DRAWN BY:	DATE:		
CHECKED BY:	DATE:	S&B PROJECT NO:	
APPROVED BY:	DATE:	IBM09T0018	
STATE	COUNTY		SHEET NO.
TEXAS	HIDALGO		01.01

UNITED STATES SECTION INTERNATIONAL BOUNDARY AND WATER COMMISSION

ADDENDUM No. 2

LOWER RIO GRANDE FLOOD CONTROL PROJECT

REHABILITATION OF NORTH FLOODWAY LEVEE

FROM FM 1015 TO BASELINE ROAD

REHABILITATION OF NORTH FLOODWAY LEVEE

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02.09-02.15	SURVEY CONTROL SHEET LEVEE NFW1
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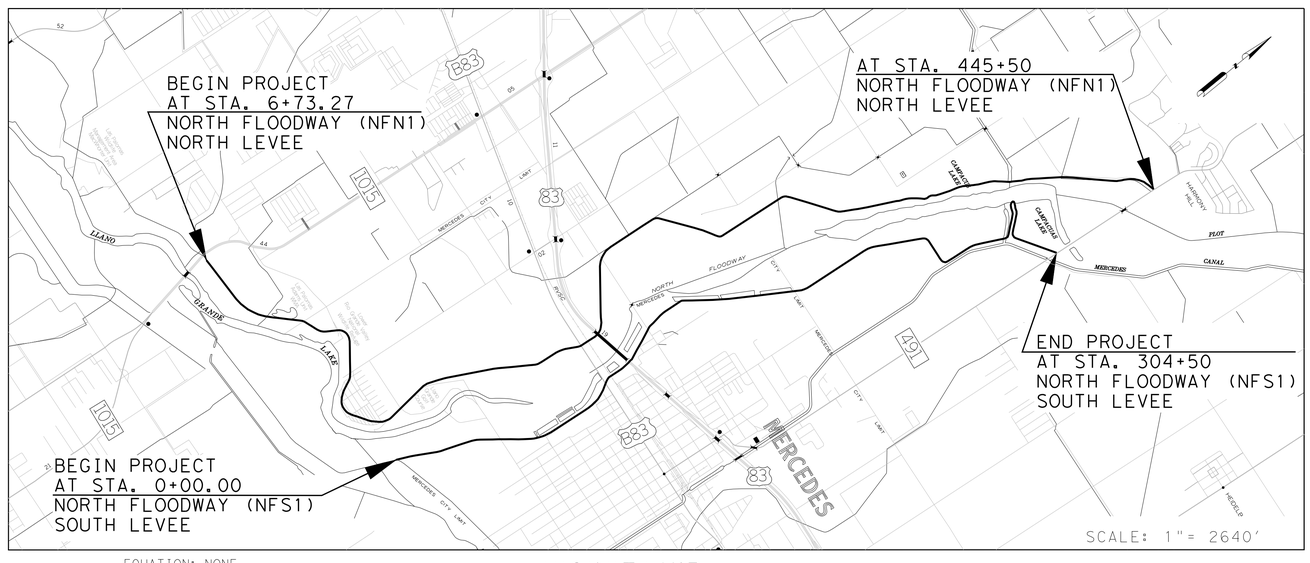

EQUATION: NONE

VICINITY MAP

STATE OF TEXAS
PHILLIP J. PAWELEK
82739
REGISTERED PROFESSIONAL ENGINEER

The seal appearing on this document was authorized by PHILLIP J. PAWELEK P.E. 82739, on 9-3, 20 09

Phillip J. Pawelek, P.E.

PLANS PREPARED BY

S&B INFRASTRUCTURE, LTD.
Engineering Management Technology

S&B Infrastructure, Ltd. Firm Registration Number: 1582

DANIEL O. RIOS, P.E., PROJECT MANAGER

SUBMITTED FOR LETTING:

SHARLOTTE LYNNE TEAGUE, P.E.
DEPUTY PROJECT MANAGER / TASK ORDER MANAGER

DATE : 09/03/2009

FINAL PLAN DATA:

FINAL CONTRACT PRICE: _____
CONTRACTOR'S NAME: _____
CONTRACTOR ADDRESS: _____
LETTING DATE: _____
DATE WORK BEGAN: _____
DATE WORK COMPLETED: _____
DATE OF ACCEPTANCE: _____

CHANGE ORDERS:

U.S. SECTION INTERNATIONAL BOUNDARY & WATER COMMISSION

RECOMMENDED FOR LETTING : _____ DATE : _____
RAYMUNDO AGUIRRE, Ph.D, P.E.
PROJECT MANAGER

APPROVED FOR LETTING : _____ DATE : _____
JOSE ARTURO NUNEZ, P.E.
DIVISION ENGINEER, ENGINEERING SERVICES DIVISION

APPROVED FOR LETTING : _____ DATE : _____
C. W. RUTH, P.E.
COMMISSIONER

12:27:08 PM 9/4/2009

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E S T I M A T E & Q U A N T I T I E S S U M M A R Y

ITEM BID			DESCRIPTION	UNIT	TOTAL	
DIVISION NO.	ITEM No.	DESC CODE			ESTIMATE	FINAL
DIVISION 01 - GENERAL REQUIREMENTS						
01	57	01	TEMP EROSION CONTROL (SILT FENCE)	LF	88134	
01	57	02	TEMP EROSION CONTROL (CONST EXIT)	SY	2700	
01	70	01	MOBILIZATION / DEMOBILIZATION	LS	1	
DIVISION 02- EXISTING CONDITIONS						
02	91	10	REMOVE/RELOCATE FENCE	LF	3790	
DIVISION 31-33 - SITE GRADING						
31	11	10	PREP RIGHT OF WAY	STA	439.00	
31	14	01	REMOVE/STOCKPILE (EXIST GRAVEL)	CY	7420	
31	14	02	REMOVE/STOCKPILE (EXIST TOPSOIL) (6 IN)	CY	47166	
31	92	01	SEEDING (PERM)	SY	272957	
31	92	02	VEGETATIVE WATERING	MG	842	
31	92	03	SEEDING(TEMP)	SY	148665	
DIVISION 35 - WATERWAY/MARINE						
35	41	01	RAISE LEVEE (BENCH EXCAVATION)	CY	130745	
35	41	02	RAISE LEVEE (EMBANKMENT)	CY	306685	
35	41	03	RAISE LEVEE (TOPSOIL)	CY	45311	
DIVISION 50 - ROADWAY CONSTRUCTION						
50	11	02	ROADWAY EMBANKMENT (ACCESS ROAD)	CY	41823	
50	20	01	ROADWAY FLEX BASE (TY E GR 4)	CY	15045	
50	21	01	PRIME OIL (MC-30)	GAL	75	
50	25	01	HOT MIX ASPH SURF (2 IN)	TON	116	
50	40	01	METAL BEAM GUARD FENCE (TIMBER POST)	LF	400	
DIVISION 60 - STRUCTURES						
60	23	01	RETAINING WALL	SF	2939	
60	34	01	ROADWAY APPROACH SLAB	CY	224	
60	64	18	RC PIPE (CL V) (18 IN)	LF	32	
60	64	20	RC PIPE (CL V) (24 IN)	LF	17	
60	65	20	GATEWELL ADJUSTMENT 4X4 W/O PLATFORM	EA	21	
60	65	21	GATEWELL ADJUSTMENT 6X4 W/O PLATFORM	EA	1	
60	65	30	GATEWELL ADJUSTMENT 4X3 W/ PLATFORM	EA	1	
60	65	31	GATEWELL ADJUSTMENT 5.5X4 W/ PLATFORM	EA	1	
60	65	32	GATEWELL ADJUSTMENT 10X5 W/ PLATFORM	EA	1	
60	65	33	GATEWELL ADJUSTMENT 6X4 W/ PLATFORM	EA	1	
60	65	34	GATEWELL ADJUSTMENT 4X4 W/ PLATFORM	EA	1	
60	65	40	INLET (COMPL) (TY H)	EA	1	
60	66	40	CONC HDWL RAISE	EA	4	
60	67	01	SLOPE END TREATMENT TY II(3:1) (18 IN)	EA	6	
60	67	02	SLOPE END TREATMENT TY II(3:1) (24 IN)	EA	1	
60	68	20	SLUICE GATE (REFURB) (15 IN)	EA	1	
60	68	21	SLUICE GATE (REFURB) (18 IN)	EA	1	
60	68	23	SLUICE GATE (REFURB) (24 IN)	EA	3	
60	68	25	SLUICE GATE (REFURB) (4FT X 4FT)	EA	1	
60	68	37	SLUICE GATE PARTS (HANDWHEEL) (18-24 IN)	EA	2	
60	68	61	SLUICE GATE PARTS (THRUST COLLAR) (18-24 IN)	EA	1	
60	68	90	SLUICE GATE LUBE	EA	1	
60	71	10	GATEWELL GRATE (REPLACE &/OR INSTALL)	EA	28	
60	80	10	FLOOD GATE (MANUAL)(5′ X 24′)	EA	2	
60	80	17	FLOOD GATE (AUTOMATIC)(5′ X 150′)	EA	2	
60	98	10	CLEAN EXIST STRUCTURE	EA	28	
DIVISION 90 - MISCELLANEOUS						
90	79	01	VEHICULAR GATE	EA	17	

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ADDENDUM No. 2

ESTIMATES OF QUANTITIES

SHEET 1 OF 1 SHEET

STATE	COUNTY	DRAWN BY:	CHECKED BY:	
TEXAS	HIDALGO	PROJECT NO.	IBM09T0018	SHEET NO.
REHABILITATION OF NORTH FLOODWAY NORTH AND SOUTH LEVEES (FM 1015 TO BASELINE RD)				04.01

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SUMMARY OF NORTH LEVEE

SHEET. NO.	LOCATION STA FROM	TO	01 57 01 TEMP EROSION CONTROL (SILT FENCE) LF	01 57 02 TEMP EROSION CONTROL (CONST EXIT) SY	02 91 10 REMOVE/ RELOCATE EXIST. FENCE LF	31 11 10 PREP ROW STA	31 14 01 REMOVE/ STOCKPILE (EXIST GRAVEL) CY	31 14 02 REMOVE/ STOCKPILE (EXIST TOPSOIL 6") CY	31 92 01 SEEDING (PERM) SY	31 92 02 VEGETATIVE WATERING MG	35 41 01 RAISE LEVEE (BENCH EXCAV) CY	35 41 02 RAISE LEVEE (EMBANKMENT) CY	35 41 03 RAISE LEVEE (TOPSOIL) CY	50 20 01 ROADWAY FLEXBASE ('TY E GR 4) CY	50 40 01 METAL BEAM GUARD RD TIMBER POST LF	90 79 01 VEHICULAR GATE EA
LEVEE																
8.01	6+73.27	11+00.00	1000	180	50	4.30	90	464	2572	5	1330	3086	427	155		1
8.02	11+00.00	23+00.00	2400			12.00	200	950	5229	10	2548	5778	868	372		
8.03	23+00.00	35+00.00	2400			12.00	243	1897	10970	22	5222	12920	1821	372		
8.04	35+00.00	47+00.00	2400		100	12.00	234	1856	10837	22	4996	13042	1799	372		
8.05	47+00.00	59+00.00	2400		100	12.00	215	1537	8837	18	3850	9601	1467	372		
8.06	59+00.00	71+00.00	2400		120	12.00	293	1554	9434	19	4158	11191	1566	372		1
8.07	71+00.00	83+00.00	2400		120	12.00	366	699	4904	10	1915	4718	814	372		1
8.08	83+00.00	95+00.00	2400	180		12.00	299	1857	11024	22	4844	14816	1830	372		
8.09	95+00.00	107+00.00	2400		320	12.00	270	1327	7855	16	3925	8526	1304	371		1
8.10	107+00.00	119+00.00	2400			12.00	202	1437	8229	16	3890	8597	1366	372		
8.11	119+00.00	131+00.00	2400	360	220	12.00	210	1401	8012	16	3454	8607	1330	372		2
8.12	131+00.00	143+00.00	2400			12.00	214	1187	7253	15	3123	7115	1204	372		
8.13	143+00.00	155+00.00	2400		200	12.00	206	1847	10494	21	4492	11964	1742	372		1
8.14	155+00.00	167+00.00	2400			12.00	198	1596	8729	17	3864	11195	1449	372		
8.15	167+00.00	179+00.00	2400			12.00	199	1381	7627	15	3085	9039	1266	372		
8.16	179+00.00	191+00.00	2400			12.00	203	1261	6946	14	2763	8045	1153	372		
8.17	191+00.00	203+00.00	2034	720	250	12.00	210	1254	7343	15	3057	8996	1219	308		1
8.18	203+00.00	215+00.00	1600	180		8.25	124	1086	6277	13	3086	7026	1042	246		
8.19	215+00.00	227+00.00	2400			12.00	181	1680	10066	20	4899	9202	1671	372		
8.20	227+00.00	239+00.00	2400	360	710	12.00	215	1169	6687	13	3278	6521	1110	372		1
8.21	239+00.00	251+00.00	2400			12.00	232	1292	7253	15	3554	7726	1204	372		
8.22	251+00.00	263+00.00	2400			12.00	244	1183	7241	14	3675	7219	1202	372		
8.23	263+00.00	275+00.00	2400		200	12.00	254	1053	6536	13	3274	5940	1085	372		1
8.24	275+00.00	287+00.00	2400		300	12.00	211	1095	6169	12	3107	6305	1024	372		1
8.25	287+00.00	299+00.00	2400		200	12.00	180	1854	10367	21	4972	11544	1721	372		
8.26	299+00.00	311+00.00	2100	360	100	12.00	189	1927	10892	22	5129	12753	1808	372		1
8.27	311+00.00	323+00.00	2400			12.00	199	1354	8175	16	4056	8535	1357	372		
8.28	323+00.00	335+00.00	2400			12.00	205	2092	12500	25	5654	12024	2075	372		
8.29	335+00.00	347+00.00	2100		80	12.00	191	1906	11066	22	5127	12967	1837	372		1
8.30	347+00.00	359+00.00	2400		460	12.00	166	1935	10892	22	4991	14031	1808	372	200	1
8.31	359+00.00	371+00.00	2400			12.00	176	873	4705	9	2191	5928	781	372	200	1
8.32	371+00.00	383+00.00	2400			12.00	169	1420	7982	16	3912	8005	1325	372		
8.33	383+00.00	395+00.00	2400			12.00	200	805	4596	9	2504	4492	763	372		
8.34	395+00.00	407+00.00	800		140	4.00	62	96	542	1	259	597	90	93		1
8.35	407+00.00	419+00.00	1200			4.50										
8.36	419+00.00	431+00.00														
8.37	431+00.00	443+00.00														
8.38	443+00.00	445+50.00														
NFN1 LEVEE TOTALS			78034	2340	3670	393.05	7050	46325	268241	536	124184	298051	44528	11961	400	16

SUMMARY OF FLOODGATES NORTH LEVEE

SHEET. NO.	LOCATION	50 21 01 PRIME OIL (MC-30) GAL	50 25 01 HOT MIX ASPH SURF (2 IN) TON	60 34 01 ROADWAY APPROACH SLAB CY	60 80 10 FLOODGATE (MANUAL) 5' X 24' EA	60 80 17 FLOODGATE (AUTOMATIC) 5' X 150' EA
8.17	OLD HIGHWAY 83	26	20	112		1
8.17	RAILROAD BRIDGE				1	
	TOTAL	26	20	112	1	1

RETAINING WALL

SHEET. NO.	60 23 01 RETAINING WALL SF
12.66	1237
12.67	1702
TOTAL	2939

S&B INFRASTRUCTURE, LTD.
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S&B Infrastructure, Ltd. Firm Registration Number: 1582

ADDENDUM No. 2

ESTIMATES OF SUMMARY

SHEET 1 OF 2 SHEET

STATE	COUNTY	DRAWN BY:	CHECKED BY:	
TEXAS	HIDALGO	PROJECT NO. IBM09T0018		SHEET NO.
REHABILITATION OF NORTH FLOODWAY NORTH AND SOUTH LEVEES (FM 1015 TO BASELINE RD)				05.01

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SUMMARY OF SOUTH LEVEE

SHEET. NO.	LOCATION STA FROM	TO	01 57 01 TEMP EROSION CONTROL (SILT FENCE) LF	01 57 02 TEMP EROSION CONTROL (CONST EXIT) SY	02 91 10 REMOVE/ RELOCATE EXIST. FENCE LF	31 11 10 PREP ROW STA	31 14 01 REMOVE/ STOCKPILE (EXIST GRAVEL) CY	31 14 02 REMOVE/ STOCKPILE (EXIST TOPSOIL 6") CY	31 92 01 SEEDING (PERM) SY	31 92 02 VEGETATIVE WATERING MG	35 41 01 RAISE LEVEE (BENCH EXCAV) CY	35 41 02 RAISE LEVEE (EMBANKMENT) CY	35 41 03 RAISE LEVEE (TOPSOIL) CY	50 20 01 ROADWAY FLEXBASE (TY E GR 4) CY	90 79 01 VEHICULAR GATE EA
LEVEE															
8.39	0+00.00	12+00.00	900			5.00	22	42	139	0.28	465	533	23	153	
8.40	12+00.00	24+00.00	500			2.00	6	38	259	0.52	408	451	43	62	
8.41	24+00.00	36+00.00													
8.42	36+00.00	48+00.00													
8.43	48+00.00	60+00.00													
8.44	60+00.00	72+00.00													
8.45	72+00.00	84+00.00													
8.46	84+00.00	96+00.00	500	180		2.00		5	18	0.04	243	247	3	62	
8.47	96+00.00	108+00.00													
8.48	108+00.00	120+00.00													
8.49	120+00.00	132+00.00													
8.50	132+00.00	144+00.00													
8.51	144+00.00	156+00.00													
8.52	156+00.00	168+00.00	600			2.00		18	259	0.52	359	378	43	62	
8.53	168+00.00	180+00.00													
8.54	180+00.00	192+00.00													
8.55	192+00.00	204+00.00													
8.56	204+00.00	216+00.00													
8.57	216+00.00	228+00.00													
8.58	228+00.00	240+00.00	1600			7.50	81	134	602	1.20	871	1208	100	201	
8.59	240+00.00	252+00.00	1900			9.00	152	251	1506	3.01	1640	2215	250	310	
8.60	252+00.00	264+00.00	700			3.00	2	15	90	0.18	374	391	15	93	
8.61	264+00.00	276+00.00	700			3.00	3	18	24	0.05	260	281	4	92	
8.62	276+00.00	288+00.00	1100			5.00	3	27	187	0.37	687	719	31	155	
8.63	288+00.00	300+00.00	700			3.00	23	41	331	0.66	497	563	55	92	
8.64	300+00.00	304+50.00	900	180	120	4.50	78	252	1301	2.60	757	1648	216	155	1
NFS1 LEVEE TOTALS			10100	360	120	46.00	370	841	4716	9.00	6561	8634	783	1437	1

SUMMARY OF FLOODGATES SOUTH LEVEE

SHEET. NO.	LOCATION	50 21 01 PRIME OIL (MC-30) GAL	50 25 01 HOT MIX ASPH SURF (2 IN) TON	60 34 01 ROADWAY APROACH SLAB CY	60 80 10 FLOODGATE (MANUAL) 5' X 24' EA	60 80 17 FLOODGATE (AUTOMATIC) 5'X 150' EA
8.46	OLD HIGHWAY 83	26	19	112		1
8.46	RAILROAD BRIDGE				1	
	TOTAL	26	19	112	1	1

INTERNATIONAL BOUNDARY AND WATER COMMISSION
COMISION INTERNACIONAL DE LIMITES Y AGUAS

S&B INFRASTRUCTURE, LTD.
Engineering Management Technology

S&B Infrastructure, Ltd. Firm Registration Number: 1582

ADDENDUM No. 2

ESTIMATES OF SUMMARY

SHEET 2 OF 2 SHEET

STATE	COUNTY	DRAWN BY:	CHECKED BY:	
TEXAS	HIDALGO	PROJECT NO. IBM09T0018		SHEET NO.
REHABILITATION OF NORTH FLOODWAY NORTH AND SOUTH LEVEES (FM 1015 TO BASELINE RD)				05.02

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LEVEE REACH	STATION NO.	STRUCTURE NO.	STRUCTURE SIZE	STRUCTURE USAGE	60 64		60 65								*
					RCP (CL V)		GATEWELL ADJUST							INLET (COMPL)	MINIMUM GATEWELL ADJUSTMENT
							W/O PLATFORM		W/ PLATFORM						
					18	20	20	21	30	31	32	33	34	40	
					18 IN	24 IN	(4' X 4')	(6' X 4')	(4' X 3')	(5.5'X 4')	(10' X 5')	(6' X 4')	(4' X 4)	(TY H)	
					LF	LF	EA	EA	EA	EA	EA	EA	EA	EA	FT
NFN1	11+06.37	110A	18-IN	DRAINAGE			1								2.72
NFN1	38+29.71	111	3' X 3'	DRAINAGE					1						1.93
NFN1	62+68.99	112	18-IN	DRAINAGE	4		1								1.83
NFN1	72+28.08	113	18-IN	DRAINAGE			1								3.09
NFN1	81+70.43	114	24-IN	DRAINAGE			1								2.29
NFN1	98+77.93	116	15-IN	DRAINAGE			1								1.08
NFN1	107+30.83	117	18-IN	DRAINAGE			1								2.26
NFN1	113+38.12	118	18-IN	DRAINAGE			1								3.09
NFN1	121+42.12	118L	18-IN Landside/ 36-IN Floodside	DRAINAGE				1							1.17
NFN1	143+82.09	119	24-IN	IRRIGATION			1								3.14
NFN1	194+38.12	120	3' X 3'	DRAINAGE						1					2.81
NFN1	200+01.95	120A	18-IN	DRAINAGE	6		1								2.78
NFN1	227+20.86	121	18-IN	IRRIGATION	4		1								2.95
NFN1	234+82.42	122	18-IN	IRRIGATION			1								2.97
NFN1	245+92.55	124	2- 4' X 4'	DRAINAGE							1				2.54
NFN1	254+44.94	126	18-IN	DRAINAGE			1								2.07
NFN1	255+29.09	127	18-IN	IRRIGATION			1								2.92
NFN1	271+58.91	128	24-IN	IRRIGATION			1								2.80
NFN1	281+36.21	129	24-IN	IRRIGATION			1								2.62
NFN1	306+73.08	130	4' X 4'	DRAINAGE								1			2.02
NFN1	350+95.11	132	24-IN	DRAINAGE		5	1								2.12
NFN1	355+48.34	133	24-IN	DRAINAGE			1								2.74
NFN1	360+84.71	134	18-IN	DRAINAGE	18		1								2.61
NFN1	364+05.89	135	24-IN	DRAINAGE		12	1							1	2.88
NFN1	380+52.54	136	30-IN	DRAINAGE									1		2.34
NFN1	393+68.02	137A	24-IN	DRAINAGE			1								0.61
NFN1	394+58.46	BTWN 137A & 138	12' X 14'	IRRIGATION											
NFN1	412+63.67	138	4' X 4'	DRAINAGE											
NFN1	413+99.68	138L	18-IN	DRAINAGE											
NFN1 STRUCTURE TOTALS					32	17	20	1	1	1	1	1	1	1	62.96
NFS1	66+38.44	162L	36-IN	DRAINAGE											
NFS1	73+46.55	162	24-IN	DRAINAGE											
NFS1	115+04.74	159	18-IN	IRRIGATION											
NFS1	128+79.74	158	24-IN	IRRIGATION											
NFS1	152+57.28	156A	24-IN	IRRIGATION											
NFS1	159+31.55	155A	24-IN	DRAINAGE											
NFS1	166+63.93	155	24-IN	IRRIGATION											
NFS1	187+49.26	151	24-IN	IRRIGATION											
NFS1	200+05.69	149	24-IN	DRAINAGE											
NFS1	233+69.37	146C	24-IN	DRAINAGE			1								2.26
NFS1	246+98.26	146	24-IN	DRAINAGE											
NFS1	290+68.99	145	18-IN	IRRIGATION											
NFS1 STRUCTURE TOTALS					0	0	1	0	0	0	0	0	0	0	2.26
NF1 STRUCTURE TOTALS					32	17	21	1	1	1	1	1	1	1	65.22

* NOTE: FOR CONTRACTORS INFORMATION ONLY

S&B INFRASTRUCTURE, LTD.
Engineering Management Technology
S&B Infrastructure, Ltd. Firm Registration Number: 1582

ADDENDUM No. 2

SUMMARY OF SMALL STRUCTURES

SHEET 1 OF 3 SHEET

STATE	COUNTY	DRAWN BY:	CHECKED BY:	
TEXAS	HIDALGO	PROJECT NO.	IBM09T0018	SHEET NO.
REHABILITATION OF NORTH FLOODWAY NORTH AND SOUTH LEVEES (FM 1015 TO BASELINE RD)				05.04

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LEVEE REACH	STATION NO.	STRUCTURE NO.	STRUCTURE SIZE	STRUCTURE USAGE	60 68 SLUICE GATE						
					REFURB				PARTS		LUBE
					20	21	23	25	37	61	90
					15 IN EA	18 IN EA	24 IN EA	4' X 4' EA	HAND WHEEL 18 IN-24 IN EA	THRUST COLLAR 18 IN - 24 IN EA	EA
NFN1	11+06.37	110A	18-IN	DRAINAGE							
NFN1	38+29.71	111	3' X 3'	DRAINAGE							
NFN1	62+68.99	112	18-IN	DRAINAGE							
NFN1	72+28.08	113	18-IN	DRAINAGE							
NFN1	81+70.43	114	24-IN	DRAINAGE							
NFN1	98+77.93	116	15-IN	DRAINAGE	1						
NFN1	107+30.83	117	18-IN	DRAINAGE							
NFN1	113+38.12	118	18-IN	DRAINAGE							
NFN1	121+42.12	118L	18-IN LANDSIDE / 36-IN FLOODSIDE	DRAINAGE							
NFN1	143+82.09	119	24-IN	IRRIGATION							
NFN1	194+38.12	120	3' X 3'	DRAINAGE							
NFN1	200+01.95	120A	18-IN	DRAINAGE							
NFN1	227+20.86	121	18-IN	IRRIGATION							
NFN1	234+82.42	122	18-IN	IRRIGATION							
NFN1	245+92.55	124	2- 4' X 4'	DRAINAGE							
NFN1	254+44.94	126	18-IN	DRAINAGE							
NFN1	255+29.09	127	18-IN	IRRIGATION							
NFN1	271+58.91	128	24-IN	IRRIGATION							
NFN1	281+36.21	129	24-IN	IRRIGATION							
NFN1	306+73.08	130	4' X 4'	DRAINAGE							
NFN1	350+95.11	132	24-IN	DRAINAGE							
NFN1	355+48.34	133	24-IN	DRAINAGE			1				
NFN1	360+84.71	134	18-IN	DRAINAGE							
NFN1	364+05.89	135	24-IN	DRAINAGE							
NFN1	380+52.54	136	30-IN	DRAINAGE					1		
NFN1	393+68.02	137A	24-IN	DRAINAGE							
NFN1	394+58.46	BTWN 137A & 138	12' X 14'	IRRIGATION							
NFN1	412+63.67	138	4' X 4'	DRAINAGE				1			
NFN1	413+99.68	138L	18-IN	DRAINAGE		1				1	
NFN1 STRUCTURE TOTALS					1	1	1	1	1	1	0
NFS1	66+38.44	162L	36-IN	DRAINAGE							
NFS1	73+46.55	162	24-IN	DRAINAGE					1		
NFS1	115+04.74	159	18-IN	IRRIGATION							
NFS1	128+79.74	158	24-IN	IRRIGATION							
NFS1	152+57.28	156A	24-IN	IRRIGATION							
NFS1	159+31.55	155A	24-IN	DRAINAGE							
NFS1	166+63.93	155	24-IN	IRRIGATION							
NFS1	187+49.26	151	24-IN	IRRIGATION							
NFS1	200+05.69	149	24-IN	DRAINAGE							
NFS1	233+69.37	146C	24-IN	DRAINAGE			1				
NFS1	246+98.26	146	24-IN	DRAINAGE			1				
NFS1	290+68.99	145	18-IN	IRRIGATION							1
NFS1 STRUCTURE TOTALS					0	0	2	0	1	0	1
NF1 STRUCTURE TOTALS					1	1	3	1	2	1	1

S&B INFRASTRUCTURE, LTD.
Engineering Management Technology

S&B Infrastructure, Ltd. Firm Registration Number: 1582

ADDENDUM No. 2

SUMMARY OF SMALL STRUCTURES

SHEET 2 OF 3 SHEET

STATE	COUNTY	DRAWN BY:	CHECKED BY:	
TEXAS	HIDALGO	PROJECT NO.	IBM09T0018	SHEET NO.
REHABILITATION OF NORTH FLOODWAY NORTH AND SOUTH LEVEES (FM 1015 TO BASELINE RD)				05.05

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LEVEE REACH	STATION NO.	STRUCTURE NO.	STRUCTURE SIZE	STRUCTURE USAGE	60 66 CONCRETE HEADWALL RAISE	60 67 S.E.T. (TYPE II) (3:1)	60 67 S.E.T. (TYPE II) (3:1)	60 71 GATEWELL GRATE	60 98 CLEAN EXIST STRUCTURE
					40	01	02	10	10
						(18 IN)	(24 IN)	(REPLACE &/OR INSTALL)	
					EA	EA	EA	EA	EA
NFN1	11+06.37	110A	18-IN	DRAINAGE				1	1 (FS)
NFN1	38+29.71	111	3' X 3'	DRAINAGE	1			1	1 (FS)
NFN1	62+68.99	112	18-IN	DRAINAGE		1		1	1 (FS)
NFN1	72+28.08	113	18-IN	DRAINAGE				1	1 (FS)
NFN1	81+70.43	114	24-IN	DRAINAGE				1	1 (FS)
NFN1	98+77.93	116	15-IN	DRAINAGE				1	2
NFN1	107+30.83	117	18-IN	DRAINAGE				1	1 (FS)
NFN1	113+38.12	118	18-IN	DRAINAGE				1	
NFN1	121+42.12	118L	18-IN LANDSIDE / 36-IN FLOODSIDE	DRAINAGE					
NFN1	143+82.09	119	24-IN	IRRIGATION				1	1 (FS)
NFN1	194+38.12	120	3' X 3'	DRAINAGE				1	
NFN1	200+01.95	120A	18-IN	DRAINAGE		2		1	
NFN1	227+20.86	121	18-IN	IRRIGATION		1		1	
NFN1	234+82.42	122	18-IN	IRRIGATION				1	1(FS)
NFN1	245+92.55	124	2- 4' X 4'	DRAINAGE				1	
NFN1	254+44.94	126	18-IN	DRAINAGE				1	
NFN1	255+29.09	127	18-IN	IRRIGATION				1	
NFN1	271+58.91	128	24-IN	IRRIGATION				1	2
NFN1	281+36.21	129	24-IN	IRRIGATION				1	1 (LS)
NFN1	306+73.08	130	4' X 4'	DRAINAGE	1			1	
NFN1	350+95.11	132	24-IN	DRAINAGE			1	1	
NFN1	355+48.34	133	24-IN	DRAINAGE				1	
NFN1	360+84.71	134	18-IN	DRAINAGE		1		1	
NFN1	364+05.89	135	24-IN	DRAINAGE				1	
NFN1	380+52.54	136	30-IN	DRAINAGE				1	2
NFN1	393+68.02	137A	24-IN	DRAINAGE				1	1 (LS)
NFN1	394+58.46	BTWN 137A & 138	12' X 14'	IRRIGATION	1				
NFN1	412+63.67	138	4' X 4'	DRAINAGE					
NFN1	413+99.68	138L	18-IN	DRAINAGE					1 (FS)
NFN1 STRUCTURE TOTALS					3	5	1	25	17
NFS1	66+38.44	162L	36-IN	DRAINAGE					2
NFS1	73+46.55	162	24-IN	DRAINAGE					1 (FS)
NFS1	115+04.74	159	18-IN	IRRIGATION		1			
NFS1	128+79.74	158	24-IN	IRRIGATION					2
NFS1	152+57.28	156A	24-IN	IRRIGATION					2
NFS1	159+31.55	155A	24-IN	DRAINAGE					
NFS1	166+63.93	155	24-IN	IRRIGATION					2
NFS1	187+49.26	151	24-IN	IRRIGATION				1	2
NFS1	200+05.69	149	24-IN	DRAINAGE					
NFS1	233+69.37	146C	24-IN	DRAINAGE				1	
NFS1	246+98.26	146	24-IN	DRAINAGE				1	
NFS1	290+68.99	145	18-IN	IRRIGATION	1				
NFS1 STRUCTURE TOTALS					1	1	0	3	11
NF1 STRUCTURE TOTALS					4	6	1	28	28

S&B INFRASTRUCTURE, LTD.
Engineering Management Technology

S&B Infrastructure, Ltd. Firm Registration Number: 1582

ADDENDUM No. 2

SUMMARY OF SMALL STRUCTURES

SHEET 3 OF 3 SHEET

STATE	COUNTY	DRAWN BY:	CHECKED BY:	
TEXAS	HIDALGO	PROJECT NO. IBM09T0018		SHEET NO.
REHABILITATION OF NORTH FLOODWAY NORTH AND SOUTH LEVEES (FM 1015 TO BASELINE RD)				05.06

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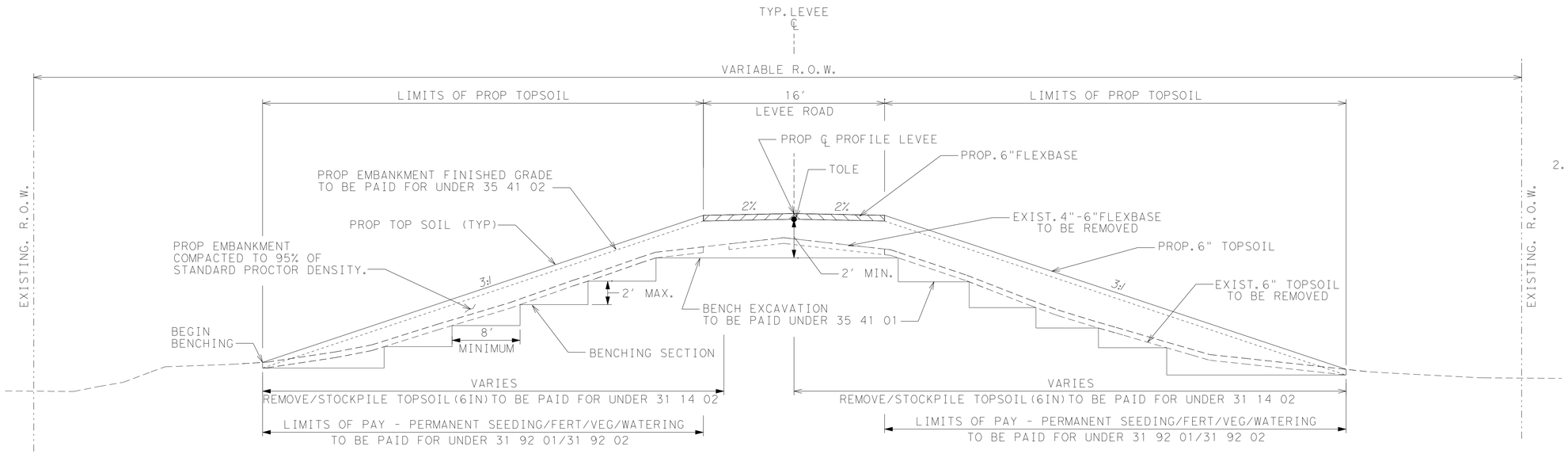
PROPOSED TYPICAL SECTION (RAISING LEVEE)

SCALE : 1" = 5'



NFN1
STA 6+73.27 TO STA 30+50.00
STA 32+50.00 TO STA 37+00.00
STA 39+00.00 TO STA 353+50.00
STA 356+50.00 TO STA 357+00.00
STA 361+00.00 TO STA 361+50.00
STA 370+00.00 TO STA 398+50.00

NFS1
STA 3+00.00 TO STA 7+00.00
STA 11+00.00 TO STA 14+00.00
STA 87+00.00 TO STA 89+00.00
STA 159+00.00 TO STA 161+00.00
STA 232+50.00 TO STA 249+00.00
STA 252+00.00 TO STA 255+00.00
STA 273+00.00 TO STA 276+00.00
STA 283+00.00 TO STA 288+00.00
STA 297+00.00 TO STA 301+50.00
STA 303+50.00 TO STA 304+50.00

NOTES:

1. FILL MATERIAL SHALL BE PLACED IN HORIZONTAL LIFTS NOT EXCEEDING 6 IN. COMPACTED THICKNESS AND COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D698. THE MOISTURE CONTENT OF THE FILL SHALL BE MAINTAINED WITHIN THE RANGE THE OPTIMUM MOISTURE CONTENT TO THREE PERCENTAGE POINTS ABOVE THE OPTIMUM MOISTURE CONTENT UNTIL THE FINAL LIFT OF FILL IS PERMANENTLY COVERED.
2. NEW CALICHE MATERIAL GRADATION SHALL BE ARGILLACEOUS LIMESTONE, CALCAREOUS OR CALCAREOUS CLAY PARTICLES, WITH OR WITHOUT STONE CONGLOMERATE GRAVEL, SAND, OR GRANULAR MATERIAL:

TYPE E GRADE 4

SIEVE NO.	PERCENT RETAINED
2	0
1/2	20-60
4	40-75
40	75-85

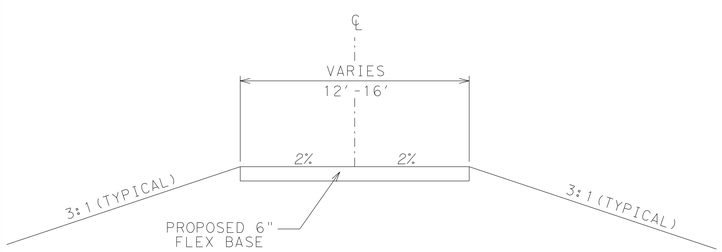
3. PROPOSED TOP-OF-LEVEE ELEVATIONS WERE PROVIDED BY THE USIBWC.
4. SALVAGED / STOCKPILED GRAVEL MAY BE USED IN THE BOTTOM LIFTS OF ACCESS ROADS.
5. FINISH GRADING FOR DRAINAGE WILL BE CONSIDERED SUBSIDIARY TO 35 41.

TOLE = MINIMUM TOP OF LEVEE ELEVATION

SCALE : 1" = 5'

ACCESS ROAD TYPICAL SECTION

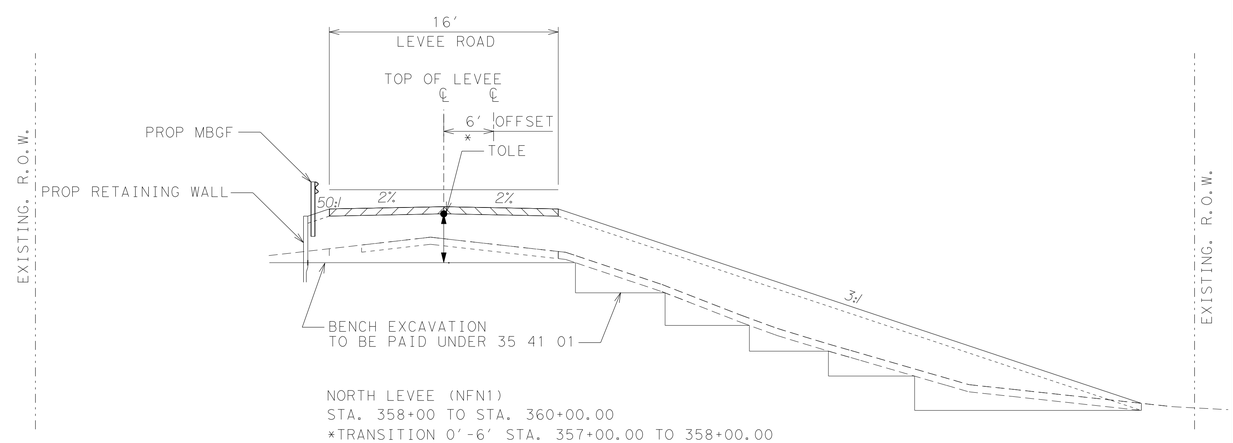
SCALE : 1" = 5'



SEE ACCESS ROADS PLAN AND PROFILE SHEETS FOR LOCATIONS, WIDTH AND LENGTHS

PROP TYPICAL SECTION

SCALE : 1" = 5'



NORTH LEVEE (NFN1)
STA. 358+00 TO STA. 360+00.00
*TRANSITION 0'-6' STA. 357+00.00 TO 358+00.00
*TRANSITION 6'-0' STA. 360+00.00 TO STA. 361+00.00

S&B INFRASTRUCTURE, LTD.
Engineering Management Technology
S&B Infrastructure, Ltd. Firm Registration Number: 1582

STATE OF TEXAS
PHILLIP J. PAWELEK
82739
REGISTERED PROFESSIONAL ENGINEER

The seal appearing on this document was authorized by PHILLIP J. PAWELEK P.E. 82739, on 9-3, 2009

ADDENDUM No. 2 Phillip J. Pawelek, P.E.

NORTH FLOODWAY
NORTH AND SOUTH LEVEES
PROPOSED TYPICAL SECTION

SHEET 1 OF 2 SHEET

STATE	COUNTY	DRAWN BY: JL/JJL	CHECKED BY: PP	
TEXAS	HIDALGO	PROJECT NO. IBM09T0018		SHEET NO.
REHABILITATION OF NORTH FLOODWAY NORTH AND SOUTH LEVEES (FM 1015 TO BASELINE RD)				06.02

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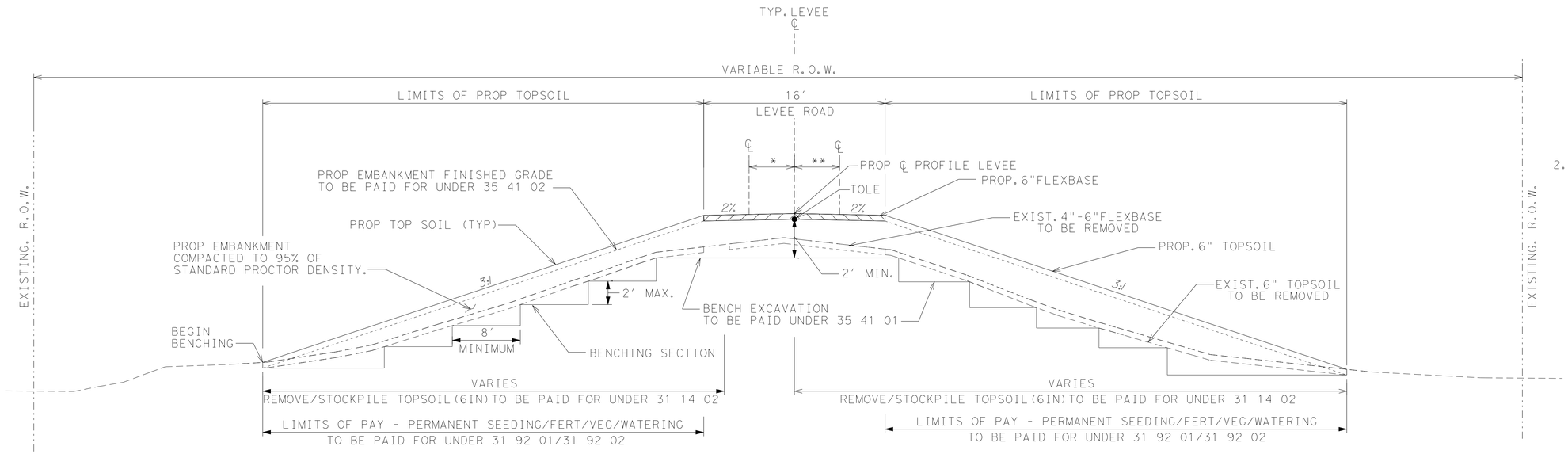
PROPOSED TYPICAL SECTION (RAISING LEVEE)

SCALE : 1" = 5'



TRANSITIONS (NFN1)

* - STA 30+50.00 TO STA 31+00.00 = 0' TO 2'
* - STA 32+00.00 TO STA 32+50.00 = 2' TO 0'
* - STA 37+00.00 TO STA 37+50.00 = 0' TO 3'
* - STA 38+50.00 TO STA 39+00.00 = 3' TO 0'
* - STA 353+50.00 TO STA 354+00.00 = 0' TO 7'
* - STA 356+00.00 TO STA 356+50.00 = 7' TO 0'
* - STA 361+50.00 TO STA 362+00.00 = 0' TO 6'
* - STA 365+00.00 TO STA 365+50.00 = 6' TO 8'
* - STA 366+00.00 TO STA 366+50.00 = 8' TO 0'
** - STA 366+50.00 TO STA 367+00.00 = 0' TO 10'
** - STA 367+00.00 TO STA 367+50.00 = 10' TO 0'
* - STA 367+50.00 TO STA 368+00.00 = 0' TO 8'
* - STA 368+00.00 TO 368+50.00 = 8' TO 5'
* - STA 369+50.00 TO 370+00.00 = 5' TO 0'

NFN1

* - STA 31+00.00 TO STA 32+00.00 = 2' OFFSET
* - STA 37+50.00 TO STA 38+50.00 = 3' OFFSET
* - STA 354+00.00 TO STA 356+00.00 = 7' OFFSET
* - STA 362+00.00 TO STA 365+00.00 = 6' OFFSET
* - STA 365+50.00 TO STA 366+00.00 = 8' OFFSET
* - STA 368+50.00 TO STA 369+50.00 = 5' OFFSET

NFS1

* - STA. 302+00 TO STA. 303+00 = 5' OFFSET

TRANSITIONS (NFS1)

* - STA 301+50.00 TO STA 302+00.00 = 0' TO 5'
* - STA 303+00.00 TO STA 303+50.00 = 5' TO 0'

NOTES:

1. FILL MATERIAL SHALL BE PLACED IN HORIZONTAL LIFTS NOT EXCEEDING 6 IN. COMPACTED THICKNESS AND COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D698. THE MOISTURE CONTENT OF THE FILL SHALL BE MAINTAINED WITHIN THE RANGE THE OPTIMUM MOISTURE CONTENT TO THREE PERCENTAGE POINTS ABOVE THE OPTIMUM MOISTURE CONTENT UNTIL THE FINAL LIFT OF FILL IS PERMANENTLY COVERED.
2. NEW CALICHE MATERIAL GRADATION SHALL BE ARGILLACEOUS LIMESTONE, CALCAREOUS OR CALCAREOUS CLAY PARTICLES, WITH OR WITHOUT STONE CONGLOMERATE GRAVEL, SAND, OR GRANULAR MATERIAL:

TYPE E GRADE 4

SIEVE NO.	PERCENT RETAINED
2	0
1/2	20-60
4	40-75
40	75-85

3. PROPOSED TOP-OF-LEVEE ELEVATIONS WERE PROVIDED BY THE USIBWC.
4. SALVAGED / STOCKPILED GRAVEL MAY BE USED IN THE BOTTOM LIFTS OF ACCESS ROADS.
5. FINISH GRADING FOR DRAINAGE WILL BE CONSIDERED SUBSIDIARY TO 35 41.

TOLE = MINIMUM TOP OF LEVEE ELEVATION

SCALE : 1" = 5'

INTERNATIONAL BOUNDARY AND WATER COMMISSION
COMISION INTERNACIONAL DE LIMITES Y AGUAS

S&B INFRASTRUCTURE, LTD.
Engineering Management Technology

S&B Infrastructure, Ltd. Firm Registration Number: 1582

STATE OF TEXAS
PHILLIP J. PAWELEK
82739
REGISTERED PROFESSIONAL ENGINEER

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Phillip J. Pawelek, P.E.

ADDENDUM No. 2

NORTH FLOODWAY
NORTH AND SOUTH LEVEES
PROPOSED TYPICAL SECTION

SHEET 2 OF 2 SHEET

STATE	COUNTY	DRAWN BY: JL/JJL	CHECKED BY: PP	
TEXAS	HIDALGO	PROJECT NO. IBM09T0018		SHEET NO.
REHABILITATION OF NORTH FLOODWAY NORTH AND SOUTH LEVEES (FM 1015 TO BASELINE RD)				06.03

9/3/2009 8:31:23 AM

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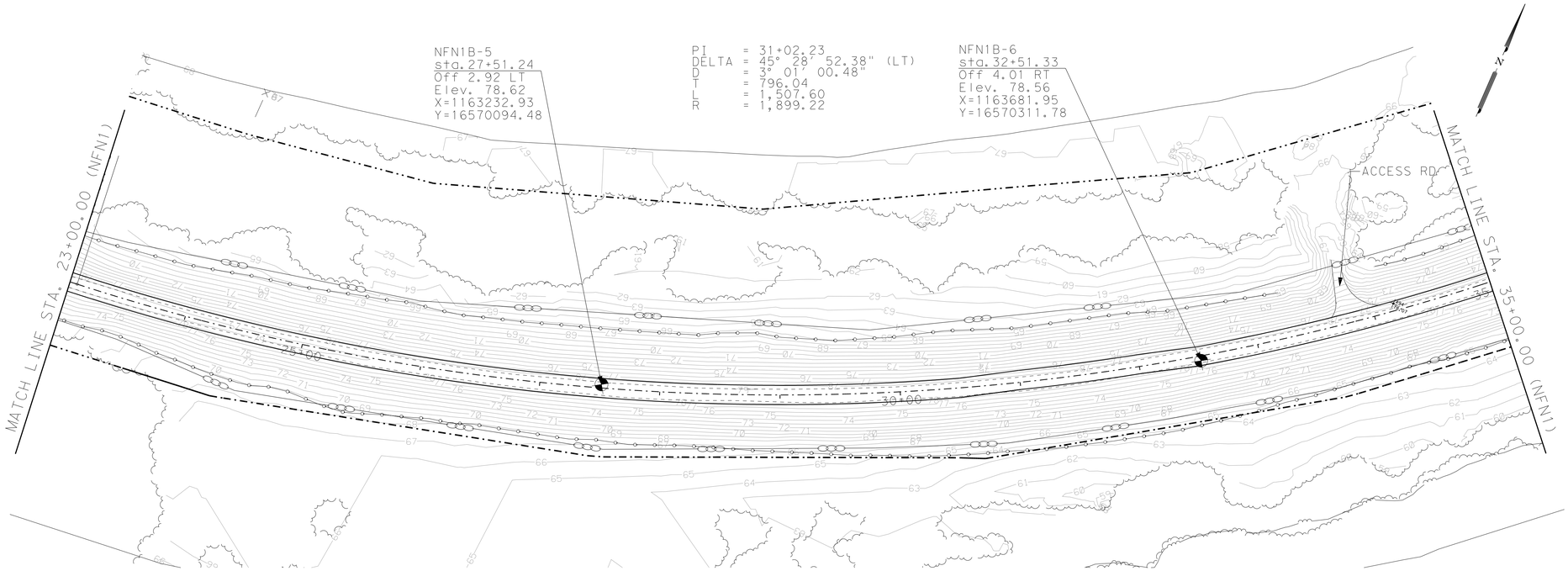
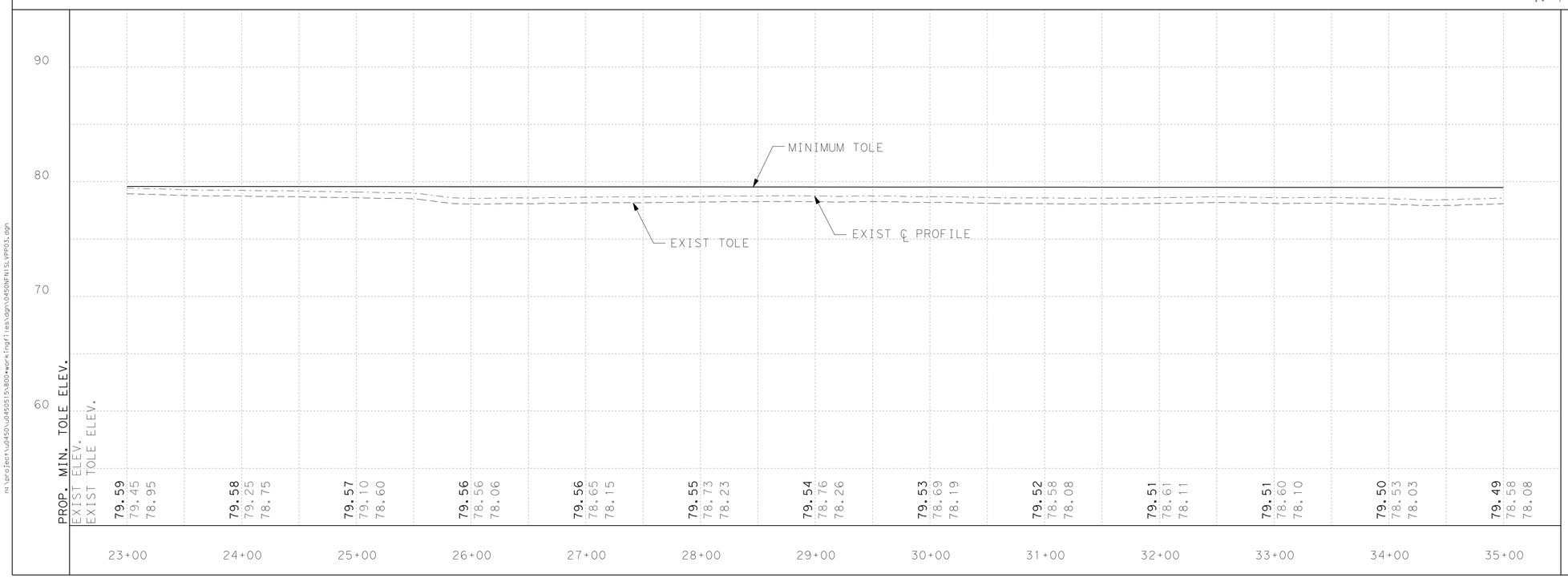


SCALE: H: 1"=50'
V: 1"=5'



PLAN VIEW LEGEND

- PROP CENTERLINE
- EXIST RIGHT-OF-WAY
- EXIST GEOTECHNICAL BORE
- EXIST FLOODWALL
- EL-OH — EXIST OVERHEAD UTILITY LINE
- EXIST SIGN
- 101 — EXIST CONTOURS
- EXIST LEVEE TOE
- F/O — EXIST FIBER OPTIC LINE
- GAS — EXIST GAS LINE
- W — EXIST WATER LINE
- T — EXIST TELEPHONE LINE
- X — EXIST FENCE
- PROP SEDIMENT CONTROL FENCE
- WATER BOUNDARY
- PROP LEVEE MAINTENANCE ROAD

NOTES:

WHEN EXISTING TOP OF LEVEE ELEVATION (TOLE) IS > THE MINIMUM TOLE, THE LEVEE SHALL NOT BE MODIFIED UNLESS OTHERWISE SHOWN ON PLAN. THE TOLE SHOWN HAS BEEN ADJUSTED BY 1.5"TO ACCOUNT FOR SETTLEMENT.

PLANIMETRIC AND RIGHT OF WAY INFORMATION WAS OBTAINED FROM FIELD SURVEYS CONDUCTED BY RODS SURVEYING, INC. AND DOS LAND SURVEYING RESPECTIVELY

VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88)

IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATION OF ALL EXISTING UTILITIES (SHOWN/NOT SHOWN) PRIOR TO CONSTRUCTION.

DIV	ITEM	DESC CODE	DESCRIPTION	UNIT	EST	FINAL
01	57	01	TEMP EROSION CONTROL (SILT FENCE)	LF	2400	
01	57	02	TEMP EROSION CONTROL (CONST EXIT)	SY		
02	91	10	REMOVE/RELOCATE EXIST FENCE	LF		
31	11	10	PREP ROW	STA	12	
31	14	01	REMOVE/STKPL (EXISTING GRAVEL)	CY	243	
31	14	02	REMOVE/STKPL (EXIST TOPSOIL 6")	CY	1897	
31	92	01	SEEDING PERM	SY	10970	
31	92	02	VEGETATIVE WATERING	MG	22	
35	41	01	RAISE LEVEE (BENCH EXCAVATION)	CY	5222	
35	41	02	RAISE LEVEE (EMBANKMENT)	CY	12920	
35	41	03	RAISE LEVEE (TOP SOIL)	CY	1821	
50	20	01	ROADWAY FLEXBASE TY E GR 4	CY	372	
50	21	01	PRIME OIL (MC-30)	GAL		
50	25	01	HOT MIX ASPH SURF (2 IN)	TON		
50	40	01	METAL BEAM GUARD FENCE	LF		
90	79	01	VEHICULAR GATE	EA		

INTERNATIONAL BOUNDARY AND WATER COMMISSION
COMISION INTERNACIONAL DE LIMITES Y AGUAS

S&B INFRASTRUCTURE, LTD.
Engineering Management Technology

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STATE OF TEXAS
PHILLIP J. PAWELEK
82739
REGISTERED PROFESSIONAL ENGINEER

The seal appearing on this document was authorized by PHILLIP J. PAWELEK P.E. 82739, on 9-3, 20 09

Phillip J. Pawelek, P.E.

ADDENDUM No. 2

NORTH FLOODWAY NORTH LEVEE PLAN & PROFILE

STA. 23+00 TO STA. 35+00

SHEET 3 OF 38 SHEET

STATE	COUNTY	DRAWN BY: JL/JJL	CHECKED BY: PP	
TEXAS	HIDALGO	PROJECT NO. IBM09T0018		SHEET NO.
REHABILITATION OF NORTH FLOODWAY NORTH AND SOUTH LEVEES (FM 1015 TO BASELINE RD)				08.03

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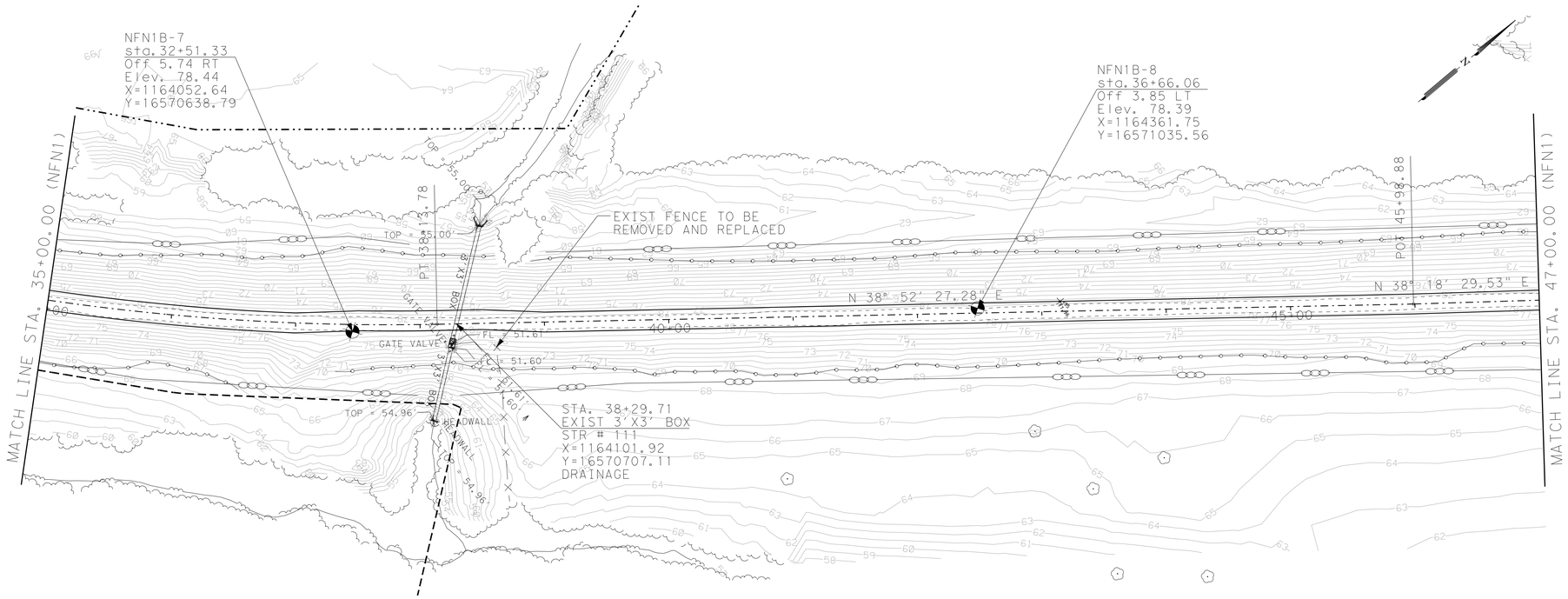
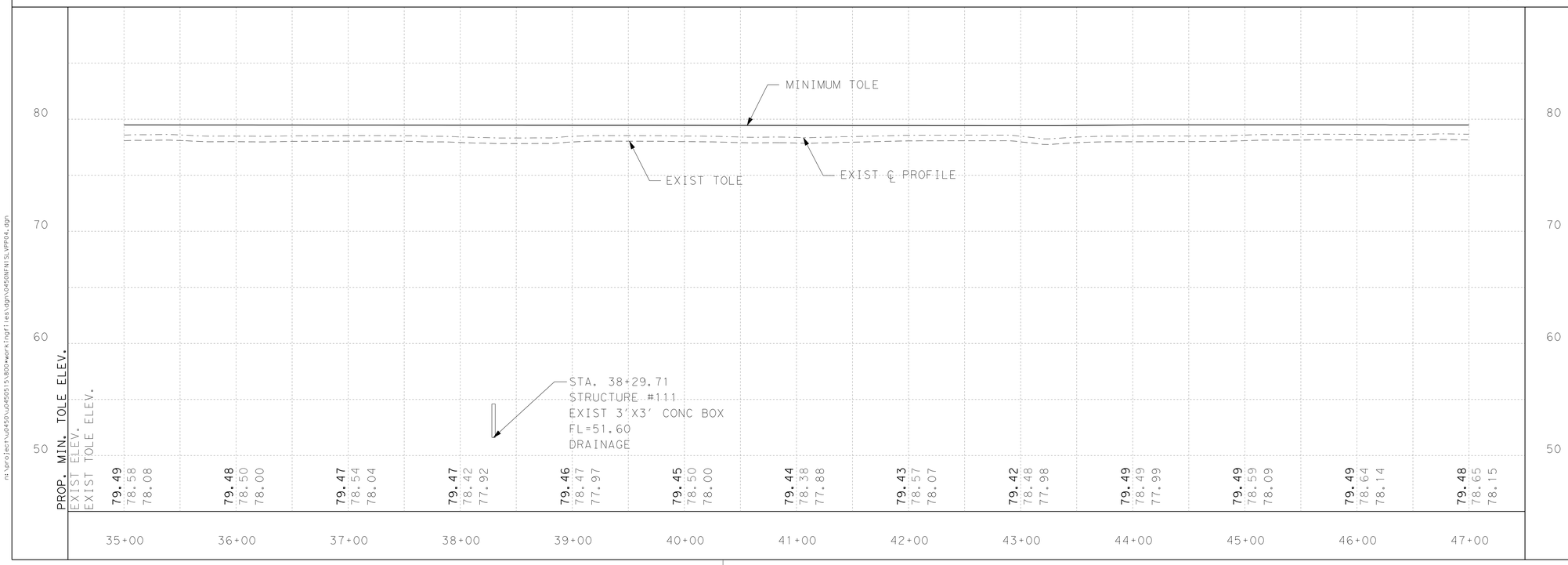


SCALE: H: 1"=50'
V: 1"=5'



PLAN VIEW LEGEND

- PROP CENTERLINE
- EXIST RIGHT-OF-WAY
- EXIST GEOTECHNICAL BORE
- EXIST FLOODWALL
- EL-OH — EXIST OVERHEAD UTILITY LINE
- EXIST SIGN
- 101 — EXIST CONTOURS
- EXIST LEVEE TOE
- F/O — EXIST FIBER OPTIC LINE
- GAS — EXIST GAS LINE
- W — EXIST WATER LINE
- T — EXIST TELEPHONE LINE
- X — EXIST FENCE
- PROP SEDIMENT CONTROL FENCE
- WATER BOUNDARY
- PROP LEVEE MAINTENANCE ROAD

NOTES:

WHEN EXISTING TOP OF LEVEE ELEVATION (TOLE) IS > THE MINIMUM TOLE, THE LEVEE SHALL NOT BE MODIFIED UNLESS OTHERWISE SHOWN ON PLAN. THE TOLE SHOWN HAS BEEN ADJUSTED BY 1.5"TO ACCOUNT FOR SETTLEMENT.

PLANIMETRIC AND RIGHT OF WAY INFORMATION WAS OBTAINED FROM FIELD SURVEYS CONDUCTED BY RODS SURVEYING, INC. AND DOS LAND SURVEYING RESPECTIVELY

VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88)

IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATION OF ALL EXISTING UTILITIES (SHOWN/NOT SHOWN) PRIOR TO CONSTRUCTION.

DIV	ITEM	DESC CODE	DESCRIPTION	UNIT	EST	FINAL
01	57	01	TEMP EROSION CONTROL (SILT FENCE)	LF	2400	
01	57	02	TEMP EROSION CONTROL (CONST EXIT)	SY		
02	91	10	REMOVE/RELOCATE EXIST FENCE	LF	100	
31	11	10	PREP ROW	STA	12	
31	14	01	REMOVE/STKPL (EXISTING GRAVEL)	CY	234	
31	14	02	REMOVE/STKPL (EXIST TOPSOIL 6")	CY	1856	
31	92	01	SEEDING PERM	SY	10837	
31	92	02	VEGETATIVE WATERING	MG	22	
35	41	01	RAISE LEVEE (BENCH EXCAVATION)	CY	4996	
35	41	02	RAISE LEVEE (EMBANKMENT)	CY	13042	
35	41	03	RAISE LEVEE (TOP SOIL)	CY	1799	
50	20	01	ROADWAY FLEXBASE TY E GR 4	CY	372	
50	21	01	PRIME OIL (MC-30)	GAL		
50	25	01	HOT MIX ASPH SURF (2 IN)	TON		
50	40	01	METAL BEAM GUARD FENCE	LF		
90	79	01	VEHICULAR GATE	EA		

INTERNATIONAL BOUNDARY AND WATER COMMISSION
COMISION INTERNACIONAL DE LIMITES Y AGUAS

S&B INFRASTRUCTURE, LTD.
Engineering Management Technology

S&B Infrastructure, Ltd. Firm Registration Number: 1582

STATE OF TEXAS
PHILLIP J. PAWELEK
82739
REGISTERED PROFESSIONAL ENGINEER

The seal appearing on this document was authorized by PHILLIP J. PAWELEK P.E. 82739, on 9-3, 2009

Phillip J. Pawelek, P.E.

ADDENDUM No. 2

NORTH FLOODWAY NORTH LEVEE PLAN & PROFILE

STA. 35+00 TO STA. 47+00

SHEET 4 OF 38 SHEET

STATE	COUNTY	DRAWN BY: JL/JJL	CHECKED BY: PP	
TEXAS	HIDALGO	PROJECT NO. IBM09T0018		SHEET NO.
REHABILITATION OF NORTH FLOODWAY NORTH AND SOUTH LEVEES (FM 1015 TO BASELINE RD)				08.04

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9/3/2009
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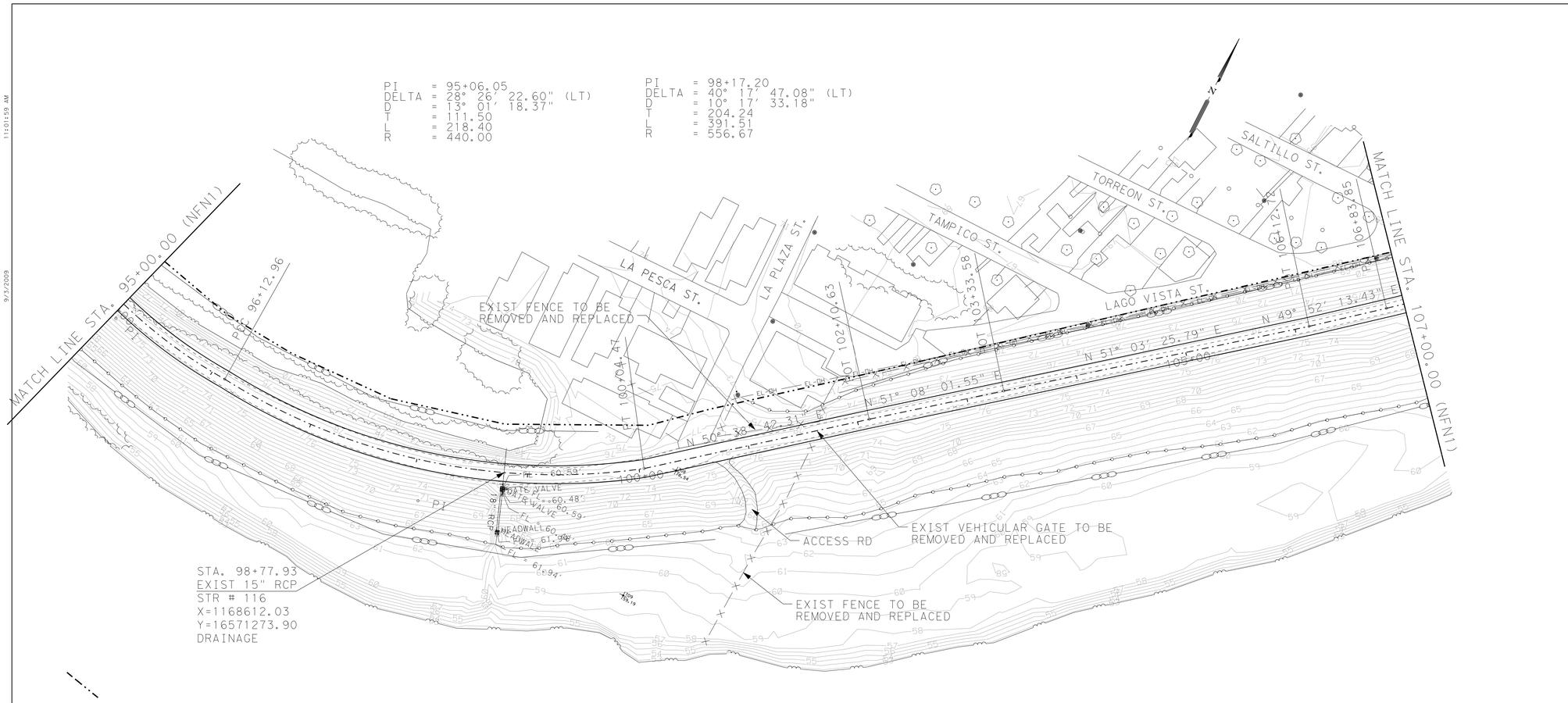

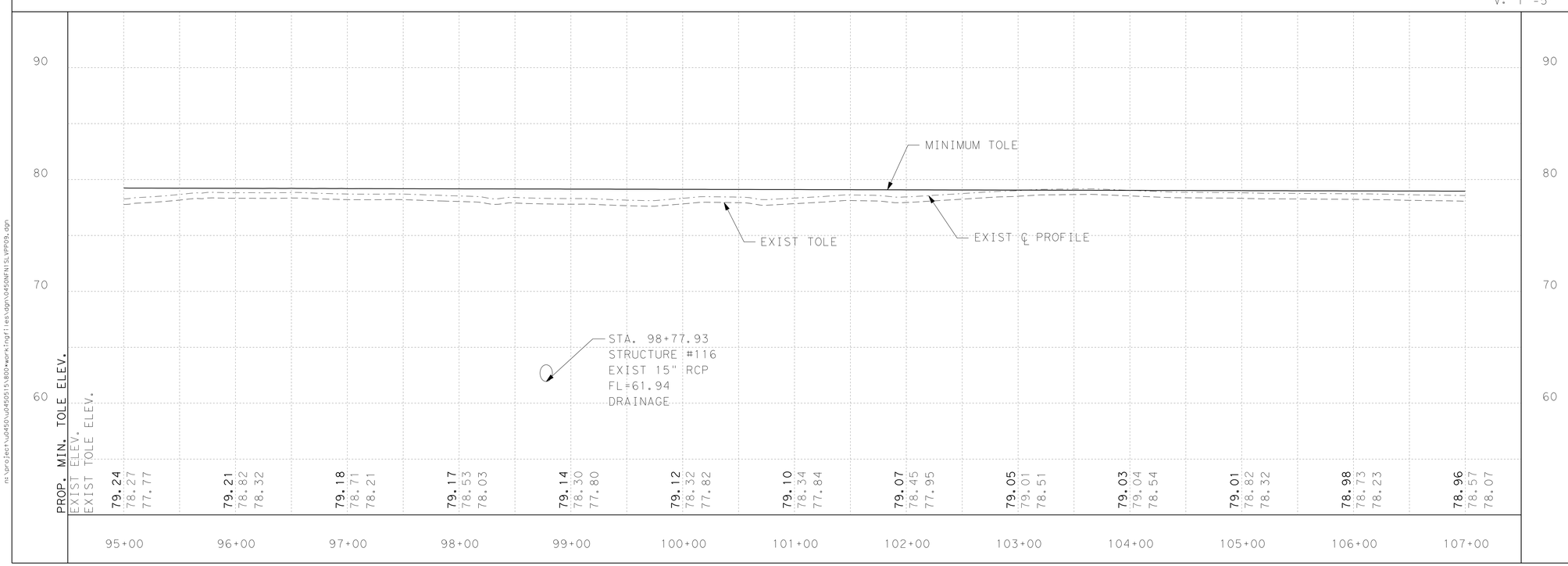

PLAN VIEW LEGEND

- PROP CENTERLINE
- EXIST RIGHT-OF-WAY
- EXIST GEOTECHNICAL BORE
- EXIST FLOODWALL
- EXIST OVERHEAD UTILITY LINE
- EXIST SIGN
- EXIST CONTOURS
- EXIST LEVEE TOE
- EXIST FIBER OPTIC LINE
- EXIST GAS LINE
- EXIST WATER LINE
- EXIST TELEPHONE LINE
- EXIST FENCE
- PROP SEDIMENT CONTROL FENCE
- WATER BOUNDARY
- PROP LEVEE MAINTENANCE ROAD

NOTES:

WHEN EXISTING TOP OF LEVEE ELEVATION (TOLE) IS > THE MINIMUM TOLE, THE LEVEE SHALL NOT BE MODIFIED UNLESS OTHERWISE SHOWN ON PLAN. THE TOLE SHOWN HAS BEEN ADJUSTED BY 1.5"TO ACCOUNT FOR SETTLEMENT.

PLANIMETRIC AND RIGHT OF WAY INFORMATION WAS OBTAINED FROM FIELD SURVEYS CONDUCTED BY RODS SURVEYING, INC. AND DOS LAND SURVEYING RESPECTIVELY

VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88)

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DIV	ITEM	DESC CODE	DESCRIPTION	UNIT	EST	FINAL
01	57	01	TEMP EROSION CONTROL (SILT FENCE)	LF	2400	
01	57	02	TEMP EROSION CONTROL (CONST EXIT)	SY		
02	91	10	REMOVE/RELOCATE EXIST FENCE	LF	320	
31	11	10	PREP ROW	STA	12	
31	14	01	REMOVE/STKPL (EXISTING GRAVEL)	CY	270	
31	14	02	REMOVE/STKPL (EXIST TOPSOIL 6")	CY	1327	
31	92	01	SEEDING PERM	SY	7855	
31	92	02	VEGETATIVE WATERING	MG	16	
35	41	01	RAISE LEVEE (BENCH EXCAVATION)	CY	3925	
35	41	02	RAISE LEVEE (EMBANKMENT)	CY	8526	
35	41	03	RAISE LEVEE (TOP SOIL)	CY	1304	
50	20	01	ROADWAY FLEXBASE TY E GR 4	CY	371	
50	21	01	PRIME OIL (MC-30)	GAL		
50	25	01	HOT MIX ASPH SURF (2 IN)	TON		
50	40	01	METAL BEAM GUARD FENCE	LF		
90	79	01	VEHICULAR GATE	EA	1	

INTERNATIONAL BOUNDARY AND WATER COMMISSION
COMISION INTERNACIONAL DE LIMITES Y AGUAS

S&B INFRASTRUCTURE, LTD.
Engineering Management Technology

S&B Infrastructure, Ltd. Firm Registration Number: 1582

STATE OF TEXAS
PHILLIP J. PAWELEK
82739
REGISTERED PROFESSIONAL ENGINEER

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Phillip J. Pawelek, P.E.

ADDENDUM No. 2

NORTH FLOODWAY NORTH LEVEE PLAN & PROFILE

STA. 95+00 TO STA. 107+00

SHEET 9 OF 38 SHEET

STATE	COUNTY	DRAWN BY: JL / JJL	CHECKED BY: PP	
TEXAS	HIDALGO	PROJECT NO. IBM09T0018		SHEET NO.
REHABILITATION OF NORTH FLOODWAY NORTH AND SOUTH LEVEES (FM 1015 TO BASELINE RD)				08.09

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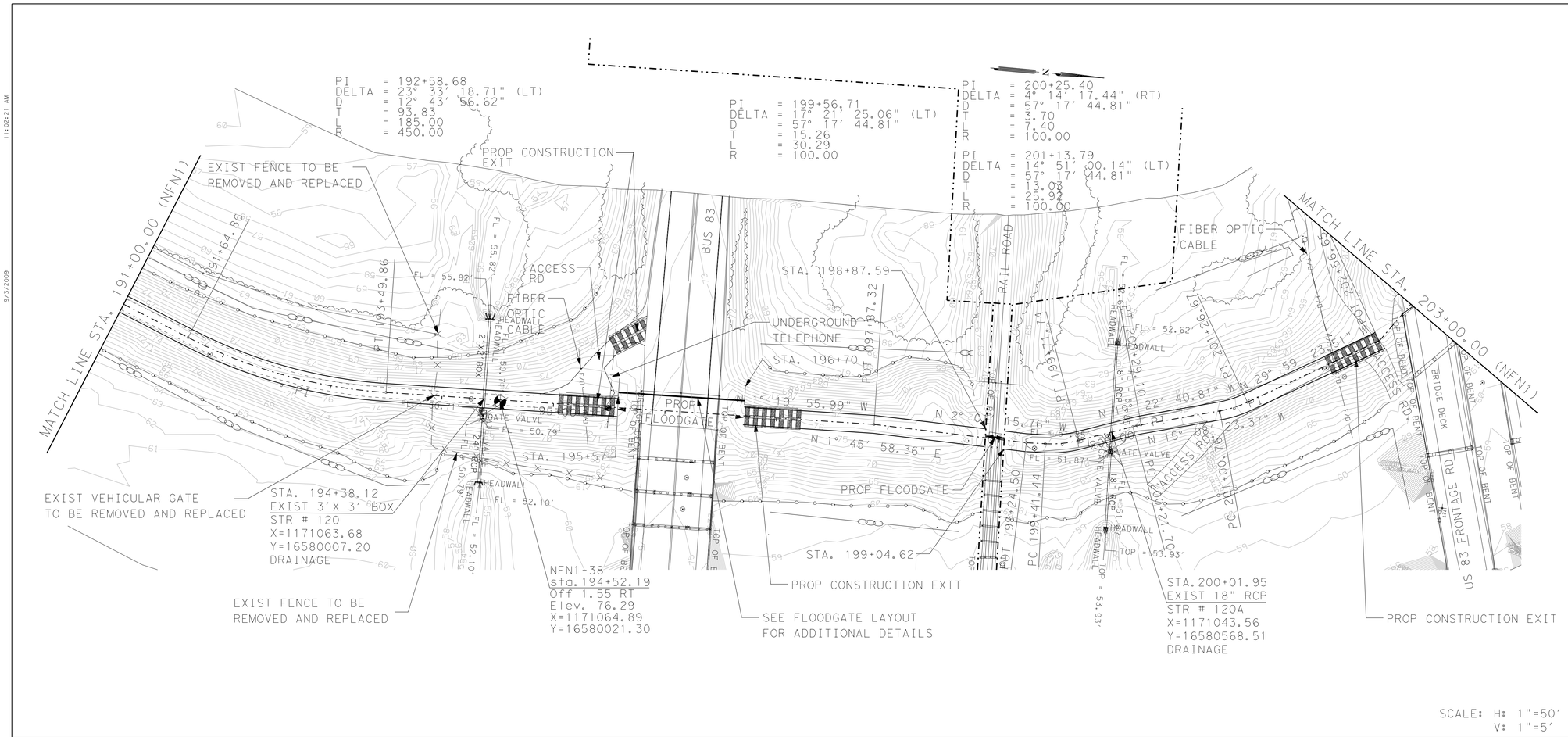

SCALE: H: 1"=50'
V: 1"=5'

PLAN VIEW LEGEND

- PROP CENTERLINE
- EXIST RIGHT-OF-WAY
- EXIST GEOTECHNICAL BORE
- EXIST FLOODWALL
- EL-OH — EXIST OVERHEAD UTILITY LINE
- EXIST SIGN
- 101 — EXIST CONTOURS
- EXIST LEVEE TOE
- F/O — EXIST FIBER OPTIC LINE
- GAS — EXIST GAS LINE
- W — EXIST WATER LINE
- T — EXIST TELEPHONE LINE
- X — EXIST FENCE
- PROP SEDIMENT CONTROL FENCE
- WATER BOUNDARY
- PROP LEVEE MAINTENANCE ROAD

NOTES:

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VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88)

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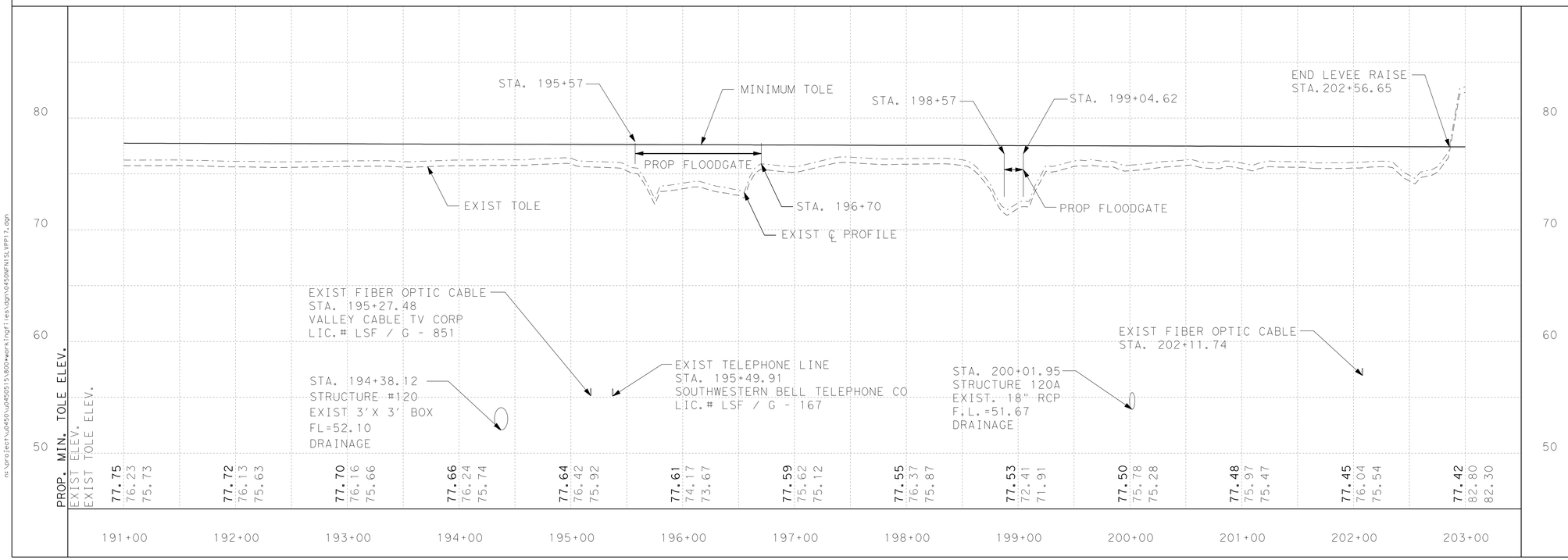
DIV	ITEM	DESC CODE	DESCRIPTION	UNIT	EST	FINAL
01	57	01	TEMP EROSION CONTROL (SILT FENCE)	LF	2034	
01	57	02	TEMP EROSION CONTROL (CONST EXIT)	SY	720	
02	91	10	REMOVE/RELOCATE EXIST FENCE	LF	250	
31	11	10	PREP ROW	STA	12	
31	14	01	REMOVE/STKPL (EXISTING GRAVEL)	CY	210	
31	14	02	REMOVE/STKPL (EXIST TOPSOIL 6")	CY	1254	
31	92	01	SEEDING PERM	SY	7343	
31	92	02	VEGETATIVE WATERING	MG	15	
35	41	01	RAISE LEVEE (BENCH EXCAVATION)	CY	3057	
35	41	02	RAISE LEVEE (EMBANKMENT)	CY	8996	
35	41	03	RAISE LEVEE (TOP SOIL)	CY	1219	
50	20	01	ROADWAY FLEXBASE TY E GR 4	CY	308	
50	21	01	PRIME OIL (MC-30)	GAL		
50	25	01	HOT MIX ASPH SURF (2 IN)	TON		
50	40	01	METAL BEAM GUARD FENCE	LF		
90	79	01	VEHICULAR GATE	EA	1	



S&B INFRASTRUCTURE, LTD.
Engineering Management Technology

S&B Infrastructure, Ltd. Firm Registration Number: 1582

STATE OF TEXAS
PHILLIP J. PAWELEK
82739
REGISTERED PROFESSIONAL ENGINEER

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ADDENDUM No. 2

Phillip J. Pawelek, P.E.

NORTH FLOODWAY NORTH LEVEE PLAN & PROFILE

STA. 191+00 TO STA. 203+00

SHEET 17 OF 38 SHEET

STATE	COUNTY	DRAWN BY:JL/JJL	CHECKED BY: PP	
TEXAS	HIDALGO	PROJECT NO.	IBM09T0018	SHEET NO.
REHABILITATION OF NORTH FLOODWAY NORTH AND SOUTH LEVEES (FM 1015 TO BASELINE RD)				08.17

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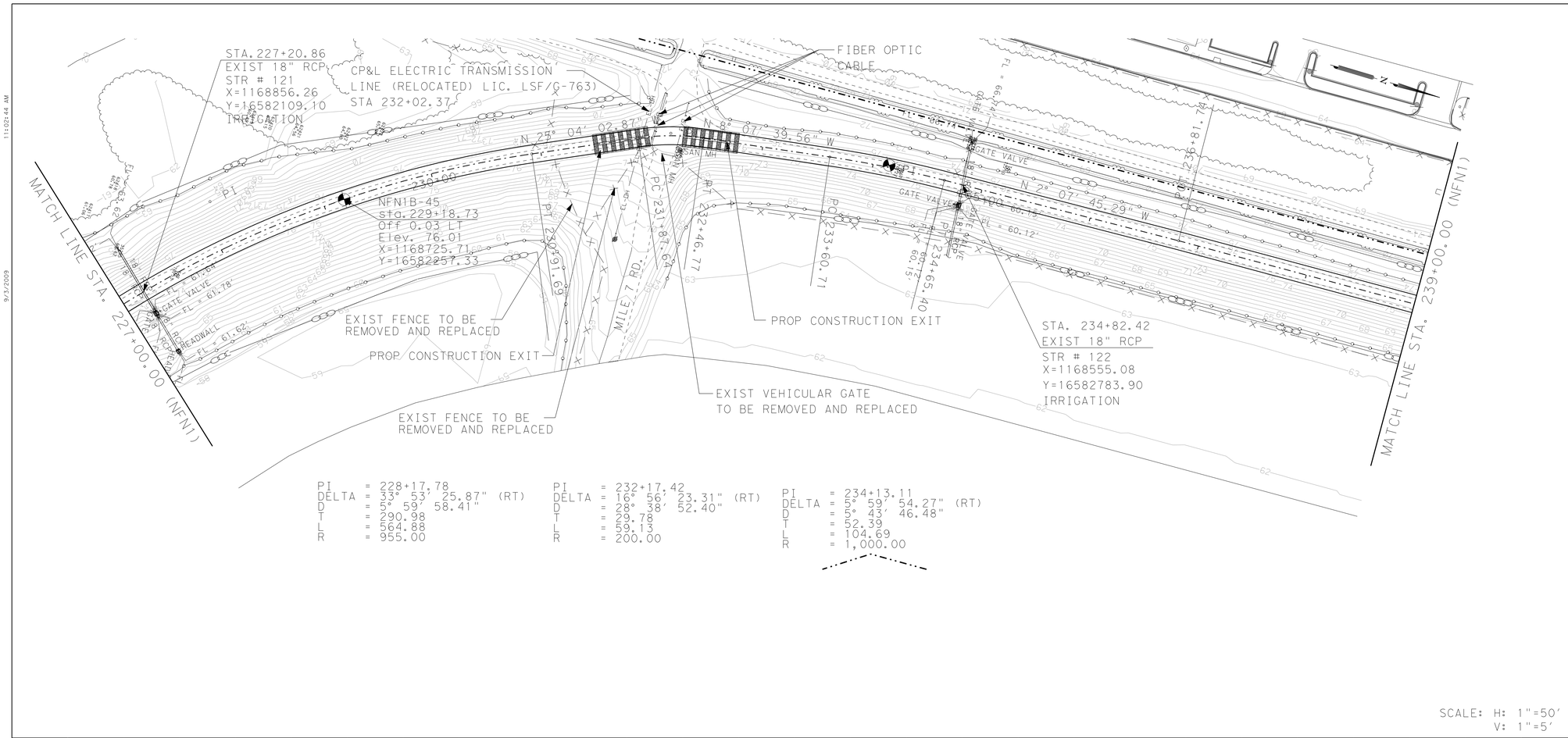

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DELTA = 33° 53' 25.87" (RT)
D = 5° 59' 58.41"
T = 290.98
L = 564.88
R = 955.00

PI = 232+17.42
DELTA = 16° 56' 23.31" (RT)
D = 28° 38' 52.40"
T = 29.78
L = 59.13
R = 200.00

PI = 234+13.11
DELTA = 5° 59' 54.27" (RT)
D = 5° 43' 46.48"
T = 52.39
L = 104.69
R = 1,000.00

SCALE: H: 1"=50'
V: 1"=5'

PLAN VIEW LEGEND

- PROP CENTERLINE
- EXIST RIGHT-OF-WAY
- EXIST GEOTECHNICAL BORE
- EXIST FLOODWALL
- EXIST OVERHEAD UTILITY LINE
- EXIST SIGN
- EXIST CONTOURS
- EXIST LEVEE TOE
- EXIST FIBER OPTIC LINE
- EXIST GAS LINE
- EXIST WATER LINE
- EXIST TELEPHONE LINE
- EXIST FENCE
- PROP SEDIMENT CONTROL FENCE
- WATER BOUNDARY
- PROP LEVEE MAINTENANCE ROAD

NOTES:

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VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88)

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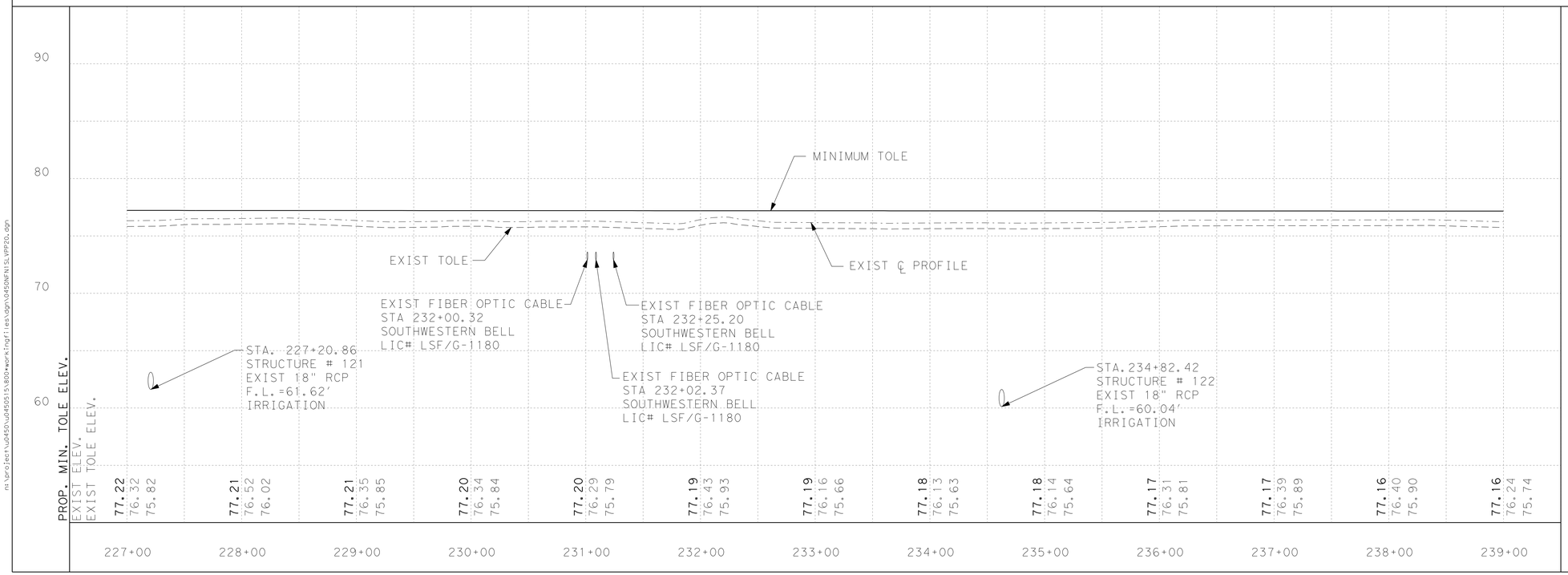
DIV	ITEM	DESC CODE	DESCRIPTION	UNIT	EST	FINAL
01	57	01	TEMP EROSION CONTROL (SILT FENCE)	LF	2400	
01	57	02	TEMP EROSION CONTROL (CONST EXIT)	SY	360	
02	91	10	REMOVE/RELOCATE EXIST FENCE	LF	710	
31	11	10	PREP ROW	STA	12	
31	14	01	REMOVE/STKPL (EXISTING GRAVEL)	CY	215	
31	14	02	REMOVE/STKPL (EXIST TOPSOIL 6")	CY	1169	
31	92	01	SEEDING PERM	SY	6687	
31	92	02	VEGETATIVE WATERING	MG	13	
35	41	01	RAISE LEVEE (BENCH EXCAVATION)	CY	3278	
35	41	02	RAISE LEVEE (EMBANKMENT)	CY	6521	
35	41	03	RAISE LEVEE (TOP SOIL)	CY	1110	
50	20	01	ROADWAY FLEXBASE TY E GR 4	CY	372	
50	21	01	PRIME OIL (MC-30)	GAL		
50	25	01	HOT MIX ASPH SURF (2 IN)	TON		
50	40	01	METAL BEAM GUARD FENCE	LF		
90	79	01	VEHICULAR GATE	EA	1	



S&B INFRASTRUCTURE, LTD.
Engineering Management Technology
S&B Infrastructure, Ltd. Firm Registration Number: 1582

STATE OF TEXAS
PHILLIP J. PAWELEK
82739
REGISTERED PROFESSIONAL ENGINEER

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ADDENDUM No. 2

Phillip J. Pawelek, P.E.

NORTH FLOODWAY NORTH LEVEE PLAN & PROFILE

STA. 227+00+00 TO STA. 239+00

SHEET 20 OF 38 SHEET

STATE	COUNTY	DRAWN BY: JL / JJL	CHECKED BY: PP	
TEXAS	HIDALGO	PROJECT NO. IBM09T0018		SHEET NO.
REHABILITATION OF NORTH FLOODWAY NORTH AND SOUTH LEVEES (FM 1015 TO BASELINE RD)				08.20

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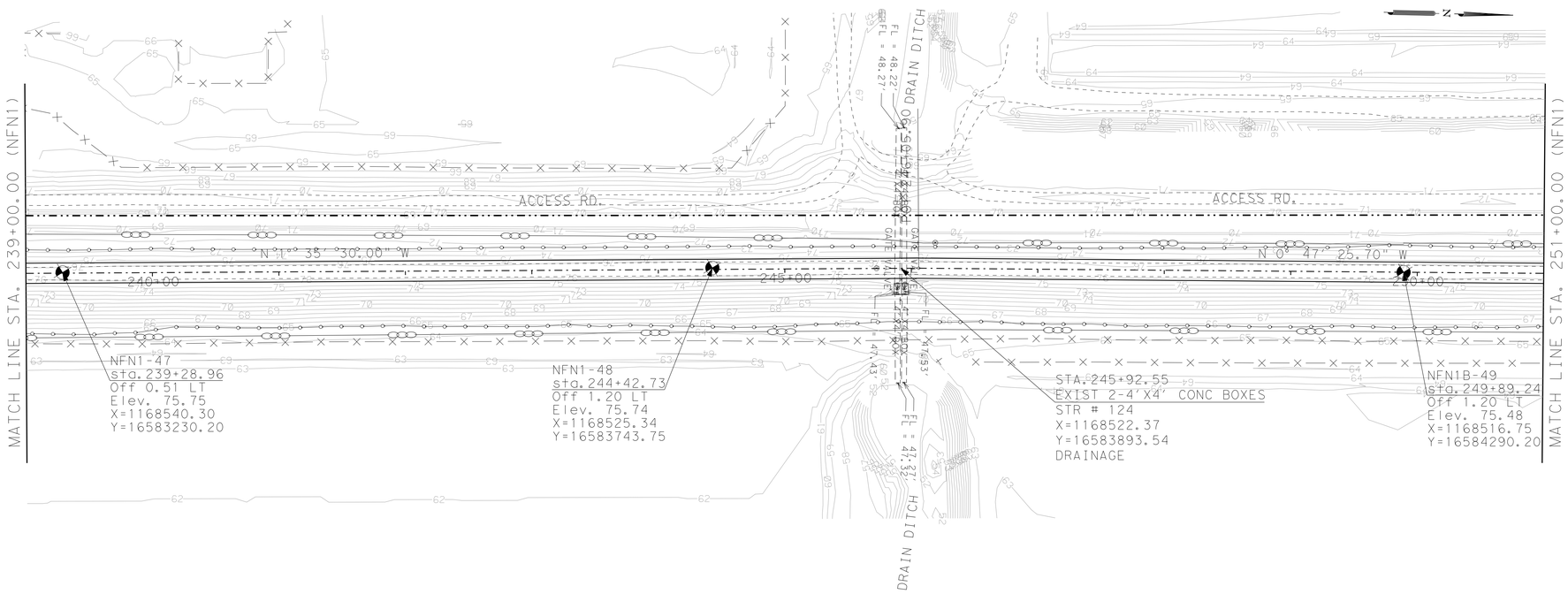

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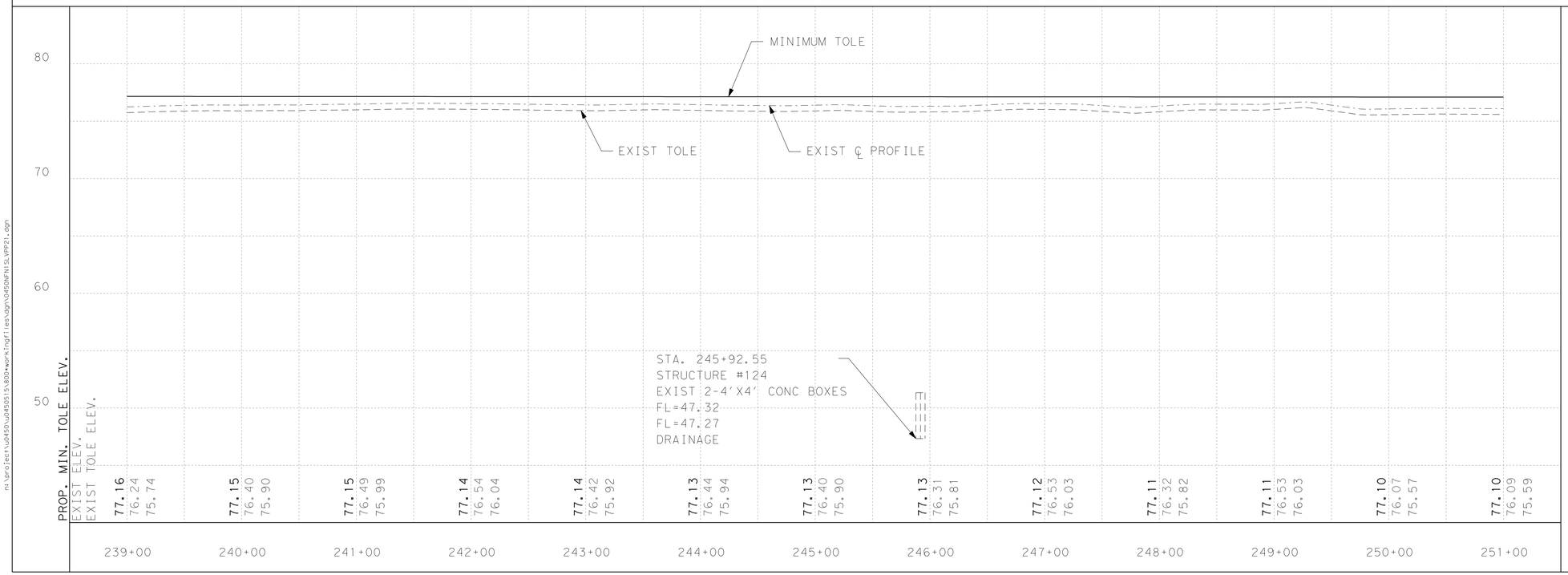

PLAN VIEW LEGEND

- PROP CENTERLINE
- EXIST RIGHT-OF-WAY
- EXIST GEOTECHNICAL BORE
- EXIST FLOODWALL
- EL-OH — EXIST OVERHEAD UTILITY LINE
- EXIST SIGN
- 101 — EXIST CONTOURS
- EXIST LEVEE TOE
- F/O — EXIST FIBER OPTIC LINE
- GAS — EXIST GAS LINE
- W — EXIST WATER LINE
- T — EXIST TELEPHONE LINE
- X — EXIST FENCE
- PROP SEDIMENT CONTROL FENCE
- WATER BOUNDARY
- PROP LEVEE MAINTENANCE ROAD

NOTES:

WHEN EXISTING TOP OF LEVEE ELEVATION (TOLE) IS > THE MINIMUM TOLE, THE LEVEE SHALL NOT BE MODIFIED UNLESS OTHERWISE SHOWN ON PLAN. THE TOLE SHOWN HAS BEEN ADJUSTED BY 1.5"TO ACCOUNT FOR SETTLEMENT.

PLANIMETRIC AND RIGHT OF WAY INFORMATION WAS OBTAINED FROM FIELD SURVEYS CONDUCTED BY RODS SURVEYING, INC. AND DOS LAND SURVEYING RESPECTIVELY

VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88)

IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATION OF ALL EXISTING UTILITIES (SHOWN/NOT SHOWN) PRIOR TO CONSTRUCTION.

DIV	ITEM	DESC CODE	DESCRIPTION	UNIT	EST	FINAL
01	57	01	TEMP EROSION CONTROL (SILT FENCE)	LF	2400	
01	57	02	TEMP EROSION CONTROL (CONST EXIT)	SY	0	
02	91	10	REMOVE/RELOCATE EXIST FENCE	LF		
31	11	10	PREP ROW	STA	12	
31	14	01	REMOVE/STKPL (EXISTING GRAVEL)	CY	232	
31	14	02	REMOVE/STKPL (EXIST TOPSOIL 6")	CY	1292	
31	92	01	SEEDING PERM	SY	7253	
31	92	02	VEGETATIVE WATERING	MG	15	
35	41	01	RAISE LEVEE (BENCH EXCAVATION)	CY	3554	
35	41	02	RAISE LEVEE (EMBANKMENT)	CY	7726	
35	41	03	RAISE LEVEE (TOP SOIL)	CY	1204	
50	20	01	ROADWAY FLEXBASE TY E GR 4	CY	372	
50	21	01	PRIME OIL (MC-30)	GAL		
50	25	01	HOT MIX ASPH SURF (2 IN)	TON		
50	40	01	METAL BEAM GUARD FENCE	LF		
90	79	01	VEHICULAR GATE	EA	0	

INTERNATIONAL BOUNDARY AND WATER COMMISSION · COMISION INTERNACIONAL DE LIMITES Y AGUAS

S&B INFRASTRUCTURE, LTD.
Engineering · Management · Technology

S&B Infrastructure, Ltd. Firm Registration Number: 1582

STATE OF TEXAS · PHILLIP J. PAWELEK · 82739 · REGISTERED PROFESSIONAL ENGINEER

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Phillip J. Pawelek, P.E.

ADDENDUM No. 2

NORTH FLOODWAY NORTH LEVEE PLAN & PROFILE

STA. 239+00 TO STA. 251+00

SHEET 21 OF 38 SHEET

STATE	COUNTY	DRAWN BY: JL/JJL	CHECKED BY: PP	
TEXAS	HIDALGO	PROJECT NO. IBM09T0018		SHEET NO.
REHABILITATION OF NORTH FLOODWAY NORTH AND SOUTH LEVEES (FM 1015 TO BASELINE RD)				08.21

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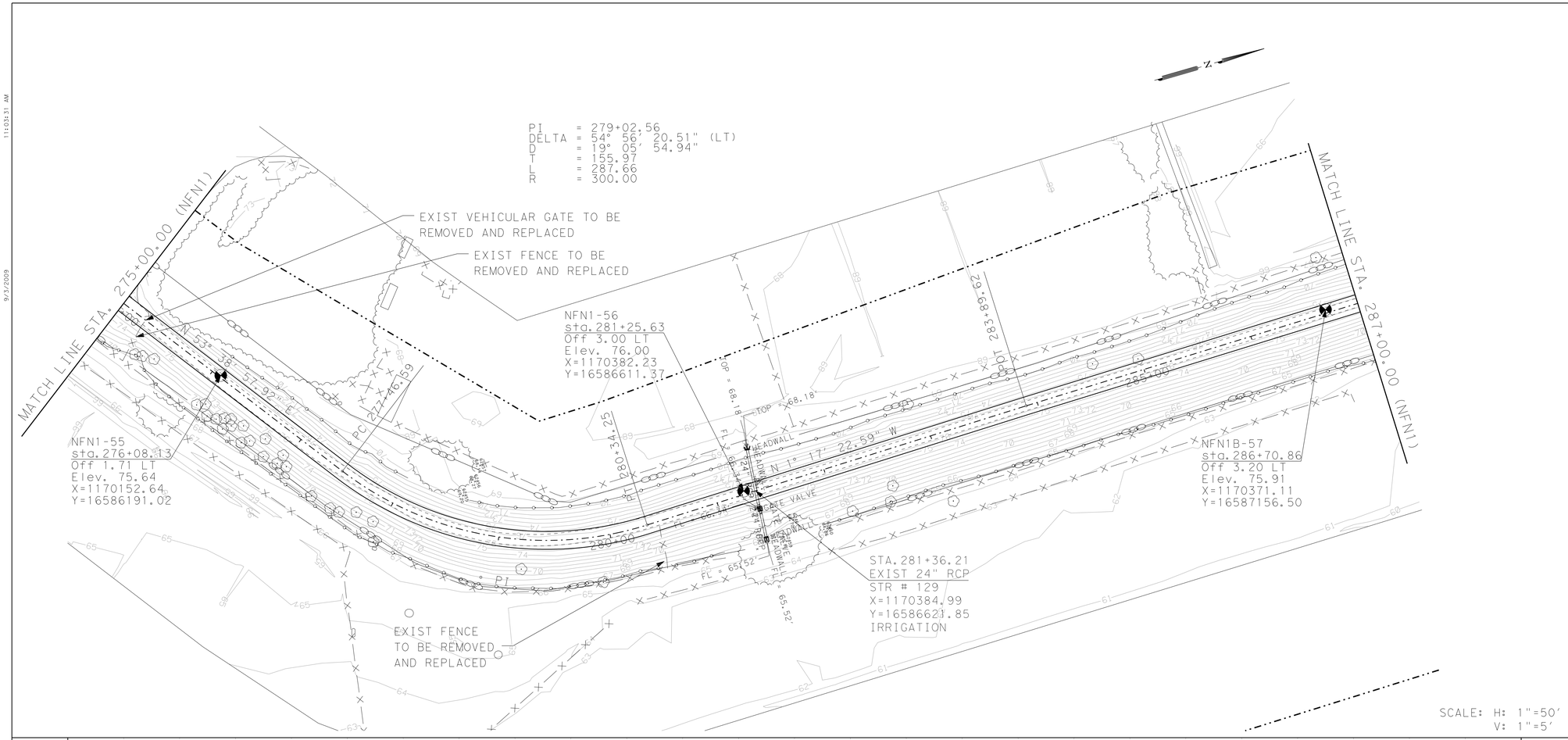

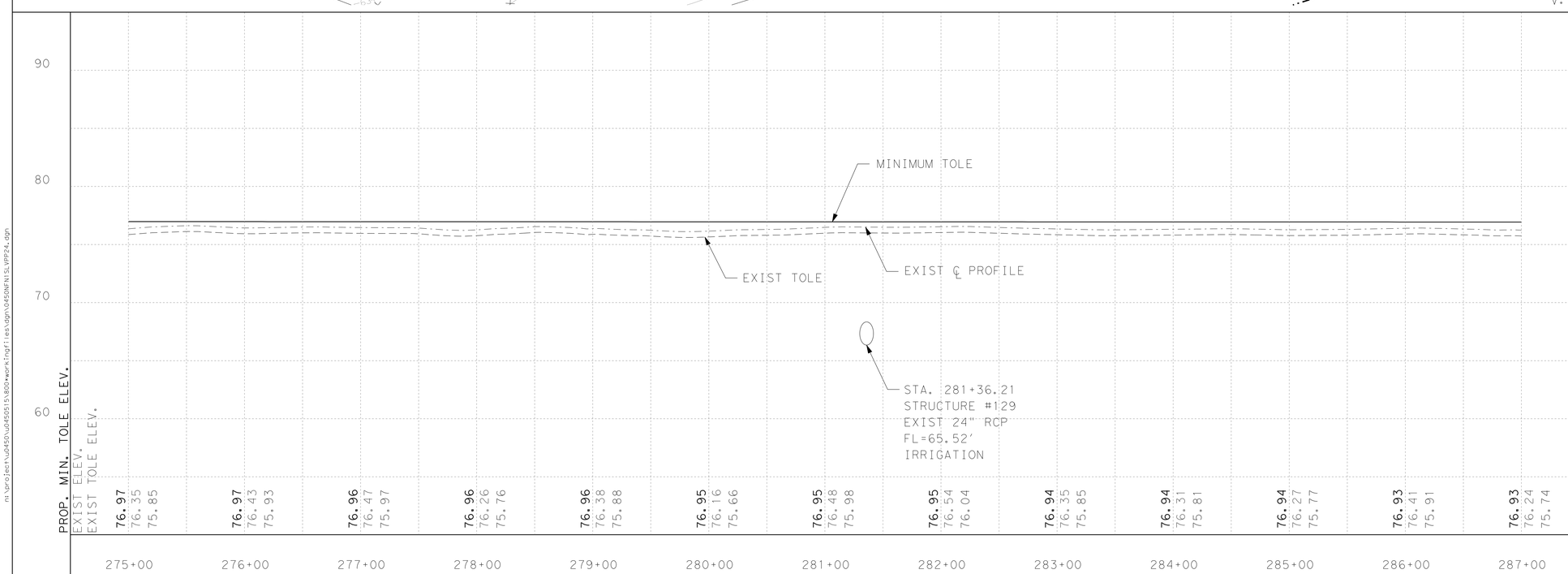

PLAN VIEW LEGEND

- PROP CENTERLINE
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01	57	01	TEMP EROSION CONTROL (SILT FENCE)	LF	2400	
01	57	02	TEMP EROSION CONTROL (CONST EXIT)	SY	0	
02	91	10	REMOVE/RELOCATE EXIST FENCE	LF	300	
31	11	10	PREP ROW	STA	12	
31	14	01	REMOVE/STKPL (EXISTING GRAVEL)	CY	211	
31	14	02	REMOVE/STKPL (EXIST TOPSOIL 6")	CY	1095	
31	92	01	SEEDING PERM	SY	6169	
31	92	02	VEGETATIVE WATERING	MG	12	
35	41	01	RAISE LEVEE (BENCH EXCAVATION)	CY	3107	
35	41	02	RAISE LEVEE (EMBANKMENT)	CY	6305	
35	41	03	RAISE LEVEE (TOP SOIL)	CY	1024	
50	20	01	ROADWAY FLEXBASE TY E GR 4	CY	372	
50	21	01	PRIME OIL (MC-30)	GAL		
50	25	01	HOT MIX ASPH SURF (2 IN)	TON		
50	40	01	METAL BEAM GUARD FENCE	LF		
90	79	01	VEHICULAR GATE	EA	1	

INTERNATIONAL BOUNDARY AND WATER COMMISSION
COMISION INTERNACIONAL DE LIMITES Y AGUAS

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PHILLIP J. PAWELEK
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REGISTERED PROFESSIONAL ENGINEER

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Phillip J. Pawelek, P.E.

ADDENDUM No. 2

NORTH FLOODWAY NORTH LEVEE PLAN & PROFILE

STA. 275+00 TO STA. 287+00

SHEET 24 OF 38 SHEET

STATE	COUNTY	DRAWN BY: JL/JJL	CHECKED BY: PP	
TEXAS	HIDALGO	PROJECT NO. IBM09T0018		SHEET NO.
REHABILITATION OF NORTH FLOODWAY NORTH AND SOUTH LEVEES (FM 1015 TO BASELINE RD)				08.24

9/3/2009 11:03:31 AM
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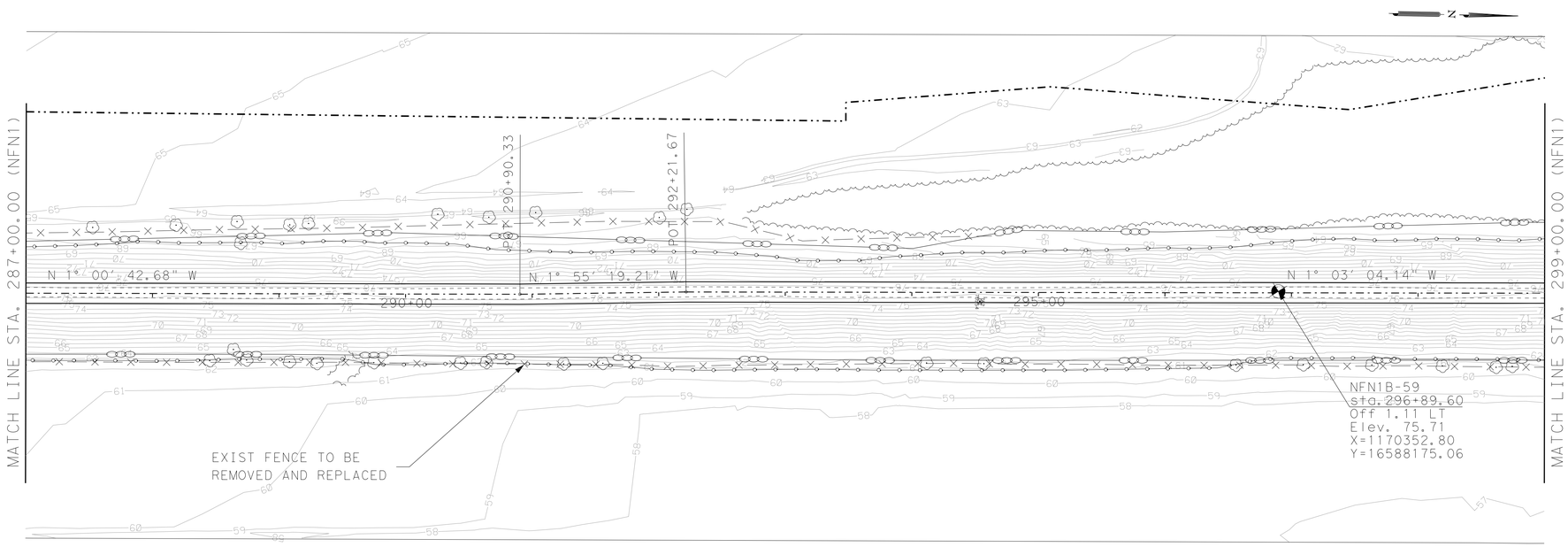
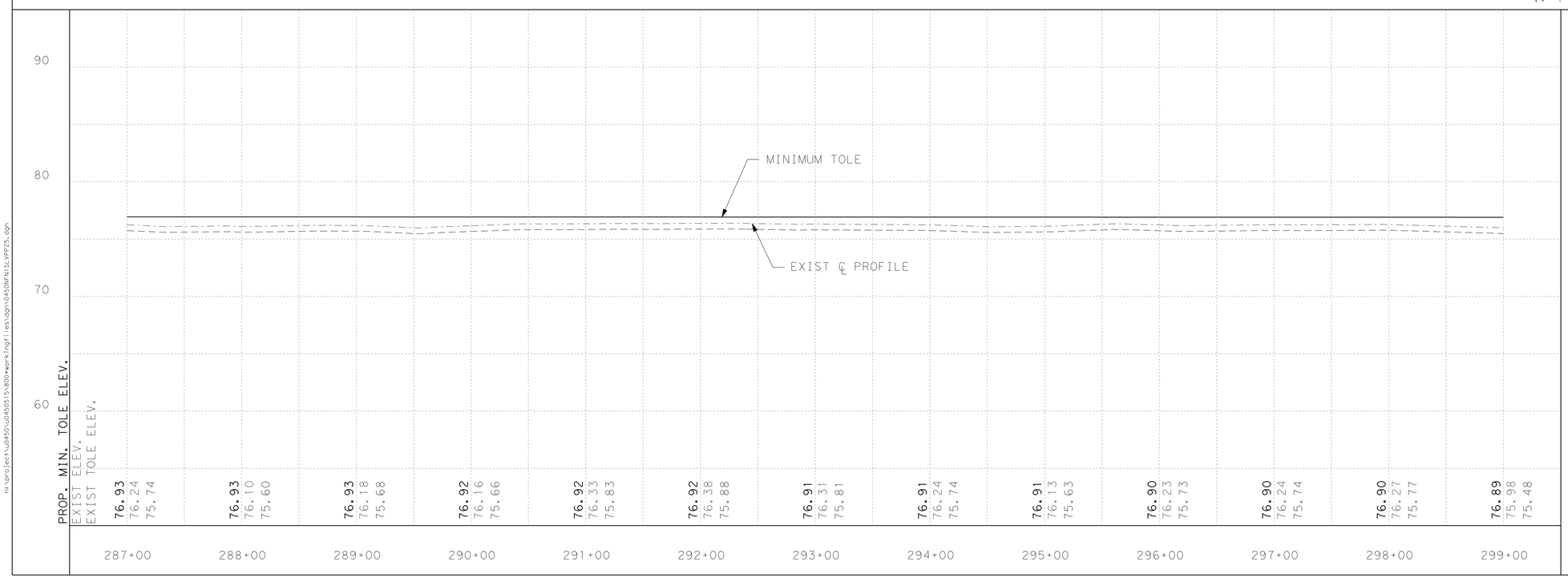


SCALE: H: 1"=50'
V: 1"=5'



PLAN VIEW LEGEND

- PROP CENTERLINE
- EXIST RIGHT-OF-WAY
- EXIST GEOTECHNICAL BORE
- EXIST FLOODWALL
- EL-OH — EXIST OVERHEAD UTILITY LINE
- EXIST SIGN
- 101 — EXIST CONTOURS
- EXIST LEVEE TOE
- F/O — EXIST FIBER OPTIC LINE
- GAS — EXIST GAS LINE
- W — EXIST WATER LINE
- T — EXIST TELEPHONE LINE
- X — EXIST FENCE
- PROP SEDIMENT CONTROL FENCE
- WATER BOUNDARY
- PROP LEVEE MAINTENANCE ROAD

NOTES:

WHEN EXISTING TOP OF LEVEE ELEVATION (TOLE) IS > THE MINIMUM TOLE, THE LEVEE SHALL NOT BE MODIFIED UNLESS OTHERWISE SHOWN ON PLAN. THE TOLE SHOWN HAS BEEN ADJUSTED BY 1.5"TO ACCOUNT FOR SETTLEMENT.

PLANIMETRIC AND RIGHT OF WAY INFORMATION WAS OBTAINED FROM FIELD SURVEYS CONDUCTED BY RODS SURVEYING, INC. AND DOS LAND SURVEYING RESPECTIVELY

VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88)

IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATION OF ALL EXISTING UTILITIES (SHOWN/NOT SHOWN) PRIOR TO CONSTRUCTION.

DIV	ITEM	DESC CODE	DESCRIPTION	UNIT	EST	FINAL
01	57	01	TEMP EROSION CONTROL (SILT FENCE)	LF	2400	
01	57	02	TEMP EROSION CONTROL (CONST EXIT)	SY	0	
02	91	10	REMOVE/RELOCATE EXIST FENCE	LF	200	
31	11	10	PREP ROW	STA	12	
31	14	01	REMOVE/STKPL (EXISTING GRAVEL)	CY	180	
31	14	02	REMOVE/STKPL (EXIST TOPSOIL 6")	CY	1854	
31	92	01	SEEDING PERM	SY	10367	
31	92	02	VEGETATIVE WATERING	MG	21	
35	41	01	RAISE LEVEE (BENCH EXCAVATION)	CY	4972	
35	41	02	RAISE LEVEE (EMBANKMENT)	CY	11544	
35	41	03	RAISE LEVEE (TOP SOIL)	CY	1721	
50	20	01	ROADWAY FLEXBASE TY E GR 4	CY	372	
50	21	01	PRIME OIL (MC-30)	GAL		
50	25	01	HOT MIX ASPH SURF (2 IN)	TON		
50	40	01	METAL BEAM GUARD FENCE	LF		
90	79	01	VEHICULAR GATE	EA	0	

INTERNATIONAL BOUNDARY AND WATER COMMISSION
COMISION INTERNACIONAL DE LIMITES Y AGUAS

S&B INFRASTRUCTURE, LTD.
Engineering Management Technology

S&B Infrastructure, Ltd. Firm Registration Number: 1582

STATE OF TEXAS
PHILLIP J. PAWELEK
82739
REGISTERED PROFESSIONAL ENGINEER

The seal appearing on this document was authorized by PHILLIP J. PAWELEK P.E. 82739, on 9-3, 20 09

Phillip J. Pawelek, P.E.

ADDENDUM No. 2

NORTH FLOODWAY NORTH LEVEE PLAN & PROFILE

STA. 287+00 TO STA. 299+00

SHEET 25 OF 38 SHEET

STATE	COUNTY	DRAWN BY: JL / JJL	CHECKED BY: PP	
TEXAS	HIDALGO	PROJECT NO. IBM09T0018		SHEET NO.
REHABILITATION OF NORTH FLOODWAY NORTH AND SOUTH LEVEES (FM 1015 TO BASELINE RD)				08.25

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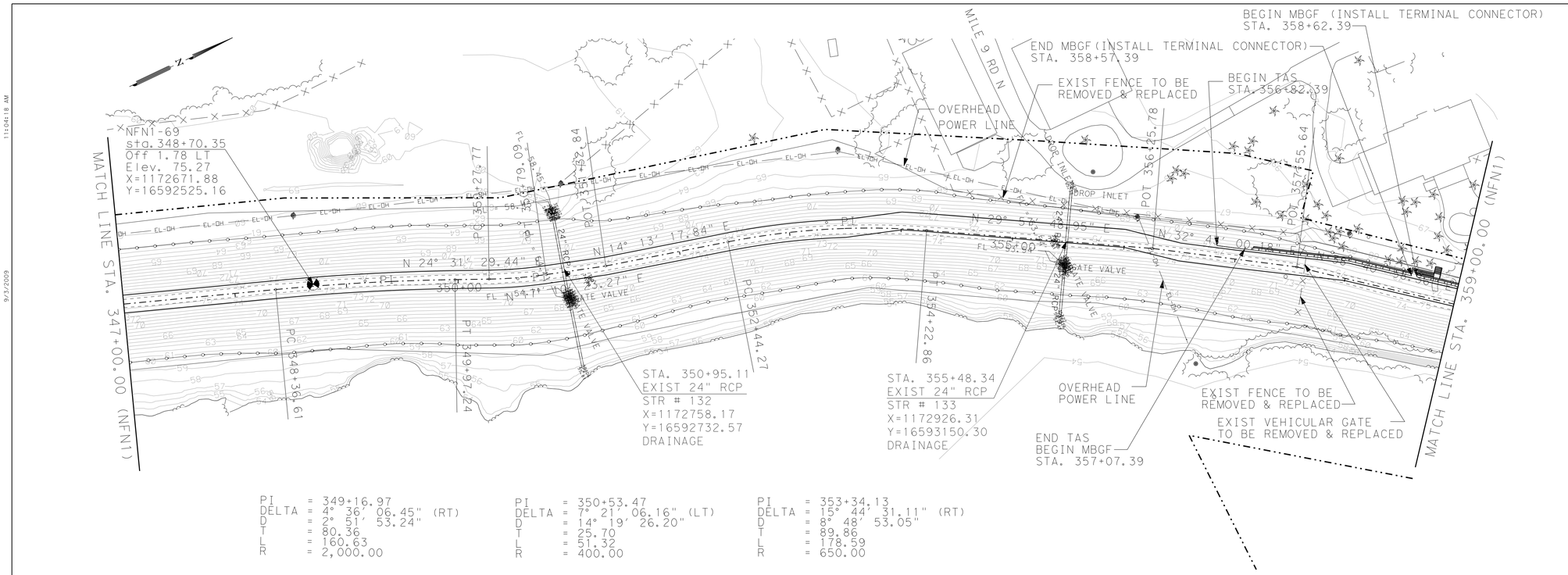


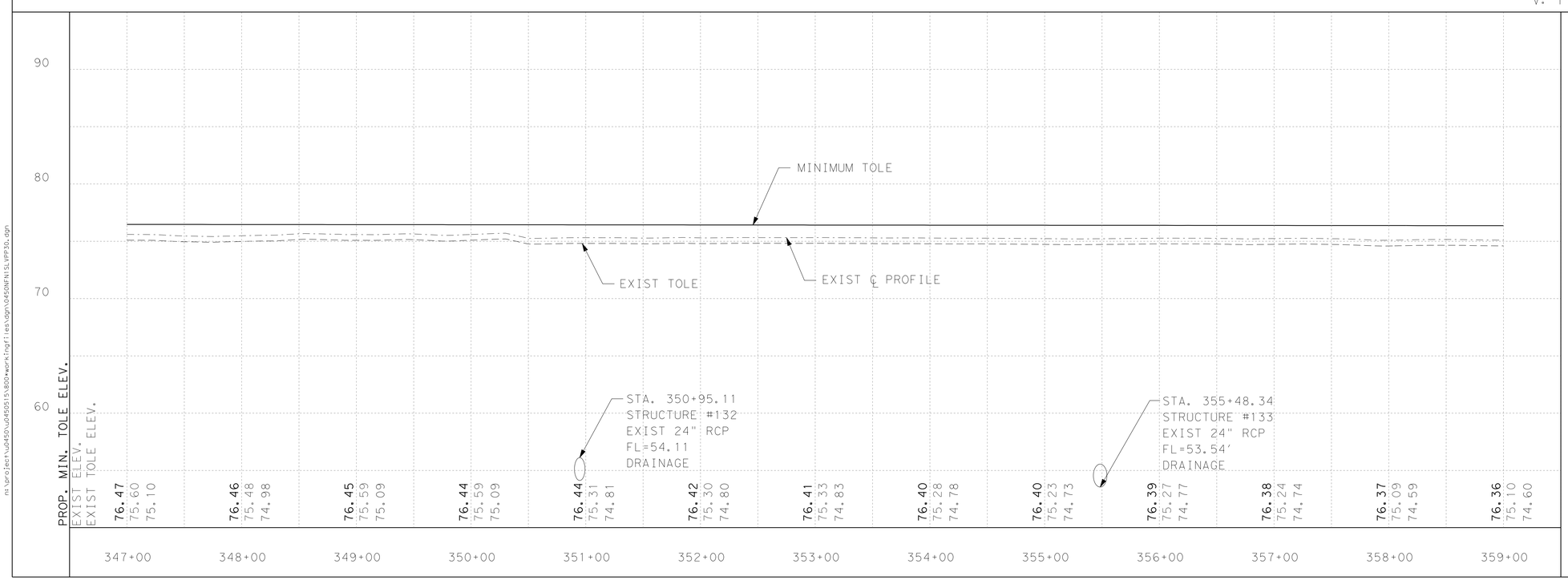
PI = 349+16.97
DELTA = 4° 36' 06.45" (RT)
D = 2° 51' 53.24"
T = 80.36
L = 160.63
R = 2,000.00

PI = 350+53.47
DELTA = 7° 21' 06.16" (LT)
D = 14° 19' 26.20"
T = 25.70
L = 51.32
R = 400.00

PI = 353+34.13
DELTA = 15° 44' 31.11" (RT)
D = 8° 48' 53.05"
T = 89.86
L = 178.59
R = 650.00

NOTE: TAS SUBSIDIARY TO MBGF

SCALE: H: 1"=50'
V: 1"=5'



PLAN VIEW LEGEND

- PROP CENTERLINE
- EXIST RIGHT-OF-WAY
- EXIST GEOTECHNICAL BORE
- EXIST FLOODWALL
- EXIST OVERHEAD UTILITY LINE
- EXIST SIGN
- EXIST CONTOURS
- EXIST LEVEE TOE
- EXIST FIBER OPTIC LINE
- EXIST GAS LINE
- EXIST WATER LINE
- EXIST TELEPHONE LINE
- EXIST FENCE
- PROP SEDIMENT CONTROL FENCE
- WATER BOUNDARY
- PROP LEVEE MAINTENANCE ROAD

NOTES:

WHEN EXISTING TOP OF LEVEE ELEVATION (TOLE) IS > THE MINIMUM TOLE, THE LEVEE SHALL NOT BE MODIFIED UNLESS OTHERWISE SHOWN ON PLAN. THE TOLE SHOWN HAS BEEN ADJUSTED BY 1.5"TO ACCOUNT FOR SETTLEMENT.

PLANIMETRIC AND RIGHT OF WAY INFORMATION WAS OBTAINED FROM FIELD SURVEYS CONDUCTED BY RODS SURVEYING, INC. AND DOS LAND SURVEYING RESPECTIVELY

VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88)

IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATION OF ALL EXISTING UTILITIES (SHOWN/NOT SHOWN) PRIOR TO CONSTRUCTION.

DIV	ITEM	DESC CODE	DESCRIPTION	UNIT	EST	FINAL
01	57	01	TEMP EROSION CONTROL (SILT FENCE)	LF	2400	
01	57	02	TEMP EROSION CONTROL (CONST EXIT)	SY	0	
02	91	10	REMOVE/RELOCATE EXIST FENCE	LF	460	
31	11	10	PREP ROW	STA	12	
31	14	01	REMOVE/STKPL (EXISTING GRAVEL)	CY	166	
31	14	02	REMOVE/STKPL (EXIST TOPSOIL 6")	CY	1935	
31	92	01	SEEDING PERM	SY	10892	
31	92	02	VEGETATIVE WATERING	MG	22	
35	41	01	RAISE LEVEE (BENCH EXCAVATION)	CY	4991	
35	41	02	RAISE LEVEE (EMBANKMENT)	CY	14031	
35	41	03	RAISE LEVEE (TOP SOIL)	CY	1808	
50	20	01	ROADWAY FLEXBASE TY E GR 4	CY	372	
50	21	01	PRIME OIL (MC-30)	GAL		
50	25	01	HOT MIX ASPH SURF (2 IN)	TON		
50	40	01	METAL BEAM GUARD FENCE	LF	200	
90	79	01	VEHICULAR GATE	EA	1	

INTERNATIONAL BOUNDARY AND WATER COMMISSION
COMISION INTERNACIONAL DE LIMITES Y AGUAS

S&B INFRASTRUCTURE, LTD.
Engineering Management Technology

S&B Infrastructure, Ltd. Firm Registration Number: 1582

STATE OF TEXAS
PHILLIP J. PAWELEK
82739
REGISTERED PROFESSIONAL ENGINEER

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Phillip J. Pawelek, P.E.

ADDENDUM No. 2

NORTH FLOODWAY NORTH LEVEE PLAN & PROFILE

STA. 347+00 TO STA. 359+00

SHEET 30 OF 38 SHEET

STATE	COUNTY	DRAWN BY: JL/JJL	CHECKED BY: PP	
TEXAS	HIDALGO	PROJECT NO. IBM09T0018		SHEET NO.
REHABILITATION OF NORTH FLOODWAY NORTH AND SOUTH LEVEES (FM 1015 TO BASELINE RD)				08.30

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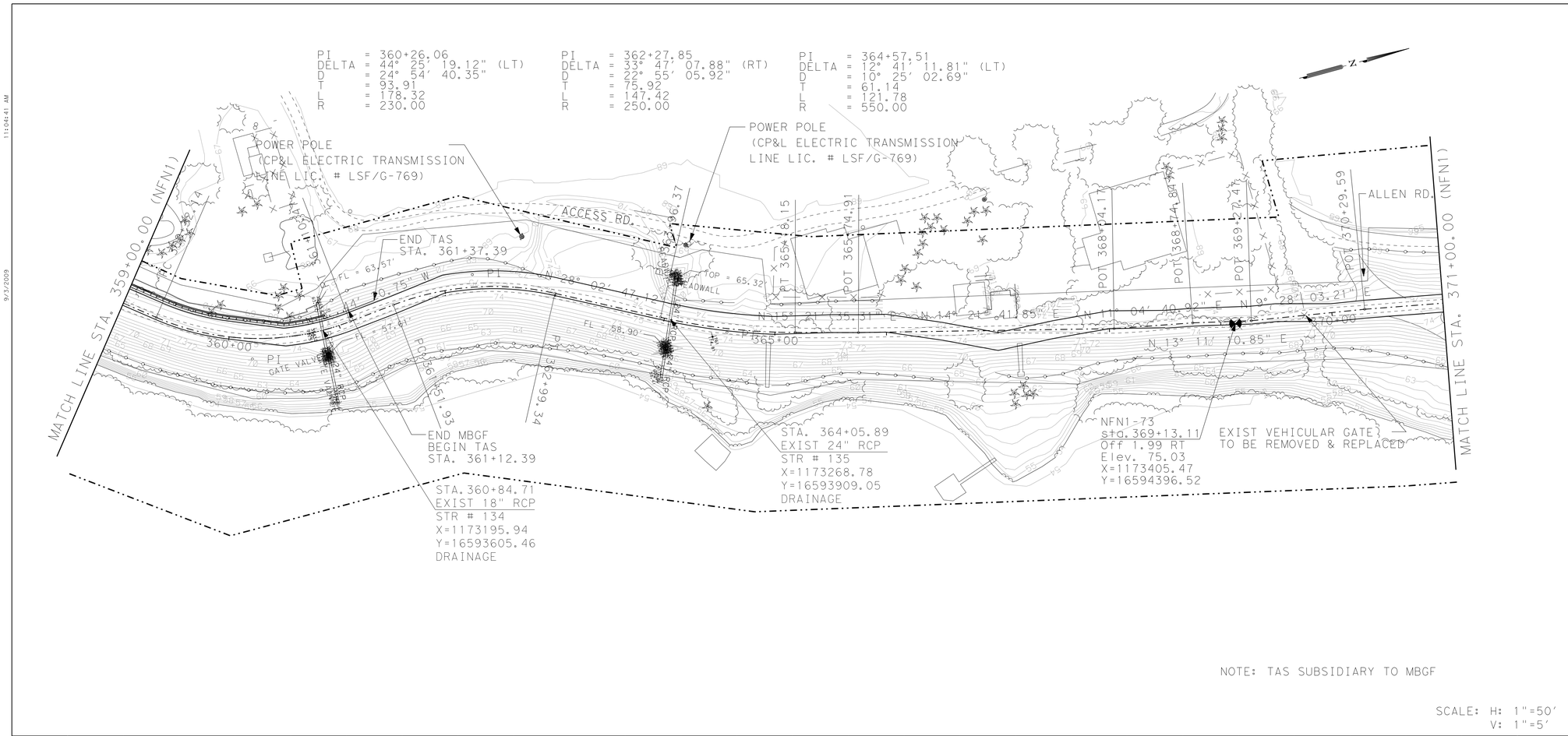
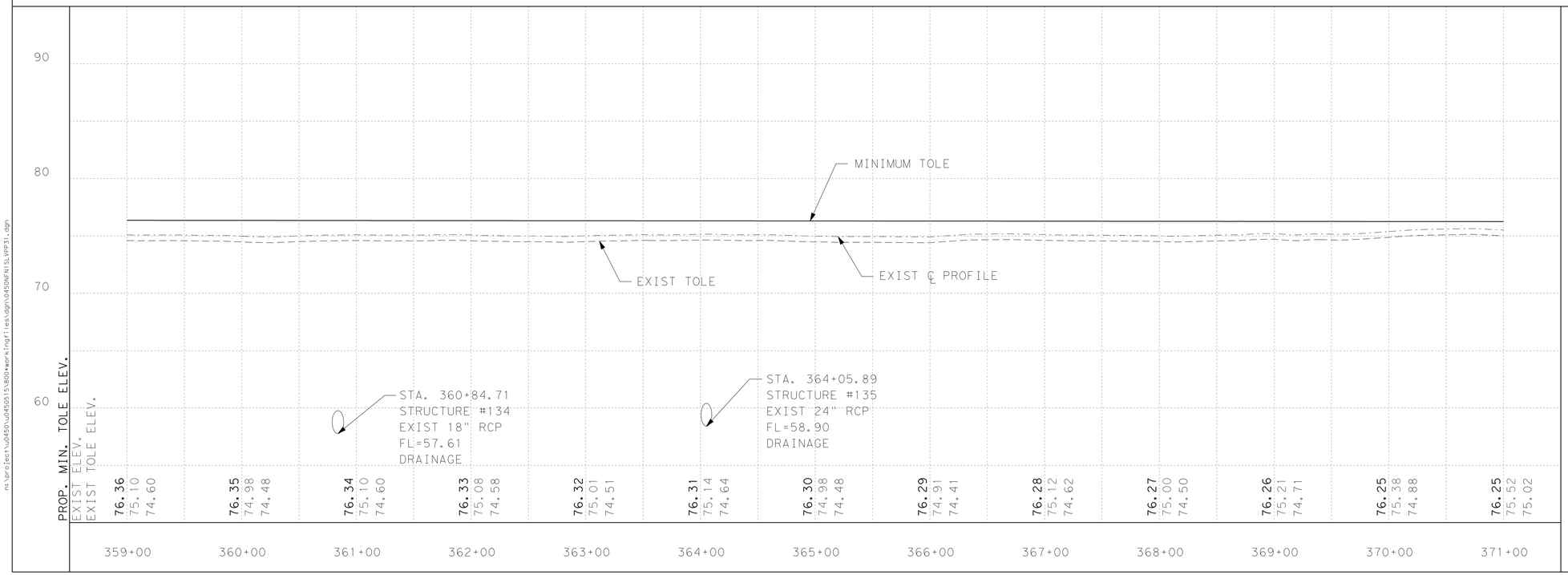


NOTE: TAS SUBSIDIARY TO MBGF

SCALE: H: 1"=50'
V: 1"=5'



PLAN VIEW LEGEND

- PROP CENTERLINE
- EXIST RIGHT-OF-WAY
- EXIST GEOTECHNICAL BORE
- EXIST FLOODWALL
- EXIST OVERHEAD UTILITY LINE
- EXIST SIGN
- EXIST CONTOURS
- EXIST LEVEE TOE
- EXIST FIBER OPTIC LINE
- EXIST GAS LINE
- EXIST WATER LINE
- EXIST TELEPHONE LINE
- EXIST FENCE
- PROP SEDIMENT CONTROL FENCE
- WATER BOUNDARY
- PROP LEVEE MAINTENANCE ROAD

NOTES:

WHEN EXISTING TOP OF LEVEE ELEVATION (TOLE) IS > THE MINIMUM TOLE, THE LEVEE SHALL NOT BE MODIFIED UNLESS OTHERWISE SHOWN ON PLAN. THE TOLE SHOWN HAS BEEN ADJUSTED BY 1.5"TO ACCOUNT FOR SETTLEMENT.

PLANIMETRIC AND RIGHT OF WAY INFORMATION WAS OBTAINED FROM FIELD SURVEYS CONDUCTED BY RODS SURVEYING, INC. AND DOS LAND SURVEYING RESPECTIVELY

VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88)

IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATION OF ALL EXISTING UTILITIES (SHOWN/NOT SHOWN) PRIOR TO CONSTRUCTION.

DIV	ITEM	DESC CODE	DESCRIPTION	UNIT	EST	FINAL
01	57	01	TEMP EROSION CONTROL (SILT FENCE)	LF	2400	
01	57	02	TEMP EROSION CONTROL (CONST EXIT)	SY	0	
02	91	10	REMOVE/RELOCATE EXIST FENCE	LF		
31	11	10	PREP ROW	STA	12	
31	14	01	REMOVE/STKPL (EXISTING GRAVEL)	CY	176	
31	14	02	REMOVE/STKPL (EXIST TOPSOIL 6")	CY	873	
31	92	01	SEEDING PERM	SY	4705	
31	92	02	VEGETATIVE WATERING	MG	9	
35	41	01	RAISE LEVEE (BENCH EXCAVATION)	CY	2191	
35	41	02	RAISE LEVEE (EMBANKMENT)	CY	5928	
35	41	03	RAISE LEVEE (TOP SOIL)	CY	781	
50	20	01	ROADWAY FLEXBASE TY E GR 4	CY	372	
50	21	01	PRIME OIL (MC-30)	GAL		
50	25	01	HOT MIX ASPH SURF (2 IN)	TON		
50	40	01	METAL BEAM GUARD FENCE	LF	200	
90	79	01	VEHICULAR GATE	EA	1	

INTERNATIONAL BOUNDARY AND WATER COMMISSION
COMISION INTERNACIONAL DE LIMITES Y AGUAS

S&B INFRASTRUCTURE, LTD.
Engineering Management Technology

S&B Infrastructure, Ltd. Firm Registration Number: 1582

STATE OF TEXAS
PHILLIP J. PAWELEK
82739
REGISTERED PROFESSIONAL ENGINEER

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Phillip J. Pawelek, P.E.

ADDENDUM No. 2

NORTH FLOODWAY NORTH LEVEE PLAN & PROFILE

STA. 359+00 TO STA. 371+00

SHEET 31 OF 38 SHEET

STATE	COUNTY	DRAWN BY: JL / JJL	CHECKED BY: PP	
TEXAS	HIDALGO	PROJECT NO. IBM09T0018		SHEET NO.
REHABILITATION OF NORTH FLOODWAY NORTH AND SOUTH LEVEES (FM 1015 TO BASELINE RD)				08.31

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9/3/2009
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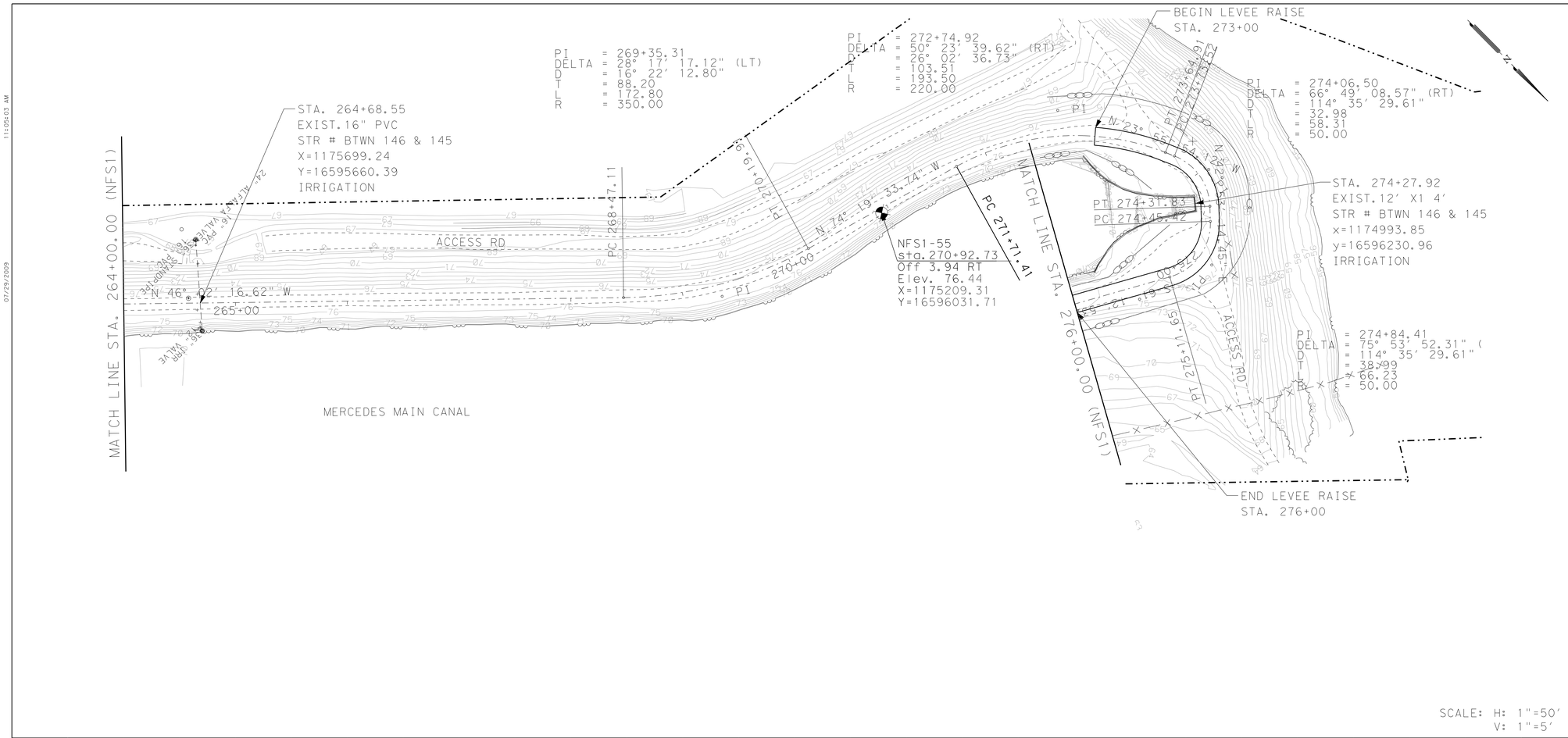

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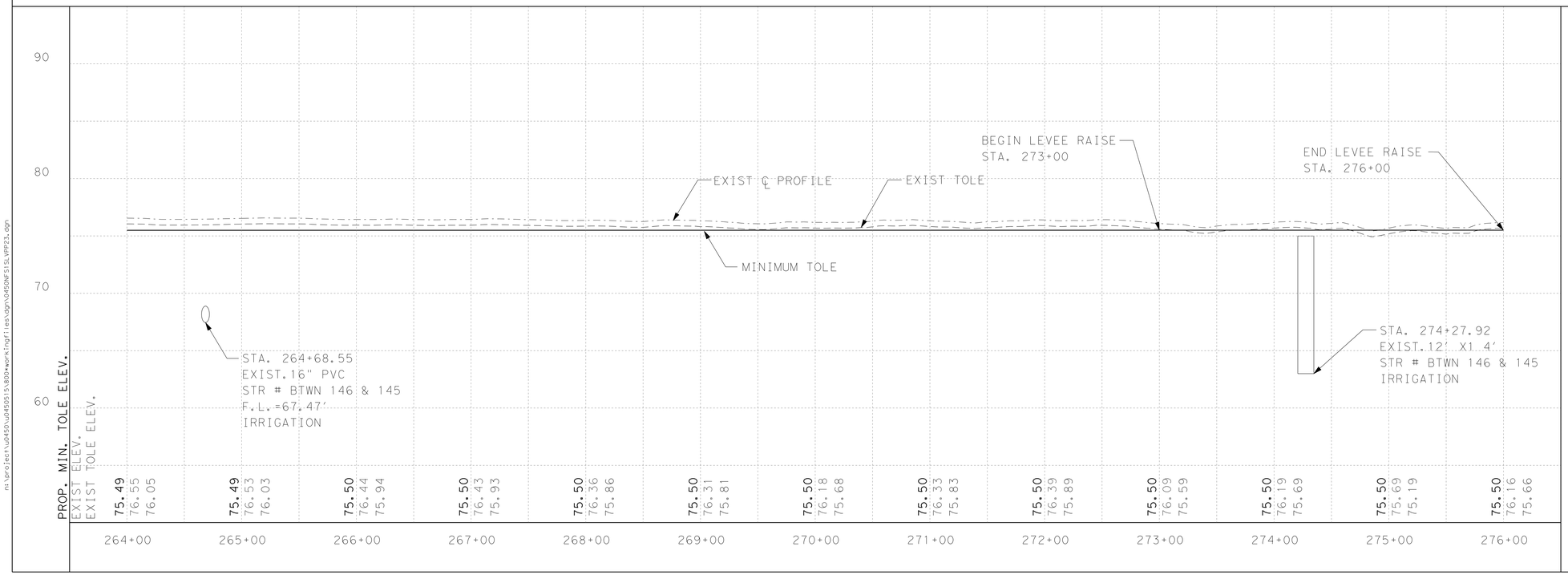
V: 1"=5'



PLAN VIEW LEGEND

- PROP CENTERLINE
- EXIST RIGHT-OF-WAY
- EXIST GEOTECHNICAL BORE
- EXIST FLOODWALL
- EL-OH — EXIST OVERHEAD UTILITY LINE
- EXIST SIGN
- 101 — EXIST CONTOURS
- EXIST LEVEE TOE
- F/O — EXIST FIBER OPTIC LINE
- GAS — EXIST GAS LINE
- W — EXIST WATER LINE
- T — EXIST TELEPHONE LINE
- X — EXIST FENCE
- PROP SEDIMENT CONTROL FENCE
- WATER BOUNDARY
- PROP LEVEE MAINTENANCE ROAD

NOTES:

WHEN EXISTING TOP OF LEVEE ELEVATION (TOLE) IS > THE MINIMUM TOLE, THE LEVEE SHALL NOT BE MODIFIED UNLESS OTHERWISE SHOWN ON PLAN. THE TOLE SHOWN HAS BEEN ADJUSTED BY 1.5"TO ACCOUNT FOR SETTLEMENT.

PLANIMETRIC AND RIGHT OF WAY INFORMATION WAS OBTAINED FROM FIELD SURVEYS CONDUCTED BY RODS SURVEYING, INC. AND DOS LAND SURVEYING RESPECTIVELY

VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88)

IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATION OF ALL EXISTING UTILITIES (SHOWN/NOT SHOWN) PRIOR TO CONSTRUCTION.

DIV	ITEM	DESC CODE	DESCRIPTION	UNIT	EST	FINAL
01	57	01	TEMP EROSION CONTROL (SILT FENCE)	LF	700	
01	57	02	TEMP EROSION CONTROL (CONST EXIT)	SY		
02	91	10	REMOVE/RELOCATE EXIST FENCE	LF		
31	11	10	PREP ROW	STA	3	
31	14	01	REMOVE/STKPL (EXISTING GRAVEL)	CY	3	
31	14	02	REMOVE/STKPL (EXIST TOPSOIL 6")	CY	18	
31	92	01	SEEDING PERM	SY	24	
31	92	02	VEGETATIVE WATERING	MG	0.048	
35	41	01	RAISE LEVEE (BENCH EXCAVATION)	CY	260	
35	41	02	RAISE LEVEE (EMBANKMENT)	CY	281	
35	41	03	RAISE LEVEE (TOP SOIL)	CY	4	
50	20	01	ROADWAY FLEXBASE TY E GR 4	CY	92	
50	21	01	PRIME OIL (MC-30)	GAL		
50	25	01	HOT MIX ASPH SURF	TON		
90	79	01	VEHICULAR GATE	EA		

INTERNATIONAL BOUNDARY AND WATER COMMISSION
COMISION INTERNACIONAL DE LIMITES Y AGUAS

S&B INFRASTRUCTURE, LTD.
Engineering Management Technology

S&B Infrastructure, Ltd. Firm Registration Number: 1582

STATE OF TEXAS
PHILLIP J. PAWELEK
82739
REGISTERED PROFESSIONAL ENGINEER

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ADDENDUM No. 2

Phillip J. Pawelek, P.E.

NORTH FLOODWAY SOUTH LEVEE PLAN & PROFILE

STA. 264+00 TO STA. 276+00

SHEET 23 OF 26 SHEET

STATE	COUNTY	DRAWN BY: JL / JJL	CHECKED BY: PP	
TEXAS	HIDALGO	PROJECT NO. IBM09T0018		SHEET NO.
REHABILITATION OF NORTH FLOODWAY NORTH AND SOUTH LEVEES (FM 1015 TO BASELINE RD)				08.61

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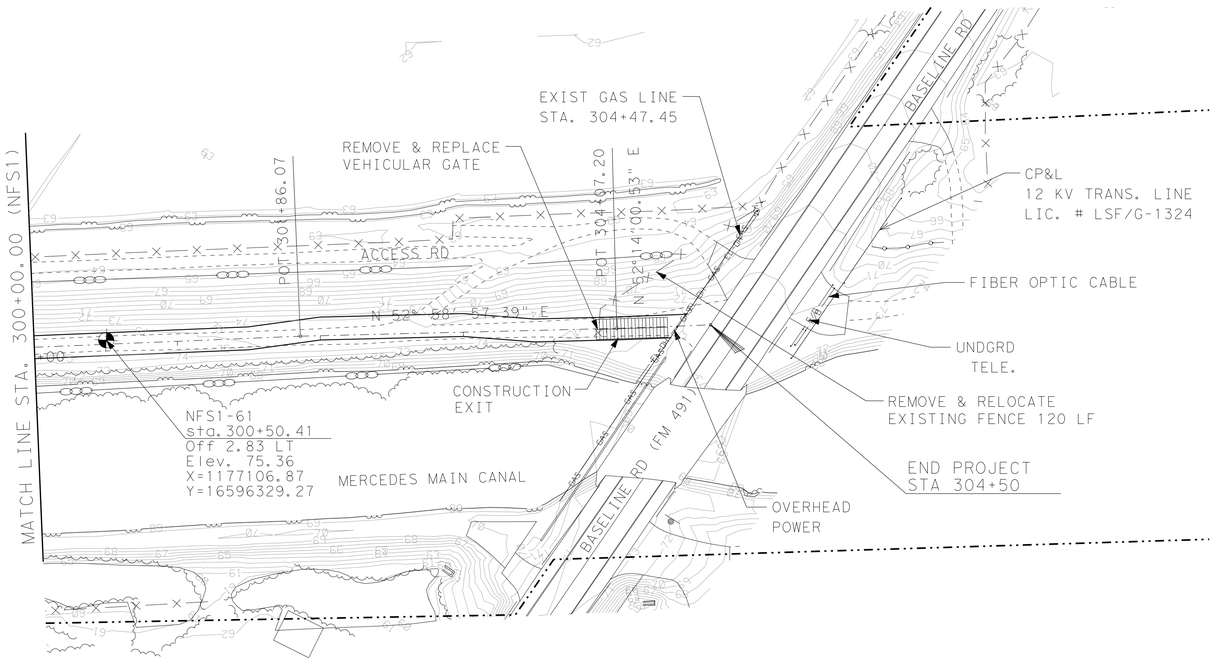
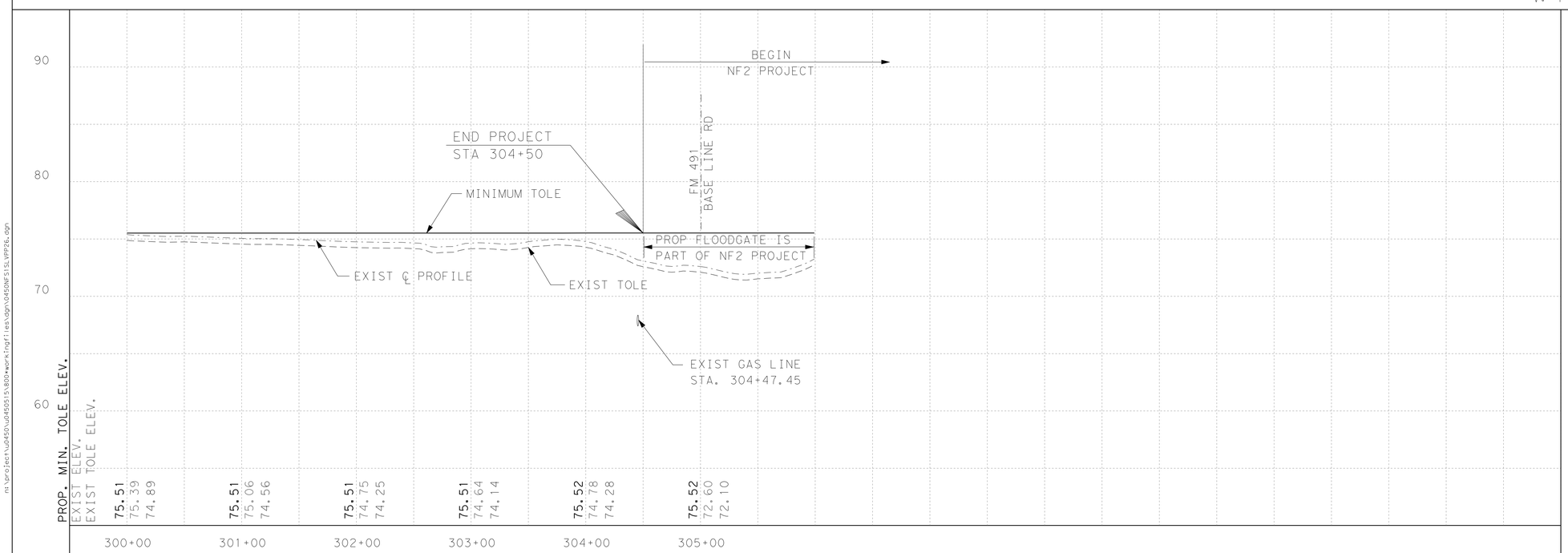


SCALE: H: 1"=50'
V: 1"=5'



PLAN VIEW LEGEND

- PROP CENTERLINE
- EXIST RIGHT-OF-WAY
- EXIST GEOTECHNICAL BORE
- EXIST FLOODWALL
- EL-OH — EXIST OVERHEAD UTILITY LINE
- EXIST SIGN
- 101 — EXIST CONTOURS
- EXIST LEVEE TOE
- F/O — EXIST FIBER OPTIC LINE
- GAS — EXIST GAS LINE
- W — EXIST WATER LINE
- T — EXIST TELEPHONE LINE
- X — EXIST FENCE
- PROP SEDIMENT CONTROL FENCE
- WATER BOUNDARY
- PROP LEVEE MAINTENANCE ROAD

NOTES:

WHEN EXISTING TOP OF LEVEE ELEVATION (TOLE) IS > THE MINIMUM TOLE, THE LEVEE SHALL NOT BE MODIFIED UNLESS OTHERWISE SHOWN ON PLAN. THE TOLE SHOWN HAS BEEN ADJUSTED BY 1.5"TO ACCOUNT FOR SETTLEMENT.

PLANIMETRIC AND RIGHT OF WAY INFORMATION WAS OBTAINED FROM FIELD SURVEYS CONDUCTED BY RODS SURVEYING, INC. AND DOS LAND SURVEYING RESPECTIVELY

VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88)

IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATION OF ALL EXISTING UTILITIES (SHOWN/NOT SHOWN) PRIOR TO CONSTRUCTION.

DIV	ITEM	DESC CODE	DESCRIPTION	UNIT	EST	FINAL
01	57	01	TEMP EROSION CONTROL (SILT FENCE)	LF	900	
01	57	02	TEMP EROSION CONTROL (CONST EXIT)	SY	180	
02	91	10	REMOVE/RELOCATE EXIST FENCE	LF	120	
31	11	10	PREP ROW	STA	4.5	
31	14	01	REMOVE/STKPL (EXISTING GRAVEL)	CY	78	
31	14	02	REMOVE/STKPL (EXIST TOPSOIL 6")	CY	252	
31	92	01	SEEDING PERM	SY	1301	
31	92	02	VEGETATIVE WATERING	MG	2.602	
35	41	01	RAISE LEVEE (BENCH EXCAVATION)	CY	757	
35	41	02	RAISE LEVEE (EMBANKMENT)	CY	1648	
35	41	03	RAISE LEVEE (TOP SOIL)	CY	216	
50	20	01	ROADWAY FLEXBASE TY E GR 4	CY	155	
50	21	01	PRIME OIL (MC-30)	GAL		
50	25	01	HOT MIX ASPH SURF	TON		
90	79	01	VEHICULAR GATE	EA	1	

INTERNATIONAL BOUNDARY AND WATER COMMISSION
COMISION INTERNACIONAL DE LIMITES Y AGUAS

S&B INFRASTRUCTURE, LTD.
Engineering Management Technology

S&B Infrastructure, Ltd. Firm Registration Number: 1582

STATE OF TEXAS
PHILLIP J. PAWELEK
82739
REGISTERED PROFESSIONAL ENGINEER

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Phillip J. Pawelek, P.E.

ADDENDUM No. 2

NORTH FLOODWAY SOUTH LEVEE PLAN & PROFILE

STA. 300+00 TO STA. 305+99.27

SHEET 26 OF 26 SHEET

STATE	COUNTY	DRAWN BY: JL/JJL	CHECKED BY: PP	
TEXAS	HIDALGO	PROJECT NO. IBM09T0018		SHEET NO.
REHABILITATION OF NORTH FLOODWAY NORTH AND SOUTH LEVEES (FM 1015 TO BASELINE RD)				08.64

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07/29/2009
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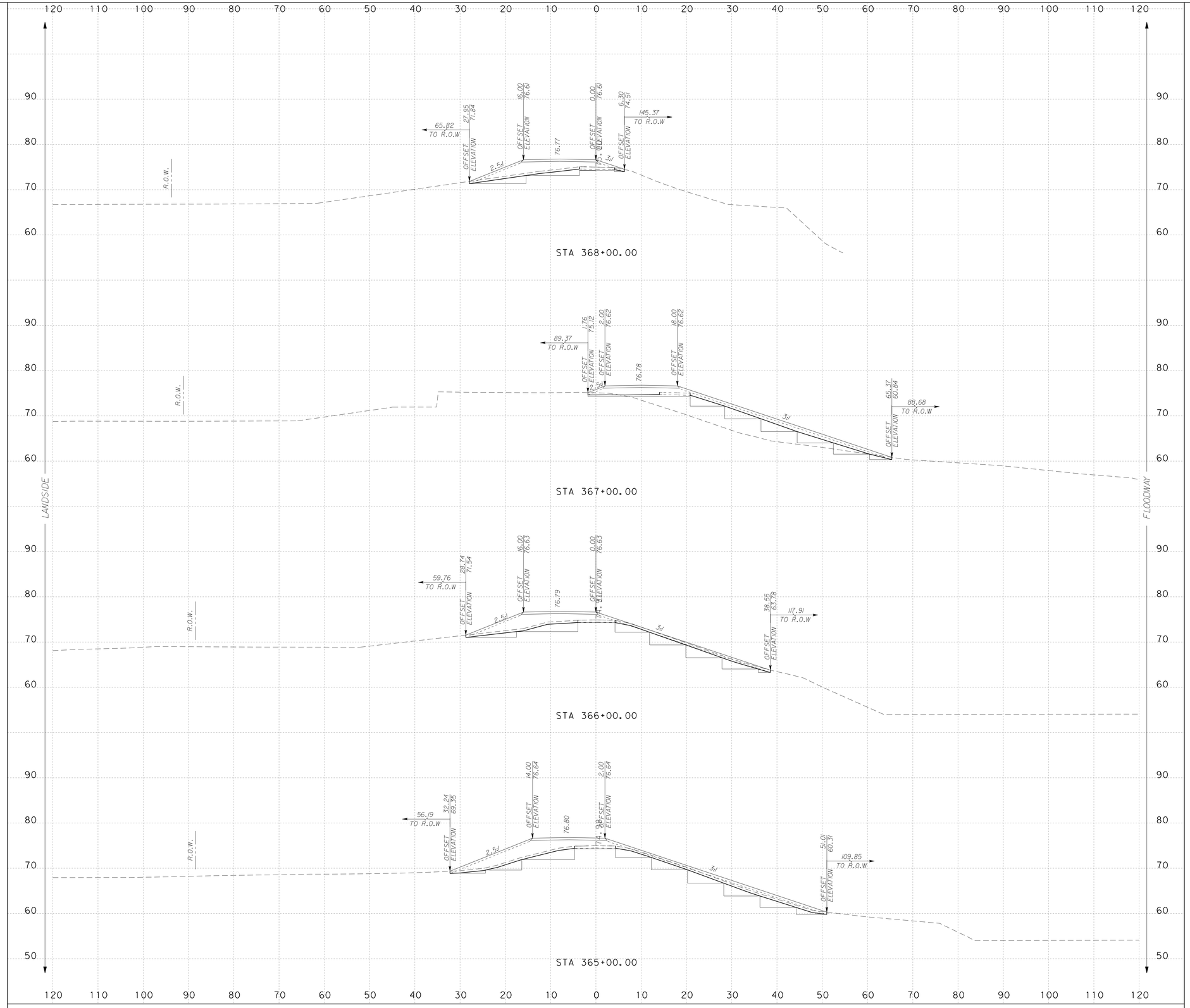

NOTES:

SURFACE DRAINAGE SHALL BE ESTABLISHED BY THE CONTRACTOR PRIOR TO AND DURING CONSTRUCTION TO PREVENT WATER FROM PONDING WITHIN OR ADJACENT TO THE LEVEE STRUCTURE.

IT IS INTENDED THAT THE FINAL SECTION OF THE PROPOSED LEVEE SHALL FACILITATE RAPID DRAINAGE AWAY FROM THE LEVEE STRUCTURE.

SCALE: H : 1"=10'
V : 1"=10'

INTERNATIONAL BOUNDARY AND WATER COMMISSION
COMISION INTERNACIONAL DE LIMITES Y AGUAS

S&B INFRASTRUCTURE, LTD.
Engineering Management Technology

S&B Infrastructure, Ltd. Firm Registration Number: 1582

STATE OF TEXAS
PHILLIP J. PAWELEK
82739
REGISTERED PROFESSIONAL ENGINEER

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Phillip J. Pawelek, P.E.

ADDENDUM No. 2

NORTH FLOODWAY NORTH (NFN1)
PROPOSED CROSS SECTIONS

SHEET 95 OF 112 SHEET

STATE	COUNTY	DRAWN BY: JL	CHECKED BY: JL	
TEXAS	HIDALGO	PROJECT NO. IBM09T0018		SHEET NO.
REHABILITATION OF NORTH FLOODWAY NORTH AND SOUTH LEVEES (FM 1015 - BASELINE RD.)				10.95

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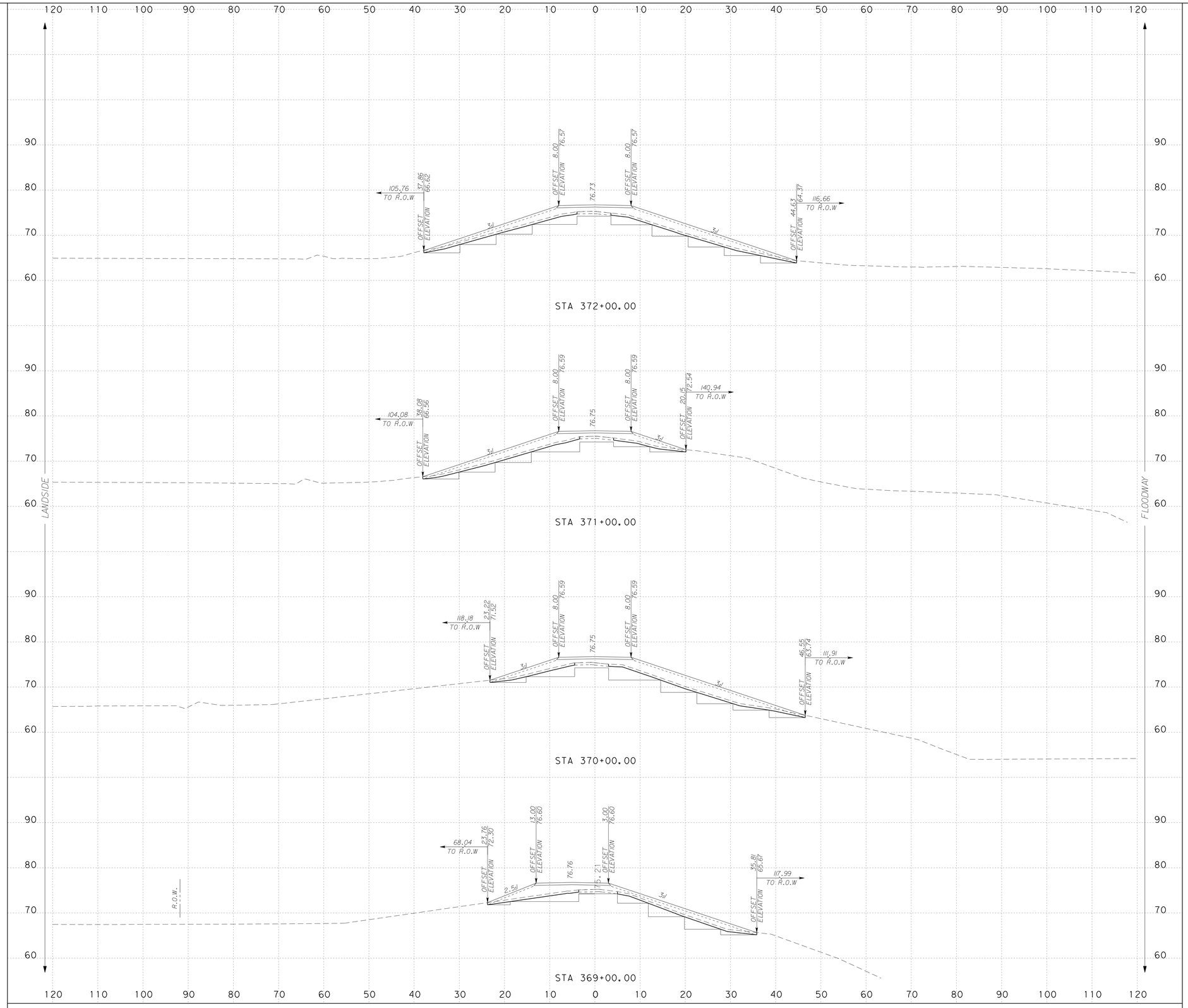

NOTES:

SURFACE DRAINAGE SHALL BE ESTABLISHED BY THE CONTRACTOR PRIOR TO AND DURING CONSTRUCTION TO PREVENT WATER FROM PONDING WITHIN OR ADJACENT TO THE LEVEE STRUCTURE.

IT IS INTENDED THAT THE FINAL SECTION OF THE PROPOSED LEVEE SHALL FACILITATE RAPID DRAINAGE AWAY FROM THE LEVEE STRUCTURE.

SCALE: H : 1"=10'
V : 1"=10'

S&B INFRASTRUCTURE, LTD.
Engineering Management Technology

S&B Infrastructure, Ltd. Firm Registration Number: 1582

STATE OF TEXAS
PHILLIP J. PAWELEK
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ADDENDUM No. 2

Phillip J. Pawelek, P.E.

NORTH FLOODWAY NORTH (NFN1)
PROPOSED CROSS SECTIONS

SHEET 96 OF 112 SHEET

STATE	COUNTY	DRAWN BY: JL	CHECKED BY: JL	
TEXAS	HIDALGO	PROJECT NO. IBM09T0018		SHEET NO.
REHABILITATION OF NORTH FLOODWAY NORTH AND SOUTH LEVEES (FM 1015 - BASELINE RD.)				10.96

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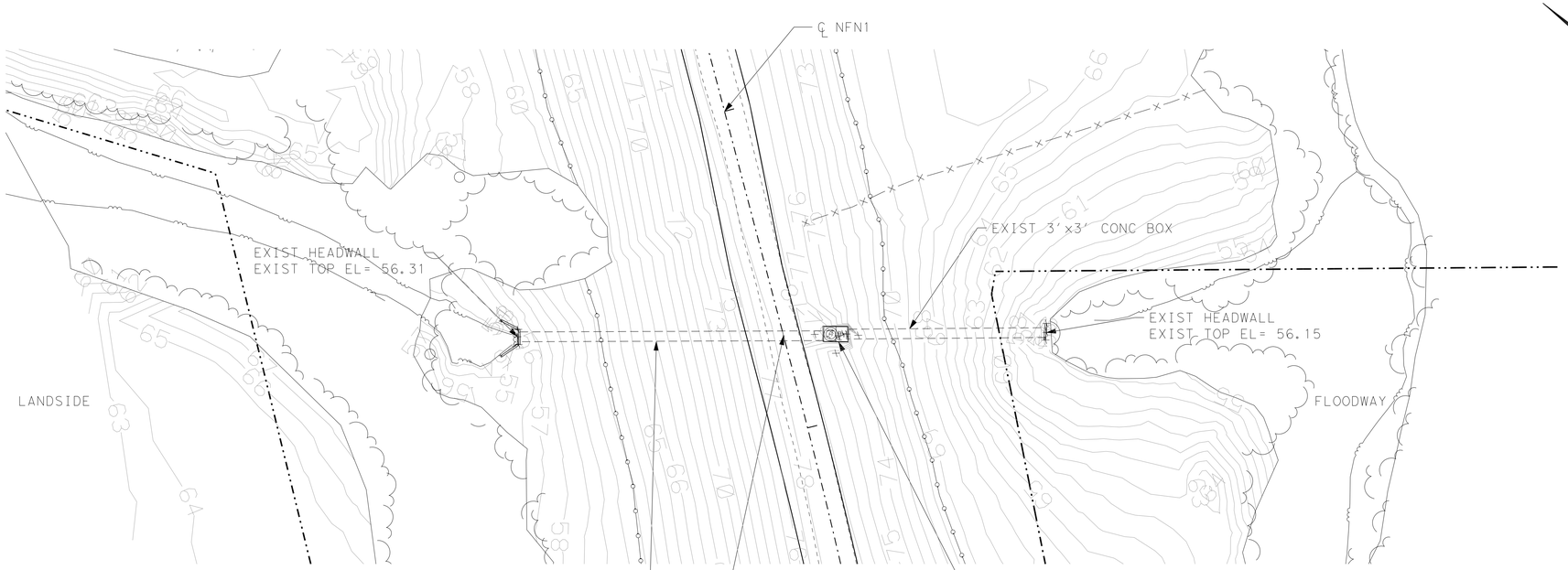


STRUCTURE TYPE:
DRAINAGE

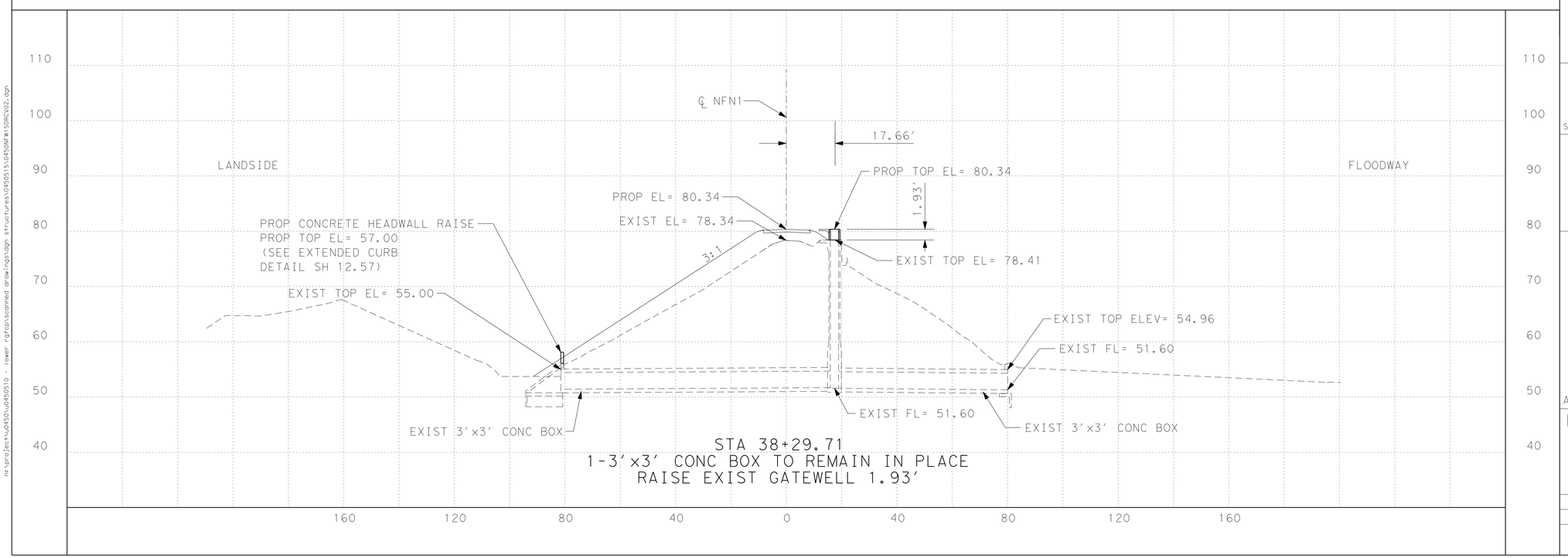
SCALE H: 1"=20'
V: 1"=10'

PLAN VIEW LEGEND

- PROP CENTERLINE
- EXIST RIGHT-OF-WAY
- EXIST GEOTECHNICAL BORE
- EXIST FLOODWALL
- EL-OH — EXIST OVERHEAD UTILITY LINE
- EXIST SIGN
- 101 — EXIST CONTOURS
- EXIST LEVEE TOE
- F/O — EXIST FIBER OPTIC LINE
- GAS — EXIST GAS LINE
- W — EXIST WATER LINE
- T — EXIST TELEPHONE LINE
- X — X — EXIST FENCE
- PROP SEDIMENT CONTROL FENCE
- WATER BOUNDARY
- PROP LEVEE MAINTENANCE ROAD

NOTES:

1. CULVERT INFORMATION TAKEN FROM AS BUILT PROVIDED BY IBWC IF AVAILABLE.
2. CULVERTS WERE NOT CHECKED FOR HYDRAULICS ADEQUACY UNDER THIS TASK ORDER.
3. FOR GATEWELL ADJUSTMENT REFER TO SHEETS 12.58 & 12.59.
4. FOR CULVERT EXTENSION REFER TO SHEETS 12.60, & 12.61.
5. FOR CURB EXTENSION REFER TO SHEET 12.57.



S&B INFRASTRUCTURE, LTD.
Engineering Management Technology
S&B Infrastructure, Ltd. Firm Registration Number: 1582

DL, INC.
DOS LOGISTICS, INC.
212 W. 3rd Sreet Phone: (956) 968-8800
Weslaco, Tx. 78596 Fax: (956) 447-8194
Dos Logistics, Inc. Firm Registration Number: F-9225

STATE OF TEXAS
JOSE G. REYES JR.
93827
LICENSED
PROFESSIONAL ENGINEER

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ADDENDUM No. 2

NORTH FLOODWAY NORTH LEVEE (NFN1)
STRUCTURE NO. 111
STA 38+29.71

SHEET 2 OF 50

STATE	COUNTY	DRAWN BY:	CHECKED BY:	
TEXAS	HIDALGO	PROJECT NO.	IBM09T0018	SHEET NO.
REHABILITATION OF NORTH FLOODWAY NORTH AND SOUTH LEVEES (FM 1015 TO BASELINE RD)				12.06

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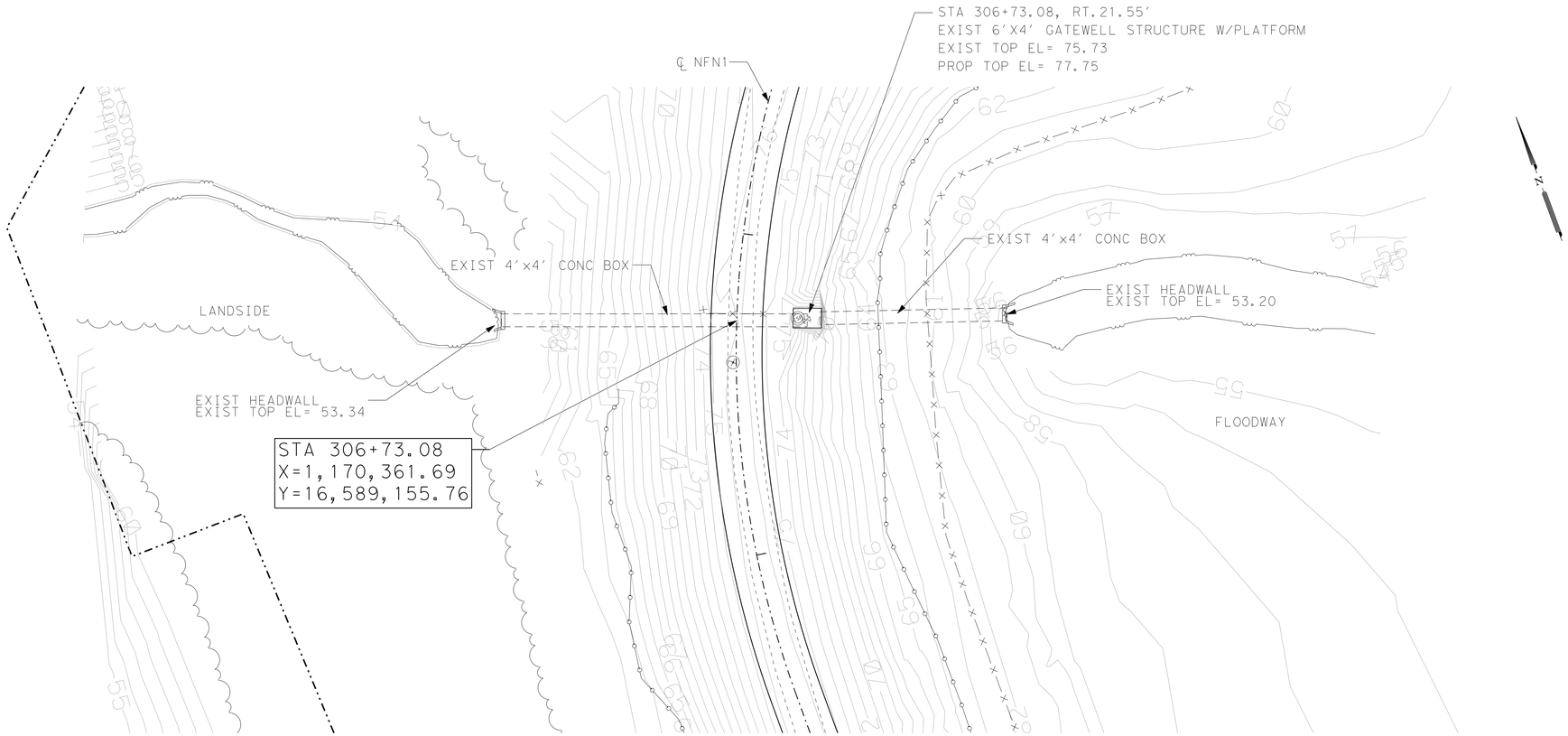

PLAN VIEW LEGEND

- PROP CENTERLINE
- EXIST RIGHT-OF-WAY
- EXIST GEOTECHNICAL BORE
- EXIST FLOODWALL
- EL-OH — EXIST OVERHEAD UTILITY LINE
- EXIST SIGN
- 101 — EXIST CONTOURS
- EXIST LEVEE TOE
- F/O — EXIST FIBER OPTIC LINE
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- W — EXIST WATER LINE
- T — EXIST TELEPHONE LINE
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- WATER BOUNDARY
- PROP LEVEE MAINTENANCE ROAD

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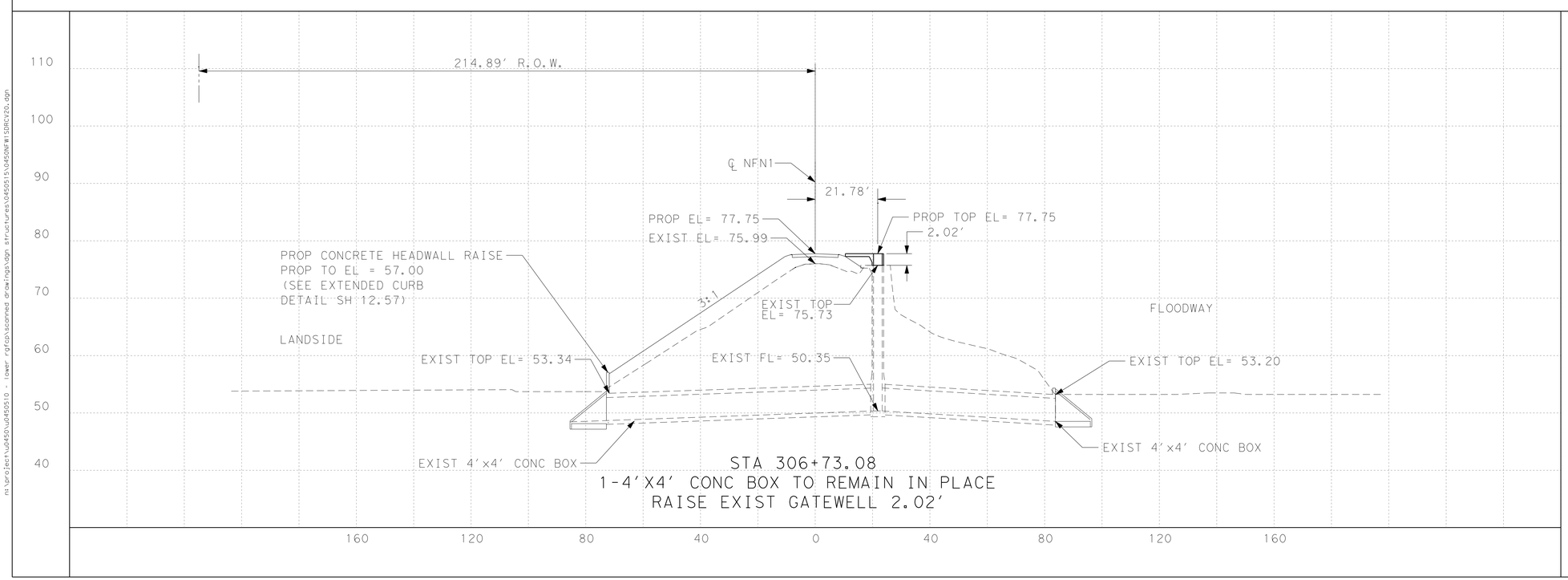
4. FOR CULVERT EXTENSION REFER TO SHEETS 12.60, & 12.61.
5. FOR CURB EXTENSION REFER TO SHEET 12.57.

STRUCTURE TYPE:
DRAINAGE

SCALE H: 1"=20'
V: 1"=10'



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Engineering Management Technology
S&B Infrastructure, Ltd. Firm Registration Number: 1582

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93827
LICENSED
PROFESSIONAL ENGINEER

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ADDENDUM No. 2

NORTH FLOODWAY NORTH LEVEE (NFN1) STRUCTURE NO. 130 STA 306+73.08

SHEET 20 OF 50

STATE	COUNTY	DRAWN BY:	CHECKED BY:	
TEXAS	HIDALGO	PROJECT NO.	IBM09T0018	SHEET NO.
REHABILITATION OF NORTH FLOODWAY NORTH AND SOUTH LEVEES (FM 1015 TO BASELINE RD)				12.24

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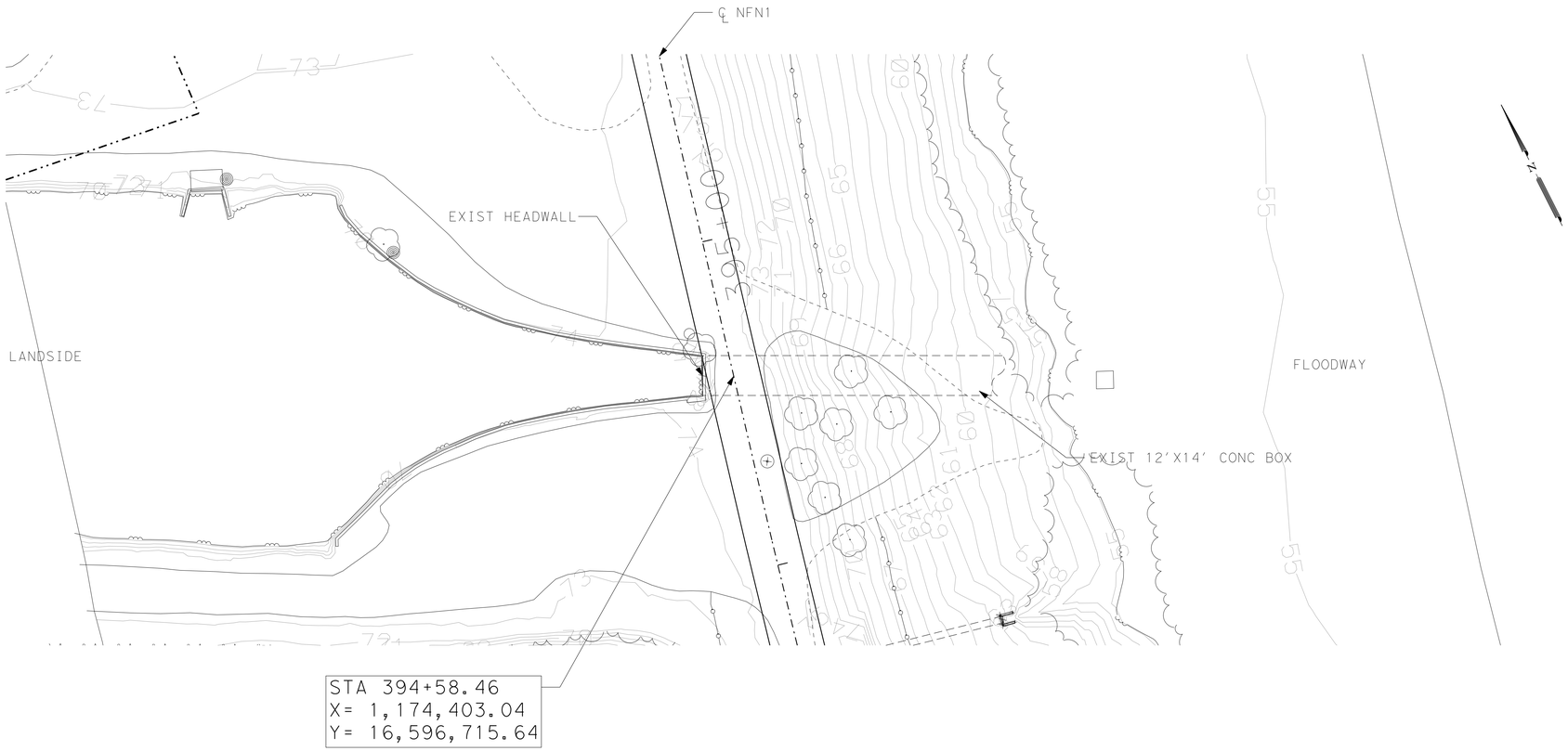

STRUCTURE TYPE:
IRRIGATION

SCALE H: 1"=20'
V: 1"=10'

PLAN VIEW LEGEND

- PROP CENTERLINE
- EXIST RIGHT-OF-WAY
- EXIST GEOTECHNICAL BORE
- EXIST FLOODWALL
- EL-OH — EXIST OVERHEAD UTILITY LINE
- EXIST SIGN
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- WATER BOUNDARY
- PROP LEVEE MAINTENANCE ROAD

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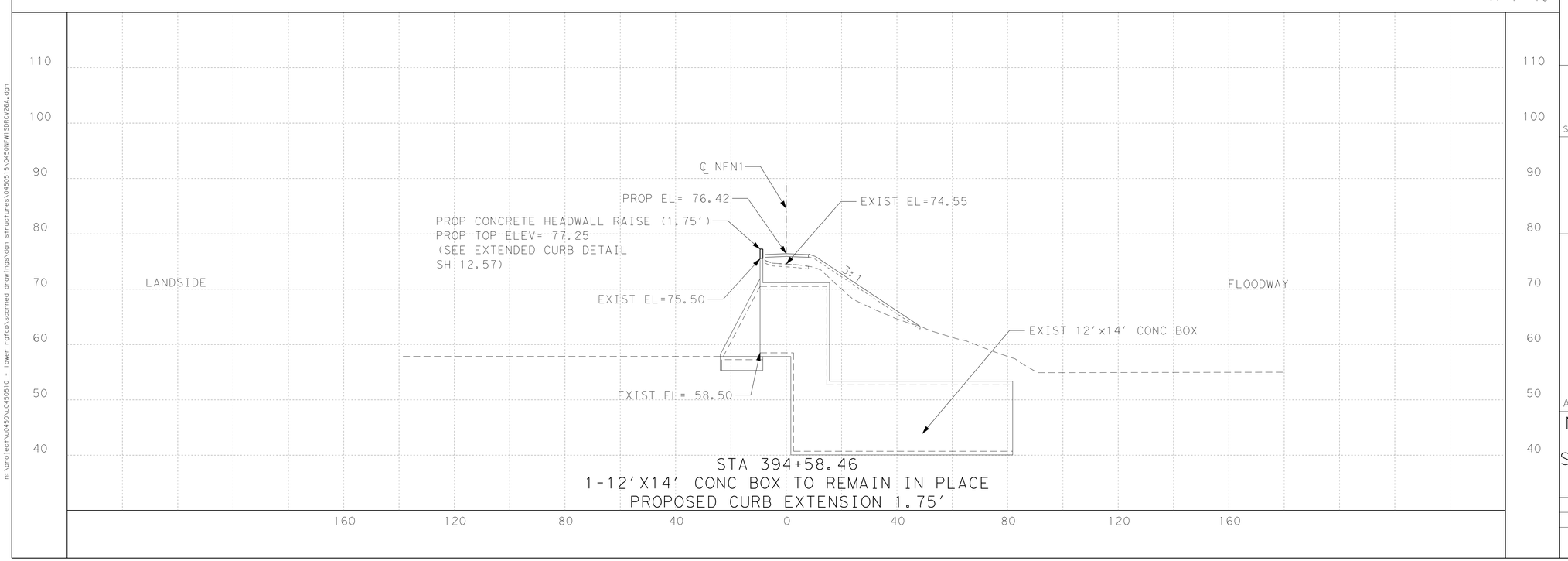
5. FOR CURB EXTENSION REFER TO SHEET 12.57.



STA 394+58.46
1-12'X14' CONC BOX TO REMAIN IN PLACE
PROPOSED CURB EXTENSION 1.75'

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212 W. 3rd Sreet
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Dos Logistics, Inc. Firm Registration Number: F-9225

STATE OF TEXAS
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93827
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PROFESSIONAL ENGINEER

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ADDENDUM No. 2

NORTH FLOODWAY NORTH LEVEE
(NFN1)
STRUCTURE NO. BTWN 137A&138
STA 394+58.46

SHEET 27 OF 50

STATE	COUNTY	DRAWN BY:	CHECKED BY:	
TEXAS	HIDALGO	PROJECT NO. IBM09T0018		SHEET NO.
REHABILITATION OF NORTH FLOODWAY NORTH AND SOUTH LEVEES (FM 1015 TO BASELINE RD)				12.31

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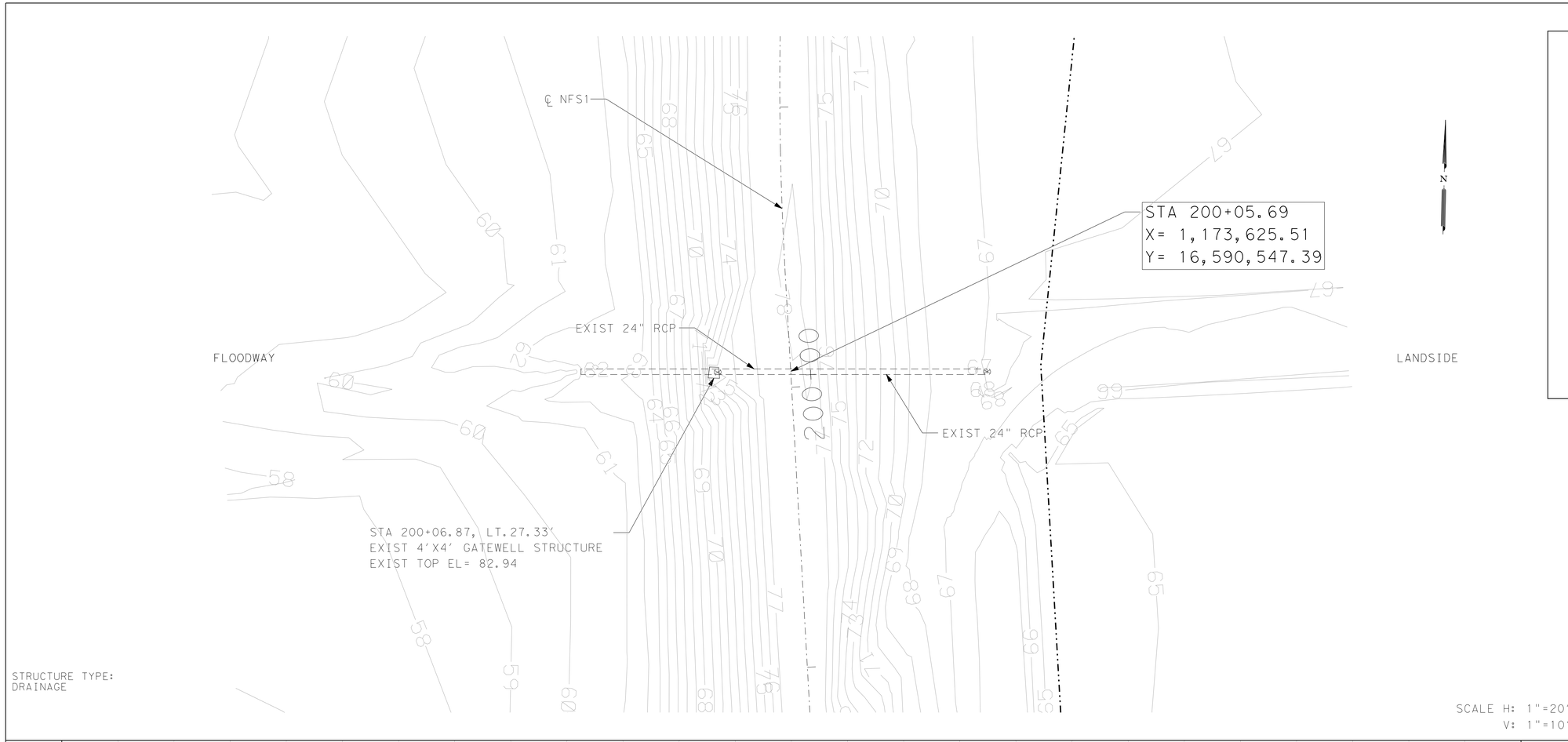

STRUCTURE TYPE:
DRAINAGE

SCALE H: 1"=20'
V: 1"=10'

PLAN VIEW LEGEND

- PROP CENTERLINE
- EXIST RIGHT-OF-WAY
- EXIST GEOTECHNICAL BORE
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- EXIST SIGN
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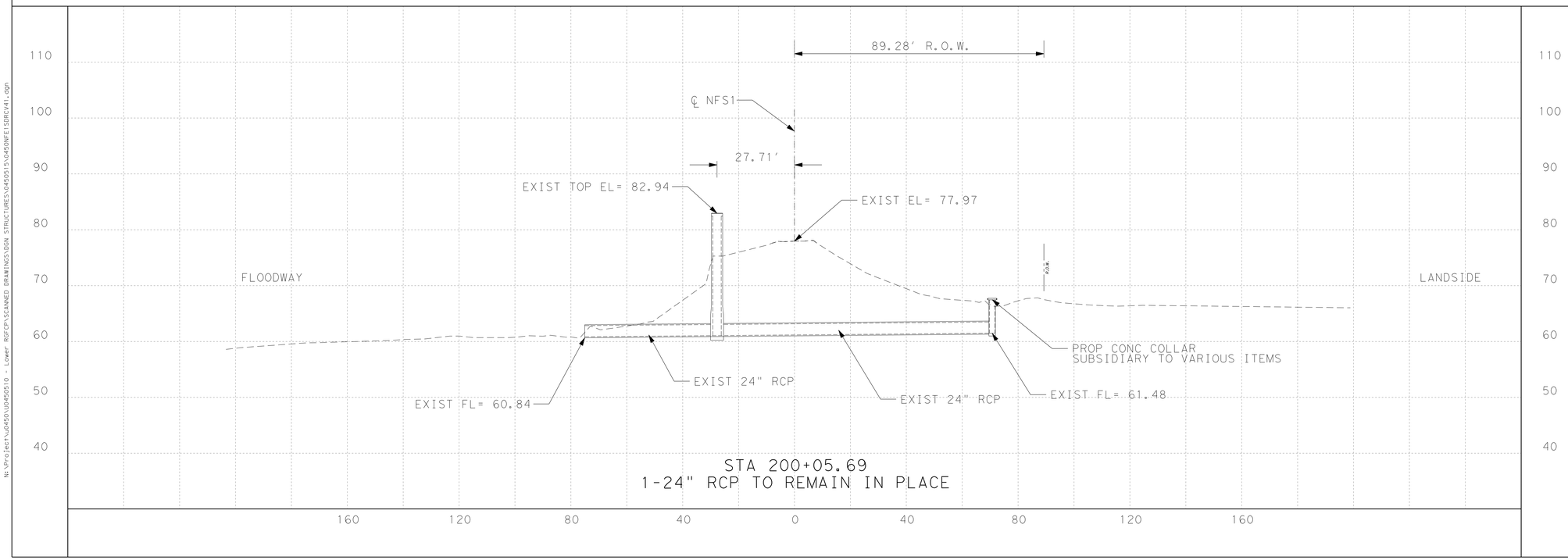

STA 200+05.69
1-24" RCP TO REMAIN IN PLACE

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S&B INFRASTRUCTURE, LTD.
Engineering Management Technology
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DOS LOGISTICS, INC.
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Dos Logistics, Inc. Firm Registration Number: F-9225

STATE OF TEXAS
JOSE G. REYES JR.
93827
LICENSED
PROFESSIONAL ENGINEER

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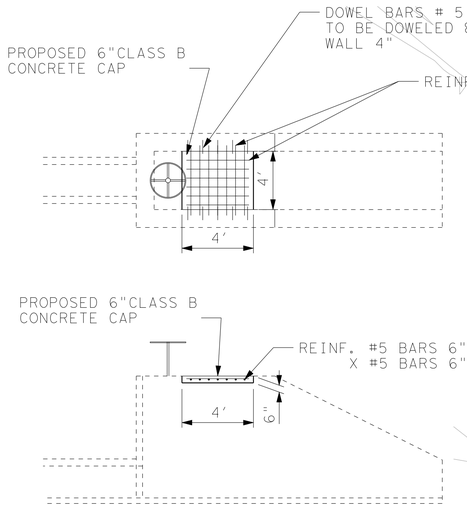
ADDENDUM No. 2

NORTH FLOODWAY SOUTH LEVEE
(NFS1)
STRUCTURE NO. 149
STA 200+05.69

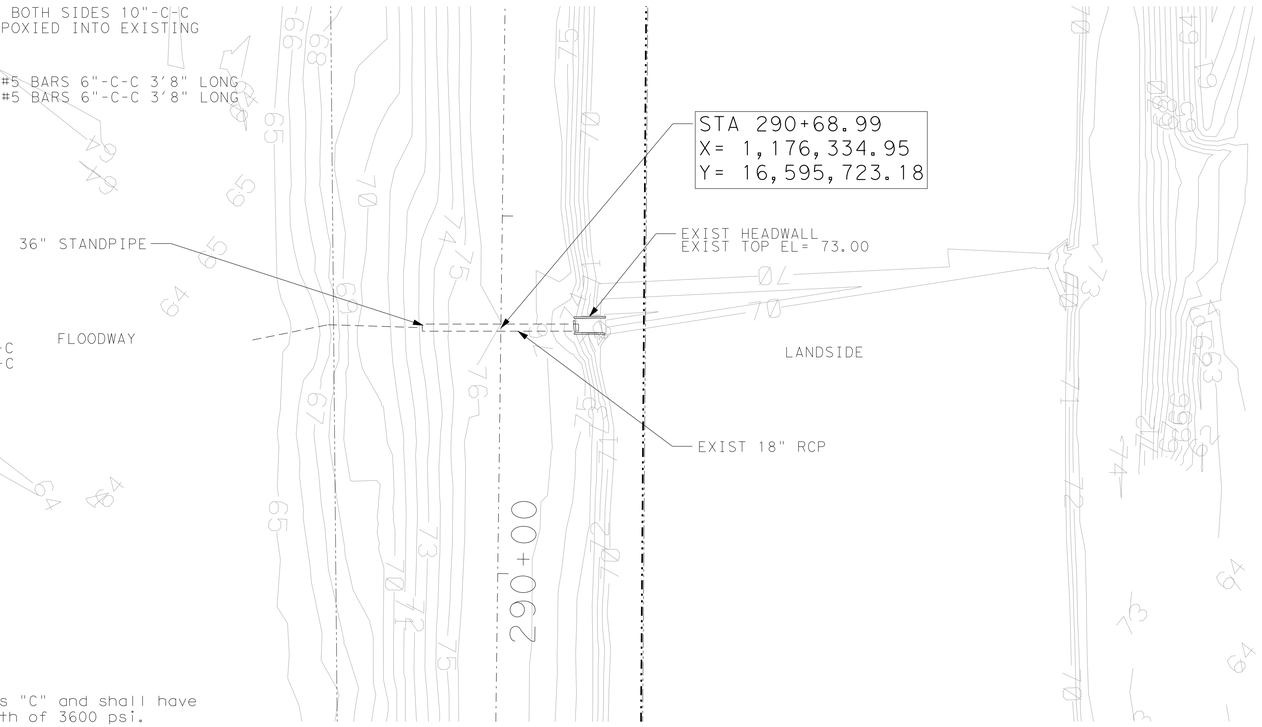
SHEET 41 OF 50

STATE	COUNTY	DRAWN BY:	CHECKED BY:	
TEXAS	HIDALGO	PROJECT NO. IBM09T0018		SHEET NO.
REHABILITATION OF NORTH FLOODWAY NORTH AND SOUTH LEVEES (FM 1015 TO BASELINE RD)				12.44



CONCRETE CAP SECTION

CONC (CY)	REBAR (LBS)
0.30	61.00



PLAN VIEW LEGEND

- PROP CENTERLINE
- EXIST RIGHT-OF-WAY
- EXIST GEOTECHNICAL BORE
- EXIST FLOODWALL
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NOTES:

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4. FOR CULVERT EXTENSION REFER TO SHEETS 12.60, & 12.61.
5. FOR CURB EXTENSION REFER TO SHEET 12.57.

GENERAL NOTES:

All concrete shall be Class "C" and shall have a minimum compressive strength of 3600 psi.

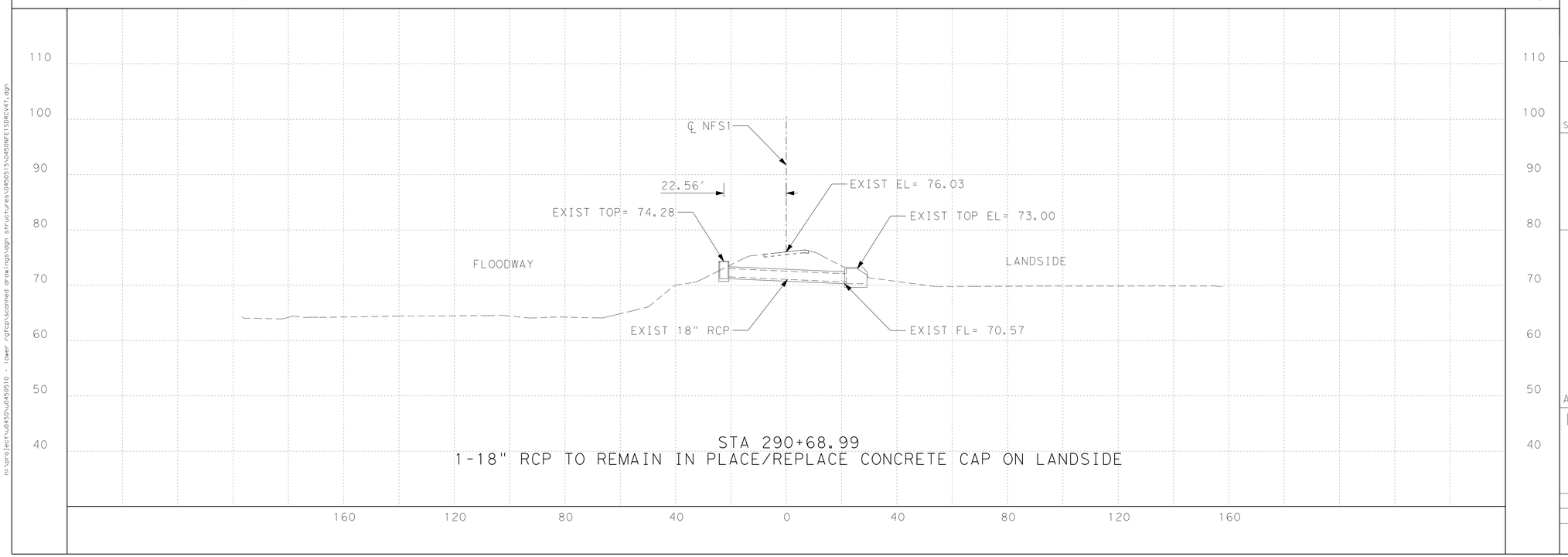
All reinforcing steel shall be Grade 60. All reinforcing shall be adjusted as necessary to provide a minimum clear cover of 1 ¼".

The quantities for concrete, reinforcing steel, and herein are for Contractor's information only.

To be paid under 60 66 40

STRUCTURE TYPE:
IRRIGATION

SCALE: H: 1"=20'
V: 1"=10'



STA 290+68.99
1-18" RCP TO REMAIN IN PLACE/REPLACE CONCRETE CAP ON LANDSIDE

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Engineering Management Technology
S&B Infrastructure, Ltd. Firm Registration Number: 1582

DL, INC.
DOS LOGISTICS, INC.
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Phone: (956) 968-8800 Fax: (956) 447-8194
Dos Logistics, Inc. Firm Registration Number: F-9225

STATE OF TEXAS
JOSE G. REYES JR.
93827
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PROFESSIONAL ENGINEER

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ADDENDUM No. 2

NORTH FLOODWAY SOUTH LEVEE (NFS1)
STRUCTURE NO. 145
STA 290+68.99

SHEET 50 OF 50

STATE	COUNTY	DRAWN BY:	CHECKED BY:	
TEXAS	HIDALGO	PROJECT NO.	IBM09T0018	SHEET NO.
REHABILITATION OF NORTH FLOODWAY NORTH AND SOUTH LEVEES (FM 1015 TO BASELINE RD)				12.53

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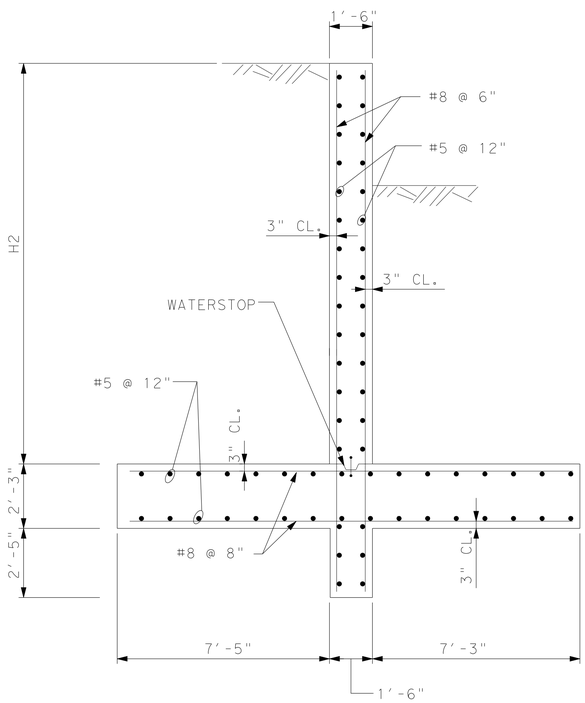
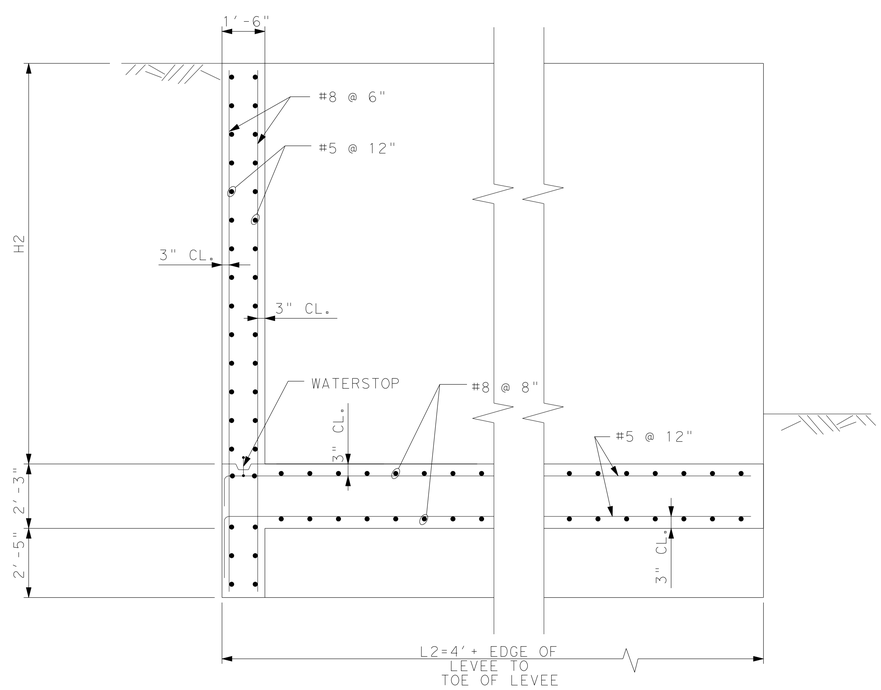
TABLE OF RETAINING WALL

NAME OF OPENING	STATION OF	STATION OF END FLOODGATE	Levee	Width (W) (ft)	Levee (H1) (ft)	WALL Ht (H2) (ft)	(H3) (ft)	(H4) (ft)	EDGE OF LEVEE TO TOE OF LEVEE	Angle (°)	(L1) (ft)	LEFT OF RETAINING WALL AREA	(L2) (ft)	RIGHT OF RETAINING WALL AREA
OLD HIGHWAY 83	STA 195+57	STA 196+70	NORTH	150	16	18	5	4.15	48	0	52	936	52	936
OLD HIGHWAY 83	STA 89+18	STA 90+24	SOUTH	150	19	21	5	4.15	57	1	61	1281	61	1281



SECTION A-A



SECTION B-B

NOTES:

1. DESIGN ACCORDING TO ACI 318-08.
2. ALL CONCRETE SHALL BE CLASS "C", FC'=3600 PSI.
3. ALL REINFORCING STEEL SHALL BE ASTM A615, GRADE 60.
4. CONTRACTOR PLEASE FIELD VERIFY ALL THE DIMENSIONS BEFORE CONSTRUCTION.

S&B INFRASTRUCTURE, LTD.
Engineering Management Technology

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STATE OF TEXAS
MANCHING WEI
84851
REGISTERED PROFESSIONAL ENGINEER

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ADDENDUM No. 2

NORTH FLOODWAY
NF1
FLOODGATE DETAILS

SHEET 2 OF 2 SHEET

STATE	COUNTY	DRAWN BY: JZ	CHECKED BY: MW	
TEXAS	HIDALGO	PROJECT NO. IBM09T0018		SHEET NO.
REHABILITATION OF NORTH FLOODWAY NORTH AND SOUTH LEVEES (FM 1015 TO BASELINE RD)				12.63

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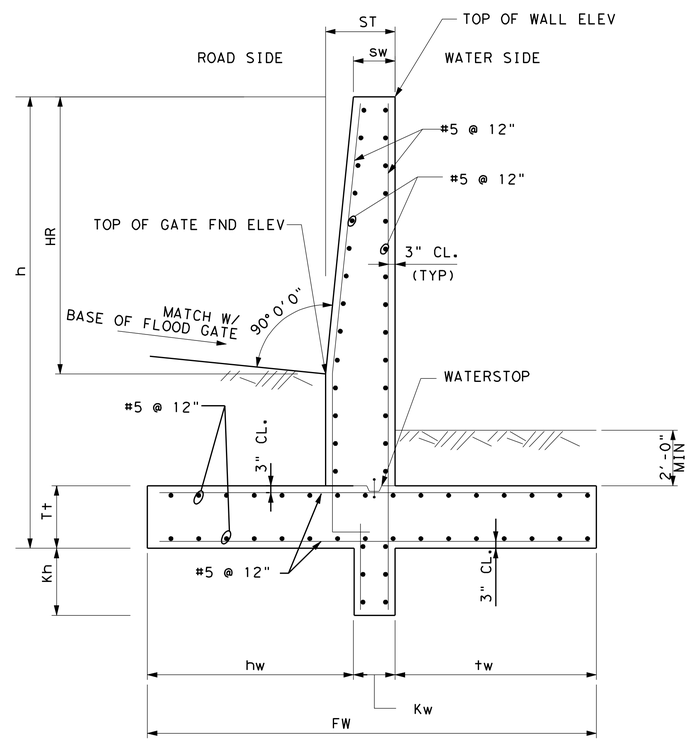
TABLE OF FLOOD WALL CONNECTING FLOOD GATE

NAME OF OPENING	STA /OFFSET BEGIN FLOOD GATE	STA /OFFSET END FLOOD GATE	Levee	HW (FT)	ST (FT)	SW (FT)	TW (FT)	FW (FT)	H (FT)	HR (FT)	TT (FT)	KH (FT)	KW (FT)	WALL AREA (SQFT)	TOP OF WALL ELEV (FT)	TOP OF GATE ELEV (FT)*
NORTH FLOODWAY (NF1)	6+07.34, 8.00 RT	6+27.34, 8.00 RT	NORTH	2.50	1.16#	1.00	2.00	5.50	6.06	1.61*	5	1.00	1.00	96.2	80.00	78.08*



SECTION A-A

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4. CONTRACTOR PLEASE FIELD VERIFY ALL THE DIMENSIONS BEFORE CONSTRUCTION.

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Engineering Management Technology
S&B Infrastructure, Ltd. Firm Registration Number: 1582

STATE OF TEXAS
MANCHING WEI
84851
REGISTERED PROFESSIONAL ENGINEER

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ADDENDUM No. 2

NORTH FLOODWAY
FLOODWALL AT
FLOOD DATE DETAILS

SHEET 1 OF 2 SHEETS

STATE	COUNTY	DRAWN BY: JZ	CHECKED BY: MW	
TEXAS	HIDALGO	PROJECT NO. IBM09T0018		SHEET NO.
REHABILITATION OF NORTH FLOODWAY NORTH AND SOUTH LEVEES (FM 1015-BASELINE ROAD)				12.63A

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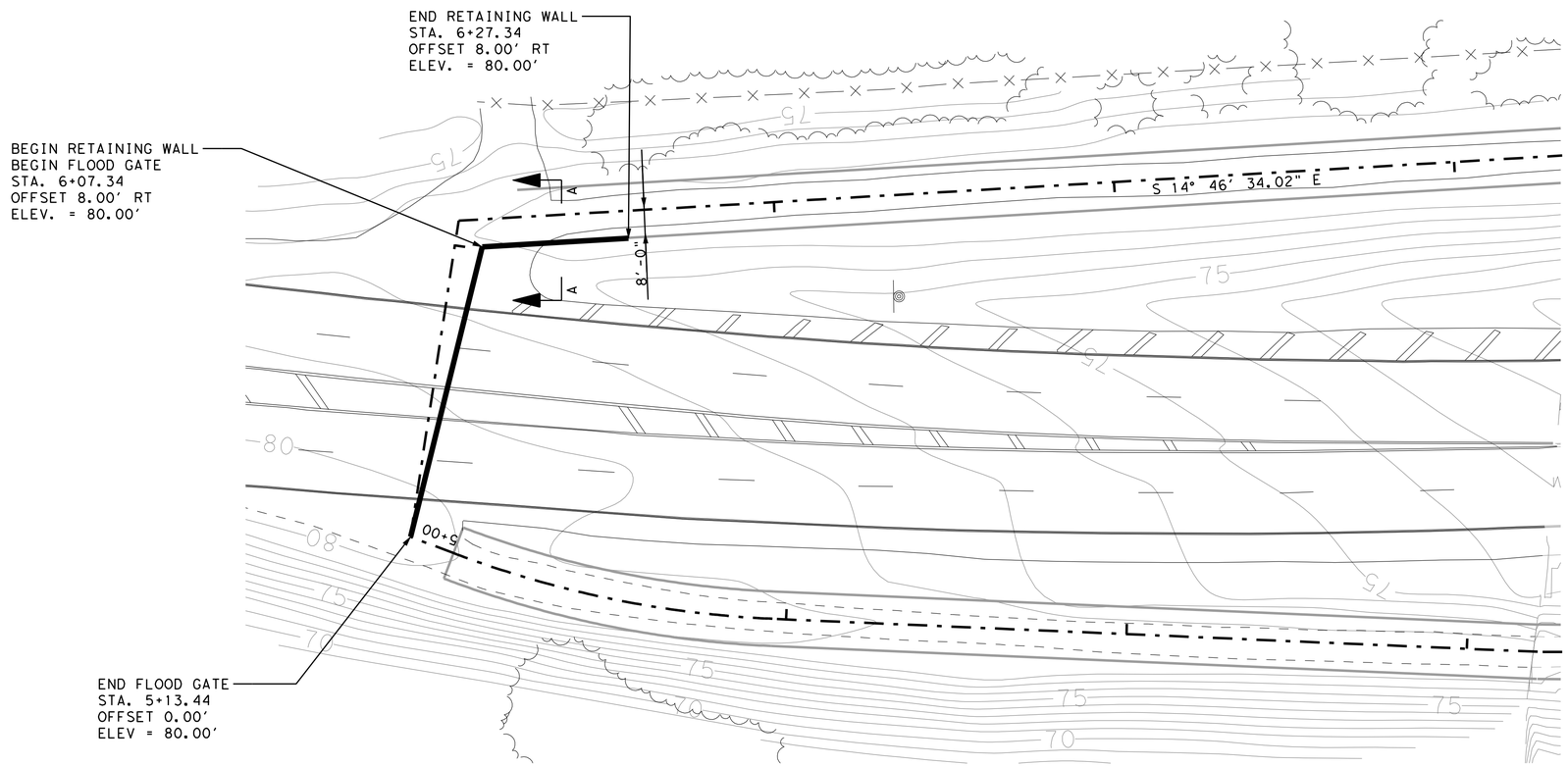
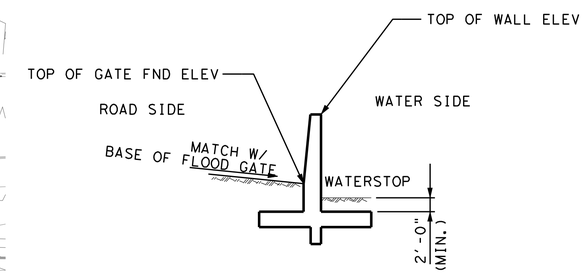


PLAN

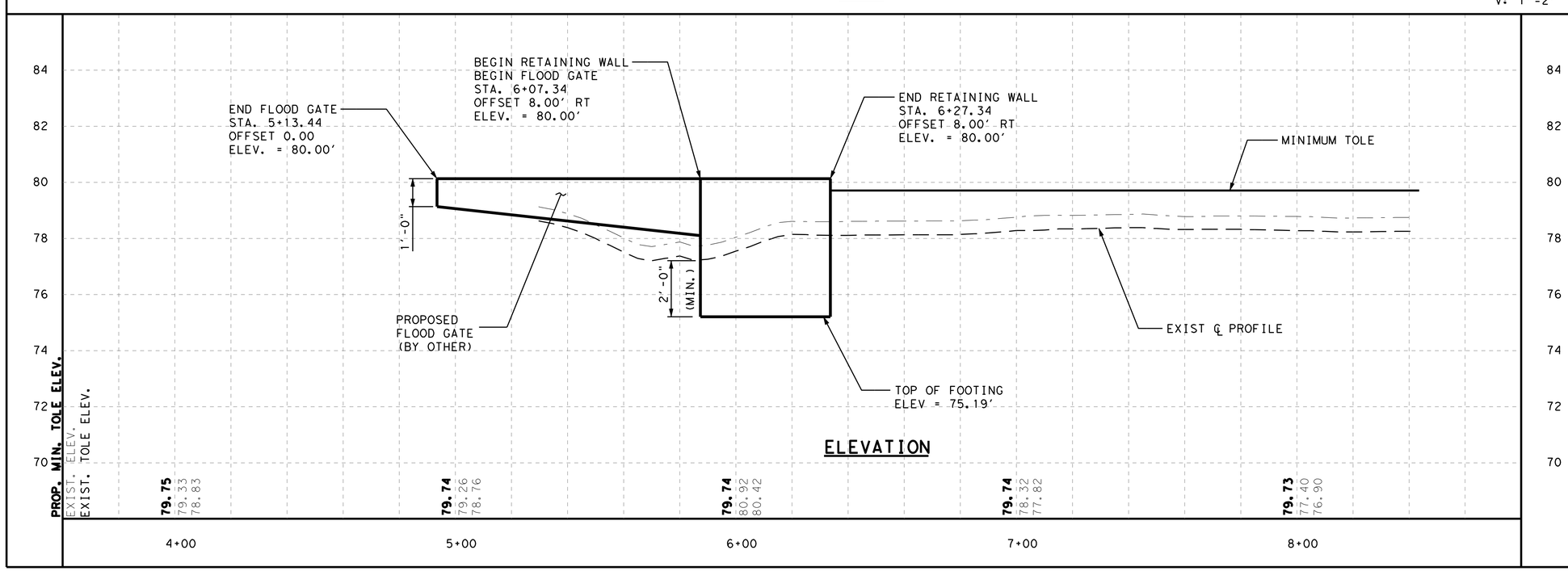
NOTES:

1. TOPOGRAPHIC DATA WAS DERIVED FROM U.S. ARMY ENGINEER RESEARCH AND DEVELOPMENT CENTER (ERDC) LIGHT DETECTION AND RANGING (LIDAR) BASED DIGITAL ELEVATION MODEL (DEM) OBTAINED FROM THE UNITED STATES SECTION OF THE INTERNATIONAL BOUNDARY AND WATER COMMISSION (USIBWC), DATED JUNE 2001. TOPOGRAPHIC DATA OUTSIDE THE EXTENTS OF THIS DATA WAS SUPPLEMENTED WITH HIDALGO COUNTY LIDAR BASED, BARE-EARTH DEMS DATED MAY 2004.
2. PLANIMETRIC AND RIGHT OF WAY INFORMATION WAS OBTAINED FROM FIELD SURVEYS CONDUCTED BY RODS SURVEYING, INC.
3. VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88)
4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATION OF ALL EXISTING UTILITIES (SHOWN/NOT SHOWN) PRIOR TO CONSTRUCTION.
5. DESIGN ACCORDING TO ACI 318-08.
6. ALL CONCRETE SHALL BE CLASS "C", FC'=3600 PSI.
7. ALL REINFORCING STEEL SHALL BE ASTM A615, GRADE 60.
8. SEE FLOOD WALL DETAILS FOR WALL TYPICAL SECTIONS.
9. SEE BORING SHEETS FOR SOIL INFORMATION.



SECTION A-A

SCALE: H: 1"=20'
V: 1"=2'



ELEVATION

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S&B Infrastructure, Ltd. Firm Registration Number: 1582

STATE OF TEXAS
MANCHING WEI
84851
REGISTERED PROFESSIONAL ENGINEER

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ADDENDUM No. 2

NORTH FLOODWAY NORTH (NF1) FLOOD WALL & GATE

FM 1015 NORTH

SHEET 2 OF 2 SHEETS

STATE	COUNTY	DRAWN BY: NN	CHECKED BY: MW	
TEXAS	HIDALGO	PROJECT NO. IBM09T0018		SHEET NO.
REHABILITATION OF NORTH FLOODWAY NORTH AND SOUTH LEVEES (FM 1015-BASELINE ROAD)				12.63B

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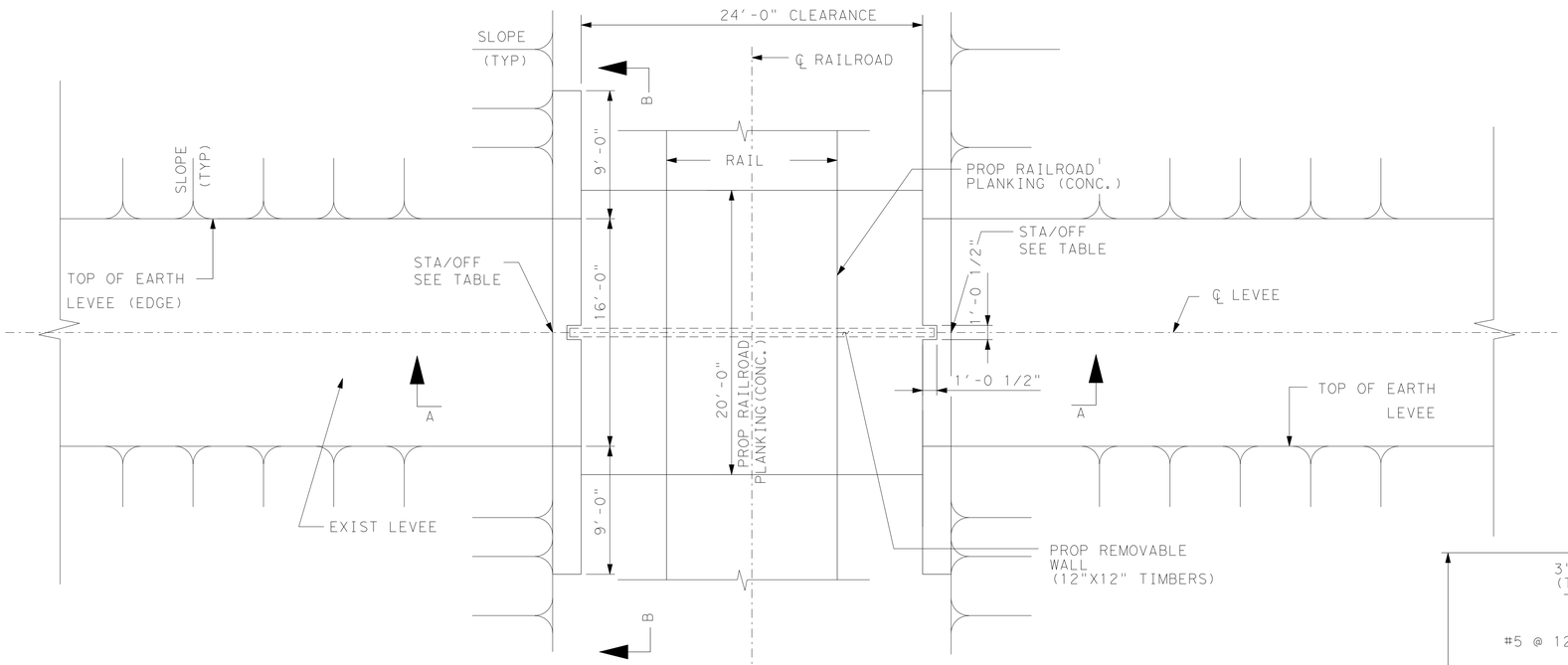
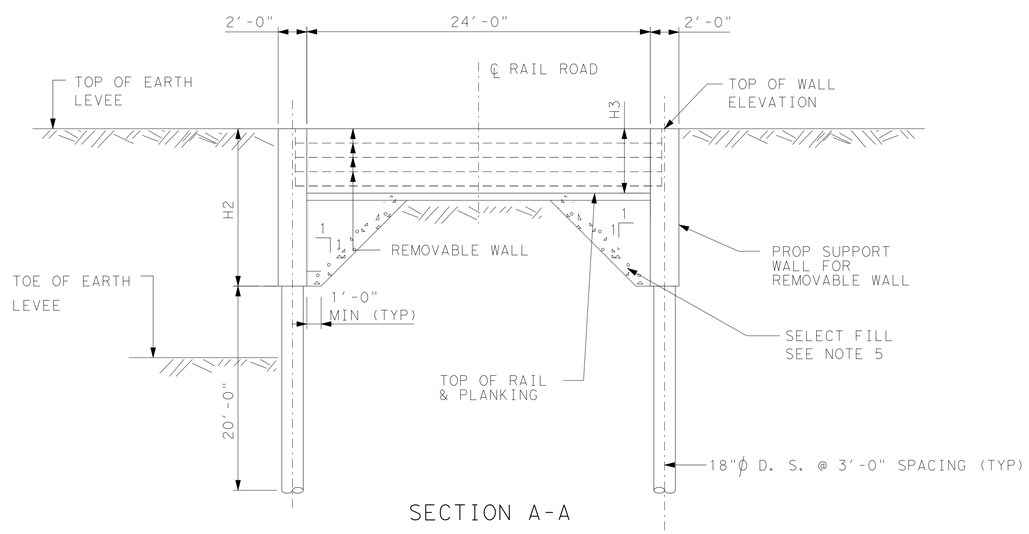
Floodgate at Railroad Summary

Reach	Name of Opening	Levee	Width (W) (ft)	Levee (H1) (ft)	Support Wall HT (H2) (ft)	Removable Wall HT (H3) (ft)	Sta/ Offset Left Wall	Sta/ Offset Right Wall	Top of WALL Elevation (ft)	Support Wall Area (Left) (SqFt)	Support Wall Area (Right) (SqFt)	Total Support Wall Area (SqFt)
NF1	BUS 83	NORTH	24	18	11	5	198+79.94,35.61LT	199+07.95,36.05LT	78.05	354	354	708
NF1	BUS 83	SOUTH	24	18	11	5	92+50.33,3.51RT	92+77.91,5.95RT	77.76	354	354	708

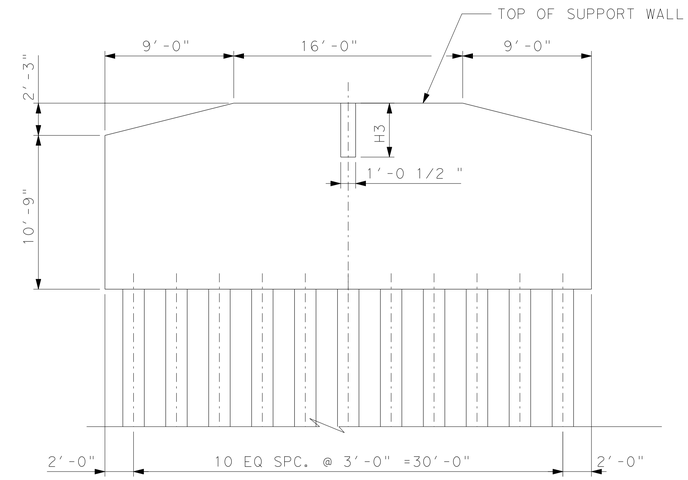


PLAN *

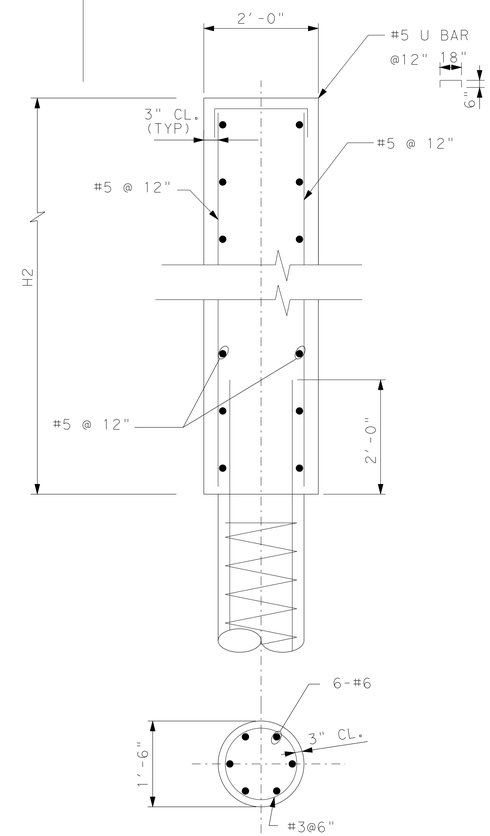
* THE RAILROAD IS LOCATED IN NORTH FLOODWAY 1, JUST NORTH OF BUS 83.



SECTION A-A



SECTION B-B



WALL SECTION

NOTES:

1. DESIGN ACCORDING TO ACI 318-08.
2. ALL CONCRETE SHALL BE CLASS "C", FC'=3600 PSI.
3. ALL REINFORCING STEEL SHALL BE ASTM A615, GRADE 60.
4. CONTRACTOR PLEASE FIELD VERIFY ALL THE DIMENSIONS BEFORE CONSTRUCTION.
5. THE DIFFERENTIAL HEIGHT OF SELECT BACK FILL ON EACH SIDE OF THE WALL SHALL NOT EXCEED 5'-0" WHEN COMPACTED DURING CONSTRUCTION.

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STATE OF TEXAS
MANCHING WEI
84851
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ADDENDUM No. 2

NORTH FLOODWAY
RAILROAD
FLOODGATE DETAILS

SHEET 1 OF 1 SHEET

STATE	COUNTY	DRAWN BY: JZ	CHECKED BY: MW	
TEXAS	HIDALGO	PROJECT NO. IBM09T0018		SHEET NO.
REHABILITATION OF NORTH FLOODWAY NORTH AND SOUTH LEVEES (FM 1015 TO BASELINE RD)				12.64

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TRAFFIC CONTROL PLAN - SEQUENCE OF CONSTRUCTION

Suggested sequence of construction.

Construct Floodgate and approach slab at Bus 83 (North and South Levee)

Phase I

1. Install traffic control devices as shown on sheet 15.02.
2. Construct half the floodgate and approach slab.

Phase II

1. Utilizing sheet 15.02, move traffic to the other side of the road.
2. Construct remaining half of floodgate and approach slab.

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Phillip J. Pawelek, P.E.

ADDENDUM No. 2

TRAFFIC CONTROL
FOR
FLOOD GATE INSTALLATION

SHEET 1 OF 1 SHEET

STATE	COUNTY	DRAWN BY: HS/MLG	CHECKED BY: RP	
TEXAS	HIDALGO	PROJECT NO. IBM09T0018		SHEET NO.
REHABILITATION OF NORTH FLOODWAY NORTH AND SOUTH LEVEES (FM 1015 TO BASELINE RD)				12.65

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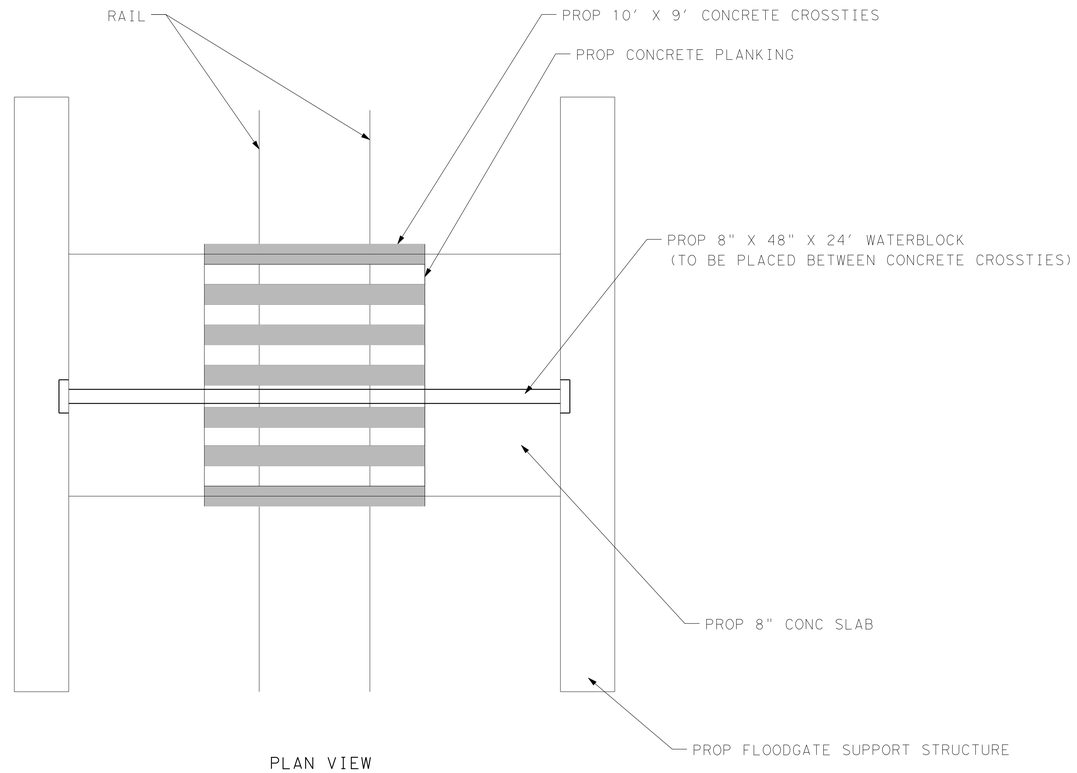
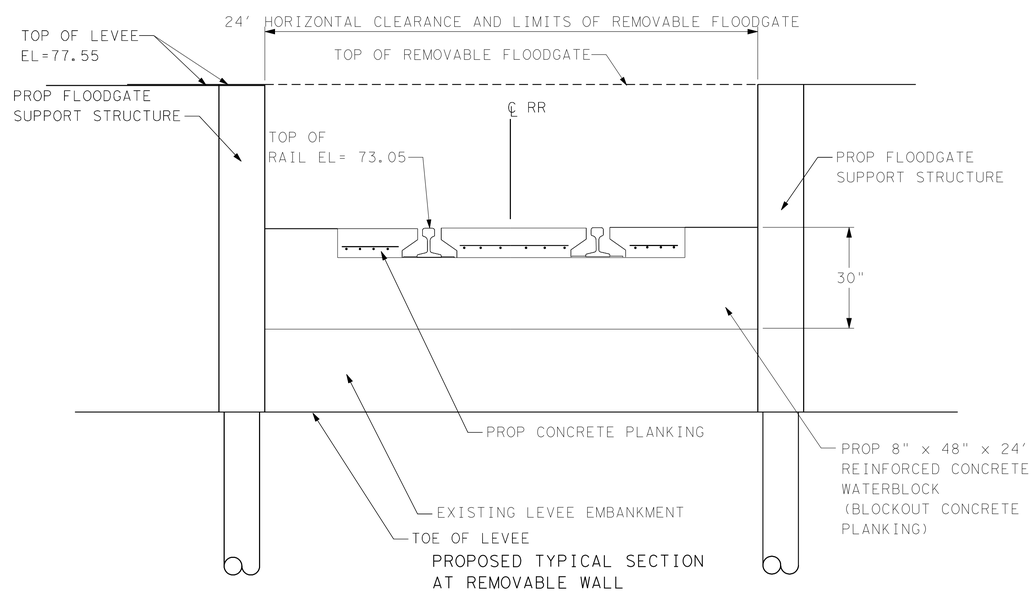


PLAN VIEW



PROPOSED TYPICAL SECTION
AT REMOVABLE WALL

SCALE: H: 1"=20'

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ADDENDUM No. 2

NORTH FLOODWAY
NORTH LEVEE
RAILROAD EXHIBIT
TYPICAL SECTION

SHEET 1 OF 1 SHEET

STATE	COUNTY	DRAWN BY: JS	CHECKED BY: PP	
TEXAS	HIDALGO	PROJECT NO. IBM09T0018		SHEET NO.
REHABILITATION OF NORTH FLOODWAY NORTH AND SOUTH LEVEES (FM 1015 TO BASELINE RD)				12.69

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During the planning phase of project development the following environmental permits, issues and commitments have been developed during coordination with resource agencies, local governmental entities and the general public. Any change orders and/or deviations from the final design must be reported to the Engineer prior to the commencement of construction activities, as additional environmental clearances may be required.

All environmental statements in the signed Finding of NO Significant Impacts for all associated projects will be adhered to and are environmentally binding.

I. Clean Water Act, Section 402 National Pollutant Discharge Elimination System

(Addresses MS4 requirements for project)

☐ No Action Required ■ Required Action

1. A storm water pollution prevention plan (SW3P) would be developed during project design to minimize impacts to receiving water, as specified by USEPA regulations for construction projects. The storm water pollution prevention plan would include construction areas along the levee system, as well as equipment staging areas.

2. To prevent sedimentation, BMPs such as sediment fences and/or sediment barriers around wetlands would be installed while construction occurs in affected areas.

II. Clean Water Act, Section 401 and 404 Compliance

Filling, dredging or excavating in any water bodies, rivers, creeks, streams, wetlands or wet areas is prohibited unless specified in the USACE permit and approved by the Engineer.

■ No Permit Required ☐ 404 Permit and 401 Certification Required

The Contractor must adhere to all of the terms and conditions associated with the following permit(s):

No impacts to jurisdictional wetlands are anticipated from levee expansion activities associated with the North Floodway Levee System. No wetlands are located within the potential levee expansion area, however there are 5 potential jurisdictional wetlands (B, C, D, E, M), located immediately adjacent to sections of the levee project.

Wetlands	Stations No.
1. Wetland B	74+00 - 80+70
2. Wetland C	66+50 - 73+00
3. Wetland D	58+00 - 65+00
4. Wetland E	44+00 - 56+00
5. Wetland M	358+00 - 365+00

III. Cultural Resources

☐ No Action Required ■ Required Action

1. THC concurrence was based on the following: in some locations, up to 2 feet of fill material would be placed on top of the levee, extending levee footprint up to 12 feet from the current toe of the levee. This expansion would take place along to the approximately 20 feet service corridor currently utilized for levee maintenance, inside the maintained floodway, and entirely within the flood control project right of way. In some instances, adjustment in levee slope would be made to eliminate the need for levee footprint expansion, when required due to engineering considerations or for protection of biological or cultural resources. The need for excavation outside the levee structure is anticipated.

2. The assumed and preferred mitigation is avoidance for cultural resources.

3. While no impacts on High Probability Areas (HPAs) were identified, there is a possibility that an accidental discovery of archaeological resources may be encountered during construction. If buried cultural materials were encountered during construction, the contractor would cease work in the immediate area and notify the State Historic Preservation Officer.

Upon discovery of archaeological artifacts (bones, burnt rock, flint, pottery, etc.) cease work in the immediate area and contact the Engineer immediately.

IV. Hazardous Materials or Contamination Issues

☐ No Action Required ■ Required Action

If potentially hazardous material and/or contaminated media (i.e. soil, groundwater, surface water, sediment, building materials) are unexpectedly encountered during construction, cease work in the immediate area and contact TCEQ & USIBWC EMD immediately.

V. Federal Listed, and Proposed Threatened and Endangered Species, Critical Habitat, State Listed Species, Candidate Species and Migratory Birds

☐ No Action Required ■ Required Action

1. Unforeseen adverse effects may be prevented by timing construction activities to avoid breeding and nesting seasons of T&E species. Consultation with TPWD and USFWS will be required to schedule construction activities to minimize potential impacts on species and species habitat.

2. When warranted for protection of biological resources the need for levee footprint expansion would be eliminated by levee slope adjustment.

3. Construction activities along natural resources management areas would be coordinated with the USFWS and TPWD.

4. Coordination with TPWD prior to construction concerning White-tailed Kites located within Estero Llano Grande State Park (Main Park NFW1 (North Floodway West Levee) between Levee Mile 24-25) near the Main Floodway there is a grassy field on the interior side of the levee. The kites nest in the spring, the timing of construction activities would need to occur outside the nesting season to protect birds and to occur when tourists are not present to view the birds.

If any of the listed species are observed, cease work in the immediate area, do not disturb species or habitat and contact the Engineer immediately. The work may not remove active nests from bridges and other structures during nesting season of the birds associated with the nests. If caves or sinkholes are discovered, cease work in the immediate area, and contact the USFWS & USIBWC EMD immediately.

If an active nest is found, immediately contact the USFWS & USIBWC EMD and cease work around nest at a 25 foot radius.

VI. Vegetation Resources

☐ No Action Required ■ Required Action

1. After construction is complete, the expanded levee, as well as any required construction corridor, would be re-vegetated with native herbaceous vegetation from approved USFWS lists.

VII. Soil

1. Earthwork would be planned and conducted in such a manner as to minimize the duration of exposure of unprotected soil. Protection would be provided by accelerated growth of permanent vegetation, temporary vegetation, mulching, or netting. Slopes too steep for stabilization by other means would be stabilized by hydroseeding, mulch anchored in place, covering by anchored netting, sodding, or such combination of these and other methods as may be necessary for effective erosion control.

2. Use of best management practices such as rock berms, silt fences, and single point construction entries would minimize erosion during construction.

VIII. Other Environmental Issues

☐ No Action Required ■ Required Action

Transportation

1. All construction activities would occur within the existing ROW.

2. Transportation of construction equipment and the use of personnel vehicles would mainly occur within the levee ROW and along the toe of the levee road adjacent to the levee.

3. Any new easements would have to be obtained by USIBWC if levee footprints are increased from existing conditions.

4. Coordination during construction activities would take place with U.S. Customs and Border Patrol concerning Levee Road usage.

Engineering Measures

1. During the project construction, existing access points to the levee road would remain in service; because no significant modifications would be made to the levee 3:1 slope ratio, lateral access to the levee road would continue as currently available.

2. During the project construction, methods such as wetting the soil would be employed to prevent erosion from unvegetated slopes and/or corridors.

3. An environmental monitor should be available during construction.

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ADDENDUM No. 2

ENVIRONMENTAL PERMITS ISSUES & COMMITMENTS (EPIC) NORTH FLOODWAY NO. & SO.

SHEET 1 OF 1 SHEET

STATE	COUNTY	DRAWN BY: JL/JJL	CHECKED BY: PP	
TEXAS	HIDALGO	PROJECT NO.	IBM09T0018	SHEET NO.
REHABILITATION OF NORTH FLOODWAY NORTH AND SOUTH LEVEES (FM 1015 TO BASELINE RD)				14.01

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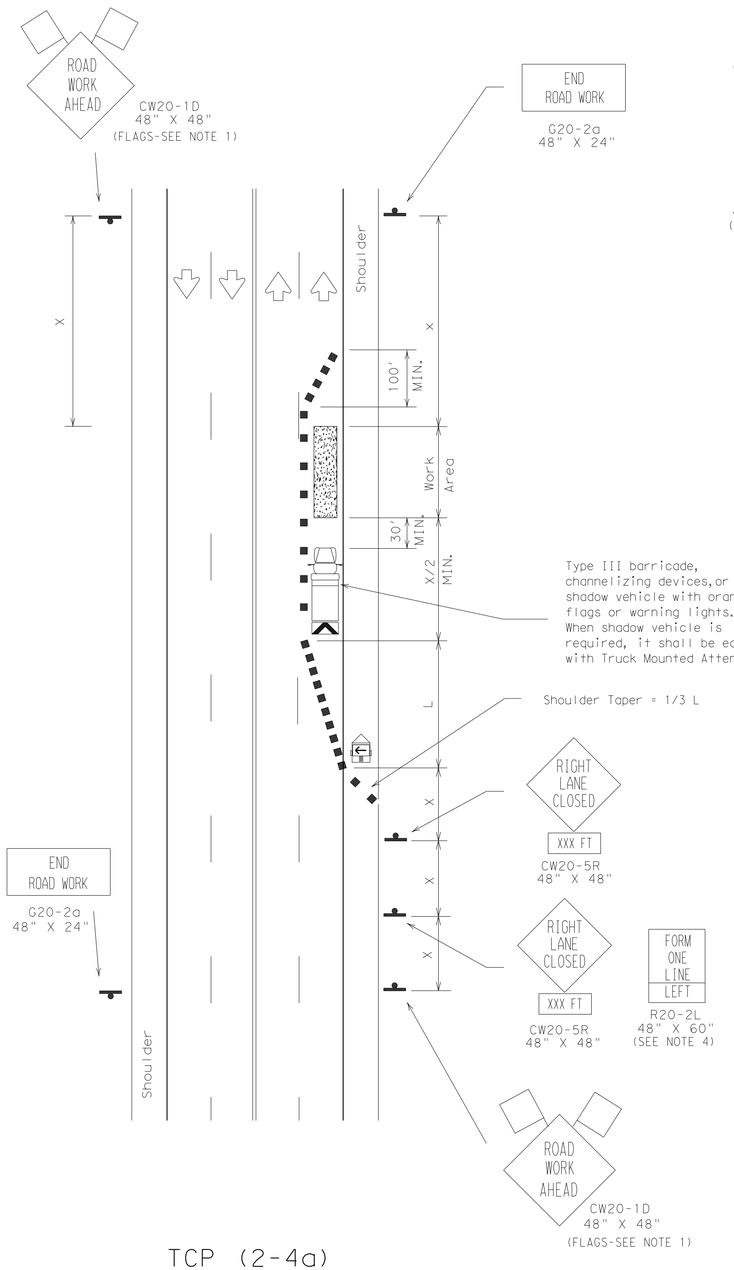
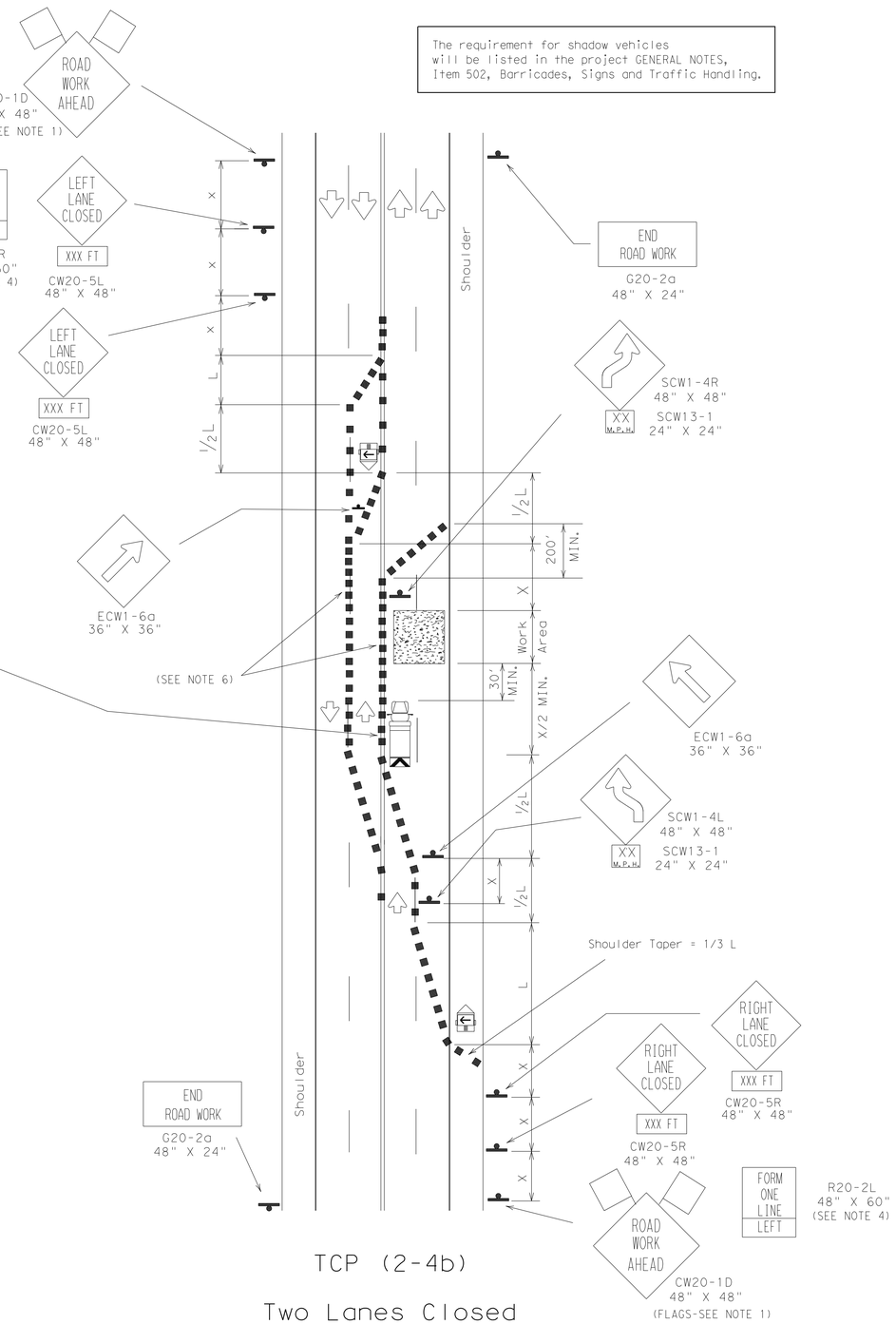


TCP (2-4a)

One Lane Closed
Less Than Two Weeks

The requirement for shadow vehicles will be listed in the project GENERAL NOTES, Item 502, Barricades, Signs and Traffic Handling.



TCP (2-4b)

Two Lanes Closed
Less Than Two Weeks

LEGEND

- Type III Barricade
- Channelizing Devices
- Flag
- Heavy Work Vehicle
- Truck Mounted Attenuator
- Trailer Mounted Flashing Arrow Panel
- Portable Changeable Message Sign
- Flagger
- Sign Post

Posted Speed ✳	Formula	Minimum Desirable Taper Lengths ✳✳ 10' Offset	11' Offset	12' Offset	Suggested Maximum Spacing of Device On a Taper	On a Tangent	Minimum Sign Spacing X Distance
30	$L = \frac{WS^2}{60}$	150'	165'	180'	30'	60'-75'	120'
35		205'	225'	245'	35'	70'-90'	160'
40		265'	295'	320'	40'	80'-100'	240'
45	L=WS	450'	495'	540'	45'	90'-110'	320'
50		500'	550'	600'	50'	100'-125'	400'
55		550'	605'	660'	55'	110'-140'	500'
60		600'	660'	720'	60'	120'-150'	✳ 600'
65		650'	715'	780'	65'	130'-165'	✳ 700'
70		700'	770'	840'	70'	140'-175'	✳ 800'

✳ Conventional Roads Only

✳✳ Taper lengths have been rounded off.
L=Length of Taper (FT.) W=Width of Offset (FT.) S=Posted Speed (MPH)

TYPICAL USAGE:				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
		✓	✓	

GENERAL NOTES:

1. Unless otherwise stated in the plans, flags attached to signs are REQUIRED.
2. TCP (2-4b) shall be used only on projects that will be at a location for less than two weeks.
3. Existing pavement markings may remain in place for projects less than two weeks in duration.
4. The FORM ONE LINE LEFT (or RIGHT) sign may be used following the RIGHT (or LEFT) LANE CLOSED XXX FT sign. Spacing distance between signs should be the minimum distance indicated.
5. Downstream taper is optional. When used, it should be 100' minimum length per lane.
6. For intermediate term situations, when it is not feasible to remove and restore pavement markings, the channelization must be made dominant by using a very close spacing. This is especially important in locations of conflicting information, such as where traffic is directed over a double yellow centerline. In such locations a maximum channelizing device spacing of 10 feet is recommended. The 10 foot channelizing device spacing recommendation is intended for the area of conflicting information and not the entire work zone.

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Phillip J. Pawelek, P.E.

ADDENDUM No. 2

TRAFFIC CONTROL PLAN FOR FLOODGATE INSTALLATION

SHEET 1 OF 1 SHEET

STATE	COUNTY	DRAWN BY:	CHECKED BY:	
TEXAS	HIDALGO	PROJECT NO.	IBM09T0018	SHEET NO.
REHABILITATION OF NORTH FLOODWAY NORTH AND SOUTH LEVEES (FM 1015 TO BASELINE RD)				15.28

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