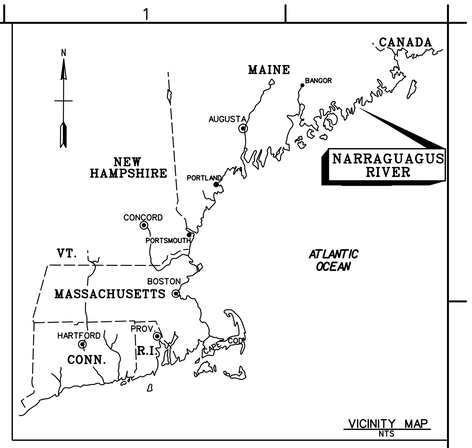
US Army Corps
of Engineers
New England District

MAINTENANCE DREDGING
9 & 6-FOOT CHANNELS
11, 9, & 6-FOOT ANCHORAGES
6-FOOT TURNING BASIN
NARRAGUAGUS RIVER

MILBRIDGE
MAINE



VICINITY MAP
NTS

SEE SPECIFICATIONS FOR DRAWING SIGNATURES

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CONCORD, MASSACHUSETTS

APPROVED FUNCTIONAL ADEQUACY
ROBERT MEADER /s/
TECHNICAL LEAD ENGINEER DATE:
REVIEWED BY:
ANTHONY T. MACKOS /s/
CHIEF, DESIGN BRANCH DATE:

RECOMMENDED BY:
DEPUTY CHIEF, E/P DIV DATE:
APPROVED BY:
H. FARRELL MCMILLAN /s/ 9/30/2005
CHIEF, ENGRG/PLANNING DIV DATE:

This project was designed by the New England District of the U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appearing on these project documents, within the scope of their employment are required by 28 USC 1733.

MAINTENANCE DREDGING
9 & 6-FOOT CHANNELS
11, 9, & 6-FOOT ANCHORAGES
6-FOOT TURNING BASIN
NARRAGUAGUS RIVER
MILBRIDGE, MAINE
COVER SHEET

Reference number:
G-1
Sheet 1 of 8

VALUE ENGINEERING PAYS DIVIDENDS

SAFETY PAYS

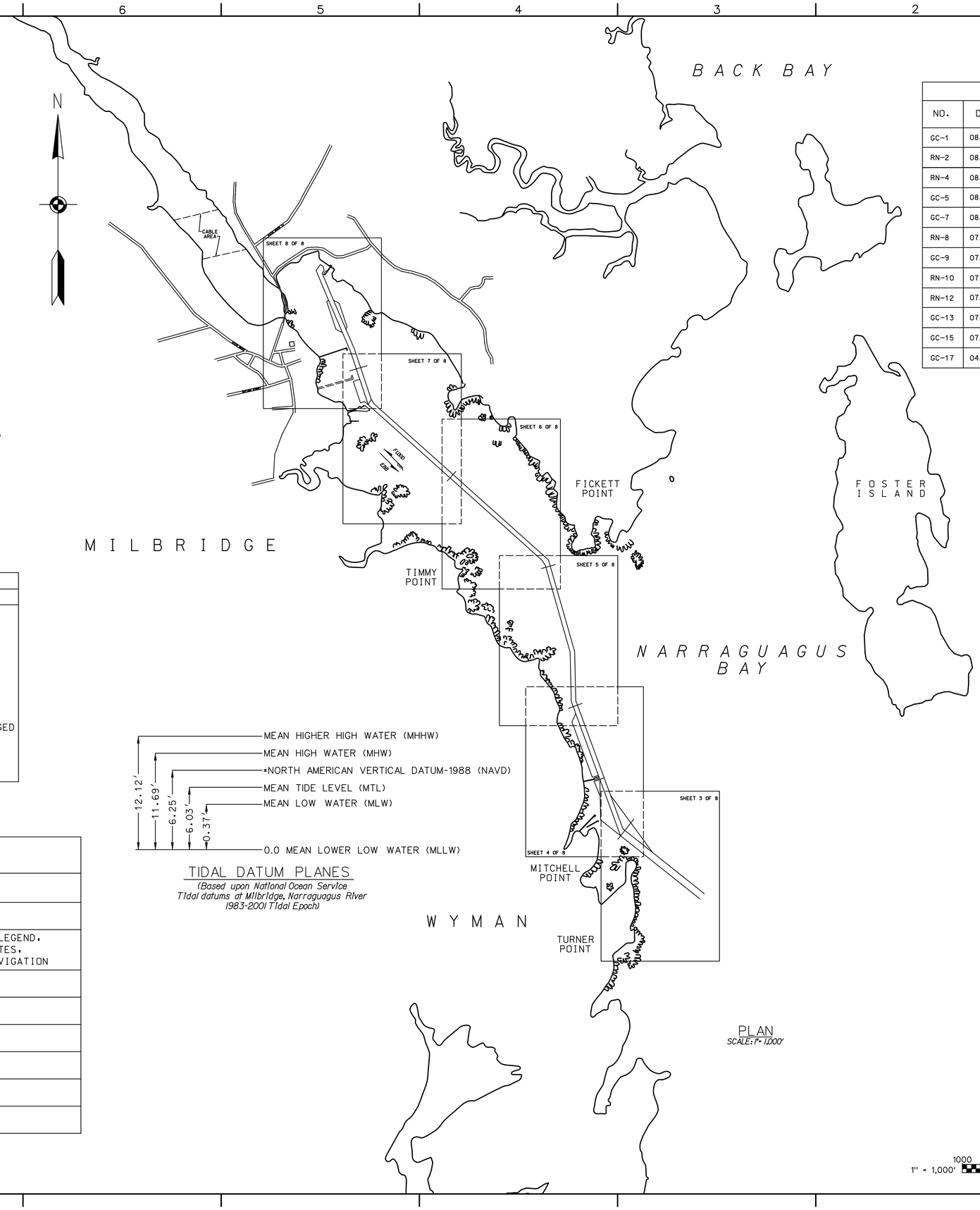
SOLICITATION # W912WJ-06-B-0002

GENERAL NOTES:

1. Soundings are in feet and tenths and refer to the plane of Mean Lower Low Water (MLLW).
2. Topography shown is from previous surveys and/or NOAA Chart No. 13324. All topography, including shoreline, bridges, piers, etc., is located approximate unless otherwise noted. Topography should be used as a general reference only.
3. Bench Mark Data for Sheets 3-5: BM 3 (1948) is a standard USC&GS disk stamped "NO 3 1948", set in rock ledge, 9.5' from the peak of the nearest boulder, approximately 10 feet in an offshore direction from base of bluff and approximately 210 feet south of BM 2 (1948) and about 250 yards north of the town fish pier on the west bank of the Narraguagus River. Elevation is 14.54 feet above MLLW. 1983-2001 Tidal Epoch
4. Bench Mark Data for Sheets 5-8: BM 2581 A (1999) is a standard NOS disk stamped "2581 A 1999", set in the concrete flag pole base at the public boat access, 184 feet (56 m) south southeast of the entrance to the public pier, 93.5 feet (28.50 m) southwest of the southeast corner of the dirt parking area, and 1.0 feet (0.30 m) northwest of the center of the flag pole. Elevation is 16.39 feet above MLLW. 1983-2001 Tidal Epoch
5. Coordinates shown are based on the Transverse Mercator Grid System for the State of Maine East Zone & NAD 1983.
6. The sounding information shown on these maps represents the SHOALEST soundings of those obtained from hydrographic surveys conducted during July and August 2005.
7. The sounding information depicted on these maps should NOT be used to determine volumes. Volumes are determined from more sounding information than shown. Additional sounding information is available upon request.
8. The information depicted on these maps represents the results of surveys made on the dates indicated, and can only be considered as indicating the general conditions existing at that time.
9. Stationing and channel centerline used as an approximate reference along the channel.
10. Considerable ledge and rocks exist adjacent to the Narraguagus River authorized project.
11. Field Book: R&H 4245
Depthsounder Rolls: 05-784/01-06

LEGEND	
EXISTING	DESCRIPTION
	REQUIRED DREDGING DEPTH CONTOUR
	DREDGING AREA LIMITS
	MATERIAL REQUIRED TO BE DREDGED (CROSS-SECTION ONLY)
	ALLOWABLE OVERDEPTH (CROSS-SECTION ONLY)
	REQUIRED MATERIAL TO BE DREDGED
	NAVIGATION AIDS
	CHANNEL COORDINATE LEADER

INDEX TO DRAWINGS			
SHEET NO.		DESIGN FILE	TITLE
1	G-1	NARGBS.DGN	COVER SHEET
2	C-1	NARV101.S01	KEY PLAN, INDEX TO DRAWINGS, LEGEND, TIDAL DATUM, CHANNEL COORDINATES, GENERAL NOTES, AND AIDS TO NAVIGATION
3	C-2	NARV102.S02	SITE PLAN STA. 0+00 TO 22+38
4	C-3	NARV103.S03	SITE PLAN AND SECTION A-A STA. 22+38 TO 52+34
5	C-4	NARV104.S04	SITE PLAN STA. 52+34 TO 83+84
6	C-5	NARV105.S05	SITE PLAN STA. 83+84 TO 113+13
7	C-6	NARV106.S06	SITE PLAN STA. 113+13 TO 145+34
8	C-7	NARV107.S07	SITE PLAN AND SECTION B-B STA. 145+34 TO 167+75



TIDAL DATUM PLANES
(Based upon National Ocean Service Tidal datums at Milbridge, Narraguagus River 1983-2001 Tidal Epoch)

PLAN
SCALE: 1" = 1,000'

GRAPHIC SCALE:
1000 0 1000 2000
1" = 1,000'

INDEX OF NAVIGATION AIDS			
NO.	DATE	STATE PLANE COORDINATES	GEOGRAPHIC POSITION
GC-1	08/03/05	N 306563.77 E 1154572.47	44° - 30' - 21.0"N 67° - 50' - 49.6"W
RN-2	08/03/05	N 308074.53 E 1152952.04	44° - 30' - 36.0"N 67° - 51' - 11.8"W
RN-4	08/03/05	N 310833.64 E 1151913.26	44° - 31' - 03.4"N 67° - 51' - 25.8"W
GC-5	08/03/05	N 312038.45 E 1151757.92	44° - 31' - 15.3"N 67° - 51' - 27.8"W
GC-7	08/03/05	N 313874.97 E 1151203.59	44° - 31' - 33.5"N 67° - 51' - 35.3"W
RN-8	07/26/05	N 314880.92 E 1150347.12	44° - 31' - 43.5"N 67° - 51' - 47.0"W
GC-9	07/26/05	N 315748.18 E 1149220.56	44° - 31' - 52.1"N 67° - 52' - 02.4"W
RN-10	07/26/05	N 316293.01 E 1148747.76	44° - 31' - 57.5"N 67° - 52' - 08.9"W
RN-12	07/26/05	N 317140.95 E 1147766.38	44° - 32' - 06.0"N 67° - 52' - 22.4"W
GC-13	07/26/05	N 317497.66 E 1147310.39	44° - 32' - 09.5"N 67° - 52' - 28.6"W
GC-15	07/26/05	N 318687.11 E 1146856.11	44° - 32' - 21.3"N 67° - 52' - 34.8"W
GC-17	04/03/03	N 319830.43 E 1146419.52	44° - 32' - 32.6"N 67° - 52' - 40.7"W

NARRAGUAGUS RIVER - MILBRIDGE, MAINE
6-FT, 9-FT, AND 11-FT CHANNELS
6-FT, 9-FT, AND 11-FT ANCHORAGES
6-FOOT TURNING BASIN
STATE PLANE (EAST ZONE) NAD 1983

#	EASTING	NORTHING
1	1154598.13	306557.10
2	1152846.85	307950.02
3	1151759.72	310910.04
4	1151734.76	311995.55
5	1151190.06	313902.65
6	1151113.56	314024.76
7	1147284.54	317449.06
8	1146886.57	318642.90
9	1146398.89	319776.88
10	1146136.04	320408.73
11	1146229.13	320539.43
12	1146298.36	320490.11
13	1146309.52	320402.36
14	1146270.05	320346.94
15	1146490.79	319816.33
16	1146980.10	318678.53
17	1147350.45	317567.55
18	1147419.46	317462.56
19	1151257.68	314030.03
20	1151834.43	312010.70
21	1151859.31	310928.94
22	1152897.91	308101.08
23	1154691.50	306674.50
24	1152626.31	308840.58
25	1153555.20	307578.28
26	1152406.76	308300.06
27	1152389.98	309193.98
28	1152396.96	308822.36
29	1152260.94	309153.09
30	1152366.42	309176.96
31	1152345.26	309273.80
32	1152223.04	309242.44
33	1151775.36	310461.40
34	1151858.50	310641.08
35	1147205.92	317519.37
36	1147113.29	317488.48
37	1146955.17	317962.82
38	1147097.46	318010.26
39	1146716.31	319038.78
40	1146572.52	319110.68
41	1146366.96	319727.33
42	1146413.52	319742.85
43	1146519.33	319749.96
44	1146643.66	319687.80
45	1146817.59	319166.02
46	1146792.25	319115.34
47	1152483.85	309228.45

US Army Corps of Engineers
New England District

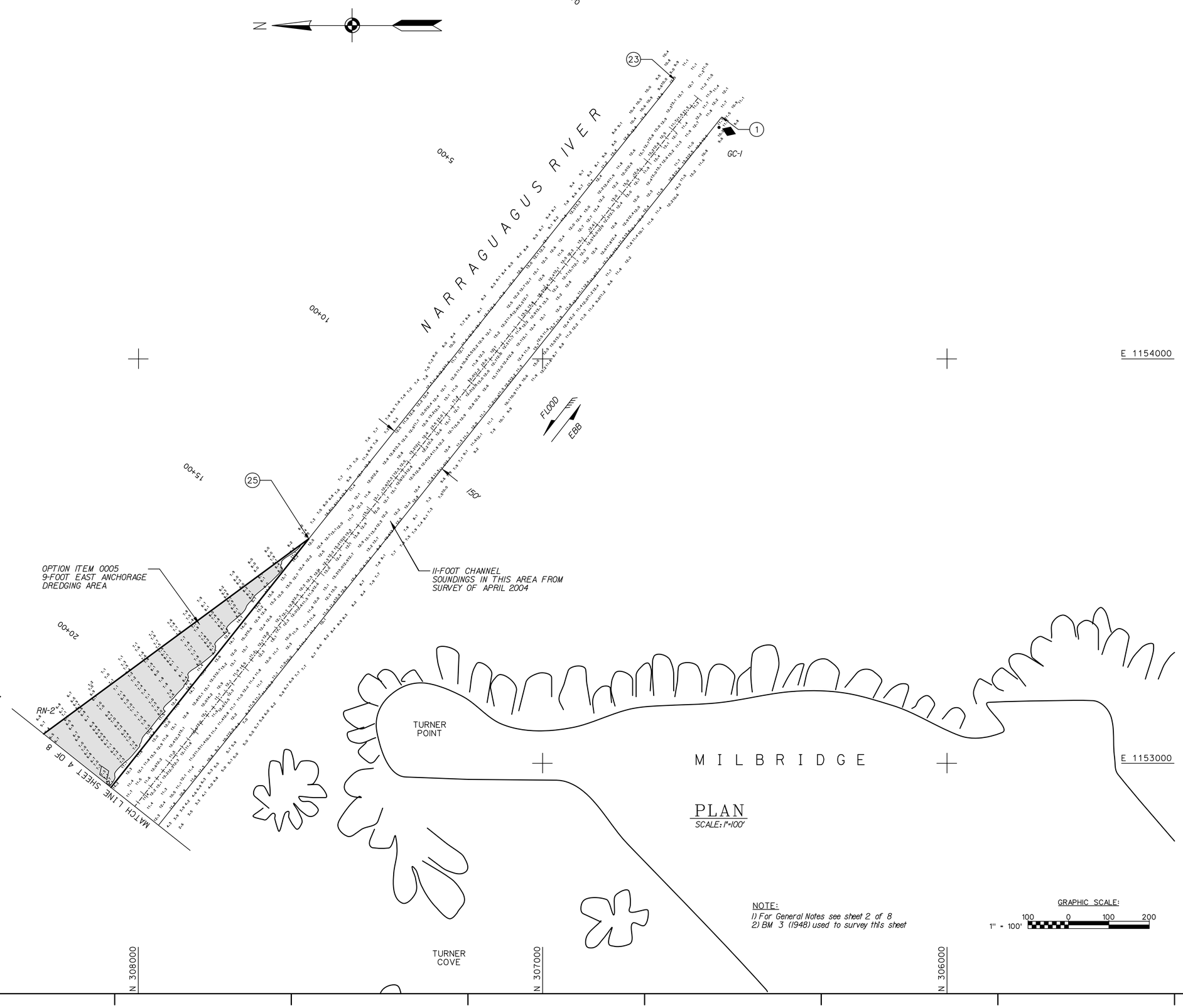
Symbol	Description	Date	Appr.	Symbol	Description	Date	Appr.

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CONCORD, MASSACHUSETTS

Surveyed By: R. MacGovern, Hydrographic Crew
Plotted By: V.J. Garabedian
MAUREEN T. MURRAY /s/ Asst. Chief, Survey Section
STEPHEN JOHNSTON /s/ Chief, Survey Section
Date: 10/03/05
Design file:
Drawing code: 2614
File name: NARV101.S01
Plot date: 10/03/2005
Plot scale: 1=10000

MAINTENANCE DREDGING
9 & 6-FOOT CHANNELS
11, 9, & 6-FOOT ANCHORAGES
6-FOOT TURNING BASIN
NARRAGUAGUS RIVER
MILBRIDGE, MAINE
KEY PLAN, INDEX TO DRAWINGS, LEGEND, TIDAL DATUM, CHANNEL COORDINATES, GENERAL NOTES, AND AIDS TO NAVIGATION

Reference number:
C-1
Sheet 2 of 8



PLAN
SCALE: 1"=100'

NOTE:
1) For General Notes see sheet 2 of 8
2) BM 3 (1948) used to survey this sheet

GRAPHIC SCALE:
1" = 100'
100 0 100 200

US Army Corps of Engineers
New England District

Symbol	Description	Date	Appr.	Symbol	Description	Date	Appr.

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CONCORD, MASSACHUSETTS

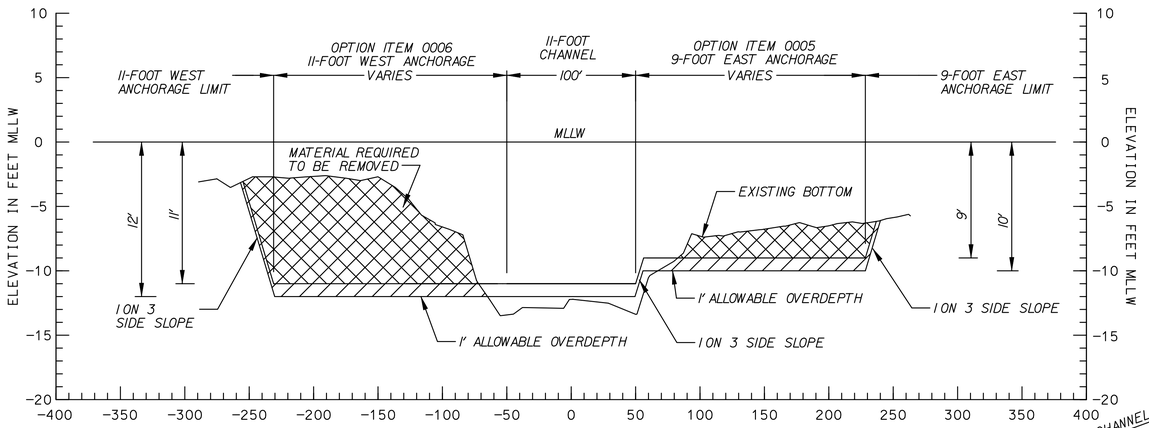
Surveyed By: R. MacGovern, Hydrographic Crew
Plotted By: V.J. Garabedian
MAUREEN T. MURRAY /s/ Asst. Chief, Survey Section
STEPHEN JOHNSTON /s/ Chief, Survey Section

Date: 10/03/05
Design file:
Drawing code: 2614
File name: NARV02.S02
Plot date: 10/03/2005
Plot scale: 1"=100'
Rev.

MAINTENANCE DREDGING
9 & 6-FOOT CHANNELS
11, 9, & 6-FOOT ANCHORAGES
6-FOOT TURNING BASIN
NARRAGUAGUS RIVER
MILBRIDGE, MAINE

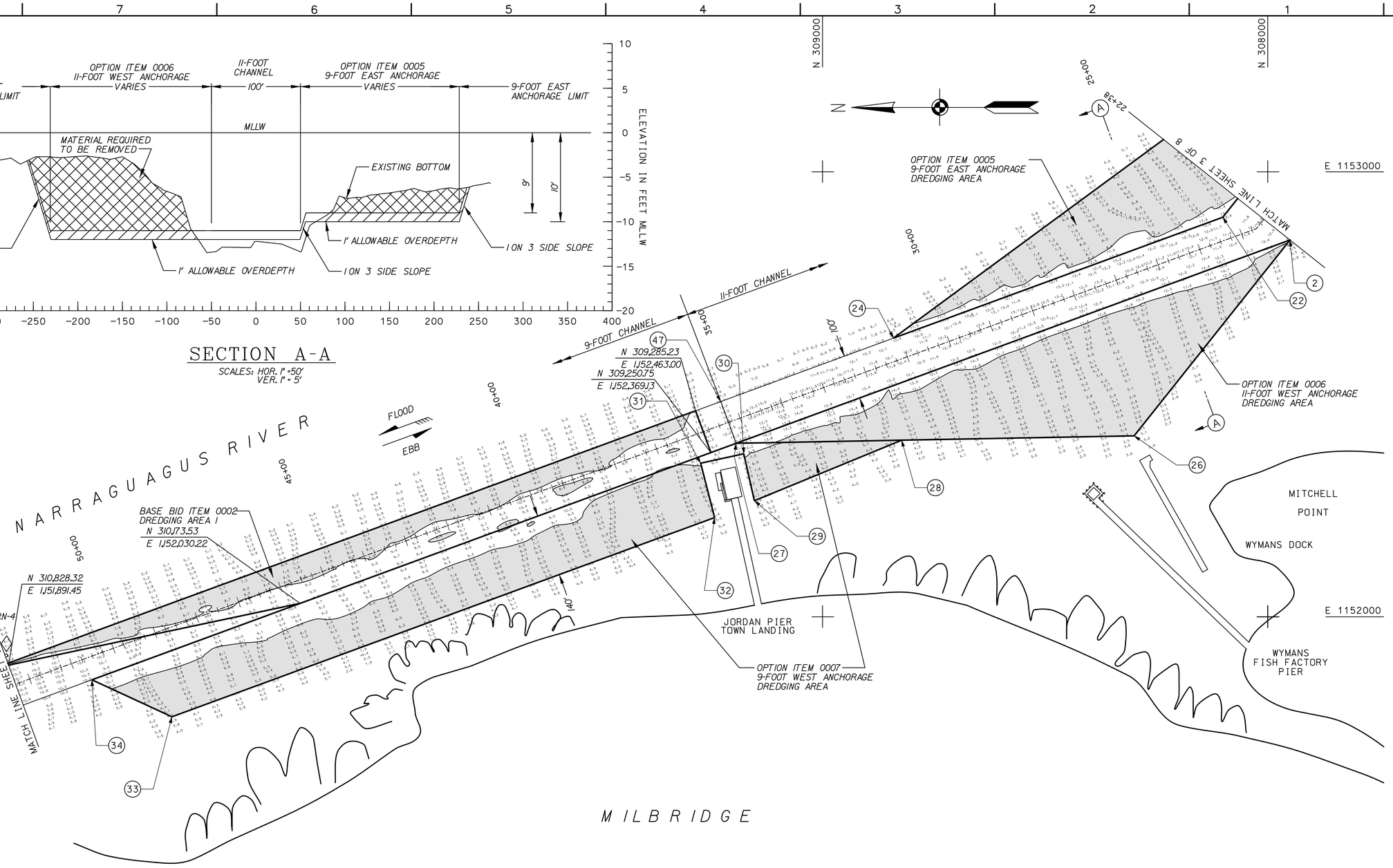
SITE PLAN
STA. 0+00 TO 22+38

Reference number:
C-2
Sheet 3 of 8



SECTION A-A

SCALES: HOR. 1" =50'
VER. 1" = 5'



PLAN

SCALE: 1"=100'

NOTE:
1) For General Notes see sheet 2 of 8
2) BM 3 (1948) used to survey this sheet

GRAPHIC SCALES:
1" = 5' (5 0 5 10)
1" = 50' (50 0 50 100)
1" = 100' (100 0 100 200)

US Army Corps of Engineers
New England District

Symbol	Description	Date	Appr.	Symbol	Description	Date	Appr.

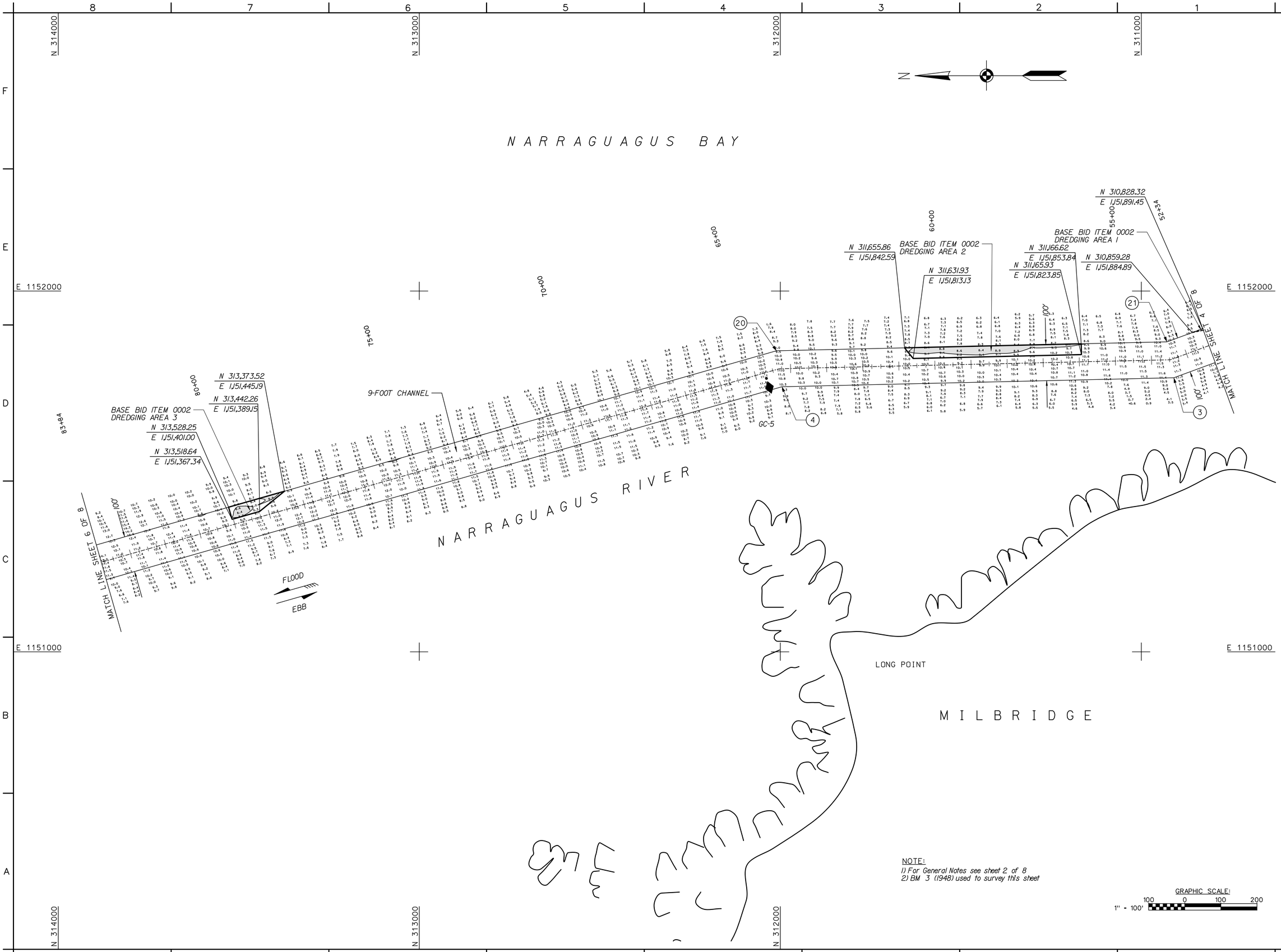
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CONCORD, MASSACHUSETTS

Surveyed By: R. MacGovern, Hydrographic Crew
Plotted By: V.J. Garabedian
MAUREEN T. MURRAY /s/ Asst. Chief, Survey Section
STEPHEN JOHNSTON /s/ Chief, Survey Section
Date: 10/03/05
Design file:
Drawing code: 2614
File name: NAN103.503
Plot date: 10/03/2005
Plot scale: 1"=100'
Rev.

MAINTENANCE DREDGING
9 & 6-FOOT CHANNELS
11, 9, & 6-FOOT ANCHORAGES
6-FOOT TURNING BASIN
NARRAGUAGUS RIVER
MILBRIDGE, MAINE

SITE PLAN AND SECTION A-A
STA. 22+38 TO 52+34

Reference number:
C-3
Sheet 4 of 8



US Army Corps of Engineers
New England District

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U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CONCORD, MASSACHUSETTS

Surveyed By: R. MacGovern, Hydrographic Crew
Plotted By: V.J. Garabedian
MAUREEN T. MURRAY /s/ Asst. Chief, Survey Section
STEPHEN JOHNSTON /s/ Chief, Survey Section

Date: 10/03/05
Design file:
Drawing code: 2614
File name: NARV104.504
Plot date: 10/03/2005
Plot scale: 1"=100'

Rev.

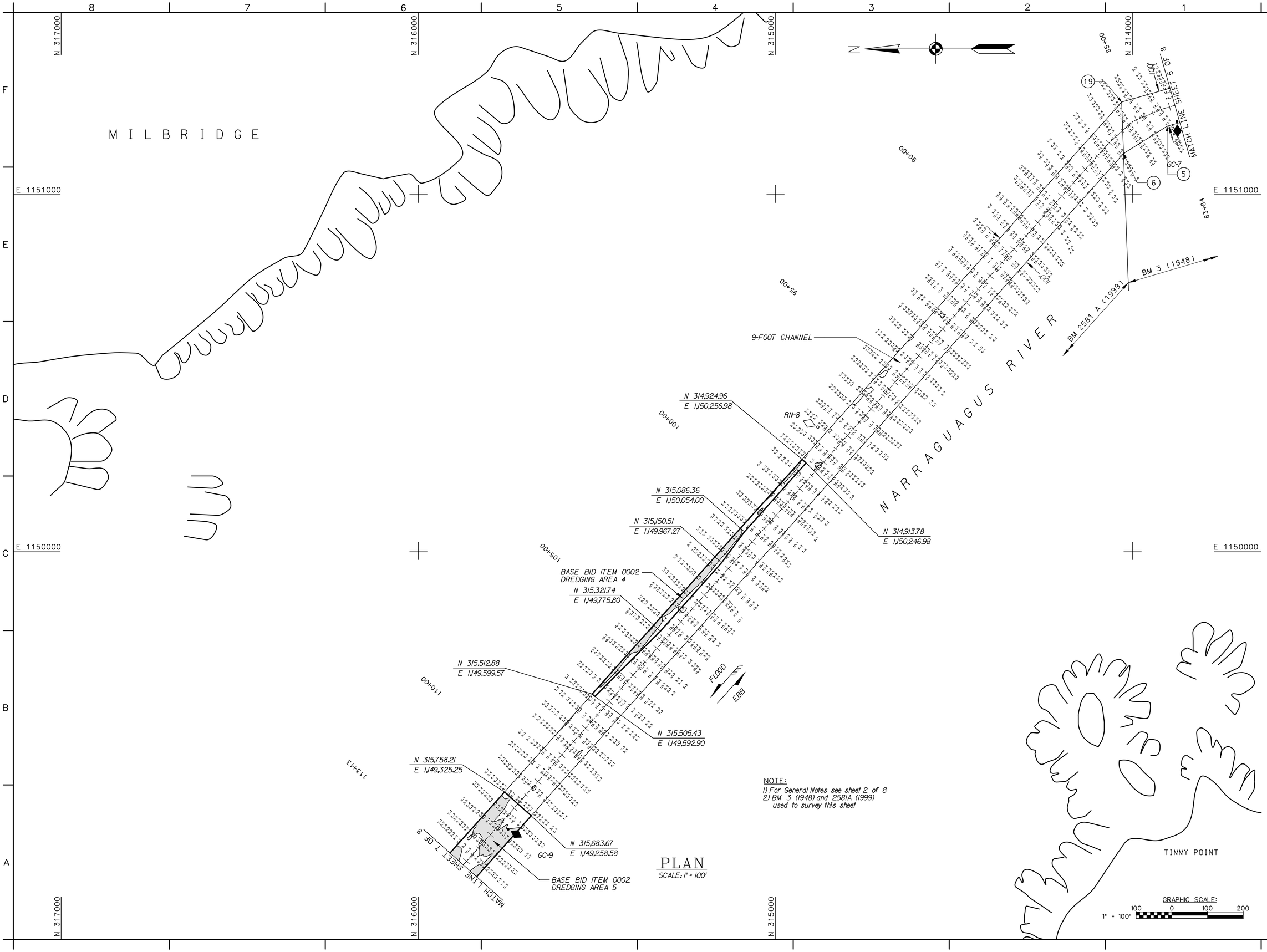
MAINTENANCE DREDGING
9 & 6-FOOT CHANNELS
11, 9, & 6-FOOT ANCHORAGES
6-FOOT TURNING BASIN
NARRAGUAGUS RIVER
MILBRIDGE, MAINE

SITE PLAN
STA. 52+34 TO 83+84

NOTE:
1) For General Notes see sheet 2 of 8
2) BM 3 (1948) used to survey this sheet

GRAPHIC SCALE:
1" = 100'
100 0 100 200

Reference number:
C-4
Sheet 5 of 8



NOTE:
1) For General Notes see sheet 2 of 8
2) BM 3 (1948) and 2581A (1999) used to survey this sheet

PLAN
SCALE: 1" = 100'

US Army Corps of Engineers
New England District

Symbol	Description	Date	Appr.	Symbol	Description	Date	Appr.

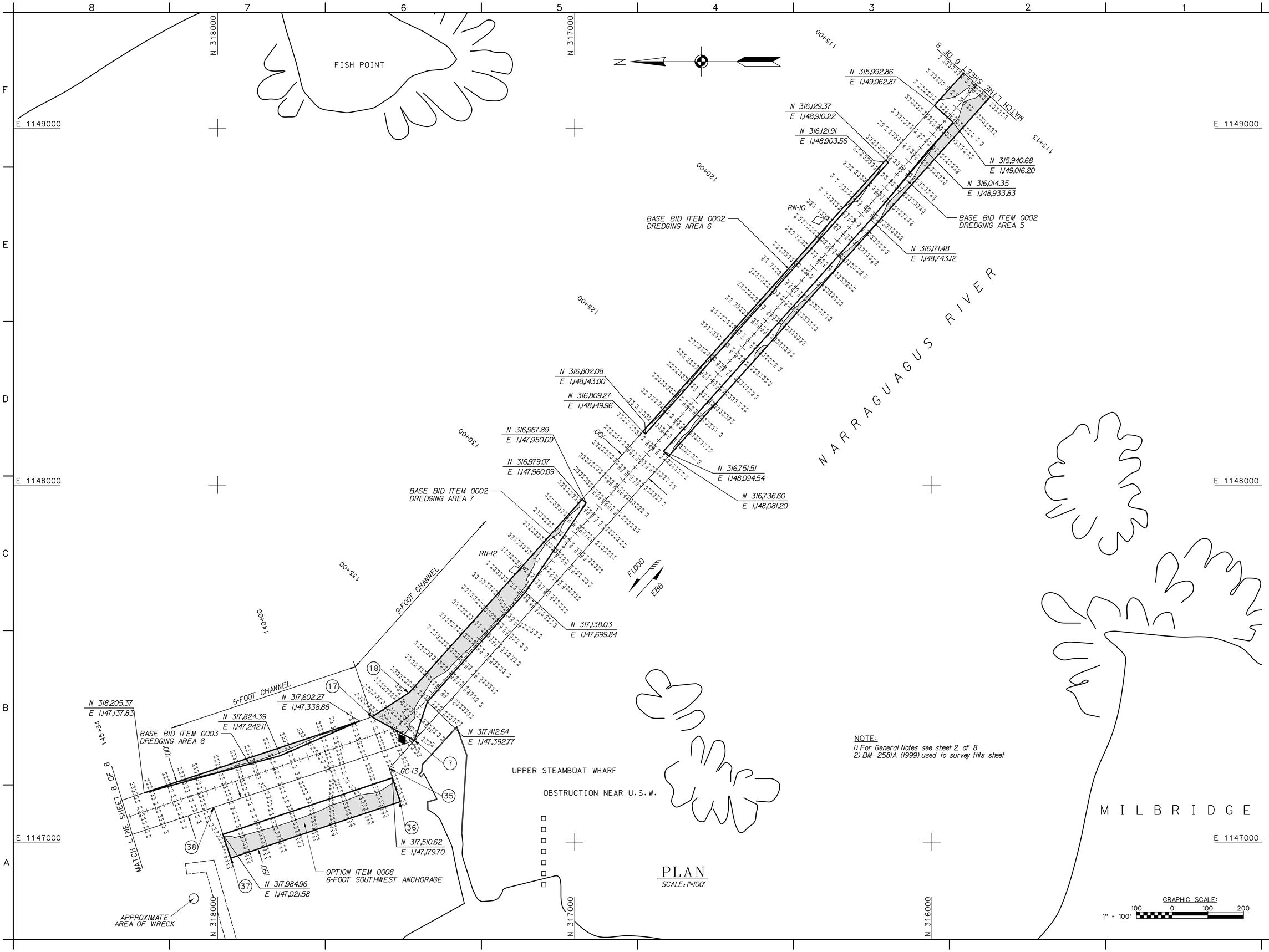
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CONCORD, MASSACHUSETTS

Surveyed By: R. MacGovern, Hydrographic Crew
Plotted By: V.J. Garabedian
MAUREEN T. MURRAY /s/ Asst. Chief, Survey Section
STEPHEN JOHNSTON /s/ Chief, Survey Section
Date: 10/03/05
Design file:
Drawing code: 2614
File name: NARV105.505
Plot date: 10/03/2005
Plot scale: 1" = 100'
Rev.

MAINTENANCE DREDGING
9' & 6-FOOT CHANNELS
11, 9, & 6-FOOT ANCHORAGES
6-FOOT TURNING BASIN
NARRAGUAGUS RIVER
MILBRIDGE, MAINE

SITE PLAN
STA. 83+84 TO 113+13

Reference number:
C-5
Sheet 6 of 8



NOTE:
1) For General Notes see sheet 2 of 8
2) BM 2581A (1999) used to survey this sheet

US Army Corps of Engineers
New England District

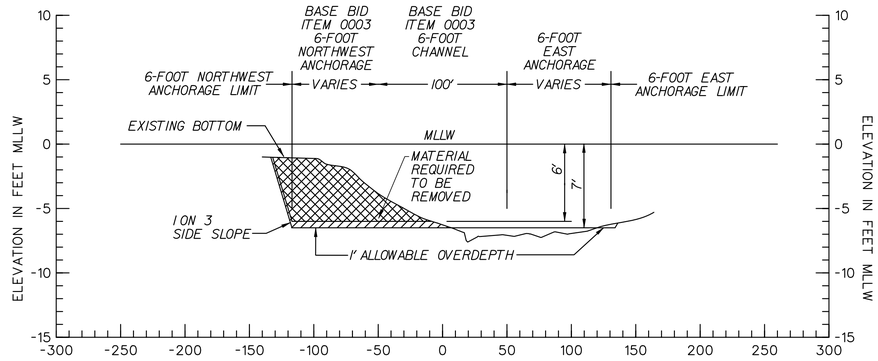
Symbol	Description	Date	Appr.	Symbol	Description	Date	Appr.

Surveyed By: R. MacGovern, Hydrographic Crew
Plotted By: V.J. Garabedian
MAUREEN T. MURRAY /s/ Asst. Chief, Survey Section
STEPHEN JOHNSTON /s/ Chief, Survey Section
Date: 10/03/05
Design file:
Drawing code: 2614
File name: NARV105.506
Plot date: 10/03/2005
Plot scale: 1" = 100'
Rev.

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CONCORD, MASSACHUSETTS

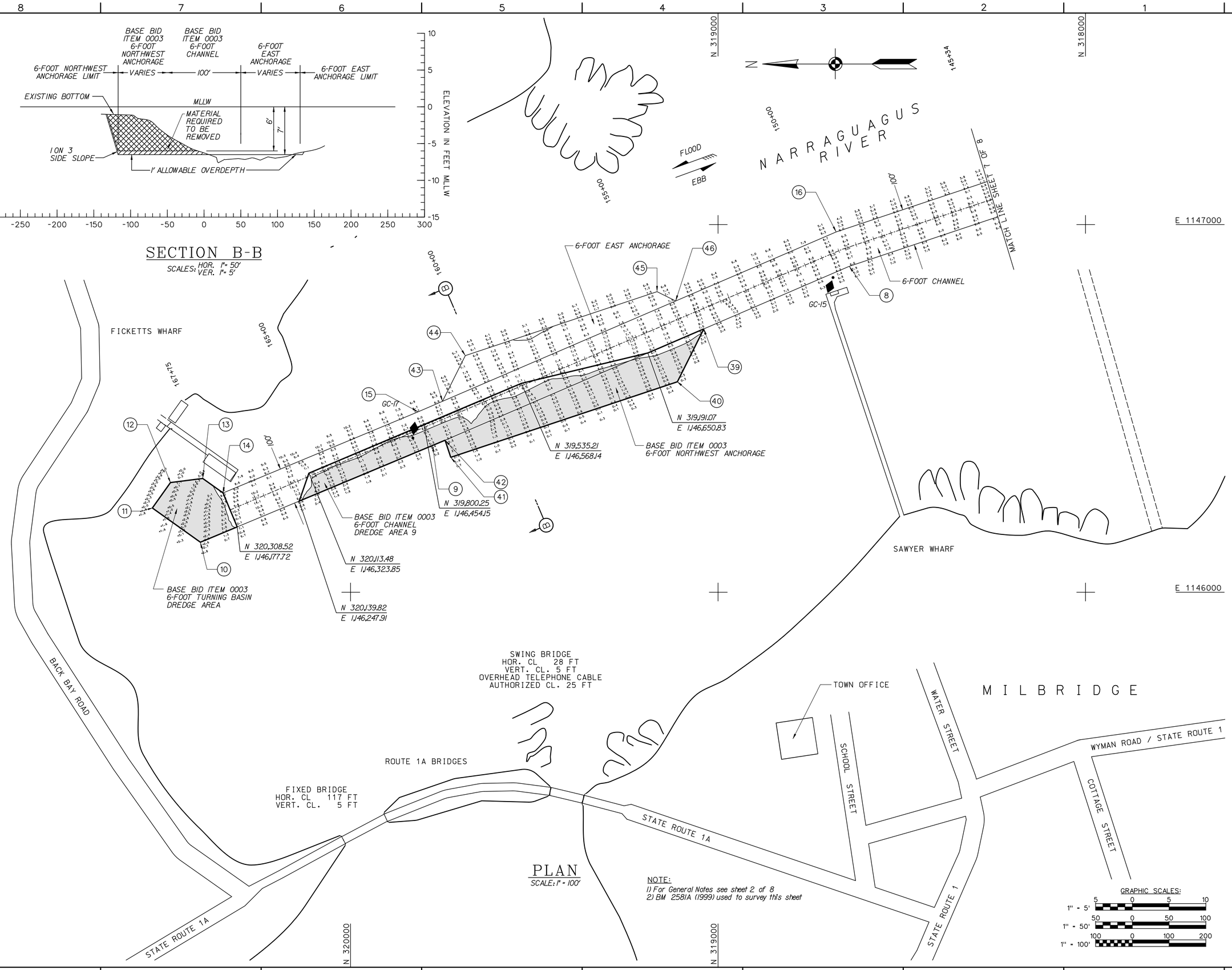
MAINTENANCE DREDGING
9 & 6-FOOT CHANNELS
11, 9, & 6-FOOT ANCHORAGES
6-FOOT TURNING BASIN
NARRAGUAGUS RIVER
MILBRIDGE, MAINE
SITE PLAN
STA. 113+13 TO 145+34

Reference number:
C-6
Sheet 7 of 8



SECTION B-B

SCALES: HOR. 1" = 50' VER. 1" = 5'



PLAN

SCALE: 1" = 100'

NOTE:
1) For General Notes see sheet 2 of 8
2) BM 2581A (1999) used to survey this sheet

GRAPHIC SCALES:
1" = 5' (5 0 5 10)
1" = 50' (50 0 50 100)
1" = 100' (100 0 100 200)

US Army Corps of Engineers
New England District

Symbol	Description	Date	Appr.	Symbol	Description	Date	Appr.

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CONCORD, MASSACHUSETTS

Surveyed By: R. MacGovern, Hydrographic Crew
Plotted By: V.J. Garabedian
MAUREEN T. MURRAY /s/ Asst. Chief, Survey Section
STEPHEN JOHNSTON /s/ Chief, Survey Section
Date: 10/03/05
Design file:
Drawing code: 2614
File name: NAR1107.307
Plot date: 10/03/2005
Plot scale: 1"=100'
Rev.

MAINTENANCE DREDGING
9 & 6-FOOT CHANNELS
11, 9, & 6-FOOT ANCHORAGES
6-FOOT TURNING BASIN
NARRAGUAGUS RIVER
MILBRIDGE, MAINE

SITE PLAN AND SECTION B-B
STA. 145+34 TO 167+75

Reference number:
C-7
Sheet 8 of 8