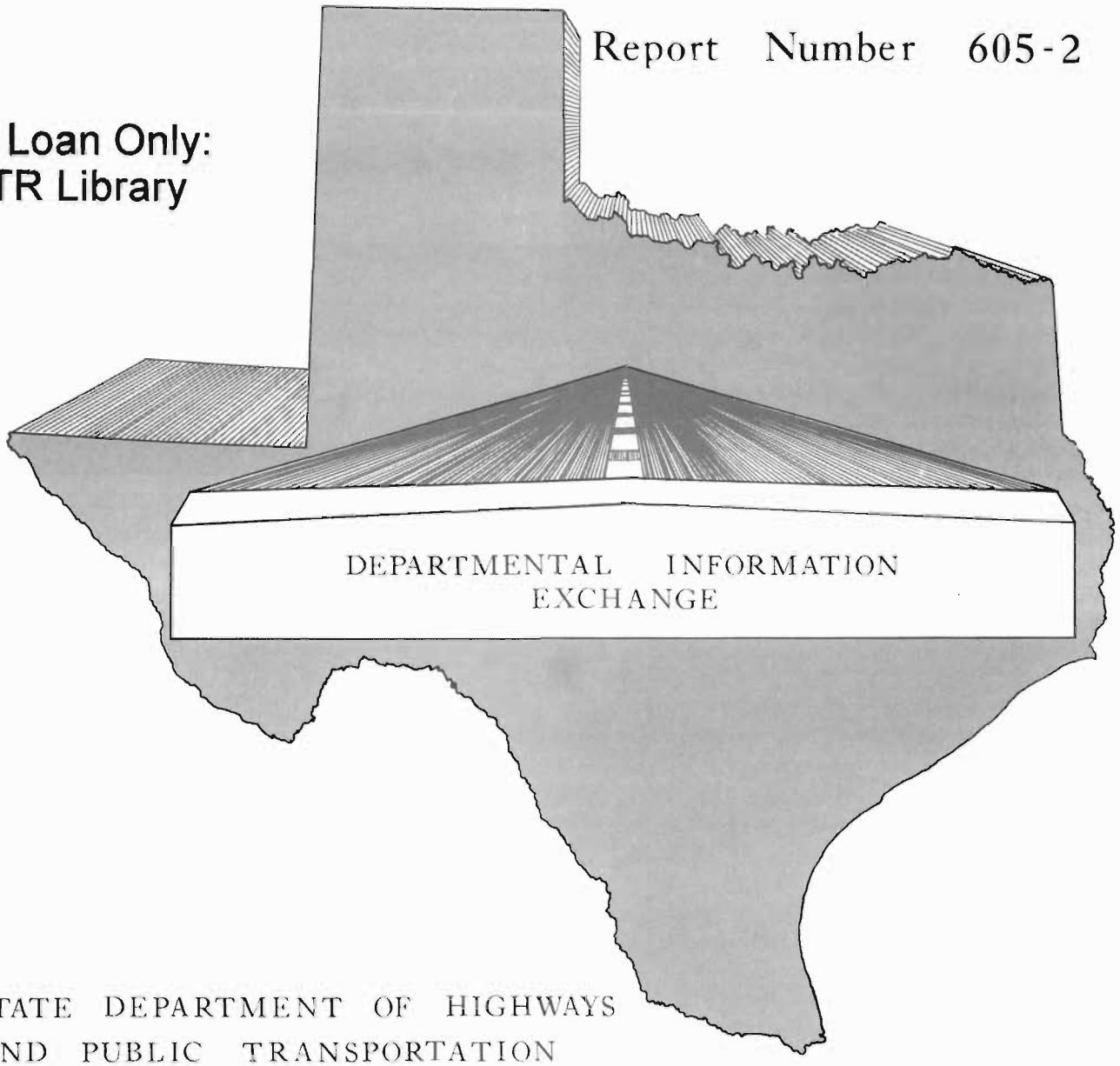
EXPERIMENTAL PROJECTS

PRECOATED LIGHTWEIGHT AGGREGATE

Report Number 605-2



STATE DEPARTMENT OF HIGHWAYS
AND PUBLIC TRANSPORTATION

TECHNICAL REPORT STANDARD TITLE PAGE

1. Report No.	2. Government Accession No.	3. Recipient's Catalog No.
FHWA/TX-82/12+605-2		

4. Title and Subtitle	5. Report Date
Precoated Lightweight Aggregate	January, 1982
	6. Performing Organization Code

7. Author(s)	8. Performing Organization Report No.
Charles H. Reasonover	605-2

9. Performing Organization Name and Address	10. Work Unit No.
Texas State Dept. of Highways & Public Transportation P. O. Box 5051 Austin, Texas 78763	11. Contract or Grant No.
	13. Type of Report and Period Covered
12. Sponsoring Agency Name and Address Texas State Dept. of Highways & Public Transportation P. O. Box 5051 Austin, Texas 78763	June, 1980 to January, 1982
	14. Sponsoring Agency Code

15. Supplementary Notes

Work performed in cooperation with the FHWA.

16. Abstract

A synthetic lightweight aggregate or a natural aggregate which has been precoated is normally used to reduce windshield damage in seal coat operations. Lightweight aggregates traditionally are subject to moisture absorbtion, have relatively low crushing strength and become dusty or dirty easily. Raveling or aggregate loss is probable when rain occurs soon after placement. Therefore, the idea of precoating the lightweight aggregate to improve construction operations appears valid. This report is concerned with the first experimental construction project using precoated synthetic aggregate in District 10 - Tyler.

17. Key Words	18. Distribution Statement
Precoated synthetic aggregate Precoated aggregate Seal coat Synthetic aggregate	No restrictions

19. Security Classif. (of this report)	20. Security Classif. (of this page)	21. No. of Pages	22. Price
unclassified	unclassified	23	

Form DOT F 1700.7 (8-69)

DISCLAIMER STATEMENT

The material in this report is experimental in nature, and is published for informational purposes only. Any discrepancies with official views or policies of the DHT should be discussed with the appropriate Austin Division prior to the implementation of the procedures or results.

The contents of this report reflect the views of the authors who are responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the views or policies of the Federal Highway Administration. This report does not constitute a standard, specification or regulation.

PRECOATED LIGHTWEIGHT AGGREGATE

Experimental Project
Report Number 605-2

Texas
State Department of Highways
and
Public Transportation

Report Prepared by

Charles H. Reasonover
District Construction Engineer
District 10
Tyler, Texas

January, 1982

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Background

In 1978 an effort was made in District 10 to improve seal coat projects by requiring the use of precoated aggregates. The precoated aggregates were specified on the plans to be used on projects having high traffic counts and on projects in cities and towns where there were large numbers of turning movements. These situations also created a need for high polish value aggregates.

High polish value aggregates for District 10 are primarily produced at three sources. They are: East Texas Stone at Blue Mountain; Gifford-Hill at Allamore (Rhyolite); and TXI at Streetman (lightweight). Our present specifications requiring precoated aggregate eliminated one of these sources, TXI lightweight.

TXI became interested in precoating lightweight aggregate after we began specifying it, and in November 1979 they arranged with Moore Asphalt Co. in Tyler to precoat some of their material from Streetman on an experimental basis. Three 35 CY loads were delivered to the plant, one of which would remain uncoated and serve as a base, and the other two would be coated with No. 12 precoat oil at rates of 1.6% and 1.8% by weight.

Precoating Operations

When precoating began, our District Laboratory selected 1.8% by weight as a starting point since this rate is approximately the amount of precoating oil that would be used in conventional precoat. Upon observing the precoated material, it was determined that this rate was too high and the rate was reduced to 1.6% for the second load.

After precoating, the material was immediately hauled to the South Tyler maintenance yard and stockpiled in three separate piles. Upon observing the material after stockpiling, it was evident that the lightweight aggregate had absorbed a portion of the precoat oil and it was noted that the 1.6% rate, which appeared to be right at the time of precoating, appeared too dry in the stockpile. Likewise, the 1.8% rate, which appeared too high at the time of precoating, appeared to be right in the stockpile. This observation may be noted in the photograph in Figure 1.

Laboratory Tests

Following are the results of tests performed on the material:

Unit Weight	%Precoat #12	% Absorption
47.8 PCF	0.0	12.4
	1.6	10.9
	1.8	5.8

Gradation

Sieve Size	% Retained	Sieve Size	% Retained
3/4	0	3/8	33.8
5/8	0	#4	99
1/2	1.5	#10	99

We believe the reduction in absorption by precoating the aggregate is most significant. Documentation of the laboratory tests may be found in Appendix A.

Construction Operations

On June 18, 1980, a section on FM 2493 south of Loop 323 in Tyler was selected for placing test sections for the precoated lightweight. FM 2493 is a 24' wide two-lane road with a traffic volume of 3440 vpd.

Six sections, each 12' wide and 900' long, were selected as follows (see Figure 2):

On Sections #1 and #2, 1.8% precoated lightweight aggregate was applied at a rate of 1 CY to 120 SY. The asphalt rate was .33 gal/SY on Section #1 and .25 gal/SY on Section #2.

On Sections #3 and #4, 1.6% precoated lightweight aggregate was applied at a rate of 1 CY to 120 SY. The asphalt rate was .33 gal/SY on Section #3 and .25 gal/SY on Section #4.

On Sections #5 and #6, uncoated lightweight aggregate was applied at a rate of 1 CY to 120 SY. The asphalt rate was .32 gal/SY on Section #5 and .28 gal/SY on Section #6.

The asphalt was an AC-10 from Dorchester Company, Mt. Pleasant, Texas. The daily road report and material documentation may be found in Appendix B.

Weather conditions for the placement of test sections was very good. The day was clear. The wind was calm. The air temperature was in the low 90's.

The construction work was done by State Maintenance forces. The AC-10 was applied with a Rosco Distributor. The aggregate was placed with a self-propelled spreader and rolling followed immediately utilizing a SB-3000 pneumatic roller. Figures 3 to 5 show views of the construction equipment and operations. Generally the construction operations progressed very well and a good seal coat was obtained.

The following morning the sections were broomed to remove any excess aggregate. It was noted that there was no loose aggregate except a minor amount along the extreme outside edge of the pavement. Figures 6 through 8 show photographs of the completed sections and the brooming operations.

A rain fell on June 21, 1980, some 3 days after placement. Following the rain, an inspection was made and no adverse effects were noted.

Performance Testing

Performance testing consisted of obtaining skid resistance tests and performing a periodic rating using a panel composed of District 10 personnel and personnel from the Maintenance and Safety, Construction Operations and Transportation Planning divisions.

Skid tests were made on August 13, 1980 and the following information was obtained:

Section	Skid No.	Section	Skid No.
1	42, 37, 46	4	44, 44
2	47, 48	5	59, 55
3	48, 44	6	54, 59

The skid tests show relatively high values and a slight increase in values was expected with increased time as the asphalt covering abrades and more aggregate would become exposed to the test tire.

The team rating was performed at approximate six month intervals and a summary of the data collected may be found in Table I. An example of the data collected has been included in Appendix C. Figures 9 through 17 show photographs of the sections taken at rating time during the first winter. Note little raveling, flushing or aggregate degradation have been found to date and the overall appearance and performance has been very good.

Conclusions and Implementation

All experimental sections are performing well and it was concluded that precoating synthetic lightweight aggregate was successful and beneficial. Based on the results of this information, some 51 lane miles of highways in District 10 were sealed with a precoated lightweight aggregate during the 1981 asphalt season. At the present time, this construction is performing very well. Flushing, as would be expected, may be found in areas where previous patching occurred, but little flushing, aggregate loss or aggregate degradation developed or is evident.

TABLE 1
RATING PANEL SUMMARY

DATE	VISUAL INSPECTION (10-High)	AGGREGATE DEGRADATION (10-High)	AGGREGATE RETENTION (10-High)	FLUSHING (10-High)	RATING SCORE (40-Highest)	AGGREGATE OUT W.P.	EMBEDMENT Betw. W.P.
			Section 1				
Summer 1980	9.5	9.75	9.75	9.38		50%	44%
Winter 80-81	9.8	9.7	9.9	9.8		50	53
Winter 81-82	9	10	10	10		50	45
			Section 2				
Summer 1980	9.5	9.63	9.75	9.5		49%	43%
Winter 80-81	9.8	10	10	9.9		45	43
Winter 81-82	9	10	10	9.5		50	45
			Section 3				
Summer 1980	9.5	9.75	9.75	9.38		50%	44%
Winter 80-81	9.8	10	10	10		43	43
Winter 81-82	9	9.5	10	9.5		50	45
			Section 4				
Summer 1980	9.5	9.63	9.75	9.5		49%	43%
Winter 80-81	9.4	9.8	10	10		43	43
Winter 81-82	9	10	10	9.5		45	40
			Section 5				
Summer 1980	9.5	9.5	9.5	9.38		49%	43%
Winter 80-81	9.4	9.8	10	9.6		45	43
Winter 81-82	9	10	10	9.5		50	40
			Section 6				
Summer 1980	9.5	9.63	9.5	9.25		53%	47%
Winter 80-81	9.6	9.6	9.9	10		40	40
Winter 81-82	9	10	10	9.5		45	40

FIGURE 1 - STOCKPILED AGGREGATE

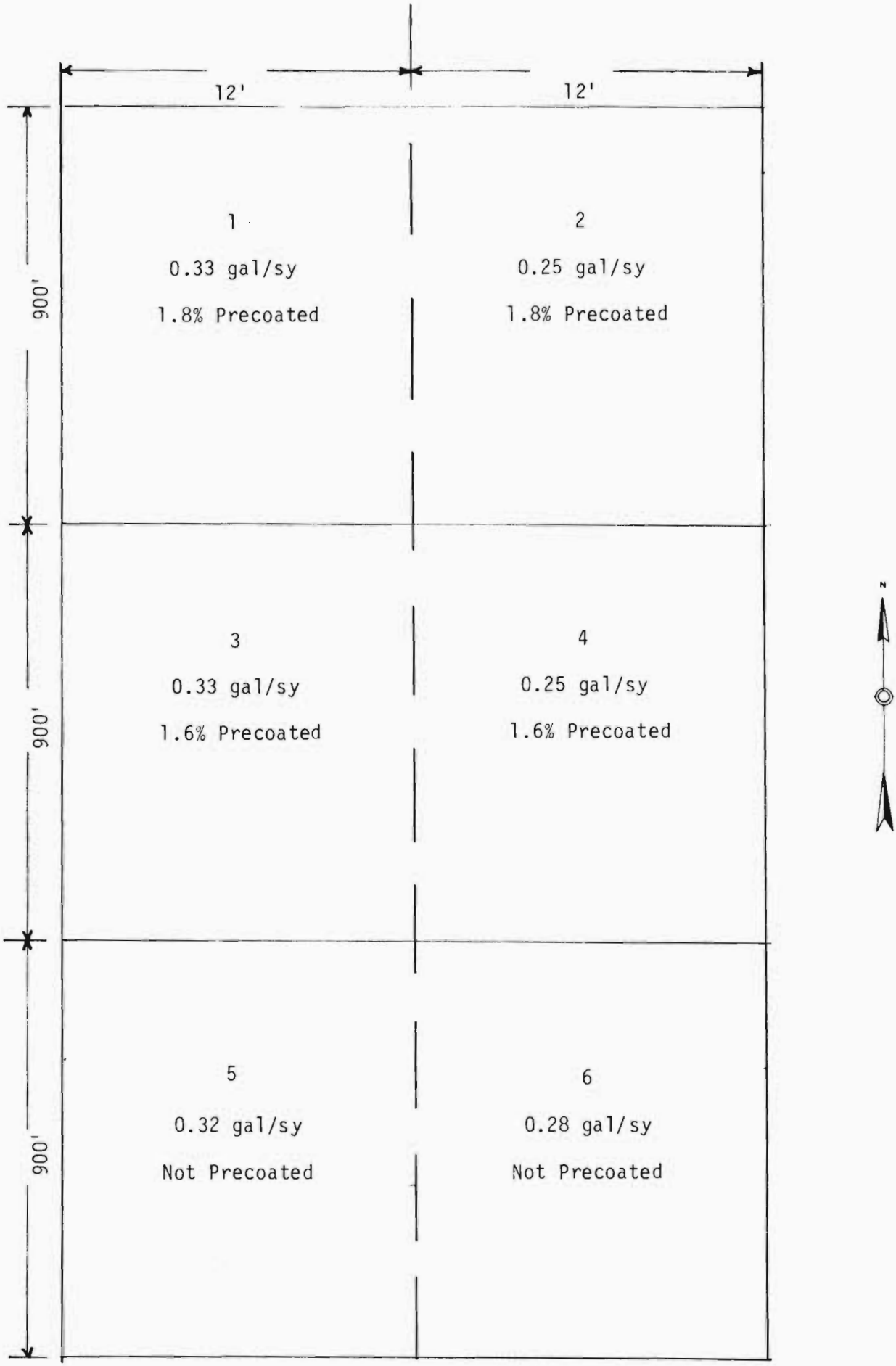

FIGURE 2 - SCHEMATIC OF EXPERIMENTAL SECTIONS

FIGURE 3
DISTRIBUTOR
USED

FIGURE 4
AGGREGATE
SPREADER
USED

FIGURE 5
PNEUMATIC
ROLLER USED

FIGURE 6 - GENERAL VIEW OF SECTIONS 1 AND 2

FIGURE 7 - GENERAL VIEW OF SECTIONS 3 AND 4

FIGURE 8 - GENERAL VIEW OF SECTIONS 5 AND 6

FIGURE 9 - CLOSE VIEW OF SECTION 1
IN FIRST WINTER - 7 MONTHS

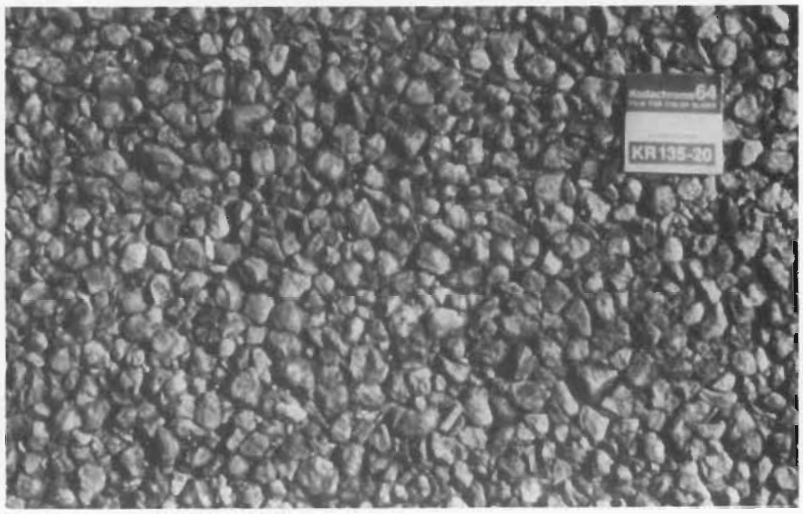

FIGURE 10 - CLOSE VIEW OF SECTION 2
IN FIRST WINTER - 7 MONTHS

FIGURE 11 - VIEW OF SECTIONS 1 AND 2 IN FIRST WINTER - 7 MONTHS

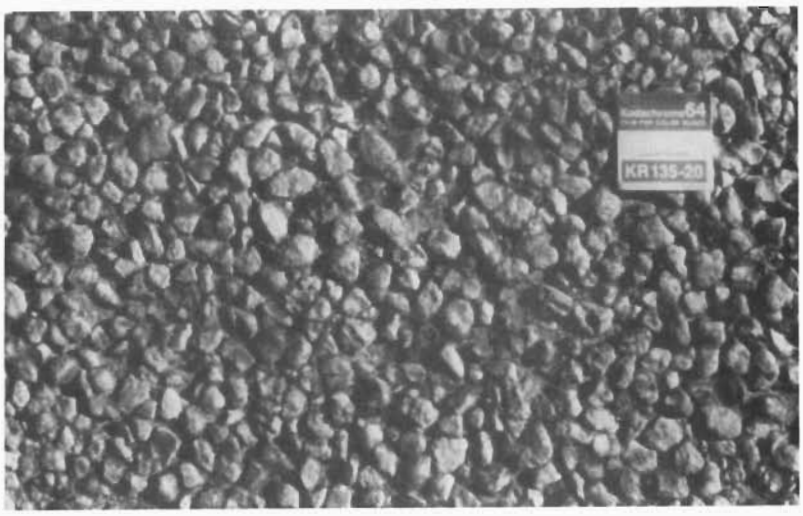

FIGURE 12 - CLOSE VIEW OF SECTION 3
IN FIRST WINTER - 7 MONTHS

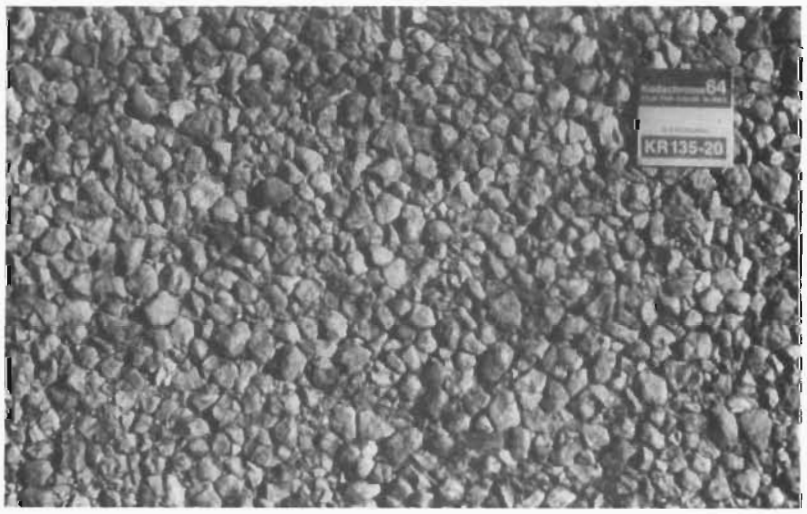

FIGURE 13 - CLOSE VIEW OF SECTION 4
IN FIRST WINTER - 7 MONTHS

FIGURE 14 - VIEW OF SECTIONS 3 AND 4 IN FIRST WINTER - 7 MONTHS

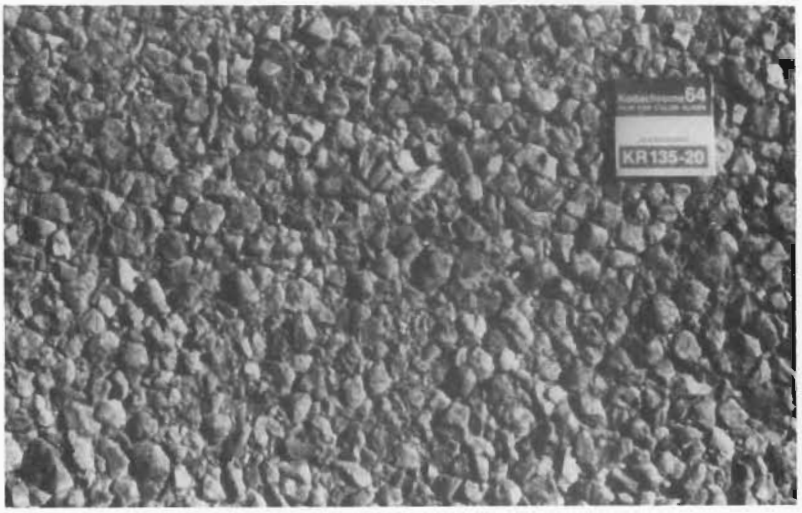

FIGURE 15 - CLOSE VIEW OF SECTION 5
IN FIRST WINTER - 7 MONTHS

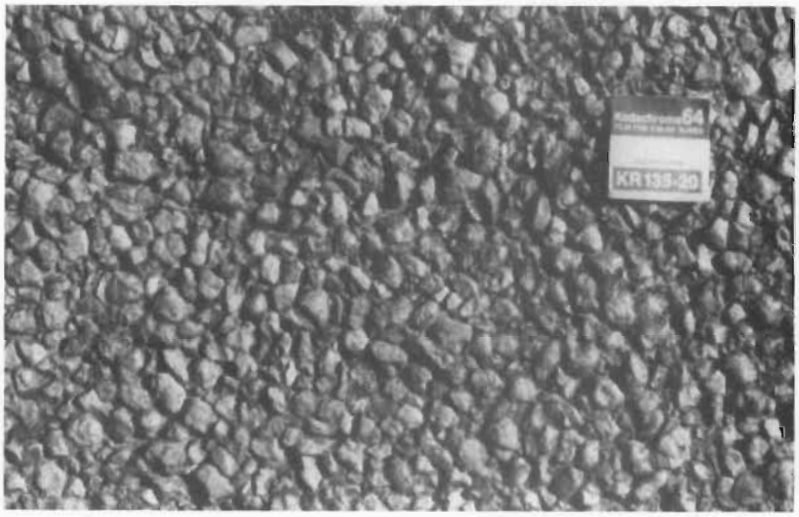

FIGURE 16 - CLOSE VIEW OF SECTION 6
IN FIRST WINTER - 7 MONTHS

FIGURE 17 - VIEW OF SECTIONS 5 AND 6 IN FIRST WINTER - 7 MONTHS

APPENDIX A

LABORATORY TEST DOCUMENTATION

APPENDIX A - SUMMARY OF LABORATORY TESTS

Item 304

AGGREGATE FOR SURFACE TREATMENTS

(Precoated)

(Class B)

TXI Lightweight - Grade 4

(Unit Wt. 47.8#/ft^3)

	*%Precoat #12	Precoat/ Batch	Batch Wt.	Absorption	+5/8	+1/2	+3/8	+4	+10	Moist.	Vol.
Raw Material	0	0	0	12.4	0	1.5	33.8	98.9	99.8	1.13	
Precoated	1.6	35#	2200	10.9	0	1.0	33.8	95.8	96.9	.06	10
Precoated	1.8	40#	2200	5.8	0	1.2	18.4	90.9	97.1	.04	.05

* Spec. = 0.5 - 1.5% by weight

Texas Highway Department
Form 346A Revised

PLANT INSPECTION REPORT

ASPHALTIC CONCRETE

Laboratory No. 10-331-79
Date Inspected 11-21-79
Date Reported 11-26-79
Dist. Engr. Constr. Engr. Charles H. Reasonover
Address Tyler, TX
Res. Engr. or Maint. Fore.
Address
Contractor Research
Producer Moore Asphalt Co.

Control No.	Sect. No.	Job No.
Smith		Research
County	Federal Project No.	Hwy. No.
10		
District No.	Req. No.	B.O.C. No.
304		PB Gr 5
Spec. Item No.	Stencil No.	Type
Tyler - Plant		S.Mtce. - Whse.
Point of Origin		Destination

Car Initial and Number	Wt. Tons	Asph. %	PERCENT BY WEIGHT Pass.	Pass. 1¾"—⅞"	⅞"—⅜" / ½"—⅜"	⅜"-No. 4	¼"-No. 4 / ¼"-No. 10	No. 4-10	Ret. No. 10	10-40	40-80	80-200	Pass. 200

% Absorption on Stockpile Material (10-318-79) = 12.4
" on material with 1.6% Precoat (10-315-79) = 10.9
" on material with 1.8% Precoat (10-316-79) = 5.8

EXTRACTION RESULTS

Total Loss %	Moist. %	Vol. %	Res. Bit. %

Type Asph.	Lab. Number	Design No.	Batch Wt.	Primer %	Water Add. %	Report No.

Inspector

Texas Highway Department
Form 346A Revised

PLANT INSPECTION REPORT

ASPHALTIC CONCRETE

Laboratory No. 10-316-79
Date Inspected 11-13-79
Date Reported 11-15-79
Dist. Engr. Dist. Constr. Engr. Charles H. Reasonover
Address Tyler, TX
Res. Engr. or Maint. Fore.
Address
Contractor Research
Producer Moore Asphalt Co.

Control No.	Sect. No.	Job No.
Smith		Research
County	**Federal Project No.**	**Hwy. No.**
10		
District No.	**Req. No.**	**B.O.C. No.**
304		PB, Gr. 4
Spec. Item No.	**Stencil No.**	**Type**
Tyler - Plant	S.Mtce. - Whse.	
Point of Origin	**Destination**	

Car Initial and Number	Wt. Tons	Asph. %	PERCENT BY WEIGHT Pass.	Pass.	1¾"—⅞"	⅞"—⅜"	⅜"-No. 4	¼"-No. 10	No. 4-10	Ret. No. 10	10-40	40-80	80-200	Pass. 200
						+5/8	+1/2	+3/8	+4					

EXTRACTION RESULTS

Total Loss %	Moist. %	Vol. %	Res. Bit. %	⅞"—⅜"	⅜"-No. 4	¼"-No. 10	No. 4-10	Ret. No. 10	10-40	40-80	80-200	Pass. 200
1.63	.04	.05	1.54	0	1.2	18.4	90.9	97.1				

Type Asph.	Lab. Number	Design No.	Batch Wt.	Primer %	Water Add. %	Report No.
Precoat #12	39115		2200	1.8	0	

Sampled by: _____
Inspector

448456-871-30m

Texas Highway Department
Form 346A Revised

PLANT INSPECTION REPORT

ASPHALTIC CONCRETE

Laboratory No. 10-315-79
Date Inspected 11-13-79
Date Reported 11-15-79
Dist. Engr. Constr. Engr. Charles H. Reasonover
Address Tyler, TX
Res. Engr. or Maint. Fore.
Address
Contractor Research
Producer Moore Asphalt Co.

Control No. | Sect. No. | Job No.
Smith | Research | 1
County | Federal Project No. | Hwy. No.
10 | | |
District No. | Req. No. | B.O.C. No.
304 | PB, Gr. 5 | 4
Spec. Item No. | Stencil No. | Type
Tyler - Plant | S. Maint. - Whse.
Point of Origin | Destination

Car Initial and Number	Wt. Tons	Asph. %	PERCENT BY WEIGHT Pass.	Pass.	1¾"—⅞"	⅞"—⅜" XXXXX ⅜"—No. 4 XXXXX	No. 4—No. 10 XXXXX	No. 4—10 XXXXX	Ret. No. 10	10-40	40-80	80-200	Pass. 200
						+5/8	+1/2	+3/8	+4				
Stockpile						0	1.5	33.8	98.9	99.8			
Hot Bin Analysis													
Bin #1						0	0	1.3	19.6	96.4			
Bin #2						0	0	15.5	98.2	98.9			
Bin #3						0	2.6	75.2	99.4	99.6			

EXTRACTION RESULTS

Total Loss %	Moist. %	Vol. %	Res. Bit. %											
1.62	.06	.10	1.46				0	1.0	33.8	95.0	96.9			

Type Asph.	Lab. Number	Design No.	Batch Wt.	Primer %	Water Add. %	Report No.
Precoat #12	39115		2200	1.6 35#	water added at cold feed. % unknown	

Sampled by:
Inspector

448456-871-30m

Form 476A

SOILS AND BASE MATERIALS TEST REPORT

Laboratory No. 10-9-80
Date Rec'd 11- 13-79 Reported 1-23-80
Engineer Charles H. Reasonover
Address Tyler, TX
Contractor
Sampler Lawrence W. Leake
Sampler's Title Geol. II
Sampled From Stockpile
Producer TXI
Quantity Represented by Sample
Has been Used on

Control Number	Section Number	Job Numb
Smith		Research
County	Federal Project No.	Highway N
10		11-13-79
District No.	I.P.E. No. Req. No.	Date Sampl

Specification Item No. 304 - PB Gr. 4
Material from Property of Moore Asphalt Plant

Proposed for Use as Precoated Aggregate

Lab. No.	LL	PI	SL	LS	SR	Class	Soil Binder	WBM % Loss	% Moist.	Unit
10-9-80										47.8

PERCENT RETAINED ON

Lab No.	Square Mesh Sieve															Grain Diam. in Millimeters			Specific Gravity
	Opening in Inches								Sieve Numbers										
	3	2½	2	1¾	1¼	⅞	⅝	⅜	4	10	20	40	60	100	200	.05	.005	.001	

SAMPLE IDENTIFICATION

Lab. No.	Identification Marks	Location—Properties—Station Numbers	Type of Materials
10-9-80		Stockpile @ Moore Asphalt Plant	Lightweight Aggregate

FORM FOR COMPUTING AVERAGE PARTICLE SIZE
AND ASPHALT RATES

Precoated Lightweight (Gr 4), F.M. 2493, Smith County, by SDHPT Maintenance Forces

Screen Size	Accumulative S.A.	Retained		Average Particle Size		
1 - 7/8			x	0.938	=	
7/8 - 3/4			x	0.813	=	
3/4 - 5/8	0	0	x	0.688	=	0.000
5/8 - 1/2	1.5	1.5	x	0.563	=	0.008
5/8 - 3/8			x	0.500	=	
1/2 - 3/8	33.8	32.3	x	0.438	=	0.141
1/2 - #4			x	0.343	=	
3/8 - 1/4			x	0.313	=	
3/8 - #4	98.9	65.1	x	0.281	=	0.183
3/8 - #10			x	0.227	=	
1/4 - #10			x	0.164	=	
#4 - #10	99.8	0.9	x	0.133	=	0.001
- #10		0.2	x	0.063	=	0.000
		100.0		Avg. Size	=	0.333

Asph. Rate = 0.8977 x 0.333 = 0.299

± --- % for traffic

± --- % surface demand

- 0.027 gal. S.Y. for precoat

Use ——→ 0.272 gal/S.Y.

Aggr. Rate (90% Coverage) = $\frac{36}{.90}$ X .333 = 120

Use: 1 CY per 120 SY

APPENDIX B

CONSTRUCTION AND MATERIAL DOCUMENTATION

Form 187

65645-261-50m

DAILY ROAD REPORT—ASPHALT

County. Smith State Control No. ____ Sec. ____ Job ____ F. A. P. No. ____

Type FM 2493 - Seal Coat Research Contractor State Maintenance Forces Date 6-18-80

MATERIALS—RECEIVED

R. R. CAR NO.	MATERIAL	NET WT.	LAB. REP.	AMOUNT	R. R. CAR NO.	MATERIAL	NET WT.	LAB. REP.	AMOUNT
Truck #1993	AC-10		C80372505	5999 Gal.					

ASPHALT APPLICATION

GENERAL

REF. NO.	CRSE. NO.	DIST. NO.	LENGTH STA.	LENGTH to STA.	LENGTH FT.	WIDTH FT.	AREA S. Y.
1	1		32+00	41+00	900	12	1200
2	1		41+00	32+00	900	12	1200
3	1		41+00	50+00	900	12	1200
4	1		50+00	41+00	900	12	1200
5	1		50+00	59+00	900	12	1200
6	1		59+00	50+00	900	12	1200
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							

ASPHALT

REF. NO.	GALS. START	GALS. END	NET GALS.	TEMP. ° F.	GALS./ S. Y.
West Side	1520	1120	400	375	.33
East Side	1120	820	300	375	.25
West Side	1520	1120	400	375	.33
East Side	1120	820	300	375	.25
West Side	1540	1160	380	375	.32
East Side	1160	820	340	375	.28

AGGREGATE

Ref. No.

Source of Aggregate 1st Course	1&2 - Precoated Lightweight
Source of Aggregate 2nd Course	3&4 - Precoated Lightweight
Source of Aggregate 3rd Course	5&6 - Uncoated Lightweight
Rate Aggregate Applied 1st Course	1 CY/120 SY
Rate Aggregate Applied 2nd Course	
Rate Aggregate Applied 3rd Course	

ASPHALT

Source of Asphalt 1st Application	AC-10 Dorchester
Source of Asphalt 2nd Application	
Source of Asphalt 3rd Application	
Time Work Began:	
Time of Last Application:	
Time Work Finished:	
Reasons for Time Loss:	

SUMMARY OF DAYS WORK

1.8%

1.6% T COURSE

	ASPHALT GALLONS	ASPHALT SQ. YDS.	BLADING HOURS	ROLLING HOURS
PREV. REPORT				
THIS REPORT				
TO DATE				
AV. RATE	gals. per. S. Y.			
2ND COURSE				
PREV. REPORT				
THIS REPORT				
TO DATE				
AV. RATE	gals. per. S. Y.			
3RD COURSE				
PREV. REPORT				
THIS REPORT				
TO DATE				
AV. RATE	gals. per. S. Y.			
TOTALS				

Remarks:

INSTRUCTIONS: MAKE TWO COPIES, ONE FOR DISTRICT OFFICE AND ONE FOR RESIDENT ENGINEER. TO BE PREPARED DAILY AND SUBMITTED AT LEAST ONCE EACH WEEK.

20 _____ Inspector

Report No. 1

21

ASPHALT MANIFEST R 005

DORCHESTER REFINING COMPANY

MT. PLEASANT, TEXAS

No. 48740

ORDER NO. - 8345 - 208 6-18-80 8 5 1/4

TRUCK MAKE 7993 3324 6500

INVOICE TO

5565

REMARKS

10-D-870 B/L 25045 #2 AC-10 380 5999

GROSS 7 9 1 2 0 1980 JUN 18 AM 5:03

TARE 2 7 7 4 0 1980 JUN 18 AM 3:56

NET 51380

S# 9009712

C. H. D. COPY

*ENTER AN "S" IF SPECIAL HANDLING. ENTER A "P" IF PARTIAL LOAD.

APPENDIX C

EXAMPLE OF TEAM RATING DATA

Precoated L. W. Experimental Sections

Date Evaluated July 21, 1980

A. JOB IDENTIFICATION

District No. 10 Highway No. FM 2493 County Smith

Control No. 191 Section No. 3 Job No. Maintenance

2 miles N (S) E W of Tyler (nearest town);

Mile Post _____ to Mile Post _____ .

Trial Field Section No. 1 Date Sealed June 18, 1980

B. MATERIALS AND DESIGN

Aggregate Source Streetman Lightweight Aggregate Quantity 1 CY:120SY

Asphalt Source Dorchester (AC-10) Asphalt Quantity (350°F) 0.33 gal/sy
(gal./sq. yd.)

Length of Section Evaluated 900 ~~miles~~ feet

C EVALUATION Percent Precoat on Aggregate 1.8%

1. VISUAL INSPECTION

0 2 4 6 8 10/

Very Poor | Poor | Fair | Good | Very Good

3. AGGREGATE RETENTION

0 2 4 6 8/ 10

Entire Aggregate Loss | Aggregate Loss In Wheel Path | Some Aggregate Loss In Wheel Path | Slight Aggregate Loss

2. AGGREGATE DEGRADATION

0 2 4 6 8 10/

Excessive | Heavy | Moderate | Slight | None

4. BLEEDING

0 2 4 6 8 10/

Excessive and Extensive Bleeding | Bleeding in Wheel Path | Slight Bleeding in Wheel Path | Slight Discoloration in Wheel Path

5. AGGREGATE EMBEDMENT

Outer Wheel Path 50 %
Between Wheel Path 40 %

TOTAL SCORE 39

COMMENTS: Section 1 is slightly darker in appearance as compared to section 2. Very nice seal coat. Close, tightly-knit aggregate. No flushing.