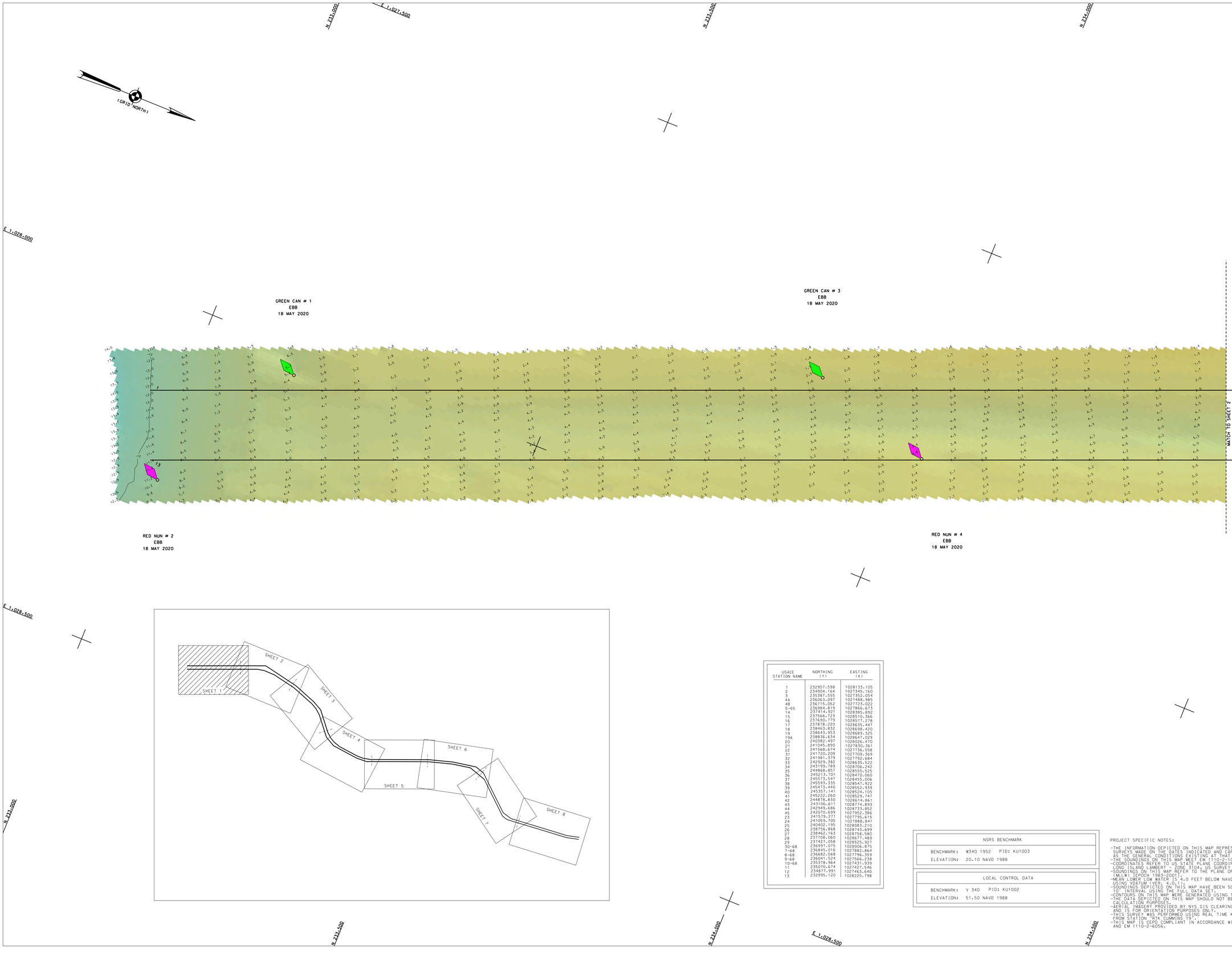

USACE STATION NAME	NORTHING (Y)	EASTING (X)
1	232957.598	1028133.105
2	234904.164	1027345.160
3	235387.555	1027352.054
4A	236063.097	1027488.985
4B	236715.052	1027723.022
5-65	236984.819	1027866.673
14	237414.923	1028385.892
15	237566.723	1028510.366
16	237690.779	1028577.278
17	237878.220	1028635.447
18	238463.832	1028698.420
19	238643.953	1028689.325
19A	238836.634	1028647.029
20	240382.497	1028026.470
21	241045.890	1027830.361
22	241568.674	1027736.558
31	241720.209	1027709.369
32	241981.379	1027792.684
33	242929.382	1028635.522
34	243199.789	1028706.242
35	244868.857	1028555.525
36	245213.701	1028470.060
37	245573.547	1028455.006
38	245593.335	1028547.922
39	245473.440	1028552.939
40	245357.141	1028524.105
41	245222.260	1028529.747
42	244878.830	1028614.861
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24	241055.705	1027888.841
25	240402.195	1028083.210
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27	238462.163	1028758.580
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29	237427.058	1028525.927
30-68	236997.075	1028006.875
7-68	236845.016	1027882.864
8-68	236682.568	1027796.359
9-68	236041.524	1027566.238
10-68	235378.964	1027431.939
11	235070.674	1027427.546
12	234877.991	1027463.640
13	232995.120	1028225.798

NSRS BENCHMARK	
BENCHMARK:	W340 1952 PID: KU1003
ELEVATION:	20.10 NAVD 1988

LOCAL CONTROL DATA	
BENCHMARK:	V 340 PID: KU1002
ELEVATION:	51.50 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.
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-COORDINATES REFER TO US STATE PLANE COORDINATE SYSTEM NAD 1983, LONG ISLAND, LAMBERT ZONE, 3104, US SURVEY FEET.
-SOUNDINGS ON THIS MAP REFER TO THE PLANE OF MEAN LOWER LOW WATER (MLLW) EPOCH 1983-2001.
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US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

PR	ESQ	
WP	BPH	

DATES OF SURVEY:
18-21 MAY 2020

REQ NO./FILE NO.: 4952/N1/N3

SCALE:
ONE INCH = 50 FEET

FIELD BOOKS:
N/A

APPROVED: M. APPELO — FIELD SUPERVISOR
APPROVED: M. FORTE — CIVIL ENGINEERING TECHNICIAN
APPROVED: P. BHADUR — LEAD SUPERVISOR
APPROVED: J. MRAZ — DEPUTY CHIEF OF SURVEY
DATE: 28 MAY 2020

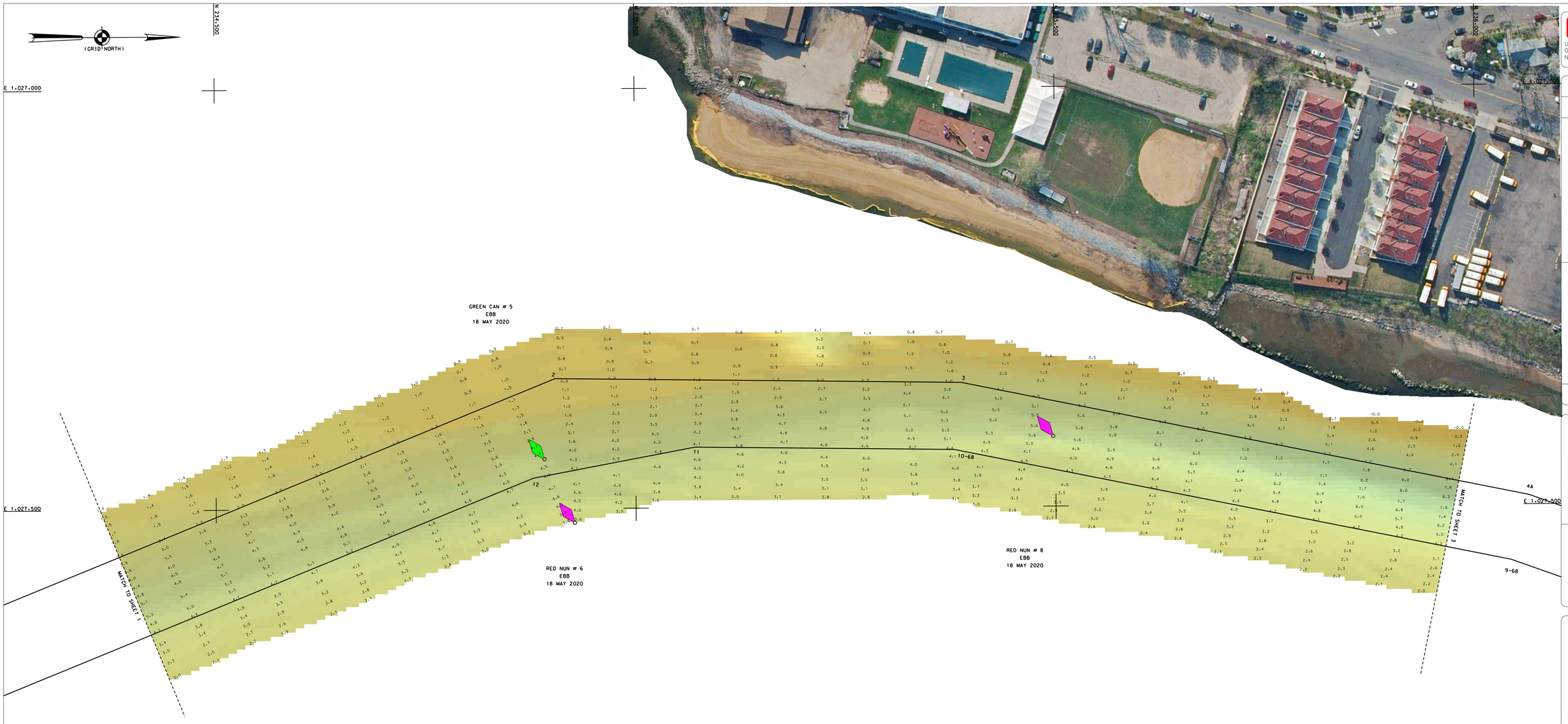
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

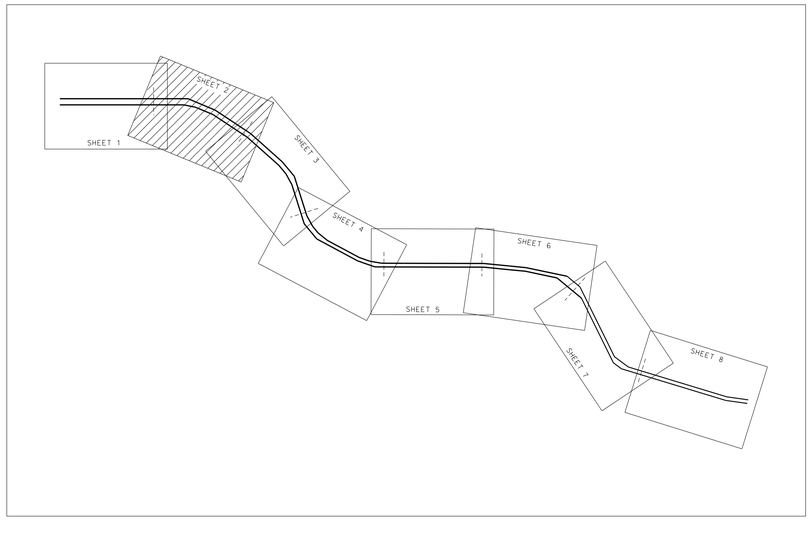
OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-RS

WESTCHESTER CREEK
NEW YORK
CONDITION SURVEY

VH-101

SHEET 1 OF 8





USACE STATION NAME	NORTHING (Y)	EASTING (X)
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3	235387.555	1027552.054
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30-68	236997.075	1028006.875
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11	235070.674	1027427.546
12	234877.991	1027463.640
13	232995.120	1028225.798

NSRS BENCHMARK	
BENCHMARK: W340	PID: KU1003
ELEVATION: 20.10 NAVD 1988	

LOCAL CONTROL DATA	
BENCHMARK: V 340	PID: KU1002
ELEVATION: 51.50 NAVD 1988	

PROJECT SPECIFIC NOTES:

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US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

PR	ESO	
MP	BPH	

DATES OF SURVEY:
18-21 MAY 2020

REQ NO./FILE NO.: 4952/N1/N3

SCALE:
ONE INCH = 50 FEET

FIELD BOOKS:
N/A

APPROVED: M. APPELD — FIELD CARTOGRAPHER
APPROVED: M. FORTE — CHIEF, ENGINEERING TECHNICIAN
APPROVED: P. BHADUR — CHIEF CARTOGRAPHER
APPROVED: J. MRAZ — DEPUTY CHIEF OF SURVEY
DATE: 28 MAY 2020

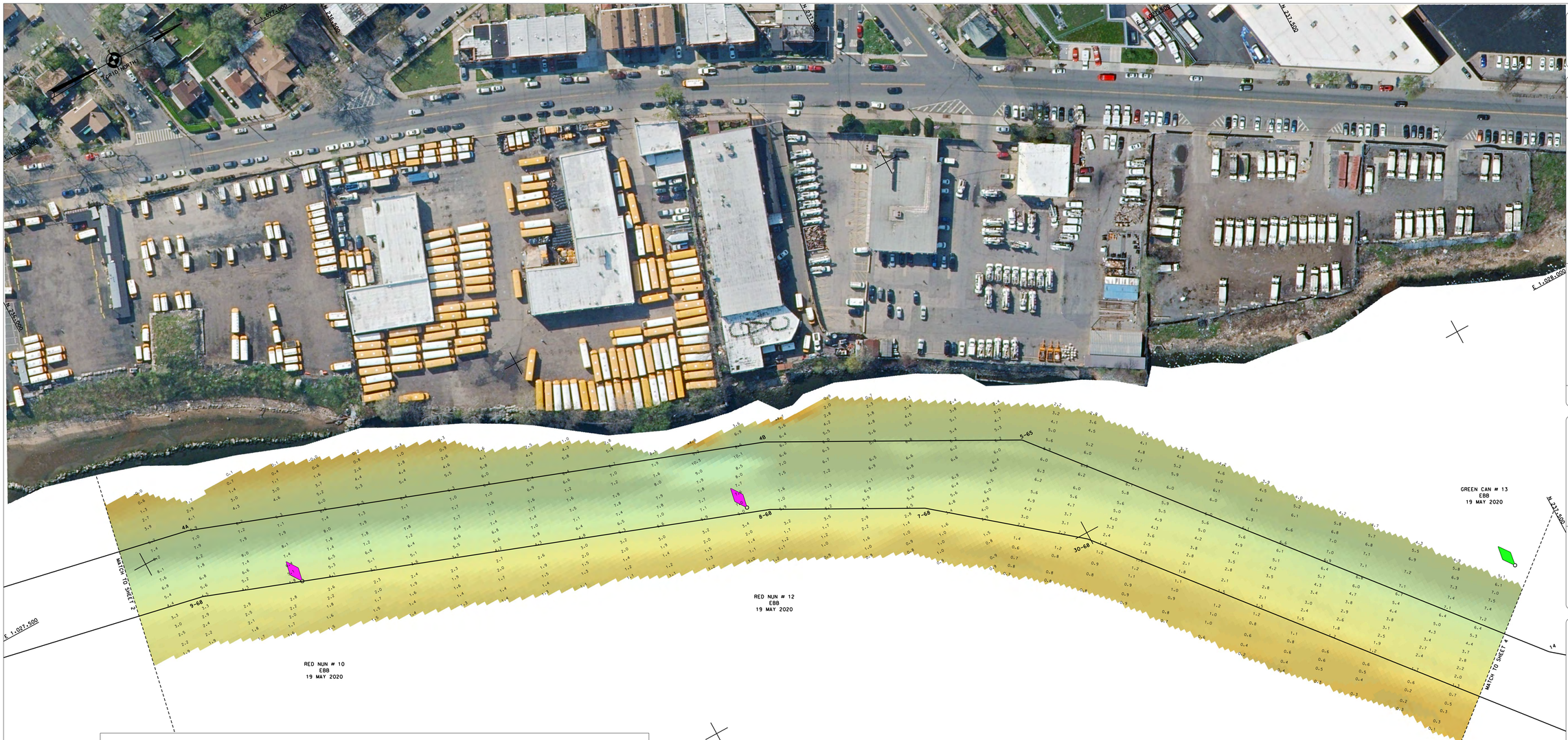
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

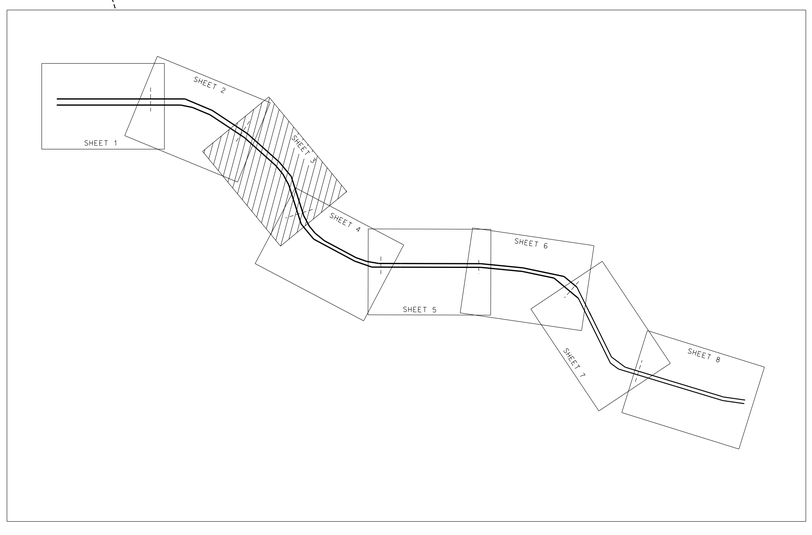
OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

WESTCHESTER CREEK
NEW YORK
CONDITION SURVEY

VH-102

SHEET 2 OF 8





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3	235387.555	1027352.054
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NSRS BENCHMARK	
BENCHMARK: W340	PID: KU1003
ELEVATION: 20.10 NAVD 1988	

LOCAL CONTROL DATA	
BENCHMARK: V 340	PID: KU1002
ELEVATION: 51.50 NAVD 1988	

US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

PR	ESG	
MP	BPH	

DATES OF SURVEY: 18-21 MAY 2020

RED NO./FILE NO.: 4952/N1/N3

SCALE: ONE INCH = 50 FEET

FIELD BOOKS: N/A

APPROVED: M. APPELO — FIELD CARTOGRAPHER
APPROVED: M. FORTE — CIVIL ENGINEERING TECHNICIAN
APPROVED: P. BHAGUR — LEAD CARTOGRAPHER
APPROVED: J. MRAZ — DEPUTY CHIEF OF SURVEY
DATE: 28 MAY 2020

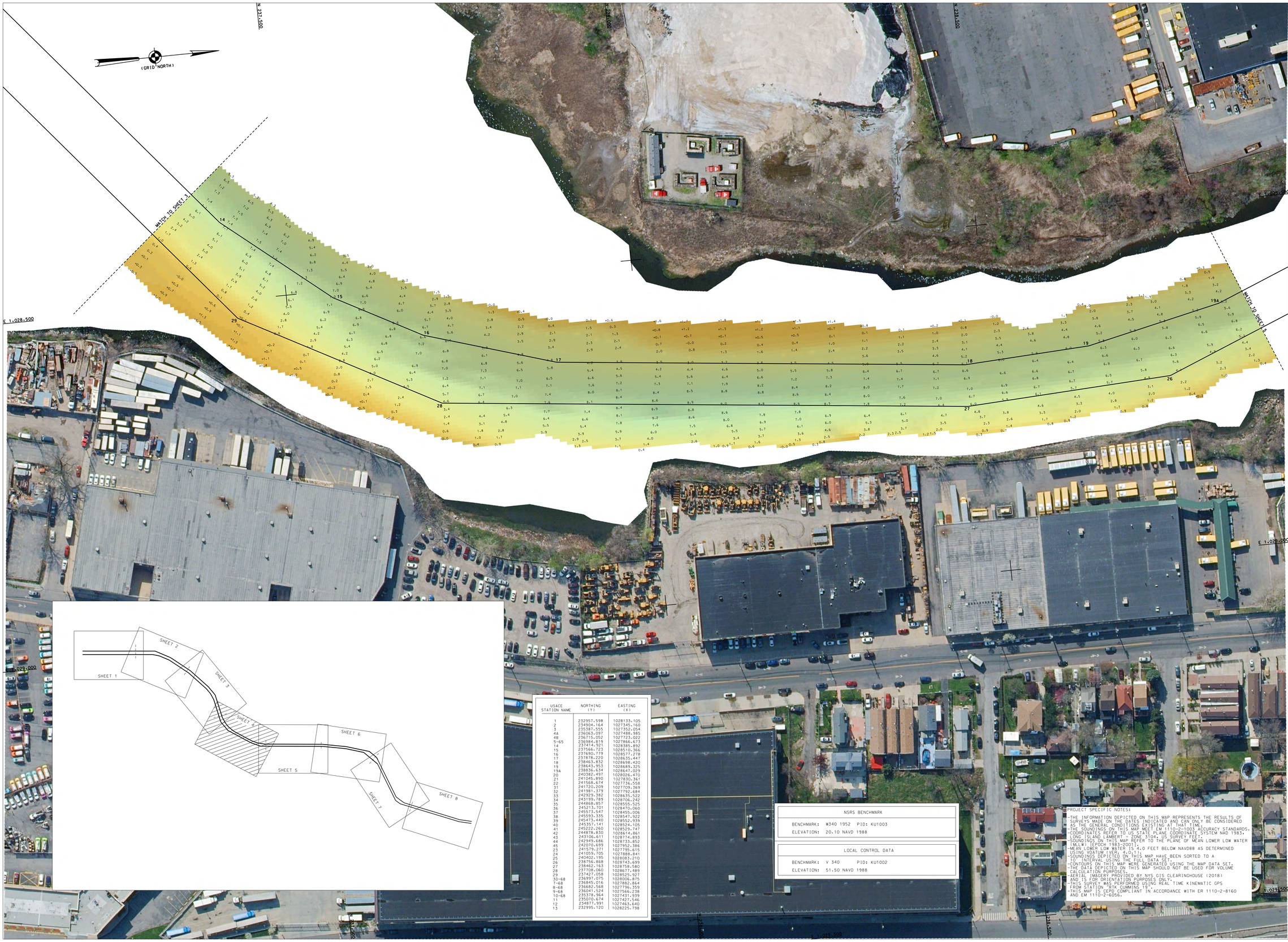
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

WESTCHESTER CREEK
NEW YORK
CONDITION SURVEY

VH-103

SHEET 3 OF 8



USACE STATION NAME	NORTHING (Y)	EASTING (X)
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2	234904.164	1027345.160
3	235387.555	1027352.054
4A	236063.097	1027488.985
4B	236715.052	1027723.022
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NSRS BENCHMARK	
BENCHMARK:	W340 1952 PID: KU1003
ELEVATION:	20.10 NAVD 1988

LOCAL CONTROL DATA	
BENCHMARK:	V 340 PID: KU1002
ELEVATION:	51.50 NAVD 1988

PROJECT SPECIFIC NOTES:

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US ARMY CORPS OF ENGINEERS NEW YORK DISTRICT

PR	ESO	
MP	BPH	

DATES OF SURVEY: 18-21 MAY 2020

REQ NO./FILE NO.: 4952/N1/N3

SCALE: ONE INCH = 50 FEET

FIELD BOOKS: N/A

APPROVED: M. APPELO — FIELD CARTOGRAPHER
APPROVED: M. FORTE — CIVIL ENGINEERING TECHNICIAN
APPROVED: P. BRABUR — CHIEF CARTOGRAPHER
APPROVED: J. MRAZ — SURVEY CHIEF OF SURVEY
DATE: 28 MAY 2020

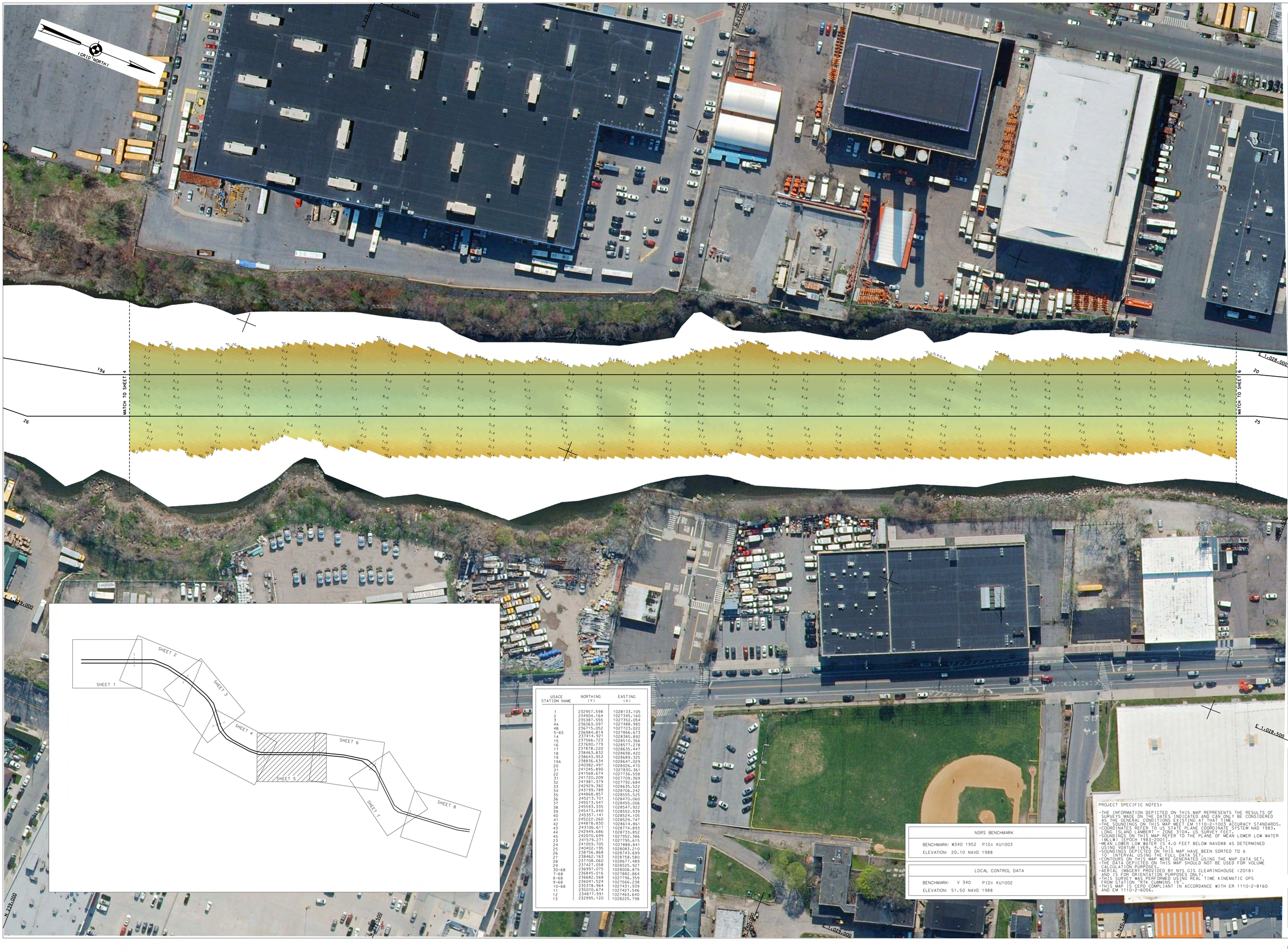
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

WESTCHESTER CREEK
NEW YORK
CONDITION SURVEY

VH-104

SHEET 4 OF 8



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NSRS BENCHMARK

BENCHMARK: W340 1952 PID: KU1003
ELEVATION: 20.10 NAVD 1988

LOCAL CONTROL DATA

BENCHMARK: V 340 PID: KU1002
ELEVATION: 51.50 NAVD 1988

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US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

PR	ESG
MP	BPH

DATES OF SURVEY:
18-21 MAY 2020

REQ NO./FILE NO.: 4952/N1/N3

SCALE:
ONE INCH = 50 FEET

FIELD BOOKS:
N/A

APPROVED: M. APPELO FIELD CARTOGRAPHER
APPROVED: M. FORTE CIVIL ENGINEERING TECHNICIAN
APPROVED: P. BHABUR LEAD CARTOGRAPHER
APPROVED: J. MRAZ DEPUTY CHIEF OF SURVEY
DATE: 28 MAY 2020

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

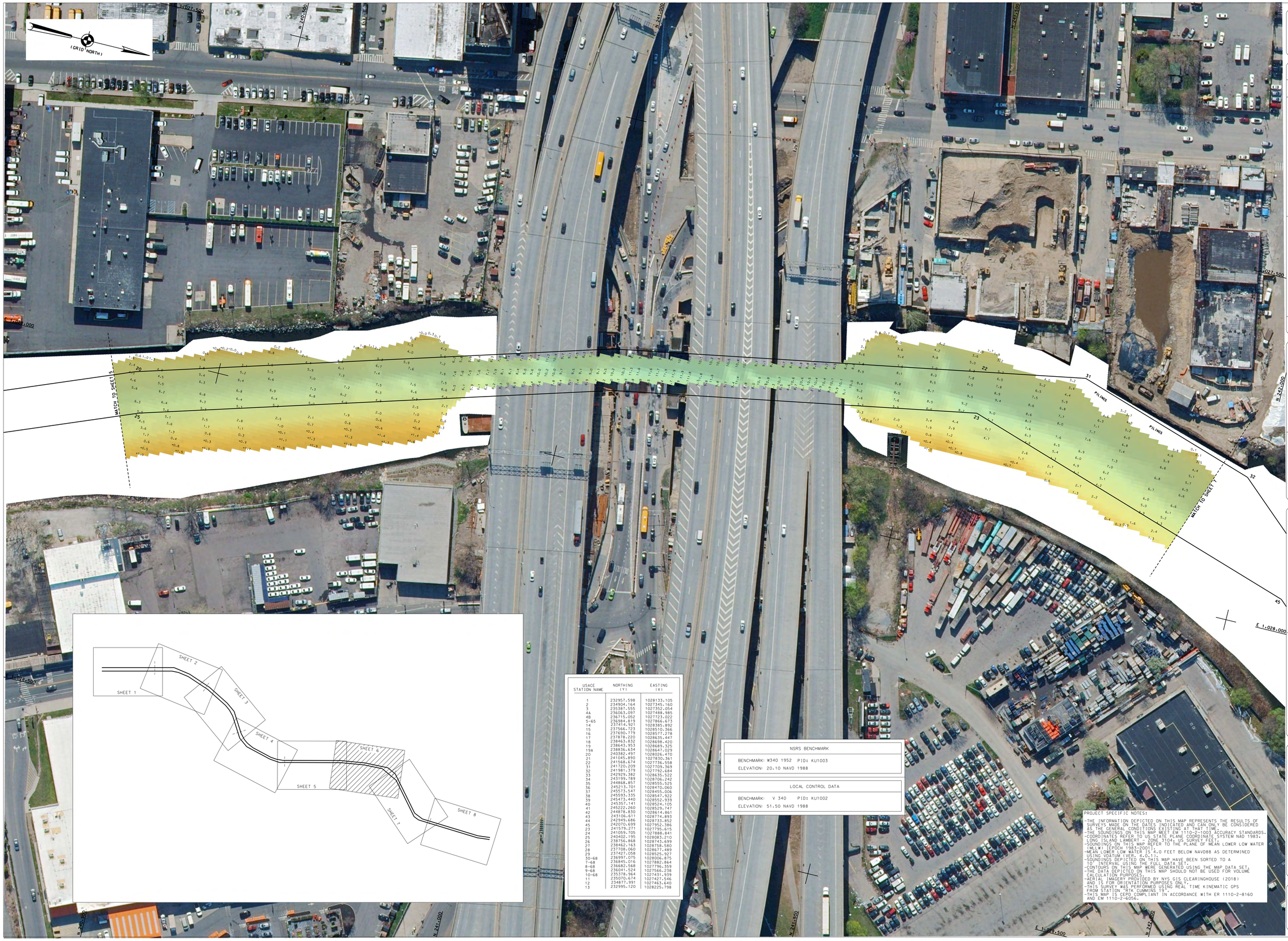
OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

WESTCHESTER CREEK
NEW YORK

CONDITION SURVEY

VH-105

SHEET 5 OF 8



USACE STATION NAME	NORTHING (Y)	EASTING (X)
1	232957.598	1028133.105
2	234904.164	1027345.160
3	235387.555	1027352.054
4A	236063.097	1027488.985
4B	236715.052	1027723.022
5-65	236984.819	1027866.673
14	237414.921	1028385.892
15	237566.723	1028510.366
16	237690.779	1028517.278
17	237878.220	1028635.447
18	238463.832	1028698.420
19	238643.953	1028685.325
19A	238836.634	1028647.029
20	240382.497	1028026.470
21	241045.890	1027830.361
22	241568.674	1027736.558
31	241720.209	1027709.369
32	241981.379	1027792.684
33	242929.382	1028635.522
34	243199.789	1028706.242
35	244868.857	1028555.525
36	245213.701	1028470.060
37	245573.547	1028455.006
38	245593.335	1028547.922
39	245473.440	1028552.939
40	245357.141	1028524.105
41	245222.260	1028529.747
42	244878.830	1028614.861
43	243106.611	1028774.893
44	242949.686	1028733.852
45	242070.699	1027952.386
23	241579.271	1027795.615
24	241059.705	1027888.841
25	240402.195	1028083.210
26	238756.868	1028743.699
27	238462.163	1028758.580
28	237708.060	1028677.489
29	237427.058	1028525.927
30-68	236997.075	1028006.875
7-68	236845.016	1027882.864
8-68	236682.568	1027786.359
9-68	236041.524	1027566.238
10-68	235378.964	1027431.939
11	235070.674	1027427.546
12	234877.991	1027463.640
13	232995.120	1028225.798

NSRS BENCHMARK

BENCHMARK: W340 1952 PID: KU1003
ELEVATION: 20.10 NAVD 1988

LOCAL CONTROL DATA

BENCHMARK: V 340 PID: KU1002
ELEVATION: 51.50 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, LONG ISLAND LAMBERT - ZONE 3104, 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 4.0 FEET BELOW NAVD88 AS DETERMINED USING VDATUM (VER. 4.0.1).
- SOUNDINGS DEPICTED ON THIS MAP HAVE BEEN SORTED TO A 1.0' 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 CALCULATIONS PURPOSES.
- AERIAL IMAGERY PROVIDED BY NYS GIS CLEARINGHOUSE (2018) AND IS FOR ORIENTATION PURPOSES ONLY.
- THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS FROM STATION "RTK CUMMINS 15".
- 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	ESD	
WP	BPH	

DATES OF SURVEY:
18-21 MAY 2020

REQ NO./FILE NO.: 4952/N1/N3

SCALE:
ONE INCH = 50 FEET

FIELD BOOKS:
N/A

APPROVED: M. APPELO — FIELD CARTOGRAPHER
APPROVED: M. FORTE — CIVIL ENGINEERING TECHNICIAN
APPROVED: P. BHADUR — CAD CARTOGRAPHER
APPROVED: J. MRAZ — SURVEY CHIEF OF SURVEY
DATE: 28 MAY 2020

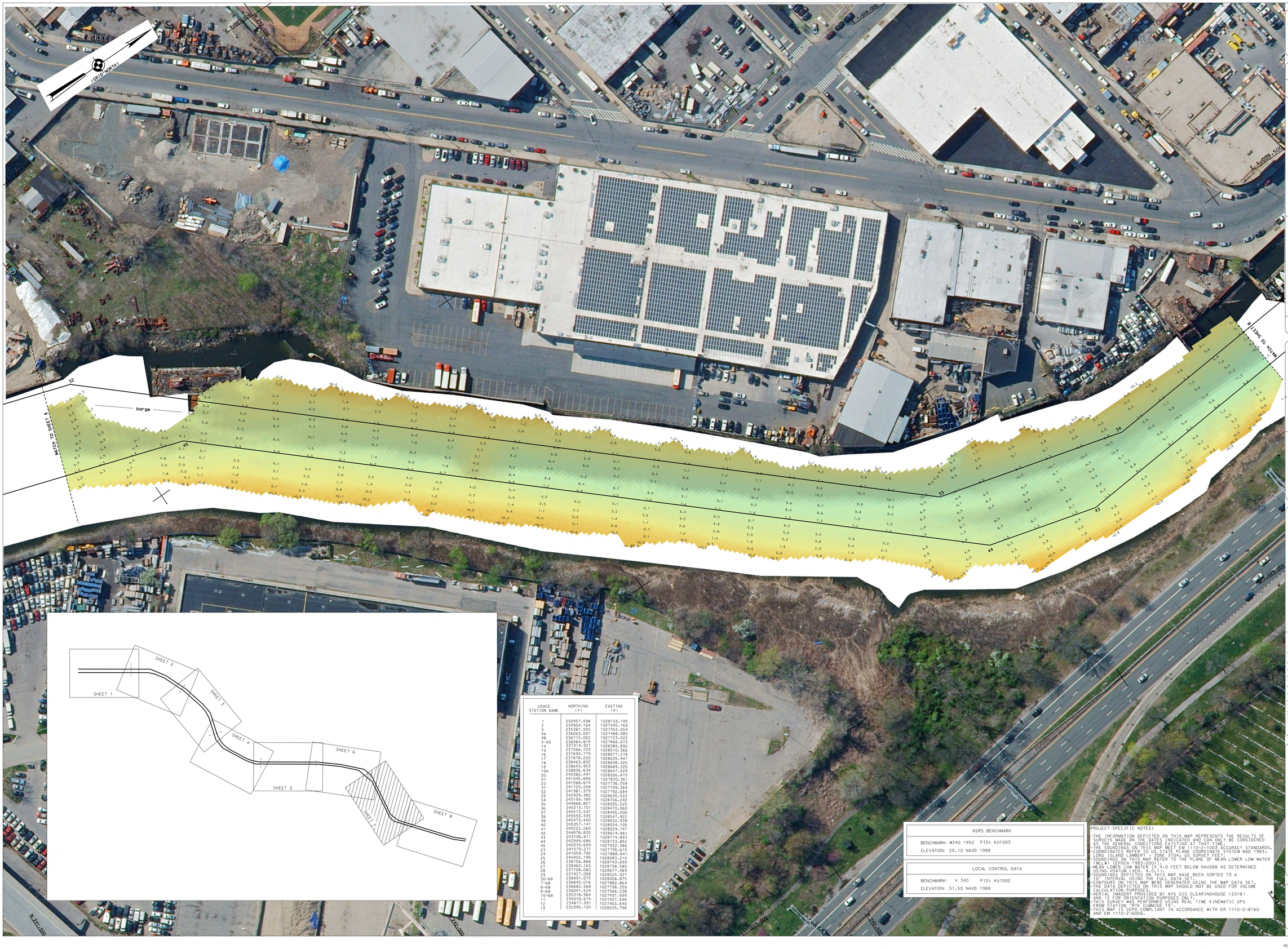
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

WESTCHESTER CREEK
NEW YORK
CONDITION SURVEY

VH-106

SHEET 6 OF 8



USACE STATION NAME	NORTHING (Y)	EASTING (X)
1	232957.598	1028133.105
2	234904.164	1027345.160
3	235387.555	1027552.054
4A	236063.097	1027488.985
4B	236715.052	1027723.022
5-65	236984.819	1027866.673
14	237414.921	1028385.892
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19A	238836.634	1028647.029
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33	242929.382	1028635.522
34	243199.789	1028706.242
35	244868.857	1028555.525
36	245213.701	1028470.060
37	245573.547	1028455.006
38	245593.335	1028547.922
39	245473.440	1028552.939
40	245357.141	1028524.105
41	245222.260	1028529.747
42	244878.830	1028614.861
43	243106.611	1028774.893
44	242949.686	1028733.852
45	242070.699	1027952.386
23	241579.271	1027795.615
24	241059.705	1027888.841
25	240402.195	1028083.210
26	238756.868	1028743.699
27	238462.163	1028758.580
28	237708.060	1028677.489
29	237407.058	1028525.921
10-68	236997.075	1028006.875
7-68	236845.016	1027882.864
8-68	236682.568	1027796.359
9-68	236041.524	1027566.238
10-68	235378.964	1027431.939
11	235070.674	1027427.546
12	234877.991	1027463.640
13	232995.120	1028225.798

NSRS BENCHMARK
BENCHMARK: W340 1952 PID: KU1003
ELEVATION: 20.10 NAVD 1988

LOCAL CONTROL DATA
BENCHMARK: V 340 PID: KU1002
ELEVATION: 51.50 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. LONG ISLAND, AMERICAN ZONE 3104, 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 4.0 FEET BELOW NAVD88 AS DETERMINED USING VDATUM (VER. 4.0.1).
- SOUNDINGS DEPICTED ON THIS MAP HAVE BEEN SORTED TO A CONTINUOUS VALUE USING THE BPLIS DATABASE.
- 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 NYS GIS CLEARINGHOUSE (2018) AND IS FOR ORIENTATION PURPOSES ONLY.
- THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS FROM STATION "RTK CUMMINS 19".
- 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	ESQ
MP	BPH

DATES OF SURVEY: 18-21 MAY 2020

REQ NO./FILE NO.: 4952/N1/N3

SCALE: ONE INCH = 50 FEET

FIELD BOOKS: N/A

APPROVED: M. APPELO — FIELD CARTOGRAPHER

APPROVED: M. FORTE — CIVIL ENGINEERING TECHNICIAN

APPROVED: P. BHAGUR — CHIEF CARTOGRAPHER

APPROVED: J. MRAZ — SURVEY CHIEF OF SURVEY

DATE: 28 MAY 2020

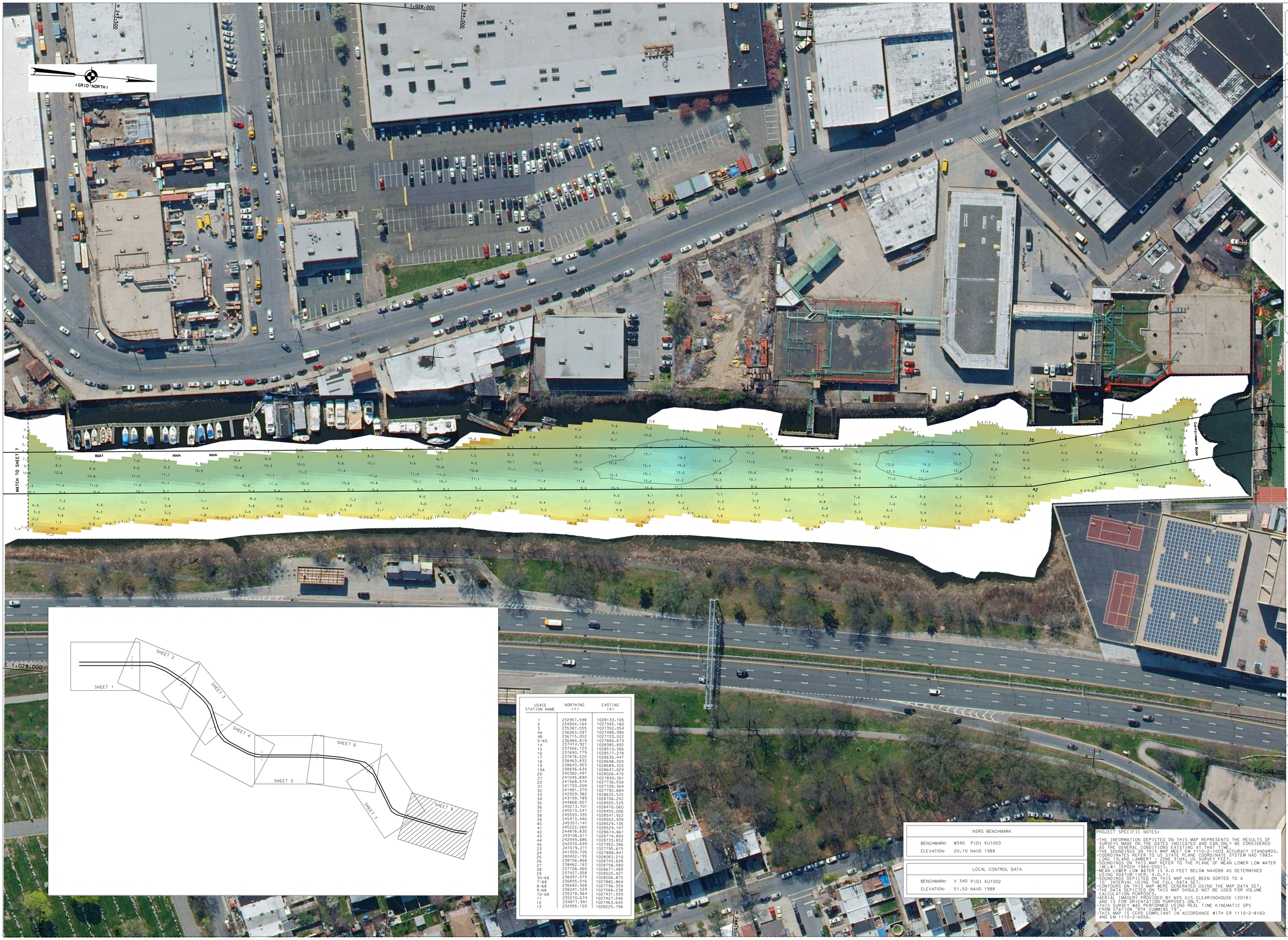
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

WESTCHESTER CREEK
NEW YORK
CONDITION SURVEY

VH-107

SHEET 7 OF 8



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35	244868.857	1028555.525
36	245213.701	1028410.060
37	245573.547	1028455.006
38	245993.335	1028547.922
39	245473.440	1028552.939
40	245357.141	1028524.105
41	245222.260	1028529.747
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24	241059.705	1027888.841
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30-68	236997.075	1028006.875
7-68	236845.016	1027882.864
8-68	236682.568	1027796.359
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BENCHMARK:	W340 PID: KU1003
ELEVATION:	20.10 NAVD 1988

LOCAL CONTROL DATA	
BENCHMARK:	V 340 PID: KU1002
ELEVATION:	51.50 NAVD 1988

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US ARMY CORPS OF ENGINEERS NEW YORK DISTRICT

PR	ESQ	
MP	BPH	

DATES OF SURVEY: 18-21 MAY 2020

REG NO./FILE NO.: 4952/N1/N3

SCALE: ONE INCH = 50 FEET

FIELD BOOKS: N/A

APPROVED: M. APPELD — FIELD SUPERVISOR
APPROVED: M. FORTE — CIVIL ENGINEERING TECHNICIAN
APPROVED: P. BHAGUR — LEAD SUPERVISOR
APPROVED: J. MRAZ — DEPUTY CHIEF OF SURVEY
DATE: 28 MAY 2020

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

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

WESTCHESTER CREEK
NEW YORK
CONDITION SURVEY

VH-108

SHEET 8 OF 8