

SUBJECT: PLANS AND PROPOSAL ADDENDUMS

PROJECT: BR 2024(922)

CONTROL: 0043-02-080

COUNTY: HARDEMAN

LETTING: 06/06/2024

REFERENCE NO: 0522

PROPOSAL ADDENDUMS

-
- ___ PROPOSAL COVER
- X BID INSERTS (SH. NO.: 3-10)
- ___ GENERAL NOTES (SH. NO.:)
- ___ SPEC LIST (SH. NO.:)
- ___ SPECIAL PROVISIONS:)
- ___ ADDED:
- DELETED:
- ___ SPECIAL SPECIFICATIONS:
- ___ ADDED:
- DELETED:
- X OTHER: PLAN SHEET AND OTHER CHANGES

DESCRIPTION OF ABOVE CHANGES
(INCLUDING PLANS SHEET CHANGES)

***** BID INSERTS *****

REVISED QUANTITIES FOR THE FOLLOWING BID ITEMS:
425-6036, 425-6039

***** PLAN SHEETS *****

SHEET 009 (E&Q): REVISED QUANTITY FOR 425-6036, 425-6039.

SHEET 134 (ESTIMATED QUANTITIES & BEARING SEAT ELEV.) REVISED QUANTITIES FOR PRESTR CON GIRDER (TX34), PRESTR CON GIRDER (TX54)

SHEET 154 (343' PRESTR CONC. GIRDER UNIT 01,REVISED TABLE OF ESTIMATED QUANTITIES.

SHEET 155 (324' PRESTR CONC. GIRDER UNIT 02,REVISED TABLE OF ESTIMATED QUANTITIES.

SHEET 179 (385' PRESTR CONC. GIRDER UNIT 01,REVISED TABLE OF ESTIMATED QUANTITIES.

DESCRIPTION OF ABOVE CHANGES (CONTINUED)
(INCLUDING PLANS SHEET CHANGES)

SHEET 180 (315' PRESTR CONC. GIRDER UNIT 02,REVISED TABLE OF ESTIMATED QUANTITIES.



Estimate & Quantity Sheet

CONTROLLING PROJECT ID 0043-02-080

DISTRICT Childress
HIGHWAY US 287

COUNTY Hardeman

CONTROL SECTION JOB				0043-02-080		TOTAL EST.	TOTAL FINAL
PROJECT ID				A00183545			
COUNTY				Hardeman			
HIGHWAY				US 287			
ALT	BID CODE	DESCRIPTION	UNIT	EST.	FINAL		
	100-6002	PREPARING ROW	STA	27.620		27.620	
	104-6009	REMOVING CONC (RIPRAP)	SY	4,642.000		4,642.000	
	104-6054	REMOVING CONCRETE(MOW STRIP)	LF	4,025.000		4,025.000	
	105-6016	REMOVING STAB BASE & ASPH PAV(16")	SY	19,801.000		19,801.000	
	110-6001	EXCAVATION (ROADWAY)	CY	16,005.000		16,005.000	
	132-6002	EMBANKMENT (FINAL)(DENS CONT)(TY A)	CY	22,650.000		22,650.000	
	156-6001	BULLDOZER WORK	HR	29.000		29.000	
	164-6034	DRILL SEEDING (PERM) (RURAL) (SANDY)	AC	18.600		18.600	
	164-6053	DRILL SEEDING (TEMP)(WARM OR COOL)	AC	18.600		18.600	
	168-6001	VEGETATIVE WATERING	MG	1,453.000		1,453.000	
	216-6001	PROOF ROLLING	HR	9.000		9.000	
	247-6519	FL BS (CMP IN PLC)(TYA GR1-2)(FNAL POS)	SQ	18,094.000		18,094.000	
	310-6009	PRIME COAT (MC-30)	GAL	5,429.000		5,429.000	
	314-6013	EMULS ASPH (EROSN CONT)(CSS-1H)	GAL	18,007.000		18,007.000	
	316-6024	ASPH (CRS-2P)	GAL	7,237.000		7,237.000	
	316-6078	AGGR(TY-B GR-4 SAC-A)	CY	145.000		145.000	
	401-6001	FLOWABLE BACKFILL	CY	1,030.000		1,030.000	
	403-6001	TEMPORARY SPL SHORING	SF	4,188.000		4,188.000	
	416-6001	DRILL SHAFT (18 IN)	LF	360.000		360.000	
	416-6004	DRILL SHAFT (36 IN)	LF	4,350.000		4,350.000	
	416-6006	DRILL SHAFT (48 IN)	LF	150.000		150.000	
	420-6013	CL C CONC (ABUT)	CY	177.500		177.500	
	420-6029	CL C CONC (CAP)	CY	1,077.100		1,077.100	
	420-6037	CL C CONC (COLUMN)	CY	499.800		499.800	
	420-6049	CL C CONC (CRASHWALL)	CY	741.000		741.000	
	420-6066	CL C CONC (RAIL FOUNDATION)	CY	100.300		100.300	
	422-6001	REINF CONC SLAB	SF	61,472.000		61,472.000	
	422-6015	APPROACH SLAB	CY	367.100		367.100	
	425-6036	PRESTR CONC GIRDER (TX34)	LF	5,936.330		5,936.330	
	425-6039	PRESTR CONC GIRDER (TX54)	LF	2,884.600		2,884.600	
	429-6003	CONC STR REPAIR(DECK REP(PART DEPTH))	SF	144.000		144.000	
	429-6005	CONC STR REPAIR(DECK REP (FULL DEPTH))	SF	264.000		264.000	
	429-6007	CONC STR REPAIR (VERTICAL & OVERHEAD)	SF	409.000		409.000	
	432-6002	RIPRAP (CONC)(5 IN)	CY	4.700		4.700	
	432-6008	RIPRAP (CONC)(CL B)(RR8&RR9)	CY	837.000		837.000	
	432-6045	RIPRAP (MOW STRIP)(4 IN)	CY	189.000		189.000	
	450-6023	RAIL (TY SSTR)	LF	2,869.200		2,869.200	



Revised 05/22/2024

DISTRICT	COUNTY	CCSJ	SHEET
Childress	Hardeman	0043-02-080	009

CK: DW: CK: DW:

SUMMARY OF ESTIMATED BRIDGE QUANTITIES (NBI #25-100-0-0043-02-213)																	
ITEM	401 6001	403 6001	416 6001	416 6004	420 6013	420 6029	420 6037	420 6049	422 6001	422 6015	425 6036	425 6039	432 6008	450 6023	454 6018	496 6011	550 6008
DESCRIPTION	FLOWABLE BACKFILL	TEMPORARY SPL SHORING	DRILL SHAFT (18 IN)	DRILL SHAFT (36 IN)	* CL C CONC (ABUT)	* CL C CONC (CAP)	* CL C CONC (COLUMN)	* CL C CONC (CRASHWALL)	* REINF CONC SLAB	* APPROACH SLAB	PRESTR CONC GIRDER (TX34)	PRESTR CONC GIRDER (TX54)	RIPRAP (CONC)(CL B)(RR&RR9)	* RAIL (TY SSTR)	SEALED EXPANSION JOINT (4 IN) (SEJ - M)	REMOV STR (BRIDGE 500 - 999 FT LENGTH)	CHAIN LINK FENCE (INSTALL) (B')
UNIT	CY	SF	LF	LF	CY	CY	CY	CY	SF	CY	LF	LF	CY	LF	LF	EA	LF
ABUTMENT 1	358		90	405	57.9					111.7			200	38.0	93		
ABUTMENT 9	198		90	315	35.7					92.6			180	28.0	76		
BENT 2				210		81.2	33.0										
BENT 3				210		75.3	33.0										
BENT 4		716		270		86.3	44.0	69.8									
BENT 5		1,280		300		85.3	45.6	125.6							74		
BENT 6		680		300		84.7	42.4	116.5									
BENT 7				210		82.0	40.8	112.1									
BENT 8				210		74.9	34.6										
220.00 PRSTR CONC I-GIRDER UNIT 1									16,487		876.03	1,513.47		687.3			205
330.00 PRSTR CONC I-GIRDER UNIT 2									15,545		2,251.86			647.8			645
OVERALL TOTAL	556	2,676	180	2,430	93.6	569.7	273.4	424.0	32,032	204.3	3,127.89	1,513.47	380	1,401.1	243	1	850

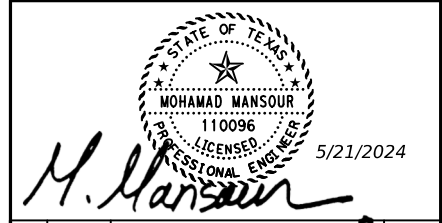
* ALL REINFORCING STEEL TO BE GALVANIZED (SEE TXDOT ITEM 440-REINFORCING STEEL)

 Revised 05/22/2024

BEARING SEAT ELEVATIONS

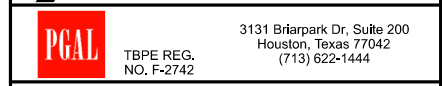
	BEAM 1	BEAM 2	BEAM 3	BEAM 4	BEAM 5	BEAM 6	BEAM 7
ABUT 1 (FWD)	1539.741	1539.222	1538.698	1538.170	1537.637	1537.100	1536.558
BENT 2 (BK)	1540.881	1540.422	1539.958	1539.491	1539.020	1538.544	1538.065
BENT 2 (FWD)	1540.911	1540.454	1539.993	1539.527	1539.058	1538.584	1538.107
BENT 3 (BK)	1541.408	1541.001	1540.592	1540.181	1539.766	1539.349	1538.929
BENT 3 (FWD)	1543.090	1542.686	1542.278	1541.868	1541.455	1541.040	1540.622
BENT 4 (BK)	1543.212	1542.824	1542.433	1542.039	1541.643	1541.243	1540.842
BENT 4 (FWD)	1543.220	1542.833	1542.443	1542.051	1541.656	1541.259	1540.859
BENT 5 (BK)	1543.250	1542.891	1542.530	1542.167	1541.803	1541.436	1541.067
BENT 5 (FWD)	1543.245	1542.888	1542.528	1542.167	1541.804	1541.438	1541.071
BENT 6 (BK)	1543.004	1542.679	1542.352	1542.022	1541.690	1541.355	1541.018
BENT 6 (FWD)	1542.986	1542.662	1542.336	1542.008	1541.677	1541.344	1541.009
BENT 7 (BK)	1542.592	1542.291	1541.989	1541.684	1541.377	1541.068	1540.756
BENT 7 (FWD)	1542.562	1542.263	1541.962	1541.658	1541.353	1541.045	1540.735
BENT 8 (BK)	1541.829	1541.556	1541.282	1541.006	1540.728	1540.448	1540.166
BENT 8 (FWD)	1541.785	1541.514	1541.241	1540.967	1540.690	1540.412	1540.131
ABUT 9 (BK)	1540.761	1540.520	1540.276	1540.031	1539.784	1539.536	1539.285

HL-93 LOADING NOT TO SCALE



1	5/21/24	GIRDER QTY	MM
NO.	DATE	REVISION	APPROV.

 Texas Department of Transportation

 PG&L
 TBPE REG. NO. F-2742
 3131 Briarpark Dr, Suite 200
 Houston, Texas 77042
 (713) 622-1444

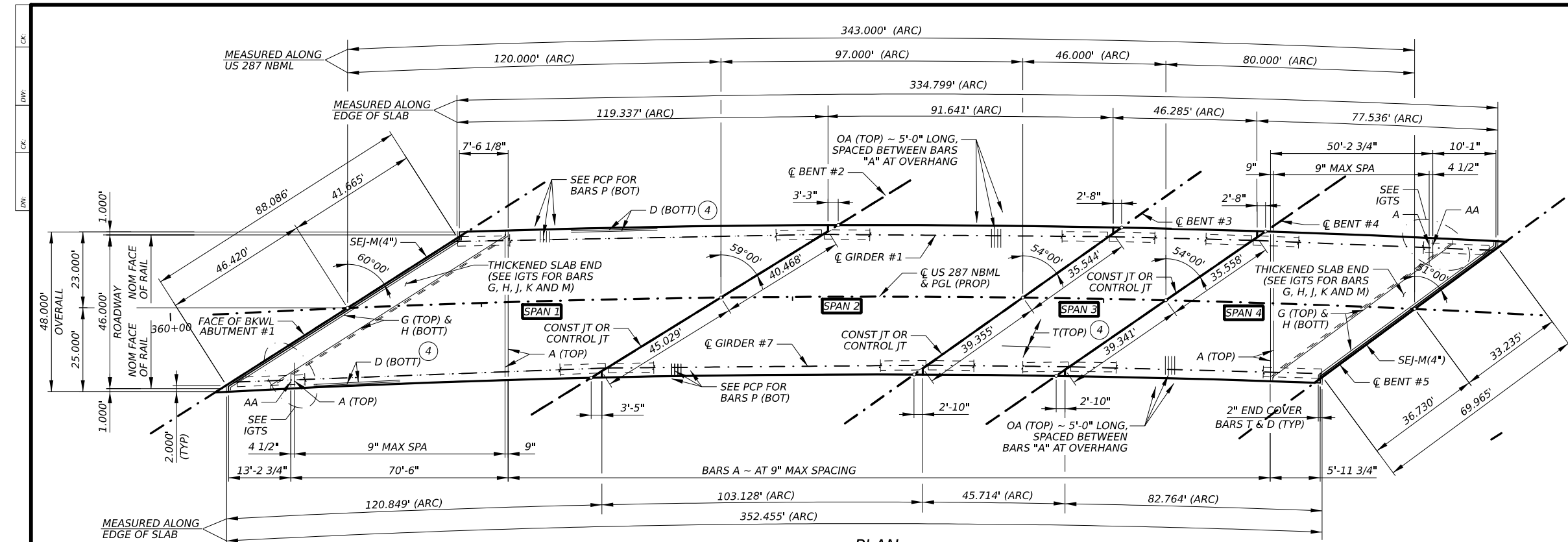
US 287 @ BNSF RR & LP 285

ESTIMATED QUANTITIES & BEARING SEAT ELEV.
 US 287 NBML @ BNSF RR & LP 285

SHEET 1 OF 1

CONT	SECT	JOB	HIGHWAY
0043	02	080	US 287
DIST	COUNTY	SHEET NO.	
CHS	HARDEMAN	134	

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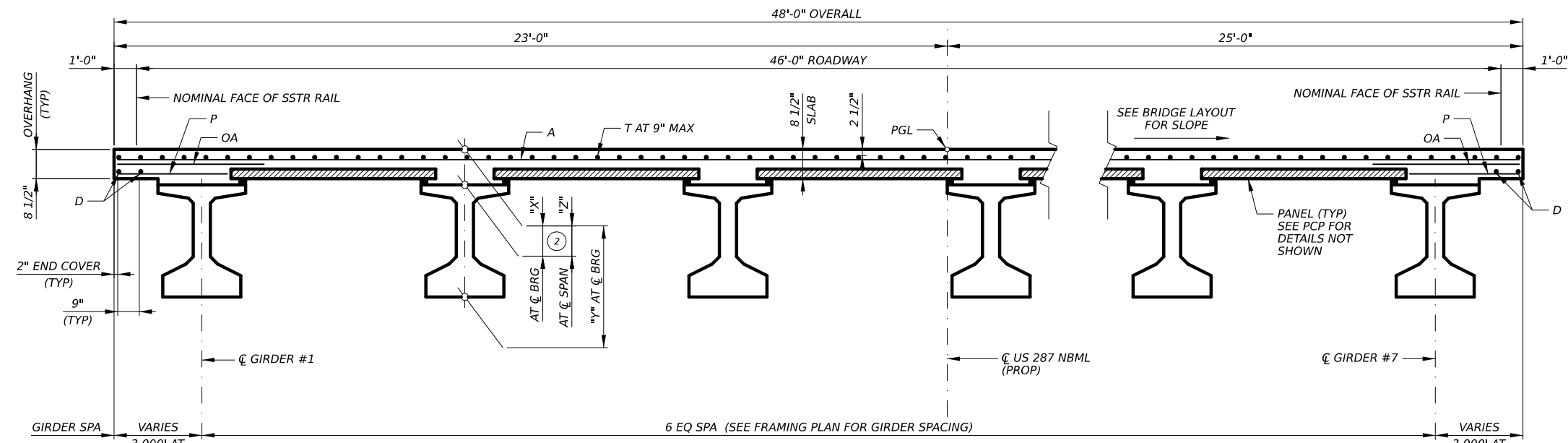
PLAN

- GENERAL NOTES:**
- DESIGNED ACCORDING TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION (2020), CURRENT INTERIMS AND TxDOT BRIDGE DESIGN MANUAL (JAN 2023).
 - SEE PRESTRESSED CONCRETE PANELS (PCP) AND PRESTRESSED CONCRETE PANEL FABRICATION DETAILS (PCP-FAB) STANDARD SHEETS FOR PANEL DETAILS NOT SHOWN.
 - SEE THICKENED SLAB END DETAILS (IGTS) STANDARD SHEET FOR THICKENED SLAB END DETAILS AND QUALITY ADJUSTMENT.
 - SEE MISCELLANEOUS SLAB DETAILS (IGMS) STANDARD SHEET FOR MISCELLANEOUS DETAILS.
 - SEE STANDARD SEJ-M FOR SEALED EXPANSION JOINT DETAILS.
 - SEE APPLICABLE RAIL DETAILS FOR RAIL ANCHORAGE IN SLAB.
 - SEE PERMANENT METAL DECK FORMS (PMDF) STANDARD SHEET FOR DETAILS AND QUALITY ADJUSTMENTS IF THIS OPTION IS USED.

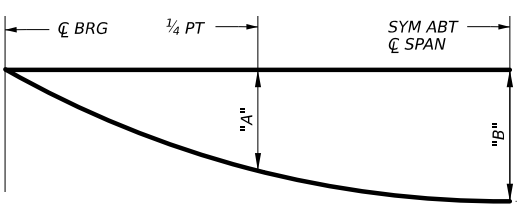
COVER DIMENSIONS ARE CLEAR DIMENSIONS, UNLESS NOTED OTHERWISE. REINFORCING BAR DIMENSIONS SHOWN ARE OUT-TO-OUT OF BAR.

- MATERIAL NOTES:**
- PROVIDE CLASS S CONCRETE ($f_c = 4000$ PSI).
 - PROVIDE GRADE 60 REINFORCING STEEL. ALL REINFORCING STEEL TO BE GALVANIZED (SEE TxDOT ITEM 440-REINFORCING STEEL)
 - PROVIDE BAR LAPS, WHERE REQUIRED, AS FOLLOWS: UNCOATED ~ #4 = 1'-7"
 - GALVANIZED DEFORMED WELDED WIRE REINFORCEMENT (WWR) (ASTM A1064) OF EQUAL SIZE AND SPACING MAY BE SUBSTITUTED FOR BARS A, D, OA, P OR T UNLESS NOTED OTHERWISE. PROVIDE THE SAME LAPS AS REQUIRED FOR REINFORCING BARS.

- REINFORCING STEEL WEIGHT IS CALCULATED USING APPROXIMATE FACTOR OF 2.3 LBS/SF
- THEORETICAL DIMENSION
- LENGTHS SHOWN ARE BOTTOM GIRDER FLANGE LENGTHS WITH ADJUSTMENTS MADE FOR GIRDER SLOPE.
- BARS T AND D ARE CONTINUOUS THROUGH CONST OR CONTROL JOINT.



TYPICAL TRANSVERSE SECTION



DEAD LOAD DEFLECTION DIAGRAM

NOTE: DEFLECTIONS SHOWN ARE DUE TO PRESTRESSED CONCRETE PANELS AND CAST-IN-PLACE CONCRETE SLAB ONLY. ($E_c = 5,000$ ksi). ADJUST DEFLECTIONS BASED ON FIELD OBSERVATIONS AS NEEDED.

SPAN	GIRDER	"A"	"B"
1 (TX54 GIRD.)	1	0.125	0.178
	2 - 6	0.127	0.180
	7	0.096	0.137
2 (TX54 GIRD.)	1	0.066	0.094
	2 - 6	0.071	0.101
	7	0.063	0.090
3 (TX34 GIRD.)	1	0.028	0.039
	2 - 6	0.063	0.090
	7	0.067	0.095
4 (TX34 GIRD.)	1	0.101	0.144
	2 - 6	0.103	0.146
	7	0.076	0.109

SPAN	GIRDER	"X" AT CL BRG	"Y" AT CL BRG	"Z" AT CL SPAN
1	1&7	12"	5'-6"	10 5/8"
	2-6	12"	5'-6"	10 7/8"
2	1&7	12"	5'-6"	11"
	2-6	12"	5'-6"	11 1/8"
3	1&7	12"	3'-10"	10 13/16"
	2-6	12"	3'-10"	11"
4	1&7	12 1/4"	3'-10 1/4"	10 1/4"
	2-6	12 1/4"	3'-10 1/4"	10 1/2"

1 Revised 05/22/2024

SPAN	REINF CONCRETE SLAB	PRESTR CONC GIRDER (TX34)		REINFORCING STEEL
		LF	LB	
NO	SF	LF	LB	LB
1	5,762	0.00	835.34	13,253
2	4,671	0.00	678.13	10,743
3	2,207	318.41	0.00	5,076
4	3,847	557.62	0.00	8,848
TOTAL	16,487	876.03	1,513.47	37,920

BAR	SIZE
A	#4
AA	#5
D	#4
G	#4
H	#4
J	#4
K	#4
M	#4
OA	#5
P	#4
T	#4

HL-93 LOADING NOT TO SCALE

M. Mansour 5/21/2024

1	5/21/24	GIRDER & STEEL QTY	MM
NO.	DATE	REVISION	APPROV.

Texas Department of Transportation

PG&L 3131 Briarpark Dr, Suite 200
Houston, Texas 77042
(713) 622-1444

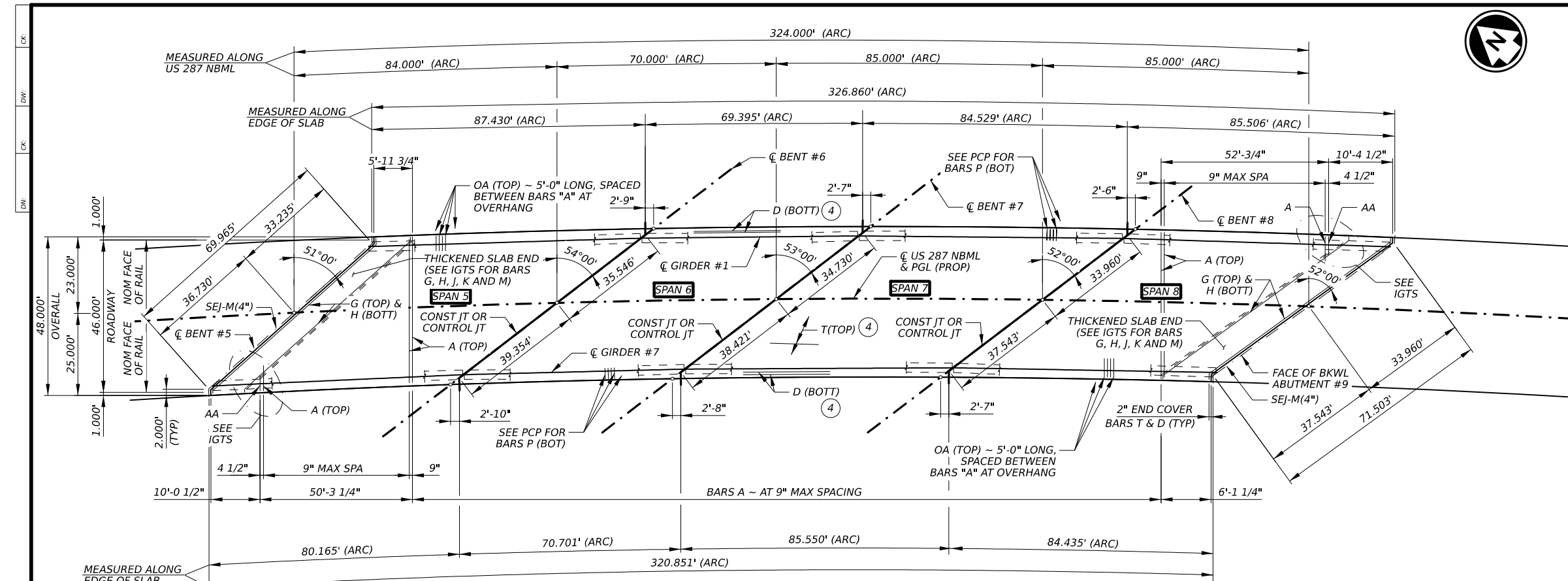
US 287 @ BNSF RR & LP 285

343,000'
PRESTR CONC.
GIRDER UNIT 01
US 287 NBML @ BNSF RR & LP 285

SHEET 1 OF 2

CONT	SECT	JOB	HIGHWAY
0043	02	080	US 287
DIST	COUNTY	SHEET NO.	
CHS	HARDEMAN	154	

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PLAN

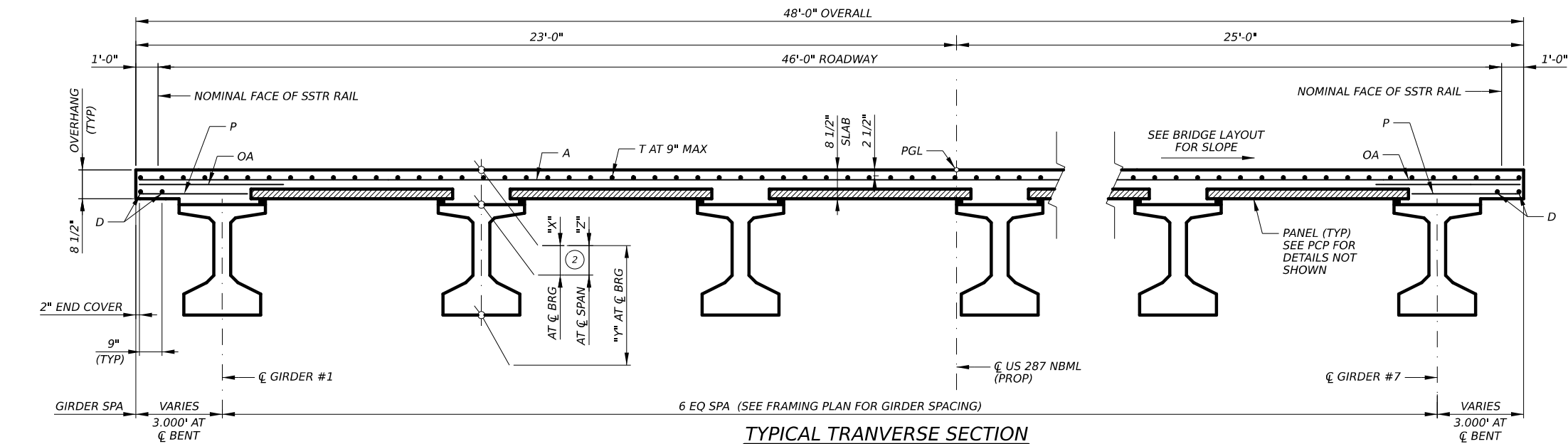
- GENERAL NOTES:**
- DESIGNED ACCORDING TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION (2020), CURRENT INTERIMS AND TxDOT BRIDGE DESIGN MANUAL (JAN 2023).
 - SEE PRESTRESSED CONCRETE PANELS (PCP) AND PRESTRESSED CONCRETE PANEL FABRICATION DETAILS (PCP-FAB) STANDARD SHEETS FOR PANEL DETAILS NOT SHOWN.
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 - SEE MISCELLANEOUS SLAB DETAILS (IGMS) STANDARD SHEET FOR MISCELLANEOUS DETAILS.
 - SEE STANDARD SEJ-M FOR SEALED EXPANSION JOINT DETAILS.
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COVER DIMENSIONS ARE CLEAR DIMENSIONS, UNLESS NOTED OTHERWISE. REINFORCING BAR DIMENSIONS SHOWN ARE OUT-TO-OUT OF BAR.

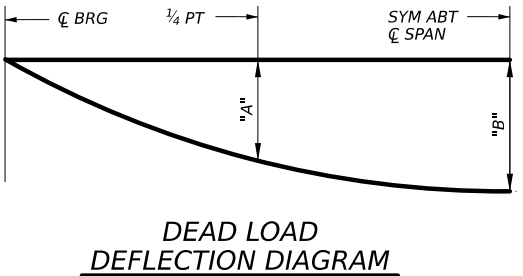
- MATERIAL NOTES:**
- PROVIDE CLASS S CONCRETE ($f_c = 4000$ PSI).
 - PROVIDE GRADE 60 REINFORCING STEEL. ALL REINFORCING STEEL TO BE GALVANIZED (SEE TxDOT ITEM 440-REINFORCING STEEL)
 - PROVIDE BAR LAPS, WHERE REQUIRED, AS FOLLOWS: UNCOATED - #4 = 1'-7"
 - GALVANIZED DEFORMED WELDED WIRE REINFORCEMENT (WWR) (ASTM A1064) OF EQUAL SIZE AND SPACING MAY BE SUBSTITUTED FOR BARS A, D, OA, P OR T UNLESS NOTED OTHERWISE. PROVIDE THE SAME LAPS AS REQUIRED FOR REINFORCING BARS.

- REINFORCING STEEL WEIGHT IS CALCULATED USING APPROXIMATE FACTOR OF 2.3 LBS/SF
- THEORETICAL DIMENSION
- LENGTHS SHOWN ARE BOTTOM GIRDER FLANGE LENGTHS WITH ADJUSTMENTS MADE FOR GIRDER SLOPE.
- BARS T AND D ARE CONTINUOUS THROUGH CONST OR CONTROL JOINT.

1 Revised 05/22/2024



TYPICAL TRANSVERSE SECTION



DEAD LOAD DEFLECTION DIAGRAM

NOTE: DEFLECTIONS SHOWN ARE DUE TO PRESTRESSED CONCRETE PANELS AND CAST-IN-PLACE CONCRETE SLAB ONLY. ($E_c = 5,000$ ksi). ADJUST DEFLECTIONS BASED ON FIELD OBSERVATIONS AS NEEDED.

SPAN	GIRDER	"A"	"B"
5 (TX34 GIRD.)	1	0.045	0.064
	2 - 6	0.046	0.065
	7	0.033	0.046
6 (TX34 GIRD.)	1	0.053	0.076
	2 - 6	0.059	0.084
	7	0.054	0.077
7 (TX34 GIRD.)	1	0.070	0.100
	2 - 6	0.078	0.110
	7	0.070	0.100
8 (TX34 GIRD.)	1	0.119	0.168
	2 - 6	0.128	0.182
	7	0.115	0.163

SPAN	GIRDER	"X" AT CL BRG	"Y" AT CL BRG	"Z" AT CL SPAN
5	1&7	12"	3'-10"	11"
	2-6	12"	3'-10"	10 7/8"
6	1&7	12"	3'-10"	10 3/4"
	2-6	12"	3'-10"	10 3/4"
7	1&7	12 1/4"	3'-10 1/4"	10 1/8"
	2-6	12 1/4"	3'-10 1/4"	10 1/4"
8	1&7	12 1/4"	3'-10 1/4"	10 7/16"
	2-6	12 1/4"	3'-10 1/4"	10 5/8"

SPAN	REINF CONCRETE SLAB SF	PRESTR CONC GIRDER (TX34)		REINFORCING STEEL LB
		LF	LB	
5	4,023	583.05	9,253	
6	3,362	486.81	7,733	
7	4,081	591.77	9,386	
8	4,079	590.23	9,382	
TOTAL	15,545	2,251.86	35,754	

BAR	SIZE
A	#4
AA	#5
D	#4
G	#4
H	#4
J	#4
K	#4
M	#4
OA	#5
P	#4
T	#4

HL-93 LOADING NOT TO SCALE

M. Mansour 5/21/2024

1	5/21/24	GIRDER & STEEL QTY	MM
NO.	DATE	REVISION	APPROV.

Texas Department of Transportation

PGAL 3131 Briarpark Dr, Suite 200
Houston, Texas 77042
NO. F-2742 (713) 622-1444

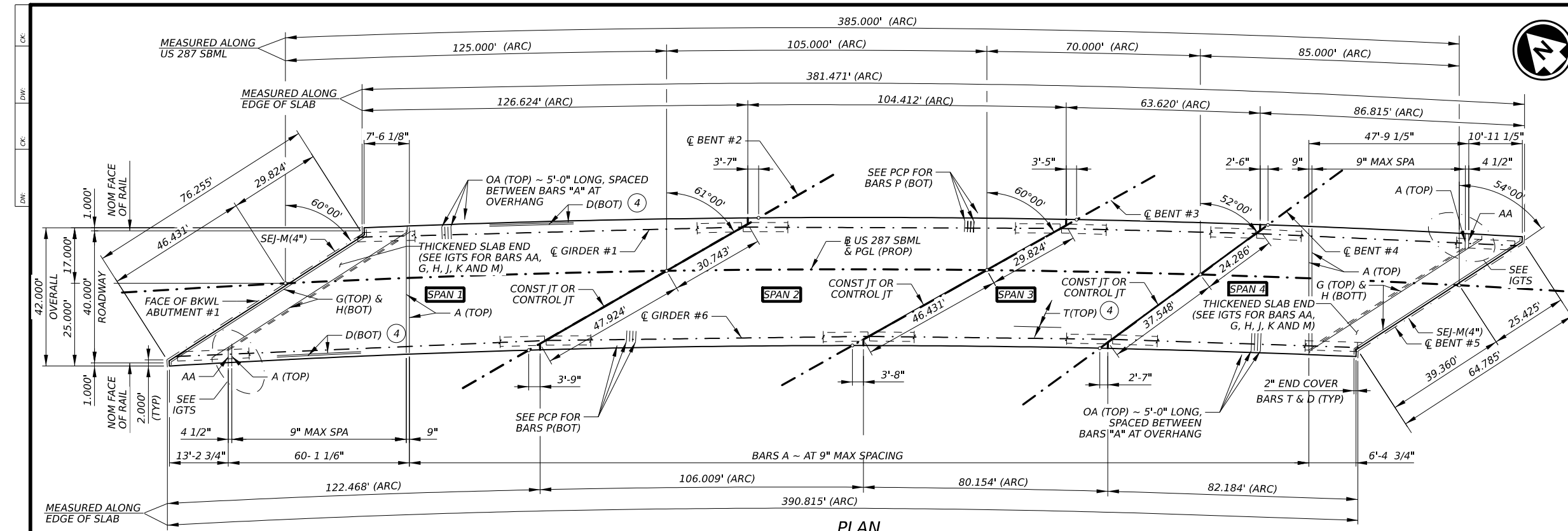
US 287 @ BNSF RR & LP 285

324,000'
PRESTR CONC.
GIRDER UNIT 02
US 287 NBML @ BNSF RR & LP 285

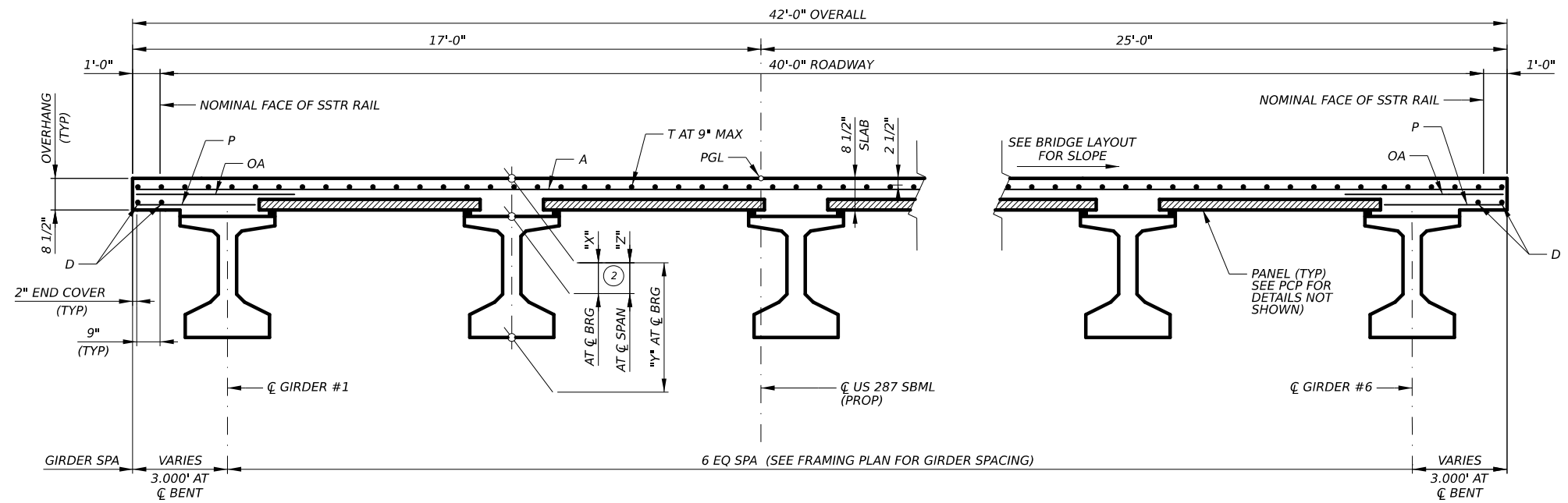
SHEET 2 OF 2

CONT	SECT	JOB	HIGHWAY
0043	02	080	US 287
DIST	COUNTY	SHEET NO.	
CHS	HARDEMAN	155	

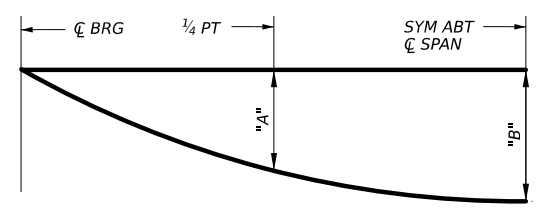
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PLAN



TYPICAL TRANSVERSE SECTION



DEAD LOAD DEFLECTION DIAGRAM

NOTE: DEFLECTIONS SHOWN ARE DUE TO PRESTRESSED CONCRETE PANELS AND CAST-IN-PLACE CONCRETE SLAB ONLY. (E_c = 5,000 ksi). ADJUST DEFLECTIONS BASED ON FIELD OBSERVATIONS AS NEEDED.

SPAN	GIRDER	"A"	"B"
1 (TX54 GIR.)	1	0.149	0.212
	2-5	0.143	0.203
	6	0.114	0.162
2 (TX54 GIR.)	1	0.066	0.094
	2-5	0.071	0.101
	6	0.063	0.090
3 (TX34 GIR.)	1	0.028	0.039
	2-5	0.049	0.070
	6	0.067	0.095
4 (TX34 GIR.)	1	0.101	0.144
	2-5	0.096	0.136
	6	0.076	0.109

SPAN	GIRDER	"X" AT CL BRG	"Y" AT CL BRG	"Z" AT CL SPAN (2)
1	1&6	12"	5'-6"	10 1/2"
	2-5	12"	5'-6"	10 5/8"
2	1&6	12"	5'-6"	11"
	2-5	12"	5'-6"	11 1/8"
3	1&6	12"	3'-10"	10 7/10"
	2-5	12"	3'-10"	11"
4	1&6	12 1/4"	3'-10 1/4"	10 1/4"
	2-5	12 1/4"	3'-10 1/4"	10 1/2"

SPAN	REINF CONCRETE SLAB	PRESTR CONC GIRDER (TX34)		REINFORCING STEEL (1)
		LF (3)	LF (3)	
NO	SF	LF	LF	LB
1	5,232	0.00	742.89	12,034
2	4,418	0.00	628.24	10,161
3	3,016	428.25	0.00	6,937
4	3,550	504.00	0.00	8,165
TOTAL	16,216	932.25	1,371.13	37,297

BAR	SIZE
A	#4
AA	#5
D	#4
G	#4
H	#4
J	#4
M	#4
OA	#5
P	#4
T	#4

- GENERAL NOTES:**
- DESIGNED ACCORDING TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION (2020), CURRENT INTERIMS AND TxDOT BRIDGE DESIGN MANUAL (JAN 2023).
 - SEE PRESTRESSED CONCRETE PANELS (PCP) AND PRESTRESSED CONCRETE PANEL FABRICATION DETAILS (PCP-FAB) STANDARD SHEETS FOR PANEL DETAILS NOT SHOWN.
 - SEE THICKENED SLAB END DETAILS (IGTS) STANDARD SHEET FOR THICKENED SLAB END DETAILS AND QUALITY ADJUSTMENT.
 - SEE MISCELLANEOUS SLAB DETAILS (IGMS) STANDARD SHEET FOR MISCELLANEOUS DETAILS.
 - SEE STANDARD SEJ-M FOR SEALED EXPANSION JOINT DETAILS.
 - SEE APPLICABLE RAIL DETAILS FOR RAIL ANCHORAGE IN SLAB.
 - SEE PERMANENT METAL DECK FORMS (PMDF) STANDARD SHEET FOR DETAILS AND QUALITY ADJUSTMENTS IF THIS OPTION IS USED.

COVER DIMENSIONS ARE CLEAR DIMENSIONS, UNLESS NOTED OTHERWISE. REINFORCING BAR DIMENSIONS SHOWN ARE OUT-TO-OUT OF BAR.

- MATERIAL NOTES:**
- PROVIDE CLASS S CONCRETE (f_c = 4000 PSI).
 - PROVIDE GRADE 60 REINFORCING STEEL. ALL REINFORCING STEEL TO BE GALVANIZED (SEE TxDOT ITEM 440-REINFORCING STEEL)
 - PROVIDE BAR LAPS, WHERE REQUIRED, AS FOLLOWS: UNCOATED ~ #4 = 1'-7"
 - GALVANIZED DEFORMED WELDED WIRE REINFORCEMENT (WWR) (ASTM A1064) OF EQUAL SIZE AND SPACING MAY BE SUBSTITUTED FOR BARS A, D, OA, P OR T UNLESS NOTED OTHERWISE. PROVIDE THE SAME LAPS AS REQUIRED FOR REINFORCING BARS.

- REINFORCING STEEL WEIGHT IS CALCULATED USING APPROXIMATE FACTOR OF 2.3 LBS/SF
- THEORETICAL DIMENSION
- LENGTHS SHOWN ARE BOTTOM GIRDER FLANGE LENGTHS WITH ADJUSTMENTS MADE FOR GIRDER SLOPE.
- BARS T AND D ARE CONTINUOUS THROUGH CONST OR CONTROL JOINT.

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1 Revised 05/22/2024

HL-93 LOADING NOT TO SCALE

1	5/21/24	GIRDER & STEEL QTY	MM
NO.	DATE	REVISION	APPROV.

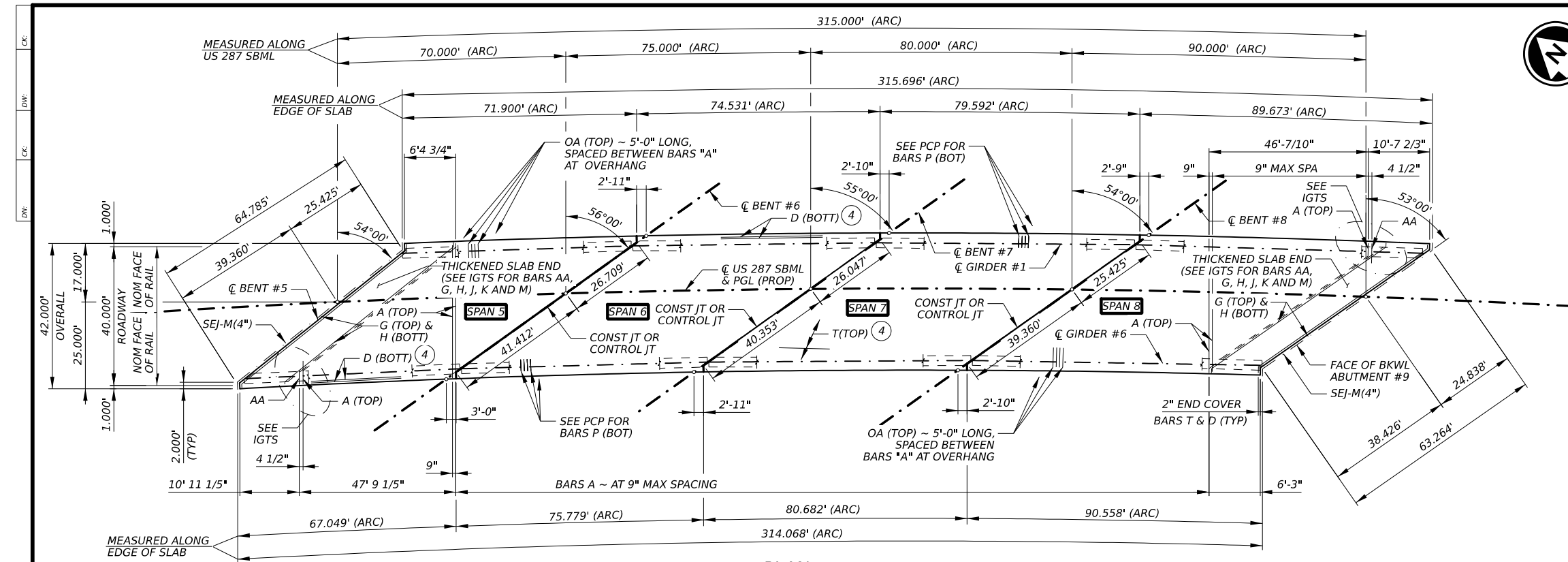
Texas Department of Transportation

PG&L TBPE REG. NO. F-2742 3131 Briarpark Dr, Suite 200 Houston, Texas 77042 (713) 622-1444

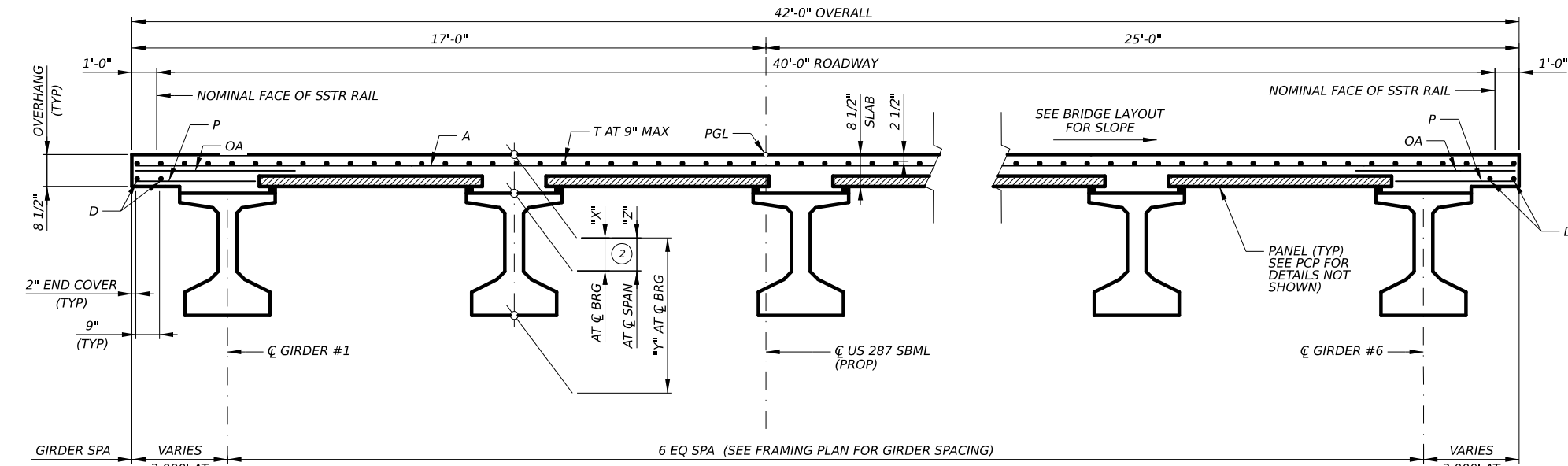
US 287 @ BNSF RR & LP 285
385.000'
PRESTR CONC.
GIRDER UNIT 01
 US 287 SBML @ BNSF RR & LP 285

CONT		SECT	JOB	HIGHWAY
0043		02	080	US 287
DIST		COUNTY	SHEET NO.	
CHS		HARDEMAN	179	

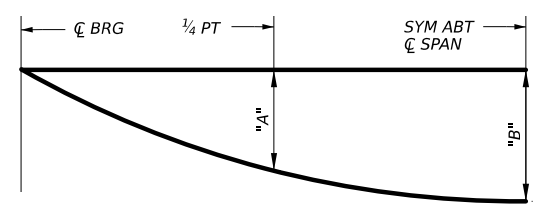
SHEET 1 OF 2



PLAN



TYPICAL TRANVERSE SECTION



DEAD LOAD DEFLECTION DIAGRAM

NOTE: DEFLECTIONS SHOWN ARE DUE TO PRESTRESSED CONCRETE PANELS AND CAST-IN-PLACE CONCRETE SLAB ONLY. (Ec = 5,000 ksi). ADJUST DEFLECTIONS BASED ON FIELD OBSERVATIONS AS NEEDED.

SPAN	GIRDER	"A"	"B"
5 (TX34 GIRD.)	1	0.045	0.064
	2 - 5	0.042	0.062
	6	0.033	0.046
6 (TX34 GIRD.)	1	0.053	0.076
	2 - 5	0.059	0.084
	6	0.054	0.077
7 (TX34 GIRD.)	1	0.070	0.100
	2 - 5	0.077	0.109
	6	0.070	0.100
8 (TX34 GIRD.)	1	0.119	0.168
	2 - 5	0.128	0.182
	6	0.115	0.163

SPAN	GIRDER	"X" AT CL BRG	"Y" AT CL BRG	"Z" AT CL SPAN (2)
5	1&6	12"	3'-10"	11"
	2-5	12"	3'-10"	10 7/8"
6	1&6	12"	3'-10"	10 3/4"
	2-5	12"	3'-10"	10 3/4"
7	1&6	12 1/4"	3'-10 1/4"	10 1/8"
	2-5	12 1/4"	3'-10 1/4"	10 1/4"
8	1&6	12 1/4"	3'-10 1/4"	10 7/16"
	2-5	12 1/4"	3'-10 1/4"	10 5/8"

SPAN	REINF CONCRETE SLAB SF	PRESTR CONC GIRDER (TX34) (3)		REINFORCING STEEL (1) LB
		LF	LB	
5	2,918	413.81	6,711	
6	3,156	447.92	7,259	
7	3,365	477.81	7,740	
8	3,785	536.65	8,706	
TOTAL	13,224	1,876.19	30,416	

BAR	SIZE
A	#4
AA	#5
D	#4
G	#4
H	#4
J	#4
M	#4
OA	#5
P	#4
T	#4

- GENERAL NOTES:**
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- THEORETICAL DIMENSION
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- BARS T AND D ARE CONTINUOUS THROUGH CONST OR CONTROL JOINT.

HL-93 LOADING NOT TO SCALE

1	5/21/24	GIRDER & STEEL QTY	MM
NO.	DATE	REVISION	APPROV.

Texas Department of Transportation

PG&L TBPE REG. NO. F-2742

3131 Briarpark Dr, Suite 200
Houston, Texas 77042
(713) 622-1444

US 287 @ BNSF RR & LP 285

315.000'
PRESTR CONC.
GIRDER UNIT 02
US 287 SBML @ BNSF RR & LP 285

SHEET 2 OF 2

CONT	SECT	JOB	HIGHWAY
0043	02	080	US 287
DIST	COUNTY	SHEET NO.	
CHS	HARDEMAN	180	

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Revised 05/22/2024