



MEMO

August 5, 2013

To: Stan Hall, P.E.

From: William E. Knowles, P.E.

CC: Godfrey Sendawula, Dallas District
Design Division

Subject: Traffic Data
CSJ: 0581-02-077 & 0196-03-137
SL 12/I-35E:
From SS 408
To I-635

Dallas County

Attached are tabulations showing traffic analysis for highway design for the 2015 to 2035 twenty year period and 2015 to 2045 thirty year period for the described limits of the route. Included are tabulations showing data for use in air and noise analysis.

Due to differences in traffic volumes this project was separated into two sections:

Section 1: From SS 408 to I-35E
Section 2: From I-35E to I-635

Please refer to your original memorandum dated June 12, 2013.

If you have any questions or need additional information, please contact Robert Williams at (512) 486-5145.

Attachments
981

TRAFFIC ANALYSIS FOR HIGHWAY DESIGN

Dallas District

July 30, 2013

										Total Number of Equivalent 18k Single Axle Load Applications One Direction Expected for a 20 Year Period (2015 to 2035)			
Description of Location	Average Daily Traffic		Dir Dist %	K Factor	Percent Trucks		ATHWLD	Percent Tandem Axles in ATHWLD	Flexible Pavement	S N	Rigid Pavement	SLAB	
	2015	2035			ADT	DHV							
	Base Year												
SL 12 / I-35E													
Section 1													
From SS 408 To I-35E	145,800	199,800	54 - 46	7.9	6.8	3.1	13,100	20	37,314,000	3	49,869,000	8"	
Dallas County							13,100	20	37,314,000	3	50,973,000	10"	
							13,100	20	37,314,000	3	51,329,000	12"	
Data for Use in Air & Noise Analysis													
Vehicle Class	Base Year												
	% of ADT		% of DHV		NOT INTENDED FOR CONSTRUCTION BIDDING OR PERMIT PURPOSES William Erick Knowles, P.E. Serial Number 84704								
Light Duty	93.2		96.9										
Medium Duty	2.4		1.1										
Heavy Duty	4.4		2.0										
										Total Number of Equivalent 18k Single Axle Load Applications One Direction Expected for a 30 Year Period (2015 to 2045)			
Description of Location	Average Daily Traffic		Dir Dist %	K Factor	Percent Trucks		ATHWLD	Percent Tandem Axles in ATHWLD	Flexible Pavement	S N	Rigid Pavement	SLAB	
	2015	2045			ADT	DHV							
	Base Year												
SL 12 / I-35E													
Section 1													
From SS 408 To I-35E	145,800	226,800	54 - 46	7.9	6.8	3.1	13,200	20	60,344,000	3	80,647,000	8"	
Dallas County							13,200	20	60,344,000	3	82,434,000	10"	
							13,200	20	60,344,000	3	83,009,000	12"	

TRAFFIC ANALYSIS FOR HIGHWAY DESIGN

Dallas District

July 30, 2013

										Total Number of Equivalent 18k Single Axle Load Applications One Direction Expected for a 20 Year Period (2015 to 2035)				
Description of Location	Average Daily Traffic		Base Year				ATHWLD	Percent Tandem Axles in ATHWLD	Flexible Pavement	S N	Rigid Pavement	SLAB		
	2015	2035	Dir Dist %	K Factor	Percent Trucks									
					ADT	DHV								
<u>SL 12 / I-35E</u>														
<u>Section 2</u>														
From I-35E To I-635	246,200	337,400	56 - 44	8.1	7.1	3.2	13,500	20	67,276,000	3	91,811,000	8"		
Dallas County							13,500	20	67,276,000	3	93,961,000	10"		
							13,500	20	67,276,000	3	94,646,000	12"		
Data for Use in Air & Noise Analysis														
Vehicle Class	Base Year		NOT INTENDED FOR CONSTRUCTION BIDDING OR PERMIT PURPOSES William Erick Knowles, P.E. Serial Number 84704											
	% of ADT												% of DHV	
Light Duty	92.9												96.8	
Medium Duty	2.4												1.1	
Heavy Duty	4.7												2.1	
										Total Number of Equivalent 18k Single Axle Load Applications One Direction Expected for a 30 Year Period (2015 to 2045)				
Description of Location	Average Daily Traffic		Base Year				ATHWLD	Percent Tandem Axles in ATHWLD	Flexible Pavement	S N	Rigid Pavement	SLAB		
	2015	2045	Dir Dist %	K Factor	Percent Trucks									
					ADT	DHV								
<u>SL 12 / I-35E</u>														
<u>Section 2</u>														
From I-35E To I-635	246,200	383,000	56 - 44	8.1	7.1	3.2	13,600	20	108,798,000	3	148,476,000	8"		
Dallas County							13,600	20	108,798,000	3	151,953,000	10"		
							13,600	20	108,798,000	3	153,061,000	12"		

File



MEMO

~~July 29, 2013~~
Aug 5, 2013

To: Stan Hall, P.E.

From: William E. Knowles, P.E.

CC: Godfrey Sendawula, Dallas District Design Division

Subject: Traffic Data
 CSJ: 0094-03-065:
 SH 183
 From SH 161
 To I-35E

 Dallas County

Attached are tabulations showing traffic analysis for highway design for the 2015 to 2035 twenty year period and 2015 to 2045 thirty year period for the described limits of the route. Included is a tabulation showing data for use in air and noise analysis.

Please refer to your original memorandum dated June 10, 2013.

If you have any questions or need additional information, please contact Robert Williams at (512) 486-5145.


Attachment

Handwritten initials and signature in red ink.



TRAFFIC ANALYSIS FOR HIGHWAY DESIGN

Dallas District

July 29, 2013

										Total Number of Equivalent 18k Single Axle Load Applications One Direction Expected for a 20 Year Period (2015 to 2035)				
Description of Location	Average Daily Traffic		Dir Dist %	K Factor	Percent Trucks		ATHWLD	Percent Tandem Axles in ATHWLD			Flexible Pavement	S N	Rigid Pavement	SLAB
	2015	2035			ADT	DHV								
	Base Year				Base Year									
<u>SH 183</u>														
From SH 161 To I-35E	164,200	225,000	54 - 46	7.9	5.7	3.8	13,100	20		33,738,000	3	44,286,000	8"	
Dallas County							13,100	20		33,738,000	3	45,220,000	10"	
							13,100	20		33,738,000	3	45,523,000	12"	
Data for Use in Air & Noise Analysis										<p style="font-size: 1.2em; opacity: 0.5;">NOT INTENDED FOR CONSTRUCTION BIDDING OR PERMIT PURPOSES</p> <p style="font-size: 1.2em; opacity: 0.5;">William Erick Knowles, P.E</p> <p style="font-size: 1.2em; opacity: 0.5;">Serial Number 84704</p>				
Vehicle Class	Base Year													
	% of ADT	% of DHV												
Light Duty	94.3	96.2												
Medium Duty	2.4	1.6												
Heavy Duty	3.3	2.2												
										Total Number of Equivalent 18k Single Axle Load Applications One Direction Expected for a 30 Year Period (2015 to 2045)				
Description of Location	Average Daily Traffic		Dir Dist %	K Factor	Percent Trucks		ATHWLD	Percent Tandem Axles in ATHWLD			Flexible Pavement	S N	Rigid Pavement	SLAB
	2015	2045			ADT	DHV								
	Base Year				Base Year									
<u>SH 183</u>														
From SH 161 To I-35E	164,200	255,400	54 - 46	7.9	5.7	3.8	13,100	20		54,559,000	3	71,616,000	8"	
Dallas County							13,100	20		54,559,000	3	73,127,000	10"	
							13,100	20		54,559,000	3	73,617,000	12"	



MEMO

August 9, 2013

To: William L. Hale, P.E.
Attention: Moosa Saghian, P.E.

From: William E. Knowles, P.E.

CC: Godfrey Sendawula, Dallas District
Design Division

Subject: Traffic Data
CSJ: 0353-04-056 & 0353-06-025
SH 114 Update:
From Tarrant County Line
To SH 183

Dallas County

Attached are tabulations showing traffic analysis for highway design for the 2015 to 2035 twenty year period and 2015 to 2045 thirty year period for the described limits of the route. Included are tabulations showing data for use in air and noise analysis.

Due to significant differences in traffic volumes the project was separated into four sections.

- Section 1: From Tarrant County Line to SH 161
- Section 2: From SH 161 to Spur 348
- Section 3: From Spur 348 to Loop 12
- Section 4: From Loop 12 to SH 183

Please refer to your original memorandum dated June 13, 2013.

If you have any questions or need additional information, please contact Robert Williams at (512) 486-5145.

Attachments

TRAFFIC ANALYSIS FOR HIGHWAY DESIGN

Dallas District

August 9, 2013

										Total Number of Equivalent 18k Single Axle Load Applications One Direction Expected for a 20 Year Period (2015 to 2035)			
Description of Location	Average Daily Traffic		Base Year				ATHWLD	Percent Tandem Axles in ATHWLD	Flexible Pavement	S N	Rigid Pavement	SLAB	
	2015	2035	Dir Dist %	K Factor	Percent Trucks								
					ADT	DHV							
<u>SH 114</u>													
<u>Section 1</u>													
From Tarrant County Line To SH 161	199,300	278,100	54 - 46	8.4	3.9	2.6	13,000	30	29,632,000	3	41,056,000	8"	
Dallas County							13,000	30	29,632,000	3	40,766,000	10"	
							13,000	30	29,632,000	3	39,860,000	12"	
Data for Use in Air & Noise Analysis						NOT INTENDED FOR CONSTRUCTION BIDDING OR PERMIT PURPOSES William Erick Knowles, P.E. Serial Number 94704							
Vehicle Class		Base Year											
		% of ADT	% of DHV										
Light Duty		96.1	97.4										
Medium Duty		1.4	0.9										
Heavy Duty		2.5	1.7										
										Total Number of Equivalent 18k Single Axle Load Applications One Direction Expected for a 30 Year Period (2015 to 2045)			
Description of Location	Average Daily Traffic		Base Year				ATHWLD	Percent Tandem Axles in ATHWLD	Flexible Pavement	S N	Rigid Pavement	SLAB	
	2015	2045	Dir Dist %	K Factor	Percent Trucks								
					ADT	DHV							
<u>SH 114</u>													
<u>Section 1</u>													
From Tarrant County Line To SH 161	199,300	312,100	54 - 46	8.4	3.9	2.6	13,000	30	47,616,000	3	65,972,000	8"	
Dallas County							13,000	30	47,616,000	3	65,506,000	10"	
							13,000	30	47,616,000	3	64,051,000	12"	

TRAFFIC ANALYSIS FOR HIGHWAY DESIGN

Dallas District

August 9, 2013

										Total Number of Equivalent 18k Single Axle Load Applications One Direction Expected for a 20 Year Period (2015 to 2035)																		
Description of Location	Average Daily Traffic		Dir Dist %	K Factor	Percent Trucks		ATHWLD	Percent Tandem Axles in ATHWLD			Flexible Pavement	S N	Rigid Pavement	SLAB														
	2015	2035			ADT	DHV																						
	Base Year				Base Year																							
SH 114																												
Section 2																												
From SH 161 To Spur 348	220,200	307,300	54 - 46	8.4	3.8	2.5	13,000	30		31,918,000	3	42,925,000	8"															
Dallas County							13,000	30		31,918,000	3	43,900,000	10"															
							13,000	30		31,918,000	3	44,212,000	12"															
Data for Use in Air & Noise Analysis																												
<div style="display: flex; justify-content: space-between;"> <table border="1" style="width: 45%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2" style="text-align: center;">Vehicle Class</th> <th colspan="2" style="text-align: center;">Base Year</th> </tr> <tr> <th style="text-align: center;">% of ADT</th> <th style="text-align: center;">% of DHV</th> </tr> </thead> <tbody> <tr> <td>Light Duty</td> <td style="text-align: center;">96.2</td> <td style="text-align: center;">97.5</td> </tr> <tr> <td>Medium Duty</td> <td style="text-align: center;">1.4</td> <td style="text-align: center;">0.9</td> </tr> <tr> <td>Heavy Duty</td> <td style="text-align: center;">2.4</td> <td style="text-align: center;">1.6</td> </tr> </tbody> </table> <div style="width: 50%; text-align: center; font-size: 1.2em; opacity: 0.5;"> NOT INTENDED FOR CONSTRUCTION BIDDING OR PERMIT PURPOSES William Erick Knowles, P.E. Serial Number 84704 </div> </div>															Vehicle Class	Base Year		% of ADT	% of DHV	Light Duty	96.2	97.5	Medium Duty	1.4	0.9	Heavy Duty	2.4	1.6
Vehicle Class	Base Year																											
	% of ADT	% of DHV																										
Light Duty	96.2	97.5																										
Medium Duty	1.4	0.9																										
Heavy Duty	2.4	1.6																										
SH 114																												
Section 2																												
From SH 161 To Spur 348	220,200	344,800	54 - 46	8.4	3.8	2.5	13,000	30		51,279,000	3	68,962,000	8"															
Dallas County							13,000	30		51,279,000	3	70,528,000	10"															
							13,000	30		51,279,000	3	71,029,000	12"															

TRAFFIC ANALYSIS FOR HIGHWAY DESIGN

Dallas District

August 9, 2013

										Total Number of Equivalent 18k Single Axle Load Applications One Direction Expected for a 20 Year Period (2015 to 2035)				
Description of Location	Average Daily Traffic		Dir Dist %	K Factor	Percent Trucks		ATHWLD	Percent Tandem Axles in ATHWLD			Flexible Pavement	S N	Rigid Pavement	SLAB
	2015	2035			ADT	DHV								
	Base Year				Base Year									
<u>SH 114</u>														
<u>Section 3</u>														
From Spur 348 To Loop 12	185,900	259,400	54 - 46	8.4	4.0	2.6	13,000	30		28,336,000	3	38,125,000	8"	
Dallas County							13,000	30		28,336,000	3	38,991,000	10"	
							13,000	30		28,336,000	3	39,268,000	12"	
Data for Use in Air & Noise Analysis										NOT INTENDED FOR CONSTRUCTION RIDING OR PERMIT PURPOSES William Erick Knowles, P.E. Serial Number 81704				
Vehicle Class	Base Year													
	% of ADT		% of DHV											
Light Duty	96.0	97.4												
Medium Duty	1.4	0.9												
Heavy Duty	2.6	1.7												
										Total Number of Equivalent 18k Single Axle Load Applications One Direction Expected for a 30 Year Period (2015 to 2045)				
Description of Location	Average Daily Traffic		Dir Dist %	K Factor	Percent Trucks		ATHWLD	Percent Tandem Axles in ATHWLD			Flexible Pavement	S N	Rigid Pavement	SLAB
	2015	2045			ADT	DHV								
	Base Year				Base Year									
<u>SH 114</u>														
<u>Section 3</u>														
From Spur 348 To Loop 12	185,900	291,100	54 - 46	8.4	4.0	2.6	13,000	30		45,527,000	3	61,256,000	8"	
Dallas County							13,000	30		45,527,000	3	62,647,000	10"	
							13,000	30		45,527,000	3	63,093,000	12"	

TRAFFIC ANALYSIS FOR HIGHWAY DESIGN

Dallas District

August 9, 2013

										Total Number of Equivalent 18k Single Axle Load Applications One Direction Expected for a 20 Year Period (2015 to 2035)							
Description of Location	Average Daily Traffic		Dir Dist %	K Factor	Percent Trucks		ATHWLD	Percent Tandem Axles in ATHWLD	Flexible Pavement	S N	Rigid Pavement	SLAB					
	2015	2035			ADT	DHV											
<u>SH 114</u> <u>Section 4</u>																	
From Loop 12 To SH 183	159,100	222,100	54 - 46	8.4	4.2	2.8	12,900	30	25,448,000	3	34,254,000	8"					
Dallas County							12,900	30	25,448,000	3	35,033,000	10"					
							12,900	30	25,448,000	3	35,282,000	12"					
Data for Use in Air & Noise Analysis										NOT INTENDED FOR CONSTRUCTION BIDDING OR PERMIT PURPOSES Willem Erick Knowles, P.E. Serial Number 24704							
Vehicle Class	Base Year																
	% of ADT		% of DHV														
Light Duty	95.8		97.2														
Medium Duty	1.5		1.0														
Heavy Duty	2.7		1.8														
										Total Number of Equivalent 18k Single Axle Load Applications One Direction Expected for a 30 Year Period (2015 to 2045)							
Description of Location	Average Daily Traffic		Dir Dist %	K Factor	Percent Trucks		ATHWLD	Percent Tandem Axles in ATHWLD	Flexible Pavement	S N	Rigid Pavement	SLAB					
	2015	2045			ADT	DHV											
<u>SH 114</u> <u>Section 4</u>																	
From Loop 12 To SH 183	159,100	249,100	54 - 46	8.4	4.2	2.8	12,900	30	40,877,000	3	55,023,000	8"					
Dallas County							12,900	30	40,877,000	3	56,273,000	10"					
							12,900	30	40,877,000	3	56,674,000	12"					