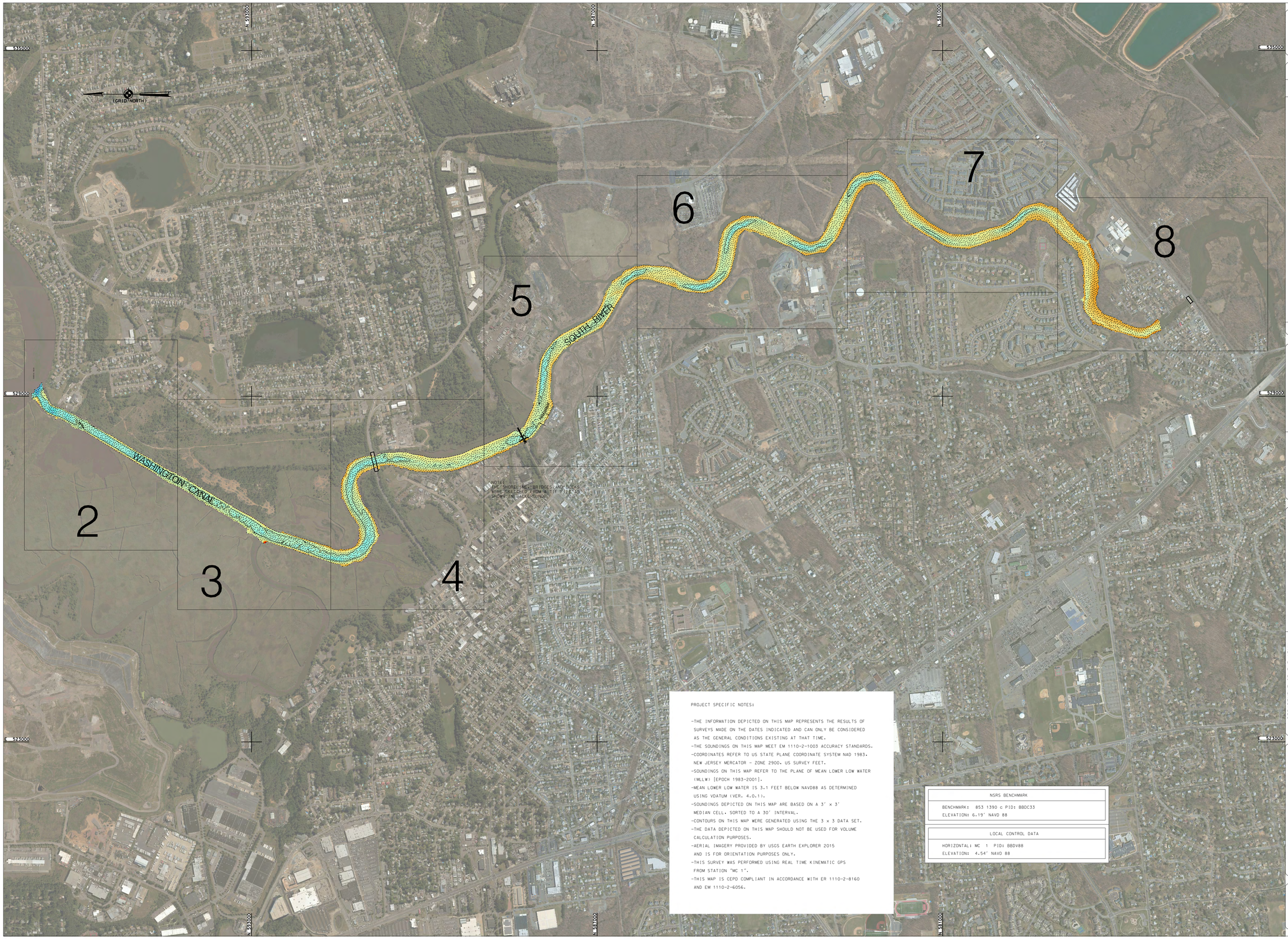
CORPS OF ENGINEERS

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 SOUNDINGS ON THIS MAP MEET EM 1110-2-1003 ACCURACY STANDARDS.
-COORDINATES REFER TO US STATE PLANE COORDINATE SYSTEM NAD 1983, NEW JERSEY MERCATOR - 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 FEET BELOW NAVD88 AS DETERMINED USING VDATUM (VER. 4.0.1).
-SOUNDINGS DEPICTED ON THIS MAP ARE BASED ON A 3' x 3' MEDIAN CELL. SORTED TO A 30' INTERVAL.
-CONTOURS ON THIS MAP WERE GENERATED USING THE 3 x 3 DATA SET.
-THE DATA DEPICTED ON THIS MAP SHOULD NOT BE USED FOR VOLUME CALCULATION PURPOSES.
-AERIAL IMAGERY PROVIDED BY USGS EARTH EXPLORER 2015 AND IS FOR ORIENTATION PURPOSES ONLY.
-THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS FROM STATION "MC 1".
-THIS MAP IS CEPD COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.

NSRS BENCHMARK
BENCHMARK: 853 1390 C PID: BBDC33 ELEVATION: 6.19' NAVD 88

LOCAL CONTROL DATA
HORIZONTAL: MC 1 PID: BBDV88 ELEVATION: 4.54' NAVD 88

US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

PR DS
MP DS

DATES OF SURVEY:
6-19 AUG, 21-23 SEP 2020.

REQ. NO./FILE NO.:14979/N2

SCALE:
ONE INCH = 600 FEET

FIELD BOOKS:
NA

APPROVED: J. BERTOLOTTI
CHIEF, OPERATIONS DIVISION
APPROVED: M. FORTE
PROJECT MANAGER
APPROVED: P. BHABUR
CHIEF, HYDROGRAPHIC SURVEYING
APPROVED: J. MIAZ
CHIEF, FIELD SURVEYS
DATE: 19 AUGUST 2022
DATE OF SURVEY

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

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

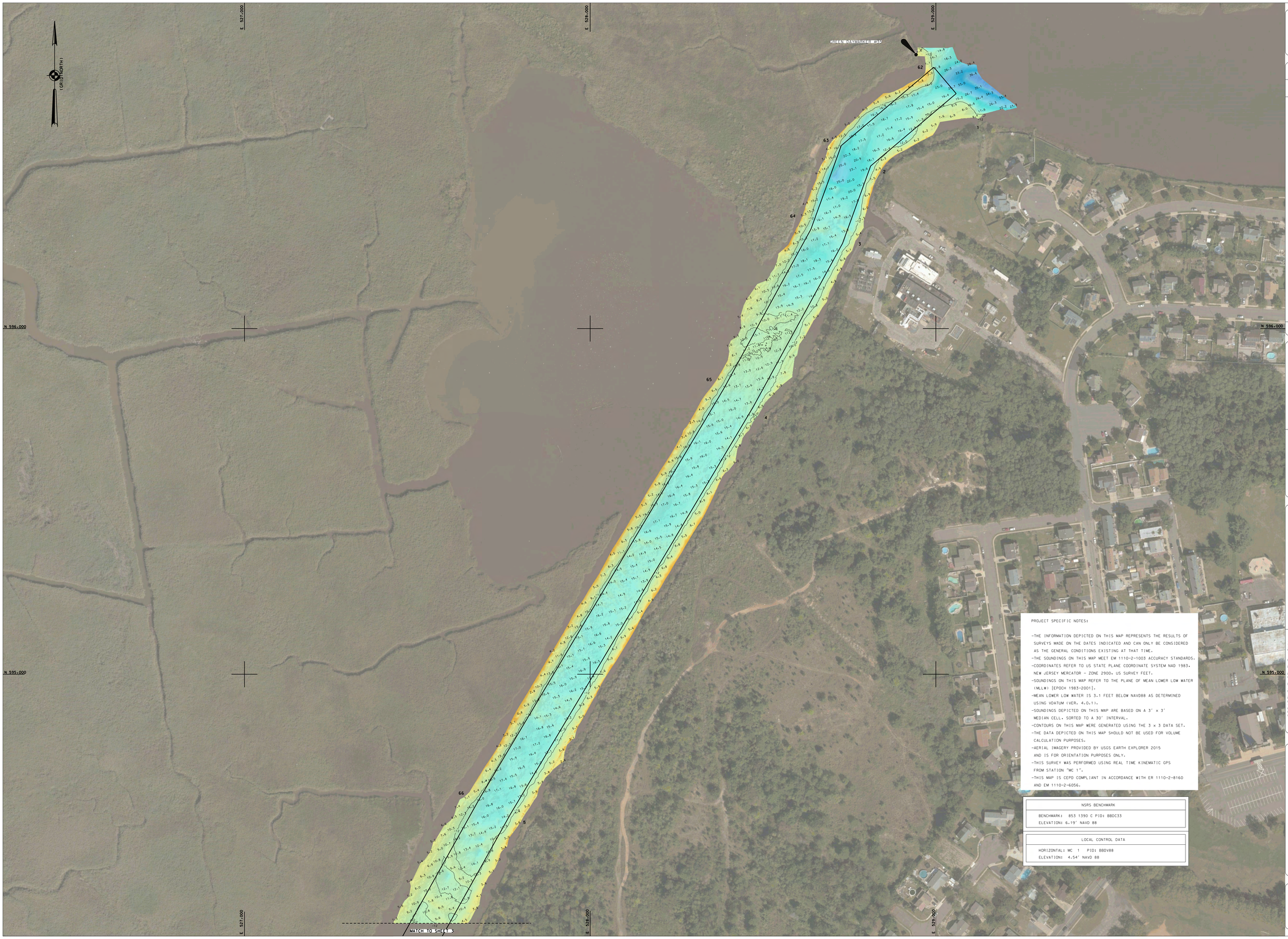
WASHINGTON CANAL & SOUTH RIVER NEW JERSEY

CONDITION SURVEY

VH-101

SHEET 1 OF 8

REG. NO./FILE NO.:4979/N2



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 SOUNDINGS ON THIS MAP MEET EM 1110-2-1003 ACCURACY STANDARDS.
-COORDINATES REFER TO US STATE PLANE COORDINATE SYSTEM NAD 1983, NEW JERSEY MERCATOR - 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 FEET BELOW NAVD88 AS DETERMINED USING VDATUM (VER. 4.0.1).
-SOUNDINGS DEPICTED ON THIS MAP ARE BASED ON A 3' x 3' MEDIAN CELL, SORTED TO A 30' INTERVAL.
-CONTOURS ON THIS MAP WERE GENERATED USING THE 3 x 3 DATA SET.
-THE DATA DEPICTED ON THIS MAP SHOULD NOT BE USED FOR VOLUME CALCULATION PURPOSES.
-AERIAL IMAGERY PROVIDED BY USGS EARTH EXPLORER 2015 AND IS FOR ORIENTATION PURPOSES ONLY.
-THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS FROM STATION "MC 1".
-THIS MAP IS CEPD COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.

NSRS BENCHMARK
BENCHMARK: 853 1390 C PID: BBDC33
ELEVATION: 6.19' NAVD 88

LOCAL CONTROL DATA
HORIZONTAL: MC 1 PID: BBDV88
ELEVATION: 4.54' NAVD 88

US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

	PR	DS
	MP	DS

DATES OF SURVEY:
8-13 AUG; 21-25 SEP 2020

REQ NO./FILE NO.:4979/N2

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:
N/A

APPROVED: J.J. BERTOLOTTI
CHIEF CARTOGRAPHIC TECHNICIAN

APPROVED: M. FORTE
PROJECT MANAGER

APPROVED: P. BALABUR
CHIEF CARTOGRAPHER

APPROVED: J. MRAZ
DEPUTY CHIEF OF SURVEY

DATE: 19 AUGUST 2021

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

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

WASHINGTON CANAL
& SOUTH RIVER
NEW JERSEY

CONDITION SURVEY

VH-102

SHEET 2 OF 8

REG NO./FILE NO.:4979/N2

U. S. ARMY

CORPS OF ENGINEERS

WASHINGTON CANAL & SOUTH RIVER
NEW JERSEY
CONDITION SURVEY

VH-103

SHEET 3 OF 8

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

OPERATIONS DIVISION
SURVEY SECTION
GRANA-OPS

APPROVED: J. BERTOLOTTI
CHIEF, FIELD OPERATIONS SECTION

APPROVED: M. FORTE
PROJECT MANAGER

APPROVED: P. BHADUR
CHIEF, SURVEY BRANCH

APPROVED: J. MIRAZ
CHIEF, CHIEF OF SURVEY

DATE: 19 AUGUST 2020

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:
N/A

DATES OF SURVEY:
6-13 AUG, 21-23 SEP 2020

REG NO./FILE NO.:4979/N2

	DS	DS
PR		
MP		

US ARMY CORPS
OF ENGINEERS
NEW YORK DISTRICT

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 SOUNDINGS ON THIS MAP MEET EM 1110-2-1003 ACCURACY STANDARDS.
-COORDINATES REFER TO US STATE PLANE COORDINATE SYSTEM NAD 1983.
NEW JERSEY NEGATIVE - ZONE 2900. US SURVEY FEET.
-SOUNDINGS ON THIS MAP REFER TO THE PLANE OF MEAN LOWER LOW WATER (M.L.W.) [EPOCH 1983-2001].
-MEAN LOWER LOW WATER IS 3.1 FEET BELOW NAVD88 AS DETERMINED USING VDATUM (VER. 4.0.1).
-SOUNDINGS DEPICTED ON THIS MAP ARE BASED ON A 3' x 3' MEDIAN CELL. SORTED TO A 30' INTERVAL.
-CONTOURS ON THIS MAP WERE GENERATED USING THE 3 x 3 DATA SET.
-THE DATA DEPICTED ON THIS MAP SHOULD NOT BE USED FOR VOLUME CALCULATION PURPOSES.
-AERIAL IMAGERY PROVIDED BY USGS EARTH EXPLORER 2015 AND IS FOR ORIENTATION PURPOSES ONLY.
-THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS FROM STATION "NC 1".
-THIS MAP IS CEPD COMPLIANT IN ACCORDANCE WITH EM 1110-2-8160 AND EM 1110-2-6056.

NSRS BENCHMARK
BENCHMARK: 853 1390 C PID: BBDC33 ELEVATION: 6.19', NAVD 88

LOCAL CONTROL DATA
HORIZONTAL: NC 1 PID: BBDY88 ELEVATION: 4.54', NAVD 88

MATCH TO SHEET 4

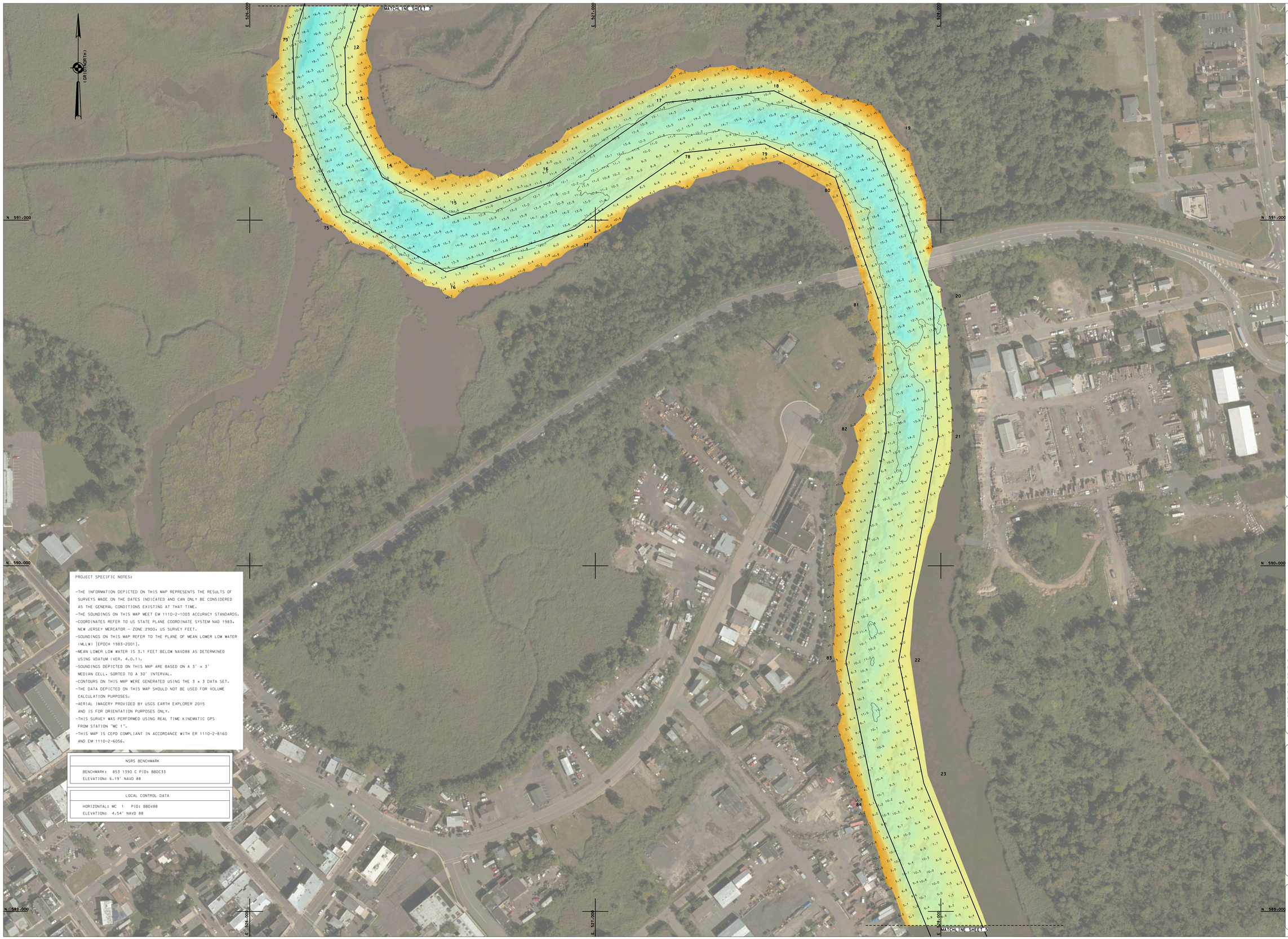
MATCH TO SHEET 2

N 592,000
N 593,000
N 594,000
E 526,000
E 527,000
E 528,000

(GRID NORTH)

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 SOUNDINGS ON THIS MAP MEET EM 1110-2-1003 ACCURACY STANDARDS.
-COORDINATES REFER TO US STATE PLANE COORDINATE SYSTEM NAD 1983, NEW JERSEY MERCATOR - 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 FEET BELOW NAVD88 AS DETERMINED USING VDATUM (VER. 4.0.1).
-SOUNDINGS DEPICTED ON THIS MAP ARE BASED ON A 3' × 3' MEDIAN CELL, SORTED TO A 30' INTERVAL.
-CONTOURS ON THIS MAP WERE GENERATED USING THE 3 × 3 DATA SET.
-THE DATA DEPICTED ON THIS MAP SHOULD NOT BE USED FOR VOLUME CALCULATION PURPOSES.
-AERIAL IMAGERY PROVIDED BY USGS EARTH EXPLORER 2015 AND IS FOR ORIENTATION PURPOSES ONLY.
-THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS FROM STATION "MC 1".
-THIS MAP IS CEPD COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.

NSRS BENCHMARK
BENCHMARK: 853 1390 C PID: BBDC33 ELEVATION: 6.19' NAVD 88

LOCAL CONTROL DATA
HORIZONTAL: MC 1 PID: BBDV88 ELEVATION: 4.54' NAVD 88

US ARMY CORPS
OF ENGINEERS
NEW YORK DISTRICT

PR DS
MP DS

DATES OF SURVEY:
8-13 AUG; 21-23 SEP 2020.

REQ NO./FILE NO: 14979/N2

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:
NA

APPROVED: J.L. BERTOLOTTI
CHIEF, OPERATIONS DIVISION

APPROVED: M. FORTE
PROJECT MANAGER

APPROVED: P. BHABUR
LEAD CARTOGRAPHER

APPROVED: J.L. MRAZ
BRANCH CHIEF OF SURVEY

DATE: 19 AUGUST 2020

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

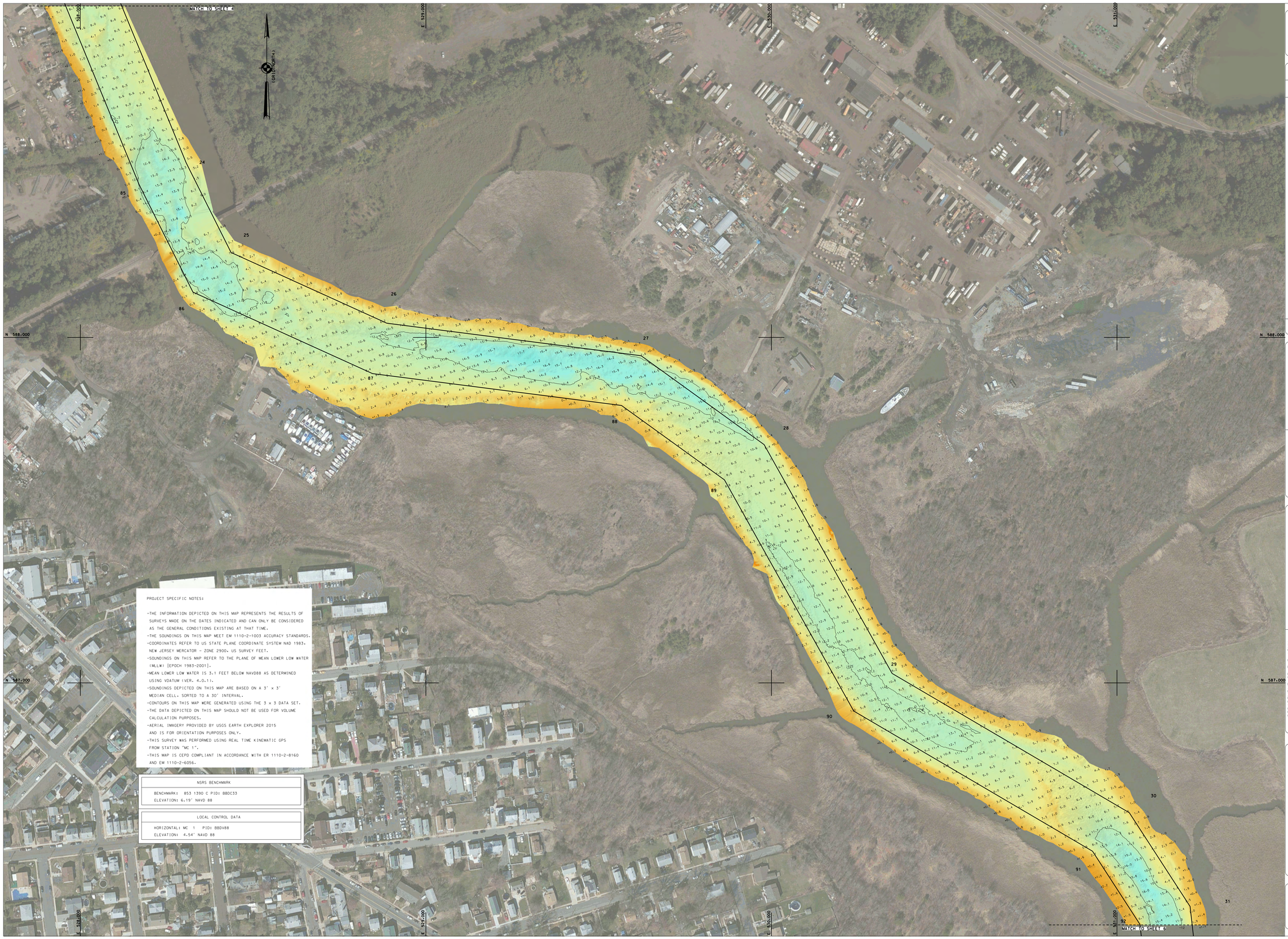
OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

WASHINGTON CANAL & SOUTH RIVER NEW JERSEY

CONDITION SURVEY

VH-104

SHEET 4 OF 8



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 SOUNDINGS ON THIS MAP MEET EM 1110-2-1003 ACCURACY STANDARDS.
-COORDINATES REFER TO US STATE PLANE COORDINATE SYSTEM NAD 1983, NEW JERSEY MERCATOR - ZONE 2900, US SURVEY FEET.
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-CONTOURS ON THIS MAP WERE GENERATED USING THE 3 x 3 DATA SET.
-THE DATA DEPICTED ON THIS MAP SHOULD NOT BE USED FOR VOLUME CALCULATION PURPOSES.
-AERIAL IMAGERY PROVIDED BY USGS EARTH EXPLORER 2015 AND IS FOR ORIENTATION PURPOSES ONLY.
-THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS FROM STATION "MC 1".
-THIS MAP IS CEPD COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.

NSRS BENCHMARK
BENCHMARK: 853 1390 C PID: BBDC33 ELEVATION: 6.19' NAVD 88

LOCAL CONTROL DATA
HORIZONTAL: MC 1 PID: BBDV88 ELEVATION: 4.54' NAVD 88

US ARMY CORPS
OF ENGINEERS
NEW YORK DISTRICT

PR DS
WP DS

DATES OF SURVEY:
8-13 AUG& 21-23 SEP 2020

REQ NO./FILE NO:14979/N2

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:
N/A

APPROVED: J.L. BERTOLOTTI
CHIEF, HYDROGRAPHIC SURVEYS

APPROVED: M. FORTE
PROJECT MANAGER

APPROVED: P. BHABUR
LEAD CARTOGRAPHER

APPROVED: J.L. MEAZ
CHIEF, SURVEY SECTION

DATE: 19 AUGUST 2020

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

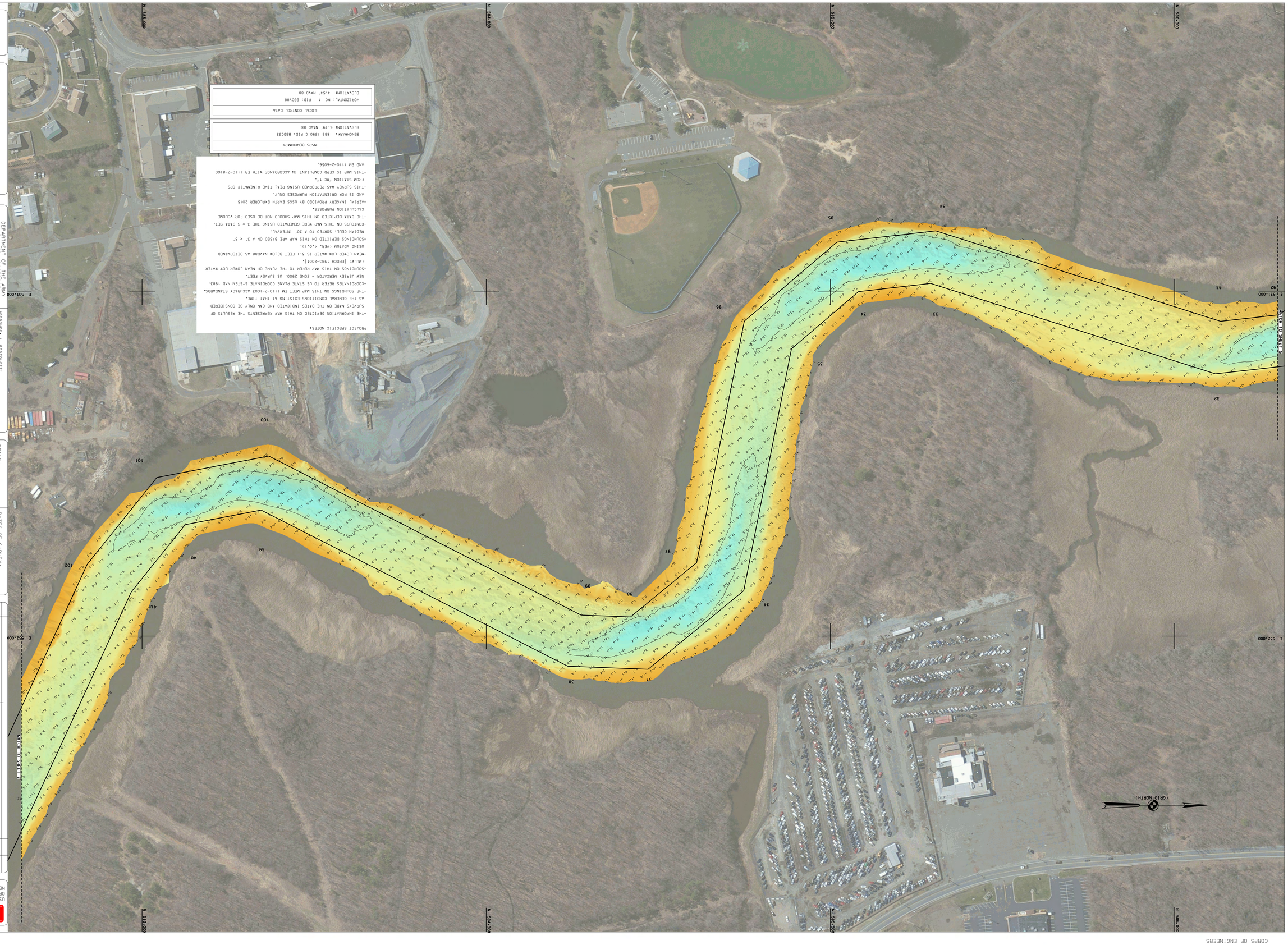
OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-HS

WASHINGTON CANAL & SOUTH RIVER
NEW JERSEY
CONDITION SURVEY

VH-105

SHEET 5 OF 8

REG NO./FILE NO.:4979/N2



REG NO./FILE NO.:4979/N2

WASHINGTON CANAL & SOUTH RIVER
NEW JERSEY
CONDITION SURVEY

VH-107

SHEET 7 OF 8

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

OPERATIONS DIVISION
SURVEY SECTION
GRAVINA-DPS

APPROVED: J. BERTOLOTTI — FIELD SURVEILLANCE/INSPECTION

APPROVED: M. FORTE — PROJECT MANAGER

APPROVED: P. BHADUR — CHIEF SURVEILLANCE/INSPECTION

APPROVED: J. MEAZ — CHIEF, FIELD OPERATIONS BRANCH

DATE: 13 AUGUST 2020

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:
N/A

DATES OF SURVEY:
6-13 AUG, 21-23 SEP 2020

REG NO./FILE NO.:4979/N2

NO.	BY	DATE	REVISION
05	DS	05	
04	DS	PR	
03		MP	

U. S. ARMY
CORPS OF ENGINEERS
NEW YORK DISTRICT

CORPS OF ENGINEERS

PRODUCT SPECIFIC NOTES:

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-COORDINATES REFER TO US STATE PLANE COORDINATE SYSTEM NAD 1983. NEW JERSEY MERCATOR - 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 FEET BELOW NAVD88 AS DETERMINED USING VDATUM (VER. 4.0.1).
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-CONTOURS ON THIS MAP WERE GENERATED USING THE 3 x 3 DATA SET.
-THE DATA DEPICTED ON THIS MAP SHOULD NOT BE USED FOR VOLUME CALCULATION PURPOSES.
-AERIAL IMAGERY PRODUCED BY USGS EARTH EXPLORER 2015
-THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS AND IS FOR ORIENTATION PURPOSES ONLY.
FROM STATION "MC 1".
-THIS MAP IS CFPO COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.

NSRS BENCHMARK

BENCHMARK: 853 1390 C PID: BBCC23
ELEVATION: 6.19' NAVD 88

LOCAL CONTROL DATA

HORIZONTAL: NC 1 PID: BBDV88
ELEVATION: 4.54' NAVD 88

MATCH TO SHEET 8

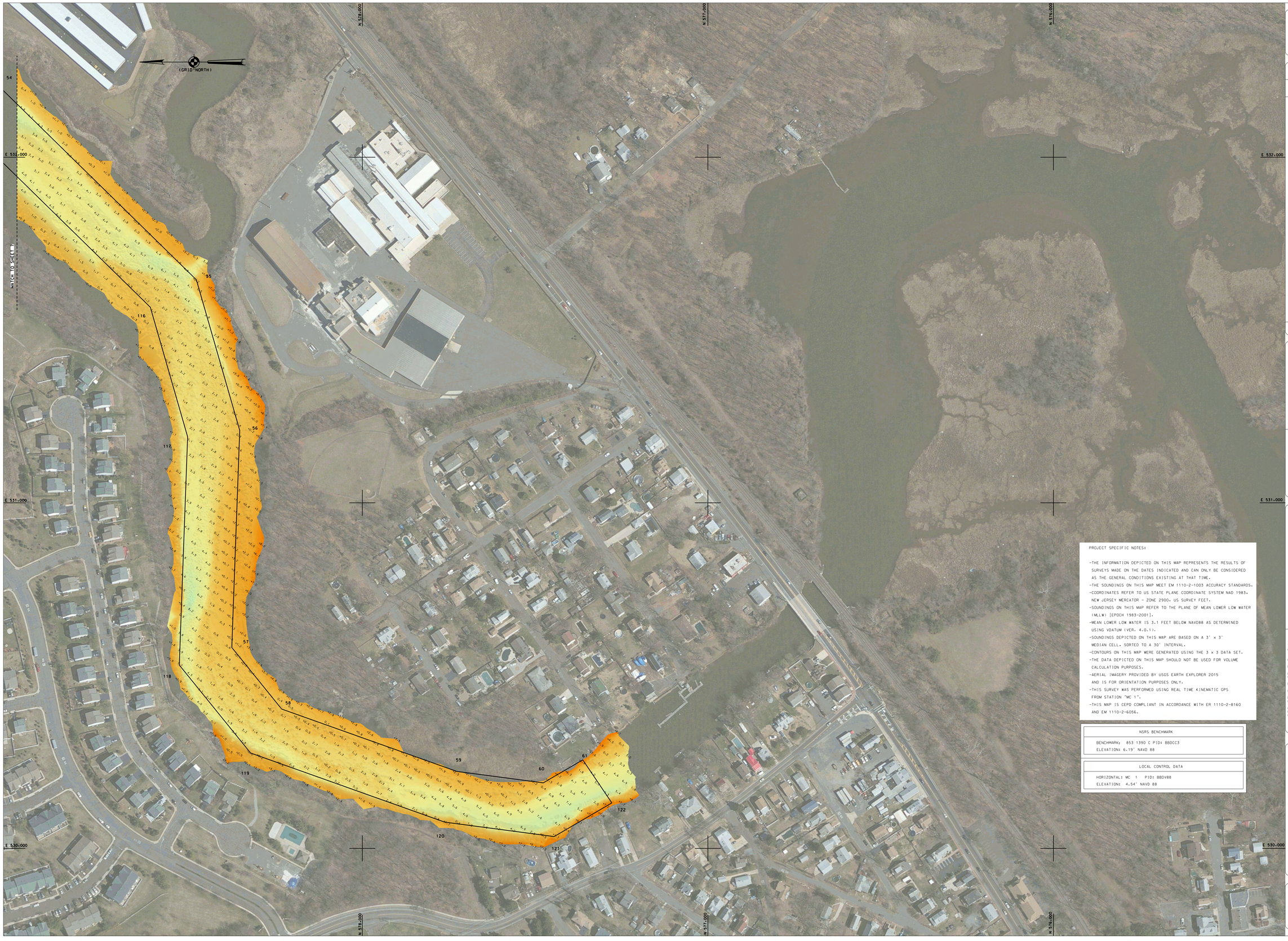
MATCH TO SHEET 6

N 586,000
N 587,000
N 588,000
E 531,000
E 532,000
E 533,000

(ORIO NORTH)

CORPS OF ENGINEERS

U. S. ARMY



PROJECT SPECIFIC NOTES:

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-AERIAL IMAGERY PROVIDED BY USGS EARTH EXPLORER 2015 AND IS FOR ORIENTATION PURPOSES ONLY.
-THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS FROM STATION "MC 1".
-THIS MAP IS CEPD COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.

NSRS BENCHMARK
BENCHMARK: 853 1390 C PID: BBDCC3 ELEVATION: 6.19' NAVD 88

LOCAL CONTROL DATA
HORIZONTAL: MC 1 PID: BBDV88 ELEVATION: 4.54' NAVD 88

US ARMY CORPS
OF ENGINEERS
NEW YORK DISTRICT

	PR	DS
	MP	DS

DATES OF SURVEY:
6-13 AUG, 21-22 SEP 2020

REQ NO./FILE NO: 14979/N2

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:
N/A

APPROVED: J. BERTIDOTI
CHIEF, DATA GOVERNANCE SECTION

APPROVED: M. FORTE
PROJECT MANAGER

APPROVED: P. BHAERUR
LEAD CARTOGRAPHER

APPROVED: L. MERAZ
DEPUTY CHIEF OF SURVEY

DATE: 19 AUGUST 2020

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

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OPS

WASHINGTON CANAL
& SOUTH RIVER
NEW JERSEY

CONDITION SURVEY

VH-108

SHEET 8 OF 8

REQ NO./FILE NO.: 4979/N2