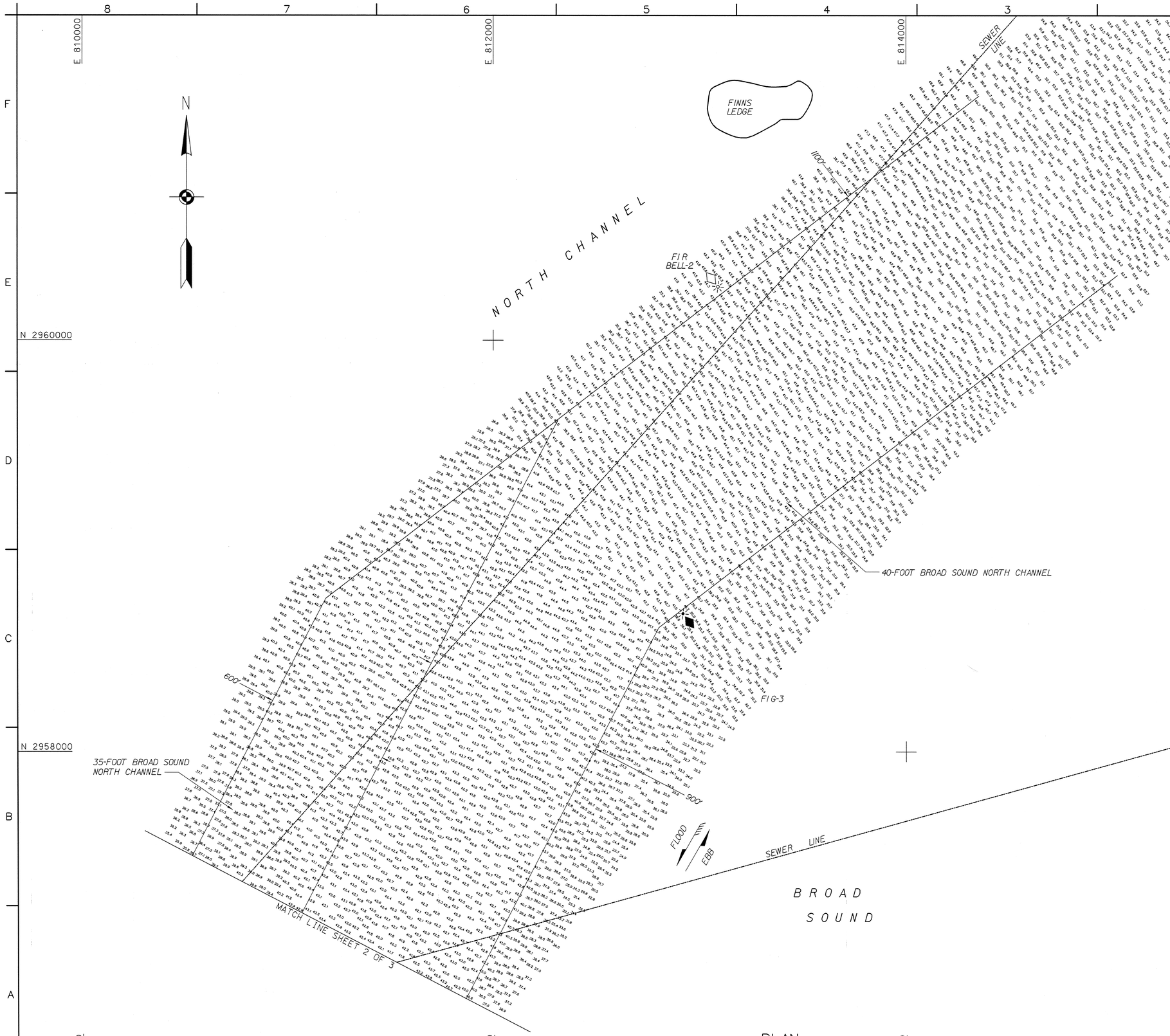
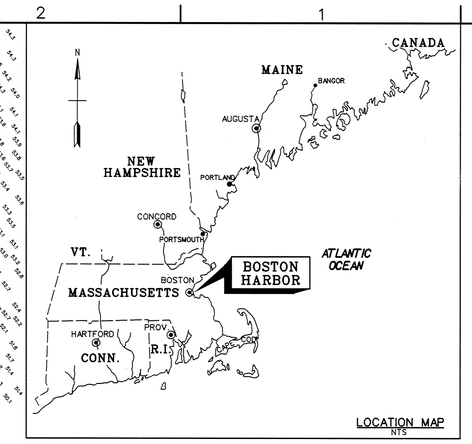


PLAN
SCALE: 1" = 200'



LOCATION MAP
NTS

INDEX OF NAVIGATION AIDS			
NO.	DATE	STATE PLANE COORDINATES	GEOGRAPHIC POSITION
FI R BELL-2	06/22/06	N 2960260.65 E 813089.42	42° - 22' - 10.7"N 70° - 55' - 09.5"W
FI G-3	06/22/06	N 2958671.52 E 812918.81	42° - 21' - 55.0"N 70° - 55' - 11.9"W
FI R-4	06/22/06	N 2957083.60 E 810286.64	42° - 21' - 39.5"N 70° - 55' - 47.1"W
FI G-5	06/22/06	N 2955781.54 E 811394.65	42° - 21' - 26.6"N 70° - 55' - 32.5"W
FI R BELL-6	06/22/06	N 2954818.23 E 809150.63	42° - 21' - 17.2"N 70° - 56' - 02.4"W
FI G-7	06/22/06	N 2954201.28 E 810508.80	42° - 21' - 11.0"N 70° - 55' - 44.4"W
FI R-6	06/22/06	N 2952709.93 E 808087.52	42° - 20' - 56.5"N 70° - 56' - 16.8"W
FI G-9	06/22/06	N 2951916.25 E 809311.56	42° - 20' - 48.5"N 70° - 56' - 00.5"W
FI R BELL-8	06/22/06	N 2950740.20 E 807023.18	42° - 20' - 37.1"N 70° - 56' - 31.1"W
FI G&R PR	06/22/06	N 2949994.65 E 808403.13	42° - 20' - 29.6"N 70° - 56' - 12.8"W

GENERAL NOTES:

1. Soundings are in feet and tenths and refer to the plane of Mean Lower Low Water (MLLW) 1983-2001 Tidal Epoch.
2. Topography shown is from previous surveys and/or NOAA Chart No. 13270. All topography, including shoreline, bridges, piers, etc., is located approximate unless otherwise noted and should be used as a general reference only.
3. Bench Mark Data: Vertical depths were obtained from RTK using a NAVD88 to MLLW correction of 5.22 feet provided by NOAA. Similar values can be obtained using NOAA Station 8444162, Boston Light.
4. Coordinates shown are based on the Lambert Grid System for the Commonwealth of Massachusetts (Mainland Zone 2001) and NAD 1983.
5. Survey was performed using a Reson 8124 multibeam echosounder system with a 200 kHz transducer. Horizontal positioning was obtained utilizing a Leica 1200 GPS System. An RTK base station was set up on Sta. School (2006).
6. The sounding information shown on these maps represents the SHOALEST soundings of those obtained from hydrographic surveys conducted from June to August 2006.
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. Field Books: R&H 5100 and 5106
Refer to Survey No. 06-834

SAFETY PAYS

GRAPHIC SCALE:
200 0 200 400
1" = 200'

US Army Corps of Engineers
New England District

Symbol	Description	Date	Appr.	Symbol	Description	Date	Appr.

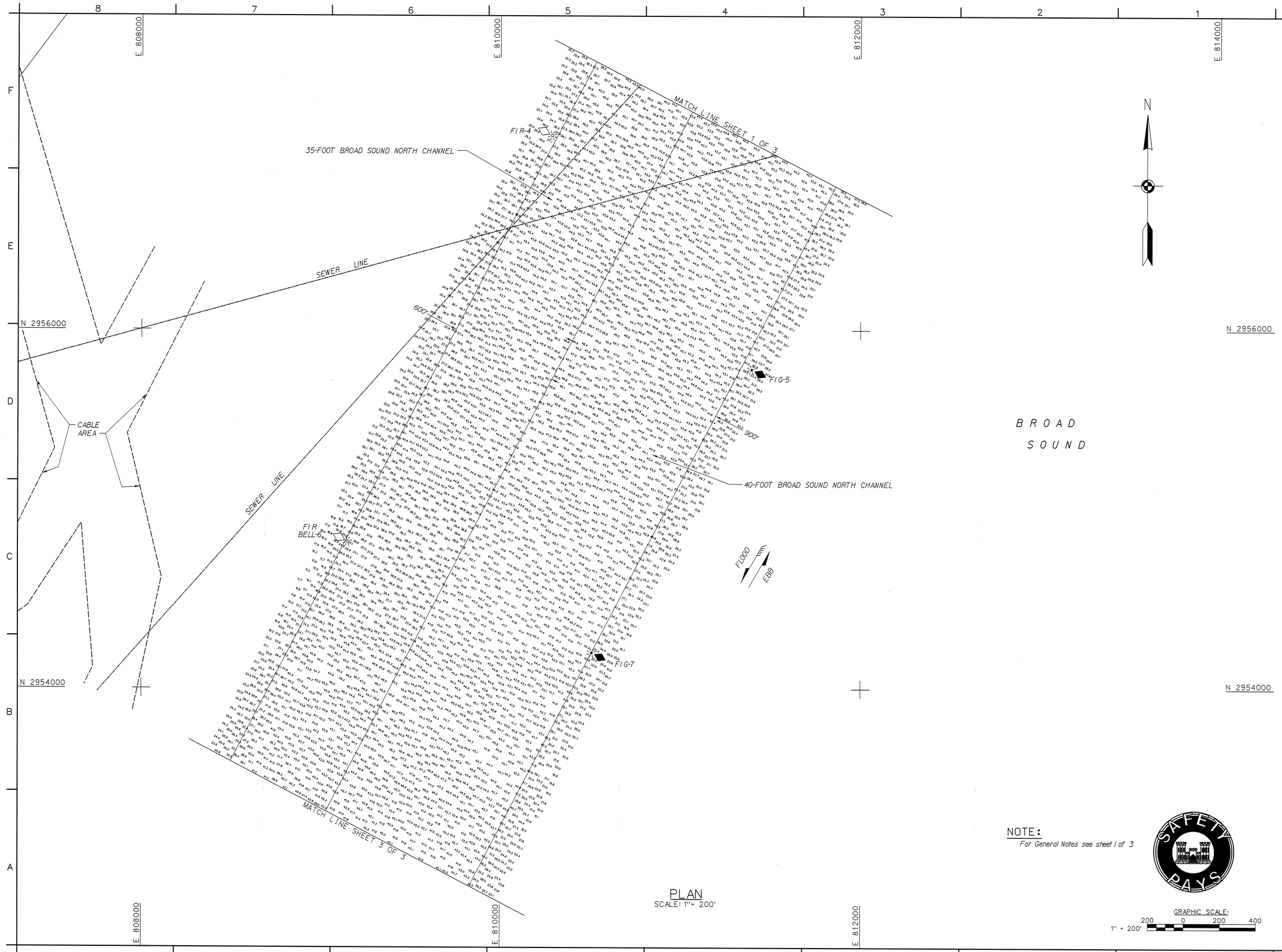
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CONCORD, MASSACHUSETTS

Surveyed By: Jeffrey W. Preston, Hydrographic Crew
Plotted By: Stephen W. Kelley
Asst. Chief, Survey Section
Chief, Survey Section
Date: 8/25/06
Design file:
Drawing code: 1900
File name: BOSVW1.S01
Plot date: 08/25/06
Plot scale: 1" = 200'
Rev.

BOSTON HARBOR
BOSTON, MASSACHUSETTS
CONDITION SURVEY
35 AND 40-FOOT BROAD SOUND
NORTH CHANNELS

Reference number:
V-101
Sheet 1 of 3

Scanned Record Aug-2006



PLAN
SCALE: 1" = 200'

NOTE:
For General Notes see sheet 1 of 3

GRAPHIC SCALE:
200 0 200 400
1" = 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: Jeffrey W. Preston, Hydrographic Crew Member
Reviewed by: Stephen W. Kelley, Asst. Chief, Survey Section
Chief, Survey Section

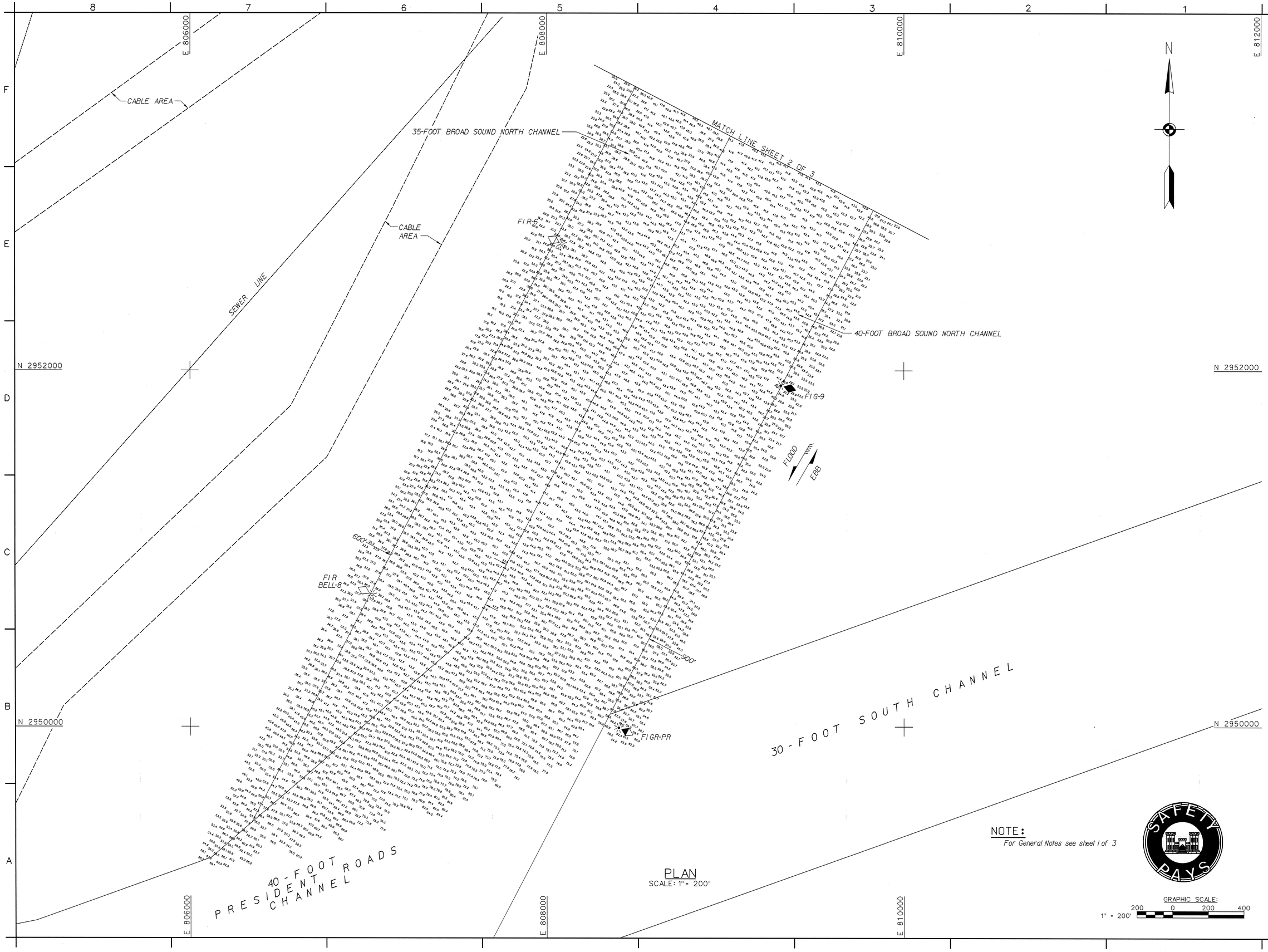
Date: 8/22/06
Design file:
Drawing code: 1900
File name: B05V02.S02
Plot date: 08/25/06
Plot scale: 1" = 200'
Rev.

BOSTON HARBOR
BOSTON, MASSACHUSETTS
CONDITION SURVEY

35 AND 40-FOOT BROAD SOUND NORTH CHANNELS

Reference number:
V-102
Sheet 2 of 3

Scanned Record Aug-2006



PLAN
SCALE: 1"= 200'

NOTE:
For General Notes see sheet 1 of 3

GRAPHIC SCALE:
1" = 200'
200 0 200 400

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

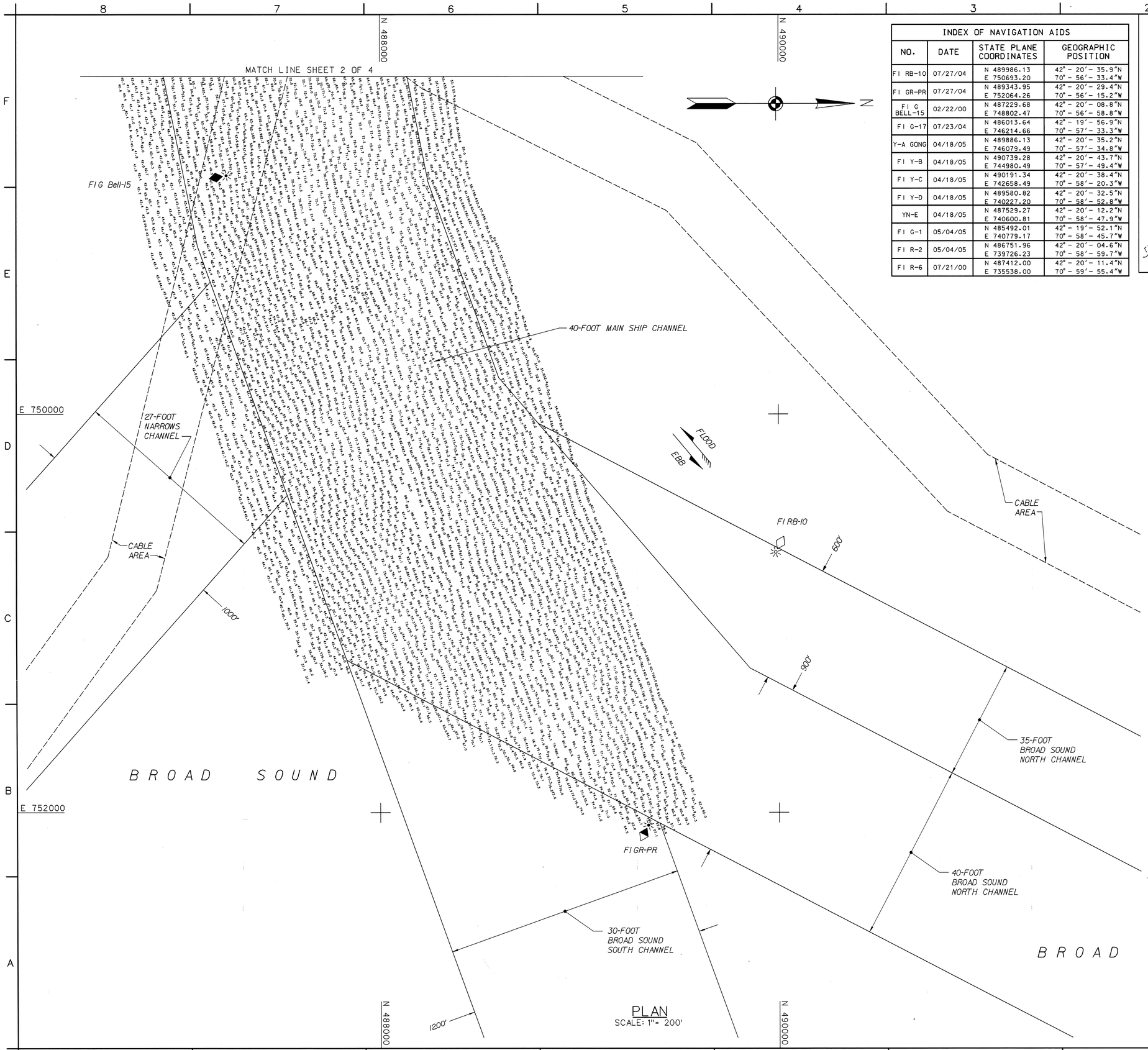
Surveyed By: Jeffrey W. Preston, Hydrographic Crew
Plotted By: Stephen W. Kelley
Asst. Chief, Survey Section
Chief, Survey Section
Date: 8/25/06
Design file:
Drawing code: 1900
File name: BOSV103.S03
Plot date: 08/25/06
Plot scale: 1" = 200'
Rev.

BOSTON HARBOR
BOSTON, MASSACHUSETTS
CONDITION SURVEY
35 AND 40-FOOT BROAD SOUND
NORTH CHANNELS

Reference number:
V-103
Sheet 3 of 3

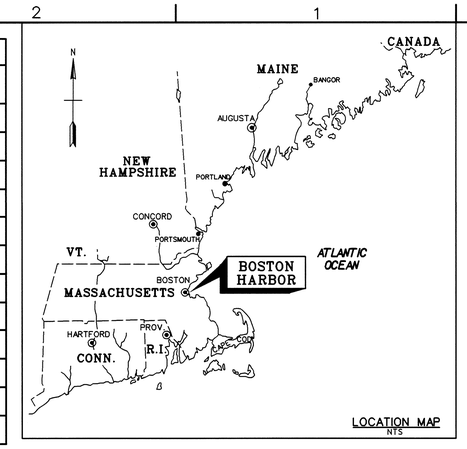
SAFETY PAYS

Scanned Record Aug-2006



PLAN
SCALE: 1" = 200'

INDEX OF NAVIGATION AIDS			
NO.	DATE	STATE PLANE COORDINATES	GEOGRAPHIC POSITION
FI RB-10	07/27/04	N 489986.13 E 750693.20	42° - 20′ - 35.9″N 70° - 56′ - 33.4″W
FI GR-PR	07/27/04	N 489343.95 E 752064.26	42° - 20′ - 29.4″N 70° - 56′ - 15.2″W
FI G BELL-15	02/22/00	N 487229.68 E 748802.47	42° - 20′ - 08.8″N 70° - 56′ - 58.8″W
FI G-17	07/23/04	N 486013.64 E 746214.66	42° - 19′ - 56.9″N 70° - 57′ - 33.3″W
Y-A GONG	04/18/05	N 489886.13 E 746079.49	42° - 20′ - 35.2″N 70° - 57′ - 34.8″W
FI Y-B	04/18/05	N 490739.28 E 744980.49	42° - 20′ - 43.7″N 70° - 57′ - 49.4″W
FI Y-C	04/18/05	N 490191.34 E 742658.49	42° - 20′ - 38.4″N 70° - 58′ - 20.3″W
FI Y-D	04/18/05	N 489580.82 E 740227.20	42° - 20′ - 32.5″N 70° - 58′ - 52.8″W
YN-E	04/18/05	N 487529.27 E 740600.81	42° - 20′ - 12.2″N 70° - 58′ - 47.9″W
FI G-1	05/04/05	N 485492.01 E 740779.17	42° - 19′ - 52.1″N 70° - 58′ - 45.7″W
FI R-2	05/04/05	N 486751.96 E 739726.23	42° - 20′ - 04.6″N 70° - 58′ - 59.7″W
FI R-6	07/21/00	N 487412.00 E 735538.00	42° - 20′ - 11.4″N 70° - 59′ - 55.4″W



LOCATION MAP
NTS

GENERAL NOTES:

1. Soundings are in feet and tenths and refer to the plane of Mean Lower Low Water (MLLW) 1983-2001 Tidal Epoch.
2. Topography shown is from previous surveys and/or NOAA Chart No. 13270. All topography, including shoreline, bridges, piers, etc., is located approximate unless otherwise noted and should be used as a general reference only.
3. Bench Mark Data: TBM DEER (2004) is a 1/8" drill hole within a chiseled square on the concrete apron to the concrete deck of the Massachusetts Water Resources Authority (MWRA) Deer Island Vehicle Pier. It can be found on line to the east side of the pier near a containment boom facility. Measurements are 10.46 feet (3.19 m) to a corner of a 1.0' x 1.0' concrete curb and 9.0 feet (2.74 m) to the near corner rim of a metal trap door, 5.25 feet (1.60 m) to corner seams of the apron and deck and 3.41 feet (1.04 m) to a corner of a 2.0' x 2.0' concrete curb of the pier. Elevation is 16.14 feet above MLLW.
4. Coordinates shown are based on the Lambert Grid System for the Commonwealth of Massachusetts (Mainland Zone 2001) & NAD 1927.
5. The sounding information shown on these maps represents the SHOALEST soundings of those obtained from hydrographic surveys conducted from February to December 2005.
6. 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.
7. 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.
8. Field Books: R&H 4144 and 4509
Depthsounder Rolls: 04-742/01-16

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: Paul K. O'Brien/Jeff Preston
Plotted By: Stephen Wilkes
Design file: Drawing code: 1896
File name: BOSV101.S01
Plot date: 01/24/06
Plot scale: 1" = 200'
Date: 1/24/06
Rev.
Asst. Chief, Survey Section
Chief, Survey Section

BOSTON HARBOR
BOSTON, MASSACHUSETTS
AFTER DREDGE/CONDITION SURVEY

40-FOOT MAIN SHIP CHANNEL
40-FOOT PRESIDENT ROADS ANCHORAGE
35-FOOT CHANNEL AND ANCHORAGE

SAFETY PAYS

GRAPHIC SCALE:
200 0 200 400
1" - 200'

Reference number:
V-1
Sheet 1 of 4

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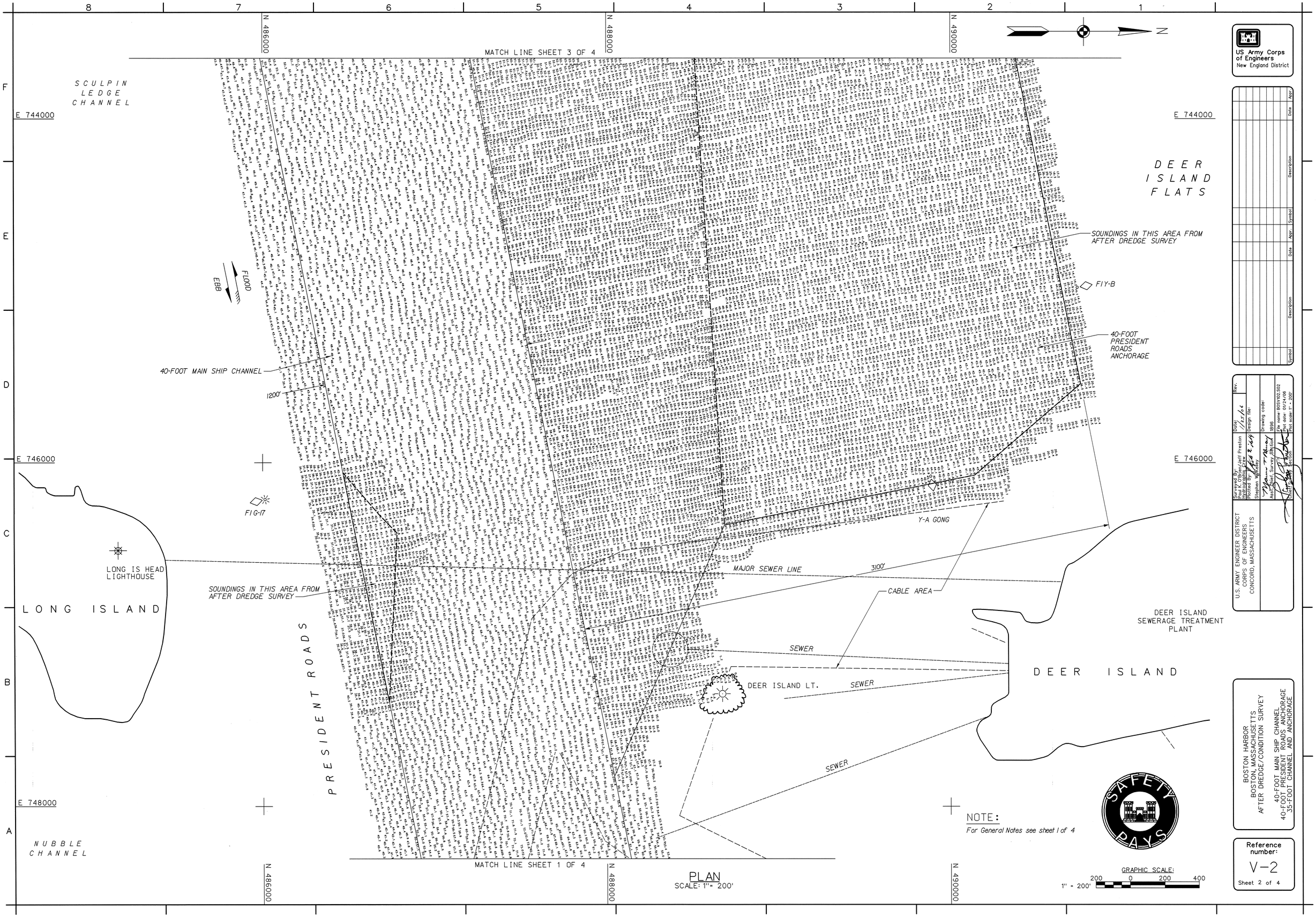

PLAN
SCALE: 1" = 200'

NOTE:
For General Notes see sheet 1 of 4

GRAPHIC SCALE:
200 0 200 400
1" = 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: Paul K. O'Brien/Jeff Preston
Hydrographic Drew
Plotted By: Stephen W. Kelley
Date: 1/25/06
Design file:
Drawing code: 1896
File name: BOSV102.S02
Plot date: 01/24/06
Plot scale: 1" = 200'
Asst. Chief, Survey Section
Chief, Survey Section

BOSTON HARBOR
BOSTON, MASSACHUSETTS
AFTER DREDGE/CONDITION SURVEY

40-FOOT MAIN SHIP CHANNEL
40-FOOT PRESIDENT ROADS ANCHORAGE
35-FOOT CHANNEL AND ANCHORAGE

Reference number:
V-2
Sheet 2 of 4

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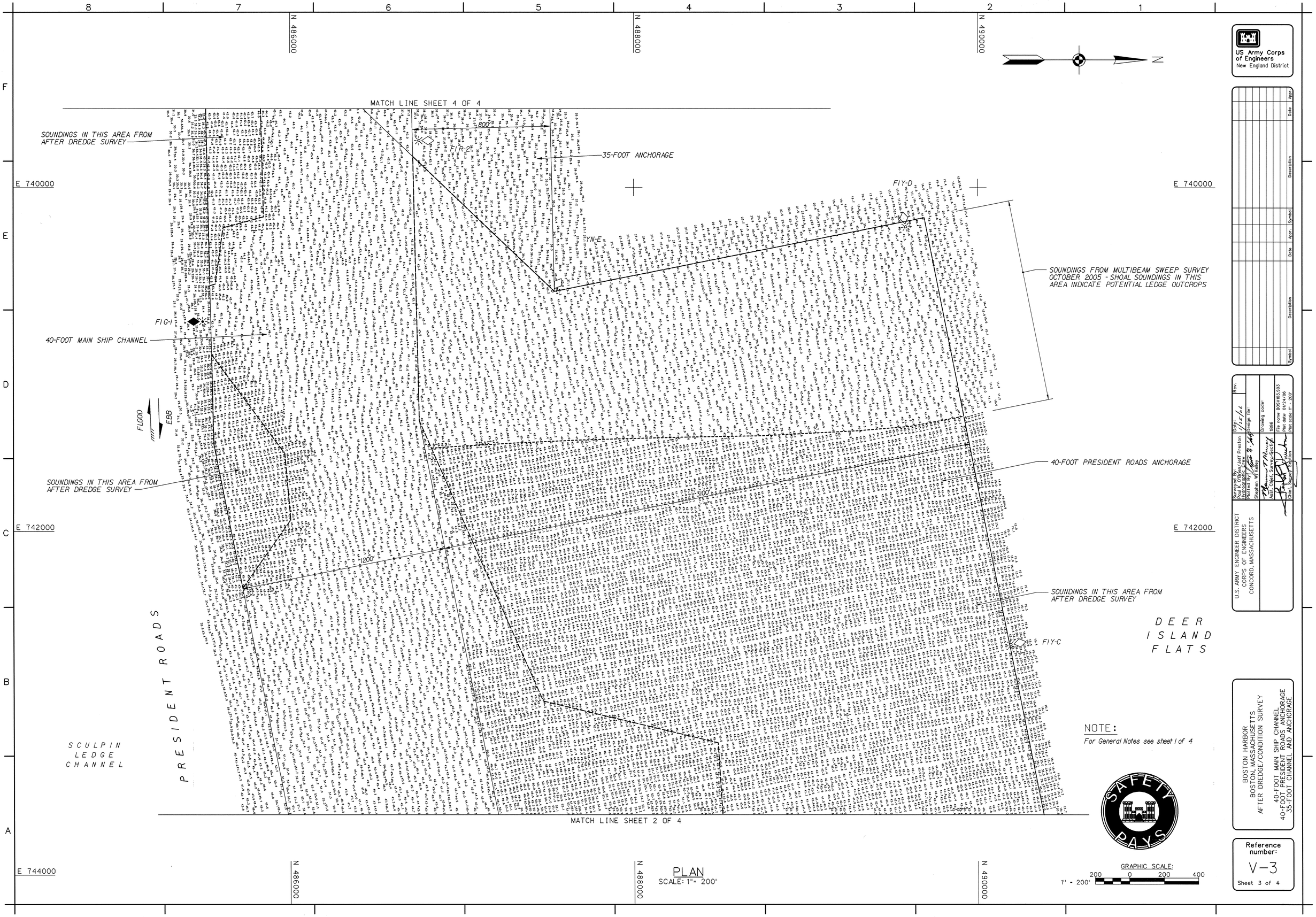

NOTE:
For General Notes see sheet 1 of 4

PLAN
SCALE: 1" = 200'

GRAPHIC SCALE:
1" = 200'
200 0 200 400

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: Paul K. O'Brien/Jeff Preston
Hydrographic Crew
Plotted By: Stephen W. Kelley
Asst. Chief, Survey Section
Chief, Survey Section
Date: 1/25/06
Design file:
Drawing code: 1896
File name: BOSV103.S03
Plot date: 01/24/06
Plot scale: 1" = 200'
Rev.

BOSTON HARBOR
BOSTON, MASSACHUSETTS
AFTER DREDGE/CONDITION SURVEY

40-FOOT MAIN SHIP CHANNEL
40-FOOT PRESIDENT ROADS ANCHORAGE
35-FOOT CHANNEL AND ANCHORAGE

Reference number:
V-3
Sheet 3 of 4

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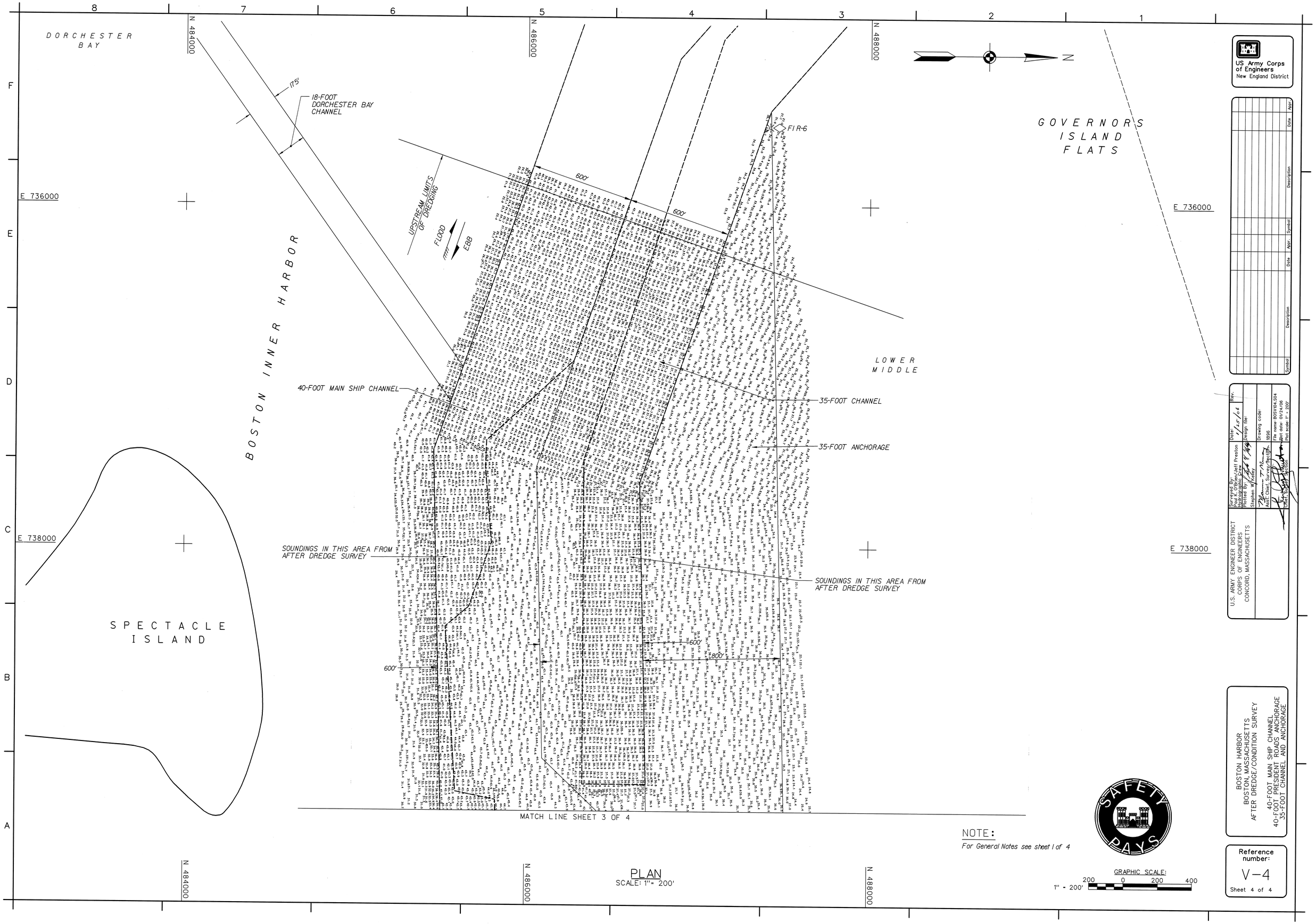

NOTE:
For General Notes see sheet 1 of 4

PLAN
SCALE: 1"= 200'

GRAPHIC SCALE:
1" = 200'
200 0 200 400

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: Paul K. O'Brien/Jeff Preston
Hydrographic Crew
Plotted By: Stephen W. Kelley
Date: 1/25/06
Design file:
Drawing code: 1896
File name: BOSV104.S04
Plot date: 01/24/06
Plot scale: 1" = 200'
Asst. Chief, Survey Section
Chief, Survey Section

BOSTON HARBOR
BOSTON, MASSACHUSETTS
AFTER DREDGE/CONDITION SURVEY

40-FOOT MAIN SHIP CHANNEL
40-FOOT PRESIDENT ROADS ANCHORAGE
35-FOOT CHANNEL AND ANCHORAGE

Reference number:
V-4
Sheet 4 of 4

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