

Executive Summary

This traffic and revenue forecast for the North Tarrant Express Managed Lanes has been prepared for the NTE Mobility Partners consortium, comprising Cintra Concesiones de Infraestructuras de Transporte, S.A. (Cintra) and Meridiam. In February 2009 the Consortium was awarded the CDA for Segments 1 and 2 of the North Tarrant Express Managed lanes, and the contract for the Master Development Plan (MDP) to assess the technical and financial feasibility of the remainder segments of the NTE project.

The NTE project involves, for all the segments, the development, design, construction, financing, operation and maintenance of tolled managed lanes, new general purpose lanes and associated facilities along designated segments of the following highways (referred to as the North Tarrant Express) in the Fort Worth area:

- Interstate Highway 820,
- State Highway 183, and
- Interstate Highway 35W.

The study provides a preliminary estimate of the likely traffic and revenue that will be attracted by relevant segments of the North Tarrant Express (NTE) Managed Lanes. The total collective length of the NTE highway segments is approximately 36 miles.

The NTE Mobility Partners consortium has successfully won the bid to initially develop Segment 1 and Segment 2 West, being State Highway 183 between Interstate Highway 35W and State Highway 121.

This report was prepared in response to the requirements of the MDP, and focuses on the traffic and revenue forecasts for the remaining North Tarrant Express segments, namely:

- Segment 2 East (SH 183 between SH 121 and SH 161).
- Segment 3A, 3B and 3C (IH 35 W between I-30 and SH 170); and
- Segment 4 (IH 820 between SH 183 and I-30).

The relevant segment lengths forming part of this study are a total of 22.7 miles.

The Managed Lanes will be constructed alongside general purpose lanes and will therefore compete for market share with these lanes. Managed lanes are lanes within a freeway set aside specifically aimed at moving traffic more efficiently in those lanes, thereby giving travellers an option of using the general purpose “congested” lanes, or the free-flowing managed lanes. The free-flowing conditions are maintained by adjusting the toll rate to manage the travel demand. Detailed toll rate caps, and toll rate cap adjustments have been specified by TXDOT. TXDOT have also specified that a speed of 50 miles per hour must be maintained on the Managed Lanes.

High-occupancy vehicles (HOV) are expected to receive a discounted toll rate during peak periods for using the Managed Lanes, until 2025. This discount will be subsidized by TXDOT. Trucks will pay a higher toll rate, based on the number of axles.

These traffic and revenue forecasts have been prepared based on an Optimum Tolling Scenario that meets the requirements of the CDA. The traffic and revenue forecasts have been based upon traffic modelling undertaken for base year (2006), and forecast years 2015, 2025 and 2030. The traffic modelling was split into 7 time periods to represent the different congestion levels experienced throughout the day, which are critical to generating higher toll rates during period of high travel demand. Intermediate year forecasts were interpolated, and forecasts post 2030 were extrapolated based on long term growth rates with capacity constraints applied.

The forecast revenue for Segments 2 East, 3A, 3B, 3C and 4 by vehicle type, and by time period is summarised in the following table, based on the optimised tolling scenario:

Table 1 North Tarrant Express Forecast Revenue (\$ '000) by Segment

Year	Segment					Total
	2 east	3a	3b	3c	4	
2017	0	31,260	16,698	0	0	71,595
2018	0	34,465	18,634	0	0	77,783
2019	0	37,795	20,660	0	0	84,214
2020	26,980	46,467	25,780	7,461	0	106,689
2025	31,942	62,950	36,038	11,325	666	142,920
2030	42,273	89,736	52,496	17,489	867	202,860
2035	53,496	110,923	69,017	26,171	1,142	260,749
2040	65,704	128,360	81,945	31,793	1,396	309,197
2045	77,604	145,261	92,720	35,280	1,600	352,464
2050	86,012	163,409	104,446	38,522	1,749	394,137
2055	92,156	182,482	116,955	41,558	1,880	435,032
2060	97,560	201,534	130,209	44,332	2,013	475,648
2065	103,633	218,461	142,843	46,851	2,146	513,935

Table 2 Average Annual Daily Transactions by Segment

Year	Segment					Total
	2 east	3a	3b	3c	4	
2017	0	35,500	29,000	0	0	105,200
2018	0	36,700	30,100	0	0	108,600
2019	0	37,900	31,200	0	0	112,100
2020	44,200	40,700	37,100	15,200	0	137,200
2025	49,400	44,000	41,900	14,600	1,100	151,000
2030	54,700	50,600	49,500	17,600	1,100	173,500
2035	58,700	57,700	56,300	20,600	1,200	194,500
2040	63,900	63,500	62,200	23,500	1,300	214,400
2045	67,800	68,900	67,900	26,600	1,500	232,700
2050	72,400	73,500	73,000	29,700	1,600	250,200
2055	76,200	78,500	78,400	32,800	1,600	267,500
2060	81,200	79,600	80,200	35,900	1,700	278,600
2065	84,700	85,400	84,200	38,900	1,800	295,000