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SUMMARY

DOWL

CURB										
STATION		linear feet						square yards		REMARKS
		CONCRETE CURB AND GUTTER		SPECIAL DESIGN CONCRETE CURB AND GUTTER		# REMOVE CURB AND GUTTER		CONCRETE VALLEY GUTTER		
FROM	TO	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	
JOHNSON LANE										
7+83.00	10+61.73	321.6				38.3				INCL. 15' RADII & EXTS.
7+83.00	13+37.50		621.5				173.9	21.1		INCL. EXTS.
10+61.73	11+31.85									
11+31.85	13+37.50	248.3				41.2				INCL. 15' RADII & EXTS.
13+37.50	13+51.70			159.3						INCL. 175' & 40' RADII
13+37.50	14+41.10		90.2		295.6		608.5			INCL. 100' & 900' RADII & EXTS.
22+62.27	25+21.53							49.7		RETAINING WALL
23+84.18	26+03.73								35.0	RETAINING WALL
34+85.31		64.2								INCL. 60' & 25' RADII
35+06.22			81.9							INCL. 25' & 75' RADII & EXT.
JOHNSON LANE (SOUTH BOUND)										
100+81.01	101+68.43			251.7		266.9				INCL. 350' & 70' RADII
101+68.43	104+52.99	313.8		53.4		116.2				INCL. 350' RADIUS
102+64.51	105+62.28		300.6							INCL. 1' & 1' RADII - SPILL
105+69.59	106+01.63	40.5								INCL. 1' & 5' RADII - SPILL
106+41.48	106+96.44		55.2							INCL. 1' RADIUS
106+82.48	106+87.99	9.8								INCL. 1' RADIUS - SPILL
106+87.99	106+98.22	10.0								SPILL
106+96.44	108+36.36		152.6							INCL. 1' RADIUS
109+21.85	110+55.86		319.9							INCL. 180' & 285' RADII
111+72.78	112+10.70		44.7							INCL. 1' RADIUS
112+08.92	112+19.15	10.0								SPILL
112+10.70	112+65.67		56.5							INCL. 1' RADIUS
112+19.15	112+24.67	9.8								INCL. 1' RADIUS - SPILL
112+82.65	114+27.74	152.3								INCL. 1' RADIUS
113+23.65	116+01.37		279.3							INCL. 1' & 1' RADII - SPILL
114+27.74	115+44.34	127.8								INCL. 1' RADIUS
117+85.00	117+99.33	124.3								INCL. 100', & 25' RADII & EXT.
JOHNSON LANE (NORTH BOUND)										
202+33.10			26.1		130.6		132.5			INCL. 50' & 115' RADII
202+63.87	205+71.07	289.7								SPILL
204+56.25	205+02.56		54.9							INCL. 1' RADIUS
205+02.56	206+27.07		128.0							
206+30.71	206+98.96	68.4								
206+98.96	207+05.29	11.1								INCL. 1' RADIUS
206+85.05	207+00.79		15.5							SPILL
207+67.93	209+99.15	313.6								INCL. 5' & 180' RADII
210+84.64	212+13.27	140.0								INCL. 1' RADIUS
212+13.27	212+68.24	55.0								
212+11.51	212+27.24		15.5							SPILL
212+85.22	213+30.00		48.8							INCL. 1' RADIUS
213+26.22	215+27.24	192.0								SPILL
214+17.34	218+21.19		551.8		48.5					INCL. 125', 60' & 125' RADII
215+27.24	215+37.24	10.5								TRANS
215+37.24	215+99.35	65.1								
RAMP J1										
1105+96.11	1109+12.53		265.0							
1107+28.48	1109+12.33	196.0								INCL. 1' RADIUS - SPILL
RAMP J1-R										
1105+96.11	1110+46.54	446.4								
1107+28.80	1111+81.69		460.5							SPILL
1110+46.54	1114+14.69	368.5								
RAMP J2										
1108+98.21	1110+09.00							35.0		RETAINING WALL
1109+65.90	1111+43.81		166.0							
1109+70.73	1110+88.07	123.5								INCL. 1' RADIUS - SPILL
RAMP J2-R										
1110+34.50	1110+39.19		4.4							SPILL
1110+39.19	1110+42.78		5.0							SPILL
1110+42.78	1110+94.69		71.3							SPILL
1111+14.31	1111+43.81			86.5						INCL. 35' & 25' RADII

FOR INFORMATION ONLY - INCLUDE IN THE COST OF STREET EXCAVATION
* 11" DEPTH

CURB, CONT.										
STATION		linear feet						square yards		REMARKS
		CONCRETE CURB AND GUTTER		SPECIAL DESIGN CONCRETE CURB AND GUTTER		# REMOVE CURB AND GUTTER		CONCRETE VALLEY GUTTER		
FROM	TO	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	
RAMP J3										
1106+55.22	1109+80.83	272.9								
1106+55.42	1108+47.71		205.5							INCL. 1' RADIUS - SPILL
RAMP J3-R										
1102+50.84	1105+32.09		281.1							
1104+81.29	1108+48.16	378.2								SPILL
1105+32.09	1109+80.83		445.9							
RAMP J4										
1100+75.00	1106+45.96							177.0		RETAINING WALL
1104+66.91	1106+45.96	157.5								
1105+00.67	1105+88.51		93.5							INCL. 1' RADIUS - SPILL
RAMP J4-R										
1104+66.91					76.2					INCL. 25' & 40' RADII
1104+92.35	1105+38.63	63.6								SPILL
1105+38.63	1105+42.23	5.0								SPILL
1105+42.23	1105+48.97	9.2								SPILL
OLD HARDIN ROAD										
23+50.00	26+05.00		254.4							
26+05.00	26+71.68								20.2	
24+94.30	29+60.00	466.1								
26+71.68	27+00.00		28.3							
27+00.00	29+60.00		260.2							
29+60.00	29+92.02			32.1		67.7		156.7		
29+60.00	30+02.89				42.9			108.6		
29+92.02	30+88.62			14.4					* 50.9	INCL. 18', 20' & 12.5' RADII & EXTS.
30+02.89	30+83.01		42.9					104.2	61.1	INCL. 25' & 25' RADII & EXTS.
30+83.01	34+97.07				414.1			432.2		
30+88.62	32+00.48			111.9		98.6				
32+00.48	32+97.52	4.7				81.7		* 54.0		INCL. 15', 20', 26', & 18' RADII & EXT.
32+97.52	33+52.64			55.1		30.3				
33+52.64	34+53.06	5.4				107.7		* 56.8		INCL. 20', 15', 15', & 30' RADII & EXTS.
34+53.06	34+66.94			13.9						
3+77.00	4+75.00		118.2					105.1		PARKING LOT RESTORATION, RT.
4+56.92	9+95.33	651.3				450.7				INCL. 35' RADIUS & EXTS.
4+70.86	6+15.87		166.5					103.3		INCL. EXT.
6+15.87	7+61.65		72.6					268.7	196.6	INCL. EXTS.
7+61.65	9+85.22		341.1					266.0		INCL. 50' RADIUS & EXTS.
11+13.95	17+07.50		667.4					405.4		INCL. 50' RADIUS
11+42.55	17+07.50	651.5				76.1				INCL. 40' RADIUS
COLE STREET										
48+50.00	50+12.52	248.9				99.3				INCL. 100' & 50' RADII
48+50.00	51+42.83		280.0					104.6		
51+36.00	54+17.66	475.4				201.4				INCL. 25' & 75' RADII & EXTS.
51+42.83	52+30.06		87.2							
52+30.06	53+02.51		13.3					7.6	28.5	INCL. 5', 2.5', & 15' RADII & EXTS.
53+02.51	53+13.34		10.8					32.0		
53+13.34	53+67.16		10.4					7.8	24.8	INCL. 15', 2.5', 2.5', & 15' RADII & EXTS.
53+67.16	53+78.31		11.2					32.2		
53+78.31	54+33.06		10.4					28.1	25.3	INCL. 15', 2.5', 2.5', & 15' RADII & EXTS.
56+39.38	57+95.00	155.6				155.6				
57+18.89	57+95.00		76.1					76.1		
NORTH FRONTAGE ROAD										
1115+48.58	1117+58.37	198.8								
BECRAFT LANE										
1+34.00	2+39.17	95.9				87.6				
1+34.00	2+21.56		94.8					56.2		
2+23.56	2+42.73		21.6							
SUBTOTAL		7,552.2	7,408.6	778.3	1,007.9	1,919.3	3,209.7	444.5	391.5	
TOTAL		14,960.8		1,786.2		~		836.0		

FOR INFORMATION ONLY - INCLUDE IN THE COST OF STREET EXCAVATION
* 11" DEPTH

SUMMARY

OBLITERATE ROADWAY				
STATION		stations	REMARKS	
		OBLITERATE ROADWAY		
FROM	TO			
JOHNSON LANE				
30+15	30+58	1	RT.	
NORTH FRONTAGE ROAD				
1118+24	1122+23	5	RT.	
TOTAL		6		

CONCRETE BARRIER RAIL				
STATION		each	linear feet	REMARKS
		REMOVE CONCRETE BARRIER RAIL	BARRIER RAIL - CAST IN PLACE	
FROM	TO			
JOHNSON LANE				
22+09.71	26+99.55		494.1	LT. (SEE DETAILS)
22+09.71	26+99.55		494.1	RT. (SEE DETAILS)
22+62.27	25+21.53		259.7	LT. (SOIL NAIL WALL)
23+57.09	25+12.51	16		LT.
23+90.26	25+49.54	16		RT.
23+84.18	26+03.73		218.6	RT. (SOIL NAIL WALL)
RAMP J2				
1108+98.21	1109+20.81		20.8	RT. (SOIL NAIL WALL)
TOTAL		32	1,487.3	

MANHOLES IN PLACE			
STATION	each		REMARKS
	REMOVE MANHOLE		
	LEFT	RIGHT	
	OLD HARDIN ROAD		
29+83		1	36' RT., IRRIGATION
31+19		1	36' RT., IRRIGATION
3+10		1	74' RT., IRRIGATION
SUBTOTAL			
TOTAL		3	

PAVEMENT MARKINGS				
ITEM	UNIT	INTERIM APPLICATION #	FINAL APPLICATION	TOTAL
STRIPING - WHITE PAINT	gallon	502		502
STRIPING - YELLOW PAINT	gallon	300		300
WORDS & SYMBOLS - WHITE PAINT	gallon	159		159
WORDS & SYMBOLS - YELLOW PAINT	gallon	79		79
STRIPING - WHITE EPOXY	gallon		335	335
STRIPING - YELLOW EPOXY	gallon		200	200
WORDS & SYMBOLS - WHITE EPOXY	gallon		105	105
WORDS & SYMBOLS - YELLOW EPOXY	gallon		53	53
STRIPING - 4 IN WHITE-HIGH PERF TAPE	linear feet		1,923	1,923
STRIPING - 8 IN WHITE-HIGH PERF TAPE	linear feet		1,548	1,548
STRIPING - 4 IN YELLOW-HIGH PERF TAPE	linear feet		1,810	1,810
CURB MARKING - YELLOW EPOXY	gallon		170	170
CURB MARKING - WHITE EPOXY	gallon		2	2
STRIPE GROOVING	linear feet		8,183	8,183.0
STRIPE GROOVING	square feet		1,448	1,448.0
TEMPORARY STRIPING	linear feet			108,136
FINAL SWEEP AND BROOM	mile			15.4

BASED ON 1 APPLICATION.

COLD MILLING			
STATION		square yards	REMARKS
		COLD MILLING	
FROM	TO	0.15 ft	
1071+15.00	1103+75.00	11,143	I-90 WESTBOUND
1090+00.00	1103+75.00	4,795	I-90 EASTBOUND
1111+75.00	1126+00.00	4,984	I-90 WESTBOUND
1111+75.00	1144+65.00	10,691	I-90 EASTBOUND
TOTAL		31,613	

RUMBLE STRIPS					
STATION		miles		gals	REMARKS
		RUMBLE STRIPS		EMULSIFIED ASPHALT FOG SEAL #	
		CONTIN- UOUS	INTER- MITTENT		
FROM	TO				
INTERSTATE 90					
1071+15.00	1106+82.91	0.7		40	LT. (INSIDE SHOULDER)
1090+00.00	1106+38.32	0.3		18	RT. (INSIDE SHOULDER)
1093+40.10	1107+04.31		0.3	15	LT. (OUTSIDE SHOULDER)
1095+02.37	1106+16.92		0.2	12	RT. (OUTSIDE SHOULDER)
1108+66.30	1118+13.18		0.2	11	RT. (OUTSIDE SHOULDER)
1108+87.70	1144+65.00	0.7		40	RT. (INSIDE SHOULDER)
1109+19.13	1126+00.00	0.3		19	LT. (INSIDE SHOULDER)
1109+40.53	1120+36.90		0.2	12	LT. (OUTSIDE SHOULDER)
SUBTOTAL		2.0	0.9	167	
TOTAL		2.9		~	

FOR INFORMATION ONLY, INCLUDE IN THE COST OF RUMBLE STRIPS

RETAINING WALL									
STATION		square feet	linear feet		square yard				REMARKS
		REINFORCED CONCRETE RETAINING WALL*	REMOVE CONCRETE RETAINING WALL	HANDRAIL	SOIL NAIL RETAINING WALL*	ARCHITECT- URAL TREATMENT	ANTI- GRAFFITI COATING	DESIGN & CONSTRUCT MODULAR BLOCK WALL*	
FROM	TO								
JOHNSON LANE									
20+50.85	23+02.40							256	RT. - ISLAND 2
20+86.50	22+77.93							192	RT. - ISLAND 2
22+62.27	25+21.53				446	446	223		LT.
23+62.97	23+85.31						62		LT. - BENT 2
23+84.18	26+03.73		216		350	350	175		RT.
24+06.65	24+28.99						62		RT. - BENT 3
24+70.16	24+92.50						62		LT. - BENT 2
25+13.84	25+36.18						62		RT. - BENT 3
26+17.40	28+63.30							246	LT. - ISLAND 5
26+41.50	28+20.80							177	LT. - ISLAND 5
RAMP J2									
1108+98.21	1110+09.00				125	125			RT.
RAMP J4									
1100+75.00	1106+45.96				465	465			LT.
OLD HARDIN ROAD									
3+69.00	4+80.00							40	RT.
5+70.00	7+80.00	1,954		220					LT.
NORTH FRONTAGE ROAD									
1120+00.00	1120+52.14							16	LT.
TOTAL		1,954	#	##	1,386	1,386	646	927	

INCLUDE IN COST OF STREET EXC.

INCLUDE IN COST OF RETAINING WALL

* SEE DETAILS

SUMMARY

STORM DRAIN PIPE																			
STATION			PIPE MATERIALS		linear feet						REMOVE STORM DRAIN	cubic yards			lump sum	each		REMARKS	
					STORM DRAIN PIPE #							GRANULAR BEDDING MATERIAL #	CNT'L'D LOW STRENGTH MATL.	CLASS GENERAL CONCRETE		PIPE REPAIR ##	LONG- RADIUS BEND *		CONNECT TO EXISTING PIPE **
FROM	TO	NAME	RCP [1]	PVC [2]	12"	15"	18"	24"	36"	84"									
JOHNSON LANE																			
8+38.00	8+38.00	SL-1(1)	X	X	13.3														CI-1 TO MH-1
8+38.00	8+38.00	SL-1(2)	X	X			23.3												CI-2 TO MH-1
8+38.00	9+40.00	ST-JL-1	X				102.0												MH-1 TO MH-2
9+40.00	9+40.00	SL-2(1)	X	X	16.2														CI-3 TO MH-2
9+40.00	9+40.00	SL-2(2)	X	X	26.2														CI-4 TO MH-2
9+40.00	10+50.00	ST-JL-2	X				110.0												MH-2 TO MH-3
10+41.00	10+50.00	SL-3(3)	X	X			29.9												LSI-1 TO CI-6
10+50.00	10+50.00	SL-3(1)	X	X	19.4														CI-5 TO MH-3
10+50.00	10+50.00	SL-3(2)	X	X			27.5												CI-6 TO MH-3
10+50.00	12+00.00	ST-JL-3	X				150.0												MH-3 TO MH-4
11+94.00	12+00.00	SL-4(3)	X	X			22.8												LSI-2 TO CI-8
12+00.00	12+00.00	SL-4(1)	X	X	23.6														CI-7 TO MH-4
12+00.00	12+00.00	SL-4(2)	X	X			36.3												CI-8 TO MH-4
12+00.00	13+36.00	ST-JL-4	X				136.0												MH-4 TO MH-5
13+30.00	13+36.00	SL-5(3)	X	X	24.2														LSI-3 TO CI-10
13+36.00	13+36.00	SL-5(1)	X	X	27.5														CI-9 TO MH-5
13+36.00	13+36.00	SL-5(2)	X	X		39.5													CI-10 TO MH-5
13+36.00	14+08.00	ST-JL-5	X					72.0											MH-5 TO MH-6
14+07.32	14+08.00	SL-6(1)	X	X	36.8														CI-11 TO MH-6
14+08.00	14+24.00	SL-6(2)	X	X	44.4														MH-6 TO CI-12
14+08.00	15+48.00	ST-JL-6	X						140.0										MH-6 TO MH-7
15+48.00	17+56.00	ST-JL-7	X						208.0										MH-7 TO MH-8
17+56.00	17+56.00	SL-7(2)	X	X	44.3														CI-13 TO MH-8
17+56.00	18+06.00	ST-JL-8	X						72.3										MH-8 TO CI-14
18+06.00	18+60.02	ST-JL-9	X						83.4										CI-14 TO OUTLET-1
18+08.71	21+55.27	BYPASS STM. DR. PIPE	X							418.0		460		6.6			10	1	INCL. FETS AND CUT OFF WALL
19+16.00	19+20.73	J4R-1(1)	X	X				43.9											J4R-DI-1 TO J4R-FETS-1
19+63.20	19+69.42	OF-1(1)		X			20.0												OF-1 TO FLUSH PIPE CONNECTION
20+10.00	20+70.73	J3R-2(1)	X	X			77.8												J3R-DI-2 TO J3R-FETS-2
20+79.83	20+89.72	J4T-1	X	X			12.7												J4-CI-1 TO J4-DI-2
20+89.72	21+46.50	J4T-2	X				57.0												J4-DI-2 TO J4-MH-1
21+22.73	21+36.09	J3R-1	X	X			23.9												J3R-FETS-1 TO J3R-CI-1
21+46.50	21+54.00	J4-1(1)	X			41.2													J4-MH-1 TO J4-CI-3
21+46.50	22+20.17	J4T-3	X					74.5											J4-MH-1 TO J4-MH-2
21+54.00	21+54.00	J4-1(2)	X			65.8													J4-CI-5 TO J4-CI-3
21+54.00	21+61.00	J4-2(1)	X	X	7.6														J4-CI-3 TO J4-CI-4
22+13.94	22+20.16	J4-3(1)	X	X			6.9												J4-CI-6 TO J4-CI-7
22+20.16	22+20.17	J4-3(2)	X	X			20.4												J4-CI-7 TO J4-MH-2
22+20.17	23+29.00	J4T-4	X						109.7										J4-MH-2 TO J3-MH-1
23+23.79	23+28.63	J3-1(3)	X	X			7.0												J3-CI-4 TO J3-CI-3
23+23.79	23+43.00	J3-1(4)		X			33.4												J3-CI-4 TO J3-INLET-4
23+28.63	23+29.00	J3-1(2)	X				45.7												J3-CI-3 TO J3-DI-1
23+29.00	23+29.00	J3-1(1)	X				119.9												J3-DI-1 TO J3-MH-1
23+29.00	23+36.00	J3-2(1)	X	X	7.0														J3-DI-1 TO J3-DI-2
23+29.00	25+56.00	J4T-5	X						227.6										J3-MH-1 TO J1-MH-1
25+56.00	25+60.00	J4T-6	X						18.4										J1-MH-1 TO J1-DI-1
25+60.00	25+64.89	J4T-7	X						50.2										J1-DI-1 TO J1-FETS-1
25+80.78	26+14.50	J1-1	X	X			35.7												J1-FETS-2 TO J1-DI-2
26+88.26	26+88.26	J1R-1(3)	X	X	14.4														J1-DI-3 TO J1-DI-4
26+88.26	27+07.48	J1R-1(2)	X	X	41.9														J1-DI-3 TO J1-CI-3
26+97.00	27+42.28	J2-1(1)	X	X		52.5													J2-DI-1 TO J2-CI-2
27+07.48	27+98.67	J1R-1(1)	X	X		162.3													J1-CI-3 TO J1R-FETS-1
27+42.28	28+10.91	J2-1(2)	X				79.8												J2-CI-2 TO J2-DI-3
28+01.00	28+07.59	J2-2(1)	X			7.1													J2-CI-4 TO J2-CI-5
28+07.59	28+10.91	J2-2(2)	X			36.9													J2-CI-5 TO J2-DI-3
28+10.91	28+45.77	J2-1(3)	X				44.8												J2-DI-3 TO J2-FETS-1
28+83.18	28+94.73	J2-3(4)	X				38.0												J2-FETS-2 TO J2-CI-6
28+94.73	28+95.00	J2-3(3)	X				40.0												J2-CI-6 TO J2-CI-7
28+95.00	28+95.00	J2-3(2)	X				119.6												J2-CI-8 TO J2-CI-7
28+95.00	29+01.92	J2-3(1)		X			28.8												J2-CI-8 TO J2-INLET-1
30+09.00	30+20.00	J1R-2	X	X		11.3													J1-CI-4 TO J1-CI-5
30+20.00	30+20.00	J1R-3	X	X		26.6													J1-CI-5 TO J1-CI-6
30+20.00	30+90.48	J1R-4	X	X			127.0												J1-CI-6 TO J1R-FETS-2
33+24.39	33+32.00	JN-1(1)	X	X				38.0											JN-FETS-W TO JN-CI-1
33+32.00	34+62.17	JN-1(2)	X	X				149.1											JN-CI-1 TO JN-MH-1
34+62.17	35+04.93	JN-1(3)	X	X				66.5											JN-MH-1 TO JN-FETS-E
33+32.00	33+37.37	JN-2(1)	X	X		114.0													JN-CI-2 TO JN-FETS-E-2
33+68.58	34+62.17	JN-2(2)	X				133.8												JN-CI-3 TO JN-MH-1

GRANULAR BEDDING MATERIAL INCIDENTAL TO STORM DRAIN PIPE SMALLER THAN 54", SEE DETAILED DRAWINGS FOR BEDDING QUANTITIES AND DETAILS

** MISC. ITEMS - REPAIR. SEE SPECIAL PROVISIONS

[1] PIPE CLASS RCP PIPE PER SECTION 708.01.2

[2] PROFILE WALL PVC PIPE PER SECTION 708.05.4

DOWN

SUMMARY

STORM DRAIN PIPE, CONT.																			
STATION			PIPE MATERIALS		linear feet						REMOVE STORM DRAIN	cubic yards			lump sum	each		REMARKS	
					STORM DRAIN PIPE #							GRANULAR BEDDING MATERIAL #	CNT'L'D LOW STRENGTH MATL.	CLASS GENERAL CONCRETE		PIPE REPAIR ##	LONG- RADIUS BEND *		CONNECT TO EXISTING PIPE **
FROM	TO	NAME	RCP [1]	PVC [2]	12"	15"	18"	24"	36"	84"									
RAMP J1																			
1105+66.77	1106+45.37	0F-2(1)	X				74.3											0F-2-FETS TO 0F-2	
RAMP J2																			
1120+00.00	1120+00.00	J2-1	X				53.5											MI-1 TO J2-FETS-3	
OLD HARDIN ROAD																			
25+02.50	25+09.50	SL-23(1)	X	X	7.0													CI-47 TO CI-49	
25+02.50	25+02.50	SL-23(2)	X	X	13.5													CI-47 TO MH-27	
25+02.50	27+50.00	ST-WH-1	X				247.5											MH-27 TO MH-28	
25+02.50	25+02.50	SL-23(3)	x	x	13.5													MH-27 to CI-48	
25+02.50	25+09.50	SL-23(4)	X	X	7.0													CI-48 TO CI-50	
27+50.00	30+00.00	ST-WH-2	X				249.5											MH-28 TO MH-9	
28+10	29+83										172.4							36" RCP IRR. PIPELINE RT.	
28+10.57	31+03.86		X						293.4				23					IRR-MH-1 TO IRR-MH-2	
29+83	31+19										136.3							36" RCP IRR. PIPELINE RT.	
29+89.56	30+00.00	SL-8(1)	X	X	29.0													CI-51 TO MH-9	
29+93.00	30+00.00	SL-8(3)			7.0													DI-15A TO DI-15B	
30+00.00	30+00.00	SL-8(2)	X	X	30.4													MH-9 TO DI-15B	
30+00.00	30+73.00	ST-WH-3	X				73.0											MH-9 TO MH-10	
30+73.00	30+86.00	SL-9(1)	X	X		34.9												MH-10 TO DI-16A	
30+73.00	31+97.00	ST-WH-4	X					124.0										MH-10 TO MH-11	
30+86.00	30+93.00	SL-9(2)	X	X	7.0													DI-16A TO DI-16B	
31+03.86	34+09.10		X						305.4				22					IRR-MH-2 TO IRR-MH-3	
31+19	3+10										535.5							36" RCP IRR. PIPELINE RT.	
31+90.00	31+97.00	SL-10(3)	X	X	7.0													CI-18A TO CI-18B	
31+97.00	31+97.00	SL-10(1)	X	X	29.5													CI-17 TO MH-11	
31+97.00	31+97.00	SL-10(2)	X	X	33.5													CI-18B TO MH-11	
31+97.00	33+41.00	ST-WH-5	X					144.0										MH-11 TO MH-12	
33+34.00	33+41.00	SL-11(3)	X	X	7.0													CI-20A TO CI-20B	
33+41.00	33+41.00	SL-11(1)	X	X	29.5													CI-19 TO MH-12	
33+41.00	33+41.00	SL-11(2)	X	X	33.5													CI-20B TO MH-12	
33+41.00	34+59.00	ST-WH-6	X					118.3										MH-12 TO MH-13	
34+09.10	35+19.48		X						112.2									IRR-MH-3 TO IRR-MH-4	
34+59.00	34+59.00	SL-12(1)	X	X		20.8												CI-21 TO MH-13	
34+59.00	34+59.00	SL-12(2)	X	X			41.1											CI-22 TO MH-13	
34+59.00	34+66.00	SL-12(3)	X	X	7.0													CI-22 TO CI-23	
34+59.00	36+00.31	ST-WH-7	X						143.1									MH-13 TO MH-14	
34+66.00	34+73.00	SL-12(4)	X	X	7.0													CI-23 TO CI-24	
35+19.48	3+24.74		X						145.7				1					IRR-MH-4 TO IRR-MH-5	
35+33	35+40										75.2							24" RCP	
36+00.31	15+48.00	ST-WH-8	X						39.0									MH-14 TO MH-7	
15+48.00	3+80.00	ST-EH-1	X						92.5									MH-7 TO MH-15	
3+10	14+32										1123.3							36" CPP IRR. PIPELINE RT.	
3+24.74	5+48.92		X						224.9				107					IRR-MH-5 TO IRR-MH-6	
3+80.00	4+67.00	ST-EH-2	X						87.0									MH-15 TO MH-16	
3+80.00	3+80.00	SL-13(1)	X	X		12.1												CI-25 TO MH-15	
3+80.00	3+87.00	SL-13(2)	X	X		7.0												CI-25 TO CI-26	
4+67.00	4+67.00	SL-14(2)	X	X	8.5													CI-27 TO MH-16	
4+67.00	4+73.00	SL-14(1)	X	X	74.9													MH-16 TO CI-28	
4+67.00	5+91.00	ST-EH-3	X						124.0				5					MH-16 TO MH-17	
5+48.92	7+43.72		X						195.0				39					IRR-MH-6 TO IRR-MH-7	
5+55	5+71										16.0				0.5			12" PVC	
5+58	6+49										91.8				0.5			12" PVC	
5+61.00				X	14.0												1	IRRIGATION LATERAL CONNECTION	
5+62.04	5+83.00	SL-EH-9	X	X		21.0											1	CONNECTION TO LSI-4	
5+83.00	6+95.98	BE-1(1)	X	X			113.1											LSI-4 TO MH-26	
5+91.00	5+91.00	SL-15(2)	X	X		69.5												CI-29 TO MH-17	
5+91.00	5+91.00	SL-15(3)	X	X		8.5												CI-30 TO MH-17	
5+91.00	5+98.00	SL-15(1)	X	X	7.0													CI-29 TO CI-31	
5+91.00	5+98.00	SL-15(4)	X	X	7.0													CI-30 TO CI-32	
5+91.00	7+58.51	ST-EH-4	X					167.5										MH-17 TO MH-18	
6+49	7+06										58.4							12" PVC	
6+95.98	7+02.59	BE-1(2)	X	X			55.3											MH-26 TO BE-CI-1	
7+02.59	7+03.68	BE-1(3)	X	X			7.0											BE-CI-1 TO BE-CI-2	
7+31.00	7+58.51	SL-16(1)	X	X		75.2												CI-33 TO MH-18	
7+58.51	7+61.81	SL-16(2)	X	X	8.6													MH-18 TO CI-34	
7+58.51	8+68.00	ST-EH-5	X						109.5									MH-18 TO MH-19	
7+43.72	9+85.22		X							241.5								IRR-MH-7 TO IRR-MH-8	
8+68.00	8+68.00	SL-17(1)	X	X		63.7												CI-35 TO MH-19	
8+68.00	8+68.00	SL-17(2)	X	X	7.5													CI-36 TO MH-19	
8+68.00	9+73.00	ST-EH-6	X				105.0											MH-19 TO MH-20	
9+73.00	9+73.00	SL-18(1)	X	X			7.5											CI-37 TO CI-38	
9+73.00	9+84.00	SL-18(2)	X	X		11.0												CI-38 TO MH-20	
9+73.00	10+88.00	ST-EH-7	X				115.1											MH-20 TO CI-39	
9+85.22	11+39.90		X						155.4									IRR-MH-8 TO IRR-MH-9	

GRANULAR BEDDING MATERIAL INCIDENTAL TO STORM DRAIN PIPE SMALLER THAN 54", SEE DETAILED DRAWINGS FOR BEDDING QUANTITIES AND DETAILS
* MISC. ITEMS - EACH. SEE SPECIAL PROVISIONS
** SEE DETAILS & SPECIAL PROVISIONS

MISC. ITEMS - REPAIR. SEE SPECIAL PROVISIONS
[1] PIPE CLASS RCP PIPE PER SECTION 708.01.2
[2] PROFILE WALL PVC PIPE PER SECTION 708.05.4

SUMMARY

STORM DRAIN PIPE, CONT.

STORM DRAIN PIPE, CONT.																		
STATION			PIPE MATERIALS		linear feet						cubic yards				lump sum	each		REMARKS
					STORM DRAIN PIPE #						REMOVE STORM DRAIN	GRANULAR BEDDING MATERIAL #	CNT'L'D LOW STRENGTH MATL.	CLASS GENERAL CONCRETE	PIPE REPAIR ##	LONG- RADIUS BEND *	CONNECT TO EXISTING PIPE **	
FROM	TO	NAME	RCP [1]	PVC [2]	12"	15"	18"	24"	36"	84"								
OLD HARDIN ROAD (CONT.)																		
10+88.00	10+95.00	ST-EH-8	X	X			7.8											CI-39 TO CI-40
11+39.90	14+32.19		X						292.5									IRR-MH-9 TO FETS OUTLET
13+80.00	13+80.00	SL-19(1)	X	X		19.4												CI-41 TO MH-21
13+80.00	15+30.00	SL-20(1)	X				150.0											MH-21 TO MH-22
13+80.00	13+80.00	SL-19(2)	X	X		28.1												MH-21 TO CI-42
15+30.00	15+30.00	SL-21(2)	X	X		23.6												CI-43 TO MH-22
15+30.00	15+31.88	SL-21(1)	X	X		19.4												MH-22 TO CI-44
15+30.00	16+95.00	SL-20(2)	X				165.0											MH-22 TO MH-23
16+95.00	17+03.24	SL-22(1)	X				8.4											MH-24 TO MH-25
16+95.00	16+95.00	SL-22(2)	X				21.1											CI-45 TO MH-24
16+95.00	16+95.00	SL-22(3)	X				7.2											MH-23 TO CI-45
16+95.00	16+95.00	SL-22(4)	X	X		19.4												CI-46 TO MH-23
NORTH FRONTAGE ROAD																		
1106+73.99	1107+17.33	OF-3(1)	X				49.0											OF-3-FETS TO OF-3
1110+16.00	1110+16.00	NF-1(2)	X				62.0											NF-DI-2 TO NF-FETS
1110+16.00	1110+25.00	NF-1(1)	X	X			9.0											NF-DI-2 TO NF-DI-1
TOTAL			~	~	721.7	992.4	3350.8	1107.3	3361.2	418.0	2208.9	460	197	6.6	1	10	3	~

GRANULAR BEDDING MATERIAL INCIDENTAL TO STORM DRAIN PIPE SMALLER THAN 54", SEE DETAILED DRAWINGS FOR BEDDING QUANTITIES AND DETAILS
* MISC. ITEMS - EACH. SEE SPECIAL PROVISIONS
** SEE DETAILS & SPECIAL PROVISIONS

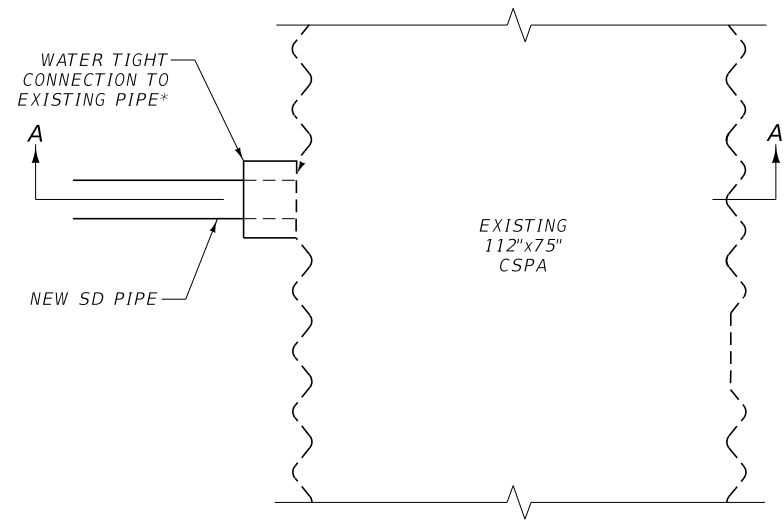
MISC. ITEMS - REPAIR. SEE SPECIAL PROVISIONS
[1] PIPE CLASS RCP PIPE PER SECTION 708.01.2
[2] PROFILE WALL PVC PIPE PER SECTION 708.05.4

STORM DRAIN & IRRIGATON STRUCTURE SCHEDULE

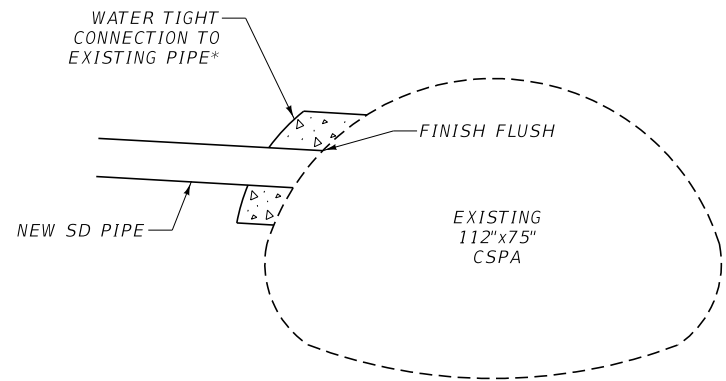
NAME	STATION	each																				linear feet						REMARKS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
		REMOVE DROP INLET	ADJUST MANHOLE	MODIFY MANHOLE	ROUND STORM DRAIN STRUCTURE								TOP IRON						CATCH BASIN *	CONCRETE APRON	84" MANHOLE TEE	INLET DROP- SPECIAL DESIGN *	INLET CURB SPECIAL DESIGN	MEDIAN INLET	ADDITIONAL BARREL																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
					INLET			MANHOLE					MH LID	TYPE A	TYPE B	TYPE I	TYPE IV	TYPE V							BEEHIVE	TYPE I	36"		48"	60"	72"	84"																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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* SEE DETAIL

DOWL



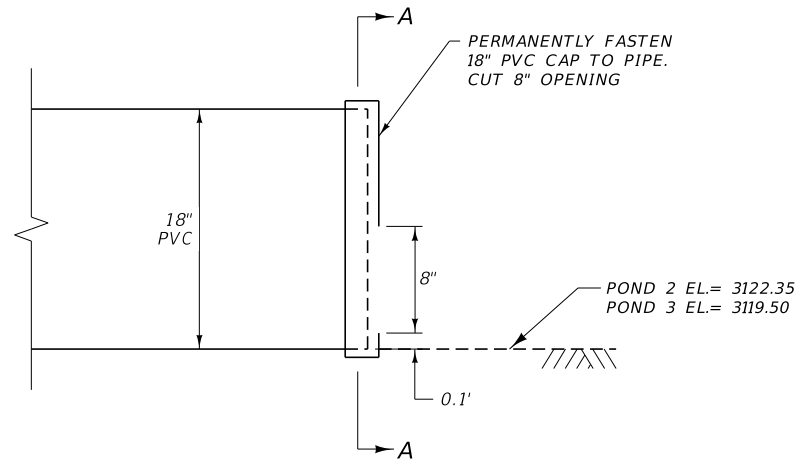
EXISTING CULVERT PLAN VIEW



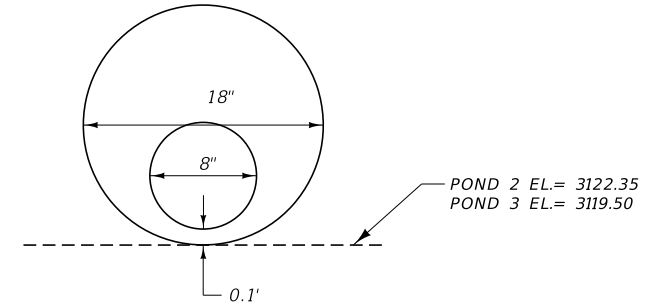
SECTION A-A

*CLSM OR FITTINGS ARE INCIDENTAL TO CONNECT TO EXISTING PIPE

CONNECT TO EXISTING PIPE

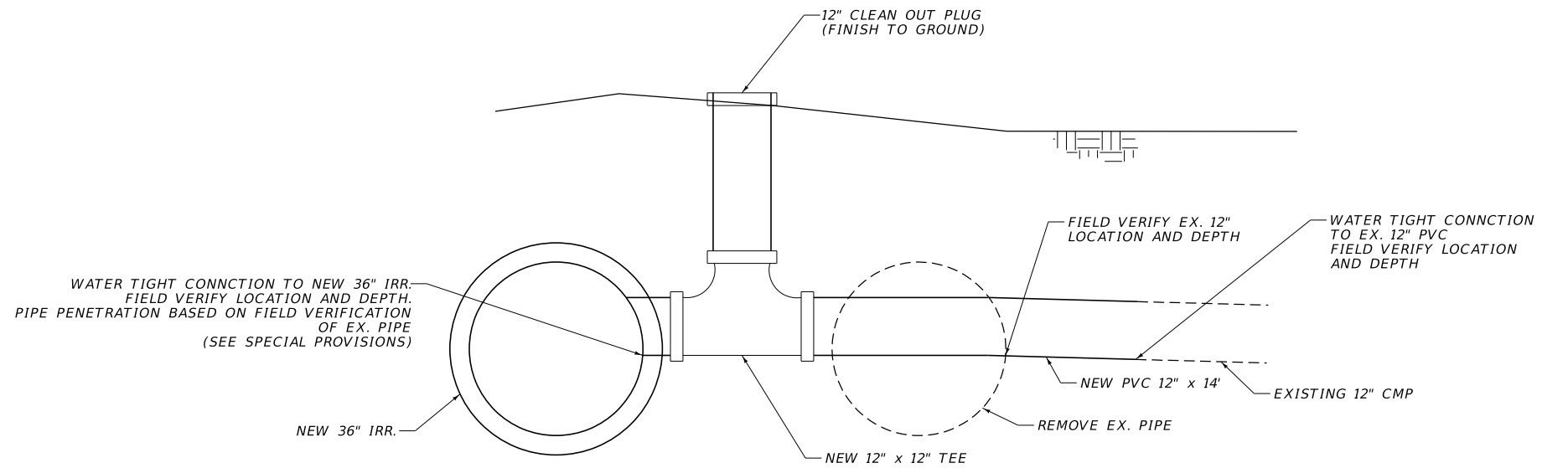


PROFILE VIEW



SECTION A-A

ORIFICE PLATE



NOTE: FITTINGS ARE INCIDENTAL TO PIPE LENGTH

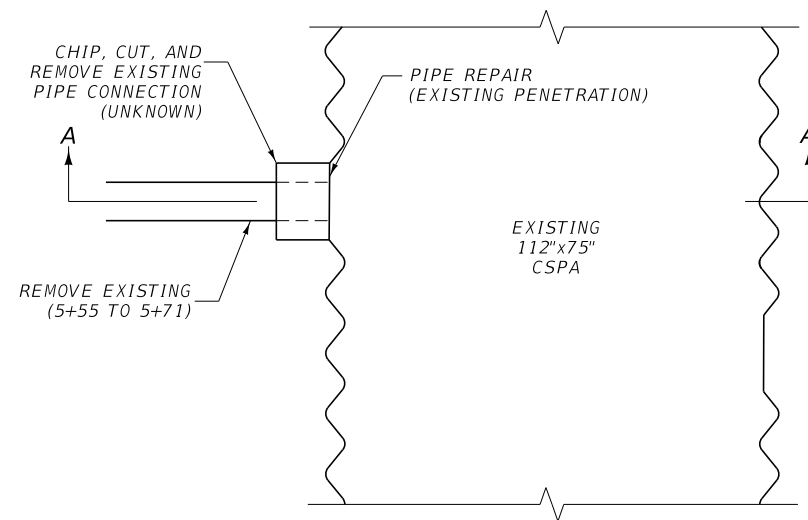
IRRIGATION LATERAL CONNECTION

DETAILS

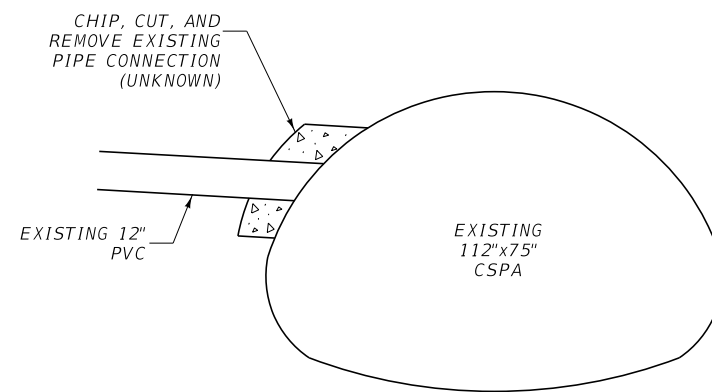
CONNECTION TO EXISTING PIPE, IRRIGATION LATERAL CONNECTION, & ORIFICE PLATE

3
2

DOWL

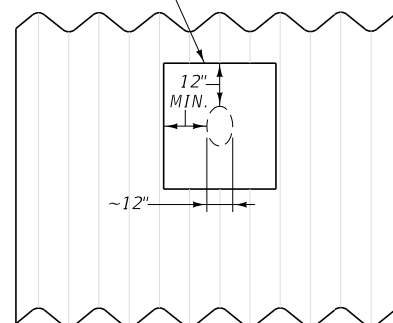


EXISTING CULVERT PLAN VIEW

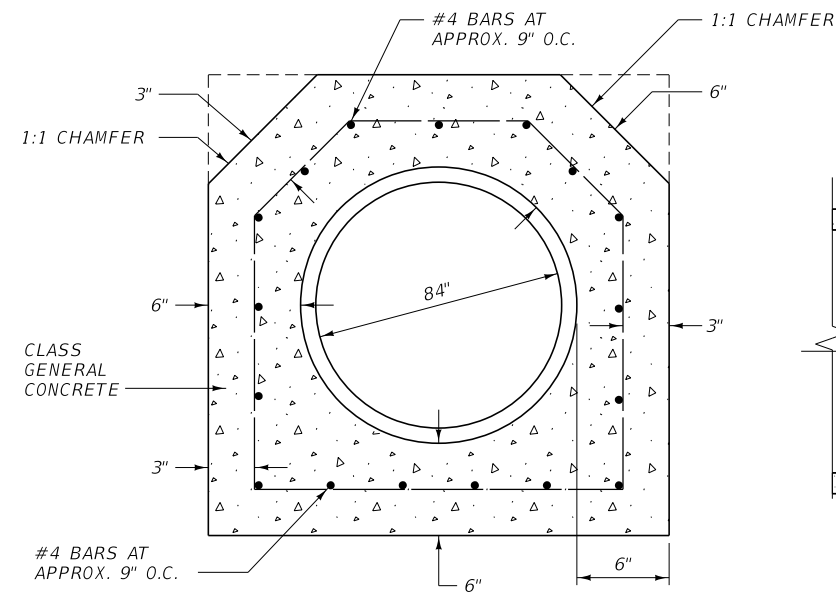


SECTION A-A

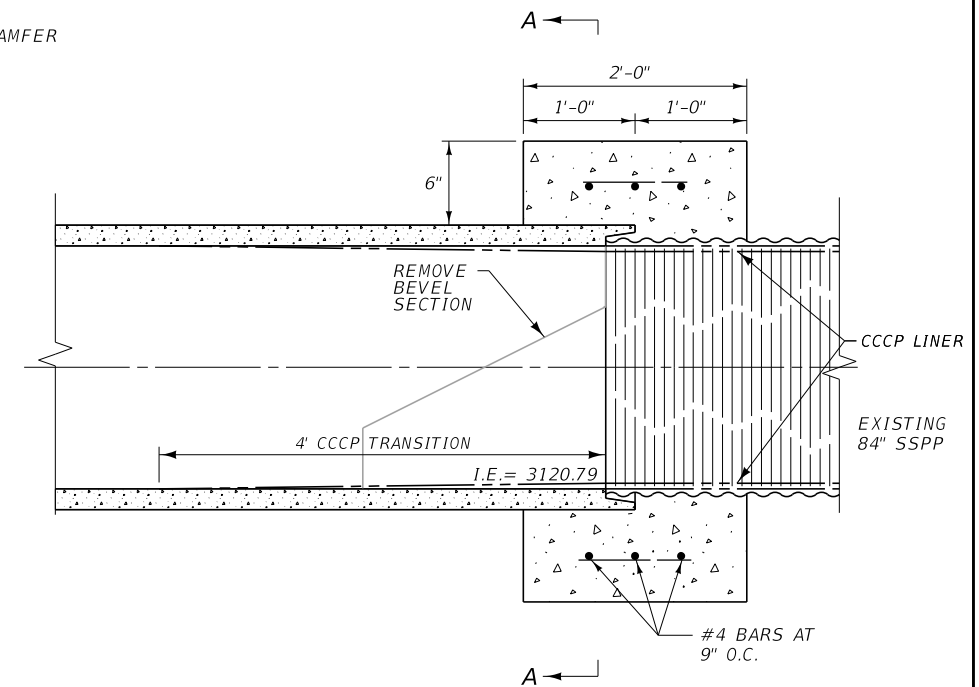
INSTALL CORRUGATED METAL PLATE MATCHING EXISTING PIPE CORRUGATION AND FASTEN TO PIPE TO PROVIDE WATER TIGHT CONNECTION



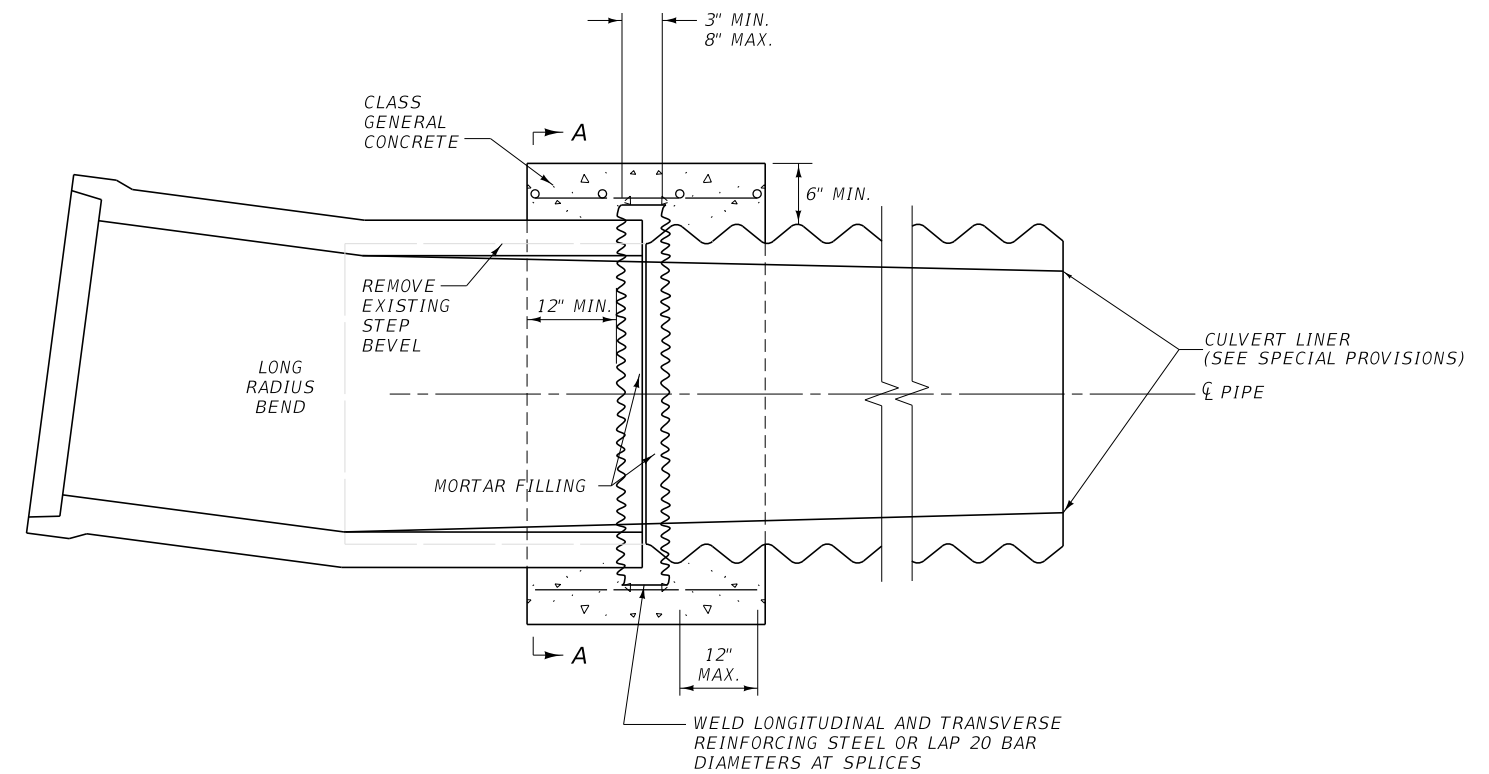
PIPE REPAIR
(SEE SPECIAL PROVISIONS)



SECTION A-A



CONNECTION DETAILS
PROFILE VIEW

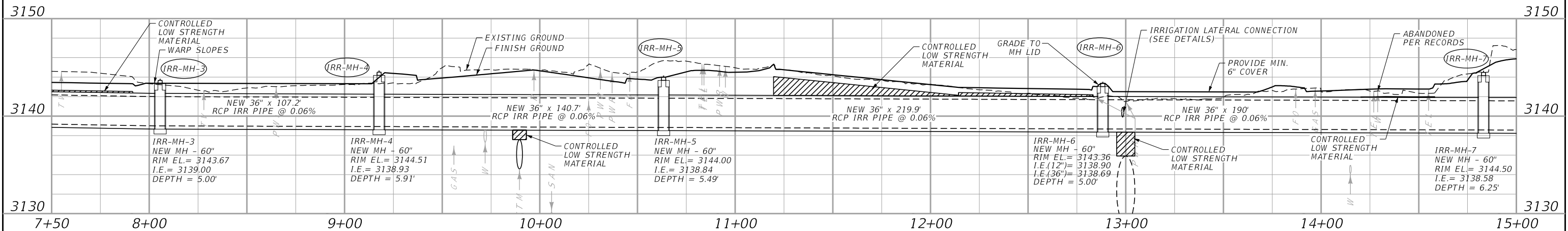
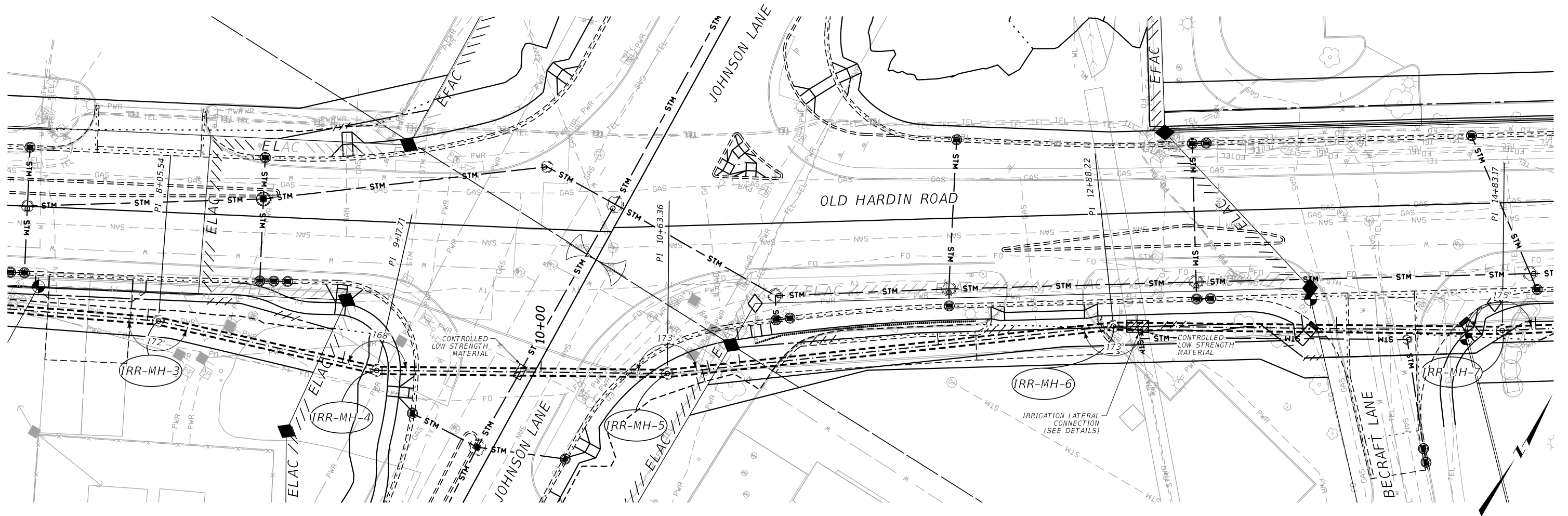


CONNECTION W/ LONG-RADIUS BEND
PLAN VIEW

FIELD CONNECTION TO I-90 CULVERT

DETAILS

OLD HARDIN ROAD
EXISTING CULVERT
PIPE PENETRATION REPAIR
AND
FIELD CONNECTION TO
I-90 CULVERT



STORM DRAIN PIPE LENGTHS				
STARTING INLET / MANHOLE NUMBER	ENDING INLET / MANHOLE NUMBER	PIPE SIZE (in) / TYPE	EDGE TO EDGE LENGTH (ft) ①	CENTER TO CENTER LENGTH (ft) ②
IRR-MH-3	IRR-MH-4	36" RCP IRR	107.2	112.2
IRR-MH-4	IRR-MH-5	36" RCP IRR	140.7	145.7
IRR-MH-5	IRR-MH-6	36" RCP IRR	219.9	224.9
IRR-MH-6	IRR-MH-7	36" RCP IRR	190.0	195.0

① INSIDE EDGE TO INSIDE EDGE OF STRUCTURE USED FOR SLOPE CALCULATION ONLY
② CENTER TO CENTER OF STRUCTURE USED FOR BID LENGTH

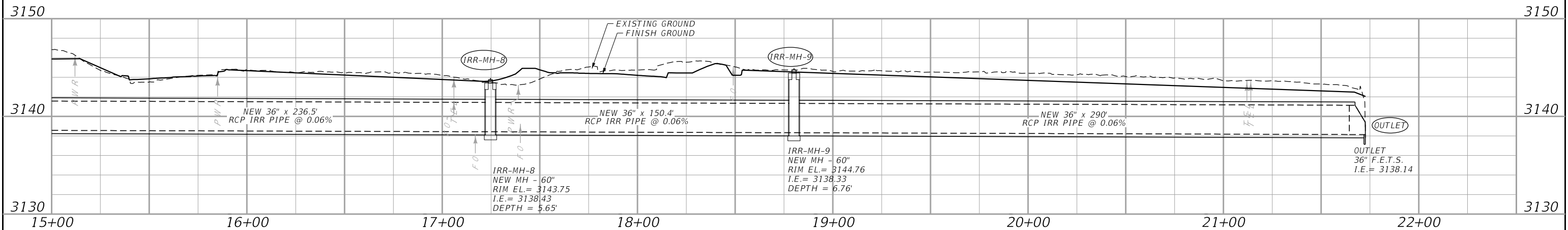
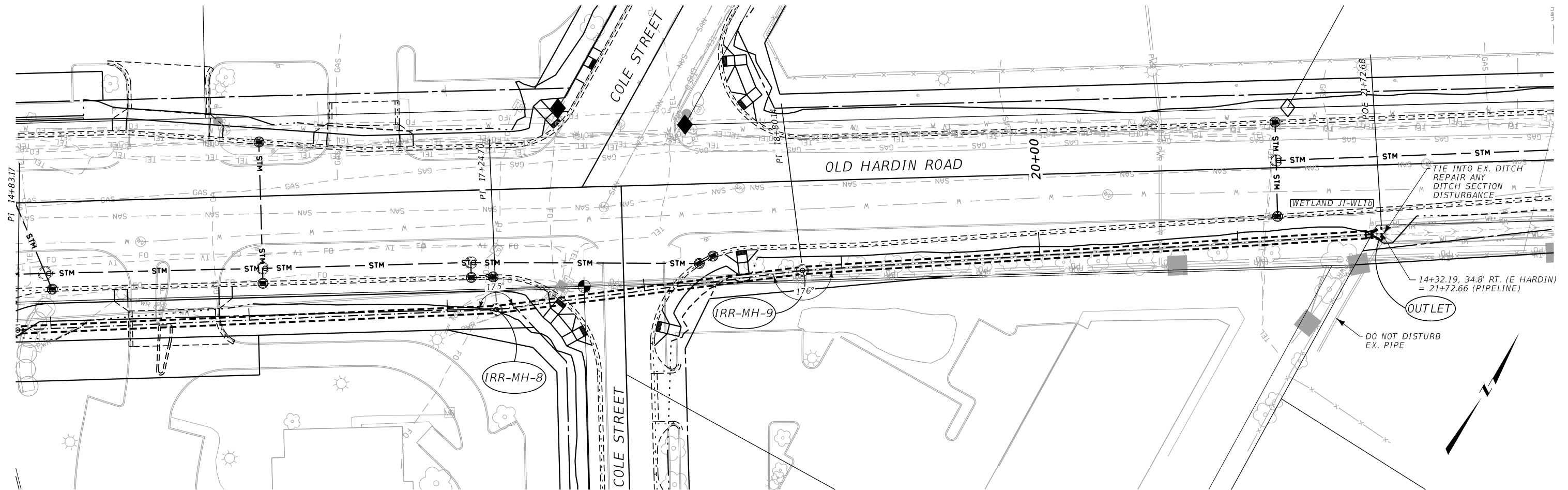
INLET / MANHOLE COORDINATE TABLE					
INLET / MANHOLE NUMBER	SIZE / TYPE	INLET / MANHOLE STATION & OFFSET ③	N OR Y COORDINATE ④	E OR X COORDINATE ④	FL / RIM ELEVATION (ft)
IRR-MH-3	60" TYPE 3	8+05.54, 0.0' (34+09.10, 54.7' RT.)	571,480.194	2,245,154.366	3143.67
IRR-MH-4	60" TYPE 3	9+17.71, 0.0' (35+19.48, 74.6' RT.)	571,513.827	2,245,261.367	3144.51
IRR-MH-5	60" TYPE 3	10+63.36, 0.0' (3+24.74, 73.9' RT.)	571,585.712	2,245,388.050	3144.00
IRR-MH-6	60" TYPE 3	12+88.22, 0.0' (5+48.92, 56.4' RT.)	571,718.683	2,245,569.378	3142.31
IRR-MH-7	60" TYPE 3	14+83.17, 0.0' (7+43.72, 64.1' RT.)	571,814.817	2,245,738.981	3144.50

③ STATION AND OFFSET IS TO CENTER OF STRUCTURE
④ COORDINATES ARE TO CENTER OF STRUCTURE

DETAILS

LOCKWOOD IRRIGATION DISTRICT PIPELINE

DOWL



STORM DRAIN PIPE LENGTHS				
STARTING INLET / MANHOLE NUMBER	ENDING INLET / MANHOLE NUMBER	PIPE SIZE (in) / TYPE	EDGE TO EDGE LENGTH (ft) ①	CENTER TO CENTER LENGTH (ft) ②
IRR-MH-7	IRR-MH-8	36" RCP IRR	236.5	241.5
IRR-MH-8	IRR-MH-9	36" RCP IRR	150.4	155.4
IRR-MH-9	OUTLET	36" RCP IRR	290.0	292.5

① INSIDE EDGE TO INSIDE EDGE OF STRUCTURE USED FOR SLOPE CALCULATION ONLY
② CENTER TO CENTER OF STRUCTURE USED FOR BID LENGTH

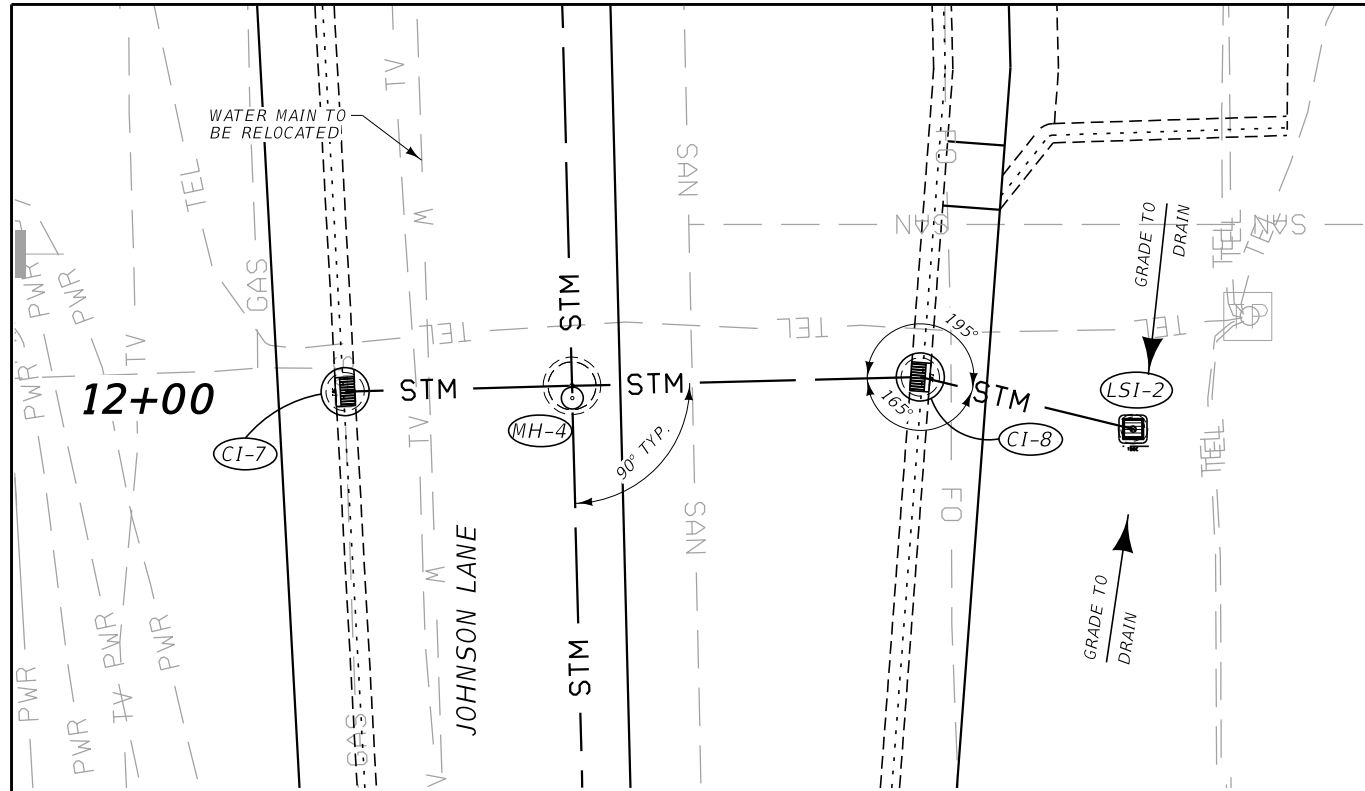
INLET / MANHOLE COORDINATE TABLE					
INLET / MANHOLE NUMBER	SIZE / TYPE	INLET / MANHOLE STATION & OFFSET ③	N OR Y COORDINATE ④	E OR X COORDINATE ④	FL / RIM ELEVATION (ft)
IRR-MH-8	60" TYPE 3	17+24.70, 0.0' (9+85.22, 60.5' RT.)	571,945.081	2,245,942.369	3144.55
IRR-MH-9	60" TYPE 3	18+80.14, 0.0' (11+39.90, 45.2' RT.)	572,039.614	2,246,065.759	3144.76
OUTLET	36" F.E.T.S.	21+72.66, 0.0' (14+32.19, 34.8' RT.)	572,202.365	2,246,308.758	3138.14

③ STATION AND OFFSET IS TO CENTER OF STRUCTURE
④ COORDINATES ARE TO CENTER OF STRUCTURE

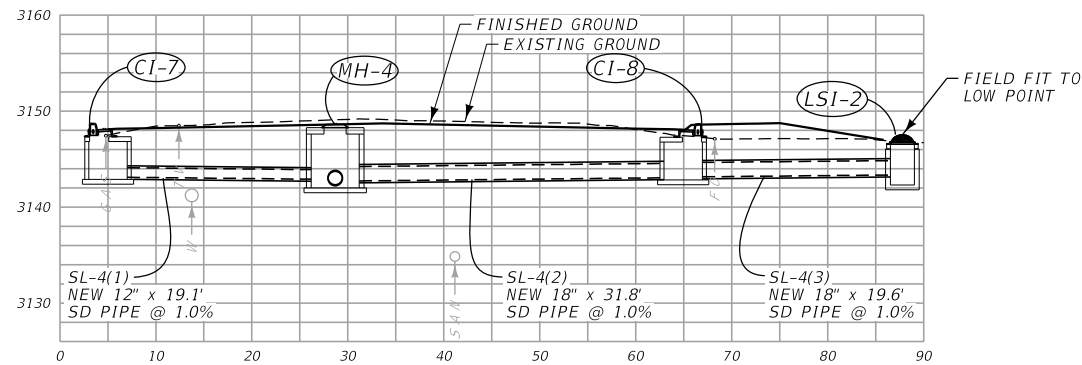
DETAILS

LOCKWOOD IRRIGATION DISTRICT PIPELINE

◀ DOWL



JOHNSON LANE - STA. 12+00.00

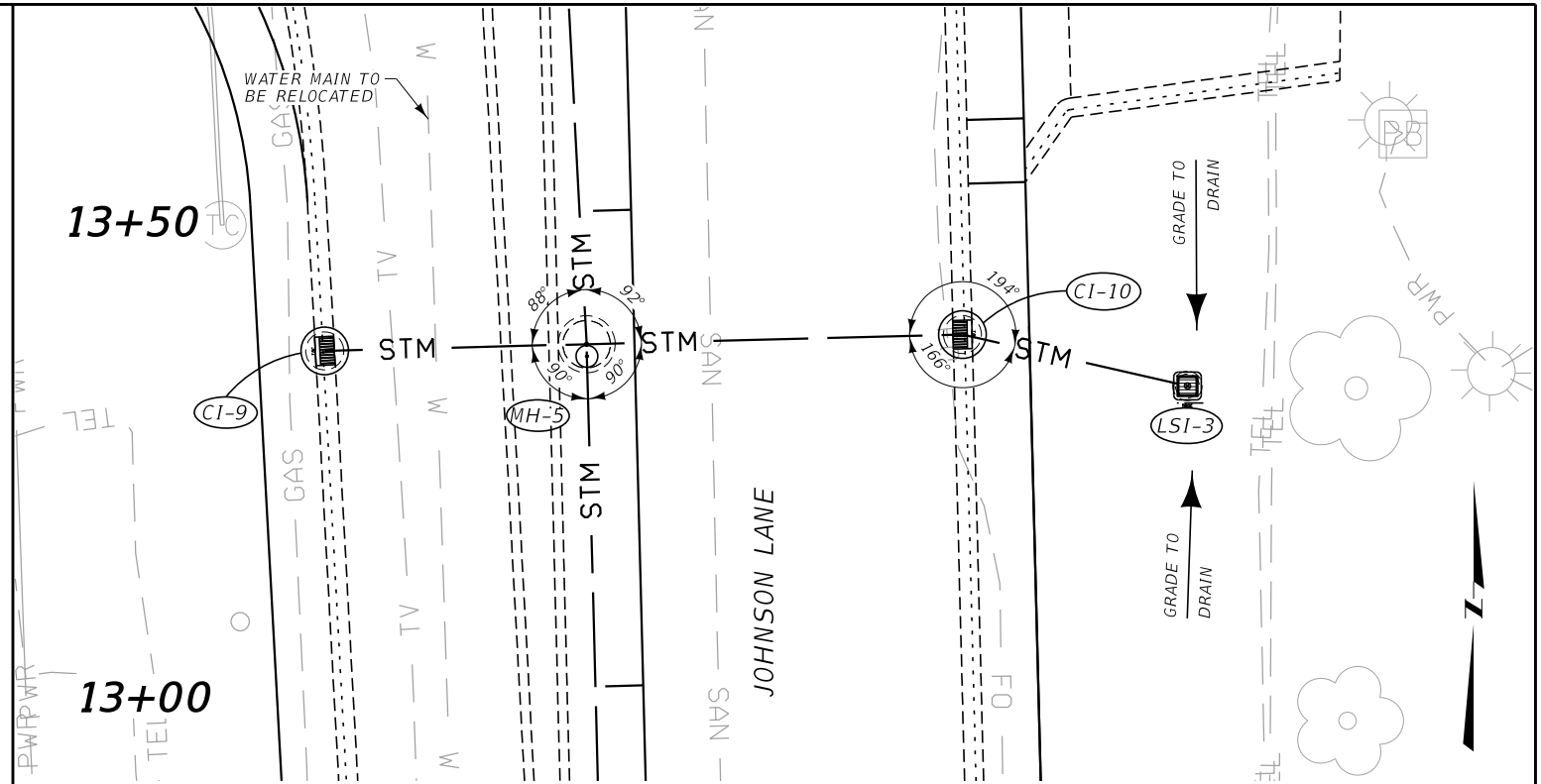


CI-7
12+00.00, 28.6' LT.
NEW INLET CURB - TYPE B
T.B.C. EL.= 3148.61
F.L. EL.= 3148.11
I.E. (OUT)= 3143.11
DEPTH = 5.00'

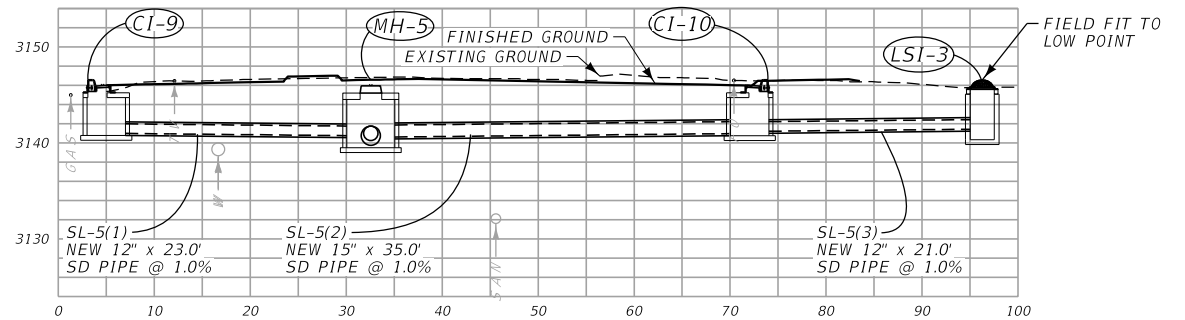
MH-4
12+00.00, 5.0' LT.
NEW MH - 60" TYPE 3
RIM EL.= 3148.63
I.E. (IN) E= 3142.73
I.E. (IN) W= 3142.91
I.E. (IN) S= 3142.33
I.E. (OUT) N= 3142.23
DEPTH = 6.40'

CI-8
12+00.00, 31.3' RT.
NEW INLET CURB - TYPE B
T.B.C. EL.= 3148.56
F.L. EL.= 3148.06
I.E. (IN)= 3143.16
I.E. (OUT)= 3143.06
DEPTH = 5.0'

LSI-2
11+94.00, 53.3' RT.
NEW CATCH BASIN
W/ ROUND BEEHIVE CASTING
& 12" SUMP
RIM EL.= 3146.78
I.E. (OUT)= 3143.36
DEPTH = 4.42'



JOHNSON LANE - STA. 13+36.00



CI-9
13+36.00, 32.5' LT.
NEW INLET CURB - TYPE B
T.B.C. EL.= 3146.50
F.L. EL.= 3146.00
I.E. (OUT)= 3141.00
DEPTH = 5.00'

MH-5
13+36.00, 5.0' LT.
NEW MH - 60" TYPE 3
RIM EL.= 3146.59
I.E. (IN) E= 3140.62
I.E. (IN) W= 3140.76
I.E. (IN) S= 3140.26
I.E. (OUT) N= 3139.76
DEPTH = 6.83'

CI-10
13+36.00, 34.5' RT.
NEW INLET CURB - TYPE B
T.B.C. EL.= 3146.46
F.L. EL.= 3145.96
I.E. (IN)= 3141.22
I.E. (OUT)= 3140.96
DEPTH = 5.00'

LSI-3
13+30.00, 58.0' RT.
NEW CATCH BASIN
W/ ROUND BEEHIVE CASTING
& 12" SUMP
RIM EL.= 3145.80
I.E. (OUT)= 3141.43
DEPTH = 5.37'

LATERAL PIPE LENGTHS				
STARTING INLET / MANHOLE NUMBER	ENDING INLET / MANHOLE NUMBER	PIPE SIZE (in) / TYPE	EDGE TO EDGE LENGTH (ft) ①	CENTER TO CENTER LENGTH (ft) ②
CI-7	MH-4	12" SD	19.1	23.6
LSI-2	CI-8	18" SD	19.6	22.8
CI-8	MH-4	18" SD	31.8	36.3
CI-9	MH-5	12" SD	23.0	27.5
LSI-3	CI-10	12" SD	21.0	24.2
CI-10	MH-5	15" SD	35.0	39.5

① INSIDE EDGE TO INSIDE EDGE OF STRUCTURE USED FOR SLOPE CALCULATION ONLY
② CENTER TO CENTER OF STRUCTURE USED FOR BID LENGTH

INLET / MANHOLE COORDINATE TABLE					
INLET / MANHOLE NUMBER	SIZE / TYPE	INLET / MANHOLE STATION & OFFSET ③	N OR Y COORDINATE ④	E OR X COORDINATE ④	FL / RIM ELEVATION (ft)
CI-7	TYPE B	12+00.00, 28.6' LT.	571,297.39	2,245,308.01	3148.11
CI-8	TYPE B	12+00.00, 31.3' RT.	571,298.92	2,245,367.94	3148.06
LSI-2	BEEHIVE	11+94.00, 53.3' RT.	571,293.49	2,245,390.11	3146.78
CI-9	TYPE B	13+36.00, 32.5' LT.	571,433.25	2,245,300.66	3146.00
CI-10	TYPE B	13+36.00, 34.5' RT.	571,434.96	2,245,367.67	3145.96
LSI-3	BEEHIVE	13+30.00, 58.0' RT.	571,429.56	2,245,391.32	3145.80

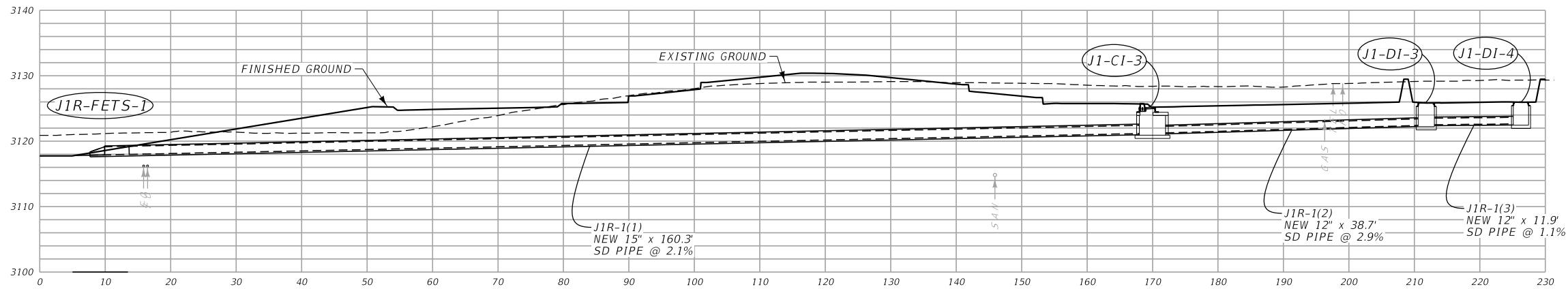
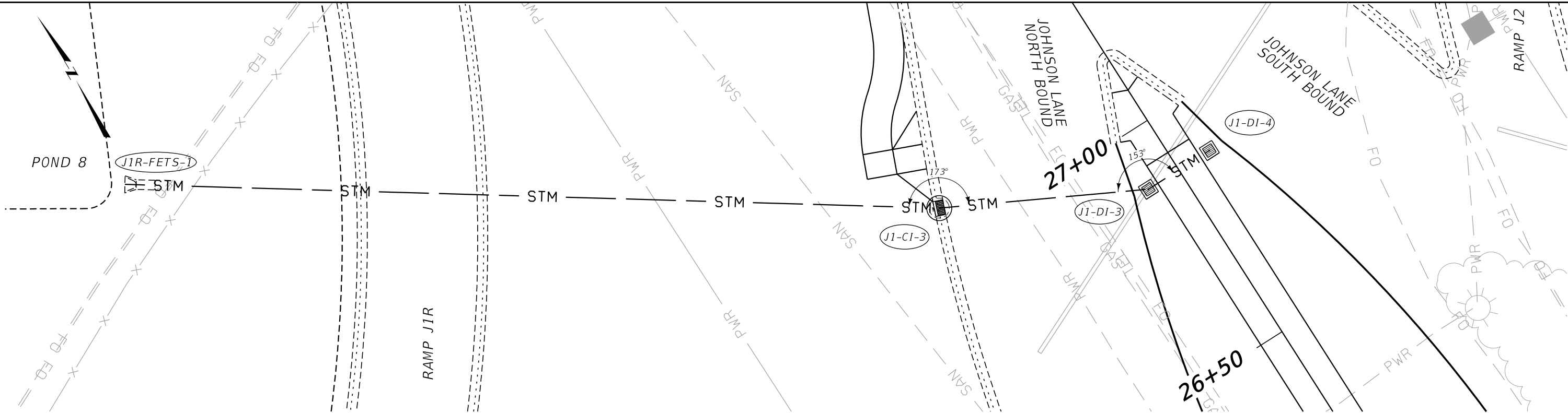
③ STATION AND OFFSET IS TO CENTER OF STRUCTURE
④ COORDINATES ARE TO CENTER OF STRUCTURE

DETAILS

JOHNSON LANE
STORM DRAIN
LATERAL PROFILES

SCALE: 1" = 20'

DOWEL



J1R-FETS-1
27+98.67, 178.8' LT.
NEW F.E.T.S.
I.E. (OUT)= 3117.85

J1-CI-3
27+07.48, 44.4' LT.
NEW INLET CURB - TYPE B
T.B.C. EL.= 3125.67
F.L. EL.= 3125.17
I.E. (IN)= 3121.27
I.E. (OUT)= 3121.17
DEPTH = 4.00'

J1-DI-3
26+88.26, 7.2' LT.
NEW DROP INLET - TYPE IV
RIM EL.= 3125.79
I.E. (IN)= 3122.51
I.E. (OUT)= 3122.41
DEPTH = 3.38'

J1-DI-4
26+88.26, 7.2' RT.
NEW DROP INLET - TYPE IV
RIM EL.= 3125.95
I.E. (OUT)= 3122.64
DEPTH = 3.31'

STORM DRAIN PIPE LENGTHS				
STARTING INLET / MANHOLE NUMBER	ENDING INLET / MANHOLE NUMBER	PIPE SIZE (in) / TYPE	EDGE TO EDGE LENGTH (ft) ①	CENTER TO CENTER LENGTH (ft) ②
J1-CI-3	J1R-FETS-1	15" SD	160.3	162.3
J1-CI-3	J1-DI-1	12" SD	38.7	41.9
J1-DI-1	J1-DI-2	12" SD	11.8	14.4

① INSIDE EDGE TO INSIDE EDGE OF STRUCTURE USED FOR SLOPE CALCULATION ONLY
② CENTER TO CENTER OF STRUCTURE USED FOR BID LENGTH

INLET / MANHOLE COORDINATE TABLE					
INLET / MANHOLE NUMBER	SIZE / TYPE	INLET / MANHOLE STATION & OFFSET ③	N OR Y COORDINATE ④	E OR X COORDINATE ④	FL / RIM ELEVATION (ft)
J1-DI-3	TYPE IV	26+88.26, 7.2' LT.	572,785.80	2,245,294.26	3125.79
J1-DI-4	TYPE IV	26+88.26, 7.2' RT.	572,786.13	2,245,308.64	3125.95
J1-CI-3	TYPE B	27+07.48, 44.4' LT.	572,804.16	2,245,256.62	3125.17
J1R-FETS-1	18" F.E.T.S.	27+98.67, 178.8' LT.	572,892.21	2,245,120.14	3117.85

③ STATION AND OFFSET IS TO CENTER OF STRUCTURE
④ COORDINATES ARE TO CENTER OF STRUCTURE

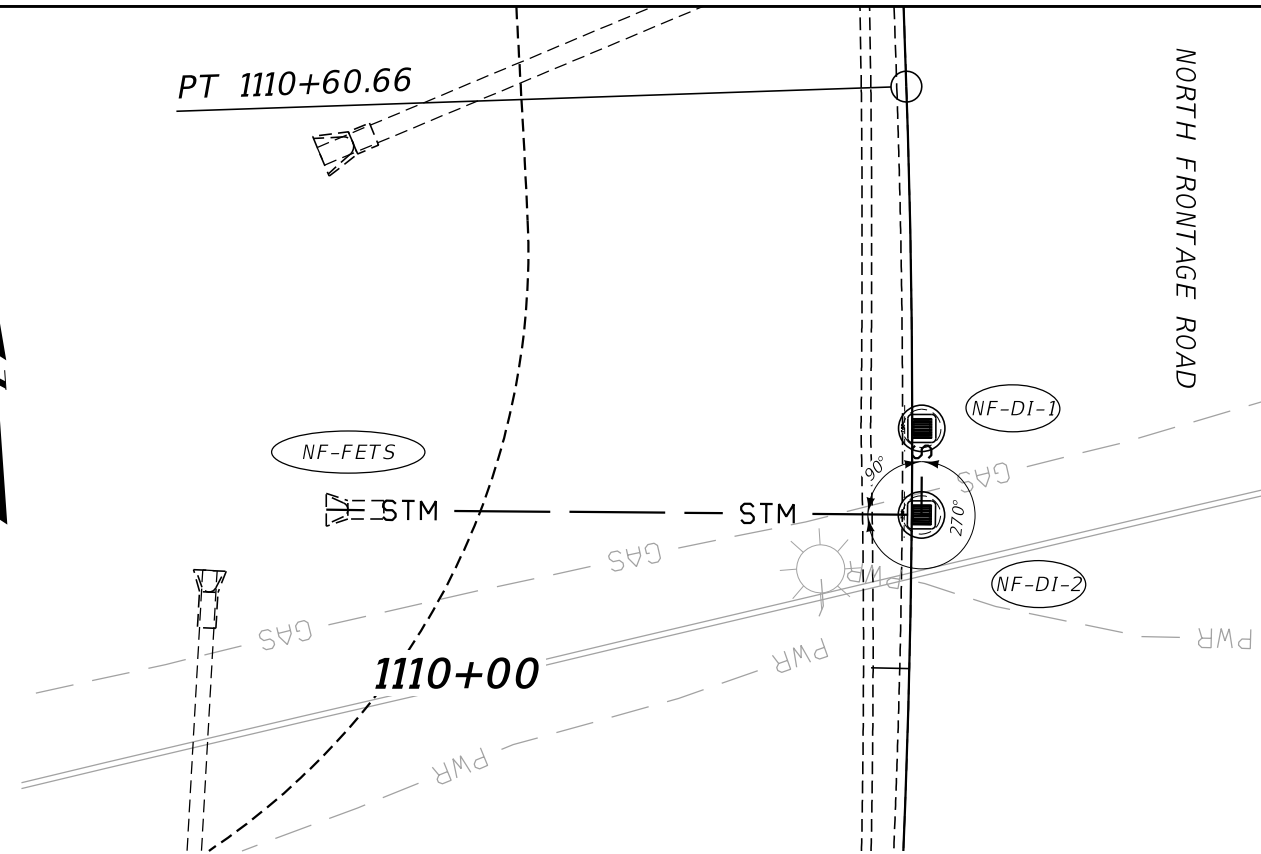
DETAILS

INTERCHANGE STORM DRAIN PROFILES

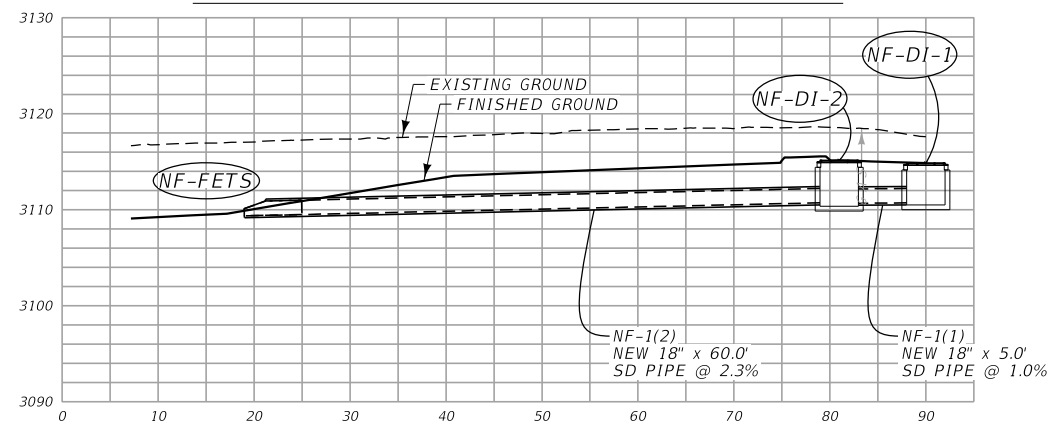
SCALE: 1" = 20'

3
1

DOWN



NORTH FRONTAGE ROAD - STA. 1110+25.00



NF-FETS
1110+16.00, 61.00' LT.
NEW F.E.T.S.
I.E. (OUT)= 3109.36

NF-DI-2
1110+16.00, 1.00' RT.
TYPE IV DROP INLET
W/ CONCRETE APRON
RIM EL.= 3115.06
I.E. (IN) N= 3110.82
I.E. (OUT) W= 3110.72
DEPTH = 4.34'

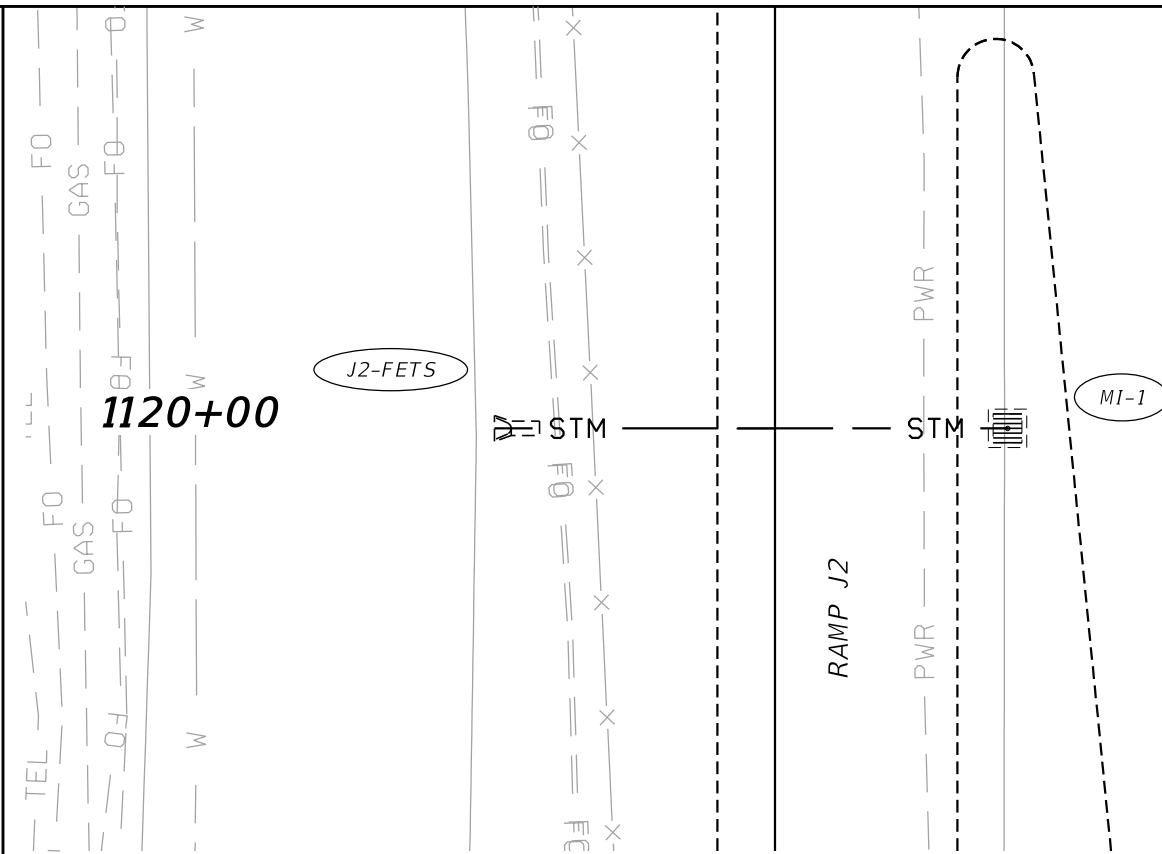
NF-DI-1
1110+25.00, 1.00' RT.
TYPE IV DROP INLET
W/ CONCRETE APRON
RIM EL.= 3114.79
I.E. (OUT) = 3110.87
DEPTH = 3.92'

PIPE LENGTHS				
STARTING INLET / MANHOLE NUMBER	ENDING INLET / MANHOLE NUMBER	PIPE SIZE (in) / TYPE	EDGE TO EDGE LENGTH (ft) ①	CENTER TO CENTER LENGTH (ft) ②
NF-DI-1	NF-DI-2	18" SD	5.0	9.0
NF-DI-2	NF-FETS	18" SD	60.0	62.0
MI-1	J2-FETS-E	18" SD	52.0	53.5

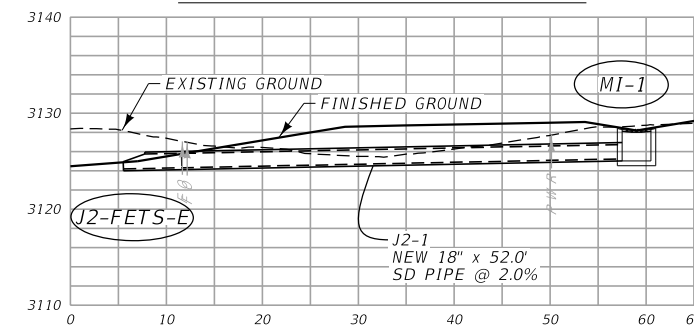
① INSIDE EDGE TO INSIDE EDGE OF STRUCTURE USED FOR SLOPE CALCULATION ONLY
② CENTER TO CENTER OF STRUCTURE USED FOR BID LENGTH

INLET / MANHOLE COORDINATE TABLE					
INLET / MANHOLE NUMBER	SIZE / TYPE	INLET / MANHOLE STATION & OFFSET ③	N OR Y COORDINATE ④	E OR X COORDINATE ④	FL / RIM ELEVATION (ft)
NF-DI-1	DROP, TYPE IV	1110+25.00, 1.0' RT.	573,257.29	2,245,018.36	3114.79
NF-DI-2	DROP, TYPE IV	1110+16.00, 1.0' RT.	573,248.31	2,245,017.68	3115.06
NF-FETS	18" F.E.T.S.	1110+16.00, 61.0' LT.	573,253.29	2,244,955.88	3109.36
MI-1	MEDIAN, TYPE 1	1120+00.00, 24.2' RT.	573,430.47	2,246,143.23	3128.22
J2-FETS-E	18" F.E.T.S.	1120+00.00, 29.2' LT.	573,472.34	2,246,109.95	3124.22

③ STATION AND OFFSET IS TO CENTER OF STRUCTURE
④ COORDINATES ARE TO CENTER OF STRUCTURE



RAMP J2 - STA. 1120+00.00



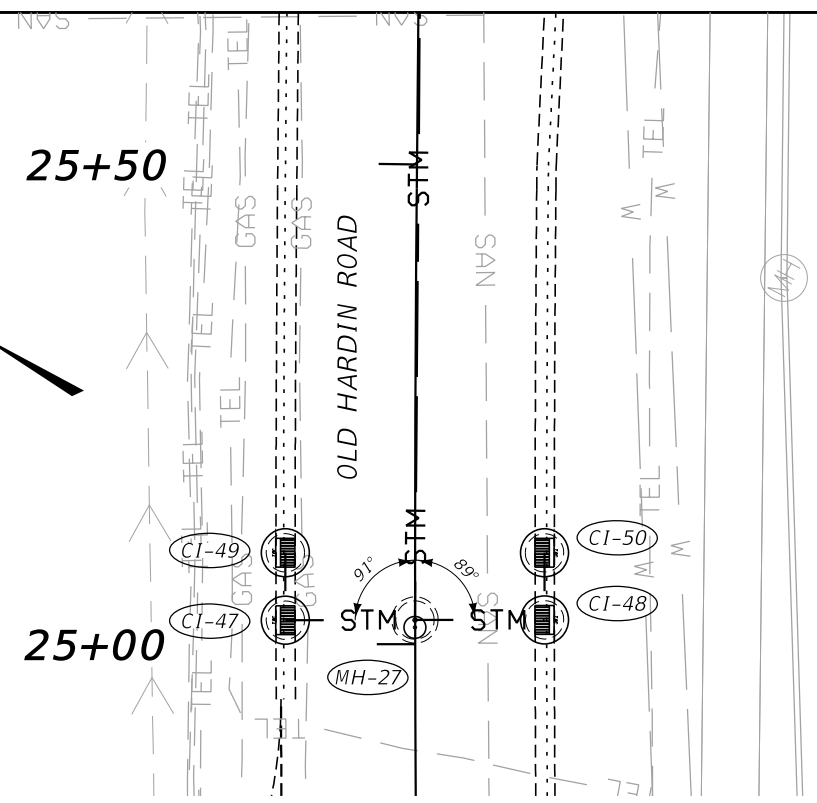
J2-FETS-E
1120+00.00, 29.2' LT.
NEW F.E.T.S.
I.E. (IN)= 3124.22

MI-1
1120+00.00, 24.2' RT.
NEW MEDIAN INLET - TYPE 1
RIM EL.= 3128.22
I.E. (OUT) = 3125.23
DEPTH = 3.20'

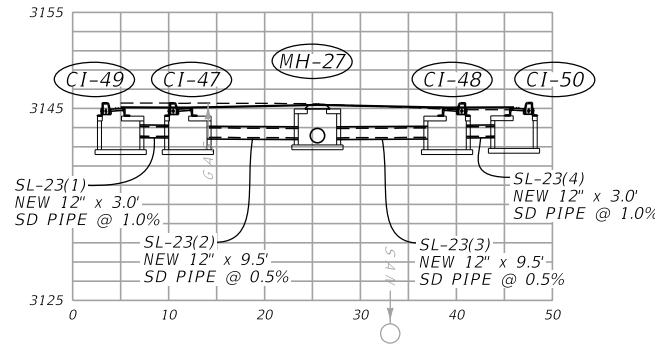
DETAILS

NORTH FRONTAGE ROAD
& RAMP J2
STORM DRAIN PROFILE

SCALE: 1" = 20'



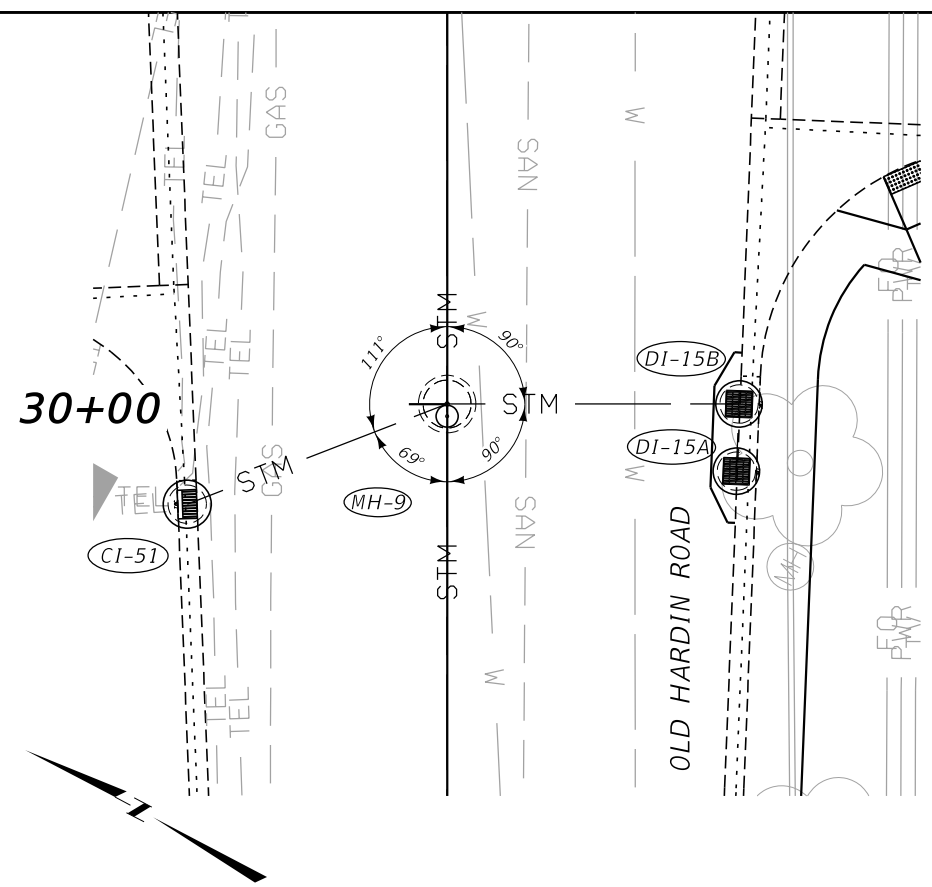
OLD HARDIN ROAD (WEST) - STA. 25+02.50



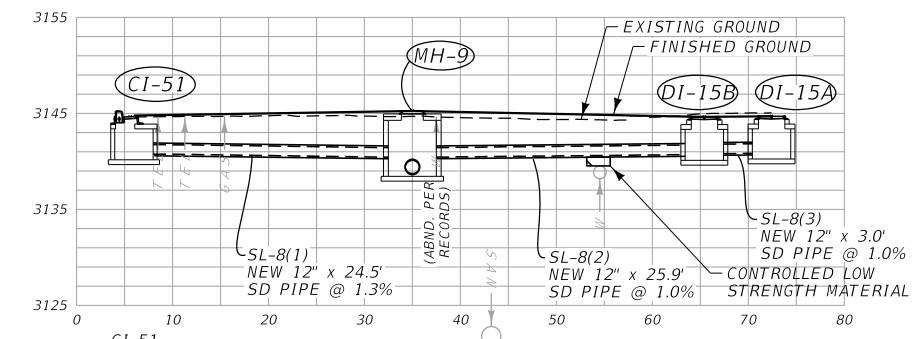
CI-49 25+09.50, 13.5' LT. NEW INLET CURB TYPE B W/ SUMP T.B.C. EL= 3145.60 F.L. EL= 3145.10 I.E. (OUT) W= 3142.10 DEPTH = 3.50'	CI-47 25+02.50, 13.5' LT. NEW INLET CURB TYPE B W/ SUMP T.B.C. EL= 3145.57 F.L. EL= 3145.07 I.E. (IN) E= 3142.07 I.E. (OUT) W= 3141.97 DEPTH = 3.60'	MH-27 25+02.50, 0.0' LT. NEW MH - 48" TYPE 3 RIM EL= 3145.36 I.E. (IN) N= 3141.95 I.E. (IN) S= 3141.95 I.E. (OUT) E= 3141.38 DEPTH = 3.98'	CI-48 25+02.50, 13.5' RT. NEW INLET CURB TYPE B W/ SUMP T.B.C. EL= 3145.56 F.L. EL= 3145.06 I.E. (IN) E= 3142.06 I.E. (OUT) N= 3141.96 DEPTH = 3.60'	CI-50 25+09.50, 13.5' RT. NEW INLET CURB TYPE B W/ SUMP T.B.C. EL= 3145.60 F.L. EL= 3145.10 I.E. (IN) W= 3142.10 I.E. (OUT) N= 3142.10 DEPTH = 3.50'
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STORM DRAIN PIPE LENGTHS				
STARTING INLET / MANHOLE NUMBER	ENDING INLET / MANHOLE NUMBER	PIPE SIZE (in) / TYPE	EDGE TO EDGE LENGTH (ft) ①	CENTER TO CENTER LENGTH (ft) ②
CI-49	CI-47	12" SD	3.0	7.0
CI-47	MH-27	12" SD	9.5	13.5
MH-27	CI-48	12" SD	9.5	13.5
CI-48	CI-50	12" SD	3.0	7.0
CI-51	MH-9	12" SD	24.5'	29.0
DI-15A	DI-15B	12" SD	3.0	7.0
DI-15B	MH-9	12" SD	25.9	30.4

① INSIDE EDGE TO INSIDE EDGE OF STRUCTURE USED FOR SLOPE CALCULATION ONLY
② CENTER TO CENTER OF STRUCTURE USED FOR BID LENGTH



OLD HARDIN ROAD (WEST) - STA. 30+00.00



CI-51 29+89.56, 27.1' LT. NEW INLET CURB TYPE B W/ SUMP T.B.C. EL= 3145.44 F.L. EL= 3144.94 I.E. (OUT) S= 3140.76 DEPTH = 4.68'	MH-9 30+00.00, 0.0' LT. NEW MH - 60" TYPE 3 RIM EL= 3145.26 I.E. (IN) N= 3140.44 I.E. (IN) S= 3140.44 I.E. (IN) W= 3138.72 I.E. (OUT) E= 3138.62 DEPTH = 6.64'	DI-15B 30+00.00, 30.4' RT. TYPE V DROP INLET W/ SUMP & CONCRETE APRON RIM EL= 3144.64 I.E. (IN)= 3140.80 I.E. (OUT)= 3140.70 DEPTH = 4.44'	DI-15A 29+93.00, 30.1' RT. TYPE V DROP INLET W/ SUMP & CONCRETE APRON RIM EL= 3144.70 I.E. (OUT) W= 3140.83 DEPTH = 4.37'
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INLET / MANHOLE COORDINATE TABLE					
INLET / MANHOLE NUMBER	SIZE / TYPE	INLET / MANHOLE STATION & OFFSET ③	N OR Y COORDINATE ④	E OR X COORDINATE ④	FL / RIM ELEVATION (ft)
CI-47	TYPE B	25+02.50, 13.5' LT.	571,119.26	2,244,319.79	3145.07
CI-48	TYPE B	25+02.50, 13.5' RT.	571,095.47	2,244,332.57	3145.06
CI-49	TYPE B	25+09.50, 13.5' LT.	571,122.57	2,244,325.98	3145.10
CI-50	TYPE B	25+09.50, 13.5' RT.	571,098.77	2,244,338.72	3145.10
CI-51	TYPE B	29+89.56, 27.1' LT.	571,357.77	2,244,744.84	3144.94
DI-15A	DROP, TYPE V	29+93.00, 30.1' RT.	571,308.69	2,244,774.46	3144.70
DI-15B	DROP, TYPE V	30+00.00, 30.4' RT.	571,311.69	2,244,780.79	3144.64

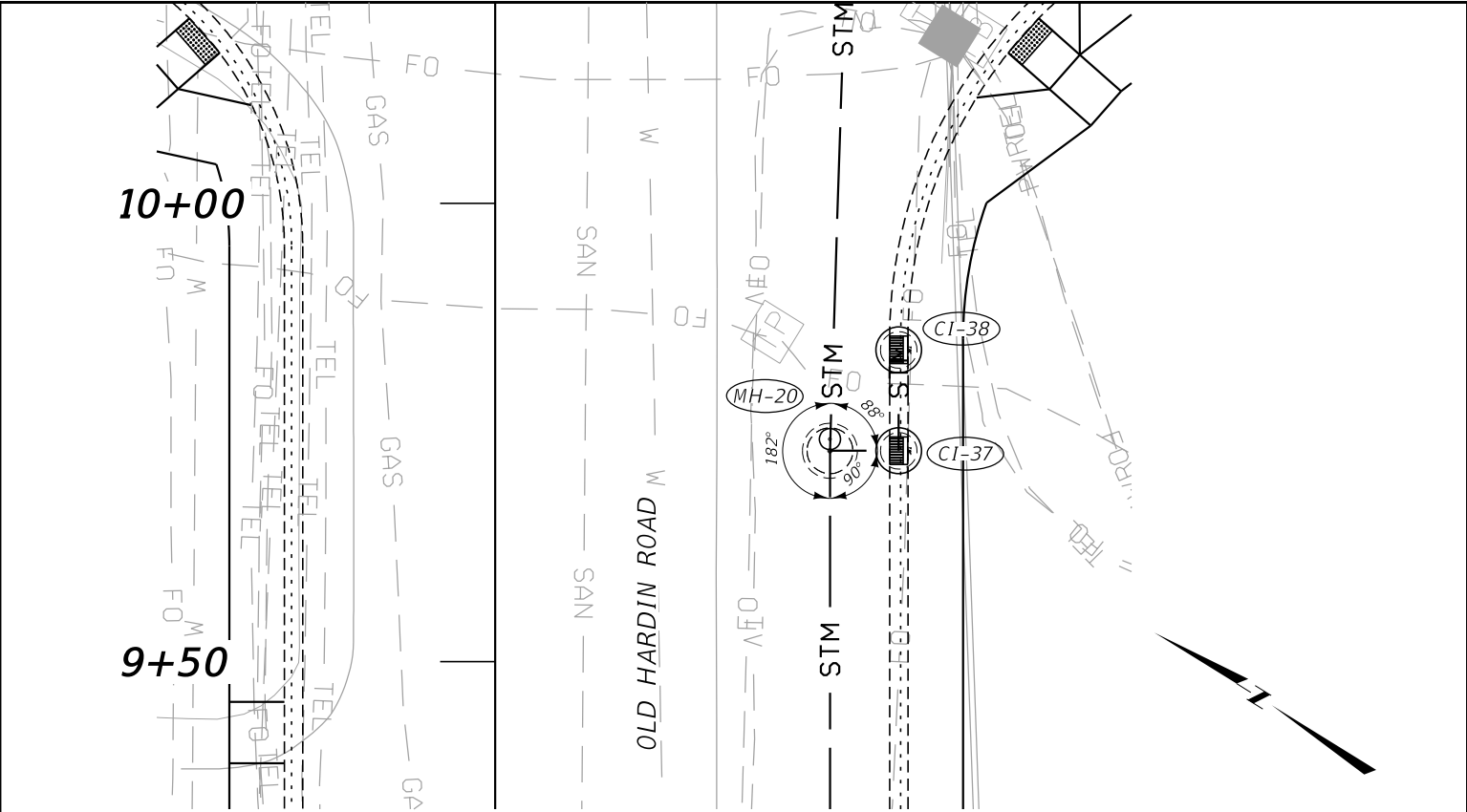
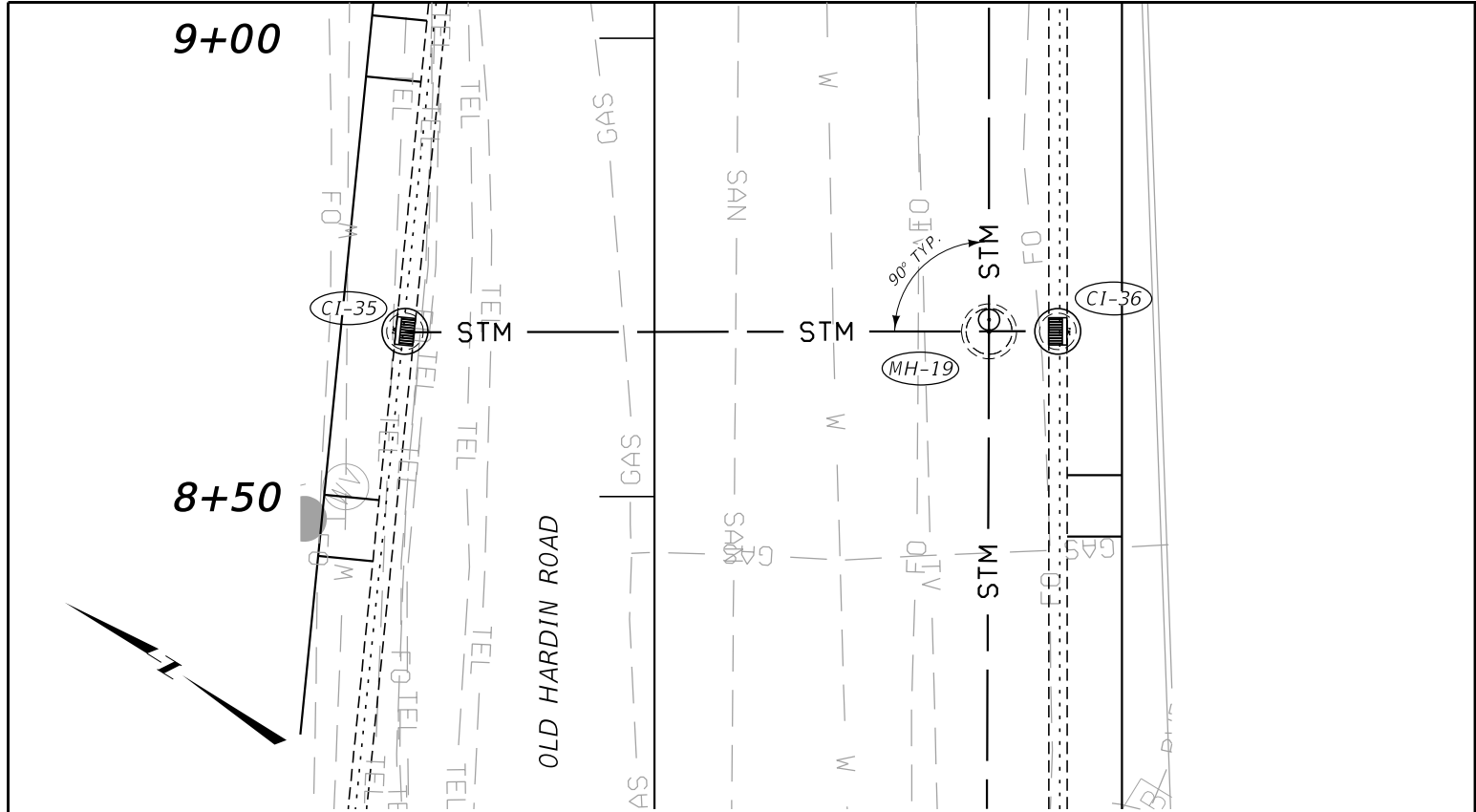
③ STATION AND OFFSET IS TO CENTER OF STRUCTURE
④ COORDINATES ARE TO CENTER OF STRUCTURE

DETAILS

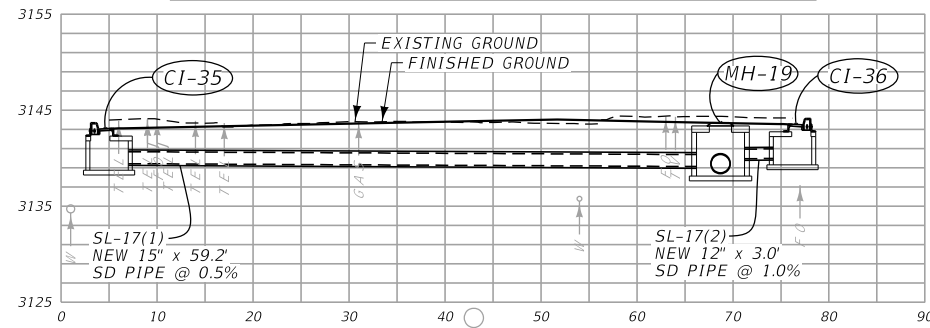
OLD HARDIN ROAD WEST
STORM DRAIN
LATERAL PROFILES

SCALE: 1" = 20'

DOWN



OLD HARDIN ROAD (EAST) - STA. 8+68.00

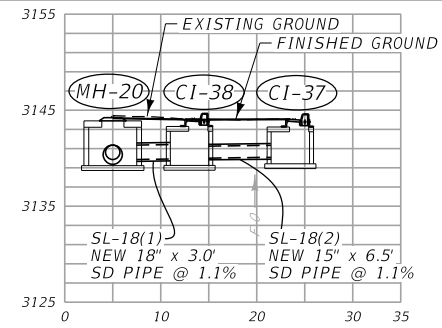


CI-35
8+68.00, 27.2' LT.
NEW INLET CURB
TYPE B - DEPRESSED
W/ SUMP
T.B.C. EL= 3143.56
F.L. EL= 3142.94
I.E. (OUT)= 3139.43
DEPTH = 4.01'

MH-19
8+68.00, 36.5' RT.
NEW MH - 60" TYPE 3
RIM EL= 3143.68
I.E. (IN) S= 3139.85
I.E. (IN) N= 3139.13
I.E. (IN) E= 3138.48
I.E. (OUT) W= 3138.38
DEPTH = 5.30'

CI-36
8+68.00, 44.0' RT.
NEW INLET CURB
TYPE B - DEPRESSED
W/ SUMP
T.B.C. EL= 3144.01
F.L. EL= 3143.39
I.E. (OUT)= 3139.88
DEPTH = 4.01'

OLD HARDIN ROAD (EAST) - STA. 9+84.00



MH-20
9+73.00, 36.5' RT.
NEW MH - 60" TYPE 3
RIM EL= 3144.18
I.E. (IN) S= 3139.87
I.E. (IN) E= 3139.87
I.E. (OUT) W= 3139.77
DEPTH = 4.41'

CI-37
9+73.00, 44.0' RT.
NEW INLET CURB
TYPE B - DEPRESSED
W/ SUMP
T.B.C. EL= 3144.49
F.L. EL= 3143.87
I.E. (IN)= 3140.01
I.E. (OUT)= 3139.91
DEPTH = 4.46'

CI-38
9+84.00, 44.0' RT.
NEW INLET CURB
TYPE B - DEPRESSED
W/ SUMP
T.B.C. EL= 3144.54
F.L. EL= 3143.92
I.E. (OUT)= 3140.08
DEPTH = 4.34'

LATERAL PIPE LENGTHS				
STARTING INLET / MANHOLE NUMBER	ENDING INLET / MANHOLE NUMBER	PIPE SIZE (in) / TYPE	EDGE TO EDGE LENGTH (ft) ①	CENTER TO CENTER LENGTH (ft) ②
CI-35	MH-19	15" SD	59.2	63.7
CI-36	MH-19	12" SD	3.0	7.5
MH-20	CI-37	18" SD	3.0	7.5
CI-37	CI-38	15" SD	6.5	11.0

① INSIDE EDGE TO INSIDE EDGE OF STRUCTURE USED FOR SLOPE CALCULATION ONLY
② CENTER TO CENTER OF STRUCTURE USED FOR BID LENGTH

INLET / MANHOLE COORDINATE TABLE					
INLET / MANHOLE NUMBER	SIZE / TYPE	INLET / MANHOLE STATION & OFFSET ③	N OR Y COORDINATE ④	E OR X COORDINATE ④	FL / RIM ELEVATION (ft)
CI-35	TYPE B	8+68.00, 27.2' LT.	571,957.87	2,245,796.53	3142.94
CI-36	TYPE B	8+68.00, 44.0' RT.	571,897.35	2,245,834.04	3134.39
CI-37	TYPE B	9+73.00, 44.0' RT.	571,952.67	2,245,923.29	3143.87
CI-38	TYPE B	9+84.00, 44.0' RT.	571,958.46	2,245,932.64	3143.92

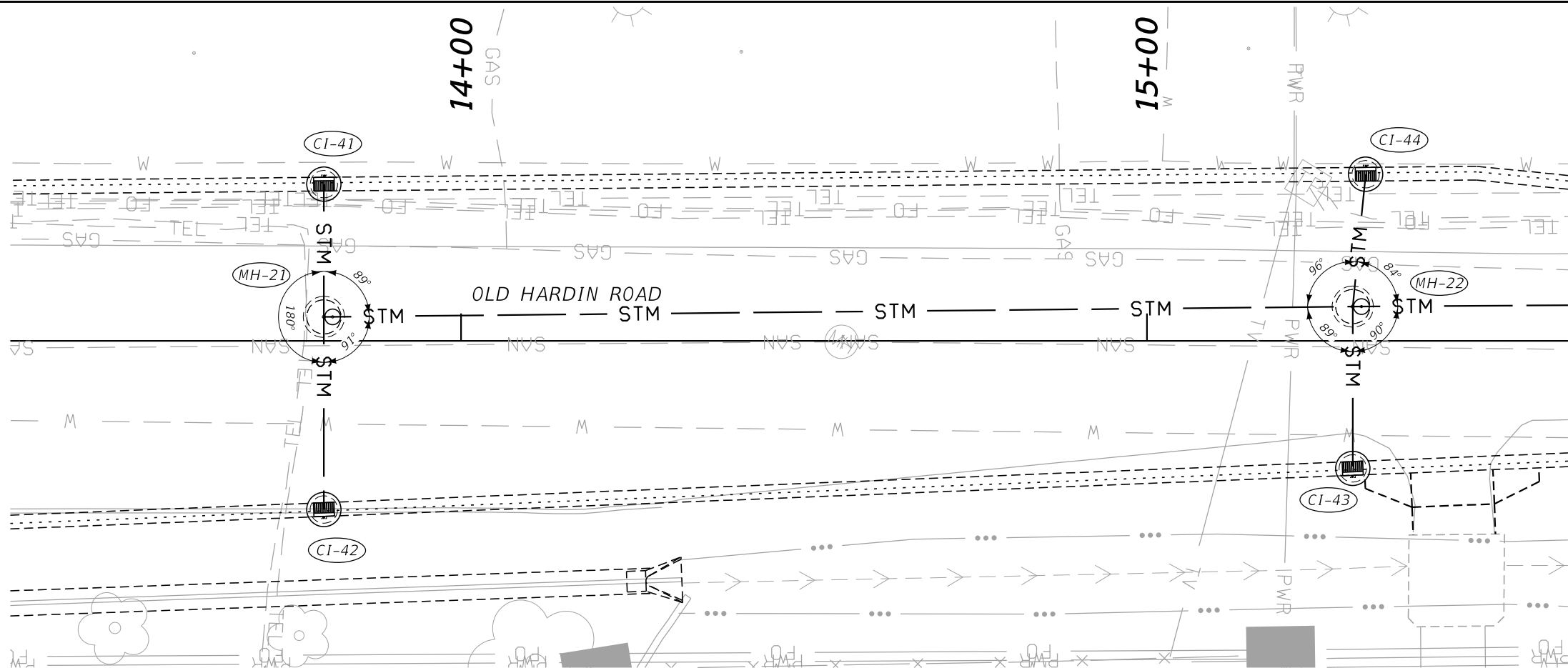
③ STATION AND OFFSET IS TO CENTER OF STRUCTURE
④ COORDINATES ARE TO CENTER OF STRUCTURE

DETAILS

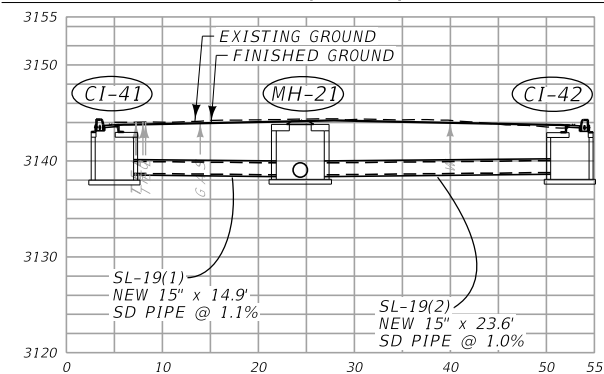
OLD HARDIN ROAD EAST
STORM DRAIN
LATERAL PROFILES

SCALE: 1" = 20'

DOWL



OLD HARDIN ROAD (EAST) - STA. 13+80.00

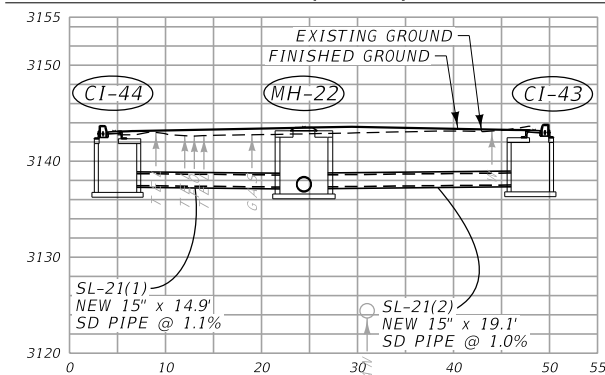


CI-41
13+80.00, 22.9' LT.
NEW INLET CURB
TYPE B W/ SUMP
RIM EL.= 3144.22
T.B.C. EL.= 3144.72
F.L. EL.= 3143.72
I.E. (OUT)= 3138.71
DEPTH = 5.51'

MH-21
13+80.00, 3.5' LT.
NEW MH - 60" TYPE 3
RIM EL.= 3144.13
I.E. (IN) N= 3138.54
I.E. (IN) S= 3138.54
I.E. (OUT) E= 3138.29
DEPTH = 5.84'

CI-42
13+80.00, 24.6' RT.
NEW INLET CURB
TYPE B W/ SUMP
RIM EL.= 3144.19
T.B.C. EL.= 3143.69
F.L. EL.= 3143.69
I.E. (OUT)= 3138.78
DEPTH = 5.41'

OLD HARDIN ROAD (EAST) - STA. 15+30.00

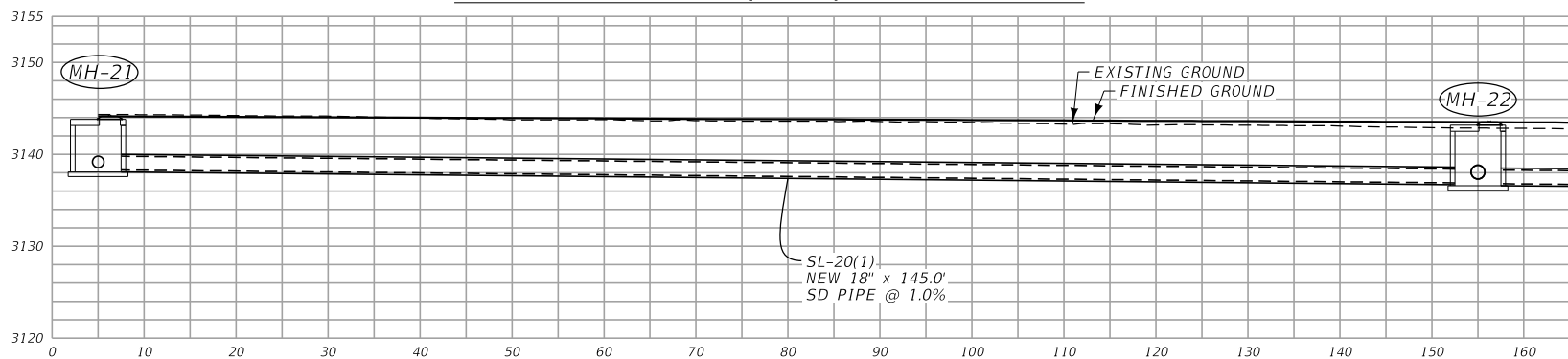


CI-44
15+31.88, 24.3' LT.
NEW INLET CURB
TYPE B W/ SUMP
RIM EL.= 3143.58
T.B.C. EL.= 3143.08
F.L. EL.= 3137.45
I.E. (OUT)= 3137.45
DEPTH = 6.13'

MH-22
15+30.00, 5.0' LT.
NEW MH - 60" TYPE 3
RIM EL.= 3143.49
I.E. (IN) N= 3137.29
I.E. (IN) S= 3137.33
I.E. (IN) W= 3136.89
I.E. (OUT) E= 3136.79
DEPTH = 6.70'

CI-43
15+30.00, 18.6' RT.
NEW INLET CURB
TYPE B W/ SUMP
RIM EL.= 3143.70
T.B.C. EL.= 3143.20
F.L. EL.= 3143.20
I.E. (OUT)= 3137.52
DEPTH = 6.18'

OLD HARDIN ROAD (EAST) - STA. 13+80.00



MH-21
13+80.00, 3.5' LT.
NEW MH - 60" TYPE 3
RIM EL.= 3144.13
I.E. (IN) N= 3138.54
I.E. (IN) S= 3138.54
I.E. (OUT) E= 3138.29
DEPTH = 5.84'

MH-22
15+30.00, 5.0' LT.
NEW MH - 60" TYPE 3
RIM EL.= 3143.49
I.E. (IN) N= 3137.29
I.E. (IN) S= 3137.33
I.E. (IN) W= 3136.89
I.E. (OUT) E= 3136.79
DEPTH = 6.70'

PIPE LENGTHS				
STARTING INLET / MANHOLE NUMBER	ENDING INLET / MANHOLE NUMBER	PIPE SIZE (in) / TYPE	EDGE TO EDGE LENGTH (ft) ①	CENTER TO CENTER LENGTH (ft) ②
MH-21	MH-22	18" SD	145.0	150.0
CI-41	MH-21	15" SD	14.9	19.4
CI-42	MH-21	15" SD	23.6	28.1
CI-44	MH-22	15" SD	14.9	19.4
CI-43	MH-22	15" SD	19.1	23.6

① INSIDE EDGE TO INSIDE EDGE OF STRUCTURE USED FOR SLOPE CALCULATION ONLY
② CENTER TO CENTER OF STRUCTURE USED FOR BID LENGTH

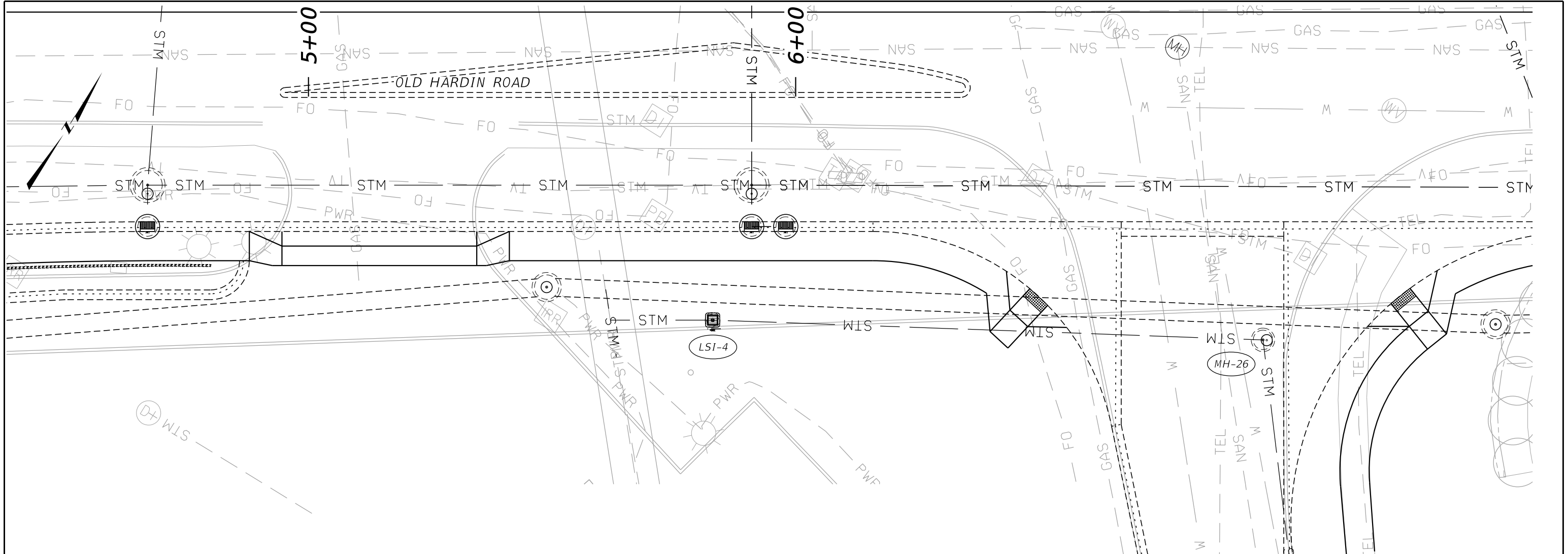
INLET / MANHOLE COORDINATE TABLE					
INLET / MANHOLE NUMBER	SIZE / TYPE	INLET / MANHOLE STATION & OFFSET ③	N OR Y COORDINATE ④	E OR X COORDINATE ④	FL / RIM ELEVATION (ft)
MH-21	60" TYPE 3	13+80.00, 3.5' LT.	572,207.46	2,246,244.21	3144.13
MH-22	60" TYPE 3	15+30.00, 5.0' LT.	572,287.75	2,246,370.91	3143.49
CI-41	TYPE B	13+80.00, 22.9' LT.	572,223.91	2,246,234.01	3143.72
CI-42	TYPE B	13+80.00, 24.6' RT.	572,183.57	2,246,259.01	3143.69
CI-43	TYPE B	15+30.00, 18.6' RT.	572,267.69	2,246,383.35	3143.20
CI-44	TYPE B	15+31.88, 24.3' LT.	572,305.15	2,246,362.34	3143.08

③ STATION AND OFFSET IS TO CENTER OF STRUCTURE
④ COORDINATES ARE TO CENTER OF STRUCTURE

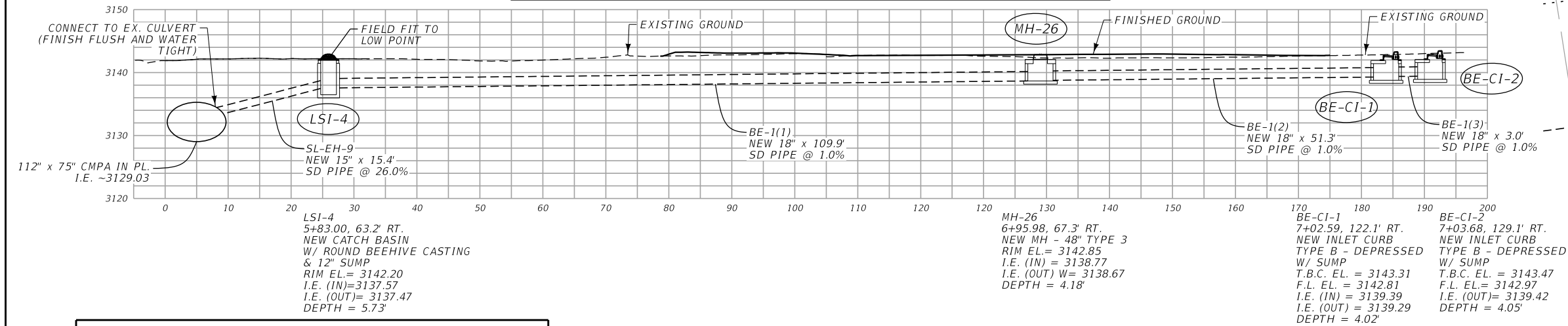
DETAILS

OLD HARDIN ROAD
EAST OF EAST
STORM DRAIN
PROFILES

SCALE: 1" = 20'



BECRAFT LANE - (OLD HARDIN ROAD EAST - STA. 6+95.98)



PIPE LENGTHS				
STARTING INLET / MANHOLE NUMBER	ENDING INLET / MANHOLE NUMBER	PIPE SIZE (in) / TYPE	EDGE TO EDGE LENGTH (ft) ①	CENTER TO CENTER LENGTH (ft) ②
CONNECTION	LSI-4	15" SD	15.4	21.0
LSI-4	MH-26	18" SD	109.9	113.1
MH-26	BE-CI-1	18" SD	51.3	55.3
BE-CI-2	BE-CI-1	18" SD	3.0	7.0

① INSIDE EDGE TO INSIDE EDGE OF STRUCTURE USED FOR SLOPE CALCULATION ONLY
② CENTER TO CENTER OF STRUCTURE USED FOR BID LENGTH

INLET / MANHOLE COORDINATE TABLE					
INLET / MANHOLE NUMBER	SIZE / TYPE	INLET / MANHOLE STATION & OFFSET ③	N OR Y COORDINATE ④	E OR X COORDINATE ④	FL / RIM ELEVATION (ft)
LSI-4	BEEHIVE	5+83.00, 63.2' RT.	571,730.89	2,245,601.91	3142.20±
MH-26	48" TYPE 3	6+95.98, 67.3' RT.	571,786.95	2,245,700.08	3142.85
BE-CI-1	TYPE B	7+02.59, 122.1' RT.	571,743.78	2,245,734.62	3142.81
BE-CI-2	TYPE B	7+03.68, 129.1' RT.	571,738.49	2,245,739.18	3142.97

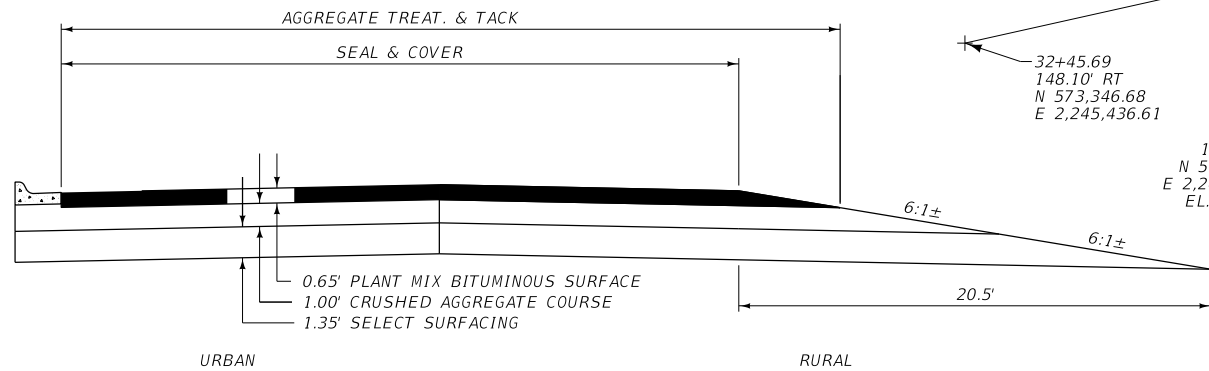
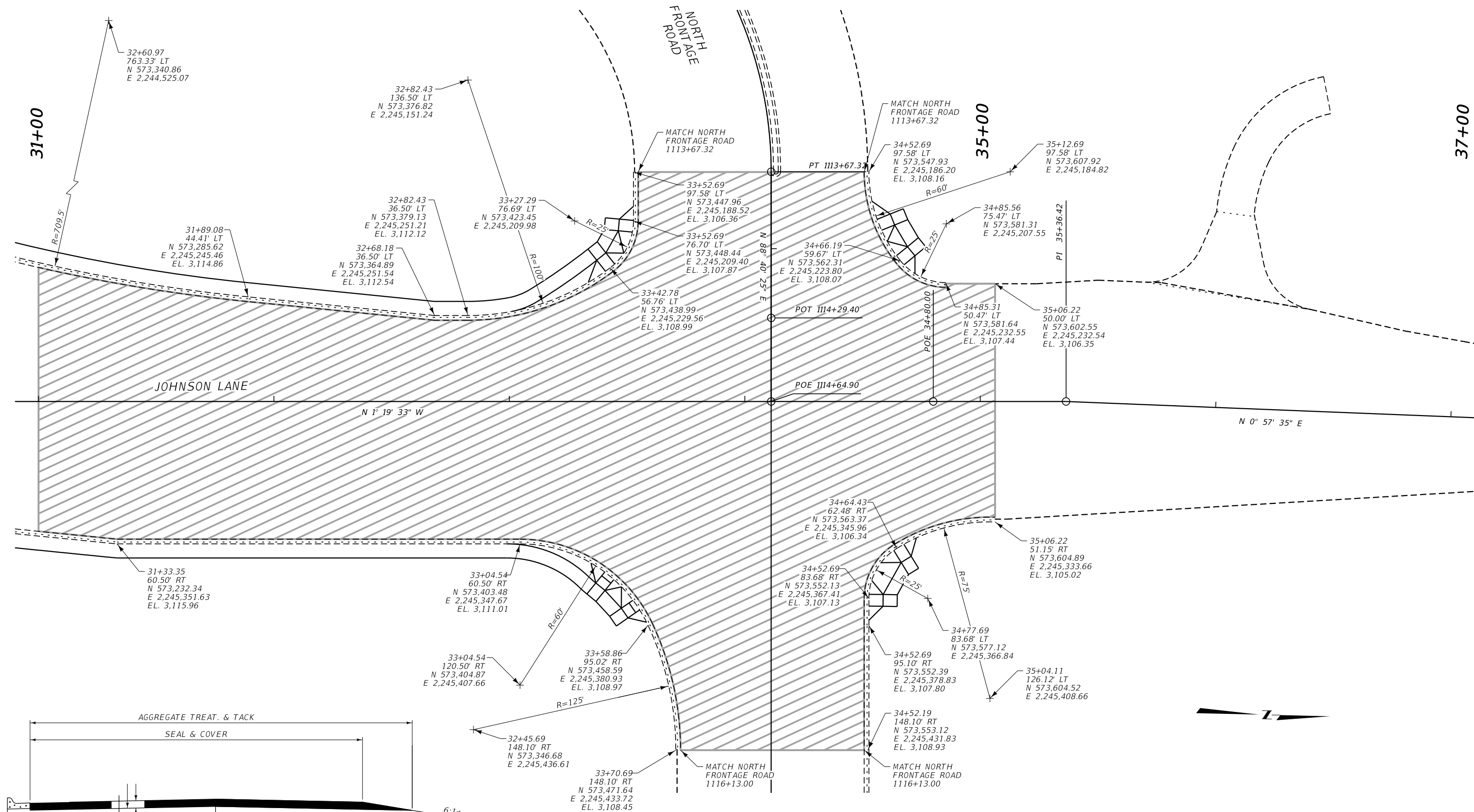
③ STATION AND OFFSET IS TO CENTER OF STRUCTURE
④ COORDINATES ARE TO CENTER OF STRUCTURE

DETAILS

OLD HARDIN ROAD
& BECRAFT LANE
STORM DRAIN PROFILES

SCALE: 1" = 20'

DOWL



SURFACING SECTION
(SHADED AREA)

INTERSECTION QUANTITIES									
UNIT	AGGREGATE				UNIT	BITUMINOUS MATERIAL			
	COVER	PLANT MIX	CR. AGG. COURSE	SELECT SURFACING		ASPHALT CEMENT	SEAL	AGG. TREATMENT	EMULSIFIED ASPHALT TACK*
AREA square feet		55,375.82	56,916.08	56,916.08	square yards	150.0	6,153	6,189	24,756
cubic yards		1,333.1	2,108	2,846	tons		11.0		6,153
tons		2,778			gals.				1,238
square yards	6,153								461

*BASED ON 4 APPLICATIONS

NOTE: INFORMATION ON THIS SHEET IS FOR THE BACK OF CURB.

DETAILS

INTERSECTION DETAILS

JOHNSON LANE &
NORTH FRONTAGE ROAD

SCALE: 1" = 20'

3
2



4199007RDETTZ20.dgn
7/30/2026
10:37:35 AM TSwenson

DESIGNED BY
REVIEWED BY
CHECKED BY

ROAD PLANS
YELLOWSTONE COUNTY

BBP-JOHNSON LANE INTERCHANGE

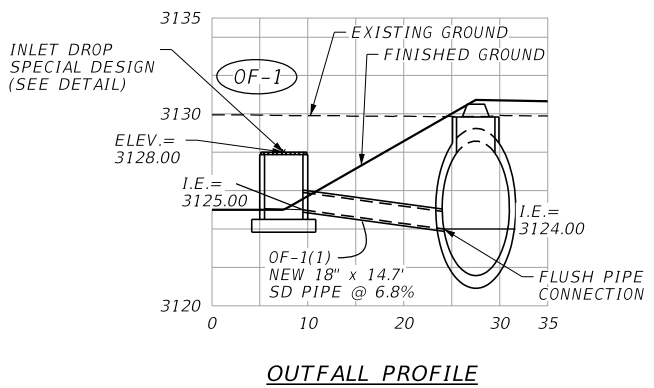
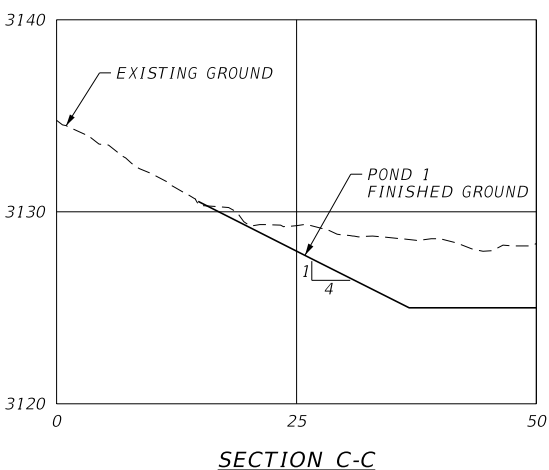
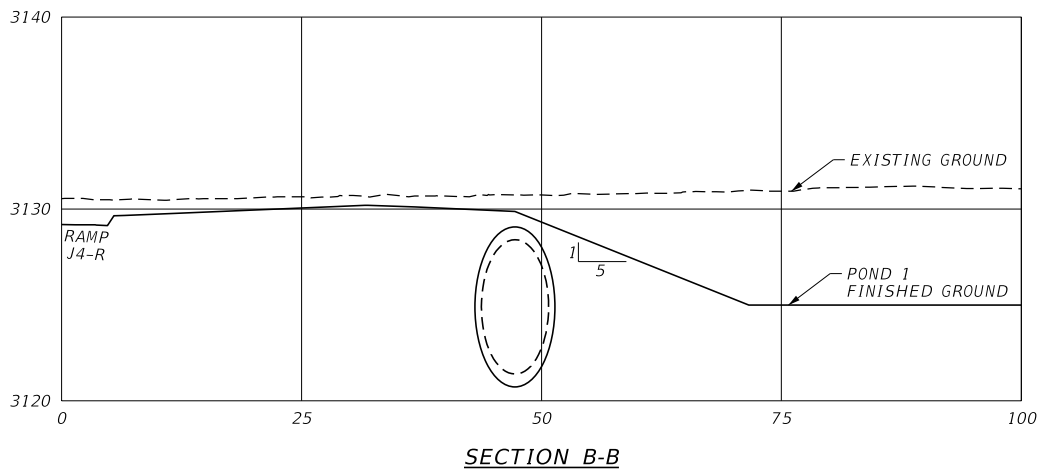
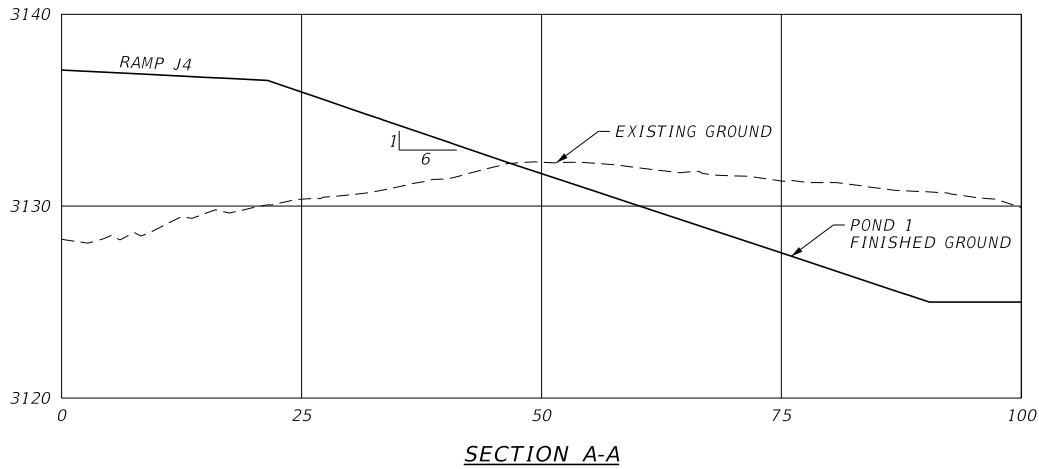
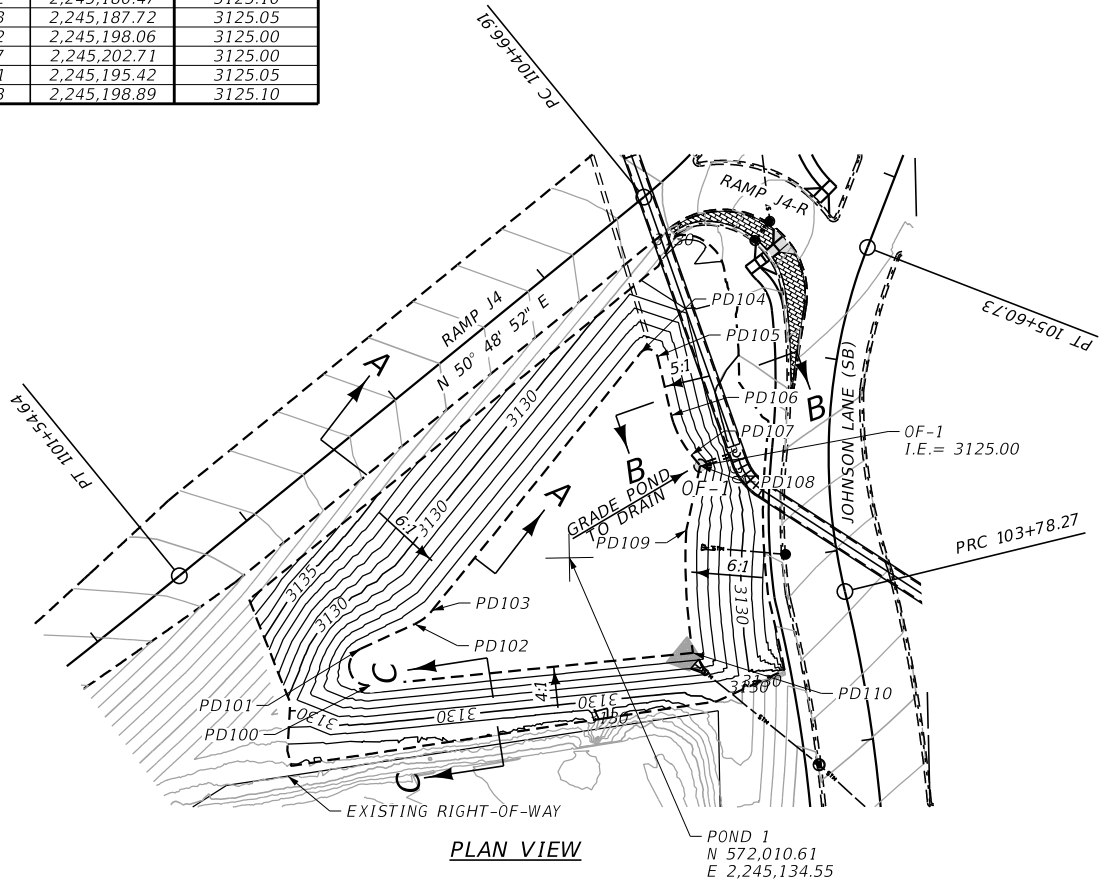
1M-NHFP-CM-STPU-NH 56(93)

UPN 4199007

SHEET 119

DETAIL

POINT	N OR Y COORDINATE	E OR X COORDINATE	ELEVATION
PD100	571,944.09	2,245,030.84	3125.10
PD101	571,963.14	2,245,025.69	3125.10
PD102	571,976.03	2,245,053.99	3125.05
PD103	571,983.06	2,245,063.06	3125.05
PD104	572,117.42	2,245,171.71	3125.10
PD105	572,115.42	2,245,180.47	3125.10
PD106	572,084.73	2,245,187.72	3125.05
PD107	572,064.12	2,245,198.06	3125.00
PD108	572,058.57	2,245,202.71	3125.00
PD109	572,024.91	2,245,195.42	3125.05
PD110	571,961.08	2,245,198.89	3125.10

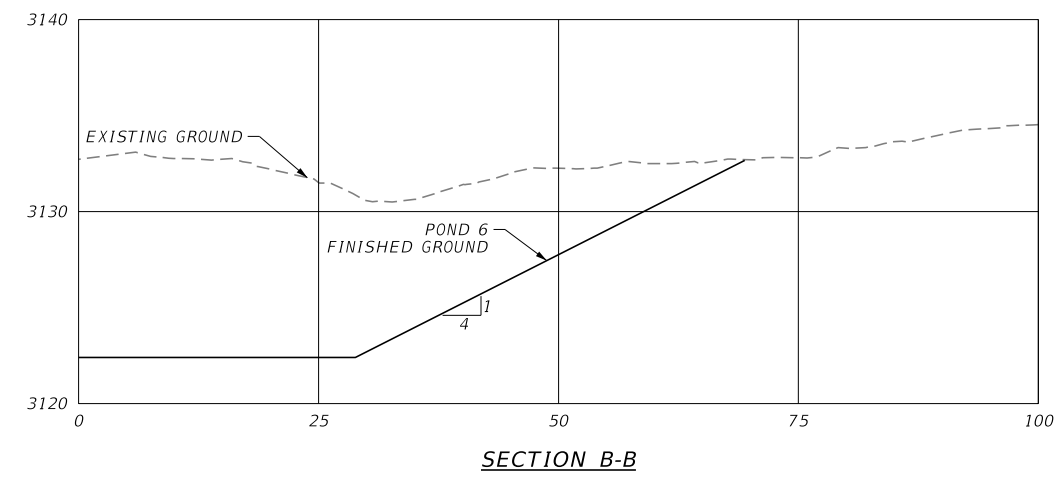
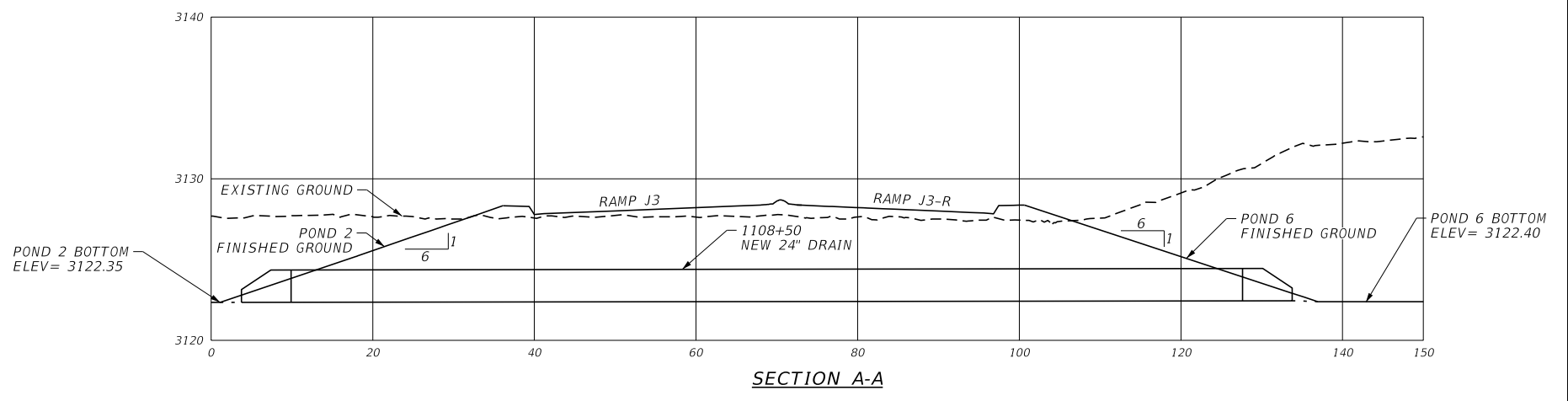
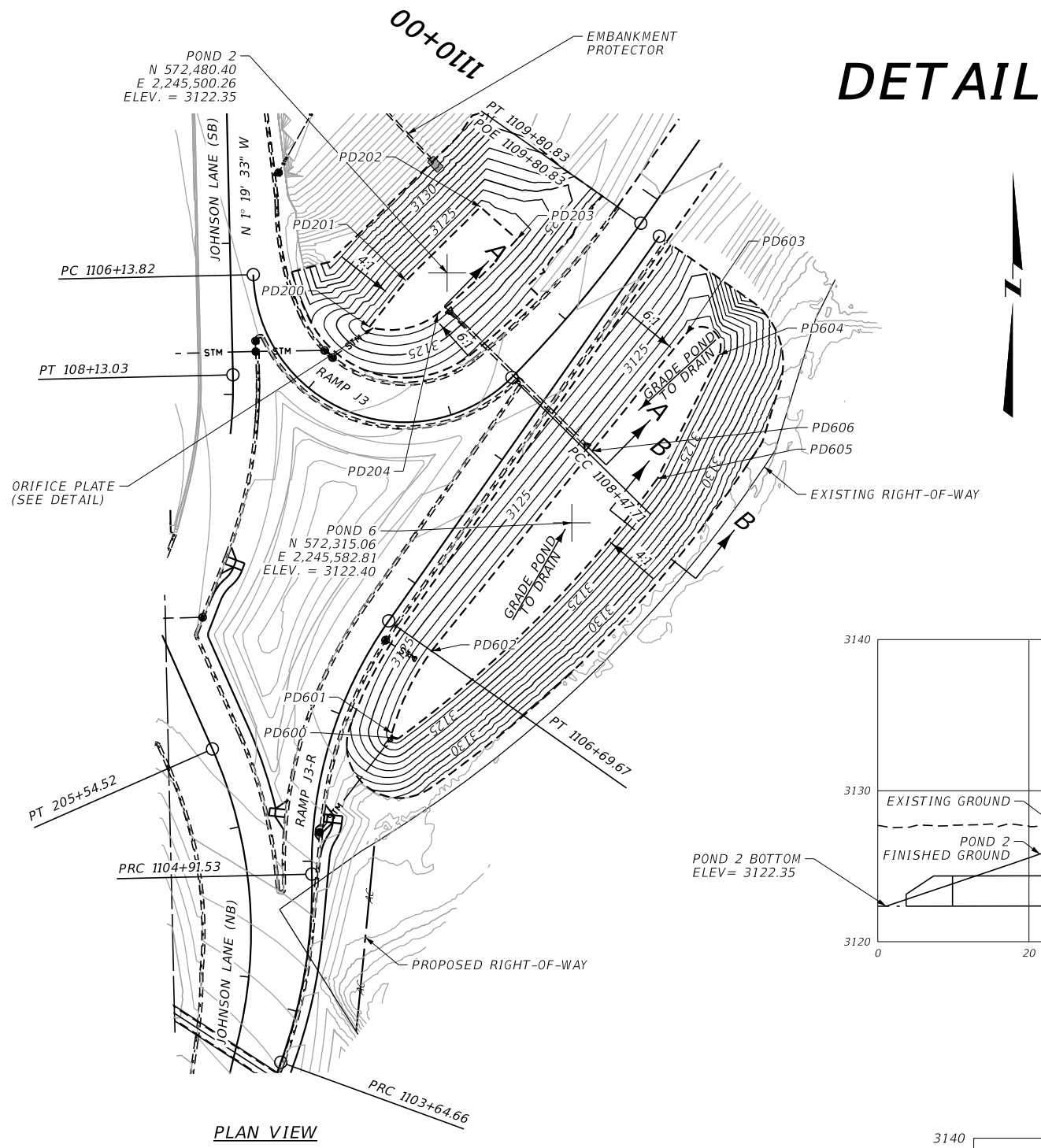


PIPE LENGTHS				
STARTING INLET / MANHOLE NUMBER	ENDING INLET / MANHOLE NUMBER	PIPE SIZE (in) / TYPE	EDGE TO EDGE LENGTH (ft) ①	CENTER TO CENTER LENGTH (ft) ②
OF-1	PIPE CONN.	18" SD	14.7	20.0

- ① INSIDE EDGE TO INSIDE EDGE OF STRUCTURE USED FOR SLOPE CALCULATION ONLY
② CENTER TO CENTER OF STRUCTURE USED FOR BID LENGTH
③ SEE OUTFALL STRUCTURES DETAIL FOR STRUCTURE INFORMATION
④ SEE STORM DRAIN DETAILS FOR ADDITIONAL PIPE ELEVATIONS.

DETAILS	
POND 1 GRADING	

DOWL



POINT	N OR Y COORDINATE	E OR X COORDINATE	ELEVATION
PD200	572,444.70	2,245,448.91	3122.35
PD201	572,475.29	2,245,472.99	3122.35
PD202	572,524.04	2,245,522.42	3122.35
PD203	572,502.73	2,245,546.56	3122.35
PD204	572,453.64	2,245,494.16	3122.35
PD600	572,172.68	2,245,468.46	3122.50
PD601	572,175.88	2,245,463.78	3122.50
PD602	572,230.27	2,245,490.03	3122.45
PD603	572,440.04	2,245,658.20	3122.50
PD604	572,426.13	2,245,679.99	3122.50
PD605	572,344.43	2,245,639.46	3122.40
PD606	572,362.55	2,245,596.08	3122.40

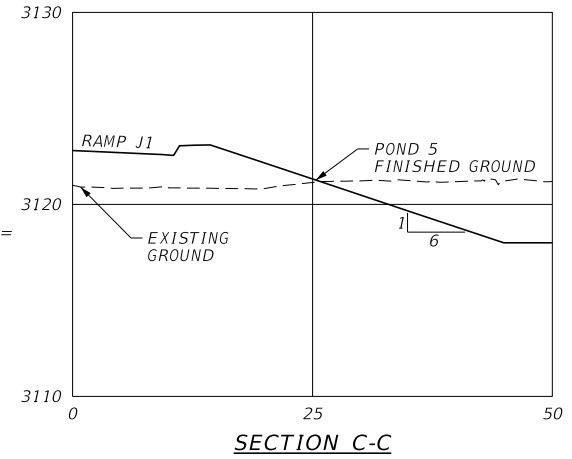
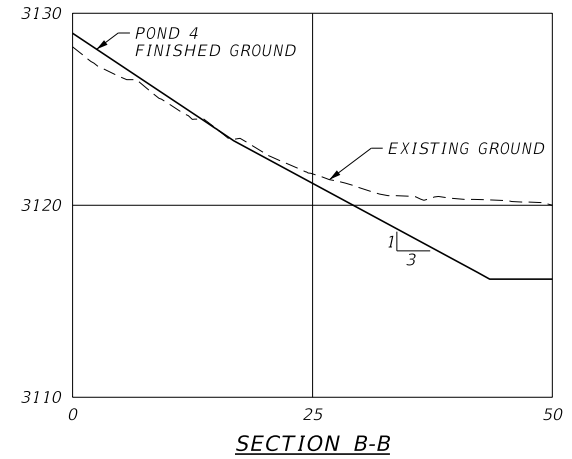
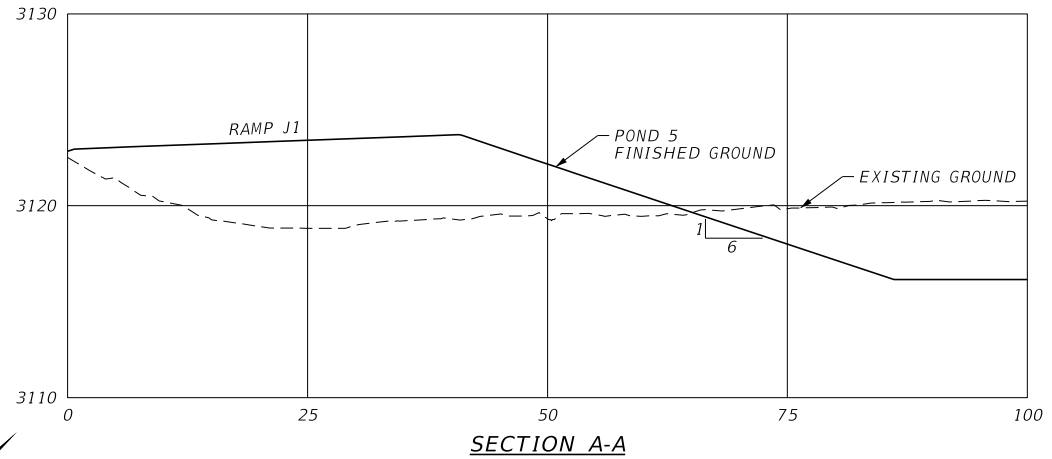
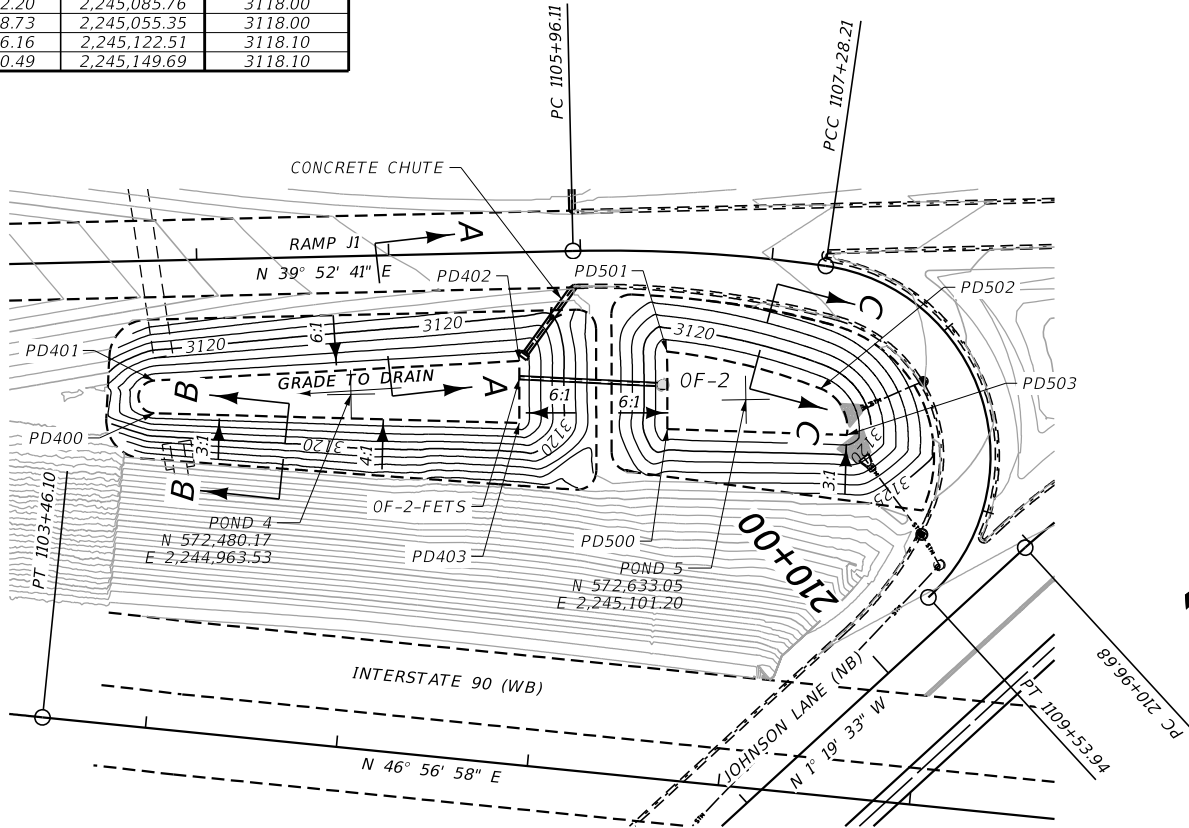
NOTE: SEE STORM DRAIN DETAILS FOR ADDITIONAL PIPE ELEVATIONS.

DETAILS

POND 2 & POND 6
GRADING

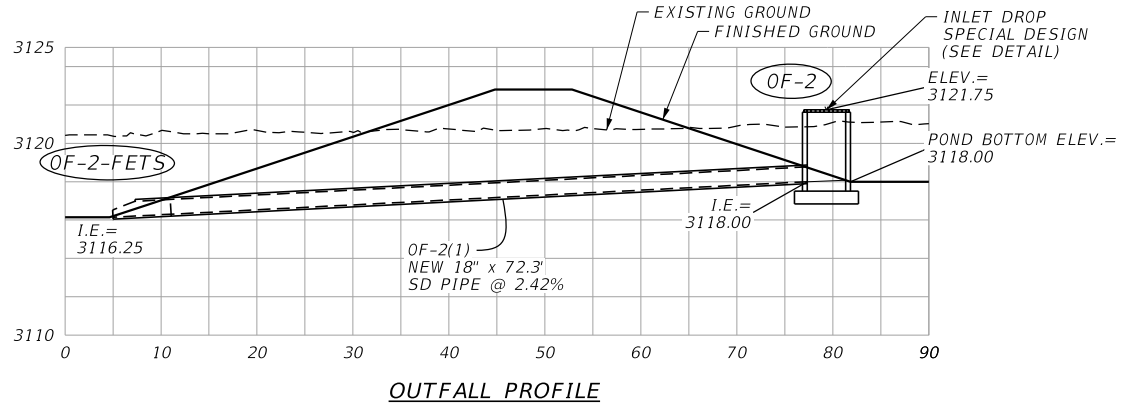
DETAIL

POINT	N OR Y COORDINATE	E OR X COORDINATE	ELEVATION
PD400	572,396.56	2,244,903.45	3116.15
PD401	572,407.58	2,244,890.52	3116.15
PD402	572,557.54	2,245,008.24	3116.25
PD403	572,536.29	2,245,032.59	3116.25
PD500	572,592.20	2,245,085.76	3118.00
PD501	572,618.73	2,245,055.35	3118.00
PD502	572,666.16	2,245,122.51	3118.10
PD503	572,660.49	2,245,149.69	3118.10



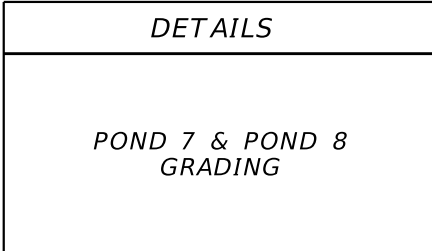
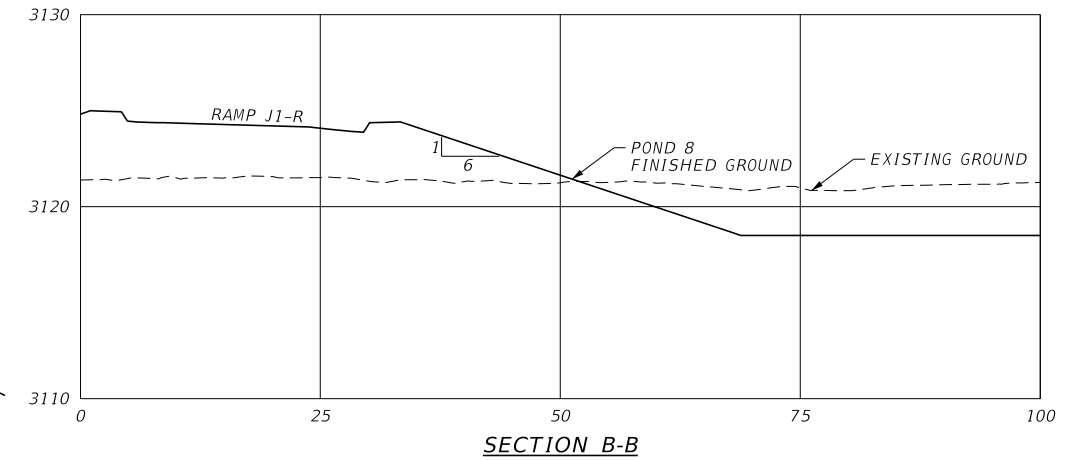
PIPE LENGTHS				
STARTING INLET / MANHOLE NUMBER	ENDING INLET / MANHOLE NUMBER	PIPE SIZE (in) / TYPE	EDGE TO EDGE LENGTH (ft) ①	CENTER TO CENTER LENGTH (ft) ②
OF-2-FETS	OF-2	18" SD	72.3	74.3

- ① INSIDE EDGE TO INSIDE EDGE OF STRUCTURE USED FOR SLOPE CALCULATION ONLY
② CENTER TO CENTER OF STRUCTURE USED FOR BID LENGTH
③ SEE OUTFALL STRUCTURES DETAIL FOR STRUCTURE INFORMATION
④ SEE STORM DRAIN DETAILS FOR ADDITIONAL PIPE ELEVATIONS.



DETAILS

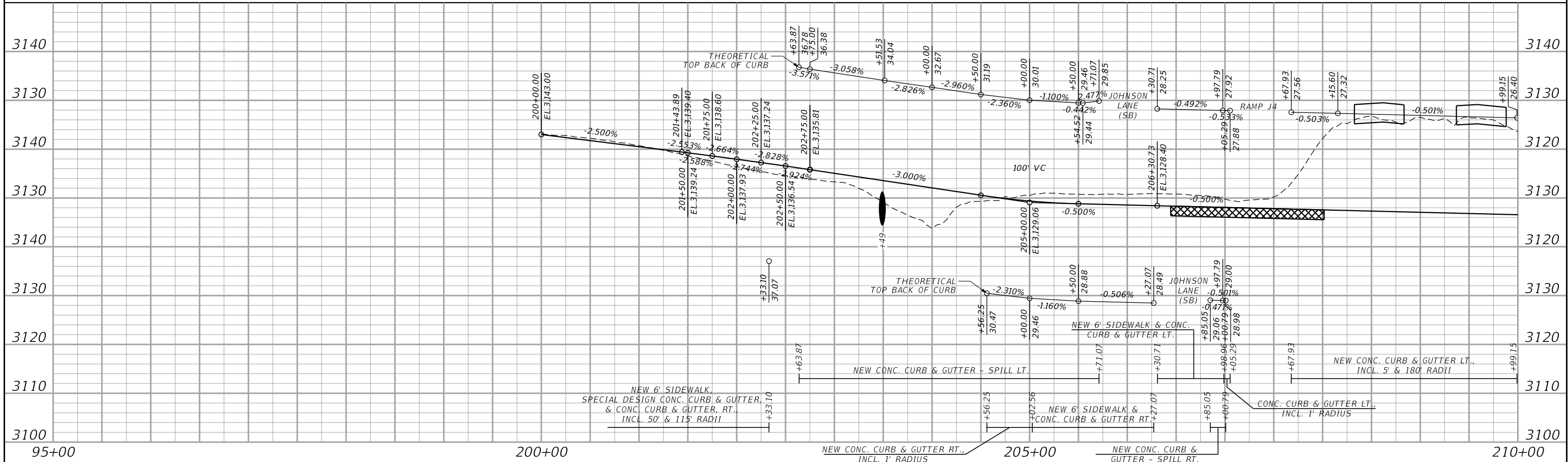
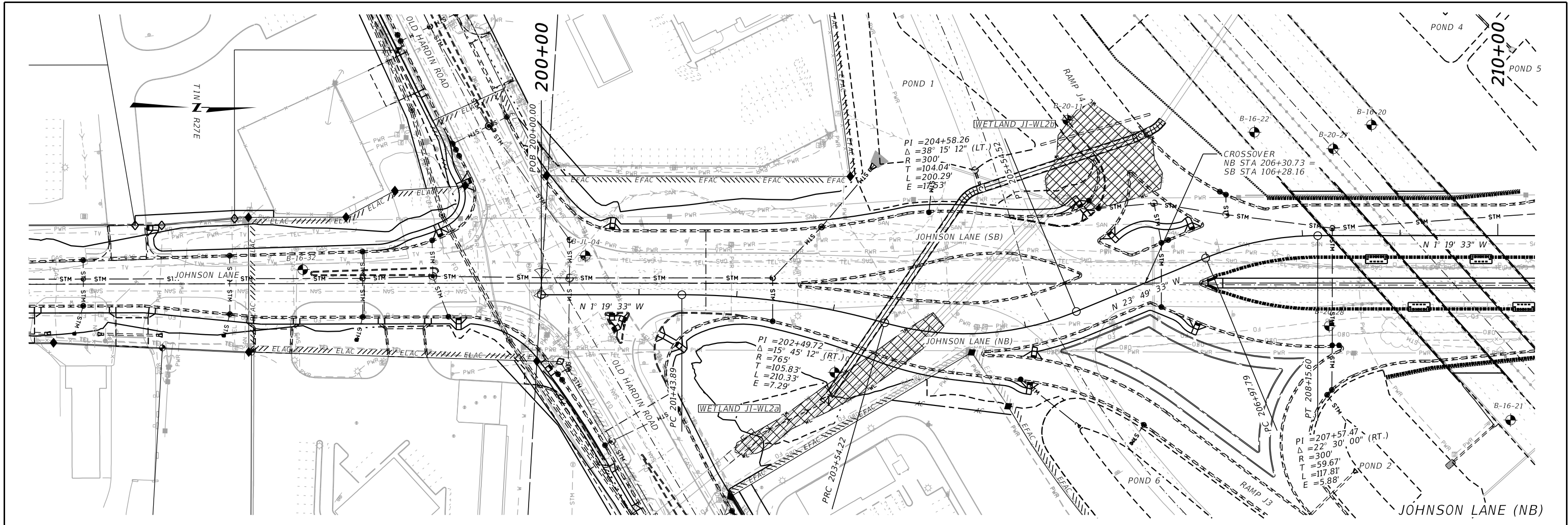
POND 4 & POND 5
GRADING



POINT	N OR Y COORDINATE	E OR X COORDINATE	ELEVATION
PD700	572,463.82	2,244,766.54	3118.00
PD701	572,488.43	2,244,765.11	3118.00
PD702	572,570.55	2,244,822.05	3118.00
PD703	572,651.17	2,244,893.65	3118.00
PD704	572,884.99	2,245,013.28	3117.25
PD705	572,887.60	2,245,020.56	3117.25
PD706	572,848.86	2,245,085.32	3117.25
PD707	572,841.69	2,245,086.84	3117.25
PD708	572,656.52	2,244,950.25	3118.00
PD709	572,481.86	2,244,786.96	3116.19
PD710	572,496.69	2,244,785.29	3116.09
PD711	572,639.64	2,244,913.16	3114.91
PD712	572,671.19	2,244,907.13	3114.70
PD800	572,894.30	2,245,118.24	3117.75
PD801	572,892.05	2,245,111.11	3117.75
PD802	572,937.49	2,245,035.00	3117.75
PD803	572,942.95	2,245,032.70	3117.75
PD804	572,990.43	2,245,044.10	3117.85
PD805	572,994.20	2,245,049.77	3117.85
PD806	572,977.98	2,245,148.81	3117.85
PD807	572,971.01	2,245,152.56	3117.85

① INSIDE EDGE TO INSIDE EDGE OF STRUCTURE USED FOR SLOPE CALCULATION ONLY
 ② CENTER TO CENTER OF STRUCTURE USED FOR BID LENGTH
 ③ SEE OUTFALL STRUCTURES DETAIL FOR STRUCTURE INFORMATION
 ④ SEE STORM DRAIN DETAILS FOR ADDITIONAL PIPE ELEVATIONS.

DOWL



DOWL

