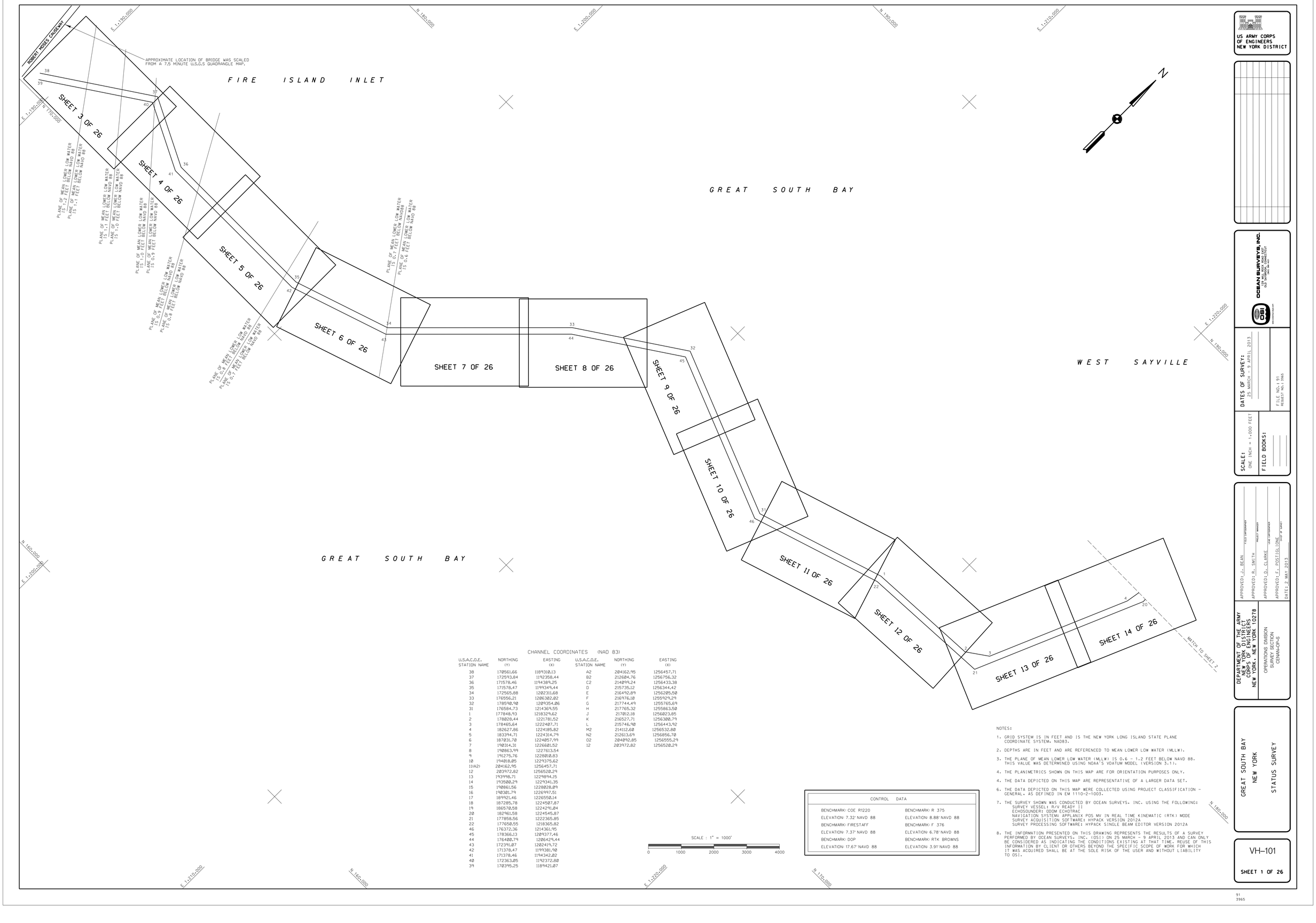
CORPS OF ENGINEERS

U. S. ARMY



CHANNEL COORDINATES (NAD 83)

U.S.A.C.O.E. STATION NAME	NORTHING (Y)	EASTING (X)	U.S.A.C.O.E. STATION NAME	NORTHING (Y)	EASTING (X)
38	170561.66	1189310.13	A2	210162.95	1256457.71
37	172593.84	1192358.44	B2	212684.76	1256756.32
36	171578.46	1194389.25	C2	214099.24	1256433.38
35	171578.47	1199349.44	D	215735.12	1256344.42
34	172565.88	1202311.68	E	216492.89	1256285.50
33	176556.21	1206302.82	F	216976.10	1255929.29
32	178598.98	1209354.86	G	217744.49	1255765.69
31	176584.73	1214369.55	H	217765.32	1255863.50
1	177848.93	1218329.62	J	217812.18	1256023.85
2	178028.44	1221781.52	K	216527.71	1256300.79
3	178465.64	1222487.71	L	215746.98	1256443.92
4	182627.86	1224185.82	M2	214112.68	1256532.80
5	183394.71	1224314.79	N2	212613.69	1256856.70
6	187031.70	1224057.99	O2	210492.85	1256555.29
7	190314.31	1226681.52	I2	203972.82	1256520.29
8	190863.99	1227613.54			
9	191275.76	1228010.83			
10	194018.05	1229375.62			
11(42)	204162.95	1256457.71			
12	203972.82	1256520.29			
13	193998.71	1229894.15			
14	193500.29	1229341.35			
15	190861.56	1228028.89			
16	190301.79	1226997.51			
17	189921.46	1226558.14			
18	187285.78	1224507.87			
19	186570.58	1224291.04			
20	182961.58	1224545.87			
21	177858.56	1222365.85			
22	177650.55	1218365.82			
46	176372.36	1214361.95			
45	178366.13	1209377.46			
44	176400.79	1206429.44			
43	172391.87	1202419.72			
42	171378.47	1199381.98			
41	171378.46	1194342.82			
40	172363.85	1192372.80			
39	170395.25	1189421.87			

SCALE : 1" = 1000'

0 1000 2000 3000 4000

CONTROL DATA	
BENCHMARK: COE R1220	BENCHMARK: R 375
ELEVATION: 7.32' NAVD 88	ELEVATION: 8.88' NAVD 88
BENCHMARK: FIRESTAFF	BENCHMARK: F 376
ELEVATION: 7.37' NAVD 88	ELEVATION: 6.78' NAVD 88
BENCHMARK: DOP	BENCHMARK: RTK BROWNS
ELEVATION: 17.67' NAVD 88	ELEVATION: 3.91' NAVD 88

NOTES:

1. GRID SYSTEM IS IN FEET AND IS THE NEW YORK LONG ISLAND STATE PLANE COORDINATE SYSTEM, NAD83.
2. DEPTHS ARE IN FEET AND ARE REFERENCED TO MEAN LOWER LOW WATER (MLLW).
3. THE PLANE OF MEAN LOWER LOW WATER (MLLW) IS 0.6 - 1.2 FEET BELOW NAVD 88. THIS VALUE WAS DETERMINED USING NOAA'S VDATUM MODEL (VERSION 3.1).
4. THE PLANIMETRICS SHOWN ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY.
4. THE DATA DEPICTED ON THIS MAP ARE REPRESENTATIVE OF A LARGER DATA SET.
6. THE DATA DEPICTED ON THIS MAP WERE COLLECTED USING PROJECT CLASSIFICATION - GENERAL, AS DEFINED IN EM 1110-2-1003.
7. THE SURVEY SHOWN WAS CONDUCTED BY OCEAN SURVEYS, INC. USING THE FOLLOWING:
   SURVEY VESSEL: R/V READY II
   ECHOSOUNDER: ODOM ECHOTRAC
   NAVIGATION SYSTEMS: APPLANIX POS MV IN REAL TIME KINEMATIC (RTK) MODE
   SURVEY ACQUISITION SOFTWARE: HYPACK VERSION 2012A
   SURVEY PROCESSING SOFTWARE: HYPACK SINGLE BEAM EDITOR VERSION 2012A
8. THE INFORMATION PRESENTED ON THIS DRAWING REPRESENTS THE RESULTS OF A SURVEY PERFORMED BY OCEAN SURVEYS, INC. (OSI) ON 25 MARCH - 9 APRIL 2013 AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS EXISTING AT THAT TIME. REUSE OF THIS INFORMATION BY CLIENT OR OTHERS BEYOND THE SPECIFIC SCOPE OF WORK FOR WHICH IT WAS ACQUIRED SHALL BE AT THE SOLE RISK OF THE USER AND WITHOUT LIABILITY TO OSI.

US ARMY CORPS OF ENGINEERS NEW YORK DISTRICT

OCEAN SURVEYS, INC.
129 WILLOCK ROAD, #301
GUILFORD, CONNECTICUT
(203) 458-1421

DATES OF SURVEY: 25 MARCH - 9 APRIL 2013

FILE NO.: 91
HODGES NO.: 3965

SCALE: ONE INCH = 1,000 FEET

FIELD BOOKS:

APPROVED: J. BEAN, FIELD SUPERINTENDENT
APPROVED: R. SMITH, PROJECT MANAGER
APPROVED: D. CLARKE, CHIEF SURVEYOR/PARTY CHIEF
APPROVED: F. POSTIGLIONE, CHIEF OF SURVEY
DATE: 2 MAY 2013

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

GREAT SOUTH BAY
NEW YORK
STATUS SURVEY

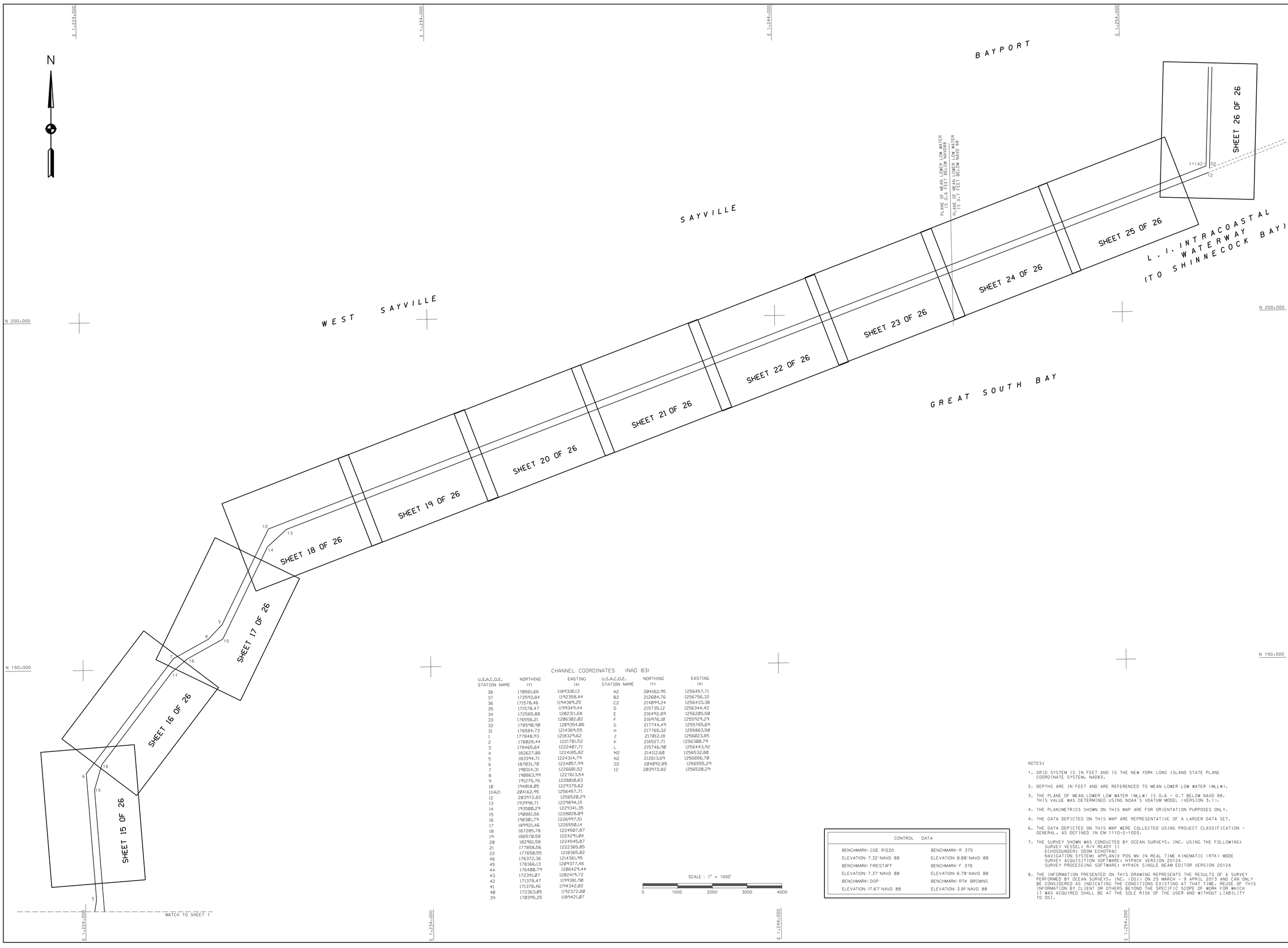
VH-101

SHEET 1 OF 26

91
3965

CORPS OF ENGINEERS

U. S. ARMY



CHANNEL COORDINATES (NAD 83)

U.S.A.C.O.E. STATION NAME	NORTHING (Y)	EASTING (X)	U.S.A.C.O.E. STATION NAME	NORTHING (Y)	EASTING (X)
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7	190314.31	1226601.52	I2	203972.82	1256520.29
8	190863.99	1227613.54			
9	191275.76	1228010.63			
10	194018.05	1229375.62			
11(A2)	204162.95	1256457.71			
12	203972.82	1256520.29			
13	193998.71	1229894.15			
14	193500.29	1229341.35			
15	190861.56	1228028.09			
16	190301.79	1226997.51			
17	189921.46	1226550.14			
18	187285.78	1224507.87			
19	186570.58	1224291.24			
20	182961.58	1224545.87			
21	177858.56	1222365.85			
22	177650.55	1218365.82			
46	176372.36	1214361.95			
45	178366.13	1209377.46			
44	176402.79	1206429.44			
43	172391.87	1202419.72			
42	171378.47	1199381.90			
41	171378.46	1194342.82			
40	172363.85	1192372.80			
39	170395.25	1189421.87			

SCALE : 1" = 1000'

0 1000 2000 3000 4000

CONTROL DATA	
BENCHMARK: COE R1220	BENCHMARK: R 375
ELEVATION: 7.32' NAVD 88	ELEVATION: 8.88' NAVD 88
BENCHMARK: FIRESTAFF	BENCHMARK: F 376
ELEVATION: 7.37' NAVD 88	ELEVATION: 6.78' NAVD 88
BENCHMARK: DOP	BENCHMARK: RTK BROWNS
ELEVATION: 17.67' NAVD 88	ELEVATION: 3.91' NAVD 88

NOTES:

1. GRID SYSTEM IS IN FEET AND IS THE NEW YORK LONG ISLAND STATE PLANE COORDINATE SYSTEM, NAD83.
2. DEPTHS ARE IN FEET AND ARE REFERENCED TO MEAN LOWER LOW WATER (MLLW).
3. THE PLANE OF MEAN LOWER LOW WATER (MLLW) IS 0.6 – 0.7 BELOW NAVD 88. THIS VALUE WAS DETERMINED USING NOAA'S VDATUM MODEL (VERSION 3.1).
4. THE PLANIMETRICS SHOWN ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY.
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7. THE SURVEY SHOWN WAS CONDUCTED BY OCEAN SURVEYS, INC. USING THE FOLLOWING:
   SURVEY VESSEL: R/V READY II
   ECHOSOUNDER: ODOM ECHOTRAC
   NAVIGATION SYSTEM: APPLANIX POS MV IN REAL TIME KINEMATIC (RTK) MODE
   SURVEY ACQUISITION SOFTWARE: HYPACK VERSION 2012A
   SURVEY PROCESSING SOFTWARE: HYPACK SINGLE BEAM EDITOR VERSION 2012A
8. THE INFORMATION PRESENTED ON THIS DRAWING REPRESENTS THE RESULTS OF A SURVEY PERFORMED BY OCEAN SURVEYS, INC. (OSI) ON 25 MARCH – 9 APRIL 2013 AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS EXISTING AT THAT TIME. REUSE OF THIS INFORMATION BY CLIENT OR OTHERS BEYOND THE SPECIFIC SCOPE OF WORK FOR WHICH IT WAS ACQUIRED SHALL BE AT THE SOLE RISK OF THE USER AND WITHOUT LIABILITY TO OSI.

US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

OCEAN SURVEYS, INC.
OLD SAYBROOK, CONNECTICUT

DATES OF SURVEY:
25 MARCH - 9 APRIL 2013

FILE NO.: 91
REQUEST NO.: 13965

SCALE:
ONE INCH = 1,000 FEET

FIELD BOOKS:

APPROVED: J.L. BEAN — FIELD SURVEILLANCE
APPROVED: R. SMITH — PROJECT MANAGER
APPROVED: D. CLARKE — LEAD SURVEILLANCE
APPROVED: F. POSTIGLIONE — CHIEF OF SURVEY
DATE: 2 MAY 2013

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-HS

GREAT SOUTH BAY
NEW YORK
STATUS SURVEY

VH-101

SHEET 2 OF 26

91
3965

CORPS OF ENGINEERS

U. S. ARMY

N

E 1,190,000

E 1,191,000

E 1,192,000

N 172,000

N 171,000

GREAT SOUTH BAY

PLANE OF MEAN LOWER LOW WATER
IS 12 FEET BELOW NAVD 88

PLANE OF MEAN LOWER LOW WATER
IS 13 FEET BELOW NAVD 88

PLANE OF MEAN LOWER LOW WATER
IS 14 FEET BELOW NAVD 88

PLANE OF MEAN LOWER LOW WATER
IS 15 FEET BELOW NAVD 88

MATCH TO SHEET 4

GREEN CAN #19
EBB TIDE
6 APRIL 2013

SCALE : 1" = 100'

0 100 200 300 400

CONTROL DATA	
BENCHMARK: COE R1220	BENCHMARK: R 375
ELEVATION: 7.32' NAVD 88	ELEVATION: 8.88' NAVD 88
BENCHMARK: FIRESTAFF	BENCHMARK: F 376
ELEVATION: 7.37' NAVD 88	ELEVATION: 6.78' NAVD 88
BENCHMARK: DOP	BENCHMARK: RTK BROWNS
ELEVATION: 17.67' NAVD 88	ELEVATION: 3.91' NAVD 88

NOTES:

1. GRID SYSTEM IS IN FEET AND IS THE NEW YORK LONG ISLAND STATE PLANE COORDINATE SYSTEM. NAD83.
2. DEPTHS ARE IN FEET AND ARE REFERENCED TO MEAN LOWER LOW WATER (MLLW).
3. THE PLANE OF MEAN LOWER LOW WATER (MLLW) IS 0.9 – 1.2 FEET BELOW NAVD 88. THIS VALUE WAS DETERMINED USING NOAA'S VDATUM MODEL (VERSION 3.1).
4. THE PLANIMETRICS SHOWN ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY.
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   SURVEY VESSEL: R/V READY II
   ECHOSOUNDER: ODOM ECHOTRAC
   NAVIGATION SYSTEMS: APPLANIX POS MV IN REAL TIME KINEMATIC (RTK) MODE
   SURVEY ACQUISITION SOFTWARE: HYPACK VERSION 2012A
   SURVEY PROCESSING SOFTWARE: HYPACK SINGLE BEAM EDITOR VERSION 2012A
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US ARMY CORPS
OF ENGINEERS
NEW YORK DISTRICT

OCEAN SURVEYS, INC.
A DIVISION OF EASTERN
OLD SAYBROOK, CONNECTICUT
www.oceansurveys.com

DATES OF SURVEY:
25 MARCH – 9 APRIL 2013

FILE NO.: 91
REQUEST NO.: 3965

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:

APPROVED: J. BEAN — FIELD SURVEILLANCE
APPROVED: R. SMITH — PROJECT MANAGER
APPROVED: D. CLARKE — CHIEF SURVEILLANCE
APPROVED: F. POSTIGLIONE — CHIEF OF SURVEY
DATE: 2 MAY 2013

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

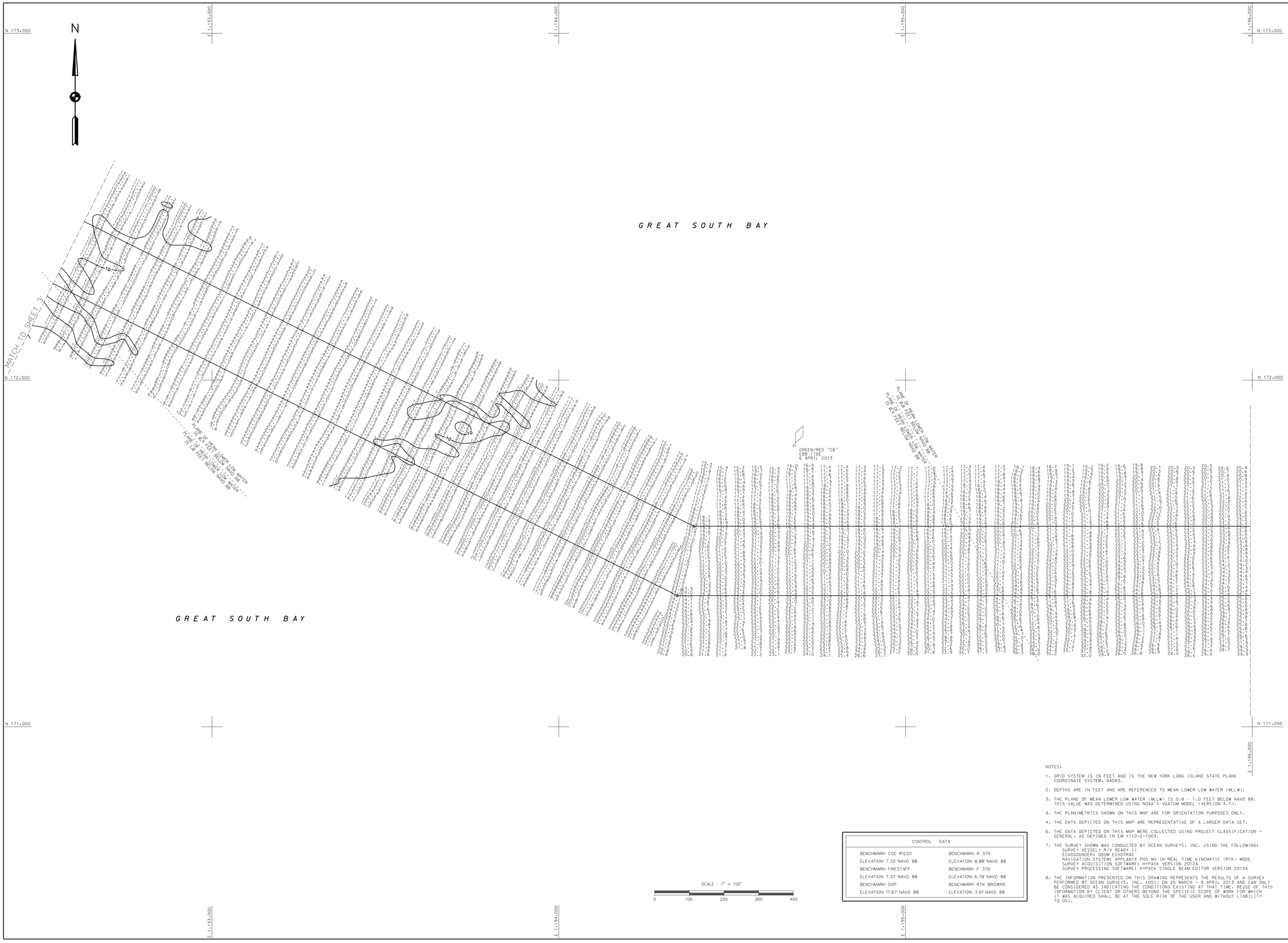
OPERATIONS DIVISION
SURVEY SECTION
CENAN-OPS

GREAT SOUTH BAY
NEW YORK
STATUS SURVEY

VH–103

SHEET 3 OF 26

91
3965



CONTROL DATA	
BENCHMARK: COE R1220	BENCHMARK: R 375
ELEVATION: 7.32' NAVD 88	ELEVATION: 8.88' NAVD 88
BENCHMARK: FIRESTAFF	BENCHMARK: F 376
ELEVATION: 7.37' NAVD 88	ELEVATION: 6.78' NAVD 88
BENCHMARK: DOP	BENCHMARK: RTK BROWNS
ELEVATION: 17.67' NAVD 88	ELEVATION: 3.91' NAVD 88

NOTES:

1. GRID SYSTEM IS IN FEET AND IS THE NEW YORK LONG ISLAND STATE PLANE COORDINATE SYSTEM, NAD83.
2. DEPTHS ARE IN FEET AND ARE REFERENCED TO MEAN LOWER LOW WATER (MLLW).
3. THE PLANE OF MEAN LOWER LOW WATER (MLLW) IS 0.8 - 1.0 FEET BELOW NAVD 88. THIS VALUE WAS DETERMINED USING NOAA'S VDATUM MODEL (VERSION 3.1).
4. THE PLANIMETRICS SHOWN ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY.
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7. THE SURVEY SHOWN WAS CONDUCTED BY OCEAN SURVEYS, INC. USING THE FOLLOWING:
   SURVEY VESSEL: R/V READY II
   ECHOSOUNDER: ODOM ECHOTRAC
   NAVIGATION SYSTEM: APPLANIX POS MV IN REAL TIME KINEMATIC (RTK) MODE
   SURVEY ACQUISITION SOFTWARE: HYPACK VERSION 2012A
   SURVEY PROCESSING SOFTWARE: HYPACK SINGLE BEAM EDITOR VERSION 2012A
8. THE INFORMATION PRESENTED ON THIS DRAWING REPRESENTS THE RESULTS OF A SURVEY PERFORMED BY OCEAN SURVEYS, INC. (OSI) ON 25 MARCH - 9 APRIL 2013 AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS EXISTING AT THAT TIME. REUSE OF THIS INFORMATION BY CLIENT OR OTHERS BEYOND THE SPECIFIC SCOPE OF WORK FOR WHICH IT WAS ACQUIRED SHALL BE AT THE SOLE RISK OF THE USER AND WITHOUT LIABILITY TO OSI.

US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

OCEAN SURVEYS, INC.
129 WILL ROCK ROAD EAST
OLD SAYBROOK, CONNECTICUT
(860) 388-4439
www.osi.com

DATES OF SURVEY:
25 MARCH - 9 APRIL 2013

FILE NO.: 91
REQUEST NO.: 3965

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:

APPROVED: J. BEAN — FIELD CARTOGRAPHER
APPROVED: R. SMITH — PROJECT MANAGER
APPROVED: D. CLARKE — LEAD CARTOGRAPHER
APPROVED: F. POSTIGLIONE — CHIEF OF SURVEY
DATE: 2 MAY 2013

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

GREAT SOUTH BAY
NEW YORK
STATUS SURVEY

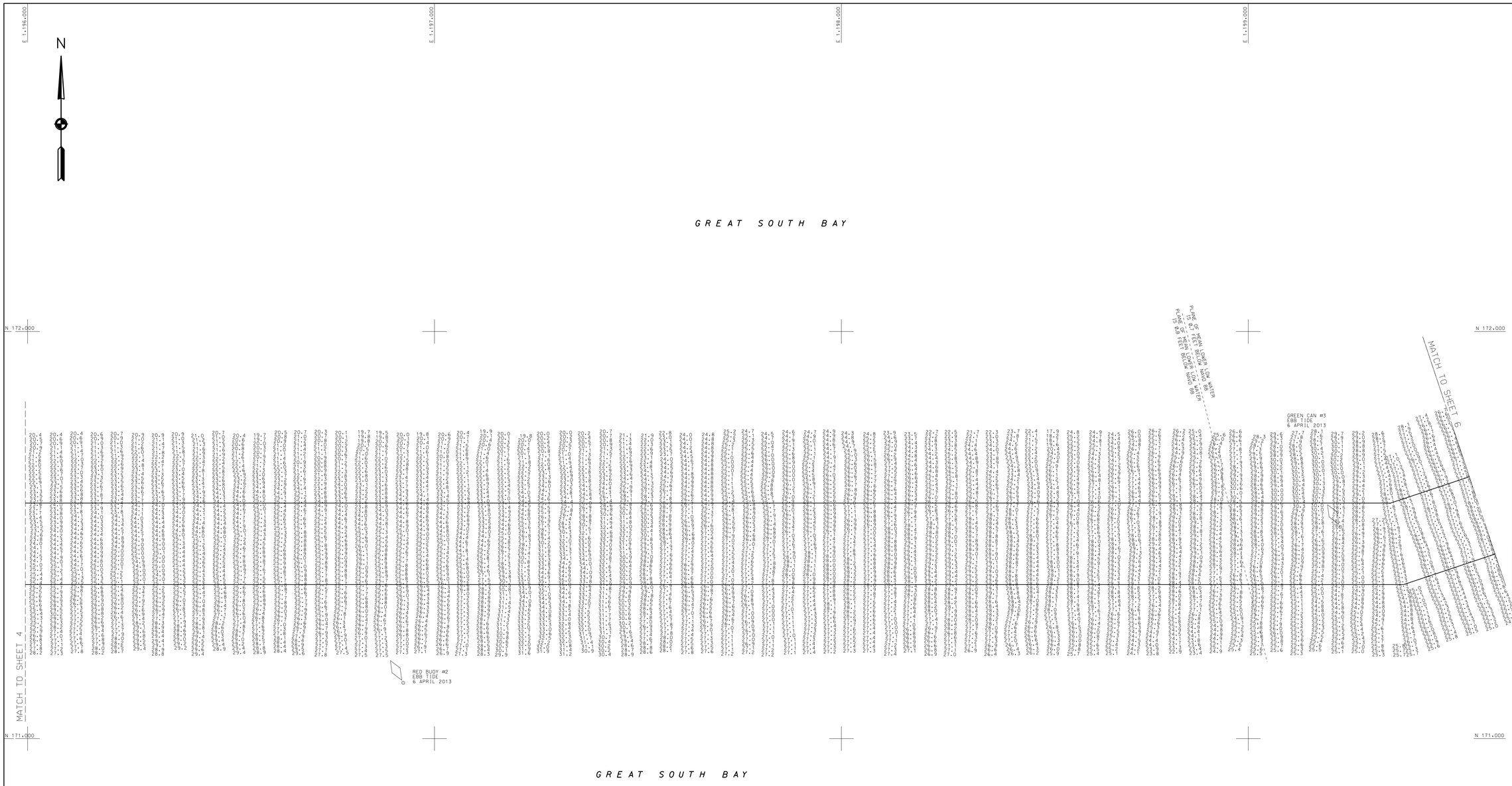
VH-104

SHEET 4 OF 26

91
3965

CORPS OF ENGINEERS

U. S. ARMY



SCALE : 1" = 100'

0 100 200 300 400

CONTROL DATA	
BENCHMARK: COE R1220	BENCHMARK: R 375
ELEVATION: 7.32' NAVD 88	ELEVATION: 8.88' NAVD 88
BENCHMARK: FIRESTAFF	BENCHMARK: F 376
ELEVATION: 7.37' NAVD 88	ELEVATION: 6.78' NAVD 88
BENCHMARK: DOP	BENCHMARK: RTK BROWNS
ELEVATION: 17.67' NAVD 88	ELEVATION: 3.91' NAVD 88

NOTES:

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   ECHOSOUNDER: ODOM ECHOTRAC
   NAVIGATION SYSTEM: APPLANIX POS MV IN REAL TIME KINEMATIC (RTK) MODE
   SURVEY ACQUISITION SOFTWARE: HYPACK VERSION 2012A
   SURVEY PROCESSING SOFTWARE: HYPACK SINGLE BEAM EDITOR VERSION 2012A
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US ARMY CORPS OF ENGINEERS NEW YORK DISTRICT

OCEAN SURVEYS, INC.
129 WALL BOOK ROAD EAST
OLD SAYBROOK, CONNECTICUT
(800) 380-1630

DATES OF SURVEY:
25 MARCH - 9 APRIL 2013

FILE NO.: 91
REQUEST NO.: 3965

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:

APPROVED: J. BEAN — FIELD CARTOGRAPHER
APPROVED: R. SMITH — PROJECT MANAGER
APPROVED: D. CLARKE — LEAD CARTOGRAPHER
APPROVED: F. POSTIGLIONE — CHIEF OF SURVEY
DATE: 2 MAY 2013

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

GREAT SOUTH BAY
NEW YORK
STATUS SURVEY

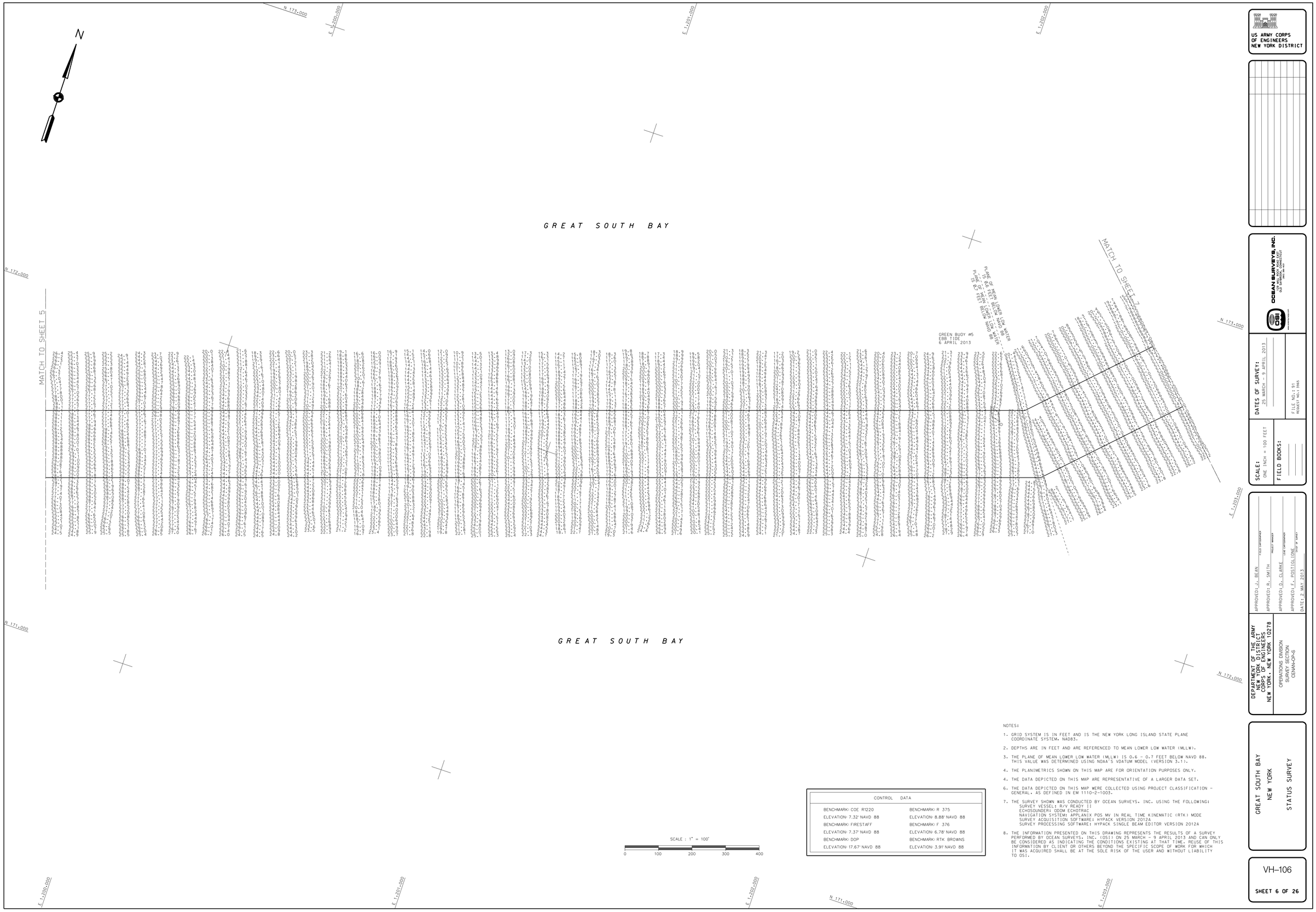
VH-105

SHEET 5 OF 26

91
3965

CORPS OF ENGINEERS

U. S. ARMY



CONTROL DATA	
BENCHMARK: COE R1220	BENCHMARK: R 375
ELEVATION: 7.32' NAVD 88	ELEVATION: 8.88' NAVD 88
BENCHMARK: FIRESTAFF	BENCHMARK: F 376
ELEVATION: 7.37' NAVD 88	ELEVATION: 6.78' NAVD 88
BENCHMARK: DOP	BENCHMARK: RTK BROWNS
ELEVATION: 17.67' NAVD 88	ELEVATION: 3.91' NAVD 88

NOTES:

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   SURVEY VESSEL: R/V READY II
   ECHOSOUNDER: ODOM ECHOTRAC
   NAVIGATION SYSTEM: APPLANIX POS MV IN REAL TIME KINEMATIC (RTK) MODE
   SURVEY ACQUISITION SOFTWARE: HYPACK VERSION 2012A
   SURVEY PROCESSING SOFTWARE: HYPACK SINGLE BEAM EDITOR VERSION 2012A
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US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

OCEAN SURVEYS, INC.
174 WALL STREET, ROAD EAST
OLD SATBROOK, CONNECTICUT
(860) 388-4201

DATES OF SURVEY:
25 MARCH - 9 APRIL 2013

FILE NO.: 91
REQUEST NO.: 3965

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:

APPROVED: J. BEAN — FIELD CARTOGRAPHER
APPROVED: R. SMITH — PROJECT MANAGER
APPROVED: D. CLARKE — LEAD CARTOGRAPHER
APPROVED: F. POSTIGLIONE — CHIEF OF SURVEY
DATE: 2 MAY 2013

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

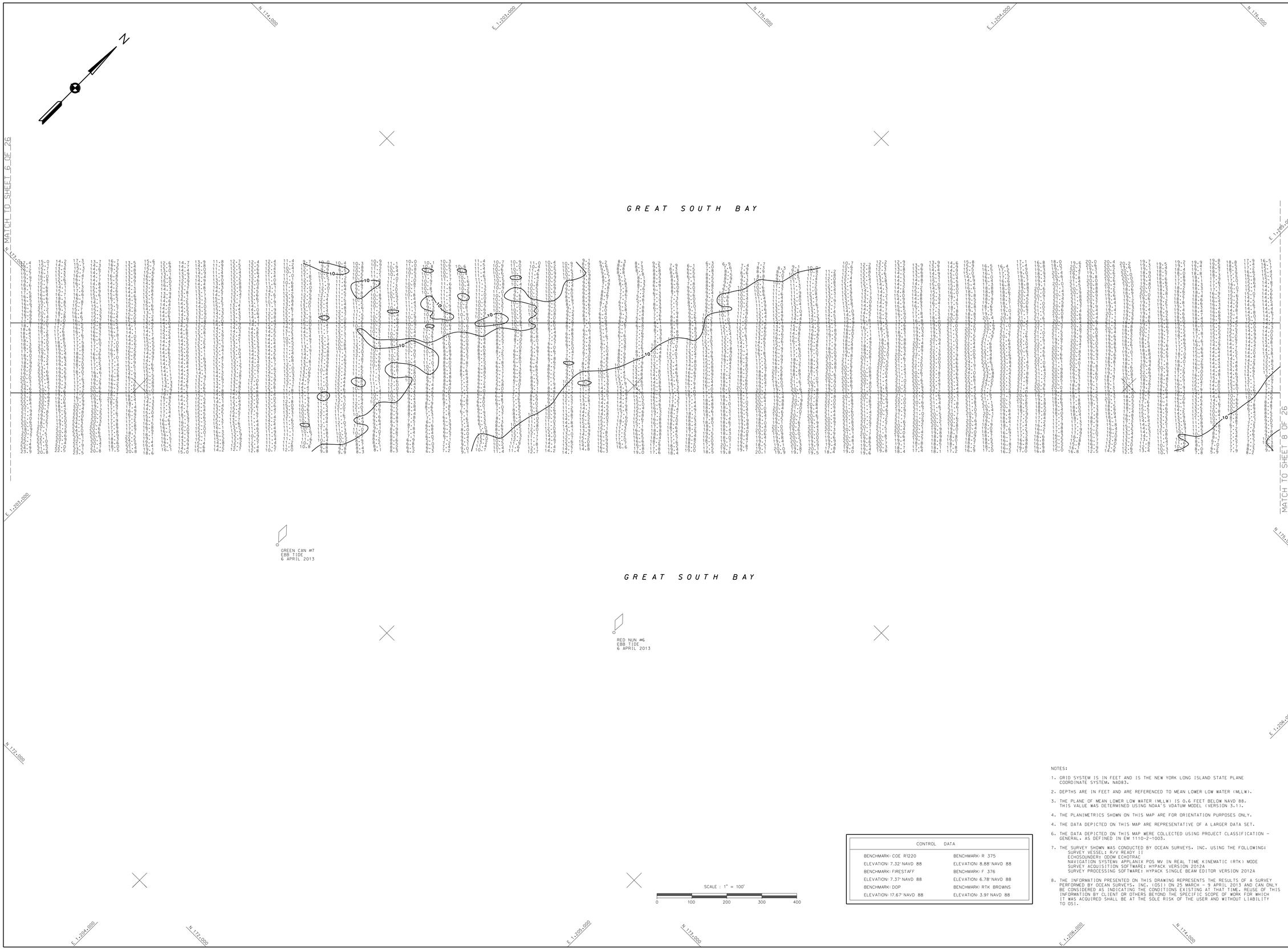
OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

GREAT SOUTH BAY
NEW YORK
STATUS SURVEY

VH-106

SHEET 6 OF 26

91
3965



CONTROL DATA	
BENCHMARK: COE R1220	BENCHMARK: R 375
ELEVATION: 7.32' NAVD 88	ELEVATION: 8.88' NAVD 88
BENCHMARK: FIRESTAFF	BENCHMARK: F 376
ELEVATION: 7.37' NAVD 88	ELEVATION: 6.78' NAVD 88
BENCHMARK: DOP	BENCHMARK: RTK BROWNS
ELEVATION: 17.67' NAVD 88	ELEVATION: 3.91' NAVD 88

NOTES:

1. GRID SYSTEM IS IN FEET AND IS THE NEW YORK LONG ISLAND STATE PLANE COORDINATE SYSTEM, NAD83.
2. DEPTHS ARE IN FEET AND ARE REFERENCED TO MEAN LOWER LOW WATER (MLLW).
3. THE PLANE OF MEAN LOWER LOW WATER (MLLW) IS 0.6 FEET BELOW NAVD 88. THIS VALUE WAS DETERMINED USING NOAA'S VDATUM MODEL (VERSION 3.1).
4. THE PLANIMETRICS SHOWN ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY.
4. THE DATA DEPICTED ON THIS MAP ARE REPRESENTATIVE OF A LARGER DATA SET.
6. THE DATA DEPICTED ON THIS MAP WERE COLLECTED USING PROJECT CLASSIFICATION - GENERAL, AS DEFINED IN EM 1110-2-1003.
7. THE SURVEY SHOWN WAS CONDUCTED BY OCEAN SURVEYS, INC. USING THE FOLLOWING:
   SURVEY VESSEL: R/V READY II
   ECHOSOUNDER: ODOM ECHOTRAC
   NAVIGATION SYSTEM: APPLANIX POS MV IN REAL TIME KINEMATIC (RTK) MODE
   SURVEY ACQUISITION SOFTWARE: HYPACK VERSION 2012A
   SURVEY PROCESSING SOFTWARE: HYPACK SINGLE BEAM EDITOR VERSION 2012A
8. THE INFORMATION PRESENTED ON THIS DRAWING REPRESENTS THE RESULTS OF A SURVEY PERFORMED BY OCEAN SURVEYS, INC. (OSI) ON 25 MARCH - 9 APRIL 2013 AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS EXISTING AT THAT TIME. REUSE OF THIS INFORMATION BY CLIENT OR OTHERS BEYOND THE SPECIFIC SCOPE OF WORK FOR WHICH IT WAS ACQUIRED SHALL BE AT THE SOLE RISK OF THE USER AND WITHOUT LIABILITY TO OSI.

US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

OCEAN SURVEYS, INC.
129 WILL ROCK ROAD EAST
OLD SAYBROOK, CONNECTICUT
www.oceansurveys.com

DATES OF SURVEY:
25 MARCH - 9 APRIL 2013

FILE NO.: 91
REQUEST NO.: 3965

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:

APPROVED: J. BEAN — FIELD CARTOGRAPHER
APPROVED: R. SMITH — PROJECT MANAGER
APPROVED: D. CLARKE — LEAD CARTOGRAPHER
APPROVED: F. POSTIGLIONE — CHIEF OF SURVEY
DATE: 2 MAY 2013

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

GREAT SOUTH BAY
NEW YORK
STATUS SURVEY

VH-107

SHEET 7 OF 26

91
3965

CORPS OF ENGINEERS

U. S. ARMY

N 176,000

E 1,205,400

N 177,000

E 1,206,400

N 178,000

E 1,207,000

GREEN CAN #1
EBB TIDE
6 APRIL 2013

GREEN/RED "E#"
EBB TIDE
6 APRIL 2013

GREAT SOUTH BAY

E 1,208,000

N 176,000

MATCH TO SHEET 7

MATCH TO SHEET 9

GREAT SOUTH BAY

E 1,205,000

E 1,207,000

N 176,000

E 1,208,000

N 176,000

SCALE : 1" = 100'

0 100 200 300 400

CONTROL DATA	
BENCHMARK: COE R1220	BENCHMARK: R 375
ELEVATION: 7.32' NAVD 88	ELEVATION: 8.88' NAVD 88
BENCHMARK: FIRESTAFF	BENCHMARK: F 376
ELEVATION: 7.37' NAVD 88	ELEVATION: 6.78' NAVD 88
BENCHMARK: DOP	BENCHMARK: RTK BROWNS
ELEVATION: 17.67' NAVD 88	ELEVATION: 3.91' NAVD 88

NOTES:

1. GRID SYSTEM IS IN FEET AND IS THE NEW YORK LONG ISLAND STATE PLANE COORDINATE SYSTEM. NAD83.
2. DEPTHS ARE IN FEET AND ARE REFERENCED TO MEAN LOWER LOW WATER (MLLW).
3. THE PLANE OF MEAN LOWER LOW WATER (MLLW) IS 0.6 FEET BELOW NAVD 88. THIS VALUE WAS DETERMINED USING NOAA'S VDATUM MODEL (VERSION 3.11).
4. THE PLANIMETRICS SHOWN ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY.
4. THE DATA DEPICTED ON THIS MAP ARE REPRESENTATIVE OF A LARGER DATA SET.
6. THE DATA DEPICTED ON THIS MAP WERE COLLECTED USING PROJECT CLASSIFICATION - GENERAL, AS DEFINED IN EM 1110-2-1003.
7. THE SURVEY SHOWN WAS CONDUCTED BY OCEAN SURVEYS, INC. USING THE FOLLOWING:
   SURVEY VESSEL: R/V READY II
   ECHOSOUNDER: ODOM ECHOTRAC
   NAVIGATION SYSTEM: APPLANIX POS MV IN REAL TIME KINEMATIC (RTK) MODE
   SURVEY ACQUISITION SOFTWARE: HYPACK VERSION 2012A
   SURVEY PROCESSING SOFTWARE: HYPACK SINGLE BEAM EDITOR VERSION 2012A
8. THE INFORMATION PRESENTED ON THIS DRAWING REPRESENTS THE RESULTS OF A SURVEY PERFORMED BY OCEAN SURVEYS, INC. (OSI) ON 25 MARCH - 9 APRIL 2013 AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS EXISTING AT THAT TIME. REUSE OF THIS INFORMATION BY CLIENT OR OTHERS BEYOND THE SPECIFIC SCOPE OF WORK FOR WHICH IT WAS ACQUIRED SHALL BE AT THE SOLE RISK OF THE USER AND WITHOUT LIABILITY TO OSI.

N 177,000

US ARMY CORPS
OF ENGINEERS
NEW YORK DISTRICT

OCEAN SURVEYS, INC.
A DIVISION OF EDGE
OLD SAYBROOK, CONNECTICUT
www.oceansurveys.com

SCALE:
ONE INCH = 100 FEET

DATES OF SURVEY:
25 MARCH - 9 APRIL 2013

FIELD BOOKS:

FILE NO.: 91
REQUEST NO.: 3965

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

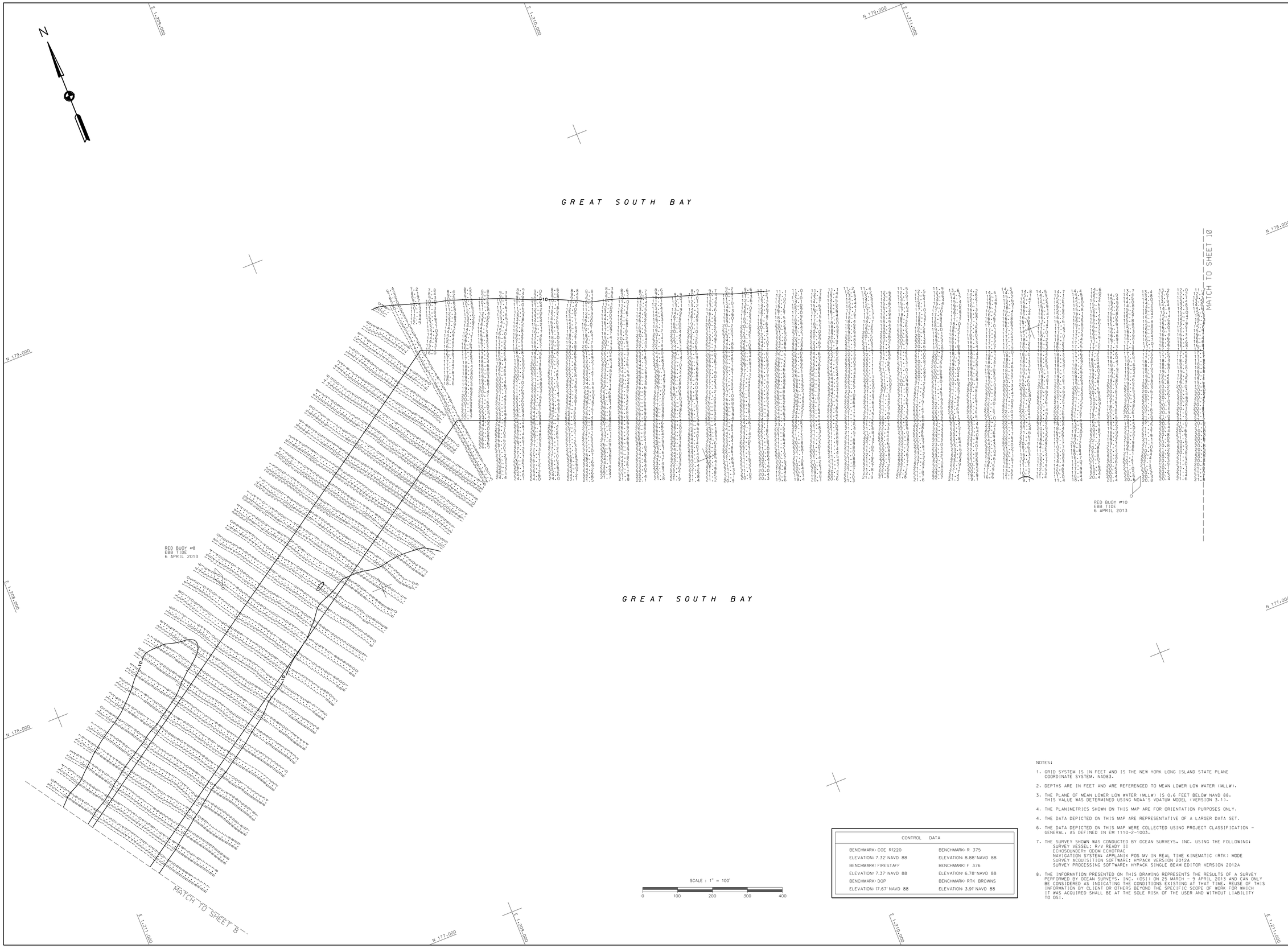
APPROVED: J. BEAN — FIELD CAMPAIGNER
APPROVED: R. SMITH — PROJECT MANAGER
APPROVED: D. CLARKE — TEAM CAMPAIGNER
APPROVED: F. POSTIGLIONE — CHIEF OF SURVEY
DATE: 2 MAY 2013

GREAT SOUTH BAY
NEW YORK
STATUS SURVEY

VH-108

SHEET 8 OF 26

91
3965



CONTROL DATA	
BENCHMARK: COE R1220	BENCHMARK: R 375
ELEVATION: 7.32' NAVD 88	ELEVATION: 8.88' NAVD 88
BENCHMARK: FIRESTAFF	BENCHMARK: F 376
ELEVATION: 7.37' NAVD 88	ELEVATION: 6.78' NAVD 88
BENCHMARK: DOP	BENCHMARK: RTK BROWNS
ELEVATION: 17.67' NAVD 88	ELEVATION: 3.91' NAVD 88

NOTES:

1. GRID SYSTEM IS IN FEET AND IS THE NEW YORK LONG ISLAND STATE PLANE COORDINATE SYSTEM, NAD83.
2. DEPTHS ARE IN FEET AND ARE REFERENCED TO MEAN LOWER LOW WATER (MLLW).
3. THE PLANE OF MEAN LOWER LOW WATER (MLLW) IS 0.6 FEET BELOW NAVD 88. THIS VALUE WAS DETERMINED USING NOAA'S VDATUM MODEL (VERSION 3.1).
4. THE PLANIMETRICS SHOWN ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY.
4. THE DATA DEPICTED ON THIS MAP ARE REPRESENTATIVE OF A LARGER DATA SET.
6. THE DATA DEPICTED ON THIS MAP WERE COLLECTED USING PROJECT CLASSIFICATION - GENERAL, AS DEFINED IN EM 1110-2-1003.
7. THE SURVEY SHOWN WAS CONDUCTED BY OCEAN SURVEYS, INC. USING THE FOLLOWING:
   SURVEY VESSEL: R/V READY II
   ECHOSOUNDER: ODOM ECHOTRAC
   NAVIGATION SYSTEM: APPLANIX POS MV IN REAL TIME KINEMATIC (RTK) MODE
   SURVEY ACQUISITION SOFTWARE: HYPACK VERSION 2012A
   SURVEY PROCESSING SOFTWARE: HYPACK SINGLE BEAM EDITOR VERSION 2012A
8. THE INFORMATION PRESENTED ON THIS DRAWING REPRESENTS THE RESULTS OF A SURVEY PERFORMED BY OCEAN SURVEYS, INC. (OSI) ON 25 MARCH - 9 APRIL 2013 AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS EXISTING AT THAT TIME. REUSE OF THIS INFORMATION BY CLIENT OR OTHERS BEYOND THE SPECIFIC SCOPE OF WORK FOR WHICH IT WAS ACQUIRED SHALL BE AT THE SOLE RISK OF THE USER AND WITHOUT LIABILITY TO OSI.

US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

OCEAN SURVEYS, INC.
13 WALL ROCK ROAD EAST
OLD SAYBROOK, CONNECTICUT
(860) 388-4810

DATES OF SURVEY:
25 MARCH - 9 APRIL 2013

FILE NO.: 91
REQUEST NO.: 3965

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:

APPROVED: J. BEAN — FIELD CARTOGRAPHER
APPROVED: R. SMITH — PROJECT MANAGER
APPROVED: D. CLARKE — LEAD CARTOGRAPHER
APPROVED: F. POSTIGLIONE — CHIEF OF SURVEY
DATE: 2 MAY 2013

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

GREAT SOUTH BAY
NEW YORK
STATUS SURVEY

VH-109

SHEET 9 OF 26

91
3965

U. S. ARMY

CORPS OF ENGINEERS

GREAT SOUTH BAY

GREAT SOUTH BAY

MATCH TO SHEET 9 OF 26

MATCH TO SHEET 11 OF 26

GREEN CAN #11
EBB TIDE
6 APRIL 2013

N

SCALE : 1" = 100'

0 100 200 300 400

CONTROL DATA	
BENCHMARK: COE RI22O	BENCHMARK: R 375
ELEVATION: 7.32' NAVD 88	ELEVATION: 8.88' NAVD 88
BENCHMARK: FIRESTAFF	BENCHMARK: F 376
ELEVATION: 7.37' NAVD 88	ELEVATION: 6.76' NAVD 88
BENCHMARK: DOP	BENCHMARK: RTK BROWNS
ELEVATION: 17.67' NAVD 88	ELEVATION: 3.97' NAVD 88

NOTES:

1. GRID SYSTEM IS IN FEET AND IS THE NEW YORK LONG ISLAND STATE PLANE COORDINATE SYSTEM, NAD83.
2. DEPTHS ARE IN FEET AND ARE REFERENCED TO MEAN LOWER LOW WATER (MLLW).
3. THE PLANE OF MEAN LOWER LOW WATER (MLLW) IS 0.6 FEET BELOW NAVD 88. THIS VALUE WAS DETERMINED USING NOAA'S VDATUM MODEL (VERSION 5.1).
4. THE PLANIMETRICS SHOWN ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY.
4. THE DATA DEPICTED ON THIS MAP ARE REPRESENTATIVE OF A LARGER DATA SET.
6. THE DATA DEPICTED ON THIS MAP WERE COLLECTED USING PROJECT CLASSIFICATION - GENERAL. AS DEFINED IN EM 1110-2-1003.
7. THE SURVEY VESSEL: R/V READY 11
ECHOSOUNDER: ODOM ECHOTRAC
NAVIGATION SYSTEM: APPLANIX POS MV IN REAL TIME KINEMATIC (RTK) MODE
SURVEY ACQUISITION SOFTWARE: HYPACK VERSION 2012A
SURVEY PROCESSING SOFTWARE: HYPACK SINGLE BEAM EDITOR VERSION 2012A
8. THE INFORMATION PRESENTED ON THIS DRAWING REPRESENTS THE RESULTS OF A SURVEY PERFORMED BY OCEAN SURVEYS, INC. (OSI) ON 25 MARCH - 9 APRIL 2013 AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS EXISTING AT THAT TIME. REUSE OF THIS INFORMATION BY CLIENT OR OTHERS BEYOND THE SPECIFIC SCOPE OF WORK FOR WHICH IT WAS ACQUIRED SHALL BE AT THE SOLE RISK OF THE USER AND WITHOUT LIABILITY TO OSI.

SHEET 10 OF 26

VH-110

GREAT SOUTH BAY
NEW YORK
STATUS SURVEY

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

APPROVED: J. BEAN (CHIEF, OPERATIONS DIVISION)
APPROVED: R. SMITH (PROJECT MANAGER)
APPROVED: L. CLARKE (CHIEF, SURVEY SECTION)
APPROVED: E. POSTIGLIONE (CHIEF OF SURVEY)
DATE: 2 MAY 2013

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:

DATES OF SURVEY:
25 MARCH - 9 APRIL 2013

FILE NOS: 91
REGISTER NOS: 3965

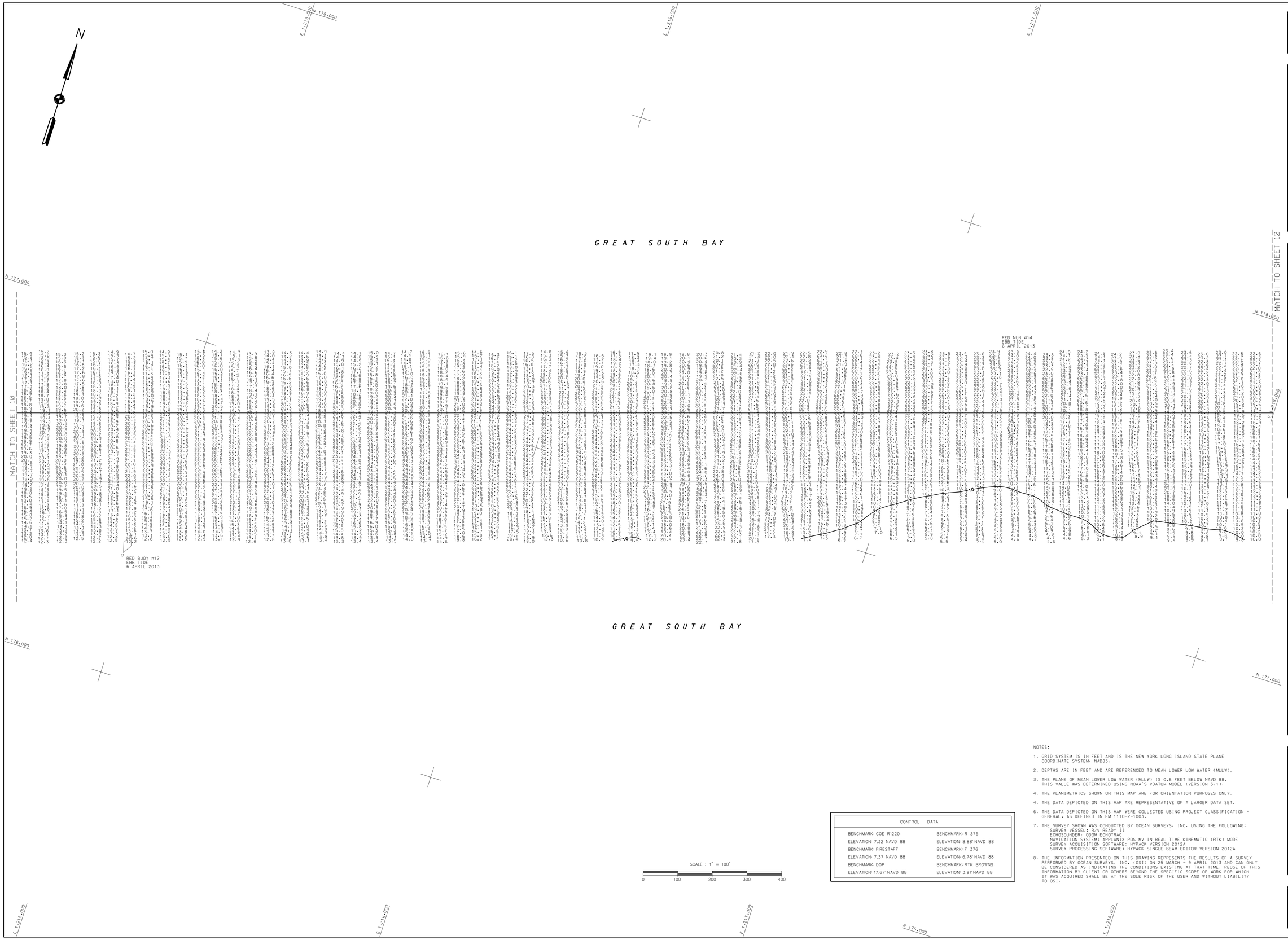
OCEAN SURVEYS, INC.
379 WESTMINSTER AVENUE
P.O. BOX 459
LYNBROOK, NEW YORK 11563-0459
(516) 599-3310
FAX (516) 599-4274

US ARMY CORPS
OF ENGINEERS
NEW YORK DISTRICT

CORPS OF ENGINEERS

U. S. ARMY

91
3965



CONTROL DATA	
BENCHMARK: COE R1220	BENCHMARK: R 375
ELEVATION: 7.32' NAVD 88	ELEVATION: 8.88' NAVD 88
BENCHMARK: FIRESTAFF	BENCHMARK: F 376
ELEVATION: 7.37' NAVD 88	ELEVATION: 6.78' NAVD 88
BENCHMARK: DOP	BENCHMARK: RTK BROWNS
ELEVATION: 17.67' NAVD 88	ELEVATION: 3.91' NAVD 88

NOTES:

1. GRID SYSTEM IS IN FEET AND IS THE NEW YORK LONG ISLAND STATE PLANE COORDINATE SYSTEM. NAD83.
2. DEPTHS ARE IN FEET AND ARE REFERENCED TO MEAN LOWER LOW WATER (MLLW).
3. THE PLANE OF MEAN LOWER LOW WATER (MLLW) IS 0.6 FEET BELOW NAVD 88. THIS VALUE WAS DETERMINED USING NOAA'S VDATUM MODEL (VERSION 3.1).
4. THE PLANIMETRICS SHOWN ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY.
4. THE DATA DEPICTED ON THIS MAP ARE REPRESENTATIVE OF A LARGER DATA SET.
6. THE DATA DEPICTED ON THIS MAP WERE COLLECTED USING PROJECT CLASSIFICATION - GENERAL. AS DEFINED IN EM 1110-2-1003.
7. THE SURVEY SHOWN WAS CONDUCTED BY OCEAN SURVEYS, INC. USING THE FOLLOWING:
   SURVEY VESSEL: R/V READY II
   ECHOSOUNDER: ODOM ECHOTRAC
   NAVIGATION SYSTEM: APPLANIX POS MV IN REAL TIME KINEMATIC (RTK) MODE
   SURVEY ACQUISITION SOFTWARE: HYPACK VERSION 2012A
   SURVEY PROCESSING SOFTWARE: HYPACK SINGLE BEAM EDITOR VERSION 2012A
8. THE INFORMATION PRESENTED ON THIS DRAWING REPRESENTS THE RESULTS OF A SURVEY PERFORMED BY OCEAN SURVEYS, INC. (OSI) ON 25 MARCH - 9 APRIL 2013 AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS EXISTING AT THAT TIME. REUSE OF THIS INFORMATION BY CLIENT OR OTHERS BEYOND THE SPECIFIC SCOPE OF WORK FOR WHICH IT WAS ACQUIRED SHALL BE AT THE SOLE RISK OF THE USER AND WITHOUT LIABILITY TO OSI.

US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

OCEAN SURVEYS, INC.
123 MILL ROCK ROAD EAST
OLD SAYBROOK, CONNECTICUT
(860) 388-2000

DATES OF SURVEY:
25 MARCH - 9 APRIL 2013

FILE NO.: 91
REQUEST NO.: 3965

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:

APPROVED: J. BEAN — FIELD CARTOGRAPHER
APPROVED: R. SMITH — PROJECT MANAGER
APPROVED: D. CLARKE — LEAD CARTOGRAPHER
APPROVED: F. POSTIGLIONE — CHIEF OF SURVEY
DATE: 2 MAY 2013

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

GREAT SOUTH BAY
NEW YORK
STATUS SURVEY

VH-111

SHEET 11 OF 26

91
3965

CORPS OF ENGINEERS

U. S. ARMY

N 179.000

E 1,218,000

E 1,219,000

E 1,220,000

E 1,221,000

N

GREAT SOUTH BAY

GREEN CAN #15
EBB TIDE
6 APRIL 2013

GREEN CAN #17
EBB TIDE
6 APRIL 2013

N 178.000

MATCH TO SHEET 11 OF 26

MATCH TO SHEET 13 OF 26

N 177.000

SCALE : 1" = 100'

0 100 200 300 400

CONTROL DATA	
BENCHMARK: COE R1220	BENCHMARK: R 375
ELEVATION: 7.32' NAVD 88	ELEVATION: 8.88' NAVD 88
BENCHMARK: FIRESTAFF	BENCHMARK: F 376
ELEVATION: 7.37' NAVD 88	ELEVATION: 6.78' NAVD 88
BENCHMARK: DOP	BENCHMARK: RTK BROWNS
ELEVATION: 17.67' NAVD 88	ELEVATION: 3.91' NAVD 88

NOTES:

1. GRID SYSTEM IS IN FEET AND IS THE NEW YORK LONG ISLAND STATE PLANE COORDINATE SYSTEM, NAD83.
2. DEPTHS ARE IN FEET AND ARE REFERENCED TO MEAN LOWER LOW WATER (MLLW).
3. THE PLANE OF MEAN LOWER LOW WATER (MLLW) IS 0.6 FEET BELOW NAVD 88. THIS VALUE WAS DETERMINED USING NOAA'S VDATUM MODEL (VERSION 3.1).
4. THE PLANIMETRICS SHOWN ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY.
4. THE DATA DEPICTED ON THIS MAP ARE REPRESENTATIVE OF A LARGER DATA SET.
6. THE DATA DEPICTED ON THIS MAP WERE COLLECTED USING PROJECT CLASSIFICATION - GENERAL, AS DEFINED IN EM 1110-2-1003.
7. THE SURVEY SHOWN WAS CONDUCTED BY OCEAN SURVEYS, INC. USING THE FOLLOWING:
   SURVEY VESSEL: R/V READY II
   ECHOSOUNDER: ODOM ECHOTRAC
   NAVIGATION SYSTEM: APPLANIX POS MV IN REAL TIME KINEMATIC (RTK) MODE
   SURVEY ACQUISITION SOFTWARE: HYPACK VERSION 2012A
   SURVEY PROCESSING SOFTWARE: HYPACK SINGLE BEAM EDITOR VERSION 2012A
8. THE INFORMATION PRESENTED ON THIS DRAWING REPRESENTS THE RESULTS OF A SURVEY PERFORMED BY OCEAN SURVEYS, INC. (OSI) ON 25 MARCH - 9 APRIL 2013 AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS EXISTING AT THAT TIME. REUSE OF THIS INFORMATION BY CLIENT OR OTHERS BEYOND THE SPECIFIC SCOPE OF WORK FOR WHICH IT WAS ACQUIRED SHALL BE AT THE SOLE RISK OF THE USER AND WITHOUT LIABILITY TO OSI.

N 177.000

E 1,218,000

E 1,219,000

E 1,220,000

E 1,221,000

US ARMY CORPS
OF ENGINEERS
NEW YORK DISTRICT

N 179.000

N 178.000

OCEAN SURVEYS, INC.
(A DIVISION OF EASTERN SHORE ASSOCIATES)
168 FAIRVIEW AVENUE
WESTBURY, NEW YORK 11590

DATES OF SURVEY:
25 MARCH - 9 APRIL 2013

FILE NO.: 91
REQUEST NO.: 3965

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:

APPROVED: J. BEAN — FIELD SURVEILLANCE
APPROVED: R. SMITH — PROJECT MANAGER
APPROVED: D. CLARKE — LEAD SURVEILLANCE
APPROVED: F. POSTIGLIONE — CHIEF OF SURVEY
DATE: 2 MAY 2013

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

GREAT SOUTH BAY
NEW YORK
STATUS SURVEY

VH-112

SHEET 12 OF 26

91
3965

GREAT SOUTH BAY

GREAT SOUTH BAY

MATCH TO SHEET 14 OF 26

MATCH TO SHEET 12 OF 26

N

SCALE : 1" = 100'

0 100 200 300 400

CONTROL DATA	
BENCHMARK: COE #1220	BENCHMARK: R 375
ELEVATION: 7.32' NAVD 88	ELEVATION: 8.88' NAVD 88
BENCHMARK: FIRESTAFF	BENCHMARK: F 376
ELEVATION: 7.37' NAVD 88	ELEVATION: 6.78' NAVD 88
BENCHMARK: DOP	BENCHMARK: RTK BROWNS
ELEVATION: 17.67' NAVD 88	ELEVATION: 3.91' NAVD 88

NOTES:

1. DATUM SYSTEM IS IN FEET AND IS THE NEW YORK LONG ISLAND STATE PLANE COORDINATE SYSTEM, NAD83.
2. DEPTHS ARE IN FEET AND ARE REFERENCED TO MEAN LOWER LOW WATER (MLLW).
3. THE PLANE OF MEAN LOWER LOW WATER (MLLW) IS 0.6 FEET BELOW NAVD 88. THIS VALUE WAS DETERMINED USING NOAA'S VDATUM MODEL (VERSION 3.1).
4. THE PLANIMETRICS SHOWN ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY.
4. THE DATA DEPICTED ON THIS MAP REPRESENTATIVE OF A LARGER DATA SET.
6. THE DATA DEPICTED ON THIS MAP WERE COLLECTED USING PROJECT CLASSIFICATION - GENERAL, AS DEFINED IN EM 1110-2-1003.
7. THE SURVEY SHOWN WAS CONDUCTED BY OCEAN SURVEYS, INC. USING THE FOLLOWING:
   SURVEY VESSEL: R/V READY II
   ECHOSOUNDER: ODOM ECHOTRAC
   NAVIGATION SYSTEM: APPLANIX POS MV IN REAL TIME KINEMATIC (RTK) MODE
   SURVEY ACQUISITION SOFTWARE: HYPACK VERSION 2012A
   SURVEY PROCESSING SOFTWARE: HYPACK SINGLE BEAM EDITOR VERSION 2012A
8. THE INFORMATION PRESENTED ON THIS DRAWING REPRESENTS THE RESULTS OF A SURVEY PERFORMED BY OCEAN SURVEYS, INC. (OSI) ON 25 MARCH - 9 APRIL 2013 AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS EXISTING AT THAT TIME. REUSE OF THIS INFORMATION BY CLIENT OR OTHERS BEYOND THE SPECIFIC SCOPE OF WORK FOR WHICH IT WAS ACQUIRED SHALL BE AT THE SOLE RISK OF THE USER AND WITHOUT LIABILITY TO OSI.

RED NUN M20
FLOOD TIDE
4 APRIL 2013

GREEN BUOY #19
FLOOD TIDE
4 APRIL 2013

E 1,224,000
E 1,223,000
E 1,222,000
E 1,221,000
N 181,000
N 179,000
N 177,000

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT, CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

APPROVED: J. BEAN — FIELD SUPERVISOR
APPROVED: R. SMITH — PROJECT MANAGER
APPROVED: D. CLARKE — CHIEF, OPERATIONS DIVISION
APPROVED: F. POSTIGLIONE — CHIEF OF SURVEY
DATE: 2 MAY 2013

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:

DATES OF SURVEY:
25 MARCH - 9 APRIL 2013

FILE NO.: 91
REGISTRY NO.: 3965

OCEAN SURVEYS, INC.
127 ANDROSS AVENUE
OLD SAYBROOK, CONNECTICUT 06475
(860) 388-4781
FAX (860) 388-4150
www.oceansurveys.com

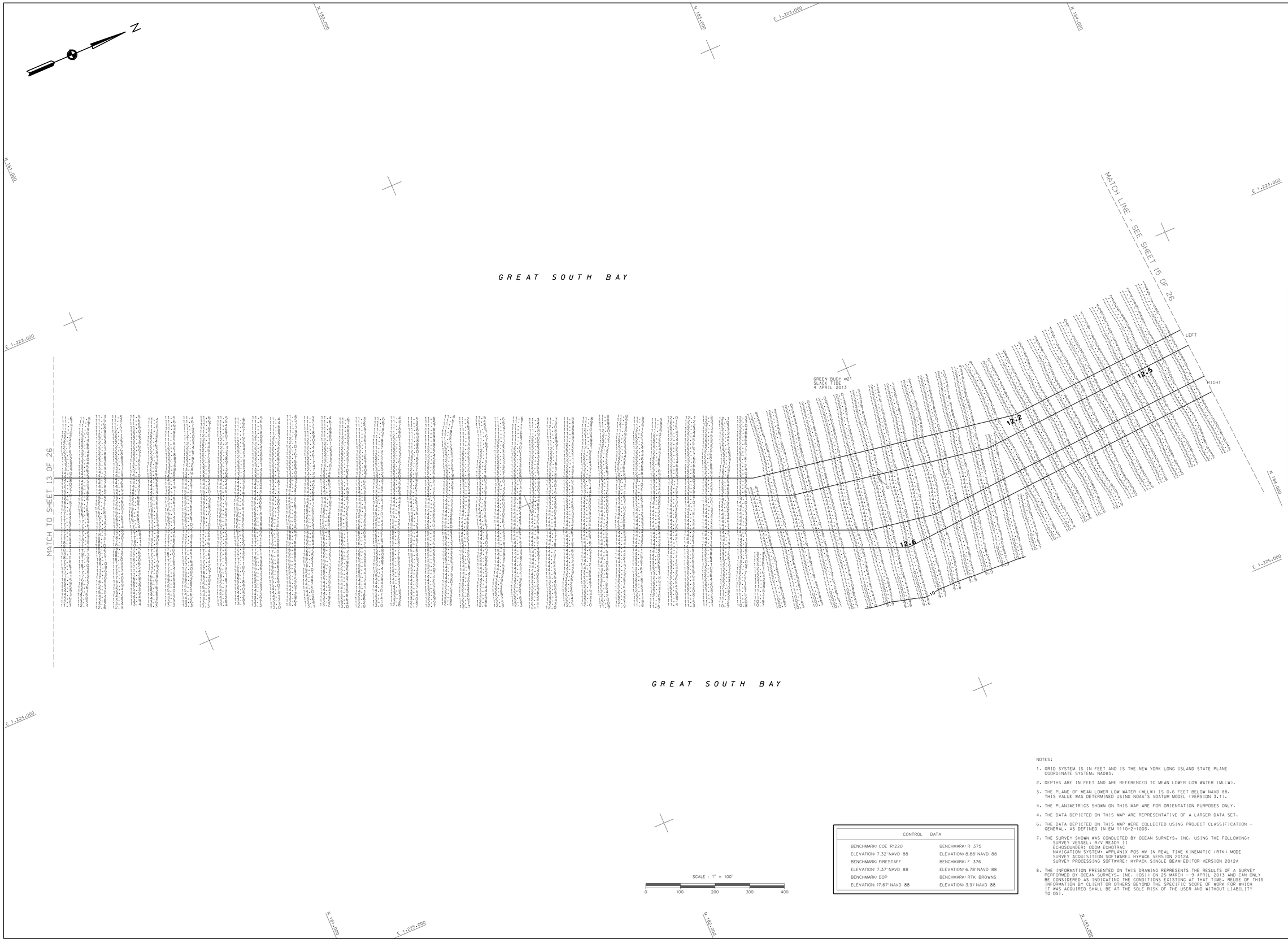
US ARMY CORPS
OF ENGINEERS
NEW YORK DISTRICT

GREAT SOUTH BAY
NEW YORK
STATUS SURVEY

VH-113

SHEET 13 OF 26

91
3965



CONTROL DATA	
BENCHMARK: COE R1220	BENCHMARK: R 375
ELEVATION: 7.32' NAVD 88	ELEVATION: 8.88' NAVD 88
BENCHMARK: FIRESTAFF	BENCHMARK: F 376
ELEVATION: 7.37' NAVD 88	ELEVATION: 6.78' NAVD 88
BENCHMARK: DOP	BENCHMARK: RTK BROWNS
ELEVATION: 17.67' NAVD 88	ELEVATION: 3.91' NAVD 88

NOTES:

1. GRID SYSTEM IS IN FEET AND IS THE NEW YORK LONG ISLAND STATE PLANE COORDINATE SYSTEM, NAD83.
2. DEPTHS ARE IN FEET AND ARE REFERENCED TO MEAN LOWER LOW WATER (MLLW).
3. THE PLANE OF MEAN LOWER LOW WATER (MLLW) IS 0.6 FEET BELOW NAVD 88. THIS VALUE WAS DETERMINED USING NOAA'S VDATUM MODEL (VERSION 3.1).
4. THE PLANIMETRICS SHOWN ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY.
4. THE DATA DEPICTED ON THIS MAP ARE REPRESENTATIVE OF A LARGER DATA SET.
6. THE DATA DEPICTED ON THIS MAP WERE COLLECTED USING PROJECT CLASSIFICATION - GENERAL, AS DEFINED IN EM 1110-2-1003.
7. THE SURVEY SHOWN WAS CONDUCTED BY OCEAN SURVEYS, INC. USING THE FOLLOWING:
   SURVEY VESSEL: R/V READY II
   ECHOSOUNDER: ODOM ECHOTRAC
   NAVIGATION SYSTEM: APPLANIX POS MV IN REAL TIME KINEMATIC (RTK) MODE
   SURVEY ACQUISITION SOFTWARE: HYPACK VERSION 2012A
   SURVEY PROCESSING SOFTWARE: HYPACK SINGLE BEAM EDITOR VERSION 2012A
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US ARMY CORPS OF ENGINEERS NEW YORK DISTRICT

OCEAN SURVEYS, INC.
1329 MILL ROCK ROAD EAST
OLD SAYBROOK, CONNECTICUT
(860) 388-4400

DATES OF SURVEY: 25 MARCH - 9 APRIL 2013

FILE NO.: 91
REQUEST NO.: 3965

SCALE: ONE INCH = 100 FEET

FIELD BOOKS:

APPROVED: J. BEAN — FIELD CARTOGRAPHER
APPROVED: R. SMITH — PROJECT MANAGER
APPROVED: D. CLARKE — LEAD CARTOGRAPHER
APPROVED: F. POSTIGLIONE — CHIEF OF SURVEY
DATE: 2 MAY 2013

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

GREAT SOUTH BAY
NEW YORK
STATUS SURVEY

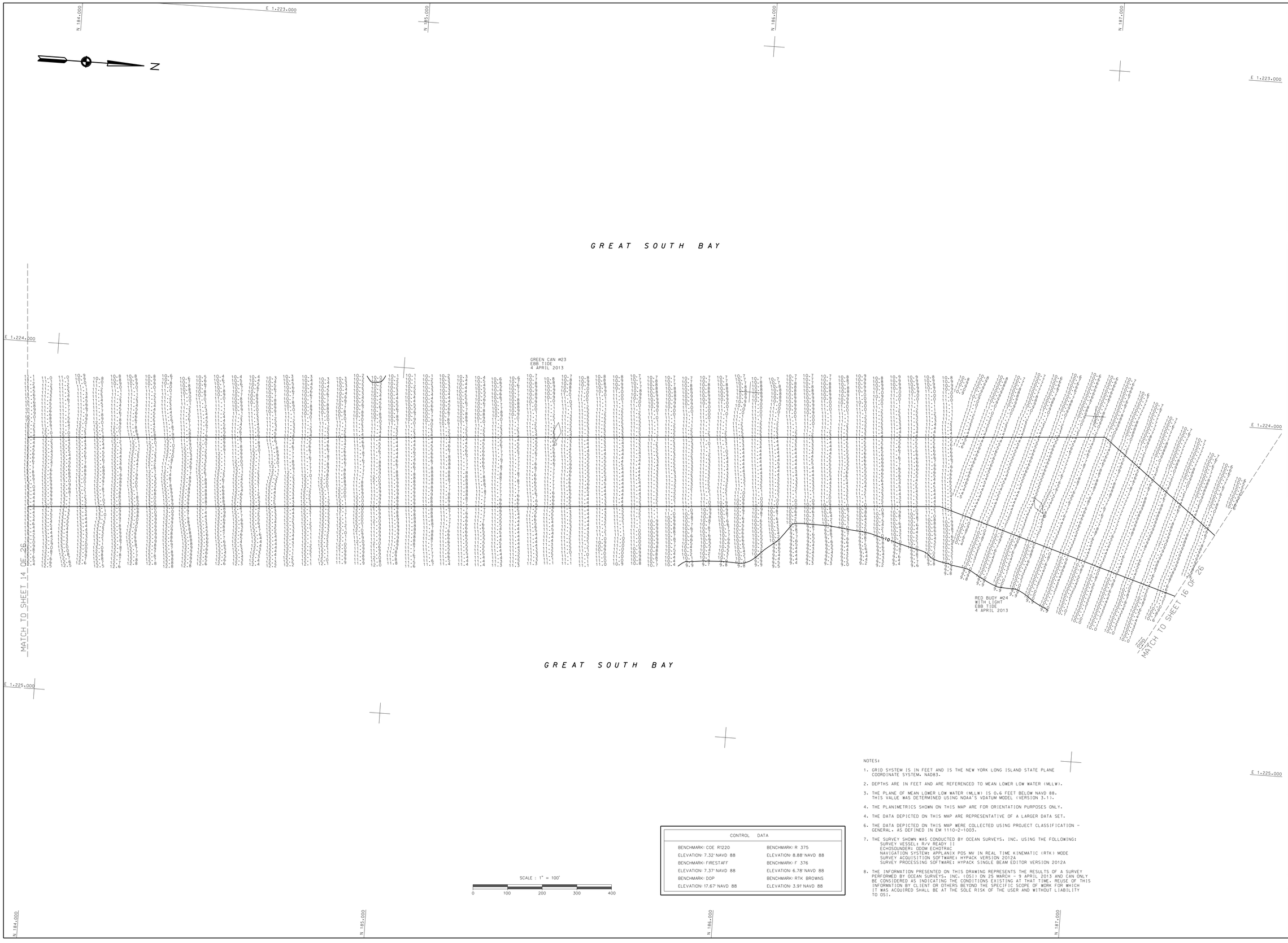
VH-114

SHEET 14 OF 26

91
3965

CORPS OF ENGINEERS

U. S. ARMY



NOTES:

1. GRID SYSTEM IS IN FEET AND IS THE NEW YORK LONG ISLAND STATE PLANE COORDINATE SYSTEM, NAD83.
2. DEPTHS ARE IN FEET AND ARE REFERENCED TO MEAN LOWER LOW WATER (MLLW).
3. THE PLANE OF MEAN LOWER LOW WATER (MLLW) IS 0.6 FEET BELOW NAVD 88. THIS VALUE WAS DETERMINED USING NOAA'S VDATUM MODEL (VERSION 3.1).
4. THE PLANIMETRICS SHOWN ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY.
4. THE DATA DEPICTED ON THIS MAP ARE REPRESENTATIVE OF A LARGER DATA SET.
6. THE DATA DEPICTED ON THIS MAP WERE COLLECTED USING PROJECT CLASSIFICATION - GENERAL, AS DEFINED IN EM 1110-2-1003.
7. THE SURVEY SHOWN WAS CONDUCTED BY OCEAN SURVEYS, INC. USING THE FOLLOWING:
   SURVEY VESSEL: R/V READY II
   ECHOSOUNDER: ODOM ECHOTRAC
   NAVIGATION SYSTEM: APPLANIX POS MV IN REAL TIME KINEMATIC (RTK) MODE
   SURVEY ACQUISITION SOFTWARE: HYPACK VERSION 2012A
   SURVEY PROCESSING SOFTWARE: HYPACK SINGLE BEAM EDITOR VERSION 2012A
8. THE INFORMATION PRESENTED ON THIS DRAWING REPRESENTS THE RESULTS OF A SURVEY PERFORMED BY OCEAN SURVEYS, INC. (OSI) ON 25 MARCH - 9 APRIL 2013 AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS EXISTING AT THAT TIME. REUSE OF THIS INFORMATION BY CLIENT OR OTHERS BEYOND THE SPECIFIC SCOPE OF WORK FOR WHICH IT WAS ACQUIRED SHALL BE AT THE SOLE RISK OF THE USER AND WITHOUT LIABILITY TO OSI.

CONTROL DATA	
BENCHMARK: COE R1220	BENCHMARK: R 375
ELEVATION: 7.32' NAVD 88	ELEVATION: 8.88' NAVD 88
BENCHMARK: FIRESTAFF	BENCHMARK: F 376
ELEVATION: 7.37' NAVD 88	ELEVATION: 6.78' NAVD 88
BENCHMARK: DOP	BENCHMARK: RTK BROWNS
ELEVATION: 17.67' NAVD 88	ELEVATION: 3.91' NAVD 88

US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

OCEAN SURVEYS, INC.
139 MILL ROCK ROAD EAST
OLD SAYBROOK, CONNECTICUT
(860) 388-4820

DATES OF SURVEY:
25 MARCH - 9 APRIL 2013

FILE NO.: 91
REQUEST NO.: 3965

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:

APPROVED: J. BEAN
FIELD CARTOGRAPHER

APPROVED: R. SMITH
PROJECT MANAGER

APPROVED: D. CLARKE
LEAD CARTOGRAPHER

APPROVED: F. POSTIGLIONE
CHIEF OF SURVEY

DATE: 2 MAY 2013

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

GREAT SOUTH BAY
NEW YORK
STATUS SURVEY

VH-115

SHEET 15 OF 26

91
3965

GREAT SOUTH BAY
NEW YORK
STATUS SURVEY

VH-116

SHEET 16 OF 26

US ARMY CORPS OF ENGINEERS NEW YORK DISTRICT

SCALE: ONE INCH = 100 FEET

FIELD BOOKS:

DATES OF SURVEY: 25 MARCH - 9 APRIL 2013

FILE NO.: 91
ROSER NOS.: 3749

OCEAN SURVEYS, INC.
127 WOODWORTH AVENUE
YONKERS, NEW YORK 10701
914-376-3900

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

APPROVED: J.F. BEAN — FIELD SUPERVISOR
APPROVED: R.V. SMITH — PROJECT MANAGER
APPROVED: D. CLARKE — CHIEF OF OPERATIONS
APPROVED: E.V. POSTIGLIONE — CHIEF OF SURVEY
DATE: 2 MAY 2013

NOTES:

1. GRID SYSTEM IS IN FEET AND IS NEW YORK LONG ISLAND STATE PLANE COORDINATE SYSTEM, NAD83.
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7. THE SURVEY SHOWN WAS CONDUCTED BY OCEAN SURVEYS, INC. USING THE FOLLOWING:
   SURVEY VESSEL: R/V READY II
   ECHOSOUNDER: ODOM ECHOTRAC
   NAVIGATION SYSTEM: APPLANIX POS MV IN REAL TIME KINEMATIC (RTK) MODE
   SURVEY ACQUISITION SOFTWARE: HYPACK VERSION 2012A
   SURVEY PROCESSING SOFTWARE: HYPACK SINGLE BEAM EDITOR VERSION 2012A
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CONTROL DATA	
BENCHMARK: CGC 8R2ZO	BENCHMARK: R 375
ELEVATION: 7.32' NAVD 88	ELEVATION: 8.88' NAVD 88
BENCHMARK: F 376	BENCHMARK: RTK BROWNS
ELEVATION: 7.37' NAVD 88	ELEVATION: 6.78' NAVD 88
BENCHMARK: OOP	BENCHMARK:
ELEVATION: 17.67' NAVD 88	ELEVATION: 3.97' NAVD 88

SCALE : 1" = 100'
0 100 200 300 400

GREEN CAN #25
EBB TIDE
4 APRIL 2013

MATCH TO SHEET 17 OF 26

MATCH TO SHEET 15 OF 26

GREAT SOUTH BAY

GREAT SOUTH BAY

N 180,000
E 1,227,000
E 1,226,000
N 181,000
E 1,225,000
E 1,224,000
N 182,000
E 1,223,000
E 1,222,000
N 183,000
N 184,000
N 185,000
N 186,000
N 187,000
N 188,000
N 189,000
N 190,000
E 1,224,000
E 1,223,000
N 180,000
N 181,000
N 182,000
N 183,000
N 184,000
N 185,000
N 186,000
N 187,000
N 188,000
N 189,000

N

CORPS OF ENGINEERS

U. S. ARMY

U. S. ARMY

CORPS OF ENGINEERS

SHEET 17 OF 26

VH-117

GREAT SOUTH BAY
NEW YORK
STATUS SURVEY

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

APPROVED: J. BEAN — FIELD OPERATIONS
APPROVED: R. SMITH — PROJECT MANAGER
APPROVED: D. CLARKE — CHIEF, OPERATIONS DIVISION
APPROVED: F. POSTIGLIONE — CHIEF OF SURVEY
DATE: 2 MAY 2013

OCEAN SURVEYS, INC.
379 PAUL BLOCK ROAD EAST
POE ARTHUR KILL, NEW JERSEY 07047
(908) 756-1234
www.osi.com

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:

FILE NO.: 191
MODEL NO.: SNS

DATES OF SURVEY:
25 MARCH - 9 APRIL 2013

US ARMY CORPS
OF ENGINEERS
NEW YORK DISTRICT

NOTES:

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2. DEPTHS ARE IN FEET AND ARE REFERENCED TO MEAN LOWER LOW WATER (MLLW).
3. THIS VALUE WAS DETERMINED USING NOAA'S VDATUM MODEL (VERSION 3.11).
4. THE PLANINETRICS SHOWN ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY.
4. THE DATA DEPICTED ON THIS MAP ARE REPRESENTATIVE OF A LARGER DATA SET.
6. THE DATA DEPICTED ON THIS MAP WERE COLLECTED USING PROJECT CLASSIFICATION - GENERAL, AS DEFINED IN EM 1110-2-1003.
7. THE SURVEY SHOWN WAS CONDUCTED BY OCEAN SURVEYS, INC. USING THE FOLLOWING:
   SURVEY VESSEL: R/V READY 11
   ECHOSOUNDER: ODOM ECHOTRAC
   NAVIGATION SYSTEM: APPLANIX POS MV IN REAL TIME KINEMATIC (RTK) MODE
   SURVEY PROCESSING SOFTWARE: HYPACK VERSION 2012A
   SURVEY ACQUISITION SOFTWARE: HYPACK VERSION 2012A
   SURFACE EDITOR VERSION 2012A
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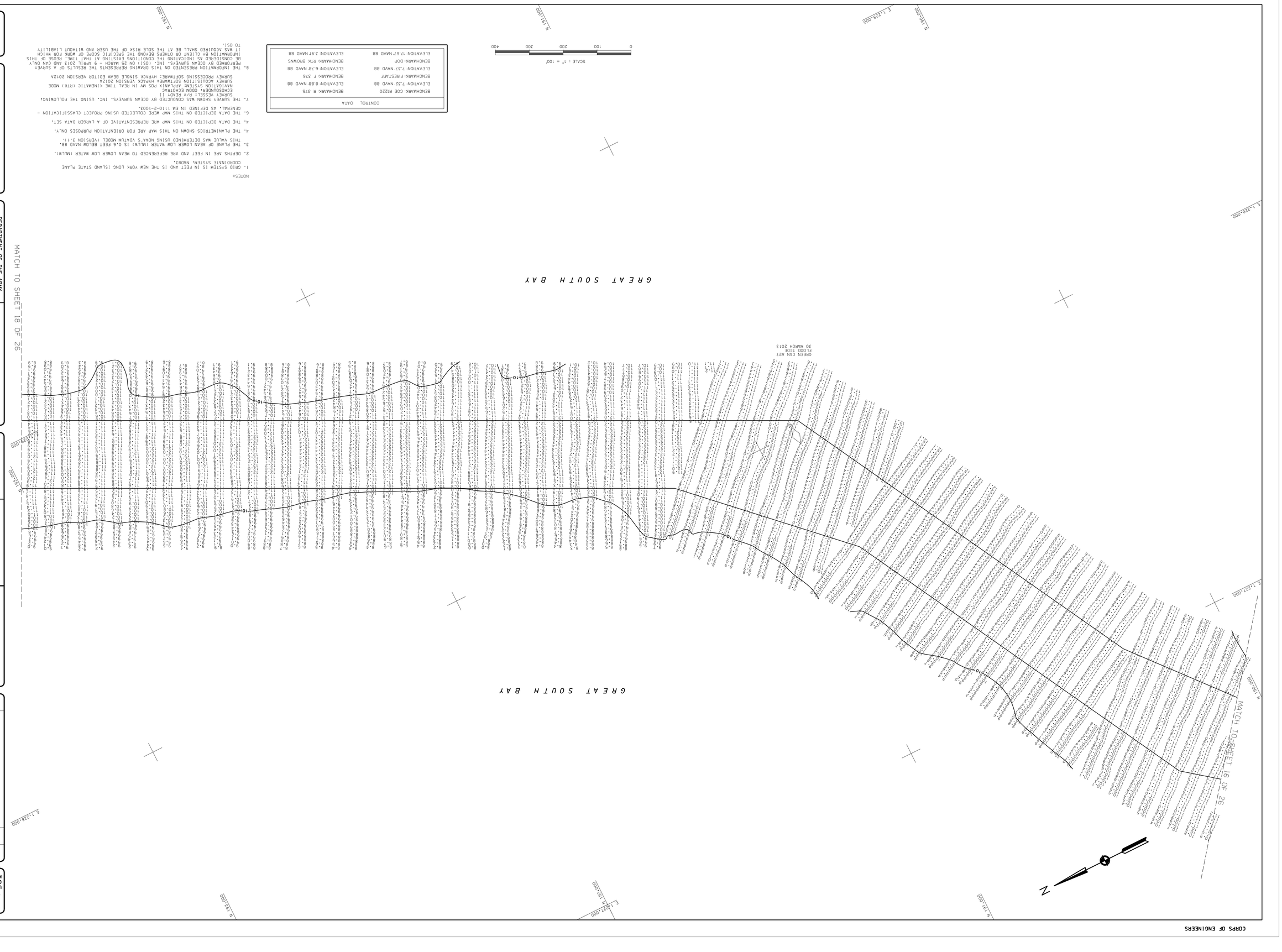
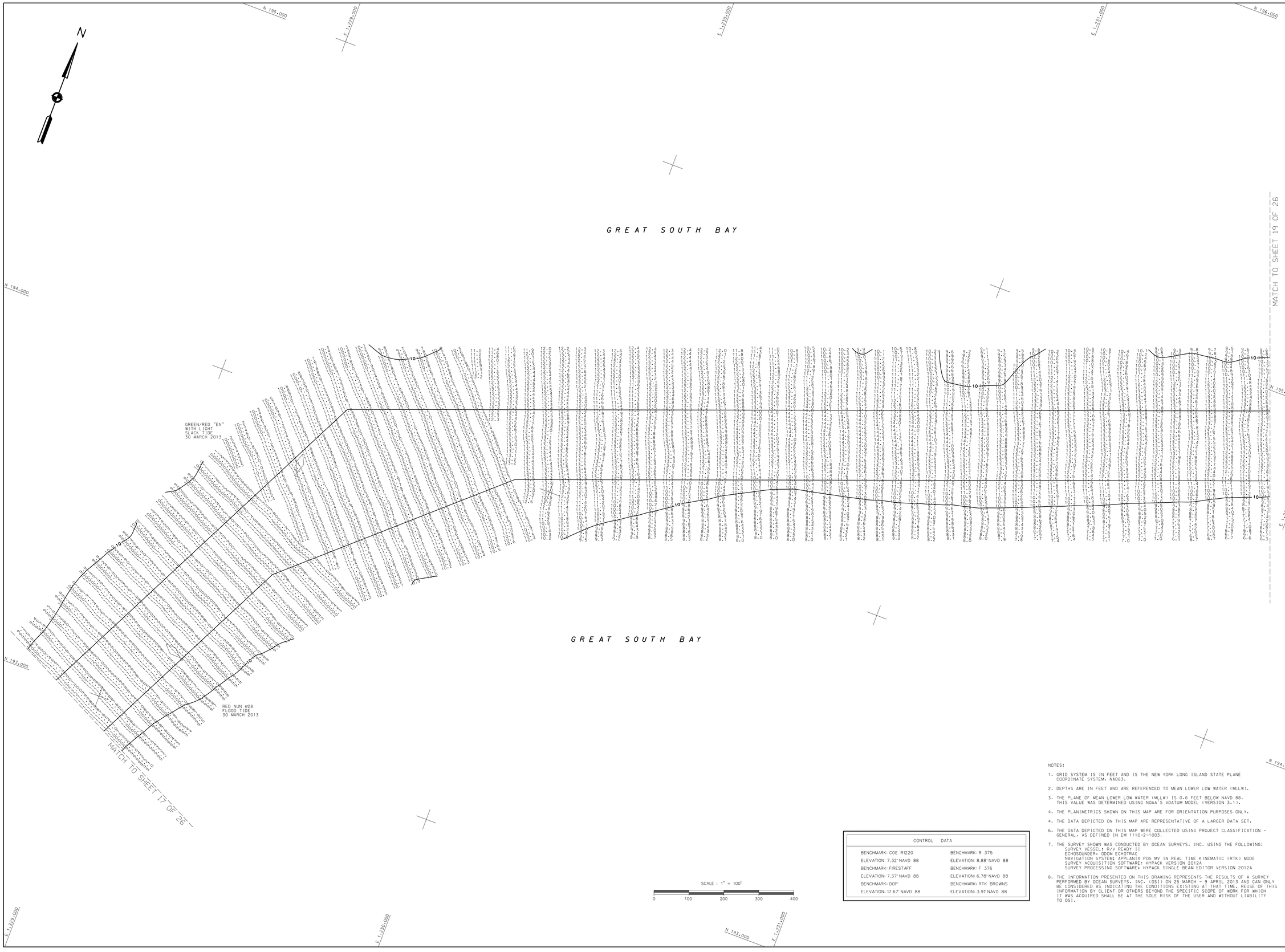
CONTROL DATA	
BENCHMARK: COE 81220	BENCHMARK: R 375
ELEVATION: 7.32' NAVD 88	ELEVATION: 8.88' NAVD 88
BENCHMARK: FRESTAFF	BENCHMARK: F 376
ELEVATION: 7.37' NAVD 88	ELEVATION: 6.78' NAVD 88
BENCHMARK: DOP	BENCHMARK: RIK BROWNS
ELEVATION: 17.67' NAVD 88	ELEVATION: 3.91' NAVD 88

SCALE : 1" = 100'
0 100 200 300 400



CORPS OF ENGINEERS

U. S. ARMY



CONTROL DATA	
BENCHMARK: COE R1220	BENCHMARK: R 375
ELEVATION: 7.32' NAVD 88	ELEVATION: 8.88' NAVD 88
BENCHMARK: FIRESTAFF	BENCHMARK: F 376
ELEVATION: 7.37' NAVD 88	ELEVATION: 6.78' NAVD 88
BENCHMARK: DOP	BENCHMARK: RTK BROWNS
ELEVATION: 17.67' NAVD 88	ELEVATION: 3.91' NAVD 88

NOTES:

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7. THE SURVEY SHOWN WAS CONDUCTED BY OCEAN SURVEYS, INC. USING THE FOLLOWING:
   SURVEY VESSEL: R/V READY II
   ECHOSOUNDER: ODOM ECHOTRAC
   NAVIGATION SYSTEM: APPLANIX POS MV IN REAL TIME KINEMATIC (RTK) MODE
   SURVEY ACQUISITION SOFTWARE: HYPACK VERSION 2012A
   SURVEY PROCESSING SOFTWARE: HYPACK SINGLE BEAM EDITOR VERSION 2012A
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US ARMY CORPS OF ENGINEERS NEW YORK DISTRICT

OCEAN SURVEYS, INC.
1234 WILL ROCK ROAD EAST
OLD SAYBROOK, CONNECTICUT
(860) 388-4430
www.oceansurveys.com

DATES OF SURVEY: 25 MARCH - 9 APRIL 2013

FILE NO.: 91
REQUEST NO.: 3965

SCALE: ONE INCH = 100 FEET

FIELD BOOKS:

APPROVED: J. BEAN — FIELD CARTOGRAPHER
APPROVED: R. SMITH — PROJECT MANAGER
APPROVED: D. CLARKE — LEAD CARTOGRAPHER
APPROVED: F. POSTIGLIONE — CHIEF OF SURVEY
DATE: 2 MAY 2013

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

GREAT SOUTH BAY
NEW YORK
STATUS SURVEY

VH-101

SHEET 18 OF 26

91
3965

CORPS OF ENGINEERS

U. S. ARMY

N 196,000

E 1,232,000

E 1,233,000

E 1,234,000

N 197,000

E 1,235,000

N

GREAT SOUTH BAY

MATCH TO SHEET 18 OF 26

RED NUN #30
EBB 1106
29 MARCH 2013

MATCH TO SHEET 20 OF 26

GREAT SOUTH BAY

N 194,000

N 195,000

E 1,232,000

E 1,233,000

N 194,000

E 1,234,000

E 1,235,000

SCALE : 1" = 100'

0 100 200 300 400

CONTROL DATA	
BENCHMARK: COE R1220	BENCHMARK: R 375
ELEVATION: 7.32' NAVD 88	ELEVATION: 8.88' NAVD 88
BENCHMARK: FIRESTAFF	BENCHMARK: F 376
ELEVATION: 7.37' NAVD 88	ELEVATION: 6.78' NAVD 88
BENCHMARK: DOP	BENCHMARK: RTK BROWNS
ELEVATION: 17.67' NAVD 88	ELEVATION: 3.91' NAVD 88

NOTES:

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   SURVEY VESSEL: R/V READY II
   ECHOSOUNDER: ODOM ECHOTRAC
   NAVIGATION SYSTEM: APPLANIX POS MV IN REAL TIME KINEMATIC (RTK) MODE
   SURVEY ACQUISITION SOFTWARE: HYPACK VERSION 2012A
   SURVEY PROCESSING SOFTWARE: HYPACK SINGLE BEAM EDITOR VERSION 2012A
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US ARMY CORPS
OF ENGINEERS
NEW YORK DISTRICT

OCEAN SURVEYS, INC.
139 WELL ROCK ROAD EAST
OLD SAYBROOK, CONNECTICUT
(860) 388-4521

DATES OF SURVEY:
25 MARCH - 9 APRIL 2013

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:

FILE NO.: 91
PROJECT NO.: 3965

APPROVED: J. BEAN, FIELD SUPERINTENDENT
APPROVED: R. SMITH, PROJECT MANAGER
APPROVED: D. CLARKE, CHIEF CARTOGRAPHER
APPROVED: F. POSTIGLIONE, CHIEF OF SURVEY
DATE: 2 MAY 2013

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

GREAT SOUTH BAY
NEW YORK

STATUS SURVEY

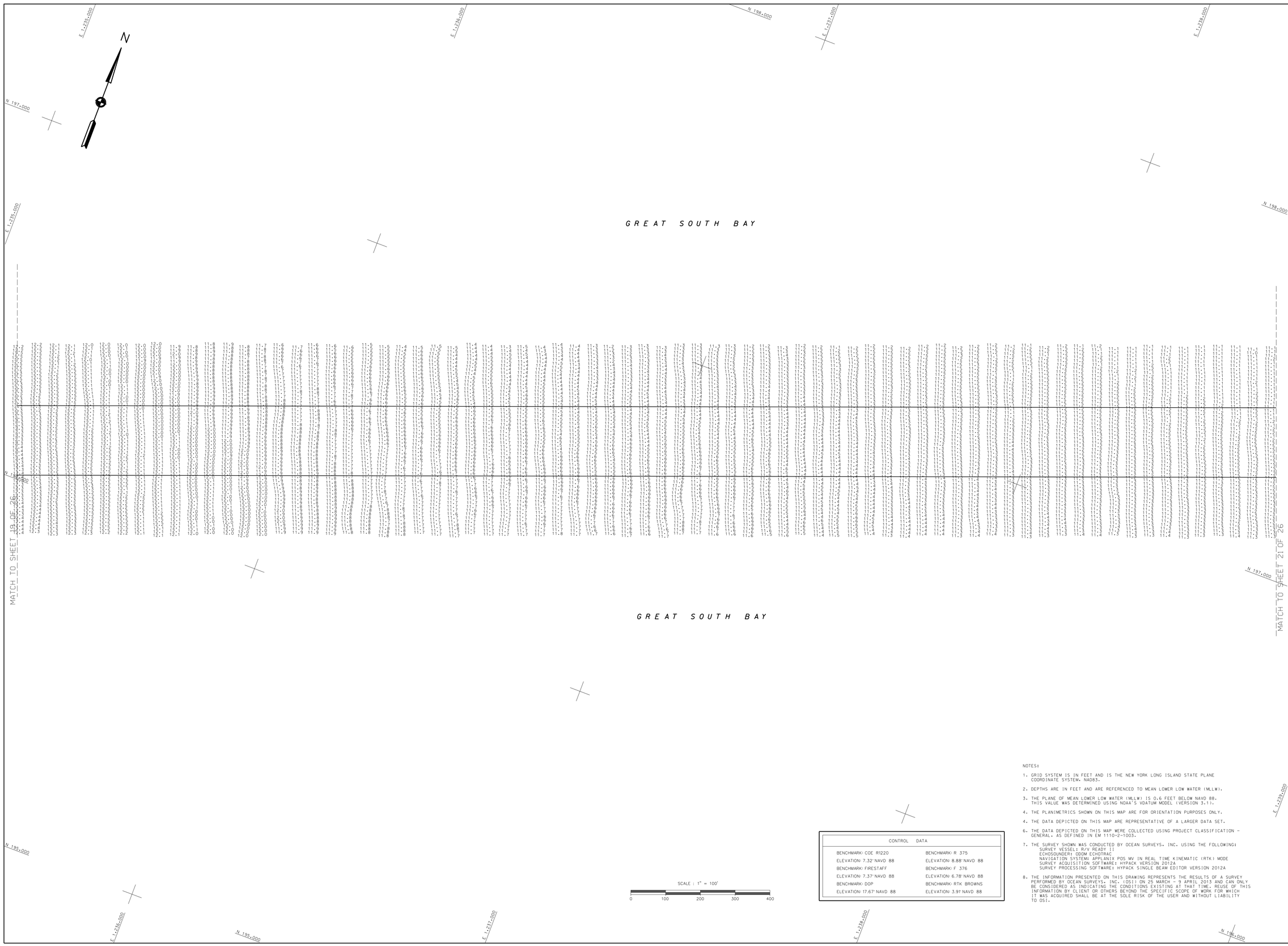
VH-119

SHEET 19 OF 26

91
3965

CORPS OF ENGINEERS

U. S. ARMY



CONTROL DATA	
BENCHMARK: COE R1220	BENCHMARK: R 375
ELEVATION: 7.32' NAVD 88	ELEVATION: 8.88' NAVD 88
BENCHMARK: FIRESTAFF	BENCHMARK: F 376
ELEVATION: 7.37' NAVD 88	ELEVATION: 6.78' NAVD 88
BENCHMARK: DOP	BENCHMARK: RTK BROWNS
ELEVATION: 17.67' NAVD 88	ELEVATION: 3.91' NAVD 88

NOTES:

1. GRID SYSTEM IS IN FEET AND IS THE NEW YORK LONG ISLAND STATE PLANE COORDINATE SYSTEM, NAD83.
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7. THE SURVEY SHOWN WAS CONDUCTED BY OCEAN SURVEYS, INC. USING THE FOLLOWING:
   SURVEY VESSEL: R/V READY II
   ECHOSOUNDER: ODOM ECHOTRAC
   NAVIGATION SYSTEM: APPLANIX POS MV IN REAL TIME KINEMATIC (RTK) MODE
   SURVEY ACQUISITION SOFTWARE: HYPACK VERSION 2012A
   SURVEY PROCESSING SOFTWARE: HYPACK SINGLE BEAM EDITOR VERSION 2012A
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US ARMY CORPS
OF ENGINEERS
NEW YORK DISTRICT

OCEAN SURVEYS, INC.
A DIVISION OF
OLD SAYBROOK, CONNECTICUT
www.oceansurveys.com

DATES OF SURVEY:
25 MARCH - 9 APRIL 2013

FILE NO.: 91
REQUEST No.: 3965

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:

APPROVED: J. BEAN — FIELD OPERATIONS
APPROVED: R. SMITH — PROJECT MANAGER
APPROVED: D. CLARKE — QAC PERFORMANCE
APPROVED: F. POSTIGLIONE — CHIEF OF SURVEY
DATE: 2 MAY 2013

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-RS

GREAT SOUTH BAY
NEW YORK

STATUS SURVEY

VH-120

SHEET 20 OF 26

91
3965

CORPS OF ENGINEERS

U. S. ARMY

E 1,239,000

N 199,000

E 1,240,000

E 1,241,000

N 198,000

GREAT SOUTH BAY

N 199,000

E 1,242,000

MATCH TO SHEET 20 OF 26

RED NUN #32
EBB TIDE
29 MARCH 2013

N 197,000

MATCH TO SHEET 22 OF 26

GREAT SOUTH BAY

N 198,000

E 1,239,000

E 1,240,000

E 1,241,000

N 197,000

E 1,242,000

SCALE : 1" = 100'

0 100 200 300 400

CONTROL DATA	
BENCHMARK: COE R1220	BENCHMARK: R 375
ELEVATION: 7.32' NAVD 88	ELEVATION: 8.88' NAVD 88
BENCHMARK: FIRESTAFF	BENCHMARK: F 376
ELEVATION: 7.37' NAVD 88	ELEVATION: 6.78' NAVD 88
BENCHMARK: DOP	BENCHMARK: RTK BROWNS
ELEVATION: 17.67' NAVD 88	ELEVATION: 3.91' NAVD 88

NOTES:

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   SURVEY VESSEL: R/V READY II
   ECHOSOUNDER: ODOM ECHOTRAC
   NAVIGATION SYSTEM: APPLANIX POS MV IN REAL TIME KINEMATIC (RTK) MODE
   SURVEY ACQUISITION SOFTWARE: HYPACK VERSION 2012A
   SURVEY PROCESSING SOFTWARE: HYPACK SINGLE BEAM EDITOR VERSION 2012A
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US ARMY CORPS
OF ENGINEERS
NEW YORK DISTRICT

OCEAN SURVEYS, INC.
A SUBSIDIARY OF
OLD SAYBROOK, CONNECTICUT
WWW.OCEANSURVEYS.COM

DATES OF SURVEY:
25 MARCH - 9 APRIL 2013

FILE NO.: 91
REQUEST NO.: 3965

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:

APPROVED: J. BEAN — FIELD OPERATIONS
APPROVED: R. SMITH — PROJECT MANAGER
APPROVED: D. CLARKE — CHIEF CARTOGRAPHER
APPROVED: F. POSTILONE — CHIEF OF SURVEY
DATE: 2 MAY 2013

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

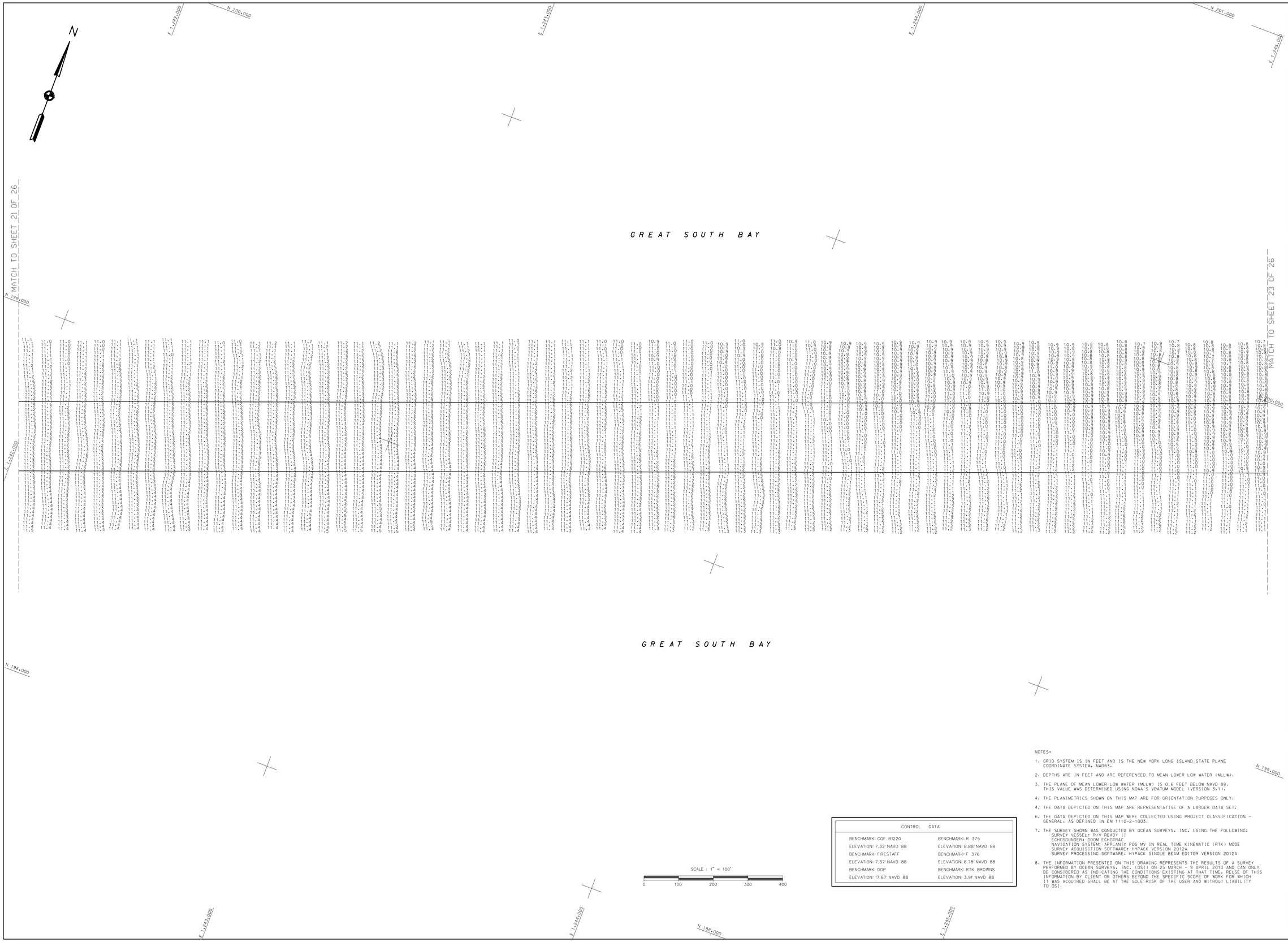
OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

GREAT SOUTH BAY
NEW YORK
STATUS SURVEY

VH-121

SHEET 21 OF 26

91
3965



CONTROL DATA	
BENCHMARK: COE R1220	BENCHMARK: R 375
ELEVATION: 7.32' NAVD 88	ELEVATION: 8.88' NAVD 88
BENCHMARK: FIRESTAFF	BENCHMARK: F 376
ELEVATION: 7.37' NAVD 88	ELEVATION: 6.78' NAVD 88
BENCHMARK: DOP	BENCHMARK: RTK BROWNS
ELEVATION: 17.67' NAVD 88	ELEVATION: 3.91' NAVD 88

NOTES:

1. GRID SYSTEM IS IN FEET AND IS THE NEW YORK LONG ISLAND STATE PLANE COORDINATE SYSTEM, NAD83.
2. DEPTHS ARE IN FEET AND ARE REFERENCED TO MEAN LOWER LOW WATER (MLLW).
3. THE PLANE OF MEAN LOWER LOW WATER (MLLW) IS 0.6 FEET BELOW NAVD 88. THIS VALUE WAS DETERMINED USING NOAA'S VDATUM MODEL (VERSION 3.1).
4. THE PLANIMETRICS SHOWN ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY.
4. THE DATA DEPICTED ON THIS MAP ARE REPRESENTATIVE OF A LARGER DATA SET.
6. THE DATA DEPICTED ON THIS MAP WERE COLLECTED USING PROJECT CLASSIFICATION - GENERAL, AS DEFINED IN EM 1110-2-1003.
7. THE SURVEY SHOWN WAS CONDUCTED BY OCEAN SURVEYS, INC. USING THE FOLLOWING:
   SURVEY VESSEL: R/V READY II
   ECHOSOUNDER: ODOM ECHOTRAC
   NAVIGATION SYSTEM: APPLANIX POS MV IN REAL TIME KINEMATIC (RTK) MODE
   SURVEY ACQUISITION SOFTWARE: HYPACK VERSION 2012A
   SURVEY PROCESSING SOFTWARE: HYPACK SINGLE BEAM EDITOR VERSION 2012A
8. THE INFORMATION PRESENTED ON THIS DRAWING REPRESENTS THE RESULTS OF A SURVEY PERFORMED BY OCEAN SURVEYS, INC. (OSI) ON 25 MARCH - 9 APRIL 2013 AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS EXISTING AT THAT TIME. REUSE OF THIS INFORMATION BY CLIENT OR OTHERS BEYOND THE SPECIFIC SCOPE OF WORK FOR WHICH IT WAS ACQUIRED SHALL BE AT THE SOLE RISK OF THE USER AND WITHOUT LIABILITY TO OSI.

US ARMY CORPS OF ENGINEERS NEW YORK DISTRICT

OCEAN SURVEYS, INC.
139 MILL ROCK ROAD EAST
OLD SAYBROOK, CONNECTICUT
(860) 388-4163
www.oceansurveys.com

DATES OF SURVEY:
25 MARCH - 9 APRIL 2013

FILE NO.: 91
REQUEST NO.: 3965

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:

APPROVED: J. BEAN — FIELD CARTOGRAPHER
APPROVED: R. SMITH — PROJECT MANAGER
APPROVED: D. CLARKE — LEAD CARTOGRAPHER
APPROVED: F. POSTIGLIONE — CHIEF OF SURVEY
DATE: 2 MAY 2013

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

GREAT SOUTH BAY
NEW YORK
STATUS SURVEY

VH-122

SHEET 22 OF 26

91
3965

CORPS OF ENGINEERS

U. S. ARMY

N 201.000

E 1,245.000

E 1,246.000

E 1,241.000

E 1,248.000

N 202.000

N

GREAT SOUTH BAY

MATCH TO SHEET 22 OF 26

MATCH TO SHEET 24 OF 26

N 200.000

N 201.000

RED BUOY #34
EBB TIDE
4 APRIL 2013

GREAT SOUTH BAY

E 1,240.000

N 199.000

SCALE : 1" = 100'

0 100 200 300 400

CONTROL DATA	
BENCHMARK: COE R1220	BENCHMARK: R 375
ELEVATION: 7.32' NAVD 88	ELEVATION: 8.88' NAVD 88
BENCHMARK: FIRESTAFF	BENCHMARK: F 376
ELEVATION: 7.37' NAVD 88	ELEVATION: 6.78' NAVD 88
BENCHMARK: DDP	BENCHMARK: RTK BROWNS
ELEVATION: 17.67' NAVD 88	ELEVATION: 3.91' NAVD 88

NOTES:

1. GRID SYSTEM IS IN FEET AND IS THE NEW YORK LONG ISLAND STATE PLANE COORDINATE SYSTEM. NAD83.

2. DEPTHS ARE IN FEET AND ARE REFERENCED TO MEAN LOWER LOW WATER (MLLW).

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   ECHOSOUNDER: ODOM ECHOTRAC
   NAVIGATION SYSTEM: APPLANIX POS MV IN REAL TIME KINEMATIC (RTK) MODE
   SURVEY ACQUISITION SOFTWARE: HYPACK VERSION 2012A
   SURVEY PROCESSING SOFTWARE: HYPACK SINGLE BEAM EDITOR VERSION 2012A

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US ARMY CORPS
OF ENGINEERS
NEW YORK DISTRICT

OCEAN SURVEYS, INC.
129 Dutch Neck Road, Unit 7201
East Windsor, New Jersey 08512
(609) 448-4600

SCALE:
ONE INCH = 100 FEET

DATES OF SURVEY:
25 MARCH - 9 APRIL 2013

FIELD BOOKS:

FILE NO.: 91
REQUEST NO.: 3965

APPROVED: J. BEAN, FIELD SUPERVISOR
APPROVED: R. SMITH, PROJECT MANAGER
APPROVED: D. CLARKE, LCDR, USCG/DAMAGE
APPROVED: F. POSTIGLIONE, CHIEF OF SURVEY
DATE: 2 MAY 2013

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

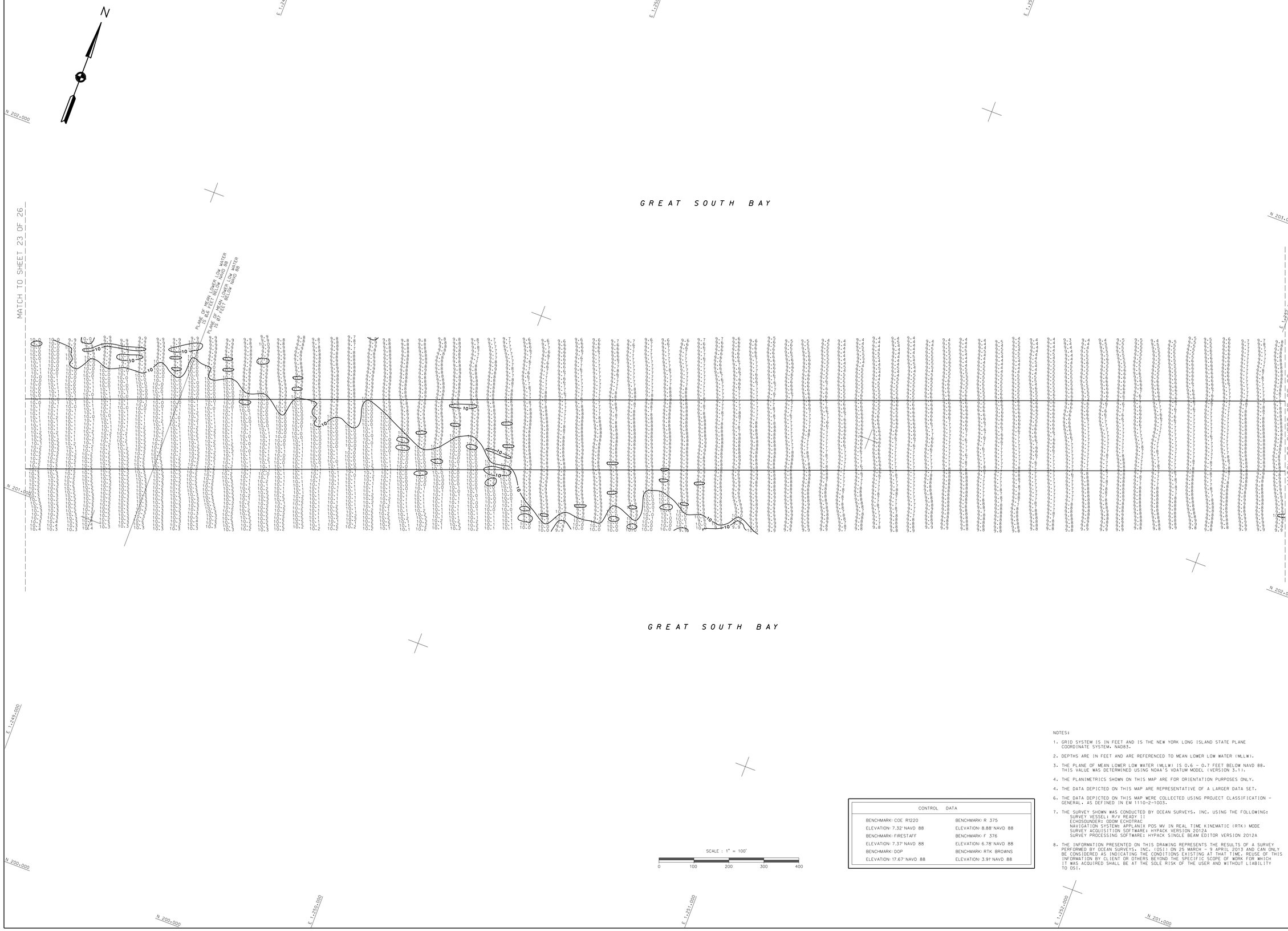
OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

GREAT SOUTH BAY
NEW YORK
STATUS SURVEY

VH-123

SHEET 23 OF 26

91
3965



CONTROL DATA	
BENCHMARK: COE R1220	BENCHMARK: R 375
ELEVATION: 7.32' NAVD 88	ELEVATION: 8.88' NAVD 88
BENCHMARK: FIRESTAFF	BENCHMARK: F 376
ELEVATION: 7.37' NAVD 88	ELEVATION: 6.78' NAVD 88
BENCHMARK: DOP	BENCHMARK: RTK BROWNS
ELEVATION: 17.67' NAVD 88	ELEVATION: 3.91' NAVD 88

NOTES:

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   ECHOSOUNDER: ODOM ECHOTRAC
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   SURVEY ACQUISITION SOFTWARE: HYPACK VERSION 2012A
   SURVEY PROCESSING SOFTWARE: HYPACK SINGLE BEAM EDITOR VERSION 2012A
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US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

OCEAN SURVEYS, INC.
123 WALL ROCK ROAD EAST
OLD SAYBROOK, CONNECTICUT
(860) 388-4163
www.oceansurveys.com

DATES OF SURVEY:
25 MARCH - 9 APRIL 2013

FILE NO.: 91
REQUEST NO.: 3965

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:

APPROVED: J. BEAN — FIELD CARTOGRAPHER
APPROVED: R. SMITH — PROJECT MANAGER
APPROVED: D. CLARKE — LEAD CARTOGRAPHER
APPROVED: F. POSTIGLIONE — CHIEF OF SURVEY
DATE: 2 MAY 2013

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

GREAT SOUTH BAY
NEW YORK
STATUS SURVEY

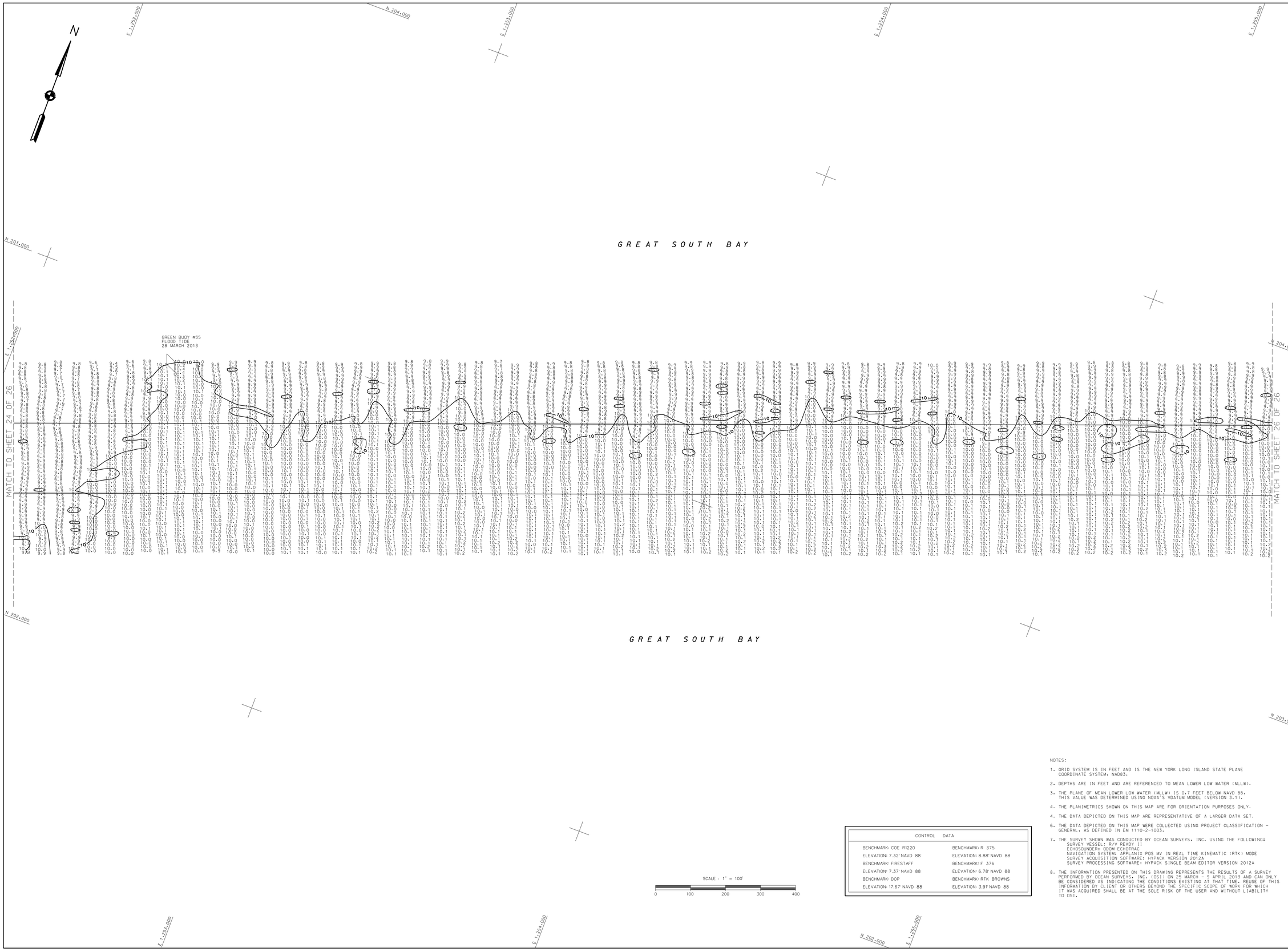
VH-124

SHEET 24 OF 26

91
3965

CORPS OF ENGINEERS

U. S. ARMY



CONTROL DATA	
BENCHMARK: COE R1220	BENCHMARK: R 375
ELEVATION: 7.32' NAVD 88	ELEVATION: 8.88' NAVD 88
BENCHMARK: FIRESTAFF	BENCHMARK: F 376
ELEVATION: 7.37' NAVD 88	ELEVATION: 6.78' NAVD 88
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US ARMY CORPS
OF ENGINEERS
NEW YORK DISTRICT

OCEAN SURVEYS, INC.
A SUBSIDIARY OF
JOHN WM. MACKY
400 SATUCKET ROAD
WESTPORT, MASSACHUSETTS
WWW.OCEANSURVEYS.COM

DATES OF SURVEY:
25 MARCH - 9 APRIL 2013

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:

FILE NO.: 91
REQUEST NO.: 3965

APPROVED: J. BEAN — FIELD SURVEILLANCE
APPROVED: R. SMITH — PROJECT MANAGER
APPROVED: D. CLARKE — QUALITY ASSURANCE
APPROVED: F. POSTIGLIONE — CHIEF OF SURVEY
DATE: 2 MAY 2013

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

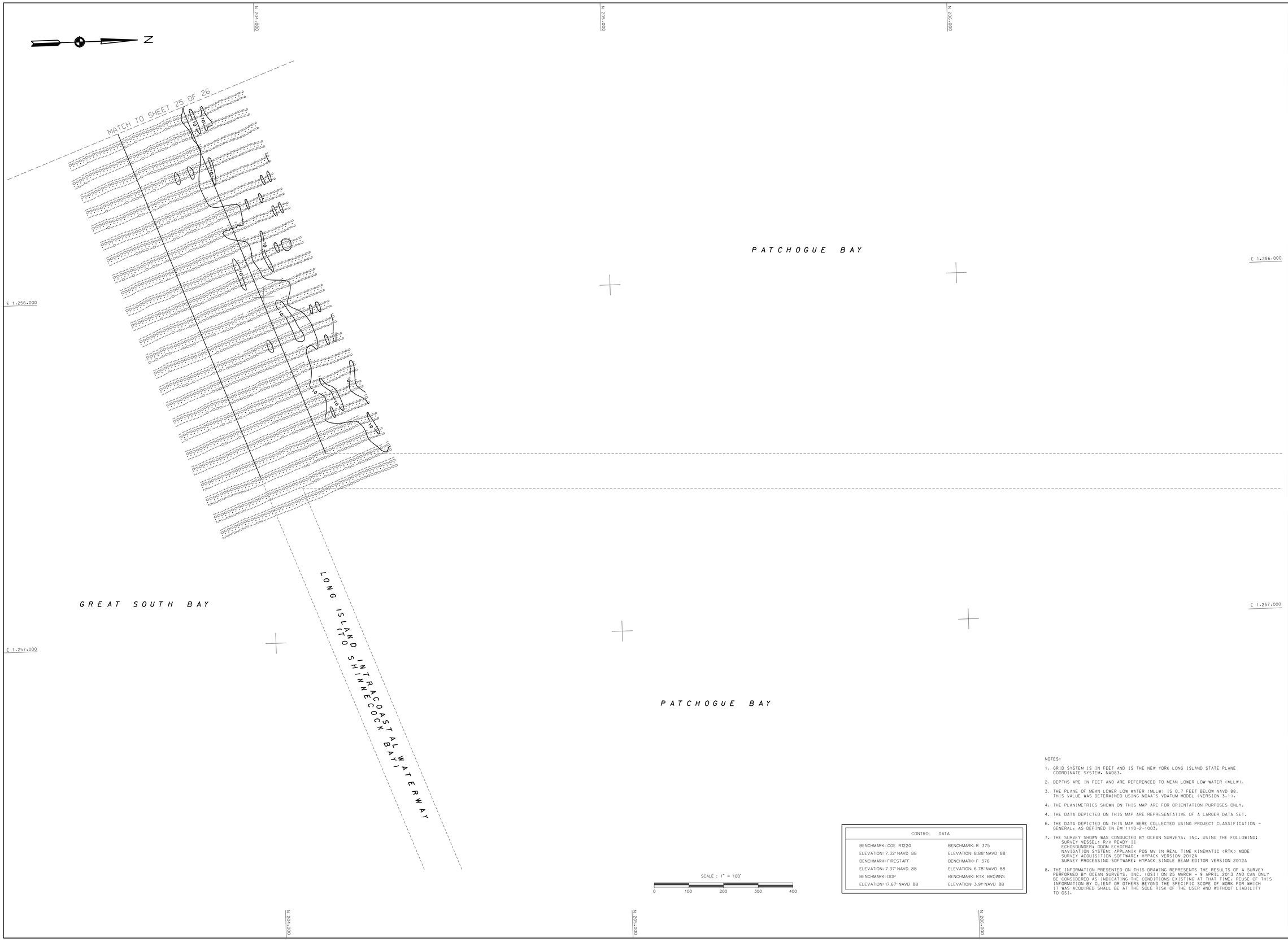
OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

GREAT SOUTH BAY
NEW YORK
STATUS SURVEY

VH-125

SHEET 25 OF 26

91
3965



CONTROL DATA	
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US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

OCEAN SURVEYS, INC.
129 WALL ROCK ROAD EAST
OLD SAYBROOK, CONNECTICUT
(860) 388-3600
www.oceansurveys.com

DATES OF SURVEY:
25 MARCH - 9 APRIL 2013

FILE NO.: 91
REQUEST NO.: 3965

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:

APPROVED: J. BEAN — FIELD CARTOGRAPHER
APPROVED: R. SMITH — PROJECT MANAGER
APPROVED: D. CLARKE — LEAD CARTOGRAPHER
APPROVED: F. POSTIGLIONE — CHIEF OF SURVEY
DATE: 2 MAY 2013

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

GREAT SOUTH BAY
NEW YORK
STATUS SURVEY

VH-126

SHEET 26 OF 26

91
3965