

The Texas Transportation Challenge

Testimony Before the Study Commission on Transportation Financing

> Ric Williamson Chairman Texas Transportation Commission April 19, 2006

THE \$86 BILLION DOLLAR PROBLEM

CAPACITY IN TEXAS METROPOLITAN AREAS

- Our current metropolitan transportation system provides 56,240 equivalent lane miles of highway capacity.
- Local leaders and transportation planners in the 8 metropolitan areas of our state have identified \$136 billion in needed improvements to achieve an acceptable level of congestion, safety, air quality, economic opportunity and asset value by 2030.
- We have \$68 billion in available and projected funding from state and local sources to invest in these projects.
- We have a funding gap of \$68 billion to expand capacity by 11,332 additional equivalent lane miles over the next 25 years.

CAPACITY IN TEXAS URBAN AREAS

- Our current urban transportation system provides 14,656 equivalent lane miles of highway capacity.
- Local leaders and transportation planners in our 17 urban areas are currently developing urban mobility plans and preliminary estimates indicate a need for \$10.5 billion in project construction to achieve an acceptable level of congestion, safety, air quality, economic opportunity and asset value by 2030.
- We have \$1.5 billion in available and projected funding from state and local sources to invest in these projects.
- We have a funding gap of \$9 billion to expand capacity by approximately 3,000 additional equivalent lane miles over the next 25 years.

CAPACITY IN RURAL TEXAS

- The Texas Trunk System and the Interstate System connect our metropolitan and urban areas. The 34,659 lane miles of the Texas Trunk System and the 10,265 lane miles of the Interstate System provide essential connectivity throughout the state for both interregional and international traffic.
- State transportation planners have identified the need for \$13.7 billion in projects to achieve an acceptable level of congestion, safety, air quality, economic opportunity and asset value by 2030.
- We have \$4.7 billion in available and projected funding from state and local sources to invest in these projects.
- We have a funding gap of \$9 billion to expand capacity by approximately 6,400 lane miles over the next 25 years.

Population



Registrations





VMT







METHODOLOGY FOR TAX GAP ANALYSIS

This analysis compares the total life-cycle cost of a given road segment to the tax revenue generated by the use of the road over a 40-year time period:

- The costs include the initial construction and right-of-way costs, plus the preventive and routine maintenance costs.
- The per gallon revenues consist of the TxDOT portion of the current 20 cent per gallon state fuel tax plus the Texas portion of the Federal fuel tax.
- Fuel consumed on the road segment is computed from the average fleet mileage for cars and trucks and the fleet composition on the given segment.
- The 40-year time period was chosen to be sure to include a full cycle of preventive maintenance and reconstruction.

There are three calculations:

- The tax gap, which is the difference between the revenue collected and the costs of the road.
- The tax gap ratio, which is the fraction of the costs that the revenues cover.
- The real tax, which is the rate the state fuel tax would have to be to allow the revenues to equal the costs of the road.

Factors taken into consideration in the estimate:

- Current and future traffic
- Segment length and number of lanes
- New lanes or expansion of the existing road
- Proportion of cars and trucks
- Fleet mileage
- State and Federal rate of return
- Motor vehicle registration fees at current rates
- Preventive and routine maintenance cycles
- Indirect costs
- Construction and right-of-way costs
- Inflation

HARRIS COUNTY - SH 99 Segment E, IH 10 to US 290

Parameters:

ADT:	16,400
Length:	15 miles
Avg % Trucks:	5
Avg % Cars:	95
Avg MPG:	21.47
Avg Lanes:	4

Assumptions:

Pavement Type:	Rigid
Reconstruction cycle:	30 years
Routine Maintenance Cost:	\$4,410 per lane mile (2004 dollars)
Annual VMT Growth:	6.5%
Paved Shoulders Adjustment:	+1.67 lanes per road
Analysis Period:	2005-2044

Results:

40-Year Total Tax Revenue:	\$162,544,947
40-Year Total Cost:	\$1,016,318,588
40-Year Tax Gap:	\$853,773,641
Tax Gap Ratio:	0.16
-	

Real Tax Rate:

\$2.22/gallon

COLLIN COUNTY - City of Frisco from Streward's Creek to US 380

Parameters:

ADT:	17,100
Length:	6.97
Avg % Trucks:	5
Avg % Cars:	95
Avg MPG:	21.47
Avg Lanes:	6

Assumptions:

Pavement Type:	Rigid
Reconstruction Cycle:	30 years
Routine Maintenance Cost:	\$4,410 per lane mile (2004 dollars)
Annual VMT Growth:	3%
Paved Shoulder Adjustment:	0 lanes per road
Analysis Period:	2005-2044

Results:

Real Tax Rate:	\$0.57 /gəllon
Tax Gap Ratio:	0.51
40-Year Tax Gap:	\$39,063,036
40-Year Total Cost:	\$79,909,693
40-Year Total Tax Revenue:	\$40,846,656

COLLIN COUNTY - City of Frisco FM 3537 from SH 289 to FM 2478

Parameters:

,400
)6
.47

Assumptions:

Pavement Type:	Rigid
Reconstruction Cycle:	30 years
Routine Maintenance Cost:	\$4,410 per lane mile (2004 dollars)
Annual VMT Growth:	3%
Paved Shoulder Adjustment:	0 lanes per road
Analysis Period:	2005-2044

Results:

Real Tax Rate:	\$1.48 /gallon
Tax Gap Ratio:	0.23
40-Year Tax Gap:	\$57,627,748
40-Year Total Cost:	\$74,881,174
40-Year Total Tax Revenue:	\$17,253,426
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COLLIN COUNTY - FM 2251 from FM 544 to FM 2170

Parameters:

6300
6.35 miles
5
95
21.47
6

Assumptions:

Pavement Type:	Rigid
Reconstruction Cycle:	30 years
Routine Maintenance Cost:	\$4,410 per lane mile (2004 dollars)
Annual VMT Growth:	3%
Paved Shoulder Adjustment:	0 lanes per road
Analysis Period:	2005-2044

Results:

40-Year Total Tax Revenue:	\$14,092,749
40-Year Total Cost:	\$106,799,681
40-Year Tax Gap:	\$92,706,932
Tax Gap Ratio:	0.13
-	

Real Tax Rate: \$2.80 /gallon

BEXAR COUNTY - SH 151: segments H-47 A,B,C & H-145 A & B (inside the loop)

Parameters:

ADT:	29,900
Length:	10.5 miles
Avg MPG:	22.1
Avg Lanes:	4

Assumptions:

Pavement Type:	Rigid
Reconstruction Cycle:	30 years
Routine Maintenance Cost:	\$4,410 per lane mile (2004 dollars)
Annual VMT Growth:	4.7% to 2024, 2% thereafter
Analysis Period:	2005-2044

Results:

40-Year Total Tax Revenue:	\$74,128,502
40-Year Total Cost:	\$159,280,583
40-Year Tax Gap:	\$85,152,081
Tax Gap Ratio:	0.47

Real Tax Rate: \$0.62/gallon

TRAVIS COUNTY- US 183 south of US 290 to north of Bolm Road

Parameters:

ADT:	52,000
Length:	4.24 miles
Avg % Trucks:	5
Avg % Cars:	95
Avg MPG:	21.47
Avg Lanes:	6

Assumptions:

Pavement Type:	Rigid
Reconstruction Cycle:	30 years
Routine Maintenance Cost:	\$4,410 per lane mile (2004 dollars)
Annual VMT Growth:	7% through 2023, 3% thereafter.
Paved Shoulder Adjustment:	0 lanes per road
Analysis Period:	2005-2044

Results:

Real Tax Rate:	\$2.02 /gallon
Tax Gap Ratio:	0.17
40-Year Tax Gap:	\$467,682,503
40-Year Total Cost:	\$565,890,808
40-Year Total Tax Revenue:	\$98,208,306

THE OPTIONS

There are four commonly suggested options to deal with the gap between our needs and our projected revenue. One option is to do nothing. Another is to raise the gas tax by whatever amount needed to close the gap. It has also been proposed to bond with the existing gas tax. And there is our plan, to expand capacity through the use of toll roads.

NON TOLL OPTION

- If we do nothing, inflation drives up the ultimate cost of doing something to add highway capacity.
- If we do nothing, our existing infrastructure will deteriorate further as more vehicles tear up our road.
- If we do nothing, by 2014, we will have no money to increase the capacity of our highways, as the cost to maintain our roads skyrockets.
- If we do nothing, the funding gap to build needed capacity widens to \$258 billion because of inflation and the increased cost to maintain our roads.

GAS TAX OPTION

• A gas tax of \$1.40 will generate enough revenue to pay for all the identified improvements to our highway system by 2030.

DEBT OPTION

- We have the authority to bond up to \$3 billion of the State Highway Fund which would allow us to accelerate up to \$1 billion of currently planned projects per year.
- We will be able to avoid the inflation cost of building these project now rather than later.
- However, in future years, we will have less money to spend on new capacity since we will be paying a debt service of \$4.8 billion on payments from future gas tax revenues.
- Future State Highway Fund revenue is fully committed as shown on the "non toll base case."
- Instead, another option would be to increase the gas tax enough to cover the annual debt service and address our unfunded needs.
- In order to cover the gap, we'd have to raise the gas tax 9 cents in 2009 and increase it continually until 2030 when it is increased by a \$1.83, and then return to 9 cents in 2050. On average the gas tax increase would be 96 cents.

TXDOT OPTION

- The approach the commission has taken to close the gap uses the time-tested principles of free market economics, competition, and consumer choice.
- We will issue bonds backed by toll revenue to build and maintain new capacity on our highway system.
- We will give Texans the option to choose whether or not they want to get home faster.
- We have already identified \$25 billion in toll projects to help bridge the \$86 billion gap.
- During the next 25 years as population increases, we will identify additional toll projects to fund the remaining gap.

TxDOT

CASH FLOW FORECAST - NON TOLL BASE CASE -(In Millions)

	R	levenue	Non Mobility Expenditure								Mobility Expenditure										
													Δ	dded			Base		2030		2030
Year	R	levenue	Т	ransfer		Plan		Use	Ν	lanage	Ν	Maintain		RM	Subtotal	С	apacity	С	apacity		Goal
2005	\$	6,800	\$	604	\$	1,480	\$	553	\$	851	\$	2,750			\$ 6,238	\$	562	\$	562	\$	86,000
2006	\$	8,004	\$	628	\$	1,539	\$	575	\$	885	\$	2,860	\$	29	\$ 6,488	\$	579	\$	1,516	\$	88,502
2007	\$	8,214	\$	653	\$	1,601	\$	598	\$	920	\$	2,974	\$	78	\$ 6,747	\$	596	\$	1,467	\$	91,172
2008	\$	8,431	\$	679	\$	1,665	\$	622	\$	957	\$	3,093	\$	75	\$ 7,017	\$	614	\$	1,414	\$	94,019
2009	\$	8,653	\$	707	\$	1,731	\$	647	\$	996	\$	3,217	\$	73	\$ 7,298	\$	633	\$	1,356	\$	97,056
2010	\$	7,883	\$	735	\$	1,801	\$	673	\$	1,035	\$	3,346	\$	70	\$ 7,589	\$	652	\$	294	\$	101,297
2011	\$	8,120	\$	764	\$	1,873	\$	700	\$	1,077	\$	3,480	\$	15	\$ 7,893	\$	671	\$	226	\$	105,793
2012	\$	8,363	\$	795	\$	1,948	\$	728	\$	1,120	\$	3,619	\$	12	\$ 8,209	\$	691	\$	154	\$	110,562
2013	\$	8,614	\$	827	\$	2,025	\$	757	\$	1,165	\$	3,764	\$	8	\$ 8,537	\$	712	\$	77	\$	115,619
2014	\$	8,872	\$	860	\$	2,107	\$	787	\$	1,211	\$	3,914	\$	4	\$ 8,879	\$	733	\$	(6)	\$	120,983
2015	\$	9,139	\$	894	\$	2,191	\$	819	\$	1,260	\$	4,071	\$	-	\$ 9,234	\$	755	\$	(95)	\$	126,673
2016	\$	9,413	\$	930	\$	2,278	\$	851	\$	1,310	\$	4,233	\$	-	\$ 9,603	\$	778	\$	(190)	\$	132,708
2017	\$	9,695	\$	967	\$	2,370	\$	885	\$	1,362	\$	4,403	\$	-	\$ 9,987	\$	801	\$	(292)	\$	139,110
2018	\$	9,986	\$	1,006	\$	2,464	\$	921	\$	1,417	\$	4,579	\$	-	\$ 10,387	\$	825	\$	(401)	\$	145,900
2019	\$	10,286	\$	1,046	\$	2,563	\$	958	\$	1,474	\$	4,762	\$	-	\$ 10,802	\$	850	\$	(517)	\$	153,103
2020	\$	10,594	\$	1,088	\$	2,665	\$	996	\$	1,533	\$	4,953	\$	-	\$ 11,234	\$	876	\$	(640)	\$	160,743
2021	\$	11,912	\$	1,131	\$	2,772	\$	1,036	\$	1,594	\$	5,151	\$	-	\$ 11,684	\$	902	\$	228	\$	167,846
2022	\$	12,239	\$	1,177	\$	2,883	\$	1,077	\$	1,658	\$	5,357	\$	-	\$ 12,151	\$	929	\$	88	\$	175,400
2023	\$	12,577	\$	1,224	\$	2,998	\$	1,120	\$	1,724	\$	5,571	\$	-	\$ 12,637	\$	957	\$	(60)	\$	183,434
2024	\$	12,924	\$	1,273	\$	3,118	\$	1,165	\$	1,793	\$	5,794	\$	-	\$ 13,143	\$	985	\$	(219)	\$	191,975
2025	\$	12,282	\$	1,323	\$	3,243	\$	1,212	\$	1,865	\$	6,026	\$	-	\$ 13,668	\$	1,015	\$	(1,387)	\$	202,056
2026	\$	12,650	\$	1,376	\$	3,373	\$	1,260	\$	1,939	\$	6,267	\$	-	\$ 14,215	\$	1,045	\$	(1,565)	\$	212,748
2027	\$	13,030	\$	1,431	\$	3,507	\$	1,311	\$	2,017	\$	6,517	\$	-	\$ 14,784	\$	1,077	\$	(1,754)	\$	224,089
2028	\$	13,420	\$	1,489	\$	3,648	\$	1,363	\$	2,097	\$	6,778	\$	-	\$ 15,375	\$	1,109	\$	(1,955)	\$	236,116
2029	\$	13,823	\$	1,548	\$	3,794	\$	1,418	\$	2,181	\$	7,049	\$	-	\$ 15,990	\$	1,142	\$	(2,167)	\$	248,870
2030	\$	14,238	\$	1,610	\$	3,945	\$	1,474	\$	2,269	\$	7,331	\$	-	\$ 16,629	\$	1,177	\$	(2,392)	\$	258,825

TxDOT

CASH FLOW FORECAST - GAS TAX BASE CASE -(In Millions)

	Revenue		Non Mobility Expenditure									Mobility Expenditure									
												۸.					D		0000		0000
Voor	Povonuo	Тг	ancfor		Plan		leo	N/-	20200	N/	aintain	AC		0	ubtotal		Base	C	2030		2030 Gool
2005	revenue re aoo	¢		¢	1 400	¢	552	d d	anaye	¢	2 750	¢		ں م	e 220	6	apacity 500	¢	арасну	¢	90ai
2005	\$0,000 \$8,004	ф Ф	629	φ ¢	1,400	φ Φ	575	φ Φ	001	φ Φ	2,750	φ Φ	-	φ Φ	0,230	φ ¢	570	φ Φ	036	φ Φ	80,000
2000	\$0,004 \$0,004	¢ ¢	020	ф Ф	1,559	ф Ф	575	ф Ф	000	ф Ф	2,000	ф Ф	- 10	ф Ф	0,400 6 705	ф Ф	579	ф Ф	930	¢ ¢	09,440
2007	φ0,214 ¢9./21	ф Ф	670	φ Φ	1,001	φ Φ	622	φ Φ	920	φ Φ	2,974	φ Φ	40	φ Φ	7.050	φ ¢	614	φ Φ	757	φ Φ	92,042
2000	\$0,431 \$16,853	ф Ф	707	φ Φ	1,005	φ Φ	647	φ Φ	907	φ Φ	3,093	φ Φ	42 20	φ Φ	7,039	φ ¢	622	φ Φ	0 001	φ Φ	94,009
2009	\$16,000	ф Ф	735	φ Φ	1,751	φ Φ	673	φ Φ	990 1 035	φ Φ	3346	φ ¢	39 457	φ Φ	8.046	φ ¢	652	φ ¢	7 385	φ Φ	97,070
2010	\$16.320	φ Φ	764	Ψ Φ	1,001	Ψ ¢	700	Ψ ¢	1,033	Ψ Φ	3 / 80	Ψ ¢	380	Ψ Φ	8 273	φ Φ	671	Ψ ¢	7,305	Ψ ¢	92,551 88 572
2011	\$16 563	φ Φ	704	Ψ Φ	1,075	Ψ ¢	728	Ψ ¢	1 120	Ψ Φ	3,400	Ψ ¢	370	Ψ Φ	8 5 8 8	φ Φ	601	Ψ ¢	7 284	Ψ ¢	8/ ///
2012	\$16,303 \$16,914	Ψ Φ	133 927	Ψ Φ	2 0 2 5	Ψ Φ	757	Ψ Φ	1,120	ψ ¢	3,013	ψ Φ	271	Ψ Φ	0,000 9.012	φ ¢	712	Ψ Φ	7,204	ψ ¢	90 247
2013	\$10,014	ф Ф	860	φ Φ	2,025	φ Φ	797	φ Φ	1,100	φ Φ	3,704	φ Φ	374	φ Φ	0,912	φ ¢	712	φ Φ	7,191	φ Φ	75 079
2014	\$17,072 \$17,330	ф Ф	804	φ Φ	2,107	φ Φ	810	φ Φ	1,211	φ Φ	3,914 4 071	φ ¢	364	φ Φ	9,240	φ ¢	755	φ ¢	6 085	φ Φ	71 6/3
2015	\$17,559 \$17,613	φ Φ	034	Ψ Φ	2,131	Ψ ¢	851	Ψ ¢	1,200	Ψ Φ	4,071	Ψ ¢	350	Ψ Φ	9,550	φ Φ	733	Ψ ¢	6 873	Ψ ¢	67 244
2010	\$17,895	Ψ ¢	967	Ψ \$	2,270	Ψ ¢	885	Ψ ¢	1 362	Ψ ¢	4 403	Ψ ¢	353	Ψ ¢	10 340	Ψ \$	801	Ψ ¢	6 753	Ψ ¢	62 786
2017	\$18,186	Ψ ¢	1 006	Ψ \$	2,570	Ψ ¢	000 021	Ψ ¢	1 417	Ψ ¢	4 579	Ψ ¢	347	Ψ ¢	10,340	Ψ \$	825	Ψ ¢	6 6 2 7	Ψ ¢	58 274
2010	\$18.486	Ψ ¢	1,000	Ψ \$	2,404	Ψ ¢	921	Ψ ¢	1 474	Ψ ¢	4 762	Ψ ¢	341	Ψ ¢	11 143	Ψ \$	850	Ψ ¢	6 493	Ψ ¢	53 713
2020	\$18 794	\$	1,040	\$	2,000	\$	996	\$	1 533	\$	4 953	\$	334	ŝ	11,140	\$	876	\$	6 351	\$	49 109
2020	\$19 112	\$	1,000	\$	2,000	\$	1 036	\$	1,594	\$	5 151	\$	326	\$	12 010	\$	902	\$	6 200	\$	44 469
2022	\$19,439	\$	1 177	\$	2 883	\$	1,000	\$	1 658	\$	5 357	\$	319	\$	12,010	\$	929	\$	6 041	\$	39,800
2023	\$19 777	\$	1 224	\$	2,998	\$	1 120	\$	1 724	\$	5 571	ŝ	310	\$	12,948	\$	957	\$	5 872	\$	35 109
2024	\$21,124	\$	1,273	\$	3,118	\$	1.165	\$	1,793	\$	5,794	\$	302	\$	13,444	\$	985	\$	6.694	\$	30,406
2025	\$21,482	\$	1.323	\$	3.243	\$	1.212	\$	1,865	\$	6.026	\$	344	\$	14.012	\$	1.015	\$	6.454	\$	24,661
2026	\$21,850	\$	1.376	\$	3.373	\$	1,260	\$	1,939	\$	6,267	\$	332	\$	14.547	\$	1.045	\$	6,258	\$	18,935
2027	\$22,230	\$	1.431	\$	3.507	\$	1.311	\$	2.017	\$	6.517	\$	322	\$	15,105	\$	1.077	\$	6.047	\$	13.184
2028	\$21,620	\$	1.489	\$	3.648	\$	1.363	\$	2.097	\$	6.778	\$	311	\$	15.686	\$	1.109	\$	4.825	\$	7.422
2029	\$22,023	\$	1.548	\$	3.794	\$	1.418	\$	2.181	\$	7.049	\$	248	\$	16.238	\$	1.142	\$	4.643	\$	2.701
2030	\$22,438	\$	1,610	\$	3,945	\$	1,474	\$	2,269	\$	7,331	\$	239	\$	16,868	\$	1,177	\$	4,393	\$	(2,020)

THE REAL GAS TAX

In 1956, the federal government started building the interstate highway system. The gas tax rate was 3 cents per gallon to support this construction project.

- Inflation The value of the dollar has decreased so that a dollar in 1956 will only buy what 17 cents buys today.
- Vehicle Ownership Population growth has caused it to nearly double from 0.47 vehicles per person to 0.83 vehicles per person. More of the driving population now owns a car.
- Vehicle Use The move away from the city work center has nearly tripled driving frequency from 4,416 miles per vehicle to 12,428 miles per vehicle. On average, every car is driving more every year.
- Since 1956, the gas tax would have had to increase by a factor of about 6 times to account for inflation, and by another factor of about 3 times to account for increased traffic demand. 5 cents then equates to about 91 cents today.



TxDOT

CASH FLOW FORECAST - TxDOT BASE CASE -(In Millions)

	Revenue		Non Mobility Expenditure										Mobility Expenditure					
Veer	Devenue	Transfor		Dian			Ma			aintain	Added	Cubtotol		Base	~	2030		2030 Cool
rear	Revenue		¢	Pian	¢	Use 550	IVI2	anage	IVI ¢			Subiolai	¢.			арасну	¢	Goal
2005	\$6,800 ¢0,004	\$ 604 ¢ 609	¢	1,480	¢ ¢	553	ф Ф	851	ф Ф	2,750	ф -	\$ 6,238 ¢ 6,499	Э ¢	502	¢	1 0 2 9	¢	86,000
2006	\$9,004	\$ 628 © 050	¢	1,539	¢	5/5	ф Ф	885	¢	2,860	ъ -	\$ 6,488	Э ¢	579	¢	1,938	Э Ф	87,502
2007	\$9,214	\$ 653	\$ ¢	1,601	\$ ¢	598	\$	920	\$ ¢	2,974	\$ 100	\$ 6,847	\$ ¢	596	\$	1,771	\$	89,311
2008	\$9,431	\$ 679	\$ ¢	1,665	\$ ¢	622	\$	957	\$ ¢	3,093	\$ 91	\$ 7,108	\$ ¢	614	\$	1,708	\$	91,335
2009	\$33,653	\$ 707	\$ ¢	1,731	\$ ¢	647	\$	996	\$ ¢	3,217	\$ 88	\$ 7,385	\$	633	\$	25,636	\$	69,593
2010	\$7,883	\$ 735	\$ ¢	1,801	\$ ¢	673	\$	1,035	\$ ¢	3,346	\$1,318	\$ 8,907	\$	652	\$	(1,676)	\$	74,292
2011	\$8,120	\$ 764	\$ ¢	1,873	\$ ¢	700	\$	1,077	\$ ¢	3,480	⇒ - ¢	\$ 7,893	\$	671	\$	(445)	\$	77,949
2012	\$33,363	\$ 795	\$ ¢	1,948	\$ ¢	728	\$	1,120	\$ ¢	3,619	\$ -	\$ 8,209	\$ ¢	691	\$	24,463	\$	56,843
2013	\$8,614	\$ 827	\$	2,025	\$	/5/	\$	1,165	\$	3,764	\$1,257	\$ 9,795	\$	712	\$	(1,892)	\$	61,250
2014	\$8,872	\$ 860	\$	2,107	\$	/8/	\$	1,211	\$	3,914	\$ -	\$ 8,879	\$	733	\$	(739)	\$	64,679
2015	\$34,139	\$ 894	\$	2,191	\$	819	\$	1,260	\$	4,071	\$ -	\$ 9,234	\$	755	\$	24,150	\$	43,357
2016	\$9,413	\$ 930	\$	2,278	\$	851	\$	1,310	\$	4,233	\$1,241	\$10,844	\$	778	\$	(2,210)	\$	47,540
2017	\$9,695	\$ 967	\$	2,370	\$	885	\$	1,362	\$	4,403	\$ -	\$ 9,987	\$	801	\$	(1,093)	\$	50,775
2018	\$34,986	\$ 1,006	\$	2,464	\$	921	\$	1,417	\$	4,579	\$ -	\$10,387	\$	825	\$	23,774	\$	29,272
2019	\$10,286	\$ 1,046	\$	2,563	\$	958	\$	1,474	\$	4,762	\$1,222	\$12,024	\$	850	\$	(2,589)	\$	33,272
2020	\$10,594	\$ 1,088	\$	2,665	\$	996	\$ ·	1,533	\$	4,953	\$-	\$11,234	\$	876	\$	(1,516)	\$	36,358
2021	\$36,912	\$ 1,131	\$	2,772	\$	1,036	\$ ·	1,594	\$	5,151	\$-	\$11,684	\$	902	\$	24,327	\$	13,726
2022	\$12,239	\$ 1,177	\$	2,883	\$	1,077	\$	1,658	\$	5,357	\$1,250	\$13,401	\$	929	\$	(2,091)	\$	16,606
2023	\$12,577	\$ 1,224	\$	2,998	\$	1,120	\$	1,724	\$	5,571	\$-	\$12,637	\$	957	\$	(1,017)	\$	18,528
2024	\$37,924	\$ 1,273	\$	3,118	\$	1,165	\$ [·]	1,793	\$	5,794	\$-	\$13,143	\$	985	\$	23,796	\$	(4,287)
2025	\$12,282	\$ 1,323	\$	3,243	\$	1,212	\$	1,865	\$	6,026	\$1,223	\$14,891	\$	1,015	\$	(3,625)	\$	(594)
2026	\$12,650	\$ 1,376	\$	3,373	\$	1,260	\$	1,939	\$	6,267	\$-	\$14,215	\$	1,045	\$	(2,610)	\$	2,233
2027	\$23,030	\$ 1,431	\$	3,507	\$	1,311	\$ 2	2,017	\$	6,517	\$-	\$14,784	\$	1,077	\$	7,169	\$	(4,687)
2028	\$13,420	\$ 1,489	\$	3,648	\$	1,363	\$ 2	2,097	\$	6,778	\$ 368	\$15,743	\$	1,109	\$	(3,432)	\$	(1,362)
2029	\$13,823	\$ 1,548	\$	3,794	\$	1,418	\$ 2	2,181	\$	7,049	\$-	\$15,990	\$	1,142	\$	(3,309)	\$	1,893
2030	\$19,238	\$ 1,610	\$	3,945	\$	1,474	\$ 2	2,269	\$	7,331	\$-	\$16,629	\$	1,177	\$	1,431	\$	537

DEPARTMENT GOALS

As we develop projects, we ask what a project will do to reduce congestion, improve safety, provide economic opportunity, improve air quality or increase the asset value of our system.

REDUCE CONGESTION

- Growth in population and trade has put tremendous strain on the state highway system.
- Congestion impacts the economy and the quality of life of all Texans.

ENHANCE SAFETY

- TxDOT's top priority in building projects is to ensure the safety of motorists.
- For most people, driving is the most dangerous activity they are ever involved with. By 1950, more Americans were killed in auto collisions than were killed in both World Wars.
- TxDOT works to provide the safest and most secure conditions possible to avoid and prevent collisions whenever possible.

IMPROVE AIR QUALITY

- Highway congestion contributes to the poor air quality in urban Texas.
- We plan our highway and rail projects to support Texas' efforts to attain the National Ambient Air Quality Standards.
- Transportation planning in Texas is focused on a more inclusive, environmentally sensitive, and multimodal approach to addressing our mobility needs.

SUPPORT ECONOMIC OPPORTUNITY

- Transportation networks are the backbone of any economy.
- The ability to have goods delivered "on time, every time" is critical to the success of many industries.
- Large employers in Texas have indicated that transportation congestion has been a factor in deciding to open a new facility out of Texas.
- Because of its strategic location, Texas can attract business, but only if there is a transportation system to conveniently access the appropriate markets.
- Improvements to the transportation system will substantially add to the vitality of the Texas economy. (Toyota, Samsung, Fort Bliss, Fort Hood)
- As congestion increases in urban Texas, suburban and rural Texas will also suffer delays in the movement of goods and services.

PROTECT TRANSPORTATION ASSET VALUE

- The value of our transportation system can be defined by the condition and effectiveness of the assets.
- Asset value can be quantified by the cost of development, the cost of preservation, and the tax or toll revenue derived by its utility.
- Resources should be allocated across assets.

DEPARTMENT STRATEGIES

To reach our goals to reduce congestion, improve safety, provide economic opportunities, improve air quality, and increase the asset value of our system, TxDOT is implementing four strategies.

USE ALL FINANCIAL OPTIONS

- Allocate tax revenue according to local and regional plans.
- Use new financial tools to accelerate the delivery of projects.
- Allocate revenue from the Texas Mobility Fund to the most successful projects.
- Use bonds backed by the State Highway Fund to accelerate safety projects.
- Use bonds backed by toll revenue to expand capacity.
- Use Toll Equity to accelerate projects.

EMPOWER LOCAL LEADERSHIP

- Support the creation of Regional Mobility Authorities.
- Use pass through toll financing to accelerate local and regional projects.
- Follow the Texas Metropolitan Mobility Plan to prioritize local and regional projects.

COMPETITION

- Use comprehensive development agreements to provide an efficient nexus between private capital markets and public infrastructure needs.
- Apply competitive pressure on vendors of the state to drive down the cost of transportation projects.

CONSUMER-DRIVEN DECISIONS

- Give consumers a choice between tax roads, toll roads, and public transportation.
- Support express toll lanes and expand the transportation footprint with new toll roads.
- Capitalize the Texas Rail Relocation and Improvement Fund to provide revenue to build a commuter rail system.

DEPARTMENT FOCUS

We divide our work into five general categories to help the public understand our operations.

PLAN IT

- Planning, design, and right-of-way acquisition for highways and other transportation modes.
- Transportation research: new ways to plan, use, build, maintain, and manage transportation.
- Texas Metropolitan Mobility Plan Short Term Planning
 - Make decisions based on dollars not on projects
- Pass through toll financing Mid Term Planning
 - Regional leadership can choose to accelerate projects up to 20 years faster
- Trans-Texas Corridor Long Term Planning
 - Large scale multimodal facility that contemplates Texas' growth over the next 50 years.

BUILD IT

- The obvious things we do are build highways and bridges.
- It is lesser known that we also oversee general aviation airport improvements.

USE IT

- We assist in other less obvious transportation matters.
- Public Transportation, Vehicle, Car Dealer, and Motor Carrier Registration, Traffic Safety, Travel Information, Auto Theft Prevention

MAINTAIN IT

- Maintaining the transportation system we've worked so hard to build is very important to TxDOT.
- We not only maintain and preserve roads and bridges, but also, airports, the Gulf Intracoastal Waterway, and our ferry systems.
- That includes filling potholes, putting up cable barriers, resurfacing roadways and runways, and replacing bridges.

MANAGE IT

- This category includes programs that keep our agency running.
- For instance, our Central and Regional management, information resources offices, financing, and other support services.

TxDOT

BOND PAYMENT SCHEDULE (In Millions)

					Tax							٦	otal Net
				In	crease	Ν	et Gas	Α	nnual Gas			(Gas Tax
	Bonds			fc	or Debt		Тах	Та	x Revenue	Α	mount for	F	Revenue
	Issued	D	ebt Service	S	ervice	In	crease		Needed		Schools	G	enerated
2005	\$ -	\$	-	\$	-							-	
2006	\$-	\$	-	\$	-								
2007	\$ -	\$	-	\$	_								
2008	\$ -	\$	-	\$	-								
2009	\$ 8.200.00	\$	657.99	\$	0.07	\$	0.09	\$	657.99	\$	255.88	\$	913.87
2010	\$ 8.200.00	\$	1.315.98	\$	0.13	\$	0.18	\$	1.315.98	\$	511.77	\$	1.827.75
2011	\$ 8.200.00	\$	1.973.97	\$	0.20	\$	0.27	\$	1.973.97	\$	767.65	\$	2.741.62
2012	\$ 8.200.00	\$	2.631.96	\$	0.26	\$	0.37	\$	2.631.96	\$	1.023.54	\$	3.655.50
2013	\$ 8,200.00	\$	3,289.95	\$	0.33	\$	0.46	\$	3,289.95	\$	1,279.42	\$	4,569.37
2014	\$ 8.200.00	\$	3.947.94	\$	0.39	\$	0.55	\$	3.947.94	\$	1.535.31	\$	5.483.24
2015	\$ 8.200.00	\$	4.605.92	\$	0.46	\$	0.64	\$	4.605.92	\$	1.791.19	\$	6.397.12
2016	\$ 8.200.00	\$	5.263.91	\$	0.53	\$	0.73	\$	5.263.91	\$	2.047.08	\$	7.310.99
2017	\$ 8.200.00	\$	5.921.90	\$	0.59	\$	0.82	\$	5.921.90	\$	2.302.96	\$	8.224.87
2018	\$ 8.200.00	\$	6.579.89	\$	0.66	\$	0.91	\$	6.579.89	\$	2.558.85	\$	9.138.74
2019	\$ 8.200.00	\$	7.237.88	\$	0.72	\$	1.01	\$	7.237.88	\$	2.814.73	\$	10.052.61
2020	\$ 8.200.00	\$	7.895.87	\$	0.79	\$	1.10	\$	7.895.87	\$	3.070.62	\$	10.966.49
2021	\$ 8.200.00	\$	8.553.86	\$	0.86	\$	1.19	\$	8.553.86	\$	3.326.50	\$	11.880.36
2022	\$ 8.200.00	\$	9.211.85	\$	0.92	\$	1.28	\$	9.211.85	\$	3.582.39	\$	12,794,23
2023	\$ 8.200.00	\$	9.869.84	\$	0.99	\$	1.37	\$	9.869.84	\$	3.838.27	\$	13.708.11
2024	\$ 8,200.00	\$	10.527.83	\$	1.05	\$	1.46	\$	10.527.83	\$	4.094.16	\$	14,621,98
2025	\$ 8,200.00	\$	11,185,82	\$	1.12	\$	1.55	\$	11,185,82	\$	4,350.04	\$	15,535,86
2026	\$ 8,200.00	\$	11.843.81	\$	1.18	\$	1.64	\$	11.843.81	\$	4,605,92	\$	16,449,73
2027	\$ 8,200.00	\$	12,501,80	\$	1.25	\$	1.74	\$	12,501,80	\$	4.861.81	\$	17,363,60
2028	\$ 8,200.00	\$	13,159,78	\$	1.32	\$	1.83	\$	13,159,78	\$	5,117.69	\$	18,277,48
2029	\$ 8,200.00	\$	13.159.78	\$	1.32	\$	1.83	\$	13.159.78	\$	5.117.69	\$	18.277.48
2030	\$ 8.200.00	\$	12.501.80	\$	1.25	\$	1.74	\$	12.501.80	\$	4.861.81	\$	17.363.60
2031	• •,=•••••	\$	11.843.81	\$	1.18	\$	1.64	\$	11.843.81	\$	4.605.92	\$	16.449.73
2032		\$	11.185.82	\$	1.12	\$	1.55	\$	11.185.82	\$	4.350.04	\$	15.535.86
2033		\$	11,185,82	\$	1.12	\$	1.55	\$	11,185,82	\$	4.350.04	\$	15.535.86
2034		\$	10.527.83	\$	1.05	\$	1.46	\$	10.527.83	\$	4.094.16	\$	14.621.98
2035		\$	9.869.84	\$	0.99	\$	1.37	\$	9.869.84	\$	3.838.27	\$	13.708.11
2036		\$	9.211.85	\$	0.92	\$	1.28	\$	9.211.85	\$	3.582.39	\$	12,794,23
2037		\$	8.553.86	\$	0.86	\$	1.19	\$	8.553.86	\$	3.326.50	\$	11.880.36
2038		\$	7.895.87	\$	0.79	\$	1.10	\$	7.895.87	\$	3.070.62	\$	10.966.49
2039		\$	7.237.88	\$	0.72	\$	1.01	\$	7.237.88	\$	2.814.73	\$	10.052.61
2040		\$	6.579.89	\$	0.66	\$	0.91	\$	6.579.89	\$	2.558.85	\$	9.138.74
2041		\$	5.921.90	\$	0.59	\$	0.82	\$	5.921.90	\$	2.302.96	\$	8.224.87
2042		\$	5.263.91	\$	0.53	\$	0.73	\$	5.263.91	\$	2.047.08	\$	7.310.99
2043		\$	4.605.92	\$	0.46	\$	0.64	\$	4.605.92	\$	1.791.19	\$	6.397.12
2044		\$	3.947.94	\$	0.39	\$	0.55	\$	3.947.94	\$	1.535.31	\$	5.483.24
2045		\$	3.289.95	\$	0.33	\$	0.46	\$	3.289.95	\$	1.279.42	\$	4.569.37
2046		\$	2.631.96	\$	0.26	\$	0.37	\$	2.631.96	\$	1.023.54	\$	3.655.50
2047		\$	1.973.97	\$	0.20	\$	0.27	Ŝ	1,973,97	\$	767.65	\$	2,741.62
2048		\$	1,315.98	\$	0.13	\$	0.18	\$	1.315.98	\$	511.77	\$	1.827.75
2049		\$	657.99	\$	0.07	\$	0.09	\$	657.99	\$	255.88	\$	913.87
				*	,	*		-	2000	4		*	1.0.01
	\$ 180,400	\$	287,541.29					\$	287,541.29		0	\$	399,362.90

HOW MUCH IS AN AVERAGE DRIVER IN TEXAS WILLING TO PAY IN TOLLS PER GALLON TO AVOID CONGESTION?

Actual Toll Rates on Existing System

The toll per gallon paid for current toll systems based on the average vehicle rate of 22.3 miles per gallon:

•	Harris County Toll Road Authority	Electronic Toll Cash Toll Rates	\$3.01 per gallon \$3.58 per gallon
•	North Texas Toll Authority	Electronic Toll Cash Toll Rates	\$2.35 per gallon\$2.82 per gallon
•	Central Texas Turnpike Project	Electronic Toll Cash Toll Rates	\$2.47 per gallon \$2.75 per gallon

SH 130 Projected Toll Rate

- The Energy Information Agency calculates the average vehicle fuel consumption is 22.3 miles per gallon.
- The average commute for a resident in Austin is 22 miles round-trip.
- The average one-way commute time for an Austin resident is 22 minutes.
- The Texas Transportation Institute Travel Time Index is 1.33 for Austin during peak times.
- The average toll fee per mile will be \$0.11.
- The toll fee to ride 22 miles will be \$2.42 per gallon.

TTC-35 Projected Toll Rate

•	Proposed TTC-35 Segments	Electronic Toll	\$2.45 per gallon
		Cash Toll Rates	\$2.68 per gallon

THE IMPACT OF DRIVERS MOVING FROM TAX ROADS TO TOLL ROADS

- We estimate the average daily traffic (ADT) on IH-35 will be reduced by 15% when SH 130 opens.
- As such, in Travis County alone, taxpayers will save approximately \$1,000 per lane mile, or \$250,000 per year in maintenance costs.



FY 2005 Urban Maintenance Expenditures Vs. ADT

• In addition, the level of service on I-35 will improve for those who do not wish to use SH 130



Level of Service vs. ADT