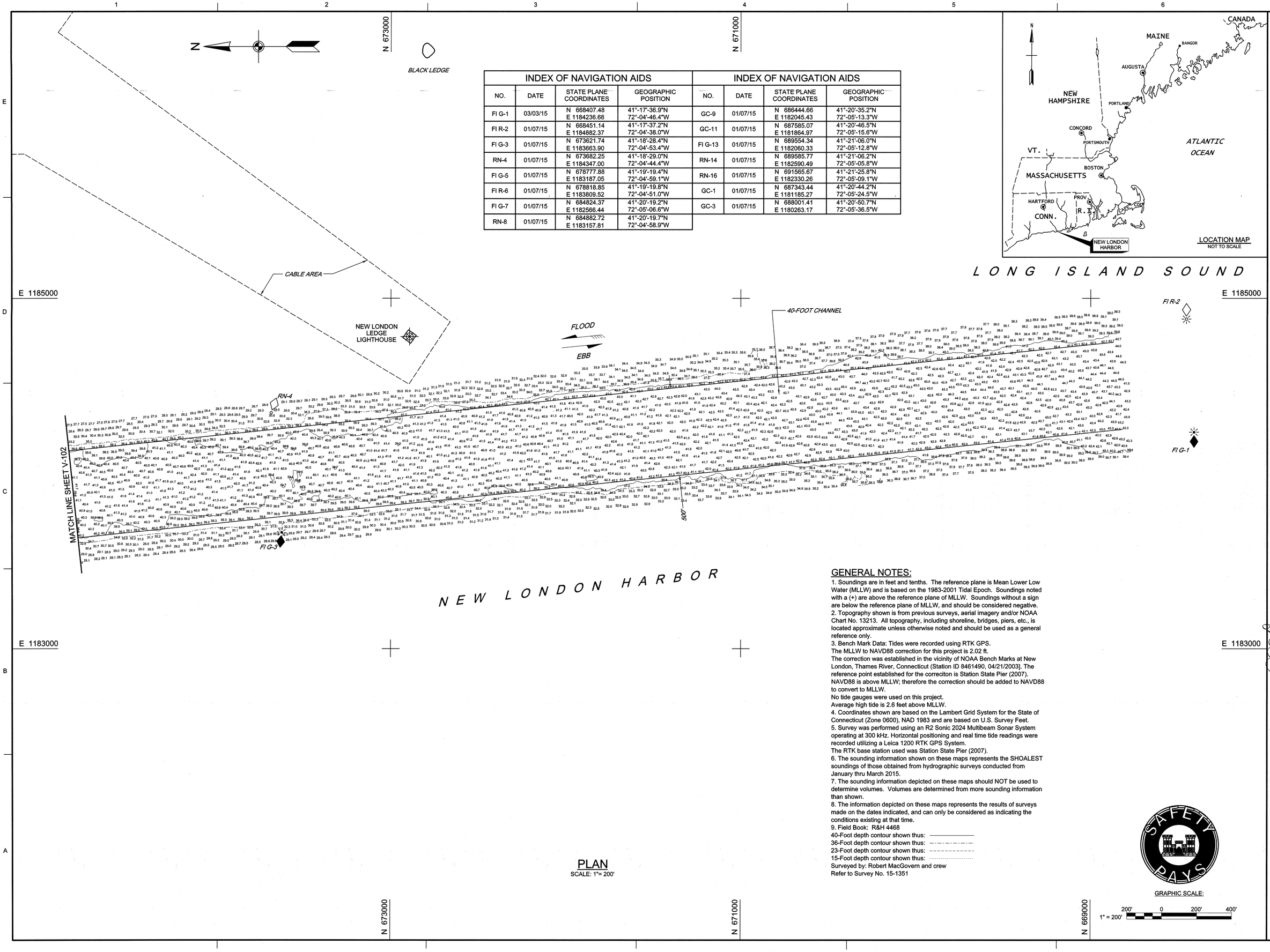
INDEX OF NAVIGATION AIDS				INDEX OF NAVIGATION AIDS			
NO.	DATE	STATE PLANE COORDINATES	GEOGRAPHIC POSITION	NO.	DATE	STATE PLANE COORDINATES	GEOGRAPHIC POSITION
Fl G-1	03/03/15	N 668407.48 E 1184236.68	41°-17'-36.9"N 72°-04'-46.4"W	GC-9	01/07/15	N 686444.66 E 1182045.43	41°-20'-35.2"N 72°-05'-13.3"W
Fl R-2	01/07/15	N 668451.14 E 1184882.37	41°-17'-37.2"N 72°-04'-38.0"W	GC-11	01/07/15	N 687585.07 E 1181864.97	41°-20'-46.5"N 72°-05'-15.6"W
Fl G-3	01/07/15	N 673621.74 E 1183663.90	41°-18'-28.4"N 72°-04'-53.4"W	Fl G-13	01/07/15	N 689554.34 E 1182060.33	41°-21'-06.0"N 72°-05'-12.8"W
RN-4	01/07/15	N 673682.25 E 1184347.00	41°-18'-29.0"N 72°-04'-44.4"W	RN-14	01/07/15	N 689585.77 E 1182590.49	41°-21'-06.2"N 72°-05'-05.8"W
Fl G-5	01/07/15	N 678777.88 E 1183187.05	41°-19'-19.4"N 72°-04'-59.1"W	RN-16	01/07/15	N 691565.67 E 1182330.26	41°-21'-25.8"N 72°-05'-09.1"W
Fl R-6	01/07/15	N 678818.85 E 1183809.52	41°-19'-19.8"N 72°-04'-51.0"W	GC-1	01/07/15	N 687343.44 E 1181185.27	41°-20'-44.2"N 72°-05'-24.5"W
Fl G-7	01/07/15	N 684824.37 E 1182566.44	41°-20'-19.2"N 72°-05'-06.6"W	GC-3	01/07/15	N 688001.41 E 1180263.17	41°-20'-50.7"N 72°-05'-36.5"W
RN-8	01/07/15	N 684882.72 E 1183157.81	41°-20'-19.7"N 72°-04'-58.9"W				



GENERAL NOTES:

1. Soundings are in feet and tenths. The reference plane is Mean Lower Low Water (MLLW) and is based on the 1983-2001 Tidal Epoch. Soundings noted with a (+) are above the reference plane of MLLW. Soundings without a sign are below the reference plane of MLLW, and should be considered negative.
2. Topography shown is from previous surveys, aerial imagery and/or NOAA Chart No. 13213. 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: Tides were recorded using RTK GPS.
The MLLW to NAVD88 correction for this project is 2.02 ft.
The correction was established in the vicinity of NOAA Bench Marks at New London, Thames River, Connecticut (Station ID 8461490, 04/21/2003). The reference point established for the correciton is Station State Pier (2007).
NAVD88 is above MLLW; therefore the correction should be added to NAVD88 to convert to MLLW.
No tide gauges were used on this project.
Average high tide is 2.6 feet above MLLW.
4. Coordinates shown are based on the Lambert Grid System for the State of Connecticut (Zone 0600), NAD 1983 and are based on U.S. Survey Feet.
5. Survey was performed using an R2 Sonic 2024 Multibeam Sonar System operating at 300 kHz. Horizontal positioning and real time tide readings were recorded utilizing a Leica 1200 RTK GPS System.
The RTK base station used was Station State Pier (2007).
6. The sounding information shown on these maps represents the SHOALEST soundings of those obtained from hydrographic surveys conducted from January thru March 2015.
7. The sounding information depicted on these maps should NOT be used to determine volumes. Volumes are determined from more sounding information than shown.
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 conditions existing at that time.
9. Field Book: R&H 4468
40-Foot depth contour shown thus: ————————
36-Foot depth contour shown thus: —·—·—·—·—·—
23-Foot depth contour shown thus: – – – – – – – –
15-Foot depth contour shown thus: ·····
Surveyed by: Robert MacGovern and crew
Refer to Survey No. 15-1351

PLAN
SCALE: 1"= 200'

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

SAFETY PAYS

US Army Corps of Engineers®
New England District

MARK	DESCRIPTION	DATE	APPR.

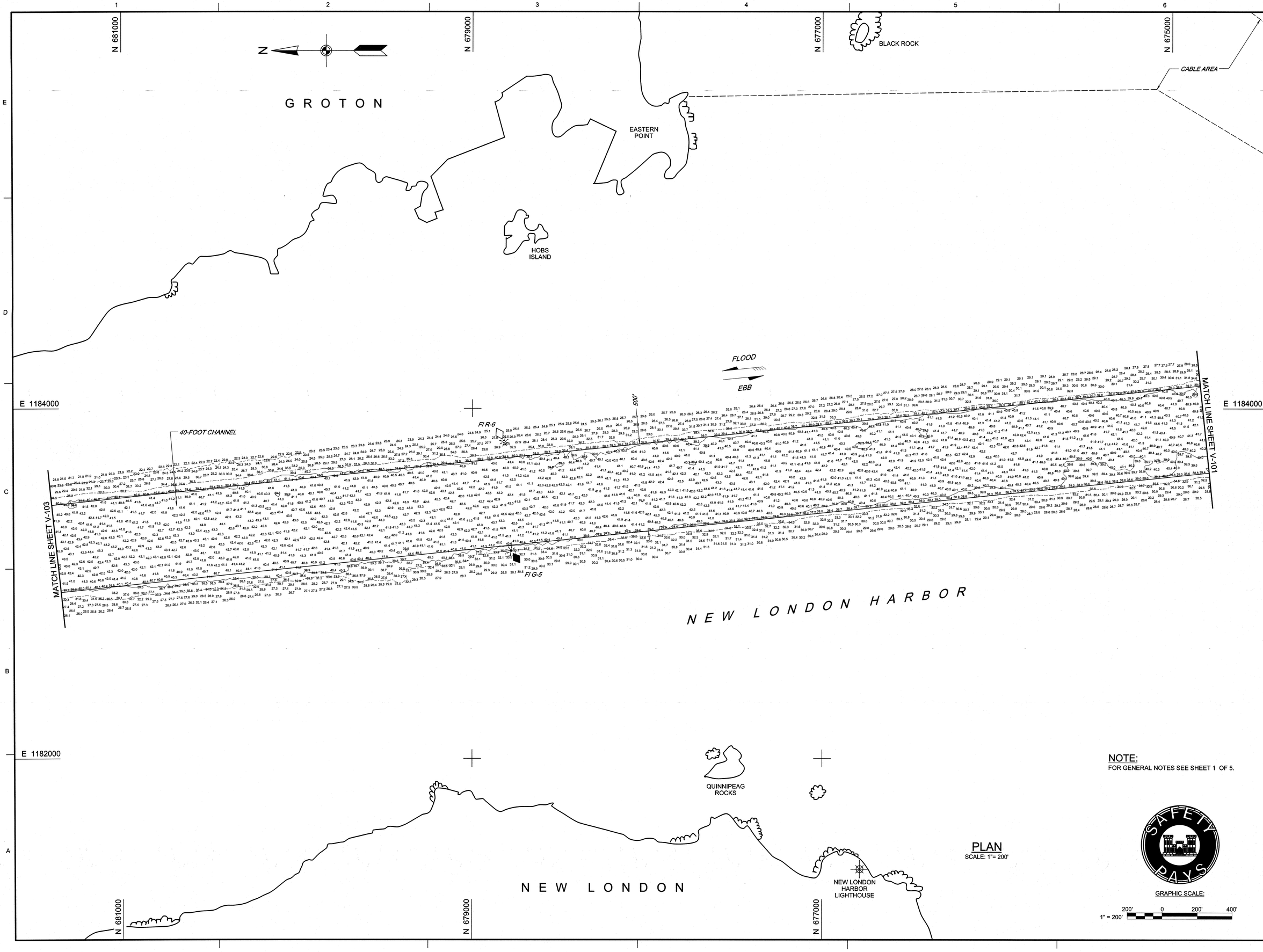
U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT
CONCORD, MASSACHUSETTS
www.nae.usace.army.mil

DATE: 7/28/15
DWN BY: AEB
CKD BY: JWH/MTM
DESIGN FILE: NLH-1-15-4468.dgn
DRAWING CODE: NLH-199
PLOT SCALE: 1:1
PLOT DATE: 07/28/2015
FILE NAME: NLH-199_V101.dgn
SIZE: ANSI F
REVIEWED BY: Asst. Chief, Survey Section
APPROVED BY: Chief, Navigation Section
FOR:

NEW LONDON HARBOR
NEW LONDON AND GROTON, CONNECTICUT
CONDITION SURVEY

15, 23, 36 AND 40-FOOT CHANNELS, 23 AND 40-FOOT ANCHORAGES, 15-FOOT BASIN AND 23-FOOT MANEUVERING AREA

SHEET IDENTIFICATION
V-101
SHEET 1 OF 5



PLAN

SCALE: 1"= 200'

NOTE:

FOR GENERAL NOTES SEE SHEET 1 OF 5.

GRAPHIC SCALE:

200' 0 200' 400'

1" = 200'

US Army Corps of Engineers®
New England District

MARK	DESCRIPTION	DATE	APPR.

MARK	DESCRIPTION	DATE	APPR.

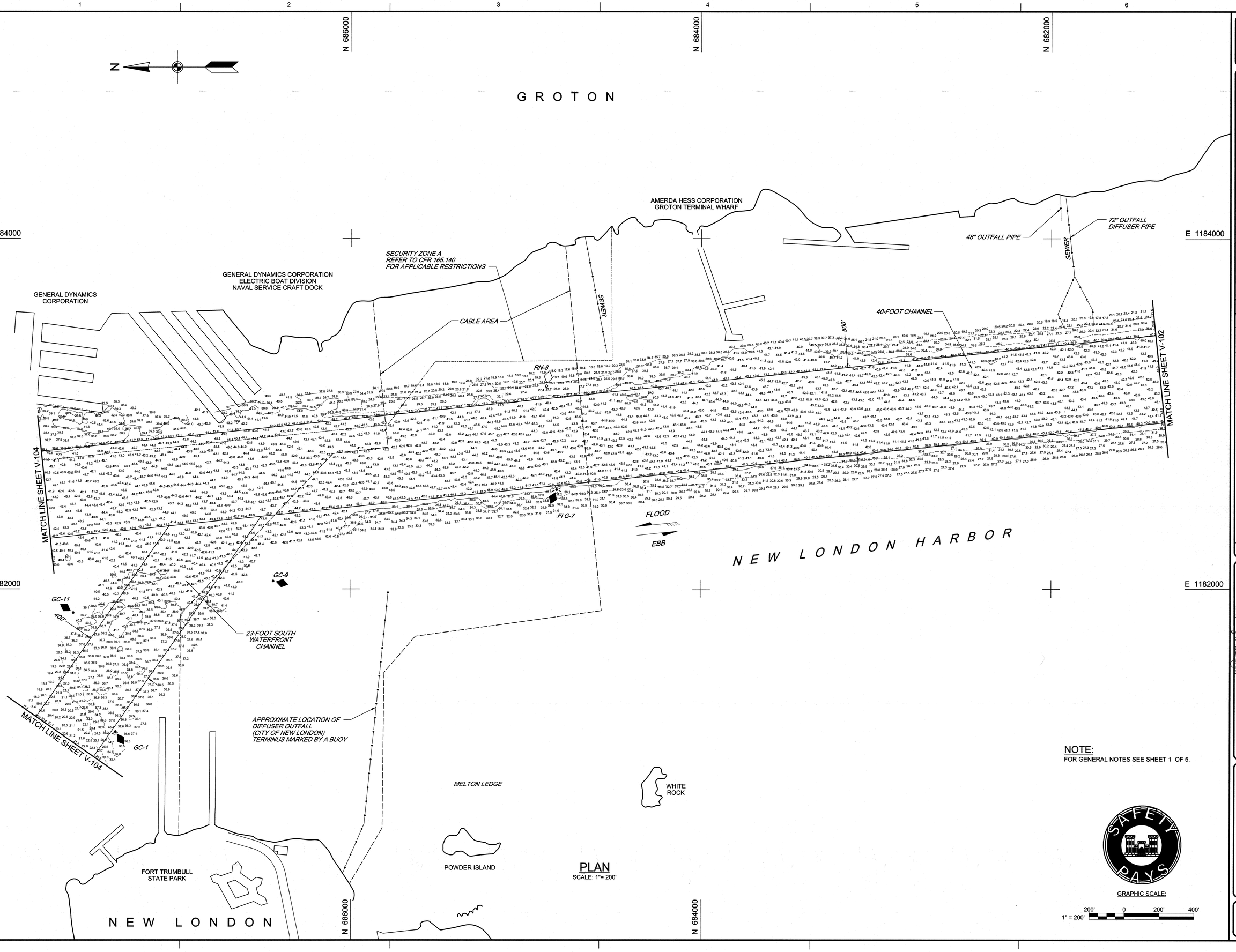
U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT
CONCORD, MASSACHUSETTS
www.nae.usace.army.mil

REVIEWED BY: Asst. Chief, Survey Section
SUBMITTED BY: Chief, Survey Section
DATE: 7/28/15
DWN BY: AEB
CKD BY: JWP/MTM
DESIGN FILE: NLH-189_V-HP-MAS.dgn
DRAWING CODE: NLH-189
PLOT SCALE: 1:1
PLOT DATE: 07/28/2015
FILE NAME: NLH-189_V-102.dgn
SIZE: ANSI F

NEW LONDON HARBOR
NEW LONDON AND GROTON, CONNECTICUT
CONDITION SURVEY

15, 23, 36 AND 40-FOOT CHANNELS, 23 AND 40-FOOT ANCHORAGES, 15-FOOT BASIN AND 23-FOOT MANEUVERING AREA

SHEET IDENTIFICATION
V-102
SHEET 2 OF 5



PLAN
SCALE: 1"= 200'

NOTE:
FOR GENERAL NOTES SEE SHEET 1 OF 5.

SAFETY PAYS

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

US Army Corps of Engineers®
New England District

MARK	DESCRIPTION	DATE	APPR

MARK	DESCRIPTION	DATE	APPR

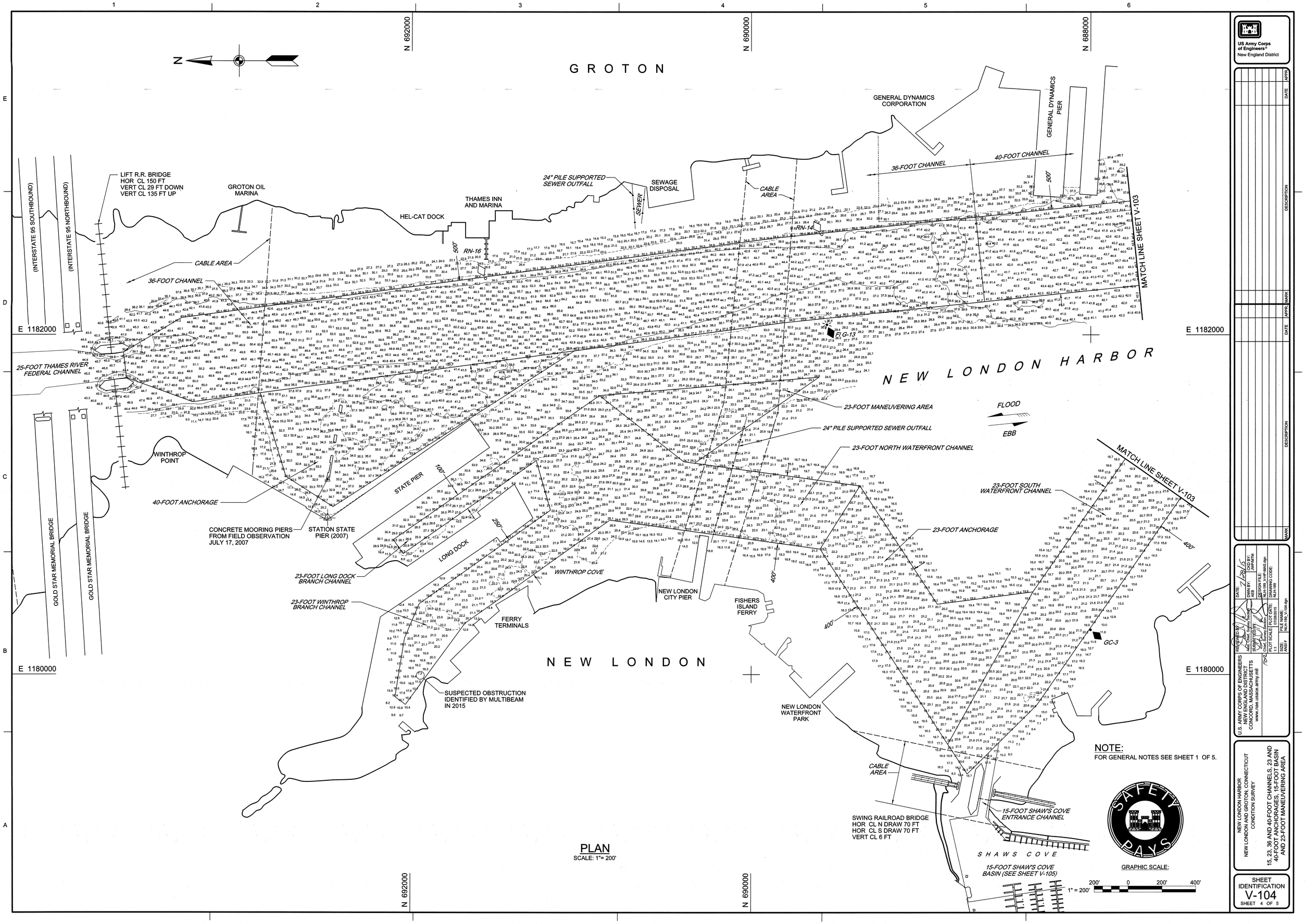
U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT
CONCORD, MASSACHUSETTS
www.nae.usace.army.mil

REVIEWED BY: Asst. Chief, Survey Section
SUBMITTED BY: Chief, Survey Section
DATE: 7/28/15
DWN BY: AEB
CKD BY: JWP/MTM
DESIGN FILE: NLH-189_V-HP-MAS.dgn
DRAWING CODE: NLH-189
PLOT SCALE: 1:1
PLOT DATE: 07/28/2015
SIZE: ANSI F
FILE NAME: NLH-189_V-103.dgn

NEW LONDON HARBOR
NEW LONDON AND GROTON, CONNECTICUT
CONDITION SURVEY

15, 23, 36 AND 40-FOOT CHANNELS, 23 AND 40-FOOT ANCHORAGES, 15-FOOT BASIN AND 23-FOOT MANEUVERING AREA

SHEET IDENTIFICATION
V-103
SHEET 3 OF 5



PLAN

SCALE: 1"= 200'

NOTE:
FOR GENERAL NOTES SEE SHEET 1 OF 5.

US Army Corps of Engineers®
New England District

MARK	DESCRIPTION	DATE	APPR

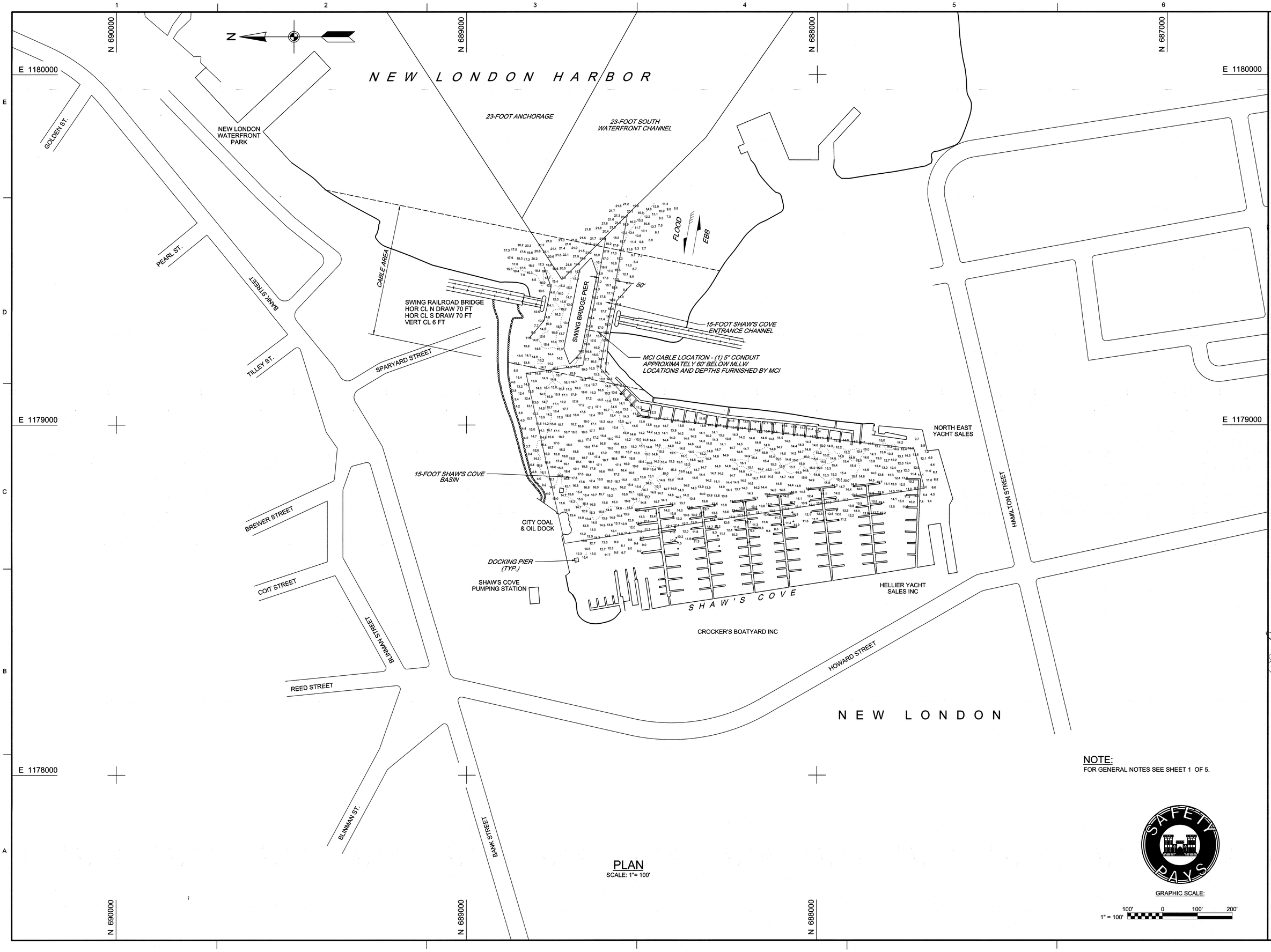
U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT
CONCORD, MASSACHUSETTS
www.nae.usace.army.mil

REVIEWED BY: Mid. Chief, Survey Section
SUBMITTED BY: Chief, Survey Section
DATE: 7/28/15
DWN BY: AEB
CKD BY: JWP/MTM
DESIGN FILE: NLH-189_V-HP-MAS.dgn
DRAWING CODE: NLH-189
PLOT SCALE: 1:1
PLOT DATE: 07/28/2015
FILE NAME: NLH-189_V-104.dgn
SIZE: ANSI F

NEW LONDON HARBOR
NEW LONDON AND GROTON, CONNECTICUT
CONDITION SURVEY

15, 23, 36 AND 40-FOOT CHANNELS, 23 AND 40-FOOT ANCHORAGES, 15-FOOT BASIN AND 23-FOOT MANEUVERING AREA

SHEET IDENTIFICATION
V-104
SHEET 4 OF 5



PLAN

SCALE: 1"= 100'

NOTE:
FOR GENERAL NOTES SEE SHEET 1 OF 5.

SAFETY PAYS

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

US Army Corps of Engineers®
New England District

MARK	DESCRIPTION	DATE	APPR

MARK	DESCRIPTION	DATE	APPR

U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT
CONCORD, MASSACHUSETTS
www.nae.usace.army.mil

REVIEWED BY: Jack Chief, Survey Section
SUBMITTED BY: Chief, Survey Section
DATE: 7/29/15
DWN BY: AEB
CKD BY: JWP/MTM
DESIGN FILE: NLH-189_V-HP-MAS.dgn
DRAWING CODE: NLH-189
PLOT SCALE: 1:1
PLOT DATE: 07/28/2015
SIZE: ANSI F
FILE NAME: NLH-189_V-105.dgn

NEW LONDON HARBOR
NEW LONDON AND GROTON, CONNECTICUT
CONDITION SURVEY

15, 23, 36 AND 40-FOOT CHANNELS, 23 AND 40-FOOT ANCHORAGES, 15-FOOT BASIN AND 23-FOOT MANEUVERING AREA

SHEET IDENTIFICATION
V-105
SHEET 5 OF 5