

Appendix A

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TABULATION OF BENCHMARKS		
BENCH MARKS	ELEVATION NAVD88	DESCRIPTION
8930N30 (2003)	333.72	The Mark is 3.90 miles east-northeast of Benton, Mo., 6.45 miles south-southeast of Scott City, Mo., and 8.77 miles west-southwest of Olive Branch, Il. To reach the mark from the intersection of I-55 and Hwy E near Benton, Mo. proceed in a northeast direction for 2.35 miles then turn right onto County Road 333 and go 0.5 miles to the mark on the right, 61.0 feet on an azimuth of 193° from a mailbox, 51.2 feet on an azimuth of 277° from a telephone pedestal, and 5.51 feet on an azimuth of 248° from the edge of the road.
SP-1-2000	336.97	The Mark is 2.55 miles north-northwest of Cairo, Il., 3.24 miles south-southwest of Mound City, Il., and 19.20 miles east-northeast of Blodgett, Mo. To reach the mark from the intersection of I-57 and Hwy 3 near Future City, Il. proceed east on Hwy 3 for 0.7 miles, turn left onto Hwy 37 and proceed in a northerly direction for 0.20 miles, then turn right onto Patierdale Road and go to the top of the levee, proceed north for 175 feet to the mark on the left, 161 feet on an azimuth of 6° from the intersection of Patierdale Road and the top of the levee, 14.7 feet on an azimuth of 285° from the riverside crown of the levee, and 3 feet on an azimuth of 44° from the centerline of the levee.
E 275 (1976)	340.73	The Mark is 3.63 miles south of Commerce, Mo., 5.21 miles west of Miller City, Il., and 6.23 miles east of Benton, Mo. To reach the mark from the beginning of the levee at Commerce, Mo. proceed south along levee road for 3.8 miles to the mark on the right on the slope of the levee, 65 feet on an azimuth of 91° from (?), 25.3 feet on an azimuth of 270° from the centerline of the levee, and 16 feet on an azimuth of 270° from mile marker 8/9.
V 275 (1976)	452.17	The Mark is 2.93 miles southeast of Scott City, Mo., 7.25 miles north-northeast of Benton, Mo., and 7.71 miles west of Olive Branch, Il. To reach the mark from the intersection of Main Street and Hwy N in Scott City, Mo. proceed south on Hwy N for 3.0 miles to the mark on the right side of the Hwy, 26.1 feet on an azimuth of 240° from the centerline of Hwy N, 16.1 feet on an azimuth of 144° from a wood-line, and 2.0 feet on an azimuth of 62° from a white wooden fence.
B 278 (1976)	339.80	The Mark is 7.8 miles north of Charleston, Mo., 8.84 miles east-northeast of Blodgett, Mo., and 10.79 miles west-northwest of Cairo, Il. To reach the mark from the intersection of Hwy 62 and Hwy N in Charleston, Mo. proceed north on Hwy N for 7.8 miles to the mark on the right on the slope of the levee, 83 feet on an azimuth of 65° from the edge of Hwy N, 39.1 feet on an azimuth of 130° from mile marker 16/17, and 7 feet on an azimuth of 245° from the edge of the levee.
Z 278 (1976)	340.58	The Mark is 8.15 miles east-northeast of Blodgett, Mo., 9.18 miles north-northwest of Charleston, Mo., and 12.30 miles west-northwest of Cairo, Il. To reach the mark from the intersection of Hwy 60 and Hwy N in Charleston, Mo. proceed north on Hwy N for 7.8 miles then get on top of the levee, proceed upstream/northwesterly for 2.05 miles to the mark on the left on the slope of the levee, 110.2 feet on an azimuth of 84° from the toe of the levee, 31.5 feet on an azimuth of 256° from the centerline of the levee, and 5.9 feet on an azimuth of 256° from a milepost.
A 278 (1976)	339.13	The Mark is 6.54 miles north of Charleston, Mo., 9.20 miles east-northeast of Blodgett, Mo., and 10.22 miles west of Cairo, Il. To reach the mark from the intersection of Hwy 62 and Hwy N in Charleston, Mo. proceed north on Hwy N for 6.8 miles to the mark on the right on the slope of the levee, 85 feet on an azimuth of 23° from the centerline of Hwy N, 24 feet on an azimuth of 203° from the centerline of the levee, and 1 foot on an azimuth of 130° from an I-beam painted yellow (mile marker 17/18).
S-5-2-93A	324.33	The Mark is 5.16 miles north-northeast of Charleston, Mo., 7.89 miles west-southwest of Cairo, Il., and 11.65 miles east of Blodgett, Mo. To reach the mark from the intersection of Hwy N and County Road 214 north of Charleston, Mo. proceed east on County Road 214 for 1.4 miles to the levee, turn right to stay on County Road 214 and go 0.8 miles to the mark on the left, 145 feet on an azimuth of 123° from mile marker 20/21, 18.4 feet on an azimuth of 9° from the centerline of County Road 214, and 2.4 feet on an azimuth of 277° from a power pole.
T-4-1-93	328.20	The Mark is 3.82 miles west-southwest of Cairo, Il., 8.01 miles northeast of Charleston, Mo., and 15.55 miles east of Blodgett, Mo. To reach the mark from the intersection of Hwy 60 and Hwy N in Charleston, Mo. proceed north on Hwy N for 6.5 miles, turn right and follow road for 0.1 miles to the top of the levee, proceed downstream (southeast) for 7.6 miles to the mark at the toe of the levee, 51.7 feet on an azimuth of 72° from the centerline of the levee, 30 feet on an azimuth of 72° from mile marker 25/26, and 1.5 feet on an azimuth of 252° from a carsonite post.
P 270 (1969)	313.32	The Mark is 1.85 miles south-southeast of Future City, Il., 11.22 miles northeast of Charleston, Mo., and 12.25 miles southwest of La Center, Ky. To reach the mark from the intersection of Hwy 51 and Hwy 60 just south of Cairo, Il. proceed on Hwy 51 in a northwesterly direction for 1.8 miles to the mark at the intersection of Washington Avenue and Division Street, 46.8 feet on an azimuth of 130° from a fire hydrant, 42.1 feet on an azimuth of 297° from the corner of a building, and 14 feet on an azimuth of 47° from a power pole.

GENERAL NOTES:

- COORDINATES, AZIMUTHS, AND DISTANCES ARE BASED ON THE NORTH AMERICAN DATUM OF 1983, UTM ZONE 16 RECTANGULAR COORDINATE SYSTEM IN U.S. SURVEY FEET. STATIONING IS BASED ON GROUND DISTANCES WHERE (GRID DISTANCE) = (GROUND DISTANCE x GRID FACTOR). GRID FACTOR = 1.????????
- ELEVATIONS REFER TO NAVD88 (GEOID 03) UNLESS OTHERWISE NOTED.
- STATIONINGS REFER TO LEVEE BASELINE (DEFINED IN PLAN VIEWS) UNLESS OTHERWISE NOTED. NOTE THAT LEVEE BASELINE STATIONING DOES NOT ALWAYS ACCURATELY REPRESENT DISTANCES BETWEEN POINTS OFFSET FROM BASELINE DUE TO EFFECTS OF ANGLE POINTS ON LEVEE BASELINE.
- THE GOVERNMENT WILL RECOVER THE LEVEE BASELINE AND BENCHMARKS NOTED ON THIS DRAWING. FOURTEEN DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR WILL CONTACT THE GOVERNMENT FOR THIS WORK.
- SHOULD ANY QUESTIONS ARISE CONCERNING SURVEY-RELATED INFORMATION, THE CONTRACTOR SHALL NOTIFY THE CONTRACTING OFFICER.
- AERIAL PHOTOGRAPHY SHOWN ON PLAN VIEWS WAS FLOWN IN 2015.
- THE CONTRACTING OFFICER MAY ADJUST LOCATIONS FOR NEW WELLS BASED ON EXISTING TOPOGRAPHY AND MAN-MADE FEATURES AT THE TIME OF CONSTRUCTION.
- WELL ELEVATIONS LISTED IN WELL TABLES ARE MAXIMUM WELL HEAD ELEVATIONS. WELL ELEVATIONS SHOULD BE AS CLOSE AS POSSIBLE TO THESE ELEVATIONS BUT SHOULD NOT EXCEED THEM. MINOR EARTHWORK MAY BE REQUIRED TO ACHIEVE DESIRED WELL HEAD ELEVATIONS FOR NEW WELLS.
- THE CONTRACTOR SHALL ESTABLISH TURF IN ALL DISTURBED AREAS WITHIN CONSTRUCTION LIMITS UNLESS OTHERWISE DIRECTED BY THE CONTRACTING OFFICER.
- THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION PREVENTION AND SEDIMENT CONTROL FEATURES PRIOR TO FINAL ACCEPTANCE OF WORK.

GENERAL CROSS-REFERENCING SYMBOLS

DETAIL/SECTION
SUPPLEMENTAL INFORMATION
SCALE:

DETAIL/SECTION
SCALE:

TOP FRONT SIDE
ELEVATION SECTION

SECTION CUT W/ VIEW SHOWN ON SAME DRAWING

SECTION CUT W/ VIEW SHOWN ON ANOTHER DRAWING

VIEW SUBTITLE (CENTERED UNDER EACH VIEW)

DETAIL SYMBOL W/ VIEW SHOWN ON SAME DRAWING

DETAIL SYMBOL W/ VIEW SHOWN ON ANOTHER DRAWING

ABBREVIATIONS*

* UNLESS OTHERWISE NOTED ON EACH SHEET

APPROX	APPROXIMATE	FF	FAR FACE	OC	ON CENTER
ALT W/	ALTERNATE WITH	FES	FLARED END SECTION	ROW	RIGHT OF WAY
ALUM	ALUMINUM	GALV	GALVANIZED	RS	RIVERSIDE
BITUM	BITUMINOUS	HT	HEIGHT	SAN	SANITARY
BOT	BOTTOM	IF	INSIDE FACE	SPEC	SPECIFICATIONS
C/L	CENTER LINE	LG	LONG	SST	STAINLESS STEEL
LB	LEVEE BASELINE	LS	LANDSIDE	TYP	TYPICAL
EME	EXCAVATED MATERIAL	MAX	MAXIMUM	UNO	UNLESS NOTED OTHERWISE
CONC	CONCRETE	MIN	MINIMUM	UNGD	UNDERGROUND
DIA	DIAMETER	MIR	MIRRORED	W	WIDTH
DWG	DRAWING	MISC	MISCELLANEOUS	WM	WATER MAIN
CMP	CORRUGATED METAL PIPE	NF	NEAR FACE		
EJ	EXPANSION JOINT	NO	NUMBER		
EL	ELEVATION	NST	NOT STEEPER THAN		
EW	EACH WAY	NTS	NOT TO SCALE		
EXIST	EXISTING	OF	OUTSIDE FACE		

GENERAL LEGEND

	FILL		BORING LOCATION AND NUMBER
	CUT		BENCHMARK
	EXISTING SANITARY SEWER		EXISTING PIEZOMETER
	EXISTING STORM SEWER		PROPOSED PIEZOMETER
	EXISTING WATER LINE		P.I. POINT
	EXISTING OVERHEAD POWER		FIRE HYDRANT
	EXISTING FENCE		MANHOLE
	EXISTING GAS		CATCHBASIN
	EXISTING COMMUN. LINE (TELEPHONE)		WATER VALVE
	EXISTING CABLE (COAXIAL T.V.)		POWER POLE
	SILT FINCE		RELIEF WELL (NTS)
	EROSION CONTROL BERM		RIPRAP PATTERN
	CONSTRUCTION LIMITS		FILTER MATERIAL PATTERN
	LEVEE BASELINE		CRUSHED STONE PATTERN
	RIPRAP LIMITS		PORTLAND CEMENT CONCRETE PATTERN



DATE	APPR.	DESCRIPTION

DESIGNED BY: Date: 08/06/08	DESIGNED BY: Date: 08/06/08	DESIGNED BY: Date: 08/06/08	DESIGNED BY: Date: 08/06/08
CHECKED BY: Date: 08/06/08	CHECKED BY: Date: 08/06/08	CHECKED BY: Date: 08/06/08	CHECKED BY: Date: 08/06/08
DATE SUBMITTED: 08/06/08	DATE SUBMITTED: 08/06/08	DATE SUBMITTED: 08/06/08	DATE SUBMITTED: 08/06/08
CONTRACT NO.: W912E0-04-R-0000	CONTRACT NO.: W912E0-04-R-0000	CONTRACT NO.: W912E0-04-R-0000	CONTRACT NO.: W912E0-04-R-0000
FILE NUMBER: 20082018	FILE NUMBER: 20082018	FILE NUMBER: 20082018	FILE NUMBER: 20082018
ANSI D G-005, INDEX, LEGEND AND ABBREVIATIONS (SPT)	ANSI D G-005, INDEX, LEGEND AND ABBREVIATIONS (SPT)	ANSI D G-005, INDEX, LEGEND AND ABBREVIATIONS (SPT)	ANSI D G-005, INDEX, LEGEND AND ABBREVIATIONS (SPT)

MISCELLANEOUS RELIEF WELLS - ILLINOIS AND MISSOURI
ARMY CORPS OF ENGINEERS - MEMPHIS DISTRICT
SCOTT COUNTY, MISSISSIPPI COUNTY, ILLINOIS
ALEXANDER COUNTY, ILLINOIS
INDEX, LEGEND, & ABBREVIATIONS

CONSTRUCTION EASEMENT - BELOW COMMERCE MILE 5				
Point Number	Levee Baseline Station	Levee Baseline Offset	Northing	Easting
CE-1	5/0+34.76	-4.21	13497125.66	927943.46
CE-2	5/12+09.71	498.36	13496298.88	927913.52
CE-3	5/14+19.70	496.86	13496089.18	927924.84
CE-4	5/19+84.06	399.34	13495529.88	928048.74
CE-5	5/30+72.92	400.79	13494443.12	928097.42
CE-6	5/48+26.25	1542.59	13494618.70	926946.66
CE-7	5/24+20.68	3702.65	13494938.24	924769.64
CE-8	5/21+71.44	5090.27	13495121.88	923371.82
CE-9	5/21+40.15	5084.19	13495153.42	923376.42
CE-10	5/21+02.62	5277.80	13495181.80	923181.27
CE-11	5/22+18.85	5435.36	13495058.28	923029.35
CE-12	5/26+30.01	5946.58	13494623.51	922538.05
CE-13	5/26+03.13	5991.20	13494648.26	922492.22
CE-14	5/26+00.52	6026.74	13494649.19	922456.59
CE-15	5/26+59.40	6029.27	13494605.47	922456.10
CE-16	5/26+59.73	6007.59	13494606.11	922477.78
CE-17	5/26+87.34	6008.60	13494578.49	922478.00
CE-18	5/27+26.52	5983.67	13494540.46	922504.65
CE-19	5/22+30.48	5376.57	13495049.43	923088.62
CE-20	5/23+62.80	4707.82	13494948.73	923762.86
CE-21	5/24+81.43	4109.51	13494858.40	924366.10
CE-22	5/25+60.95	3889.60	13494798.74	924789.28
CE-23	5/27+65.48	2675.27	13494648.93	925811.51
CE-24	5/29+73.42	1615.51	13494488.41	926879.47
CE-25	5/31+70.77	587.03	13494337.08	927915.73
CE-26	5/32+67.83	95.32	13494262.01	928411.27

PROPOSED DITCH ALIGNMENT - BELOW COMMERCE MILE 5						
Point Type	Station	Northing	Easting	Radius	Length	Tangent
POB	0+00.00	13497009.79	927871.68			
PC	3+48.50	13496955.49	928215.93			
PI	3+72.80	13496951.70	928239.93	30	40.84	24.30
PT	3+89.34	13496927.44	928241.21			
PI	4+11.35	13496905.47	928242.37			
PI	17+12.22	13495606.41	928311.09			
PC	29+57.68	13494362.06	928363.66			
PI	29+93.13	13494326.64	928365.16	30	52.10	35.44
PT	30+09.79	13494331.02	928329.99			
PI	32+14.86	13494356.33	928126.48			
PI	42+27.16	13494506.04	927125.31			
PI	57+27.88	13494723.10	925640.37			
PI	65+20.19	13494830.96	924855.44			
PI	70+20.19	13494902.07	924360.52			
PI	74+20.19	13494955.37	923964.08			
PI	80+20.28	13495037.80	923369.69			
PI	81+20.24	13495054.05	923271.06			
PI	81+87.86	13495068.07	923204.90			
POE	83+00.00	13495136.66	923116.19			

WELL TABLE - BELOW COMMERCE MILE 5											
WELL NUMBER	LEVEE BASELINE STATION	DISTANCE TO LEVEE BASELINE (FT.)	NORTHING	EASTING	WELL SCREEN DIA. (IN.)	RISER LENGTH (FT.)	TOTAL WELL SCREEN LENGTH (FT.)	TOTAL WELL LENGTH (FT.)	TOP OF SCREEN ELEV. (FT.)	WELL TOP ELEV. (FT.)	CONCRETE SLAB TOP ELEV. (FT.)
1	5/0+80.62	121.91	13496994.21	927970.46	10	25	33	58	305	330.3	330
2	5/1+80.66	118.44	13496983.07	928069.94	10	25	33	58	303	328.3	328
3	5/2+80.67	117.87	13496969.06	928168.97	10	25	33	58	303	328.3	328
4	5/6+07.77	133.89	13496917.20	928249.44	10	25	33	58	303	328.3	328
5	5/8+07.76	131.50	13496717.54	928261.18	10	25	33	58	302.5	327.8	327.5
6	5/10+07.75	130.11	13496517.83	928271.93	10	25	33	58	302.5	327.8	327.5
7	5/12+07.75	128.71	13496318.12	928282.67	10	25	33	58	302.5	327.8	327.5
8	5/13+17.74	127.92	13496208.28	928288.61	10	25	33	58	302.5	327.8	327.5
9	5/14+27.74	126.12	13496098.49	928295.55	10	25	33	58	302.5	327.8	327.5
10	5/15+37.73	125.31	13495988.66	928301.50	10	25	33	58	302.5	327.8	327.5
11	5/16+47.72	123.01	13495878.90	928308.94	10	25	33	58	302.5	327.8	327.5
12	5/17+57.68	122.23	13495769.06	928314.88	10	25	33	58	302.5	327.8	327.5
13	5/18+67.68	121.47	13495659.22	928320.82	10	25	33	58	302.5	327.8	327.5
14	5/19+77.81	121.32	13495549.21	928326.15	10	25	33	58	302.5	327.8	327.5
15	5/22+72.80	123.72	13495254.44	928337.65	10	25	33	58	302	327.3	327
16	5/25+67.80	124.98	13494959.71	928350.27	10	25	33	58	302	327.3	327
17	5/28+63.11	125.60	13494664.98	928362.99	10	25	33	58	302	327.3	327
18	5/31+58.11	126.03	13494370.25	928375.71	10	25	33	58	302	327.3	327

LEVEE BASELINE TABLE			
SITE	STATION	NORTHING	EASTING
COMMERCE-1	5/0+00	13497126.56	927908.46
COMMERCE-1	5/4+74	13497057.59	928376.91
COMMERCE-1	5/17+17	13495816.13	928435.03
COMMERCE-1	5/26+46	13494887.40	928478.80
COMMERCE-1	5/36+91	13493843.75	928525.34
MC to CAIRO-1	6/15+26	13460844.10	1003985.53
MC to CAIRO-2	7/24+88	13454630.01	1003311.90
MC to CAIRO-2	7/34+39	13453679.69	1003343.85
MC to CAIRO-2	7/43+82	13452737.07	1003374.30
MC to CAIRO-2	7/50+21	13452098.40	1003394.01
CHARLESTON-1	24/32+49	13441702.65	983766.32
CHARLESTON-1	24/34+55	13441805.05	983945.31
CHARLESTON-1	24/41+47	13442400.08	984299.80
CHARLESTON-1	24/48+21	13442318.14	984969.07
CHARLESTON-1	24/50+51	13442539.81	985032.14
CHARLESTON-2	15/24+01	13455500.82	946673.28
CHARLESTON-2	15/33+33	13454888.39	947376.09
CHARLESTON-2	15/39+78	13454388.83	947784.28

CONSTRUCTION EASEMENT - BELOW COMMERCE MILE 15				
Point Number	Levee Baseline Station	Levee Baseline Offset	Northing	Easting
CE-1	15/29+55.72	138.43	13455032.02	947000.56
CE-2	15/28+37.52	124.98	13455119.82	946920.28
CE-3	15/28+86.51	111.76	13455228.99	946815.11
CE-4	15/24+22.67	112.99	13455401.39	946615.39
CE-5			13455530.09	946461.10
CE-6			13456554.30	945267.23
CE-7			13457258.81	944574.23
CE-8			13457868.55	943975.84
CE-9			13458063.46	943860.92
CE-10			13458192.39	943784.73
CE-11			13458252.52	943883.76
CE-12			13457972.55	944059.71
CE-13			13456892.74	945104.49
CE-14	15/23+99.64	-3.98	13455504.70	946674.87
CE-15	15/33+33.20 NAZ=45°34'48.65"	-3.98	13454891.17	947378.93
CE-16	15/36+50.00	-3.96	13454645.58	947579.61
CE-17	15/36+50.00	151.90	13454546.96	947458.91
CE-18	15/34+18.43	155.79	13454723.82	947309.37
CE-19	15/33+11.09	158.74	13454783.24	947255.13
CE-20	15/32+30.95	155.81	13454838.09	947196.63
CE-21	15/32+10.40	118.95	13454879.39	947205.36

PROPOSED DITCH ALIGNMENT - BELOW COMMERCE MILE 15			
Point Type	Station	Northing	Easting
POB	0+00.00	13455019.19	947093.06
PI	0+15.44	13455009.67	947105.21
PI	0+85.56	13454962.51	947157.12
POE	1+59.06	13454920.10	947217.13

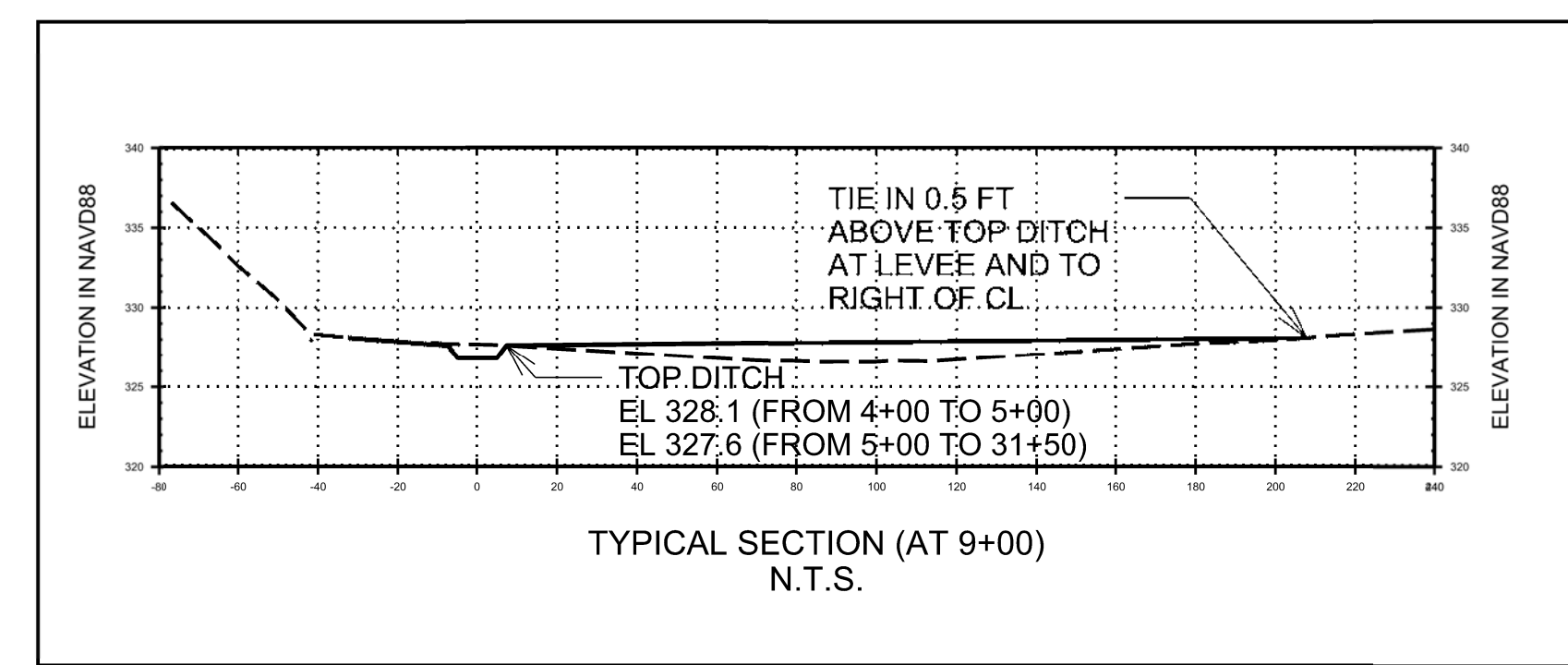
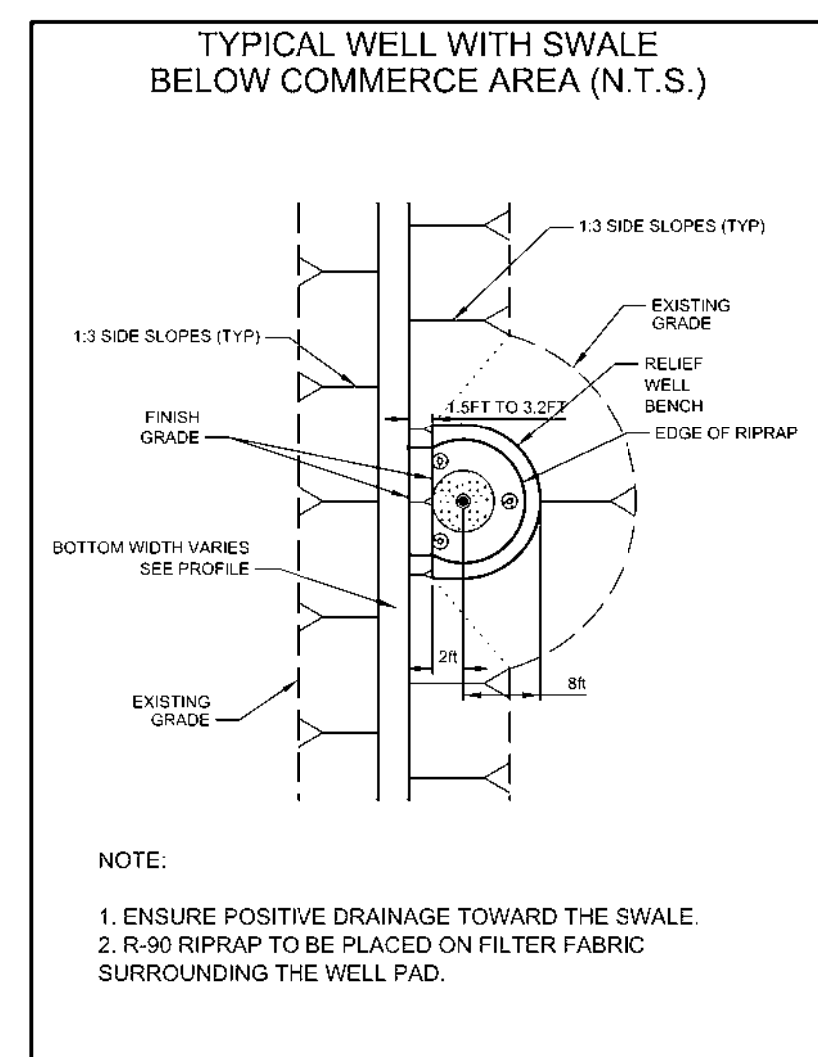
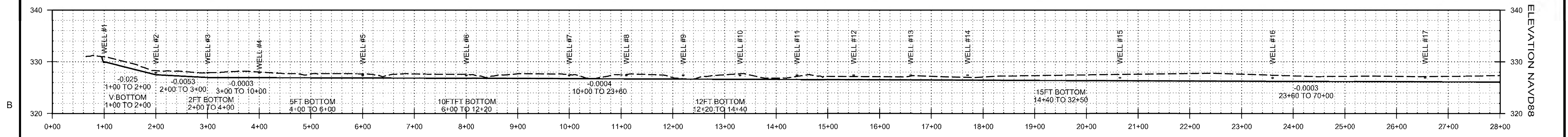
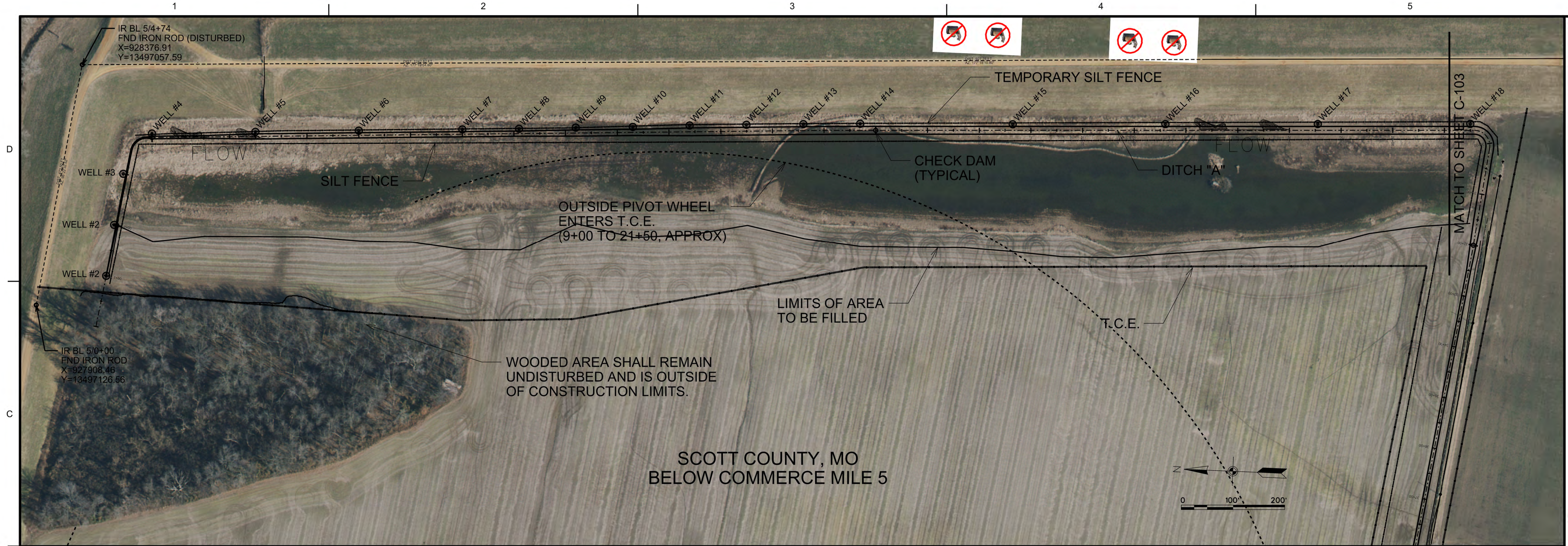
PROPOSED DITCH ALIGNMENT - BELOW CHARLESTON						
Point Type	Station	Northing	Easting	Radius	Length	Tangent
POB	0+00.00	13441908.55	984172.82			
PC	3+26.07	13442189.10	984339.00			
PI	3+91.46	13442245.36	984372.33	100	115.82	65.39
PT	4+41.89	13442237.38	984437.23			
PC	10+38.47	13442164.66	985029.35			
PI	10+71.98	13442159.82	985068.70	50	67.03	36.64
PT	11+05.50	13442197.03	985082.38			
PC	11+73.32	13442260.68	985105.78			
PI	12+04.51	13442294.46	985118.20	50	62.38	36.3084
PT	12+35.70	13442293.40	985154.17			
PI	36+50.95	13442222.62	987568.38			
PI	42+00.02	13442201.93	988117.06			
PI	47+00.04	13442191.87	988616.98			
POE	50+72.33	13442180.96	988989.11			

WELL TABLE - BELOW COMMERCE MILE 15											
WELL NUMBER	LEVEE BASELINE STATION	DISTANCE TO LEVEE BASELINE (FT.)	NORTHING	EASTING	WELL SCREEN DIA. (IN.)	RISER LENGTH (FT.)	TOTAL WELL SCREEN LENGTH (FT.)	TOTAL WELL LENGTH (FT.)	TOP OF SCREEN ELEV. (FT.)	WELL TOP ELEV. (FT.)	CONCRETE SLAB TOP ELEV. (FT.)
V71A	15/24+96.34	95.37	13455366.27	946682.50	8	25	85	110	298.5	323.8	323.5
V71B	15/26+37.29	99.00	13455270.93	946786.37	8	25	85	110	298.5	323.8	323.5
V72A	15/27+78.72	98.78	13455178.28	946893.23	8	25	85	110	298.5	323.8	323.5
V73A	15/29+07.07	108.88	13455089.38	946981.07	8	25	85	110	298.5	323.8	323.5
V74A	15/30+30.03	80.88	13455001.78	947109.30	8	25	85	110	300.5	325.8	325.5
V74B	15/31+59.59	81.11	13454941.28	947191.90	8	25	85	110	300.5	325.8	325.5
V75A	15/34+62.68	137.3	13454701.25	947351.69	8	25	85	110	300	325.3	325

WELL TABLE - BELOW CHARLESTON											
WELL NUMBER	LEVEE BASELINE STATION	DISTANCE TO LEVEE BASELINE (FT.)	NORTHING	EASTING	WELL SCREEN DIA. (IN.)	RISER LENGTH (FT.)	TOTAL WELL SCREEN LENGTH (FT.)	TOTAL WELL LENGTH (FT.)	TOP OF SCREEN ELEV. (FT.)	WELL TOP ELEV. (FT.)	CONCRETE SLAB TOP ELEV. (FT.)
1	24/37+61.2	136.30	13441997.60	984218.69	8	30	50	80	289	319.3	319
2	24/40+55.1	160.00	13442238.49	984389.81	8	30	50	80	289	319.3	319
3	24/45+52.2	140.90	13442210.97	984685.12	8	30	50	80	287.5	317.8	317.5
4	24/48+21	144.10	13442174.67	984982.92	8	30	50	80	287	317.3	317

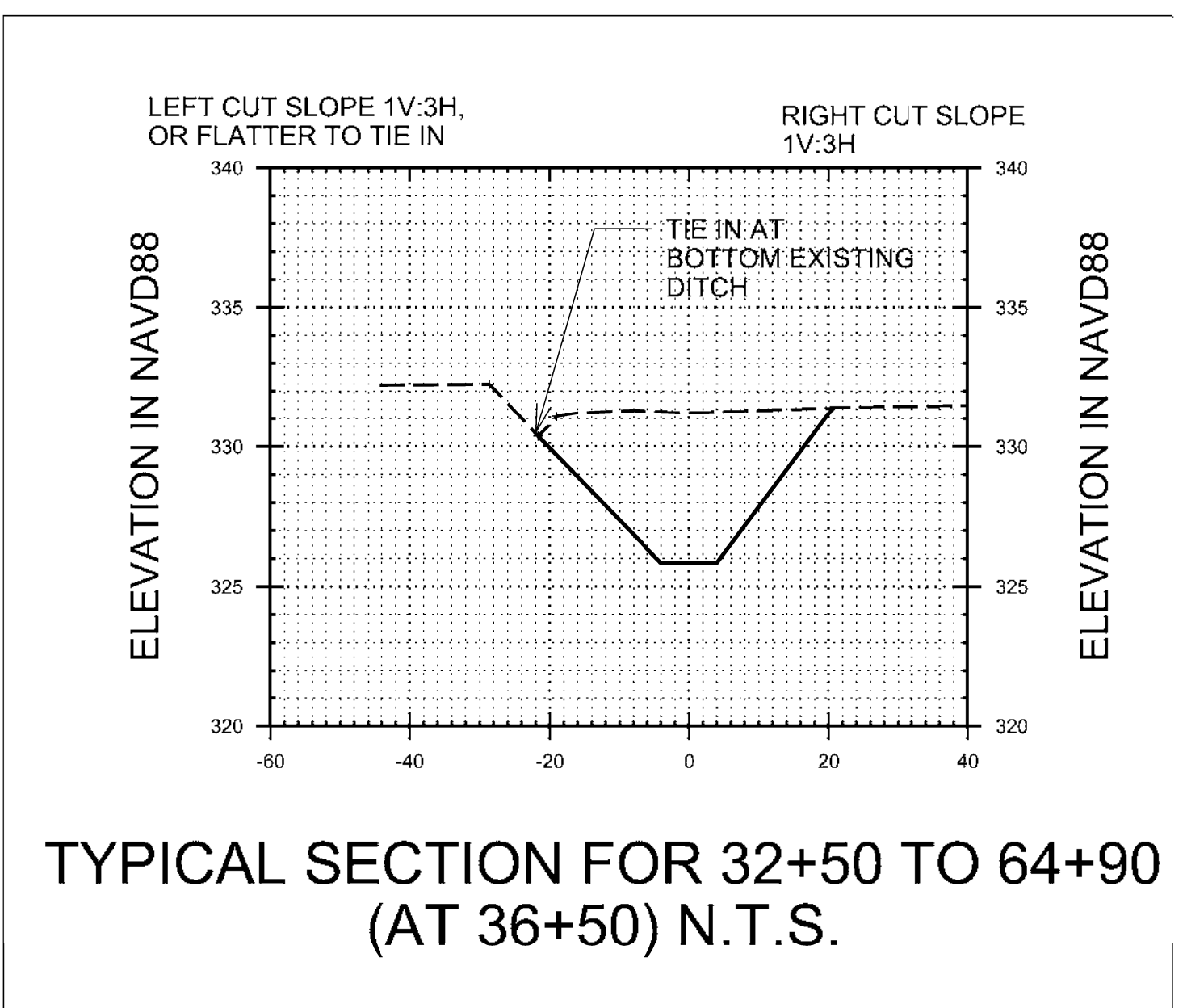
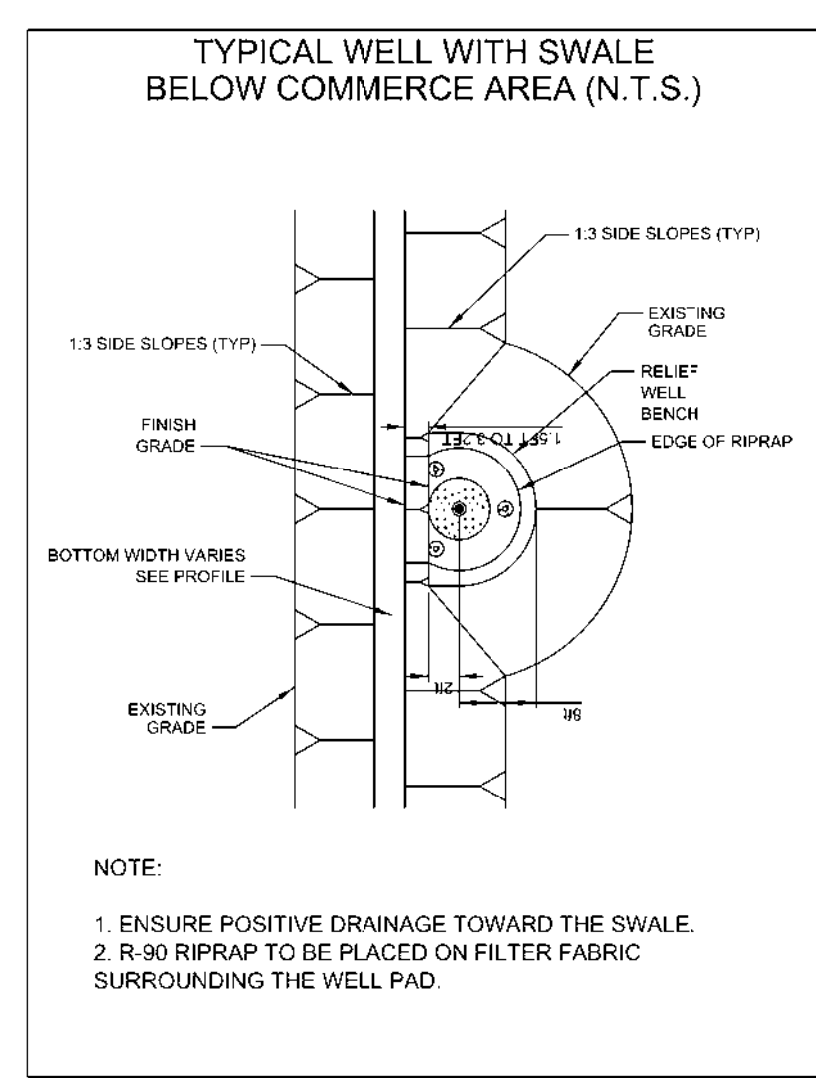
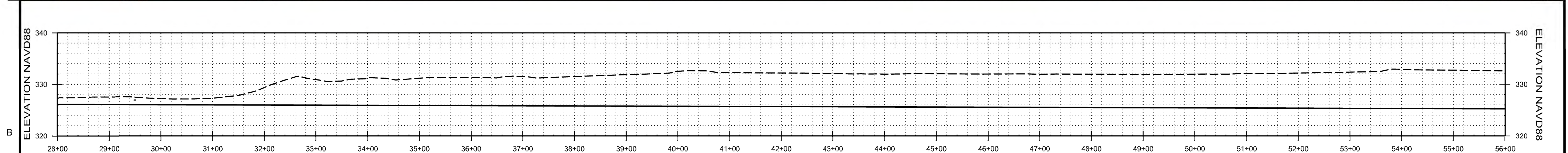
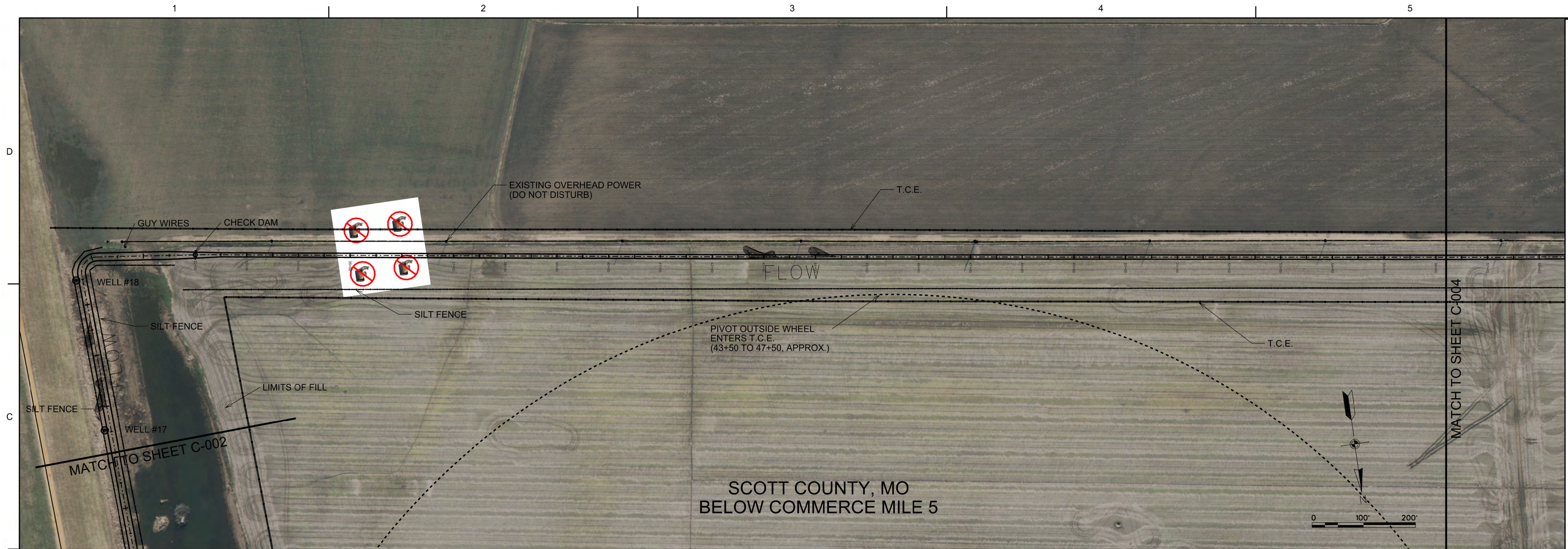
WELL TABLE - MOUND CITY TO CAIRO MILE 6											
WELL NUMBER	LEVEE BASELINE STATION	DISTANCE TO LEVEE BASELINE (FT.)	NORTHING	EASTING	WELL SCREEN DIA. (IN.)	RISER LENGTH (FT.)	TOTAL WELL SCREEN LENGTH (FT.)	TOTAL WELL LENGTH (FT.)	TOP OF SCREEN ELEV. (FT.)	WELL TOP ELEV. (FT.)	CONCRETE SLAB TOP ELEV. (FT.)
1A	6/30+05	459.4	13459449.58	1003320.06	10	40	61	101	269	309.3	309

WELL TABLE - MOUND CITY										
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- NOTES:
 1. ALL CUT AND FILL SLOPES SHALL BE 1V:3H UNLESS OTHERWISE NOTED ON PLANS.
 2. WELLS NO. 1 THROUGH 18 ARE 10-INCH DIAMETER.
 3. SEE WELL TABLE ON SHEET C-003 AND DITCH TABLE ON SHEET G-005 FOR ELEVATIONS, COORDINATE LOCATIONS OF WELLS, AND DITCH ALIGNMENTS.
 4. SEE SHEETS C-105 TO C-124 FOR CROSS SECTIONS.
 5. EROSION CONTROL BERM OR SILT FENCE MAY BE USED.

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MARK	DESCRIPTION	DATE	APPR.	MARK	DESCRIPTION	DATE	APPR.																																																						
DESIGNED BY: ARMANDO	DATE: 06/06																																																												
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PLOT SCALE: 1"=100'H/10V	SIZE: ANSI D																																																												
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U.S. ARMY CORPS OF ENGINEERS MEMPHIS DISTRICT MEMPHIS, TENNESSEE																																																													
MISCELLANEOUS RELIEF WELLS - ILLINOIS AND MISSOURI ARMY CORPS OF ENGINEERS - MEMPHIS DISTRICT SCOTT COUNTY / MISSISSIPPI COUNTY, ILLINOIS ALEXANDER COUNTY, ILLINOIS PLAN & PROFILE STA. 0+00 THRU 29+00																																																													
Sheet ID C-102																																																													



- NOTES:
1. ALL CUT AND FILL SLOPES SHALL BE 1V:3H UNLESS OTHERWISE NOTED ON PLANS.
 2. WELLS NO. 1 THROUGH 18 ARE 10-INCH DIAMETER.
 3. SEE WELL TABLE ON SHEET C-003 AND DITCH TABLE ON SHEET G-005 FOR ELEVATIONS, COORDINATE LOCATIONS OF WELLS, AND DITCH ALIGNMENTS.
 4. SEE SHEETS C-105 TO C-123 FOR CROSS SECTIONS.
 5. EROSION CONTROL BERM OR SILT FENCE MAY BE USED.

US Army Corps of Engineers
Memphis District

MARK	DESCRIPTION	DATE	APPR. MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: J. Williams	DATE: 06/06/18	SUBMITTED BY: DBA	CONTRACT NO. / W12EO-18-R-XXXX	FILE NUMBER: W12EO-18-R-XXXX
BY: KEN		BY: KEN		
FILE NAME: ANSI D	FILE NUMBER: C-103	FILE NAME: ANSI D	FILE NUMBER: C-103	FILE NAME: ANSI D

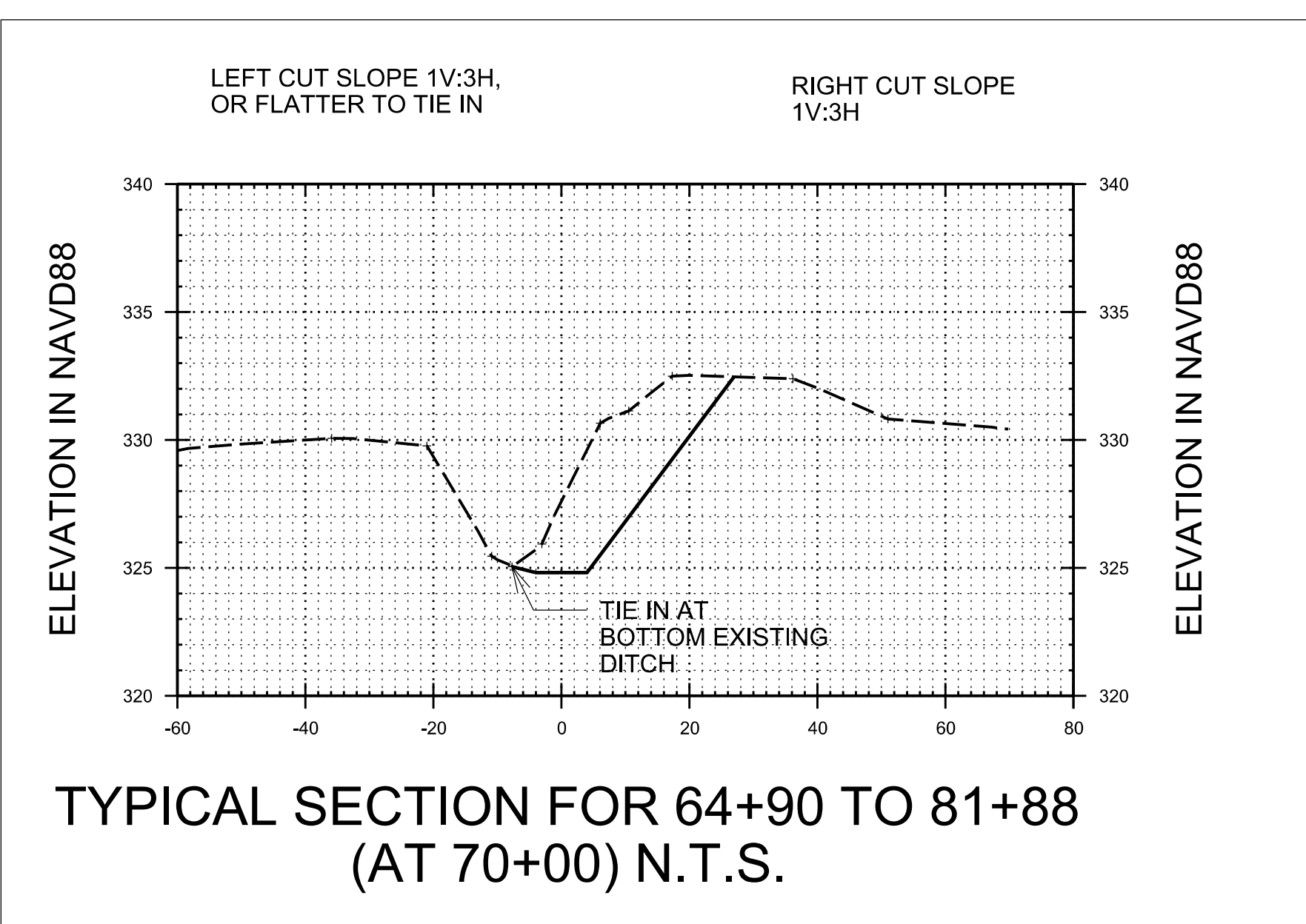
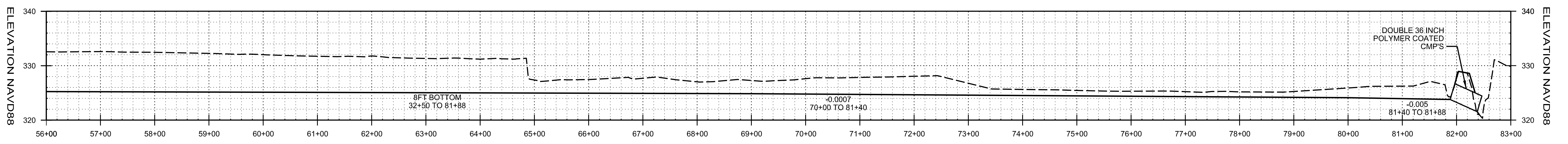
U.S. ARMY CORPS OF ENGINEERS
 MEMPHIS DISTRICT
 MEMPHIS, TENNESSEE
 MISCELLANEOUS RELIEF WELLS -
 ILLINOIS AND MISSOURI
 ARMY CORPS OF ENGINEERS - MEMPHIS DISTRICT
 SCOTT COUNTY, MISSISSIPPI COUNTY, MISSOURI
 ALEXANDER COUNTY, ILLINOIS
 PLAN & PROFILE STA. 28+00 THRU 56+00

Sheet ID
C-103

ADDITIONAL SHEET TO BE PROVIDED
FOR TIE IN TO NORTH CUT DITCH
CROSS-SECTIONS AND PLAN VIEWS



SCOTT COUNTY, MO
BELOW COMMERCE MILE 5



- NOTES:
1. ALL CUT AND FILL SLOPES SHALL BE 1V:3H UNLESS OTHERWISE NOTED ON PLANS.
 2. SEE DITCH TABLE ON SHEET G-005 DITCH ALIGNMENTS.
 3. SEE SHEETS C-105 AND C-124 FOR CROSS SECTIONS.
 4. EROSION CONTROL BERM OR SILT FENCE MAY BE USED. BERM SHOULD BE USED IN AREAS WHERE PIVOT IS TO CROSS OVER EROSION CONTROL FEATURE.



MARK	DESCRIPTION	DATE	APPR.	MARK	DESCRIPTION	DATE	APPR.

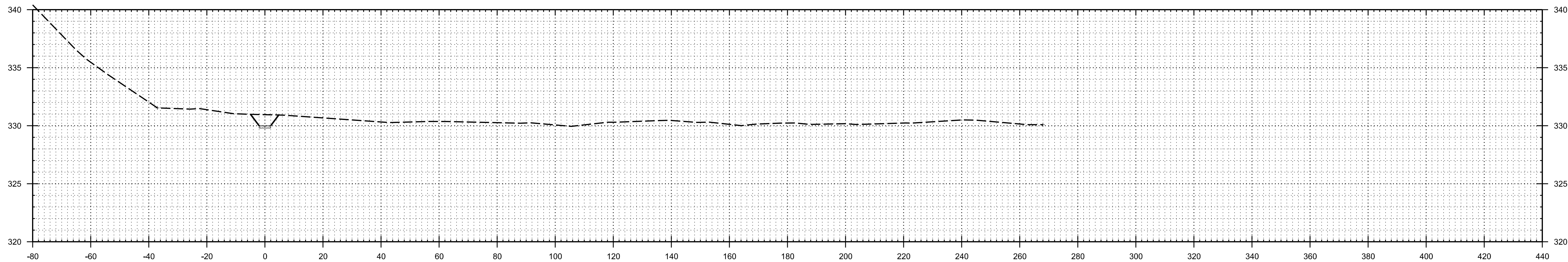
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DRAWN BY: Coy H. Williams, P.E.	CONTRACT NO. (IL): W912EO-18-R-XXX	FILE NUMBER: C-104	FILE NAME: C-104_Commerce-Mile-5_P&P.dwg
U.S. ARMY CORPS OF ENGINEERS MEMPHIS DISTRICT MEMPHIS, TENNESSEE			

MISCELLANEOUS RELIEF WELLS -
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ARMY CORPS OF ENGINEERS - MEMPHIS DISTRICT
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ALEXANDER COUNTY, ILLINOIS
PLAN & PROFILE STA. 56+00 THRU 83+00

Sheet ID
C-104

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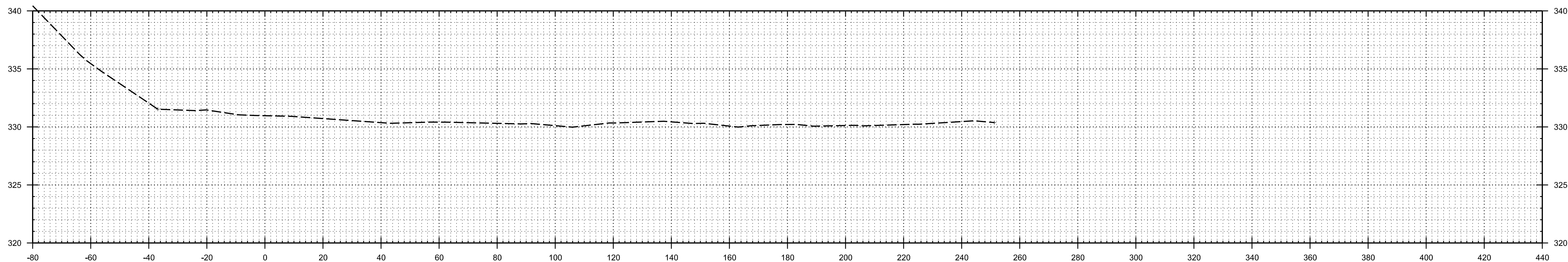
ELEVATION IN NAVD88



1+00 (WELL #1)

C

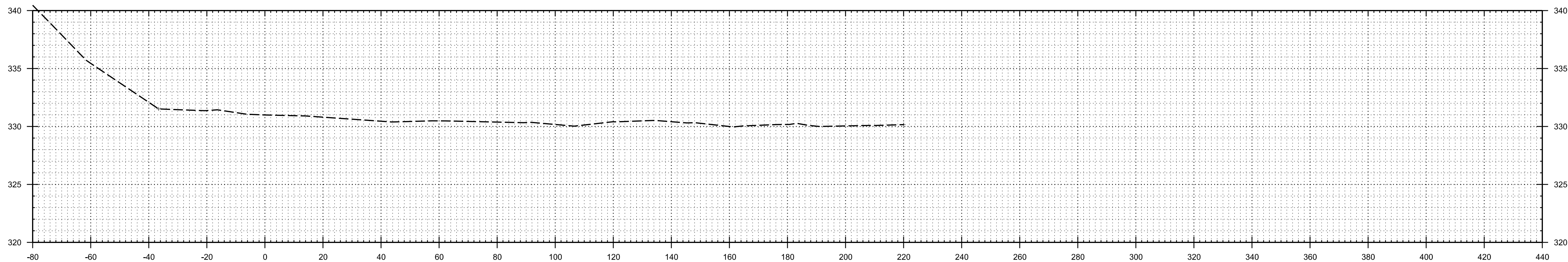
ELEVATION IN NAVD88



0+98

B

ELEVATION IN NAVD88



0+95

A



MARK	DESCRIPTION	DATE	APPR.	MARK	DESCRIPTION	DATE	APPR.

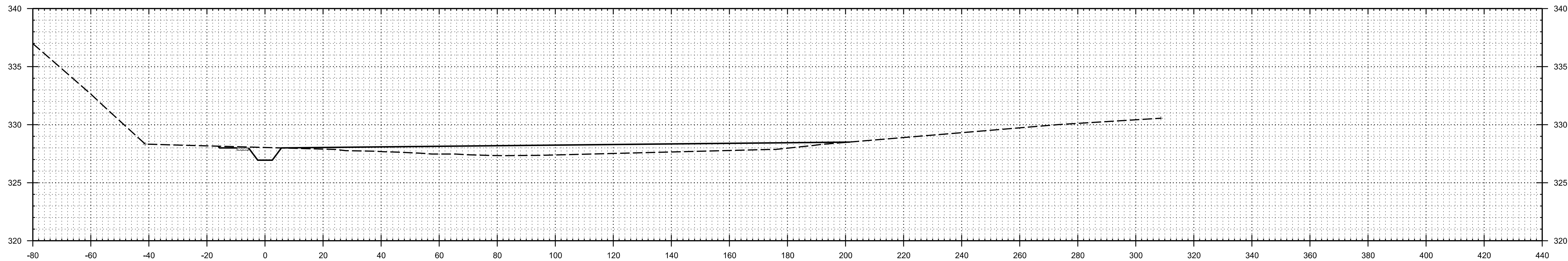
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SUBMITTED BY:		PLOT SCALE:	
1"=20' H/S V		2/08/2018	

MISCELLANEOUS RELIEF WELLS -
ILLINOIS AND MISSOURI
ARMY CORPS OF ENGINEERS - MEMPHIS DISTRICT
SCOTT COUNTY / MISSISSIPPI COUNTY, MISSOURI
ALEXANDER COUNTY, ILLINOIS
STA. 0+00 TO STA. 2+00
DITCH 'A' CROSS SECTIONS

Sheet ID
C-105

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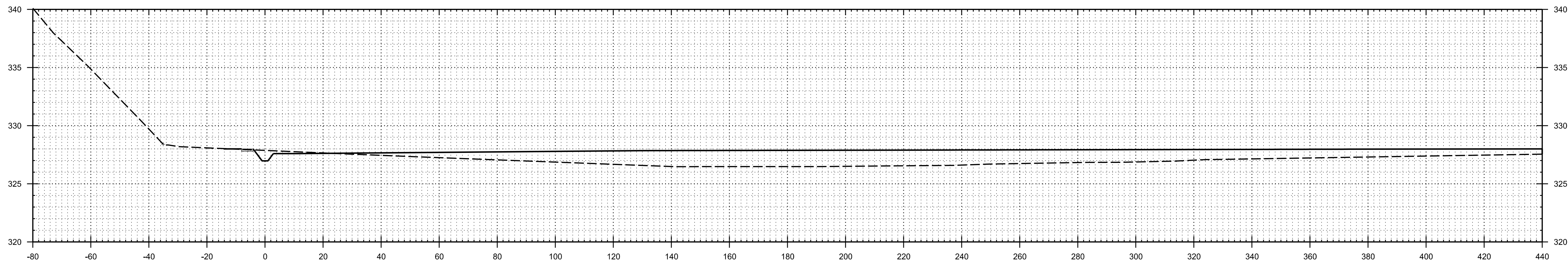
ELEVATION IN NAVD88



4+00 (WELL #4)

C

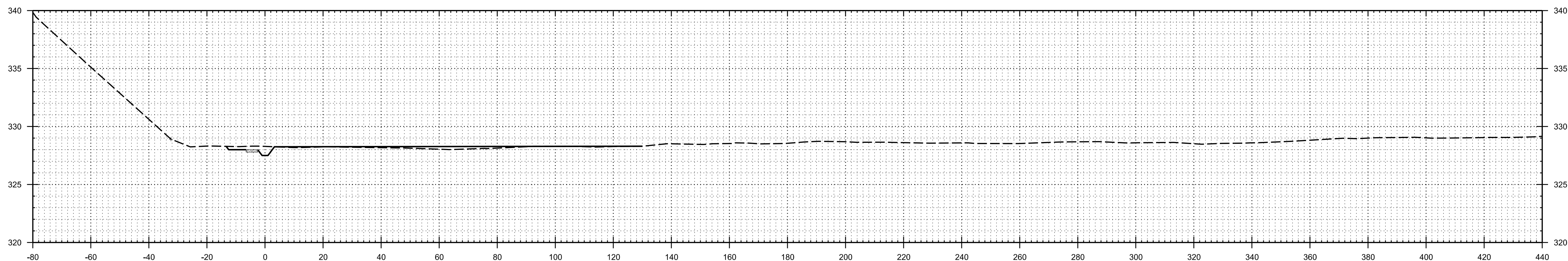
ELEVATION IN NAVD88



3+00 (WELL #3)

B

ELEVATION IN NAVD88



2+00 (WELL #2)

A



MARK	DESCRIPTION	DATE	APPR. MARK	DESCRIPTION	DATE	APPR.

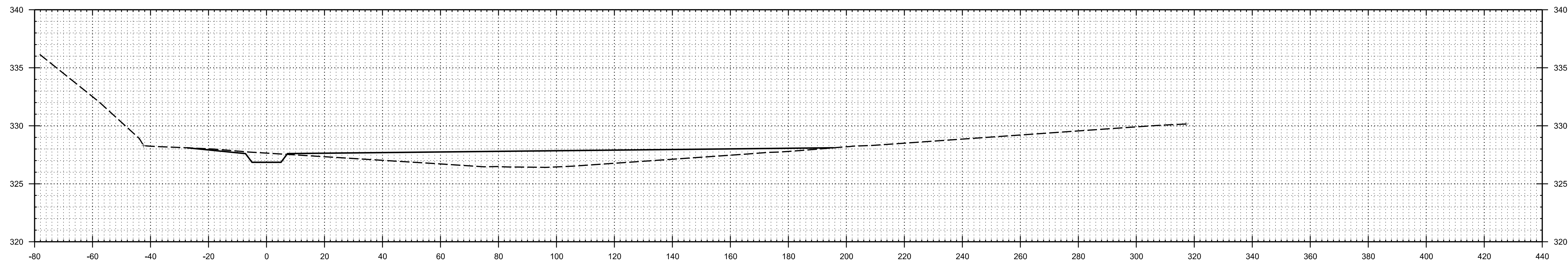
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PLOT SCALE: 1"=20' H/S V		FILE NAME:	ANSI D
U.S. ARMY CORPS OF ENGINEERS MEMPHIS DISTRICT MEMPHIS, TENNESSEE			

MISCELLANEOUS RELIEF WELLS -
ILLINOIS AND MISSOURI
ARMY CORPS OF ENGINEERS - MEMPHIS DISTRICT
SCOTT COUNTY / MISSISSIPPI COUNTY, MISSOURI
ALEXANDER COUNTY, ILLINOIS
STA. 3+00 TO STA. 5+00
DITCH 'A' CROSS SECTIONS

Sheet ID
C-106

D

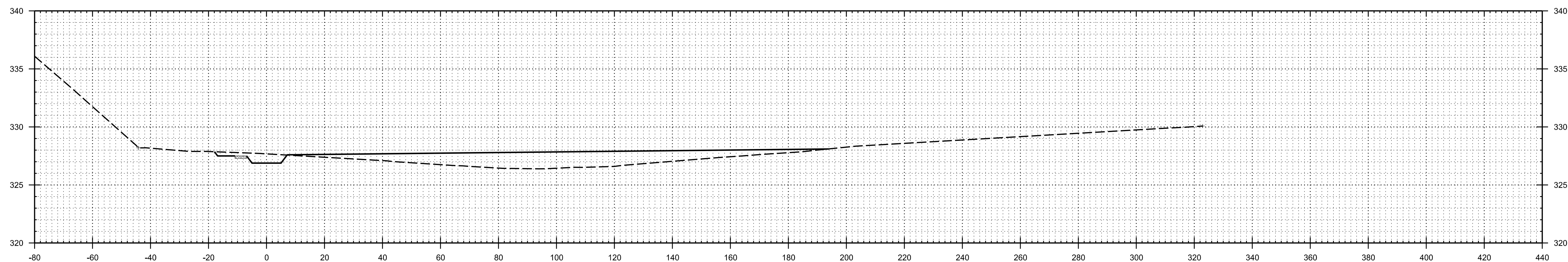
ELEVATION IN NAVD88



7+00

C

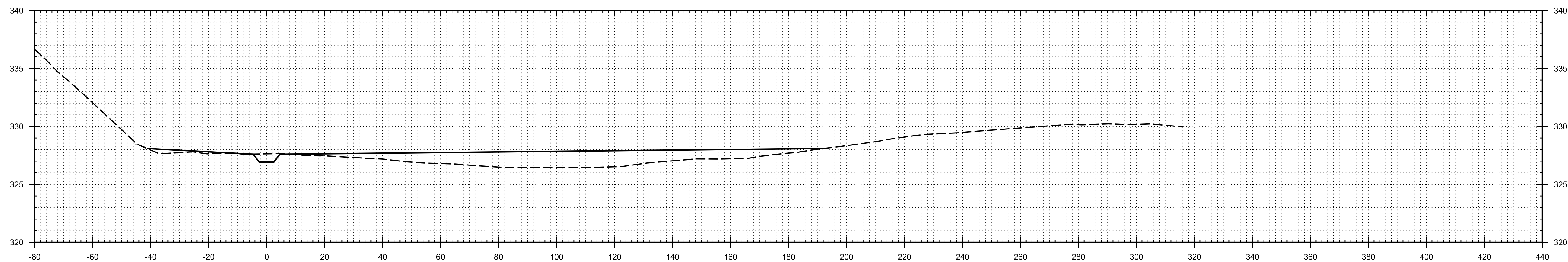
ELEVATION IN NAVD88



6+00 (WELL #5)

B

ELEVATION IN NAVD88



5+00

A



MARK	DESCRIPTION	DATE	APPR.	MARK	DESCRIPTION	DATE	APPR.

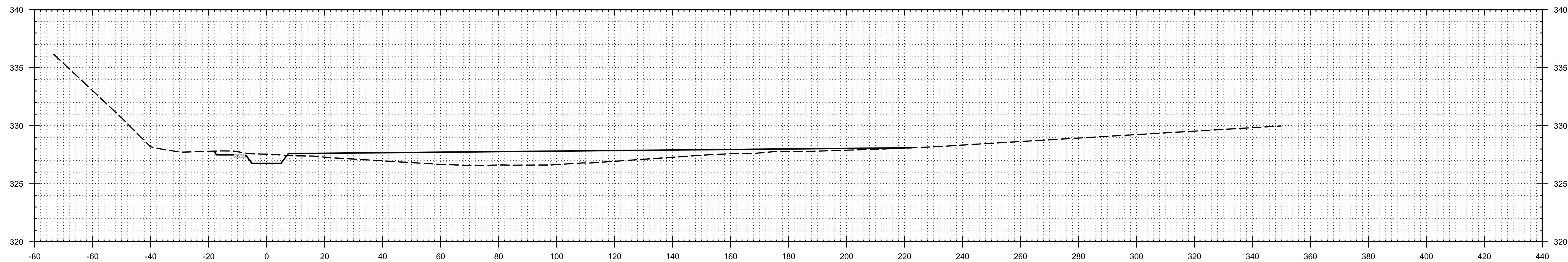
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MISCELLANEOUS RELIEF WELLS -
ILLINOIS AND MISSOURI
ARMY CORPS OF ENGINEERS - MEMPHIS DISTRICT
SCOTT COUNTY / MISSISSIPPI COUNTY - MISSOURI
ALEXANDER COUNTY, ILLINOIS
STA. 6+00 TO STA. 8+00
DITCH 'A' CROSS SECTIONS

Sheet ID
C-107

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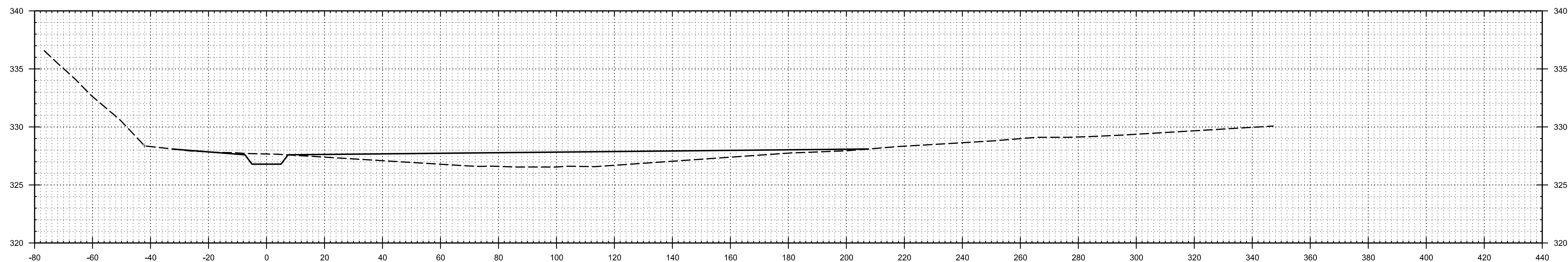
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10+00 (WELL #7)

C

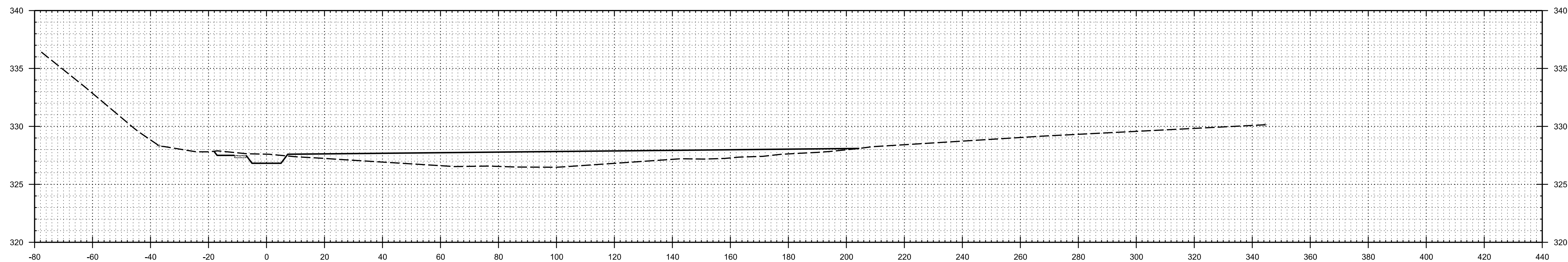
ELEVATION IN NAVD88



9+00

B

ELEVATION IN NAVD88



8+00 (WELL #6)

A



MARK	DESCRIPTION	DATE	APPR.	MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: DRA	DESIGNED BY: NEW	DATE: 06/18/2018	SUBMITTAL NO.:
SUBMITTED BY: Cory H. Williams, P.E.	CONTRACT NO.:	FILE NUMBER:	
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ANSI D			

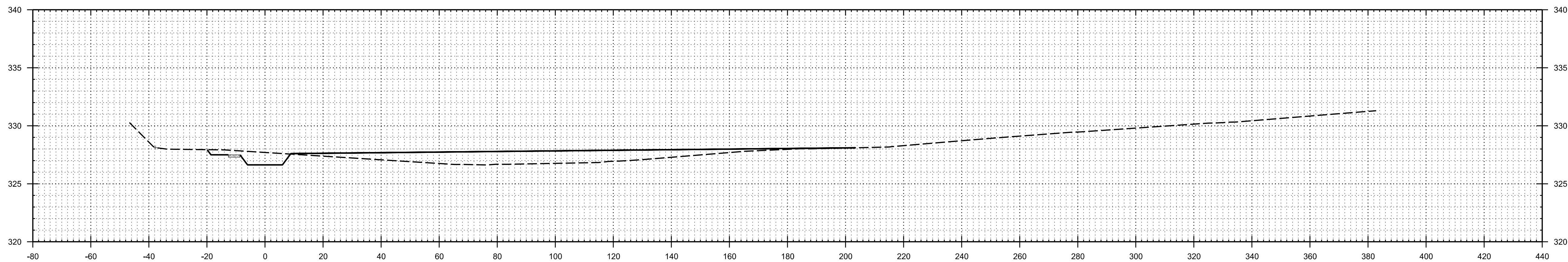
U.S. ARMY CORPS OF ENGINEERS
MEMPHIS DISTRICT
MEMPHIS, TENNESSEE

MISCELLANEOUS RELIEF WELLS -
ILLINOIS AND MISSOURI
ARMY CORPS OF ENGINEERS - MEMPHIS DISTRICT
SCOTT COUNTY / MISSISSIPPI COUNTY, MISSOURI
ALEXANDER COUNTY, ILLINOIS
STA. 9+00 TO STA. 11+00
DITCH 'A' CROSS SECTIONS

Sheet ID
C-108

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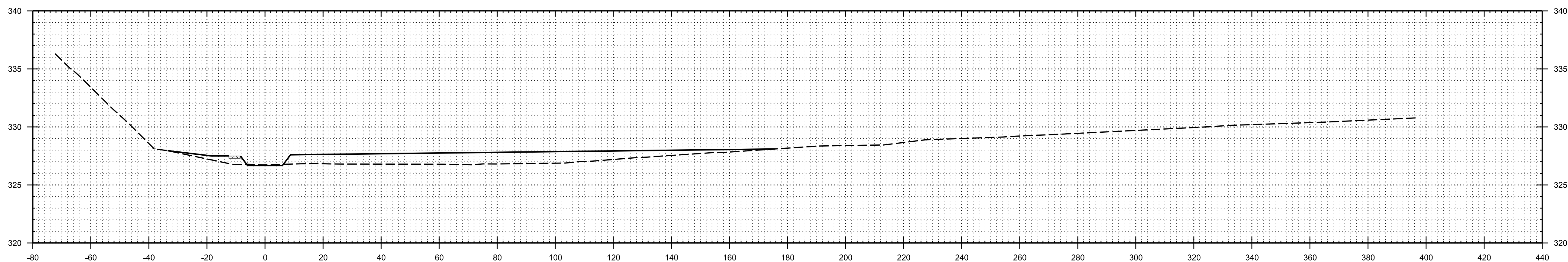
ELEVATION IN NAVD88



13+30 (WELL #10)

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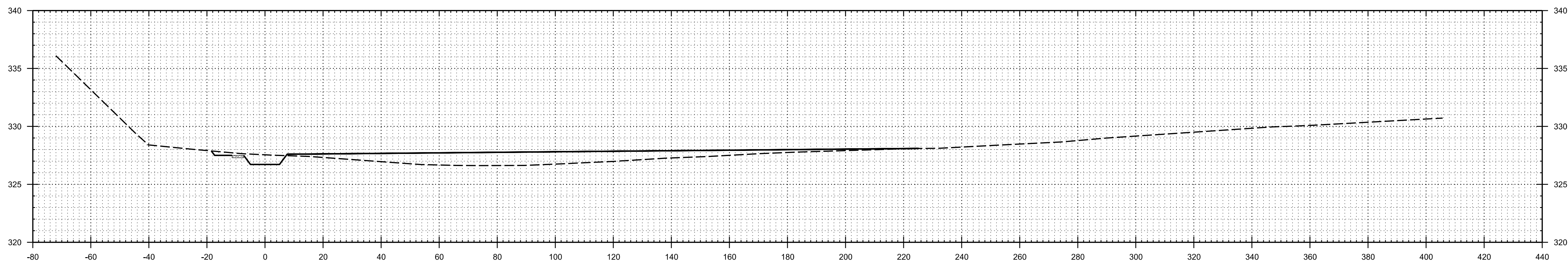
ELEVATION IN NAVD88



12+20 (WELL #9)

B

ELEVATION IN NAVD88



11+10 (WELL #8)

A



MARK	DESCRIPTION	DATE	APPR.	MARK	DESCRIPTION	DATE	APPR.

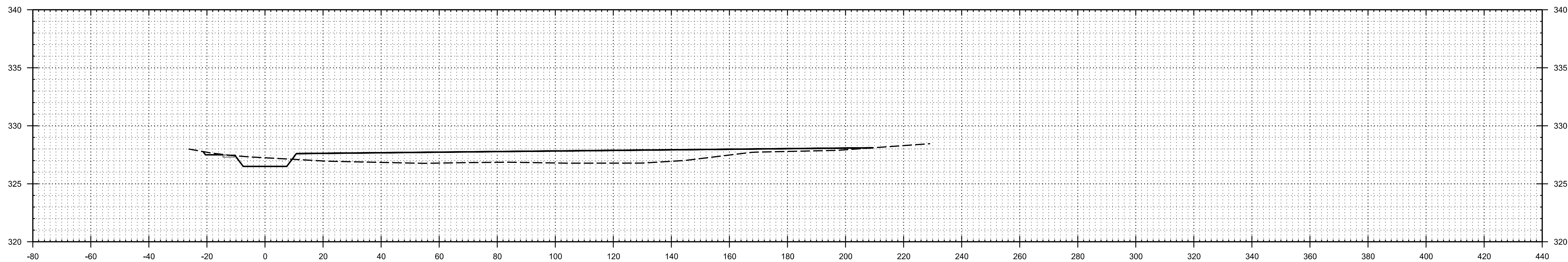
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U.S. ARMY CORPS OF ENGINEERS MEMPHIS DISTRICT MEMPHIS, TENNESSEE	U.S. ARMY CORPS OF ENGINEERS MEMPHIS DISTRICT MEMPHIS, TENNESSEE		

MISCELLANEOUS RELIEF WELLS -
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SCOTT COUNTY / MISSISSIPPI COUNTY - MISSOURI
ALEXANDER COUNTY, ILLINOIS
STA. 12+00 TO STA. 14+00
DITCH 'A' CROSS SECTIONS

Sheet ID
C-109

D

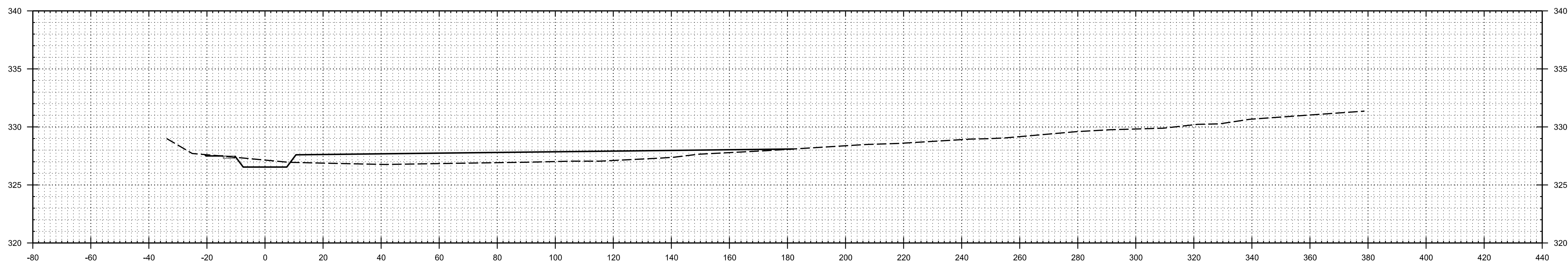
ELEVATION IN NAVD88



ELEVATION IN NAVD88

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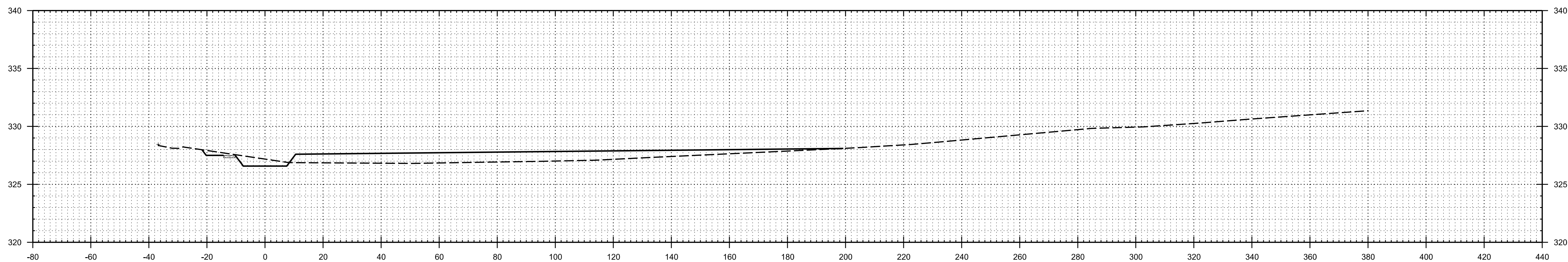
ELEVATION IN NAVD88



ELEVATION IN NAVD88

B

ELEVATION IN NAVD88



ELEVATION IN NAVD88

A



MARK	DESCRIPTION	DATE	APPR. MARK	DESCRIPTION	DATE	APPR.

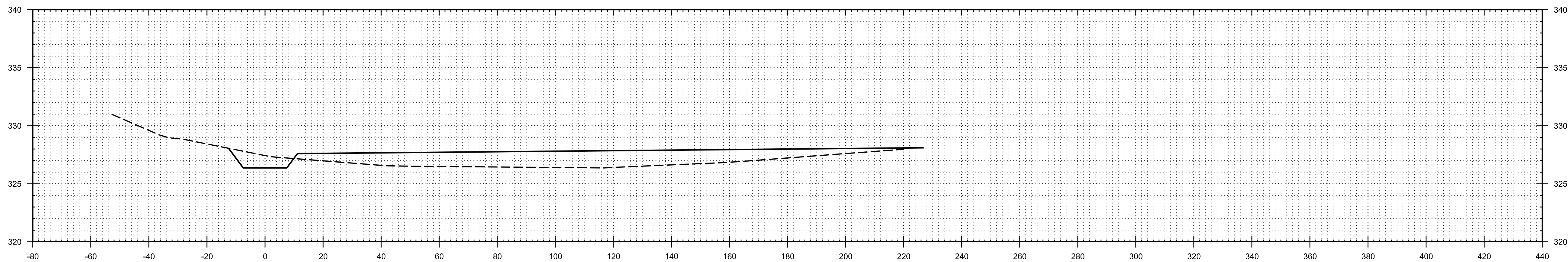
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MISCELLANEOUS RELIEF WELLS -
ILLINOIS AND MISSOURI
ARMY CORPS OF ENGINEERS - MEMPHIS DISTRICT
SCOTT COUNTY / MISSISSIPPI COUNTY, MISSOURI
ALEXANDER COUNTY, ILLINOIS
STA. 15+30 TO STA. 17+00
DITCH 'A' CROSS SECTIONS

Sheet ID
C-110

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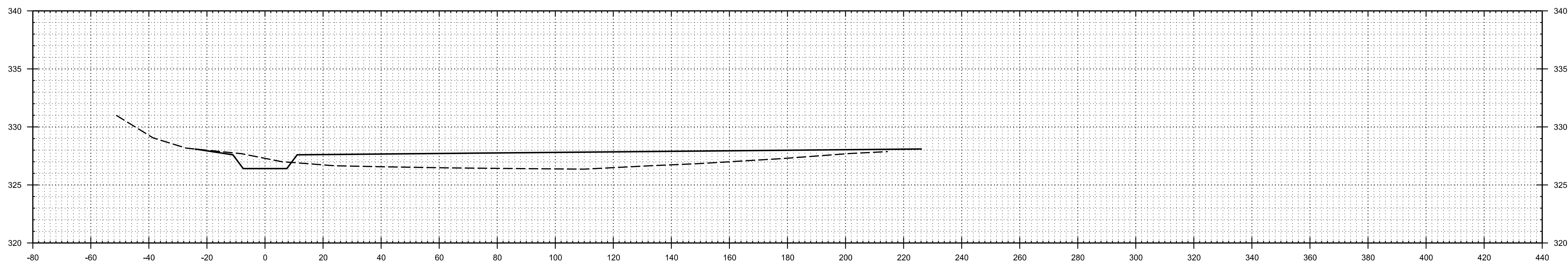
ELEVATION IN NAVD88



19+70

C

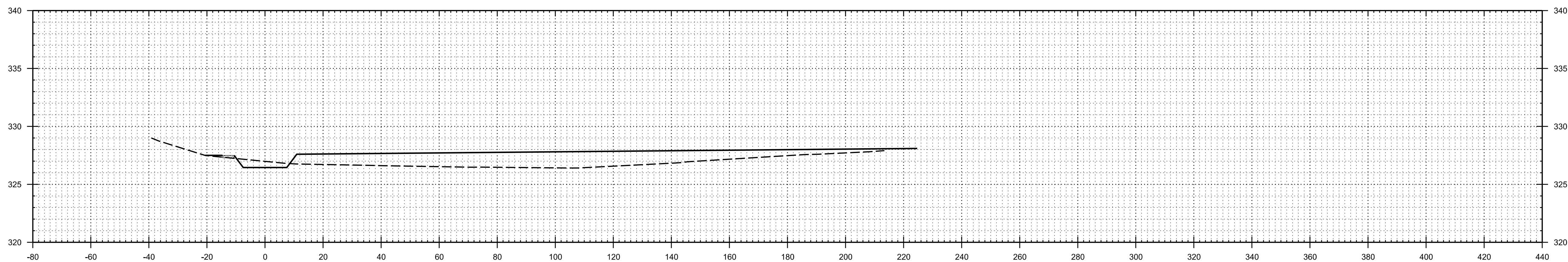
ELEVATION IN NAVD88



18+70

B

ELEVATION IN NAVD88



17+70 (WELL #14)

A



MARK	DESCRIPTION	DATE	APPR.	MARK	DESCRIPTION	DATE	APPR.

U.S. ARMY CORPS OF ENGINEERS MEMPHIS DISTRICT MEMPHIS, TENNESSEE	DESIGNED BY: DRA	DATE: 06/18/2018	SUBMITTAL NO. / WPTED: 18-R-XXX
	SUBMITTED BY: Cory H. Williams, P.E.	CIVIL BY: NEN	CONTRACT NO. / W912EO-18-R-XXX
PLOT SCALE: 1"=20' H/S V		PLOT DATE: 2/06/2018	FILE NUMBER: 18-R-XXX
ANSI D		FILE NAME: 18-R-XXX_Section.dgn	

MISCELLANEOUS RELIEF WELLS -
 ILLINOIS AND MISSOURI
 ARMY CORPS OF ENGINEERS - MEMPHIS DISTRICT
 SCOTT COUNTY / MISSISSIPPI COUNTY, MISSOURI
 ALEXANDER COUNTY, ILLINOIS
 STA. 17+70 TO STA. 20+10
 DITCH 'A' CROSS SECTIONS

Sheet ID
C-111

1

2

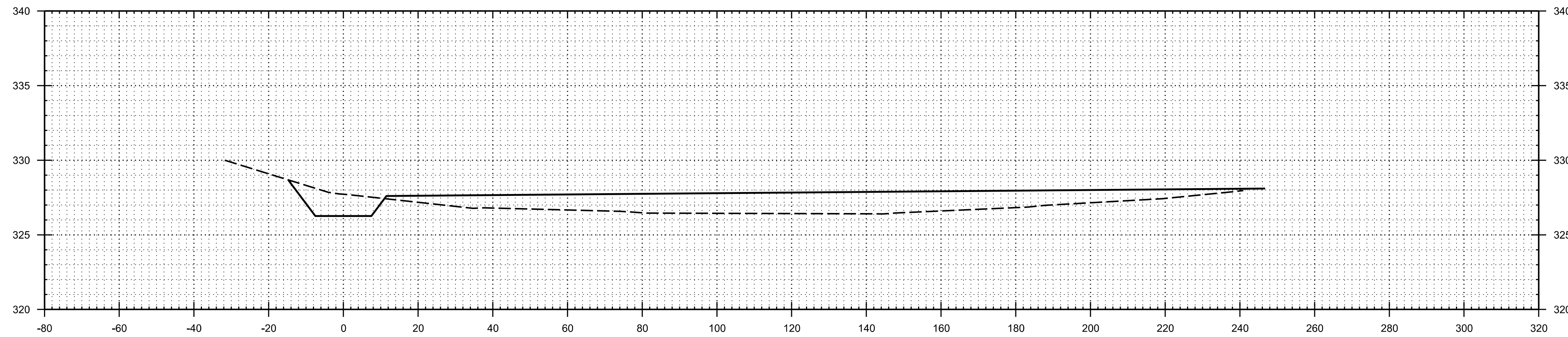
3

4

5

D

ELEVATION IN NAVD88

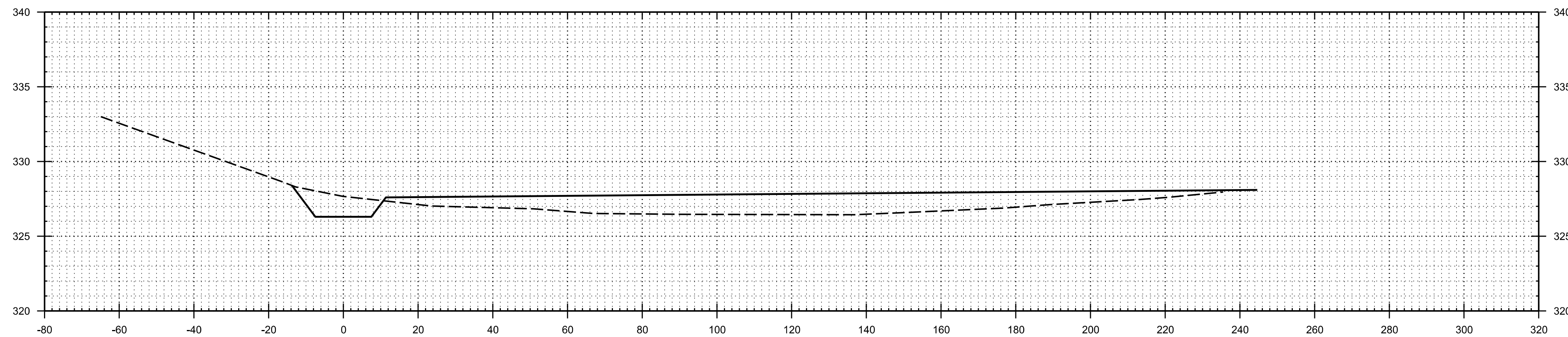


22+60

ELEVATION IN NAVD88

C

ELEVATION IN NAVD88

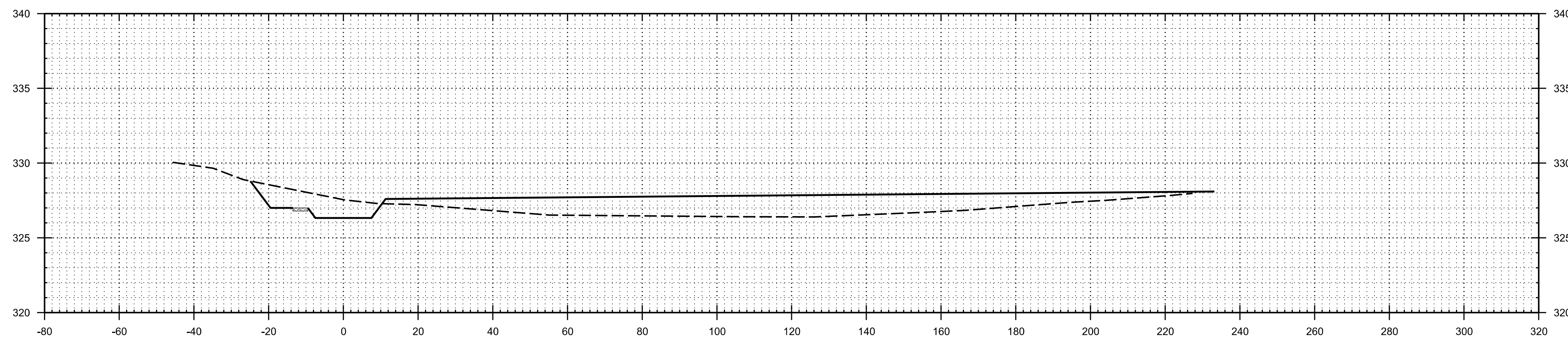


21+60

ELEVATION IN NAVD88

B

ELEVATION IN NAVD88



20+65 (WELL #15)

ELEVATION IN NAVD88

A



MARK	DESCRIPTION	DATE	APPR.	MARK	DESCRIPTION	DATE	APPR.

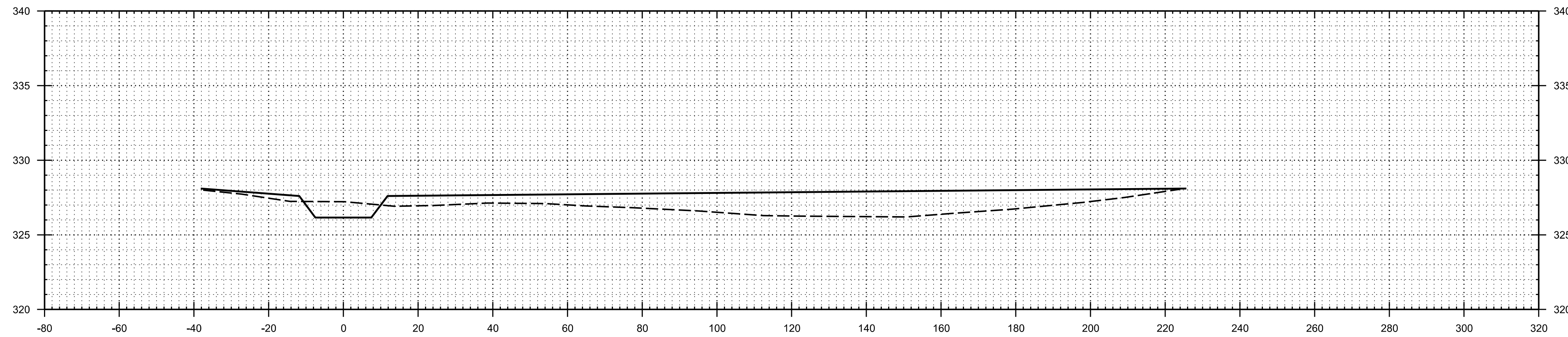
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SUBMITTED BY: Cory H. Williams, P.E.	CONTRACT NO.:	FILE NUMBER:	W912EO-18-R-XXXX
PLOT SCALE: 1"=20' H/S V	ANSI D:	FILE NAME:	Mile_5_Sections.dgn
U.S. ARMY CORPS OF ENGINEERS MEMPHIS DISTRICT MEMPHIS, TENNESSEE			

MISCELLANEOUS RELIEF WELLS -
ILLINOIS AND MISSOURI
ARMY CORPS OF ENGINEERS - MEMPHIS DISTRICT
SCOTT COUNTY / MISSISSIPPI COUNTY - MISSOURI
ALEXANDER COUNTY, ILLINOIS
STA. 21+00 TO STA. 23+00
DITCH 'A' CROSS SECTIONS

Sheet
ID
C-112

D

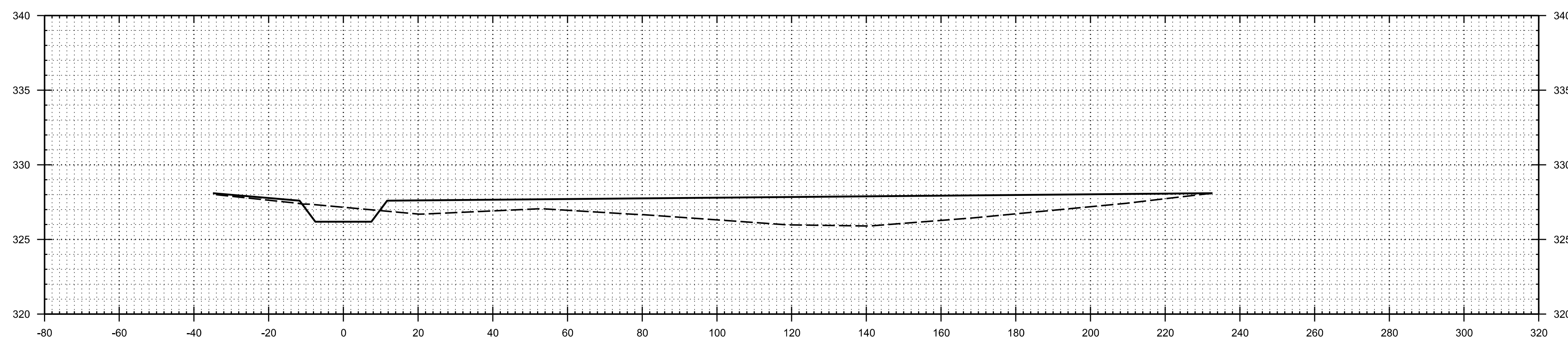
ELEVATION IN NAVD88



ELEVATION IN NAVD88

C

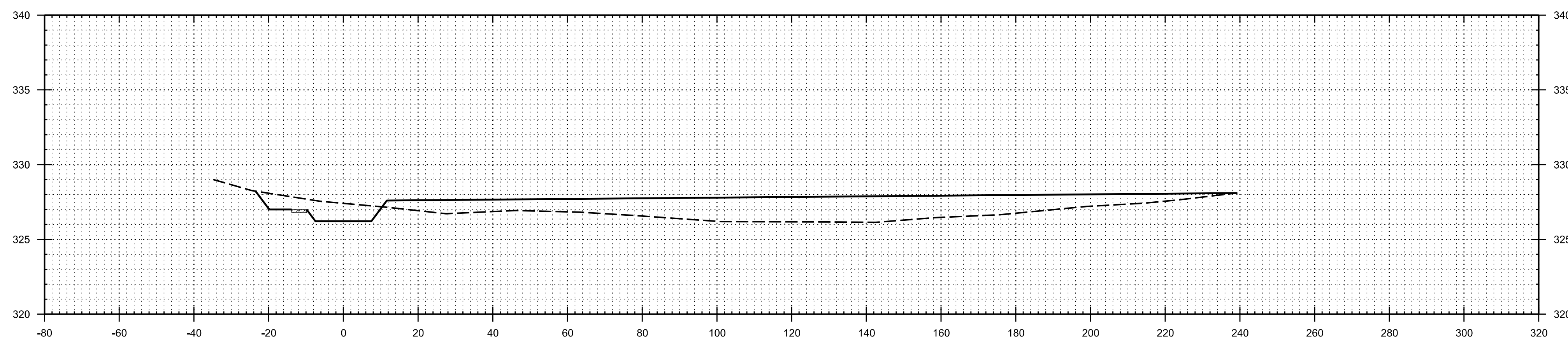
ELEVATION IN NAVD88



ELEVATION IN NAVD88

B

ELEVATION IN NAVD88



ELEVATION IN NAVD88

A

25+60

24+60

23+60 (WELL #16)



MARK	DESCRIPTION	DATE	APPR.	MARK	DESCRIPTION	DATE	APPR.

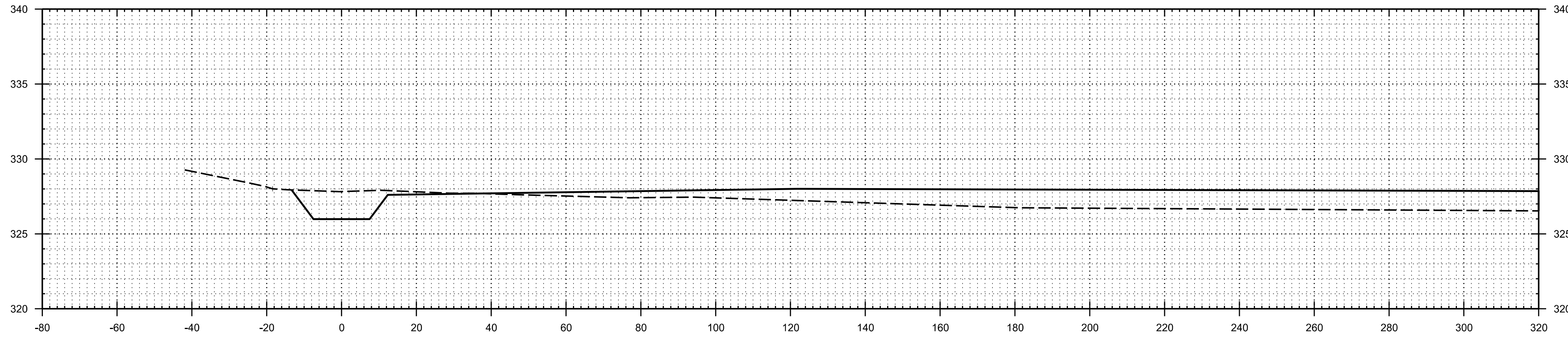
DESIGNED BY: DRA	DESIGNED BY: NEW	DATE: 06/18/2018	SUBMITTAL NO.:
SUBMITTED BY: Coy H. Williams, P.E.	CONTRACT NO.:	DATE:	FILE NUMBER:
1"=20' H/S V	2/06/2018	FILE NAME:	
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MISCELLANEOUS RELIEF WELLS -
ILLINOIS AND MISSOURI
ARMY CORPS OF ENGINEERS - MEMPHIS DISTRICT
SCOTT COUNTY / MISSISSIPPI COUNTY, MISSOURI
ALEXANDER COUNTY, ILLINOIS
STA. 24+00 TO STA. 26+00
DITCH 'A' CROSS SECTIONS

Sheet
ID
C-113

D

ELEVATION IN NAVD88

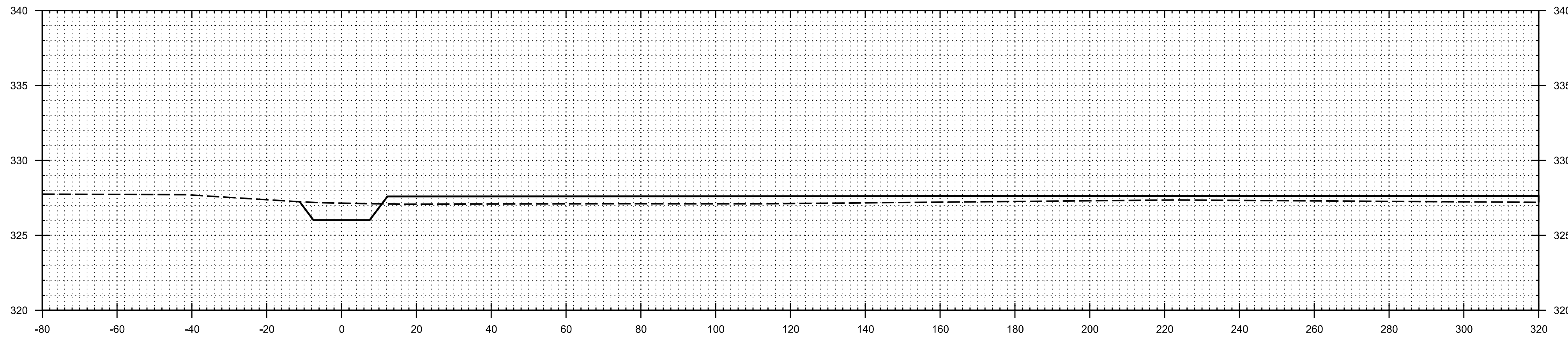


ELEVATION IN NAVD88

31+50

C

ELEVATION IN NAVD88

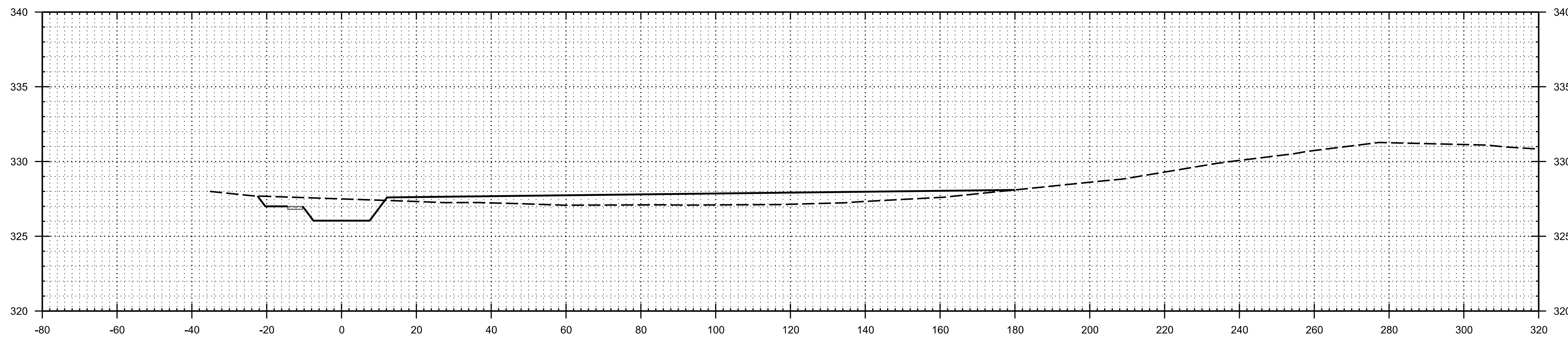


ELEVATION IN NAVD88

30+50

B

ELEVATION IN NAVD88



ELEVATION IN NAVD88

29+50 (WELL #18)

A



MARK	DESCRIPTION	DATE	APPR.	MARK	DATE	APPR.

DESIGNED BY: DRA	DESIGNED BY: DRA	DATE: 06/18/18	DATE: 06/18/18
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MISCELLANEOUS RELIEF WELLS -
ILLINOIS AND MISSOURI
ARMY CORPS OF ENGINEERS - MEMPHIS DISTRICT
SCOTT COUNTY / MISSISSIPPI COUNTY - MISSOURI
ALEXANDER COUNTY, ILLINOIS
STA. 30+00 TO STA. 35+00
DITCH 'A' CROSS SECTIONS

Sheet ID
C-115