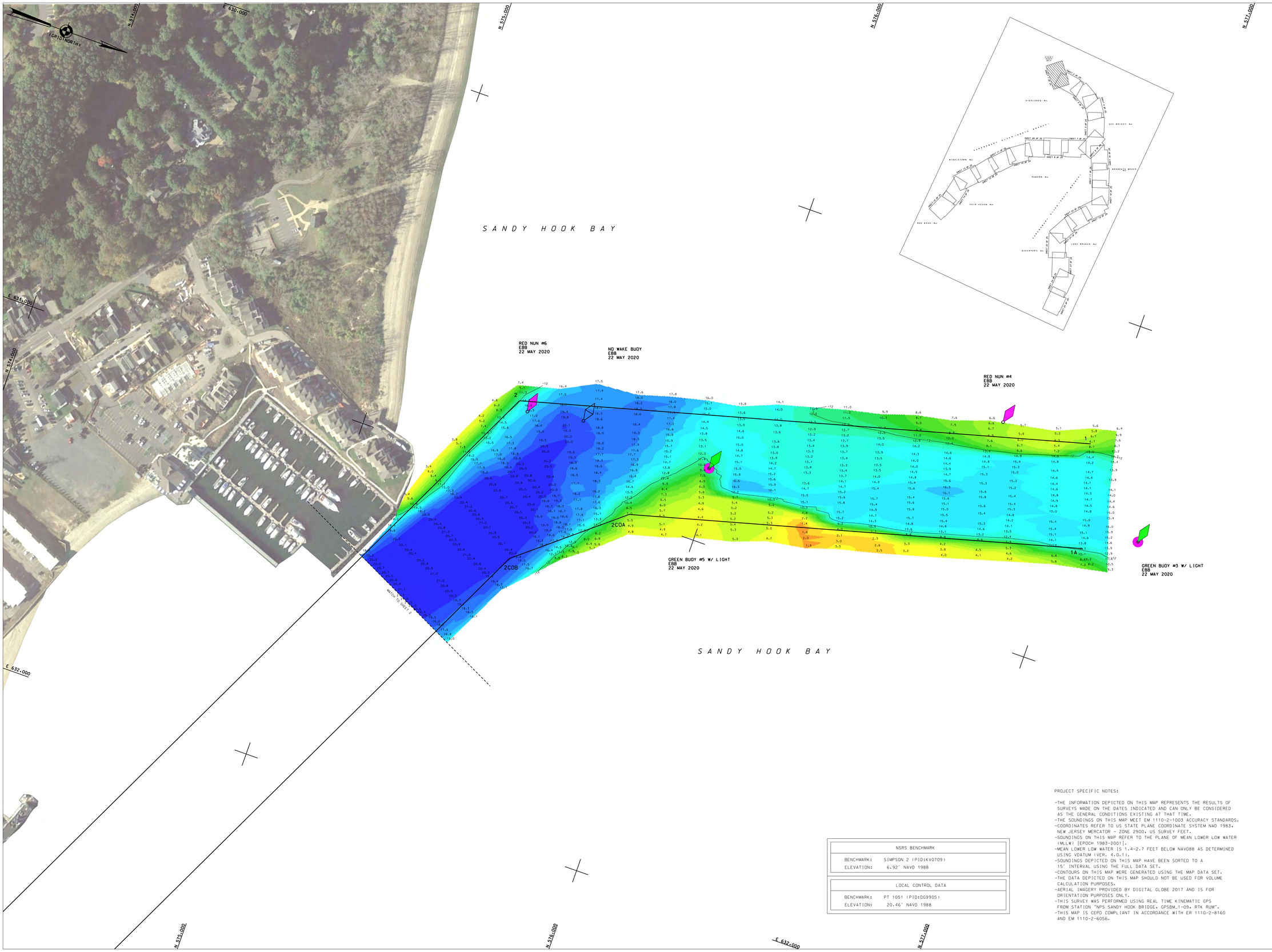


NSRS BENCHMARK	
BENCHMARK:	SIMPSON 2 (PID:KV0709)
ELEVATION:	6.92' NAVD 1988

LOCAL CONTROL DATA	
BENCHMARK:	PT 1051 (PID:DG9905)
ELEVATION:	20.46' NAVD 1988

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 1.4-2.7 FEET BELOW NAVD88 AS DETERMINED USING VDATUM (VER. 4.0.1).
-SOUNDINGS DEPICTED ON THIS MAP HAVE BEEN SORTED TO A 15' 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.
-AERIAL IMAGERY PROVIDED BY DIGITAL GLOBE 2017 AND IS FOR ORIENTATION PURPOSES ONLY.
-THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS FROM STATION "NPS SANDY HOOK BRIDGE, GPSBM_1-09, RTK RUM".
-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

PR	JHS		
WP	JHS		

DATES OF SURVEY:
14,15,18-22,26-29 MAY 2020,
1-5 JUNE 2020

REQUEST NO./FILE NO.: 4950/N2

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:
N/A

APPROVED: J. BERTOLOTTI, CHIEF CARTOGRAPHER
APPROVED: M. FORTE, CIVIL ENGINEERING TECHNICIAN
APPROVED: P. BHADURI, CHIEF CARTOGRAPHER
APPROVED: J. MRAZ, DEPUTY CHIEF OF SURVEY
DATE: 15 JUNE 2020

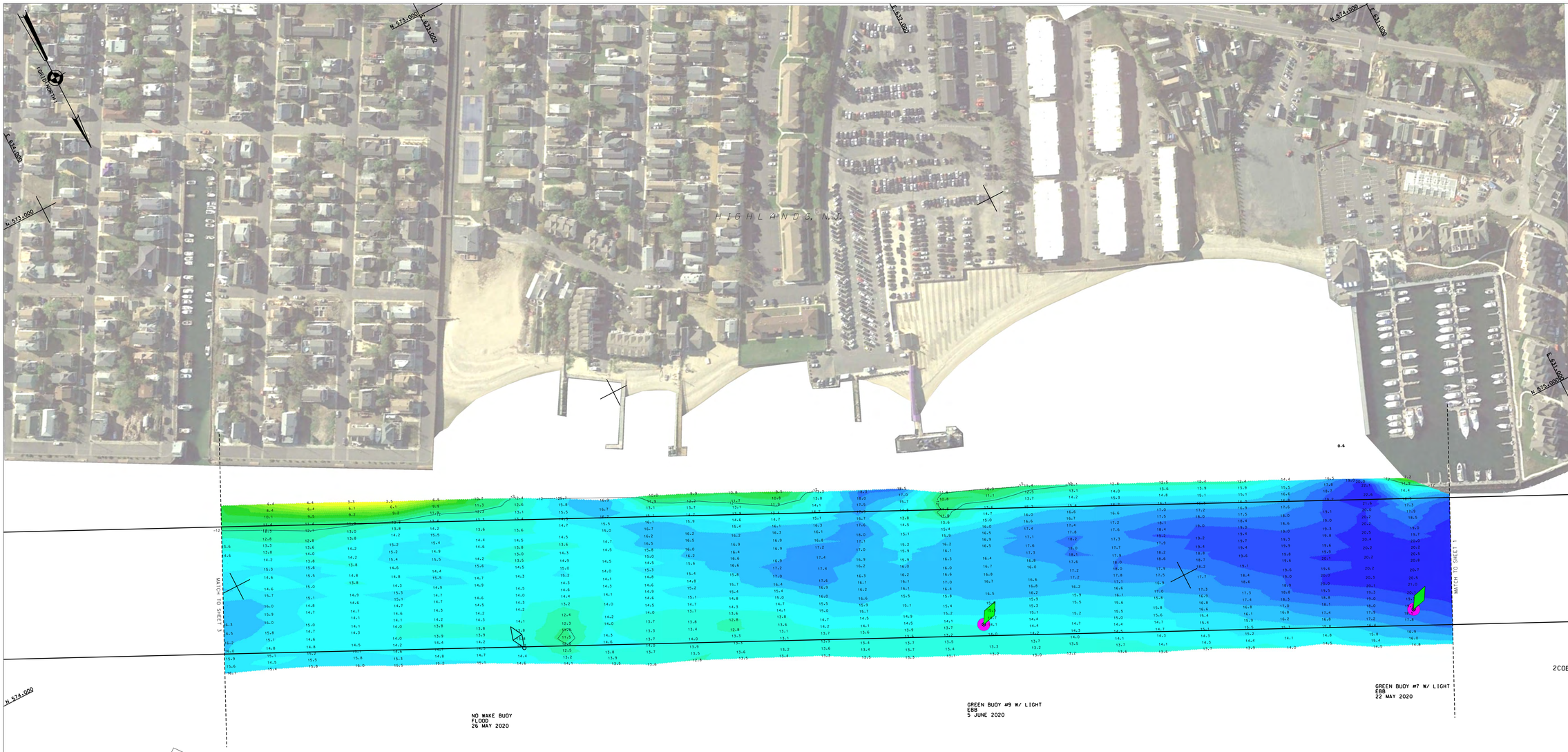
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

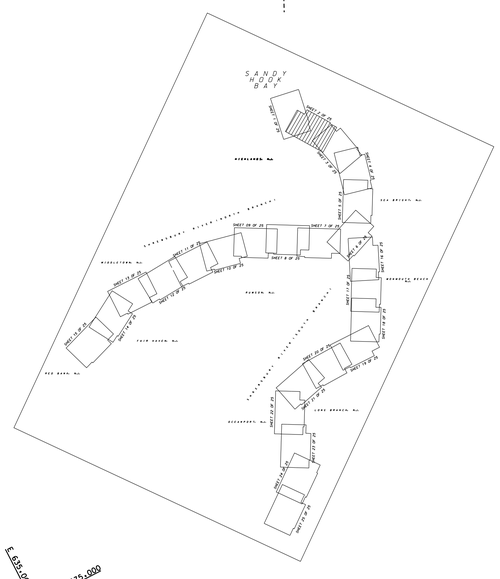
OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

SHREWSBURY RIVER
NEW JERSEY
CONDITION SURVEY

VH-101

SHEET 1 OF 26





NSRS BENCHMARK	
BENCHMARK:	SIMPSON 2 (PID:KV0709)
ELEVATION:	6.92' NAVD 1988

LOCAL CONTROL DATA	
BENCHMARK:	PT 1051 (PID:DG9905)
ELEVATION:	20.46' NAVD 1988

PROJECT SPECIFIC NOTES:

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-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

PR	JHS	
MP	JHS	

DATES OF SURVEY:
14,15,18-22,26-29 MAY 2020.
1-5 JUNE 2020

REQ. NO./FILE NO.: 4950/N2

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:
N/A

APPROVED: J. BERTOLOTTI
FIELD CARTOGRAPHER

APPROVED: M. FORTE
CIVIL ENGINEERING TECHNICIAN

APPROVED: P. BHADUR
LEAD CARTOGRAPHER

APPROVED: J. MRAZ
SENIOR CHIEF OF SURVEY

DATE: 15 JUNE 2020

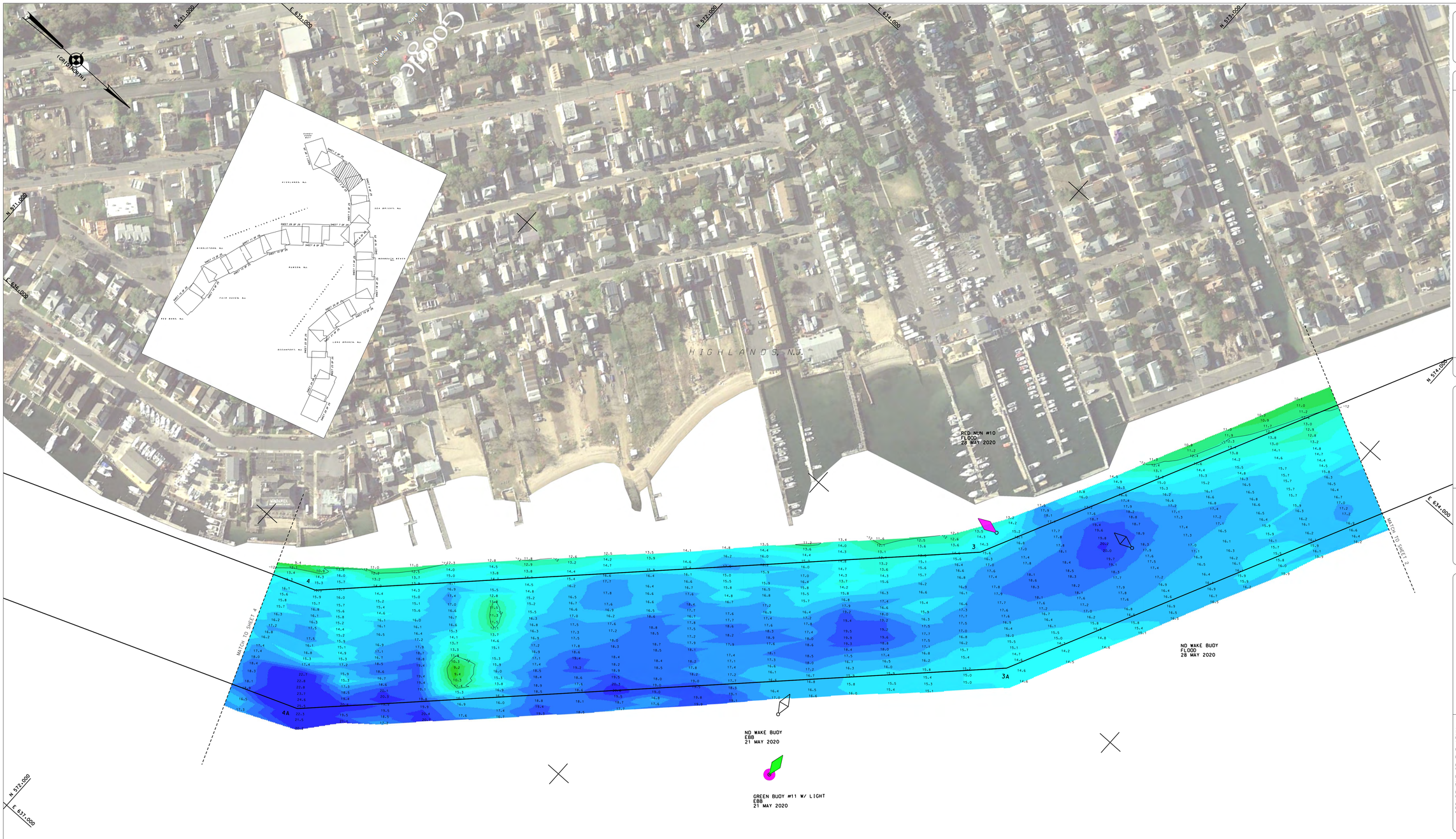
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

SHREWSBURY RIVER
NEW JERSEY
CONDITION SURVEY

VH-102

SHEET 2 OF 26



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

NSRS BENCHMARK	
BENCHMARK:	SIMPSON 2 (PID:KV0709)
ELEVATION:	6.92' NAVD 1988

LOCAL CONTROL DATA	
BENCHMARK:	PT 1051 (PID:DG9905)
ELEVATION:	20.46' NAVD 1988

US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

PR	JHS	
MP	JHS	

DATES OF SURVEY:
14,15,18-22,26-29 MAY 2020,
1-5 JUNE 2020

REQ. NO./FILE NO.: 4950/N2

SCALE: ONE INCH = 100 FEET

FIELD BOOKS: N/A

APPROVED: J. BERTOLOTTI, CHIEF CARTOGRAPHER
APPROVED: M. FORTE, CIVIL ENGINEERING TECHNICIAN
APPROVED: P. BHADURI, CHIEF CARTOGRAPHER
APPROVED: J. MRAZ, DEPUTY CHIEF OF SURVEY
DATE: 15 JUNE 2020

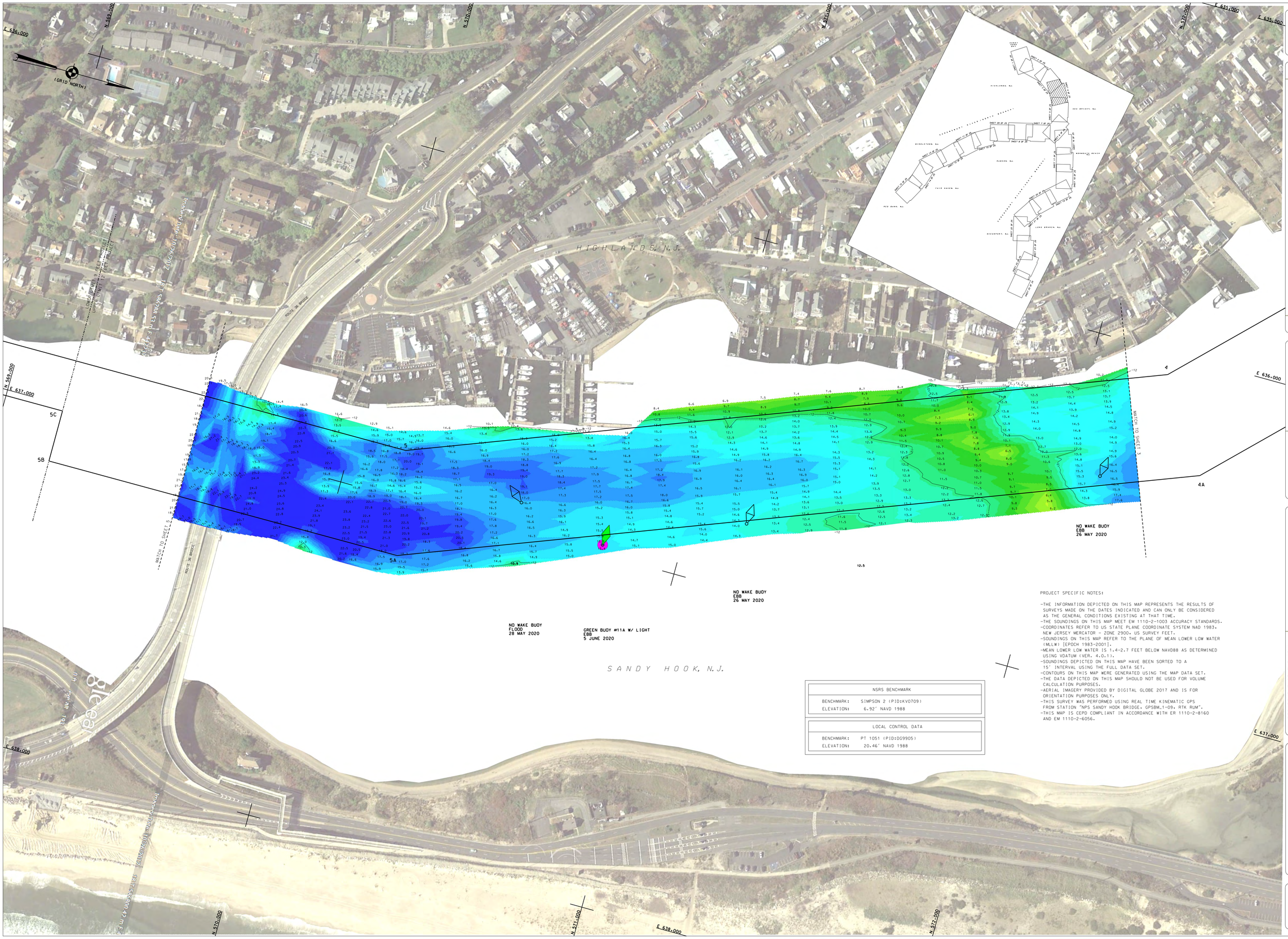
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

SHREWSBURY RIVER
NEW JERSEY
CONDITION SURVEY

VH-103

SHEET 3 OF 26



NSRS BENCHMARK	
BENCHMARK:	SIMPSON 2 (PID:KV0709)
ELEVATION:	6.92' NAVD 1988

LOCAL CONTROL DATA	
BENCHMARK:	PT 1051 (PID:DG9905)
ELEVATION:	20.46' NAVD 1988

PROJECT SPECIFIC NOTES:

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- 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

PR	JHS	
MP	JHS	

DATES OF SURVEY:
14,15,18-22,26-29 MAY 2020,
1-5 JUNE 2020

REQ. NO./FILE NO.: 4950/N2

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:
N/A

APPROVED: J. BERTOLOTTI
CHIEF CARTOGRAPHER

APPROVED: M. FORTE
CIVIL ENGINEERING TECHNICIAN

APPROVED: P. BHADUR
CHIEF CARTOGRAPHER

APPROVED: J. MBAZ
SENIOR CHIEF OF SURVEY

DATE: 15 JUNE 2020

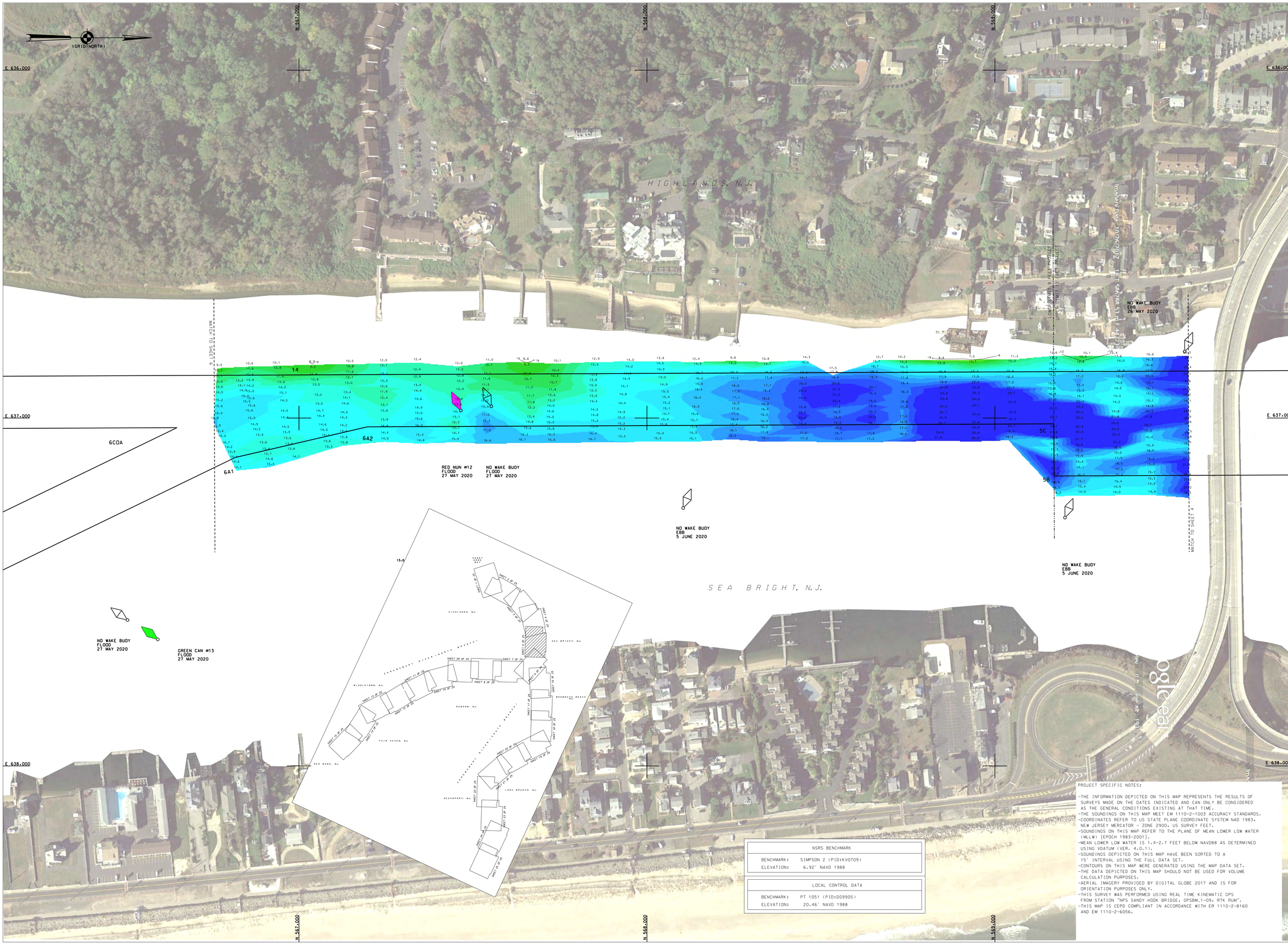
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

SHREWSBURY RIVER
NEW JERSEY
CONDITION SURVEY

VH-104

SHEET 4 OF 26



NSRS BENCHMARK	
BENCHMARK:	SIMPSON 2 (PID:KV0709)
ELEVATION:	6.92' NAVD 1988

LOCAL CONTROL DATA	
BENCHMARK:	PT 1051 (PID:DG9905)
ELEVATION:	20.46' NAVD 1988

PROJECT SPECIFIC NOTES:

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US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

PR	JHS	
MP	JHS	

DATES OF SURVEY: 14,15,18-22,26-29 MAY 2020; 1-9 JUNE 2020

REQ. NO./FILE NO.: 4950/N2

SCALE: ONE INCH = 100 FEET

FIELD BOOKS: N/A

APPROVED: J. BERTOLOTTI — FIELD CARTOGRAPHER
APPROVED: M. FORTE — CIVIL ENGINEERING TECHNICIAN
APPROVED: R. BHADUR — LEAD CARTOGRAPHER
APPROVED: J. MRAZ — DEPUTY CHIEF OF SURVEY
DATE: 15 JUNE 2020

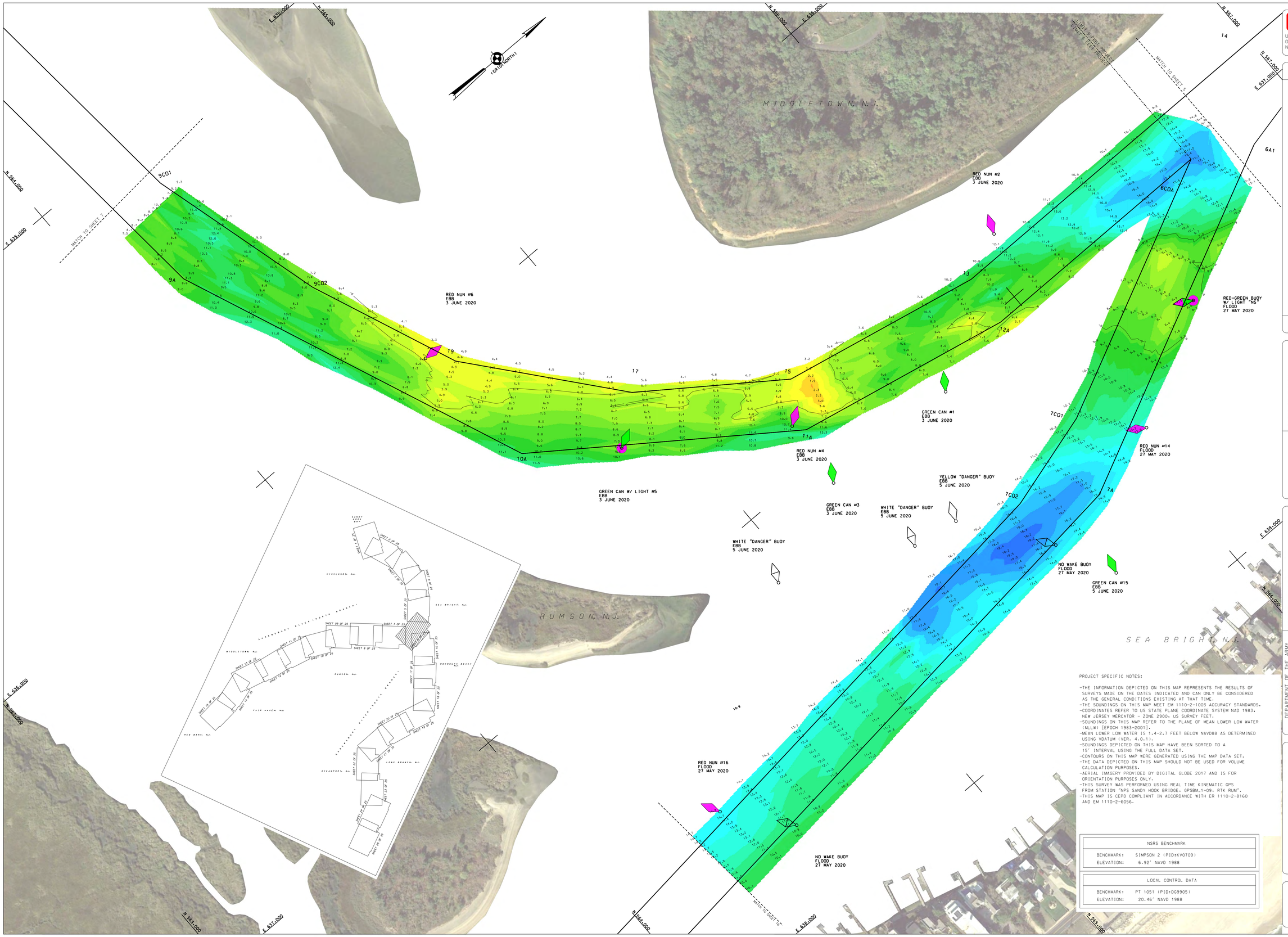
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENW-OP-GS

SHREWSBURY RIVER
NEW JERSEY
CONDITION SURVEY

VH-105

SHEET 5 OF 26



PROJECT SPECIFIC NOTES:

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NSRS BENCHMARK	
BENCHMARK:	SIMPSON 2 (PID:KV0709)
ELEVATION:	6.92' NAVD 1988

LOCAL CONTROL DATA	
BENCHMARK:	PT 1051 (PID:DG9905)
ELEVATION:	20.46' NAVD 1988

US ARMY CORPS OF ENGINEERS NEW YORK DISTRICT

		PR	JHS
		WP	JHS

DATES OF SURVEY: 14,15,18-22,26-29 MAY 2020, 1-5 JUNE 2020

SCALE: ONE INCH = 100 FEET

FIELD BOOKS: N/A

REQ. NO./FILE NO.: 4950/N2

APPROVED: J. BERTOLOTTI — FIELD CARTOGRAPHER
APPROVED: M. FORTE — CIVIL ENGINEERING TECHNICIAN
APPROVED: P. BHADUR — CHIEF CARTOGRAPHER
APPROVED: J. MRAZ — BRANCH CHIEF OF SURVEY
DATE: 15 JUNE 2020

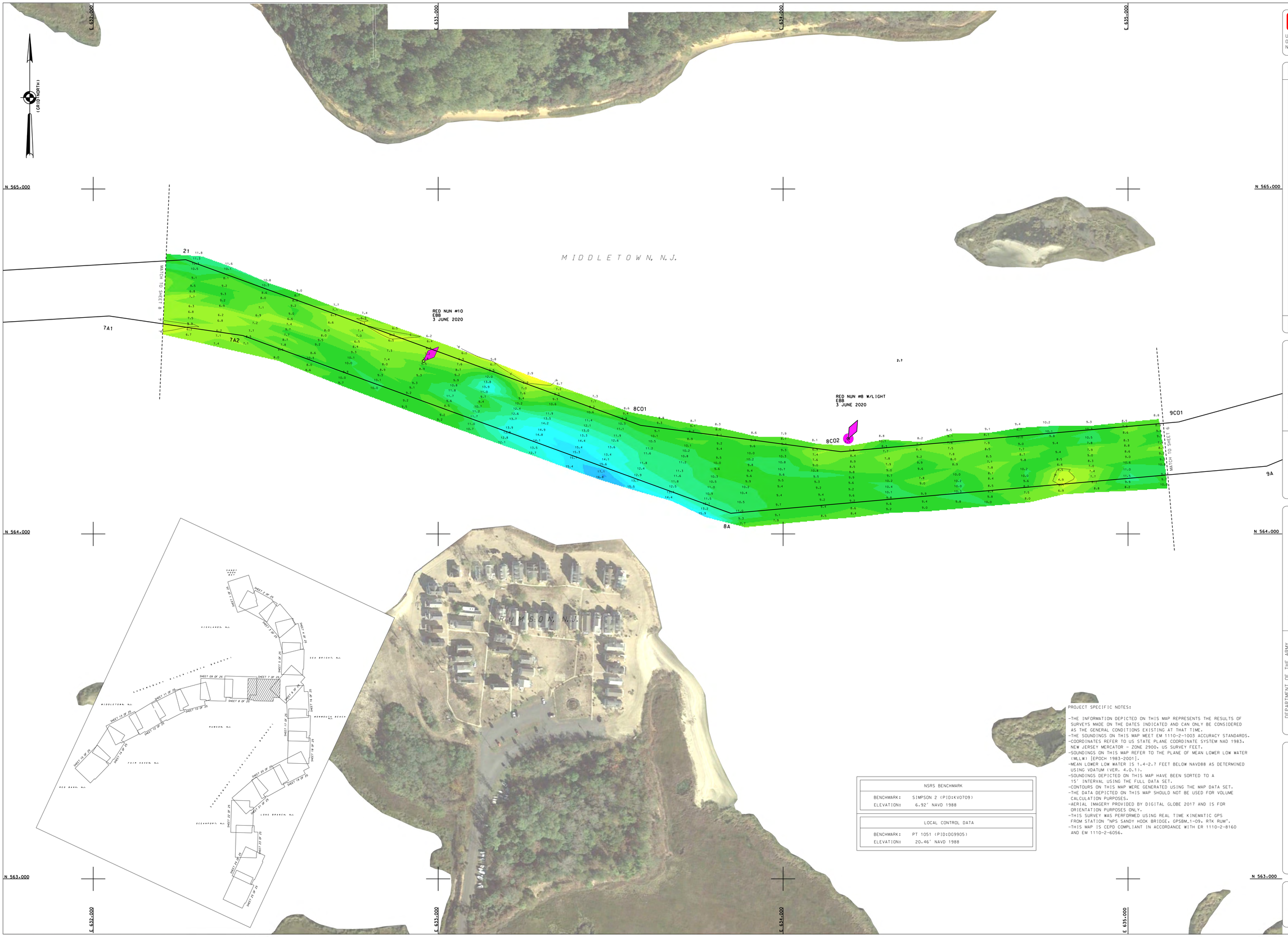
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

SHREWSBURY RIVER
NEW JERSEY
CONDITION SURVEY

VH-106

SHEET 6 OF 26



NSRS BENCHMARK	
BENCHMARK:	SIMPSON 2 (PID:KV0709)
ELEVATION:	6.92' NAVD 1988

LOCAL CONTROL DATA	
BENCHMARK:	PT 1051 (PID:DG9905)
ELEVATION:	20.46' NAVD 1988

PROJECT SPECIFIC NOTES:

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US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

		PR	JHS
		WP	JHS

DATES OF SURVEY:
14,15,18-22,26-29 MAY 2020,
1-5 JUNE 2020

REQ. NO./FILE NO.: 4950/N2

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:
N/A

APPROVED: J. BERTOLOTTI
CHIEF CARTOGRAPHER

APPROVED: M. FORTE
CIVIL ENGINEERING TECHNICIAN

APPROVED: P. BHADUR
CHIEF CARTOGRAPHER

APPROVED: J. MRAZ
SENIOR CHIEF OF SURVEY

DATE: 15 JUNE 2020

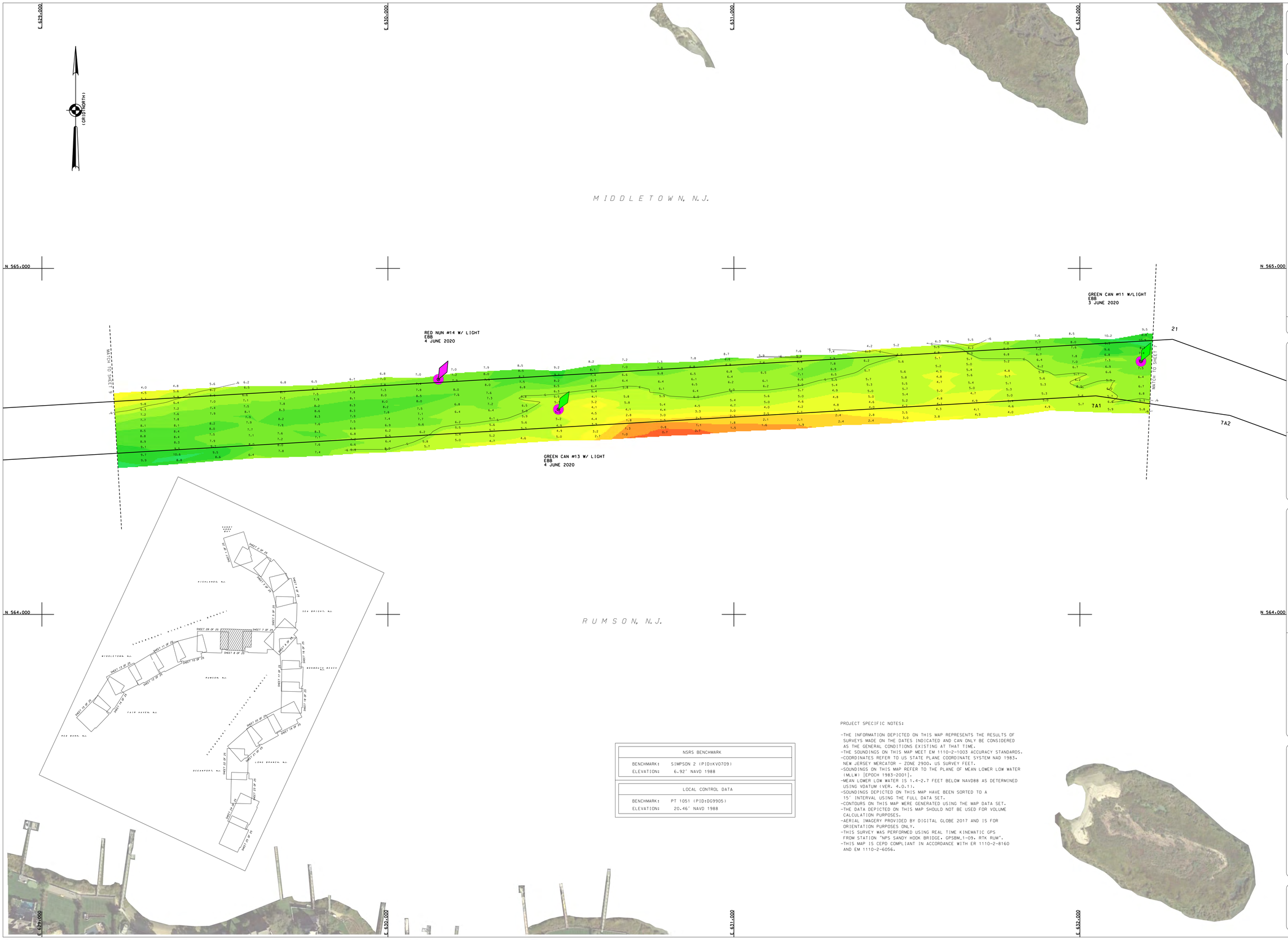
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

SHREWSBURY RIVER
NEW JERSEY
CONDITION SURVEY

VH-107

SHEET 7 OF 26



NSRS BENCHMARK	
BENCHMARK:	SIMPSON 2 (PID:KV0709)
ELEVATION:	6.92' NAVD 1988

LOCAL CONTROL DATA	
BENCHMARK:	PT 1051 (PID:DG9905)
ELEVATION:	20.46' NAVD 1988

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US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

		PR	JHS
		WP	JHS

DATES OF SURVEY:
14,15,18-22,26-29 MAY 2020,
1-5 JUNE 2020

REQ. NO./FILE NO.: 4950/N2

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:
N/A

APPROVED: J. BERTOLOTTI — FIELD CARTOGRAPHER
APPROVED: M. FORTE — CIVIL ENGINEERING TECHNICIAN
APPROVED: F. BHADUR — LEAD CARTOGRAPHER
APPROVED: J. MRAZ — BRANCH CHIEF OF SURVEY
DATE: 15 JUNE 2020

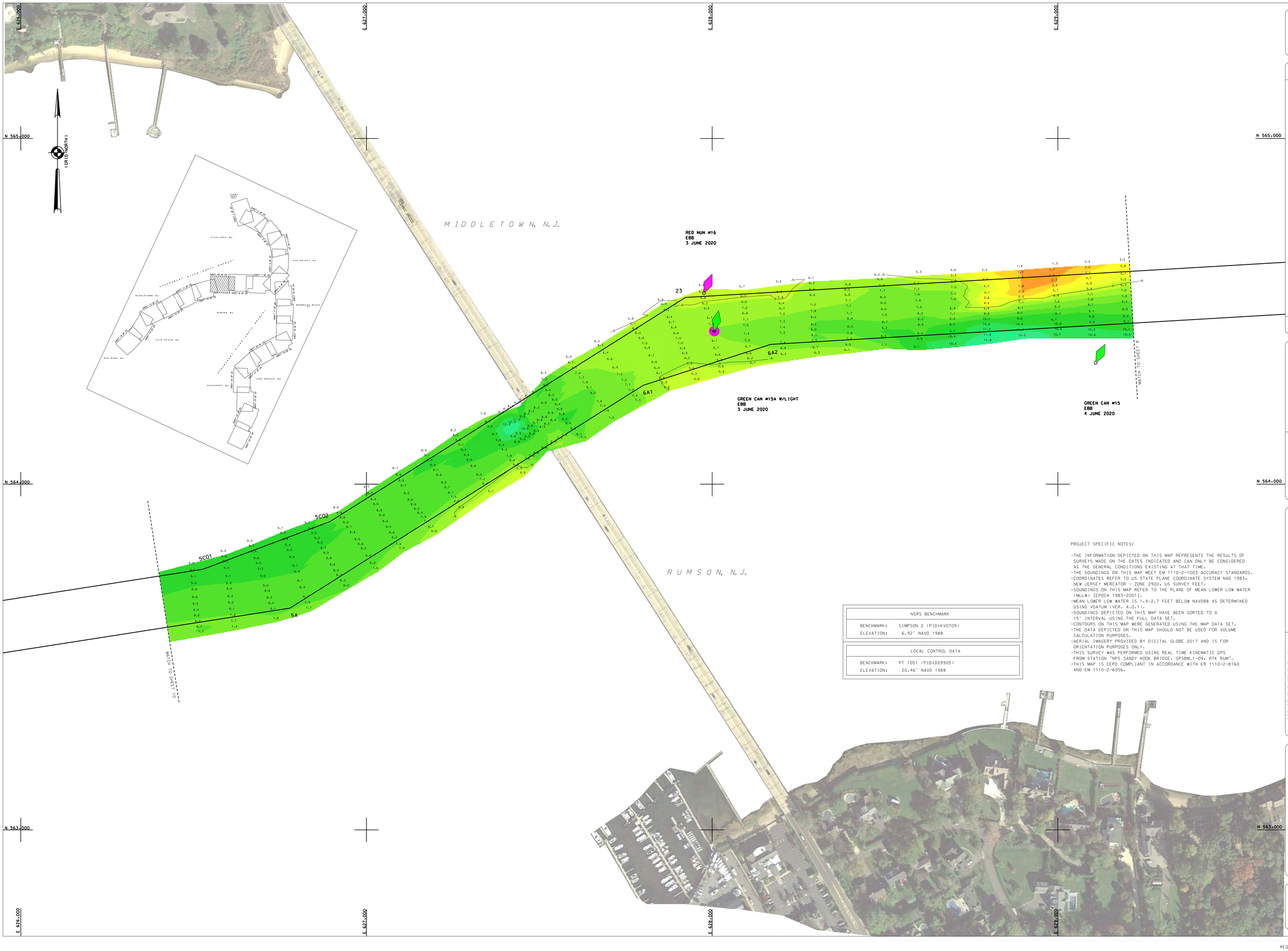
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

SHREWSBURY RIVER
NEW JERSEY
CONDITION SURVEY

VH-108

SHEET 8 OF 26



NSRS BENCHMARK	
BENCHMARK:	SIMPSON 2 (PID:KV0709)
ELEVATION:	6.92' NAVD 1988

LOCAL CONTROL DATA	
BENCHMARK:	PT 1051 (PID:DG9905)
ELEVATION:	20.46' NAVD 1988

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US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

PR	JHS		
MP	JHS		

DATES OF SURVEY:
14,15,18-22,26-29 MAY 2020,
1-5 JUNE 2020

REQ. NO./FILE NO.: 4950/N2

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:
N/A

APPROVED: J. BERTOLOTTI, CHIEF OPERATIONS
APPROVED: M. FORTE, CIVIL ENGINEERING TECHNICIAN
APPROVED: P. BHADUR, LEAD HYDROGRAPHER
APPROVED: J. NRAZ, DEPUTY CHIEF OF SURVEY
DATE: 15 JUNE 2020

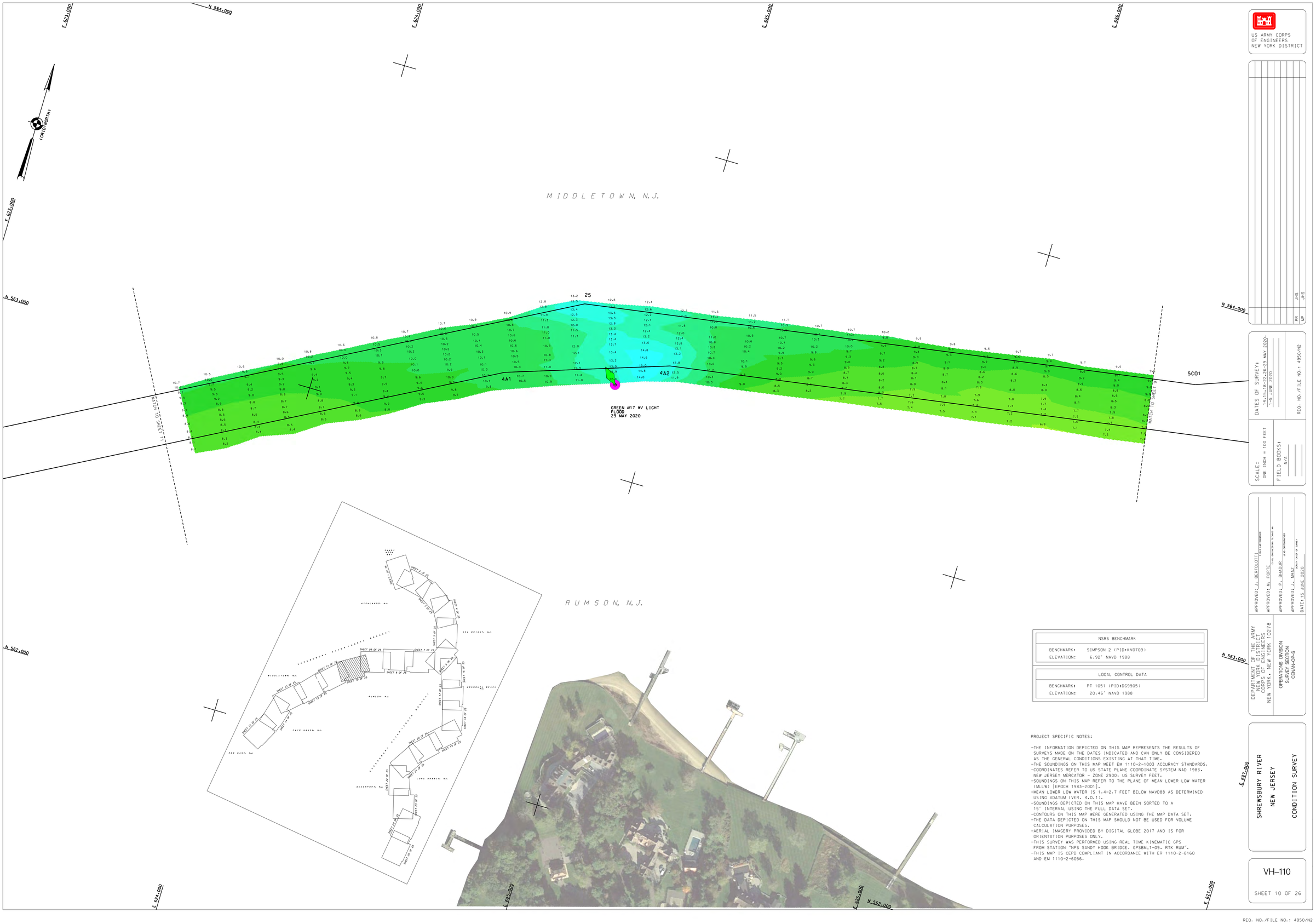
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

SHREWSBURY RIVER
NEW JERSEY
CONDITION SURVEY

VH-109

SHEET 9 OF 26



NSRS BENCHMARK	
BENCHMARK:	SIMPSON 2 (PID:KV0709)
ELEVATION:	6.92' NAVD 1988

LOCAL CONTROL DATA	
BENCHMARK:	PT 1051 (PID:DG9905)
ELEVATION:	20.46' NAVD 1988

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 1.4-2.7 FEET BELOW NAVD88 AS DETERMINED USING VDATUM (VER. 4.0.1).
-SOUNDINGS DEPICTED ON THIS MAP HAVE BEEN SORTED TO A 15' INTERVAL USING THE FULL DATA SET.
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-THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS FROM STATION "NPS SANDY HOOK BRIDGE. GPSBM_1-09. RTK RUM".
-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

PR	JHS	
WP	JHS	

DATES OF SURVEY: 14,15,18-22,26-29 MAY 2020, 1-9 JUNE 2020

REQ. NO./FILE NO.: 4950/N2

SCALE: ONE INCH = 100 FEET

FIELD BOOKS: N/A

APPROVED: J. BERTOLOTTI, CHIEF CARTOGRAPHER
APPROVED: M. FORTE, CIVIL ENGINEERING TECHNICIAN
APPROVED: P. BHADUR, CHIEF CARTOGRAPHER
APPROVED: J. MRAZ, DEPUTY CHIEF OF SURVEY
DATE: 15 JUNE 2020

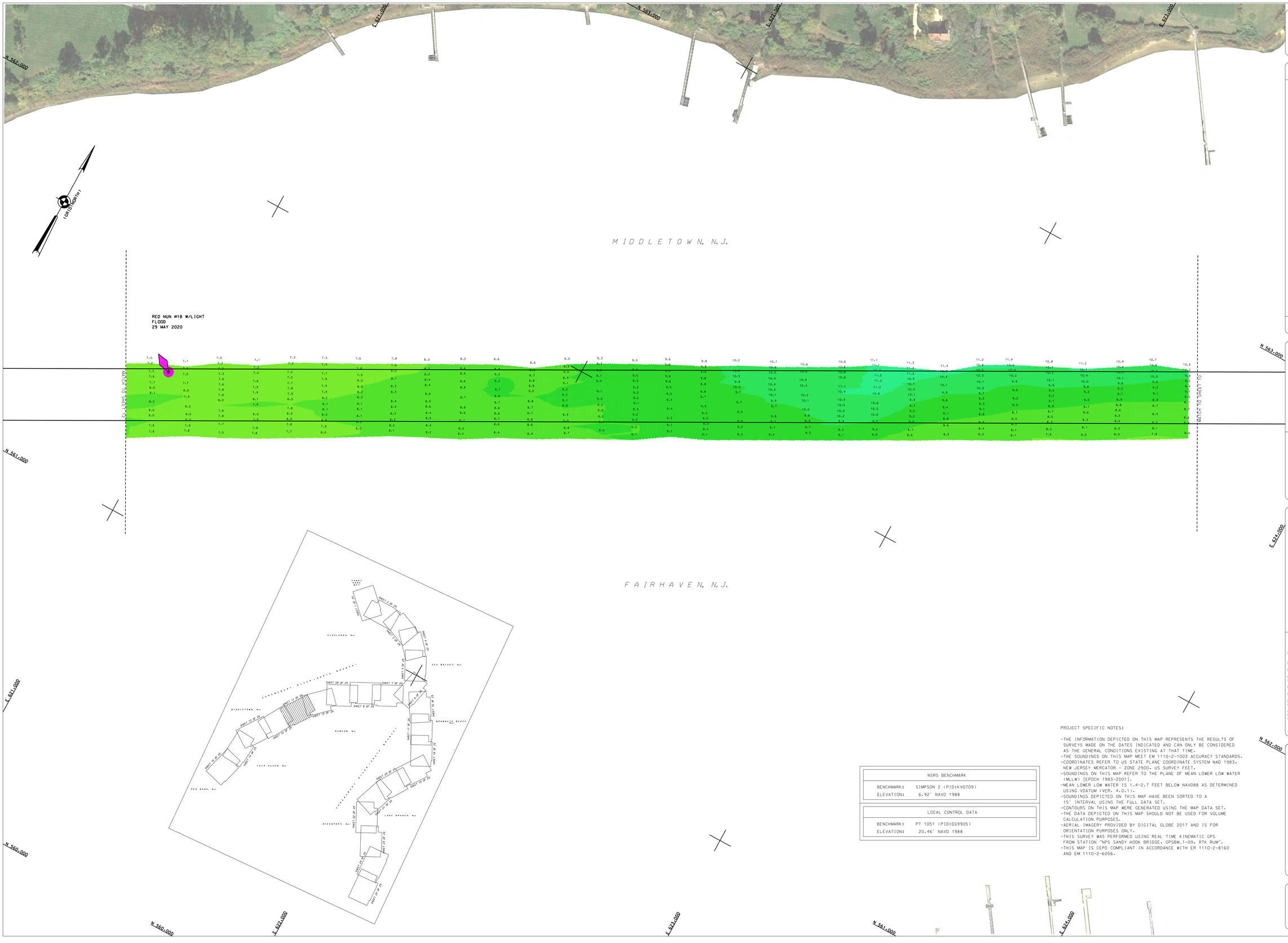
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

SHREWSBURY RIVER
NEW JERSEY
CONDITION SURVEY

VH-110

SHEET 10 OF 26



NSRS BENCHMARK	
BENCHMARK:	SIMPSON 2 (PID:KV0709)
ELEVATION:	6.92' NAVD 1988

LOCAL CONTROL DATA	
BENCHMARK:	PT 1051 (PID:DG9905)
ELEVATION:	20.46' NAVD 1988

PROJECT SPECIFIC NOTES:

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US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

PR	JHS		
WP	JHS		

DATES OF SURVEY:
14,15,18-22,26-29 MAY 2020,
1-5 JUNE 2020

REQ. NO./FILE NO.: 4950/N2

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:
N/A

APPROVED: J. BERTOLOTTI, CHIEF CARTOGRAPHER
APPROVED: M. FORTE, CIVIL ENGINEERING TECHNICIAN
APPROVED: P. BHADUR, LEAD CARTOGRAPHER
APPROVED: J. NIRAZ, DEPUTY CHIEF OF SURVEY
DATE: 15 JUNE 2020

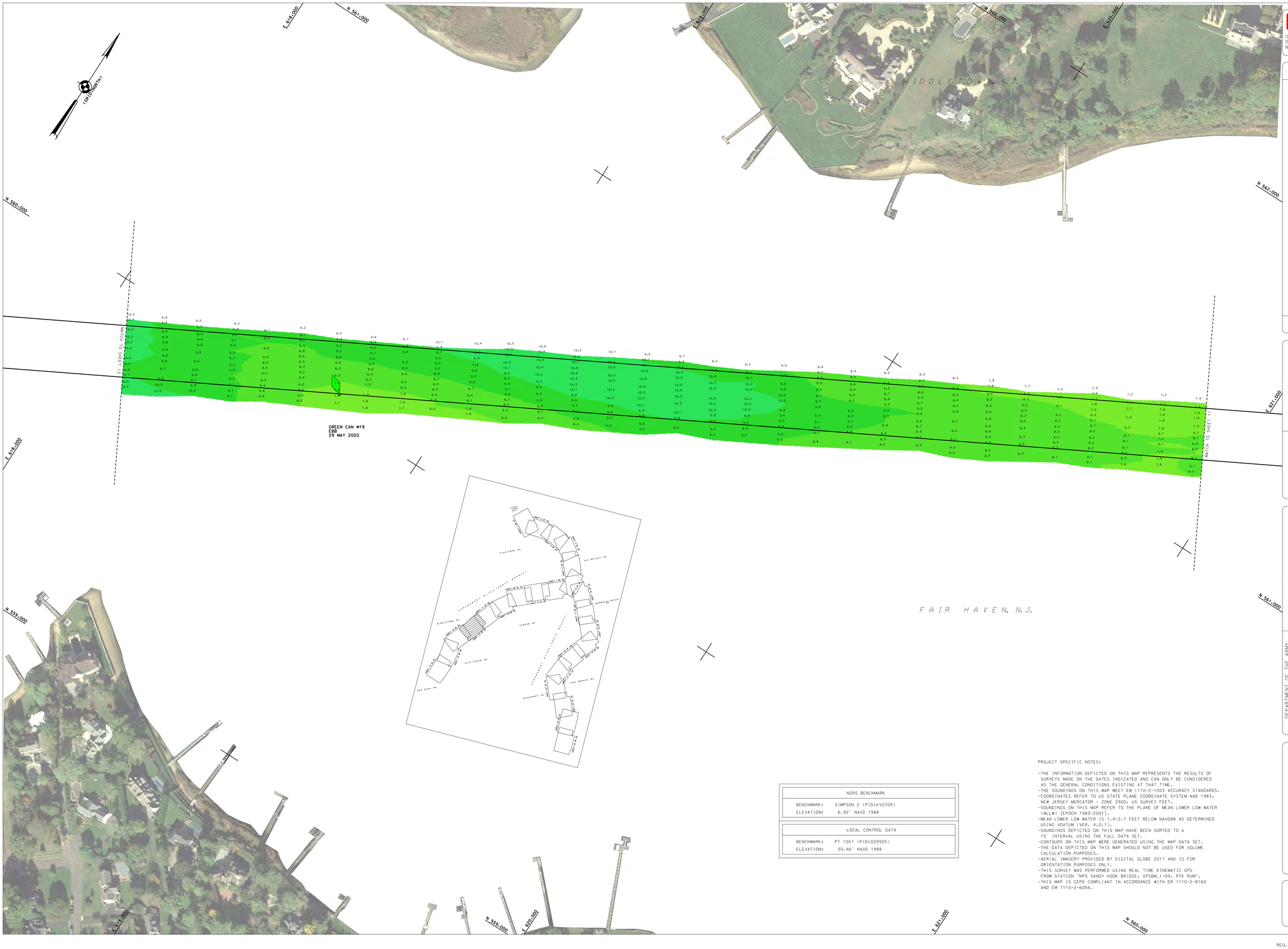
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

SHREWSBURY RIVER
NEW JERSEY
CONDITION SURVEY

VH-111

SHEET 11 OF 26



NSRS BENCHMARK	
BENCHMARK:	SIMPSON 2 (PID:KV0709)
ELEVATION:	6.92' NAVD 1988

LOCAL CONTROL DATA	
BENCHMARK:	PT 1051 (PID:DG9905)
ELEVATION:	20.46' NAVD 1988

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

US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

		PR	JHS
		WP	JHS

DATES OF SURVEY:
14,15,18-22,26-29 MAY 2020,
1-9 JUNE 2020

REQ. NO./FILE NO.: 4950/N2

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:
N/A

APPROVED: J. BERTOLOTTI
CHIEF, CARTOGRAPHY

APPROVED: M. FORTE
CHIEF, ENGINEERING SECTION

APPROVED: P. BHADUR
CHIEF, CARTOGRAPHY

APPROVED: J. MRAZ
SURVEY CHIEF OF SURVEY

DATE: 15 JUNE 2020

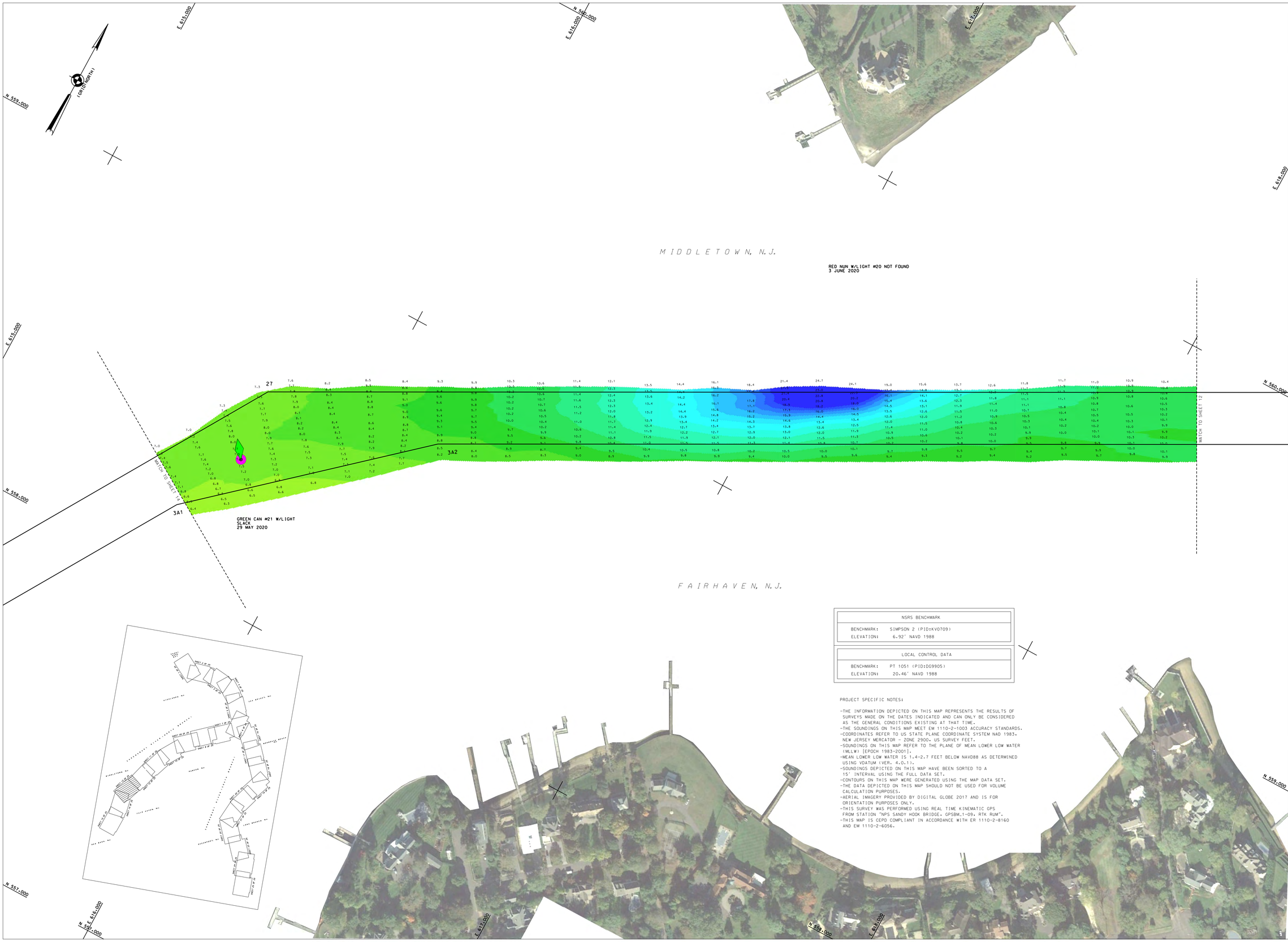
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

SHREWSBURY RIVER
NEW JERSEY
CONDITION SURVEY

VH-112

SHEET 12 OF 26



NSRS BENCHMARK	
BENCHMARK:	SIMPSON 2 (PID:KV0709)
ELEVATION:	6.92' NAVD 1988

LOCAL CONTROL DATA	
BENCHMARK:	PT 1051 (PID:DG9905)
ELEVATION:	20.46' NAVD 1988

PROJECT SPECIFIC NOTES:

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US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

PR	JHS	
MP	JHS	

DATES OF SURVEY: 14,15,18-22,26-29 MAY 2020, 1-5 JUNE 2020

REQ. NO./FILE NO.: 4950/N2

SCALE: ONE INCH = 100 FEET

FIELD BOOKS: N/A

APPROVED: J. BERTOLOTTI
CHIEF CARTOGRAPHER

APPROVED: M. FORTE
CIVIL ENGINEERING TECHNICIAN

APPROVED: P. BHADUR
CHIEF CARTOGRAPHER

APPROVED: J. MRAZ
DEPUTY CHIEF OF SURVEY

DATE: 15 JUNE 2020

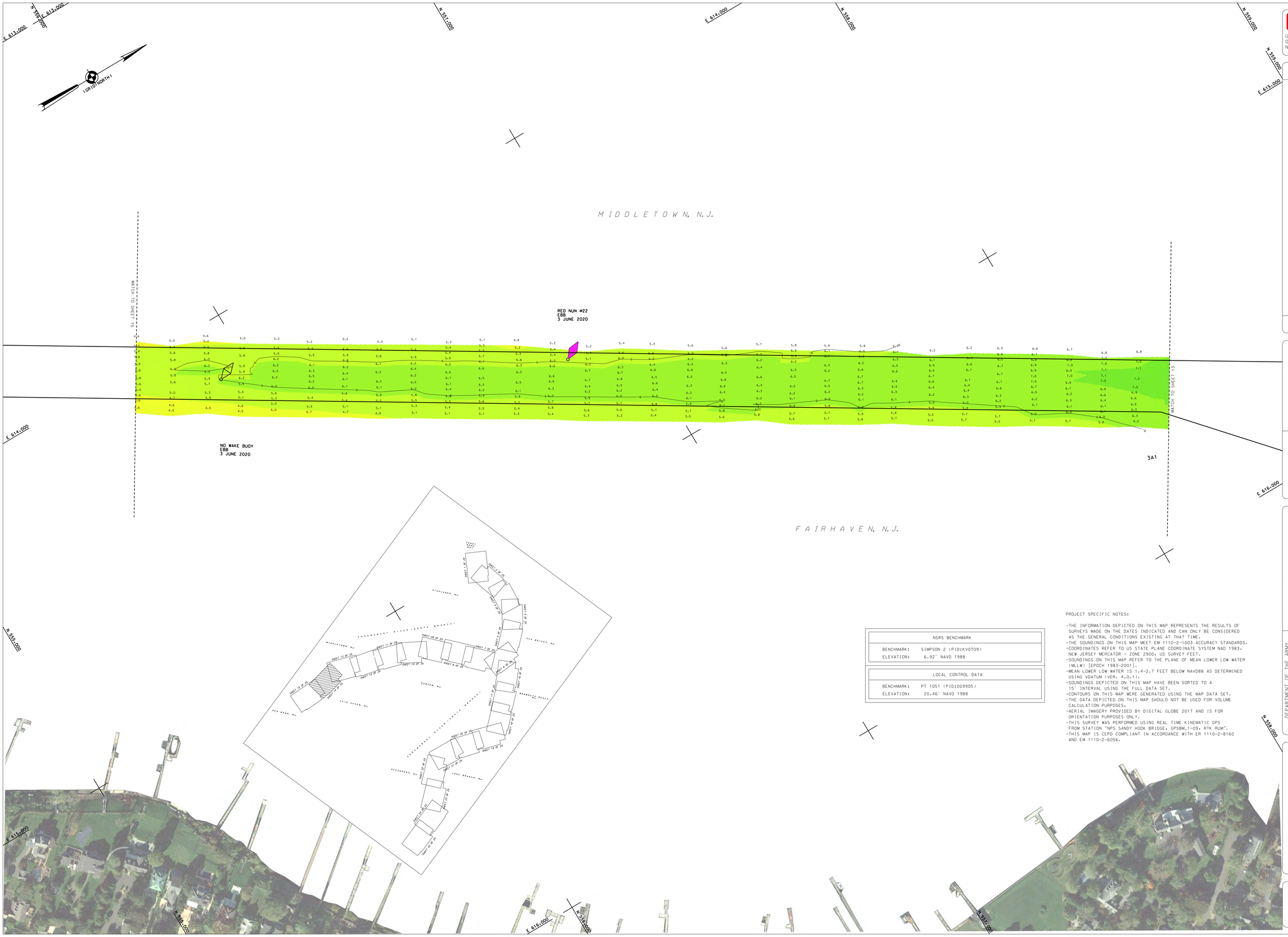
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

SHREWSBURY RIVER
NEW JERSEY
CONDITION SURVEY

VH-113

SHEET 13 OF 26



NSRS BENCHMARK	
BENCHMARK:	SIMPSON 2 (PID:KV0709)
ELEVATION:	6.92' NAVD 1988

LOCAL CONTROL DATA	
BENCHMARK:	PT 1051 (PID:DG9905)
ELEVATION:	20.46' NAVD 1988

PROJECT SPECIFIC NOTES:

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US ARMY CORPS OF ENGINEERS NEW YORK DISTRICT

PR	JHS	
WP	JHS	

DATES OF SURVEY: 14,15,18-22,26-29 MAY 2020. 1-9 JUNE 2020

REQ. NO./FILE NO.: 4950/N2

SCALE: ONE INCH = 100 FEET

FIELD BOOKS: N/A

APPROVED: J. BERTOLOTTI, FIELD CARTOGRAPHER
APPROVED: M. FORTE, CIVIL ENGINEERING TECHNICIAN
APPROVED: F. BHADUR, LEAD CARTOGRAPHER
APPROVED: J. MRAZ, DEPUTY CHIEF OF SURVEY
DATE: 15 JUNE 2020

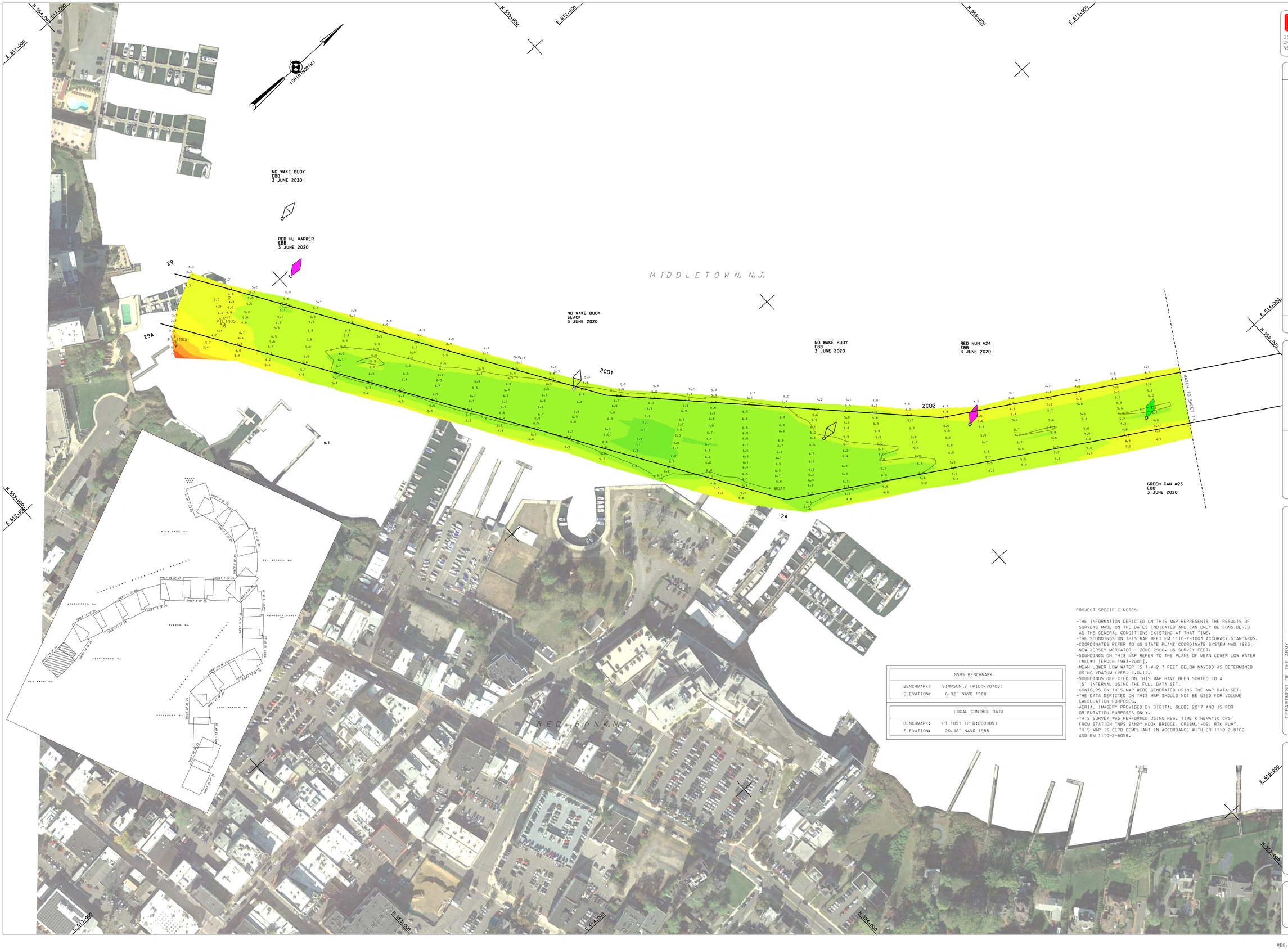
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

SHREWSBURY RIVER
NEW JERSEY
CONDITION SURVEY

VH-114

SHEET 14 OF 26



NSRS BENCHMARK	
BENCHMARK:	SIMPSON 2 (PID:KV0709)
ELEVATION:	6.92' NAVD 1988

LOCAL CONTROL DATA	
BENCHMARK:	PT 1051 (PID:DG9905)
ELEVATION:	20.46' NAVD 1988

PROJECT SPECIFIC NOTES:

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US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

PR	JHS		
WP	JHS		

DATES OF SURVEY:
14,15,18-22,26-29 MAY 2020,
1-9 JUNE 2020

REQ. NO./FILE NO.: 4950/N2

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:
N/A

APPROVED: J. BERTOLOTTI
CHIEF CARTOGRAPHER

APPROVED: M. FORTE
CHIEF HYDROGRAPHIC TECHNICIAN

APPROVED: P. BHADUR
CHIEF CARTOGRAPHER

APPROVED: J. MRAZ
DEPUTY CHIEF OF SURVEY

DATE: 15 JUNE 2020

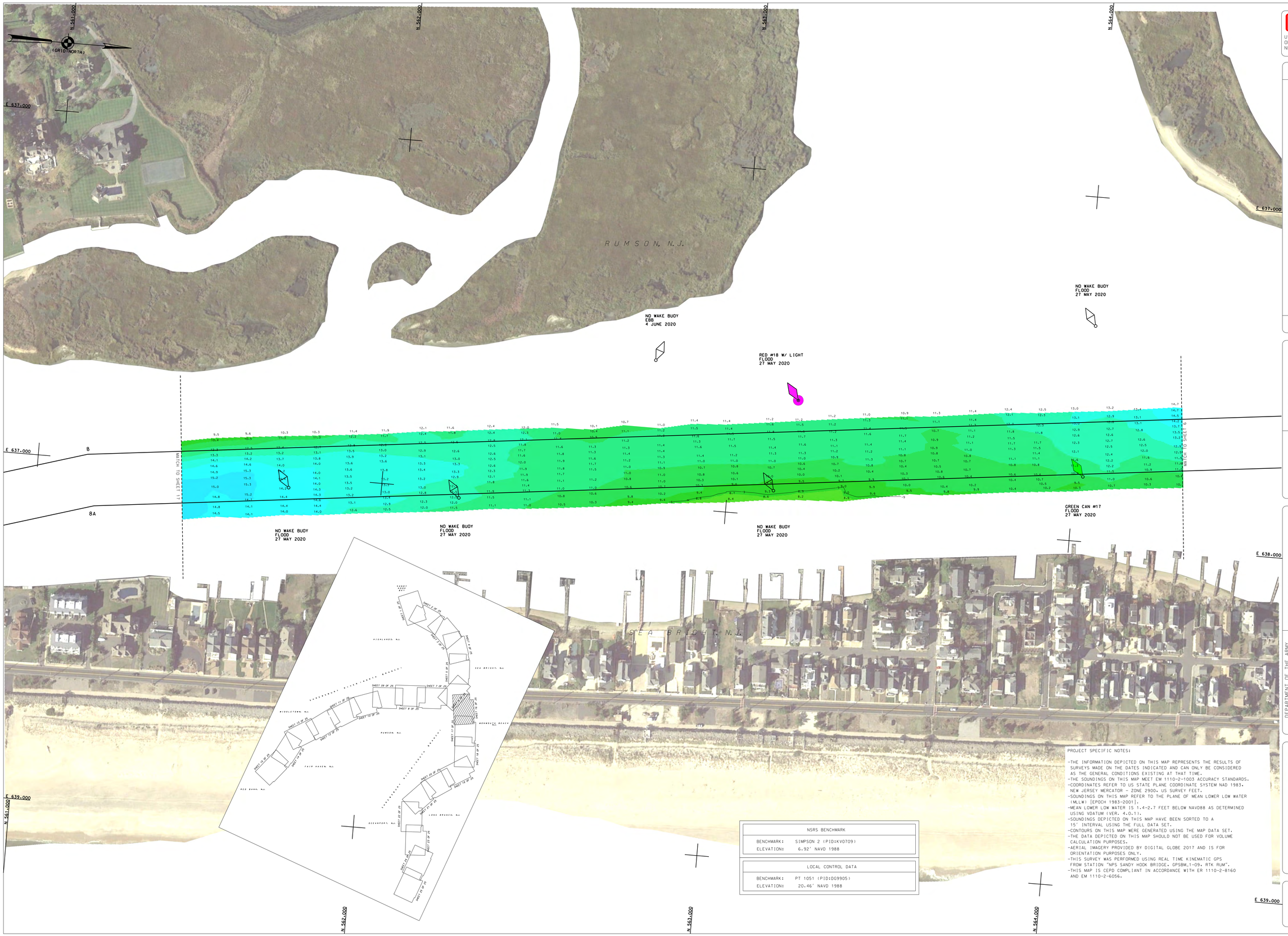
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

SHREWSBURY RIVER
NEW JERSEY
CONDITION SURVEY

VH-115

SHEET 15 OF 26



NSRS BENCHMARK	
BENCHMARK:	SIMPSON 2 (PID:KV0709)
ELEVATION:	6.92' NAVD 1988

LOCAL CONTROL DATA	
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ELEVATION:	20.46' NAVD 1988

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US ARMY CORPS
OF ENGINEERS
NEW YORK DISTRICT

PR	JHS	
WP	JHS	

DATES OF SURVEY:
14,15,18-22,26-29 MAY 2020,
1-9 JUNE 2020

REQ. NO./FILE NO.: 4950/N2

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:
N/A

APPROVED: J. BERTOLOTTI
CHIEF CARTOGRAPHER

APPROVED: M. FORTE
CIVIL ENGINEERING TECHNICIAN

APPROVED: P. BHADURI
CHIEF CARTOGRAPHER

APPROVED: J. MRAZ
DEPUTY CHIEF OF SURVEY

DATE: 15 JUNE 2020

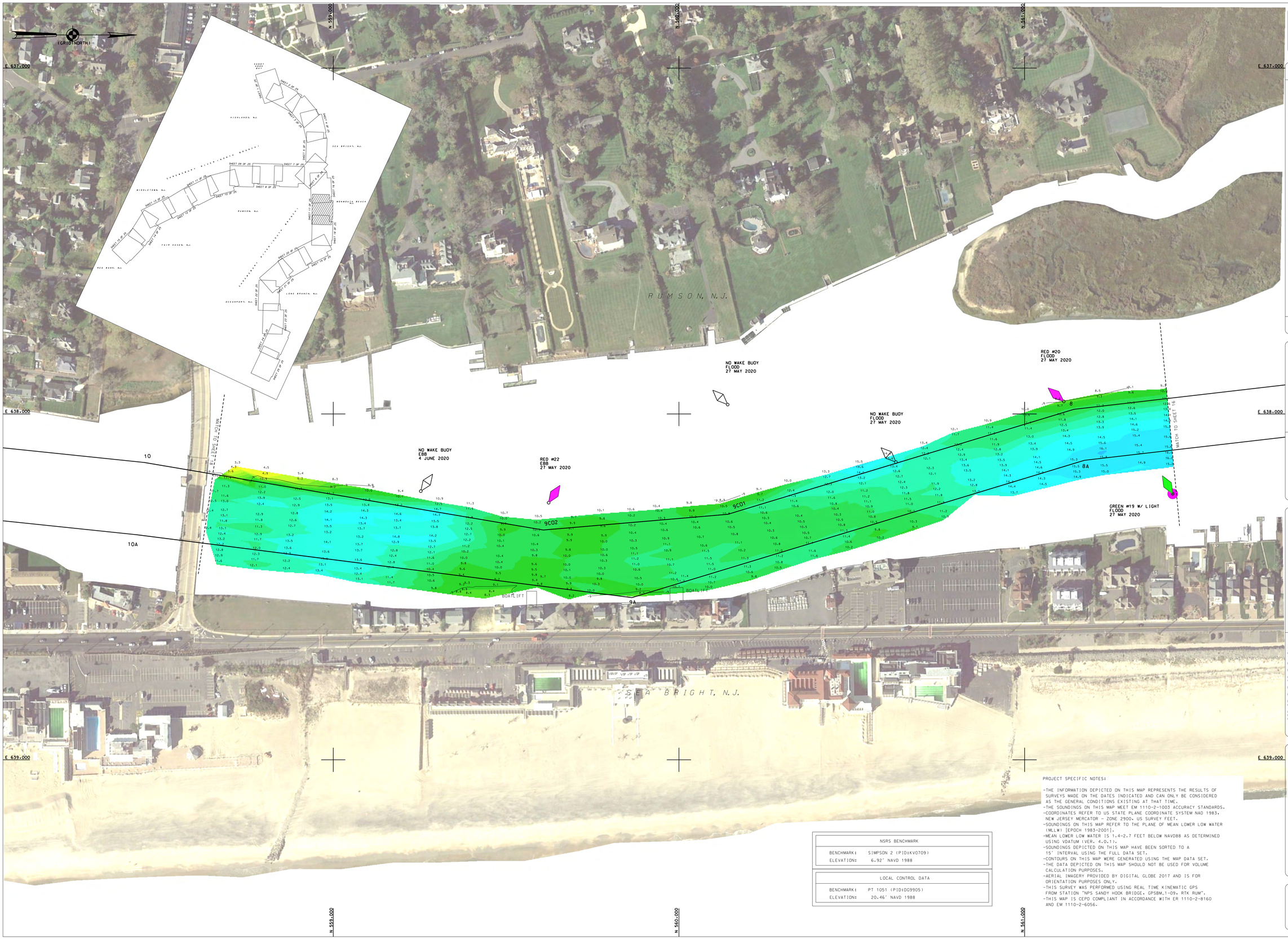
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

SHREWSBURY RIVER
NEW JERSEY
CONDITION SURVEY

VH-116

SHEET 16 OF 26



US ARMY CORPS
OF ENGINEERS
NEW YORK DISTRICT

PR	JHS	
WP	JHS	

DATES OF SURVEY:
14,15,18-22,26-29 MAY 2020,
1-9 JUNE 2020

REQ. NO./FILE NO.: 4950/N2

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:
N/A

APPROVED: J. BERTA.OTT
FIELD CARTOGRAPHER

APPROVED: M. FORTE
CIVIL ENGINEERING TECHNICIAN

APPROVED: P. BHADUR
CHIEF CARTOGRAPHER

APPROVED: J. MRAZ
DEPUTY CHIEF OF SURVEY

DATE: 15 JUNE 2020

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

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

SHREWSBURY RIVER
NEW JERSEY
CONDITION SURVEY

VH–117

SHEET 17 OF 26

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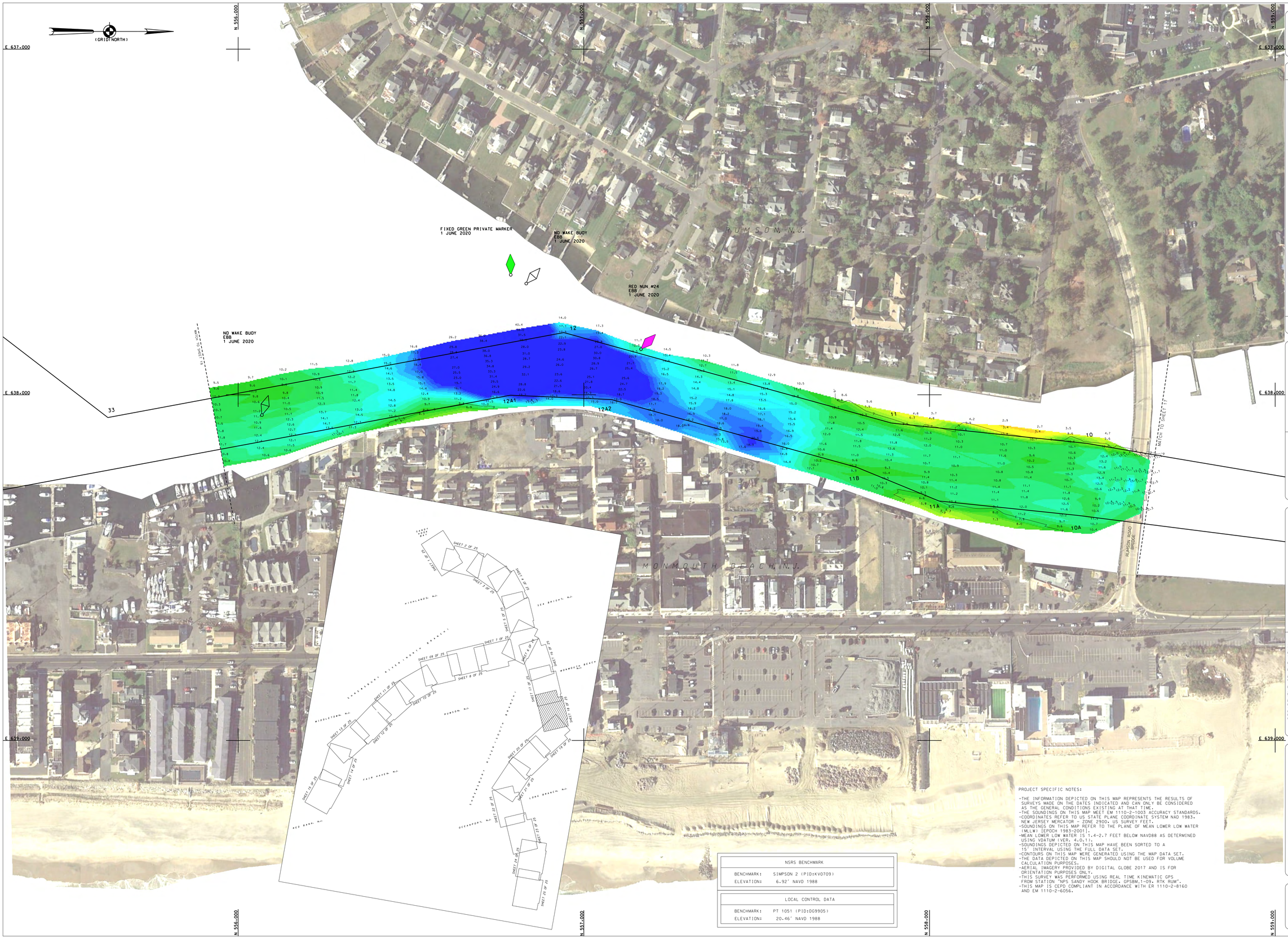
NSRS BENCHMARK	
BENCHMARK:	SIMPSON 2 (PID:KV0709)
ELEVATION:	6.92' NAVD 1988

LOCAL CONTROL DATA	
BENCHMARK:	PT 1051 (PID:DG9905)
ELEVATION:	20.46' NAVD 1988



NSRS BENCHMARK	
BENCHMARK:	SIMPSON 2 (PID:KV0709)
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US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

		PR	JHS
		WP	JHS

DATES OF SURVEY:
14,15,18-22,26-29 MAY 2020,
1-5 JUNE 2020

REQ. NO./FILE NO.: 4950/N2

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:
N/A

APPROVED: J. BERTA OTI
CHIEF CARTOGRAPHER

APPROVED: M. FORTE
CHIEF ENGINEERING TECHNICIAN

APPROVED: P. BHADUR
CHIEF CARTOGRAPHER

APPROVED: J. MRAZ
BRANCH CHIEF OF SURVEY

DATE: 15 JUNE 2020

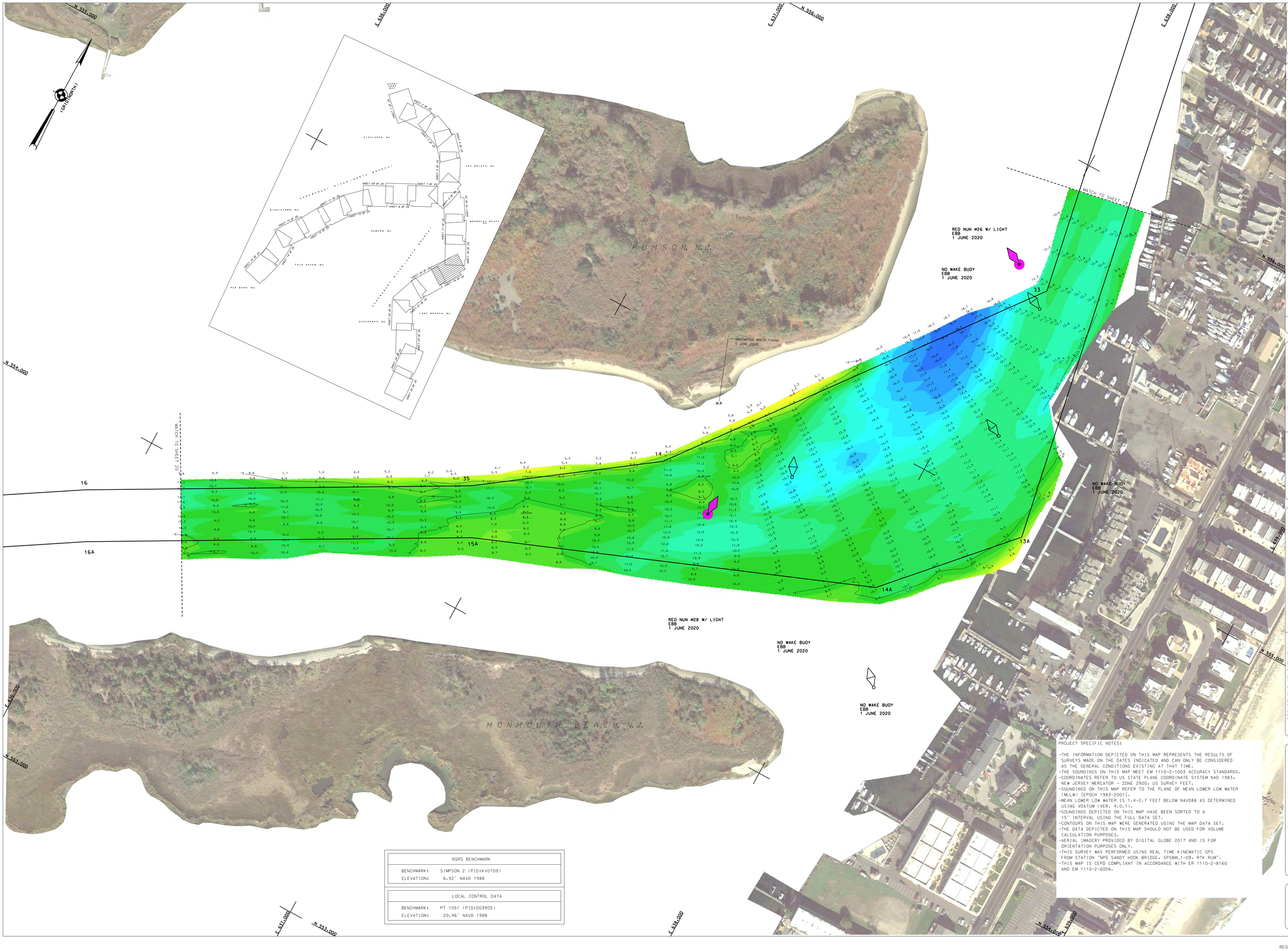
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

SHREWSBURY RIVER
NEW JERSEY
CONDITION SURVEY

VH-118

SHEET 18 OF 26



NSRS BENCHMARK	
BENCHMARK:	SIMPSON 2 (PID:KV0709)
ELEVATION:	6.92' NAVD 1988

LOCAL CONTROL DATA	
BENCHMARK:	PT 1051 (PID:DG9905)
ELEVATION:	20.46' NAVD 1988

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 1.4-2.7 FEET BELOW NAVD88 AS DETERMINED USING VDATUM (VER. 4.0.11).
- SOUNDINGS DEPICTED ON THIS MAP HAVE BEEN SORTED TO A 15' 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.
- AERIAL IMAGERY PROVIDED BY DIGITAL GLOBE 2017 AND IS FOR ORIENTATION PURPOSES ONLY.
- THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS FROM STATION "NPS SANDY HOOK BRIDGE. GPSBM.1-09. RTK RUM".
- 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

PR	JHS	
MP	JHS	

DATES OF SURVEY: 14,15,18-22,26-29 MAY 2020; 1-5 JUNE 2020

REQ. NO./FILE NO.: 4950/N2

SCALE: ONE INCH = 100 FEET

FIELD BOOKS: N/A

APPROVED: J. BERTOLOTTI, PROJECT CARTOGRAPHER

APPROVED: M. FORTE, CIVIL ENGINEERING TECHNICIAN

APPROVED: P. BHADUR, CHIEF CARTOGRAPHER

APPROVED: J. MRAZ, BRANCH CHIEF OF SURVEY

DATE: 15 JUNE 2020

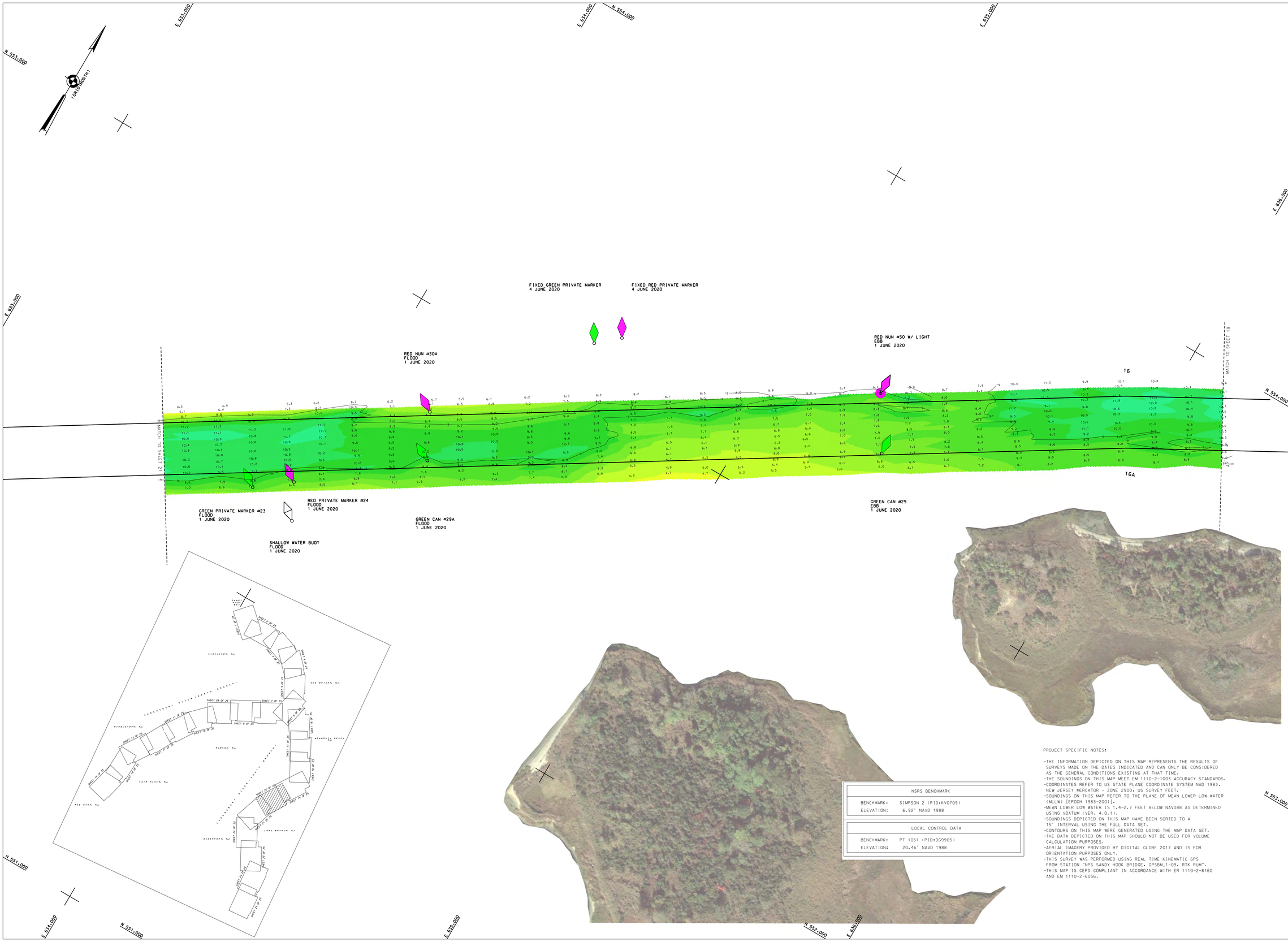
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

SHREWSBURY RIVER
NEW JERSEY
CONDITION SURVEY

VH-119

SHEET 19 OF 26



NSRS BENCHMARK	
BENCHMARK:	SIMPSON 2 (PID:KV0709)
ELEVATION:	6.92' NAVD 1988

LOCAL CONTROL DATA	
BENCHMARK:	PT 1051 (PID:DG9905)
ELEVATION:	20.46' NAVD 1988

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 1.4-2.7 FEET BELOW NAVD88 AS DETERMINED USING VDATUM (VER. 4.0.1).
-SOUNDINGS DEPICTED ON THIS MAP HAVE BEEN SORTED TO A 15' 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.
-AERIAL IMAGERY PROVIDED BY DIGITAL GLOBE 2017 AND IS FOR ORIENTATION PURPOSES ONLY.
-THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS FROM STATION "NPS SANDY HOOK BRIDGE. GPSBM_1-09. RTK RUM".
-THIS MAP IS CEPO COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.

US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

PR	JHS		
WP	JHS		

DATES OF SURVEY:
14,15,18-22,26-29 MAY 2020,
1-5 JUNE 2020

REQ. NO./FILE NO.: 4950/N2

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:
N/A

APPROVED: J. BERTOLOTTI
CHIEF CARTOGRAPHER

APPROVED: M. FORTE
CIVIL ENGINEERING TECHNICIAN

APPROVED: P. BHADUR
CHIEF CARTOGRAPHER

APPROVED: J. MRAZ
SENIOR CHIEF OF SURVEY

DATE: 15 JUNE 2020

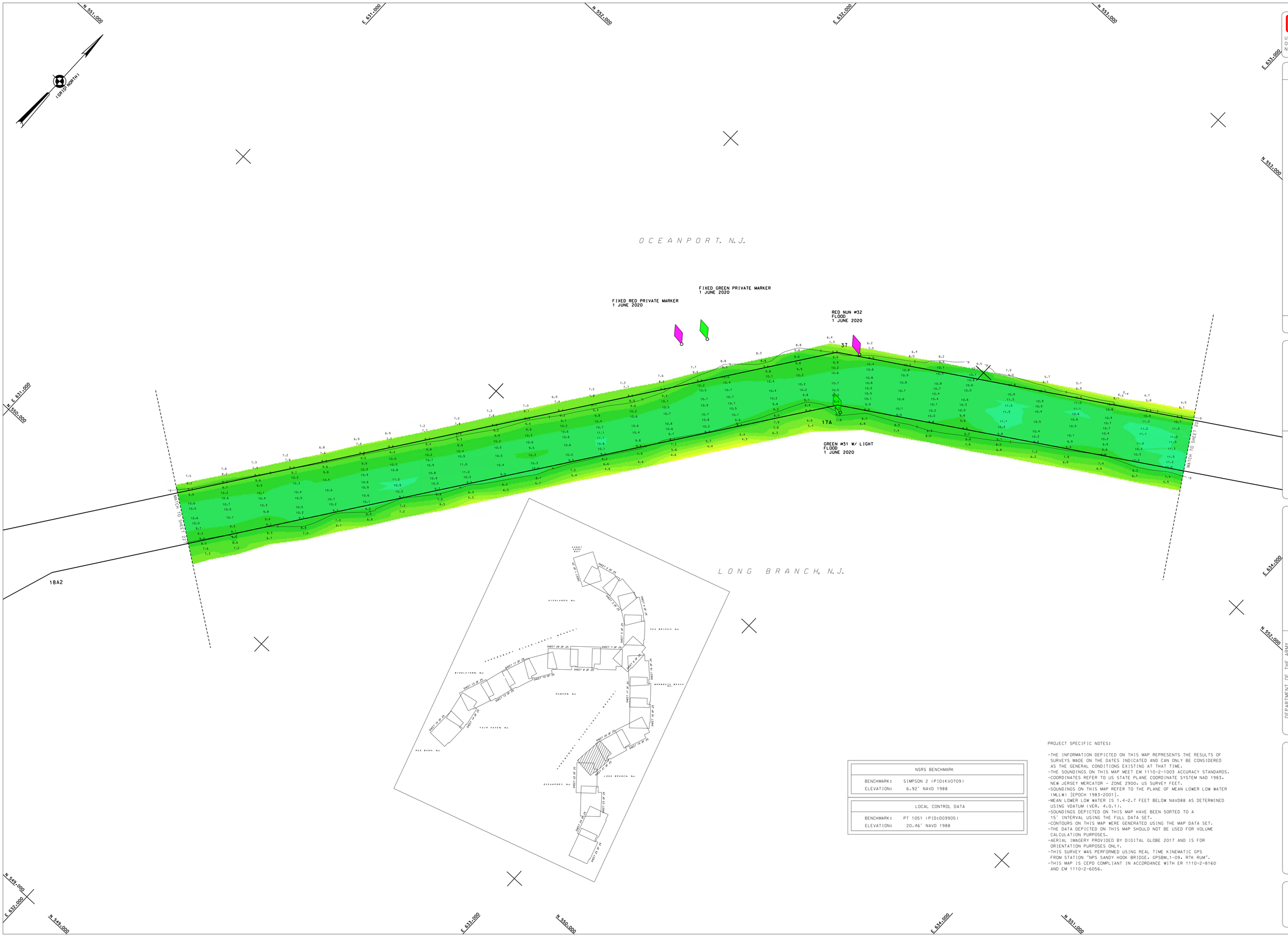
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

SHREWSBURY RIVER
NEW JERSEY
CONDITION SURVEY

VH-120

SHEET 20 OF 26



NSRS BENCHMARK	
BENCHMARK:	SIMPSON 2 (PID:KV0709)
ELEVATION:	6.92' NAVD 1988

LOCAL CONTROL DATA	
BENCHMARK:	PT 1051 (PID:DG9905)
ELEVATION:	20.46' NAVD 1988

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].
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- THE DATA DEPICTED ON THIS MAP SHOULD NOT BE USED FOR VOLUME CALCULATION PURPOSES.
- AERIAL IMAGERY PROVIDED BY DIGITAL GLOBE 2017 AND IS FOR ORIENTATION PURPOSES ONLY.
- THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS FROM STATION "NPS SANDY HOOK BRIDGE. GPSBM_1-09. RTK RUN".
- 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

		PR	JHS
		WP	JHS

DATES OF SURVEY:
14,15,18-22,26-29 MAY 2020,
1-5 JUNE 2020

REQ. NO./FILE NO.: 4950/N2

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:
N/A

APPROVED: J. BERTOLOTTI
CHIEF, HYDROGRAPHIC SURVEY UNIT

APPROVED: M. FORTE
CHIEF, ENGINEERING TECHNICIAN

APPROVED: P. BHADUR
CHIEF CARTOGRAPHER

APPROVED: J. MRAZ
DEPUTY CHIEF OF SURVEY

DATE: 15 JUNE 2020

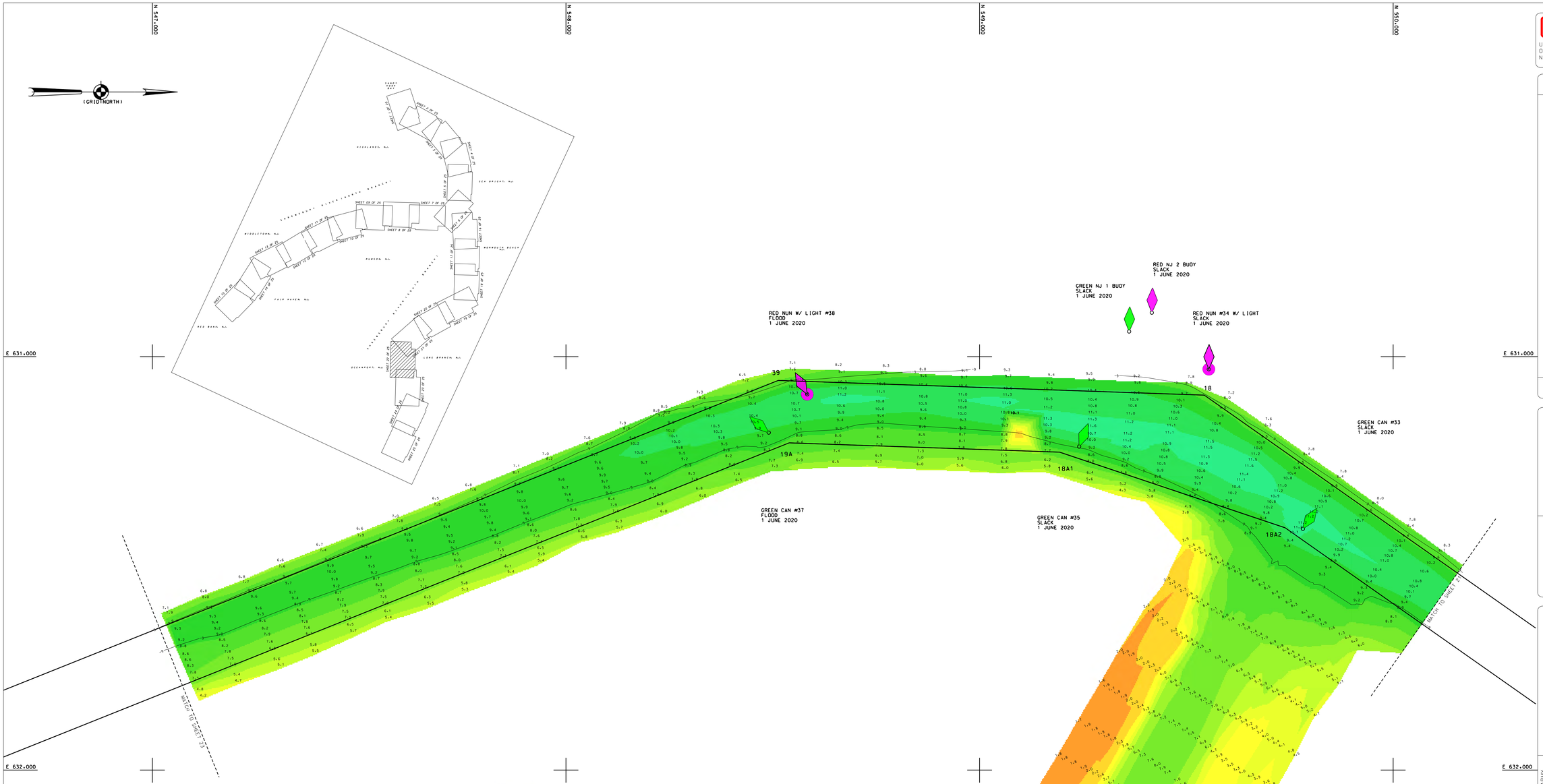
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

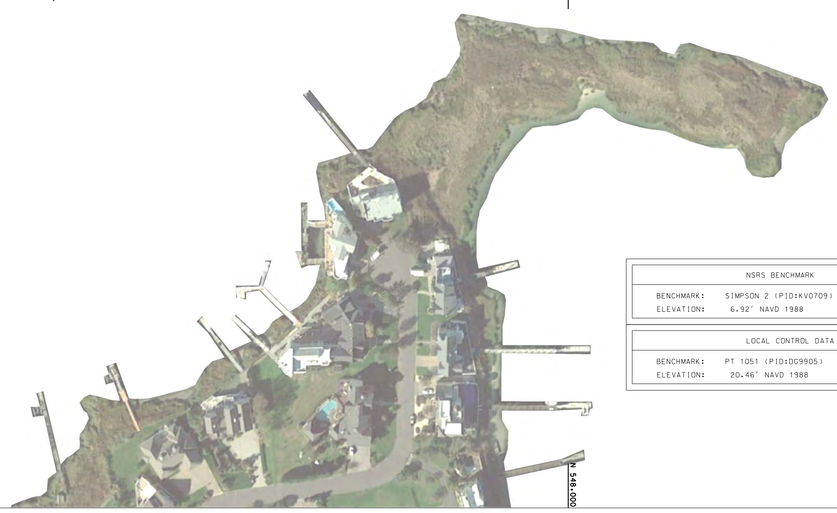
OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

SHREWSBURY RIVER
NEW JERSEY
CONDITION SURVEY

VH-121

SHEET 21 OF 26





NSRS BENCHMARK	
BENCHMARK:	SIMPSON 2 (PID:KV0709)
ELEVATION:	6.92' NAVD 1988

LOCAL CONTROL DATA	
BENCHMARK:	PT 1051 (PID:DG9905)
ELEVATION:	20.46' NAVD 1988

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 1.4-2.7 FEET BELOW NAVD88 AS DETERMINED USING VDATUM (VER. 4.0.1).
-SOUNDINGS DEPICTED ON THIS MAP HAVE BEEN SORTED TO A 15' 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.
-AERIAL IMAGERY PROVIDED BY DIGITAL GLOBE 2017 AND IS FOR ORIENTATION PURPOSES ONLY.
-THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS FROM STATION "NPS SANDY HOOK BRIDGE, GPSBM_1-09, RTK RUM".
-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

PR	JHS		
WP	JHS		

DATES OF SURVEY:
14,15,18-22,26-29 MAY 2020,
1-5 JUNE 2020

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:
N/A

REQ. NO./FILE NO.: 4950/N2

APPROVED: J. BERTOLOTTI
CHIEF CARTOGRAPHER

APPROVED: M. FORTE
CIVIL ENGINEERING TECHNICIAN

APPROVED: P. BHADUR
CHIEF CARTOGRAPHER

APPROVED: J. MRAZ
SENIOR CHIEF OF SURVEY

DATE: 15 JUNE 2020

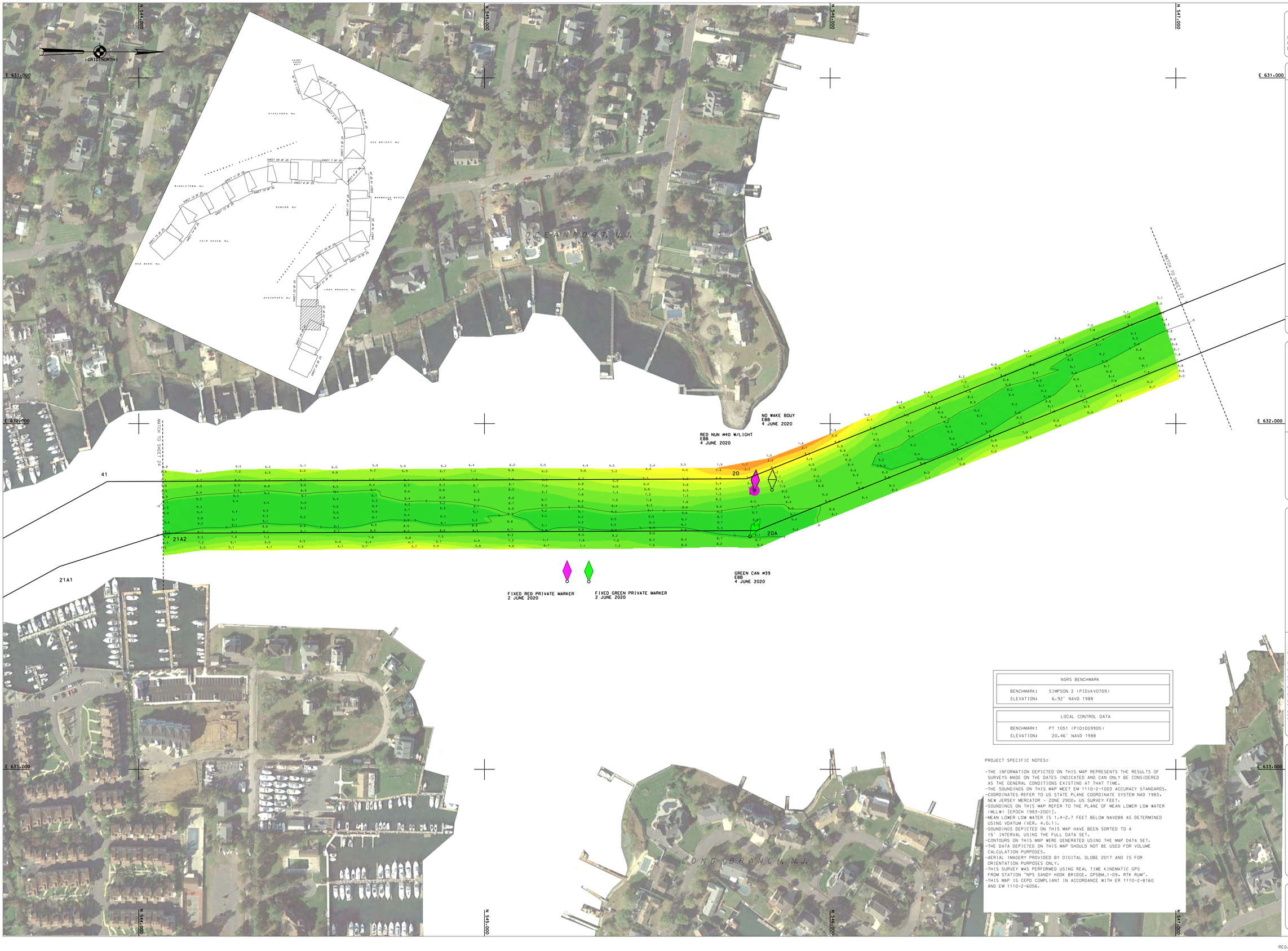
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

SHREWSBURY RIVER
NEW JERSEY
CONDITION SURVEY

VH-122

SHEET 22 OF 26



NSRS BENCHMARK	
BENCHMARK:	SIMPSON 2 (PID:KV0709)
ELEVATION:	6.92' NAVD 1988

LOCAL CONTROL DATA	
BENCHMARK:	PT 1051 (PID:DG9905)
ELEVATION:	20.46' NAVD 1988

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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- THE DATA DEPICTED ON THIS MAP SHOULD NOT BE USED FOR VOLUME CALCULATION PURPOSES.
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- THIS MAP IS CEPO COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.

US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

		PR	JHS
		MP	JHS

DATES OF SURVEY:
14,15,18-22,26-29 MAY 2020.
1-5 JUNE 2020

REQ. NO./FILE NO.: 4950/N2

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:
N/A

APPROVED: J. BERTOLOTTI
CHIEF CARTOGRAPHER

APPROVED: M. FORTE
CIVIL ENGINEERING TECHNICIAN

APPROVED: P. BHADUR
CHIEF CARTOGRAPHER

APPROVED: J. MRAZ
SURVEY CHIEF OF SURVEY

DATE: 15 JUNE 2020

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

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

SHREWSBURY RIVER
NEW JERSEY
CONDITION SURVEY

VH-123

SHEET 23 OF 26

NSRS BENCHMARK	
BENCHMARK:	SIMPSON 2 (PID:KV0709)
ELEVATION:	6.92' NAVD 1988

LOCAL CONTROL DATA	
BENCHMARK:	PT 1051 (PID:DG9905)
ELEVATION:	20.46' NAVD 1988

PROJECT SPECIFIC NOTES:

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US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

		PR	JHS
		MP	JHS

DATES OF SURVEY:
14,15,18-22,26-29 MAY 2020,
1-5 JUNE 2020

REQ. NO./FILE NO.: 4950/N2

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:
N/A

APPROVED: J. BERTOLOTTI
CHIEF, FIELD CARTOGRAPHER

APPROVED: M. FORTE
CHIEF, ENGINEERING SECTION

APPROVED: P. BHADUR
CHIEF, CARTOGRAPHER

APPROVED: J. MRAZ
DEPUTY CHIEF OF SURVEY

DATE: 15 JUNE 2020

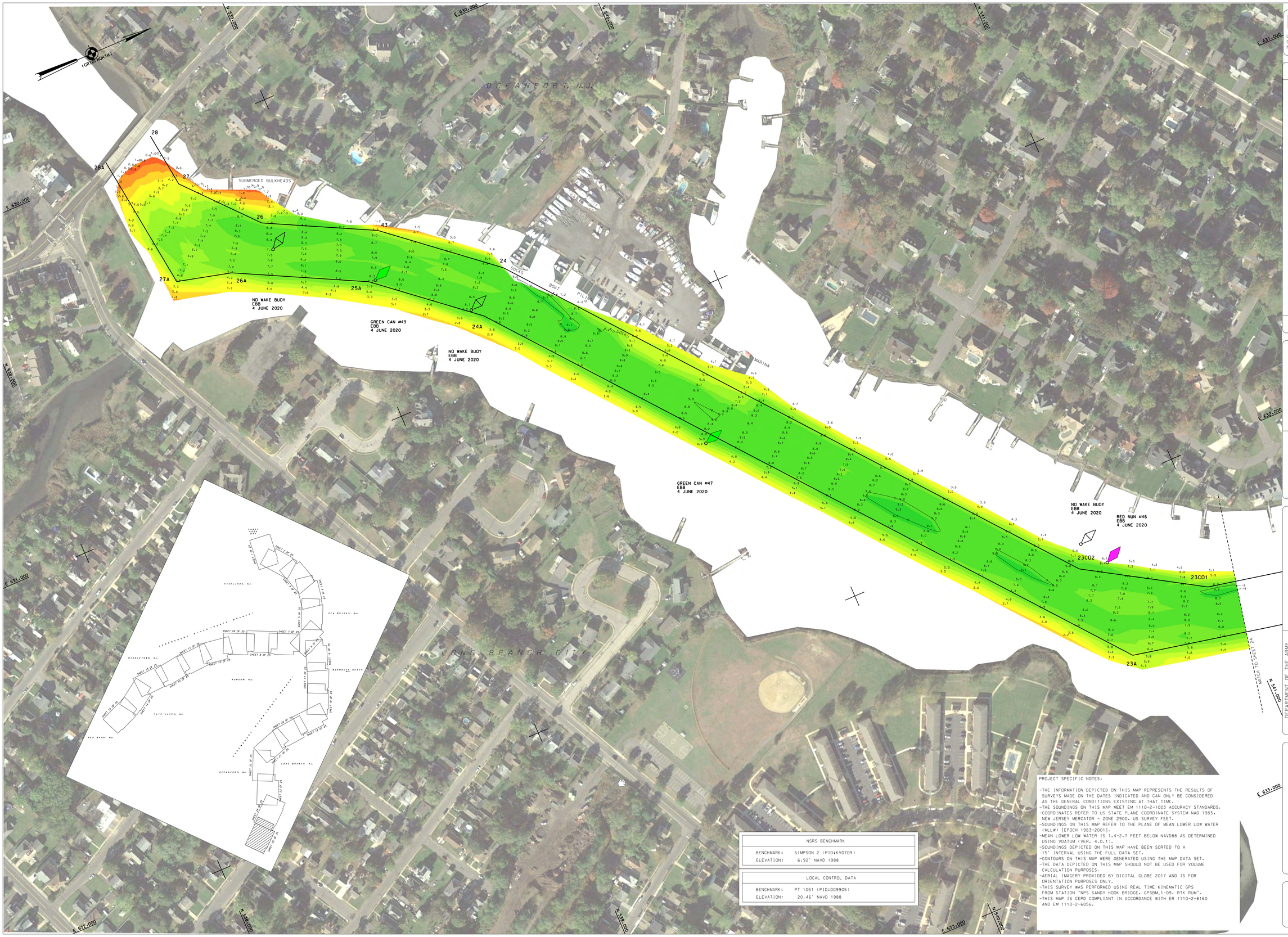
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

SHREWSBURY RIVER
NEW JERSEY
CONDITION SURVEY

VH-124

SHEET 24 OF 26



NSRS BENCHMARK	
BENCHMARK:	SIMPSON 2 (PID:KV0709)
ELEVATION:	6.92' NAVD 1988

LOCAL CONTROL DATA	
BENCHMARK:	PT 1051 (PID:DG9905)
ELEVATION:	20.46' NAVD 1988

PROJECT SPECIFIC NOTES:

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-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

PR	JHS		
MP	JHS		

DATES OF SURVEY:
14,15,18-22,26-29 MAY 2020,
1-5 JUNE 2020

REQ. NO./FILE NO.: 4950/N2

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:
N/A

APPROVED: J. BERTOLOTTI
CHIEF CARTOGRAPHER

APPROVED: M. FORTE
CIVIL ENGINEERING TECHNICIAN

APPROVED: P. BHADUR
CHIEF CARTOGRAPHER

APPROVED: J. MRAZ
DEPUTY CHIEF OF SURVEY

DATE: 15 JUNE 2020

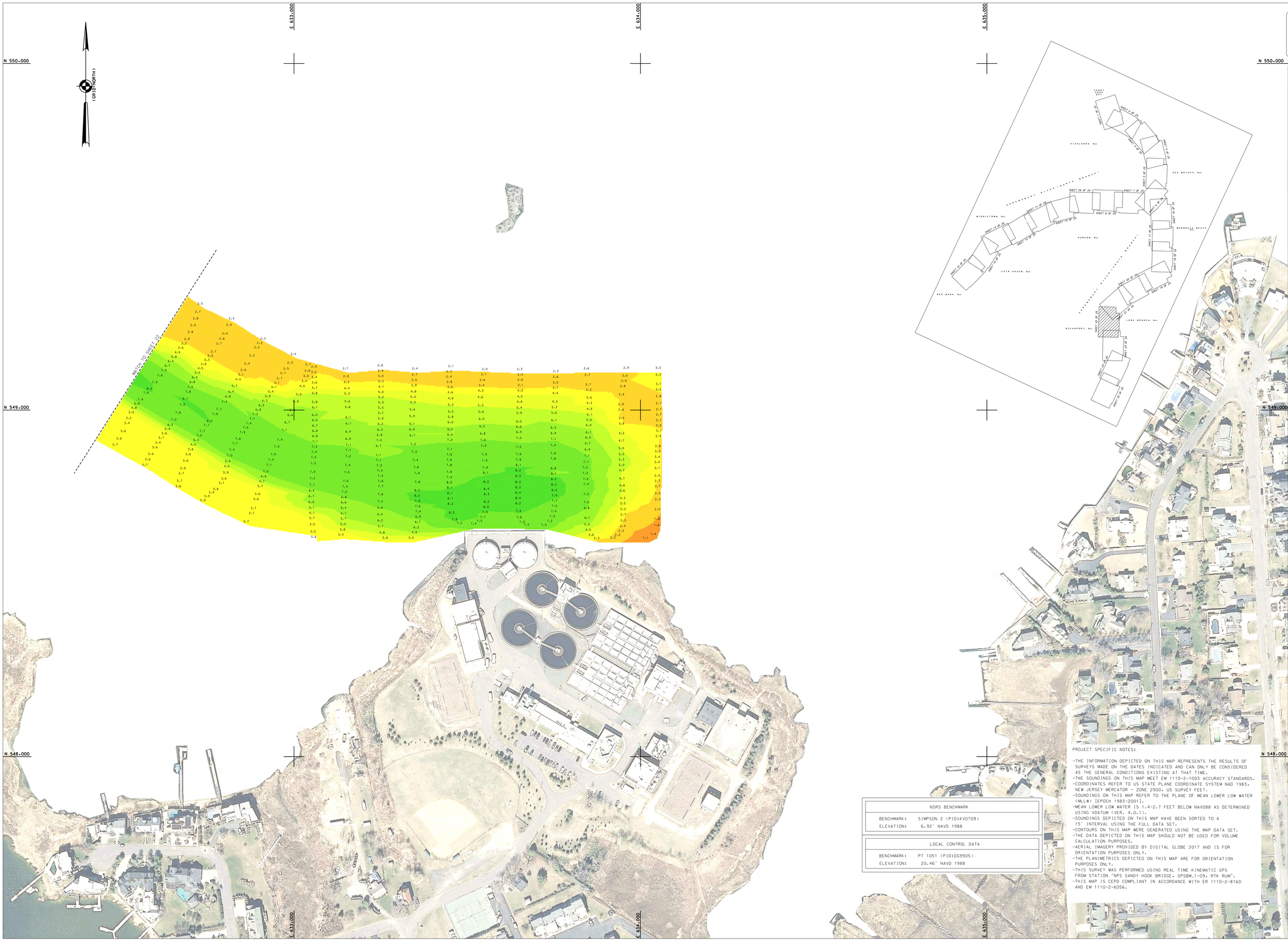
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

SHREWSBURY RIVER
NEW JERSEY
CONDITION SURVEY

VH-125

SHEET 25 OF 26


N 550.000
N 549.000
N 548.000
E 633.000
E 634.000
E 635.000
(GRID NORTH)
MATCH TO SHEET 22
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.
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-AERIAL IMAGERY PROVIDED BY DIGITAL GLOBE 2017 AND IS FOR ORIENTATION PURPOSES ONLY.
-THE PLANIMETRICS DEPICTED ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY.
-THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS FROM STATION "NPS SANDY HOOK BRIDGE. GPSBM_1-09. RTK RUM".
-THIS MAP IS CEPD COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.
NSRS BENCHMARK
BENCHMARK: SIMPSON 2 (PID:KV0709)
ELEVATION: 6.92' NAVD 1988
LOCAL CONTROL DATA
BENCHMARK: PT 1051 (PID:DG9905)
ELEVATION: 20.46' NAVD 1988
PR JHS
MP JHS
DATES OF SURVEY:
14,15,18-22,26-29 MAY 2020
1-5 JUNE 2020
SCALE: ONE INCH = 100 FEET
FIELD BOOKS: N/A
REQ. NO./FILE NO.: 4950/N2
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 CHIEF, CARTOGRAPHY
APPROVED: M. FORTE CIVIL ENGINEERING TECHNICIAN
APPROVED: P. BHADURI CHIEF CARTOGRAPHY
APPROVED: J. MRAZ DEPUTY CHIEF OF SURVEY
DATE: 15 JUNE 2020
SHREWSBURY RIVER
NEW JERSEY
CONDITION SURVEY
VH-126
SHEET 26 OF 26