

U.S. Army Corps
of Engineers

Baltimore District

Public Notice

In Reply to Application Number
NAB-2018-61083-13 (Baltimore County Department of
Environmental Protection and Sustainability/Bird River
Maintenance Dredging)

PN-19-44

Comment Period: July 03, 2019 to August 02, 2019

THE PURPOSE OF THIS PUBLIC NOTICE IS TO SOLICIT COMMENTS FROM THE PUBLIC REGARDING THE WORK DESCRIBED BELOW. NO DECISION HAS BEEN MADE AS TO WHETHER OR NOT A PERMIT WILL BE ISSUED AT THIS TIME.

This District has received an application for a Department of the Army permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 and/or Section 404 of the Clean Water Act (33. U.S.C. 1344) as described below:

APPLICANT: Baltimore County Department of Environmental Protection and Sustainability
111 W. Chesapeake Avenue #319
Towson, Maryland 21204

WATERWAY AND LOCATION: Bird River and Railroad Creek channels, between Loreley Beach Road on the north and Bird River Grove Road on the south, including the main channel of Bird River and 48 adjacent spur channels, in Baltimore County, Maryland (Latitude: 39° 22' 50" N; Longitude: 76° 22' 3" W).

PROPOSED WORK AND PURPOSE: to mechanically and/or hydraulically dredge Bird River and 48 spur channels to properties on the following streets: North River Drive, Community Road, South River Drive, Mallard Road, Blackhead Road, Stuppfs Road, Bowerman Road, Loreley Beach Road, Beach Road, Stevens Road, and Bird River Grove Road. The proposed main channel work includes dredging approximately 26,630 linear feet (51.3 acres) of channel 30 to 90 feet wide to depths of -5.0 feet to -4.0 feet deep mean low water. The proposed spur channel work includes dredging 48 connecting spurs totaling approximately 6,050 linear feet (4.5 acres). The quantity of dredged material proposed to be removed from the main channel and adjacent spur channels is approximately 103,969 cubic yards of material. The dredged material is proposed to be mechanically or hydraulically transferred and placed over a two-year period in the Bird River Creek Dredged Material Placement site located nearby. In conjunction with the dredging project, the Bird River Creek Dredged Material Placement site will be excavated as part of a rehabilitation project to increase capacity. The disposal site will have approximately 111,976 cubic yards of available capacity upon rehabilitation.

Of the total dredging in the main channel of Bird River, approximately 1,137 linear feet (1.08 acres) will be new dredging and the remaining 25,493 linear feet (50.22 acres) will be dredging of areas previously dredged. Of the total 48 spur channels to be dredged, 36 spurs will be new dredging (2.6 acres) and the remaining 12 spurs (1.9 acres) will be dredging of areas previously dredged.

The purpose of the proposed work is to improve navigable access within the areas. Portions of this project were previously dredged between 2002 and 2004. Since then, channel depths have decreased in varying amounts due to sedimentation and littoral drift.

As part of the planning process for the proposed project, steps were taken to ensure avoidance and minimization of impacts to waters of the United States to the maximum extent practicable. Compensatory mitigation is not being proposed by the applicant at this time for the proposed dredging work.

ESSENTIAL FISH HABITAT: The Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), as amended by the Sustainable Fisheries Act of 1996 (Public Law 04-267), requires all federal agencies to consult with the National Marine Fisheries Service on all actions, or proposed actions, permitted, funded, or undertaken by the agency that may adversely affect Essential Fish Habitat (EFH). The project site lies in or adjacent to EFH as described under MSFCMA for adult Little Skate (*Leucoraja erinacea*) and Winter Skate (*Leucoraja ocellata*); juvenile and adult Windowpane Flounder (*Scopthalmus aquosus*), Red Hake (*Urophycis chuss*), Atlantic Herring (*Clupea harengus*), Clearnose Skate (*Raja eglanteria*), Black Sea Bass (*Centropristis striata*), Bluefish (*Pomatomus saltatrix*), Summer Flounder (*Paralichthys dentatus*), and Scup (*Stenotomus chrysops*); larvae Red Hake (*Urophycis chuss*), and Summer Flounder (*Paralichthys dentatus*); eggs Red Hake (*Urophycis chuss*); and all managed species under the MSFCMA.

The project has the potential to affect EFH or the species of concern by the alteration of spawning, nursery, forage and/or shelter habitat. The project may have an effect on the EFH area as described under the MSFCMA for the species and life stages identified above. This habitat consists of the Atlantic coastal plain sediments. According to the Virginia Institute of Marine Science survey maps, Submerged Aquatic Vegetation (SAV) has been mapped in the project area in 2016 and 2017. The proposed project overlaps the mapped SAV by approximately 53.38 acres. In 2017, two SAV surveys were conducted for the Department of Environmental Protection and Sustainability to locate spring and summer species within the waterway. Three species were documented in June of 2017 - hydrilla (*Hydrilla verticillata*), wild celery (*Vallisneria americana*), and coontail (*Ceratophyllum demersum*). Eight species were documented in August of 2017 - hydrilla (*Hydrilla verticillata*), wild celery (*Vallisneria americana*), coontail (*Ceratophyllum demersum*), curly pondweed (*Potamogeton crispus*), Eurasian watermilfoil (*Myriophyllum spicatum*), slender pondweed (*Potamogeton pusillus*), redhead grass (*Potamogeton perfoliatus*), and spiny naiad (*Najas minor*).

The Baltimore District has made a preliminary determination that site-specific impacts would be not be substantial and an abbreviated consultation will be conducted with National Marine Fisheries Service. Mitigative measures may be required to minimize effects on EFH, but the applicant has not included any measures to date. This preliminary determination may be modified if additional information indicates otherwise and could change the Corps' preliminary determination.

The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which reasonable may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors, which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are conservation, economic, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, and consideration of property ownership and in general, the needs and welfare of the people.

WATER QUALITY CERTIFICATION AND COASTAL ZONE MANAGEMENT PROGRAM:

The applicant is required to obtain a water quality certification in accordance with Section 401 of the Clean Water Act from the Maryland Department of Environment. The Section 401 certifying agency has a statutory limit of one year from the date of this public notice to make its decision.

Where applicable, the applicant has certified in this application that the proposed activity complies with and will be conducted in a manner consistent with the approved Coastal Zone Management Program. By this public notice, we are requesting the state concurrence or objection to the applicant's consistency statement. It should be noted that the Coastal Zone Management Program has a statutory limit of 6 months to make its consistency determination

The applicant must obtain any other state or local government permits which may be required.

ENDANGERED SPECIES ACT: A preliminary review of this application indicates that the proposed work will have no effect on federally listed threatened or endangered species or their critical habitat, pursuant to Section 7 of the Endangered Species Act, as amended. As the evaluation of this application continues, additional information may become available which could modify this preliminary determination.

NATIONAL HISTORIC PRESERVATION ACT: Review of the latest published version of the National Register of Historic Places indicates that no registered properties listed as eligible for inclusion, therein, are located at the site of the proposed work. Currently unknown archeological, scientific, prehistoric, or historical data may be lost or destroyed by the work to be accomplished under the request permit.

The Corps of Engineers is soliciting comments from the public; federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above.

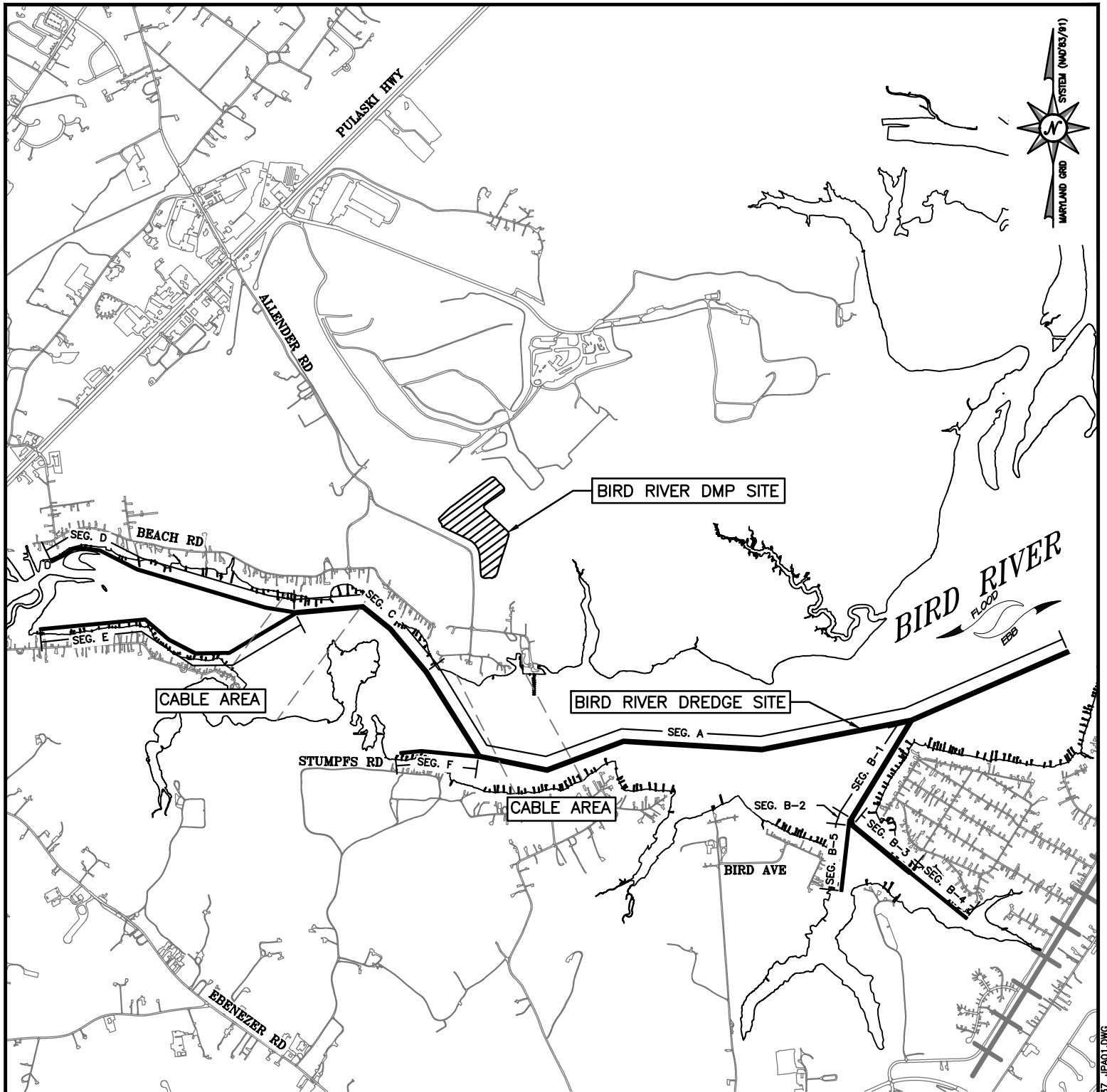
Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments provided will become part of the public record for this action. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity. Written comments concerning the work described above related to the factors listed above or other pertinent factors must be received by the District Engineer, U.S. Army Corps of Engineers, Baltimore District, State College Field Office, 1631 South Atherton Street, Suite 101, State College, Pennsylvania, 16801 within the comment period specified above.

Any person who has an interest which may be adversely affected by the issuance of this permit may request a public hearing. The request, which must be in writing, must be received by the District Engineer, U.S. Army Corps of Engineers, Baltimore District, State College Field Office, 1631 South Atherton Street, Suite 101, State College, Pennsylvania, 16801 within the comment period as specified above to receive consideration. Also it must clearly set forth the interest which may be adversely affected by this activity and the manner in which the interest may be adversely affected.

It is requested that you communicate this information concerning the proposed work to any persons known by you to be interested and not being known to this office, who did not receive a copy of this notice.

If you have any questions concerning this matter, please contact Mrs. Amy Elliott of this office at (814) 235-0573 or via email at amy.h.elliott@usace.army.mil.

This public notice is issued by the Chief, Regulatory Branch.



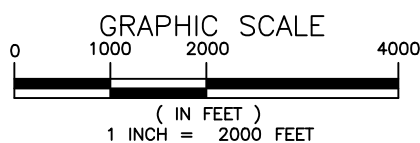
BIRD RIVER MAINTENANCE DREDGING

BALTIMORE COUNTY, MD

APPL. BY: BALTIMORE COUNTY DEPARTMENT OF
ENVIRONMENTAL PROTECTION AND
RESOURCE MANAGEMENT

VICINITY MAP

DATE: REVISED February 2019 SHEET 1 OF 73



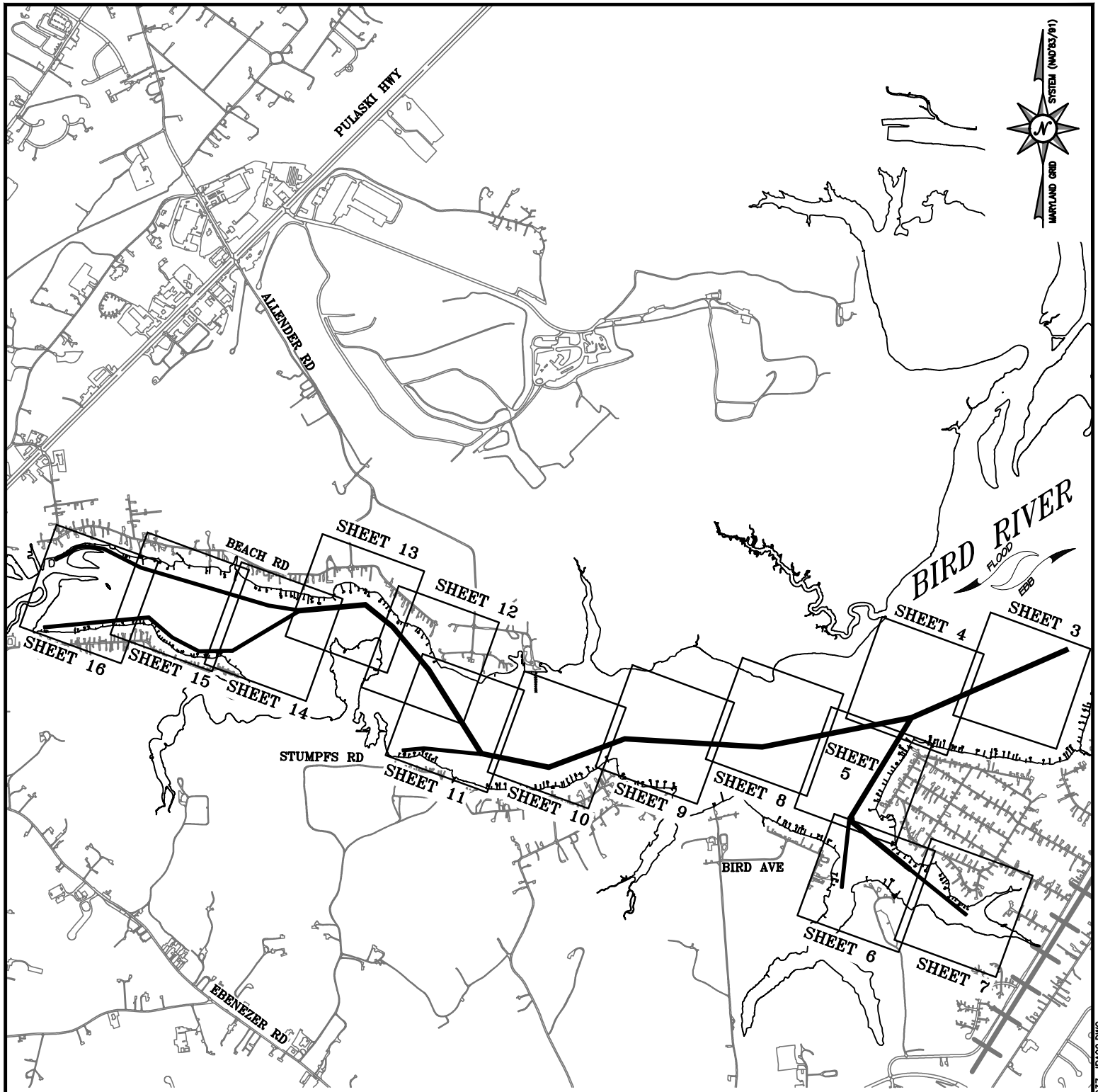
NOTES:

1. BASEMAP TAKEN FROM BALTIMORE COUNTY 2013 PLANIMETRICS AND 2014 IMAGERY.
2. CABLE AREA BASED ON NOAA CHART 12274.



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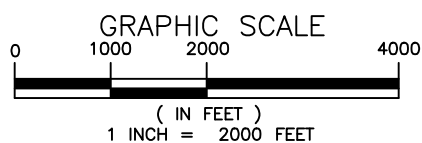
BIRD RIVER MAINTENANCE DREDGING

BALTIMORE COUNTY, MD

APPL. BY: BALTIMORE COUNTY DEPARTMENT OF
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KEY SHEET

DATE: REVISED February 2019 SHEET 2 OF 73



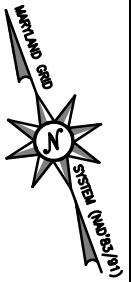
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MAIN CHANNEL SEGMENT "A"
10,435' X 50' TO -5.0' MLW. CHANNEL
OUTLINE REPRESENTS BOTTOM WIDTH.
FOR TOTAL IMPACT SEE TYPICAL CROSS
SECTION & CHANNEL DATA TABLE.

BIRD RIVER
FLOOD
EBB

PREVIOUS DREDGING LIMITS 00-WL-1681
CENAB-OP-RMN (BA DEPRM/ BIRD
RIVER/ DREDGING) 00-63545-7

MATCHLINE REFER TO SHEET 4

LEGEND

PREVIOUSLY DREDGED CHANNEL

PROPOSED COUNTY CHANNEL

-3.6

SOUNDINGS

PROPOSED SEDIMENT SAMPLE LOCATION

PROPOSED SPUR CHANNEL

SPUR NUMBER

APPROX. MHW

APPROX. MLW

APPROX. PROPERTY LINES

COMMUNITY BOAT RAMP

EXISTING BOAT LIFT

EXISTING PILING

EXISTING PIER

EXISTING NEST

PROPOSED PIER

SAV LEGEND

COMPOSITE SAV BED FROM 2016 & 2017 SPRING AND SUMMER SAV SURVEY

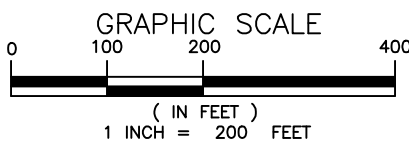
SPRING SURVEY DATE: JUNE 1, 2016
JUNE 1, 2017

SUMMER SURVEY DATE: AUGUST 10, 2016
AUGUST 3, 2017

NOTE:
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**BIRD RIVER
MAINTENANCE DREDGING**

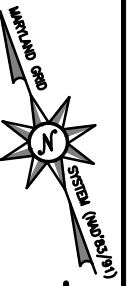
BALTIMORE COUNTY, MD

APPL. BY: BALTIMORE COUNTY DEPARTMENT OF
ENVIRONMENTAL PROTECTION AND
RESOURCE MANAGEMENT

MAIN CHANNEL PLAN

DATE: REVISED February 2019 SHEET 3 OF 73

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BIRD RIVER
FLOOD
EBB

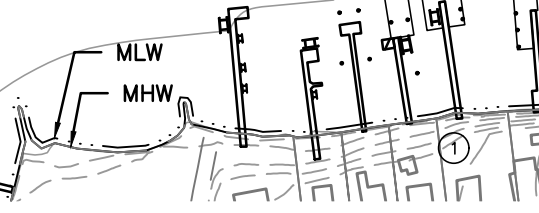
MATCHLINE REFER TO SHEET 3

MAIN CHANNEL SEGMENT "A"
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FOR TOTAL IMPACT SEE TYPICAL CROSS
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PREVIOUS DREDGING LIMITS 00-WL-1681
CENAB-OP-RMN (BA DEPRM/ BIRD
RIVER/ DREDGING) 00-63545-7

MAIN CHANNEL SEGMENT "B-1"
1,651' X 50' TO -5.0' MLW. CHANNEL
OUTLINE REPRESENTS BOTTOM WIDTH.
FOR TOTAL IMPACT SEE TYPICAL CROSS
SECTION & CHANNEL DATA TABLE

MATCHLINE REFER TO SHEET 5



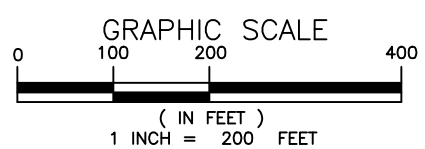
BIRD RIVER MAINTENANCE DREDGING

BALTIMORE COUNTY, MD

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MAIN CHANNEL PLAN

DATE: REVISED February 2019 SHEET 4 OF 73

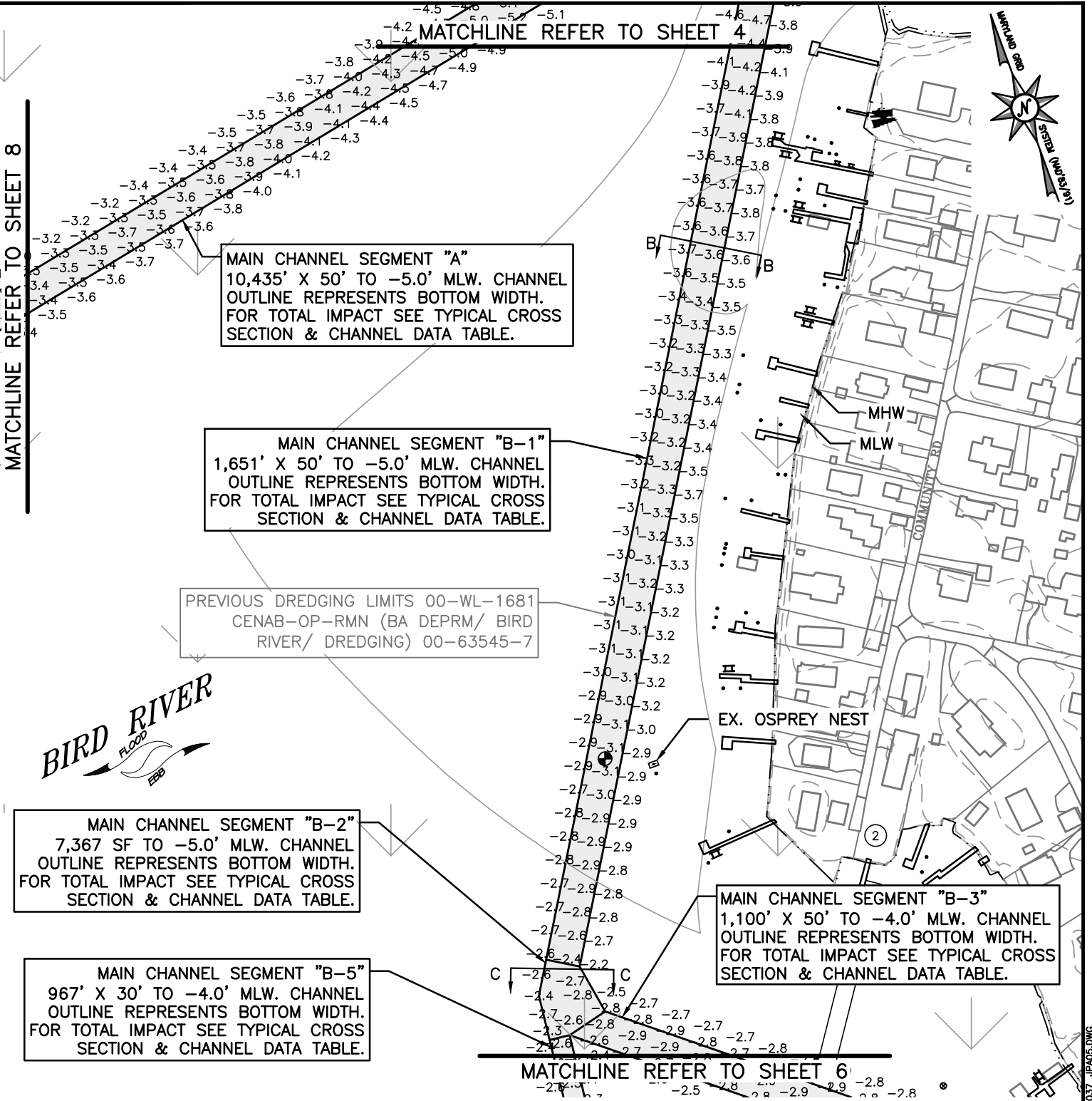


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MATCHLINE REFER TO SHEET 8



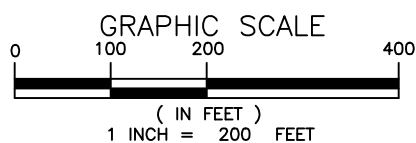
BIRD RIVER MAINTENANCE DREDGING

BALTIMORE COUNTY, MD

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MAIN CHANNEL PLAN

DATE: REVISED February 2019 SHEET 5 OF 73

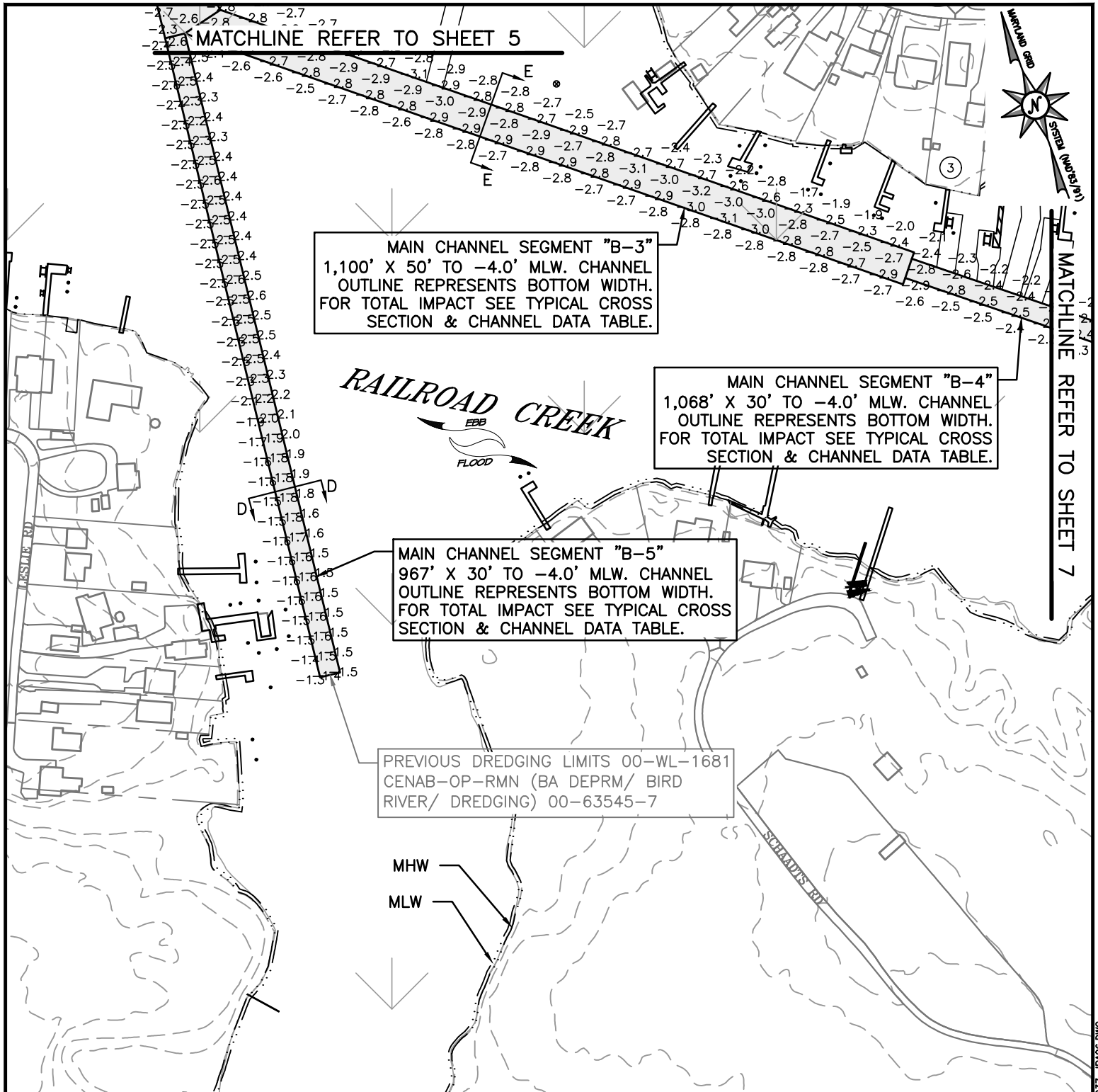


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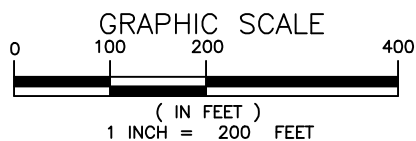
BIRD RIVER MAINTENANCE DREDGING

BALTIMORE COUNTY, MD

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MAIN CHANNEL PLAN

DATE: REVISED February 2019 SHEET 6 OF 73



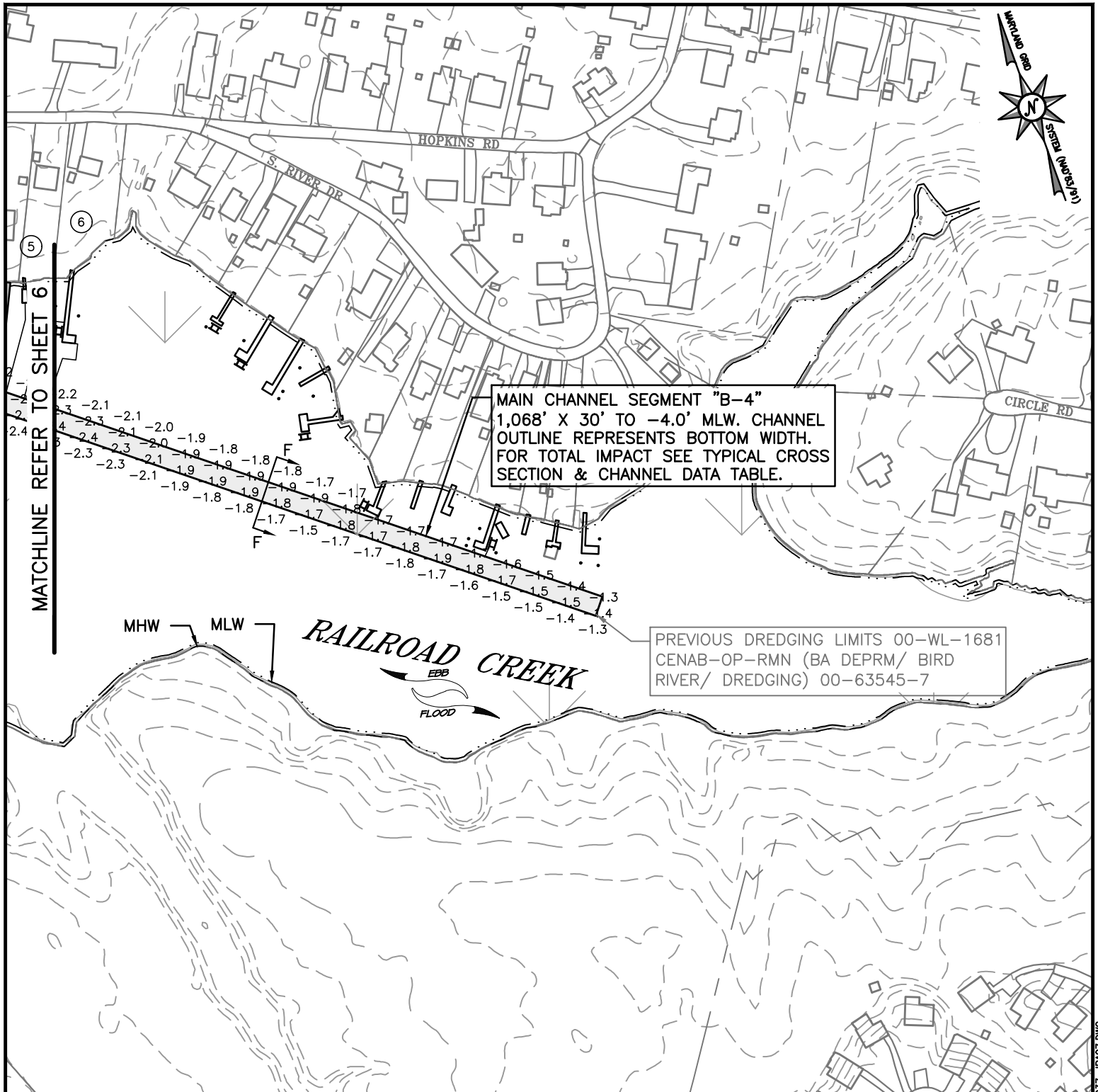
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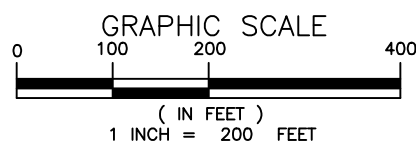
BIRD RIVER MAINTENANCE DREDGING

BALTIMORE COUNTY, MD

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MAIN CHANNEL PLAN

DATE: REVISED February 2019 SHEET 7 OF 73



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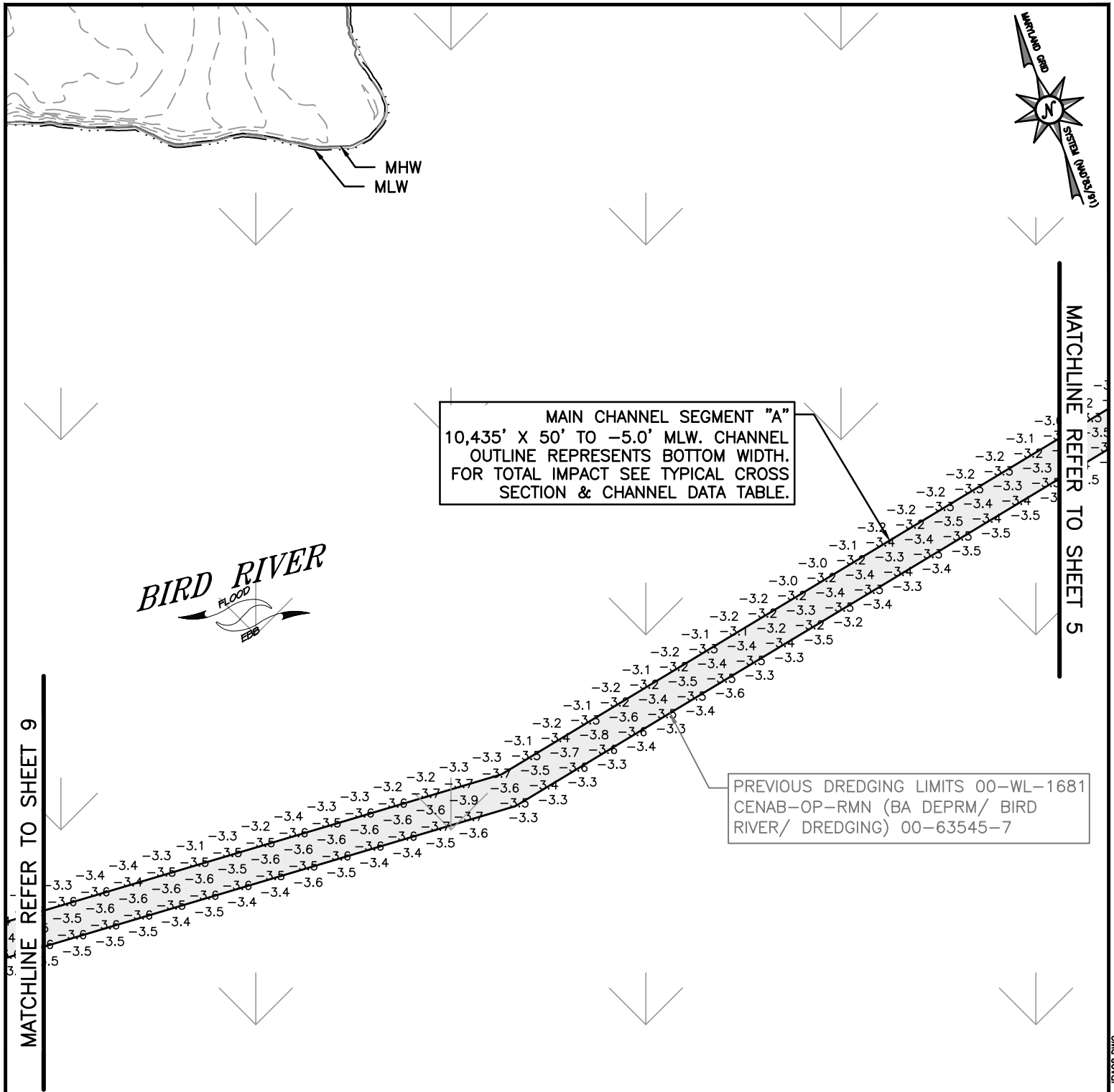


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BIRD RIVER MAINTENANCE DREDGING

BALTIMORE COUNTY, MD

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MAIN CHANNEL PLAN

DATE: REVISED February 2019 SHEET 8 OF 73

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BIRD RIVER
FLOOD
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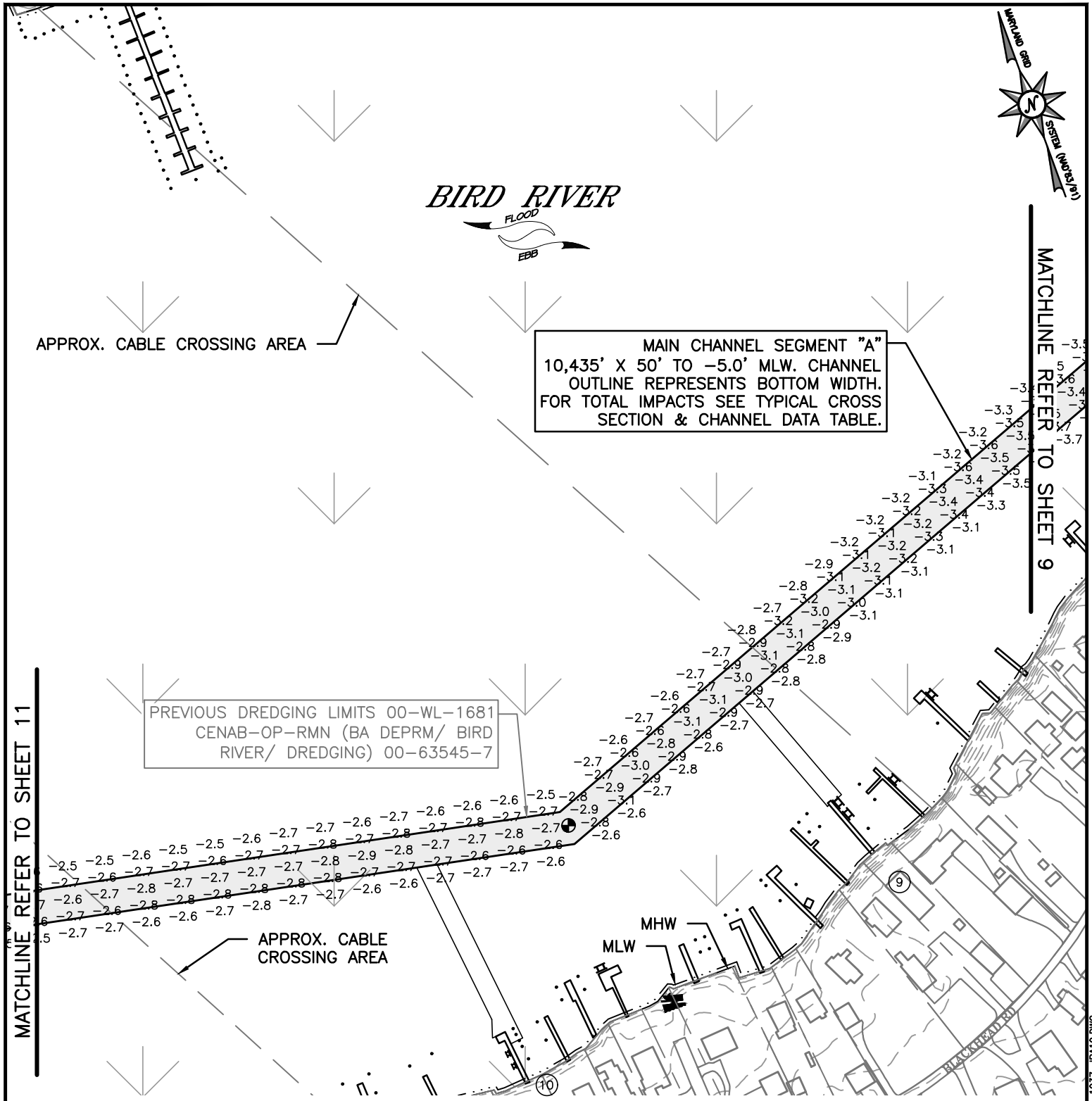
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FOR TOTAL IMPACTS SEE TYPICAL CROSS
SECTION & CHANNEL DATA TABLE.

MATCHLINE REFER TO SHEET 8

MATCHLINE REFER TO SHEET 10

PREVIOUS DREDGING LIMITS 00-WL-1681
CENAB-OP-RMN (BA DEPRM/ BIRD
RIVER/ DREDGING) 00-63545-7

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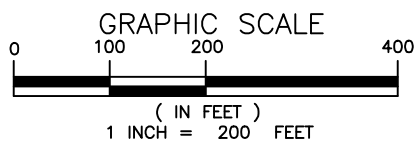
BIRD RIVER MAINTENANCE DREDGING

BALTIMORE COUNTY, MD

APPL. BY: BALTIMORE COUNTY DEPARTMENT OF
ENVIRONMENTAL PROTECTION AND
RESOURCE MANAGEMENT

MAIN CHANNEL PLAN

DATE: REVISED February 2019 SHEET 10 OF 73

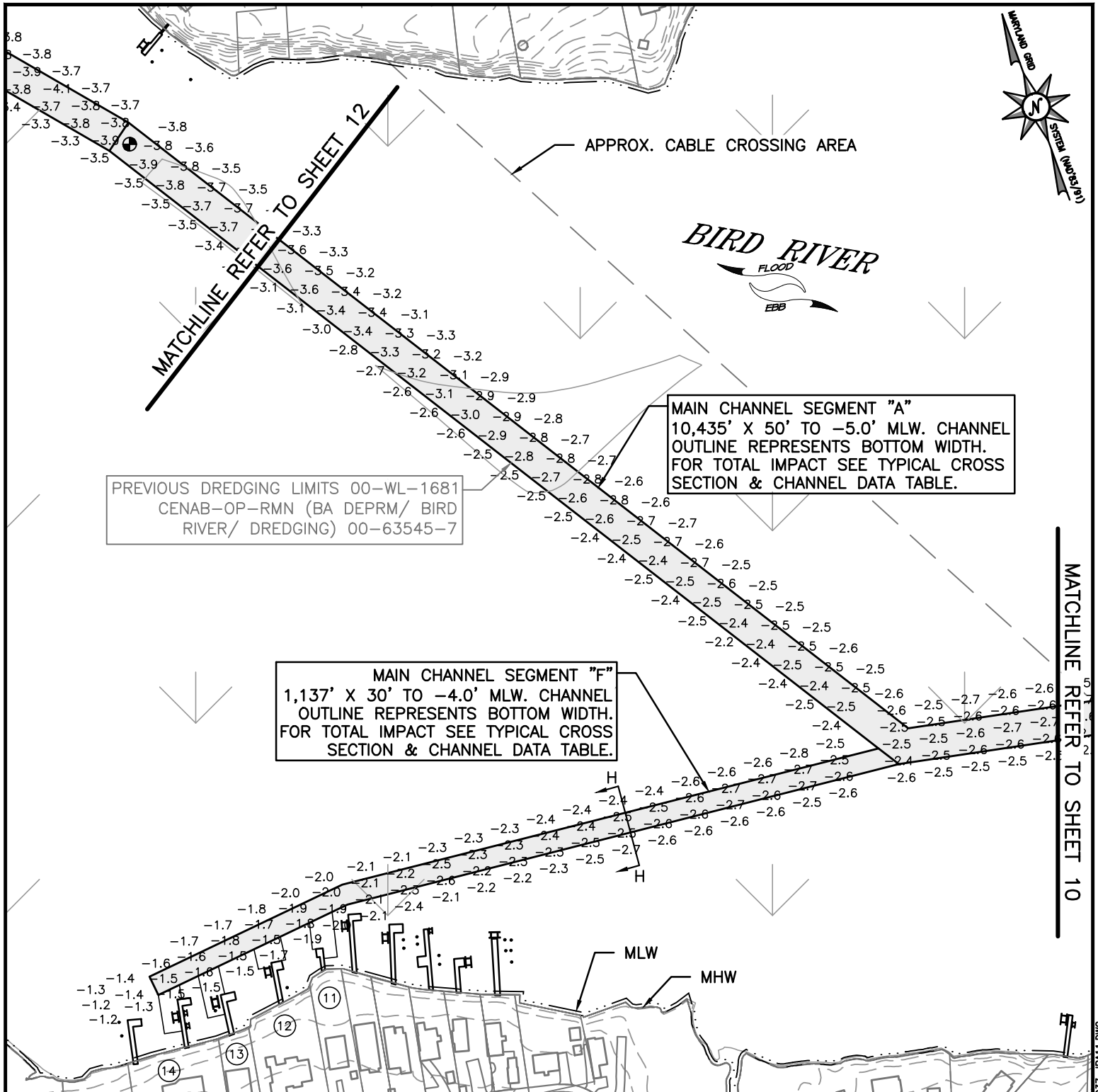


NOTES:
1. BASEMAP TAKEN FROM BALTIMORE COUNTY
2013 PLANIMETRICS AND 2014 IMAGERY.
2. CABLE AREA BASED ON NOAA CHART 12274.



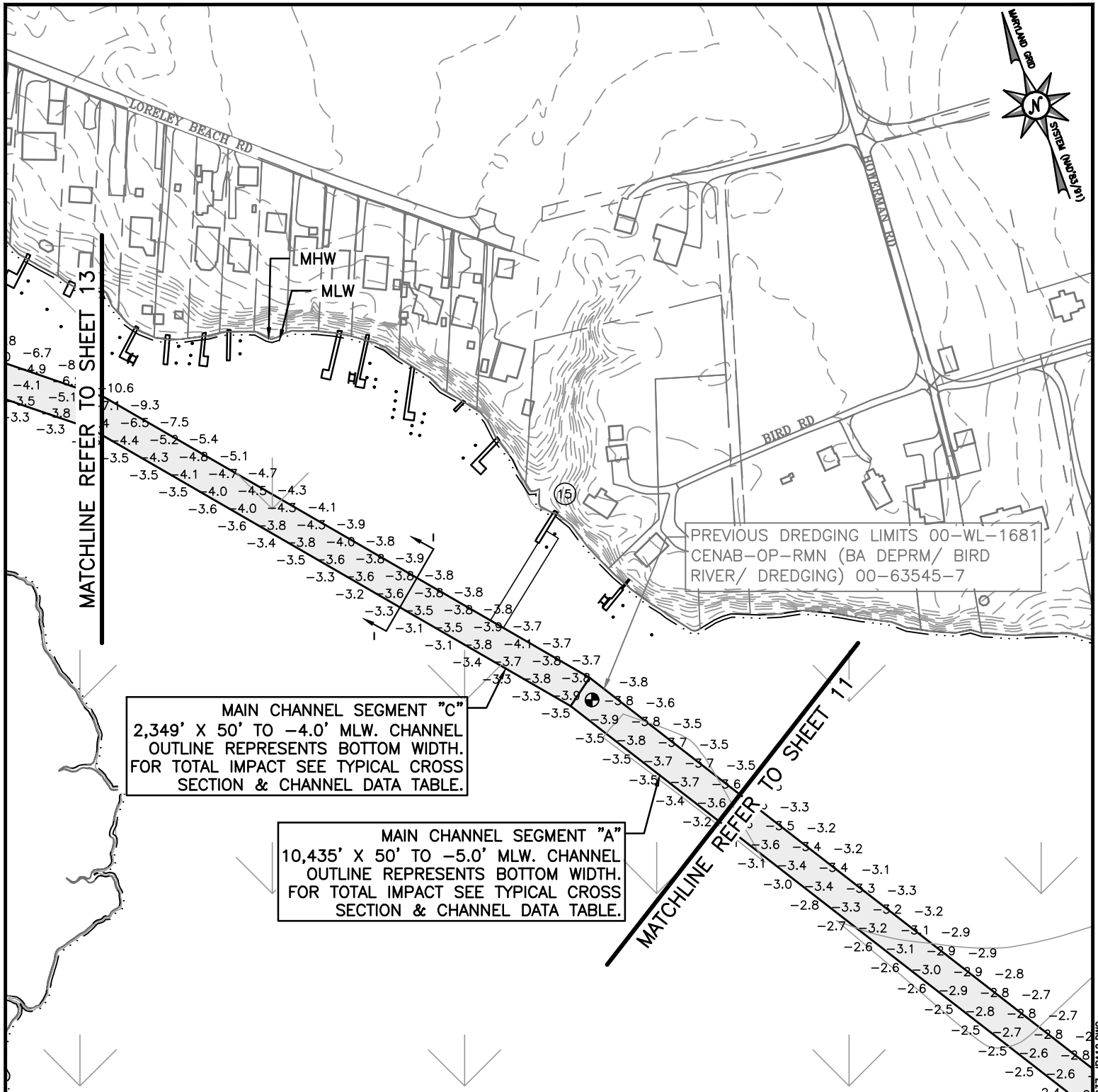
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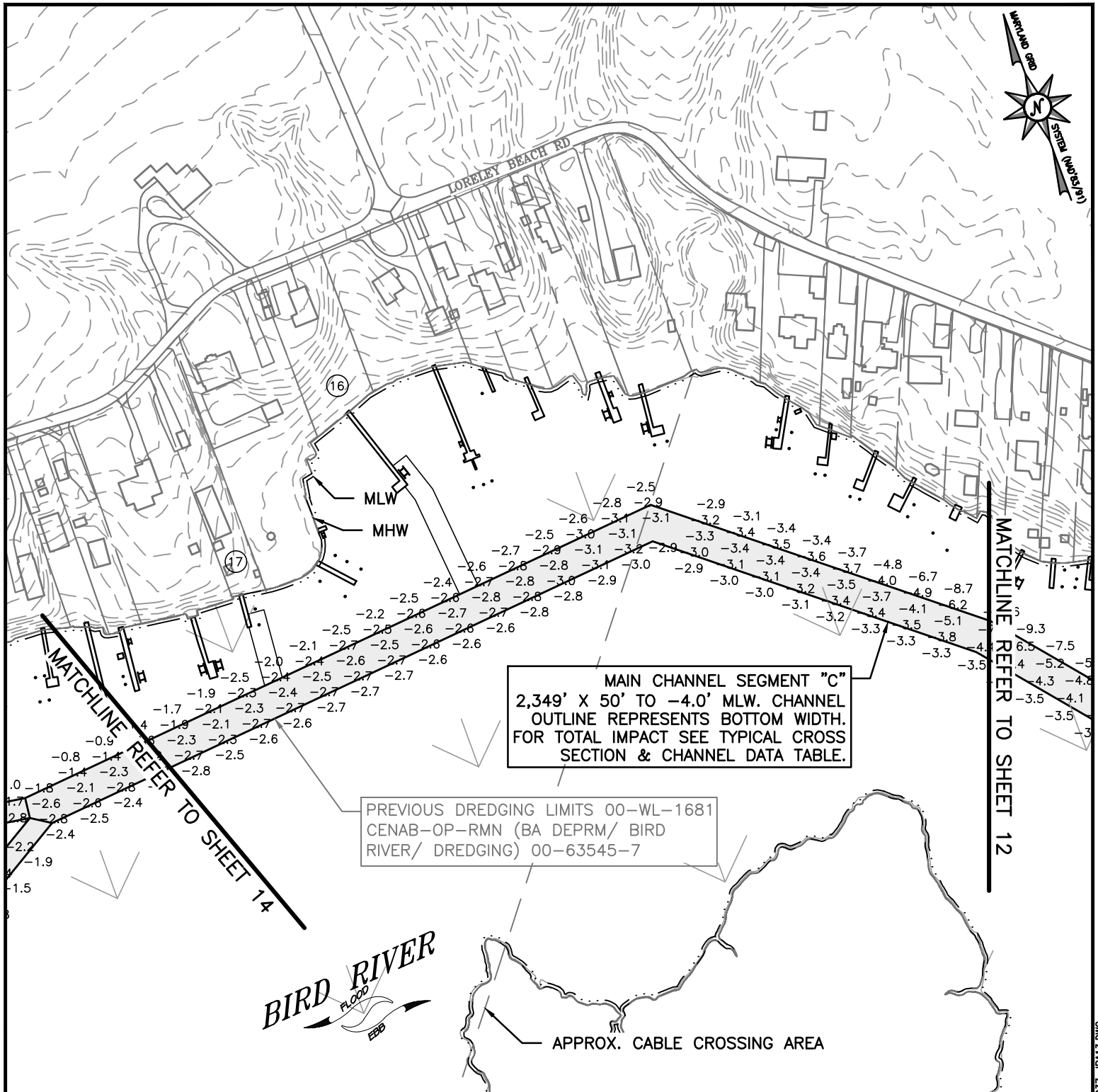


MATCHLINE REFER TO SHEET 10

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Z:\2_1307_BIRD_RIVER_DREDGING_2019\CAD FILES\SHEET FILES\2_1037_JPA12.DWG



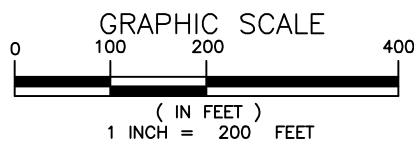
BIRD RIVER MAINTENANCE DREDGING

BALTIMORE COUNTY, MD

APPL. BY: BALTIMORE COUNTY DEPARTMENT OF
ENVIRONMENTAL PROTECTION AND
RESOURCE MANAGEMENT

MAIN CHANNEL PLAN

DATE: REVISED February 2019 SHEET 13 OF 73

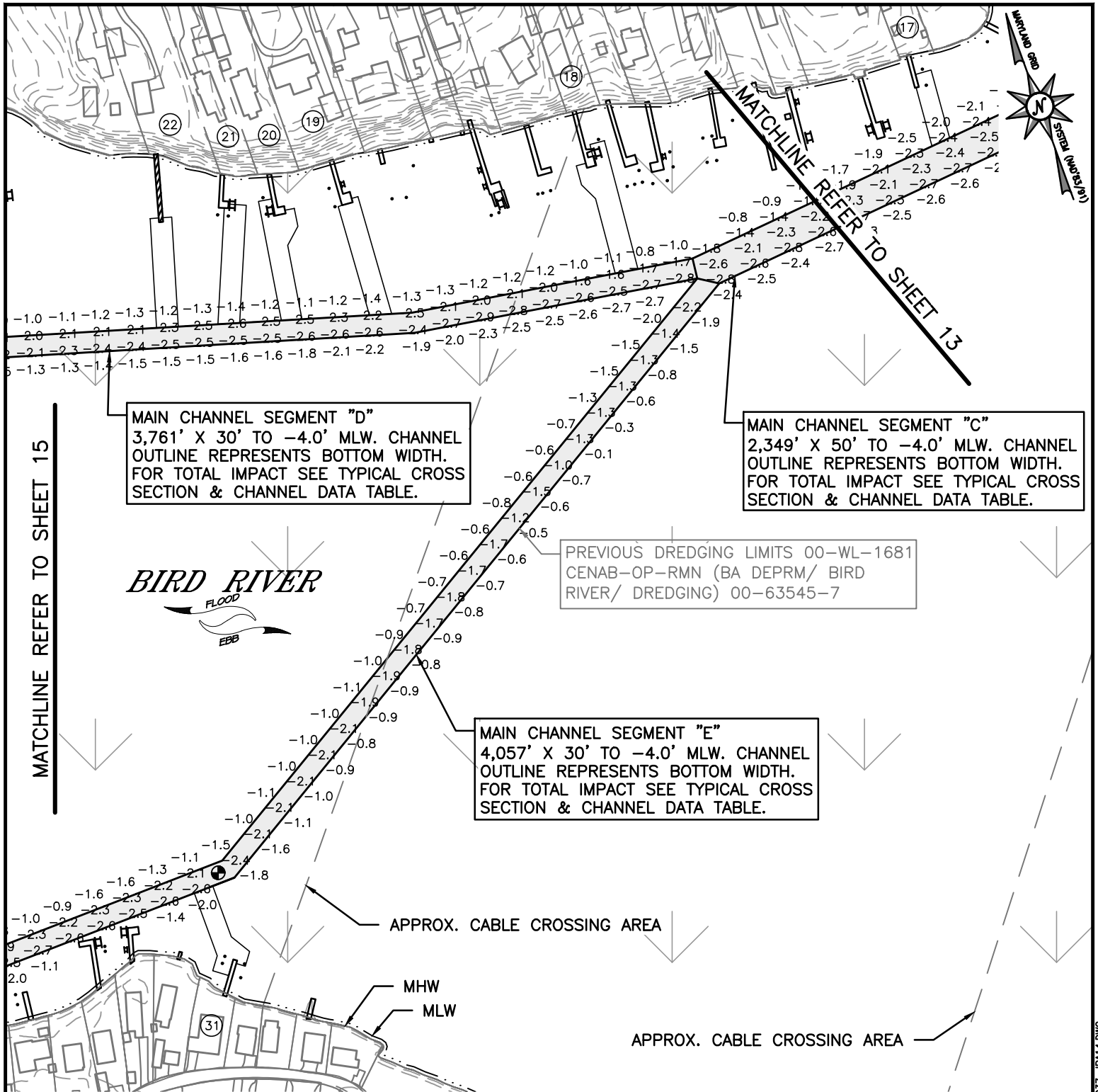


NOTES:

1. BASEMAP TAKEN FROM BALTIMORE COUNTY 2013 PLANIMETRICS AND 2014 IMAGERY.
2. CABLE AREA BASED ON NOAA CHART 12274.



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Hanover, Maryland 21076 Fax: (410) 694-9405
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MAIN CHANNEL SEGMENT "D"
 3,761' X 30' TO -4.0' MLW. CHANNEL
 OUTLINE REPRESENTS BOTTOM WIDTH.
 FOR TOTAL IMPACT SEE TYPICAL CROSS
 SECTION & CHANNEL DATA TABLE.

MAIN CHANNEL SEGMENT "C"
 2,349' X 50' TO -4.0' MLW. CHANNEL
 OUTLINE REPRESENTS BOTTOM WIDTH.
 FOR TOTAL IMPACT SEE TYPICAL CROSS
 SECTION & CHANNEL DATA TABLE.

PREVIOUS DREDGING LIMITS 00-WL-1681
 CENAB-OP-RMN (BA DEPRM/ BIRD
 RIVER/ DREDGING) 00-63545-7

MAIN CHANNEL SEGMENT "E"
 4,057' X 30' TO -4.0' MLW. CHANNEL
 OUTLINE REPRESENTS BOTTOM WIDTH.
 FOR TOTAL IMPACT SEE TYPICAL CROSS
 SECTION & CHANNEL DATA TABLE.

APPROX. CABLE CROSSING AREA

APPROX. CABLE CROSSING AREA

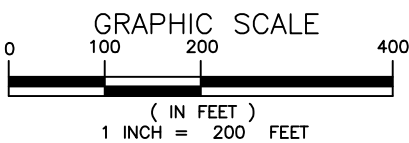
BIRD RIVER MAINTENANCE DREDGING

BALTIMORE COUNTY, MD

APPL. BY: BALTIMORE COUNTY DEPARTMENT OF
 ENVIRONMENTAL PROTECTION AND
 RESOURCE MANAGEMENT

MAIN CHANNEL PLAN

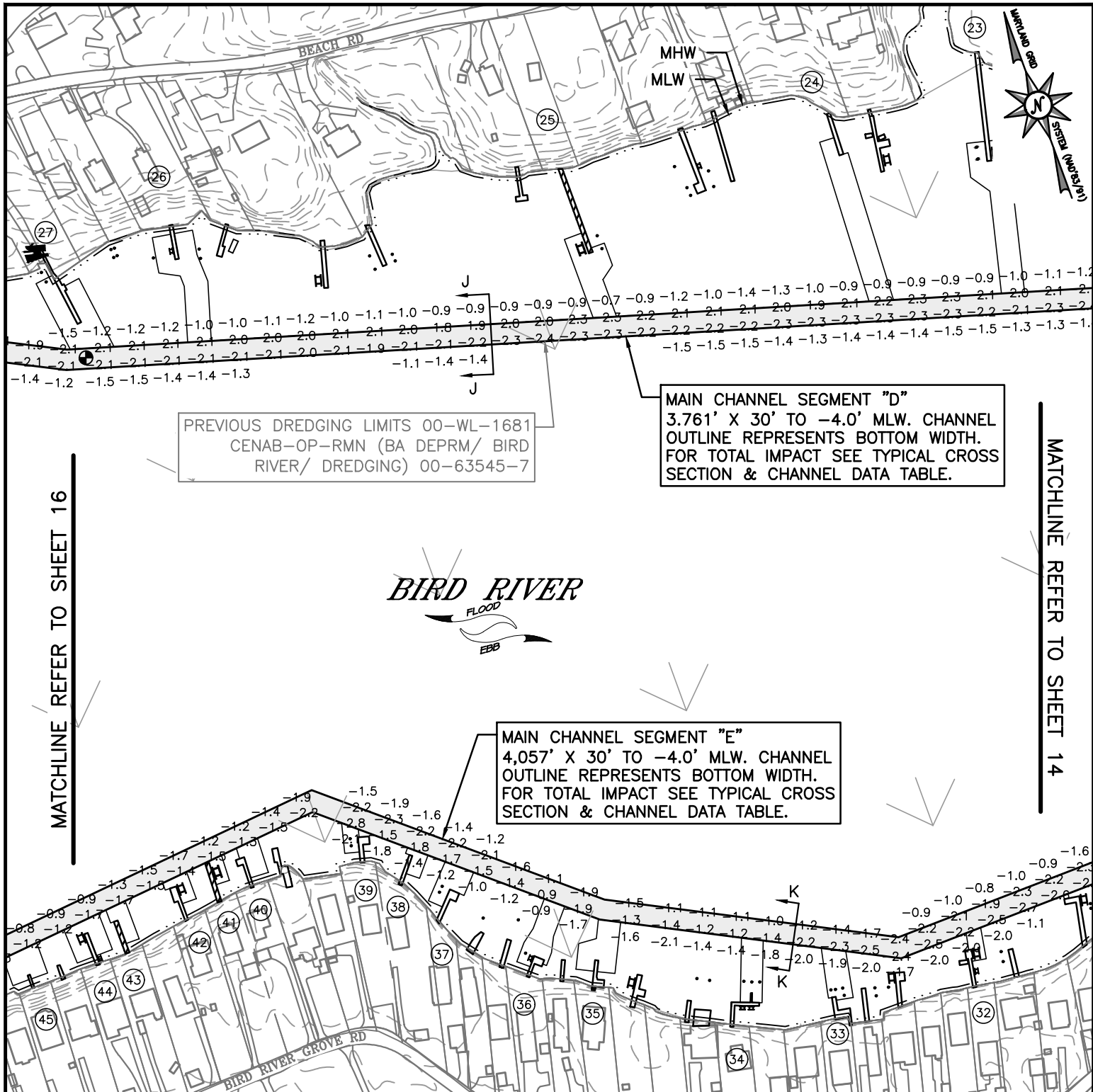
DATE: REVISED February 2019 SHEET 14 OF 73



NOTES:
 1. BASEMAP TAKEN FROM BALTIMORE COUNTY
 2013 PLANIMETRICS AND 2014 IMAGERY.
 2. CABLE AREA BASED ON NOAA CHART 12274.

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Z:\2_1307_BIRD_RIVER_DREDGING_2019\CAD FILES\SHEET FILES\2_1037_JPA14.DWG



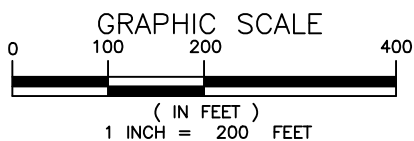
BIRD RIVER MAINTENANCE DREDGING

BALTIMORE COUNTY, MD

APPL. BY: BALTIMORE COUNTY DEPARTMENT OF
ENVIRONMENTAL PROTECTION AND
RESOURCE MANAGEMENT

MAIN CHANNEL PLAN

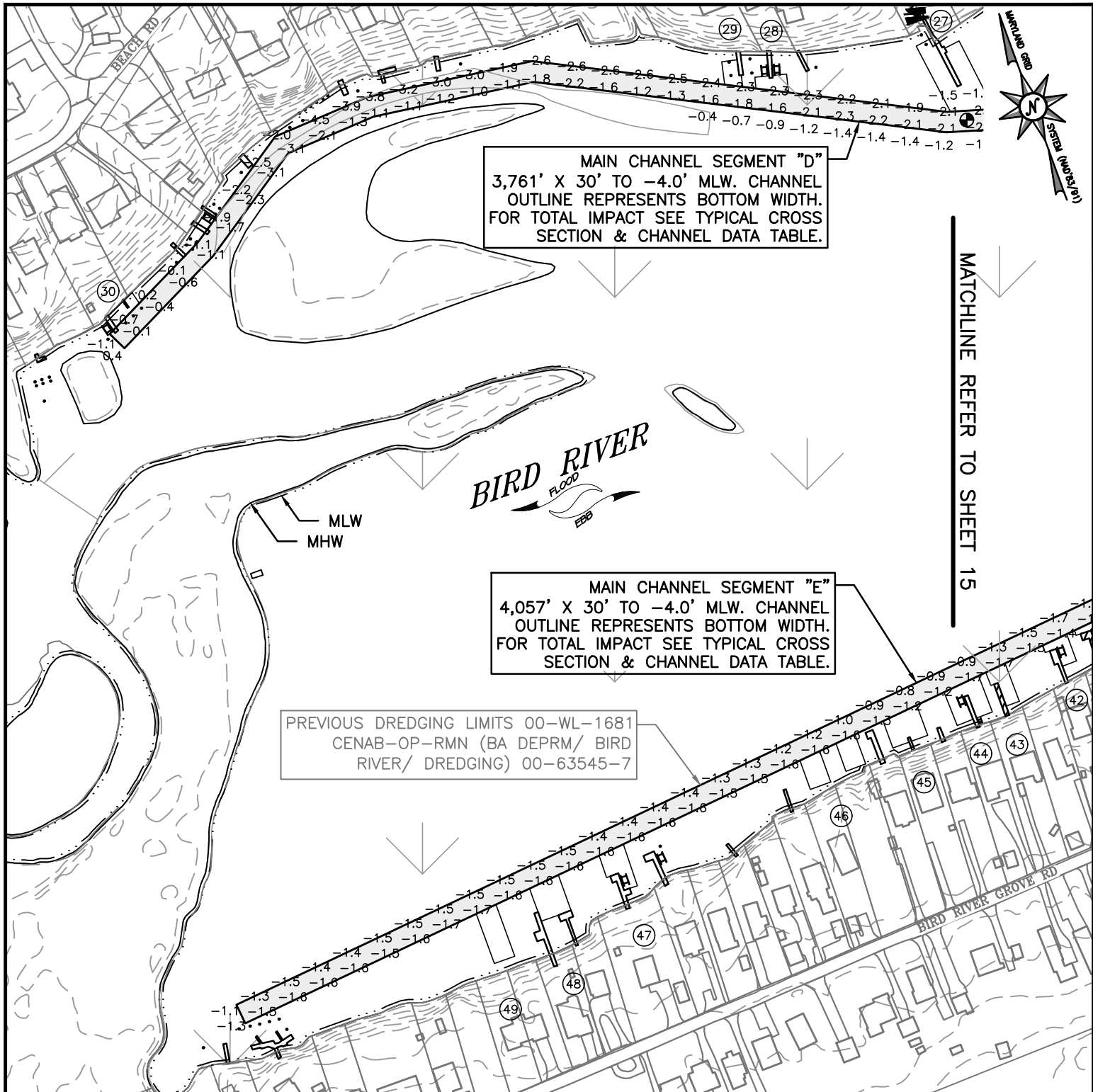
DATE: REVISED February 2019 SHEET 15 OF 73



NOTE:
BASEMAP TAKEN FROM BALTIMORE COUNTY
2013 PLANIMETRICS AND 2014 IMAGERY.

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Z:\2_1307_BIRD_RIVER_DREDGING 2019\CAD FILES\SHEET FILES\2_1037_JPA15.DWG



MAIN CHANNEL SEGMENT "D"
3,761' X 30' TO -4.0' MLW. CHANNEL
OUTLINE REPRESENTS BOTTOM WIDTH.
FOR TOTAL IMPACT SEE TYPICAL CROSS
SECTION & CHANNEL DATA TABLE.

MAIN CHANNEL SEGMENT "E"
4,057' X 30' TO -4.0' MLW. CHANNEL
OUTLINE REPRESENTS BOTTOM WIDTH.
FOR TOTAL IMPACT SEE TYPICAL CROSS
SECTION & CHANNEL DATA TABLE.

PREVIOUS DREDGING LIMITS 00-WL-1681
CENAB-OP-RMN (BA DEPRM/ BIRD
RIVER/ DREDGING) 00-63545-7

MATCHLINE REFER TO SHEET 15

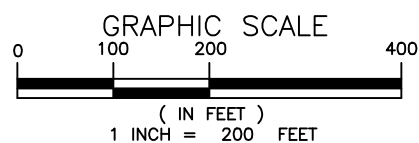
BIRD RIVER MAINTENANCE DREDGING

BALTIMORE COUNTY, MD

APPL. BY: BALTIMORE COUNTY DEPARTMENT OF
ENVIRONMENTAL PROTECTION AND
RESOURCE MANAGEMENT

MAIN CHANNEL PLAN

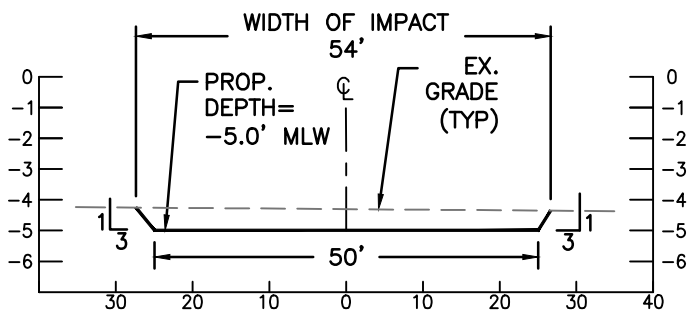
DATE: REVISED February 2019 SHEET 16 OF 73



NOTE:
BASEMAP TAKEN FROM BALTIMORE COUNTY
2013 PLANIMETRICS AND 2014 IMAGERY.

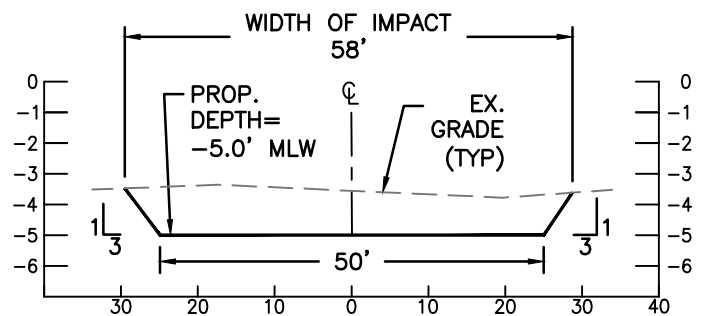
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Z:\2_1307_BIRD_RIVER_DREDGING_2019\CAD FILES\SHEET FILES\2_1037_JPA16.DWG



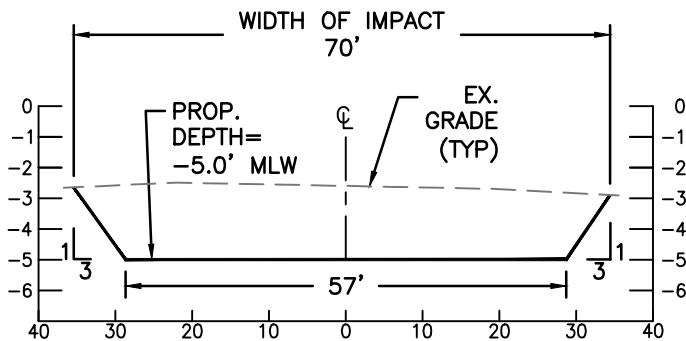
SECTION A-A

SCALE: NTS



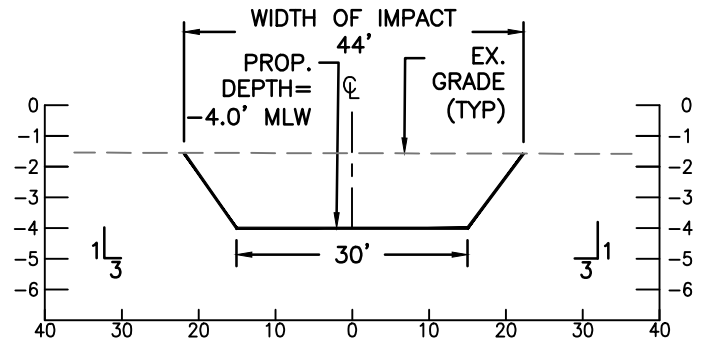
SECTION B-B

SCALE: NTS



SECTION C-C

SCALE: NTS



SECTION D-D

SCALE: NTS

BIRD RIVER MAINTENANCE DREDGING

BALTIMORE COUNTY, MD

APPL. BY: BALTIMORE COUNTY DEPARTMENT OF
ENVIRONMENTAL PROTECTION AND
RESOURCE MANAGEMENT

CHANNEL SECTIONS

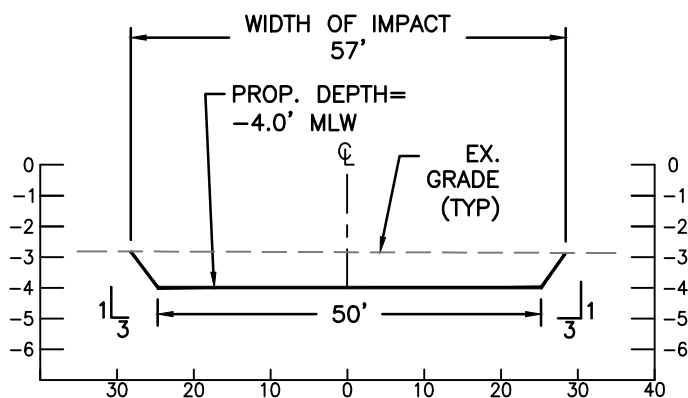
DATE: REVISED February 2019 SHEET 17 OF 73



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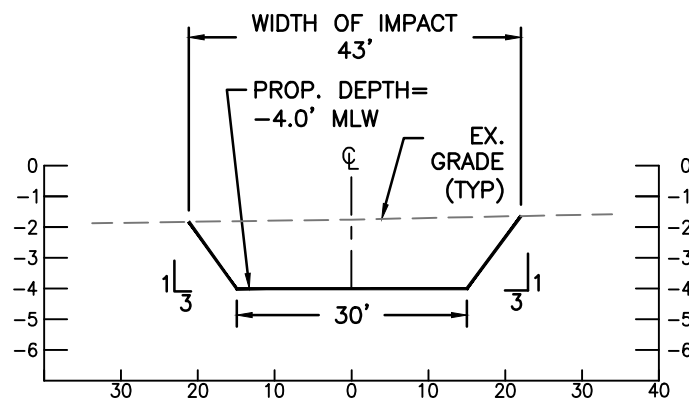
"Integrating Engineering and Environment"

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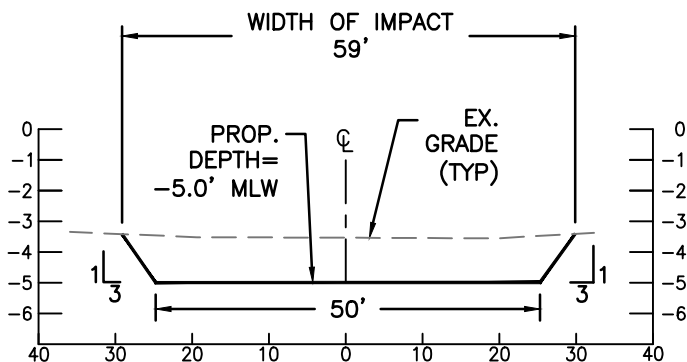
SECTION E-E

SCALE: NTS



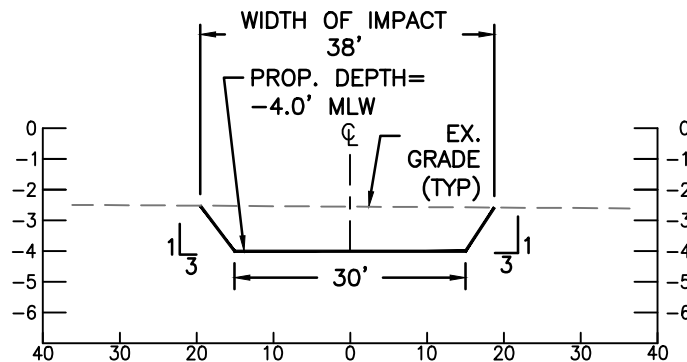
SECTION F-F

SCALE: NTS



SECTION G-G

SCALE: NTS



SECTION H-H

SCALE: NTS

BIRD RIVER MAINTENANCE DREDGING

BALTIMORE COUNTY, MD

APPL. BY: BALTIMORE COUNTY DEPARTMENT OF
ENVIRONMENTAL PROTECTION AND
RESOURCE MANAGEMENT

CHANNEL SECTIONS

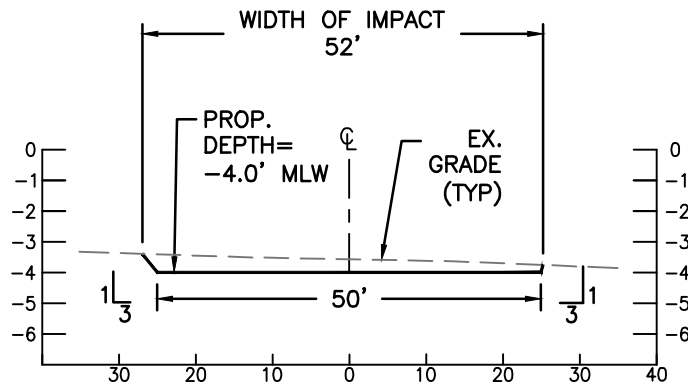
DATE: REVISED February 2019 SHEET 18 OF 73



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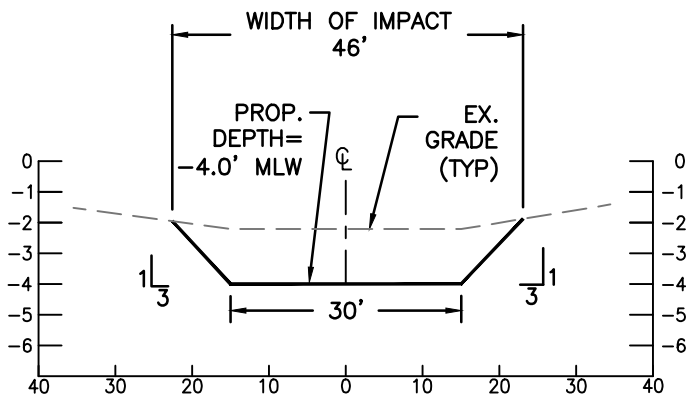
"Integrating Engineering and Environment"

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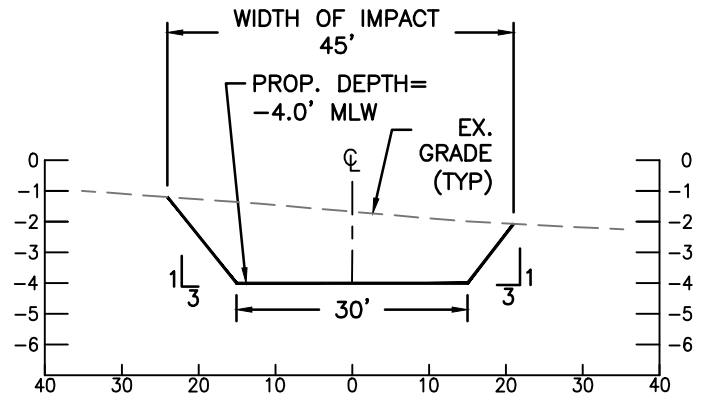
SECTION I-I

SCALE: NTS



SECTION J-J

SCALE: NTS



SECTION K-K

SCALE: NTS

BIRD RIVER MAINTENANCE DREDGING

BALTIMORE COUNTY, MD

APPL. BY: BALTIMORE COUNTY DEPARTMENT OF
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RESOURCE MANAGEMENT

CHANNEL SECTIONS

DATE: REVISED February 2019 SHEET 19 OF 73



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CHANNEL DETAILS

CHANNEL	LENGTH (FT)	WIDTH (FT)	TOP OF CUT WIDTH (FT)	DEPTH (FT)	VOLUME (CY)
SEGMENT A	10,435	50	59	-5.0	39,755
SEGMENT B	4,891	30 - 90	~40	-4.0 - -5.0	14,895
SEGMENT C	2,349	50	52	-4.0	6,186
SEGMENT D	3,761	30	46	-4.0	12,769
SEGMENT E	4,057	30	45	-4.0	17,890
SEGMENT F	1,137	30	38	-4.0	2,626
TOTAL MAIN CHANNEL LENGTH					26,630 LF
TOTAL MAIN CHANNEL VOLUME					94,121 CY
TOTAL MAIN CHANNEL AREA OF IMPACT					2,236,160 SF = 51.3 AC
TOTAL MAIN CHANNEL MAINTENANCE DREDGING AREA OF IMPACT TO 2016-2017 SAV					2,092,878 SF = 48.0 AC
TOTAL MAIN CHANNEL NEW DREDGING AREA OF IMPACT OT 2016-2017 SAV					46,900 SF = 1.08 AC

SPUR DETAILS

TOTAL NUMBER OF MAINTENANCE SPURS	12
TOTAL NUMBER OF NEW SPURS	36
TOTAL SPUR VOLUME	9,848 CY
TOTAL SPUR AREA OF IMPACT	193,902 SF = 4.5 AC
TOTAL MAINTENANCE SPUR AREA OF IMPACT TO 2016-2017 SAV	73,297 SF = 1.7 AC
TOTAL NEW SPUR AREA OF IMPACT TO 2016-2017 SAV	111,423 SF = 2.6 AC

NOTES:

1. BASEMAP COMPILED FROM BALTIMORE COUNTY 2013 PLANIMETRICS AND 2014 IMAGERY.
2. TIDAL RANGE IS 1.25 FOOT.
3. BATHYMETRY FROM BAYLAND SURVEY DATED OCTOBER 6, 2017.
4. SOUNDINGS ARE IN FEET AND REFER TO MLW.
5. CABLE AREA BASED ON NOAA CHART 12274.
6. THE BIRD RIVER COUNTY CHANNEL PROPOSED FOR MAINTENANCE DREDGING WAS PREVIOUSLY PERMITTED UNDER CENAB-OP-RMN (BA DEPRM/BIRD RIVER/ DREDGING) 00-63545-7, 00-WL-1681, AND DREDGED IN THE WINTER OF 2002/2003.
7. THESE ARE PERMIT DRAWINGS ONLY. DESIGN DRAWINGS WILL BE PREPARED SEPARATELY.

BIRD RIVER MAINTENANCE DREDGING

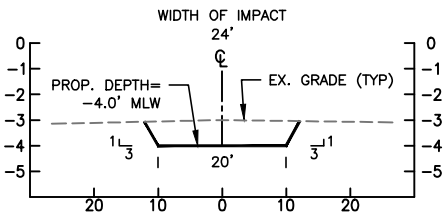
BALTIMORE COUNTY, MD

APPL. BY: BALTIMORE COUNTY DEPARTMENT OF
ENVIRONMENTAL PROTECTION AND
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CHANNEL DETAILS

DATE: REVISED February 2019 SHEET 20 OF 73





SECTION A-A
SCALE: NTS

PR. COUNTY CHANNEL
TO -5.0' MLW



BIRD RIVER
FLOOD
EBB

PR. SPUR CHANNEL TO -4.0' MLW TO
TIE INTO EXISTING DEEP WATER

SPUR 1A TO TIE INTO SPUR 1

MHW
MLW

EX. PILING (TYP)

PROPERTY OWNER:
JEFF BIUK
6712 NORTH RIVER DRIVE
MIDDLE RIVER, MD 21220

CHARLES KIEF
6710 NORTH RIVER DRIVE
MIDDLE RIVER, MD 211220

SCOTT MEZAN
6714 NORTH RIVER DRIVE
MIDDLE RIVER, MD 211220

SPUR DATA

AREA = 10,840 SF
VOLUME = 226 CY
2016/17 SAV IMPACT = 3,671 SF

LEGEND

-1.0 EXISTING DEPTH		BOTTOM CUT AREA
○ EXISTING PILING		SIDE SLOPE AREA
● PROPOSED PILING		

NOTES:

1. TIDAL RANGE IS 1.25 FEET.
2. SOUNDINGS ARE IN FEET AND REFER TO MLW.
3. MATERIAL WILL BE PLACED AT BIRD RIVER DMP SITE.
4. THESE ARE PERMIT DRAWINGS ONLY. DESIGN DRAWINGS WILL BE PREPARED SEPARATELY.
5. BASEMAP TAKEN FROM BALTIMORE COUNTY 2013 PLANIMETRICS AND 2014 IMAGERY.

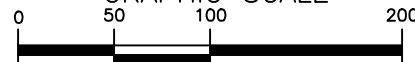
SAV LEGEND

COMPOSITE SAV BED FROM 2016 & 2017 SPRING AND SUMMER SAV SURVEY
SPRING SURVEY DATES: JUNE 1, 2016
JUNE 1, 2017
SUMMER SURVEY DATES: AUGUST 10, 2016
AUGUST 3, 2017

NOTES:

1. ADDITIONAL DETAILS INCLUDING SIDE SLOPES AND CROSS SECTION HAVE BEEN ADDED TO GRAPHICALLY REPRESENT IMPACTS TO SUBMERGED AQUATIC VEGETATION.
2. EXISTING PILINGS AND BOAT LIFTS WITHIN DREDGE AREA TO BE REMOVED AND REPLACED BY OWNER.

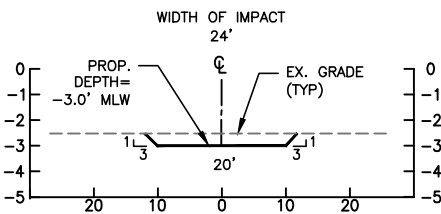
GRAPHIC SCALE



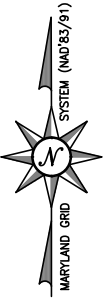
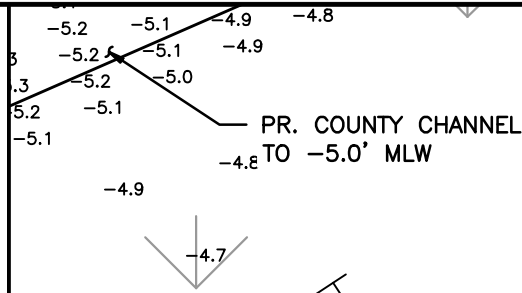
(IN FEET)
1 INCH = 100 FEET

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BIRD RIVER SPURS
SPUR 1
JEFF BIUK
6712 NORTH RIVER DRIVE
MIDDLE RIVER, MD 21220
REVISED FEBRUARY 2019



SECTION A-A
SCALE: NTS



BIRD RIVER
FLOOD
EBB

SPUR 1A TO TIE INTO SPUR 1

PR. SPUR CHANNEL TO -3.0' MLW

EX. BOAT LIFT
EX. PILING (TYP)

PR. 10'x12' PLATFORM TO
BE PERMITTED SEPARATELY

PR. BOAT LIFT TO BE PERMITTED SEPARATELY

PROPERTY OWNER:
ROBERT ERMER
6708 NORTH RIVER DRIVE
MIDDLE RIVER, MD 21220

PROPERTY OWNER:
CHARLES KIEF
6710 NORTH RIVER DRIVE
MIDDLE RIVER, MD 21220

SPUR DATA

AREA = 6,478 SF
VOLUME = 100 CY
2016/17 SAV IMPACT = 4,460 SF

LEGEND

-1.0 EXISTING DEPTH		BOTTOM CUT AREA
○ EXISTING PILING		SIDE SLOPE AREA
● PROPOSED PILING		

NOTES:

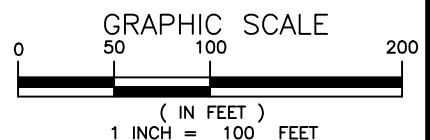
1. TIDAL RANGE IS 1.25 FEET.
2. SOUNDINGS ARE IN FEET AND REFER TO MLW.
3. MATERIAL WILL BE PLACED AT BIRD RIVER DMP SITE.
4. THESE ARE PERMIT DRAWINGS ONLY. DESIGN DRAWINGS WILL BE PREPARED SEPARATELY.
5. BASEMAP TAKEN FROM BALTIMORE COUNTY 2013 PLANIMETRICS AND 2014 IMAGERY.

SAV LEGEND

COMPOSITE SAV BED FROM 2016 & 2017 SPRING AND SUMMER SAV SURVEY
SPRING SURVEY DATES: JUNE 1, 2016
JUNE 1, 2017
SUMMER SURVEY DATES: AUGUST 10, 2016
AUGUST 3, 2017

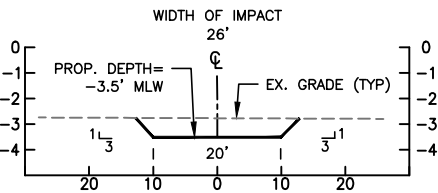
NOTES:

1. ADDITIONAL DETAILS INCLUDING SIDE SLOPES AND CROSS SECTION HAVE BEEN ADDED TO GRAPHICALLY REPRESENT IMPACTS TO SUBMERGED AQUATIC VEGETATION.
2. EXISTING PILINGS AND BOAT LIFTS WITHIN DREDGE AREA TO BE REMOVED AND REPLACED BY OWNER.



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BIRD RIVER SPURS
SPUR 1A
CHARLES KIEF & ROBERT ERMER
6710, 6708 NORTH RIVER DRIVE
MIDDLE RIVER, MD 21220
REVISED FEBRUARY 2019



SECTION A-A
SCALE: NTS

ADJACENT PROP OWNER:
ERNEST & DIANNE RUSSELL
12902 COMMUNITY ROAD
MIDDLE RIVER, MD 21220

PROPERTY OWNER:
JOHN & BRIEGE MCGLONE
12905 COMMUNITY ROAD
MIDDLE RIVER, MD 21220

RICHARD & JANE ADAMS
6705 SOUTH RIVER DRIVE
MIDDLE RIVER, MD 21220



EX. PILING (TYP)

EX. BOAT LIFT

1,014 SF OF MAINTENANCE DREDGING

RAILROAD CREEK
EBB
FLOOD

PR. SPUR CHANNEL TO -3.5' MLW

PR. COUNTY CHANNEL
TO -4.0' MLW

SPUR DATA

AREA = 7,925 SF
VOLUME = 203 CY
2016/17 SAV IMPACT = 7,925 SF

LEGEND

- | | |
|---------------------|-----------------|
| -1.0 EXISTING DEPTH | BOTTOM CUT AREA |
| ○ EXISTING PILING | SIDE SLOPE AREA |
| ● PROPOSED PILING | |

NOTES:

1. TIDAL RANGE IS 1.25 FEET.
2. SOUNDINGS ARE IN FEET AND REFER TO MLW.
3. MATERIAL WILL BE PLACED AT BIRD RIVER DMP SITE.
4. THESE ARE PERMIT DRAWINGS ONLY. DESIGN DRAWINGS WILL BE PREPARED SEPARATELY.
5. BASEMAP TAKEN FROM BALTIMORE COUNTY 2013 PLANIMETRICS AND 2014 IMAGERY.

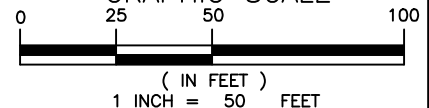
SAV LEGEND

COMPOSITE SAV BED FROM 2016 & 2017 SPRING AND SUMMER SAV SURVEY
SPRING SURVEY DATES: JUNE 1, 2016
JUNE 1, 2017
SUMMER SURVEY DATES: AUGUST 10, 2016
AUGUST 3, 2017

NOTES:

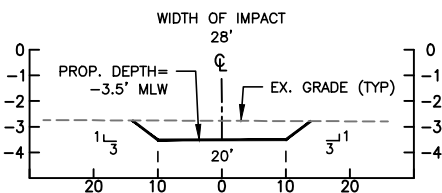
1. ADDITIONAL DETAILS INCLUDING SIDE SLOPES AND CROSS SECTION HAVE BEEN ADDED TO GRAPHICALLY REPRESENT IMPACTS TO SUBMERGED AQUATIC VEGETATION.
2. PREVIOUSLY PERMITTED AS HEFFNER 00-WL-1697.
3. EXISTING BOAT LIFT WITHIN DREDGE AREA TO BE REMOVED AND REPLACED BY OWNER.

GRAPHIC SCALE



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BIRD RIVER SPURS
SPUR 2
JOHN & BRIEGE MCGLONE
12905 COMMUNITY ROAD
MIDDLE RIVER, MD 21220
REVISED FEBRUARY 2019



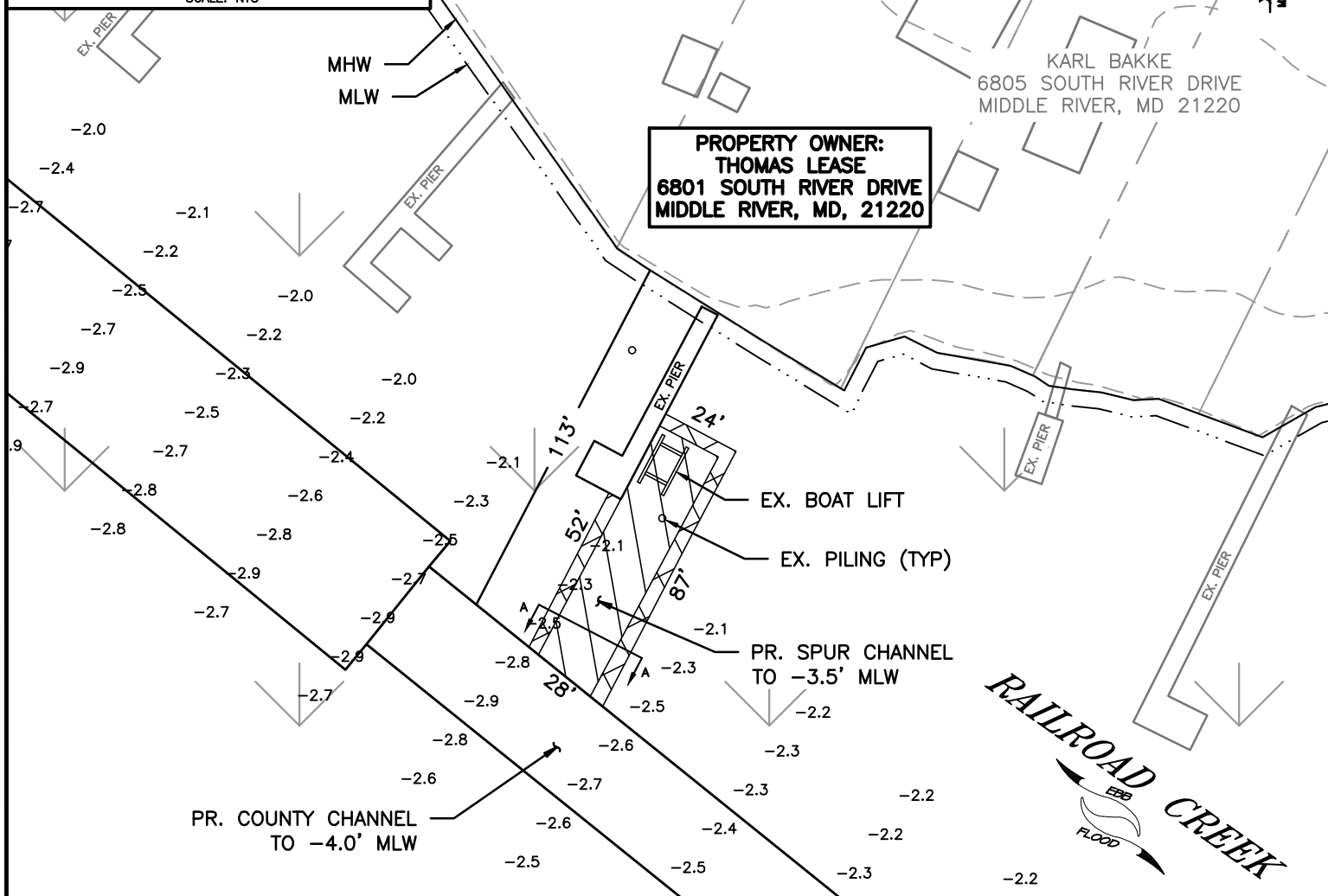
SECTION A-A
SCALE: NTS

FRANK & CAROLYN FARINETTI
6737 SOUTH RIVER ROAD
MIDDLE RIVER, MD 21220



KARL BAKKE
6805 SOUTH RIVER DRIVE
MIDDLE RIVER, MD 21220

PROPERTY OWNER:
THOMAS LEASE
6801 SOUTH RIVER DRIVE
MIDDLE RIVER, MD, 21220



SPUR DATA

AREA = 2,232 SF
VOLUME = 85 CY
2016/17 SAV IMPACT = 2,232 SF

LEGEND

- | | |
|---------------------|-----------------|
| -1.0 EXISTING DEPTH | BOTTOM CUT AREA |
| ○ EXISTING PILING | SIDE SLOPE AREA |
| ● PROPOSED PILING | |

NOTES:

1. TIDAL RANGE IS 1.25 FEET.
2. SOUNDINGS ARE IN FEET AND REFER TO MLW.
3. MATERIAL WILL BE PLACED AT BIRD RIVER DMP SITE.
4. THESE ARE PERMIT DRAWINGS ONLY. DESIGN DRAWINGS WILL BE PREPARED SEPARATELY.
5. BASEMAP TAKEN FROM BALTIMORE COUNTY 2013 PLANIMETRICS AND 2014 IMAGERY.

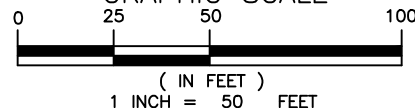
SAV LEGEND

COMPOSITE SAV BED FROM 2016 & 2017 SPRING AND SUMMER SAV SURVEY
SPRING SURVEY DATES: JUNE 1, 2016
JUNE 1, 2017
SUMMER SURVEY DATES: AUGUST 10, 2016
AUGUST 3, 2017

NOTES:

1. ADDITIONAL DETAILS INCLUDING SIDE SLOPES AND CROSS SECTION HAVE BEEN ADDED TO GRAPHICALLY REPRESENT IMPACTS TO SUBMERGED AQUATIC VEGETATION.
2. EXISTING PILING AND BOAT LIFT WITHIN DREDGE AREA TO BE REMOVED AND REPLACED BY OWNER.

GRAPHIC SCALE

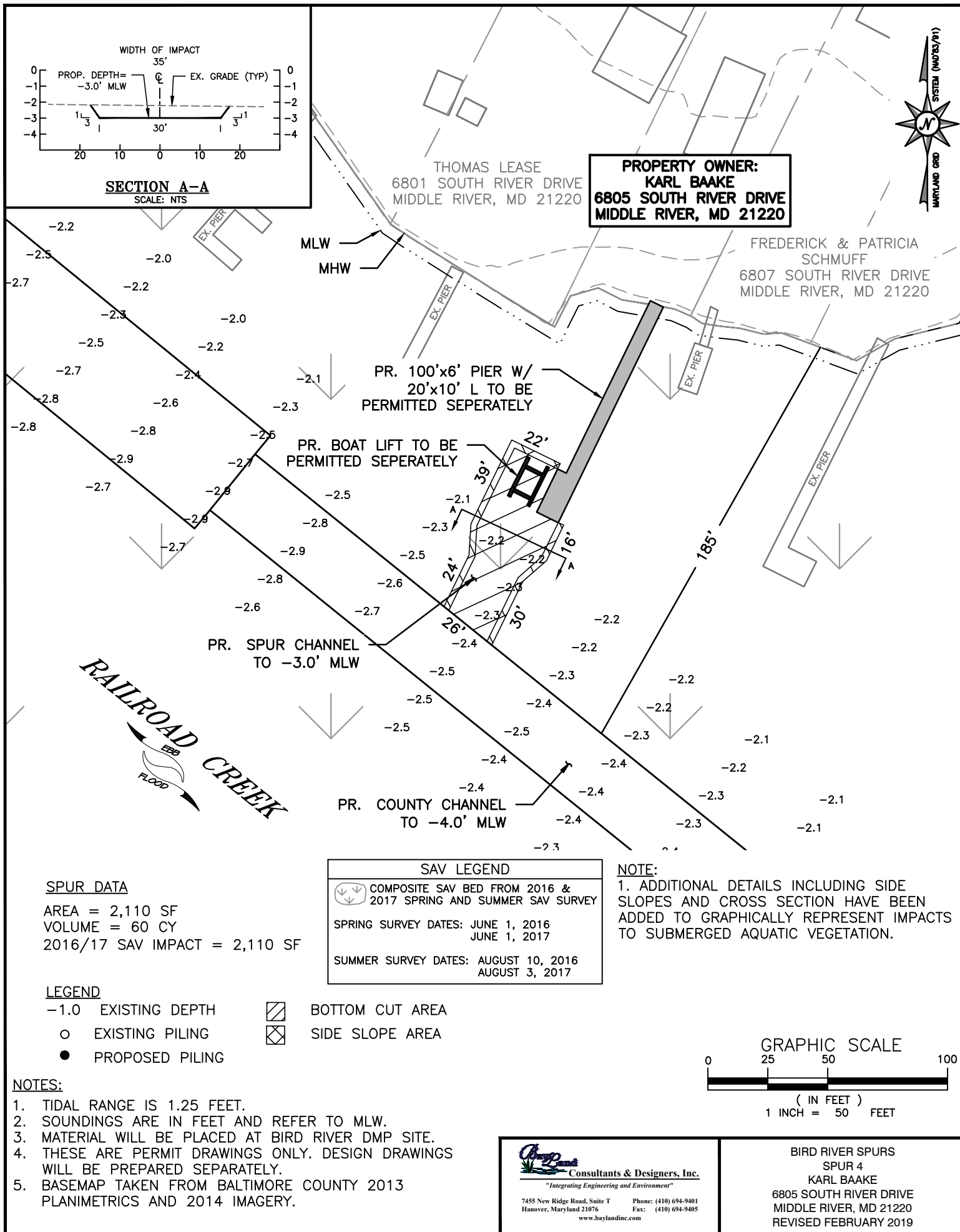


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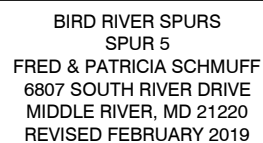
BIRD RIVER SPURS
SPUR 3
THOMAS LEASE
6801 SOUTH RIVER DRIVE
MIDDLE RIVER, MD, 21220
REVISED FEBRUARY 2019

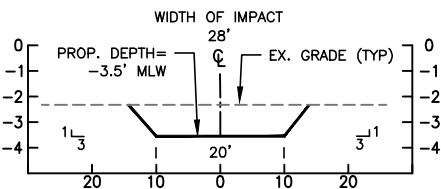




CHARLES RUZICKA
6809 SOUTH RIVER DRIVE
MIDDLE RIVER, MD 21220

**PROPERTY OWNER:
FRED & PATRICIA SCHMUFF
6807 SOUTH RIVER DRIVE
MIDDLE RIVER, MD 21220**



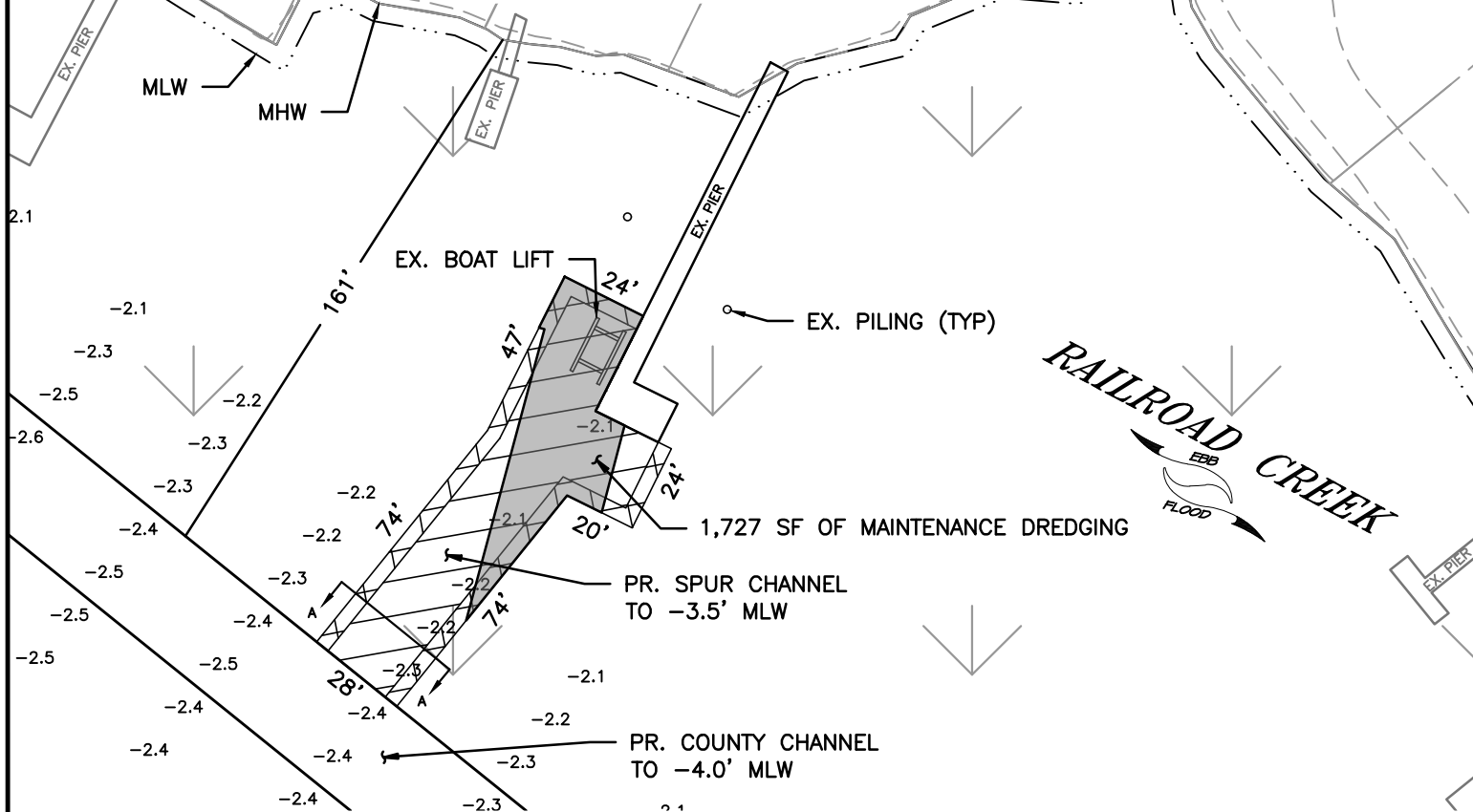


SECTION A-A
SCALE: NTS

PROPERTY OWNER:
CHARLES RUZICKA
6809 SOUTH RIVER DRIVE
MIDDLE RIVER, MD 21220

FREDERICK & PATRICIA
SCHMUFF
6807 SOUTH RIVER DRIVE
MIDDLE RIVER, MD 21220

DAVID KRAUS
6815 SOUTH RIVER DRIVE
MIDDLE RIVER, MD 21220



SPUR DATA

AREA = 3,816 SF
VOLUME = 162 CY
2016/17 SAV IMPACT = 3,816 SF

LEGEND

- | | |
|---------------------|-----------------|
| -1.0 EXISTING DEPTH | BOTTOM CUT AREA |
| ○ EXISTING PILING | SIDE SLOPE AREA |
| ● PROPOSED PILING | |

NOTES:

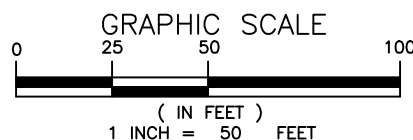
1. TIDAL RANGE IS 1.25 FEET.
2. SOUNDINGS ARE IN FEET AND REFER TO MLW.
3. MATERIAL WILL BE PLACED AT BIRD RIVER DMP SITE.
4. THESE ARE PERMIT DRAWINGS ONLY. DESIGN DRAWINGS WILL BE PREPARED SEPARATELY.
5. BASEMAP TAKEN FROM BALTIMORE COUNTY 2013 PLANIMETRICS AND 2014 IMAGERY.

SAV LEGEND

COMPOSITE SAV BED FROM 2016 & 2017 SPRING AND SUMMER SAV SURVEY
SPRING SURVEY DATES: JUNE 1, 2016
JUNE 1, 2017
SUMMER SURVEY DATES: AUGUST 10, 2016
AUGUST 3, 2017

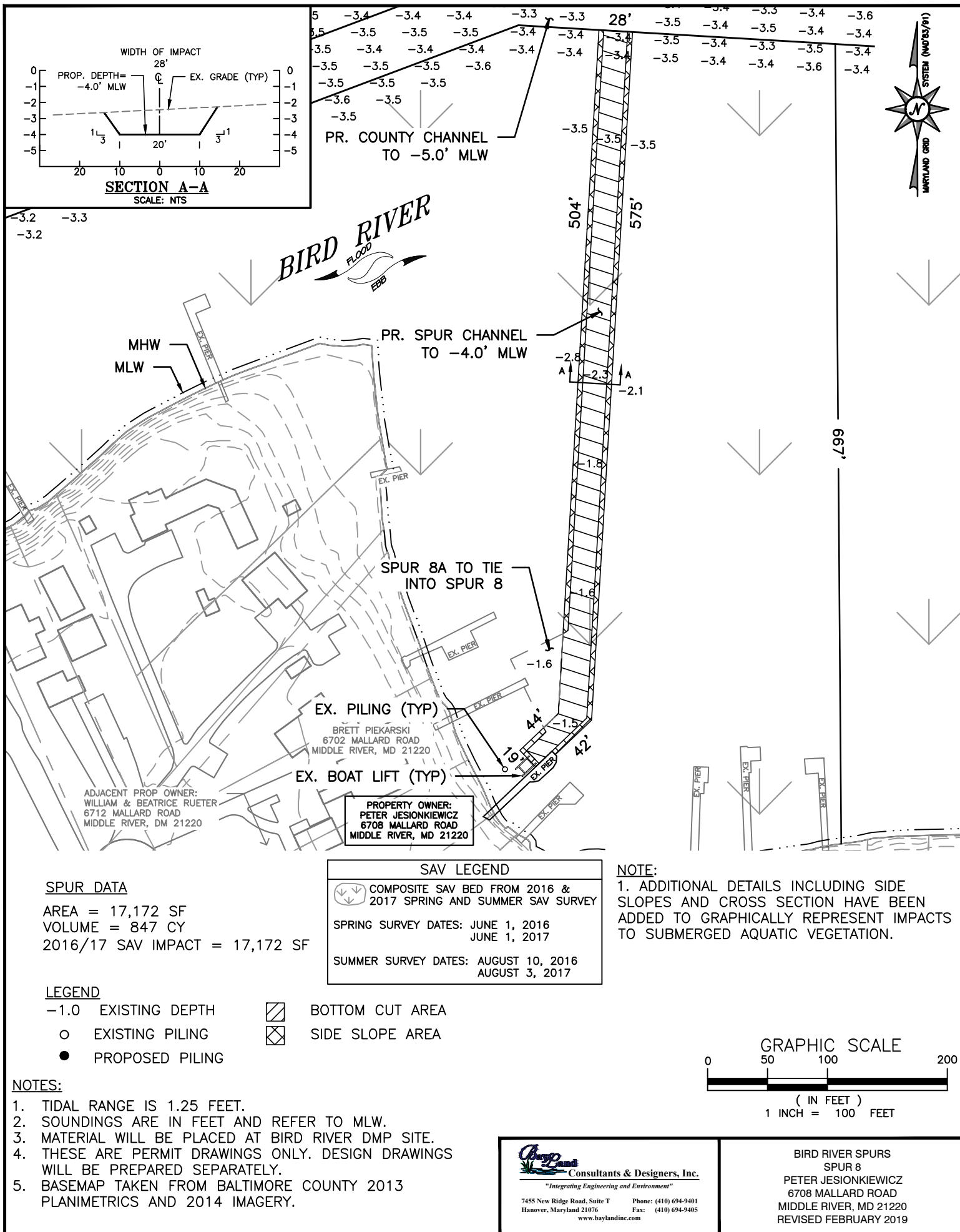
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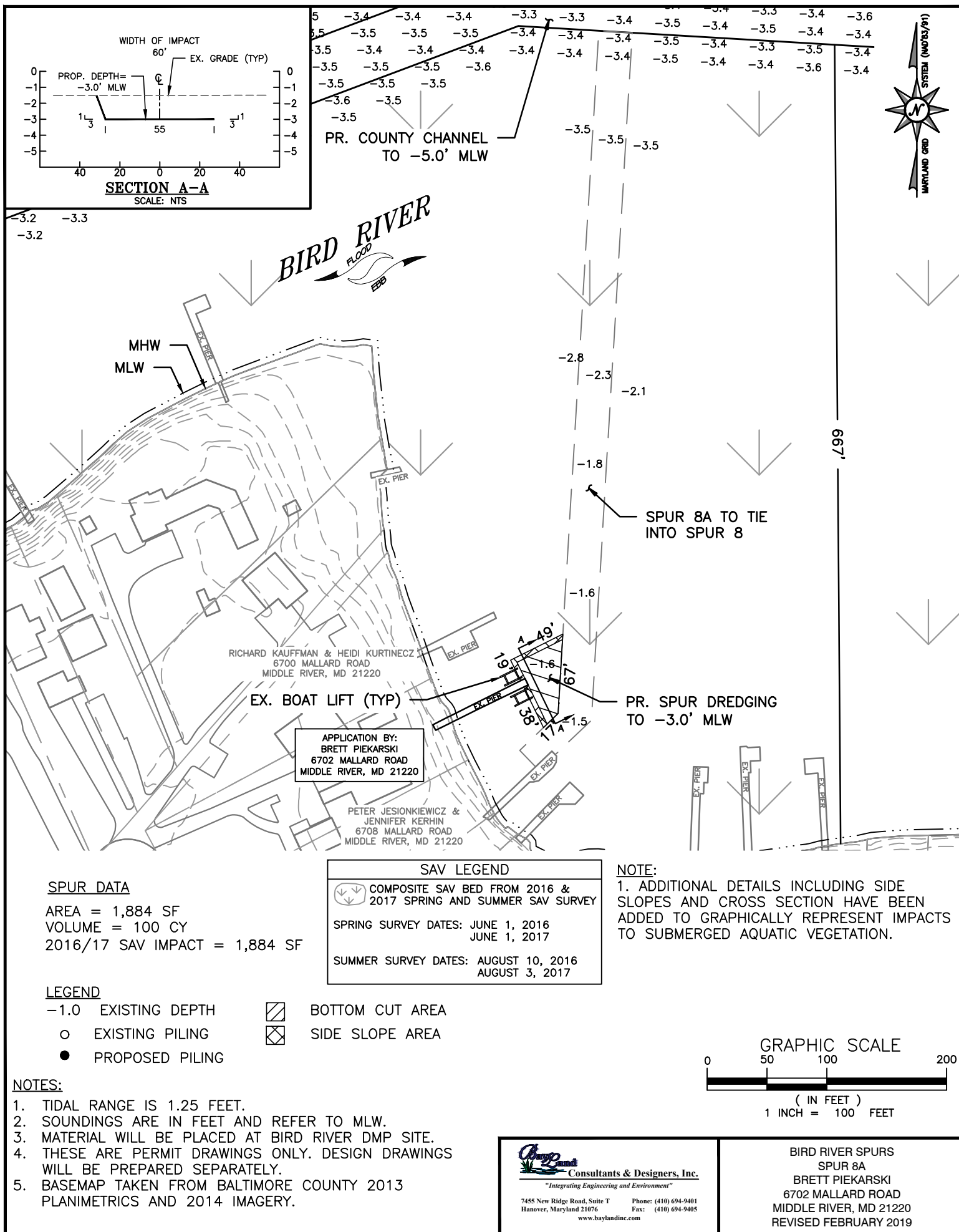
1. ADDITIONAL DETAILS INCLUDING SIDE SLOPES AND CROSS SECTION HAVE BEEN ADDED TO GRAPHICALLY REPRESENT IMPACTS TO SUBMERGED AQUATIC VEGETATION.
2. EXISTING BOAT LIFT WITHIN DREDGE AREA TO BE REMOVED AND REPLACED BY OWNER.
3. PREVIOUSLY PERMITTED AS SMITH 00-WL-1699.

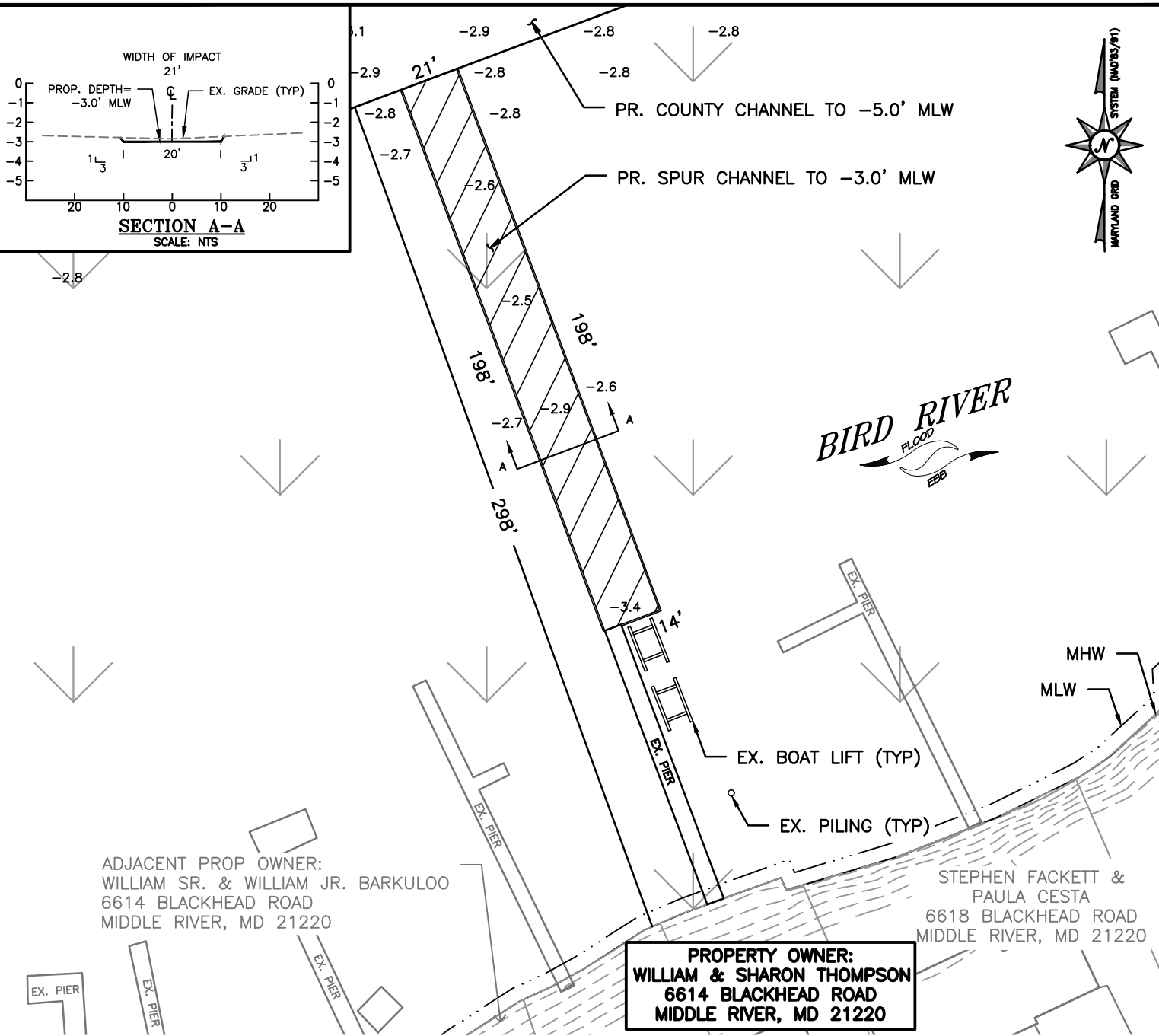
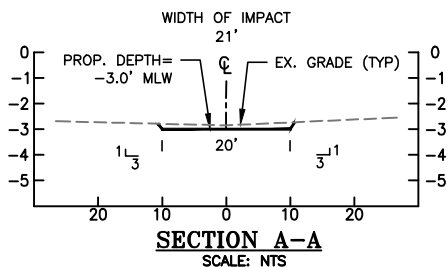


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BIRD RIVER SPURS
SPUR 6
CHARLES RUZICKA
6809 SOUTH RIVER DRIVE
MIDDLE RIVER, MD 21220
REVISED FEBRUARY 2019







SPUR DATA

AREA = 4,159 SF
VOLUME = 30 CY
2016/17 SAV IMPACT = 4,159 SF

LEGEND

-1.0 EXISTING DEPTH		BOTTOM CUT AREA
○ EXISTING PILING		SIDE SLOPE AREA
● PROPOSED PILING		

NOTES:

1. TIDAL RANGE IS 1.25 FEET.
2. SOUNDINGS ARE IN FEET AND REFER TO MLW.
3. MATERIAL WILL BE PLACED AT BIRD RIVER DMP SITE.
4. THESE ARE PERMIT DRAWINGS ONLY. DESIGN DRAWINGS WILL BE PREPARED SEPARATELY.
5. BASEMAP TAKEN FROM BALTIMORE COUNTY 2013 PLANIMETRICS AND 2014 IMAGERY.

SAV LEGEND

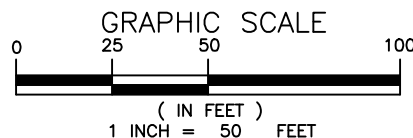
COMPOSITE SAV BED FROM 2016 & 2017 SPRING AND SUMMER SAV SURVEY

SPRING SURVEY DATES: JUNE 1, 2016
JUNE 1, 2017

SUMMER SURVEY DATES: AUGUST 10, 2016
AUGUST 3, 2017

NOTE:

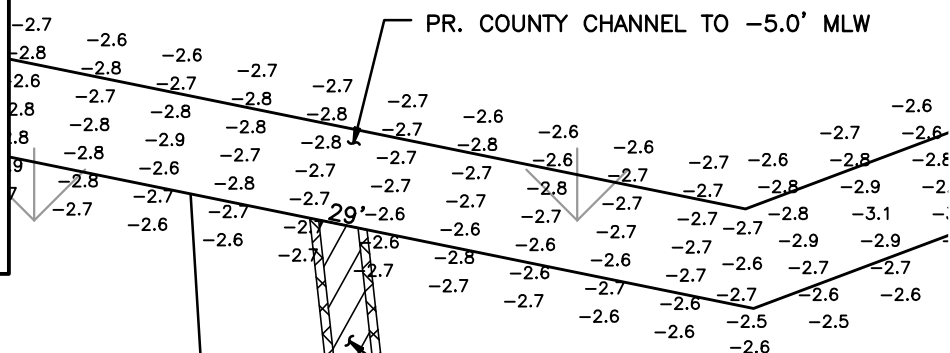
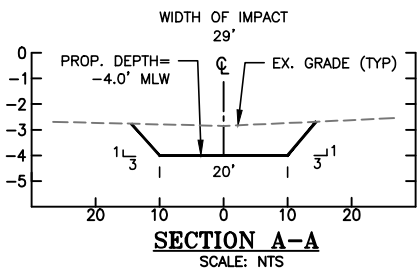
1. ADDITIONAL DETAILS INCLUDING SIDE SLOPES AND CROSS SECTION HAVE BEEN ADDED TO GRAPHICALLY REPRESENT IMPACTS TO SUBMERGED AQUATIC VEGETATION.

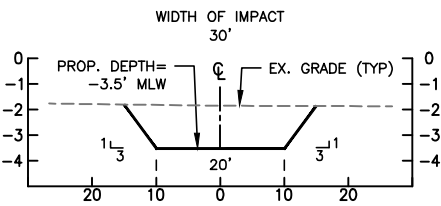


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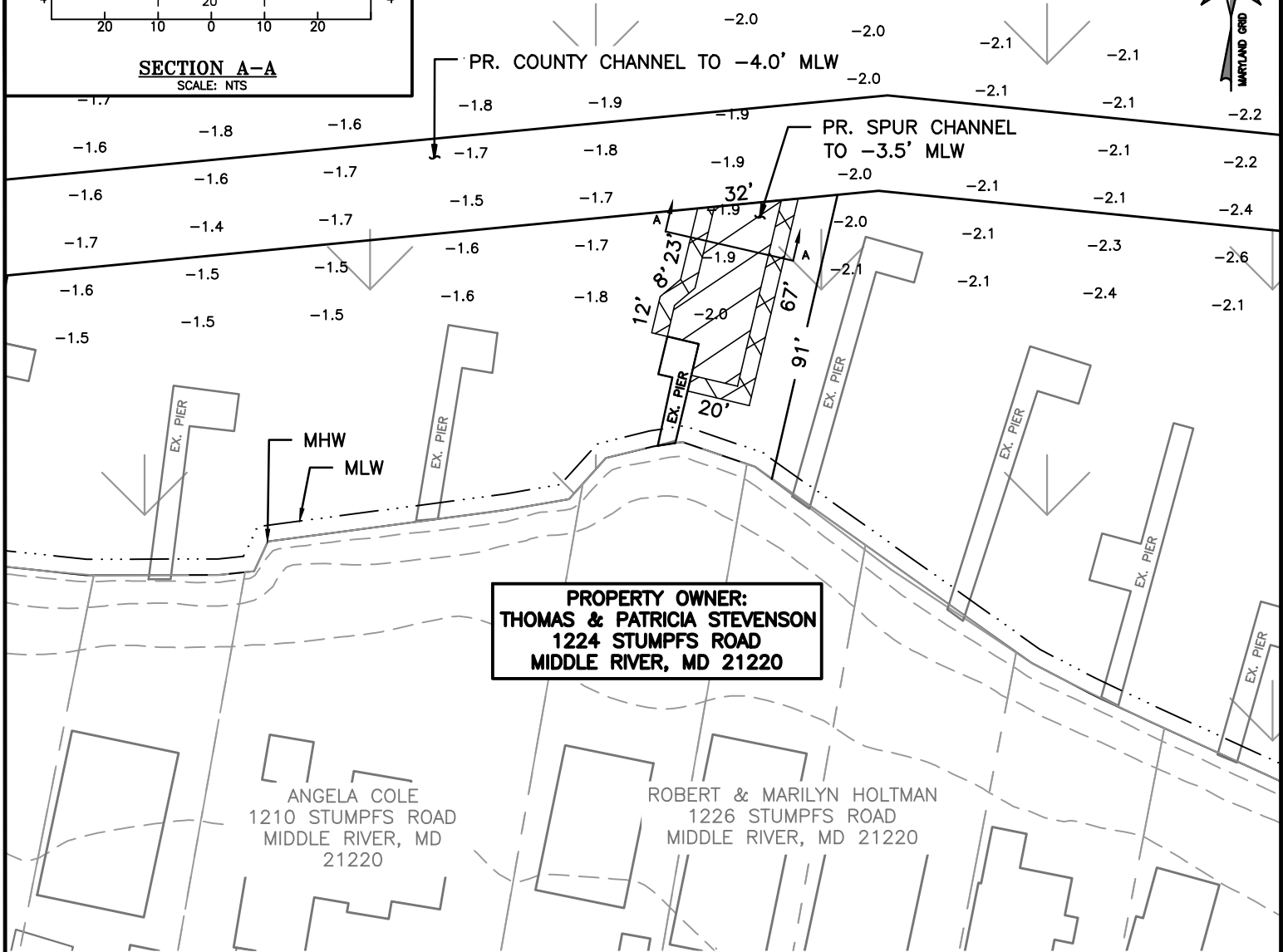
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BIRD RIVER SPURS
SPUR 9
WILLIAM & SHARON THOMPSON
6614 BLACKHEAD ROAD
MIDDLE RIVER, MD 21220
REVISED FEBRUARY 2019





SECTION A-A
SCALE: NTS



PROPERTY OWNER:
THOMAS & PATRICIA STEVENSON
1224 STUMPFS ROAD
MIDDLE RIVER, MD 21220

ANGELA COLE
1210 STUMPFS ROAD
MIDDLE RIVER, MD
21220

ROBERT & MARILYN HOLTMAN
1226 STUMPFS ROAD
MIDDLE RIVER, MD 21220

SPUR DATA

AREA = 1,768 SF
VOLUME = 100 CY
2016/17 SAV IMPACT = 1,768 SF

LEGEND

- | | |
|---------------------|-----------------|
| -1.0 EXISTING DEPTH | BOTTOM CUT AREA |
| ○ EXISTING PILING | SIDE SLOPE AREA |
| ● PROPOSED PILING | |

NOTES:

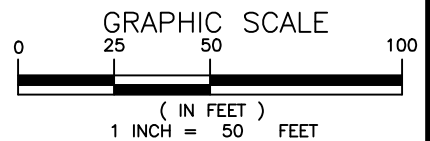
1. TIDAL RANGE IS 1.25 FEET.
2. SOUNDINGS ARE IN FEET AND REFER TO MLW.
3. MATERIAL WILL BE PLACED AT BIRD RIVER DMP SITE.
4. THESE ARE PERMIT DRAWINGS ONLY. DESIGN DRAWINGS WILL BE PREPARED SEPARATELY.
5. BASEMAP TAKEN FROM BALTIMORE COUNTY 2013 PLANIMETRICS AND 2014 IMAGERY.

SAV LEGEND

- COMPOSITE SAV BED FROM 2016 & 2017 SPRING AND SUMMER SAV SURVEY
- SPRING SURVEY DATES: JUNE 1, 2016
JUNE 1, 2017
- SUMMER SURVEY DATES: AUGUST 10, 2016
AUGUST 3, 2017

NOTE:

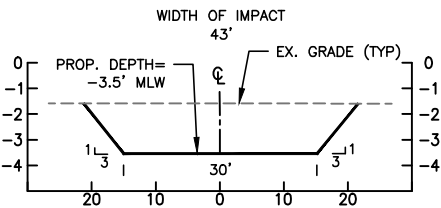
1. ADDITIONAL DETAILS INCLUDING SIDE SLOPES AND CROSS SECTION HAVE BEEN ADDED TO GRAPHICALLY REPRESENT IMPACTS TO SUBMERGED AQUATIC VEGETATION.



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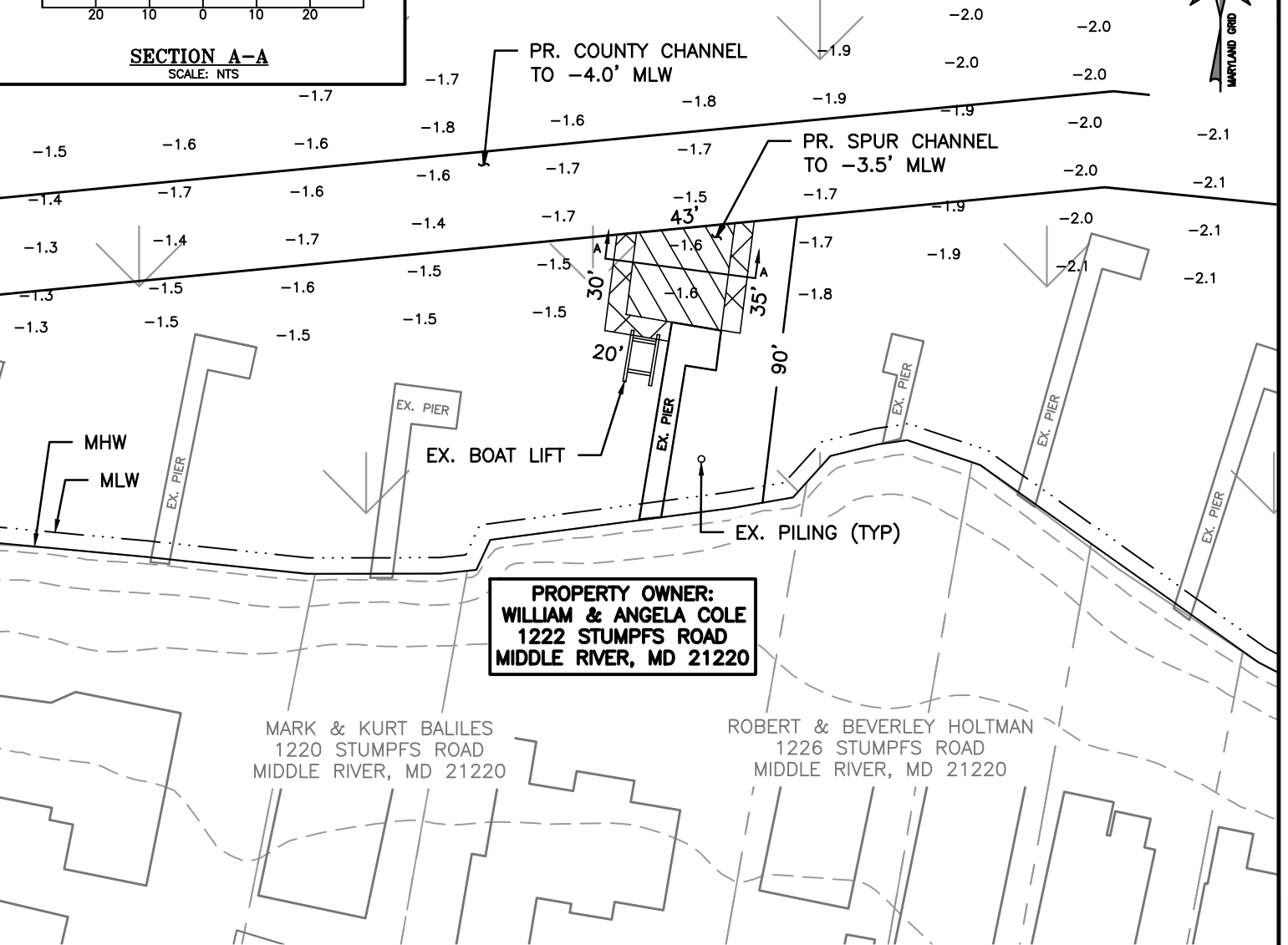
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BIRD RIVER SPURS
SPUR 11
THOMAS & PATRICIA STEVENSON
1224 STUMPFS ROAD
MIDDLE RIVER, MD 21220
REVISED FEBRUARY 2019



SECTION A-A
SCALE: NTS

BIRD RIVER



PROPERTY OWNER:
WILLIAM & ANGELA COLE
1222 STUMPF'S ROAD
MIDDLE RIVER, MD 21220

MARK & KURT BALILES
1220 STUMPF'S ROAD
MIDDLE RIVER, MD 21220

ROBERT & BEVERLEY HOLTMAN
1226 STUMPF'S ROAD
MIDDLE RIVER, MD 21220

SPUR DATA

AREA = 1,368 SF
VOLUME = 80 CY
2016/17 SAV IMPACT = 1,368 SF

LEGEND

- | | |
|---------------------|-----------------|
| -1.0 EXISTING DEPTH | BOTTOM CUT AREA |
| ○ EXISTING PILING | SIDE SLOPE AREA |
| ● PROPOSED PILING | |

NOTES:

1. TIDAL RANGE IS 1.25 FEET.
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4. THESE ARE PERMIT DRAWINGS ONLY. DESIGN DRAWINGS WILL BE PREPARED SEPARATELY.
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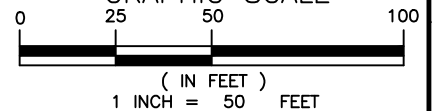
SAV LEGEND

COMPOSITE SAV BED FROM 2016 & 2017 SPRING AND SUMMER SAV SURVEY
SPRING SURVEY DATES: JUNE 1, 2016
JUNE 1, 2017
SUMMER SURVEY DATES: AUGUST 10, 2016
AUGUST 3, 2017

NOTE:

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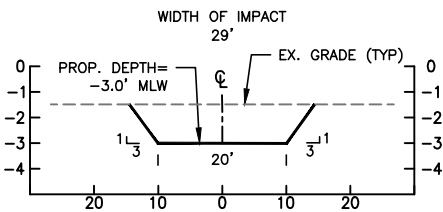
GRAPHIC SCALE



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BIRD RIVER SPURS
SPUR 12
WILLIAM & ANGELA COLE
1222 STUMPF'S ROAD
MIDDLE RIVER, MD 21220
REVISED FEBRUARY 2019



SECTION A-A
SCALE: NTS

BIRD RIVER

FLOOD

EBB



PR. COUNTY CHANNEL TO -4.0' MLW

PR. SPUR CHANNEL TO -3.0' MLW

PR. BOAT LIFT TO BE PERMITTED SEPERATELY

EX. PILING (TYP)

PROPERTY OWNER:
KURT & MARIA BALILES
1220 STUMPS ROAD
MIDDLE RIVER, MD 21220

JASON FARLEY & DAVID DIAL
1216 STUMPS ROAD
MIDDLE RIVER, MD 21220

ANGELA & WILLIAM COLE
1220 STUMPS ROAD
MIDDLE RIVER, MD 21220

SPUR DATA

AREA = 1,782 SF
VOLUME = 100 CY
2016/17 SAV IMPACT = 1,782 SF

LEGEND

- | | |
|---------------------|-----------------|
| -1.0 EXISTING DEPTH | BOTTOM CUT AREA |
| ○ EXISTING PILING | SIDE SLOPE AREA |
| ● PROPOSED PILING | |

NOTES:

1. TIDAL RANGE IS 1.25 FEET.
2. SOUNDINGS ARE IN FEET AND REFER TO MLW.
3. MATERIAL WILL BE PLACED AT BIRD RIVER DMP SITE.
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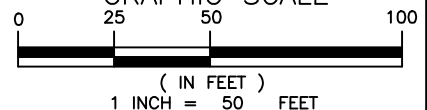
SAV LEGEND

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SPRING SURVEY DATES: JUNE 1, 2016
JUNE 1, 2017
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AUGUST 3, 2017

NOTES:

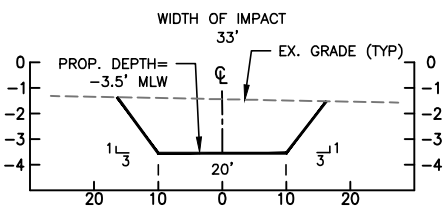
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2. EXISTING PILING WITHIN DREDGE AREA TO BE REMOVED AND REPLACED BY OWNER.

GRAPHIC SCALE



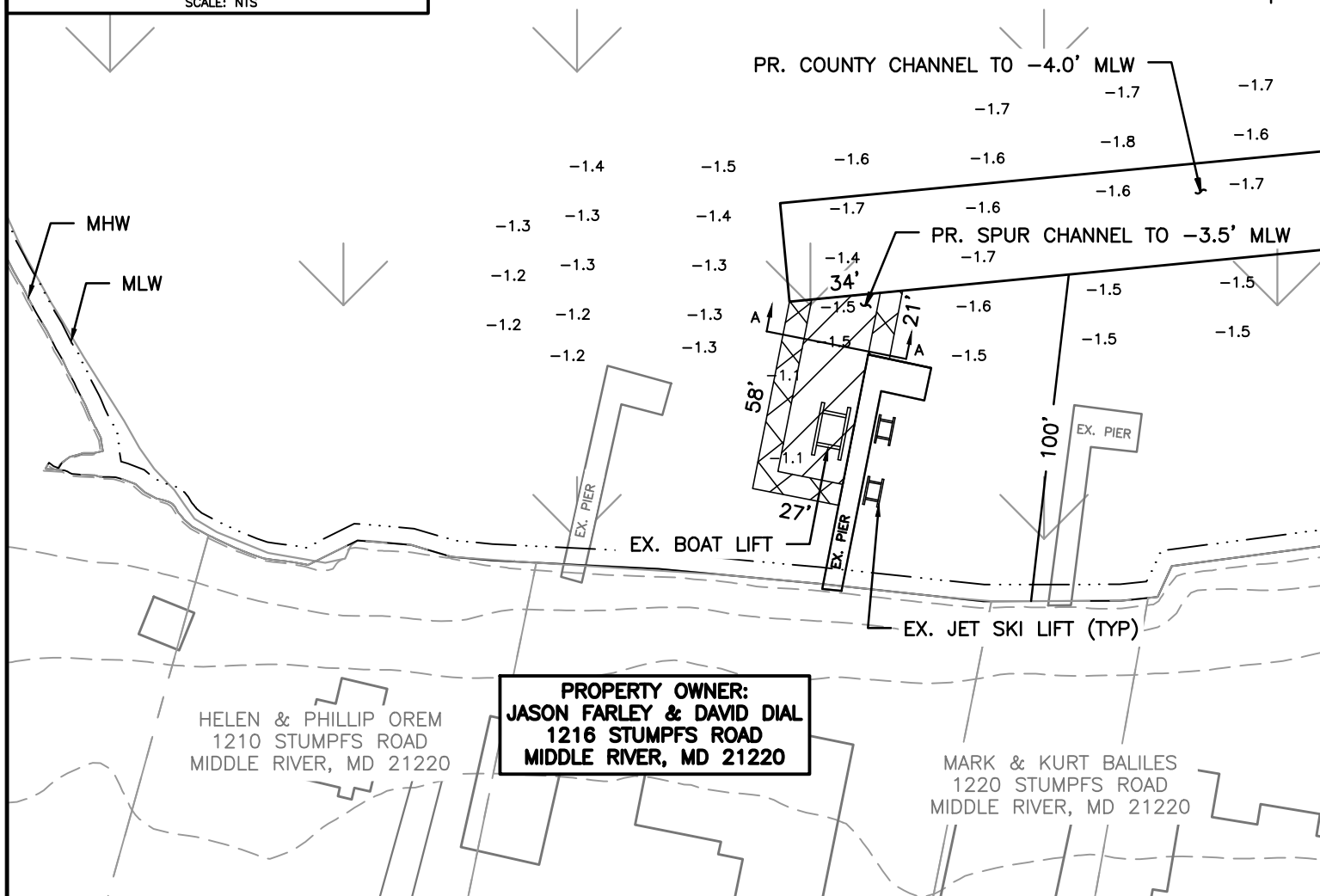
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BIRD RIVER SPURS
SPUR 13
KURT & MARIA BALILES
1220 STUMPS ROAD
MIDDLE RIVER, MD 21220
REVISED FEBRUARY 2019



SECTION A-A
SCALE: NTS

BIRD RIVER



PROPERTY OWNER:
JASON FARLEY & DAVID DIAL
1216 STUMPF'S ROAD
MIDDLE RIVER, MD 21220

HELEN & PHILLIP OREM
1210 STUMPF'S ROAD
MIDDLE RIVER, MD 21220

MARK & KURT BALILES
1220 STUMPF'S ROAD
MIDDLE RIVER, MD 21220

SPUR DATA

AREA = 1,762 SF
VOLUME = 144 CY
2016/17 SAV IMPACT = 1,762 SF

LEGEND

- | | |
|---------------------|-----------------|
| -1.0 EXISTING DEPTH | BOTTOM CUT AREA |
| ○ EXISTING PILING | SIDE SLOPE AREA |
| ● PROPOSED PILING | |

NOTES:

1. TIDAL RANGE IS 1.25 FEET.
2. SOUNDINGS ARE IN FEET AND REFER TO MLW.
3. MATERIAL WILL BE PLACED AT BIRD RIVER DMP SITE.
4. THESE ARE PERMIT DRAWINGS ONLY. DESIGN DRAWINGS WILL BE PREPARED SEPARATELY.
5. BASEMAP TAKEN FROM BALTIMORE COUNTY 2013 PLANIMETRICS AND 2014 IMAGERY.

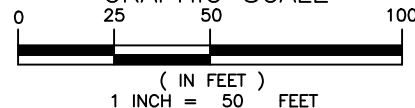
SAV LEGEND

- COMPOSITE SAV BED FROM 2016 & 2017 SPRING AND SUMMER SAV SURVEY
- SPRING SURVEY DATES: JUNE 1, 2016
JUNE 1, 2017
- SUMMER SURVEY DATES: AUGUST 10, 2016
AUGUST 3, 2017

NOTES:

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2. EXISTING BOAT LIFT WITHIN DREDGE AREA TO BE REMOVED AND REPLACED BY OWNER.

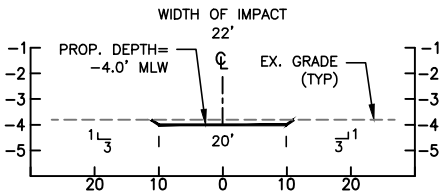
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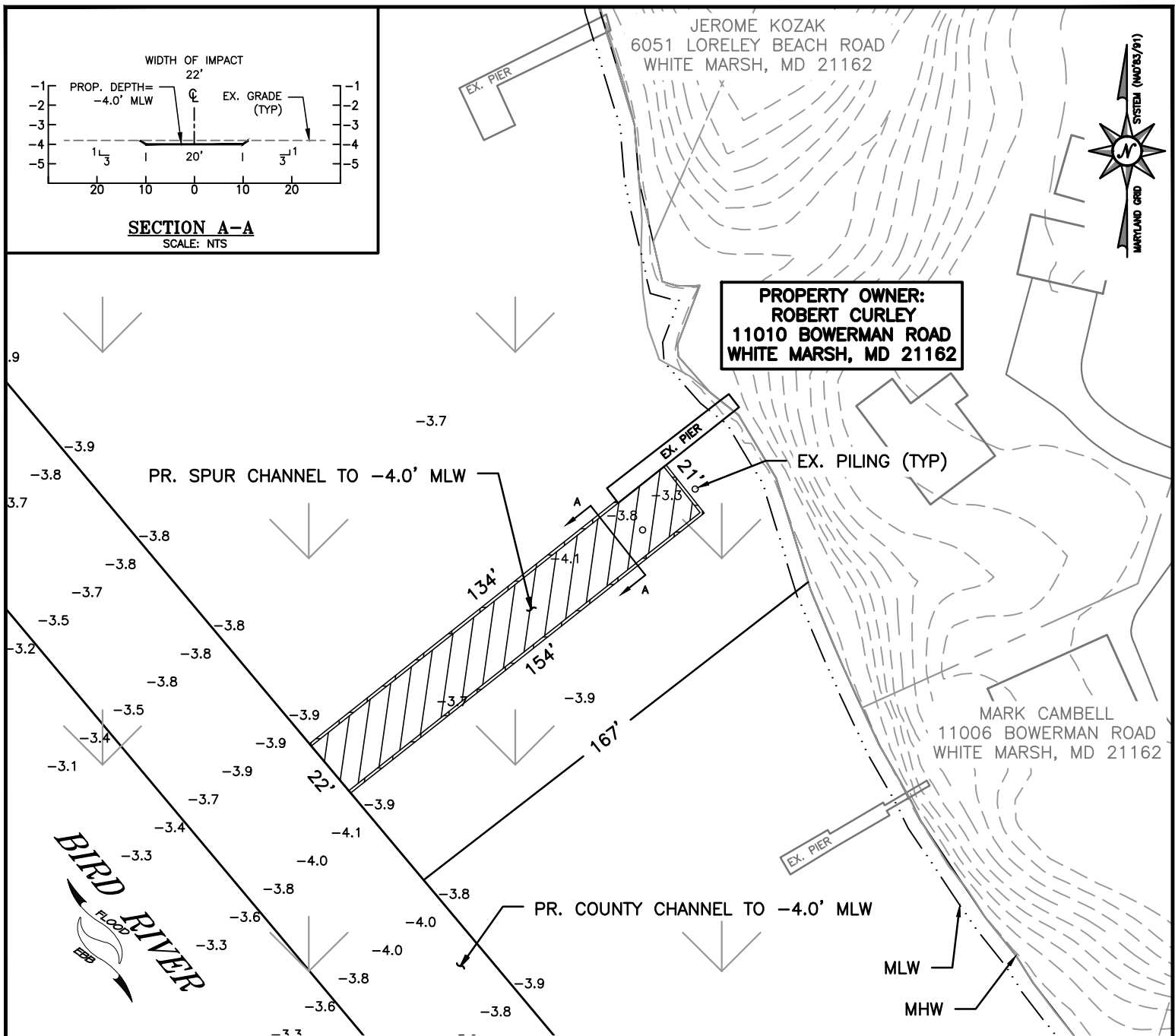
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BIRD RIVER SPURS
SPUR 14
JASON FARLEY & DAVID DIAL
1216 STUMPF'S ROAD
MIDDLE RIVER, MD 21220
REVISED FEBRUARY 2019



SECTION A-A
SCALE: NTS



SPUR DATA

AREA = 3,385 SF
VOLUME = 30 CY
2016/17 SAV IMPACT = 3,385 SF

LEGEND

-1.0 EXISTING DEPTH	BOTTOM CUT AREA
○ EXISTING PILING	SIDE SLOPE AREA
● PROPOSED PILING	

NOTES:

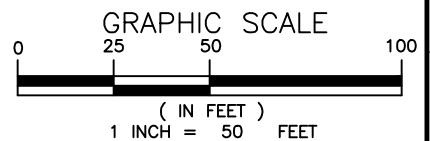
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SAV LEGEND

COMPOSITE SAV BED FROM 2016 & 2017 SPRING AND SUMMER SAV SURVEY
SPRING SURVEY DATES: JUNE 1, 2016
JUNE 1, 2017
SUMMER SURVEY DATES: AUGUST 10, 2016
AUGUST 3, 2017

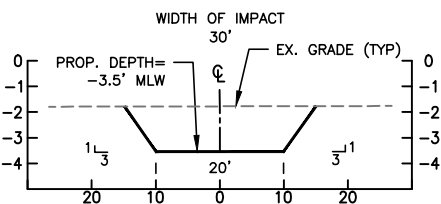
NOTES:

1. ADDITIONAL DETAILS INCLUDING SIDE SLOPES AND CROSS SECTION HAVE BEEN ADDED TO GRAPHICALLY REPRESENT IMPACTS TO SUBMERGED AQUATIC VEGETATION.
2. PREVIOUSLY PERMITTED AS CURLEY CENAB-OP-RMN (CURLEY, ROBERT C/BIRD RIVER DREDGING #14) 00-63574-7.
3. EXISTING PILINGS WITHIN DREDGE AREA TO BE REMOVED AND REPLACED BY OWNER.



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BIRD RIVER SPURS
SPUR 15
ROBERT CURLEY
11010 BOWERMAN ROAD
WHITE MARSH, MD 21162
REVISED FEBRUARY 2019

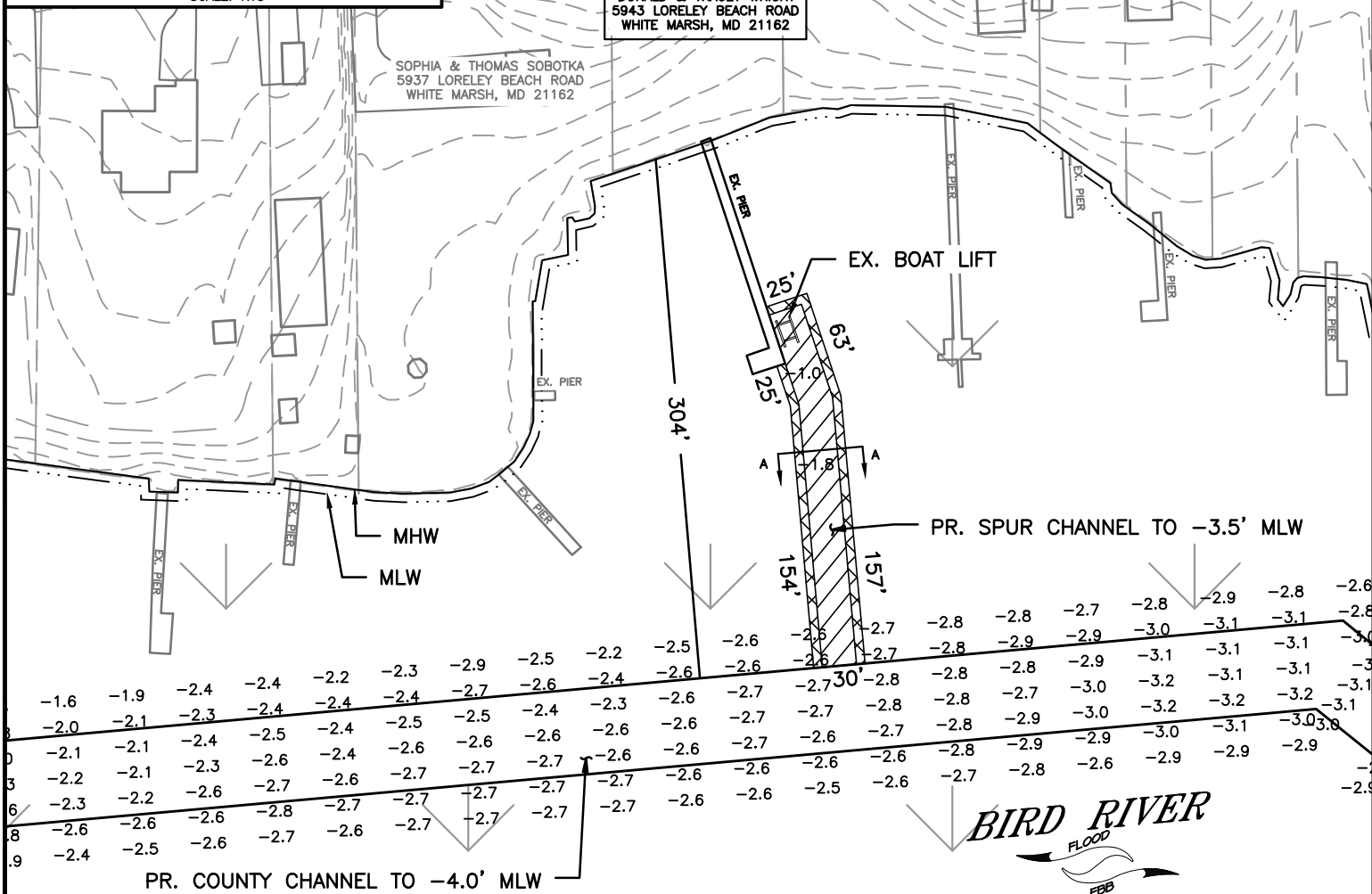


SECTION A-A
SCALE: NTS

SOPHIA & THOMAS SOBOTKA
5937 LORELEY BEACH ROAD
WHITE MARSH, MD 21162

PROPERTY OWNER:
DONALD & TRACEY WRIGHT
5943 LORELEY BEACH ROAD
WHITE MARSH, MD 21162

KINNETH & LAURA CULLUM
6001 LORELEY BEACH ROAD
WHITE MARSH, MD 21162



SPUR DATA

AREA = 6,325 SF
VOLUME = 295 CY
2016/17 SAV IMPACT = 6,325 SF

LEGEND

- 1.0 EXISTING DEPTH
- EXISTING PILING
- PROPOSED PILING
- ▨ BOTTOM CUT AREA
- ▩ SIDE SLOPE AREA

NOTES:

- TIDAL RANGE IS 1.25 FEET.
- SOUNDINGS ARE IN FEET AND REFER TO MLW.
- MATERIAL WILL BE PLACED AT BIRD RIVER DMP SITE.
- THESE ARE PERMIT DRAWINGS ONLY. DESIGN DRAWINGS WILL BE PREPARED SEPARATELY.
- BASEMAP TAKEN FROM BALTIMORE COUNTY 2013 PLANIMETRICS AND 2014 IMAGERY.

SAV LEGEND

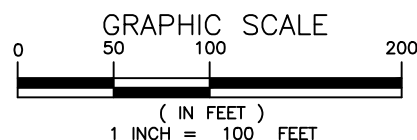
COMPOSITE SAV BED FROM 2016 &
2017 SPRING AND SUMMER SAV SURVEY

SPRING SURVEY DATES: JUNE 1, 2016
JUNE 1, 2017

SUMMER SURVEY DATES: AUGUST 10, 2016
AUGUST 3, 2017

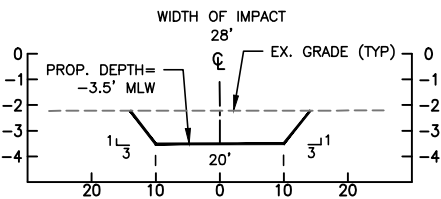
NOTES:

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- EXISTING BOAT LIFT WITHIN DREDGE AREA TO BE REMOVED AND REPLACED BY OWNER.



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BIRD RIVER SPURS
SPUR 16
DONALD & TRACEY WRIGHT
5943 LORELEY BEACH ROAD
WHITE MARSH, MD 21162
REVISED FEBRUARY 2019

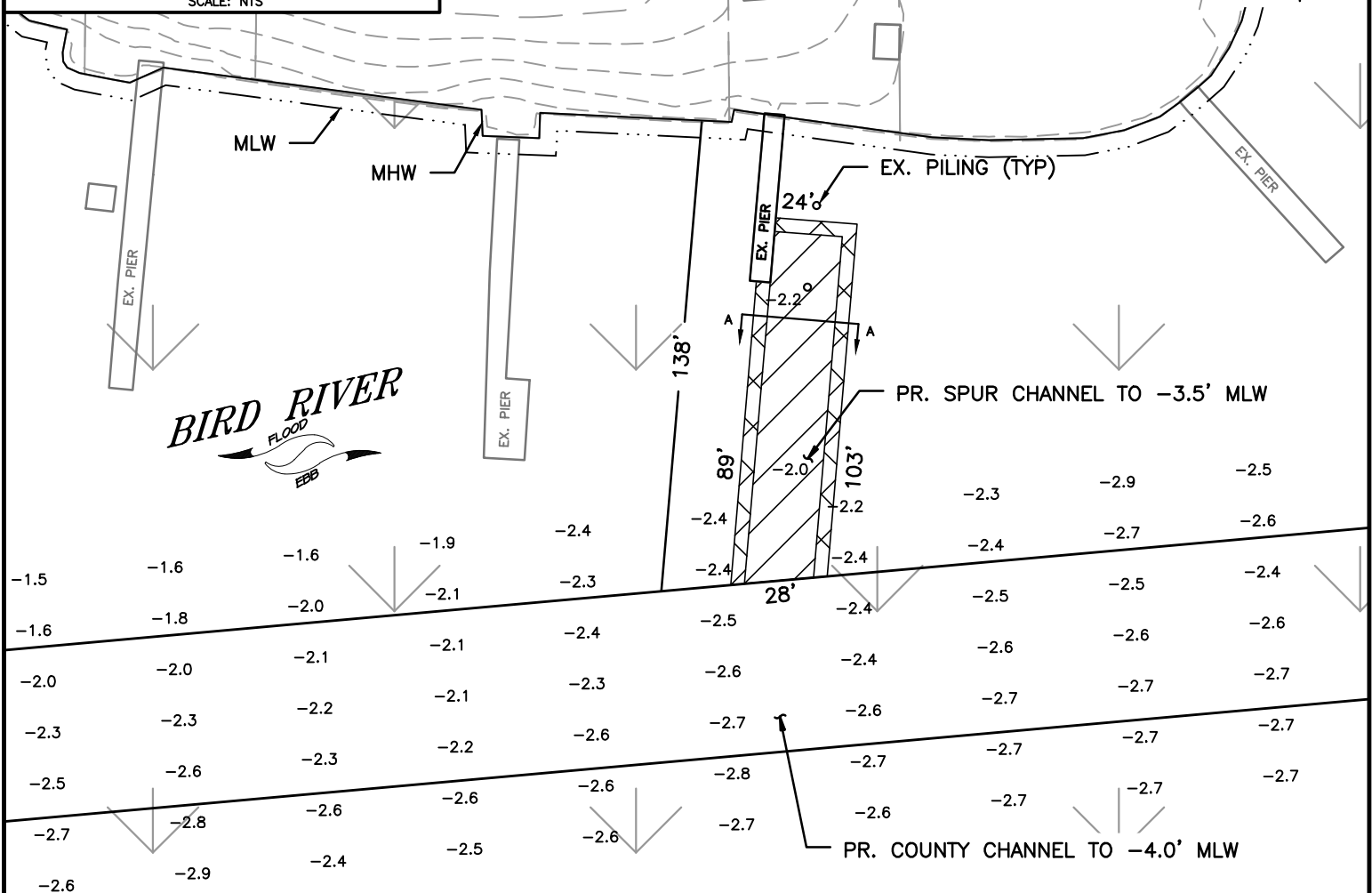


SECTION A-A
SCALE: NTS

STEPHANIE COOPER
5933 LORELEY BEACH ROAD
WHITE MARSH, MD 21162

SOPHIA & THOMAS SOBOTKA
5937 LORELEY BEACH ROAD
WHITE MARSH, MD 21162

PROPERTY OWNER:
BERNARD & ELIZABETH WODARCZYK
5935 LORELEY BEACH ROAD
WHITE MARSH, MD 21162



SPUR DATA

AREA = 2,884 SF
VOLUME = 128 CY
2016/17 SAV IMPACT = 2,884 SF

LEGEND

- | | |
|---------------------|-----------------|
| -1.0 EXISTING DEPTH | BOTTOM CUT AREA |
| ○ EXISTING PILING | SIDE SLOPE AREA |
| ● PROPOSED PILING | |

NOTES:

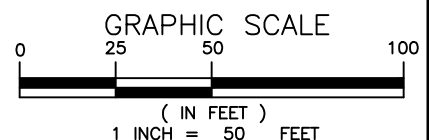
1. TIDAL RANGE IS 1.25 FEET.
2. SOUNDINGS ARE IN FEET AND REFER TO MLW.
3. MATERIAL WILL BE PLACED AT BIRD RIVER DMP SITE.
4. THESE ARE PERMIT DRAWINGS ONLY. DESIGN DRAWINGS WILL BE PREPARED SEPARATELY.
5. BASEMAP TAKEN FROM BALTIMORE COUNTY 2013 PLANIMETRICS AND 2014 IMAGERY.

SAV LEGEND

COMPOSITE SAV BED FROM 2016 & 2017 SPRING AND SUMMER SAV SURVEY
SPRING SURVEY DATES: JUNE 1, 2016
JUNE 1, 2017
SUMMER SURVEY DATES: AUGUST 10, 2016
AUGUST 3, 2017

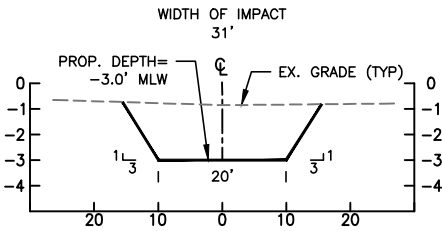
NOTES:

1. ADDITIONAL DETAILS INCLUDING SIDE SLOPES AND A CROSS SECTION HAVE BEEN ADDED TO GRAPHICALLY REPRESENT IMPACTS TO SUBMERGED AQUATIC VEGETATION.
2. PREVIOUSLY PERMITTED AS WODARCZYK 00-WL-1602.
3. EXISTING PILINGS WITHIN DREDGE AREA TO BE REMOVED AND REPLACED BY OWNER.



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BIRD RIVER SPURS
SPUR 17
BERNARD & ELIZABETH WODARCZYK
5935 LORELEY BEACH ROAD
WHITE MARSH, MD 21162
REVISED FEBRUARY 2019

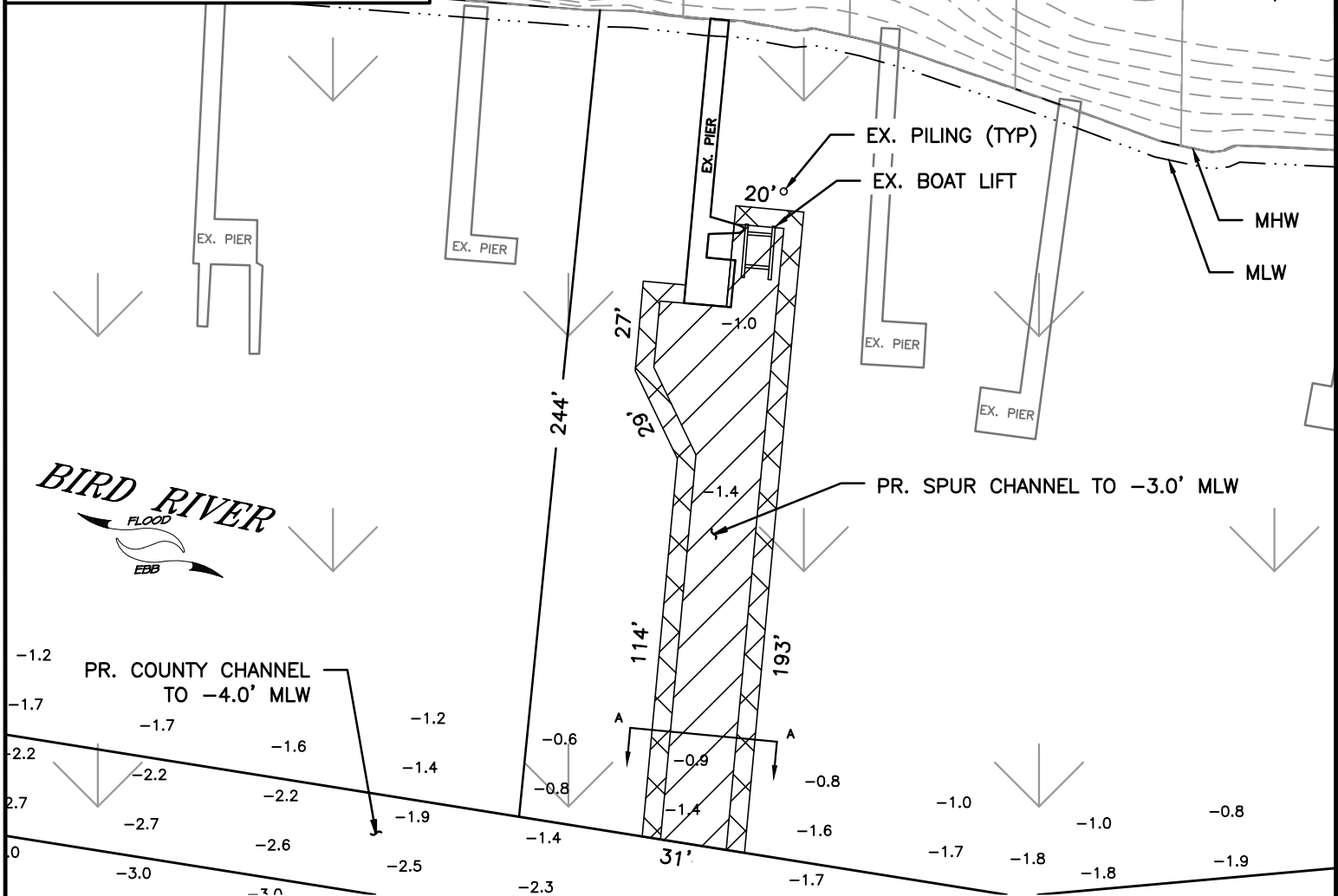


SECTION A-A
SCALE: NTS

JOHN & MIRIAM BARNES
5911 LORELEY BEACH ROAD
WHITE MARSH, MD 21162

DAVID & JACKLYN HARRIS
5919 LORELEY BEACH ROAD
WHITE MARSH, MD 21162

PROPERTY OWNER:
BENJAMIN & KAREN BAKKEGARD
5905 LORELEY BEACH ROAD
WHITE MARSH, MD 21162



SPUR DATA

AREA = 6,228 SF
VOLUME = 422 CY
2016/17 SAV IMPACT = 6,228 SF

LEGEND

- | | |
|---------------------|-----------------|
| -1.0 EXISTING DEPTH | BOTTOM CUT AREA |
| ○ EXISTING PILING | SIDE SLOPE AREA |
| ● PROPOSED PILING | |

NOTES:

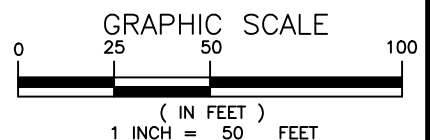
1. TIDAL RANGE IS 1.25 FEET.
2. SOUNDINGS ARE IN FEET AND REFER TO MLW.
3. MATERIAL WILL BE PLACED AT BIRD RIVER DMP SITE.
4. THESE ARE PERMIT DRAWINGS ONLY. DESIGN DRAWINGS WILL BE PREPARED SEPARATELY.
5. BASEMAP TAKEN FROM BALTIMORE COUNTY 2013 PLANIMETRICS AND 2014 IMAGERY.

SAV LEGEND

COMPOSITE SAV BED FROM 2016 & 2017 SPRING AND SUMMER SAV SURVEY
SPRING SURVEY DATES: JUNE 1, 2016
JUNE 1, 2017
SUMMER SURVEY DATES: AUGUST 10, 2016
AUGUST 3, 2017

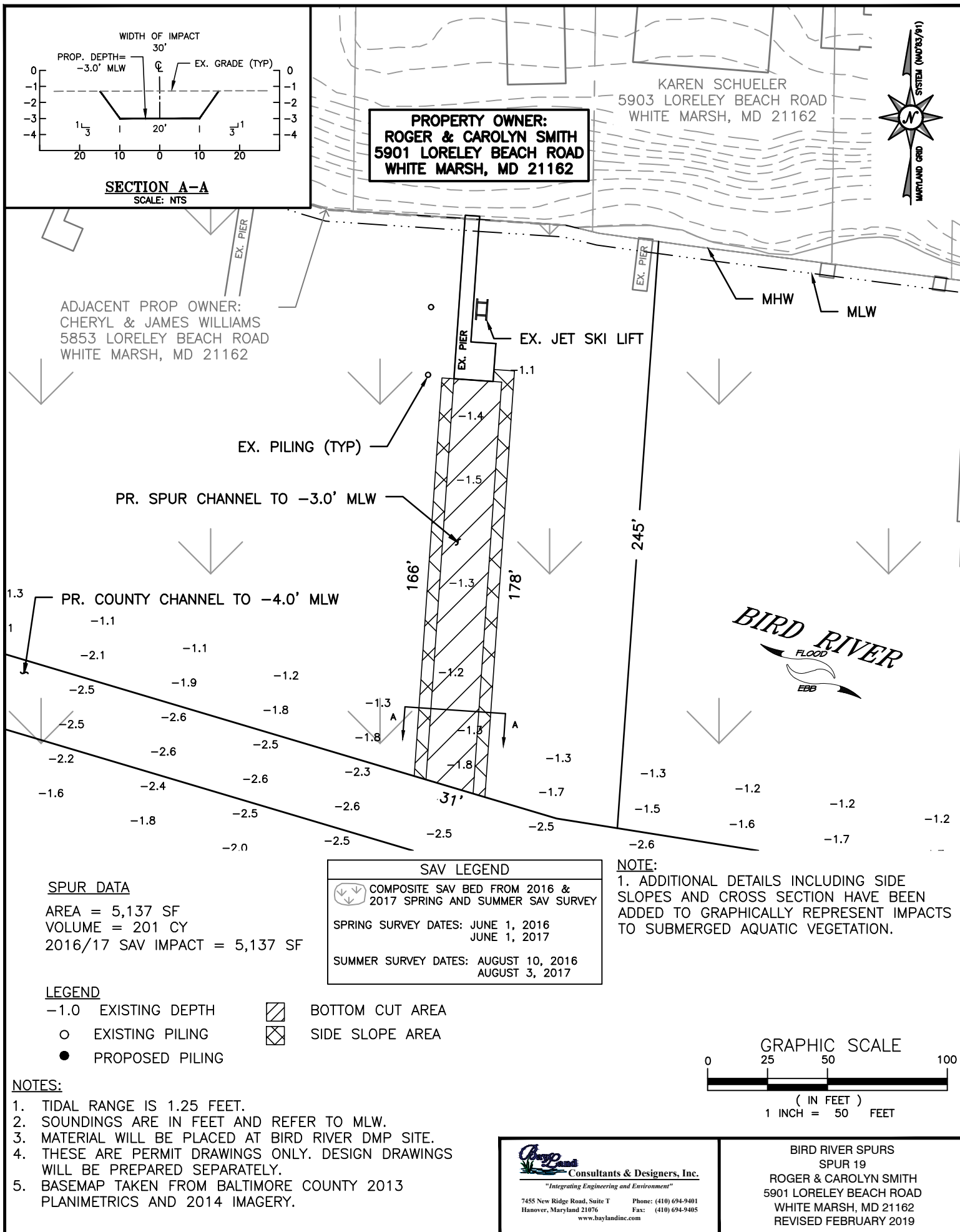
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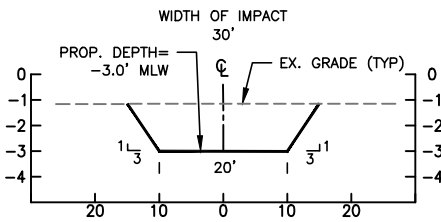
1. ADDITIONAL DETAILS INCLUDING SIDE SLOPES AND CROSS SECTION HAVE BEEN ADDED TO GRAPHICALLY REPRESENT IMPACTS TO SUBMERGED AQUATIC VEGETATION.
2. EXISTING BOAT LIFT WITHIN DREDGE AREA TO BE REMOVED AND REPLACED BY OWNER.



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BIRD RIVER SPURS
SPUR 18
BENJAMIN & KAREN BAKKEGARD
5905 LORELEY BEACH ROAD
WHITE MARSH, MD 21162
REVISED FEBRUARY 2019



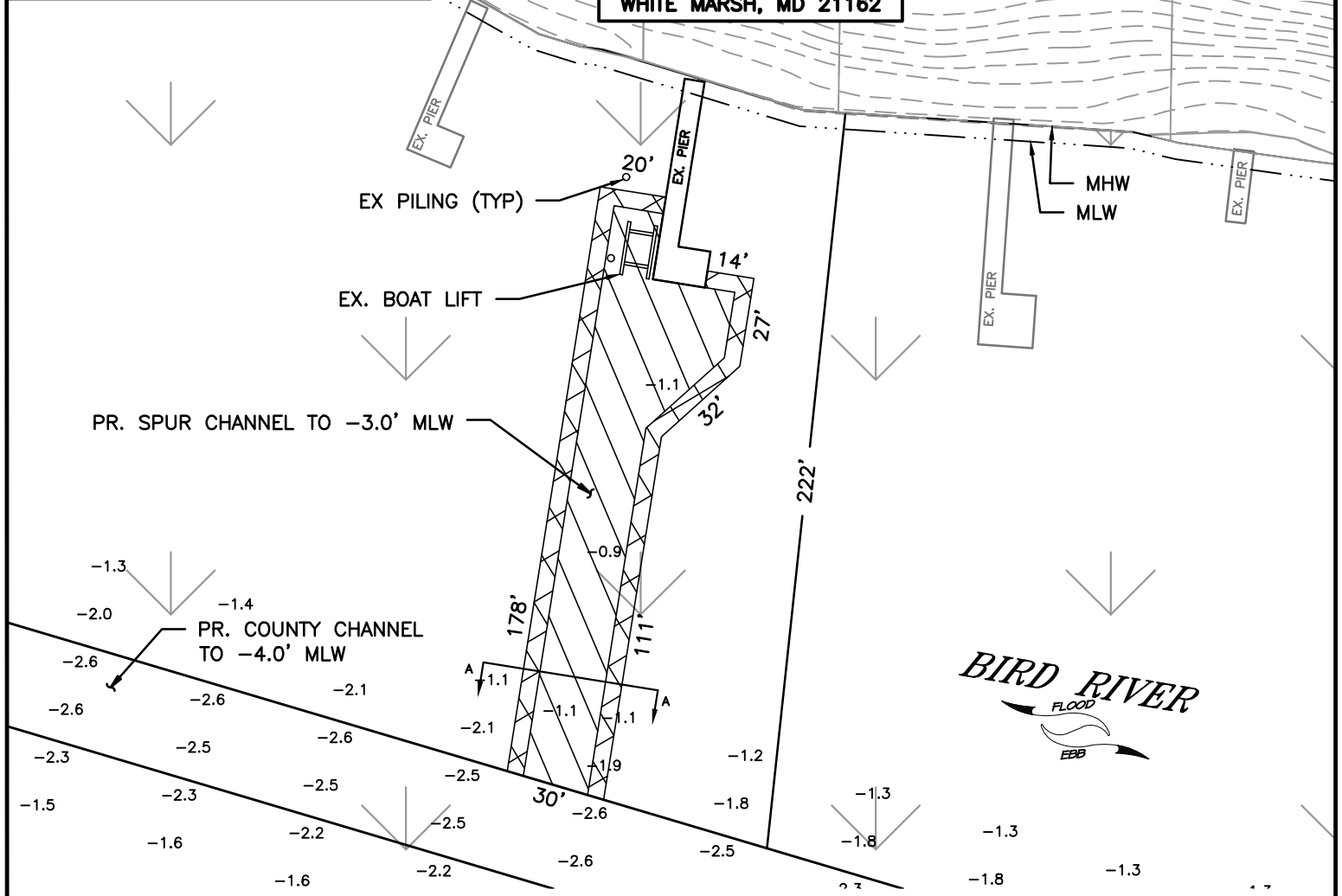


SECTION A-A
SCALE: NTS

ROBERT DORY & YVONNE HIGGINS
5851 LORELEY BEACH ROAD
WHITE MARSH, MD 21162

ROGER & CAROLYN SMITH
5901 LORELEY BEACH ROAD
WHITE MARSH, MD 21162

PROPERTY OWNER:
CHERYL & JAMES WILLIAMS
5853 LORELEY BEACH ROAD
WHITE MARSH, MD 21162



SPUR DATA

AREA = 5,907 SF
VOLUME = 369 CY
2016/17 SAV IMPACT = 5,907 SF

LEGEND

- 1.0 EXISTING DEPTH
- EXISTING PILING
- PROPOSED PILING
- ▨ BOTTOM CUT AREA
- ▩ SIDE SLOPE AREA

SAV LEGEND

COMPOSITE SAV BED FROM 2016 & 2017 SPRING AND SUMMER SAV SURVEY

SPRING SURVEY DATES: JUNE 1, 2016
JUNE 1, 2017

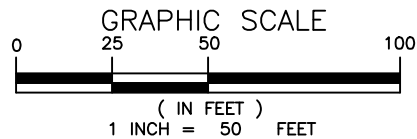
SUMMER SURVEY DATES: AUGUST 10, 2016
AUGUST 3, 2017

NOTES:

1. ADDITIONAL DETAILS INCLUDING SIDE SLOPES AND CROSS SECTION HAVE BEEN ADDED TO GRAPHICALLY REPRESENT IMPACTS TO SUBMERGED AQUATIC VEGETATION.
2. EXISTING PILINGS AND BOAT LIFT WITHIN DREDGE AREA TO BE REMOVED AND REPLACED BY OWNER.

NOTES:

1. TIDAL RANGE IS 1.25 FEET.
2. SOUNDINGS ARE IN FEET AND REFER TO MLW.
3. MATERIAL WILL BE PLACED AT BIRD RIVER DMP SITE.
4. THESE ARE PERMIT DRAWINGS ONLY. DESIGN DRAWINGS WILL BE PREPARED SEPARATELY.
5. BASEMAP TAKEN FROM BALTIMORE COUNTY 2013 PLANIMETRICS AND 2014 IMAGERY.

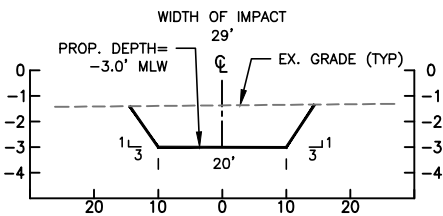


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BIRD RIVER SPURS
SPUR 20
CHERYL & JAMES WILLIAMS
5853 LORELEY BEACH ROAD
WHITE MARSH, MD 21162
REVISED FEBRUARY 2019

Z:\2-1307_BIRD_RIVER_DREDGING_2019\CAD FILES\SHEET FILES\2-1037_SPUR25.DWG



SECTION A-A
SCALE: NTS

HUNTER KUSHER
5849 LORELEY BEACH ROAD
WHITE MARSH, MD 21162

CHERYL & JAMES WILLIAMS
5853 LORELEY BEACH ROAD
WHITE MARSH, MD 21162

PROPERTY OWNER:
ROBERT DORY & YVONNE HIGGINS
5851 LORELEY BEACH ROAD
WHITE MARSH, MD 21162



MHW
MLW

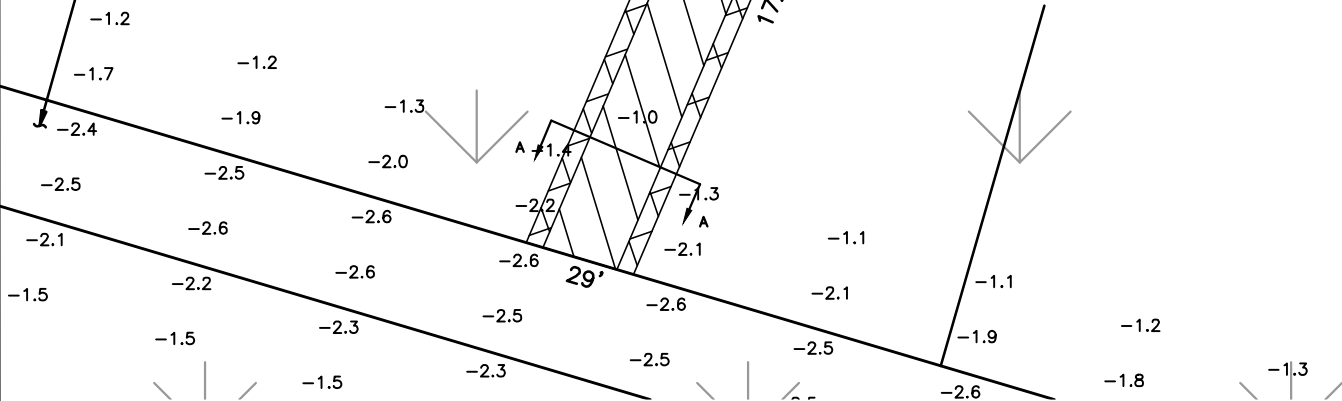
BIRD RIVER
FLOOD
EBB

EX. PILING (TYP)

EX. BOAT LIFT

PR. SPUR CHANNEL TO -3.0' MLW

PR. COUNTY CHANNEL TO -4.0' MLW



SPUR DATA

AREA = 5,018 SF
VOLUME = 301 CY
2016/17 SAV IMPACT = 5,018 SF

LEGEND

- | | |
|---------------------|-----------------|
| -1.0 EXISTING DEPTH | BOTTOM CUT AREA |
| ○ EXISTING PILING | SIDE SLOPE AREA |
| ● PROPOSED PILING | |

NOTES:

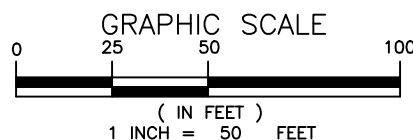
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5. BASEMAP TAKEN FROM BALTIMORE COUNTY 2013 PLANIMETRICS AND 2014 IMAGERY.

SAV LEGEND

COMPOSITE SAV BED FROM 2016 & 2017 SPRING AND SUMMER SAV SURVEY
SPRING SURVEY DATES: JUNE 1, 2016
JUNE 1, 2017
SUMMER SURVEY DATES: AUGUST 10, 2016
AUGUST 3, 2017

NOTES:

1. ADDITIONAL DETAILS INCLUDING SIDE SLOPES AND CROSS SECTION HAVE BEEN ADDED TO GRAPHICALLY REPRESENT IMPACTS TO SUBMERGED AQUATIC VEGETATION.
2. EXISTING PILING AND BOAT LIFT WITHIN DREDGE AREA TO BE REMOVED AND REPLACED BY OWNER.



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BIRD RIVER SPURS
SPUR 21
ROBERT DORY & YVONNE HIGGINS
5851 LORELEY BEACH ROAD
WHITE MARSH, MD 21162
REVISED FEBRUARY 2019

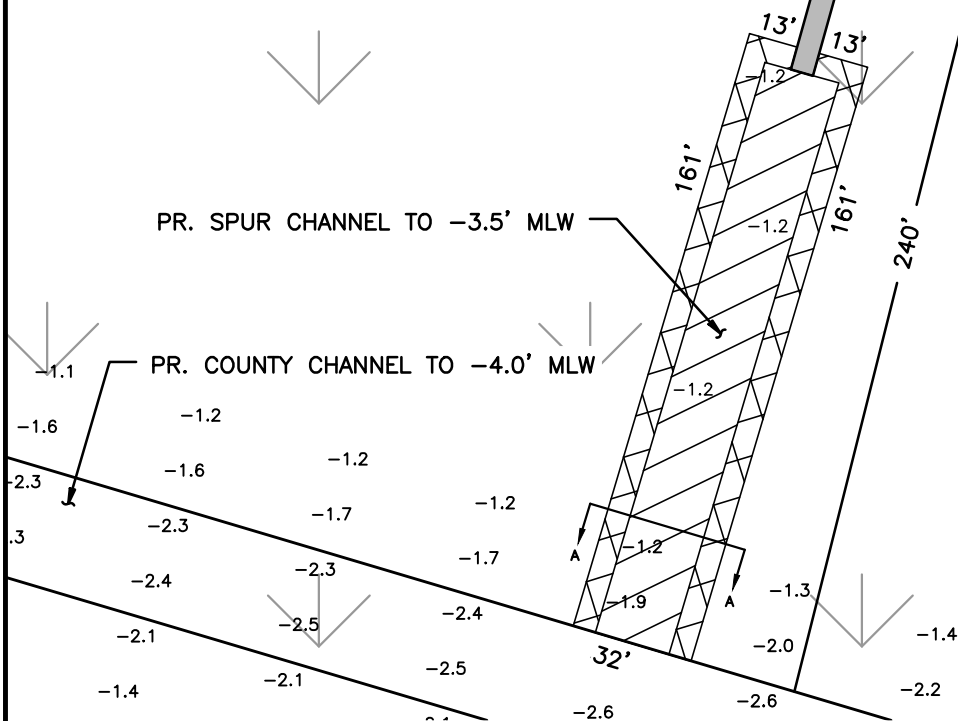


**PROPERTY OWNER:
HUNTER KUSER
5849 LORELEY BEACH ROAD
WHITE MARSH, MD 21162**




ROBERT DORY & YVONNE
HIGGINS
5851 LORELEY BEACH ROAD
WHITE MARSH, MD 21162


PR. COUNTY CHANNEL TO -4.0' MLW



AREA = 5,116 SF
VOLUME = 329 CY
2016/17 SAV IMPACT = 5,116 SF

-1.0 EXISTING DEPTH
 ○ EXISTING PILING
 ● PROPOSED PILING

 BOTTOM CUT AREA

 SIDE SLOPE AREA

COMPOSITE SAV BED FROM 2016 &
2017 SPRING AND SUMMER SAV SURVEY

SPRING SURVEY DATES: JUNE 1, 2016
JUNE 1, 2017

SUMMER SURVEY DATES: AUGUST 10, 2016
AUGUST 3, 2017

1. ADDITIONAL DETAILS INCLUDING SIDE SLOPES AND CROSS SECTION HAVE BEEN ADDED TO GRAPHICALLY REPRESENT IMPACTS TO SUBMERGED AQUATIC VEGETATION.

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5. BASEMAP TAKEN FROM BALTIMORE COUNTY 2013 PLANIMETRICS AND 2014 IMAGERY.

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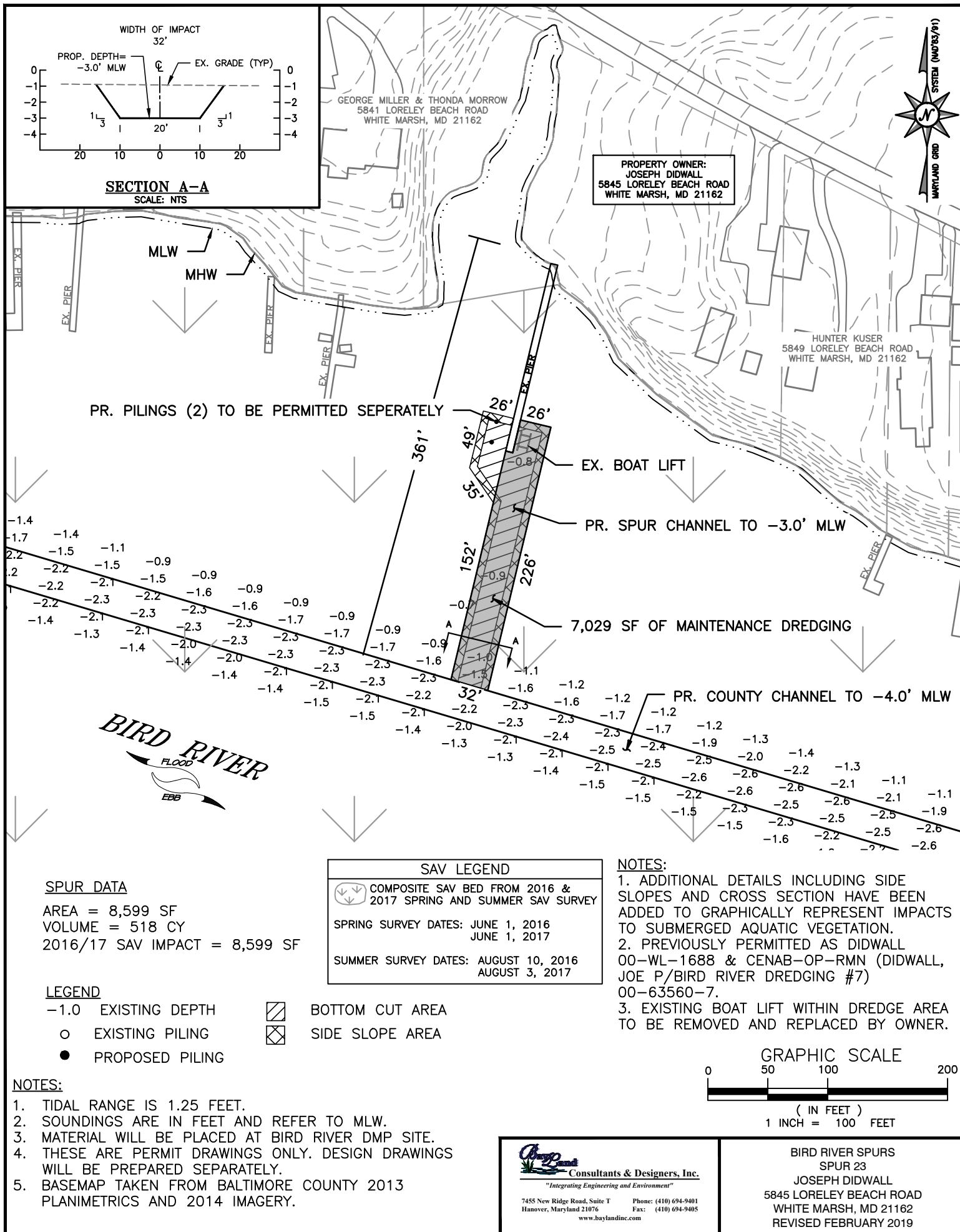
(IN FEET)

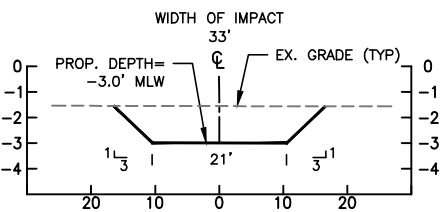
1 INCH = 50 FEET



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BIRD RIVER SPURS
SPUR 22
HUNTER KUSER
5849 LORELEY BEACH ROAD
WHITE MARSH, MD 21162
REVISED FEBRUARY 2019





SECTION A-A
SCALE: NTS

ADJACENT PROP OWNER:
HENRY & KATHY LASEK
5837 LORELEY BEACH ROAD
WHITE MARSH, MD 21162

PROPERTY OWNER:
SCOTT & HELEN WALPER
5839 LORELEY BEACH ROAD
WHITE MARSH, MD 21162

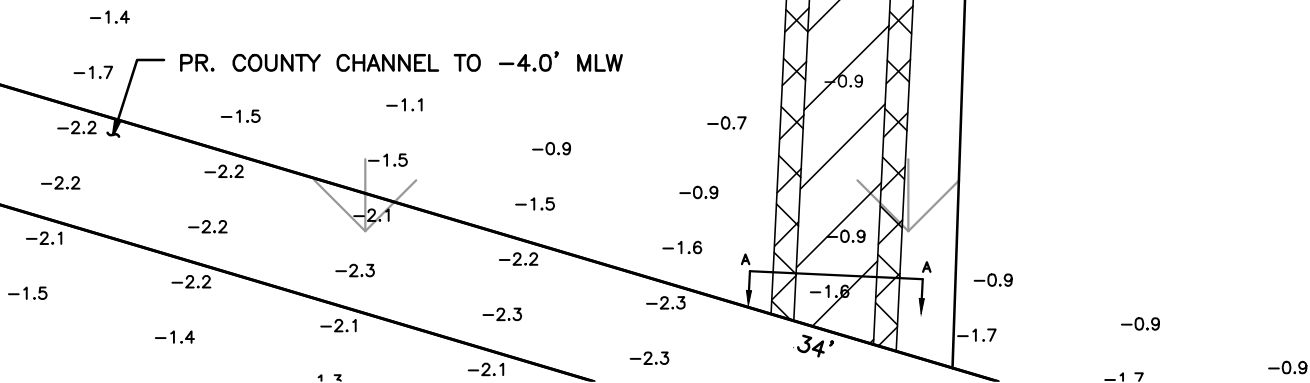
GEORGE MILLER & THONDA MORROW
5841 LORELEY BEACH ROAD
WHITE MARSH, MD 21162



PR. SPUR CHANNEL TO -3.0' MLW

BIRD RIVER
FLOOD
EBB

PR. COUNTY CHANNEL TO -4.0' MLW



SPUR DATA

AREA = 7,886 SF
VOLUME = 573 CY
2016/17 SAV IMPACT = 7,886 SF

LEGEND

- | | | |
|---------------------|--|-----------------|
| -1.0 EXISTING DEPTH | | BOTTOM CUT AREA |
| ○ EXISTING PILING | | SIDE SLOPE AREA |
| ● PROPOSED PILING | | |

NOTES:

1. TIDAL RANGE IS 1.25 FEET.
2. SOUNDINGS ARE IN FEET AND REFER TO MLW.
3. MATERIAL WILL BE PLACED AT BIRD RIVER DMP SITE.
4. THESE ARE PERMIT DRAWINGS ONLY. DESIGN DRAWINGS WILL BE PREPARED SEPARATELY.
5. BASEMAP TAKEN FROM BALTIMORE COUNTY 2013 PLANIMETRICS AND 2014 IMAGERY.

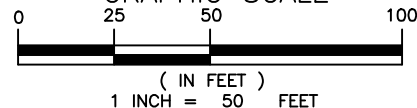
SAV LEGEND

COMPOSITE SAV BED FROM 2016 & 2017 SPRING AND SUMMER SAV SURVEY
SPRING SURVEY DATES: JUNE 1, 2016
JUNE 1, 2017
SUMMER SURVEY DATES: AUGUST 10, 2016
AUGUST 3, 2017

NOTE:

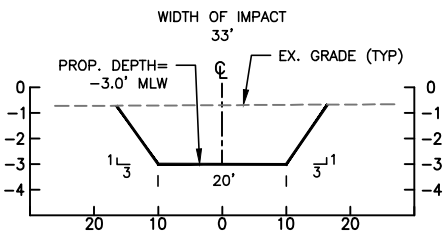
1. ADDITIONAL DETAILS INCLUDING SIDE SLOPES AND CROSS SECTION HAVE BEEN ADDED TO GRAPHICALLY REPRESENT IMPACTS TO SUBMERGED AQUATIC VEGETATION.

GRAPHIC SCALE



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BIRD RIVER SPURS
SPUR 24
SCOTT & HELEN WALPER
5839 LORELEY BEACH ROAD
WHITE MARSH, MD 21162
REVISED FEBRUARY 2019



SECTION A-A
SCALE: NTS

LORRAINE BARRETT
5827 LORELEY BEACH ROAD
WHITE MARSH, MD 21162

EDGAR & ANNA BROCKMEYER
5833 LORELEY BEACH ROAD
WHITE MARSH, MD 21162

PROPERTY OWNER:
JOSH & KRISTINA KAPTUR
5829 LORELEY BEACH ROAD
WHITE MARSH, MD 21162



PR. 130'x6' PIER TO BE PERMITTED SEPERATELY

PR. BOAT LIFT TO BE PERMITTED SEPERATELY

PR. SPUR CHANNEL TO -3.0' MLW

PR. COUNTY CHANNEL
TO -4.0' MLW

PR. PILINGS (2) TO BE
PERMITTED SEPERATELY

BIRD RIVER
FLOOD
EBB

SPUR DATA

AREA = 4,753 SF
VOLUME = 365 CY
2016/17 SAV IMPACT = 4,753 SF

LEGEND

-1.0 EXISTING DEPTH
○ EXISTING PILING
● PROPOSED PILING
▨ BOTTOM CUT AREA
▩ SIDE SLOPE AREA

NOTES:

1. TIDAL RANGE IS 1.25 FEET.
2. SOUNDINGS ARE IN FEET AND REFER TO MLW.
3. MATERIAL WILL BE PLACED AT BIRD RIVER DMP SITE.
4. THESE ARE PERMIT DRAWINGS ONLY. DESIGN DRAWINGS WILL BE PREPARED SEPARATELY.
5. BASEMAP TAKEN FROM BALTIMORE COUNTY 2013 PLANIMETRICS AND 2014 IMAGERY.

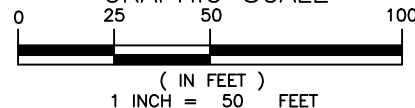
SAV LEGEND

COMPOSITE SAV BED FROM 2016 &
2017 SPRING AND SUMMER SAV SURVEY
SPRING SURVEY DATES: JUNE 1, 2016
JUNE 1, 2017
SUMMER SURVEY DATES: AUGUST 10, 2016
AUGUST 3, 2017

NOTE:

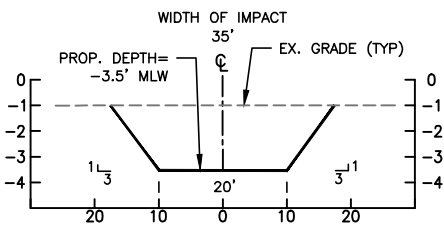
1. ADDITIONAL DETAILS INCLUDING SIDE SLOPES AND A CROSS SECTION HAVE BEEN ADDED TO GRAPHICALLY REPRESENT IMPACTS TO SUBMERGED AQUATIC VEGETATION.

GRAPHIC SCALE



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BIRD RIVER SPURS
SPUR 25
JOSH & KRISTINA KAPTUR
5829 LORELEY BEACH ROAD
WHITE MARSH, MD 21162
REVISED FEBRUARY 2019



SECTION A-A
SCALE: NTS

PROPERTY OWNER:
GERALD & CHERYL WELSH
11311 BEACH ROAD
WHITE MARSH, MD 21162

WALTON & LINDA WESTERFIELD
11307 BEACH ROAD
WHITE MARSH, MD 21162

SAMUEL & JOANNE LEE
11313 BEACH ROAD
WHITE MARSH, MD 21162

EX. JET SKI LIFT
EX. PILING (TYP)

PR. SPUR CHANNEL TO -3.5' MLW

PR. COUNTY CHANNEL TO -4.0' MLW

BIRD RIVER
FLOOD
EBB

SPUR DATA

AREA = 7,040 SF
VOLUME = 505 CY
2016/17 SAV IMPACT = 7,040 SF

LEGEND

-1.0 EXISTING DEPTH
○ EXISTING PILING
● PROPOSED PILING
□ BOTTOM CUT AREA
▨ SIDE SLOPE AREA

NOTES:

1. TIDAL RANGE IS 1.25 FEET.
2. SOUNDINGS ARE IN FEET AND REFER TO MLW.
3. MATERIAL WILL BE PLACED AT BIRD RIVER DMP SITE.
4. THESE ARE PERMIT DRAWINGS ONLY. DESIGN DRAWINGS WILL BE PREPARED SEPARATELY.
5. BASEMAP TAKEN FROM BALTIMORE COUNTY 2013 PLANIMETRICS AND 2014 IMAGERY.

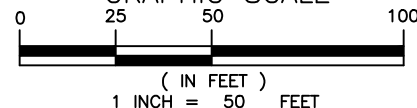
SAV LEGEND

COMPOSITE SAV BED FROM 2016 & 2017 SPRING AND SUMMER SAV SURVEY
SPRING SURVEY DATES: JUNE 1, 2016
JUNE 1, 2017
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AUGUST 3, 2017

NOTES:

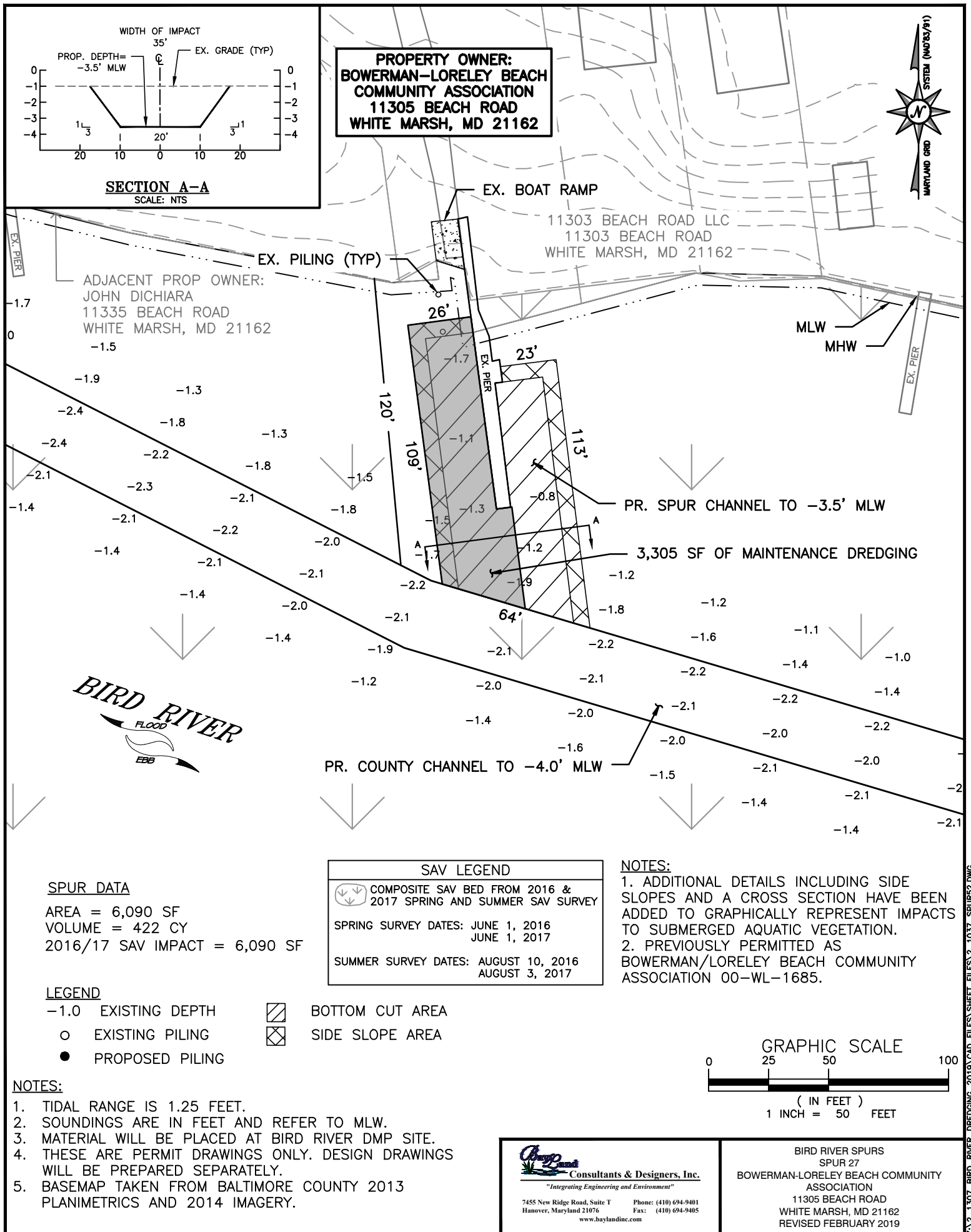
1. ADDITIONAL DETAILS INCLUDING SIDE SLOPES AND A CROSS SECTION HAVE BEEN ADDED TO GRAPHICALLY REPRESENT IMPACTS TO SUBMERGED AQUATIC VEGETATION.
2. PREVIOUSLY PERMITTED AS LEE & WELSH 00-WL-1684.
3. EXISTING JET SKI LIFT WITHIN DREDGE AREA TO BE REMOVED AND REPLACED BY OWNER.

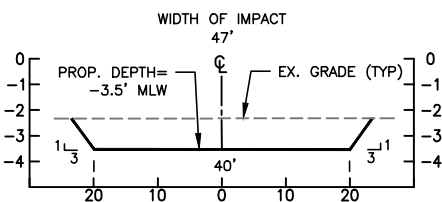
GRAPHIC SCALE



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BIRD RIVER SPURS
SPUR 26
GERALD & CHERYL WELSH
11311 BEACH ROAD
WHITE MARSH, MD 21162
REVISED FEBRUARY 2019



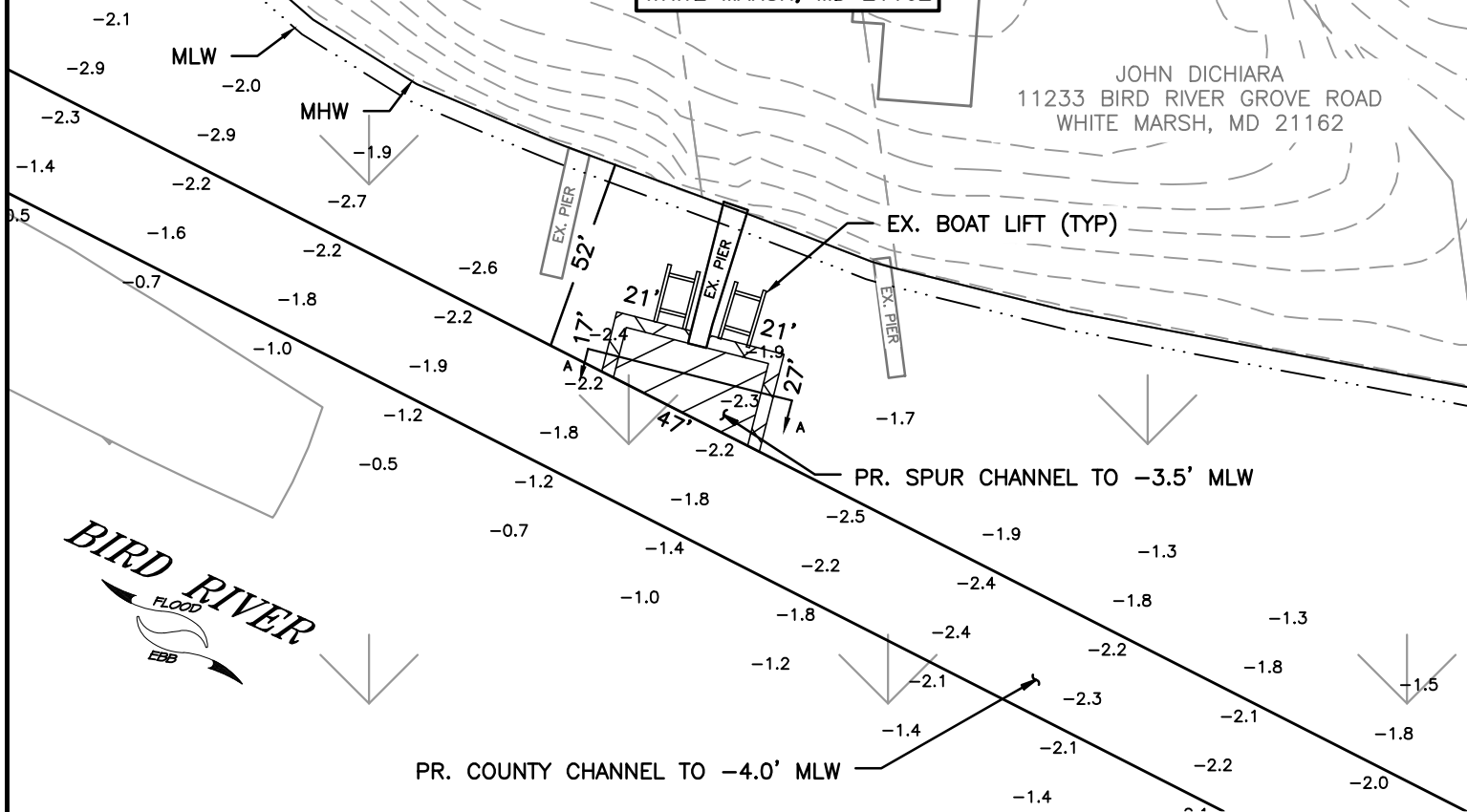


SECTION A-A
SCALE: NTS

ROY & JOANNE MCBRIDE
11231 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162

PROPERTY OWNER:
DOROTHY IRWIN
11233 BEACH ROAD
WHITE MARSH, MD 21162

JOHN DICHARA
11233 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162



SPUR DATA

AREA = 1,021 SF
VOLUME = 43 CY
2016/17 SAV IMPACT = 1,021 SF

LEGEND

- | | |
|---------------------|-----------------|
| -1.0 EXISTING DEPTH | BOTTOM CUT AREA |
| ○ EXISTING PILING | SIDE SLOPE AREA |
| ● PROPOSED PILING | |

NOTES:

1. TIDAL RANGE IS 1.25 FEET.
2. SOUNDINGS ARE IN FEET AND REFER TO MLW.
3. MATERIAL WILL BE PLACED AT BIRD RIVER DMP SITE.
4. THESE ARE PERMIT DRAWINGS ONLY. DESIGN DRAWINGS WILL BE PREPARED SEPARATELY.
5. BASEMAP TAKEN FROM BALTIMORE COUNTY 2013 PLANIMETRICS AND 2014 IMAGERY.

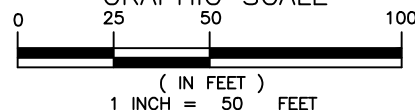
SAV LEGEND

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JUNE 1, 2017
SUMMER SURVEY DATES: AUGUST 10, 2016
AUGUST 3, 2017

NOTE:

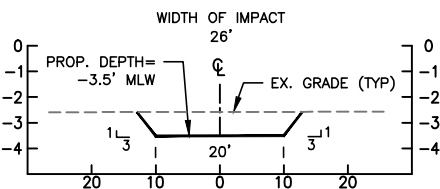
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GRAPHIC SCALE



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BIRD RIVER SPURS
SPUR 28
DOROTHY IRWIN
11233 BEACH ROAD
WHITE MARSH, MD 21162
REVISED FEBRUARY 2019

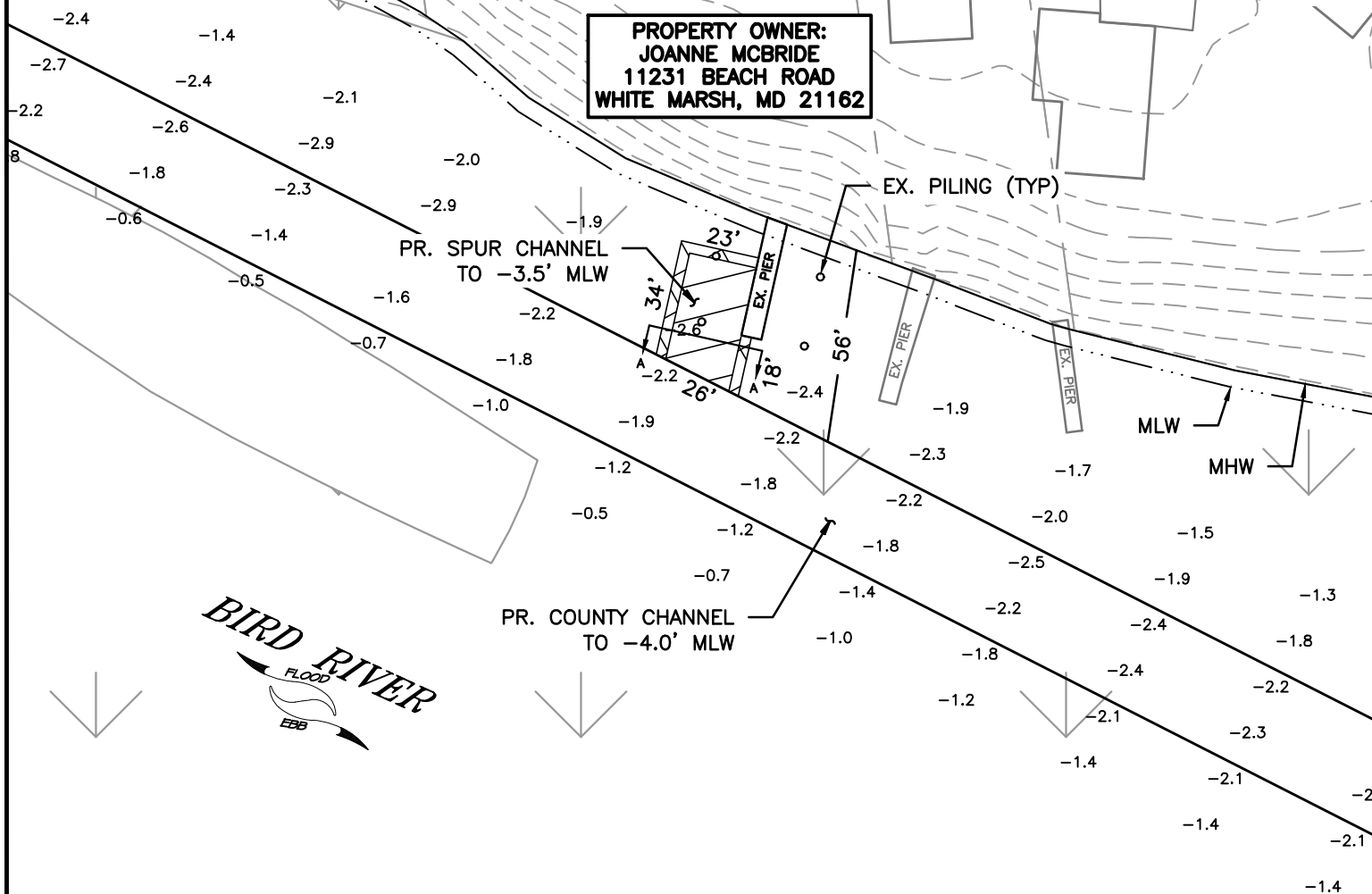


SECTION A-A
SCALE: NTS

ADJ. PROPERTY OWNER:
TONYA & RICHARD NOWAKOWSKI
11213 BEACH ROAD
WHITE MARSH, MD 21162

DOROTHY IRWIN
11233 BEACH ROAD
WHITE MARSH, MD 21162

PROPERTY OWNER:
JOANNE MCBRIDE
11231 BEACH ROAD
WHITE MARSH, MD 21162



SPUR DATA

AREA = 901 SF
VOLUME = 30 CY
2016/17 SAV IMPACT = 901 SF

LEGEND

- | | | | |
|------|-----------------|--|-----------------|
| -1.0 | EXISTING DEPTH | | BOTTOM CUT AREA |
| o | EXISTING PILING | | SIDE SLOPE AREA |
| ● | PROPOSED PILING | | |

NOTES:

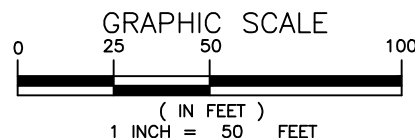
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4. THESE ARE PERMIT DRAWINGS ONLY. DESIGN DRAWINGS WILL BE PREPARED SEPARATELY.
5. BASEMAP TAKEN FROM BALTIMORE COUNTY 2013 PLANIMETRICS AND 2014 IMAGERY.

SAV LEGEND

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JUNE 1, 2017
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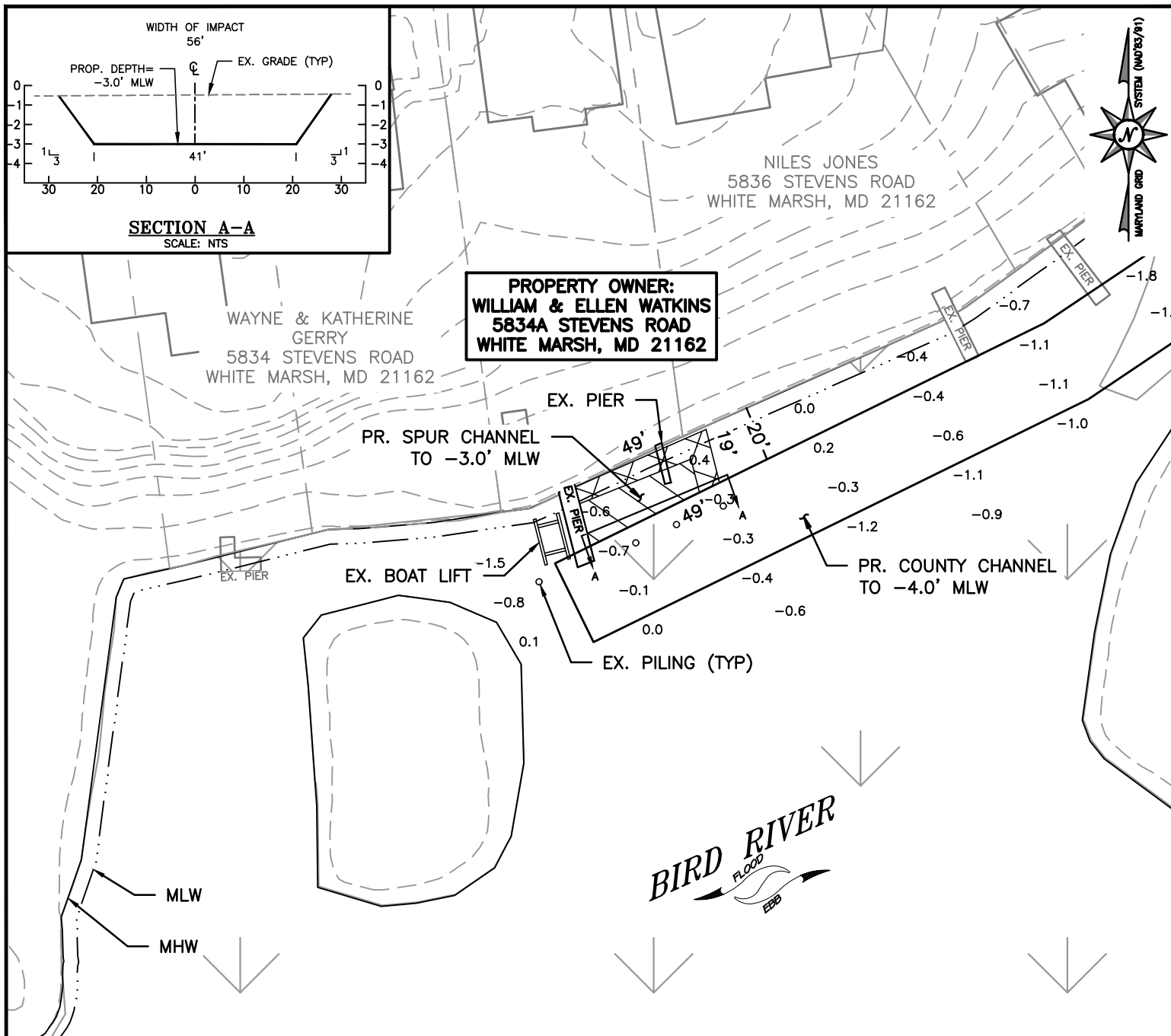
NOTES:

1. ADDITIONAL DETAILS INCLUDING SIDE SLOPES AND A CROSS SECTION HAVE BEEN ADDED TO GRAPHICALLY REPRESENT IMPACTS TO SUBMERGED AQUATIC VEGETATION.
2. PREVIOUSLY PERMITTED AS MCBRIDE CENAB-OP-RMN (MCBRIDE JR, ROY L/BIRD RIVER DREDGING #1) 00-63547-7.
3. EXISTING PILINGS WITHIN DREDGE AREA TO BE REMOVED AND REPLACED BY OWNER.



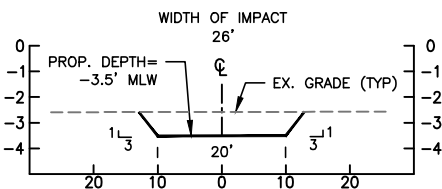
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BIRD RIVER SPURS
SPUR 29
JOANNE MCBRIDE
11231 BEACH ROAD
WHITE MARSH, MD 21162
REVISED FEBRUARY 2019

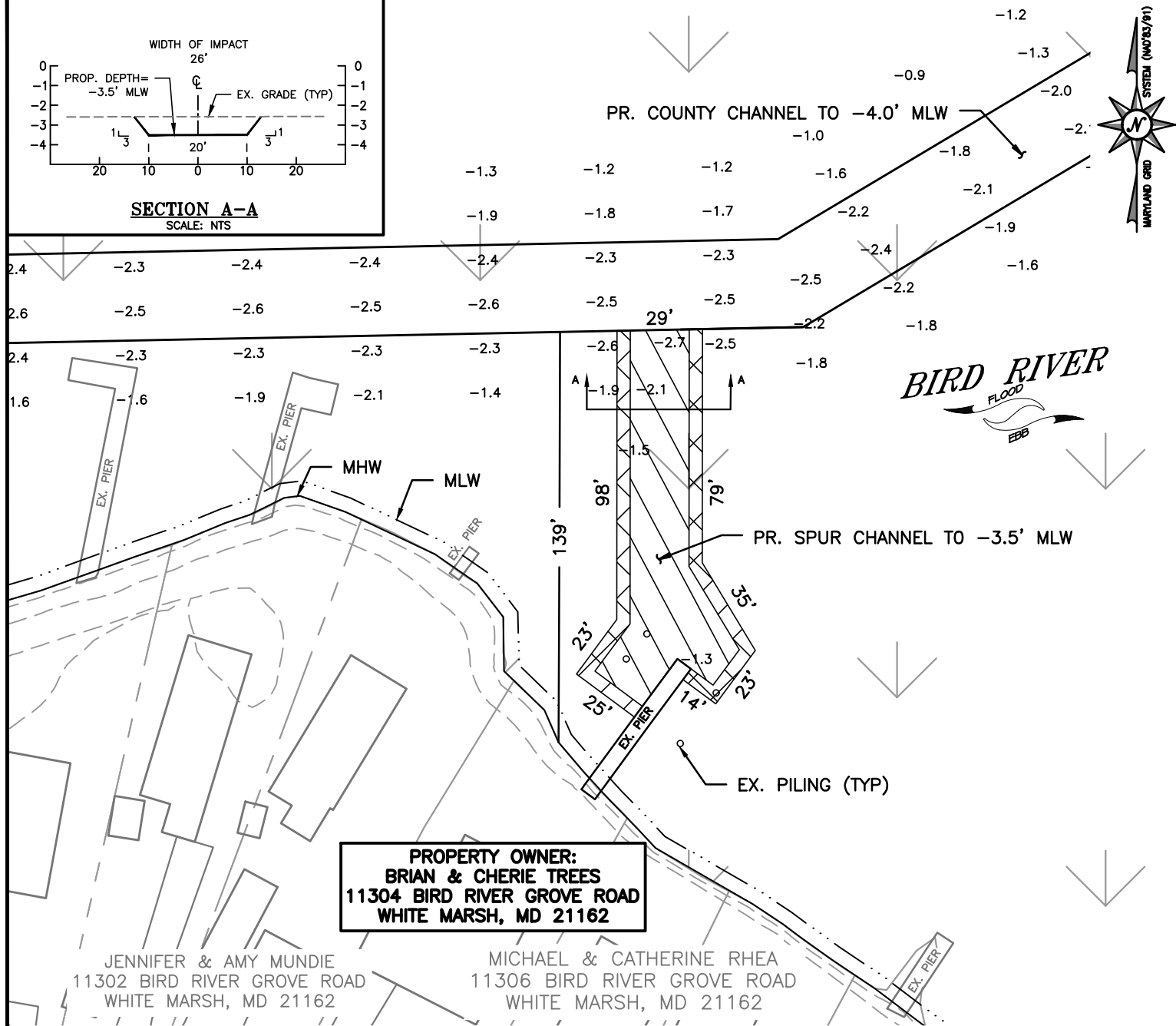


NOTES:

1. TIDAL RANGE IS 1.25 FEET.
2. SOUNDINGS ARE IN FEET AND REFER TO MLW.
3. MATERIAL WILL BE PLACED AT BIRD RIVER DMP SITE.
4. THESE ARE PERMIT DRAWINGS ONLY. DESIGN DRAWINGS WILL BE PREPARED SEPARATELY.
5. BASEMAP TAKEN FROM BALTIMORE COUNTY 2013 PLANIMETRICS AND 2014 IMAGERY.



SECTION A-A
SCALE: NTS



PROPERTY OWNER:
BRIAN & CHERIE TREES
11304 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162

JENNIFER & AMY MUNDIE
11302 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162

MICHAEL & CATHERINE RHEA
11306 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162

SPUR DATA

AREA = 4,196 SF
VOLUME = 210 CY
2016/17 SAV IMPACT = 4,196 SF

LEGEND

- | | |
|---------------------|-----------------|
| -1.0 EXISTING DEPTH | BOTTOM CUT AREA |
| ○ EXISTING PILING | SIDE SLOPE AREA |
| ● PROPOSED PILING | |

NOTES:

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3. MATERIAL WILL BE PLACED AT BIRD RIVER DMP SITE.
4. THESE ARE PERMIT DRAWINGS ONLY. DESIGN DRAWINGS WILL BE PREPARED SEPARATELY.
5. BASEMAP TAKEN FROM BALTIMORE COUNTY 2013 PLANIMETRICS AND 2014 IMAGERY.

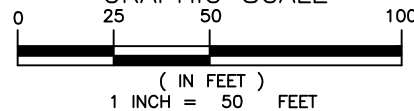
SAV LEGEND

- COMPOSITE SAV BED FROM 2016 & 2017 SPRING AND SUMMER SAV SURVEY
- SPRING SURVEY DATES: JUNE 1, 2016
JUNE 1, 2017
- SUMMER SURVEY DATES: AUGUST 10, 2016
AUGUST 3, 2017

NOTES:

1. ADDITIONAL DETAILS INCLUDING SIDE SLOPES AND A CROSS SECTION HAVE BEEN ADDED TO GRAPHICALLY REPRESENT IMPACTS TO SUBMERGED AQUATIC VEGETATION.
2. EXISTING PILINGS WITHIN DREDGE AREA TO BE REMOVED AND REPLACED BY OWNER.

GRAPHIC SCALE

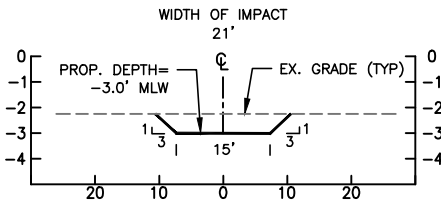


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BIRD RIVER SPURS
SPUR 31
BRIAN & CHERIE TREES
11304 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162
REVISED FEBRUARY 2019

BIRD RIVER



SECTION A-A
SCALE: NTS

PR. COUNTY CHANNEL TO -4.0' MLW

PR. SPUR CHANNEL TO -3.0' MLW

EX. BOAT LIFT

EX. FLOATING PLATFORM

EX. JET SKI LIFT

PROPERTY OWNER:
EVAN WALKER
11238 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162

GOTTLIEB & LINDA FLEIG
11236 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162

LARRY & CAROLYN MCGILTON
11240 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162

SAV LEGEND

COMPOSITE SAV BED FROM 2016 &
2017 SPRING AND SUMMER SAV SURVEY
SPRING SURVEY DATES: JUNE 1, 2016
JUNE 1, 2017
SUMMER SURVEY DATES: AUGUST 10, 2016
AUGUST 3, 2017

NOTES:

1. ADDITIONAL DETAILS INCLUDING SIDE SLOPES AND A CROSS SECTION HAVE BEEN ADDED TO GRAPHICALLY REPRESENT IMPACTS TO SUBMERGED AQUATIC VEGETATION.
2. EXISTING BOAT LIFT WITHIN DREDGE AREA TO BE REMOVED AND REPLACED BY OWNER.

SPUR DATA

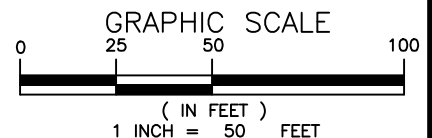
AREA = 862 SF
VOLUME = 30 CY
2016/17 SAV IMPACT = 862 SF

LEGEND

- | | | |
|---------------------|--|-----------------|
| -1.0 EXISTING DEPTH | | BOTTOM CUT AREA |
| o EXISTING PILING | | SIDE SLOPE AREA |
| ● PROPOSED PILING | | |

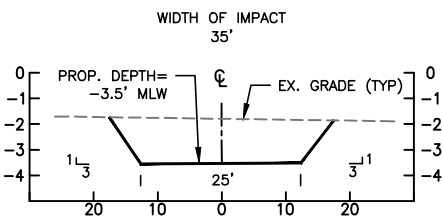
NOTES:

1. TIDAL RANGE IS 1.25 FEET.
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3. MATERIAL WILL BE PLACED AT BIRD RIVER DMP SITE.
4. THESE ARE PERMIT DRAWINGS ONLY. DESIGN DRAWINGS WILL BE PREPARED SEPARATELY.
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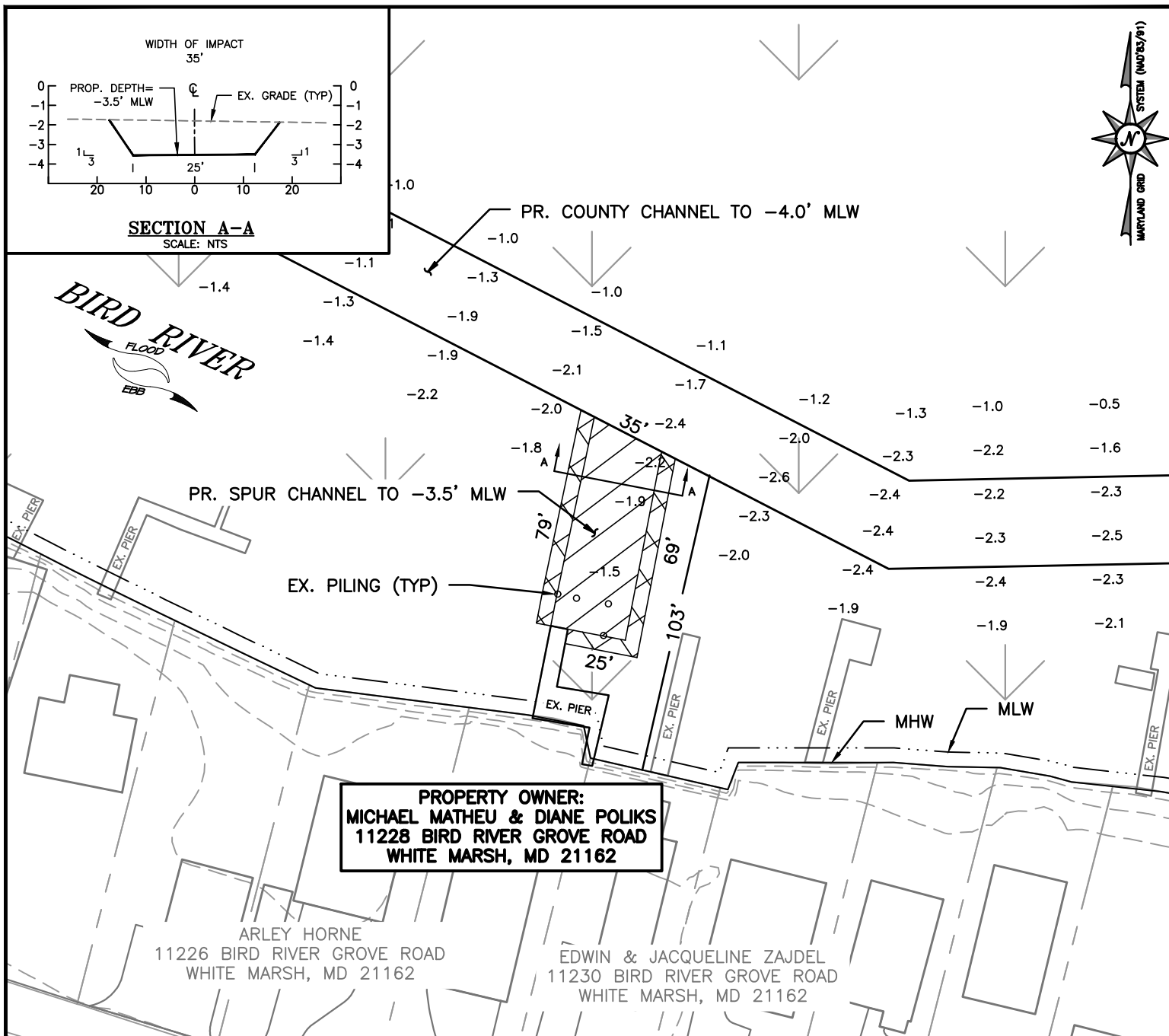


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BIRD RIVER SPURS
SPUR 32
EVAN WALKER
11238 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162
REVISED FEBRUARY 2019



SECTION A-A
SCALE: NTS



PROPERTY OWNER:
MICHAEL MATHEU & DIANE POLIKS
11228 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162

ARLEY HORNE
11226 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162

EDWIN & JACQUELINE ZAJDEL
11230 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162

SPUR DATA

AREA = 2,590 SF
VOLUME = 133 CY
2016/17 SAV IMPACT = 2,590 SF

LEGEND

- | | | | |
|------|-----------------|--|-----------------|
| -1.0 | EXISTING DEPTH | | BOTTOM CUT AREA |
| ○ | EXISTING PILING | | SIDE SLOPE AREA |
| ● | PROPOSED PILING | | |

NOTES:

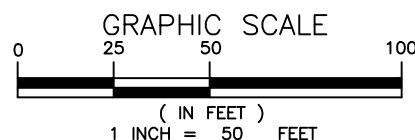
- TIDAL RANGE IS 1.25 FEET.
- SOUNDINGS ARE IN FEET AND REFER TO MLW.
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SAV LEGEND

- COMPOSITE SAV BED FROM 2016 & 2017 SPRING AND SUMMER SAV SURVEY
- SPRING SURVEY DATES: JUNE 1, 2016
JUNE 1, 2017
- SUMMER SURVEY DATES: AUGUST 10, 2016
AUGUST 3, 2017

NOTES:

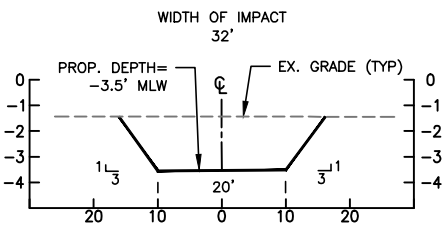
- ADDITIONAL DETAILS INCLUDING SIDE SLOPES AND A CROSS SECTION HAVE BEEN ADDED TO GRAPHICALLY REPRESENT IMPACTS TO SUBMERGED AQUATIC VEGETATION.
- PREVIOUSLY PERMITTED AS MATHEU 00-WL-1712.
- EXISTING PILINGS WITHIN DREDGE AREA TO BE REMOVED AND REPLACED BY OWNER.



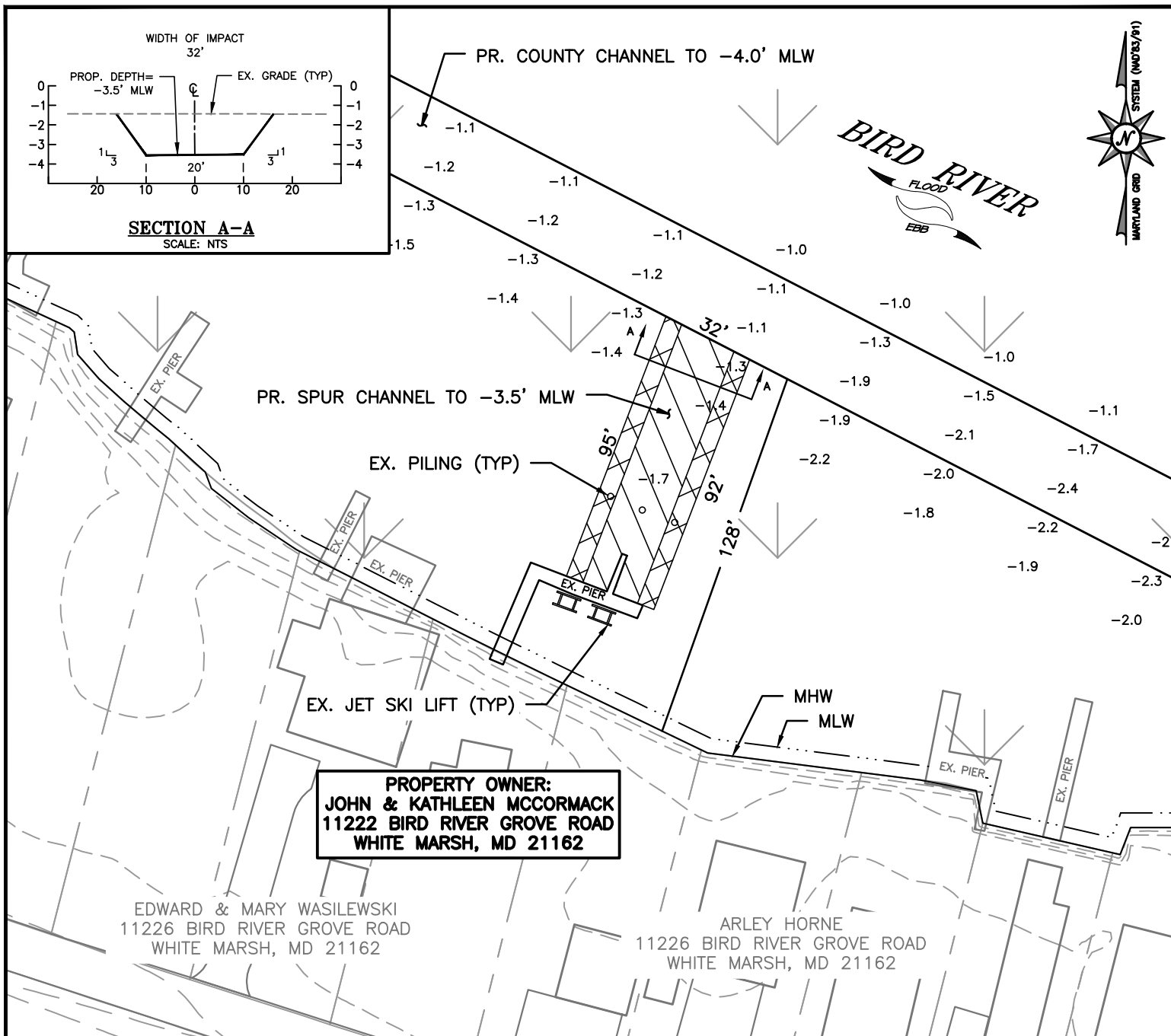
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BIRD RIVER SPURS
SPUR 33
MICHAEL MATHEU & DIANE POLIKS
11228 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162
REVISED FEBRUARY 2019



SECTION A-A
SCALE: NTS



SPUR DATA

AREA = 2,958 SF
VOLUME = 181 CY
2016/17 SAV IMPACT = 2,958 SF

LEGEND

- | | | | |
|------|-----------------|--|-----------------|
| -1.0 | EXISTING DEPTH | | BOTTOM CUT AREA |
| o | EXISTING PILING | | SIDE SLOPE AREA |
| ● | PROPOSED PILING | | |

NOTES:

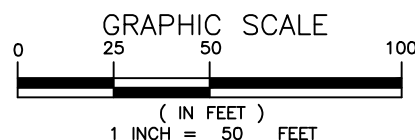
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SAV LEGEND

COMPOSITE SAV BED FROM 2016 & 2017 SPRING AND SUMMER SAV SURVEY
SPRING SURVEY DATES: JUNE 1, 2016
JUNE 1, 2017
SUMMER SURVEY DATES: AUGUST 10, 2016
AUGUST 3, 2017

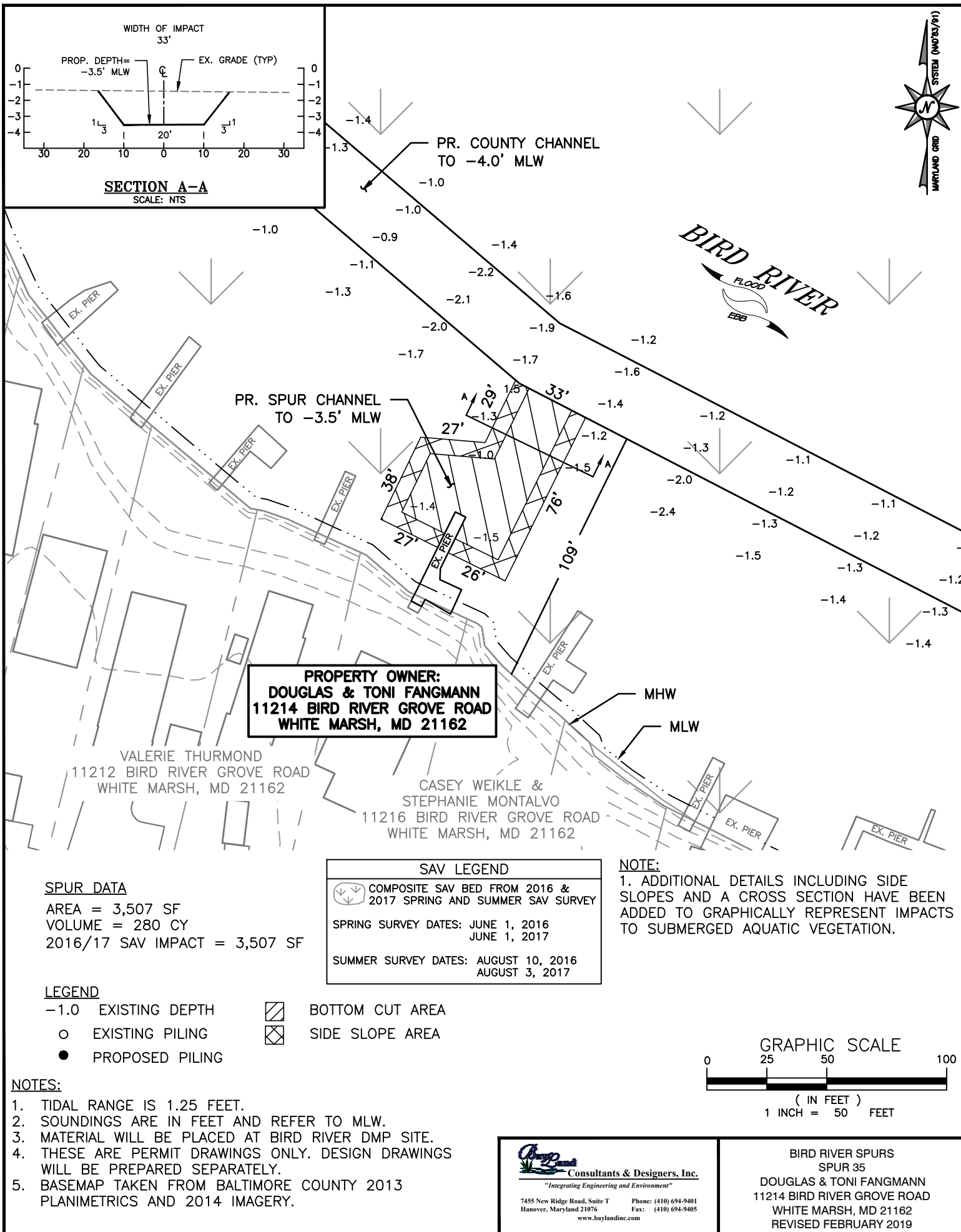
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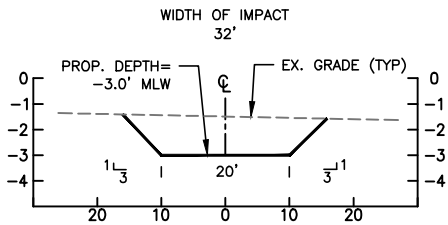
- ADDITIONAL DETAILS INCLUDING SIDE SLOPES AND A CROSS SECTION HAVE BEEN ADDED TO GRAPHICALLY REPRESENT IMPACTS TO SUBMERGED AQUATIC VEGETATION.
- PREVIOUSLY PERMITTED AS MCCORMACK 00-WL-1715.
- EXISTING PILING WITHIN DREDGE AREA TO BE REMOVED AND REPLACED BY OWNER.



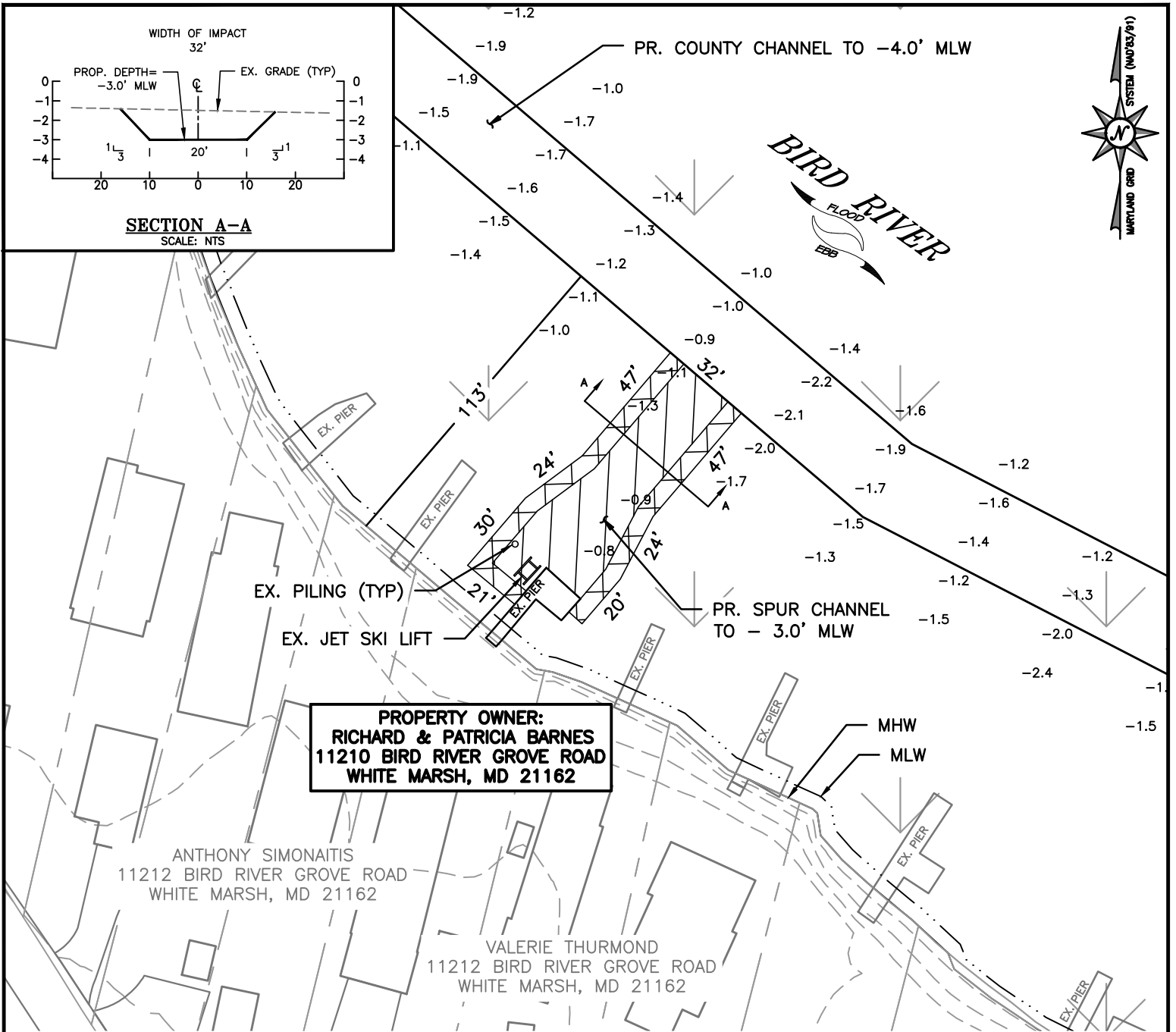
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BIRD RIVER SPURS
SPUR 34
JOHN & KATHLEEN MCCORMACK
11222 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162
REVISED FEBRUARY 2019





SECTION A-A
SCALE: NTS



PROPERTY OWNER:
RICHARD & PATRICIA BARNES
11210 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162

ANTHONY SIMONAITIS
11212 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162

VALERIE THURMOND
11212 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162

SAV LEGEND

COMPOSITE SAV BED FROM 2016 &
2017 SPRING AND SUMMER SAV SURVEY
SPRING SURVEY DATES: JUNE 1, 2016
JUNE 1, 2017
SUMMER SURVEY DATES: AUGUST 10, 2016
AUGUST 3, 2017

NOTES:

1. ADDITIONAL DETAILS INCLUDING SIDE SLOPES AND A CROSS SECTION HAVE BEEN ADDED TO GRAPHICALLY REPRESENT IMPACTS TO SUBMERGED AQUATIC VEGETATION.
2. EXISTING PILING AND JET SKI LIFT WITHIN DREDGE AREA TO BE REMOVED AND REPLACED BY OWNER.

SPUR DATA

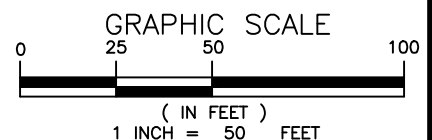
AREA = 3,354 SF
VOLUME = 245 CY
2016/17 SAV IMPACT = 3,354 SF

LEGEND

- | | |
|---------------------|-----------------|
| -1.0 EXISTING DEPTH | BOTTOM CUT AREA |
| ○ EXISTING PILING | SIDE SLOPE AREA |
| ● PROPOSED PILING | |

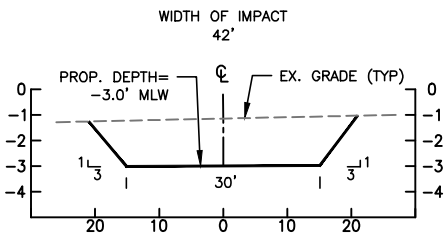
NOTES:

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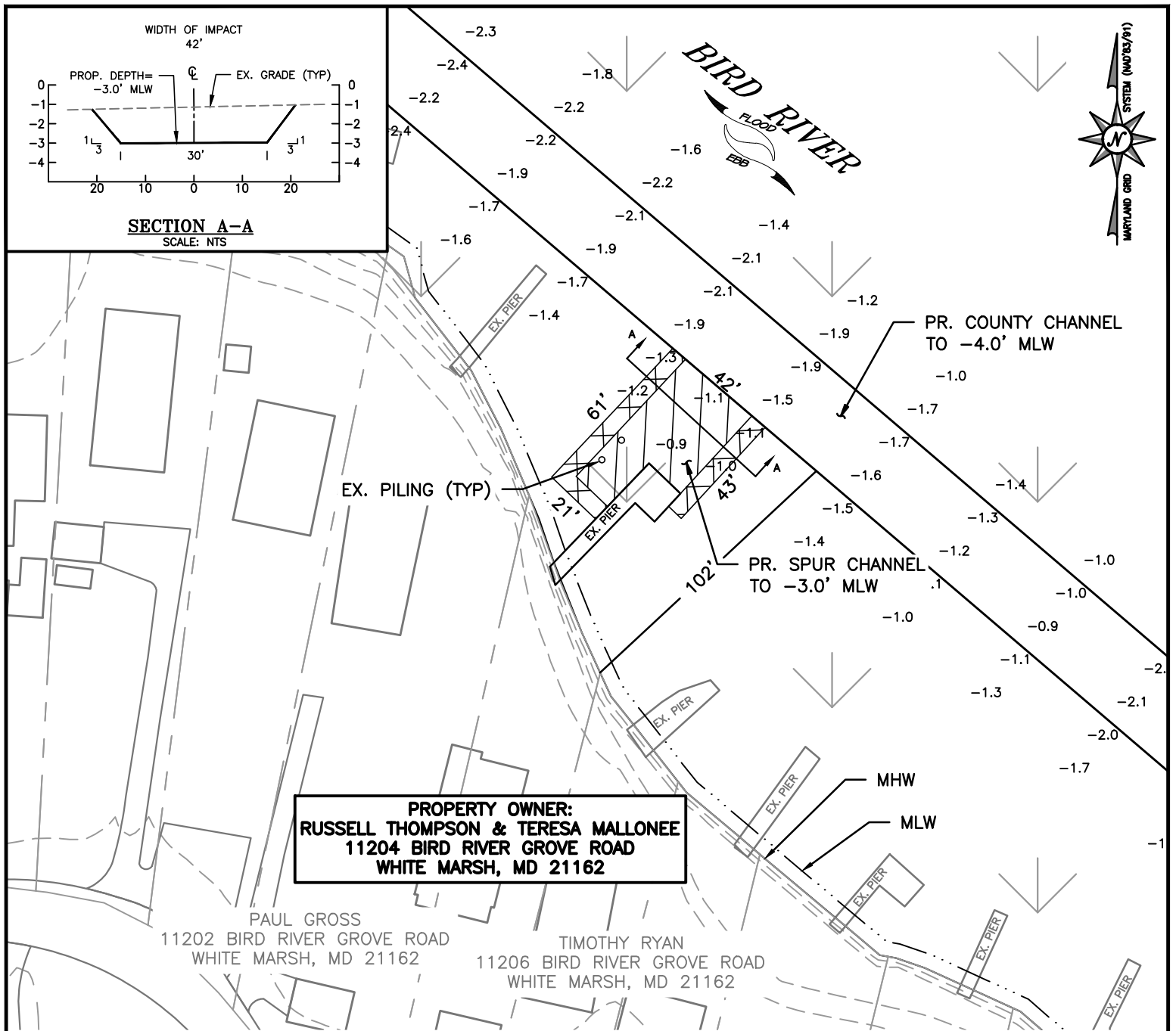


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BIRD RIVER SPURS
SPUR 36
RICHARD & PATRICIA BARNES
11210 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162
REVISED FEBRUARY 2019



SECTION A-A
SCALE: NTS



PROPERTY OWNER:
RUSSELL THOMPSON & TERESA MALLONEE
11204 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162

PAUL GROSS
11202 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162

TIMOTHY RYAN
11206 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162

SPUR DATA

AREA = 2,081 SF
VOLUME = 146 CY
2016/17 SAV IMPACT = 2,081 SF

LEGEND

- | | |
|---------------------|-----------------|
| -1.0 EXISTING DEPTH | BOTTOM CUT AREA |
| ○ EXISTING PILING | SIDE SLOPE AREA |
| ● PROPOSED PILING | |

NOTES:

1. TIDAL RANGE IS 1.25 FEET.
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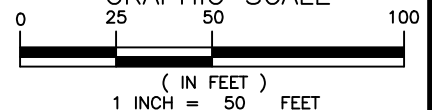
SAV LEGEND

COMPOSITE SAV BED FROM 2016 & 2017 SPRING AND SUMMER SAV SURVEY
SPRING SURVEY DATES: JUNE 1, 2016
JUNE 1, 2017
SUMMER SURVEY DATES: AUGUST 10, 2016
AUGUST 3, 2017

NOTES:

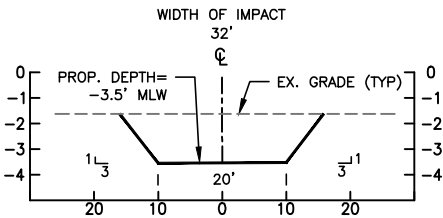
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2. EXISTING PILINGS WITHIN DREDGE AREA TO BE REMOVED AND REPLACED BY OWNER.

GRAPHIC SCALE

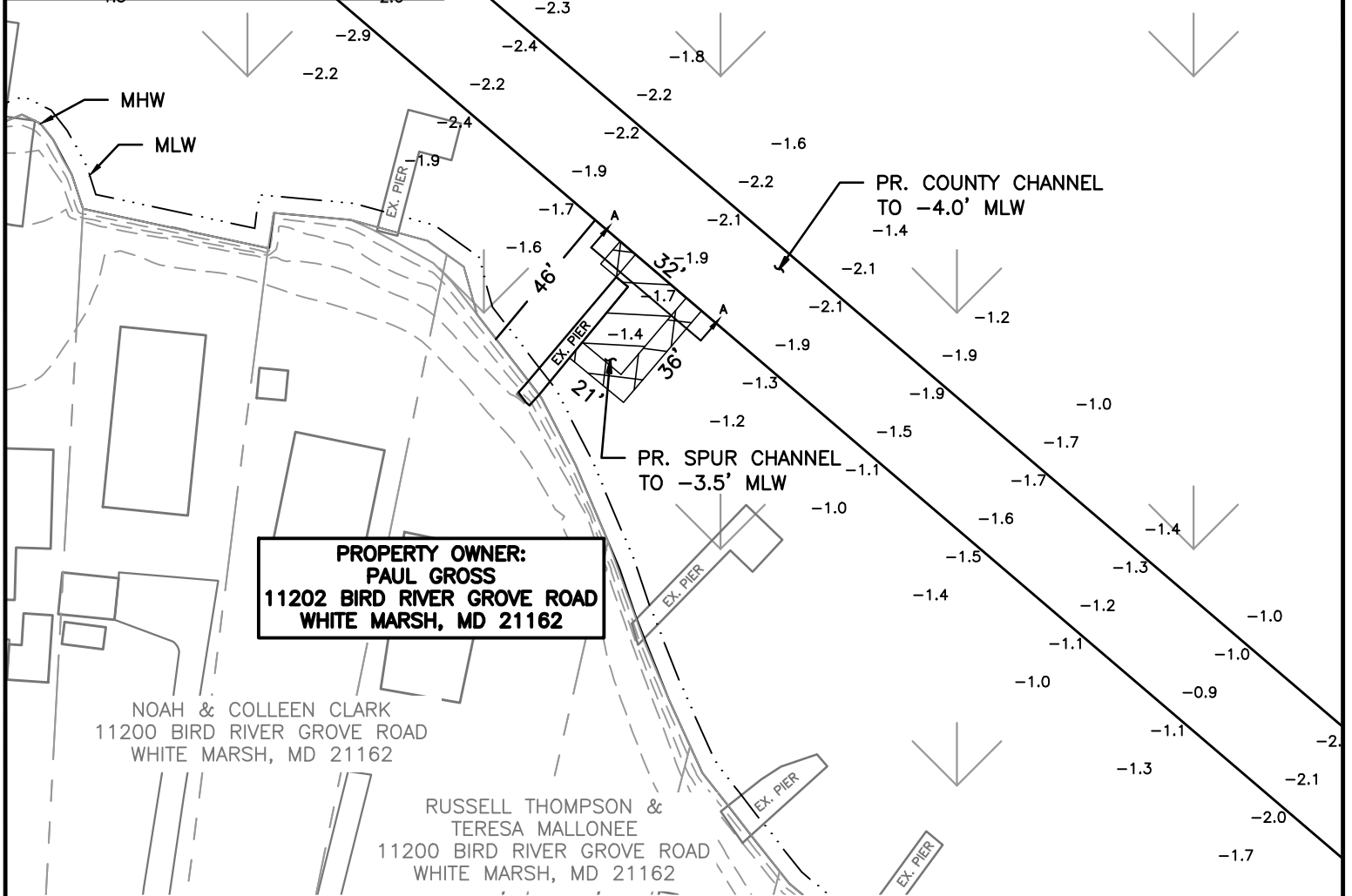


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BIRD RIVER SPURS
SPUR 37
RUSSELL THOMPSON & TERESA MALLONEE
11204 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162
REVISED FEBRUARY 2019



SECTION A-A
SCALE: NTS



PROPERTY OWNER:
PAUL GROSS
11202 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162

NOAH & COLLEEN CLARK
11200 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162

RUSSELL THOMPSON &
TERESA MALLONEE
11200 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162

SPUR DATA

AREA = 862 SF
VOLUME = 62 CY
2016/17 SAV IMPACT = 862 SF

LEGEND

-1.0 EXISTING DEPTH	BOTTOM CUT AREA
○ EXISTING PILING	SIDE SLOPE AREA
● PROPOSED PILING	

NOTES:

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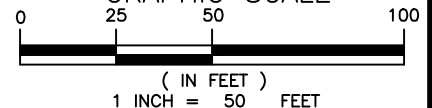
SAV LEGEND

COMPOSITE SAV BED FROM 2016 & 2017 SPRING AND SUMMER SAV SURVEY
SPRING SURVEY DATES: JUNE 1, 2016
JUNE 1, 2017
SUMMER SURVEY DATES: AUGUST 10, 2016
AUGUST 3, 2017

NOTES:

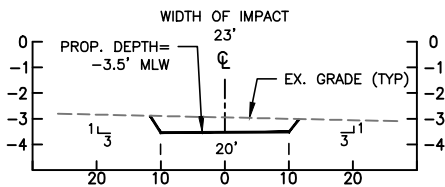
1. ADDITIONAL DETAILS INCLUDING SIDE SLOPES AND A CROSS SECTION HAVE BEEN ADDED TO GRAPHICALLY REPRESENT IMPACTS TO SUBMERGED AQUATIC VEGETATION.
2. PREVIOUSLY PERMITTED AS HAYES & GROSS 00-WL-1719.

GRAPHIC SCALE



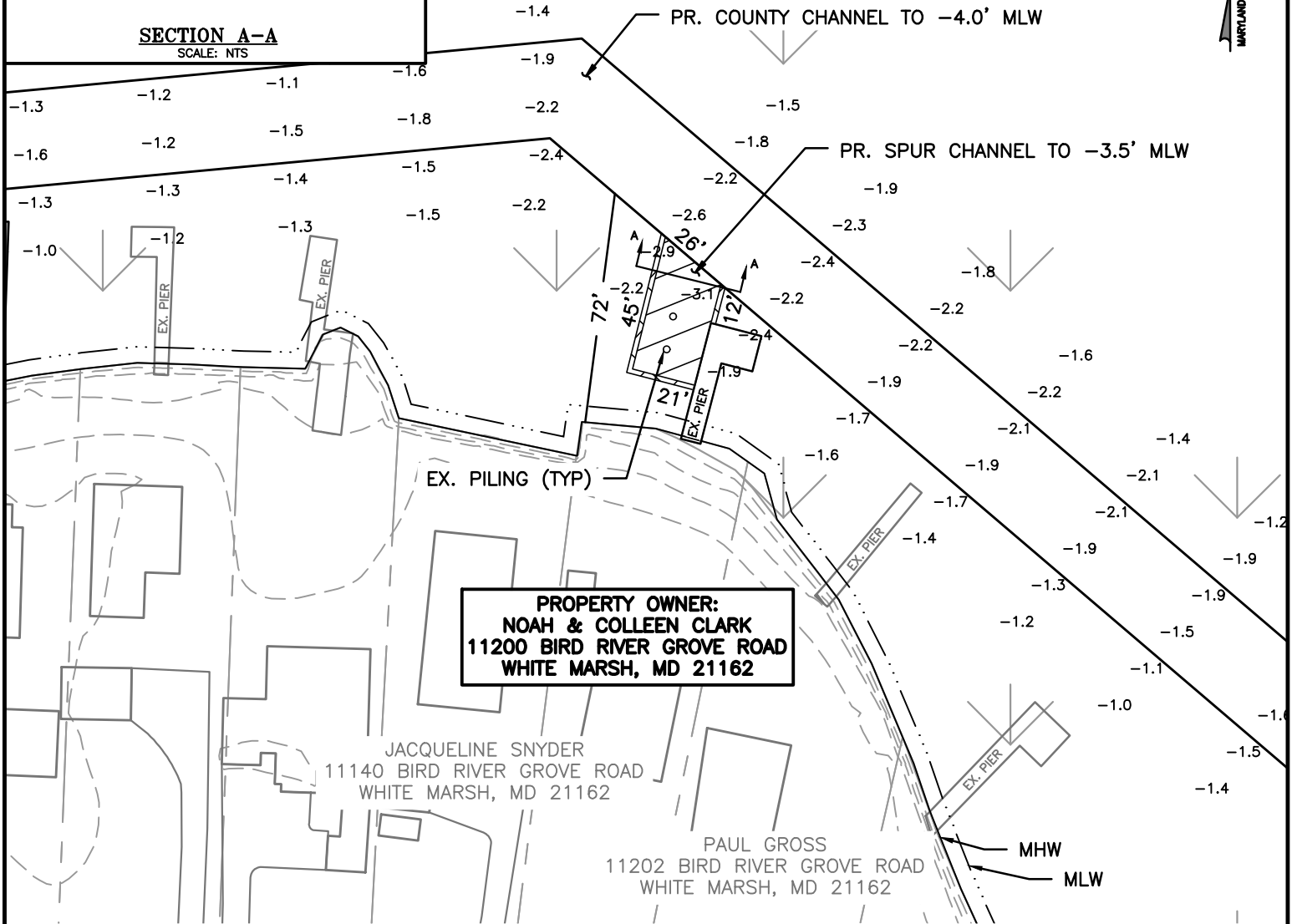
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BIRD RIVER SPURS
SPUR 38
PAUL GROSS
11202 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162
REVISED FEBRUARY 2019



SECTION A-A
SCALE: NTS

BIRD RIVER



PROPERTY OWNER:
NOAH & COLLEEN CLARK
11200 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162

JACQUELINE SNYDER
11140 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162

PAUL GROSS
11202 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162

SPUR DATA

AREA = 872 SF
VOLUME = 20 CY
2016/17 SAV IMPACT = 872 SF

LEGEND

- | | |
|---------------------|-----------------|
| -1.0 EXISTING DEPTH | BOTTOM CUT AREA |
| ○ EXISTING PILING | SIDE SLOPE AREA |
| ● PROPOSED PILING | |

NOTES:

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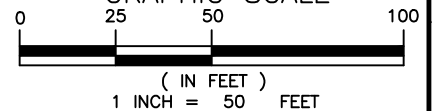
SAV LEGEND

- COMPOSITE SAV BED FROM 2016 & 2017 SPRING AND SUMMER SAV SURVEY
- SPRING SURVEY DATES: JUNE 1, 2016
JUNE 1, 2017
- SUMMER SURVEY DATES: AUGUST 10, 2016
AUGUST 3, 2017

NOTES:

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- EXISTING PILINGS WITHIN DREDGE AREA TO BE REMOVE AND REPLACED BY OWNER.

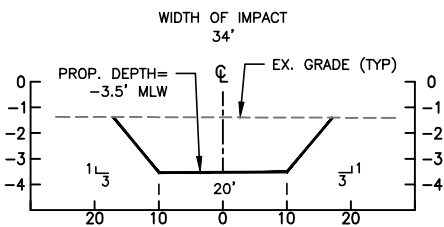
GRAPHIC SCALE



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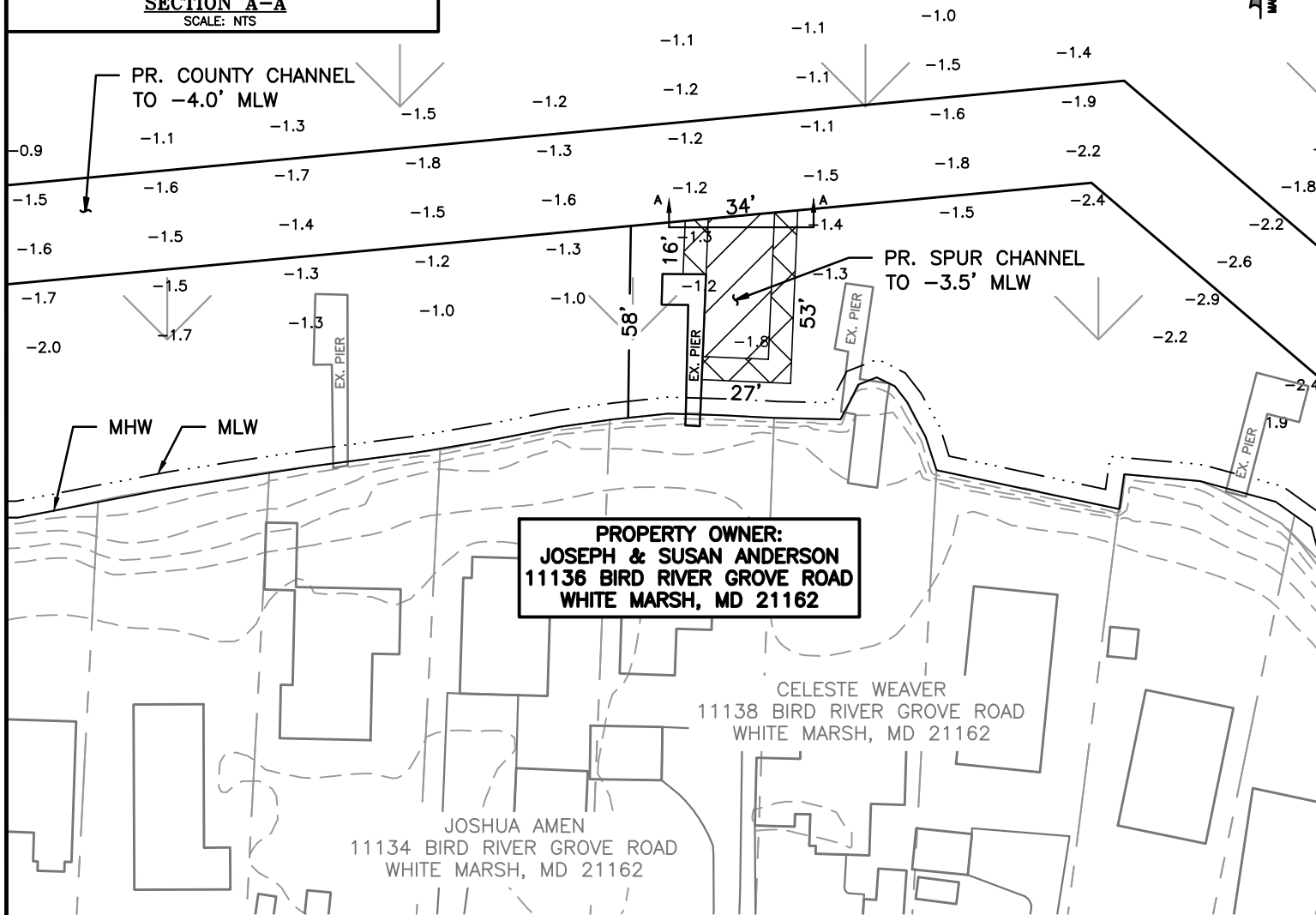
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BIRD RIVER SPURS
SPUR 39
NOAH & COLLEEN CLARK
11200 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162
REVISED FEBRUARY 2019



SECTION A-A
SCALE: NTS

BIRD RIVER



PROPERTY OWNER:
JOSEPH & SUSAN ANDERSON
11136 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162

CELESTE WEAVER
11138 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162

JOSHUA AMEN
11134 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162

SPUR DATA

AREA = 1,485 SF
VOLUME = 92 CY
2016/17 SAV IMPACT = 1,485 SF

LEGEND

- | | |
|---------------------|-----------------|
| -1.0 EXISTING DEPTH | BOTTOM CUT AREA |
| ○ EXISTING PILING | SIDE SLOPE AREA |
| ● PROPOSED PILING | |

NOTES:

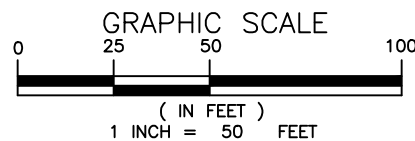
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4. THESE ARE PERMIT DRAWINGS ONLY. DESIGN DRAWINGS WILL BE PREPARED SEPARATELY.
5. BASEMAP TAKEN FROM BALTIMORE COUNTY 2013 PLANIMETRICS AND 2014 IMAGERY.

SAV LEGEND

- COMPOSITE SAV BED FROM 2016 & 2017 SPRING AND SUMMER SAV SURVEY
- SPRING SURVEY DATES: JUNE 1, 2016
JUNE 1, 2017
- SUMMER SURVEY DATES: AUGUST 10, 2016
AUGUST 3, 2017

NOTES:

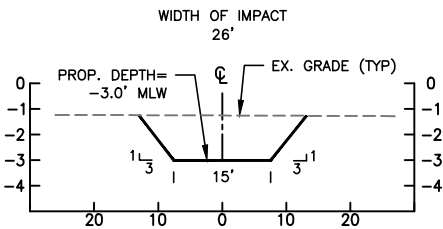
1. ADDITIONAL DETAILS INCLUDING SIDE SLOPES AND A CROSS SECTION HAVE BEEN ADDED TO GRAPHICALLY REPRESENT IMPACTS TO SUBMERGED AQUATIC VEGETATION.
2. PREVIOUSLY PERMITTED AS HALL & WEAVER 00-WL-1721.



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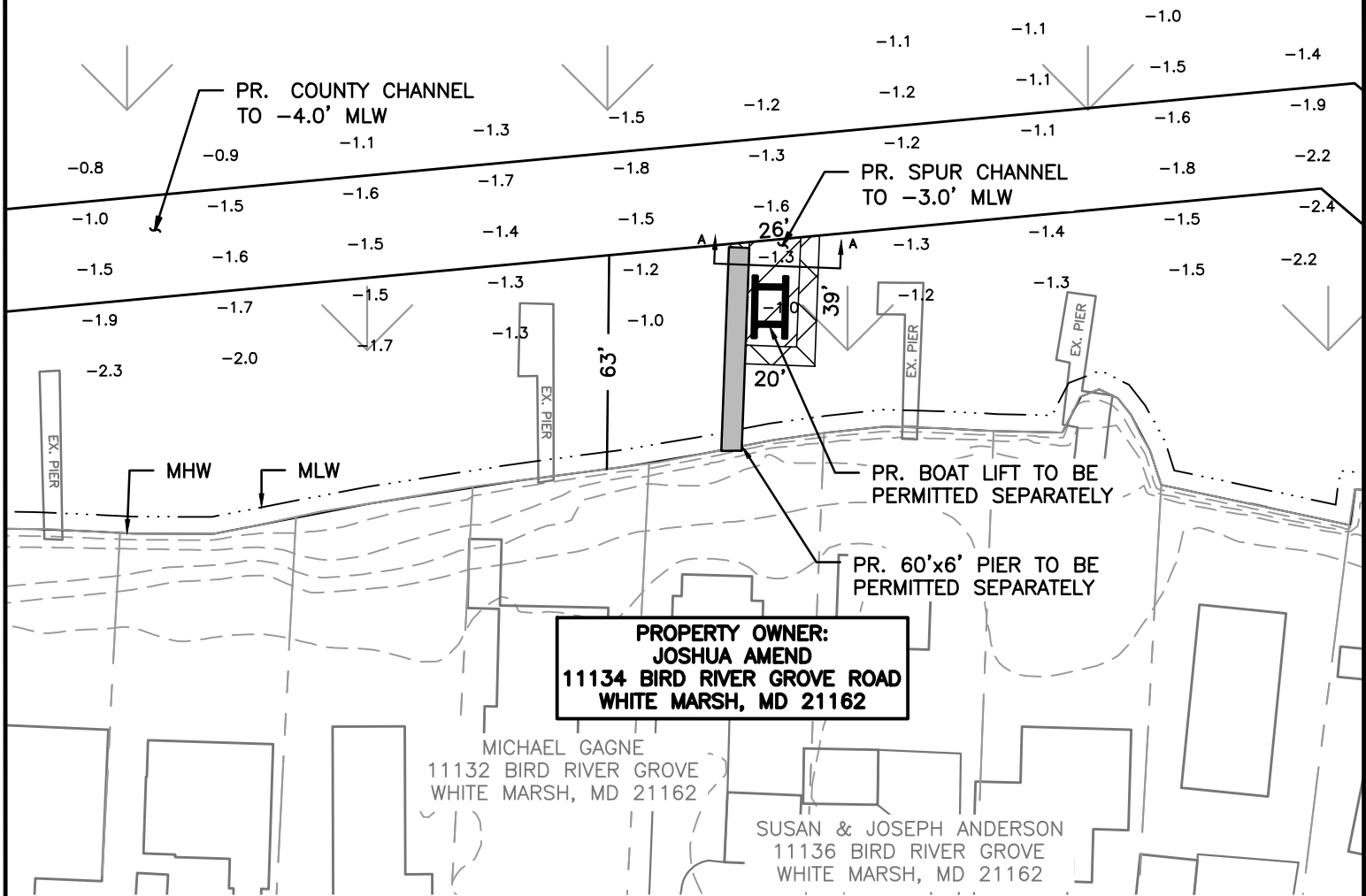
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Hanover, Maryland 21076 Fax: (410) 694-9405
www.baylandinc.com

BIRD RIVER SPURS
SPUR 40
JOSEPH & SUSAN ANDERSON
11136 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162
REVISED FEBRUARY 2019



SECTION A-A
SCALE: NTS

BIRD RIVER
FLOOD
EBB



SPUR DATA

AREA = 770 SF
VOLUME = 53 CY
2016/17 SAV IMPACT = 770 SF

LEGEND

- | | |
|---------------------|-----------------|
| -1.0 EXISTING DEPTH | BOTTOM CUT AREA |
| ○ EXISTING PILING | SIDE SLOPE AREA |
| ● PROPOSED PILING | |

NOTES:

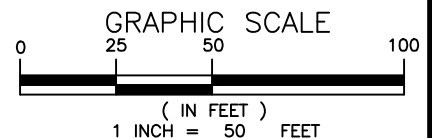
1. TIDAL RANGE IS 1.25 FEET.
2. SOUNDINGS ARE IN FEET AND REFER TO MLW.
3. MATERIAL WILL BE PLACED AT BIRD RIVER DMP SITE.
4. THESE ARE PERMIT DRAWINGS ONLY. DESIGN DRAWINGS WILL BE PREPARED SEPARATELY.
5. BASEMAP TAKEN FROM BALTIMORE COUNTY 2013 PLANIMETRICS AND 2014 IMAGERY.

SAV LEGEND

COMPOSITE SAV BED FROM 2016 & 2017 SPRING AND SUMMER SAV SURVEY
SPRING SURVEY DATES: JUNE 1, 2016
JUNE 1, 2017
SUMMER SURVEY DATES: AUGUST 10, 2016
AUGUST 3, 2017

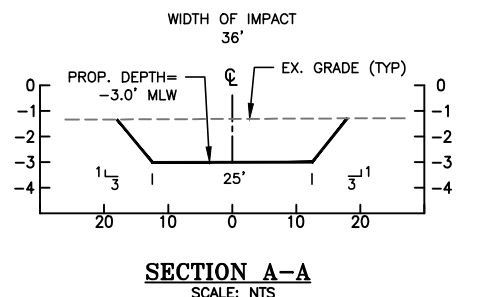
NOTE:

1. ADDITIONAL DETAILS INCLUDING SIDE SLOPES AND A CROSS SECTION HAVE BEEN ADDED TO GRAPHICALLY REPRESENT IMPACTS TO SUBMERGED AQUATIC VEGETATION.

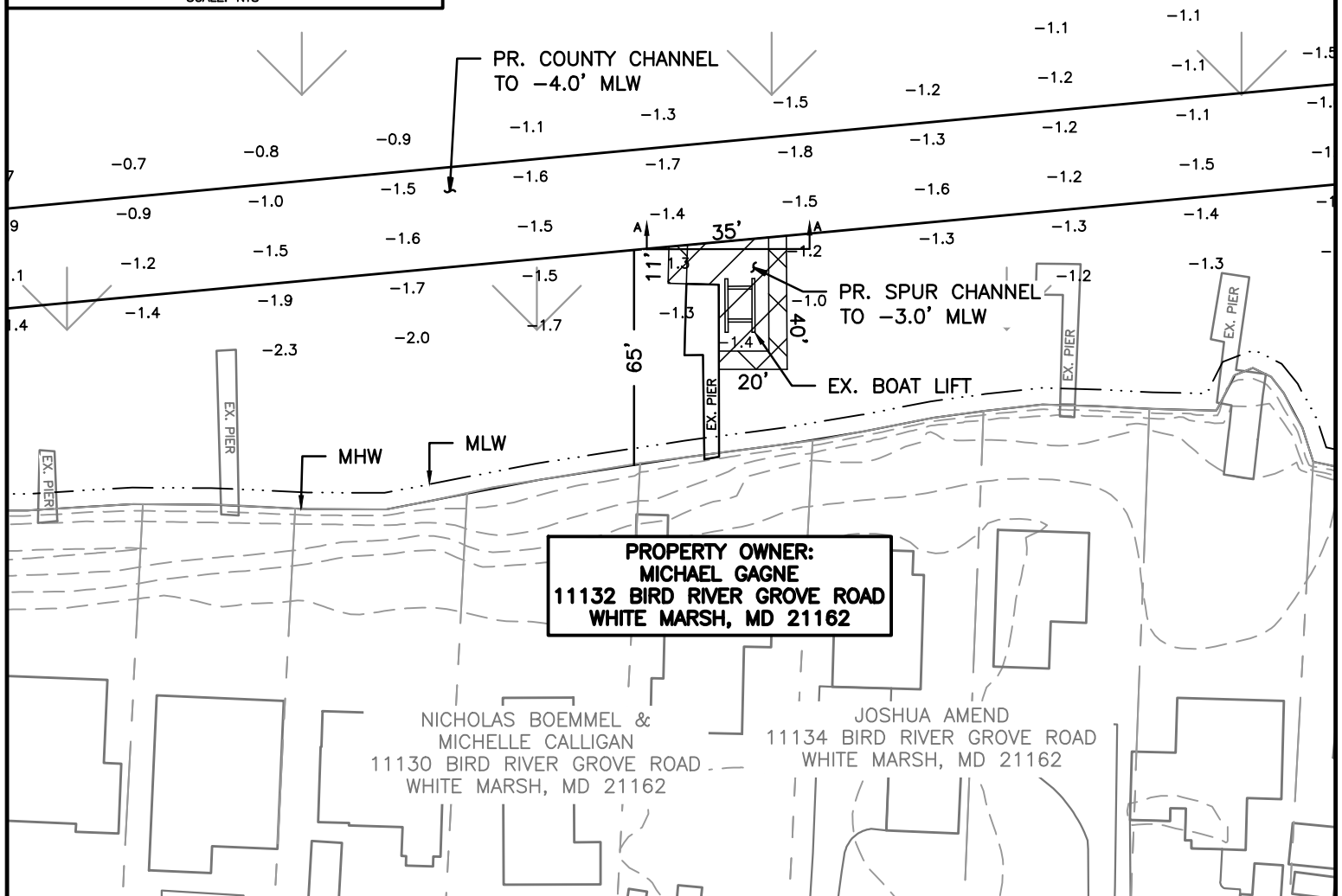


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BIRD RIVER SPURS
SPUR 41
JOSHUA AMEND
11134 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162
REVISED FEBRUARY 2019



BIRD RIVER
FLOOD
EBB



SPUR DATA

AREA = 982 SF
VOLUME = 64 CY
2016/17 SAV IMPACT = 982 SF

LEGEND

- 1.0 EXISTING DEPTH
- EXISTING PILING
- PROPOSED PILING
- ▨ BOTTOM CUT AREA
- ▩ SIDE SLOPE AREA

SAV LEGEND

COMPOSITE SAV BED FROM 2016 & 2017 SPRING AND SUMMER SAV SURVEY

SPRING SURVEY DATES: JUNE 1, 2016
JUNE 1, 2017

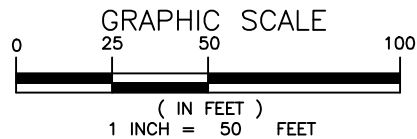
SUMMER SURVEY DATES: AUGUST 10, 2016
AUGUST 3, 2017

NOTES:

1. ADDITIONAL DETAILS INCLUDING SIDE SLOPES AND A CROSS SECTION HAVE BEEN ADDED TO GRAPHICALLY REPRESENT IMPACTS TO SUBMERGED AQUATIC VEGETATION.
2. EXISTING BOAT LIFT WITHIN DREDGE AREA TO BE REMOVED AND REPLACED BY OWNER.

NOTES:

1. TIDAL RANGE IS 1.25 FEET.
2. SOUNDINGS ARE IN FEET AND REFER TO MLW.
3. MATERIAL WILL BE PLACED AT BIRD RIVER DMP SITE.
4. THESE ARE PERMIT DRAWINGS ONLY. DESIGN DRAWINGS WILL BE PREPARED SEPARATELY.
5. BASEMAP TAKEN FROM BALTIMORE COUNTY 2013 PLANIMETRICS AND 2014 IMAGERY.



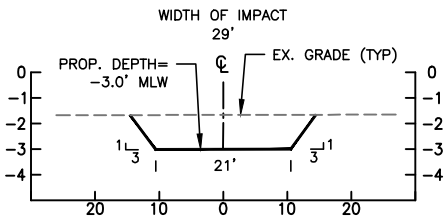
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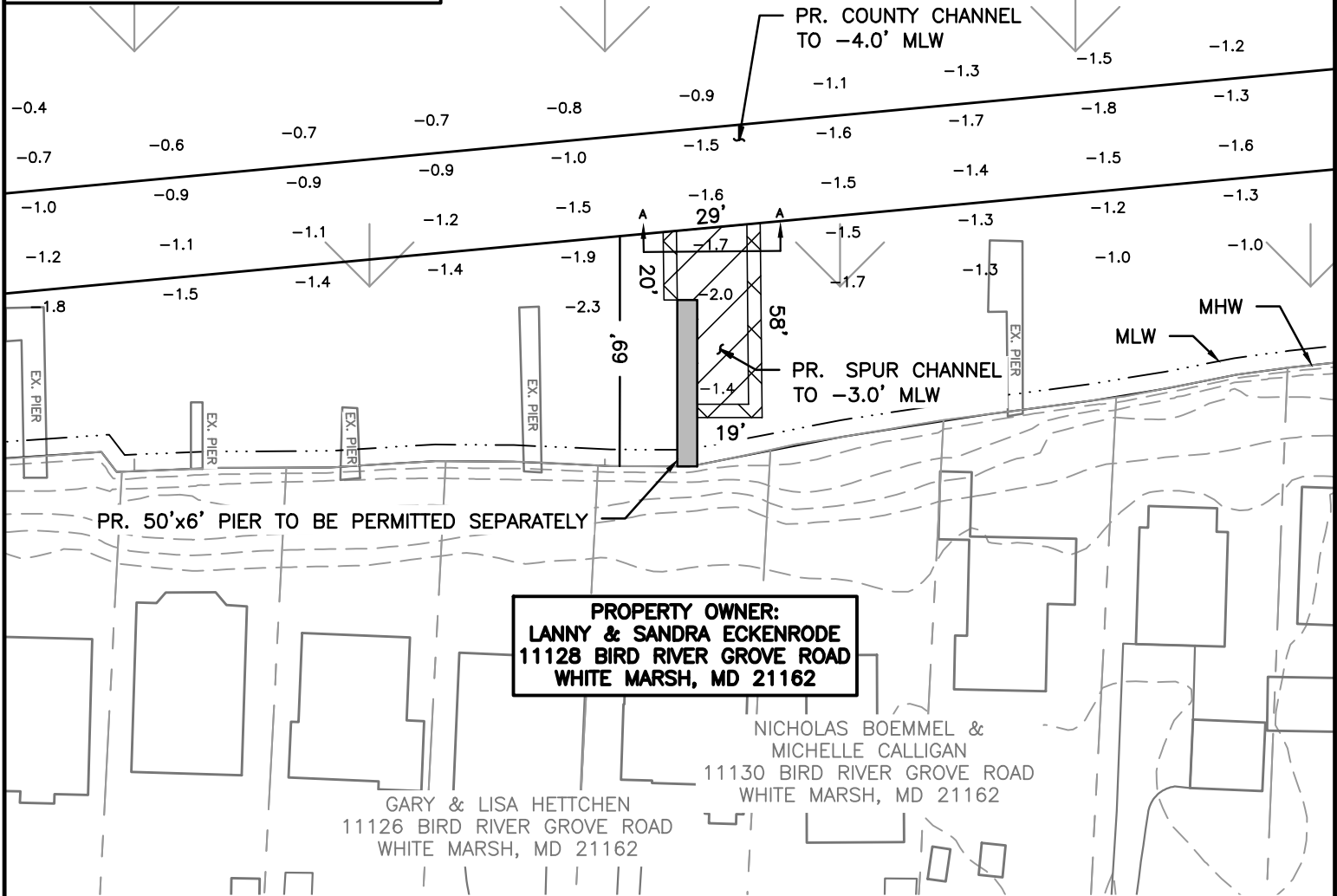
BIRD RIVER SPURS
SPUR 42
MICHAEL GAGNE
11132 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162
REVISED FEBRUARY 2019

Z:\2-1307_BIRD_RIVER_DREDGING_2019\CAD FILES\SHEET FILES\2-1037_SPUR42.DWG

BIRD RIVER
FLOOD
EBB



SECTION A-A
SCALE: NTS



SPUR DATA

AREA = 1,315 SF
VOLUME = 63 CY
2016/17 SAV IMPACT = 1,315 SF

LEGEND

- | | |
|---------------------|-----------------|
| -1.0 EXISTING DEPTH | BOTTOM CUT AREA |
| ○ EXISTING PILING | SIDE SLOPE AREA |
| ● PROPOSED PILING | |

NOTES:

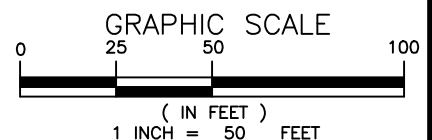
1. TIDAL RANGE IS 1.25 FEET.
2. SOUNDINGS ARE IN FEET AND REFER TO MLW.
3. MATERIAL WILL BE PLACED AT BIRD RIVER DMP SITE.
4. THESE ARE PERMIT DRAWINGS ONLY. DESIGN DRAWINGS WILL BE PREPARED SEPARATELY.
5. BASEMAP TAKEN FROM BALTIMORE COUNTY 2013 PLANIMETRICS AND 2014 IMAGERY.

SAV LEGEND

COMPOSITE SAV BED FROM 2016 & 2017 SPRING AND SUMMER SAV SURVEY
SPRING SURVEY DATES: JUNE 1, 2016
JUNE 1, 2017
SUMMER SURVEY DATES: AUGUST 10, 2016
AUGUST 3, 2017

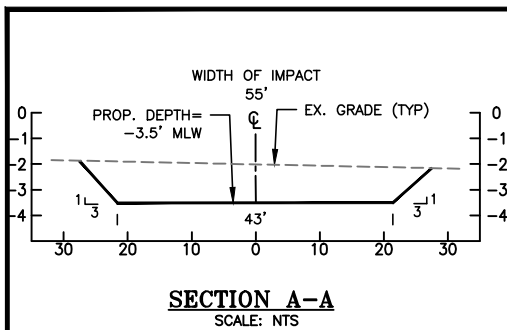
NOTE:

1. ADDITIONAL DETAILS INCLUDING SIDE SLOPES AND A CROSS SECTION HAVE BEEN ADDED TO GRAPHICALLY REPRESENT IMPACTS TO SUBMERGED AQUATIC VEGETATION.

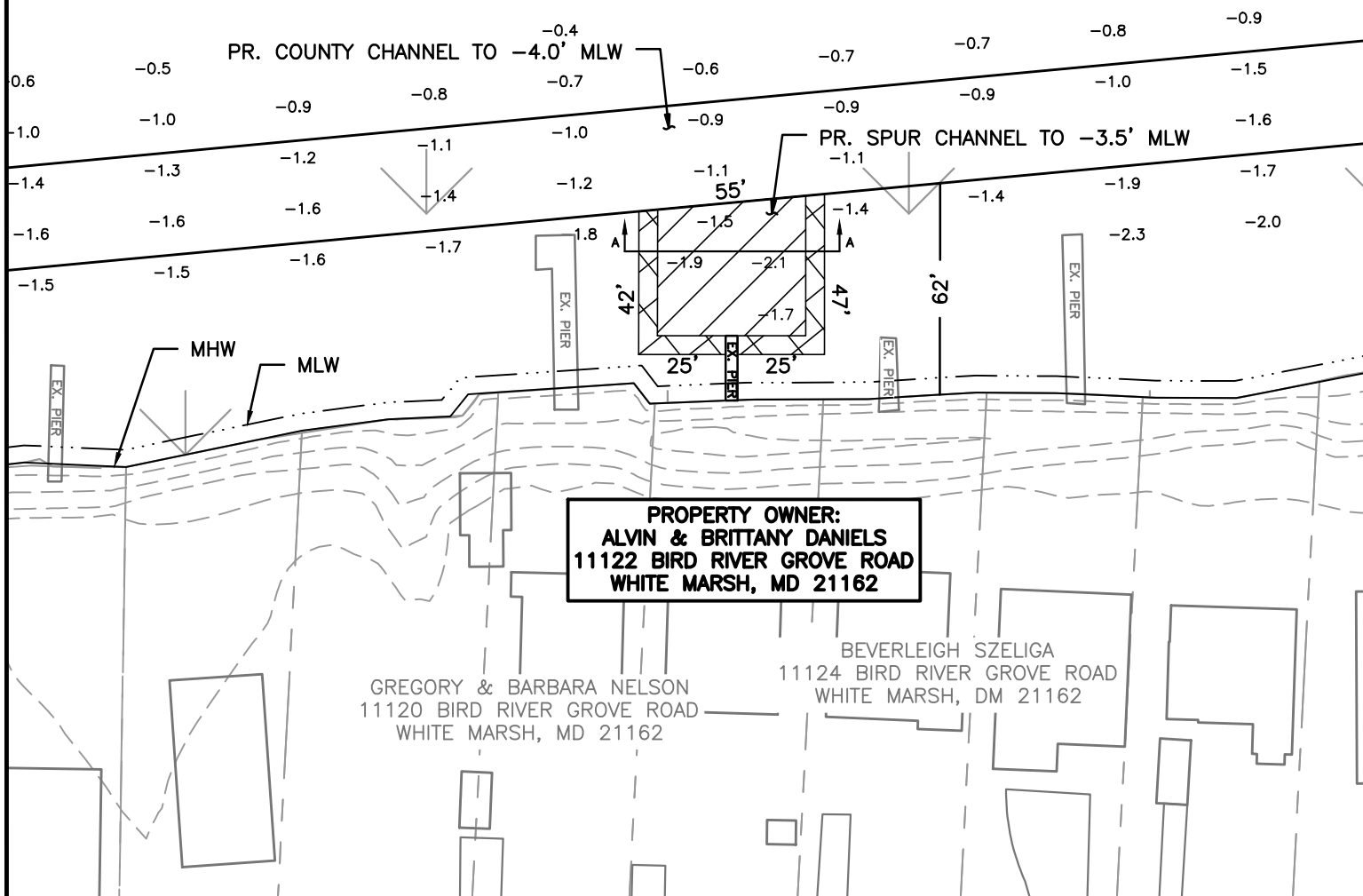


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BIRD RIVER SPURS
SPUR 43
LANNY & SANDRA ECKENRODE
11128 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162
REVISED FEBRUARY 2019



BIRD RIVER
FLOOD
EBB



PROPERTY OWNER:
ALVIN & BRITTANY DANIELS
11122 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162

GREGORY & BARBARA NELSON
11120 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162

BEVERLEIGH SZELIGA
11124 BIRD RIVER GROVE ROAD
WHITE MARSH, DM 21162

SPUR DATA

AREA = 2,409 SF
VOLUME = 130 CY
2016/17 SAV IMPACT = 2,409 SF

LEGEND

- | | |
|---------------------|-----------------|
| -1.0 EXISTING DEPTH | BOTTOM CUT AREA |
| ○ EXISTING PILING | SIDE SLOPE AREA |
| ● PROPOSED PILING | |

NOTES:

1. TIDAL RANGE IS 1.25 FEET.
2. SOUNDINGS ARE IN FEET AND REFER TO MLW.
3. MATERIAL WILL BE PLACED AT BIRD RIVER DMP SITE.
4. THESE ARE PERMIT DRAWINGS ONLY. DESIGN DRAWINGS WILL BE PREPARED SEPARATELY.
5. BASEMAP TAKEN FROM BALTIMORE COUNTY 2013 PLANIMETRICS AND 2014 IMAGERY.

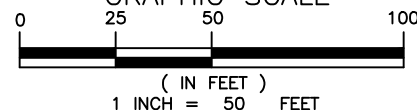
SAV LEGEND

- COMPOSITE SAV BED FROM 2016 & 2017 SPRING AND SUMMER SAV SURVEY
- SPRING SURVEY DATES: JUNE 1, 2016
JUNE 1, 2017
- SUMMER SURVEY DATES: AUGUST 10, 2016
AUGUST 3, 2017

NOTES:

1. ADDITIONAL DETAILS INCLUDING SIDE SLOPES AND A CROSS SECTION HAVE BEEN ADDED TO GRAPHICALLY REPRESENT IMPACTS TO SUBMERGED AQUATIC VEGETATION.
2. PREVIOUSLY PERMITTED AS WEAVER CENAB-OP-RMN (WEAVER, GILBERT BRIAN/ BIRD RIVER DREDGING #38) 00-63622-7.

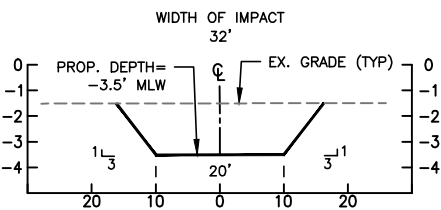
GRAPHIC SCALE



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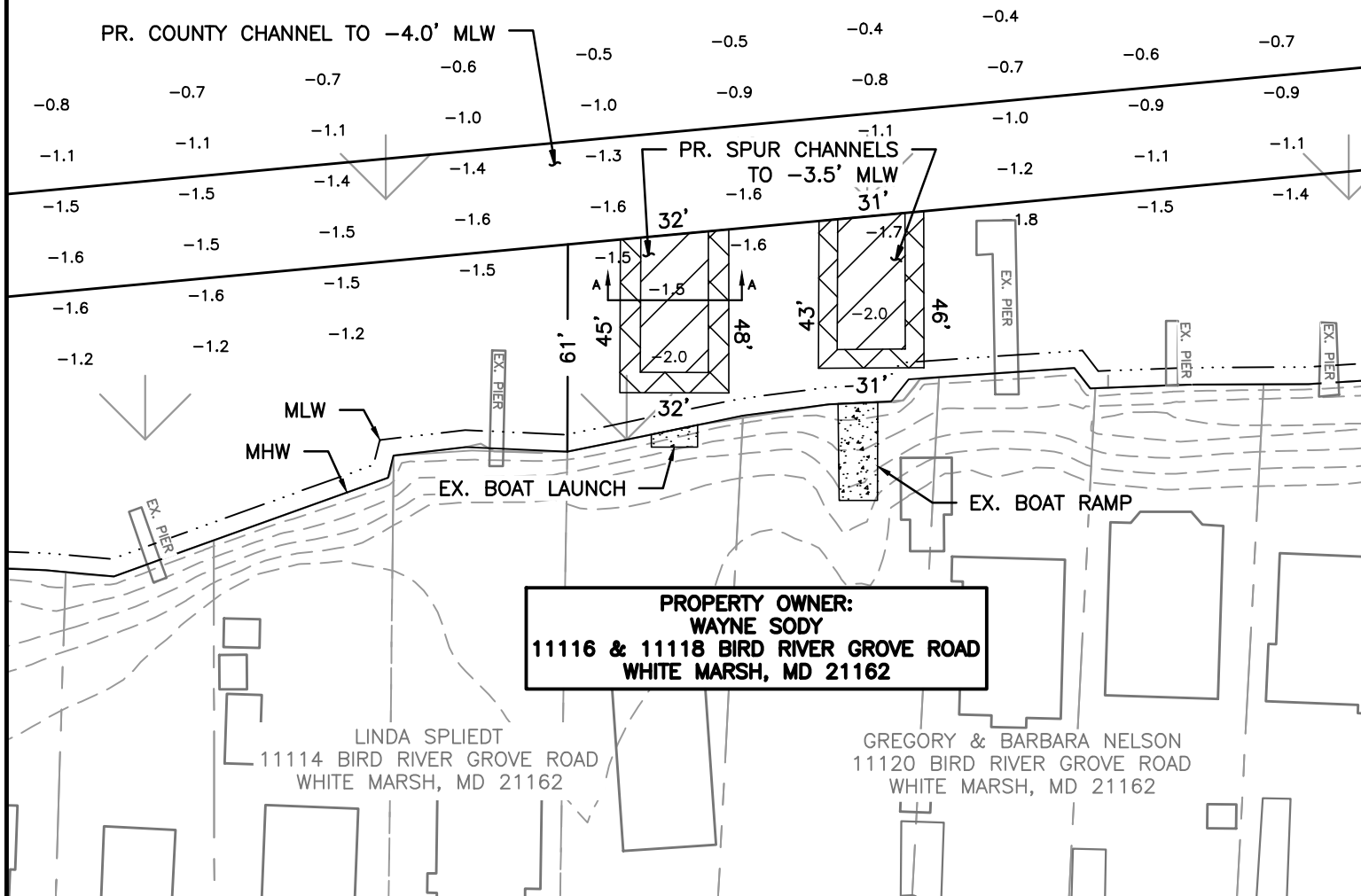
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Hanover, Maryland 21076 Fax: (410) 694-9405
www.baylandinc.com

BIRD RIVER SPURS
SPUR 45
ALVIN & BRITTANY DANIELS
11122 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162
REVISED FEBRUARY 2019



SECTION A-A
SCALE: NTS

BIRD RIVER
FLOOD
EBB



SPUR DATA

AREA = 2,866 SF
VOLUME = 148 CY
2016/17 SAV IMPACT = 2,866 SF

LEGEND

- | | |
|---------------------|-----------------|
| -1.0 EXISTING DEPTH | BOTTOM CUT AREA |
| ○ EXISTING PILING | SIDE SLOPE AREA |
| ● PROPOSED PILING | |

NOTES:

1. TIDAL RANGE IS 1.25 FEET.
2. SOUNDINGS ARE IN FEET AND REFER TO MLW.
3. MATERIAL WILL BE PLACED AT BIRD RIVER DMP SITE.
4. THESE ARE PERMIT DRAWINGS ONLY. DESIGN DRAWINGS WILL BE PREPARED SEPARATELY.
5. BASEMAP TAKEN FROM BALTIMORE COUNTY 2013 PLANIMETRICS AND 2014 IMAGERY.

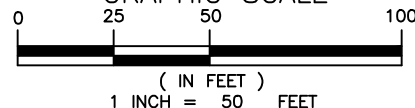
SAV LEGEND

- COMPOSITE SAV BED FROM 2016 & 2017 SPRING AND SUMMER SAV SURVEY
- SPRING SURVEY DATES: JUNE 1, 2016
JUNE 1, 2017
- SUMMER SURVEY DATES: AUGUST 10, 2016
AUGUST 3, 2017

NOTES:

1. ADDITIONAL DETAILS INCLUDING SIDE SLOPES AND A CROSS SECTION HAVE BEEN ADDED TO GRAPHICALLY REPRESENT IMPACTS TO SUBMERGED AQUATIC VEGETATION.
2. PREVIOUSLY PERMITTED AS SODY CENAB-OP-RMN (SODY, WAYNE ALLEN/ BIRD RIVER DREDGING #41) 00-63628-7; AND FINCH 00-WL-1716.

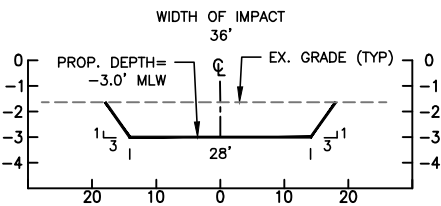
GRAPHIC SCALE



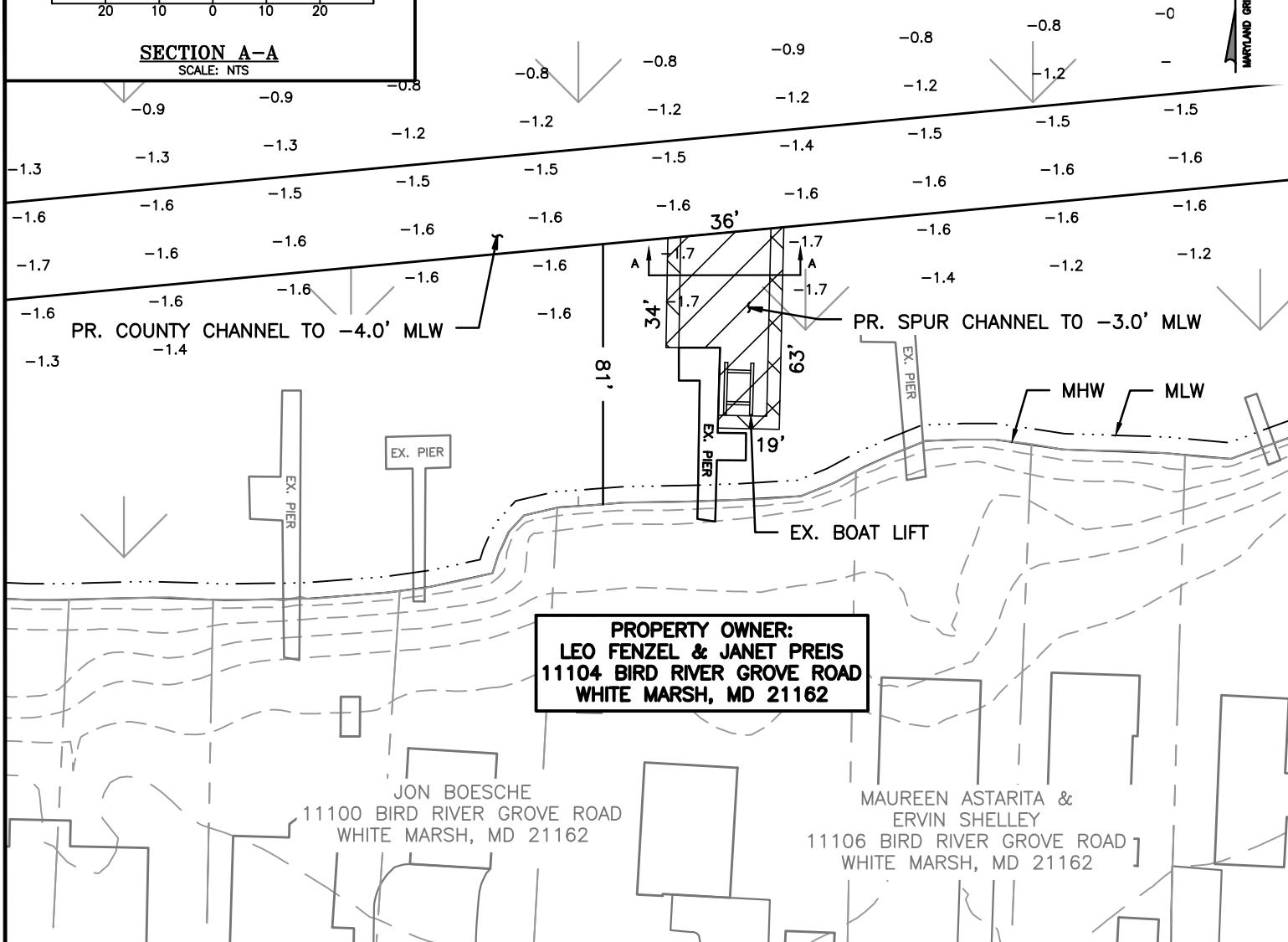
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BIRD RIVER SPURS
SPUR 46
WAYNE SODY
11116 & 11118 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162
REVISED FEBRUARY 2019



SECTION A-A
SCALE: NTS



PROPERTY OWNER:
LEO FENZEL & JANET PREIS
11104 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162

JON BOESCHE
11100 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162

MAUREEN ASTARITA &
ERVIN SHELLEY
11106 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162

SPUR DATA

AREA = 1,766 SF
VOLUME = 85 CY
2016/17 SAV IMPACT = 1,766 SF

LEGEND

-1.0 EXISTING DEPTH	BOTTOM CUT AREA
○ EXISTING PILING	SIDE SLOPE AREA
● PROPOSED PILING	

NOTES:

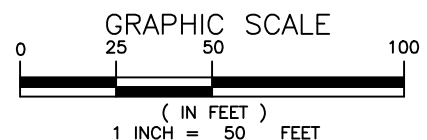
1. TIDAL RANGE IS 1.25 FEET.
2. SOUNDINGS ARE IN FEET AND REFER TO MLW.
3. MATERIAL WILL BE PLACED AT BIRD RIVER DMP SITE.
4. THESE ARE PERMIT DRAWINGS ONLY. DESIGN DRAWINGS WILL BE PREPARED SEPARATELY.
5. BASEMAP TAKEN FROM BALTIMORE COUNTY 2013 PLANIMETRICS AND 2014 IMAGERY.

SAV LEGEND

COMPOSITE SAV BED FROM 2016 & 2017 SPRING AND SUMMER SAV SURVEY
SPRING SURVEY DATES: JUNE 1, 2016
JUNE 1, 2017
SUMMER SURVEY DATES: AUGUST 10, 2016
AUGUST 3, 2017

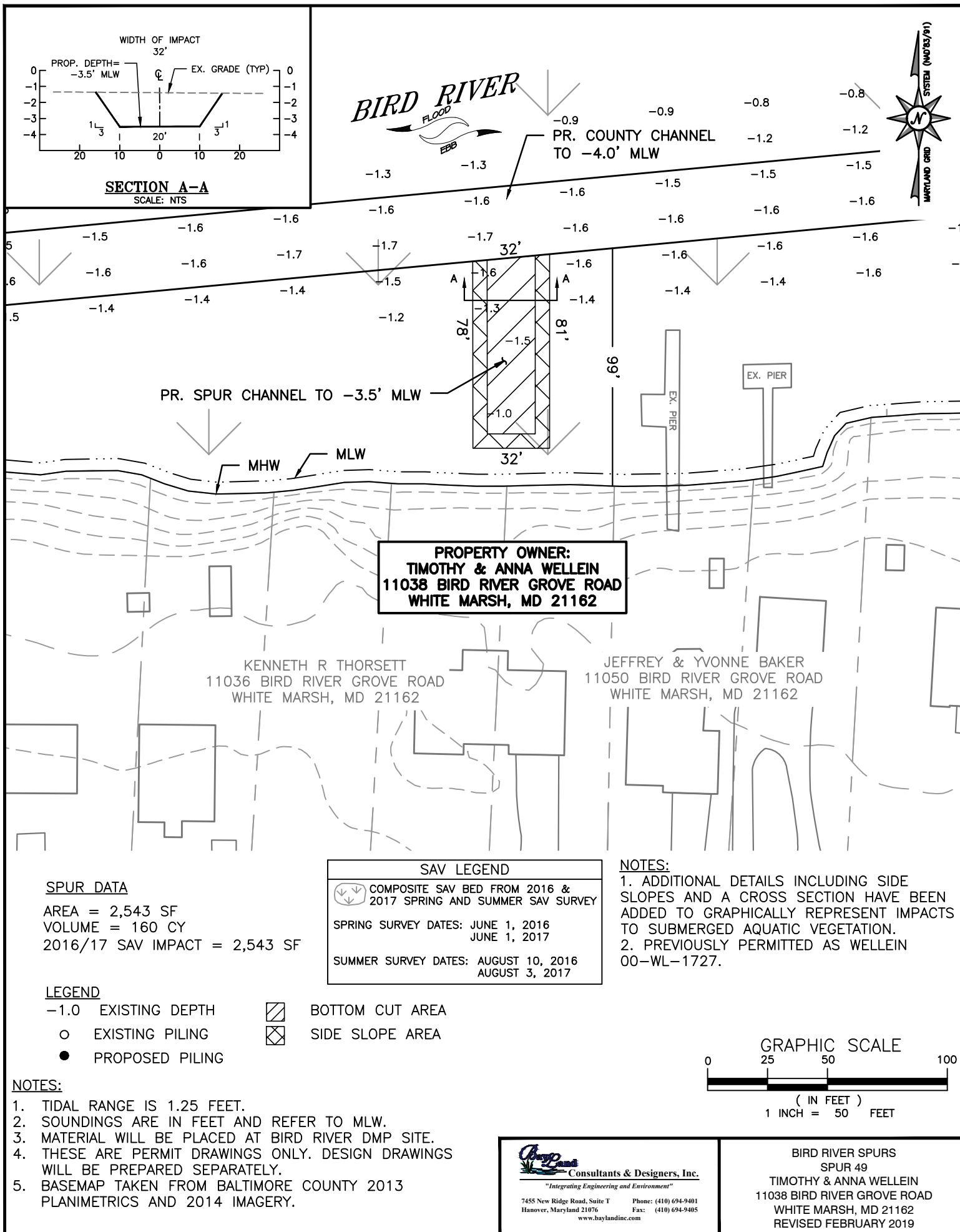
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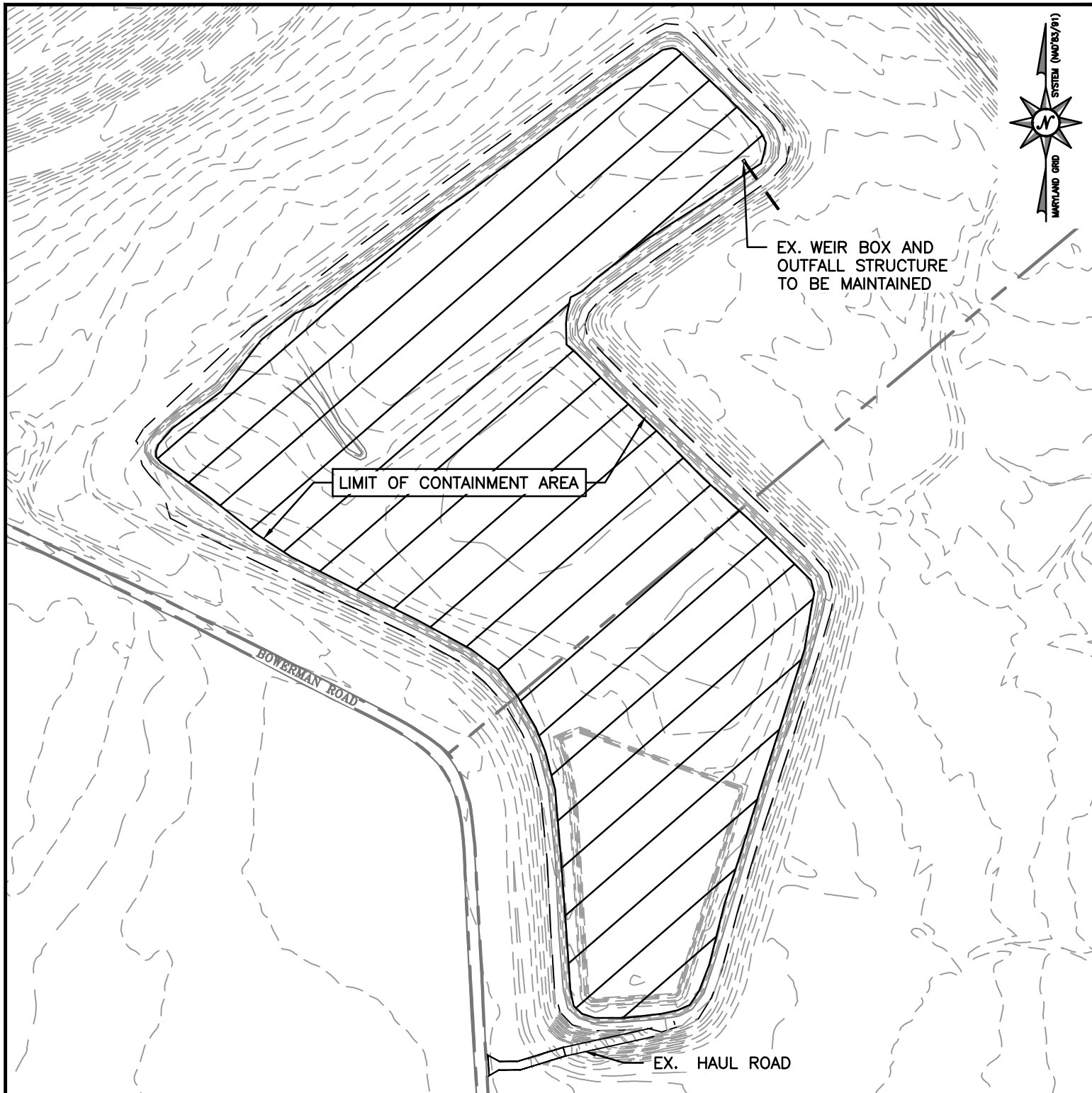
1. ADDITIONAL DETAILS INCLUDING SIDE SLOPES AND A CROSS SECTION HAVE BEEN ADDED TO GRAPHICALLY REPRESENT IMPACTS TO SUBMERGED AQUATIC VEGETATION.
2. EXISTING BOAT LIFT WITHIN DREDGE AREA TO BE REMOVED AND REPLACED BY OWNER.



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BIRD RIVER SPURS
SPUR 47
LEO FENZEL & JANET PREIS
11104 BIRD RIVER GROVE ROAD
WHITE MARSH, MD 21162
REVISED FEBRUARY 2019





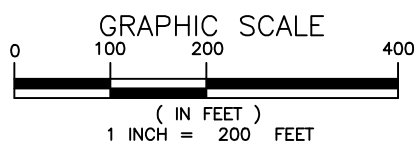
BIRD RIVER MAINTENANCE DREDGING

BALTIMORE COUNTY, MD

APPL. BY: BALTIMORE COUNTY DEPARTMENT OF
ENVIRONMENTAL PROTECTION AND
RESOURCE MANAGEMENT

BIRD RIVER DMP SITE

DATE: REVISED February 2019 SHEET 72 OF 73



NOTES:

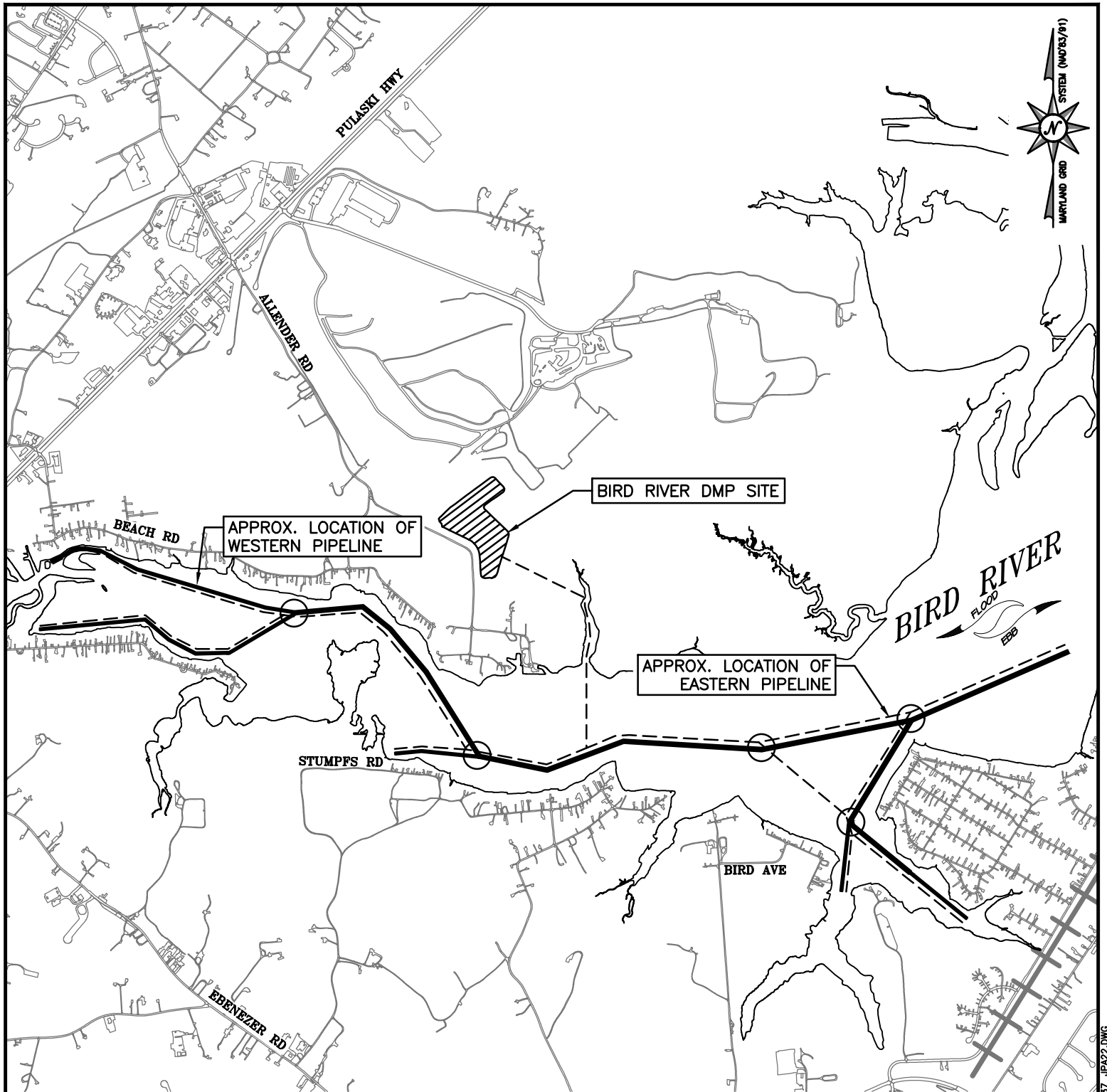
1. AVAILABLE CAPACITY: 111,976 CY.
2. BASEMAP TAKEN FROM BALTIMORE COUNTY 2013 PLANIMETRICS AND 2014 IMAGERY.



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BIRD RIVER MAINTENANCE DREDGING

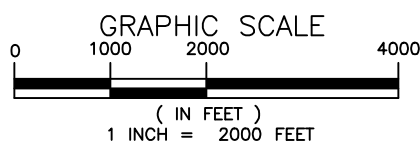
BALTIMORE COUNTY, MD

APPL. BY: BALTIMORE COUNTY DEPARTMENT OF
ENVIRONMENTAL PROTECTION AND
RESOURCE MANAGEMENT

BIRD RIVER HYDRAULIC PIPELINE PLAN

DATE: REVISED February 2019 SHEET 73 OF 73

○ FLOATING PIPELINE TO BE SUBMERGED AT
CHANNEL CROSSINGS TO MAINTAIN
INGRESS/EGRESS FOR LOCAL BOATERS.



NOTE:
BASEMAP TAKEN FROM BALTIMORE COUNTY
2013 PLANIMETRICS AND 2014 IMAGERY.



Consultants & Designers, Inc.
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