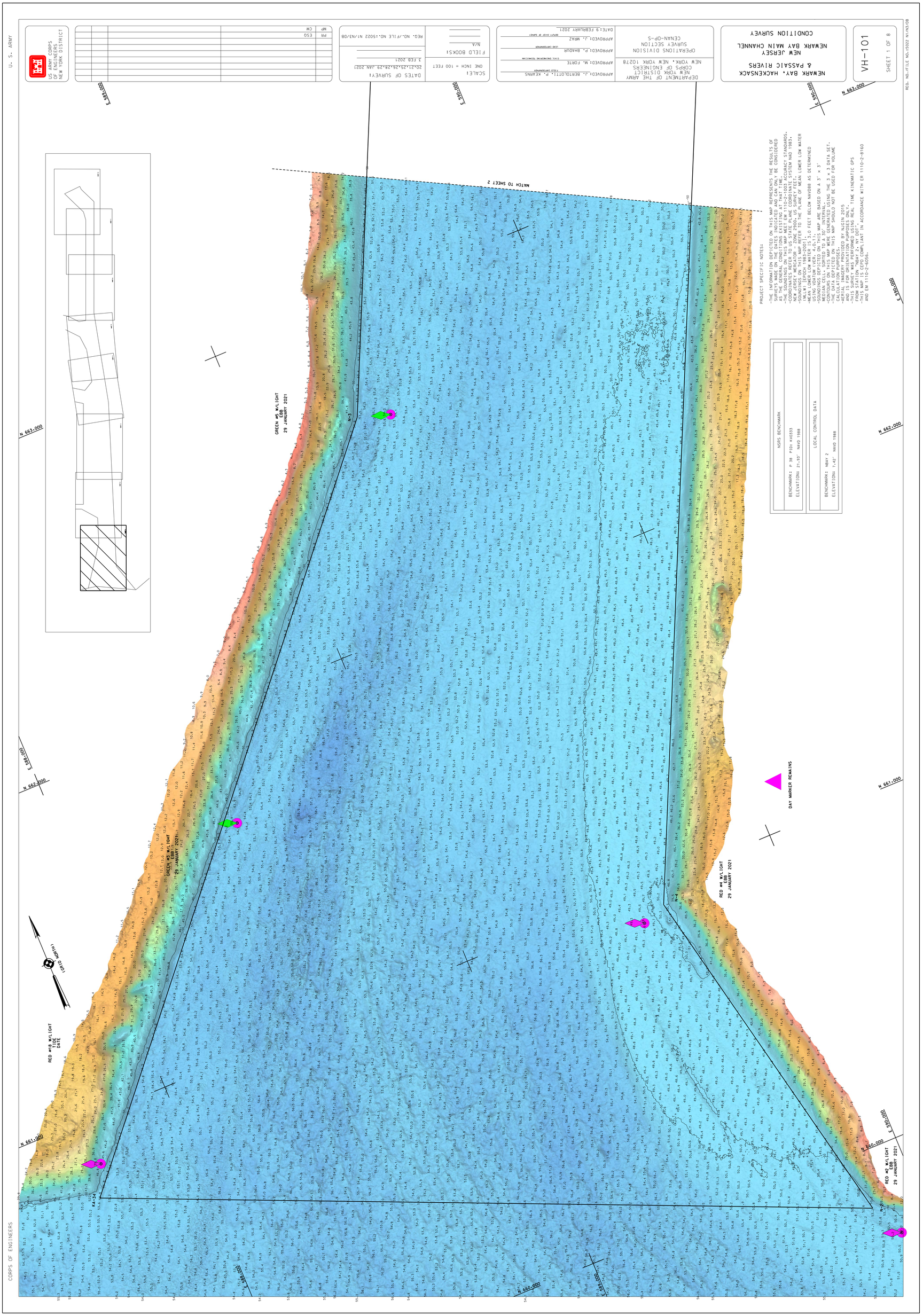

U. S. ARMY
US ARMY CORPS OF ENGINEERS NEW YORK DISTRICT
PR ESO
MP CM
SCALE: ONE INCH = 100 FEET
DATES OF SURVEY: 20,21,25,26,28,29 JAN 2021 3 FEB 2021
FIELD BOOKS: N/A
REQ. NO./FILE NO.:5022 N1/N3/08
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278
OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S
APPROVED: J. BERTOLOTTI, P. KEARNS
APPROVED: M. FORTE
APPROVED: P. BHADUR
APPROVED: J. MAZ
DATE: 9 FEBRUARY 2021
NEWARK BAY, HACKENSACK & PASSAIC RIVERS
NEW JERSEY
NEWARK BAY MAIN CHANNEL
CONDITION SURVEY
VH-101
SHEET 1 OF 8
REQ. NO./FILE NO.:5022 N1/N3/08
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.
-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).
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-AERIAL IMAGERY PROVIDED BY NJGIN 2015 AND IS FOR ORIENTATION PURPOSES ONLY.
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-THIS MAP IS CEPD COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.
NSRS BENCHMARK
BENCHMARK: P 38 PID: KV0333
ELEVATION: 21.93' NAVD 1988
LOCAL CONTROL DATA
BENCHMARK: NBAY 2
ELEVATION: 7.42' NAVD 1988
MATCH TO SHEET 2
GREEN #5 W/LIGHT EBB 29 JANUARY 2021
GREEN #3 W/LIGHT EBB 29 JANUARY 2021
RED #4 W/LIGHT EBB 29 JANUARY 2021
RED #18 W/LIGHT TIDE DATE
RED #2 W/LIGHT EBB 29 JANUARY 2021
DAY MARKER REMAINS
(GRID NORTH)
N 663,000
N 662,000
N 661,000
N 660,000
E 589,000
E 590,000
E 588,000
CORPS OF ENGINEERS

CORPS OF ENGINEERS

U. S. ARMY

PROJECT SPECIFIC NOTES:

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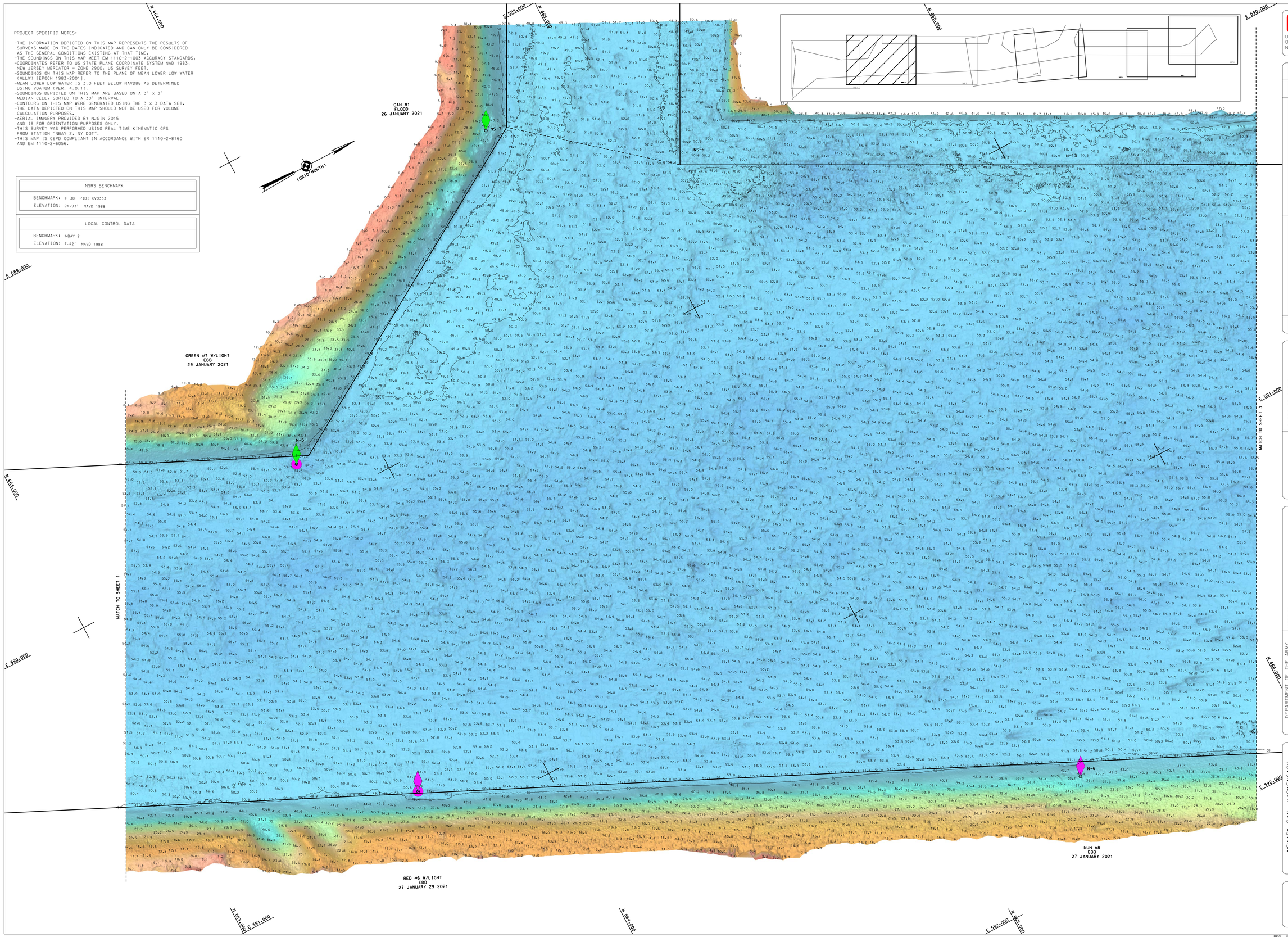
NSRS BENCHMARK
BENCHMARK: P 38 PID: KV0333
ELEVATION: 21.93' NAVD 1988

LOCAL CONTROL DATA
BENCHMARK: NBAY 2
ELEVATION: 7.42' NAVD 1988



US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

PR	ESG
MP	CM

DATES OF SURVEY:
20,21,25,26,28,29 JAN 2021
3 FEB 2021

REQ. NO./FILE NO.:5022 N1/N3/DB

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:
N/A

APPROVED: J. BERTOLOTTI, P. KEARNS
FIELD CARTOGRAPHER

APPROVED: M. FORTE
CIVIL ENGINEERING TECHNICIAN

APPROVED: P. BHADUR
LEAD CARTOGRAPHER

APPROVED: J. MRAZ
DEPUTY CHIEF OF SURVEY

DATE: 9 FEBRUARY 2021

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

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

NEWARK BAY, HACKENSACK & PASSAIC RIVERS

NEW JERSEY
NEWARK BAY MAIN CHANNEL
CONDITION SURVEY

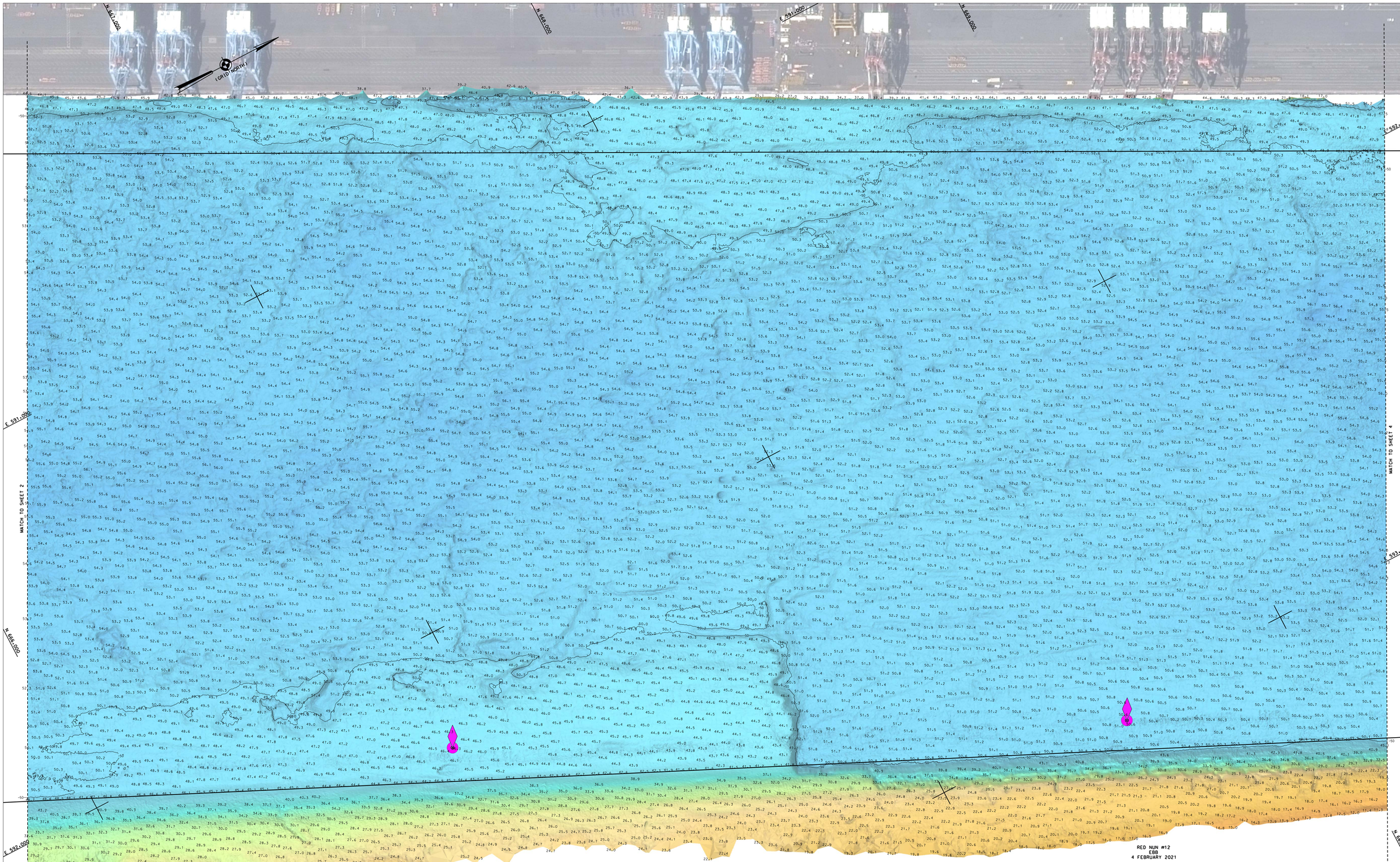
VH-102

SHEET 2 OF 8

REQ. NO./FILE NO.:5022 N1/N3/DB

CORPS OF ENGINEERS

U. S. ARMY



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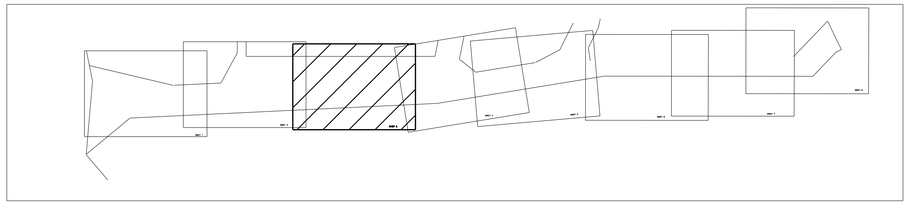
NSRS BENCHMARK	
BENCHMARK:	P 38 PID: KV0333
ELEVATION:	21.93' NAVD 1988

LOCAL CONTROL DATA	
BENCHMARK:	NBAY 2
ELEVATION:	7.42' NAVD 1988



US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

PR	ESQ
MP	CM

DATES OF SURVEY:
20,21,25,26,28,29 JAN 2021
3 FEB 2021

REQ. NO./FILE NO.:5022 N1/N3/DB

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:
N/A

APPROVED: J. BERTOLOTTI, P. KEARNS
CIVIL ENGINEERING TECHNICIAN
FIELD CARTOGRAPHER

APPROVED: M. FORTE
CIVIL ENGINEERING TECHNICIAN
LEAD CARTOGRAPHER

APPROVED: P. BHADUR
DEPUTY CHIEF OF SURVEY

APPROVED: J. MRAZ
DATE: 9 FEBRUARY 2021

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

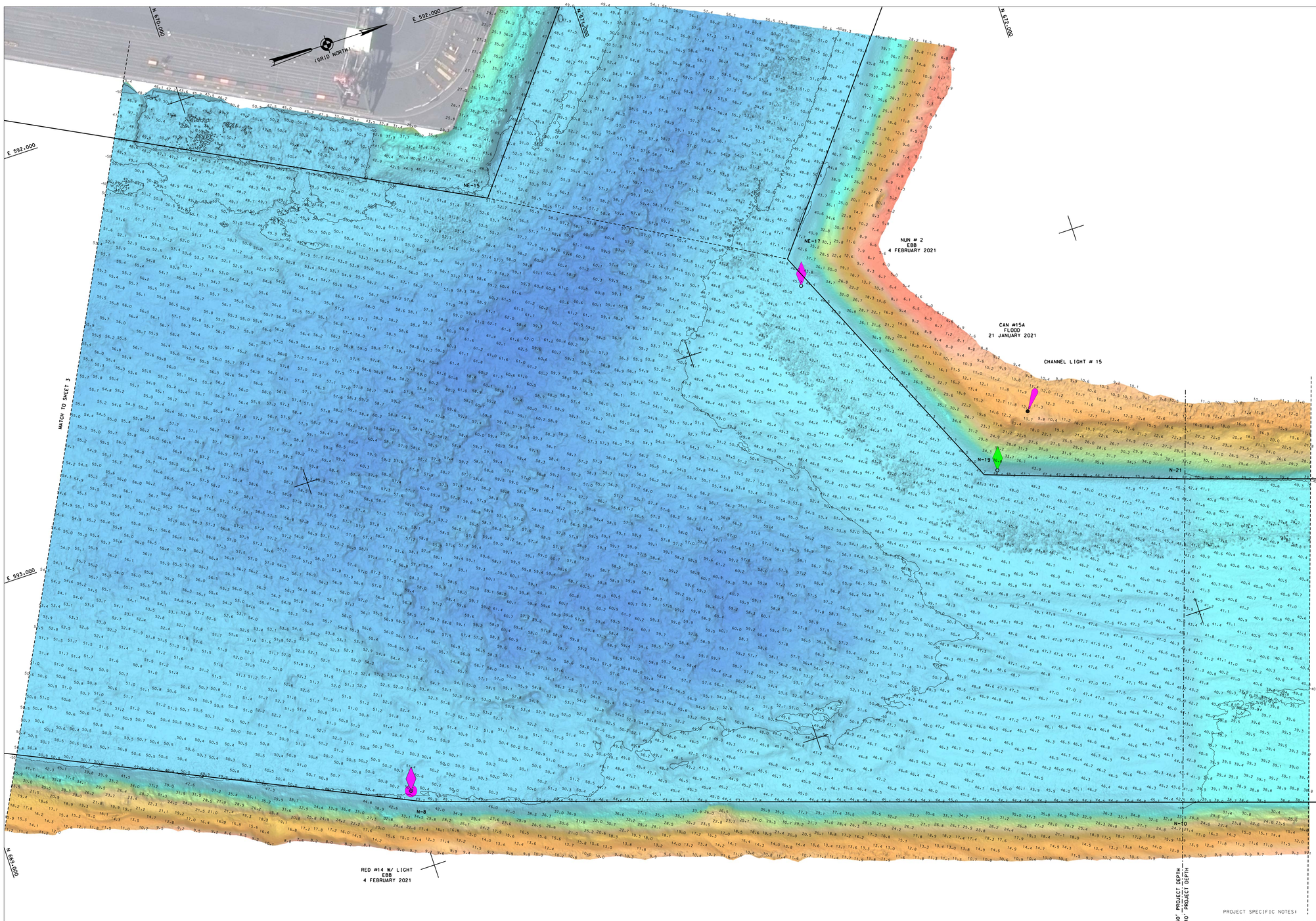
OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

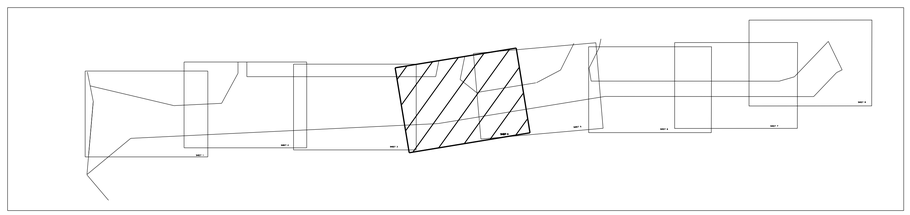
NEWARK BAY, HACKENSACK & PASSAIC RIVERS
NEW JERSEY
NEWARK BAY MAIN CHANNEL
CONDITION SURVEY

VH-103

SHEET 3 OF 8

REQ. NO./FILE NO.:5022 N1/N3/DB





NSRS BENCHMARK
BENCHMARK: P 38 PID: KV0333
ELEVATION: 21.93' NAVD 1988

LOCAL CONTROL DATA
BENCHMARK: NBAY 2
ELEVATION: 7.42' NAVD 1988

PROJECT SPECIFIC NOTES:

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US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

MP	PR	ESG
		CM

DATES OF SURVEY:
2,3,4,5,23,24,26,28,29 JAN 2021
3, 4 FEB 2021

REG. NO./FILE NO.:5022 N1/N3/08

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:
N.A.

APPROVED: J. BERTOLOTTI, P. KEARNS
FIELD ENGINEERS

APPROVED: M. FORTE
CIVIL ENGINEERING TECHNICIAN

APPROVED: P. BRABSUR
LAKE CARTOGRAPHER

APPROVED: J. MRAZ
SENIOR CHIEF OF SURVEY

DATE: 9 FEBRUARY 2021

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

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

NEWARK BAY, HACKENSACK & PASSAIC RIVERS
NEW JERSEY
NEWARK BAY MAIN CHANNEL
CONDITION SURVEY

VH-104

SHEET 4 OF 8

U. S. ARMY

US ARMY CORPS OF ENGINEERS NEW YORK DISTRICT

PR	ESO
MP	CM

SCALE:	ONE INCH = 100 FEET
FIELD BOOKS:	N/A
DATES OF SURVEY:	20,21,25,26,28,29 JAN 2021 3 FEB 2021
REQ. NO./FILE NO.:5022 N1/N3/DB	

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

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

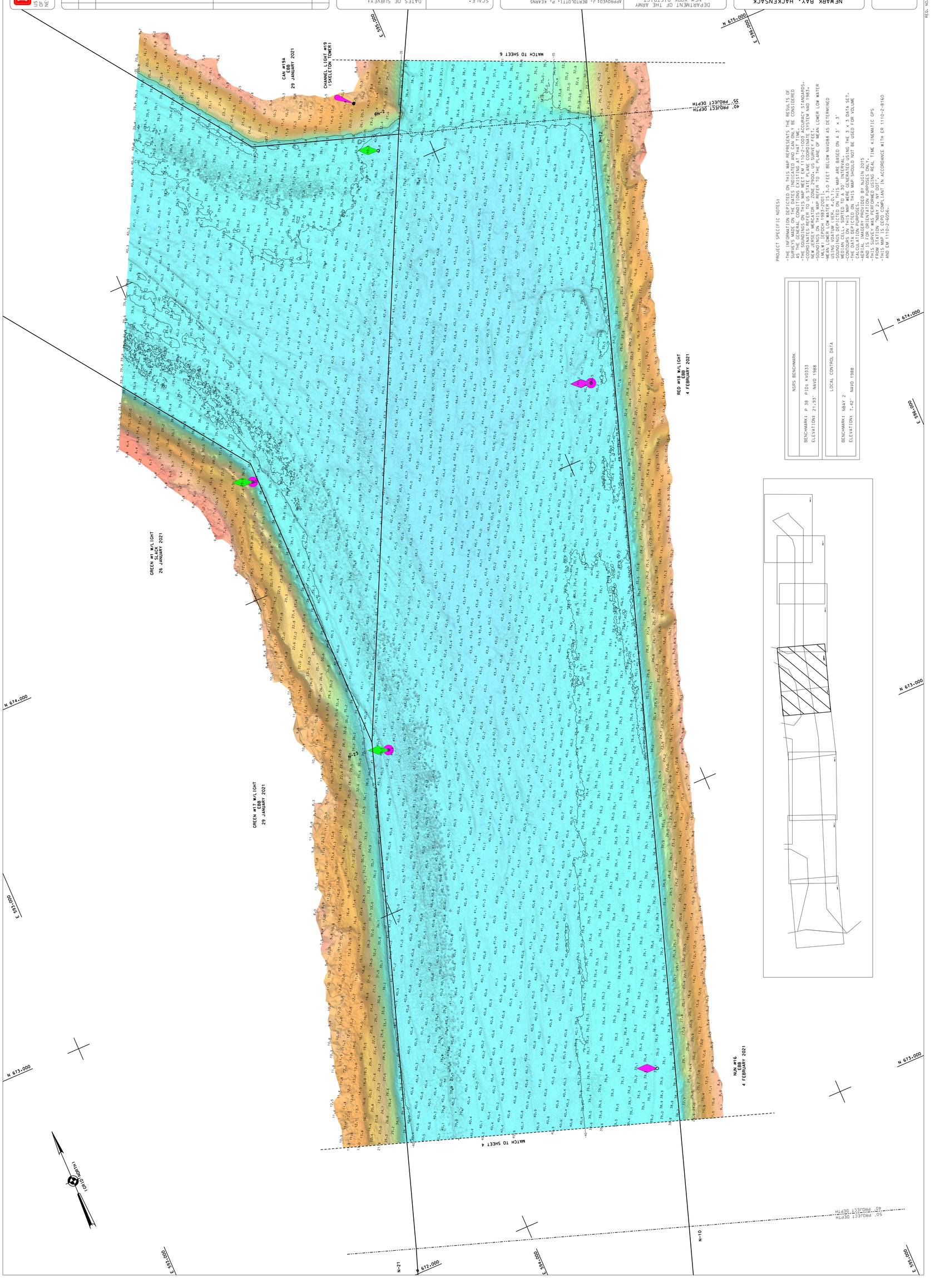
APPROVED: J. BERTOLOTTI, P. KEARNS
FIELD CARTOGRAPHER
APPROVED: M. FORTE
CIVIL ENGINEERING TECHNICIAN
APPROVED: P. BHADUR
LEAD CARTOGRAPHER
APPROVED: J. MRAZ
DEPUTY CHIEF OF SURVEY
DATE: 9 FEBRUARY 2021

NEWARK BAY, HACKENSACK & PASSAIC RIVERS
NEW JERSEY
NEWARK BAY MAIN CHANNEL
CONDITION SURVEY

VH-105

SHEET 5 OF 8

REQ. NO./FILE NO.:5022 N1/N3/DB



PROJECT SPECIFIC NOTES:

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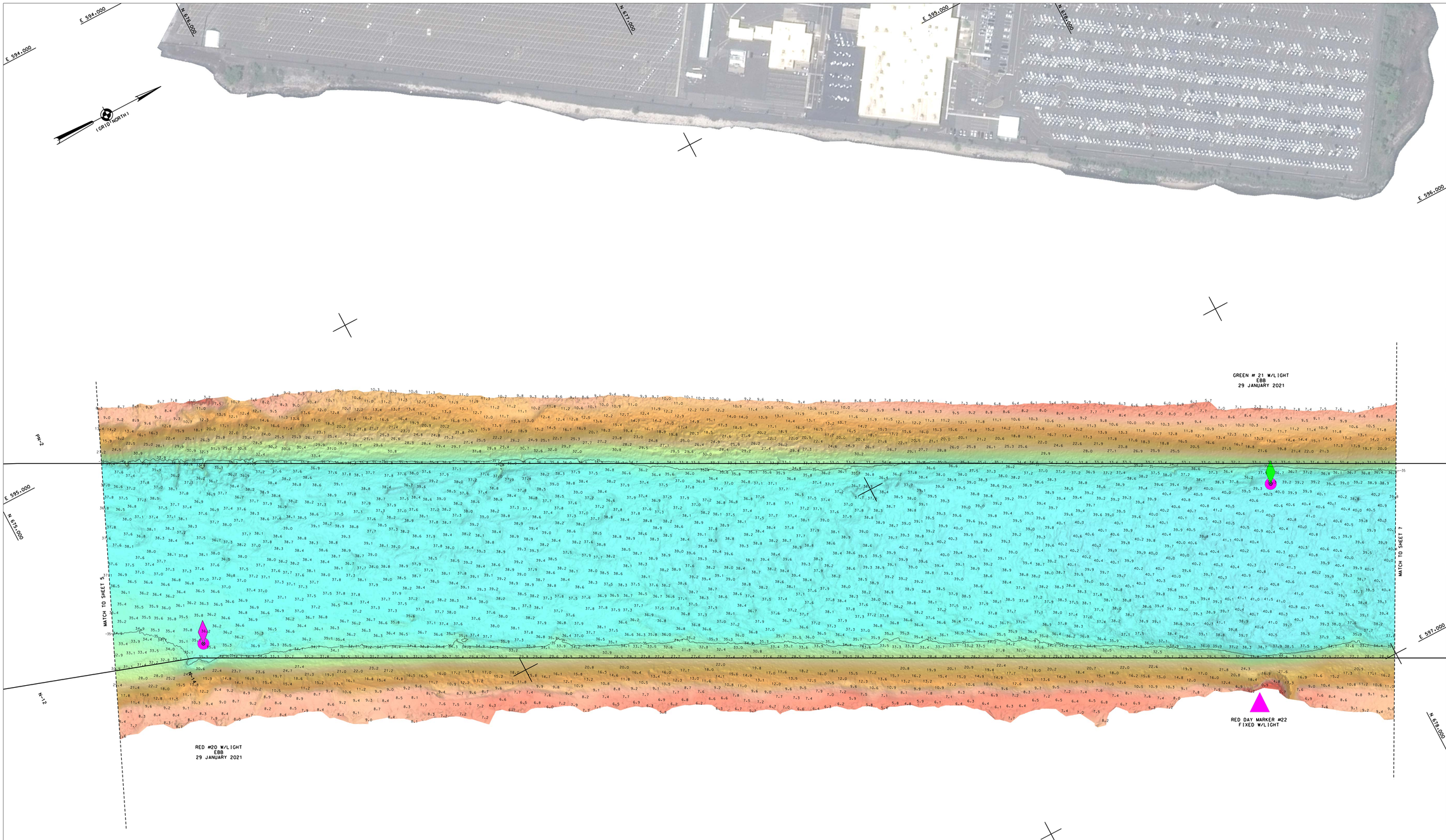
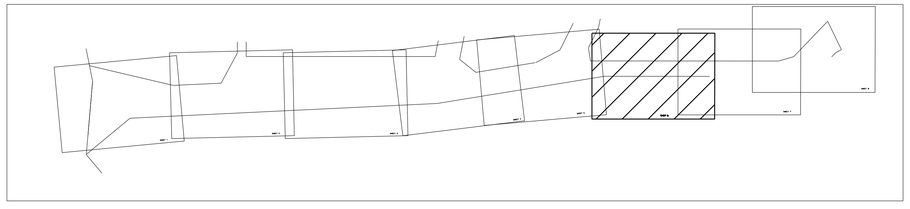
NSRS BENCHMARK
BENCHMARK: P 38 PID: KV0333
ELEVATION: 21.93' NAVD 1988

LOCAL CONTROL DATA
BENCHMARK: NBAY 2
ELEVATION: 7.42' NAVD 1988

CORPS OF ENGINEERS





NSRS BENCHMARK	
BENCHMARK:	P 38 PID: KV0333
ELEVATION:	21.93' NAVD 1988

LOCAL CONTROL DATA	
BENCHMARK:	NBAY 2
ELEVATION:	7.42' NAVD 1988

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US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

PR	ESG	
MP	CW	

DATES OF SURVEY:
29,30,31,01,02,03,05,06,08,09 JAN 2021
2, FEB 2021

REQ. NO./FILE NO.:5022 N1/N3/DB

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:
N/A

APPROVED: J. BERTOLOTTI, P. KEARNS
CHIEF, SURVEYING & MAPPING

APPROVED: M. TORTE
CIVIL ENGINEERING TECHNICIAN

APPROVED: P. BHAGUR
LEAD CARTOGRAPHER

APPROVED: J. MRAZ
BRANCH CHIEF OF SURVEY

DATE: 9 FEBRUARY 2021

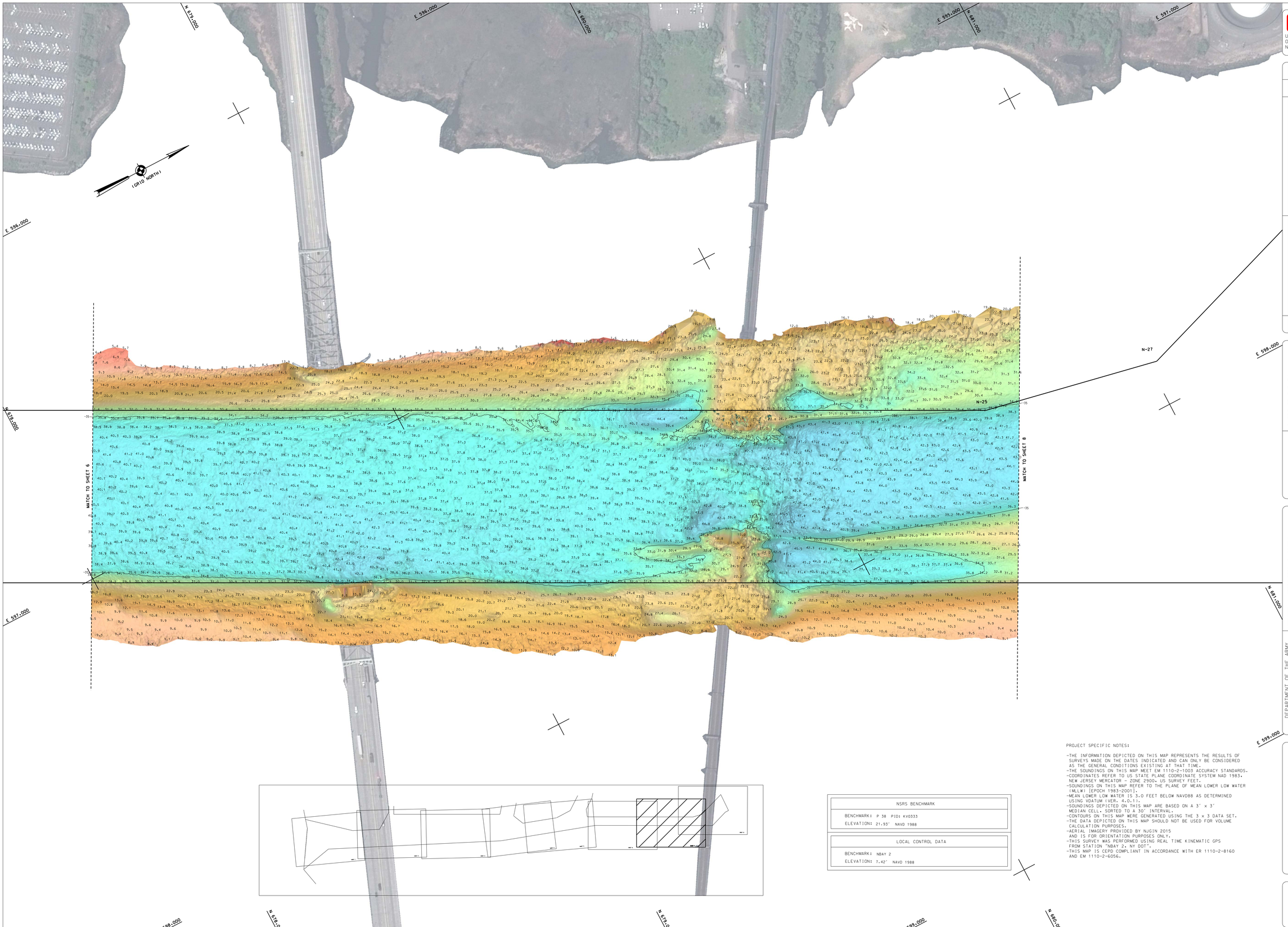
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

NEWARK BAY, HACKENSACK & PASSAIC RIVERS
NEW JERSEY
NEWARK BAY MAIN CHANNEL
CONDITION SURVEY

VH-106

SHEET 6 OF 8



NSRS BENCHMARK
BENCHMARK: P 38 PID: KV0333
ELEVATION: 21.93' NAVD 1988

LOCAL CONTROL DATA
BENCHMARK: NBAY 2
ELEVATION: 7.42' NAVD 1988

PROJECT SPECIFIC NOTES:

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US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

PR	ESG	
MP	CW	

DATES OF SURVEY:
2021 (23,24,26,28,29 JAN 2021)
3 FEB 2021

REQ. NO./FILE NO.:5022 N1/N3/DB

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:
N/A

APPROVED: J. BERTOLOTTI, P. ACARNS
CHIEF, ENGINEERING & CONSTRUCTION DIVISION

APPROVED: M. FORTE
CIVIL ENGINEERING TECHNICIAN

APPROVED: P. BHAGUR
CHIEF CARTOGRAPHER

APPROVED: J. MRAZ
DEPUTY CHIEF OF SURVEY

DATE: 9 FEBRUARY 2021

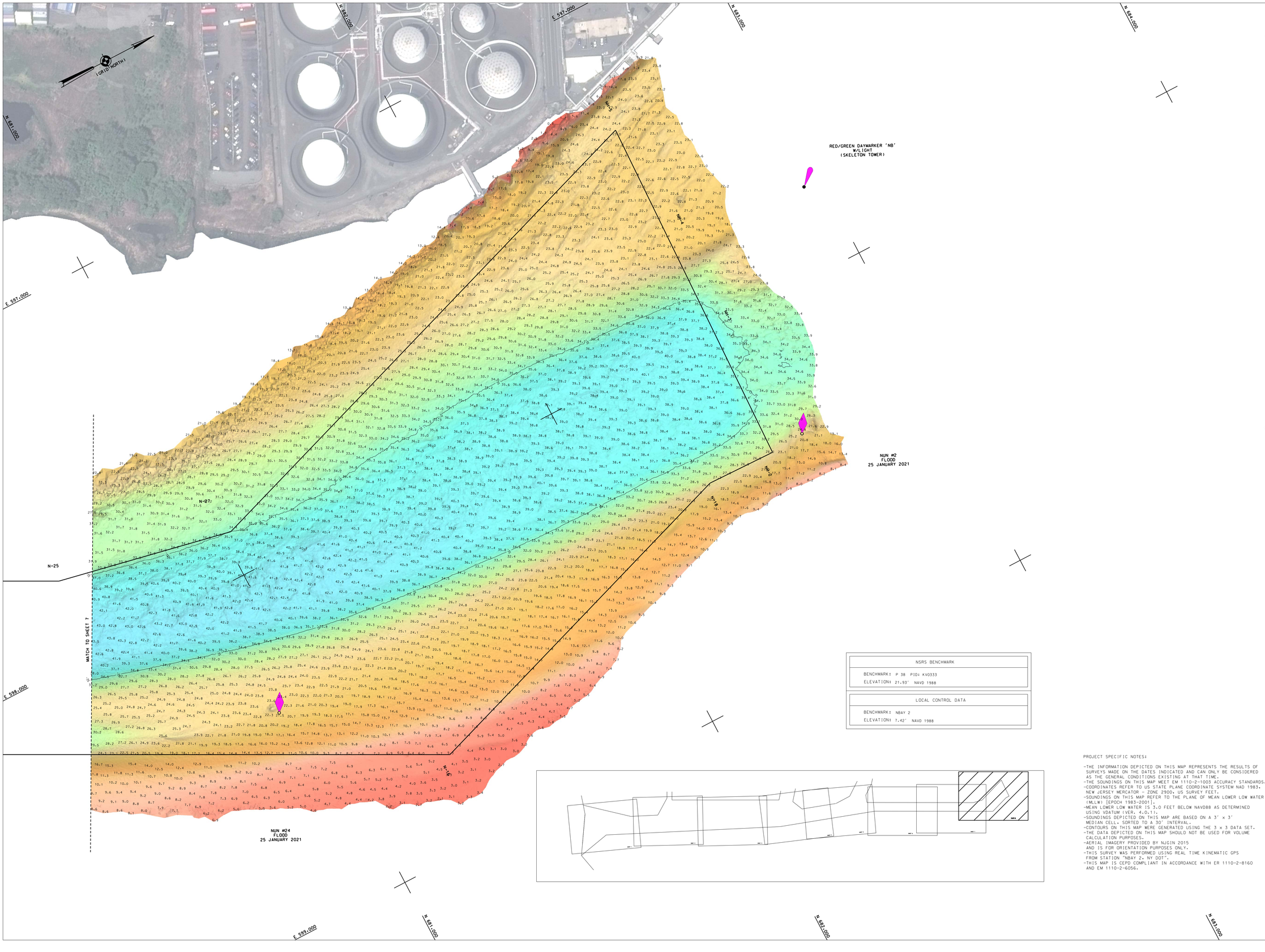
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

NEWARK BAY, HACKENSACK & PASSAIC RIVERS
NEW JERSEY
NEWARK BAY MAIN CHANNEL
CONDITION SURVEY

VH-107

SHEET 7 OF 8



NSRS BENCHMARK
BENCHMARK: P 38 PID: KV0333
ELEVATION: 21.93' NAVD 1988

LOCAL CONTROL DATA
BENCHMARK: NBAY 2
ELEVATION: 7.42' NAVD 1988

PROJECT SPECIFIC NOTES:

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US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

PR	ESQ
MP	CM

DATES OF SURVEY:
20,21,25,26,28,29 JAN 2021
3 FEB 2021

REQ. NO./FILE NO.:5022 N1/N3/DB

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:
N/A

APPROVED: J. BERTOLOTTI, P. KEARNS
FIELD CARTOGRAPHER

APPROVED: M. FORTE
CIVIL ENGINEERING TECHNICIAN

APPROVED: P. BHADUR
LEAD CARTOGRAPHER

APPROVED: J. MRAZ
DEPUTY CHIEF OF SURVEY

DATE: 9 FEBRUARY 2021

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

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

NEWARK BAY, HACKENSACK & PASSAIC RIVERS

NEW JERSEY
NEWARK BAY MAIN CHANNEL
CONDITION SURVEY

VH-108

SHEET 8 OF 8

REQ. NO./FILE NO.:5022 N1/N3/DB