PROJECT SPECIFIC NOTES:

- 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.
- COORDINATES REFER TO US STATE PLANE COORDINATE SYSTEM NAD 1983, NEW JERSEY - ZONE 2900, US SURVEY FEET.
- SOUNDINGS ON THIS MAP REFER TO THE PLANE OF MEAN LOWER LOW WATER (MLLW) [EPOCH 1983-2001].
- MEAN LOWER LOW WATER IS 3.1-3.5 FEET BELOW NAVD88.
- SOUNDINGS DEPICTED ON THIS MAP ARE SORTED TO A 15' INTERVAL.
- 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.
- AERIAL IMAGERY PROVIDED BY USGS NATIONAL MAP VIEWER (2012).
- THE PLANIMETRICS DEPICTED ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY.
- THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS FROM STATION "RTK WEEHAWKEN MEMORIAL, NEW YORK DOT RTN".
- THIS MAP IS CEPD COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.

LOCAL CONTROL DATA
BENCHMARK: TGAUGE-4-HR ELEVATION: 4.9' (NAVD 88)

NSRS BENCHMARK
BENCHMARK: TIDAL 4 USE (PID: KV0285) ELEVATION: 18.38' (NAVD 88)

US ARMY CORPS OF ENGINEERS NEW YORK DISTRICT

ROGERS SURVEYING, PLLC
1632 Richmond Terrace
Staten Island, N.Y. 10310
(718) 447-7311
www.rogerssurveying.net

DATES OF SURVEY: JUN. 02 - JUN. 10 2015

FILE NO.: 212
REQUEST NO.: 4330

SCALE: ONE INCH = 100 FEET

FIELD BOOKS:

APPROVED: D. ROGERS, LICENSED SURVEYOR
APPROVED: R. SMITH, PROJECT MANAGER
APPROVED: D. CLARKE, LEAD CARTOGRAPHER
APPROVED: F. POSTIGLIONE, CHIEF OF SURVEY
DATE: 06/19/2015

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

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

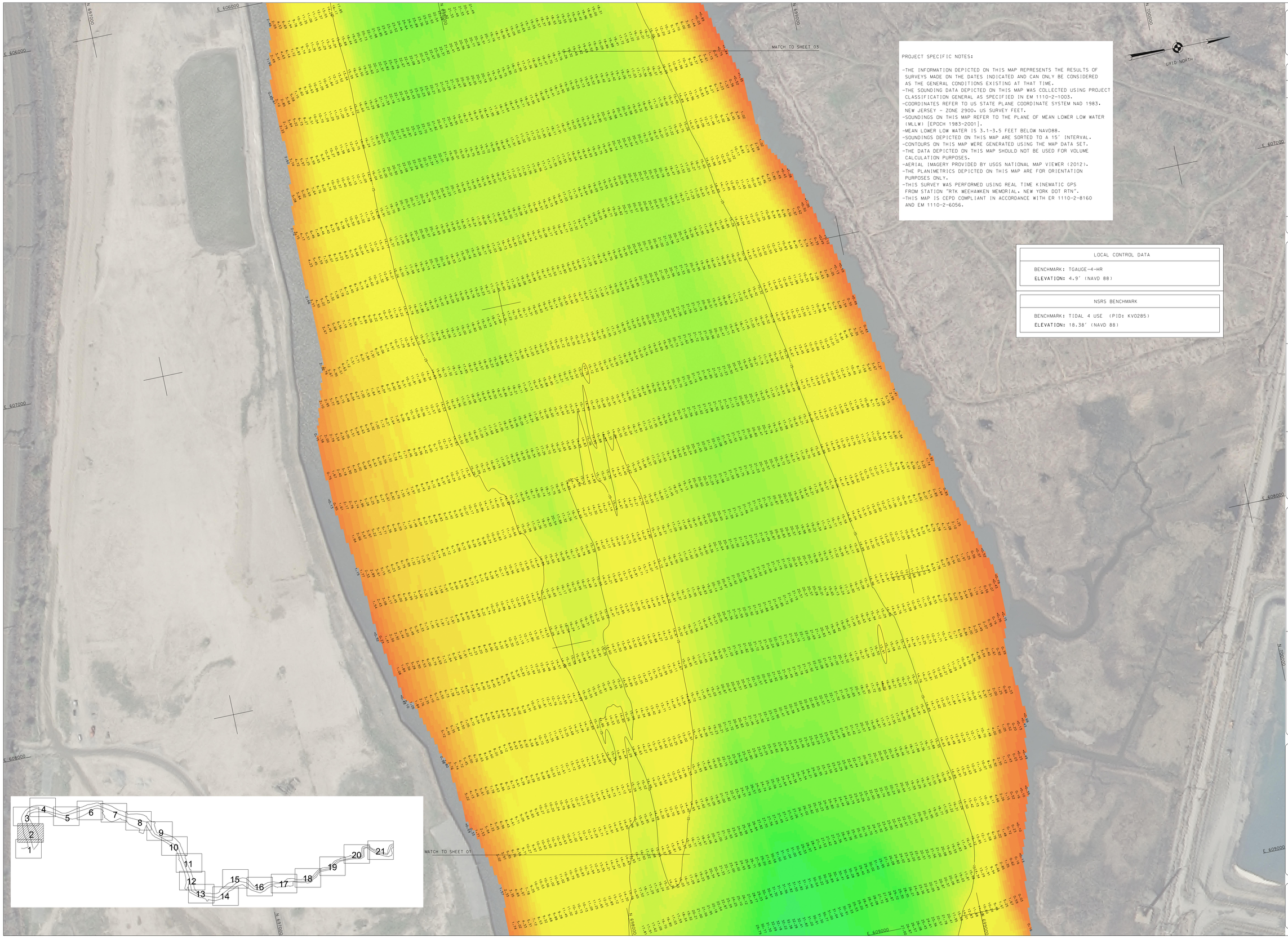
HACKENSACK RIVER
NEW JERSEY
CONDITION SURVEY

VH-101

FILE NO. 212
REQ. NO. 4330

CORPS OF ENGINEERS

U. S. ARMY



PROJECT SPECIFIC NOTES:

- 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.
- COORDINATES REFER TO US STATE PLANE COORDINATE SYSTEM NAD 1983, NEW JERSEY - ZONE 2900, US SURVEY FEET.
- SOUNDINGS ON THIS MAP REFER TO THE PLANE OF MEAN LOWER LOW WATER (MLLW) [EPOCH 1983-2001].
- MEAN LOWER LOW WATER IS 3.1-3.5 FEET BELOW NAVD88.
- SOUNDINGS DEPICTED ON THIS MAP ARE SORTED TO A 15' INTERVAL.
- 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.
- AERIAL IMAGERY PROVIDED BY USGS NATIONAL MAP VIEWER (2012).
- THE PLANIMETRICS DEPICTED ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY.
- THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS FROM STATION "RTK WEEHAWKEN MEMORIAL, NEW YORK DOT RTN".
- THIS MAP IS CEPD COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.

LOCAL CONTROL DATA

BENCHMARK: TGAUGE-4-HR
ELEVATION: 4.9' (NAVD 88)

NSRS BENCHMARK

BENCHMARK: TIDAL 4 USE (PID: KV0285)
ELEVATION: 18.38' (NAVD 88)

US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

ROGERS SURVEYING, PLLC
1623 Richmond Terrace
Staten Island, N.Y. 10310
(718) 447-7311
www.rogerssurveying.net

DATES OF SURVEY: JUN. 02 - JUN. 10 2015

FILE NO.: 212
REQUEST NO.: 4330

SCALE: ONE INCH = 100 FEET

FIELD BOOKS:

APPROVED: D. ROGERS
LICENSED SURVEYOR

APPROVED: R. SMITH
PROJECT MANAGER

APPROVED: D. CLARKE
LEAD CARTOGRAPHER

APPROVED: F. POSTIGLIONE
CHIEF OF SURVEY

DATE: 06/19/2015

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

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

HACKENSACK RIVER
NEW JERSEY
CONDITION SURVEY

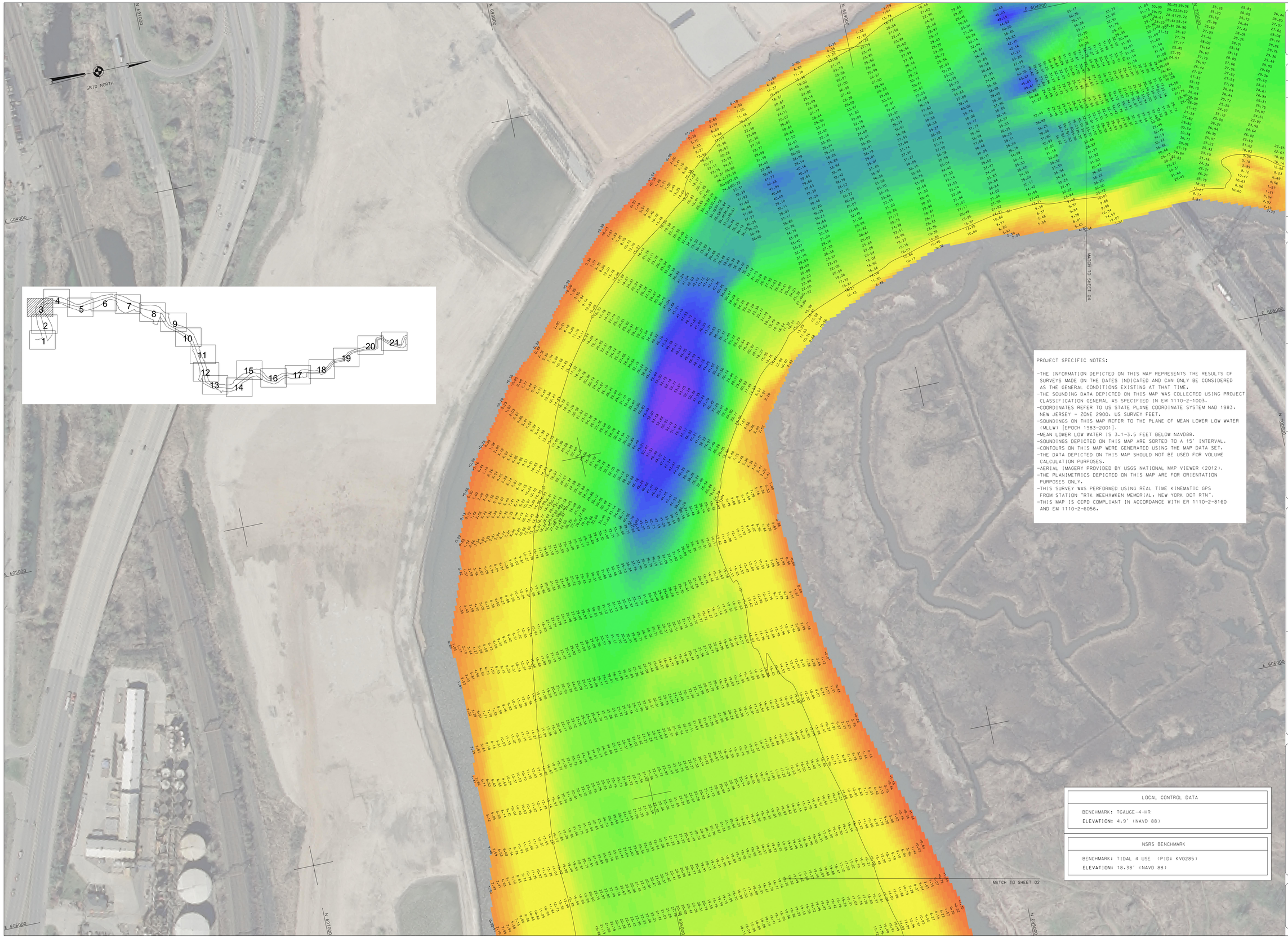
VH-102

SHEET 02 OF 21

FILE NO. 212
REQ. NO. 4330

CORPS OF ENGINEERS

U. S. ARMY



PROJECT SPECIFIC NOTES:

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-THE SOUNDING DATA DEPICTED ON THIS MAP WAS COLLECTED USING PROJECT CLASSIFICATION GENERAL AS SPECIFIED IN EM 1110-2-1003.
-COORDINATES REFER TO US STATE PLANE COORDINATE SYSTEM NAD 1983. NEW JERSEY - ZONE 2900. US SURVEY FEET.
-SOUNDINGS ON THIS MAP REFER TO THE PLANE OF MEAN LOWER LOW WATER (MLLW) [EPOCH 1983-2001].
-MEAN LOWER LOW WATER IS 3.1-3.5 FEET BELOW NAVD88.
-SOUNDINGS DEPICTED ON THIS MAP ARE SORTED TO A 15' INTERVAL.
-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.
-AERIAL IMAGERY PROVIDED BY USGS NATIONAL MAP VIEWER (2012).
-THE PLANIMETRICS DEPICTED ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY.
-THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS FROM STATION "RTK WEEHAWKEN MEMORIAL, NEW YORK DOT RTN".
-THIS MAP IS CEPD COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.

LOCAL CONTROL DATA
BENCHMARK: TGAUGE-4-HR
ELEVATION: 4.9' (NAVD 88)

NSRS BENCHMARK
BENCHMARK: TIDAL 4 USE (PID: KV0285)
ELEVATION: 18.38' (NAVD 88)

US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

ROGERS SURVEYING, PLLC
Staten Island, NY 10310
(718) 524-4900
www.rogerssurveying.net

DATES OF SURVEY: JUN. 02 - JUN. 18 2015

FILE NO.: 212
REQUEST NO.: 4330

SCALE: ONE INCH = 100 FEET

FIELD BOOKS:

APPROVED:	D. ROGERS	SURVEY DIRECTOR
APPROVED:	R. SMITH	PROJECT MANAGER
APPROVED:	D. CLARKE	CHIEF, ENGINEERING
APPROVED:	F. POSTIGLIONE	CHIEF OF SURVEY
DATE:	06/19/2015	

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

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-HS

HACKENSACK RIVER
NEW JERSEY

CONDITION SURVEY

VH-103

SHEET 03 OF 21

FILE NO. 212
REG. NO. 4330

CORPS OF ENGINEERS

U. S. ARMY

GR10 NORTH

N 700000

N 701000

N 702000

E 603000

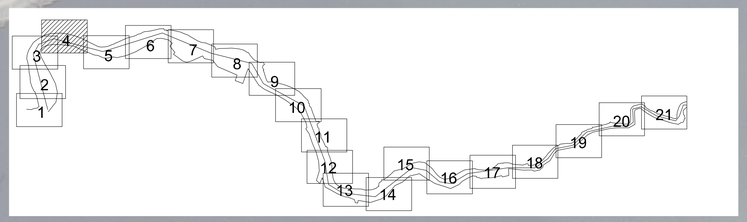
E 604000

E 605000

N 699000

N 698000

N 697000



MATCH TO SHEET 03

MATCH TO SHEET 05

LOCAL CONTROL DATA
BENCHMARK: TGAUGE-4-HR ELEVATION: 4.9' (NAVD 88)

NSRS BENCHMARK
BENCHMARK: TIDAL 4 USE (PID: KV0285) ELEVATION: 18.38' (NAVD 88)

PROJECT SPECIFIC NOTES:

-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.
-COORDINATES REFER TO US STATE PLANE COORDINATE SYSTEM NAD 1983, NEW JERSEY - ZONE 2900, US SURVEY FEET.
-SOUNDINGS ON THIS MAP REFER TO THE PLANE OF MEAN LOWER LOW WATER (MLLW) [EPOCH 1983-2001].
-MEAN LOWER LOW WATER IS 3.1-3.5 FEET BELOW NAVD88.
-SOUNDINGS DEPICTED ON THIS MAP ARE SORTED TO A 15' INTERVAL.
-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.
-AERIAL IMAGERY PROVIDED BY USGS NATIONAL MAP VIEWER (2012).
-THE PLANIMETRICS DEPICTED ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY.
-THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS FROM STATION "RTK WEEHAWKEN MEMORIAL, NEW YORK DOT RTN".
-THIS MAP IS CEPD COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.

US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

ROGERS SURVEYING, PLLC
Professional Land Surveyors
Staten Island, NY 10310
(718) 447-1111
www.rogerssurveying.net

DATES OF SURVEY:
JUNE. 02 - JUN. 10 2015

FILE NO.: 212
REGEST NO.: 4330

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:

APPROVED: D. ROGERS, PROJECT MANAGER
APPROVED: R. SMITH, PROJECT MANAGER
APPROVED: D. CLARKE, CHIEF, SURVEY BRANCH
APPROVED: F. POSTIGLIONE, CHIEF OF SURVEY
DATE: 06/19/2015

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

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OPS

HACKENSACK RIVER
NEW JERSEY
CONDITION SURVEY

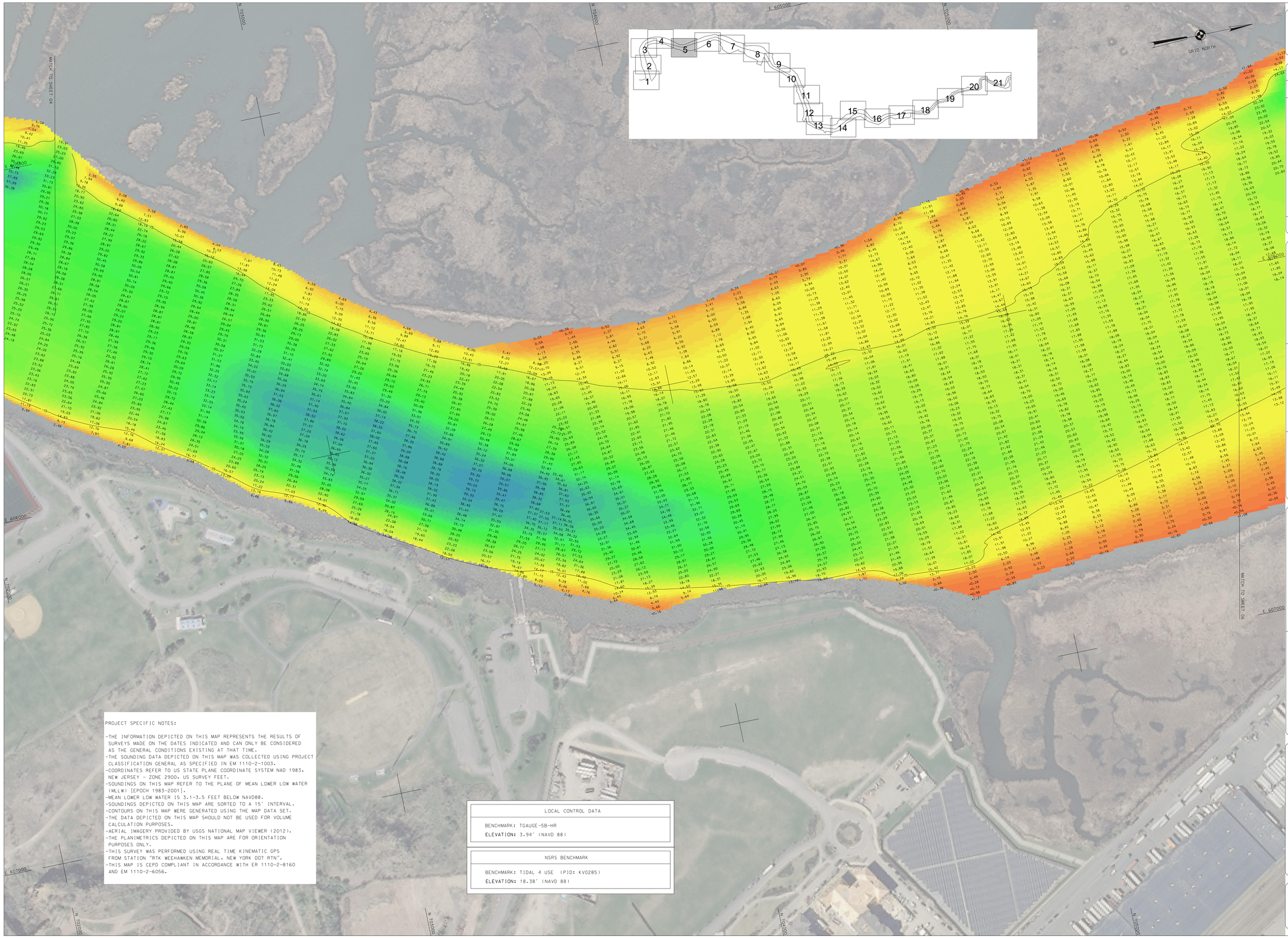
VH-104

SHEET 04 OF 21

FILE NO. 212
REG. NO. 4330

CORPS OF ENGINEERS

U. S. ARMY



PROJECT SPECIFIC NOTES:

-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.
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-THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS FROM STATION "RTK WEEHAWKEN MEMORIAL, NEW YORK DOT RTN".
-THIS MAP IS CEPD COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.

LOCAL CONTROL DATA
BENCHMARK: TGAUGE-5B-HR **ELEVATION:** 3.94' (NAVD 88)

NSRS BENCHMARK
BENCHMARK: TIDAL 4 USE (PID: KV0285) **ELEVATION:** 18.38' (NAVD 88)

US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

ROGERS SURVEYING, PLLC
Professional Land Surveyors
Staten Island, NY 10310
(718) 524-4900
www.rogerssurveyingllc.net

DATES OF SURVEY:
JUN. 02 - JUN. 10 2015

FILE NO.: 212
REQUEST NO.: 4330

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:

APPROVED:	D. ROGERS PROJECT MANAGER	APPROVED:	R. SMITH CHIEF OF SURVEYS
APPROVED:	D. CLARKE CHIEF, ENGINEERING DIVISION	APPROVED:	F. POSILLICO CHIEF OF SURVEY
DATE:	06/19/2015		

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

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OPS-S

HACKENSACK RIVER
NEW JERSEY
CONDITION SURVEY

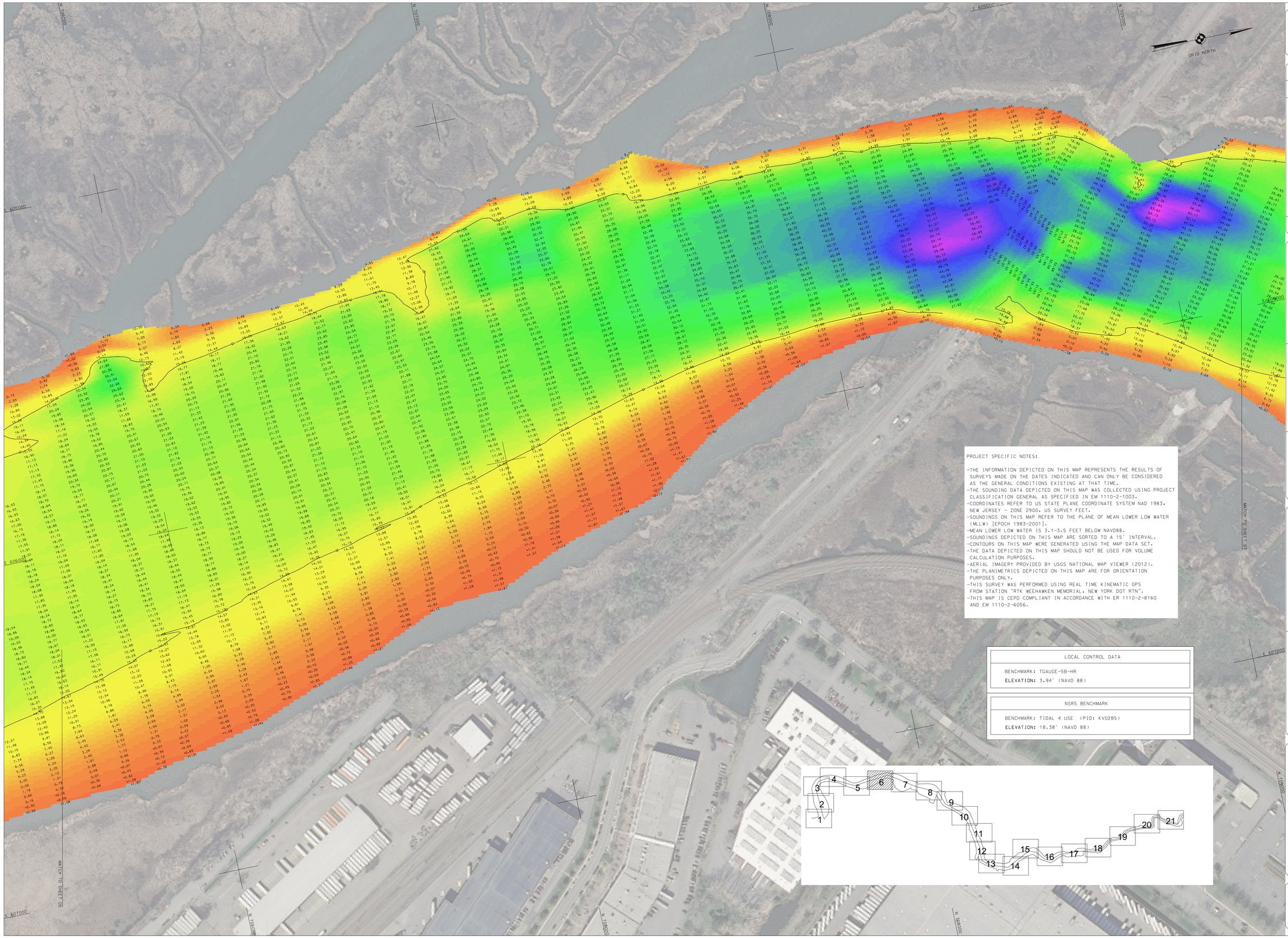
VH-105

SHEET 05 OF 21

FILE NO. 212
REQ. NO. 4330

CORPS OF ENGINEERS

U. S. ARMY



US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

ACCESS SURVEYING, PLLC
Staten Island, NY, 10310
(718) 524-2000
www.accesssurveyingllc.net

DATES OF SURVEY:
JUNE. 02 - JUN. 10 2015

FILE NO.: 212
REQUEST NO.: 4330

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:

APPROVED: D. ROGERS (SURVEY SUPERVISOR)
APPROVED: R. SMITH (PROJECT MANAGER)
APPROVED: D. CLARKE (CHIEF, SURVEYS BRANCH)
APPROVED: F. POSTIGLIONE (CHIEF OF SURVEY)
DATE: 06/19/2015

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

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

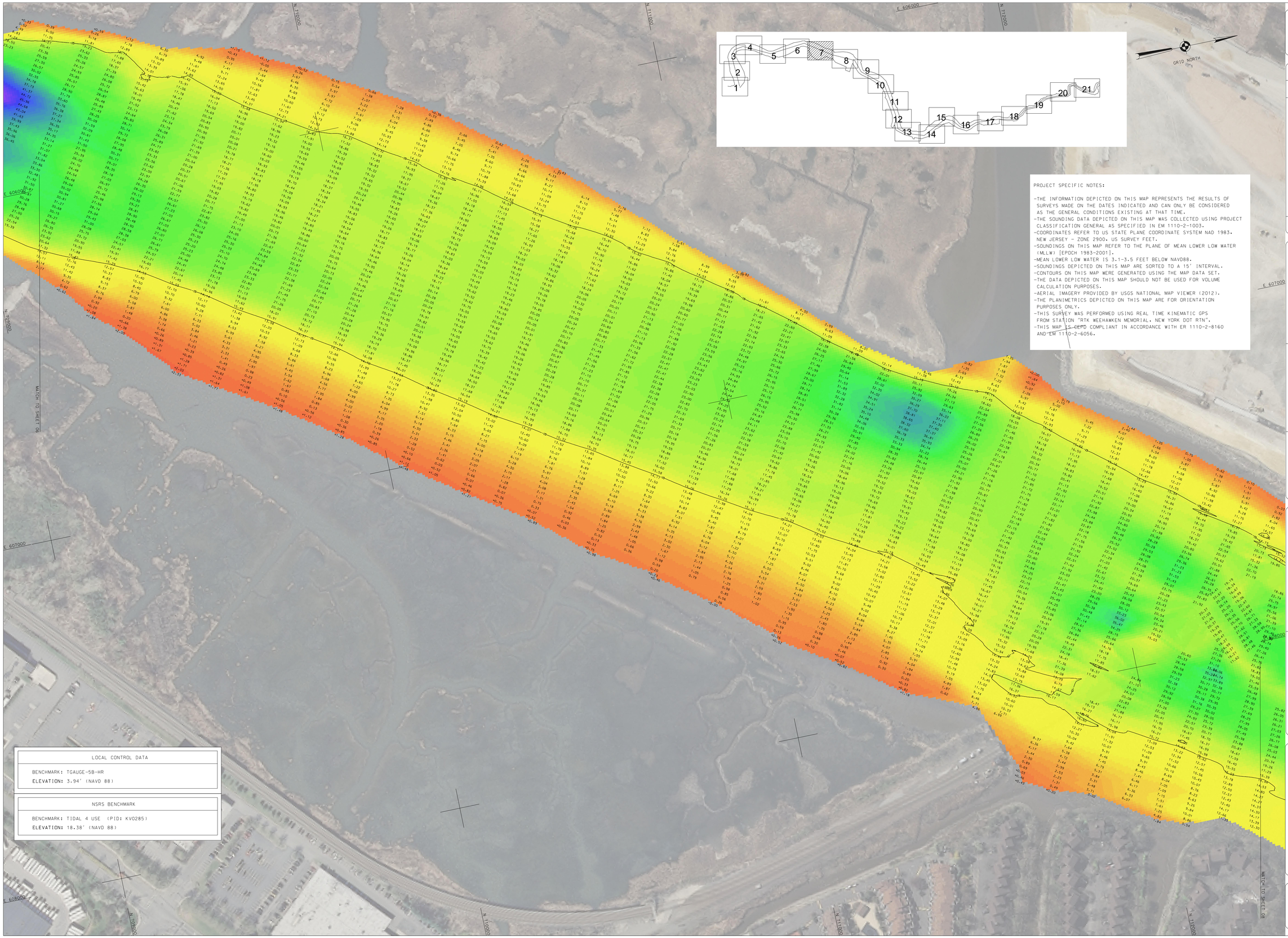
HACKENSACK RIVER
NEW JERSEY
CONDITION SURVEY

VH-106
SHEET 06 OF 21

FILE NO. 212
REQ. NO. 4330

CORPS OF ENGINEERS

U. S. ARMY



PROJECT SPECIFIC NOTES:

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-SOUNDINGS ON THIS MAP REFER TO THE PLANE OF MEAN LOWER LOW WATER (MLLW) [EPOCH 1983-2001].
-MEAN LOWER LOW WATER IS 3.1-3.5 FEET BELOW NAVD88.
-SOUNDINGS DEPICTED ON THIS MAP ARE SORTED TO A 15' INTERVAL.
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-THE PLANIMETRICS DEPICTED ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY.
-THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS FROM STATION "RTK WEEHAWKEN MEMORIAL, NEW YORK DOT RTN".
-THIS MAP IS CEPD COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.

LOCAL CONTROL DATA
BENCHMARK: TGAUGE-5B-HR ELEVATION: 3.94' (NAVD 88)

NSRS BENCHMARK
BENCHMARK: TIDAL 4 USE (PID: KV0285) ELEVATION: 18.38' (NAVD 88)

US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

ROGERS SURVEYING, PLLC
Stony Point, NY 10980
Staten Island, NY 10310
(845) 942-0630
www.rogerssurveying.net

DATES OF SURVEY:
JUNE. 02 - JUN. 10 2015

FILE NO.: 212
REQUEST NO.: 4330

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:

APPROVED:	D. ROGERS	SURVEY SUPERVISOR
APPROVED:	R. SMITH	PROJECT MANAGER
APPROVED:	D. CLARKE	QUALITY ASSURANCE
APPROVED:	F. POSTIGLIONE	CHIEF OF SURVEY
DATE:	06/19/2015	

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

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-GS

HACKENSACK RIVER
NEW JERSEY
CONDITION SURVEY

VH-107

SHEET 07 OF 21

FILE NO. 212
REQ. NO. 4330

CORPS OF ENGINEERS

U. S. ARMY

LOCAL CONTROL DATA
BENCHMARK: TGAUGE-5B-HR
ELEVATION: 3.94' (NAVD 88)

NSRS BENCHMARK
BENCHMARK: TIDAL 4 USE (PID: KV0285)
ELEVATION: 18.38' (NAVD 88)

PROJECT SPECIFIC NOTES:

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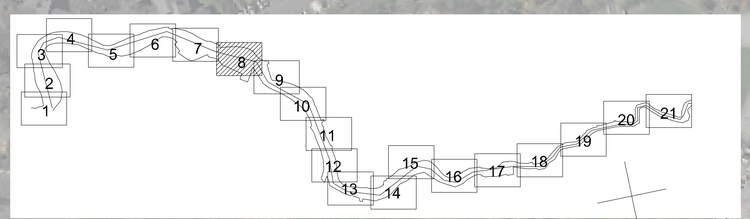
GRID NORTH

N 115900 N 114500 N 115000 N 116500 N 115785 E 608000 E 609000 E 610000 N 112000 N 113500 N 114000

MATCH TO SHEET 07

MATCH TO SHEET 09



US ARMY CORPS OF ENGINEERS NEW YORK DISTRICT

ROGERS SURVEYING, PLLC
Professional Land Surveyors
Staten Island, N.Y. 10310
(718) 477-1100
www.rogerssurveyingllc.net

DATES OF SURVEY: JUNE 02 - JUN. 10 2015

FILE NO.: 212
REQUEST NO.: 4330

SCALE: ONE INCH = 100 FEET

FIELD BOOKS:

APPROVED: D. RODGERS
CHIEF, SURVEY SECTION

APPROVED: R. SMITH
PROJECT MANAGER

APPROVED: D. CLARKE
CHIEF, OPERATIONS DIVISION

APPROVED: F. POSTIGLIONE
CHIEF, ENGINEERING DIVISION

DATE: 06/19/2015

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

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OPS

HACKENSACK RIVER
NEW JERSEY
CONDITION SURVEY

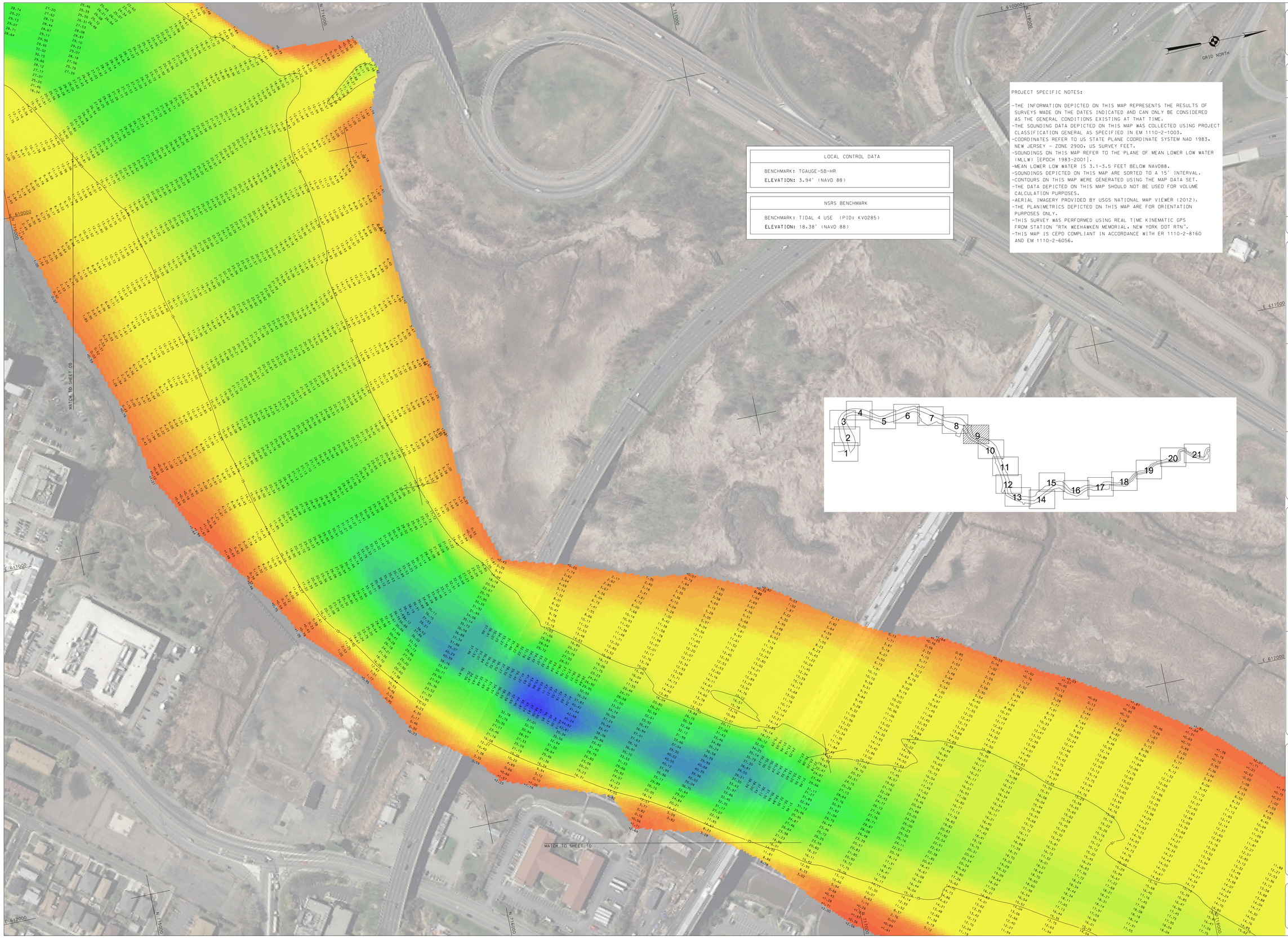
VH-108

SHEET 08 OF 21

FILE NO. 212
REQ. NO. 4330

CORPS OF ENGINEERS

U. S. ARMY



LOCAL CONTROL DATA
BENCHMARK: TGAUGE-5B-HR ELEVATION: 3.94' (NAVD 88)

NSRS BENCHMARK
BENCHMARK: TIDAL 4 USE (PID: KV0285) ELEVATION: 18.38' (NAVD 88)

PROJECT SPECIFIC NOTES:

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-THE SOUNDING DATA DEPICTED ON THIS MAP WAS COLLECTED USING PROJECT CLASSIFICATION GENERAL AS SPECIFIED IN EM 1110-2-1003.
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-THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS FROM STATION "RTK WEEHAWKEN MEMORIAL, NEW YORK DOT RTN".
-THIS MAP IS CEPD COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.

US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

ROGERS SURVEYING, PLLC
Professional Land Surveyors
Staten Island, NY 10310
(718) 477-2233
www.rogerssurveying.net

DATES OF SURVEY:
JUNE 02 - JUN. 10 2015

FILE NO.: 212
REQUEST NO.: 4330

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:

APPROVED: D. RODGERS — CHIEF SURVEYOR
APPROVED: R. SMITH — PROJECT MANAGER
APPROVED: D. CLARKE — CHIEF OF SURVEYS
APPROVED: F. POSTIGLIONE — CHIEF OF SURVEY
DATE: 06/18/2015

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

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

HACKENSACK RIVER
NEW JERSEY
CONDITION SURVEY

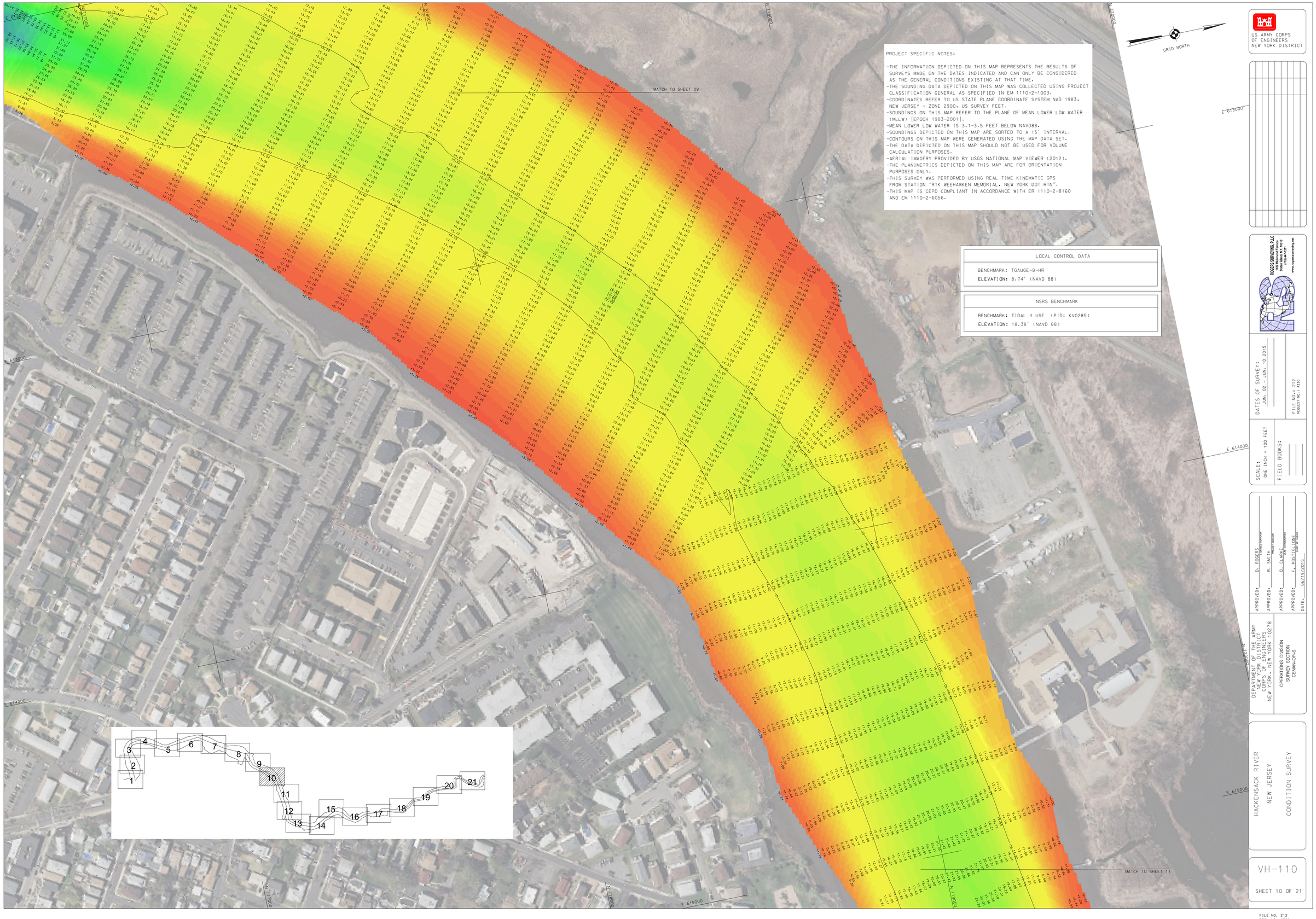
VH-109

SHEET 09 OF 21

FILE NO. 212
REG. NO. 4330

CORPS OF ENGINEERS

U. S. ARMY



GRID NORTH

PROJECT SPECIFIC NOTES:

-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.
-COORDINATES REFER TO US STATE PLANE COORDINATE SYSTEM NAD 1983, NEW JERSEY – ZONE 2900, US SURVEY FEET.
-SOUNDINGS ON THIS MAP REFER TO THE PLANE OF MEAN LOWER LOW WATER (MLLW) [EPOCH 1983-2001].
-MEAN LOWER LOW WATER IS 3.1-3.5 FEET BELOW NAVD88.
-SOUNDINGS DEPICTED ON THIS MAP ARE SORTED TO A 15' INTERVAL.
-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.
-AERIAL IMAGERY PROVIDED BY USGS NATIONAL MAP VIEWER (2012).
-THE PLANIMETRICS DEPICTED ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY.
-THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS FROM STATION "RTK WEEHAWKEN MEMORIAL, NEW YORK DOT RTN".
-THIS MAP IS CEPD COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.

LOCAL CONTROL DATA
BENCHMARK: TGAUGE-8-HR
ELEVATION: 8.74' (NAVD 88)

NSRS BENCHMARK
BENCHMARK: TIDAL 4 USE (PID: KV0285)
ELEVATION: 18.38' (NAVD 88)

US ARMY CORPS OF ENGINEERS NEW YORK DISTRICT

ROGERS SURVEYING, PLLC
Marine Surveying & Mapping
Staten Island, NY 10310
(718) 477-1111
www.rogerssurveying.net

DATES OF SURVEY: JUNE 02 – JUN. 10 2015

FILE NO.: 212
REQUEST NO.: 4330

SCALE: ONE INCH = 100 FEET

FIELD BOOKS:

APPROVED:	D. ROGERS	SURVEYOR
APPROVED:	R. SMITH	PROJECT MANAGER
APPROVED:	D. CLARKE	CHIEF, SURVEY SECTION
APPROVED:	F. PISTILLONE	CHIEF, OF OPNS.
DATE:	06/19/2015	

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

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

HACKENSACK RIVER
NEW JERSEY
CONDITION SURVEY

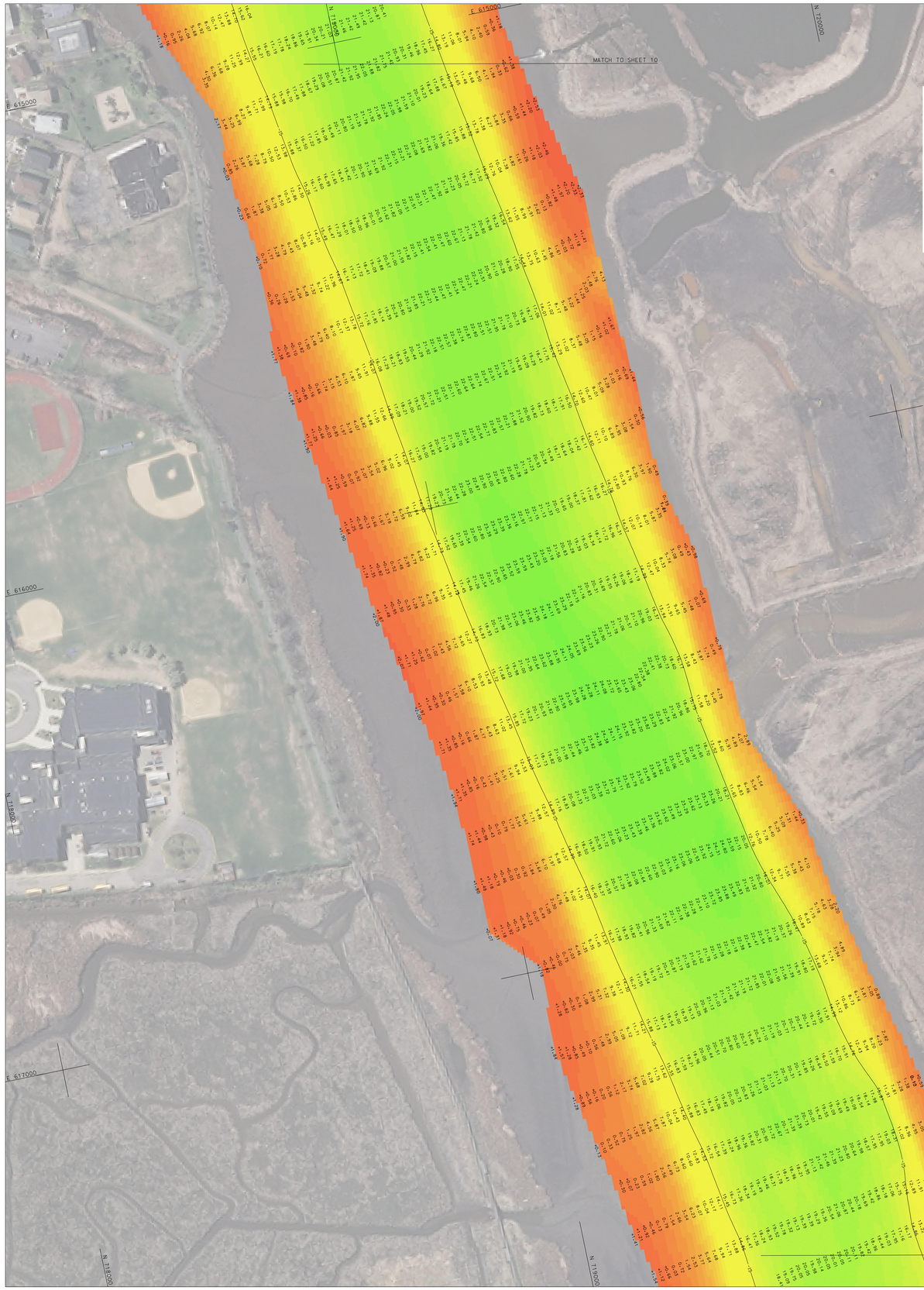
VH-110

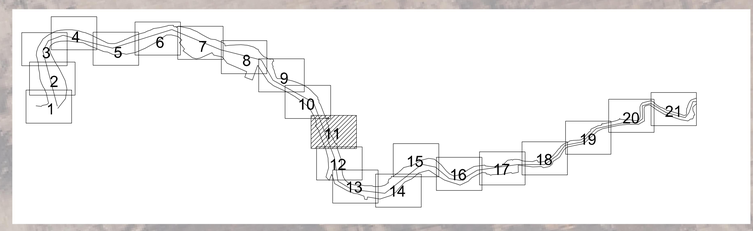
SHEET 10 OF 21

FILE NO. 212
REQ. NO. 4330

CORPS OF ENGINEERS

U. S. ARMY





PROJECT SPECIFIC NOTES:

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-THIS MAP IS CEPD COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.

LOCAL CONTROL DATA
BENCHMARK: TGAUGE-8-HR ELEVATION: 8.74' (NAVD 88)

NSRS BENCHMARK
BENCHMARK: TIDAL 4 USE (PID: KV0285) ELEVATION: 18.38' (NAVD 88)

US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

ROGERS SURVEYING, PLLC
Professional Land Surveyors
Staten Island, NY 10310
(718) 477-7771
www.rogerssurveyingllc.net

DATES OF SURVEY:
JUNE 02 - JUN. 10 2015

FILE NO.: 212
REQUEST NO.: 4330

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:

APPROVED: D. ROGERS
CHIEF OF SURVEY DIVISION

APPROVED: R. SMITH
PROJECT MANAGER

APPROVED: D. CLARKE
CHIEF OF GEOGRAPHICS

APPROVED: F. POSTIGLIONE
CHIEF OF SURVEY

DATE: 06/19/2015

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

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

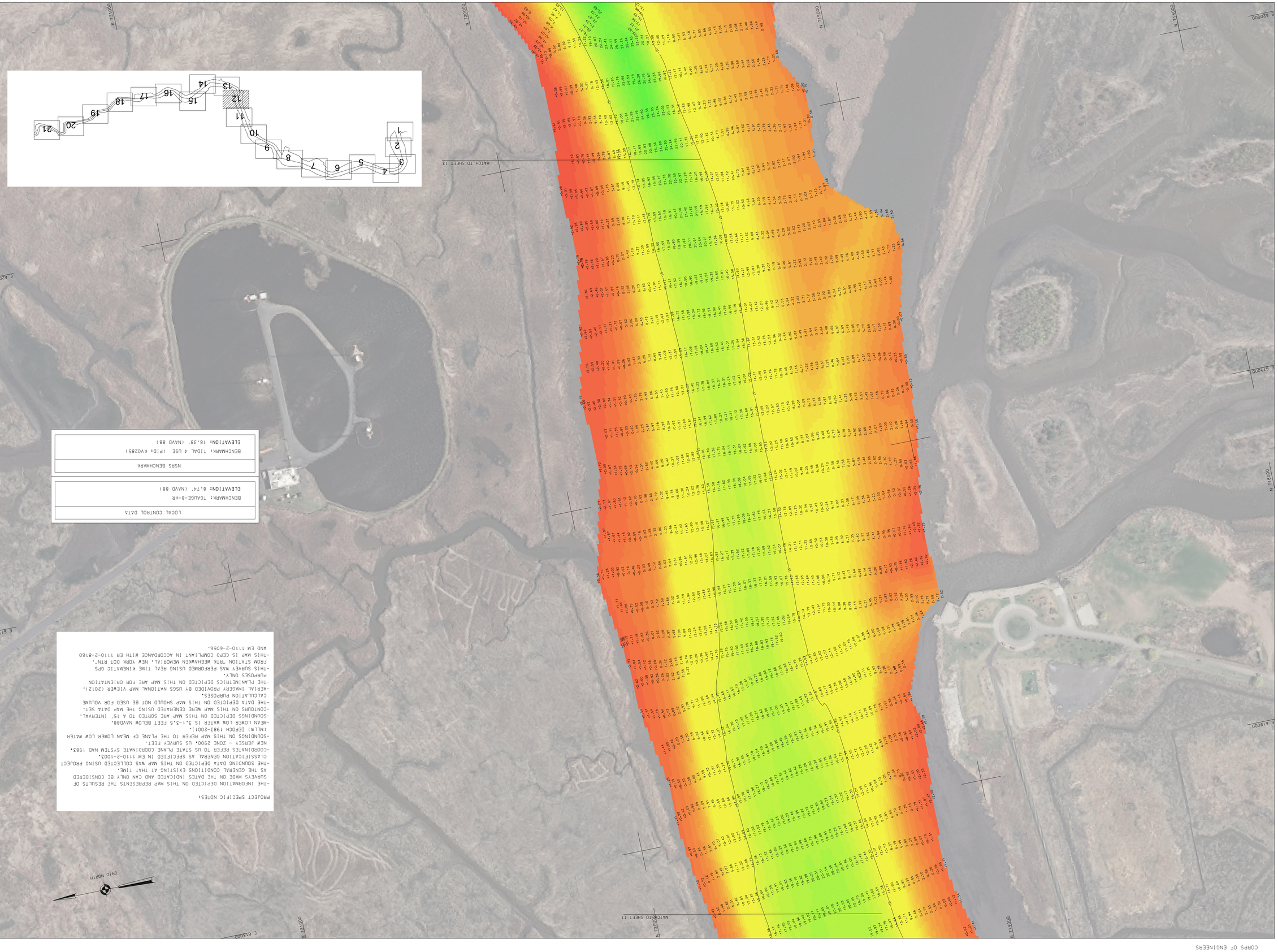
HACKENSACK RIVER
NEW JERSEY
CONDITION SURVEY

VH-111

SHEET 11 OF 21

FILE NO. 212
REQ. NO. 4330

FILE NO. 212
REQ. NO. 4330



LOCAL CONTROL DATA

BENCHMARK: TOADOE-8-HR

ELEVATION: 8.74' (NAVD 88)

NSRS BENCHMARK

BENCHMARK: TIDAL 4 USE (PID: KV0285)

ELEVATION: 18.38' (NAVD 88)

PROJECT SPECIFIC NOTES:

-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 PRODUCT CLASSIFICATION GENERAL AS SPECIFIED IN EM 1110-2-1003.
-COORDINATES REFER TO US STATE PLANE COORDINATE SYSTEM NAD 1983. NEW JERSEY - ZONE 2900. US SURVEY FEET.
-SOUNDINGS ON THIS MAP REFER TO THE PLANE OF MEAN LOWER LOW WATER (MLLW) [EPOCH 1983-2001].
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-SOUNDINGS DEPICTED ON THIS MAP ARE SORTED TO A 15' INTERVAL.
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-AERIAL IMAGERY PROVIDED BY USGS NATIONAL MAP VIEWER (2012).
-THE PLANIMETRICS DEPICTED ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY.
-THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS FROM STATION "TRK WEEHAWKEN MEMORIAL. NEW YORK DOT RTN".
-THIS MAP IS CEPD COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.

GRID NORTH

HACKENSACK RIVER
NEW JERSEY
CONDITION SURVEY

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

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

APPROVED: _____ D. ROGERS, CHIEF, SURVEY SECTION

APPROVED: _____ R. SMITH, PROJECT MANAGER

APPROVED: _____ D. CLARK, PROJECT ENGINEER

APPROVED: _____ F. POSTIGLIONE, CHIEF OF SURVEY

DATE: 06/19/2015

ROGERS SURVEYING PLLC
1025 Boonton Avenue
Boonton, NJ 07005
(973) 402-0251
www.rogerssurveying.com

DATES OF SURVEY:
JUN. 02 - JUN. 10 2015

FILE NO: 212
REQUEST NO: 4330

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:

US ARMY CORPS
OF ENGINEERS
NEW YORK DISTRICT

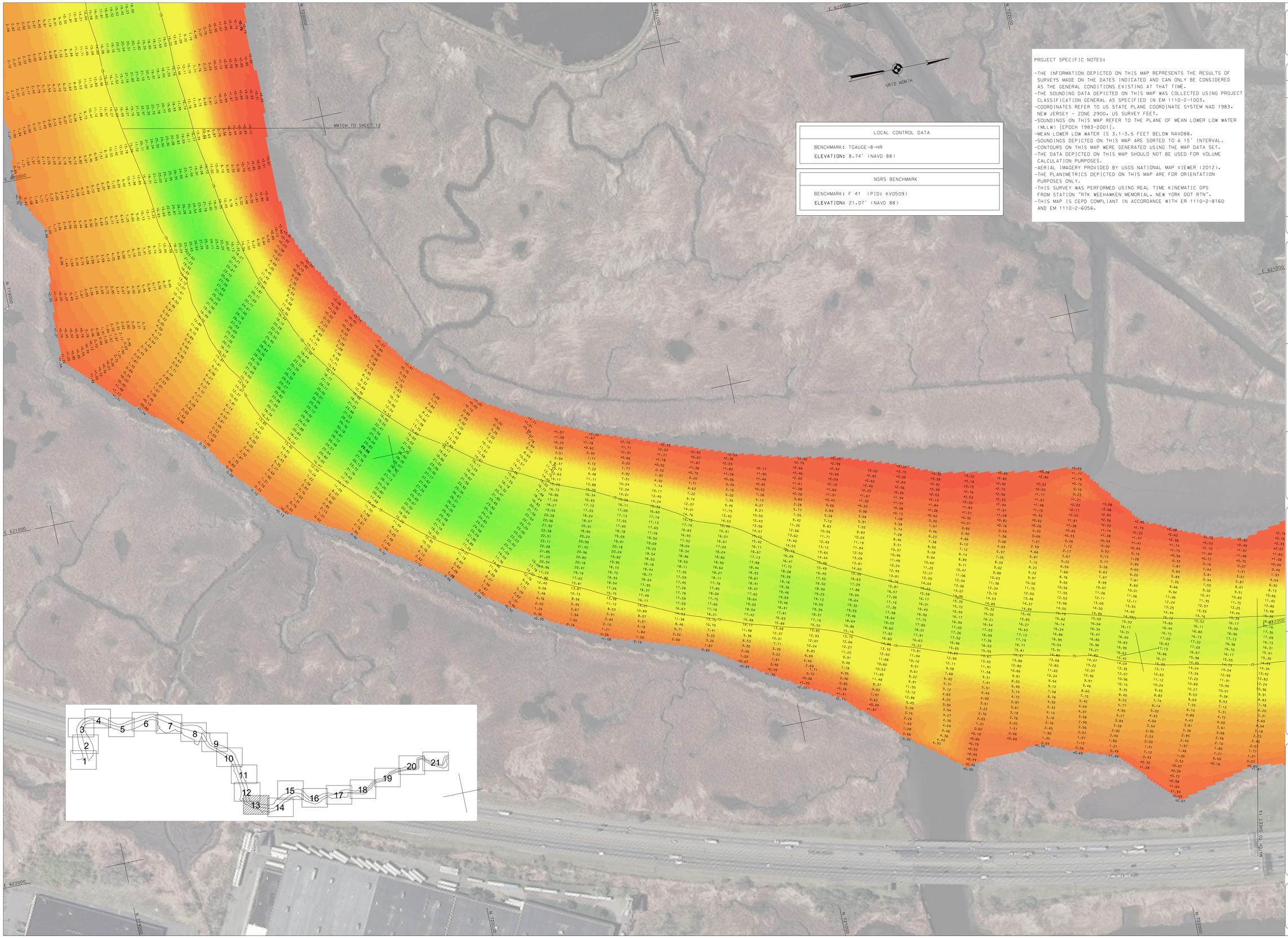
VH-112

SHEET 12 OF 21

U. S. ARMY
CORPS OF ENGINEERS

CORPS OF ENGINEERS

U. S. ARMY



LOCAL CONTROL DATA

BENCHMARK: TGAUGE-8-HR

ELEVATION: 8.74' (NAVD 88)

NSRS BENCHMARK

BENCHMARK: F 41 (PID: KV0509)

ELEVATION: 21.07' (NAVD 88)

PROJECT SPECIFIC NOTES:

-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.
-COORDINATES REFER TO US STATE PLANE COORDINATE SYSTEM NAD 1983. NEW JERSEY - ZONE 2900. US SURVEY FEET.
-SOUNDINGS ON THIS MAP REFER TO THE PLANE OF MEAN LOWER LOW WATER (MLLW) [EPOCH 1983-2001].
-MEAN LOWER LOW WATER IS 3.1-3.5 FEET BELOW NAVD88.
-SOUNDINGS DEPICTED ON THIS MAP ARE SORTED TO A 15' INTERVAL.
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-AERIAL IMAGERY PROVIDED BY USGS NATIONAL MAP VIEWER (2012).
-THE PLANIMETRICS DEPICTED ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY.
-THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS FROM STATION "RTK WEEHAWKEN MEMORIAL, NEW YORK DOT RTN".
-THIS MAP IS CEPD COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.

US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

ROGERS SURVEYING, PLLC
Land Surveying
Staten Island, NY 10310
(917) 488-7772
www.rogerssurveying.net

DATES OF SURVEY:
JUNE. 02 - JUN. 10 2015

FILE NO.: 212
REQUEST NO.: 4330

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:

APPROVED: D. RODGERS — SURVEYOR IN CHARGE
APPROVED: R. SMITH — PROJECT MANAGER
APPROVED: D. CLARKE — QUALITY ASSURANCE
APPROVED: F. POSTIGLIONE — CHIEF OF SURVEYS
DATE: 06/19/2015

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

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OPS

HACKENSACK RIVER
NEW JERSEY
CONDITION SURVEY

VH-113

SHEET 13 OF 21

FILE NO. 212
REG. NO. 4330

FILE NO. 212
REQ. NO. 4330

VH-114

SHEET 14 OF 21

HACKENSACK RIVER
NEW JERSEY
CONDITION SURVEY

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

APPROVED: _____ D. ROGERS
CHIEF, SURVEY SECTION

APPROVED: _____ R. SMITH
CHIEF, PROJECT MANAGEMENT

APPROVED: _____ D. CLARK
CHIEF, ENGINEERING

APPROVED: _____ F. POSTIGLIONE
CHIEF OF SURVEY

DATE: 06/19/2015

OPERATIONS DIVISION
SURVEY SECTION
GDN#N-OP-S

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:

DATES OF SURVEY:
JUN. 02 - JUN 10 2015

FILE NO.: 212
REQUEST NO.: 4330

ROGERS SURVEYING, PLLC
1221 Boulevard Place
Staten Island, NY 10310
(718) 447-7111
www.rogerssurveyingplus.net

US ARMY CORPS
OF ENGINEERS
NEW YORK DISTRICT

PROJECT SPECIFIC NOTES:

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CLASSIFICATION GENERAL AS SPECIFIED IN EM 1110-2-1003.
NEW JERSEY - ZONE 2900, US SURVEY FEET.
SOUNDINGS ON THIS MAP REFER TO US STATE PLANE OF MEAN LOWER LOW WATER (MLLW) [EPOCH 1983-2001].
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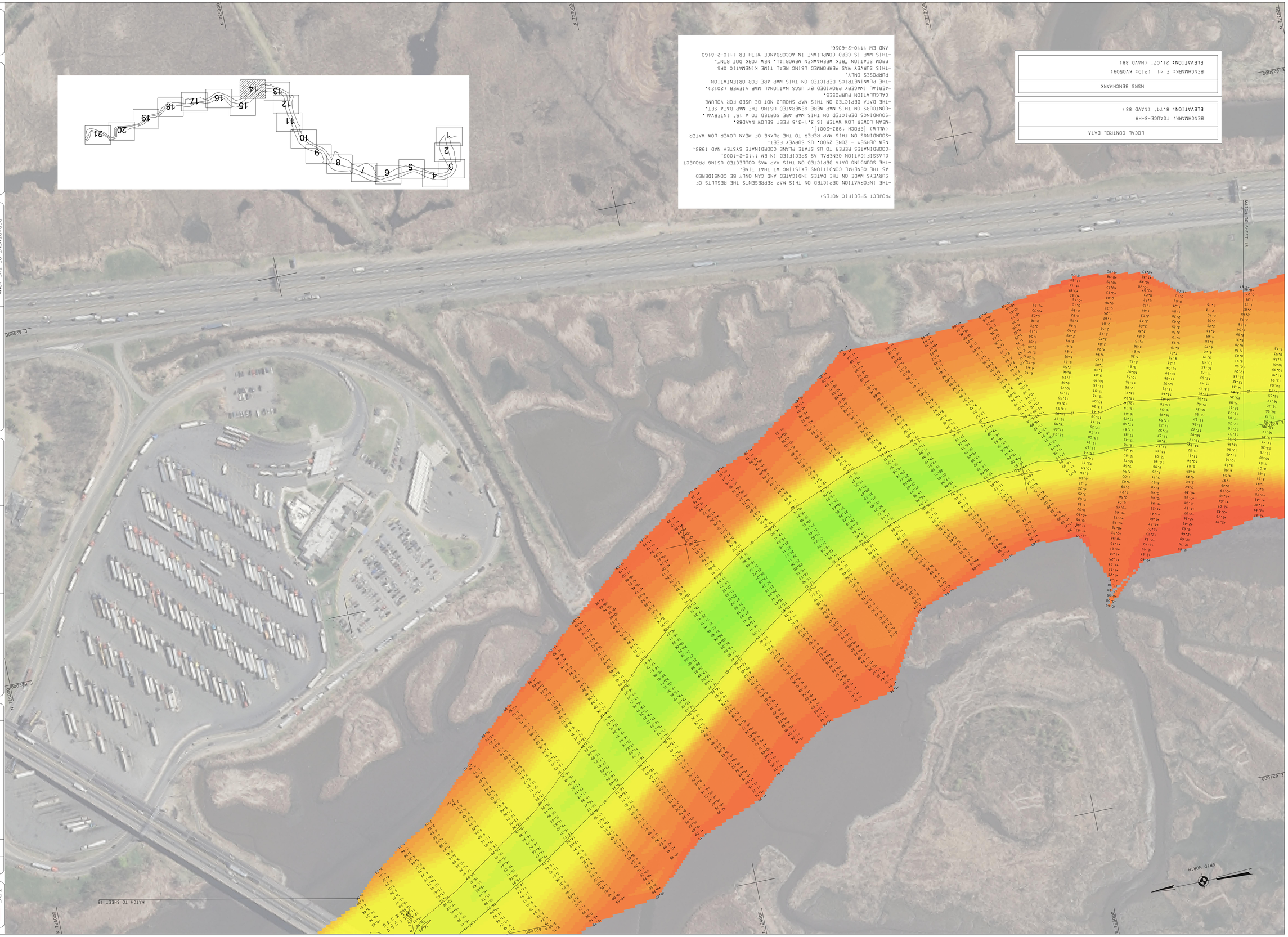
-THIS MAP IS CEPD COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.

LOCAL CONTROL DATA

BENCHMARK: TOALOGE-8-HR
ELEVATION: 8.74' (NAVD 88)

NSRS BENCHMARK

BENCHMARK: F 41 (PID: YV0509)
ELEVATION: 21.07' (NAVD 88)



CORPS OF ENGINEERS

U. S. ARMY

CORPS OF ENGINEERS

U. S. ARMY

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-THIS MAP IS CEPD COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.

LOCAL CONTROL DATA
BENCHMARK: TGAUGE-8-HR
ELEVATION: 8.74' (NAVD 88)

NSRS BENCHMARK
BENCHMARK: F 41 (PID: KV0509)
ELEVATION: 21.07' (NAVD 88)

GRID NORTH

MATCH TO SHEET 16

MATCH TO SHEET 14

US ARMY CORPS
OF ENGINEERS
NEW YORK DISTRICT

ROGERS SURVEYING, PLLC
Staten Island, N.Y. 10310
(718) 815-1789
www.rogerssurveying.net

DATES OF SURVEY:
JUN. 02 - JUN 10 2015

FILE NO.: 212
REQUEST NO.: 4330

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:

APPROVED: D. ROGERS
CHIEF OF SURVEY DIVISION

APPROVED: R. SMITH
PROJECT MANAGER

APPROVED: D. CLARKE
CHIEF, OPERATIONS DIVISION

APPROVED: F. POSTIGLIONE
CHIEF OF SURVEY

DATE: 06/19/2015

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

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

HACKENSACK RIVER
NEW JERSEY
CONDITION SURVEY

VH-115

SHEET 15 OF 21

FILE NO. 212
REQ. NO. 4330

FILE NO. 212
REQ. NO. 4330

VH-116

SHEET 16 OF 21

HACKENSACK RIVER
NEW JERSEY
CONDITION SURVEY

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

APPROVED: _____ D. ROGERS
CHIEF, OPERATIONS DIVISION

APPROVED: _____ R. SMITH
PROJECT MANAGER

APPROVED: _____ D. CLARK
CHIEF, SURVEY SECTION

APPROVED: _____ F. POSTIGLIONE
CHIEF OF SURVEY

DATE: 06/19/2015

OPERATIONS DIVISION
SURVEY SECTION
GDNAN-OP-S

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:

DATES OF SURVEY:
JUN. 02 - JUN. 10 2015

FILE NO.: 212
REQUEST NO.: 4330

ROGERS SURVEYING, PLLC
1223 Rockland Place
Staten Island, NY 10310
(718) 447-7111
www.rogerssurveyingllc.net

US ARMY CORPS
OF ENGINEERS
NEW YORK DISTRICT

PROJECT SPECIFIC NOTES:

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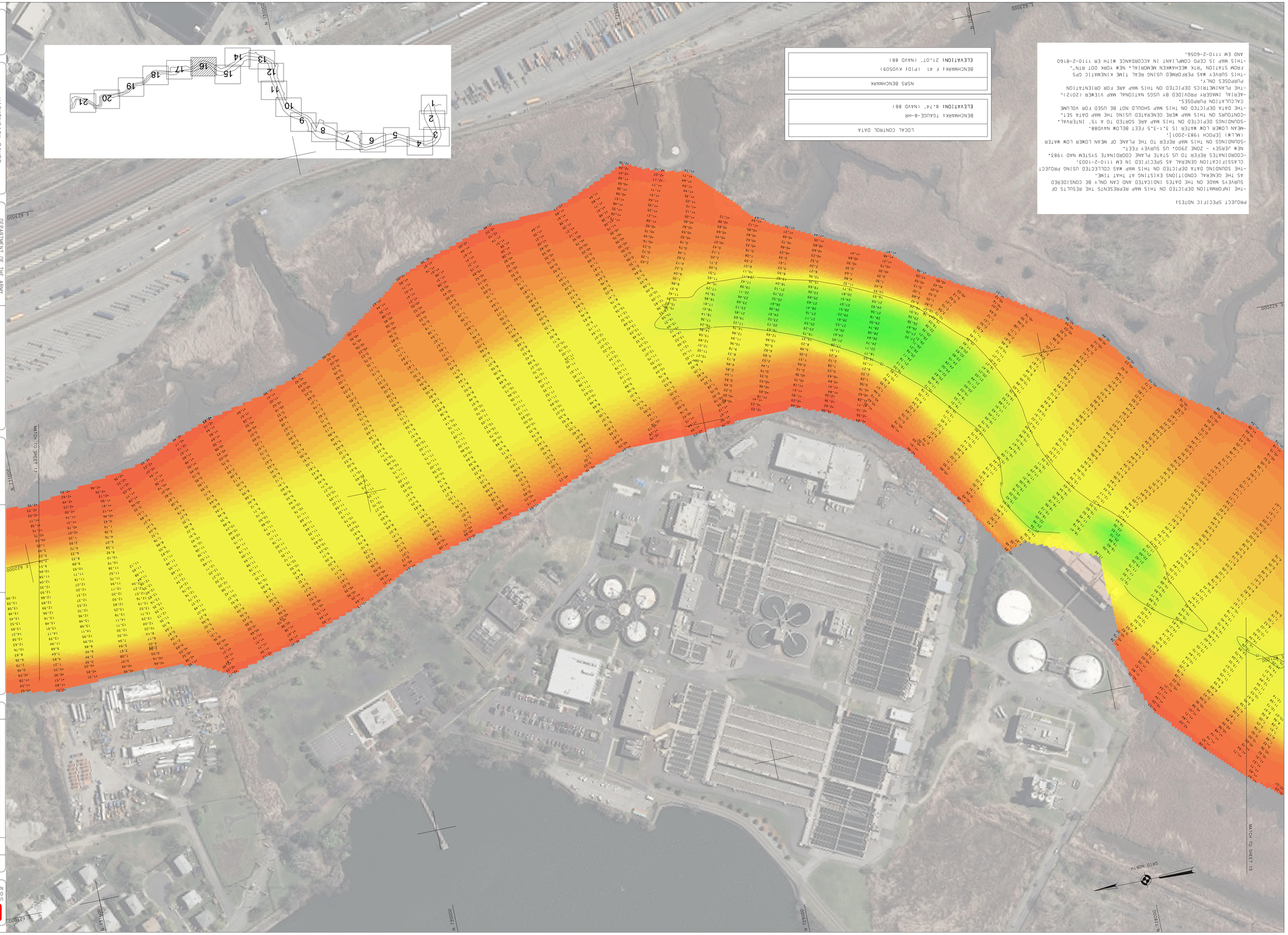
-THIS MAP IS CEPD COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.

LOCAL CONTROL DATA

BENCHMARK: TOAUDE-8-HR
ELEVATION: 8.74' (NAVD 88)

NSRS BENCHMARK

BENCHMARK: F 41 (PID: KV5D39)
ELEVATION: 21.07' (NAVD 88)



CORPS OF ENGINEERS

U. S. ARMY

PROJECT SPECIFIC NOTES:

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LOCAL CONTROL DATA
BENCHMARK: TGAUGE-9-HR ELEVATION: 3.97' (NAVD 88)

NSRS BENCHMARK
BENCHMARK: F 41 (PID: KV0509) ELEVATION: 21.07' (NAVD 88)

US ARMY CORPS OF ENGINEERS NEW YORK DISTRICT

ROGERS SURVEYING, PLLC
1632 Richmond Terrace
Staten Island, N.Y. 10310
(718) 447-7311
www.rogerssurveying.net

DATES OF SURVEY: JUN. 02 - JUN. 10 2015

FILE NO.: 212
REQUEST NO.: 4330

SCALE: ONE INCH = 100 FEET

FIELD BOOKS:

APPROVED: D. ROGERS, LICENSED SURVEYOR
APPROVED: R. SMITH, PROJECT MANAGER
APPROVED: D. CLARKE, LEAD CARTOGRAPHER
APPROVED: F. POSTIGLIONE, CHIEF OF SURVEY
DATE: 06/19/2015

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

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

HACKENSACK RIVER
NEW JERSEY
CONDITION SURVEY

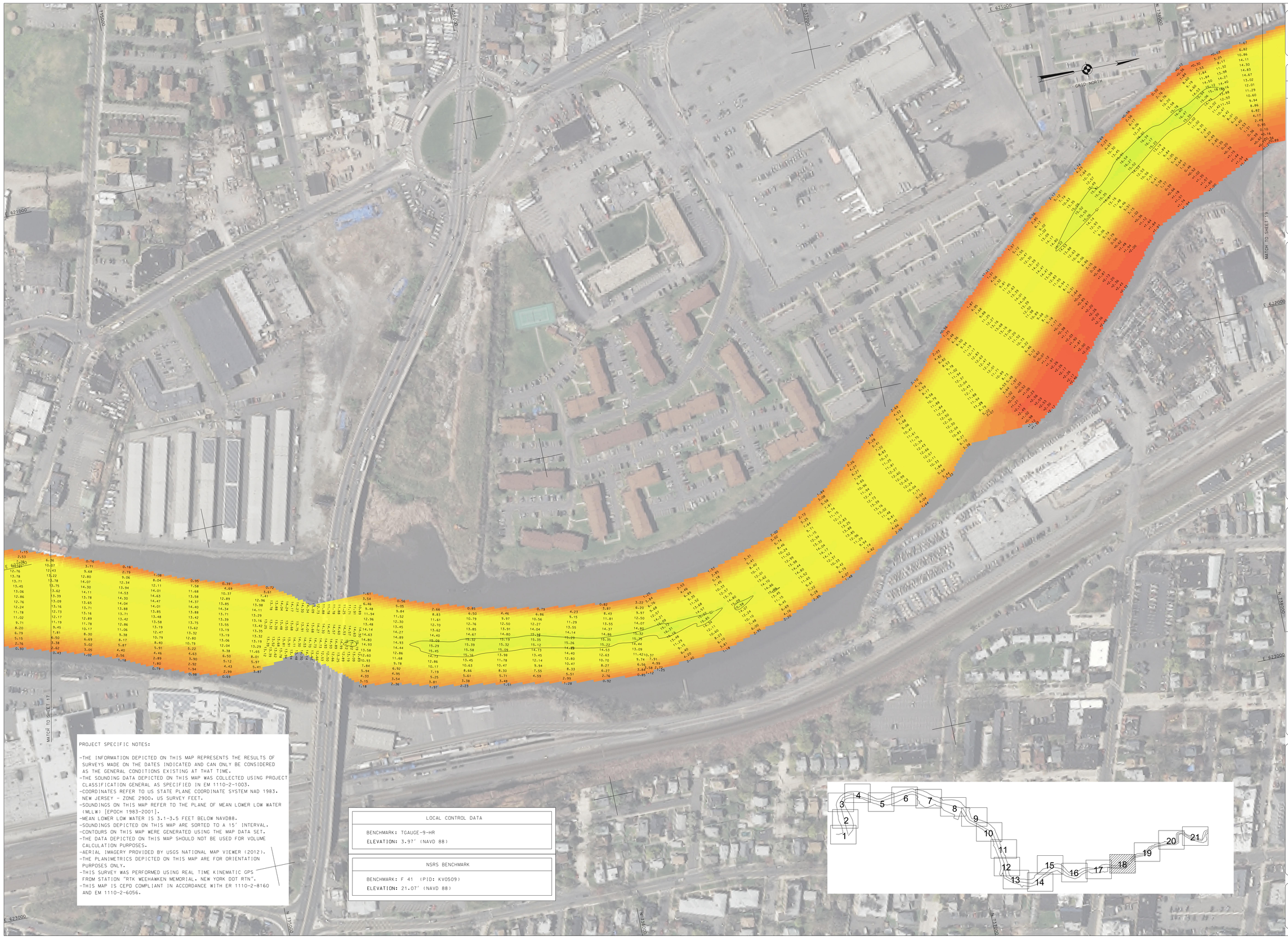
VH-117

SHEET 17 OF 21

FILE NO. 212
REQ. NO. 4330

CORPS OF ENGINEERS

U. S. ARMY



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LOCAL CONTROL DATA
BENCHMARK: TGAUGE-9-HR
ELEVATION: 3.97' (NAVD 88)

NSRS BENCHMARK
BENCHMARK: F 41 (PID: KV0509)
ELEVATION: 21.07' (NAVD 88)

US ARMY CORPS OF ENGINEERS NEW YORK DISTRICT

ROGERS SURVEYING, PLLC
Professional Land Surveyors
Staten Island, NY 10310
(718) 477-1111
www.rogerssurveyingllc.net

DATES OF SURVEY: JUNE 02 - JUN. 10 2015

FILE NO.: 212
REGISTRY NO.: 4330

SCALE: ONE INCH = 100 FEET

FIELD BOOKS:

APPROVED:	D. RODGERS	SURVEYING CONTRACTOR
APPROVED:	R. SMITH	PROJECT MANAGER
APPROVED:	D. CLARKE	CHIEF, SURVEY SECTION
APPROVED:	F. POSTIGLIONE	CHIEF, OF SURVEY
DATE:	06/19/2015	

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

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OPS

HACKENSACK RIVER
NEW JERESY
CONDITION SURVEY

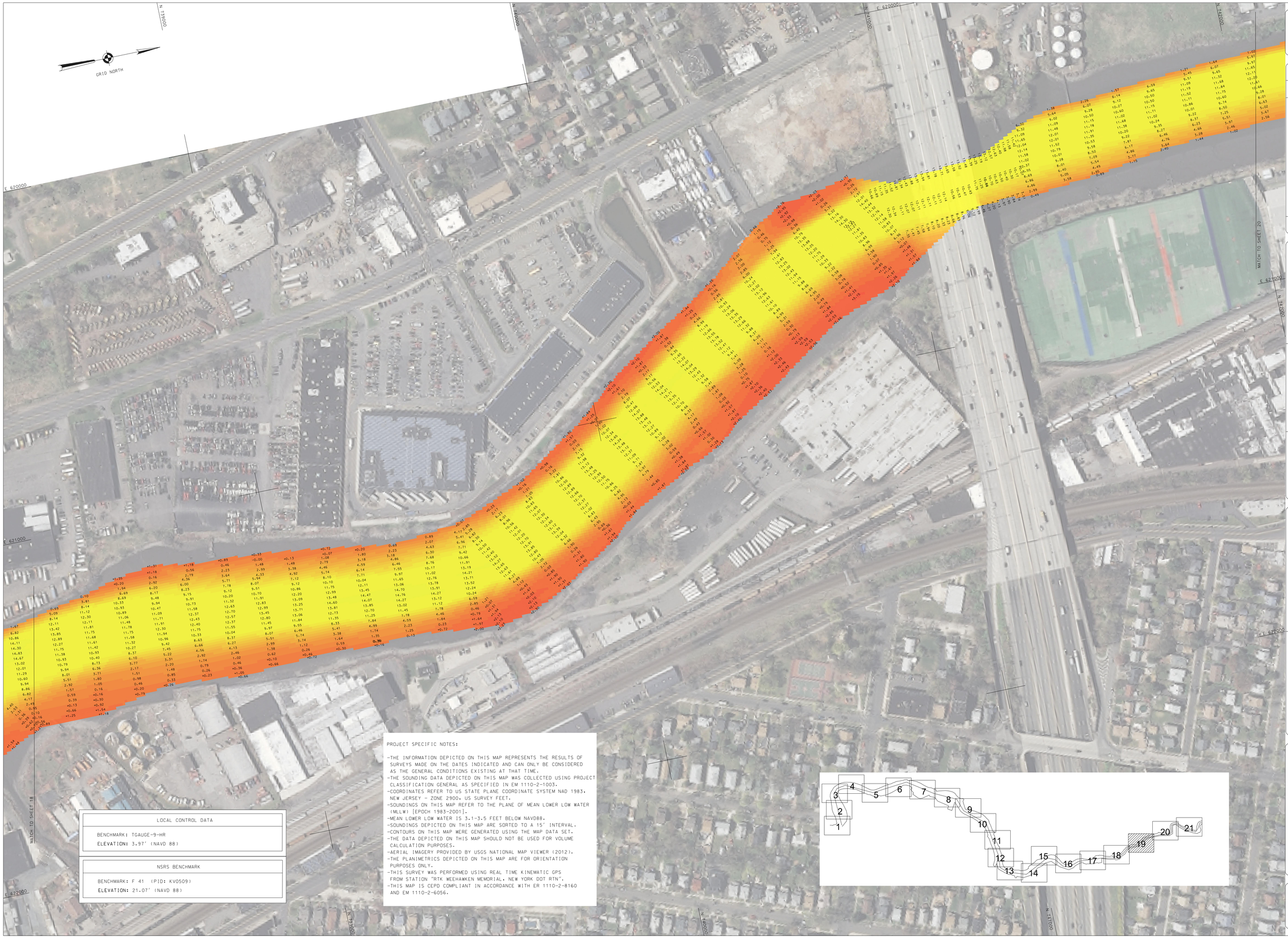
VH-118

SHEET 18 OF 21

FILE NO. 212
REG. NO. 4330

CORPS OF ENGINEERS

U. S. ARMY



LOCAL CONTROL DATA
BENCHMARK: TGAUGE-9-HR
ELEVATION: 3.97' (NAVD 88)

NSRS BENCHMARK
BENCHMARK: F 41 (PID: KV0509)
ELEVATION: 21.07' (NAVD 88)

PROJECT SPECIFIC NOTES:

-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.
-COORDINATES REFER TO US STATE PLANE COORDINATE SYSTEM NAD 1983. NEW JERSEY - ZONE 2900. US SURVEY FEET.
-SOUNDINGS ON THIS MAP REFER TO THE PLANE OF MEAN LOWER LOW WATER (MLLW) [EPOCH 1983-2001].
-MEAN LOWER LOW WATER IS 3.1-3.5 FEET BELOW NAVD88.
-SOUNDINGS DEPICTED ON THIS MAP ARE SORTED TO A 15' INTERVAL.
-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.
-AERIAL IMAGERY PROVIDED BY USGS NATIONAL MAP VIEWER (2012).
-THE PLANIMETRICS DEPICTED ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY.
-THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS FROM STATION "RTK WEEHAWKEN MEMORIAL. NEW YORK DOT RTN".
-THIS MAP IS CEPD COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.

US ARMY CORPS
OF ENGINEERS
NEW YORK DISTRICT

ROGERS SURVEYING, PLLC
Professional Land Surveyors
Staten Island, NY 10310
(718) 477-2000
www.rogerssurveying.net

DATES OF SURVEY:
JUNE. 02 - JUN. 10 2015

FILE NO.: 212
REQUEST NO.: 4330

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:

APPROVED: D. ROGERS
CHIEF OF SURVEY SECTION

APPROVED: R. SMITH
PROJECT MANAGER

APPROVED: D. CLARKE
CHIEF, ENGINEERING

APPROVED: F. POSTIGLIONE
CHIEF OF SURVEY

DATE: 06/19/2015

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

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

HACKENSACK RIVER
NEW JERSEY
CONDITION SURVEY

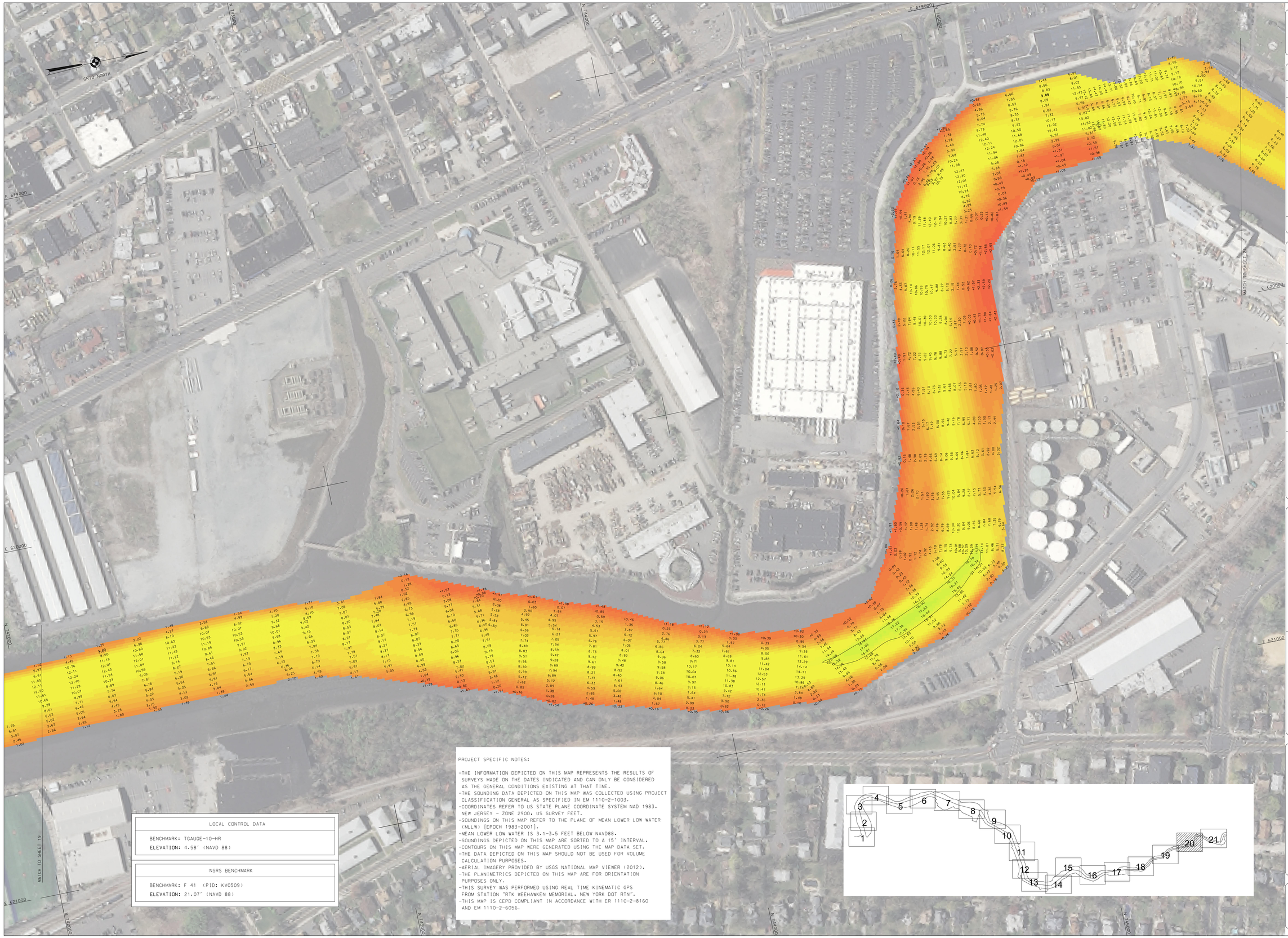
VH-119

SHEET 19 OF 21

FILE NO. 212
REQ. NO. 4330

CORPS OF ENGINEERS

U. S. ARMY



LOCAL CONTROL DATA

BENCHMARK: TGAUGE-10-HR
ELEVATION: 4.58' (NAVD 88)

NSRS BENCHMARK

BENCHMARK: F 41 (PID: KV0509)
ELEVATION: 21.07' (NAVD 88)

PROJECT SPECIFIC NOTES:

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US ARMY CORPS
OF ENGINEERS
NEW YORK DISTRICT

ROGERS SURVEYING, PLLC
Professional Land Surveyors
Staten Island, NY 10310
(718) 477-1117
www.rogerssurveying.net

DATES OF SURVEY:
JUN. 02 - JUN. 10 2015

FILE NO.: 212
REGEST NO.: 4330

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:

APPROVED: D. ROGERS — SURVEY SUPERVISOR
APPROVED: R. SMITH — PROJECT MANAGER
APPROVED: D. CLARKE — CHIEF, SURVEY MAINTENANCE
APPROVED: F. POSTIGLIONE — CHIEF, OF SURVEY
DATE: 06/19/2015

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

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OPS

HACKENSACK RIVER
NEW JERSEY
CONDITION SURVEY

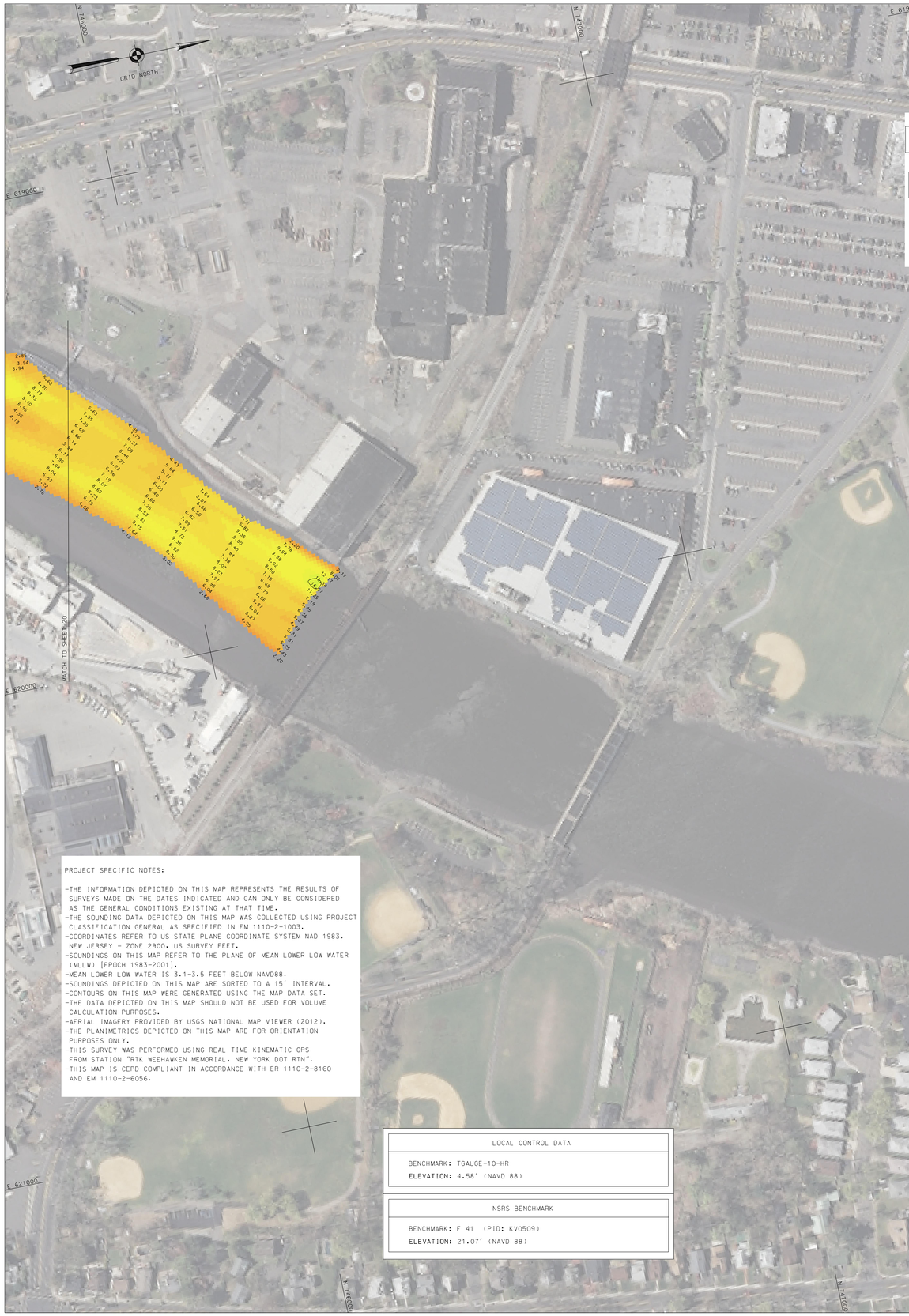
VH-120

SHEET 20 OF 21

FILE NO. 212
REG. NO. 4330

CORPS OF ENGINEERS

U. S. ARMY



PROJECT SPECIFIC NOTES:

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LOCAL CONTROL DATA
BENCHMARK: TGAUGE-10-HR **ELEVATION:** 4.58' (NAVD 88)

NSRS BENCHMARK
BENCHMARK: F 41 (PID: KV0509) **ELEVATION:** 21.07' (NAVD 88)

US ARMY CORPS
OF ENGINEERS
NEW YORK DISTRICT

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Professional Land Surveyors
Staten Island, NY 10310
(718) 477-1177
www.rogerssurveyingllc.net

DATES OF SURVEY:
JUN. 02 - JUN. 10 2015

FILE NO.: 212
REQUEST NO.: 4330

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:

APPROVED: D. ROGERS — CHIEF OF SURVEY SECTION
APPROVED: R. SMITH — PROJECT MANAGER
APPROVED: D. CLARKE — CHIEF, ENGINEERING
APPROVED: F. POSTIGLIONE — CHIEF OF SURVEY
DATE: 06/19/2015

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

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-HS

HACKENSACK RIVER
NEW JERSEY
CONDITION SURVEY

VH-121

SHEET 21 OF 21

FILE NO. 212
REQ. NO. 4330