FINAL REPORT

SPS-1 PROJECT 4801
STRATEGIC STUDY OF STRUCTURAL FACTORS FOR FLEXIBLE PAVEMENTS
US-281 SOUTHBOUND
HIDALGO COUNTY, TEXAS

FHWA/LTPP

SOUTHERN REGION COORDINATION OFFICE

December 1997

BRENT RAUHUT ENGINEERING INC.

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FINAL REPORT - SPS-1 PROJECT 4801

STRATEGIC STUDY OF STRUCTURAL FACTORS FOR FLEXIBLE PAVEMENTS US-281, SOUTHBOUND HIDALGO COUNTY, TEXAS

INTRODUCTION

The Strategic Highway Research Program (SHRP), in conjunction with the Federal Highway Administration (FHWA) developed the Long Term Pavement Performance (LTPP) program to study the various factors that affect pavement performance. These projects are referred to as Specific Pavement Studies (SPS), and are designed to provide information about varying pavement designs, materials, and environmental effects on pavement performance.

The objective of the SPS-1 experiment is discussed below. This project is one of sixteen projects located across the United States. This SPS-1 project is located in the southbound lanes of US-281, north of McAllen, Texas. This project was let for construction in April 1996 and construction began in November 1996. This report covers the site-selection, coordination, and monitoring activities for all phases of construction of the SPS-1 project.

SPS-1 General Experiment Design

The objective of the SPS-1 study is to enhance understanding of the strategic factors that influence the performance of flexible pavements. This SPS-1 project addresses factors including drainage, base type, base thickness, and asphalt surface thickness as they relate to pavement performance. The experiment design for the SPS-1 experiment is shown in table 1. The SPS-1 project in Texas was nominated to fulfill the requirements for the dry no-freeze climatic zone with fine-grained subgrade soils (column "W"). This project includes the 12 core experiment test sections along with 8 supplemental test sections selected by the Texas Department of Transportation (Texas DOT) for evaluating various base materials for further use in future flexible pavement construction. A detailed layout of each test section is shown in table 2 and figure 1.

For additional information on the experiment design for SPS-1, please refer to "Specific Pavement Studies Experiment Design and Research Plan for Experiment SPS-1, Strategic Study of Structural Factors for Flexible Pavements", dated February 1990.

Selection/Nomination of US-281

The SPS-1 project on US-281 in Hidalgo County, Texas was nominated on 31 March 1995. Appendix A includes the project nomination and information forms with pertinent correspondence. This project is a 4-lane divided highway with 12-foot wide lanes, 10-foot wide outside shoulders, and a 4-foot shoulder along the passing lane. The estimated traffic includes 32.8 percent heavy trucks with an annual average daily traffic in two directions of 10,180 vehicles. The project was officially accepted for inclusion in this experiment by the FHWA on 28 April 1995. For additional details on project nomination, refer to appendix A.

TABLE 1. EXPERIMENT DESIGN FOR SPS-1

PAVEMENT STRUCTURE COMBINATIONS				FACTORS FOR MOISTURE, TEMPERATURE, SUBGRADE TYPE AND LOCATION													
				WET								DRY					
				FREEZE				NO FREEZE				FREEZE				NO FREEZE			
DRAINAGE	BASE TYPE	TOTAL BASE THICK	SURF THICK	FINE		COARSE		FINE		COARSE		FINE		COARSE		FINE		COARSE	
				J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
NO	AGG	8"	4"		K1		M1		O1		Q1		S1		U1		W1	X1	
			7"	J1		L1		N1		P1		R1		T1		V1			Y1
		12"	4"	J2		L2		N2		P2		R2		T2		V2			Y2
			7"		K2		M2		O2		Q2		S2		U2		W2	X2	
	ATB	8"	4"	J3		L3		N3		P3		R3		T3		V3			Y3
			7"		K3		M3		O3		Q3		S3		U3		W3	X3	
		12"	4"		K4		M4		O4		Q4		S4		U4		W4	X4	
			7"	J4		L4		N4		P4		R4		T4		V4			Y4
	ATB 4" AGG	8"	4"	J5		L5		N5		P5		R5		T5		V5			Y5
			7"		K5		M5		O5		Q5		S5		U5		W5	X5	
		12"	4"		K6		M6		O6		Q6		S6		U6		W6	X6	
			7"	J6		L6		N6		P6		R6		T6		V6			Y6
YES	PATB AGG	8"	4"	J7		L7		N7		P7		R7		T7		V7			Y7
			7"		K7		M7		O7		Q7		S7		U7		W7	X7	
		12"	4"		K8		M8		O8		Q8		S8		U8		W8	X8	
			7"	J8		L8		N8		P8		R8		T8		V8			Y8
		16"	4"		K9		M9		O9		Q9		S9		U9		W9	X9	
			7"	J9		L9		N9		P9		R9		T9		V9			Y9
	ATB PATB	8"	4"		K10		M10		O10		Q10		S10		U10		W10	X10	
			7"	J10		L10		N10		P10		R10		T10		V10			Y10
		12"	4"	J11		L11		N11		P11		R11		T11		V11			Y11
			7"		K11		M11		O11		Q11		S11		U11		W11	X11	
		16"	4"	J12		L12		N12		P12		R12		T12		V12			Y12
			7"		K12		M12		O12		Q12		S12		U12		W12	X12	

AGG = Dense-graded Untreated Aggregate Base
ATB = Dense-graded Asphalt Treated Base
PATB = 4" Thick Open-graded Permeable Asphalt-treated Drainage Layer Underneath ATB or Over AGG Base
4" AGG = 4" Thick Dense-graded Untreated Aggregate Base Layer Underneath ATB

TABLE 2. TEST SECTION LAYOUT

Section (Cell ID)	Cross Section	Begin Station	End Station
480113 (W1)	4″ AC Surface 8″ DGAB	1557 + 00	1552 + 00
480114 (W2)	7″ AC Surface 12″ DGAB	1521 + 00	1516 + 00
480115 (W3)	7″ AC Surface 8″ ATB	1618 + 00	1613 + 00
480116 (W4)	4″ AC Surface 12″ ATB	1610 + 00	1605 + 00
480117 (W5)	7″ AC Surface 4″ ATB 4″ DGAB	1573 + 00	1568 + 00
480118 (W6)	4″ AC Surface 8″ ATB 4″ DGAB	1565 + 00	1560 + 00
480119 (W7)	7″ AC Surface 4″ PATB 4″ DGAB	1497 + 00	1492 + 00

TABLE 2. TEST SECTION LAYOUT

(Continued)

Section (Cell ID)	Cross Section	Begin Station	End Station
480120 (W8)	4″ AC Surface	1505 + 00	1500 + 00
	4″ PATB		
	8″ DGAB		
480121 (W9)	4″ AC Surface	1513 + 00	1508 + 00
	4″ PATB		
	12″ DGAB		
480122 (W10)	4″ AC Surface	1581 + 00	1576 + 00
	4″ ATB		
	4″ PATB		
480123 (W11)	7″ AC Surface	1594 + 00	1589 + 00
	8″ ATB		
	4″ PATB		
480124 (W12)	7″ AC Surface	1602 + 00	1597 + 00
	12″ ATB		
	4″ PATB		
480160	5″ AC Surface	1459 + 00	1454 + 00
	10.5″ LRA		

TABLE 2. TEST SECTION LAYOUT

(Continued)

Section (Cell ID)	Cross Section	Begin Station	End Station
480161	5″ AC Surface 8.5″ LRA	1467 + 00	1462 + 00
480162	5″ AC Surface 8.5″ Limestone	1481 + 00	1476 + 00
480163	5″ AC Surface 10.5″ Limestone	1489 + 00	1484 + 00
480164	5″ AC Surface 10.5″ Crushed Concrete	1541 + 00	1536 + 00
480165	5″ AC Surface 8.5″ Crushed Concrete	1549 + 00	1544 + 00
480166	5″ AC Surface 14″ Caliche	1451 + 00	1446 + 00
480167	5″ AC Surface 14″ Caliche	1529 + 00	1524 + 00

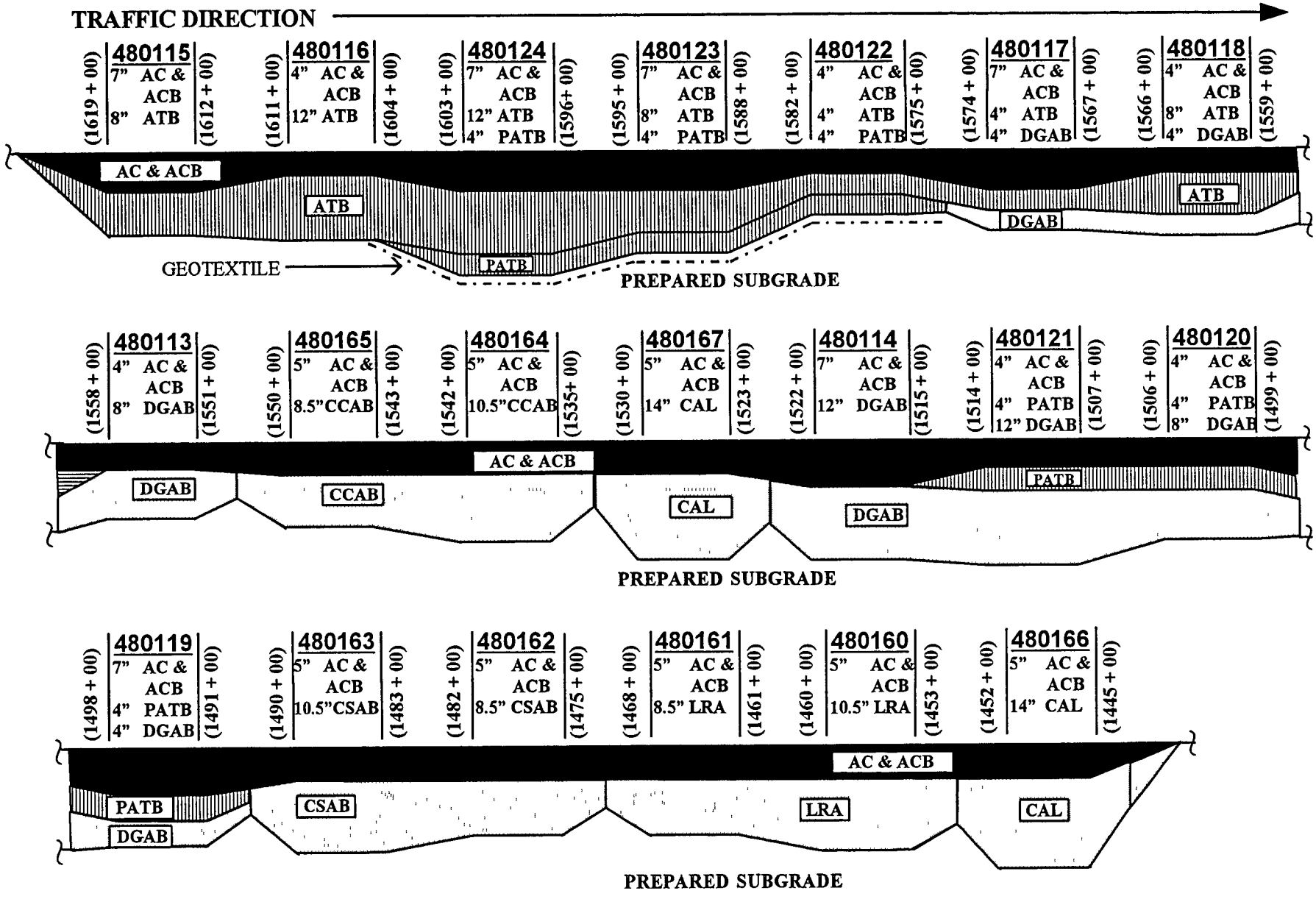

Figure 1. Layout of Test Sections
Texas SPS-1 (480100)

PRECONSTRUCTION MONITORING

The preconstruction meeting for this project was held Monday, 10 June 1996. At that time, it was noted that this project would be built in several phases, noting that due to traffic control requirements the project would be broken down into roughly 1½ mile increments, building the inside lane first, then switching traffic over and completing the outside lanes. Material sampling on the first 10 sections was initiated Friday, 13 December 1996. A local lab firm was hired by the Texas DOT to conduct the subgrade soil sampling (split-spoon sampling) and bulk samples were collected by representatives from the Texas DOT and the Southern Region Coordination Office (SRCO). Bulk sampling on the final 10 sections was conducted during the week of 10 March 1997. During these "subgrade sampling" operations, both the raw subgrade and the 12 inches of lime-treated subbase material were sampled.

It should be noted that contrary to the original assignment of this project to cell "W" for a fine-grained subgrade soil in the dry no-freeze environment, the subgrade sampling demonstrated a relatively coarse-grained material (silty sand to sand). With this information, it was acknowledged that the section in Texas should be representative of column "X" for the dry no-freeze coarse-grained subgrade soil. Fortunately, the test section that had been approved for column "X" was actually a fine-grained soil and hence the two projects traded places in the experimental design.

No additional preconstruction monitoring of note was conducted.

CONSTRUCTION

As with the preconstruction monitoring, all construction was also conducted in the two phases previously discussed. Construction of the first 10 sections was initiated in early December 1996 with the lime treatment of the subbase material. The crushed concrete base was placed on supplemental sections 480164 and 480165 on 19 December 1996, and the dense-graded aggregate base was placed on sections 480113, 480118, and 480117 on 20 December 1996. Placement of the asphalt treated base (ATB) was initiated for each of these sections while they completed placement of the edge drains associated with sections 480122, 480123, and 480124 (and the associated placement of the permeable asphalt treated base (PATB). Placement of the PATB was completed 27-28 December 1996 with the final layer of ATB being placed 30 December 1996. Finally, the type B binder mix was placed from 6 through 15 January 1997, at which time these sections were opened to traffic to begin the next phase of construction. Once all 20 sections were completed, the contractor intended to come back and put the surface mix over all 20 sections.

During the week of 10 March 1997, the lime treatment of the subbase for the second 10 sections was initiated in the outside lane. After completing the appropriate material sampling, rod and level surveys, and nuclear density measurements, placement of the dense-graded aggregate base (DGAB) was initiated. All DGAB was completed by 21 March 1997, as was the placement of the caliche base, lime-rock asphalt and crushed limestone base material on the state's various supplemental test sections. Edge drain installations were accomplished during the week of 20 March 1997, followed by the placement of the PATB. Placement of the type B binder course was completed by the end of the following week (4 April 1997). Placement of the surface course

was initiated 14 April 1997 and the final surface elevations for all but the last four test sections were collected 23-24 April 1997.

The weather station was installed 26 August 1997. At this same time, elevations, initial transverse profiles (for rut characterization), and postconstruction coring were completed.

No other extraordinary events or difficulties were observed during construction of this SPS-1 project. Details regarding the layer profiles are provided in appendix B. For additional details regarding the construction of this project, please refer to the construction data forms provided in appendix D.

POSTCONSTRUCTION MONITORING

Upon completion of construction of the SPS-1 project, monitoring of the pavement performance was initiated. This involves manual surveys, FWD testing, and profilometer testing. LTPP directives indicate that the manual surveys and profilometer testing need to be performed biennially. FWD testing is to be performed annually. The first set of monitoring is scheduled to be completed by the end of September 1997. Manual surveys were completed 26 August 1997. Profilometer testing was completed the week of 1 September, and FWD testing is planned for late September 1997.

Material Sampling and Testing

Postconstruction coring was completed the last week of August 1997. As previously noted, specific samples and corresponding tests to be performed are designated in the Material Sampling and Testing Plan included in appendix C.

SUMMARY

Having completed the observations of the construction for this SPS-1 project, located on US-281, north of McAllen, Texas, it appears that this project will contribute significantly to the LTPP objectives by providing valuable information about the structural factors affecting flexible pavements. The efforts of the Texas DOT, and their willingness to participate in this study, are greatly appreciated. Special thanks goes to John De La Garza, Raul Palma, Tranquilino Pena, Albert Quintanilla, and Amadeo Saenz, Jr.

Monitoring is underway and we will continue noting changes in the surface distress, surface profile, and structural capacity, and compare the data with other projects of this nature around the country in an attempt to improve existing structural design methods.

APPENDIX A

PROJECT NOMINATION FORMS AND OTHER CORRESPONDENCE

Brent Rauhut Engineering Inc.

2 May 1995

Mr. Robert Flores
District LTPP Coordinator
Texas DOT - Pharr District
P.O. Drawer EE
Pharr, Texas 78577-1231

Subject: Approval of SPS-1 and 2 Nominations

Dear Robert,

Attached is the approval of the subject test sections for US-281 in Brooks County. The test sections have tentatively been assigned to the test sections series associated with fine-grained soils. At your convenience, we can plan a half-day to go out and lay out these projects and conduct some verification drilling (to establish the actual subgrade soil conditions present).

I am looking forward to working with you on these projects. Please let me know when it would be convenient to get together to discuss them further. Until then, take care.

Sincerely,

Jerry F. Daleiden, P.E.
Project Engineer, SRCO

JFD:dmj

Attachment: As stated.

c.w/Att: Gary Graham, TX-DOT/D8P
John Nichols, FHWA-TX Div.
Morris Reinhardt, RE-SRCO
Brent Rauhut, SRCO/File

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dj

RECEIVED APR 2 8 1995

NAME	INFO	ACTN	COPY
BR	✓		
MG	✓		
MR	✓		✓
JD	✓		✓
File:			

From: Monte Symons (MSYMONS)
To: MREINHARDT
Date: Friday, April 28, 1995 9:22 am
Subject: TX SPS-1 and 2 Nominations

Morris,

This e-mail is to let you know that we have received and reviewed the nominations from Texas for SPS-1 and SPS-2 on US-281. These section are accepted into the LTPP SPS experiments. I have tentative assigned them to the "W" test section series in the no freeze, dry with fine grain soils.

Brent Rauhut Engineering Inc.

3 April 1995

Mr. Monte Symons
Pavement Performance Division - LTPP (HNR-40)
Federal Highway Administration
Turner-Fairbanks Highway Research Center
6300 Georgetown Pike, Room F-215
McLean, Virginia 22101

Subject: Texas SPS-1 and SPS-2 Nominations

Dear Monte,

Enclosed are the nomination forms for the SPS-1 and SPS-2 projects to be co-located on US-281, north of McAllen, Texas, as we had previously discussed. In anticipation of this nomination, we have reviewed the proposed location with Texas DOT personnel from the area and believe that the nominated projects would be ideal for these SPS-1 and SPS-2 projects. There is little if any change in grade, traffic and other similar criteria. We have not yet conducted any drilling to verify the prevalent subgrade type in this area; however, our records indicate that we are still in need of both fine and coarse-grained sections for the SPS-1 and SPS-2 experiments in the dry no-freeze environmental zone.

Subsequent to your approval of these projects, we will work with the Texas DOT to verify the subgrade materials along these projects. If there is any additional information you require, please let us know.

I appreciate the opportunity to provide this information to you. If you have any questions or comments, please do not hesitate to contact me. Thank you for your consideration in this matter.

Sincerely,

Jerry F. Daleiden, P.E.
Project Engineer, SRCO

JFD:dmj

Enclosure: As stated.

c.w/Enc: Gonzalo Rada, PCS/LAW
Robert Flores, TX-DOT/Pharr Dist.
Morris Reinhardt, RE-SRCO
Gary Graham, TX-DOT/D8P
John E. Nichols, FHWA/TX Div.
Brent Rauhut, SRCO

8240 Mopac, Suite 220 • Austin, Texas 78759 • (512) 346-0870 • FAX (512) 346-8750

dj

MEMORANDUM

TO: Brent Rauhaut Engr.
Attn: Jerry Daleiden, P.E.

March 31, 1995

NAME	INFO	ACTN	COPY
DR			
MG			
MR			
JD		✓	
File:			

FROM: Amadeo Saenz, Jr. P.E.
Pharr District Engineer

SUBJECT: Proposed SHRP sites on US 281 in Hidalgo County

Enclosed you will find the neccessary forms needed to submit the above mentioned project into the SHRP testing program.

This district currently has two sites in operation, 1 in Kenedy and 1 in Cameron Counties both of which are on US 77. Since this sites are more towards the eastern part of the district we feel the need for additional sites located more towards the central part of the District which is growing at a rapid rate.

Your review of the enclosed materials will be greatly appreciated and look forward to a favorable review. If you have any questions please call me at 210-702-6101 or you can contact Mr. Robert Flores Jr. at 210-702-6218.

Thank You

Amadeo Saenz Jr. P.E.
Pharr District Engr.

cc: file
John de la Garza
Gustavo Lopez

SHEET A. SPS-1 CANDIDATE PROJECT NOMINATION AND INFORMATION FORM

STATE Texas SHRP SECTION NO 4801

GENERAL PROJECT INFORMATION

PROJECT LOCATION

ROUTE NUMBER 281

ROUTE SIGNING [ ] Interstate, [X] U.S. [ ] State [ ] County

Other _____

PROJECT LOCATION Start Milepost 744+00 End Milepost 760+0.5

Start Station _____ End Station _____

DIRECTION OF TRAVEL [ ] North B. [X] South B. [ ] West B. [ ] East B.

PROJECT LOCATION DESCRIPTION Approx 4 mi south of Brooks/Hidalgo County line for a distance of Approx 4.5 miles

COUNTY Hidalgo ~~Brooks~~

HIGHWAY AGENCY DISTRICT NUMBER Harr

SHRP ENVIRONMENTAL ZONE

[ ] WET FREEZE [ ] WET NO-FREEZE [ ] DRY FREEZE [X] DRY NO-FREEZE

SIGNIFICANT DATES

LATEST DATE OF APPROVAL NOTIFICATION FROM SHRP	
CONTRACT LETTING DATE	FY 96
ESTIMATED CONSTRUCTION START DATE	FY 96
ESTIMATED DATE TEST SECTIONS OPENED TO TRAFFIC	FY 96
ESTIMATED CONSTRUCTION COMPLETION DATE	FY 96

PROJECT DESCRIPTION

PROJECT TYPE [ ] New Route [X] Removal and Reconstruction [ ] Parallel Roadway

Other _____

FACILITY [X] Dividad [ ] Undividad NUMBER OF LANES (One Way) 2

DESIGN TRAFFIC DATA

ANNUAL AVERAGE DAILY TRAFFIC (TWO DIRECTIONS)	10,190
% HEAVY TRUCKS AND COMBINATIONS (OF AADT)	32.8
ESTIMATED 18K ESAL RATE IN STUDY LANE (1,000 ESAL/YR)	10.0
TOTAL DESIGN 18K ESAL APPLICATIONS IN DESIGN LANE	10.0
DESIGN PERIOD (Years)	20

SHEET B. SPS-1 CANDIDATE PROJECT NOMINATION AND INFORMATION FORM

STATE Texas SHRP SECTION NO 4801

AGENCY'S PAVEMENT STRUCTURE DESIGN FOR SITE

LAYER[1] NO.	LAYER[2] DESCRIPTION CODE	MATERIAL TYPE[3] CLASS CODE	THICKNESS[4] (INCHES)	STRUCTURAL[5] COEFFICIENT
1	SUBGRADE (7)	55		
2	06	42	12.0	0.__
3	05	41	12.0	0.__
4	04	28	4.0	0.__
5	03	28	2.0	0.__
6				0.__
7				0.__
8				0.__
9				0.__

STRUCTURAL DESIGN METHOD [ ] 1972 AASHTO [ ] 1986 AASHTO [ ] Modified AASHTO

Other _____

AASHTO DESIGN RELIABILITY FACTORS R% _____ S_o _____

OUTSIDE SHOULDER TYPE

[✓] Turf [ ] Granular [ ] Asphalt Concrete [ ] Surface Treatment

[ ] PCC [ ] Curb and Gutter Other _____

OUTSIDE SHOULDER WIDTH (Feet) 10'

SUBSURFACE EDGE DRAINS [ ] Yes [✓] No

NOTES

1. Layer 1 is the natural occurring subgrade soil. The pavement surface will have the largest assigned layer number.

2. Layer description codes:

Surface Layer 03	Base Layer 05	Subgrade 07
Subsurface HMAC .. 04	Subbase Layer 06	Embankment (Fill) 11

3. Refer to Tables 1 through 4 for material class codes.

4. If subgrade depth to a rigid layer is known, enter this depth for subgrade thickness, otherwise leave subgrade layer thickness blank.

5. Enter AASHTO structural layer coefficient value, as appropriately modified, used in pavement design or typical coefficient used by agency for this material. For the subgrade, enter either AASHTO soil support value or resilient modulus value (psi) used in design.

SHEET C. SPS-1 CANDIDATE PROJECT NOMINATION AND INFORMATION FORM

STATE Texas SHRP SECTION NO 4801

TEST SECTION LAYOUT

NUMBER OF TEST SECTIONS ENTIRELY ON: FILL _____ CUT ✓

SHORTEST TRANSITION BETWEEN CONSECUTIVE TEST SECTIONS (Feet) 100

VERTICAL GRADE (Avg %) (+ upgrade; - downgrade) 0%

HORIZONTAL CURVATURE (Degrees) [✓] Tangent _____ *

COMMENTS ON DEVIATIONS FROM DESIRED SITE LOCATION CRITERIA _____

OTHER SHRP TEST SECTIONS

DOES AGENCY DESIGN CONFORM TO GPS-1 OR GPS-2 PROJECT CRITERIA? [X] YES [ ] NO

DISTANCE TO NEAREST GPS TEST SECTION ON SAME ROUTE (Miles) NO OTHER SECTIONS CURRENTLY ON US 281

TEST SECTION NUMBER OF NEAREST GPS SECTION 483729

SUPPLEMENTAL TEST SECTIONS

IF SUPPLEMENTAL EXPERIMENTAL TEST SECTIONS ARE PROPOSED, COMPLETE THE FOLLOWING

TOTAL NUMBER OF SUPPLEMENTAL TEST SECTIONS _____

FACTORS TO BE INVESTIGATED _____

SHEET A. SPS-2 CANDIDATE PROJECT NOMINATION AND INFORMATION FORM

STATE Texas SHRP SECTION NO 4802

GENERAL PROJECT INFORMATION

PROJECT LOCATION

ROUTE NUMBER 281

ROUTE SIGNING [ ] Interstate [X] U.S. [ ] State [ ] County

Other _____

PROJECT LOCATION Start Milepost 746+00 End Milepost 760+015

Start Station _____ End Station _____

DIRECTION OF TRAVEL [ ] North B. [X] South B. [ ] West B. [ ] East B.

PROJECT LOCATION DESCRIPTION Approx 4 mi S. of Brooks/Hidalgo County line for a distance of Approx. 4.5 mi.

COUNTY Hidalgo ~~Brooks~~

HIGHWAY AGENCY DISTRICT NUMBER 21

SHRP ENVIRONMENTAL ZONE

[ ] WET FREEZE [ ] WET NO-FREEZE [ ] DRY FREEZE [X] DRY NO-FREEZE

SIGNIFICANT DATES

LATEST DATE OF APPROVAL NOTIFICATION FROM SHRP	
CONTRACT LETTING DATE	FY 96
ESTIMATED CONSTRUCTION START DATE	FY 96
ESTIMATED DATE TEST SECTIONS OPENED TO TRAFFIC	FY 96
ESTIMATED CONSTRUCTION COMPLETION DATE	FY 96

PROJECT DESCRIPTION

PROJECT TYPE [ ] New Route [X] Removal and Reconstruction [ ] Parallel Roadway

Other _____

FACILITY [X] Divided [ ] Undivided NUMBER OF LANES (One Way) 2

DESIGN TRAFFIC DATA

ANNUAL AVERAGE DAILY TRAFFIC (Two Directions)	10180
% HEAVY TRUCKS AND COMBINATIONS (Of AADT)	32.4
ESTIMATED 18K ESAL RATE IN STUDY LANE (1,000 ESAL/YR)	10.0
TOTAL DESIGN 18K ESAL APPLICATIONS IN DESIGN LANE	10.0
DESIGN PERIOD (Years)	20

SHEET B. SPS-2 CANDIDATE PROJECT NOMINATION AND INFORMATION FORM

STATE TEXAS SHRP SECTION NO 480Z

TEST SECTION LAYOUT

SUBGRADE CLASSIFICATION (use Table 4 word descriptions) _____

NUMBER OF TEST SECTIONS ENTIRELY ON: FILL ✓ CUT _____

SHORTEST TRANSITION BETWEEN CONSECUTIVE TEST SECTIONS (Feet) 100'

VERTICAL GRADE (Avg %) (+ upgrade; - downgrade) 0%

HORIZONTAL CURVATURE (Degrees) [ ] Tangent 0% °

COMMENTS ON DEVIATIONS FROM DESIRED SITE LOCATION CRITERIA _____

OTHER SHRP TEST SECTIONS

DOES AGENCY DESIGN CONFORM TO GPS-1, 2, 3, 4, OR 5 CRITERIA? [X] YES [ ] NO

DISTANCE TO NEAREST GPS TEST SECTION ON SAME ROUTE (Miles) NO OTHER SECTIONS ON US 281

TEST SECTION NUMBER OF NEAREST GPS SECTION 483729

SPS-2 SUPPLEMENTARY EXPERIMENTS

INTENT TO BUILT SPS-2 SUPPLEMENTARY EXPERIMENTS

SPS-2A: UNDOWELED JPCP [ ] YES [✓] NO

SPS-3B: JRCP [ ] YES [✓] NO

OTHER SUPPLEMENTAL TEST SECTIONS

IF SUPPLEMENTAL EXPERIMENTAL TEST SECTIONS ARE PROPOSED, COMPLETE THE FOLLOWING

TOTAL NUMBER OF SUPPLEMENTAL TEST SECTIONS _____

FACTORS TO BE INVESTIGATED _____

SHEET C. SPS-2 CANDIDATE PROJECT NOMINATION AND INFORMATION FORM

STATE Texas SHRP SECTION NO 4802

AGENCY'S RIGID PAVEMENT STRUCTURE DESIGN FOR PROJECT

LAYER[1] NO.	LAYER[2] DESCRIPTION CODE	MATERIAL TYPE[3] CLASS CODE	THICKNESS[4] (INCHES)
1	SUBGRADE (7)	25	120
2	05	41	8.0
3	03	04	10.0
4			
5			
6			
7			
8			

STRUCTURAL DESIGN METHOD [] 1972 AASHTO [] 1986 AASHTO [] Modified AASHTO

Other _____

PAVEMENT TYPE [] Jointed Plain [] Jointed Reinforced [✓] Continuously Reinforced

JOINTED PAVEMENT JOINTS [] Perpendicular [] Skewed

[] Doweled [] Undoweled

Joint Spacing _____ feet

DESIGN k VALUE (as modified) _____ pci SUBGRADE k VALUE _____ pci

AASHTO DESIGN RELIABILITY FACTORS R_s _____ S_o _____

OUTSIDE SHOULDER TYPE

[] Turf [] Granular [] Asphalt Concrete [] Surface Treatment

[✓] PCC [] Tied PCC [] Curb and Gutter Other _____

OUTSIDE SHOULDER WIDTH (Feet) 10

SUBSURFACE EDGE DRAINS [] Yes [✓] No

NOTES

1. Layer 1 is the natural occurring subgrade soil. The pavement surface will have the largest assigned layer number.

2. Layer description codes:

Surface Layer 03	Base Layer 05	Subgrade 07
Subsurface HMAC .. 04	Subbase Layer 06	Embankment (Fill) 11

3. Refer to Tables 2 through 5 for material class codes.

4. If subgrade depth to a rigid layer is known, enter this depth for subgrade thickness, otherwise leave subgrade layer thickness blank.

SHEET D. SPS-2 CANDIDATE PROJECT NOMINATION AND INFORMATION FORM

STATE TEXAS SHRP SECTION NO 4807

AGENCY'S FLEXIBLE PAVEMENT STRUCTURE DESIGN FOR PROJECT

LAYER[1] NO.	LAYER[2] DESCRIPTION CODE	MATERIAL TYPE[3] CLASS CODE	THICKNESS[4] (INCHES)	STRUCTURAL[5] COEFFICIENT
1.	SUBGRADE (7)	___ ___	___ ___ ___	_____
2	___ ___	___ ___	___ ___.___	0.___ ___
3	___ ___	___ ___	___ ___.___	0.___ ___
4	___ ___	___ ___	___ ___.___	0.___ ___
5	___ ___	___ ___	___ ___.___	0.___ ___
6	___ ___	___ ___	___ ___.___	0.___ ___
7	___ ___	___ ___	___ ___.___	0.___ ___
8	___ ___	___ ___	___ ___.___	0.___ ___
9	___ ___	___ ___	___ ___.___	0.___ ___

STRUCTURAL DESIGN METHOD [] 1972 AASHTO [] 1986 AASHTO [] Modified AASHTO

Other _____

AASHTO DESIGN RELIABILITY FACTORS R% _____ S_o _____

OUTSIDE SHOULDER TYPE

[] Turf. [] Granular [] Asphalt Concrete [] Surface Treatment

[] PCC [] Curb and Gutter Other _____

OUTSIDE SHOULDER WIDTH (Feet) _____

SUBSURFACE EDGE DRAINS [] Yes [] No

NOTES

1. Layer 1 is the natural occurring subgrade soil. The pavement surface will have the largest assigned layer number.

2. Layer description codes:

Surface Layer 03	Base Layer 05	Subgrade 07
Subsurface HMAC .. 04	Subbase Layer 06	Embankment (Fill) 11

3. Refer to Tables 2 through 5 for material class codes.

4. If subgrade depth to a rigid layer is known, enter this depth for subgrade thickness, otherwise leave subgrade layer thickness blank.

5. Enter AASHTO structural layer coefficient value, as appropriately modified, used in pavement design or typical coefficient used by agency for this material. For the subgrade, enter either AASHTO soil support value or resilient modulus value (psi) used in design.

APPENDIX B

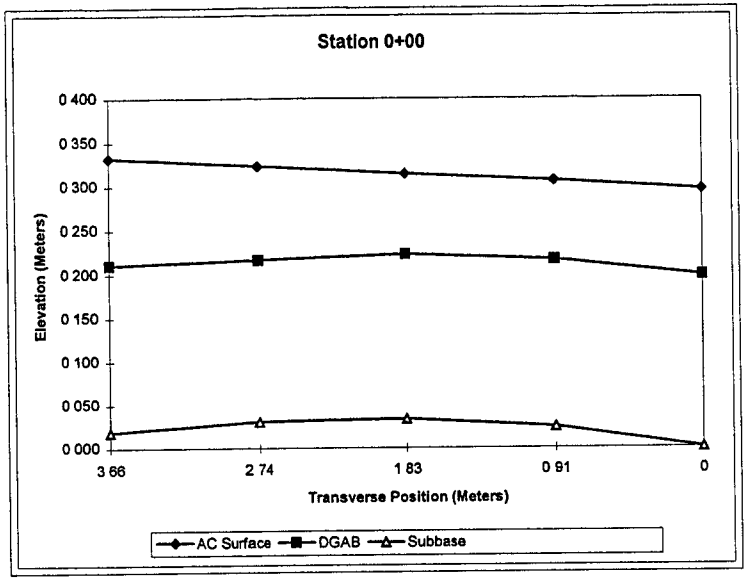
LAYER PROFILE RESULTS

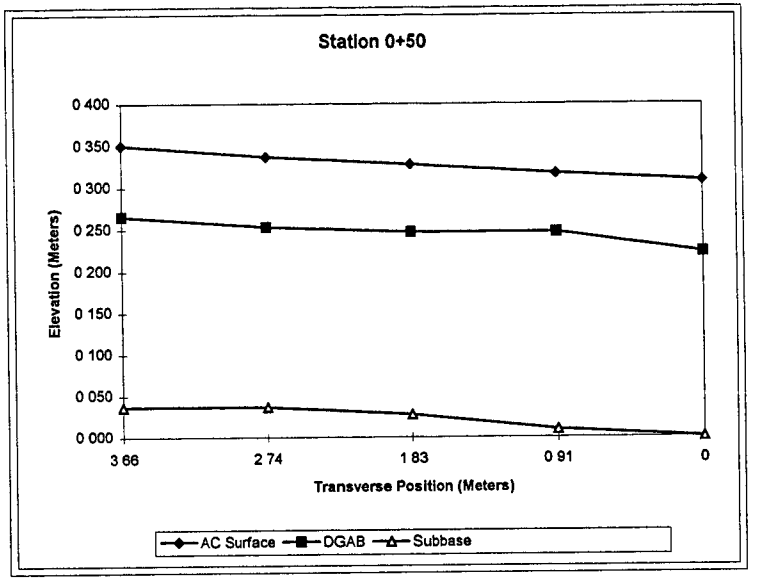
Texas SPS-1 (480113)

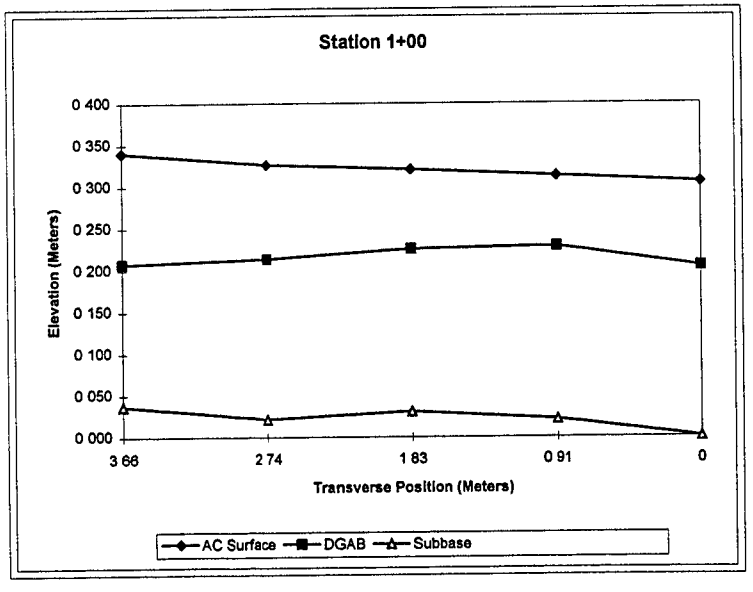
Transverse Offset	3 LAYERS	ELEVATION 0 Meters	AC Surface THICKNESS Meters	DGAB THICKNESS Meters	ELEVATION 0 91 Meters	AC Surface THICKNESS Meters	DGAB THICKNESS Meters	ELEVATION 1 83 Meters	AC Surface THICKNESS Meters	DGAB THICKNESS Meters	ELEVATION 2 74 Meters	AC Surface THICKNESS Meters	DGAB THICKNESS Meters	ELEVATION 3 66 Meters	AC Surface THICKNESS Meters	DGAB THICKNESS Meters
0+00	C Surface	1 155	0 098	0 198	1 166	0 090	0 192	1 173	0 091	0 189	1 183	0 107	0 186	1 192	0 122	0 192
	DGAB	1 058			1 076			1 082			1 076			1 070		
	Subbase	0 860			0 884			0 893			0 890			0 878		
0+50	C Surface	1 189	0 085	0 223	1 198	0 070	0 238	1 209	0 081	0 219	1 218	0 084	0 216	1 231	0 085	0 229
	DGAB	1 103			1 128			1 128			1 134			1 146		
	Subbase	0 881			0 890			0 908			0 917			0 917		
1+00	C Surface	1 204	0 101	0 204	1 212	0 084	0 207	1 219	0 094	0 195	1 225	0 113	0 192	1 239	0 133	0 171
	DGAB	1 103			1 128			1 125			1 113			1 106		
	Subbase	0 899			0 920			0 930			0 920			0 936		
1+50	C Surface	1 233	0 096	0 195	1 247	0 094	0 198	1 257	0 093	0 210	1 269	0 096	0 219	1 288	0 120	0 210
	DGAB	1 137			1 152			1 164			1 173			1 167		
	Subbase	0 942			0 954			0 954			0 954			0 957		
2+00	C Surface	1 271	0 091	0 226	1 280	0 088	0 229	1 291	0 096	0 219	1 300	0 108	0 207	1 320	0 119	0 189
	DGAB	1 180			1 192			1 195			1 192			1 201		
	Subbase	0 954			0 963			0 975			0 985			1 012		
2+50	C Surface	1 294	0 090	0 229	1 301	0 088	0 235	1 314	0 098	0 226	1 323	0 110	0 213	1 340	0 090	0 250
	DGAB	1 204			1 213			1 216			1 213			1 250		
	Subbase	0 975			0 978			0 991			1 000			1 000		
3+00	C Surface	1 308	0 094	0 195	1 320	0 104	0 189	1 327	0 096	0 201	1 332	0 107	0 201	1 347	0 113	0 174
	DGAB	1 213			1 216			1 231			1 225			1 234		
	Subbase	1 018			1 027			1 030			1 024			1 061		
3+50	C Surface	1 327	0 087	0 186	1 335	0 085	0 183	1 340	0 087	0 186	1 347	0 094	0 180	1 362	0 110	0 171
	DGAB	1 241			1 250			1 253			1 253			1 253		
	Subbase	1 055			1 067			1 067			1 073			1 082		
4+00	C Surface	1 332	0 067	0 216	1 338	0 070	0 207	1 344	0 070	0 198	1 355	0 084	0 201	1 378	0 101	0 195
	DGAB	1 265			1 268			1 274			1 271			1 277		
	Subbase	1 049			1 061			1 076			1 070			1 082		
4+50	C Surface	1 329	0 082	0 195	1 338	0 088	0 180	1 347	0 107	0 158	1 359	0 119	0 152	1 376	0 114	0 174
	DGAB	1 247			1 250			1 241			1 241			1 262		
	Subbase	1 052			1 070			1 082			1 088			1 088		
5+00	C Surface	1 301	0 085	0 174	1 312	0 081	0 183	1 321	0 090	0 183	1 332	0 110	0 165	1 344	0 119	0 174
	DGAB	1 216			1 231			1 231			1 222			1 225		
	Subbase	1 042			1 049			1 049			1 058			1 052		
	AVG	0 089	0 201		0 085	0 201		0 091	0 197		0 102	0 193		0 111	0 194	
	MAX	0 101	0 229		0 104	0 238		0.107	0 226		0 119	0 219		0 133	0 250	
	MIN	0 067	0 174		0 070	0 180		0 070	0 158		0 084	0 152		0 085	0 171	
	STD	0 009	0 016		0 010	0 020		0 009	0 018		0 011	0 021		0 014	0 026	

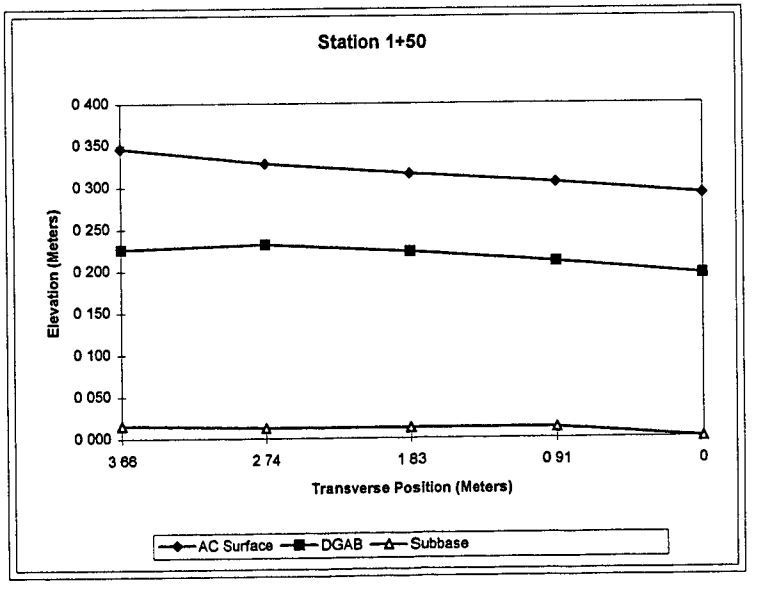
	AC Surfac	DGAB
SECTION AVG	0 096	0 199
SECTION MAX	0 133	0 250
SECTION MIN	0 067	0 152
SECTION STD	0 014	0 021

Texas SPS-1 (480113)

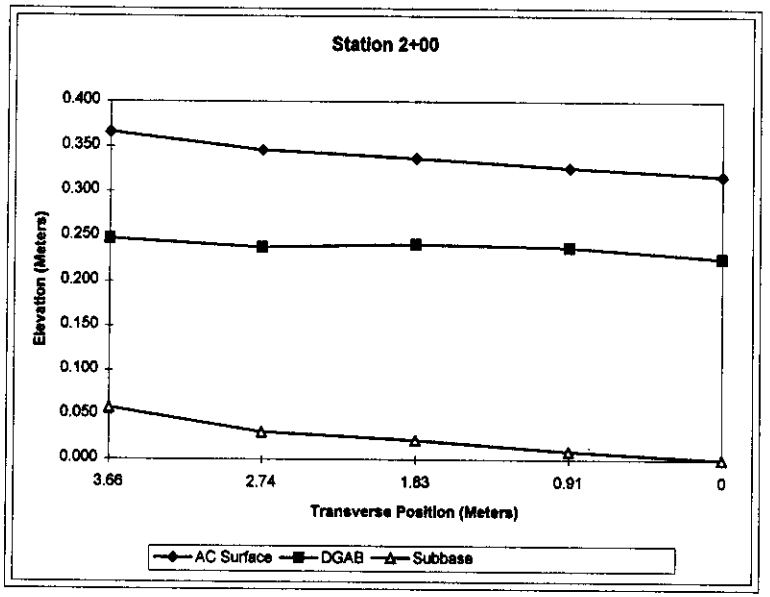


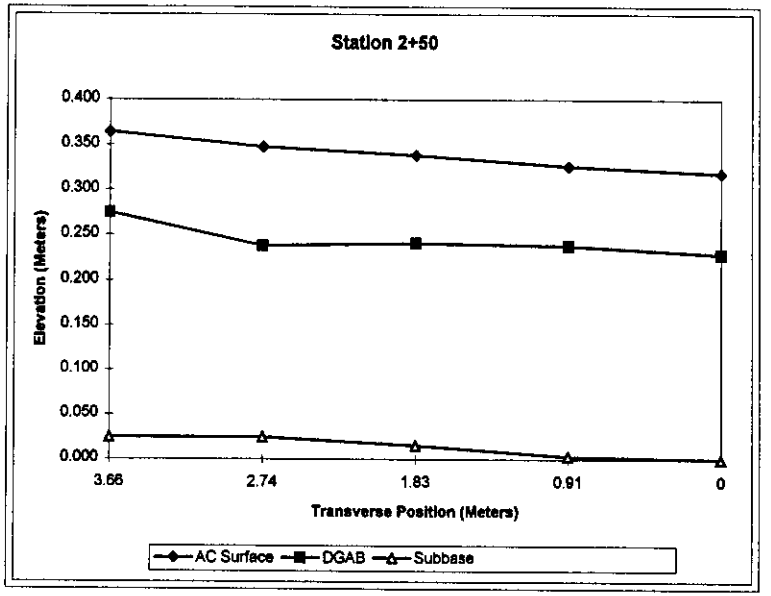


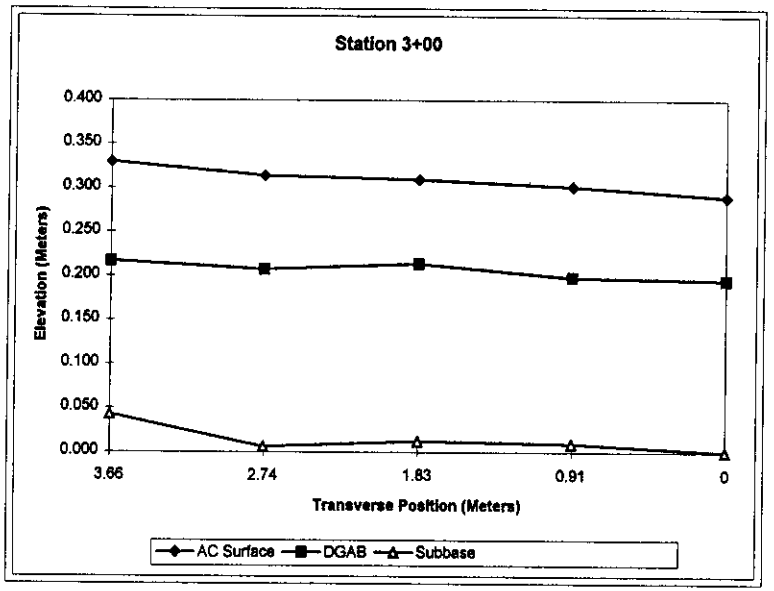


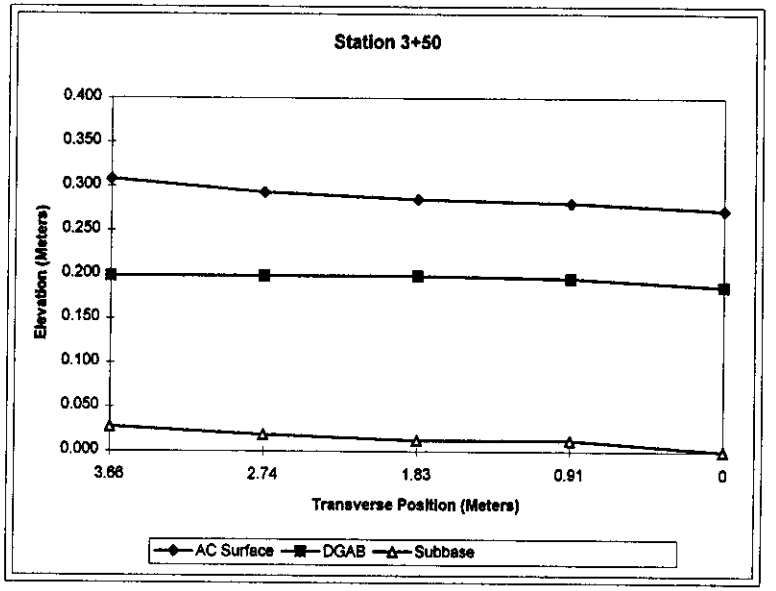


Texas SPS-1 (480113)









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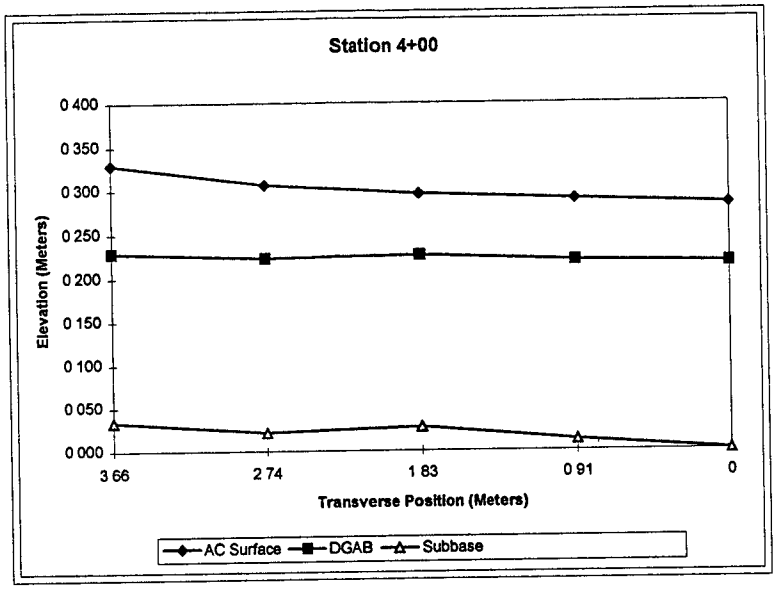
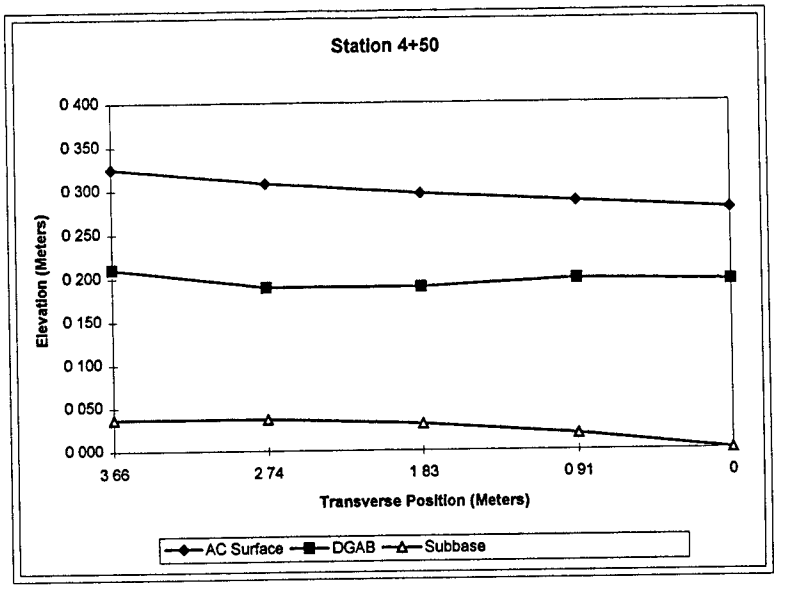
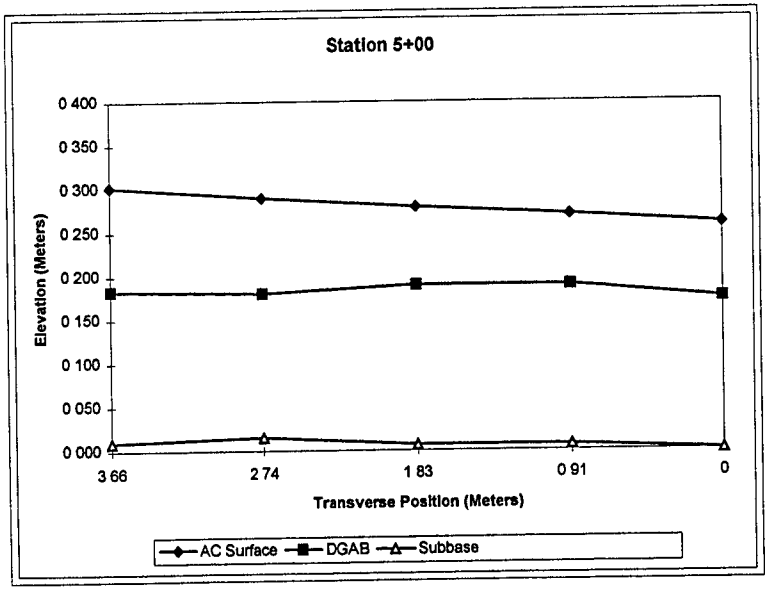




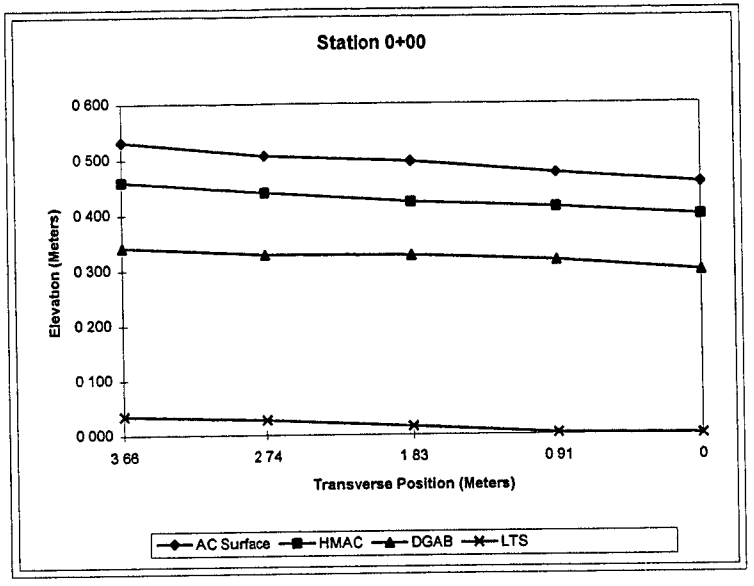


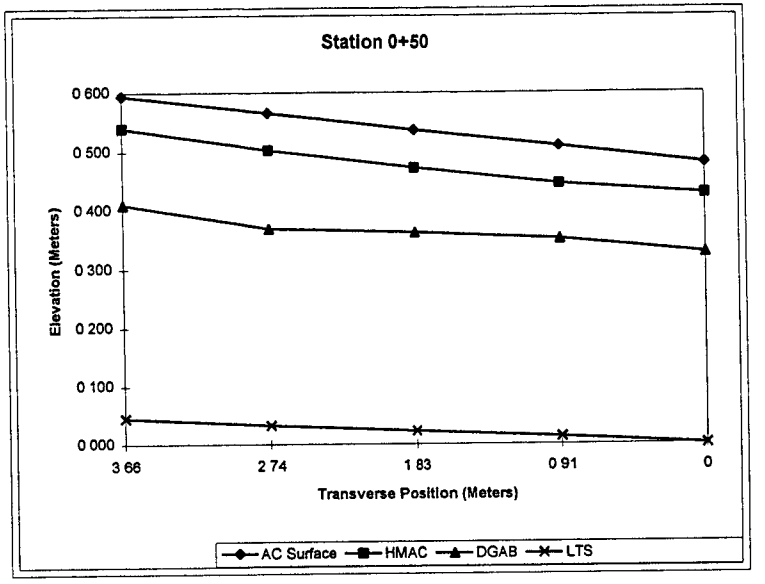
Texas SPS-1 (480114)

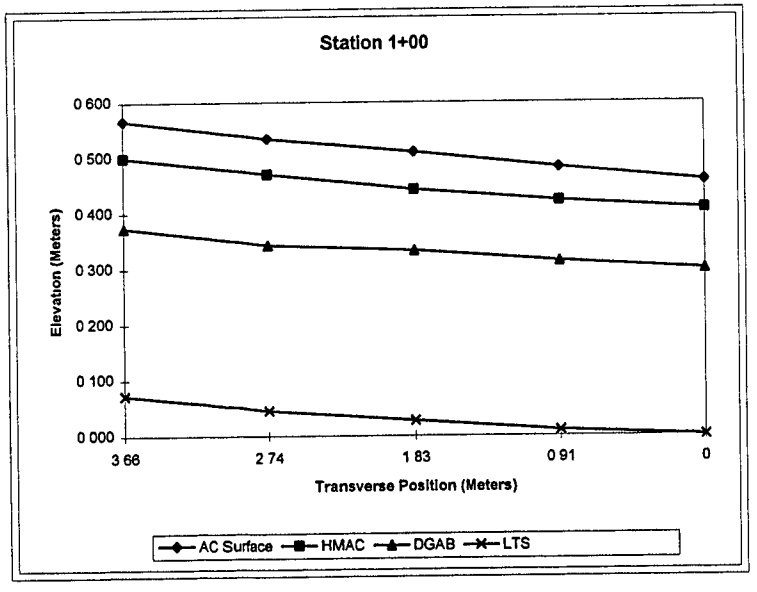
Transverse Offset	4 LAYERS	ELEVATION 0.0 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	DGAB THICKNESS Meters	ELEVATION 0.91 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	DGAB THICKNESS Meters	ELEVATION 1.83 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	DGAB THICKNESS Meters	ELEVATION 2.74 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	DGAB THICKNESS Meters	ELEVATION 3.66 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	DGAB THICKNESS Meters
0+00	C Surface	3 039	0 059	0 100	0 298	3 057	0 062	0 096	0 314	3 078	0 073	0 096	0 312	3 089	0 066	0 112	0 301	3 115	0 072	0 119	0 307
	HMAC	2 980				2 995				3 005				3 023				3 043			
	DGAB	2 880				2 899				2 909				2 911				2 924			
	LTS	2 583				2 585				2 598				2 610				2 618			
0+50	C Surface	3 040	0 053	0 101	0 327	3 069	0 064	0 094	0 339	3 096	0 064	0 111	0 340	3 125	0 063	0 134	0 337	3 154	0 054	0 130	0 365
	HMAC	2 988				3 005				3 033				3 063				3 100			
	DGAB	2 887				2 911				2 922				2 929				2 970			
	LTS	2 560				2 573				2 583				2 593				2 605			
1+00	C Surface	3 008	0 051	0 109	0 299	3 032	0 060	0 109	0 304	3 060	0 067	0 110	0 306	3 084	0 064	0 127	0 298	3 116	0 066	0 126	0 302
	HMAC	2 958				2 973				2 993				3 020				3 050			
	DGAB	2 849				2 864				2 883				2 893				2 924			
	LTS	2 550				2 560				2 578				2 595				2 623			
1+50	C Surface	2 971	0 054	0 119	0 299	2 997	0 062	0 119	0 286	3 023	0 068	0 123	0 285	3 045	0 065	0 137	0 278	3 072	0 059	0 148	0 278
	HMAC	2 918				2 935				2 955				2 980				3 013			
	DGAB	2 799				2 816				2 832				2 843				2 865			
	LTS	2 500				2 530				2 548				2 565				2 588			
2+00	C Surface	2 985	0 048	0 099	0 344	3 002	0 049	0 099	0 334	3 020	0 050	0 088	0 337	3 035	0 045	0 123	0 302	3 052	0 045	0 139	0 292
	HMAC	2 938				2 953				2 970				2 990				3 008			
	DGAB	2 839				2 854				2 882				2 867				2 869			
	LTS	2 495				2 520				2 545				2 565				2 578			
2+50	C Surface	2 971	0 051	0 100	0 318	2 990	0 052	0 102	0 306	3 008	0 055	0 104	0 302	3 023	0 053	0 117	0 278	3 045	0 057	0 115	0 298
	HMAC	2 920				2 938				2 953				2 970				2 988			
	DGAB	2 820				2 836				2 849				2 853				2 873			
	LTS	2 503				2 530				2 548				2 575				2 578			
3+00	C Surface	2 959	0 052	0 098	0 315	2 982	0 055	0 099	0 302	3 007	0 054	0 099	0 316	3 026	0 051	0 112	0 318	3 054	0 051	0 124	0 322
	HMAC	2 908				2 928				2 953				2 975				3 003			
	DGAB	2 810				2 829				2 853				2 863				2 879			
	LTS	2 495				2 528				2 538				2 545				2 558			
3+50	C Surface	2 941	0 048	0 104	0 319	2 965	0 053	0 110	0 321	2 990	0 055	0 106	0 327	3 011	0 051	0 121	0 324	3 035	0 048	0 129	0 327
	HMAC	2 893				2 913				2 935				2 960				2 988			
	DGAB	2 789				2 803				2 829				2 839				2 859			
	LTS	2 470				2 483				2 503				2 515				2 533			
4+00	C Surface	2 950	0 040	0 111	0 319	2 968	0 043	0 106	0 324	2 984	0 049	0 112	0 313	2 999	0 051	0 121	0 302	3 019	0 051	0 124	0 319
	HMAC	2 910				2 925				2 935				2 948				2 968			
	DGAB	2 799				2 819				2 823				2 827				2 844			
	LTS	2 480				2 495				2 510				2 525				2 525			
4+50	C Surface	2 987	0 037	0 109	0 324	2 999	0 039	0 101	0 317	3 016	0 043	0 099	0 324	3 028	0 043	0 112	0 311	3 045	0 045	0 127	0 301
	HMAC	2 950				2 960				2 973				2 985				3 000			
	DGAB	2 841				2 859				2 874				2 873				2 873			
	LTS	2 518				2 543				2 550				2 563				2 573			
5+00	C Surface	3 003	0 038	0 106	0 319	3 023	0 043	0 106	0 304	3 045	0 050	0 101	0 317	3 060	0 045	0 121	0 312	3 089	0 054	0 123	0 337
	HMAC	2 965				2 980				2 995				3 015				3 035			
	DGAB	2 859				2 874				2 894				2 894				2 912			
	LTS	2 540				2 570				2 578				2 583				2 575			
	AVG		0 048	0 105	0 314		0 053	0 104	0 312		0 058	0 106	0 314		0 055	0 121	0 306		0 056	0 126	0 315
	MAX		0 059	0 119	0 327		0 064	0 119	0 339		0 073	0 123	0 340		0 066	0 137	0 337		0 072	0 148	0 365
	MIN		0 037	0 098	0 298		0 039	0 094	0 286		0 043	0 096	0 285		0 043	0 112	0 278		0 045	0 115	0 278
	STD		0 007	0 006	0 010		0 008	0 007	0 014		0 009	0 008	0 014		0 008	0 008	0 018		0 008	0 008	0 023

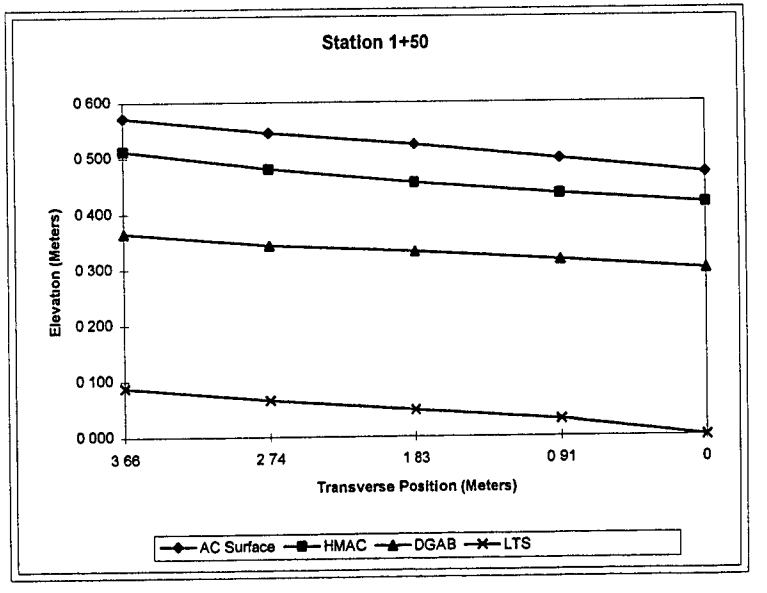
	AC Surfac	HMAC	DGAB
SECTION AVG	0 053	0 112	0 313
SECTION MAX	0 073	0 148	0 365
SECTION MIN	0 037	0 094	0 278
SECTION STD	0 009	0 013	0 017

Texas SPS-1 (480114)









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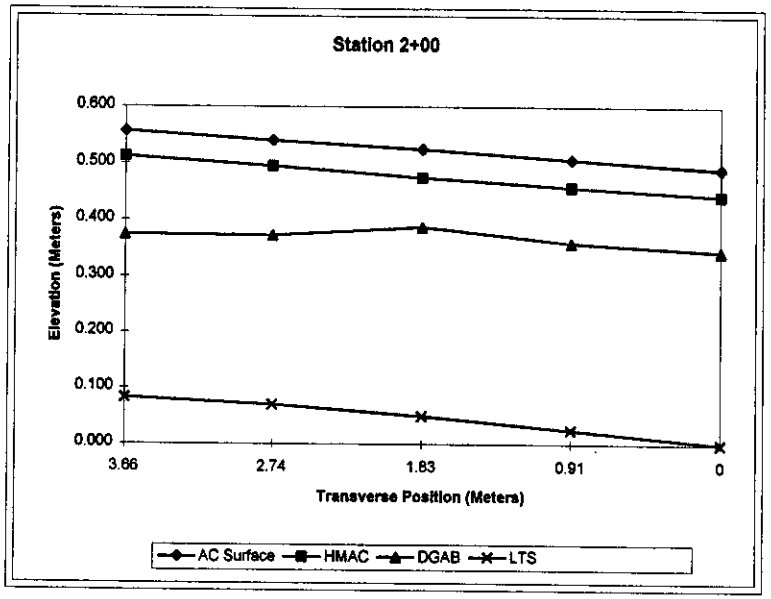

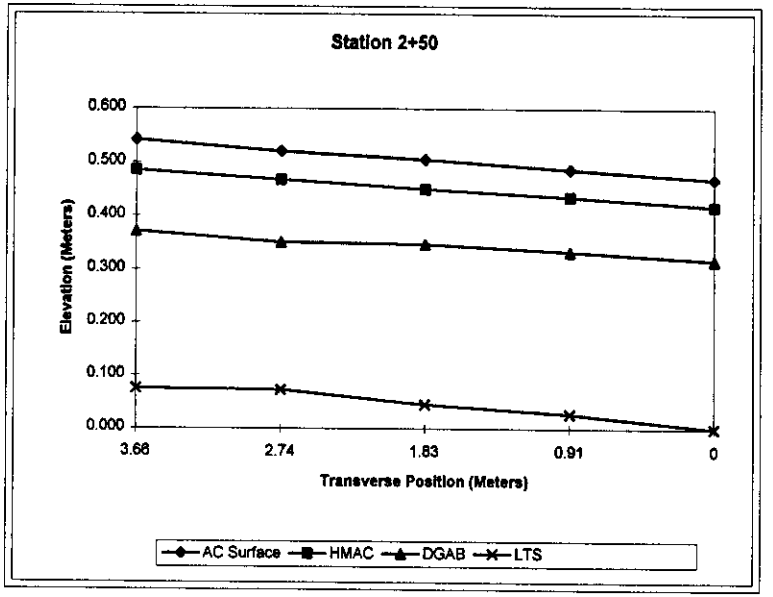

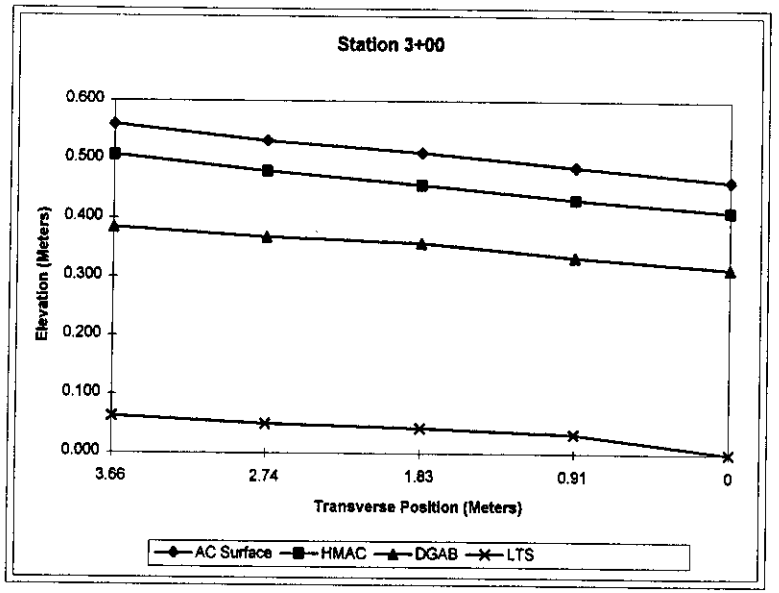

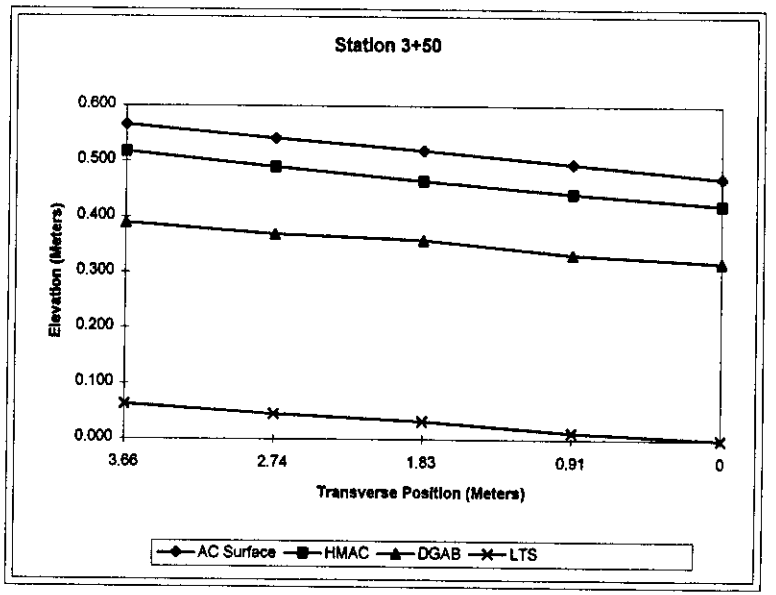

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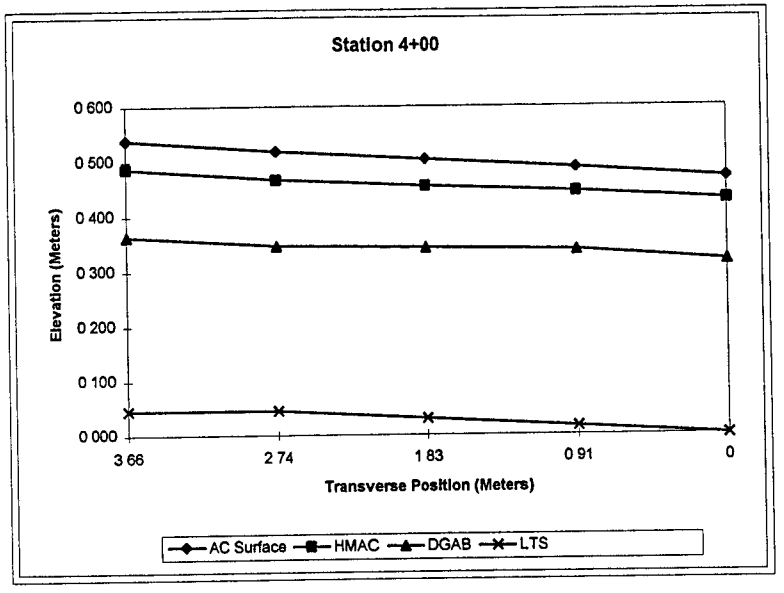
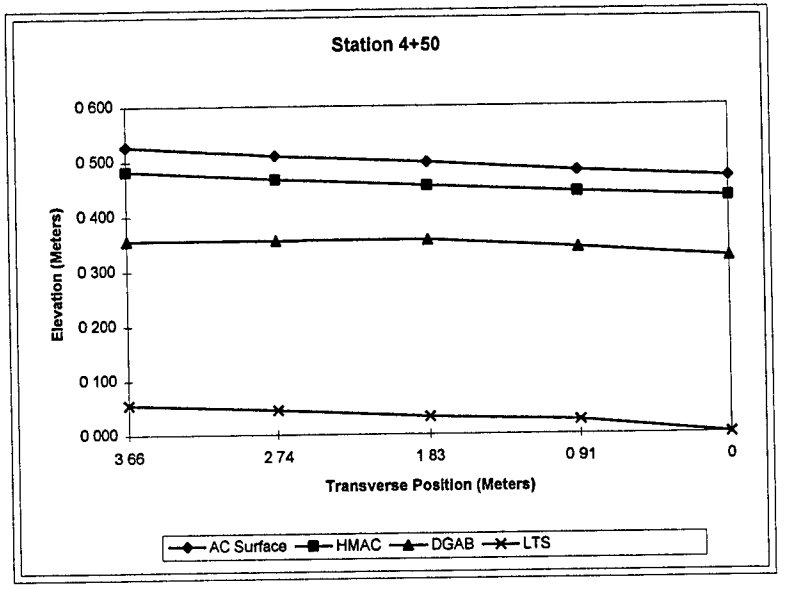
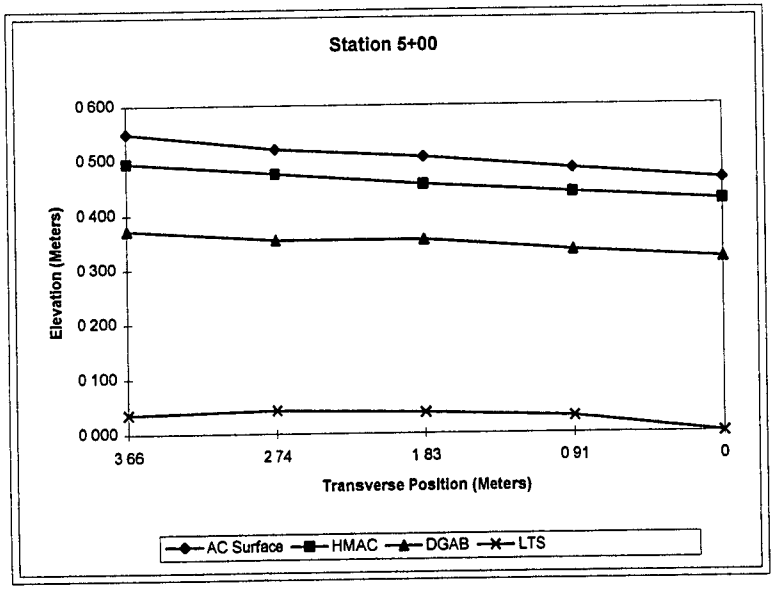




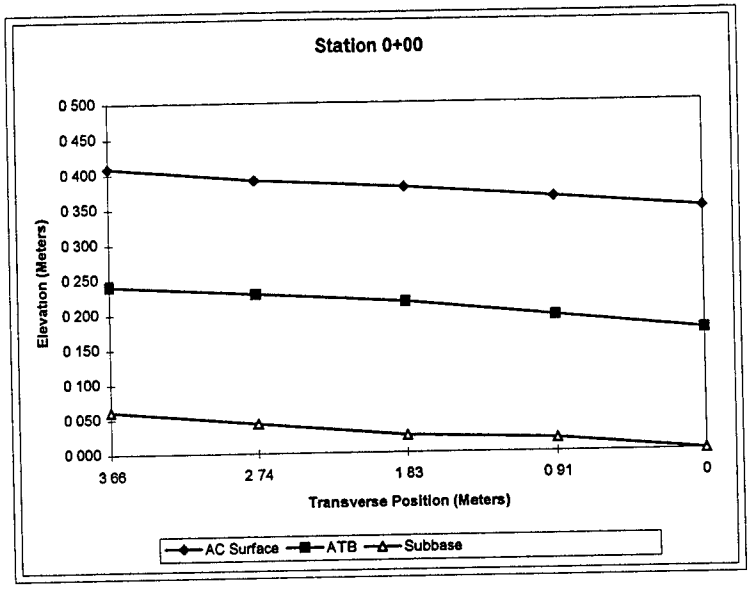


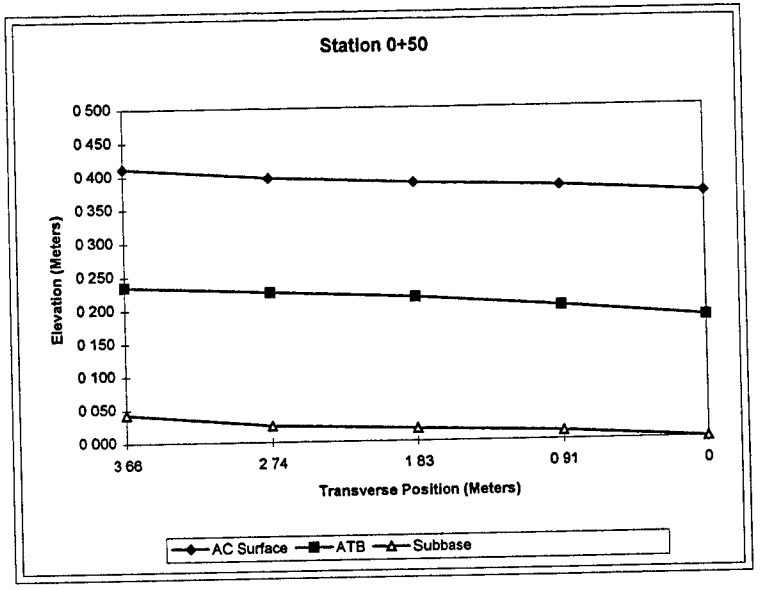
Texas SPS-1 (480115)

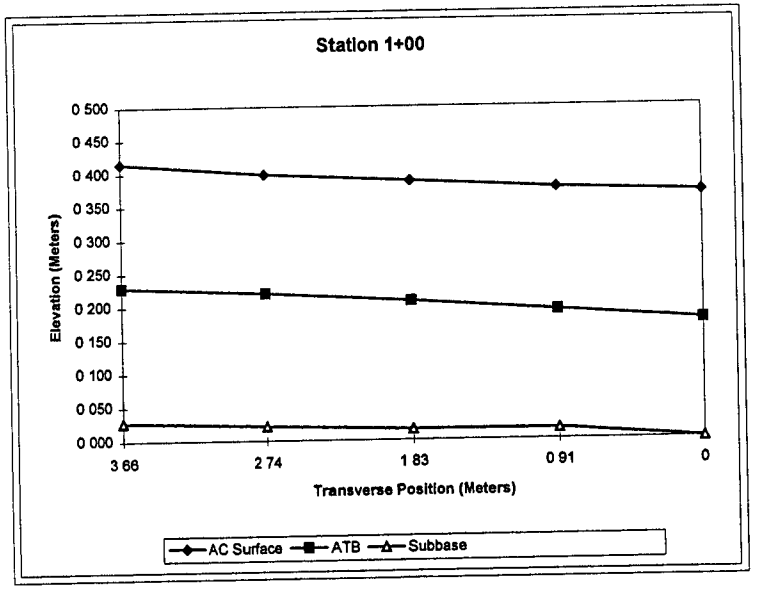
Transverse Offset	LAYERS	ELEVATION 0 Meters	AC Surface THICKNESS Meters	ATB THICKNESS Meters	ELEVATION 0.91 Meters	AC Surface THICKNESS Meters	ATB THICKNESS Meters	ELEVATION 1.83 Meters	AC Surface THICKNESS Meters	ATB THICKNESS Meters	ELEVATION 2.74 Meters	AC Surface THICKNESS Meters	ATB THICKNESS Meters	ELEVATION 3.66 Meters	AC Surface THICKNESS Meters	ATB THICKNESS Meters
0+00	C Surface	1 454	0 174	0 174	1 471	0 169	0 177	1 486	0 163	0 192	1 497	0 162	0 186	1 515	0 168	0 180
	ATB	1 280			1 301			1 323			1 335			1 347		
	Subbase	1 106			1 125			1 131			1 149			1 167		
0+50	C Surface	1 472	0 186	0 183	1 484	0 180	0 189	1 490	0 171	0 198	1 500	0 171	0 201	1 515	0 177	0 192
	ATB	1 286			1 305			1 320			1 329			1 338		
	Subbase	1 103			1 116			1 122			1 128			1 146		
1+00	C Surface	1 506	0 192	0 177	1 513	0 184	0 177	1 524	0 180	0 192	1 535	0 178	0 198	1 551	0 186	0 201
	ATB	1 314			1 329			1 344			1 356			1 366		
	Subbase	1 137			1 152			1 152			1 158			1 164		
1+50	C Surface	1 532	0 184	0 177	1 539	0 165	0 189	1 548	0 152	0 201	1 553	0 142	0 207	1 564	0 146	0 210
	ATB	1 347			1 375			1 396			1 411			1 417		
	Subbase	1 170			1 186			1 195			1 204			1 207		
2+00	C Surface	1 554	0 198	0 192	1 570	0 186	0 198	1 588	0 177	0 213	1 603	0 165	0 232	1 622	0 158	0 247
	ATB	1 356			1 384			1 411			1 439			1 463		
	Subbase	1 164			1 186			1 198			1 207			1 216		
2+50	C Surface	1 561	0 201	0 183	1 582	0 192	0 201	1 602	0 187	0 219	1 620	0 187	0 238	1 646	0 198	0 244
	ATB	1 359			1 390			1 414			1 433			1 448		
	Subbase	1 177			1 189			1 195			1 195			1 204		
3+00	C Surface	1 574	0 194	0 177	1 591	0 186	0 180	1 609	0 183	0 198	1 623	0 178	0 207	1 644	0 184	0 201
	ATB	1 381			1 405			1 426			1 445			1 460		
	Subbase	1 204			1 225			1 228			1 237			1 259		
3+50	C Surface	1 591	0 201	0 183	1 606	0 189	0 195	1 625	0 186	0 207	1 641	0 187	0 223	1 664	0 189	0 247
	ATB	1 390			1 417			1 439			1 454			1 475		
	Subbase	1 207			1 222			1 231			1 231			1 228		
4+00	C Surface	1 609	0 204	0 183	1 628	0 195	0 198	1 643	0 186	0 195	1 658	0 186	0 210	1 681	0 191	0 226
	ATB	1 405			1 433			1 457			1 472			1 490		
	Subbase	1 222			1 234			1 262			1 262			1 265		
4+50	C Surface	1 634	0 198	0 192	1 646	0 189	0 198	1 658	0 183	0 207	1 670	0 177	0 226	1 689	0 180	0 229
	ATB	1 436			1 457			1 475			1 494			1 509		
	Subbase	1 244			1 259			1 268			1 268			1 280		
5+00	C Surface	1 658	0 201	0 186	1 670	0 189	0 195	1 682	0 177	0 213	1 698	0 174	0 219	1 722	0 186	0 210
	ATB	1 457			1 481			1 506			1 524			1 536		
	Subbase	1 271			1 286			1 292			1 305			1 326		
	AVG	0 194	0 181		0 184	0 190		0 177	0 202		0 174	0 212		0 180	0 214	
	MAX	0 204	0 192		0 195	0 201		0 187	0 219		0.187	0.238		0 198	0 247	
	MIN	0 174	0 174		0 165	0 177		0 152	0 192		0.142	0 186		0 146	0 180	
	STD	0 009	0 005		0 009	0 009		0 011	0 009		0 013	0 014		0 014	0 021	

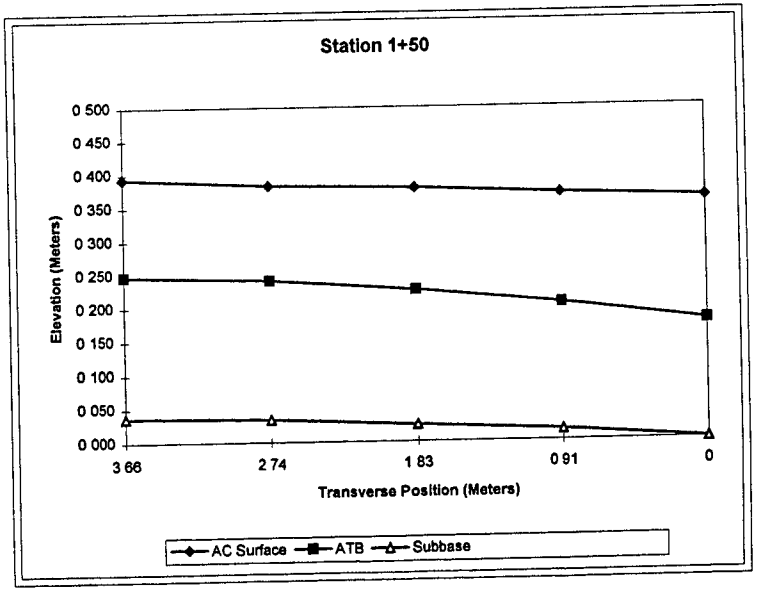
	AC Surfac	ATB
SECTION AVG	0 181	0 201
SECTION MAX	0 204	0 247
SECTION MIN	0 142	0 174
SECTION STD	0 013	0 019

Texas SPS-1 (480115)

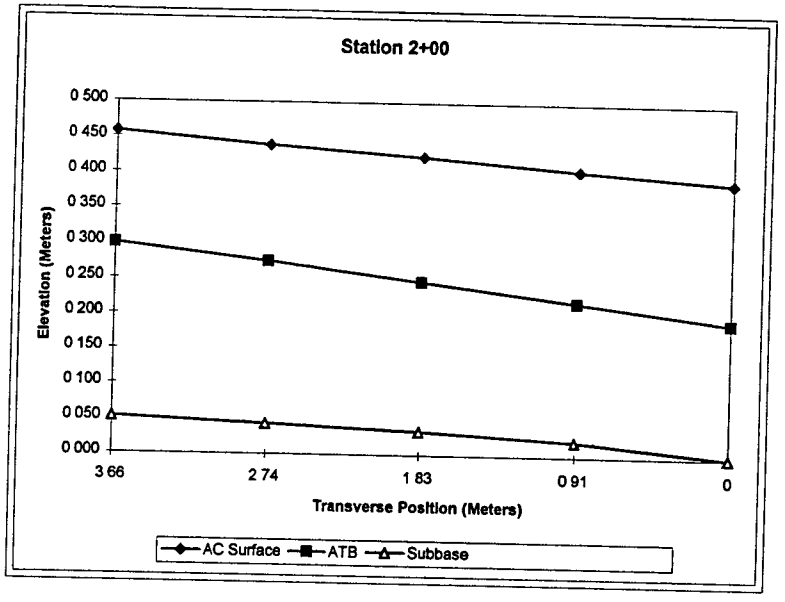


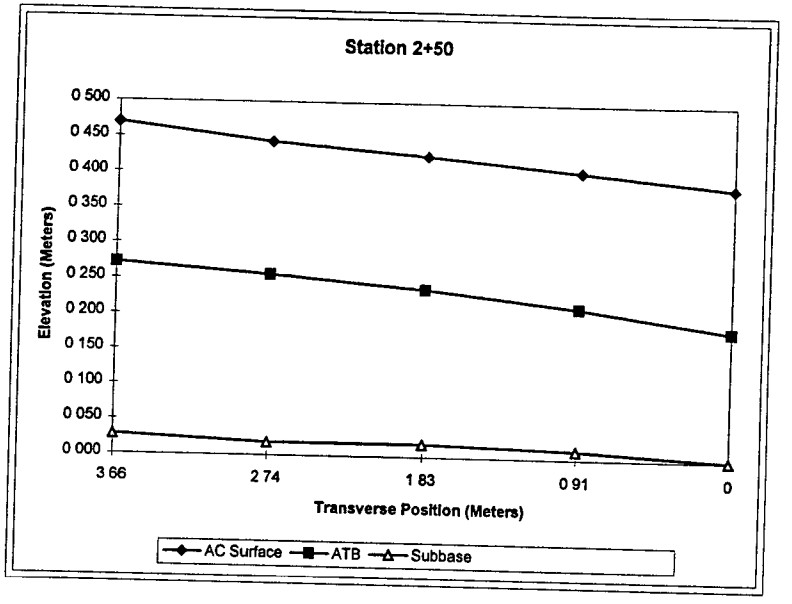


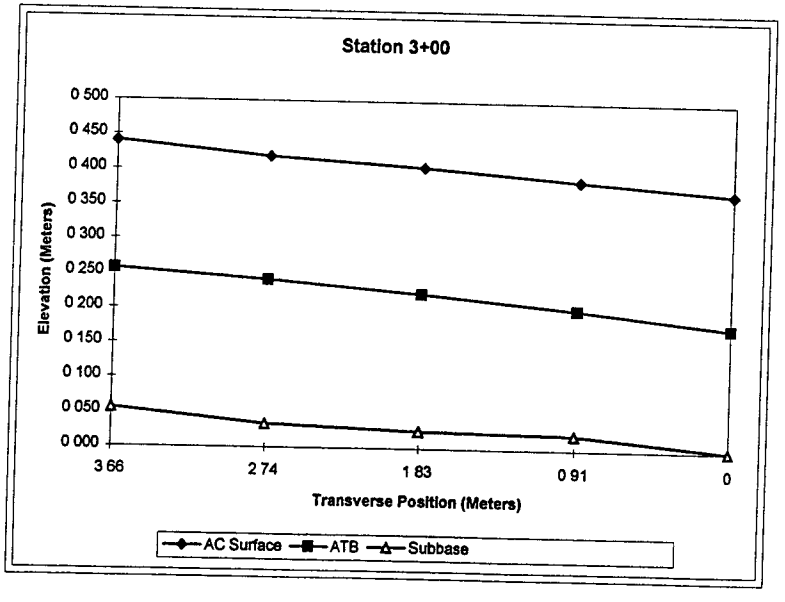


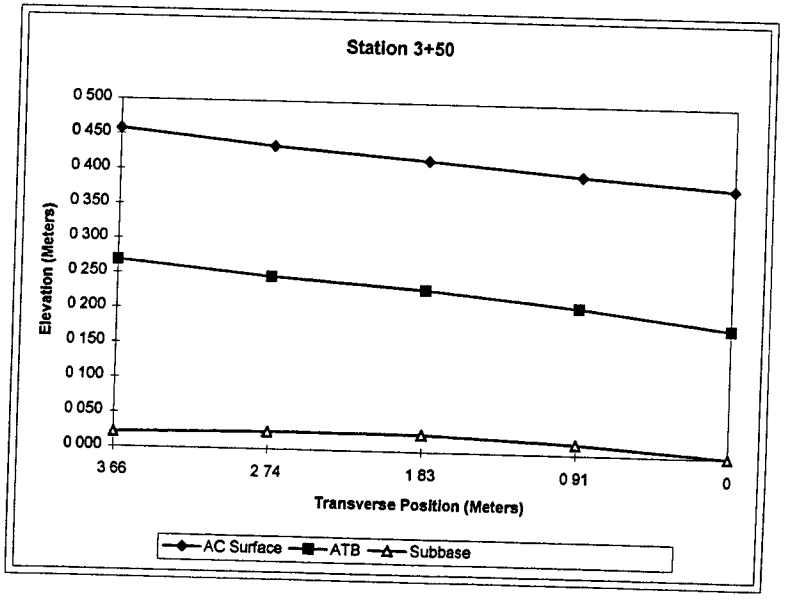


Texas SPS-1 (480115)

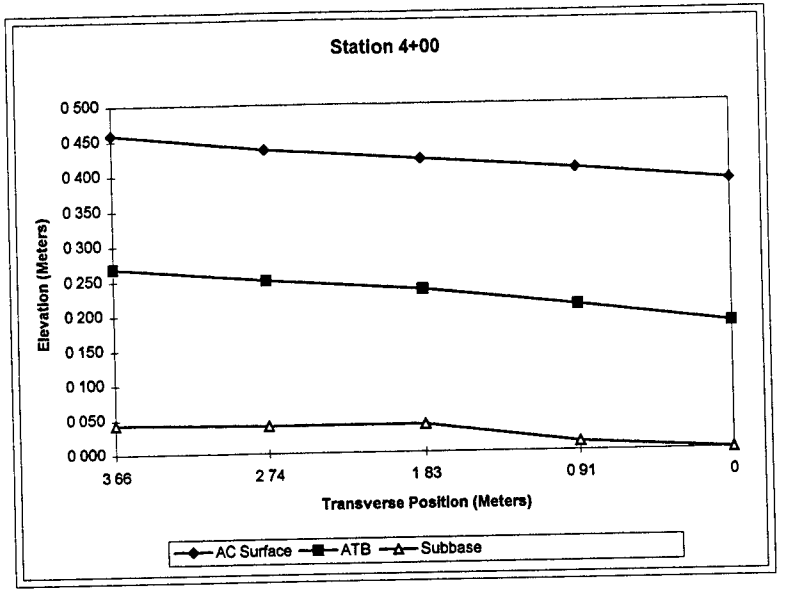


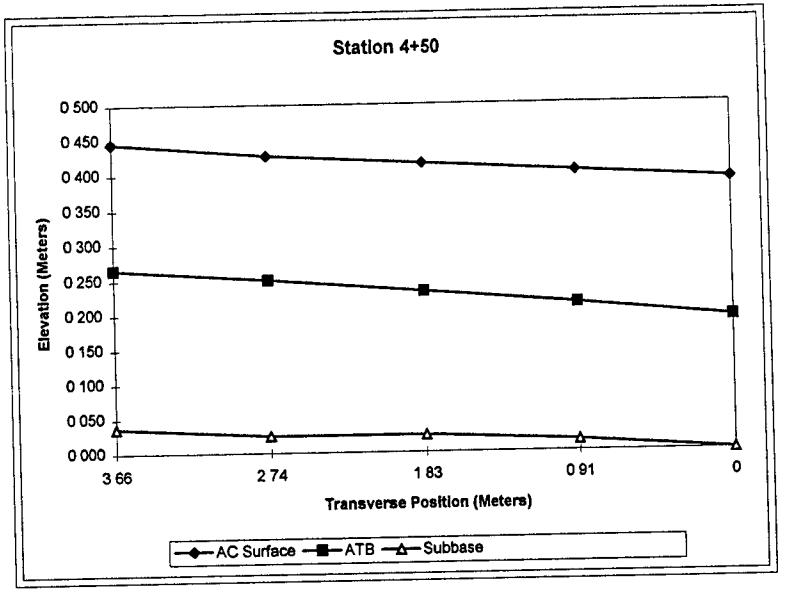


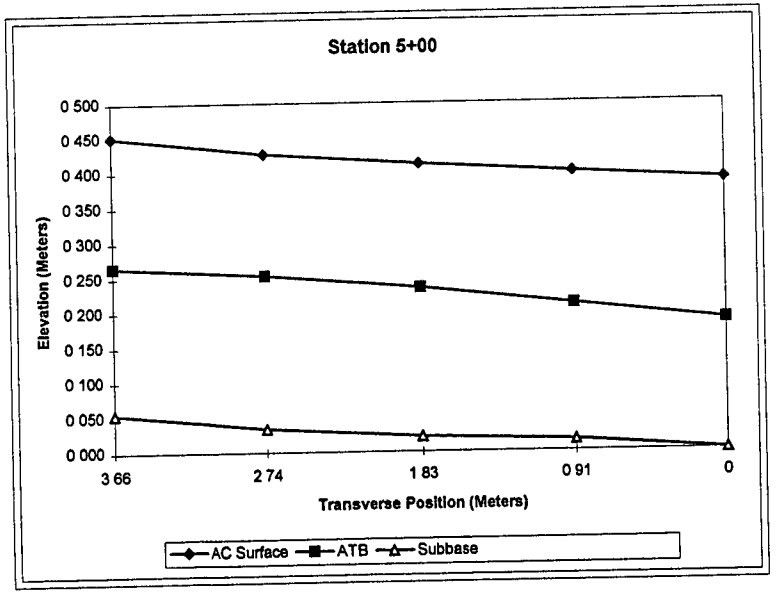




Texas SPS-1 (480115)





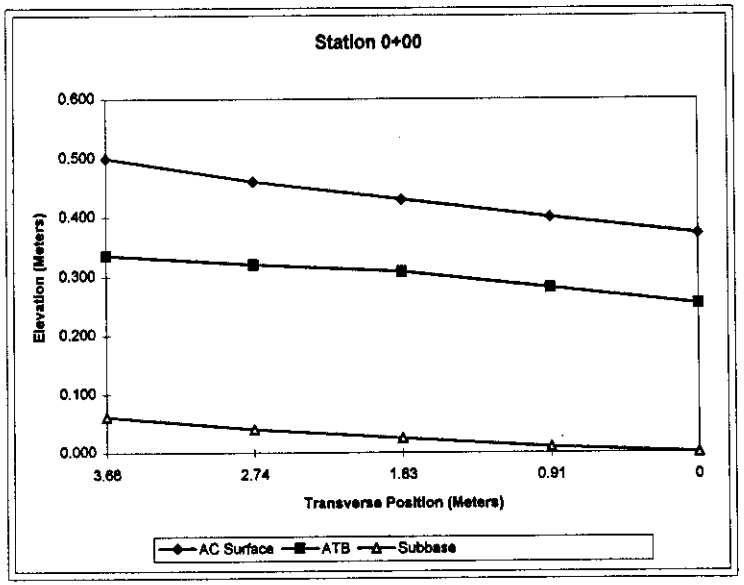


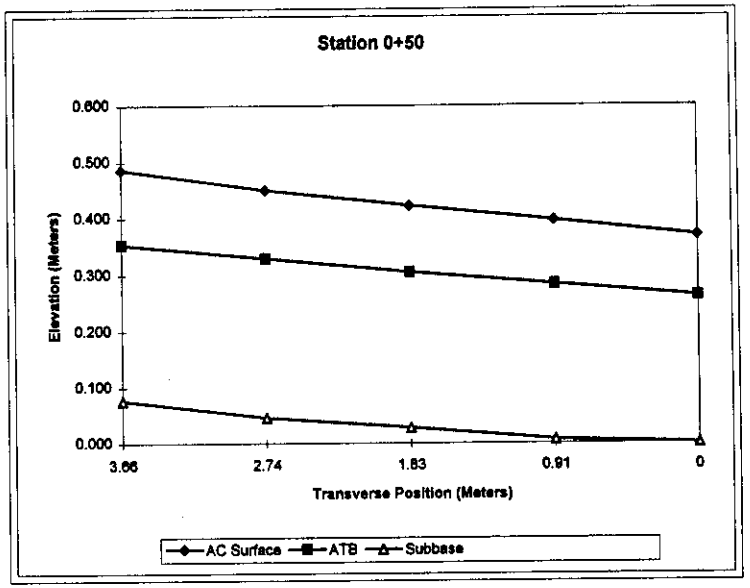
Texas SPS-1 (480116)

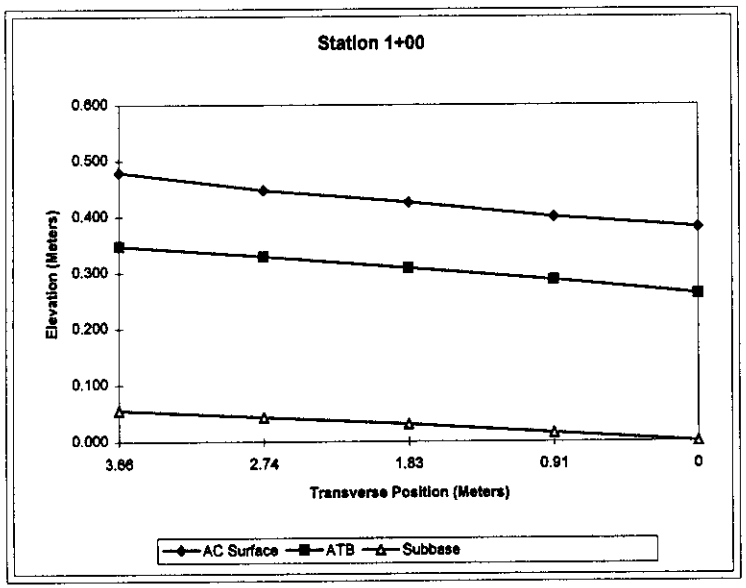
Transverse Offset	LAYERS	ELEVATION (LTPP) Meters	AC Surface THICKNESS Meters	ATB THICKNESS Meters	ELEVATION (0.91) Meters	AC Surface THICKNESS Meters	ATB THICKNESS Meters	ELEVATION (1.83) Meters	AC Surface THICKNESS Meters	ATB THICKNESS Meters	ELEVATION (2.74) Meters	AC Surface THICKNESS Meters	ATB THICKNESS Meters	ELEVATION (3.66) Meters	AC Surface THICKNESS Meters	ATB THICKNESS Meters
0+00	C Surface	1.067	0.119	0.253	1.094	0.119	0.271	1.125	0.122	0.283	1.155	0.140	0.280	1.195	0.165	0.274
	ATB	0.948			0.975			1.003			1.015			1.030		
	Subbase	0.695			0.704			0.719			0.735			0.756		
0+50	C Surface	1.079	0.107	0.262	1.106	0.113	0.277	1.132	0.117	0.277	1.160	0.120	0.283	1.196	0.133	0.277
	ATB	0.972			0.994			1.015			1.039			1.064		
	Subbase	0.710			0.716			0.738			0.756			0.786		
1+00	C Surface	1.100	0.119	0.262	1.119	0.113	0.271	1.145	0.117	0.277	1.166	0.117	0.287	1.198	0.131	0.293
	ATB	0.981			1.006			1.027			1.049			1.067		
	Subbase	0.719			0.735			0.750			0.762			0.774		
1+50	C Surface	1.113	0.119	0.256	1.126	0.108	0.265	1.141	0.111	0.268	1.158	0.119	0.277	1.183	0.131	0.280
	ATB	0.994			1.018			1.030			1.039			1.052		
	Subbase	0.738			0.753			0.762			0.762			0.771		
2+00	C Surface	1.117	0.117	0.250	1.135	0.117	0.256	1.154	0.120	0.265	1.170	0.128	0.265	1.198	0.149	0.271
	ATB	1.000			1.018			1.033			1.042			1.049		
	Subbase	0.750			0.762			0.768			0.777			0.777		
2+50	C Surface	1.141	0.130	0.256	1.167	0.131	0.271	1.195	0.131	0.287	1.224	0.142	0.283	1.260	0.157	0.296
	ATB	1.012			1.036			1.064			1.082			1.103		
	Subbase	0.756			0.765			0.777			0.799			0.808		
3+00	C Surface	1.164	0.140	0.256	1.198	0.137	0.277	1.231	0.137	0.296	1.268	0.152	0.299	1.311	0.171	0.308
	ATB	1.024			1.061			1.094			1.116			1.140		
	Subbase	0.768			0.783			0.799			0.817			0.832		
3+50	C Surface	1.193	0.136	0.259	1.224	0.130	0.274	1.253	0.125	0.296	1.283	0.128	0.293	1.326	0.149	0.302
	ATB	1.058			1.094			1.128			1.155			1.177		
	Subbase	0.799			0.820			0.832			0.863			0.875		
4+00	C Surface	1.225	0.134	0.256	1.256	0.131	0.280	1.286	0.134	0.287	1.317	0.143	0.283	1.358	0.163	0.280
	ATB	1.091			1.125			1.152			1.173			1.195		
	Subbase	0.835			0.844			0.866			0.890			0.914		
4+50	C Surface	1.247	0.143	0.250	1.280	0.143	0.265	1.312	0.154	0.277	1.344	0.165	0.283	1.381	0.183	0.293
	ATB	1.103			1.137			1.158			1.180			1.198		
	Subbase	0.853			0.872			0.881			0.896			0.905		
5+00	C Surface	1.274	0.152	0.238	1.303	0.151	0.253	1.332	0.158	0.265	1.361	0.169	0.265	1.394	0.184	0.268
	ATB	1.122			1.152			1.173			1.192			1.210		
	Subbase	0.884			0.899			0.908			0.927			0.942		
	AVG		0.129	0.255		0.128	0.271		0.131	0.281		0.140	0.283		0.157	0.287
	MAX		0.152	0.262		0.151	0.280		0.158	0.296		0.169	0.299		0.184	0.308
	MIN		0.107	0.238		0.108	0.253		0.111	0.265		0.117	0.265		0.131	0.268
	STD		0.013	0.007		0.013	0.008		0.015	0.010		0.018	0.008		0.019	0.012

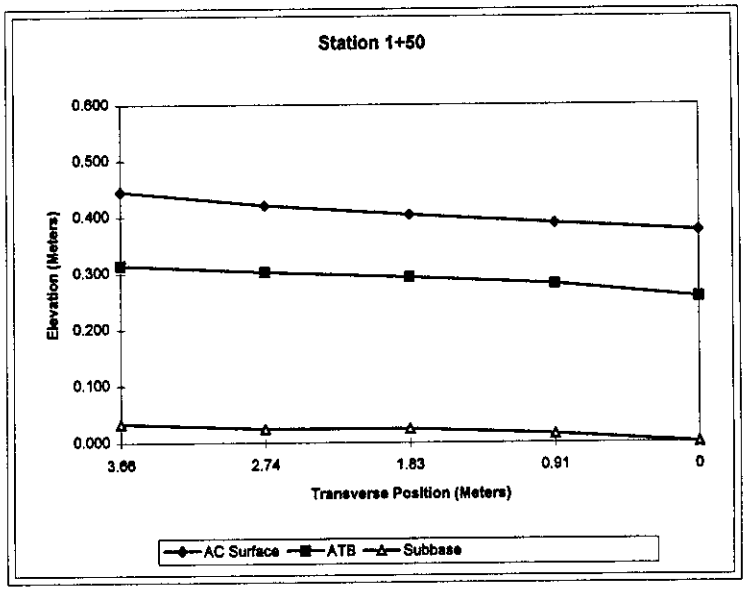
	AC Surfac	ATB
SECTION AVG	0.136	0.274
SECTION MAX	0.184	0.308
SECTION MIN	0.107	0.238
SECTION STD	0.019	0.015

Texas SPS-1 (480116)

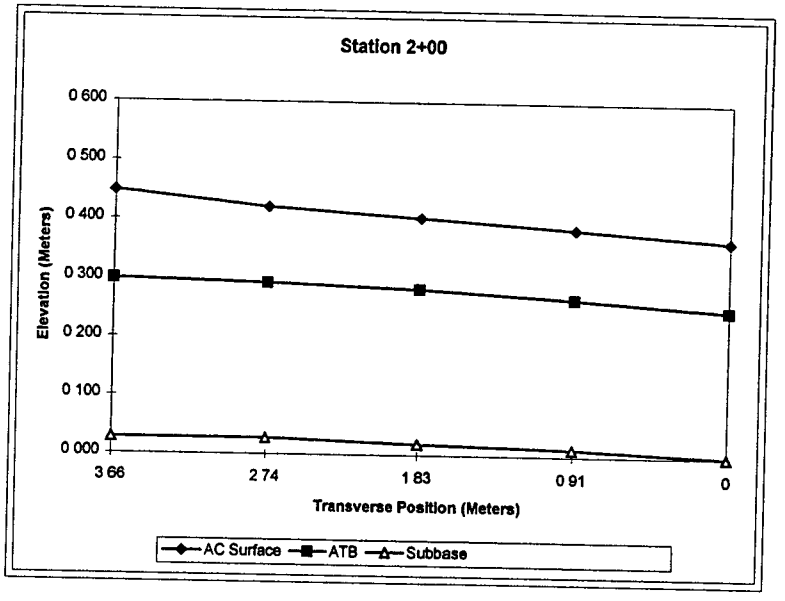


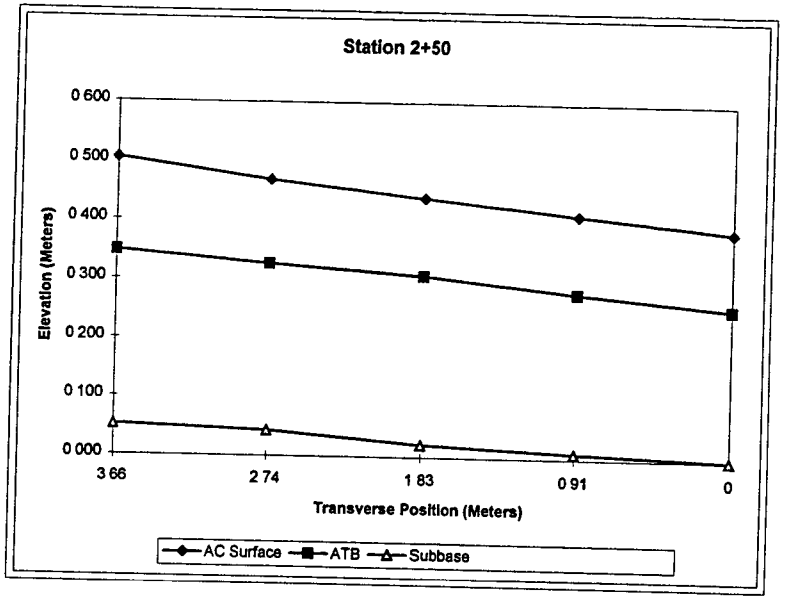


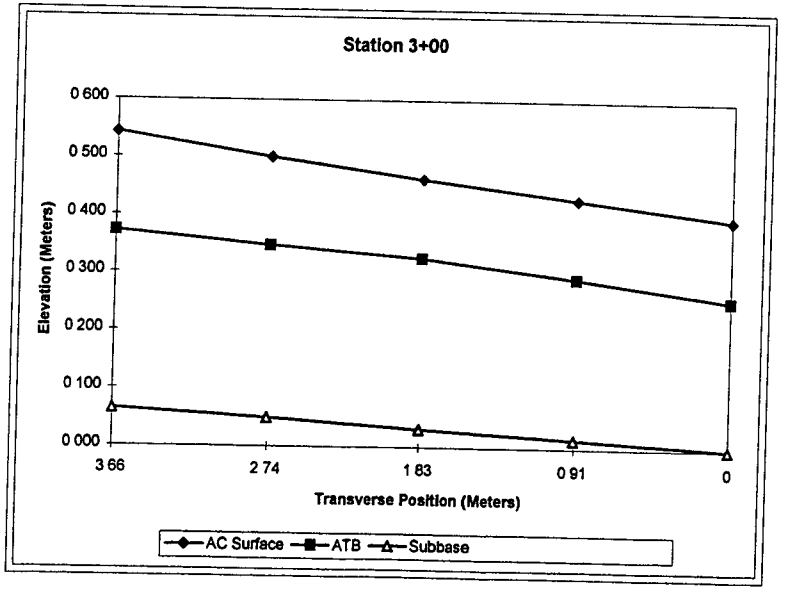


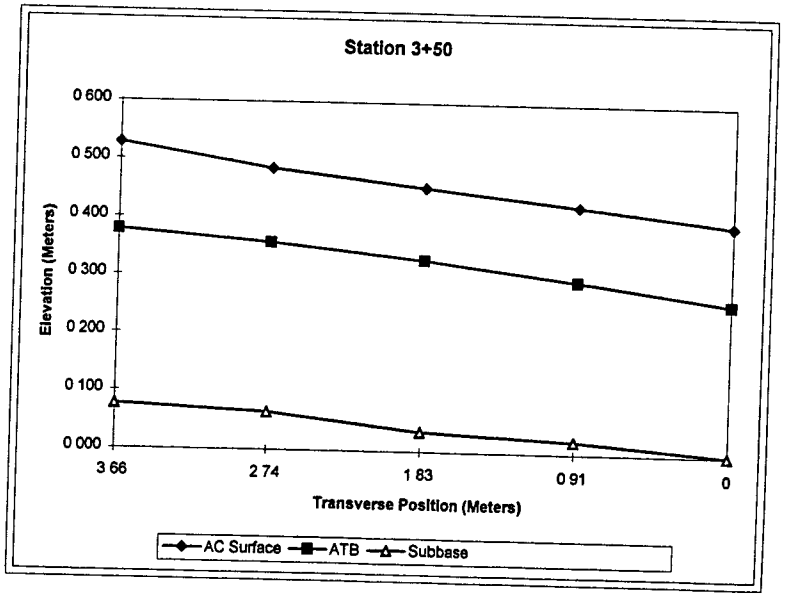


Texas SPS-1 (480116)

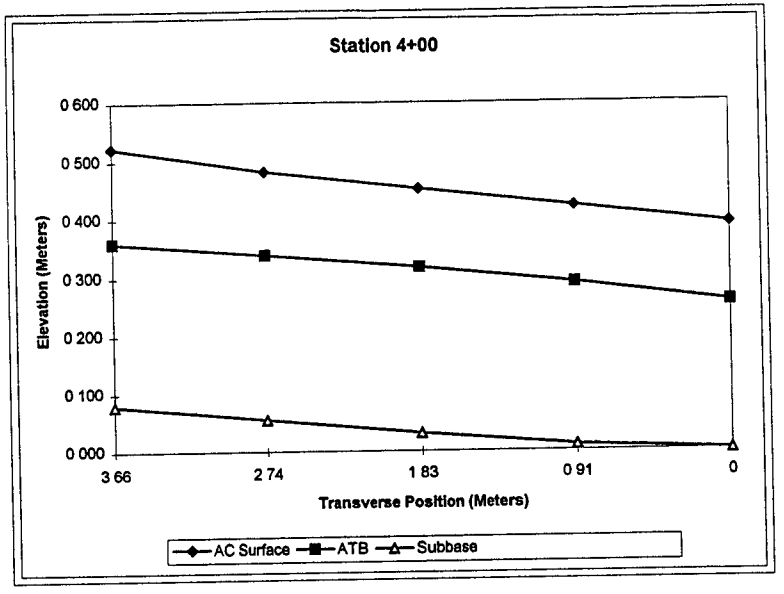


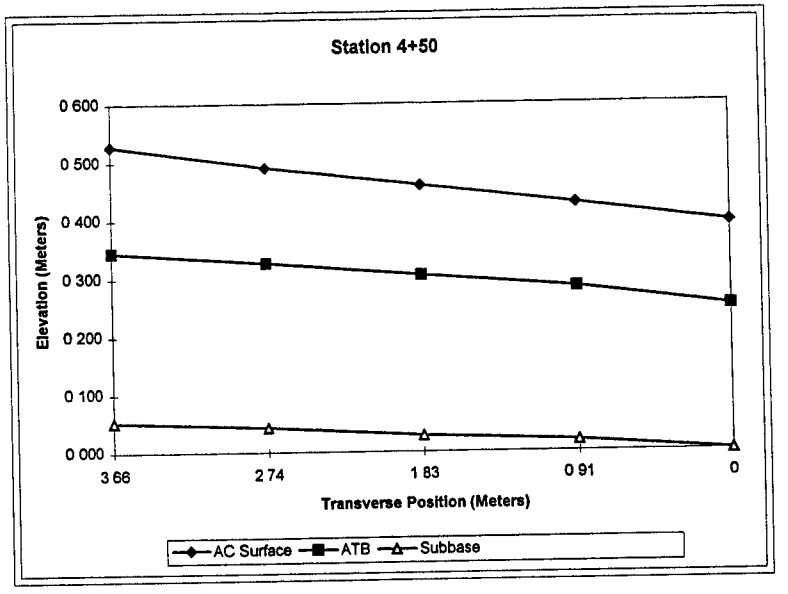


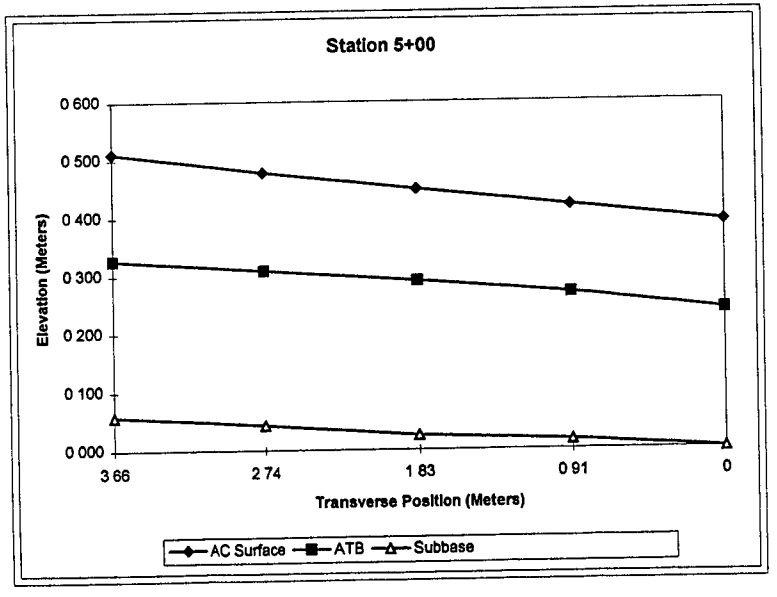




Texas SPS-1 (480116)





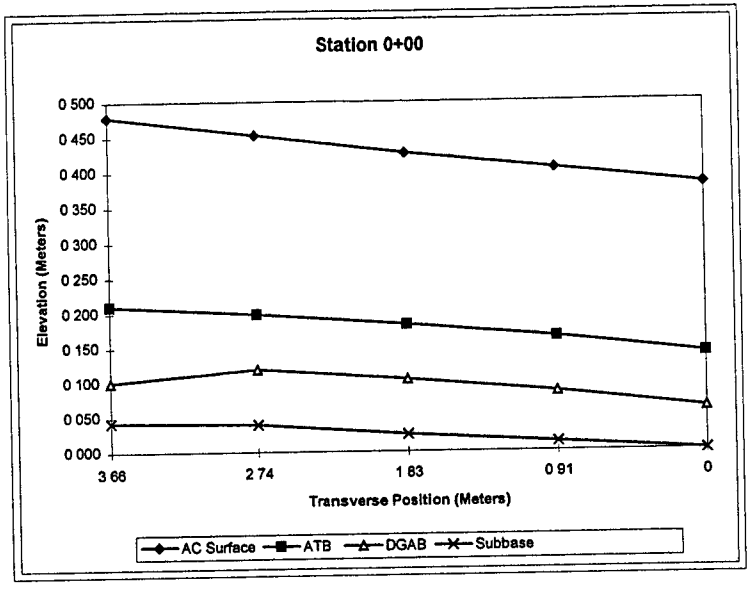


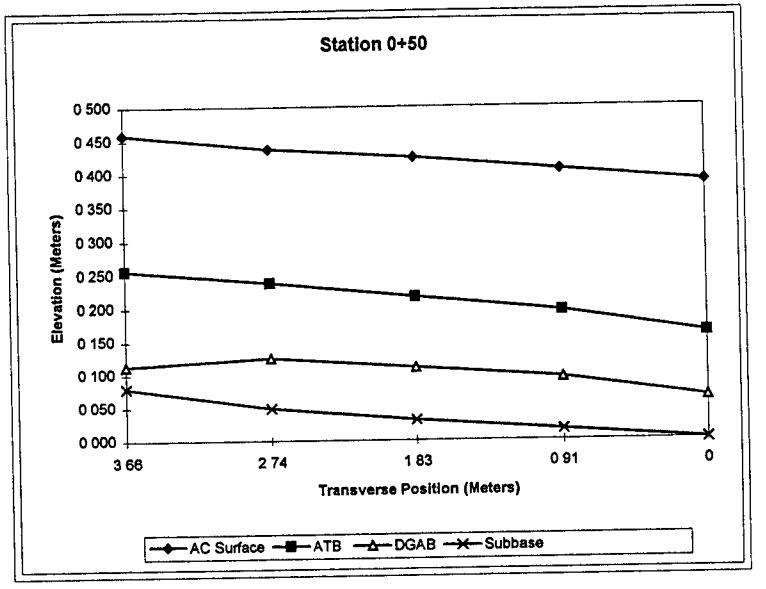
Texas SPS-1 (480117)

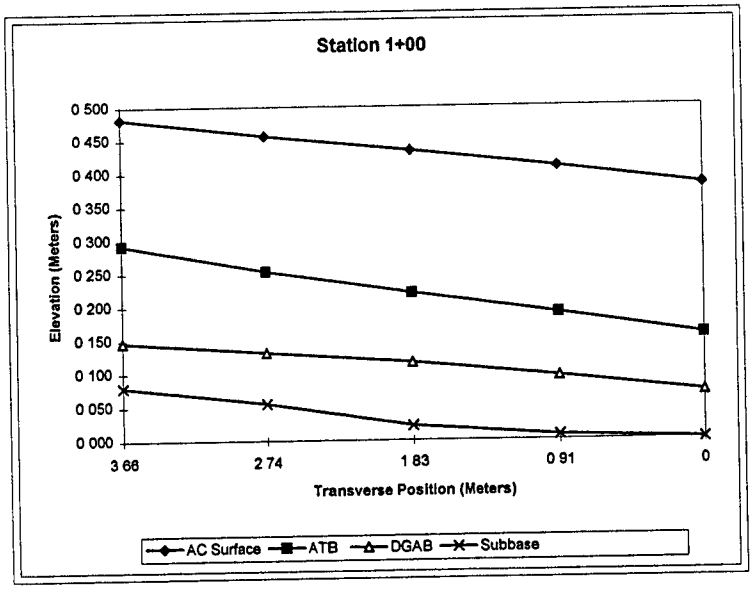
Transverse Offset	LAYERS	ELEVATION 0 Meters	AC Surface THICKNESS Meters	ATB THICKNESS Meters	DGAB THICKNESS Meters	ELEVATION 91 Meters	AC Surface THICKNESS Meters	ATB THICKNESS Meters	DGAB THICKNESS Meters	ELEVATION 183 Meters	AC Surface THICKNESS Meters	ATB THICKNESS Meters	DGAB THICKNESS Meters	ELEVATION 274 Meters	AC Surface THICKNESS Meters	ATB THICKNESS Meters	DGAB THICKNESS Meters	ELEVATION 366 Meters	AC Surface THICKNESS Meters	ATB THICKNESS Meters	DGAB THICKNESS Meters
0+00	C Surface	24 680	0 241	0 079	0 061	24 703	0 239	0 079	0 073	24 725	0 244	0 079	0 079	24 751	0 255	0 079	0 079	24 777	0 268	0 110	0 058
	ATB	24 439				24 463				24 482				24 497				24 509			
	DGAB	24 360				24 384				24 402				24 418				24 399			
	Subbase	24 299				24 311				24 323				24 338				24 341			
0+50	C Surface	24 695	0 226	0 098	0 064	24 713	0 210	0 101	0 079	24 731	0 207	0 107	0 079	24 745	0 200	0 113	0 076	24 767	0 203	0 143	0 034
	ATB	24 469				24 503				24 524				24 546				24 564			
	DGAB	24 372				24 402				24 418				24 433				24 421			
	Subbase	24 308				24 323				24 338				24 357				24 387			
1+00	C Surface	24 735	0 226	0 085	0 070	24 762	0 219	0 094	0 088	24 786	0 213	0 104	0 094	24 809	0 203	0 122	0 076	24 835	0 189	0 146	0 067
	ATB	24 509				24 542				24 573				24 607				24 646			
	DGAB	24 424				24 448				24 469				24 485				24 500			
	Subbase	24 354				24 360				24 375				24 408				24 433			
1+50	C Surface	24 756	0 223	0 088	0 061	24 780	0 210	0 094	0 070	24 799	0 198	0 113	0 070	24 817	0 198	0 131	0 073	24 840	0 209	0 128	0 073
	ATB	24 533				24 570				24 600				24 619				24 631			
	DGAB	24 445				24 475				24 488				24 488				24 503			
	Subbase	24 384				24 405				24 418				24 414				24 430			
2+00	C Surface	24 773	0 218	0 082	0 061	24 795	0 210	0 094	0 064	24 818	0 212	0 091	0 073	24 841	0 210	0 116	0 070	24 866	0 204	0 131	0 067
	ATB	24 555				24 585				24 607				24 631				24 661			
	DGAB	24 472				24 491				24 515				24 515				24 530			
	Subbase	24 411				24 427				24 442				24 445				24 463			
2+50	C Surface	24 774	0 223	0 085	0 040	24 802	0 216	0 091	0 055	24 823	0 210	0 107	0 052	24 847	0 213	0 128	0 052	24 869	0 207	0 149	0 030
	ATB	24 552				24 585				24 613				24 634				24 661			
	DGAB	24 466				24 494				24 506				24 506				24 512			
	Subbase	24 427				24 439				24 454				24 454				24 482			
3+00	C Surface	24 788	0 206	0 098	0 040	24 814	0 204	0 107	0 043	24 837	0 197	0 104	0 067	24 858	0 191	0 122	0 073	24 884	0 189	0 125	0 067
	ATB	24 582				24 610				24 640				24 667				24 695			
	DGAB	24 485				24 503				24 536				24 546				24 570			
	Subbase	24 445				24 460				24 469				24 472				24 503			
3+50	C Surface	24 821	0 197	0 079	0 058	24 841	0 198	0 091	0 046	24 858	0 203	0 104	0 046	24 876	0 209	0 128	0 034	24 901	0 212	0 131	0 049
	ATB	24 625				24 643				24 655				24 667				24 689			
	DGAB	24 546				24 552				24 552				24 539				24 558			
	Subbase	24 488				24 506				24 506				24 506				24 509			
4+00	C Surface	24 863	0 207	0 088	0 037	24 887	0 207	0 107	0 034	24 911	0 213	0 110	0 040	24 934	0 212	0 128	0 046	24 960	0 201	0 143	0 055
	ATB	24 655				24 680				24 698				24 722				24 759			
	DGAB	24 567				24 573				24 588				24 594				24 616			
	Subbase	24 530				24 539				24 549				24 549				24 561			
4+50	C Surface	24 911	0 192	0 091	0 061	24 931	0 194	0 094	0 064	24 948	0 198	0 107	0 058	24 965	0 200	0 119	0 058	24 984	0 204	0 134	0 040
	ATB	24 719				24 738				24 750				24 765				24 780			
	DGAB	24 628				24 643				24 643				24 646				24 646			
	Subbase	24 567				24 579				24 585				24 588				24 607			
5+00	C Surface	24 954	0 180	0 073	0 122	24 969	0 171	0 098	0 107	24 981	0 168	0 107	0 107	24 991	0 165	0 122	0 091	25 001	0 169	0 085	0 128
	ATB	24 774				24 799				24 814				24 826				24 832			
	DGAB	24 701				24 701				24 707				24 704				24 747			
	Subbase	24 579				24 594				24 600				24 613				24 619			
	AVG		0 212	0 087	0 061		0 207	0 096	0 066		0 205	0 104	0 069		0 204	0 119	0 066		0 205	0 130	0 060
	MAX		0 241	0 098	0 122		0 239	0 107	0 107		0 244	0 113	0 107		0 255	0 131	0 091		0 268	0 149	0 128
	MIN		0 180	0 073	0 037		0 171	0 079	0 034		0 168	0 079	0 040		0 165	0 079	0 034		0 169	0 085	0 030
	STD		0 017	0 007	0 023		0 017	0 008	0 021		0 018	0 009	0 020		0 021	0 014	0 017		0 024	0 019	0 027

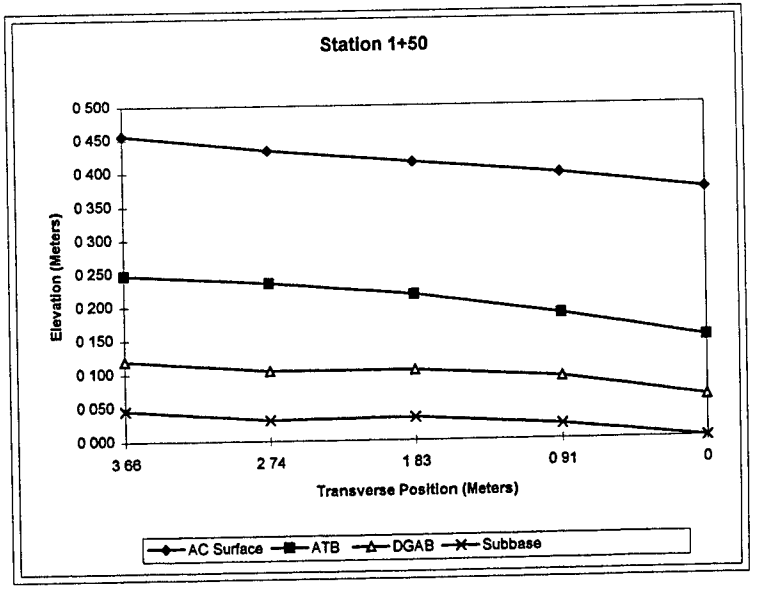
	AC Surfac	ATB	DGAB
SECTION AVG	0 207	0 107	0 065
SECTION MAX	0 268	0 149	0 128
SECTION MIN	0 165	0 073	0 030
SECTION STD	0 019	0 020	0 021

Texas SPS-1 (480117)

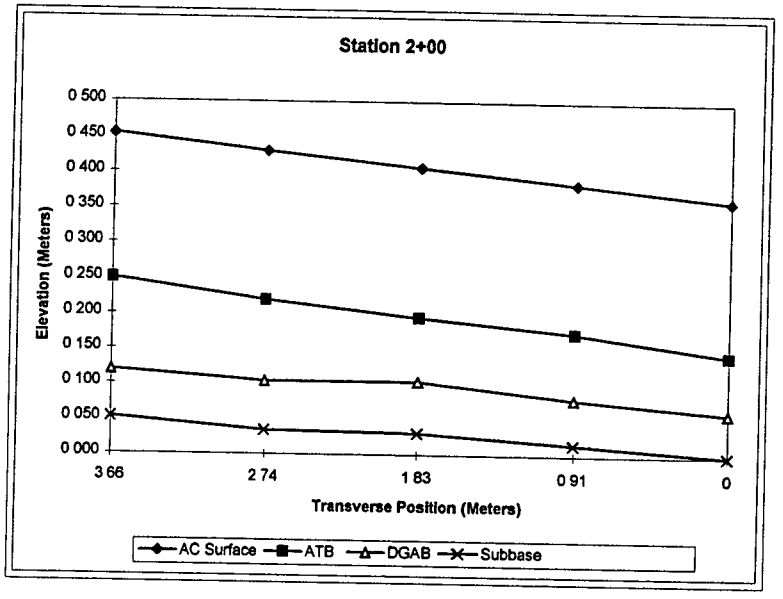


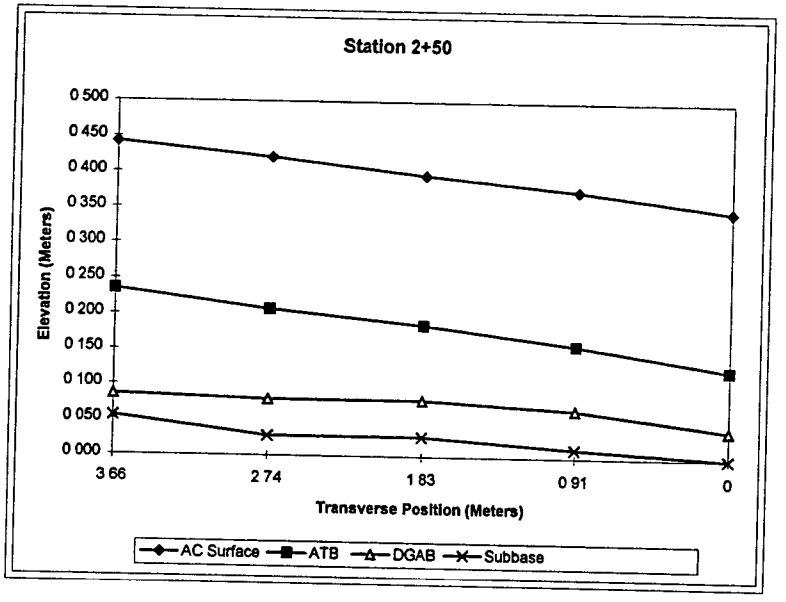


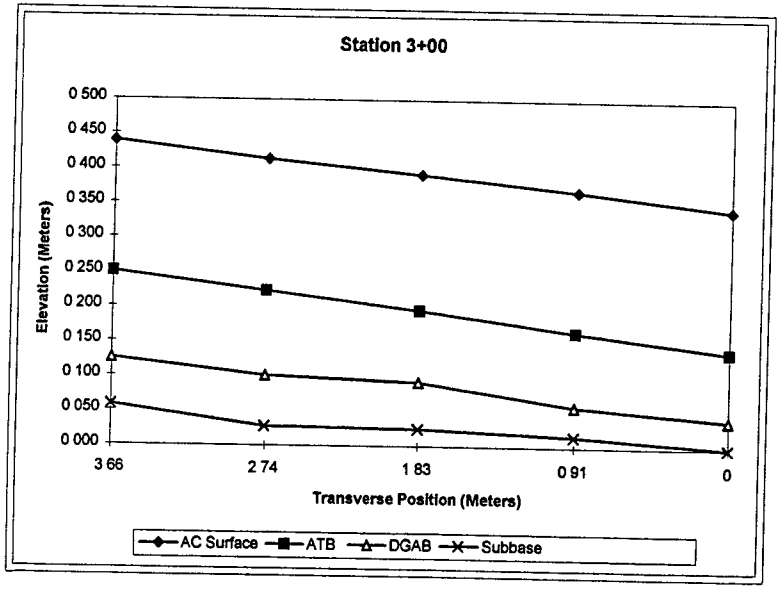


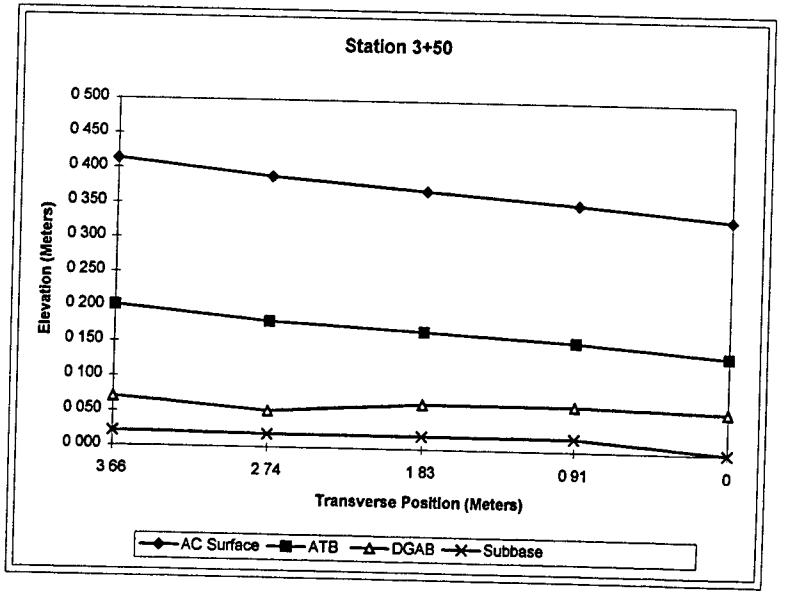


Texas SPS-1 (480117)

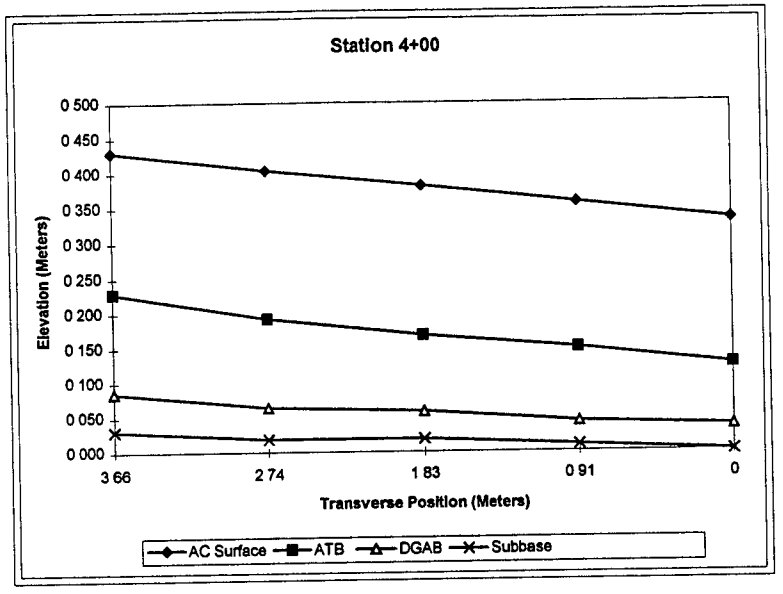


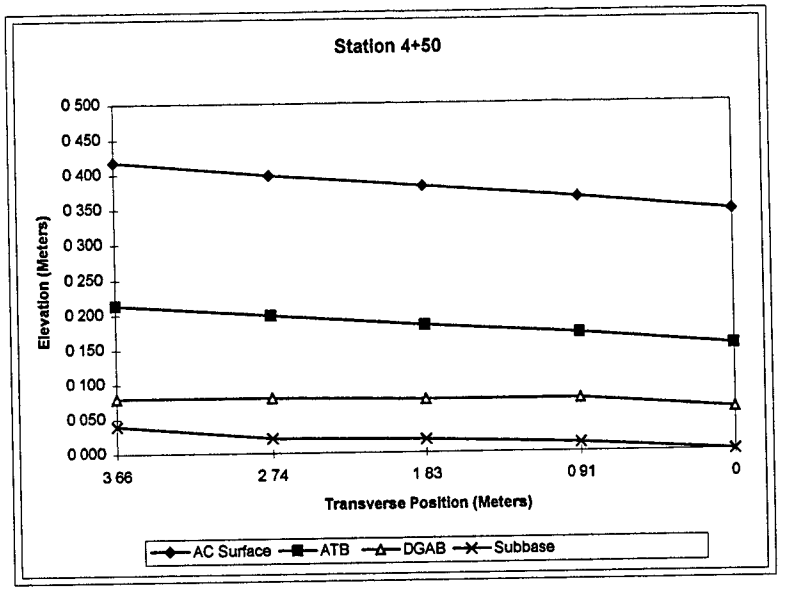


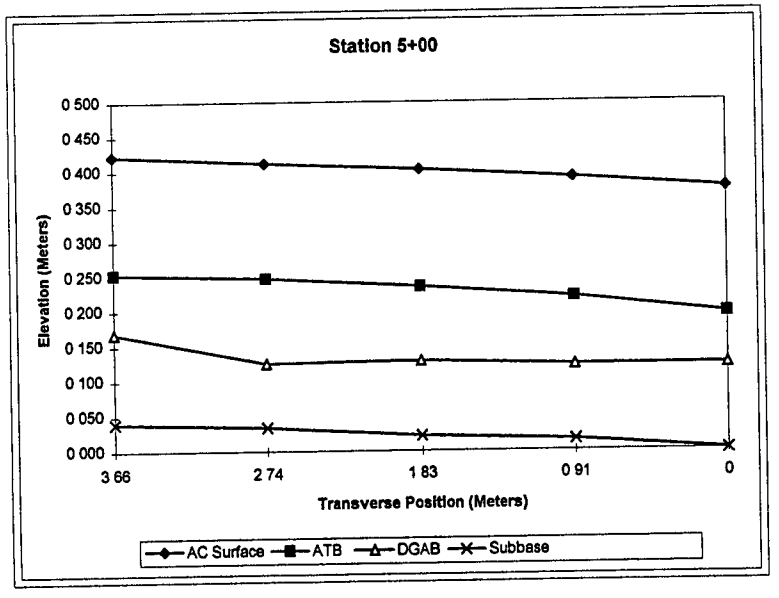




Texas SPS-1 (480117)





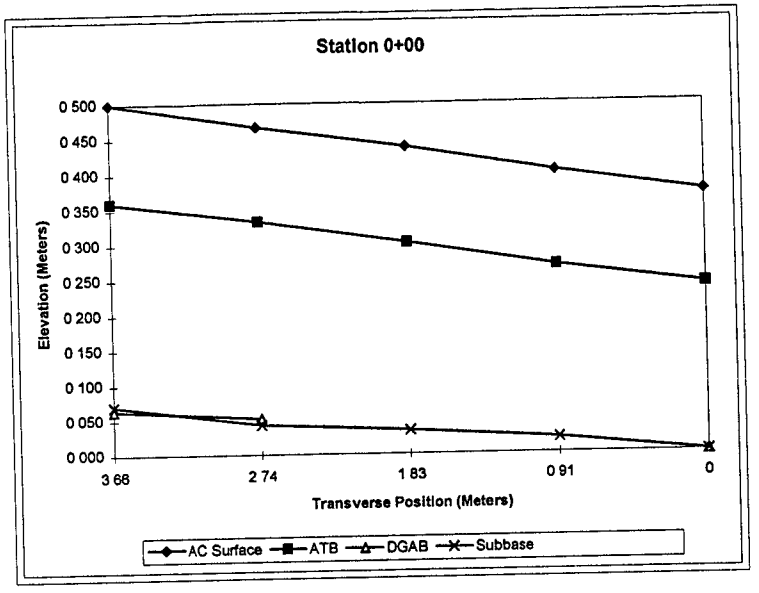


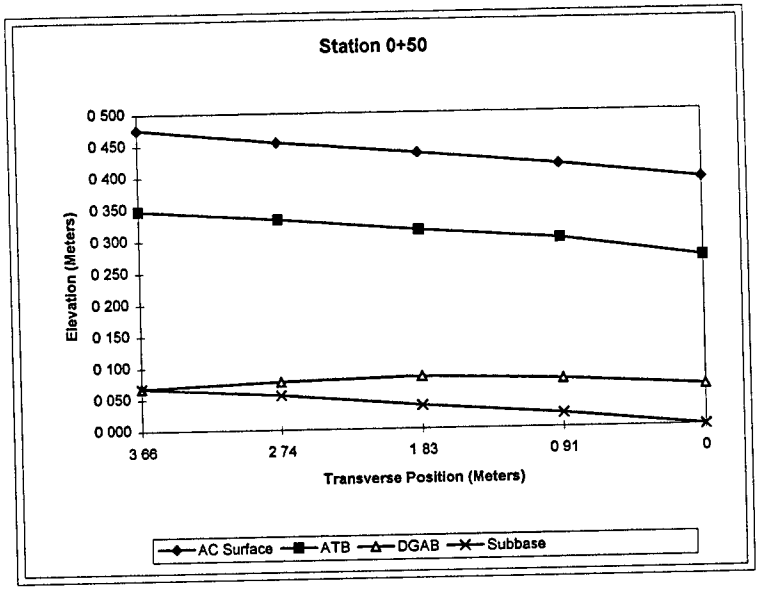
Texas SPS-1 (480118)

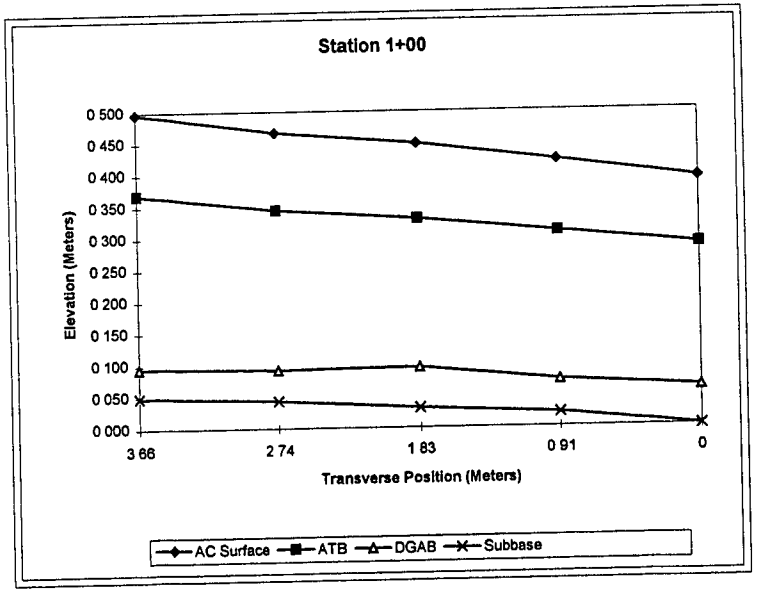
Transverse Offset	LAYERS	ELEVATION 0 Meters	AC Surface THICKNESS Meters	ATB THICKNESS Meters	DGAB THICKNESS Meters	ELEVATION 0.91 Meters	AC Surface THICKNESS Meters	ATB THICKNESS Meters	DGAB THICKNESS Meters	ELEVATION 1.83 Meters	AC Surface THICKNESS Meters	ATB THICKNESS Meters	DGAB THICKNESS Meters	ELEVATION 2.74 Meters	AC Surface THICKNESS Meters	ATB THICKNESS Meters	DGAB THICKNESS Meters	ELEVATION 3.66 Meters	AC Surface THICKNESS Meters	ATB THICKNESS Meters	DGAB THICKNESS Meters
0+00	C Surface	0 759	0 131	Unknown	Unknown	0 789	0 134	Unknown	Unknown	0 824	0 136	Unknown	Unknown	0 853	0 134	0 280	0 009	0 887	0 140	0 296	-0 006
	ATB	0 628				0 655				0 689				0 719				0 747			
	DGAB	0 000				0 000				0 000				0 439				0 451			
	Subbase	0 387				0 408				0 421				0 430				0 457			
0+50	C Surface	0 809	0 123	0 204	0 064	0 834	0 117	0 223	0 055	0 853	0 122	0 232	0 046	0 872	0 122	0 256	0 021	0 893	0 128	0 280	0 000
	ATB	0 686				0 716				0 732				0 750				0 765			
	DGAB	0 482				0 494				0 500				0 494				0 485			
	Subbase	0 418				0 439				0 454				0 472				0 485			
1+00	C Surface	0 843	0 105	0 226	0 061	0 872	0 113	0 235	0 052	0 899	0 119	0 235	0 064	0 917	0 122	0 253	0 049	0 948	0 128	0 274	0 046
	ATB	0 738				0 759				0 780				0 796				0 820			
	DGAB	0 512				0 524				0 546				0 543				0 548			
	Subbase	0 451				0 472				0 482				0 494				0 500			
1+50	C Surface	0 850	0 116	0 204	0 046	0 882	0 120	0 213	0 046	0 913	0 123	0 235	0 040	0 942	0 128	0 259	0 018	0 974	0 130	0 296	-0 009
	ATB	0 735				0 762				0 789				0 814				0 844			
	DGAB	0 530				0 549				0 555				0 555				0 549			
	Subbase	0 485				0 503				0 515				0 536				0 558			
2+00	C Surface	0 850	0 113	0 201	0 046	0 881	0 116	0 213	0 052	0 911	0 119	0 232	0 052	0 942	0 131	0 256	0 037	0 971	0 142	0 271	0 021
	ATB	0 738				0 765				0 792				0 811				0 829			
	DGAB	0 536				0 552				0 561				0 555				0 558			
	Subbase	0 491				0 500				0 509				0 518				0 536			
2+50	C Surface	0 860	0 125	0 207	0 015	0 892	0 111	0 238	0 027	0 927	0 104	0 247	0 052	0 959	0 108	0 256	0 027	0 994	0 116	0 271	0 009
	ATB	0 735				0 780				0 823				0 850				0 878			
	DGAB	0 527				0 543				0 576				0 594				0 607			
	Subbase	0 512				0 515				0 524				0 567				0 597			
3+00	C Surface	0 899	0 125	0 183	0 055	0 928	0 111	0 204	0 064	0 960	0 098	0 229	0 067	0 988	0 098	0 250	0 061	1 018	0 104	0 265	0 030
	ATB	0 774				0 817				0 863				0 890				0 914			
	DGAB	0 591				0 613				0 634				0 640				0 649			
	Subbase	0 536				0 549				0 567				0 579				0 619			
3+50	C Surface	0 940	0 114	0 192	0 082	0 966	0 113	0 204	0 070	0 989	0 114	0 219	0 064	1 012	0 119	0 244	0 046	1 039	0 122	0 253	0 030
	ATB	0 826				0 853				0 875				0 893				0 917			
	DGAB	0 634				0 649				0 655				0 649				0 664			
	Subbase	0 552				0 579				0 591				0 604				0 634			
4+00	C Surface	0 972	0 119	0 201	0 046	0 997	0 110	0 216	0 046	1 024	0 110	0 210	0 067	1 050	0 108	0 238	0 061	1 079	0 107	0 253	0 061
	ATB	0 853				0 887				0 914				0 942				0 972			
	DGAB	0 652				0 671				0 704				0 704				0 719			
	Subbase	0 607				0 625				0 637				0 643				0 658			
4+50	C Surface	0 994	0 113	0 195	0 058	1 015	0 110	0 204	0 049	1 039	0 113	0 210	0 046	1 064	0 116	0 232	0 037	1 091	0 119	0 253	0 012
	ATB	0 881				0 905				0 927				0 948				0 972			
	DGAB	0 686				0 701				0 716				0 716				0 719			
	Subbase	0 628				0 652				0 671				0 680				0 707			
5+00	C Surface	1 024	0 119	0 195	0 043	1 055	0 113	0 219	0 030	1 082	0 107	0 223	0 052	1 106	0 113	0 219	0 052	1 140	0 128	0 207	0 067
	ATB	0 905				0 942				0 975				0 994				1 012			
	DGAB	0 710				0 722				0 753				0 774				0 805			
	Subbase	0 668				0 692				0 701				0 722				0 738			
	AVG		0 118	0 201	0 052		0 115	0 217	0 049		0 114	0 227	0 055		0 117	0 249	0 038		0 122	0 265	0 024
	MAX		0 131	0 226	0 082		0 134	0 238	0 070		0 136	0 247	0 067		0 134	0 280	0 061		0 140	0 296	0 067
	MIN		0 105	0 183	0 015		0 110	0 204	0 027		0 098	0 210	0 040		0 098	0 219	0 009		0 104	0 207	-0 009
	STD		0 007	0 011	0 017		0 007	0 012	0 013		0 010	0 011	0 010		0 010	0 016	0 017		0 011	0 025	0 026

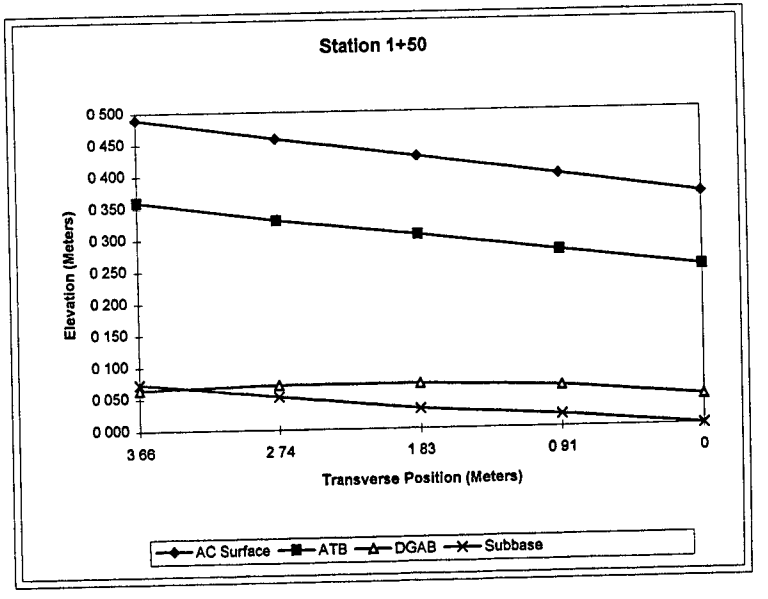
	AC Surfac	ATB	DGAB
SECTION AVG	0 118	0 233	0 043
SECTION MAX	0 140	0 296	0 082
SECTION MIN	0 098	0 183	-0 009
SECTION STD	0 010	0 028	0 020

Texas SPS-1 (480118)









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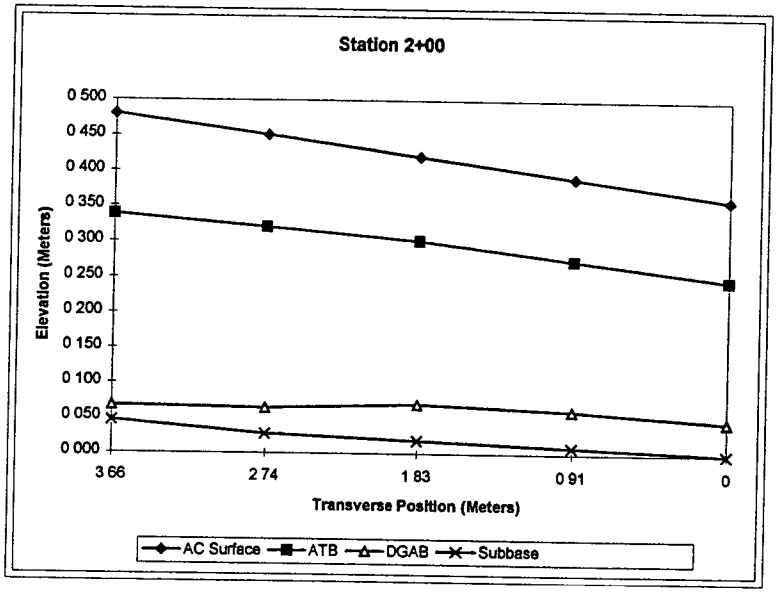
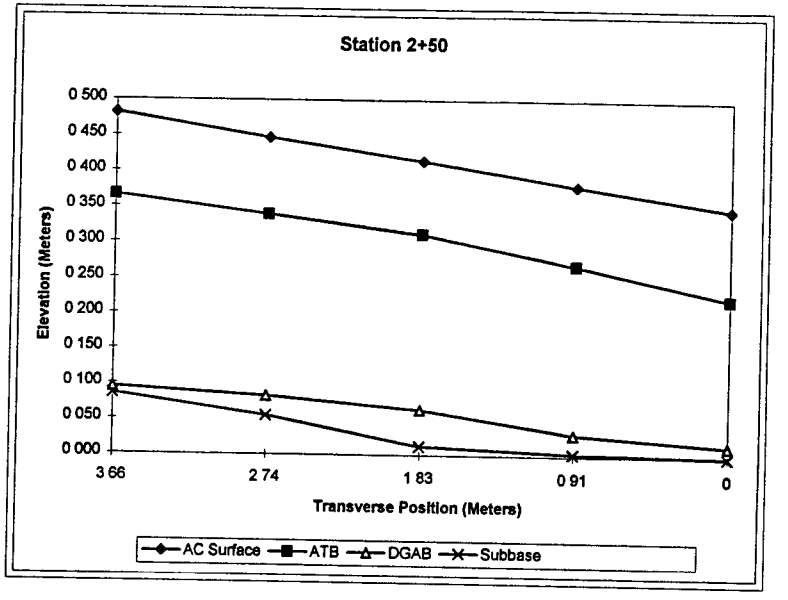
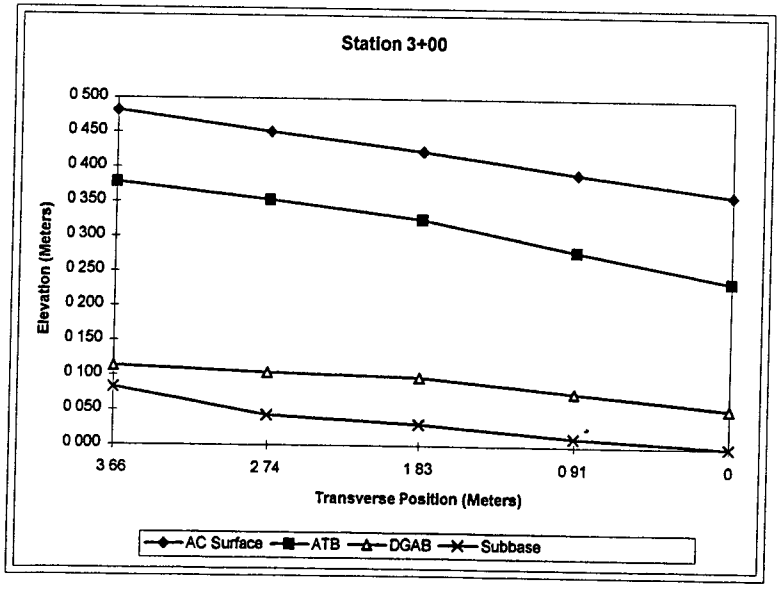
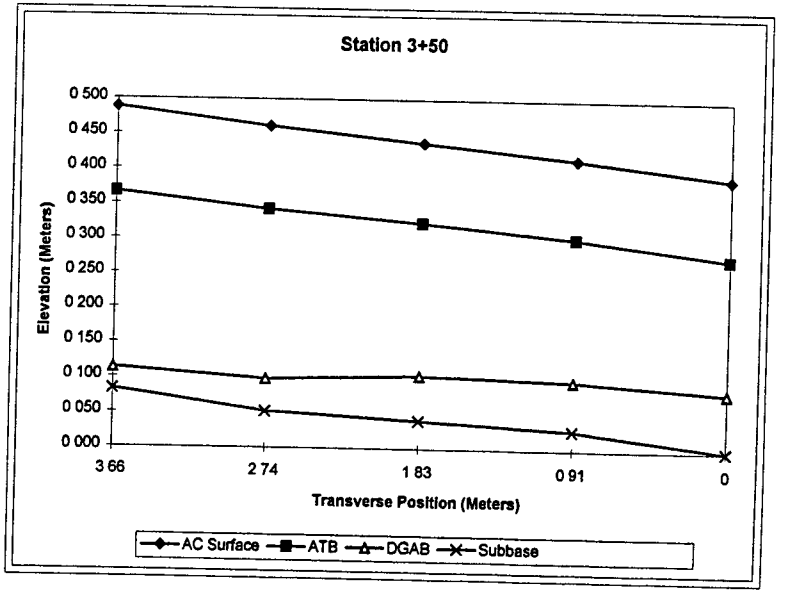
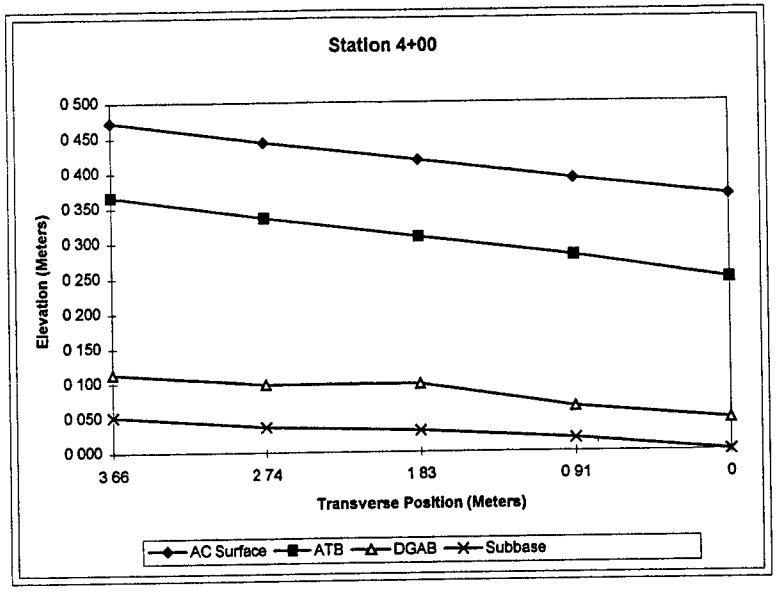


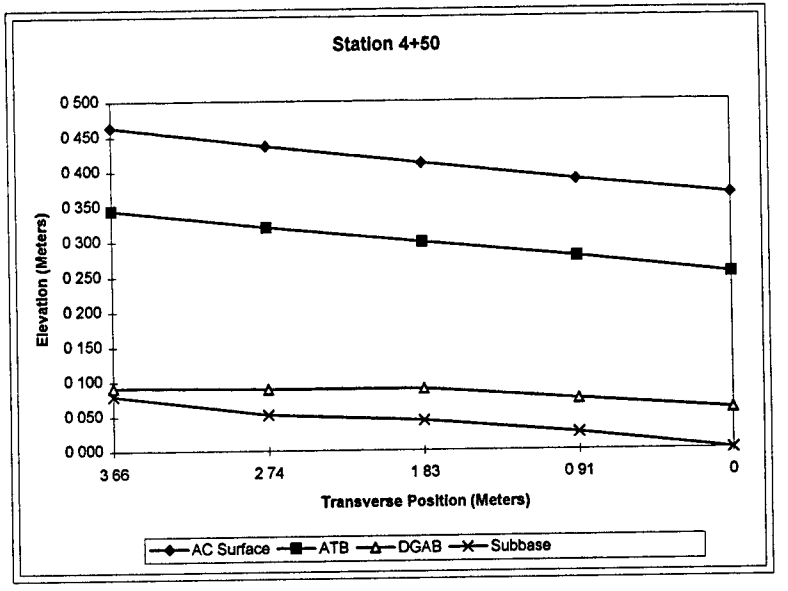


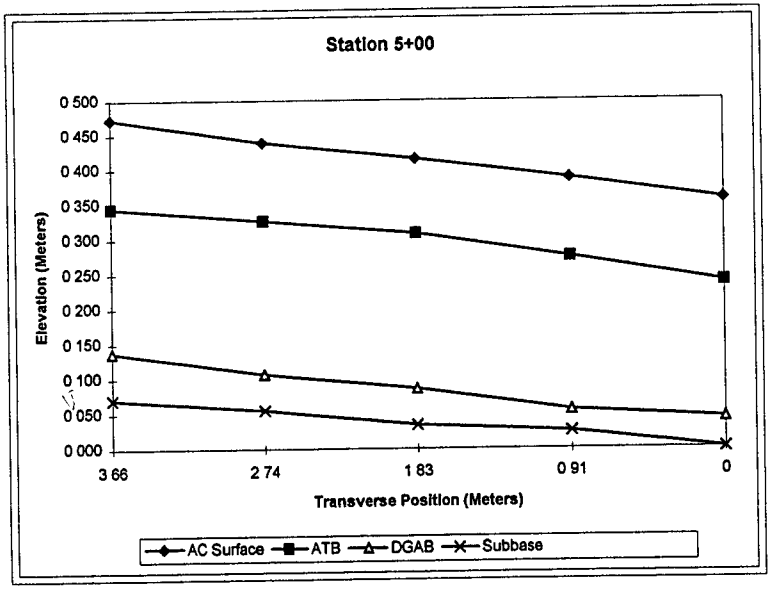




Texas SPS-1 (480118)





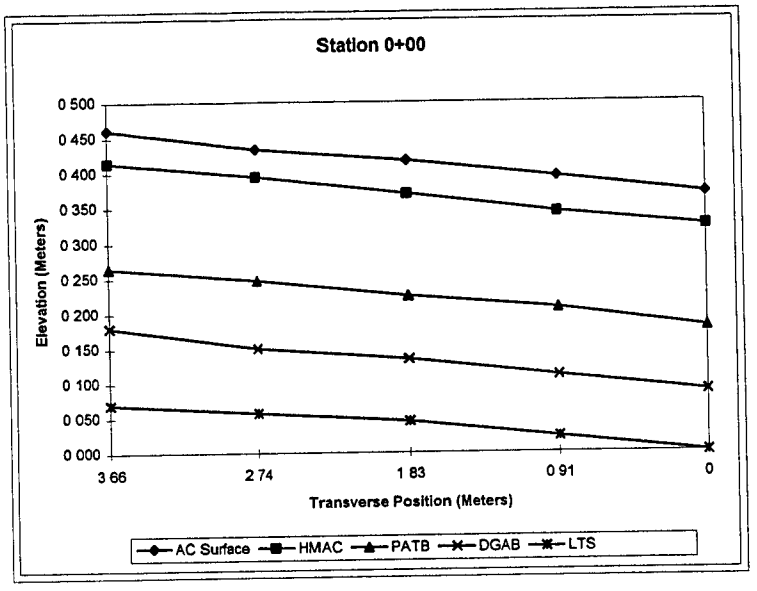


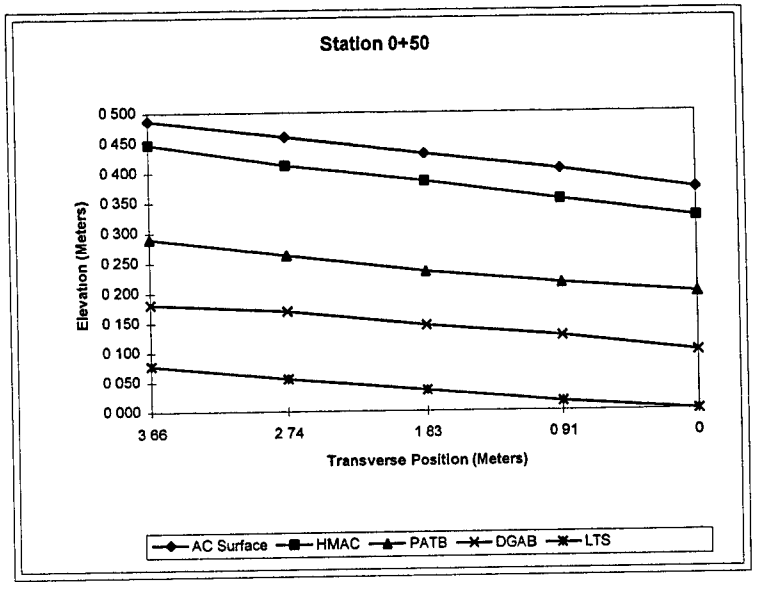
Texas SPS-1 (480119)

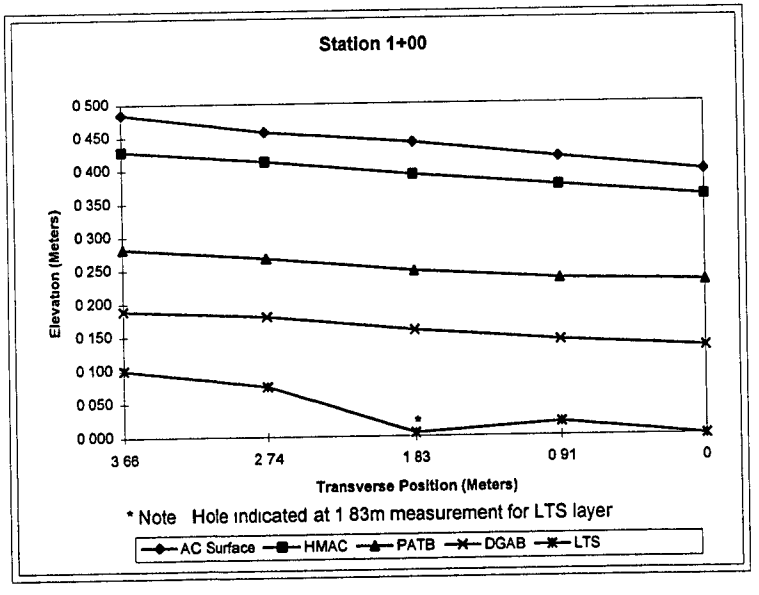
0+00	C Surface	2.902	0.046	0.144	0.092	0.087	2.926	0.050	0.138	0.087	0.088	2.949	0.047	0.145	0.091	0.089	2.966	0.038	0.147	0.087	0.083	2.993	0.046	0.150	0.094	0.111
	HMAC	2.856					2.878					2.902					2.927					2.947				
	PATB	2.712					2.740					2.758					2.780					2.798				
	DGAB	2.620					2.643					2.667					2.683					2.713				
	LTS	2.533					2.555					2.578					2.590					2.603				
0+50	C Surface	2.926	0.047	0.127	0.099	0.099	2.950	0.051	0.139	0.089	0.111	2.966	0.046	0.150	0.090	0.110	3.015	0.048	0.150	0.093	0.114	3.042	0.039	0.158	0.109	0.104
	HMAC	2.879					2.906					2.940					2.967					3.003				
	PATB	2.753					2.770					2.790					2.818					2.845				
	DGAB	2.654					2.681					2.700					2.724					2.736				
	LTS	2.555					2.570					2.590					2.610					2.633				
1+00	C Surface	2.954	0.038	0.129	0.099	0.132	2.975	0.042	0.141	0.092	0.123	2.988	0.048	0.145	0.089	0.154	3.015	0.046	0.145	0.088	0.105	3.042	0.056	0.146	0.094	0.088
	HMAC	2.916					2.933					2.950					2.970					2.986				
	PATB	2.788					2.793					2.806					2.825					2.840				
	DGAB	2.689					2.700					2.716					2.737					2.746				
	LTS	2.588					2.578					2.563					2.633					2.658				
1+50	C Surface	2.954	0.040	0.129	0.098	0.105	2.978	0.039	0.138	0.087	0.110	2.986	0.040	0.146	0.086	0.107	3.015	0.040	0.153	0.083	0.109	3.039	0.053	0.159	0.085	0.093
	HMAC	2.914					2.936					2.958					2.975					2.986				
	PATB	2.785					2.798					2.810					2.823					2.828				
	DGAB	2.687					2.710					2.724					2.739					2.743				
	LTS	2.583					2.600					2.618					2.630					2.650				
2+00	C Surface	2.965	0.029	0.134	0.100	0.098	2.981	0.037	0.144	0.081	0.091	3.003	0.039	0.153	0.090	0.090	3.018	0.035	0.148	0.088	0.096	3.038	0.036	0.150	0.105	0.095
	HMAC	2.934					2.944					2.963					2.983					3.000				
	PATB	2.800					2.800					2.810					2.835					2.850				
	DGAB	2.700					2.709					2.720					2.736					2.745				
	LTS	2.603					2.618					2.630					2.640					2.650				
2+50	C Surface	2.966	0.017	0.139	0.101	0.108	2.984	0.018	0.158	0.094	0.101	3.003	0.030	0.156	0.085	0.128	3.018	0.029	0.157	0.087	0.124	3.041	0.037	0.162	0.078	0.131
	HMAC	2.949					2.966					2.973					2.989					3.004				
	PATB	2.810					2.810					2.818					2.833					2.843				
	DGAB	2.709					2.716					2.723					2.746					2.763				
	LTS	2.600					2.615					2.595					2.623					2.633				
3+00	C Surface	2.969	0.013	0.141	0.105	0.095	2.993	0.023	0.153	0.087	0.103	3.018	0.025	0.161	0.087	0.111	3.035	0.019	0.161	0.089	0.124	3.059	0.025	0.167	0.082	0.124
	HMAC	2.956					2.970					2.993					3.016					3.034				
	PATB	2.815					2.818					2.833					2.855					2.868				
	DGAB	2.710					2.730					2.746					2.766					2.786				
	LTS	2.615					2.628					2.635					2.643					2.663				
3+50	C Surface	2.981	0.012	0.147	0.078	0.127	3.004	0.012	0.157	0.075	0.125	3.024	0.021	0.153	0.076	0.128	3.041	0.019	0.162	0.090	0.118	3.064	0.023	0.178	0.088	0.087
	HMAC	2.969					2.992					3.003					3.022					3.040				
	PATB	2.823					2.835					2.850					2.860					2.883				
	DGAB	2.744					2.760					2.774					2.770					2.774				
	LTS	2.618					2.635					2.645					2.653					2.688				
4+00	C Surface	3.007	0.006	0.156	0.082	0.108	3.027	0.007	0.166	0.078	0.101	3.045	0.011	0.169	0.083	0.097	3.060	0.011	0.167	0.091	0.097	3.080	0.014	0.179	0.092	0.088
	HMAC	3.001					3.020					3.034					3.049					3.065				
	PATB	2.845					2.853					2.865					2.883					2.888				
	DGAB	2.763					2.773					2.782					2.782					2.796				
	LTS	2.655					2.673					2.685					2.695					2.700				
4+50	C Surface	3.025	0.001	0.154	0.086	0.107	3.039	0.006	0.156	0.084	0.089	3.054	0.013	0.169	0.069	0.099	3.064	0.007	0.184	0.083	0.079	3.083	0.009	0.202	0.093	0.050
	HMAC	3.024					3.033					3.041					3.058					3.074				
	PATB	2.870					2.878					2.873					2.873					2.873				
	DGAB	2.784					2.784					2.804					2.789					2.780				
	LTS	2.678					2.685					2.705					2.710					2.730				
5+00	C Surface	3.038	0.003	0.158	0.085	0.105	3.057	0.006	0.162	0.091	0.096	3.079	0.012	0.165	0.068	0.087	3.100	0.004	0.169	0.095	0.081	3.125	0.001	0.183	0.084	0.101
	HMAC	3.033					3.052					3.067					3.096					3.123				
	PATB	2.878					2.890					2.903					2.928					2.940				
	DGAB	2.782					2.799					2.814					2.833					2.856				
	LTS	2.678					2.705					2.728					2.743					2.755				
	AVG	0.023	0.142	0.094	0.106		0.026	0.150	0.089	0.105		0.029	0.156	0.086	0.111		0.026	0.159	0.090	0.105		0.030	0.168	0.088	0.098
	MAX	0.047	0.156	0.105	0.132		0.051	0.168	0.097	0.125		0.048	0.169	0.095	0.154		0.048	0.184	0.097	0.124		0.056	0.202	0.109	0.131
	MIN	0.001	0.127	0.078	0.087		0.005	0.139	0.075	0.088		0.011	0.145	0.069	0.087		0.004	0.145	0.083	0.079		0.001	0.146	0.079	0.090
	STD	0.017	0.011	0.008	0.012		0.018	0.011	0.006	0.012		0.014	0.009	0.007	0.020		0.015	0.011	0.004	0.014		0.018	0.016	0.008	0.021

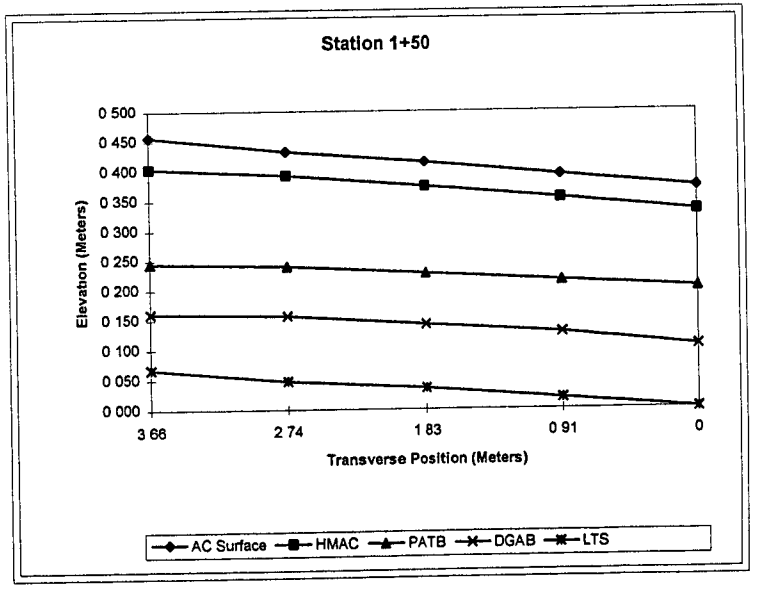
	AC Surface	HMAC	PATB	DGAB
SECTION AVG	0.028	0.154	0.090	0.104
SECTION MAX	0.056	0.202	0.109	0.154
SECTION MIN	0.001	0.127	0.069	0.050
SECTION STD	0.016	0.014	0.008	0.016

Texas SPS-1 (480119)

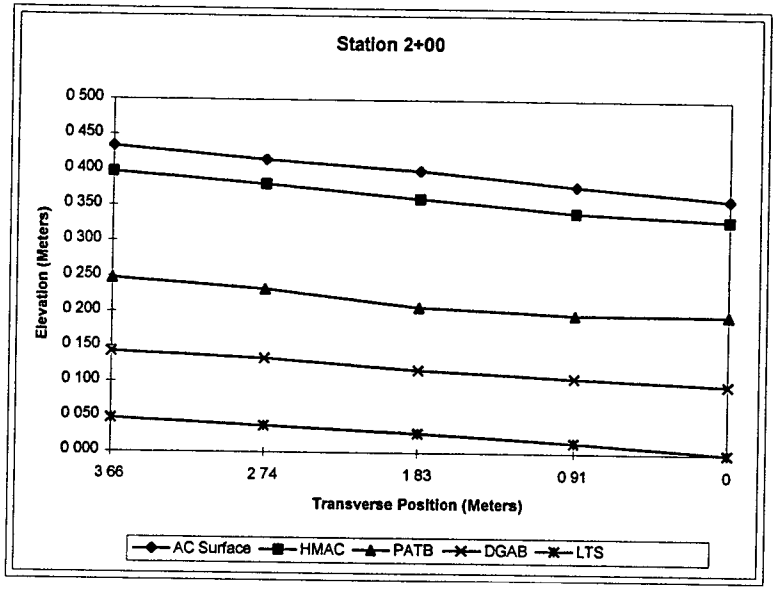


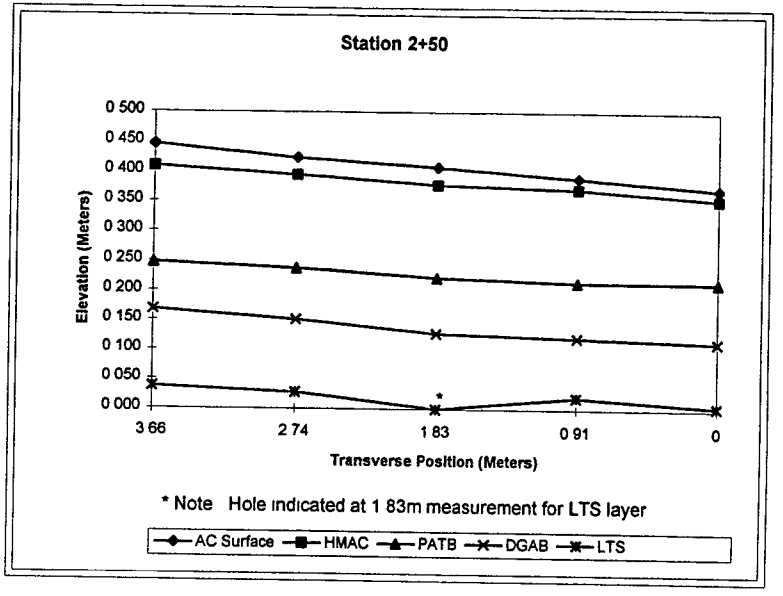


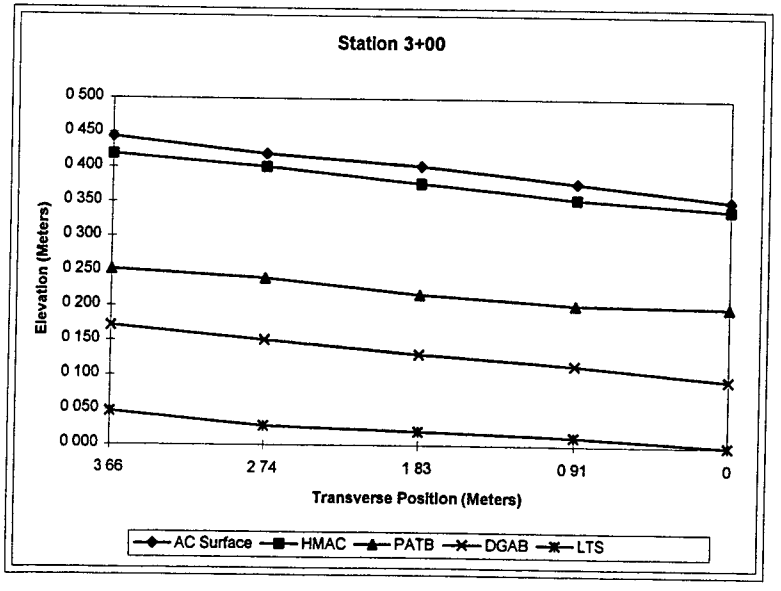


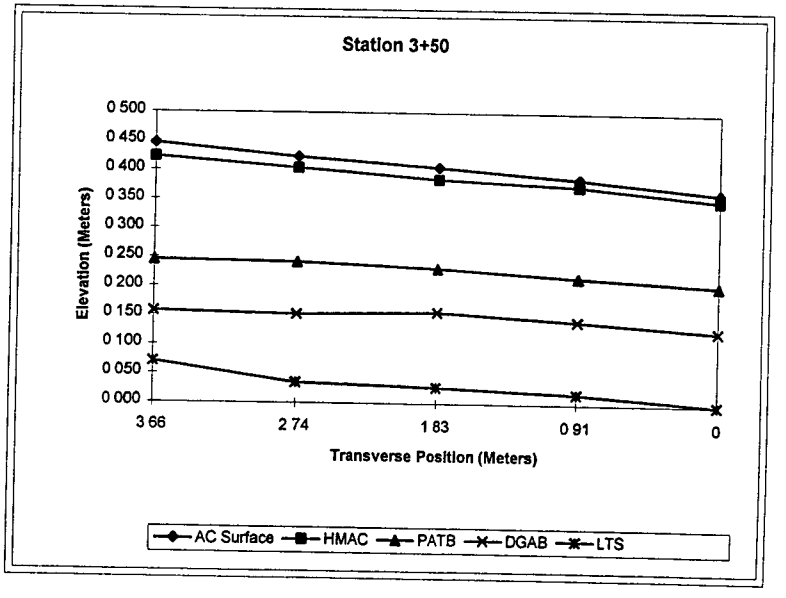


Texas SPS-1 (480119)

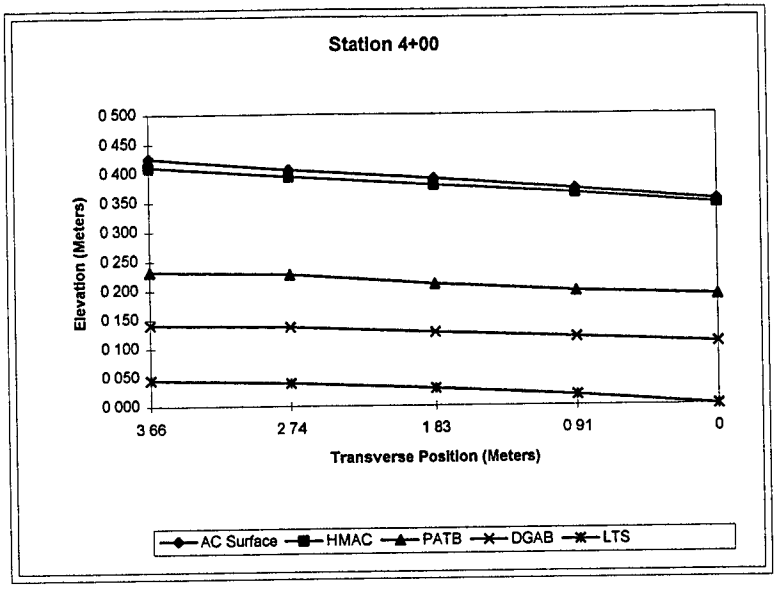


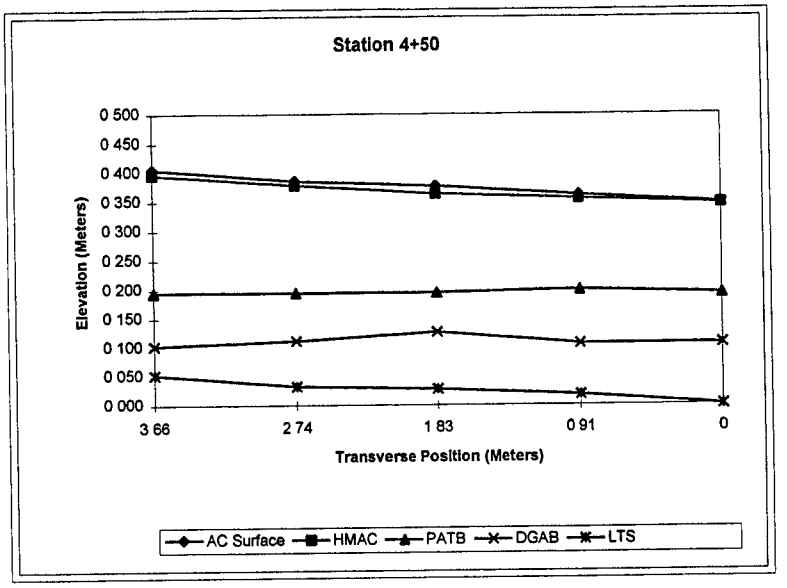


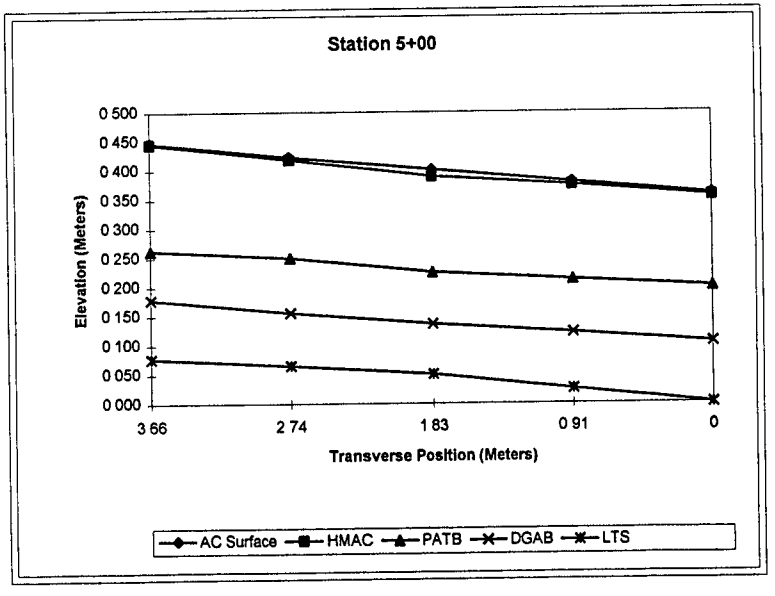




Texas SPS-1 (480119)





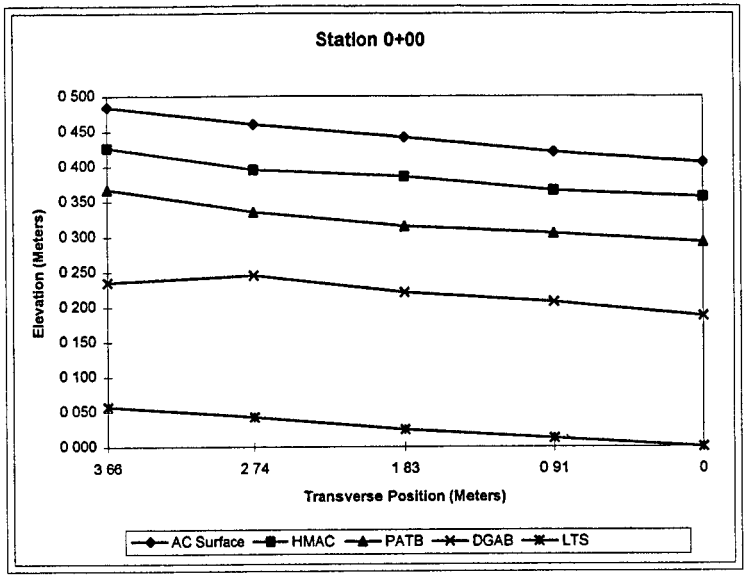


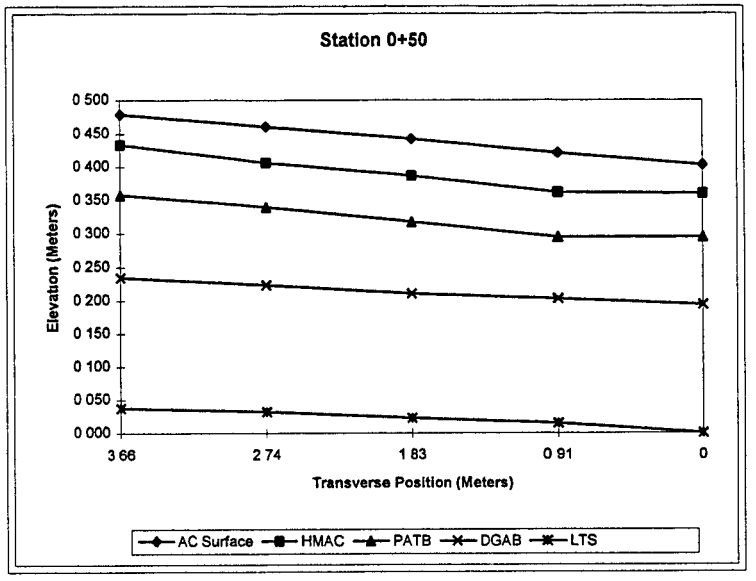
Texas SPS-1 (480120)

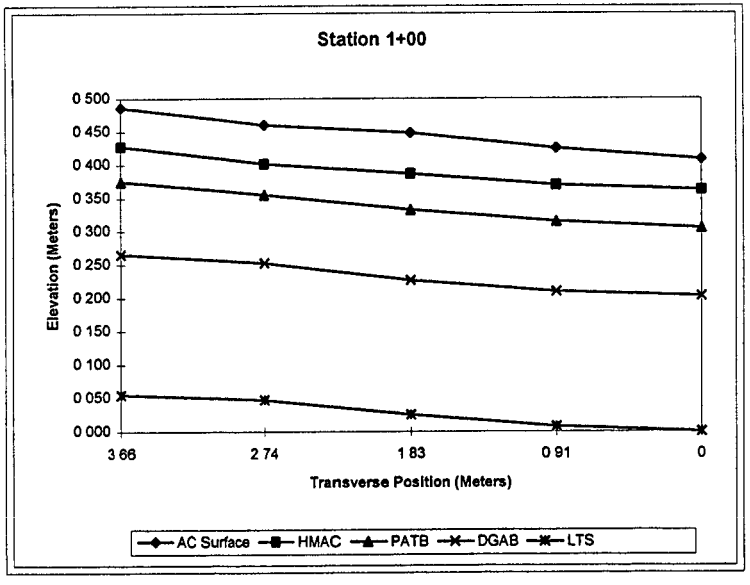
Transverse Offset		0					0.61					1.83					2.74					3.66				
	LAYERS	ELEVATION Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	PATB THICKNESS Meters	DGAB THICKNESS Meters	ELEVATION Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	PATB THICKNESS Meters	DGAB THICKNESS Meters	ELEVATION Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	PATB THICKNESS Meters	DGAB THICKNESS Meters	ELEVATION Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	PATB THICKNESS Meters	DGAB THICKNESS Meters	ELEVATION Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	PATB THICKNESS Meters	DGAB THICKNESS Meters
0+00	C Surface	2 963	0 049	0 064	0 105	0 188	2 978	0 055	0 061	0 097	0 195	2 999	0 056	0 071	0 094	0 197	3 018	0 065	0 060	0 090	0 203	3 042	0 058	0 059	0 132	0 178
	HMAC	2 914					2 923					2 943					2 953					2 984				
	PATB	2 850					2 863					2 873					2 893					2 925				
	DGAB	2 745					2 765					2 778					2 803					2 793				
	LTS	2 558					2 570					2 583					2 600					2 615				
0+50	C Surface	2 975	0 043	0 064	0 102	0 194	2 993	0 059	0 067	0 093	0 188	3 015	0 056	0 069	0 107	0 188	3 033	0 054	0 067	0 117	0 191	3 051	0 045	0 076	0 123	0 197
	HMAC	2 932					2 934					2 959					2 879					3 006				
	PATB	2 868					2 868					2 890					2 813					2 930				
	DGAB	2 766					2 775					2 783					2 786					2 807				
	LTS	2 573					2 588					2 595					2 605					2 810				
1+00	C Surface	2 986	0 048	0 058	0 103	0 203	3 002	0 055	0 055	0 106	0 202	3 025	0 061	0 054	0 106	0 202	3 038	0 059	0 047	0 103	0 205	3 063	0 058	0 052	0 110	0 211
	HMAC	2 940					2 947					2 964					2 979					3 005				
	PATB	2 883					2 893					2 910					2 933					2 953				
	DGAB	2 780					2 787					2 804					2 830					2 843				
	LTS	2 578					2 585					2 603					2 625					2 633				
1+50	C Surface	2 987	0 045	0 060	0 091	0 200	3 007	0 058	0 067	0 083	0 189	3 030	0 057	0 078	0 090	0 180	3 048	0 061	0 072	0 093	0 190	3 073	0 056	0 088	0 108	0 188
	HMAC	2 942					2 949					2 973					2 987					3 016				
	PATB	2 883					2 883					2 895					2 915					2 928				
	DGAB	2 782					2 799					2 805					2 822					2 820				
	LTS	2 593					2 610					2 625					2 633					2 653				
2+00	C Surface	2 984	0 039	0 057	0 109	0 194	3 002	0 050	0 057	0 100	0 190	3 022	0 053	0 064	0 099	0 186	3 036	0 054	0 060	0 106	0 177	3 058	0 057	0 062	0 114	0 179
	HMAC	2 945					2 952					2 969					2 982					2 999				
	PATB	2 888					2 895					2 905					2 923					2 938				
	DGAB	2 779					2 795					2 806					2 817					2 824				
	LTS	2 585					2 605					2 620					2 640					2 645				
2+50	C Surface	2 981	0 048	0 053	0 090	0 188	2 996	0 052	0 059	0 095	0 180	3 016	0 059	0 064	0 103	0 185	3 027	0 062	0 065	0 106	0 159	3 048	0 064	0 071	0 112	0 149
	HMAC	2 933					2 944					2 957					2 965					2 984				
	PATB	2 880					2 885					2 893					2 900					2 913				
	DGAB	2 790					2 790					2 790					2 794					2 801				
	LTS	2 593					2 610					2 605					2 635					2 653				
3+00	C Surface	2 987	0 040	0 057	0 097	0 186	3 008	0 048	0 060	0 097	0 178	3 027	0 050	0 055	0 108	0 178	3 042	0 048	0 052	0 108	0 198	3 060	0 041	0 057	0 109	0 197
	HMAC	2 947					2 960					2 977					2 984					3 019				
	PATB	2 890					2 900					2 923					2 943					2 963				
	DGAB	2 793					2 803					2 815					2 835					2 854				
	LTS	2 608					2 625					2 638					2 638					2 658				
3+50	C Surface	3 009	0 039	0 050	0 107	0 206	3 025	0 045	0 050	0 106	0 197	3 045	0 049	0 059	0 095	0 203	3 054	0 044	0 055	0 091	0 212	3 076	0 056	0 053	0 097	0 193
	HMAC	2 970					2 980					2 996					3 010					3 020				
	PATB	2 920					2 930					2 938					2 955					2 968				
	DGAB	2 813					2 824					2 843					2 864					2 870				
	LTS	2 608					2 628					2 640					2 653					2 678				
4+00	C Surface	3 033	0 034	0 054	0 094	0 209	3 054	0 045	0 058	0 093	0 200	3 076	0 056	0 058	0 107	0 186	3 091	0 045	0 068	0 099	0 177	3 115	0 048	0 062	0 102	0 193
	HMAC	2 998					3 009					3 020					3 046					3 067				
	PATB	2 945					2 953					2 963					2 978					3 005				
	DGAB	2 851					2 860					2 856					2 879					2 903				
	LTS	2 643					2 660					2 670					2 703					2 710				
4+50	C Surface	3 047	0 038	0 056	0 093	0 193	3 060	0 034	0 059	0 105	0 181	3 083	0 040	0 068	0 103	0 175	3 097	0 045	0 062	0 097	0 186	3 115	0 042	0 066	0 101	0 182
	HMAC	3 009					3 026					3 043					3 052					3 073				
	PATB	2 953					2 968					2 975					2 990					3 008				
	DGAB	2 860					2 863					2 872					2 893					2 907				
	LTS	2 668					2 683					2 698					2 708					2 725				
5+00	C Surface	3 054	0 041	0 053	0 107	0 201	3 073	0 045	0 050	0 104	0 202	3 094	0 055	0 059	0 100	0 190	3 103	0 051	0 057	0 100	0 188	3 127	0 062	0 050	0 111	0 154
	HMAC	3 013					3 027					3 039					3 052					3 065				
	PATB	2 960					2 978					2 980					2 995					3 015				
	DGAB	2 853					2 874					2 880					2 895					2 904				
	LTS	2 653					2 673					2 690					2 708					2 750				
	AVG	0 042	0 057	0 099	0 197		0 050	0 058	0 098	0 191		0 054	0 063	0 101	0 188		0 053	0 060	0 100	0 191		0 053	0 063	0 110	0 182
	MAX	0 049	0 064	0 107	0.209		0 059	0 067	0 106	0 202		0 061	0 078	0 108	0 203		0 065	0 072	0 117	0 212		0 064	0 088	0 132	0 211
	MIN	0 034	0 050	0 090	0 186		0 034	0 050	0 083	0 178		0 040	0 054	0 090	0 175		0 044	0 047	0 090	0 159		0 041	0 050	0 097	0 149
	STD	0 004	0 004	0 006	0 007		0 007	0 008	0 007	0 009		0 006	0 008	0 006	0 009		0 007	0 008	0 008	0 014		0 008	0 012	0 010	0 019

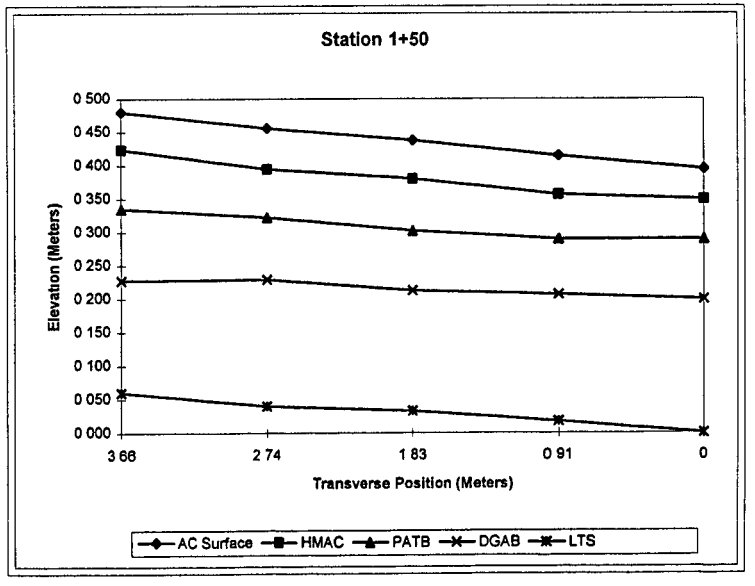
	AC Surfac	HMAC	PATB	DGAB
SECTION AVG	0 050	0 060	0 102	0 189
SECTION MAX	0 065	0 088	0 132	0 212
SECTION MIN	0 034	0 047	0 083	0 149
SECTION STD	0 006	0 008	0 009	0 013

Texas SPS-1 (480120)

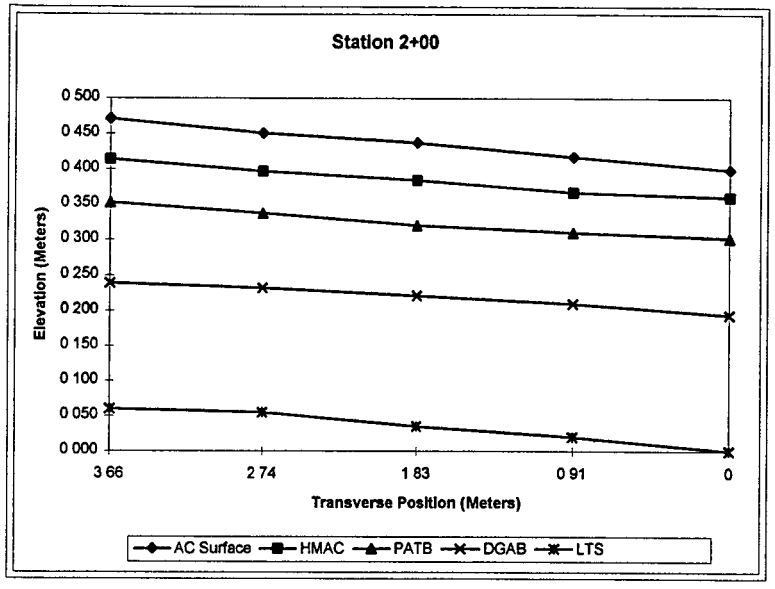


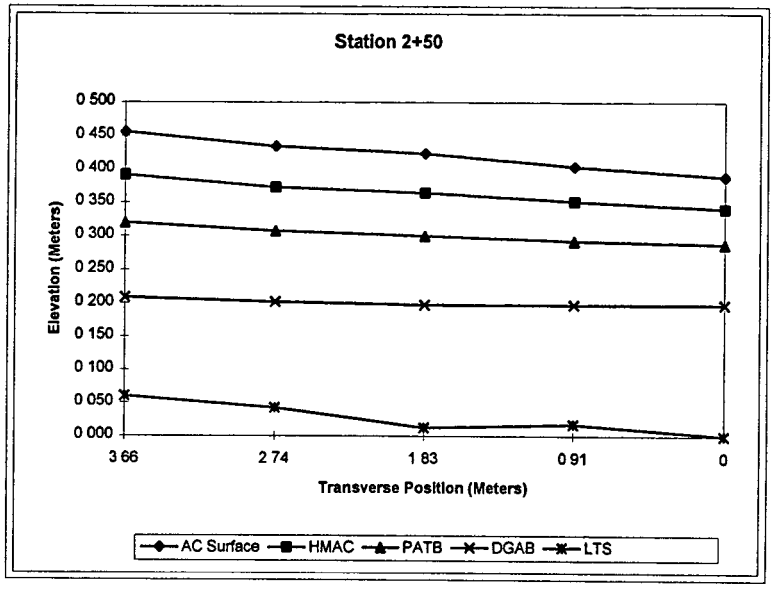


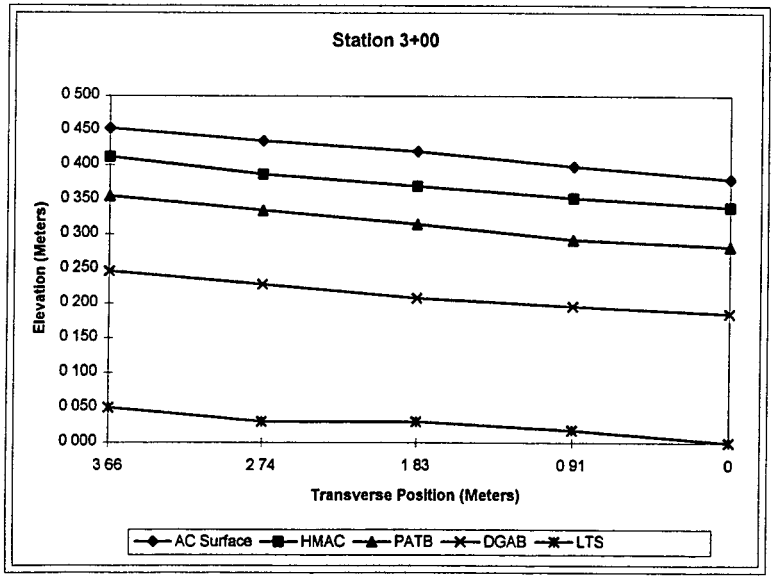


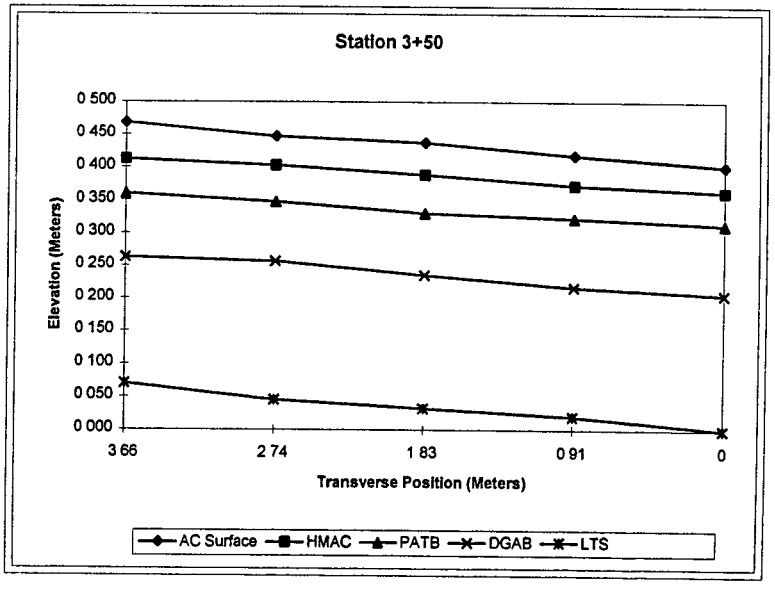


Texas SPS-1 (480120)

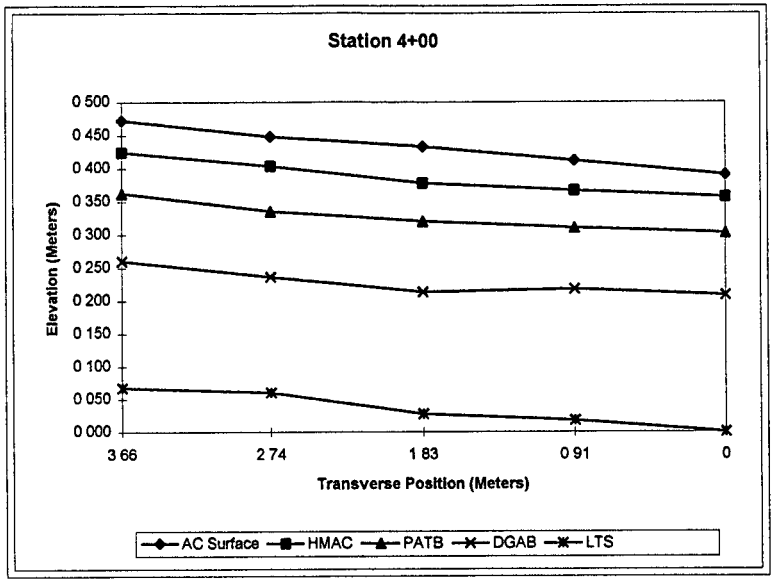


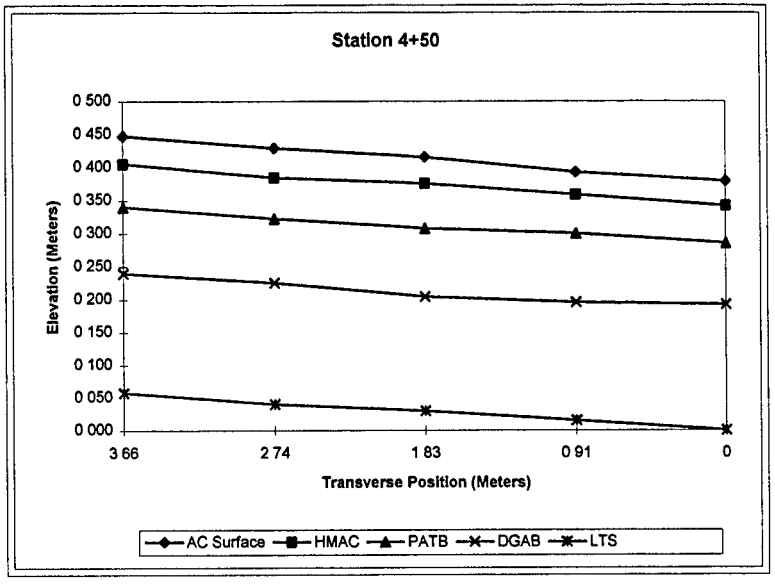


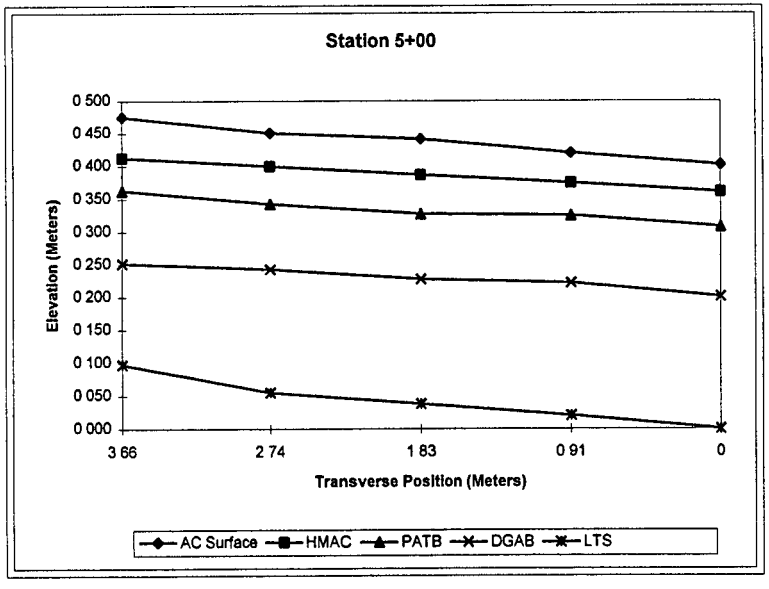




Texas SPS-1 (480120)





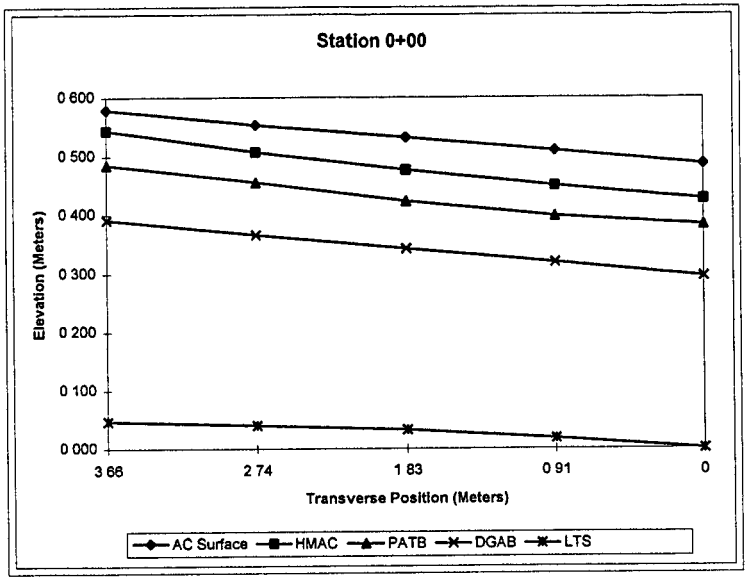


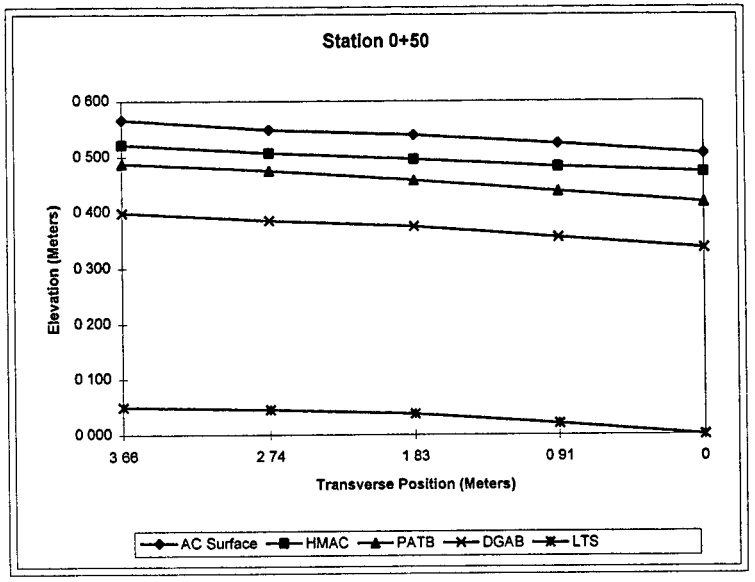
Texas SPS-1 (480121)

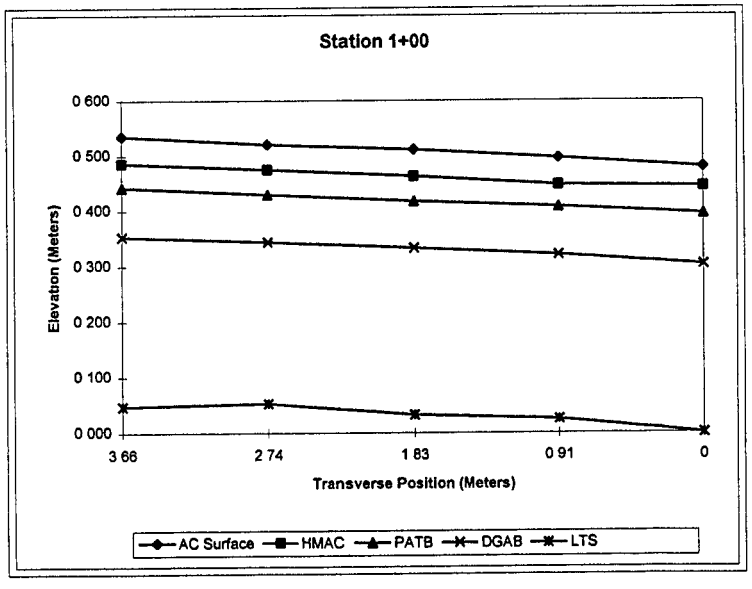
Transverse Offset / LAYERS	ELEVATION 0 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	PATB THICKNESS Meters	DGAB THICKNESS Meters	ELEVATION 0.11 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	PATB THICKNESS Meters	DGAB THICKNESS Meters	ELEVATION 1.83 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	PATB THICKNESS Meters	DGAB THICKNESS Meters	ELEVATION 2.74 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	PATB THICKNESS Meters	DGAB THICKNESS Meters	ELEVATION 3.05 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	PATB THICKNESS Meters	DGAB THICKNESS Meters
0+00 C Surface	2 886	0 060	0 043	0 088	0 295	2 909	0 060	0 052	0 079	0 302	2 932	0 056	0 054	0 080	0 310	2 953	0 046	0 052	0 089	0 326	2 979	0 035	0 059	0 094	0 344
HMAC	2 826					2 849					2 876					2 907					2 944				
PATB	2 783					2 798					2 823					2 855					2 885				
DGAB	2 695					2 719					2 742					2 766					2 791				
LTS	2 400					2.418					2 433					2 440					2 448				
0+50 C Surface	2 911	0 034	0 055	0 081	0 336	2 929	0 042	0 045	0 083	0 335	2 944	0 043	0 039	0 083	0 338	2 953	0 041	0 032	0 090	0 340	2 972	0 044	0 035	0 089	0 349
HMAC	2 877					2 887					2 901					2 912					2 927				
PATB	2 823					2 843					2 863					2 880					2 893				
DGAB	2 741					2 760					2 780					2 790					2 804				
LTS	2 405					2 425					2 443					2 450					2 455				
1+00 C Surface	2 909	0 035	0 049	0 092	0 303	2 926	0 049	0 039	0 087	0 296	2 941	0 048	0 045	0 085	0 301	2 950	0 045	0 045	0 086	0 292	2 965	0 049	0 043	0 090	0 306
HMAC	2 874					2 877					2 893					2 905					2 916				
PATB	2 825					2 838					2 848					2 860					2 873				
DGAB	2 733					2 751					2 763					2 774					2 783				
LTS	2 430					2 455					2 463					2 483					2 478				
1+50 C Surface	2 914	0 039	0 047	0 085	0 286	2 932	0 053	0 039	0 079	0 296	2 950	0 054	0 039	0 075	0 296	2 962	0 045	0 047	0 088	0 282	2 987	0 054	0 051	0 083	0 283
HMAC	2 874					2 879					2 896					2 917					2 933				
PATB	2 828					2 840					2 858					2 870					2 883				
DGAB	2 743					2 761					2 783					2 782					2 800				
LTS	2 446					2 465					2 488					2 500					2 518				
2+00 C Surface	2 950	0 033	0 039	0 104	0 287	2 972	0 045	0 041	0 092	0 303	2 993	0 041	0 050	0 083	0 312	3 011	0 036	0 045	0 097	0 311	3 032	0 029	0 048	0 089	0 324
HMAC	2 917					2 926					2 952					2 875					3 003				
PATB	2 878					2 885					2 903					2 930					2 955				
DGAB	2 774					2 793					2 819					2 833					2 856				
LTS	2 478					2 490					2 508					2 523					2 533				
2+50 C Surface	2 881	0 041	0 045	0 085	0 313	3 002	0 045	0 042	0 086	0 319	3 023	0 048	0 038	0 090	0 321	3 042	0 050	0 039	0 089	0 317	3 066	0 044	0 044	0 102	0 319
HMAC	2 940					2 957					2 975					2 992					3 022				
PATB	2 895					2 915					2 938					2 953					2 978				
DGAB	2 810					2 829					2 848					2 864					2 876				
LTS	2 498					2 510					2 528					2 548					2 558				
3+00 C Surface	2 973	0 044	0 041	0 107	0 274	2 996	0 046	0 048	0 091	0 291	3 023	0 047	0 056	0 095	0 288	3 046	0 040	0 061	0 091	0 309	3 069	0 026	0 081	0 088	0 319
HMAC	2 929					2 950					2 976					3 006					3 043				
PATB	2 888					2 903					2 920					2 945					2 963				
DGAB	2 781					2 811					2 825					2 854					2 874				
LTS	2 508					2 520					2 538					2 545					2 555				
3+50 C Surface	2 953	0 047	0 048	0 101	0 254	2 975	0 051	0 048	0 102	0 256	2 998	0 053	0 055	0 098	0 265	3 014	0 055	0 054	0 090	0 283	3 039	0 052	0 059	0 098	0 298
HMAC	2 906					2 923					2 943					2 959					2 986				
PATB	2 860					2 875					2 888					2 905					2 928				
DGAB	2 759					2 773					2 790					2 815					2 830				
LTS	2 505					2 518					2 525					2 533					2 533				
4+00 C Surface	2 987	0 038	0 036	0 120	0 276	3 007	0 044	0 037	0 119	0 274	3 034	0 044	0 043	0 122	0 291	3 052	0 033	0 039	0 130	0 275	3 074	0 025	0 031	0 138	0 275
HMAC	2 949					2 962					2 990					3 019					3 049				
PATB	2 913					2 925					2 948					2 980					3 018				
DGAB	2 793					2 806					2 826					2 850					2 880				
LTS	2 518					2 533					2 535					2 575					2 605				
4+50 C Surface	3 023	0 041	0 035	0 094	0 303	3 045	0 053	0 035	0 098	0 300	3 063	0 050	0 040	0 089	0 304	3 078	0 056	0 032	0 097	0 301	3 098	0 053	0 038	0 095	0 296
HMAC	2 982					2 992					3 013					3 022					3 045				
PATB	2 848					2 958					2 973					2 990					3 008				
DGAB	2 853					2 860					2 884					2 893					2 913				
LTS	2 550					2 560					2 580					2 593					2 615				
5+00 C Surface	3 063	0 041	0 042	0 097	0 296	3 081	0 048	0 051	0 090	0 293	3 103	0 050	0 055	0 098	0 285	3 118	0 049	0 059	0 095	0 283	3 141	0 042	0 082	0 097	0 274
HMAC	3 022					3 033					3 053					3 069					3 099				
PATB	2 980					2 983					2 998					3 010					3 018				
DGAB	2 883					2 893					2 900					2 915					2 921				
LTS	2 588					2 600					2 615					2 633					2 648				
AVG	0 041	0 044	0 095	0.295		0 049	0 043	0 091	0 296		0 049	0 046	0 091	0 300		0 046	0 046	0 094	0 301		0 042	0 052	0 097	0 306
MAX	0 060	0 055	0 120	0 336		0 060	0 052	0 119	0 335		0 056	0 056	0 122	0 338		0 056	0 061	0 130	0 340		0 054	0 082	0 138	0 349
MIN	0 033	0 035	0 081	0.254		0 042	0 035	0 079	0.256		0 043	0 038	0 075	0 265		0 033	0 032	0 086	0 275		0 025	0 031	0 083	0 274
STD	0 007	0 006	0 011	0 021		0 005	0 006	0 012	0 021		0 004	0 008	0 012	0 019		0 007	0 010	0 012	0 021		0 010	0 017	0 014	0 025

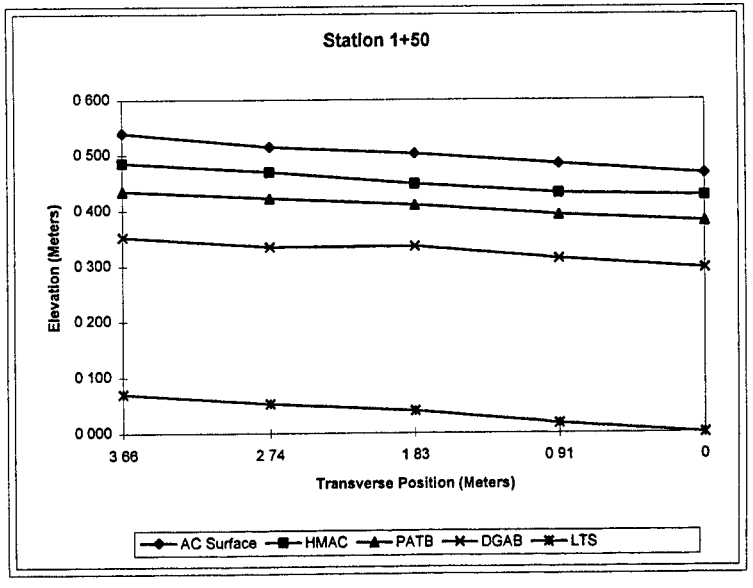
	AC Surfac	HMAC	PATB	DGAB
SECTION AVG	0 045	0 046	0 094	0 300
SECTION MAX	0 060	0 082	0 138	0 349
SECTION MIN	0 025	0 031	0 075	0 254
SECTION STD	0 008	0 010	0 012	0 021

Texas SPS-1 (480121)

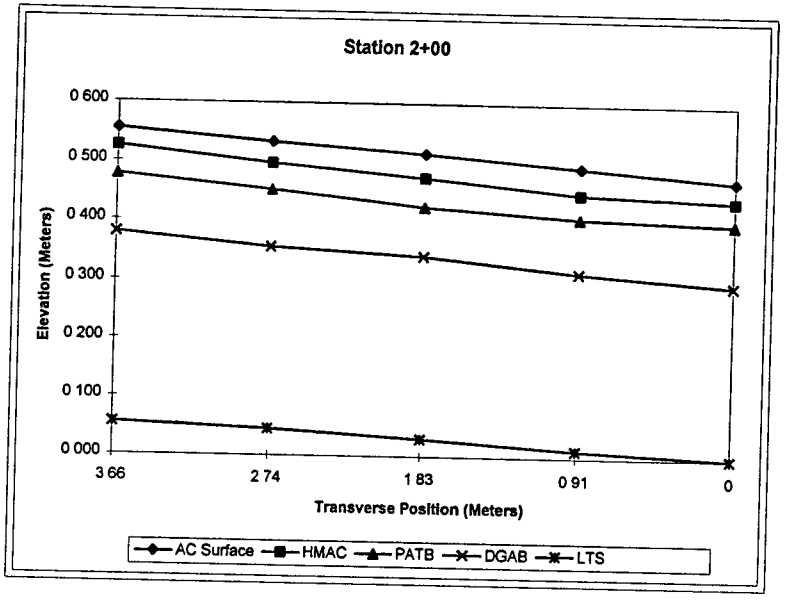


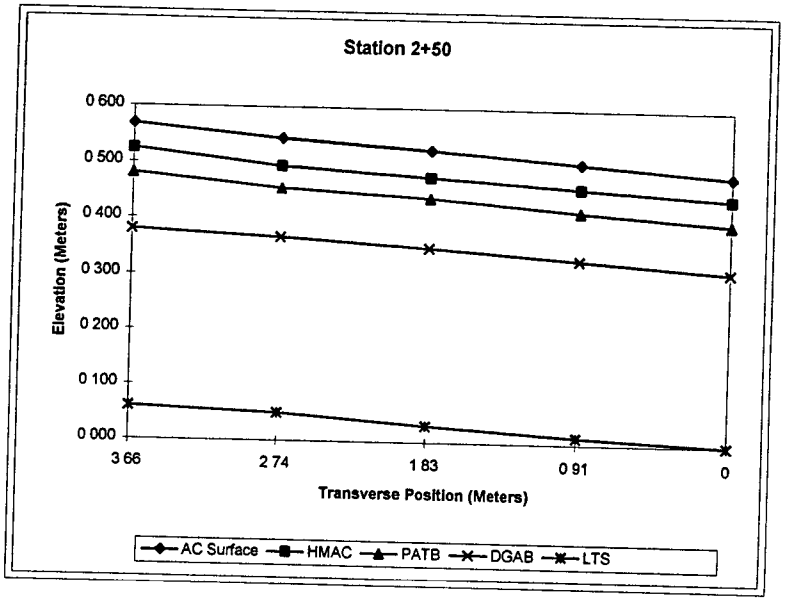


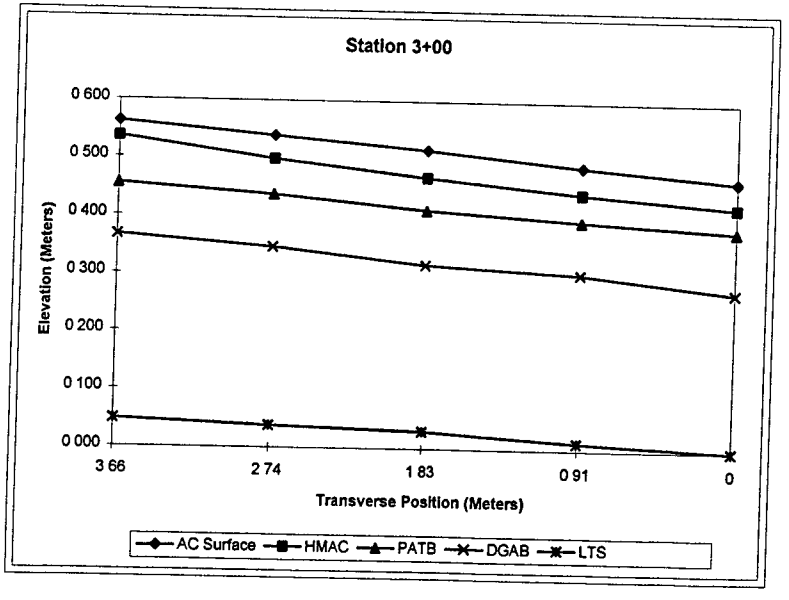


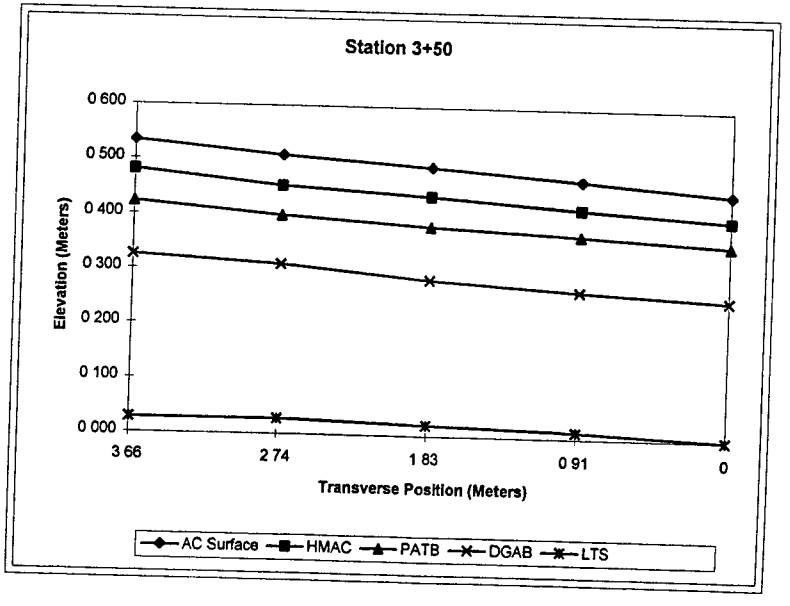


Texas SPS-1 (480121)

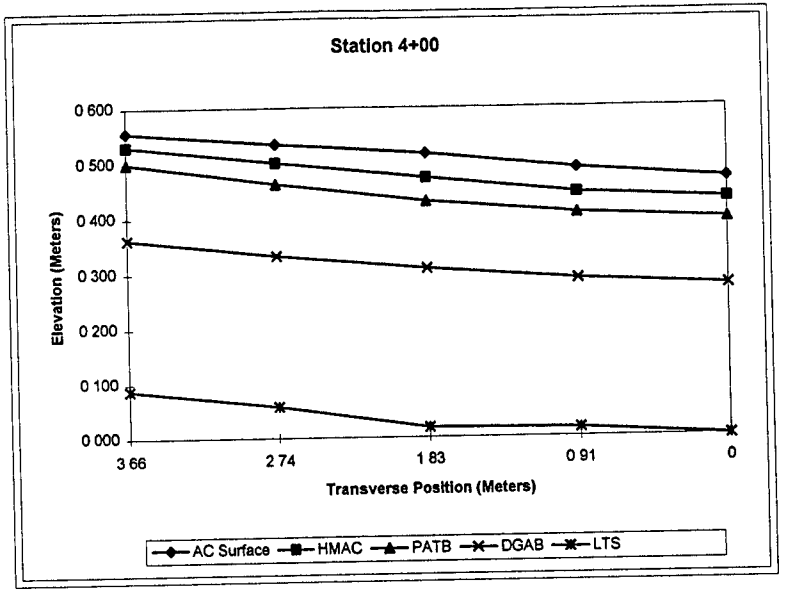


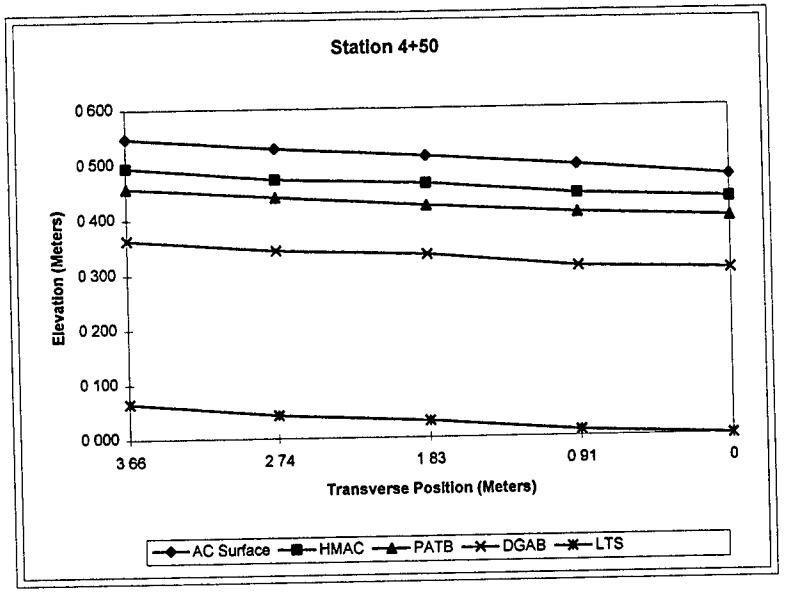


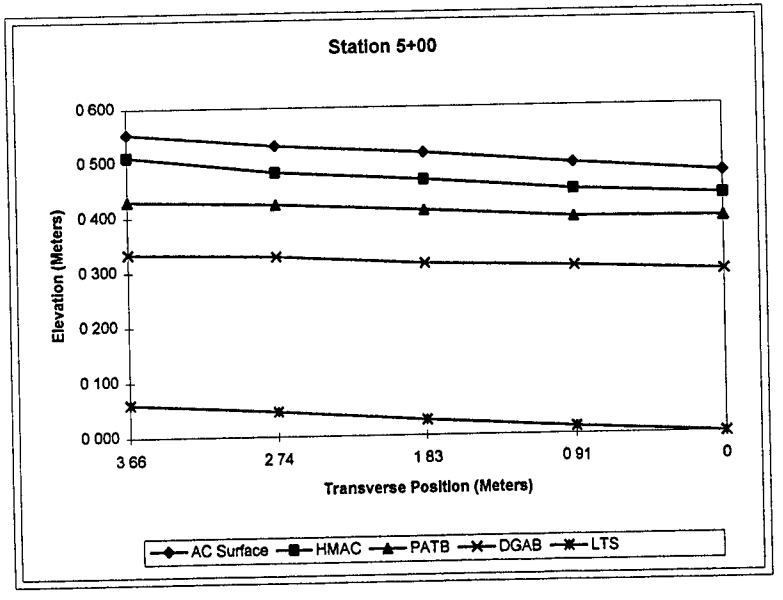




Texas SPS-1 (480121)





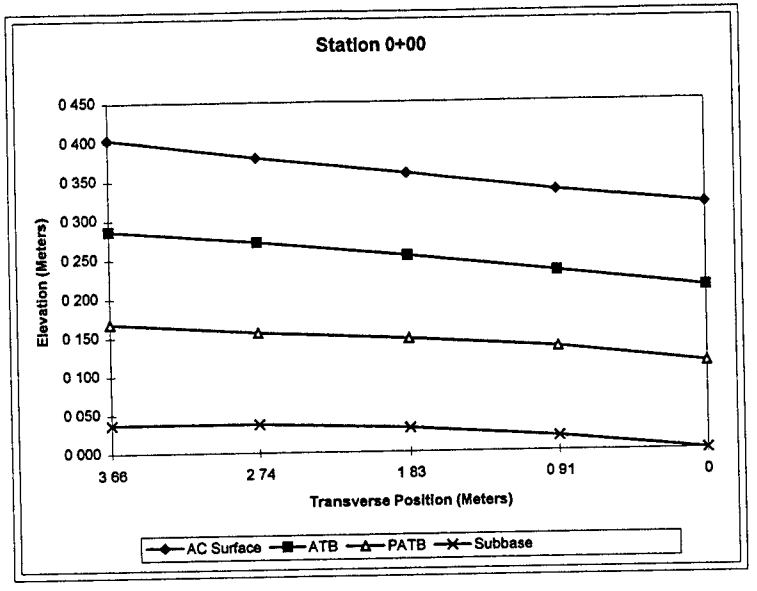


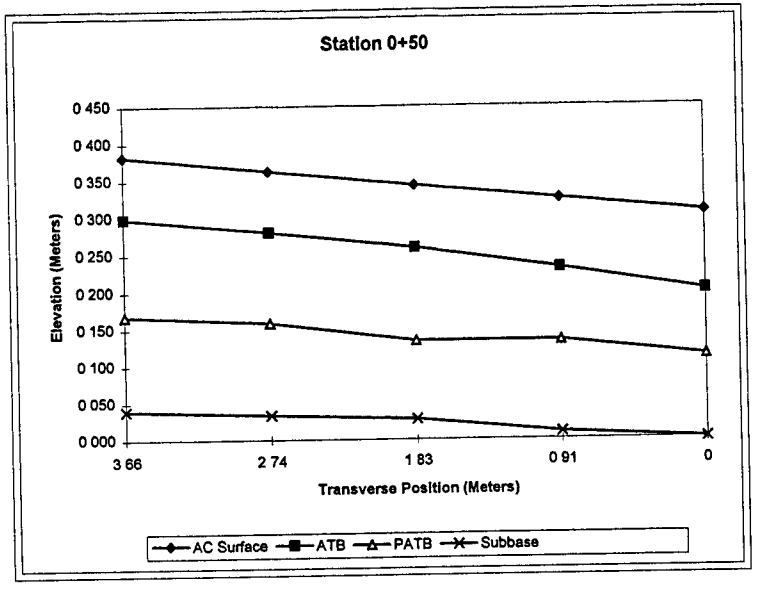
Texas SPS-1 (480122)

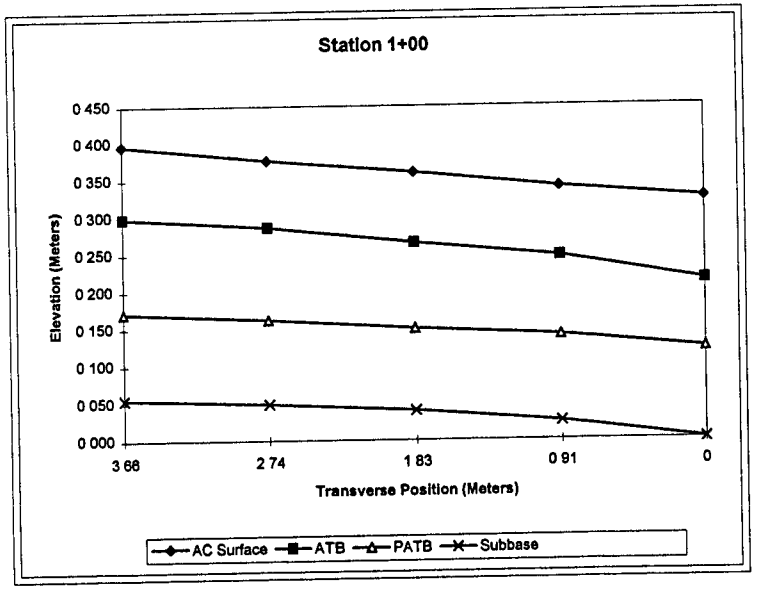
Transverse Offset	4 LAYERS	ELEVATION 0 Meters	AC Surface THICKNESS Meters	ATB THICKNESS Meters	PATB THICKNESS Meters	ELEVATION 0 91 Meters	AC Surface THICKNESS Meters	ATB THICKNESS Meters	PATB THICKNESS Meters	ELEVATION 1 83 Meters	AC Surface THICKNESS Meters	ATB THICKNESS Meters	PATB THICKNESS Meters	ELEVATION 2 74 Meters	AC Surface THICKNESS Meters	ATB THICKNESS Meters	PATB THICKNESS Meters	ELEVATION 3 68 Meters	AC Surface THICKNESS Meters	ATB THICKNESS Meters	PATB THICKNESS Meters
0+00	C Surface	24 180	0 107	0 098	0 113	24 198	0 104	0 098	0 116	24 221	0 105	0 107	0 116	24 242	0 108	0 116	0 119	24 267	0 117	0 119	0 131
	ATB	24 073				24 094				24 116				24 134				24 149			
	PATB	23 976				23 997				24 009				24 018				24 030			
	Subbase	23 863				23 881				23 893				23 899				23 899			
0+50	C Surface	24 200	0 105	0 088	0 113	24 218	0 093	0 098	0 125	24 236	0 084	0 125	0 107	24 256	0 082	0 122	0 125	24 276	0 084	0 131	0 128
	ATB	24 094				24 125				24 152				24 174				24 192			
	PATB	24 006				24 027				24 027				24 052				24 061			
	Subbase	23 893				23 902				23 921				23 927				23 933			
1+00	C Surface	24 242	0 111	0 091	0 122	24 258	0 093	0 107	0 116	24 277	0 094	0 116	0 110	24 294	0 090	0 125	0 113	24 314	0 098	0 128	0 116
	ATB	24 131				24 165				24 183				24 204				24 216			
	PATB	24 040				24 058				24 067				24 079				24 088			
	Subbase	23 918				23 942				23 957				23 966				23 973			
1+50	C Surface	24 283	0 104	0 094	0 104	24 300	0 099	0 098	0 110	24 317	0 101	0 104	0 110	24 332	0 101	0 110	0 110	24 349	0 108	0 107	0 122
	ATB	24 180				24 201				24 216				24 232				24 241			
	PATB	24 085				24 104				24 113				24 122				24 134			
	Subbase	23 982				23 994				24 003				24 012				24 012			
2+00	C Surface	24 308	0 113	0 091	0 119	24 328	0 102	0 091	0 125	24 347	0 104	0 094	0 125	24 366	0 098	0 101	0 137	24 390	0 110	0 085	0 158
	ATB	24 195				24 226				24 244				24 268				24 280			
	PATB	24 104				24 134				24 149				24 168				24 195			
	Subbase	23 985				24 009				24 024				24 030				24 037			
2+50	C Surface	24 320	0 116	0 091	0 128	24 334	0 102	0 088	0 131	24 349	0 105	0 082	0 134	24 366	0 104	0 085	0 134	24 384	0 098	0 098	0 134
	ATB	24 204				24 232				24 244				24 262				24 286			
	PATB	24 113				24 143				24 161				24 177				24 189			
	Subbase	23 985				24 012				24 027				24 043				24 055			
3+00	C Surface	24 352	0 117	0 085	0 110	24 370	0 111	0 076	0 122	24 392	0 114	0 076	0 125	24 411	0 110	0 085	0 128	24 433	0 110	0 094	0 131
	ATB	24 235				24 259				24 277				24 302				24 323			
	PATB	24 149				24 183				24 201				24 216				24 229			
	Subbase	24 040				24 061				24 078				24 088				24 097			
3+50	C Surface	24 375	0 122	0 088	0 113	24 396	0 116	0 076	0 131	24 419	0 111	0 082	0 140	24 440	0 111	0 079	0 137	24 465	0 117	0 082	0 128
	ATB	24 253				24 280				24 308				24 329				24 347			
	PATB	24 165				24 204				24 226				24 250				24 265			
	Subbase	24 052				24 073				24 085				24 113				24 137			
4+00	C Surface	24 402	0 119	0 085	0 107	24 428	0 114	0 076	0 128	24 457	0 116	0 079	0 128	24 482	0 113	0 082	0 128	24 512	0 110	0 098	0 146
	ATB	24 283				24 314				24 341				24 369				24 402			
	PATB	24 198				24 238				24 262				24 286				24 305			
	Subbase	24 091				24 110				24 134				24 158				24 158			
4+50	C Surface	24 436	0 116	0 091	0 098	24 460	0 110	0 082	0 110	24 483	0 114	0 076	0 119	24 509	0 113	0 082	0 128	24 535	0 102	0 101	0 131
	ATB	24 320				24 350				24 369				24 396				24 433			
	PATB	24 229				24 268				24 293				24 314				24 332			
	Subbase	24 131				24 158				24 174				24 186				24 201			
5+00	C Surface	24 457	0 113	0 082	0 107	24 478	0 119	0 079	0 113	24 500	0 122	0 079	0 110	24 526	0 120	0 091	0 104	24 555	0 122	0 104	0 110
	ATB	24 344				24 360				24 378				24 405				24 433			
	PATB	24 262				24 280				24 299				24 314				24 329			
	Subbase	24 155				24 168				24 189				24 210				24 219			
	AVG		0 113	0 090	0 111		0 106	0 088	0 120		0 107	0 093	0 120		0 105	0 098	0 123		0 107	0 106	0 128
	MAX		0 122	0 098	0 128		0 119	0 107	0 131		0 122	0 125	0 140		0 120	0 125	0 137		0 122	0 131	0 146
	MIN		0 104	0 082	0 098		0 093	0 076	0 110		0 084	0 076	0 107		0 082	0 079	0 104		0 084	0 082	0 110
	STD		0 006	0 004	0 008		0 009	0 011	0 008		0 011	0 017	0 011		0 011	0 017	0 010		0 011	0 015	0 010

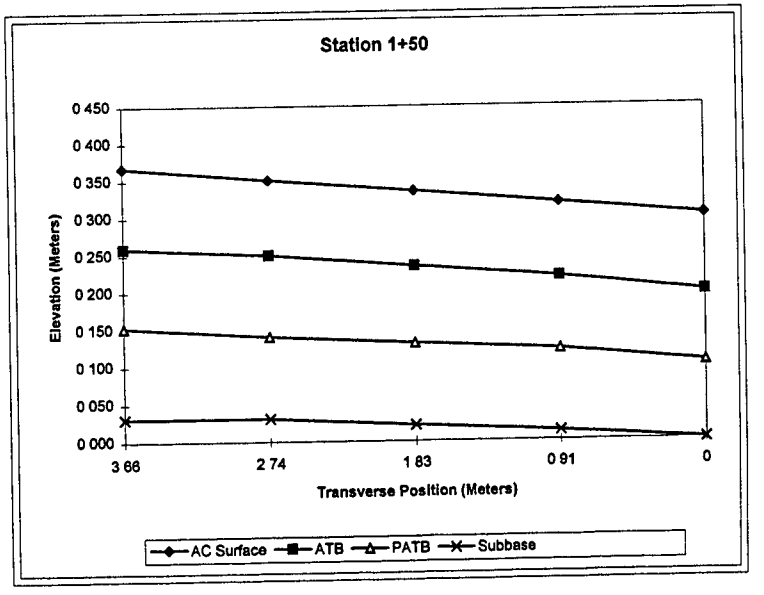
	AC Surfac	ATB	PATB
SECTION AVG	0 107	0 095	0 121
SECTION MAX	0 122	0 131	0 146
SECTION MIN	0 082	0 076	0 098
SECTION STD	0 010	0 015	0 012

Texas SPS-1 (480122)

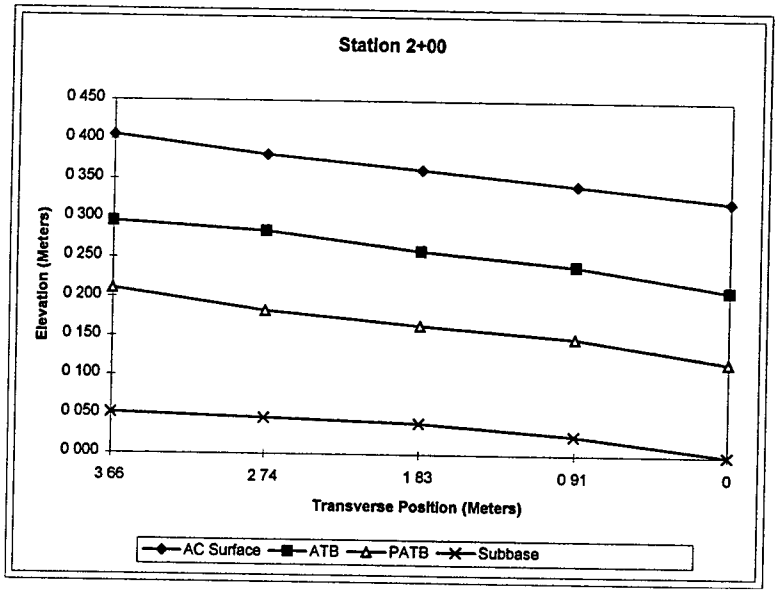


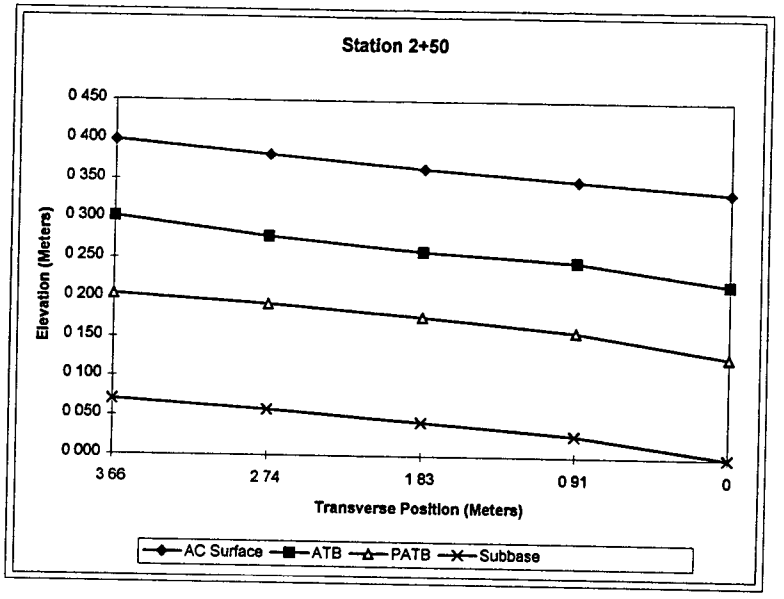


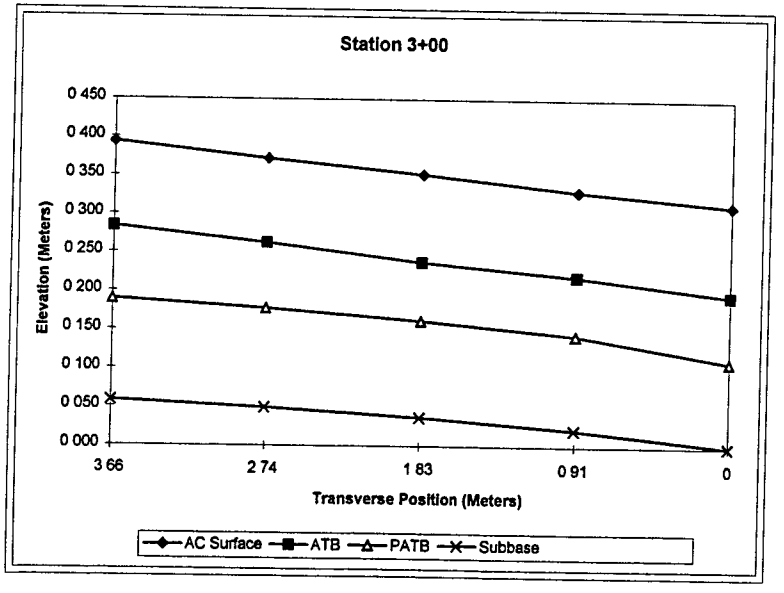


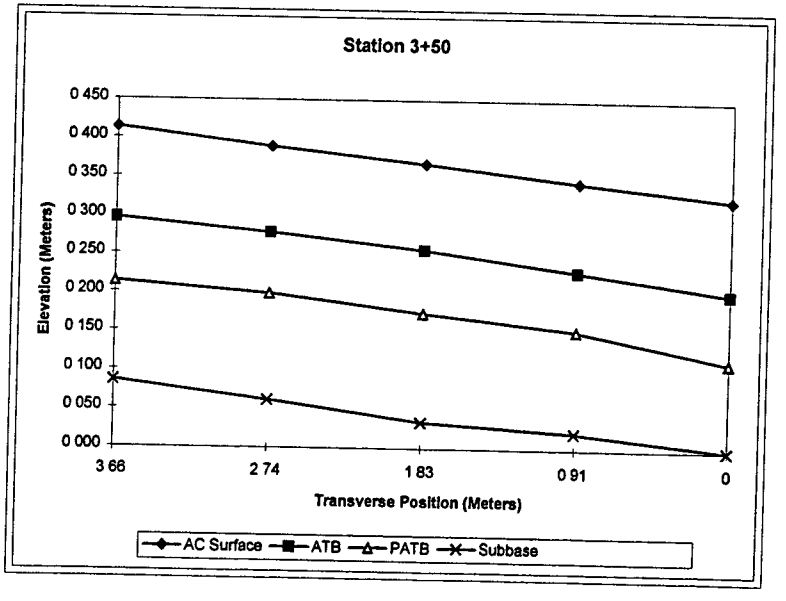


Texas SPS-1 (480122)

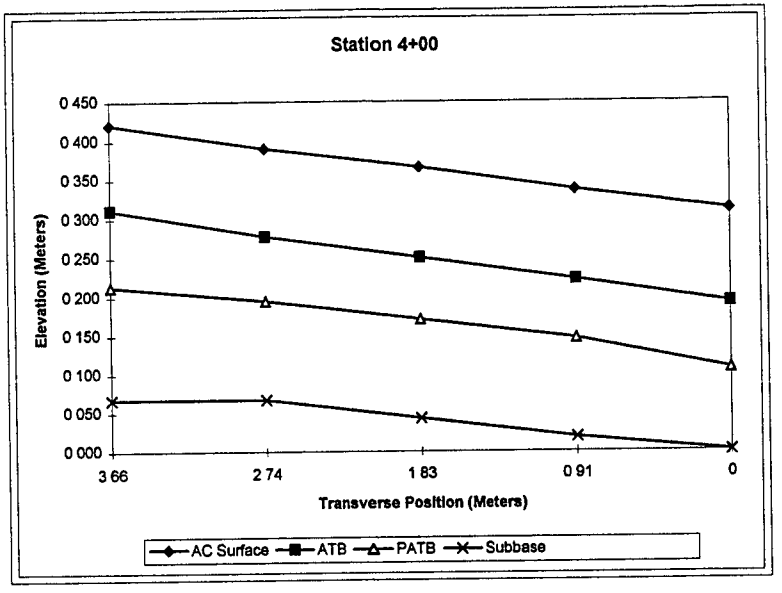


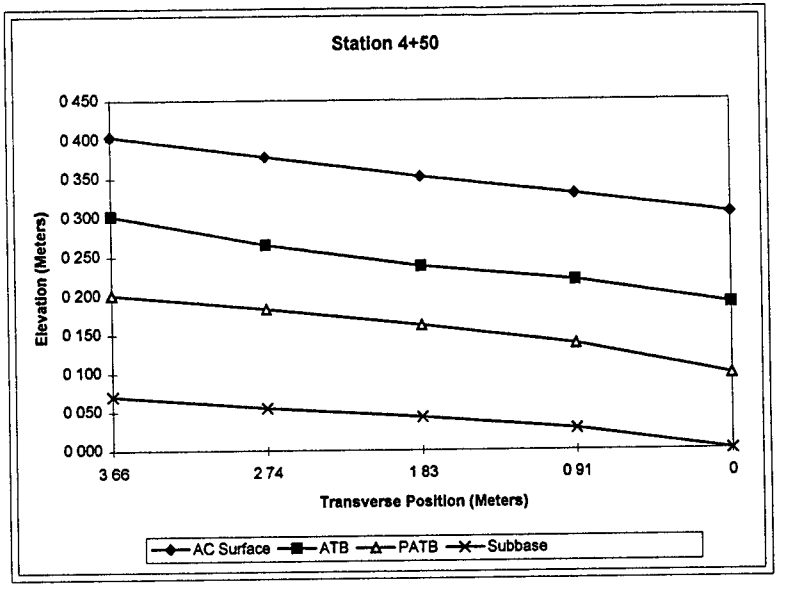


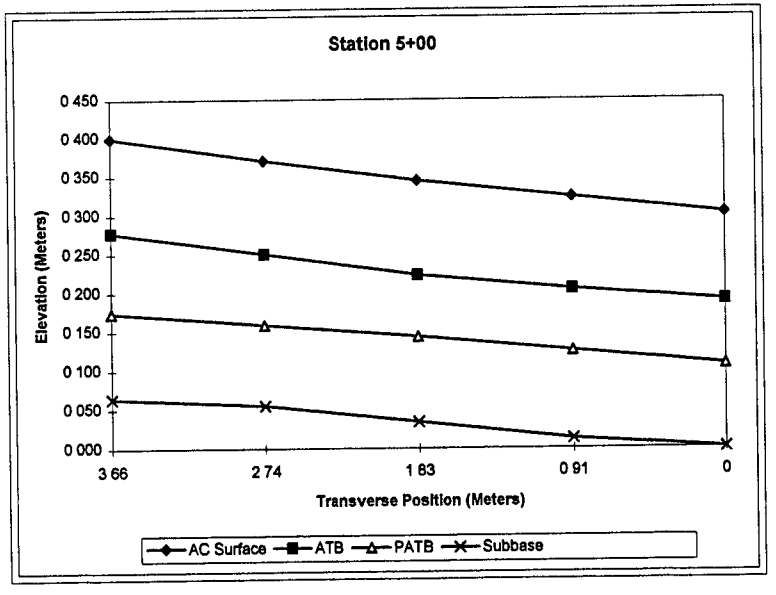




Texas SPS-1 (480122)





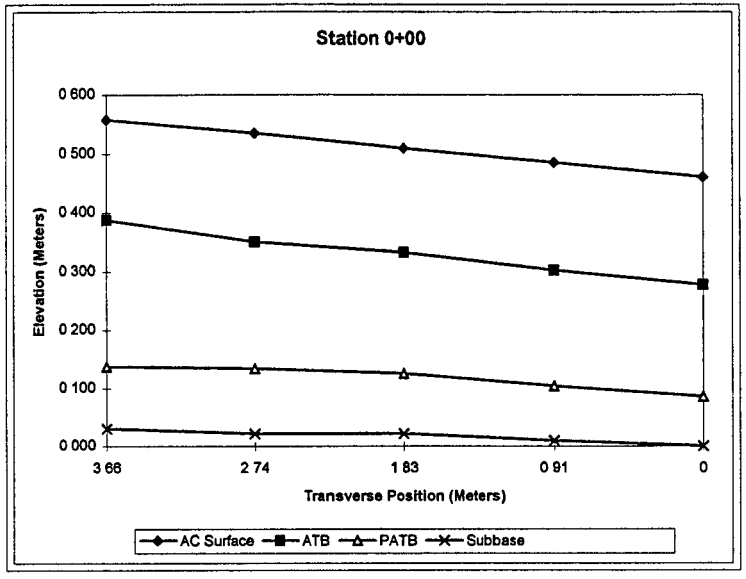


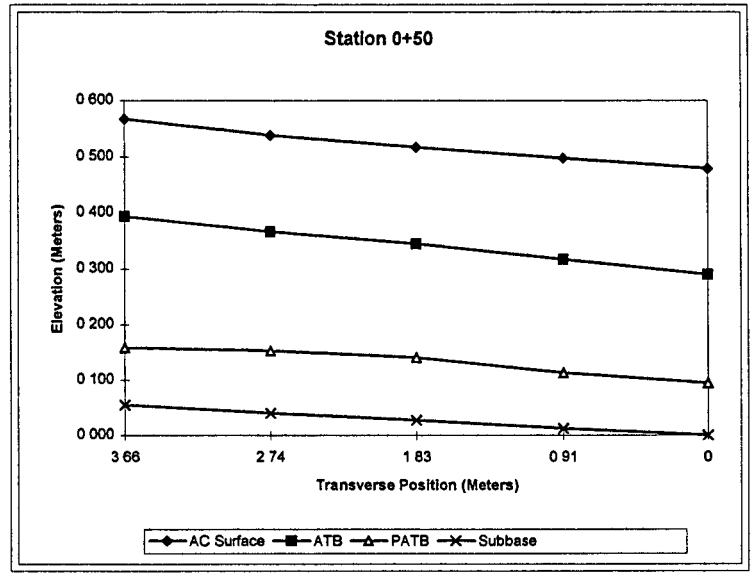
Texas SPS-1 (480123)

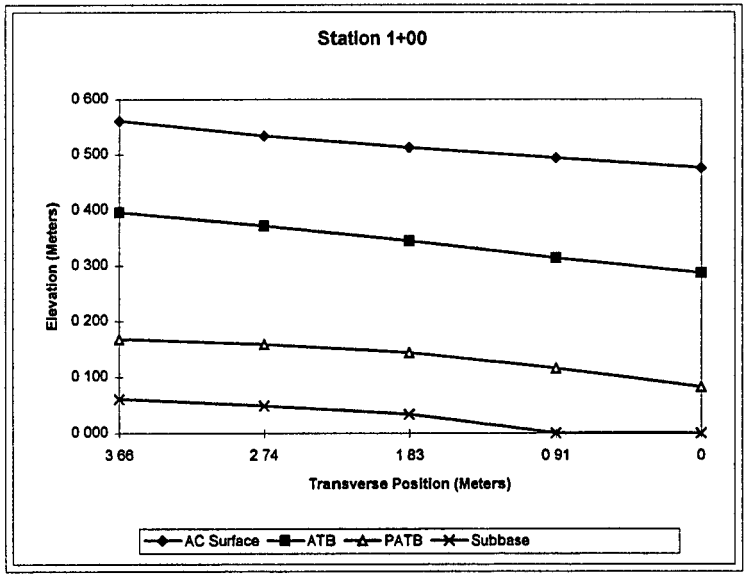
Transverse Offset	LAYERS	ELEVATION 0 Meters	AC Surface THICKNESS Meters	ATB THICKNESS Meters	PATB THICKNESS Meters	ELEVATION 0 91 Meters	AC Surface THICKNESS Meters	ATB THICKNESS Meters	PATB THICKNESS Meters	ELEVATION 1 83 Meters	AC Surface THICKNESS Meters	ATB THICKNESS Meters	PATB THICKNESS Meters	ELEVATION 2 74 Meters	AC Surface THICKNESS Meters	ATB THICKNESS Meters	PATB THICKNESS Meters	ELEVATION 3 66 Meters	AC Surface THICKNESS Meters	ATB THICKNESS Meters	PATB THICKNESS Meters
0+00	C Surface	25 079	0 183	0 192	0 085	25 103	0 183	0 198	0 094	25 128	0 177	0 207	0 104	25 154	0 184	0 216	0 113	25 176	0 171	0 250	0 107
	ATB	24 896				24 920				24 951				24 969				25 006			
	PATB	24 704				24 722				24 744				24 753				24 756			
	Subbase	24 619				24 628				24 640				24 640				24 649			
0+50	C Surface	25 045	0 189	0 195	0 094	25 064	0 180	0 204	0 101	25 084	0 172	0 204	0 113	25 105	0 172	0 213	0 113	25 134	0 174	0 235	0 104
	ATB	24 856				24 884				24 911				24 933				24 960			
	PATB	24 661				24 680				24 707				24 719				24 725			
	Subbase	24 567				24 579				24 594				24 607				24 622			
1+00	C Surface	25 021	0 189	0 204	0 082	25 039	0 180	0 198	0 116	25 058	0 168	0 201	0 110	25 079	0 162	0 213	0 110	25 106	0 165	0 229	0 107
	ATB	24 832				24 859				24 890				24 917				24 942			
	PATB	24 628				24 661				24 689				24 704				24 713			
	Subbase	24 546				24 546				24 579				24 594				24 607			
1+50	C Surface	24 986	0 187	0 186	0 082	24 997	0 168	0 195	0 091	25 009	0 152	0 201	0 107	25 021	0 149	0 207	0 107	25 045	0 155	0 219	0 125
	ATB	24 799				24 829				24 856				24 872				24 890			
	PATB	24 613				24 634				24 655				24 664				24 671			
	Subbase	24 530				24 542				24 549				24 558				24 546			
2+00	C Surface	24 940	0 172	0 195	0 094	24 957	0 162	0 204	0 094	24 974	0 142	0 213	0 110	24 989	0 142	0 207	0 122	25 015	0 149	0 213	0 134
	ATB	24 768				24 795				24 832				24 847				24 866			
	PATB	24 573				24 591				24 619				24 640				24 652			
	Subbase	24 478				24 497				24 509				24 518				24 518			
2+50	C Surface	24 902	0 186	0 189	0 098	24 916	0 175	0 195	0 098	24 930	0 168	0 198	0 110	24 942	0 158	0 204	0 113	24 974	0 172	0 216	0 128
	ATB	24 716				24 741				24 762				24 783				24 802			
	PATB	24 527				24 546				24 564				24 579				24 585			
	Subbase	24 430				24 448				24 454				24 468				24 457			
3+00	C Surface	24 863	0 189	0 186	0 101	24 881	0 177	0 192	0 113	24 896	0 168	0 189	0 128	24 913	0 166	0 189	0 131	24 939	0 171	0 195	0 143
	ATB	24 674				24 704				24 728				24 747				24 768			
	PATB	24 486				24 512				24 539				24 558				24 573			
	Subbase	24 387				24 399				24 411				24 427				24 430			
3+50	C Surface	24 817	0 186	0 192	0 098	24 834	0 178	0 189	0 110	24 850	0 171	0 192	0 122	24 866	0 168	0 198	0 128	24 893	0 177	0 204	0 134
	ATB	24 631				24 655				24 680				24 698				24 716			
	PATB	24 439				24 466				24 488				24 500				24 512			
	Subbase	24 341				24 357				24 366				24 372				24 378			
4+00	C Surface	24 774	0 183	0 174	0 101	24 794	0 169	0 177	0 119	24 815	0 163	0 177	0 116	24 835	0 158	0 180	0 125	24 863	0 162	0 189	0 131
	ATB	24 591				24 625				24 652				24 677				24 701			
	PATB	24 418				24 448				24 475				24 497				24 512			
	Subbase	24 317				24 329				24 360				24 372				24 381			
4+50	C Surface	24 735	0 180	0 165	0 098	24 754	0 172	0 174	0 107	24 771	0 165	0 180	0 113	24 788	0 158	0 186	0 119	24 811	0 155	0 207	0 119
	ATB	24 555				24 582				24 607				24 628				24 655			
	PATB	24 390				24 408				24 427				24 442				24 448			
	Subbase	24 293				24 302				24 314				24 323				24 329			
5+00	C Surface	24 706	0 175	0 168	0 116	24 725	0 168	0 177	0 122	24 747	0 171	0 180	0 119	24 767	0 172	0 180	0 128	24 792	0 168	0 192	0 140
	ATB	24 530				24 558				24 576				24 594				24 625			
	PATB	24 363				24 381				24 396				24 414				24 433			
	Subbase	24 247				24 259				24 277				24 286				24 293			
	AVG		0 184	0 185	0 095		0 175	0 190	0 107		0 167	0 193	0 114		0 165	0 199	0 119		0 167	0 214	0 124
	MAX		0 189	0 204	0 116		0 183	0 204	0 122		0 177	0 207	0 128		0 184	0 216	0 131		0 177	0 250	0 143
	MIN		0 172	0 165	0 082		0 168	0 174	0 091		0 152	0 177	0 104		0 149	0 180	0 107		0 155	0 189	0 104
	STD		0 005	0 012	0 010		0 005	0 010	0 010		0 006	0 011	0 007		0 009	0 013	0 008		0 007	0 019	0 014

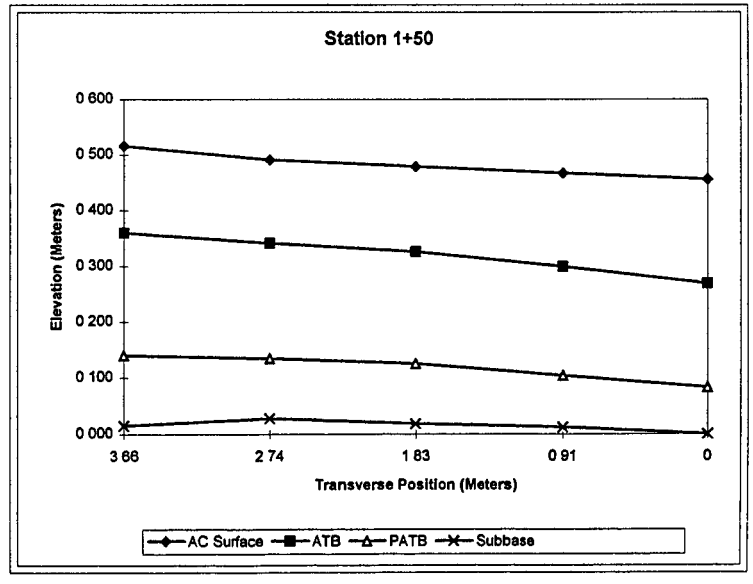
	AC Surfac	ATB	PATB
SECTION AVG	0 170	0 197	0 112
SECTION MAX	0 189	0 250	0 143
SECTION MIN	0 149	0 165	0 082
SECTION STD	0 011	0 016	0 014

Texas SPS-1 (480123)

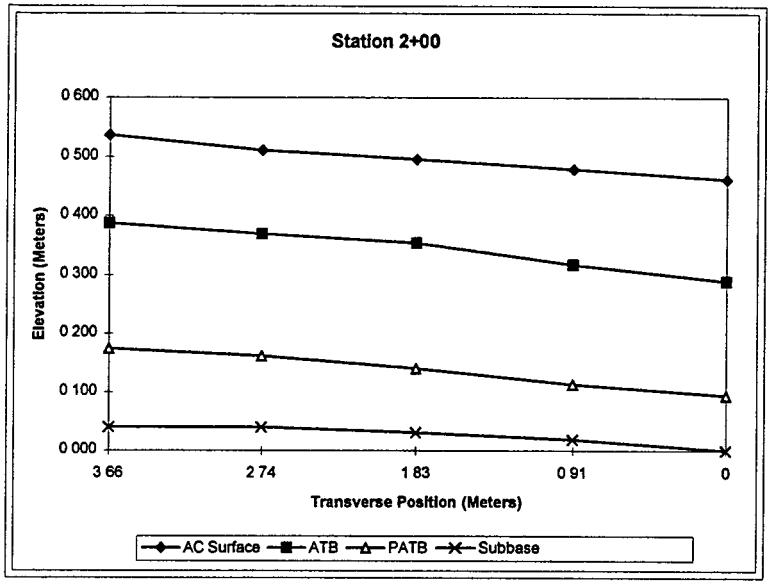


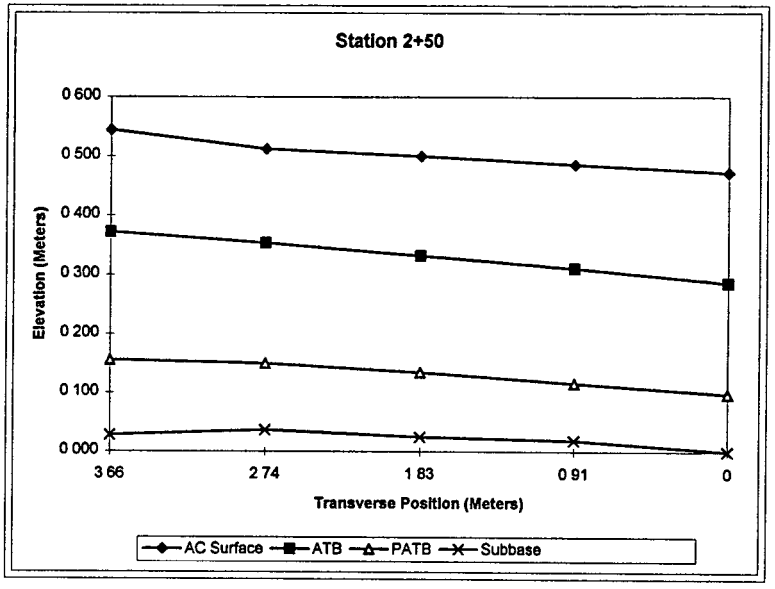


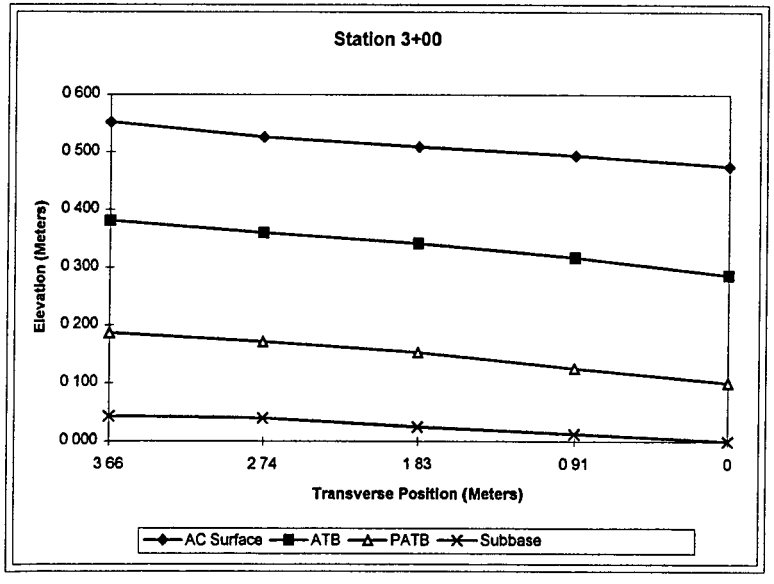


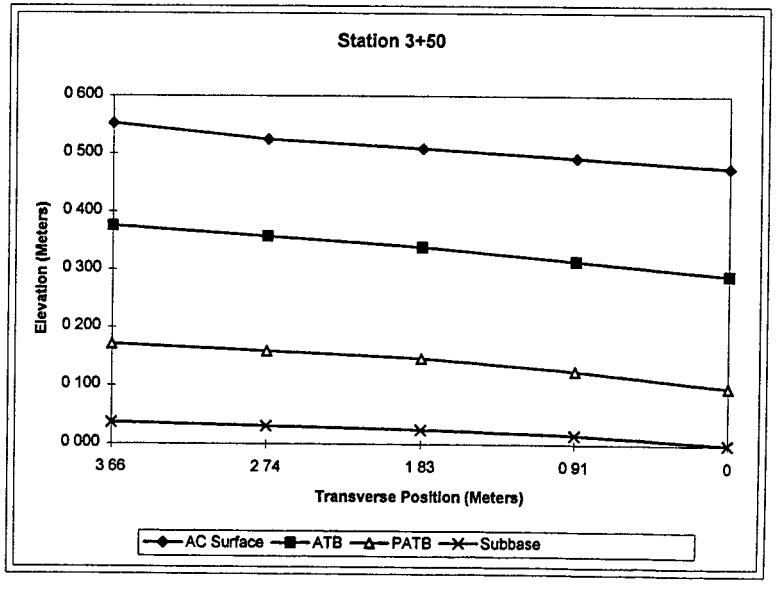


Texas SPS-1 (480123)

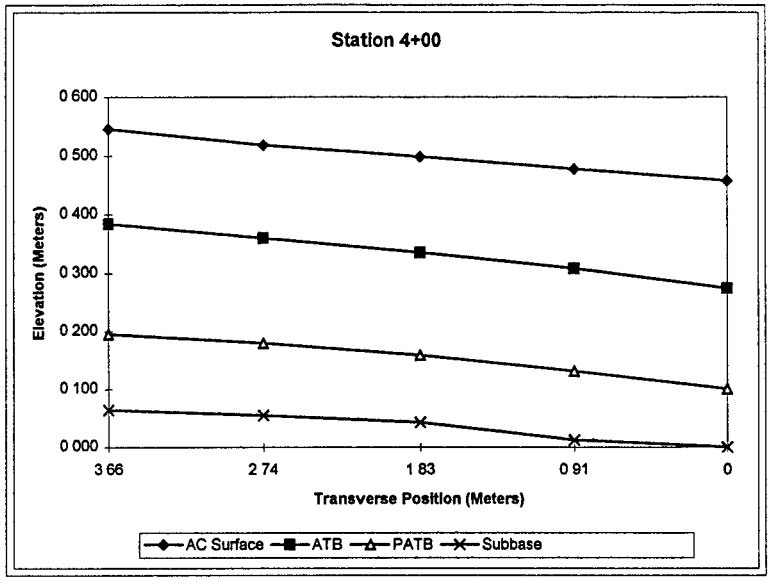


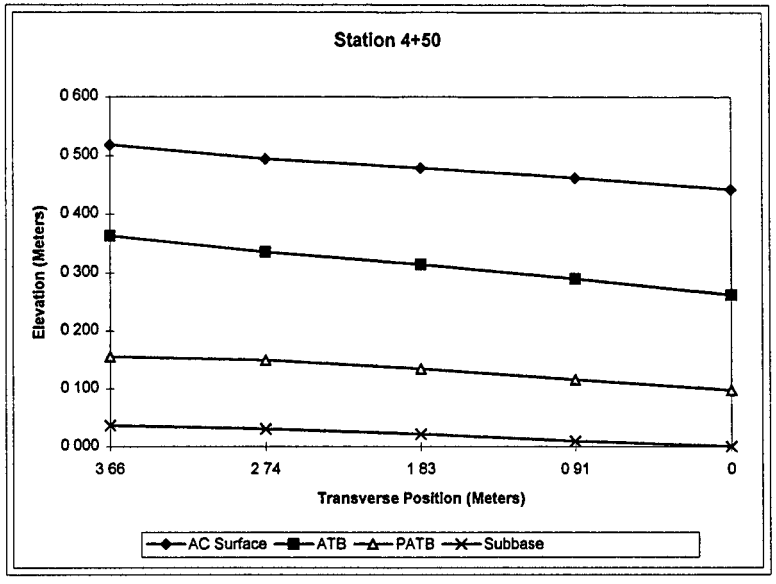


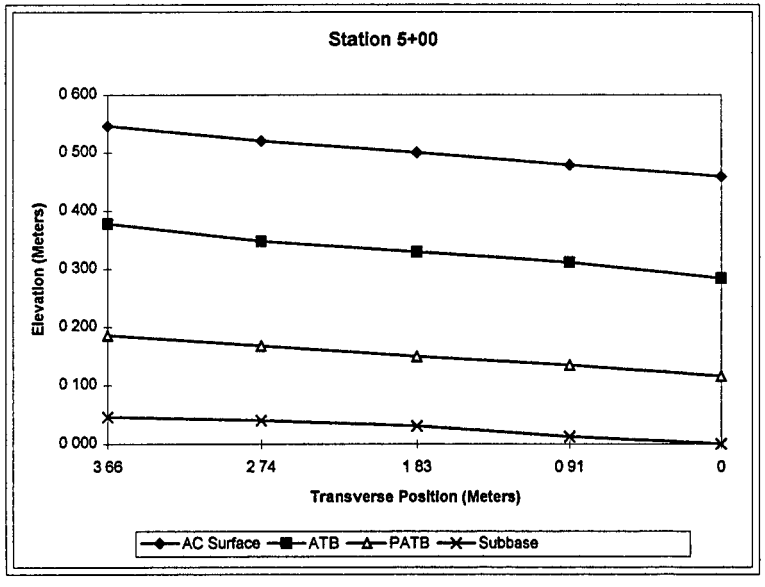




Texas SPS-1 (480123)





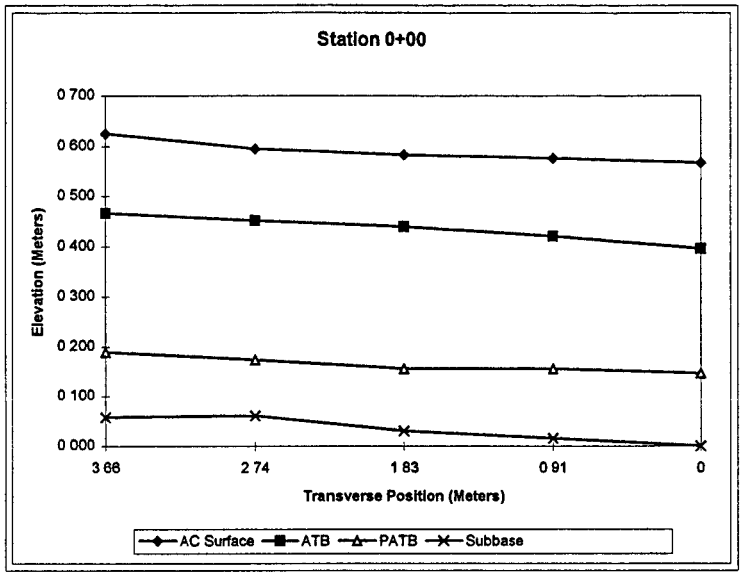


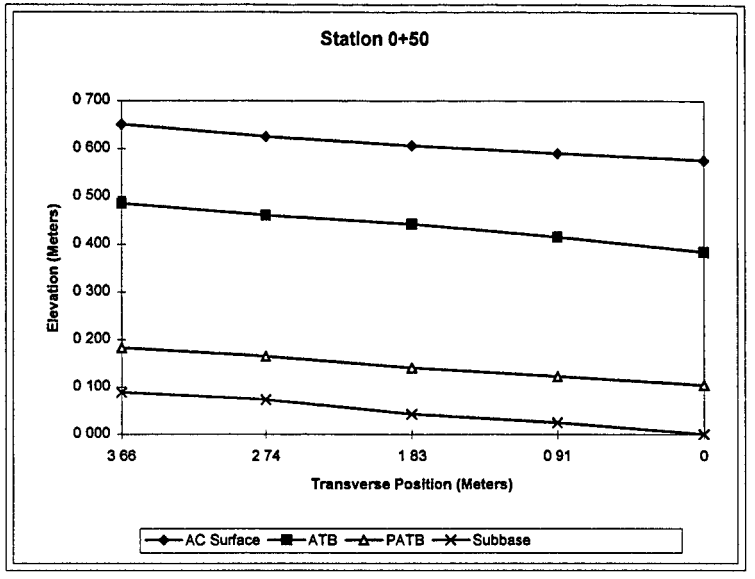
Texas SPS-1 (480124)

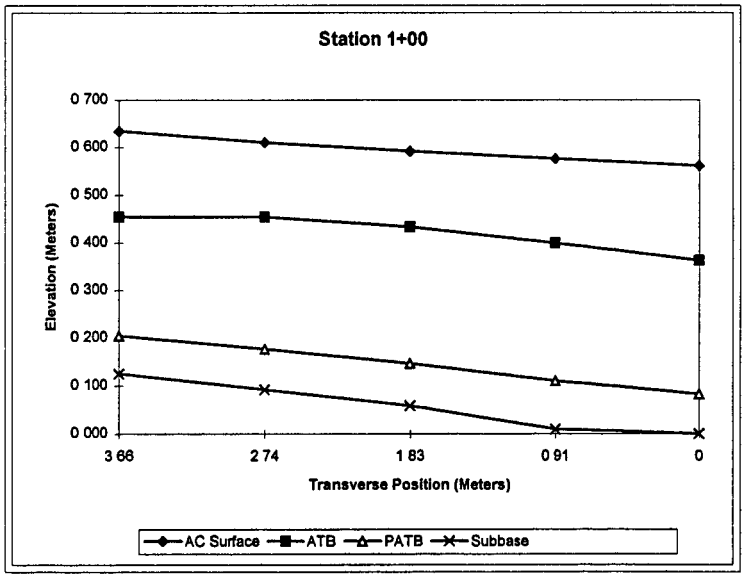
Transverse Offset	LAYERS	ELEVATION 0 Meters	AC Surface THICKNESS Meters	ATB THICKNESS Meters	PATB THICKNESS Meters	ELEVATION 0 91 Meters	AC Surface THICKNESS Meters	ATB THICKNESS Meters	PATB THICKNESS Meters	ELEVATION 1 83 Meters	AC Surface THICKNESS Meters	ATB THICKNESS Meters	PATB THICKNESS Meters	ELEVATION 2 74 Meters	AC Surface THICKNESS Meters	ATB THICKNESS Meters	PATB THICKNESS Meters	ELEVATION 3 66 Meters	AC Surface THICKNESS Meters	ATB THICKNESS Meters	PATB THICKNESS Meters
0+00	C Surface	1 439	0 171	0 250	0 146	1 448	0 155	0 265	0 140	1 454	0 143	0 283	0 125	1 466	0 143	0 277	0 113	1 497	0 158	0 277	0 131
	ATB	1 268				1 292				1 311				1 323				1 338			
	PATB	1 018				1 027				1 027				1 045				1 061			
	Subbase	0 872				0 887				0 902				0 933				0 930			
0+50	C Surface	1 393	0 192	0 280	0 104	1 407	0 175	0 293	0 098	1 423	0 165	0 302	0 098	1 442	0 165	0 296	0 091	1 468	0 166	0 302	0 094
	ATB	1 201				1 231				1 259				1 277				1 301			
	PATB	0 920				0 939				0 957				0 981				1 000			
	Subbase	0 817				0 841				0 860				0 890				0 905			
1+00	C Surface	1 332	0 198	0 280	0 082	1 347	0 177	0 290	0 101	1 362	0 158	0 287	0 088	1 381	0 155	0 277	0 085	1 405	0 180	0 250	0 079
	ATB	1 134				1 170				1 204				1 225				1 225			
	PATB	0 853				0 881				0 917				0 948				0 975			
	Subbase	0 771				0 780				0 829				0 863				0 896			
1+50	C Surface	1 291	0 191	0 262	0 098	1 308	0 183	0 265	0 104	1 323	0 174	0 265	0 113	1 340	0 154	0 287	0 110	1 370	0 187	0 265	0 116
	ATB	1 100				1 125				1 149				1 186				1 183			
	PATB	0 838				0 860				0 884				0 899				0 917			
	Subbase	0 741				0 756				0 771				0 789				0 802			
2+00	C Surface	1 271	0 189	0 262	0 094	1 292	0 180	0 268	0 094	1 317	0 180	0 265	0 104	1 341	0 180	0 268	0 098	1 375	0 189	0 274	0 107
	ATB	1 082				1 113				1 137				1 161				1 186			
	PATB	0 820				0 844				0 872				0 893				0 911			
	Subbase	0 725				0 750				0 768				0 796				0 805			
2+50	C Surface	1 228	0 186	0 262	0 094	1 257	0 191	0 265	0 091	1 286	0 186	0 274	0 104	1 320	0 195	0 287	0 101	1 356	0 219	0 283	0 104
	ATB	1 042				1 067				1 100				1 125				1 137			
	PATB	0 780				0 802				0 826				0 838				0 853			
	Subbase	0 686				0 710				0 722				0 738				0 750			
3+00	C Surface	1 187	0 197	0 259	0 091	1 219	0 195	0 265	0 098	1 248	0 184	0 277	0 104	1 283	0 189	0 283	0 104	1 326	0 204	0 287	0 104
	ATB	0 991				1 024				1 064				1 094				1 122			
	PATB	0 732				0 759				0 786				0 811				0 835			
	Subbase	0 640				0 661				0 683				0 707				0 732			
3+50	C Surface	1 138	0 203	0 256	0 091	1 170	0 189	0 265	0 116	1 205	0 178	0 283	0 119	1 242	0 178	0 293	0 122	1 283	0 183	0 311	0 125
	ATB	0 936				0 981				1 027				1 064				1 100			
	PATB	0 680				0 716				0 744				0 771				0 789			
	Subbase	0 588				0 600				0 625				0 649				0 664			
4+00	C Surface	1 085	0 174	0 268	0 091	1 113	0 177	0 268	0 107	1 140	0 180	0 265	0 119	1 166	0 181	0 271	0 125	1 201	0 198	0 277	0 119
	ATB	0 911				0 936				0 960				0 985				1 003			
	PATB	0 643				0 668				0 695				0 713				0 725			
	Subbase	0 552				0 561				0 576				0 588				0 607			
4+50	C Surface	1 047	0 166	0 265	0 101	1 065	0 172	0 253	0 113	1 090	0 169	0 259	0 119	1 113	0 174	0 259	0 119	1 143	0 180	0 268	0 116
	ATB	0 881				0 893				0 920				0 939				0 963			
	PATB	0 616				0 640				0 661				0 680				0 695			
	Subbase	0 515				0 527				0 543				0 561				0 579			
5+00	C Surface	1 052	0 226	0 250	0 101	1 079	0 216	0 262	0 107	1 109	0 216	0 268	0 119	1 137	0 210	0 283	0 113	1 170	0 216	0 296	0 104
	ATB	0 826				0 863				0 893				0 927				0 954			
	PATB	0 576				0 600				0 625				0 643				0 658			
	Subbase	0 475				0 494				0 506				0 530				0 555			
	AVG	0 190	0 263	0 100		0 183	0 269	0 107		0 175	0 276	0 111		0 174	0 281	0 108		0 189	0 282	0 109	
	MAX	0 226	0 280	0 146		0 216	0 293	0 140		0 216	0 302	0 125		0 210	0 296	0 125		0 219	0 311	0 131	
	MIN	0 166	0 250	0 082		0 155	0 253	0 091		0 143	0 259	0 088		0 143	0 259	0 085		0 158	0 250	0 079	
	STD	0 016	0 010	0 017		0 015	0 012	0 013		0 018	0 012	0 011		0 020	0 010	0 012		0 019	0 017	0 015	

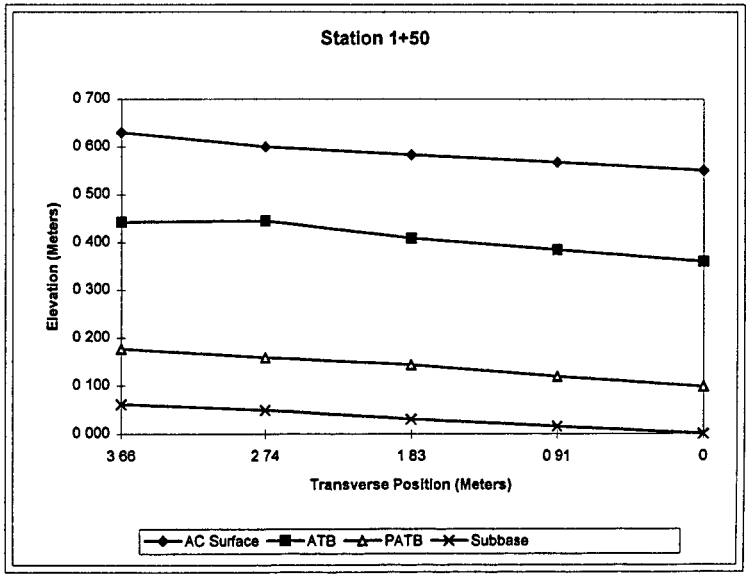
	AC Surfac	ATB	PATB
SECTION AVG	0 183	0 274	0 106
SECTION MAX	0 226	0 311	0 146
SECTION MIN	0 143	0 250	0 079
SECTION STD	0 018	0 014	0 014

Texas SPS-1 (480124)

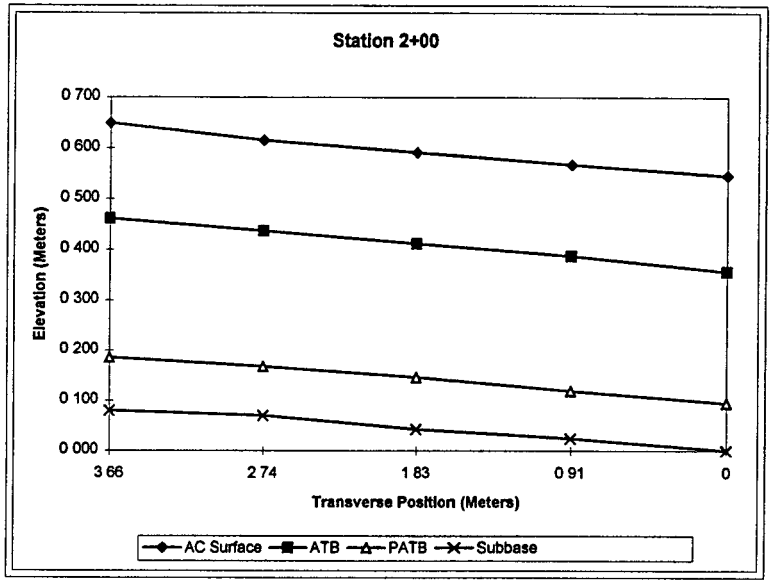


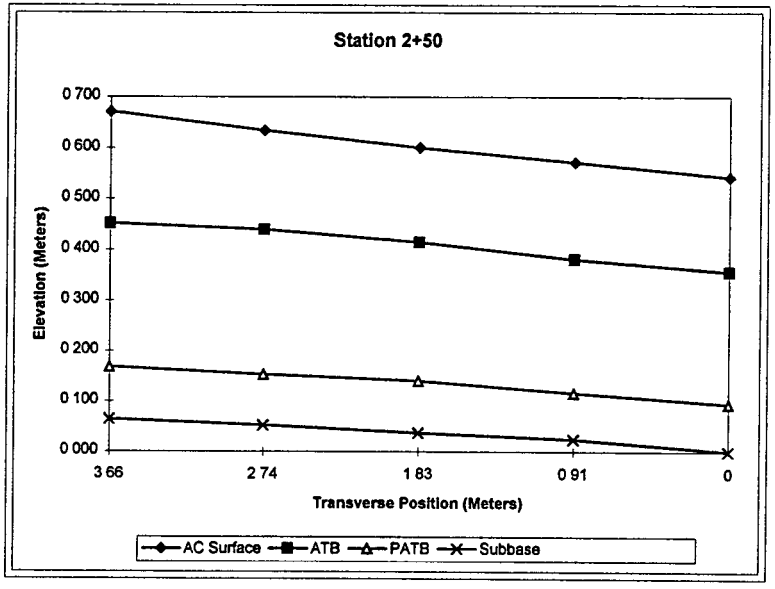


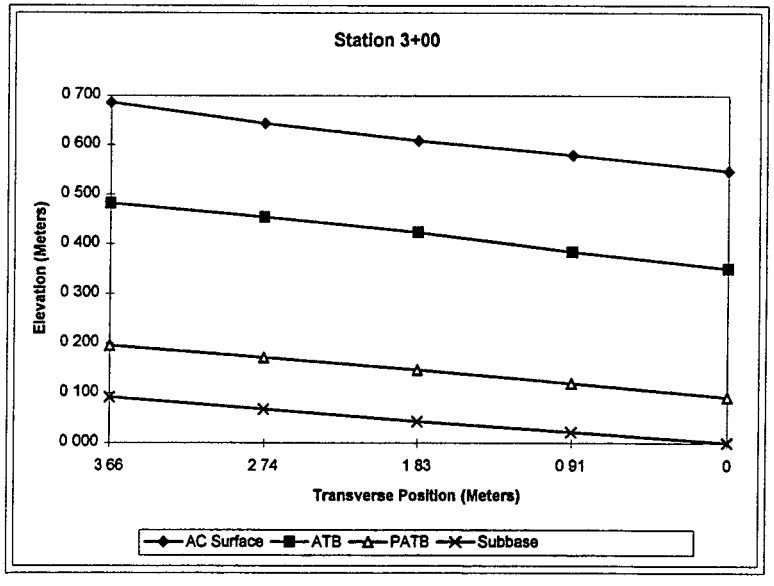


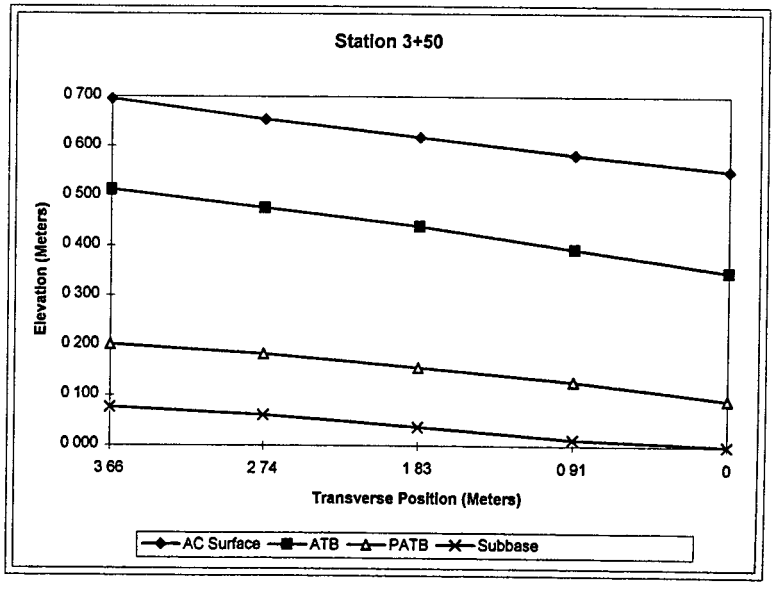


Texas SPS-1 (480124)

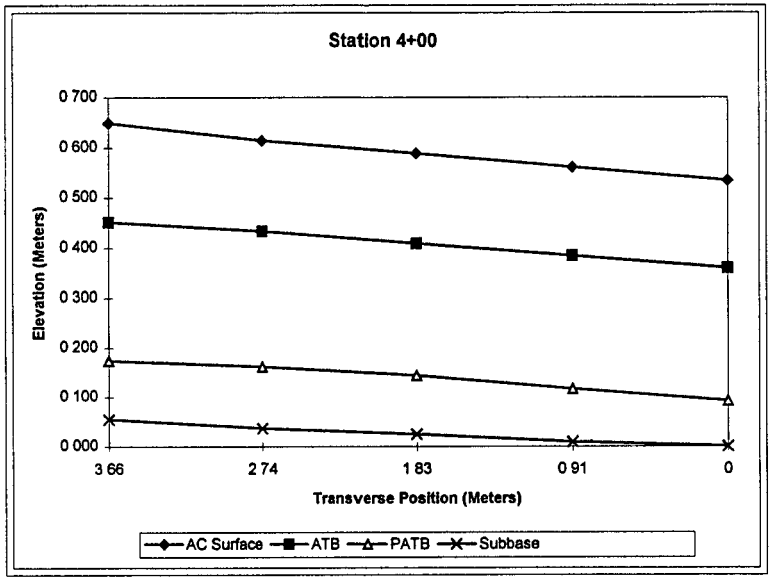


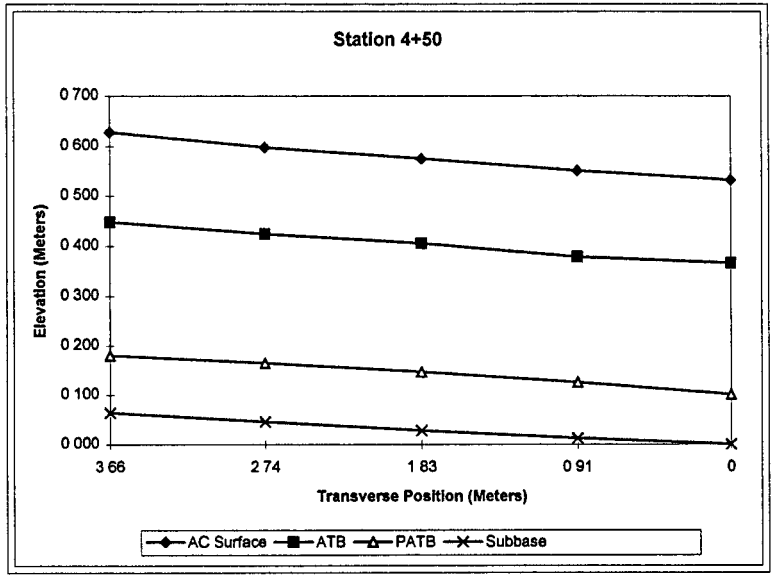


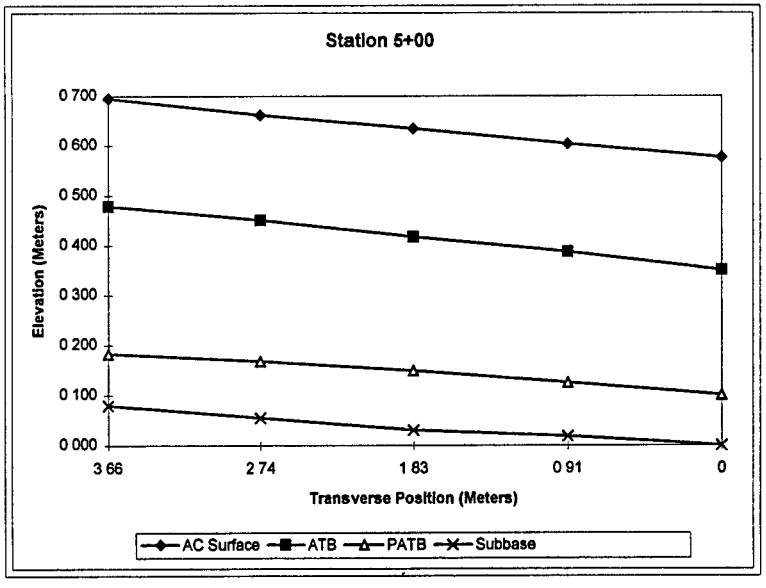




Texas SPS-1 (480124)





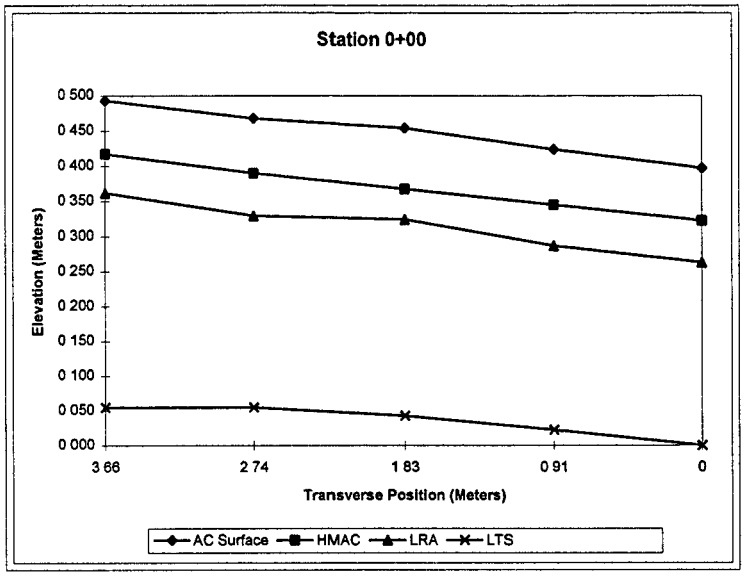


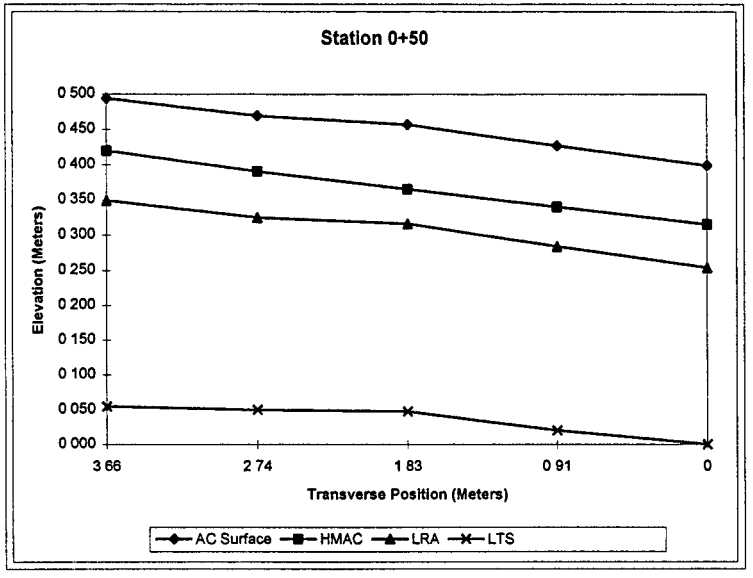
Texas SPS-1 (480160)

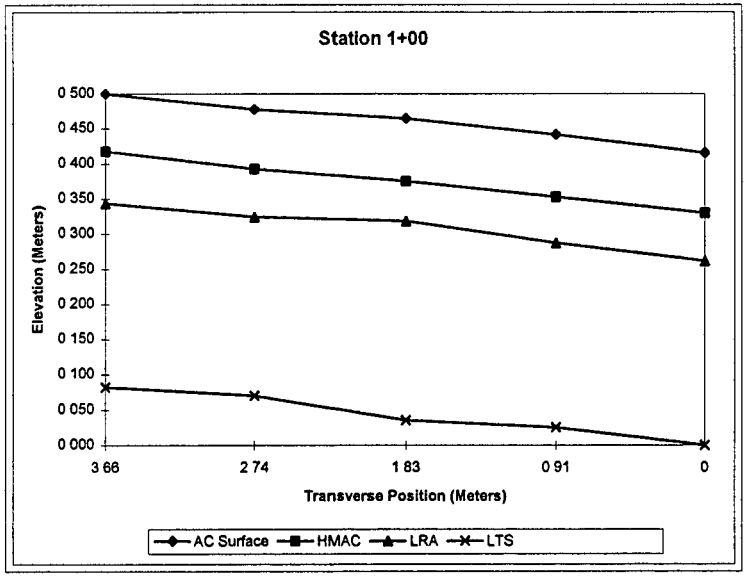
Transverse Offset	LAYERS	ELEVATION 0 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	LRA THICKNESS Meters	ELEVATION 0 91 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	LRA THICKNESS Meters	ELEVATION 1 83 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	LRA THICKNESS Meters	ELEVATION 2 74 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	LRA THICKNESS Meters	ELEVATION 3 66 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	LRA THICKNESS Meters
0+00	C Surface	2 967	0 075	0 059	0 263	2 994	0 079	0 058	0 265	3 024	0 087	0 043	0 282	3 038	0 078	0 061	0 274	3 063	0 076	0 055	0 307
	HMAC	2 893				2 915				2 938				2 960				2 988			
	LRA	2 833				2 857				2 894				2 899				2 932			
	LTS	2 570				2 593				2 613				2 625				2 625			
0+50	C Surface	2 929	0 084	0 061	0 254	2 957	0 087	0 056	0 264	2 987	0 092	0 049	0 269	3 000	0 079	0 065	0 275	3 024	0 074	0 071	0 294
	HMAC	2 845				2 870				2 895				2 920				2 950			
	LRA	2 784				2 814				2 846				2 855				2 879			
	LTS	2 530				2 550				2 578				2 580				2 585			
1+00	C Surface	2 938	0 086	0 069	0 262	2 964	0 089	0 065	0 263	2 987	0 090	0 056	0 284	3 000	0 085	0 068	0 255	3 023	0 083	0 074	0 261
	HMAC	2 853				2 875				2 898				2 915				2 940			
	LRA	2 784				2 810				2 841				2 847				2 866			
	LTS	2 523				2 548				2 558				2 593				2 605			
1+50	C Surface	2 986	0 058	0 067	0 309	3 005	0 065	0 066	0 299	3 023	0 072	0 063	0 287	3 030	0 065	0 081	0 262	3 041	0 056	0 086	0 259
	HMAC	2 928				2 940				2 950				2 965				2 985			
	LRA	2 861				2 874				2 887				2 884				2 899			
	LTS	2 553				2 575				2 600				2 623				2 640			
2+00	C Surface	2 984	0 074	0 067	0 276	3 003	0 078	0 066	0 269	3 017	0 082	0 062	0 271	3 020	0 075	0 080	0 245	3 036	0 071	0 082	0 248
	HMAC	2 910				2 925				2 935				2 945				2 965			
	LRA	2 843				2 859				2 873				2 865				2 883			
	LTS	2 568				2 590				2 603				2 620				2 635			
2+50	C Surface	2 980	0 070	0 078	0 255	3 004	0 074	0 073	0 260	3 033	0 083	0 063	0 272	3 043	0 076	0 080	0 232	3 063	0 063	0 076	0 262
	HMAC	2 910				2 930				2 950				2 968				3 000			
	LRA	2 832				2 857				2 887				2 887				2 924			
	LTS	2 578				2 598				2 615				2 655				2 663			
3+00	C Surface	2 999	0 079	0 069	0 251	3 018	0 083	0 063	0 255	3 044	0 087	0 063	0 257	3 052	0 075	0 074	0 232	3 078	0 075	0 071	0 252
	HMAC	2 920				2 935				2 958				2 978				3 003			
	LRA	2 851				2 872				2 894				2 904				2 932			
	LTS	2 600				2 618				2 638				2 673				2 680			
3+50	C Surface	3 028	0 070	0 074	0 272	3 046	0 076	0 068	0 275	3 062	0 077	0 076	0 262	3 068	0 073	0 076	0 249	3 085	0 072	0 064	0 267
	HMAC	2 958				2 970				2 985				2 995				3 013			
	LRA	2 884				2 902				2 909				2 919				2 949			
	LTS	2 613				2 628				2 648				2 670				2 683			
4+00	C Surface	3 055	0 070	0 063	0 285	3 065	0 070	0 062	0 281	3 083	0 078	0 061	0 284	3 083	0 073	0 072	0 263	3 096	0 074	0 079	0 257
	HMAC	2 985				2 995				3 005				3 010				3 023			
	LRA	2 922				2 933				2 944				2 938				2 944			
	LTS	2 638				2 653				2 660				2 675				2 688			
4+50	C Surface	3 083	0 068	0 061	0 314	3 088	0 068	0 057	0 308	3 100	0 080	0 065	0 293	3 100	0 073	0 076	0 279	3 108	0 078	0 071	0 272
	HMAC	3 015				3 020				3 020				3 028				3 030			
	LRA	2 954				2 963				2 955				2 951				2 959			
	LTS	2 640				2 655				2 663				2 673				2 688			
5+00	C Surface	3 053	0 070	0 072	0 258	3 070	0 077	0 071	0 260	3 083	0 081	0 063	0 259	3 087	0 072	0 076	0 249	3 097	0 067	0 081	0 239
	HMAC	2 983				2 993				3 003				3 015				3 030			
	LRA	2 910				2 922				2 939				2 939				2 949			
	LTS	2 653				2 663				2 680				2 690				2 710			
	AVG		0 073	0 067	0 272		0 077	0 064	0 273		0 083	0 060	0 275		0 075	0 073	0 257		0 072	0 073	0 267
	MAX		0 086	0 078	0 314		0 089	0 073	0 308		0 092	0 076	0 293		0 085	0 081	0 279		0 083	0 086	0 307
	MIN		0 058	0 059	0 251		0 065	0 056	0 255		0 072	0 043	0 257		0 065	0 061	0 232		0 056	0 055	0 239
	STD		0 007	0 006	0 022		0 008	0 005	0 017		0 006	0 009	0 012		0 005	0 006	0 016		0 007	0 008	0 019

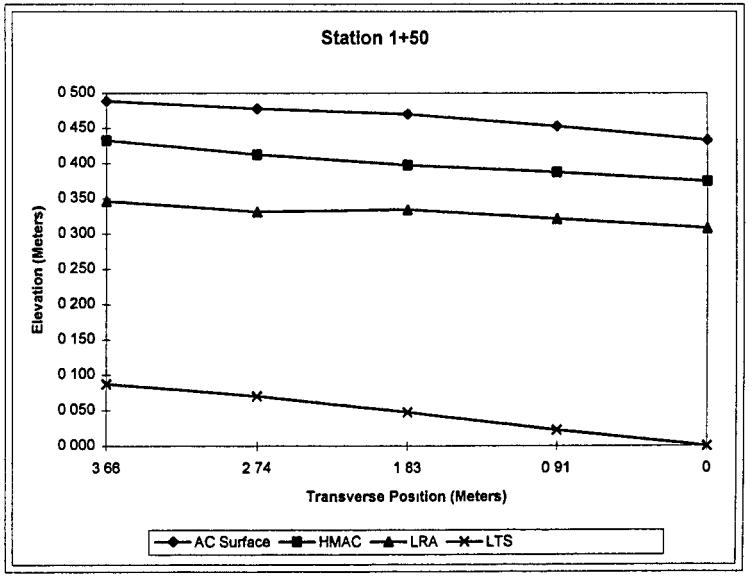
	AC Surfac	HMAC	LRA
SECTION AVG	0 076	0 068	0 268
SECTION MAX	0 092	0 086	0 314
SECTION MIN	0 056	0 043	0 232
SECTION STD	0 007	0 009	0 018

Texas SPS-1 (480160)

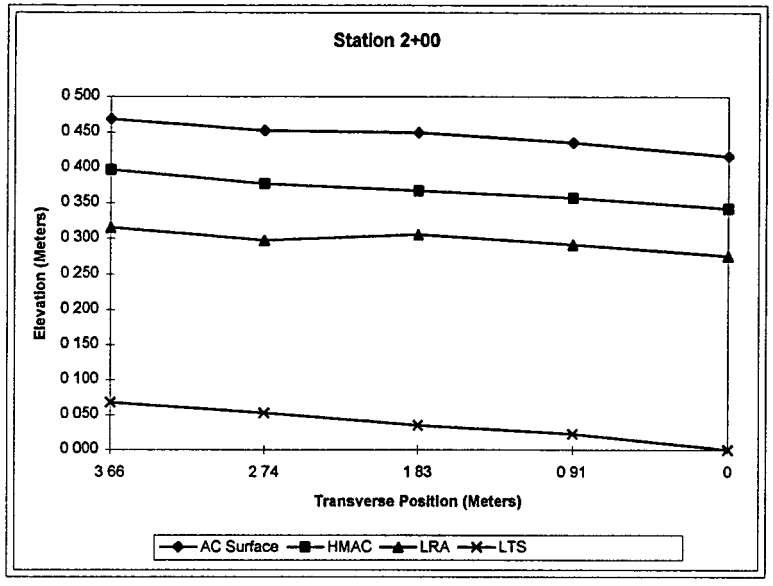


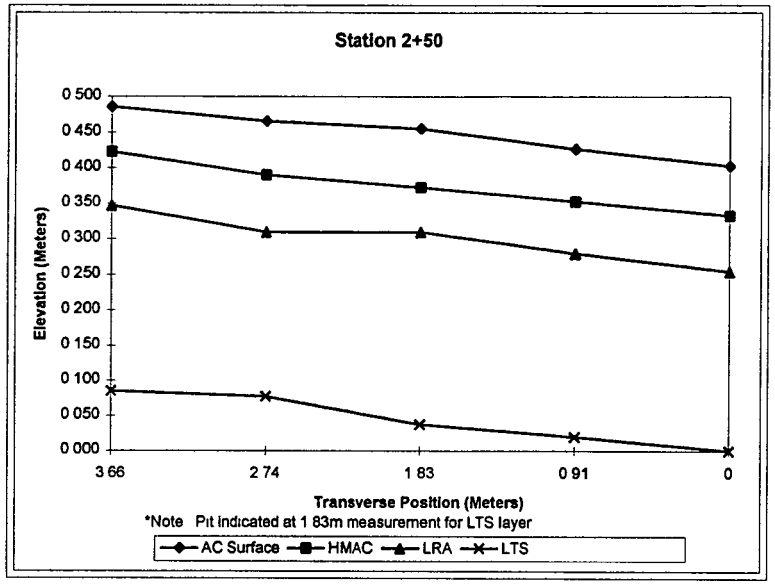


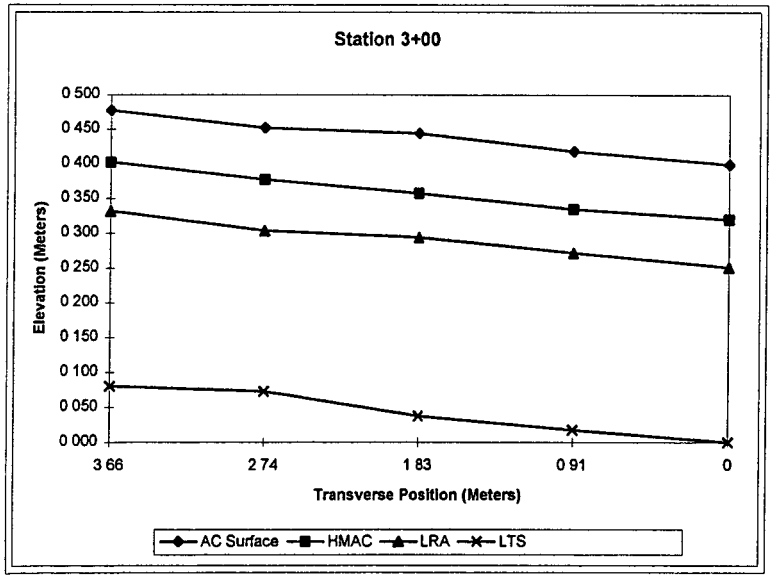


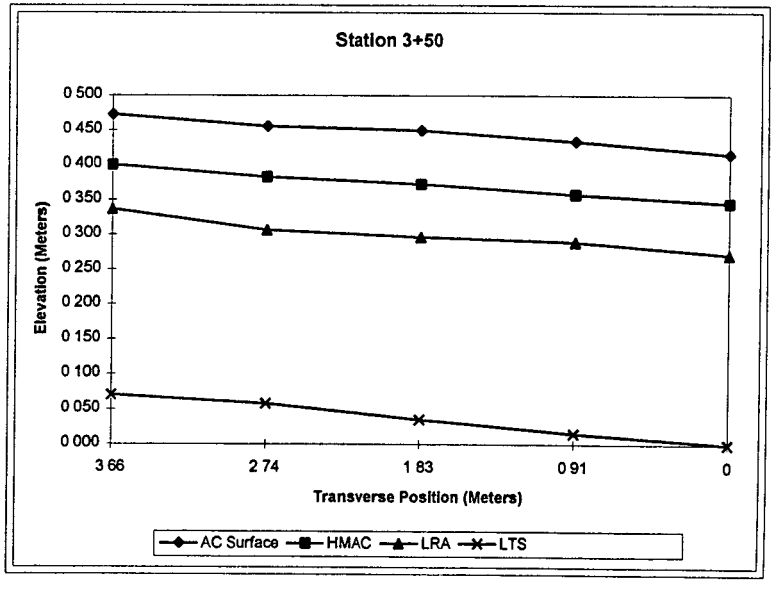


Texas SPS-1 (480160)

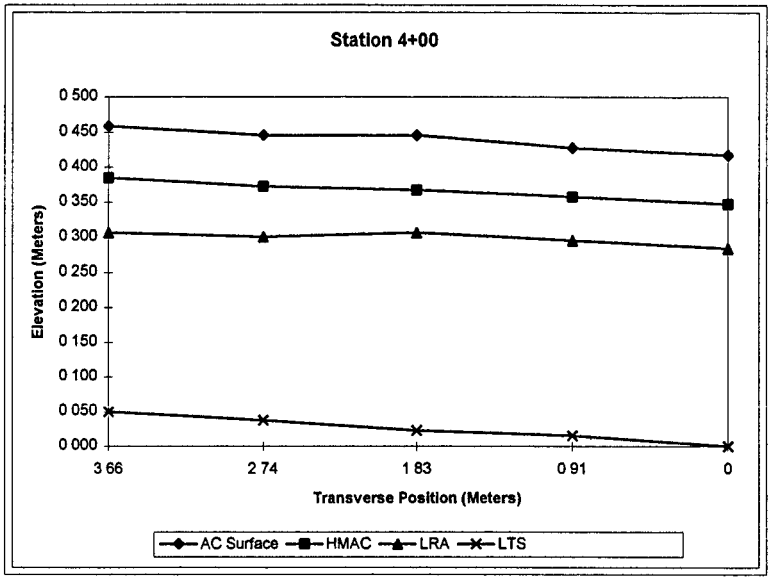


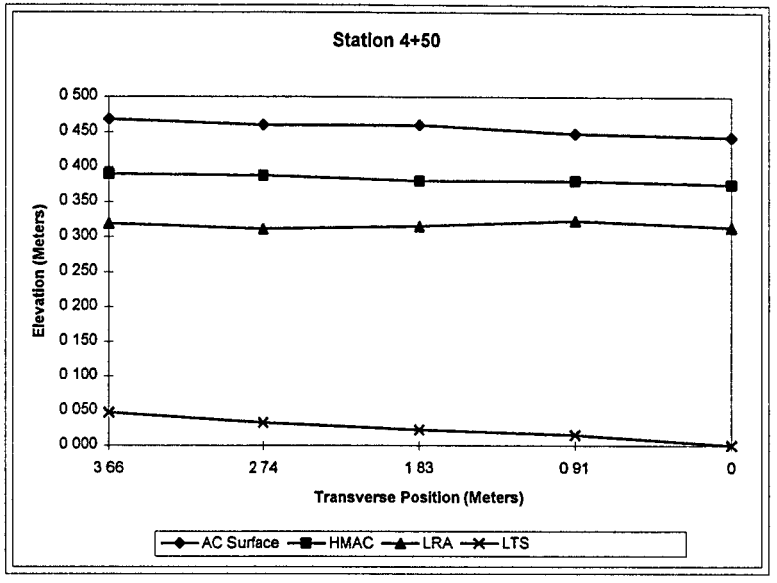


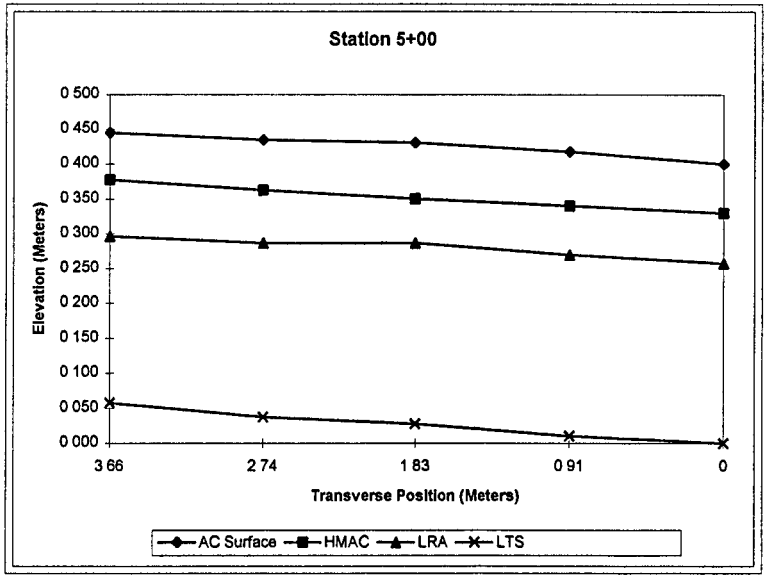




Texas SPS-1 (480160)





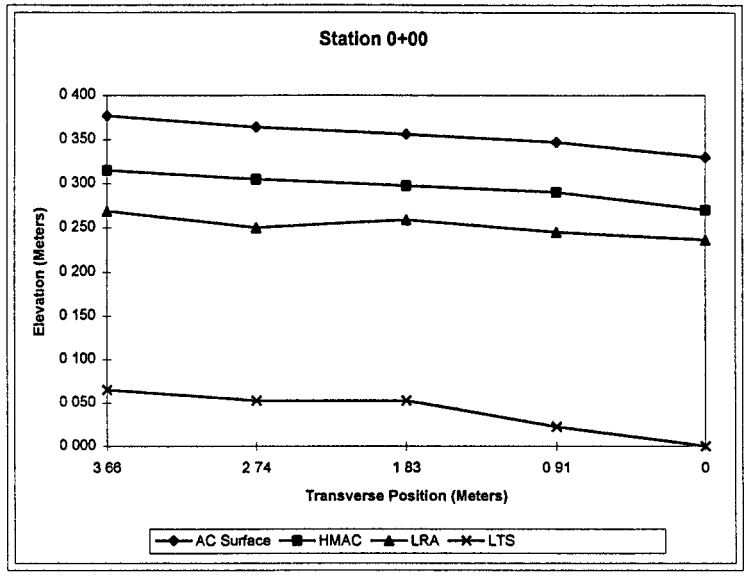


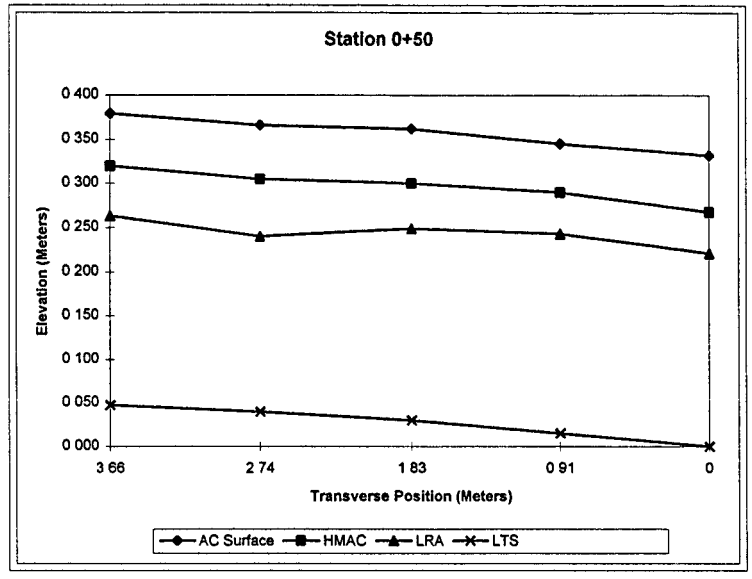
Texas SPS-1 (480161)

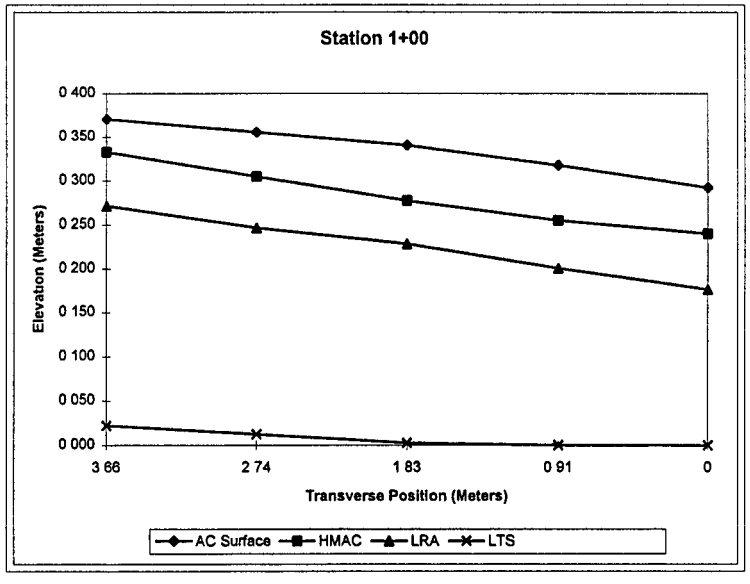
Transverse Offset	4 LAYERS	ELEVATION 0 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	LRA THICKNESS Meters	ELEVATION 0.91 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	LRA THICKNESS Meters	ELEVATION 1.83 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	LRA THICKNESS Meters	ELEVATION 2.74 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	LRA THICKNESS Meters	ELEVATION 3.66 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	LRA THICKNESS Meters
0+00	C Surface	3 070	0 060	0 034	0 236	3 087	0 057	0 045	0 223	3 096	0 059	0 039	0 207	3 104	0 059	0 055	0 198	3 117	0 062	0 046	0 204
	HMAC	3 010				3 030				3 038				3 045				3 055			
	LRA	2 976				2 985				2 999				2 990				3 009			
	LTS	2 740				2 763				2 793				2 793				2 805			
0+50	C Surface	3 032	0 065	0 047	0 221	3 045	0 055	0 047	0 228	3 062	0 062	0 051	0 219	3 066	0 061	0 065	0 200	3 079	0 059	0 057	0 216
	HMAC	2 968				2 990				3 000				3 005				3 020			
	LRA	2 921				2 943				2 949				2 940				2 963			
	LTS	2 700				2 715				2 730				2 740				2 748			
1+00	C Surface	3 015	0 053	0 063	0 177	3 040	0 063	0 055	0 201	3 063	0 063	0 049	0 226	3 078	0 051	0 059	0 234	3 093	0 038	0 061	0 249
	HMAC	2 963				2 978				3 000				3 028				3 055			
	LRA	2 899				2 923				2 951				2 969				2 994			
	LTS	2 723				2 723				2 725				2 735				2 745			
1+50	C Surface	2 998	0 051	0 053	0 199	3 017	0 052	0 046	0 214	3 040	0 058	0 060	0 197	3 055	0 055	0 069	0 194	3 069	0 044	0 081	0 194
	HMAC	2 948				2 965				2 983				3 000				3 025			
	LRA	2 894				2 919				2 922				2 931				2 944			
	LTS	2 695				2 705				2 725				2 738				2 750			
2+00	C Surface	2 988	0 058	0 051	0 204	3 004	0 051	0 052	0 216	3 023	0 052	0 050	0 215	3 030	0 047	0 066	0 202	3 040	0 040	0 065	0 205
	HMAC	2 930				2 953				2 970				2 983				3 000			
	LRA	2 879				2 901				2 920				2 917				2 935			
	LTS	2 675				2 685				2 705				2 715				2 730			
2+50	C Surface	2 971	0 059	0 051	0 212	2 994	0 059	0 050	0 233	3 012	0 062	0 046	0 242	3 028	0 061	0 052	0 240	3 047	0 057	0 051	0 252
	HMAC	2 913				2 935				2 950				2 968				2 990			
	LRA	2 862				2 885				2 904				2 915				2 939			
	LTS	2 650				2 653				2 663				2 675				2 688			
3+00	C Surface	2 928	0 058	0 057	0 196	2 951	0 061	0 045	0 223	2 968	0 060	0 045	0 218	2 975	0 053	0 051	0 206	2 998	0 058	0 066	0 204
	HMAC	2 870				2 890				2 908				2 923				2 940			
	LRA	2 813				2 845				2 863				2 871				2 874			
	LTS	2 618				2 623				2 645				2 665				2 670			
3+50	C Surface	2 919	0 057	0 043	0 214	2 940	0 052	0 054	0 229	2 963	0 060	0 047	0 236	2 968	0 046	0 059	0 224	2 986	0 049	0 068	0 207
	HMAC	2 863				2 888				2 903				2 923				2 938			
	LRA	2 819				2 834				2 856				2 864				2 869			
	LTS	2 605				2 605				2 620				2 640				2 663			
4+00	C Surface	2 922	0 050	0 053	0 200	2 936	0 054	0 052	0 200	2 948	0 052	0 055	0 203	2 958	0 050	0 062	0 204	2 971	0 049	0 056	0 224
	HMAC	2 873				2 883				2 895				2 908				2 923			
	LRA	2 820				2 830				2 840				2 846				2 866			
	LTS	2 620				2 630				2 638				2 643				2 643			
4+50	C Surface	2 887	0 057	0 059	0 189	2 901	0 061	0 055	0 205	2 910	0 065	0 049	0 211	2 908	0 050	0 071	0 209	2 926	0 066	0 060	0 223
	HMAC	2 830				2 840				2 845				2 858				2 860			
	LRA	2 771				2 785				2 796				2 786				2 800			
	LTS	2 583				2 580				2 585				2 578				2 578			
5+00	C Surface	2 873	0 056	0 059	0 192	2 894	0 059	0 052	0 203	2 918	0 063	0 046	0 207	2 925	0 055	0 061	0 192	2 943	0 053	0 057	0 208
	HMAC	2 818				2 835				2 855				2 870				2 890			
	LRA	2 759				2 783				2 809				2 809				2 833			
	LTS	2 568				2 580				2 603				2 618				2 625			
	AVG		0 056	0 052	0 203		0 057	0 050	0 216		0 060	0 049	0 216		0 054	0 060	0 210		0 053	0 060	0 218
	MAX		0 065	0 063	0 236		0 063	0 055	0 233		0 065	0 060	0 242		0 061	0 071	0 240		0 066	0 081	0 252
	MIN		0 050	0 034	0 177		0 052	0 045	0 200		0 052	0 039	0 197		0 046	0 051	0 192		0 038	0 046	0 194
	STD		0 004	0 008	0 017		0 004	0 004	0 012		0 003	0 006	0 014		0 005	0 006	0 016		0 008	0 009	0 018

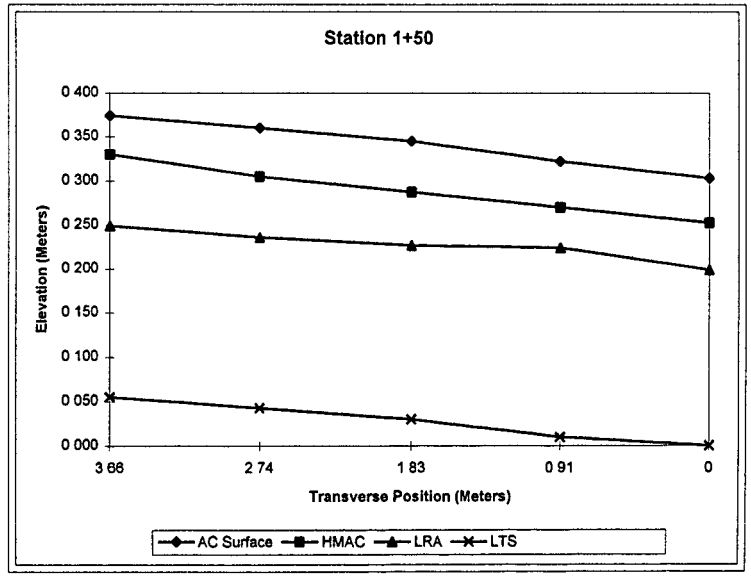
	AC Surfac	HMAC	LRA
SECTION AVG	0 056	0 054	0 212
SECTION MAX	0 066	0 081	0 252
SECTION MIN	0 038	0 034	0 177
SECTION STD	0 006	0 009	0 018

Texas SPS-1 (480161)

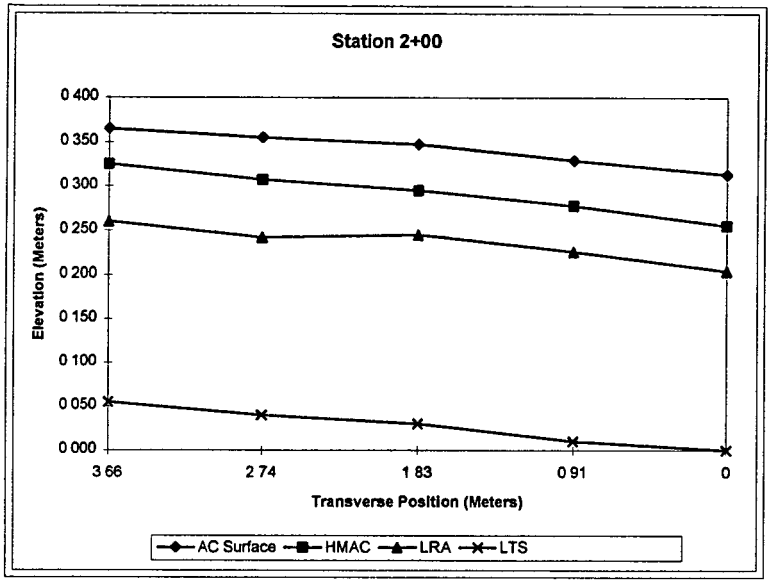


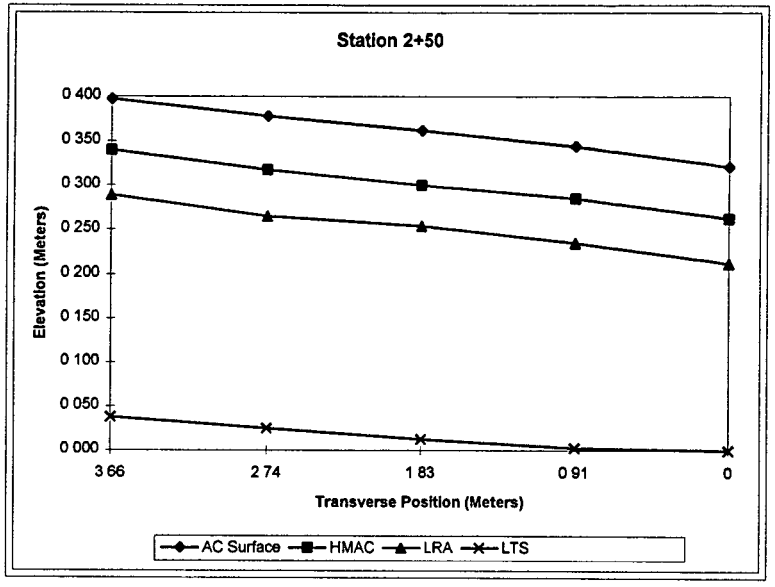


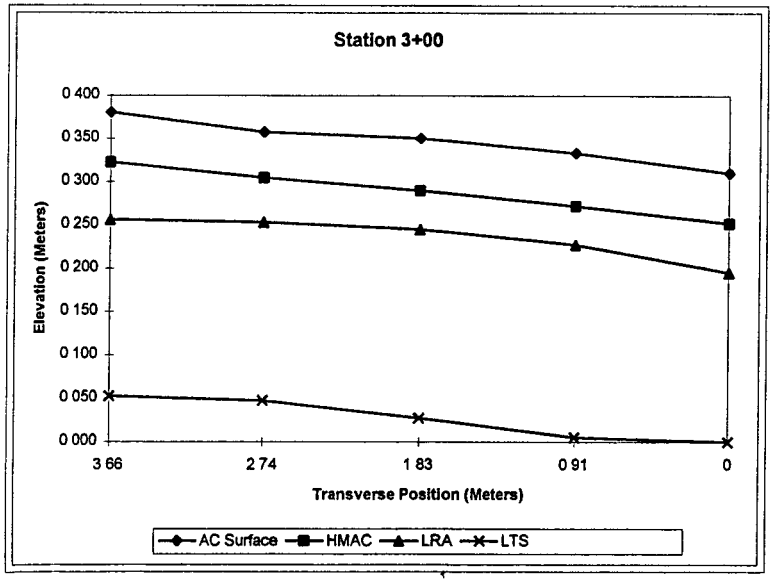


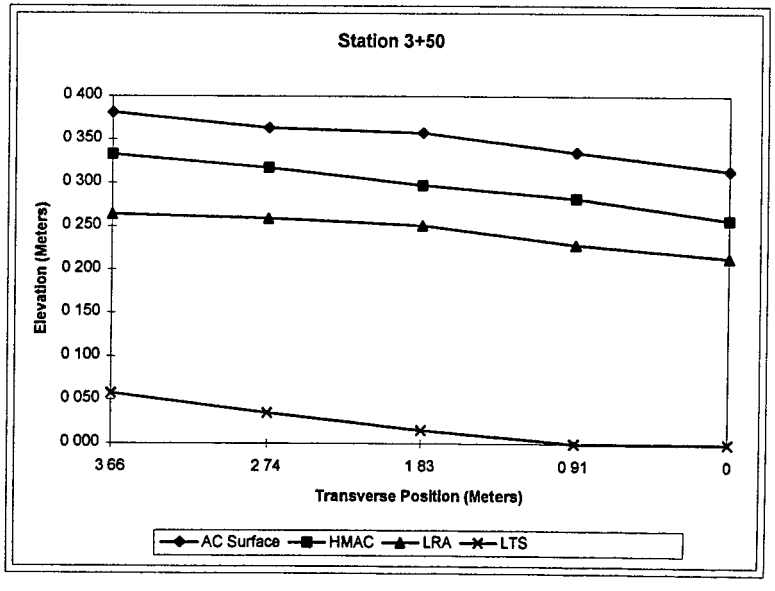


Texas SPS-1 (480161)









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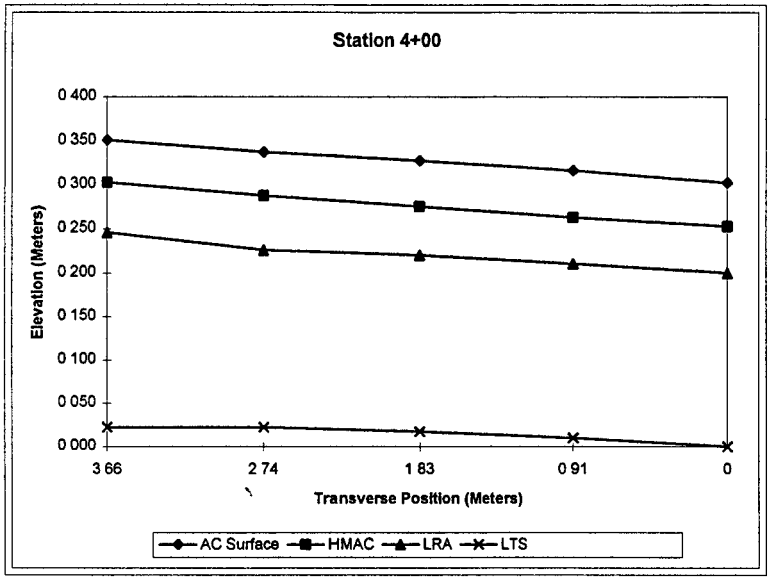
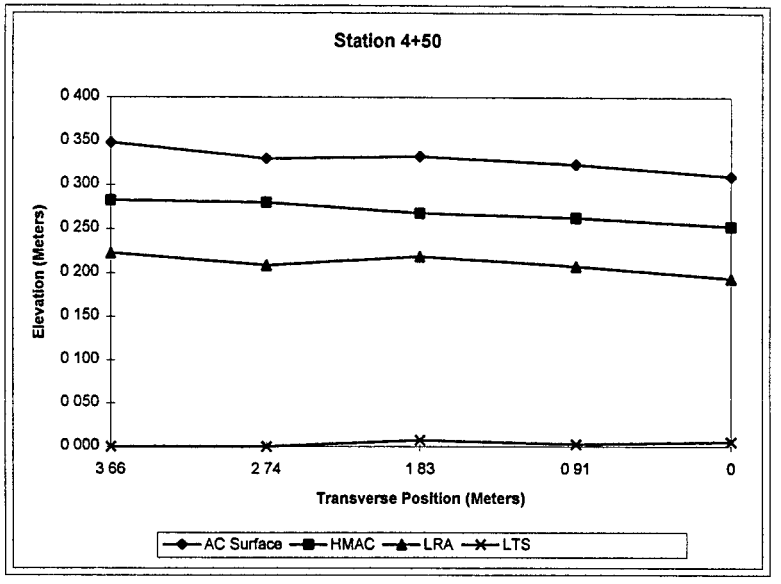
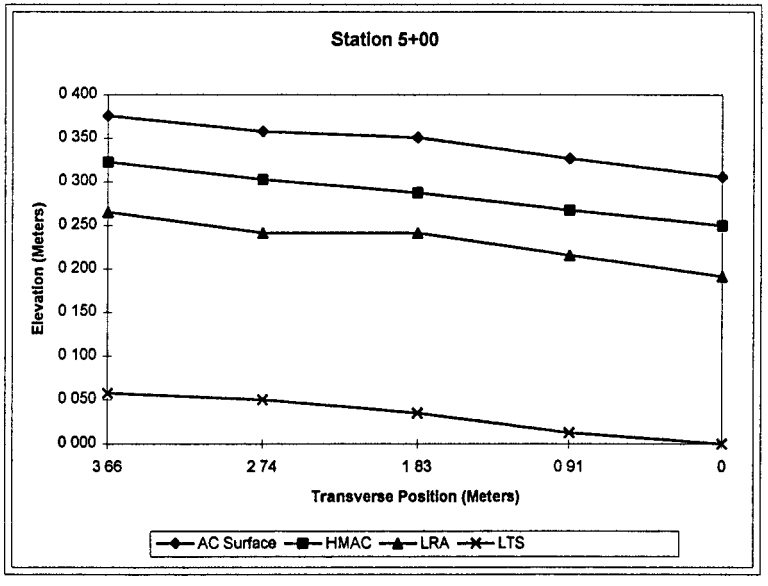




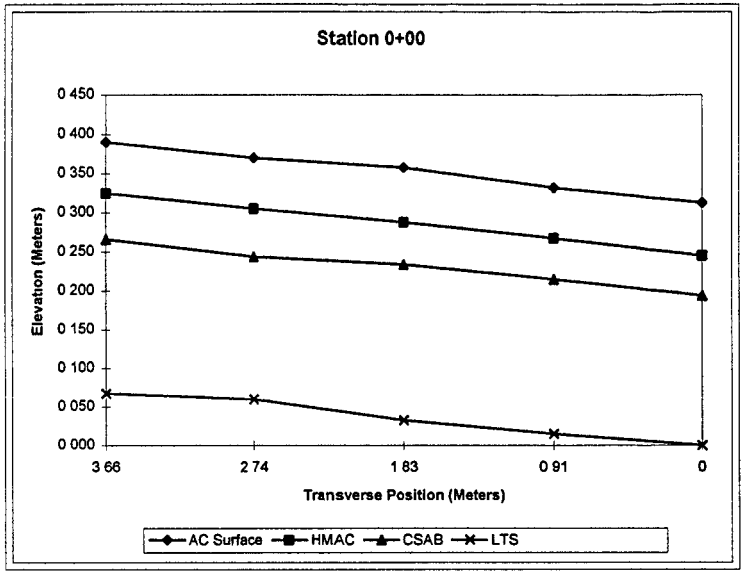


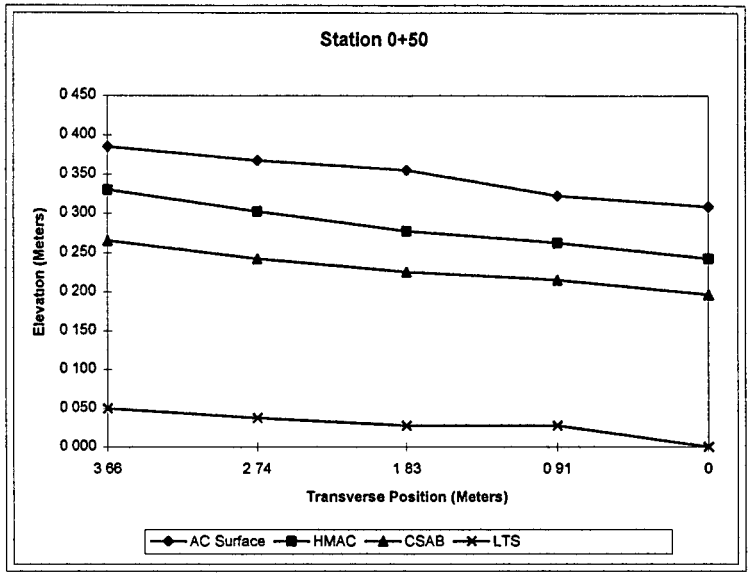
Texas SPS-1 (480162)

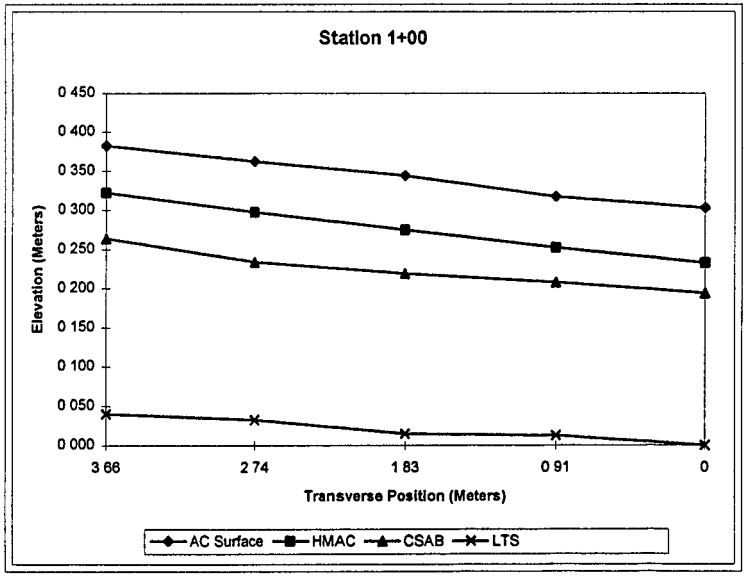
Transverse Offset	LAYERS	ELEVATION 0 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	CSAB THICKNESS Meters	ELEVATION 0 91 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	CSAB THICKNESS Meters	ELEVATION 1 83 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	CSAB THICKNESS Meters	ELEVATION 2.74 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	CSAB THICKNESS Meters	ELEVATION 3.66 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	CSAB THICKNESS Meters
0+00	C Surface	3 078	0 068	0 051	0 194	3 097	0 064	0 053	0 200	3 123	0 070	0 054	0 202	3 135	0 065	0 061	0 184	3 155	0 065	0 059	0 199
	HMAC	3 010				3 033				3 053				3 070				3 090			
	CSAB	2 959				2 980				2 999				3 009				3 031			
	LTS	2 765				2 780				2 798				2 825				2 833			
0+50	C Surface	3 066	0 066	0 046	0 197	3 080	0 060	0 047	0 188	3 113	0 078	0 052	0 198	3 125	0 065	0 060	0 205	3 143	0 055	0 064	0 216
	HMAC	3 000				3 020				3 035				3 060				3 088			
	CSAB	2 954				2 973				2 983				3 000				3 023			
	LTS	2 758				2 785				2 785				2 795				2 808			
1+00	C Surface	3 038	0 071	0 039	0 194	3 053	0 065	0 044	0 196	3 079	0 069	0 056	0 204	3 098	0 065	0 064	0 202	3 118	0 060	0 059	0 224
	HMAC	2 968				2 988				3 010				3 033				3 058			
	CSAB	2 929				2 943				2 954				2 969				2 999			
	LTS	2 735				2 748				2 750				2 768				2 775			
1+50	C Surface	3 005	0 072	0 050	0 178	3 023	0 070	0 050	0 168	3 053	0 083	0 054	0 179	3 058	0 078	0 057	0 191	3 078	0 073	0 062	0 201
	HMAC	2 933				2 953				2 970				2 980				3 005			
	CSAB	2 883				2 903				2 916				2 923				2 943			
	LTS	2 705				2 735				2 738				2 733				2 743			
2+00	C Surface	3 003	0 072	0 043	0 190	3 020	0 070	0 041	0 192	3 048	0 077	0 038	0 200	3 059	0 069	0 056	0 194	3 079	0 062	0 063	0 207
	HMAC	2 930				2 950				2 970				2 990				3 018			
	CSAB	2 887				2 909				2 932				2 934				2 954			
	LTS	2 698				2 718				2 733				2 740				2 748			
2+50	C Surface	2 993	0 070	0 047	0 193	3 013	0 065	0 051	0 189	3 041	0 074	0 047	0 205	3 058	0 065	0 059	0 214	3 076	0 054	0 070	0 231
	HMAC	2 923				2 948				2 968				2 993				3 023			
	CSAB	2 875				2 896				2 920				2 934				2 953			
	LTS	2 683				2 708				2 715				2 720				2 723			
3+00	C Surface	2 969	0 069	0 051	0 199	2 988	0 066	0 051	0 205	3 018	0 075	0 051	0 210	3 032	0 065	0 063	0 204	3 052	0 055	0 059	0 224
	HMAC	2 900				2 923				2 943				2 968				2 998			
	CSAB	2 849				2 872				2 892				2 904				2 939			
	LTS	2 650				2 668				2 683				2 700				2 715			
3+50	C Surface	2 953	0 078	0 053	0 205	2 963	0 061	0 056	0 206	2 995	0 073	0 055	0 215	3 010	0 065	0 062	0 218	3 033	0 055	0 073	0 228
	HMAC	2 875				2 903				2 923				2 945				2 978			
	CSAB	2 822				2 846				2 867				2 883				2 905			
	LTS	2 618				2 640				2 653				2 665				2 678			
4+00	C Surface	2 918	0 073	0 043	0 202	2 936	0 068	0 049	0 192	2 963	0 078	0 054	0 194	2 978	0 071	0 059	0 207	2 999	0 069	0 063	0 212
	HMAC	2 845				2 868				2 885				2 908				2 930			
	CSAB	2 802				2 819				2 831				2 849				2 867			
	LTS	2 600				2 628				2 638				2 643				2 655			
4+50	C Surface	2 900	0 072	0 046	0 197	2 913	0 065	0 041	0 207	2 945	0 080	0 046	0 212	2 955	0 070	0 061	0 217	2 977	0 072	0 059	0 238
	HMAC	2 828				2 848				2 865				2 885				2 905			
	CSAB	2 782				2 807				2 819				2 824				2 846			
	LTS	2 585				2 600				2 608				2 608				2 610			
5+00	C Surface	2 880	0 065	0 052	0 196	2 904	0 069	0 050	0 195	2 929	0 076	0 053	0 198	2 939	0 069	0 063	0 187	2 964	0 069	0 056	0 207
	HMAC	2 815				2 835				2 853				2 870				2 895			
	CSAB	2 763				2 785				2 800				2 807				2 839			
	LTS	2 568				2 590				2 603				2 620				2 633			
	AVG		0 071	0 048	0 195		0 065	0 049	0 194		0 076	0 052	0 201		0 068	0 061	0 203		0 063	0 062	0 218
	MAX		0 078	0 053	0 205		0 070	0 056	0 207		0 083	0 056	0 215		0 078	0 064	0 218		0 073	0 073	0 236
	MIN		0 065	0 039	0 178		0 060	0 041	0 168		0 069	0 046	0 179		0 065	0 057	0 184		0 054	0 056	0 199
	STD		0 004	0 004	0 007		0 003	0 004	0 011		0 004	0 003	0 010		0 004	0 002	0 011		0 007	0 005	0 012

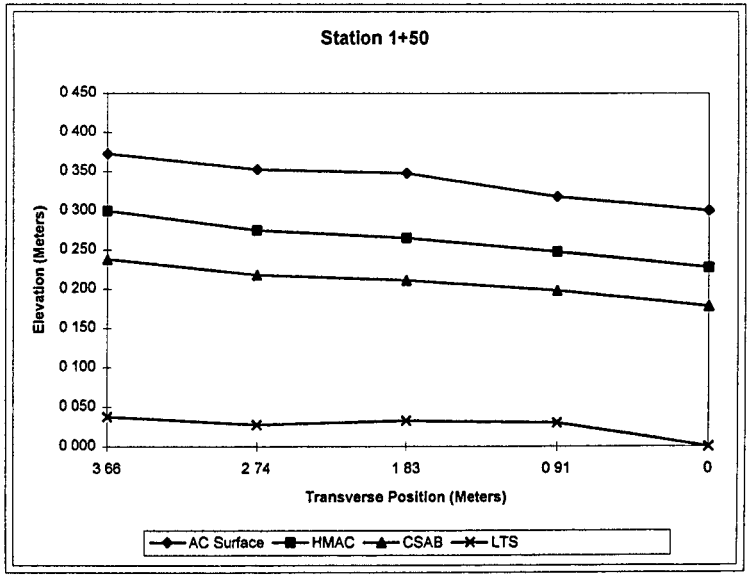
	AC Surfac	HMAC	CSAB
SECTION AVG	0 068	0 054	0 202
SECTION MAX	0 083	0 073	0 236
SECTION MIN	0 054	0 039	0 168
SECTION STD	0 006	0 008	0 013

Texas SPS-1 (480162)

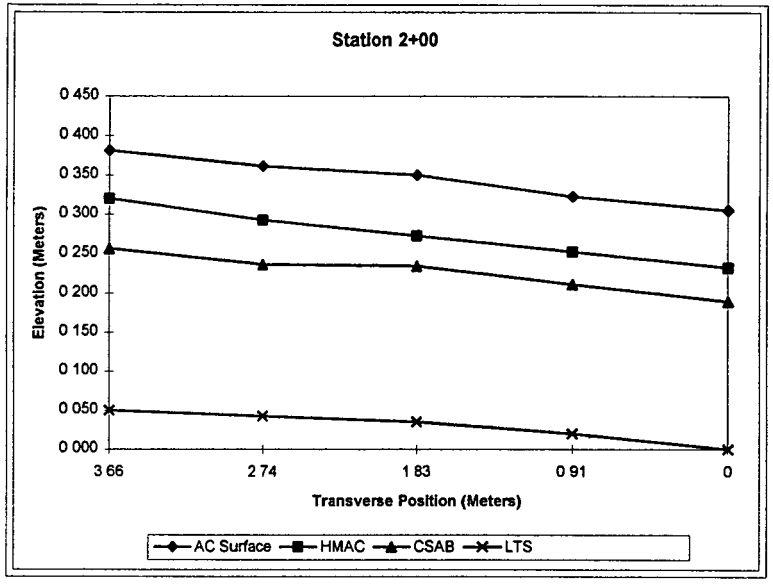


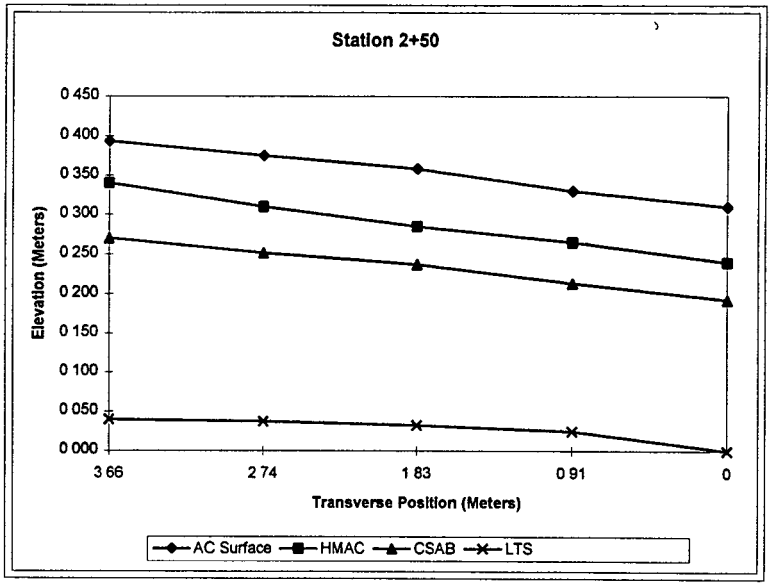


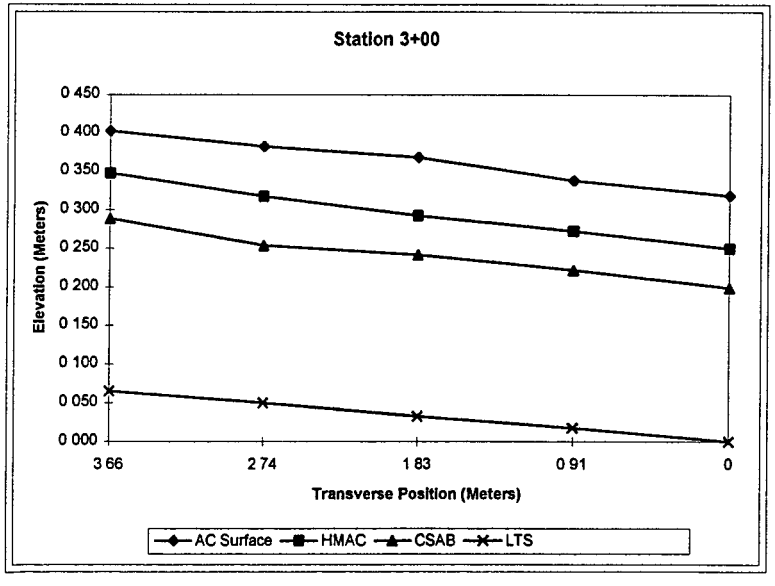


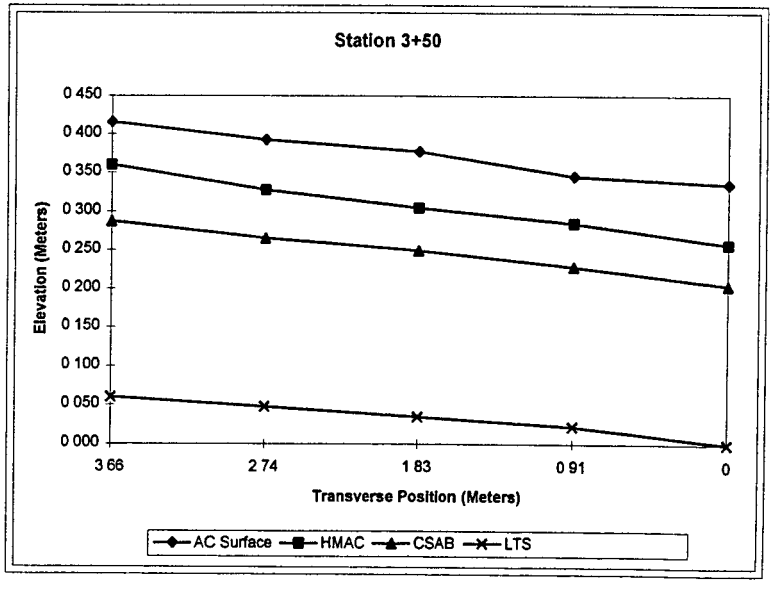


Texas SPS-1 (480162)

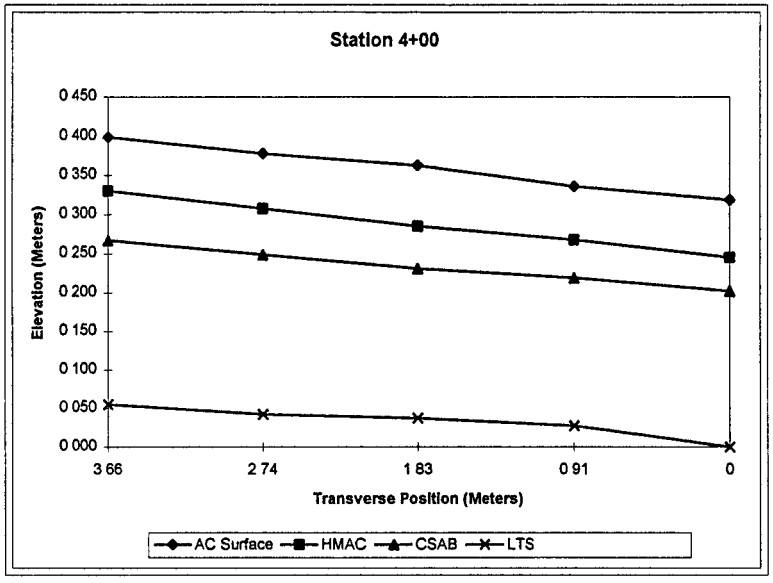


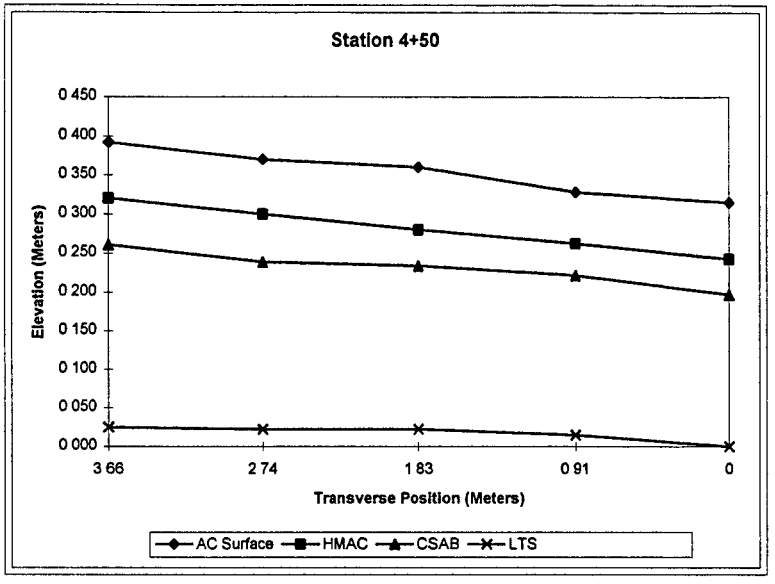


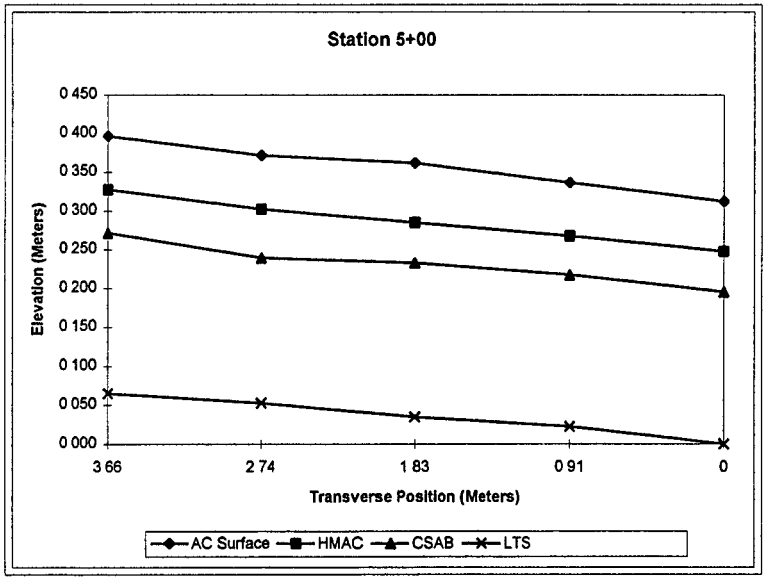




Texas SPS-1 (480162)





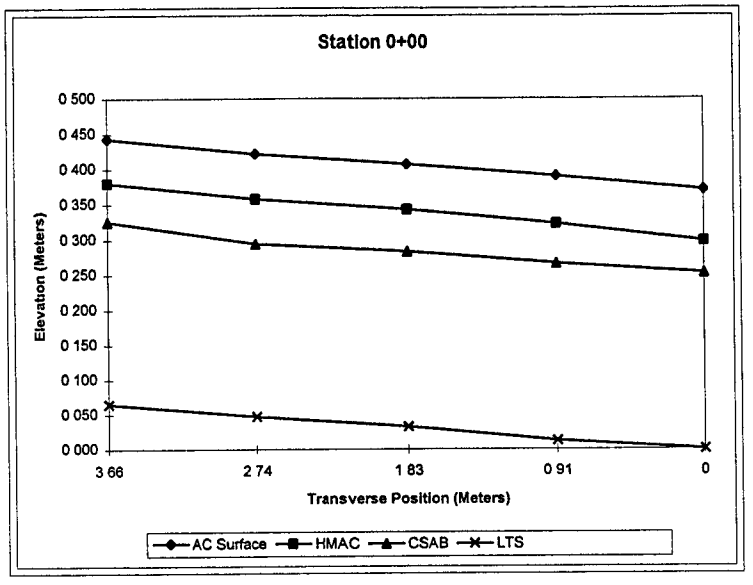


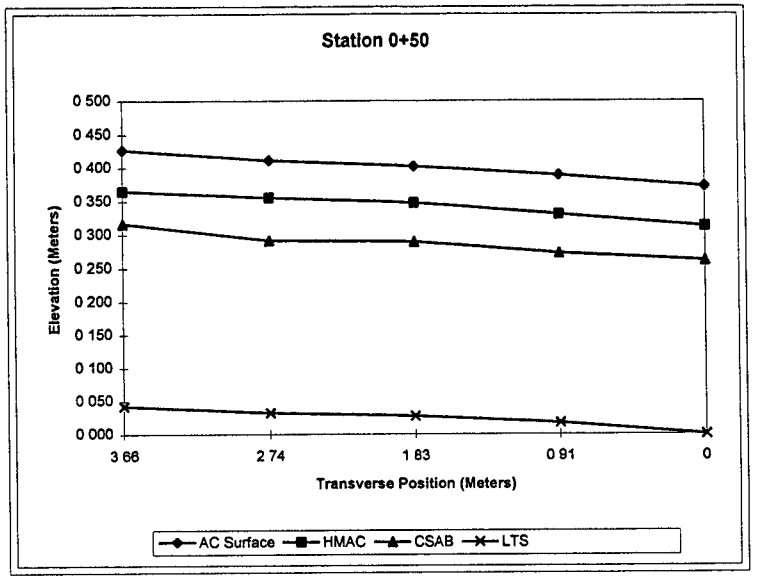
Texas SPS-1 (480163)

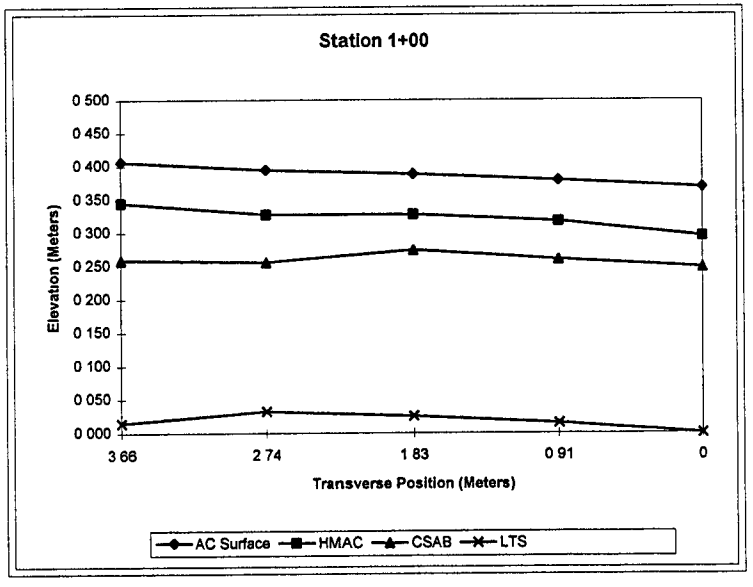
Transverse Offset	4 LAYERS	ELEVATION 0 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	CSAB THICKNESS Meters	ELEVATION 0.91 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	CSAB THICKNESS Meters	ELEVATION 1.83 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	CSAB THICKNESS Meters	ELEVATION 2.74 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	CSAB THICKNESS Meters	ELEVATION 3.66 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	CSAB THICKNESS Meters
0+00	C Surface	3 058	0 073	0 045	0 253	3 077	0 067	0 056	0 254	3 094	0 064	0 059	0 251	3 109	0 064	0 063	0 247	3 131	0 063	0 055	0 261
	HMAC	2 985				3 010				3 030				3 045				3 068			
	CSAB	2 940				2 954				2 971				2 982				3 013			
	LTS	2 688				2 700				2 720				2 735				2 753			
0+50	C Surface	3 039	0 059	0 051	0 262	3 056	0 059	0 058	0 255	3 070	0 055	0 058	0 262	3 079	0 056	0 063	0 259	3 094	0 062	0 049	0 274
	HMAC	2 980				2 998				3 015				3 023				3 033			
	CSAB	2 929				2 940				2 957				2 959				2 984			
	LTS	2 668				2 685				2 695				2 700				2 710			
1+00	C Surface	3 013	0 073	0 047	0 248	3 024	0 062	0 058	0 245	3 033	0 061	0 054	0 249	3 039	0 067	0 072	0 224	3 051	0 061	0 086	0 244
	HMAC	2 940				2 963				2 973				2 973				2 990			
	CSAB	2 893				2 905				2 919				2 901				2 904			
	LTS	2 645				2 660				2 670				2 678				2 660			
1+50	C Surface	2 987	0 072	0 046	0 239	3 001	0 061	0 051	0 244	3 013	0 063	0 047	0 248	3 027	0 067	0 068	0 237	3 044	0 071	0 080	0 233
	HMAC	2 915				2 940				2 950				2 960				2 973			
	CSAB	2 869				2 889				2 903				2 892				2 893			
	LTS	2 630				2 645				2 655				2 655				2 660			
2+00	C Surface	2 969	0 064	0 056	0 237	2 987	0 057	0 050	0 248	3 009	0 056	0 053	0 250	3 030	0 055	0 071	0 247	3 054	0 057	0 055	0 275
	HMAC	2 905				2 930				2 953				2 975				2 998			
	CSAB	2 849				2 880				2 900				2 904				2 942			
	LTS	2 613				2 633				2 650				2 658				2 668			
2+50	C Surface	2 939	0 066	0 051	0 242	2 960	0 058	0 056	0 251	2 984	0 062	0 059	0 267	3 012	0 062	0 074	0 239	3 041	0 066	0 071	0 254
	HMAC	2 873				2 903				2 923				2 950				2 975			
	CSAB	2 822				2 846				2 864				2 876				2 904			
	LTS	2 560				2 595				2 598				2 638				2 650			
3+00	C Surface	2 939	0 054	0 062	0 248	2 952	0 047	0 061	0 257	2 969	0 054	0 056	0 262	2 984	0 052	0 067	0 256	3 006	0 053	0 079	0 257
	HMAC	2 885				2 905				2 915				2 933				2 953			
	CSAB	2 823				2 844				2 859				2 866				2 874			
	LTS	2 575				2 588				2 598				2 610				2 618			
3+50	C Surface	2 928	0 059	0 065	0 248	2 939	0 051	0 062	0 259	2 954	0 054	0 052	0 273	2 965	0 047	0 067	0 273	2 978	0 041	0 071	0 290
	HMAC	2 868				2 888				2 900				2 918				2 938			
	CSAB	2 803				2 826				2 848				2 850				2 867			
	LTS	2 555				2 568				2 575				2 578				2 578			
4+00	C Surface	2 884	0 056	0 059	0 257	2 902	0 052	0 060	0 263	2 917	0 050	0 064	0 267	2 931	0 049	0 073	0 244	2 949	0 052	0 071	0 254
	HMAC	2 828				2 850				2 868				2 883				2 898			
	CSAB	2 769				2 790				2 804				2 809				2 826			
	LTS	2 513				2 528				2 538				2 565				2 573			
4+50	C Surface	2 875	0 052	0 053	0 239	2 896	0 051	0 059	0 229	2 917	0 045	0 059	0 242	2 939	0 049	0 070	0 245	2 952	0 042	0 061	0 267
	HMAC	2 823				2 845				2 873				2 890				2 910			
	CSAB	2 769				2 786				2 814				2 820				2 849			
	LTS	2 530				2 558				2 573				2 575				2 583			
5+00	C Surface	2 864	0 051	0 053	0 248	2 886	0 050	0 053	0 250	2 907	0 049	0 056	0 256	2 925	0 050	0 073	0 247	2 942	0 047	0 076	0 264
	HMAC	2 813				2 835				2 858				2 875				2 895			
	CSAB	2 760				2 782				2 801				2 802				2 819			
	LTS	2 513				2 533				2 545				2 555				2 555			
	AVG		0 062	0 053	0 248		0 056	0 057	0 250		0 056	0 056	0 258		0 056	0 069	0 247		0 056	0 070	0 260
	MAX		0 073	0 065	0 262		0 067	0 062	0 263		0 064	0 064	0 273		0 067	0 074	0 273		0 071	0 086	0 290
	MIN		0 051	0 045	0 239		0 047	0 051	0 229		0 045	0 047	0 242		0 047	0 063	0 224		0 041	0 049	0 233
	STD		0 008	0 006	0 007		0 006	0 003	0 009		0 006	0 004	0 009		0 008	0 004	0 013		0 010	0 011	0 015

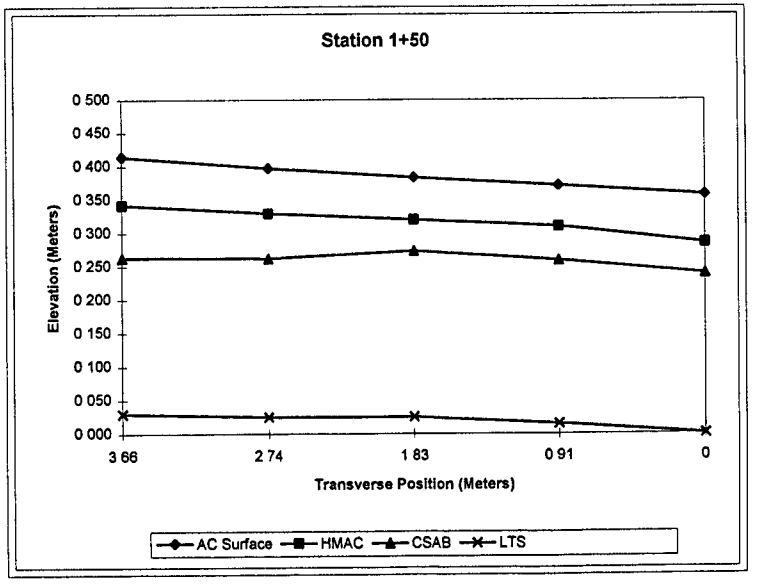
	AC Surfac	HMAC	CSAB
SECTION AVG	0 057	0 061	0 252
SECTION MAX	0 073	0 086	0 290
SECTION MIN	0 041	0 045	0 224
SECTION STD	0 008	0 009	0 012

Texas SPS-1 (480163)

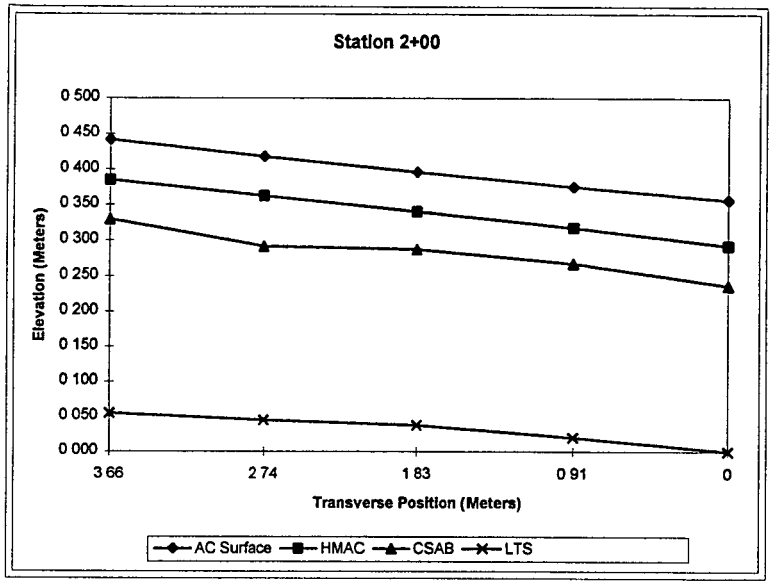


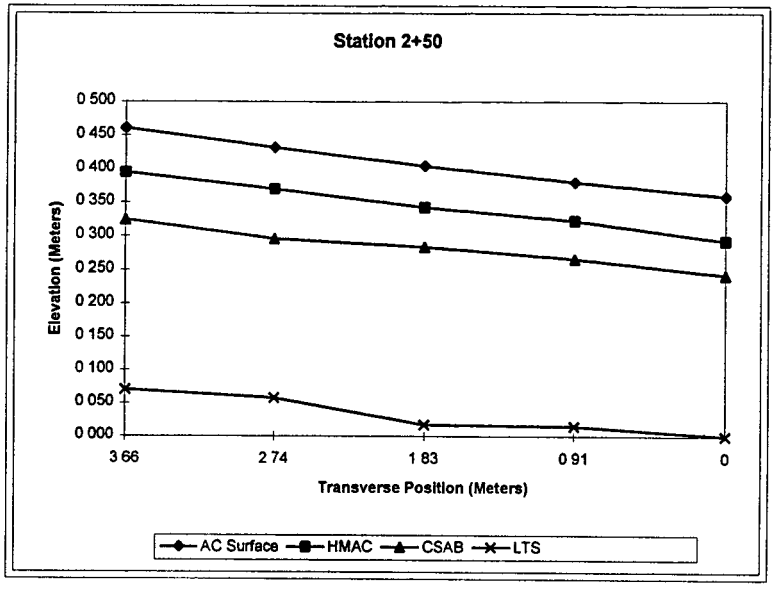


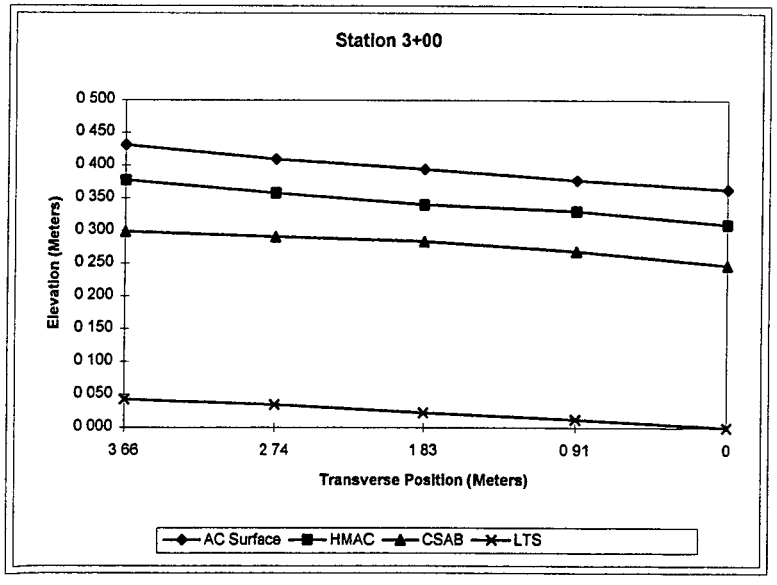


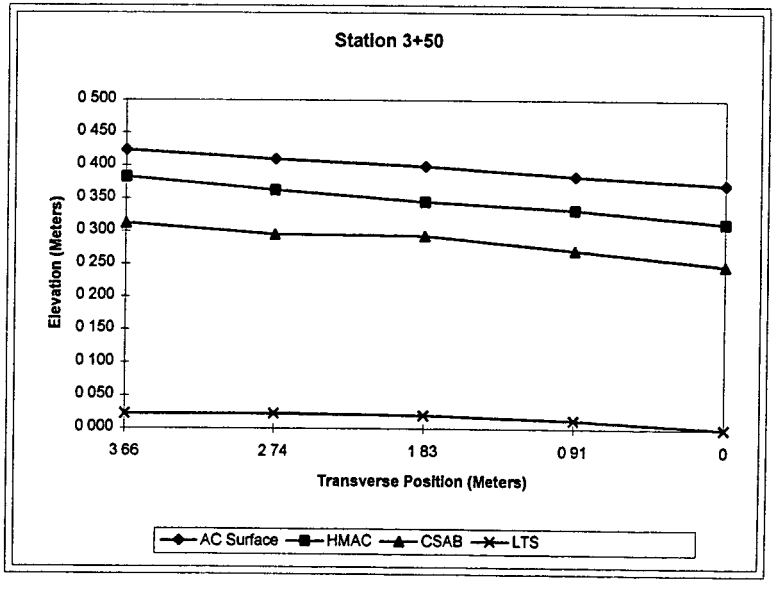


Texas SPS-1 (480163)









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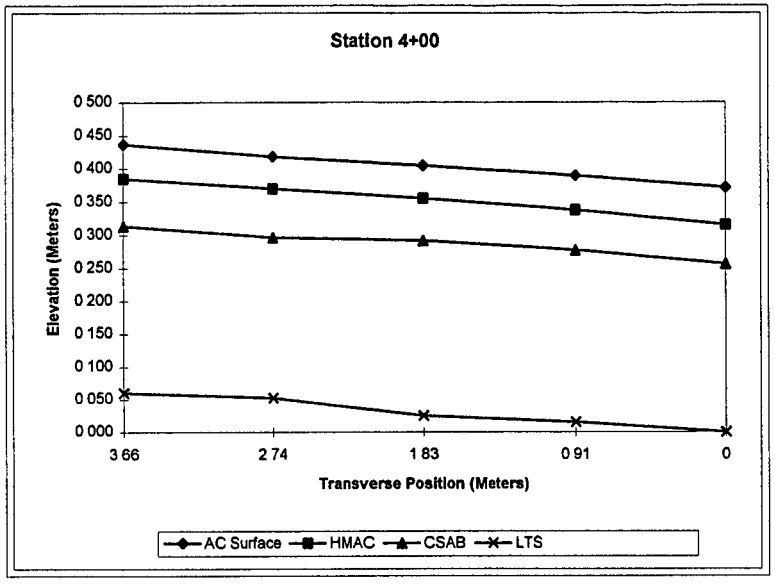
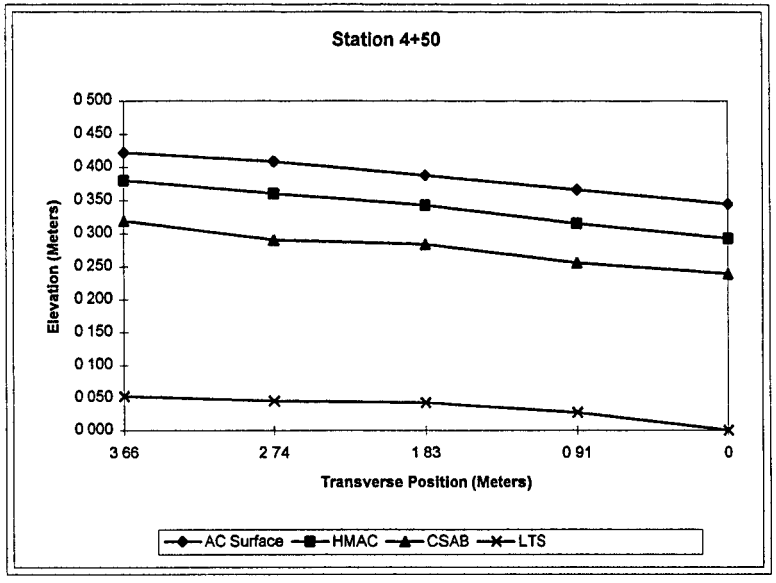
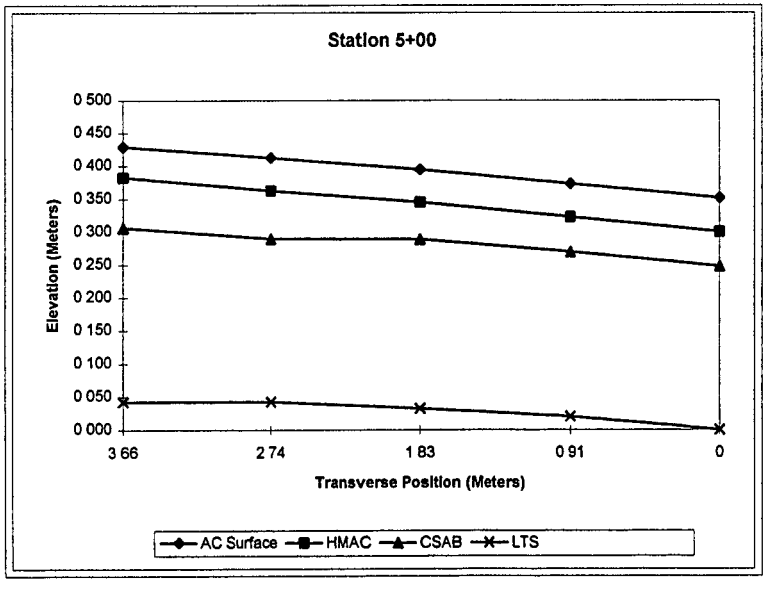




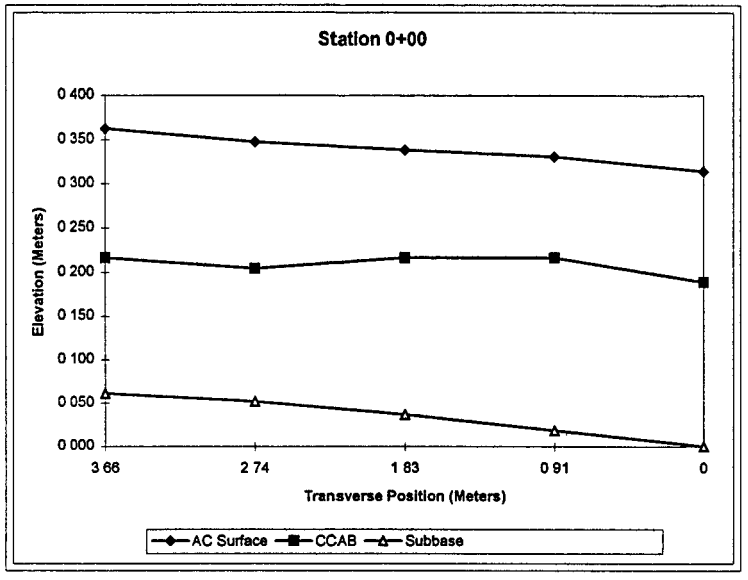


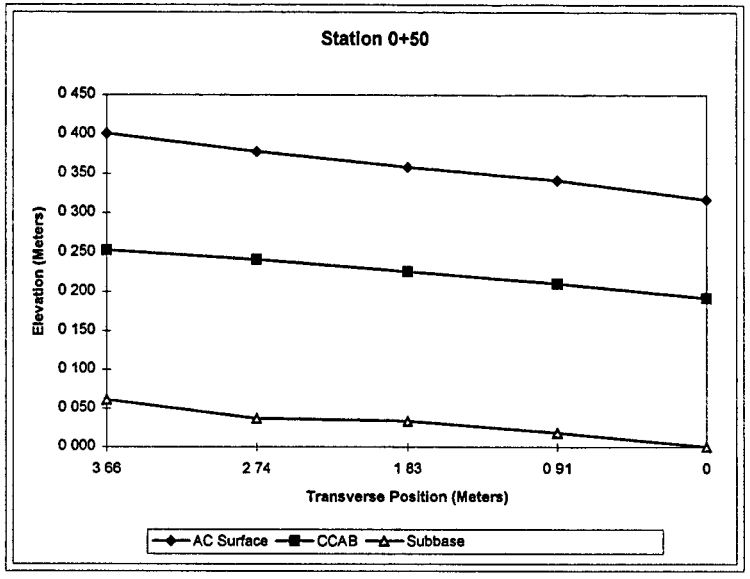
Texas SPS-1 (480164)

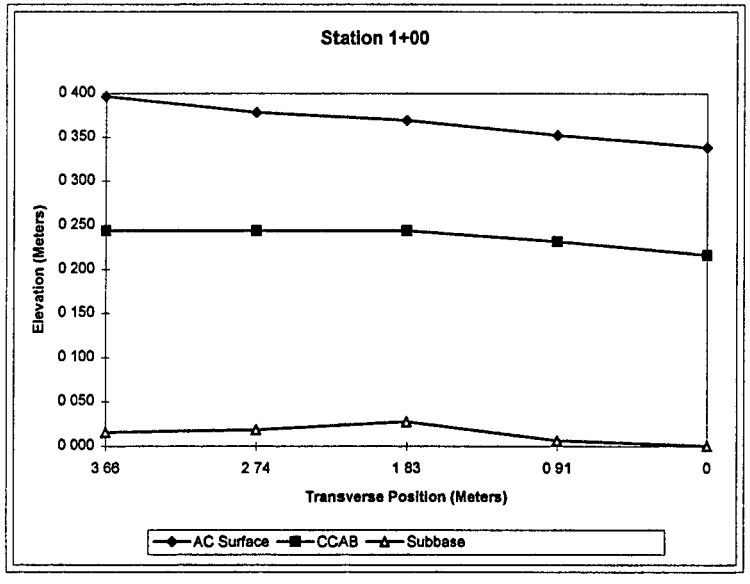
Transverse Offset	LAYERS	ELEVATION 0 5 Meters	AC Surface THICKNESS Meters	CCAB THICKNESS Meters	ELEVATION 0 91 Meters	AC Surface THICKNESS Meters	CCAB THICKNESS Meters	ELEVATION 1 83 Meters	AC Surface THICKNESS Meters	CCAB THICKNESS Meters	ELEVATION 2 74 Meters	AC Surface THICKNESS Meters	CCAB THICKNESS Meters	ELEVATION 3 66 Meters	AC Surface THICKNESS Meters	CCAB THICKNESS Meters
0+00	C Surface	1 146	0 125	0 189	1 163	0 114	0 198	1 170	0 122	0 180	1 180	0 143	0 152	1 195	0 146	0 155
	CCAB	1 021			1 049			1 049			1 036			1 049		
	Subbase	0 832			0 850			0 869			0 884			0 893		
0+50	C Surface	1 134	0 125	0 192	1 158	0 131	0 192	1 175	0 133	0 192	1 195	0 137	0 204	1 218	0 148	0 192
	CCAB	1 009			1 027			1 042			1 058			1 070		
	Subbase	0 817			0 835			0 850			0 853			0 878		
1+00	C Surface	1 137	0 122	0 216	1 151	0 120	0 226	1 167	0 125	0 216	1 177	0 134	0 226	1 195	0 152	0 229
	CCAB	1 015			1 030			1 042			1 042			1 042		
	Subbase	0 799			0 805			0 826			0 817			0 814		
1+50	C Surface	1 122	0 128	0 207	1 134	0 122	0 210	1 143	0 122	0 213	1 152	0 128	0 210	1 164	0 137	0 207
	CCAB	0 994			1 012			1 021			1 024			1 027		
	Subbase	0 786			0 802			0 808			0 814			0 820		
2+00	C Surface	1 102	0 136	0 207	1 117	0 126	0 216	1 131	0 128	0 219	1 143	0 137	0 226	1 161	0 146	0 232
	CCAB	0 966			0 991			1 003			1 006			1 015		
	Subbase	0 759			0 774			0 783			0 780			0 783		
2+50	C Surface	1 108	0 130	0 210	1 117	0 117	0 219	1 126	0 117	0 226	1 131	0 131	0 207	1 148	0 133	0 223
	CCAB	0 978			1 000			1 009			1 000			1 015		
	Subbase	0 768			0 780			0 783			0 792			0 792		
3+00	C Surface	1 084	0 133	0 198	1 097	0 125	0 201	1 111	0 120	0 210	1 122	0 128	0 213	1 140	0 146	0 204
	CCAB	0 951			0 972			0 991			0 994			0 994		
	Subbase	0 753			0 771			0 780			0 780			0 789		
3+50	C Surface	1 065	0 126	0 189	1 082	0 125	0 189	1 094	0 134	0 192	1 108	0 133	0 219	1 126	0 148	0 226
	CCAB	0 939			0 957			0 960			0 975			0 978		
	Subbase	0 750			0 768			0 768			0 756			0 753		
4+00	C Surface	1 045	0 128	0 216	1 056	0 120	0 223	1 062	0 126	0 204	1 068	0 136	0 210	1 079	0 140	0 219
	CCAB	0 917			0 936			0 936			0 933			0 939		
	Subbase	0 701			0 713			0 732			0 722			0 719		
4+50	C Surface	1 027	0 116	0 219	1 036	0 116	0 216	1 038	0 123	0 201	1 036	0 137	0 177	1 042	0 134	0 189
	CCAB	0 911			0 920			0 914			0 899			0 908		
	Subbase	0 692			0 704			0 713			0 722			0 719		
5+00	C Surface	1 020	0 117	0 223	1 032	0 099	0 235	1 036	0 098	0 235	1 039	0 116	0 229	1 047	0 120	0 238
	CCAB	0 902			0 933			0 939			0 924			0 927		
	Subbase	0 680			0 698			0 704			0 695			0 689		
	AVG	0 126	0 206		0 119	0 211		0 122	0.207		0 132	0.205		0 141	0 208	
	MAX	0 136	0 223		0 131	0 235		0 134	0 235		0 143	0 229		0 152	0 238	
	MIN	0 116	0.189		0 099	0 189		0 098	0 180		0 116	0 152		0 120	0 155	
	STD	0 006	0 012		0 008	0.015		0 010	0 016		0 007	0 022		0 009	0 023	

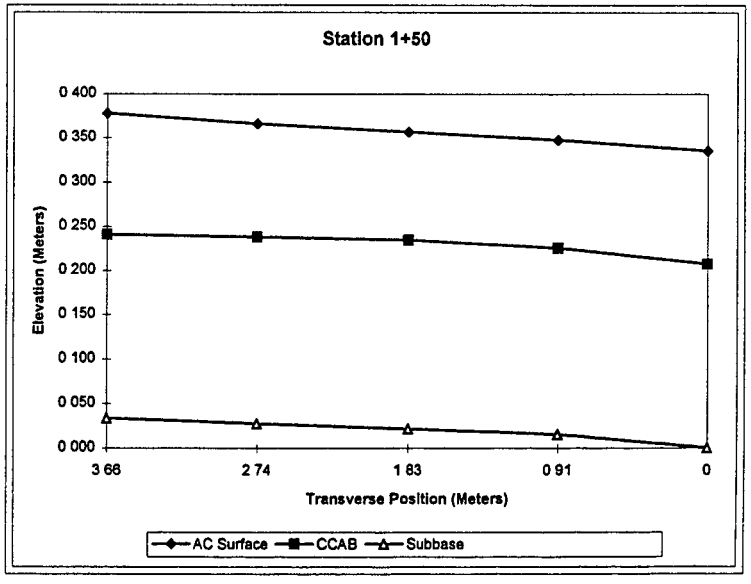
	AC Surfac	CCAB
SECTION AVG	0 128	0 209
SECTION MAX	0 152	0 238
SECTION MIN	0 098	0 152
SECTION STD	0 011	0 018

Texas SPS-1 (480164)

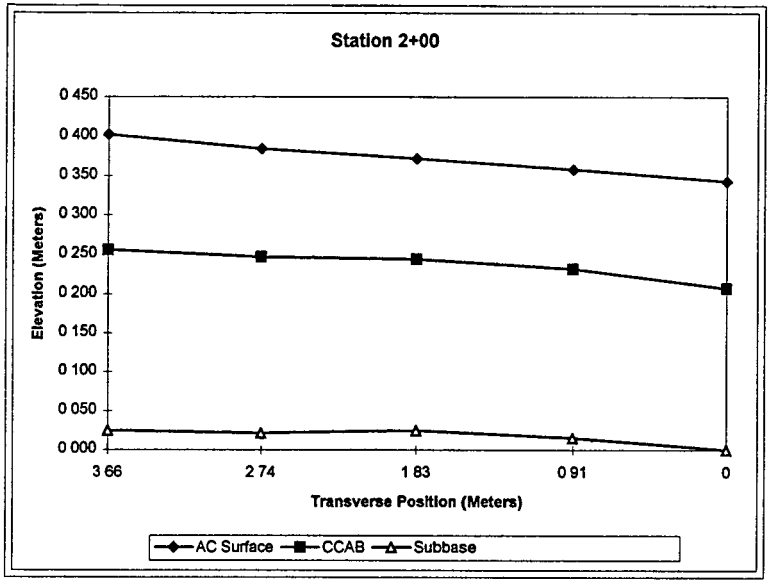


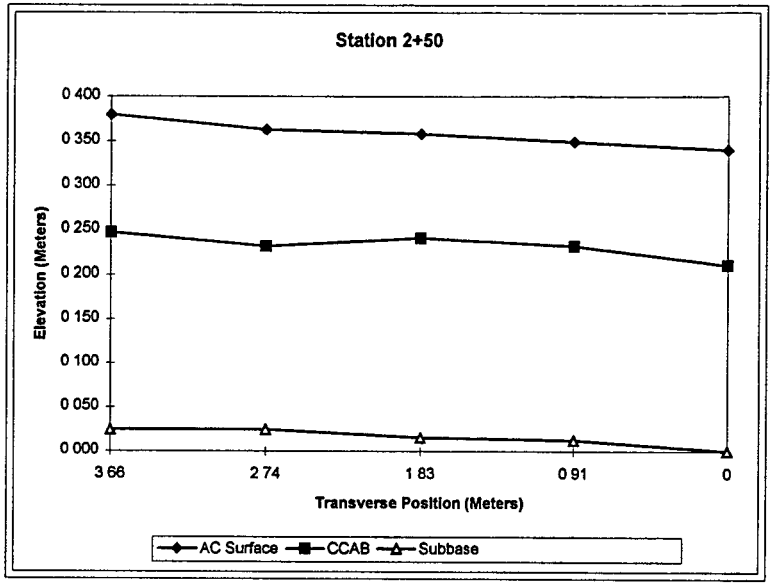


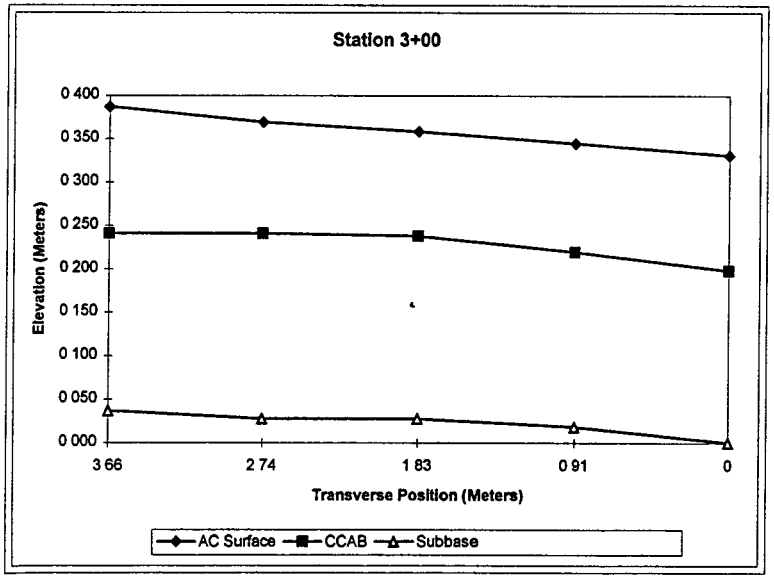


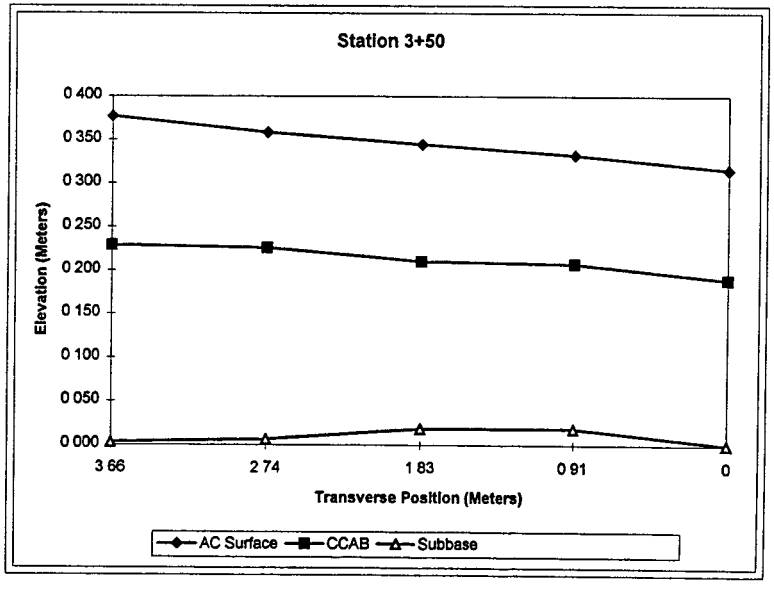


Texas SPS-1 (480164)

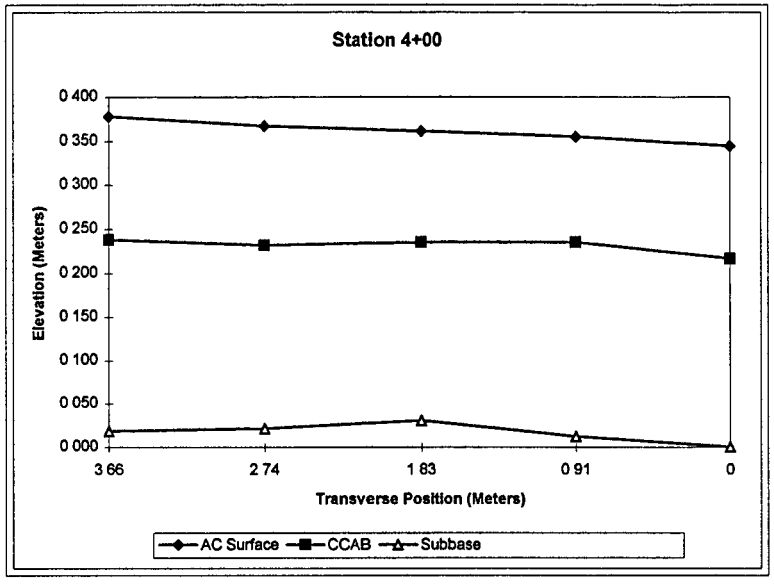


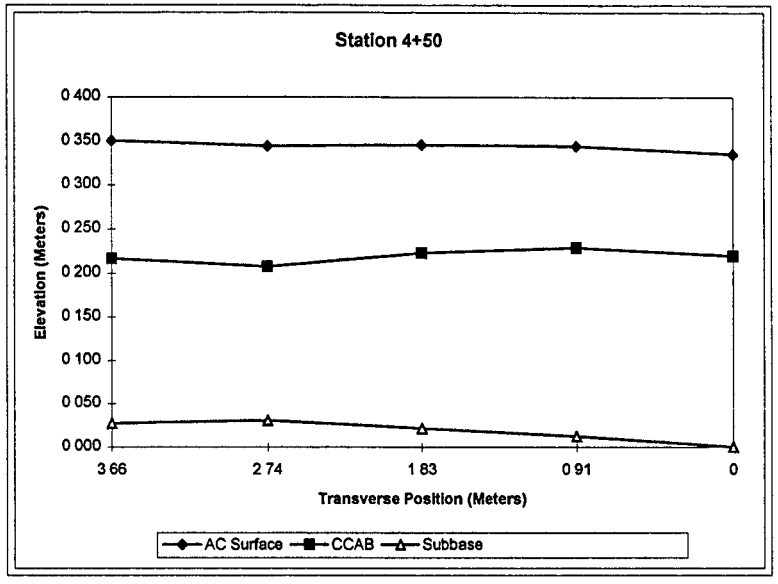


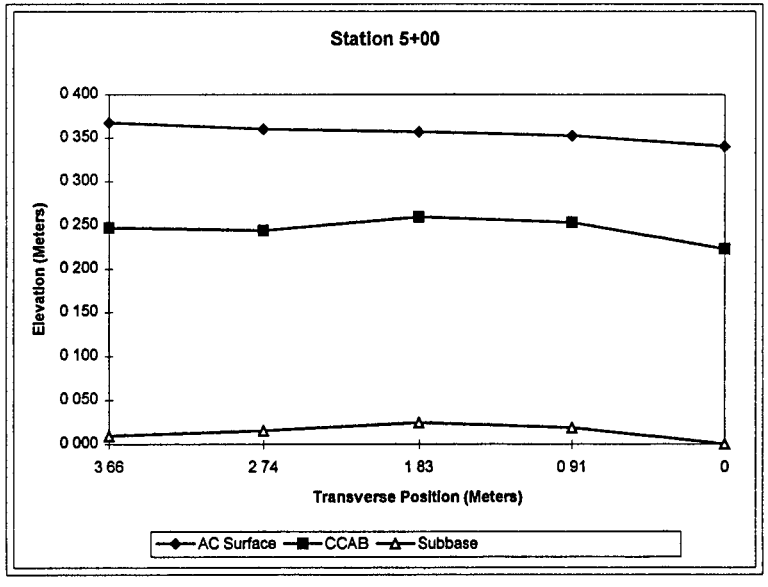




Texas SPS-1 (480164)





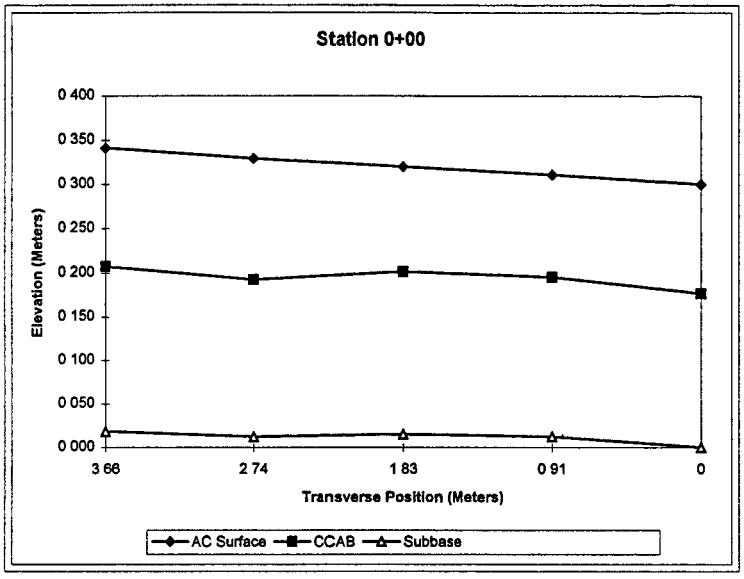


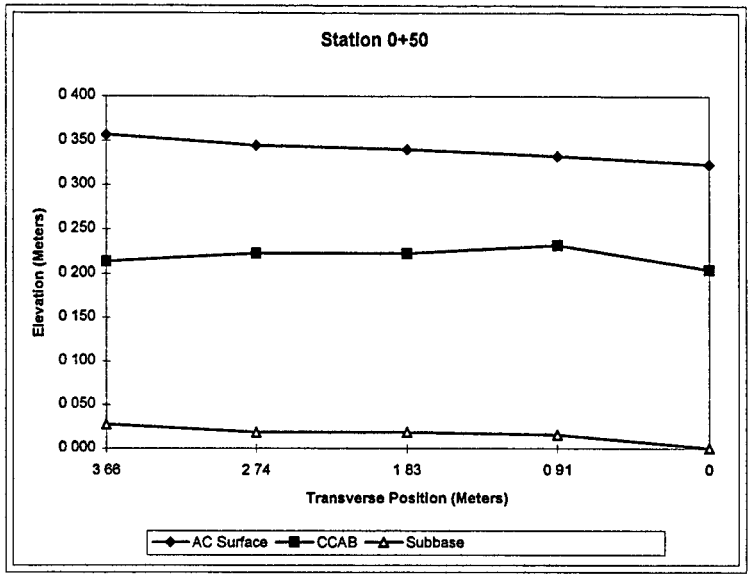
Texas SPS-1 (480165)

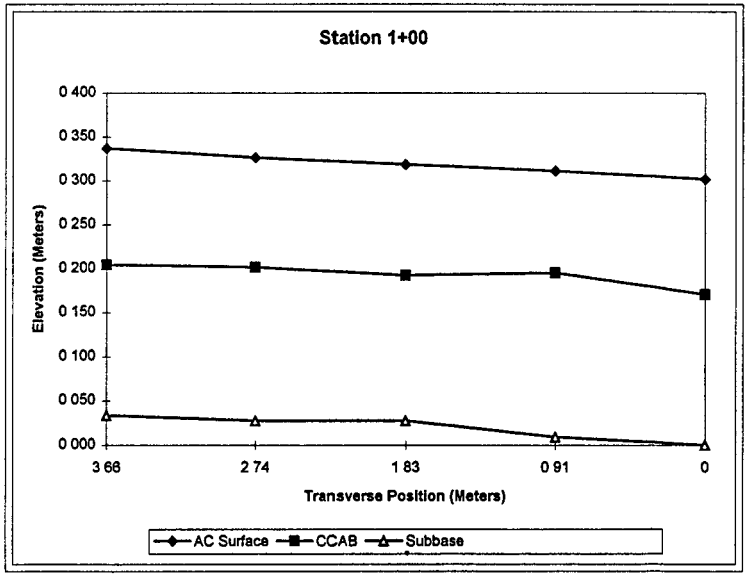
Transverse Offset	LAYERS	ELEVATION 0 Meters	AC Surface THICKNESS Meters	CCAB THICKNESS Meters	ELEVATION 0 91 Meters	AC Surface THICKNESS Meters	CCAB THICKNESS Meters	ELEVATION 21 83 Meters	AC Surface THICKNESS Meters	CCAB THICKNESS Meters	ELEVATION 2 74 Meters	AC Surface THICKNESS Meters	CCAB THICKNESS Meters	ELEVATION 93 66 Meters	AC Surface THICKNESS Meters	CCAB THICKNESS Meters
0+00	C Surface	1 318	0 123	0 177	1 329	0 116	0 183	1 338	0 119	0 186	1 347	0 137	0 180	1 359	0 134	0 189
	CCAB	1 195			1 213			1 219			1 210			1 225		
	Subbase	1 018			1 030			1 033			1 030			1 036		
0+50	C Surface	1 317	0 119	0 204	1 326	0 101	0 216	1 334	0 117	0 204	1 338	0 122	0 204	1 350	0 143	0 186
	CCAB	1 198			1 225			1 216			1 216			1 207		
	Subbase	0 994			1 009			1 012			1 012			1 021		
1+00	C Surface	1 280	0 131	0 171	1 289	0 116	0 186	1 297	0 126	0 165	1 305	0 125	0 174	1 315	0 133	0 171
	CCAB	1 149			1 173			1 170			1 180			1 183		
	Subbase	0 978			0 988			1 006			1 006			1 012		
1+50	C Surface	1 256	0 113	0 168	1 262	0 113	0 171	1 265	0 119	0 162	1 266	0 139	0 146	1 274	0 119	0 174
	CCAB	1 143			1 149			1 146			1 128			1 155		
	Subbase	0 975			0 978			0 985			0 981			0 981		
2+00	C Surface	1 244	0 119	0 149	1 253	0 113	0 152	1 259	0 110	0 165	1 262	0 110	0 189	1 271	0 104	0 219
	CCAB	1 125			1 140			1 149			1 152			1 167		
	Subbase	0 975			0 988			0 985			0 963			0 948		
2+50	C Surface	1 250	0 101	0 180	1 257	0 096	0 168	1 265	0 094	0 177	1 268	0 104	0 177	1 280	0 110	0 183
	CCAB	1 149			1 161			1 170			1 164			1 170		
	Subbase	0 969			0 994			0 994			0 988			0 988		
3+00	C Surface	1 219	0 104	0 192	1 228	0 101	0 189	1 233	0 102	0 186	1 236	0 111	0 189	1 247	0 128	0 186
	CCAB	1 116			1 128			1 131			1 125			1 119		
	Subbase	0 924			0 939			0 945			0 936			0 933		
3+50	C Surface	1 180	0 110	0 174	1 196	0 108	0 162	1 207	0 110	0 162	1 213	0 122	0 162	1 228	0 125	0 174
	CCAB	1 070			1 088			1 097			1 091			1 103		
	Subbase	0 896			0 927			0 936			0 930			0 930		
4+00	C Surface	1 186	0 104	0 201	1 201	0 091	0 213	1 207	0 098	0 201	1 213	0 116	0 183	1 225	0 116	0 189
	CCAB	1 082			1 109			1 109			1 097			1 109		
	Subbase	0 881			0 896			0 908			0 914			0 920		
4+50	C Surface	1 204	0 082	0 247	1 210	0 070	0 250	1 210	0 079	0 229	1 210	0 091	0 195	1 218	0 108	0 165
	CCAB	1 122			1 140			1 131			1 119			1 109		
	Subbase	0 875			0 890			0 902			0 924			0 945		
5+00	C Surface	1 189	0 128	0 189	1 199	0 099	0 216	1 204	0 094	0 213	1 209	0 120	0 189	1 216	0 116	0 192
	CCAB	1 061			1 100			1 109			1 088			1 100		
	Subbase	0 872			0 884			0 896			0 899			0 908		
	AVG	0 112	0 190		0 101	0 195		0 106	0 188		0 119	0 180		0 123	0 181	
	MAX	0 131	0 247		0 116	0 250		0.126	0 229		0 139	0 204		0 143	0 192	
	MIN	0 082	0 168		0 070	0 162		0 079	0 162		0 091	0 146		0 108	0 165	
	STD	0 013	0 022		0 013	0 026		0 014	0 022		0 014	0 016		0 011	0 009	

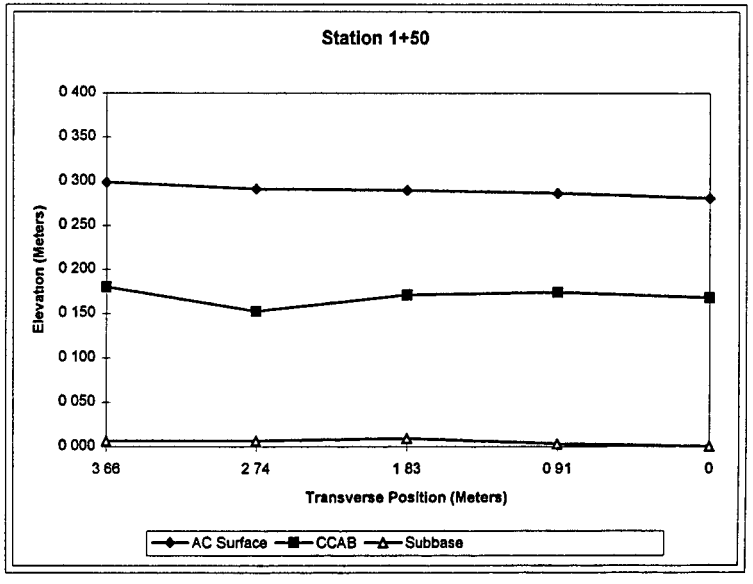
	AC Surfac	CCAB
SECTION AVG	0 112	0 186
SECTION MAX	0 143	0 250
SECTION MIN	0 070	0 146
SECTION STD	0 015	0 022

Texas SPS-1 (480165)

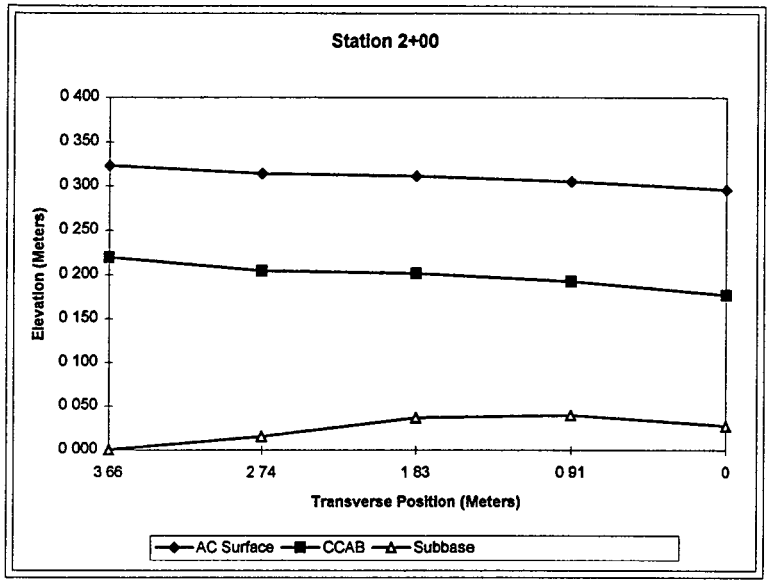


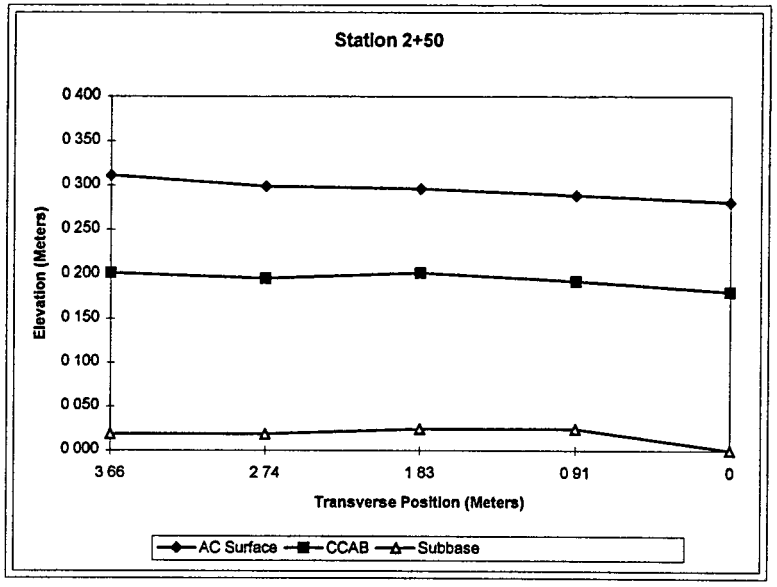


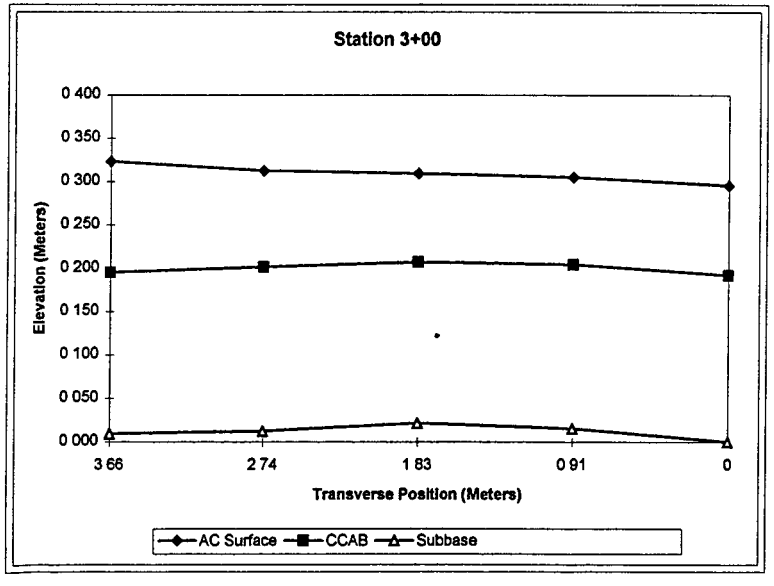


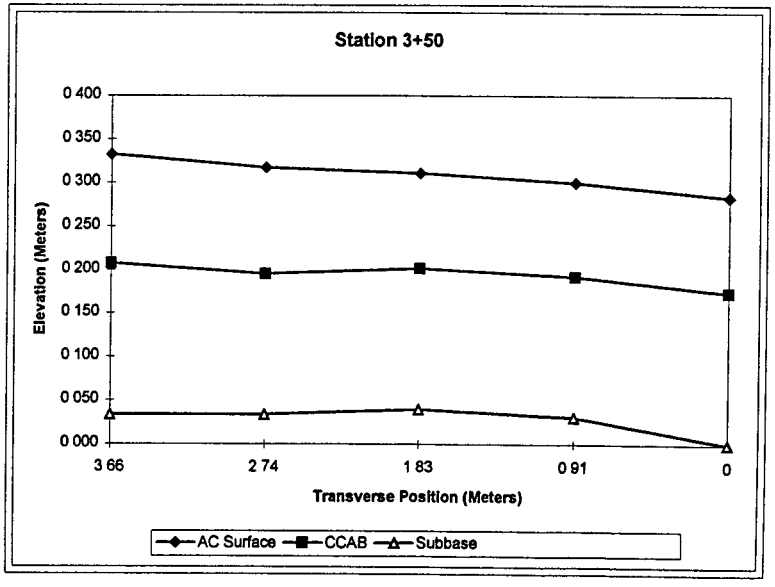


Texas SPS-1 (480165)

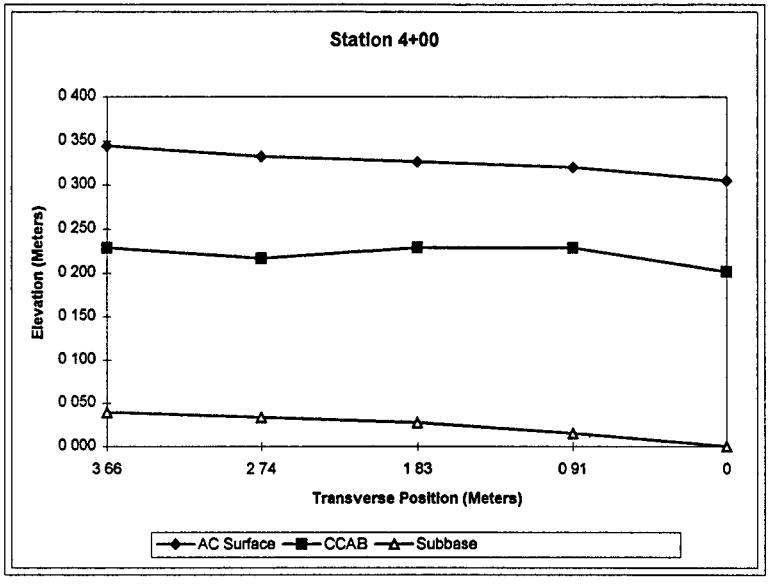


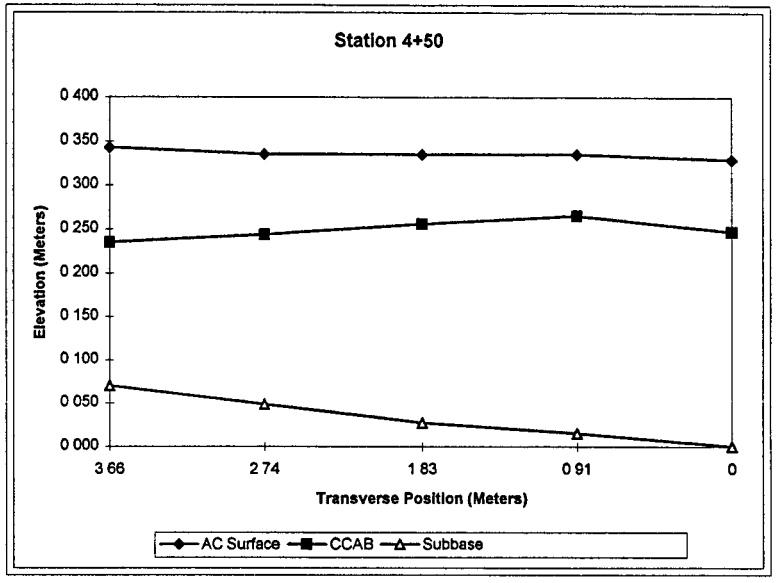


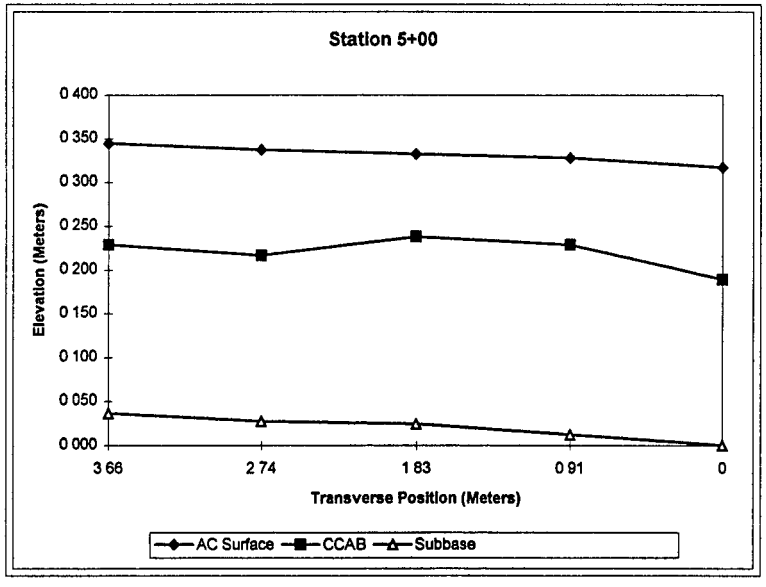




Texas SPS-1 (480165)





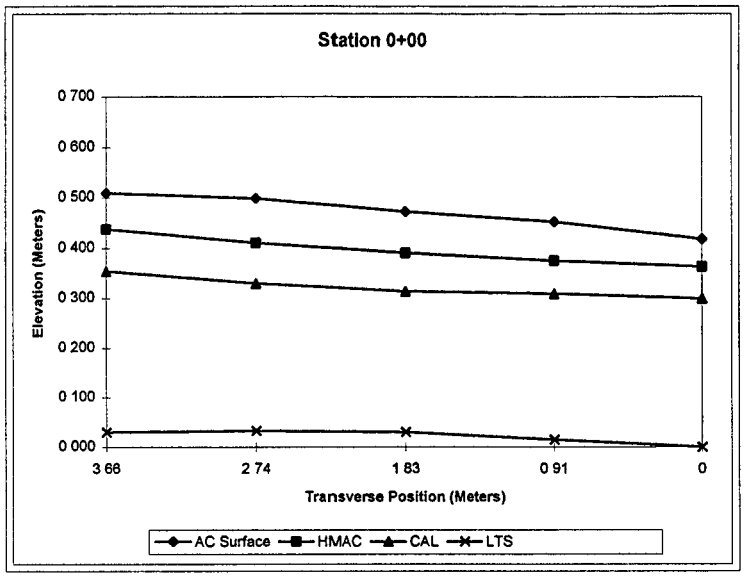


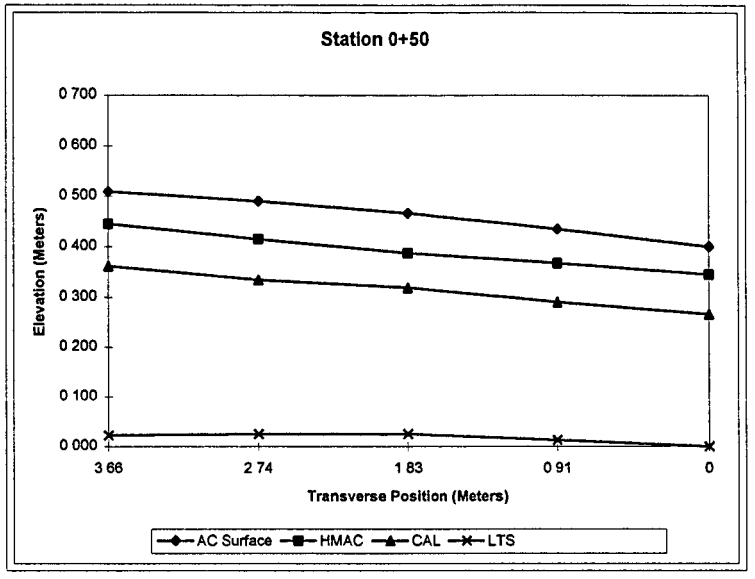
Texas SPS-1 (480166)

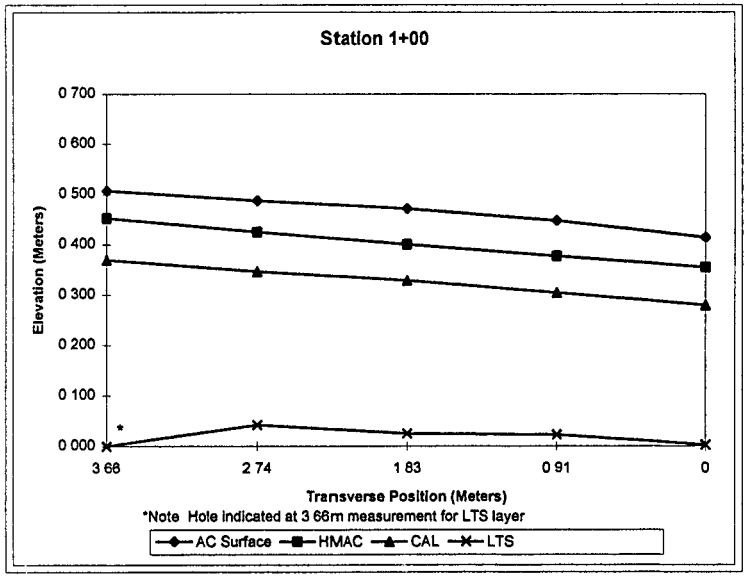
Transverse Offset	LAYERS	ELEVATION 0 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	CAL THICKNESS Meters	ELEVATION 0.91 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	CAL THICKNESS Meters	ELEVATION 1.83 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	CAL THICKNESS Meters	ELEVATION 2.74 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	CAL THICKNESS Meters	ELEVATION 3.66 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	CAL THICKNESS Meters
0+00	C Surface	3 032	0 055	0 063	0 299	3 067	0 077	0 066	0 294	3 087	0 082	0 076	0 284	3 113	0 088	0 080	0 298	3 124	0 071	0 084	0 324
	HMAC	2 978				2 990				3 005				3 025				3 053			
	CAL	2 914				2 924				2 929				2 945				2 969			
	LTS	2 615				2 630				2 645				2 648				2 645			
0+50	C Surface	3 010	0 055	0 079	0 266	3 045	0 067	0 078	0 278	3 078	0 079	0 069	0 294	3 100	0 075	0 081	0 309	3 119	0 064	0 083	0 340
	HMAC	2 955				2 978				2 998				3 025				3 055			
	CAL	2 876				2 900				2 929				2 944				2 972			
	LTS	2 610				2 623				2 635				2 635				2 633			
1+00	C Surface	3 002	0 059	0 075	0 277	3 035	0 070	0 073	0 282	3 059	0 072	0 071	0 304	3 075	0 063	0 079	0 304	3 095	0 055	0 083	0 370
	HMAC	2 943				2 965				2 988				3 013				3 040			
	CAL	2 867				2 892				2 916				2 934				2 957			
	LTS	2 590				2 610				2 613				2 630				2 588			
1+50	C Surface	3 005	0 060	0 059	0 301	3 035	0 070	0 056	0 312	3 065	0 080	0 058	0 322	3 078	0 075	0 070	0 323	3 098	0 073	0 079	0 331
	HMAC	2 945				2 965				2 985				3 003				3 025			
	CAL	2 886				2 909				2 927				2 933				2 946			
	LTS	2 585				2 598				2 605				2 610				2 615			
2+00	C Surface	3 018	0 063	0 062	0 326	3 049	0 079	0 060	0 328	3 066	0 081	0 059	0 331	3 080	0 080	0 063	0 335	3 099	0 084	0 065	0 348
	HMAC	2 955				2 970				2 985				3 000				3 015			
	CAL	2 893				2 910				2 926				2 937				2 950			
	LTS	2 568				2 583				2 595				2 603				2 603			
2+50	C Surface	3 040	0 065	0 053	0 375	3 063	0 073	0 056	0 367	3 085	0 072	0 060	0 351	3 101	0 071	0 065	0 370	3 121	0 066	0 075	0 378
	HMAC	2 975				2 990				3 013				3 030				3 055			
	CAL	2 922				2 934				2 953				2 965				2 980			
	LTS	2 548				2 568				2 603				2 595				2 603			
3+00	C Surface	3 013	0 063	0 059	0 371	3 035	0 070	0 055	0 375	3 054	0 074	0 060	0 375	3 065	0 072	0 067	0 361	3 078	0 066	0 077	0 348
	HMAC	2 950				2 965				2 980				2 993				3 010			
	CAL	2 891				2 910				2 920				2 926				2 933			
	LTS	2 520				2 535				2 545				2 565				2 585			
3+50	C Surface	3 003	0 063	0 063	0 370	3 027	0 070	0 061	0 377	3 041	0 076	0 064	0 359	3 051	0 075	0 070	0 348	3 066	0 078	0 077	0 335
	HMAC	2 940				2 958				2 965				2 975				2 988			
	CAL	2 877				2 897				2 901				2 905				2 910			
	LTS	2 508				2 520				2 543				2 558				2 575			
4+00	C Surface	3 010	0 067	0 056	0 401	3 030	0 067	0 063	0 390	3 053	0 071	0 067	0 374	3 066	0 063	0 074	0 372	3 082	0 059	0 082	0 359
	HMAC	2 943				2 963				2 983				3 003				3 023			
	CAL	2 886				2 900				2 916				2 929				2 941			
	LTS	2 485				2 510				2 543				2 558				2 583			
4+50	C Surface	2 986	0 061	0 061	0 384	3 010	0 070	0 060	0 380	3 035	0 073	0 068	0 374	3 055	0 075	0 073	0 362	3 074	0 074	0 079	0 356
	HMAC	2 925				2 940				2 963				2 980				3 000			
	CAL	2 864				2 880				2 894				2 907				2 921			
	LTS	2 480				2 500				2 520				2 545				2 565			
5+00	C Surface	2 966	0 061	0 076	0 364	3 000	0 075	0 075	0 370	3 026	0 076	0 083	0 362	3 047	0 072	0 089	0 356	3 069	0 074	0 095	0 350
	HMAC	2 905				2 925				2 950				2 975				2 995			
	CAL	2 829				2 850				2 867				2 886				2 900			
	LTS	2 465				2 480				2 505				2 530				2 550			
	AVG		0 061	0 065	0 341		0 071	0 064	0 342		0 075	0 068	0 340		0 073	0 075	0 340		0 068	0 081	0 349
	MAX		0 067	0 079	0 401		0 077	0 078	0 390		0 082	0 083	0 375		0 088	0 089	0 372		0 078	0 095	0 378
	MIN		0 055	0 053	0 266		0 067	0 055	0 278		0 071	0 058	0 284		0 063	0 065	0 298		0 055	0 075	0 324
	STD		0 004	0 009	0 047		0 003	0 008	0 043		0 004	0 007	0 034		0 007	0 007	0 027		0 007	0 005	0 016

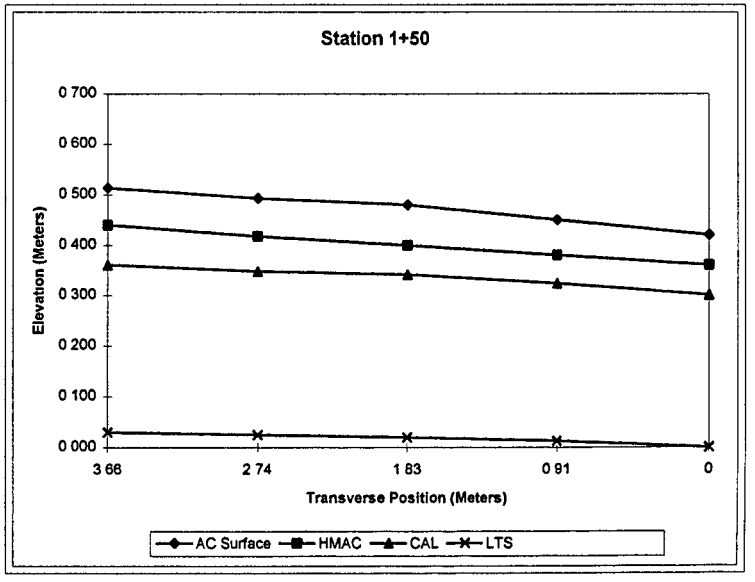
	AC Surfac	HMAC	CAL
SECTION AVG	0 070	0 070	0 342
SECTION MAX	0 088	0 095	0 401
SECTION MIN	0 055	0 053	0 266
SECTION STD	0 007	0 010	0 034

Texas SPS-1 (480166)

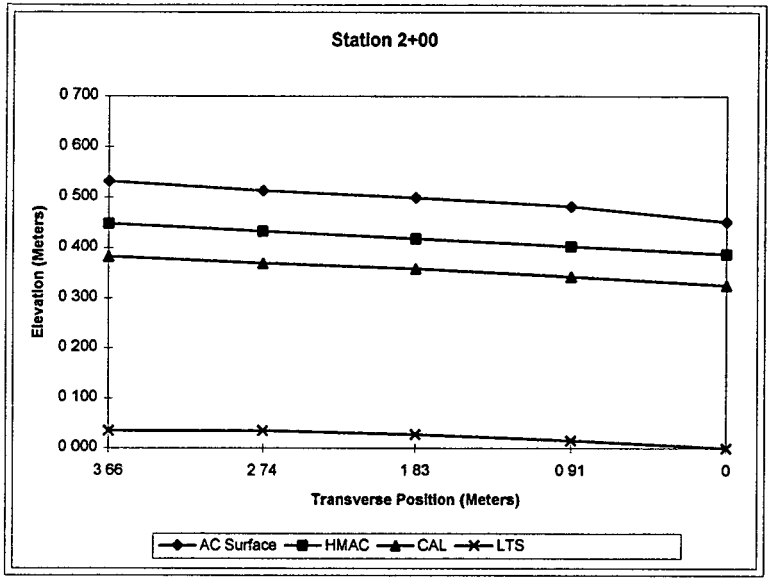


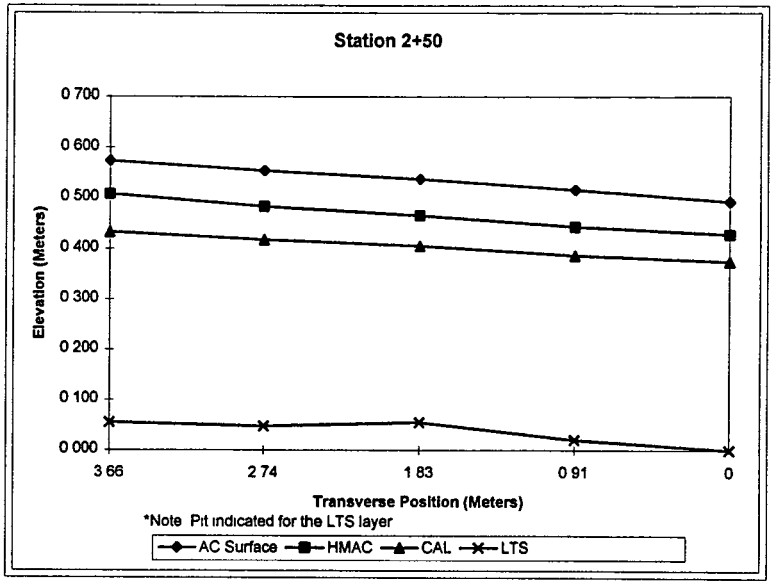


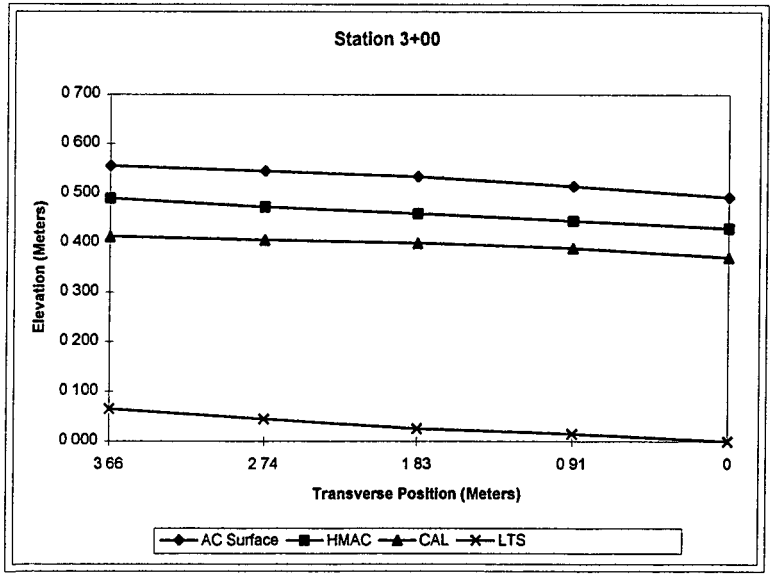


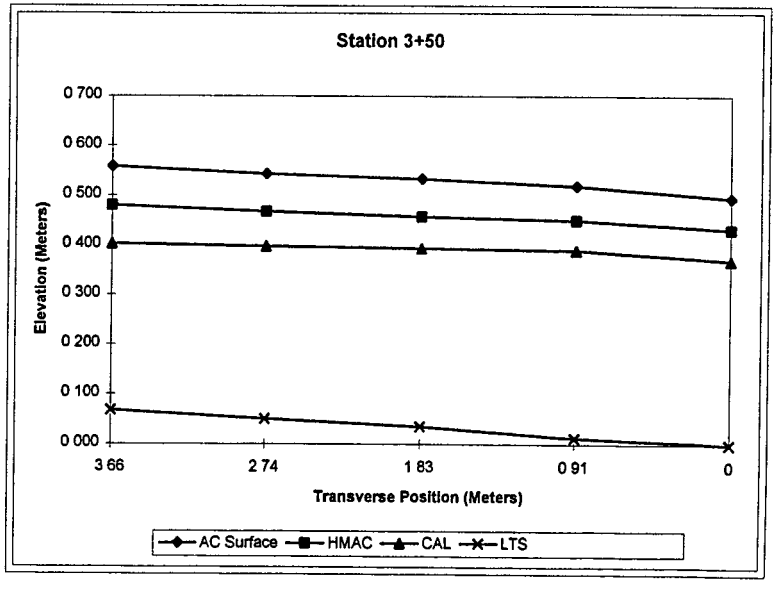


Texas SPS-1 (480166)

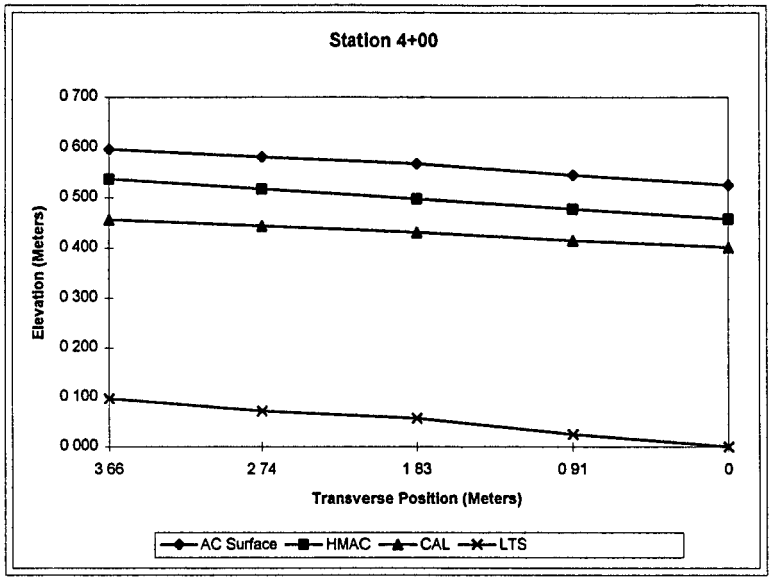


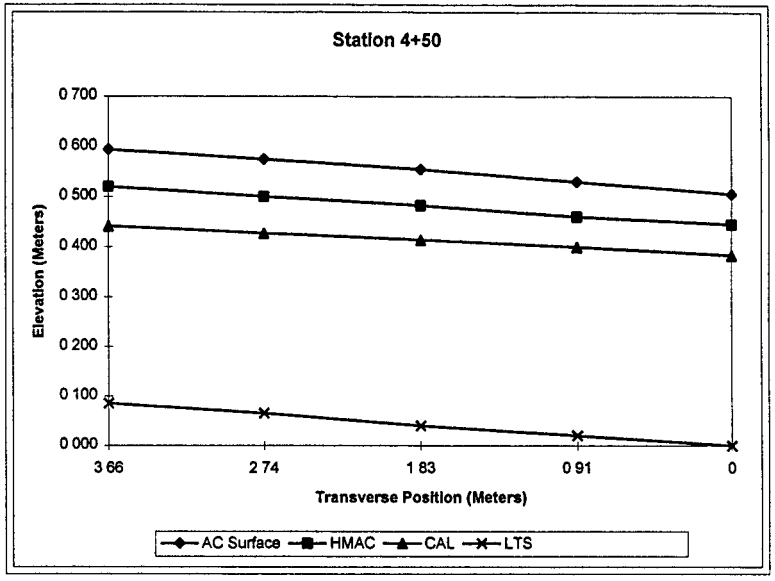


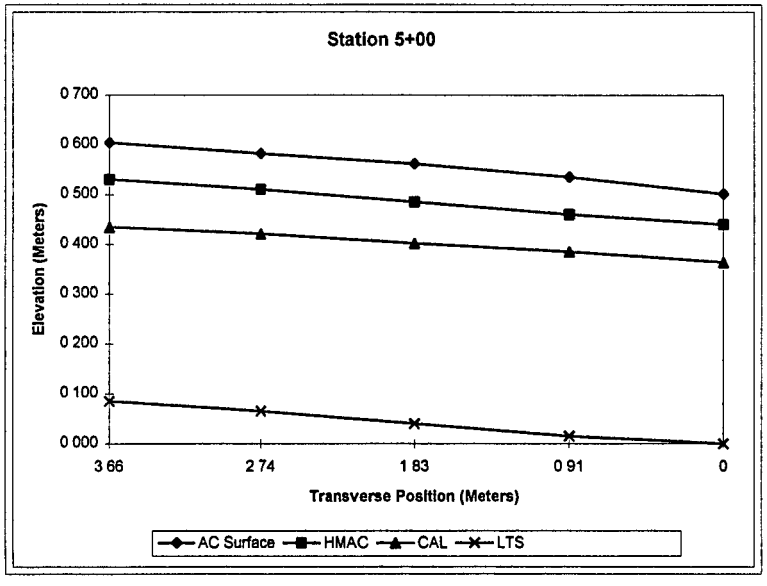




Texas SPS-1 (480166)





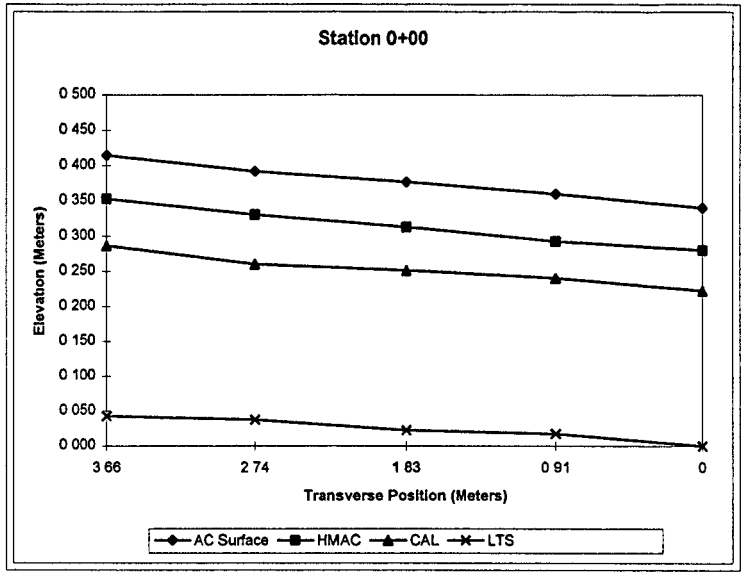


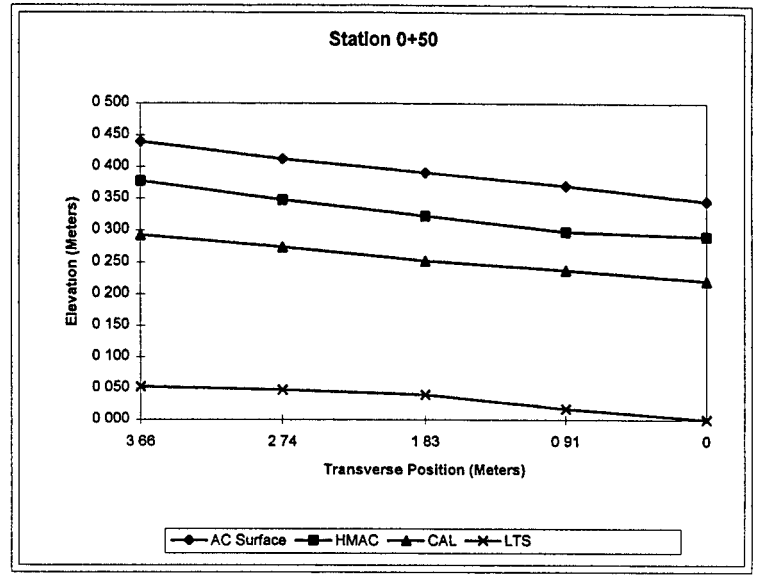
Texas SPS-1 (480167)

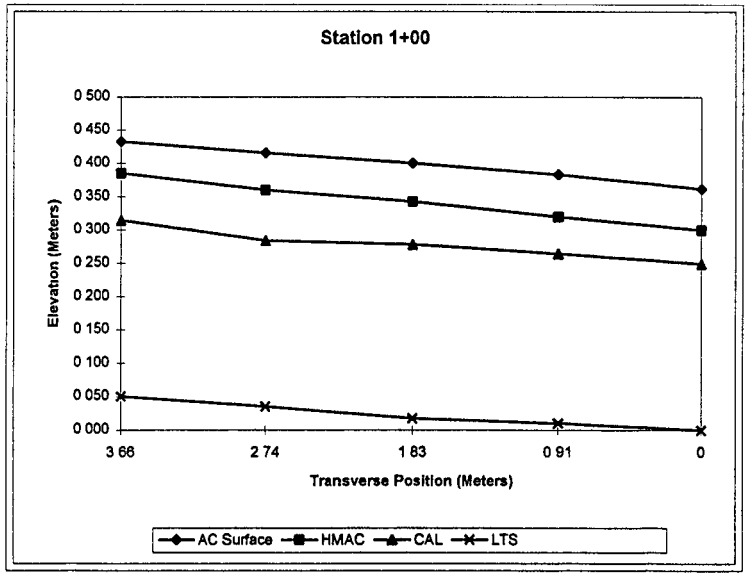
Transverse Offset	4 LAYERS	ELEVATION 0 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	CAL THICKNESS Meters	ELEVATION 0.91 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	CAL THICKNESS Meters	ELEVATION 1.83 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	CAL THICKNESS Meters	ELEVATION 2.74 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	CAL THICKNESS Meters	ELEVATION 3.66 Meters	AC Surface THICKNESS Meters	HMAC THICKNESS Meters	CAL THICKNESS Meters
0+00	C Surface	3 042	0 060	0 058	0 223	3 062	0 067	0 052	0 223	3 079	0 064	0 061	0 229	3 094	0 062	0 070	0 223	3 117	0 062	0 066	0 244
	HMAC	2 983				2 995				3 015				3 033				3 055			
	CAL	2 925				2 943				2 954				2 963				2 989			
	LTS	2 703				2 720				2 725				2 740				2 745			
0+50	C Surface	3 018	0 055	0 070	0 221	3 042	0 072	0 060	0 220	3 064	0 069	0 070	0 213	3 085	0 065	0 074	0 226	3 112	0 062	0 085	0 240
	HMAC	2 963				2 970				2 995				3 020				3 050			
	CAL	2 893				2 910				2 925				2 946				2 965			
	LTS	2 673				2 690				2 713				2 720				2 725			
1+00	C Surface	3 000	0 062	0 051	0 250	3 021	0 063	0 055	0 255	3 038	0 058	0 064	0 261	3 053	0 055	0 075	0 250	3 070	0 047	0 071	0 265
	HMAC	2 938				2 958				2 980				2 998				3 023			
	CAL	2 887				2 902				2 916				2 922				2 952			
	LTS	2 638				2 648				2 655				2 673				2 688			
1+50	C Surface	2 980	0 055	0 055	0 248	3 003	0 058	0 058	0 245	3 024	0 054	0 066	0 242	3 044	0 049	0 079	0 241	3 067	0 049	0 071	0 260
	HMAC	2 925				2 945				2 970				2 995				3 018			
	CAL	2 870				2 887				2 904				2 916				2 947			
	LTS	2 623				2 643				2 663				2 675				2 688			
2+00	C Surface	2 957	0 057	0 054	0 216	2 983	0 068	0 062	0 213	3 006	0 068	0 071	0 224	3 024	0 057	0 083	0 249	3 051	0 054	0 082	0 281
	HMAC	2 900				2 915				2 938				2 968				2 998			
	CAL	2 846				2 853				2 866				2 884				2 916			
	LTS	2 630				2 640				2 643				2 635				2 635			
2+50	C Surface	2 945	0 055	0 058	0 250	2 965	0 062	0 063	0 247	2 989	0 061	0 075	0 258	3 007	0 050	0 078	0 268	3 033	0 046	0 077	0 290
	HMAC	2 890				2 903				2 928				2 958				2 988			
	CAL	2 832				2 839				2 853				2 880				2 910			
	LTS	2 583				2 593				2 595				2 613				2 620			
3+00	C Surface	2 923	0 053	0 050	0 270	2 942	0 059	0 052	0 268	2 958	0 056	0 072	0 248	2 972	0 055	0 075	0 237	2 995	0 058	0 078	0 228
	HMAC	2 870				2 883				2 903				2 918				2 938			
	CAL	2 820				2 830				2 830				2 842				2 860			
	LTS	2 550				2 563				2 583				2 605				2 633			
3+50	C Surface	2 902	0 050	0 055	0 235	2 922	0 057	0 055	0 235	2 936	0 053	0 063	0 235	2 949	0 047	0 068	0 232	2 968	0 045	0 060	0 237
	HMAC	2 853				2 865				2 883				2 903				2 923			
	CAL	2 797				2 810				2 820				2 834				2 862			
	LTS	2 563				2 575				2 585				2 603				2 625			
4+00	C Surface	2 875	0 047	0 049	0 237	2 902	0 060	0 055	0 252	2 920	0 055	0 062	0 253	2 937	0 052	0 061	0 262	2 960	0 050	0 051	0 294
	HMAC	2 828				2 843				2 865				2 885				2 910			
	CAL	2 779				2 787				2 803				2 824				2 859			
	LTS	2 543				2 535				2 550				2 563				2 565			
4+50	C Surface	2 864	0 044	0 056	0 219	2 890	0 057	0 054	0 217	2 914	0 059	0 056	0 234	2 930	0 050	0 070	0 238	2 955	0 048	0 081	0 242
	HMAC	2 820				2 833				2 855				2 880				2 908			
	CAL	2 764				2 779				2 799				2 810				2 827			
	LTS	2 545				2 563				2 565				2 573				2 585			
5+00	C Surface	2 869	0 039	0 064	0 229	2 893	0 048	0 059	0 234	2 914	0 047	0 058	0 250	2 933	0 040	0 074	0 244	2 955	0 038	0 087	0 249
	HMAC	2 830				2 845				2 868				2 893				2 918			
	CAL	2 766				2 786				2 810				2 819				2 831			
	LTS	2 538				2 553				2 560				2 575				2 583			
	AVG	0 052	0 056	0 238		0 060	0 056	0 239		0 058	0 065	0 242		0 052	0 072	0 242		0 050	0 073	0 255	
	MAX	0 062	0 070	0 270		0 072	0 063	0 268		0 069	0 075	0 261		0 065	0 079	0 268		0 062	0 087	0 294	
	MIN	0 039	0 049	0 219		0 048	0 052	0 217		0 047	0 056	0 213		0 040	0 061	0 223		0 038	0 051	0 228	
	STD	0 007	0 006	0 015		0 006	0 003	0 016		0 006	0 006	0 014		0 007	0 005	0 014		0 007	0 011	0 021	

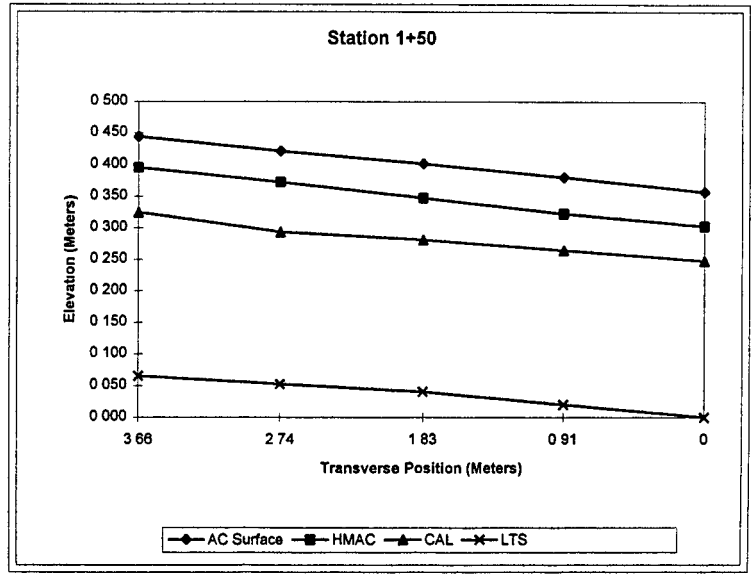
	AC Surfac	HMAC	CAL
SECTION AVG	0 055	0 065	0 243
SECTION MAX	0 072	0 087	0 294
SECTION MIN	0 038	0 049	0 213
SECTION STD	0 008	0 010	0 018

Texas SPS-1 (480167)

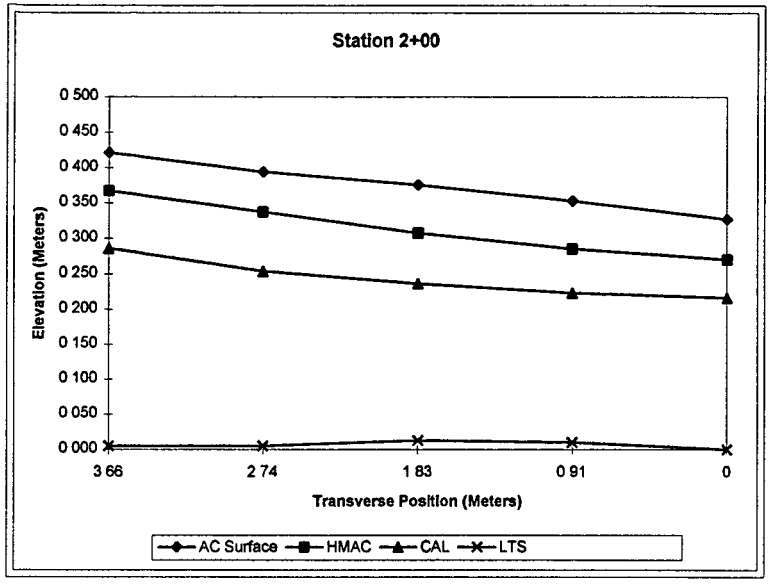


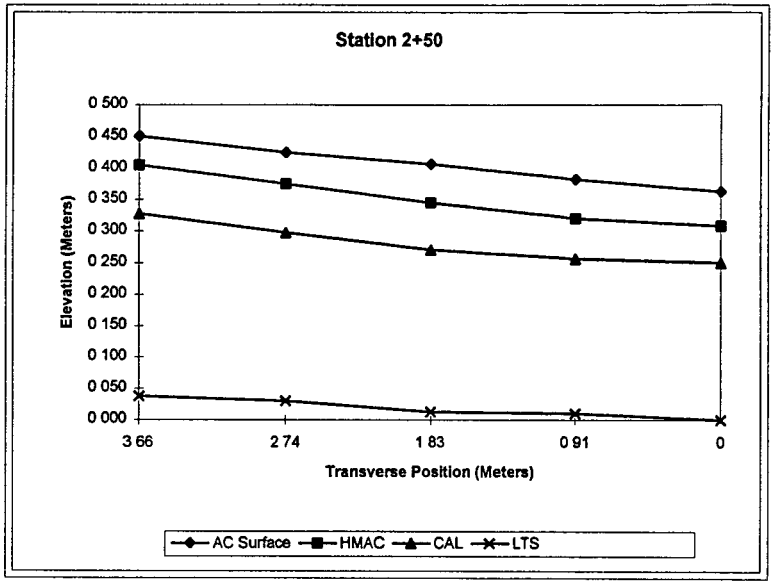


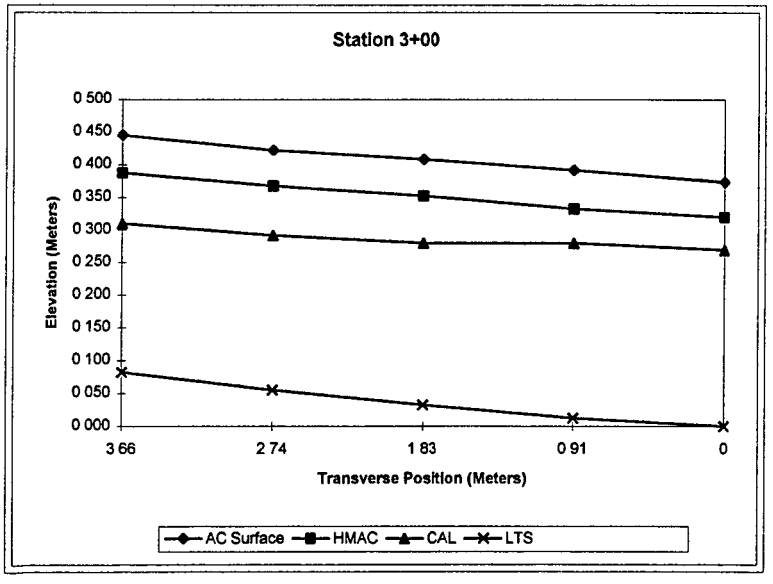


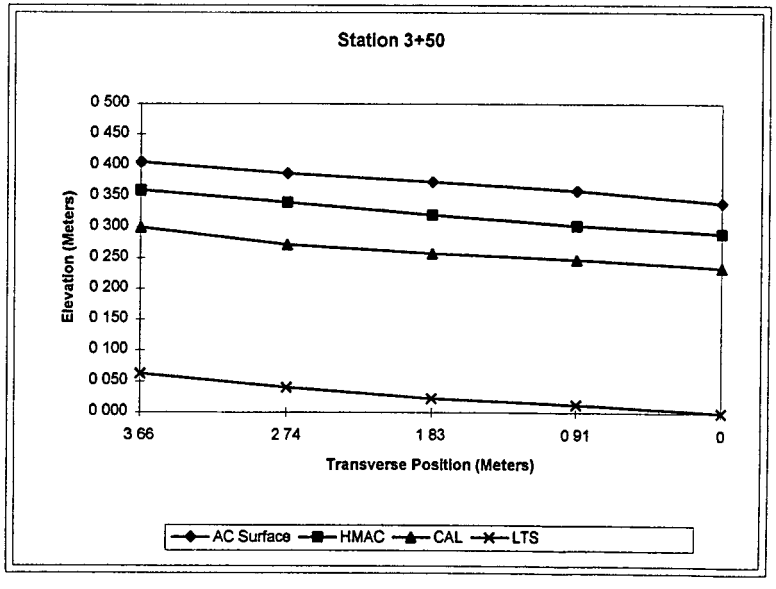


Texas SPS-1 (480167)

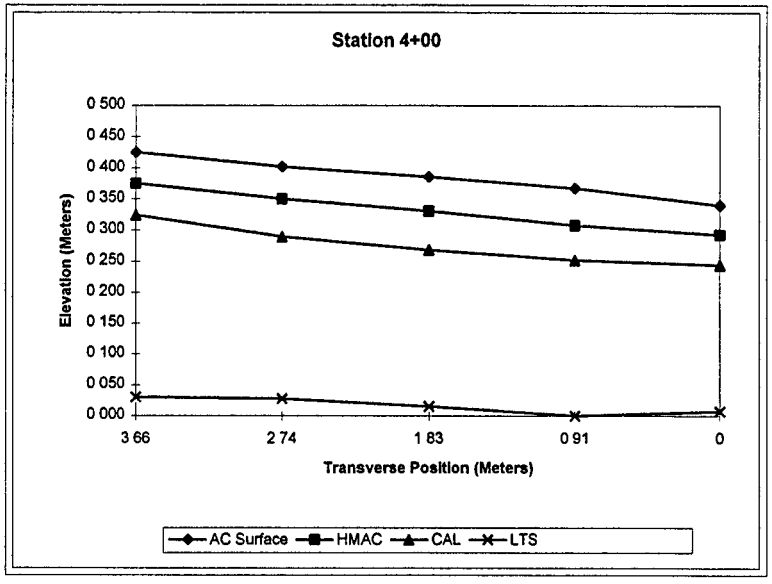


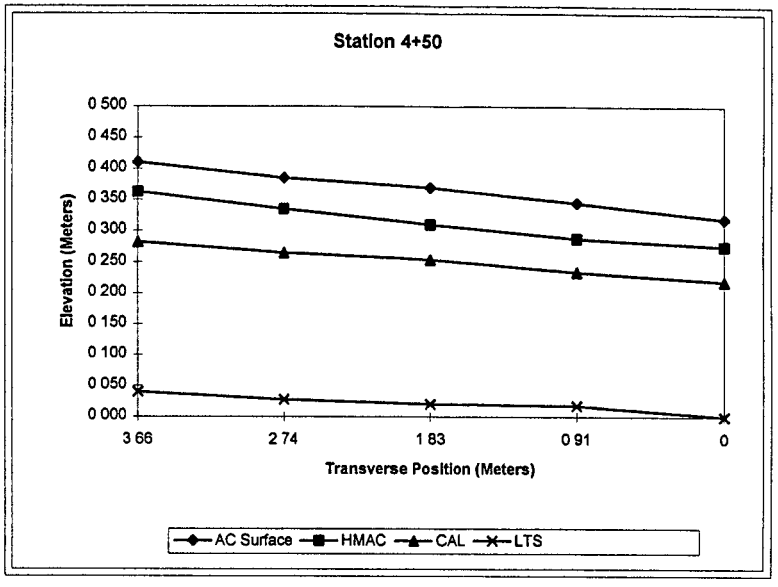


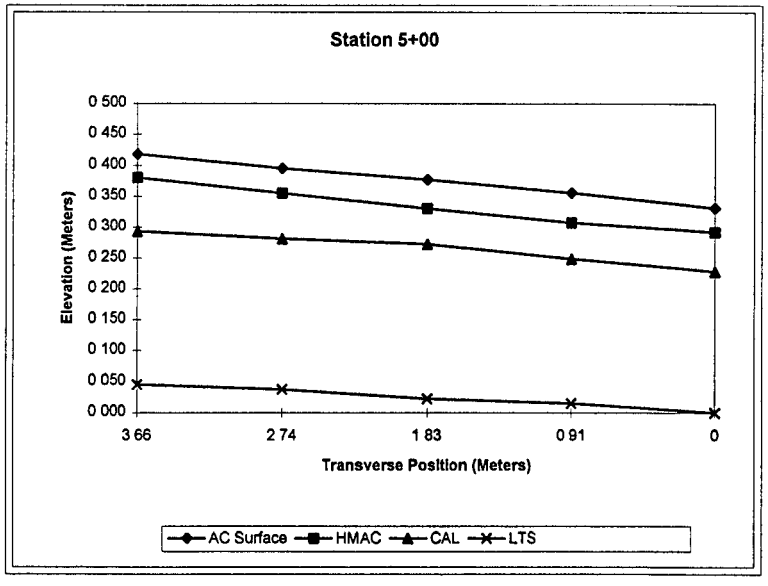




Texas SPS-1 (480167)







APPENDIX C

MATERIAL SAMPLING AND FIELD TESTING PLAN

MATERIAL SAMPLING
AND
TESTING PLAN

TEXAS SPS-1 PROJECT 480100
US-281 SBL, HIDALGO COUNTY, TEXAS

PREPARED BY:

BRENT RAUHUT ENGINEERING INC.
FHWA/LTPP SOUTHERN REGION COORDINATION OFFICE
8240 MOPAC, SUITE 220
AUSTIN, TEXAS 78759

REVISED DECEMBER 1996

MATERIAL SAMPLING AND TESTING PLAN
TEXAS SPS-1 PROJECT (480100), US-281 SBL
HIDALGO COUNTY, TEXAS

INTRODUCTION

As part of their participation in the FHWA/LTPP studies, the State of Texas has elected to construct an SPS-1 project to study the structural factors for flexible pavements. This project will consist of multiple test sections with similar details and materials along US-281, in the southbound lane, in Hidalgo County, Texas. It is the intent of this document to provide a complete plan for the material sampling, testing, and laboratory material testing that will occur as a part of this project.

This document has been prepared in accordance with guidelines provided by the Federal Highway Administration entitled "Specific Pavement Studies Material Sampling and Testing Requirements for Experiment SPS-1, Strategic Study of Structural Factors for Flexible Pavements, January 1994". Recognizing the apparent variability in the construction of roadway projects, the goal of this effort is to develop a sampling and testing plan for the project materials that will be consistent with other projects in this experiment, and therefore make the information obtained suitable for analysis.

The objective of the SPS-1 study is to more precisely determine the relative influence of strategic factors on the performance of flexible pavements. The factors addressed in this study include drainage, base type and thickness, and asphalt surface thickness. Texas's involvement in the study will provide critical information in the dry, no freeze environmental zone, on a coarse-grained subgrade soil. The data produced by this experiment will be used to evaluate existing design methods and performance equations. The interaction of the factors previously discussed will be determined in combination with the effect of environmental region and soil type. The effects of these factors will be studied under realistic performance conditions with significant materials and construction control. Herein lies the need for a sampling and testing plan, provided in the following pages.

This sampling and testing plan has been developed by Brent Rauhut Engineering, Inc. the Southern Region Coordination Office under contract to the Federal Highway Administration. If, during the construction activities, any questions arise regarding the sampling and/or testing to be conducted, one should first coordinate these questions with the Texas State Department of Transportation, who may refer them to the Southern Region Coordination Office.

This document has been prepared in three distinct parts, each covering a particular area of this rather formidable exercise. The three sections are:

A. General Layout Information

B. Materials Sampling and Testing

C. Laboratory Material Testing

The General Layout section provides tables and figures of the layout showing the twenty test sections along the roadway and the layer structure of each test section.

The Material Sampling and Testing section defines in detail all of the material samples to be obtained, testing to be performed in the field, and provides an itemized list showing where each sample is to be shipped for laboratory testing.

Finally, the Laboratory Material Testing section outlines the laboratory material test program to be conducted and provides tracking charts showing the testing to be performed on each sample of each material in each laboratory.

SECTION A

GENERAL LAYOUT INFORMATION

SECTION A

GENERAL LAYOUT INFORMATION

This section of the plan provides a description of the SPS-1 project in terms of the location of the test sections along the roadway. Table A-1 lists the test sections in order of increasing section number, providing an indication of the cross-section of each test section. Table A-2 tracks the test sections from the beginning of the first section at Station 1619 to the end of the last section at Station 1445. This table indicates transition areas between sections and the variation of pavement layer materials within these transitions.

Finally, Figure A-1 depicts the layout of the test sections along the roadway and shows the variation of material type and layer thickness.

The referenced project stationing was provided by the Texas DOT in the form of preliminary project plans. If there are significant changes in alignment or stationing, this plan should be reviewed closely to determine if revisions are warranted.

TABLE A-1. TEST SECTION LAYOUT

Section (Cell ID)	Cross Section	Begin Station	End Station
480113 (W1)	4″ AC Surface 8″ DGAB	1557 + 00	1552 + 00
480114 (W2)	7″ AC Surface 12″ DGAB	1521 + 00	1516 + 00
480115 (W3)	7″ AC Surface 8″ ATB	1618 + 00	1613 + 00
480116 (W4)	4″ AC Surface 12″ ATB	1610 + 00	1605 + 00
480117 (W5)	7″ AC Surface 4″ ATB 4″ DGAB	1573 + 00	1568 + 00
480118 (W6)	4″ AC Surface 8″ ATB 4″ DGAB	1565 + 00	1560 + 00
480119 (W7)	7″ AC Surface 4″ PATB 4″ DGAB	1497 + 00	1492 + 00

TABLE A-1. TEST SECTION LAYOUT (Continued)

Section (Cell ID)	Cross Section	Begin Station	End Station
480120 (W8)	4″ AC Surface	1505 + 00	1500 + 00
	4″ PATB		
	8″ DGAB		
480121 (W9)	4″ AC Surface	1513 + 00	1508 + 00
	4″ PATB		
	12″ DGAB		
480122 (W10)	4″ AC Surface	1581 + 00	1576 + 00
	4″ ATB		
	4″ PATB		
480123 (W11)	7″ AC Surface	1594 + 00	1589 + 00
	8″ ATB		
	4″ PATB		
480124 (W12)	7″ AC Surface	1602 + 00	1597 + 00
	12″ ATB		
	4″ PATB		
480160	5″ AC Surface	1459 + 00	1454 + 00
	10.5″ LRA		

TABLE A-1. TEST SECTION LAYOUT (Continued)

Section (Cell ID)	Cross Section	Begin Station	End Station
480161	5″ AC Surface 8.5″ LRA	1467 + 00	1462 + 00
480162	5″ AC Surface 8.5″ Limestone	1481 + 00	1476 + 00
480163	5″ AC Surface 10.5″ Limestone	1489 + 00	1484 + 00
480164	5″ AC Surface 10.5″ Crushed Concrete	1541 + 00	1536 + 00
480165	5″ AC Surface 8.5″ Crushed Concrete	1549 + 00	1544 + 00
480166	5″ AC Surface 14″ Caliche	1451 + 00	1446 + 00
480167	5″ AC Surface 14″ Caliche	1529 + 00	1524 + 00

TABLE A-2. ORDERING OF SECTIONS ALONG CENTER LINE STATIONING

Begin Sta.	End Sta.	Section ID	Thickness (In.)				
			AC Surface*	ATB	PATB	DGAB	OTHER
1619+00	1612+00	480115	7	8	0	0	
1612+00	1611+00	Transition	4-7	8	0	0	
1611+00	1604+00	480116	4	12	0	0	
1604+00	1603+00	Transition	7-4	16-12	0	0	
1603+00	1596+00	480124	7	12	4	0	
1596+00	1595+00	Transition	7	8-12	4	0	
1595+00	1588+00	480123	7	8	4	0	
1588+00	1582+00	Transition	4-7	4-8	4	0	
1582+00	1575+00	480122	4	4	4	0	
1575+00	1574+00	Transition	7-4	4	4	0	
1574+00	1567+00	480117	7	4	0	4	
1567+00	1566+00	Transition	4-7	8-4	0	4	
1566+00	1559+00	480118	4	8	0	4	
1559+00	1558+00	Transition	4	0	0	8-12	
1558+00	1551+00	480113	4	0	0	8	
1551+00	1550+00	Transition	5-4	0	0	0	8.5-8
1550+00	1543+00	480165	5	0	0	0	8.5
1543+00	1542+00	Transition	5	0	0	0	10.5-8.5
1542+00	1535+00	480164	5	0	0	0	10.5
1535+00	1530+00	Transition	5	0	0	0	14-10.5
1530+00	1523+00	480167	5	0	0	0	14
1523+00	1522+00	Transition	7-5	0	0	12-0	0-14
1522+00	1515+00	480114	7	0	0	12	
1515+00	1514+00	Transition	4-7	0	0	8-12	
1514+00	1507+00	480121	4	0	4	12	
1507+00	1506+00	Transition	4	0	4	8-12	

TABLE A-2. ORDERING OF SECTIONS ALONG CENTER LINE STATIONING (Continued)

Begin Sta.	End Sta.	Section ID	Thickness (In.)				
			AC Surface*	ATB	PATB	DGAB	OTHER
1506+00	1499+00	480120	4	0	4	8	
1499+00	1498+00	Transition	7-4	0	4	4-8	
1498+00	1491+00	480119	7	0	4	4	
1491+00	1490+00	Transition	5-7	0	0	0	10.5-8
1490+00	1483+00	480163	5	0	0	0	10.5
1483+00	1482+00	Transition	5	0	0	0	8.5-10.5
1482+00	1475+00	480162	5	0	0	0	8.5
1475+00	1468+00	Transition	5	0	0	0	8.5
1468+00	1461+00	480161	5	0	0	0	8.5
1461+00	1460+00	Transition	5	0	0	0	10.5-8.5
1460+00	1453+00	480160	5	0	0	0	10.5
1453+00	1452+00	Transition	5	0	0	0	14-10.5
1452+00	1445+00	480166	5	0	0	0	14

* Combined Binder and Wearing Course Thickness

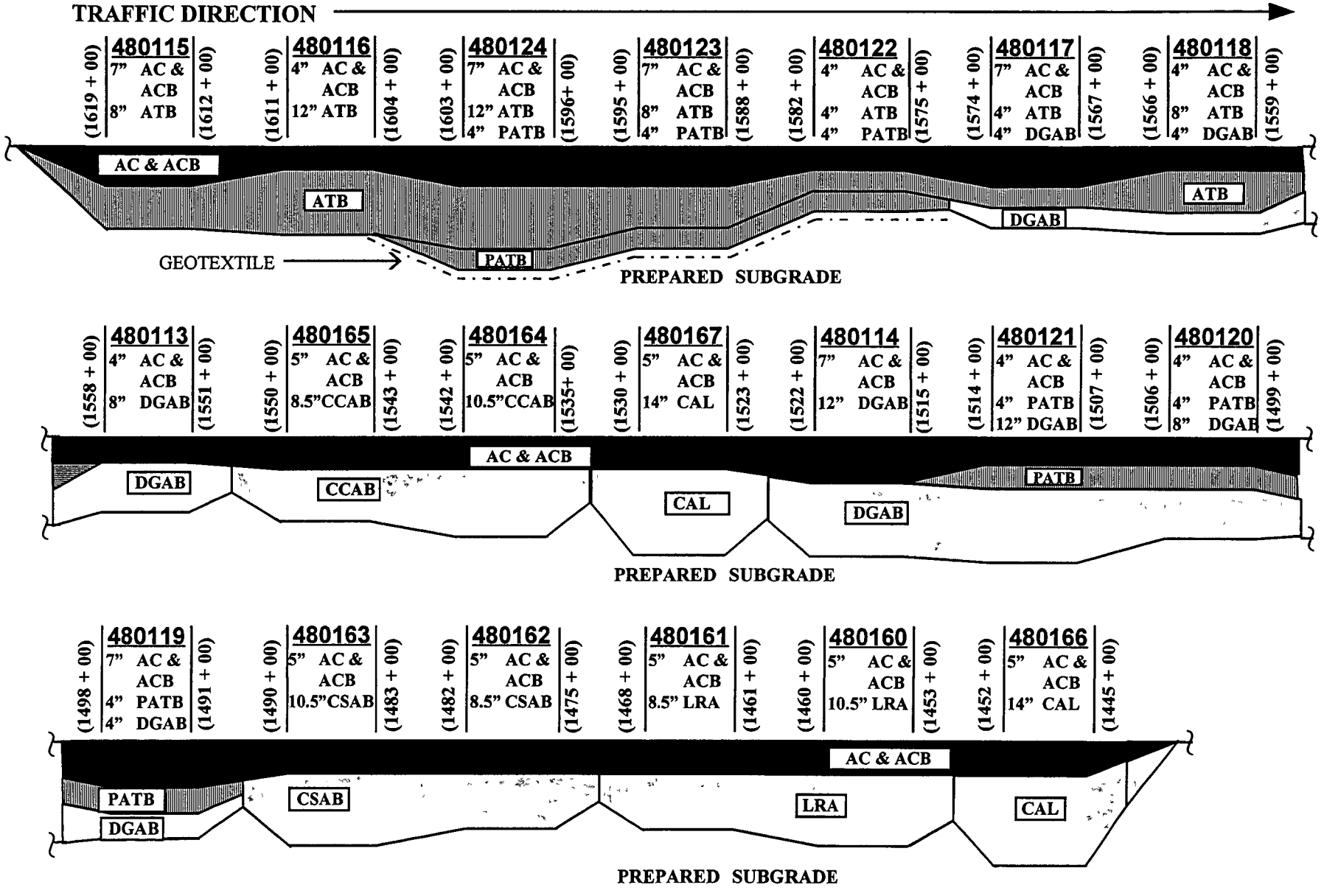


FIGURE A-1. LAYOUT OF TEST SECTIONS TEXAS SPS-1 (480100)

SECTION B

MATERIAL SAMPLING AND TESTING

SECTION B

MATERIAL SAMPLING AND TESTING

This section of the plan provides for the material sampling and testing activities that occur in the field. Tables B-1 and B-2 provide the scope of the material sampling and testing activities, respectively. Table B-3 describes special sampling needs for the Materials Reference Library and provides contact information to coordinate sample shipping arrangements.

Figures B-1 through B-26 show the locations and numbering scheme for the many samples and tests scheduled. Figures B-2 through B-6 show the sampling and testing to occur for each stage of the paving, while Figures B-7 through B-26 show all sampling and testing scheduled for each test section.

Finally, Tables B-4 and B-5 list samples to be shipped to the state laboratory (or their designee), and those samples to be shipped to the FHWA/LTPP testing contractor, respectively. Shipment of samples to the FHWA/LTPP testing contractor, LAW Engineering in Atlanta, Georgia, should be coordinated through the Southern Region Coordination Office.

TABLE B-1. SCOPE OF MATERIAL SAMPLING

Material And Sample Description	Nº. Of Samples	Sample Location
Asphalt Concrete		
Coring - 4" Diam. Cores	98	C1-C98
Bulk Sampling - Surface Mix (200 lb/sample)	6	B27,B28,B29,B33,B34,B35 - From Paver
Bulk Sampling - Asphalt Cement (5 gal/sample)	6	B30,B31,B32,B36,B37,B38 - From Plant
Asphalt Treated Base		
Coring - 4" Diam. Cores	36	C63-C98
Bulk Sampling (200 lb/sample)	3	B21,B22,B23 - From Paver
Bulk Sampling - Asphalt Cement (5 gal/sample)	3	B24,B25,B26 - From Plant
Permeable Asphalt Treated Base		
Bulk Sampling (100 lb/sample)	3	B18,B19,B20 - From Paver
Caliche		
Bulk Sampling (400 lb/sample)	1	B11
Moisture Content Samples	1	B11
Lime-Rock-Asphalt		
Bulk Sampling (400 lb/sample)	1	B12
Crushed Limestone		
Bulk Sampling (400 lb/sample)	1	B13
Moisture Content Samples	1	B13
Crushed Concrete		
Bulk Sampling (400 lb/sample)	1	B16
Moisture Content Samples	1	B16
Dense-Graded Aggregate Base		
Bulk Sampling (400 lb/sample)	3	B14,B15,B17
Moisture Content Samples	3	B14,B15,B17
Subgrade		
Thin-Walled Tubes (2 per hole)	60	A1-A30
Splitspoon Sampling (Only if thin-wall tube cannot be obtained)	60	A1-A30
Bulk Sampling (400 lb/sample)	10	B1-B10
Moisture Content Samples	10	B1-B10

Note: 1. If different AC mixes are used for the surface course and binder course, bulk samples should be obtained from each mix.

2. Bulk samples of asphalt cement shall be obtained for <u>each type</u> of asphalt cement used on the project.

TABLE B-2. SCOPE OF FIELD TESTING

Material And Test Description	Nº. Of Tests	Location Designation
Asphalt Concrete Surface In Situ Density (Nuclear Gauge)	60	T204-T263
Asphalt Concrete Binder In Situ Density (Nuclear Gauge)	60	T144-T203
Asphalt Treated Base In Situ Density (Nuclear Gauge)	21	T123-T143
Lime-Rock-Asphalt In Situ Density (Nuclear Gauge)	7	T75-T81
Caliche In Situ Density, Moisture Content (Nuclear Gauge)	7	T71-T74, T103-T105
Crushed Limestone In Situ Density, Moisture Content (Nuclear Gauge)	7	T82-T88
Crushed Concrete In Situe Density, Moisture Content (Nuclear Gauge)	7	T106-T112
Dense-Graded Aggregate Base In Situ Density, Moisture Content (Nuclear Gauge)	24	T89-T102, T113-T122
Subgrade In Situ Density, Moisture Content (Nuclear Gauge) Shoulder Auger Probe	70 20	T1-T70 S1-S20

TABLE B-3. MATERIAL SAMPLING FOR THE MATERIALS REFERENCE LIBRARY (MRL)

Material And Sample Description	Nº. Of Samples	Sample Location
Asphalt Cement (5 Gallon Containers Each Type Used - Surface, Binder, ATB, PATB)	3	From Plant
Aggregate (55 Gallon Drum Each Blend - Surface, Binder, ATB)	1	From Plant
Finished Asphaltic Concrete Mix (5 Gallon Containers Each - Surface, Binder, ATB, PATB)	3	From Paver

Note: Containers for this sampling will be provided by the LTPP Materials Reference Library (MRL). Scheduling information including (1) date containers needed, (2) state agency contact name, and (3) shipping address and telephone number should be provided to the MRL Contractor as soon as it is feasible to do so. The contact name, address and telephone number for the MRL Contractor are as follows:

Mr. Rod Soule
Materials Reference Library
Nichols Consulting Engineers, Chtd.
1885 So. Arlington, Suite 111
Reno, Nevada 89509
(702) 329-4955

These samples should be labeled according to applicable guidelines provided elsewhere and shipped to the MRL Contractor upon completion of sampling activities.

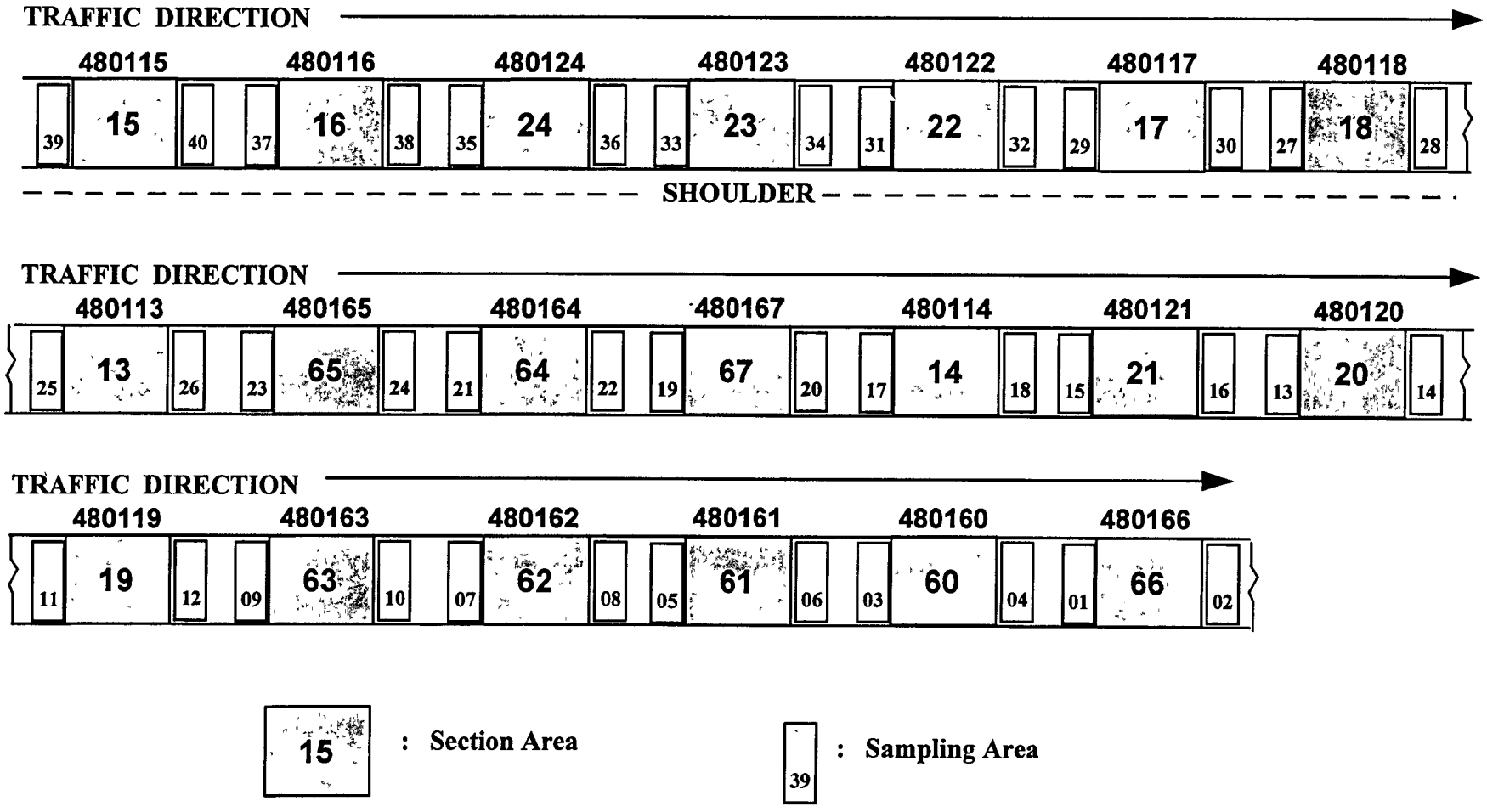


FIGURE B-1. SITE LAYOUT WITH SAMPLING AREAS
TEXAS SPS-1 (480100)

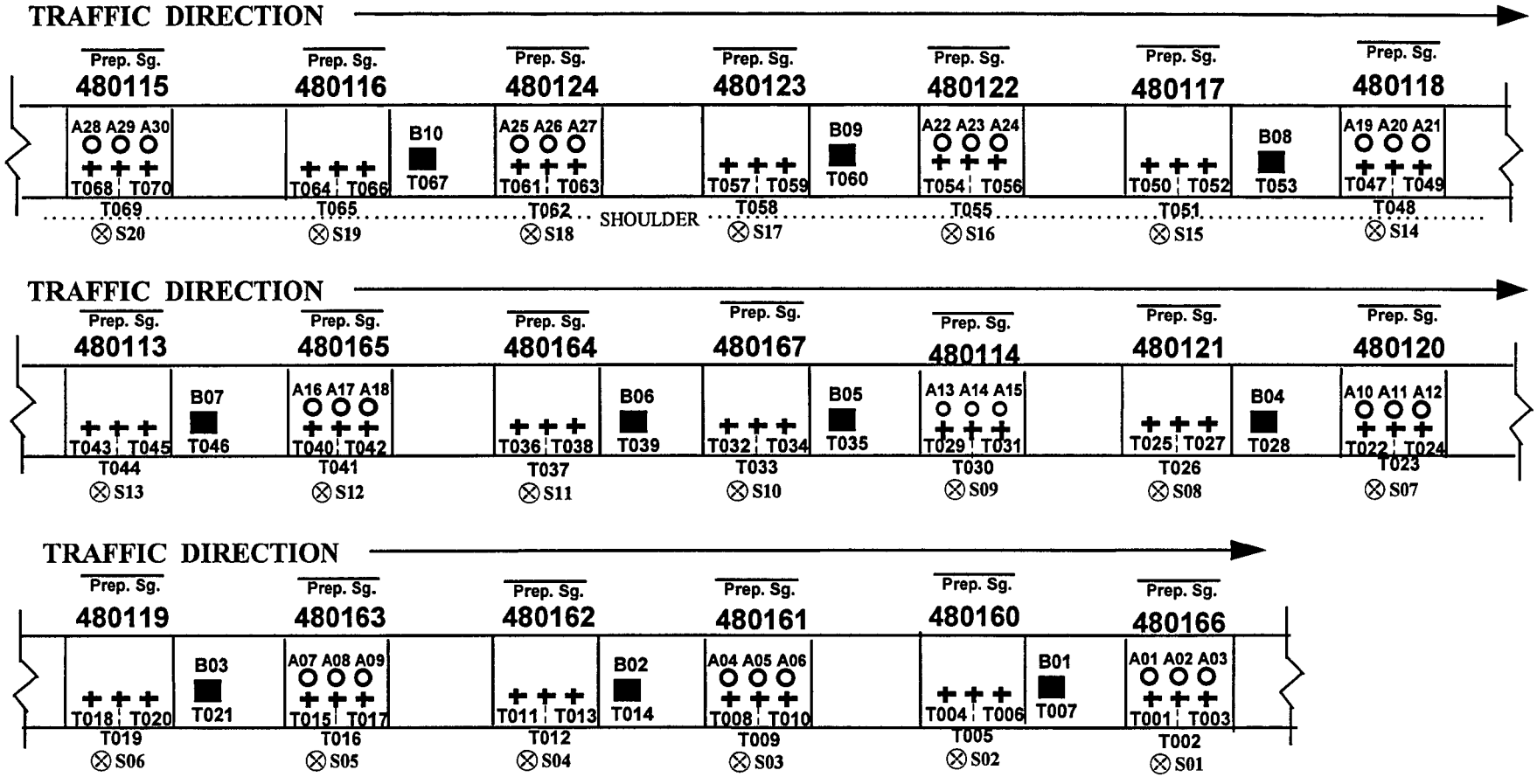


FIGURE B-2. SAMPLING AND TESTING LOCATIONS FOR SUBGRADE TEXAS SPS-1 (480100)

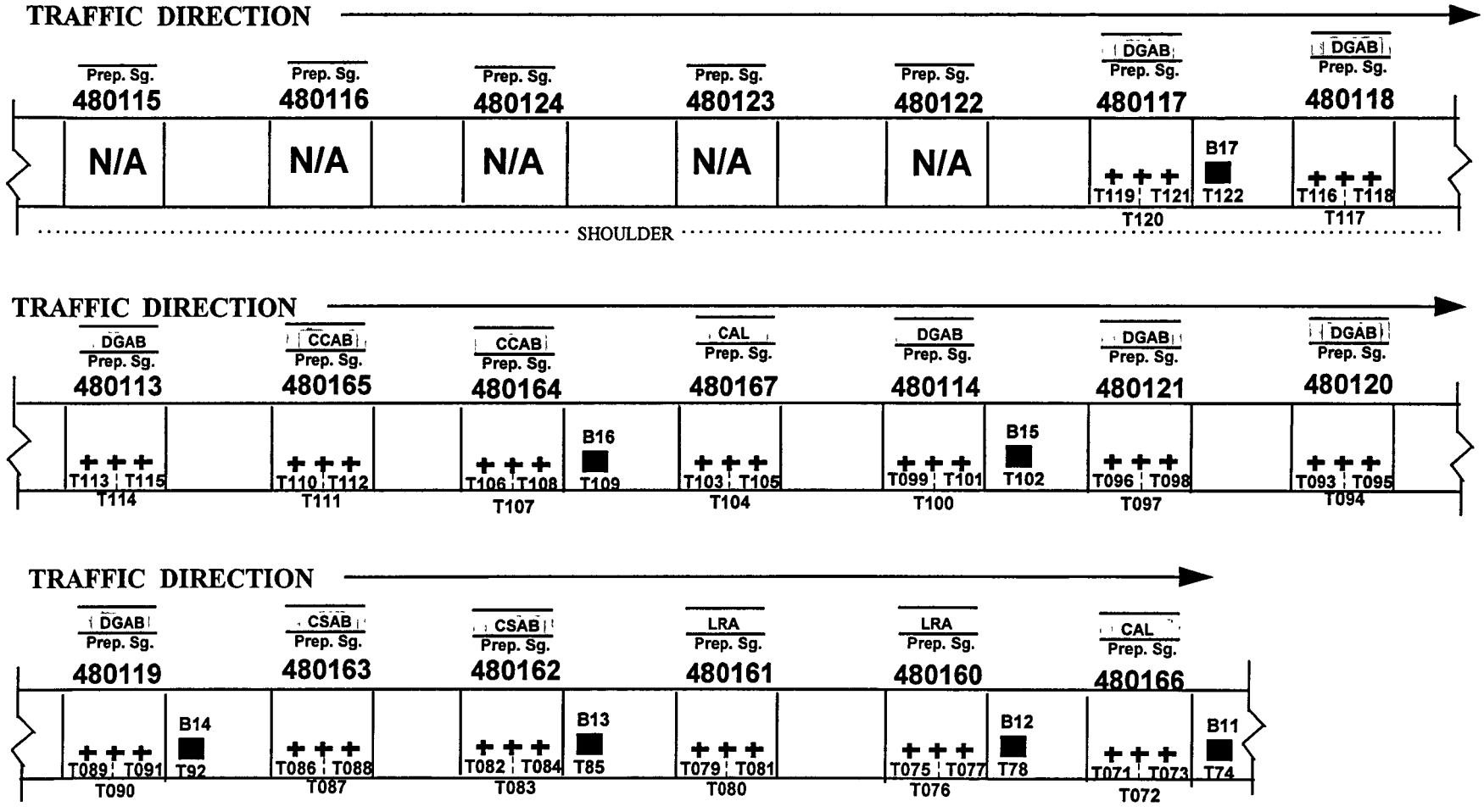


FIGURE B-3. SAMPLING AND TESTING LOCATIONS FOR DGAB
TEXAS SPS-1 (480100)

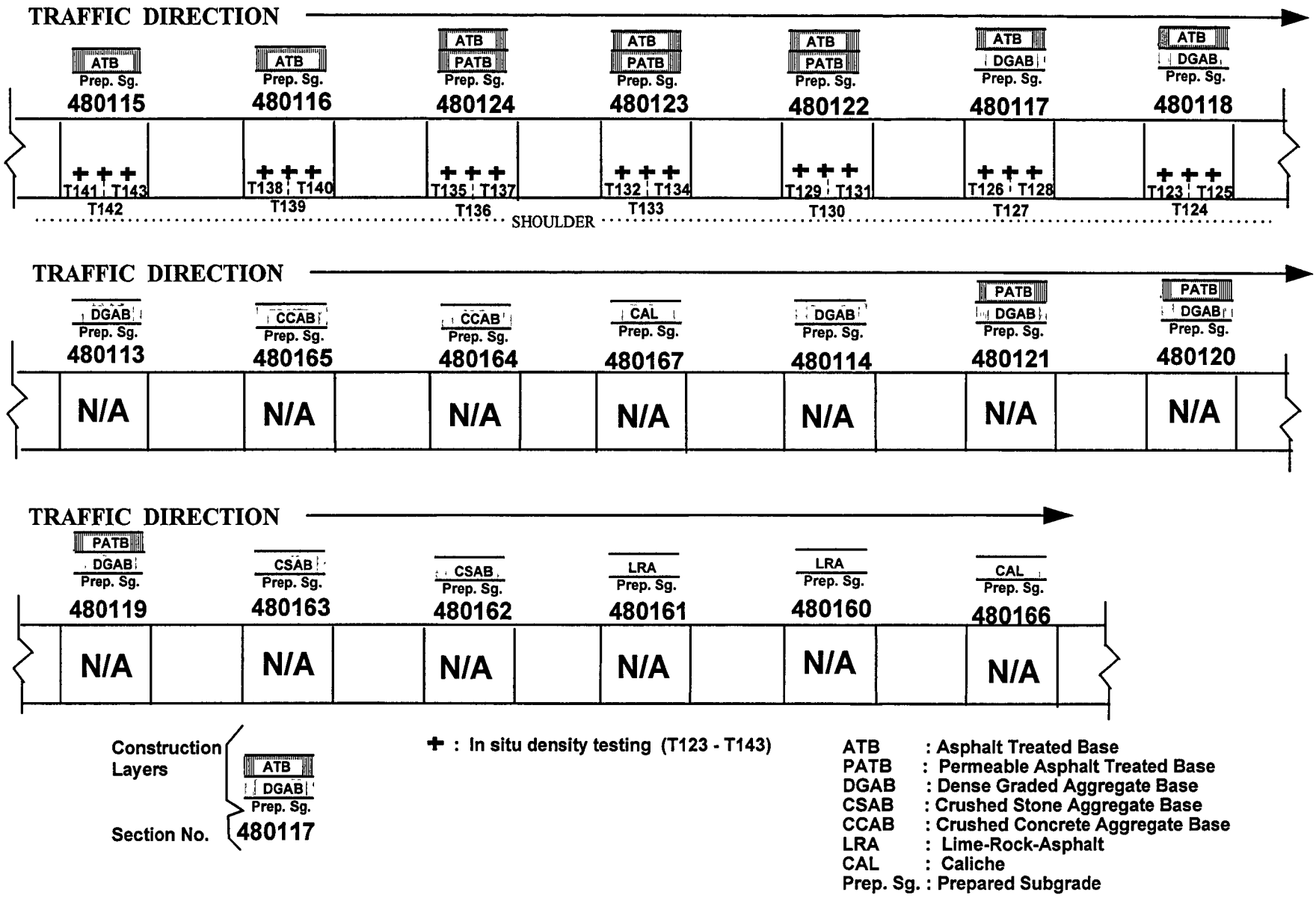


FIGURE B-4. TESTING LOCATIONS FOR ATB TEXAS SPS-1 (480100)

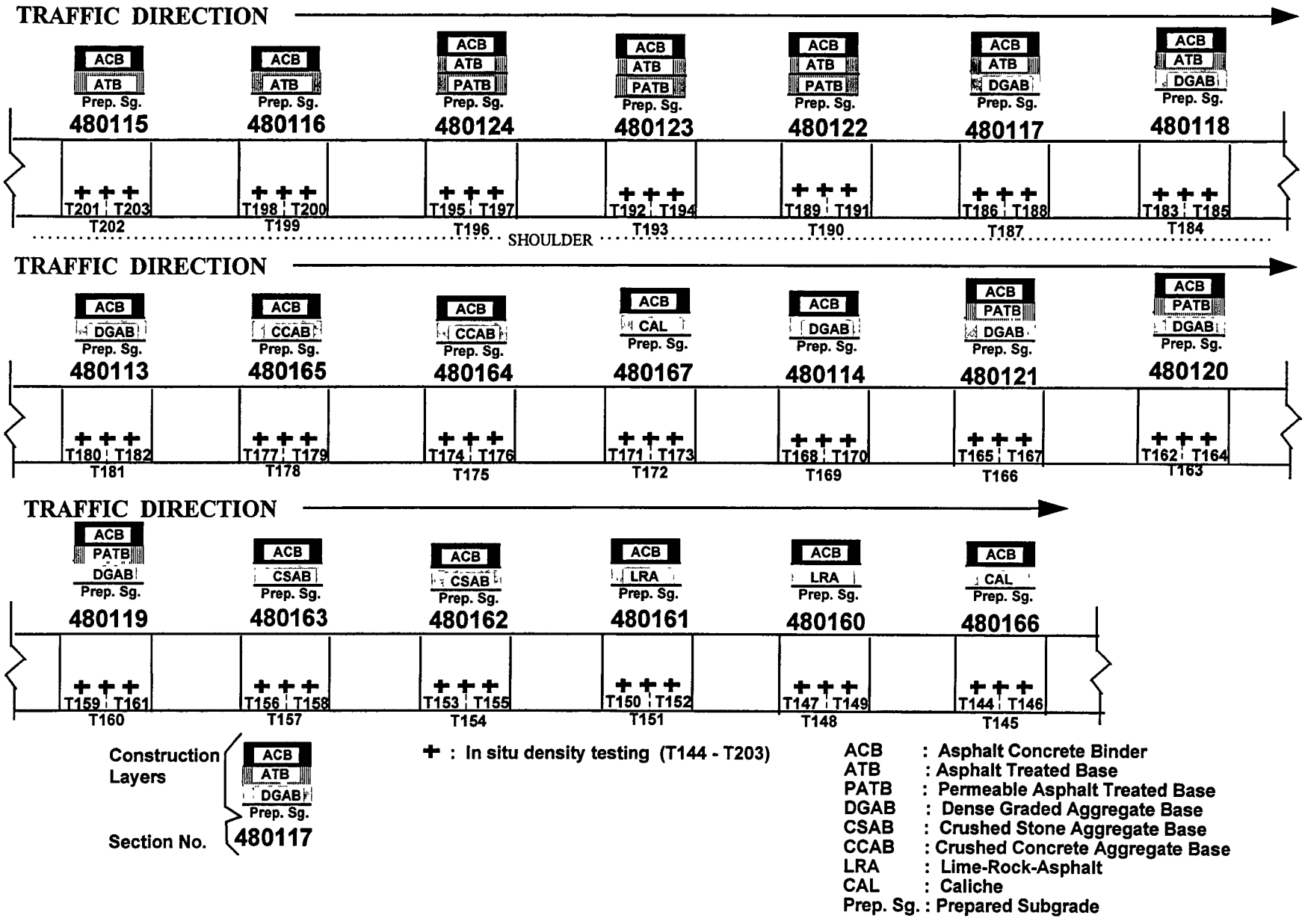


FIGURE B-5. SAMPLING AND TESTING LOCATIONS FOR AC BINDER
TEXAS SPS-1 (480100)

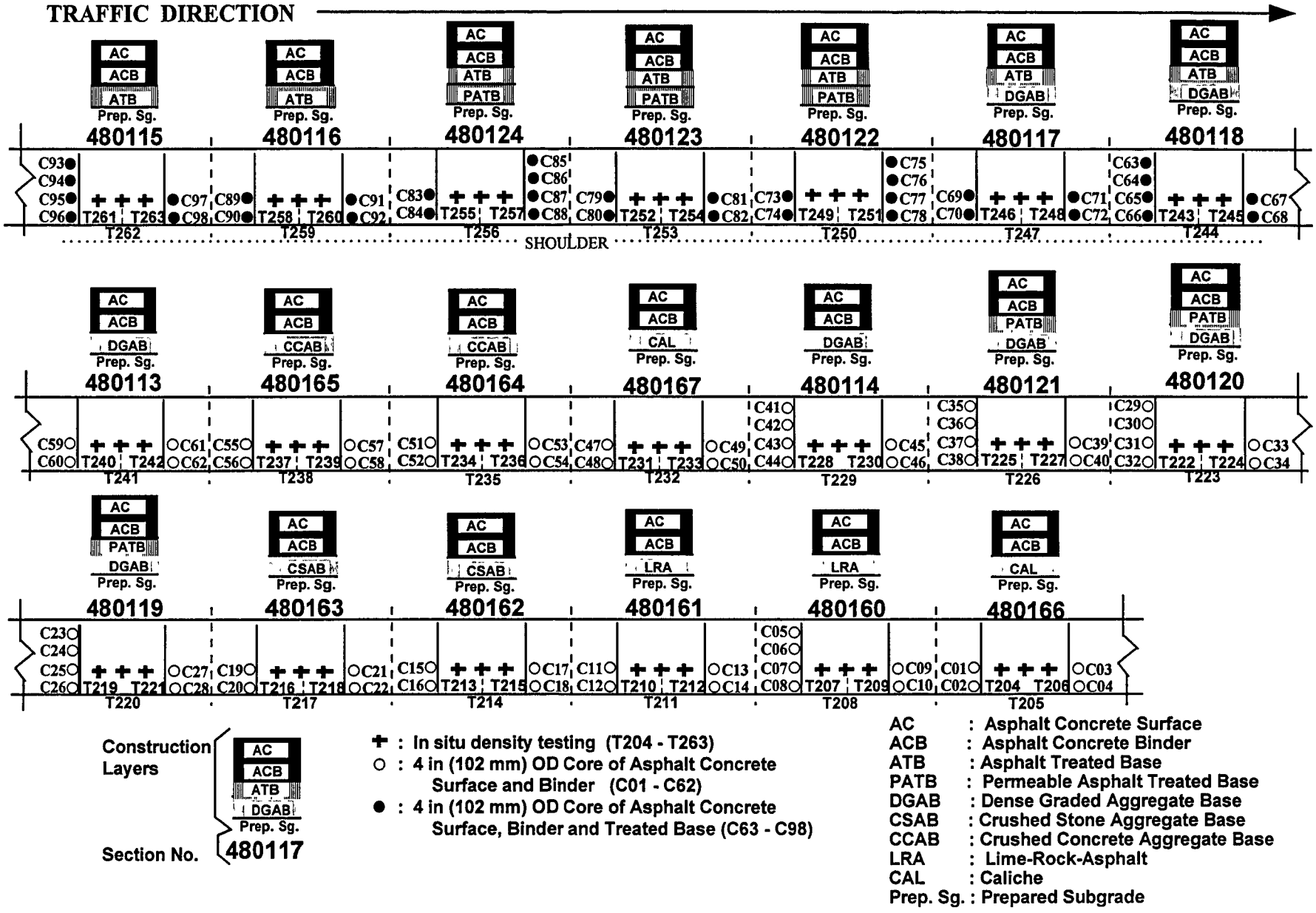


FIGURE B-6. SAMPLING AND TESTING LOCATIONS FOR AC SURFACE TEXAS SPS-1 (480100)

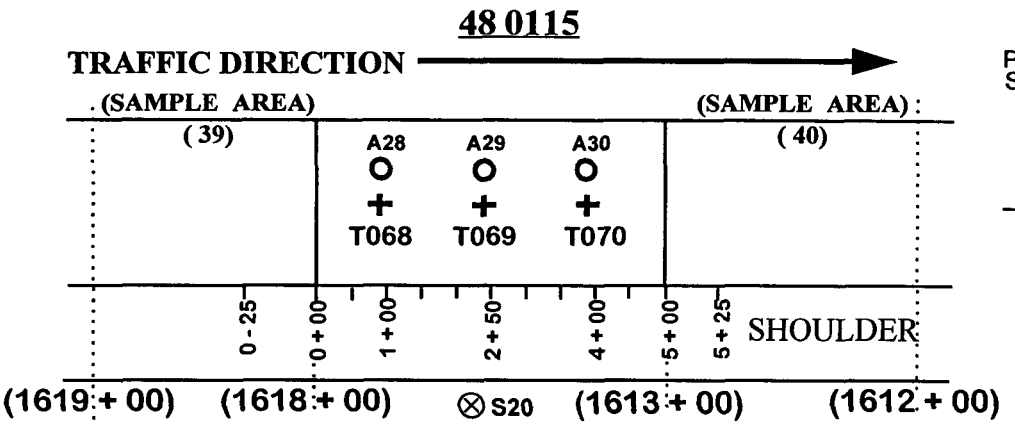


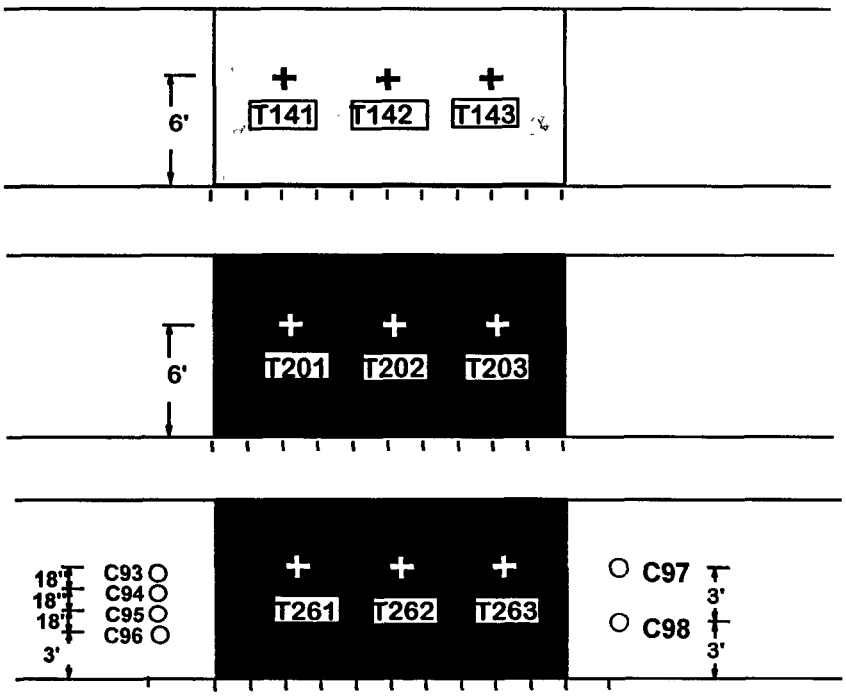
Fig No. / Construct Phase:

Pavement Structure:

B-2 Prep. Sg

This layer Not Applicable for this section.

B-3 Prep Sg



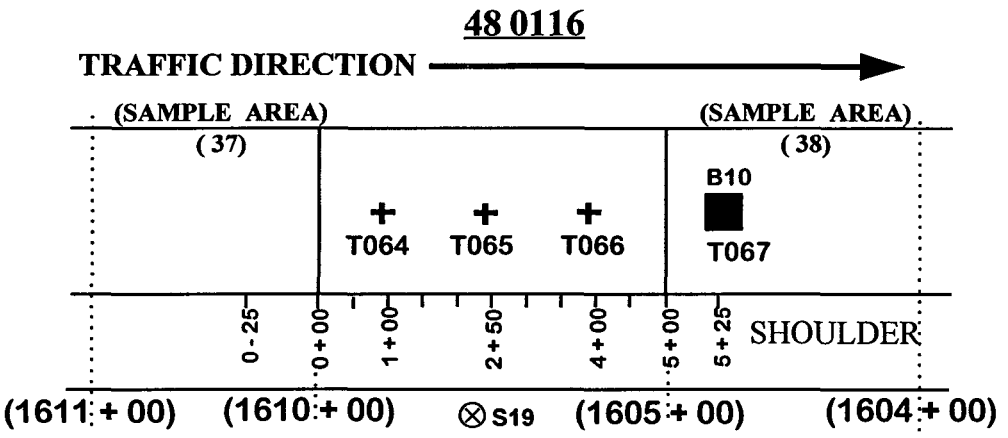
B-4 ATB Prep. Sg.

B-5 ACB ATB Prep. Sg.

B-6 AC ACB ATB Prep. Sg

B-2 Testing on prepared Subgrade (T068 - T070, A28 - A30, S20)
B-3 This layer Not Applicable for this section.
B-4 Testing on compacted ATB (T141 - T143)
B-5 Testing on compacted AC Binder (T201 - T203)
B-6 Testing on finished AC Surface (T261 - T263)
Coring AC Surface and bound layers (C93 - C98)

FIGURE B-7. SAMPLING AND TESTING PLAN FOR TEST SECTION 480115

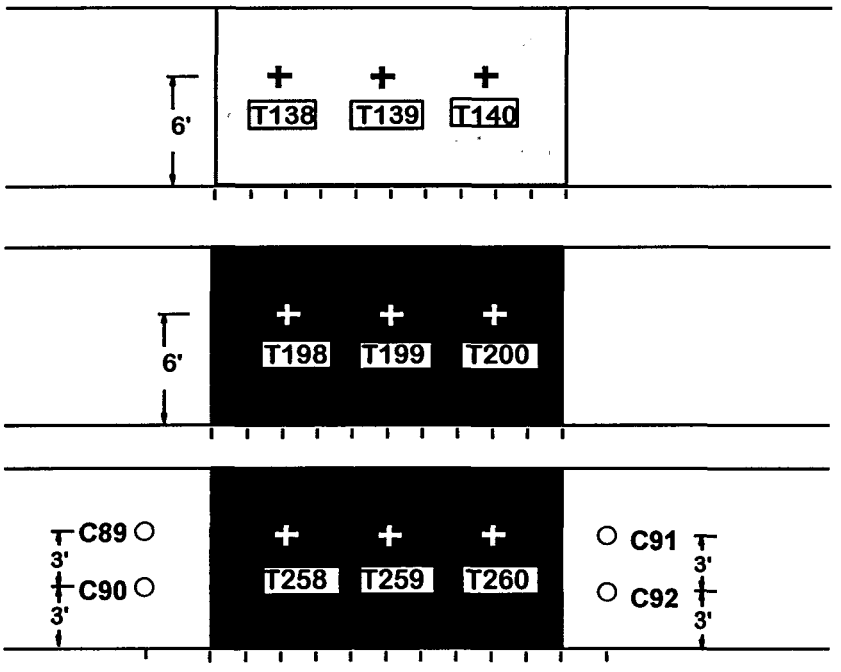


Pavement Structure: Fig. No. / Construct Phase:

B-2 Prep. Sg

This layer Not Applicable for this section.

B-3 Prep Sg



B-4 ATB / Prep. Sg

B-5 ACB / ATB / Prep. Sg.

B-6 AC / ACB / ATB / Prep. Sg.

B-2 Testing on prepared Subgrade (T064 - T067, B10, S19)
B-3 This layer Not Applicable for this section.
B-4 Testing on compacted ATB (T138 - T140)
B-5 Testing on compacted AC Binder (T198 - T200)
B-6 Testing on finished AC Surface (T258 - T260)
Coring AC Surface and bound layers (C89 - C92)

FIGURE B-8. SAMPLING AND TESTING PLAN FOR TEST SECTION 480116

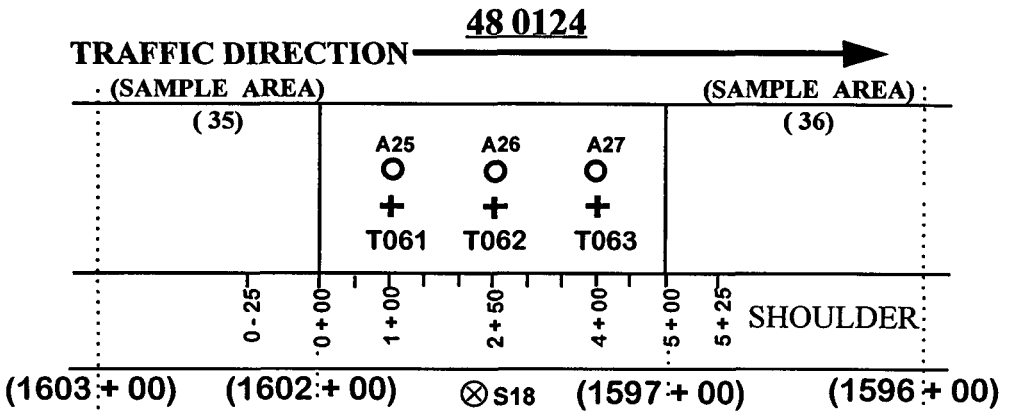


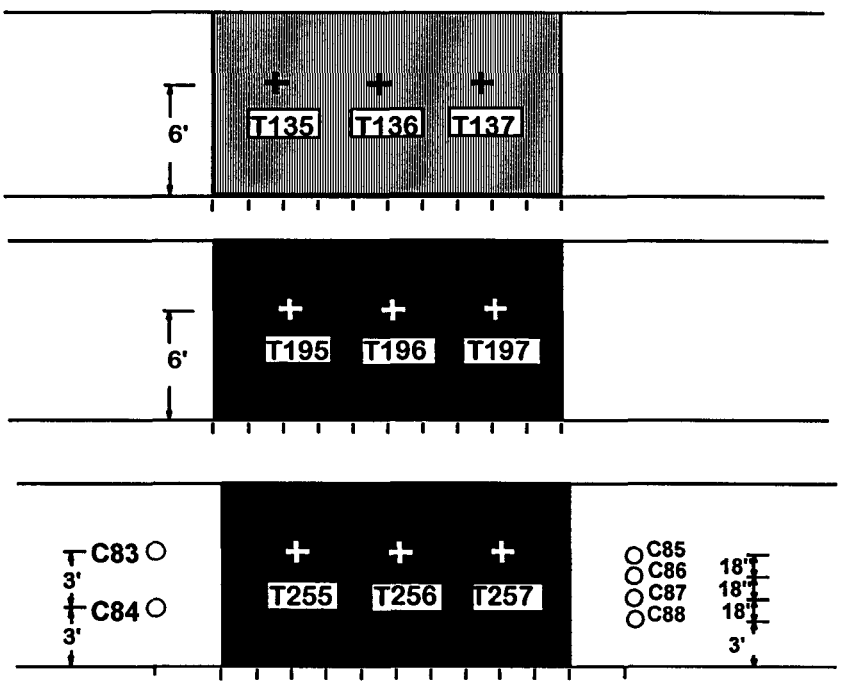
Fig No / Construct. Phase:

Pavement Structure:

B-2 Prep. Sg.

This layer Not Applicable for this section.

B-3 Prep. Sg



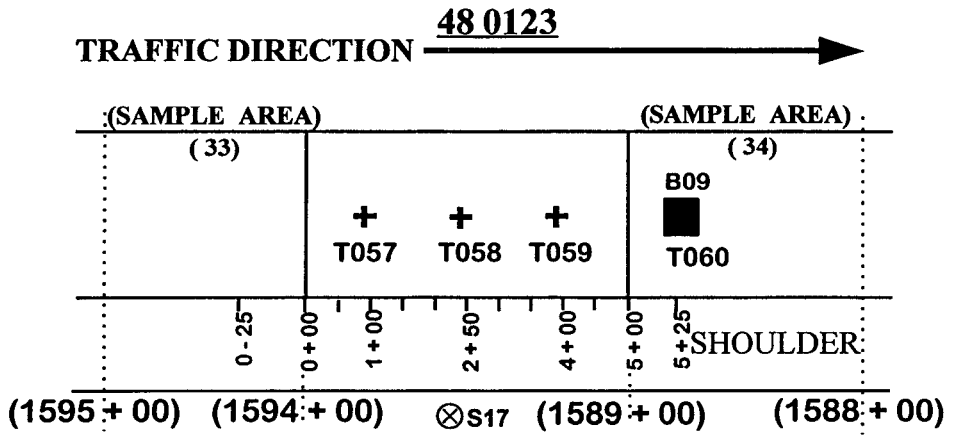
B-4 ATB PATB Prep. Sg

B-5 ACB ATB PATB Prep. Sg.

B-6 AC ACB ATB PATB Prep. Sg.

B-2 Testing on prepared Subgrade (T061 - T063, A25 - A27, S18)
B-3 This layer Not Applicable for this section.
B-4 Testing on compacted ATB (T135 - T137)
B-5 Testing on compacted AC Binder (T195 - T197)
B-6 Testing on finished AC Surface (T255 - T257)
Coring AC Surface and bound layers (C83 - C88)

FIGURE B-9. SAMPLING AND TESTING PLAN FOR TEST SECTION 480124

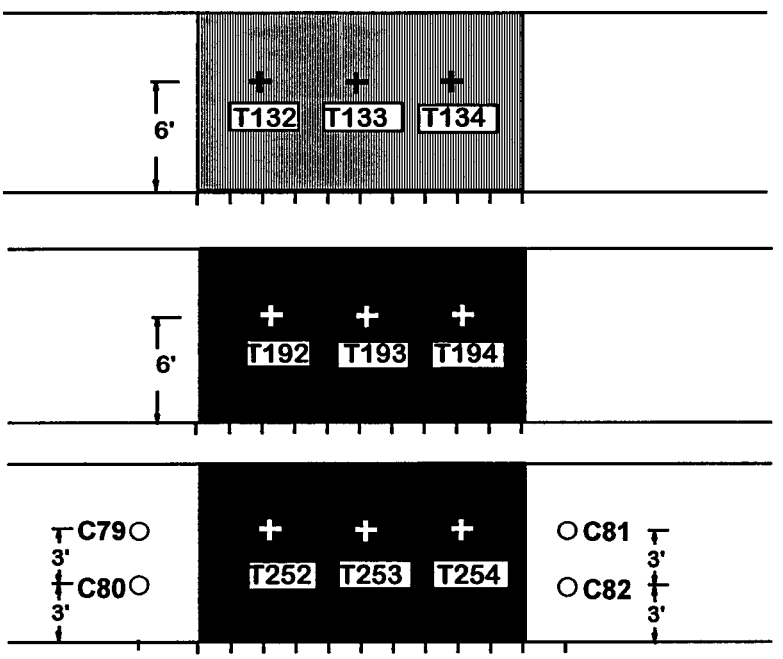


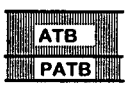
Pavement Structure: Fig No. / Construct. Phase:

Prep. Sg. **B-2**

This layer Not Applicable for this section.

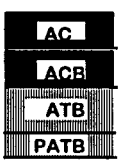
Prep. Sg **B-3**





Prep Sg. **B-4**

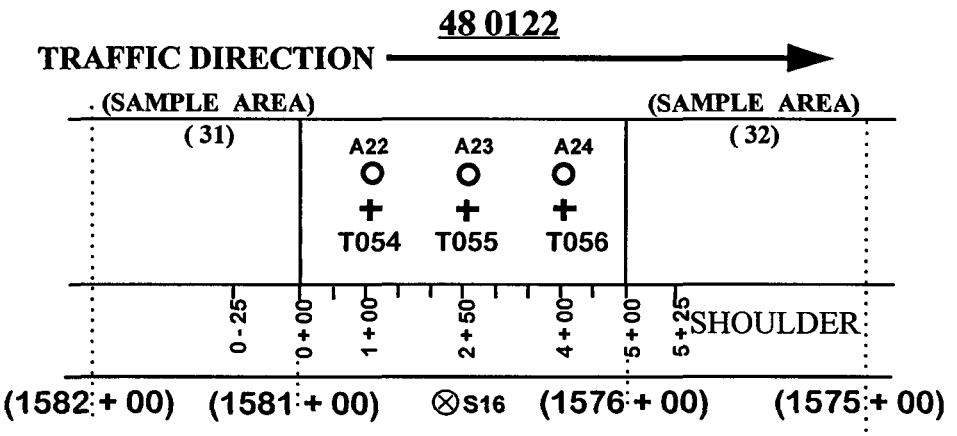
Prep. Sg. **B-5**



Prep Sg **B-6**

B-2 Testing on prepared Subgrade (T057 - T060, B09, S17)
B-3 This layer Not Applicable for this section.
B-4 Testing on compacted ATB (T132 - T134)
B-5 Testing on compacted AC Binder (T192 - T194)
B-6 Testing on finished AC Surface (T252 - T254)
Coring AC Surface and bound layers (C79- C82)

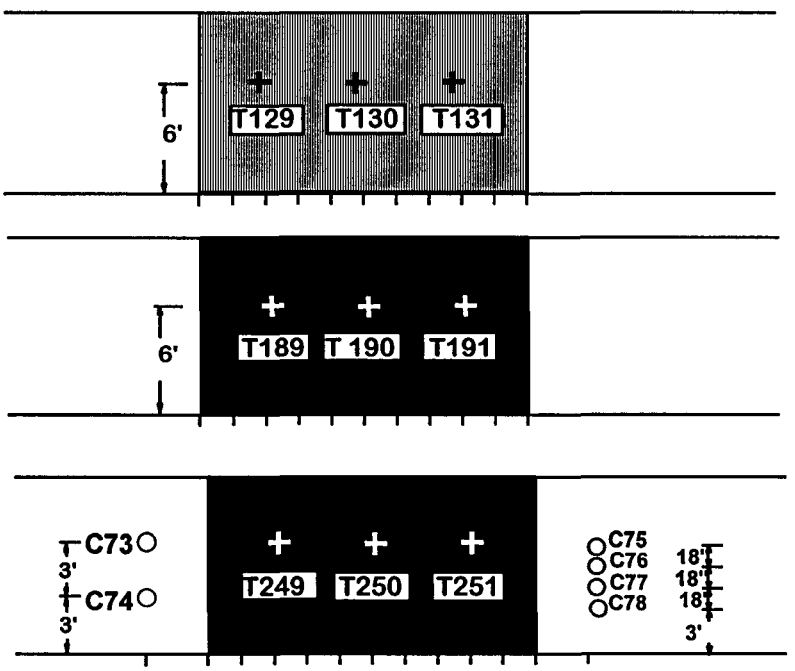
FIGURE B-10. SAMPLING AND TESTING PLAN FOR TEST SECTION 480123



Pavement Structure: Fig. No. / Construct Phase:

Prep. Sg. **B-2**

This layer Not Applicable for this section. Prep. Sg **B-3**



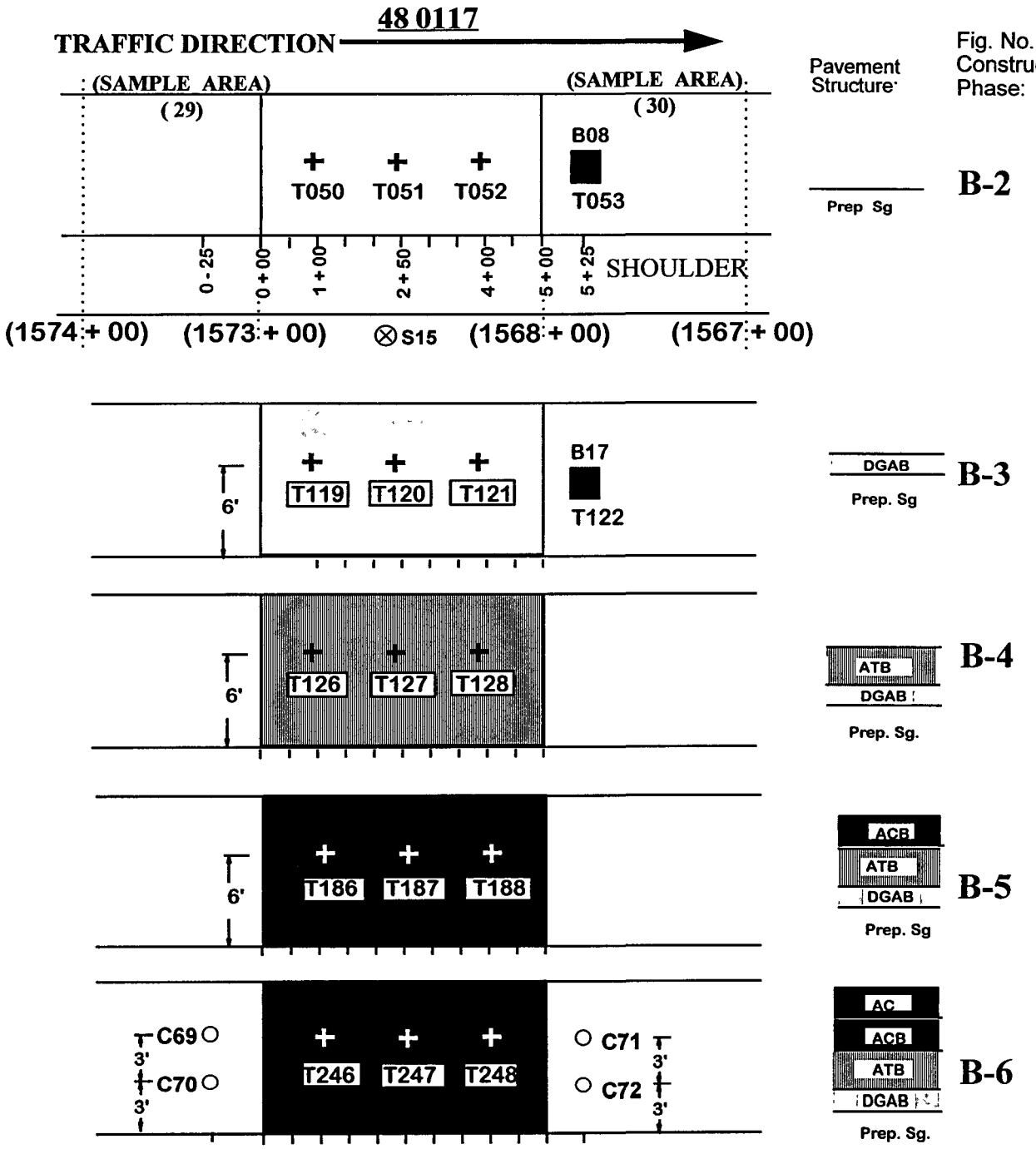
ATB / PATB **B-4** Prep Sg

ACB / ATB / PATB **B-5** Prep. Sg.

AC / ACB / ATB / PATB **B-6** Prep Sg

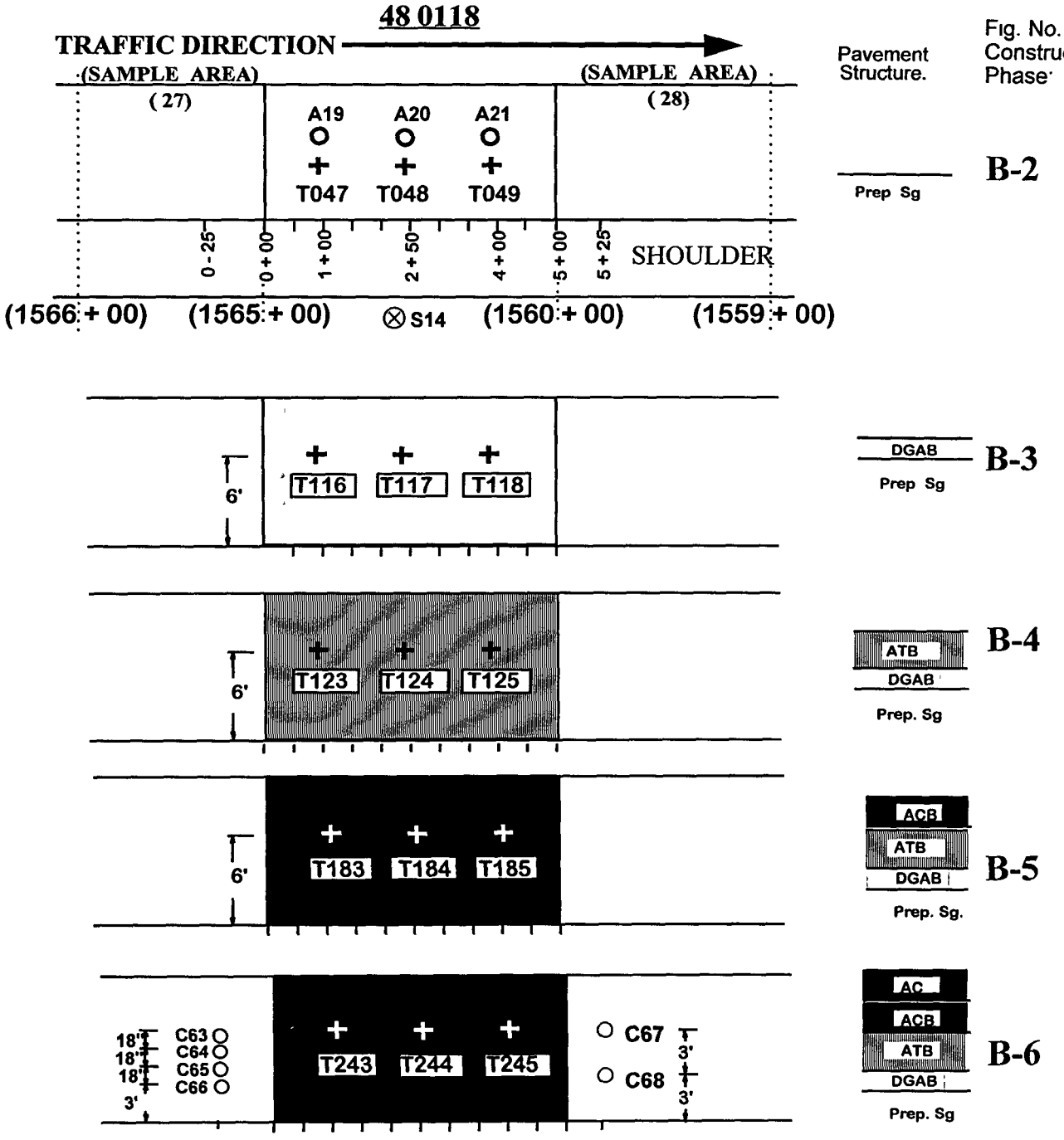
B-2 Testing on prepared Subgrade (T054 - T056, A22 - A24, S16)
B-3 This layer Not Applicable for this section.
B-4 Testing on compacted ATB (T129 - T131)
B-5 Testing on compacted AC Binder (T189 - T191)
B-6 Testing on finished AC Surface (T249 - T251)
Coring AC Surface and bound layers (C73 - C78)

FIGURE B-11. SAMPLING AND TESTING PLAN FOR TEST SECTION 480122



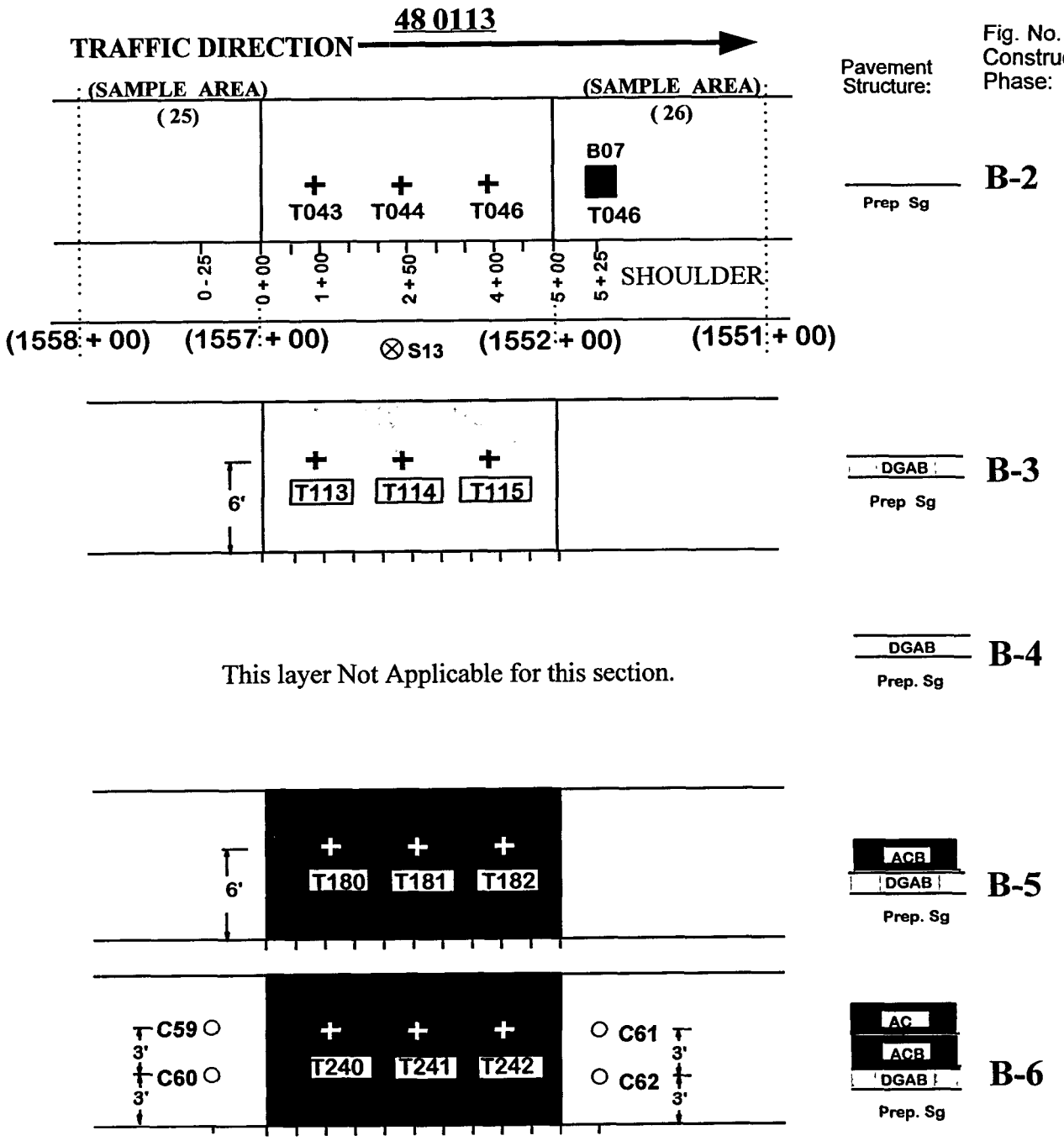
A Testing on prepared Subgrade (T050 - T053, B08, S15)
B Testing on compacted DGAB (T119 - T122, B17)
C Testing on compacted ATB (T126 - T128)
D Testing on compacted AC Binder (T186 - T188)
E Testing on finished AC Surface (T246 - T248)
Coring AC Surface and bound layers (C69- C72)

FIGURE B-12. SAMPLING AND TESTING PLAN FOR TEST SECTION 480117



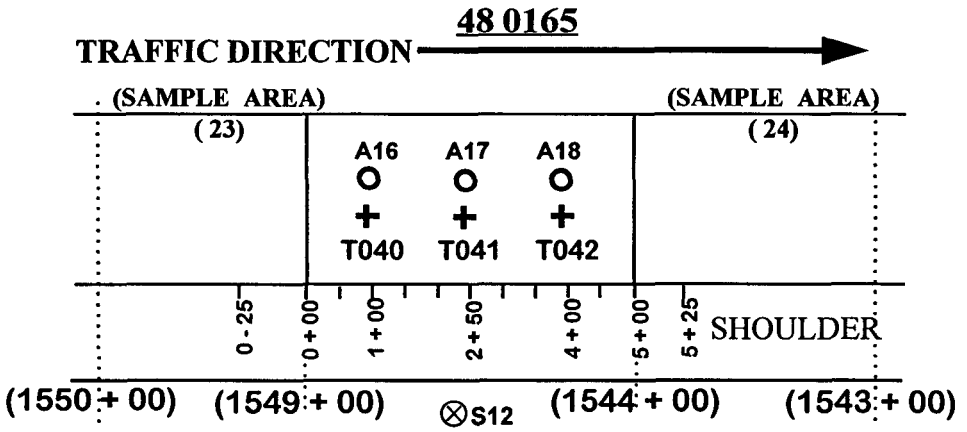
A Testing on prepared Subgrade (T047 - T049, A19 - A21, S14)
B Testing on compacted DGAB (T116 - T118)
C Testing on compacted ATB (T123 - T125)
D Testing on compacted AC Binder (T183 - T185)
E Testing on finished AC Surface (T243 - T245)
Coring AC Surface and bound layers (C63 - C68)

FIGURE B-13. SAMPLING AND TESTING PLAN FOR TEST SECTION 480118



B-2 Testing on prepared Subgrade (T043 - T046, B07, S13)
B-3 Testing on compacted DGAB (T113 - T115)
B-4 This layer Not Applicable for this section.
B-5 Testing on compacted AC Binder (T180 - T182)
B-6 Testing on finished AC Surface (T240 - T242)
Coring AC Surface and bound layers (C59- C62)

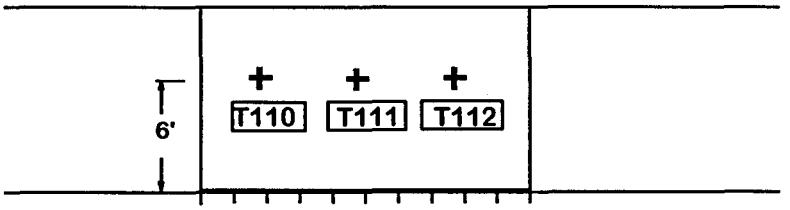
FIGURE B-14. SAMPLING AND TESTING PLAN FOR TEST SECTION 480113



Pavement Structure

Fig. No. / Construct. Phase

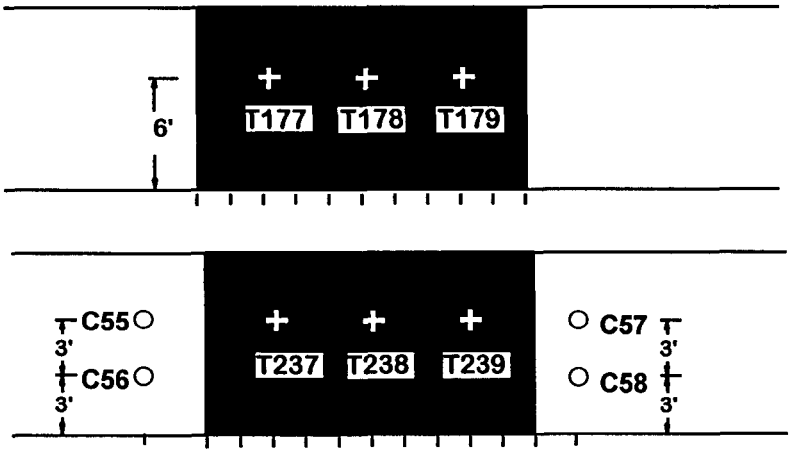
Prep. Sg — **B-2**



CCAB
Prep. Sg. — **B-3**

This layer Not Applicable for this section.

CCAB
Prep Sg. — **B-4**

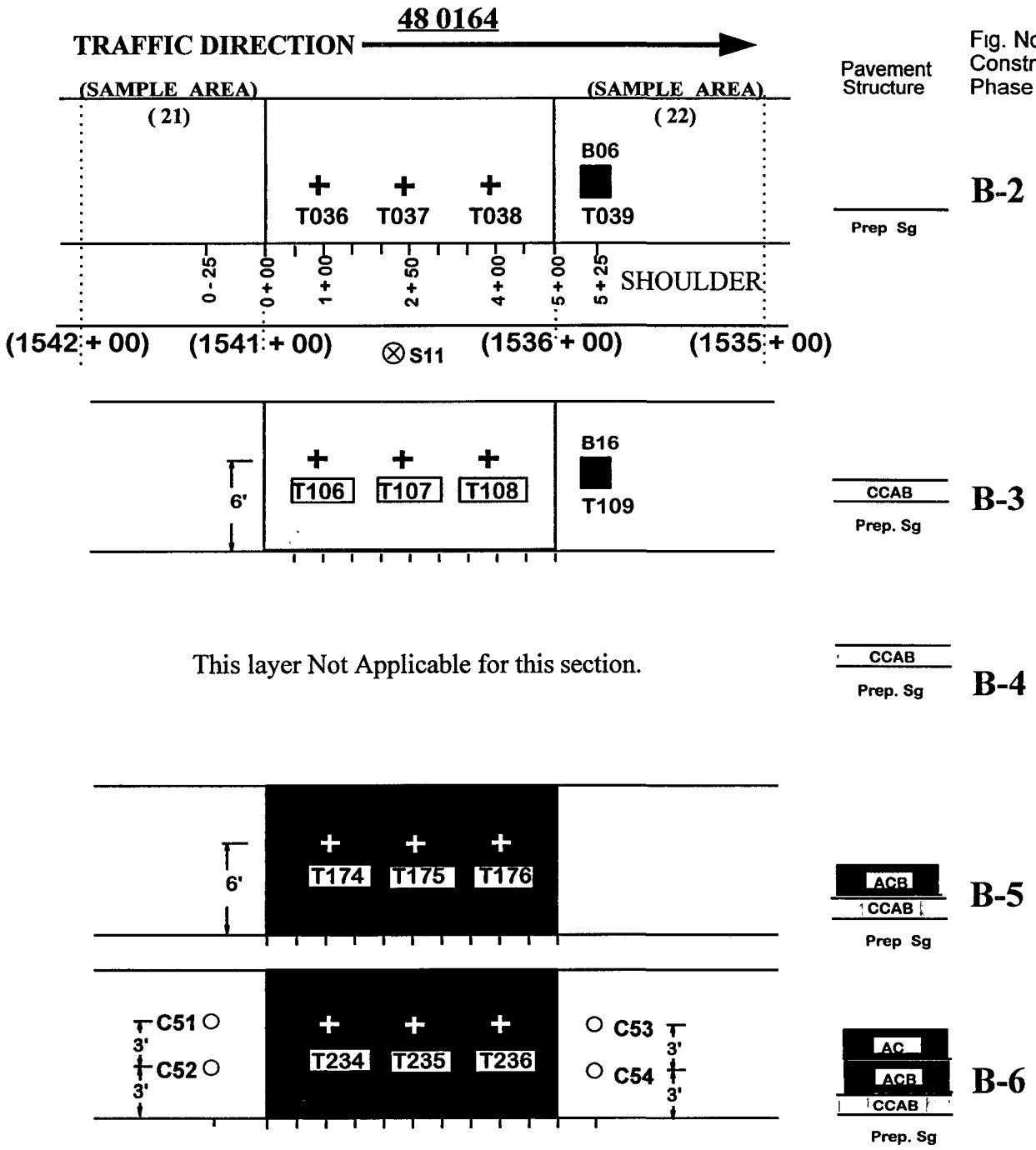


ACB
CCAB
Prep. Sg — **B-5**

AC
ACB
CCAB
Prep Sg — **B-6**

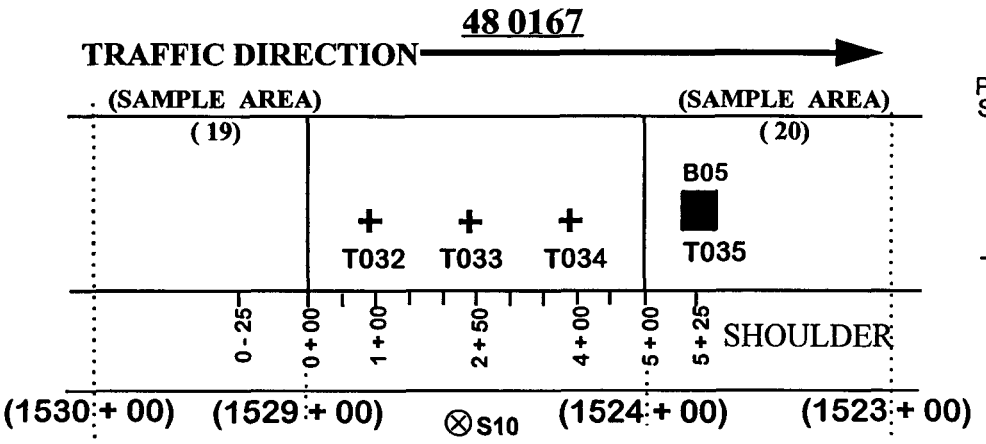
B-2 Testing on prepared Subgrade (T040 - T042, A16 - A18, S12)
B-3 Testing on compacted CCAB (T110 - T112)
B-4 This layer Not Applicable for this section.
B-5 Testing on compacted AC Binder (T177 - T179)
B-6 Testing on finished AC Surface (T237 - T239)
Coring AC Surface and bound layers (C55 - C58)

FIGURE B-15. SAMPLING AND TESTING PLAN FOR TEST SECTION 480165



B-2 Testing on prepared Subgrade (T036 - T039, B06, S11)
B-3 Testing on compacted CCAB (T106 - T109, B16)
B-4 This layer Not Applicable for this section.
B-5 Testing on compacted AC Binder (T174 - T176)
B-6 Testing on finished AC Surface (T234 - T236)
Coring AC Surface and bound layers (C51 - C54)

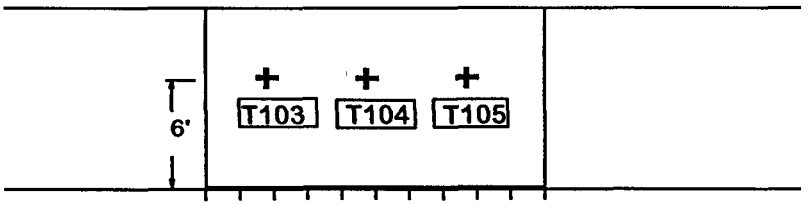
FIGURE B-16. SAMPLING AND TESTING PLAN FOR TEST SECTION 480164



Pavement Structure: Fig No. / Construct. Phase:

B-2

Prep. Sg



B-3

CAL

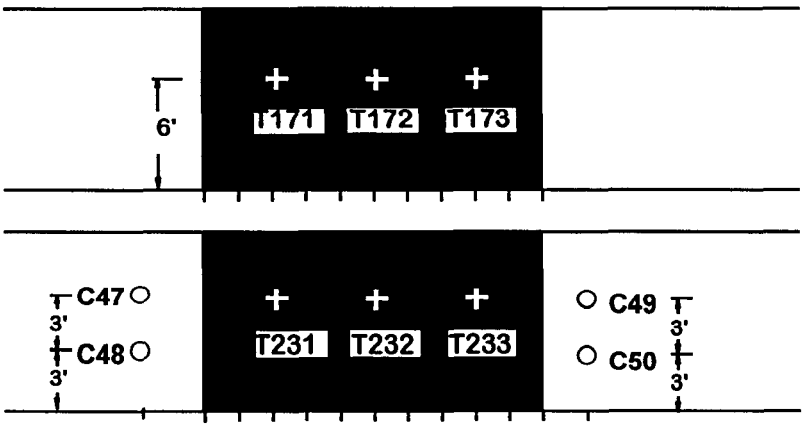
Prep Sg

This layer Not Applicable for this section.

B-4

CAL

Prep Sg



B-5

ACB

CAL

Prep Sg

B-6

AC

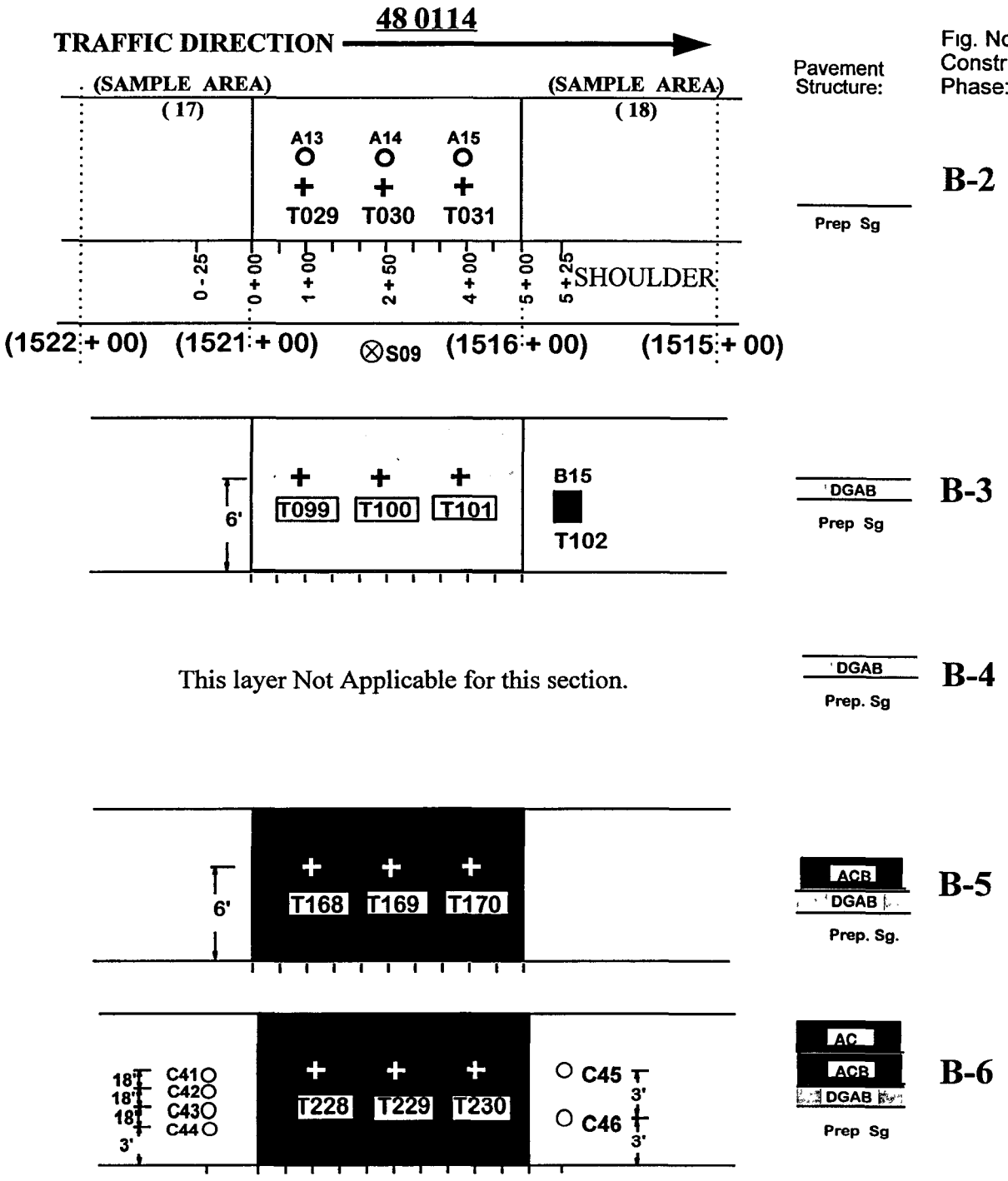
ACB

CAL

Prep. Sg

B-2 Testing on prepared Subgrade (T032 - T035, B05, S10)
B-3 Testing on compacted CAL (T103 - T105)
B-4 This layer Not Applicable for this section.
B-5 Testing on compacted AC Binder (T171 - T173)
B-6 Testing on finished AC Surface (T231 - T233)
Coring AC Surface and bound layers (C47- C50)

FIGURE B-17. SAMPLING AND TESTING PLAN FOR TEST SECTION 480167



Pavement Structure:

Fig. No. / Construct. Phase:

B-2

Prep Sg

B-3

DGAB

Prep Sg

B-4

DGAB

Prep. Sg

B-5

ACB

DGAB

Prep. Sg.

B-6

AC

ACB

DGAB

Prep Sg

B-2 Testing on prepared Subgrade (T029 - T031, A13 - A15, S09)

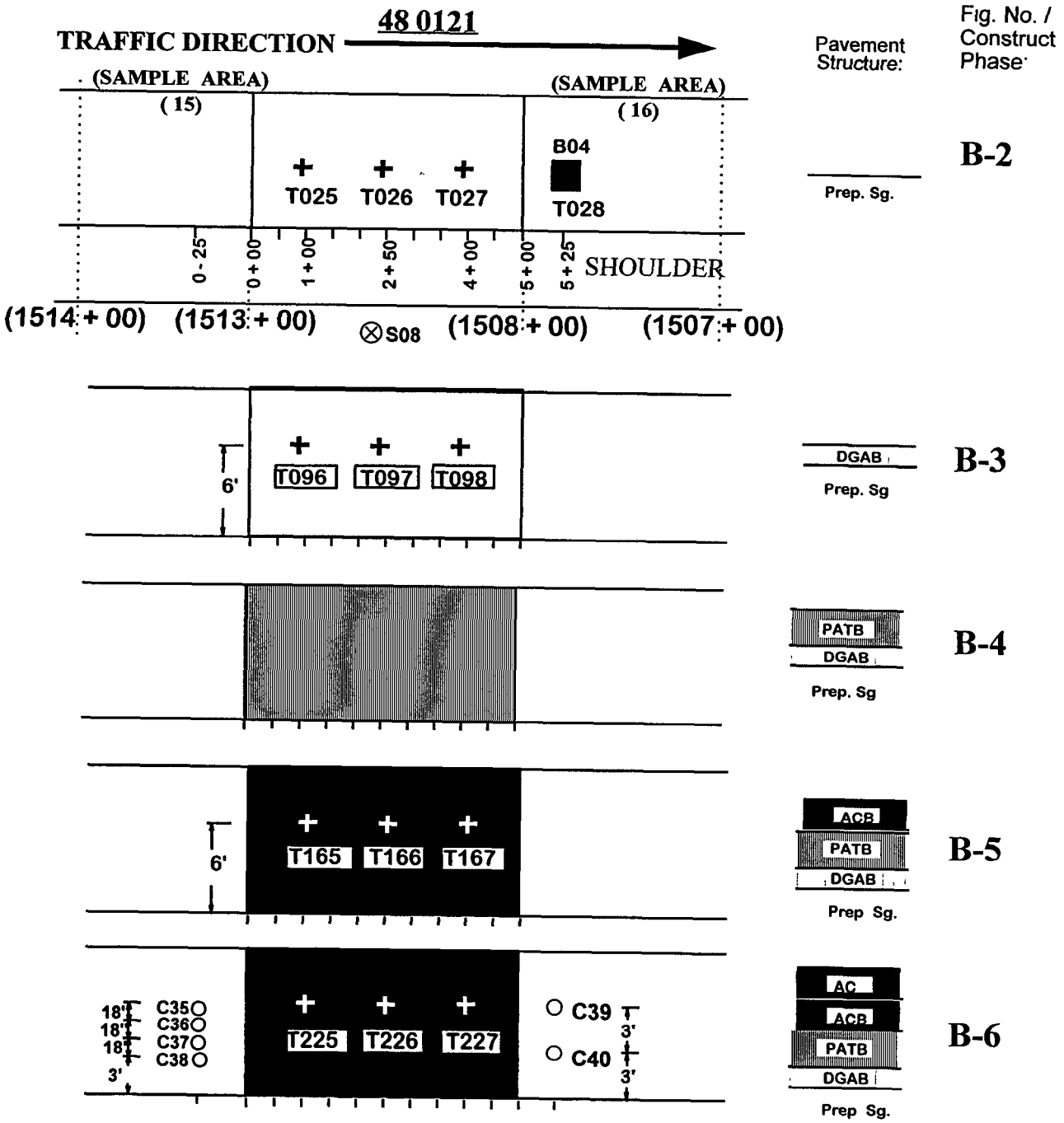
B-3 Testing on compacted DGAB (T099 - T102, B15)

B-4 This layer Not Applicable for this section.

B-5 Testing on compacted AC Binder (T168 - T170)

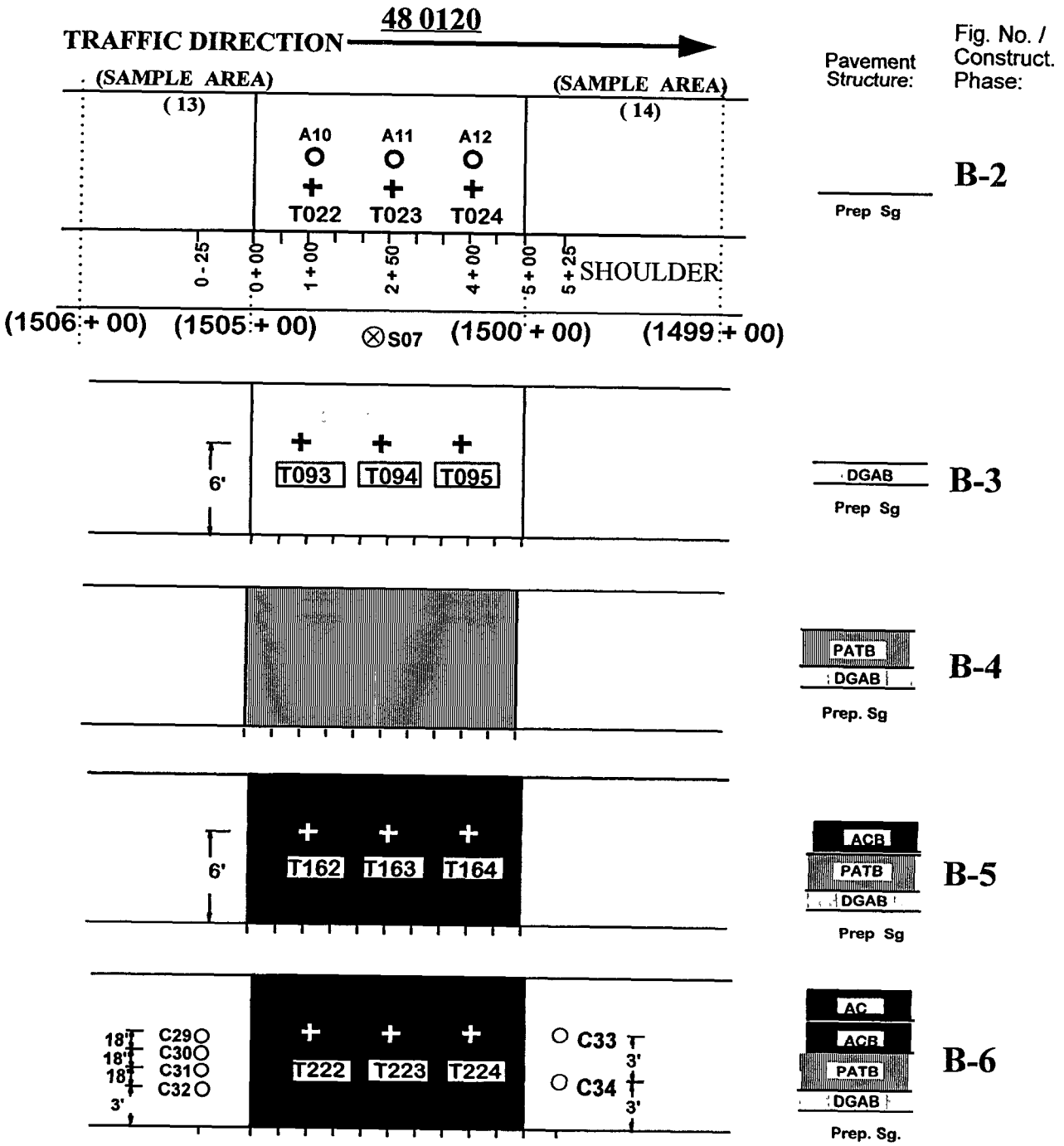
B-6 Testing on finished AC Surface (T228 - T230)
Coring AC Surface and bound layers (C41 - C46)

FIGURE B-18. SAMPLING AND TESTING PLAN FOR TEST SECTION 480114



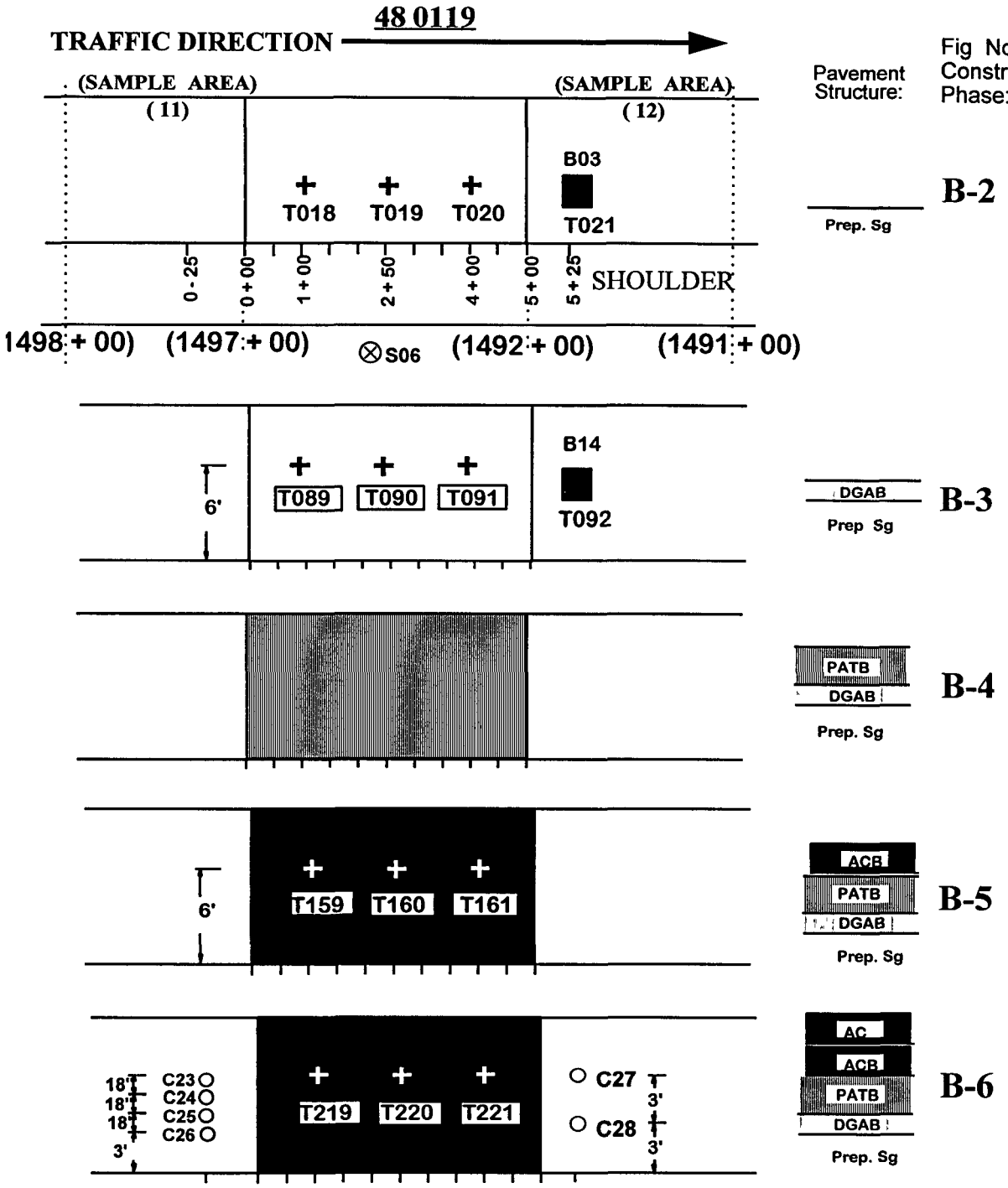
B-2 Testing on prepared Subgrade (T025-T028, B04, S08)
B-3 Testing on compacted DGAB (T096 - T098)
B-4 No testing on compacted PATB
B-5 Testing on compacted AC Binder (T165 - T167)
B-6 Testing on finished AC Surface (T225 - T227)
Coring AC Surface and bound layers (C35 - C40)

FIGURE B-19. SAMPLING AND TESTING PLAN FOR TEST SECTION 480121



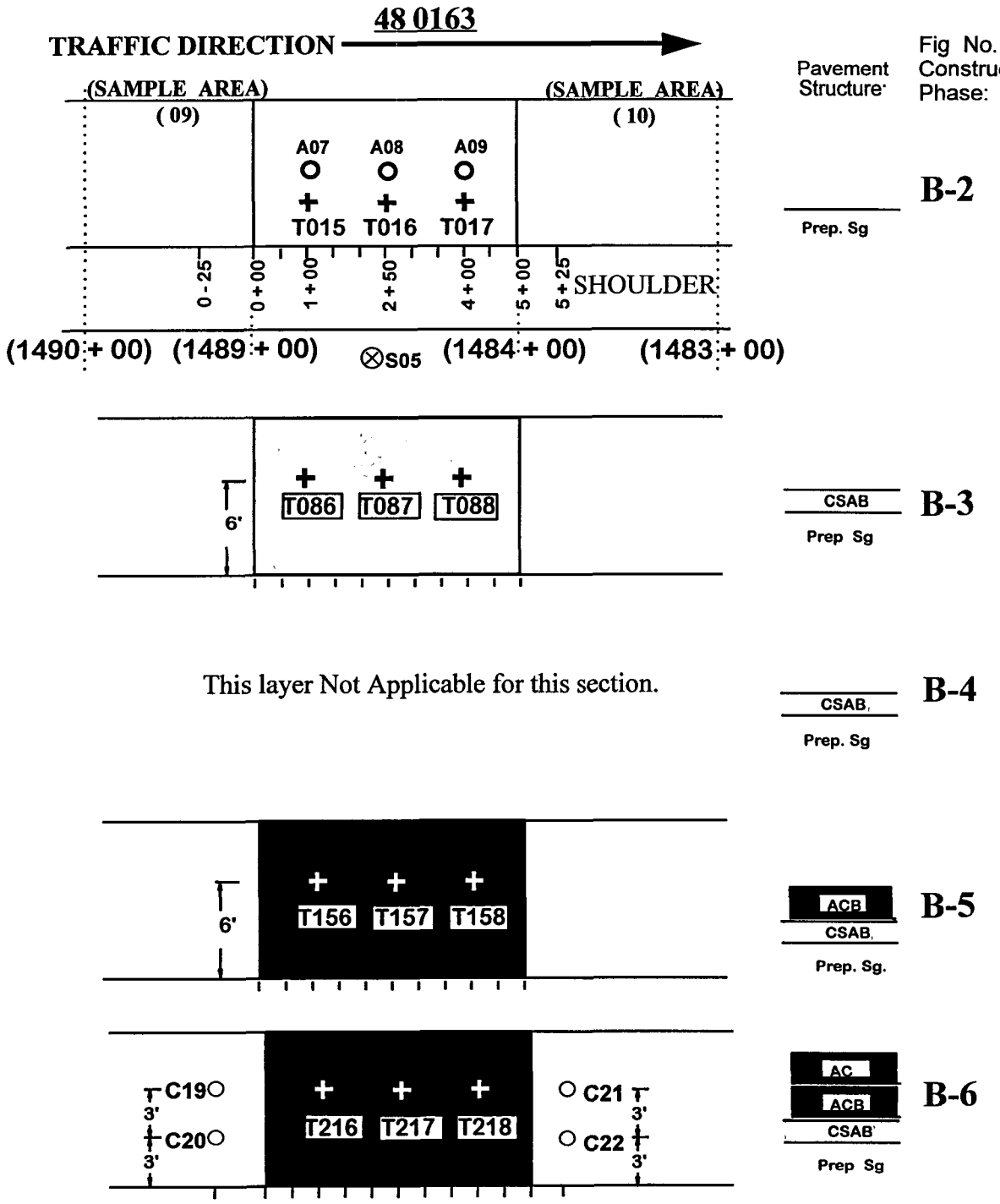
A Testing on prepared Subgrade (T022 - T024, A10 - A12, S07)
B Testing on compacted DGAB (T093 - T095)
C No testing on compacted PATB
D Testing on compacted AC Binder (T162 - T164)
E Testing on finished AC Surface (T222 - T224)
Coring AC Surface and bound layers (C29 - C34)

FIGURE B-20. SAMPLING AND TESTING PLAN FOR TEST SECTION 480120



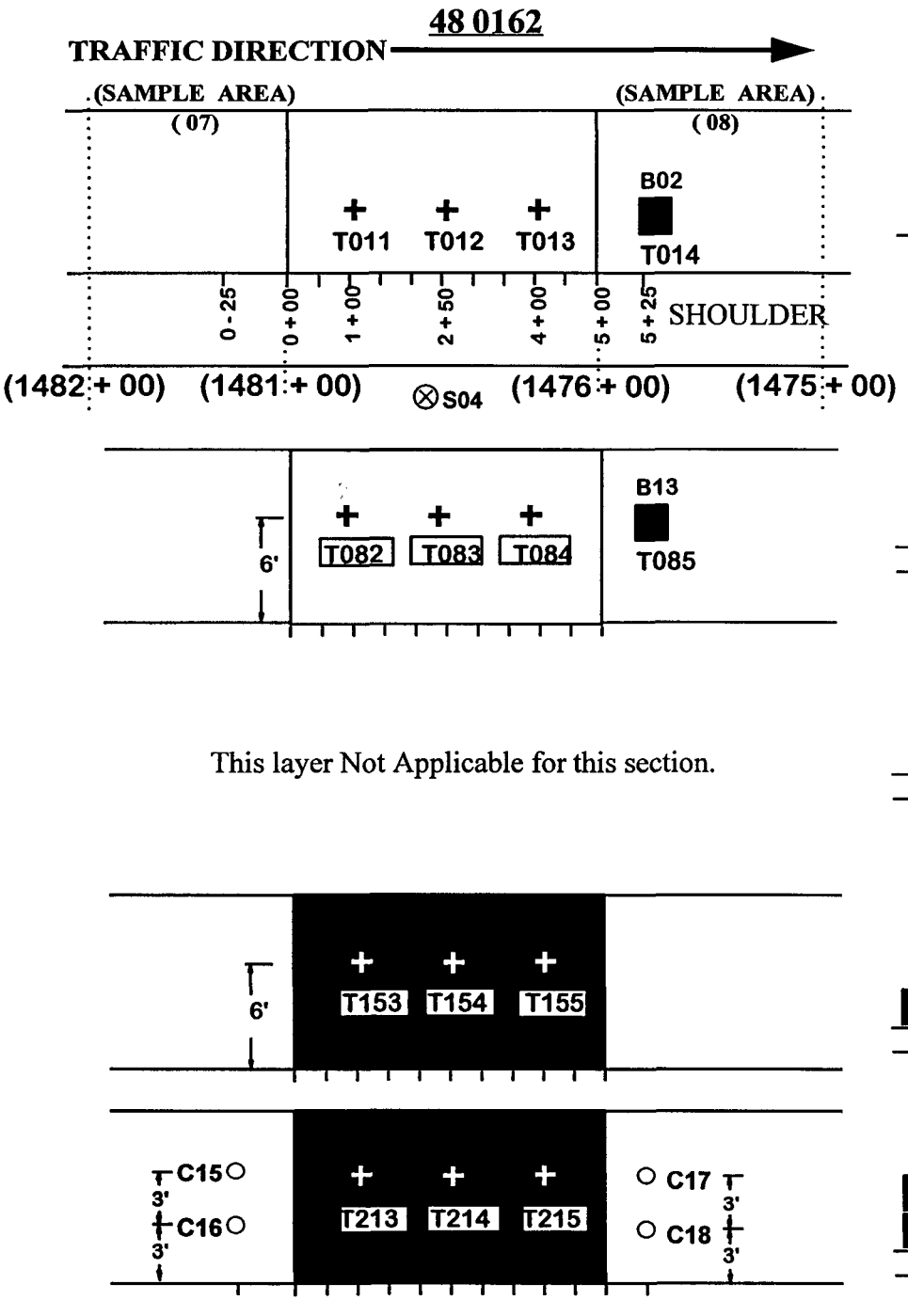
A Testing on prepared Subgrade (T018-T021, B03, S06)
B Testing on compacted DGAB (T089 - T092, B14)
C No testing on compacted PATB
D Testing on compacted AC Binder (T159 - T161)
E Testing on finished AC Surface (T219 - T221)
Coring AC Surface and bound layers (C23 - C28)

FIGURE B-21. SAMPLING AND TESTING PLAN FOR TEST SECTION 480119



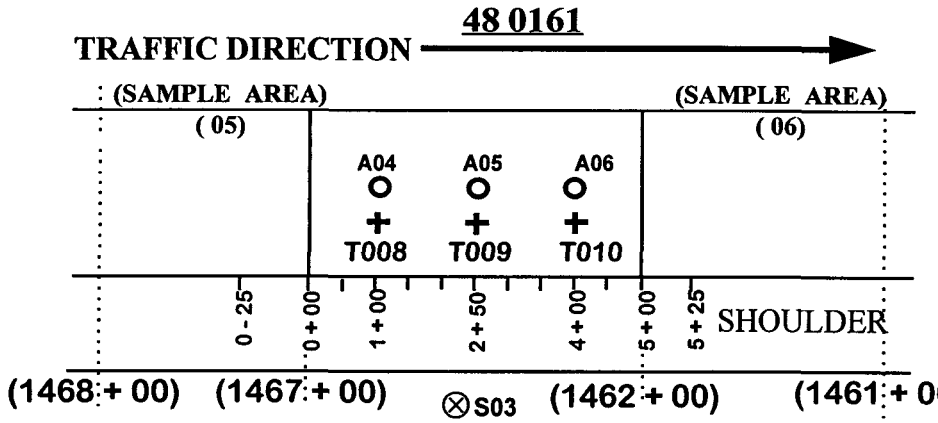
B-2 Testing on prepared Subgrade (T015 - T017, A07 - A09, S05)
B-3 Testing on compacted CSAB (T086 - T088)
B-4 This layer Not Applicable for this section.
B-5 Testing on compacted AC Binder (T156 - T158)
B-6 Testing on finished AC Surface (T216 - T218)
Coring AC Surface and bound layers (C19 - C22)

FIGURE B-22. SAMPLING AND TESTING PLAN FOR TEST SECTION 480163



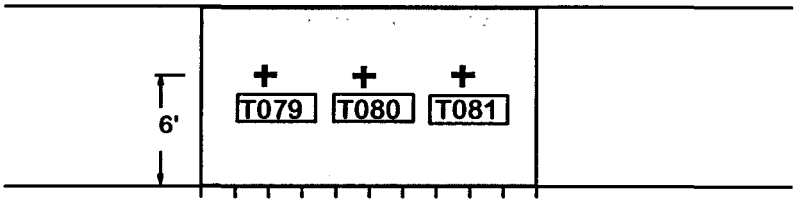
B-2 Testing on prepared Subgrade (T011 - T014, B02, S04)
B-3 Testing on compacted CSAB (T082 - T085, B13)
B-4 This layer Not Applicable for this section.
B-5 Testing on compacted AC Binder (T153 - T155)
B-6 Testing on finished AC Surface (T213 - T215)
Coring AC Surface and bound layers (C15 - C18)

FIGURE B-23. SAMPLING AND TESTING PLAN FOR TEST SECTION 480162



Pavement Structure: Fig No. / Construct. Phase:

Prep. Sg. **B-2**

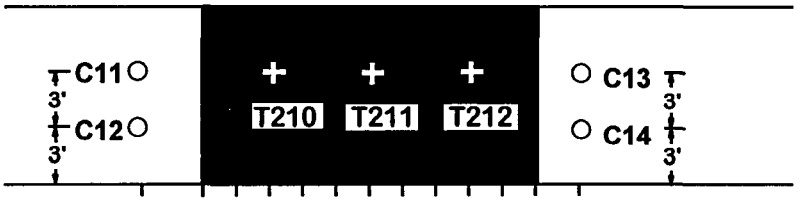


LRA
Prep Sg **B-3**

This layer Not Applicable for this section.

LRA
Prep Sg **B-4**

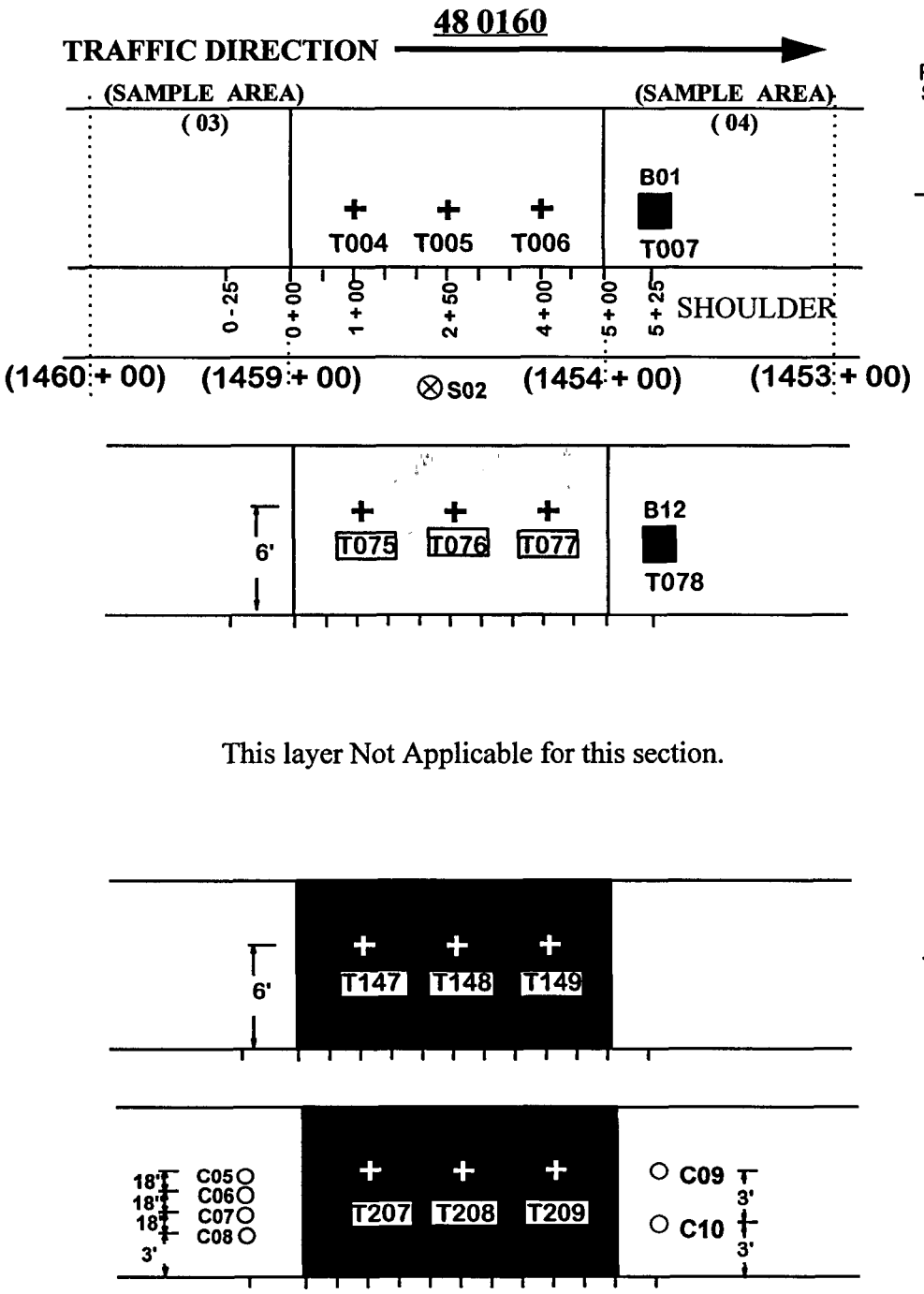
ACB
LRA
Prep. Sg **B-5**



AC
ACB
LRA
Prep. Sg **B-6**

B-2 Testing on prepared Subgrade (T008 - T010, A04 - A06, S03)
B-3 Testing on compacted LRA (T079 - T081)
B-4 This layer Not Applicable for this section.
B-5 Testing on compacted AC Binder (T150 - T152)
B-6 Testing on finished AC Surface (T210 - T212)
Coring AC Surface and bound layers (C11 - C14)

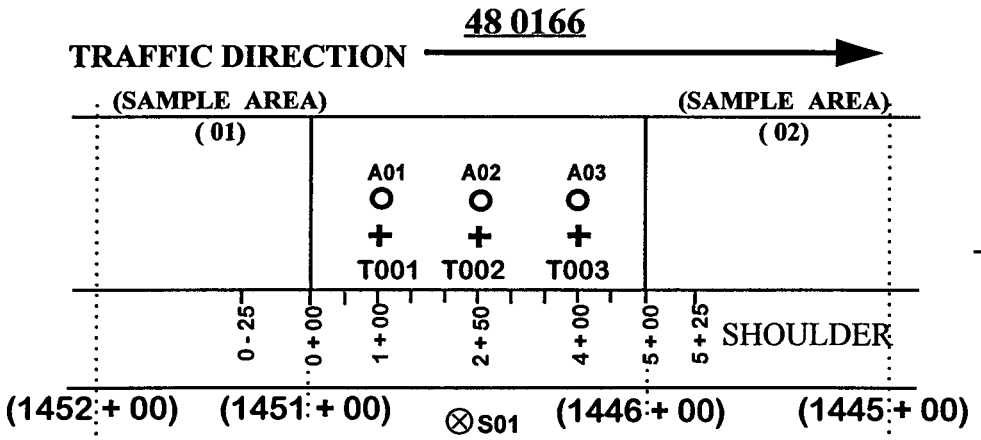
FIGURE B-24. SAMPLING AND TESTING PLAN FOR TEST SECTION 480161



Pavement Structure:	Fig. No. / Construct. Phase:
Prep. Sg.	B-2
LRA / Prep. Sg	B-3
LRA / Prep Sg.	B-4
ACB / LRA / Prep. Sg	B-5
AC / ACB / LRA / Prep. Sg.	B-6

B-2 Testing on prepared Subgrade (T004 - T007, B01, S02)
B-3 Testing on compacted LRA (T075 - T078, B12)
B-4 This layer Not Applicable for this section.
B-5 Testing on compacted AC Binder (T147 - T149)
B-6 Testing on finished AC Surface (T207 - T209)
Coring AC Surface and bound layers (C05 - C10)

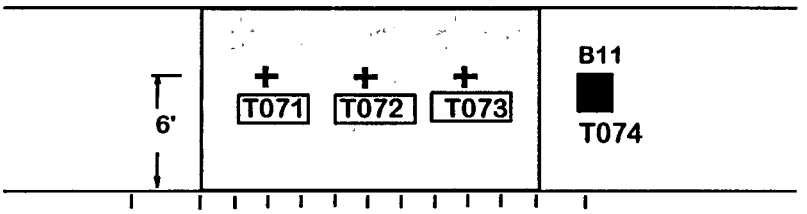
FIGURE B-25. SAMPLING AND TESTING PLAN FOR TEST SECTION 480160



Pavement Structure: | Fig. No. / Construct. Phase:

B-2

Prep Sg



CAL

Prep. Sg

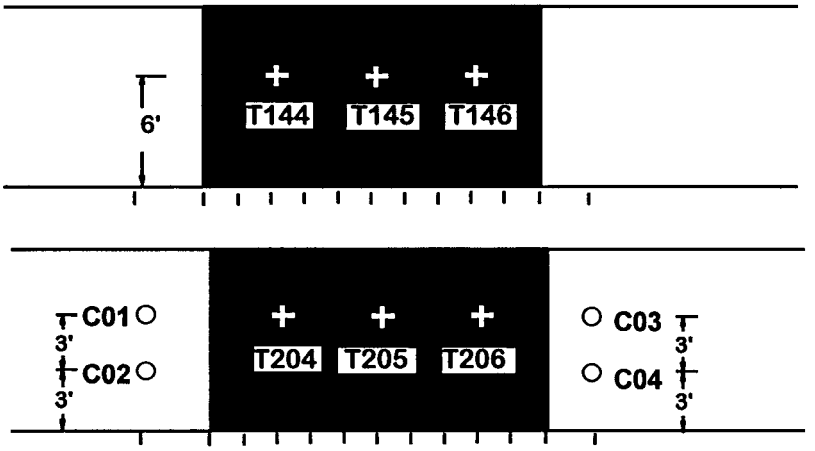
B-3

This layer Not Applicable for this section.

CAL

Prep Sg.

B-4



ACB

CAL

Prep. Sg.

B-5

AC

ACB

CAL

Prep Sg.

B-6

B-2 Testing on prepared Subgrade (T001 - T003, A01 - A03, S01)
B-3 Testing on compacted CAL (T071 - T074, B11)
B-4 This layer Not Applicable for this section.
B-5 Testing on compacted AC Binder (T144 - T146)
B-6 Testing on finished AC Surface (T204 - T206)
Coring AC Surface and bound layers (C01 - C04)

FIGURE B-26. SAMPLING AND TESTING PLAN FOR TEST SECTION 480166

TABLE B-4. SAMPLES TO BE SHIPPED TO THE STATE LABORATORY (OR THEIR DESIGNEE)

Sample Location	Sample Number	Lab Test Number[1]	Type of Sample
Asphalt Concrete Surface			
C1	CA01	1	102 mm (4 in.) Core
C2	CA02	1	102 mm (4 in.) Core
C3	CA03	2	102 mm (4 in.) Core
C4	CA04	2	102 mm (4 in.) Core
C9	CA09	2	102 mm (4 in.) Core
C10	CA10	2	102 mm (4 in.) Core
C11	CA11	1	102 mm (4 in.) Core
C12	CA12	1	102 mm (4 in.) Core
C13	CA13	2	102 mm (4 in.) Core
C14	CA14	2	102 mm (4 in.) Core
C16	CA16	1	102 mm (4 in.) Core
C17	CA17	2	102 mm (4 in.) Core
C18	CA18	2	102 mm (4 in.) Core
C19	CA19	1	102 mm (4 in.) Core
C20	CA20	1	102 mm (4 in.) Core
C22	CA22	2	102 mm (4 in.) Core
C27	CA27	2	102 mm (4 in.) Core
C28	CA28	2	102 mm (4 in.) Core
C33	CA33	2	102 mm (4 in.) Core
C34	CA34	2	102 mm (4 in.) Core
C39	CA39	2	102 mm (4 in.) Core
C40	CA40	2	102 mm (4 in.) Core
C45	CA45	2	102 mm (4 in.) Core
C46	CA46	2	102 mm (4 in.) Core
C47	CA47	1	102 mm (4 in.) Core

TABLE B-4. SAMPLES TO BE SHIPPED TO THE STATE LABORATORY (OR THEIR DESIGNEE) (Continued)

Sample Location	Sample Number	Lab Test Number[1]	Type of Sample
C48	CA48	1	102 mm (4 in.) Core
C49	CA49	2	102 mm (4 in.) Core
C50	CA50	2	102 mm (4 in.) Core
C51	CA51	1	102 mm (4 in.) Core
C52	CA52	1	102 mm (4 in.) Core
C53	CA53	2	102 mm (4 in.) Core
C54	CA54	2	102 mm (4 in.) Core
C55	CA55	1	102 mm (4 in.) Core
C56	CA56	1	102 mm (4 in.) Core
C58	CA58	2	102 mm (4 in.) Core
C59	CA59	1	102 mm (4 in.) Core
C60	CA60	1	102 mm (4 in.) Core
C61	CA61	2	102 mm (4 in.) Core
C62	CA62	2	102 mm (4 in.) Core
C67	CA67	2	102 mm (4 in.) Core
C68	CA68	2	102 mm (4 in.) Core
C69	CA69	1	102 mm (4 in.) Core
C70	CA70	1	102 mm (4 in.) Core
C71	CA71	2	102 mm (4 in.) Core
C72	CA72	2	102 mm (4 in.) Core
C74	CA74	1	102 mm (4 in.) Core
C79	CA79	1	102 mm (4 in.) Core
C80	CA80	1	102 mm (4 in.) Core
C81	CA81	2	102 mm (4 in.) Core
C82	CA82	2	102 mm (4 in.) Core
C84	CA84	1	102 mm (4 in.) Core

TABLE B-4. SAMPLES TO BE SHIPPED TO THE STATE LABORATORY (OR THEIR DESIGNEE) (Continued)

Sample Location	Sample Number	Lab Test Number[1]	Type of Sample
C89	CA89	1	102 mm (4 in.) Core
C90	CA90	1	102 mm (4 in.) Core
C91	CA91	2	102 mm (4 in.) Core
C92	CA92	2	102 mm (4 in.) Core
C97	CA97	2	102 mm (4 in.) Core
C98	CA98	2	102 mm (4 in.) Core
B33	BA04	3	91 kg (200 lb) Bulk Sample
B34	BA05	3	91 kg (200 lb) Bulk Sample
B35	BA06	3	91 kg (200 lb) Bulk Sample
B36	BC07	3	19 l (5 gal) Bulk Sample of Asphalt Cement
B37	BC08	3	19 l (5 gal) Bulk Sample of Asphalt Cement
B38	BC09	3	19 l (5 gal) Bulk Sample of Asphalt Cement
Asphalt Concrete Binder			
C1	CA101	1	102 mm (4 in.) Core
C2	CA102	1	102 mm (4 in.) Core
C3	CA103	2	102 mm (4 in.) Core
C4	CA104	2	102 mm (4 in.) Core
C9	CA109	2	102 mm (4 in.) Core
C10	CA110	2	102 mm (4 in.) Core
C11	CA111	1	102 mm (4 in.) Core
C12	CA112	1	102 mm (4 in.) Core
C13	CA113	2	102 mm (4 in.) Core
C14	CA114	2	102 mm (4 in.) Core
C16	CA116	1	102 mm (4 in.) Core
C17	CA117	2	102 mm (4 in.) Core
C18	CA118	2	102 mm (4 in.) Core

TABLE B-4. SAMPLES TO BE SHIPPED TO THE STATE LABORATORY (OR THEIR DESIGNEE) (Continued)

Sample Location	Sample Number	Lab Test Number[1]	Type of Sample
C19	CA119	1	102 mm (4 in.) Core
C20	CA120	1	102 mm (4 in.) Core
C22	CA122	2	102 mm (4 in.) Core
C27	CA127	2	102 mm (4 in.) Core
C28	CA128	2	102 mm (4 in.) Core
C33	CA133	2	102 mm (4 in.) Core
C34	CA134	2	102 mm (4 in.) Core
C39	CA139	2	102 mm (4 in.) Core
C40	CA140	2	102 mm (4 in.) Core
C45	CA145	2	102 mm (4 in.) Core
C46	CA146	2	102 mm (4 in.) Core
C47	CA147	1	102 mm (4 in.) Core
C48	CA148	1	102 mm (4 in.) Core
C49	CA149	2	102 mm (4 in.) Core
C50	CA150	2	102 mm (4 in.) Core
C51	CA151	1	102 mm (4 in.) Core
C52	CA152	1	102 mm (4 in.) Core
C53	CA153	2	102 mm (4 in.) Core
C54	CA154	2	102 mm (4 in.) Core
C55	CA155	1	102 mm (4 in.) Core
C56	CA156	1	102 mm (4 in.) Core
C58	CA158	2	102 mm (4 in.) Core
C59	CA159	1	102 mm (4 in.) Core
C60	CA160	1	102 mm (4 in.) Core
C61	CA161	2	102 mm (4 in.) Core
C62	CA162	2	102 mm (4 in.) Core

TABLE B-4. SAMPLES TO BE SHIPPED TO THE STATE LABORATORY (OR THEIR DESIGNEE) (Continued)

Sample Location	Sample Number	Lab Test Number[1]	Type of Sample
C67	CA167	2	102 mm (4 in.) Core
C68	CA168	2	102 mm (4 in.) Core
C69	CA169	1	102 mm (4 in.) Core
C70	CA170	1	102 mm (4 in.) Core
C71	CA171	2	102 mm (4 in.) Core
C72	CA172	2	102 mm (4 in.) Core
C74	CA174	1	102 mm (4 in.) Core
C79	CA179	1	102 mm (4 in.) Core
C80	CA180	1	102 mm (4 in.) Core
C81	CA181	2	102 mm (4 in.) Core
C82	CA182	2	102 mm (4 in.) Core
C84	CA184	1	102 mm (4 in.) Core
C89	CA189	1	102 mm (4 in.) Core
C90	CA190	1	102 mm (4 in.) Core
C91	CA191	2	102 mm (4 in.) Core
C92	CA192	2	102 mm (4 in.) Core
C97	CA197	2	102 mm (4 in.) Core
C98	CA198	2	102 mm (4 in.) Core
B27	BA01	3	91 kg (200 lb) Bulk Sample
B28	BA02	3	91 kg (200 lb) Bulk Sample
B29	BA03	3	91 kg (200 lb) Bulk Sample
B30	BC04	3	19 l (5 gal) Bulk Sample of Asphalt Cement
B31	BC05	3	19 l (5 gal) Bulk Sample of Asphalt Cement
B32	BC06	3	19 l (5 gal) Bulk Sample of Asphalt Cement

TABLE B-4. SAMPLES TO BE SHIPPED TO THE STATE LABORATORY (OR THEIR DESIGNEE) (Continued)

Sample Location	Sample Number	Lab Test Number[1]	Type of Sample
Asphalt Treated Base			
C67	CT67	2	102 mm (4 in.) Core
C68	CT68	2	102 mm (4 in.) Core
C69	CT69	1	102 mm (4 in.) Core
C70	CT70	2	102 mm (4 in.) Core
C71	CT71	2	102 mm (4 in.) Core
C72	CT72	2	102 mm (4 in.) Core
C74	CT74	1	102 mm (4 in.) Core
C79	CT79	1	102 mm (4 in.) Core
C80	CT80	1	102 mm (4 in.) Core
C81	CT81	2	102 mm (4 in.) Core
C82	CT82	2	102 mm (4 in.) Core
C84	CT84	1	102 mm (4 in.) Core
C89	CT89	1	102 mm (4 in.) Core
C90	CT90	1	102 mm (4 in.) Core
C91	CT91	2	102 mm (4 in.) Core
C92	CT92	2	102 mm (4 in.) Core
C97	CT97	2	102 mm (4 in.) Core
C98	CT98	2	102 mm (4 in.) Core
B21	BT04	3	91 kg (200 lb) Bulk Sample
B22	BT05	3	91 kg (200 lb) Bulk Sample
B23	BT06	3	91 kg (200 lb) Bulk Sample
B24	BC01	3	19 l (5 gal) Bulk Sample of Asphalt Cement
B25	BC02	3	19 l (5 gal) Bulk Sample of Asphalt Cement
B26	BC03	3	19 l (5 gal) Bulk Sample of Asphalt Cement

TABLE B-4. SAMPLES TO BE SHIPPED TO THE STATE LABORATORY (OR THEIR DESIGNEE) (Continued)

Sample Location	Sample Number	Lab Test Number[1]	Type of Sample
Permeable Asphalt Treated Base			
B18	BT01	3	45 kg (100 lb) Bulk Sample
B19	BT02	3	45 kg (100 lb) Bulk Sample
B20	BT03	3	45 kg (100 lb) Bulk Sample
Dense-Graded Aggregate Base			
B11	BG11	2	Caliche 45 kg (100 lb) Bulk Sample
B12	BG12	2	Lime-Rock-Asphalt 45 kg (100 lb) Bulk Sample
B13	BG13	2	Crushed Limestone Aggregate Base 45 kg (100 lb) Bulk Sample
B14	BG14	2	45 kg (100 lb) Bulk Sample
B15	BG15	2	45 kg (100 lb) Bulk Sample
B16	BG16	2	Crushed Concrete Aggregate Base 45 kg (100 lb) Bulk Sample
B17	BG17	2	45 kg (100 lb) Bulk Sample
Subgrade			
B1	BS01	2	45 kg (100 lb) Bulk Sample
B2	BS02	2	45 kg (100 lb) Bulk Sample
B3	BS03	2	45 kg (100 lb) Bulk Sample
B4	BS04	2	45 kg (100 lb) Bulk Sample
B5	BS05	2	45 kg (100 lb) Bulk Sample
B6	BS06	2	45 kg (100 lb) Bulk Sample
B7	BS07	2	45 kg (100 lb) Bulk Sample
B8	BS08	2	45 kg (100 lb) Bulk Sample
B9	BS09	2	45 kg (100 lb) Bulk Sample
B10	BS10	2	45 kg (100 lb) Bulk Sample

TABLE B-4. SAMPLES TO BE SHIPPED TO THE STATE LABORATORY (OR THEIR DESIGNEE) (Continued)

Sample Location	Sample Number	Lab Test Number[1]	Type of Sample
A1	JS01, JS02, JS03	3	Split-Spoon
A3	JS07, JS08, JS09	3	Split-Spoon
A4	JS10, JS11, JS12	3	Split-Spoon
A6	JS16, JS17, JS18	3	Split-Spoon
A7	JS19, JS20, JS21	3	Split-Spoon
A9	JS25, JS26, JS27	3	Split-Spoon
A10	JS28, JS29, JS30	3	Split-Spoon
A12	JS34, JS35, JS36	3	Split-Spoon
A13	JS37, JS38, JS39	3	Split-Spoon
A15	JS43, JS44, JS45	3	Split-Spoon
A16	JS46, JS47, JS48	3	Split-Spoon
A18	JS52, JS53, JS54	3	Split-Spoon
A19	JS55, JS56, JS57	3	Split-Spoon
A21	JS61, JS62, JS63	3	Split-Spoon
A22	JS64, JS65, JS66	3	Split-Spoon
A24	JS70, JS71, JS72	3	Split-Spoon
A25	JS73, JS74, JS75	3	Split-Spoon
A27	JS79, JS80, JS81	3	Split-Spoon
A28	JS82, JS83, JS84	3	Split-Spoon
A30	JS88, JS89, JS90	3	Split-Spoon

[1] **Lab Test Number**

1. Sample from approach end of section.
2. Sample from leave end of section.
3. Sample from within section.

TABLE B-5. SAMPLES TO BE SHIPPED TO THE FHWA-LTPP TESTING CONTRACTOR LABORATORY

Sample Location	Sample Number	Lab Test Number	Type of Sample
Asphalt Concrete Surface			
C5	CA05	1	102 mm (4 in.) Core
C6	CA06	1	102 mm (4 in.) Core
C7	CA07	1	102 mm (4 in.) Core
C8	CA08	1	102 mm (4 in.) Core
C15	CA15	1	102 mm (4 in.) Core
C21	CA21	2	102 mm (4 in.) Core
C23	CA23	1	102 mm (4 in.) Core
C24	CA24	1	102 mm (4 in.) Core
C25	CA25	1	102 mm (4 in.) Core
C26	CA26	1	102 mm (4 in.) Core
C29	CA29	1	102 mm (4 in.) Core
C30	CA30	1	102 mm (4 in.) Core
C31	CA31	1	102 mm (4 in.) Core
C32	CA32	1	102 mm (4 in.) Core
C35	CA35	1	102 mm (4 in.) Core
C36	CA36	1	102 mm (4 in.) Core
C37	CA37	1	102 mm (4 in.) Core
C38	CA38	1	102 mm (4 in.) Core
C41	CA41	1	102 mm (4 in.) Core
C42	CA42	1	102 mm (4 in.) Core
C43	CA43	1	102 mm (4 in.) Core
C44	CA44	1	102 mm (4 in.) Core
C57	CA57	2	102 mm (4 in.) Core
C63	CA63	1	102 mm (4 in.) Core

TABLE B-5. SAMPLES TO BE SHIPPED TO THE FHWA-LTPP TESTING CONTRACTOR LABORATORY (Continued)

Sample Location	Sample Number	Lab Test Number	Type of Sample
C64	CA64	1	102 mm (4 in.) Core
C65	CA65	1	102 mm (4 in.) Core
C66	CA66	1	102 mm (4 in.) Core
C73	CA73	1	102 mm (4 in.) Core
C75	CA75	2	102 mm (4 in.) Core
C76	CA76	2	102 mm (4 in.) Core
C77	CA77	2	102 mm (4 in.) Core
C78	CA78	2	102 mm (4 in.) Core
C83	CA83	1	102 mm (4 in.) Core
C85	CA85	2	102 mm (4 in.) Core
C86	CA86	2	102 mm (4 in.) Core
C87	CA87	2	102 mm (4 in.) Core
C88	CA88	2	102 mm (4 in.) Core
C93	CA93	1	102 mm (4 in.) Core
C94	CA94	1	102 mm (4 in.) Core
C95	CA95	1	102 mm (4 in.) Core
C96	CA96	1	102 mm (4 in.) Core
Asphalt Concrete Binder			
C5	CA105	1	102 mm (4 in.) Core
C6	CA106	1	102 mm (4 in.) Core
C7	CA107	1	102 mm (4 in.) Core
C8	CA108	1	102 mm (4 in.) Core
C15	CA115	1	102 mm (4 in.) Core
C21	CA121	2	102 mm (4 in.) Core
C23	CA123	1	102 mm (4 in.) Core

TABLE B-5. SAMPLES TO BE SHIPPED TO THE FHWA-LTPP TESTING CONTRACTOR LABORATORY (Continued)

Sample Location	Sample Number	Lab Test Number	Type of Sample
C24	CA124	1	102 mm (4 in.) Core
C25	CA125	1	102 mm (4 in.) Core
C26	CA126	1	102 mm (4 in.) Core
C29	CA129	1	102 mm (4 in.) Core
C30	CA130	1	102 mm (4 in.) Core
C31	CA131	1	102 mm (4 in.) Core
C32	CA132	1	102 mm (4 in.) Core
C35	CA135	1	102 mm (4 in.) Core
C36	CA136	1	102 mm (4 in.) Core
C37	CA137	1	102 mm (4 in.) Core
C38	CA138	1	102 mm (4 in.) Core
C41	CA141	1	102 mm (4 in.) Core
C42	CA142	1	102 mm (4 in.) Core
C43	CA143	1	102 mm (4 in.) Core
C44	CA144	1	102 mm (4 in.) Core
C57	CA157	2	102 mm (4 in.) Core
C63	CA163	1	102 mm (4 in.) Core
C64	CA164	1	102 mm (4 in.) Core
C65	CA165	1	102 mm (4 in.) Core
C66	CA166	1	102 mm (4 in.) Core
C73	CA173	1	102 mm (4 in.) Core
C75	CA175	2	102 mm (4 in.) Core
C76	CA176	2	102 mm (4 in.) Core
C77	CA177	2	102 mm (4 in.) Core
C78	CA178	2	102 mm (4 in.) Core

TABLE B-5. SAMPLES TO BE SHIPPED TO THE FHWA-LTPP TESTING CONTRACTOR LABORATORY (Continued)

Sample Location	Sample Number	Lab Test Number	Type of Sample
C83	CA183	1	102 mm (4 in.) Core
C85	CA185	2	102 mm (4 in.) Core
C86	CA186	2	102 mm (4 in.) Core
C87	CA187	2	102 mm (4 in.) Core
C88	CA188	2	102 mm (4 in.) Core
C93	CA193	1	102 mm (4 in.) Core
C94	CA194	1	102 mm (4 in.) Core
C95	CA195	1	102 mm (4 in.) Core
C96	CA196	1	102 mm (4 in.) Core
Asphalt Treated Base			
C63	CT63	1	102 mm (4 in.) Core
C64	CT64	1	102 mm (4 in.) Core
C65	CT65	1	102 mm (4 in.) Core
C66	CT66	1	102 mm (4 in.) Core
C73	CT73	1	102 mm (4 in.) Core
C75	CT75	2	102 mm (4 in.) Core
C76	CT76	2	102 mm (4 in.) Core
C77	CT77	2	102 mm (4 in.) Core
C78	CT78	2	102 mm (4 in.) Core
C83	CT83	1	102 mm (4 in.) Core
C85	CT85	2	102 mm (4 in.) Core
C86	CT96	2	102 mm (4 in.) Core
C87	CT87	2	102 mm (4 in.) Core
C88	CT88	2	102 mm (4 in.) Core
C93	CT93	1	102 mm (4 in.) Core

TABLE B-5. SAMPLES TO BE SHIPPED TO THE FHWA-LTPP TESTING CONTRACTOR LABORATORY (Continued)

Sample Location	Sample Number	Lab Test Number	Type of Sample
C94	CT94	1	102 mm (4 in.) Core
C95	CT95	1	102 mm (4 in.) Core
C96	CT96	1	102 mm (4 in.) Core
Dense-Graded Aggregate Base			
B11	BG11	2	136 kg (300 lb) Bulk Sample
B12	BG12	2	136 kg (300 lb) Bulk Sample
B13	BG13	2	136 kg (300 lb) Bulk Sample
B14	BG14	2	136 kg (300 lb) Bulk Sample
B15	BG15	2	136 kg (300 lb) Bulk Sample
B16	BG16	2	136 kg (300 lb) Bulk Sample
B17	BG17	2	136 kg (300 lb) Bulk Sample
B11	MG11	2	Moisture Content Jar Sample
B12	MG12	2	Moisture Content Jar Sample
B13	MG13	2	Moisture Content Jar Sample
B14	MG14	2	Moisture Content Jar Sample
B15	MG15	2	Moisture Content Jar Sample
B16	MG16	2	Moisture Content Jar Sample
B17	MG17	2	Moisture Content Jar Sample
Subgrade			
B1	BS01	2	136 kg (300 lb) Bulk Sample
B2	BS02	2	136 kg (300 lb) Bulk Sample
B3	BS03	2	136 kg (300 lb) Bulk Sample
B4	BS04	2	136 kg (300 lb) Bulk Sample
B5	BS05	2	136 kg (300 lb) Bulk Sample
B6	BS06	2	136 kg (300 lb) Bulk Sample

TABLE B-5. SAMPLES TO BE SHIPPED TO THE FHWA-LTPP TESTING CONTRACTOR LABORATORY (Continued)

Sample Location	Sample Number	Lab Test Number	Type of Sample
B7	BS07	2	136 kg (300 lb) Bulk Sample
B8	BS08	2	136 kg (300 lb) Bulk Sample
B9	BS09	2	136 kg (300 lb) Bulk Sample
B10	BS10	2	136 kg (300 lb) Bulk Sample
B1	MS01	2	Moisture Content Jar Sample
B2	MS02	2	Moisture Content Jar Sample
B3	MS03	2	Moisture Content Jar Sample
B4	MS04	2	Moisture Content Jar Sample
B5	MS05	2	Moisture Content Jar Sample
B6	MS06	2	Moisture Content Jar Sample
B7	MS07	2	Moisture Content Jar Sample
B8	MS08	2	Moisture Content Jar Sample
B9	MS09	2	Moisture Content Jar Sample
B10	MS10	2	Moisture Content Jar Sample

SECTION C

LABORATORY MATERIAL TESTING

SECTION C

LABORATORY MATERIAL TESTING

It is the intent of this section of the sampling and testing plan to provide an outline for the laboratory testing that is planned for the Texas SPS-1 project. The previous section ended with lists of samples to be shipped to each of two laboratories; the state designated laboratory and the FHWA/LTPP contracted laboratory. In this section, the tests to be performed on each sample are listed.

Table C-1 provides a reference project layer numbering scheme. It is important that the two laboratories reference the same layer by number to ensure meaningful results.

Table C-2 provides a listing of the tests to be performed for each material type and pavement layer, and the associated laboratory testing protocol. It is imperative that the protocols listed be strictly followed during testing.

Tables C-3 through C-7 provide tracking tables for the state designated laboratory for each material type. These tables itemize the testing to occur on each sample and provide an indication of whether the sample is to be disposed of. Tables C-8 through C-12 provide similar information for the FHWA/LTPP contracted laboratory.

TABLE C-1. PROJECT LAYER NUMBERING

Layer Nº.	LTPP Description	Texas Description
1	Subgrade	Subgrade
2	Dense Graded Aggregate Base (DGAB)	Flexible Base (Item 247) Type D, Grade 6, Mod.
3	Permeable Asphalt Treated Base (PATB)	Asphalt Stabilized Base (PATB) (Item 3099)
4	Dense Graded Asphalt Treated Base (ATB)	Asphalt Stabilized Base (Plant Mix) (Item 345) Grade 4
5	Hot Mix Asphalt Concrete Binder Course	Hot Mix Asphaltic Concrete Pavement (Item 3063)
6	Hot Mix Asphalt Concrete Surface Course	Hot Mix Asphaltic Concrete Pavement (Item 3063)

TABLE C-2. SAMPLES TO BE USED FOR LABORATORY MATERIALS TESTING

Material Type and Properties	LTPP Designation	LTPP Protocol	Minimum Nº. of Tests per Layer	Sampling Location	Test Conducted by: State	Test Conducted by: FHWA
SUBGRADE						
Sieve Analysis	SS01	P51	10	B1-B10		X
Hydrometer to 0.001 mm	SS02	P42	10	B1-B10		X
Atterberg Limits	SS03	P43	10	B1-B10		X
Classification	SS04	P52	10	B1-B10		X
(Visual-manual only on thin-wall tubes)			30	A1-A30	X	X
Moisture-Density Relations	SS05	P55	10	B1-B10		X
Resilient Modulus (If thin-wall tube is not available)	SS07	P46	10	A2,A5,A8,A11,A14,A17,A20, A23,A26,A29 (B1-B10)		X
Unit Weight (If thin-wall tube is not available, test is not conducted)	SS08	P56	10	A1,A4,A7,A10,A13,A16,A19, A22,A25,A28	X	
Natural Moisture Content	SS09	P49	10	B1-B10		X
Unconfined Comp. Strength (If thin-wall tube is not available, test is not conducted)	SS10	P54	10	A1,A4,A7,A10,A13,A16,A19, A22,A25,A28	X	
Permeability (Only if thin-wall tube is available)	SS11	P57	7	A3,A6,A12,A15,A21,A27,A30	X	
Permeability (Only if thin-wall tube is <u>not</u> available)	UG09	P48	10	B1-B10	X	
DENSE GRADED AGGREGATE BASE						
Particle Size Analysis	UG01	P41	7	B11-B17		X
Sieve Analysis (Washed)	UG02	P41	7	B11-B17		X
Atterberg Limits	UG04	P43	7	B11-B17		X
Moisture-Density Relations	UG05	P44	7	B11-B17		X
Resilient Modulus	UG07	P46	7	B11-B17		X
Classification	UG08	P47	7	B11-B17		X
Permeability	UG09	P48	7	B11-B17	X	
Natural Moisture Content	UG10	P49	7	B11-B17		X
PERMEABLE ASPHALT TREATED BASE						
Asphalt Content (Extraction)	AC04	P04	3	B18-B20 From Paver	X	
Extracted Aggregate: Gradation of Aggregate	AG04	P14	3	B18-B20 From Paver	X	

TABLE C-2. SAMPLES TO BE USED FOR LABORATORY MATERIALS TESTING (Continued)

Material Type and Properties	LTPP Designation	LTPP Protocol	Minimum Nº. of Tests per Layer	Sampling Location	Test Conducted by: State	FHWA
ASPHALT TREATED BASE						
Core Examination/Thickness	AC01	P01	36	C63-C98	X	X
Bulk Specific Gravity	AC02	P02	36	C63-C98	X	X
Maximum Specific Gravity	AC03	P03	3	B21-B23 From Paver	X	
Asphalt Content (Extraction)	AC04	P04	3	B21-B23 From Paver	X	
Moisture Susceptibility	AC05	P05	3	B21-B23 From Paver	X	
Resilient Modulus	AC07	P07	12	C63-C65,C75-C77,C85-C87, C93-C95		X
Tensile Strength	AC07	P07	16	C63-C66,C75-C78,C85-C88, C93-C96		X
Extracted Aggregate:						
Specific Gravity:						
Coarse Aggregate	AG01	P11	3	B21-B23 From Paver	X	
Fine Aggregate	AG02	P12	3	B21-B23 From Paver	X	
Gradation of Aggregate	AG04	P14	3	B21-B23 From Paver	X	
NAA Test for Fine Aggregate Particle Shape	AG05	P14A	3	B21-B23 From Paver	X	
Asphalt Cement:						
Abson Recovery	AE01	P21	3	B21-B23 From Paver	X	
Penetration at 25°C, 46°C (77°F, 115°F)	AE02	P22	3	B21-B23 From Paver	X	
Specific Gravity 16°C (60°F)	AE03	P23	3	B21-B23 From Paver	X	
Viscosity at 25°C (77°F)	AE04	P24	3	B21-B23 From Paver	X	
Viscosity at 60°C, 135°C (140°F, 275°F)	AE05	P25	3	B21-B23 From Paver	X	
Asphalt Cement (From Tanker or Plant):						
Penetration at 25°C, 46°C (77°F, 115°F)	AE02	P22	3	B24-B26 From Plant	X	
Specific Gravity 16°C (60°F)	AE03	P23	3	B24-B26 From Plant	X	
Viscosity at 25°C (77°F)	AE04	P24	3	B24-B26 From Plant	X	
Viscosity at 60°C, 135°C (140°F, 275°F)	AE05	P25	3	B24-B26 From Plant	X	

TABLE C-2. SAMPLES TO BE USED FOR LABORATORY MATERIALS TESTING (Continued)

Material Type and Properties	LTPP Designation	LTPP Protocol	Minimum Nº. of Tests per Layer	Sampling Location	Test Conducted by: State	Test Conducted by: FHWA
ASPHALTIC CONCRETE SURFACE AND BINDER						
Core Examination/Thickness	AC01	P01	98	C1-C98	X	X
Bulk Specific Gravity	AC02	P02	98	C1-C98	X	X
Maximum Specific Gravity	AC03	P03	6	B27-B29,B33-B35 From Paver	X	
Asphalt Content (Extraction)	AC04	P04	6	B27-B29,B33-B35 From Paver	X	
Moisture Susceptibility	AC05	P05	6	B27-B29,B33-B35 From Paver	X	
Creep Compliance	AC06	P06	5	C15,C21,C57,C73,C83		X
Resilient Modulus	AC07	P07	27	C5-C7,C23-C25,C29-C31, C35-C37,C41-C43,C63-C65, C75-C77,C85-C87,C93-C95		X
Tensile Strength	AC07	P07	36	C5-C8,C23-C26,C29-C32, C35-C38,C41-C44,C63-C66, C75-C78,C85-C88,C93-C96		X
Extracted Aggregate:						
Specific Gravity:						
Coarse Aggregate	AG01	P11	6	B25-B27,B33-B35 From Paver	X	
Fine Aggregate	AG02	P12	6	B25-B27,B33-B35 From Paver	X	
Gradation of Aggregate	AG04	P14	6	B25-B27,B33-B35 From Paver	X	
NAA Test for Fine Aggregate Particle Shape	AG05	P14A	6	B25-B27,B33-B35 From Paver	X	
Asphalt Cement:						
Abson Recovery	AE01	P21	6	B25-B27,B33-B35 From Paver	X	
Penetration at 25°C, 46°C (77°F, 115°F)	AE02	P22	6	B25-B27,B33-B35 From Paver	X	
Specific Gravity 16°C (60°F)	AE03	P23	6	B25-B27,B33-B35 From Paver	X	
Viscosity at 25°C (77°F)	AE04	P24	6	B25-B27,B33-B35 From Paver	X	
Viscosity at 60°C, 135°C (140°F, 275°F)	AE05	P25	6	B25-B27,B33-B35 From Paver	X	
Asphalt Cement: (From Tanker or Plant)						
Penetration at 25°C, 46°C (77°F, 115°F)	AE02	P22	6	B30-B32,B36-B38 From Plant	X	
Specific Gravity 16°C (60°F)	AE03	P23	6	B30-B32,B36-B38 From Plant	X	
Viscosity at 25°C (77°F)	AE04	P24	6	B30-B32,B36-B38 From Plant	X	
Viscosity at 60°C, 135°C (140°F, 275°F)	AE05	P25	6	B30-B32,B36-B38 From Plant	X	

TABLE C-3. TRACKING TABLE OF ASPHALTIC CONCRETE SURFACE TESTING IN THE STATE LABORATORY (OR THEIR DESIGNEE)

Sample Location	Sample Number	Lab Test Number	Steps Involved in Laboratory Handling and Testing Sequence						
			Required Laboratory Tests Per Layer				Extra Sample	Sample Storage[1]	Sample Disposed?[2]
			First	Second	Third	Fourth			
C1	CA01	1	AC01/P01	AC02/P02			Yes	(a)	No
C2	CA02	1	AC01/P01	AC02/P02			Yes	(a)	No
C3	CA03	2	AC01/P01	AC02/P02			Yes	(a)	No
C4	CA04	2	AC01/P01	AC02/P02			Yes	(a)	No
C9	CA09	2	AC01/P01	AC02/P02			Yes	(a)	No
C10	CA10	2	AC01/P01	AC02/P02			Yes	(a)	No
C11	CA11	1	AC01/P01	AC02/P02			Yes	(a)	No
C12	CA12	1	AC01/P01	AC02/P02			Yes	(a)	No
C13	CA13	2	AC01/P01	AC02/P02			Yes	(a)	No
C14	CA14	2	AC01/P01	AC02/P02			Yes	(a)	No
C16	CA16	1	AC01/P01	AC02/P02			Yes	(a)	No
C17	CA17	2	AC01/P01	AC02/P02			Yes	(a)	No
C18	CA18	2	AC01/P01	AC02/P02			Yes	(a)	No
C19	CA19	1	AC01/P01	AC02/P02			Yes	(a)	No
C20	CA20	1	AC01/P01	AC02/P02			Yes	(a)	No
C22	CA22	2	AC01/P01	AC02/P02			Yes	(a)	No
C27	CA27	2	AC01/P01	AC02/P02			Yes	(a)	No
C28	CA28	2	AC01/P01	AC02/P02			Yes	(a)	No
C33	CA33	2	AC01/P01	AC02/P02			Yes	(a)	No
C34	CA34	2	AC01/P01	AC02/P02			Yes	(a)	No
C39	CA39	2	AC01/P01	AC02/P02			Yes	(a)	No
C40	CA40	2	AC01/P01	AC02/P02			Yes	(a)	No
C45	CA45	2	AC01/P01	AC02/P02			Yes	(a)	No
C46	CA46	2	AC01/P01	AC02/P02			Yes	(a)	No
C47	CA47	1	AC01/P01	AC02/P02			Yes	(a)	No
C48	CA48	1	AC01/P01	AC02/P02			Yes	(a)	No
C49	CA49	2	AC01/P01	AC02/P02			Yes	(a)	No

TABLE C-3. TRACKING TABLE OF ASPHALTIC CONCRETE SURFACE TESTING IN THE STATE LABORATORY (OR THEIR DESIGNEE) (Continued)

Sample Location	Sample Number	Lab Test Number	Steps Involved in Laboratory Handling and Testing Sequence						
			Required Laboratory Tests Per Layer				Extra Sample	Sample Storage[1]	Sample Disposed?[2]
			First	Second	Third	Fourth			
C50	CA50	2	AC01/P01	AC02/P02			Yes	(a)	No
C51	CA51	1	AC01/P01	AC02/P02			Yes	(a)	No
C52	CA52	1	AC01/P01	AC02/P02			Yes	(a)	No
C53	CA53	2	AC01/P01	AC02/P02			Yes	(a)	No
C54	CA54	2	AC01/P01	AC02/P02			Yes	(a)	No
C55	CA55	1	AC01/P01	AC02/P02			Yes	(a)	No
C56	CA56	1	AC01/P01	AC02/P02			Yes	(a)	No
C58	CA58	2	AC01/P01	AC02/P02			Yes	(a)	No
C59	CA59	1	AC01/P01	AC02/P02			Yes	(a)	No
C60	CA60	1	AC01/P01	AC02/P02			Yes	(a)	No
C61	CA61	2	AC01/P01	AC02/P02			Yes	(a)	No
C62	CA62	2	AC01/P01	AC02/P02			Yes	(a)	No
C67	CA67	2	AC01/P01	AC02/P02			Yes	(a)	No
C68	CA68	2	AC01/P01	AC02/P02			Yes	(a)	No
C69	CA69	1	AC01/P01	AC02/P02			Yes	(a)	No
C70	CA70	1	AC01/P01	AC02/P02			Yes	(a)	No
C71	CA71	2	AC01/P01	AC02/P02			Yes	(a)	No
C72	CA72	2	AC01/P01	AC02/P02			Yes	(a)	No
C74	CA74	1	AC01/P01	AC02/P02			Yes	(a)	No
C79	CA79	1	AC01/P01	AC02/P02			Yes	(a)	No
C80	CA80	1	AC01/P01	AC02/P02			Yes	(a)	No
C81	CA81	2	AC01/P01	AC02/P02			Yes	(a)	No
C82	CA82	2	AC01/P01	AC02/P02			Yes	(a)	No
C84	CA84	1	AC01/P01	AC02/P02			Yes	(a)	No
C89	CA89	1	AC01/P01	AC02/P02			Yes	(a)	No

TABLE C-3. TRACKING TABLE OF ASPHALTIC CONCRETE SURFACE TESTING IN THE STATE LABORATORY (OR THEIR DESIGNEE) (Continued)

Sample Location	Sample Number	Lab Test Number	Steps Involved in Laboratory Handling and Testing Sequence						
			Required Laboratory Tests Per Layer				Extra Sample	Sample Storage[1]	Sample Disposed?[2]
			First	Second	Third	Fourth			
C90	CA90	1	AC01/P01	AC02/P02			Yes	(a)	No
C91	CA91	2	AC01/P01	AC02/P02			Yes	(a)	No
C92	CA92	2	AC01/P01	AC02/P02			Yes	(a)	No
C97	CA97	2	AC01/P01	AC02/P02			Yes	(a)	No
C98	CA98	2	AC01/P01	AC02/P02			Yes	(a)	No
B33	BA04	3	See Figure C.1				No	(a)	Yes
B34	BA05	3	See Figure C.1				No	(a)	Yes
B35	BA06	3	See Figure C.1				No	(a)	Yes
B36	BC07	3	AE02/P22	AE03/P23	AE04/P24	AE05/P25	No	(a)	Yes
B37	BC08	3	AE02/P22	AE03/P23	AE04/P24	AE05/P25	No	(a)	Yes
B38	BC09	3	AE02/P22	AE03/P23	AE04/P24	AE05/P25	No	(a)	Yes

Note: All of the core specimens noted herein shall be stored for possible future use. In the future, these specimens may be used to evaluate test procedures for the SUPERPAVE program.

[1] **Sample Storage**

a. Environmentally protected and controlled storeroom at 5-21°C (40-70°F).

b. Environmentally protected and controlled storeroom at 5-38°C (40-100°F).

c. Thin-walled tube samples of the subgrade that should be stored in a fully supported condition and at temperatures between 5°C (40°F) and 21°C (70°F) in an environmentally protected storeroom. They shall be stored on their ends and shall always be stored in a vertical position with respect to the longitudinal axis of the tube in the same orientation as that retrieved from the field.

[2] **Sample Disposal ?** - Indicates whether or not a sample can be disposed of after testing. Generally, all samples or portions of samples that are tested are saved until further notice.

TABLE C-4. TRACKING TABLE OF ASPHALTIC CONCRETE BINDER TESTING IN THE STATE LABORATORY (OR THEIR DESIGNEE)

Sample Location	Sample Number	Lab Test Number	Steps Involved in Laboratory Handling and Testing Sequence						
			Required Laboratory Tests Per Layer				Extra Sample	Sample Storage[1]	Sample Disposed?[2]
			First	Second	Third	Fourth			
C1	CA101	1	AC01/P01	AC02/P02			Yes	(a)	No
C2	CA102	1	AC01/P01	AC02/P02			Yes	(a)	No
C3	CA103	2	AC01/P01	AC02/P02			Yes	(a)	No
C4	CA104	2	AC01/P01	AC02/P02			Yes	(a)	No
C9	CA109	2	AC01/P01	AC02/P02			Yes	(a)	No
C10	CA110	2	AC01/P01	AC02/P02			Yes	(a)	No
C11	CA111	1	AC01/P01	AC02/P02			Yes	(a)	No
C12	CA112	1	AC01/P01	AC02/P02			Yes	(a)	No
C13	CA113	2	AC01/P01	AC02/P02			Yes	(a)	No
C14	CA114	2	AC01/P01	AC02/P02			Yes	(a)	No
C16	CA116	1	AC01/P01	AC02/P02			Yes	(a)	No
C17	CA117	2	AC01/P01	AC02/P02			Yes	(a)	No
C18	CA118	2	AC01/P01	AC02/P02			Yes	(a)	No
C19	CA119	1	AC01/P01	AC02/P02			Yes	(a)	No
C20	CA120	1	AC01/P01	AC02/P02			Yes	(a)	No
C22	CA122	2	AC01/P01	AC02/P02			Yes	(a)	No
C27	CA127	2	AC01/P01	AC02/P02			Yes	(a)	No
C28	CA128	2	AC01/P01	AC02/P02			Yes	(a)	No
C33	CA133	2	AC01/P01	AC02/P02			Yes	(a)	No
C34	CA134	2	AC01/P01	AC02/P02			Yes	(a)	No
C39	CA139	2	AC01/P01	AC02/P02			Yes	(a)	No
C40	CA140	2	AC01/P01	AC02/P02			Yes	(a)	No
C45	CA145	2	AC01/P01	AC02/P02			Yes	(a)	No
C46	CA146	2	AC01/P01	AC02/P02			Yes	(a)	No
CA47	CA147	1	AC01/P01	AC02/P02			Yes	(a)	No
CA48	CA148	1	AC01/P01	AC02/P02			Yes	(a)	No
CA49	CA149	2	AC01/P01	AC02/P02			Yes	(a)	No

TABLE C-4. TRACKING TABLE OF ASPHALTIC CONCRETE BINDER TESTING IN THE STATE LABORATORY (OR THEIR DESIGNEE) (Continued)

Sample Location	Sample Number	Lab Test Number	Steps Involved in Laboratory Handling and Testing Sequence						
			Required Laboratory Tests Per Layer				Extra Sample	Sample Storage[1]	Sample Disposed?[2]
			First	Second	Third	Fourth			
CA50	CA150	2	AC01/P01	AC02/P02			Yes	(a)	No
C51	CA151	1	AC01/P01	AC02/P02			Yes	(a)	No
C52	CA152	1	AC01/P01	AC02/P02			Yes	(a)	No
C53	CA153	2	AC01/P01	AC02/P02			Yes	(a)	No
C54	CA154	2	AC01/P01	AC02/P02			Yes	(a)	No
C55	CA155	1	AC01/P01	AC02/P02			Yes	(a)	No
C56	CA156	1	AC01/P01	AC02/P02			Yes	(a)	No
C58	CA158	2	AC01/P01	AC02/P02			Yes	(a)	No
C59	CA159	1	AC01/P01	AC02/P02			Yes	(a)	No
C60	CA160	1	AC01/P01	AC02/P02			Yes	(a)	No
C61	CA161	2	AC01/P01	AC02/P02			Yes	(a)	No
C62	CA162	2	AC01/P01	AC02/P02			Yes	(a)	No
C67	CA167	2	AC01/P01	AC02/P02			Yes	(a)	No
C68	CA168	2	AC01/P01	AC02/P02			Yes	(a)	No
C69	CA169	1	AC01/P01	AC02/P02			Yes	(a)	No
C70	CA170	1	AC01/P01	AC02/P02			Yes	(a)	No
C71	CA171	2	AC01/P01	AC02/P02			Yes	(a)	No
C72	CA172	2	AC01/P01	AC02/P02			Yes	(a)	No
C74	CA174	1	AC01/P01	AC02/P02			Yes	(a)	No
C79	CA179	1	AC01/P01	AC02/P02			Yes	(a)	No
C80	CA180	1	AC01/P01	AC02/P02			Yes	(a)	No
C81	CA181	2	AC01/P01	AC02/P02			Yes	(a)	No
C82	CA182	2	AC01/P01	AC02/P02			Yes	(a)	No
C84	CA184	1	AC01/P01	AC02/P02			Yes	(a)	No
C89	CA189	1	AC01/P01	AC02/P02			Yes	(a)	No

TABLE C-4. TRACKING TABLE OF ASPHALTIC CONCRETE BINDER TESTING IN THE STATE LABORATORY (OR THEIR DESIGNEE) (Continued)

Sample Location	Sample Number	Lab Test Number	Steps Involved in Laboratory Handling and Testing Sequence						
			Required Laboratory Tests Per Layer				Extra Sample	Sample Storage[1]	Sample Disposed?[2]
			First	Second	Third	Fourth			
C90	CA190	1	AC01/P01	AC02/P02			Yes	(a)	No
C91	CA191	2	AC01/P01	AC02/P02			Yes	(a)	No
C92	CA192	2	AC01/P01	AC02/P02			Yes	(a)	No
C97	CA197	2	AC01/P01	AC02/P02			Yes	(a)	No
C98	CA198	2	AC01/P01	AC02/P02			Yes	(a)	No
B27	BA01	3	See Figure C.1				No	(a)	Yes
B28	BA02	3	See Figure C.1				No	(a)	Yes
B29	BA03	3	See Figure C.1				No	(a)	Yes
B30	BC04	3	AE02/P22	AE03/P23	AE04/P24	AE05/P25	No	(a)	Yes
B31	BC05	3	AE02/P22	AE03/P23	AE04/P24	AE05/P25	No	(a)	Yes
B32	BC06	3	AE02/P22	AE03/P23	AE04/P24	AE05/P25	No	(a)	Yes

Note: All of the core specimens noted herein shall be stored for possible future use. In the future, these specimens may be used to evaluate test procedures for the SUPERPAVE program.

1 **Sample Storage**

a. Environmentally protected and controlled storeroom at 5-21°C (40-70°F).

b. Environmentally protected and controlled storeroom at 5-38°C (40-100°F).

c. Thin-walled tube samples of the subgrade that should be stored in a fully supported condition and at temperatures between 5°C (40°F) and 21°C (70°F) in an environmentally protected storeroom. They shall be stored on their ends and shall always be stored in a vertical position with respect to the longitudinal axis of the tube in the same orientation as that retrieved from the field.

2 **Sample Disposal ?** - Indicates whether or not a sample can be disposed of after testing. Generally, all samples or portions of samples that are tested are saved until further notice.

TABLE C-5. TRACKING TABLE OF ASPHALT TREATED BASE TESTING IN THE STATE LABORATORY (OR THEIR DESIGNEE)

Sample Location	Sample Number	Lab Test Number	Steps Involved in Laboratory Handling and Testing Sequence						
			Required Laboratory Tests Per Layer				Extra Sample	Sample Storage	Sample Disposed?
			First	Second	Third	Fourth			
C67	CT67	2	AC01/P01	AC02/P02			Yes	(a)	No
C68	CT68	2	AC01/P01	AC02/P02			Yes	(a)	No
C69	CT69	1	AC01/P01	AC02/P02			Yes	(a)	No
C70	CT70	1	AC01/P01	AC02/P02			Yes	(a)	No
C71	CT71	2	AC01/P01	AC02/P02			Yes	(a)	No
C72	CT72	2	AC01/P01	AC02/P02			Yes	(a)	No
C74	CT74	1	AC01/P01	AC02/P02			Yes	(a)	No
C79	CT79	1	AC01/P01	AC02/P02			Yes	(a)	No
C80	CT80	1	AC01/P01	AC02/P02			Yes	(a)	No
C81	CT81	2	AC01/P01	AC02/P02			Yes	(a)	No
C82	CT82	2	AC01/P01	AC02/P02			Yes	(a)	No
C84	CT84	1	AC01/P01	AC02/P02			Yes	(a)	No
C89	CT89	1	AC01/P01	AC02/P02			Yes	(a)	No
C90	CT90	1	AC01/P01	AC02/P02			Yes	(a)	No
C91	CT91	2	AC01/P01	AC02/P02			Yes	(a)	No
C92	CT92	2	AC01/P01	AC02/P02			Yes	(a)	No
C97	CT97	2	AC01/P01	AC02/P02			Yes	(a)	No
C98	CT98	2	AC01/P01	AC02/P02			Yes	(a)	No
B21	BT04	3	See Figure C.1				No	(a)	Yes
B22	BT05	3	See Figure C.1				No	(a)	Yes
B23	BT06	3	See Figure C.1				No	(a)	Yes
B24	BC01	3	AE02/P22	AE03/P23	AE04/P24	AE05/P25	No	(a)	Yes
B25	BC02	3	AE02/P22	AE03/P23	AE04/P24	AE05/P25	No	(a)	Yes
B26	BC03	3	AE02/P22	AE03/P23	AE04/P24	AE05/P25	No	(a)	Yes

TABLE C-6. TRACKING TABLE OF PERMEABLE ASPHALT TREATED BASE TESTING IN THE STATE LABORATORY (OR THEIR DESIGNEE)

Sample Location	Sample Number	Lab Test Number	Steps Involved in Laboratory Handling and Testing Sequence						
			Required Laboratory Tests Per Layer				Extra Sample	Sample Storage	Sample Disposed?
			First	Second	Third	Fourth			
B18	BT01	3	AC04/P04	AG04/P14			No	(a)	Yes
B19	BT02	3	AC04/P04	AG04/P14			No	(a)	Yes
B20	BT03	3	AC04/P04	AG04/P14			No	(a)	Yes

TABLE C-7. TRACKING TABLE OF DENSE GRADED AGGREGATE BASE TESTING IN THE STATE LABORATORY (OR THEIR DESIGNEE)

Sample Location	Sample Number	Lab Test Number	Steps Involved in Laboratory Handling and Testing Sequence						
			Required Laboratory Tests Per Layer				Extra Sample	Sample Storage	Sample Disposed?
			First	Second	Third	Fourth			
B14	BG14	2	UG09/P48				No	(b)	Yes
B15	BG15	2	UG09/P48				No	(b)	Yes
B17	BG17	2	UG09/P48				No	(b)	Yes

TABLE C-8. TRACKING TABLE OF SUBGRADE TESTING IN THE STATE LABORATORY (OR THEIR DESIGNEE)

Sample Location	Sample Number	Lab Test Number	Steps Involved in Laboratory Handling and Testing Sequence						
			Required Laboratory Tests Per Layer				Extra Sample	Sample Storage	Sample Disposed?
			First	Second	Third	Fourth			
B1	BS01	2	No testing - samples stored				Yes	(b)	No
B2	BS02	2	No testing - samples stored				Yes	(b)	No
B3	BS03	2	No testing - samples stored				Yes	(b)	No
B4	BS04	2	No testing - samples stored				Yes	(b)	No
B5	BS05	2	No testing - samples stored				Yes	(b)	No
B6	BS06	2	No testing - samples stored				Yes	(b)	No
B7	BS07	2	No testing - samples stored				Yes	(b)	No
B8	BS08	2	No testing - samples stored				Yes	(b)	No
B9	BS09	2	No testing - samples stored				Yes	(b)	No
B10	BS10	2	No testing - samples stored				Yes	(b)	No

TABLE C-9. TRACKING TABLE OF ASPHALTIC CONCRETE SURFACE TESTING IN THE FHWA-LTPP TESTING CONTRACTOR LABORATORY

Sample Location	Sample Number	Lab Test Number	Steps Involved in Laboratory Handling and Testing Sequence						
			Required Laboratory Tests Per Layer				Extra Sample	Sample Storage	Sample Disposed?
			First	Second	Third	Fourth			
C5	CA05	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C6	CA06	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C7	CA07	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C8	CA08	1	AC01/P01	AC02/P02		AC07/P07 (ITS)	No	(a)	Yes
C15	CA15	1	AC01/P01	AC02/P02	AC06/P06		No	(a)	Yes
C21	CA21	2	AC01/P01	AC02/P02	AC06/P06		No	(a)	Yes
C23	CA23	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C24	CA24	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C25	CA25	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C26	CA26	1	AC01/P01	AC02/P02		AC07/P07 (ITS)	No	(a)	Yes
C29	CA29	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C30	CA30	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C31	CA31	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C32	CA32	1	AC01/P01	AC02/P02		AC07/P07 (ITS)	No	(a)	Yes
C35	CA35	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C36	CA36	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C37	CA37	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C38	CA38	1	AC01/P01	AC02/P02		AC07/P07 (ITS)	No	(a)	Yes
C41	CA41	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C42	CA42	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C43	CA43	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C44	CA44	1	AC01/P01	AC02/P02		AC07/P07 (ITS)	No	(a)	Yes
C57	CA57	2	AC01/P01	AC02/P02	AC06/P06		No	(a)	Yes
C63	CA63	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C64	CA65	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C65	CA65	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes

TABLE C-9. TRACKING TABLE OF ASPHALTIC CONCRETE SURFACE TESTING IN THE FHWA-LTPP TESTING CONTRACTOR LABORATORY (Continued)

Sample Location	Sample Number	Lab Test Number	Steps Involved in Laboratory Handling and Testing Sequence						
			Required Laboratory Tests Per Layer				Extra Sample	Sample Storage	Sample Disposed?
			First	Second	Third	Fourth			
C66	CA66	1	AC01/P01	AC02/P02		AC07/P07 (ITS)	No	(a)	Yes
C73	CA73	1	AC01/P01	AC02/P02	AC06/P06		No	(a)	Yes
C75	CA75	2	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C76	CA76	2	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C77	CA77	2	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C78	CA78	2	AC01/P01	AC02/P02		AC07/P07 (ITS)	No	(a)	Yes
C83	CA83	1	AC01/P01	AC02/P02	AC06/P06		No	(a)	Yes
C85	CA85	2	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C86	CA86	2	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C87	CA87	2	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C88	CA88	2	AC01/P01	AC02/P02		AC07/P07 (ITS)	No	(a)	Yes
C93	CA93	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C94	CA94	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C95	CA95	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C96	CA96	1	AC01/P01	AC02/P02		AC07/P07 (ITS)	No	(a)	Yes

TABLE C-10. TRACKING TABLE OF ASPHALTIC CONCRETE BINDER TESTING IN THE FHWA-LTPP TESTING CONTRACTOR LABORATORY

Sample Location	Sample Number	Lab Test Number	Steps Involved in Laboratory Handling and Testing Sequence						
			Required Laboratory Tests Per Layer				Extra Sample	Sample Storage	Sample Disposed?
			First	Second	Third	Fourth			
C5	CA105	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C6	CA106	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C7	CA107	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C8	CA108	1	AC01/P01	AC02/P02		AC07/P07 (ITS)	No	(a)	Yes
C15	CA115	1	AC01/P01	AC02/P02	AC06/P06		No	(a)	Yes
C21	CA121	2	AC01/P01	AC02/P02	AC06/P06		No	(a)	Yes
C23	CA123	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C24	CA124	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C25	CA125	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C26	CA126	1	AC01/P01	AC02/P02		AC07/P07 (ITS)	No	(a)	Yes
C29	CA129	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C30	CA130	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C31	CA131	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C32	CA132	1	AC01/P01	AC02/P02		AC07/P07 (ITS)	No	(a)	Yes
C35	CA135	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C36	CA136	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C37	CA137	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C38	CA138	1	AC01/P01	AC02/P02		AC07/P07 (ITS)	No	(a)	Yes
C41	CA141	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C42	CA142	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C43	CA143	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C44	CA144	1	AC01/P01	AC02/P02		AC07/P07 (ITS)	No	(a)	Yes
C57	CA157	2	AC01/P01	AC02/P02	AC06/P06		No	(a)	Yes
C63	CA163	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C64	CA164	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C65	CA165	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes

TABLE C-10. TRACKING TABLE OF ASPHALTIC CONCRETE BINDER TESTING IN THE FHWA-LTPP TESTING CONTRACTOR LABORATORY (Continued)

Sample Location	Sample Number	Lab Test Number	Steps Involved in Laboratory Handling and Testing Sequence						
			Required Laboratory Tests Per Layer				Extra Sample	Sample Storage	Sample Disposed?
			First	Second	Third	Fourth			
C66	CA166	1	AC01/P01	AC02/P02		AC07/P07 (ITS)	No	(a)	Yes
C73	CA173	1	AC01/P01	AC02/P02	AC06/P06		No	(a)	Yes
C75	CA175	2	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C76	CA176	2	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C77	CA177	2	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C78	CA178	2	AC01/P01	AC02/P02		AC07/P07 (ITS)	No	(a)	Yes
C83	CA183	1	AC01/P01	AC02/P02	AC06/P06		No	(a)	Yes
C85	CA185	2	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C86	CA186	2	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C87	CA187	2	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C88	CA188	2	AC01/P01	AC02/P02		AC07/P07 (ITS)	No	(a)	Yes
C93	CA193	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C94	CA194	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C95	CA195	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C96	CA196	1	AC01/P01	AC02/P02		AC07/P07 (ITS)	No	(a)	Yes

TABLE C-11. TRACKING TABLE OF ASPHALT TREATED BASE TESTING IN THE FHWA-LTPP TESTING CONTRACTOR LABORATORY

Sample Location	Sample Number	Lab Test Number	Steps Involved in Laboratory Handling and Testing Sequence						
			Required Laboratory Tests Per Layer				Extra Sample	Sample Storage	Sample Disposed?
			First	Second	Third	Fourth			
C63	CT63	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C64	CT64	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C65	CT65	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C66	CT66	1	AC01/P01	AC02/P02		AC07/P07 (ITS)	No	(a)	Yes
C73	CT73	1	AC01/P01	AC02/P02			No	(a)	Yes
C75	CT75	2	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C76	CT76	2	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C77	CT77	2	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C78	CT78	2	AC01/P01	AC02/P02		AC07/P07 (ITS)	No	(a)	Yes
C83	CT83	1	AC01/P01	AC02/P02			No	(a)	Yes
C85	CT85	2	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C86	CT86	2	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C87	CT87	2	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C88	CT88	2	AC01/P01	AC02/P02		AC07/P07 (ITS)	No	(a)	Yes
C93	CT93	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C94	CT94	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C95	CT95	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
C96	CT96	1	AC01/P01	AC02/P02		AC07/P07 (ITS)	No	(a)	Yes

TABLE C-12. TRACKING TABLE OF PERMEABLE ASPHALT TREATED BASE TESTING IN THE FHWA-LTPP TESTING CONTRACTOR LABORATORY

Sample Location	Sample Number	Lab Test Number	Steps Involved in Laboratory Handling and Testing Sequence						
			Required Laboratory Tests Per Layer (4)				Extra Sample	Sample Storage	Sample Disposed?
			First	Second	Third	Fourth			

No permeable asphalt treated base testing will be conducted by the FWHA-LTPP Testing Contractor

TABLE C-13. TRACKING TABLE OF DENSE GRADED AGGREGATE BASE TESTING IN THE FHWA-LTPP TESTING CONTRACTOR LABORATORY

Sample Location	Sample No.	Lab Test No.	Steps Involved in Laboratory Handling and Testing Sequence								
			Required Laboratory Tests Per Layer						Extra Sample	Sample Storage	Sample Disposed ?
			First	Second	Third	Fourth	Fifth	Sixth			
B11	BG11	2	UG01/P41	UG02/P41	UG04/P43	UG08/P47	UG05/P44	UG07/P46	No	(b)	Yes
B12	BG12	2	UG01/P41	UG02/P41	UG04/P43	UG08/P47	UG05/P44	UG07/P46	No	(b)	Yes
B13	BG13	2	UG01/P41	UG02/P41	UG04/P43	UG08/P47	UG05/P44	UG07/P46	No	(b)	Yes
B14	BG14	2	UG01/P41	UG02/P41	UG04/P43	UG08/P47	UG05/P44	UG07/P46	No	(b)	Yes
B15	BG15	2	UG01/P41	UG02/P41	UG04/P43	UG08/P47	UG05/P44	UG07/P46	No	(b)	Yes
B16	BG16	2	UG01/P41	UG02/P41	UG04/P43	UG08/P47	UG05/P44	UG07/P46	No	(b)	Yes
B17	BG17	2	UG01/P41	UG02/P41	UG04/P43	UG08/P47	UG05/P44	UG07/P46	No	(b)	Yes
B11	MG11	2	UG10/P49						No	(b)	Yes
B12	MG12	2	UG10/P49						No	(b)	Yes
B13	MG13	2	UG10/P49						No	(b)	Yes
B14	MG14	2	UG10/P49						No	(b)	Yes
B15	MG15	2	UG10/P49						No	(b)	Yes
B16	MG16	2	UG10/P49						No	(b)	Yes
B17	MG17	2	UG10/P46						No	(b)	Yes

TABLE C-14. TRACKING TABLE OF SUBGRADE TESTING IN THE FHWA-LTPP TESTING CONTRACTOR LABORATORY

Sample Location	Sample No.	Lab Test No.	Steps Involved in Laboratory Handling and Testing Sequence								
			Required Laboratory Tests Per Layer						Extra Sample	Sample Storage	Sample Disposed ?
			First	Second	Third	Fourth	Fifth	Sixth			
B1	BS01	2	SS01/P51	SS02/P42	SS03/P43	SS04/P52	SS05/P55	SS07/P46*	No	(b)	Yes
B2	BS02	2	SS01/P51	SS02/P42	SS03/P43	SS04/P52	SS05/P55	SS07/P46*	No	(b)	Yes
B3	BS03	2	SS01/P51	SS02/P42	SS03/P43	SS04/P52	SS05/P55	SS07/P46*	No	(b)	Yes
B4	BS04	2	SS01/P51	SS02/P42	SS03/P43	SS04/P52	SS05/P55	SS07/P46*	No	(b)	Yes
B5	BS05	2	SS01/P51	SS02/P42	SS03/P43	SS04/P52	SS05/P55	SS07/P46*	No	(b)	Yes
B6	BS06	2	SS01/P51	SS02/P42	SS03/P43	SS04/P52	SS05/P55	SS07/P46*	No	(b)	Yes
B7	BS07	2	SS01/P51	SS02/P42	SS03/P43	SS04/P52	SS05/P55	SS07/P46*	No	(b)	Yes
B8	BS08	2	SS01/P51	SS02/P42	SS03/P43	SS04/P52	SS05/P55	SS07/P46*	No	(b)	Yes
B9	BS09	2	SS01/P51	SS02/P42	SS03/P43	SS04/P52	SS05/P55	SS07/P46*	No	(b)	Yes
B10	BS10	2	SS01/P51	SS02/P42	SS03/P43	SS04/P52	SS05/P55	SS07/P46*	No	(b)	Yes
B1	MS01	2	SS09/P49						No	(b)	Yes
B2	MS02	2	SS09/P49						No	(b)	Yes
B3	MS03	2	SS09/P49						No	(b)	Yes
B4	MS04	2	SS09/P49						No	(b)	Yes
B5	MS05	2	SS09/P49						No	(b)	Yes
B6	MS06	2	SS09/P49						No	(b)	Yes
B7	MS07	2	SS09/P49						No	(b)	Yes
B8	MS08	2	SS09/P49						No	(b)	Yes
B9	MS09	2	SS09/P49						No	(b)	Yes
B10	MS10	2	SS09/P49						No	(b)	Yes

* **Note:** SS07/P46 testing for bulk subgrade samples only required when tube samples are not available or suitable for testing.

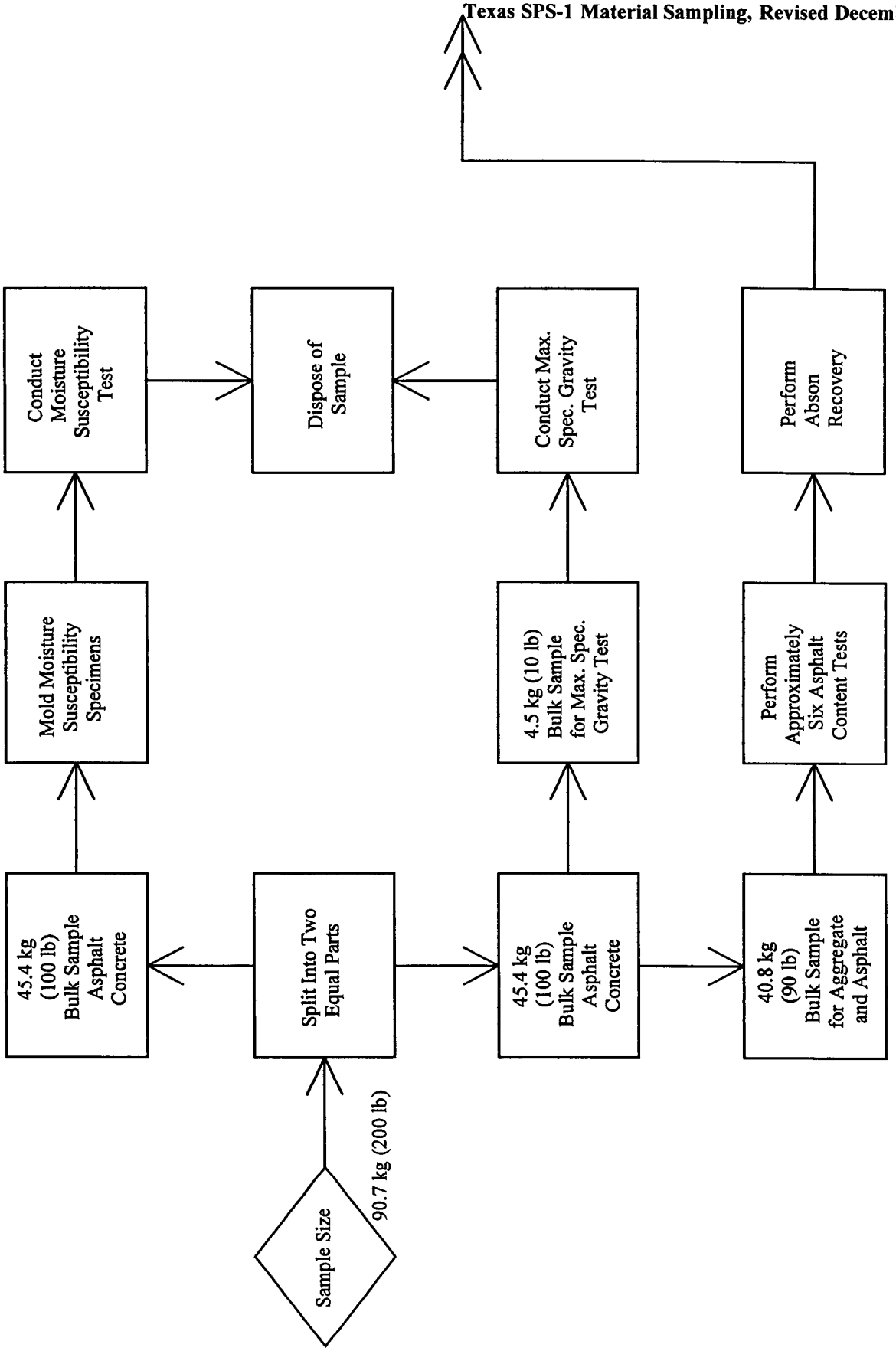


FIGURE C-1. FLOWCHART FOR ASPHALT CONCRETE BULK SAMPLES

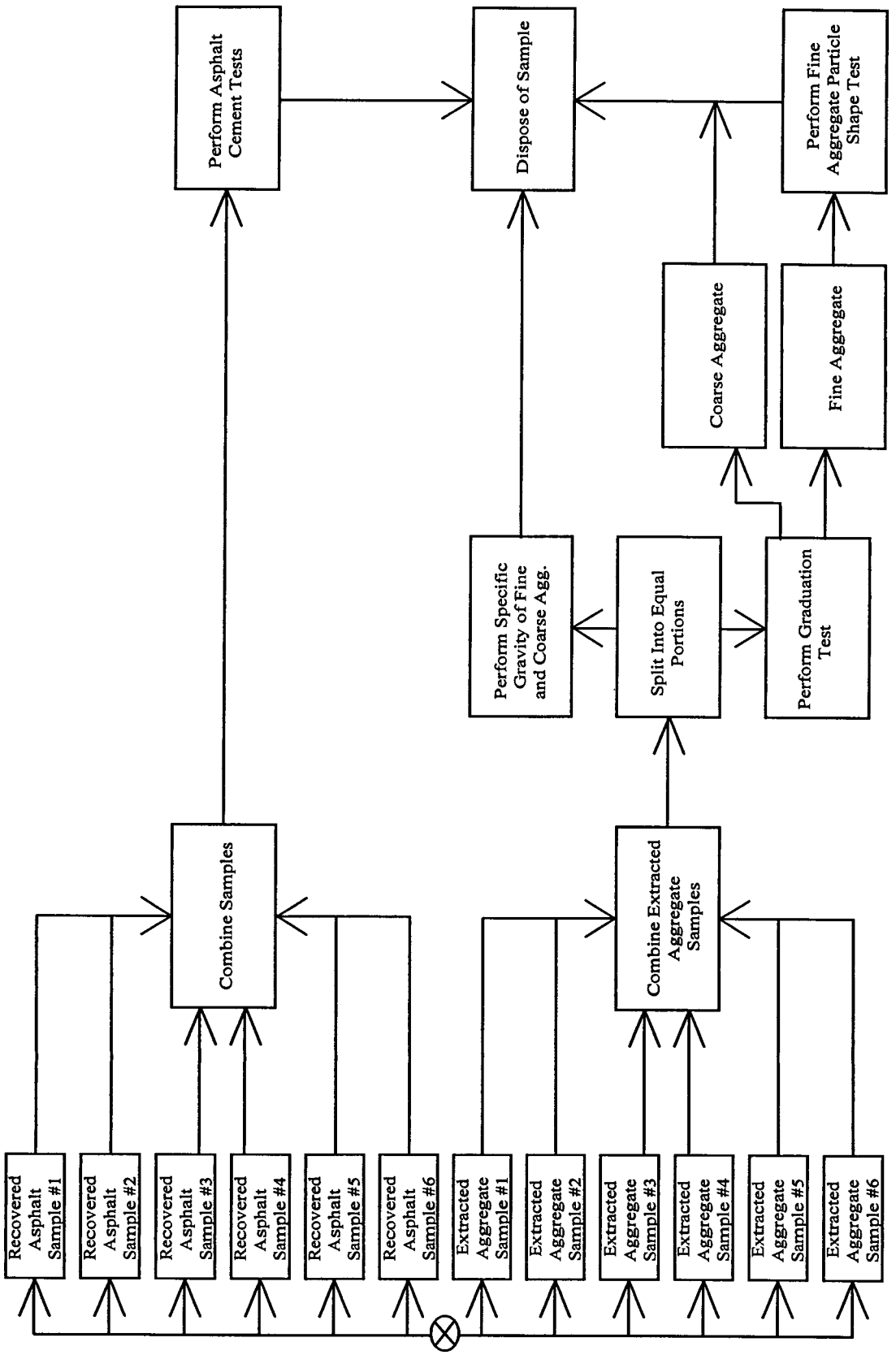


FIGURE C-1. FLOWCHART FOR ASPHALT CONCRETE BULK SAMPLES (Continued)

APPENDIX D

CONSTRUCTION DATA

SPS-1 CONSTRUCTION DATA SHEET 1 PROJECT IDENTIFICATION	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [00]

*1.	DATE OF DATA COLLECTION OR UPDATE (Month/Year)	[04/97]
*2.	STATE HIGHWAY AGENCY (SHA) DISTRICT NUMBER	[21.]
*3.	COUNTY OR PARISH HIDALGO	[215.]
4.	FUNCTIONAL CLASS (SEE TABLE A.2, APPENDIX A)	[02.]
*5.	ROUTE SIGNING (NUMERIC CODE) Interstate... 1 U.S.... 2 State... 3 Other... 4	[2.]
*6.	ROUTE NUMBER	[__281.]
7.	TYPE OF PAVEMENT (01 for Granular Base, 02 for Treated Base)	[__.]
8.	NUMBER OF THROUGH LANES (ONE DIRECTION)	[2.]
*9.	DATE OF CONSTRUCTION COMPLETION (Month/Year)	[04/97]
*10.	DATE OPENED TO TRAFFIC (Month/Year)	[04/97]
11.	CONSTRUCTION COSTS PER LANE MILE (In $1000)	[_____.]
12.	DIRECTION OF TRAVEL East Bound... 1 West Bound... 2 North Bound . 3 South Bound... 4	[4.]
	PROJECT STARTING POINT LOCATION	
*13.	MILEPOINT	[_____]
*14.	ELEVATION	[___84]
*15.	LATITUDE	[26° 44' 14.7 _"]
*16.	LONGITUDE	[098° 06' 27.6 _"]
17.	ADDITIONAL LOCATION INFORMATION (SIGNIFICANT LANDMARKS)	[_____]
18.	HPMS SAMPLE NUMBER (HPMS ITEM 28)	[_____]
19.	HPMS SECTION SUBDIVISION (HPMS ITEM 29)	[_.]

PREPARER Brent Dill EMPLOYER BRE DATE 10/15/97

SPS-1 CONSTRUCTION DATA SHEET 3 REFERENCE PROJECT STATION TABLE	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [xx]

ORDER	*1 TEST SECTION ID NO	REFERENCE PROJECT STATION NUMBER		*4 CUT-FILL[1]	
		*2 START	*3 END	TYPE	STATION
1	48Φ115	0+00	5+00	3	+
2	48Φ116	8+00	13+00	3	+
3	48Φ124	16+00	21+00	3	+
4	48Φ123	24+00	29+00	3	+
5	48Φ122	37+00	42+00	3	+
6	48Φ117	45+00	50+00	3	+
7	48Φ118	53+00	58+00	3	+
8	48Φ113	61+00	66+00	3	+
9	48Φ165	69+00	74+00	3	+
10	48Φ164	77+00	82+00	3	+
11	48Φ167	89+00	94+00	3	+
12	48Φ114	97+00	102+00	3	+
13	48Φ121	105+00	110+00	3	+
14	48Φ120	113+00	118+00	3	+
15	48Φ119	121+00	126+00	3	+
16	48Φ163	129+00	134+00	3	+
17	48Φ162	137+00	142+00	3	+
18	48Φ161	151+00	156+00	3	+
19	48Φ160	159+00	164+00	3	+
20	48Φ166	167+00	172+00	3	+

*5 INTERSECTIONS BETWEEN TEST SECTION ON THE PROJECT		RAMPS		|---INTERSECTION---|		
ROUTE	PROJECT STATION NO.	EXIT	ENT	STOP	SIGNAL	UNSIG
	+__					
	+__					
	+__					

Note 1. Indicate the type of subgrade section the test section is located on:
Cut.... 1 Fill..... 2 At-Grade..... 3 Cut and Fill..... 4
If cut-fill transition is located in a test section, enter test section station of the cut-fill transition location.

PREPARER Dane C. Dell EMPLOYER - BRE DATE 4/14/97

HMAC SURFACE December 1991

SPS-1 CONSTRUCTION DATA SHEET 5 PLANT-MIXED ASPHALT BOUND LAYERS AGGREGATE PROPERTIES	* STATE CODE [48] * SPS PROJECT CODE [8] * TEST SECTION NO. [ ]

*1. LAYER NUMBER (FROM SHEET 4) HMAC SURFACE MIX TYPE D, ITEM 3063.002 [ ]

	COMPOSITION OF COARSE AGGREGATE	TYPE	PERCENT
*2.	Crushed Stone... 1 Gravel... 2 Crushed Gravel... 3 UPPER VALLEY (GR4 35% & GR6 30%)	[3]	[100.]
*3.	Crushed Slag... 4 Manufactured Lightweight... 5	[ ]	[.]
*4.	Other (Specify)... 6 _____	[ ]	[.]
	COMPOSITION OF FINE AGGREGATE	TYPE	PERCENT
*5.	Natural Sand... 1 BIN 5 (EIELO SAND) 15%	[2]	[57.]
*6.	Crushed or Manufactured Sand (From Crushed Gravel or INCASA (LIMESTONE SCREENINGS) 20%	[1]	[43.]
*7.	Stone... 2 Recycled Concrete... 3 Other (Specify)... 4 _____	[ ]	[.]

*8. TYPE OF MINERAL FILLER [2]
Stone Dust... 1 Hydrated Lime... 2 Portland Cement... 3
Fly Ash... 4
Other (Specify)... 5 _____

BULK SPECIFIC GRAVITIES:

*9. Coarse Aggregate (AASHTO T85 or ASTM C127) $\frac{(2.626)0.35+(2.597)0.3}{0.65}$ [2.613]

*10. Fine Aggregate (AASHTO T84 or ASTM C128) $(2.655)0.2+(2.601)0.15$ [2.632]

*11. Mineral Filler (AASHTO T100 or ASTM D854) [.]

*12. Aggregate Combination (Calculated) [2.619]

13. Effective Specific Gravity of Aggregate Combination (Calculated) [2.602]

AGGREGATE DURABILITY TEST RESULTS
(SEE DURABILITY TEST TYPE CODES, TABLE A.13)

	TYPE OF AGGREGATE		TYPE OF TEST	RESULTS
14.	Coarse	DECANTATION	[ ]	[0.1]
15.	Coarse	MAG SULF SOUNDNESS	[03]	[23.0]
16.	Coarse	LA ABRASION	[04]	[26.0]
17.	Coarse and Fine - Combined		[ ]	[.]

18. POLISH VALUE OF COARSE AGGREGATES
SURFACE LAYER ONLY (AASHTO T279, ASTM D3319) 30.

PREPARER Brad Dell EMPLOYER BRE DATE 8/8/97

SPS-1 CONSTRUCTION DATA SHEET 6 PLANT-MIXED ASPHALT BOUND LAYERS ASPHALT CEMENT PROPERTIES	* STATE CODE [48] * SPS PROJECT CODE [02] * TEST SECTION NO. [__]

*1. LAYER NUMBER (FROM SHEET 4) [__]

*2. ASPHALT GRADE (SEE ASPHALT CODE SHEET, TABLE A.16) AC-20 [04]
(IF OTHER, SPECIFY) _____

*3. SOURCE (SEE SUPPLY CODE SHEET, TABLE A.14) [77]
(IF OTHER, SPECIFY) TEXAS FULL & ASPHALT

4. SPECIFIC GRAVITY OF ASPHALT CEMENT (AASHTO T228) [1.020]

GENERAL ASPHALT CEMENT PROPERTIES (If available from supplier)

5. VISCOSITY OF ASPHALT AT 140°F (POISES) (AASHTO T202) [_ _ _ _ _ _.]

6. VISCOSITY OF ASPHALT AT 275°F (CENTISTOKES) (AASHTO T202) [_ _ _ _._ _]

7. PENETRATION AT 77°F (AASHTO T49) (TENTHS OF A MM) (100 g., 5 sec.) [_ _ _ _.]

ASPHALT MODIFIERS (SEE TYPE CODE, A.15)

		TYPE	QUANTITY (%)
8.	MODIFIER #1	[_ _]	[_ _.]
9.	MODIFIER #2 (IF OTHER, SPECIFY) _____	[_ _]	[_ _.]

10. DUCTILITY AT 77°F (CM) (AASHTO T51) [_ _ _.]

11. DUCTILITY AT 39.2°F (CM) (AASHTO T51) [_ _ _.]

12. TEST RATE FOR DUCTILITY MEASUREMENT AT 39.2°f (CM/MIN) [_ _ _.]

13. PENETRATION AT 39.2°F (AASHTO T49) (TENTHS OF A MM) (200 g., 60 sec.) [_ _ _.]

14. RING AND BALL SOFTENING POINT (AASHTO T53) (°F) [_ _ _.]

NOTE: If emulsified or cutback asphalt was used, enter "N" in the spaces for "Original Asphalt Cement Properties".

PREPARER Robert F Dill EMPLOYER BRE DATE 8/8/97

SPS-1 CONSTRUCTION DATA SHEET 7 PLANT-MIXED ASPHALT BOUND LAYERS MIXTURE PROPERTIES	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [__ __]

*1. LAYER NUMBER (FROM SHEET 4) TYP D, SURFACE [__]

*2. TYPE OF SAMPLES [1]
SAMPLES COMPACTED IN LABORATORY... 1
SAMPLES TAKEN FROM TEST SECTION... 2

*3. MAXIMUM SPECIFIC GRAVITY (NO AIR VOIDS) [2.436]
(AASHTO T209 OR ASTM D2041)

BULK SPECIFIC GRAVITY (ASTM D1188)

*4. MEAN [2.338] NUMBER OF TESTS [__ __.]

5. MINIMUM [__.__ __ __] MAXIMUM [__.__ __ __]

6. STD. DEV. [__.__ __ __]

ASPHALT CONTENT (PERCENT WEIGHT OF TOTAL MIX)
(AASHTO T164 OR ASTM D2172)

*7. MEAN [4.4 __ __] NUMBER OF SAMPLES [__ __.]

8. MINIMUM [__.__ __ __] MAXIMUM [__.__ __ __]

9. STD. DEV. [__.__ __ __]

PERCENT AIR VOIDS

*10. MEAN [4.0 __ __] NUMBER OF SAMPLES [__ __.]

11. MINIMUM [__.__ __ __] MAXIMUM [__.__ __ __]

12. STD. DEV. [__.__ __ __]

*13. VOIDS IN MINERAL AGGREGATE (PERCENT) [14.1]

*14. EFFECTIVE ASPHALT CONTENT (PERCENT) [__ __.__]

*15. MARSHALL STABILITY (LBS) (AASHTO T245 OR ASTM D1559) [__ __ __.__]

*16. NUMBER OF BLOWS [__ __]

*17. MARSHALL FLOW (HUNDREDTHS OF AN INCH) [__ __ __ __.]
(AASHTO T245 OR ASTM D1559)

*18. HVEEM STABILITY (AASHTO T246 OR ASTM D1561) [__ __ __.]

*19. HVEEM COHESIOMETER VALUE (GRAMS/25 MM OF WIDTH) [__ __ __ __.]
(AASHTO T246 OR ASTM 1561)

PREPARER Robert T. Dill EMPLOYER BRE DATE 8/8/97

SPS-1 CONSTRUCTION DATA SHEET 8 PLANT-MIXED ASPHALT BOUND LAYERS MIXTURE PROPERTIES (CONTINUED)	* STATE CODE [4 8] * SPS PROJECT CODE [0 1] * TEST SECTION NO. [__ __]

*1. LAYER NUMBER (FROM SHEET 4) [__]

*2. TYPE OF SAMPLES [1]
SAMPLES COMPACTED IN LABORATORY... 1
SAMPLES TAKEN FROM TEST SECTION... 2

*3. TYPE ASPHALT PLANT [2]

BATCH PLANT... 1 DRUM MIX PLANT... 2

OTHER (SPECIFY)... 3 _____

*4. TYPE OF ANTISTRIPPING AGENT USED [1 7]
(SEE TYPE CODES, TABLE A.21)
OTHER (SPECIFY) _____

*5. AMOUNT OF ANTISTRIPPING AGENT USED LIQUID OR SOLID CODE [2]

*6. (If liquid, enter code 1, and amount as percent of asphalt cement weight. If solid, enter code 2 and amount as percent of aggregate weight.) [__ 1.0]

PREPARER [signature] EMPLOYER BRE DATE 8/8/97

7-H 113

Rec'd 3-97
NO AC
NO Lime

Combined Gradation

District	21	CSJ #	0255-06-047	Producer	Frontera Materials
County	Hidalgo	Design #	FMI-97-281d	Spec Item	3063 002
Highway.	281-North	Contractor	Foremost Paving	Type Mix	Type "D"

	Gravel Gr. 4 Upper Valley		Gravel Gr. 6 Upper Valley		Limestone Screenings Incasa		Field Sand Big 5		Source 5 Aggr. Num 5 Lab Num 5		Source 6 Aggr. Num 6 Lab Num 6		Total % 100 0			
Sieve Size	Bin #1 35 0	Total %	Bin #2 30 0	Total %	Bin #3 20 0	Total %	Bin #4 15 0	Total %	Bin #5 0.0	Total %	Bin #6 0 0	Total %	Cumultive Pass	TxDOT Specs.	Individ Ret	Cumul Ret
7/8"	100 0	35 0	100 0	30.0	100 0	20 0	100 0	15 0	100 0	0 0	100.0	0 0	100 0	100 - 100	0 0	0 0
5/8"	100 0	35 0	100 0	30 0	100 0	20 0	100 0	15 0	100 0	0 0	100 0	0 0	100 0	100 - 100	0 0	0 0
1/2"	100 0	35 0	100 0	30 0	100 0	20 0	100 0	15 0	100 0	0 0	100.0	0 0	100 0	100 - 100	0.0	0 0
3/8"	78 5	27 5	100 0	30 0	100 0	20 0	100.0	15 0	100 0	0 0	100 0	0 0	92 5	85 - 100	7 5	7 5
#4	5 7	2 0	80 0	24 0	100 0	20 0	100 0	15 0	100 0	0 0	100 0	0 0	61 0	50 - 70	31 5	39 0
#10	1 0	0 4	10 0	3 0	91 4	18 3	100 0	15 0	100 0	0 0	100 0	0 0	36 7	32 - 42	24 3	63 3
#40	0 3	0 1	1.5	0 5	34 9	7 0	99 3	14 9	100 0	0 0	100.0	0 0	22 5	11 - 26	14 2	77 5
#80	0 3	0 1	1 0	0 3	21.4	4 3	27.0	4 1	100 0	0 0	100 0	0 0	8 8	4 - 14	13 7	91 2
#200	0 2	0 1	0 6	0 2	15 3	3 1	4 0	0 6	100 0	0 0	100 0	0.0	4 0	1 - 6	4 8	96 0
Pan															4 0	100 0

Asphalt Content of RAP in Bin # 1(If Applicable) = %

Asphalt Source & Grade Texas Fuel & Asphalt (AC-20)

NOTES: 1% Lime

English	1 1/2"	1 1/4"	1"	7/8"	5/8"	1/2"	3/8"	1/4 "	#4	#10	#40	#80	#200
Metric	37 5 mm	31 5 mm	25 0 mm	22 4 mm	16 0 mm	12 5 mm	9 5 mm	6 3 mm	4 75 mm	2 0 mm	0 425 mm	0 180 mm	0 075 mm

Level 2 Technician [signature] Tx DOT Certification #

281-N-D WK4 Ver 1 0 Rev 08-01-96 12 13 PM 03/03/97

BULK GRA' ES

District	21	CSJ #.	0255-06-047	Producer	Frontera Materials
County	Hidalgo	Design #:	FMI-97-281d	Spec Item.	3063 002
Highway:	281-North	Contractor:	Foremost Paving	Type Mix	Type "D"

Sieve Size Pass	Ret	Gravel Gr 4 Upper Valley Bin #1 35 0 %	Bulk Gravity	Gravel Gr 6 Upper Valley Bin #2 30 0 %	Bulk Gravity	Limestone Screenings Incasa Bin #3 20 0 %	Bulk Gravity	Field Sand Big 5 Bin #4 15.0 %	Bulk Gravity	Source 5 Aggr. Num 5 Lab Num 5 Bin #5 0 0 %	Bulk Gravity	Source 6 Aggr Num 6 Lab Num 6 Bin #6 0.0 %	Bulk Gravity
7/8"	- 5/8"	0 0	0 000	0 0	0 000	0 0	0 000	0 0	0.000	0 0	0 000	0 0	0 000
5/8"	- 1/2"	0 0	0 000	0 0	0 000	0 0	0.000	0 0	0.000	0 0	0 000	0 0	0 000
1/2"	- 3/8"	21 5	2.626	0 0	0.000	0 0	0.000	0 0	0 000	0 0	0 000	0 0	0 000
3/8"	- #4	72 8	2.626	20 0	2 597	0 0	0 000	0 0	0 000	0 0	0 000	0 0	0 000
#4	- #10	4 7	2 626	70 0	2 597	8 6	2.674	0 0	0.000	0 0	0 000	0 0	0 000
#10	- #40	0 7	2.626	8.5	2.597	56 5	2 674	0.7	2.601	0 0	0 000	0 0	0 000
#40	- #80	0 0	2.626	0 5	2 597	13 5	2.620	72.3	2 601	0.0	0 000	0 0	0 000
#80		0 3	2.626	1.0	2 597	21 4	2.620	27.0	2 601	100 0	0.000	100 0	0 000
Total=		100 0		100.0		100 0		100.0		100.0		100 0	
		Bulk Grav =	2.626	Bulk Grav.=	2.597	Bulk Grav.=	2 655	Bulk Grav.=	2 601	Bulk Grav =	0 000	Bulk Grav.=	0 000

D.9

Combined Bulk Specific Gravity = 2.619

Specific Gravity of Asphalt = 1.020

Material Properti

District:	21	CSJ #:	0255-06-047	Producer:	Frontera Materials
County:	Hidalgo	Design #:	FMI-97-281d	Spec.Item:	3063.002
Highway:	281-North	Contractor:	Foremost Paving	Type Mix:	Type "D"

Stockpile

	TxDOT Test #	TxDOT Specification		Gravel Gr. 4 Upper Valley	Gravel Gr. 6 Upper Valley	Limestone Screenings Incasa	Field Sand Big 5	Source 5 Aggr. Num 5 Lab Num 5	Source 6 Aggr. Num 6 Lab Num 6
Decantation	Tex-217-F	1.5	Max	0.1	0.1				
Deleterious Material	Tex-217-F	1.5	Max	0.1	0.1				
Polish Value	Tex-438-A		Min	30	30				
Magnesium Sulfate Soundness	Tex-411-A	30	Max	23	23				
Los Angeles Abrasion	Tex-410-A	40	Max	26	26				
Crushed Face Count	Tex-460-A	85	Min	99	99				
Flakiness Index	Tex-224-F		Max						

Fine Aggregate

				Test Result
Linear Shrinkage	Tex-107-E	3	Max	1

Combined Aggregate

				Test Result
Sand Equivalent	Tex-203-F	45	Min	49

Total Mixture

	TxDOT Test #	TxDOT Specification		Test Result
Tensile Strength Ratio	Tex-531-C	0.70	Min	
Boiling Test	Tex-530-C		Max	
Draindown	Tex-535-C	0.30	Max	

SUMMARY

District:	21	CSJ #:	0255-06-047	Producer:	Frontera Materials
County:	Hidalgo	Design #:	FMI-97-281d	Spec.Item:	3063.002
Highway:	281-North	Contractor:	Foremost Paving	Type Mix:	Type "D"

								Static Creep Test		
Asphalt Content %	Sp.Grav. of Specimen Ga	Maximum Sp.Grav. Gr	Effective Gravity Ge	Theoretical Max. Sp. Gr Gt	Density (From Gt) %	VMA %	Hveem Stability %	Creep Stiffness (Psi)	Permanent Strain x 1,000 (In./In.)	Slope of SS Curve x 100,000,000 (In./In./Sec.)
3.5	2.320	2.480	2.616	2.468	94.0	14.0				
4.0	2.325	2.459	2.613	2.450	94.9	14.2				
4.5	2.341	2.435	2.605	2.432	96.3	14.1				
5.0	2.348	2.408	2.594	2.414	97.3	14.2				
5.5	2.363	2.380	2.580	2.397	98.6	14.2				
Interpolated values at optimum density of:				96.0 %		14.1				

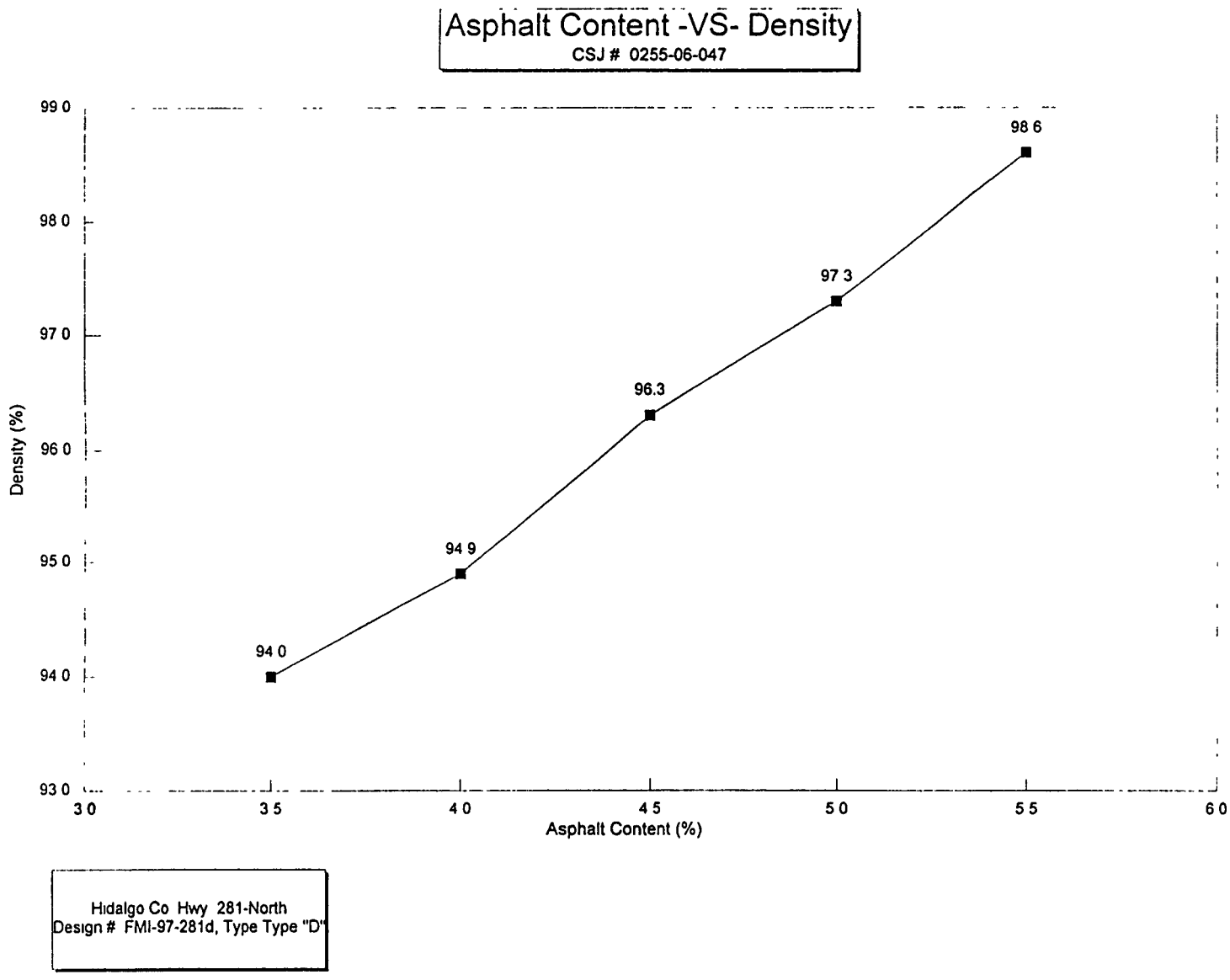
Effective Spec. Gr. (Ge)= 2.602

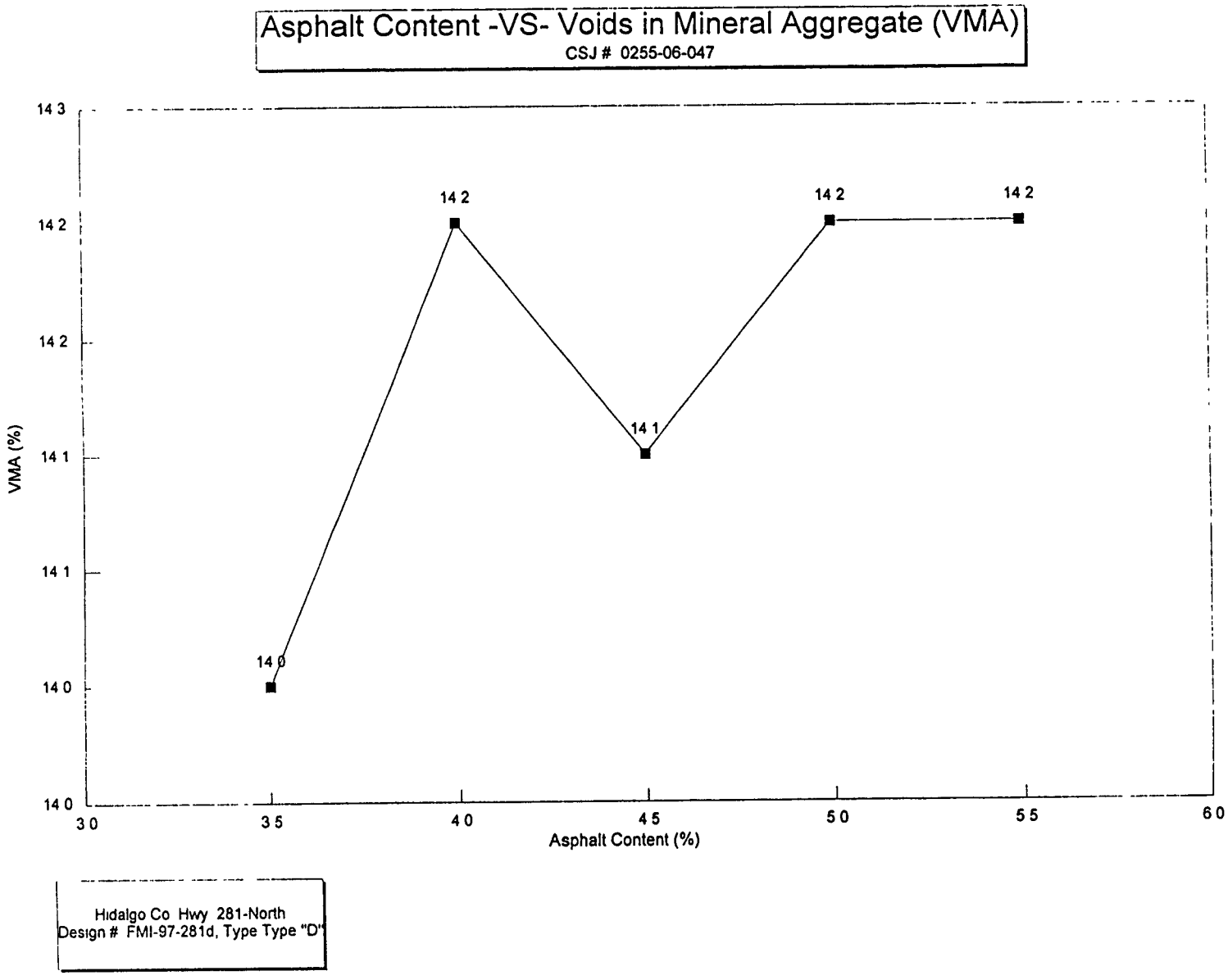
Optimum Asphalt Content = 4.4 %

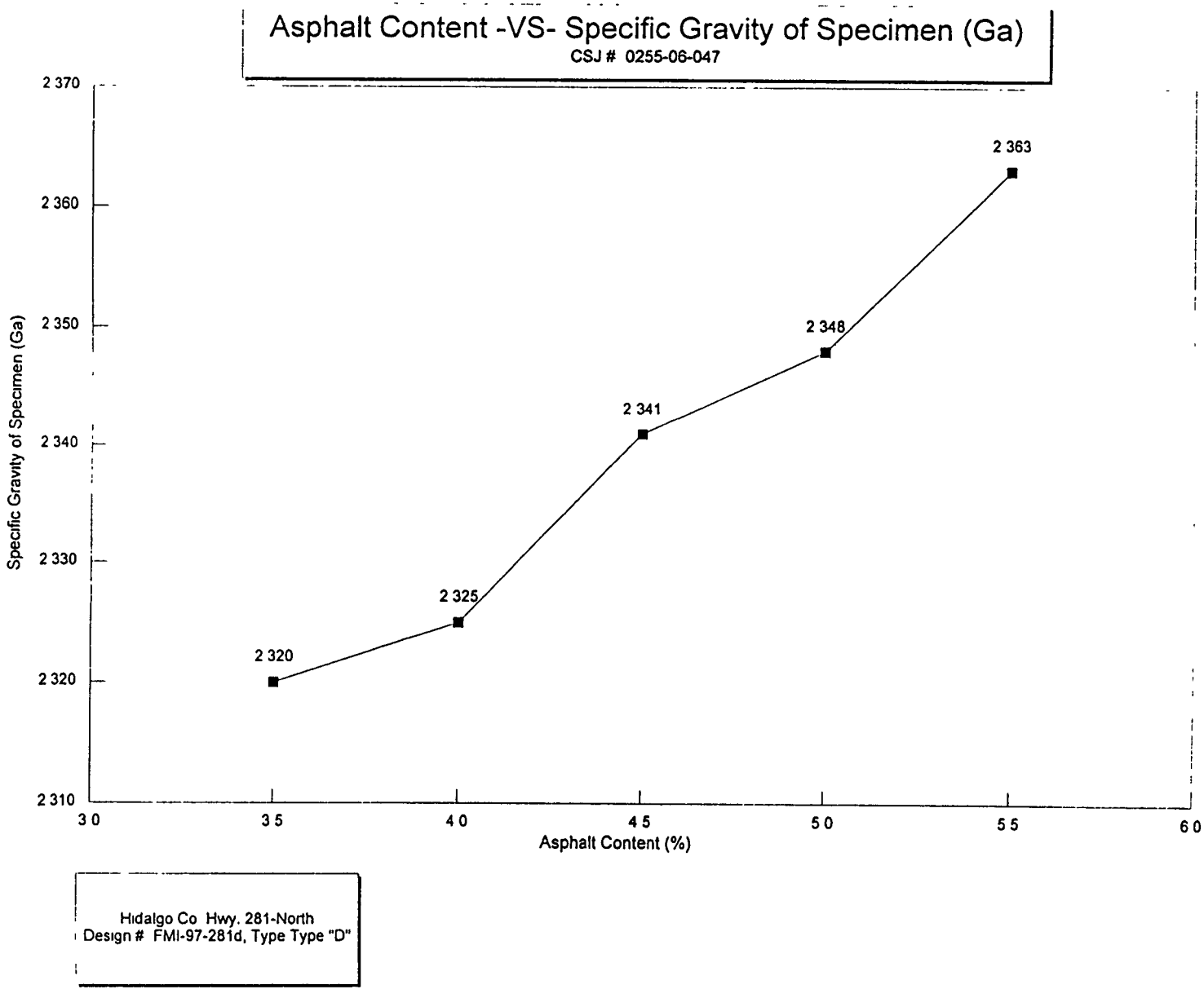
VMA @ Optimum Asphalt Content = **14**

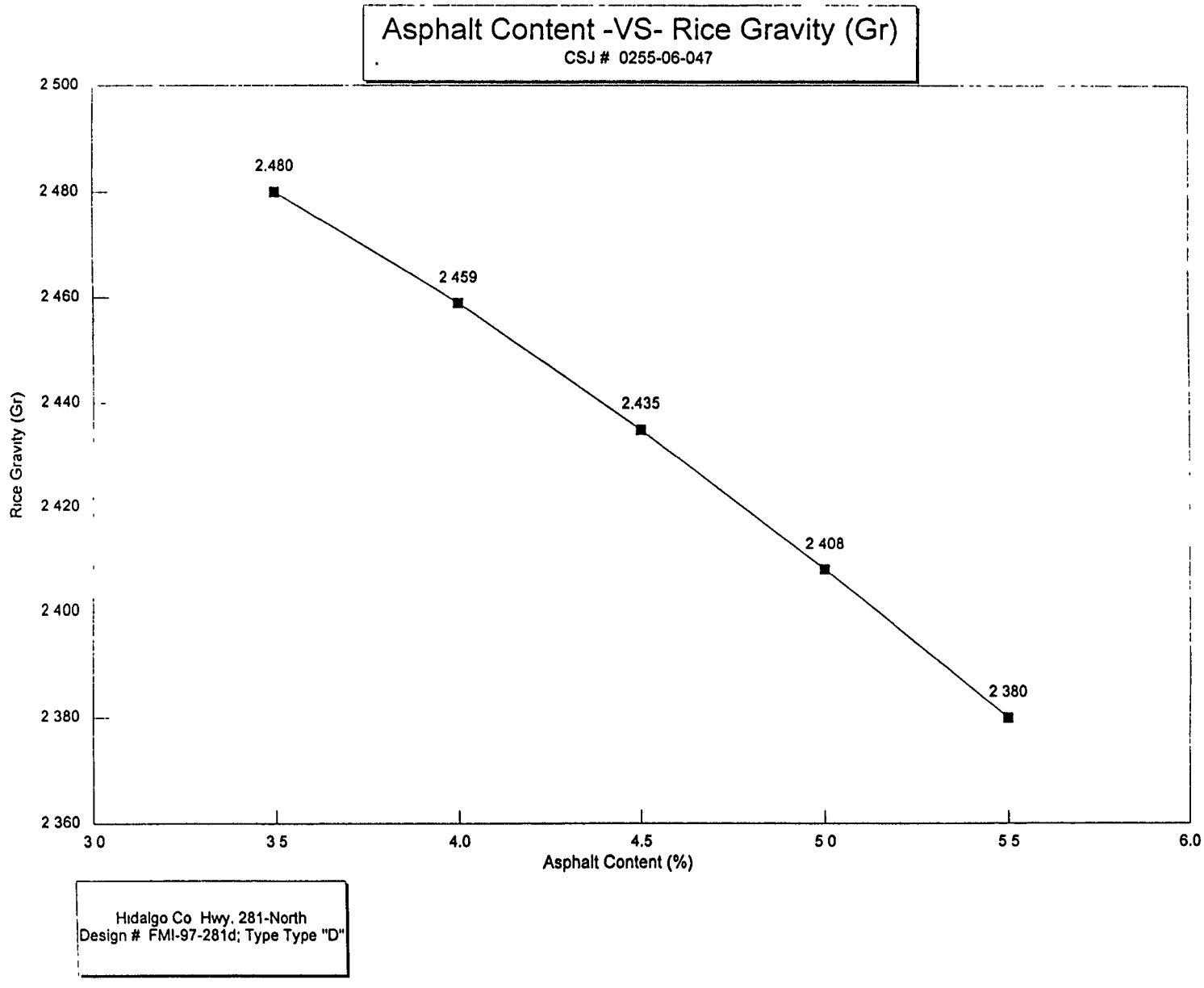
Interpolated Values

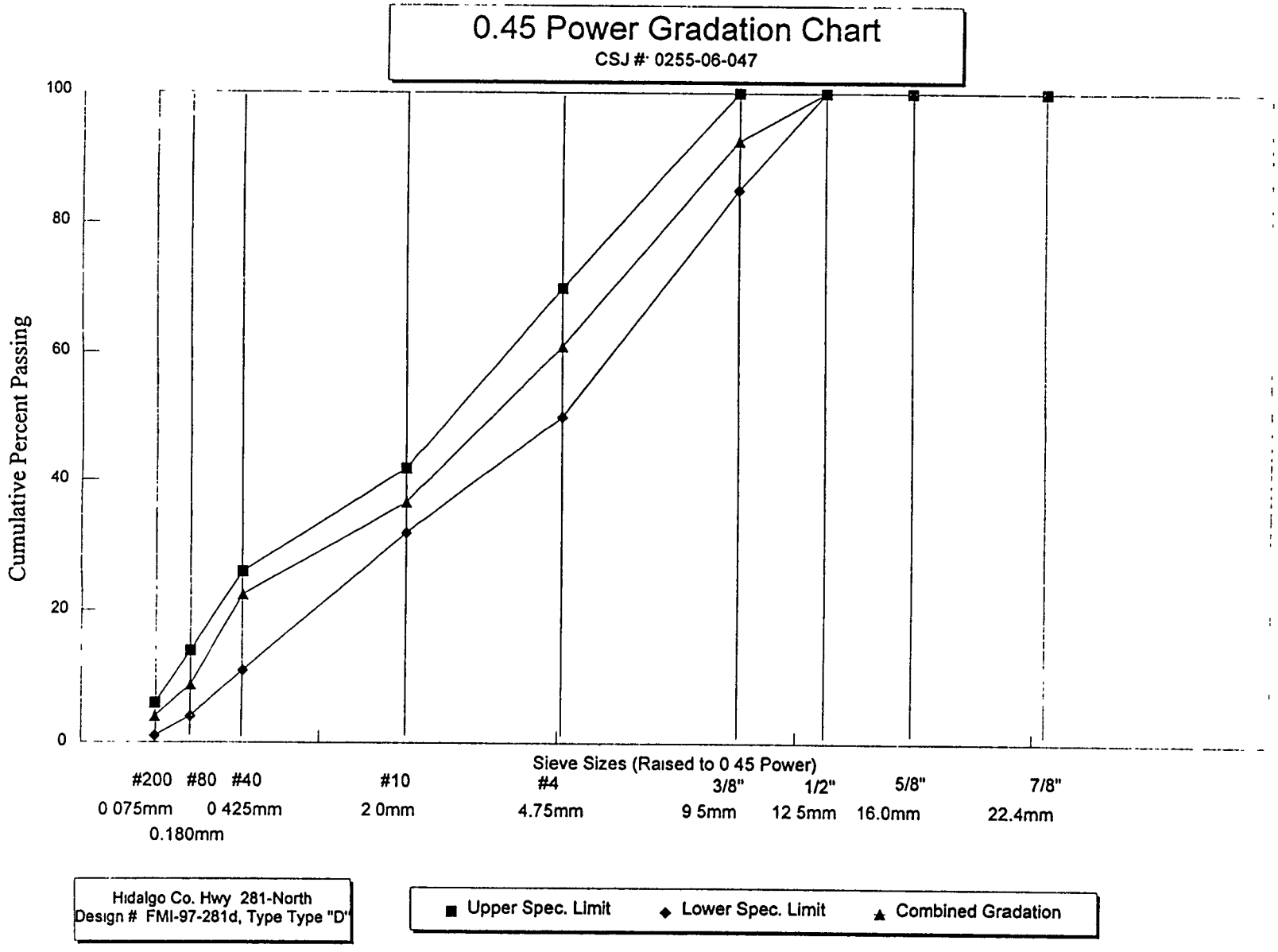
Ga @ Optimum Asphalt Content =	2.338
Gr @ Optimum Asphalt Content =	2.440
Gt @ Optimum Asphalt Content =	2.436


Asphalt Content -VS- Density
CSJ # 0255-06-047
99 0
98 0
97 0
96 0
95 0
94 0
93 0
Density (%)
98 6
97 3
96.3
94 9
94 0
30
35
40
45
50
55
60
Asphalt Content (%)
Hidalgo Co Hwy 281-North
Design # FMI-97-281d, Type Type "D"


Asphalt Content -VS- Voids in Mineral Aggregate (VMA)
CSJ # 0255-06-047
VMA (%)
14 3
14 2
14 2
14 1
14 1
14 0
14 0
14 2
14 2
14 2
14 1
14 0
30
35
40
45
50
55
60
Asphalt Content (%)
Hidalgo Co Hwy 281-North
Design # FMI-97-281d, Type Type "D"

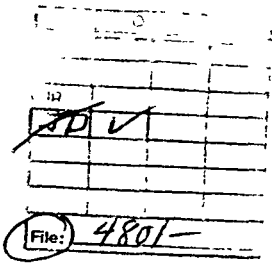

Asphalt Content -VS- Specific Gravity of Specimen (Ga)
CSJ # 0255-06-047
Specific Gravity of Specimen (Ga)
2 370
2 360
2 350
2 340
2 330
2 320
2 310
2 320
2 325
2 341
2 348
2 363
30
35
40
45
50
55
60
Asphalt Content (%)
Hidalgo Co Hwy. 281-North
Design # FMI-97-281d, Type Type "D"


Asphalt Content -VS- Rice Gravity (Gr)
CSJ # 0255-06-047
2 500
2 480
2 460
2 440
2 420
2 400
2 380
2 360
Rice Gravity (Gr)
2.480
2 459
2.435
2 408
2 380
3 0
3 5
4.0
4.5
5 0
5 5
6.0
Asphalt Content (%)
Hidalgo Co Hwy. 281-North
Design # FMI-97-281d; Type Type "D"


0.45 Power Gradation Chart
CSJ #: 0255-06-047
Cumulative Percent Passing
100
80
60
40
20
0
Sieve Sizes (Raised to 0 45 Power)
#200
0 075mm
0.180mm
#80
#40
0 425mm
#10
2 0mm
#4
4.75mm
3/8"
9 5mm
1/2"
12 5mm
5/8"
16.0mm
7/8"
22.4mm
Hidalgo Co. Hwy 281-North
Design # FMI-97-281d, Type Type "D"
Upper Spec. Limit
Lower Spec. Limit
Combined Gradation

Texas Department of Transportation

P.O. DRAWER EE • PHARR, TEXAS 78577-1231 • (210) 702-6100



March 17, 1997

Mr. Jerry Daleiden, P.E.
Brent Rauhut Engineering, Inc.
8240 MoPac, Suite 220
Austin TX 78759

Dear Jerry,

As per your request I have enclosed a copy of the mix designs for Types B and D ACP, Asphalt Stabilized Base, and Permeable Asphalt Treated Base being used on the US 281 SPS-1 project, CSJ 0255-06-047.

Should you have questions or need more information, please call me at (210) 702-6163.

Sincerely,

John De la Garza, P.E.
District Pavement Engineer

An Equal Opportunity Employer

HMAC BINDER

December 1991

SPS-1 CONSTRUCTION DATA SHEET 5 PLANT-MIXED ASPHALT BOUND LAYERS AGGREGATE PROPERTIES	* STATE CODE [48] * SPS PROJECT CODE [8 L] * TEST SECTION NO. [__ __]

*1. LAYER NUMBER (FROM SHEET 4) HMAC BINDER MIX TYP B, ITEM 3063 [__]

		TYPE	PERCENT
	COMPOSITION OF COARSE AGGREGATE		
*2.	Crushed Stone... 1 Gravel... 2 Crushed Gravel... 3 UPPER VALLEY (GR2 25% & GR 4 35%)	[3]	[100.]
*3.	Crushed Slag... 4 Manufactured Lightweight... 5	[__]	[___.]
*4.	Other (Specify)... 6 _____	[__]	[___.]
	COMPOSITION OF FINE AGGREGATE	TYPE	PERCENT
*5.	Natural Sand... 1 CHAPA (FIELD SAND) 15%	[2]	[63.]
*6.	Crushed or Manufactured Sand (From Crushed Gravel or INCASA (LIMESTONE SCREENINGS) 25%	[1]	[37.]
*7.	Stone... 2 Recycled Concrete... 3 Other (Specify)... 4 _____	[__]	[___.]

*8. TYPE OF MINERAL FILLER [2]
Stone Dust... 1 Hydrated Lime... 2 Portland Cement... 3
Fly Ash... 4
Other (Specify)... 5 _____

BULK SPECIFIC GRAVITIES:

*9. Coarse Aggregate (AASHTO T85 or ASTM C127) $\frac{(2.626)0.25+(2.597)0.35}{0.6}$ [2.609]

*10. Fine Aggregate (AASHTO T84 or ASTM C128) $\frac{(2.628)0.25+(2.573)0.15}{0.4}$ [2.607]

*11. Mineral Filler (AASHTO T100 or ASTM D854) [_.___]

*12. Aggregate Combination (Calculated) [2.608]

13. Effective Specific Gravity of Aggregate Combination (Calculated) [_.___]

AGGREGATE DURABILITY TEST RESULTS
(SEE DURABILITY TEST TYPE CODES, TABLE A.13)

	TYPE OF AGGREGATE		TYPE OF TEST	RESULTS
14.	Coarse	DECANTATION	[__]	[__0.6__]
15.	Coarse	MTA SULF SOUNDNESS	[03]	[__23.0__]
16.	Coarse	LA ABRASION	[04]	[__26.0__]
17.	Coarse and Fine - Combined		[__]	[___.___]

18. POLISH VALUE OF COARSE AGGREGATES
SURFACE LAYER ONLY (AASHTO T279, ASTM D3319) 30.

PREPARER [signature] EMPLOYER BRE DATE 8/8/97

SPS-1 CONSTRUCTION DATA SHEET 6 PLANT-MIXED ASPHALT BOUND LAYERS ASPHALT CEMENT PROPERTIES	* STATE CODE [48] * SPS PROJECT CODE [02] * TEST SECTION NO. [__]

*1. LAYER NUMBER (FROM SHEET 4) [__]

*2. ASPHALT GRADE (SEE ASPHALT CODE SHEET, TABLE A.16) AC-20 [04]
(IF OTHER, SPECIFY) _____

*3. SOURCE (SEE SUPPLY CODE SHEET, TABLE A.14) [77]
(IF OTHER, SPECIFY) TEXAS FUEL & ASPHALT - TFA

4. SPECIFIC GRAVITY OF ASPHALT CEMENT [1.020]
(AASHTO T228)

GENERAL ASPHALT CEMENT PROPERTIES (If available from supplier)

5. VISCOSITY OF ASPHALT AT 140°F (POISES)
(AASHTO T202) [_ _ _ _ _ _.]

6. VISCOSITY OF ASPHALT AT 275°F (CENTISTOKES)
(AASHTO T202) [_ _ _ _._ _]

7. PENETRATION AT 77°F (AASHTO T49) (TENTHS OF A MM)
(100 g., 5 sec.) [_ _ _ _.]

ASPHALT MODIFIERS (SEE TYPE CODE, A.15)

		TYPE	QUANTITY (%)
8.	MODIFIER #1	[__]	[__.]
9.	MODIFIER #2 (IF OTHER, SPECIFY) _____	[__]	[__.]

10. DUCTILITY AT 77°F (CM)
(AASHTO T51) [_ _ _.]

11. DUCTILITY AT 39.2°F (CM)
(AASHTO T51) [_ _ _.]

12. TEST RATE FOR DUCTILITY MEASUREMENT
AT 39.2°f (CM/MIN) [_ _ _.]

13. PENETRATION AT 39.2°F (AASHTO T49) (TENTHS OF A MM)
(200 g., 60 sec.) [_ _ _.]

14. RING AND BALL SOFTENING POINT (AASHTO T53) (°F) [_ _ _.]

NOTE: If emulsified or cutback asphalt was used, enter "N" in the spaces for "Original Asphalt Cement Properties".

PREPARER [signature] EMPLOYER BRE DATE 8/8/97

SPS-1 CONSTRUCTION DATA SHEET 7 PLANT-MIXED ASPHALT BOUND LAYERS MIXTURE PROPERTIES	* STATE CODE [48] * SPS PROJECT CODE [021] * TEST SECTION NO. [__ __]

*1. LAYER NUMBER (FROM SHEET 4) [__]

*2. TYPE OF SAMPLES [1]
SAMPLES COMPACTED IN LABORATORY... 1
SAMPLES TAKEN FROM TEST SECTION... 2

*3. MAXIMUM SPECIFIC GRAVITY (NO AIR VOIDS) [2.466]
(AASHTO T209 OR ASTM D2041)

BULK SPECIFIC GRAVITY (ASTM D1188)

*4. MEAN [2.365] NUMBER OF TESTS [__ __.]

5. MINIMUM [__.__ __ __] MAXIMUM [__.__ __ __]

6. STD. DEV. [__.__ __ __]

ASPHALT CONTENT (PERCENT WEIGHT OF TOTAL MIX)
(AASHTO T164 OR ASTM D2172)

*7. MEAN [4.0 __ __] NUMBER OF SAMPLES [__ __.]

8. MINIMUM [__.__ __ __] MAXIMUM [__.__ __ __]

9. STD. DEV. [__.__ __ __]

PERCENT AIR VOIDS

*10. MEAN [4.1 __ __] NUMBER OF SAMPLES [__ __.]

11. MINIMUM [__.__ __ __] MAXIMUM [__.__ __ __]

12. STD. DEV. [__.__ __ __]

*13. VOIDS IN MINERAL AGGREGATE (PERCENT) [13.0]

*14. EFFECTIVE ASPHALT CONTENT (PERCENT) [__ __.__]

*15. MARSHALL STABILITY (LBS) (AASHTO T245 OR ASTM D1559) [__ __ __.__]

*16. NUMBER OF BLOWS [__ __]

*17. MARSHALL FLOW (HUNDREDTHS OF AN INCH) [__ __ __ __.]
(AASHTO T245 OR ASTM D1559)

*18. HVEEM STABILITY (AASHTO T246 OR ASTM D1561) [__ __ __.]

*19. HVEEM COHESIOMETER VALUE (GRAMS/25 MM OF WIDTH) [__ __ __ __.]
(AASHTO T246 OR ASTM 1561)

PREPARER Brent Dill EMPLOYER BRE DATE 8/8/97

SPS-1 CONSTRUCTION DATA SHEET 8 PLANT-MIXED ASPHALT BOUND LAYERS MIXTURE PROPERTIES (CONTINUED)	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [__]

*1. LAYER NUMBER (FROM SHEET 4) [__]

*2. TYPE OF SAMPLES [1]
SAMPLES COMPACTED IN LABORATORY... 1
SAMPLES TAKEN FROM TEST SECTION... 2

*3. TYPE ASPHALT PLANT [2]

BATCH PLANT... 1 DRUM MIX PLANT... 2

OTHER (SPECIFY)... 3 _____

*4. TYPE OF ANTISTRIPPING AGENT USED [17]
(SEE TYPE CODES, TABLE A.21)
OTHER (SPECIFY) _____

*5. AMOUNT OF ANTISTRIPPING AGENT USED LIQUID OR SOLID CODE [2]

*6. (If liquid, enter code 1, and amount as percent of asphalt cement weight. If solid, enter code 2 and amount as percent of aggregate weight.) [__ 1.0]

PREPARER [signature] EMPLOYER BRE DATE 8/8/97

96 H 803

Project Location:	**Hidalgo Co., US 281**		Hot Mix Quantity:	**B**	**16,404 Tons**
Project Number:	**NH 96 (663) R**		Other Project Mix:	**B-rap,D,D-rap**	**40,484 Tons**
CSJ:	**0255-06-047**		Engineer:	**Albert Quintanilla**	
Plant Location:	**Guerra Ranch**		Specification:	**3063**	
Plant Operator:	**Frontera Materials, Inc.**		File Name:	**C:\HOTMIX\281-N-B.WK4**	
Mix Type:	**B**	Design No. **FMI-29**	Level II Technician:	**Barry Ehlinger**	

Mix Summary

MATERIALS	Supplier	Virgin Percent	Adj.Percent	Quantity	Unit	
Gravel Gr. 2	Upper Valley	25.00%	25.00%	4,263	Tons	
Gravel Gr. 4	Upper Valley	35.00%	35.00%	5,968	Tons	
Limestone Screenings	Incasa	25.00%	25.00%	4,263	Tons	
Field Sand	Chapa	15.00%	15.00%	2,558	Tons	
Lime	Redland	1.00%	1.00%	165	Tons	
Asphalt (AC-20)	TFA		0.00%	0	Tons	
TOTAL AGGREGATE		100.00%	100 00%			

Frontera Materials, Inc.		Submitted for Approval	11/01/96
Barry Ehlinger Level II Technician	Certification Number: 336	TxDot Approval By	Date

Project Location:	Hidalgo Co., US 281		Hot Mix Quantity:	B	16,404 Tons
Project Number:	NH 96 (663) R		Other Project Mix:	B-rap,D,D-rap	40,484 Tons
CSJ:	0255-06-047		Engineer:	Albert Quintanilla	
Plant Location:	Guerra Ranch		Specification:	3063	
Plant Operator:	Frontera Materials, Inc.		File Name:	C:\HOTMIX\281-N-B.WK4	
Mix Type:	B	FMI-29	Level II Technician:	Barry Ehlinger	

Molded Specimens

Virgin Asphalt Content	Specific Gravity of Specimen	Rice Specific Gravity	Density	Stability	VMA	Virgin AC Content	Total AC Content
4 00%	2.365	2.466	95.9%		13%	4.0%	4 0%
5.00%	2.359	2.429	97.1%		14.4%	5.0%	5.0%
6.00%	2.400	2.414	99.4%		14.7%	6.0%	6 0%
Interpulated values at optimum density of 96.0%:				0	13.1%	4.1%	4.1%

Project Location	Hidalgo Co., US 281			Hot Mix Quantity	B 16,404 Tons
Project Number	NH 96 (663) R			Other Project Mix	B-rap,D,D-ra 40,484 Tons
CSJ	0255-06-047			Engineer	Albert Quintanilla
Plant Location	Guerra Ranch			Specification	3063
Plant Operator	Frontera Materials, Inc.			File Name	C:\HOTMIX\281-N-B.WK4
Mix Type	B	Design No.	FMI-29	Level II Technician	Barry Ehlinger

Gradation

Material:	Gravel Gr. 2	Gravel Gr. 4	Limestone Screenings	Field Sand				Combined Gradation	In/Out	NH 96 (663) R Hidalgo Co., US 281 Specifications		Sieve Size
Supplier:	Upper Valley	Upper Valley	Incasa	Chapa								
Percent:	25 0%	35.0%	25 0%	15 0%								
Cumulative Percent Passing												
1	100 0%	100 0%	100 0%	100 0%				100 0%	IN	100%	100%	1
7/8	100 0%	100 0%	100 0%	100 0%				100 0%	IN	95%	100%	7/8
5/8	55 5%	100 0%	100 0%	100 0%				88 9%	IN	75%	95%	5/8
3/8	0 5%	78 5%	100 0%	100 0%				67 6%	IN	60%	80%	3/8
No 4	0 0%	5 7%	100 0%	100 0%				42 0%	IN	40%	60%	No 4
No 10	0 0%	0 0%	91 4%	100 0%				37 9%	IN	27%	40%	No 10
No 40	0 0%	0 0%	34 9%	99 3%				23 6%	IN	10%	25%	No 40
No 80	0 0%	0 0%	21 4%	27 0%				9.4%	IN	3%	13%	No 80
No 200	0 0%	0 0%	15 3%	4 0%				4 4%	IN	2%	8%	No 200
Individual Sieves												
1 - 7/8	0 0%	0 0%	0 0%	0 0%								1 - 7/8
7/8 - 5/8	44 5%	0 0%	0 0%	0 0%				11 1%				7/8 - 5/8
5/8 - 3/8	55 0%	21 5%	0 0%	0 0%				21 3%				5/8 - 3/8
3/8 - No 4	0 5%	72 8%	0 0%	0 0%				25 6%				3/8 - No 4
No 4 - No 10		5 7%	8 6%	0 0%				4 1%				No 4 - No 10
No 10 - No 40			56 5%	0 7%				14 2%				No 10 - No 40
No 40 - No 80			13 5%	72 3%				14 2%				No 40 - No 80
No 80 - No 200			6 1%	23 0%				5 0%				No 80 - No 200
Passing No 200			15 3%	4 0%				4 4%				Passing No 200
	100 0%	100 0%	100 0%	100 0%	0 0%	0 0%	0 0%	100 0%				

Project Location:	Hidalgo Co., US 281	Hot Mix Quantity:	B 16,404 Tons
Project Number:	NH 96 (663) R	Other Project Mix:	B-rap,D,D-r 40,484 Tons
CSJ:	0255-06-047	Engineer:	Albert Quintanilla
Plant Location:	Guerra Ranch	Specification:	3063
Plant Operator:	Frontera Materials, Inc.	File Name:	C:\HOTMIX\281-N-B.WK4
Mix Type:	B Design No. FMI-29	Level II Technician:	Barry Ehlinger

Bulk Gravities

Material:	Gravel Gr. 2	Gravel Gr. 4	Limestone Screenings	Field Sand				
Supplier:	Upper Valley	Upper Valley	Incasa	Chapa				
Percent:	25.0%	35.0%	25.0%	15.0%				Sieve Size
1 - 7/8	2.626							1 - 7/8
7/8 - 5/8	2.626	2.597						7/8 - 5/8
5/8 - 3/8	2.626	2.597						5/8 - 3/8
3/8 - No 4	2.626	2.597						3/8 - No 4
No 4 - No 10	2.626	2.597	2.611					No 4 - No 10
No 10 - No 40	2.626	2.597	2.630	2.573				No 10 - No 40
No 40 - No 80	2.626	2.597	2.630	2.573				No 40 - No 80
No 80 - No 200	2.626	2.597	2.630	2.573				No 80 - No 200
Passing No 200	2.626	2.597	2.630	2.573				Passing No 200
Bulk Gravities	2.626	2.597	2.628	2.573	0.000	0.000	0.000	

Combined Bulk Specific Gravities	2.608
Specific Gravity of Asphalt	1.020

Project Location	Hidalgo Co., US 281		Hot Mix Quantity	B	16,404 Tons
Project Number	NH 96 (663) R		Other Project Mix	B-rap,D,D-rap	40,484 Tons
CSJ	0255-06-047		Engineer	Albert Quintanilla	
Plant Location	Guerra Ranch		Specification	3063	
Plant Operator	Frontera Materials, Inc.		File Name	C:\HOTMIX\281-N-B.WK4	
Mix Type	B	Design No. FMII-29	Level II Technician	Barry Ehlinger	

Aggregate Properties

Test Description	Gravel Gr. 2 Upper Valley	Gravel Gr. 4 Upper Valley	Limestone Screenings Incasa	Field Sand Chapa				TxDOT Test #	Total	TxDot Specification	Test Description
Stockpile											
Decantation	0 6%	0 6%	0 0%	0 0%				Tex-217-F		1 5 Max	Decantation
Deleterious Material	0 0%	0 0%	0 0%	0 2%				Tex-217-F		1 5 Max	Deleterious Material
Polish Value	30 0	30 0						Tex-438-A		32 Min	Polish Value
Mag Sulf Soundness	23 0	23 0						Tex-411-A		30 Max	Mag Sulf Soundness
Los Angeles Abrasion	26 0	26 0						Tex-410-A		35 Max	Los Angeles Abrasion
Crushed Face Count								Tex-460-A		85 Min	Crushed Face Count
Flakiness Index								Tex-224-F		0 Max	Flakiness Index
esidual Asphalt											Residual Asphalt
Fine Aggregate											
Linear Shrinkage				0 1				Tex-107-E		3 Max	Linear Shrinkage
Combined Aggregate											
Sand Equivalent								Tex-203-F	50	45 Min	Sand Equivalent
Total Mixture											
Tensile Strength Ratio								Tex 531-C		70% Min	Tensile Strength Ratio

GRADATION CHART
Hidalgo Co., US 281
NH 96 (663) R
B
100%
80%
60%
40%
20%
0%
PERCENT PASSING
5/8
3/8
No 4
No 10
No 40
No 80
No 200
0.0000
0.2000
0.4000
0.6000
0.8000
1.0000
SIEVE SIZES RAISED TO 0.45 POWER
Actual Density Curve
Bottom Band
Top Band

Asphalt Content - Density
Hidalgo Co , US 281
NH 96 (663) R
B
100.0%
98.0%
96.0%
94.0%
92.0%
90.0%
Density
99 4%
97 1%
95 9%
3.5%
4.0%
4.5%
5.0%
5.5%
6.0%
6.5%
Virgin Asphalt Content

Asphalt Content - VMA
Hidalgo Co., US 281
NH 96 (663) R
B
15.0%
14.0%
13.0%
12.0%
11.0%
10.0%
VMA
13%
14.4%
14.7%
3.5%
4.0%
4.5%
5.0%
5.5%
6.0%
6.5%
Virgin Asphalt Content

Asphalt Content - Hveem Stability
Hidalgo Co , US 281
NH 96 (663) R
B
Hveem Stability
70
66
62
58
54
50
46
42
38
34
30
3.5%
4.0%
4.5%
5.0%
5.5%
6.0%
6.5%
Virgin Asphalt Content %

ATB December 1991

SPS-1 CONSTRUCTION DATA SHEET 5 PLANT-MIXED ASPHALT BOUND LAYERS AGGREGATE PROPERTIES	* STATE CODE [48] * SPS PROJECT CODE [8] * TEST SECTION NO. [ ]

*1. LAYER NUMBER (FROM SHEET 4) ASPHALT STABILIZED BASE (ASB) ITEM 345 [ ]

	COMPOSITION OF COARSE AGGREGATE	TYPE	PERCENT
*2.	Crushed Stone... 1 Gravel... 2 Crushed Gravel... 3 UVM (TYPE A & GRADE 4) UPPER VALLEY MATERIAL	[3]	[100.]
*3.	Crushed Slag... 4 Manufactured Lightweight... 5	[ ]	[.]
*4.	Other (Specify)... 6 _____	[ ]	[.]
	COMPOSITION OF FINE AGGREGATE	TYPE	PERCENT
*5.	Natural Sand... 1 CHAPA (FIELD SAND) 14.0%	[2]	[63.]
*6.	Crushed or Manufactured Sand (From Crushed Gravel or UVM SCREENINGS 24%	[1]	[37.]
*7.	Stone... 2 Recycled Concrete... 3 Other (Specify)... 4 _____	[ ]	[.]

*8. TYPE OF MINERAL FILLER [2]
Stone Dust... 1 Hydrated Lime... 2 Portland Cement... 3
Fly Ash... 4
Other (Specify)... 5 _____

BULK SPECIFIC GRAVITIES:

*9. Coarse Aggregate (AASHTO T85 or ASTM C127) $\frac{2.534(0.43)+2.554(0.19)}{0.62}$ [2.582]

*10. Fine Aggregate (AASHTO T84 or ASTM C128) $\frac{2.604(0.43)+2.660(0.19)}{0.38}$ [2.626]

*11. Mineral Filler (AASHTO T100 or ASTM D854) [.]

*12. Aggregate Combination (Calculated) [2.599]

13. Effective Specific Gravity of Aggregate Combination (Calculated) [.]

AGGREGATE DURABILITY TEST RESULTS
(SEE DURABILITY TEST TYPE CODES, TABLE A.13)

	TYPE OF AGGREGATE	TYPE OF TEST	RESULTS
14.	Coarse	[ ]	[.]
15.	Coarse MAG. SULF. SOUNDNESS	[03]	[21.0]
16.	Coarse L.A. ABRASION	[04]	[25.0]
17.	Coarse and Fine - Combined	[ ]	[.]

18. POLISH VALUE OF COARSE AGGREGATES
SURFACE LAYER ONLY (AASHTO T279, ASTM D3319) [ ]

PREPARER Bruce F. Dill EMPLOYER BRE DATE 8/8/97

SPS-1 CONSTRUCTION DATA SHEET 6 PLANT-MIXED ASPHALT BOUND LAYERS ASPHALT CEMENT PROPERTIES	* STATE CODE [48] * SPS PROJECT CODE [0 7] * TEST SECTION NO. [__ __]

*1. LAYER NUMBER (FROM SHEET 4) [__]

*2. ASPHALT GRADE (SEE ASPHALT CODE SHEET, TABLE A.16) [04]
(IF OTHER, SPECIFY) AC-20

*3. SOURCE (SEE SUPPLY CODE SHEET, TABLE A.14) [77]
(IF OTHER, SPECIFY) TEXAS FUEL & ASPHALT

4. SPECIFIC GRAVITY OF ASPHALT CEMENT [1.020]
(AASHTO T228)

GENERAL ASPHALT CEMENT PROPERTIES (If available from supplier)

5. VISCOSITY OF ASPHALT AT 140°F (POISES)
(AASHTO T202) [__ __ __ __ __ __.]

6. VISCOSITY OF ASPHALT AT 275°F (CENTISTOKES)
(AASHTO T202) [__ __ __ __.__ __]

7. PENETRATION AT 77°F (AASHTO T49) (TENTHS OF A MM)
(100 g., 5 sec.) [__ __ __ __.]

ASPHALT MODIFIERS (SEE TYPE CODE, A.15)

		TYPE	QUANTITY (%)
8.	MODIFIER #1	[__ __]	[__ __.]
9.	MODIFIER #2 (IF OTHER, SPECIFY) _____	[__ __]	[__ __.]

10. DUCTILITY AT 77°F (CM)
(AASHTO T51) [__ __ __.]

11. DUCTILITY AT 39.2°F (CM)
(AASHTO T51) [__ __ __.]

12. TEST RATE FOR DUCTILITY MEASUREMENT
AT 39.2°f (CM/MIN) [__ __ __.]

13. PENETRATION AT 39.2°F (AASHTO T49) (TENTHS OF A MM)
(200 g., 60 sec.) [__ __ __.]

14. RING AND BALL SOFTENING POINT (AASHTO T53) (°F) [__ __ __.]

NOTE: If emulsified or cutback asphalt was used, enter "N" in the spaces for "Original Asphalt Cement Properties".

PREPARER Brad Dill EMPLOYER BRE DATE 8/8/97

SPS-1 CONSTRUCTION DATA SHEET 7 PLANT-MIXED ASPHALT BOUND LAYERS MIXTURE PROPERTIES	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [__ __]

*1. LAYER NUMBER (FROM SHEET 4) ASB [__]

*2. TYPE OF SAMPLES [1]
SAMPLES COMPACTED IN LABORATORY... 1
SAMPLES TAKEN FROM TEST SECTION... 2

*3. MAXIMUM SPECIFIC GRAVITY (NO AIR VOIDS) [__.__ __ __]
(AASHTO T209 OR ASTM D2041)

BULK SPECIFIC GRAVITY (ASTM D1188)

*4. MEAN [__.__ __ __] NUMBER OF TESTS [__ __.]

5. MINIMUM [__.__ __ __] MAXIMUM [__.__ __ __]

6. STD. DEV. [__.__ __ __]

ASPHALT CONTENT (PERCENT WEIGHT OF TOTAL MIX)
(AASHTO T164 OR ASTM D2172)

*7. MEAN [4.8 __ __] NUMBER OF SAMPLES [__ __.]

8. MINIMUM [__.__ __ __] MAXIMUM [__.__ __ __]

9. STD. DEV. [__.__ __ __]

PERCENT AIR VOIDS

*10. MEAN [__.__ __ __] NUMBER OF SAMPLES [__ __.]

11. MINIMUM [__.__ __ __] MAXIMUM [__.__ __ __]

12. STD. DEV. [__.__ __ __]

*13. VOIDS IN MINERAL AGGREGATE (PERCENT) [__ __.__]

*14. EFFECTIVE ASPHALT CONTENT (PERCENT) [__ __.__]

*15. MARSHALL STABILITY (LBS) (AASHTO T245 OR ASTM D1559) [__ __ __.__]

*16. NUMBER OF BLOWS [__ __]

*17. MARSHALL FLOW (HUNDREDTHS OF AN INCH) [__ __ __ __.]
(AASHTO T245 OR ASTM D1559)

*18. HVEEM STABILITY (AASHTO T246 OR ASTM D1561) [__ __ __.]

*19. HVEEM COHESIOMETER VALUE (GRAMS/25 MM OF WIDTH) [__ __ __ __.]
(AASHTO T246 OR ASTM 1561)

PREPARER [signature] EMPLOYER BRE DATE 8/2/97

SPS-1 CONSTRUCTION DATA SHEET 8 PLANT-MIXED ASPHALT BOUND LAYERS MIXTURE PROPERTIES (CONTINUED)	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [__]

*1. LAYER NUMBER (FROM SHEET 4) [__]

*2. TYPE OF SAMPLES [1]
SAMPLES COMPACTED IN LABORATORY... 1
SAMPLES TAKEN FROM TEST SECTION... 2

*3. TYPE ASPHALT PLANT [2]

BATCH PLANT... 1 DRUM MIX PLANT... 2

OTHER (SPECIFY)... 3 _____

*4. TYPE OF ANTISTRIPPING AGENT USED [17]
(SEE TYPE CODES, TABLE A.21)
OTHER (SPECIFY) _____

*5. AMOUNT OF ANTISTRIPPING AGENT USED LIQUID OR SOLID CODE [2]

*6. (If liquid, enter code 1, and amount as percent of asphalt cement weight. If solid, enter code 2 and amount as percent of aggregate weight.) [__1.0]

PREPARER [signature] EMPLOYER BRE DATE 8/8/91

Comb'd Gradation

District	PHARR	CSJ #:	255-6-47	Producer:	FRONTERA
County	HIDALGO	Design #:	TXDOT	Spec.Item:	345
Highway:	US 281	Contractor.	FOREMOST	Type Mix:	ASB

	UVM TYPE A 96-H576		UVM GRADE 4 96-H576		UVM SCREENINGS 96-H576		CHAPA FIELD SAND 96-H576		Source 5 Aggr. Num 5 Lab Num 5		Source 6 Aggr Num 6 Lab Num 6		Total % 100.0			
Sieve Size	Bin #1 43.0	Total %	Bin #2 19 0	Total %	Bin #3 24 0	Total %	Bin #4 14 0	Total %	Bin #5 0 0	Total %	Bin #6 0 0	Total %	Cumultive Pass	TxDOT Specs	Individ Ret	Cumul Ret
		0 0		0.0		0 0		0 0		0 0		0.0		-	100 0	100 0
		0 0		0.0		0 0		0 0		0 0		0 0		-	0 0	100.0
1 1/2"	100 0	43 0	100 0	19.0	100 0	24 0	100 0	14 0	100.0	0.0	100 0	0 0	100 0	- 100	-100 0	0 0
1"	90 6	39 0	100 0	19 0	100.0	24.0	100.0	14.0	100.0	0 0	100 0	0.0	96 0	90 - 100	4 0	4 0
7/8"	81 2	34 9	100 0	19 0	100 0	24 0	100 0	14 0	100.0	0 0	100.0	0.0	91 9	65 - 100	4 1	8 1
3/8"	3 0	1 3	83 2	15.8	100 0	24 0	100 0	14 0	100.0	0 0	100 0	0 0	55 1	50 - 70	36 8	44 9
#4	2 1	0 9	6 9	1.3	99 4	23 9	95 5	13 4	100 0	0.0	100 0	0 0	39 5	35 - 50	15 6	60 5
#40	1.2	0 5	0 8	0.2	41 0	9 8	96 1	13 5	100 0	0 0	100 0	0 0	24 0	15 - 30	15,5	76 0
-40	0.0	0 0	0 0	0.0	0 0	0 0	0 0	0.0	100.0	0 0	100 0	0 0	0 0	0 - 0	24 0	100 0
Pan	Cummulative Passing?		Cummulative Passing?		Cummulative Passing?		Cummulative Passing?		Cummulative Passing?		Cummulative Passing?					

Asphalt Content of RAP in Bin # 1(If Applicable) = %

Asphalt Source & Grade: TFA AC-20

NOTES: TXDOT DESIGN
% AC = 4 8% BY WEIGHT.
1 % LIME BY WEIGHT.

English	1 1/2"	1 1/4"	1"	7/8"	5/8"	1/2"	3/8"	1/4 "	#4	#10	#40	#80	#200
Metric	37 5 mm	31 5 mm	25 0 mm	22 4 mm	16 0 mm	12 5 mm	9 5 mm	6 3 mm	4 75 mm	2 0 mm	0 425 mm	0 180 mm	0 075 mm

Level 2 Technician LEO SALINAS

Tx. DOT Certification # 244

10/24/96

996H576 WK4 Ver 1 0 Rev 4-30 96 10 37 AM

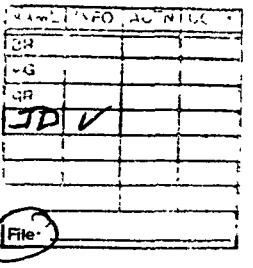
REC'D 3/19/97

RECEIVED APR 1 0 1997

GJ

Texas Department of Transportation

P.O. DRAWER EE • PHARR, TEXAS 78577-1231 • (210) 702-6100



April 8, 1997

Mr. Jerry Daleiden, P.E.
Brent Rauhut Engineering, Inc.
8240 MoPac, Suite 220
Austin TX 78759

Dear Jerry,

As per your request I have enclosed copies of the combined gradations, bulk gravities, and material properties for the Asphalt Stabilized Base, and Permeable Asphalt Treated Base being used on the US 281 SPS-1 project, CSJ 0255-06-047.

Should you have questions or need more information, please call me at (210) 702-6163.

Sincerely,

John De la Garza, P.E.
District Pavement Engineer

Combined Gradation

District	PHARR	CSJ.	255-06-047	Type Mix	PERMEABLE
County:	HIDALGO	Spec. #	345	Filename:	96-H576
Highway:	US 281	Design #.	ASB	Date:	04/03/97

	TYPE A UPPER VALLEY Lab # 96-H576		GRADE 4 UPPER VALLEY Lab #96-H576		SCREENINGS UPPER VALLEY LAB #96-H576		FIELD SAND CHAPPA RANCH 96-H576		Lab Num 5		Lab Num 6		Total % 100.0			
Sieve Size	Bin #1 43 0	Total %	Bin #2 19 0	Total %	Bin #3 24 0	Total %	Bin #4 14 0	Total %	Bin #5 0 0	Total %	Bin #6 0 0	Total %	Cumultive Pass	TxDOT Specs	Individ Ret	Cumul Ret
	100 0	43 0	100 0	19 0	100 0	24 0	100 0	14 0	0 0	0 0	0 0	0 0	100 0	-	0 0	0 0
	100 0	43.0	100 0	19 0	100 0	24.0	100 0	14 0	0 0	0 0	0 0	0 0	100 0	-	0 0	0 0
	100 0	43 0	100 0	19.0	100 0	24 0	100.0	14 0	0 0	0 0	0 0	0 0	100 0	-	0 0	0 0
1 1/2"	100 0	43 0	100 0	19 0	100 0	24 0	100 0	14 0	0 0	0 0	0 0	0 0	100 0	100 - 100	0 0	0 0
1"	90 6	39 0	100 0	19.0	100 0	24 0	100 0	14 0	0 0	0 0	0 0	0 0	96 0	90 - 100	4 0	4 0
7/8"	81 2	34 9	100 0	19.0	100 0	24 0	100 0	14 0	0 0	0 0	0 0	0 0	91 9	65 - 90	4 1	8 1
3/8"	3 0	1 3	83 2	15 8	100 0	24 0	100 0	14 0	0 0	0 0	0 0	0 0	55 1	50 - 70	36 8	44 9
#4	2 1	0 9	6 9	1 3	99 4	23 9	95.5	13 4	0 0	0 0	0 0	0 0	39 5	35 - 50	15 6	60 5
#40	1 2	0.5	0 8	0.2	41 0	9 8	96.1	13 5	0 0	0 0	0.0	0 0	24 0	15 - 30	15 5	76 0
Pan							Cummulative Passing?								24 0	100 0

Asphalt TFA AC-20

NOTES: TXDOT DESIGN
%AC =4 9% BY WEIGHT
1% LIME ADMIX BY WEIGHT

Level 2 Technician LEO SALINAS Tx DOT Certification #: 244
Level 2 Technician: Tx DOT Certification #: ?

BULK GRAVITIES

District	PHARR	CSJ	255-06-047	Type Mix	PERMEABLE
County	HIDALGO	Spec #	345	Filename	96-H576
Highway	US 281	Design #	ASB	Date	04 03 97

Sieve Size Pass	Ret	TYPE A UPPER VALLEY Lab#96-H677 Bin #1 43 0 %	Bulk Gravity	GRADE 4 UPPER VALLEY Lab#96-H677 Bin #2 19 0 %	Bulk Gravity	SCREENINGS UPPER VALLEY Bin #3 24 0 %	Bulk Gravity	FIELD SAND CHAPPA RANCH 96-H576 Bin #4 14 0 %	Bulk Gravity	0 0 Lab Num 5 Bin #5 0 0 %	Bulk Gravity	0 0 Lab Num 6 Bin #6 0 0 %	Bulk Gravity	
0 -	0	0 0	0 000	0 0	0 000	0 0	0 000	0 0	0 000	0 0	0 000	0 0	0 000	0 - 0
0 -	0	0 0	0 000	0 0	0 000	0 0	0 000	0 0	0 000	0 0	0 000	0 0	0 000	0 - 0
0 -	1 1/2"	0 0	2 594	0 0	2 554	0 0	0 000	0 0	0 000	0 0	0 000	0 0	0 000	0 - 1 1/2"
1 1/2" -	1"	9 4	2 594	0 0	2 554	0 0	0 000	0 0	0 000	0 0	0 000	0 0	0 000	1 1/2" - 1"
1" -	7/8"	9 4	2 594	0 0	2 554	0 0	0 000	0 0	0 000	0 0	0 000	0 0	0 000	1" - 7/8"
7/8" -	3/8"	78 2	2 594	16 8	2 554	0 0	0 000	0 0	0 000	0 0	0 000	0 0	0 000	7/8" - 3/8"
3/8" -	#4	0 9	2 594	76 3	2 554	0 6	2 606	4 5	0 000	0 0	0 000	0 0	0 000	3/8" - #4
#4		2 1	2 594	6 9	2 554	99 4	2 606	95 5	2 660	0 0	0 000	0 0	0 000	#4
Total=		100 0		100 0		100 0		100 0		0 0		0 0		
		Bulk Grav =	2 594	Bulk Grav =	2 554	Bulk Grav =	2 606	Bulk Grav =	0 002	Bulk Grav =	0 000	Bulk Grav =	0 000	

*** You Must Enter A Bulk Gravity For Every Size Fraction If It Has A Percentage Greater Than Zero! ***

Combined Bulk Specific Gravity = 0 016

Specific Gravity of Asphalt = 1 020

Materi[illegible]roperties

			TYPE A	GRADE 4	SCREENINGS	FIELD SAND	0	0
	TxDOT	TxDOT	UPPER VALLEY	UPPER VALLEY	UPPER VALLEY	CHAPPA RANC	0	0
	Test #	Specification	Lab# 96-H677	Lab #96-H576	LAB #96-H576	96-H576	Lab Num 5	Lab Num 6
Stockpile								
Decantation	Tex-217-F	1 5 Max	0 5	0 25	?	?	?	
Deleterious Material	Tex-217-F	1 5 Max	0 07	1 2	?	?	?	
Polish Value	Tex-438-A	32 Min	30	30	?	?	?	
Magnesium Sulfate Soundness	Tex-411-A	30 Max	21	21	?	?	?	
Los Angeles Abrasion	Tex-410-A	35 Max	25	25	?	?	?	
Crushed Face Count	Tex-460-A	85 Min	97 5	91 9	?	?	?	
Flakiness Index	Tex-224-F	? Max	NA	NA	?	?	?	

Fine Aggregate			Test Result
Linear Shrinkage	Tex-107-E	3 Max	0

Combined Aggregate			Test Result
Sand Equivalent	Tex-203-F	45 Min	48

Total Mixture	TxDOT Test #	TxDOT Specification	Test Result
Tensile Strength Ratio	Tex-531-C	0 70 Min	NA
Draindown	Tex-535-C	0 30 Max	NA

TEXAS DEPARTMENT OF TRANSPORTATION
MATERIALS AND TESTS DIVISION
AUSTIN, TX 78703

GENERAL TEST REPORT

Laboratory No :	97H576	Contract No :		Mat'l Code	
District:	PHARR	Date Sampled		Spec Item.	345
County	HIDALGO	Date Received		Material:	ASB
Engr /Foreman	ALBERT QUINTANILLA	Date Reported	10-24-96	Quantity:	
CSJ #	255-6-47	Contractor:	FOREMOST PAVING	Unit:	
Fed Proj #:		Producer:	FRONTERA	I D Marks:	
Highway	US 281	Producer Code		Sampled From:	DESIGN

DESIGN RESULTS

LAB NO.	% AC	SLOW STRENGTH	DENSITY	STAB
97H576	4 8	39 2	95.7	50

Remarks. _____

Technician Signature. LEO SALINAS #244

GENRPT WK4 Ver 1 0 Rev 3 27-96 08 35 AM 04-Apr 97

PATB December 1991

SPS-1 CONSTRUCTION DATA SHEET 5 PLANT-MIXED ASPHALT BOUND LAYERS AGGREGATE PROPERTIES	* STATE CODE [48] * SPS PROJECT CODE [a] * TEST SECTION NO. [ ]

*1. LAYER NUMBER (FROM SHEET 4) PERMEABLE ASPHALT TREATED BASE PATTB (ITEM 3099) [ ]

		TYPE	PERCENT
	COMPOSITION OF COARSE AGGREGATE		
*2.	Crushed Stone... 1 Gravel... 2 Crushed Gravel... 3 (UPPER VALLEY MATERIAL (GR 2 80% & GR4 20%)	[3]	[100.]
*3.	Crushed Slag... 4 Manufactured Lightweight... 5	[ ]	[.]
*4.	Other (Specify)... 6 _____	[ ]	[.]
	COMPOSITION OF FINE AGGREGATE	TYPE	PERCENT
*5.	Natural Sand... 1	[ ]	[.]
*6.	Crushed or Manufactured Sand (From Crushed Gravel or	[ ]	[.]
*7.	Stone... 2 Recycled Concrete... 3 Other (Specify)... 4 _____	[ ]	[.]

*8. TYPE OF MINERAL FILLER [ ]
Stone Dust... 1 Hydrated Lime... 2 Portland Cement... 3
Fly Ash... 4
Other (Specify)... 5 _____

BULK SPECIFIC GRAVITIES:

*9. Coarse Aggregate (AASHTO T85 or ASTM C127) $\frac{(2.594)0.8 + (2.554)0.2}{1.0}$ [2.586]

*10. Fine Aggregate (AASHTO T84 or ASTM C128) [.]

*11. Mineral Filler (AASHTO T100 or ASTM D854) [.]

*12. Aggregate Combination (Calculated) [2.586]

13. Effective Specific Gravity of Aggregate Combination (Calculated) [.]

AGGREGATE DURABILITY TEST RESULTS
(SEE DURABILITY TEST TYPE CODES, TABLE A.13)

	TYPE OF AGGREGATE	TYPE OF TEST	RESULTS
14.	Coarse	[ ]	[.]
15.	Coarse MAG SULF. SOUNDNESS	[03]	[21.0]
16.	Coarse LA ABRASION	[04]	[25.0]
17.	Coarse and Fine - Combined	[ ]	[.]

18. POLISH VALUE OF COARSE AGGREGATES
SURFACE LAYER ONLY (AASHTO T279, ASTM D3319) [ ]

PREPARER [signature] EMPLOYER BRE DATE 8/8/97

SPS-1 CONSTRUCTION DATA SHEET 6 PLANT-MIXED ASPHALT BOUND LAYERS ASPHALT CEMENT PROPERTIES	* STATE CODE [48] * SPS PROJECT CODE [02] * TEST SECTION NO. [__]

*1. LAYER NUMBER (FROM SHEET 4) [__]

*2. ASPHALT GRADE (SEE ASPHALT CODE SHEET, TABLE A.16) AC-20 [04]
(IF OTHER, SPECIFY) _____

*3. SOURCE (SEE SUPPLY CODE SHEET, TABLE A.14) [77]
(IF OTHER, SPECIFY) TEXAS FUEL & ASPHALT

4. SPECIFIC GRAVITY OF ASPHALT CEMENT [1.020]
(AASHTO T228)

GENERAL ASPHALT CEMENT PROPERTIES (If available from supplier)

5. VISCOSITY OF ASPHALT AT 140°F (POISES)
(AASHTO T202) [_ _ _ _ _ _.]

6. VISCOSITY OF ASPHALT AT 275°F (CENTISTOKES)
(AASHTO T202) [_ _ _ _._ _]

7. PENETRATION AT 77°F (AASHTO T49) (TENTHS OF A MM)
(100 g., 5 sec.) [_ _ _ _.]

ASPHALT MODIFIERS (SEE TYPE CODE, A.15)

		TYPE	QUANTITY (%)
8.	MODIFIER #1	[_ _]	[_ _.]
9.	MODIFIER #2	[_ _]	[_ _.]
	(IF OTHER, SPECIFY) _____		

10. DUCTILITY AT 77°F (CM)
(AASHTO T51) [_ _ _.]

11. DUCTILITY AT 39.2°F (CM)
(AASHTO T51) [_ _ _.]

12. TEST RATE FOR DUCTILITY MEASUREMENT
AT 39.2°f (CM/MIN) [_ _ _.]

13. PENETRATION AT 39.2°F (AASHTO T49) (TENTHS OF A MM)
(200 g., 60 sec.) [_ _ _.]

14. RING AND BALL SOFTENING POINT (AASHTO T53) (°F) [_ _ _.]

NOTE: If emulsified or cutback asphalt was used, enter "N" in the spaces for "Original Asphalt Cement Properties".

PREPARER Bruce C. Dill EMPLOYER BRI DATE 8/3/97

SPS-1 CONSTRUCTION DATA SHEET 7 PLANT-MIXED ASPHALT BOUND LAYERS MIXTURE PROPERTIES	* STATE CODE [48] * SPS PROJECT CODE [021] * TEST SECTION NO. [__ __]

*1. LAYER NUMBER (FROM SHEET 4) PATB [__]

*2. TYPE OF SAMPLES [1]
SAMPLES COMPACTED IN LABORATORY... 1
SAMPLES TAKEN FROM TEST SECTION... 2

*3. MAXIMUM SPECIFIC GRAVITY (NO AIR VOIDS) [__.__ __ __]
(AASHTO T209 OR ASTM D2041)

BULK SPECIFIC GRAVITY (ASTM D1188)

*4. MEAN [__.__ __ __] NUMBER OF TESTS [__ __.]

5. MINIMUM [__.__ __ __] MAXIMUM [__.__ __ __]

6. STD. DEV. [__.__ __ __]

ASPHALT CONTENT (PERCENT WEIGHT OF TOTAL MIX)
(AASHTO T164 OR ASTM D2172)

*7. MEAN [12.5 __ __] NUMBER OF SAMPLES [__ __.]

8. MINIMUM [__.__ __ __] MAXIMUM [__.__ __ __]

9. STD. DEV. [__.__ __ __]

PERCENT AIR VOIDS

*10. MEAN [__.__ __ __] NUMBER OF SAMPLES [__ __.]

11. MINIMUM [__.__ __ __] MAXIMUM [__.__ __ __]

12. STD. DEV. [__.__ __ __]

*13. VOIDS IN MINERAL AGGREGATE (PERCENT) [__ __.__]

*14. EFFECTIVE ASPHALT CONTENT (PERCENT) [__ __.__]

*15. MARSHALL STABILITY (LBS) (AASHTO T245 OR ASTM D1559) [__ __ __.__]

*16. NUMBER OF BLOWS [__ __]

*17. MARSHALL FLOW (HUNDREDTHS OF AN INCH) [__ __ __ __.]
(AASHTO T245 OR ASTM D1559)

*18. HVEEM STABILITY (AASHTO T246 OR ASTM D1561) [__ __ __.]

*19. HVEEM COHESIOMETER VALUE (GRAMS/25 MM OF WIDTH) [__ __ __ __.]
(AASHTO T246 OR ASTM 1561)

PREPARER Bret C. Dill EMPLOYER BRE DATE 8/8/97

SPS-1 CONSTRUCTION DATA SHEET 8 PLANT-MIXED ASPHALT BOUND LAYERS MIXTURE PROPERTIES (CONTINUED)	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [__]

*1. LAYER NUMBER (FROM SHEET 4) [__]

*2. TYPE OF SAMPLES [1]
SAMPLES COMPACTED IN LABORATORY... 1
SAMPLES TAKEN FROM TEST SECTION... 2

*3. TYPE ASPHALT PLANT [2]

BATCH PLANT... 1 DRUM MIX PLANT... 2

OTHER (SPECIFY)... 3 _____

*4. TYPE OF ANTISTRIPPING AGENT USED NONE [00]
(SEE TYPE CODES, TABLE A.21)
OTHER (SPECIFY) _____

*5. AMOUNT OF ANTISTRIPPING AGENT USED LIQUID OR SOLID CODE [__]

*6. (If liquid, enter code 1, and amount as percent of asphalt cement weight. If solid, enter code 2 and amount as percent of aggregate weight.) [__ __.__]

PREPARER Bruce R. Dill EMPLOYER PBRE DATE 8/8/97

Combine Gradation

District:	PHARR	CSJ:	255-06-047	Type Mix:	PERMEABLE
County:	HIDALGO	Spec. #:	3099	Filename:	96-H650
Highway:	US 281	Design #:	PATB	Date:	04/03/97

	GRADE 2 UPPER VALLEY Lab # 96-H650		GRADE 4 UPPER VALLEY Lab #96-H650				Lab Num 4		Lab Num 5		Lab Num 6		Total % 100.0	
Sieve Size	Bin #1 80.0	Total %	Bin #2 20.0	Total %	Bin #3 0.0	Total %	Bin #4 0.0	Total %	Bin #5 0.0	Total %	Bin #6 0.0	Total %	Cumultive Pass	TxDOT Specs.
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
1 1/2"	100.0	80.0	100.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100 - 100
1"	100.0	80.0	100.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	95 - 100
1/2"	42.3	33.8	99.3	19.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	53.7	25 - 60
#4	0.4	0.3	3.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0 - 10
#8	0.3	0.2	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0 - 5
#10	0.3	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0 - 2
Pan	Cummulative Passing?		Cummulative Passing?											

Asphalt: TFA AC-20

NOTES: TXDOT DESIGN
%AC = 2.5% BY WEIGHT

Level 2 Technician: LEO SALINAS Tx. DOT Certification #: 244
Level 2 Technician: Tx. DOT Certification #: ?

RECEIVED APR 1 0 1997

BULK GRAVITIES

District:	PHARR	CSJ:	255-06-047	Type Mix:	PERMEABLE
County:	HIDALGO	Spec. #:	3099	Filename:	96-H650
Highway:	US 281	Design #:	PATB	Date:	04/03/97

Sieve Size Pass	Ret.	GRADE 2 UPPER VALLEY Lab#96-H677 Bin #1 80.0 %	Bulk Gravity	GRADE 4 UPPER VALLEY Lab#96-H677 Bin #2 20.0 %	Bulk Gravity	0 0 Bin #3 0.0 %	Bulk Gravity	0 0 Lab Num 4 Bin #4 0.0 %	Bulk Gravity	0 0 Lab Num 5 Bin #5 0.0 %	Bulk Gravity	0 0 Lab Num 6 Bin #6 0.0 %	Bulk Gravity	Sieve Size Pass	Ret.
0 -	0	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0 -	0
0 -	0	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0 -	0
0 -	1 1/2"	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0 -	1 1/2"
1 1/2" -	1"	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	1 1/2" -	1"
1" -	1/2"	57.7	2.594	0.7	2.554	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	1" -	1/2"
1/2" -	#4	41.9	2.594	95.6	2.554	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	1/2" -	#4
#4 -	#8	0.1	2.594	3.4	2.554	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	#4 -	#8
#8		0.3	2.594	0.3	2.554	0.0	0.000	0.0	0.000	0.0	0.000	0.0	0.000	#8	
Total=		100.0		100.0		0.0		0.0		0.0		0.0			
		Bulk Grav.=	2.594	Bulk Grav.=	2.554	Bulk Grav.=	0.000	Bulk Grav.=	0.000	Bulk Grav.=	0.000	Bulk Grav.=	0.000		

Combined Bulk Specific Gravity = 2.586

Specific Gravity of Asphalt = 1.020

Material Properties

Stockpile

	TxDOT Test #	TxDOT Specification		GRADE 2 UPPER VALLEY Lab# 96-H677	GRADE 4 UPPER VALLEY Lab #96-H650	0 0	Lab Num 4	Lab Num 5	Lab Num 6
Decantation	Tex-217-F	1.5	Max	0 5	0 25	?	?	?	?
Deleterious Material	Tex-217-F	1 5	Max	0 07	1 2	?	?	?	?
Polish Value	Tex-438-A	32	Min	30	30	?	?	?	?
Magnesium Sulfate Soundness	Tex-411-A	30	Max	21	21	?	?	?	?
Los Angeles Abrasion	Tex-410-A	35	Max	25	25	?	?	?	?
Crushed Face Count	Tex-460-A	85	Min	97 5	91 9	?	?	?	?
Flakiness Index	Tex-224-F	?	Max	NA	NA	?	?	?	?

Fine Aggregate

				Test Result
Linear Shrinkage	Tex-107-E	3	Max	0

Combined Aggregate

				Test Result
Sand Equivalent	Tex-203-F	45	Min	NA

Total Mixture

	TxDOT Test #	TxDOT Specification		Test Result
Tensile Strength Ratio	Tex-531-C	0 70	Min	NA
Draindown	Tex-535-C	0 30	Max	NA

Combined Gradation

District:	PHARR	CSJ:	255-06-047	Type Mix:	PERMEABLE
County:	HIDALGO	Spec. #:	3099	Filename:	996H650
Highway:	US 281	Design #:	PATB	Date:	09/20/96

	GRADE 2 UPPER VALLEY Lab # 96-H650		GRADE 4 UPPER VALLEY Lab #96-H650		LAB #96-H650		Lab Num 4		Lab Num 5		Lab Num 6		Total % 100.0			
Sieve Size	Bin #1 80.0	Total %	Bin #2 20.0	Total %	Bin #3 0.0	Total %	Bin #4 0.0	Total %	Bin #5 0.0	Total %	Bin #6 0.0	Total %	Cumultive Pass	TxDOT Specs.		Individ. Ret.	Cumul Ret.
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-		100.0	100.0
		0 0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-		0.0	100.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-		0.0	100.0
1 1/2"	100.0	80.0	100.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100 -	100	-100.0	0.0
1"	100.0	80.0	100.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	95 -	100	0.0	0 0
1/2"	42.3	33.8	99.3	19.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	53.7	25 -	60	46.3	46.3
#4	0.4	0 3	3.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0 -	10	52.7	99.0
#8	0.3	0 2	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0 -	5	0.7	99.7
#10	0.3	0 2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0 -	2	0.1	99.8
Pan	Cummulative Passing?		Cummulative Passing?													0.2	100.0

Asphalt: TFA AC-20

NOTES: TXDOT DESIGN
%AC = 2 5% BY WEIGHT

Level 2 Technician: LEO SALINAS Tx. DOT Certification #: 244
Level 2 Technician: Tx. DOT Certification #: ?

Material Properties

Stockpile

	TxDOT Test #	TxDOT Specification		GRADE 2 UPPER VALLEY Lab# 96-H677	GRADE 4 UPPER VALLEY Lab #96-H650	0 LAB #96-H650	0 Lab Num 4	0 Lab Num 5	0 Lab Num 6
Decantation	Tex-217-F	1.5	Max	0.5	0.25	?	?	?	
Deleterious Material	Tex-217-F	1.5	Max	0.07	1.2	?	?	?	
Polish Value	Tex-438-A	32	Min	30	30	?	?	?	
Magnesium Sulfate Soundness	Tex-411-A	30	Max	21	21	?	?	?	
Los Angeles Abrasion	Tex-410-A	35	Max	25	25	?	?	?	
Crushed Face Count	Tex-460-A	85	Min	97.5	91.9	?	?	?	
Flakiness Index	Tex-224-F	?	Max	NA	NA	?	?	?	

Fine Aggregate

				Test Result
Linear Shrinkage	Tex-107-E	3	Max	NA

Combined Aggregate

				Test Result
Sand Equivalent	Tex-203-F	45	Min	NA

Total Mixture

	TxDOT Test #	TxDOT Specification		Test Result
Tensile Strength Ratio	Tex-531-C	0.70	Min	NA
Draindown	Tex-535-C	0 30	Max	NA

SPS-1 CONSTRUCTION DATA SHEET 2 GEOMETRIC, SHOULDER AND DRAINAGE INFORMATION	* STATE CODE [48] * SPS PROJECT CODE [0701] * TEST SECTION NO. [62]

*1. LANE WIDTH (FEET) [12.]

2. MONITORING SITE LANE NUMBER [1.]
(LANE 1 IS OUTSIDE LANE, NEXT TO SHOULDER
LANE 2 IS NEXT TO LANE 1, ETC.)

*3. SUBSURFACE DRAINAGE LOCATION [3.]
Continuous Along Test Section... 1 Intermittent... 2 None... 3

*4. SUBSURFACE DRAINAGE TYPE [1.]
No Subsurface Drainage... 1 Longitudinal Drains... 2
Transverse Drains... 3 Drainage Blanket... 4 Well System... 5
Drainage Blanket with Longitudinal Drains... 6
Other (Specify)... 7 _____

SHOULDER DATA	INSIDE SHOULDER	OUTSIDE SHOULDER
*5. SURFACE TYPE Turf... 1 Granular.... 2 Asphalt Concrete... 3 Concrete... 4 Surface Treatment... 5 Other (Specify)... 6 _____	[3.]	[3.]
*6. TOTAL WIDTH (FEET)	[4.]	[10.]
*7. PAVED WIDTH (FEET)	[4.]	[10.]
8. SHOULDER BASE TYPE (CODES-TABLE A.6) CALICHE	[41.]	[41.]
9. SURFACE THICKNESS (INCHES)	[5.0]	[5.0]
10. SHOULDER BASE THICKNESS (INCHES)	[14.0]	[14.0]
11. DIAMETER OF LONGITUDINAL DRAINPIPES (INCHES)		[__.__]
12. SPACING OF LATERALS (FEET)		[___.]

PREPARER Bruce C. Dall EMPLOYER BRE DATE 8/8/97

SPS-1 CONSTRUCTION DATA SHEET 4 LAYER DESCRIPTIONS	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [64]

*1 LAYER NUMBER	*2 LAYER DESCRIPTION	*3 MATERIAL TYPE CLASS	*4 LAYER THICKNESSES (Inches)				
			AVERAGE	MINIMUM	MAXIMUM	STD. DEV.	
1	SUBGRADE(7)	[59]	[redacted]	[redacted]	[redacted]	[redacted]	
2	[6]	[42]	[12.0]	---.-	---.-	---.-	
3	[5]	[41]	[13.5]	10.5	15.8	1.3	CALICHE
4	[4]	[28]	[2.8]	2.1	3.7	0.4	
5	[3]	[01]	[2.8]	2.2	3.5	0.3	
6	[__ __]	[__ __]	[---.-]	---.-	---.-	---.-	
7	[__ __]	[__ __]	[---.-]	---.-	---.-	---.-	
8	[__ __]	[__ __]	[---.-]	---.-	---.-	---.-	
9	[__ __]	[__ __]	[---.-]	---.-	---.-	---.-	
10	[__ __]	[__ __]	[---.-]	---.-	---.-	---.-	
11	[__ __]	[__ __]	[---.-]	---.-	---.-	---.-	
12	[__ __]	[__ __]	[---.-]	---.-	---.-	---.-	
13	[__ __]	[__ __]	[---.-]	---.-	---.-	---.-	
14	[__ __]	[__ __]	[---.-]	---.-	---.-	---.-	
15	[__ __]	[__ __]	[---.-]	---.-	---.-	---.-	

*5 DEPTH BELOW SURFACE TO "RIGID" LAYER (FEET) [__ __ . __]
(Rock, Stone, Dense Shale)

NOTES:

1. Layer 1 is the subgrade soil, the highest numbered layer is the pavement surface.

2. Layer description codes:

Overlay.....01	Base Layer.....05	Porous Friction Course..09
Seal/Tack Coat.....02	Subbase Layer.....06	Surface Treatment.....10
Original Surface.....03	Subgrade.....07	Embankment (Fill).....11
HMAC Layer (Subsurface).04	Interlayer.....08	

3. The material type classification codes are presented in Tables A.5, A.6, A.7 and A.8 of the Data Collection Guide for Long Term Pavement Performance Studies, dated January 17, 1990.

4. Enter the average thickness of each layer and the minimum, maximum and standard deviation of the thickness measurements, if known.

PREPARER [signature] EMPLOYER BRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 9 PLANT-MIXED ASPHALT BOUND LAYERS PLACEMENT DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [66]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [3-24-97]

*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [6-30-97]

*3 ASPHALT CONCRETE PLANT AND HAUL

	Type	Name	Haul Distance (Mi)	Time (Min)	Layer Numbers
Plant 1	[2]	GUERRA RANCH	[__ __ 5]	[__ 5]	[4] [5] [__]
Plant 2	[__]	_____	[__ __ __]	[__ __]	[__] [__] [__]
Plant 3	[__]	_____	[__ __ __]	[__ __]	[__] [ ] [__]

Plant Type: Batch..... 1 Drum Mix.... 2 Other...3 Specify_____

4. MANUFACTURER OF ASPHALT CONCRETE PAVER BARBER GREENE

5. MODEL DESIGNATION OF ASPHALT CONCRETE PAVER BG-270B

6. SINGLE PASS LAYDOWN WIDTH (Feet) [12.0]

7. ATB PLACEMENT LIFTS
   - Layer Number [__ __]
   - Nominal First Lift Placement Thickness (Inches) [__.__]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]
   - Nominal Third Lift Placement Thickness (Inches) [__.__]
   - Nominal Fourth Lift Placement Thickness (Inches) [__.__]

8. PATB PLACEMENT LIFTS
   - Layer Number [__ __]
   - Nominal First Lift Placement Thickness (Inches) [__.__]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]

9. AC BINDER COURSE LIFT
   - Layer Number [__ 4]
   - Nominal First Lift Placement Thickness (Inches) UNCOMPACTED [3.0]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]

10. AC SURFACE COURSE LIFT
   - Layer Number [__ 5]
   - Nominal First Lift Placement Thickness (Inches) UNCOMPACTED [3.0]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]

11. SURFACE FRICTION COURSE (If Placed)
   - Layer Number [__ __]
   - Nominal Placement Thickness (Inches) [__.__]

12. TEST SECTION STATION OF TRANSVERSE JOINTS (within test section)
   - Binder Course [__ + __ __]
   - Surface Course [__ + __ __]
   - Surface Friction Course [__ + __ __]

13. LOCATION OF LONGITUDINAL SURFACE JOINT [1]
   Between lanes.. 1 Within lane.. 2
   (specify offset from O/S feet) [__ __.__]

14. SIGNIFICANT EVENTS DURING CONSTRUCTION (disruptions, rain, equip. problems, etc.)_____

PREPARER Jane C. Dill EMPLOYER BRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [4 8] * SPS PROJECT CODE [0 1] * TEST SECTION NO. [6 6]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [3-24-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [3-26-97]
*3. LAYER NUMBER [4]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... 260.
Minimum..... 240.
Standard Deviation... __.__
Number of Tests ..... 3.
Maximum..... 280.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	__.__				
7	B	Steel-Whl Tandem	__.__				
8	C	Steel-Whl Tandem	__.__				
9	D	Steel-Whl Tandem	__.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	__.__	____.			
12	G	Pneumatic-Tired	__.__	____.			
13	H	Pneumatic-Tired	__.__	____.			
14	I	Single-Drum Vibr.	11.7		____.	____.	__.__
15	J	Single-Drum Vibr.	__.__		____.	____.	__.__
16	K	Single-Drum Vibr.	__.__		____.	____.	__.__
17	L	Single-Drum Vibr.	__.__		____.	____.	__.__
18	M	Double-Drum Vibr.	__.__		____.	____.	__.__
19	N	Double-Drum Vibr.	__.__		____.	____.	__.__
20	O	Double-Drum Vibr.	__.__		____.	____.	__.__
21	P	Double-Drum Vibr.	__.__		____.	____.	__.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I	__	__	__
24	Coverages	2.	__.	__.	__.
	INTERMEDIATE				
25	Roller Code (A-Q)	__	__	__	__
26	Coverages	__.	__.	__.	__.
	FINAL				
27	Roller Code (A-Q)	E	__	__	__
28	Coverages	6	__.	__.	__.
29	Air Temperature (°F)	98.	___.	___.	___.
30	Compacted Thickness (In)	2.8	__.__	__.__	__.__
31	Curing Period (Days)	1.0	__.__	__.__	__.__

PREPARER [signature] EMPLOYER BRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [66]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [6-29-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [6-30-97]
*3. LAYER NUMBER [5]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... 260.
Minimum..... 240.
Standard Deviation... __.__
Number of Tests ..... 3.
Maximum..... 280.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	__.__				
7	B	Steel-Whl Tandem	__.__				
8	C	Steel-Whl Tandem	__.__				
9	D	Steel-Whl Tandem	__.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	__.__	____.			
12	G	Pneumatic-Tired	__.__	____.			
13	H	Pneumatic-Tired	__.__	____.			
14	I	Single-Drum Vibr.	11.7		____.	.___	__.__
15	J	Single-Drum Vibr.	__.__		____.	.___	__.__
16	K	Single-Drum Vibr.	__.__		____.	.___	__.__
17	L	Single-Drum Vibr.	__.__		____.	.___	__.__
18	M	Double-Drum Vibr.	__.__		____.	.___	__.__
19	N	Double-Drum Vibr.	__.__		____.	.___	__.__
20	O	Double-Drum Vibr.	__.__		____.	.___	__.__
21	P	Double-Drum Vibr.	__.__		____.	.___	__.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I	__	__	__
24	Coverages	2.	__.	__.	__.
	INTERMEDIATE				
25	Roller Code (A-Q)	__	__	__	__
26	Coverages	__.	__.	__.	__.
	FINAL				
27	Roller Code (A-Q)	E	__	__	__
28	Coverages	6.	__.	__.	__.
29	Air Temperature (°F)	100.	___.	___.	___.
30	Compacted Thickness (In)	2.8	__.__	__.__	__.__
31	Curing Period (Days)	7.0	__.__	__.__	__.__

PREPARER Steve C. Dell EMPLOYER BRS DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 11 PLANT-MIXED ASPHALT BOUND LAYERS DENSITY AND PROFILE DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [66]

1. NUCLEAR DENSITY MEASUREMENTS

LAYER TYPE	ATB	Binder Course	Surface Course	Surface Friction Layer
Measurement Method (A, B, C)[1]	__	A	A	__
Number of Measurements	__ __	12	12	__ __
Average (pcf)	__ __ __.__	134.0	137.4	__ __ __.__
Maximum (pcf)	__ __ __.__	136.7	140.2	__ __ __.__
Minimum (pcf)	__ __ __.__	129.8	134.4	__ __ __.__
Standard Deviation (pcf)	__ __ __.__	__ __ 3.0	__ __ 1.9	__ __ __.__
Layer Number	__ __	__ 4	__ 5	__ __

[1]Measurement Method Backscatter... A Direct Transmission... B Air Gap... C

2. MANUFACTURER OF NUCLEAR DENSITY GAUGE TROXLER

3. NUCLEAR DENSITY GAUGE MODEL NUMBER 3411-B

4. NUCLEAR DENSITY GAUGE IDENTIFICATION NUMBER 12857

5. NUCLEAR GAUGE COUNT RATE FOR STANDARDIZATION __ __ __ __ __

6. PROFILOGRAPH MEASUREMENTS

Profilograph Type California... 1 Rainhart... 2 1
Profile Index (Inches/Mile) __ 6
Interpretation Method Manual.. 1 Mechanical.. 2 Computer.. 3 3
Height of Blanking Band (Inches) 0.2 __
Cutoff Height (Inches) 0.3 __

7. SURFACE PROFILE USED AS BASIS OF INCENTIVE PAYMENT? (YES, NO) YES

PREPARER Jere T. Dill EMPLOYER BRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 13 UNBOUND AGGREGATE BASE MATERIAL PLACEMENT	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [66]

*1. UNBOUND BASE MATERIAL PLACEMENT BEGAN (Month-Day-Year) [3-17-97]

*2. UNBOUND BASE MATERIAL PLACEMENT COMPLETED (Month-Day-Year) [3-21-97]

*3. LAYER NUMBER (From Sheet 4) [3]

PRIMARY COMPACTION EQUIPMENT

*4. CODE TYPE [5]

COMPACTION TYPE CODES
Pneumatic - Tired... 1 Steel Wheel Tandem... 2 Single Drum Vibr.... 3
Double Drum Vibr.... 4
Other (Specify)... 5 2 COVERAGES SINGLE DRUM VIBR (12 TONS)
6 COVERAGES PNEUMATIC (25 TONS)

*5. GROSS WEIGHT (TONS) [__.__]

*6. LIFT THICKNESSES
Nominal First Lift Placement Thickness (inches) · UNCOMPACTED & CUT [4]
Nominal Second Lift Placement Thickness (inches) [4]
Nominal Third Lift Placement Thickness (inches) [4]
Nominal Fourth Lift Placement Thickness (inches) [4]

DENSITY DATA IS RECORDED ON SAMPLING DATA SHEET 8-1

7. SIGNIFICANT EVENTS DURING CONSTRUCTION (DISRUPTIONS, RAIN, EQUIPMENT PROBLEMS, ETC.) _____

PREPARER Brent Dill EMPLOYER BRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 14 SUBGRADE PREPARATION	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [66]

*1. SUBGRADE PREPARATION BEGAN (Month-Day-Year) [3-10-97]

*2. SUBGRADE PREPARATION COMPLETED (Month-Day-Year) [3-12-97]

PRIMARY COMPACTION EQUIPMENT

*3. CODE TYPE [5]

COMPACTION EQUIPMENT TYPE CODES
Sheepsfoot... 1 Pneumatic Tired... 2 Steel Wheel Tandem... 3
Single Drum Vibr.... 4 Double Drum Vibr.... 5
Other (Specify)... 6 2 COVERAGES SINGLE DRUM VIBR (12 TONS) + 6 COVERAGES PNEUMATIC (25 TONS)

*4. GROSS WEIGHT (TONS) [__.__]

	TYPE	PERCENT
*5. STABILIZING AGENT 1	[2]	[2.0]
*6. STABILIZING AGENT 2	[__]	[__.__]

STABILIZING AGENT TYPE CODES
Portland Cement... 1 Lime... 2 Fly Ash, Class C... 3
Fly Ash, Class N... 4
Other (Specify)... 5 _____

*7. TYPICAL LIFT THICKNESS (INCHES) [__]
(For Fill Sections Only)

DENSITY DATA IS RECORDED ON SAMPLING DATA SHEET 8-1

8. SIGNIFICANT EVENTS DURING CONSTRUCTION (DISRUPTIONS, RAIN, EQUIPMENT PROBLEMS, ETC.) _____

PREPARER [signature] EMPLOYER BRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 2 GEOMETRIC, SHOULDER AND DRAINAGE INFORMATION	* STATE CODE [4 8] * SPS PROJECT CODE [0 1] * TEST SECTION NO. [6 0]

*1. LANE WIDTH (FEET) [1 2.]

2. MONITORING SITE LANE NUMBER [1.]
(LANE 1 IS OUTSIDE LANE, NEXT TO SHOULDER
LANE 2 IS NEXT TO LANE 1, ETC.)

*3. SUBSURFACE DRAINAGE LOCATION [3.]
Continuous Along Test Section... 1 Intermittent... 2 None... 3

*4. SUBSURFACE DRAINAGE TYPE [1.]
No Subsurface Drainage... 1 Longitudinal Drains... 2
Transverse Drains... 3 Drainage Blanket... 4 Well System... 5
Drainage Blanket with Longitudinal Drains... 6
Other (Specify)... 7 _____

SHOULDER DATA	INSIDE SHOULDER	OUTSIDE SHOULDER
*5. SURFACE TYPE Turf... 1 Granular.... 2 Asphalt Concrete... 3 Concrete... 4 Surface Treatment... 5 Other (Specify)... 6 _____	[3.]	[3.]
*6. TOTAL WIDTH (FEET)	[_ 4.]	[1 0.]
*7. PAVED WIDTH (FEET)	[_ 4.]	[1 0.]
8. SHOULDER BASE TYPE (CODES-TABLE A.6) LIMEROCK-ASPHALT (LRA)	[4 9.]	[4 9.]
9. SURFACE THICKNESS (INCHES)	[_ 5. 0]	[_ 5. 0]
10. SHOULDER BASE THICKNESS (INCHES)	[1 0. 5]	[1 0. 5]
11. DIAMETER OF LONGITUDINAL DRAINPIPES (INCHES)		[_. _]
12. SPACING OF LATERALS (FEET)		[_ _ _.]

PREPARER [signature] EMPLOYER BRE DATE 8/8/97

SPS-1 CONSTRUCTION DATA SHEET 4 LAYER DESCRIPTIONS	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [602]

*1 LAYER NUMBER	*2 LAYER DESCRIPTION	*3 MATERIAL TYPE CLASS	*4 LAYER THICKNESSES (Inches)			
			AVERAGE	MINIMUM	MAXIMUM	STD. DEV.
1	SUBGRADE(7)	[59]				
2	[06]	[42]	[12.0]	---.-	---.-	---.-
3	[05]	[49]	[10.6]	9.1	12.4	0.7
4	[04]	[28]	[2.7]	1.7	3.4	0.4
5	[03]	[01]	[3.0]	2.2	3.6	0.3
6	[__ __]	[__ __]	[___.__]	---.-	---.-	---.-
7	[__ __]	[__ __]	[___.__]	---.-	---.-	---.-
8	[__ __]	[__ __]	[___.__]	---.-	---.-	---.-
9	[__ __]	[__ __]	[___.__]	---.-	---.-	---.-
10	[__ __]	[__ __]	[___.__]	---.-	---.-	---.-
11	[__ __]	[__ __]	[___.__]	---.-	---.-	---.-
12	[__ __]	[__ __]	[___.__]	---.-	---.-	---.-
13	[__ __]	[__ __]	[___.__]	---.-	---.-	---.-
14	[__ __]	[__ __]	[___.__]	---.-	---.-	---.-
15	[__ __]	[__ __]	[___.__]	---.-	---.-	---.-

LIMEROCK ASPHALT (LRA)

*5 DEPTH BELOW SURFACE TO "RIGID" LAYER (FEET) [__ __ . __]
(Rock, Stone, Dense Shale)

NOTES:

1. Layer 1 is the subgrade soil, the highest numbered layer is the pavement surface.

2. Layer description codes:

Overlay.....01	Base Layer.....05	Porous Friction Course..09
Seal/Tack Coat.....02	Subbase Layer.....06	Surface Treatment.....10
Original Surface.....03	Subgrade.....07	Embankment (Fill).....11
HMAC Layer (Subsurface).04	Interlayer.....08	

3. The material type classification codes are presented in Tables A.5, A.6, A.7 and A.8 of the Data Collection Guide for Long Term Pavement Performance Studies, dated January 17, 1990.

4. Enter the average thickness of each layer and the minimum, maximum and standard deviation of the thickness measurements, if known.

PREPARER Bruce D. Dill EMPLOYER BRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 9 PLANT-MIXED ASPHALT BOUND LAYERS PLACEMENT DATA	* STATE CODE [4 8] * SPS PROJECT CODE [0 1] * TEST SECTION NO. [6 0]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [_3-24-97]

*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [_6-30-97]

*3 ASPHALT CONCRETE PLANT AND HAUL

	Type	Name	Haul Distance (Mi)	Time (Min)	Layer Numbers
Plant 1	[2]	GUERRA RANCH	[__5]	[_5]	[4] [5] [__]
Plant 2	[__]	_____	[_ _ _]	[_ _]	[__] [__] [__]
Plant 3	[__]	_____	[_ _ _]	[_ _]	[__] [__] [__]

Plant Type: Batch..... 1 Drum Mix.... 2 Other...3 Specify_____

4. MANUFACTURER OF ASPHALT CONCRETE PAVER BARBER-GREENE

5. MODEL DESIGNATION OF ASPHALT CONCRETE PAVER BG-270B

6. SINGLE PASS LAYDOWN WIDTH (Feet) [12.0]

7. ATB PLACEMENT LIFTS
   - Layer Number [__ __]
   - Nominal First Lift Placement Thickness (Inches) [__.__]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]
   - Nominal Third Lift Placement Thickness (Inches) [__.__]
   - Nominal Fourth Lift Placement Thickness (Inches) [__.__]

8. PATB PLACEMENT LIFTS
   - Layer Number [__ __]
   - Nominal First Lift Placement Thickness (Inches) [__.__]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]

9. AC BINDER COURSE LIFT
   - Layer Number [_4]
   - Nominal First Lift Placement Thickness (Inches) UNCOMPACTED [3.0]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]

10. AC SURFACE COURSE LIFT
   - Layer Number [_5]
   - Nominal First Lift Placement Thickness (Inches) UNCOMPACTED [3.0]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]

11. SURFACE FRICTION COURSE (If Placed)
   - Layer Number [__ __]
   - Nominal Placement Thickness (Inches) [__.__]

12. TEST SECTION STATION OF TRANSVERSE JOINTS (within test section)
   - Binder Course [__ + __ __]
   - Surface Course [__ + __ __]
   - Surface Friction Course [__ + __ __]

13. LOCATION OF LONGITUDINAL SURFACE JOINT [1]
   Between lanes.. 1 Within lane.. 2
   (specify offset from O/S feet) [__ __.__]

14. SIGNIFICANT EVENTS DURING CONSTRUCTION (disruptions, rain, equip. problems, etc.)_____

PREPARER Brian Dall EMPLOYER BRE DATE 8/8/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [60]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [3-24-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [3-26-97]
*3. LAYER NUMBER [4]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... 260.
Minimum..... 240.
Standard Deviation... ___.
Number of Tests ..... 3.
Maximum..... 280.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	___.				
7	B	Steel-Whl Tandem	___.				
8	C	Steel-Whl Tandem	___.				
9	D	Steel-Whl Tandem	___.				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	___.	____.			
12	G	Pneumatic-Tired	___.	____.			
13	H	Pneumatic-Tired	___.	____.			
14	I	Single-Drum Vibr.	11.7		____.	___.	___.
15	J	Single-Drum Vibr.	___.		____.	___.	___.
16	K	Single-Drum Vibr.	___.		____.	___.	___.
17	L	Single-Drum Vibr.	___.		____.	___.	___.
18	M	Double-Drum Vibr.	___.		____.	___.	___.
19	N	Double-Drum Vibr.	___.		____.	___.	___.
20	O	Double-Drum Vibr.	___.		____.	___.	___.
21	P	Double-Drum Vibr.	___.		____.	___.	___.
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I	___	___	___
24	Coverages	12.	___.	___.	___.
	INTERMEDIATE				
25	Roller Code (A-Q)	___	___	___	___
26	Coverages	___.	___.	___.	___.
	FINAL				
27	Roller Code (A-Q)	E	___	___	___
28	Coverages	16.	___.	___.	___.
29	Air Temperature (°F)	98.	____.	____.	____.
30	Compacted Thickness (In)	2.1	___.	___.	___.
31	Curing Period (Days)	1.0	___.	___.	___.

PREPARER Dan C. Dill EMPLOYER BRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [60]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [6-29-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [6-30-97]
*3. LAYER NUMBER [5]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... 260.
Minimum..... 240.
Standard Deviation... ___.__
Number of Tests ..... 3.
Maximum..... 280.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	___.__				
7	B	Steel-Whl Tandem	___.__				
8	C	Steel-Whl Tandem	___.__				
9	D	Steel-Whl Tandem	___.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	___.__	____.			
12	G	Pneumatic-Tired	___.__	____.			
13	H	Pneumatic-Tired	___.__	____.			
14	I	Single-Drum Vibr.	11.7		____.	___.__	___.__
15	J	Single-Drum Vibr.	___.__		____.	___.__	___.__
16	K	Single-Drum Vibr.	___.__		____.	___.__	___.__
17	L	Single-Drum Vibr.	___.__		____.	___.__	___.__
18	M	Double-Drum Vibr.	___.__		____.	___.__	___.__
19	N	Double-Drum Vibr.	___.__		____.	___.__	___.__
20	O	Double-Drum Vibr.	___.__		____.	___.__	___.__
21	P	Double-Drum Vibr.	___.__		____.	___.__	___.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I	___	___	___
24	Coverages	2.	___.	___.	___.
	INTERMEDIATE				
25	Roller Code (A-Q)	___	___	___	___
26	Coverages	___.	___.	___.	___.
	FINAL				
27	Roller Code (A-Q)	E	___	___	___
28	Coverages	6.	___.	___.	___.
29	Air Temperature (°F)	100.	___.	___.	___.
30	Compacted Thickness (In)	3.0	___.__	___.__	___.__
31	Curing Period (Days)	7.0	___.__	___.__	___.__

PREPARER Steve V. Dell EMPLOYER BRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 11 PLANT-MIXED ASPHALT BOUND LAYERS DENSITY AND PROFILE DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [60]

1. NUCLEAR DENSITY MEASUREMENTS

LAYER TYPE	ATB	Binder Course	Surface Course	Surface Friction Layer
Measurement Method (A, B, C)[1]	___	A	A	___
Number of Measurements	___ ___	12	12	___ ___
Average (pcf)	___.___	139.0	138.1	___.___
Maximum (pcf)	___.___	141.8	144.4	___.___
Minimum (pcf)	___.___	135.1	133.1	___.___
Standard Deviation (pcf)	___.___	2.0	3.4	___.___
Layer Number	___ ___	4	5	___ ___

[1]Measurement Method Backscatter... A Direct Transmission... B Air Gap... C

2. MANUFACTURER OF NUCLEAR DENSITY GAUGE: TROXLER

3. NUCLEAR DENSITY GAUGE MODEL NUMBER: 3411-B

4. NUCLEAR DENSITY GAUGE IDENTIFICATION NUMBER: 12857

5. NUCLEAR GAUGE COUNT RATE FOR STANDARDIZATION: _____

6. PROFILOGRAPH MEASUREMENTS

Profilograph Type California... 1 Rainhart... 2	1
Profile Index (Inches/Mile)	6
Interpretation Method Manual.. 1 Mechanical.. 2 Computer.. 3	3
Height of Blanking Band (Inches)	0.2
Cutoff Height (Inches)	0.3

7. SURFACE PROFILE USED AS BASIS OF INCENTIVE PAYMENT? (YES, NO) YES

PREPARER [signature] EMPLOYER BRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 13 UNBOUND AGGREGATE BASE MATERIAL PLACEMENT	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [60]

*1. UNBOUND BASE MATERIAL PLACEMENT BEGAN (Month-Day-Year) [3-17-97]

*2. UNBOUND BASE MATERIAL PLACEMENT COMPLETED (Month-Day-Year) [3-21-97]

*3. LAYER NUMBER (From Sheet 4) [3]

PRIMARY COMPACTION EQUIPMENT

*4. CODE TYPE [5]

COMPACTION TYPE CODES
Pneumatic - Tired... 1 Steel Wheel Tandem... 2 Single Drum Vibr.... 3
Double Drum Vibr.... 4
Other (Specify)... 5 2 COVERAGES SINGLE DRUM VIBR. (12 TONS)
6 COVERAGES PNEUMATIC (25 TONS)

*5. GROSS WEIGHT (TONS) [__.__]

*6. LIFT THICKNESSES
Nominal First Lift Placement Thickness (inches) UNCOMPACTED & CUT [4]
Nominal Second Lift Placement Thickness (inches) [4]
Nominal Third Lift Placement Thickness (inches) [4]
Nominal Fourth Lift Placement Thickness (inches) [__]

DENSITY DATA IS RECORDED ON SAMPLING DATA SHEET 8-1

7. SIGNIFICANT EVENTS DURING CONSTRUCTION (DISRUPTIONS, RAIN, EQUIPMENT PROBLEMS, ETC.) _____

PREPARER James V. Dell EMPLOYER BRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 14 SUBGRADE PREPARATION	* STATE CODE [4 8] * SPS PROJECT CODE [0 1] * TEST SECTION NO. [6 0]

*1. SUBGRADE PREPARATION BEGAN (Month-Day-Year) [_ 3-1 0-9 7]

*2. SUBGRADE PREPARATION COMPLETED (Month-Day-Year) [_ 3-1 2-9 7]

PRIMARY COMPACTION EQUIPMENT

*3. CODE TYPE [5]

COMPACTION EQUIPMENT TYPE CODES
Sheepsfoot... 1 Pneumatic Tired... 2 Steel Wheel Tandem... 3
Single Drum Vibr.... 4 Double Drum Vibr.... 5
Other (Specify)... 6 2 COVERAGES SINGLE DRUM VIBR (12 TONS)
6 COVERAGES PNEUMATIC (25 TONS)

*4. GROSS WEIGHT (TONS) [_ _._]

	TYPE	PERCENT
*5. STABILIZING AGENT 1	[2]	[_ 2.0]
*6. STABILIZING AGENT 2	[_]	[_ _._]

STABILIZING AGENT TYPE CODES
Portland Cement... 1 Lime... 2 Fly Ash, Class C... 3
Fly Ash, Class N... 4
Other (Specify)... 5 _____

*7. TYPICAL LIFT THICKNESS (INCHES) [_ _]
(For Fill Sections Only)

DENSITY DATA IS RECORDED ON SAMPLING DATA SHEET 8-1

8. SIGNIFICANT EVENTS DURING CONSTRUCTION (DISRUPTIONS, RAIN, EQUIPMENT PROBLEMS, ETC.) _____

PREPARER Jerry F. Dell EMPLOYER BRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 2 GEOMETRIC, SHOULDER AND DRAINAGE INFORMATION	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [61]

*1. LANE WIDTH (FEET) [12.]

2. MONITORING SITE LANE NUMBER [1.]
(LANE 1 IS OUTSIDE LANE, NEXT TO SHOULDER
LANE 2 IS NEXT TO LANE 1, ETC.)

*3. SUBSURFACE DRAINAGE LOCATION [3.]
Continuous Along Test Section... 1 Intermittent... 2 None... 3

*4. SUBSURFACE DRAINAGE TYPE [1.]
No Subsurface Drainage... 1 Longitudinal Drains... 2
Transverse Drains... 3 Drainage Blanket... 4 Well System... 5
Drainage Blanket with Longitudinal Drains... 6
Other (Specify)... 7 _____

SHOULDER DATA	INSIDE SHOULDER	OUTSIDE SHOULDER
*5. SURFACE TYPE Turf... 1 Granular.... 2 Asphalt Concrete... 3 Concrete... 4 Surface Treatment... 5 Other (Specify)... 6 _____	[3.]	[3.]
*6. TOTAL WIDTH (FEET)	[4.]	[10.]
*7. PAVED WIDTH (FEET)	[4.]	[10.]
8. SHOULDER BASE TYPE (CODES-TABLE A.6) LIME ROCK-ASPHALT (LRA)	[49.]	[49.]
9. SURFACE THICKNESS (INCHES)	[5.0]	[5.0]
10. SHOULDER BASE THICKNESS (INCHES)	[8.5]	[8.5]
11. DIAMETER OF LONGITUDINAL DRAINPIPES (INCHES)		[__.__]
12. SPACING OF LATERALS (FEET)		[___.]

PREPARER [signature] EMPLOYER BRE DATE 8/8/97

SPS-1 CONSTRUCTION DATA SHEET 4 LAYER DESCRIPTIONS	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [61]

*1 LAYER NUMBER	*2 LAYER DESCRIPTION	*3 MATERIAL TYPE CLASS	*4 LAYER THICKNESSES (Inches)			
			AVERAGE	MINIMUM	MAXIMUM	STD. DEV.
1	SUBGRADE(7)	[59]				
2	[_6]	[42]	[_12.0]	___.__	___.__	___.__
3	[_5]	[49]	[__8.3]	__7.0	__9.9	__0.6
4	[_4]	[28]	[__2.1]	__1.3	__3.2	__0.4
5	[_3]	[_1]	[__2.2]	__1.5	__2.6	__0.2
6	[__]	[__]	[___.__]	___.__	___.__	___.__
7	[__]	[__]	[___.__]	___.__	___.__	___.__
8	[__]	[__]	[___.__]	___.__	___.__	___.__
9	[__]	[__]	[___.__]	___.__	___.__	___.__
10	[__]	[__]	[___.__]	___.__	___.__	___.__
11	[__]	[__]	[___.__]	___.__	___.__	___.__
12	[__]	[__]	[___.__]	___.__	___.__	___.__
13	[__]	[__]	[___.__]	___.__	___.__	___.__
14	[__]	[__]	[___.__]	___.__	___.__	___.__
15	[__]	[__]	[___.__]	___.__	___.__	___.__

LIMEROCK ASPHALT (LRA)

*5 DEPTH BELOW SURFACE TO "RIGID" LAYER (FEET) [__.__]
(Rock, Stone, Dense Shale)

NOTES:

1. Layer 1 is the subgrade soil, the highest numbered layer is the pavement surface.

2. Layer description codes:

Overlay.....01	Base Layer.....05	Porous Friction Course..09
Seal/Tack Coat.....02	Subbase Layer.....06	Surface Treatment.....10
Original Surface.....03	Subgrade.....07	Embankment (Fill).....11
HMAC Layer (Subsurface).04	Interlayer.....08	

3. The material type classification codes are presented in Tables A.5, A.6, A.7 and A.8 of the Data Collection Guide for Long Term Pavement Performance Studies, dated January 17, 1990.

4. Enter the average thickness of each layer and the minimum, maximum and standard deviation of the thickness measurements, if known.

PREPARER Jerry Dill EMPLOYER BRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 9 PLANT-MIXED ASPHALT BOUND LAYERS PLACEMENT DATA	* STATE CODE [4 8] * SPS PROJECT CODE [0 1] * TEST SECTION NO. [6 1]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [3-24-97]

*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [6-30-97]

*3 ASPHALT CONCRETE PLANT AND HAUL

	Type	Name	Haul Distance (Mi)	Time (Min)	Layer Numbers		
Plant 1	[2]	GUERRA RANCH	[5]	[5]	[4]	[5]	[ ]
Plant 2	[ ]		[ ]	[ ]	[ ]	[ ]	[ ]
Plant 3	[ ]		[ ]	[ ]	[ ]	[ ]	[ ]

Plant Type: Batch..... 1 Drum Mix.... 2 Other...3 Specify_____

4. MANUFACTURER OF ASPHALT CONCRETE PAVER BARBER GREENE

5. MODEL DESIGNATION OF ASPHALT CONCRETE PAVER BG-270B

6. SINGLE PASS LAYDOWN WIDTH (Feet) [12.0]

7. ATB PLACEMENT LIFTS
   - Layer Number [ ]
   - Nominal First Lift Placement Thickness (Inches) [.]
   - Nominal Second Lift Placement Thickness (Inches) [.]
   - Nominal Third Lift Placement Thickness (Inches) [.]
   - Nominal Fourth Lift Placement Thickness (Inches) [.]

8. PATB PLACEMENT LIFTS
   - Layer Number [ ]
   - Nominal First Lift Placement Thickness (Inches) [.]
   - Nominal Second Lift Placement Thickness (Inches) [.]

9. AC BINDER COURSE LIFT
   - Layer Number [4]
   - Nominal First Lift Placement Thickness (Inches) UNCOMPACTED [3.0]
   - Nominal Second Lift Placement Thickness (Inches) [.]

10. AC SURFACE COURSE LIFT
   - Layer Number [5]
   - Nominal First Lift Placement Thickness (Inches) UNCOMPACTED [3.0]
   - Nominal Second Lift Placement Thickness (Inches) [.]

11. SURFACE FRICTION COURSE (If Placed)
   - Layer Number [ ]
   - Nominal Placement Thickness (Inches) [.]

12. TEST SECTION STATION OF TRANSVERSE JOINTS (within test section)
   - Binder Course [+]
   - Surface Course [+]
   - Surface Friction Course [+]

13. LOCATION OF LONGITUDINAL SURFACE JOINT [ ]
   Between lanes.. 1 Within lane.. 2
   (specify offset from O/S feet) [.]

14. SIGNIFICANT EVENTS DURING CONSTRUCTION (disruptions, rain, equip. problems, etc.)_____

PREPARER [signature] EMPLOYER BRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [4 8] * SPS PROJECT CODE [0 1] * TEST SECTION NO. [6 1]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [3-24-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [3-26-97]
*3. LAYER NUMBER [4]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... 260.
Minimum..... 240.
Standard Deviation... __.__
Number of Tests ..... 3.
Maximum..... 280.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	__.__				
7	B	Steel-Whl Tandem	__.__				
8	C	Steel-Whl Tandem	__.__				
9	D	Steel-Whl Tandem	__.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	__.__	____.			
12	G	Pneumatic-Tired	__.__	____.			
13	H	Pneumatic-Tired	__.__	____.			
14	I	Single-Drum Vibr.	11.7		____.	____.	__.__
15	J	Single-Drum Vibr.	__.__		____.	____.	__.__
16	K	Single-Drum Vibr.	__.__		____.	____.	__.__
17	L	Single-Drum Vibr.	__.__		____.	____.	__.__
18	M	Double-Drum Vibr.	__.__		____.	____.	__.__
19	N	Double-Drum Vibr.	__.__		____.	____.	__.__
20	O	Double-Drum Vibr.	__.__		____.	____.	__.__
21	P	Double-Drum Vibr.	__.__		____.	____.	__.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I	__	__	__
24	Coverages	2.	__.	__.	__.
	INTERMEDIATE				
25	Roller Code (A-Q)	__	__	__	__
26	Coverages	__.	__.	__.	__.
	FINAL				
27	Roller Code (A-Q)	E	__	__	__
28	Coverages	6.	__.	__.	__.
29	Air Temperature (°F)	98.	___.	___.	___.
30	Compacted Thickness (In)	2.1	__.__	__.__	__.__
31	Curing Period (Days)	1.0	__.__	__.__	__.__

PREPARER [signature] EMPLOYER BRC DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [01]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [6-29-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [6-30-97]
*3. LAYER NUMBER [5]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... 260.
Minimum..... 240.
Standard Deviation... ___.__
Number of Tests ..... 3.
Maximum..... 280.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	___.__				
7	B	Steel-Whl Tandem	___.__				
8	C	Steel-Whl Tandem	___.__				
9	D	Steel-Whl Tandem	___.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	___.__	____.			
12	G	Pneumatic-Tired	___.__	____.			
13	H	Pneumatic-Tired	___.__	____.			
14	I	Single-Drum Vibr.	11.7		____.	___	___.__
15	J	Single-Drum Vibr.	___.__		____.	___	___.__
16	K	Single-Drum Vibr.	___.__		____.	___	___.__
17	L	Single-Drum Vibr.	___.__		____.	___	___.__
18	M	Double-Drum Vibr.	___.__		____.	___	___.__
19	N	Double-Drum Vibr.	___.__		____.	___	___.__
20	O	Double-Drum Vibr.	___.__		____.	___	___.__
21	P	Double-Drum Vibr.	___.__		____.	___	___.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I	___	___	___
24	Coverages	2.	___.	___.	___.
	INTERMEDIATE				
25	Roller Code (A-Q)	___	___	___	___
26	Coverages	___.	___.	___.	___.
	FINAL				
27	Roller Code (A-Q)	E	___	___	___
28	Coverages	6	___.	___.	___.
29	Air Temperature (°F)	100.	____.	____.	____.
30	Compacted Thickness (In)	2.2	___.__	___.__	___.__
31	Curing Period (Days)	1.0	___.__	___.__	___.__

PREPARER Brent Dall EMPLOYER BRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 11 PLANT-MIXED ASPHALT BOUND LAYERS DENSITY AND PROFILE DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [61]

1. NUCLEAR DENSITY MEASUREMENTS

LAYER TYPE	ATB	Binder Course	Surface Course	Surface Friction Layer
Measurement Method (A, B, C)[1]		A	A	
Number of Measurements		12	12	
Average (pcf)		134.4	138.0	
Maximum (pcf)		140.6	141.8	
Minimum (pcf)		126.4	127.8	
Standard Deviation (pcf)		4.4	4.0	
Layer Number		4	5	

[1]Measurement Method Backscatter... A Direct Transmission... B Air Gap... C

2. MANUFACTURER OF NUCLEAR DENSITY GAUGE: Troxler

3. NUCLEAR DENSITY GAUGE MODEL NUMBER: 3411-B

4. NUCLEAR DENSITY GAUGE IDENTIFICATION NUMBER: 12857

5. NUCLEAR GAUGE COUNT RATE FOR STANDARDIZATION: _____

6. PROFILOGRAPH MEASUREMENTS

Profilograph Type California... 1 Rainhart... 2		1
Profile Index (Inches/Mile)		6
Interpretation Method Manual.. 1 Mechanical.. 2 Computer.. 3		3
Height of Blanking Band (Inches)	0.2	
Cutoff Height (Inches)	0.3	

7. SURFACE PROFILE USED AS BASIS OF INCENTIVE PAYMENT? (YES, NO): YES

PREPARER Dave C. Dell EMPLOYER BRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 13 UNBOUND AGGREGATE BASE MATERIAL PLACEMENT	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [61]

*1. UNBOUND BASE MATERIAL PLACEMENT BEGAN (Month-Day-Year) [3-17-97]

*2. UNBOUND BASE MATERIAL PLACEMENT COMPLETED (Month-Day-Year) [3-21-97]

*3. LAYER NUMBER (From Sheet 4) [3]

PRIMARY COMPACTION EQUIPMENT

*4. CODE TYPE [5]

COMPACTION TYPE CODES
Pneumatic - Tired... 1 Steel Wheel Tandem... 2 Single Drum Vibr.... 3
Double Drum Vibr.... 4
Other (Specify)... 5 2 COVERAGES SINGLE DRUM VIBR. (12 TONS)
6 COVERAGES PNEUMATIC (25 TONS)

*5. GROSS WEIGHT (TONS) [__.__]

*6. LIFT THICKNESSES
Nominal First Lift Placement Thickness (inches) UNCOMPACTED 2" CUT [4]
Nominal Second Lift Placement Thickness (inches) [4]
Nominal Third Lift Placement Thickness (inches) [4]
Nominal Fourth Lift Placement Thickness (inches) [__]

DENSITY DATA IS RECORDED ON SAMPLING DATA SHEET 8-1

7. *SIGNIFICANT EVENTS DURING CONSTRUCTION (DISRUPTIONS, RAIN, EQUIPMENT PROBLEMS, ETC.)* _____

PREPARER [signature] EMPLOYER BRG DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 14 SUBGRADE PREPARATION	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [61]

*1. SUBGRADE PREPARATION BEGAN (Month-Day-Year) [3-10-97]

*2. SUBGRADE PREPARATION COMPLETED (Month-Day-Year) [3-12-97]

PRIMARY COMPACTION EQUIPMENT

*3. CODE TYPE [5]

COMPACTION EQUIPMENT TYPE CODES
Sheepsfoot... 1 Pneumatic Tired... 2 Steel Wheel Tandem... 3
Single Drum Vibr.... 4 Double Drum Vibr.... 5
Other (Specify)... 6 2 COVERAGES SINGLE DRUM VIBR. (12 TONS)
6 COVERAGES PNEUMATIC (25 TONS)

*4. GROSS WEIGHT (TONS) [__.__]

	TYPE	PERCENT
*5. STABILIZING AGENT 1	[2]	[2.0]
*6. STABILIZING AGENT 2	[__]	[__.__]

STABILIZING AGENT TYPE CODES
Portland Cement... 1 Lime... 2 Fly Ash, Class C... 3
Fly Ash, Class N... 4
Other (Specify)... 5 _____

*7. TYPICAL LIFT THICKNESS (INCHES) [__]
(For Fill Sections Only)

DENSITY DATA IS RECORDED ON SAMPLING DATA SHEET 8-1

8. SIGNIFICANT EVENTS DURING CONSTRUCTION (DISRUPTIONS, RAIN, EQUIPMENT PROBLEMS, ETC.) _____

PREPARER Dana C. Dell EMPLOYER BRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 2 GEOMETRIC, SHOULDER AND DRAINAGE INFORMATION	* STATE CODE [4 8] * SPS PROJECT CODE [0 1] * TEST SECTION NO. [6 2]

*1. LANE WIDTH (FEET) [1 2.]

2. MONITORING SITE LANE NUMBER [1.]
(LANE 1 IS OUTSIDE LANE, NEXT TO SHOULDER
LANE 2 IS NEXT TO LANE 1, ETC.)

*3. SUBSURFACE DRAINAGE LOCATION [3.]
Continuous Along Test Section... 1 Intermittent... 2 None... 3

*4. SUBSURFACE DRAINAGE TYPE [1.]
No Subsurface Drainage... 1 Longitudinal Drains... 2
Transverse Drains... 3 Drainage Blanket... 4 Well System... 5
Drainage Blanket with Longitudinal Drains... 6
Other (Specify)... 7 _____

SHOULDER DATA	INSIDE SHOULDER	OUTSIDE SHOULDER
*5. SURFACE TYPE Turf... 1 Granular.... 2 Asphalt Concrete... 3 Concrete... 4 Surface Treatment... 5 Other (Specify)... 6 _____	[3.]	[3.]
*6. TOTAL WIDTH (FEET)	[_ 4.]	[1 0.]
*7. PAVED WIDTH (FEET)	[_ 4.]	[1 0.]
8. SHOULDER BASE TYPE (CODES-TABLE A.6)	[2 3.]	[2 3.]
9. SURFACE THICKNESS (INCHES)	[_ 5. 0]	[_ 5. 0]
10. SHOULDER BASE THICKNESS (INCHES)	[_ 8. 5]	[_ 8. 5]
11. DIAMETER OF LONGITUDINAL DRAINPIPES (INCHES)		[_. _]
12. SPACING OF LATERALS (FEET)		[_ _ _.]

PREPARER [signature] EMPLOYER BRC DATE 8/8/97

SPS-1 CONSTRUCTION DATA SHEET 4 LAYER DESCRIPTIONS	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [62]

*1 LAYER NUMBER	*2 LAYER DESCRIPTION	*3 MATERIAL TYPE CLASS	*4 LAYER THICKNESSES (Inches)			
			AVERAGE	MINIMUM	MAXIMUM	STD. DEV.
1	SUBGRADE(7)	[59]	[redacted]	[redacted]	[redacted]	[redacted]
2	[6]	[42]	[12.0]	---.-	---.-	---.-
3	[5]	[23]	[8.0]	6.6	9.3	0.5
4	[4]	[28]	[2.1]	1.5	2.9	0.3
5	[3]	[01]	[2.7]	2.1	3.3	0.2
6	[ ]	[ ]	[ ]	---.-	---.-	---.-
7	[ ]	[ ]	[ ]	---.-	---.-	---.-
8	[ ]	[ ]	[ ]	---.-	---.-	---.-
9	[ ]	[ ]	[ ]	---.-	---.-	---.-
10	[ ]	[ ]	[ ]	---.-	---.-	---.-
11	[ ]	[ ]	[ ]	---.-	---.-	---.-
12	[ ]	[ ]	[ ]	---.-	---.-	---.-
13	[ ]	[ ]	[ ]	---.-	---.-	---.-
14	[ ]	[ ]	[ ]	---.-	---.-	---.-
15	[ ]	[ ]	[ ]	---.-	---.-	---.-

*5 DEPTH BELOW SURFACE TO "RIGID" LAYER (FEET) [.]
(Rock, Stone, Dense Shale)

NOTES:

1. Layer 1 is the subgrade soil, the highest numbered layer is the pavement surface.

2. Layer description codes:

Overlay.....01	Base Layer.....05	Porous friction Course..09
Seal/Tack Coat.....02	Subbase Layer.....06	Surface Treatment.....10
Original Surface.....03	Subgrade.....07	Embankment (Fill).....11
HMAC Layer (Subsurface).04	Interlayer.....08	

3. The material type classification codes are presented in Tables A.5, A.6, A.7 and A.8 of the Data Collection Guide for Long Term Pavement Performance Studies, dated January 17, 1990.

4. Enter the average thickness of each layer and the minimum, maximum and standard deviation of the thickness measurements, if known.

PREPARER James E. Dill EMPLOYER BRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 9 PLANT-MIXED ASPHALT BOUND LAYERS PLACEMENT DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [62]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [03-24-97]

*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [06-30-97]

*3 ASPHALT CONCRETE PLANT AND HAUL

	Type	Name	Haul Distance (Mi)	Time (Min)	Layer Numbers
Plant 1	[2]	GUERRA RANCH	[__ __ 5]	[__ 5]	[4] [5] [__]
Plant 2	[__]	_____	[__ __ __]	[__ __]	[__] [__] [__]
Plant 3	[__]	_____	[__ __ __]	[__ __]	[__] [__] [__]

Plant Type: Batch..... 1 Drum Mix.... 2 Other...3 Specify_____

4. MANUFACTURER OF ASPHALT CONCRETE PAVER BARBER GREENE

5. MODEL DESIGNATION OF ASPHALT CONCRETE PAVER BG-270B

6. SINGLE PASS LAYDOWN WIDTH (Feet) [12.0]

7. ATB PLACEMENT LIFTS
   - Layer Number [__ __]
   - Nominal First Lift Placement Thickness (Inches) [__.__]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]
   - Nominal Third Lift Placement Thickness (Inches) [__.__]
   - Nominal Fourth Lift Placement Thickness (Inches) [__.__]

8. PATB PLACEMENT LIFTS
   - Layer Number [__ __]
   - Nominal First Lift Placement Thickness (Inches) [__.__]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]

9. AC BINDER COURSE LIFT
   - Layer Number [__ 4]
   - Nominal First Lift Placement Thickness (Inches) UNCOMPACTED [3.0]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]

10. AC SURFACE COURSE LIFT
   - Layer Number [__ 5]
   - Nominal First Lift Placement Thickness (Inches) UNCOMPACTED [3.0]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]

11. SURFACE FRICTION COURSE (If Placed)
   - Layer Number [__ __]
   - Nominal Placement Thickness (Inches) [__.__]

12. TEST SECTION STATION OF TRANSVERSE JOINTS (within test section)
   - Binder Course [__ + __ __]
   - Surface Course [__ + __ __]
   - Surface Friction Course [__ + __ __]

13. LOCATION OF LONGITUDINAL SURFACE JOINT [1]
   - Between lanes.. 1 Within lane.. 2
   - (specify offset from O/S feet) [__ __.__]

14. SIGNIFICANT EVENTS DURING CONSTRUCTION (disruptions, rain, equip. problems, etc.)_____

PREPARER Bruce R. Dill EMPLOYER BRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA
SHEET 10
PLANT-MIXED ASPHALT BOUND LAYERS
COMPACTION DATA

* STATE CODE [48]
* SPS PROJECT CODE [01]
* TEST SECTION NO. [62]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [03-24-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [03-26-97]
*3. LAYER NUMBER [4]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... 260.
Minimum..... 240.
Standard Deviation... ___.__

Number of Tests ..... 3.
Maximum..... 280.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	___.__				
7	B	Steel-Whl Tandem	___.__				
8	C	Steel-Whl Tandem	___.__				
9	D	Steel-Whl Tandem	___.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	___.__	____.			
12	G	Pneumatic-Tired	___.__	____.			
13	H	Pneumatic-Tired	___.__				
14	I	Single-Drum Vibr.	11.7		____.	___.	___.__
15	J	Single-Drum Vibr.	___.__		____.	___.	___.__
16	K	Single-Drum Vibr.	___.__		____.	___.	___.__
17	L	Single-Drum Vibr.	___.__		____.	___.	___.__
18	M	Double-Drum Vibr.	___.__		____.	___.	___.__
19	N	Double-Drum Vibr.	___.__		____.	___.	___.__
20	O	Double-Drum Vibr.	___.__		____.	___.	___.__
21	P	Double-Drum Vibr.	___.__		____.	___.	___.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	E			
24	Coverages	2.	___.	___.	___.
	INTERMEDIATE				
25	Roller Code (A-Q)				
26	Coverages	___.	___.	___.	___.
	FINAL				
27	Roller Code (A-Q)	E			
28	Coverages	6.	___.	___.	___.
29	Air Temperature (°F)	98.	___.	___.	___.
30	Compacted Thickness (In)	2.1	___.__	___.__	___.__
31	Curing Period (Days)	1.0	___.__	___.__	___.__

PREPARER Jane C. Dell EMPLOYER BRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [62]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [06-29-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [06-30-97]
*3. LAYER NUMBER [5]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... 260.
Minimum..... 240.
Standard Deviation... ___.__
Number of Tests ..... 3.
Maximum..... 280.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	___.__				
7	B	Steel-Whl Tandem	___.__				
8	C	Steel-Whl Tandem	___.__				
9	D	Steel-Whl Tandem	___.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	___.__	____.			
12	G	Pneumatic-Tired	___.__	____.			
13	H	Pneumatic-Tired	___.__	____.			
14	I	Single-Drum Vibr.	11.7		____.	.___	___.__
15	J	Single-Drum Vibr.	___.__		____.	.___	___.__
16	K	Single-Drum Vibr.	___.__		____.	.___	___.__
17	L	Single-Drum Vibr.	___.__		____.	.___	___.__
18	M	Double-Drum Vibr.	___.__		____.	.___	___.__
19	N	Double-Drum Vibr.	___.__		____.	.___	___.__
20	O	Double-Drum Vibr.	___.__		____.	.___	___.__
21	P	Double-Drum Vibr.	___.__		____.	.___	___.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I			
24	Coverages	2.	___.	___.	___.
	INTERMEDIATE				
25	Roller Code (A-Q)				
26	Coverages	___.	___.	___.	___.
	FINAL				
27	Roller Code (A-Q)	E			
28	Coverages	6.	___.	___.	___.
29	Air Temperature (°F)	100.	___.	___.	___.
30	Compacted Thickness (In)	2.1	___.__	___.__	___.__
31	Curing Period (Days)	7.0	___.__	___.__	___.__

PREPARER [signature] EMPLOYER BRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 11 PLANT-MIXED ASPHALT BOUND LAYERS DENSITY AND PROFILE DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [62]

1. NUCLEAR DENSITY MEASUREMENTS

LAYER TYPE	ATB	Binder Course	Surface Course	Surface Friction Layer
Measurement Method (A, B, C)[1]		A	A	
Number of Measurements		12		
Average (pcf)		138.2	135.3	
Maximum (pcf)		145.8	139.4	
Minimum (pcf)		132.5	130.7	
Standard Deviation (pcf)		4.6	2.1	
Layer Number		4	5	

[1]Measurement Method Backscatter... A Direct Transmission... B Air Gap... C

2. MANUFACTURER OF NUCLEAR DENSITY GAUGE: TROXLER

3. NUCLEAR DENSITY GAUGE MODEL NUMBER: 3411-B

4. NUCLEAR DENSITY GAUGE IDENTIFICATION NUMBER: 12857

5. NUCLEAR GAUGE COUNT RATE FOR STANDARDIZATION: ------

6. PROFILOGRAPH MEASUREMENTS

Profilograph Type California... 1 Rainhart... 2	1
Profile Index (Inches/Mile)	6
Interpretation Method Manual.. 1 Mechanical.. 2 Computer.. 3	3
Height of Blanking Band (Inches)	0.2
Cutoff Height (Inches)	0.3

7. SURFACE PROFILE USED AS BASIS OF INCENTIVE PAYMENT? (YES, NO): YES

PREPARER Bruce V. Dill EMPLOYER BRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 13 UNBOUND AGGREGATE BASE MATERIAL PLACEMENT	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [62]

*1. UNBOUND BASE MATERIAL PLACEMENT BEGAN (Month-Day-Year) [03-17-97]

*2. UNBOUND BASE MATERIAL PLACEMENT COMPLETED (Month-Day-Year) [03-21-97]

*3. LAYER NUMBER (From Sheet 4) [3]

PRIMARY COMPACTION EQUIPMENT

*4. CODE TYPE [5]

COMPACTION TYPE CODES
Pneumatic - Tired... 1 Steel Wheel Tandem... 2 Single Drum Vibr.... 3
Double Drum Vibr.... 4
Other (Specify)... 5 2 COVERAGES SINGLE DRUM VIBR. (12 TONS)
6 COVERAGES PNEUMATIC (25 TONS)

*5. GROSS WEIGHT (TONS) [__.__]

*6. LIFT THICKNESSES
Nominal First Lift Placement Thickness (inches) UNCOMPACTED 4" CUT [__4]
Nominal Second Lift Placement Thickness (inches) [__4]
Nominal Third Lift Placement Thickness (inches) [__4]
Nominal Fourth Lift Placement Thickness (inches) [____]

DENSITY DATA IS RECORDED ON SAMPLING DATA SHEET 8-1

7. SIGNIFICANT EVENTS DURING CONSTRUCTION (DISRUPTIONS, RAIN, EQUIPMENT PROBLEMS, ETC.) _____

PREPARER Dave V. Dill EMPLOYER BRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 14 SUBGRADE PREPARATION	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [62]

*1. SUBGRADE PREPARATION BEGAN (Month-Day-Year) [03-10-97]

*2. SUBGRADE PREPARATION COMPLETED (Month-Day-Year) [03-12-97]

PRIMARY COMPACTION EQUIPMENT

*3. CODE TYPE [5]

COMPACTION EQUIPMENT TYPE CODES
Sheepsfoot... 1 Pneumatic Tired... 2 Steel Wheel Tandem... 3
Single Drum Vibr.... 4 Double Drum Vibr.... 5
Other (Specify)... 6 2 COVERAGES SINGLE DRUM VIBR (12 TONS)
6 COVERAGES PNEUMATIC (25 TONS)

*4. GROSS WEIGHT (TONS) [__ __.__]

	TYPE	PERCENT
*5. STABILIZING AGENT 1	[2]	[__ 2.0]
*6. STABILIZING AGENT 2	[__]	[__ __.__]

STABILIZING AGENT TYPE CODES
Portland Cement... 1 Lime... 2 Fly Ash, Class C... 3
Fly Ash, Class N... 4
Other (Specify)... 5 _____

*7. TYPICAL LIFT THICKNESS (INCHES) [__ __]
(For Fill Sections Only)

DENSITY DATA IS RECORDED ON SAMPLING DATA SHEET 8-1

8. SIGNIFICANT EVENTS DURING CONSTRUCTION (DISRUPTIONS, RAIN, EQUIPMENT PROBLEMS, ETC.) _____

PREPARER Shane T. Bell EMPLOYER BRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 2 GEOMETRIC, SHOULDER AND DRAINAGE INFORMATION	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [63]

*1. LANE WIDTH (FEET) [12.]

2. MONITORING SITE LANE NUMBER [1.]
(LANE 1 IS OUTSIDE LANE, NEXT TO SHOULDER
LANE 2 IS NEXT TO LANE 1, ETC.)

*3. SUBSURFACE DRAINAGE LOCATION [3.]
Continuous Along Test Section... 1 Intermittent... 2 None... 3

*4. SUBSURFACE DRAINAGE TYPE [1.]
No Subsurface Drainage... 1 Longitudinal Drains... 2
Transverse Drains... 3 Drainage Blanket... 4 Well System... 5
Drainage Blanket with Longitudinal Drains... 6
Other (Specify)... 7 _____

	SHOULDER DATA	INSIDE SHOULDER	OUTSIDE SHOULDER
*5.	SURFACE TYPE Turf... 1 Granular.... 2 Asphalt Concrete... 3 Concrete... 4 Surface Treatment... 5 Other (Specify)... 6 _____	[3.]	[3.]
*6.	TOTAL WIDTH (FEET)	[4.]	[10.]
*7.	PAVED WIDTH (FEET)	[4.]	[10.]
8.	SHOULDER BASE TYPE (CODES-TABLE A.6)	[23.]	[23.]
9.	SURFACE THICKNESS (INCHES)	[5.0]	[5.0]
10.	SHOULDER BASE THICKNESS (INCHES)	[10.5]	[10.5]
11.	DIAMETER OF LONGITUDINAL DRAINPIPES (INCHES)		[__.__]
12.	SPACING OF LATERALS (FEET)		[___.]

PREPARER [signature] EMPLOYER BRE DATE 8/8/97

SPS-1 CONSTRUCTION DATA SHEET 4 LAYER DESCRIPTIONS	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [63]

*1 LAYER NUMBER	*2 LAYER DESCRIPTION	*3 MATERIAL TYPE CLASS	*4 LAYER THICKNESSES (Inches)			
			AVERAGE	MINIMUM	MAXIMUM	STD. DEV.
1	SUBGRADE(7)	[59]				
2	[6]	[42]	[12.0]			
3	[5]	[23]	[9.9]	8.8	11.4	0.5
4	[4]	[28]	[2.4]	1.8	3.4	0.4
5	[3]	[01]	[2.2]	1.6	2.9	0.3
6	[ ]	[ ]	[ ]			
7	[ ]	[ ]	[ ]			
8	[ ]	[ ]	[ ]			
9	[ ]	[ ]	[ ]			
10	[ ]	[ ]	[ ]			
11	[ ]	[ ]	[ ]			
12	[ ]	[ ]	[ ]			
13	[ ]	[ ]	[ ]			
14	[ ]	[ ]	[ ]			
15	[ ]	[ ]	[ ]			

*5 DEPTH BELOW SURFACE TO "RIGID" LAYER (FEET) [.]
(Rock, Stone, Dense Shale)

NOTES:

1. Layer 1 is the subgrade soil, the highest numbered layer is the pavement surface.

2. Layer description codes:

Overlay.....01	Base Layer.....05	Porous Friction Course..09
Seal/Tack Coat.....02	Subbase Layer.....06	Surface Treatment.....10
Original Surface.....03	Subgrade.....07	Embankment (Fill).....11
HMAC Layer (Subsurface).04	Interlayer.....08	

3. The material type classification codes are presented in Tables A.5, A.6, A.7 and A.8 of the Data Collection Guide for Long Term Pavement Performance Studies, dated January 17, 1990.

4. Enter the average thickness of each layer and the minimum, maximum and standard deviation of the thickness measurements, if known.

PREPARER Dane V. Dill EMPLOYER BRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 9 PLANT-MIXED ASPHALT BOUND LAYERS PLACEMENT DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [63]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [03-24-97]

*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-23-97]

*3 ASPHALT CONCRETE PLANT AND HAUL

	Type	Name	Haul Distance (Mi)	Time (Min)	Layer Numbers
Plant 1	[2]	GUERRA RANCH	[__ __ 5]	[__ 5]	[4] [5] [__]
Plant 2	[__]		[__ __ __]	[__ __]	[__] [__] [__]
Plant 3	[__]		[__ __ __]	[__ __]	[__] [__] [__]

Plant Type: Batch..... 1 Drum Mix.... 2 Other...3 Specify_____

4. MANUFACTURER OF ASPHALT CONCRETE PAVER BARBER GREENE

5. MODEL DESIGNATION OF ASPHALT CONCRETE PAVER BG-270B

6. SINGLE PASS LAYDOWN WIDTH (Feet) [12.0]

7. ATB PLACEMENT LIFTS
   - Layer Number [__ __]
   - Nominal First Lift Placement Thickness (Inches) [__.__]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]
   - Nominal Third Lift Placement Thickness (Inches) [__.__]
   - Nominal Fourth Lift Placement Thickness (Inches) [__.__]

8. PATB PLACEMENT LIFTS
   - Layer Number [__ __]
   - Nominal First Lift Placement Thickness (Inches) [__.__]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]

9. AC BINDER COURSE LIFT
   - Layer Number [__ 4]
   - Nominal First Lift Placement Thickness (Inches) UNCOMPACTED [3.0]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]

10. AC SURFACE COURSE LIFT
   - Layer Number [__ 5]
   - Nominal First Lift Placement Thickness (Inches) UNCOMPACTED [3.0]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]

11. SURFACE FRICTION COURSE (If Placed)
   - Layer Number [__ __]
   - Nominal Placement Thickness (Inches) [__.__]

12. TEST SECTION STATION OF TRANSVERSE JOINTS (within test section)
   - Binder Course [__ + __ __]
   - Surface Course [__ + __ __]
   - Surface Friction Course [__ + __ __]

13. LOCATION OF LONGITUDINAL SURFACE JOINT [1]
   Between lanes.. 1 Within lane.. 2
   (specify offset from O/S feet) [__ __.__]

14. SIGNIFICANT EVENTS DURING CONSTRUCTION (disruptions, rain, equip. problems, etc.)_____

PREPARER Donald T. Dell EMPLOYER BRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [63]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [3-24-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [3-26-97]
*3. LAYER NUMBER [4]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... 260.
Minimum..... 240.
Standard Deviation... ___.__
Number of Tests ..... 3.
Maximum..... 280.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	___.__				
7	B	Steel-Whl Tandem	___.__				
8	C	Steel-Whl Tandem	___.__				
9	D	Steel-Whl Tandem	___.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	___.__	____.			
12	G	Pneumatic-Tired	___.__	____.			
13	H	Pneumatic-Tired	___.__				
14	I	Single-Drum Vibr.	11.7		____.	___.	___.__
15	J	Single-Drum Vibr.	___.__		____.	___.	___.__
16	K	Single-Drum Vibr.	___.__		____.	___.	___.__
17	L	Single-Drum Vibr.	___.__		____.	___.	___.__
18	M	Double-Drum Vibr.	___.__		____.	___.	___.__
19	N	Double-Drum Vibr.	___.__		____.	___.	___.__
20	O	Double-Drum Vibr.	___.__		____.	___.	___.__
21	P	Double-Drum Vibr.	___.__		____.	___.	___.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I	___	___	___
24	Coverages	2.	___.	___.	___.
	INTERMEDIATE				
25	Roller Code (A-Q)	___	___	___	___
26	Coverages	___.	___.	___.	___.
	FINAL				
27	Roller Code (A-Q)	E	___	___	___
28	Coverages	6.	___.	___.	___.
29	Air Temperature (°F)	98.	____.	____.	____.
30	Compacted Thickness (In)	2.4	___.__	___.__	___.__
31	Curing Period (Days)	1.0	___.__	___.__	___.__

PREPARER Jane V. Dill EMPLOYER BRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [63]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [04-21-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-23-97]
*3. LAYER NUMBER [5]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... ___
Number of Tests ..... ___.
Maximum..... ___.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	___.	[redacted]	[redacted]	[redacted]	[redacted]
7	B	Steel-Whl Tandem	___.				
8	C	Steel-Whl Tandem	___.				
9	D	Steel-Whl Tandem	___.				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	___.	____.			
12	G	Pneumatic-Tired	___.	____.			
13	H	Pneumatic-Tired	___.				
14	I	Single-Drum Vibr.	11.7	[redacted]	____.	___.	___.
15	J	Single-Drum Vibr.	___.		____.	___.	___.
16	K	Single-Drum Vibr.	___.		____.	___.	___.
17	L	Single-Drum Vibr.	___.		____.	___.	___.
18	M	Double-Drum Vibr.	___.		____.	___.	___.
19	N	Double-Drum Vibr.	___.		____.	___.	___.
20	O	Double-Drum Vibr.	___.		____.	___.	___.
21	P	Double-Drum Vibr.	___.		____.	___.	___.
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I			
24	Coverages	2.	___.	___.	___.
	INTERMEDIATE				
25	Roller Code (A-Q)				
26	Coverages	___.	___.	___.	___.
	FINAL				
27	Roller Code (A-Q)	E			
28	Coverages	6.	___.	___.	___.
29	Air Temperature (°F)	100.	____.	____.	____.
30	Compacted Thickness (In)	2.2	___.	___.	___.
31	Curing Period (Days)	30.	___.	___.	___.

PREPARER [signature] EMPLOYER BEE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 11 PLANT-MIXED ASPHALT BOUND LAYERS DENSITY AND PROFILE DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [63]

1. NUCLEAR DENSITY MEASUREMENTS

LAYER TYPE	ATB	Binder Course	Surface Course	Surface Friction Layer
Measurement Method (A, B, C)[1]	___	A	A	___
Number of Measurements	___ ___	12	12	___ ___
Average (pcf)	___.___	136.0	136.4	___.___
Maximum (pcf)	___.___	143.1	139.4	___.___
Minimum (pcf)	___.___	131.0	131.3	___.___
Standard Deviation (pcf)	___.___	___4.3	___2.7	___.___
Layer Number	___ ___	___4	___5	___ ___

[1]Measurement Method Backscatter... A Direct Transmission... B Air Gap... C

2. MANUFACTURER OF NUCLEAR DENSITY GAUGE: TROXLER

3. NUCLEAR DENSITY GAUGE MODEL NUMBER: 3411-B

4. NUCLEAR DENSITY GAUGE IDENTIFICATION NUMBER: 12857

5. NUCLEAR GAUGE COUNT RATE FOR STANDARDIZATION: _____

6. PROFILOGRAPH MEASUREMENTS

Profilograph Type California... 1 Rainhart... 2	1
Profile Index (Inches/Mile)	___6
Interpretation Method Manual.. 1 Mechanical.. 2 Computer.. 3	3
Height of Blanking Band (Inches)	0.2 ___
Cutoff Height (Inches)	0.3 ___

7. SURFACE PROFILE USED AS BASIS OF INCENTIVE PAYMENT? (YES, NO) YES

PREPARER [signature] EMPLOYER BRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 13 UNBOUND AGGREGATE BASE MATERIAL PLACEMENT	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [63]

*1. UNBOUND BASE MATERIAL PLACEMENT BEGAN (Month-Day-Year) [03-17-97]

*2. UNBOUND BASE MATERIAL PLACEMENT COMPLETED (Month-Day-Year) [03-21-97]

*3. LAYER NUMBER (From Sheet 4) [3]

PRIMARY COMPACTION EQUIPMENT

*4. CODE TYPE [5]

COMPACTION TYPE CODES
Pneumatic - Tired... 1 Steel Wheel Tandem... 2 Single Drum Vibr.... 3
Double Drum Vibr.... 4
Other (Specify)... 5 2 COVERAGES SINGLE DRUM VIBR (12 TONS)
6 COVERAGES PNEUMATIC (25 TONS)

*5. GROSS WEIGHT (TONS) [__.__]

*6. LIFT THICKNESSES
Nominal First Lift Placement Thickness (inches) UNCOMPACTED & CUT [__4]
Nominal Second Lift Placement Thickness (inches) [__4]
Nominal Third Lift Placement Thickness (inches) [__4]
Nominal Fourth Lift Placement Thickness (inches) [____]

DENSITY DATA IS RECORDED ON SAMPLING DATA SHEET 8-1

7. SIGNIFICANT EVENTS DURING CONSTRUCTION (DISRUPTIONS, RAIN, EQUIPMENT PROBLEMS, ETC.) _____

PREPARER James C. Dill EMPLOYER PBRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 14 SUBGRADE PREPARATION	* STATE CODE [4 8] * SPS PROJECT CODE [0 1] * TEST SECTION NO. [6 3]

*1. SUBGRADE PREPARATION BEGAN (Month-Day-Year) [0 3-1 0-9 7]

*2. SUBGRADE PREPARATION COMPLETED (Month-Day-Year) [0 3-1 2-9 7]

PRIMARY COMPACTION EQUIPMENT

*3. CODE TYPE [5]

COMPACTION EQUIPMENT TYPE CODES
Sheepsfoot... 1 Pneumatic Tired... 2 Steel Wheel Tandem... 3
Single Drum Vibr.... 4 Double Drum Vibr.... 5
Other (Specify)... 6 2 COVERAGES SINGLE DRUM VIBR. (12 TONS)
6 COVERAGES PNEUMATIC (25 TONS)

*4. GROSS WEIGHT (TONS) [_ _._]

	TYPE	PERCENT
*5. STABILIZING AGENT 1	[2]	[_ 2.0]
*6. STABILIZING AGENT 2	[_]	[_ _._]

STABILIZING AGENT TYPE CODES
Portland Cement... 1 Lime... 2 Fly Ash, Class C... 3
Fly Ash, Class N... 4
Other (Specify)... 5 _____

*7. TYPICAL LIFT THICKNESS (INCHES) [_ _]
(For Fill Sections Only)

DENSITY DATA IS RECORDED ON SAMPLING DATA SHEET 8-1

8. SIGNIFICANT EVENTS DURING CONSTRUCTION (DISRUPTIONS, RAIN, EQUIPMENT PROBLEMS, ETC.) _____

PREPARER Jerome F. [signature] EMPLOYER BRC DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 2 GEOMETRIC, SHOULDER AND DRAINAGE INFORMATION	* STATE CODE [48] * SPS PROJECT CODE [0701] * TEST SECTION NO. [19]

*1. LANE WIDTH (FEET) [12.]

2. MONITORING SITE LANE NUMBER [1.]
(LANE 1 IS OUTSIDE LANE, NEXT TO SHOULDER
LANE 2 IS NEXT TO LANE 1, ETC.)

*3. SUBSURFACE DRAINAGE LOCATION [1.]
Continuous Along Test Section... 1 Intermittent... 2 None... 3

*4. SUBSURFACE DRAINAGE TYPE [6.]
No Subsurface Drainage... 1 Longitudinal Drains... 2
Transverse Drains... 3 Drainage Blanket... 4 Well System... 5
Drainage Blanket with Longitudinal Drains... 6
Other (Specify)... 7 _____

	SHOULDER DATA	INSIDE SHOULDER	OUTSIDE SHOULDER
*5.	SURFACE TYPE Turf... 1 Granular.... 2 Asphalt Concrete... 3 Concrete... 4 Surface Treatment... 5 Other (Specify)... 6 _____	[3.]	[3.]
*6.	TOTAL WIDTH (FEET)	[4.]	[10.]
*7.	PAVED WIDTH (FEET)	[4.]	[10.]
8.	SHOULDER BASE TYPE (CODES-TABLE A.6)	[23.]	[23.]
9.	SURFACE THICKNESS (INCHES)	[7.0]	[7.0]
10.	SHOULDER BASE THICKNESS (INCHES)	[4.0]	[4.0]
11.	DIAMETER OF LONGITUDINAL DRAINPIPES (INCHES)		[8.0]
12.	SPACING OF LATERALS (FEET)		[500.]

PREPARER Brent Dill EMPLOYER BRE DATE 8/8/97

SPS-1 CONSTRUCTION DATA SHEET 4 LAYER DESCRIPTIONS	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [19]

*1 LAYER NUMBER	*2 LAYER DESCRIPTION	*3 MATERIAL TYPE CLASS	*4 LAYER THICKNESSES (Inches)			
			AVERAGE	MINIMUM	MAXIMUM	STD. DEV.
1	SUBGRADE(7)	[59]	[redacted]	[redacted]	[redacted]	[redacted]
2	[6]	[42]	[12.0]	---.-	---.-	---.-
3	[5]	[23]	[4.1]	2.0	6.1	0.6
4	[8]	[75]	[0.1]	---.-	---.-	---.-
5	[4]	[31]	[3.5]	2.7	4.3	0.3
6	[4]	[28]	[6.1]	5.0	8.0	0.6
7	[3]	[01]	[1.1]	0.1	2.2	0.6
8	[ ]	[ ]	[---.-]	---.-	---.-	---.-
9	[ ]	[ ]	[---.-]	---.-	---.-	---.-
10	[ ]	[ ]	[---.-]	---.-	---.-	---.-
11	[ ]	[ ]	[---.-]	---.-	---.-	---.-
12	[ ]	[ ]	[---.-]	---.-	---.-	---.-
13	[ ]	[ ]	[---.-]	---.-	---.-	---.-
14	[ ]	[ ]	[---.-]	---.-	---.-	---.-
15	[ ]	[ ]	[---.-]	---.-	---.-	---.-

*5 DEPTH BELOW SURFACE TO "RIGID" LAYER (FEET) [.]
(Rock, Stone, Dense Shale)

NOTES:

1. Layer 1 is the subgrade soil, the highest numbered layer is the pavement surface.

2. Layer description codes:

Overlay.....01	Base Layer.....05	Porous Friction Course..09
Seal/Tack Coat.....02	Subbase Layer.....06	Surface Treatment.....10
Original Surface.....03	Subgrade.....07	Embankment (Fill).....11
HMAC Layer (Subsurface).04	Interlayer.....08	

3. The material type classification codes are presented in Tables A.5, A.6, A.7 and A.8 of the Data Collection Guide for Long Term Pavement Performance Studies, dated January 17, 1990.

4. Enter the average thickness of each layer and the minimum, maximum and standard deviation of the thickness measurements, if known.

PREPARER Dave F. Dill EMPLOYER BRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 9 PLANT-MIXED ASPHALT BOUND LAYERS PLACEMENT DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [19]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [03-31-97]

*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-23-97]

*3 ASPHALT CONCRETE PLANT AND HAUL

	Type	Name	Haul Distance (Mi)	Time (Min)	Layer Numbers
Plant 1	[2]	GUERRA RANCH	[__ __ 5]	[__ 5]	[5] [6] [7]
Plant 2	[__]	_____	[__ __ __]	[__ __]	[__] [__] [__]
Plant 3	[__]	_____	[__ __ __]	[__ __]	[__] [__] [__]

Plant Type: Batch..... 1 Drum Mix.... 2 Other...3 Specify_____

4. MANUFACTURER OF ASPHALT CONCRETE PAVER BARBER-GREENE

5. MODEL DESIGNATION OF ASPHALT CONCRETE PAVER BG-270B

6. SINGLE PASS LAYDOWN WIDTH (Feet) [12.0]

7. ATB PLACEMENT LIFTS
   - Layer Number [__ __]
   - Nominal First Lift Placement Thickness (Inches) [__.__]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]
   - Nominal Third Lift Placement Thickness (Inches) [__.__]
   - Nominal Fourth Lift Placement Thickness (Inches) [__.__]

8. PATB PLACEMENT LIFTS
   - Layer Number [__ 5]
   - Nominal First Lift Placement Thickness (Inches) UNCOMPACTED [5.0]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]

9. AC BINDER COURSE LIFT
   - Layer Number [__ 6]
   - Nominal First Lift Placement Thickness (Inches) UNCOMPACTED [3.5]
   - Nominal Second Lift Placement Thickness (Inches) UNCOMPACTED [3.5]

10. AC SURFACE COURSE LIFT
   - Layer Number [__ 7]
   - Nominal First Lift Placement Thickness (Inches) UNCOMPACTED [1.3]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]

11. SURFACE FRICTION COURSE (If Placed)
   - Layer Number [__ __]
   - Nominal Placement Thickness (Inches) [__.__]

12. TEST SECTION STATION OF TRANSVERSE JOINTS (within test section)
   - Binder Course [__ + __ __]
   - Surface Course [__ + __ __]
   - Surface Friction Course [__ + __ __]

13. LOCATION OF LONGITUDINAL SURFACE JOINT [1]
   Between lanes.. 1 Within lane.. 2
   (specify offset from O/S feet) [__ __.__]

14. SIGNIFICANT EVENTS DURING CONSTRUCTION (disruptions, rain, equip. problems, etc.)_____

PREPARER [signature] EMPLOYER BRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [19]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [03-31-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-02-97]
*3. LAYER NUMBER [5]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... __.__
Number of Tests ..... __.
Maximum..... ___.

ROLLER DATA

	Roller Code =	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	__.__				
7	B	Steel-Whl Tandem	__.__				
8	C	Steel-Whl Tandem	__.__				
9	D	Steel-Whl Tandem	__.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	__.__	____.			
12	G	Pneumatic-Tired	__.__	____.			
13	H	Pneumatic-Tired	__.__				
14	I	Single-Drum Vibr.	11.7		____.	___.	__.__
15	J	Single-Drum Vibr.	__.__		____.	___.	__.__
16	K	Single-Drum Vibr.	__.__		____.	___.	__.__
17	L	Single-Drum Vibr.	__.__		____.	___.	__.__
18	M	Double-Drum Vibr.	__.__		____.	___.	__.__
19	N	Double-Drum Vibr.	__.__		____.	___.	__.__
20	O	Double-Drum Vibr.	__.__		____.	___.	__.__
21	P	Double-Drum Vibr.	__.__		____.	___.	__.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
23	BREAKDOWN Roller Code (A-Q)	I	__	__	__
24	Coverages	2.	__.	__.	__.
25	INTERMEDIATE Roller Code (A-Q)	__	__	__	__
26	Coverages	__.	__.	__.	__.
27	FINAL Roller Code (A-Q)	E	__	__	__
28	Coverages	6.	__.	__.	__.
29	Air Temperature (°F)	99.	___.	___.	___.
30	Compacted Thickness (In)	3.5	__.__	__.__	__.__
31	Curing Period (Days)	0.5	__.__	__.__	__.__

PREPARER Bruce R. Dill EMPLOYER BRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [19]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [04-02-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-03-97]
*3. LAYER NUMBER [6]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... __.__
Number of Tests ..... __.
Maximum..... ___.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	___.__	[redacted]	[redacted]	[redacted]	[redacted]
7	B	Steel-Whl Tandem	___.__				
8	C	Steel-Whl Tandem	___.__				
9	D	Steel-Whl Tandem	___.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	___.__	____.			
12	G	Pneumatic-Tired	___.__	____.			
13	H	Pneumatic-Tired	___.__	____.			
14	I	Single-Drum Vibr.	11.7	[redacted]	____.	___.__	__.__
15	J	Single-Drum Vibr.	___.__		____.	___.__	__.__
16	K	Single-Drum Vibr.	___.__		____.	___.__	__.__
17	L	Single-Drum Vibr.	___.__		____.	___.__	__.__
18	M	Double-Drum Vibr.	___.__		____.	___.__	__.__
19	N	Double-Drum Vibr.	___.__		____.	___.__	__.__
20	O	Double-Drum Vibr.	___.__		____.	___.__	__.__
21	P	Double-Drum Vibr.	___.__		____.	___.__	__.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I	I		
24	Coverages	12.	12.	___.	___.
	INTERMEDIATE				
25	Roller Code (A-Q)				
26	Coverages	___.	___.	___.	___.
	FINAL				
27	Roller Code (A-Q)	E	E		
28	Coverages	16.	16.	___.	___.
29	Air Temperature (°F)	100.	100.	___.	___.
30	Compacted Thickness (In)	3.0	3.1	__.__	__.__
31	Curing Period (Days)	05.	18.0	__.__	__.__

PREPARER Jamie F. Dill EMPLOYER BRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [4 8] * SPS PROJECT CODE [0 1] * TEST SECTION NO. [1 9]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [04-21-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-23-97]
*3. LAYER NUMBER [7]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... __.__
Number of Tests ..... __.
Maximum..... ___.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	__.__				
7	B	Steel-Whl Tandem	__.__				
8	C	Steel-Whl Tandem	__.__				
9	D	Steel-Whl Tandem	__.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	__.__	____.			
12	G	Pneumatic-Tired	__.__	____.			
13	H	Pneumatic-Tired	__.__	____.			
14	I	Single-Drum Vibr.	11.7		____.	___.__	__.__
15	J	Single-Drum Vibr.	__.__		____.	___.__	__.__
16	K	Single-Drum Vibr.	__.__		____.	___.__	__.__
17	L	Single-Drum Vibr.	__.__		____.	___.__	__.__
18	M	Double-Drum Vibr.	__.__		____.	___.__	__.__
19	N	Double-Drum Vibr.	__.__		____.	___.__	__.__
20	O	Double-Drum Vibr.	__.__		____.	___.__	__.__
21	P	Double-Drum Vibr.	__.__		____.	___.__	__.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I	__	__	__
24	Coverages	2.	__.	__.	__.
	INTERMEDIATE				
25	Roller Code (A-Q)	__	__	__	__
26	Coverages	__.	__.	__.	__.
	FINAL				
27	Roller Code (A-Q)	E	__	__	__
28	Coverages	6.	__.	__.	__.
29	Air Temperature (°F)	100.	___.	___.	___.
30	Compacted Thickness (In)	1.1	__.__	__.__	__.__
31	Curing Period (Days)	1.0	__.__	__.__	__.__

PREPARER [signature] EMPLOYER BRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 11 PLANT-MIXED ASPHALT BOUND LAYERS DENSITY AND PROFILE DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [19]

1. NUCLEAR DENSITY MEASUREMENTS

LAYER TYPE	ATB	Binder Course	Surface Course	Surface Friction Layer
Measurement Method (A, B, C)[1]		A	A	
Number of Measurements		12	12	
Average (pcf)		137.7	137.8	
Maximum (pcf)		140.2	145.0	
Minimum (pcf)		129.6	132.9	
Standard Deviation (pcf)		2.9	3.3	
Layer Number		6	7	

[1]Measurement Method Backscatter... A Direct Transmission... B Air Gap... C

2. MANUFACTURER OF NUCLEAR DENSITY GAUGE: TROXLER

3. NUCLEAR DENSITY GAUGE MODEL NUMBER: 3411-B

4. NUCLEAR DENSITY GAUGE IDENTIFICATION NUMBER: 12857

5. NUCLEAR GAUGE COUNT RATE FOR STANDARDIZATION: _____

6. PROFILOGRAPH MEASUREMENTS

Profilograph Type California... 1 Rainhart... 2	1
Profile Index (Inches/Mile)	6
Interpretation Method Manual.. 1 Mechanical.. 2 Computer.. 3	3
Height of Blanking Band (Inches)	0.2
Cutoff Height (Inches)	0.3

7. SURFACE PROFILE USED AS BASIS OF INCENTIVE PAYMENT? (YES, NO) YES

PREPARER [signature] EMPLOYER BRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 13 UNBOUND AGGREGATE BASE MATERIAL PLACEMENT	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [19]

*1. UNBOUND BASE MATERIAL PLACEMENT BEGAN (Month-Day-Year) [03-18-97]

*2. UNBOUND BASE MATERIAL PLACEMENT COMPLETED (Month-Day-Year) [03-21-97]

*3. LAYER NUMBER (From Sheet 4) [3]

PRIMARY COMPACTION EQUIPMENT

*4. CODE TYPE [5]

COMPACTION TYPE CODES
Pneumatic - Tired... 1 Steel Wheel Tandem... 2 Single Drum Vibr.... 3
Double Drum Vibr.... 4
Other (Specify)... 5 2 COVERAGES SINGLE DRUM VIBR (12 TONS)
6 COVERAGES PNEUMATIC (25 TONS)

*5. GROSS WEIGHT (TONS) [__ __.__]

*6. LIFT THICKNESSES
Nominal First Lift Placement Thickness (inches) . UNCOMPACTED & CUT [__5]
Nominal Second Lift Placement Thickness (inches) [__ __]
Nominal Third Lift Placement Thickness (inches) [__ __]
Nominal Fourth Lift Placement Thickness (inches) [__ __]

DENSITY DATA IS RECORDED ON SAMPLING DATA SHEET 8-1

7. SIGNIFICANT EVENTS DURING CONSTRUCTION (DISRUPTIONS, RAIN, EQUIPMENT PROBLEMS, ETC.) _____

PREPARER Rene F. Dell EMPLOYER BRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 14 SUBGRADE PREPARATION	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [19]

*1. SUBGRADE PREPARATION BEGAN (Month-Day-Year) [03-10-97]

*2. SUBGRADE PREPARATION COMPLETED (Month-Day-Year) [03-12-97]

PRIMARY COMPACTION EQUIPMENT

*3. CODE TYPE [5]

COMPACTION EQUIPMENT TYPE CODES
Sheepsfoot... 1 Pneumatic Tired... 2 Steel Wheel Tandem... 3
Single Drum Vibr.... 4 Double Drum Vibr.... 5
Other (Specify)... 6 2 COVERAGES SINGLE DRUM VIBE (12 TONS)
6 COVERAGES PNEUMATIC (25 TONS)

*4. GROSS WEIGHT (TONS) [__ __.__]

	TYPE	PERCENT
*5. STABILIZING AGENT 1	[2]	[__ 2.0]
*6. STABILIZING AGENT 2	[__]	[__ __.__]

STABILIZING AGENT TYPE CODES
Portland Cement... 1 Lime... 2 Fly Ash, Class C... 3
Fly Ash, Class N... 4
Other (Specify)... 5 _____

*7. TYPICAL LIFT THICKNESS (INCHES) [__ __]
(For Fill Sections Only)

DENSITY DATA IS RECORDED ON SAMPLING DATA SHEET 8-1

8. SIGNIFICANT EVENTS DURING CONSTRUCTION (DISRUPTIONS, RAIN, EQUIPMENT PROBLEMS, ETC.) _____

PREPARER Bruce R. Dall EMPLOYER BRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 2 GEOMETRIC, SHOULDER AND DRAINAGE INFORMATION	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [22]

*1. LANE WIDTH (FEET) [12.]

2. MONITORING SITE LANE NUMBER [1.]
(LANE 1 IS OUTSIDE LANE, NEXT TO SHOULDER
LANE 2 IS NEXT TO LANE 1, ETC.)

*3. SUBSURFACE DRAINAGE LOCATION [1.]
Continuous Along Test Section... 1 Intermittent... 2 None... 3

*4. SUBSURFACE DRAINAGE TYPE [6.]
No Subsurface Drainage... 1 Longitudinal Drains... 2
Transverse Drains... 3 Drainage Blanket... 4 Well System... 5
Drainage Blanket with Longitudinal Drains... 6
Other (Specify)... 7 _____

	SHOULDER DATA	INSIDE SHOULDER	OUTSIDE SHOULDER
*5.	SURFACE TYPE Turf... 1 Granular.... 2 Asphalt Concrete... 3 Concrete... 4 Surface Treatment... 5 Other (Specify)... 6 _____	[3.]	[3.]
*6.	TOTAL WIDTH (FEET)	[4.]	[10.]
*7.	PAVED WIDTH (FEET)	[4.]	[10.]
8.	SHOULDER BASE TYPE (CODES-TABLE A.6)	[23.]	[23.]
9.	SURFACE THICKNESS (INCHES)	[4.0]	[4.0]
10.	SHOULDER BASE THICKNESS (INCHES)	[8.0]	[8.0]
11.	DIAMETER OF LONGITUDINAL DRAINPIPES (INCHES)		[8.0]
12.	SPACING OF LATERALS (FEET)		[500.]

PREPARER Jane R. Dill EMPLOYER BRE DATE 8/15/97

SPS-1 CONSTRUCTION DATA SHEET 4 LAYER DESCRIPTIONS	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [20]

*1 LAYER NUMBER	*2 LAYER DESCRIPTION	*3 MATERIAL TYPE CLASS	*4 LAYER THICKNESSES (Inches)			
			AVERAGE	MINIMUM	MAXIMUM	STD. DEV.
1	SUBGRADE(7)	[59]	[redacted]	[redacted]	[redacted]	[redacted]
2	[6]	[42]	[12.0]	___	___	___
3	[5]	[73]	[7.4]	5.9	8.3	0.5
4	[8]	[75]	[0.1]	___	___	___
5	[4]	[31]	[4.0]	3.3	5.2	0.4
6	[4]	[28]	[2.4]	1.9	3.5	0.3
7	[3]	[01]	[2.0]	1.3	2.6	0.3
8	[ ]	[ ]	[ ]	___	___	___
9	[ ]	[ ]	[ ]	___	___	___
10	[ ]	[ ]	[ ]	___	___	___
11	[ ]	[ ]	[ ]	___	___	___
12	[ ]	[ ]	[ ]	___	___	___
13	[ ]	[ ]	[ ]	___	___	___
14	[ ]	[ ]	[ ]	___	___	___
15	[ ]	[ ]	[ ]	___	___	___

*5 DEPTH BELOW SURFACE TO "RIGID" LAYER (FEET) [.]
(Rock, Stone, Dense Shale)

NOTES:

1. Layer 1 is the subgrade soil, the highest numbered layer is the pavement surface.

2. Layer description codes:

Overlay.....01	Base Layer.....05	Porous Friction Course..09
Seal/Tack Coat.....02	Subbase Layer.....06	Surface Treatment.....10
Original Surface.....03	Subgrade.....07	Embankment (Fill).....11
HMAC Layer (Subsurface).04	Interlayer.....08	

3. The material type classification codes are presented in Tables A.5, A.6, A.7 and A.8 of the Data Collection Guide for Long Term Pavement Performance Studies, dated January 17, 1990.

4. Enter the average thickness of each layer and the minimum, maximum and standard deviation of the thickness measurements, if known.

PREPARER [redacted] EMPLOYER BCE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 9 PLANT-MIXED ASPHALT BOUND LAYERS PLACEMENT DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [20]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [03-31-97]

*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-23-97]

*3 ASPHALT CONCRETE PLANT AND HAUL

	Type	Name	Haul Distance (Mi)	Time (Min)	Layer Numbers
Plant 1	[2]	GUERRA RANCH	[__ __ 5]	[__ 5]	[5] [6] [7]
Plant 2	[__]	_____	[__ __ __]	[__ __]	[__] [__] [__]
Plant 3	[__]	_____	[__ __ __]	[__ __]	[__] [__] [__]

Plant Type: Batch..... 1 Drum Mix.... 2 Other...3 Specify_____

4. MANUFACTURER OF ASPHALT CONCRETE PAVER BARBER-GREENE

5. MODEL DESIGNATION OF ASPHALT CONCRETE PAVER BG-270B

6. SINGLE PASS LAYDOWN WIDTH (Feet) [12.0]

7. ATB PLACEMENT LIFTS

Layer Number		[__ __]
Nominal First Lift Placement Thickness (Inches)		[__.__]
Nominal Second Lift Placement Thickness (Inches)		[__.__]
Nominal Third Lift Placement Thickness (Inches)		[__.__]
Nominal Fourth Lift Placement Thickness (Inches)		[__.__]

8. PATB PLACEMENT LIFTS

Layer Number		[__ 5]
Nominal First Lift Placement Thickness (Inches)	UNCOMPACTED	[5.0]
Nominal Second Lift Placement Thickness (Inches)		[__.__]

9. AC BINDER COURSE LIFT

Layer Number		[__ 6]
Nominal First Lift Placement Thickness (Inches)	UNCOMPACTED	[2.5]
Nominal Second Lift Placement Thickness (Inches)		[__.__]

10. AC SURFACE COURSE LIFT

Layer Number		[__ 7]
Nominal First Lift Placement Thickness (Inches)	UNCOMPACTED	[2.5]
Nominal Second Lift Placement Thickness (Inches)		[__.__]

11. SURFACE FRICTION COURSE (If Placed)

Layer Number	[__ __]
Nominal Placement Thickness (Inches)	[__.__]

12. TEST SECTION STATION OF TRANSVERSE JOINTS (within test section)

Binder Course	[__ + __ __]
Surface Course	[__ + __ __]
Surface Friction Course	[__ + __ __]

13. LOCATION OF LONGITUDINAL SURFACE JOINT [1]
Between lanes.. 1 Within lane.. 2
(specify offset from O/S feet) [__ __.__]

14. SIGNIFICANT EVENTS DURING CONSTRUCTION (disruptions, rain, equip. problems, etc.)_____

PREPARER Bruce F. Dill EMPLOYER BRE DATE 9/2/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [20]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [03-31-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-02-97]
*3. LAYER NUMBER [5]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... __.__
Number of Tests ..... __.
Maximum..... ___.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	__.__	[redacted]	[redacted]	[redacted]	[redacted]
7	B	Steel-Whl Tandem	__.__				
8	C	Steel-Whl Tandem	__.__				
9	D	Steel-Whl Tandem	__.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	__.__	____.			
12	G	Pneumatic-Tired	__.__	____.			
13	H	Pneumatic-Tired	__.__				
14	I	Single-Drum Vibr.	11.7	[redacted]	____.	__.__	__.__
15	J	Single-Drum Vibr.	__.__		____.	__.__	__.__
16	K	Single-Drum Vibr.	__.__		____.	__.__	__.__
17	L	Single-Drum Vibr.	__.__		____.	__.__	__.__
18	M	Double-Drum Vibr.	__.__		____.	__.__	__.__
19	N	Double-Drum Vibr.	__.__		____.	__.__	__.__
20	O	Double-Drum Vibr.	__.__		____.	__.__	__.__
21	P	Double-Drum Vibr.	__.__		____.	__.__	__.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I			
24	Coverages	2.	__.	__.	__.
	INTERMEDIATE				
25	Roller Code (A-Q)				
26	Coverages	__.	__.	__.	__.
	FINAL				
27	Roller Code (A-Q)	E			
28	Coverages	6.	__.	__.	__.
29	Air Temperature (°F)	99.	___.	___.	___.
30	Compacted Thickness (In)	4.0	__.__	__.__	__.__
31	Curing Period (Days)	0.5	__.__	__.__	__.__

PREPARER [signature] EMPLOYER BRE DATE 9/5/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [20]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [04-02-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-03-97]
*3. LAYER NUMBER [6]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... __.__
Number of Tests ..... __.
Maximum..... ___.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	__.__				
7	B	Steel-Whl Tandem	__.__				
8	C	Steel-Whl Tandem	__.__				
9	D	Steel-Whl Tandem	__.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	__.__	____.			
12	G	Pneumatic-Tired	__.__	____.			
13	H	Pneumatic-Tired	__.__	.			
14	I	Single-Drum Vibr.	11.7		____.	.___	__.__
15	J	Single-Drum Vibr.	__.__		____.	.___	__.__
16	K	Single-Drum Vibr.	__.__		____.	.___	__.__
17	L	Single-Drum Vibr.	__.__		____.	.___	__.__
18	M	Double-Drum Vibr.	__.__		____.	.___	__.__
19	N	Double-Drum Vibr.	__.__		____.	.___	__.__
20	O	Double-Drum Vibr.	__.__		____.	.___	__.__
21	P	Double-Drum Vibr.	__.__		____.	.___	__.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	F			
24	Coverages	2.	__.	__.	__.
	INTERMEDIATE				
25	Roller Code (A-Q)				
26	Coverages	__.	__.	__.	__.
	FINAL				
27	Roller Code (A-Q)	E			
28	Coverages	2.	__.	__.	__.
29	Air Temperature (°F)	100.	___.	___.	___.
30	Compacted Thickness (In)	2.4	__.__	__.__	__.__
31	Curing Period (Days)	18.0	__.__	__.__	__.__

PREPARER [signature] EMPLOYER BRE DATE 9/5/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [20]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [04-21-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-23-97]
*3. LAYER NUMBER [7]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... ___.
Number of Tests ..... ___.
Maximum..... ___.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem					
7	B	Steel-Whl Tandem					
8	C	Steel-Whl Tandem					
9	D	Steel-Whl Tandem					
10	E	Pneumatic-Tired	25.0				
11	F	Pneumatic-Tired					
12	G	Pneumatic-Tired					
13	H	Pneumatic-Tired					
14	I	Single-Drum Vibr.	11.7				
15	J	Single-Drum Vibr.					
16	K	Single-Drum Vibr.					
17	L	Single-Drum Vibr.					
18	M	Double-Drum Vibr.					
19	N	Double-Drum Vibr.					
20	O	Double-Drum Vibr.					
21	P	Double-Drum Vibr.					
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	E			
24	Coverages	2			
	INTERMEDIATE				
25	Roller Code (A-Q)				
26	Coverages				
	FINAL				
27	Roller Code (A-Q)	E			
28	Coverages	6a			
29	Air Temperature (°F)	100.			
30	Compacted Thickness (In)	2.0			
31	Curing Period (Days)	1.0			

PREPARER Daniel C. Dill EMPLOYER BRE DATE 9/5/97

SPS-1 CONSTRUCTION DATA SHEET 11 PLANT-MIXED ASPHALT BOUND LAYERS DENSITY AND PROFILE DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [20]

1. NUCLEAR DENSITY MEASUREMENTS

LAYER TYPE	ATB	Binder Course	Surface Course	Surface Friction Layer
Measurement Method (A, B, C)[1]		A	A	
Number of Measurements		12	12	
Average (pcf)		134.8	137.4	
Maximum (pcf)		139.4	142.1	
Minimum (pcf)		129.9	133.6	
Standard Deviation (pcf)		3.1	2.5	
Layer Number		6	7	

[1]Measurement Method Backscatter... A Direct Transmission... B Air Gap... C

2. MANUFACTURER OF NUCLEAR DENSITY GAUGE: TROXLER
3. NUCLEAR DENSITY GAUGE MODEL NUMBER: 3411-B
4. NUCLEAR DENSITY GAUGE IDENTIFICATION NUMBER: 12857
5. NUCLEAR GAUGE COUNT RATE FOR STANDARDIZATION: _____

6. PROFILOGRAPH MEASUREMENTS

Profilograph Type California... 1 Rainhart... 2	1
Profile Index (Inches/Mile)	6
Interpretation Method Manual.. 1 Mechanical.. 2 Computer.. 3	3
Height of Blanking Band (Inches)	0.2
Cutoff Height (Inches)	0.3

7. SURFACE PROFILE USED AS BASIS OF INCENTIVE PAYMENT? (YES, NO) YES

PREPARER Dane C. Bell EMPLOYER BRE DATE 9/5/97

SPS-1 CONSTRUCTION DATA SHEET 13 UNBOUND AGGREGATE BASE MATERIAL PLACEMENT	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [20]

*1. UNBOUND BASE MATERIAL PLACEMENT BEGAN (Month-Day-Year) [03-18-97]

*2. UNBOUND BASE MATERIAL PLACEMENT COMPLETED (Month-Day-Year) [03-21-97]

*3. LAYER NUMBER (From Sheet 4) [3]

PRIMARY COMPACTION EQUIPMENT

*4. CODE TYPE [5]

COMPACTION TYPE CODES
Pneumatic - Tired... 1 Steel Wheel Tandem... 2 Single Drum Vibr.... 3
Double Drum Vibr.... 4
Other (Specify)... 5 2 COVERAGES SINGLE DUM VIBR. (12 TONS)
6 COVERAGES PNEUMATIC (25 TONS)

*5. GROSS WEIGHT (TONS) [__ __.__]

*6. LIFT THICKNESSES
Nominal First Lift Placement Thickness (inches) . UNCOMPACTED & CUT [__ 5]
Nominal Second Lift Placement Thickness (inches) " [__ 5]
Nominal Third Lift Placement Thickness (inches) [__ __]
Nominal Fourth Lift Placement Thickness (inches) [__ __]

DENSITY DATA IS RECORDED ON SAMPLING DATA SHEET 8-1

7. SIGNIFICANT EVENTS DURING CONSTRUCTION (DISRUPTIONS, RAIN, EQUIPMENT PROBLEMS, ETC.) _____

PREPARER [signature] EMPLOYER BRR DATE 9/5/97

SPS-1 CONSTRUCTION DATA SHEET 14 SUBGRADE PREPARATION	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [20]

*1. SUBGRADE PREPARATION BEGAN (Month-Day-Year) [03-10-97]

*2. SUBGRADE PREPARATION COMPLETED (Month-Day-Year) [03-12-97]

PRIMARY COMPACTION EQUIPMENT

*3. CODE TYPE [5]

COMPACTION EQUIPMENT TYPE CODES
Sheepsfoot... 1 Pneumatic Tired... 2 Steel Wheel Tandem... 3
Single Drum Vibr.... 4 Double Drum Vibr.... 5
Other (Specify)... 6 2 COVERAGES SINGLE DRUM VIBR (12 TONS)
6 COVERAGES PNEUMATIC (25 TONS)

*4. GROSS WEIGHT (TONS) [__ __.__]

		TYPE	PERCENT
*5.	STABILIZING AGENT 1	[2]	[__ 2.0]
*6.	STABILIZING AGENT 2	[__]	[__ __.__]

STABILIZING AGENT TYPE CODES
Portland Cement... 1 Lime... 2 Fly Ash, Class C... 3
Fly Ash, Class N... 4
Other (Specify)... 5 _____

*7. TYPICAL LIFT THICKNESS (INCHES) [__ __]
(For Fill Sections Only)

DENSITY DATA IS RECORDED ON SAMPLING DATA SHEET 8-1

8. SIGNIFICANT EVENTS DURING CONSTRUCTION (DISRUPTIONS, RAIN, EQUIPMENT PROBLEMS, ETC.) _____

PREPARER [signature] EMPLOYER BRE DATE 9/5/97

SPS-1 CONSTRUCTION DATA SHEET 2 GEOMETRIC, SHOULDER AND DRAINAGE INFORMATION	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [21]

*1. LANE WIDTH (FEET) [12.]

2. MONITORING SITE LANE NUMBER [1.]
(LANE 1 IS OUTSIDE LANE, NEXT TO SHOULDER
LANE 2 IS NEXT TO LANE 1, ETC.)

*3. SUBSURFACE DRAINAGE LOCATION [1.]
Continuous Along Test Section... 1 Intermittent... 2 None... 3

*4. SUBSURFACE DRAINAGE TYPE [6.]
No Subsurface Drainage... 1 Longitudinal Drains... 2
Transverse Drains... 3 Drainage Blanket... 4 Well System... 5
Drainage Blanket with Longitudinal Drains... 6
Other (Specify)... 7 _____

	SHOULDER DATA	INSIDE SHOULDER	OUTSIDE SHOULDER
*5.	SURFACE TYPE Turf... 1 Granular.... 2 Asphalt Concrete... 3 Concrete... 4 Surface Treatment... 5 Other (Specify)... 6 _____	[3.]	[3.]
*6.	TOTAL WIDTH (FEET)	[4.]	[10.]
*7.	PAVED WIDTH (FEET)	[4.]	[10.]
8.	SHOULDER BASE TYPE (CODES-TABLE A.6)	[23.]	[23.]
9.	SURFACE THICKNESS (INCHES)	[4.0]	[4.0]
10.	SHOULDER BASE THICKNESS (INCHES)	[12.0]	[12.0]
11.	DIAMETER OF LONGITUDINAL DRAINPIPES (INCHES)		[8.0]
12.	SPACING OF LATERALS (FEET)		[500.]

PREPARER Tom R. Ball EMPLOYER BRE DATE 9/5/97

SPS-1 CONSTRUCTION DATA SHEET 4 LAYER DESCRIPTIONS	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [21]

*1 LAYER NUMBER	*2 LAYER DESCRIPTION	*3 MATERIAL TYPE CLASS	*4 LAYER THICKNESSES (Inches)			
			AVERAGE	MINIMUM	MAXIMUM	STD. DEV.
1	SUBGRADE(7)	[59]				
2	[_6]	[42]	[12.0]	---.-	---.-	---.-
3	[_5]	[23]	[11.8]	10.0	13.7	0.8
4	[_8]	[75]	[_0.1]	---.-	---.-	---.-
5	[_4]	[31]	[_3.7]	3.0	5.4	0.5
6	[_4]	[28]	[_1.8]	1.2	3.2	0.4
7	[_3]	[01]	[_1.8]	1.0	2.4	0.3
8	[__]	[__]	[___.-]	---.-	---.-	---.-
9	[__]	[__]	[___.-]	---.-	---.-	---.-
10	[__]	[__]	[___.-]	---.-	---.-	---.-
11	[__]	[__]	[___.-]	---.-	---.-	---.-
12	[__]	[__]	[___.-]	---.-	---.-	---.-
13	[__]	[__]	[___.-]	---.-	---.-	---.-
14	[__]	[__]	[___.-]	---.-	---.-	---.-
15	[__]	[__]	[___.-]	---.-	---.-	---.-

*5 DEPTH BELOW SURFACE TO "RIGID" LAYER (FEET) [__ __ . __]
(Rock, Stone, Dense Shale)

NOTES:

1. Layer 1 is the subgrade soil, the highest numbered layer is the pavement surface.

2. Layer description codes:

Overlay.....01	Base Layer.....05	Porous Friction Course..09
Seal/Tack Coat.....02	Subbase Layer.....06	Surface Treatment.....10
Original Surface.....03	Subgrade.....07	Embankment (Fill).....11
HMAC Layer (Subsurface).04	Interlayer.....08	

3. The material type classification codes are presented in Tables A.5, A.6, A.7 and A.8 of the Data Collection Guide for Long Term Pavement Performance Studies, dated January 17, 1990.

4. Enter the average thickness of each layer and the minimum, maximum and standard deviation of the thickness measurements, if known.

PREPARER [redacted] EMPLOYER BCC DATE 9/5/97

SPS-1 CONSTRUCTION DATA SHEET 9 PLANT-MIXED ASPHALT BOUND LAYERS PLACEMENT DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [21]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [03-31-97]

*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-23-97]

*3 ASPHALT CONCRETE PLANT AND HAUL

	Type	Name	Haul Distance (Mi)	Time (Min)	Layer Numbers		
Plant 1	[2]	GUERRA RANCH	[__ __ 5]	[__ 5]	[5]	[6]	[7]
Plant 2	[__]	_____	[__ __ __]	[__ __]	[__]	[__]	[__]
Plant 3	[__]	_____	[__ __ __]	[__ __]	[__]	[__]	[__]

Plant Type: Batch..... 1 Drum Mix.... 2 Other...3 Specify_____

4. MANUFACTURER OF ASPHALT CONCRETE PAVER BARBER-GREENE

5. MODEL DESIGNATION OF ASPHALT CONCRETE PAVER BG-270B

6. SINGLE PASS LAYDOWN WIDTH (Feet) [12.0]

7. ATB PLACEMENT LIFTS
   - Layer Number [__ __]
   - Nominal First Lift Placement Thickness (Inches) [__.__]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]
   - Nominal Third Lift Placement Thickness (Inches) [__.__]
   - Nominal Fourth Lift Placement Thickness (Inches) [__.__]

8. PATB PLACEMENT LIFTS
   - Layer Number [__ 5]
   - Nominal First Lift Placement Thickness (Inches) UNCOMPACTED [5.0]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]

9. AC BINDER COURSE LIFT
   - Layer Number [__ 6]
   - Nominal First Lift Placement Thickness (Inches) UNCOMPACTED [2.5]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]

10. AC SURFACE COURSE LIFT
    - Layer Number [__ 7]
    - Nominal First Lift Placement Thickness (Inches) UNCOMPACTED [2.5]
    - Nominal Second Lift Placement Thickness (Inches) [__.__]

11. SURFACE FRICTION COURSE (If Placed)
    - Layer Number [__ __]
    - Nominal Placement Thickness (Inches) [__.__]

12. TEST SECTION STATION OF TRANSVERSE JOINTS (within test section)
    - Binder Course [__ + __ __]
    - Surface Course [__ + __ __]
    - Surface Friction Course [__ + __ __]

13. LOCATION OF LONGITUDINAL SURFACE JOINT [1]
    Between lanes.. 1 Within lane.. 2
    (specify offset from O/S feet) [__ __.__]

14. SIGNIFICANT EVENTS DURING CONSTRUCTION (disruptions, rain, equip. problems, etc.)_____

PREPARER James V. Dill EMPLOYER BRE DATE 9/5/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [07] * TEST SECTION NO. [21]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [03-31-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-02-97]
*3. LAYER NUMBER [5]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... __.__
Number of Tests ..... __.
Maximum..... ___.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	__.__				
7	B	Steel-Whl Tandem	__.__				
8	C	Steel-Whl Tandem	__.__				
9	D	Steel-Whl Tandem	__.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	__.__	____.			
12	G	Pneumatic-Tired	__.__	____.			
13	H	Pneumatic-Tired	__.__	____.			
14	I	Single-Drum Vibr.	11.7		____.	___.	__.__
15	J	Single-Drum Vibr.	__.__		____.	___.	__.__
16	K	Single-Drum Vibr.	__.__		____.	___.	__.__
17	L	Single-Drum Vibr.	__.__		____.	___.	__.__
18	M	Double-Drum Vibr.	__.__		____.	___.	__.__
19	N	Double-Drum Vibr.	__.__		____.	___.	__.__
20	O	Double-Drum Vibr.	__.__		____.	___.	__.__
21	P	Double-Drum Vibr.	__.__		____.	___.	__.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I			
24	Coverages	2.	__.	__.	__.
	INTERMEDIATE				
25	Roller Code (A-Q)				
26	Coverages	__.	__.	__.	__.
	FINAL				
27	Roller Code (A-Q)	E			
28	Coverages	6.	__.	__.	__.
29	Air Temperature (°F)	99.	___.	___.	___.
30	Compacted Thickness (In)	3.7	__.__	__.__	__.__
31	Curing Period (Days)	0.5	__.__	__.__	__.__

PREPARER [signature] EMPLOYER BRE DATE 9/5/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [21]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [04-02-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-03-97]
*3. LAYER NUMBER [6]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... __.__
Number of Tests ..... __.
Maximum..... ___.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	__.__				
7	B	Steel-Whl Tandem	__.__				
8	C	Steel-Whl Tandem	__.__				
9	D	Steel-Whl Tandem	__.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	__.__	____.			
12	G	Pneumatic-Tired	__.__	____.			
13	H	Pneumatic-Tired	__.__	____.			
14	I	Single-Drum Vibr.	__.__		____.	___.	__.__
15	J	Single-Drum Vibr.	11.7		____.	___.	__.__
16	K	Single-Drum Vibr.	__.__		____.	___.	__.__
17	L	Single-Drum Vibr.	__.__		____.	___.	__.__
18	M	Double-Drum Vibr.	__.__		____.	___.	__.__
19	N	Double-Drum Vibr.	__.__		____.	___.	__.__
20	O	Double-Drum Vibr.	__.__		____.	___.	__.__
21	P	Double-Drum Vibr.	__.__		____.	___.	__.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I	__	__	__
24	Coverages	2.	__.	__.	__.
	INTERMEDIATE				
25	Roller Code (A-Q)	__	__	__	__
26	Coverages	__.	__.	__.	__.
	FINAL				
27	Roller Code (A-Q)	E	__	__	__
28	Coverages	6.	__.	__.	__.
29	Air Temperature (°F)	100.	___.	___.	___.
30	Compacted Thickness (In)	1.8	__.__	__.__	__.__
31	Curing Period (Days)	18.0	__.__	__.__	__.__

PREPARER Bruce Dill EMPLOYER BRE DATE 9/5/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [07] * TEST SECTION NO. [21]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [04-21-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-23-97]
*3. LAYER NUMBER [7]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... __.__
Number of Tests ..... __.
Maximum..... ___.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	__.__	[redacted]	[redacted]	[redacted]	[redacted]
7	B	Steel-Whl Tandem	__.__				
8	C	Steel-Whl Tandem	__.__				
9	D	Steel-Whl Tandem	__.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	__.__	____.			
12	G	Pneumatic-Tired	__.__	____.			
13	H	Pneumatic-Tired	__.__				
14	I	Single-Drum Vibr.	11.7	[redacted]	____.	___.	__.__
15	J	Single-Drum Vibr.	__.__		____.	___.	__.__
16	K	Single-Drum Vibr.	__.__		____.	___.	__.__
17	L	Single-Drum Vibr.	__.__		____.	___.	__.__
18	M	Double-Drum Vibr.	__.__		____.	___.	__.__
19	N	Double-Drum Vibr.	__.__		____.	___.	__.__
20	O	Double-Drum Vibr.	__.__		____.	___.	__.__
21	P	Double-Drum Vibr.	__.__		____.	___.	__.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I	___	___	___
24	Coverages	2.	___.	___.	___.
	INTERMEDIATE				
25	Roller Code (A-Q)	___	___	___	___
26	Coverages	___.	___.	___.	___.
	FINAL				
27	Roller Code (A-Q)	E	___	___	___
28	Coverages	6.	___.	___.	___.
29	Air Temperature (°F)	100.	___.	___.	___.
30	Compacted Thickness (In)	1.8	__.__	__.__	__.__
31	Curing Period (Days)	1.0	__.__	__.__	__.__

PREPARER Steve C. Dill EMPLOYER BRE DATE 9/5/97

SPS-1 CONSTRUCTION DATA SHEET 11 PLANT-MIXED ASPHALT BOUND LAYERS DENSITY AND PROFILE DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [21]

1. NUCLEAR DENSITY MEASUREMENTS

LAYER TYPE	ATB	Binder Course	Surface Course	Surface Friction Layer
Measurement Method (A, B, C)[1]		A	A	
Number of Measurements		12	12	
Average (pcf)		134.4	137.3	
Maximum (pcf)		139.2	139.6	
Minimum (pcf)		124.8	134.8	
Standard Deviation (pcf)		4.7	1.4	
Layer Number		6	7	

[1]Measurement Method Backscatter... A Direct Transmission... B Air Gap... C

2. MANUFACTURER OF NUCLEAR DENSITY GAUGE: TROXLER
3. NUCLEAR DENSITY GAUGE MODEL NUMBER: 3411-B
4. NUCLEAR DENSITY GAUGE IDENTIFICATION NUMBER: 12857
5. NUCLEAR GAUGE COUNT RATE FOR STANDARDIZATION:

6. PROFILOGRAPH MEASUREMENTS

Profilograph Type California... 1 Rainhart... 2	1
Profile Index (Inches/Mile)	6
Interpretation Method Manual.. 1 Mechanical.. 2 Computer.. 3	3
Height of Blanking Band (Inches)	0.2
Cutoff Height (Inches)	0.3

7. SURFACE PROFILE USED AS BASIS OF INCENTIVE PAYMENT? (YES, NO): YES

PREPARER [signature] EMPLOYER BRE DATE 9/5/97

SPS-1 CONSTRUCTION DATA SHEET 13 UNBOUND AGGREGATE BASE MATERIAL PLACEMENT	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [21]

*1. UNBOUND BASE MATERIAL PLACEMENT BEGAN (Month-Day-Year) [03-18-97]

*2. UNBOUND BASE MATERIAL PLACEMENT COMPLETED (Month-Day-Year) [03-21-97]

*3. LAYER NUMBER (From Sheet 4) [3]

PRIMARY COMPACTION EQUIPMENT

*4. CODE TYPE [5]

COMPACTION TYPE CODES
Pneumatic - Tired... 1 Steel Wheel Tandem... 2 Single Drum Vibr.... 3
Double Drum Vibr.... 4
Other (Specify)... 5 2 COVERAGES SINGLE DRUM VIBR. (12 TONS)
6 COVERAGES PNEUMATIC (25 TONS)

*5. GROSS WEIGHT (TONS) [__ __.__]

*6. LIFT THICKNESSES
Nominal First Lift Placement Thickness (inches) · UNCOMPACTED & CUT [__ 5]
Nominal Second Lift Placement Thickness (inches) " [__ 5]
Nominal Third Lift Placement Thickness (inches) [__ 5]
Nominal Fourth Lift Placement Thickness (inches) [__ __]

DENSITY DATA IS RECORDED ON SAMPLING DATA SHEET 8-1

7. SIGNIFICANT EVENTS DURING CONSTRUCTION (DISRUPTIONS, RAIN, EQUIPMENT PROBLEMS, ETC.) _____

PREPARER John S. Dell EMPLOYER BRE DATE 9/5/97

SPS-1 CONSTRUCTION DATA SHEET 14 SUBGRADE PREPARATION	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [21]

*1. SUBGRADE PREPARATION BEGAN (Month-Day-Year) [03-10-97]

*2. SUBGRADE PREPARATION COMPLETED (Month-Day-Year) [03-12-97]

PRIMARY COMPACTION EQUIPMENT

*3. CODE TYPE [5]

COMPACTION EQUIPMENT TYPE CODES
Sheepsfoot... 1 Pneumatic Tired... 2 Steel Wheel Tandem... 3
Single Drum Vibr.... 4 Double Drum Vibr.... 5
Other (Specify)... 6 2 COVERAGES SINGLE DRUM VIBR (12 TONS)
6 COVERAGES PNEUMATIC (25 TONS)

*4. GROSS WEIGHT (TONS) [__ __.__]

		TYPE	PERCENT
*5.	STABILIZING AGENT 1	[2]	[2.0]
*6.	STABILIZING AGENT 2	[__]	[__ __.__]

STABILIZING AGENT TYPE CODES
Portland Cement... 1 Lime... 2 Fly Ash, Class C... 3
Fly Ash, Class N... 4
Other (Specify)... 5 _____

*7. TYPICAL LIFT THICKNESS (INCHES) [__ __]
(For Fill Sections Only)

DENSITY DATA IS RECORDED ON SAMPLING DATA SHEET 8-1

8. SIGNIFICANT EVENTS DURING CONSTRUCTION (DISRUPTIONS, RAIN, EQUIPMENT PROBLEMS, ETC.) _____

PREPARER [signature] EMPLOYER BRE DATE 9/5/97

SPS-1 CONSTRUCTION DATA SHEET 2 GEOMETRIC, SHOULDER AND DRAINAGE INFORMATION	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [14]

*1. LANE WIDTH (FEET) [12.]

2. MONITORING SITE LANE NUMBER [1.]
(LANE 1 IS OUTSIDE LANE, NEXT TO SHOULDER
LANE 2 IS NEXT TO LANE 1, ETC.)

*3. SUBSURFACE DRAINAGE LOCATION [3.]
Continuous Along Test Section... 1 Intermittent... 2 None... 3

*4. SUBSURFACE DRAINAGE TYPE [1.]
No Subsurface Drainage... 1 Longitudinal Drains... 2
Transverse Drains... 3 Drainage Blanket... 4 Well System... 5
Drainage Blanket with Longitudinal Drains... 6
Other (Specify)... 7 _____

	SHOULDER DATA	INSIDE SHOULDER	OUTSIDE SHOULDER
*5.	SURFACE TYPE Turf... 1 Granular.... 2 Asphalt Concrete... 3 Concrete... 4 Surface Treatment... 5 Other (Specify)... 6 _____	[3.]	[3.]
*6.	TOTAL WIDTH (FEET)	[4.]	[10.]
*7.	PAVED WIDTH (FEET)	[4.]	[10.]
8.	SHOULDER BASE TYPE (CODES-TABLE A.6)	[23.]	[23.]
9.	SURFACE THICKNESS (INCHES)	[7.0]	[7.0]
10.	SHOULDER BASE THICKNESS (INCHES)	[12.0]	[12.0]
11.	DIAMETER OF LONGITUDINAL DRAINPIPES (INCHES)		[__.__]
12.	SPACING OF LATERALS (FEET)		[___.]

PREPARER Dave C. Dill EMPLOYER BRE DATE 9/5/97

SPS-1 CONSTRUCTION DATA SHEET 4 LAYER DESCRIPTIONS	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [14]

*1 LAYER NUMBER	*2 LAYER DESCRIPTION	*3 MATERIAL TYPE CLASS	*4 LAYER THICKNESSES (Inches)			
			AVERAGE	MINIMUM	MAXIMUM	STD. DEV.
1	SUBGRADE(7)	[59]	[redacted]	[redacted]	[redacted]	[redacted]
2	[6]	[42]	[12.0]	___.__	___.__	___.__
3	[5]	[23]	[12.3]	10.9	14.4	0.7
4	[4]	[28]	[4.4]	3.7	5.8	0.5
5	[3]	[1]	[2.1]	1.5	2.9	0.4
6	[ ]	[ ]	[ ]	___.__	___.__	___.__
7	[ ]	[ ]	[ ]	___.__	___.__	___.__
8	[ ]	[ ]	[ ]	___.__	___.__	___.__
9	[ ]	[ ]	[ ]	___.__	___.__	___.__
10	[ ]	[ ]	[ ]	___.__	___.__	___.__
11	[ ]	[ ]	[ ]	___.__	___.__	___.__
12	[ ]	[ ]	[ ]	___.__	___.__	___.__
13	[ ]	[ ]	[ ]	___.__	___.__	___.__
14	[ ]	[ ]	[ ]	___.__	___.__	___.__
15	[ ]	[ ]	[ ]	___.__	___.__	___.__

*5 DEPTH BELOW SURFACE TO "RIGID" LAYER (FEET) [__ __ . __]
(Rock, Stone, Dense Shale)

NOTES:

1. Layer 1 is the subgrade soil, the highest numbered layer is the pavement surface.

2. Layer description codes:

Overlay.....01	Base Layer.....05	Porous Friction Course..09
Seal/Tack Coat.....02	Subbase Layer.....06	Surface Treatment.....10
Original Surface.....03	Subgrade.....07	Embankment (Fill).....11
HMAC Layer (Subsurface).04	Interlayer.....08	

3. The material type classification codes are presented in Tables A.5, A.6, A.7 and A.8 of the Data Collection Guide for Long Term Pavement Performance Studies, dated January 17, 1990.

4. Enter the average thickness of each layer and the minimum, maximum and standard deviation of the thickness measurements, if known.

PREPARER [signature] EMPLOYER BRE DATE 9/5/97

SPS-1 CONSTRUCTION DATA SHEET 9 PLANT-MIXED ASPHALT BOUND LAYERS PLACEMENT DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [14]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [03-24-97]

*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-23-97]

*3 ASPHALT CONCRETE PLANT AND HAUL

	Type	Name	Haul Distance (Mi)	Time (Min)	Layer Numbers
Plant 1	[2]	GUERRA RANCH	[__ __ 5]	[__ 5]	[4] [5] [__]
Plant 2	[__]	_____	[__ __ __]	[__ __]	[__] [__] [__]
Plant 3	[__]	_____	[__ __ __]	[__ __]	[__] [__] [__]

Plant Type: Batch..... 1 Drum Mix.... 2 Other...3 Specify_____

4. MANUFACTURER OF ASPHALT CONCRETE PAVER BARBER GREENE

5. MODEL DESIGNATION OF ASPHALT CONCRETE PAVER BG-270B

6. SINGLE PASS LAYDOWN WIDTH (Feet) [12.0]

7. ATB PLACEMENT LIFTS
   - Layer Number [__ __]
   - Nominal First Lift Placement Thickness (Inches) [__.__]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]
   - Nominal Third Lift Placement Thickness (Inches) [__.__]
   - Nominal Fourth Lift Placement Thickness (Inches) [__.__]

8. PATB PLACEMENT LIFTS
   - Layer Number [__ __]
   - Nominal First Lift Placement Thickness (Inches) [__.__]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]

9. AC BINDER COURSE LIFT
   - Layer Number [__ 4]
   - Nominal First Lift Placement Thickness (Inches) UNCOMPACTED [3.0]
   - Nominal Second Lift Placement Thickness (Inches) " [3.0]

10. AC SURFACE COURSE LIFT
   - Layer Number [__ 5]
   - Nominal First Lift Placement Thickness (Inches) UNCOMPACTED [2.5]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]

11. SURFACE FRICTION COURSE (If Placed)
   - Layer Number [__ __]
   - Nominal Placement Thickness (Inches) [__.__]

12. TEST SECTION STATION OF TRANSVERSE JOINTS (within test section)
   - Binder Course [__ + __ __]
   - Surface Course [__ + __ __]
   - Surface Friction Course [__ + __ __]

13. LOCATION OF LONGITUDINAL SURFACE JOINT [1]
   - Between lanes.. 1 Within lane.. 2
   - (specify offset from O/S feet) [__ __.__]

14. SIGNIFICANT EVENTS DURING CONSTRUCTION (disruptions, rain, equip. problems, etc.)_____

PREPARER [signature] EMPLOYER BRE DATE 9/5/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [14]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [3-24-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [3-26-97]
*3. LAYER NUMBER [4]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... 260.
Minimum..... 240.
Standard Deviation... ___.__
Number of Tests ..... 3.
Maximum..... 280.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	___.__				
7	B	Steel-Whl Tandem	___.__				
8	C	Steel-Whl Tandem	___.__				
9	D	Steel-Whl Tandem	___.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	___.__	____.			
12	G	Pneumatic-Tired	___.__	____.			
13	H	Pneumatic-Tired	___.__	____.			
14	I	Single-Drum Vibr.	11.7		____.	___.__	___.__
15	J	Single-Drum Vibr.	___.__		____.	___.__	___.__
16	K	Single-Drum Vibr.	___.__		____.	___.__	___.__
17	L	Single-Drum Vibr.	___.__		____.	___.__	___.__
18	M	Double-Drum Vibr.	___.__		____.	___.__	___.__
19	N	Double-Drum Vibr.	___.__		____.	___.__	___.__
20	O	Double-Drum Vibr.	___.__		____.	___.__	___.__
21	P	Double-Drum Vibr.	___.__		____.	___.__	___.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I	I	___	___
24	Coverages	2.	2.	___.	___.
	INTERMEDIATE				
25	Roller Code (A-Q)	___	___	___	___
26	Coverages	___.	___.	___.	___.
	FINAL				
27	Roller Code (A-Q)	E	E	___	___
28	Coverages	6.	6.	___.	___.
29	Air Temperature (°F)	98.	98.	___.	___.
30	Compacted Thickness (In)	2.2	2.2	___.__	___.__
31	Curing Period (Days)	1.0	1.0	___.__	___.__

PREPARER [signature] EMPLOYER BRE DATE 9/5/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [14]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [04-21-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-23-97]
*3. LAYER NUMBER [5]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... ___.
Number of Tests ..... ___.
Maximum..... ___.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	___.				
7	B	Steel-Whl Tandem	___.				
8	C	Steel-Whl Tandem	___.				
9	D	Steel-Whl Tandem	___.				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	___.	____.			
12	G	Pneumatic-Tired	___.	____.			
13	H	Pneumatic-Tired	___.				
14	I	Single-Drum Vibr.	11.7		____.	___.	___.
15	J	Single-Drum Vibr.	___.		____.	___.	___.
16	K	Single-Drum Vibr.	___.		____.	___.	___.
17	L	Single-Drum Vibr.	___.		____.	___.	___.
18	M	Double-Drum Vibr.	___.		____.	___.	___.
19	N	Double-Drum Vibr.	___.		____.	___.	___.
20	O	Double-Drum Vibr.	___.		____.	___.	___.
21	P	Double-Drum Vibr.	___.		____.	___.	___.
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I			
24	Coverages	2.	___.	___.	___.
	INTERMEDIATE				
25	Roller Code (A-Q)				
26	Coverages	___.	___.	___.	___.
	FINAL				
27	Roller Code (A-Q)	E			
28	Coverages	6.	___.	___.	___.
29	Air Temperature (°F)	100.	___.	___.	___.
30	Compacted Thickness (In)	2.1	___.	___.	___.
31	Curing Period (Days)	3.0	___.	___.	___.

PREPARER Dave Dill EMPLOYER BCC DATE 9/5/97

SPS-1 CONSTRUCTION DATA SHEET 11 PLANT-MIXED ASPHALT BOUND LAYERS DENSITY AND PROFILE DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [17]

1. NUCLEAR DENSITY MEASUREMENTS

LAYER TYPE	ATB	Binder Course	Surface Course	Surface Friction Layer
Measurement Method (A, B, C)[1]	__	A	A	__
Number of Measurements	__ __	12	12	__ __
Average (pcf)	___.__	140.4	133.9	___.__
Maximum (pcf)	___.__	148.7	138.0	___.__
Minimum (pcf)	___.__	136.9	124.6	___.__
Standard Deviation (pcf)	___.__	__4.0	__4.0	___.__
Layer Number	__ __	__4	__5	__ __

[1]Measurement Method Backscatter... A Direct Transmission... B Air Gap... C

2. MANUFACTURER OF NUCLEAR DENSITY GAUGE: TROXLER

3. NUCLEAR DENSITY GAUGE MODEL NUMBER: 3411-B

4. NUCLEAR DENSITY GAUGE IDENTIFICATION NUMBER: 12857

5. NUCLEAR GAUGE COUNT RATE FOR STANDARDIZATION: _____

6. PROFILOGRAPH MEASUREMENTS

Profilograph Type California... 1 Rainhart... 2	1
Profile Index (Inches/Mile)	__6
Interpretation Method Manual.. 1 Mechanical.. 2 Computer.. 3	3
Height of Blanking Band (Inches)	0.2
Cutoff Height (Inches)	0.3

7. SURFACE PROFILE USED AS BASIS OF INCENTIVE PAYMENT? (YES, NO) YES

PREPARER Bruce C. Dall EMPLOYER BRE DATE 9/5/97

SPS-1 CONSTRUCTION DATA SHEET 13 UNBOUND AGGREGATE BASE MATERIAL PLACEMENT	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [14]

*1. UNBOUND BASE MATERIAL PLACEMENT BEGAN (Month-Day-Year) [03-18-97]

*2. UNBOUND BASE MATERIAL PLACEMENT COMPLETED (Month-Day-Year) [03-21-97]

*3. LAYER NUMBER (From Sheet 4) [3]

PRIMARY COMPACTION EQUIPMENT

*4. CODE TYPE [5]

COMPACTION TYPE CODES
Pneumatic - Tired... 1 Steel Wheel Tandem... 2 Single Drum Vibr.... 3
Double Drum Vibr.... 4
Other (Specify)... 5 2 COVERAGES SINGLE DRUM VIBR. (12 TONS)
6 COVERAGES PNEUMATIC (25 TONS)

*5. GROSS WEIGHT (TONS) [__ __.__]

*6. LIFT THICKNESSES
Nominal First Lift Placement Thickness (inches) · UNCOMPACTED & CUT [__ 5]
Nominal Second Lift Placement Thickness (inches) " [__ 5]
Nominal Third Lift Placement Thickness (inches) " [__ 5]
Nominal Fourth Lift Placement Thickness (inches) [__ __]

DENSITY DATA IS RECORDED ON SAMPLING DATA SHEET 8-1

7. SIGNIFICANT EVENTS DURING CONSTRUCTION (DISRUPTIONS, RAIN, EQUIPMENT PROBLEMS, ETC.) _____

PREPARER Brue C. Dell EMPLOYER BRE DATE 9/5/97

SPS-1 CONSTRUCTION DATA SHEET 14 SUBGRADE PREPARATION	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [14]

*1. SUBGRADE PREPARATION BEGAN (Month-Day-Year) [03-10-97]

*2. SUBGRADE PREPARATION COMPLETED (Month-Day-Year) [03-12-97]

PRIMARY COMPACTION EQUIPMENT

*3. CODE TYPE [5]

COMPACTION EQUIPMENT TYPE CODES
Sheepsfoot... 1 Pneumatic Tired... 2 Steel Wheel Tandem... 3
Single Drum Vibr.... 4 Double Drum Vibr.... 5
Other (Specify)... 6 2 COVERAGES SINGLE DRUM VIBR (12 TONS)
6 COVERAGES PNEUMATIC (25 TONS)

*4. GROSS WEIGHT (TONS) [__ __.__]

	TYPE	PERCENT
*5. STABILIZING AGENT 1	[2]	[__ 2.0]
*6. STABILIZING AGENT 2	[__]	[__ __.__]

STABILIZING AGENT TYPE CODES
Portland Cement... 1 Lime... 2 Fly Ash, Class C... 3
Fly Ash, Class N... 4
Other (Specify)... 5 _____

*7. TYPICAL LIFT THICKNESS (INCHES) [__ __]
(For Fill Sections Only)

DENSITY DATA IS RECORDED ON SAMPLING DATA SHEET 8-1

8. SIGNIFICANT EVENTS DURING CONSTRUCTION (DISRUPTIONS, RAIN, EQUIPMENT PROBLEMS, ETC.) _____

PREPARER [signature] EMPLOYER BRE DATE 9/5/97

SPS-1 CONSTRUCTION DATA SHEET 2 GEOMETRIC, SHOULDER AND DRAINAGE INFORMATION	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [63]

*1. LANE WIDTH (FEET) [12.]

2. MONITORING SITE LANE NUMBER [1.]
(LANE 1 IS OUTSIDE LANE, NEXT TO SHOULDER
LANE 2 IS NEXT TO LANE 1, ETC.)

*3. SUBSURFACE DRAINAGE LOCATION [3.]
Continuous Along Test Section... 1 Intermittent... 2 None... 3

*4. SUBSURFACE DRAINAGE TYPE [1.]
No Subsurface Drainage... 1 Longitudinal Drains... 2
Transverse Drains... 3 Drainage Blanket... 4 Well System... 5
Drainage Blanket with Longitudinal Drains... 6
Other (Specify)... 7 _____

SHOULDER DATA	INSIDE SHOULDER	OUTSIDE SHOULDER
*5. SURFACE TYPE Turf... 1 Granular.... 2 Asphalt Concrete... 3 Concrete... 4 Surface Treatment... 5 Other (Specify)... 6 _____	[3.]	[3.]
*6. TOTAL WIDTH (FEET)	[4.]	[10.]
*7. PAVED WIDTH (FEET)	[4.]	[10.]
8. SHOULDER BASE TYPE (CODES-TABLE A.6) CALICHE	[41.]	[41.]
9. SURFACE THICKNESS (INCHES)	[5.0]	[5.0]
10. SHOULDER BASE THICKNESS (INCHES)	[10.0]	[10.0]
11. DIAMETER OF LONGITUDINAL DRAINPIPES (INCHES)		[__.__]
12. SPACING OF LATERALS (FEET)		[___.]

PREPARER [signature] EMPLOYER BRE DATE 9/5/97

SPS-1 CONSTRUCTION DATA SHEET 4 LAYER DESCRIPTIONS	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [67]

*1 LAYER NUMBER	*2 LAYER DESCRIPTION	*3 MATERIAL TYPE CLASS	*4 LAYER THICKNESSES (Inches)			
			AVERAGE	MINIMUM	MAXIMUM	STD. DEV.
1	SUBGRADE(7)	[59]	[redacted]	[redacted]	[redacted]	[redacted]
2	[6]	[42]	[12.0]	---.-	---.-	---.-
3	[8]	[85]	[0.3]	---.-	---.-	---.-
4	[5]	[41]	[9.6]	8.4	11.6	0.7
5	[4]	[28]	[2.6]	1.9	3.4	0.4
6	[3]	[1]	[2.2]	1.5	2.8	0.3
7	[__]	[__]	[---.-]	---.-	---.-	---.-
8	[__]	[__]	[---.-]	---.-	---.-	---.-
9	[__]	[__]	[---.-]	---.-	---.-	---.-
10	[__]	[__]	[---.-]	---.-	---.-	---.-
11	[__]	[__]	[---.-]	---.-	---.-	---.-
12	[__]	[__]	[---.-]	---.-	---.-	---.-
13	[__]	[__]	[---.-]	---.-	---.-	---.-
14	[__]	[__]	[---.-]	---.-	---.-	---.-
15	[__]	[__]	[---.-]	---.-	---.-	---.-

TENSAR GEOGRID

CALICHE

*5 DEPTH BELOW SURFACE TO "RIGID" LAYER (FEET) [__.__]
(Rock, Stone, Dense Shale)

NOTES:

1. Layer 1 is the subgrade soil, the highest numbered layer is the pavement surface.

2. Layer description codes:

Overlay.....01	Base Layer.....05	Porous Friction Course..09
Seal/Tack Coat.....02	Subbase Layer.....06	Surface Treatment.....10
Original Surface.....03	Subgrade.....07	Embankment (Fill).....11
HMAC Layer (Subsurface).04	Interlayer.....08	

3. The material type classification codes are presented in Tables A.5, A.6, A.7 and A.8 of the Data Collection Guide for Long Term Pavement Performance Studies, dated January 17, 1990.

4. Enter the average thickness of each layer and the minimum, maximum and standard deviation of the thickness measurements, if known.

PREPARER Robert E. Dill EMPLOYER BRE DATE 9/5/97

SPS-1 CONSTRUCTION DATA SHEET 9 PLANT-MIXED ASPHALT BOUND LAYERS PLACEMENT DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [67]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [03-24-97]

*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-23-97]

*3 ASPHALT CONCRETE PLANT AND HAUL

	Type	Name	Haul Distance (Mi)	Time (Min)	Layer Numbers
Plant 1	[2]	GUERRA RANCH	[__ __ 5]	[__ 5]	[5] [6] [__]
Plant 2	[__]	_____	[__ __ __]	[__ __]	[__] [__] [__]
Plant 3	[__]	_____	[__ __ __]	[__ __]	[__] [__] [__]

Plant Type: Batch..... 1 Drum Mix.... 2 Other...3 Specify_____

4. MANUFACTURER OF ASPHALT CONCRETE PAVER BARBER GREENE

5. MODEL DESIGNATION OF ASPHALT CONCRETE PAVER BG-270B

6. SINGLE PASS LAYDOWN WIDTH (Feet) [12.0]

7. ATB PLACEMENT LIFTS
   - Layer Number [__ __]
   - Nominal First Lift Placement Thickness (Inches) [__.__]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]
   - Nominal Third Lift Placement Thickness (Inches) [__.__]
   - Nominal Fourth Lift Placement Thickness (Inches) [__.__]

8. PATB PLACEMENT LIFTS
   - Layer Number [__ __]
   - Nominal First Lift Placement Thickness (Inches) [__.__]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]

9. AC BINDER COURSE LIFT
   - Layer Number [__ 5]
   - Nominal First Lift Placement Thickness (Inches) UNCOMPACTED [3.0]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]

10. AC SURFACE COURSE LIFT
   - Layer Number [__ 6]
   - Nominal First Lift Placement Thickness (Inches) UNCOMPACTED [3.0]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]

11. SURFACE FRICTION COURSE (If Placed)
   - Layer Number [__ __]
   - Nominal Placement Thickness (Inches) [__.__]

12. TEST SECTION STATION OF TRANSVERSE JOINTS (within test section)
   - Binder Course [__ + __ __]
   - Surface Course [__ + __ __]
   - Surface Friction Course [__ + __ __]

13. LOCATION OF LONGITUDINAL SURFACE JOINT [1]
   Between lanes.. 1 Within lane.. 2
   (specify offset from O/S feet) [__ __.__]

14. SIGNIFICANT EVENTS DURING CONSTRUCTION (disruptions, rain, equip. problems, etc.)_____

PREPARER [signature] EMPLOYER BRE DATE 9/5/97

SPS-1 CONSTRUCTION DATA
SHEET 10
PLANT-MIXED ASPHALT BOUND LAYERS
COMPACTION DATA

* STATE CODE [48]
* SPS PROJECT CODE [01]
* TEST SECTION NO. [67]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [03.24.97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [03-26-97]
*3. LAYER NUMBER [5]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... 260.
Minimum..... 240.
Standard Deviation... ___.__
Number of Tests ..... 3.
Maximum..... 280.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	___.__	[redacted]	[redacted]	[redacted]	[redacted]
7	B	Steel-Whl Tandem	___.__				
8	C	Steel-Whl Tandem	___.__				
9	D	Steel-Whl Tandem	___.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	___.__	____.			
12	G	Pneumatic-Tired	___.__	____.			
13	H	Pneumatic-Tired	___.__	____.			
14	I	Single-Drum Vibr.	11.7	[redacted]	____.	____.	___.__
15	J	Single-Drum Vibr.	___.__		____.	____.	___.__
16	K	Single-Drum Vibr.	___.__		____.	____.	___.__
17	L	Single-Drum Vibr.	___.__		____.	____.	___.__
18	M	Double-Drum Vibr.	___.__		____.	____.	___.__
19	N	Double-Drum Vibr.	___.__		____.	____.	___.__
20	O	Double-Drum Vibr.	___.__		____.	____.	___.__
21	P	Double-Drum Vibr.	___.__		____.	____.	___.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	F			
24	Coverages	2.	___.	___.	___.
	INTERMEDIATE				
25	Roller Code (A-Q)				
26	Coverages	___.	___.	___.	___.
	FINAL				
27	Roller Code (A-Q)	E			
28	Coverages	6.	___.	___.	___.
29	Air Temperature (°F)	98.	___.__	___.__	___.__
30	Compacted Thickness (In)	2.6	___.__	___.__	___.__
31	Curing Period (Days)	1.0	___.__	___.__	___.__

PREPARER [signature] EMPLOYER BRE DATE 9/5/97

SPS-1 CONSTRUCTION DATA
SHEET 10
PLANT-MIXED ASPHALT BOUND LAYERS
COMPACTION DATA

* STATE CODE	[48]
* SPS PROJECT CODE	[01]
* TEST SECTION NO.	[67]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [04-21-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-23-97]
*3. LAYER NUMBER [6]
*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... ___.__
Number of Tests ..... ___.
Maximum..... ___.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	___.__				
7	B	Steel-Whl Tandem	___.__				
8	C	Steel-Whl Tandem	___.__				
9	D	Steel-Whl Tandem	___.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	___.__	____.			
12	G	Pneumatic-Tired	___.__	____.			
13	H	Pneumatic-Tired	___.__				
14	I	Single-Drum Vibr.	11.7		____.	___.	___.__
15	J	Single-Drum Vibr.	___.__		____.	___.	___.__
16	K	Single-Drum Vibr.	___.__		____.	___.	___.__
17	L	Single-Drum Vibr.	___.__		____.	___.	___.__
18	M	Double-Drum Vibr.	___.__		____.	___.	___.__
19	N	Double-Drum Vibr.	___.__		____.	___.	___.__
20	O	Double-Drum Vibr.	___.__		____.	___.	___.__
21	P	Double-Drum Vibr.	___.__		____.	___.	___.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I	___	___	___
24	Coverages	2.	___.	___.	___.
	INTERMEDIATE				
25	Roller Code (A-Q)	___	___	___	___
26	Coverages	___.	___.	___.	___.
	FINAL				
27	Roller Code (A-Q)	E	___	___	___
28	Coverages	6.	___.	___.	___.
29	Air Temperature (°F)	100.	___.	___.	___.
30	Compacted Thickness (In)	2.2	___.__	___.__	___.__
31	Curing Period (Days)	3.0	___.__	___.__	___.__

PREPARER Dane C. Dull EMPLOYER BRE DATE 9/5/97

SPS-1 CONSTRUCTION DATA SHEET 11 PLANT-MIXED ASPHALT BOUND LAYERS DENSITY AND PROFILE DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [67]

1. NUCLEAR DENSITY MEASUREMENTS

LAYER TYPE	ATB	Binder Course	Surface Course	Surface Friction Layer
Measurement Method (A, B, C)[1]		A	A	
Number of Measurements		12	12	
Average (pcf)		133.4	135.5	
Maximum (pcf)		136.1	141.7	
Minimum (pcf)		130.7	129.3	
Standard Deviation (pcf)		1.9	3.8	
Layer Number		5	6	

[1]Measurement Method Backscatter... A Direct Transmission... B Air Gap... C

2. MANUFACTURER OF NUCLEAR DENSITY GAUGE: TROXLER

3. NUCLEAR DENSITY GAUGE MODEL NUMBER: 3411-B

4. NUCLEAR DENSITY GAUGE IDENTIFICATION NUMBER: 12857

5. NUCLEAR GAUGE COUNT RATE FOR STANDARDIZATION: ------

6. PROFILOGRAPH MEASUREMENTS

Profilograph Type California... 1 Rainhart... 2	1
Profile Index (Inches/Mile)	6
Interpretation Method Manual.. 1 Mechanical.. 2 Computer.. 3	3
Height of Blanking Band (Inches)	0.2
Cutoff Height (Inches)	0.3

7. SURFACE PROFILE USED AS BASIS OF INCENTIVE PAYMENT? (YES, NO) YES

PREPARER Dave T. Hall EMPLOYER BRE DATE 9/5/97

SPS-1 CONSTRUCTION DATA SHEET 13 UNBOUND AGGREGATE BASE MATERIAL PLACEMENT	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [67]

*1. UNBOUND BASE MATERIAL PLACEMENT BEGAN (Month-Day-Year) [03-18-97]

*2. UNBOUND BASE MATERIAL PLACEMENT COMPLETED (Month-Day-Year) [03-21-97]

*3. LAYER NUMBER (From Sheet 4) [4]

PRIMARY COMPACTION EQUIPMENT

*4. CODE TYPE [5]

COMPACTION TYPE CODES
Pneumatic - Tired... 1 Steel Wheel Tandem... 2 Single Drum Vibr.... 3
Double Drum Vibr.... 4
Other (Specify)... 5 2 COVERAGES SINGLE DRUM VIBR. (12 TONS) / 6 COVERAGES PNEUMATIC (25 TONS)

*5. GROSS WEIGHT (TONS) [__ __.__]

*6. LIFT THICKNESSES
Nominal First Lift Placement Thickness (inches) - UNCOMPACTED & CUT [__ 4]
Nominal Second Lift Placement Thickness (inches) " [__ 4]
Nominal Third Lift Placement Thickness (inches) " [__ 4]
Nominal Fourth Lift Placement Thickness (inches) [__ __]

DENSITY DATA IS RECORDED ON SAMPLING DATA SHEET 8-1

7. SIGNIFICANT EVENTS DURING CONSTRUCTION (DISRUPTIONS, RAIN, EQUIPMENT PROBLEMS, ETC.) _____

PREPARER Bruce Dall EMPLOYER BRE DATE 9/5/97

SPS-1 CONSTRUCTION DATA SHEET 14 SUBGRADE PREPARATION	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [67]

*1. SUBGRADE PREPARATION BEGAN (Month-Day-Year) [03-10-97]

*2. SUBGRADE PREPARATION COMPLETED (Month-Day-Year) [03-12-97]

PRIMARY COMPACTION EQUIPMENT

*3. CODE TYPE [5]

COMPACTION EQUIPMENT TYPE CODES
Sheepsfoot... 1 Pneumatic Tired... 2 Steel Wheel Tandem... 3
Single Drum Vibr.... 4 Double Drum Vibr.... 5
Other (Specify)... 6 2 COVERAGES SINGLE DRUM VIBR (12 TONS)
6 COVERAGES PNEUMATIC (25 TONS)

*4. GROSS WEIGHT (TONS) [__ __.__]

	TYPE	PERCENT
*5. STABILIZING AGENT 1	[2]	[__ 2.0]
*6. STABILIZING AGENT 2	[__]	[__ __.__]

STABILIZING AGENT TYPE CODES
Portland Cement... 1 Lime... 2 Fly Ash, Class C... 3
Fly Ash, Class N... 4
Other (Specify)... 5 _____

*7. TYPICAL LIFT THICKNESS (INCHES) [__ __]
(For Fill Sections Only)

DENSITY DATA IS RECORDED ON SAMPLING DATA SHEET 8-1

8. SIGNIFICANT EVENTS DURING CONSTRUCTION (DISRUPTIONS, RAIN, EQUIPMENT PROBLEMS, ETC.) _____

PREPARER [signature] EMPLOYER BRE DATE 9/5/97

SPS-1 CONSTRUCTION DATA SHEET 2 GEOMETRIC, SHOULDER AND DRAINAGE INFORMATION	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [164]

*1. LANE WIDTH (FEET) [12.]

2. MONITORING SITE LANE NUMBER [1.]
(LANE 1 IS OUTSIDE LANE, NEXT TO SHOULDER
LANE 2 IS NEXT TO LANE 1, ETC.)

*3. SUBSURFACE DRAINAGE LOCATION [3.]
Continuous Along Test Section... 1 Intermittent... 2 None... 3

*4. SUBSURFACE DRAINAGE TYPE [1.]
No Subsurface Drainage... 1 Longitudinal Drains... 2
Transverse Drains... 3 Drainage Blanket... 4 Well System... 5
Drainage Blanket with Longitudinal Drains... 6
Other (Specify)... 7 _____

SHOULDER DATA	INSIDE SHOULDER	OUTSIDE SHOULDER
*5. SURFACE TYPE Turf... 1 Granular.... 2 Asphalt Concrete... 3 Concrete... 4 Surface Treatment... 5 Other (Specify)... 6 _____	[3.]	[3.]
*6. TOTAL WIDTH (FEET)	[4.]	[10.]
*7. PAVED WIDTH (FEET)	[4.]	[10.]
8. SHOULDER BASE TYPE (CODES-TABLE A.6) CRUSHED CONCRETE	[49.]	[49.]
9. SURFACE THICKNESS (INCHES)	[5.0]	[5.0]
10. SHOULDER BASE THICKNESS (INCHES)	[10.5]	[10.5]
11. DIAMETER OF LONGITUDINAL DRAINPIPES (INCHES)		[_._]
12. SPACING OF LATERALS (FEET)		[___.]

PREPARER Robert C. Dell EMPLOYER BRE DATE 9/5/97

SPS-1 CONSTRUCTION DATA SHEET 4 LAYER DESCRIPTIONS	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [64]

*1 LAYER NUMBER	*2 LAYER DESCRIPTION	*3 MATERIAL TYPE CLASS	*4 LAYER THICKNESSES (Inches)				
			AVERAGE	MINIMUM	MAXIMUM	STD. DEV.	
1	SUBGRADE(7)	[59]					
2	[6]	[42]	[12.0]				
3	[5]	[49]	[8.2]	6.0	9.4	0.7	CRUSHED CONCRETE
4	[4]	[28]	[2.5]				
5	[3]	[1]	[2.5]				
6	[ ]	[ ]	[ ]				
7	[ ]	[ ]	[ ]				
8	[ ]	[ ]	[ ]				
9	[ ]	[ ]	[ ]				
10	[ ]	[ ]	[ ]				
11	[ ]	[ ]	[ ]				
12	[ ]	[ ]	[ ]				
13	[ ]	[ ]	[ ]				
14	[ ]	[ ]	[ ]				
15	[ ]	[ ]	[ ]				

*5 DEPTH BELOW SURFACE TO "RIGID" LAYER (FEET) [.]
(Rock, Stone, Dense Shale)

NOTES:

1. Layer 1 is the subgrade soil, the highest numbered layer is the pavement surface.

2. Layer description codes:

Overlay.....01	Base Layer.....05	Porous Friction Course..09
Seal/Tack Coat.....02	Subbase Layer.....06	Surface Treatment.....10
Original Surface.....03	Subgrade.....07	Embankment (Fill).....11
HMAC Layer (Subsurface).04	Interlayer.....08	

3. The material type classification codes are presented in Tables A.5, A.6, A.7 and A.8 of the Data Collection Guide for Long Term Pavement Performance Studies, dated January 17, 1990.

4. Enter the average thickness of each layer and the minimum, maximum and standard deviation of the thickness measurements, if known.

PREPARER [signature] EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 9 PLANT-MIXED ASPHALT BOUND LAYERS PLACEMENT DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [64]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [01-06-97]

*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-22-97]

*3 ASPHALT CONCRETE PLANT AND HAUL

	Type	Name	Haul Distance (Mi)	Time (Min)	Layer Numbers
Plant 1	[2]	GUERRA RANCH	[5]	[5]	[4] [5] [ ]
Plant 2	[ ]		[ ]	[ ]	[ ] [ ] [ ]
Plant 3	[ ]		[ ]	[ ]	[ ] [ ] [ ]

Plant Type: Batch..... 1 Drum Mix.... 2 Other...3 Specify _____

4. MANUFACTURER OF ASPHALT CONCRETE PAVER BARBER GREENE

5. MODEL DESIGNATION OF ASPHALT CONCRETE PAVER BG-270B

6. SINGLE PASS LAYDOWN WIDTH (Feet) [12.0]

7. ATB PLACEMENT LIFTS
   - Layer Number [ ]
   - Nominal First Lift Placement Thickness (Inches) [.]
   - Nominal Second Lift Placement Thickness (Inches) [.]
   - Nominal Third Lift Placement Thickness (Inches) [.]
   - Nominal Fourth Lift Placement Thickness (Inches) [.]

8. PATB PLACEMENT LIFTS
   - Layer Number [ ]
   - Nominal First Lift Placement Thickness (Inches) [.]
   - Nominal Second Lift Placement Thickness (Inches) [.]

9. AC BINDER COURSE LIFT
   - Layer Number [4]
   - Nominal First Lift Placement Thickness (Inches) UNCOMPACTED [3.0]
   - Nominal Second Lift Placement Thickness (Inches) [.]

10. AC SURFACE COURSE LIFT
   - Layer Number [5]
   - Nominal First Lift Placement Thickness (Inches) UNCOMPACTED [3.0]
   - Nominal Second Lift Placement Thickness (Inches) [.]

11. SURFACE FRICTION COURSE (If Placed)
   - Layer Number [ ]
   - Nominal Placement Thickness (Inches) [.]

12. TEST SECTION STATION OF TRANSVERSE JOINTS (within test section)
   - Binder Course [+]
   - Surface Course [+]
   - Surface Friction Course [+]

13. LOCATION OF LONGITUDINAL SURFACE JOINT [1]
   Between lanes.. 1 Within lane.. 2
   (specify offset from O/S feet) [.]

14. SIGNIFICANT EVENTS DURING CONSTRUCTION (disruptions, rain, equip. problems, etc.) SEE SHEET 17

PREPARER [signature] EMPLOYER BRC DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [0701] * TEST SECTION NO. [64]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [01-06-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [01-15-97]
*3. LAYER NUMBER [4]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... __.__
Number of Tests ..... __.
Maximum..... ___.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	__.__				
7	B	Steel-Whl Tandem	__.__				
8	C	Steel-Whl Tandem	__.__				
9	D	Steel-Whl Tandem	__.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	__.__	____.			
12	G	Pneumatic-Tired	__.__	____.			
13	H	Pneumatic-Tired	__.__	____.			
14	I	Single-Drum Vibr.	11.7		____.	___.	__.__
15	J	Single-Drum Vibr.	__.__		____.	___.	__.__
16	K	Single-Drum Vibr.	__.__		____.	___.	__.__
17	L	Single-Drum Vibr.	__.__		____.	___.	__.__
18	M	Double-Drum Vibr.	__.__		____.	___.	__.__
19	N	Double-Drum Vibr.	__.__		____.	___.	__.__
20	O	Double-Drum Vibr.	__.__		____.	___.	__.__
21	P	Double-Drum Vibr.	__.__		____.	___.	__.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I			
24	Coverages	2.	__.	__.	__.
	INTERMEDIATE				
25	Roller Code (A-Q)				
26	Coverages	__.	__.	__.	__.
	FINAL				
27	Roller Code (A-Q)	E			
28	Coverages	6.	__.	__.	__.
29	Air Temperature (°F)	__.	___.	___.	___.
30	Compacted Thickness (In)	2.5	__.__	__.__	__.__
31	Curing Period (Days)	2.0	__.__	__.__	__.__

PREPARER Dave Dell EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [64]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [04-21-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-22-97]
*3. LAYER NUMBER [5]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... __.__
Number of Tests ..... __.
Maximum..... ___.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	__.__				
7	B	Steel-Whl Tandem	__.__				
8	C	Steel-Whl Tandem	__.__				
9	D	Steel-Whl Tandem	__.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	__.__	____.			
12	G	Pneumatic-Tired	__.__	____.			
13	H	Pneumatic-Tired	__.__				
14	I	Single-Drum Vibr.	11.7		____.	__.__	__.__
15	J	Single-Drum Vibr.	__.__		____.	__.__	__.__
16	K	Single-Drum Vibr.	__.__		____.	__.__	__.__
17	L	Single-Drum Vibr.	__.__		____.	__.__	__.__
18	M	Double-Drum Vibr.	__.__		____.	__.__	__.__
19	N	Double-Drum Vibr.	__.__		____.	__.__	__.__
20	O	Double-Drum Vibr.	__.__		____.	__.__	__.__
21	P	Double-Drum Vibr.	__.__		____.	__.__	__.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	E	__	__	__
24	Coverages	2.	__.	__.	__.
	INTERMEDIATE				
25	Roller Code (A-Q)	__	__	__	__
26	Coverages	__.	__.	__.	__.
	FINAL				
27	Roller Code (A-Q)	E	__	__	__
28	Coverages	6.	__.	__.	__.
29	Air Temperature (°F)	100.	___.	___.	___.
30	Compacted Thickness (In)	2.5	__.__	__.__	__.__
31	Curing Period (Days)	3.0	__.__	__.__	__.__

PREPARER [signature] EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 11 PLANT-MIXED ASPHALT BOUND LAYERS DENSITY AND PROFILE DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [64]

1. NUCLEAR DENSITY MEASUREMENTS

LAYER TYPE	ATB	Binder Course	Surface Course	Surface Friction Layer
Measurement Method (A, B, C)[1]	—	A	A	—
Number of Measurements	— —	12	12	— —
Average (pcf)	— — — . —	132.0	137.3	— — — . —
Maximum (pcf)	— — — . —	137.7	142.4	— — — . —
Minimum (pcf)	— — — . —	127.0	131.3	— — — . —
Standard Deviation (pcf)	— — — . —	— — 3.2	— — 3.8	— — — . —
Layer Number	— —	— 4	— 5	— —

[1]Measurement Method Backscatter... A Direct Transmission... B Air Gap... C

2. MANUFACTURER OF NUCLEAR DENSITY GAUGE — TROXLER

3. NUCLEAR DENSITY GAUGE MODEL NUMBER — 3411-B

4. NUCLEAR DENSITY GAUGE IDENTIFICATION NUMBER — 12857

5. NUCLEAR GAUGE COUNT RATE FOR STANDARDIZATION — — — — —

6. PROFILOGRAPH MEASUREMENTS

Profilograph Type California... 1 Rainhart... 2	1
Profile Index (Inches/Mile)	— 6
Interpretation Method Manual.. 1 Mechanical.. 2 Computer.. 3	3
Height of Blanking Band (Inches)	0.2 —
Cutoff Height (Inches)	0.3 —

7. SURFACE PROFILE USED AS BASIS OF INCENTIVE PAYMENT? (YES, NO) — YES

PREPARER [signature] EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 13 UNBOUND AGGREGATE BASE MATERIAL PLACEMENT	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [64]

*1. UNBOUND BASE MATERIAL PLACEMENT BEGAN (Month-Day-Year) [12-19-96]

*2. UNBOUND BASE MATERIAL PLACEMENT COMPLETED (Month-Day-Year) [12-24-96]

*3. LAYER NUMBER (From Sheet 4) [3]

PRIMARY COMPACTION EQUIPMENT

*4. CODE TYPE [5]

COMPACTION TYPE CODES
Pneumatic - Tired... 1 Steel Wheel Tandem... 2 Single Drum Vibr.... 3
Double Drum Vibr.... 4
Other (Specify)... 5 2 COVERAGES SINGLE DRUM VIBR (12 TONS)
6 COVERAGES PNEUMATIC (25 TONS)

*5. GROSS WEIGHT (TONS) [__ __.__]

*6. LIFT THICKNESSES
Nominal First Lift Placement Thickness (inches) · UNCOMPACTED & CUT [__ 5]
Nominal Second Lift Placement Thickness (inches) " [__ 5]
Nominal Third Lift Placement Thickness (inches) [__ __]
Nominal Fourth Lift Placement Thickness (inches) [__ __]

DENSITY DATA IS RECORDED ON SAMPLING DATA SHEET 8-1

7. SIGNIFICANT EVENTS DURING CONSTRUCTION (DISRUPTIONS, RAIN, EQUIPMENT PROBLEMS, ETC.) _____

PREPARER [signature] EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 14 SUBGRADE PREPARATION	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [64]

*1. SUBGRADE PREPARATION BEGAN (Month-Day-Year) [12-12-96]

*2. SUBGRADE PREPARATION COMPLETED (Month-Day-Year) [12-16-96]

PRIMARY COMPACTION EQUIPMENT

*3. CODE TYPE [5]

COMPACTION EQUIPMENT TYPE CODES
Sheepsfoot... 1 Pneumatic Tired... 2 Steel Wheel Tandem... 3
Single Drum Vibr.... 4 Double Drum Vibr.... 5
Other (Specify)... 6 2 COVERAGES SINGLE DRUM VIBR (12 TONS)
6 COVERAGES PNEUMATIC (25 TONS)

*4. GROSS WEIGHT (TONS) [__ __.__]

	TYPE	PERCENT
*5. STABILIZING AGENT 1	[2]	[__2.0]
*6. STABILIZING AGENT 2	[__]	[__ __.__]

STABILIZING AGENT TYPE CODES
Portland Cement... 1 Lime... 2 Fly Ash, Class C... 3
Fly Ash, Class N... 4
Other (Specify)... 5 _____

*7. TYPICAL LIFT THICKNESS (INCHES) [__ __]
(For Fill Sections Only)

DENSITY DATA IS RECORDED ON SAMPLING DATA SHEET 8-1

8. SIGNIFICANT EVENTS DURING CONSTRUCTION (DISRUPTIONS, RAIN, EQUIPMENT PROBLEMS, ETC.) _____

PREPARER James F. Dill EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 17 MISCELLANEOUS CONSTRUCTION NOTES AND COMMENTS	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [67]

Provide any miscellaneous comments and notes concerning construction operations which may have an influence on the ultimate performance of the test sections or which may cause undesired performance differences to occur between test sections. Also include any quality control measurements or data for which space is not provided on other forms. Provide an indication of the basis for such measurements, such as an ASTM, AASHTO, or Agency standard test designation.

- CONSTRUCTION WAS INITIATED ON THE FIRST 10 SECTIONS DEC '96 (15, 16, 24, 23, 22, 17, 18, 13, 65 & 64)
- ALL LAYERS (EXCEPT THE SURFACE) WERE COMPLETED FOR THESE FIRST 10 SECTIONS BY JANUARY 15, 1997
- CONSTRUCTION WAS THEN INITIATED ON THE INSIDE LANE FOR THE NEXT 10 SECTIONS (67, 14, 21, 20, 19, 63, 62, 61, 60 & 66) WITH WORK IN THE OUTSIDE LANE BEGINNING IN MARCH '97
- WITH THE COMPLETION OF THE LAST 10 SECTIONS THE SURFACE COURSE WAS INITIATED APRIL 21, 1997
- ALL BUT THE LAST FOUR SECTIONS (62, 61, 60 & 66) HAD BEEN SURFACED BY APRIL 23, 1997
- THE LAST FOUR SECTIONS WERE IN THE TAPER FOR THE REMAINDER OF THE JOB AND DID NOT GET SURFACED UNTIL THE 29TH & 30TH OF JUNE, 1997

PREPARER Brent Gill EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 2 GEOMETRIC, SHOULDER AND DRAINAGE INFORMATION	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [65]

*1. LANE WIDTH (FEET) [12.]

2. MONITORING SITE LANE NUMBER [1.]
(LANE 1 IS OUTSIDE LANE, NEXT TO SHOULDER
LANE 2 IS NEXT TO LANE 1, ETC.)

*3. SUBSURFACE DRAINAGE LOCATION [3.]
Continuous Along Test Section... 1 Intermittent... 2 None... 3

*4. SUBSURFACE DRAINAGE TYPE [1.]
No Subsurface Drainage... 1 Longitudinal Drains... 2
Transverse Drains... 3 Drainage Blanket... 4 Well System... 5
Drainage Blanket with Longitudinal Drains... 6
Other (Specify)... 7 _____

	SHOULDER DATA	INSIDE SHOULDER	OUTSIDE SHOULDER
*5.	SURFACE TYPE Turf... 1 Granular.... 2 Asphalt Concrete... 3 Concrete... 4 Surface Treatment... 5 Other (Specify)... 6 _____	[3.]	[3.]
*6.	TOTAL WIDTH (FEET)	[4.]	[10.]
*7.	PAVED WIDTH (FEET)	[4.]	[10.]
8.	SHOULDER BASE TYPE (CODES-TABLE A.6)	[42.]	[42.]
9.	SURFACE THICKNESS (INCHES)	[5.0]	[5.0]
10.	SHOULDER BASE THICKNESS (INCHES)	[8.5]	[8.5]
11.	DIAMETER OF LONGITUDINAL DRAINPIPES (INCHES)		[.]
12.	SPACING OF LATERALS (FEET)		[.]

PREPARER Steve G. Dell EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 4 LAYER DESCRIPTIONS	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [65]

*1 LAYER NUMBER	*2 LAYER DESCRIPTION	*3 MATERIAL TYPE CLASS	*4 LAYER THICKNESSES (Inches)			
			AVERAGE	MINIMUM	MAXIMUM	STD. DEV.
1	SUBGRADE(7)	[59]				
2	[_6]	[42]	[_12.0]	_ _ _._	_ _ _._	_ _ _._
3	[_5]	[49]	[_ _7.3]	_ _5.7	_ _9.8	_ _0.9
4	[_4]	[28]	[_ _2.2]	_ _ _._	_ _ _._	_ _ _._
5	[_3]	[_1]	[_ _2.2]	_ _ _._	_ _ _._	_ _ _._
6	[_ _]	[_ _]	[_ _ _._]	_ _ _._	_ _ _._	_ _ _._
7	[_ _]	[_ _]	[_ _ _._]	_ _ _._	_ _ _._	_ _ _._
8	[_ _]	[_ _]	[_ _ _._]	_ _ _._	_ _ _._	_ _ _._
9	[_ _]	[_ _]	[_ _ _._]	_ _ _._	_ _ _._	_ _ _._
10	[_ _]	[_ _]	[_ _ _._]	_ _ _._	_ _ _._	_ _ _._
11	[_ _]	[_ _]	[_ _ _._]	_ _ _._	_ _ _._	_ _ _._
12	[_ _]	[_ _]	[_ _ _._]	_ _ _._	_ _ _._	_ _ _._
13	[_ _]	[_ _]	[_ _ _._]	_ _ _._	_ _ _._	_ _ _._
14	[_ _]	[_ _]	[_ _ _._]	_ _ _._	_ _ _._	_ _ _._
15	[_ _]	[_ _]	[_ _ _._]	_ _ _._	_ _ _._	_ _ _._

CRUSHED CONCRETE

*5 DEPTH BELOW SURFACE TO "RIGID" LAYER (FEET) [_ _ . _]
(Rock, Stone, Dense Shale)

NOTES:

1. Layer 1 is the subgrade soil, the highest numbered layer is the pavement surface.

2. Layer description codes:

Overlay.....01	Base Layer.....05	Porous Friction Course..09
Seal/Tack Coat.....02	Subbase Layer.....06	Surface Treatment.....10
Original Surface.....03	Subgrade.....07	Embankment (Fill).....11
HMAC Layer (Subsurface).04	Interlayer.....08	

3. The material type classification codes are presented in Tables A.5, A.6, A.7 and A.8 of the Data Collection Guide for Long Term Pavement Performance Studies, dated January 17, 1990.

4. Enter the average thickness of each layer and the minimum, maximum and standard deviation of the thickness measurements, if known.

PREPARER [signature] EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 9 PLANT-MIXED ASPHALT BOUND LAYERS PLACEMENT DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [65]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [01-06-97]

*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-22-97]

*3 ASPHALT CONCRETE PLANT AND HAUL

	Type	Name	Haul Distance (Mi)	Time (Min)	Layer Numbers
Plant 1	[2]	GUERRA RANCH	[__ __ 5]	[__ 5]	[4] [5] [__]
Plant 2	[__]	_____	[__ __ __]	[__ __]	[__] [__] [__]
Plant 3	[__]	_____	[__ __ __]	[__ __]	[__] [__] [__]

Plant Type: Batch..... 1 Drum Mix.... 2 Other...3 Specify_____

4. MANUFACTURER OF ASPHALT CONCRETE PAVER BARBER GREENE

5. MODEL DESIGNATION OF ASPHALT CONCRETE PAVER BG-270B

6. SINGLE PASS LAYDOWN WIDTH (Feet) [12.0]

7. ATB PLACEMENT LIFTS
   - Layer Number [__ __]
   - Nominal First Lift Placement Thickness (Inches) [__.__]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]
   - Nominal Third Lift Placement Thickness (Inches) [__.__]
   - Nominal Fourth Lift Placement Thickness (Inches) [__.__]

8. PATB PLACEMENT LIFTS
   - Layer Number [__ __]
   - Nominal First Lift Placement Thickness (Inches) [__.__]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]

9. AC BINDER COURSE LIFT
   - Layer Number [__ 4]
   - Nominal First Lift Placement Thickness (Inches) UNCOMPACTED [3.0]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]

10. AC SURFACE COURSE LIFT
   - Layer Number [__ 5]
   - Nominal First Lift Placement Thickness (Inches) UNCOMPACTED [3.0]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]

11. SURFACE FRICTION COURSE (If Placed)
   - Layer Number [__ __]
   - Nominal Placement Thickness (Inches) [__.__]

12. TEST SECTION STATION OF TRANSVERSE JOINTS (within test section)
   - Binder Course [__ + __ __]
   - Surface Course [__ + __ __]
   - Surface Friction Course [__ + __ __]

13. LOCATION OF LONGITUDINAL SURFACE JOINT [1]
   Between lanes.. 1 Within lane.. 2
   (specify offset from O/S feet) [__ __.__]

14. SIGNIFICANT EVENTS DURING CONSTRUCTION (disruptions, rain, equip. problems, etc.) SEE SHEET 17

PREPARER James E. Dill EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA
SHEET 10
PLANT-MIXED ASPHALT BOUND LAYERS
COMPACTION DATA

* STATE CODE	[48]
* SPS PROJECT CODE	[01]
* TEST SECTION NO.	[65]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [01-06-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [01-15-97]
*3. LAYER NUMBER [4]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... __.__
Number of Tests ..... __.
Maximum..... ___.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	__.__				
7	B	Steel-Whl Tandem	__.__				
8	C	Steel-Whl Tandem	__.__				
9	D	Steel-Whl Tandem	__.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	__.__	____.			
12	G	Pneumatic-Tired	__.__	____.			
13	H	Pneumatic-Tired	__.__				
14	I	Single-Drum Vibr.	11.7		____.	.___	__.__
15	J	Single-Drum Vibr.	__.__		____.	.___	__.__
16	K	Single-Drum Vibr.	__.__		____.	.___	__.__
17	L	Single-Drum Vibr.	__.__		____.	.___	__.__
18	M	Double-Drum Vibr.	__.__		____.	.___	__.__
19	N	Double-Drum Vibr.	__.__		____.	.___	__.__
20	O	Double-Drum Vibr.	__.__		____.	.___	__.__
21	P	Double-Drum Vibr.	__.__		____.	.___	__.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I	__	__	__
24	Coverages	2.	__.	__.	__.
	INTERMEDIATE				
25	Roller Code (A-Q)	__	__	__	__
26	Coverages	__.	__.	__.	__.
	FINAL				
27	Roller Code (A-Q)	E	__	__	__
28	Coverages	6.	__.	__.	__.
29	Air Temperature (°F)	___.	___.	___.	___.
30	Compacted Thickness (In)	2.2	__.__	__.__	__.__
31	Curing Period (Days)	2.0	__.__	__.__	__.__

PREPARER [signature] EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [4 8] * SPS PROJECT CODE [0 1] * TEST SECTION NO. [6 5]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [04-21-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-22-97]
*3. LAYER NUMBER [5]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... __.__
Number of Tests ..... __.
Maximum..... ___.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	__.__				
7	B	Steel-Whl Tandem	__.__				
8	C	Steel-Whl Tandem	__.__				
9	D	Steel-Whl Tandem	__.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	__.__	____.			
12	G	Pneumatic-Tired	__.__	____.			
13	H	Pneumatic-Tired	__.__				
14	I	Single-Drum Vibr.	11.7		____.	___	__.__
15	J	Single-Drum Vibr.	__.__		____.	___	__.__
16	K	Single-Drum Vibr.	__.__		____.	___	__.__
17	L	Single-Drum Vibr.	__.__		____.	___	__.__
18	M	Double-Drum Vibr.	__.__		____.	___	__.__
19	N	Double-Drum Vibr.	__.__		____.	___	__.__
20	O	Double-Drum Vibr.	__.__		____.	___	__.__
21	P	Double-Drum Vibr.	__.__		____.	___	__.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I	__	__	__
24	Coverages	2.	__.	__.	__.
	INTERMEDIATE				
25	Roller Code (A-Q)	__	__	__	__
26	Coverages	__.	__.	__.	__.
	FINAL				
27	Roller Code (A-Q)	E	__	__	__
28	Coverages	6.	__.	__.	__.
29	Air Temperature (°F)	100.	___.	___.	___.
30	Compacted Thickness (In)	2.2	__.__	__.__	__.__
31	Curing Period (Days)	2.0	__.__	__.__	__.__

PREPARER [signature] EMPLOYER BRC DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 11 PLANT-MIXED ASPHALT BOUND LAYERS DENSITY AND PROFILE DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [65]

1. NUCLEAR DENSITY MEASUREMENTS

LAYER TYPE	ATB	Binder Course	Surface Course	Surface Friction Layer
Measurement Method (A, B, C)[1]		A	A	
Number of Measurements		12	12	
Average (pcf)		132.5	137.0	
Maximum (pcf)		135.8	142.2	
Minimum (pcf)		130.2	134.6	
Standard Deviation (pcf)		2.2	2.2	
Layer Number		4	5	

[1]Measurement Method Backscatter... A Direct Transmission... B Air Gap... C

2. MANUFACTURER OF NUCLEAR DENSITY GAUGE: TROXLER

3. NUCLEAR DENSITY GAUGE MODEL NUMBER: 3411-B

4. NUCLEAR DENSITY GAUGE IDENTIFICATION NUMBER: 12857

5. NUCLEAR GAUGE COUNT RATE FOR STANDARDIZATION: _____

6. PROFILOGRAPH MEASUREMENTS

Profilograph Type California... 1 Rainhart... 2	1
Profile Index (Inches/Mile)	6
Interpretation Method Manual.. 1 Mechanical.. 2 Computer.. 3	3
Height of Blanking Band (Inches)	0.2
Cutoff Height (Inches)	0.3

7. SURFACE PROFILE USED AS BASIS OF INCENTIVE PAYMENT? (YES, NO) YES

PREPARER [signature] EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 13 UNBOUND AGGREGATE BASE MATERIAL PLACEMENT	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [65]

*1. UNBOUND BASE MATERIAL PLACEMENT BEGAN (Month-Day-Year) [12-19-96]

*2. UNBOUND BASE MATERIAL PLACEMENT COMPLETED (Month-Day-Year) [12-24-96]

*3. LAYER NUMBER (From Sheet 4) [3]

PRIMARY COMPACTION EQUIPMENT

*4. CODE TYPE [5]

COMPACTION TYPE CODES
Pneumatic - Tired... 1 Steel Wheel Tandem... 2 Single Drum Vibr.... 3
Double Drum Vibr.... 4
Other (Specify)... 5 2 COVERAGES SINGLE DRUM VIBR. (12 TONS)
6 COVERAGES PNEUMATIC (25 TONS)

*5. GROSS WEIGHT (TONS) [__.__]

*6. LIFT THICKNESSES
Nominal First Lift Placement Thickness (inches) · UNCOMPACTED & CUT [5]
Nominal Second Lift Placement Thickness (inches) [5]
Nominal Third Lift Placement Thickness (inches) [__]
Nominal Fourth Lift Placement Thickness (inches) [__]

DENSITY DATA IS RECORDED ON SAMPLING DATA SHEET 8-1

7. SIGNIFICANT EVENTS DURING CONSTRUCTION (DISRUPTIONS, RAIN, EQUIPMENT PROBLEMS, ETC.) _____

PREPARER [signature] EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 14 SUBGRADE PREPARATION	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [65]

*1. SUBGRADE PREPARATION BEGAN (Month-Day-Year) [12-12-96]

*2. SUBGRADE PREPARATION COMPLETED (Month-Day-Year) [12-16-96]

PRIMARY COMPACTION EQUIPMENT

*3. CODE TYPE [5]

COMPACTION EQUIPMENT TYPE CODES
Sheepsfoot... 1 Pneumatic Tired... 2 Steel Wheel Tandem... 3
Single Drum Vibr.... 4 Double Drum Vibr.... 5
Other (Specify)... 6 2 COVERAGES SINGLE DRUM VIBR. (12 TONS) - 6 COVERAGES PNEUMATIC (25 TONS)

*4. GROSS WEIGHT (TONS) [__ __.__]

		TYPE	PERCENT
*5.	STABILIZING AGENT 1	[2]	[__2.0]
*6.	STABILIZING AGENT 2	[__]	[__ __.__]

STABILIZING AGENT TYPE CODES
Portland Cement... 1 Lime... 2 Fly Ash, Class C... 3
Fly Ash, Class N... 4
Other (Specify)... 5 _____

*7. TYPICAL LIFT THICKNESS (INCHES) [__ __]
(For Fill Sections Only)

DENSITY DATA IS RECORDED ON SAMPLING DATA SHEET 8-1

8. SIGNIFICANT EVENTS DURING CONSTRUCTION (DISRUPTIONS, RAIN, EQUIPMENT PROBLEMS, ETC.) _____

PREPARER James C. Bell EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 17 MISCELLANEOUS CONSTRUCTION NOTES AND COMMENTS	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [65]

Provide any miscellaneous comments and notes concerning construction operations which may have an influence on the ultimate performance of the test sections or which may cause undesired performance differences to occur between test sections. Also include any quality control measurements or data for which space is not provided on other forms. Provide an indication of the basis for such measurements, such as an ASTM, AASHTO, or Agency standard test designation.

- CONSTRUCTION WAS INITIATED ON THE FIRST 10 SECTIONS DEC '96 (15, 16, 24, 23, 22, 17, 18, 13, 65 & 64)
- ALL LAYERS (EXCEPT THE SURFACE) WERE COMPLETED FOR THESE FIRST 10 SECTIONS BY JANUARY 15, 1997
- CONSTRUCTION WAS THEN INITIATED ON THE INSIDE LANE FOR THE NEXT 10 SECTIONS (67, 14, 21, 20, 19, 63, 62, 61, 60 & 66) WITH WORK IN THE OUTSIDE LANE BEGINNING IN MARCH '97
- WITH THE COMPLETION OF THE LAST 10 SECTIONS THE SURFACE COURSE WAS INITIATED APRIL 21, 1997
- ALL BUT THE LAST FOUR SECTIONS (62, 61, 60 & 66) HAD BEEN SURFACED BY APRIL 23, 1997
- THE LAST FOUR SECTIONS WERE IN THE TAPER FOR THE REMAINDER OF THE JOB AND DID NOT GET SURFACED UNTIL THE 29TH & 30TH OF JUNE, 1997

PREPARER [signature] EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 2 GEOMETRIC, SHOULDER AND DRAINAGE INFORMATION	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [13]

*1. LANE WIDTH (FEET) [12.]

2. MONITORING SITE LANE NUMBER [1.]
(LANE 1 IS OUTSIDE LANE, NEXT TO SHOULDER
LANE 2 IS NEXT TO LANE 1, ETC.)

*3. SUBSURFACE DRAINAGE LOCATION [3.]
Continuous Along Test Section... 1 Intermittent... 2 None... 3

*4. SUBSURFACE DRAINAGE TYPE [1.]
No Subsurface Drainage... 1 Longitudinal Drains... 2
Transverse Drains... 3 Drainage Blanket... 4 Well System... 5
Drainage Blanket with Longitudinal Drains... 6
Other (Specify)... 7 _____

	SHOULDER DATA	INSIDE SHOULDER	OUTSIDE SHOULDER
*5.	SURFACE TYPE Turf... 1 Granular.... 2 Asphalt Concrete... 3 Concrete... 4 Surface Treatment... 5 Other (Specify)... 6 _____	[3.]	[3.]
*6.	TOTAL WIDTH (FEET)	[4.]	[10.]
*7.	PAVED WIDTH (FEET)	[4.]	[10.]
8.	SHOULDER BASE TYPE (CODES-TABLE A.6)	[23.]	[23.]
9.	SURFACE THICKNESS (INCHES)	[4.0]	[4.0]
10.	SHOULDER BASE THICKNESS (INCHES)	[8.0]	[8.0]
11.	DIAMETER OF LONGITUDINAL DRAINPIPES (INCHES)		[__.__]
12.	SPACING OF LATERALS (FEET)		[___.]

PREPARER Dave S. Dell EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 4 LAYER DESCRIPTIONS	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [13]

*1 LAYER NUMBER	*2 LAYER DESCRIPTION	*3 MATERIAL TYPE CLASS	*4 LAYER THICKNESSES (Inches)			
			AVERAGE	MINIMUM	MAXIMUM	STD. DEV.
1	SUBGRADE(7)	[59]				
2	[6]	[42]	[12.0]			
3	[5]	[23]	[7.8]	6.0	9.8	0.8
4	[4]	[28]	[2.0]			
5	[3]	[1]	[1.8]			
6	[ ]	[ ]	[ ]			
7	[ ]	[ ]	[ ]			
8	[ ]	[ ]	[ ]			
9	[ ]	[ ]	[ ]			
10	[ ]	[ ]	[ ]			
11	[ ]	[ ]	[ ]			
12	[ ]	[ ]	[ ]			
13	[ ]	[ ]	[ ]			
14	[ ]	[ ]	[ ]			
15	[ ]	[ ]	[ ]			

*5 DEPTH BELOW SURFACE TO "RIGID" LAYER (FEET) [.]
(Rock, Stone, Dense Shale)

NOTES:

1. Layer 1 is the subgrade soil, the highest numbered layer is the pavement surface.

2. Layer description codes:

Overlay.....01	Base Layer.....05	Porous Friction Course..09
Seal/Tack Coat.....02	Subbase Layer.....06	Surface Treatment.....10
Original Surface.....03	Subgrade.....07	Embankment (Fill).....11
HMAC Layer (Subsurface).04	Interlayer.....08	

3. The material type classification codes are presented in Tables A.5, A.6, A.7 and A.8 of the Data Collection Guide for Long Term Pavement Performance Studies, dated January 17, 1990.

4. Enter the average thickness of each layer and the minimum, maximum and standard deviation of the thickness measurements, if known.

PREPARER Dave C. Dell EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 9 PLANT-MIXED ASPHALT BOUND LAYERS PLACEMENT DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [13]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [01-06-97]

*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-22-97]

*3 ASPHALT CONCRETE PLANT AND HAUL

	Type	Name	Haul Distance (Mi)	Time (Min)	Layer Numbers
Plant 1	[2]	GUERRA RANCH	[__ __ 5]	[__ 5]	[4] [5] [__]
Plant 2	[__]	_____	[__ __ __]	[__ __]	[__] [__] [__]
Plant 3	[__]	_____	[__ __ __]	[__ __]	[__] [__] [__]

Plant Type: Batch..... 1 Drum Mix.... 2 Other...3 Specify_____

4. MANUFACTURER OF ASPHALT CONCRETE PAVER BARBER GREENE

5. MODEL DESIGNATION OF ASPHALT CONCRETE PAVER BG-2703

6. SINGLE PASS LAYDOWN WIDTH (Feet) [12.0]

7. ATB PLACEMENT LIFTS
   - Layer Number [__ __]
   - Nominal First Lift Placement Thickness (Inches) [__.__]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]
   - Nominal Third Lift Placement Thickness (Inches) [__.__]
   - Nominal Fourth Lift Placement Thickness (Inches) [__.__]

8. PATB PLACEMENT LIFTS
   - Layer Number [__ __]
   - Nominal First Lift Placement Thickness (Inches) [__.__]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]

9. AC BINDER COURSE LIFT
   - Layer Number [__ 4]
   - Nominal First Lift Placement Thickness (Inches) [2.5]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]

10. AC SURFACE COURSE LIFT
   - Layer Number [__ 5]
   - Nominal First Lift Placement Thickness (Inches) [2.5]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]

11. SURFACE FRICTION COURSE (If Placed)
   - Layer Number [__ __]
   - Nominal Placement Thickness (Inches) [__.__]

12. TEST SECTION STATION OF TRANSVERSE JOINTS (within test section)
   - Binder Course [__ + __ __]
   - Surface Course [__ + __ __]
   - Surface Friction Course [__ + __ __]

13. LOCATION OF LONGITUDINAL SURFACE JOINT [1]
   Between lanes.. 1 Within lane.. 2
   (specify offset from O/S feet) [__ __.__]

14. SIGNIFICANT EVENTS DURING CONSTRUCTION (disruptions, rain, equip. problems, etc.)_____

PREPARER Dana S. Dall EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [13]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [01-06-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [01-15-97]
*3. LAYER NUMBER [4]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... __.__
Number of Tests ..... __.
Maximum..... ___.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	__.__				
7	B	Steel-Whl Tandem	__.__				
8	C	Steel-Whl Tandem	__.__				
9	D	Steel-Whl Tandem	__.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	__.__	____.			
12	G	Pneumatic-Tired	__.__	____.			
13	H	Pneumatic-Tired	__.__	____.			
14	I	Single-Drum Vibr.	11.7		____.	___.	__.__
15	J	Single-Drum Vibr.	__.__		____.	___.	__.__
16	K	Single-Drum Vibr.	__.__		____.	___.	__.__
17	L	Single-Drum Vibr.	__.__		____.	___.	__.__
18	M	Double-Drum Vibr.	__.__		____.	___.	__.__
19	N	Double-Drum Vibr.	__.__		____.	___.	__.__
20	O	Double-Drum Vibr.	__.__		____.	___.	__.__
21	P	Double-Drum Vibr.	__.__		____.	___.	__.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I	___	___	___
24	Coverages	2.	___.	___.	___.
	INTERMEDIATE				
25	Roller Code (A-Q)	___	___	___	___
26	Coverages	___.	___.	___.	___.
	FINAL				
27	Roller Code (A-Q)	E	___	___	___
28	Coverages	6.	___.	___.	___.
29	Air Temperature (°F)	___.	___.	___.	___.
30	Compacted Thickness (In)	3.0	__.__	__.__	__.__
31	Curing Period (Days)	2.0	__.__	__.__	__.__

PREPARER [signature] EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [13]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [04-21-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-22-97]
*3. LAYER NUMBER [5]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... __.__
Number of Tests ..... __.
Maximum..... ___.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	__.__				
7	B	Steel-Whl Tandem	__.__				
8	C	Steel-Whl Tandem	__.__				
9	D	Steel-Whl Tandem	__.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	__.__	____.			
12	G	Pneumatic-Tired	__.__	____.			
13	H	Pneumatic-Tired	__.__				
14	I	Single-Drum Vibr.	11.7		____.	___.	__.__
15	J	Single-Drum Vibr.	__.__		____.	___.	__.__
16	K	Single-Drum Vibr.	__.__		____.	___.	__.__
17	L	Single-Drum Vibr.	__.__		____.	___.	__.__
18	M	Double-Drum Vibr.	__.__		____.	___.	__.__
19	N	Double-Drum Vibr.	__.__		____.	___.	__.__
20	O	Double-Drum Vibr.	__.__		____.	___.	__.__
21	P	Double-Drum Vibr.	__.__		____.	___.	__.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I			
24	Coverages	2.	__.	__.	__.
	INTERMEDIATE				
25	Roller Code (A-Q)				
26	Coverages	__.	__.	__.	__.
	FINAL				
27	Roller Code (A-Q)	E			
28	Coverages	6.	__.	__.	__.
29	Air Temperature (°F)	100.	___.	___.	___.
30	Compacted Thickness (In)	1.8	__.__	__.__	__.__
31	Curing Period (Days)	2.0	__.__	__.__	__.__

PREPARER Rhett Dill EMPLOYER BEE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 11 PLANT-MIXED ASPHALT BOUND LAYERS DENSITY AND PROFILE DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [13]

1. NUCLEAR DENSITY MEASUREMENTS

LAYER TYPE	ATB	Binder Course	Surface Course	Surface Friction Layer
Measurement Method (A, B, C)[1]		A	A	
Number of Measurements		12	12	
Average (pcf)		138.5	137.1	
Maximum (pcf)		143.6	143.3	
Minimum (pcf)		136.2	133.0	
Standard Deviation (pcf)		2.5	3.4	
Layer Number		4	5	

[1]Measurement Method Backscatter... A Direct Transmission... B Air Gap... C

2. MANUFACTURER OF NUCLEAR DENSITY GAUGE: TROXLER

3. NUCLEAR DENSITY GAUGE MODEL NUMBER: 3411-B

4. NUCLEAR DENSITY GAUGE IDENTIFICATION NUMBER: 12857

5. NUCLEAR GAUGE COUNT RATE FOR STANDARDIZATION:

6. PROFILOGRAPH MEASUREMENTS

Profilograph Type California... 1 Rainhart... 2	1
Profile Index (Inches/Mile)	6
Interpretation Method Manual.. 1 Mechanical.. 2 Computer.. 3	3
Height of Blanking Band (Inches)	0.2
Cutoff Height (Inches)	0.3

7. SURFACE PROFILE USED AS BASIS OF INCENTIVE PAYMENT? (YES, NO) YES

PREPARER [signature] EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 13 UNBOUND AGGREGATE BASE MATERIAL PLACEMENT	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [13]

*1. UNBOUND BASE MATERIAL PLACEMENT BEGAN (Month-Day-Year) [12-17-96]

*2. UNBOUND BASE MATERIAL PLACEMENT COMPLETED (Month-Day-Year) [12-24-96]

*3. LAYER NUMBER (From Sheet 4) [3]

PRIMARY COMPACTION EQUIPMENT

*4. CODE TYPE [5]

COMPACTION TYPE CODES
Pneumatic - Tired... 1 Steel Wheel Tandem... 2 Single Drum Vibr.... 3
Double Drum Vibr.... 4
Orher (Specify)... 5 2 COVERAGES SINGLE DRUM VIBR. (12 TONS)
6 COVERAGES PNEUMATIC (25 TONS)

*5. GROSS WEIGHT (TONS) [__ __.__]

*6. LIFT THICKNESSES
Nominal First Lift Placement Thickness (inches) · UNCOMPACTED [__5]
Nominal Second Lift Placement Thickness (inches) " [__5]
Nominal Third Lift Placement Thickness (inches) [__ __]
Nominal Fourth Lift Placement Thickness (inches) [__ __]

DENSITY DATA IS RECORDED ON SAMPLING DATA SHEET 8-1

7. SIGNIFICANT EVENTS DURING CONSTRUCTION (DISRUPTIONS, RAIN, EQUIPMENT PROBLEMS, ETC.) _____

PREPARER Donald C. Dahl EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 14 SUBGRADE PREPARATION	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [13]

*1. SUBGRADE PREPARATION BEGAN (Month-Day-Year) [12-12-96]

*2. SUBGRADE PREPARATION COMPLETED (Month-Day-Year) [12-16-96]

PRIMARY COMPACTION EQUIPMENT

*3. CODE TYPE [5]

COMPACTION EQUIPMENT TYPE CODES
Sheepsfoot... 1 Pneumatic Tired... 2 Steel Wheel Tandem... 3
Single Drum Vibr.... 4 Double Drum Vibr.... 5
Other (Specify)... 6 2 COVERAGES SINGLE DRUM VIBR. (12 TONS)
6 COVERAGES PNEUMATIC (25 TONS)

*4. GROSS WEIGHT (TONS) [__ __.__]

	TYPE	PERCENT
*5. STABILIZING AGENT 1	[2]	[__2.0]
*6. STABILIZING AGENT 2	[__]	[__ __.__]

STABILIZING AGENT TYPE CODES
Portland Cement... 1 Lime... 2 Fly Ash, Class C... 3
Fly Ash, Class N... 4
Other (Specify)... 5 _____

*7. TYPICAL LIFT THICKNESS (INCHES) [__ __]
(For Fill Sections Only)

DENSITY DATA IS RECORDED ON SAMPLING DATA SHEET 8-1

8. SIGNIFICANT EVENTS DURING CONSTRUCTION (DISRUPTIONS, RAIN, EQUIPMENT PROBLEMS, ETC.) _____

PREPARER Bruce C. Dall EMPLOYER BRC DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 17 MISCELLANEOUS CONSTRUCTION NOTES AND COMMENTS	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [13]

Provide any miscellaneous comments and notes concerning construction operations which may have an influence on the ultimate performance of the test sections or which may cause undesired performance differences to occur between test sections. Also include any quality control measurements or data for which space is not provided on other forms. Provide an indication of the basis for such measurements, such as an ASTM, AASHTO, or Agency standard test designation.

- CONSTRUCTION WAS INITIATED ON THE FIRST 10 SECTIONS DEC '96 (15, 16, 24, 23, 22, 17, 18, 13, 65 & 64)
- ALL LAYERS (EXCEPT THE SURFACE) WERE COMPLETED FOR THESE FIRST 10 SECTIONS BY JANUARY 15, 1997
- CONSTRUCTION WAS THEN INITIATED ON THE INSIDE LANE FOR THE NEXT 10 SECTIONS (67, 14, 21, 20, 19, 63, 62, 61, 60 & 66) WITH WORK IN THE OUTSIDE LANE BEGINNING IN MARCH '97
- WITH THE COMPLETION OF THE LAST 10 SECTIONS THE SURFACE COURSE WAS INITIATED APRIL 21, 1997
- ALL BUT THE LAST FOUR SECTIONS (62, 61, 60 & 66) HAD BEEN SURFACED BY APRIL 23, 1997
- THE LAST FOUR SECTIONS WERE IN THE TAPER FOR THE REMAINDER OF THE JOB AND DID NOT GET SURFACED UNTIL THE 29TH & 30TH OF JUNE, 1997

PREPARER Brent Gill EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 2 GEOMETRIC, SHOULDER AND DRAINAGE INFORMATION	* STATE CODE [48] * SPS PROJECT CODE [0 1] * TEST SECTION NO. [1 8]

*1. LANE WIDTH (FEET) [12.]

2. MONITORING SITE LANE NUMBER [1.]
(LANE 1 IS OUTSIDE LANE, NEXT TO SHOULDER
LANE 2 IS NEXT TO LANE 1, ETC.)

*3. SUBSURFACE DRAINAGE LOCATION [3.]
Continuous Along Test Section... 1 Intermittent... 2 None... 3

*4. SUBSURFACE DRAINAGE TYPE [1.]
No Subsurface Drainage... 1 Longitudinal Drains... 2
Transverse Drains... 3 Drainage Blanket... 4 Well System... 5
Drainage Blanket with Longitudinal Drains... 6
Other (Specify)... 7 _____

	SHOULDER DATA	INSIDE SHOULDER	OUTSIDE SHOULDER
*5.	SURFACE TYPE Turf... 1 Granular.... 2 Asphalt Concrete... 3 Concrete... 4 Surface Treatment... 5 Other (Specify)... 6 _____	[3.]	[3.]
*6.	TOTAL WIDTH (FEET)	[4.]	[10.]
*7.	PAVED WIDTH (FEET)	[4.]	[10.]
8.	SHOULDER BASE TYPE (CODES-TABLE A.6)	[23.]	[23.]
9.	SURFACE THICKNESS (INCHES)	[4.0]	[4.0]
10.	SHOULDER BASE THICKNESS (INCHES)	[4.0]	[4.0]
11.	DIAMETER OF LONGITUDINAL DRAINPIPES (INCHES)		[.]
12.	SPACING OF LATERALS (FEET)		[.]

PREPARER Donald Dell EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 4 LAYER DESCRIPTIONS	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [18]

*1 LAYER NUMBER	*2 LAYER DESCRIPTION	*3 MATERIAL TYPE CLASS	*4 LAYER THICKNESSES (Inches)			
			AVERAGE	MINIMUM	MAXIMUM	STD. DEV.
1	SUBGRADE(7)	[59]	[redacted]	[redacted]	[redacted]	[redacted]
2	[6]	[42]	[12.0]	___.___	___.___	___.___
3	[5]	[23]	[1.7]	0.0	3.2	0.8
4	[4]	[28]	[9.7]	7.2	11.7	1.1
5	[4]	[28]	[2.3]	___.___	___.___	___.___
6	[3]	[1]	[2.3]	___.___	___.___	___.___
7	[__]	[__]	[___.___]	___.___	___.___	___.___
8	[__]	[__]	[___.___]	___.___	___.___	___.___
9	[__]	[__]	[___.___]	___.___	___.___	___.___
10	[__]	[__]	[___.___]	___.___	___.___	___.___
11	[__]	[__]	[___.___]	___.___	___.___	___.___
12	[__]	[__]	[___.___]	___.___	___.___	___.___
13	[__]	[__]	[___.___]	___.___	___.___	___.___
14	[__]	[__]	[___.___]	___.___	___.___	___.___
15	[__]	[__]	[___.___]	___.___	___.___	___.___

*5 DEPTH BELOW SURFACE TO "RIGID" LAYER (FEET) [__ __ . __]
(Rock, Stone, Dense Shale)

NOTES:

1. Layer 1 is the subgrade soil, the highest numbered layer is the pavement surface.

2. Layer description codes:

Overlay.....01	Base Layer.....05	Porous Friction Course..09
Seal/Tack Coat.....02	Subbase Layer.....06	Surface Treatment.....10
Original Surface.....03	Subgrade.....07	Embankment (Fill).....11
HMAC Layer (Subsurface).04	Interlayer.....08	

3. The material type classification codes are presented in Tables A.5, A.6, A.7 and A.8 of the Data Collection Guide for Long Term Pavement Performance Studies, dated January 17, 1990.

4. Enter the average thickness of each layer and the minimum, maximum and standard deviation of the thickness measurements, if known.

PREPARER Dane F. Dill EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 9 PLANT-MIXED ASPHALT BOUND LAYERS PLACEMENT DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [18]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [12-30-96]

*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-22-97]

*3 ASPHALT CONCRETE PLANT AND HAUL

	Type	Name	Haul Distance (Mi)	Time (Min)	Layer Numbers		
Plant 1	[2]	GUERRA RANCH	[__ __ 5]	[__ 5]	[4]	[5]	[6]
Plant 2	[__]	_____	[__ __ __]	[__ __]	[__]	[__]	[__]
Plant 3	[__]	_____	[__ __ __]	[__ __]	[__]	[__]	[__]

Plant Type: Batch..... 1 Drum Mix.... 2 Other...3 Specify_____

4. MANUFACTURER OF ASPHALT CONCRETE PAVER BARBER GREENE

5. MODEL DESIGNATION OF ASPHALT CONCRETE PAVER BG-270B

6. SINGLE PASS LAYDOWN WIDTH (Feet) [12.0]

7. ATB PLACEMENT LIFTS

Layer Number		[__ 4]
Nominal First Lift Placement Thickness (Inches)	UNCOMPACTED	[3.0]
Nominal Second Lift Placement Thickness (Inches)	"	[3.0]
Nominal Third Lift Placement Thickness (Inches)	"	[3.0]
Nominal Fourth Lift Placement Thickness (Inches)		[__.__]

8. PATB PLACEMENT LIFTS

Layer Number	[__ __]
Nominal First Lift Placement Thickness (Inches)	[__.__]
Nominal Second Lift Placement Thickness (Inches)	[__.__]

9. AC BINDER COURSE LIFT

Layer Number		[__ 5]
Nominal First Lift Placement Thickness (Inches)	UNCOMPACTED	[2.5]
Nominal Second Lift Placement Thickness (Inches)		[__.__]

10. AC SURFACE COURSE LIFT

Layer Number		[__ 6]
Nominal First Lift Placement Thickness (Inches)	UNCOMPACTED	[2.5]
Nominal Second Lift Placement Thickness (Inches)		[__.__]

11. SURFACE FRICTION COURSE (If Placed)

Layer Number	[__ __]
Nominal Placement Thickness (Inches)	[__.__]

12. TEST SECTION STATION OF TRANSVERSE JOINTS (within test section)

Binder Course	[__ + __ __]
Surface Course	[__ + __ __]
Surface Friction Course	[__ + __ __]

13. LOCATION OF LONGITUDINAL SURFACE JOINT [1]
Between lanes.. 1 Within lane.. 2
(specify offset from O/S feet) [__ __.__]

14. SIGNIFICANT EVENTS DURING CONSTRUCTION (disruptions, rain, equip. problems, etc.) SEE SHEET 17

PREPARER [signature] EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [18]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [12-30-96]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [01-02-97]
*3. LAYER NUMBER [4]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... ___.
Number of Tests ..... ___.
Maximum..... ___.

ROLLER DATA

	Roller Code ≠	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	___.				
7	B	Steel-Whl Tandem	___.				
8	C	Steel-Whl Tandem	___.				
9	D	Steel-Whl Tandem	___.				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	___.	____.			
12	G	Pneumatic-Tired	___.	____.			
13	H	Pneumatic-Tired	___.				
14	I	Single-Drum Vibr.	11.7		____.	___.	___.
15	J	Single-Drum Vibr.	___.		____.	___.	___.
16	K	Single-Drum Vibr.	___.		____.	___.	___.
17	L	Single-Drum Vibr.	___.		____.	___.	___.
18	M	Double-Drum Vibr.	___.		____.	___.	___.
19	N	Double-Drum Vibr.	___.		____.	___.	___.
20	O	Double-Drum Vibr.	___.		____.	___.	___.
21	P	Double-Drum Vibr.	___.		____.	___.	___.
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I	I	I	
24	Coverages	2.	2.	2.	___.
	INTERMEDIATE				
25	Roller Code (A-Q)				
26	Coverages	___.	___.	___.	___.
	FINAL				
27	Roller Code (A-Q)	E	E	E	
28	Coverages	6.	6.	6.	___.
29	Air Temperature (°F)	___.	___.	___.	___.
30	Compacted Thickness (In)	2.7	2.7	2.7	___.
31	Curing Period (Days)	1.0	1.0	3.0	___.

PREPARER Peter Dill EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [18]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [01-06-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [01-15-97]
*3. LAYER NUMBER [5]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... __.__
Number of Tests ..... __.
Maximum..... ___.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	___.__				
7	B	Steel-Whl Tandem	___.__				
8	C	Steel-Whl Tandem	___.__				
9	D	Steel-Whl Tandem	___.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	___.__	____.			
12	G	Pneumatic-Tired	___.__	____.			
13	H	Pneumatic-Tired	___.__	____.			
14	I	Single-Drum Vibr.	11.7		____.	.___	__.__
15	J	Single-Drum Vibr.	___.__		____.	.___	__.__
16	K	Single-Drum Vibr.	___.__		____.	.___	__.__
17	L	Single-Drum Vibr.	___.__		____.	.___	__.__
18	M	Double-Drum Vibr.	___.__		____.	.___	__.__
19	N	Double-Drum Vibr.	___.__		____.	.___	__.__
20	O	Double-Drum Vibr.	___.__		____.	.___	__.__
21	P	Double-Drum Vibr.	___.__		____.	.___	__.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	E			
24	Coverages	2.	___.	___.	___.
	INTERMEDIATE				
25	Roller Code (A-Q)				
26	Coverages	___.	___.	___.	___.
	FINAL				
27	Roller Code (A-Q)	E			
28	Coverages	2.	___.	___.	___.
29	Air Temperature (°F)	72.	___.	___.	___.
30	Compacted Thickness (In)	2.3	__.__	__.__	__.__
31	Curing Period (Days)	2.0	__.__	__.__	__.__

PREPARER [signature] EMPLOYER BRC DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [18]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [04-21-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-22-97]
*3. LAYER NUMBER [6]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... __.__
Number of Tests ..... __.
Maximum..... ___.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	__.__				
7	B	Steel-Whl Tandem	__.__				
8	C	Steel-Whl Tandem	__.__				
9	D	Steel-Whl Tandem	__.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	__.__	____.			
12	G	Pneumatic-Tired	__.__	____.			
13	H	Pneumatic-Tired	__.__				
14	I	Single-Drum Vibr.	11.7		____.	___.	__.__
15	J	Single-Drum Vibr.	__.__		____.	___.	__.__
16	K	Single-Drum Vibr.	__.__		____.	___.	__.__
17	L	Single-Drum Vibr.	__.__		____.	___.	__.__
18	M	Double-Drum Vibr.	__.__		____.	___.	__.__
19	N	Double-Drum Vibr.	__.__		____.	___.	__.__
20	O	Double-Drum Vibr.	__.__		____.	___.	__.__
21	P	Double-Drum Vibr.	__.__		____.	___.	__.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I			
24	Coverages	2.	__.	__.	__.
	INTERMEDIATE				
25	Roller Code (A-Q)				
26	Coverages	__.	__.	__.	__.
	FINAL				
27	Roller Code (A-Q)	E			
28	Coverages	6.	__.	__.	__.
29	Air Temperature (°F)	100.	___.	___.	___.
30	Compacted Thickness (In)	2.3	__.__	__.__	__.__
31	Curing Period (Days)	2.0	__.__	__.__	__.__

PREPARER Jane E. Dill EMPLOYER SRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 11 PLANT-MIXED ASPHALT BOUND LAYERS DENSITY AND PROFILE DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [18]

1. NUCLEAR DENSITY MEASUREMENTS

LAYER TYPE	ATB	Binder Course	Surface Course	Surface Friction Layer
Measurement Method (A, B, C)[1]	A	A	A	
Number of Measurements	12	12	12	
Average (pcf)	132.1	136.3	139.7	
Maximum (pcf)	141.2	139.1	144.0	
Minimum (pcf)	126.7	132.6	135.8	
Standard Deviation (pcf)	3.7	2.2	2.4	
Layer Number	4	5	6	

[1]Measurement Method Backscatter... A Direct Transmission... B Air Gap... C

2. MANUFACTURER OF NUCLEAR DENSITY GAUGE: TROXLER
3. NUCLEAR DENSITY GAUGE MODEL NUMBER: 3411-B
4. NUCLEAR DENSITY GAUGE IDENTIFICATION NUMBER: 12857
5. NUCLEAR GAUGE COUNT RATE FOR STANDARDIZATION: _____
6. PROFILOGRAPH MEASUREMENTS

Profilograph Type California... 1 Rainhart... 2	1
Profile Index (Inches/Mile)	6
Interpretation Method Manual.. 1 Mechanical.. 2 Computer.. 3	3
Height of Blanking Band (Inches)	0.2
Cutoff Height (Inches)	0.3

7. SURFACE PROFILE USED AS BASIS OF INCENTIVE PAYMENT? (YES, NO): YES

PREPARER Dave Dell EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 13 UNBOUND AGGREGATE BASE MATERIAL PLACEMENT	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [18]

*1. UNBOUND BASE MATERIAL PLACEMENT BEGAN (Month-Day-Year) [12-17-96]

*2. UNBOUND BASE MATERIAL PLACEMENT COMPLETED (Month-Day-Year) [12-24-96]

*3. LAYER NUMBER (From Sheet 4) [3]

PRIMARY COMPACTION EQUIPMENT

*4. CODE TYPE [5]

COMPACTION TYPE CODES
Pneumatic - Tired... 1 Steel Wheel Tandem... 2 Single Drum Vibr.... 3
Double Drum Vibr.... 4
Other (Specify)... 5 2 COVERAGES SINGLE DRUM VIBR (12 TONS) & 6 COVERAGES PNEUMATIC (25 TONS)

*5. GROSS WEIGHT (TONS) [__ __.__]

*6. LIFT THICKNESSES

Nominal First Lift Placement Thickness (inches)	UNCOMPACTED & CUT	[__4]
Nominal Second Lift Placement Thickness (inches)	"	[____]
Nominal Third Lift Placement Thickness (inches)		[____]
Nominal Fourth Lift Placement Thickness (inches)		[____]

DENSITY DATA IS RECORDED ON SAMPLING DATA SHEET 8-1

7. SIGNIFICANT EVENTS DURING CONSTRUCTION (DISRUPTIONS, RAIN, EQUIPMENT PROBLEMS, ETC.) _____

PREPARER Diane T. Dell EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 14 SUBGRADE PREPARATION	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [18]

*1. SUBGRADE PREPARATION BEGAN (Month-Day-Year) [12-12-96]

*2. SUBGRADE PREPARATION COMPLETED (Month-Day-Year) [12-16-96]

PRIMARY COMPACTION EQUIPMENT

*3. CODE TYPE [5]

COMPACTION EQUIPMENT TYPE CODES
Sheepsfoot... 1 Pneumatic Tired... 2 Steel Wheel Tandem... 3
Single Drum Vibr.... 4 Double Drum Vibr.... 5
Other (Specify)... 6 2 COVERAGES SINGLE DRUM VIBR. (12 TONS)
6 COVERAGES PNEUMATIC (25 TONS)

*4. GROSS WEIGHT (TONS) [__ __.__]

	TYPE	PERCENT
*5. STABILIZING AGENT 1	[2]	[__2.0]
*6. STABILIZING AGENT 2	[__]	[__ __.__]

STABILIZING AGENT TYPE CODES
Portland Cement... 1 Lime... 2 Fly Ash, Class C... 3
Fly Ash, Class N... 4
Other (Specify)... 5 _____

*7. TYPICAL LIFT THICKNESS (INCHES) [__ __]
(For Fill Sections Only)

DENSITY DATA IS RECORDED ON SAMPLING DATA SHEET 8-1

8. SIGNIFICANT EVENTS DURING CONSTRUCTION (DISRUPTIONS, RAIN, EQUIPMENT PROBLEMS, ETC.) _____

PREPARER Dwane F. Dell EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 17 MISCELLANEOUS CONSTRUCTION NOTES AND COMMENTS	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [18]

Provide any miscellaneous comments and notes concerning construction operations which may have an influence on the ultimate performance of the test sections or which may cause undesired performance differences to occur between test sections. Also include any quality control measurements or data for which space is not provided on other forms. Provide an indication of the basis for such measurements, such as an ASTM, AASHTO, or Agency standard test designation.

- CONSTRUCTION WAS INITIATED ON THE FIRST 10 SECTIONS DEC '96 (15, 16, 24, 23, 22, 17, 18, 13, 65 & 64)
- ALL LAYERS (EXCEPT THE SURFACE) WERE COMPLETED FOR THESE FIRST 10 SECTIONS BY JANUARY 15, 1997
- CONSTRUCTION WAS THEN INITIATED ON THE INSIDE LANE FOR THE NEXT 10 SECTIONS (67, 14, 21, 20, 19, 63, 67, 61, 60 & 66) WITH WORK IN THE OUTSIDE LANE BEGINNING IN MARCH '97
- WITH THE COMPLETION OF THE LAST 10 SECTIONS THE SURFACE COURSE WAS INITIATED APRIL 21, 1997
- ALL BUT THE LAST FOUR SECTIONS (62, 61, 60 & 66) HAD BEEN SURFACED BY APRIL 23, 1997
- THE LAST FOUR SECTIONS WERE IN THE TAPER FOR THE REMAINDER OF THE JOB AND DID NOT GET SURFACED UNTIL THE 29TH & 30TH OF JUNE, 1997

PREPARER Brent Gill EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 2 GEOMETRIC, SHOULDER AND DRAINAGE INFORMATION	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [17]

*1. LANE WIDTH (FEET) [12.]

2. MONITORING SITE LANE NUMBER [1.]
(LANE 1 IS OUTSIDE LANE, NEXT TO SHOULDER
LANE 2 IS NEXT TO LANE 1, ETC.)

*3. SUBSURFACE DRAINAGE LOCATION [3.]
Continuous Along Test Section... 1 Intermittent... 2 None... 3

*4. SUBSURFACE DRAINAGE TYPE [1.]
No Subsurface Drainage... 1 Longitudinal Drains... 2
Transverse Drains... 3 Drainage Blanket... 4 Well System... 5
Drainage Blanket with Longitudinal Drains... 6
Other (Specify)... 7 _____

	SHOULDER DATA	INSIDE SHOULDER	OUTSIDE SHOULDER
*5.	SURFACE TYPE Turf... 1 Granular.... 2 Asphalt Concrete... 3 Concrete... 4 Surface Treatment... 5 Other (Specify)... 6 _____	[3.]	[3.]
*6.	TOTAL WIDTH (FEET)	[4.]	[10.]
*7.	PAVED WIDTH (FEET)	[4.]	[10.]
8.	SHOULDER BASE TYPE (CODES-TABLE A.6)	[23.]	[23.]
9.	SURFACE THICKNESS (INCHES)	[7.0]	[7.0]
10.	SHOULDER BASE THICKNESS (INCHES)	[4.0]	[4.0]
11.	DIAMETER OF LONGITUDINAL DRAINPIPES (INCHES)		[__.__]
12.	SPACING OF LATERALS (FEET)		[___.]

PREPARER Dave R. Doll EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 4 LAYER DESCRIPTIONS	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [17]

*1 LAYER NUMBER	*2 LAYER DESCRIPTION	*3 MATERIAL TYPE CLASS	*4 LAYER THICKNESSES (Inches)			
			AVERAGE	MINIMUM	MAXIMUM	STD. DEV.
1	SUBGRADE(7)	[59]	[redacted]	[redacted]	[redacted]	[redacted]
2	[6]	[42]	[12.0]	___.__	___.__	___.__
3	[5]	[23]	[2.6]	1.2	5.0	0.8
4	[4]	[28]	[4.2]	2.9	5.9	0.8
5	[4]	[28]	[6.0]	___.__	___.__	___.__
6	[3]	[1]	[2.1]	___.__	___.__	___.__
7	[__]	[__]	[___.__]	___.__	___.__	___.__
8	[__]	[__]	[___.__]	___.__	___.__	___.__
9	[__]	[__]	[___.__]	___.__	___.__	___.__
10	[__]	[__]	[___.__]	___.__	___.__	___.__
11	[__]	[__]	[___.__]	___.__	___.__	___.__
12	[__]	[__]	[___.__]	___.__	___.__	___.__
13	[__]	[__]	[___.__]	___.__	___.__	___.__
14	[__]	[__]	[___.__]	___.__	___.__	___.__
15	[__]	[__]	[___.__]	___.__	___.__	___.__

*5 DEPTH BELOW SURFACE TO "RIGID" LAYER (FEET) [__ __ . __]
(Rock, Stone, Dense Shale)

NOTES:

1. Layer 1 is the subgrade soil, the highest numbered layer is the pavement surface.

2. Layer description codes:

Overlay.....01	Base Layer.....05	Porous Friction Course..09
Seal/Tack Coat.....02	Subbase Layer.....06	Surface Treatment.....10
Original Surface.....03	Subgrade.....07	Embankment (Fill).....11
HMAC Layer (Subsurface).04	Interlayer.....08	

3. The material type classification codes are presented in Tables A.5, A.6, A.7 and A.8 of the Data Collection Guide for Long Term Pavement Performance Studies, dated January 17, 1990.

4. Enter the average thickness of each layer and the minimum, maximum and standard deviation of the thickness measurements, if known.

PREPARER [signature] EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 9 PLANT-MIXED ASPHALT BOUND LAYERS PLACEMENT DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [17]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [12-30-96]

*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-22-97]

*3 ASPHALT CONCRETE PLANT AND HAUL

	Type	Name	Haul Distance (Mi)	Time (Min)	Layer Numbers
Plant 1	[2]	GUERRA RANCH	[__5]	[__5]	[4] [5] [6]
Plant 2	[__]	_____	[_____]	[_____]	[__] [__] [__]
Plant 3	[__]	_____	[_____]	[_____]	[__] [__] [__]

Plant Type: Batch..... 1 Drum Mix.... 2 Other...3 Specify_____

4. MANUFACTURER OF ASPHALT CONCRETE PAVER BARBER GREENE

5. MODEL DESIGNATION OF ASPHALT CONCRETE PAVER BG-270B

6. SINGLE PASS LAYDOWN WIDTH (Feet) [12.0]

7. ATB PLACEMENT LIFTS
   - Layer Number [__4]
   - Nominal First Lift Placement Thickness (Inches) UNCOMPACTED [2.5]
   - Nominal Second Lift Placement Thickness (Inches) " [2.5]
   - Nominal Third Lift Placement Thickness (Inches) [__.__]
   - Nominal Fourth Lift Placement Thickness (Inches) [__.__]

8. PATB PLACEMENT LIFTS
   - Layer Number [_____]
   - Nominal First Lift Placement Thickness (Inches) [__.__]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]

9. AC BINDER COURSE LIFT
   - Layer Number [__5]
   - Nominal First Lift Placement Thickness (Inches) UNCOMPACTED [3.0]
   - Nominal Second Lift Placement Thickness (Inches) " [3.0]

10. AC SURFACE COURSE LIFT
    - Layer Number [__6]
    - Nominal First Lift Placement Thickness (Inches) UNCOMPACTED [2.5]
    - Nominal Second Lift Placement Thickness (Inches) [__.__]

11. SURFACE FRICTION COURSE (If Placed)
    - Layer Number [_____]
    - Nominal Placement Thickness (Inches) [__.__]

12. TEST SECTION STATION OF TRANSVERSE JOINTS (within test section)
    - Binder Course [__ + _____]
    - Surface Course [__ + _____]
    - Surface Friction Course [__ + _____]

13. LOCATION OF LONGITUDINAL SURFACE JOINT [1]
    Between lanes.. 1 Within lane.. 2
    (specify offset from O/S feet) [_____.__]

14. SIGNIFICANT EVENTS DURING CONSTRUCTION (disruptions, rain, equip. problems, etc.) SEE SHEET 17

PREPARER Donnie F. Dill EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [11]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [12-30-96]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [01-02-97]
*3. LAYER NUMBER [4]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... __.__
Number of Tests ..... __.
Maximum..... ___.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	__.__	[redacted]	[redacted]	[redacted]	[redacted]
7	B	Steel-Whl Tandem	__.__				
8	C	Steel-Whl Tandem	__.__				
9	D	Steel-Whl Tandem	__.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	__.__	____.			
12	G	Pneumatic-Tired	__.__	____.			
13	H	Pneumatic-Tired	__.__				
14	I	Single-Drum Vibr.	11.7	[redacted]	____.	___.	__.__
15	J	Single-Drum Vibr.	__.__		____.	___.	__.__
16	K	Single-Drum Vibr.	__.__		____.	___.	__.__
17	L	Single-Drum Vibr.	__.__		____.	___.	__.__
18	M	Double-Drum Vibr.	__.__		____.	___.	__.__
19	N	Double-Drum Vibr.	__.__		____.	___.	__.__
20	O	Double-Drum Vibr.	__.__		____.	___.	__.__
21	P	Double-Drum Vibr.	__.__		____.	___.	__.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I	I		
24	Coverages	2.	2.	__.	__.
	INTERMEDIATE				
25	Roller Code (A-Q)				
26	Coverages	__.	__.	__.	__.
	FINAL				
27	Roller Code (A-Q)	E	E		
28	Coverages	6.	6.	__.	__.
29	Air Temperature (°F)	__.__	__.__	___.	___.
30	Compacted Thickness (In)	2.1	2.1	__.__	__.__
31	Curing Period (Days)	1.0	3.0	__.__	__.__

PREPARER Steve C. Dill EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [17]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [01-06-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [01-15-97]
*3. LAYER NUMBER [5]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... __.__
Number of Tests ..... __.
Maximum..... ___.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	__.__				
7	B	Steel-Whl Tandem	__.__				
8	C	Steel-Whl Tandem	__.__				
9	D	Steel-Whl Tandem	__.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	__.__	____.			
12	G	Pneumatic-Tired	__.__	____.			
13	H	Pneumatic-Tired	__.__	____.			
14	I	Single-Drum Vibr.	11.7		____.	___.	__.__
15	J	Single-Drum Vibr.	__.__		____.	___.	__.__
16	K	Single-Drum Vibr.	__.__		____.	___.	__.__
17	L	Single-Drum Vibr.	__.__		____.	___.	__.__
18	M	Double-Drum Vibr.	__.__		____.	___.	__.__
19	N	Double-Drum Vibr.	__.__		____.	___.	__.__
20	O	Double-Drum Vibr.	__.__		____.	___.	__.__
21	P	Double-Drum Vibr.	__.__		____.	___.	__.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I	I		
24	Coverages	2.	2.	___.	___.
	INTERMEDIATE				
25	Roller Code (A-Q)				
26	Coverages	___.	___.	___.	___.
	FINAL				
27	Roller Code (A-Q)	E	E		
28	Coverages	6.	6.	___.	___.
29	Air Temperature (°F)	___.	___.	___.	___.
30	Compacted Thickness (In)	3.0	3.0	__.__	__.__
31	Curing Period (Days)	1.0	2.0	__.__	__.__

PREPARER Irene C. Dill EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [17]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [04-21-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-22-97]
*3. LAYER NUMBER [6]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... __.__
Number of Tests ..... __.
Maximum..... ___.

ROLLER DATA

	Roller Code =	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	___.__				
7	B	Steel-Whl Tandem	___.__				
8	C	Steel-Whl Tandem	___.__				
9	D	Steel-Whl Tandem	___.__				
10	E	Pneumatic-Tired	250.	____.			
11	F	Pneumatic-Tired	___.__	____.			
12	G	Pneumatic-Tired	___.__	____.			
13	H	Pneumatic-Tired	___.__	____.			
14	I	Single-Drum Vibr.	11.7		____.	___.	__.__
15	J	Single-Drum Vibr.	___.__		____.	___.	__.__
16	K	Single-Drum Vibr.	___.__		____.	___.	__.__
17	L	Single-Drum Vibr.	___.__		____.	___.	__.__
18	M	Double-Drum Vibr.	___.__		____.	___.	__.__
19	N	Double-Drum Vibr.	___.__		____.	___.	__.__
20	O	Double-Drum Vibr.	___.__		____.	___.	__.__
21	P	Double-Drum Vibr.	___.__		____.	___.	__.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
23	BREAKDOWN Roller Code (A-Q)	I			
24	Coverages	2.	__.	__.	__.
25	INTERMEDIATE Roller Code (A-Q)				
26	Coverages	__.	__.	__.	__.
27	FINAL Roller Code (A-Q)	E			
28	Coverages	6.	__.	__.	__.
29	Air Temperature (°F)	100.	___.	___.	___.
30	Compacted Thickness (In)	2.1	__.__	__.__	__.__
31	Curing Period (Days)	30.	__.__	__.__	__.__

PREPARER Jane K Pell EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 11 PLANT-MIXED ASPHALT BOUND LAYERS DENSITY AND PROFILE DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [17]

1. NUCLEAR DENSITY MEASUREMENTS

LAYER TYPE	ATB	Binder Course	Surface Course	Surface Friction Layer
Measurement Method (A, B, C)[1]	A	A	A	
Number of Measurements	12	12	12	
Average (pcf)	135.4	134.2	138.0	
Maximum (pcf)	142.4	138.8	140.5	
Minimum (pcf)	128.1	131.0	135.3	
Standard Deviation (pcf)	4.7	2.0	1.9	
Layer Number	4	5	6	

[1]Measurement Method Backscatter... A Direct Transmission... B Air Gap... C

2. MANUFACTURER OF NUCLEAR DENSITY GAUGE: TROXLER
3. NUCLEAR DENSITY GAUGE MODEL NUMBER: 3411-B
4. NUCLEAR DENSITY GAUGE IDENTIFICATION NUMBER: 12857
5. NUCLEAR GAUGE COUNT RATE FOR STANDARDIZATION:

6. PROFILOGRAPH MEASUREMENTS

Profilograph Type California... 1 Rainhart... 2	1
Profile Index (Inches/Mile)	6
Interpretation Method Manual.. 1 Mechanical.. 2 Computer.. 3	3
Height of Blanking Band (Inches)	0.2
Cutoff Height (Inches)	0.3

7. SURFACE PROFILE USED AS BASIS OF INCENTIVE PAYMENT? (YES, NO) YES

PREPARER [signature] EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 13 UNBOUND AGGREGATE BASE MATERIAL PLACEMENT	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [17]

*1. UNBOUND BASE MATERIAL PLACEMENT BEGAN (Month-Day-Year) [12-17-96]

*2. UNBOUND BASE MATERIAL PLACEMENT COMPLETED (Month-Day-Year) [12-24-96]

*3. LAYER NUMBER (From Sheet 4) [3]

PRIMARY COMPACTION EQUIPMENT

*4. CODE TYPE [5]

COMPACTION TYPE CODES
Pneumatic - Tired... 1 Steel Wheel Tandem... 2 Single Drum Vibr.... 3
Double Drum Vibr.... 4
Other (Specify)... 5 2 COVERAGES SINGLE DRUM VIBR. (12 TONS)
6 COVERAGES PNEUMATIC (25 TONS)

*5. GROSS WEIGHT (TONS) [__.__]

*6. LIFT THICKNESSES
Nominal First Lift Placement Thickness (inches) UNCOMPACTED & CUT [4]
Nominal Second Lift Placement Thickness (inches) [__]
Nominal Third Lift Placement Thickness (inches) [__]
Nominal Fourth Lift Placement Thickness (inches) [__]

DENSITY DATA IS RECORDED ON SAMPLING DATA SHEET 8-1

7. SIGNIFICANT EVENTS DURING CONSTRUCTION (DISRUPTIONS, RAIN, EQUIPMENT PROBLEMS, ETC.) _____

PREPARER Jane S. Dill EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 14 SUBGRADE PREPARATION	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [17]

*1. SUBGRADE PREPARATION BEGAN (Month-Day-Year) [12-12-96]

*2. SUBGRADE PREPARATION COMPLETED (Month-Day-Year) [12-16-96]

PRIMARY COMPACTION EQUIPMENT

*3. CODE TYPE [5]

COMPACTION EQUIPMENT TYPE CODES
Sheepsfoot... 1 Pneumatic Tired... 2 Steel Wheel Tandem... 3
Single Drum Vibr.... 4 Double Drum Vibr.... 5
Other (Specify)... 6 2 COVERAGES SINGLE DRUM VIBR (12 TONS) 6 COVERAGES PNEUMATIC (25 TONS)

*4. GROSS WEIGHT (TONS) [__ __.__]

	TYPE	PERCENT
*5. STABILIZING AGENT 1	[2]	[__2.0]
*6. STABILIZING AGENT 2	[__]	[__ __.__]

STABILIZING AGENT TYPE CODES
Portland Cement... 1 Lime... 2 Fly Ash, Class C... 3
Fly Ash, Class N... 4
Other (Specify)... 5 _____

*7. TYPICAL LIFT THICKNESS (INCHES) [__ __]
(For Fill Sections Only)

DENSITY DATA IS RECORDED ON SAMPLING DATA SHEET 8-1

8. SIGNIFICANT EVENTS DURING CONSTRUCTION (DISRUPTIONS, RAIN, EQUIPMENT PROBLEMS, ETC.) _____

PREPARER Jane F. Doll EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 17 MISCELLANEOUS CONSTRUCTION NOTES AND COMMENTS	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [12]

Provide any miscellaneous comments and notes concerning construction operations which may have an influence on the ultimate performance of the test sections or which may cause undesired performance differences to occur between test sections. Also include any quality control measurements or data for which space is not provided on other forms. Provide an indication of the basis for such measurements, such as an ASTM, AASHTO, or Agency standard test designation.

- CONSTRUCTION WAS INITIATED ON THE FIRST 10 SECTIONS DEC '96 (15, 16, 24, 23, 22, 17, 18, 13, 65 & 64)
- ALL LAYERS (EXCEPT THE SURFACE) WERE COMPLETED FOR THESE FIRST 10 SECTIONS BY JANUARY 15, 1997
- CONSTRUCTION WAS THEN INITIATED ON THE INSIDE LANE FOR THE NEXT 10 SECTIONS (67, 14, 21, 20, 19, 63, 62, 61, 60 & 66) WITH WORK IN THE OUTSIDE LANE BEGINNING IN MARCH '97
- WITH THE COMPLETION OF THE LAST 10 SECTIONS THE SURFACE COURSE WAS INITIATED APRIL 21, 1997
- ALL BUT THE LAST FOUR SECTIONS (62, 61, 60 & 66) HAD BEEN SURFACED BY APRIL 23, 1997
- THE LAST FOUR SECTIONS WERE IN THE TAPER FOR THE REMAINDER OF THE JOB AND DID NOT GET SURFACED UNTIL THE 29TH & 30TH OF JUNE, 1997

PREPARER Brent D. Gill EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 2 GEOMETRIC, SHOULDER AND DRAINAGE INFORMATION	* STATE CODE [4 8] * SPS PROJECT CODE [0 1] * TEST SECTION NO. [2 2]

*1. LANE WIDTH (FEET) [1 2.]

2. MONITORING SITE LANE NUMBER [1.]
(LANE 1 IS OUTSIDE LANE, NEXT TO SHOULDER
LANE 2 IS NEXT TO LANE 1, ETC.)

*3. SUBSURFACE DRAINAGE LOCATION [1.]
Continuous Along Test Section... 1 Intermittent... 2 None... 3

*4. SUBSURFACE DRAINAGE TYPE [6.]
No Subsurface Drainage... 1 Longitudinal Drains... 2
Transverse Drains... 3 Drainage Blanket... 4 Well System... 5
Drainage Blanket with Longitudinal Drains... 6
Other (Specify)... 7 _____

SHOULDER DATA	INSIDE SHOULDER	OUTSIDE SHOULDER
*5. SURFACE TYPE Turf... 1 Granular.... 2 Asphalt Concrete... 3 Concrete... 4 Surface Treatment... 5 Other (Specify)... 6 _____	[3.]	[3.]
*6. TOTAL WIDTH (FEET)	[_ 4.]	[1 0.]
*7. PAVED WIDTH (FEET)	[_ 4.]	[1 0.]
8. SHOULDER BASE TYPE (CODES-TABLE A.6)	[3 1.]	[3 1.]
9. SURFACE THICKNESS (INCHES)	[_ 4. 0]	[_ 4. 0]
10. SHOULDER BASE THICKNESS (INCHES)	[_ 4. 0]	[_ 4. 0]
11. DIAMETER OF LONGITUDINAL DRAINPIPES (INCHES)		[8. 0]
12. SPACING OF LATERALS (FEET)		[5 0 0.]

PREPARER [signature] EMPLOYER BRC DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 4 LAYER DESCRIPTIONS	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [22]

*1 LAYER NUMBER	*2 LAYER DESCRIPTION	*3 MATERIAL TYPE CLASS	*4 LAYER THICKNESSES (Inches)			
			AVERAGE	MINIMUM	MAXIMUM	STD. DEV.
1	SUBGRADE(7)	[59]				
2	[6]	[42]	[12.0]			
3	[8]	[75]	[0.1]			
4	[5]	[31]	[4.8]	3.9	5.7	0.5
5	[4]	[28]	[3.7]	3.0	5.2	0.6
6	[4]	[28]	[2.1]			
7	[3]	[1]	[2.1]			
8	[ ]	[ ]	[ ]			
9	[ ]	[ ]	[ ]			
10	[ ]	[ ]	[ ]			
11	[ ]	[ ]	[ ]			
12	[ ]	[ ]	[ ]			
13	[ ]	[ ]	[ ]			
14	[ ]	[ ]	[ ]			
15	[ ]	[ ]	[ ]			

*5 DEPTH BELOW SURFACE TO "RIGID" LAYER (FEET) [.]
(Rock, Stone, Dense Shale)

NOTES:

1. Layer 1 is the subgrade soil, the highest numbered layer is the pavement surface.

2. Layer description codes:

Overlay.....01	Base Layer.....05	Porous Friction Course..09
Seal/Tack Coat.....02	Subbase Layer.....06	Surface Treatment.....10
Original Surface.....03	Subgrade.....07	Embankment (Fill).....11
HMAC Layer (Subsurface).04	Interlayer.....08	

3. The material type classification codes are presented in Tables A.5, A.6, A.7 and A.8 of the Data Collection Guide for Long Term Pavement Performance Studies, dated January 17, 1990.

4. Enter the average thickness of each layer and the minimum, maximum and standard deviation of the thickness measurements, if known.

PREPARER [signature] EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 9 PLANT-MIXED ASPHALT BOUND LAYERS PLACEMENT DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [22]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [12-27-96]

*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-22-97]

*3 ASPHALT CONCRETE PLANT AND HAUL

	Type	Name	Haul Distance (Mi)	Time (Min)	Layer Numbers
Plant 1	[2]	GUERRA RANCH	[__ __ 5]	[__ 5]	[4] [5] [6] 7
Plant 2	[__]	_____	[__ __ __]	[__ __]	[__] [__] [__]
Plant 3	[__]	_____	[__ __ __]	[__ __]	[__] [__] [__]

Plant Type: Batch..... 1 Drum Mix.... 2 Other...3 Specify_____

4. MANUFACTURER OF ASPHALT CONCRETE PAVER BARBER GREENE

5. MODEL DESIGNATION OF ASPHALT CONCRETE PAVER BG-270B

6. SINGLE PASS LAYDOWN WIDTH (Feet) [12.0]

7. ATB PLACEMENT LIFTS
   - Layer Number [__ 5]
   - Nominal First Lift Placement Thickness (Inches) UNCOMPACTED [2.5]
   - Nominal Second Lift Placement Thickness (Inches) " [2.5]
   - Nominal Third Lift Placement Thickness (Inches) [__.__]
   - Nominal Fourth Lift Placement Thickness (Inches) [__.__]

8. PATB PLACEMENT LIFTS
   - Layer Number [__ 4]
   - Nominal First Lift Placement Thickness (Inches) UNCOMPACTED [5.0]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]

9. AC BINDER COURSE LIFT
   - Layer Number [__ 6]
   - Nominal First Lift Placement Thickness (Inches) UNCOMPACTED [2.5]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]

10. AC SURFACE COURSE LIFT
   - Layer Number [__ 7]
   - Nominal First Lift Placement Thickness (Inches) UNCOMPACTED [2.5]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]

11. SURFACE FRICTION COURSE (If Placed)
   - Layer Number [__ __]
   - Nominal Placement Thickness (Inches) [__.__]

12. TEST SECTION STATION OF TRANSVERSE JOINTS (within test section)
   - Binder Course [__ + __ __]
   - Surface Course [__ + __ __]
   - Surface Friction Course [__ + __ __]

13. LOCATION OF LONGITUDINAL SURFACE JOINT [1]
   Between lanes.. 1 Within lane.. 2
   (specify offset from O/S feet) [__ __.__]

14. SIGNIFICANT EVENTS DURING CONSTRUCTION (disruptions, rain, equip. problems, etc.) SEE SHEET 17

PREPARER [signature] EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [22]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [12-27-96]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [12-28-96]
*3. LAYER NUMBER [4]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... ___.
Number of Tests ..... ___.
Maximum..... ___.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	___.				
7	B	Steel-Whl Tandem	___.				
8	C	Steel-Whl Tandem	___.				
9	D	Steel-Whl Tandem	___.				
10	E	Pneumatic-Tired	___.	____.			
11	F	Pneumatic-Tired	___.	____.			
12	G	Pneumatic-Tired	___.	____.			
13	H	Pneumatic-Tired	___.	____.			
14	I	Single-Drum Vibr.	___.		____.	.___	___.
15	J	Single-Drum Vibr.	___.		____.	.___	___.
16	K	Single-Drum Vibr.	___.		____.	.___	___.
17	L	Single-Drum Vibr.	___.		____.	.___	___.
18	M	Double-Drum Vibr.	___.		____.	.___	___.
19	N	Double-Drum Vibr.	___.		____.	.___	___.
20	O	Double-Drum Vibr.	___.		____.	.___	___.
21	P	Double-Drum Vibr.	___.		____.	.___	___.
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I			
24	Coverages	2.	___.	___.	___.
	INTERMEDIATE				
25	Roller Code (A-Q)				
26	Coverages	___.	___.	___.	___.
	FINAL				
27	Roller Code (A-Q)	E			
28	Coverages	6.	___.	___.	___.
29	Air Temperature (°F)	___.	___.	___.	___.
30	Compacted Thickness (In)	4.8	___.	___.	___.
31	Curing Period (Days)	2.0	___.	___.	___.

PREPARER Irene C. Dell EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [22]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [12-30-96]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [01-02-97]
*3. LAYER NUMBER [5]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... __.__
Number of Tests ..... __.
Maximum..... ___.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	__.__	[redacted]	[redacted]	[redacted]	[redacted]
7	B	Steel-Whl Tandem	__.__				
8	C	Steel-Whl Tandem	__.__				
9	D	Steel-Whl Tandem	__.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	__.__	____.			
12	G	Pneumatic-Tired	__.__	____.			
13	H	Pneumatic-Tired	__.__	.			
14	I	Single-Drum Vibr.	11.7	[redacted]	____.	___.	__.__
15	J	Single-Drum Vibr.	__.__		____.	___.	__.__
16	K	Single-Drum Vibr.	__.__		____.	___.	__.__
17	L	Single-Drum Vibr.	__.__		____.	___.	__.__
18	M	Double-Drum Vibr.	__.__		____.	___.	__.__
19	N	Double-Drum Vibr.	__.__		____.	___.	__.__
20	O	Double-Drum Vibr.	__.__		____.	___.	__.__
21	P	Double-Drum Vibr.	__.__		____.	___.	__.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I	I		
24	Coverages	2.	2.	__.	__.
	INTERMEDIATE				
25	Roller Code (A-Q)				
26	Coverages	__.	__.	__.	__.
	FINAL				
27	Roller Code (A-Q)	E	E		
28	Coverages	6.	6.	__.	__.
29	Air Temperature (°F)	___.	___.	___.	___.
30	Compacted Thickness (In)	1.8	1.9	__.__	__.__
31	Curing Period (Days)	1.0	3.0	__.__	__.__

PREPARER [signature] EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [22]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [01-06-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [01-15-97]
*3. LAYER NUMBER [6]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... ___.
Number of Tests ..... ___.
Maximum..... ___.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	___.				
7	B	Steel-Whl Tandem	___.				
8	C	Steel-Whl Tandem	___.				
9	D	Steel-Whl Tandem	___.				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	___.	____.			
12	G	Pneumatic-Tired	___.	____.			
13	H	Pneumatic-Tired	___.				
14	I	Single-Drum Vibr.	11.7		____.	___.	___.
15	J	Single-Drum Vibr.	___.		____.	___.	___.
16	K	Single-Drum Vibr.	___.		____.	___.	___.
17	L	Single-Drum Vibr.	___.		____.	___.	___.
18	M	Double-Drum Vibr.	___.		____.	___.	___.
19	N	Double-Drum Vibr.	___.		____.	___.	___.
20	O	Double-Drum Vibr.	___.		____.	___.	___.
21	P	Double-Drum Vibr.	___.		____.	___.	___.
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I			
24	Coverages	2.	___.	___.	___.
	INTERMEDIATE				
25	Roller Code (A-Q)				
26	Coverages	___.	___.	___.	___.
	FINAL				
27	Roller Code (A-Q)	E			
28	Coverages	6.	___.	___.	___.
29	Air Temperature (°F)	___.	____.	____.	____.
30	Compacted Thickness (In)	2.1	___.	___.	___.
31	Curing Period (Days)	3.0	___.	___.	___.

PREPARER Jane C. Dill EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [22]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [04-21-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-22-97]
*3. LAYER NUMBER [1]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... __.__
Number of Tests ..... __.
Maximum..... ___.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	__.__				
7	B	Steel-Whl Tandem	__.__				
8	C	Steel-Whl Tandem	__.__				
9	D	Steel-Whl Tandem	__.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	__.__	____.			
12	G	Pneumatic-Tired	__.__	____.			
13	H	Pneumatic-Tired	__.__	____.			
14	I	Single-Drum Vibr.	11.7		____.	.___	__.__
15	J	Single-Drum Vibr.	__.__		____.	.___	__.__
16	K	Single-Drum Vibr.	__.__		____.	.___	__.__
17	L	Single-Drum Vibr.	__.__		____.	.___	__.__
18	M	Double-Drum Vibr.	__.__		____.	.___	__.__
19	N	Double-Drum Vibr.	__.__		____.	.___	__.__
20	O	Double-Drum Vibr.	__.__		____.	.___	__.__
21	P	Double-Drum Vibr.	__.__		____.	.___	__.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I			
24	Coverages	2.	__.	__.	__.
	INTERMEDIATE				
25	Roller Code (A-Q)				
26	Coverages	__.	__.	__.	__.
	FINAL				
27	Roller Code (A-Q)	E			
28	Coverages	6.	__.	__.	__.
29	Air Temperature (°F)	100.	___.	___.	___.
30	Compacted Thickness (In)	2.1	__.__	__.__	__.__
31	Curing Period (Days)	3.0	__.__	__.__	__.__

PREPARER Steve F. Dill EMPLOYER BRC DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 11 PLANT-MIXED ASPHALT BOUND LAYERS DENSITY AND PROFILE DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [22]

1. NUCLEAR DENSITY MEASUREMENTS

LAYER TYPE	ATB	Binder Course	Surface Course	Surface Friction Layer
Measurement Method (A, B, C)[1]	A	A	A	—
Number of Measurements	12	12	12	— —
Average (pcf)	142.8	136.2	138.2	— — — .—
Maximum (pcf)	151.0	139.9	141.8	— — — .—
Minimum (pcf)	129.6	132.9	134.8	— — — .—
Standard Deviation (pcf)	6.6	2.0	2.2	— — — .—
Layer Number	5	6	7	— —

[1]Measurement Method Backscatter... A Direct Transmission... B Air Gap... C

2. MANUFACTURER OF NUCLEAR DENSITY GAUGE — TROXLER

3. NUCLEAR DENSITY GAUGE MODEL NUMBER — 3411-B

4. NUCLEAR DENSITY GAUGE IDENTIFICATION NUMBER — 12857

5. NUCLEAR GAUGE COUNT RATE FOR STANDARDIZATION — — — — —

6. PROFILOGRAPH MEASUREMENTS

Profilograph Type California... 1 Rainhart... 2	1
Profile Index (Inches/Mile)	— 6
Interpretation Method Manual.. 1 Mechanical.. 2 Computer.. 3	3
Height of Blanking Band (Inches)	0.2 —
Cutoff Height (Inches)	0.3 —

7. SURFACE PROFILE USED AS BASIS OF INCENTIVE PAYMENT? (YES, NO) — YES

PREPARER Steve V. Dell EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 14 SUBGRADE PREPARATION	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [22]

*1. SUBGRADE PREPARATION BEGAN (Month-Day-Year) [12-12-96]

*2. SUBGRADE PREPARATION COMPLETED (Month-Day-Year) [12-16-96]

PRIMARY COMPACTION EQUIPMENT

*3. CODE TYPE [5]

COMPACTION EQUIPMENT TYPE CODES
Sheepsfoot... 1 Pneumatic Tired... 2 Steel Wheel Tandem... 3
Single Drum Vibr.... 4 Double Drum Vibr.... 5
Other (Specify)... 6 2 COVERAGES SINGLE DRUM VIBR (12 TONS)
6 COVERAGES PNEUMATIC (25 TONS)

*4. GROSS WEIGHT (TONS) [__ __.__]

	TYPE	PERCENT
*5. STABILIZING AGENT 1	[2]	[__2.0]
*6. STABILIZING AGENT 2	[__]	[__ __.__]

STABILIZING AGENT TYPE CODES
Portland Cement... 1 Lime... 2 Fly Ash, Class C... 3
Fly Ash, Class N... 4
Other (Specify)... 5 _____

*7. TYPICAL LIFT THICKNESS (INCHES) [__ __]
(For Fill Sections Only)

DENSITY DATA IS RECORDED ON SAMPLING DATA SHEET 8-1

8. SIGNIFICANT EVENTS DURING CONSTRUCTION (DISRUPTIONS, RAIN, EQUIPMENT PROBLEMS, ETC.) _____

PREPARER [signature] EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 17 MISCELLANEOUS CONSTRUCTION NOTES AND COMMENTS	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [22]

Provide any miscellaneous comments and notes concerning construction operations which may have an influence on the ultimate performance of the test sections or which may cause undesired performance differences to occur between test sections. Also include any quality control measurements or data for which space is not provided on other forms. Provide an indication of the basis for such measurements, such as an ASTM, AASHTO, or Agency standard test designation.

- CONSTRUCTION WAS INITIATED ON THE FIRST 10 SECTIONS DEC '96 (15, 16, 24, 23, 22, 17, 18, 13, 65 & 64)
- ALL LAYERS (EXCEPT THE SURFACE) WERE COMPLETED FOR THESE FIRST 10 SECTIONS BY JANUARY 15, 1997
- CONSTRUCTION WAS THEN INITIATED ON THE INSIDE LANE FOR THE NEXT 10 SECTIONS (67, 14, 21, 20, 19, 63, 62, 61, 60 & 66) WITH WORK IN THE OUTSIDE LANE BEGINNING IN MARCH '97
- WITH THE COMPLETION OF THE LAST 10 SECTIONS THE SURFACE COURSE WAS INITIATED APRIL 21, 1997
- ALL BUT THE LAST FOUR SECTIONS (62, 61, 60 & 66) HAD BEEN SURFACED BY APRIL 23, 1997
- THE LAST FOUR SECTIONS WERE IN THE TAPER FOR THE REMAINDER OF THE JOB AND DID NOT GET SURFACED UNTIL THE 29TH & 30TH OF JUNE, 1997

PREPARER Brent Gill EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 2 GEOMETRIC, SHOULDER AND DRAINAGE INFORMATION	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [23]

*1. LANE WIDTH (FEET) [12.]

2. MONITORING SITE LANE NUMBER [1.]
(LANE 1 IS OUTSIDE LANE, NEXT TO SHOULDER
LANE 2 IS NEXT TO LANE 1, ETC.)

*3. SUBSURFACE DRAINAGE LOCATION [1.]
Continuous Along Test Section... 1 Intermittent... 2 None... 3

*4. SUBSURFACE DRAINAGE TYPE [6.]
No Subsurface Drainage... 1 Longitudinal Drains... 2
Transverse Drains... 3 Drainage Blanket... 4 Well System... 5
Drainage Blanket with Longitudinal Drains... 6
Other (Specify)... 7 _____

	SHOULDER DATA	INSIDE SHOULDER	OUTSIDE SHOULDER
*5.	SURFACE TYPE Turf... 1 Granular.... 2 Asphalt Concrete... 3 Concrete... 4 Surface Treatment... 5 Other (Specify)... 6 _____	[3.]	[3.]
*6.	TOTAL WIDTH (FEET)	[4.]	[10.]
*7.	PAVED WIDTH (FEET)	[4.]	[10.]
8.	SHOULDER BASE TYPE (CODES-TABLE A.6)	[31.]	[31.]
9.	SURFACE THICKNESS (INCHES)	[7.0]	[7.0]
10.	SHOULDER BASE THICKNESS (INCHES)	[4.0]	[4.0]
11.	DIAMETER OF LONGITUDINAL DRAINPIPES (INCHES)		[8.0]
12.	SPACING OF LATERALS (FEET)		[500.]

PREPARER James D. Dill EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 4 LAYER DESCRIPTIONS	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [23]

*1 LAYER NUMBER	*2 LAYER DESCRIPTION	*3 MATERIAL TYPE CLASS	*4 LAYER THICKNESSES (Inches)			
			AVERAGE	MINIMUM	MAXIMUM	STD. DEV.
1	SUBGRADE(7)	[52]	[redacted]	[redacted]	[redacted]	[redacted]
2	[6]	[42]	[12.0]	---.-	---.-	---.-
3	[8]	[75]	[0.1]	---.-	---.-	---.-
4	[5]	[31]	[4.4]	3.2	5.6	0.6
5	[4]	[28]	[7.8]	6.5	9.8	0.6
6	[4]	[28]	[4.7]	---.-	---.-	---.-
7	[3]	[1]	[2.0]	---.-	---.-	---.-
8	[ ]	[ ]	[---.-]	---.-	---.-	---.-
9	[ ]	[ ]	[---.-]	---.-	---.-	---.-
10	[ ]	[ ]	[---.-]	---.-	---.-	---.-
11	[ ]	[ ]	[---.-]	---.-	---.-	---.-
12	[ ]	[ ]	[---.-]	---.-	---.-	---.-
13	[ ]	[ ]	[---.-]	---.-	---.-	---.-
14	[ ]	[ ]	[---.-]	---.-	---.-	---.-
15	[ ]	[ ]	[---.-]	---.-	---.-	---.-

*5 DEPTH BELOW SURFACE TO "RIGID" LAYER (FEET) [.]
(Rock, Stone, Dense Shale)

NOTES:

1. Layer 1 is the subgrade soil, the highest numbered layer is the pavement surface.

2. Layer description codes:

Overlay.....01	Base Layer.....05	Porous Friction Course..09
Seal/Tack Coat.....02	Subbase Layer.....06	Surface Treatment.....10
Original Surface.....03	Subgrade.....07	Embankment (Fill).....11
HMAC Layer (Subsurface).04	Interlayer.....08	

3. The material type classification codes are presented in Tables A.5, A.6, A.7 and A.8 of the Data Collection Guide for Long Term Pavement Performance Studies, dated January 17, 1990.

4. Enter the average thickness of each layer and the minimum, maximum and standard deviation of the thickness measurements, if known.

PREPARER Shane F. Dill EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 9 PLANT-MIXED ASPHALT BOUND LAYERS PLACEMENT DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [23]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [12-27-96]

*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-22-97]

*3 ASPHALT CONCRETE PLANT AND HAUL

	Type	Name	Haul Distance (Mi)	Time (Min)	Layer Numbers
Plant 1	[2]	GUERRA RANCH	[__ __ 5]	[__ 5]	[4] [5] [6] 7
Plant 2	[__]	_____	[__ __ __]	[__ __]	[__] [__] [__]
Plant 3	[__]	_____	[__ __ __]	[__ __]	[__] [__] [__]

Plant Type: Batch..... 1 Drum Mix.... 2 Other...3 Specify_____

4. MANUFACTURER OF ASPHALT CONCRETE PAVER BARBER GREENE

5. MODEL DESIGNATION OF ASPHALT CONCRETE PAVER BG-270B

6. SINGLE PASS LAYDOWN WIDTH (Feet) [12.0]

7. ATB PLACEMENT LIFTS

Layer Number		[__ 5]
Nominal First Lift Placement Thickness (Inches)	UNCOMPACTED	[3.0]
Nominal Second Lift Placement Thickness (Inches)	"	[3.0]
Nominal Third Lift Placement Thickness (Inches)	"	[3.0]
Nominal Fourth Lift Placement Thickness (Inches)		[__.__]

8. PATB PLACEMENT LIFTS

Layer Number		[__ 4]
Nominal First Lift Placement Thickness (Inches)	UNCOMPACTED	[5.0]
Nominal Second Lift Placement Thickness (Inches)		[__.__]

9. AC BINDER COURSE LIFT

Layer Number		[__ 6]
Nominal First Lift Placement Thickness (Inches)	UNCOMPACTED	[3.0]
Nominal Second Lift Placement Thickness (Inches)	"	[3.0]

10. AC SURFACE COURSE LIFT

Layer Number		[__ 7]
Nominal First Lift Placement Thickness (Inches)	UNCOMPACTED	[2.5]
Nominal Second Lift Placement Thickness (Inches)		[__.__]

11. SURFACE FRICTION COURSE (If Placed)

Layer Number	[__ __]
Nominal Placement Thickness (Inches)	[__.__]

12. TEST SECTION STATION OF TRANSVERSE JOINTS (within test section)

Binder Course	[__ + __ __]
Surface Course	[__ + __ __]
Surface Friction Course	[__ + __ __]

13. LOCATION OF LONGITUDINAL SURFACE JOINT [1]
Between lanes.. 1 Within lane.. 2
(specify offset from O/S feet) [__ __.__]

14. SIGNIFICANT EVENTS DURING CONSTRUCTION (disruptions, rain, equip. problems, etc.) SEE SHEET 17

PREPARER [signature] EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [23]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [12-27-96]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [12-28-96]
*3. LAYER NUMBER [4]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... __.__
Number of Tests ..... __.
Maximum..... ___.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	__.__	[redacted]	[redacted]	[redacted]	[redacted]
7	B	Steel-Whl Tandem	__.__				
8	C	Steel-Whl Tandem	__.__				
9	D	Steel-Whl Tandem	__.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	__.__	____.			
12	G	Pneumatic-Tired	__.__	____.			
13	H	Pneumatic-Tired	__.__	____.			
14	I	Single-Drum Vibr.	11.7	[redacted]	____.	___.	__.__
15	J	Single-Drum Vibr.	__.__		____.	___.	__.__
16	K	Single-Drum Vibr.	__.__		____.	___.	__.__
17	L	Single-Drum Vibr.	__.__		____.	___.	__.__
18	M	Double-Drum Vibr.	__.__		____.	___.	__.__
19	N	Double-Drum Vibr.	__.__		____.	___.	__.__
20	O	Double-Drum Vibr.	__.__		____.	___.	__.__
21	P	Double-Drum Vibr.	__.__		____.	___.	__.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I			
24	Coverages	2.	___.	___.	___.
	INTERMEDIATE				
25	Roller Code (A-Q)				
26	Coverages	___.	___.	___.	___.
	FINAL				
27	Roller Code (A-Q)	E			
28	Coverages	6.	___.	___.	___.
29	Air Temperature (°F)	74.	___.	___.	___.
30	Compacted Thickness (In)	4.4	__.__	__.__	__.__
31	Curing Period (Days)	2.0	__.__	__.__	__.__

PREPARER [signature] EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [23]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [12-30-96]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [01-02-97]
*3. LAYER NUMBER [2]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... __.__
Number of Tests ..... __.
Maximum..... ___.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	__.__	[redacted]	[redacted]	[redacted]	[redacted]
7	B	Steel-Whl Tandem	__.__				
8	C	Steel-Whl Tandem	__.__				
9	D	Steel-Whl Tandem	__.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	__.__	____.			
12	G	Pneumatic-Tired	__.__	____.			
13	H	Pneumatic-Tired	__.__				
14	I	Single-Drum Vibr.	11.7	[redacted]	____.	.___	__.__
15	J	Single-Drum Vibr.	__.__		____.	.___	__.__
16	K	Single-Drum Vibr.	__.__		____.	.___	__.__
17	L	Single-Drum Vibr.	__.__		____.	.___	__.__
18	M	Double-Drum Vibr.	__.__		____.	.___	__.__
19	N	Double-Drum Vibr.	__.__		____.	.___	__.__
20	O	Double-Drum Vibr.	__.__		____.	.___	__.__
21	P	Double-Drum Vibr.	__.__		____.	.___	__.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
23	BREAKDOWN Roller Code (A-Q)	I	I	I	
24	Coverages	2.	2.	2.	__.
25	INTERMEDIATE Roller Code (A-Q)				
26	Coverages	__.	__.	__.	__.
27	FINAL Roller Code (A-Q)	E	E	E	
28	Coverages	6.	6.	6.	__.
29	Air Temperature (°F)	___.	___.	___.	___.
30	Compacted Thickness (In)	2.6	2.6	2.6	__.__
31	Curing Period (Days)	1.0	1.0	4.0	__.__

PREPARER Bret S. Dill EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [13]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [01-06-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [01-15-97]
*3. LAYER NUMBER [6]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... __.__
Number of Tests ..... __.
Maximum..... ___.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	__.__				
7	B	Steel-Whl Tandem	__.__				
8	C	Steel-Whl Tandem	__.__				
9	D	Steel-Whl Tandem	__.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	__.__	____.			
12	G	Pneumatic-Tired	__.__	____.			
13	H	Pneumatic-Tired	__.__				
14	I	Single-Drum Vibr.	11.7		____.	___.	__.__
15	J	Single-Drum Vibr.	__.__		____.	___.	__.__
16	K	Single-Drum Vibr.	__.__		____.	___.	__.__
17	L	Single-Drum Vibr.	__.__		____.	___.	__.__
18	M	Double-Drum Vibr.	__.__		____.	___.	__.__
19	N	Double-Drum Vibr.	__.__		____.	___.	__.__
20	O	Double-Drum Vibr.	__.__		____.	___.	__.__
21	P	Double-Drum Vibr.	__.__		____.	___.	__.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I	I		
24	Coverages	2.	2.	__.	__.
	INTERMEDIATE				
25	Roller Code (A-Q)				
26	Coverages	__.	__.	__.	__.
	FINAL				
27	Roller Code (A-Q)	E	E		
28	Coverages	6.	6.	__.	__.
29	Air Temperature (°F)	72.	72.	___.	___.
30	Compacted Thickness (In)	2.3	2.4	__.__	__.__
31	Curing Period (Days)	1.0	2.0	__.__	__.__

PREPARER [signature] EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [23]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [04-21-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-22-97]
*3. LAYER NUMBER [2]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... ___.
Number of Tests ..... ___.
Maximum..... ___.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	___.				
7	B	Steel-Whl Tandem	___.				
8	C	Steel-Whl Tandem	___.				
9	D	Steel-Whl Tandem	___.				
10	E	Pneumatic-Tired	250	____.			
11	F	Pneumatic-Tired	___.	____.			
12	G	Pneumatic-Tired	___.	____.			
13	H	Pneumatic-Tired	___.	____.			
14	I	Single-Drum Vibr.	11.7		____.	___.	___.
15	J	Single-Drum Vibr.	___.		____.	___.	___.
16	K	Single-Drum Vibr.	___.		____.	___.	___.
17	L	Single-Drum Vibr.	___.		____.	___.	___.
18	M	Double-Drum Vibr.	___.		____.	___.	___.
19	N	Double-Drum Vibr.	___.		____.	___.	___.
20	O	Double-Drum Vibr.	___.		____.	___.	___.
21	P	Double-Drum Vibr.	___.		____.	___.	___.
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I	___	___	___
24	Coverages	2.	___.	___.	___.
	INTERMEDIATE				
25	Roller Code (A-Q)	___	___	___	___
26	Coverages	___.	___.	___.	___.
	FINAL				
27	Roller Code (A-Q)	E	___	___	___
28	Coverages	6.	___.	___.	___.
29	Air Temperature (°F)	100.	___.	___.	___.
30	Compacted Thickness (In)	2.0	___.	___.	___.
31	Curing Period (Days)	3.0	___.	___.	___.

PREPARER [signature] EMPLOYER SRS DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 11 PLANT-MIXED ASPHALT BOUND LAYERS DENSITY AND PROFILE DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [23]

1. NUCLEAR DENSITY MEASUREMENTS

LAYER TYPE	ATB	Binder Course	Surface Course	Surface Friction Layer
Measurement Method (A, B, C)[1]	A	A	A	
Number of Measurements	12	12	12	
Average (pcf)	139.0	135.9	138.6	
Maximum (pcf)	150.7	137.6	145.0	
Minimum (pcf)	131.3	129.8	135.7	
Standard Deviation (pcf)	5.6	2.1	2.4	
Layer Number	5	6	7	

[1]Measurement Method Backscatter... A Direct Transmission... B Air Gap... C

2. MANUFACTURER OF NUCLEAR DENSITY GAUGE: TROXLER

3. NUCLEAR DENSITY GAUGE MODEL NUMBER: 3411-B

4. NUCLEAR DENSITY GAUGE IDENTIFICATION NUMBER: 12857

5. NUCLEAR GAUGE COUNT RATE FOR STANDARDIZATION: _____

6. PROFILOGRAPH MEASUREMENTS

Profilograph Type California... 1 Rainhart... 2	1
Profile Index (Inches/Mile)	6
Interpretation Method Manual.. 1 Mechanical.. 2 Computer.. 3	3
Height of Blanking Band (Inches)	0.2
Cutoff Height (Inches)	0.3

7. SURFACE PROFILE USED AS BASIS OF INCENTIVE PAYMENT? (YES, NO) YES

PREPARER [signature] EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 14 SUBGRADE PREPARATION	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [23]

*1. SUBGRADE PREPARATION BEGAN (Month-Day-Year) [12-12-96]

*2. SUBGRADE PREPARATION COMPLETED (Month-Day-Year) [12-16-96]

PRIMARY COMPACTION EQUIPMENT

*3. CODE TYPE [5]

COMPACTION EQUIPMENT TYPE CODES
Sheepsfoot... 1 Pneumatic Tired... 2 Steel Wheel Tandem... 3
Single Drum Vibr.... 4 Double Drum Vibr.... 5
Other (Specify)... 6 2 COVERAGES SINGLE DRUM VIBR. (12 TONS)
6 COVERAGES PNEUMATIC (25 TONS)

*4. GROSS WEIGHT (TONS) [__ __.__]

	TYPE	PERCENT
*5. STABILIZING AGENT 1	[2]	[__2.0]
*6. STABILIZING AGENT 2	[__]	[__ __.__]

STABILIZING AGENT TYPE CODES
Portland Cement... 1 Lime... 2 Fly Ash, Class C... 3
Fly Ash, Class N... 4
Other (Specify)... 5 _____

*7. TYPICAL LIFT THICKNESS (INCHES) [__ __]
(For Fill Sections Only)

DENSITY DATA IS RECORDED ON SAMPLING DATA SHEET 8-1

8. SIGNIFICANT EVENTS DURING CONSTRUCTION (DISRUPTIONS, RAIN, EQUIPMENT PROBLEMS, ETC.) _____

PREPARER Donnet. Dahl EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 17 MISCELLANEOUS CONSTRUCTION NOTES AND COMMENTS	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [23]

Provide any miscellaneous comments and notes concerning construction operations which may have an influence on the ultimate performance of the test sections or which may cause undesired performance differences to occur between test sections. Also include any quality control measurements or data for which space is not provided on other forms. Provide an indication of the basis for such measurements, such as an ASTM, AASHTO, or Agency standard test designation.

- CONSTRUCTION WAS INITIATED ON THE FIRST 10 SECTIONS DEC '96 (15, 16, 24, 23, 22, 17, 18, 13, 65 & 64)
- ALL LAYERS (EXCEPT THE SURFACE) WERE COMPLETED FOR THESE FIRST 10 SECTIONS BY JANUARY 15, 1997
- CONSTRUCTION WAS THEN INITIATED ON THE INSIDE LANE FOR THE NEXT 10 SECTIONS (67, 14, 21, 20, 19, 63, 62, 61, 60 & 66) WITH WORK IN THE OUTSIDE LANE BEGINNING IN MARCH '97
- WITH THE COMPLETION OF THE LAST 10 SECTIONS THE SURFACE COURSE WAS INITIATED APRIL 21, 1997
- ALL BUT THE LAST FOUR SECTIONS (62, 61, 60 & 66) HAD BEEN SURFACED BY APRIL 23, 1997
- THE LAST FOUR SECTIONS WERE IN THE TAPER FOR THE REMAINDER OF THE JOB AND DID NOT GET SURFACED UNTIL THE 29TH & 30TH OF JUNE, 1997

PREPARER Brent Gill EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 2 GEOMETRIC, SHOULDER AND DRAINAGE INFORMATION	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [24]

*1. LANE WIDTH (FEET) [12.]

2. MONITORING SITE LANE NUMBER [1.]
(LANE 1 IS OUTSIDE LANE, NEXT TO SHOULDER
LANE 2 IS NEXT TO LANE 1, ETC.)

*3. SUBSURFACE DRAINAGE LOCATION [1.]
Continuous Along Test Section... 1 Intermittent... 2 None... 3

*4. SUBSURFACE DRAINAGE TYPE [6.]
No Subsurface Drainage... 1 Longitudinal Drains... 2
Transverse Drains... 3 Drainage Blanket... 4 Well System... 5
Drainage Blanket with Longitudinal Drains... 6
Other (Specify)... 7 _____

	SHOULDER DATA	INSIDE SHOULDER	OUTSIDE SHOULDER
*5.	SURFACE TYPE Turf... 1 Granular.... 2 Asphalt Concrete... 3 Concrete... 4 Surface Treatment... 5 Other (Specify)... 6 _____	[3.]	[3.]
*6.	TOTAL WIDTH (FEET)	[4.]	[10.]
*7.	PAVED WIDTH (FEET)	[4.]	[10.]
8.	SHOULDER BASE TYPE (CODES-TABLE A.6)	[31.]	[31.]
9.	SURFACE THICKNESS (INCHES)	[7.0]	[7.0]
10.	SHOULDER BASE THICKNESS (INCHES)	[4.0]	[4.0]
11.	DIAMETER OF LONGITUDINAL DRAINPIPES (INCHES)		[8.0]
12.	SPACING OF LATERALS (FEET)		[500.]

PREPARER [signature] EMPLOYER BRS DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 4 LAYER DESCRIPTIONS	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [24]

*1 LAYER NUMBER	*2 LAYER DESCRIPTION	*3 MATERIAL TYPE CLASS	*4 LAYER THICKNESSES (Inches)			
			AVERAGE	MINIMUM	MAXIMUM	STD. DEV.
1	SUBGRADE(7)	[59]	[redacted]	[redacted]	[redacted]	[redacted]
2	[6]	[42]	[12.0]	---.-	---.-	---.-
3	[8]	[75]	[0.1]	---.-	---.-	---.-
4	[5]	[31]	[4.2]	3.1	5.7	0.6
5	[4]	[28]	[10.8]	9.8	12.2	0.6
6	[4]	[28]	[5.1]	---.-	---.-	---.-
7	[3]	[1]	[2.1]	---.-	---.-	---.-
8	[__]	[__]	[---.-]	---.-	---.-	---.-
9	[__]	[__]	[---.-]	---.-	---.-	---.-
10	[__]	[__]	[---.-]	---.-	---.-	---.-
11	[__]	[__]	[---.-]	---.-	---.-	---.-
12	[__]	[__]	[---.-]	---.-	---.-	---.-
13	[__]	[__]	[---.-]	---.-	---.-	---.-
14	[__]	[__]	[---.-]	---.-	---.-	---.-
15	[__]	[__]	[---.-]	---.-	---.-	---.-

*5 DEPTH BELOW SURFACE TO "RIGID" LAYER (FEET) [__ __ . __]
(Rock, Stone, Dense Shale)

NOTES:

1. Layer 1 is the subgrade soil, the highest numbered layer is the pavement surface.

2. Layer description codes:

Overlay.....01	Base Layer.....05	Porous Friction Course..09
Seal/Tack Coat.....02	Subbase Layer.....06	Surface Treatment.....10
Original Surface.....03	Subgrade.....07	Embankment (Fill).....11
HMAC Layer (Subsurface).04	Interlayer.....08	

3. The material type classification codes are presented in Tables A.5, A.6, A.7 and A.8 of the Data Collection Guide for Long Term Pavement Performance Studies, dated January 17, 1990.

4. Enter the average thickness of each layer and the minimum, maximum and standard deviation of the thickness measurements, if known.

PREPARER [signature] EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 9 PLANT-MIXED ASPHALT BOUND LAYERS PLACEMENT DATA	* STATE CODE [4 8] * SPS PROJECT CODE [0 1] * TEST SECTION NO. [2 4]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [12-27-96]

*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-22-97]

*3 ASPHALT CONCRETE PLANT AND HAUL

	Type	Name	Haul Distance (Mi)	Time (Min)	Layer Numbers
Plant 1	[2]	GUERRA RANCH	[__ __ 5]	[__ 5]	[4] [5] [6] 7
Plant 2	[__]	_____	[__ __ __]	[__ __]	[__] [__] [__]
Plant 3	[__]	_____	[__ __ __]	[__ __]	[__] [__] [__]

Plant Type: Batch..... 1 Drum Mix.... 2 Other...3 Specify_____

4. MANUFACTURER OF ASPHALT CONCRETE PAVER BARBER GREENE

5. MODEL DESIGNATION OF ASPHALT CONCRETE PAVER BG-270B

6. SINGLE PASS LAYDOWN WIDTH (Feet) [12.0]

7. ATB PLACEMENT LIFTS

Layer Number		[__ 5]
Nominal First Lift Placement Thickness (Inches)	UNCOMPACTED	[3.5]
Nominal Second Lift Placement Thickness (Inches)	"	[3.5]
Nominal Third Lift Placement Thickness (Inches)	"	[3.5]
Nominal Fourth Lift Placement Thickness (Inches)	"	[3.5]

8. PATB PLACEMENT LIFTS

Layer Number		[__ 4]
Nominal First Lift Placement Thickness (Inches)	UNCOMPACTED	[5.0]
Nominal Second Lift Placement Thickness (Inches)		[__.__]

9. AC BINDER COURSE LIFT

Layer Number		[__ 6]
Nominal First Lift Placement Thickness (Inches)	UNCOMPACTED	[3.0]
Nominal Second Lift Placement Thickness (Inches)	"	[3.0]

10. AC SURFACE COURSE LIFT

Layer Number		[__ 7]
Nominal First Lift Placement Thickness (Inches)	UNCOMPACTED	[2.5]
Nominal Second Lift Placement Thickness (Inches)		[__.__]

11. SURFACE FRICTION COURSE (If Placed)

Layer Number	[__ __]
Nominal Placement Thickness (Inches)	[__.__]

12. TEST SECTION STATION OF TRANSVERSE JOINTS (within test section)

Binder Course	[__ + __ __]
Surface Course	[__ + __ __]
Surface Friction Course	[__ + __ __]

13. LOCATION OF LONGITUDINAL SURFACE JOINT [1]
Between lanes.. 1 Within lane.. 2
(specify offset from O/S feet) [__ __.__]

14. SIGNIFICANT EVENTS DURING CONSTRUCTION (disruptions, rain, equip. problems, etc.) SEE SHEET 17

PREPARER [signature] EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [24]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [12-27-96]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [12-28-96]
*3. LAYER NUMBER [4]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... ___.
Number of Tests ..... ___.
Maximum..... ___.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	___.				
7	B	Steel-Whl Tandem	___.				
8	C	Steel-Whl Tandem	___.				
9	D	Steel-Whl Tandem	___.				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	___.	____.			
12	G	Pneumatic-Tired	___.	____.			
13	H	Pneumatic-Tired	___.	____.			
14	I	Single-Drum Vibr.	11.7		____.	.___	___.___
15	J	Single-Drum Vibr.	___.		____.	.___	___.___
16	K	Single-Drum Vibr.	___.		____.	.___	___.___
17	L	Single-Drum Vibr.	___.		____.	.___	___.___
18	M	Double-Drum Vibr.	___.		____.	.___	___.___
19	N	Double-Drum Vibr.	___.		____.	.___	___.___
20	O	Double-Drum Vibr.	___.		____.	.___	___.___
21	P	Double-Drum Vibr.	___.		____.	.___	___.___
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I	___	___	___
24	Coverages	2.	___.	___.	___.
	INTERMEDIATE				
25	Roller Code (A-Q)	___	___	___	___
26	Coverages	___.	___.	___.	___.
	FINAL				
27	Roller Code (A-Q)	E	___	___	___
28	Coverages	6.	___.	___.	___.
29	Air Temperature (°F)	___.	___.	___.	___.
30	Compacted Thickness (In)	4.2	___	___	___
31	Curing Period (Days)	2.0	___	___	___

PREPARER Dave C. Dill EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [24]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [12-30-96]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [01-02-97]
*3. LAYER NUMBER [5]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... __.__
Number of Tests ..... __.
Maximum..... ___.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	__.__				
7	B	Steel-Whl Tandem	__.__				
8	C	Steel-Whl Tandem	__.__				
9	D	Steel-Whl Tandem	__.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	__.__	____.			
12	G	Pneumatic-Tired	__.__	____.			
13	H	Pneumatic-Tired	__.__	.			
14	I	Single-Drum Vibr.	11.7		____.	___.	__.__
15	J	Single-Drum Vibr.	__.__		____.	___.	__.__
16	K	Single-Drum Vibr.	__.__		____.	___.	__.__
17	L	Single-Drum Vibr.	__.__		____.	___.	__.__
18	M	Double-Drum Vibr.	__.__		____.	___.	__.__
19	N	Double-Drum Vibr.	__.__		____.	___.	__.__
20	O	Double-Drum Vibr.	__.__		____.	___.	__.__
21	P	Double-Drum Vibr.	__.__		____.	___.	__.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	E	E	E	E
24	Coverages	12.	12.	12.	12.
	INTERMEDIATE				
25	Roller Code (A-Q)				
26	Coverages	__.	__.	__.	__.
	FINAL				
27	Roller Code (A-Q)	E	E	E	E
28	Coverages	6.	6.	6.	6.
29	Air Temperature (°F)	___.	___.	___.	___.
30	Compacted Thickness (In)	2.7	2.7	2.7	2.7
31	Curing Period (Days)	1.0	2.0	1.0	4.0

PREPARER [signature] EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [24]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [01-06-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [01-15-97]
*3. LAYER NUMBER [6]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... ___.
Number of Tests ..... ___.
Maximum..... ___.

ROLLER DATA

	Roller Code =	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	___.				
7	B	Steel-Whl Tandem	___.				
8	C	Steel-Whl Tandem	___.				
9	D	Steel-Whl Tandem	___.				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	___.	____.			
12	G	Pneumatic-Tired	___.	____.			
13	H	Pneumatic-Tired	___.				
14	I	Single-Drum Vibr.	11.7		____.	___.	___.
15	J	Single-Drum Vibr.	___.		____.	___.	___.
16	K	Single-Drum Vibr.	___.		____.	___.	___.
17	L	Single-Drum Vibr.	___.		____.	___.	___.
18	M	Double-Drum Vibr.	___.		____.	___.	___.
19	N	Double-Drum Vibr.	___.		____.	___.	___.
20	O	Double-Drum Vibr.	___.		____.	___.	___.
21	P	Double-Drum Vibr.	___.		____.	___.	___.
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
23	BREAKDOWN Roller Code (A-Q)	I	I		
24	Coverages	2.	2.	___.	___.
25	INTERMEDIATE Roller Code (A-Q)				
26	Coverages	___.	___.	___.	___.
27	FINAL Roller Code (A-Q)	E	E		
28	Coverages	6.	6.	___.	___.
29	Air Temperature (°F)	___.	___.	___.	___.
30	Compacted Thickness (In)	2.5	2.6	___.	___.
31	Curing Period (Days)	1.0	2.0	___.	___.

PREPARER [signature] EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [24]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [04-21-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-22-97]
*3. LAYER NUMBER [1]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... ___
Number of Tests ..... ___.
Maximum..... ___.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	___.				
7	B	Steel-Whl Tandem	___.				
8	C	Steel-Whl Tandem	___.				
9	D	Steel-Whl Tandem	___.				
10	E	Pneumatic-Tired	250.	____.			
11	F	Pneumatic-Tired	___.	____.			
12	G	Pneumatic-Tired	___.	____.			
13	H	Pneumatic-Tired	___.	.			
14	I	Single-Drum Vibr.	11.7		____.	___.	___.
15	J	Single-Drum Vibr.	___.		____.	___.	___.
16	K	Single-Drum Vibr.	___.		____.	___.	___.
17	L	Single-Drum Vibr.	___.		____.	___.	___.
18	M	Double-Drum Vibr.	___.		____.	___.	___.
19	N	Double-Drum Vibr.	___.		____.	___.	___.
20	O	Double-Drum Vibr.	___.		____.	___.	___.
21	P	Double-Drum Vibr.	___.		____.	___.	___.
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I	___	___	___
24	Coverages	2.	___.	___.	___.
	INTERMEDIATE				
25	Roller Code (A-Q)	___	___	___	___
26	Coverages	___.	___.	___.	___.
	FINAL				
27	Roller Code (A-Q)	E	___	___	___
28	Coverages	6.	___.	___.	___.
29	Air Temperature (°F)	100.	___.	___.	___.
30	Compacted Thickness (In)	2.1	___.	___.	___.
31	Curing Period (Days)	3.0	___.	___.	___.

PREPARER [signature] EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 11 PLANT-MIXED ASPHALT BOUND LAYERS DENSITY AND PROFILE DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [24]

1. NUCLEAR DENSITY MEASUREMENTS

LAYER TYPE	ATB	Binder Course	Surface Course	Surface Friction Layer
Measurement Method (A, B, C)[1]	A	A	A	
Number of Measurements	12	12	12	
Average (pcf)	136.1	136.9	138.2	
Maximum (pcf)	143.5	139.9	142.6	
Minimum (pcf)	126.8	132.9	132.0	
Standard Deviation (pcf)	4.4	2.2	2.7	
Layer Number	5	6	7	

[1]Measurement Method Backscatter... A Direct Transmission... B Air Gap... C

2. MANUFACTURER OF NUCLEAR DENSITY GAUGE: TROXLER

3. NUCLEAR DENSITY GAUGE MODEL NUMBER: 3411-B

4. NUCLEAR DENSITY GAUGE IDENTIFICATION NUMBER: 12857

5. NUCLEAR GAUGE COUNT RATE FOR STANDARDIZATION: _____

6. PROFILOGRAPH MEASUREMENTS

Profilograph Type California... 1 Rainhart... 2	1
Profile Index (Inches/Mile)	6
Interpretation Method Manual.. 1 Mechanical.. 2 Computer.. 3	3
Height of Blanking Band (Inches)	0.2
Cutoff Height (Inches)	0.3

7. SURFACE PROFILE USED AS BASIS OF INCENTIVE PAYMENT? (YES, NO) YES

PREPARER John R. Dell EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 14 SUBGRADE PREPARATION	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [24]

*1. SUBGRADE PREPARATION BEGAN (Month-Day-Year) [12-12-96]

*2. SUBGRADE PREPARATION COMPLETED (Month-Day-Year) [12-16-96]

PRIMARY COMPACTION EQUIPMENT

*3. CODE TYPE [5]

COMPACTION EQUIPMENT TYPE CODES
Sheepsfoot... 1 Pneumatic Tired... 2 Steel Wheel Tandem... 3
Single Drum Vibr.... 4 Double Drum Vibr.... 5
Other (Specify)... 6 2 COVERAGES SINGLE DRUM VIBR (12 TONS) 6 COVERAGES PNEUMATIC (25 TONS)

*4. GROSS WEIGHT (TONS) [___.__]

	TYPE	PERCENT
*5. STABILIZING AGENT 1	[2]	[12.0]
*6. STABILIZING AGENT 2	[__]	[___.__]

STABILIZING AGENT TYPE CODES
Portland Cement... 1 Lime... 2 Fly Ash, Class C... 3
Fly Ash, Class N... 4
Other (Specify)... 5 _____

*7. TYPICAL LIFT THICKNESS (INCHES) [__ __]
(For Fill Sections Only)

DENSITY DATA IS RECORDED ON SAMPLING DATA SHEET 8-1

8. SIGNIFICANT EVENTS DURING CONSTRUCTION (DISRUPTIONS, RAIN, EQUIPMENT PROBLEMS, ETC.) _____

PREPARER Janet Dill EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 17 MISCELLANEOUS CONSTRUCTION NOTES AND COMMENTS	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [24]

Provide any miscellaneous comments and notes concerning construction operations which may have an influence on the ultimate performance of the test sections or which may cause undesired performance differences to occur between test sections. Also include any quality control measurements or data for which space is not provided on other forms. Provide an indication of the basis for such measurements, such as an ASTM, AASHTO, or Agency standard test designation.

- CONSTRUCTION WAS INITIATED ON THE FIRST 10 SECTIONS DEC '96 (15, 16, 24, 23, 22, 17, 18, 13, 65 & 64)
- ALL LAYERS (EXCEPT THE SURFACE) WERE COMPLETED FOR THESE FIRST 10 SECTIONS BY JANUARY 15, 1997
- CONSTRUCTION WAS THEN INITIATED ON THE INSIDE LANE FOR THE NEXT 10 SECTIONS (67, 14, 21, 20, 19, 63, 62, 61, 60 & 66) WITH WORK IN THE OUTSIDE LANE BEGINNING IN MARCH '97
- WITH THE COMPLETION OF THE LAST 10 SECTIONS THE SURFACE COURSE WAS INITIATED APRIL 21, 1997
- ALL BUT THE LAST FOUR SECTIONS (62, 61, 60 & 66) HAD BEEN SURFACED BY APRIL 23, 1997
- THE LAST FOUR SECTIONS WERE IN THE TAPER FOR THE REMAINDER OF THE JOB AND DID NOT GET SURFACED UNTIL THE 29TH & 30TH OF JUNE, 1997

PREPARER Brent D. Gill EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 2 GEOMETRIC, SHOULDER AND DRAINAGE INFORMATION	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [16]

*1. LANE WIDTH (FEET) [12.]

2. MONITORING SITE LANE NUMBER [1.]
(LANE 1 IS OUTSIDE LANE, NEXT TO SHOULDER
LANE 2 IS NEXT TO LANE 1, ETC.)

*3. SUBSURFACE DRAINAGE LOCATION [3.]
Continuous Along Test Section... 1 Intermittent... 2 None... 3

*4. SUBSURFACE DRAINAGE TYPE [1.]
No Subsurface Drainage... 1 Longitudinal Drains... 2
Transverse Drains... 3 Drainage Blanket... 4 Well System... 5
Drainage Blanket with Longitudinal Drains... 6
Other (Specify)... 7 _____

	SHOULDER DATA	INSIDE SHOULDER	OUTSIDE SHOULDER
*5.	SURFACE TYPE Turf... 1 Granular.... 2 Asphalt Concrete... 3 Concrete... 4 Surface Treatment... 5 Other (Specify)... 6 _____	[3.]	[3.]
*6.	TOTAL WIDTH (FEET)	[4.]	[10.]
*7.	PAVED WIDTH (FEET)	[4.]	[10.]
8.	SHOULDER BASE TYPE (CODES-TABLE A.6)	[28.]	[28.]
9.	SURFACE THICKNESS (INCHES)	[4.0]	[4.0]
10.	SHOULDER BASE THICKNESS (INCHES)	[12.0]	[12.0]
11.	DIAMETER OF LONGITUDINAL DRAINPIPES (INCHES)		[__.__]
12.	SPACING OF LATERALS (FEET)		[___.]

PREPARER Steve C. Dill EMPLOYER SRC DATE 7/6/97

SPS-1 CONSTRUCTION DATA SHEET 4 LAYER DESCRIPTIONS	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [16]

*1 LAYER NUMBER	*2 LAYER DESCRIPTION	*3 MATERIAL TYPE CLASS	*4 LAYER THICKNESSES (Inches)			
			AVERAGE	MINIMUM	MAXIMUM	STD. DEV.
1	SUBGRADE(7)	[59]	[redacted]	[redacted]	[redacted]	[redacted]
2	[6]	[42]	[12.0]	---.-	---.-	---.-
3	[5]	[28]	[10.8]	9.4	12.1	0.6
4	[4]	[28]	[3.3]	---.-	---.-	---.-
5	[3]	[1]	[2.1]	---.-	---.-	---.-
6	[ ]	[ ]	[---.-]	---.-	---.-	---.-
7	[ ]	[ ]	[---.-]	---.-	---.-	---.-
8	[ ]	[ ]	[---.-]	---.-	---.-	---.-
9	[ ]	[ ]	[---.-]	---.-	---.-	---.-
10	[ ]	[ ]	[---.-]	---.-	---.-	---.-
11	[ ]	[ ]	[---.-]	---.-	---.-	---.-
12	[ ]	[ ]	[---.-]	---.-	---.-	---.-
13	[ ]	[ ]	[---.-]	---.-	---.-	---.-
14	[ ]	[ ]	[---.-]	---.-	---.-	---.-
15	[ ]	[ ]	[---.-]	---.-	---.-	---.-

*5 DEPTH BELOW SURFACE TO "RIGID" LAYER (FEET) [.]
(Rock, Stone, Dense Shale)

NOTES:

1. Layer 1 is the subgrade soil, the highest numbered layer is the pavement surface.

2. Layer description codes:

Overlay.....01	Base Layer.....05	Porous Friction Course..09
Seal/Tack Coat.....02	Subbase Layer.....06	Surface Treatment.....10
Original Surface.....03	Subgrade.....07	Embankment (Fill).....11
HMAC Layer (Subsurface).04	Interlayer.....08	

3. The material type classification codes are presented in Tables A.5, A.6, A.7 and A.8 of the Data Collection Guide for Long Term Pavement Performance Studies, dated January 17, 1990.

4. Enter the average thickness of each layer and the minimum, maximum and standard deviation of the thickness measurements, if known.

PREPARER [signature] EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 9 PLANT-MIXED ASPHALT BOUND LAYERS PLACEMENT DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [16]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [12-30-96]

*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-22-97]

*3 ASPHALT CONCRETE PLANT AND HAUL

	Type	Name	Haul Distance (Mi)	Time (Min)	Layer Numbers
Plant 1	[2]	GUERRA RANCH	[__ __ 5]	[__ 5]	[3] [4] [5]
Plant 2	[__]	_____	[__ __ __]	[__ __]	[__] [__] [__]
Plant 3	[__]	_____	[__ __ __]	[__ __]	[__] [__] [__]

Plant Type: Batch..... 1 Drum Mix.... 2 Other...3 Specify_____

4. MANUFACTURER OF ASPHALT CONCRETE PAVER BARBER GREENE

5. MODEL DESIGNATION OF ASPHALT CONCRETE PAVER BG-270B

6. SINGLE PASS LAYDOWN WIDTH (Feet) [12.0]

7. ATB PLACEMENT LIFTS
   - Layer Number [__ 3]
   - Nominal First Lift Placement Thickness (Inches) [3.5]
   - Nominal Second Lift Placement Thickness (Inches) [3.5]
   - Nominal Third Lift Placement Thickness (Inches) [3.5]
   - Nominal Fourth Lift Placement Thickness (Inches) [3.5]

8. PATB PLACEMENT LIFTS
   - Layer Number [__ __]
   - Nominal First Lift Placement Thickness (Inches) [__.__]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]

9. AC BINDER COURSE LIFT
   - Layer Number [. 4]
   - Nominal First Lift Placement Thickness (Inches) [3.5]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]

10. AC SURFACE COURSE LIFT
   - Layer Number [__ 5]
   - Nominal First Lift Placement Thickness (Inches) [2.5]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]

11. SURFACE FRICTION COURSE (If Placed)
   - Layer Number [__ __]
   - Nominal Placement Thickness (Inches) [__.__]

12. TEST SECTION STATION OF TRANSVERSE JOINTS (within test section)
   - Binder Course [__ + __ __]
   - Surface Course [__ + __ __]
   - Surface Friction Course [__ + __ __]

13. LOCATION OF LONGITUDINAL SURFACE JOINT [1]
   Between lanes.. 1 Within lane.. 2
   (specify offset from O/S feet) [__ __.__]

14. SIGNIFICANT EVENTS DURING CONSTRUCTION (disruptions, rain, equip. problems, etc.) SEE SHEET 17

PREPARER Jane Fiddell EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [16]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [12-30-96]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [01-02-97]
*3. LAYER NUMBER [3]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... __.__
Number of Tests ..... __.
Maximum..... ___.

ROLLER DATA

	Roller Code =	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	__.__	[redacted]	[redacted]	[redacted]	[redacted]
7	B	Steel-Whl Tandem	__.__				
8	C	Steel-Whl Tandem	__.__				
9	D	Steel-Whl Tandem	__.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	__.__	____.			
12	G	Pneumatic-Tired	__.__	____.			
13	H	Pneumatic-Tired	__.__				
14	I	Single-Drum Vibr.	11.7	[redacted]	____.	___.	__.__
15	J	Single-Drum Vibr.	__.__		____.	___.	__.__
16	K	Single-Drum Vibr.	__.__		____.	___.	__.__
17	L	Single-Drum Vibr.	__.__		____.	___.	__.__
18	M	Double-Drum Vibr.	__.__		____.	___.	__.__
19	N	Double-Drum Vibr.	__.__		____.	___.	__.__
20	O	Double-Drum Vibr.	__.__		____.	___.	__.__
21	P	Double-Drum Vibr.	__.__		____.	___.	__.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I	I	I	I
24	Coverages	2.	2.	2.	2.
	INTERMEDIATE				
25	Roller Code (A-Q)				
26	Coverages	__.	__.	__.	__.
	FINAL				
27	Roller Code (A-Q)	E	E	E	E
28	Coverages	6.	6.	6.	6.
29	Air Temperature (°F)	___.	___.	___.	___.
30	Compacted Thickness (In)	2.7	2.7	2.7	2.7
31	Curing Period (Days)	1.0	2.0	1.0	4.0

PREPARER Tom C. Dill EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [16]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [01-06-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [01-15-97]
*3. LAYER NUMBER [4]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... __.__
Number of Tests ..... __.
Maximum..... ___.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	__.__	[redacted]	[redacted]	[redacted]	[redacted]
7	B	Steel-Whl Tandem	__.__				
8	C	Steel-Whl Tandem	__.__				
9	D	Steel-Whl Tandem	__.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	__.__	____.			
12	G	Pneumatic-Tired	__.__	____.			
13	H	Pneumatic-Tired	__.__	____.			
14	I	Single-Drum Vibr.	11.7	[redacted]	____.	___.	__.__
15	J	Single-Drum Vibr.	__.__		____.	___.	__.__
16	K	Single-Drum Vibr.	__.__		____.	___.	__.__
17	L	Single-Drum Vibr.	__.__		____.	___.	__.__
18	M	Double-Drum Vibr.	__.__		____.	___.	__.__
19	N	Double-Drum Vibr.	__.__		____.	___.	__.__
20	O	Double-Drum Vibr.	__.__		____.	___.	__.__
21	P	Double-Drum Vibr.	__.__		____.	___.	__.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I	__	__	__
24	Coverages	2.	__.	__.	__.
	INTERMEDIATE				
25	Roller Code (A-Q)	__	__	__	__
26	Coverages	__.	__.	__.	__.
	FINAL				
27	Roller Code (A-Q)	E	__	__	__
28	Coverages	6.	__.	__.	__.
29	Air Temperature (°F)	___.	___.	___.	___.
30	Compacted Thickness (In)	3.3	__.__	__.__	__.__
31	Curing Period (Days)	2.0	__.__	__.__	__.__

PREPARER [signature] EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [16]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [04-21-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-22-97]
*3. LAYER NUMBER [5]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... __.__
Number of Tests ..... __.
Maximum..... ___.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	__.__				
7	B	Steel-Whl Tandem	__.__				
8	C	Steel-Whl Tandem	__.__				
9	D	Steel-Whl Tandem	__.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	__.__	____.			
12	G	Pneumatic-Tired	__.__	____.			
13	H	Pneumatic-Tired	__.__	____.			
14	I	Single-Drum Vibr.	11.7		____.	___.	__.__
15	J	Single-Drum Vibr.	__.__		____.	___.	__.__
16	K	Single-Drum Vibr.	__.__		____.	___.	__.__
17	L	Single-Drum Vibr.	__.__		____.	___.	__.__
18	M	Double-Drum Vibr.	__.__		____.	___.	__.__
19	N	Double-Drum Vibr.	__.__		____.	___.	__.__
20	O	Double-Drum Vibr.	__.__		____.	___.	__.__
21	P	Double-Drum Vibr.	__.__		____.	___.	__.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I	___	___	___
24	Coverages	2.	___.	___.	___.
	INTERMEDIATE				
25	Roller Code (A-Q)	___	___	___	___
26	Coverages	___.	___.	___.	___.
	FINAL				
27	Roller Code (A-Q)	E	___	___	___
28	Coverages	6.	___.	___.	___.
29	Air Temperature (°F)	100.	____.	____.	____.
30	Compacted Thickness (In)	2.1	__.__	__.__	__.__
31	Curing Period (Days)	3.0	__.__	__.__	__.__

PREPARER Jean F. Dill EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 11 PLANT-MIXED ASPHALT BOUND LAYERS DENSITY AND PROFILE DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [16]

1. NUCLEAR DENSITY MEASUREMENTS

LAYER TYPE	ATB	Binder Course	Surface Course	Surface Friction Layer
Measurement Method (A, B, C)[1]	A	A	A	
Number of Measurements	12	12	12	
Average (pcf)	135.9	137.3	140.1	
Maximum (pcf)	141.0	140.4	143.2	
Minimum (pcf)	132.8	135.1	135.4	
Standard Deviation (pcf)	2.5	1.5	2.5	
Layer Number	3	4	5	

[1]Measurement Method Backscatter... A Direct Transmission... B Air Gap... C

2. MANUFACTURER OF NUCLEAR DENSITY GAUGE: TROXLER

3. NUCLEAR DENSITY GAUGE MODEL NUMBER: 3411-B

4. NUCLEAR DENSITY GAUGE IDENTIFICATION NUMBER: 12857

5. NUCLEAR GAUGE COUNT RATE FOR STANDARDIZATION: _____

6. PROFILOGRAPH MEASUREMENTS

Profilograph Type California... 1 Rainhart... 2	1
Profile Index (Inches/Mile)	6
Interpretation Method Manual.. 1 Mechanical.. 2 Computer.. 3	3
Height of Blanking Band (Inches)	0.2
Cutoff Height (Inches)	0.3

7. SURFACE PROFILE USED AS BASIS OF INCENTIVE PAYMENT? (YES, NO): YES

PREPARER [signature] EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 14 SUBGRADE PREPARATION	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [16]

*1. SUBGRADE PREPARATION BEGAN (Month-Day-Year) [12-12-96]

*2. SUBGRADE PREPARATION COMPLETED (Month-Day-Year) [12-16-96]

PRIMARY COMPACTION EQUIPMENT

*3. CODE TYPE [5]

COMPACTION EQUIPMENT TYPE CODES
Sheepsfoot... 1 Pneumatic Tired... 2 Steel Wheel Tandem... 3
Single Drum Vibr.... 4 Double Drum Vibr.... 5
Other (Specify)... 6 2 COVERAGES SINGLE DRUM VIBR. (12 TONS)
6 COVERAGES PNEUMATIC (25 TONS)

*4. GROSS WEIGHT (TONS) [__ __.__]

	TYPE	PERCENT
*5. STABILIZING AGENT 1	[2]	[__2.0]
*6. STABILIZING AGENT 2	[__]	[__ __.__]

STABILIZING AGENT TYPE CODES
Portland Cement... 1 Lime... 2 Fly Ash, Class C... 3
Fly Ash, Class N... 4
Other (Specify)... 5 _____

*7. TYPICAL LIFT THICKNESS (INCHES) [__ __]
(For Fill Sections Only)

DENSITY DATA IS RECORDED ON SAMPLING DATA SHEET 8-1

8. SIGNIFICANT EVENTS DURING CONSTRUCTION (DISRUPTIONS, RAIN, EQUIPMENT PROBLEMS, ETC.) _____

PREPARER James Dell EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 17 MISCELLANEOUS CONSTRUCTION NOTES AND COMMENTS	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [16]

Provide any miscellaneous comments and notes concerning construction operations which may have an influence on the ultimate performance of the test sections or which may cause undesired performance differences to occur between test sections. Also include any quality control measurements or data for which space is not provided on other forms. Provide an indication of the basis for such measurements, such as an ASTM, AASHTO, or Agency standard test designation.

- CONSTRUCTION WAS INITIATED ON THE FIRST 10 SECTIONS DEC '96 (15, 16, 24, 23, 22, 17, 18, 13, 65 & 64)
- ALL LAYERS (EXCEPT THE SURFACE) WERE COMPLETED FOR THESE FIRST 10 SECTIONS BY JANUARY 15, 1997
- CONSTRUCTION WAS THEN INITIATED ON THE INSIDE LANE FOR THE NEXT 10 SECTIONS (67, 14, 21, 20, 19, 63, 62, 61, 60 & 66) WITH WORK IN THE OUTSIDE LANE BEGINNING IN MARCH '97
- WITH THE COMPLETION OF THE LAST 10 SECTIONS THE SURFACE COURSE WAS INITIATED APRIL 21, 1997
- ALL BUT THE LAST FOUR SECTIONS (62, 61, 60 & 66) HAD BEEN SURFACED BY APRIL 23, 1997
- THE LAST FOUR SECTIONS WERE IN THE TAPER FOR THE REMAINDER OF THE JOB AND DID NOT GET SURFACED UNTIL THE 29TH & 30TH OF JUNE, 1997

PREPARER Brent Gill EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 2 GEOMETRIC, SHOULDER AND DRAINAGE INFORMATION	* STATE CODE [48] * SPS PROJECT CODE [0 1] * TEST SECTION NO. [1 5]

*1. LANE WIDTH (FEET) [12.]

2. MONITORING SITE LANE NUMBER [1.]
(LANE 1 IS OUTSIDE LANE, NEXT TO SHOULDER
LANE 2 IS NEXT TO LANE 1, ETC.)

*3. SUBSURFACE DRAINAGE LOCATION [3.]
Continuous Along Test Section... 1 Intermittent... 2 None... 3

*4. SUBSURFACE DRAINAGE TYPE [1.]
No Subsurface Drainage... 1 Longitudinal Drains... 2
Transverse Drains... 3 Drainage Blanket... 4 Well System... 5
Drainage Blanket with Longitudinal Drains... 6
Other (Specify)... 7 _____

	SHOULDER DATA	INSIDE SHOULDER	OUTSIDE SHOULDER
*5.	SURFACE TYPE Turf... 1 Granular.... 2 Asphalt Concrete... 3 Concrete... 4 Surface Treatment... 5 Other (Specify)... 6 _____	[3.]	[3.]
*6.	TOTAL WIDTH (FEET)	[4.]	[10.]
*7.	PAVED WIDTH (FEET)	[4.]	[10.]
8.	SHOULDER BASE TYPE (CODES-TABLE A.6)	[28.]	[28.]
9.	SURFACE THICKNESS (INCHES)	[7.0]	[7.0]
10.	SHOULDER BASE THICKNESS (INCHES)	[8.0]	[8.0]
11.	DIAMETER OF LONGITUDINAL DRAINPIPES (INCHES)		[_._]
12.	SPACING OF LATERALS (FEET)		[___.]

PREPARER Jeanne G. Dell EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 4 LAYER DESCRIPTIONS	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [15]

*1 LAYER NUMBER	*2 LAYER DESCRIPTION	*3 MATERIAL TYPE CLASS	*4 LAYER THICKNESSES (Inches)			
			AVERAGE	MINIMUM	MAXIMUM	STD. DEV.
1	SUBGRADE(7)	[59]	[redacted]	[redacted]	[redacted]	[redacted]
2	[6]	[42]	[12.0]	___.___	___.___	___.___
3	[5]	[28]	[7.9]	6.9	9.7	0.7
4	[4]	[28]	[5.0]	___.___	___.___	___.___
5	[3]	[1]	[2.1]	___.___	___.___	___.___
6	[__]	[__]	[___.___]	___.___	___.___	___.___
7	[__]	[__]	[___.___]	___.___	___.___	___.___
8	[__]	[__]	[___.___]	___.___	___.___	___.___
9	[__]	[__]	[___.___]	___.___	___.___	___.___
10	[__]	[__]	[___.___]	___.___	___.___	___.___
11	[__]	[__]	[___.___]	___.___	___.___	___.___
12	[__]	[__]	[___.___]	___.___	___.___	___.___
13	[__]	[__]	[___.___]	___.___	___.___	___.___
14	[__]	[__]	[___.___]	___.___	___.___	___.___
15	[__]	[__]	[___.___]	___.___	___.___	___.___

*5 DEPTH BELOW SURFACE TO "RIGID" LAYER (FEET) (Rock, Stone, Dense Shale) [__ __ . __]

NOTES:

1. Layer 1 is the subgrade soil, the highest numbered layer is the pavement surface.

2. Layer description codes:

Overlay.....01	Base Layer.....05	Porous Friction Course..09
Seal/Tack Coat.....02	Subbase Layer.....06	Surface Treatment.....10
Original Surface.....03	Subgrade.....07	Embankment (Fill).....11
HMAC Layer (Subsurface).04	Interlayer.....08	

3. The material type classification codes are presented in Tables A.5, A.6, A.7 and A.8 of the Data Collection Guide for Long Term Pavement Performance Studies, dated January 17, 1990.

4. Enter the average thickness of each layer and the minimum, maximum and standard deviation of the thickness measurements, if known.

PREPARER Bruce E. Dill EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 9 PLANT-MIXED ASPHALT BOUND LAYERS PLACEMENT DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [15]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [12-30-96]

*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-22-97]

*3 ASPHALT CONCRETE PLANT AND HAUL

	Type	Name	Haul Distance (Mi)	Time (Min)	Layer Numbers
Plant 1	[2]	GUERRA RANCH	[__ __ 5]	[__ 5]	[3] [4] [5]
Plant 2	[__]		[__ __ __]	[__ __]	[__] [__] [__]
Plant 3	[__]		[__ __ __]	[__ __]	[__] [__] [__]

Plant Type: Batch..... 1 Drum Mix.... 2 Other...3 Specify_____

4. MANUFACTURER OF ASPHALT CONCRETE PAVER BARBER GREENE

5. MODEL DESIGNATION OF ASPHALT CONCRETE PAVER BG-270B

6. SINGLE PASS LAYDOWN WIDTH (Feet) [12.0]

7. ATB PLACEMENT LIFTS
   - Layer Number [__ 3]
   - Nominal First Lift Placement Thickness (Inches) UNCOMPACTED [3.0]
   - Nominal Second Lift Placement Thickness (Inches) " [3.0]
   - Nominal Third Lift Placement Thickness (Inches) " [3.0]
   - Nominal Fourth Lift Placement Thickness (Inches) [__.__]

8. PATB PLACEMENT LIFTS
   - Layer Number [__ __]
   - Nominal First Lift Placement Thickness (Inches) [__.__]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]

9. AC BINDER COURSE LIFT
   - Layer Number [__ 4]
   - Nominal First Lift Placement Thickness (Inches) UNCOMPACTED [3.0]
   - Nominal Second Lift Placement Thickness (Inches) " [3.0]

10. AC SURFACE COURSE LIFT
   - Layer Number [__ 5]
   - Nominal First Lift Placement Thickness (Inches) UNCOMPACTED [2.5]
   - Nominal Second Lift Placement Thickness (Inches) [__.__]

11. SURFACE FRICTION COURSE (If Placed)
   - Layer Number [__ __]
   - Nominal Placement Thickness (Inches) [__.__]

12. TEST SECTION STATION OF TRANSVERSE JOINTS (within test section)
   - Binder Course [__ + __ __]
   - Surface Course [__ + __ __]
   - Surface Friction Course [__ + __ __]

13. LOCATION OF LONGITUDINAL SURFACE JOINT [1]
   - Between lanes.. 1 Within lane.. 2
   - (specify offset from O/S feet) [__ __.__]

14. SIGNIFICANT EVENTS DURING CONSTRUCTION (disruptions, rain, equip. problems, etc.) SEE SHEET 17

PREPARER [signature] EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [07] * TEST SECTION NO. [15]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [12-30-96]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [01-02-97]
*3. LAYER NUMBER [3]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... __.__
Number of Tests ..... __.
Maximum..... ___.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	__.__				
7	B	Steel-Whl Tandem	__.__				
8	C	Steel-Whl Tandem	__.__				
9	D	Steel-Whl Tandem	__.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	__.__	____.			
12	G	Pneumatic-Tired	__.__	____.			
13	H	Pneumatic-Tired	__.__	____.			
14	I	Single-Drum Vibr.	11.7		____.	.___	__.__
15	J	Single-Drum Vibr.	__.__		____.	.___	__.__
16	K	Single-Drum Vibr.	__.__		____.	.___	__.__
17	L	Single-Drum Vibr.	__.__		____.	.___	__.__
18	M	Double-Drum Vibr.	__.__		____.	.___	__.__
19	N	Double-Drum Vibr.	__.__		____.	.___	__.__
20	O	Double-Drum Vibr.	__.__		____.	.___	__.__
21	P	Double-Drum Vibr.	__.__		____.	.___	__.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I	I	I	
24	Coverages	2.	2.	2.	__.
	INTERMEDIATE				
25	Roller Code (A-Q)				
26	Coverages	__.	__.	__.	__.
	FINAL				
27	Roller Code (A-Q)	E	E	E	
28	Coverages	6.	6.	6.	__.
29	Air Temperature (°F)	___.	___.	___.	___.
30	Compacted Thickness (In)	2.7	2.6	2.6	__.__
31	Curing Period (Days)	1.0	2.0	4.0	__.__

PREPARER Steve V. Dell EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [15]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [01-06-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [01-15-97]
*3. LAYER NUMBER [4]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... __.__
Number of Tests ..... __.
Maximum..... ___.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	__.__				
7	B	Steel-Whl Tandem	__.__				
8	C	Steel-Whl Tandem	__.__				
9	D	Steel-Whl Tandem	__.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	__.__	____.			
12	G	Pneumatic-Tired	__.__	____.			
13	H	Pneumatic-Tired	__.__				
14	I	Single-Drum Vibr.	11.7		____.	___.	__.__
15	J	Single-Drum Vibr.	__.__		____.	___.	__.__
16	K	Single-Drum Vibr.	__.__		____.	___.	__.__
17	L	Single-Drum Vibr.	__.__		____.	___.	__.__
18	M	Double-Drum Vibr.	__.__		____.	___.	__.__
19	N	Double-Drum Vibr.	__.__		____.	___.	__.__
20	O	Double-Drum Vibr.	__.__		____.	___.	__.__
21	P	Double-Drum Vibr.	__.__		____.	___.	__.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I	I	—	—
24	Coverages	2.	2.	___.	___.
	INTERMEDIATE				
25	Roller Code (A-Q)	—	—	—	—
26	Coverages	___.	___.	___.	___.
	FINAL				
27	Roller Code (A-Q)	E	E	—	—
28	Coverages	6.	6.	___.	___.
29	Air Temperature (°F)	___.	___.	___.	___.
30	Compacted Thickness (In)	2.5	2.5	__.__	__.__
31	Curing Period (Days)	1.0	2.0	__.__	__.__

PREPARER Jane C. Dill EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 10 PLANT-MIXED ASPHALT BOUND LAYERS COMPACTION DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [15]

*1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [04-21-97]
*2. DATE PAVING OPERATIONS COMPLETED (Month-Day-Year) [04-22-97]
*3. LAYER NUMBER [5]

*4. MIXING TEMPERATURE (°F) [300.]

5. LAYDOWN TEMPERATURES (°F)
Mean..... ___.
Minimum..... ___.
Standard Deviation... __.__
Number of Tests ..... __.
Maximum..... ___.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	__.__				
7	B	Steel-Whl Tandem	__.__				
8	C	Steel-Whl Tandem	__.__				
9	D	Steel-Whl Tandem	__.__				
10	E	Pneumatic-Tired	25.0	____.			
11	F	Pneumatic-Tired	__.__	____.			
12	G	Pneumatic-Tired	__.__	____.			
13	H	Pneumatic-Tired	__.__				
14	I	Single-Drum Vibr.	11.7		____.	___.	__.__
15	J	Single-Drum Vibr.	__.__		____.	___.	__.__
16	K	Single-Drum Vibr.	__.__		____.	___.	__.__
17	L	Single-Drum Vibr.	__.__		____.	___.	__.__
18	M	Double-Drum Vibr.	__.__		____.	___.	__.__
19	N	Double-Drum Vibr.	__.__		____.	___.	__.__
20	O	Double-Drum Vibr.	__.__		____.	___.	__.__
21	P	Double-Drum Vibr.	__.__		____.	___.	__.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	I			
24	Coverages	2.	__.	__.	__.
	INTERMEDIATE				
25	Roller Code (A-Q)				
26	Coverages	__.	__.	__.	__.
	FINAL				
27	Roller Code (A-Q)	E			
28	Coverages	6.	__.	__.	__.
29	Air Temperature (°F)	100.	___.	___.	___.
30	Compacted Thickness (In)	2.1	__.__	__.__	__.__
31	Curing Period (Days)	3.0	__.__	__.__	__.__

PREPARER Steve Gill EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 11 PLANT-MIXED ASPHALT BOUND LAYERS DENSITY AND PROFILE DATA	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [15]

1. NUCLEAR DENSITY MEASUREMENTS

LAYER TYPE	ATB	Binder Course	Surface Course	Surface Friction Layer
Measurement Method (A, B, C)[1]	A	A	A	
Number of Measurements	12	12	12	
Average (pcf)	130.9	139.4	140.1	
Maximum (pcf)	134.5	142.8	142.4	
Minimum (pcf)	128.3	134.9	138.1	
Standard Deviation (pcf)	2.1	2.3	1.4	
Layer Number	3	4	5	

[1]Measurement Method Backscatter... A Direct Transmission... B Air Gap... C

2. MANUFACTURER OF NUCLEAR DENSITY GAUGE TROXLER

3. NUCLEAR DENSITY GAUGE MODEL NUMBER 3411-B

4. NUCLEAR DENSITY GAUGE IDENTIFICATION NUMBER 12857

5. NUCLEAR GAUGE COUNT RATE FOR STANDARDIZATION

6. PROFILOGRAPH MEASUREMENTS

Profilograph Type California... 1 Rainhart... 2 1
Profile Index (Inches/Mile) 6
Interpretation Method Manual.. 1 Mechanical.. 2 Computer.. 3 3
Height of Blanking Band (Inches) 0.2
Cutoff Height (Inches) 0.3

7. SURFACE PROFILE USED AS BASIS OF INCENTIVE PAYMENT? (YES, NO) YES

PREPARER [signature] EMPLOYER BRC DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 14 SUBGRADE PREPARATION	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [15]

*1. SUBGRADE PREPARATION BEGAN (Month-Day-Year) [12-12-96]

*2. SUBGRADE PREPARATION COMPLETED (Month-Day-Year) [12-16-96]

PRIMARY COMPACTION EQUIPMENT

*3. CODE TYPE [5]

COMPACTION EQUIPMENT TYPE CODES
Sheepsfoot... 1 Pneumatic Tired... 2 Steel Wheel Tandem... 3
Single Drum Vibr.... 4 Double Drum Vibr.... 5
Other (Specify)... 6 2 COVERAGES SINGLE DRUM VIBR. (12 TONS)
6 COVERAGES PNEUMATIC (25 TONS)

*4. GROSS WEIGHT (TONS) [__ __.__]

	TYPE	PERCENT
*5. STABILIZING AGENT 1	[2]	[__2.0]
*6. STABILIZING AGENT 2	[__]	[__ __.__]

STABILIZING AGENT TYPE CODES
Portland Cement... 1 Lime... 2 Fly Ash, Class C... 3
Fly Ash, Class N... 4
Other (Specify)... 5 _____

*7. TYPICAL LIFT THICKNESS (INCHES) [__ __]
(For Fill Sections Only)

DENSITY DATA IS RECORDED ON SAMPLING DATA SHEET 8-1

8. SIGNIFICANT EVENTS DURING CONSTRUCTION (DISRUPTIONS, RAIN, EQUIPMENT PROBLEMS, ETC.) _____

PREPARER Steve F. Dell EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 17 MISCELLANEOUS CONSTRUCTION NOTES AND COMMENTS	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [15]

Provide any miscellaneous comments and notes concerning construction operations which may have an influence on the ultimate performance of the test sections or which may cause undesired performance differences to occur between test sections. Also include any quality control measurements or data for which space is not provided on other forms. Provide an indication of the basis for such measurements, such as an ASTM, AASHTO, or Agency standard test designation.

- CONSTRUCTION WAS INITIATED ON THE FIRST 10 SECTIONS DEC '96 (15, 16, 24, 23, 22, 17, 18, 13, 65 & 64)
- ALL LAYERS (EXCEPT THE SURFACE) WERE COMPLETED FOR THESE FIRST 10 SECTIONS BY JANUARY 15, 1997
- CONSTRUCTION WAS THEN INITIATED ON THE INSIDE LANE FOR THE NEXT 10 SECTIONS (67, 14, 21, 20, 19, 63, 62, 61, 60 & 66) WITH WORK IN THE OUTSIDE LANE BEGINNING IN MARCH '97
- WITH THE COMPLETION OF THE LAST 10 SECTIONS THE SURFACE COURSE WAS INITIATED APRIL 21, 1997
- ALL BUT THE LAST FOUR SECTIONS (62, 61, 60 & 66) HAD BEEN SURFACED BY APRIL 23, 1997
- THE LAST FOUR SECTIONS WERE IN THE TAPER FOR THE REMAINDER OF THE JOB AND DID NOT GET SURFACED UNTIL THE 29TH & 30TH OF JUNE, 1997

PREPARER [signature] EMPLOYER BRE DATE 9/6/97

SPS-1 CONSTRUCTION DATA SHEET 17 MISCELLANEOUS CONSTRUCTION NOTES AND COMMENTS	* STATE CODE [48] * SPS PROJECT CODE [01] * TEST SECTION NO. [__]

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APPENDIX E

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Photo 1. Preconstruction Sampling and Testing of Subgrade

Photo 2. Placement of DGAB

Photo 3. Shaping of Unbound Base

Photo 4. Single-Drum Vibratory 12-Ton Roller (Initial Base Compaction)

Photo 5. Pneumatic 25-Ton Roller (Final base Compaction)

Photo 6. Placement of 8″ Diameter Edge Drains

Photo 7. Placement of PATB on Geotextile Fabric, Section 20

Photo 8. Hot-Mix Asphalt Plant

Photo 9. Placement of HMAC Binder

Photo 10. Core Sampling of ATB for the Texas DOT QC/QA

Photo 11. LTPP Nuclear Density Data Collection on ATB by Texas DOT Personnel

Photo 12. Preparation of Samples for Distribution