35.50	4,774	3	No. 200		0.600	0.600	1.700	1.700	1.500	1.100
14708	4	45,655	\$39.40	14,068	7	1/2		1.500	2.000	2.400	2.000	1.000	0.530
14708	4	45,655	\$46.20	16,811	9	No. 4		1.400	2.600	2.000	1.700	1.100	0.860
14135	6	9,324	\$27.18	6,048	3	No. 4	0.600	4.000	3.600	3.000	2.600	1.700	0.290

Totals Grading: S

		3/4"	1/2"	3/8"	No. 4	No. 8	No. 30	No. 200	
Number of Processes:	20	Best:	0.300	0.600	0.600	0.900	0.600	0.500	0.290
Total Tons:	260,512	Worst:	1.100	4.000	5.100	4.600	3.800	2.300	1.100
		Weighted Average:	0.521	1.946	2.344	2.480	2.319	1.386	0.640
		Key Sieve Count		1	1	7	5	1	2

Grading SMA

Subacct.	Reg.	Plan Quant.	Price	Tons	Tests	Key Sieve	Standard Deviation						
							3/4"	1/2"	3/8"	No. 4	No. 8	No. 30	No. 200
12711	3	80,279	\$47.60	7,177	4	No. 8			1.900	1.900	1.900	1.000	0.260
12711	3	80,279	\$47.73	23,120	12	3/8			2.300	1.900	1.800	0.900	0.440
13804	6	9,241	\$68.84	1,712	3	No. 8	2.000		3.800	2.600	3.800	1.200	0.100
14826	1	12,165	\$59.00	12,165	7	QLs100			0.800	1.400	1.200	1.000	0.540
14587	1	34,603	\$44.55	20,411	11	3/8	1.600		3.000	1.400	1.200	0.500	0.610
14587	1	34,603	\$44.55	6,000	3	1/2	3.000		6.700	1.200	2.000	1.000	0.590
12022	6	46,709	\$40.95	25,850	13	No. 4	1.600		3.200	2.900	2.100	1.300	0.580

Totals Grading: SMA

				3/4"	1/2"	3/8"	No. 4	No. 8	No. 30	No. 200
Number of Processes:	7			Best:	1.600	0.800	1.200	1.200	0.500	0.100
Total Tons:	96,435			Worst:	3.000	6.700	2.900	3.800	1.300	0.610
				Weighted Average:	1.768	2.771	1.968	1.733	0.954	0.516
				Key Sieve Count	1	2	1	2	0	0

Grading SX

Subacct.	Reg.	Plan Quant.	Price	Tons	Tests	Key Sieve	Standard Deviation						
							3/4"	1/2"	3/8"	No. 4	No. 8	No. 30	No. 200
12711	3	80,279	\$36.92	5,184	3	No. 4		0.600	2.500	2.600	2.100	1.000	0.310
12711	3	80,279	\$36.86	43,229	22	No. 4		1.100	2.500	2.900	2.300	1.700	0.560
14426	5	28,480	\$30.76	14,704	8	No. 200		1.200	2.300	3.600	3.200	2.400	0.940
12803	5	24,220	\$38.66	20,453	11	No. 200		1.400	2.400	3.000	3.000	1.600	0.610
13228	3	36,915	\$43.37	24,282	12	No. 30		0.900	1.300	1.200	2.200	1.300	0.740
13228	3	36,915	\$47.08	12,662	8	No. 30		1.100	1.700	1.800	2.100	1.100	0.380
14439	3	36,296	\$40.76	15,295	8	3/8		2.300	5.000	3.100	2.700	1.300	0.450
14700	3	37,158	\$37.54	11,944	6	No. 4		1.000	2.300	2.000	1.900	1.000	0.590
14700	3	37,158	\$43.10	25,210	13	No. 4		1.100	1.500	2.700	2.200	1.000	0.520
14692	3	15,943	\$33.21	13,799	7	No. 4		0.800	1.300	2.400	2.300	1.500	0.570
14587	1	34,603	\$36.50	4,973	3	QLs100				1.000	1.000	0.000	0.600
14691	3	34,996	\$39.38	9,341	5	QLs100		1.000	0.800	1.900	2.400	0.900	0.400
14691	3	34,996	\$39.00	26,452	13	No. 4		1.900	1.400	1.200	1.200	0.900	0.490
14465	1	5,692	\$43.18	5,904	6	No. 8		0.500	2.100	2.300	2.600	1.400	0.300
14381	5	9,671	\$37.26	11,379	6	QLs100		0.400	1.500	1.000	0.800	0.800	0.290
12606	3	4,022	\$54.90	4,436	3	No. 8		0.600	1.500	3.500	4.000	2.600	0.550
14011	3	46,539	\$34.74	9,188	5	QLs100		0.500	0.700	0.001	0.400	0.700	0.300
14011	3	46,539	\$38.52	4,820	3	No. 4		0.600	1.700	2.600	2.100	1.200	0.360
14011	3	46,539	\$38.38	29,278	15	No. 4		0.700	1.000	1.400	1.200	0.700	0.480
13969	5	15,116	\$94.00	15,082	8	No. 8		0.500	1.600	1.700	1.700	1.300	0.610
14690	3	29,192	\$37.29	19,415	10	No. 4		1.100	2.200	3.600	3.400	2.000	0.760
14549	1	32,140	\$37.45	19,593	10	No. 4				1.100	2.100	1.900	0.630
14549	1	32,140	\$43.10	9,110	5	No. 8				2.300	2.500	2.700	0.380
13594	3	22,173	\$37.49	6,610	4	QLs100		0.800	2.100	2.200	1.700	0.600	0.170

Totals Grading: SX

		3/4"	1/2"	3/8"	No. 4	No. 8	No. 30	No. 200
Number of Processes:	24	Best:	0.400	0.700	0.001	0.000	0.600	0.120
Total Tons:	362,343	Worst:	2.300	5.000	3.600	4.000	2.600	0.940
		Weighted Average:	1.067	1.848	2.208	2.097	1.298	0.535
		Key Sieve Count	0	1	10	4	2	2

Gradation Totals 1/1/2004 to 12/31/2004.

		Standard Deviation							
		3/4"	1/2"	3/8"	No. 4	No. 8	No. 30	No. 200	
Number of Processes:	51	Best:	0.300	0.400	0.600	0.001	0.000	0.500	0.100
Total Tons:	719,290	Worst:	1.100	4.000	6.700	4.600	4.000	2.600	1.100
		Weighted Average:	0.521	1.472	2.151	2.274	2.129	1.284	0.571
		Key Sieve Count		2	4	18	11	3	4

Joint Density - Process Information, Gradation Acceptance

Criteria: Projects with Start Dates from 1/1/2004 to 12/31/2004.

Processes with less than 3 tests not included.

Grading S

Sub.	Reg.	Price	Proc. No	Tons	Tests	Quality Level	Pay Factor	TV	Mean	Mean to TV	Std Dev	V	St Dev. - V
14461	4	\$33.50	1	9,000	4	100.000	1.03000	92.00	92.330	0.330	0.350	1.60	-1.250
13076	6	\$35.00	1	7,622	5	100.000	1.03000	92.00	92.860	0.860	1.549	1.60	-0.051
14208	2	\$36.87	2	30,091	14	99.039	1.04500	92.00	90.610	1.390	1.220	1.60	-0.380
14149	4	\$28.00	1	6,564	6	98.326	1.03500	92.00	90.900	1.100	1.678	1.60	0.078
12833	2	\$46.00	1	18,997	16	96.944	1.05000	92.00	90.530	1.470	1.412	1.60	-0.188
14212	2	\$29.25	1	62,761	37	96.675	1.05320	92.00	90.890	1.110	1.599	1.60	-0.001
14461	4	\$33.50	3	18,013	10	93.681	1.04259	92.00	89.230	2.770	0.837	1.60	-0.763
14461	4	\$38.00	2	26,632	16	92.135	1.03383	92.00	89.560	2.440	1.128	1.60	-0.472
14208	2	\$34.82	1	31,109	26	82.113	0.96186	92.00	89.380	2.620	1.502	1.60	-0.098
12022	6	\$32.00	1	25,356	16	75.333	0.93256	92.00	89.530	2.470	2.200	1.60	0.600
14708	4	\$39.40	1	14,068	10	74.773	0.94942	92.00	89.960	2.040	2.800	1.60	1.200
14135	6	\$27.18	1	8,218	8	73.202	0.94933	92.00	89.690	2.310	2.634	1.60	1.034
14149	4	\$34.85	2	9,576	8	69.989	0.92954	92.00	89.410	2.590	2.591	1.60	0.991
12324	6	\$33.00	1	9,932	9	67.629	0.90547	92.00	89.090	2.910	2.298	1.60	0.698
12324	6	\$38.00	2	13,242	12	59.275	0.82716	92.00	88.490	3.510	2.038	1.60	0.438

Totals Grading: S

Processes:	15	Best:	Quality Level	100.000	Pay Factor	1.05320	TV	92.00	Mean	92.860	Mean to TV	0.330	St. Dev.	0.350	V	1.60	StDev - V	-1.250
Tests:	197	Worst:	59.275	0.82716	92.00	88.490	3.510	2.800	1.60	1.200								
Total Tons:	291,181	Weighted Average:	87.859	1.00039	92.00	90.132	1.934	1.625	1.60	0.025								

Grading SMA

Sub.	Reg.	Price	Proc. No	Tons	Tests	Quality Level	Pay Factor	TV	Mean	Mean to TV	Std Dev	V	St Dev. - V
12022	6	\$40.95	2	25,850	15	98.364	1.05000	92.00	89.500	2.500	0.751	1.60	-0.849

Totals Grading: SMA

Processes:	1	Best:	Quality Level	98.364	Pay Factor	1.05000	TV	92.00	Mean	89.500	Mean to TV	2.500	St. Dev.	0.751	V	1.60	StDev - V	-0.849
Tests:	15	Worst:	98.364	1.05000	92.00	89.500	2.500	0.751	1.60	-0.849								
Total Tons:	25,850	Weighted Average:	98.364	1.05000	92.00	89.500	2.500	0.751	1.60	-0.849								

Joint Density - Process Information, Gradation Acceptance

Grading SX

Sub.	Reg.	Price	Proc. No	Tons	Tests	Quality Level	Pay Factor	TV	Mean	Mean to TV	Std Dev	V	St Dev. - V
14692	3	\$34.58	1	14,339	12	99.939	1.04500	92.00	93.380	1.380	1.011	1.60	-0.589
12803	5	\$38.61	1	20,453	11	99.226	1.04500	92.00	91.450	0.550	1.626	1.60	0.026
14465	1	\$43.18	1	5,631	8	97.517	1.04000	92.00	91.510	0.490	1.995	1.60	0.395
14439	3	\$40.81	1	15,295	9	95.100	1.04000	92.00	91.270	0.730	2.077	1.60	0.477
13594	3	\$39.64	1	8,172	3	94.541	1.02500	92.00	89.330	2.670	1.172	1.60	-0.428
14691	3	\$38.75	1	23,099	21	90.669	1.02194	92.00	89.910	2.090	1.459	1.60	-0.141
14700	3	\$42.64	1	25,210	19	89.268	1.01498	92.00	90.010	1.990	1.627	1.60	0.027
14690	3	\$37.80	2	19,415	12	86.364	1.00853	92.00	89.480	2.520	1.356	1.60	-0.244
12711	3	\$37.79	1	49,049	31	85.429	0.98085	92.00	90.270	1.730	2.135	1.60	0.535
13594	3	\$39.64	3	3,543	5	75.543	0.98867	92.00	90.700	1.300	3.338	1.60	1.738
13969	5	\$94.00	1	15,082	13	72.877	0.92582	92.00	88.930	3.070	1.502	1.60	-0.098
14549	1	\$37.45	1	19,593	10	71.124	0.92619	92.00	88.890	3.110	1.555	1.60	-0.045
14011	3	\$38.62	1	32,265	18	71.066	0.89542	92.00	89.490	2.510	2.617	1.60	1.017
12606	3	\$56.81	1	4,436	5	70.521	0.96391	92.00	89.520	2.480	2.588	1.60	0.988
13594	3	\$40.23	2	11,211	7	68.343	0.92768	92.00	88.810	3.190	1.621	1.60	0.021
14381	5	\$37.35	1	6,152	5	64.405	0.92915	92.00	89.060	2.940	2.596	1.60	0.996
14549	1	\$43.10	2	9,110	5	60.203	0.90232	92.00	88.580	3.420	2.014	1.60	0.414
14426	5	\$30.73	1	14,704	7	52.463	0.80819	92.00	88.110	3.890	1.736	1.60	0.136
14587	1	\$36.50	1	3,000	3	36.604	0.77597	92.00	87.100	4.900	1.908	1.60	0.308

Totals Grading: SX

Processes:	19	Best:	Quality Level	Pay Factor	TV	Mean	Mean to TV	St. Dev.	V	StDev - V
Tests:	204	Worst:	99.939	1.04500	92.00	93.380	0.490	1.011	1.60	-0.589
Total Tons:	299,759	Weighted Average:	36.604	0.77597	92.00	87.100	4.900	3.338	1.60	1.738
			81.428	0.96981	92.00	89.931	2.201	1.837	1.60	0.237

Joint Density Totals

1/1/2004 to 12/31/20

Processes:	35	Best:	Quality Level	Pay Factor	TV	Mean	Mean to TV	St. Dev.	V	StDev - V
Tests:	416	Worst:	100.000	1.05320	92.00	93.380	0.330	0.350	1.60	-1.250
Total Tons:	616,790	Weighted Average:	36.604	0.77597	92.00	87.100	4.900	3.338	1.60	1.738
			85.174	0.98760	92.00	90.008	2.087	1.691	1.60	0.091