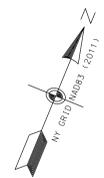




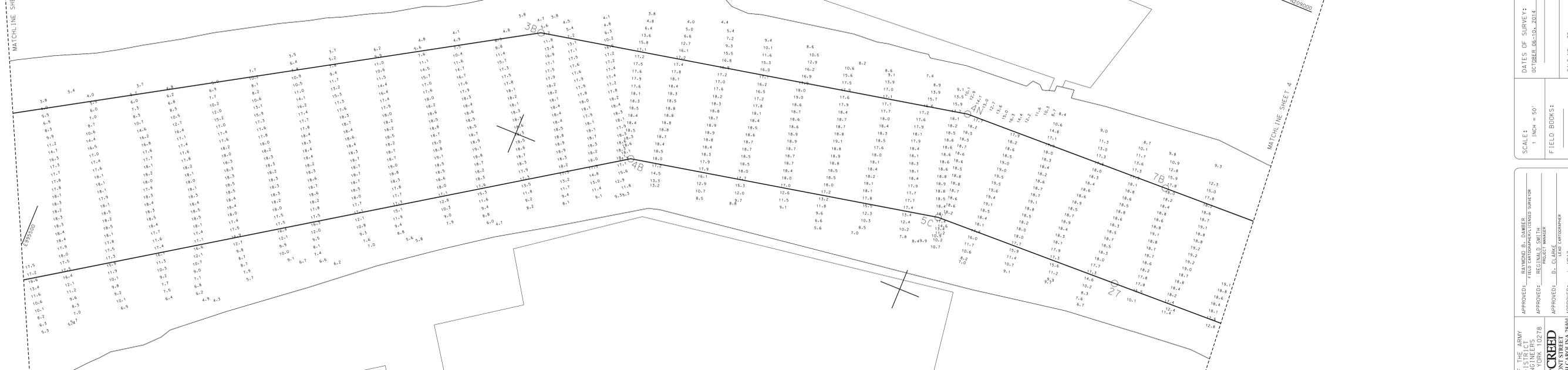
LONG ISLAND CITY,
NEW YORK

BROOKLYN,
NEW YORK

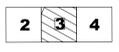
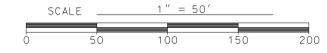


MATCHLINE SHEET 2

MATCHLINE SHEET 4



NSRS/NGS CONTROL DATA			
BENCHMARK:	B 348 PID# KU1054 (MEASURED)	NORTHING	EASTING
ELEVATION:	14.72 NAVD 88	209469.1	996976.5
LOCAL CONTROL DATA			
HORIZONTAL:	BCE 5 PID# KU4526	NORTHING	EASTING
ELEVATION:	53.81' (BY VRS) NAVD 88	194652.69	987215.07



- PROJECT SPECIFIC NOTES:
- COORDINATES REFER TO US STATE PLANE COORDINATE SYSTEM NAD 1983, NEW YORK, LONG ISLAND LAMBERT - ZONE 3104, US SURVEY FEET.
 - THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS THE GENERAL CONDITIONS EXISTING AT THAT TIME.
 - THE SOUNDING DATA DEPICTED ON THIS MAP WAS COLLECTED USING PROJECT CLASSIFICATION GENERAL AS SPECIFIED IN EM 1110-2-1003.
 - SOUNDINGS ON THIS MAP REFER TO THE PLANE OF MEAN LOWER LOW WATER (MLLW) (EPOCH 1985-2001).
 - MEAN LOWER LOW WATER IS 2.7 FEET BELOW NAVD88 AS DETERMINED USING DATUM (VER. 2.2.5).
 - SOUNDINGS DEPICTED ON THIS MAP HAVE BEEN THINNED TO A 10' INTERVAL USING THE FULL DATA SET.
 - CONTOURS ON THIS MAP WERE GENERATED USING THE MAP DATA SET.
 - THE DATA DEPICTED ON THIS MAP SHOULD NOT BE USED FOR VOLUME CALCULATION PURPOSES.
 - BACKGROUND IMAGERY PROVIDED BY THE CORPS OF ENGINEERS.
 - THE PLANIMETRICS DEPICTED ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY.
 - THIS SURVEY WAS PERFORMED USING VRS GPS AND CHECKING INTO NGS STATION 'B348'.
 - THIS MAP IS CEPP COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.
 - THE SURVEY WAS CONDUCTED BY MCKIM & CREED USING THE FOLLOWING: SURVEY VESSELS: SV CLOAK AND SV ZEDO; ECHOSOUNDER: SINGLE BEAM ECHOSOUNDER CV200 200KHZ, AND CV100 200KHZ; NAVIGATION SYSTEMS: TRIMBLE 5700; IN REAL TIME KINEMATIC (RTK) MODE; SURVEY ACQUISITION SOFTWARE: HYPACK VERSION 2014; SURVEY PROCESSING SOFTWARE: HYPACK SINGLE BEAM EDITOR VERSION 2014; ATTITUDE CORRECTIONS FOR HEAVE, ROLL, PITCH AND HEADING WERE APPLIED USING AN INTERNAL MOTION UNIT; CTD DATA WERE TAKEN DURING ACQUISITION FOR ACCURATE SPEED OF SOUND PROFILES.
 - THE INFORMATION PRESENTED ON THIS DRAWING REPRESENTS THE RESULTS OF A SURVEY PERFORMED BY MCKIM & CREED ON OCT 06-10, 2014 AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS EXISTING AT THAT TIME. BECAUSE THESE CONDITIONS ARE SUBJECT TO RAPID CHANGE DUE TO SHALING EVENTS, A PRUDENT MARINER SHOULD NOT RELY EXCLUSIVELY ON THE INFORMATION PROVIDED HERE. 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 MCKIM & CREED.

APPROVED: **RAYMOND D. CHAMBER**
FIELD CARTOGRAPHIC/ENGINEER SUPERVISOR

APPROVED: **REGINALD SMITH**
PROJECT MANAGER

APPROVED: **DR. ELIZABETH CARROLL**
PROJECT MANAGER

APPROVED: **J. J. ABRAZ**
PROJECT CHIEF OF SURVEY

DATE: 27 OCTOBER 2014

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

MCKIM & CREED
333 N. MORTIMER STREET
WILMINGTON, NORTH CAROLINA 28401
TEL: (704) 241-3333
FAX: (704) 241-3333

**HYDROGRAPHIC SURVEY OF
NEWTOWN CREEK, NEW YORK
CONDITION SURVEY**

VH-103

SHEET 3 OF 15



Table with 10 columns and 1 row, likely for project identification or metadata.

Table with 10 columns and 1 row, likely for project identification or metadata.

Table with 2 columns: DATES OF SURVEY (OCTOBER 06-10, 2014) and FIELD BOOKS (FILE NO. 1: 77, REPORT NO. 1413).

Table with 2 columns: SCALE (1" = 50') and FIELD BOOKS (FILE NO. 1: 77, REPORT NO. 1413).

Table with 2 columns: APPROVED (BY NAME AND TITLE) for Raymond D. Chamberlain, Reginald Smith, and J. Mraz.

Table with 2 columns: DEPARTMENT OF THE ARMY, CORPS OF ENGINEERS, NEW YORK DISTRICT, NEW YORK DISTRICT, NEW YORK DISTRICT, NEW YORK DISTRICT.

HYDROGRAPHIC SURVEY OF NEWTOWN CREEK, NEW YORK CONDITION SURVEY

VH-109 SHEET 9 OF 15

LONG ISLAND CITY, NEW YORK

BROOKLYN, NEW YORK

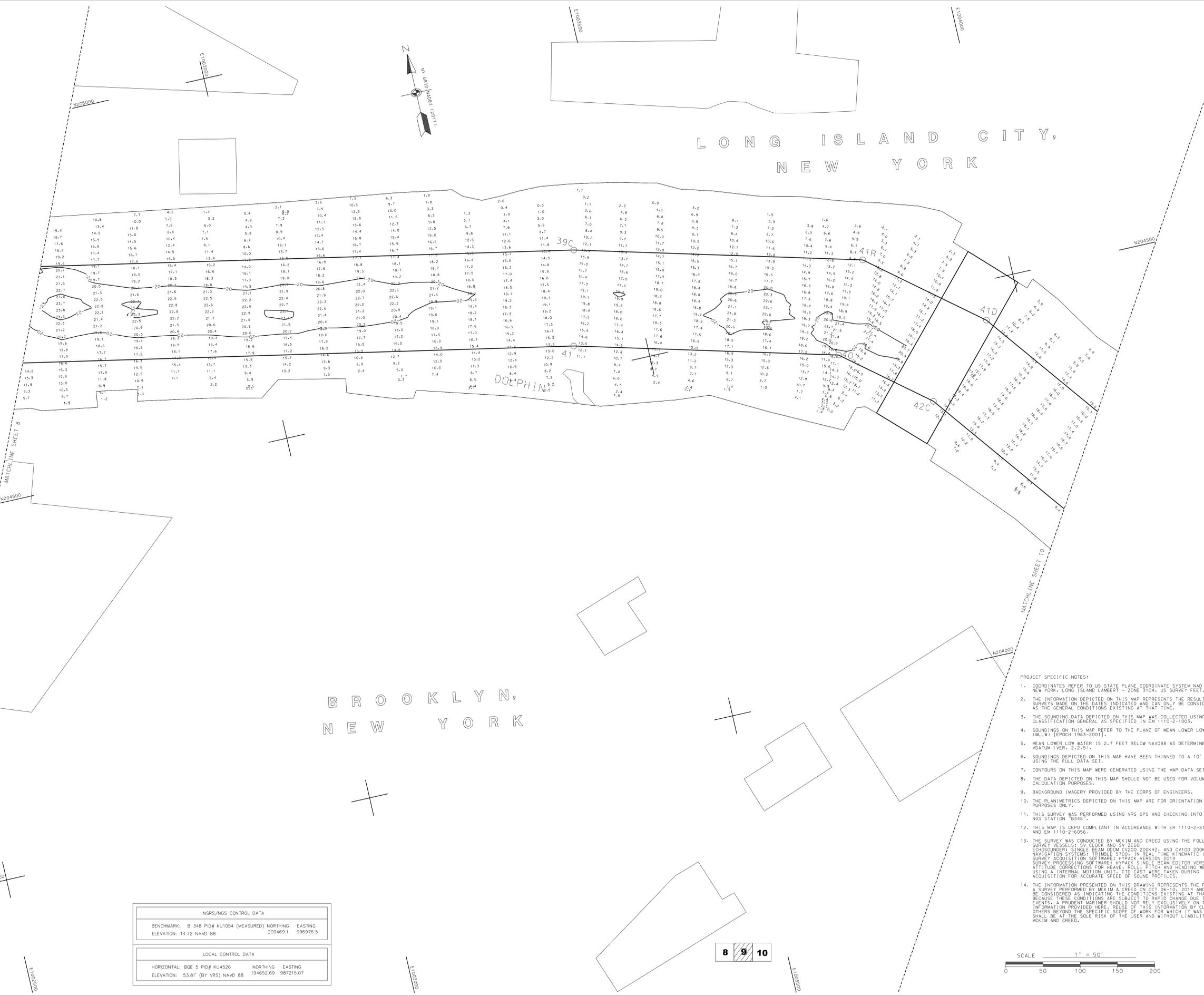
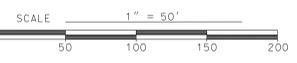


Table with 2 sections: NSRS/NGS CONTROL DATA and LOCAL CONTROL DATA. Includes benchmark information for B 348 PID# KU1054 and B 348 PID# KU4526.



8 9 10

- PROJECT SPECIFIC NOTES: 1. COORDINATES REFER TO US STATE PLANE COORDINATE SYSTEM NAD 1983... 2. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED... 3. THE SOUNDING DATA DEPICTED ON THIS MAP WAS COLLECTED USING PROJECT CLASSIFICATION GENERAL AS SPECIFIED IN EM 1110-2-1003... 4. SOUNDINGS ON THIS MAP REFER TO THE PLANE OF MEAN LOWER LOW WATER (MLLW) [EPOCH 1983-2001]... 5. MEAN LOWER LOW WATER IS 2.7 FEET BELOW NAVD83 AS DETERMINED USING VOXTUM KVER; 2-2-51... 6. SOUNDINGS DEPICTED ON THIS MAP HAVE BEEN THINNED TO A 10' INTERVAL USING THE FULL DATA SET... 7. CONTOURS ON THIS MAP WERE GENERATED USING THE MAP DATA SET... 8. THE DATA DEPICTED ON THIS MAP SHOULD NOT BE USED FOR VOLUME CALCULATION PURPOSES... 9. BACKGROUND IMAGERY PROVIDED BY THE CORPS OF ENGINEERS... 10. THE PLANIMETRICS DEPICTED ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY... 11. THIS SURVEY WAS PERFORMED USING VRS GPS AND CHECKING INTO NGS STATION 'B348'... 12. THIS MAP IS CEPD COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6055... 13. THE SURVEY WAS CONDUCTED BY MCKIM AND CREED USING THE FOLLOWING: SURVEY VESSELS: SV CLOCK AND SV ZEDD... 14. THE INFORMATION PRESENTED ON THIS DRAWING REPRESENTS THE RESULTS OF A SURVEY PERFORMED BY MCKIM & CREED ON OCT 06-10, 2014 AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS EXISTING AT THAT TIME...



U.S. ARMY CORPS OF ENGINEERS NEW YORK DISTRICT

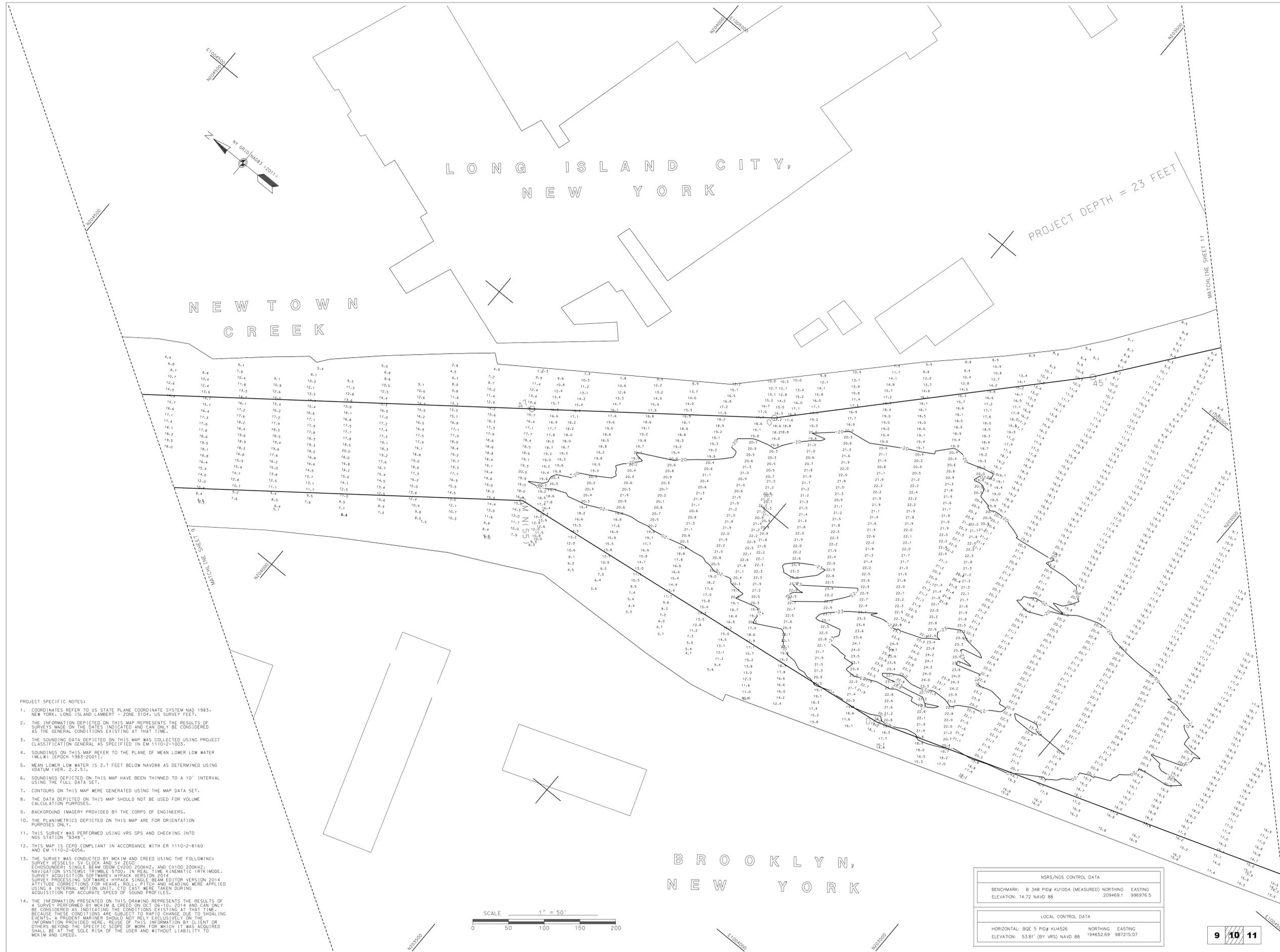
Table with 2 columns: DATE OF SURVEY, FIELD BOOKS. Includes dates like OCTOBER 06-10, 2014 and file numbers like FILE NO. 1: 77.

Table with 2 columns: SCALE, FIELD BOOKS. Scale is 1" = 50'. Includes file numbers like FILE NO. 1: 77.

Table with 2 columns: APPROVED, PROJECT MANAGER. Includes names like RAYMOND D. CLARKE and REGINALD SMITH.

HYDROGRAPHIC SURVEY OF NEWTOWN CREEK, NEW YORK CONDITION SURVEY

VH-110 SHEET 10 OF 15



- PROJECT SPECIFIC NOTES: 1. COORDINATES REFER TO US STATE PLANE COORDINATE SYSTEM NAD 1983... 2. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED... 3. THE SOUNDING DATA DEPICTED ON THIS MAP WAS COLLECTED USING PROJECT CLASSIFICATION GENERAL AS SPECIFIED IN EM 1110-2-1003...

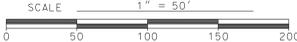
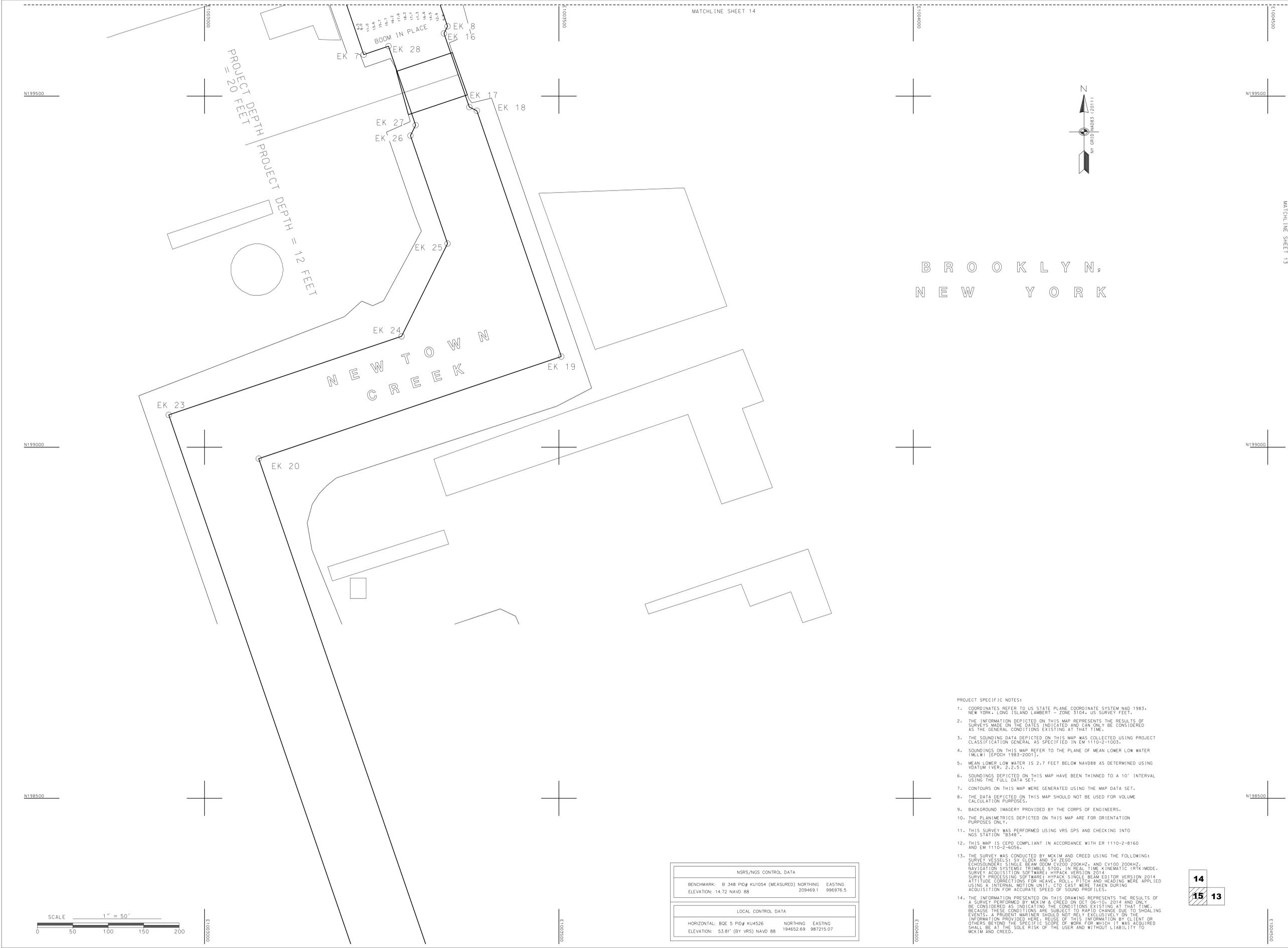


Table with 2 sections: NSRS/NGS CONTROL DATA and LOCAL CONTROL DATA. Includes benchmark information like B 348 PID# KU1054 and BENCHMARK ELEVATION: 147.2 NAVD 88.

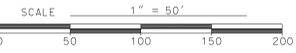
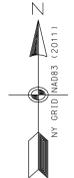
9 10 11



MATCHLINE SHEET 14

MATCHLINE SHEET 13

BROOKLYN,
NEW YORK



NSRS/NGS CONTROL DATA			
BENCHMARK:	B 348 PID# KU1054 (MEASURED)	NORTHING	EASTING
ELEVATION:	14.72 NAVD 88	209469.1	996976.5
LOCAL CONTROL DATA			
HORIZONTAL:	BOE 5 PID# KU4526	NORTHING	EASTING
ELEVATION:	53.81' (BY VRS) NAVD 88	194652.69	987215.07

- PROJECT SPECIFIC NOTES:
- COORDINATES REFER TO US STATE PLANE COORDINATE SYSTEM NAD 1983, NEW YORK, LONG ISLAND LAMBERT - ZONE 1804 - US SURVEY FEET.
 - THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS THE GENERAL CONDITIONS EXISTING AT THAT TIME.
 - THE SOUNDING DATA DEPICTED ON THIS MAP WAS COLLECTED USING PROJECT CLASSIFICATION GENERAL AS SPECIFIED IN EM 1110-2-1003.
 - SOUNDINGS ON THIS MAP REFER TO THE PLANE OF MEAN LOWER LOW WATER (MLLW) [EPDCH 1983-2001].
 - MEAN LOWER LOW WATER IS 2.7 FEET BELOW NAVD88 AS DETERMINED USING VDATUM 1 VER. 2-2-51.
 - SOUNDINGS DEPICTED ON THIS MAP HAVE BEEN THINNED TO A 10' INTERVAL USING THE FULL DATA SET.
 - CONTOURS ON THIS MAP WERE GENERATED USING THE MAP DATA SET.
 - THE DATA DEPICTED ON THIS MAP SHOULD NOT BE USED FOR VOLUME CALCULATION PURPOSES.
 - BACKGROUND IMAGERY PROVIDED BY THE CORPS OF ENGINEERS.
 - THE PLANIMETRICS DEPICTED ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY.
 - THIS SURVEY WAS PERFORMED USING VRS GPS AND CHECKING INTO NGS STATION "B348".
 - THIS MAP IS CEPD COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6095.
 - THE SURVEY WAS CONDUCTED BY MCKIM AND CREED USING THE FOLLOWING SURVEY VESSELS: SV CLOCK AND SV ZIGZAG. ECHOSOUNDER: SINGLE BEAM ECHOSOUNDER 200KHZ, AND CV100 200KHZ. NAVIGATION SYSTEMS: TRIMBLE 5700, IN REAL TIME KINEMATIC (RTK) MODE. SURVEY ACQUISITION SOFTWARE: HYPPACK VERSION 2014. SURVEY PROCESSING SOFTWARE: HYPPACK SINGLE BEAM EDITOR VERSION 2014. ATTITUDE CORRECTIONS FOR HEAVE, ROLL, PITCH AND HEADING WERE APPLIED USING AN INTERNAL MOTION UNIT. CID CAST WERE TAKEN DURING ACQUISITION FOR ACCURATE SPEED OF SOUND PROFILES.
 - THE INFORMATION PRESENTED ON THIS DRAWING REPRESENTS THE RESULTS OF A SURVEY PERFORMED BY MCKIM & CREED ON OCT 06-10, 2014 AND ONLY BE CONSIDERED AS INDICATING THE CONDITIONS EXISTING AT THAT TIME. BECAUSE THESE CONDITIONS ARE SUBJECT TO RAPID CHANGE DUE TO SHOALING EVENTS, A PRUDENT MARINER SHOULD NOT RELY EXCLUSIVELY ON THE INFORMATION PROVIDED HERE. 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 MCKIM AND CREED.

14
15
13

DATE: 21 OCTOBER 2014

APPROVED: RAYMOND D. CHAMBER
FIELD CARTOGRAPHER/LICENSED SURVEYOR

APPROVED: REGINALD SMITH
PROJECT MANAGER

APPROVED: D. CLARKE
CHECKER

APPROVED: J. MAZ
DEPUTY CHIEF OF SURVEY

FILE NO.: 77
REQ NO.: 4173

SCALE: 1" = 50'

FIELD BOOKS:

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS
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WILMINGTON, NORTH CAROLINA 28401
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**HYDROGRAPHIC SURVEY OF
NEWTOWN CREEK, NEW YORK
CONDITION SURVEY**

VH-115
SHEET 15 OF 15