US Army Corps
of Engineers

Norfolk District

US COAST GUARD TRAINING FACILITIES
WORMLEY CREEK
PERMIT DRAWING

SURVEY OF JUNE AND SEPTEMBER 2014
YORK RIVER, VIRGINIA

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SIGNATURES AFFIXED BELOW INDICATE OFFICIAL RECOMMENDATION AND APPROVAL OF ALL DRAWINGS IN THIS SET AS INDICATED ON INDEX TO DRAWINGS.

DEPARTMENT OF THE ARMY
NORFOLK DISTRICT, CORPS OF ENGINEERS
NORFOLK, VIRGINIA

REVIEWED: CHIEF, NAVIGATION SUPPORT AND SURVEY SECTION

APPROVED: CHIEF, OPERATIONS BRANCH

SUBMITTED: CHIEF, DESIGN SECTION

APPROVED: CHIEF, WATER RESOURCES DIVISION

US Army Corps of Engineers Norfolk District

REV.	DATE	DESCRIPTION	BY	APP.

DESIGNED: | CHECKED: M.L.A. | DATE: 31 JULY 14
DRAWN: H.A.F. | SUBMITTED: K.L.G. | SCALE: AS SHOWN
NORFOLK DISTRICT FILE NO. CPW.2014-10-02.PS(1)
DRAWING NO.:
SURVEYED BY: WATERWAY SURVEYS & ENGINEERING, Ltd.

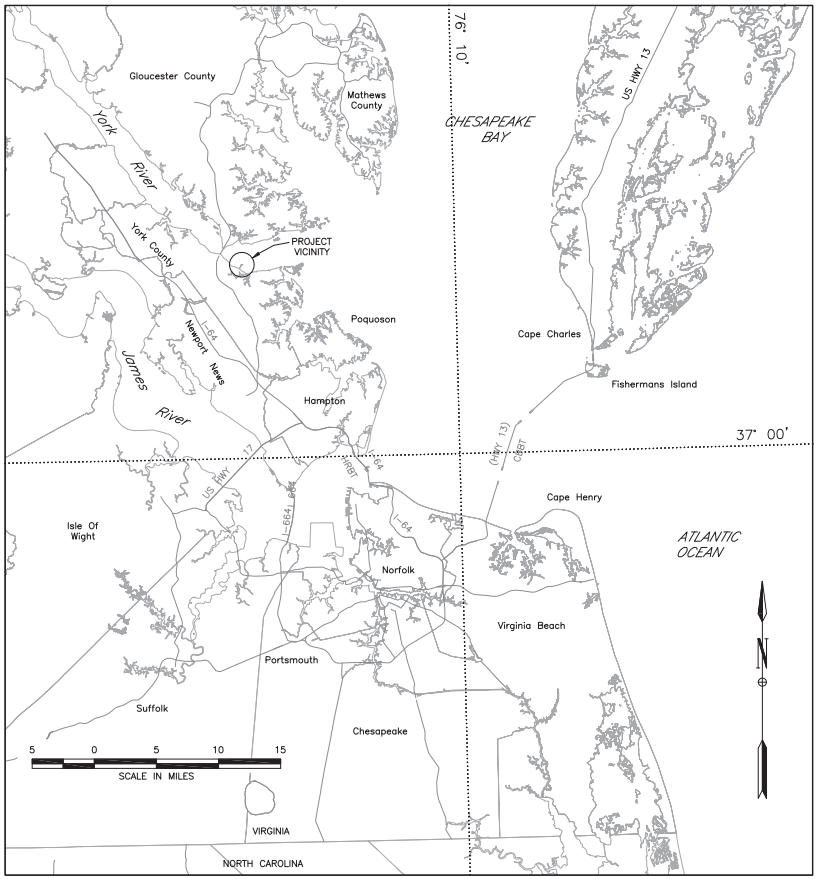
NORFOLK DISTRICT
CORPS OF ENGINEERS
NORFOLK, VIRGINIA

U.S. COAST GUARD TRAINING FACILITIES
WORMLEY CREEK
PERMIT DRAWING
YORK RIVER, VIRGINIA
COVER SHEET

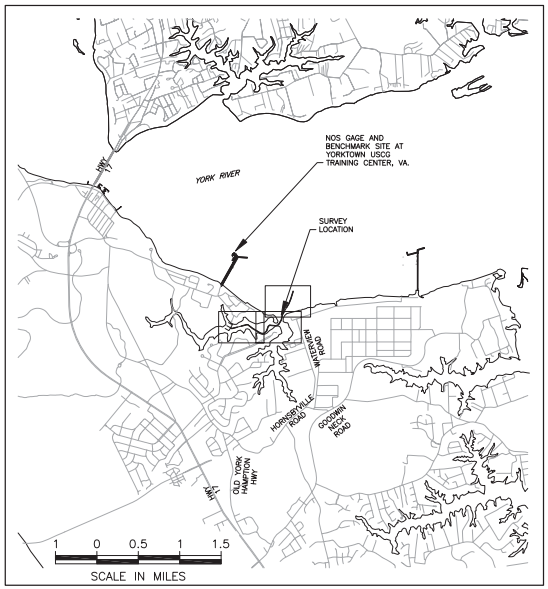
SHEET 1 OF 16

USACE-NLW
RCVD 1/15/2016

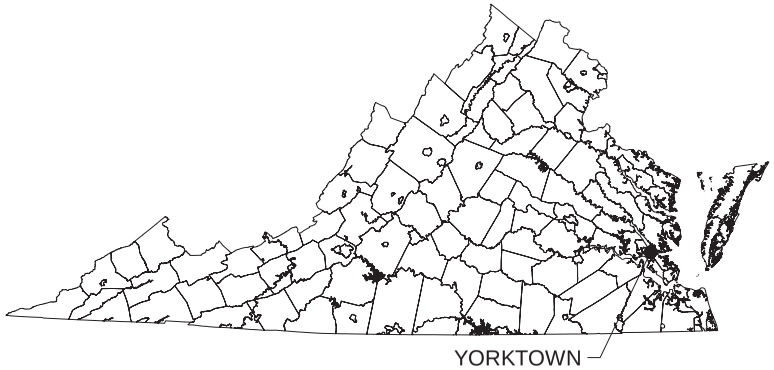
T:\W\Wormley Creek\2014 Permit Drawing\WRMIPS14C-HP1914.dwg; Jan 11, 2016 - 8:32am; E4TOSHAF



VICINITY MAP



LOCATION MAP



VIRGINIA

US Army Corps of Engineers Norfolk District

REV.	DATE	DESCRIPTION	BY	APP.

NORFOLK DISTRICT
CORPS OF ENGINEERS
NORFOLK, VIRGINIA

DESIGNED: M.L.A.
DRAWN: H.A.F.
CHECKED: M.L.A.
SUPERVISED: K.L.G.
DATE: 31 JULY 14
SCALE: AS SHOWN
NORFOLK DISTRICT FILE NO. CPW-2014-10-02-PS(2)
DRAWING NO.:
SURVEYED BY: WATERWAY SURVEYS & ENGINEERING, Ltd.

U.S. COAST GUARD TRAINING FACILITIES
WORMELY CREEK
PERMIT DRAWING
YORK RIVER, VIRGINIA
LOCATION MAP

SHEET 2 OF 18

USACE-NLW
RCVD 1/15/2016

T:\W\Wormley Creek\2014 Permit Drawing\WRMPS14C-HP1914.dwg; Jan 11, 2016 - 8:32am; E4TOGHAF

– NOTES –

PROJECT DIMENSIONS: A channel 7 feet deep and 30 feet wide extending from the 7 foot contour in the York River in to the West Branch of Wormley Creek to the U. S. Coast Guard docks and a turning basin 7 feet deep, 300 feet wide and 430 feet long.

MEAN LOWER LOW WATER (MLLW), National Tidal Datum Epoch (NTDE) of 1960–1978, was determined by the National Ocean Service (NOS) at the Yorktown American Oil Company dock, York River, and is 0.82 feet below the North Geodetic Vertical Datum (NGVD), of 1988.

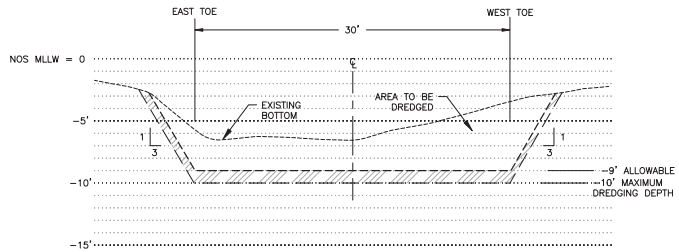
SOUNDINGS are in feet referred to NOS MLLW and were taken on 24 June and 6 September 2014.

MEAN RANGE OF TIDE is 2.20 feet at Yorktown, York river, VA based on NOS observations, NTDE 1983–2001.

COORDINATES are referred to the Virginia State Plane Coordinate System, South Zone in U.S. survey feet, and are based on the North American Datum of 1983.

PLANIMETRIC FEATURES were developed by digitizing from existing data.

LAST DREDGED by Virginia Marine Structures, Inc. in 2000.



TYPICAL SECTION SHOWING SIDESLOPES AND OVERDEPTH (NOT TO SCALE)

– LEGEND –

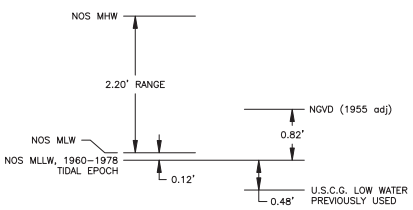
- LIMITS OF FEDERAL PROJECT
- WITHIN THIS AREA THE REMOVAL OF ALL MATERIAL TO A MAXIMUM ALLOWABLE DEPTH OF 10 FEET.
- OYSTER LEASE GROUNDS
- SHORELINE
- SEDIMENT SAMPLING LOCATIONS AND ANALYTICAL SAMPLE IDs
- AREA TO BE DREDGE
- BEACH FILL AREA 3.0' ELEVATION
- BEACH FILL SLOPES 30:1

ABBREVIATIONS

ELEV	ELEVATION
BOP	BEGINNING OF PROJECT
EOP	END OF PROJECT
PS	PLACEMENT SITE
NTDE	NATIONAL TIDAL DATUM EPOCH
inv	INVERT
HOR	HORIZONTAL SCALE
VERT	VERTICAL
MHW	MEAN HIGH WATER
MLW	MEAN LOW WATER
MLLW	MEAN LOWER LOW WATER
NGVD	NATIONAL GEODETIC VERTICAL DATUM
NOS	NATIONAL OCEAN SERVICE
adj	ADJUSTMENT
USC&GS	UNITED STATES COAST AND GEODETIC SURVEY

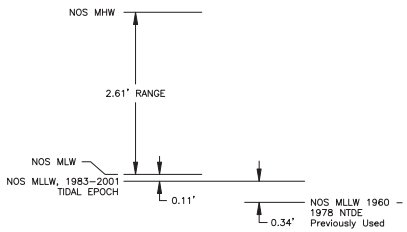
BENCHMARKS

BENCHMARKS	ELEVATIONS
USC&GS "L 418, 1963"	+9.80'
NOS "2200 B, 1980"	+9.90'
USCG "EL. 12.679 FT."	+13.10'
NOS "7689 B, 2004"	+11.43'
Elevations are relative to NOS MLLW, 1983–2001 NTDE	



DATUM DIAGRAM
WORMLEY CREEK
1960–1978 TIDAL EPOCH
(SCALE 1"–1')

KIPTOPEKE, CHESAPEAKE BAY



DATUM DIAGRAM
WOLFTRAP PS
1983–2001 TIDAL EPOCH
(SCALE 1"–1')

COORDINATES OF WOLF TRAP ALTERNATE DREDGED MATERIAL PLACEMENT AREA

POINT	EAST (X)	NORTH (Y)
1	12,157,316.49	3,664,185.37
2	12,163,374.66	3,664,334.07
3	12,153,628.17	3,631,895.34
4	12,159,686.35	3,632,043.34
5	12,158,468.56	3,662,925.67
6	12,161,927.52	3,663,010.57
7	12,157,901.26	3,657,959.11
8	12,161,360.22	3,658,044.01
9	12,157,333.96	3,652,992.56
10	12,160,792.92	3,653,077.46
11	12,156,766.66	3,648,026.01
12	12,160,225.61	3,648,110.91
13	12,156,209.92	3,643,151.94
14	12,159,668.88	3,643,236.84
15	12,155,642.62	3,638,185.39
16	12,159,101.57	3,638,270.29
17	12,155,075.31	3,633,218.84
18	12,158,534.27	3,633,303.74

COORDINATES OF WOLF TRAP ALTERNATE DREDGED MATERIAL PLACEMENT AREA (CELL 6)

POINT	EAST (X)	NORTH (Y)
15	12,155,642.62	3,638,185.39
16	12,159,101.57	3,638,270.29
17	12,155,075.31	3,633,218.84
18	12,158,534.27	3,633,303.74

CENTERLINE COORDINATES

STATION	EAST (X)	NORTH (Y)
–2+50.0	12,070,828.08	3,607,885.35
–0+60.0	12,070,992.66	3,607,790.41
0+00.0	12,071,044.63	3,607,760.43
0+25.0	12,071,066.29	3,607,747.94
1+20.0	12,071,148.64	3,607,700.47
10+95.0	12,072,091.65	3,607,947.41
11+76.0	12,072,172.65	3,607,942.41
15+61.0	12,072,476.66	3,607,706.40
20+78.0	12,072,921.67	3,607,443.39
21+80.0	12,073,015.67	3,607,390.39
22+81.0	12,073,115.67	3,607,390.39
23+93.0	12,073,225.67	3,607,410.38
25+93.0	12,073,369.68	3,607,550.38
28+96.0	12,073,465.68	3,607,837.38
30+19.0	12,073,559.68	3,607,916.38
34+22.0	12,073,960.69	3,607,873.37
35+93.0	12,074,116.69	3,607,942.37
39+46.0	12,074,301.69	3,608,243.37
42+00.0	12,074,352.60	3,608,492.14
51+16.0	12,074,599.90	3,609,374.06
62+03.0	12,075,135.72	3,610,319.63

US Army Corps of Engineers Norfolk District

REV.	DATE	DESCRIPTION	BY	APP.

DESIGNED: M.L.A. | CHECKED: M.L.A. | DATE: 31 JULY 14
DRAWN: H.A.F. | SURVEYED: K.L.G. | SCALE: AS SHOWN
NORFOLK DISTRICT FILE NO.: CPW/2014–10–02 PS(3)
DRAWING NO.:
SURVEYED BY: WATERWAY SURVEYS & ENGINEERING, Ltd.

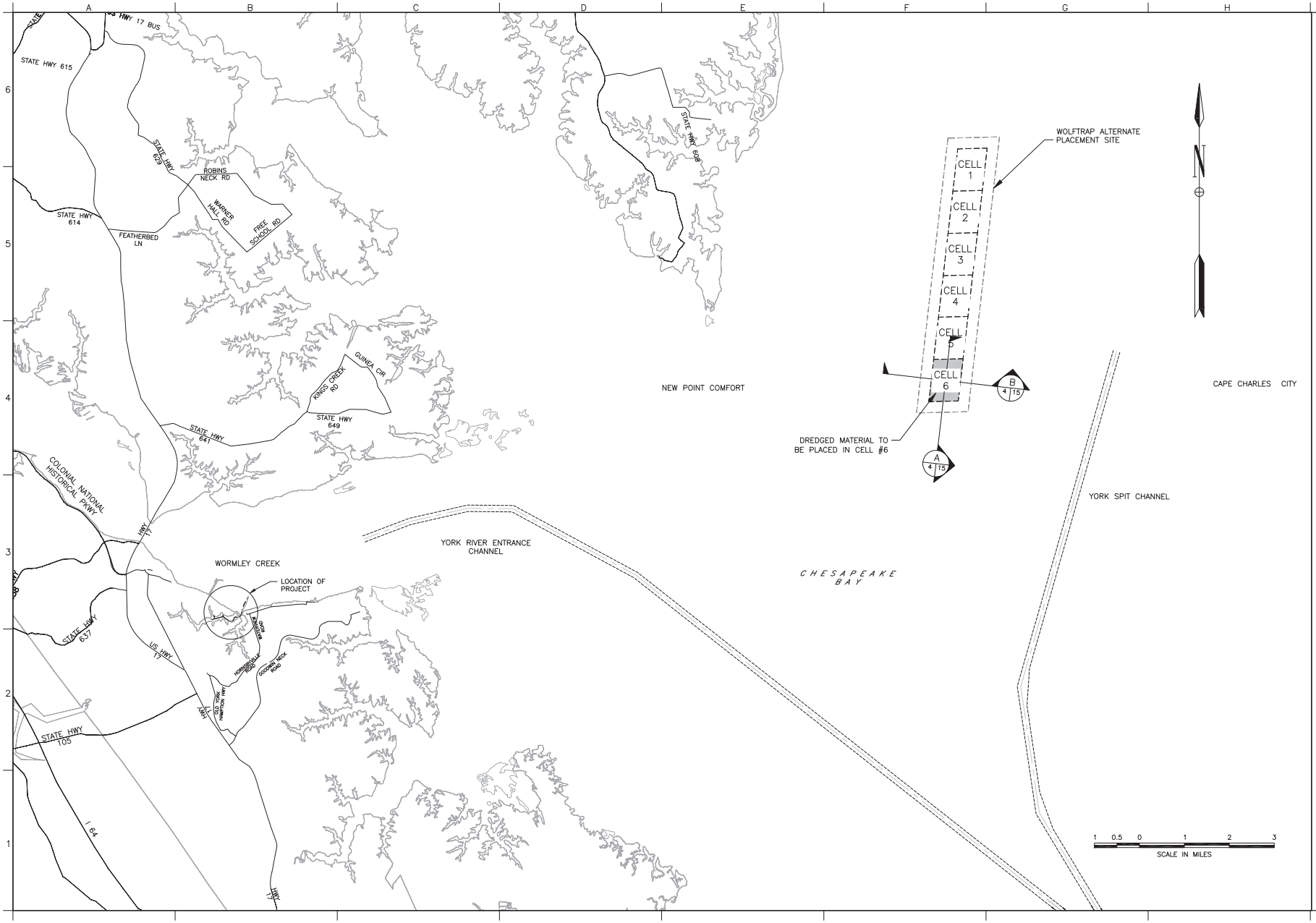
NORFOLK DISTRICT
CORPS OF ENGINEERS
NORFOLK, VIRGINIA

U.S. COAST GUARD TRAINING FACILITIES
WORMELY CREEK
PERMIT DRAWING
YORK RIVER, VIRGINIA
LEGEND & GENERAL NOTES

SHEET 3 OF 18

USACE-NLW
RCVD 1/15/2016

T:\W\Wormley Creek\2014 Permit Drawing\WRMPS14C-HP1914.dwg; Jan 11, 2016 – 8:32am; E4TOGHAF



US Army Corps of Engineers Norfolk District

REV.	DATE	DESCRIPTION	BY	APP.

NORFOLK DISTRICT
CORPS OF ENGINEERS
NORFOLK, VIRGINIA

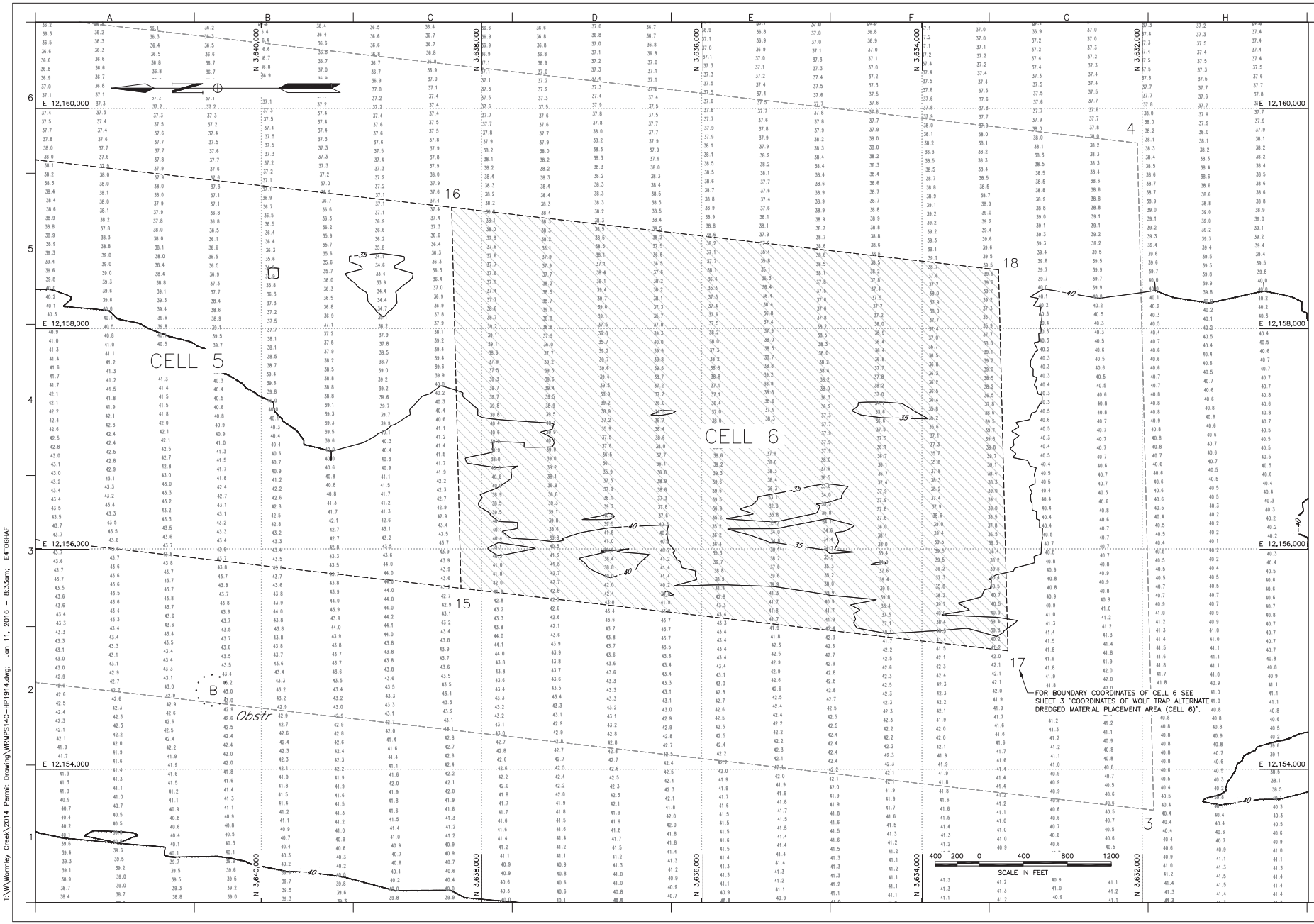
DESIGNED: M.L.A.
DRAWN: H.A.F.
CHECKED: M.L.A.
SUBMITTED: K.L.G.
DATE: 31 JULY 14
SCALE: AS SHOWN
NORFOLK DISTRICT FILE NO. CPW.2014-10-02.PS(4)
DRAWING NO.:
SURVEYED BY: WATERWAY SURVEYS & ENGINEERING, Ltd.

U.S. COAST GUARD TRAINING FACILITIES
WORMELY CREEK
PERMIT DRAWING
YORK RIVER, VIRGINIA
WOLF TRAP PLACEMENT SITE

SHEET 4 OF 16

USACE-NLW
RCVD 1/15/2016

T:\W\Wormley Creek\2014 Permit Drawing\WRMPS14C-HP1914.dwg; Jan 11, 2016 - 8:33am; E4TOGHAF



US Army Corps of Engineers Norfolk District

REV.	DATE	DESCRIPTION	BY	APP.

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DATE: 31 JULY 14
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DRAWN: H.A.F.
SCALE: AS SHOWN
REVIEWED: K.L.G.
NORFOLK DISTRICT FILE NO. CPW.2014-10-02.PS(5)
DRAWING NO.:
SURVEYED BY: WATERWAY SURVEYS & ENGINEERING, Ltd.

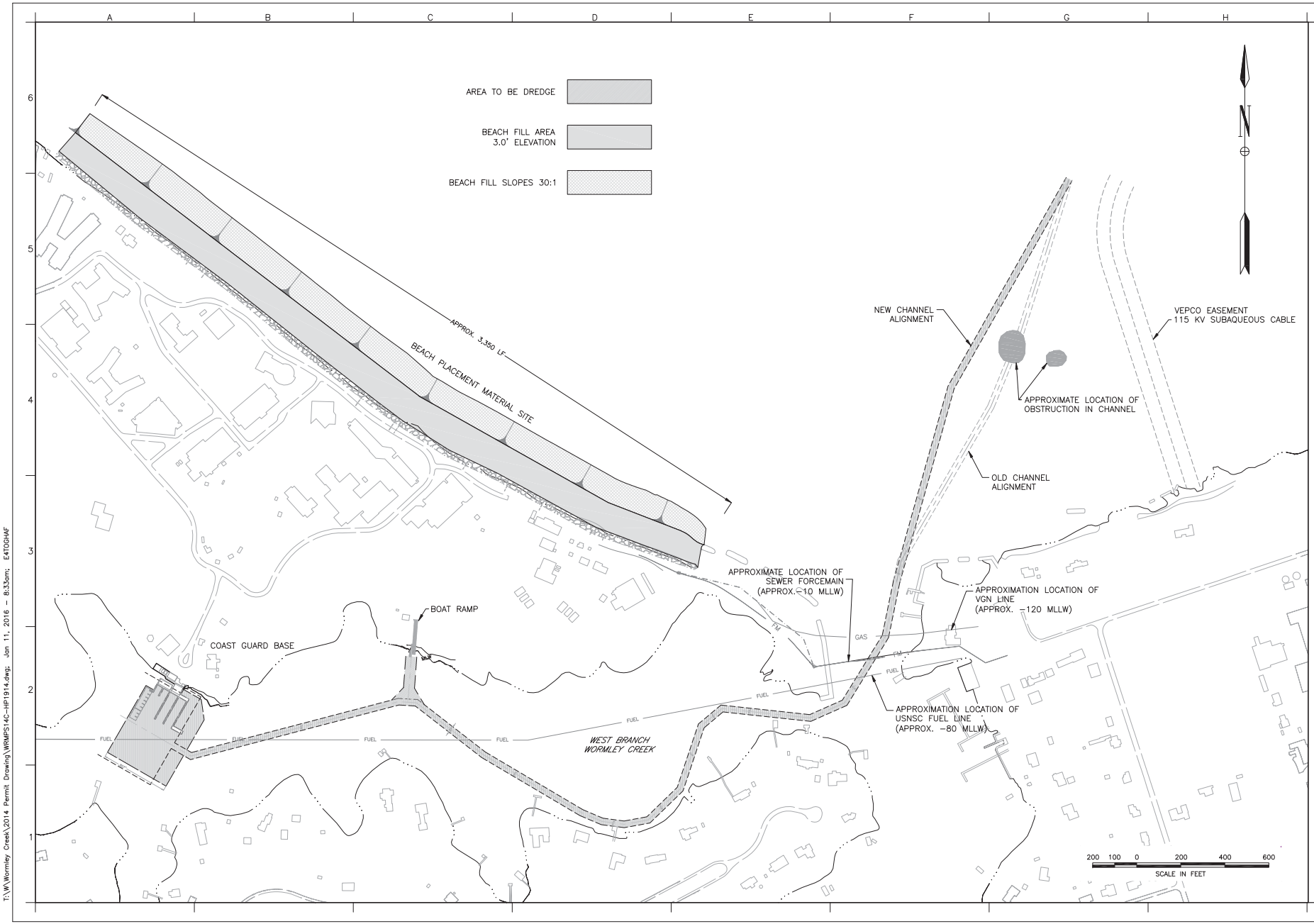
NORFOLK DISTRICT
CORPS OF ENGINEERS
NORFOLK, VIRGINIA

U.S. COAST GUARD TRAINING FACILITIES
WORMELY CREEK
PERMIT DRAWING
YORK RIVER, VIRGINIA
WOLF TRAP PLACEMENT SITE (CELL 6)

SHEET 5 OF 5

USACE-NLW
RCVD 1/15/2016

T:\W\Wormley Creek\2014 Permit Drawing\WRMPS14C-HP1914.dwg; Jan 11, 2016 - 8:33am; E4TOSHAF



US Army Corps of Engineers Norfolk District

REV.	DATE	DESCRIPTION	BY	APP.

NORFOLK DISTRICT
CORPS OF ENGINEERS
NORFOLK, VIRGINIA

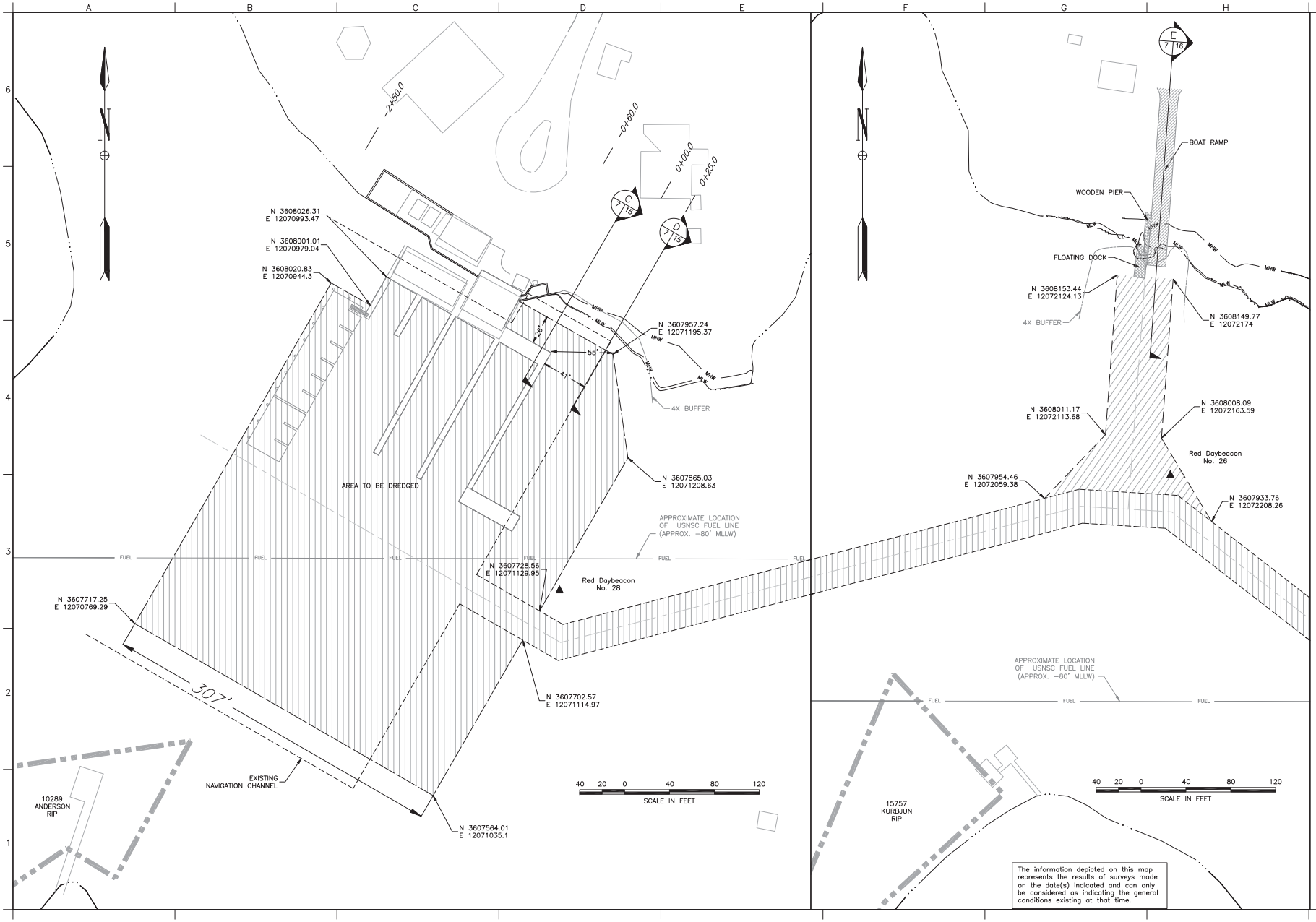
DESIGNED: M.L.A.
DRAWN: H.A.F.
CHECKED: M.L.A.
SUPERVISED: K.L.G.
DATE: 31 JULY 14
SCALE: AS SHOWN
NORFOLK DISTRICT FILE NO. CPW/2014-10-02-PS(6)
DRAWING NO.:
SURVEYED BY: WATERWAY SURVEYS & ENGINEERING, Ltd.

U.S. COAST GUARD TRAINING FACILITIES
WORMELY CREEK
PERMIT DRAWING
YORK RIVER, VIRGINIA
OVERALL PLAN

SHEET 6 OF 16

USACE-NLW
RCVD 1/15/2016

T:\W\Wormley Creek\2014 Permit Drawing\WRMPS14C-HP1914.dwg; Jan 11, 2016 - 8:33am; E4TOGHAF



US Army Corps of Engineers
Norfolk District

REV.	DATE	DESCRIPTION	BY	APP.

NORFOLK DISTRICT
CORPS OF ENGINEERS
NORFOLK, VIRGINIA

DESIGNED: M.L.A.
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CHECKED: M.L.A.
SUPERVISED: K.L.G.
DATE: 31 JULY 14
SCALE: AS SHOWN
NORFOLK DISTRICT FILE NO. CPW-2014-10-02-PS(7)
DRAWING NO.:
SURVEYED BY: WATERWAY SURVEYS & ENGINEERING, Ltd.

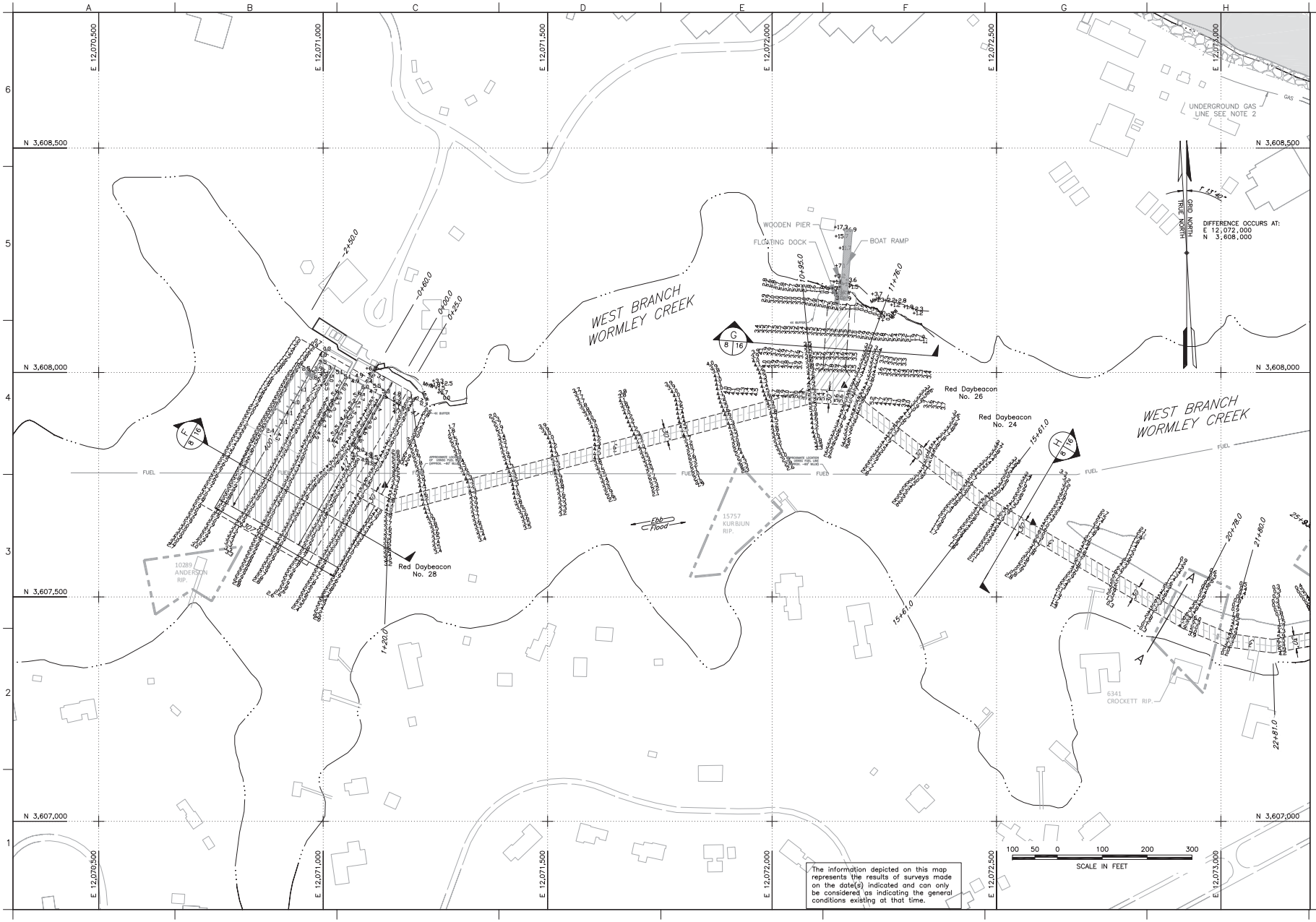
U.S. COAST GUARD TRAINING FACILITIES
WORMELY CREEK
PERMIT DRAWING
YORK RIVER, VIRGINIA

COAST GUARD DOCK & BOAT RAMP PLAN VIEW

SHEET 7 OF 16

T:\W\Wormley Creek\2014 Permit Drawing\WRMPS14C-HP1914.dwg; Jan 11, 2016 - 8:34am; E4TOGHAF

USACE-NLW
RCJ-2016-00136



The information depicted on this map represents the results of surveys made on the date(s) indicated and can only be considered as indicating the general conditions existing at that time.

US Army Corps of Engineers Norfolk District

REV.	DATE	DESCRIPTION	BY	APP.

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CHECKED: M.L.A.
REVIEWED: K.L.G.
DATE: 31 JULY 14
SCALE: AS SHOWN
NORFOLK DISTRICT FILE NO. CPW.2014-10-02.PS(8)
DRAWING NO.:
SURVEYED BY: WATERWAY SURVEYS & ENGINEERING, Ltd.

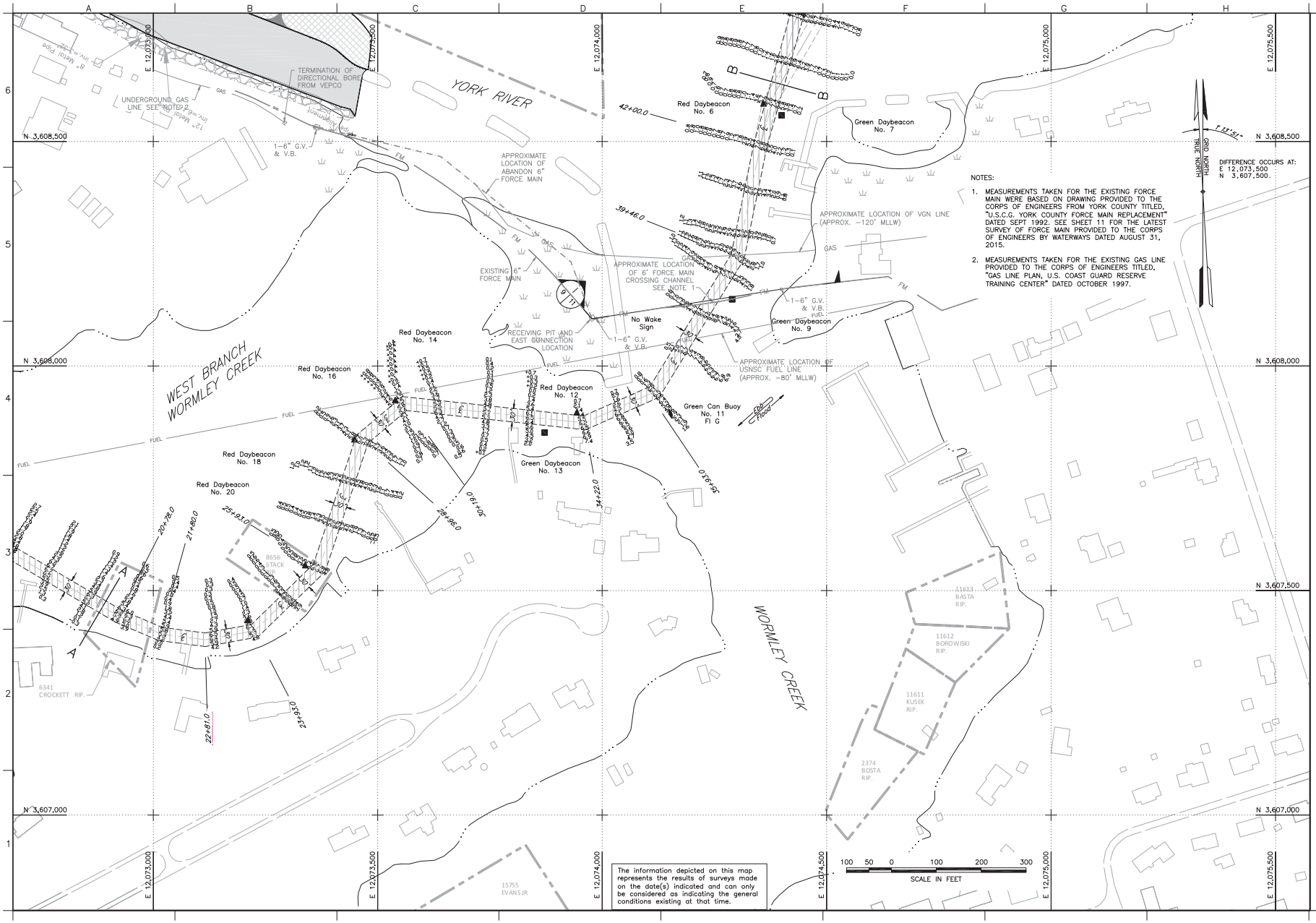
NORFOLK DISTRICT
CORPS OF ENGINEERS
NORFOLK, VIRGINIA

U.S. COAST GUARD TRAINING FACILITIES
WORMELY CREEK
PERMIT DRAWING
YORK RIVER, VIRGINIA
MAPPING SHEET

SHEET 8 OF 16

T:\W\Wormley Creek\2014 Permit Drawing\WRMPS14C-HP1914.dwg; Jan 11, 2016 - 8:34am; E4TOSHAF

USACE-NLW
RCVD 1/15/2016



NOTES:

1. MEASUREMENTS TAKEN FOR THE EXISTING FORCE MAIN WERE BASED ON DRAWING PROVIDED TO THE CORPS OF ENGINEERS FROM YORK COUNTY TITLED, "U.S.C.G. YORK COUNTY FORCE MAIN REPLACEMENT" DATED SEPT 1992. SEE SHEET 11 FOR THE LATEST SURVEY OF FORCE MAIN PROVIDED TO THE CORPS OF ENGINEERS BY WATERWAYS DATED AUGUST 31, 2015.
2. MEASUREMENTS TAKEN FOR THE EXISTING GAS LINE PROVIDED TO THE CORPS OF ENGINEERS TITLED, "GAS LINE PLAN, U.S. COAST GUARD RESERVE TRAINING CENTER" DATED OCTOBER 1997.

US Army Corps of Engineers Norfolk District

REV.	DATE	DESCRIPTION	BY	APP.

NORFOLK DISTRICT
CORPS OF ENGINEERS
NORFOLK, VIRGINIA

DESIGNED: M.L.A.
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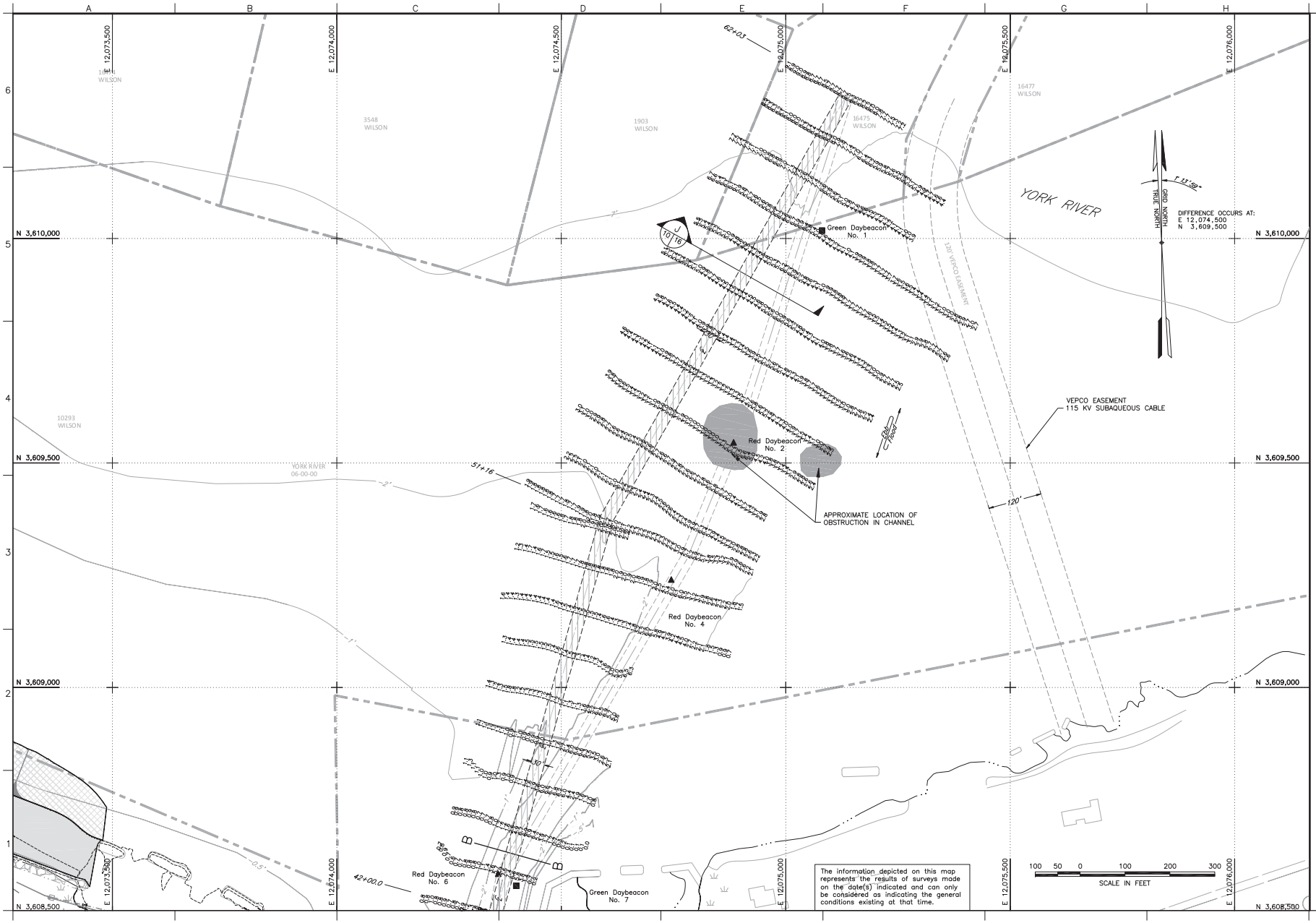
CHECKED: M.L.A.
SUBMITTED: K.L.G.
DATE: 31 JULY 14
SCALE: AS SHOWN
NORFOLK DISTRICT FILE NO. CPW/2014-10-02 PS(9)
DRAWING NO.:
SURVEYED BY: WATERWAY SURVEYS & ENGINEERING, Ltd.

U.S. COAST GUARD TRAINING FACILITIES
WORMLEY CREEK
PERMIT DRAWING
YORK RIVER, VIRGINIA
MAPPING SHEET (CONT'D)

SHEET 9 OF

USACE-NLW
RCVD 1/15/2016

T:\W\Wormley Creek\2014 Permit Drawing\WRMPS14C-HP1914.dwg; Jan 11, 2016 - 8:35am; E4TOGHAF



US Army Corps of Engineers Norfolk District

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DRAWN: H.A.F.
SCALE: AS SHOWN
REVIEWED: K.L.G.
NORFOLK DISTRICT FILE NO. CPW.2014-10-02.PS(10)
DRAWING NO.:
SURVEYED BY: WATERWAY SURVEYS & ENGINEERING, Ltd.

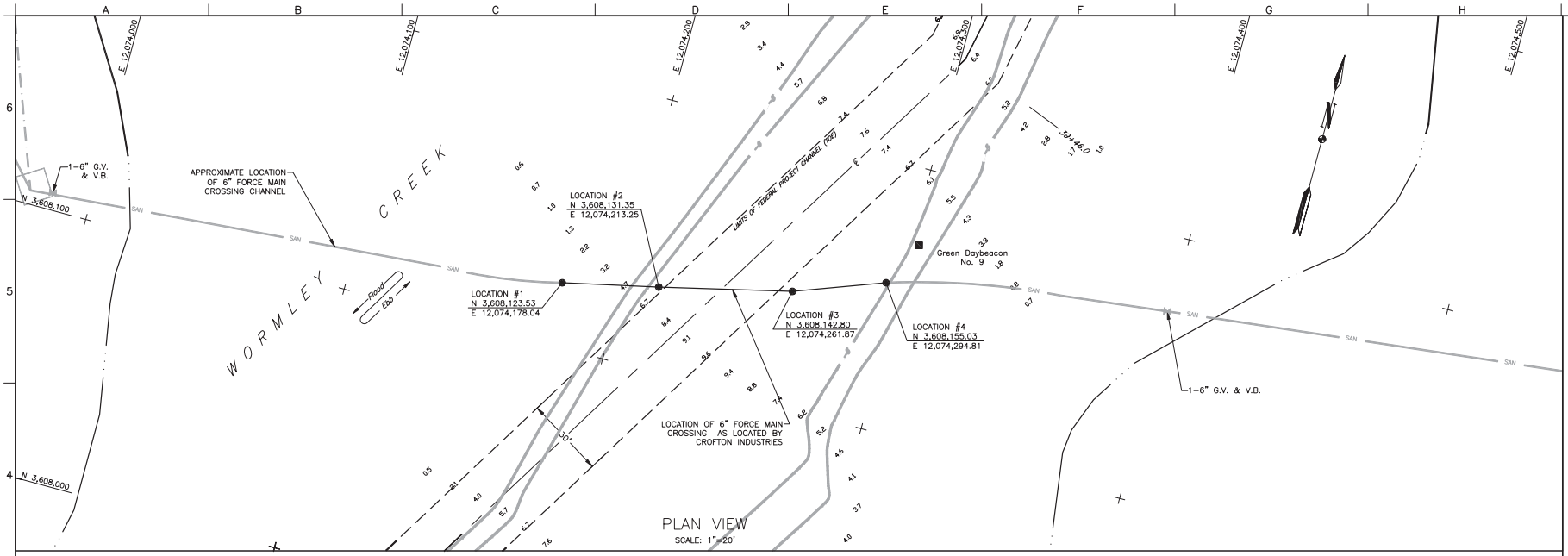
NORFOLK DISTRICT
CORPS OF ENGINEERS
NORFOLK, VIRGINIA

U.S. COAST GUARD TRAINING FACILITIES
WORMELY CREEK
PERMIT DRAWING
YORK RIVER, VIRGINIA
MAPPING SHEET (CONTD)

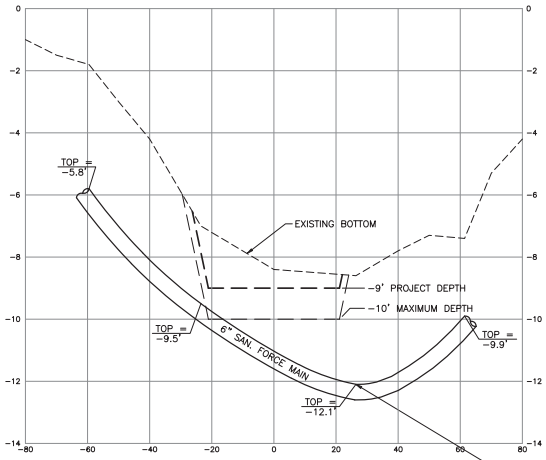
SHEET 10 OF 16

T:\W\Wormley Creek\2014 Permit Drawing\WRMPS14C-HP1914.dwg; Jan 11, 2016 - 8:35am; E4TOGHAF

USACE-NLW
RCVD 1/15/2016



PLAN VIEW
SCALE: 1"=20'



6" SANITARY FORCE MAIN PROFILE
HORZ. 1"=20' VERT. 1"=2'

NOTE: DIVERS OBSERVED AT THIS LOCATION THAT THE PIPE WAS ENCASED IN A WOODEN BOX, DEPTH WAS TO TOP OF WOODEN BOX.

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

NOTES:

1. SOUNDINGS AND PLANIMETRICS WERE TAKEN FROM ARMY CORPS OF ENGINEERS "U.S. COAST GUARD TRAINING FACILITIES WORMLEY CREEK PLANS FOR DREDGING", FILE NUMBER WMC.2014-06-24.PS.
2. SOUNDINGS ARE IN FEET REFERRED TO MEAN LOWER LOW WATER (MLLW) 1960-1978(NTDE) BASED ON NATIONAL OCEAN SERVICE (NOS) OBSERVATIONS AND WERE TAKEN ON JUNE 24 & SEPT. 6, 2014.
3. COORDINATES ARE IN U.S. SURVEY FEET REFERRED TO THE VIRGINIA STATE GRID (SOUTH ZONE) BASED ON NAD83.
4. ● DENOTES FIELD LOCATION, PERFORMED BY CROFTON INDUSTRIES.

COMMONWEALTH OF VIRGINIA
JOHN B. WALSH
Lic. No. 11954
08/31/15
PROFESSIONAL ENGINEER

Graphic Scale
20 10 0 20 40
Scale: 1"=20'

US Army Corps of Engineers Norfolk District

REV.	DATE	DESCRIPTION	BY	APP.

DESIGNED: N/A
DRAWN: M.S.P.
CHECKED: J.B.W.
SUBMITTED: S.M.A.
DATE: 31-AUG-15
SCALE: AS SHOWN
NORFOLK DISTRICT FILE NO. CPW.2014-10-02.PS(11)
DRAWING NO.:
SURVEYED BY: N/A

NORFOLK DISTRICT
CORPS OF ENGINEERS
NORFOLK, VIRGINIA

Waterway Surveys & Engineering, Ltd.
201 Chesapeake Blvd., Norfolk, Virginia, 23502
1000 Ridge Rd., Phoenixville, Pennsylvania

U.S. COAST GUARD TRAINING FACILITIES
WORMLEY CREEK
PERMIT DRAWING
YORK RIVER, VIRGINIA
PLAN & PROFILE 6-INCH FORCE MAIN

SHEET 11 OF 16

USACE-NLW
RCVD 1/15/2016

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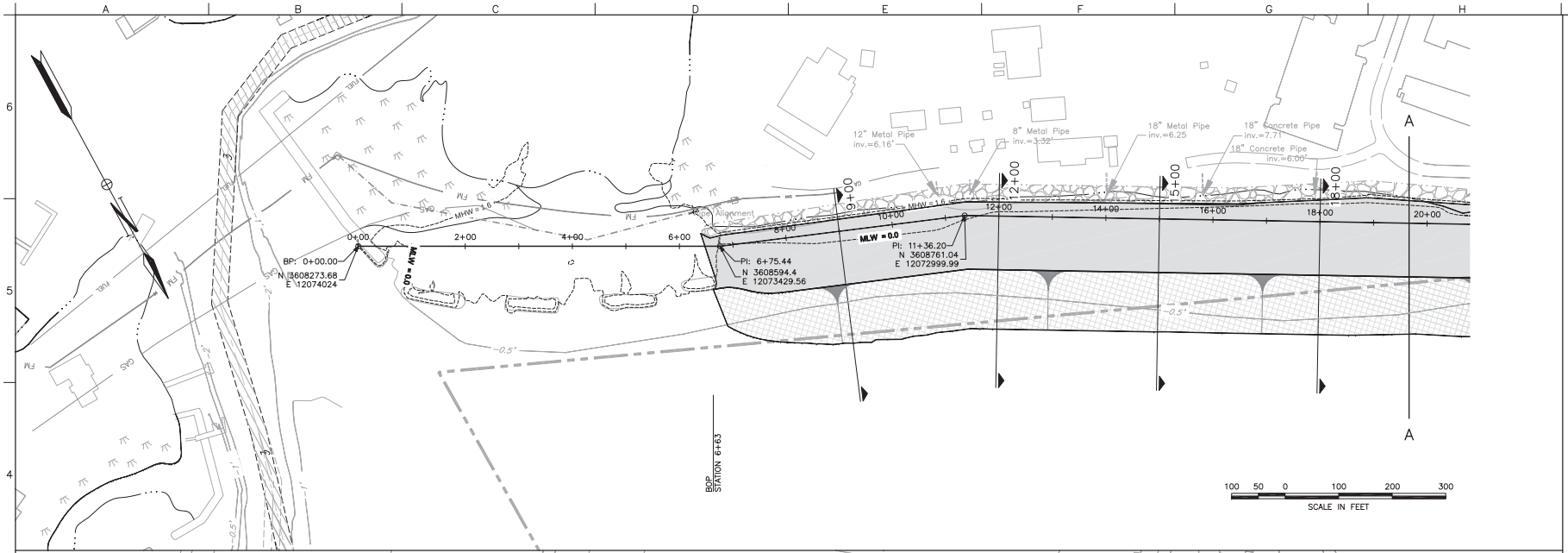
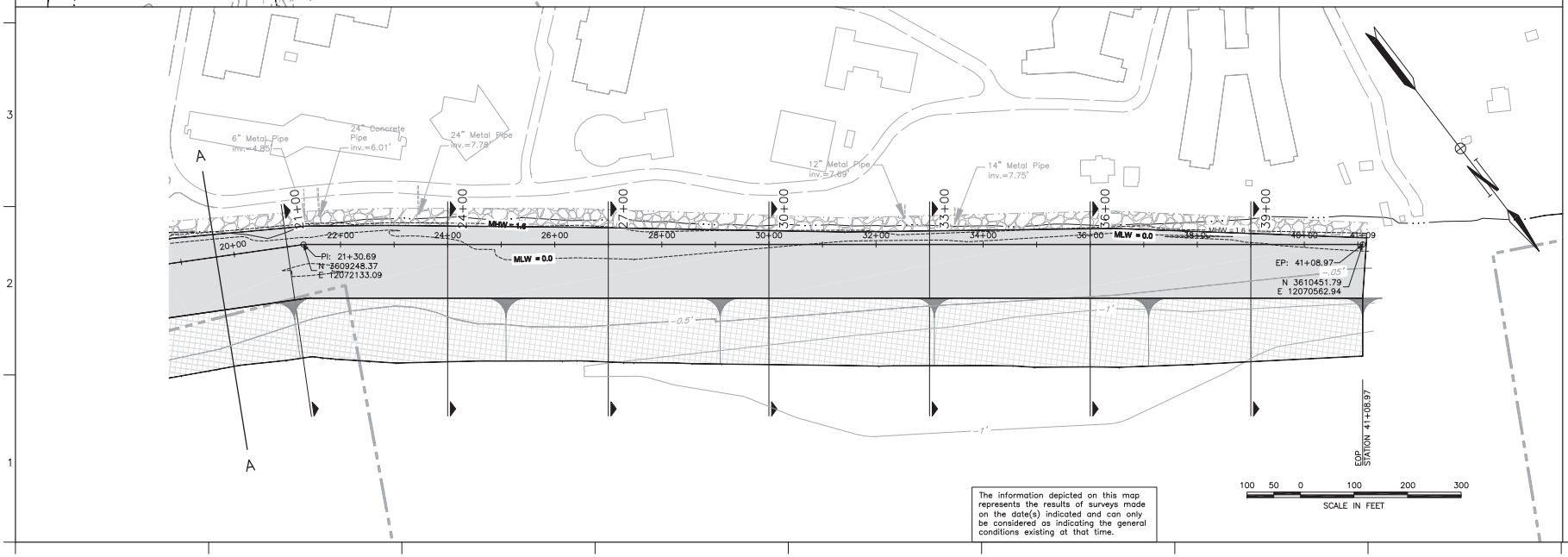




The information depicted on this map represents the results of surveys made on the date(s) indicated and can only be considered as indicating the general conditions existing at that time.

US Army Corps of Engineers Norfolk District

REV.	DATE	DESCRIPTION	BY	APP.

NORFOLK DISTRICT
CORPS OF ENGINEERS
NORFOLK, VIRGINIA

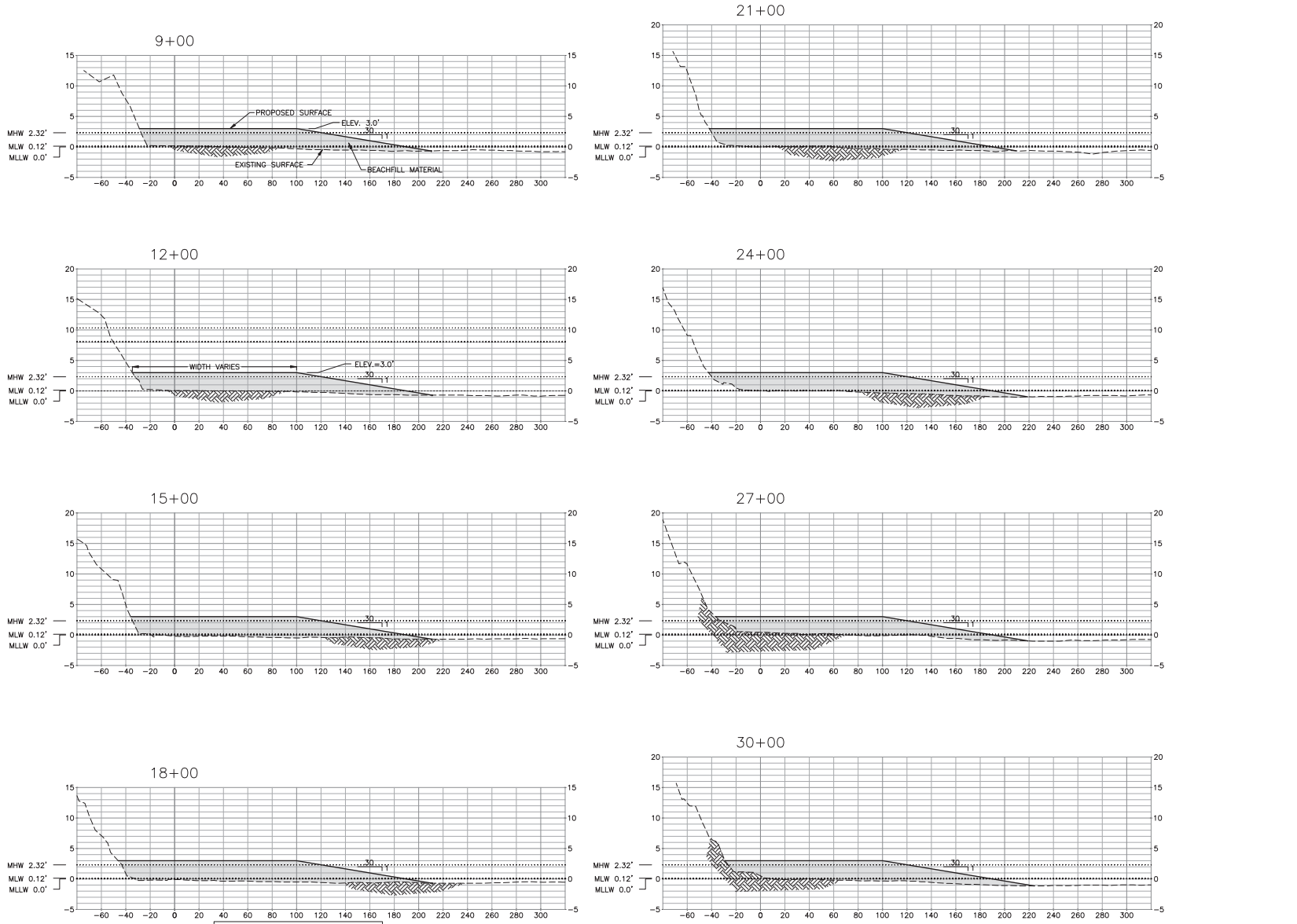
DESIGNED: DATE: 31 JULY 14
DRAWN: H.A.F. CHECKED: M.L.A.
SCALE: AS SHOWN APPROVED: K.L.G.
NORFOLK DISTRICT FILE NO. CPW.2014-10-02.PS(12)
DRAWING NO.:
SURVEYED BY: WATERWAY SURVEYS & ENGINEERING, Ltd.

U.S. COAST GUARD TRAINING FACILITIES
WORMELY CREEK
PERMIT DRAWING
YORK RIVER, VIRGINIA
PLAN VIEW - BEACH PLACEMENT SITE

SHEET 12 OF 19

USACE-NLW
RCVD 1/15/2016

T:\W\Wormley Creek\2014 Permit Drawing\WRMPS14C-HP1914.dwg; Jan 11, 2016 - 8:36am; E4TGHAF



The information depicted on this map represents the results of surveys made on the date(s) indicated and can only be considered as indicating the general conditions existing at that time.

US Army Corps of Engineers Norfolk District

REV.	DATE	DESCRIPTION	BY	APP.

NORFOLK DISTRICT
CORPS OF ENGINEERS
NORFOLK, VIRGINIA

DESIGNED: M.L.A.
DRAWN: H.A.F.
CHECKED: M.L.A.
SUPERVISED: K.L.G.
DATE: 31 JULY 14
SCALE: AS SHOWN
NORFOLK DISTRICT FILE NO. CPW.2014-10-02.PS(13)
DRAWING NO.:
SURVEYED BY: WATERWAY SURVEYS & ENGINEERING, Ltd.

U.S. COAST GUARD TRAINING FACILITIES
WORMELY CREEK
PERMIT DRAWING
YORK RIVER, VIRGINIA
BEACH PLACEMENT CROSS-SECTIONS

SHEET 13 OF 19

USACE-NLW
RCVD 1/15/2016

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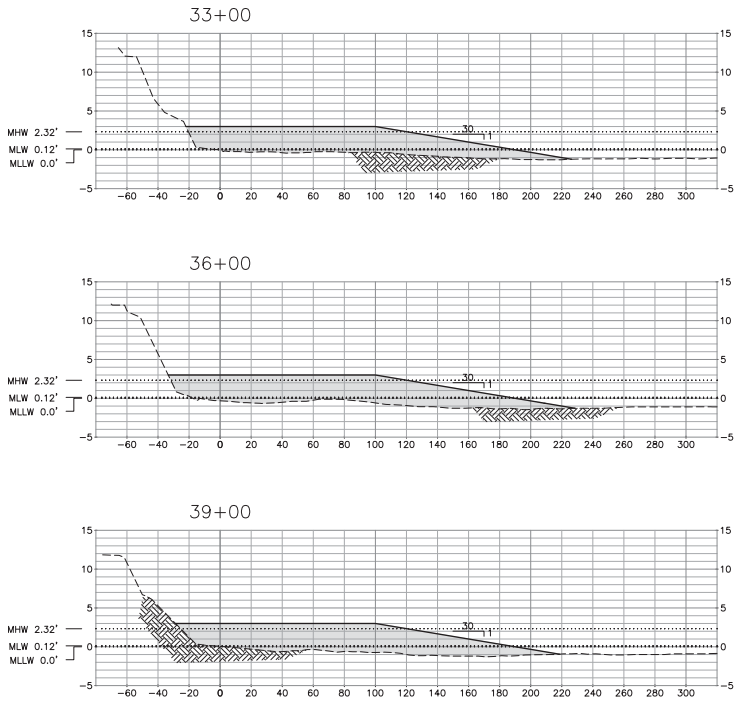

40 20 0 40 80 120 HORIZONTAL SCALE
SCALE IN FEET

8 4 0 8 16 24 VERTICAL SCALE
SCALE IN FEET

The information depicted on this map represents the results of surveys made on the date(s) indicated and can only be considered as indicating the general conditions existing at that time.

US Army Corps of Engineers Norfolk District

REV.	DATE	DESCRIPTION	BY	APP.

NORFOLK DISTRICT
CORPS OF ENGINEERS
NORFOLK, VIRGINIA

DESIGNED: | CHECKED: M.L.A. | DATE: 31 JULY 14
DRAWN: H.A.F. | SUBMITTED: K.L.G. | SCALE: AS SHOWN
NORFOLK DISTRICT FILE NO.: CPM.2014-10-02.PS(14)
DRAWING NO.:
SURVEYED BY: WATERWAY SURVEYS & ENGINEERING, Ltd.

U.S. COAST GUARD TRAINING FACILITIES
WORMELY CREEK
PERMIT DRAWING
YORK RIVER, VIRGINIA
BEACH PLACEMENT CROSS-SECTIONS (CONT'D)

SHEET 14 OF 16

USACE - NLW
RCVD 11/15/2016

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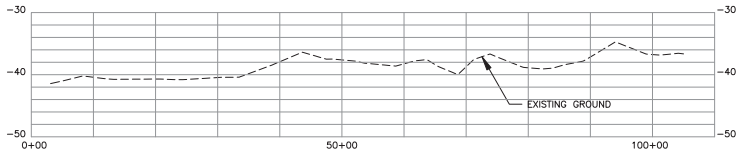
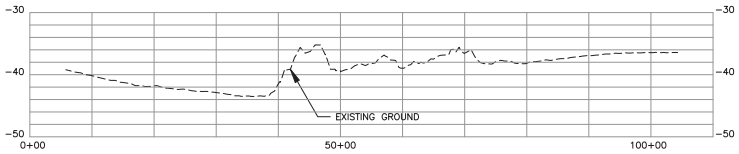


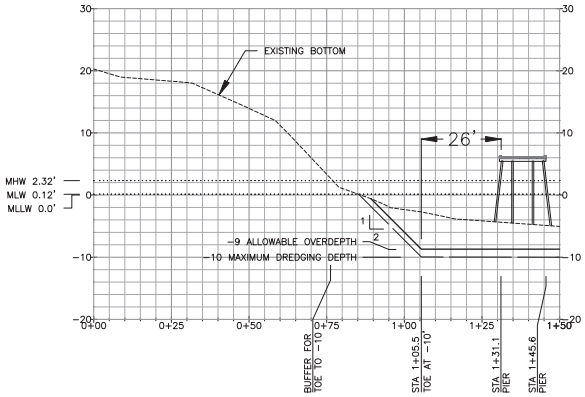
A 4/15 TYPICAL PLACEMENT SITE CROSS-SECTION
SCALE: AS SHOWN



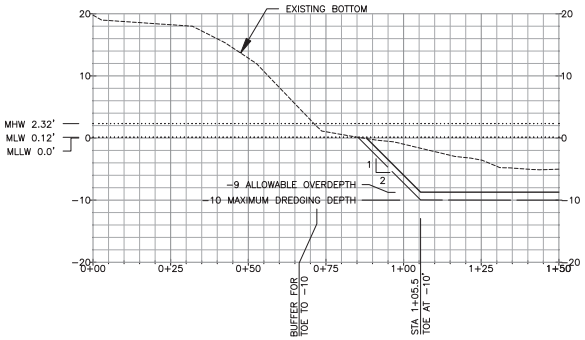
B 4/15 TYPICAL PLACEMENT SITE CROSS-SECTION
SCALE: AS SHOWN

1000 500 0 1000 2000 3000 HORIZONTAL SCALE
SCALE IN FEET

10 5 0 10 20 30 VERTICAL SCALE
SCALE IN FEET



C 7/15 STATION -0+25
SCALE: AS SHOWN



D 7/15 STATION 0+25
SCALE: AS SHOWN

20 10 0 20 40 60 HORIZONTAL SCALE
SCALE IN FEET

10 5 0 10 20 30 VERTICAL SCALE
SCALE IN FEET

20 10 0 20 40 60 HORIZONTAL SCALE
SCALE IN FEET

10 5 0 10 20 30 VERTICAL SCALE
SCALE IN FEET

US Army Corps of Engineers Norfolk District

REV.	DATE	DESCRIPTION	BY	APP.

NORFOLK DISTRICT
CORPS OF ENGINEERS
NORFOLK, VIRGINIA

DESIGNED: M.L.A.
DRAWN: H.A.F.
CHECKED: M.L.A.
SUBMITTED: K.L.G.
DATE: 31 JULY 14
SCALE: AS SHOWN
NORFOLK DISTRICT FILE NO. CPW-2014-110-02-PS(15)
DRAWING NO.:
SURVEYED BY: WATERWAY SURVEYS & ENGINEERING, Ltd.

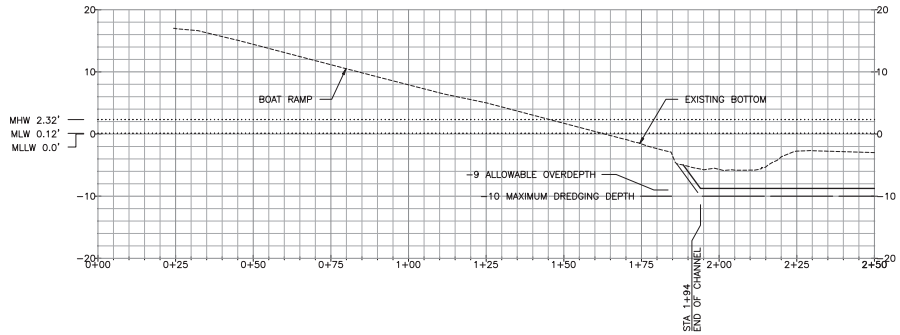
U.S. COAST GUARD TRAINING FACILITIES
WORMELY CREEK
PERMIT DRAWING
YORK RIVER, VIRGINIA

DOCK & WOLF TRAP CROSS-SECTION

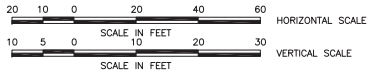
SHEET 15 OF 19

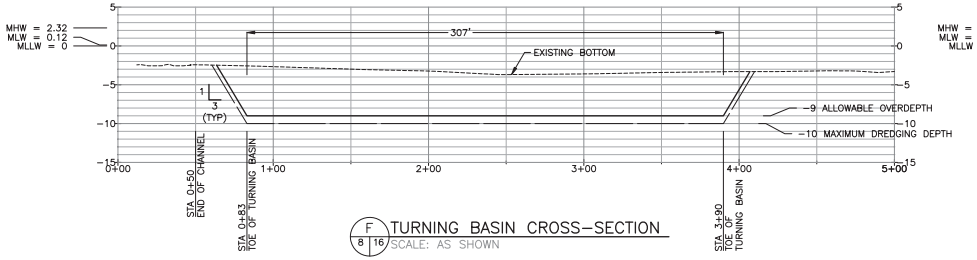
USACE-NLW
RGVD 1/15/2016

T:\W\Wormley Creek\2014 Permit Drawing\WRMPS14C-HP1914.dwg; Jan 11, 2016 - 8:37am; E4TOGHAF

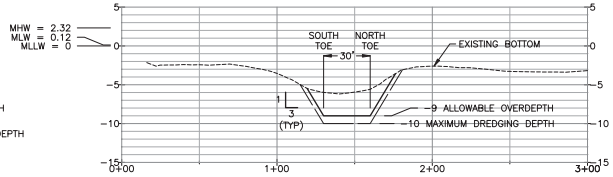


E 7/16 BOAT RAMP – CROSS-SECTION
SCALE: AS SHOWN

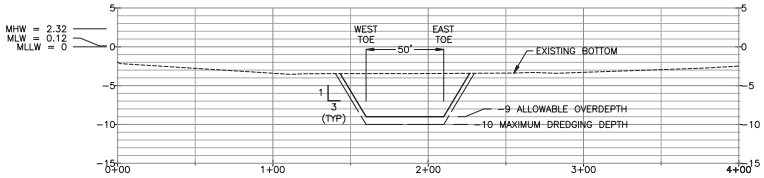




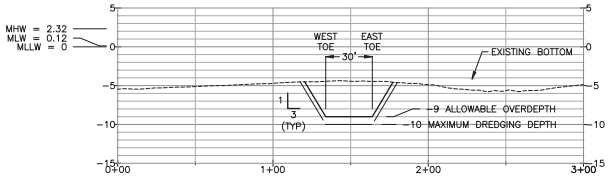
F 8/16 TURNING BASIN CROSS-SECTION
SCALE: AS SHOWN



H 8/16 CHANNEL CROSS-SECTION
SCALE: AS SHOWN



G 8/16 NEW NAVAL ENTRANCE CHANNEL CROSS-SECTION
SCALE: AS SHOWN



J 10/16 CHANNEL CROSS-SECTION
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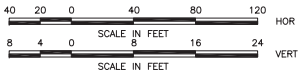

US Army Corps of Engineers Norfolk District

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NORFOLK DISTRICT
CORPS OF ENGINEERS
NORFOLK, VIRGINIA

DESIGNED:
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NORFOLK DISTRICT FILE NO.
CPW/2014-10-02-PS(16)
DRAWING NO.:
SURVEYED BY:
WATERWAY SURVEYS & ENGINEERING, Ltd.

U.S. COAST GUARD TRAINING FACILITIES
WORMELY CREEK
PERMIT DRAWING
YORK RIVER, VIRGINIA
CHANNEL & BOAT RAMP CROSS-SECTION

SHEET 16 OF 16

USACE-NLW
RCVD 11/15/2016

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