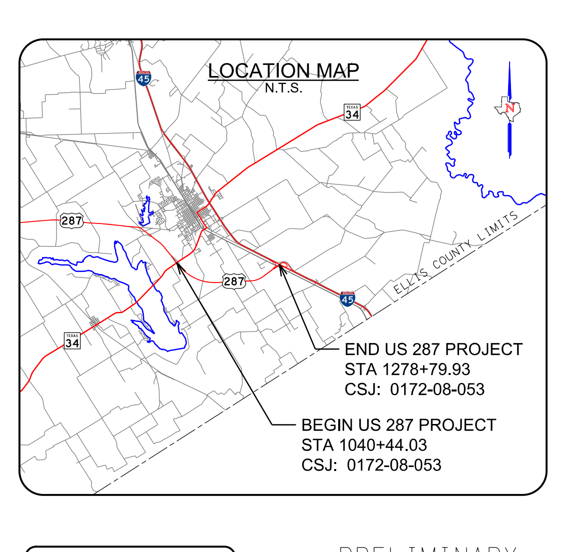
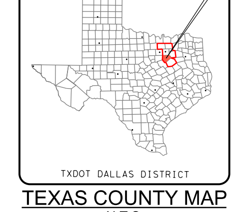
TEXAS DEPARTMENT OF TRANSPORTATION
DALLAS DISTRICT
WILLIAM L. HALE, P.E., DISTRICT ENGINEER

US 287 DESIGN SCHEMATIC
FROM SH 34 TO IH 45
ELLIS COUNTY, TEXAS
CSJ 0172-08-053

MARCH 2014
ROLL 3 OF 5

PROJECT LENGTH:	4.51 MILES
FUNCTIONAL CLASSIFICATION:	URBAN FREEWAY
AVERAGE DAILY TRAFFIC:	12,300 (2018) 17,800 (2038)
DESIGN SPEED	
MAIN LANES:	70 MPH
RAMPS:	40 MPH
FRONTAGE ROADS:	40 MPH
CROSS STREETS:	30 MPH





TEXAS COUNTY MAP
N.T.S.

PRELIMINARY
FOR INTERIM REVIEW ONLY
THESE DOCUMENTS ARE FOR INTERIM REVIEW AND NOT INTENDED FOR REGULATORY APPROVAL, PERMIT, BIDDING OR CONSTRUCTION PURPOSES. THEY WERE PREPARED BY OR UNDER THE SUPERVISION OF:
JEREMY W. MCGAHAN 103650 03/25/2014
NAME P.E. NO. DATE
HALFF ASSOCIATES, INC.
TBPE FIRM #F-312

HALFF
1201 NORTH BOWSER ROAD
RICHARDSON, TEXAS 75081-2275
TEL (214) 346-6200
FAX (214) 739-0095

VERTICAL SCALE: 0 10 20 30 40
HORIZONTAL SCALE: 0 100 200 300 400

DATE SUBMITTED: MARCH 25, 2014
DATE APPROVED: APRIL 30, 2014

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LEGEND:

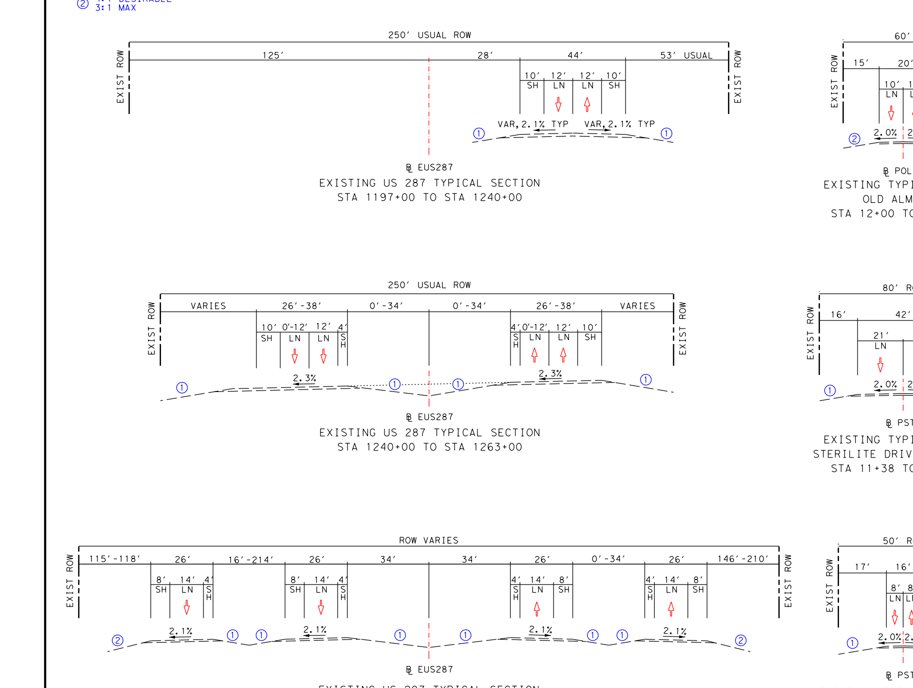
- EXISTING ROW
- EXISTING ACCESS DENIAL (TO REMAIN)
- EXISTING EASEMENT
- EXISTING PROPERTY LIMITS
- EXISTING TELE / CABLE / FIBER
- EXISTING WATER
- EXISTING ELECTRIC
- EXISTING WASTE WATER
- EXISTING STORM SEWER
- EXISTING GAS LINE
- PROPOSED US 287 BASELINE
- PROPOSED MINOR BASELINE
- PROPOSED ROW
- PROPOSED EASEMENT
- PROPOSED ACCESS DENIAL
- PROPOSED EDGE OF PAVEMENT
- PROPOSED BRIDGE ABUTMENT
- PROPOSED BRIDGE BENT
- PROPOSED TRAFFIC BARRIER
- PROPOSED RETAINING WALL
- PROPOSED CULVERT
- 100 YR FLOODPLAIN LIMITS
- DIRECTION OF TRAVEL
- PROPOSED BRIDGE
- PROPOSED MAIN LANES
- PROPOSED RAMP
- PROPOSED FRONTAGE ROAD
- PROPOSED CROSS STREET
- PROPOSED SIDEWALK
- PHASE 1 BRIDGE (BY OTHERS)
- PHASE 1 PAVEMENT (BY OTHERS)
- POTENTIAL DISPLACEMENTS
- PAVEMENT / BRIDGE TO BE REMOVED

GENERAL NOTES:

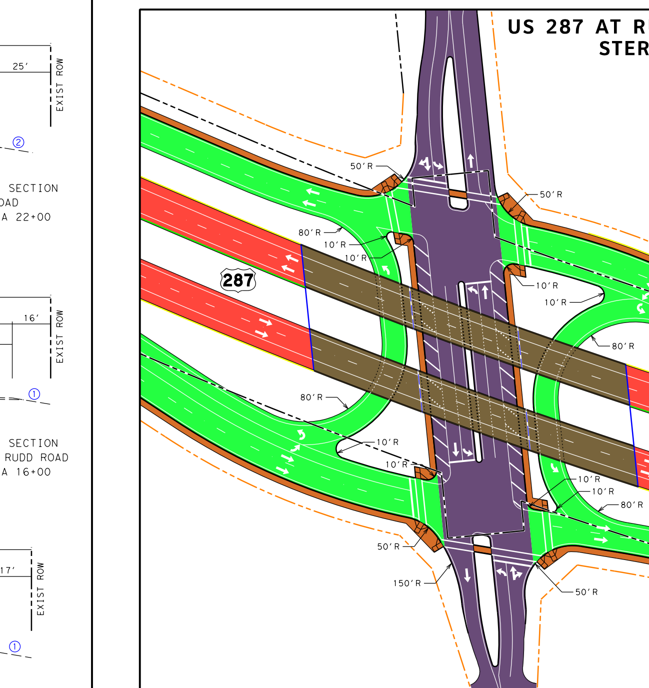
1. THE SCHEMATIC LAYOUTS ARE BASED ON LIMITED FIELD SURVEY, AERIAL TOPOGRAPHY AND RECORD PLANS. NOT ALL EXISTING FEATURES WERE FIELD SURVEYED.
2. PARCEL LIMITS AND OWNERSHIP INFORMATION WAS COLLECTED FROM THE ELLIS COUNTY APPRAISAL DISTRICT (MAY 2013).
3. DIMENSIONS ARE TO EDGE OF UNCURBED PAVEMENT OR NOMINAL FACE OF RAIL / CURB / BARRIER (UNLESS NOTED OTHERWISE).
4. SUPERELEVATION TRANSITIONS ARE LINEAR WITH THE AXIS OF ROTATION LOCATED AT THE PGL.
5. CONVENTIONAL ROADWAY SIGNAGE (SMALL SIGNS) WILL NOT BE DEVELOPED UNTIL PS&E DESIGN.
6. AVERAGE DAILY TRAFFIC VOLUME PROJECTIONS DEVELOPED BY TXDOT TP&P (AUGUST 2013).
7. ALL CURBS ARE TYPE 2 (UNLESS NOTED OTHERWISE).
8. ACCESS ALONG THE PROPOSED FRONTAGE ROADS WILL BE CONTROLLED BY PERMIT ONLY IN ACCORDANCE WITH THE TXDOT ACCESS MANAGEMENT MANUAL.
9. DRIVEWAY LOCATIONS ARE PRELIMINARY AND WILL BE FURTHER DEVELOPED DURING PS&E DESIGN. ALL DRIVEWAYS UTILIZE 15' CURB RADIUS (UNLESS NOTED OTHERWISE).

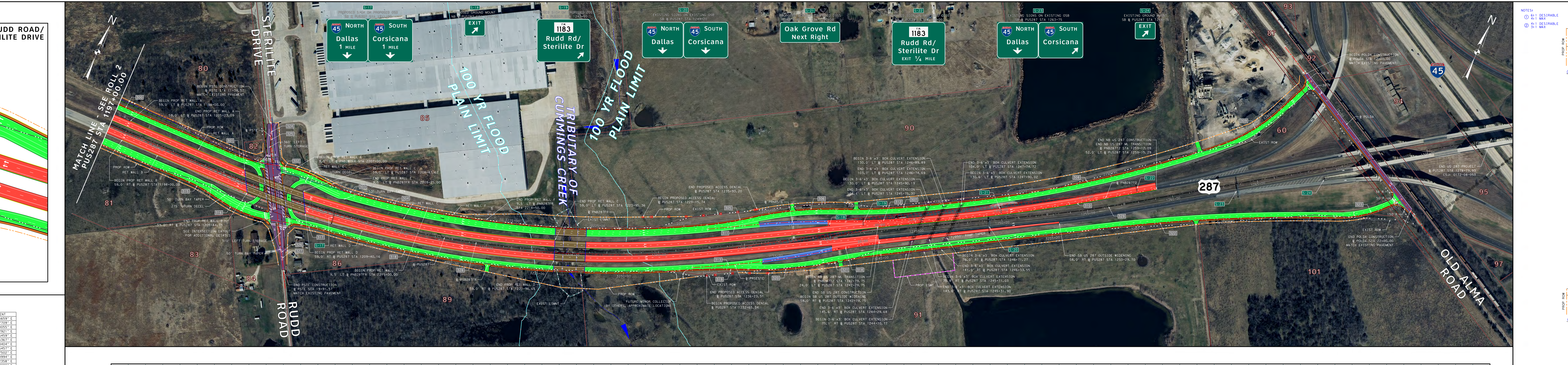
EXISTING TYPICAL SECTIONS
N.T.S.

NOTES:
1. 6:1 DESIRABLE 4:1 MAX
2. 4:1 DESIRABLE 3:1 MAX



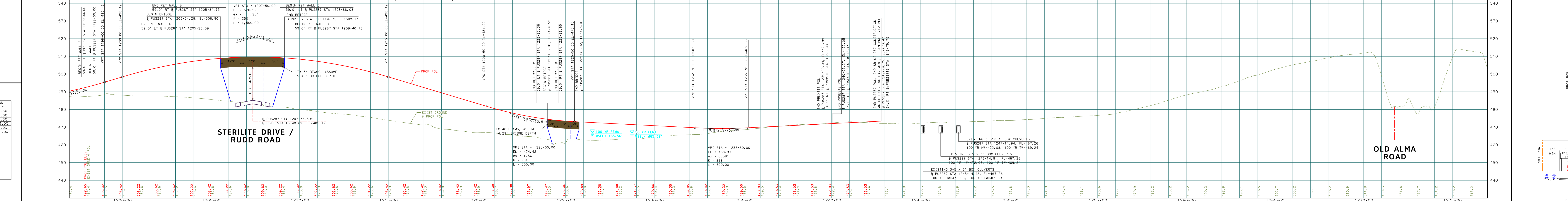
INTERSECTION LAYOUT
1":100'





PUS287 - US 287 GENERAL PURPOSE LANES (70 MPH)

SEE ROLL 4 FOR FRONTAGE ROAD PROFILES AND ROLL 5 FOR TRANSITION, RAMP, AND CROSS STREET PROFILES



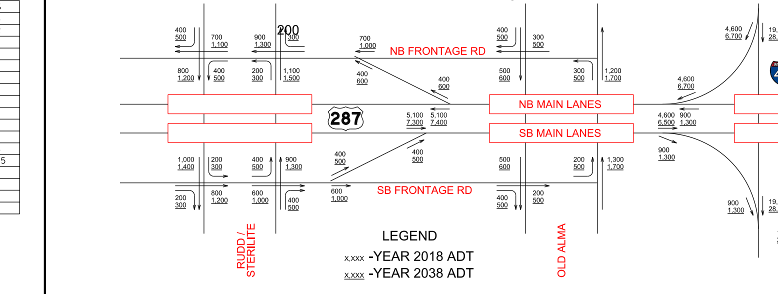
CURVE DATA

CURVE ID	CURVE	P.I. STATION	P.I. STATION - N	P.I. STATION - E	DELTA	RADIUS	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION	BACK TANGENT	AHEAD TANGENT
300	PNB287FR-13	2194+48.07	N 6,794,056.4398	E 2,557,726.2720	7° 34' 33.9682" (LT)	4,000.0000	264.8419	528.9117	S 88° 02' 26.4500" E	528.5265	2191+83.22	2197+12.13	S 84° 15' 09.4659" E	N 88° 10' 16.5659" E
301	PNB287FR-14	2204+24.87	N 6,794,087.6362	E 2,558,703.3498	13° 58' 36.7950" (LT)	700.0000	85.8059	170.7599	N 81° 10' 58.1684" E	170.3368	2203+39.06	2205+09.82	N 88° 10' 16.5659" E	N 74° 11' 39.7709" E
302	PNB287FR-15	2207+19.71	N 6,794,168.1759	E 2,558,987.8646	17° 50' 36.2236" (RT)	700.0000	109.8887	217.9982	N 83° 06' 57.8827" E	217.1183	2206+09.82	2208+27.82	N 74° 11' 39.7709" E	S 87° 57' 44.0055" E
303	PNB287FR-16	2209+98.38	N 6,794,158.2037	E 2,559,268.1320	11° 30' 40.7023" (LT)	700.0000	70.5561	140.6371	N 86° 16' 55.6433" E	140.4007	2209+27.82	2210+68.46	S 87° 57' 44.0055" E	N 80° 31' 35.2921" E
304	PNB287FR-17	2221+13.56	N 6,794,341.8314	E 2,560,368.5704	21° 05' 32.6463" (LT)	5,613.5779	1,045.0979	2,066.5369	N 69° 58' 48.9690" E	2,054.8875	2210+68.46	2231+35.00	N 80° 31' 35.2921" E	N 59° 26' 02.6459" E
305	PNB287FR-18	2232+62.78	N 6,794,938.2778	E 2,561,378.4762	7° 18' 42.1091" (LT)	2,000.0000	127.7867	255.2264	N 55° 46' 41.5913" E	255.0532	2231+35.00	2233+90.22	N 59° 26' 02.6459" E	N 52° 07' 20.5367" E
306	PNB287FR-19	2236+41.67	N 6,795,171.1166	E 2,561,677.8118	14° 19' 53.3036" (RT)	2,000.0000	251.4437	500.2628	N 59° 17' 17.1886" E	498.9597	2233+90.22	2238+90.48	N 52° 07' 20.5367" E	N 66° 27' 13.8404" E
307	PNB287FR-20	2241+32.15	N 6,795,368.1067	E 2,562,129.8620	7° 01' 11.1947" (LT)	3,940.0000	241.6632	482.7217	N 62° 56' 38.2430" E	482.4199	2238+90.48	2243+73.21	N 66° 27' 13.8404" E	N 59° 26' 02.6457" E
308	PNB287FR-21	2253+57.96	N 6,795,991.7736	E 2,563,185.8577	13° 06' 39.8955" (LT)	7,000.0000	804.4237	1,601.8209	N 52° 52' 42.6979" E	1,598.3282	2245+53.53	2261+55.35	N 59° 26' 02.6457" E	N 46° 19' 22.7502" E
309	PNB287FR-22	2263+68.21	N 6,796,694.3035	E 2,563,921.6039	24° 02' 00.6508" (LT)	1,000.0000	212.8623	419.4640	N 34° 18' 22.4248" E	416.3955	2261+55.35	2265+74.82	N 46° 19' 22.7502" E	N 22° 17' 22.0994" E
310	PNB287T2-1	1251+34.99	N 6,795,717.3442	E 2,562,906.0393	4° 31' 23.4100" (LT)	10,750.0000	424.5456	848.6501	N 57° 10' 20.9408" E	848.4298	1247+10.44	1255+59.09	N 59° 26' 02.6459" E	N 54° 54' 39.2358" E
311	PRNXSTE-1	15+11.28	N 6,795,112.6309	E 2,561,720.8866	6° 24' 58.0639" (RT)	5,250.0000	294.2618	587.9085	N 62° 38' 31.6778" E	587.6014	12+17.02	18+04.93	N 59° 26' 02.6459" E	N 65° 51' 00.7098" E
312	PRNXSTE-2	20+29.69	N 6,795,324.9750	E 2,562,194.4830	6° 24' 58.0639" (LT)	4,010.0000	224.7600	449.0501	N 62° 38' 31.6778" E	448.8155	18+04.93	22+53.98	N 65° 51' 00.7098" E	N 59° 26' 02.6459" E
313	PRSESTE-1	13+91.25	N 6,794,795.9536	E 2,561,640.7764	8° 31' 26.3948" (LT)	5,250.0000	391.2480	781.0522	N 58° 03' 59.1347" E	780.3321	10+00.00	17+81.05	N 62° 19' 42.3321" E	N 53° 48' 15.9372" E
314	PRSESTE-2	19+38.03	N 6,795,119.7061	E 2,562,083.1998	4° 29' 01.1374" (RT)	4,010.0000	156.9803	313.8003	N 56° 02' 46.5059" E	313.7203	17+81.05	20+94.85	N 53° 48' 15.9372" E	N 58° 17' 17.0747" E
315	PSB287FR-17	3204+59.74	N 6,793,833.0546	E 2,558,501.1713	10° 11' 41.4437" (RT)	700.0000	62.4416	124.5535	S 86° 43' 52.7123" E	124.3893	3203+97.30	3205+21.85	N 88° 10' 16.5659" E	S 81° 38' 01.9905" E
316	PSB287FR-18	3207+71.74	N 6,793,787.6116	E 2,558,810.1757	24° 10' 18.2386" (LT)	700.0000	149.8864	295.3134	N 86° 16' 48.8902" E	293.1283	3206+21.85	3209+17.17	S 81° 38' 01.9905" E	N 74° 11' 39.7709" E
317	PSB287FR-19	3211+71.70	N 6,793,897.7645	E 2,559,199.3024	7° 28' 00.3404" (RT)	1,000.0000	65.2522	130.3196	N 77° 55' 39.9411" E	130.2274	3211+06.44	3212+36.76	N 74° 11' 39.7709" E	N 81° 39' 40.1113" E
318	PSB287FR-20	3222+92.15	N 6,794,060.2874	E 2,560,308.0916	20° 24' 49.1087" (LT)	5,861.5780	1,055.3847	2,088.3938	N 71° 27' 15.5569" E	2,077.3655	3212+36.76	3233+25.16	N 81° 39' 40.1113" E	N 61° 14' 51.0026" E
319	PSB287FR-21	3235+25.70	N 6,794,664.4230	E 2,561,409.1714	5° 44' 25.2724" (RT)	4,000.0000	200.5439	400.7523	N 64° 07' 03.6388" E	400.5847	3233+25.16	3237+25.91	N 61° 14' 51.0026" E	N 66° 59' 16.2750" E
320	PSB287FR-22	3239+57.00	N 6,794,833.1619	E 2,561,806.4612	13° 10' 56.2674" (LT)	2,000.0000	231.0948	460.1490	N 60° 23' 48.1413" E	459.1347	3237+25.91	3241+86.06	N 66° 59' 16.2750" E	N 53° 48' 20.0076" E
321	PSB287FR-23	3243+42.62	N 6,795,062.0811	E 2,562,119.3032	4° 28' 57.8920" (RT)	4,000.0000	156.5573	312.9548	N 56° 02' 48.9536" E	312.8750	3241+86.06	3244+99.01	N 53° 48' 20.0076" E	N 58° 17' 17.8996" E
322	PSB287FR-24	3264+61.54	N 6,796,175.9648	E 2,563,922.0115	7° 52' 44.7508" (RT)	10,000.0000	688.6666	1,375.1619	N 62° 13' 40.2750" E	1,374.0786	3257+72.87	3271+48.03	N 58° 17' 17.8996" E	N 66° 10' 02.6504" E
323	PSB287FR-25	3273+56.15	N 6,796,538.3273	E 2,564,742.3331	33° 06' 59.7410" (LT)	700.0000	208.1244	404.5955	N 49° 36' 32.7799" E	398.9871	3271+48.03	3275+52.63	N 66° 10' 02.6504" E	N 33° 03' 02.9094" E
324	PSTE-1	11+66.66	N 6,794,314.4062	E 2,558,740.6569	10° 42' 54.0587" (RT)	300.0000	28.1339	56.1037	S 25° 26' 53.1997" E	56.0220	11+38.52	11+94.63	S 30° 48' 20.2291" E	S 20° 05' 26.1704" E
325	PSTE-2	12+57.93	N 6,794,228.5348	E 2,558,772.0653	10° 42' 54.0587" (LT)	675.0000	63.3013	126.2333	S 25° 26' 53.1997" E	126.0494	11+94.63	13+20.86	S 20° 05' 26.1704" E	S 30° 48' 20.2291" E
326	PSTE-3	18+96.48	N 6,793,679.7624	E 2,559,099.2723	3° 11' 11.8324" (LT)	675.0000	18.7756	37.5415	S 32° 23' 56.1453" E	37.5366	18+77.70	19+15.24	S 30° 48' 20.2291" E	S 33° 59' 32.0614" E
327	PSTE-4	19+23.41	N 6,793,657.4264	E 2,559,114.3337	3° 07' 03.5621" (RT)	300.0000	8.1640	16.3240	S 32° 26' 00.2804" E	16.3220	19+15.24	19+31.57	S 33° 59' 32.0614" E	S 30° 52' 28.4994" E
328	PUS287-2	1218+86.33	N 6,794,013.1361	E 2,560,067.6611	28° 44' 13.9200" (LT)	5,743.5780	1,471.3455	2,880.7418	N 73° 48' 09.6059" E	2,850.6415	1204+14.98	1232+95.72	N 88° 10' 16.5659" E	N 59° 26' 02.6459" E
329	PUS287-3	1254+90.98	N 6,795,877.7144	E 2,563,224.7736	4° 31' 23.4100" (LT)	5,715.5780	225.7231	451.2117	N 57° 10' 20.9409" E	451.0946	1252+65.26	1257+16.47	N 59° 26' 02.6459" E	N 54° 54' 39.2359" E

PARCEL DATA

PARCEL ID	OWNER	PROPERTY ADDRESS
60	TXDOT	HIGHWAY 287 BYPASS
80	STERILITE INDUSTRIAL REALTY LLC	5201 STERILITE DR
81	MARAK RAYMOND	FM 1183
82	CITY OF ENNIS	STERILITE DRIVE
83	WALKER MARCUS J	968 RUDD RD
84	WALKER M J	920 RUDD RD
85	STERILITE CORPORATION	5200 STERILITE DR
86	BOURNS BURL D	RUDD RD
87	CITY OF ENNIS	OLD ALMA ROAD
89	BISHOP RACHEL	RUDD RD
90	ECONO FUEL INC	INTERSTATE 45
91	HOSSAINY RIYAD	HIGHWAY 287 BYPASS
93	ACOSTA CESAR A & ACOSTA JUAN M	5027 N INTERSTATE 45
94	TXDOT	N INTERSTATE 45
95	TXDOT	N INTERSTATE 45
97	SADDLE PROPERTIES LLC	INTERSTATE 45
101	OLSEN RAYMOND W & KAREN A	INTERSTATE 45

TRAFFIC DIAGRAM
N.T.S.



SUPERELEVATION DATA

CHAIN	BEGIN TRANSITION STA	BEGIN TRANSITION e	END TRANSITION STA	END TRANSITION e
NB PUS287	1202+76.98	2.0%	1204+83.98	3.3%
NB PUS287	1232+26.72	3.3%	1234+33.72	2.0%
SB PUS287	1199+86.98	-2.0%	1206+28.98	3.3%
SB PUS287	1230+81.72	3.3%	1237+23.72	-2.0%
PRNXSTE	15+75.00	-2.0%	16+95.00	2.0%
PRSESTE	16+95.00	2.0%	18+15.00	-2.0%

SUPERELEVATION COORDINATE SYSTEM

PROPOSED TYPICAL SECTIONS
N.T.S.

NOTES:
1. 6:1 DESIRABLE 4:1 MAX
2. 4:1 DESIRABLE 3:1 MAX

TEXAS DEPARTMENT OF TRANSPORTATION
DALLAS DISTRICT
WILLIAM L. HALE, P.E., DISTRICT ENGINEER
US 287 DESIGN SCHEMATIC
FROM SH 34 TO IH 45
ELLIS COUNTY, TEXAS
CSJ 0172-08-053
MARCH 2014
ROLL 3 OF 5