



COUNTY OF ORANGE
OC PUBLIC WORKS DEPARTMENT
SANTA ANA, CALIFORNIA
SHANE L. SILSBY, DIRECTOR

2019
SCOUR STUDY

Prepared by:
OC SURVEY

KEVIN HILLS, COUNTY SURVEYOR
FIELD UNIT – BOUNDARY ANALYSIS & MAPPING

ORANGE COUNTY BOARD OF SUPERVISORS

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2019
ANNUAL SCOUR STUDY

SAN DIEGO CREEK CHANNEL (F05) BASIN 3

MAXIMUM CAPACITY OF BASIN 3

STATION 100+00 TO 135+00

AS-BUILT PLANS:

F05-101-6A

STA. 100+00 TO 135+00

NOTE: As-Built plans were used for left side of the basin, the right side of the template was modified based on the San Diego Creek 2004 Emergency Repair Agreement whereas, a 40' Wildlife Corridor was established on the right side of the channel

VERTICAL DATUM

NGVD 1929 Mean Sea Level / 1995 o.c.s. Vertical Adjustment

Office Check by:	Wade Weaver, PLS, Deputy County Surveyor
	Michael LaFontaine, PLS, Senior Land Surveyor
Filed Data Provided by:	OC survey and JFA, Inc. (Consultant)
Survey Party Chief:	Jonathan Johns, Surveyor III
Computer processing done by:	Hanna Aftim, Surveyor III

COUNTY of ORANGE
OC PUBLIC WORKS
OC SURVEY
FIELD UNIT- BOUNDARY ANALYSIS & MAPPING

2019 SCOURS STUDY (MAX. CAPACITY BASIN TEMPLATE) - VOLUME REPORT

SAN DIEGO CREEK (F05) BASIN # 3, STATION 100+00 to 135+00

Date of Survey September 2019

ALIGNMENT: CENTERLINE ALIGNMENT REACH 1

SURFACE 1: SAN DIEGO CREEK SCOURS REACH1 EG (2019 Ground)

SURFACE 2: F05B3-10 MAX CAP (2006 MAX CAP Basin #3 Template)

BASILINE STATION NUMBER	STATION CUT AREA	STATION CUT VOLUME	STATION FILL AREA	STATION FILL VOLUME	MASS ORDINATE VOLUME
100+00	0.00	0.00	0.00	0.00	0.00
101+00	0.00	0.00	0.00	0.00	0.00
102+00	0.00	0.00	0.00	0.00	0.00
103+00	0.00	0.00	0.00	0.00	0.00
104+00	0.00	0.00	0.00	0.00	0.00
105+00	554.12	1026.14	3.09	5.73	1020.41
106+00	400.59	1767.98	2.34	10.05	2778.34
107+00	371.23	1429.30	3.05	9.97	4197.67
108+00	439.47	1501.30	6.30	17.30	5681.67
109+00	396.02	1547.22	13.40	36.48	7192.40
110+00	418.81	1508.95	22.26	66.03	8635.32
111+00	397.9	1512.41	16.68	72.11	10075.62
112+00	385.50	1450.73	23.67	74.72	11451.63
113+00	397.51	1450.01	38.22	114.60	12787.04
114+00	389.58	1443.54	62.77	190.27	14040.31
115+00	425.71	1487.65	25.85	168.37	15359.59
116+00	348.93	1412.37	44.21	132.92	16639.04
117+00	387.46	1341.46	17.23	116.51	17863.98
118+00	450.04	1527.30	39.29	107.07	19284.21
119+00	430.09	1607.82	55.27	179.20	20712.84
120+00	574.53	1840.08	39.09	179.30	22373.62
121+00	464.93	1904.18	32.28	135.80	24141.99
122+00	555.51	1867.93	25.61	109.95	25899.98

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2019 SCOURS STUDY (MAX. CAPACITY BASIN TEMPLATE) - VOLUME REPORT

SAN DIEGO CREEK (F05) BASIN # 3, STATION 100+00 to 135+00

Date of Survey September 2019

ALIGNMENT: CENTERLINE ALIGNMENT REACH 1

SURFACE 1: SAN DIEGO CREEK SCOURS REACH1 EG (2019 Ground)

SURFACE 2: F05B3-10 MAX CAP (2006 MAX CAP Basin #3 Template)

BASILINE STATION NUMBER	STATION CUT AREA	STATION CUT VOLUME	STATION FILL AREA	STATION FILL VOLUME	MASS ORDINATE VOLUME
123+00	568.21	2058.42	19.31	85.33	27873.07
124+00	580.75	2107.92	40.43	113.80	29867.18
125+00	628.49	2224.22	31.51	137.19	31954.22
126+00	634.86	2325.24	35.83	128.31	34151.15
127+00	648.01	2359.22	36.40	137.62	36372.75
128+00	652.23	2391.53	41.19	147.66	38616.62
129+00	711.58	2510.35	35.08	144.89	40982.08
130+00	711.10	2622.40	52.19	164.30	43440.19
131+00	622.25	2457.32	47.46	187.32	45710.19
132+00	0.00	1145.09	0.00	89.66	46765.62
133+00	0.00	0.00	0.00	0.00	46765.62
134+00	0.00	0.00	0.00	0.00	46765.62
135+00	0.00	0.00	0.00	0.00	46765.62

CUT: 49,828 Cu. Yds.

FILL: 3,062 Cu. Yds

NET: 46,765 Cu. Yds.

COUNTY of ORANGE
OC PUBLIC WORKS

OC SURVEY
FIELD UNIT – BOUNDARY ANALYSIS & MAPPING

2019 SCOURS STUDY – % MAX. CAPACITY BASIN TEMPLATE
VOLUME REPORT (SEPTEMBER 20, 2019)

SAN DIEGO CREEK (F05) BASIN # 3, STATION 100+00 to 135+00

STATION	CUT AREA	CUT VOLUME	FILL AREA	FILL VOLUME	% of CAPACITY
100+00	0.00	0.00	0.00	0.00	0.00%
101+00	0.00	0.00	0.00	0.00	0.00%
102+00	0.00	0.00	0.00	0.00	0.00%
103+00	0.00	0.00	0.00	0.00	0.00%
104+00	0.00	0.00	0.00	0.00	0.00%
105+00	554.12	1026.14	905.2	1676.3	61.21%
106+00	400.59	1767.98	869.31	3286.13	53.80%
107+00	371.23	1429.3	884.37	3247.55	44.01%
108+00	439.47	1501.3	906.00	3315.5	45.28%
109+00	396.02	1547.22	909.24	3361.56	46.03%
110+00	418.81	1508.95	859.99	3276.36	46.06%
111+00	397.9	1512.41	904.03	3266.71	46.30%
112+00	385.5	1450.73	890.8	3323.75	43.65%
113+00	397.51	1450.01	886.51	3291.31	44.06%
114+00	389.58	1443.54	885.14	3280.84	44.00%
115+00	425.71	1487.65	878.73	3266.43	45.54%
116+00	348.93	1412.37	884.43	3265.11	43.26%
117+00	387.46	1341.46	897.33	3299.55	40.66%
118+00	450.04	1527.3	909.33	3345.67	45.65%
119+00	430.09	1607.82	923.82	3394.73	47.36%
120+00	574.53	1840.08	976.93	3519.9	52.28%
121+00	464.93	1904.18	937.1	3544.5	53.72%
122+00	555.51	1867.93	906.05	3413.25	54.73%

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2019 SCOURS STUDY – % MAX. CAPACITY BASIN TEMPLATE
VOLUME REPORT (SEPTEMBER 20, 2019)

SAN DIEGO CREEK (F05) BASIN # 3, STATION 100+00 to 135+00

123+00	568.21	2058.42	937.85	3414.63	60.28%
124+00	580.75	2107.92	974.71	3541.77	59.52%
125+00	628.49	2224.22	947.97	3560.51	62.47%
126+00	634.86	2325.24	958.62	3530.72	65.86%
127+00	648.01	2359.22	1039.40	3700.03	63.76%
128+00	652.23	2391.53	999.57	3775.87	63.34%
129+00	711.58	2510.35	1014.08	3728.99	67.32%
130+00	711.10	2622.40	1065.82	3851.66	68.08%
131+00	622.25	2457.32	1039.52	3898.77	63.03%
132+00	0.00	1145.09	0.00	1922.00	59.58%
133+00	0.00	0.00	0.00	0.00	0.00%
134+00	0.00	0.00	0.00	0.00	0.00%
135+00	0.00	0.00	0.00	0.00	0.00%
		TOTAL CUT VOLUME		MAX. CAPACITY BASIN 3 VOLUME	TOTAL % OF CAPACITY
	Cubic Yards	49,828	Cubic Yards	93,300	53.41%

2019 SCOURS

SAN DIEGO CREEK (F05) BASIN # 3

2019 GROUND DATA

<u>STATION</u>	<u>OFFSET</u>	<u>ELEV.</u>
100+00	179.25	26.84
100+00	175.70	26.33
100+00	150.63	16.08
100+00	142.01	15.21
100+00	124.16	13.57
100+00	100.18	13.08
100+00	93.15	7.93
100+00	48.42	6.85
100+00	3.96	7.26
100+00	-37.77	6.75
100+00	-53.07	9.27
100+00	-84.47	9.63
100+00	-131.73	10.43
100+00	-150.19	16.61
100+00	-175.30	27.95
100+00	-179.22	27.67
101+00	183.00	26.75
101+00	178.05	26.82
101+00	175.92	26.37
101+00	168.66	22.97
101+00	160.00	21.67
101+00	152.63	17.94
101+00	142.47	17.06
101+00	115.24	14.03
101+00	100.67	14.56
101+00	94.42	11.46
101+00	77.25	11.26
101+00	63.00	7.37
101+00	37.45	7.12
101+00	-1.57	7.96
101+00	-23.41	9.23
101+00	-51.30	10.95
101+00	-83.86	10.08
101+00	-129.52	10.92
101+00	-135.12	13.91
101+00	-143.94	15.93
101+00	-175.13	28.00
101+00	-178.88	27.86

2019 SCOURS

SAN DIEGO CREEK (F05) BASIN # 3

2019 GROUND DATA

<u>STATION</u>	<u>OFFSET</u>	<u>ELEV.</u>
102+00	183.55	26.92
102+00	178.07	27.11
102+00	175.11	26.76
102+00	154.22	18.10
102+00	141.67	16.57
102+00	118.61	14.32
102+00	104.83	15.17
102+00	95.35	10.30
102+00	59.65	11.20
102+00	23.88	6.12
102+00	-23.61	7.95
102+00	-48.75	8.55
102+00	-79.99	9.12
102+00	-129.13	10.74
102+00	-145.51	16.03
102+00	-165.75	27.40
102+00	-175.88	27.77
102+00	-179.03	27.71
103+00	184.13	27.42
103+00	178.65	27.53
103+00	176.34	27.31
103+00	163.75	20.24
103+00	151.76	19.81
103+00	143.91	17.50
103+00	128.41	15.43
103+00	106.28	15.16
103+00	96.33	10.77
103+00	50.92	9.76
103+00	6.67	6.92
103+00	-16.53	8.19
103+00	-35.33	10.55
103+00	-54.86	8.67
103+00	-97.55	10.24
103+00	-123.17	10.06
103+00	-140.25	14.65
103+00	-151.75	15.91
103+00	-176.75	27.37
103+00	-180.56	27.27

2019 SCOURS

SAN DIEGO CREEK (F05) BASIN # 3

2019 GROUND DATA

STATION	OFFSET	ELEV.
104+00	179.59	27.76
104+00	177.01	27.21
104+00	146.68	15.76
104+00	121.45	14.25
104+00	95.58	12.07
104+00	59.32	11.09
104+00	11.52	10.15
104+00	8.60	11.04
104+00	4.04	10.95
104+00	-1.55	7.18
104+00	-6.70	7.23
104+00	-12.39	11.20
104+00	-72.72	11.51
104+00	-122.85	11.55
104+00	-124.28	11.25
104+00	-171.05	26.15
104+00	-174.68	27.05
105+00	179.71	28.03
105+00	177.39	27.67
105+00	161.83	21.25
105+00	156.88	15.58
105+00	130.66	14.76
105+00	84.78	12.55
105+00	42.61	11.64
105+00	34.34	8.98
105+00	3.69	7.50
105+00	-21.51	8.38
105+00	-67.36	9.36
105+00	-100.57	10.57
105+00	-126.41	10.63
105+00	-129.12	12.50
105+00	-171.45	27.32
105+00	-175.27	27.21
106+00	179.58	28.04
106+00	175.53	27.67
106+00	153.14	18.08
106+00	139.80	17.00

2019 SCOURS

SAN DIEGO CREEK (F05) BASIN # 3

2019 GROUND DATA

STATION	OFFSET	ELEV.
106+00	118.79	13.87
106+00	105.93	15.80
106+00	90.26	12.94
106+00	60.53	10.54
106+00	57.17	7.93
106+00	18.01	7.39
106+00	-8.94	8.06
106+00	-55.63	8.90
106+00	-88.42	10.49
106+00	-123.89	10.54
106+00	-138.16	18.03
106+00	-171.41	27.10
106+00	-177.24	27.40
107+00	178.84	28.48
107+00	176.36	28.25
107+00	145.17	17.59
107+00	140.47	17.07
107+00	115.22	13.96
107+00	100.94	15.85
107+00	94.08	11.46
107+00	83.82	11.10
107+00	80.03	9.33
107+00	34.05	6.96
107+00	-3.20	8.70
107+00	-56.50	8.79
107+00	-84.56	10.66
107+00	-124.29	10.68
107+00	-131.80	15.57
107+00	-174.42	27.69
107+00	-179.07	27.73
108+00	178.59	28.27
108+00	175.37	28.01
108+00	150.62	18.50
108+00	139.83	17.25
108+00	115.77	14.30
108+00	104.73	16.22
108+00	96.81	12.03
108+00	83.79	10.74

2019 SCOURS

SAN DIEGO CREEK (F05) BASIN # 3

2019 GROUND DATA

STATION	OFFSET	ELEV.
108+00	80.91	8.46
108+00	39.84	7.43
108+00	5.93	8.69
108+00	-45.75	9.03
108+00	-55.30	10.80
108+00	-125.41	11.24
108+00	-175.31	27.56
108+00	-180.87	28.14
109+00	179.46	28.24
109+00	176.99	28.31
109+00	151.77	19.06
109+00	143.82	17.88
109+00	123.59	15.15
109+00	104.37	14.45
109+00	95.49	11.16
109+00	82.35	9.15
109+00	38.76	7.18
109+00	4.29	8.75
109+00	-54.83	8.70
109+00	-91.10	11.86
109+00	-126.25	11.83
109+00	-173.31	27.86
109+00	-179.53	28.07
110+00	180.24	27.99
110+00	172.74	27.18
110+00	157.94	21.73
110+00	131.79	12.78
110+00	110.49	15.65
110+00	92.22	12.99
110+00	82.60	12.96
110+00	79.49	9.69
110+00	46.79	6.37
110+00	11.87	8.77
110+00	-45.07	9.32
110+00	-61.55	9.91
110+00	-65.87	12.00
110+00	-75.42	12.01
110+00	-126.11	11.70

2019 SCOURS

SAN DIEGO CREEK (F05) BASIN # 3

2019 GROUND DATA

STATION	OFFSET	ELEV.
110+00	-173.80	27.39
110+00	-178.45	27.51
111+00	179.52	28.22
111+00	176.21	28.00
111+00	148.12	17.38
111+00	139.56	16.94
111+00	114.88	14.37
111+00	101.97	15.76
111+00	93.52	12.16
111+00	83.06	12.36
111+00	79.34	9.11
111+00	58.16	6.24
111+00	15.51	8.31
111+00	-42.17	9.21
111+00	-65.37	10.35
111+00	-71.85	11.97
111+00	-101.94	12.11
111+00	-127.83	12.19
111+00	-176.18	27.65
111+00	-180.47	27.92
112+00	179.21	28.26
112+00	176.53	27.88
112+00	150.56	18.42
112+00	138.14	16.54
112+00	111.36	14.56
112+00	99.51	15.85
112+00	94.00	12.95
112+00	79.10	11.79
112+00	75.77	8.37
112+00	47.24	6.26
112+00	14.25	7.99
112+00	-29.98	9.37
112+00	-62.91	9.77
112+00	-69.73	12.14
112+00	-131.98	13.02
112+00	-176.21	27.37
112+00	-180.78	27.82

2019 SCOURS

SAN DIEGO CREEK (F05) BASIN # 3

2019 GROUND DATA

STATION	OFFSET	ELEV.
113+00	178.48	28.52
113+00	176.04	28.57
113+00	150.27	18.27
113+00	137.58	16.47
113+00	114.73	14.28
113+00	101.38	16.87
113+00	94.33	13.52
113+00	82.47	13.39
113+00	79.32	9.09
113+00	46.41	6.10
113+00	13.12	7.86
113+00	-24.66	9.39
113+00	-59.32	10.44
113+00	-70.82	12.21
113+00	-103.99	12.48
113+00	-139.44	14.20
113+00	-178.69	27.84
113+00	-182.79	27.93
114+00	177.48	27.78
114+00	174.69	27.51
114+00	153.33	19.22
114+00	139.48	16.75
114+00	121.24	12.88
114+00	98.37	16.32
114+00	88.49	14.25
114+00	70.51	6.72
114+00	36.79	6.27
114+00	12.42	8.01
114+00	-28.45	9.40
114+00	-56.96	10.13
114+00	-69.87	12.22
114+00	-118.80	12.52
114+00	-131.73	15.17
114+00	-148.74	16.86
114+00	-175.03	27.26
114+00	-179.97	27.83
115+00	178.25	27.42
115+00	175.70	27.17

2019 SCOURS

SAN DIEGO CREEK (F05) BASIN # 3

2019 GROUND DATA

STATION	OFFSET	ELEV.
115+00	155.88	19.74
115+00	140.46	18.50
115+00	123.21	13.08
115+00	102.01	17.20
115+00	91.08	14.83
115+00	82.90	15.31
115+00	74.19	9.77
115+00	39.79	6.24
115+00	10.06	8.15
115+00	-22.54	9.47
115+00	-56.37	11.07
115+00	-71.80	12.51
115+00	-110.56	12.32
115+00	-128.30	15.95
115+00	-142.62	16.91
115+00	-163.99	25.55
115+00	-180.42	27.60
115+00	-185.25	27.81
116+00	179.87	28.97
116+00	177.53	28.43
116+00	165.33	21.81
116+00	152.18	21.87
116+00	139.59	17.18
116+00	120.85	13.93
116+00	97.34	16.57
116+00	88.18	14.22
116+00	77.70	14.43
116+00	70.00	8.77
116+00	47.41	5.90
116+00	3.27	7.82
116+00	-48.19	9.04
116+00	-64.59	12.82
116+00	-107.42	12.36
116+00	-133.72	15.02
116+00	-141.88	18.44
116+00	-158.91	23.59
116+00	-166.38	24.91
116+00	-176.35	28.26
116+00	-181.37	28.45

2019 SCOURS

SAN DIEGO CREEK (F05) BASIN # 3

2019 GROUND DATA

STATION	OFFSET	ELEV.
117+00	178.47	29.36
117+00	175.56	29.00
117+00	172.12	28.40
117+00	160.82	28.23
117+00	144.29	19.22
117+00	118.27	13.97
117+00	94.62	16.46
117+00	84.41	14.14
117+00	74.13	12.72
117+00	69.23	9.18
117+00	26.97	5.92
117+00	9.54	7.20
117+00	-25.44	9.31
117+00	-47.24	9.91
117+00	-57.63	12.61
117+00	-98.15	12.20
117+00	-125.96	12.56
117+00	-175.62	28.81
117+00	-180.19	28.92
118+00	176.82	29.06
118+00	172.70	28.79
118+00	151.54	19.11
118+00	137.54	17.63
118+00	123.18	14.90
118+00	96.71	16.77
118+00	86.86	14.86
118+00	74.92	13.02
118+00	65.86	8.37
118+00	49.47	5.53
118+00	23.88	7.01
118+00	-6.05	9.46
118+00	-40.94	11.10
118+00	-82.70	12.31
118+00	-122.84	11.86
118+00	-128.18	14.37
118+00	-175.55	28.82
118+00	-180.47	28.98

2019 SCOURS

SAN DIEGO CREEK (F05) BASIN # 3

2019 GROUND DATA

STATION	OFFSET	ELEV.
119+00	178.36	29.13
119+00	177.51	29.15
119+00	175.52	28.70
119+00	174.47	28.90
119+00	149.82	19.77
119+00	149.78	17.87
119+00	141.66	17.92
119+00	141.01	16.73
119+00	120.89	16.31
119+00	106.31	14.93
119+00	100.19	16.88
119+00	98.40	16.32
119+00	89.77	10.01
119+00	77.87	14.05
119+00	76.08	8.77
119+00	71.90	9.01
119+00	62.67	6.28
119+00	41.58	7.11
119+00	-16.10	9.36
119+00	-66.14	12.08
119+00	-83.73	12.11
119+00	-122.62	12.42
119+00	-175.82	28.80
119+00	-179.50	28.96
120+00	57.55	7.74
120+00	11.21	9.21
120+00	-8.71	10.52
120+00	-123.45	12.43
120+00	-131.22	15.39
120+00	-176.52	28.83
120+00	-181.70	29.26
121+00	177.01	28.52
121+00	174.40	28.21
121+00	148.48	18.02
121+00	128.33	15.33
121+00	95.26	16.40
121+00	86.37	11.04
121+00	72.01	10.41

2019 SCOURS

SAN DIEGO CREEK (F05) BASIN # 3

2019 GROUND DATA

STATION	OFFSET	ELEV.
121+00	65.90	8.26
121+00	43.09	8.08
121+00	-35.92	9.12
121+00	-74.01	14.12
121+00	-124.36	12.59
121+00	-176.40	29.85
121+00	-181.72	29.89
122+00	178.24	28.91
122+00	174.99	28.75
122+00	150.89	19.93
122+00	127.78	16.25
122+00	97.02	17.20
122+00	87.78	10.00
122+00	71.01	9.96
122+00	46.70	8.84
122+00	3.71	9.10
122+00	-15.58	10.73
122+00	-52.54	11.25
122+00	-82.34	14.20
122+00	-126.46	13.43
122+00	-175.75	29.85
122+00	-180.57	30.18
123+00	178.04	29.18
123+00	175.29	28.76
123+00	146.17	19.32
123+00	118.02	14.95
123+00	95.84	17.17
123+00	89.35	10.11
123+00	67.62	10.29
123+00	51.36	8.88
123+00	5.91	9.09
123+00	-35.53	11.30
123+00	-85.01	13.03
123+00	-124.75	13.16
123+00	-174.89	30.06
123+00	-179.73	30.36
124+00	178.51	28.64

2019 SCOURS

SAN DIEGO CREEK (F05) BASIN # 3

2019 GROUND DATA

STATION	OFFSET	ELEV.
124+00	176.13	28.45
124+00	153.30	20.01
124+00	134.07	16.52
124+00	98.10	16.16
124+00	91.09	8.79
124+00	4.74	9.34
124+00	-32.56	11.00
124+00	-74.90	13.57
124+00	-124.08	13.62
124+00	-171.83	30.41
124+00	-178.03	30.87
125+00	178.79	29.02
125+00	176.49	28.74
125+00	142.94	18.06
125+00	128.67	16.02
125+00	100.78	16.07
125+00	92.93	9.65
125+00	53.61	9.23
125+00	15.83	10.50
125+00	-44.89	11.67
125+00	-78.81	15.14
125+00	-124.66	13.82
125+00	-170.42	31.01
125+00	-176.23	31.20
126+00	179.28	29.93
126+00	176.69	29.71
126+00	138.76	17.70
126+00	117.43	16.02
126+00	96.73	15.89
126+00	89.42	9.19
126+00	36.03	9.46
126+00	6.77	11.47
126+00	-34.34	11.21
126+00	-88.74	13.04
126+00	-126.97	13.50
126+00	-172.12	31.13
126+00	-178.08	31.46

2019 SCOURS

SAN DIEGO CREEK (F05) BASIN # 3

2019 GROUND DATA

STATION	OFFSET	ELEV.
127+00	178.93	30.20
127+00	176.80	30.13
127+00	148.44	18.88
127+00	109.59	16.09
127+00	97.54	16.01
127+00	88.63	9.44
127+00	39.87	9.13
127+00	-6.14	11.28
127+00	-58.26	11.65
127+00	-102.47	13.23
127+00	-126.06	13.16
127+00	-172.33	30.81
127+00	-177.06	31.12
128+00	179.94	30.31
128+00	177.01	30.16
128+00	145.50	18.71
128+00	119.57	17.52
128+00	95.23	15.51
128+00	92.69	9.01
128+00	48.74	9.36
128+00	48.24	9.41
128+00	22.53	11.66
128+00	-35.92	10.91
128+00	-81.66	12.24
128+00	-128.24	13.73
128+00	-174.12	30.62
128+00	-179.01	30.93
129+00	178.19	30.44
129+00	176.43	30.37
129+00	172.22	29.05
129+00	153.45	20.68
129+00	147.63	18.84
129+00	119.02	17.08
129+00	101.29	15.74
129+00	96.11	9.61
129+00	71.31	9.49
129+00	35.56	10.96
129+00	-3.10	11.96

2019 SCOURS

SAN DIEGO CREEK (F05) BASIN # 3

2019 GROUND DATA

STATION	OFFSET	ELEV.
129+00	-49.03	11.57
129+00	-106.11	12.90
129+00	-132.68	13.84
129+00	-177.21	30.83
129+00	-181.43	31.03
130+00	177.69	30.40
130+00	174.96	30.12
130+00	148.83	21.01
130+00	130.34	17.34
130+00	114.89	16.64
130+00	96.82	15.78
130+00	91.85	9.02
130+00	75.27	9.38
130+00	62.62	10.85
130+00	6.79	11.25
130+00	-47.58	12.04
130+00	-90.21	10.72
130+00	-120.57	12.99
130+00	-129.32	16.01
130+00	-147.98	17.42
130+00	-178.31	31.91
130+00	-183.50	31.79
131+00	177.89	30.42
131+00	175.65	30.23
131+00	144.88	20.39
131+00	126.10	17.00
131+00	110.57	16.99
131+00	94.35	15.84
131+00	82.74	9.05
131+00	69.09	9.43
131+00	20.03	10.38
131+00	-26.86	11.42
131+00	-90.76	11.93
131+00	-120.39	12.24
131+00	-149.88	24.59
131+00	-168.71	25.91
131+00	-178.16	31.21
131+00	-183.13	31.36

2019 SCOURS

SAN DIEGO CREEK (F05) BASIN # 3

2019 GROUND DATA

STATION	OFFSET	ELEV.
132+00	180.00	30.26
132+00	176.46	30.03
132+00	138.67	16.88
132+00	113.55	16.37
132+00	89.27	15.63
132+00	80.18	10.21
132+00	48.73	12.38
132+00	10.44	10.84
132+00	5.08	9.02
132+00	-12.83	8.83
132+00	-20.86	10.95
132+00	-44.56	11.22
132+00	-67.39	10.26
132+00	-101.57	10.95
132+00	-125.23	12.56
132+00	-173.14	31.49
132+00	-177.53	31.69
133+00	180.51	30.76
133+00	178.42	30.55
133+00	151.61	21.70
133+00	141.70	20.01
133+00	125.20	17.50
133+00	104.28	16.42
133+00	88.46	12.13
133+00	57.64	11.44
133+00	16.50	11.29
133+00	-18.81	11.20
133+00	-76.27	12.12
133+00	-106.43	12.32
133+00	-123.88	13.11
133+00	-175.07	31.54
133+00	-179.47	31.70
134+00	179.71	30.81
134+00	177.35	30.73
134+00	160.07	24.12
134+00	145.63	22.88
134+00	117.66	16.35
134+00	93.64	15.73

2019 SCOURS

SAN DIEGO CREEK (F05) BASIN # 3

2019 GROUND DATA

STATION	OFFSET	ELEV.
134+00	86.54	11.15
134+00	22.39	10.56
134+00	-50.11	11.55
134+00	-93.66	12.39
134+00	-95.85	14.07
134+00	-108.82	15.39
134+00	-135.68	16.92
134+00	-176.03	31.96
134+00	-180.79	31.90
135+00	181.26	31.02
135+00	171.73	30.17
135+00	146.06	20.54
135+00	121.61	17.92
135+00	93.68	18.63
135+00	88.42	19.38
135+00	24.89	10.92
135+00	-47.21	10.97
135+00	-96.06	11.97
135+00	-100.24	14.56
135+00	-131.90	16.96
135+00	-176.35	32.30
135+00	-180.35	32.29

2019 SCOURS

SAN DIEGO CREEK (F05) BASIN # 3

MAXIMUM CAPACITY PLAN TEMPLATE DATA

<u>STATION</u>	<u>OFFSET</u>	<u>ELEV.</u>
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105+00	-96.95	11.48
105+00	-70.23	6.00
105+00	72.04	6.00
105+00	98.29	11.48

106+00	-96.41	11.48
106+00	-69.91	6.00
106+00	62.00	6.00
106+00	88.89	11.48

107+00	-96.41	11.56
107+00	-70.04	6.00
107+00	62.23	6.00
107+00	89.52	11.56

108+00	-96.40	11.64
108+00	-70.05	6.00
108+00	64.23	6.00
108+00	90.74	11.64

109+00	-96.40	11.72
109+00	-69.90	6.00
109+00	62.61	6.00
109+00	89.11	11.72

110+00	-96.39	11.80
110+00	-70.04	6.00
110+00	51.84	6.00
110+00	78.34	11.80

111+00	-96.39	11.88
111+00	-67.00	6.00
111+00	57.36	6.00
111+00	86.76	11.88

112+00	-96.38	11.96
112+00	-66.58	6.00
112+00	53.08	6.00
112+00	82.88	11.96

113+00	-96.37	12.04
113+00	-66.18	6.00
113+00	50.39	6.00
113+00	80.59	12.04

114+00	-96.37	12.12
114+00	-66.72	6.00
114+00	48.26	6.00
114+00	78.85	12.12

2019 SCOURS

SAN DIEGO CREEK (F05) BASIN # 3

MAXIMUM CAPACITY PLAN TEMPLATE DATA

<u>STATION</u>	<u>OFFSET</u>	<u>ELEV.</u>
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115+00	-96.35	12.20
115+00	-65.36	6.00
115+00	45.37	6.00
115+00	76.37	12.20
116+00	-96.33	12.28
116+00	-64.94	6.00
116+00	44.49	6.00
116+00	75.89	12.28
117+00	-96.32	12.36
117+00	-64.52	6.00
117+00	44.77	6.00
117+00	76.57	12.36
118+00	-96.28	12.44
118+00	-64.20	6.00
118+00	44.90	6.00
118+00	77.10	12.44
119+00	-96.28	12.52
119+00	-63.69	6.00
119+00	45.37	6.00
119+00	77.97	12.52
120+00	-96.27	12.60
120+00	-63.27	6.00
120+00	51.76	6.00
120+00	84.76	12.60
121+00	-96.26	12.68
121+00	-62.88	6.00
121+00	44.05	6.00
121+00	77.45	12.68
122+00	-96.25	12.76
122+00	-62.45	6.00
122+00	37.78	6.00
122+00	71.58	12.76
123+00	-96.24	12.84
123+00	-62.08	6.00
123+00	40.86	6.00
123+00	75.06	12.84
124+00	-91.23	12.92
124+00	-56.64	6.00
124+00	49.57	6.00
124+00	84.29	12.92

2019 SCOURS

SAN DIEGO CREEK (F05) BASIN # 3

MAXIMUM CAPACITY PLAN TEMPLATE DATA

<u>STATION</u>	<u>OFFSET</u>	<u>ELEV.</u>
----------------	---------------	--------------

125+00	-86.23	13.00
125+00	-51.23	6.00
125+00	49.19	6.00
125+00	84.19	13.00

126+00	-91.20	13.08
126+00	-55.87	6.00
126+00	44.18	6.00
126+00	79.57	13.08

127+00	-96.20	13.16
127+00	-60.40	6.00
127+00	48.97	6.00
127+00	84.76	13.16

128+00	-96.20	13.24
128+00	-60.02	6.00
128+00	41.86	6.00
128+00	78.06	13.24

129+00	-96.20	13.32
129+00	-59.60	6.00
129+00	42.33	6.00
129+00	78.93	13.32

130+00	-96.19	13.40
130+00	-59.19	6.00
130+00	47.83	6.00
130+00	84.83	13.40

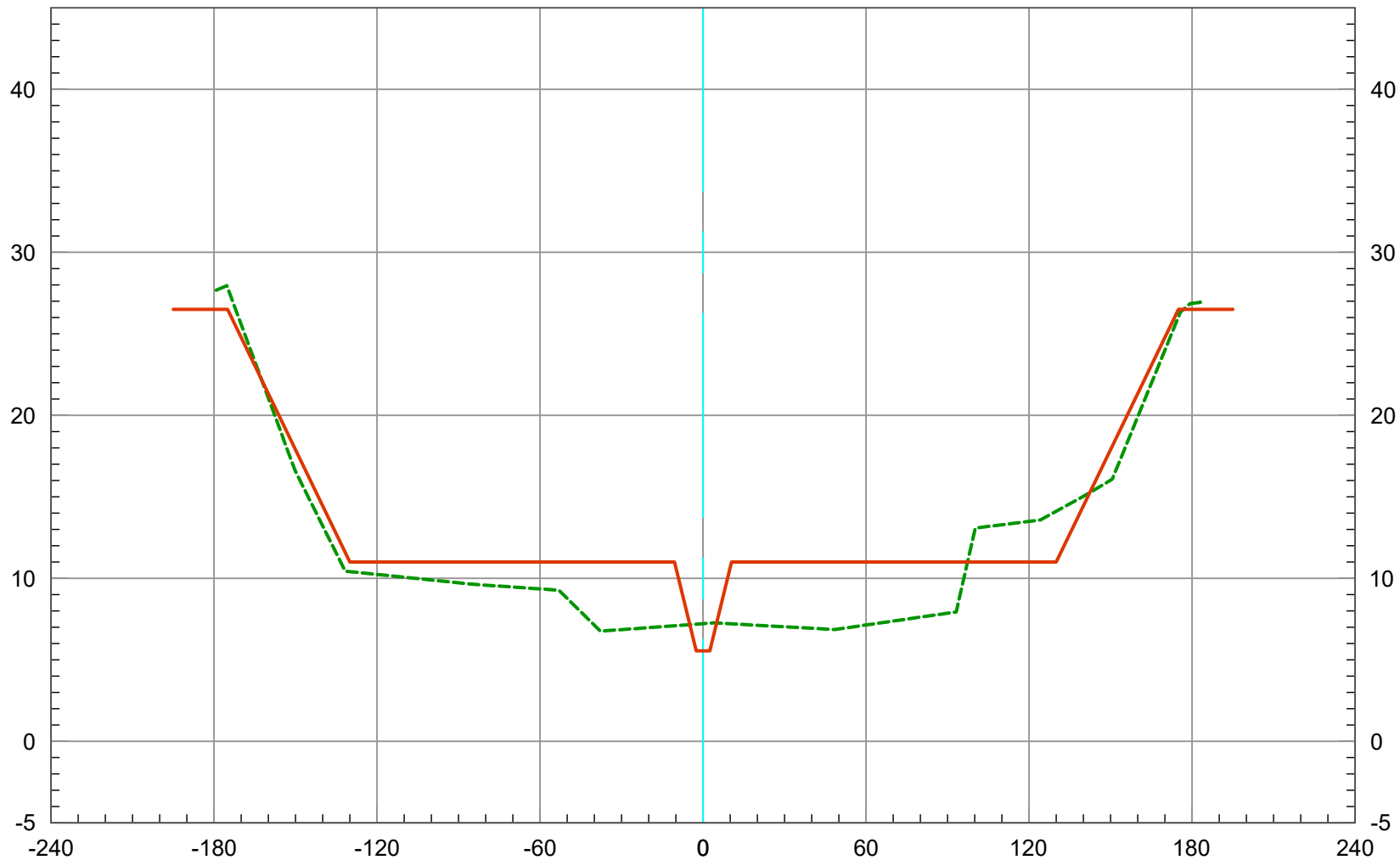
131+00	-96.19	13.48
131+00	-58.80	6.00
131+00	42.80	6.00
131+00	80.20	13.48

U.S. Survey Foot

OC Public Works
OC Survey/Field Services
Boundary Analysis & Mapping



SAN DIEGO CREEK (F05) BASIN 3 - 2019 SCOURS CL



2019 Ground
As-Built Plan



100+00

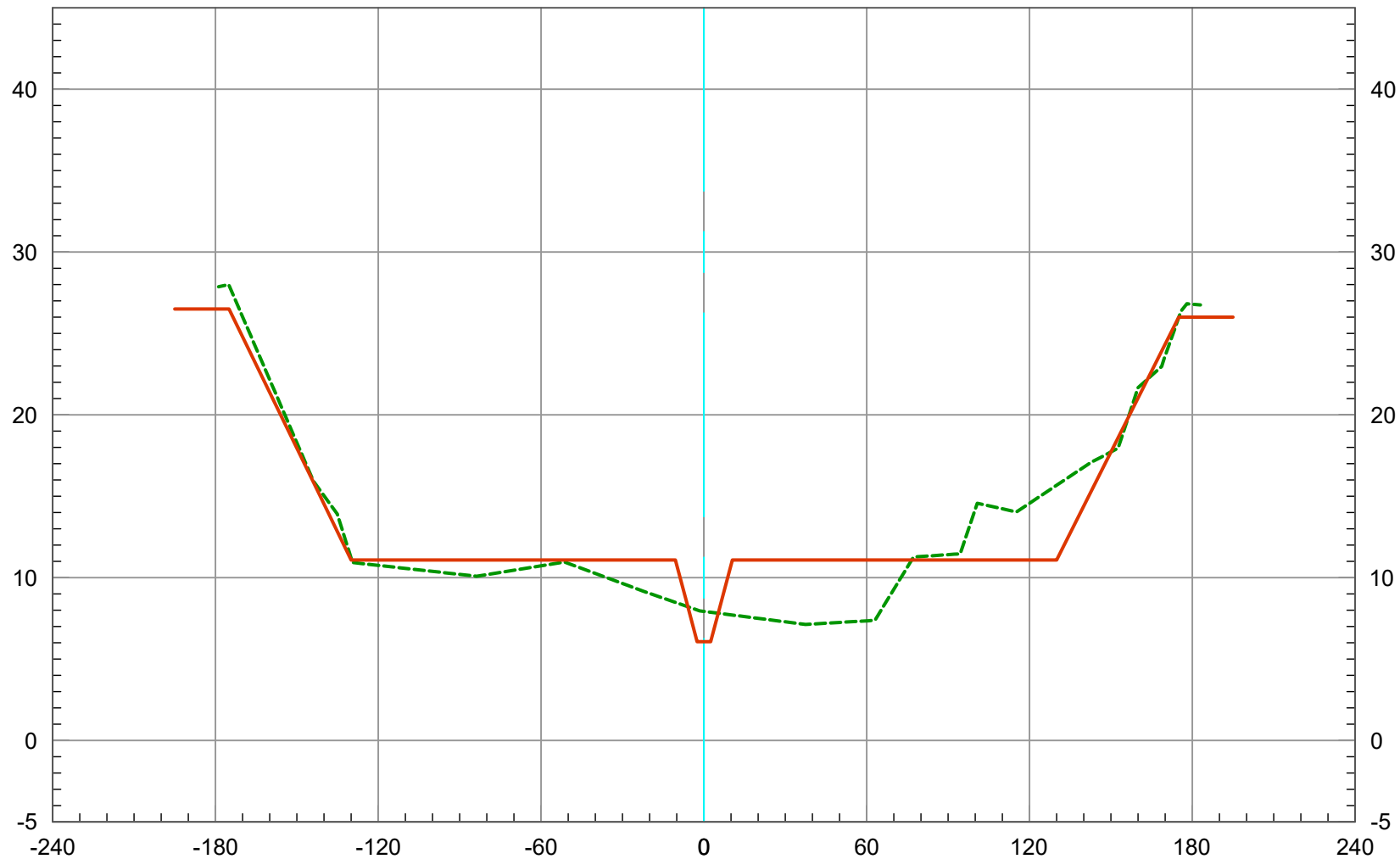
Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

U.S. Survey
Foot

OC Public Works
OC Survey/Field Services
Boundary Analysis & Mapping



SAN DIEGO CREEK (F05) BASIN 3 - 2019 SCOURS CL



2019 Ground
As-Built Plan



101+00

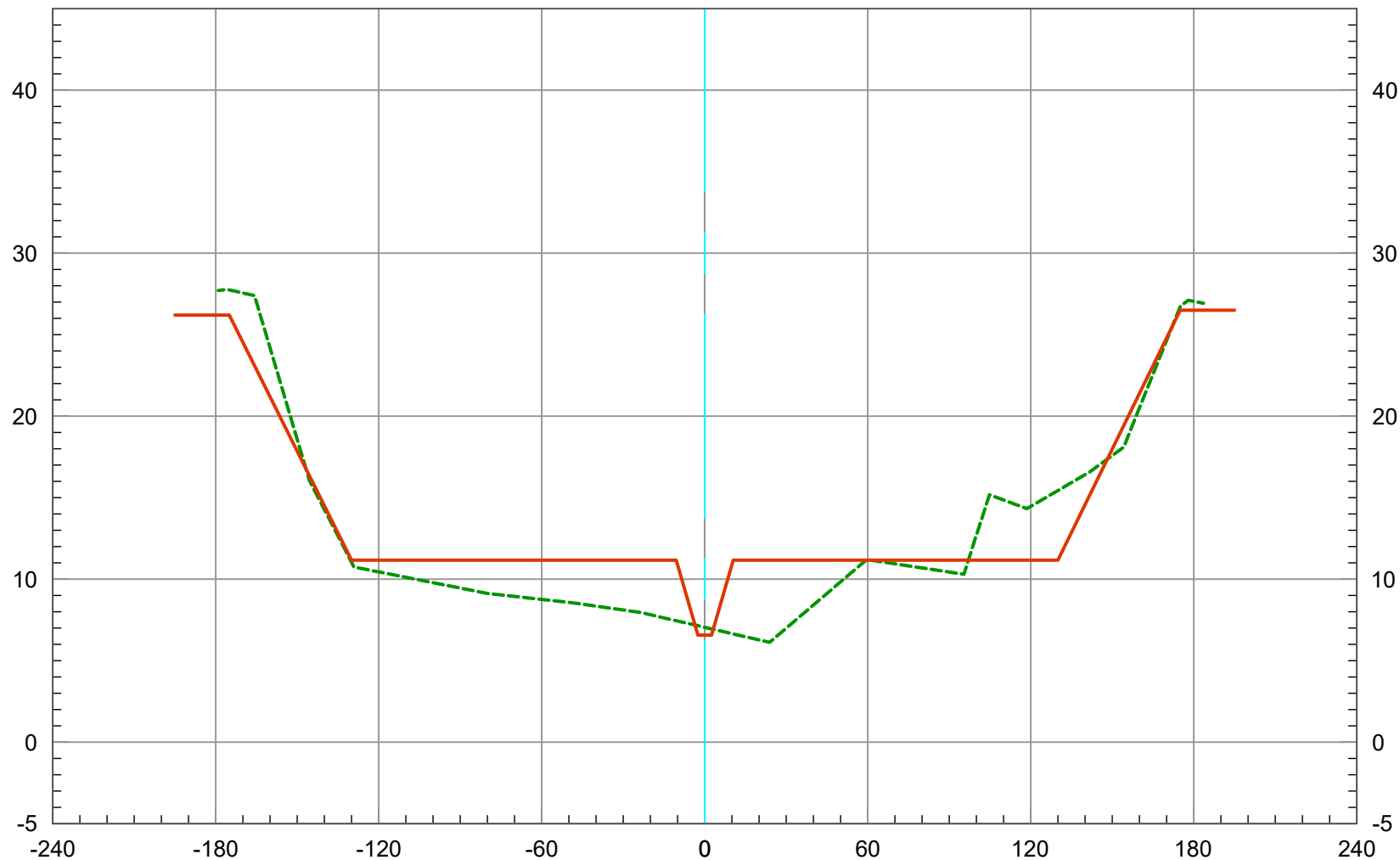
Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

U.S. Survey
Foot

OC Public Works
OC Survey/Field Services
Boundary Analysis & Mapping



SAN DIEGO CREEK (F05) BASIN 3 - 2019 SCOURS CL



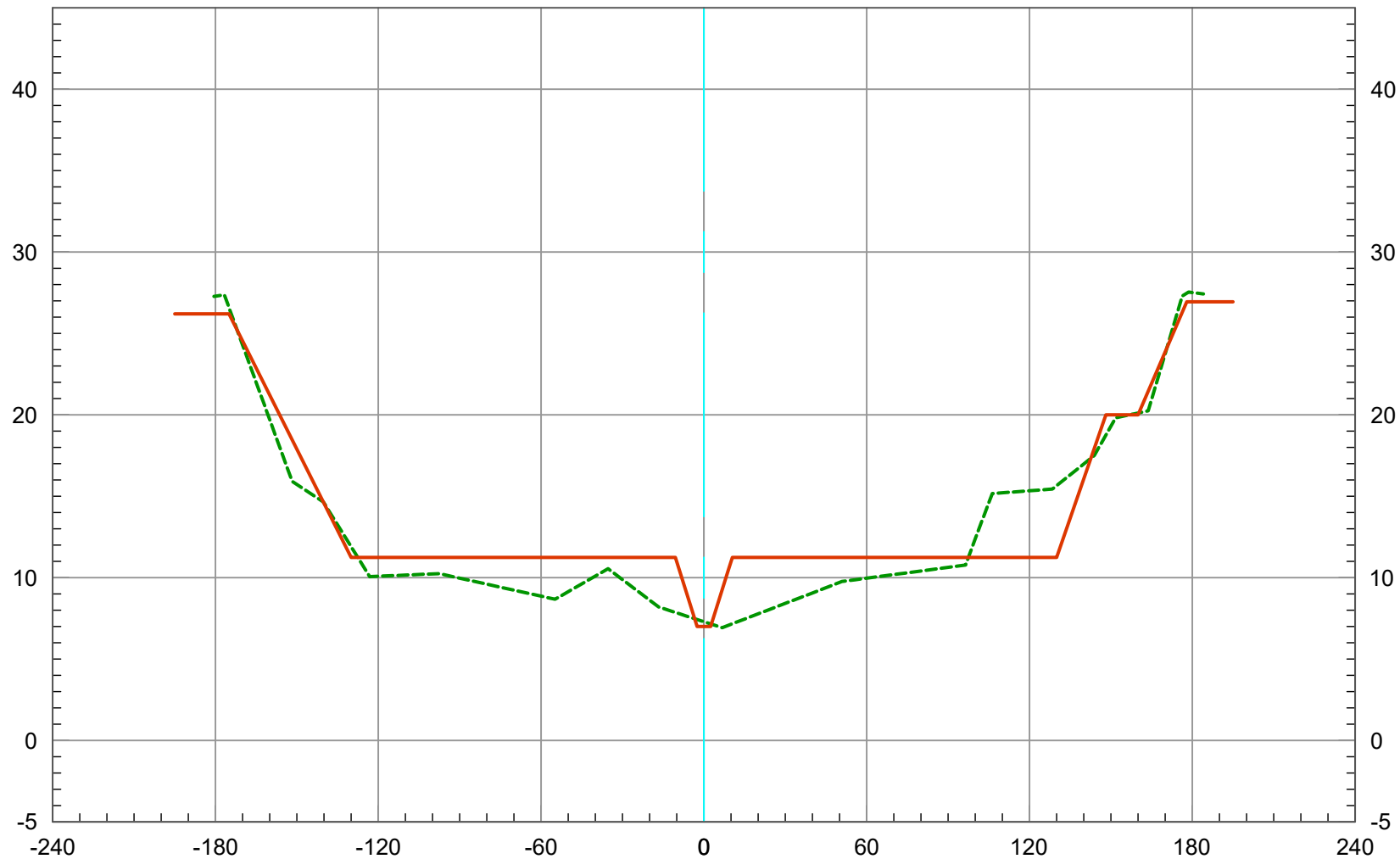
2019 Ground
As-Built Plan



102+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2019 SCOURS CL



103+00

2019 Ground
As-Built Plan



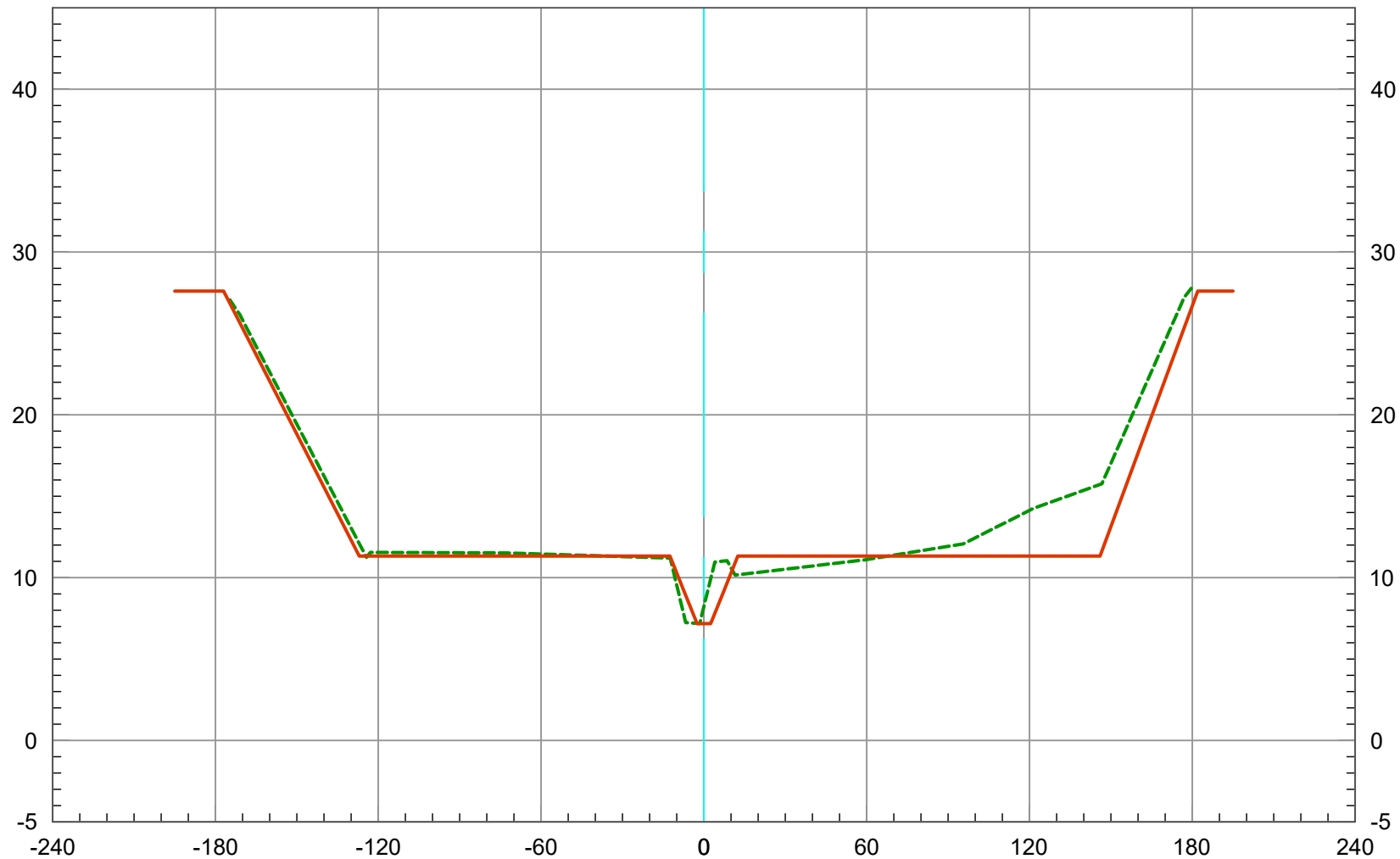
Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

U.S. Survey Foot

OC Public Works
OC Survey/Field Services
Boundary Analysis & Mapping



SAN DIEGO CREEK (F05) BASIN 3 - 2019 SCOURS CL



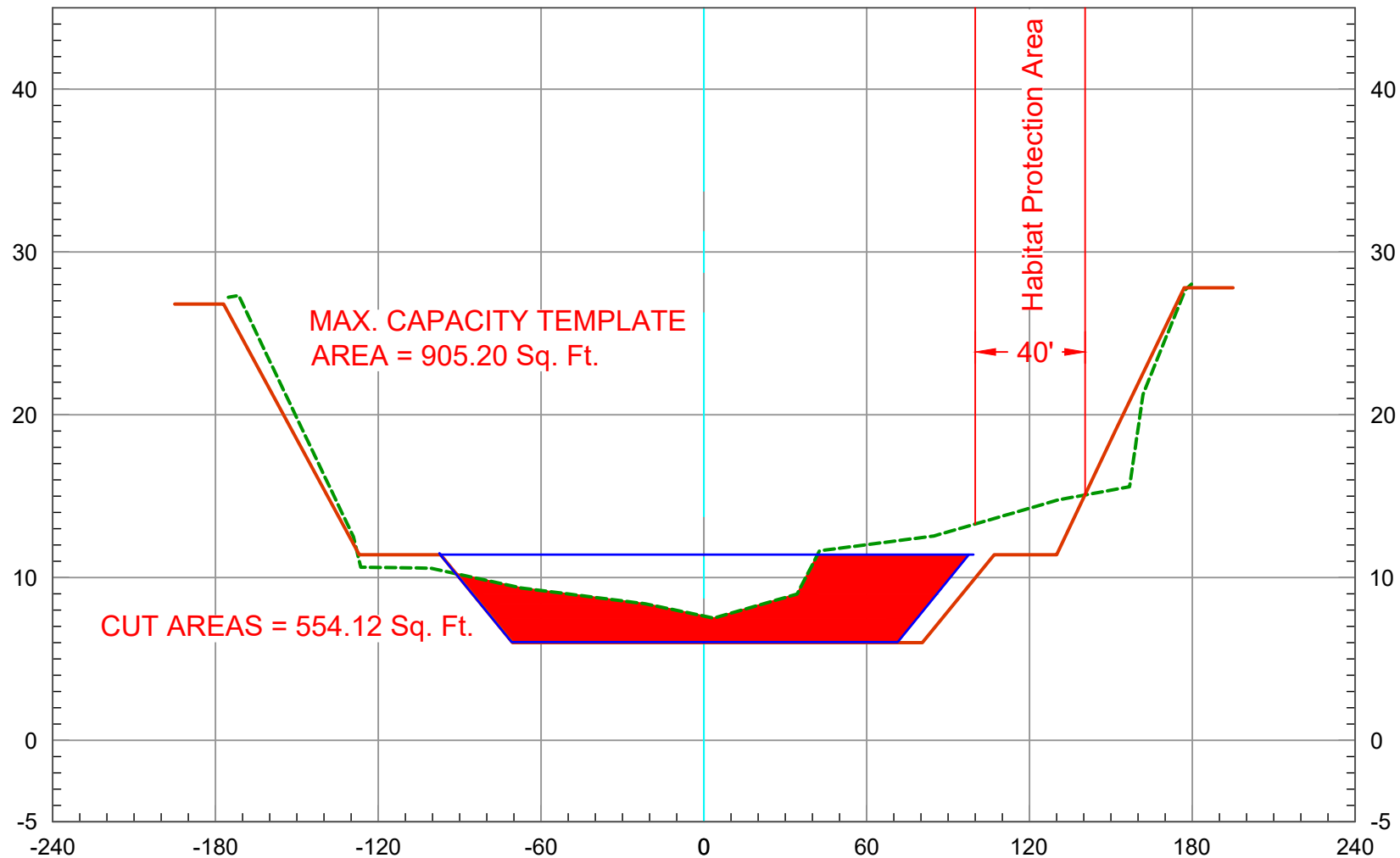
2019 Ground
As-Built Plan



104+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

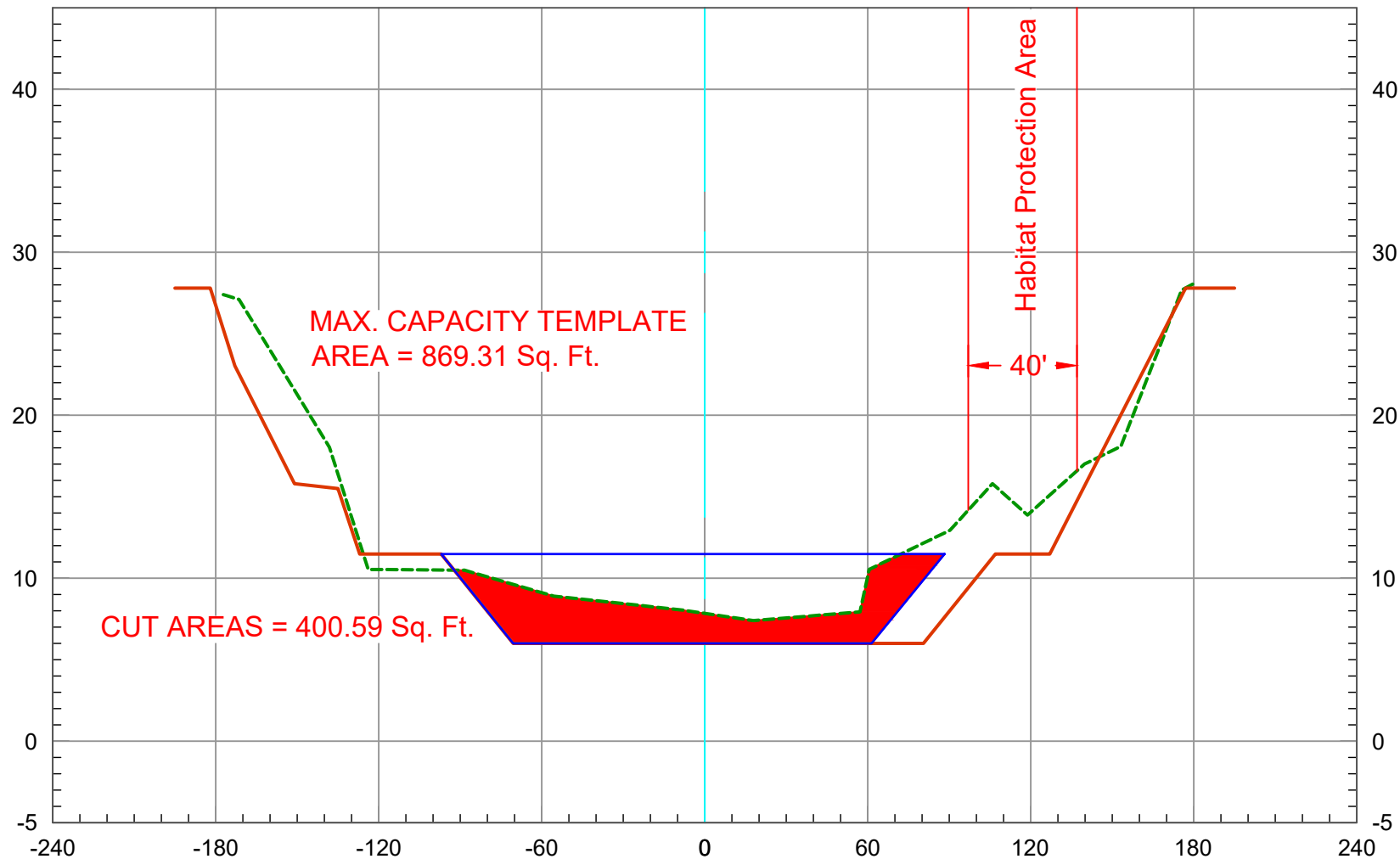
SAN DIEGO CREEK (F05) BASIN 3 - 2019 SCOURS CL



2019 Ground
As-Built Plan
Maximum Capacity

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2019 SCOURS CL

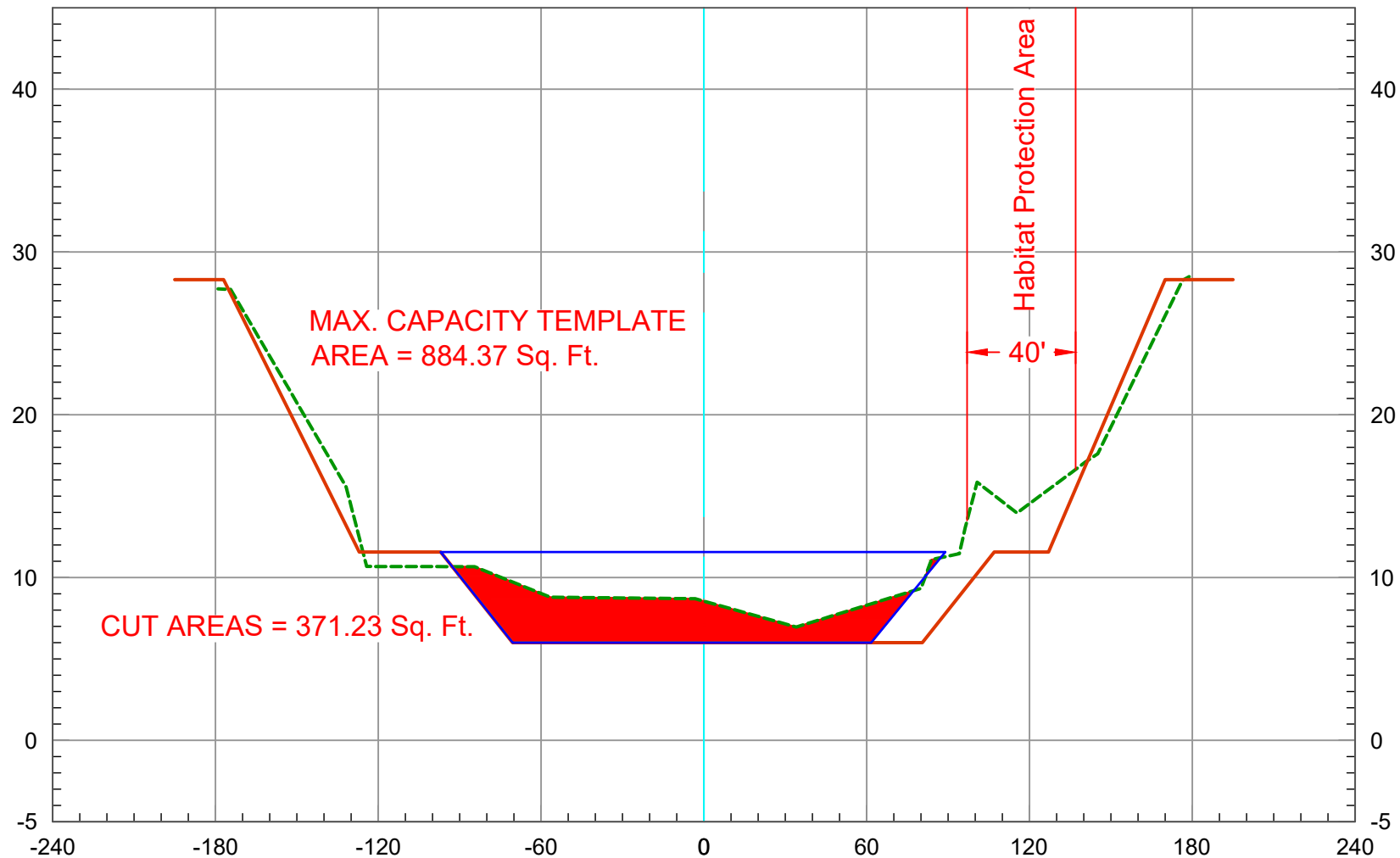


2019 Ground -----
As-Built Plan —————
Maximum Capacity —————

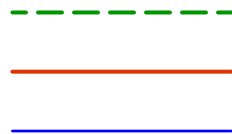
106+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2019 SCOURS CL



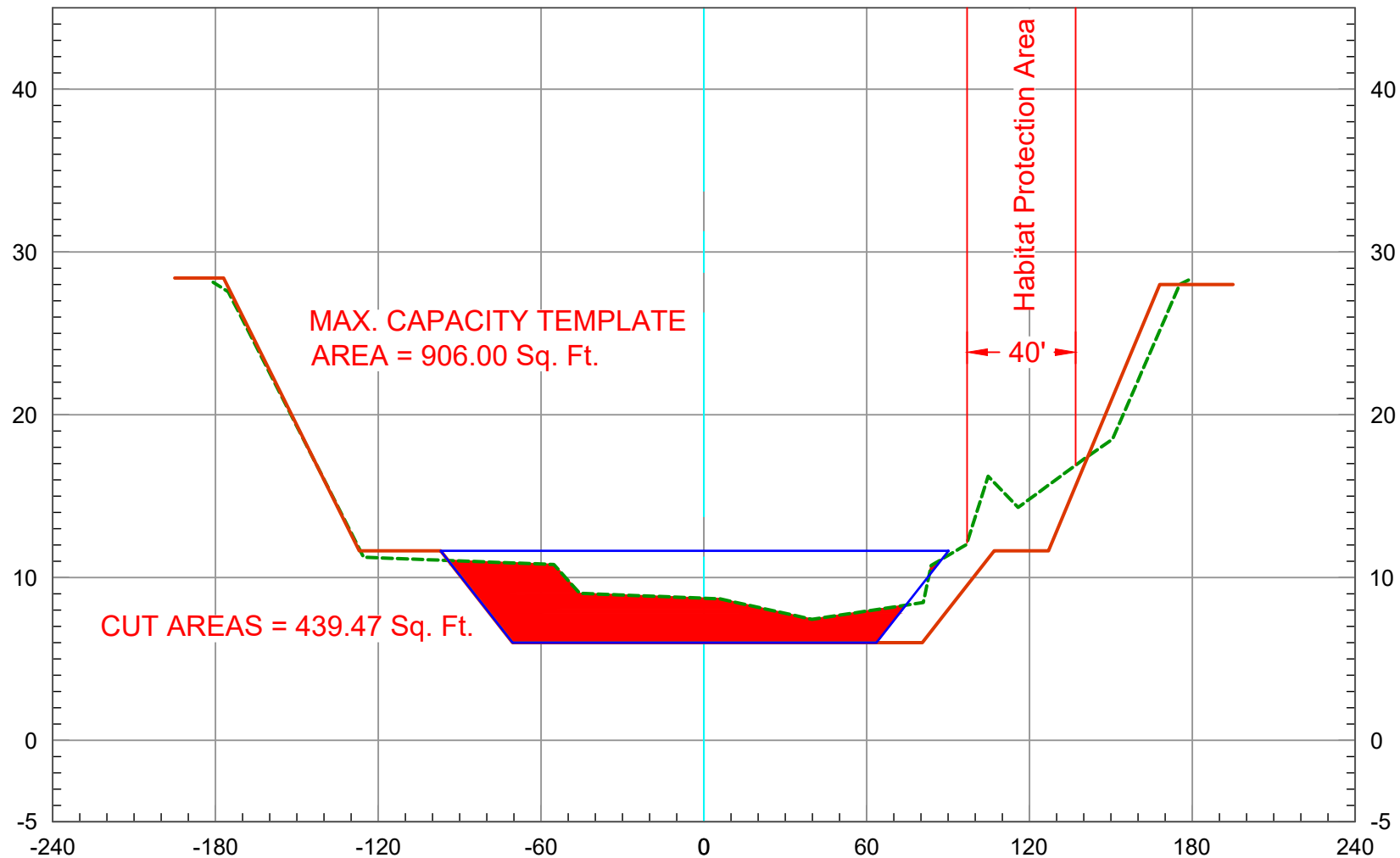
2019 Ground
As-Built Plan



Maximum Capacity

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

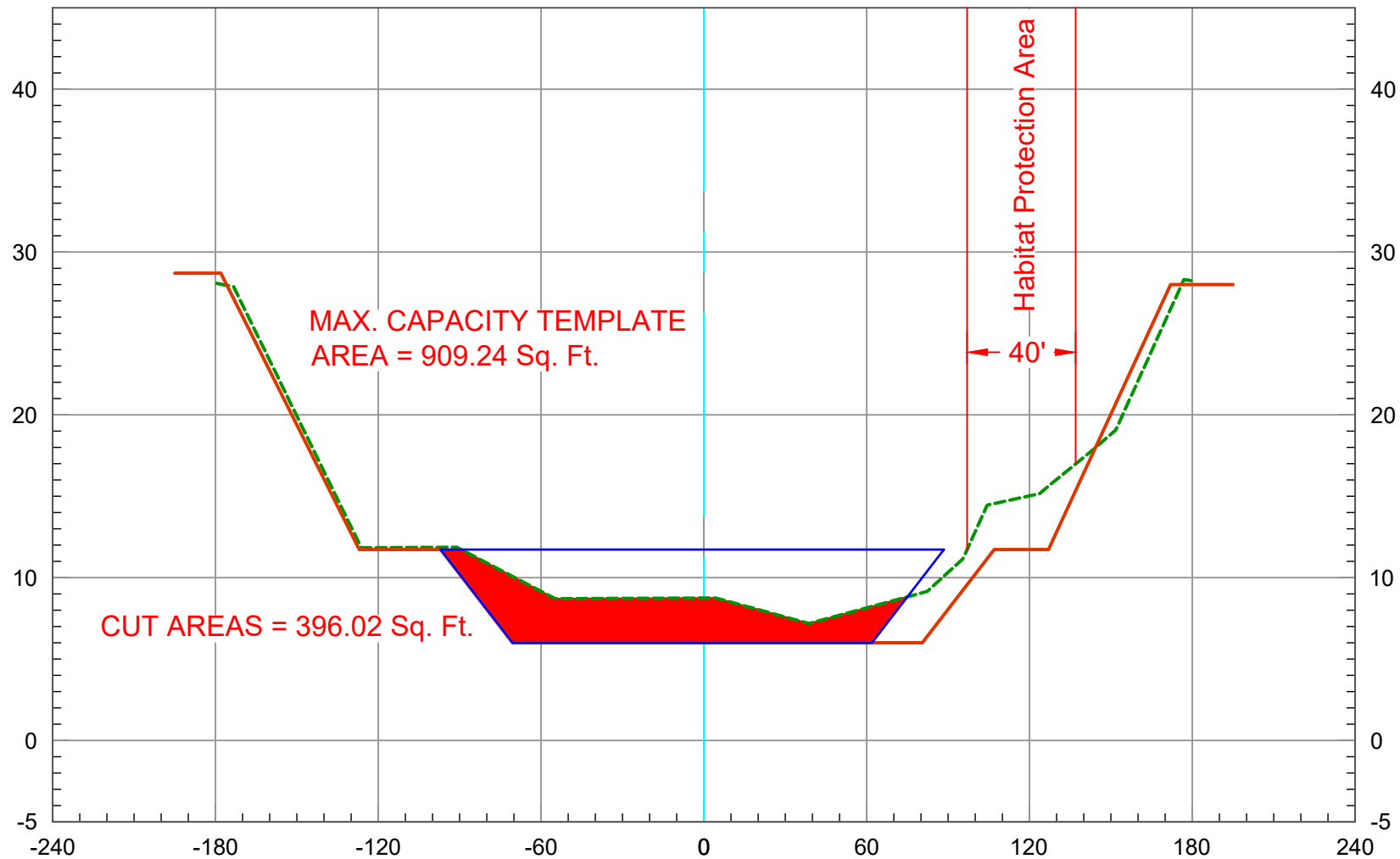
SAN DIEGO CREEK (F05) BASIN 3 - 2019 SCOURS CL



2019 Ground
As-Built Plan
Maximum Capacity

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2019 SCOURS CL

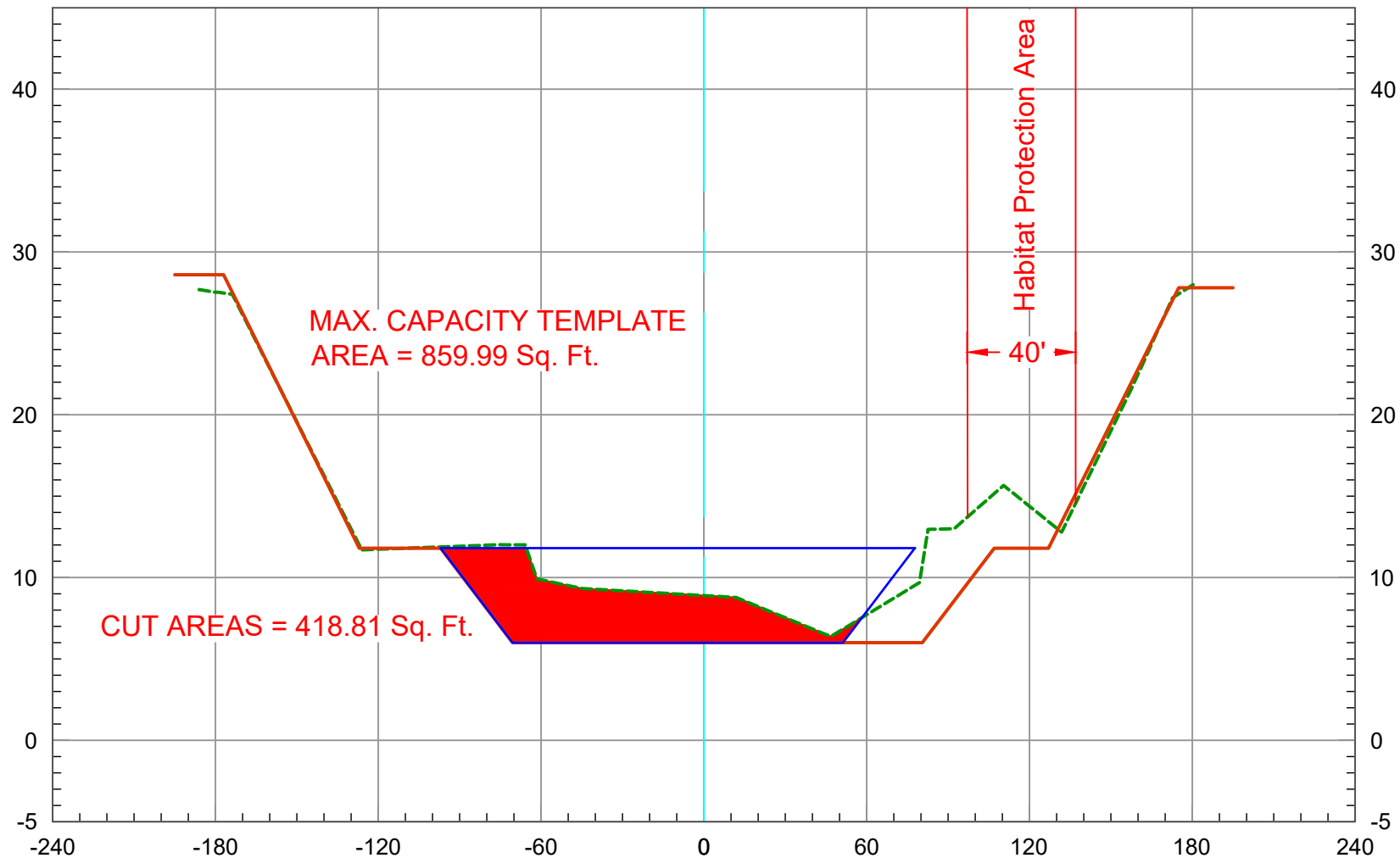


2019 Ground ---
As-Built Plan —
Maximum Capacity —

109+00

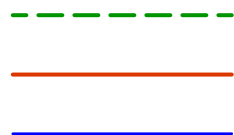
Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2019 SCOURS CL



2019 Ground
As-Built Plan

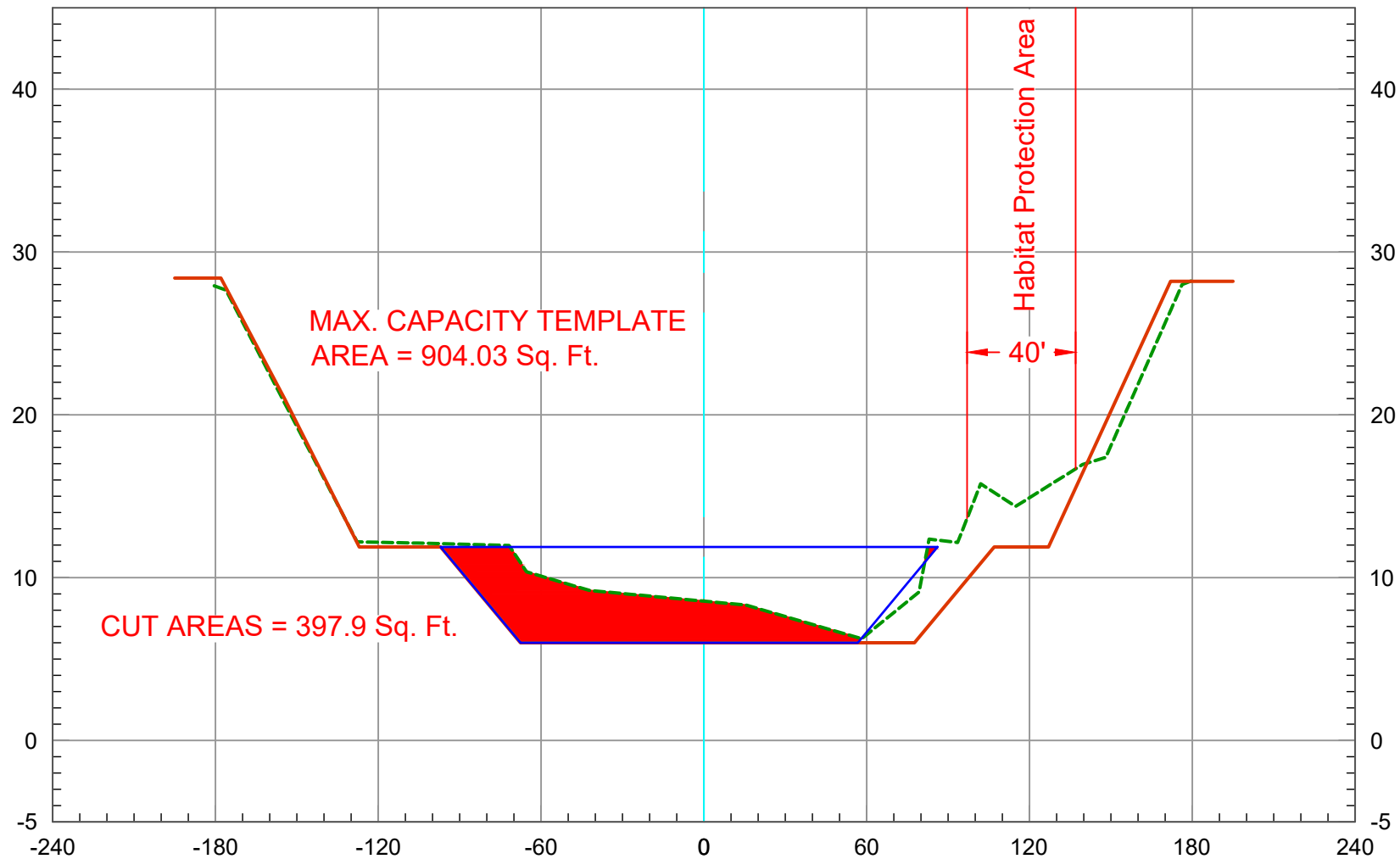
Maximum Capacity



110+00

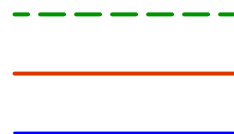
Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2019 SCOURS CL



2019 Ground
As-Built Plan

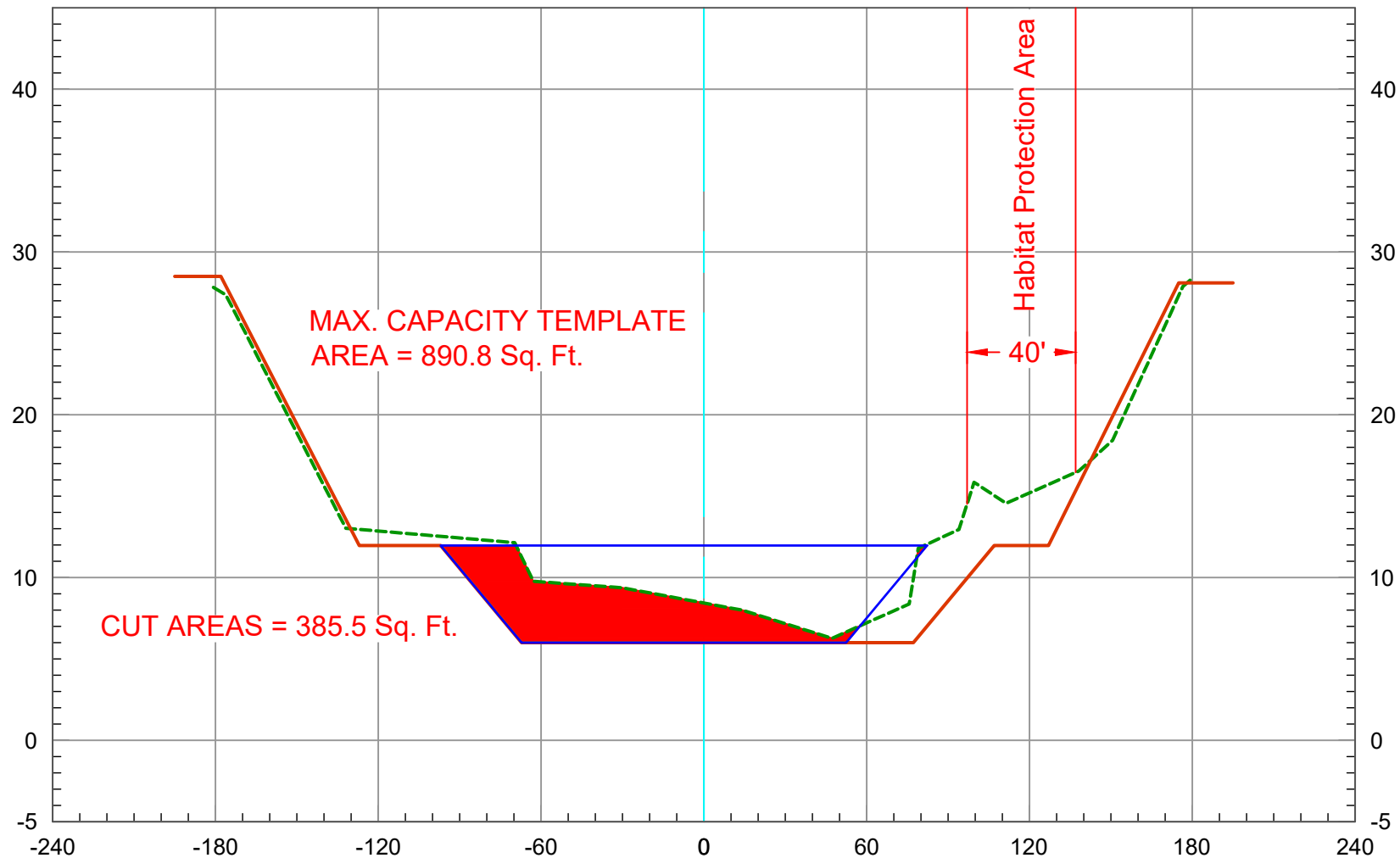
Maximum Capacity



111+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2019 SCOURS CL

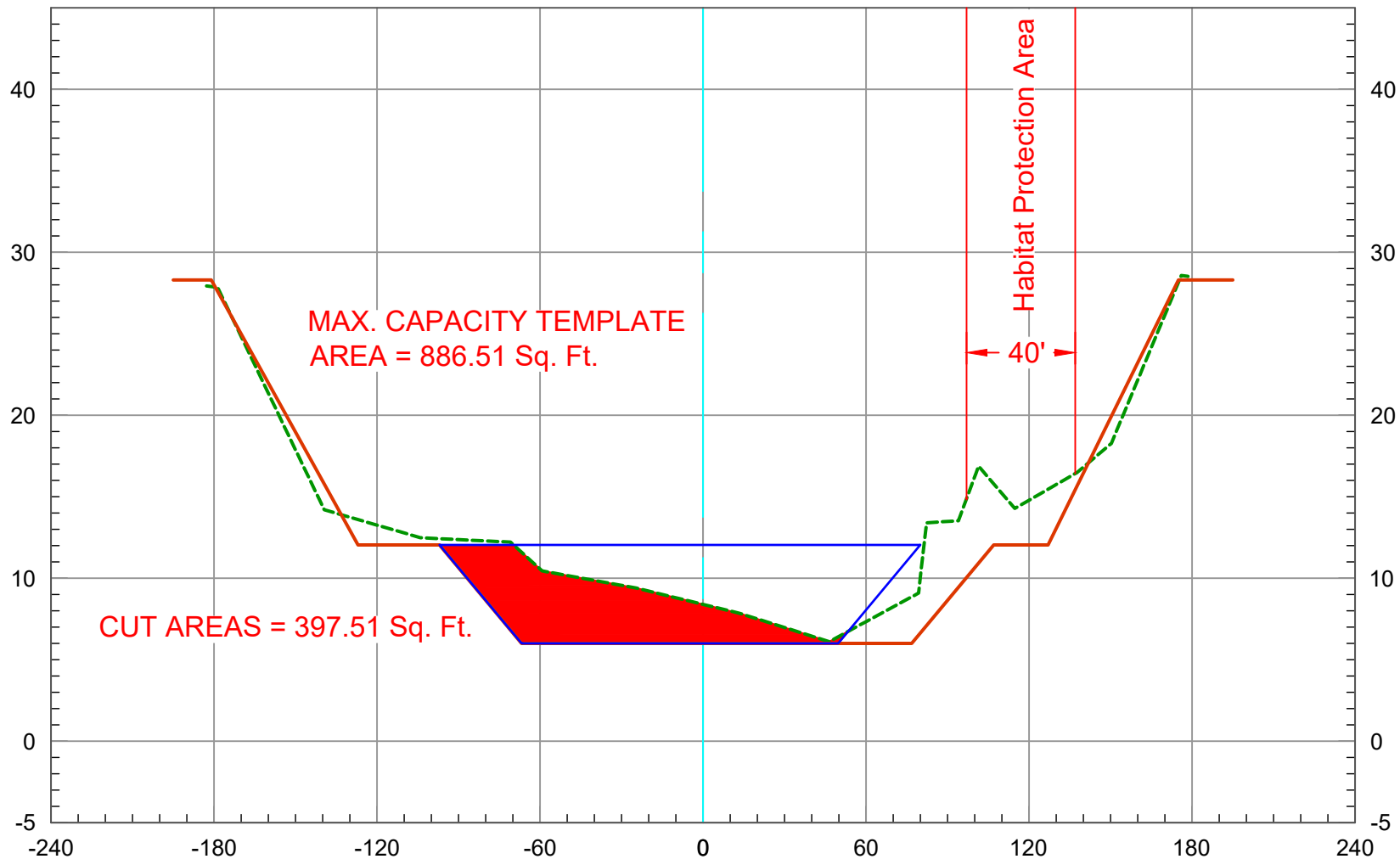


2019 Ground -----
As-Built Plan —————
Maximum Capacity —————

112+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

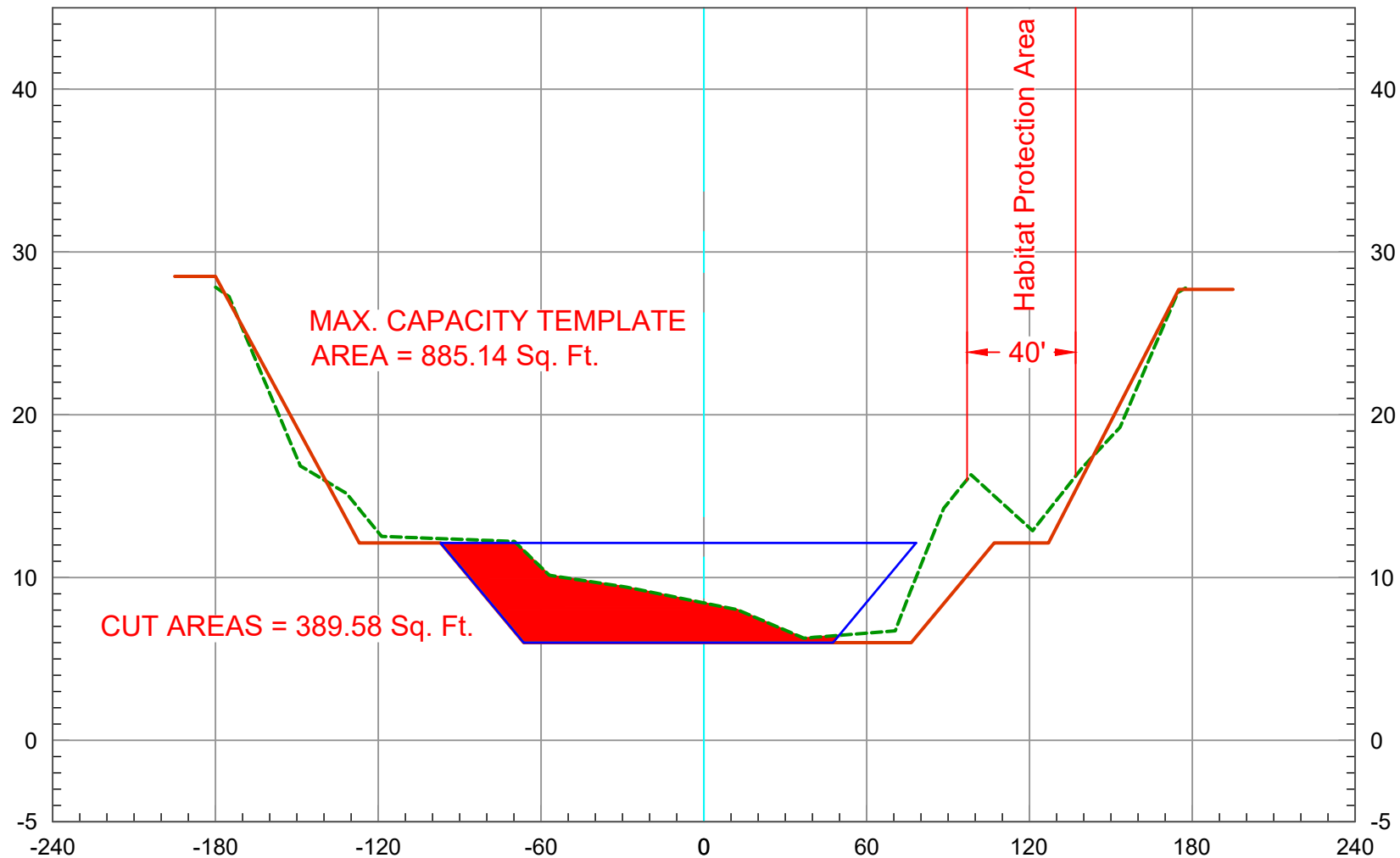
SAN DIEGO CREEK (F05) BASIN 3 - 2019 SCOURS CL



2019 Ground
As-Built Plan
Maximum Capacity

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2019 SCOURS CL

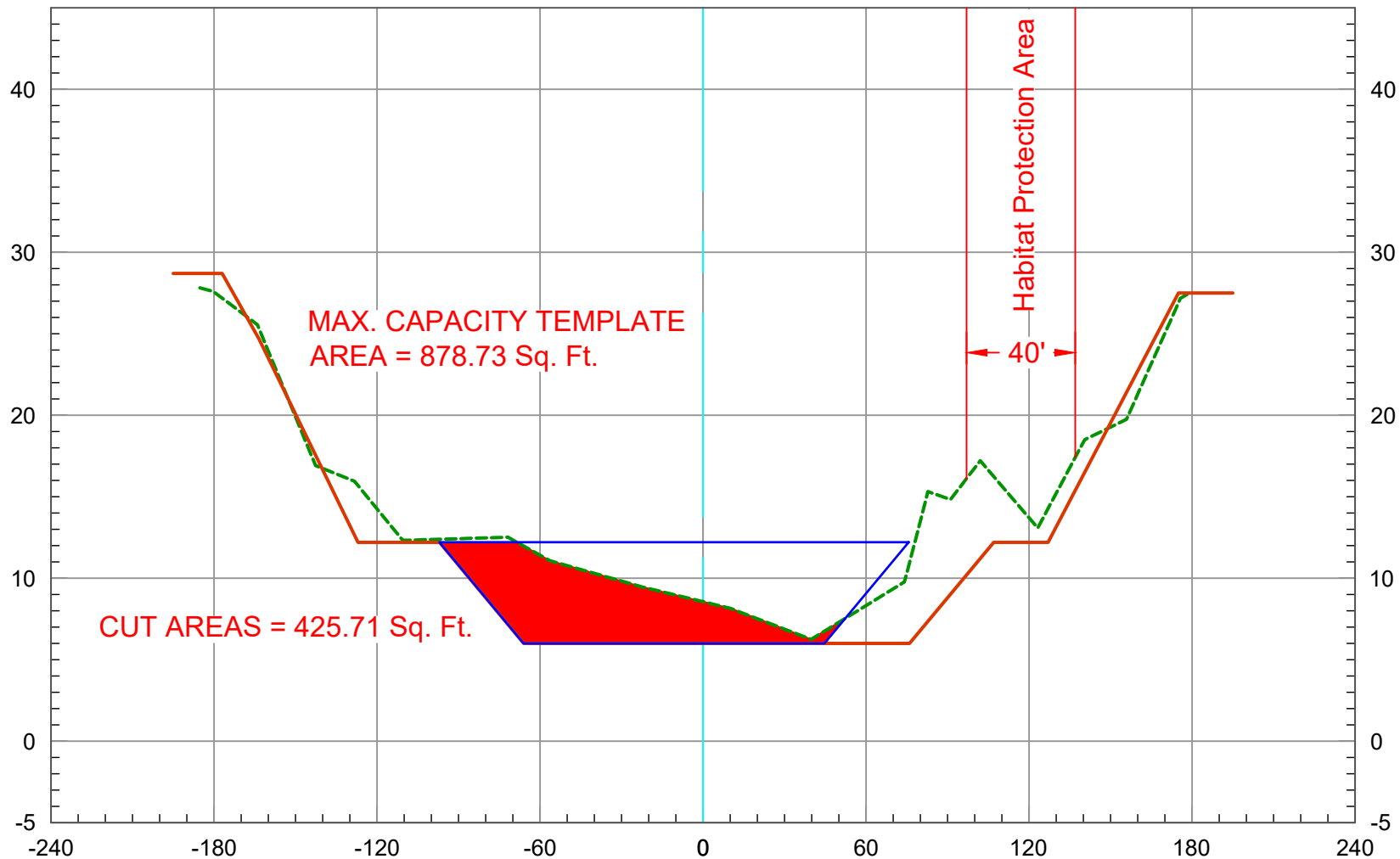


2019 Ground
As-Built Plan
Maximum Capacity

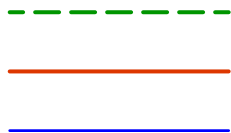
114+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2019 SCOURS CL



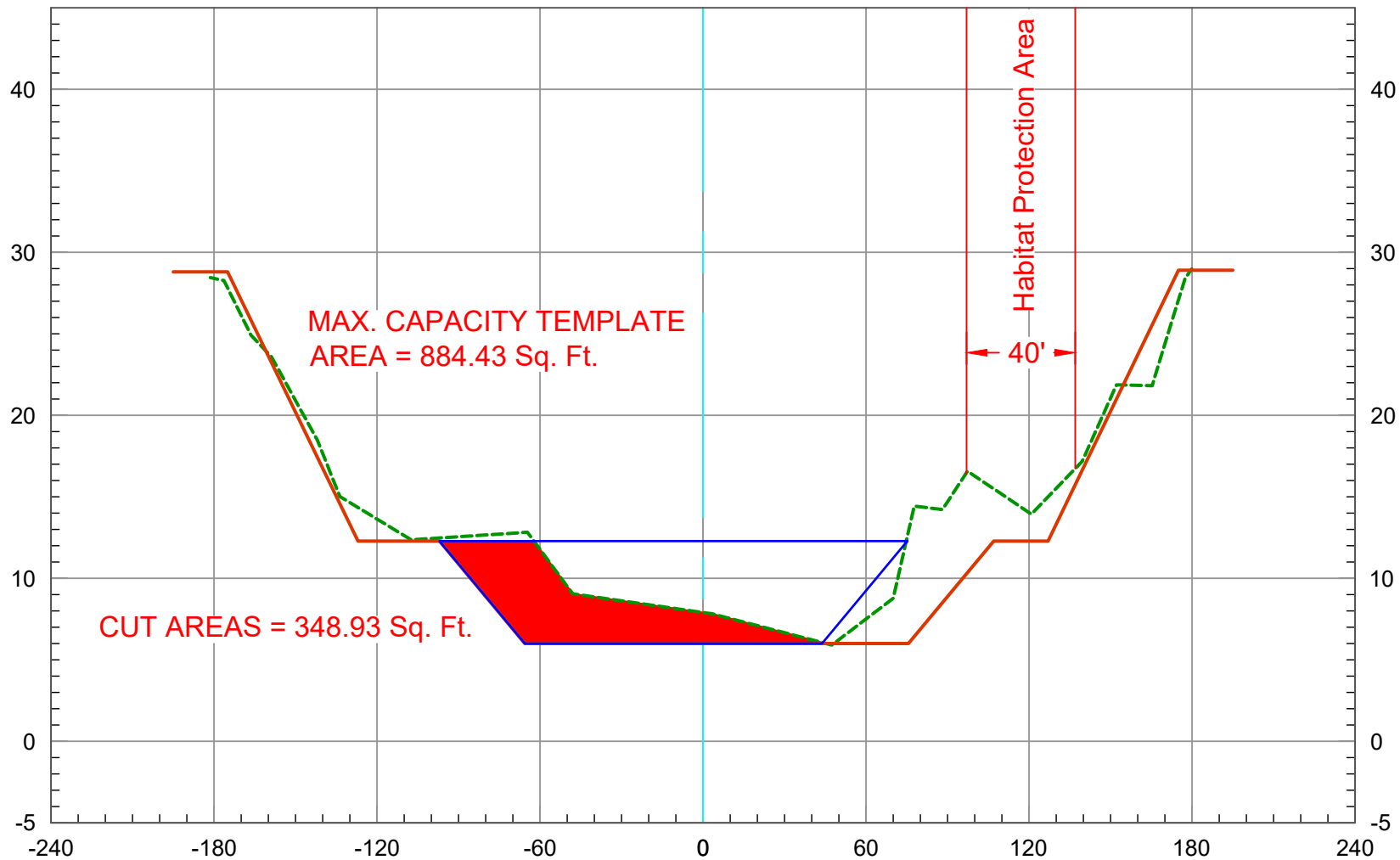
2019 Ground
As-Built Plan
Maximum Capacity



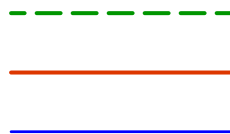
115+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2019 SCOURS CL



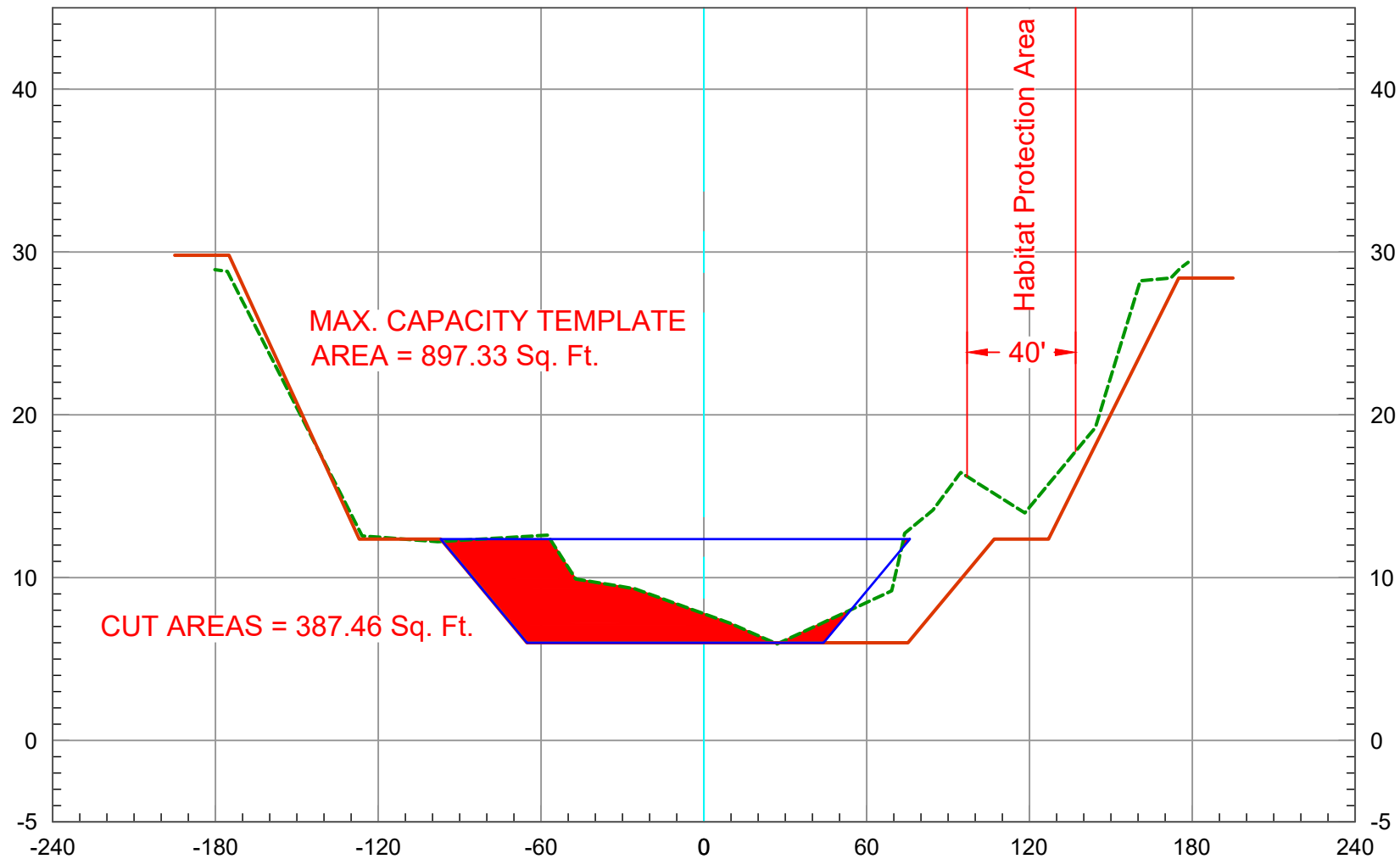
2019 Ground
As-Built Plan
Maximum Capacity



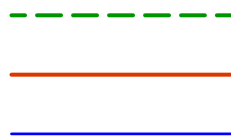
116+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2019 SCOURS CL



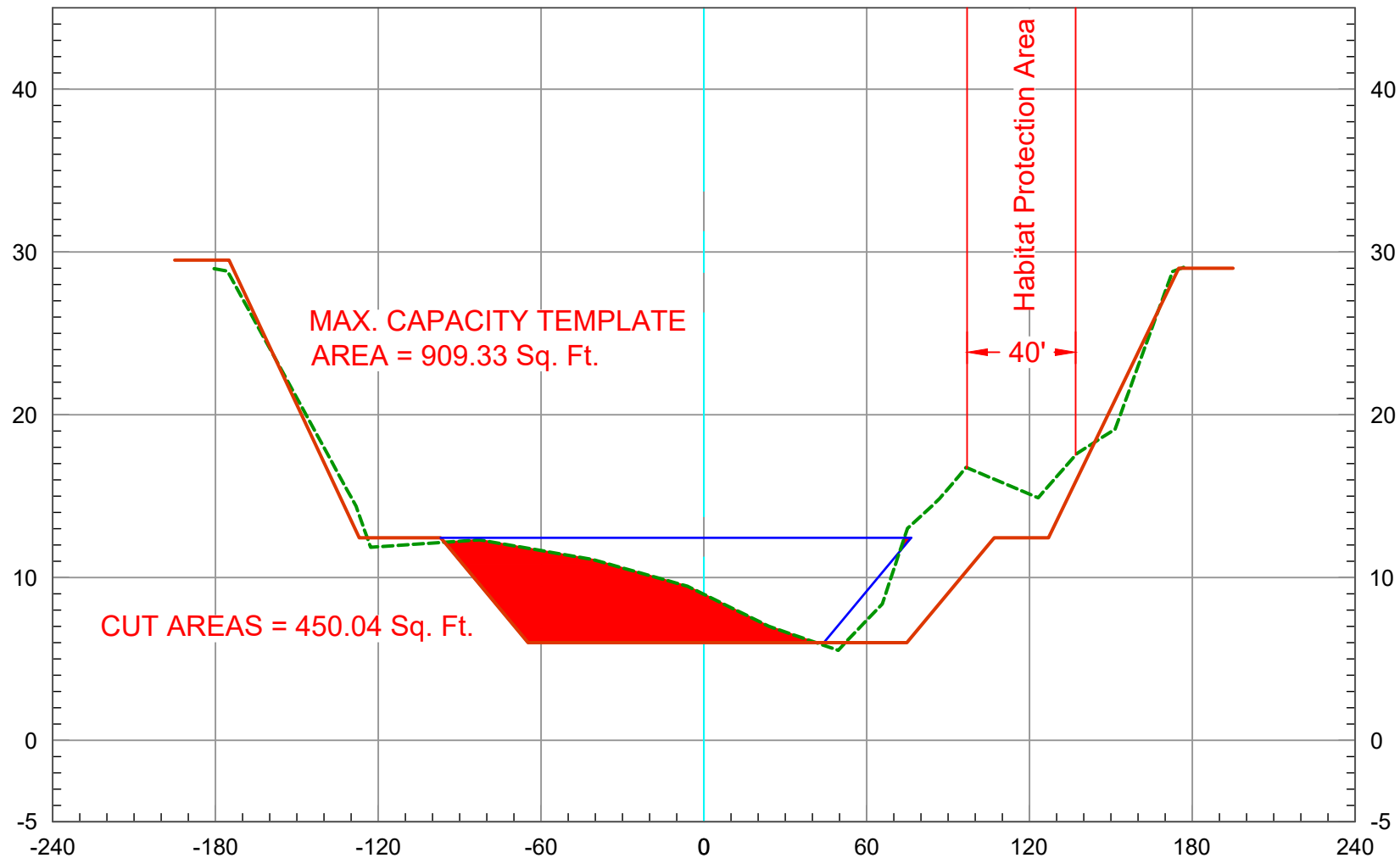
2019 Ground
As-Built Plan
Maximum Capacity



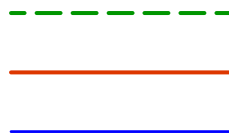
117+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2019 SCOURS CL



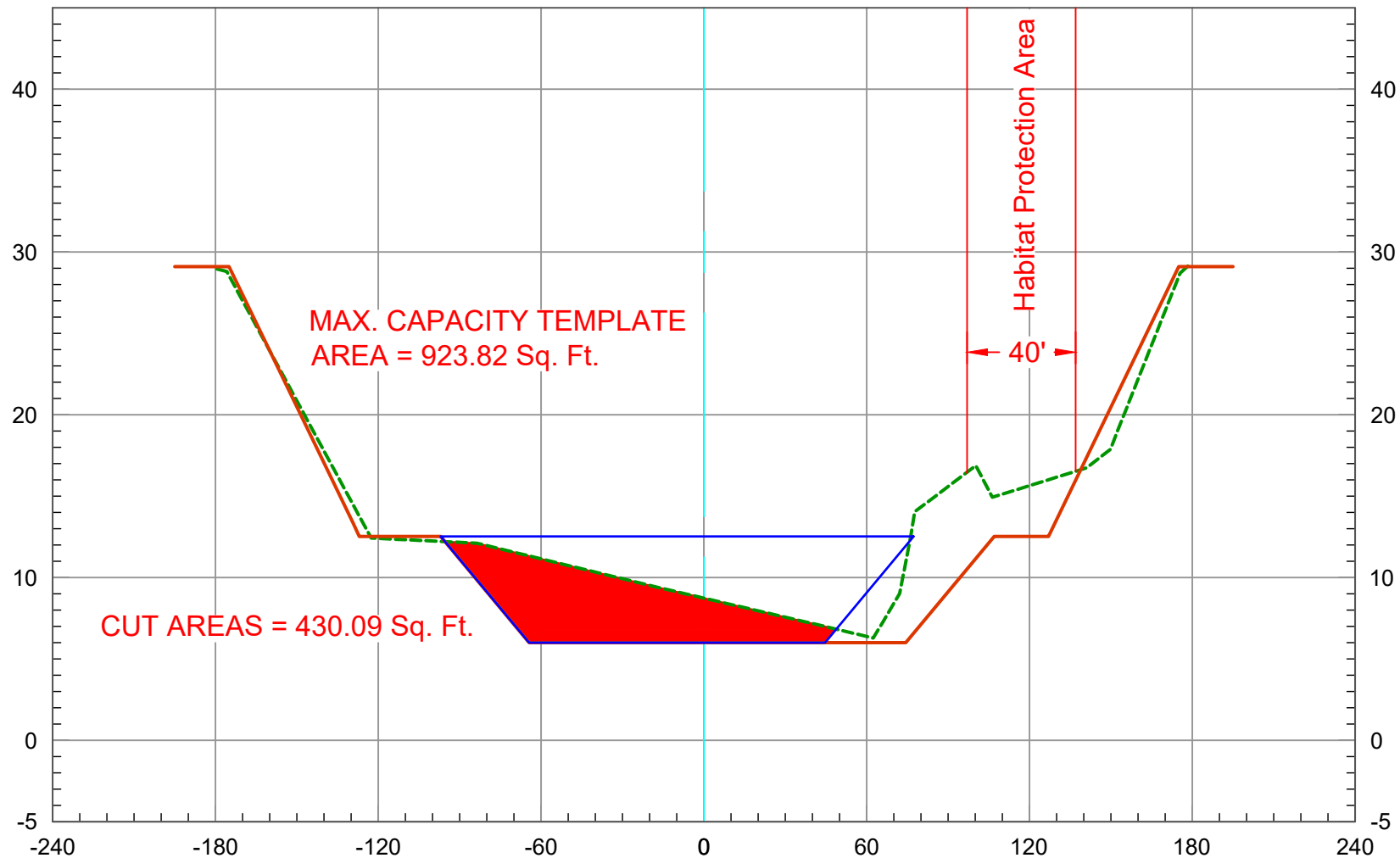
2019 Ground
As-Built Plan
Maximum Capacity



118+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2019 SCOURS CL

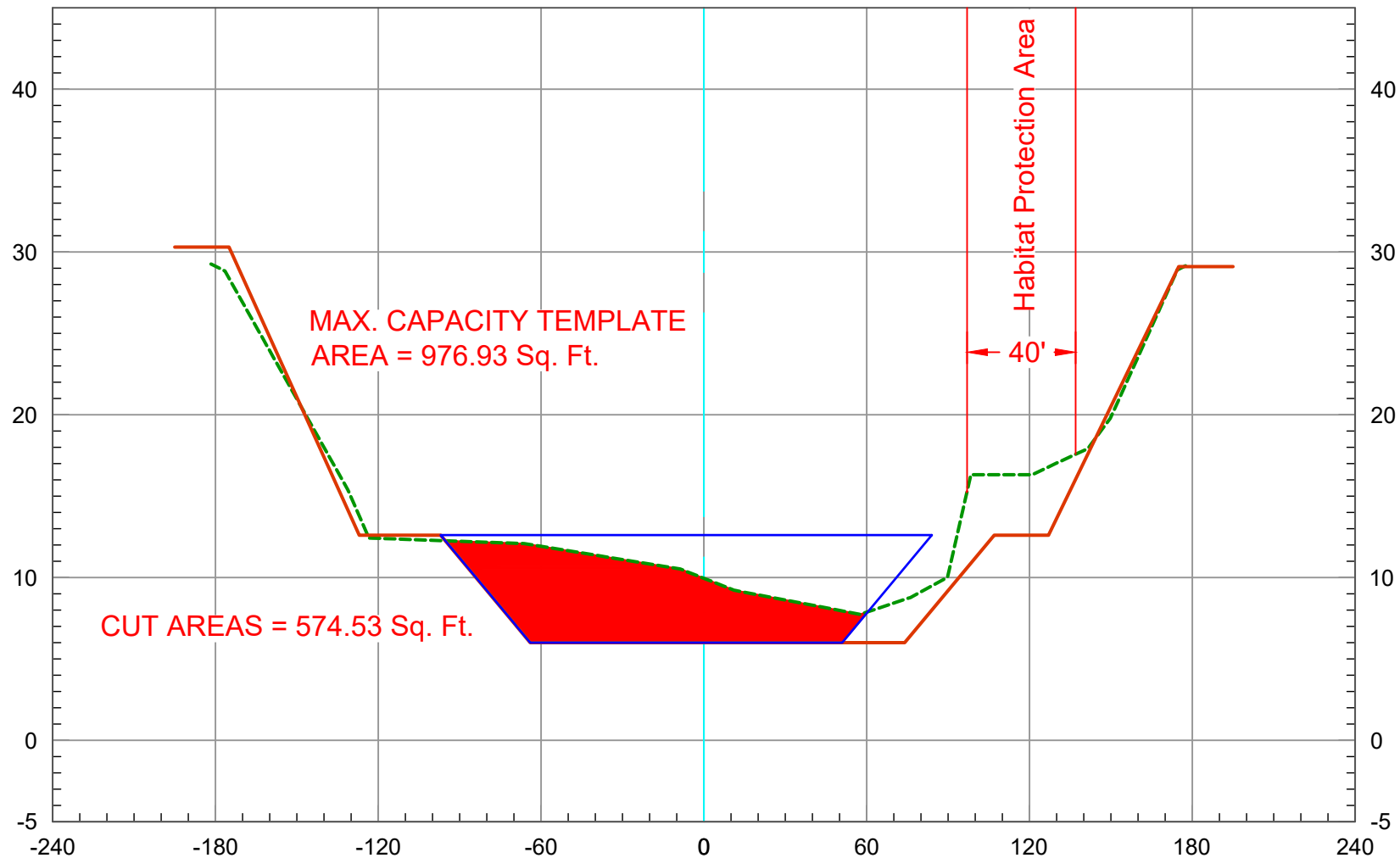


2019 Ground -----
As-Built Plan —————
Maximum Capacity —————

119+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2019 SCOURS CL

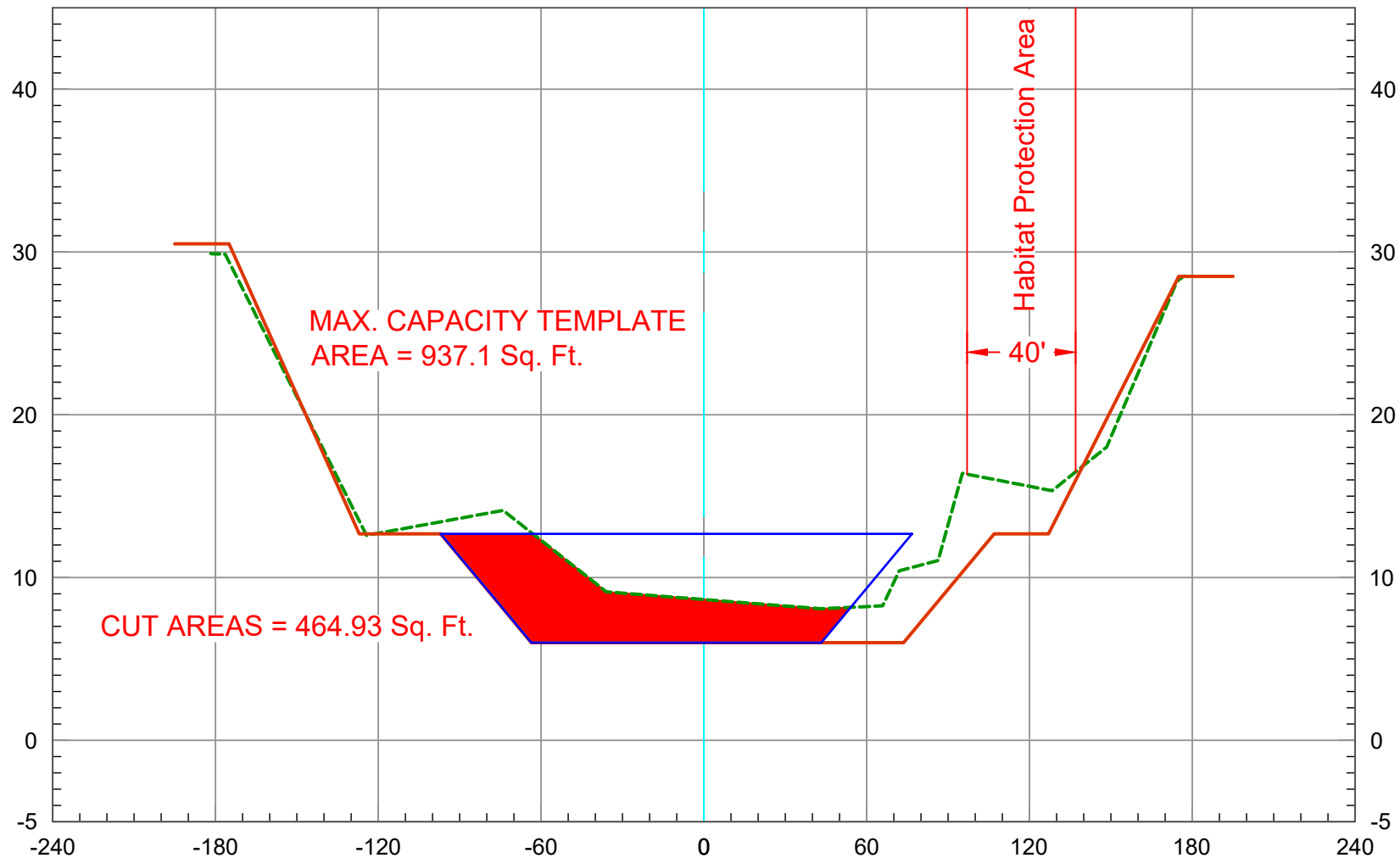


2019 Ground
As-Built Plan
Maximum Capacity

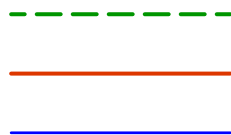
120+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2019 SCOURS CL



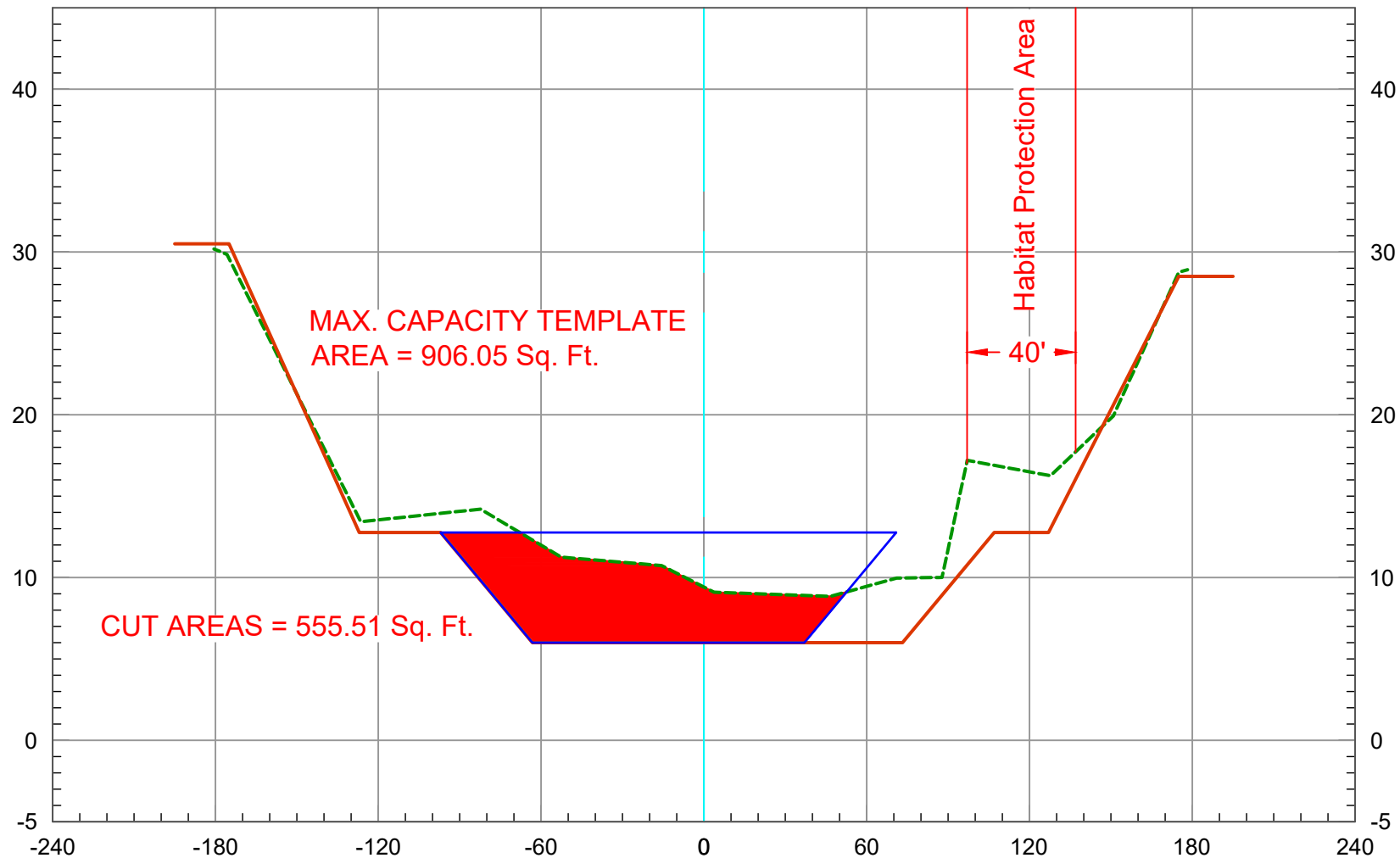
2019 Ground
As-Built Plan
Maximum Capacity



121+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2019 SCOURS CL

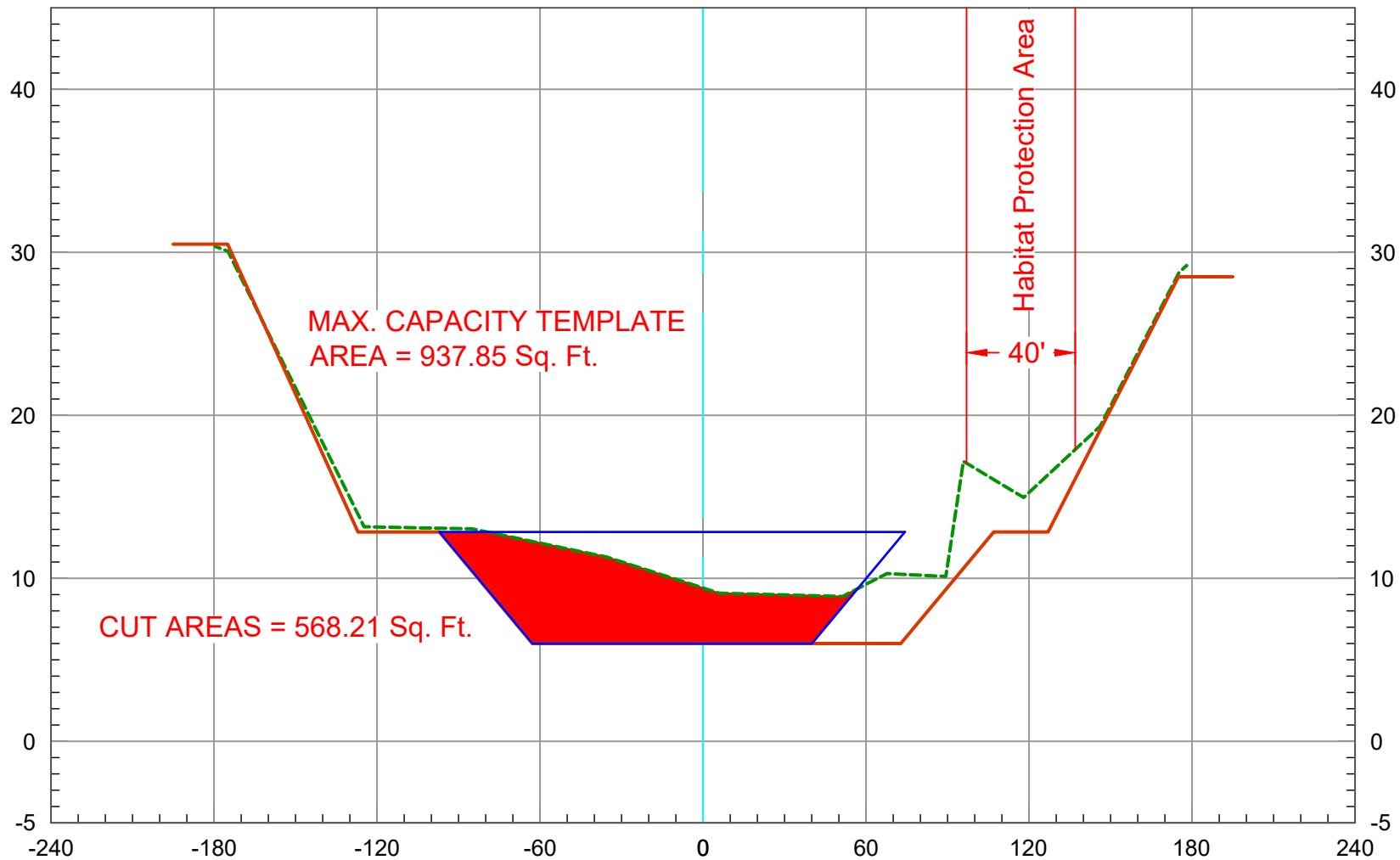


2019 Ground
As-Built Plan
Maximum Capacity

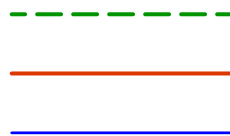
122+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2019 SCOURS CL



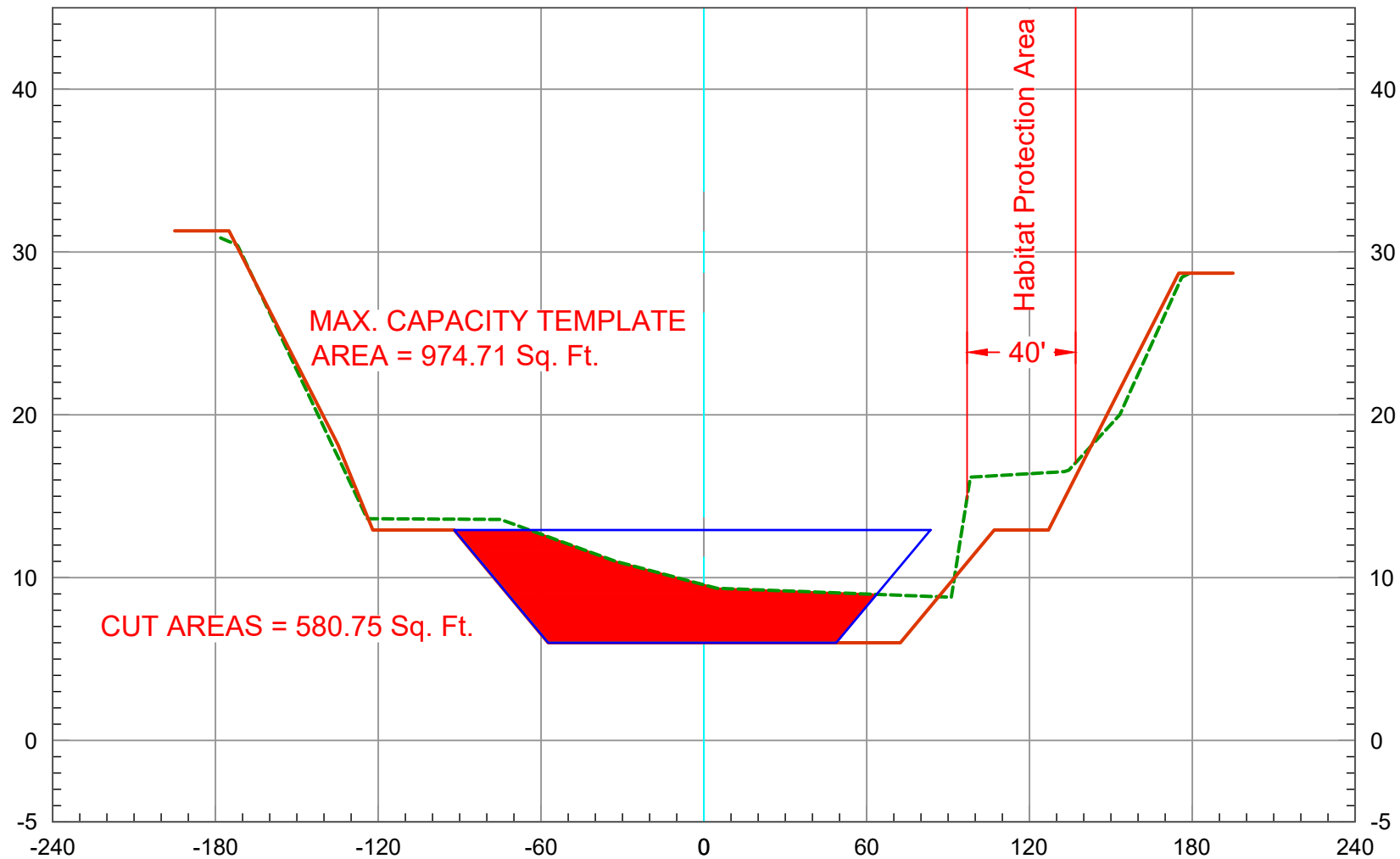
2019 Ground
As-Built Plan
Maximum Capacity



123+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

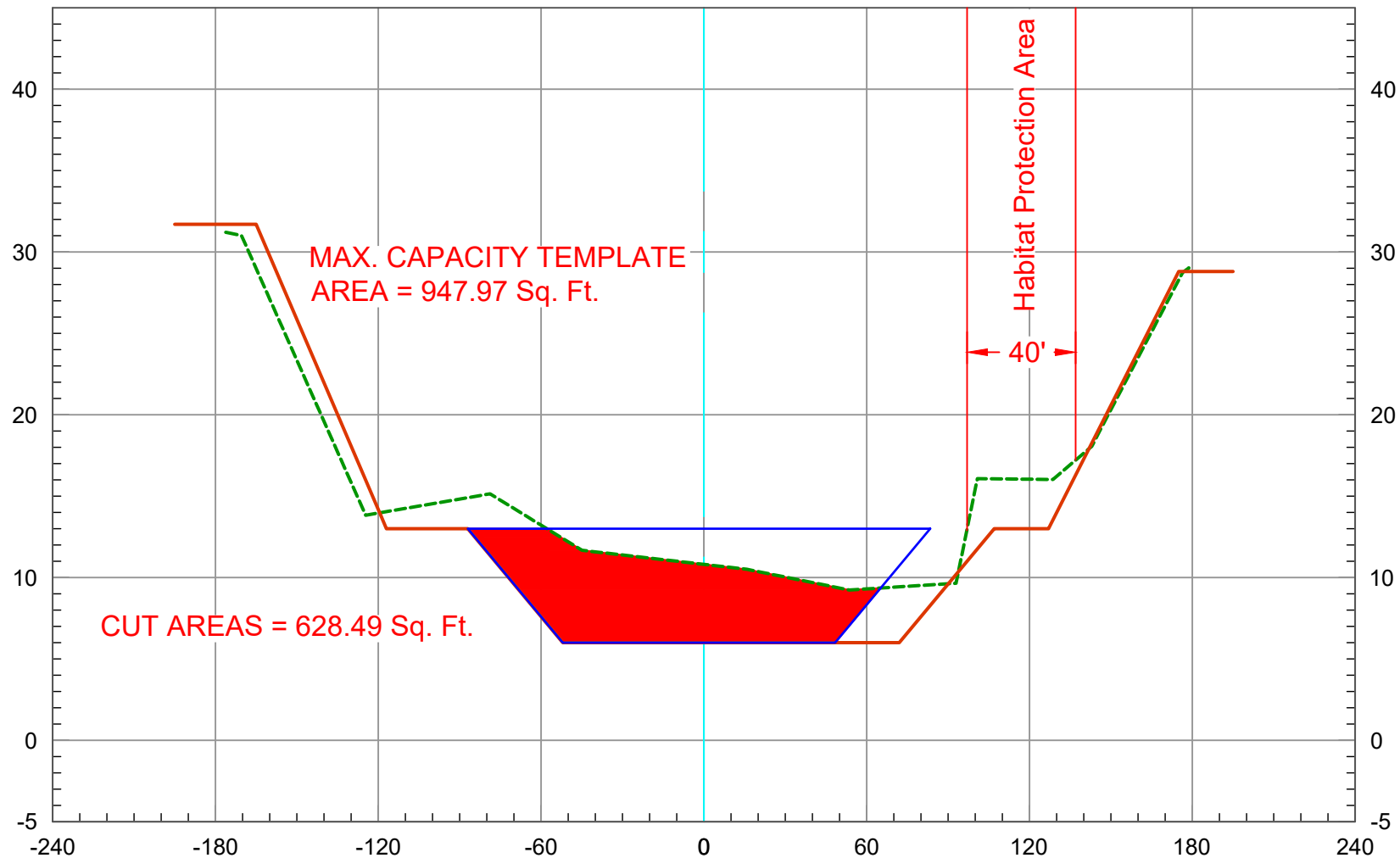
SAN DIEGO CREEK (F05) BASIN 3 - 2019 SCOURS CL



2019 Ground 
As-Built Plan 
Maximum Capacity 

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2019 SCOURS CL

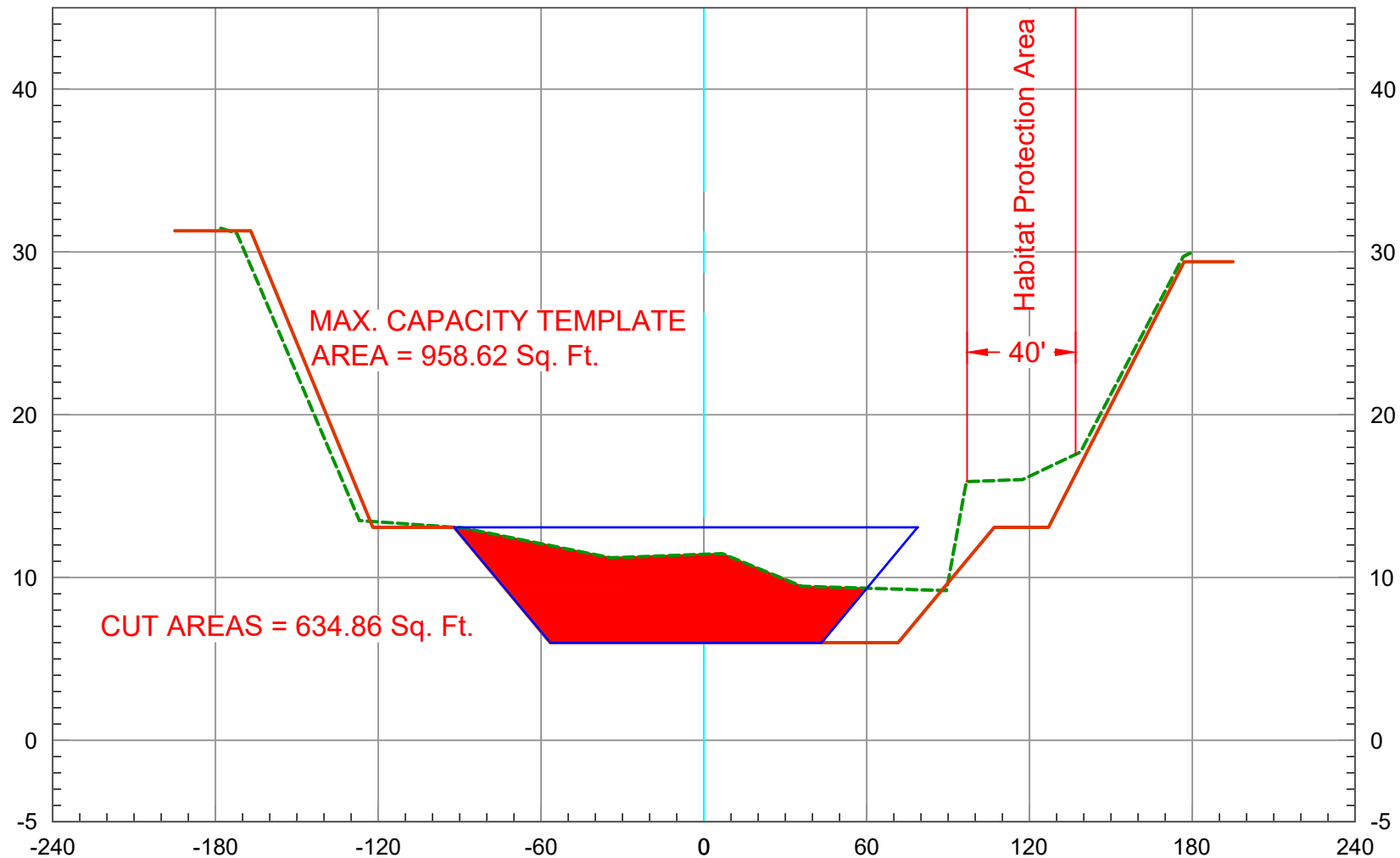


2019 Ground -----
As-Built Plan —————
Maximum Capacity —————

125+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2019 SCOURS CL

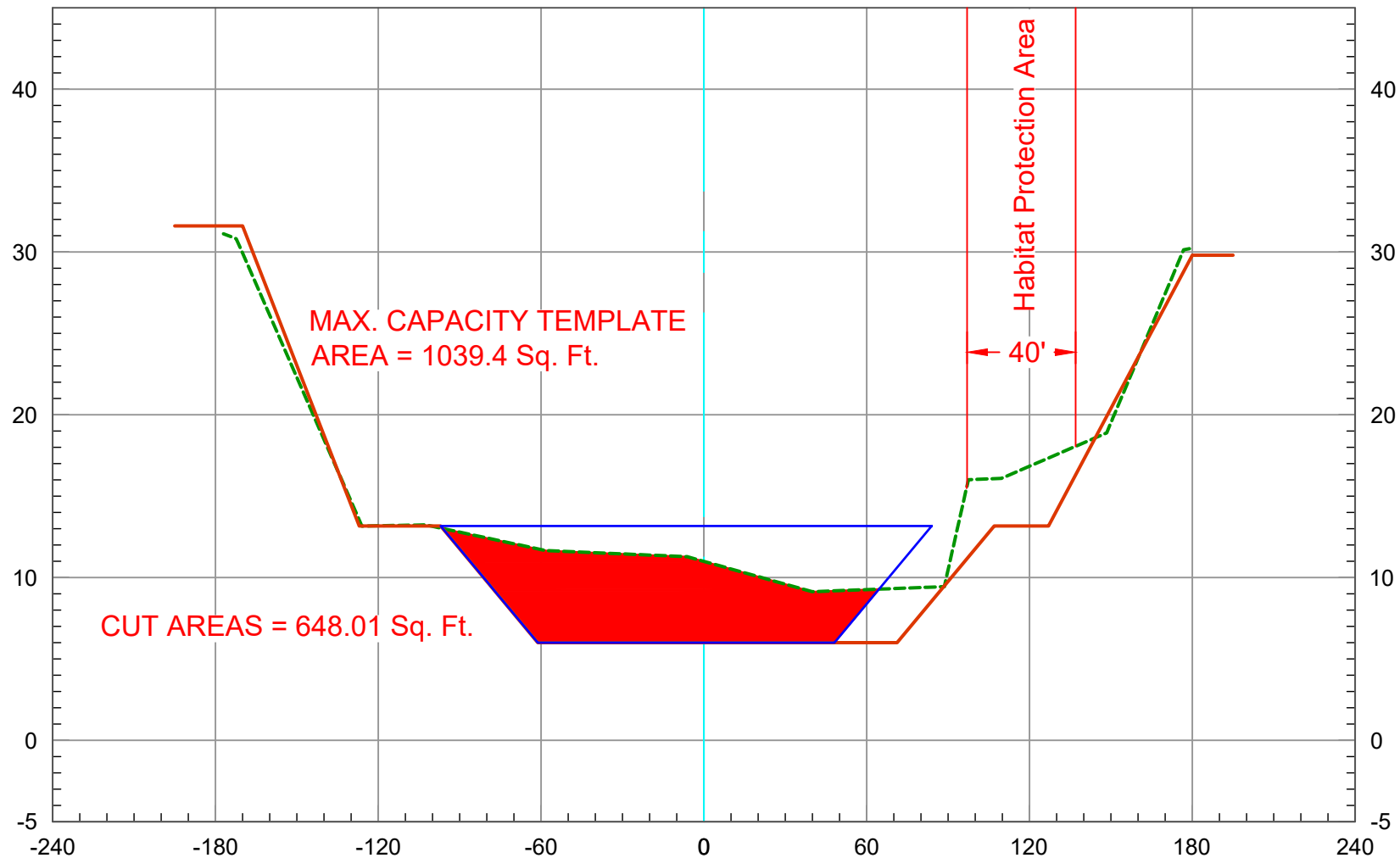


2019 Ground
As-Built Plan
Maximum Capacity

126+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2019 SCOURS CL

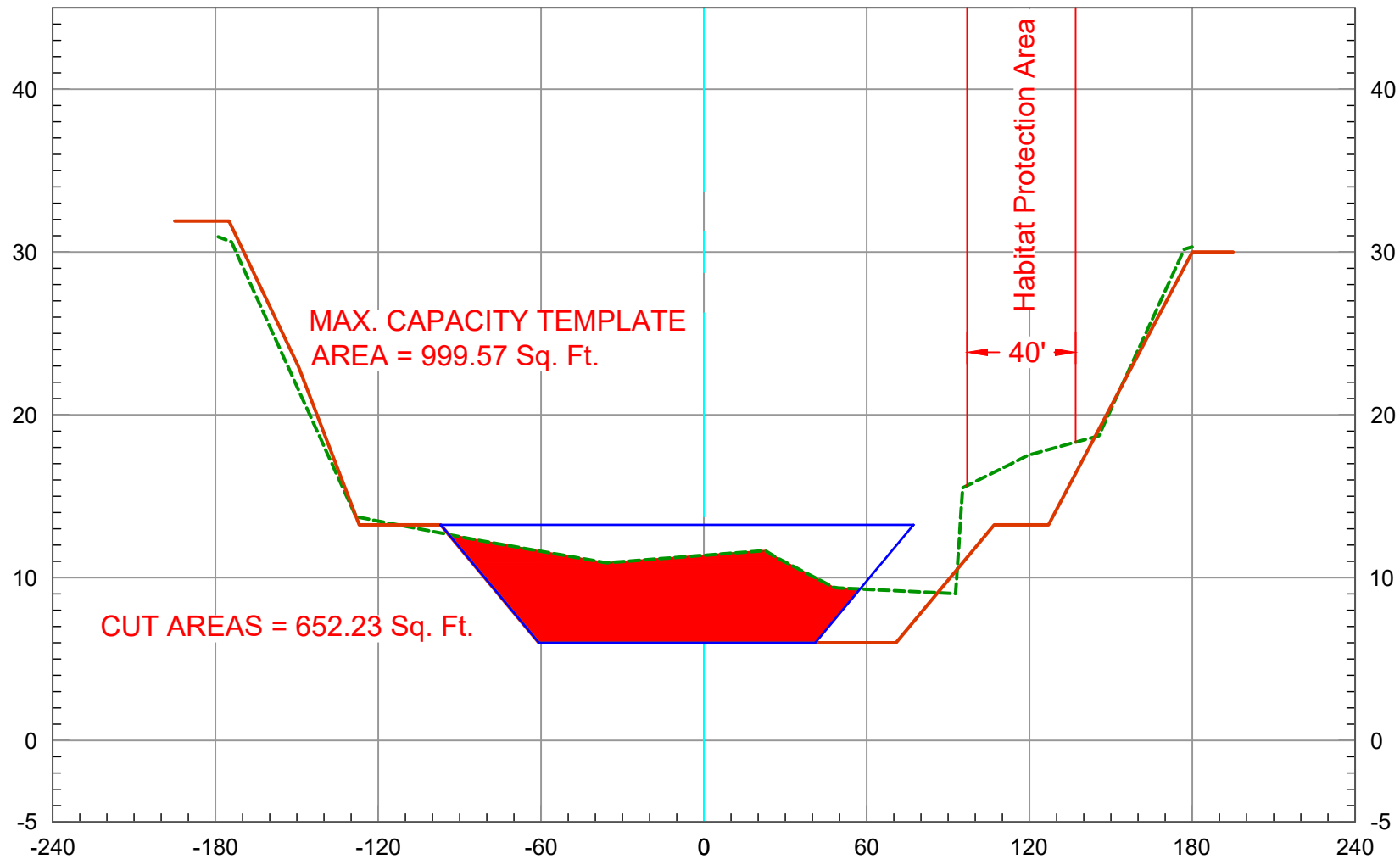


2019 Ground
As-Built Plan
Maximum Capacity

127+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

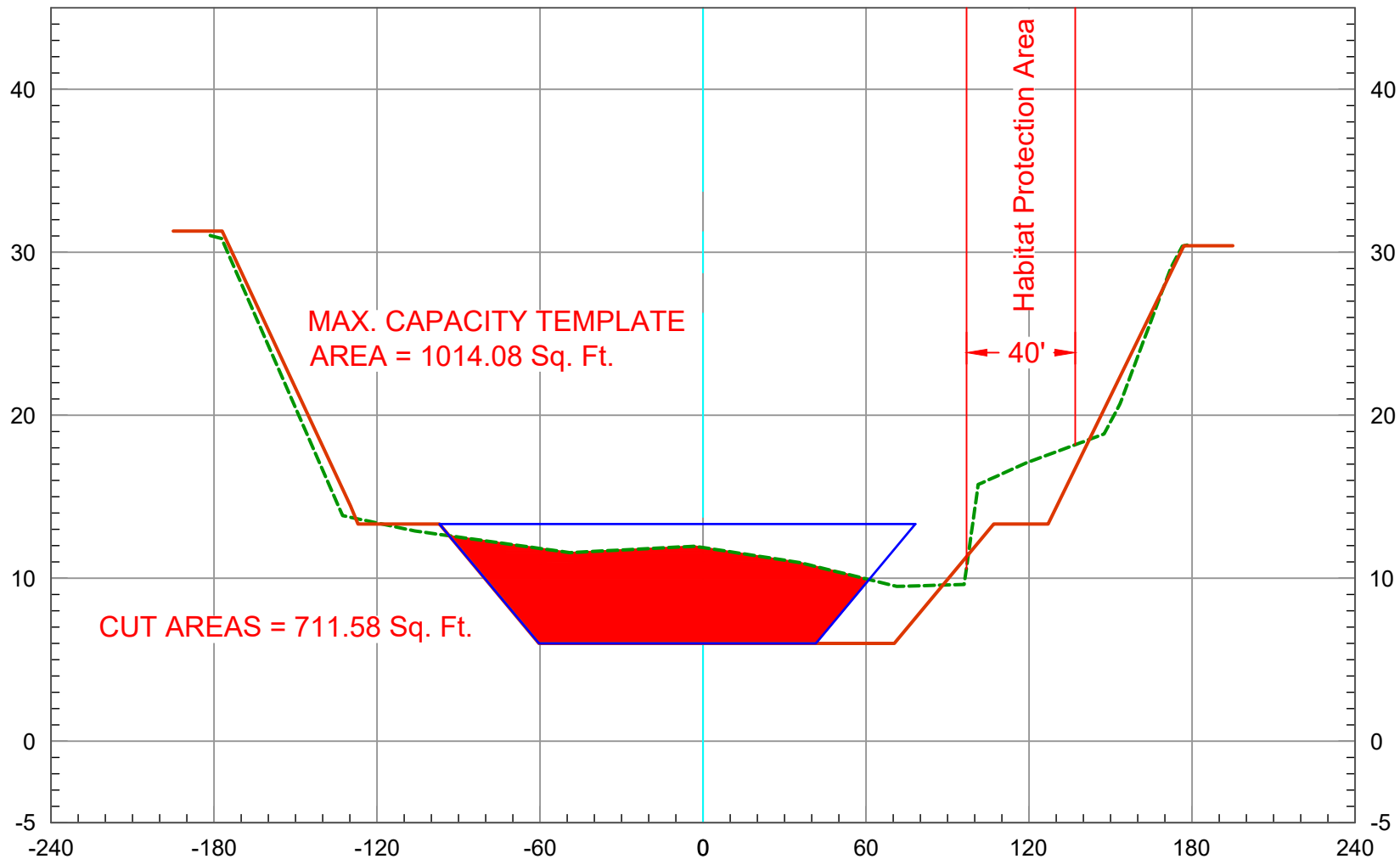
SAN DIEGO CREEK (F05) BASIN 3 - 2019 SCOURS CL



2019 Ground
As-Built Plan
Maximum Capacity

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2019 SCOURS CL

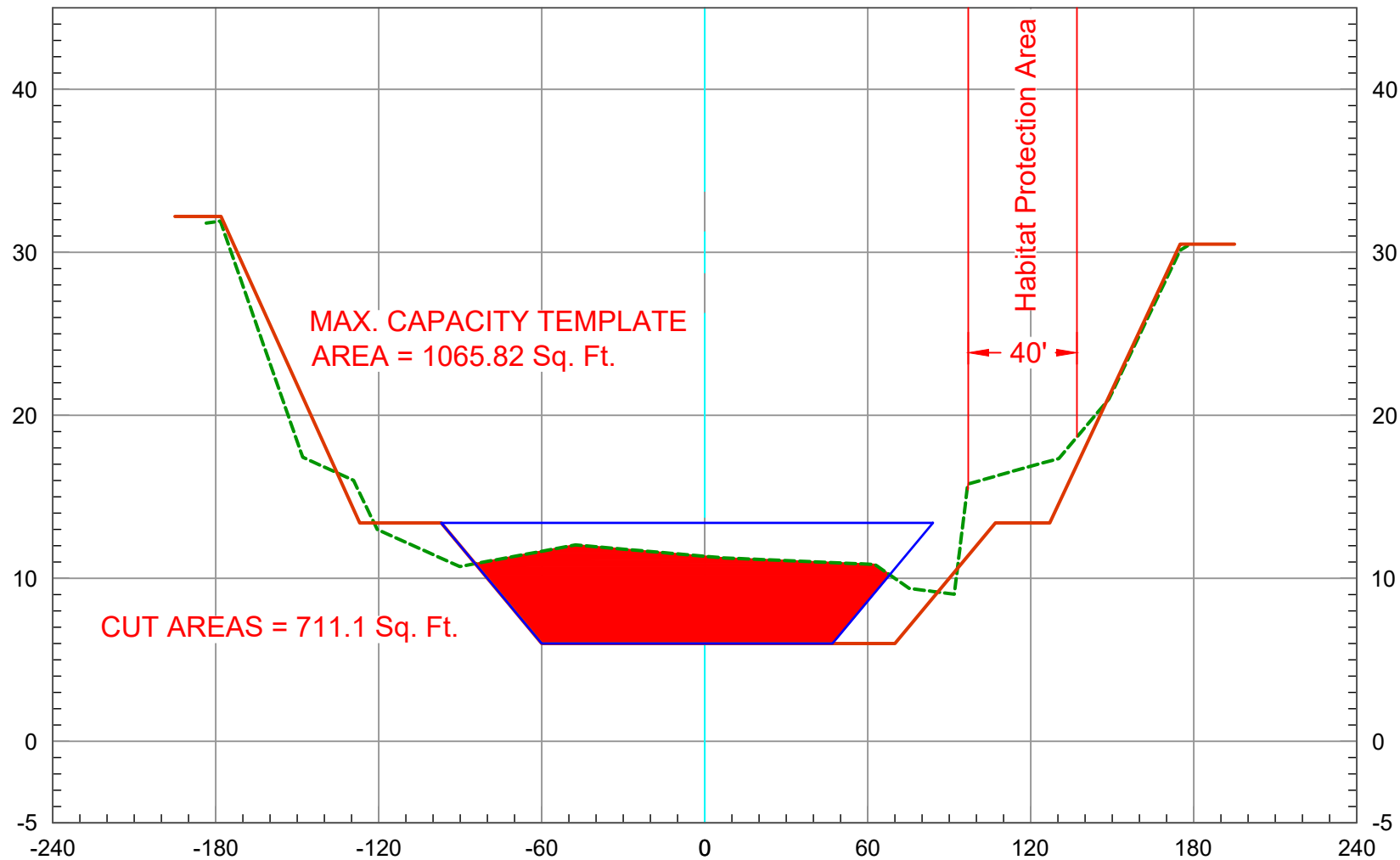


2019 Ground
As-Built Plan
Maximum Capacity

129+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2019 SCOURS CL

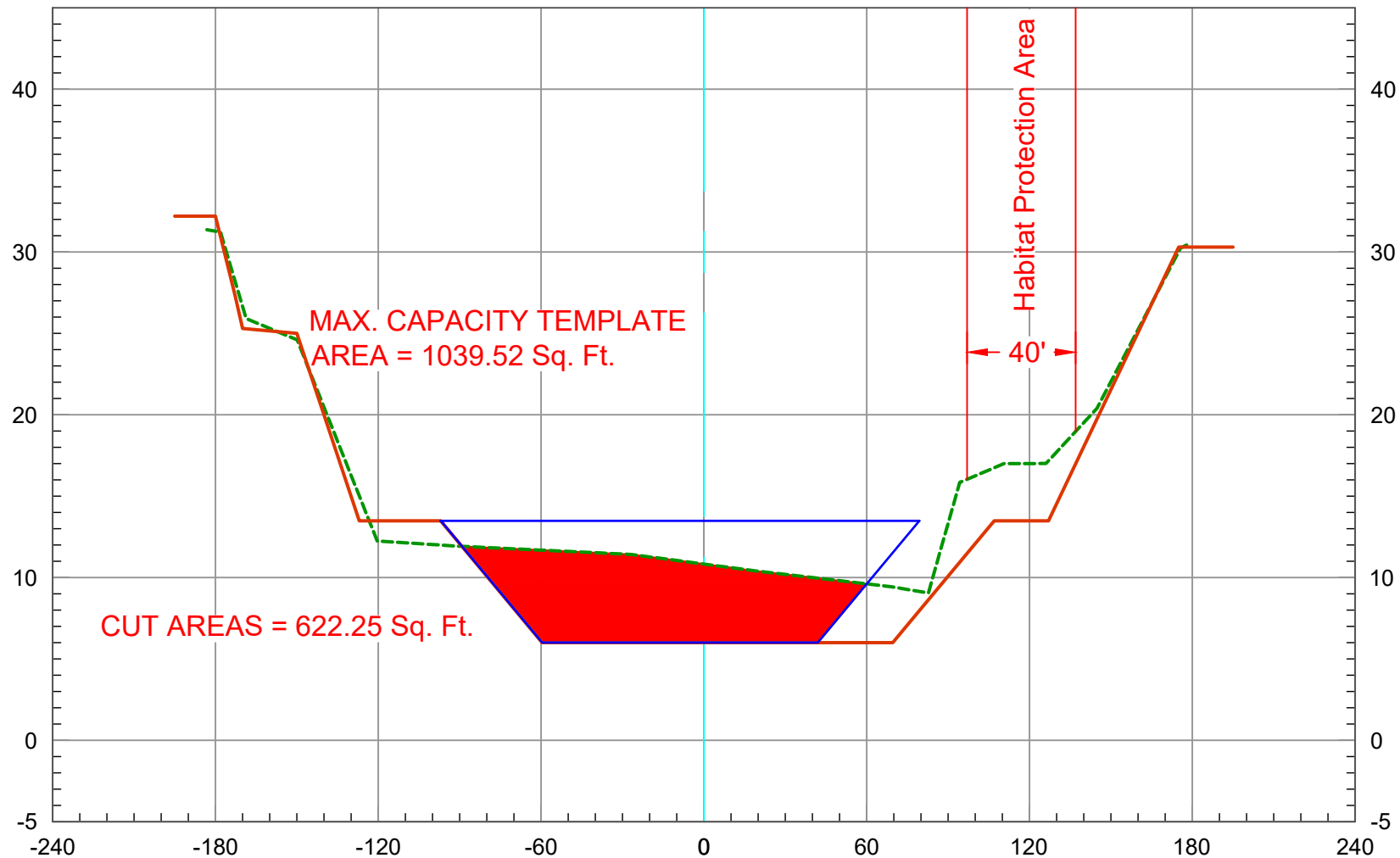


2019 Ground -----
As-Built Plan —————
Maximum Capacity —————

130+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2019 SCOURS CL

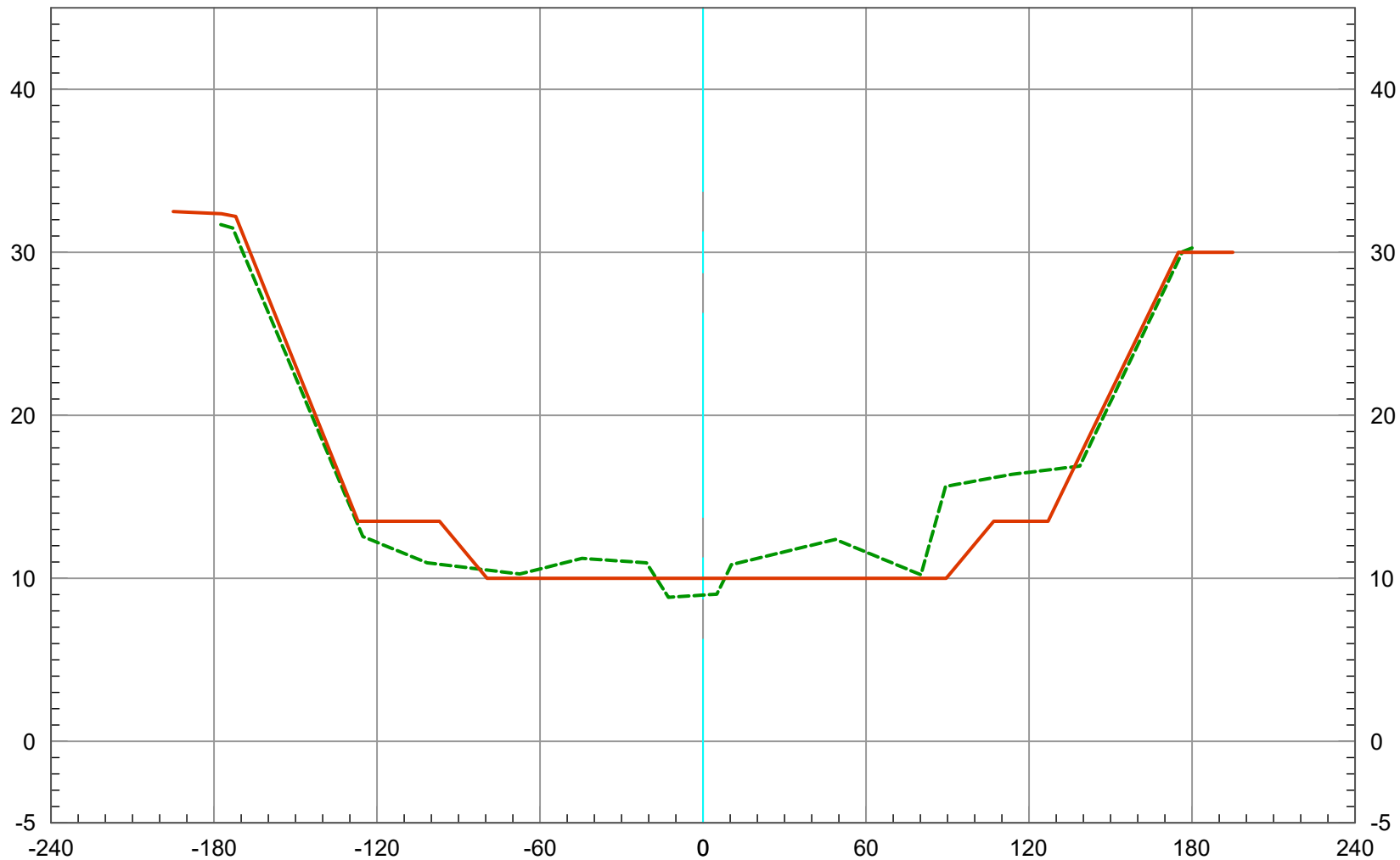


2019 Ground -----
As-Built Plan —————
Maximum Capacity —————

131+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2019 SCOURS CL



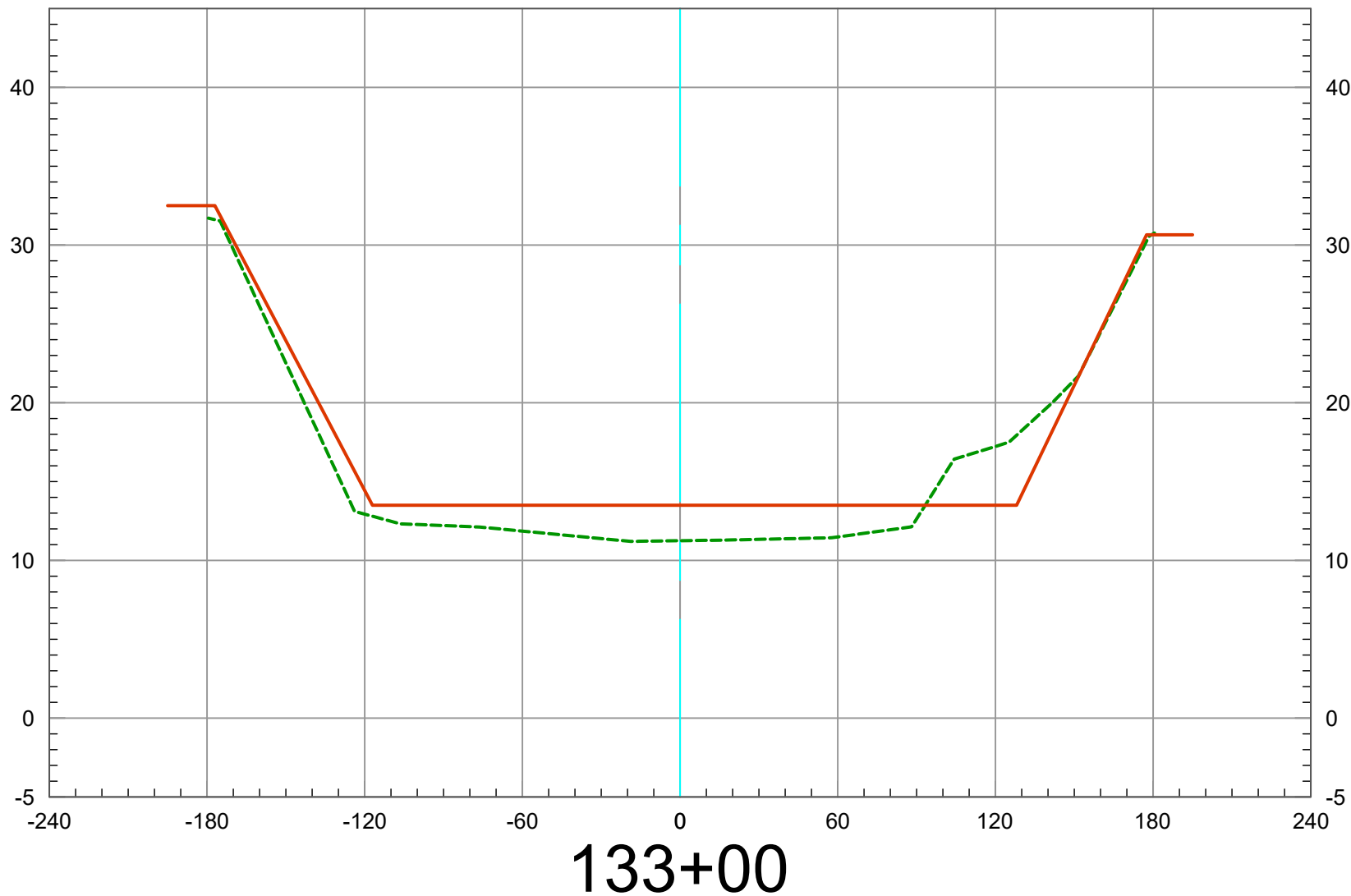
2019 Ground
As-Built Plan



132+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2019 SCOURS CL



2019 Ground
As-Built Plan



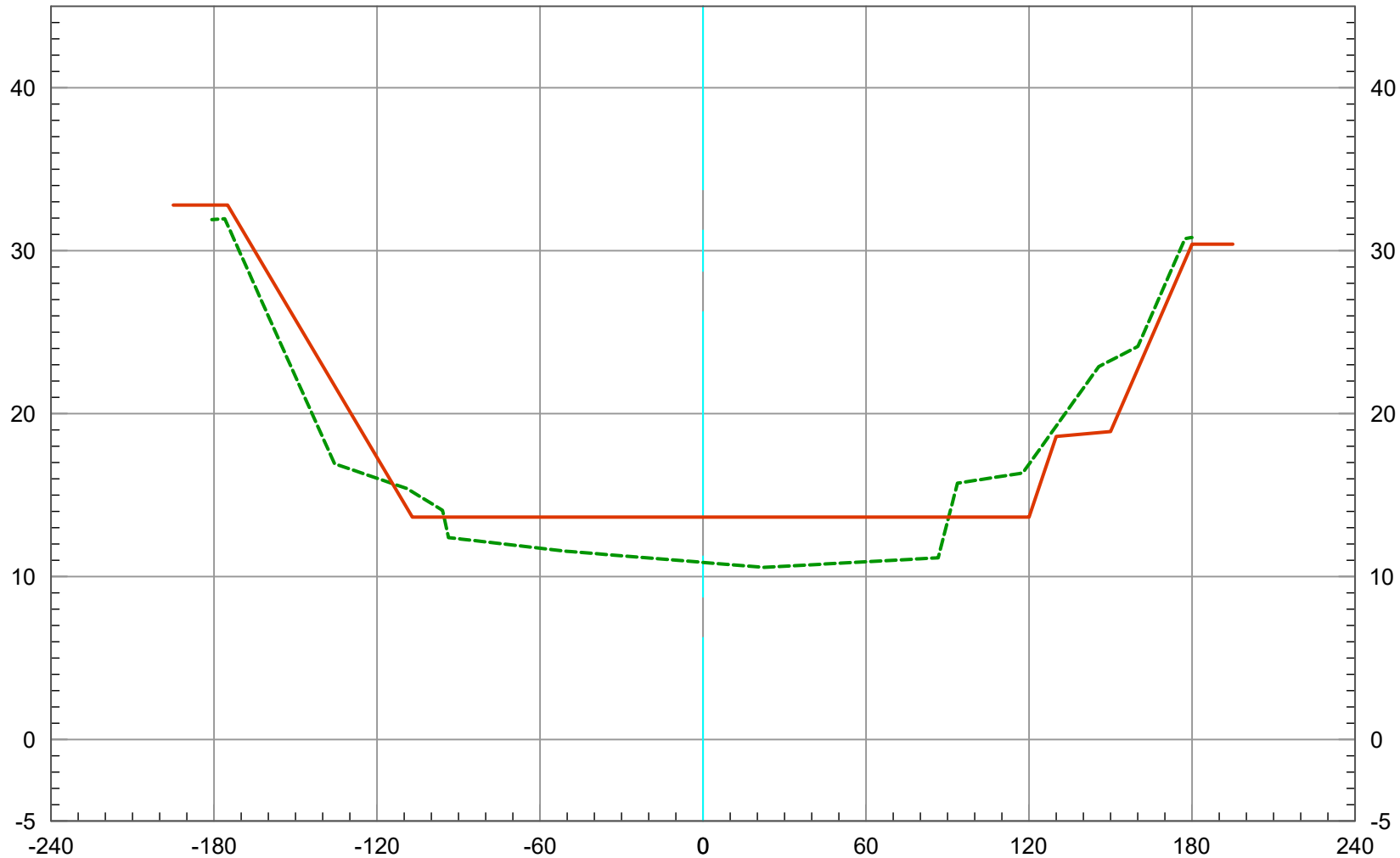
Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

U.S. Survey Foot

OC Public Works
OC Survey/Field Services
Boundary Analysis & Mapping



SAN DIEGO CREEK (F05) BASIN 3 - 2019 SCOURS CL

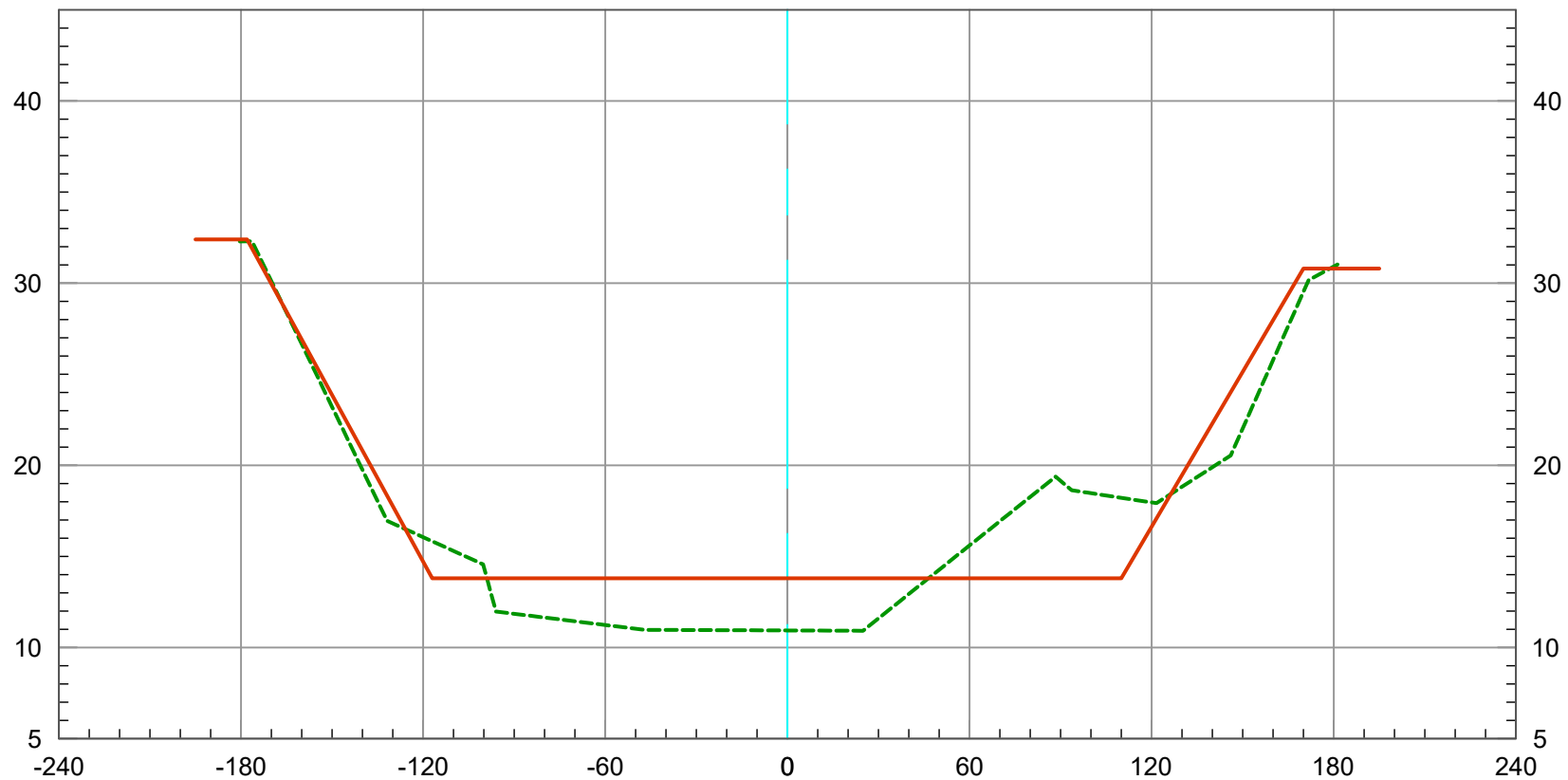


2019 Ground 
As-Built Plan 

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

134+00

SAN DIEGO CREEK (F05) BASIN 3 - 2019 SCOURS CL



2019 Ground 
As-Built Plan 

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

135+00