PAVEMENT PRESERVATION
LA DOTD EXPERIENCE

BY

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LA ASPHALT TECHNOLOGY CONFERENCE
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PAVEMENT PRESERVATION
LA DOTD EXPERIENCE

Topics of Discussion

1. Funding/Budget
2. Selection of Projects
3. Selection of Treatments
4. Performance
5. Innovative Treatments

FUNDING

This is not an accounting document. It is used for programming purposes only.

ESTIMATED - BUDGET PARTITION FY 04-05

CATEGORY	SUB-CATEGORY	CONSTRUCTION										ENGR, R/W, UTIL										
		LETTINGS						CONTIGENCY/CONSTUCTION ENGINEERING				FEDERAL FUNDS					REG TTF	TIMED FUNDS	BONDS	TOLLS / LOC	SUB-TOTAL	GRAND TOTAL
		FED FUNDS	REG TTF	TIME FUNDS	BONDS	TOLLS / LOCAL	SUB-TOTAL	FED FUNDS	REG TTF	TIMED	SUB-TOTAL	ENGR	R/W	UTIL	IND.	SUB-TOT FEDERAL						
PRESERVATION	NON-INTERSTATE (PAVEMENT)	75.4	40.8				116.2	8.2	1.9		9.3											125.5
	INTERSTATE (PAVEMENT)	54.4	6.0				60.4	4.3	0.5		4.8											65.2
	BRIDGE (ON SYSTEM)	47.4	11.8				59.2	3.8	0.9		4.7	3.6	3.6	1.8		9.0	2.2				11.2	75.1
	BRIDGE (OFF SYSTEM)	10.8	2.7				13.5	0.9	0.2		1.1	1.4				1.4	0.6				2.0	16.6
	SUB-TOTAL	188.0	61.3				249.3	17.2	3.5		19.9	5.0	3.6	1.8		10.4	2.8				13.2	282.5
	ITS (regular)	6.1	1.5				7.6	0.5	0.1		0.6	0.9				0.9	0.2				1.1	9.3
	MAP	0.9	0.2			1.2	2.3	0.1	0.1		0.2											2.5
OPERATIONS	TRAFFIC CONTROL DEVICES	3.2	0.2				3.4	0.2	0.1		0.3	0.3	0.3			0.6	0.2				0.8	4.5
	ROADWAY FLOODING	2.2	0.5				2.7	0.2			0.2											2.9
	WEIGH STATIONS	0.8	0.1				0.9	0.1			0.1											1.0
	REST AREAS	1.2	0.2				1.4	0.1			0.1	0.4				0.4	0.1				0.5	2.0
	MOVABLE BRIDGE PM	0.4	0.1				0.5															0.5
	CONTRACT MAINTENANCE	7.2	11.4				18.6	1.2	0.3		1.5											20.1
	SUB-TOTAL	22.0	14.2			1.2	37.4	2.4	0.6		3.0	1.6	0.3			1.9	0.5				2.4	42.8
SAFETY	HWY. PROGRAM	21.2	1.3				22.5	1.4	0.4		1.8	1.8	1.8	0.9		4.5	1.1				5.6	29.9
	RR CROSSING UPGRADES	5.7	1.4				7.1	0.5	0.1		0.6	0.1				0.1					0.1	7.8
	SUB-TOTAL	26.9	2.7				29.6	1.9	0.5		2.4	1.9	1.8	0.9		4.6	1.1				5.7	37.7
CAPACITY	REGULAR PROGRAM	57.6	14.4				72.0	4.6	1.2		5.8	2.7	18.0	4.5		25.2	6.3				31.5	109.3
	CORRIDOR UPGRADE	14.4	3.6				18.0	1.1	0.3		1.4	0.9	0.9	0.4		2.2	0.6				2.8	22.2
	SUB-TOTAL	72.0	18.0				90.0	5.7	1.5		7.2	3.6	18.9	4.9		27.4	6.9				34.3	131.5
	FED ENHANCEMENT PROJECTS	6.3				1.8	8.1	0.6			0.6											8.7
MISC.	URBAN SYSTEMS, CMAQ	31.2	1.8			6.0	39.0	2.5	0.6		3.1	2.0	1.1	0.5		3.6	0.6			1.8	6.0	48.1
	FED EARMARKS (DEMO,...)	40.0	7.5			6.0	53.5	3.4	0.9		4.3	7.2	1.8	0.9		9.9				2.0	11.9	69.7
	TIMED PROGRAM			178.0			178.0			14.2	14.2							53.4			53.4	245.6
	STATE BONDS				4.0		4.0												14.0		14.0	18.0
	TOLLS, LOCAL, OTHER					6.0	6.0													2.5	2.5	8.5
	DEBT SERVICE, REIMB. SEED, SEC EMER FUND,																6.8				6.8	6.8
	LEEVILLE BRIDGE	18.0			132.0		150.0															150.0
	PLANNING ,TRAINING, RESEARCH											14.0				14.0	2.8				16.8	16.8
	INDIRECT COST														20.0	20.0					20.0	20.0
	SUB-TOTAL	95.5	9.3	178.0	136.0	19.8	438.6	6.5	1.5	14.2	22.3	23.2	2.9	1.4	20.0	47.5	10.2	53.4	14.0	6.3	131.4	592.3
GRAND TOTAL		404.4	105.5	178.0	136.0	21.0	844.9	33.7	7.6	14.2	54.7	35.3	27.5	9.0	20.0	91.8	21.6	53.4	14.0	6.3	187.0	1086.7

FEDERAL : $530 OF WHICH $54 IS DEMO) TTF : $135 BONDS : $150 TIMED : $245.6 TOLLS : $11.7

LOCAL : $15.6

$ 27.3

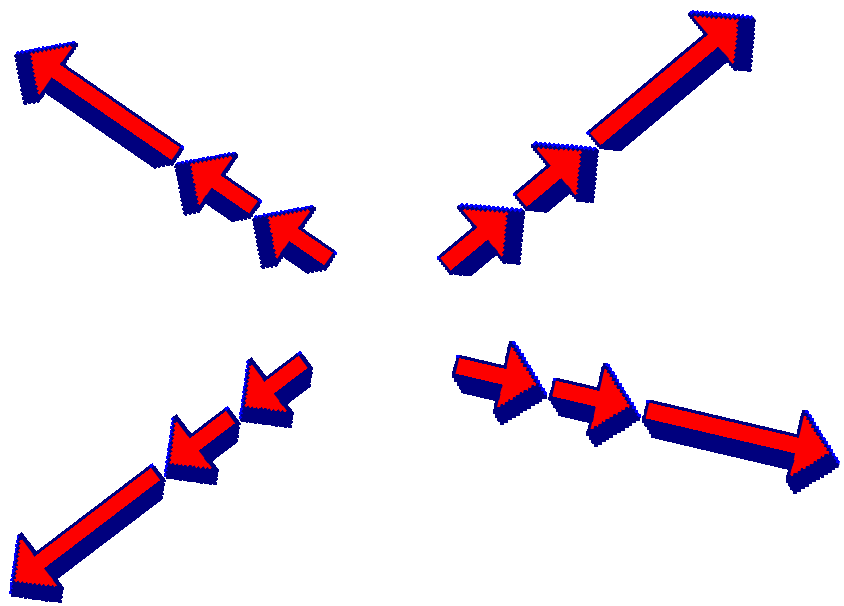
5/05/04 Added $20 million indirect cost, Leeville Br., revised contigency. Adjusted construction letting, engr., r/w, & util. proportionally.

8/17/04 Increased Capacity by $9.1 M, Interstate by $20M for FY 03-04 jobs being rebid. Moved $13M of reg ttf off PRNI (to be paid from operations). Increased research by $3 M.

9/21/04 Revised engr, r/w, & utilities for TIMED projects

PAVEMENT PRESERVATION
LA DOTD EXPERIENCE

PROJECT SELECTION



PAVEMENT PRESERVATION LA DOTD EXPERIENCE

PROJECT SELECTION

TWO APPROACHES:

1. SUBJECTIVE
2. OBJECTIVE

Manual for Pavement Management Information

District 08

Department of Transportation and Development

State of Louisiana

June, 2000

CONTROL	BEG_LOG	LENGTH	RESET	RUFF	RUT	ALCK	LGCK	TRCK	RNDM	PTCH	PERF_INDEX
15101	0.00	0.10	NONE	69	91	94	N/A	N/A	62	64	62
LA 0008	ASPHALT		COMMENTS								
15102	0.00	0.58	RESET	96	96	96	96	96	96	96	N/A
LA 0008	BRIDGE		COMMENTS								
15102	0.58	7.16	RESET	96	96	96	N/A	N/A	96	96	96
LA 0008	ASPHALT		COMMENTS								
15301	0.00	4.64	NONE	76	91	91	N/A	N/A	64	91	68
LA 0116	ASPHALT		COMMENTS								
15301	4.64	2.39	NONE	69	90	90	N/A	N/A	52	82	58
LA 0116	ASPHALT		COMMENTS								
15301	7.03	1.46	NONE	53	86	71	N/A	N/A	48	79	49
LA 0116	ASPHALT		COMMENTS								
20404	0.00	1.63	RESET	86	98	98	N/A	N/A	98	98	89
LA 0106	ASPHALT		COMMENTS								
20503	0.00	1.37	NONE	87	92	93	N/A	N/A	85	94	86
LA 0029	ASPHALT		COMMENTS								
20503	1.37	5.52	NONE	81	91	94	N/A	N/A	61	94	68
LA 0029	ASPHALT		COMMENTS								
20503	6.89	0.28	NONE	86	92	94	N/A	N/A	59	94	68
LA 0029	ASPHALT		COMMENTS								
20503	7.17	0.56	NONE	87	92	94	N/A	N/A	70	94	76
LA 0029	ASPHALT		COMMENTS								
30001	0.00	7.14	NONE	54	89	89	N/A	N/A	80	80	62
LA 0483	ASPHALT		COMMENTS								
30002	0.00	4.32	NONE	54	87	93	N/A	N/A	69	92	60
LA 0483	ASPHALT		COMMENTS								
30501	0.00	3.68	RESET	98	98	98	N/A	N/A	98	98	98
LA 0486	ASPHALT		COMMENTS								
30501	3.68	1.64	RESET	98	98	98	N/A	N/A	98	98	98
LA 0486	ASPHALT		COMMENTS								
30502	0.00	7.92	RESET	100	100	100	N/A	N/A	100	100	100
LA 0480	ASPHALT		COMMENTS								

JULY 2003 FAP LIST OF OVERLAY CANDIDATES DISTRICT 08

PARISH	CONTROL SECTION	ROUTE	DESCRIPTION	BEGIN LM	LENGTH	FUNCTIONAL CLASS		ADT	PERF INDEX	CONDITION	COM INDEX	FAP Y/N
AVOY	033-01	LA 115	1.53m NofS Jct LA 114 - Acton Rd	12.50	4.32	R Major Collector		4648	76	Fair	61	Y
AVOY	033-03	LA 115	Jct LA 107 - Rapides Line	2.32	5.66	R Major Collector		2100	73	Fair	29	Y
AVOY	145-01	LA 114	Jct LA 1 - Jct LA 1188	0.00	5.15	R Major Collector		2350	77	Fair	31	Y
AVOY	146-01	LA 29	Jct LA 115 - East for 6m	0.00	6.00	R Major Collector		3731	72	Fair	52	Y
AVOY	205-03	LA 29	Jct LA 106 - Bunkie Corp Limits	1.37	5.52	R Major Collector	**	3067	60	Poor	51	Y
GRANT	009-02	US 71	Jct LA 492 - Jct LA 158	6.27	9.31	R Major Arterial		2314	77	Fair	30	Y
GRANT	009-03	US 71	Jct LA 158 - Jct LA 1240	0.00	5.72	R Major Arterial		2466	74	Fair	33	Y
GRANT	023-02	US 167	Jct LA 8 - Jct LA 123	6.85	5.40	R Princ Arterial		4246	71	Fair	60	Y
GRANT	023-03	US 167	Jct LA 123 - Jct LA 472	0.00	6.24	R Princ Arterial		2542	77	Fair	33	Y
GRANT	040-01	LA 8	Jct US 71 - Jct LA 123	0.00	3.79	R Major Collector		2529	81	Fair	31	Y
GRANT	129-02	LA 122	8.59m E of Jct LA 471 - Jct LA 123	8.59	8.30	R Major Collector		992	87	Good	11	Y
NATCH	053-03	LA 1	N. Jct. LA 490 - S. Jct LA 119	4.94	6.58	R Minor Arterial		1736	73	Fair	24	Y
NATCH	089-01	LA 9	Jct US 71 - Jct LA 153	0.00	7.05	R Major Collector		4008	84	Fair	48	Y
NATCH	091-04	LA 126	Jct LA 9 - Winn Line	0.00	3.61	R Major Collector		590	65	Fair	9	Y
NATCH	114-02	LA 117	MP 25 - Jct Bellwood	10.10	2.01	R Major Collector		1694	84	Fair	20	Y
NATCH	114-03	LA 117	Bellwood - Jct LA 120	0.00	9.20	R Major Collector		2507	82	Fair	31	Y
RAPIDES	008-30	US 71/165	South Traffic Circle	0.77	3.03	U Major Arterial	***	37792	73	Fair	518	Y
RAPIDES	009-30	LA 180	Jct US 165 Bus - Jct US 71	0.00	0.12	U Major Collector		1217	75	Fair	16	Y
RAPIDES	014-06	US 165	Woodworth - Beginning of Five Lane	4.73	6.18	R Princ Arterial	#	6176	83	Fair	74	Y
RAPIDES	014-06	US 165	Beginning of Five Lane - Horseshoe Drive	10.91	12.10	U Princ Arterial		7791	66	Poor	118	Y
RAPIDES	053-01	LA 1	Jct MP R/R - Jct Rapides Sta Rd	3.65	3.00	U Minor Arterial		3148	85	Fair	37	Y
RAPIDES	053-02	LA 1	N Jct LA 8 - Natchitoches Line	3.20	5.56	R Minor Arterial		1016	79	Fair	13	Y
RAPIDES	141-03	LA 112	Jct LA 113 - Jct LA 121	0.00	10.76	R Major Collector		1022	71	Fair	14	Y
RAPIDES	149-01	LA 623	Jct US 165 - Jct LA 1204	0.00	2.47	U Minor Arterial		2648	85	Fair	31	Y
RAPIDES	840-22	LA 498	England Air Park - Jct US 71	1.90	3.22	U Minor Arterial		1232	66	Poor	19	Y
SABINE	034-02	LA 6	Jct LA 191 - Jct US 171	3.58	11.98	R Princ Arterial		3062	76	Fair	40	Y
SABINE	035-01	LA 175	Jct US 171 - 5.00 Miles North	0.00	5.00	R Major Collector		2417	70	Fair	35	Y
SABINE	042-03	LA 120	Jct US 171 - Jct LA 175	0.00	10.74	R Major Collector		819	76	Fair	11	Y
SABINE	112-02	LA 174	Jct LA 191 - Jct US 171	0.00	4.81	R Major Collector		803	67	Fair	12	Y
SABINE	117-01	LA 118	Jct Local Rd - Mount Carmel	4.60	4.02	R Major Collector		898	80	Fair	11	Y
SABINE	117-02	LA 118	Mount Carmel - Natchitoches Line	0.00	8.57	R Major Collector		898	67	Fair	13	Y
VERNON	114-01	LA 117	Jct LA 111 - 2m S of Jct LA 465	6.31	5.91	R Major Collector	@	2385	76	Fair	31	Y
VERNON	132-02	LA 111	Beauregard Line - Evans	0.00	7.88	R Major Collector		818	75	Fair	11	Y
VERNON	132-03	LA 111	E Jct LA 8 - 4.42m North	0.00	4.42	R Major Collector		738	70	Fair	11	Y
VERNON	134-01	LA 8	Jct LA 121 - Jct LA 465	0.00	7.27	R Major Collector		1218	69	Fair	18	Y
VERNON	139-06	LA 463	5m N Jct LA 10 - Rapides Line	5.00	8.37	R Major Collector		1134	83	Fair	14	Y
WINN	022-03	US 84	Piney Woods Creek - LaSalle Line	10.76	8.88	R Princ Arterial		1047	71	Fair	15	Y
WINN	092-02	LA 156	Jct Local Rd - W Jct LA 501	4.00	4.49	R Major Collector	*	936	74	Fair	13	Y
WINN	123-04	LA 34	Jct LA 3136 - Sardis	2.23	6.56	R Major Collector		1687	71	Fair	24	Y
WINN	125-01	LA 124	Jct US 84 - LaSalle Line	0.00	13.63	R Major Collector		855	92	Good	9	Y
WINN	361-04	LA 34	Grant Line - Jct LA 471	0.00	5.06	R Major Collector		470	65	Fair	7	Y
WINN	361-04	LA 34	Grant Line - Jct LA 471	5.06	5.00	R Major Collector		546	79	Fair	7	Y
				Total Miles	262.89							

#	North Bound Roadway Only
*	Adjusted 2001 ADT downward
**	Adjusted performance index downward
***	own for both roadways
@	flect recent overlay by maintenance forces

PROJECTS LET FISCAL YEAR 04-05

Proposed Projects

District 04

Fiscal Year Priority	Maintenance Priority	Parish Name	Parish Code	Route	Control Section (Project)	Sub-section	Length	Begin Log Mile	End Log Mile	Name	Existing Pavement Structure
1	9	DeSoto	16	LA 191	432-02-0004	1	8.40	0.00	8.40	Jct LA 481 - Jct LA 763	AC over SCG
2	10	Caddo	9	LA 538	078-04-0003	3	3.37	5.90	9.27	Jct LA 173 - Jct LA 767	AC over SCG
			9			4	3.31	9.27	12.58		AC over SCG
			9			5	0.22	12.58	12.80		AC over SCG
3	11	Bienville	7	LA 9	089-03-0029	1	9.78	0.00	9.78	Natchitoches P. L. - LA 4	
4	12	Caddo	9	US 71	011-04-0026	1	4.93	0.00	4.93	Gilliam - Hosston	AC over PCC
5	18	Webster	60	LA 163	860-08-0016	2	4.73	1.18	5.91	East of LA 527 - Log mile 5.90	AC
6	23	Claiborne	14	LA 9	072-01-0020	2	7.17	7.50	14.67	Antioch -Jct LA 2 ALT West	AC
7	15	Bossier	8	LA 157	084-01-0041	3	5.27	8.69	13.96	LA 2 - Webster P. L. (East Sec)	AC over SCG
8	21	Red River	41	LA 1	053-06-0017	1	5.15	0.00	5.15	Natchitoches P.L. - US 84(S.S.)	AC over PCC
9	32	Bossier	8	LA 2	083-03-0018	2	2.69	0.59	3.28	Red River Bridge to Jct LA 3	AC w/ stab base
						3	4.00	3.28	7.28		AC w/ stab base
10	14	Caddo	9	LA 169	048-03-0014	1	8.94	0.00	8.94	Longwood -Mooringsport	AC over SCG
11	13	Bienville	7	LA 501	093-02-0007	0	7.23	0.00	7.23	Winn P. L. - LA 4	ST over SCG
12	19	Bienville	7	US 371	027-02-0016	2	5.72	3.38	12.10	Jct LA 4 - Webster P. L.	AC
13	17	Bossier	8	LA 3	044-01-0037	5	1.55	3.11	4.66	I-220 - Benton(S.Bound Lanes)	AC over PCC
						6	1.93	4.66	6.59		AC over PCC
						7	2.63	6.59	9.22		AC over PCC
						8	2.22	9.22	11.44		AC over PCC
14	21	Red River	41	LA 1	053-06-0018	1	5.15	5.15	10.30	Natchitoches P.L. - US 84(N.S.)	AC over PCC
15	20	Bossier	8	LA160	085-04-0014	1	5.16	0.00	5.16	LA 157 North- LA 157 South	AC w/ stab base
16	22	Bossier	8	LA 614	122-30-0019	1	4.03	0.00	4.03	Jct US 80 - Jct LA 164	AC
						2	1.72	4.03	5.75		
17	31	Webster	60	US 79	027-04-0021	5	5.65	2.53	8.18	Jct LA 531 to Claiborne P. Line	AC over PCC
18	24	Caddo	9	US 71	011-02-0018	2	0.29	0.35	0.64	Jct LA 1 - Jct LA 173	AC over PCC
						3	0.30	0.64	0.94		AC over PCC
						4	1.19	0.94	2.13		AC over PCC

PAVEMENT PRESERVATION

LA DOTD EXPERIENCE

SELECTION OF TREATMENT TYPE

PAVEMENT PRESERVATION
LA DOTD EXPERIENCE

Typical Treatments

1. Surface Treatment
    a. Chip Seal
    b. Micro-Surfacing
2. Patch and Overlay
3. Cold-Plane and Inlay/Overlay
4. Base Reconstruction and Overlay

PAVEMENT PRESERVATION
LA DOTD EXPERIENCE

Treatment Selection Depends on:

1. Overall Pavement Condition

Poor Candidate For Surface Treatment

Good Candidate For Surface Treatment

Treatment Selection Depends On

2. Specific Pavement Defects

    A. Base Failures

Excessive Base Failures
(Candidate For Base Reconstruction)

B. Rutting

Candidate For Cold Plane and Overlay

C. Reflective Cracking

a. Soil Cement Base

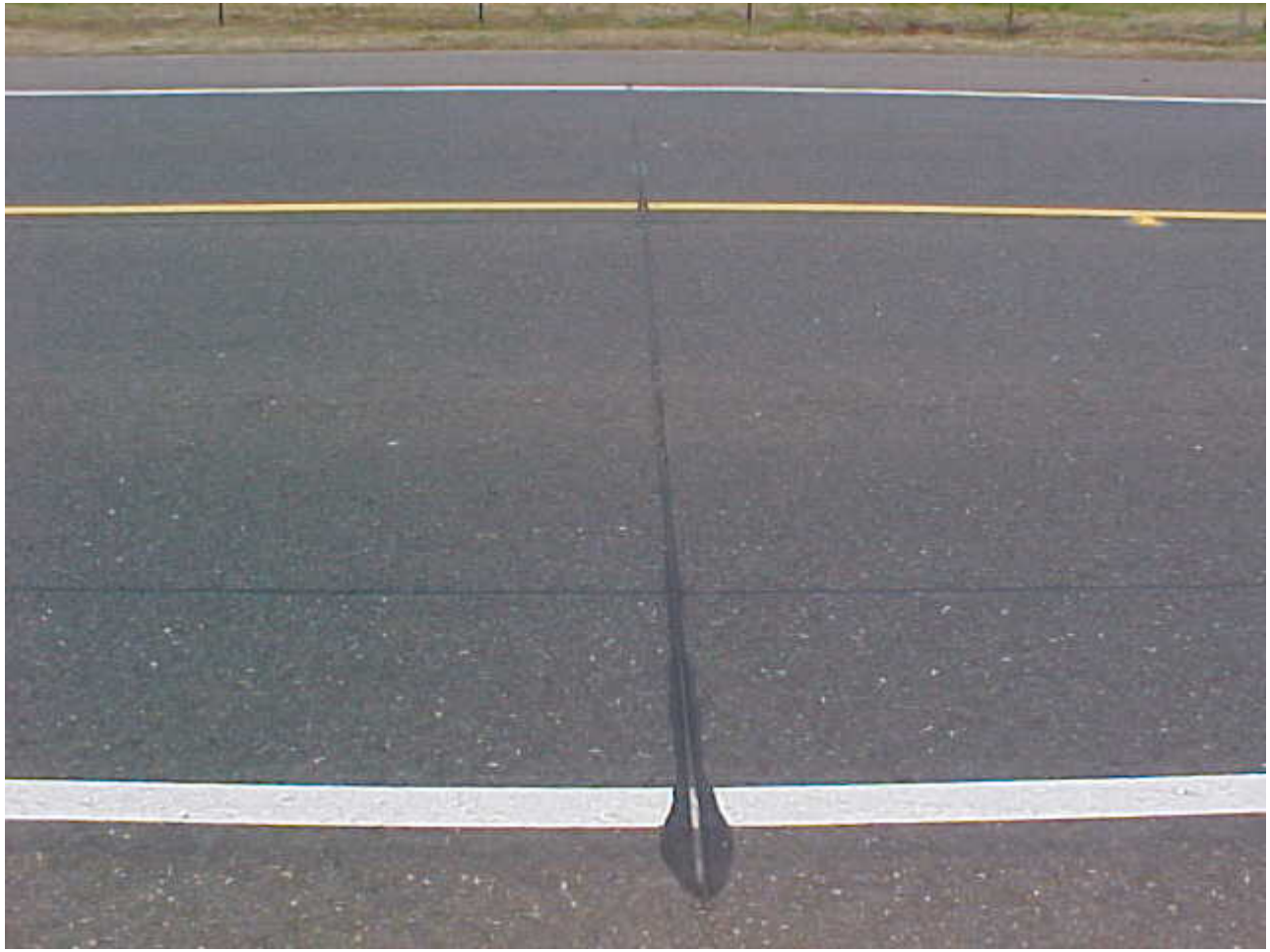
Reflective Cracking from Soil Cement Base

b. Underlying PCCP Joints

Reflection Of Transverse Joint in underlying PCC Pavement

Completed Overlay With No Interlayer

Completed Overlay With Glasgrid Interlayer



Completed Overlay With Sawed and Sealed Joints

Treatment Selection Depends On

3. Budget

PAVEMENT PRESERVATION
LA DOTD EXPERIENCE

PERFORMANCE OF
PRESERVATION PROJECTS

PAVEMENT PRESERVATION
LA DOTD EXPERIENCE

PERFORMANCE OF PRESERVATION PROJECTS

The  To Long- Lasting Preservation Projects Is To Apply The Right **Treatment** To The Right **Pavement** At The Right **Time**.

Pavement Preservation
LADOTD Experience

PERFORMANCE OF PRESERVATION PROJECTS

Treatment Timing And Selection

1. Published Guidelines
2. District Policies
3. Experience
4. Budgetary Constraints

Future Asphaltic Surface Treatment Project

Completed AST Project

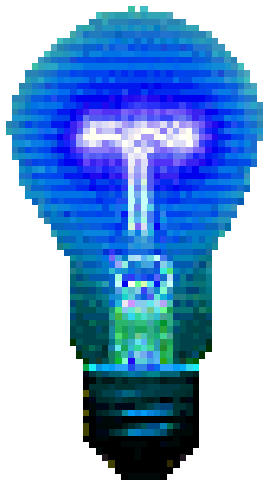
(Beginning Of Base Failure)

Completed AST Project

(Polishing In Wheel Paths)

Pavement Preservation LADOTD Experience

Innovative Treatments



Automated Cutout Patching

District 04


WARNING


RW-100A


RW-100A
GOODYEAR


221-813
RW-100A


SELF
UNLEAD
UNLEADED

Recycled RAP Project

District 08 Maintenance Section, along with LTRC and Material Resources, Inc., utilized reclaimed asphaltic pavement (RAP) to cold mix a material that could be used with a paver. This experimental project resurfaced a
3-mile secion in LA 493 in Natchitoches Parish at an average cost of $16.63 per ton.

The contractor, Material Resources, Inc., set up a pug mill and mixed 6,341 tons of RAP with 43,529 gallons of specially blended emulsified asphalt. This material looked like hot mix, but was not “hot”. The material was hauled and laid by District 08 Maintenance.

The outcome of the project is promising and we are looking forward to our next project using cold mix RAP overlay.

This is the <u>first</u> time the cold mixing of recycled material has been used as a paving layer in Louisiana!!!

Completed Ultra-Thin Overlay

Future Ultra-Thin Overlay Project

THE END