ARKANSAS DEPARTMENT OF TRANSPORTATION



SUBSURFACE INVESTIGATION

STATE JOB NO.	JOB NO. 061438						
FEDERAL AID PROJEC	CT NO	HSIP-0026(31)					
BRYANT RD	. – HWY. 298 V	VEST (SAFETY IMPVT	S.) (SEL. SI	ECS.) (S)			
STATE HIGHWAY	7		10				
IN		GARLAND					

The information contained herein was obtained by the Department for design and estimating purposes only. It is being furnished with the express understanding that said information does not constitute a part of the Proposal or Contract and represents only the best knowledge of the Department as to the location, character and depth of the materials encountered. The information is only included and made available so that bidders may have access to subsurface information obtained by the Department and is not intended to be a substitute for personal investigation, interpretation and judgment of the bidder. The bidder should be cognizant of the possibility that conditions affecting the cost and/or quantities of work to be performed may differ from those indicated herein.

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

March 10, 2016

TO: Mr. Trinity Smith, Engineer of Roadway Design

SUBJECT: Job No. 061438 Bryant Rd. – Hwy. 298 (Safety Impvts.)(Sel. Secs.) (S) Route 7 Section 10 Garland County

Transmitted herewith are the requested Soil Survey, Strength Data, and Resilient Modulus test results for the above referenced job. The project consists of adding turning lanes, widening the shoulder and extending passing lanes at selected locations on Highway 7. Samples were obtained in the existing travel lanes, shoulders and ditch line.

Based on laboratory results of samples obtained, the subgrade soils consist primarily of low plasticity sandy clay with varying amounts of gravel and shale fragments. The subgrade soils are expected to provide a stable working platform with conventional processing if the weather is favorable during construction. Rock was encountered at several locations within the project limits. Table 1 below lists the location and depth to rock.

	rabie i bepairte ite		
Station	Location from Centerline	Depth (ft.)	
178+00	6' Lt	4.0	
219+00	6' Rt	3.5	
491+00	12' Rt	3.0	
499+00	24' Lt	3.0	
524+00	18' Rt	3.0	
603+00	6' Rt	3.5	

Table 1- Depth to Rock

The proposed cut slopes are acceptable as shown in the currently available cross-sections.

Between stations 480+00 to 493+00 is an embankment with an approximate height of 27 feet with a 2:1 slope configuration proposed. To achieve the 2:1 slope configuration the embankment must be constructed with rock fill. The remaining embankments may be constructed with locally available unspecified material utilizing a 3:1 slope configuration.

Listed below is the additional information requested for use in developing the plans:

1. The Qualified Products List (QPL) indicates that Aggregate Base Course (Class CL-7) is available from commercial producers located in the vicinity of Malvern.

2. Asphalt Concrete Hot Mix

Туре	Asphalt Cement %	Mineral Aggregate %
Surface Course	4.9	95.1
Binder Course	4.2	95.8
Base Course	3.8	96.2

ensa

Michael C. Benson Materials Engineer

MCB:pt:bjj

Attachment cc: State Constr. Eng. – Master File Copy District 6 Engineer System Information and Research Div. G. C. File

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS MATERIALS DIVISION MICHAEL BENSON, MATERIALS ENGINEER *** SOIL SURVEY STRENGTH TEST REPORT *** DATE = 02/24/2016 SEQUENCE NO. 🛥 1 MATERIAL CODE - SSRVPS JOB NUMBER - 061438 SPEC. YEAR = 2014 SUPPLIER ID. - 1 COUNTY/STATE = 26 DISTRICT NO. - 06 JOB NAME - BRYANT RD. - HWY.298 (SAFETY IMPVTS.) * STATION LIMITS R-VALUE AT 240 psi * BEGIN JOB 🖛 END JOB 7 RESILIENT MODULUS STA.242+00 7688 STA.408+00 9326 STA.539+00 5242

5289

REMARKS -

AASHTO TESTS : T190

STA.629+00

AASHTO T 307-99 - RESILIENT MODULUS OF SUBGRADE SOILS RECOMPACTED SAMPLES

Job No. Date Sampled: Date Tested: Name of Project:	061438 2/18/16 February 18, 2016 BRYANT RD HWY.298	Material Code Station No.: Location:	SSRVPS 242+00 21'LT
County: Sampled By: Lab No.: Sample ID: LATITUDE:	Code: 26 Name: GARLAND DICKERSON 20154288 RV1044	Depth: AASHTO Class: Material Type (1 or 2): LONGITUDE:	0-5 A-4(2) 2
1. Testing Inform	nation:		
	Preconditioning - Permanent Strain > 5% (Y=Ye Testing - Permanent Strain > 5% (Y=Yes or N=N Number of Load Sequences Completed (0-15)	•	N N 15
2. Specimen Info	ormation:		
	Specimen Diameter (in): Top Middle Bottom Average Membrane Thickness (in): Height of Specimen, Cap and Base (in): Height of Cap and Base (in): Initial Length, Lo (in): Initial Area, Ao (sq. in): Initial Volume, AoLo (cu. in):		3.95 3.94 3.94 3.94 0.01 8 0.00 8 12.13 97.01
3. Soil Specimer	Weight of Wet Soil Used (g):		3195.00
4. Soil Properties	5		
	Optimum Moisture Content (%): Maximum Dry Density (pcf): 95% of MDD (pcf): In-Situ Moisture Content (%):		15.6 110.3 104.8 N/A
5. Specimen Pro	nerties:		
e, epointer i lo	Wet Weight (g): Compaction Moisture content (%): Compaction Wet Density (pcf): Compaction Dry Density (pcf): Moisture Content After Mr Test (%):		3195.00 15.3 125.49 108.84 15.5
6. Quick Shear T	est (Y=Yes, N=No, N/A=Not Applicable):		#VALUE!
7. Resilient Modu	ulus, Mr:	11290(S	c)^-0.29160(S3)^0.33701
8. Comments	· · · · · · · · · · · · · · · · · · ·		
9 Tested By:		e: Eebruary 19, 2016	A

9. Tested By: DT/GW

Date: February 18, 2016

AASHTO T 307-99 - RESILJENT MODULUS OF SUBGRADE SOILS RECOMPACTED SAMPLES

Job No. Date Sampled: Date Tested: Name of Project: County: Samnled Bv:	061438 2/18/16 February 18, 2016 BRYANT RD HWY.298 Code: 26 Nam DICKFRSON	(.298 Name:	GARLAND	Material Code Station No.: Location: Denth	SSRVPS 242+00 21'LT
Lab No.: Sample ID: LATITUDE:	20154288 RV1044			AASHTO Class: A- Material Type (1 or 2): 2 LONGITUDE:	A-4(2) 2): 2

	Chamber	Nominal	Actual	Actual	Actual	Actual	Actual	Actual	Average	Resilient	Resilient
	Confining	Maximum	Applied	Applied	Applied	Applied	Applied	Applied	Recov Def.	Strain	Modulus
PARAMETER	Pressure	Axial	Max. Axial	Cyclic Load	Contact	Max.	Cyclic	Contact	LVDT 1		
		Stress	Load		Load	Axial	Stress	Stress	and 2		
						Stress					
DESIGNATION	ŝ	S _{cyclic}	P _{max}	P _{cyclic}	Pcontact	S _{max}	S _{cyclic}	Scontact	H _{avg}	Ϋ́	Mr.
UNIT	psi	psi	lbs	lbs	lbs	psi	psi	psi	ų	in/in	psi
Sequence 1	6.0	2.0	24.9	22.2	2.7	2.1	1.8	0.2	0.00086	0.00011	16,962
Sequence 2	6.0	4.0	46.9	44.1	2.8	3.9	3.6	0.2	0.00195	0.00024	14,956
Sequence 3	6.0	6.0	69.2	65.6	3.6	5.7	5.4	0.3	0.00318	0.00040	13,620
Sequence 4	6.0	8.0	91.5	85.5	6.0	7.5	7.1	0.5	0.00482	0.00060	11,701
Sequence 5	6.0	10.0	113.2	104.7	8.5	9.3	8.6	0.7	0.00659	0.00082	10,479
Sequence 6	4.0	2.0	24.9	22.1	2.8	2.1	1.8	0.2	0.00102	0.00013	14,365
Sequence 7	4.0	4.0	46.3	43.5	2.8	3.8	3.6	0.2	0.00229	0.00029	12,526
Sequence 8	4.0	6.0	66.8	64.0	2.8	5.5	5.3	0.2	0.00380	0.00047	11,107
Sequence 9	4.0	8.0	88.9	83.8	5.1	7.3	6.9	0.4	0.00549	0.00069	10,069
Sequence 10	4.0	10.0	111.0	103.4	7.6	9.2	8.5	0.6	0.00736	0.00092	9,271
Sequence 11	2.0	2.0	24.6	21.9	2.6	2.0	1.8	0.2	0.00121	0.00015	11,960
Sequence 12	2.0	4.0	45.3	42.5	2.8	3.7	3.5	0.2	0.00277	0.00035	10,105
Sequence 13	2.0	6.0	64.9	62.1	2.8	5.4	5.1	0.2	0.00456	0.00057	8,991
Sequence 14	2.0	8.0	85.1	80.9	4.3	7.0	6.7	0.4	0.00647	0.00081	8,250
Sequence 15	2.0	10.0	106.3	99.7	6.6	8.8	8.2	0.5	0.00856	0.00107	7,688

February 18, 2016

DATE DATE

DT/GW

REVIEWED BY

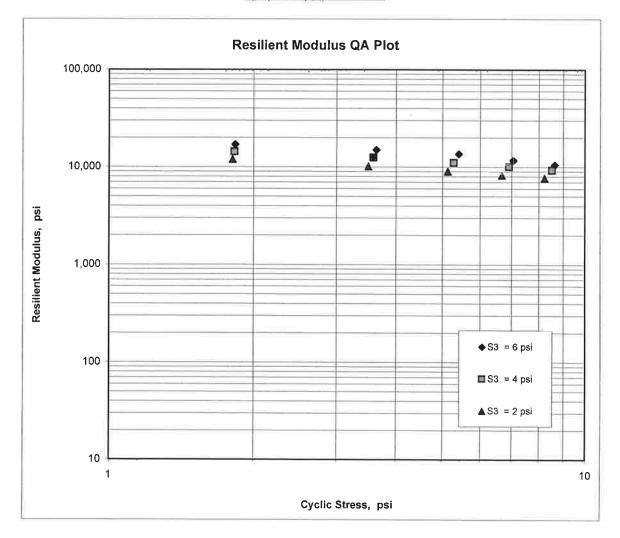
TESTED BY

AASHTO T 307-99 - RESILIENT MODULUS OF SUBGRADE SOILS RECOMPACTED / THINWALL TUBE SAMPLES

Job No.	061438		Material Code SSRVPS
Date Sampled:	2/18/16		Station No.: 242+00
Date Tested:	February 18, 2016		Location: 21'LT
Name of Project:	BRYANT RD HW	Y.298	
County:	Code: 26	Name:	GARLAND
Sampled By:	DICKERSON		Depth: 0-5
Lab No.:	20154288		AASHTO Class: A-4(2)
Sample ID:	RV1044		Material Type (1 or 2): 2
LATITUDE:			LONGITUDE:

 $M_{R} = K1 (S_{C})^{K_{2}} (S_{3})^{K_{5}}$

11,290	
-0.29160	
0.33701	
0.98	
	-0.29160 0.33701



AASHTO T 307-99 - RESILIENT MODULUS OF SUBGRADE SOILS **RECOMPACTED SAMPLES**

Job No. Date Sampled: Date Tested: Name of Project:	061438 February 23, 2016 bRYANT RD HWY. 298 (SAFETY IMPVTS.)	Material Code Station No.: Location:	SSRVPS 408+00 18' LT
County: Sampled By: Lab No.: Sample ID: LATITUDE:	Code: 26 Name: GARLAND D.DICKERSON 20154289 RV1045	Depth: AASHTO Class: Material Type (1 or 2): LONGITUDE:	0-5 A-4 (0) 2
1. Testing Inform	nation:		19
	Preconditioning - Permanent Strain > 5% (Y=Ye Testing - Permanent Strain > 5% (Y=Yes or N=N Number of Load Sequences Completed (0-15)		N N 15
2. Specimen Info	ormation:		
	Specimen Diameter (in): Top Middle Bottom Average Membrane Thickness (in): Height of Specimen, Cap and Base (in): Height of Cap and Base (in): Initial Length, Lo (in): Initial Area, Ao (sq. in): Initial Volume, AoLo (cu. in):		3.95 3.94 3.94 0.01 8 0.00 8 12.14 97.11
3. Soil Specimer	Weight of Wet Soil Used (g):		3257.60
4. Soil Properties	s:		
	Optimum Moisture Content (%): Maximum Dry Density (pcf): 95% of MDD (pcf): In-Situ Moisture Content (%):		12.6 116.9 111.1 N/A
5. Specimen Pro	perties:		
	Wet Weight (g): Compaction Moisture content (%): Compaction Wet Density (pcf): Compaction Dry Density (pcf): Moisture Content After Mr Test (%):		3257.60 12.2 127.82 113.92 12.1
6. Quick Shear T	est (Y=Yes, N=No, N/A=Not Applicable):		#VALUE!
7. Resilient Modu	ulus, Mr:	11816(S	c)^-0.23119(S3)^0.37299
8. Comments			
9. Tested By:	Da	te: <u>February 23, 2016</u>	

2

AASHTO T 307-99 - RESILIENT MODULUS OF SUBGRADE SOILS RECOMPACTED SAMPLES

Job No.	061438		Material Code	SSRVPS
Date Sampled:			Station No.:	408+00
Date Tested:	February 23, 2016		Location:	18' LT
Name of Project:	bRYANT RD HWY. 298 (SAFETY IMPVTS.)	VFETY IMPVTS.)		
County:	Code: 26 Name	: GARLAND		
Sampled By:	D.DICKERSON		Depth:	0-5
Lab No.:	20154289		AASHTO Class:	A-4 (0)
Sample ID:	RV1045		Material Type (1 or 2): 2): 2
LATITUDE:			LONGITUDE:	

Maximum Applied
Axial Max. Axial Cyclic Load
Stress Load
S _{cyclic} P _{max} P _{cyclic}
lbs
2.0 25.0 22.5
4.0 46.9 44.3
6.0 69.3 65.8
8.0 92.3 86.4
10.0 114.6 106.3
2.0 24.8 22.0
4.0 46.4 43.6
6.0 67.4 64.6
8.0 90.3 85.2
10.0 113.3 105.7
2.0 24.6 21.9
4.0 45.6 42.9
6.0 66.0 63.2
8.0 87.0 82.8
10.0 108.9 102.1

DATE February 23, 2016 DATE

TESTED BY REVIEWED BY

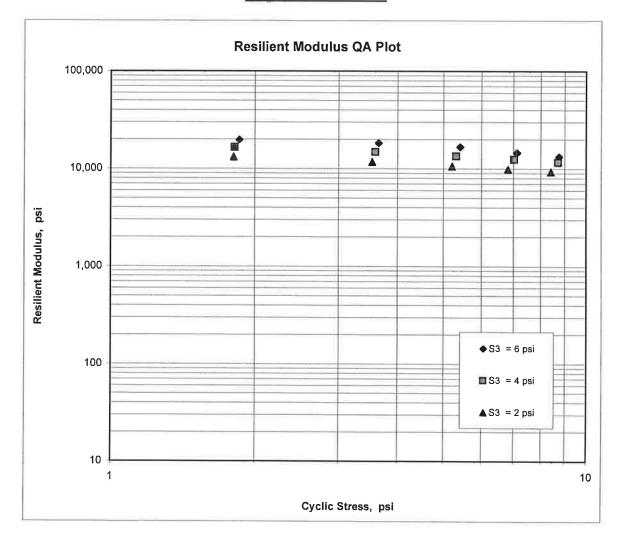
GW

AASHTO T 307-99 - RESILIENT MODULUS OF SUBGRADE SOILS RECOMPACTED / THINWALL TUBE SAMPLES

Job No.	061438			Material Code SSRVPS
Date Sampled:				Station No.: 408+00
Date Tested:	February 23, 2016			Location: 18' LT
Name of Project:	bRYANT RD HW	Y. 298 (S	SAFETY IMPVTS	5.)
County:	Code: 26	Name:	GARLAND	
Sampled By:	D.DICKERSON			Depth: 0-5
Lab No.:	20154289			AASHTO Class: A-4 (0)
Sample ID:	RV1045	Material Type (1 or 2): 2		
LATITUDE:				LONGITUDE:

 $\mathsf{M}_{\mathsf{R}} \texttt{=} \mathsf{K1} \left(\mathsf{S}_{\mathsf{C}}\right)^{\mathsf{K2}} \left(\mathsf{S}_{\mathsf{3}}\right)^{\mathsf{K5}}$

K1 =	11,816	
	-0.23119	
K5 =	0.37299	
$R^2 =$	0.98	_



AASHTO T 307-99 - RESILIENT MODULUS OF SUBGRADE SOILS **RECOMPACTED SAMPLES**

Job No. Date Sampled: Date Tested: Name of Project:	061438 2/19/16 February 19, 2016 BRYANT RD HWY. 298	Material Code Station No.: Location:	SSRVPS 539+00 18'RT
County: Sampled By: Lab No.: Sample ID: LATITUDE:	Code: 26 Name: GARLAND D.DICKERSON 20154290 RV1046	Depth: AASHTO Class: Material Type (1 or 2): LONGITUDE:	0-5 A-7-6(14) 2
1. Testing Inform	nation:		
	Preconditioning - Permanent Strain > 5% (Y=Ye Testing - Permanent Strain > 5% (Y=Yes or N=N Number of Load Sequences Completed (0-15)	'	N N 15
2. Specimen Info	ormation:		
3. Soil Specimer	Specimen Diameter (in): Top Middle Bottom Average Membrane Thickness (in): Height of Specimen, Cap and Base (in): Height of Cap and Base (in): Initial Length, Lo (in): Initial Area, Ao (sq. in): Initial Area, Ao (sq. in): Initial Volume, AoLo (cu. in): Weight of Wet Soil Used (g):		3.95 3.95 3.95 3.95 0.00 8.02 0.00 8.02 12.25 98.28 2886.70
4. Soil Properties			00.0
	Optimum Moisture Content (%): Maximum Dry Density (pcf): 95% of MDD (pcf): In-Situ Moisture Content (%):		20.2 97.7 92.8 N/A
5. Specimen Pro	perties:		
	Wet Weight (g): Compaction Moisture content (%): Compaction Wet Density (pcf): Compaction Dry Density (pcf): Moisture Content After Mr Test (%):		2886.70 20.4 111.92 92.95 20.2
6. Quick Shear T	est (Y=Yes, N=No, N/A=Not Applicable):		#VALUE!
7. Resilient Modu	ulus, Mr:	15096(S	c)^-0.53655(83)^0.15154
8. Comments			
9. Tested By:	GW Dat	e: February 19, 2016	

AASHTO T 307-99 - RESILIENT MODULUS OF SUBGRADE SOILS RECOMPACTED SAMPLES

Job No. Date Sampled: 2 Date Tested: F Name of Project: B County: Sampled By: D Lab No.: 22 Sample ID: R	061438 2/19/16 February 19, 2016 BRYANT RD HWY. 298 Code: 26 Name D.DICKERSON 20154290 RV1046	. 298 Name:	GARLAND	Material Code SS Station No.: 53 Location: 18 Depth: 0- AASHTO Class: A- Material Type (1 or 2): 2	SSRVPS 539+00 18'RT 0-5 A-7-6(14) A-7-6(14)
				I ONCITTINF.	

Kesilient	Modulus				M,	psi	13,364	10,585	8,729	6,921	5,902	12,695	9,706	7,878	6,574	5,739	11,868	8,687	7,029	5,953	5 242
Res	Moc		_				13,	10	σ.	9 9	5	12,	້ດ	7,8	ê.	 Q	11	8,6	7,(5,5	2
Resilient	Strain				εr	in/in	0.00014	0.00035	0.00062	0.00100	0.00142	0.00014	0.00037	0.00067	0.00105	0.00147	0.00016	0.00042	0.00074	0.00114	0.00158
Average	Recov Def.	LVDT 1	and 2		H _{avg}	in	0.00113	0.00279	0.00495	0.00799	0.01135	0.00116	0.00298	0.00537	0.00840	0.01180	0.00127	0.00335	0.00596	0.00915	0.01267
Actual	Applied	Contact	Stress		Scontact	psi	0.2	0.2	0.2	0.5	0.7	0.2	0.2	0.2	0.4	0.5	0.2	0.1	0.2	0.3	0.5
Actual	Applied	Cyclic	Stress		S _{cyclic}	psi	1.9	3.7	5.4	6.9	8.4	1.8	3.6	5.3	6.9	8.4	1.9	3.6	5.2	6.8	8.3
Actual	Applied	Max.	Axial	Stress	S _{max}	psi	2.0	3.8	5.6	7.4	9.1	2.0	3.8	5.5	7.2	9.0	2.0	3.8	5.4	7.1	8.7
Actual	Applied	Contact	Load		Pcontact	sdl	2.0	2.0	2.9	6.0	8.5	2.5	2.5	2.4	4.3	6.3	1.9	1.8	2.0	3.3	5.6
Actual	Applied	Cyclic Load			P _{cyclic}	lbs	23.1	45.1	66.0	84.5	102.4	22.5	44.2	64.6	84.4	103.4	23.1	44.5	64.1	83.2	101.5
Actual	Applied	Max. Axial	Load		P _{max}	sdi	25.1	47.0	69.0	90.5	110.9	25.0	46.7	67.0	88.7	109.8	25.0	46.3	66.0	86.4	107.1
Nominal	Maximum	Axial	Stress		S _{cyclic}	psi	2.0	4.0	6.0	8.0	10.0	2.0	4.0	6.0	8.0	10.0	2.0	4.0	6.0	8.0	10.0
Chamber	Confining	Pressure			လိ	psi	6.0	6.0	6.0	6.0	6.0	4.0	4.0	4.0	4.0	4.0	2.0	2.0	2.0	2.0	2.0
		PARAMETER			DESIGNATION	UNIT	Sequence 1	Sequence 2	Sequence 3	Sequence 4	Sequence 5	Sequence 6	Sequence 7	Sequence 8	Sequence 9	Sequence 10	Sequence 11	Sequence 12	Sequence 13	Sequence 14	Sequence 15

DATE

February 19, 2016

TESTED BY REVIEWED BY

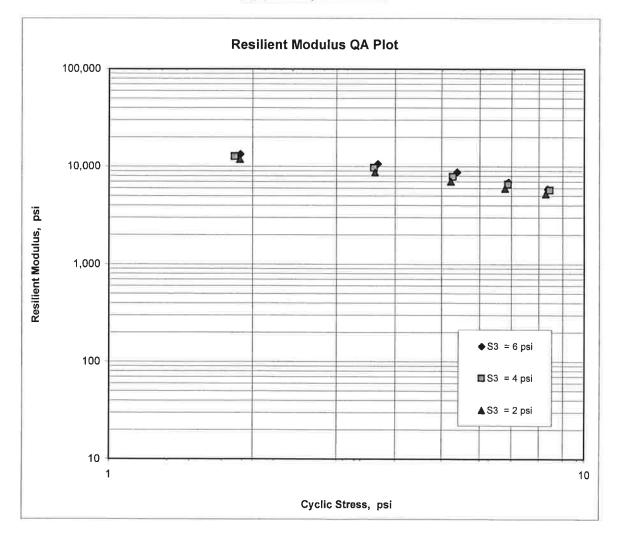
GW

AASHTO T 307-99 - RESILIENT MODULUS OF SUBGRADE SOILS RECOMPACTED / THINWALL TUBE SAMPLES

Job No.	061438		Material Code SSRVPS
Date Sampled:	2/19/16		Station No.: 539+00
Date Tested:	February 19, 2016		Location: 18'RT
Name of Project:	BRYANT RD HV	VY. 298	
County:	Code: 26	Name:	GARLAND
Sampled By:	D.DICKERSON		Depth: 0-5
Lab No.:	20154290		AASHTQ Class: A-7-6(14)
Sample ID:	RV1046		Material Type (1 or 2): 2
LATITUDE:			LONGITUDE:

 $M_{R} = K1 (S_{C})^{K2} (S_{3})^{K5}$

K1 =	15,096	
K2 =	-0.53655	
K5 =	0.15154	
$R^2 =$	0.98	



AASHTO T 307-99 - RESILIENT MODULUS OF SUBGRADE SOILS RECOMPACTED SAMPLES

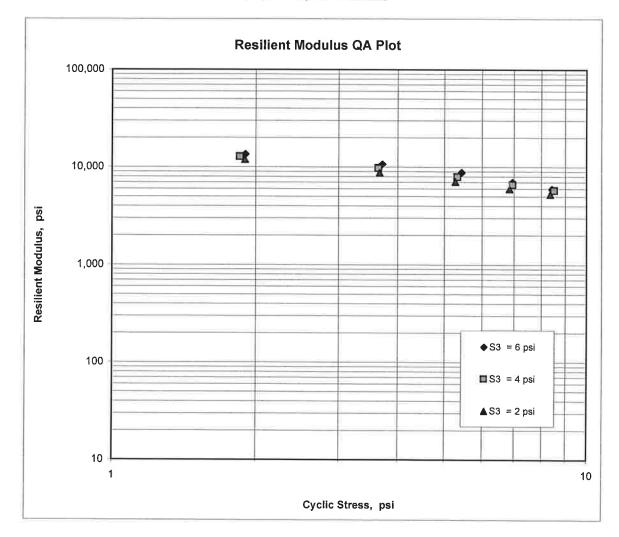
Job No. Date Sampled: Date Tested: Name of Project:	061438 2/18/16 February 18, 2016 BRYANT RD HWY.298	Material Code Station No.: Location:	SSRVPS 629+00 18'LT
County: Sampled By: Lab No.: Sample ID: LATITUDE:	Code: 26 Name: GARLAND DICKERSON 20154291 RV1047	Depth: AASHTO Class: Material Type (1 or 2): LONGITUDE:	0-5 A-4(0) 2
1. Testing Inform	nation:		
	Preconditioning - Permanent Strain > 5% (Y= Testing - Permanent Strain > 5% (Y=Yes or N Number of Load Sequences Completed (0-15	=No)	N N 15
2. Specimen Info	ormation:		
•	Specimen Diameter (in):		
	Тор		3.95
	Middle		3.94
	Bottom		3.95
	Average		3.95
	Membrane Thickness (in):		0.01
	Height of Specimen, Cap and Base (in):		8.02
	Height of Cap and Base (in):		0.00
	Initial Length, Lo (in):		8.02
	Initial Area, Ao (sq. in):		12.15
18	Initial Volume, AoLo (cu. in):		97.42
3. Soil Specimer	weight:		
	Weight of Wet Soil Used (g):		3284.90
4. Soil Properties	s:		
	Optimum Moisture Content (%):		12.5
	Maximum Dry Density (pcf):		116.7
	95% of MDD (pcf):		110.9
	In-Situ Moisture Content (%):		N/A
5. Specimen Pro	perties:		
	Wet Weight (g):		3284.90
	Compaction Moisture content (%):		12.6
	Compaction Wet Density (pcf):		128.48
	Compaction Dry Density (pcf):		114.10
	Moisture Content After Mr Test (%):		12.1
6. Quick Shear T	est (Y=Yes, N=No, N/A=Not Applicable):		#VALUE!
7. Resilient Modu	ulus, Mr:	15301(S	c)^-0.53655(S3)^0.15154
8. Comments			
9. Tested By:			
o. resteu by.	DT/GW	Date: February 18, 2016	

AASHTO T 307-99 - RESILIENT MODULUS OF SUBGRADE SOILS RECOMPACTED / THINWALL TUBE SAMPLES

Job No.	061438			Material Code SSRVPS
Date Sampled:	2/18/16			Station No.: 629+00
Date Tested:	February 18, 2016			Location: 18'LT
Name of Project:	BRYANT RD HW	/Y.298		
County:	Code: 26	Name:	GARLAND	
Sampled By:	DICKERSON			Depth: 0-5
Lab No.:	20154291			AASHTO Class: A-4(0)
Sample ID:	RV1047		Mat	erial Type (1 or 2): 2
LATITUDE:				LONGITUDE:

 $M_{R} = K1 (S_{C})^{K_{2}} (S_{3})^{K_{5}}$

	15,301	
K2 =	-0.53655	
	0.15154	
$R^2 =$	0.98	



AASHTO T 307-99 - RESILIENT MODULUS OF SUBGRADE SOILS RECOMPACTED SAMPLES

Job No.	061438			Material Code	SSRVPS
Date Sampled:	2/18/16			Station No.:	629+00
Date Tested:	February 18, 2016			Location:	18'LT
Name of Project:	BRYANT RD HWY.298	Y.298			
County:	Code: 26	Name:	GARLAND		
Sampled By:	DICKERSON			Depth:	0-5
Lab No.:	20154291			AASHTO Class:	A-4(0)
Sample ID:	RV1047			Material Type (1 or 2): 2	2): 2
LATITUDE:				LONGITUDE:	

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	Nominal
laximum Applied Applied Axial Axial Axial	m Applied Max Axial
Load	Stress Load
S _{cyclic} P _{max} P _{cyclic}	P _{max}
_	lbs
2.0 25.1 23.1	25.1
4.0 47.0 45.1	47.0
6.0 69.0 66.0	69.0
8.0 90.5 84.5	90.5
10.0 110.9 102.4	110.9
2.0 25.0 22.5	25.0
4.0 46.7 44.2	46.7
6.0 67.0 64.6	67.0
8.0 88.7 84.4	88.7
10.0 109.8 103.4	109.8
2.0 25.0 23.1	25.0
4.0 46.3 44.5	46.3
6.0 66.0 64.1	66.0
8.0 86.4 83.2	86.4
10.0 107.1 101.5	107.1

February 18, 2016

DATE DATE

TESTED BY REVIEWED BY

DT/GW

JOB: 061438

Arkansas State Highway Transporation Department

JOB NAME: BRYANT RD.- HWY.298 (SAFETY IMPVTS.)

Materials Division Michael Benson, Materials Engineer

COUN	TY NO.	26	DATE TESTE	D	2/10/:	2016			M	ichael B	enson, Materia	ls Engin	eer
STA.#	LOC. D	DEPTH	COLOR	#4	#10	#40	#80	#200	L.L.	<i>P.I.</i>	SOIL CLASS	LAB #:	%MOISTURE
170+00	18' RT	0-5	BROWN	92	78	E 59	ν 51	E S 44	20	05	A-4(0)	S979	7.7
170+00	25' RT	0-5	BROWN	89	72	52	44	38	18	06	A-4(0)	S980	6.5
170+00	31' RT	0-5	BROWN	81	64	46	.40	35	19	05	A-2-4(0)	S981	6.8
178+00	06' LT	0-4Z	BROWN	96	87	73	66	60	25	12	A-6(4)	S982	17
178+00	14' LT	0-5	BROWN	96	87	71	64	58	23	05	A-4(0)	S983	10
178+00	18' LT	0-5	BROWN	89	74	55	46	40	26	07	A-4(0)	S984	16.4
186+00	06' RT	0-5	BROWN	93	82	65	58	52	22	06	A-4(0)	S985	7.4
186+00	14' RT	0-5	BROWN	84	67	50	44	38	21	04	A-4(0)	S986	11.4
186+00	18' RT	0-5	BROWN	86	74	59	53	49	21	05	A-4(0)	S987	8.8
194+00	06' LT	0-5	GRAY	97	89	73	65	59	28	09	A-4(3)	S988	18.3
194+00	14' LT	0-5	BROWN	91	80	68	63	59	26	09	A-4(3)	S989	20.8
194+00	18' LT	0-5	BROWN	87	72	58	53	49	26	09	A-4(1)	S990	20
202+00	06' RT	0-5	BROWN	89	80	69	64	61	27	10	A-4(4)	S991	15.3
202+00	18' RT	0-5	BROWN	85	74	61	55	51	26	08	A-4(1)	S992	11.7
210+00	06' LT	0-5	BROWN	96	91	79	72	66	24	07	A-4(2)	S993	22.2
219+00	06' RT	0-3.5Z	BROWN	95	84	63	53	45	18	04	A-4(0)	S994	7.6
219+00	15' RT	0-5	BROWN	85	72	58	52	46	22	06	A-4(0)	S995	9.5
226+00	21' LT	0-5	BROWN	91	83	69	60	52	23	06	A-4(0)	S996	11.5
234+00	15' RT	0-5	BROWN	97	91	78	66	55	21	07	A-4(1)	S997	13.7
242+00	09' LT	0-5	BROWN	96	88	77	71	65	27	09	A-4(4)	S998	17.6
242+00	21' LT	0-5	BROWN	93	87	82	79	77	28	10	A-4(6)	S999	20.8
249+85	06' RT	0-5	BROWN	95	85	68	61	53	27	09	A-4(2)	S1000	12.3
249+85	18' RT	0-5	BROWN	91	81	68	62	57	27	10	A-4(3)	S1001	15.4
258+00	06' LT	0-5	BROWN	90	78	64	58	51	33	11	A-6(3)	S1002	20.2
258+00	18' LT	0-5	BROWN	99	89	71	65	54	31	11	A-6(3)	S1003	13,9
266+00	06' RT	0-5	BROWN	98	90	76	69	61	25	08	A-4(2)	S1004	16.8

comments: W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL

Friday, February 26, 2016

STA.#	LOC. L	DEPTH	COLOR	#4	#10	#40 E	#80 V	#200 E S	L.L.	<i>P.I.</i>	SOIL CLASS	LAB #:	%MOISTURE
384+00	06' RT	0-5	BROWN	96	86	71	61	<i>E S</i> 53	19	4	A-4(0)	S1005	10.3
384+00	21' RT	0-5	BROWN	97	82	62	50	42	ND	NP	A-4(0)	S1006	11.2
391+00	06' LT	0-5	BROWN	97	89	75	60	47	ND	NP	A-4(0)	\$1007	13.7
391+00	15' LT	0-5	BROWN	97	82	69	56	44	19	05	A-4(0)	S1008	13.2
400+00	06' RT	0-5	BROWN	97	89	78	71	66	31	12	A-6(6)	S1009	17.6
400+00	18' RT	0-5	BROWN	97	88	77	70	64	29	10	A-4(4)	S1010	16.9
408+00	06' LT	0-5	BROWN	99	95	87	70	57	19	06	A-4(0)	S1011	15.6
408+00	18' LT	0-5	BROWN	.95	91	84	69	57	21	07	A-4(1)	S1012	17.6
416+00	06' RT	0-5	BROWN	99	95	84	71	63	23	07	A-4(2)	S1013	14.5
416+00	18' RT	0-5	BROWN	98	95	87	76	68	25	09	A-4(4)	S1014	19.5
475+00	12' RT	0-5	GRAY	99	98	89	81	75	35	15	A-6(10)	S1015	19.7
475+00	21' RT	0-5	GRAY	90	82	69	63	57	35	15	A-6(6)	S1016	18.9
475+00	33' RT	0-5	GRAY	82	69	51	45	39	20	03	A-4(0)	S1017	9.2
483+00	12' LT	0-5	BROWN	99	98	89	78	55	24	06	A-4(1)	S1018	13.8
483+00	20' LT	0-5	BROWN	89	85	74	64	46	22	06	A-4(0)	S1019	15.2
491+00	12' RT	0-3Z	GRAY	90	78	64	55	48	26	09	A-4(1)	S1020	11.3
491+00	24' RT	0-5	GRAY	89	80	69	60	53	24	08	A-4(1)	S1021	12.7
499+00	12' LT	0-5	GRAY	86	78	71	65	59	31	12	A-6(5)	S1022	
499+00	24' LT	0-3Z	GRAY	94	92	88	86	83	22	07	A-4(3)	S1023	13.3
507+00	12' RT	0-5	BROWN	96	90	82	69	60	42	22	A-7-6(11)	S1024	13.7
516+00	12' LT	0-5	BROWN	99	95	87	81	75	26	08	A-4(4)	S1025	30.1
524+00	06' RT	0-5	RED	93	85	77	64	56	27	11	A-6(3)	S1026	12.9
524+00	18' RT	0-3Z	RD/BR	98	94	86	71	62	46	21	A-7-6(11)	S1027	12
531+00	06' LT	0-5	BROWN	97	93	88	85	81	42	18	A-7-6(15)	S1028	28.9
531+00	14' LT	0-5	BROWN	95	92	88	85	79	40	18	A-6(14)	S1029	32.3
539+00	06' RT	0-5	BROWN	99	95	88	82	77	35	11	A-6(8)	S1030	27.6
539+00	14' RT	0-5	BROWN	98	94	87	82	71	ND	NP	A-4(0)	S1031	27.4
539+00	18' RT	0-5	BROWN	99	97	94	89	81	42	20	A-7-6(16)	S1032	28

STA.#	LOC. DEPT	H COLOR	#4		#40	#80	#200	L.L.	<i>P.I</i> .	SO	IL CLASS	LAB #:	%MOISTURE	
603+00	06' RT 0-3.5Z	BROWN	98	<u>s</u> 1 95	<u>Е</u> 91	87	<i>E S</i> 80	20	05		A-4(1)	S1033	11.9	
603+00	14' RT 0-5	BROWN	96	87	75	55	45	ND	NP		A-4(0)	S1034	12.9	
603+00	18' RT 0-5	BROWN	89	76	59	42	34	26	09		A-2-4(0)	S1035	13.7	
611+00	06' LT 0-5	BROWN	95	89	75	57	48	26	10		A-4(2)	S1036	20.4	
611+00	14' LT 0-5	BROWN	97	92	80	. 64	54	25	11		A-6(3)	S1037	19.1	
619+00	06' RT 0-5	BROWN	97	89	76	60	54	18	05		A-4(0)	S1038	9.2	
619+00	18' RT 0-5	BROWN	97	89	73	51	42	18	04		A-4(0)	S1039	10.3	
629+00	06' LT 0-5	BROWN	95	88	71	48	37	19	05		A-4(0)	S1040	11.9	
629+00	18' LT 0-5	BROWN	98	95	83	57	52	20	05		A-4(0)	S1041	12.5	
635+00	06' RT 0-5	BROWN	98	94	80	59	51	22	08		A-4(1)	S1042	16.6	
635+00	18' RT 0-5	BROWN	93	87	76	60	53	29	13		A-6(4)	S1043	17.3	
242+00	21' LT 0-5	BROWN	100	98	83	64	53	29	08		A-4(2)	RV1044		
408+50	18' LT 0-5	RD/BR	81	69	59	45	36	ND	NP		A-4(0)	RV1045		
539+00	18' RT 0-5	RD/BR	91	87	83	79	72	45	20		A-7-6(14)	RV1046		
629+00	18' LT 0-5	BROWN	92	88	74	51	43	ND	NP		A-4(0)	RV1047		

JOB: JOB NA	O(I <i>ME:</i> BR	061438 BRYANT RD HWY.29	JOB: 061438 JOB NAME: BRYANT RD HWY.298 (SAFETY IMPVTS.)	Arkansas	Arkansas State Highway Transporation Department Materials Division	DATE TESTED 2/10/2016
COUNT	COUNTY NO. 26	26			Michael Benson, Materials Engineer	
STA.#	LOC.				PAVEMENT SOUNDINGS	
170+00	25' RT	ACHMSC 2.75	ACHMBC -	AGG.BASE CRS CL-7 10.0		
170+00	31' RT	ACHMSC	ACHMBC	AGG.BASE CRS CL-7		
170+00	18' RT	- ACHMSC	- ACHMBC	- AGG.BASE CRS CL-7		
)) -	2	3.50W	4.50	8.0		
178+00	06' LT	ACHMSC 5.50W	ACHMBC 2.50	AGG.BASE CRS CL-7 7.0		
178+00	14' LT	ACHMSC	ACHMBC	AGG.BASE CRS CL-7		
178+00	18' I T	OSMHOR	ACHMRC	AGG BASE CRS CI -7		
	2					
186+00	14' RT	ACHMSC	AGG.BASE CRS CL-7			
		4.0W	1			
186+00	18' RT	ACHMSC	AGG.BASE CRS CL-7			
		•	1			
186+00	06' RT	ACHMSC 4.75	AGG.BASE CRS CL-7 6.0			
194+00	14' LT	ACHMSC	AGG.BASE CRS CL-7			
		5.0W	8.0			
194+00	18' LT	ACHMSC	AGG.BASE CRS CL-7			7
		1	1			
194+00	06' LT	ACHMSC 9.75W	AGG.BASE CRS CL-7 7.0	ĸ		
202+00	06' RT	ACHMSC 5.75W	ACHMBC 2.50	AGG.BASE CRS CL-7 		
202+00	18' RT	ACHMSC	ACHMBC	AGG.BASE CRS CL-7		
		₿.	•			
210+00	06' LT	ACHMSC 6.0W	ACHMBC 3.0	AGG.BASE CRS CL-7 7.0		
219+00	06' RT	ACHMSC 7.0W	ACHMBC 8.0	AGG.BASE CRS CL-7 6.0		
219+00	15' RT	ACHMSC	ACHMBC	AGG RASE CRS CL-7		
2	2	6.50W	7.0	6.0		
comments:	1	=MULTIPLE LAYER	W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL	JGER REFUSAL	Tuesday, February 23, 2016	

Page 1 of 4

PAVEMENT SOUNDINGS							2	2		7	2			2		7		2	7														Tuesday, February 23, 2016
	AGG.BASE CRS CL-7						AGG.BASE CRS CL-7 6.0	AGG.BASE CRS CL-7	ĩ	AGG.BASE CRS CL-7 6.0	AGG.BASE CRS CL-7	ĩ	AGG.BASE CRS CL-7 6.0	AGG.BASE CRS CL-7	7.0	AGG.BASE CRS CL-7	ī	AGG.BASE CRS CL-7 6.0	AGG BASE CDS CI 7	5.0													GER REFUSAL
	ACHMBC	Ĩ	AGG.BASE CRS CL-7 7.0	AGG.BASE CRS CL-7 7.0	AGG.BASE CRS CL-7	ı	ACHMBC 3.50	ACHMBC	ľ	ACHMBC 3.50	ACHMBC	1	ACHMBC 2.0	ACHMBC	2.50	ACHMBC	,	ACHMBC 6.0		6.50	AGG.BASE CRS CL-7	1	AGG.BASE CRS CL-7	1	AGG.BASE CRS CL-7	7.0	AGG.BASE CRS CL-7	(1)	AGG.BASE CRS CL-7	8.0	AGG.BASE CRS CL-7	L	W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL
	ACHMSC	I	ACHMSC 3.75W	ACHMSC 8.7	ACHMSC	(f)	ACHMSC 6.50W	ACHMSC	E	ACHMSC 6.75	ACHMSC	ı	ACHMSC 8.0	ACHMSC	5.50W	ACHMSC	1	ACHMSC 12.0WX	COMHON	8.0W	ACHMSC	,	ACHMSC	7.0	ACHMSC	8.0	ACHMSC	(1)	ACHMSC	7.50W	ACHMSC	J.	/=MULTIPLE LAYEF
LOC.	21'LT	i	15' RT	09' LT	21' LT		06' RT	18' RT		06' LT	18' LT		06' RT	06' RT		21' RT		06' LT	1 E' I T	2	18' RT		06' RT		06' LT		18' LT		06' RT		18' RT		
STA.# LOC.	226+00		234+00	242+00	242+00		249+85	249+85		258+00	258+00		266+00	384+00		384+00		391+00	301+00	00-100	400+00		400+00		408+00		408+00		416+00		416+00		comments:

STA.# LOC.	LOC.			PAVEMENT SOUNDINGS
475+00	12' RT	ACHMSC	ACHMBC	AGG.BASE CRS CL-7
		9.75WX	4.0	7.0
475+00	21' RT	ACHMSC	ACHMBC	AGG.BASE CRS CL-7
		3.50WX	1	8.0
475+00	33' RT	ACHMSC	ACHMBC	AGG.BASE CRS CL-7
		1	1	
483+00	12' LT	ACHMSC 7 50W	ACHMBC 11 50WX	AGG.BASE CRS CL-7
00.001	H - 100			
483+00	20. FI	ACHMSC 8.0W	ACHMBC 7.0	AGG.BASE CRS CL-7 8.0
491+00	24' RT	ACHMSC	ACHMBC	AGG RASE CRS CL-7
491+00	12' RT	ACHMSC 9 0M/	ACHMBC	AGG.BASE CRS CL-7
		2.000	0.6	0.2
499+00	12' LT	ACHMSC	ACHMBC	AGG.BASE CRS CL-7
		5.50WX	7.50	8.0
499+00	24' LT	ACHMSC	ACHMBC	AGG.BASE CRS CL-7
		I.		
507+00	12' RT	ACHMSC	AGG.BASE CRS CL-7	
		8.0W	9.0	
516+00	12' LT	ACHMSC	AGG.BASE CRS CL-7	
		7.50	8.0	
524+00	06' RT	ACHMSC	AGG.BASE CRS CL-7	
		7.50W	4.0	
524+00	18' RT	ACHMSC	AGG.BASE CRS CL-7	
		Ł	ŗ	
531+00	06' LT	ACHMSC	AGG.BASE CRS CL-7	
		6.0W	6.0	
531+00	14' LT	ACHMSC	AGG.BASE CRS CL-7	
		3.0	8.0	
539+00	06' RT	ACHMSC	AGG.BASE CRS CL-7	
		6.50W	7.0	
539+00	14' RT	ACHMSC	AGG.BASE CRS CL-7	
		3.75W	7.0	
539+00	18' RT	ACHMSC	AGG.BASE CRS CL-7	
		1	а	
603+00	14' RT	ACHMSC	AGG.BASE CRS CL-7	
		2.0	8.0	
	8	=MI II TIPI F I AY	W=MIII TIPI E I AVERS X=STRIPPED 7=AIIGER REFIISAI	SFR RFFLISAI

Tuesday, February 23, 2016

comments: W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL

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NGS																	
PAVEMENT SOUNDINGS	2	2		AGG.BASE CRS CL-7	7.0	AGG.BASE CRS CL-7	7.0	AGG.BASE CRS CL-7	Ę	AGG.BASE CRS CL-7	6.0	AGG.BASE CRS CL-7		AGG.BASE CRS CL-7		AGG.BASE CRS CL-7	7.0
	AGG.BASE CRS CL-7	AGG.BASE CRS CL-7		ACHMBC	2.50	ACHMBC		ACHMBC	ł.	ACHMBC	6.0	ACHMBC	1	ACHMBC	1	ACHMBC	2.50
	ACHMSC		5.0W		4.50W		7.50W	ACHMSC	ł			ACHMSC					4.50
STA.# LOC.	603+00 18' RT	603+00 06' RT	T111 001113	611+00 06' LT		619+00 06' RT		619+00 18' RT		629+00 06' LT		629+00 18' LT		635+00 18' RT		635+00 06' RT	

Tuesday, February 23, 2016

comments: W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL

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ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS MATERIALS DIVISION

MICHAEL BENSON, MATERIALS ENGINEER

*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

63

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SPEC. REMARKS - NO S SUPPLIER NAME - STAT NAME OF PROJECT - B PROJECT ENGINEER - NO PIT/QUARRY - ARKAN	438 BE ASSI L SURVE SPECIFI TE RYANT R OT APPI SAS	Y SAMPLE CATION CHECK D HWY.298 (SAFET ICABLE	ſΥ	IMPVTS.)	MATERIA SPEC. SUPPLIA COUNTY DISTRIC	AL YEA ER /SI CT	NO 1 CODE - S R - 2 ID 1 CATE - 2 NO 0	SRVPS 014 6 6
LOCATION - GARLAN SAMPLED BY - D.DICK		.T.X					PLED - 1 EIVED - 1	
SAMPLED BY - D.DICK SAMPLE FROM - TEST 1					DATE R DATE T			2/14/15 2/10/16
MATERIAL DESC SOI		Y - R VALUE- PAVI	EME	ENT SOUNDING		. נות		2/10/10
LAB NUMBER				20154224		_	00154005	
SAMPLE ID		20154223 S979		20154224 S980			20154225 S981	
TEST STATUS	-	INFORMATION ONLY	_		N ONLY			TON ONLY
STATION	-	170+00	_	170+00			170+00	
LOCATION	(ja)	18' RT	-	25' RT		-	31' RT	
DEPTH IN FEET		0-5	-	0-5		-	0-5	
MAT'L COLOR		BROWN	-	BROWN		-	BROWN	
MAT'L TYPE	-		_			-		
LATITUDE DEG-MIN-S	SEC =	34 35 15.70	_	34 35	15.80	-	34 35	15.80
LONGITUDE DEG-MIN-S	SEC -	93 00 .90		93 00	.90		93 00	.90
% PASSING 2	IN		_			a .		
	IN		-			-		
	IN		-	100		<u>9</u> 2	100	
3/8	IN	100	-	99		-	98	
NO.	4 -	92	-	89		20 20	81	
NO.	10 -	78	_	72		73) 29)	64	
NO.	40 -	59	-	52		-	46	
NO.	80 -	51	-	44		$\pi^{(i)}$	40	
NO. 2	200 -	44		38			35	
LIQUID LIMIT	7 4 3	20		18		120	19	
PLASTICITY INDEX	-	05	-	06		•	05	
AASHTO SOIL	-	A-4(0)	-	A-4(0)		-	A-2-4(0)
UNIFIED SOIL	1		-			•		
% MOISTURE CONTENT	-	7.7		6.5		-	6.8	
ACHMSC	(IN) -	3.50W	-	2.75		-	22	
ACHMBC	(IN) -	4.50	-			-		
AGG.BASE CRS CL-7	(IN) -	8.0	-	10.0		-	-	
	(S) =>=		-					
	-		_			-		
			-			÷		
	-		-				<i>2</i>	
	: -		-			-	<u>e</u> 2	
	-		-					

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL

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ARKANSAS STATE HI	IGHWAY	AND TRANSPORTATI MATERIALS		NT - LITTLE	ROCK, ARKANSAS
	MEGH				14
بله بله بله		AEL BENSON, MATER SURVEY / PAVEMENT			4 4
* * *	SOLP	SURVEY / PAVEMENT	SOUNDING IE	SI REPORT *	* *
DATE - 02/12	2/16			SEQUENCE	NO 2
JOB NUMBER - 06143	38				CODE - SSRVPS
FEDERAL AID NO TO BE	E ASSI	GNED		SPEC. YE	AR - 2014
PURPOSE - SOIL	SURVE	Y SAMPLE			ID 1
SPEC. REMARKS - NO SE	PECIFI	CATION CHECK		COUNTY/S'	
SUPPLIER NAME - STATE				DISTRICT	NO 06
NAME OF PROJECT - BRY	ANT R	D HWY.298 (SAFE	TY IMPVTS.)		
PROJECT ENGINEER - NOI	r appl	ICABLE			
PIT/QUARRY - ARKANSA					
LOCATION - GARLANI		TY			PLED = 12/10/15
SAMPLED BY - D.DICKER					EIVED = 12/14/15
SAMPLE FROM - TEST HO					TED - 02/10/16
MATERIAL DESC SOIL	SURVE	Y - R VALUE- PAV	/EMENT SOUND	INGS	
LAB NUMBER	<u>a</u> 2	20154226	- 20154227	×	20154228
SAMPLE ID	100	S982	- S983	÷	S984
TEST STATUS	-	INFORMATION ONLY	- INFORMAT	TION ONLY -	INFORMATION ONLY
STATION		178+00	- 178+00	5	178+00
LOCATION	-	06' LT	14' LT	-	18' LT
DEPTH IN FEET		0 – 4 Z	0-5		0-5
MAT'L COLOR MAT'L TYPE	1993 1997	BROWN	BROWN	ā	BROWN
LATITUDE DEG-MIN-SE		34 35 23 70	- 34 25	23 70	34 35 23.70
LONGITUDE DEG-MIN-SE	SC =	93 00 3.40	93 00	3.50	93 00 3.60
% PASSING 2 I	N		-	5	2
1 1/2 I	N		-	10 10	
	N		-	-	100
3/8 I	N	99	100	-	96
NO.			96		89
NO. 1	- 0	87	_ 87	2	74
NO. 4			_ 71	÷	55
NO. 8		66	- 64	5	46
NO. 20	- 00	60	58		40
LIQUID LIMIT	-	25	- 23	-	26
PLASTICITY INDEX	-	12	- 05	-	07
AASHTO SOIL	-	A-6(4)	- A-4(0)	-	A-4(0)
UNIFIED SOIL	æ			-	
% MOISTURE CONTENT	-	17.0	10.0		16.4
ACHMSC (1	IN) =	5.50W	- 5.0W	-	
ACHMBC ()	IN) -	2.50		-	
AGG.BASE CRS CL-7 (1	IN) -	7.0		19. 19.	. **
			_		
	-		-		
			-	-	
	200 1910		-		
	-		_		

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REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL

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ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS MATERIALS DIVISION MICHAEL BENSON, MATERIALS ENGINEER

*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE - 02/12/1 JOB NUMBER - 061438 FEDERAL AID NO TO BE A PURPOSE - SOIL SU SPEC. REMARKS - NO SPEC SUPPLIER NAME - STATE NAME OF PROJECT - BRYAN PROJECT ENGINEER - NOT A PIT/QUARRY - ARKANSAS LOCATION - GARLAND O SAMPLED BY - D.DICKERSO SAMPLE FROM - TEST HOLE MATERIAL DESC SOIL SU	SSI IRVE IFI IT R PPI COUN	Y SAMPLE CATION CHECK 2D HWY.298 (SAFE JICABLE ITY			MATERIAL SPEC. YE SUPPLIER COUNTY/S DISTRICT DATE SAN DATE REC DATE TES		15 15
LAB NUMBER	_	20154229	-	20154230	<u>~</u>	20154231	
SAMPLE ID	-			S986		S987	
TEST STATUS	-	INFORMATION ONLY	-	INFORMATIC	N ONLY -	INFORMATION O	NLY
STATION	-		-	186+00	-	186+00	
LOCATION	-	06' RT		14' RT		18' RT	
DEPTH IN FEET	-	0-5	-	0-5	= 	0-5	
MAT'L COLOR	-	BROWN	-	BROWN	÷	BROWN	
MAT'L TYPE	-		-	24 25	-	34 35 31.6	20
LATITUDE DEG-MIN-SEC LONGITUDE DEG-MIN-SEC		93 00 4.40		34 35 3 93 00	31.50 = 4.40	34 35 31.6 93 00 4.4	
		JJ 00 4.40		55 00	4.40	JJ 00 4.	ŦŪ
% PASSING 2 IN.			-		-		
1 1/2 IN.			_	100	-	1.0.0	
3/4 IN.		100	_	100 96	_	100 96	
3/8 IN. NO. 4		99 93	-	96 84		86	
NO. 4 NO. 10		82	-	67	-	74	
NO. 40		65	-	50	-	59	
NO. 80		58	_	44	-	53	
NO. 200		52		38		49	
LIQUID LIMIT		2.2		0.1		21	
LIQUID LIMIT PLASTICITY INDEX	-	22 06	-	21 04	2 2	05	
AASHTO SOIL	-		321		-	A-4(0)	
UNIFIED SOIL	_	11 1(0)	-	11 1(0)	-		
% MOISTURE CONTENT	-	7.4	-	11.4	7	8.8	
ACHMSC (IN) -	4.75	-	4.OW	1.00		
AGG.BASE CRS CL-7 (IN) -	6.0	-	(#0#C)	-	er ==	
	-		_				
	_		_				
	-		-		1		
	-		_				
	-		-		-		
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REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL

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ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS MATERIALS DIVISION MICHAEL BENSON, MATERIALS ENGINEER *** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT *** - 02/12/16 DATE SEQUENCE NO. = 4 JOB NUMBER - 061438 MATERIAL CODE - SSRVPS FEDERAL AID NO.- TO BE ASSIGNED SPEC. YEAR - 2014 PURPOSE - SOIL SURVEY SAMPLE SUPPLIER ID. - 1 SPEC. REMARKS - NO SPECIFICATION CHECK COUNTY/STATE = 26 DISTRICT NO. - 06 SUPPLIER NAME - STATE NAME OF PROJECT - BRYANT RD. - HWY.298 (SAFETY IMPVTS.) PROJECT ENGINEER - NOT APPLICABLE PIT/QUARRY - ARKANSAS - GARLAND COUNTY DATE SAMPLED - 12/10/15 LOCATION SAMPLED BY - D.DICKERSON DATE RECEIVED - 12/14/15 SAMPLE FROM - TEST HOLE DATE TESTED - 02/10/16 MATERIAL DESC. - SOIL SURVEY - R VALUE - PAVEMENT SOUNDINGS - 20154232 - 20154233 - 20154234 LAB NUMBER - S989 SAMPLE ID - S988 - 5990 TEST STATUS - INFORMATION ONLY - INFORMATION ONLY - INFORMATION ONLY - 194+00 - 194+00 - 194+00 STATION - 14' LT - 18' LT LOCATION - 06' LT 0-5 0-5 - 0-5 DEPTH IN FEET BROWN _ BROWN - GRAY MAT'L COLOR MAT'L TYPE _ LATITUDE DEG-MIN-SEC - 34 35 36.10 - 34 35 36.10 - 34 35 36.00 LONGITUDE DEG-MIN-SEC -93 00 11.90 93 00 12.00 🖘 93 00 12.00 2 IN.-% PASSING 1 1/2 IN. ---100 3/4 IN. --99 3/8 IN. - 100 1.00 --NO. 4 -91 87 97 100 80 72 89 NO. 10 --- 68 NO. 40 -73 58 -NO. 80 -65 63 53 _ NO. 200 - 59 59 49 LIOUID LIMIT - 28 - 26 2.6 ---PLASTICITY INDEX - 09 09 09 222 -- A-4(3) A-4(3) A-4(1) AASHTO SOIL UNIFIED SOIL _ 100 % MOISTURE CONTENT 18.3 20.8 20.0 _ (IN) -9.75W -ACHMSC -5.OW -----AGG.BASE CRS CL-7 (IN) -7.0 4 8.0 ---REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL

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ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS MATERIALS DIVISION MICHAEL BENSON, MATERIALS ENGINEER

*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

							640)	
DATE - 02/	12/16					SEQUENCE	NO	o 5
JOB NUMBER - 061	438					MATERIAL	CODE -	SSRVPS
FEDERAL AID NO TO	BE ASST	GNED				SPEC. YE		
		Y SAMPLE				SUPPLIER		
SPEC. REMARKS - NO		CATION CH	ECK			COUNTY/S		
SUPPLIER NAME - STA						DISTRICI	'NO. =	06
NAME OF PROJECT - B	RYANT F	2D HWY.2	98 (SAFE:	ΓY	IMPVTS.)			
PROJECT ENGINEER - N	IOT APPI	ICABLE						
PIT/QUARRY - ARKAN	ISAS							
LOCATION - GARLA	ND COUN	ITY				DATE SAI	MPLED .	12/10/15
SAMPLED BY - D.DICK	ERSON							12/14/15
SAMPLE FROM - TEST						DATE TES		02/10/16
		מז כד זיב						- 02/10/10
MATERIAL DESC SOI	LL SURVI	SI - R VA	LUE- PAV	EME	INT SOUNDIN	65		
LAB NUMBER	-	20154235		-	20154236	2	20154:	237
SAMPLE ID	-	S991		127	S992		S993	
TEST STATUS	-		ION ONLY					MATION ONLY
STATION		202+00			202+00		210+0	
						-		
LOCATION		06' RT		1	18' RT		06' L'	1.
DEPTH IN FEET		0-5		-	0-5	-	0-5	
MAT'L COLOR	1947) 1947	BROWN		-	BROWN	-	BROWN	
MAT'L TYPE	$(\pm i)$					-		
LATITUDE DEG-MIN-	SEC -	34 35	38.70	12	34 35	38.80 😑	34	35 40.90
LONGITUDE DEG-MIN-	SEC -	93 00	20.80		93 00	20.80	93	00 30.00
<pre>% PASSING 2</pre>	IN							
				-		-		
	IN			_		_		
-	IN				100		-100	
		95		_	95	-	99	
NO.	4 -	89		-	85	-	96	
NO.	10 -	80		_	74	-	91	
NO.	40 -	69		_	61	_	79	
NO.	80 -	64		-	55	-	72	
	200 -	61			51		66	
LIQUID LIMIT	-	27			26	-	24	
PLASTICITY INDEX		10		(T)	08	-	07	
AASHTO SOIL	(),	A-4 (4)		1	A-4(1)	-	A-4 (2)
UNIFIED SOIL	(=)							
% MOISTURE CONTENT	-	15.3		-	11.7	-	22	.2
		E 9.514					<i>c</i> 0	
ACHMSC	(IN) -	5.75W		-	F0.55	35 20	6.0	
ACHMBC	(IN) -	2.50		-	-		3.0	
AGG.BASE CRS CL-7	(IN) -			-			7.0	I
	-			-				
	2			_		2	5	
				_		23	i i i	
	(+)			_		-	ė	
	-			_				
	-			-		1	5	

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL

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ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS MATERIALS DIVISION

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MICHAEL BENSON, MATERIALS ENGINEER

*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE - 02/ JOB NUMBER - 061 FEDERAL AID NO TO PURPOSE - SOI SPEC. REMARKS - NO SUPPLIER NAME - STA NAME OF PROJECT - B PROJECT ENGINEER - N PIT/QUARRY - ARKAN LOCATION - GARLA SAMPLED BY - D.DICK SAMPLE FROM - TEST MATERIAL DESC SOI	438 BE ASSI L SURVE SPECIFI TE RYANT R OT APPL SAS ND COUN CERSON HOLE	Y SAMPLE CATION CHECK D HWY.298 (SAFE ICABLE TY		SEQUENCE NO 6 MATERIAL CODE - SSRVPS SPEC. YEAR - 2014 SUPPLIER ID 1 COUNTY/STATE - 26 DISTRICT NO 06 DATE SAMPLED - 12/10/15 DATE RECEIVED - 12/14/15 DATE TESTED - 02/10/16 GS
LAB NUMBER	-	20154238	20154239	20154240
SAMPLE ID	-	S994	- S995	- 5996
TEST STATUS	-	INFORMATION ONLY	- INFORMATIC	ON ONLY - INFORMATION ONLY
STATION	-	219+00	219+00	- 226+00
LOCATION		06' RT	= 15' RT	21' LT
DEPTH IN FEET		0-3.5Z	0-5	0-5
MAT'L COLOR	-	BROWN	BROWN	BROWN
MAT'L TYPE	-		2005.	₩ 3°
LATITUDE DEG-MIN-				
LONGITUDE DEG-MIN-	SEC -	93 00 40.70	93 00	40.70 93 00 48.20
% PASSING 2	IN		3 4 2	-
	IN		-	-
		100	- 100	100
		98	97	99
	4 -	95	- 85 - 72	- 91
	10 - 40 -	84 63	- 58	83 69
	40 - 80 -	53	- 52	- 60
	200 -	45	46	52
LIQUID LIMIT			- 22	- 23 - 06
PLASTICITY INDEX AASHTO SOIL		04 A-4 (0)	- 06 - A-4(0)	- A-4 (0)
UNIFIED SOIL	-	A-4(0)	-	A-4(0)
% MOISTURE CONTENT	-	7.6	- 9.5	11.5
ACHMSC ACHMBC	(IN) - (IN) -	7.0W 8.0	- 6.50W - 7.0	
AGG.BASE CRS CL-7	(IN) -	6.0	- 6.0	
NGG. DADE CRD CE /		0.0	-	
	-		-	-
			844 844	
	(*)		-) = : t:
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REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS MATERIALS DIVISION MICHAEL BENSON, MATERIALS ENGINEER

*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE - 02/12/ JOB NUMBER - 061438 FEDERAL AID NO TO BE PURPOSE - SOIL S SPEC. REMARKS - NO SPE SUPPLIER NAME - STATE NAME OF PROJECT - BRYA PROJECT ENGINEER - NOT PIT/QUARRY - ARKANSAS LOCATION - GARLAND SAMPLED BY - D.DICKERS SAMPLE FROM - TEST HOL MATERIAL DESC SOIL S	ASSI JRVE CIFJ NT F APPI COUN COUN	Y SAMPLE CATION CHECK RD HWY.298 (SAFET LICABLE NTY			DATE RE DATE TE	L CO EAR R ID STAT T NO MPLH SCEIV	DE - 2) 2)E - 2) 2] 2	SSRVPS 2014 1 26
LAB NUMBER	-	20154241	4	20154242		- 20	015424	3
SAMPLE ID	-	S997	÷	S998		- SS	999	
TEST STATUS		INFORMATION ONLY		INFORMATIC	N ONLY	- II	NFORMA	FION ONLY
STATION	-	234+00	17	242+00		- 24	42+00	
LOCATION	122	15' RT	2	09' LT			1' LT	
DEPTH IN FEET	-	0-5	-	0-5		-	-5	
MAT'L COLOR	-	BROWN		BROWN		_ BI	ROWN	
MAT'L TYPE			-			<u>-</u>		
LATITUDE DEG-MIN-SEC			-	34 35		-		5 52.10
LONGITUDE DEG-MIN-SEC		93 00 56.30		93 01	5.50		93 0	1 5.60
% PASSING 2 IN	275		-			-		
1 1/2 IN			-			- 8		
3/4 IN	- 200	100	-			- :	100	
3/8 IN		99	_	100		_	98	
NO. 4	-	97	_	96		_	93	
NO. 10		91	_	88		_	87	
NO. 40	- 24	78	-	77		-	82	
NO. 80	18. 1	66	-	71		-	79	
NO. 200		55		65			77	
LIQUID LIMIT	-	21		27		÷	28	
PLASTICITY INDEX	ά.	07	12	09		-	10	
AASHTO SOIL		A-4(1)	-	A-4(4)		-	A-4(6)	
UNIFIED SOIL			-			-		
% MOISTURE CONTENT		13.7		17.6		-	20.8	
ACHMSC (IN	1 12	3.75W	22	8.7		_		
AGG.BASE CRS CL-7 (IN		7.0	2	7.0		_	808 	
	-	7.0	÷	/.0		_		
			=			-		
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REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL

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ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS MATERIALS DIVISION MICHAEL BENSON, MATERIALS ENGINEER *** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT *** DATE - 02/23/16 SEQUENCE NO. - 8 JOB NUMBER - 061438 MATERIAL CODE - SSRVPS FEDERAL AID NO. - TO BE ASSIGNED SPEC. YEAR = 2014 PURPOSE - SOIL SURVEY SAMPLE SUPPLIER ID. - 1 SPEC. REMARKS - NO SPECIFICATION CHECK COUNTY/STATE - 26 SUPPLIER NAME - STATE DISTRICT NO. - 06 NAME OF PROJECT - BRYANT RD. - HWY.298 (SAFETY IMPVTS.) PROJECT ENGINEER - NOT APPLICABLE PIT/QUARRY - ARKANSAS LOCATION - GARLAND COUNTY DATE SAMPLED - 12/10/15 SAMPLED BY - D.DICKERSON DATE RECEIVED - 12/14/15 SAMPLE FROM - TEST HOLE DATE TESTED - 02/10/16 MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS LAB NUMBER - 20154245 - 20154246 - S1001 - S1002 - 20154244 4 - 2013424 - S1001 SAMPLE ID - S1000 - S1002 TEST STATUS - INFORMATION ONLY = INFORMATION ONLY = INFORMATION ONLY - 249+85 = 249+85 258+00 STATION - 18' RT - 0-5 - BROWN - 06' RT - 06' LT LOCATION 0-5 - 0-5 DEPTH IN FEET BROWN - BROWN MAT'L COLOR MAT'L TYPE LATITUDE DEG-MIN-SEC 34 35 57.50 34 35 57.50 34 36 1.30 LONGITUDE DEG-MIN-SEC 93 01 12.70 93 01 12.60 93 01 20.80 93 01 20.80

LONGITODE DEG-M	AIN-SEC -	93 01 12.7	0	93 OI II	2.60	93 01 2	20.80
% PASSING 2	IN				-		
1	1/2 IN		<u> </u>		-		
	3/4 IN		-	100		100	
	3/8 IN	100	HC	99	:=:	97	
N	10.4 -	95	<u>.</u>	91	2	90	
N	10. 10 -	85	1	81		78	
N	IO. 40 -	68		68	-	64	
N	10. 80 -	61	-	62		58	
	10.200 -	53		57		51	
LIQUID LIMIT	-	27	-	27	:=:	33	
PLASTICITY INDE	EX –	09	-	10	-	11	
AASHTO SOIL	-	A-4(2)	-	A-4(3)		A-6(3)	
UNIFIED SOIL	-		-				
% MOISTURE CONT	'ENT –	12.3	-	15.4	-	20.2	
ACHMSC	(IN) -	6.50W	-		2	6.75	
ACHMBC	(IN) -	3.50	-		-	3.50	
AGG.BASE CRS CL-7	(IN) -	6.0	÷.		-	6.0	
	-		₹.		=		
	-		-		-		

REMARKS		W=MULTIPLE	LAYERS,	X=STRIPPED,	Z=AUGER	REFUSAL
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ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS MATERIALS DIVISION MICHAEL BENSON, MATERIALS ENGINEER

*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

PROJECT ENGINEER - NOT APPLICABLEPIT/QUARRY - ARKANSASLOCATION - GARLAND COUNTYDATE SAMPLED - 12/10/15SAMPLED BY - D.DICKERSONDATE RECEIVED - 12/14/15SAMPLE FROM - TEST HOLEDATE TESTED - 02/10/16
MATERIAL DESC SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS
LAB NUMBER - 20154247 - 20154248 - 20154249 SAMPLE ID - S1003 - S1004 - S1005 TEST STATUS - INFORMATION ONLY - INFORMATION ONLY - INFORMATION ONLY STATION - 258+00 - 266+00 - 384+00 LOCATION - 18' LT - 06' RT - 06' RT DEPTH IN FEET - 0-5 - 0-5 - 0-5
MAT'L COLOR - BROWN BROWN BROWN
LATITUDE DEG-MIN-SEC - 34 36 1.10 - 34 36 6.20 - 34 37 27.80 LONGITUDE DEG-MIN-SEC - 93 01 21.00 93 01 28.60 93 03 2.20
% PASSING 2 IN - <
LIQUID LIMIT - 31 - 25 - 19 PLASTICITY INDEX - 11 - 08 - 4 AASHTO SOIL - A-6(3) - A-4(2) - A-4(0) UNIFIED SOIL -
ACHMSC (IN) - - 8.0 - 5.50W ACHMBC (IN) - - 2.0 - 2.50 AGG.BASE CRS CL-7 (IN) - - 6.0 - 7.0

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL --

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ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS MATERIALS DIVISION

MICHAEL BENSON, MATERIALS ENGINEER

*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE - 02/1 JOB NUMBER - 0614 FEDERAL AID NO TO B PURPOSE - SOIL SPEC. REMARKS - NO S SUPPLIER NAME - STAT NAME OF PROJECT - BR PROJECT ENGINEER - NO PIT/QUARRY - ARKANS LOCATION - GARLAN SAMPLED BY - D.DICKE SAMPLE FROM - TEST H MATERIAL DESC SOIL	38 SURVE PECIFI E YANT R T APPI AS D COUN RSON OLE	Y SAMPLE CATION CHECK D HWY.298 (SAFE JICABLE TY		SEQUENCE NO 10 MATERIAL CODE - SSRVPS SPEC. YEAR - 2014 SUPPLIER ID 1 COUNTY/STATE - 26 DISTRICT NO 06 DATE SAMPLED - 12/10/15 DATE RECEIVED - 12/14/15 DATE TESTED - 02/10/16
LAB NUMBER	-	20154250	<i>=</i> 20154251	- 20154252
SAMPLE ID	-	S1006	- S1007	= S1008
TEST STATUS	-	INFORMATION ONLY	- INFORMATI	ON ONLY - INFORMATION ONLY
STATION	-	384+00	391+00	- 391+00
LOCATION	-	21' RT	- 06' LT	- 15' LT
DEPTH IN FEET	-	0 - 5	_ 0-5	0-5
MAT'L COLOR	-	BROWN	BROWN	BROWN
MAT'L TYPE	-		0 	
LATITUDE DEG-MIN-S			- 34 37	
LONGITUDE DEG-MIN-S	EC -	93 03 2.00	93 03	8.40 93 03 8.40
% PASSING 2	IN		-	-
1 1/2 1	IN		-	- ·
3/4	IN			22 U
3/8	IN	100	_ 100	100
NO.	4 -	97	97	- 97
NO.		82	- 89	- 82
NO.		62	- 75	_ 69
NO.		50	- 60	- 56
NO. 2	00 -	42	47	44
LIQUID LIMIT	1	ND	- ND	- 19
PLASTICITY INDEX	-	NP	- NP	- 05
AASHTO SOIL	-	A-4(0)	- A-4(0)	- A-4(0)
UNIFIED SOIL	-		-	-
% MOISTURE CONTENT	1.77	11.2	13.7	13.2
ACHMSC	(IN) -		- 12.0WX	- 8.0W
	(IN) -		- 6.0	- 6.50
AGG.BASE CRS CL-7	(IN) -		- 6.0	- 5.0
	-		_	
			-	
	-		-	-
			-	-
	-		-	-
	15		-	-

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REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL

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ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS MATERIALS DIVISION

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MICHAEL BENSON, MATERIALS ENGINEER

*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE - 02/12/ JOB NUMBER - 061438 FEDERAL AID NO TO BE PURPOSE - SOIL S SPEC. REMARKS - NO SPE SUPPLIER NAME - STATE NAME OF PROJECT - BRYP PROJECT ENGINEER - NOT PIT/QUARRY - ARKANSAS LOCATION - GARLAND SAMPLED BY - D.DICKERS SAMPLE FROM - TEST HOL MATERIAL DESC SOIL S	MATERIAL CO SPEC. YEAR SUPPLIER ID COUNTY/STAT DISTRICT NO DATE SAMPLE DATE RECEIV DATE TESTEI	SEQUENCE NO 11 MATERIAL CODE - SSRVPS SPEC. YEAR - 2014 SUPPLIER ID 1 COUNTY/STATE - 26 DISTRICT NO 06 DATE SAMPLED - 12/10/15 DATE RECEIVED - 12/14/15 DATE TESTED - 02/10/16					
LAB NUMBER	_		- 20154254				
SAMPLE ID	_		- 20154254 - S1010	- 20 - Si	0154255		
TEST STATUS	-	INFORMATION ONLY			,		
STATION	_	400+00	400+00	= 4(
LOCATION	-	400+00 06' RT	- 18' RT		5' LT		
DEPTH IN FEET	-	0-5	0-5		-5		
MAT'L COLOR		BROWN	BROWN	-	ROWN		
MAT'L TYPE	-						
LATITUDE DEG-MIN-SEC	-	34 37 38.80	- 34 37	38.90 -	34 37 44.10		
LONGITUDE DEG-MIN-SEC		93 03 16.00		15.90	93 03 23.20		
	-						
* PASSING 2 IN 1 1/2 IN			15 24	-			
1 1/2 IN 3/4 IN			-				
3/4 IN 3/8 IN		100	100		100		
,	•		- 97		99		
1.01	-		88		95		
	-	78	- _ 77		87		
NO. 80	-	71	- 70		70		
NO. 200		66	64		57		
LIQUID LIMIT	_	31	- 29	-	19		
PLASTICITY INDEX	_	12	- 10		06		
AASHTO SOIL	_		- A-4(4)		A-4(0)		
UNIFIED SOIL	_	A U(U)		- 1			
% MOISTURE CONTENT	_	17.6	- 16.9		15.6		
	N)	7.0	- <u>-</u>	-	8.0		
AGG.BASE CRS CL-7 (II	4) -				7.0		
	-		_				
	34		-	24			
	-		-	-			
	15 12		-				
	-		_	-			
	2.00		-				
				*			
REMARKS - W=MULTIPLE	LAYE	RS, X=STRIPPED, Z=	=AUGER REFUSA	L			

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ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS MATERIALS DIVISION MICHAEL BENSON, MATERIALS ENGINEER *** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT *** DATE - 02/12/16 SEQUENCE NO. = 12 JOB NUMBER - 061438 MATERIAL CODE - SSRVPS FEDERAL AID NO.- TO BE ASSIGNED SPEC. YEAR = 2014 PURPOSE - SOIL SURVEY SAMPLE SUPPLIER ID. - 1 SPEC. REMARKS - NO SPECIFICATION CHECK COUNTY/STATE = 26 SUPPLIER NAME - STATE DISTRICT NO. - 06 NAME OF PROJECT - BRYANT RD.- HWY.298 (SAFETY IMPVTS.) PROJECT ENGINEER - NOT APPLICABLE PIT/QUARRY - ARKANSAS LOCATION - GARLAND COUNTY DATE SAMPLED - 12/10/15 SAMPLED BY - D.DICKERSON DATE RECEIVED = 12/14/15 SAMPLE FROM - TEST HOLE DATE TESTED 🛛 🗧 02/10/16 MATERIAL DESC. - SOIL SURVEY - R VALUE - PAVEMENT SOUNDINGS LAE 258 SAM TES MATION ONLY STA 0 Т LOC

AIEKIAL DESC	2016 20	JIC VI		(VA	LOE- PAV	EPIC	MI SOONDINGS		
LAB NUMBER		s ?	20154	256		-	20154257	æ	201542
SAMPLE ID		-	S1012			(7)	S1013	-77.	S1014
TEST STATUS		-	INFOR	MATI	ION ONLY	-	INFORMATION ONLY	<u>11</u> 1)	INFORM
STATION		-	408+0	0		-	416+00	3	416+00
LOCATION		-	18' L	т		-	06' RT	-	18' RT
DEPTH IN FE	ET	-	0-5				0-5	57 A	0-5
MAT'L COLOR		-	BROWN			1	BROWN		BROWN
MAT'L TYPE		-				-		-	
LATITUDE D	EG-MIN-SEC	-	34	37	44.00	-	34 37 49.60	-	34
LONGITUDE D	EG-MIN-SEC		93	03	23.20		93 03 29.50		93
. DN GGTNG	о ти								
% PASSING	2 IN.					-		-	(G))
	$1 \ 1/2 \ IN.$	-				-		-	
	3/4 IN.	-	100			े ग्र		- 35 0	
	3/8 IN.	-	99			-	100	7	100
	NO. 4	÷	95			-	99	20	98
	NO. 10	-	91			-	95	-	95
	NO. 40		84			-	84	-	87
	NO. 80	14	69			6	71		76
	NO. 200	14	57				63		68

37 49.7003 29.40

09 A-4(4)

19.5

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NO.	80 -	69	-	/1	-	/6
NO.	200 -	57		63		68
LIQUID LIMIT	-	21	3 4	23		, 25
PLASTICITY INDEX	3 -	07	: 	07	7	09
AASHTO SOIL	522	A-4(1)		A-4(2)	- <u></u>	A-4
UNIFIED SOIL	-		-		-	
% MOISTURE CONTENT	-	17.6		14.5	-	1
ACHMSC	(IN) -		-	7.50W	-	-
AGG.BASE CRS CL-7	(IN) -	(~	8.0	277	-
			-		-	

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REMARKS	-	W=MULTIPLE	LAYERS,	X=STRIPPED,	Z=AUGER	REFUSAL
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ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS MATERIALS DIVISION MICHAEL BENSON, MATERIALS ENGINEER

*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE- 02/23/16SEQUENCE NO 13JOB NUMBER- 061438MATERIAL CODE- SSRVPSFEDERAL AID NOTO BE ASSIGNEDSPEC. YEAR- 2014PURPOSE- SOIL SURVEY SAMPLESUPPLIER ID 1SPEC. REMARKS- NO SPECIFICATION CHECKCOUNTY/STATE- 26SUPPLIER NAME- STATEDISTRICT NO 06NAME OF PROJECT- BRYANT RD HWY.298 (SAFETY IMPVTS.)- 12/10/15PROJECT ENGINEER- NOT APPLICABLE- 12/10/15PIT/QUARRY- ARKANSAS- 12/10/15LOCATION- GARLAND COUNTYDATE SAMPLED- 12/10/15SAMPLED BY- D.DICKERSONDATE RECEIVED- 12/14/15SAMPLE FROM- TEST HOLEDATE TESTED- 02/10/16MATERIAL DESC SOIL SURVEY- R VALUE- PAVEMENT SOUNDINGS										
LAB NUMBER	-	20154259		_	20154260		<u> </u>	201542	C 1	
SAMPLE ID	_	20101200			S1016			201542 S1017	οT	
TEST STATUS	_	INFORMATION							אדידמ	ONLY
STATION	-				475+00			475+00		
LOCATION	_			-	21' RT		-	33' RT		
DEPTH IN FEET	-	0-5		-	0-5		-	0-5		
MAT'L COLOR	_	GRAY		-	GRAY		-	GRAY		
MAT'L TYPE	-			_			-			
LATITUDE DEG-MIN-	SEC -	34 38 4	6.30	-	34 38	46.20	-	34	38	46.20
LONGITUDE DEG-MIN-	SEC -	93 03 3	0.10		93 03	30.10		93	03	30.00
<pre>% PASSING 2 1.1/2</pre>	IN IN			50 20			-			
	IN			Щ 22	100		_	100		
	IN	100		-	98		-	98		
	4 -	99			90		-	82		
	10 -	98		Ē.	82		-	69		
	40 -	89		-	69		_	51		
	80 -	81			63		_	45		
NO.	200 -	75			57			39		
LIQUID LIMIT	_	35		2	35		-	20		
PLASTICITY INDEX	-	15		ži ži	15		-	03		
AASHTO SOIL		A-6(10)		÷	A-6(6)		-	A-4(0)	
UNIFIED SOIL	-			2			-			
% MOISTURE CONTENT	-	19.7		Ħ	18.9		-	9.	2	
ACHMSC	(IN) -	9.75WX		4	3.50WX		2			
ACHMBC	(IN) -	4.0		÷	44		-			
AGG.BASE CRS CL-7	(IN) -	7.0			8.0		æ	-79.77		
	-			Ξ.			70 			
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REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL

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ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS MATERIALS DIVISION MICHAEL BENSON, MATERIALS ENGINEER *** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT *** - 02/23/16 DATE SEQUENCE NO. - 14 JOB NUMBER - 061438 MATERIAL CODE - SSRVPS FEDERAL AID NO.- TO BE ASSIGNED SPEC. YEAR - 2014 PURPOSE - SOIL SURVEY SAMPLE SUPPLIER ID. - 1 SPEC. REMARKS - NO SPECIFICATION CHECK COUNTY/STATE - 26 SUPPLIER NAME - STATE DISTRICT NO. - 06 NAME OF PROJECT - BRYANT RD. - HWY.298 (SAFETY IMPVTS.) PROJECT ENGINEER - NOT APPLICABLE PIT/QUARRY - ARKANSAS LOCATION - GARLAND COUNTY DATE SAMPLED - 12/10/15 SAMPLED BY - D.DICKERSON DATE RECEIVED - 12/14/15 SAMPLE FROM - TEST HOLE DATE TESTED - 02/10/16 MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS LAB NUMBER - 20154262 - 20154263 - S1018 - S1019 - 20154264 SAMPLE ID - S1020 - INFORMATION ONLY - INFORMATION ONLY - INFORMATION ONLY TEST STATUS STATION - 483+00 - 483+00 - 491+00 - 12' RT LOCATION - 12' LT - 0-5 - 20' LT 20° LT 0-5 BROWN _ 0-3Z DEPTH IN FEET _ GRAY - BROWN MAT'L COLOR MAT'L TYPE --LATITUDE DEG-MIN-SEC - 34 38 53.70 - 34 38 53.60 - 34 39 1.30 93 03 26.60 93 03 26.60 LONGITUDE DEG-MIN-SEC -93 03 25.10 % PASSING 2 IN. --1 1/2 IN. -3/4 IN. -100 100 3/8 IN. - 100 96 96 NO. 4 - 99 89 90 ÷. - 85 - 74 NO. 10 - 98 NO. 40 - 89 78 - 64 - 64 NO. 80 - 78 - 55 NO. 200 - 55 46 48 LIQUID LIMIT 26 - 24 - 22 PLASTICITY INDEX - 06 - 06 09 AASHTO SOIL - A-4(1) A-4(0) A-4(1) UNIFIED SOIL _ -% MOISTURE CONTENT -13.8 15.2 11.3 ACHMSC (IN) -7.50W - 8.0W - 9.0WX - 7.0 ACHMBC (IN) - 11.50WX 5.0 AGG.BASE CRS CL-7 (IN) -6.0 8.0 7.0

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL ----

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ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS MATERIALS DIVISION MICHAEL BENSON, MATERIALS ENGINEER *** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT *** DATE - 02/23/16 SEQUENCE NO. - 15 JOB NUMBER - 061438 MATERIAL CODE - SSRVPS FEDERAL AID NO. - TO BE ASSIGNED SPEC. YEAR - 2014 PURPOSE - SOIL SURVEY SAMPLE SUPPLIER ID. - 1 SPEC. REMARKS - NO SPECIFICATION CHECK COUNTY/STATE = 26 SUPPLIER NAME - STATE DISTRICT NO. = 06 NAME OF PROJECT - BRYANT RD. - HWY.298 (SAFETY IMPVTS.) PROJECT ENGINEER - NOT APPLICABLE PIT/QUARRY - ARKANSAS LOCATION - GARLAND COUNTY DATE SAMPLED - 12/10/15 SAMPLED BY - D.DICKERSON DATE RECEIVED - 12/14/15 SAMPLE FROM - TEST HOLE DATE TESTED - 02/10/16 MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS LAB NUMBER - 20154265 - 20154266 - S1021 - S1022 - 20154265 - 20154267 SAMPLE ID - S1023 TEST STATUS - INFORMATION ONLY = INFORMATION ONLY = INFORMATION ONLY - 491+00 - 499+00 ⁼ 499+00 STATION LOCATION - 12' LT - 24' LT - 24' RT 0-5 - 0-3Z - 0-5 DEPTH IN FEET GRAY _ GRAY - GRAY MAT'L COLOR MAT'L TYPE --LATITUDE DEG-MIN-SEC - 34 39 1.30 - 34 39 9.30 - 34 39 9.20 LONGITUDE DEG-MIN-SEC - 93 03 24.90 93 03 23.70 93 03 23.90 93 03 23.90 % PASSING 2 IN.- $1 \ 1/2 \ IN. -$ 3/4 IN. - 100 100 100 3/8 IN. -95 99 96 -NO. 4 -89 86 94 -NO. 10 - 80 78 92 - 78 - 71 NO. 40 - 69 _ 88 NO. 80 - 60 - 65 - 86 NO. 200 - 53 59 83 LIQUID LIMIT - 24 - 31 - 22 PLASTICITY INDEX - 08 12 07 - A-4(1) AASHTO SOIL A-6(5) A-4(3) UNIFIED SOIL _ ÷ % MOISTURE CONTENT -12.7 13.3 ACHMSC (IN) -..... 5.50WX _ ------ACHMBC (IN) -- --7.50 -AGG.BASE CRS CL-7 (IN) ------8.0 - -

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL

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ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS MATERIALS DIVISION

MICHAEL BENSON, MATERIALS ENGINEER

*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE- 02/12/16SEQUENCE NO 16JOB NUMBER- 061438MATERIAL CODE- SSRVPSFEDERAL AID NOTO BE ASSIGNEDSPEC. YEAR- 2014PURPOSE- SOIL SURVEY SAMPLESUPPLIER ID 1SPEC. REMARKS- NO SPECIFICATION CHECKCOUNTY/STATE- 26SUPPLIER NAME- STATEDISTRICT NO 06NAME OF PROJECT- BRYANT RD HWY.298 (SAFETY IMPVTS.)									
LAB NUMBER	-	20154268	-	20154269		20	20154	270	
SAMPLE ID	84			S1025			S1026	270	
TEST STATUS	-							идтт	ON ONLY
STATION	-			516+00			524+0		
LOCATION		12' RT	177	12' LT		7	06' R'		
DEPTH IN FEET		0-5	-	0-5		1	0-5	-	
MAT'L COLOR		BROWN	2	BROWN		-	RED		
MAT'L TYPE	-					-			
LATITUDE DEG-MIN-SEC	-	34 39 16.80	02 02	34 39	23.20	2	⁻² 34	39	23.90
LONGITUDE DEG-MIN-SEC					29.10		93	03	38.40
% PASSING 2 IN			-						
1 1/2 IN			-			-			
3/4 IN		100	-			-	100		
3/8 IN		99	÷	100			98		
NO. 4		96	÷	99		•	93		
	÷		-	95		-	85		
		82	1	87		1	- 77		
NO. 80	-	69	-	81		-	64		
NO. 200	-	60		75			56		
LIQUID LIMIT		42		26		-	27		
PLASTICITY INDEX	-		100	08		-	11		
AASHTO SOIL	-		72	A-4(4)		÷	A-6 (3)	
UNIFIED SOIL	-		$({\bf \omega})$			-	-	•	
% MOISTURE CONTENT	-	13.7	1	30.1		77)	12	. 9	
ACHMSC (II	1) -	8.0W	_	7.50		_	7.5	OW	
	1) -	9.0	_	8.0		_	4.0		
	· ~	5.0	-	0.0		-	1.0		
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REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS MATERIALS DIVISION MICHAEL BENSON, MATERIALS ENGINEER *** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT *** - 02/23/16 DATE SEQUENCE NO. - 17 JOB NUMBER - 061438 MATERIAL CODE - SSRVPS FEDERAL AID NO. - TO BE ASSIGNED SPEC. YEAR - 2014 PURPOSE - SOIL SURVEY SAMPLE SUPPLIER ID. -1 SPEC. REMARKS - NO SPECIFICATION CHECK COUNTY/STATE - 26 SUPPLIER NAME - STATE DISTRICT NO. - 06 NAME OF PROJECT - BRYANT RD. - HWY.298 (SAFETY IMPVTS.) PROJECT ENGINEER - NOT APPLICABLE PIT/QUARRY - ARKANSAS LOCATION - GARLAND COUNTY DATE SAMPLED - 12/10/15 SAMPLED BY - D.DICKERSON DATE RECEIVED - 12/14/15 SAMPLE FROM - TEST HOLE DATE TESTED - 02/10/16 MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS LAB NUMBER - 20154271 - 20154272 - S1027 - S1028 20154273 SAMPLE ID - S1029 TEST STATUS - INFORMATION ONLY - INFORMATION ONLY - INFORMATION ONLY STATION LOCATION - 524+00 - 531+00 - 531+00 - 06' LT - 14' LT - 18' RT 06' LT 0-5 BROWN - 18' RT - 0-3Z - RD/BR - 0-5 DEPTH IN FEET BROWN MAT'L COLOR _ MAT'L TYPE LATITUDE DEG-MIN-SEC 34 39 23.90 34 39 23.10 93 03 47.00 IN. -% PASSING 2 1 1/2 IN. -3/4 IN. -100 100 3/8 IN. - 100 99 99 NO. 4 - 98 97 95 _ 93 NO. 10 - 94 92 _ 88 NO. 40 - 86 88 NO. 80 - 71 NO. 200 - 62 - 85 - 85 81 79 - 46 LIQUID LIMIT 42 40 _ PLASTICITY INDEX - 21 18 18 - A-7-6(11) ⁻ AASHTO SOIL A-7-6(15) A-6(14) UNIFIED SOIL --% MOISTURE CONTENT - 12.0 32.3 28.9 - -ACHMSC (IN) -- 6.0W 3.0 -AGG.BASE CRS CL-7 (IN) -6.0 (-, -)8.0

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL

AASHTO TESTS : T24 T88 T89 T90 T265

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ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS MATERIALS DIVISION

MICHAEL BENSON, MATERIALS ENGINEER

*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE- 02/12/16SEQUENCE NO 18JOB NUMBER- 061438MATERIAL CODE- SSRVPSFEDERAL AID NOTO BE ASSIGNEDSPEC. YEAR- 2014PURPOSE- SOIL SURVEY SAMPLESUPPLIER ID 1SPEC. REMARKS- NO SPECIFICATION CHECKCOUNTY/STATE- 26SUPPLIER NAME- STATEDISTRICT NO 06NAME OF PROJECT- BRYANT RD HWY.298 (SAFETY IMPVTS.)PROJECT ENGINEER- NOT APPLICABLEPIT/QUARRY- ARKANSASLOCATION- GARLAND COUNTYDATE SAMPLED-12/10/15SAMPLED BY- D.DICKERSONDATE RECEIVED-12/14/15SAMPLE FROM- TEST HOLE-02/10/16MATERIAL DESC SOIL SURVEY- R VALUE- PAVEMENT SOUNDINGS-									
LAB NUMBER	_			20154275		20154	276		
SAMPLE ID	_	202012/1		S1031		20154 S1032			
TEST STATUS	_								
				539+00		539+0			
LOCATION		06' RT	8 <u>23</u>	14' RT		18' R			
DEPTH IN FEET		0-5	-	0-5	-	0-5			
MAT'L COLOR	_	BROWN		BROWN	-	BROWN	T		
MAT'L TYPE	-		12						
LATITUDE DEG-MIN-SEC	-	34 39 23.10	-	34 39 2	23.10 😑	34	39 23.10		
LONGITUDE DEG-MIN-SEC	_	93 03 56.40		93 03	56.40	93	03 56.40		
% PASSING 2 IN. 1 1/2 IN. 3/4 IN.	-		1 (1) J		2 2 2				
3/4 IN. 3/8 IN.		100	-	100		100			
NO 4			ंत	98	-	99			
NO. 10		95		94	3	07			
NO. 40		88	-	87	-	94			
NO. 80	_	82	-	82	-	89			
NO. 200		77		71		81			
LIQUID LIMIT	_	35	-	ND	-	42			
PLASTICITY INDEX	_		2	NP	_	20			
AASHTO SOIL	-				-		6(16)		
UNIFIED SOIL	_		-		-		- (,		
% MOISTURE CONTENT	_	27.6		27.4	-	28	3.0		
		6.50W							
ACHMSC (IN) AGG.BASE CRS CL-7 (IN)		6.50W 7.0	_	3.75W 7.0	24				
AGG.BASE CRS CL-7 (IN)	-	7.0	_	7.0	3 9				
	-		-		0.5				
	-		-		02	-			
	-		-		-				
	_		_		2.5 1.5				
	-		-		1/2				
	-		-		2 -	-			

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REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL

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ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS MATERIALS DIVISION MICHAEL BENSON, MATERIALS ENGINEER *** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT *** - 02/12/16 SEQUENCE NO. = 19 DATE JOB NUMBER - 061438 MATERIAL CODE 🥌 SSRVPS FEDERAL AID NO.- TO BE ASSIGNED SPEC. YEAR - 2014 SUPPLIER ID. 📼 1 PURPOSE - SOIL SURVEY SAMPLE SPEC. REMARKS - NO SPECIFICATION CHECK COUNTY/STATE = 26 SUPPLIER NAME - STATE DISTRICT NO. 📼 06 NAME OF PROJECT - BRYANT RD.- HWY.298 (SAFETY IMPVTS.) PROJECT ENGINEER ~ NOT APPLICABLE PIT/QUARRY - ARKANSAS LOCATION - GARLAND COUNTY DATE SAMPLED = 12/10/15 SAMPLED BY - D.DICKERSON DATE RECEIVED 😑 12/14/15 SAMPLE FROM - TEST HOLE DATE TESTED 🛛 02/10/16 MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS LAB NUMBER - 20154277 - 20154278 - S1033 - S1034 = 20154279 SAMPLE ID - S1035 - INFORMATION ONLY - INFORMATION ONLY - INFORMATION ONLY TEST STATUS - 603+00 - 603+00 ⁻ 603+00 STATION - 14' RT - 18' RT LOCATION - 06' RT _ 0-5 _ BROWN - 0-3.5Z - BROWN [−] 0-5 DEPTH IN FEET _ BROWN MAT'L COLOR MAT'L TYPE \sim LATITUDE DEG-MIN-SEC - 34 40 18.30 - 34 40 18.40 - 34 40 18.40 LONGITUDE DEG-MIN-SEC - 93 04 20.00 93 04 19.90 93 04 19.90 2 IN. -% PASSING $1 \ 1/2 \ IN. -$ - 100 100 3/4 IN. -99 3/8 IN. - 100 98 NO. 4 - 98 96 89 _ 87 NO. 10 -95 76 _ 75 NO. 40 - 91 59 - 55 NO. 80 - 87 42 NO. 200 - 80 - 34 45 – ND - 26 - 20 LIOUID LIMIT PLASTICITY INDEX - 05 09 - NP - A-4(1) AASHTO SOIL A-4(0) A-2-4(0) UNIFIED SOIL -11.9 12.9 13.7 % MOISTURE CONTENT 1. The second (IN) -5.OW - 2.0 ACHMSC ------AGG.BASE CRS CL-7 (IN) = 7.0 = 8.0 ----22 -

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL -

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ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS MATERIALS DIVISION MICHAEL BENSON, MATERIALS ENGINEER *** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT *** DATE - 02/12/16 SEQUENCE NO. - 20 JOB NUMBER - 061438 MATERIAL CODE - SSRVPS FEDERAL AID NO. - TO BE ASSIGNED SPEC. YEAR = 2014 PURPOSE - SOIL SURVEY SAMPLE SUPPLIER ID. - 1 SPEC. REMARKS - NO SPECIFICATION CHECK COUNTY/STATE = 26 SUPPLIER NAME - STATE DISTRICT NO. = 06 NAME OF PROJECT - BRYANT RD. - HWY.298 (SAFETY IMPVTS.) PROJECT ENGINEER - NOT APPLICABLE

DIT/QUARRY - ARKANS LOCATION - GARLAN SAMPLED BY - D.DICKE SAMPLE FROM - TEST H MATERIAL DESC SOII	ID COUN ERSON IOLE		EME	DATE F DATE 7	RECI	PLED - 12/10/ EIVED - 12/14/ FED - 02/10/	/15
LAB NUMBER SAMPLE ID TEST STATUS STATION LOCATION DEPTH IN FEET MAT'L COLOR MAT'L TYPE	*	S1036	1	20154281 S1037 INFORMATION ONLY 611+00 14' LT 0-5 BROWN	Ē	20154282 S1038 INFORMATION C 619+00 06' RT 0-5 BROWN	NLY
LATITUDE DEG-MIN-S			-	34 40 26.40	-		
1 1/2 3/4 3/8 NO. NO. NO. NO.	IN	100		93 04 21.40 100 99 97 92 80 64 54		93 04 22. 100 97 89 76 60 54	20
LIQUID LIMIT PLASTICITY INDEX AASHTO SOIL UNIFIED SOIL % MOISTURE CONTENT	÷	26 10 A-4(2) 20.4		25 11 A-6(3) 19.1		18 05 -A-4(0) 9.2	
ACHMBC	(IN) - (IN) - (IN) - - - -	4.50W 2.50 7.0		3.50		7.50W 7.0	
	2000 1866		_		4		

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REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL

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PIT/QUARRY - ARKANSAS

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ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS MATERIALS DIVISION MICHAEL BENSON, MATERIALS ENGINEER *** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT *** DATE - 02/12/16 SEQUENCE NO. - 21 JOB NUMBER - 061438 MATERIAL CODE - SSRVPS FEDERAL AID NO.- TO BE ASSIGNED SPEC. YEAR = 2014 PURPOSE - SOIL SURVEY SAMPLE SUPPLIER ID. = 1 SPEC. REMARKS - NO SPECIFICATION CHECK COUNTY/STATE = 26 SUPPLIER NAME - STATE DISTRICT NO. 🔗 06 NAME OF PROJECT - BRYANT RD. - HWY.298 (SAFETY IMPVTS.) PROJECT ENGINEER - NOT APPLICABLE

LOCATION - GARLAND SAMPLED BY - D.DICKER SAMPLE FROM - TEST HO MATERIAL DESC SOIL	RSON DLE		'EMB	DATE DATE	REC	IPLED - 12/10/15 PEIVED - 12/14/15 TED - 02/10/16
LAB NUMBER SAMPLE ID TEST STATUS STATION LOCATION DEPTH IN FEET MAT'L COLOR MAT'L TYPE		INFORMATION ONLY 619+00 18' RT 0-5	-	S1040		20154285 S1041 INFORMATION ONLY 629+00 18' LT 0-5 BROWN
LATITUDE DEG-MIN-SE				34 40 44.00		34 40 44.00
LONGITUDE DEG-MIN-SE	- C	93 04 22.00		93 04 20.00		93 04 20.10
l 1/2 I 3/4 I 3/8 I NO. NO. 1 NO. 4 NO. 8 NO. 20	N N 4 - 0 - 0 - 0 - 0 -	97 89 73 51 42		100 99 95 88 71 48 37		100 98 95 83 57 52
LIQUID LIMIT			-	19	-	20
PLASTICITY INDEX	-		-	05	-	05
AASHTO SOIL UNIFIED SOIL	-	A-4(0)	-	A-4(0)	-	A-4(0)
% MOISTURE CONTENT	-	10.3	=	11.9	-	12.5
ACHMSC (1	EN) -		1	4.75W	+	
			-	6.0	-	* (<u></u>
AGG.BASE CRS CL-7 (1	EN) -			6.0	-	
	-		1		<i></i>	
	-		-		-	

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REMARKS -	W=MULTIPLE	LAYERS,	X=STRIPPED,	Z=AUGER	REFUSAL
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PIT/QUARRY - ARKANSAS

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS MATERIALS DIVISION MICHAEL BENSON, MATERIALS ENGINEER *** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT *** - 02/12/16 SEQUENCE NO. 😑 22 DATE JOB NUMBER - 061438 MATERIAL CODE = SSRVPS FEDERAL AID NO.- TO BE ASSIGNED SPEC. YEAR = 2014 PURPOSE - SOIL SURVEY SAMPLE SUPPLIER ID. - 1 SPEC. REMARKS - NO SPECIFICATION CHECK COUNTY/STATE 🛥 26 SUPPLIER NAME - STATE DISTRICT NO. 🛥 06 NAME OF PROJECT - BRYANT RD. - HWY.298 (SAFETY IMPVTS.) PROJECT ENGINEER - NOT APPLICABLE PIT/QUARRY - ARKANSAS LOCATION - GARLAND COUNTY DATE SAMPLED - 12/10/15 SAMPLED BY - D.DICKERSON DATE RECEIVED - 12/14/15 SAMPLE FROM - TEST HOLE DATE TESTED - 02/10/16 MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS - 20154287 - S1043 LAB NUMBER - 20154286 SAMPLE ID - S1042 TEST STATUS - INFORMATION ONLY 🗧 INFORMATION ONLY 🚽 - 635+00 - 635+00 STATION -- 18' RT - 06' RT LOCATION - 0-5 - BROWN - 0-5 DEPTH IN FEET BROWN MAT'L COLOR MAT'L TYPE -LATITUDE DEG-MIN-SEC - 34 40 49.40 = 34 40 49.40 LONGTRUDE DEG-MIN-SEC - 93 04 17.10 93 04 17.00 LONGITUDE DEG-MIN-SEC -% PASSING 2 IN -1 1/2 IN. -3/4 IN. -100 98 3/8 IN. - 100 -NO. 4 - 98 93 87 NO. 10 - 94 - 76 NO. 40 - 80 NO. 80 - 59 - 60 NO. 200 - 51 53 LIOUID LIMIT - 22 29 12 -PLASTICITY INDEX - 08 13 - A-4(1) AASHTO SOIL -A-6(4) UNIFIED SOIL -17.3 % MOISTURE CONTENT -16.6 ACHMSC (IN) - 4.50 - -(IN) - 2.50 ACHMBC AGG.BASE CRS CL-7 (IN) ~ -7.0

REMARKS 📄 W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL

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ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS MATERIALS DIVISION MICHAEL BENSON, MATERIALS ENGINEER *** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT *** - 02/12/16 DATE SEQUENCE NO. - 1 JOB NUMBER - 061438 MATERIAL CODE - RV FEDERAL AID NO.- TO BE ASSIGNED SPEC. YEAR - 2014 PURPOSE - SOIL SURVEY SAMPLE SUPPLIER ID. - 1 SPEC. REMARKS - NO SPECIFICATION CHECK COUNTY/STATE - 26 SUPPLIER NAME - STATE DISTRICT NO. - 06 NAME OF PROJECT - BRYANT RD. - HWY.298 (SAFETY IMPVTS.) PROJECT ENGINEER - NOT APPLICABLE PIT/QUARRY - ARKANSAS LOCATION - GARLAND COUNTY DATE SAMPLED - 12/10/15 SAMPLED BY - D.DICKERSON DATE RECEIVED - 12/14/15 SAMPLE FROM - TEST HOLE DATE TESTED - 02/10/16 MATERIAL DESC. - SOIL SURVEY - RESISTANCE R-VALUE ACTUAL RESULTS 20154290 LAB NUMBER - 20154288 - 20154289 - RV1044 - RV1045 - RV1046 SAMPLE ID TEST STATUS - INFORMATION ONLY 🗄 INFORMATION ONLY 🖶 INFORMATION ONLY - 539+00 - 242+00 - 408+50 STATION - 18' RT - 18' LT - 21' LT LOCATION 0-5 - 0-5 - PD/F - 0-5 DEPTH IN FEET -- BROWN RD/BR _ RD/BR MAT'L COLOR MAT'L TYPE -9**-**21 (19) LATITUDE DEG-MIN-SEC - 34 35 52.10 - 34 37 44.40 - 34 39 23.10 93 03 23.70 93 01 5.60 93 03 56.40 LONGITUDE DEG-MIN-SEC -2 IN. -% PASSING $1 \ 1/2 \ IN. -$ - 100 100 3/4 IN. -96 3/8 IN. -92 -NO. 4 - 100 81 91 -_ 69 NO. 10 - 98 - 83 87 - 59 NO. 40 - 83 - 45 79 NO. 80 - 64 -NO. 200 - 53 36 72 - ND 45 LIQUID LIMIT - 29 PLASTICITY INDEX - 08 - NP 20 - A-4(2) -A-4(0) A-7-6(14) AASHTO SOIL UNIFIED SOIL -% MOISTURE CONTENT -. -

REMARKS 🚊 W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL

AASHTO TESTS : T24 T88 T89 T90 T265

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ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS MATERIALS DIVISION MICHAEL BENSON, MATERIALS ENGINEER *** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT *** DATE - 02/12/16 SEQUENCE NO. - 2 JOB NUMBER - 061438 MATERIAL CODE - RV FEDERAL AID NO.- TO BE ASSIGNED SPEC. YEAR - 2014 PURPOSE - SOIL SURVEY SAMPLE SUPPLIER ID. - 1 SPEC. REMARKS - NO SPECIFICATION CHECK COUNTY/STATE - 26 SUPPLIER NAME - STATE DISTRICT NO. - 06 NAME OF PROJECT - BRYANT RD. - HWY.298 (SAFETY IMPVTS.) PROJECT ENGINEER - NOT APPLICABLE PIT/QUARRY - ARKANSAS LOCATION - GARLAND COUNTY DATE SAMPLED - 12/10/15 SAMPLED BY - D.DICKERSON DATE RECEIVED - 12/14/15 SAMPLE FROM - TEST HOLE DATE TESTED - 02/10/16 MATERIAL DESC. - SOIL SURVEY - RESISTANCE R-VALUE ACTUAL RESULTS LAB NUMBER - 20154291 _ - RV1047 SAMPLE ID TEST STATUS - INFORMATION ONLY -- 629+00 STATION - 18' LT LOCATION - 0-5 DEPTH IN FEET - BROWN MAT'L COLOR MAT'L TYPE _ LATITUDE DEG-MIN-SEC - 34 40 44.00 -93 04 20.10 LONGITUDE DEG-MIN-SEC -% PASSING 2 IN.- $1 \ 1/2 \ IN$. -3/4 IN. - 100 3/8 IN. - 98 NO. 4 -92 NO. 10 -88 -NO. 40 -74 NO. 80 -51 NO. 200 - 43 ND LIQUID LIMIT _ -PLASTICITY INDEX - NP - A-4(0) AASHTO SOIL UNIFIED SOIL % MOISTURE CONTENT _ -REMARKS 🔄 W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL --

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