Category 1 Recommendations Report

Addendum

April 2, 2003

The Category 1 workgroup was asked to reconvene. The workgroup met on March 19, 2003 to review the statewide rehabilitation distribution. The objective of the workgroup was to (1) review the funding distribution aspects of the largest five metropolitan districts [Austin, Dallas, Fort Worth, Houston, and San Antonio], and (2) address the perception that rehabilitation project costs are higher in metropolitan districts compared to other districts. The recommended rehabilitation distribution formula is:

15%	Interstate Highway Equivalent Single Axle Loads (ESALs)
10%	Non-Interstate Highway National Highway System (NHS) ESALs
5%	Non-NHS ESALs
15%	On-System Lane-Miles
5%	On-System Vehicle Miles Traveled
35%	3-Year Average Lane Miles with Pavement Distress Scores less than 60
5%	3-Year Average Lane Miles with Pavement Ride Scores less than 2.0
5%	On-System Bridge Deck Area with Sufficiency Rating between 50 and 80
2%	Centerline-Miles of Operational Intelligent Transportation Systems (ITS)
3%	Centerline-Miles of 2-Lane Highways with Average Daily Traffic Greater than 400 and Substandard Surface Width (Less than 22 Feet)

The workgroup reviewed both the recommended allocation criteria and their weightings. This review revealed that 97% of the recommended allocation formula was favorable to the metropolitan districts. This amount reflects: (1) 52% related to traffic-based criteria (ESALs, lane-miles, VMT, ITS); and (2) 45% related to pavement and bridge condition. The pavement and bridge condition within the metropolitan districts has been suggested to be worse than other areas of the state. Response to this assertion appears to be accommodated with the high weighting on the pavement and bridge condition.

The workgroup ranked the districts by each of the distribution criteria and also by estimated rehabilitation distribution per lane-mile. These rankings are provided in Appendix A. The results of this review confirm that the allocation weightings do not negatively affect the metropolitan districts. A majority of the five metropolitan districts were in the top third rankings in eight of the ten criteria. Further review showed that a majority of the metropolitan districts ranked in the top third for 95% of the distribution criteria (IH ESAL, non-IH NHS ESAL, non-NHS ESAL, on-system lane-miles, lane-miles of pavement distress score < 60, bridge deck sufficiency rating 50-80, on-system VMT, ITS centerline miles, and centerline miles of two-lane roadways less than 22 feet of pavement width and having greater than 400 ADT). The remaining 5% of the distribution criteria has two of the metropolitan districts ranked in the top third (lane-miles of Ride score <2.0).

Additionally, the workgroup reviewed a set of data extracted from DCIS regarding rehabilitation projects and traffic control costs per lane-mile in each district. A summary of this information is included in Appendix B. The results show that only two metropolitan districts rank in the top third for rehabilitation work and associated traffic control costs per lane-mile. The workgroup drew the conclusion that there was no consistent basis of higher project costs in metropolitan districts compared to other areas of the state.

As part of a more detailed review of sources of construction cost variance, the workgroup identified and discussed several construction cost components. Each of these components is discussed in detail below with conclusions drawn by the workgroup.

Materials

Material costs typically represent 50% of a project's total cost[1]. The workgroup reviewed an analysis of three previous years' maintenance material costs purchased by state forces across the state. The results of this analysis are provided in Appendix C. After consideration and discussion, the workgroup concluded that this analysis did not provide compelling evidence that material costs were higher in metropolitan districts. The analysis shows that the metropolitan districts material costs are below or at the statewide average. In fact, Lufkin, Tyler, El Paso, Lubbock, Childress, and Amarillo are above the state average. The workgroup reasoned that the costs were higher in these districts because of the distance from the material sources and the smaller quantities purchased. It should be noted that some of the reported costs include delivery charges and some do not. This disparity is a function of the quality of the dataset available for review and analysis.

Labor

Labor costs typically represent 35% of a project's total cost[1]. The workgroup discussed possible data sources for a review. Federal wage rates were obtained and reviewed. This information is included as Appendix D. After the workgroup review, the consensus was that the wage rates between metropolitan districts are fairly homogenous. Therefore no significant conclusions were found between wage rates among different zones.

[1] Email from Renee Frisinger dated March 19, 2003 discussing a methodology in calculating the fiscal impact of HB 303 as introduced in the 77th Legislature. Supporting information referenced to Associated General Contractors. Included in Appendix D.

Traffic Control

This component considers the use of long-term construction traffic control devices versus the use of detours and performing work under traffic. Traffic control represents a small portion of the total project budget and is usually insignificant.

After reviewing the information shown in Appendix B, the workgroup concluded that the use of this construction component is unreliable and inconclusive. The lack of reliability stems from bids that appeared representative of actual costs for traffic control to other bids that were evidently not.

Design Approach

This component includes three areas: the application of design standards, pavement design, and type of traffic control. Pavement design, traffic control, and construction production (day v. night, barrier v. barricade/cones) are dependent on the design selected and employed.

The workgroup suspects that the cost of this component is higher for metro areas. The workgroup's perception was that metro areas are more likely to employ the 3R and 4R design standards on rehabilitation projects whereas other areas of the state may likely employ 2R and 3R standards. The workgroup's professional judgment was that this cost effect is diminished by economies of scale and competition, discussed below.

Economy of Scale & Competition

The workgroup concluded that these two components are the biggest factors for influencing construction costs.

Economy of scale is reflective of the quantities of work and materials required. Larger economies of scale normally receive lower unit costs. Conversely, smaller economies of scale may see increased unit costs. A larger economy of scale also increases the number of prime contractors and subcontractors in an area which influences competitive bids.

Competition between prime contractors and subcontractors directly influences the direction of cost changes. Metro areas may likely see increased competition compared to other areas of the state and therefore should reflect costs being driven down.

The workgroup reviewed the recent results from the Construction Division concerning cost estimates to achieve the TxDOT Administrative Memorandum stating a goal that 90% of the on-system roads reflect condition scores at good or better. A ranking of the cost estimates show that four of five metropolitan districts are in the top third of estimated costs. The Construction Division's cost estimates are not truly needs based, rather they were strategically founded. The recommended rehabilitation distribution developed by the Category 1 workgroup, which is needs based, demonstrates that all metropolitan districts are ranked in the top third of funding allocation and closely resembles the Construction Division's strategy to achieve the administrative goal. Comparison of the rankings are included in Appendix E.

In conclusion, the data sources investigated and discussed in this document did not reveal that overall rehabilitation project costs are higher in metropolitan districts compared to other districts. The recommended Category 1 rehabilitation allocation formula provides a reasonable base for annual operating funds reflective of documented needs. The formula was developed to dynamically adjust to the changing pavement conditions and traffic demands throughout the state and provide rehabilitation funding where it is most needed. The Category 1 workgroup recommends retaining and implementing its original distribution formula, without modification.

Appendix A

District Rankings of
Category 1 Recommended Distribution Criteria

	District Name	Amount	%	Rank
IH ESALS	DALLAS	19,925,323	16.3%	1
Weighting = 15%	SAN ANTONIO	10,948,468	9.0%	2
	HOUSTON	9,957,633	8.1%	3
	EL PASO	9,083,278	7.4%	4
	FORT WORTH	8,743,059	7.2%	5
	WACO	6,297,622	5.2%	6
	AMARILLO	6,081,831	5.0%	7
	AUSTIN	5,675,836	4.6%	8
	ODESSA	5,549,244	4.5%	9
	BEAUMONT	5,462,284	4.5%	10
	BRYAN	5,071,370	4.2%	11
	ATLANTA	4,717,487	3.9%	12
	TYLER	4,028,095	3.3%	13
	YOAKUM	3,908,428	3.2%	14
	ABILENE	3,828,985	3.1%	15
	PARIS	2,677,339	2.2%	16
	CHILDRESS	1,848,599	1.5%	17
	LAREDO	1,706,163	1.4%	18
	SAN ANGELO	1,676,757	1.4%	19
	BROWNWOOD	1,308,768	1.1%	20
	WICHITA FALLS	1,287,160	1.1%	21
	CORPUS CHRISTI	1,235,253	1.0%	22
	LUBBOCK	1,175,503	1.0%	23
	LUFKIN	-	0.0%	24
	PHARR	-	0.0%	25
	Total	122,194,485	100.0%	

	District Name	Amount	%	Rank
Non-IH NHS ESALs	HOUSTON	11,101,928	15.5%	1
Weighting = 10%	DALLAS	7,124,231	9.9%	2
	FORT WORTH	5,116,939	7.1%	3
	PHARR	4,904,860	6.8%	4
	LUFKIN	4,524,207	6.3%	5
	CORPUS CHRISTI	3,900,153	5.4%	6
	WICHITA FALLS	3,156,458	4.4%	7
	AMARILLO	2,864,448	4.0%	8
	BRYAN	2,819,106	3.9%	9
	BEAUMONT	2,614,366	3.6%	10
	YOAKUM	2,461,791	3.4%	11
	ATLANTA	2,298,845	3.2%	12
	AUSTIN	2,250,987	3.1%	13
	LUBBOCK	2,229,560	3.1%	14
	PARIS	2,140,984	3.0%	15
	LAREDO	1,925,773	2.7%	16
	TYLER	1,786,692	2.5%	17
	SAN ANTONIO	1,696,814	2.4%	18
	EL PASO	1,596,793	2.2%	19
	CHILDRESS	1,523,350	2.1%	20
	WACO	1,127,887	1.6%	21
	ABILENE	845,491	1.2%	22
	SAN ANGELO	800,269	1.1%	23
	BROWNWOOD	718,943	1.0%	24
	ODESSA	314,020	0.4%	25
		71,844,895	100.0%	

	District Name	Amount	%	Rank
Non-NHS ESALs	DALLAS	4,525,471	8.7%	1
Weighting = 5%	TYLER	3,572,429	6.9%	2
	AUSTIN	3,294,808	6.3%	3
	FORT WORTH	3,044,759	5.8%	4
	HOUSTON	2,989,728	5.7%	5
	WACO	2,811,448	5.4%	6
	SAN ANTONIO	2,710,774	5.2%	7
	YOAKUM	2,626,515	5.0%	8
	ATLANTA	2,406,526	4.6%	9
	PARIS	2,364,753	4.5%	10
	LUBBOCK	2,267,895	4.4%	11
	BEAUMONT	2,184,165	4.2%	12
	AMARILLO	2,139,892	4.1%	13
	PHARR	1,797,554	3.5%	14
	BRYAN	1,790,259	3.4%	15
	ODESSA	1,640,867	3.1%	16
	LUFKIN	1,620,005	3.1%	17
	CORPUS CHRISTI	1,617,697	3.1%	18
	SAN ANGELO	1,358,099	2.6%	19
	ABILENE	1,245,815	2.4%	20
	BROWNWOOD	1,039,545	2.0%	21
	WICHITA FALLS	909,709	1.7%	22
	EL PASO	784,304	1.5%	23
	LAREDO	763,256	1.5%	24
	CHILDRESS	593,204	1.1%	25
		52,099,477	100.0%	

	District Name	Amount	%	Rank
On-System Lane Miles	LUBBOCK	12,004	6.4%	1
Weighitng = 15%	SAN ANTONIO	10,387	5.5%	2
	DALLAS	9,928	5.3%	3
	HOUSTON	9,683	5.1%	4
	AMARILLO	9,284	4.9%	5
	TYLER	8,625	4.6%	6
	AUSTIN	8,549	4.5%	7
	FORT WORTH	8,470	4.5%	8
	ABILENE	8,376	4.5%	9
	ODESSA	7,928	4.2%	10
	YOAKUM	7,904	4.2%	11
	WACO	7,705	4.1%	12
	SAN ANGELO	7,166	3.8%	13
	PARIS	7,126	3.8%	14
	BRYAN	6,898	3.7%	15
	CORPUS CHRISTI	6,868	3.7%	16
	ATLANTA	6,372	3.4%	17
	LUFKIN	6,352	3.4%	18
	WICHITA FALLS	6,316	3.4%	19
	BROWNWOOD	5,806	3.1%	20
	BEAUMONT	5,643	3.0%	21
	PHARR	5,613	3.0%	22
	CHILDRESS	5,411	2.9%	23
	LAREDO	4,920	2.6%	24
	EL PASO	4,720	2.5%	25
		188,055	100.0%	

	District Name	Amount	%	Rank
Pvmt Distress < 60	DALLAS	1,432	14.3%	1
Weighting = 35%	LUBBOCK	940	10.7%	2
	HOUSTON	917	9.4%	3
	AMARILLO	746	8.0%	4
	BEAUMONT	532	5.8%	5
	CORPUS CHRISTI	466	4.7%	6
	SAN ANTONIO	468	4.6%	7
	BRYAN	392	4.1%	8
	SAN ANGELO	308	3.9%	9
	LUFKIN	318	3.4%	10
	AUSTIN	361	3.4%	11
	YOAKUM	325	3.2%	12
	FORT WORTH	303	3.1%	13
	PARIS	300	3.1%	14
	EL PASO	245	2.8%	15
	TYLER	259	2.7%	16
	WACO	238	2.4%	17
	LAREDO	211	2.1%	18
	WICHITA FALLS	181	2.0%	19
	ABILENE	196	1.9%	20
	PHARR	113	1.1%	21
	CHILDRESS	93	1.0%	22
	ATLANTA	86	0.9%	23
	ODESSA	78	0.8%	24
	BROWNWOOD	75	0.7%	25
		9,583	100.0%	

	District Name	Amount	%	Rank
Pvmt Ride < 2.0	DALLAS	453	10.6%	1
Weighting = 5%	PARIS	390	9.7%	2
	LAREDO	430	9.6%	3
	LUFKIN	397	8.9%	4
	SAN ANTONIO	310	7.1%	5
	EL PASO	280	6.5%	6
	BRYAN	264	6.3%	7
	CORPUS CHRISTI	244	5.5%	8
	YOAKUM	208	4.8%	9
	AMARILLO	167	4.1%	10
	ABILENE	172	3.9%	11
	HOUSTON	125	2.9%	12
	ODESSA	121	2.8%	13
	WACO	110	2.7%	14
	BEAUMONT	110	2.4%	15
	TYLER	78	1.8%	16
	PHARR	67	1.7%	17
	FORT WORTH	79	1.7%	18
	SAN ANGELO	57	1.3%	19
	WICHITA FALLS	63	1.3%	20
	LUBBOCK	54	1.2%	21
	ATLANTA	53	1.2%	22
	BROWNWOOD	48	1.1%	23
	CHILDRESS	23	0.5%	24
	AUSTIN	22	0.5%	25
		4323	100.0%	

	District Name	Amount	%	Rank
On-System Brdg Deck Rating 50-80	HOUSTON	11,830,515	19.0%	1
Weighting = 5%	DALLAS	10,021,435	16.1%	2
	BEAUMONT	4,374,404	7.0%	3
	CORPUS CHRISTI	3,223,930	5.2%	4
	SAN ANTONIO	3,119,016	5.0%	5
	WACO	2,959,443	4.8%	6
	YOAKUM	2,920,658	4.7%	7
	AUSTIN	2,392,318	3.8%	8
	FORT WORTH	2,317,352	3.7%	9
	TYLER	2,238,215	3.6%	10
	PARIS	1,824,307	2.9%	11
	LUFKIN	1,755,001	2.8%	12
	AMARILLO	1,588,417	2.6%	13
	ATLANTA	1,528,693	2.5%	14
	PHARR	1,457,003	2.3%	15
	BRYAN	1,295,281	2.1%	16
	BROWNWOOD	1,175,054	1.9%	17
	ABILENE	1,052,436	1.7%	18
	SAN ANGELO	1,043,921	1.7%	19
	LAREDO	1,000,170	1.6%	20
	WICHITA FALLS	878,468	1.4%	21
	EL PASO	783,811	1.3%	22
	CHILDRESS	636,729	1.0%	23
	ODESSA	512,106	0.8%	24
	LUBBOCK	294,597	0.5%	25
		62,223,278	100.0%	

	District Name	Amount	%	Rank
On-System VMT	HOUSTON	70,049,356	16.8%	1
Weighting = 5%	DALLAS	59,010,305	14.1%	2
	FORT WORTH	36,196,277	8.7%	3
	SAN ANTONIO	35,067,098	8.4%	4
	AUSTIN	29,061,515	7.0%	5
	WACO	15,888,745	3.8%	6
	PHARR	15,587,745	3.7%	7
	TYLER	14,914,663	3.6%	8
	BEAUMONT	14,265,123	3.4%	9
	CORPUS CHRISTI	12,297,213	2.9%	10
	BRYAN	11,823,947	2.8%	11
	YOAKUM	10,947,444	2.6%	12
	EL PASO	10,665,631	2.6%	13
	ATLANTA	10,291,985	2.5%	14
	PARIS	10,020,109	2.4%	15
	LUBBOCK	9,028,775	2.2%	16
	AMARILLO	8,718,211	2.1%	17
	LUFKIN	8,081,485	1.9%	18
	ODESSA	6,541,973	1.6%	19
	ABILENE	6,522,357	1.6%	20
	WICHITA FALLS	6,341,878	1.5%	21
	LAREDO	4,990,545	1.2%	22
	SAN ANGELO	4,432,132	1.1%	23
	BROWNWOOD	3,931,035	0.9%	24
	CHILDRESS	2,445,747	0.6%	25
		417,121,294	100.0%	

	District Name	Amount	%	Rank
Operational ITS Centerline -Mi	HOUSTON	375	35.5%	1
Weighting = 2%	FORT WORTH	200	19.0%	2
	DALLAS	150	14.2%	3
	SAN ANTONIO	107	10.1%	4
	EL PASO	83	7.9%	5
	AUSTIN	50	4.7%	6
	LAREDO	34	3.2%	7
	PHARR	30	2.8%	8
	BEAUMONT	9	0.9%	9
	WACO	6	0.6%	10
	AMARILLO	5	0.5%	11
	WICHITA FALLS	4	0.4%	12
	TYLER	2	0.2%	13
	PARIS	0	0.0%	14
	LUBBOCK	0	0.0%	15
	ODESSA	0	0.0%	16
	SAN ANGELO	0	0.0%	17
	ABILENE	0	0.0%	18
	LUFKIN	0	0.0%	19
	YOAKUM	0	0.0%	20
	CORPUS CHRISTI	0	0.0%	21
	BRYAN	0	0.0%	22
	ATLANTA	0	0.0%	23
	BROWNWOOD	0	0.0%	24
	CHILDRESS	0	0.0%	25
		1055	100.0%	

	District Name	Amount	%	Rank
CL-Mi 2-Ln < 22' Pvmt >400 ADT	TYLER	1,218.496	10.6%	1
Weighting = 3%	PARIS	994.056	8.6%	2
	ATLANTA	927.910	8.0%	3
	FORT WORTH	739.007	6.4%	4
	AUSTIN	727.707	6.3%	5
	SAN ANTONIO	654.237	5.7%	6
	BRYAN	631.091	5.5%	7
	LUFKIN	589.722	5.1%	8
	BEAUMONT	578.960	5.0%	9
	YOAKUM	550.158	4.8%	10
	WACO	548.044	4.7%	11
	LUBBOCK	513.963	4.5%	12
	PHARR	507.440	4.4%	13
	WICHITA FALLS	424.833	3.7%	14
	DALLAS	404.288	3.5%	15
	CORPUS CHRISTI	365.118	3.2%	16
	BROWNWOOD	188.653	1.6%	17
	AMARILLO	187.160	1.6%	18
	SAN ANGELO	166.311	1.4%	19
	LAREDO	164.219	1.4%	20
	ABILENE	159.948	1.4%	21
	HOUSTON	158.529	1.4%	22
	ODESSA	74.407	0.6%	23
	EL PASO	41.277	0.4%	24
	CHILDRESS	30.331	0.3%	25
		1,183	100.0%	

	District Name	Amount	Rank
$ Alloc / Ln-Mi	DALLAS	$ 10,372.60	1
	HOUSTON	$ 8,613.19	2
	BEAUMONT	$ 6,820.09	3
	EL PASO	$ 6,244.16	4
	FORT WORTH	$ 5,128.89	5
	AMARILLO	$ 4,945.23	6
	BRYAN	$ 4,805.95	7
	CORPUS CHRISTI	$ 4,736.22	8
	SAN ANTONIO	$ 4,641.72	9
	LUFKIN	$ 4,422.42	10
	PARIS	$ 4,178.90	11
	LAREDO	$ 4,160.53	12
	LUBBOCK	$ 4,027.98	13
	AUSTIN	$ 4,007.75	14
	YOAKUM	$ 3,831.44	15
	WACO	$ 3,730.91	16
	TYLER	$ 3,422.42	17
	PHARR	$ 3,413.34	18
	ATLANTA	$ 3,325.65	19
	SAN ANGELO	$ 3,107.96	20
	WICHITA FALLS	$ 2,971.61	21
	ABILENE	$ 2,483.86	22
	ODESSA	$ 2,227.90	23
	CHILDRESS	$ 2,187.91	24
	BROWNWOOD	$ 1,931.33	25

Appendix B

Review of
Rehabilitation and Traffic Control Costs per Lane-Mile
from DCIS

Table of Rehabilitation and Traffic Control Costs
Reported as Bid Items 502, 508, 510, & 512
Period: March 2001 - March 2003

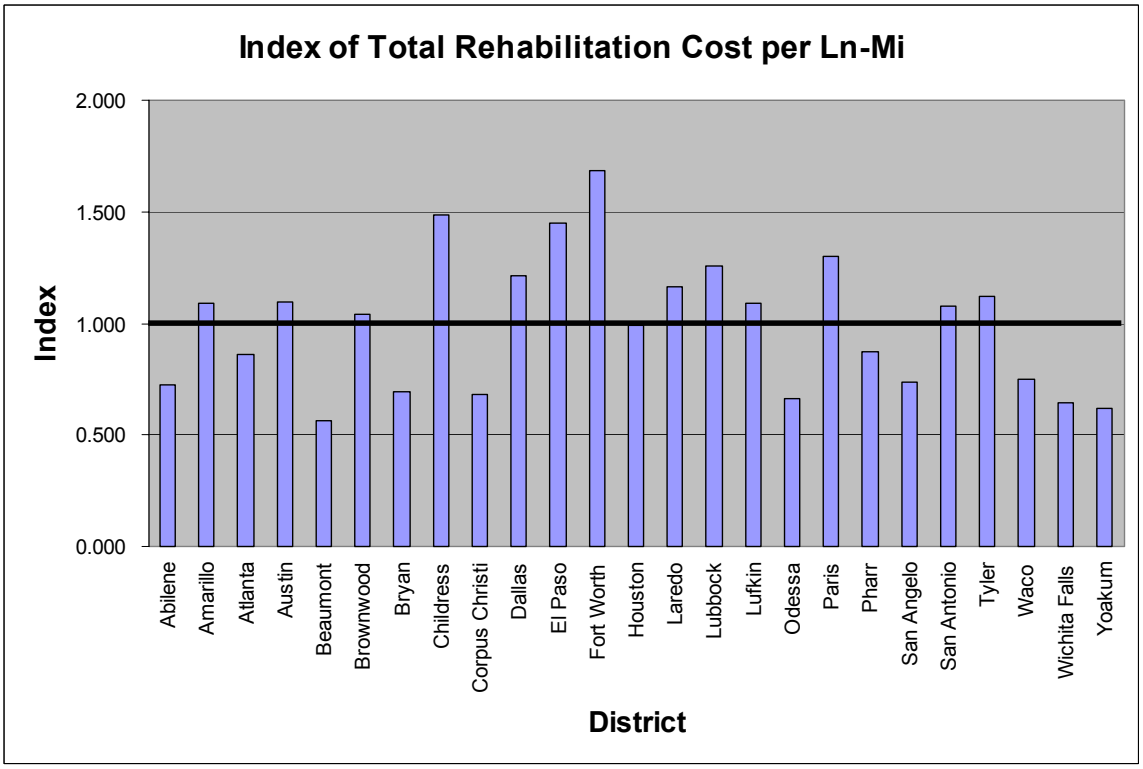
District	No. Projects	Total Lane-Miles	Total Lo-Bids	Total Cost/Total Ln Mi	Total Cost of Traff Control	Traff Cntrl $/Ln-Mi
Abilene	19	302.924	$ 57,707,606	$ 190,502	$ 2,150,847	$ 7,100.29
Amarillo	23	410.982	$ 118,042,098	$ 287,220	$ 4,258,926	$ 10,362.80
Atlanta	43	364.964	$ 82,567,509	$ 226,235	$ 1,301,235	$ 3,565.38
Austin	6	31.206	$ 8,977,824	$ 287,695	$ 267,765	$ 8,580.56
Beaumont	6	88.992	$ 13,220,984	$ 148,564	$ 345,110	$ 3,877.99
Brownwood	7	66.104	$ 18,050,078	$ 273,056	$ 387,525	$ 5,862.35
Bryan	13	138.880	$ 25,410,161	$ 182,965	$ 247,872	$ 1,784.79
Childress	13	167.252	$ 65,352,284	$ 390,741	$ 1,381,224	$ 8,258.34
Corpus Christi	14	245.566	$ 43,917,889	$ 178,844	$ 638,941	$ 2,601.91
Dallas	9	47.432	$ 15,159,993	$ 319,615	$ 713,184	$ 15,035.93
El Paso	15	262.168	$ 100,009,048	$ 381,469	$ 2,718,457	$ 10,369.14
Fort Worth	3	15.354	$ 6,796,261	$ 442,638	$ 139,534	$ 9,087.79
Houston	4	45.109	$ 11,745,449	$ 260,379	$ 108,220	$ 2,399.08
Laredo	16	160.004	$ 48,922,957	$ 305,761	$ 1,500,183	$ 9,375.91
Lubbock	17	331.796	$ 109,713,270	$ 330,665	$ 3,736,575	$ 11,261.66
Lufkin	9	96.110	$ 27,536,845	$ 286,514	$ 400,348	$ 4,165.52
Odessa	10	98.721	$ 17,266,721	$ 174,904	$ 506,006	$ 5,125.62
Paris	20	280.482	$ 95,792,580	$ 341,528	$ 4,076,125	$ 14,532.57
Pharr	25	244.970	$ 56,050,051	$ 228,804	$ 3,060,367	$ 12,492.82
San Angelo	5	85.892	$ 16,691,826	$ 194,335	$ 328,606	$ 3,825.80
San Antonio	17	144.042	$ 40,787,037	$ 283,161	$ 1,846,110	$ 12,816.47
Tyler	6	66.632	$ 19,644,879	$ 294,826	$ 366,101	$ 5,494.38
Waco	6	55.816	$ 10,970,233	$ 196,543	$ 290,643	$ 5,207.16
Wichita Falls	16	168.606	$ 28,475,686	$ 168,889	$ 437,997	$ 2,597.75
Yoakum	8	85.030	$ 13,855,101	$ 162,944	$ 231,630	$ 2,724.10
Statewide Total	330	4005.034	$ 1,052,664,370	$ 262,835.31	$ 31,439,530	$ 7,850.00

Total Rehabilitation Cost per Ln-Mi

District Name	Index	Rank
FORT WORTH	1.68	1
CHILDRESS	1.49	2
EL PASO	1.45	3
PARIS	1.30	4
LUBBOCK	1.26	5
DALLAS	1.22	6
LAREDO	1.16	7
TYLER	1.12	8
AUSTIN	1.09	9
AMARILLO	1.09	10
LUFKIN	1.09	11
SAN ANTONIO	1.08	12
BROWNWOOD	1.04	13
HOUSTON	0.99	14
PHARR	0.87	15
ATLANTA	0.86	16
WACO	0.75	17
SAN ANGELO	0.74	18
ABILENE	0.72	19
BRYAN	0.70	20
CORPUS CHRISTI	0.68	21
ODESSA	0.67	22
WICHITA FALLS	0.64	23
YOAKUM	0.62	24
BEAUMONT	0.57	25

Traffic Control Cost per Ln-Mi for Rehabilitation Projects

District Name	Index	Rank
DALLAS	1.92	1
PARIS	1.85	2
SAN ANTONIO	1.63	3
PHARR	1.59	4
LUBBOCK	1.43	5
EL PASO	1.32	6
AMARILLO	1.32	7
LAREDO	1.19	8
FORT WORTH	1.16	9
AUSTIN	1.09	10
CHILDRESS	1.05	11
ABILENE	0.90	12
BROWNWOOD	0.75	13
TYLER	0.70	14
WACO	0.66	15
ODESSA	0.65	16
LUFKIN	0.53	17
BEAUMONT	0.49	18
SAN ANGELO	0.49	19
ATLANTA	0.45	20
YOAKUM	0.35	21
CORPUS CHRISTI	0.33	22
WICHITA FALLS	0.33	23
HOUSTON	0.31	24
BRYAN	0.23	25


Index of Total Rehabilitation Cost per Ln-Mi
Index
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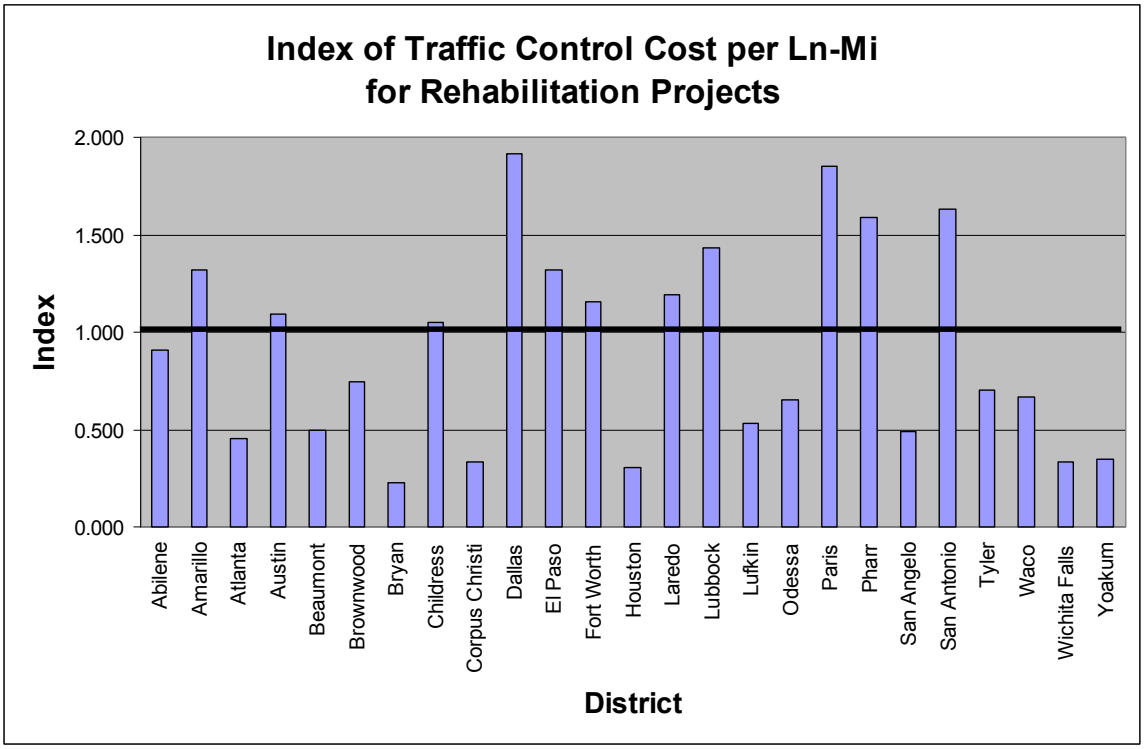
1.500
1.000
0.500
0.000
Abilene
Amarillo
Atlanta
Austin
Beaumont
Brownwood
Bryan
Childress
Corpus Christi
Dallas
El Paso
Fort Worth
Houston
Laredo
Lubbock
Lufkin
Odessa
Paris
Pharr
San Angelo
San Antonio
Tyler
Waco
Wichita Falls
Yoakum
District


Index of Traffic Control Cost per Ln-Mi
for Rehabilitation Projects
Index
2.000
1.500
1.000
0.500
0.000
Abilene
Amarillo
Atlanta
Austin
Beaumont
Brownwood
Bryan
Childress
Corpus Christi
Dallas
El Paso
Fort Worth
Houston
Laredo
Lubbock
Lufkin
Odessa
Paris
Pharr
San Angelo
San Antonio
Tyler
Waco
Wichita Falls
Yoakum
District

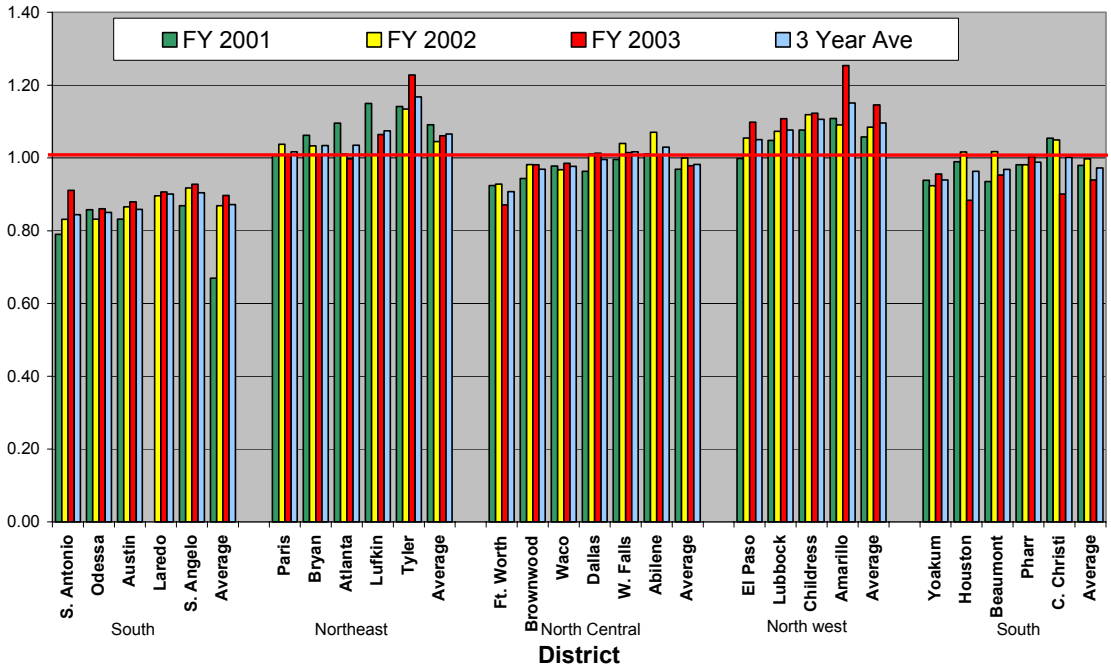
Appendix C

Maintenance Material Cost Index Summary

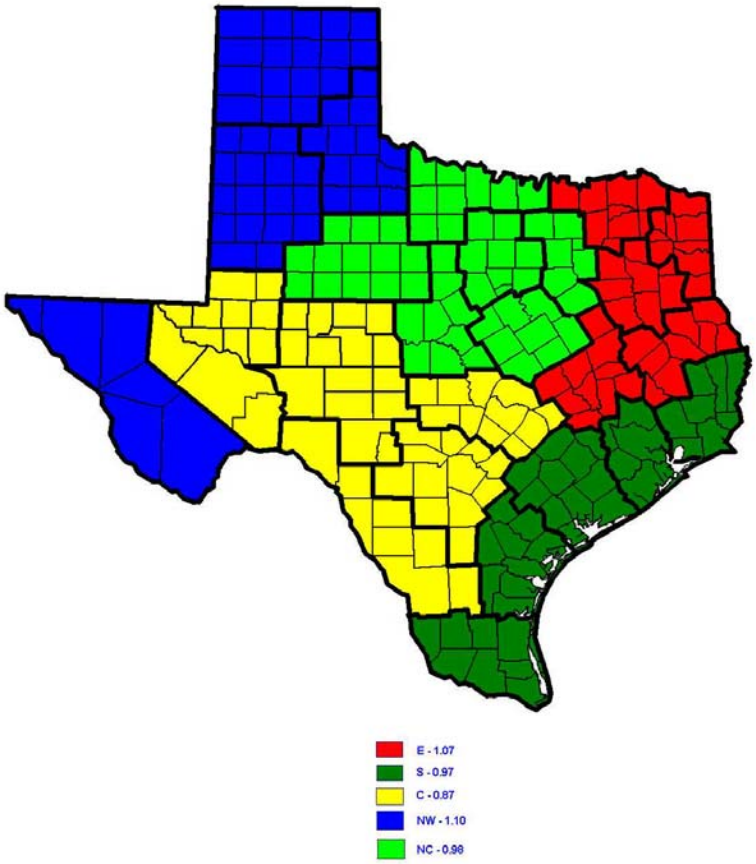
Table of Maintenance Material Price Indices

		Region	FY 2001 Index	FY 2002 Index	FY 2003 Index	3 Year Average
15	S. Antonio	C	0.79	0.83	0.91	0.84
1	Odessa	C	0.86	0.83	0.86	0.85
14	Austin	C	0.83	0.87	0.88	0.86
22	Laredo	C		0.90	0.91	0.90
23	S. Angelo	C	0.87	0.92	0.93	0.90
	Average	C	0.67	0.87	0.90	0.87
1	Paris	E	1.01	1.04	1.01	1.02
17	Bryan	E	1.06	1.03	1.01	1.03
19	Atlanta	E	1.10	1.01	1.00	1.03
1	Lufkin	E	1.15	1.01	1.06	1.07
2	Tyler	E	1.14	1.13	1.23	1.17
	Average	E	1.09	1.04	1.06	1.07
2	Ft. Worth	NC	0.92	0.93	0.87	0.91
23	Brownwood	NC	0.94	0.98	0.98	0.97
24	Waco	NC	0.98	0.97	0.98	0.98
18	Dallas	NC	0.96	1.01	1.01	1.00
19	W. Falls	NC	1.00	1.04	1.01	1.02
20	Abilene	NC	1.01	1.07	1.01	1.03
	Average	NC	0.97	1.00	0.98	0.98
24	El Paso	NW	1.00	1.05	1.10	1.05
25	Lubbock	NW	1.05	1.07	1.11	1.08
25	Childress	NW	1.08	1.12	1.12	1.11
26	Amarillo	NW	1.11	1.09	1.25	1.15
	Average	NW	1.06	1.08	1.15	1.10
26	Yoakum	S	0.94	0.92	0.96	0.94
27	Houston	S	0.99	1.02	0.88	0.96
20	Beaumont	S	0.93	1.02	0.95	0.97
21	Pharr	S	0.98	0.98	1.00	0.99
16	C. Christi	S	1.05	1.05	0.90	1.00
	Average	S	0.98	1.00	0.94	0.97

Maintenance Material Price Index



MAINTENANCE MATERIAL COST INDEX
FY 2001 - 2003



Appendix D

Review of Labor Cost Data

From: Renee Frisinger
To: Scott Nichols
Date: Wednesday - March 19, 2003 2:37 PM
Subject: Labor Costs

Scott,

The following was used as methodology in calculating the fiscal impact of HB 303 as introduced in the 77th Legislature:

"The costs indicated below are based upon the anticipated amount of transportation dollars for Texas as listed in the Summary for All Highway Programs prepared by the Transportation Planning and Programming division and dated 9/29/00. Labor costs associated with highway construction contracts are estimated to be 35% of the total project costs while materials costs are estimated to be 50% of the total project costs (percentages provided by the Associated General Contractor's Association). Labor cost percentages provided by AGC have also been applied to the cost of materials in order to approximate the parallel increase in labor expenses that will be experienced by the materials producers. These costs will be passed on to the department as an increase in contracting costs.

The projected amount of transportation dollars for Fiscal Years 2005 and 2006 is not available at this time. The anticipated fiscal impact is therefore based upon the average impact for Fiscal Years 2002 through 2004.

The costs listed below are based upon the proposed minimum wage for the Fort Worth-Arlington MSA. While the minimum wage as proposed in this bill would vary widely depending on locality, the proposed minimum wage for the Fort Worth-Arlington MSA is being used as a median for estimation purposes. The percentage increases based on the Fort Worth-Arlington MSA have therefore been applied to the anticipated budget for the entire state as an estimation of the potential fiscal impact that would be experienced as a result of this bill. Approximately 43% of the wage classifications for the Fort Worth-Arlington area are below the proposed new minimum wage of $9.52. The current average wage rate for the wage rates which comprise this 43% is $8.68. The proposed new minimum wage therefore represents an approximate 9.7% increase in 43% of the wage classifications for the Fort Worth-Arlington area."

Perhaps this will help Meg calculate her costs. Let me know if you need anything else.

Renée Frisinger
CSTC Administrative Operations
Phone: (512) 416-2482
FAX: (512) 416-2539
Email: vfrising@dot.state.tx.us

WAGE RATES

The wage rates listed are those predetermined by the Secretary of Labor (Federal Projects) and by State Statue (State Projects) to be the minimum wages paid. To determine the applicable wage rate zone, a list entitled "TEXAS COUNTIES IDENTIFIED BY WAGE RATE ZONES" is provided in the contract. Any wage rate that is not listed must be submitted to the Engineer for approval. IMPORTANT NOTICE FOR STATE PROJECTS; only the controlling wage rate zone applies to the contract.

Index #	CLASSIFICATION	Zone 27 3/1/2002	Zone 28 3/1/2002	Zone 29 3/1/2002	Zone 30 3/1/2002	Zone 38 3/1/2002	Zone 43 3/1/2002	Zone 45 3/1/2002	Zone 47 3/1/2002	Zone 48 3/1/2002
100	Air Tool Operator	7.49					8.08	9.00	7.12	
103	Asphalt Heater Operator		7.27				11.00		10.96	
106	Asphalt Raker	7.77	7.27	6.92	8.58	7.86	8.00	9.55	7.61	8.28
109	Asphalt Shoveler	7.13		6.97	7.01	7.25	7.97	8.80	7.95	7.45
112	Batching Plant Weigher	11.15					11.00	11.51	12.84	11.11
115	Batterboard Setter									
118	Carpenter, Rough	9.20	9.23	8.11	11.19	9.81	10.80	10.30	10.62	10.35
124	Concrete Finisher (Paving)	10.18	9.90	8.22	10.99	9.41	9.57	10.50	10.02	9.87
130	Concrete Finisher (Structures)	9.05	8.81	7.98	9.23	9.10	8.83	9.83	9.43	9.86
136	Concrete Rubber			8.50		8.02	8.52	8.84	8.27	9.00
139	Electrician	12.93	13.72		15.00	13.94	16.25	15.37	12.80	16.15
148	Fireman									
150	Flagger	6.56	6.56	5.44	6.62	5.99	6.86	7.55	6.66	6.66
151	Form Builder (Structures)	8.12	9.00	10.04	8.48	10.05	8.77	9.82	9.15	9.96
157	Form Liner (Paving & Curb)				9.63		8.00	9.00	7.94	9.03
160	Form Setter (Paving & Curb)	8.32	8.30	6.89	9.23	8.32	8.68	9.24	9.35	8.86
166	Form Setter (Structures)	8.46	8.83	8.05	8.62	8.54	8.73	9.09	9.37	9.05
172	Laborer (Common)	7.13	6.79	6.52	7.01	6.67	7.12	7.32	7.12	7.45
175	Laborer (Utility)	8.56	8.46	7.79	9.31	7.58	7.99	8.94	8.99	8.53
178	Lineperson									7.50
181	Groundperson									
184	Manhole Builder									8.49
187	Mechanic	10.55	10.28	9.01	11.09	9.38	12.15	12.68	12.00	11.38
193	Oiler	9.31					11.40	10.17	9.24	9.56
194	Servicer	8.22	7.82	7.56	9.87	8.03	8.44	9.41	8.85	9.51
196	Painter (Structures)	8.06					10.00	11.00	9.26	14.00
202	Piledriverman					13.75			10.87	10.96
205	Pipelayer	8.42	8.70	7.15	7.35	7.89	8.27	8.98	8.93	8.49
211	Pneumatic Motor Operator	8.05								
214	Blaster			10.65				11.50		
300	Asphalt Distributor Operator	8.77	8.54	7.78	9.19	8.64	9.70	10.29	9.02	9.47
303	Asphalt Paving Machine Opr.	9.38	9.50	8.82	9.82	9.47	9.26	10.30	9.88	10.05
305	Broom or Sweeper Operator	7.13	7.17	6.95	7.01	7.09	7.12	8.72	7.50	8.01
306	Bulldozer	8.99	8.74	8.31	10.14	8.89	9.28	10.74	10.45	9.91
315	Conc. Pav. Curing Machine Opr.						7.79	9.25	8.00	8.80
318	Conc. Pav. Finishing Mach. Opr.						11.00	11.13		11.79
321	Conc. Pav. Form Grader Opr.									
324	Conc. Pav. Gang Vibrator Opr.									
326	Conc. Pav. Grinder Opr.									
327	Conc. Pav. Joint Machine Opr.							10.42		
329	Conc. Pav. Joint Sealer Opr.							9.00		10.50
330	Conc. Pav. Float Opr.									9.30
333	Conc. Pav. Saw Opr.	11.33			10.55	9.00	9.79	10.39	10.97	10.01
336	Conc. Pav. Spreader							10.50		9.32
339	Conc. Pav. Sub-Grader Opr.									
340	Reinf. Steel Machine Operator									
341	Slip-Form Machine Operator		9.00				11.15	9.92		9.20
342	Crane, Clamshell, Backhoe Derrick, Dragline, Shovel	9.74	9.67	9.59	10.89	10.16	10.12	11.04	10.63	11.35
351	Crusher or Screen Plant Opr.	8.13								11.00
354	Elevating Grader									
357	Form Loader									

continued on the next page

Index #	CLASSIFICATION	Zone 27 3/1/2002	Zone 28 3/1/2002	Zone 29 3/1/2002	Zone 30 3/1/2002	Zone 38 3/1/2002	Zone 43 3/1/2002	Zone 45 3/1/2002	Zone 47 3/1/2002	Zone 48 3/1/2002
360	Foundation Drill Opr.Crawler Mt.	11.95						10.00	11.61	12.59
363	Foundation Drill Opr.Truck Mt.	12.50		12.50		12.31	15.00	11.83	11.67	12.73
369	Front End Loader	8.65	8.09	7.95	9.05	8.20	8.86	9.96	9.38	9.29
375	Hoist (Double Drum & Less)						10.81			
378	Hoist (Over 2 Drums)									
380	Milling Machine Opr.(Fine Grd)	8.17						8.62	8.20	10.43
381	Mixer						7.12	10.30	9.35	7.94
387	Mixer (Concrete Paving)						11.00			
390	Motor Grader Opr. Fine Grade	12.06	11.58	10.27	11.32	11.56	12.37	11.97	12.18	11.11
393	Motor Grader Operator	10.57	10.47	9.42	11.44	9.72	11.14	10.96	10.54	10.67
396	Pavement Marking Machine	7.84			7.25	8.12	8.31	7.32	7.42	7.45
397	Planer Operator	9.90	10.46	13.50			15.75			
399	Pump Crete									
402	Roller,Stl.Wheel(Plant Mix Pav)	7.39	7.32	7.82	8.60	8.48	7.73	9.06	8.63	9.25
405	Roller,Stl.Wheel(Flat Whl/Tamp)	7.13	6.79	6.95	7.97	6.67	7.33	8.59	7.37	7.61
408	Roller,Pneumatic (Self-Propell)	7.13	6.79	6.62	7.01	7.04	7.17	8.48	7.67	7.96
411	Scrapers	7.78	7.55	7.35	9.40	7.65	8.38	9.63	8.84	8.69
417	Self-Propelled Hammer Opr.									
419	Side Boom									
422	Tractor (Crawler Type)	7.85	9.16		9.35		9.40	10.58	9.24	10.12
428	Tractor (Pneumatic)	7.52	7.86	6.94	8.25	7.31		9.15	9.12	8.99
434	Traveling Mixer	8.29	8.46	7.47	10.05	7.76	7.92	8.83	9.41	9.35
437	Trenching Machine, Light									10.50
440	Trenching Machine, Heavy						9.92			13.56
442	Tunneling Machine Operator									
443	Wagon Drill, Boring Machine, Post Hole Driller Operator	7.22					8.00	12.00		10.15
500	Reinforcing Steel Setter (Pav.)	9.50	10.00			8.90	14.50	13.21	11.31	12.50
503	Reinforcing Steel Setter (Str.)	11.85	11.48	9.22	9.42		10.61	13.31	11.13	12.47
509	Steel Worker (Structural)			11.99			11.73	14.80		10.35
513	Sign Erector									10.06
515	Spreader Box Operator	7.99	7.33	7.25	8.60	8.38	8.55	10.00	8.29	9.08
518	Swamper									
520	Work Zone Barricade Servicer	7.13	6.79	6.57	7.01	7.09	8.29	7.32	7.43	7.45
522	Sign Installer (PGM)						7.97			7.45
600	Truck Driver Single Axle, Light	7.53	6.91	6.92	7.50	7.42	8.32	8.97	8.10	8.15
603	Truck Driver Single Axle, Heavy	9.68	8.20	8.25	7.25	8.25	7.95	9.02	8.20	8.76
606	Truck Driver(Tandem Axle/ Semi)	7.55	7.13	7.33	8.10	7.60	8.02	8.77	8.42	8.00
609	Truck Driver Lowboy-Float	8.96	8.87	10.00	10.44	10.29	10.12	10.44	10.35	11.29
612	Truck Driver Transit-Mix							9.47	8.81	
615	Truck Driver Winch							9.00		
700	Vibrator Operator (Hand Type)							7.32		
703	Weigher (Truck Scales)									10.43
706	Welder	8.64	11.83	10.07			11.02	11.57		
707	Slurry Seal Machine Operator									
708	Micro-Surfacing Machine Opr.									

Any worker employed on this project shall be paid at the rate of one and one half (1-1/2) times the regular rate for every hour worked in excess of forty (40) hours per week.

			Apprentice Schedule/Period and Rate*							
Power Equipment Operators:	1000 Hrs		1rst	2nd	3rd	4th	5th	6th	7th	8th
Heavy Duty Mechanic	"	"	70	72-1/2	75	77-1/2	80	85	90	95
Boom Equipment	"	"	70	75	80	85	90	95		
Motor Grader	"	"	70	75	80	85	90	95		
Tractor & Scrapers, Pneumatic and Crawler	"	"	70	75	80	85	90	95		

*The apprentice rate is by percentage of the journeyman's rate; no wages shall be less than the rate for "Laborer (Common)".

BORDER WAGE RATES

The wage rates listed are those determined in acoordance with State Statue to be the minimum wages paid.
To determine the applicable wage rate zone, a list entitled "TEXAS COUNTIES IDENTIFIED BY WAGE RATE ZONES" is provided in the contract. Any wage rate that is not listed must be submitted to the Engineer for approval.
IMPORTANT NOTICE FOR STATE PROJECTS; only the controlling wage rate zone applies to the contract

Index #	CLASSIFICATION	B1 3/8/2002	B2 3/8/2002	B3 3/8/2002	B4 3/8/2002
100	Air Tool Operator		7.71		
103	Asphalt Heater Operator				
106	Asphalt Raker	7.60	7.84	7.89	7.42
109	Asphalt Shoveler		7.35	7.41	7.27
112	Batching Plant Weigher		11.34		
115	Batterboard Setter				
118	Carpenter, Rough	9.29	9.52	9.82	8.97
124	Concrete Finisher (Paving)	8.64	10.18	9.52	8.93
130	Concrete Finisher (Structures)	7.99	9.05	9.10	8.45
136	Concrete Rubber			8.27	8.51
139	Electrician	14.76	13.74	14.24	
148	Fireman				
150	Flagger		6.56	6.27	5.99
151	Form Builder (Structures)		8.69	10.05	10.04
157	Form Liner (Paving & Curb)				
160	Form Setter (Paving & Curb)		8.45	8.45	7.73
166	Form Setter (Structures)	7.73	8.51	8.55	8.31
172	Laborer (Common)	6.64	7.13	6.81	6.73
175	Laborer (Utility)	7.87	8.56	7.97	8.07
178	Lineperson				
181	Groundperson				
184	Manhole Builder				
187	Mechanic	10.66	10.72	10.14	9.95
193	Oiler		9.62		
194	Servicer	8.49	8.41	8.32	8.08
196	Painter (Structures)		9.26		
202	Piledriverman			13.75	
205	Pipelayer	7.96	8.42	8.04	7.67
211	Pneumatic Motor Operator		8.05		
214	Blaster				10.86
300	Asphalt Distributor Operator	8.53	8.86	8.80	8.37
303	Asphalt Paving Machine Opr.	9.22	9.46	9.50	9.18
305	Broom or Sweeper Operator		7.27	7.25	7.18
306	Bulldozer	8.99	9.20	9.15	8.86
315	Conc. Pav. Curing Machine Opr.				
318	Conc. Pav. Finishing Mach. Opr.	9.67			
321	Conc. Pav. Form Grader Opr.				
324	Conc. Pav. Gang Vibrator Opr.				
326	Conc. Pav. Grinder Opr.				
327	Conc. Pav. Joint Machine Opr.				
329	Conc. Pav. Joint Sealer Opr.				
330	Conc. Pav. Float Opr.				
333	Conc. Pav. Saw Opr.		11.33	9.65	
336	Conc. Pav. Spreader				
339	Conc. Pav. Sub-Grader Opr.				
340	Reinf. Steel Machine Operator				
341	Slip-Form Machine Operator				
342	Crane, Clamshell, Backhoe Derrick, Dragline, Shovel	10.18	10.03	10.24	9.96
351	Crusher or Screen Plant Opr.		8.85		
354	Elevating Grader				
357	Form Loader				

continued on the next page

Index #	CLASSIFICATION	B1 3/8/2002	B2 3/8/2002	B3 3/8/2002	B4 3/8/2002
360	Foundation Drill Opr.Crawler Mt.		11.95		
363	Foundation Drill Opr.Truck Mt.		12.57	12.48	12.57
369	Front End Loader	8.43	8.70	8.48	8.35
375	Hoist (Double Drum & Less)				
378	Hoist (Over 2 Drums)				
380	Milling Machine Opr.(Fine Grd)		8.51		
381	Mixer				
387	Mixer (Concrete Paving)				
390	Motor Grader Opr. Fine Grade	12.50	12.06	11.63	10.98
393	Motor Grader Operator	12.63	10.66	10.24	10.09
396	Pavement Marking Machine		7.84	8.12	
397	Planer Operator		11.15		13.50
399	Pump Crete				
402	Roller,Stl.Wheel(Plant Mix Pav)	7.84	7.78	8.48	8.00
405	Roller,Stl.Wheel(Flat Whl/Tamp)	6.82	7.20	6.97	7.11
408	Roller,Pneumatic (Self-Propell)	7.09	7.20	7.16	6.95
411	Scrapers	7.79	8.02	7.95	7.80
417	Self-Propelled Hammer Opr.				
419	Side Boom				
422	Tractor (Crawler Type)		8.62		
428	Tractor (Pneumatic)		7.83	7.73	7.54
434	Traveling Mixer		8.45	8.19	8.04
437	Trenching Machine, Light				
440	Trenching Machine, Heavy				
442	Tunneling Machine Operator				
443	Wagon Drill, Boring Machine, Post Hole Driller Operator		8.28		
500	Reinforcing Steel Setter (Pav.)	10.44	10.35	10.05	
503	Reinforcing Steel Setter (Str.)	15.50	11.85		10.44
509	Steel Worker (Structural)				12.10
513	Sign Erector				
515	Spreader Box Operator		8.19	8.38	7.82
518	Swamper				
520	Work Zone Barricade Servicer		7.18	7.16	6.90
522	Sign Installer (PGM)				
600	Truck Driver Single Axle, Light	7.53	7.62	7.57	7.32
603	Truck Driver Single Axle, Heavy	7.36	9.68	8.25	8.25
606	Truck Driver(Tandem Axle/ Semi)	7.40	7.67	7.70	7.56
609	Truck Driver Lowboy-Float		9.52	10.29	10.04
612	Truck Driver Transit-Mix				
615	Truck Driver Winch				
700	Vibrator Operator (Hand Type)				
703	Weigher (Truck Scales)				
706	Welder	9.68	9.50		10.21
707	Slurry Seal Machine Operator				
708	Micro-Surfacing Machine Opr.				

Any worker employed on this project shall be paid at the rate of one and one half (1-1/2) times the regular rate for every hour worked in excess of forty (40) hours per week.

			Apprentice Schedule/Period and Rate*							
Power Equipment Operators:	1000 Hrs		1rst	2nd	3rd	4th	5th	6th	7th	8th
Heavy Duty Mechanic	"	"	70	72-1/2	75	77-1/2	80	85	90	95
Boom Equipment	"	"	70	75	80	85	90	95		
Motor Grader	"	"	70	75	80	85	90	95		
Tractor & Scrapers, Pneumatic and Crawler	"	"	70	75	80	85	90	95		

*The apprentice rate is by percentage of the journeyman's rate; no wages shall be less than the rate for Laborer (Common).

TEXAS COUNTIES IDENTIFIED BY WAGE RATE ZONES B1, B2, B3, B4, 27, 28, 29, 30, 38, 43, 45, 47, 48

County Name	ZONE	County Name	ZONE	County Name	ZONE	County Name	ZONE
Anderson	47	Donley	27	Karnes	38	Reagan	27
Andrews	27	Kenedy	B3	Kaufman	45	Real	27
Angelina	47	Duval	B3	Kendall	38	Red River	47
Aransas	38	Eastland	27	Kenedy	B3	Reeves	B2
Archer	27	Ector	28	Kent	27	Refugio	38
Armstrong	27	Edwards	B2	Kerr	38	Roberts	27
Atascosa	38	Ellis	45	Kimble	27	Robertson	47
Austin	38	El Paso	B1	King	27	Rockwall	45
Bailey	27	Erath	47	Kinney	B2	Runnels	27
Bandera	38	Falls	47	Kleberg	38	Rusk	47
Bastrop	38	Fannin	47	Knox	27	Sabine	47
Baylor	27	Fayette	38	Lamar	47	San Augustine	47
Bee	38	Fisher	27	Lamb	27	San Jacinto	47
Bell	43	Floyd	27	Lampasas	27	San Patricio	29
Bexar	43	Foard	27	LaSalle	B3	San Saba	27
Blanco	38	Fort Bend	48	Lavaca	38	Schleicher	27
Borden	27	Franklin	47	Lee	38	Scurry	27
Bosque	47	Freestone	47	Leon	47	Shackelford	27
Bowie	30	Frio	38	Liberty	48	Shelby	47
Brazoria	48	Gaines	27	Limestone	47	Sherman	27
Brazos	43	Galveston	48	Lipscomb	27	Smith	30
Brewster	B2	Garza	27	Live Oak	38	Somervell	47
Briscoe	27	Gillespie	38	Llano	38	Starr	B3
Brooks	B3	Glasscock	27	Loving	27	Stephens	27
Brown	27	Goliad	38	Lubbock	28	Sterling	27
Burleson	47	Gonzales	38	Lynn	27	Stonewall	27
Burnet	38	Gray	27	Madison	47	Sutton	B2
Caldwell	38	Grayson	45	Marion	47	Swisher	27
Calhoun	38	Gregg	30	Martin	27	Tarrant	45
Callahan	27	Grimes	47	Mason	38	Taylor	28
Cameron	B4	Guadalupe	43	Matagorda	38	Terrell	B2
Camp	47	Hale	27	Maverick	B3	Terry	27
Carson	27	Hall	27	McCulloch	27	Throckmorton	27
Cass	47	Hamilton	47	McLennan	43	Titus	47
Castro	27	Hansford	27	McMullen	B3	Tom Green	28
Chambers	47	Hardeman	27	Medina	38	Travis	43
Cherokee	47	Hardin	48	Menard	27	Trinity	47
Childress	27	Harris	48	Midland	28	Tyler	47
Clay	27	Harrison	30	Milam	47	Upshur	47
Cochran	27	Hartley	27	Mills	27	Upton	27
Coke	27	Haskell	27	Mitchell	27	Uvalde	B3
Coleman	27	Hays	43	Montague	27	Val Verde	B2
Collin	45	Hemphill	27	Montgomery	48	Van Zandt	47
Collingsworth	27	Henderson	47	Moore	27	Victoria	29
Colorado	38	Hidalgo	B4	Morris	47	Walker	47
Comal	43	Hill	47	Motley	27	Waller	48
Comanche	27	Hockley	27	Nacogdoches	47	Ward	27
Concho	27	Hood	47	Navarro	47	Washington	47
Cooke	27	Hopkins	47	Newton	47	Webb	B4
Coryell	43	Houston	47	Nolan	27	Wharton	38
Cottle	27	Howard	27	Nueces	29	Wheeler	27
Crane	27	Hudspeth	B2	Ochiltree	27	Wichita	45
Crockett	B2	Hunt	47	Oldham	27	Wilbarger	27
Crosby	27	Hutchinson	27	Orange	48	Willacy	B3
Culberson	B2	Irion	27	Palo Pinto	47	Williamson	43
Dallam	27	Jack	47	Panola	47	Wilson	38
Dallas	45	Jackson	38	Parker	45	Winkler	27
Dawson	27	Jasper	47	Parmer	27	Wise	47
Deaf Smith	27	Jeff Davis	B2	Pecos	B2	Wood	47
Delta	47	Jefferson	48	Polk	47	Yoakum	27
Denton	45	Jim Hogg	B3	Potter	28	Young	27
DeWitt	38	Jim Wells	38	Presidio	B2	Zapata	B3
Dickens	27	Johnson	45	Rains	47	Zavala	B3
Dimmit	B3	Jones	27	Randall	28		

Revised 2-25-02

Appendix E

Ranking Comparison of
Category 1 Recommendation Results v.
Construction Division Estimated 10-Year Needs
to Achieve Administrative Goals

Recommended Category 1 Allocation Ranking Results

District Name	%	Rank
DALLAS	12.1%	1
HOUSTON	9.8%	2
LUBBOCK	5.7%	3
SAN ANTONIO	5.7%	4
AMARILLO	5.4%	5
FORT WORTH	5.1%	6
BEAUMONT	4.5%	7
AUSTIN	4.0%	8
BRYAN	3.9%	9
CORPUS CHRISTI	3.8%	10
YOAKUM	3.6%	11
PARIS	3.5%	12
TYLER	3.5%	13
EL PASO	3.5%	14
WACO	3.4%	15
LUFKIN	3.3%	16
SAN ANGELO	2.6%	17
ATLANTA	2.5%	18
ABILENE	2.4%	19
LAREDO	2.4%	20
PHARR	2.3%	21
WICHITA FALLS	2.2%	22
ODESSA	2.1%	23
CHILDRESS	1.4%	24
BROWNWOOD	1.3%	25

District by District Cost Allocation Estimate Pavement Management Information System (PMIS)

District Name	%	Rank
HOUSTON	17.3%	1
BEAUMONT	11.7%	2
DALLAS	11.3%	3
AMARILLO	6.7%	4
FORT WORTH	6.0%	5
SAN ANTONIO	5.0%	6
CORPUS CHRISTI	5.0%	7
LUBBOCK	3.5%	8
BRYAN	3.2%	9
LUFKIN	3.0%	10
PARIS	3.0%	11
TYLER	2.8%	12
LAREDO	2.8%	13
EL PASO	2.8%	14
AUSTIN	2.7%	15
WACO	2.6%	16
YOAKUM	2.4%	17
PHARR	2.0%	18
ABILENE	1.7%	19
ATLANTA	1.6%	20
BROWNWOOD	0.7%	21
CHILDRESS	0.7%	22
SAN ANGELO	0.5%	23
ODESSA	0.5%	24
WICHITA FALLS	0.3%	25

District by District Cost Allocation
Pavement Management Information System (PMIS)
FY 2001

Responsible District	Current	Increase	Result	Lane Miles to Fix	Cost Estimate
Abilene	90.49%	3.00%	93.50%	243.5	$20,387,000
Amarillo	80.58%	7.27%	87.84%	657.4	$80,641,000
Atlanta	91.62%	2.51%	94.14%	150.1	$19,485,000
Austin	87.89%	4.12%	92.01%	302.9	$32,164,000
Beaumont	77.06%	8.78%	85.84%	474.6	$140,701,000
Brownwood	93.07%	1.89%	94.96%	109.8	$8,799,000
Bryan	82.18%	6.58%	88.76%	440.2	$38,541,000
Childress	92.16%	2.29%	94.44%	120.2	$8,509,000
Corpus Christi	80.00%	7.52%	87.51%	480.5	$59,475,000
Dallas	61.55%	15.45%	77.00%	1,380.30	$135,809,000
El Paso	82.17%	6.58%	88.75%	302.2	$33,934,000
Fort Worth	88.47%	3.87%	92.34%	299.6	$71,535,500
Houston	77.29%	8.68%	85.97%	769.6	$207,364,000
Laredo	81.52%	6.86%	88.38%	326.1	$34,006,000
Lubbock	86.17%	4.86%	91.03%	516.8	$41,971,000
Lufkin	75.03%	9.66%	84.68%	567.8	$36,280,000
Odessa	95.15%	1.00%	96.15%	30.4	$5,776,000
Paris	82.45%	6.46%	88.91%	438.4	$36,241,000
Pharr	91.64%	2.51%	94.15%	131.2	$23,714,000
San Angelo	92.60%	2.09%	94.70%	139.2	$6,091,000
San Antonio	82.35%	6.50%	88.86%	653.5	$59,701,000
Tyler	87.98%	4.08%	92.06%	331.9	$34,198,500
Waco	90.43%	3.03%	93.46%	230.9	$31,436,000
Wichita Falls	91.86%	2.41%	94.27%	144.4	$4,111,000
Yoakum	82.61%	6.39%	89.00%	463.4	$29,244,000
STATEWIDE	**84.36%**	5.64%	**90.00%**	9,704.90	$1,200,114,000