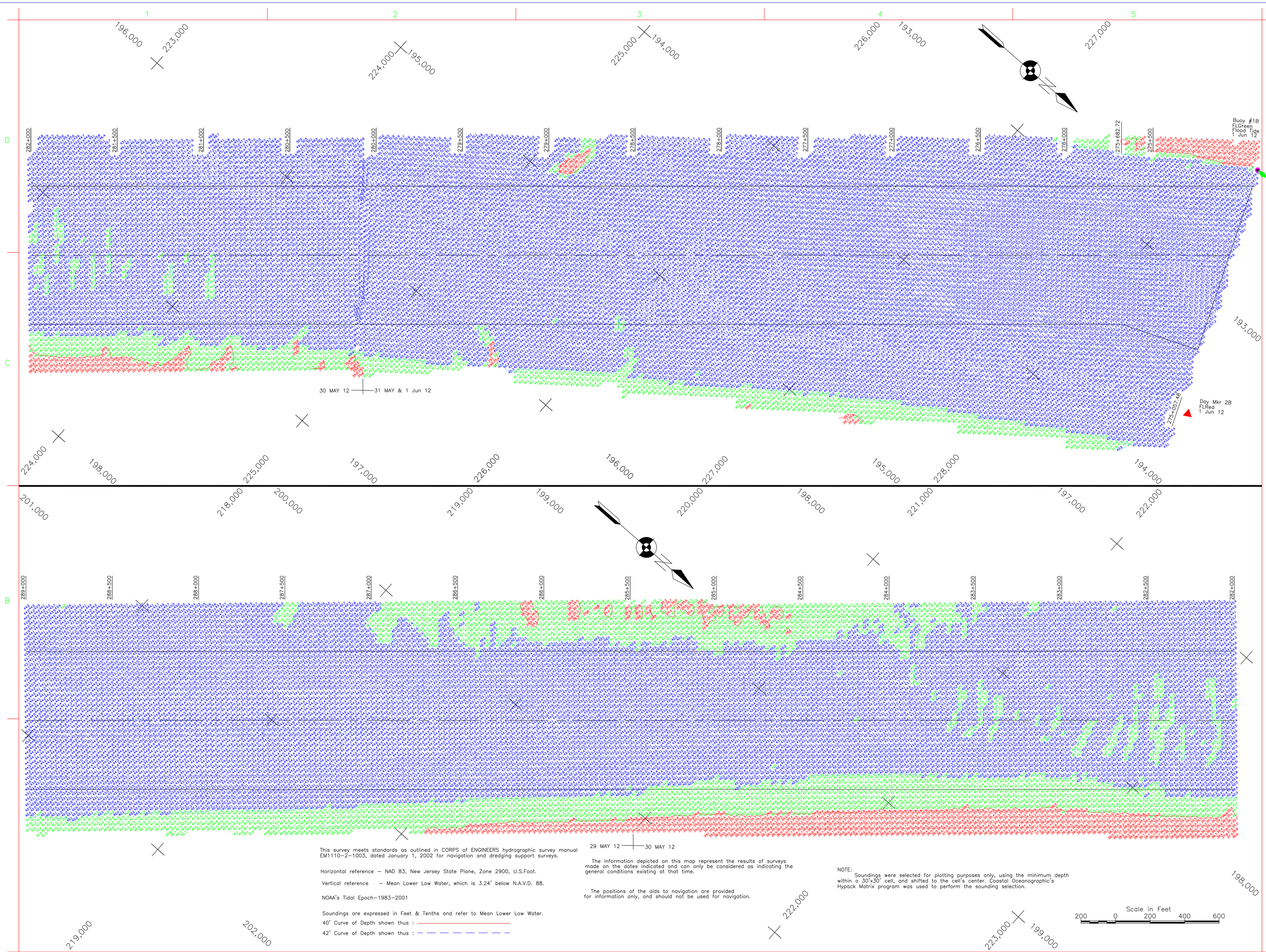


This survey meets standards as outlined in CORPS of ENGINEERS hydrographic survey manual EM1110-2-1003, dated January 1, 2002 for navigation and dredging support surveys.

Horizontal reference – NAD 83, New Jersey State Plane, Zone 2900, U.S.Foot.

Vertical reference – Mean Lower Low Water, which is 3.24' below N.A.V.D. 88.

NOAA's Tidal Epoch–1983–2001

Soundings are expressed in Feet & Tenths and refer to Mean Lower Low Water.

40' Curve of Depth shown thus : ———

42' Curve of Depth shown thus : — — — — — —

The information depicted on this map represent the results of surveys made on the dates indicated and can only be considered as indicating the general conditions existing at that time.

The positions of the aids to navigation are provided for information only, and should not be used for navigation.

NOTE:
Soundings were selected for plotting purposes only, using the minimum depth within a 30'x30' cell, and shifted to the cell's center. Coastal Oceanographic's Hypack Matrix program was used to perform the sounding selection.

US Army Corps of Engineers
Philadelphia District

Date
Depth
Mark
Date
Depth
Mark

Designed by:
Drn. by:
Ckd. by:
Reviewed by:
Submitted by:
Chief, Arch. Branch
Date:
Rev.
FB DACW61-
Drawing code:
File name:
Plot date: 09/05/2012
Plot scale: 1in is 200 ft

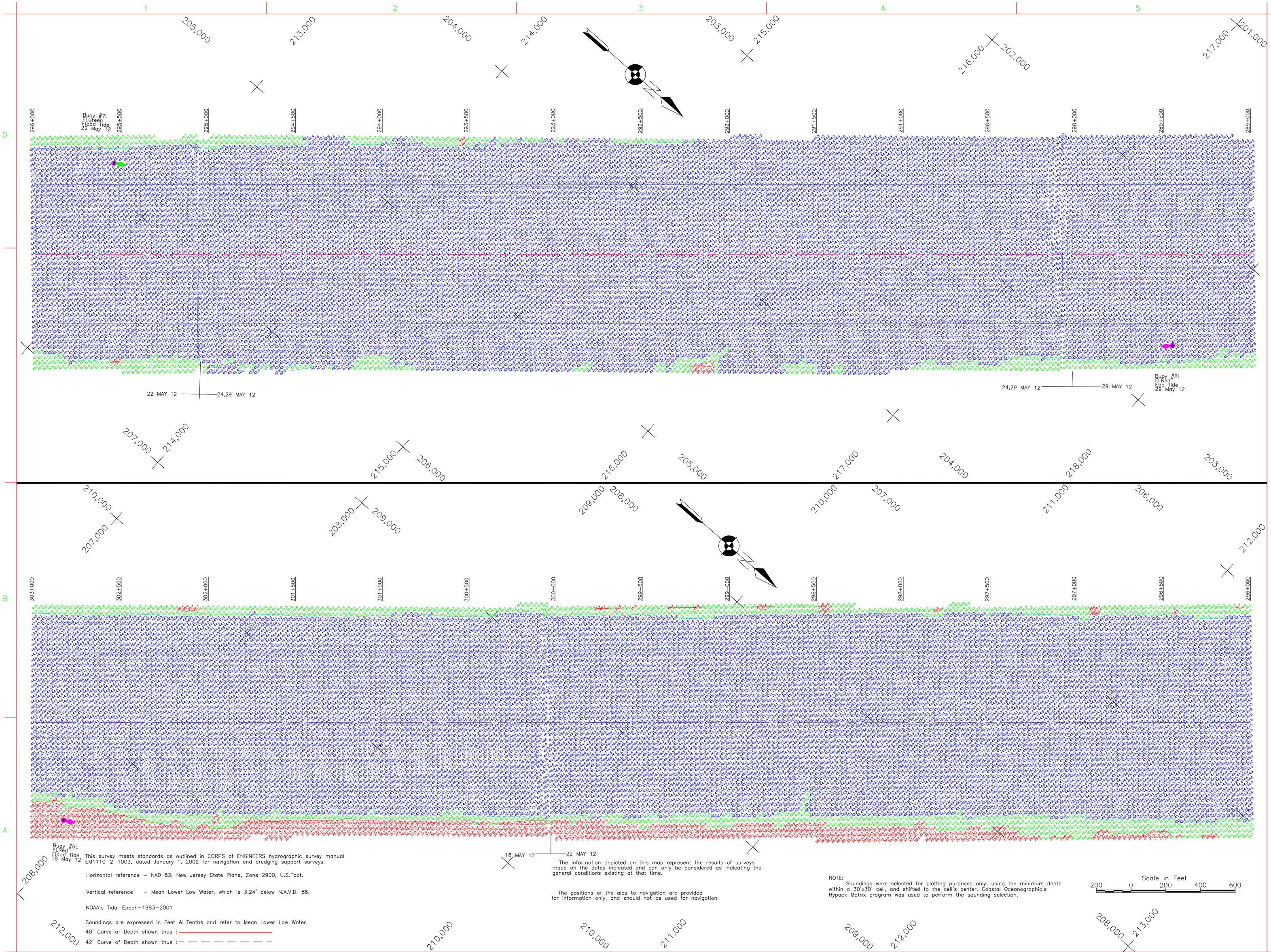
U.S. ARMY ENGINEER DISTRICT, PHILADELPHIA
CORPS OF ENGINEERS
PHILADELPHIA, PENNSYLVANIA

TRACED BY J.A.Groch
PLOTTED BY J.A.Caraballo
SURVEYED BY C.Eteckman
DATE SURVEYED As Shown
DRAWING NO. 63371
APPROVED
CHIEF, OPER. BRANCH

DELAWARE RIVER
PHILADELPHIA TO THE SEA
EXAMINATION
LISTON RANGE
STA.275+057.48 TO STA.289+000

Sheet reference number:

Sheet 1 of 8



This survey meets standards as outlined in CORPS of ENGINEERS hydrographic survey manual EM1110-2-1003, dated January 1, 2002 for navigation and dredging support surveys.

Horizontal reference – NAD 83, New Jersey State Plane, Zone 2900, U.S.Foot.

Vertical reference – Mean Lower Low Water, which is 3.24' below N.A.V.D. 88.

NOAA's Tidal Epoch–1983–2001

Soundings are expressed in Feet & Tenths and refer to Mean Lower Low Water.

40' Curve of Depth shown thus :

42' Curve of Depth shown thus :

The information depicted on this map represent the results of surveys made on the dates indicated and can only be considered as indicating the general conditions existing at that time.

The positions of the aids to navigation are provided for information only, and should not be used for navigation.

NOTE:
Soundings were selected for plotting purposes only, using the minimum depth within a 30'x30' cell, and shifted to the cell's center. Coastal Oceanographic's Hypack Matrix program was used to perform the sounding selection.

Scale in Feet
200 0 200 400 600

US Army Corps of Engineers
Philadelphia District

Mark	Description	Date	Appr.

U.S. ARMY ENGINEER DISTRICT, PHILADELPHIA
CORPS OF ENGINEERS
PHILADELPHIA, PENNSYLVANIA

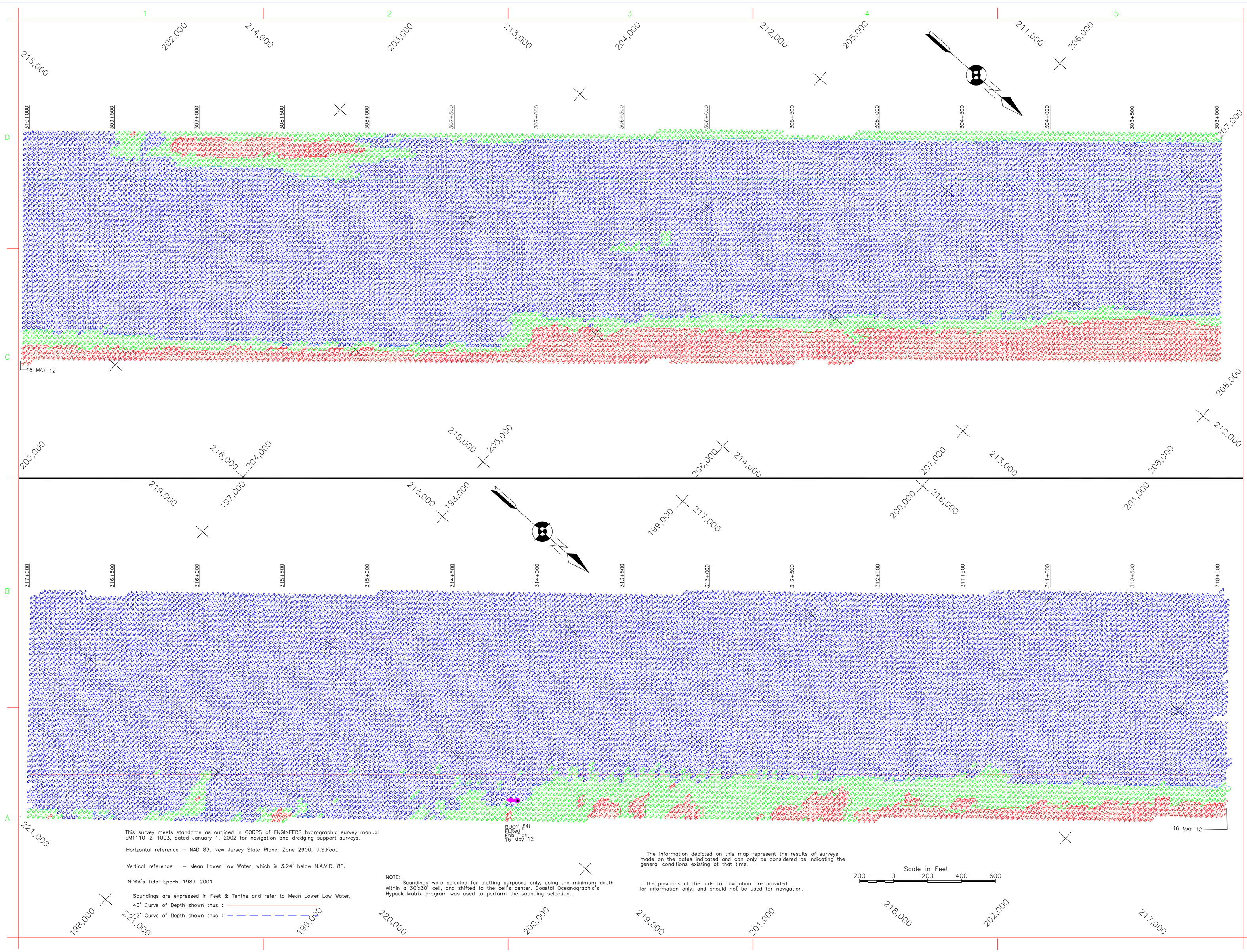
TRACED BY J.A.Groch	PLOTTED BY J.A.Caraballo	DRAWING NO. 63364	
SURVEYED BY G.Griffith	DATE SURVEYED As Shown	APPROVED	

Designed by: | Date: | Rev.
Dwn by: | Ckd by: | IFB DACW61-
Reviewed by: | Drawing code:
Submitted by: | File name: | Plot date: 06/01/2012 | Plot scale: 1in to 200 ft
Chief, Arch. Branch

DELAWARE RIVER
PHILADELPHIA TO THE SEA
EXAMINATION
LISTON RANGE
STA.289+000 TO STA.303+000

Sheet reference number:

Sheet 2 of 8



This survey meets standards as outlined in CORPS of ENGINEERS hydrographic survey manual EM1110-2-1003, dated January 1, 2002 for navigation and dredging support surveys.

Horizontal reference – NAD 83, New Jersey State Plane, Zone 2900, U.S.Foot.

Vertical reference – Mean Lower Low Water, which is 3.24' below N.A.V.D. 88.

NOAA's Tidal Epoch–1983–2001

Soundings are expressed in Feet & Tenths and refer to Mean Lower Low Water.

40' Curve of Depth shown thus :

42' Curve of Depth shown thus :

NOTE:
Soundings were selected for plotting purposes only, using the minimum depth within a 30'x30' cell, and shifted to the cell's center. Coastal Oceanographic's Hypack Matrix program was used to perform the sounding selection.

The information depicted on this map represent the results of surveys made on the dates indicated and can only be considered as indicating the general conditions existing at that time.

The positions of the aids to navigation are provided for information only, and should not be used for navigation.

Scale in Feet
200 0 200 400 600

US Army Corps of Engineers
Philadelphia District

Mark	Description	Date	Appr.

U.S. ARMY ENGINEER DISTRICT, PHILADELPHIA
CORPS OF ENGINEERS
PHILADELPHIA, PENNSYLVANIA

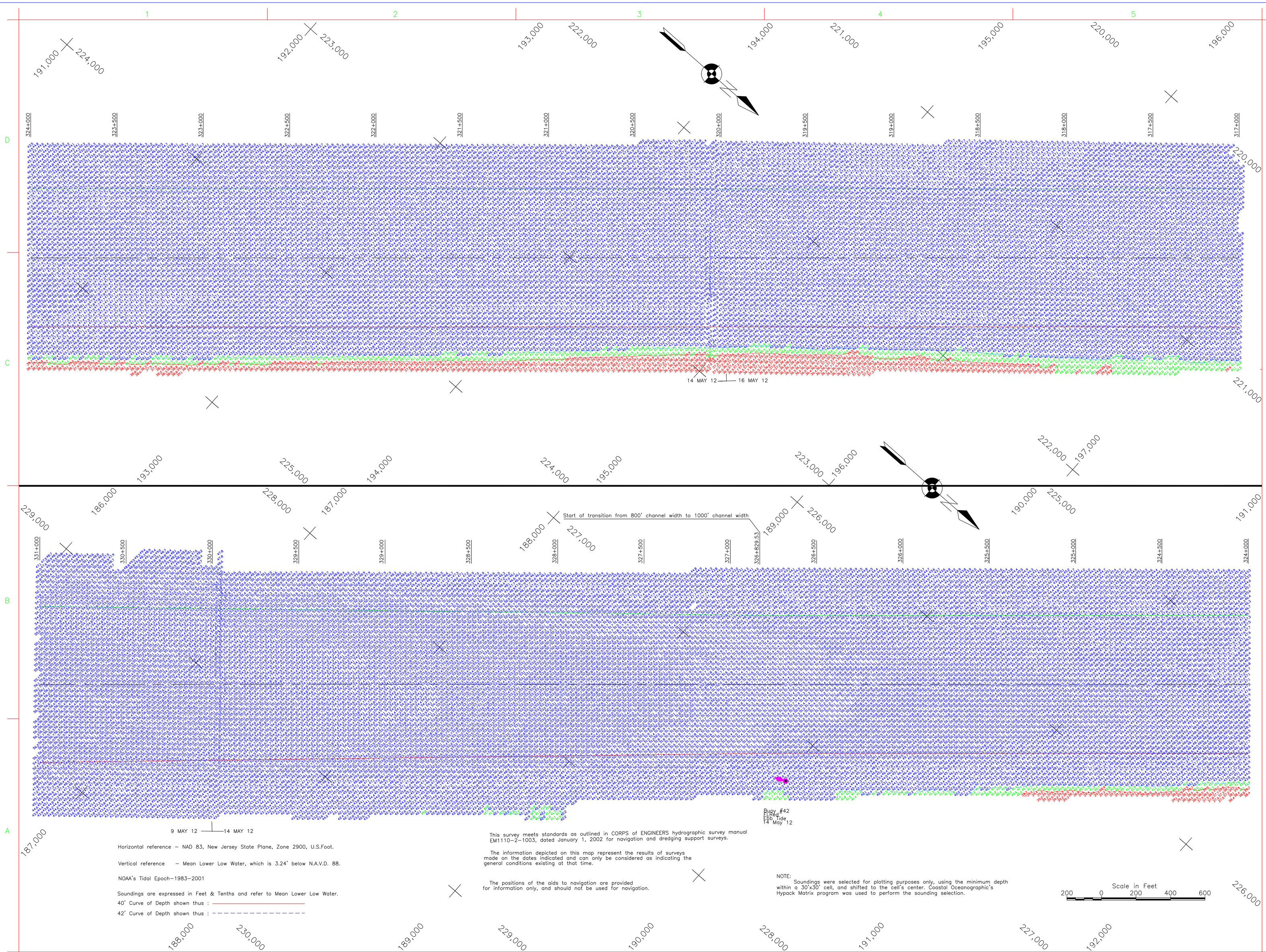
TRACED BY J.A.Groch	PLOTTED BY J.A.Caraballo	DRAWING NO. 63386	
SURVEYED BY C.Etschman	DATE SURVEYED As Shown	APPROVED	

Designed by: | Date: | Rev.
Dwn by: | Ckd by: | IFB DACW61-
Reviewed by: | Drawing code:
Submitted by: | File name: Plot date: 06/08/2012 Plot scale: 1in to 200 ft
Chief, Arch. Branch

DELAWARE RIVER
PHILADELPHIA TO THE SEA
EXAMINATION
LISTON RANGE
STA.303+000 TO STA.317+000

Sheet reference number:

Sheet 3 of 8



Horizontal reference – NAD 83, New Jersey State Plane, Zone 2900, U.S.Foot.

Vertical reference – Mean Lower Low Water, which is 3.24' below N.A.V.D. 88.

NOAA's Tidal Epoch–1983–2001

Soundings are expressed in Feet & Tenths and refer to Mean Lower Low Water.

40' Curve of Depth shown thus : ————

42' Curve of Depth shown thus : – – – – – – – – – –

This survey meets standards as outlined in CORPS of ENGINEERS hydrographic survey manual EM1110–2–1003, dated January 1, 2002 for navigation and dredging support surveys.

The information depicted on this map represent the results of surveys made on the dates indicated and can only be considered as indicating the general conditions existing at that time.

The positions of the aids to navigation are provided for information only, and should not be used for navigation.

NOTE:
Soundings were selected for plotting purposes only, using the minimum depth within a 30'x30' cell, and shifted to the cell's center. Coastal Oceanographic's Hypack Matrix program was used to perform the sounding selection.

Scale in Feet
200 0 200 400 600

US Army Corps of Engineers
Philadelphia District

Designed by:	Date:	Rev.
Dwn. by:	Ckd. by:	Drawing code: FB DACW61–
Reviewed by:		File name: 08/09/2012
Submitted by: Chief, Arch. Branch		Plot date: 08/09/2012
		Plot scale: 1in to 200 ft

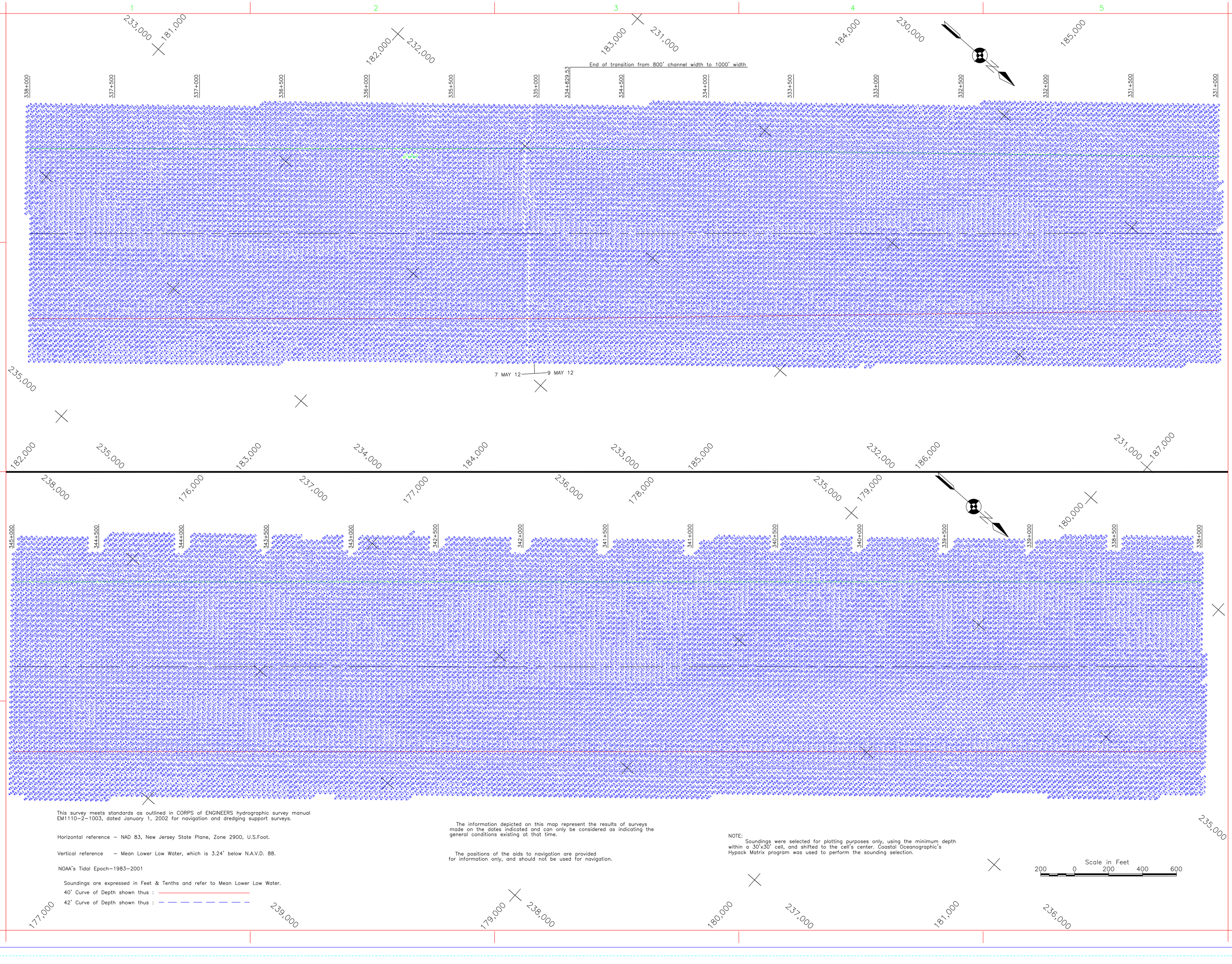
U.S. ARMY ENGINEER DISTRICT, PHILADELPHIA
CORPS OF ENGINEERS
PHILADELPHIA, PENNSYLVANIA

TRACED BY	PLOTTED BY	DRAWING NO.	APPROVED
J.A.Groch	J.A.Caraballo	63388	CHIEF, OPER. BRANCH
SURVEYED BY	DATE SURVEYED		
As Shown	C.Etschman		

DELAWARE RIVER
PHILADELPHIA TO THE SEA
EXAMINATION
LISTON RANGE
STA.317+000 TO STA.331+000

Sheet reference number:

Sheet 4 of 8



This survey meets standards as outlined in CORPS of ENGINEERS hydrographic survey manual EM1110-2-1003, dated January 1, 2002 for navigation and dredging support surveys.

Horizontal reference – NAD 83, New Jersey State Plane, Zone 2900, U.S.Foot.

Vertical reference – Mean Lower Low Water, which is 3.24' below N.A.V.D. 88.

NOAA's Tidal Epoch–1983–2001

Soundings are expressed in Feet & Tenths and refer to Mean Lower Low Water.

40' Curve of Depth shown thus :

42' Curve of Depth shown thus :

The information depicted on this map represent the results of surveys made on the dates indicated and can only be considered as indicating the general conditions existing at that time.

The positions of the aids to navigation are provided for information only, and should not be used for navigation.

NOTE:
Soundings were selected for plotting purposes only, using the minimum depth within a 30'x30' cell, and shifted to the cell's center. Coastal Oceanographic's Hypack Matrix program was used to perform the sounding selection.

US Army Corps of Engineers
Philadelphia District

Mark	Description	Date	Appr.

U.S. ARMY ENGINEER DISTRICT, PHILADELPHIA
CORPS OF ENGINEERS
PHILADELPHIA, PENNSYLVANIA

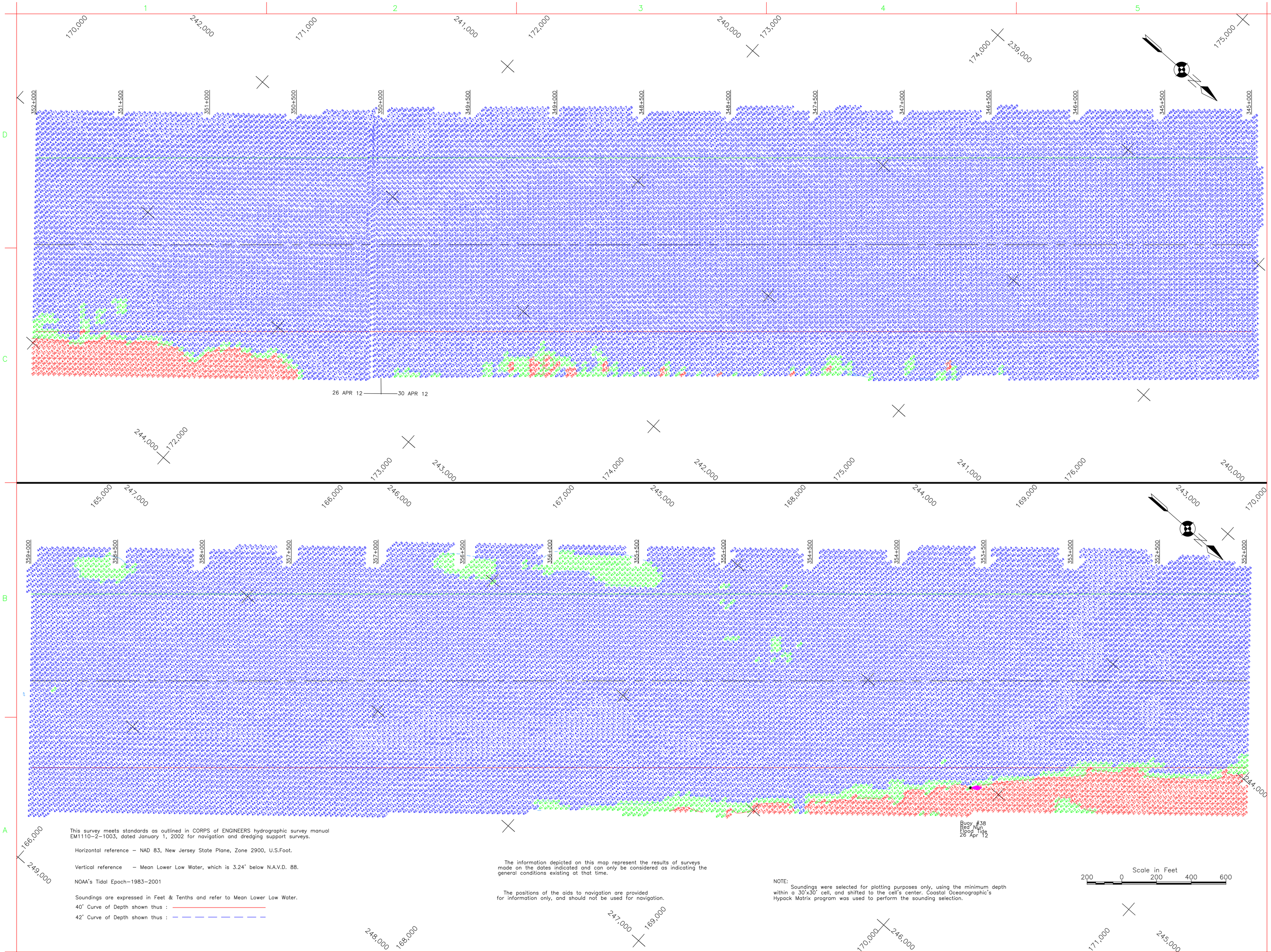
TRACED BY J.A.Groch	PLOTTED BY J.A.Caraballo	DRAWING NO. 63357	
SURVEYED BY C.Etschman	DATE SURVEYED As Shown	APPROVED	

Designed by: | Dwn by: | Ckd by: | Reviewed by: | Submitted by: | Chief, Arch. Branch | Date: | IFB DACW61– | Drawing code: | File name: | Plot date: 05/24/2012 | Plot scale: 1in to 200 ft | Rev.

DELAWARE RIVER
PHILADELPHIA TO THE SEA
EXAMINATION
LISTON RANGE
STA.331+000 TO STA.345+000

Sheet reference number:

Sheet 5 of 8



This survey meets standards as outlined in CORPS of ENGINEERS hydrographic survey manual EM1110-2-1003, dated January 1, 2002 for navigation and dredging support surveys.

Horizontal reference – NAD 83, New Jersey State Plane, Zone 2900, U.S.Foot.

Vertical reference – Mean Lower Low Water, which is 3.24' below N.A.V.D. 88.

NOAA's Tidal Epoch–1983–2001

Soundings are expressed in Feet & Tenths and refer to Mean Lower Low Water.

40' Curve of Depth shown thus :

42' Curve of Depth shown thus :

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NOTE:
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US Army Corps of Engineers
Philadelphia District

U.S. ARMY ENGINEER DISTRICT, PHILADELPHIA
CORPS OF ENGINEERS
PHILADELPHIA, PENNSYLVANIA

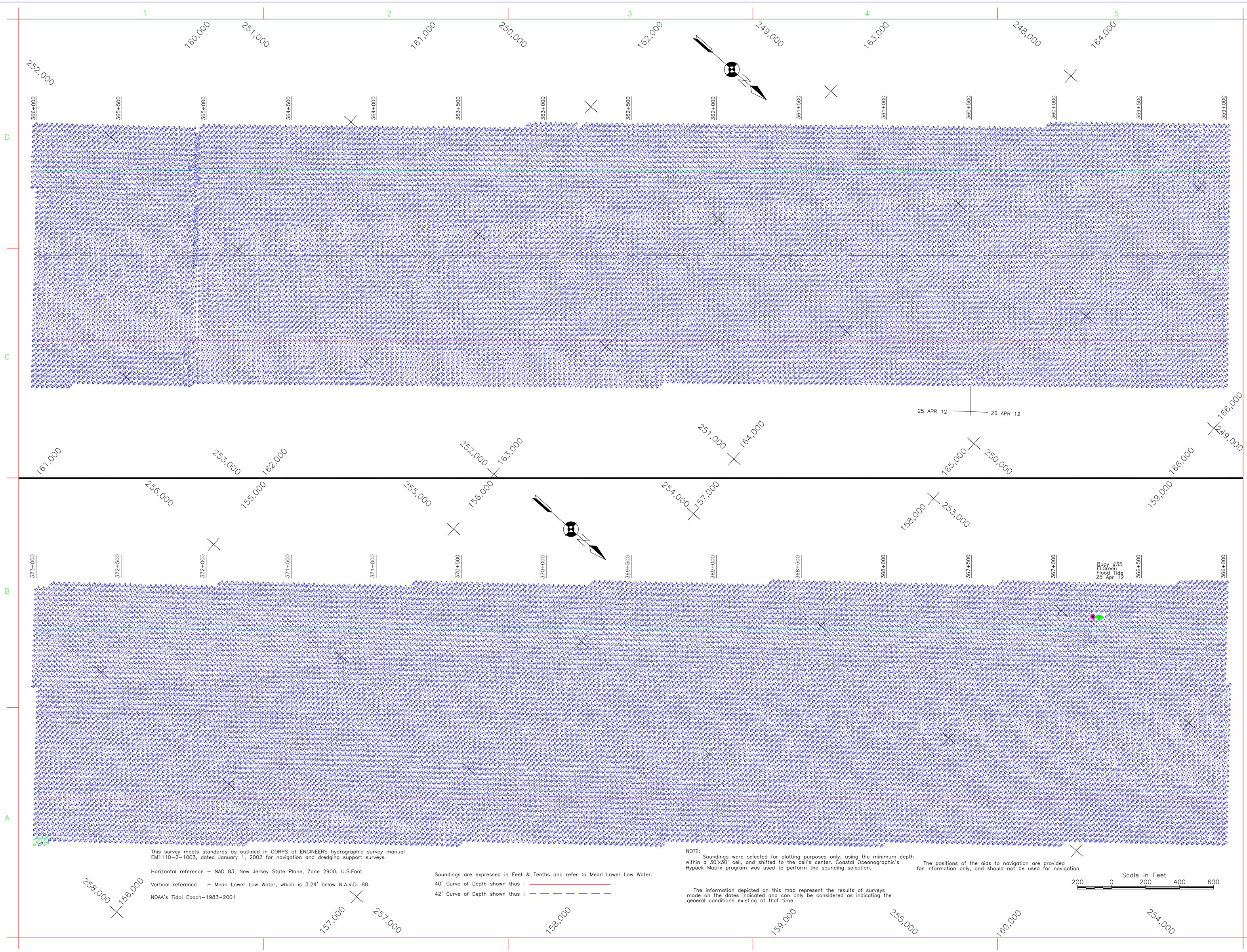
TRACED BY J.A.Groch	PLOTTED BY J.A.Caraballo	DRAWING NO. 63344	
SURVEYED BY C.Etschman	DATE SURVEYED As Shown	APPROVED	

Designed by: | Dwn by: | Ckd by: | Reviewed by: | Submitted by: | Chief, Arch. Branch | Date: | Rev. | IFB DACW61– | Drawing code: | File name: | Plot date: 05/10/2012 | Plot scale: 1in to 200 ft

DELAWARE RIVER
PHILADELPHIA TO THE SEA
EXAMINATION
LISTON RANGE
STA.345+000 TO STA.359+000

Sheet reference number:

Sheet 6 of 8



This survey meets standards as outlined in CORPS of ENGINEERS hydrographic survey manual EM1110-2-1003, dated January 1, 2002 for navigation and dredging support surveys.

Horizontal reference – NAD 83, New Jersey State Plane, Zone 2900, U.S.Foot.

Vertical reference – Mean Lower Low Water, which is 3.24' below N.A.V.D. 88.

NOAA's Tidal Epoch–1983–2001

Soundings are expressed in Feet & Tenths and refer to Mean Lower Low Water.

40' Curve of Depth shown thus :

42' Curve of Depth shown thus :

NOTE:

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Scale in Feet

200 0 200 400 600

US Army Corps of Engineers
Philadelphia District

Mark	Description	Date	Appr.

U.S. ARMY ENGINEER DISTRICT, PHILADELPHIA
CORPS OF ENGINEERS
PHILADELPHIA, PENNSYLVANIA

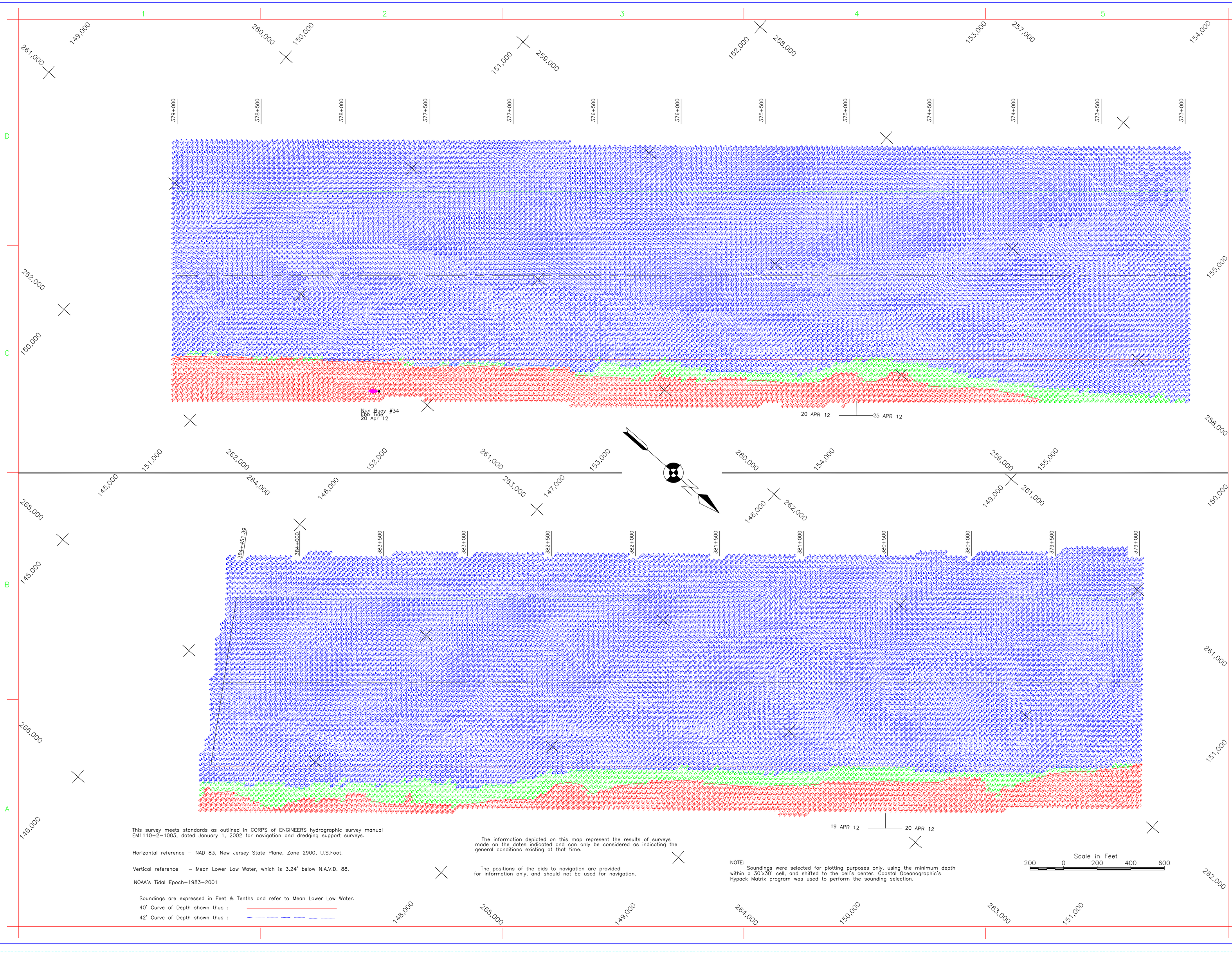
TRACED BY J.A.Groch	PLOTTED BY J.A.Caraballo	DRAWING NO. 63327	
SURVEYED BY C.Etschman	DATE SURVEYED As Shown	APPROVED	

Designed by: | Date: | Rev.
Dwn by: | Ckd by: | IFB DACW61-
Reviewed by: | Drawing code:
Submitted by: | File name:
Plot date: 05/03/2012
Plot scale: 1in to 200 ft
Chief, Arch. Branch

DELAWARE RIVER
PHILADELPHIA TO THE SEA
EXAMINATION
LISTON RANGE
STA.359+000 TO STA.373+000

Sheet reference number:

Sheet 7 of 8



This survey meets standards as outlined in CORPS of ENGINEERS hydrographic survey manual EM1110-2-1003, dated January 1, 2002 for navigation and dredging support surveys.

Horizontal reference – NAD 83, New Jersey State Plane, Zone 2900, U.S.Foot.

Vertical reference – Mean Lower Low Water, which is 3.24' below N.A.V.D. 88.

NOAA's Tidal Epoch–1983–2001

Soundings are expressed in Feet & Tenths and refer to Mean Lower Low Water.

40' Curve of Depth shown thus :

42' Curve of Depth shown thus :

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US Army Corps of Engineers
Philadelphia District

Mark	Description	Date	Appr.

U.S. ARMY ENGINEER DISTRICT, PHILADELPHIA
CORPS OF ENGINEERS
PHILADELPHIA, PENNSYLVANIA

TRACED BY	PLOTTED BY	DRAWING NO.
J.A.Groch	J.A.Caraballo	63321
SURVEYED BY	DATE SURVEYED	APPROVED
C.Etschman	As Shown	

Designed by: | Date: | Rev.
Dwn by: | Ckd by: | IFB DACW61-
Reviewed by: | Drawing code:
Submitted by: | File name: | Plot date: 05/02/2012 | Plot scale: 1in to 200 ft
Chief, Arch. Branch

DELAWARE RIVER
PHILADELPHIA TO THE SEA
EXAMINATION
LISTON RANGE
STA.373+000 TO STA.384+451.39

Sheet reference number:

Sheet 8 of 8