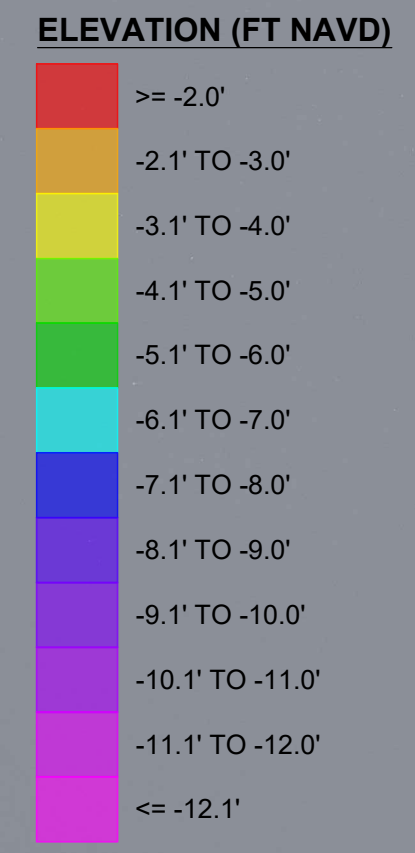


BENCHMARK
 DESC: F797 (PID DQ3298)
 N: 955,474.92
 E: 613,453.97
 ELEV: 10.10' NAVD

SURVEY BASELINE

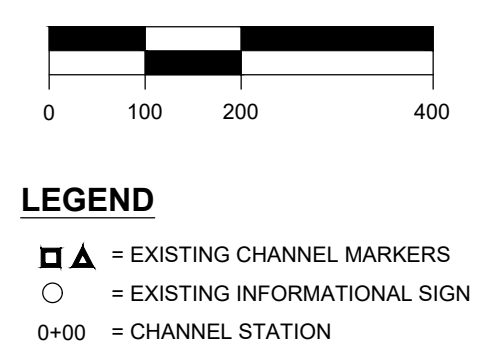
ACKERMAN WATERWAY DREDGE CUT



SURVEY BASELINE LINE TABLE

LINE #	DIRECTION	LENGTH	START POINT (N, E)	END POINT (N, E)
L1	S74° 04' 01"W	850.31'	619574.21',952591.64'	618756.57',952358.22'
L2	N79° 43' 58"W	59.92'	618756.57',952358.22'	618697.61',952368.90'
L3	N58° 34' 10"W	1104.89'	618697.61',952368.90'	617754.84',952945.06'
L4	N60° 47' 52"W	250.28'	617754.84',952945.06'	617536.37',953067.17'
L5	N57° 56' 17"W	288.15'	617536.37',953067.17'	617292.17',953220.13'
L6	N58° 51' 58"W	150.18'	617292.17',953220.13'	617163.62',953297.78'
L7	N61° 12' 58"W	244.19'	617163.62',953297.78'	616949.60',953415.36'
L8	N55° 15' 56"W	240.41'	616949.60',953415.36'	616752.03',953552.34'
L9	N21° 02' 44"W	307.57'	616752.03',953552.34'	616641.58',953839.39'
L10	N45° 45' 46"W	79.14'	616641.58',953839.39'	616584.88',953894.60'
L11	N59° 06' 33"W	2292.46'	616584.88',953894.60'	614617.61',955071.56'
L12	N54° 38' 25"W	96.23'	614617.61',955071.56'	614539.13',955127.25'
L13	N59° 06' 14"W	418.98'	614539.13',955127.25'	614179.60',955342.39'
L14	N84° 33' 14"W	518.38'	614179.60',955342.39'	613663.56',955391.59'
L15	N88° 02' 30"W	159.18'	613663.56',955391.59'	613504.47',955397.03'

PUBLISHED TIDAL INFORMATION
 TIDAL DATUMS AT PUNTA GORDA, CHARLOTTE COUNTY ARE BASED ON FLORIDA 872 5744 TIDE STATION, PUBLISHED 10-18-2010.
 LENGTH OF SERIES = 8 MONTHS
 TIME PERIOD = 7/1977 - 2/1978
 TIDAL EPOCH = 1983 - 2001
 CONTROL TIDE STATION = 872 5110 NAPLES, GULF OF MEXICO
 ELEVATIONS OF TIDAL DATUMS ARE REFERENCED IN NAVD 1988.
 MEAN HIGH WATER (MHW) = +0.06 FT NAVD
 MEAN TIDE LEVEL (MTL) = -0.57 FT NAVD
 MEAN LOW WATER (MLW) = -1.20 FT NAVD
 MEAN LOWER LOW WATER (MLLW) = -1.65 FT NAVD



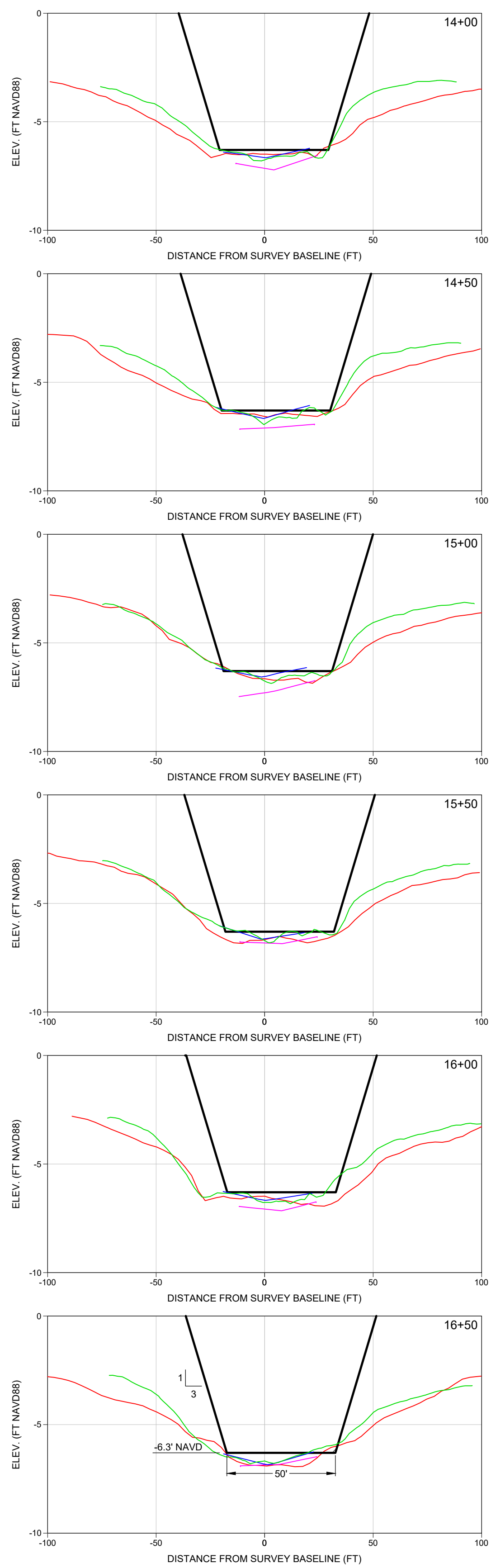
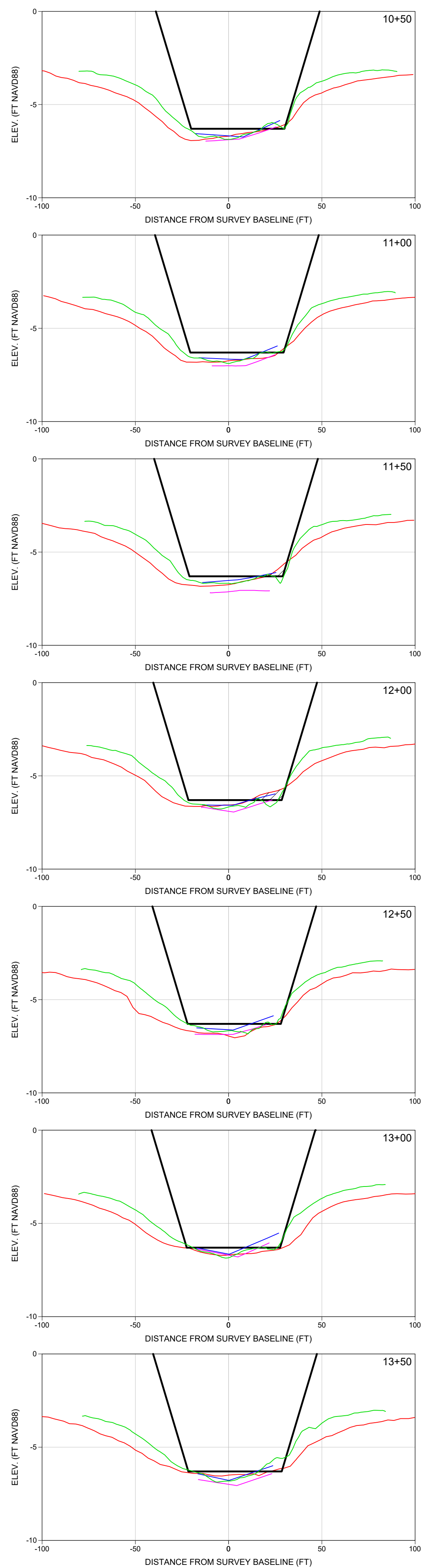
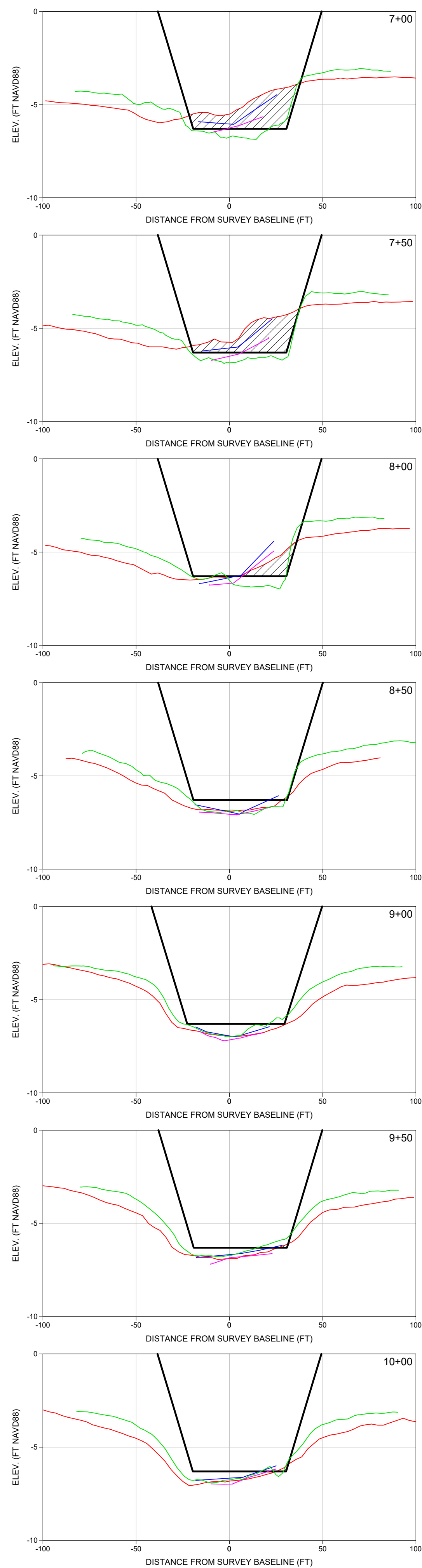
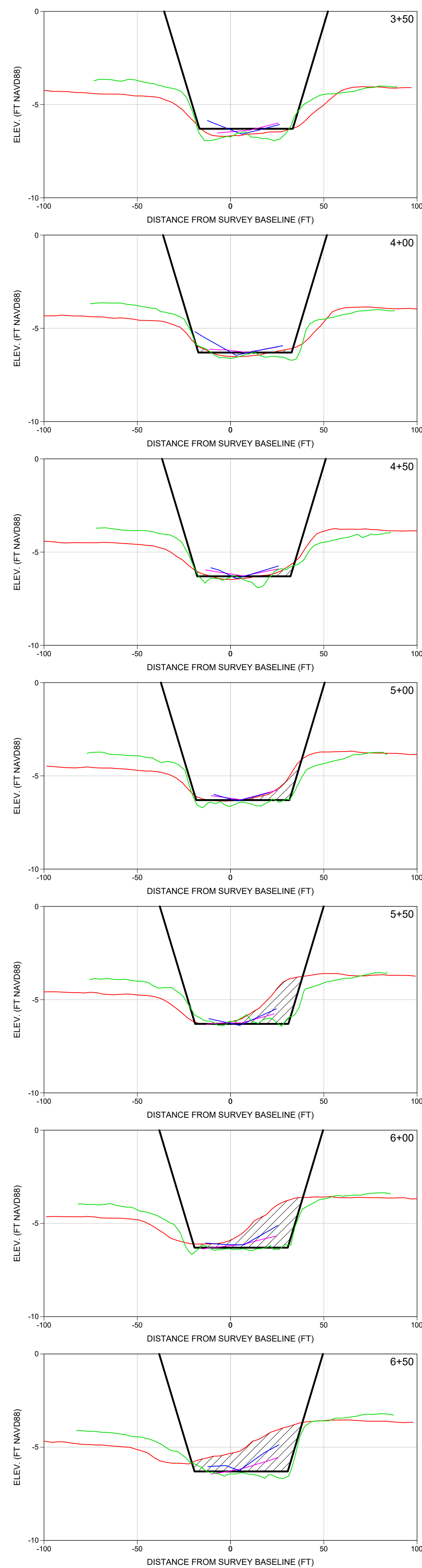
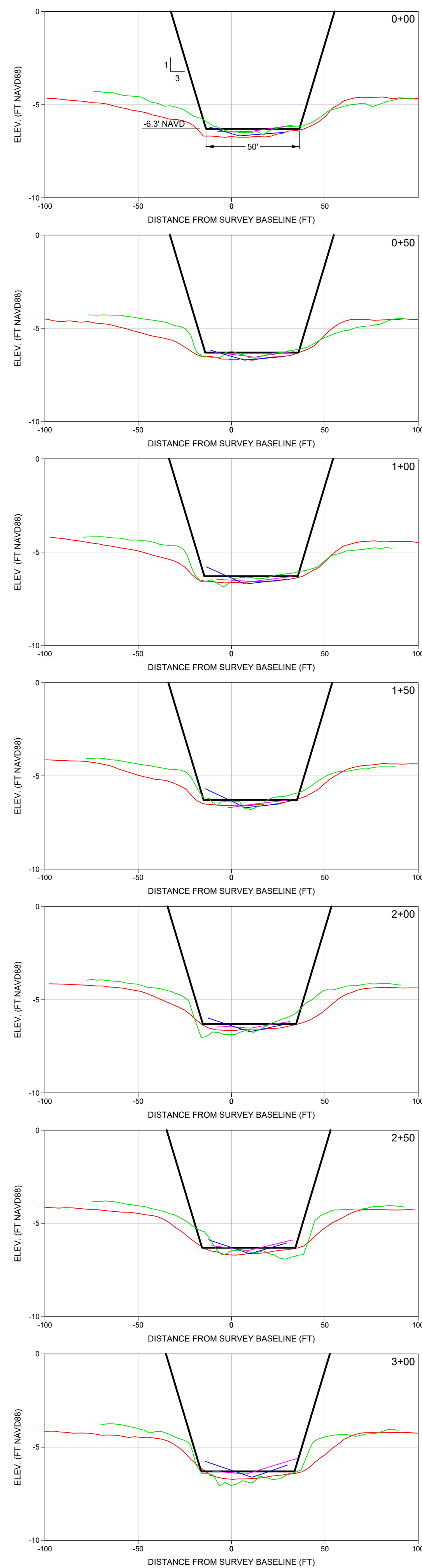
- NOTES**
- BATHYMETRIC SURVEYS COMPLETED BY HYATT SURVEY SERVICES ON 5/3/2017 AND 2/21/2019 AND OCEANSIDE SOLUTIONS ON 10/24-25/2020.
 - POST-IAN BATHYMETRIC SURVEY COMPLETED BY COASTAL ENGINEERING CONSULTANTS, INC., ON 5/3/2023.
 - CHANNEL MARKERS WERE LOCATED AS PART OF THIS SURVEY.
 - PLANE COORDINATES ARE BASED ON THE TRANSVERSE MERCATOR PROJECTION FOR THE WEST ZONE OF FLORIDA AND REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD 83).
 - ELEVATIONS SHOWN HEREON ARE IN FEET AND TENTHS AND REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD). REFERENCE BENCHMARK: U797, PID# DQ3309, N: 957241.31, E: 622505.63, ELEV. = +4.25' NAVD AND F797, PID# DQ3298, N: 955474.92, E: 613453.97, ELEV. = +10.10' NAVD.
 - TIDAL REDUCTIONS WERE OBTAINED UTILIZING REAL-TIME KINEMATIC GPS AND REFERENCED TO NAVD.
 - SURVEY ACCURACY STANDARDS, QUALITY CONTROL, AND QUALITY ASSURANCE REQUIREMENTS WERE FOLLOWED DURING THIS SURVEY IN ACCORDANCE WITH USACE EM 1110-2-1003, HYDROGRAPHIC SURVEYING MANUAL, 11/30/2013.
 - INFORMATION SHOWN HEREON REFLECTS CONDITIONS AS THEY EXISTED ON THE SURVEY DATE SHOWN AND CAN ONLY BE CONSIDERED INDICATIVE OF CONDITIONS AT THAT TIME.
 - AERIAL PHOTOGRAPHY OBTAINED FROM NOAA, DATED OCTOBER 2022.
 - DREDGE CUT OBTAINED FROM ATKINS, DRAWING NAME: Manchester_ChannelSurvey_190221_190408.DWG.

CLIENT: CHARLOTTE COUNTY
 TITLE: ACKERMAN WATERWAY BATHYMETRIC SURVEY PLAN VIEW
 COASTAL & MARINE ENGINEERING ENVIRONMENTAL & GEOLOGICAL SERVICES SURVEY AND MAPPING SURVEYING, LB 2464
 PHONE: (239)643-2324
 FAX: (239)643-1143
 www.coastal-engineering.com
 E-Mail: info@cecinc.com
 Serving Florida Since 1977
 28421 BONITA CROSSINGS BLVD
 BONITA SPRINGS, FLORIDA 34135

DATE:	7/7/2023
DRAWN:	VVA
CHECKED:	RJE
SEC:	TWP.
ACAD NO.:	23075-Ackerman.dwg
REF. NO.:	23.075
SCALE:	AS NOTED
DATE:	7/7/2023
DRAWN:	VVA
CHECKED:	RJE
SEC:	TWP.
ACAD NO.:	23075-Ackerman.dwg
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SEC:	TWP.
ACAD NO.:	23075-Ackerman.dwg
REF. NO.:	23.075

SHEET 1
 FILE NO.: 23075-ACK-1

RICHARD J. EWING, V.P.
 PROFESSIONAL SURVEYOR AND MAPPER
 FLORIDA CERTIFICATE NO. 5235
 NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER
 CEC FILE NO. 23075
 DATE OF FIELD SURVEY: 5/3/2023
 DATE OF SIGNATURE:



LEGEND

- 5/3/2017 SURVEY (HYATT)
- 2/21/2019 SURVEY (HYATT)
- 10/24-25/2020 AD SURVEY (OCEANSIDE SOLUTIONS)
- 5/3/2023 SURVEY
- DREDGE AREA

SCALE
H: 1" = 40'
V: 1" = 4'

COASTAL ENGINEERING CONSULTANTS INC.
Serving Florida Since 1977
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BONITA SPRINGS, FLORIDA 34135

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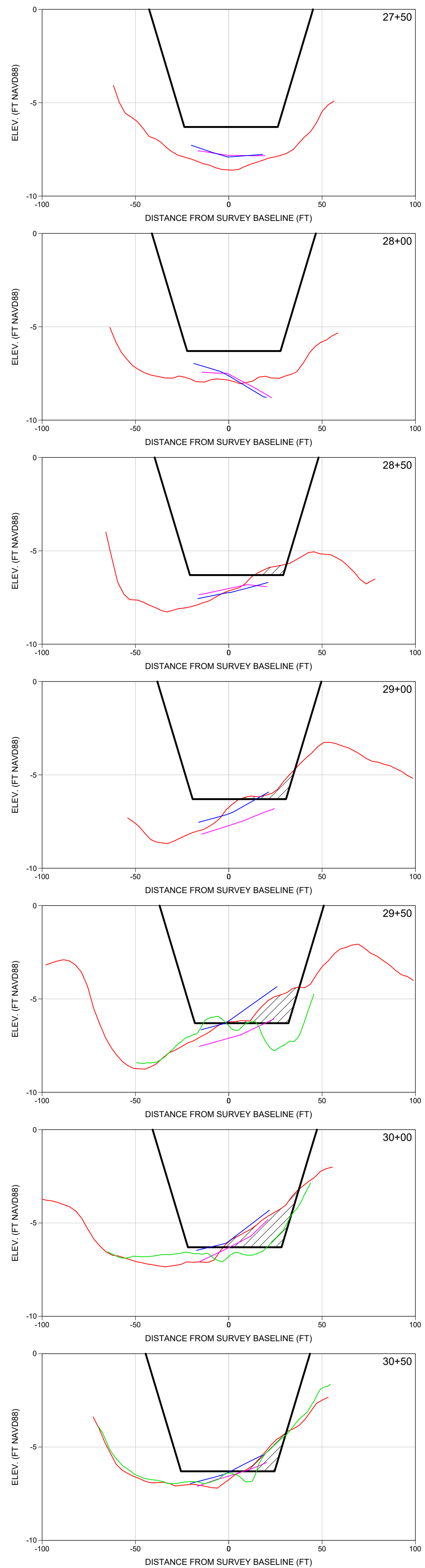
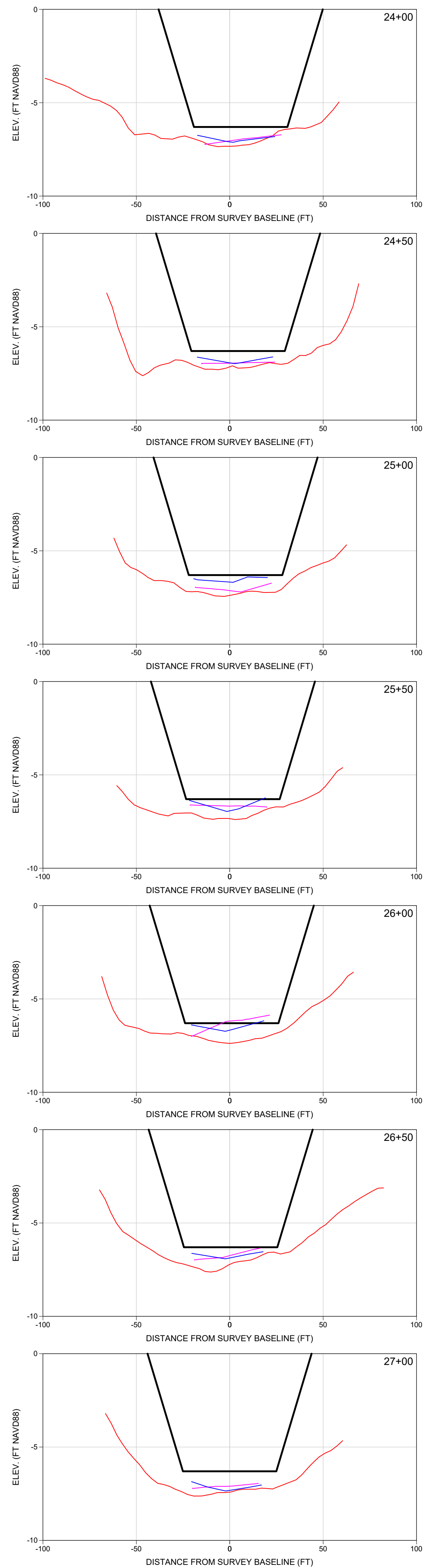
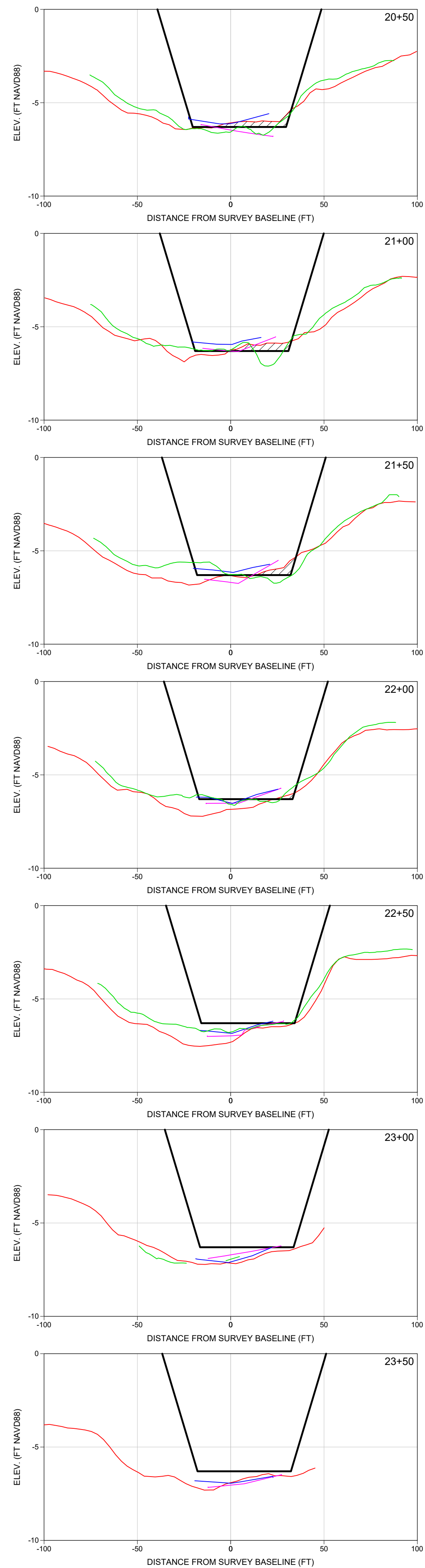
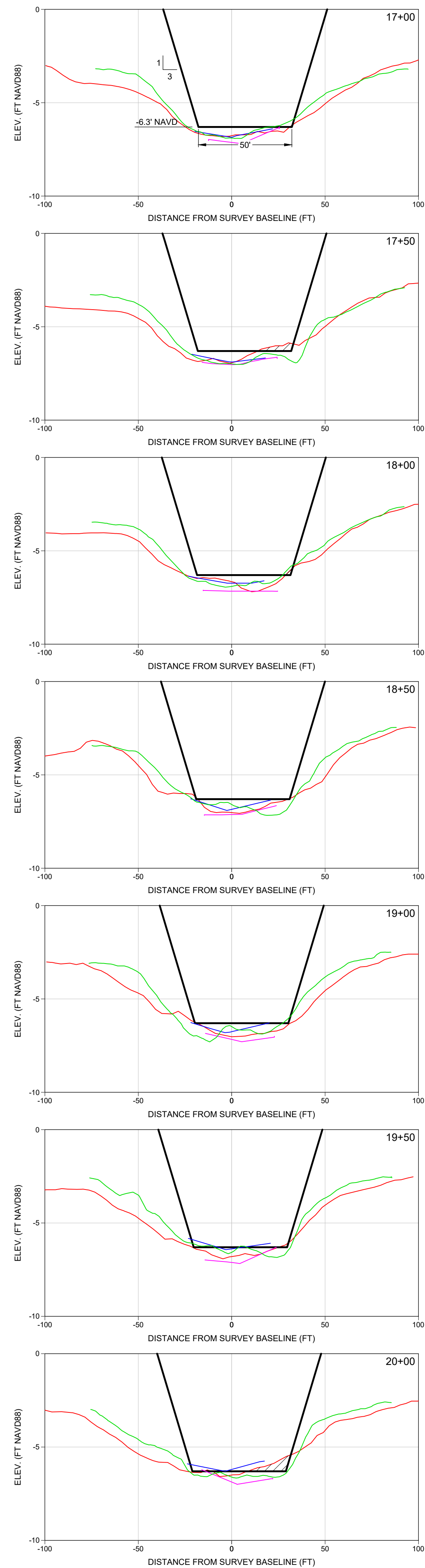
CLIENT: CHARLOTTE COUNTY
ACKERMAN WATERWAY BATHYMETRIC SURVEY CROSS SECTIONS: 0+00 TO 16+50

DATE: 7/7/2023
DRAWN: VVA/F.B.
CHECKED: RJE/JG.
SEC.: TWP./RNG.
ACAD NO.: 23075-Ackerman.dwg
REF. NO.: 23.075

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NO.	DATE	BY	REVISION DESCRIPTION

SHEET 2
FILE NO.: 23075-ACK-2



LEGEND

- 5/3/2017 SURVEY (HYATT)
- 2/21/2019 SURVEY (HYATT)
- 10/24-25/2020 AD SURVEY (OCEANSIDE SOLUTIONS)
- 5/3/2023 SURVEY
- DREDGE AREA

SCALE
H: 1" = 40'
V: 1" = 4'

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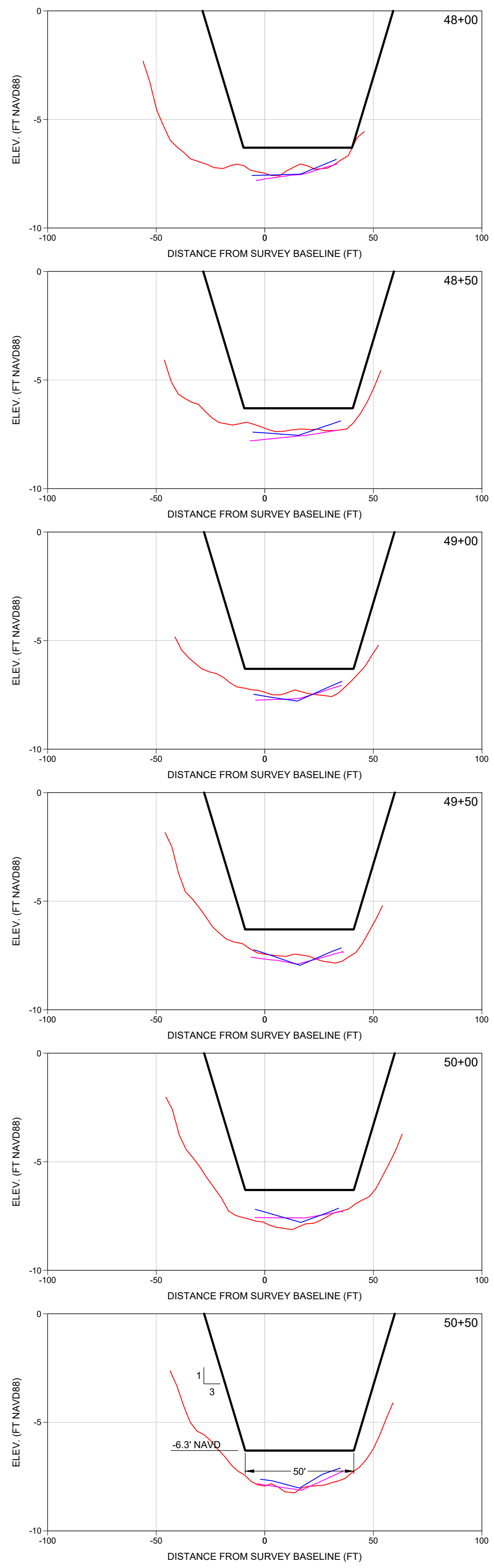
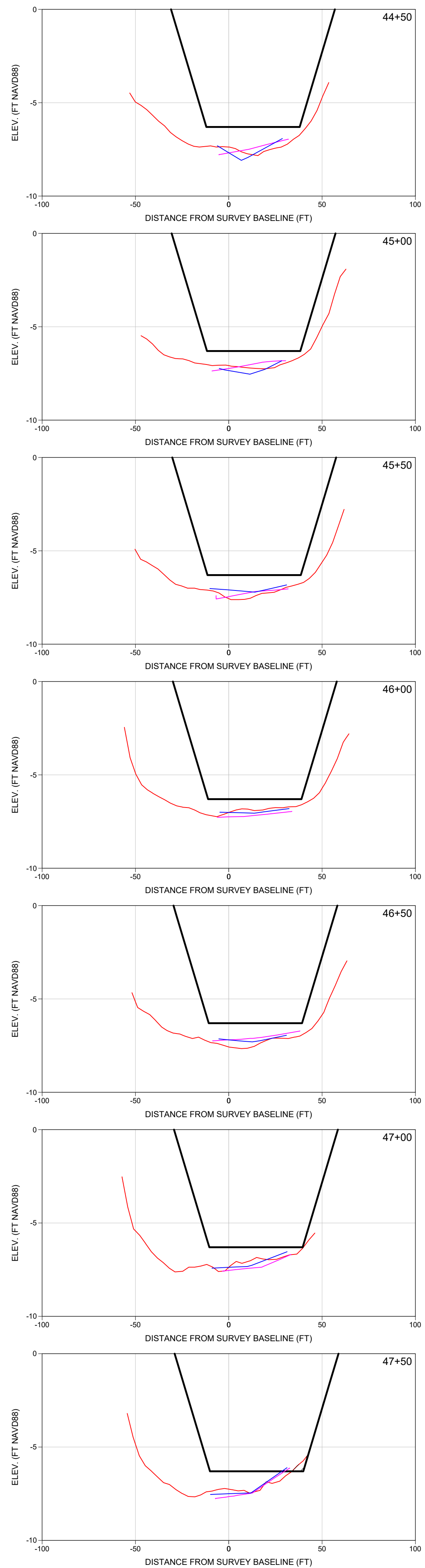
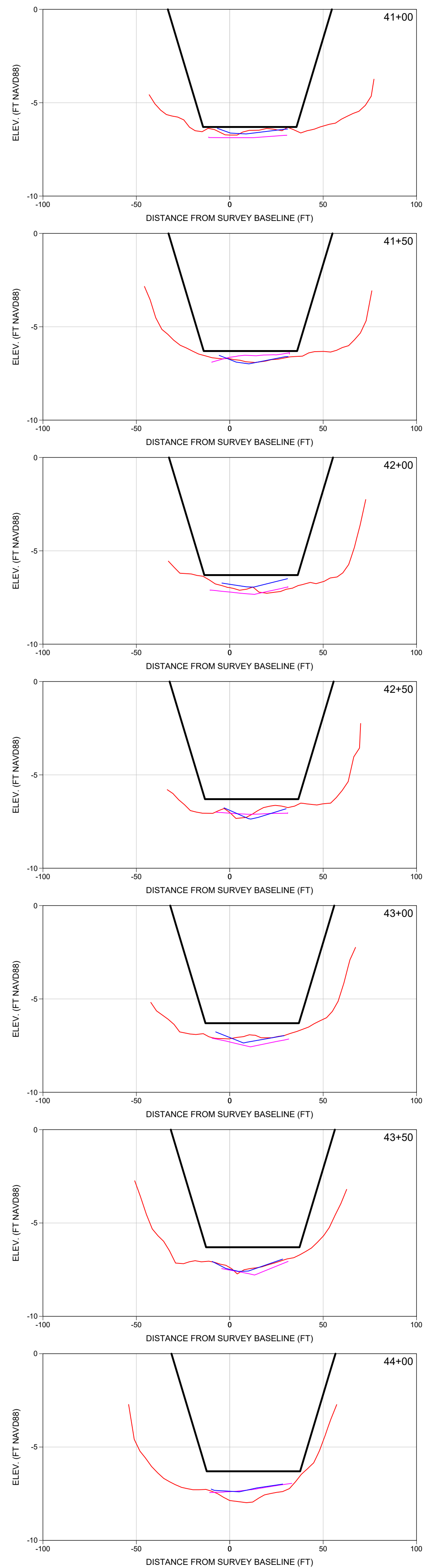
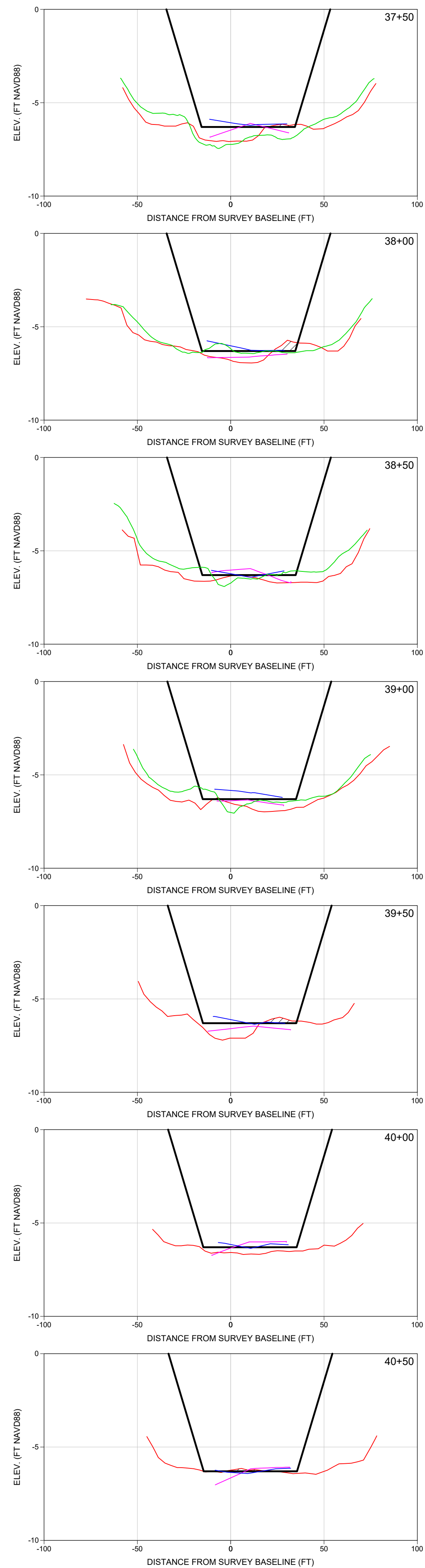
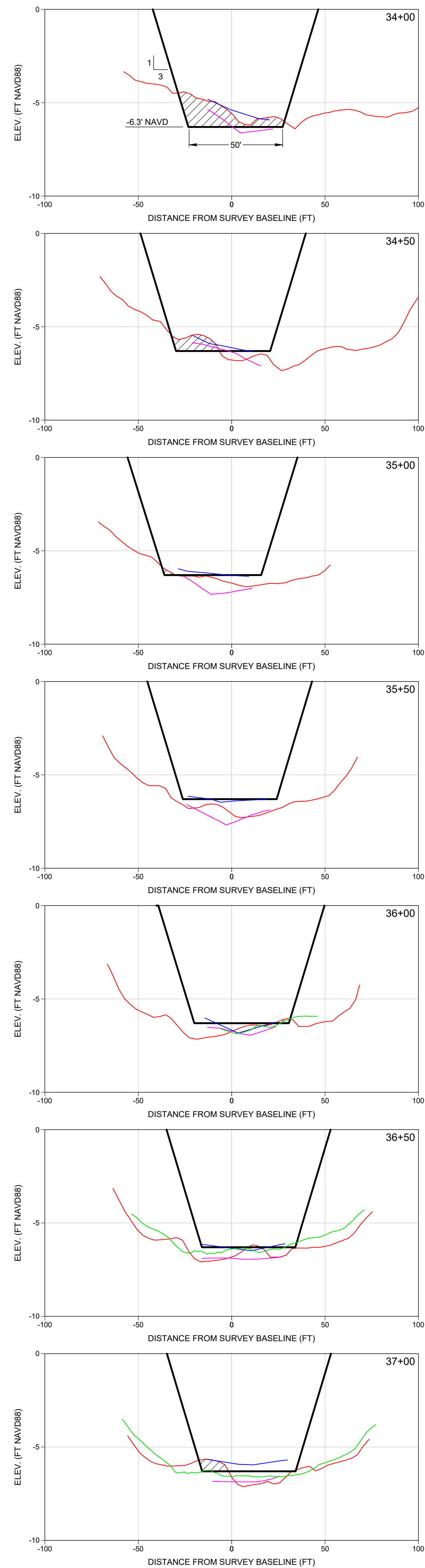
CLIENT: CHARLOTTE COUNTY
ACKERMAN WATERWAY BATHYMETRIC SURVEY
CROSS SECTIONS: 17+00 TO 33+50

DATE: 7/7/2023
DRAWN: VVA/F.B.
CHECKED: RJE/JG.
SEC.: TWP./RNG.
ACAD NO.: 23075-Ackerman.dwg
REF. NO.: 23.075

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NO.	DATE	BY	REVISION DESCRIPTION

SHEET 3
FILE NO.: 23075-ACK-3



LEGEND

- 5/3/2017 SURVEY (HYATT)
- 2/21/2019 SURVEY (HYATT)
- 10/24-25/2020 AD SURVEY (OCEANSIDE SOLUTIONS)
- 5/3/2023 SURVEY
- DREDGE AREA

SCALE
H: 1" = 40'
V: 1" = 4'

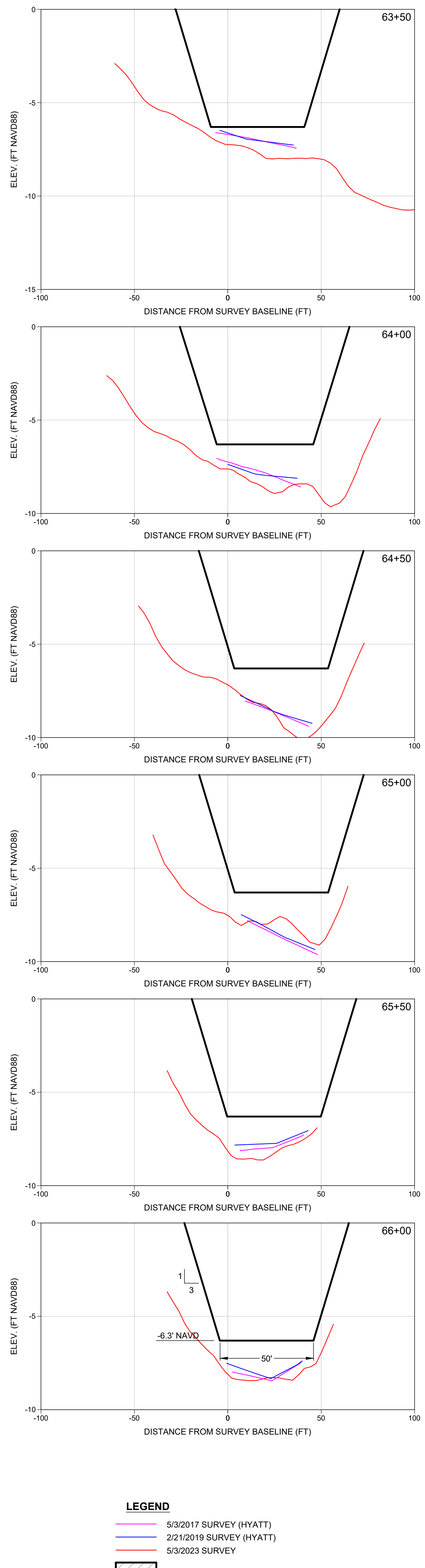
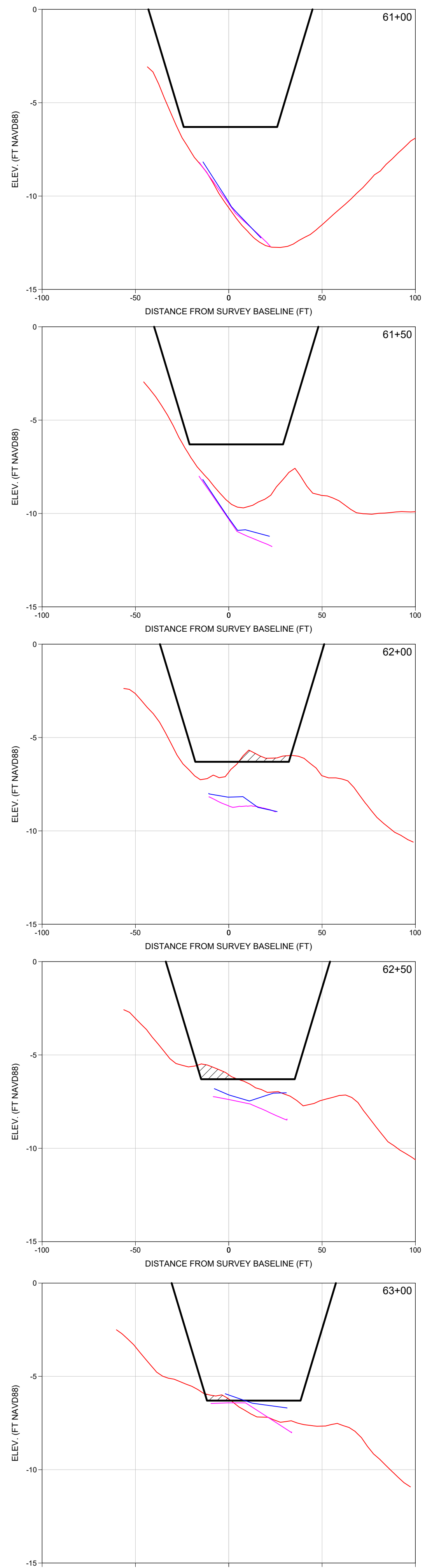
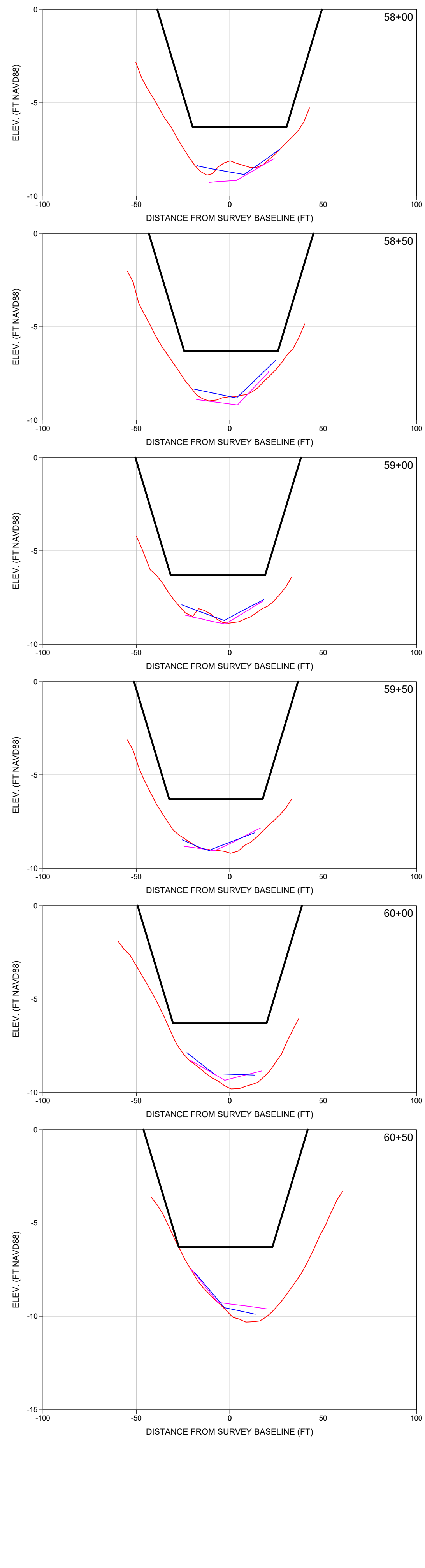
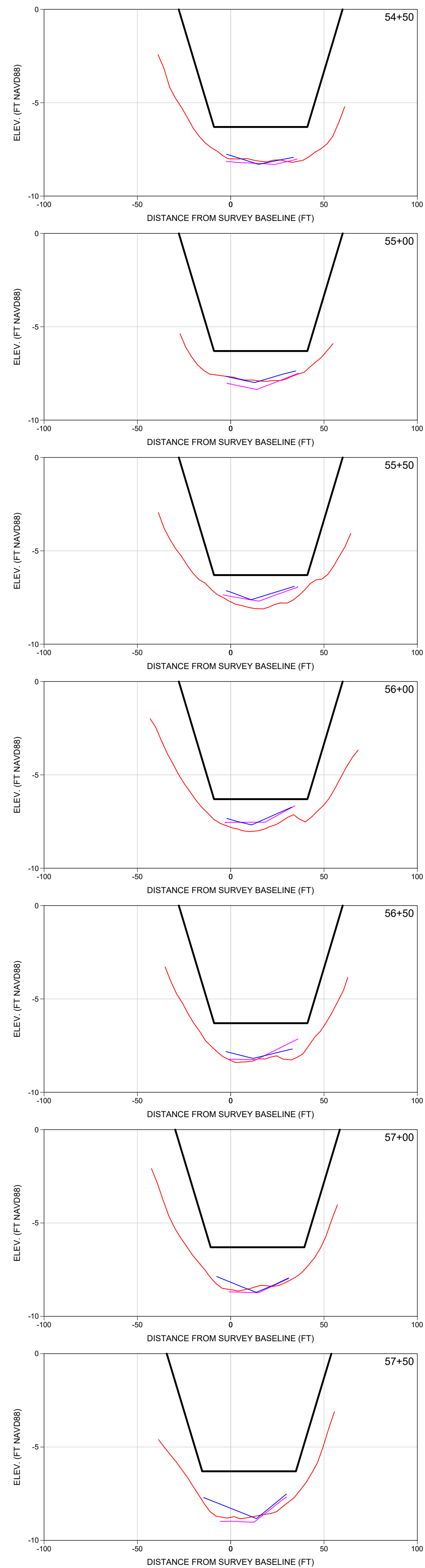
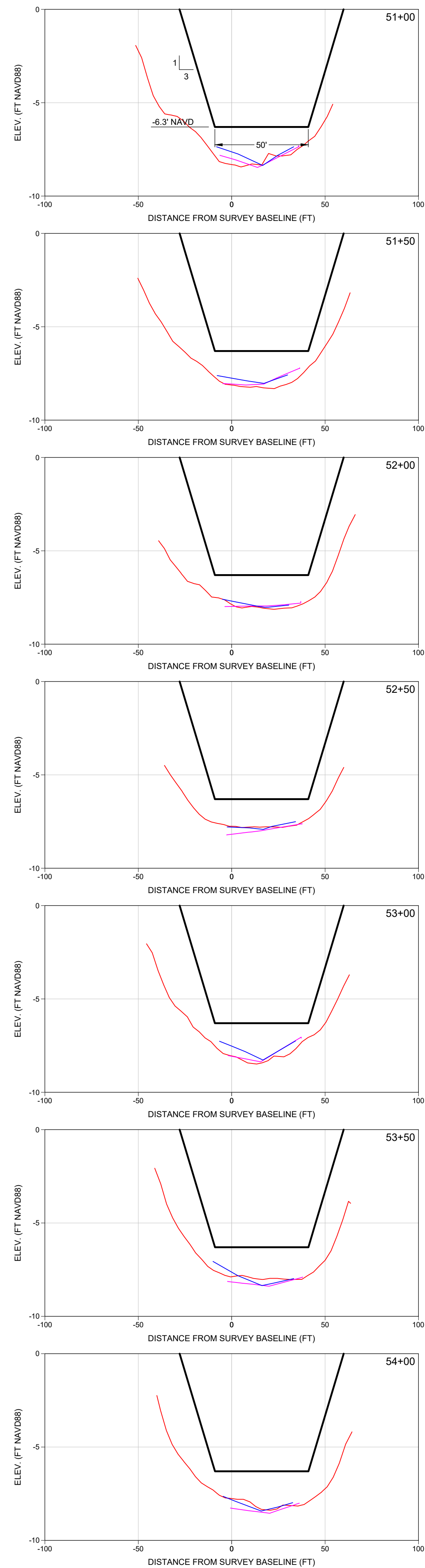
COASTAL & MARINE ENGINEERING
ENVIRONMENTAL & GEOLOGICAL SERVICES
SURVEY AND MAPPING
ENGINEERING, CA 2464
SURVEYING, LB 2464

PHONE: (239) 643-2324
FAX: (239) 643-1143
www.coastal-engineering.com
E-Mail: info@cecinc.com

CHARLOTTE COUNTY
ACKERMAN WATERWAY
BATHYMETRIC SURVEY
CROSS SECTIONS: 34+00 TO 50+50

DATE:	7/7/2023	SCALE:	AS NOTED	
DRAWN:	VVA	F.B.		
CHECKED:	RJE	P.G.		
SEC.	TWP.	RNG.		
ACAD NO.	23075-Ackerman.dwg			
REF. NO.	23 075	NO.		
BY		DATE		
REVISION DESCRIPTION				

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LEGEND
 5/3/2017 SURVEY (HYATT)
 2/21/2019 SURVEY (HYATT)
 5/3/2023 SURVEY
 DREDGE AREA

SCALE
 H: 1" = 40'
 V: 1" = 4'

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 BONITA SPRINGS, FLORIDA 34135
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 www.coastaleng.com
 E-Mail: info@cecinc.com

CLIENT: CHARLOTTE COUNTY
TITLE: ACKERMAN WATERWAY BATHYMETRIC SURVEY CROSS SECTIONS: 51+00 TO 66+00

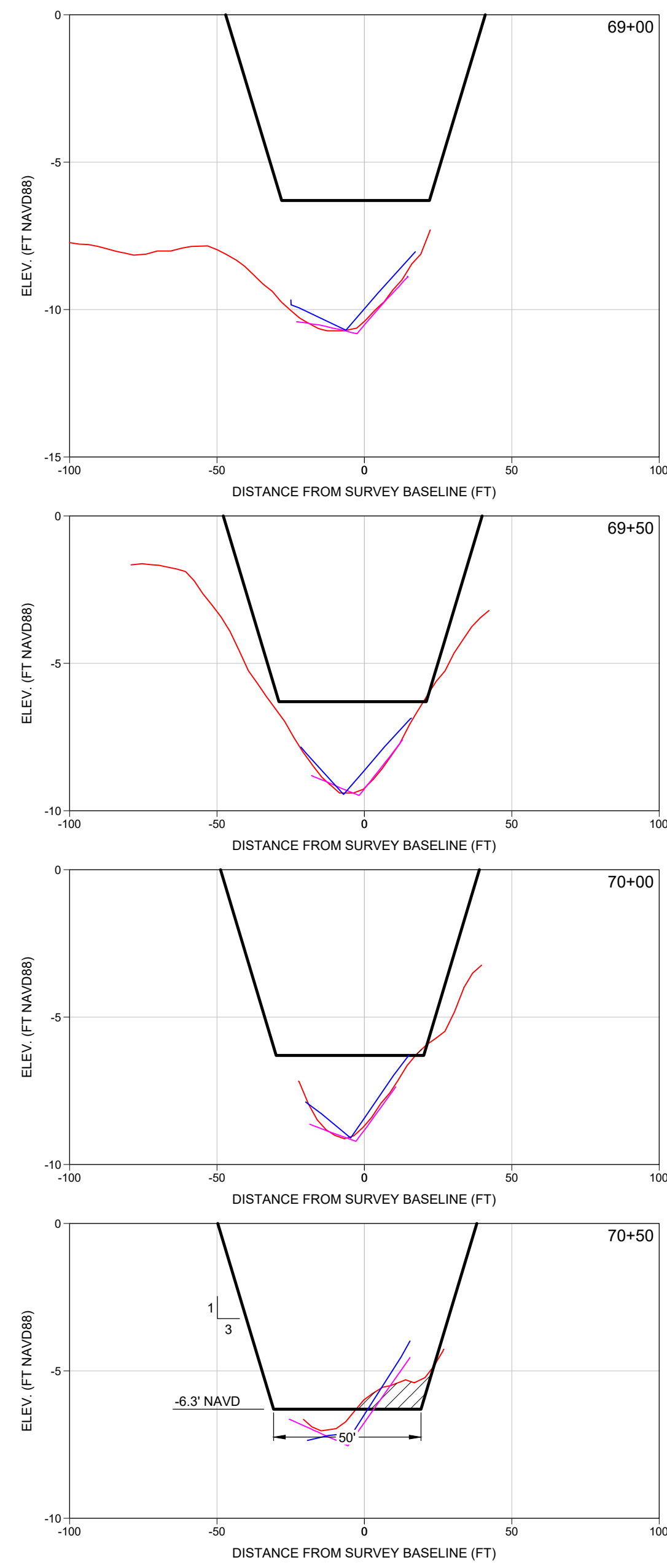
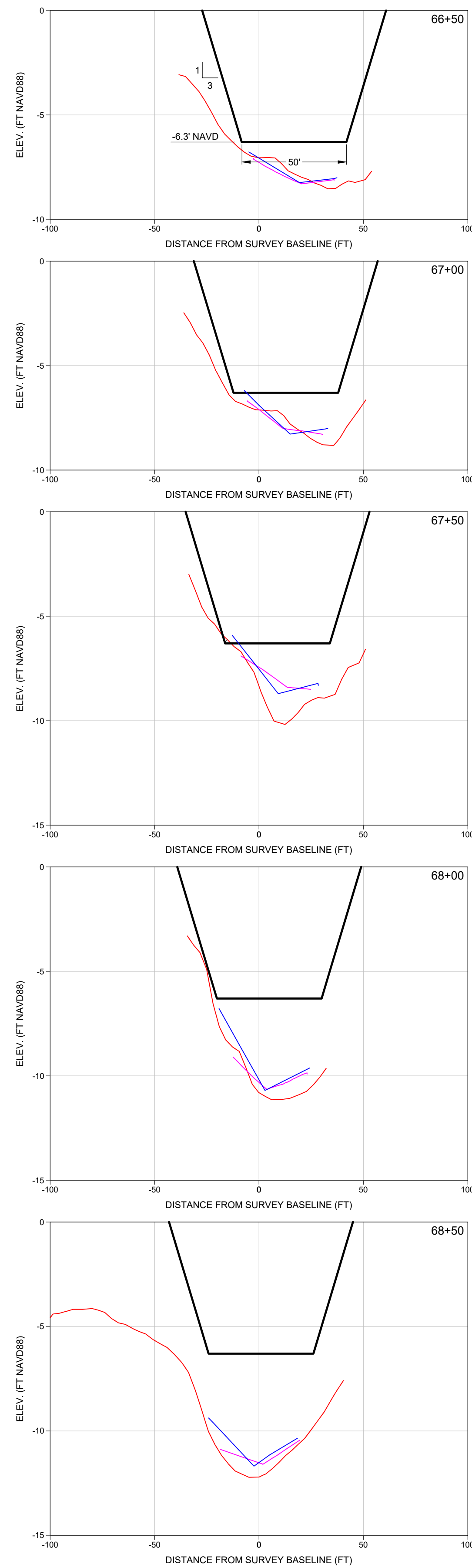
DATE: 7/7/2023
DRAWN: VVA F.B.
CHECKED: RJE JG.
SEC: TWP. RING.
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REF. NO.: 23.075

SCALE: AS NOTED

NO.	DATE	BY	REVISION DESCRIPTION

SHEET 5
 FILE NO.: 23075-ACK-5

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LEGEND

- 5/3/2017 SURVEY (HYATT)
- 2/21/2019 SURVEY (HYATT)
- 5/3/2023 SURVEY
- DREDGE AREA

SCALE
 H: 1" = 40'
 V: 1" = 4'

COASTAL ENGINEERING CONSULTANTS
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CHARLOTTE COUNTY
ACKERMAN WATERWAY
BATHYMETRIC SURVEY
CROSS SECTIONS: 66+50 TO 70+50

DATE: 7/7/2023
 DRAWN: VVA
 CHECKED: RJE
 SEC: TWP. RING.
 ACAD NO. 23075-Ackerman.dwg
 REF. NO. 23 075

CLIENT: COASTAL & MARINE ENGINEERING ENVIRONMENTAL & GEOLOGICAL SERVICES SURVEY AND MAPPING ENGINEERING, CA 2464 SURVEYING, LB 2464

SCALE: AS NOTED
 DATE: 7/7/2023
 DRAWN: VVA
 CHECKED: RJE
 SEC: TWP. RING.
 ACAD NO. 23075-Ackerman.dwg
 REF. NO. 23 075

TITLE: CHARLOTTE COUNTY ACKERMAN WATERWAY BATHYMETRIC SURVEY CROSS SECTIONS: 66+50 TO 70+50

REVISION DESCRIPTION

NO.	DATE	BY	REVISION DESCRIPTION

SHEET 6

FILE NO.: 23075-ACK-6

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