US Army Corps of Engineers
Philadelphia District
Wanamaker Building
100 Penn Square East
Philadelphia, PA 19107-3390
ATTN: CENAP-OP-R

Public Notice

Public Notice No.	Date
CENAP-OP-R-2020-00281-95	**01 May 2020**
Application No.	File No.
CENAP-OP-R-2020-00281-95	
In Reply Refer to:	
REGULATORY BRANCH	

This District has received an application for a Department of the Army (DA) permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) and Section 404 of the Clean Water Act (33 U.S.C. 1344).

The purpose of this notice is to solicit comments and recommendations from the public concerning issuance of a Department of the Army permit for the work described below.

APPLICANT: New Jersey Department of Transportation
Office of Maritime Resources
Attn: Ms. Genevieve Clifton
P.O. Box 600
Trenton, New Jersey 08625-0600

WATERWAY: Barnegat Bay – Toms River North State Channel Complex: Andrews Point Channel (#072), Silver Bay Channel (#073), Silver Bay Entrance Channel (#074), Pier One Channel (#082), and Bay Shore Bridge Channel (#083).

LOCATION: Toms River Township, Ocean County, New Jersey; Latitude 39.78765°N, Longitude: -74.143525°W.

ACTIVITY: The applicant, New Jersey Department of Transportation – Office of Maritime Resources, has requested Department of the Army authorization to perform ten (10)-year maintenance dredging of five (5) channels within Barnegat Bay, identified as the Toms River North State Channel Complex: Andrews Point Channel, Silver Bay Channel, Silver Bay Entrance Channel, Pier One Channel, and Bay Shore Bridge Channel. All of the work would be accomplished via hydraulic cutterhead dredge or mechanical bucket dredge. All resultant dredged material, estimated to total 50,615.0-cubic yards of sand and silt, would be transported via pipeline or scow vessel to the Dredged Hole #25 restoration site in Lavallette Borough, Ocean County, New Jersey for use as restorative fill.

The Toms River North State Channel Complex has been historically maintenance dredged, most recently during the 1960s. Restoration of Dredged Hole #25 is authorized under DA Permit Number NAP-2016-00297-95.

The hydraulic dredge pipeline would be marked in accordance with U.S. Coast Guard regulations and would be floating, except where it crosses navigation channels where it will be sunken for safety reasons.

Each maintenance dredging event is anticipated to be approximately twelve (12) weeks in duration, including mobilization/demobilization, dredging, and material placement activities. Two (2) or three (3) maintenance dredging events are anticipated to be conducted over the next ten (10)-years.

Andrews Point Channel (#072):
Maintenance dredging of 5,685.0-cubic yards of shoaled sediments from a 4,200.0-foot long channel to -5.0-feet below the plane of Mean Low Water (MLW), plus 1.0-foot of allowable overdredge, is proposed. The channel design width is 100.0-linear feet, with 3:1 side slopes.

Silver Bay Channel (#073):
Maintenance dredging of 3,970.0-cubic yards of shoaled sediments from a 1,100.0-foot long channel to -5.0-feet below the plane of MLW, plus 1.0-foot of allowable overdredge, is proposed. The channel design width is 100.0-linear feet, with 3:1 side slopes.

Silver Bay Entrance Channel (#074):
Maintenance dredging of 19,935.0-cubic yards of shoaled sediments from a 12,144.0-foot long channel to -5.0-feet below the plane of MLW, plus 1.0-foot of allowable overdredge, is proposed. The channel design width is 100.0-linear feet, with 3:1 side slopes.

Pier One Channel (#082):
Maintenance dredging of 10,225.0-cubic yards of shoaled sediments from a 3,696.0-foot long channel to -5.0-feet below the plane of MLW, plus 1.0-foot of allowable overdredge, is proposed. The channel design width is 100.0-linear feet, with 3:1 side slopes.

Bay Shore Bridge Channel (#083):
Maintenance dredging of 9,585.0-cubic yards of shoaled sediments from a 3,380.0-foot long channel to -5.0-feet below the plane of MLW, plus 1.0-foot of allowable overdredge, is proposed. The channel design width is 100.0-linear feet, with 3:1 side slopes.

PURPOSE: The stated purpose of this project is to restore and maintain safe navigational depths for transiting recreational and emergency vessels in Barnegat Bay.

The decision whether to issue a permit will be based on an evaluation of the activity's probable impact including its cumulative impacts on the public interest. The decision will reflect the national concern for both protection and utilization of important resources. The benefits which reasonably may be expected to accrue from the work must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the work will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood

plain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs and welfare of the people. A Department of the Army permit will be granted unless the District Engineer determines that it would be contrary to the public interest.

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 are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Due to the potential for extensive telework associated with the COVID-19 situation, all comments on the proposed work should be submitted, within thirty (30) days, via email only to the District Engineer, U.S. Army Corps of Engineers - Philadelphia District at PhiladelphiaDistrictRegulatory@usace.army.mil.

From a review of this application concerning Section 106 of the National Historic Preservation Act of 1966, the permit area has been so extensively modified from past use, including historical maintenance dredging, that little likelihood exists for the proposed project to impact an historic property.

A preliminary review of this application indicates that the proposed work may affect listed aquatic-based species or their critical habitat. Pursuant to Section 7 of the Endangered Species Act (ESA), the Philadelphia District will evaluate the potential effects from the proposed actions to these species and their habitat, and consult with NOAA Fisheries as appropriate. Consultation will be concluded prior to the final decision on this permit application.

A preliminary review of this application indicates that the proposed work would not affect listed land-based species or their critical habitat. Rationale for this determination is that the proposed dredged material placement site, Dredged Hole #25, is authorized by DA Permit Number NAP-2016-00297-95. Additionally, the absence of habitat for ESA-managed species within the subject State channels where dredging is being undertaken would not affect listed land-based species or their critical habitat. As a result, pursuant to Section 7 of the ESA, consultation with the U.S. Fish and Wildlife Service is not necessary. As the evaluation of this application continues, additional information may become available which could modify this preliminary determination.

The Magnuson-Stevens Fishery Conservation and Management Act requires all federal agencies to consult with the NOAA Fisheries for all actions, or proposed actions, permitted, funded, or undertaken by the agency that may adversely affect Essential Fish Habitat (EFH). A preliminary review of this application indicates that EFH is present within the project area. The Philadelphia District will evaluate the potential effects of the proposed actions on EFH and will consult with NOAA Fisheries as appropriate. Consultation will be concluded prior to the final decision on this permit application.

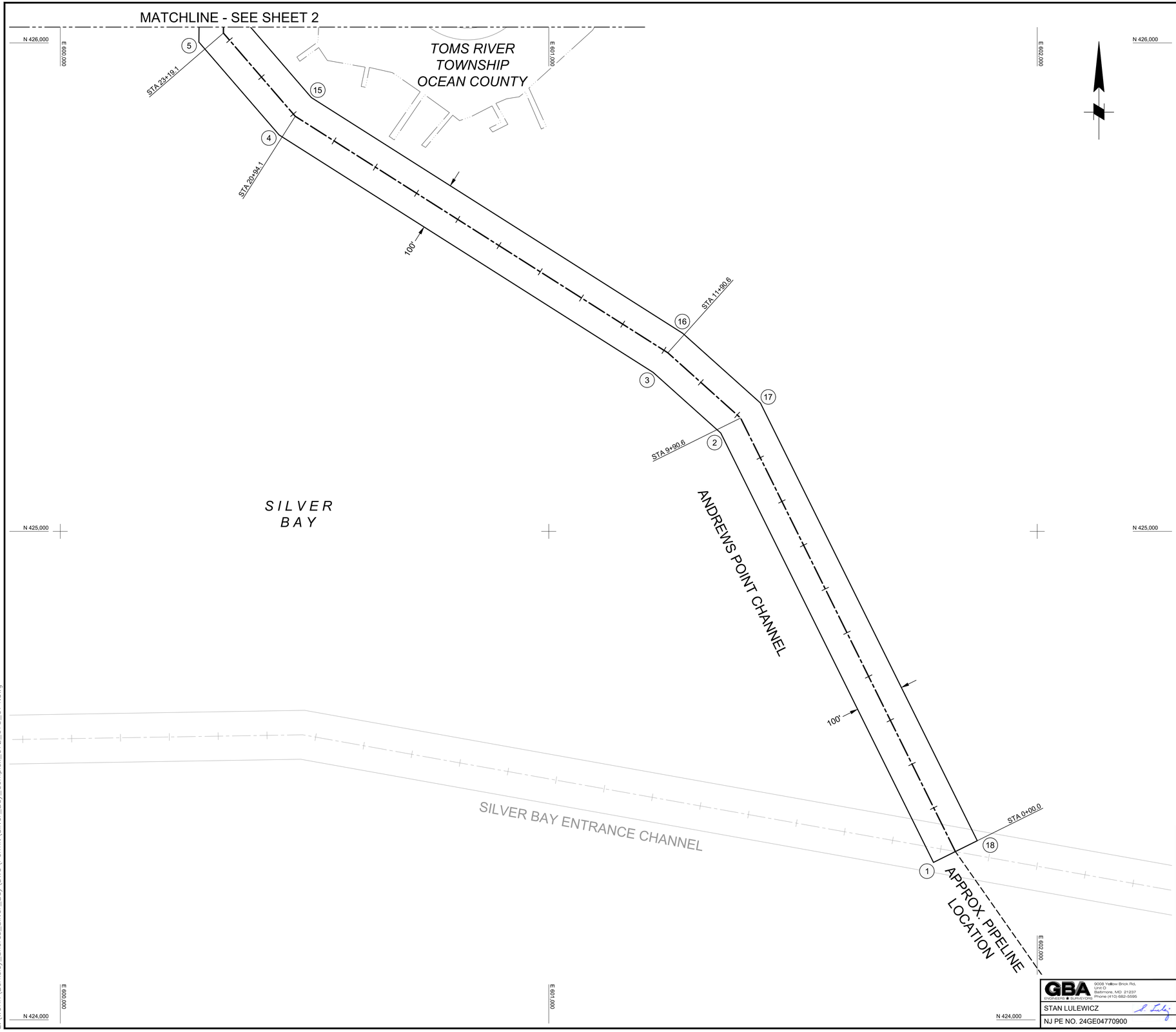
In accordance with Section 307(c) of the Coastal Zone Management Act of 1972, applicants for Federal Licenses or Permits to conduct an activity affecting land or water uses in a State's coastal zone must provide certification that the activity complies with the State's Coastal Zone Management Program. The applicant has stated that the proposed activity complies with and will be conducted in a manner that is consistent with the approved State Coastal Zone Management (CZM) Program. No permit will be issued until the State has concurred with the applicant's certification or has waived its right to do so. Comments concerning the impact of the proposed and/or existing activity on the State's coastal zone should be sent to this office, with a copy to the State's Office of Coastal Zone Management.

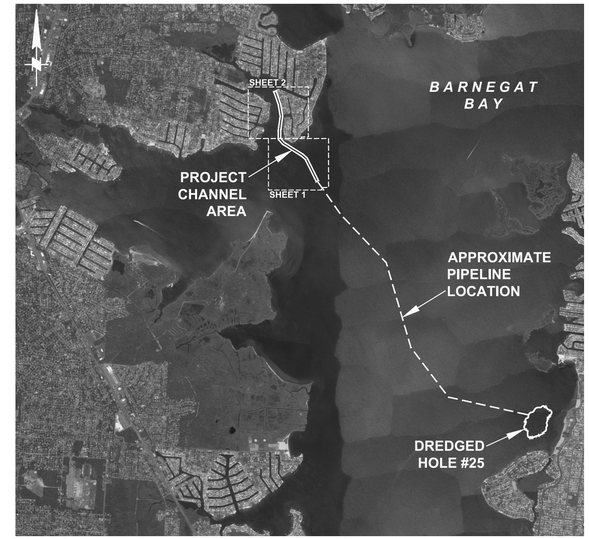
Any person may request, in writing, to the District Engineer, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for a public hearing shall state in writing, with particularity, the reasons for holding a public hearing.

Additional information concerning this permit application may be obtained by contacting Mr. Robert Youhas of my staff at via email at robert.youhas@usace.army.mil, or by phone at 215-656-6729.

Digitally signed by HAYDUK.MICHAEL.H.1228903783
Date: 2020.04.29 12:16:15 -04'00'

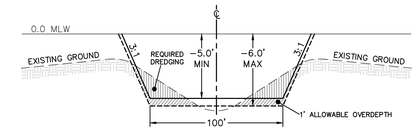
Edward E. Bonner
Chief, Regulatory Branch





PROJECT LOCATION MAP

SCALE: 1" = 3000'



TYPICAL SECTION: ANDREWS POINT CHANNEL STA 0+00.0 to 42+45.0

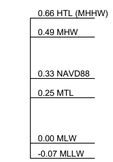
NOT TO SCALE

NOTES:

1. VERTICAL DATUM IS IN REFERENCE TO MEAN LOW WATER (MLW). MLW IS 0.33 FEET BELOW THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88). INFORMATION OBTAINED FROM NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION (NOAA) VDATUM DATUM TRANSFORMATION PROGRAM, VERSION 4.0.1.
2. COORDINATES ARE EXPRESSED IN FEET AND REFER TO THE NEW JERSEY STATE PLANE GRID COORDINATE SYSTEM NORTH AMERICAN DATUM OF 1983 (NAD83).
3. EXISTING SHORELINE (MHWL) & DOCK LOCATIONS ARE BASED ON AERIAL IMAGERY AND SHOULD BE CONSIDERED APPROXIMATE.
4. AERIAL IMAGERY IS FROM GOOGLE MAPS DATED MAY, 2019.

LEGEND

- CHANNEL CENTERLINE
- CHANNEL LIMITS
- APPROXIMATE SHORELINE (MHWL)
- APPROXIMATE PIPELINE LOCATION
- EXISTING ROAD/PAVEMENT
- CHANNEL SAMPLE LOCATION
- HISTORIC RESOURCE AND BUFFER



RANGE OF TIDE (FT)

NOT TO SCALE

GRAPHIC SCALE (FT)

REV.	DATE:	DESCRIPTION	BY	APPR.

GBA ENGINEERS ★ SURVEYORS
9005 Yellow Brick Rd, Unit O
Baltimore, MD 21237
Phone (410) 682-5595
STAN LULEWICZ
NJ PE NO. 24GE04770900

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: ANDREWS POINT CHANNEL
CHANNEL ARRANGEMENT & GEOMETRY PLAN

PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR ANDREWS POINT CHANNEL, SILVER BAY CHANNEL, SILVER BAY ENTRANCE CHANNEL, PIER 1 CHANNEL, BAY SHORE BRIDGE CHANNEL
TOMS RIVER TOWNSHIP
OCEAN COUNTY, NEW JERSEY

DRAWN BY: SEF	WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800	PROJECT NO.	
CHECKED BY: MJM		SHEET	1 OF 30
SCALE: AS SHOWN	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500	DWG. NO.	PERMIT - 01
DATE: APRIL 2020			

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N 428,000

E 600,000

E 601,000

N 428,000

N 427,000

N 427,000

E 600,000

E 601,000

TOMS RIVER TOWNSHIP OCEAN COUNTY

SILVER BAY

ANDREWS POINT CHANNEL

STA 42+45.0

STA 36+83.0

STA 32+09.0

STA 26+78.0

100'

100'

072/073-1

9

10

11

8

12

7

13

6

14

ALDO CT.

ALDO DR.

MARIA DR.

STEPHAN AVE.

ALDO DR.

CHERYL DR.

BAY POINT DR.

CHANNEL RD.

WOODHAVEN

HARBOR VIEW LN.

BLUE HERON DR.

BLUE HERON DR. S

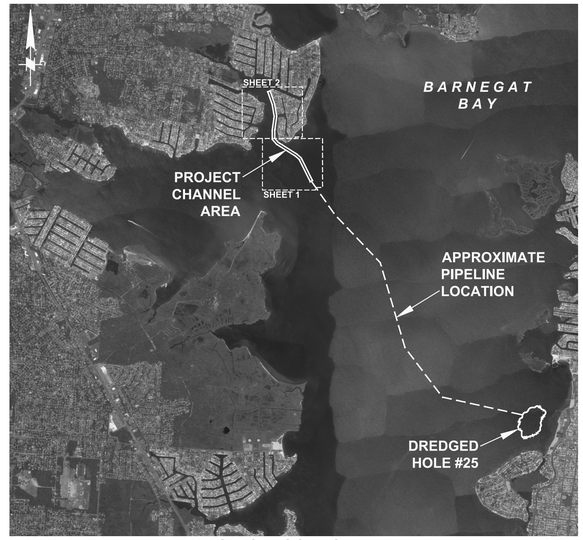
KINGFISHER LN.

OSPREY DR.

BAYVIEW DR.

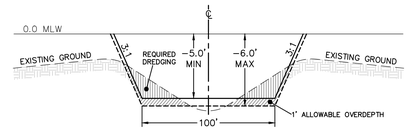
BAYVIEW DR.

MATCHLINE - SEE SHEET 1



PROJECT LOCATION MAP

SCALE: 1" = 3000'



TYPICAL SECTION: ANDREWS POINT CHANNEL STA 0+00.0 to 42+45.0

NOT TO SCALE

NOTES:

1. VERTICAL DATUM IS IN REFERENCE TO MEAN LOW WATER (MLW). MLW IS 0.33 FEET BELOW THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88). INFORMATION OBTAINED FROM NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION (NOAA) VDATUM DATUM TRANSFORMATION PROGRAM, VERSION 4.0.1.
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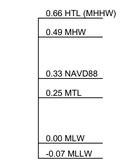
3. EXISTING SHORELINE (MHWL) & DOCK LOCATIONS ARE BASED ON AERIAL IMAGERY AND SHOULD BE CONSIDERED APPROXIMATE.
4. AERIAL IMAGERY IS FROM GOOGLE MAPS DATED MAY, 2019.

LEGEND

- CHANNEL CENTERLINE
- CHANNEL LIMITS
- APPROXIMATE SHORELINE (MHWL)
- APPROXIMATE PIPELINE LOCATION
- EXISTING ROAD/PAVEMENT
- CHANNEL SAMPLE LOCATION
- HISTORIC RESOURCE AND BUFFER



RANGE OF TIDE (FT)

NOT TO SCALE

GRAPHIC SCALE (FT)

REV.	DATE:	DESCRIPTION	BY	APPR.

GBA ENGINEERS ◆ SURVEYORS
9008 Yellow Brick Rd, Unit O
Baltimore, MD 21237
Phone (410) 682-5095

STAN LULEWICZ

NJ PE NO. 24GE04770900

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: ANDREWS POINT CHANNEL
CHANNEL ARRANGEMENT & GEOMETRY PLAN

PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR ANDREWS POINT CHANNEL, SILVER BAY CHANNEL, SILVER BAY ENTRANCE CHANNEL, PIER 1 CHANNEL, BAY SHORE BRIDGE CHANNEL
TOMS RIVER TOWNSHIP
OCEAN COUNTY, NEW JERSEY

DRAWN BY: SEF	WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800	PROJECT NO.	
CHECKED BY: MJM		SHEET 2 OF 30	
SCALE: AS SHOWN	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500	DWG. NO. PERMIT - 02	
DATE: APRIL 2020			

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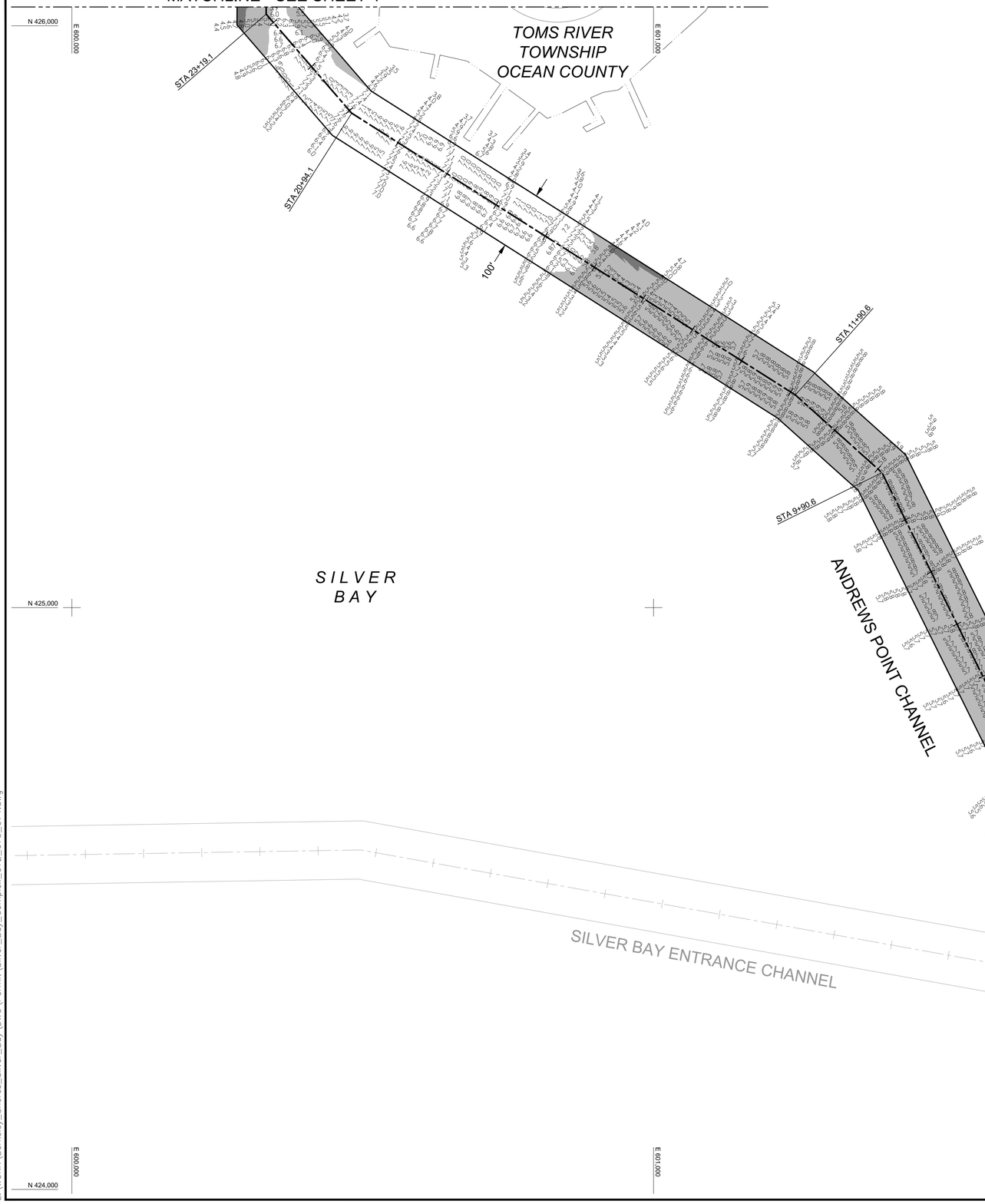

CHANNEL VOLUMES BASED ON JULY 6, 2017
CONDITIONAL SURVEY DATA

	ANDREWS POINT CHANNEL 0+00.0 to 42+45.0
TEMPLATE (-5 MLW)	630
OVERDEPTH (-6 MLW)	5,055
TOTAL (CY)	5,685

NOTES:

1. VERTICAL DATUM IS IN REFERENCE TO MEAN LOW WATER (MLW). MLW IS 0.33 FEET BELOW THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88). INFORMATION OBTAINED FROM NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION (NOAA) VDATUM DATUM TRANSFORMATION PROGRAM, VERSION 4.0.1.
2. COORDINATES ARE EXPRESSED IN FEET AND REFER TO THE NEW JERSEY STATE PLANE GRID COORDINATE SYSTEM NORTH AMERICAN DATUM OF 1983 (NAD83).
3. CONDITIONAL (CND) SOUNDING DATA SHOWN WAS COLLECTED ON JULY 6, 2017 BY GAHAGAN & BRYANT ASSOCIATES (GBA) AND INDICATES DEPTH BELOW MLW.
4. THE INFORMATION DEPICTED ON THIS PLAN REPRESENTS THE RESULTS OF SURVEYS CONDUCTED ON THE ABOVE DATES AND SHOULD BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
5. EXISTING SHORELINE, DOCK, & PILING LOCATIONS BASED ON GOOGLE MAPS AERIAL IMAGERY DATED MAY, 2019 AND SHOULD BE CONSIDERED APPROXIMATE.

LEGEND

- CHANNEL CENTERLINE
- CHANNEL LIMITS
- APPROXIMATE SHORELINE (MHWL)
- APPROXIMATE PIPELINE LOCATION
- EXISTING ROAD/PAVEMENT
- CHANNEL SAMPLE LOCATION
- HISTORIC RESOURCE AND BUFFER
- AREA PRESENTLY ABOVE TEMPLATE (ABOVE ELEV. −5 MLW)
- AREA PRESENTLY ABOVE OVERDEPTH (BETWEEN ELEV. −6 & −5 MLW)

RANGE OF TIDE (FT)
NOT TO SCALE

0.66 HTL (MHHW)
0.49 MHW
0.33 NAVD88
0.25 MTL
0.00 MLW
-0.07 MLLW

0' 100' 200' 400'
GRAPHIC SCALE (FT)

GBA ENGINEERS ★ SURVEYORS
9008 Yellow Brick Rd, Unit O
Baltimore, MD 21237
Phone (410) 682-5595
STAN LULEWICZ
NJ PE NO. 24GE04770900

REV.	DATE:	DESCRIPTION	BY	APPR.

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: ANDREWS POINT CHANNEL
CHANNEL BATHYMETRY PLAN

PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR ANDREWS POINT CHANNEL, SILVER BAY CHANNEL, SILVER BAY ENTRANCE CHANNEL, PIER 1 CHANNEL, BAY SHORE BRIDGE CHANNEL
TOMS RIVER TOWNSHIP
OCEAN COUNTY, NEW JERSEY

DRAWN BY: SEF	WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800	PROJECT NO.
CHECKED BY: MJM		SHEET 3 OF 30
SCALE: AS SHOWN	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500	
DATE: APRIL 2020		DWG. NO. PERMIT - 03

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CHANNEL VOLUMES BASED ON JULY 6, 2017
CONDITIONAL SURVEY DATA

	ANDREWS POINT CHANNEL 0+00.0 to 42+45.0
TEMPLATE (-5 MLW)	630
OVERDEPTH (-6 MLW)	5,055
TOTAL (CY)	5,685

NOTES:

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LEGEND

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- CHANNEL LIMITS
- APPROXIMATE SHORELINE (MHWL)
- APPROXIMATE PIPELINE LOCATION
- EXISTING ROAD/PAVEMENT
- CHANNEL SAMPLE LOCATION
- HISTORIC RESOURCE AND BUFFER
- AREA PRESENTLY ABOVE TEMPLATE (ABOVE ELEV. −5 MLW)
- AREA PRESENTLY ABOVE OVERDEPTH (BETWEEN ELEV. −6 & −5 MLW)

RANGE OF TIDE (FT)
NOT TO SCALE

0.66 HTL (MHHW)
0.49 MHW
0.33 NAVD88
0.25 MTL
0.00 MLW
-0.07 MLLW

0' 100' 200' 400'
GRAPHIC SCALE (FT)

REV.	DATE:	DESCRIPTION	BY	APPR.

GBA ENGINEERS ★ SURVEYORS
9008 Yellow Brick Rd, Unit Q
Baltimore, MD 21237
Phone (410) 882-5595

STAN LULEWICZ
NJ PE NO. 24GE04770900

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

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CHECKED BY: MJM		SHEET 4 OF 30	
SCALE: AS SHOWN	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500	DWG. NO. PERMIT - 04	
DATE: APRIL 2020			

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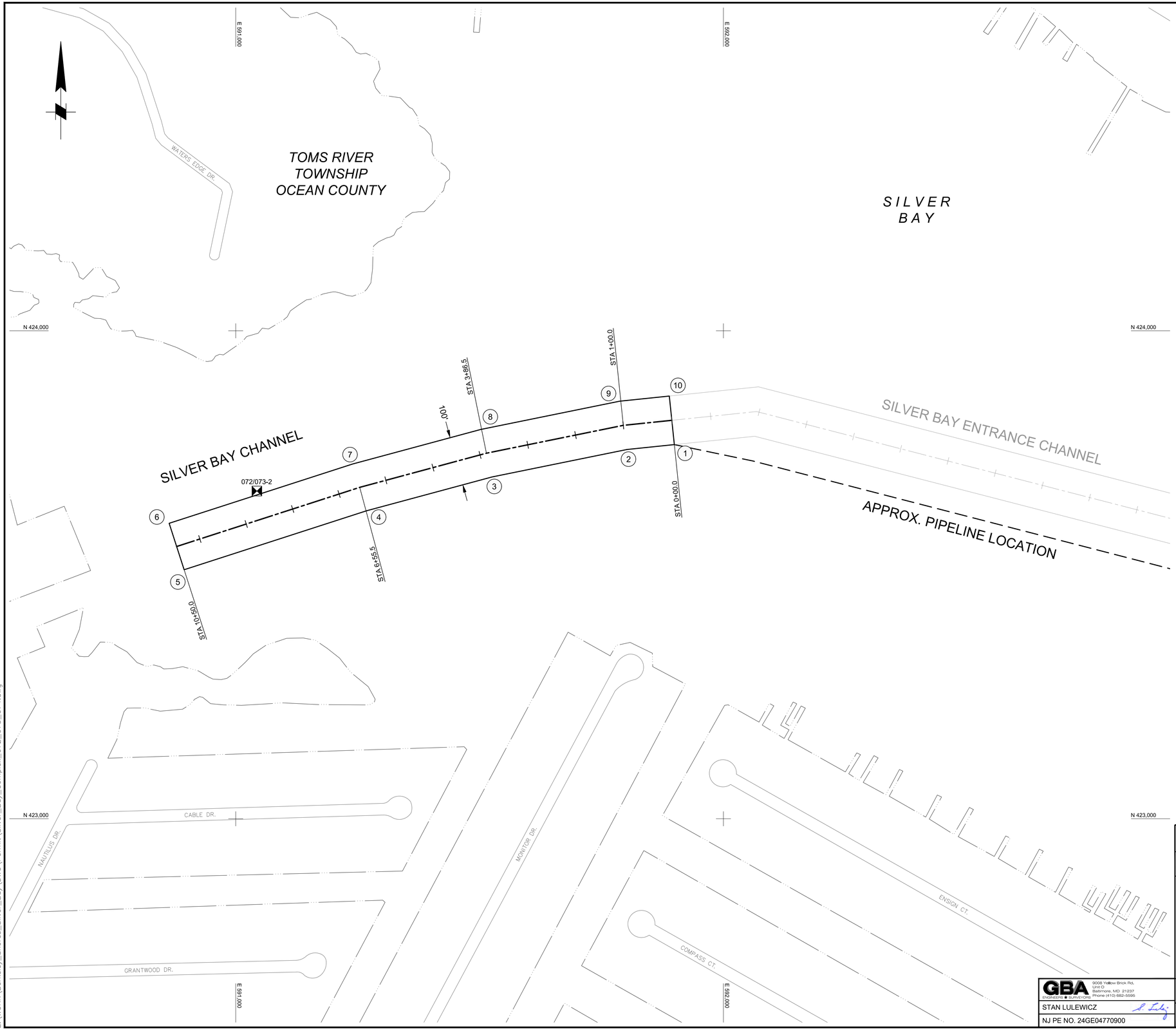
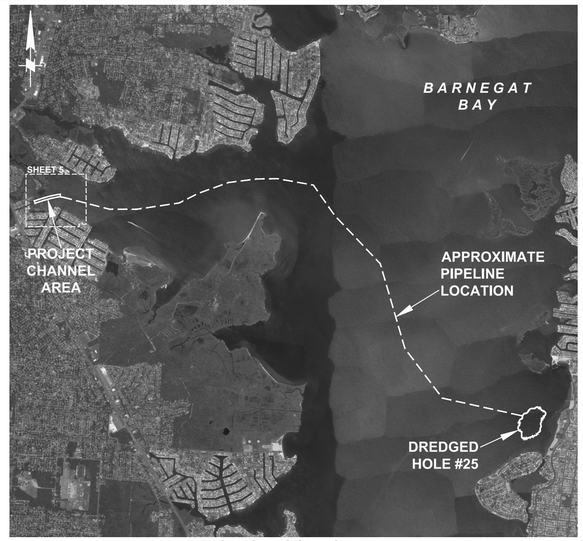
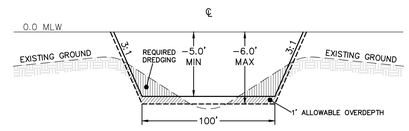




PROJECT LOCATION MAP
SCALE: 1" = 3000'



TYPICAL SECTION: SILVER BAY CHANNEL STA 0+00.0 to 10+50.0
NOT TO SCALE

NOTES:

1. VERTICAL DATUM IS IN REFERENCE TO MEAN LOW WATER (MLW). MLW IS 0.34 FEET BELOW THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88). INFORMATION OBTAINED FROM NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION (NOAA) VDATUM DATUM TRANSFORMATION PROGRAM, VERSION 4.0.1.
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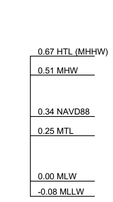

RANGE OF TIDE (FT)
NOT TO SCALE

- CHANNEL CENTERLINE
- CHANNEL LIMITS
- APPROXIMATE SHORELINE (MHWL)
- APPROXIMATE PIPELINE LOCATION
- EXISTING ROAD/PAVEMENT
- # CHANNEL SAMPLE LOCATION
- HISTORIC RESOURCE AND BUFFER

0' 100' 200' 400'
GRAPHIC SCALE (FT)

GBA ENGINEERS ★ SURVEYORS
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STAN LULEWICZ
NJ PE NO. 24GE04770900

REV.	DATE:	DESCRIPTION	BY	APPR.

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: SILVER BAY CHANNEL
CHANNEL ARRANGEMENT & GEOMETRY PLAN

PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR ANDREWS POINT CHANNEL, SILVER BAY CHANNEL, SILVER BAY ENTRANCE CHANNEL, PIER 1 CHANNEL, BAY SHORE BRIDGE CHANNEL
TOMS RIVER TOWNSHIP
OCEAN COUNTY, NEW JERSEY

DRAWN BY: SEF	WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800	PROJECT NO.	
CHECKED BY: MJM		SHEET 5 OF 30	
SCALE: AS SHOWN	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500	DWG. NO. PERMIT - 05	
DATE: APRIL 2020			

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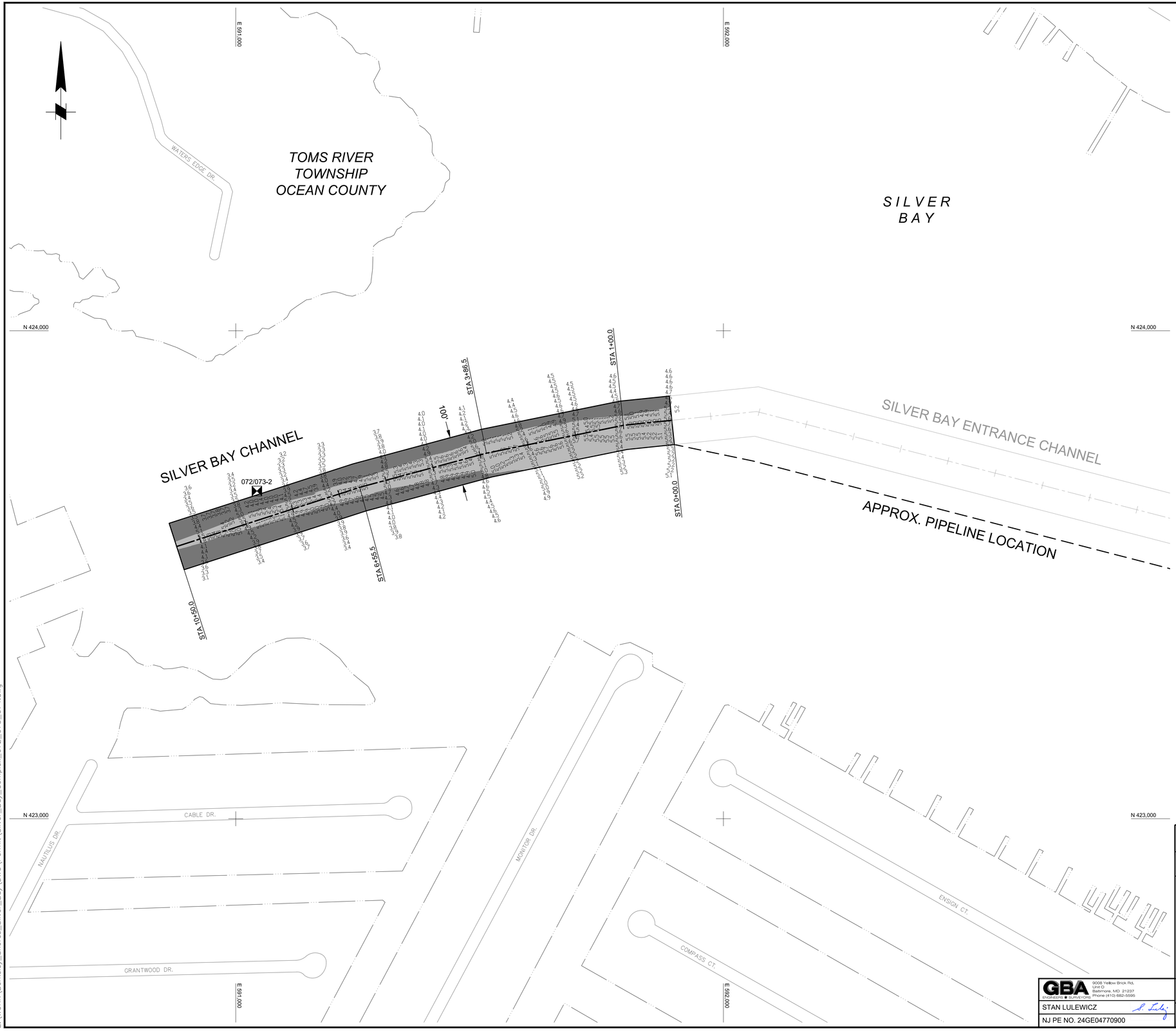

CHANNEL VOLUMES BASED ON JULY 6, 2017
CONDITIONAL SURVEY DATA

	SILVER BAY CHANNEL 0+00.0 to 10+50.0
TEMPLATE (-5 MLW)	1,095
OVERDEPTH (-6 MLW)	2,875
TOTAL (CY)	3,970

NOTES:

1. VERTICAL DATUM IS IN REFERENCE TO MEAN LOW WATER (MLW). MLW IS 0.34 FEET BELOW THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88). INFORMATION OBTAINED FROM NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION (NOAA) VDATUM DATUM TRANSFORMATION PROGRAM, VERSION 4.0.1.
2. COORDINATES ARE EXPRESSED IN FEET AND REFER TO THE NEW JERSEY STATE PLANE GRID COORDINATE SYSTEM NORTH AMERICAN DATUM OF 1983 (NAD83).
3. CONDITIONAL (CND) SOUNDING DATA SHOWN WAS COLLECTED ON JULY 6, 2017 BY GAHAGAN & BRYANT ASSOCIATES (GBA) AND INDICATES DEPTH BELOW MLW.
4. THE INFORMATION DEPICTED ON THIS PLAN REPRESENTS THE RESULTS OF SURVEYS CONDUCTED ON THE ABOVE DATES AND SHOULD BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
5. EXISTING SHORELINE, DOCK, & PILING LOCATIONS BASED ON GOOGLE MAPS AERIAL IMAGERY DATED MAY, 2019 AND SHOULD BE CONSIDERED APPROXIMATE.

LEGEND

- CHANNEL CENTERLINE
- CHANNEL LIMITS
- APPROXIMATE SHORELINE (MHWL)
- APPROXIMATE PIPELINE LOCATION
- EXISTING ROAD/PAVEMENT
- CHANNEL SAMPLE LOCATION
- HISTORIC RESOURCE AND BUFFER
- AREA PRESENTLY ABOVE TEMPLATE (ABOVE ELEV. −5 MLW)
- AREA PRESENTLY ABOVE OVERDEPTH (BETWEEN ELEV. −6 & −5 MLW)

RANGE OF TIDE (FT)
NOT TO SCALE

0.67 HTL (MHHW)
0.51 MHW
0.34 NAVD88
0.25 MTL
0.00 MLW
-0.08 MLLW

0' 100' 200' 400'
GRAPHIC SCALE (FT)

GBA ENGINEERS ■ SURVEYORS
9008 Yellow Brick Rd, Unit O
Baltimore, MD 21237
Phone (410) 662-5595
STAN LULEWICZ
NJ PE NO. 24GE04770900

REV.	DATE:	DESCRIPTION	BY	APPR.

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: SILVER BAY CHANNEL
CHANNEL BATHYMETRY PLAN

PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR ANDREWS POINT CHANNEL, SILVER BAY CHANNEL, SILVER BAY ENTRANCE CHANNEL, PIER 1 CHANNEL, BAY SHORE BRIDGE CHANNEL
TOMS RIVER TOWNSHIP
OCEAN COUNTY, NEW JERSEY

DRAWN BY: SEF	WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800	PROJECT NO.
CHECKED BY: MJM		SHEET 6 OF 30
SCALE: AS SHOWN	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500	DWG. NO. PERMIT - 06
DATE: APRIL 2020		

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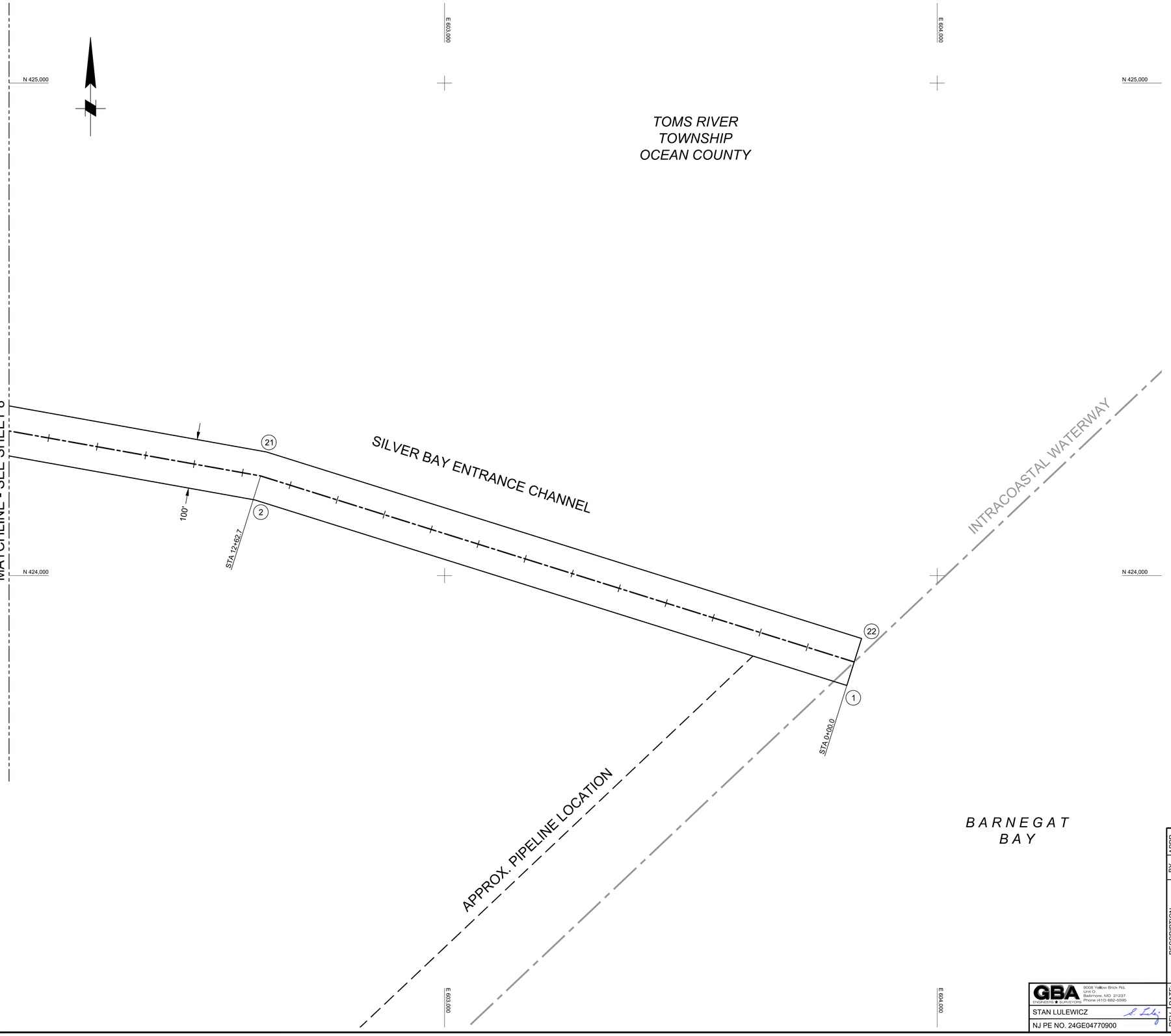
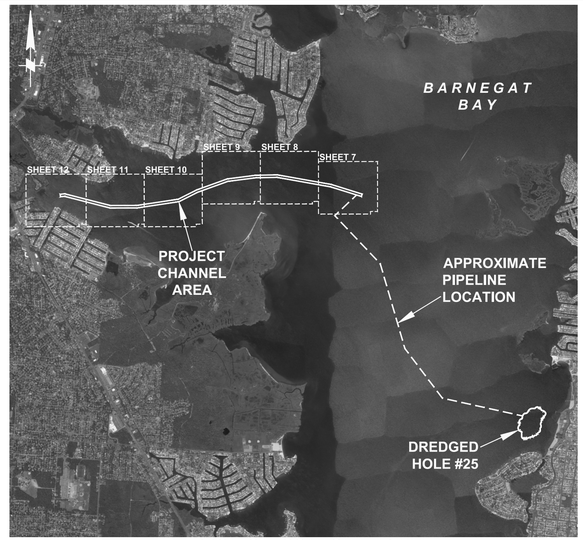
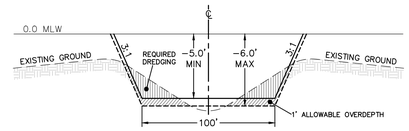




PROJECT LOCATION MAP

SCALE: 1" = 3000'



TYPICAL SECTION: SILVER BAY ENTRANCE CHANNEL STA 0+00.0 to 122+80.0

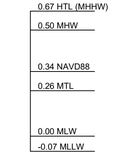
NOT TO SCALE

NOTES:

1. VERTICAL DATUM IS IN REFERENCE TO MEAN LOW WATER (MLW). MLW IS 0.34 FEET BELOW THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88). INFORMATION OBTAINED FROM NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION (NOAA) VDATUM DATUM TRANSFORMATION PROGRAM, VERSION 4.0.1.
2. COORDINATES ARE EXPRESSED IN FEET AND REFER TO THE NEW JERSEY STATE PLANE GRID COORDINATE SYSTEM NORTH AMERICAN DATUM OF 1983 (NAD83).
3. EXISTING SHORELINE (MHWL) & DOCK LOCATIONS ARE BASED ON AERIAL IMAGERY AND SHOULD BE CONSIDERED APPROXIMATE.
4. AERIAL IMAGERY IS FROM GOOGLE MAPS DATED MAY, 2019.

LEGEND

- CHANNEL CENTERLINE
- CHANNEL LIMITS
- APPROXIMATE SHORELINE (MHWL)
- APPROXIMATE PIPELINE LOCATION
- EXISTING ROAD/PAVEMENT
- CHANNEL SAMPLE LOCATION
- HISTORIC RESOURCE AND BUFFER



RANGE OF TIDE (FT)

NOT TO SCALE

GRAPHIC SCALE (FT)

GBA ENGINEERS ◆ SURVEYORS
9008 Yellow Brick Rd, Unit O
Baltimore, MD 21237
Phone (410) 882-5095
STAN LULEWICZ
NJ PE NO. 24GE04770900

REV.	DATE	DESCRIPTION	BY	APPR.

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: SILVER BAY ENTRANCE CHANNEL
CHANNEL ARRANGEMENT & GEOMETRY PLAN

PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR ANDREWS POINT CHANNEL, SILVER BAY CHANNEL, SILVER BAY ENTRANCE CHANNEL, PIER 1 CHANNEL, BAY SHORE BRIDGE CHANNEL
TOMS RIVER TOWNSHIP
OCEAN COUNTY, NEW JERSEY

DRAWN BY: SEF	WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800	PROJECT NO.	
CHECKED BY: MJM		SHEET 7 OF 30	
SCALE: AS SHOWN	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500	DWG. NO. PERMIT - 07	
DATE: APRIL 2020			

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E 600,000

E 601,000

E 602,000

N 425,000

TOMS RIVER
TOWNSHIP
OCEAN COUNTY

ANDREWS POINT CHANNEL

MATCHLINE - SEE SHEET 9

20

3

100'

STA 34+27.0

SILVER BAY ENTRANCE CHANNEL

100'

MATCHLINE - SEE SHEET 7

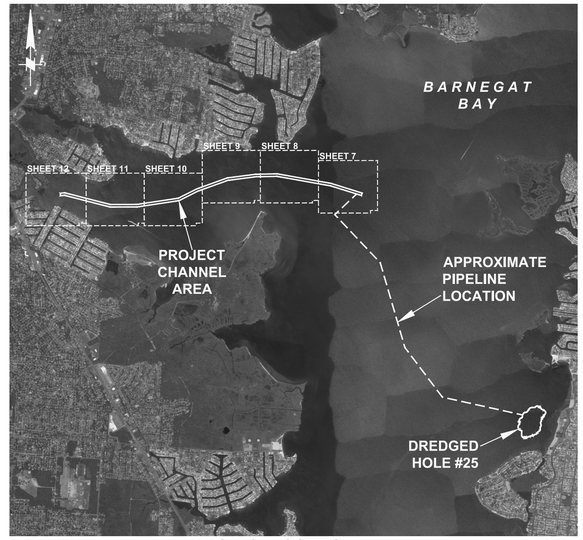
N 424,000

SILVER
BAY

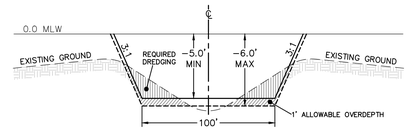
E 600,000

E 601,000

E 602,000



PROJECT LOCATION MAP
SCALE: 1" = 3000'



TYPICAL SECTION: SILVER BAY ENTRANCE CHANNEL STA 0+00.0 to 122+80.0
NOT TO SCALE

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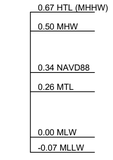
LEGEND

- CHANNEL CENTERLINE
- CHANNEL LIMITS
- APPROXIMATE SHORELINE (MHWL)
- APPROXIMATE PIPELINE LOCATION
- EXISTING ROAD/PAVEMENT
- CHANNEL SAMPLE LOCATION
- HISTORIC RESOURCE AND BUFFER



RANGE OF TIDE (FT)
NOT TO SCALE

GRAPHIC SCALE (FT)

REV.	DATE:	DESCRIPTION	BY	APPR.

GBA
ENGINEERS ★ SURVEYORS
9008 Yellow Brick Rd, Unit O
Baltimore, MD. 21237
Phone (410) 682-5585

STAN LULEWICZ
NJ PE NO. 24GE04770900

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: SILVER BAY ENTRANCE CHANNEL
CHANNEL ARRANGEMENT & GEOMETRY PLAN

PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR ANDREWS POINT CHANNEL, SILVER BAY CHANNEL, SILVER BAY ENTRANCE CHANNEL, PIER 1 CHANNEL, BAY SHORE BRIDGE CHANNEL
TOMS RIVER TOWNSHIP
OCEAN COUNTY, NEW JERSEY

DRAWN BY: SEF	WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800	PROJECT NO.	
CHECKED BY: MJM		SHEET 8 OF 30	
SCALE: AS SHOWN	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500	DWG. NO. PERMIT - 08	
DATE: APRIL 2020			

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E 598,000

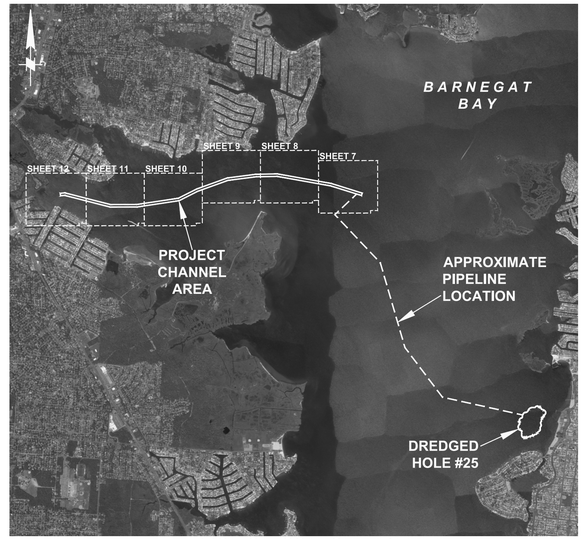
E 599,000

TOMS RIVER
TOWNSHIP
OCEAN COUNTY

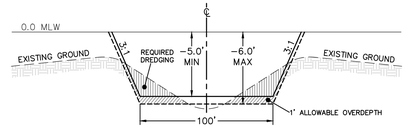
N 425,000

N 425,000

MATCHLINE - SEE SHEET 8



PROJECT LOCATION MAP
SCALE: 1" = 3000'



TYPICAL SECTION: SILVER BAY ENTRANCE CHANNEL STA 0+00.0 to 122+80.0
NOT TO SCALE

SILVER BAY ENTRANCE CHANNEL

100'

19

18

5

4

STA 54+02.3

STA 42+67.8

100'

N 424,000

N 424,000

MATCHLINE - SEE SHEET 10

E 598,000

E 599,000

SILVER
BAY

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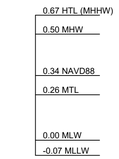
- CHANNEL SAMPLE LOCATION
- HISTORIC RESOURCE AND BUFFER



RANGE OF TIDE (FT)
NOT TO SCALE

GRAPHIC SCALE (FT)

REV.	DATE:	DESCRIPTION	BY	APPR.

GBA ENGINEERS ★ SURVEYORS
9008 Yellow Brick Rd, Unit O
Baltimore, MD 21237
Phone (410) 882-5595

STAN LULEWICZ

NJ PE NO. 24GE04770900

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: SILVER BAY ENTRANCE CHANNEL
CHANNEL ARRANGEMENT & GEOMETRY PLAN

PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR ANDREWS POINT CHANNEL, SILVER BAY CHANNEL, SILVER BAY ENTRANCE CHANNEL, PIER 1 CHANNEL, BAY SHORE BRIDGE CHANNEL
TOMS RIVER TOWNSHIP
OCEAN COUNTY, NEW JERSEY

DRAWN BY: SEF	WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800	PROJECT NO.	
CHECKED BY: MJM		SHEET 9 OF 30	
SCALE: AS SHOWN	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500	DWG. NO. PERMIT - 09	
DATE: APRIL 2020			

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E 696,000

E 697,000

TOMS RIVER
TOWNSHIP
OCEAN COUNTY

N 424,000

MATCHLINE - SEE SHEET 9

17

6

100'

STA 69+73.2

16

7

STA 73+24.1

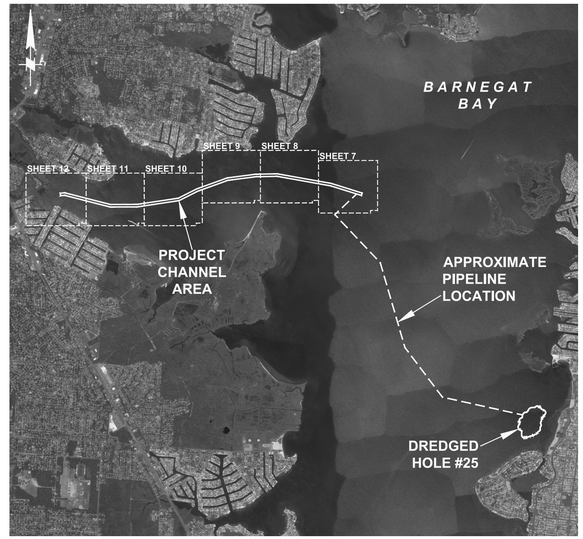
100'

SILVER BAY ENTRANCE CHANNEL

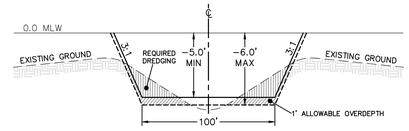
MATCHLINE - SEE SHEET 11

N 423,000

SILVER
BAY



PROJECT LOCATION MAP
SCALE: 1" = 3000'



TYPICAL SECTION: SILVER BAY ENTRANCE CHANNEL STA 0+00.0 to 122+80.0
NOT TO SCALE

NOTES:

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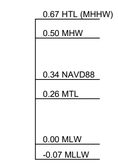
LEGEND

- CHANNEL CENTERLINE
- CHANNEL LIMITS
- APPROXIMATE SHORELINE (MHWL)
- APPROXIMATE PIPELINE LOCATION
- EXISTING ROAD/PAVEMENT
- CHANNEL SAMPLE LOCATION
- HISTORIC RESOURCE AND BUFFER



RANGE OF TIDE (FT)
NOT TO SCALE

GRAPHIC SCALE (FT)

GBA ENGINEERS ★ SURVEYORS
9008 Yellow Brick Rd, Unit O
Baltimore, MD 21237
Phone (410) 682-5595
STAN LULEWICZ
NJ PE NO. 24GE04770900

REV.	DATE:	DESCRIPTION	BY	APPR.

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: SILVER BAY ENTRANCE CHANNEL
CHANNEL ARRANGEMENT & GEOMETRY PLAN

PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR ANDREWS POINT CHANNEL, SILVER BAY CHANNEL, SILVER BAY ENTRANCE CHANNEL, PIER 1 CHANNEL, BAY SHORE BRIDGE CHANNEL
TOMS RIVER TOWNSHIP
OCEAN COUNTY, NEW JERSEY

DRAWN BY: SEF	WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800	PROJECT NO.
CHECKED BY: MJM		SHEET 10 OF 30
SCALE: AS SHOWN	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500	DWG. NO. PERMIT - 10
DATE: APRIL 2020		

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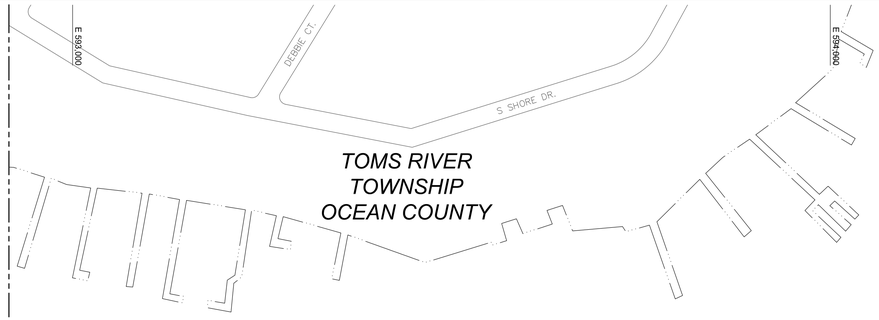
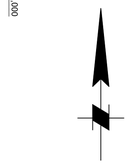
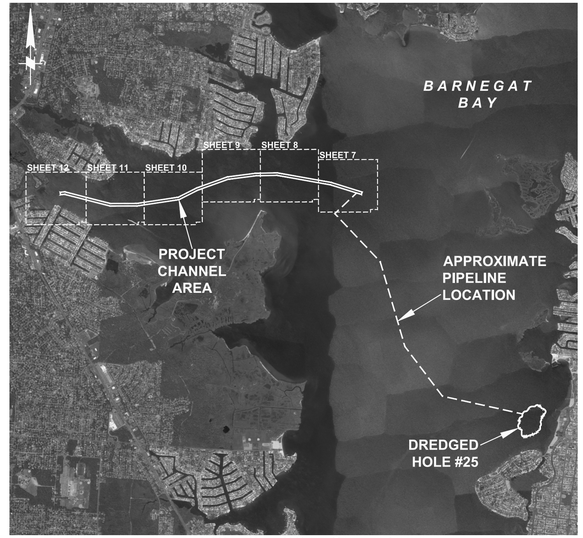
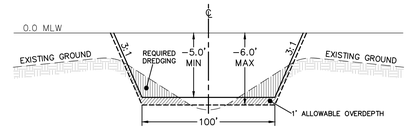


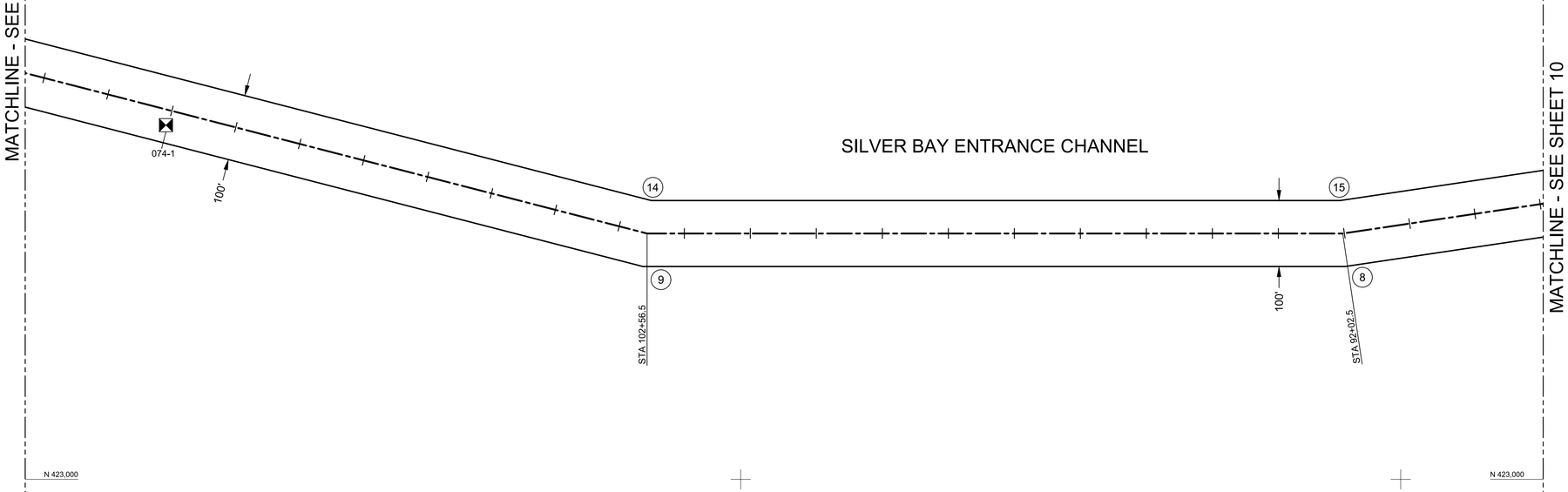




PROJECT LOCATION MAP
SCALE: 1" = 3000'



TYPICAL SECTION: SILVER BAY ENTRANCE CHANNEL STA 0+00.0 to 122+80.0
NOT TO SCALE



NOTES:

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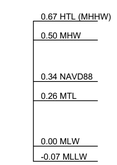
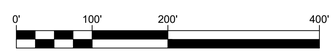
LEGEND

- CHANNEL CENTERLINE
- CHANNEL LIMITS
- APPROXIMATE SHORELINE (MHWL)
- APPROXIMATE PIPELINE LOCATION
- EXISTING ROAD/PAVEMENT
- CHANNEL SAMPLE LOCATION
- HISTORIC RESOURCE AND BUFFER



RANGE OF TIDE (FT)
NOT TO SCALE



GRAPHIC SCALE (FT)

GBA ENGINEERS ★ SURVEYORS
9008 Yellow Brick Rd, Unit O
Baltimore, MD 21237
Phone (410) 682-5595
STAN LULEWICZ
NJ PE NO. 24GE04770900

REV.	DATE:	DESCRIPTION	BY	APPR.

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: SILVER BAY ENTRANCE CHANNEL
CHANNEL ARRANGEMENT & GEOMETRY PLAN

PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR ANDREWS POINT CHANNEL, SILVER BAY CHANNEL, SILVER BAY ENTRANCE CHANNEL, PIER 1 CHANNEL, BAY SHORE BRIDGE CHANNEL
TOMS RIVER TOWNSHIP
OCEAN COUNTY, NEW JERSEY

DRAWN BY: SEF	WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800	PROJECT NO.
CHECKED BY: MJM		SHEET 11 OF 30
SCALE: AS SHOWN	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500	DWG. NO. PERMIT - 11
DATE: APRIL 2020		

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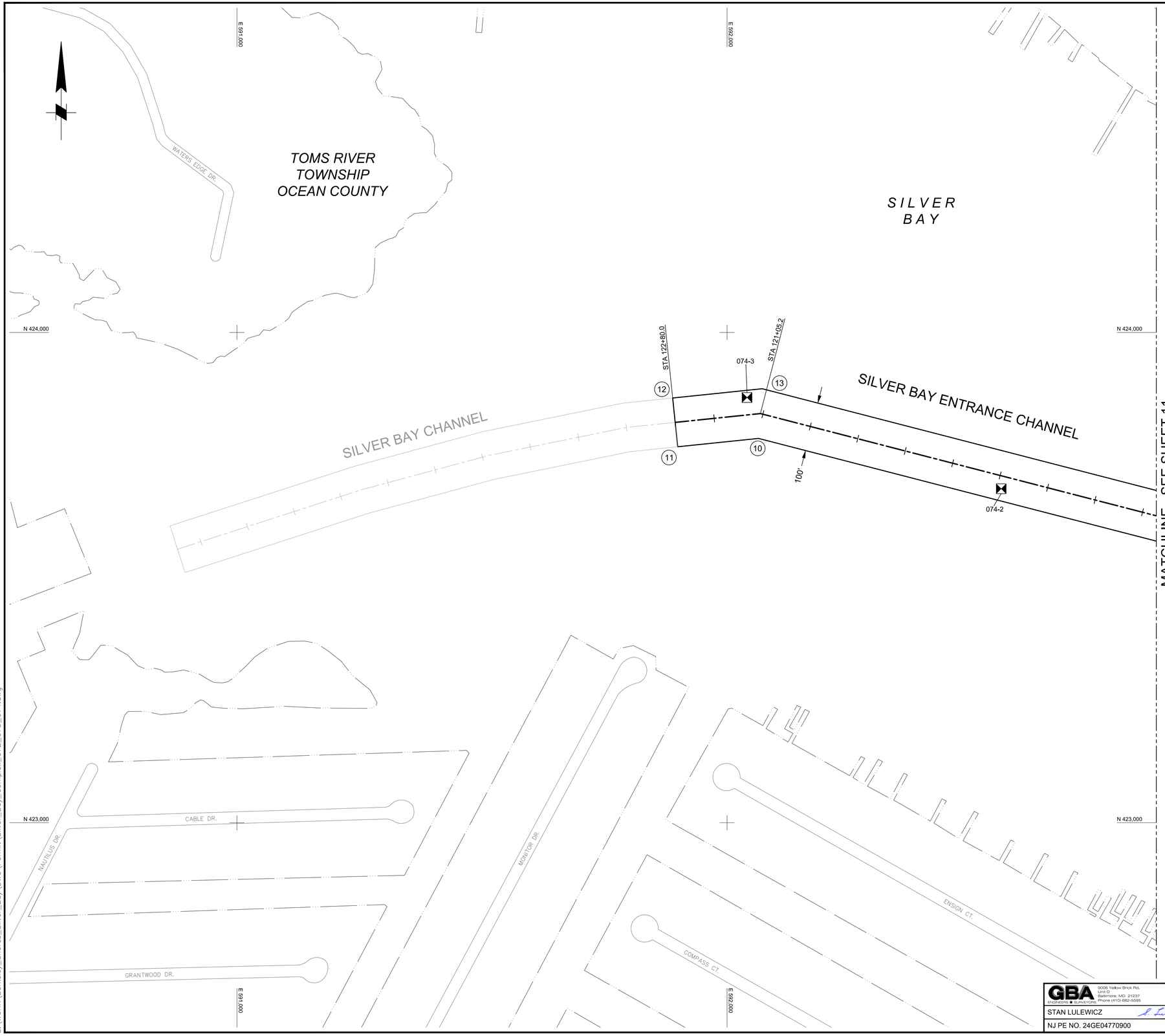
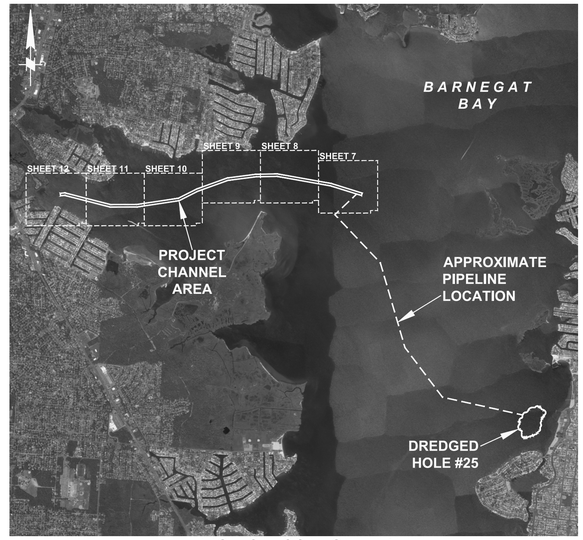
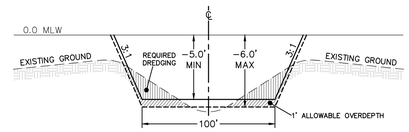




PROJECT LOCATION MAP

SCALE: 1" = 3000'



TYPICAL SECTION: SILVER BAY ENTRANCE CHANNEL STA 0+00.0 to 122+80.0

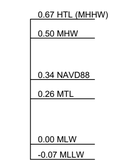
NOT TO SCALE

NOTES:

1. VERTICAL DATUM IS IN REFERENCE TO MEAN LOW WATER (MLW). MLW IS 0.34 FEET BELOW THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88). INFORMATION OBTAINED FROM NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION (NOAA) VDATUM DATUM TRANSFORMATION PROGRAM, VERSION 4.0.1.
2. COORDINATES ARE EXPRESSED IN FEET AND REFER TO THE NEW JERSEY STATE PLANE GRID COORDINATE SYSTEM NORTH AMERICAN DATUM OF 1983 (NAD83).
3. EXISTING SHORELINE (MHWL) & DOCK LOCATIONS ARE BASED ON AERIAL IMAGERY AND SHOULD BE CONSIDERED APPROXIMATE.
4. AERIAL IMAGERY IS FROM GOOGLE MAPS DATED MAY, 2019.

LEGEND

- CHANNEL CENTERLINE
- CHANNEL LIMITS
- APPROXIMATE SHORELINE (MHWL)
- APPROXIMATE PIPELINE LOCATION
- EXISTING ROAD/PAVEMENT
- # CHANNEL SAMPLE LOCATION
- HISTORIC RESOURCE AND BUFFER



RANGE OF TIDE (FT)

NOT TO SCALE

GRAPHIC SCALE (FT)

GBA ENGINEERS ★ SURVEYORS
9008 Yellow Brick Rd, Unit O
Baltimore, MD 21237
Phone (410) 682-5595
STAN LULEWICZ
NJ PE NO. 24GE04770900

REV.	DATE:	DESCRIPTION	BY	APPR.

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: SILVER BAY ENTRANCE CHANNEL
CHANNEL ARRANGEMENT & GEOMETRY PLAN

PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR ANDREWS POINT CHANNEL, SILVER BAY CHANNEL, SILVER BAY ENTRANCE CHANNEL, PIER 1 CHANNEL, BAY SHORE BRIDGE CHANNEL
TOMS RIVER TOWNSHIP
OCEAN COUNTY, NEW JERSEY

DRAWN BY: SEF	WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800	PROJECT NO.	
CHECKED BY: MJM		SHEET 12 OF 30	
SCALE: AS SHOWN	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500		
DATE: APRIL 2020		DWG. NO. PERMIT - 12	

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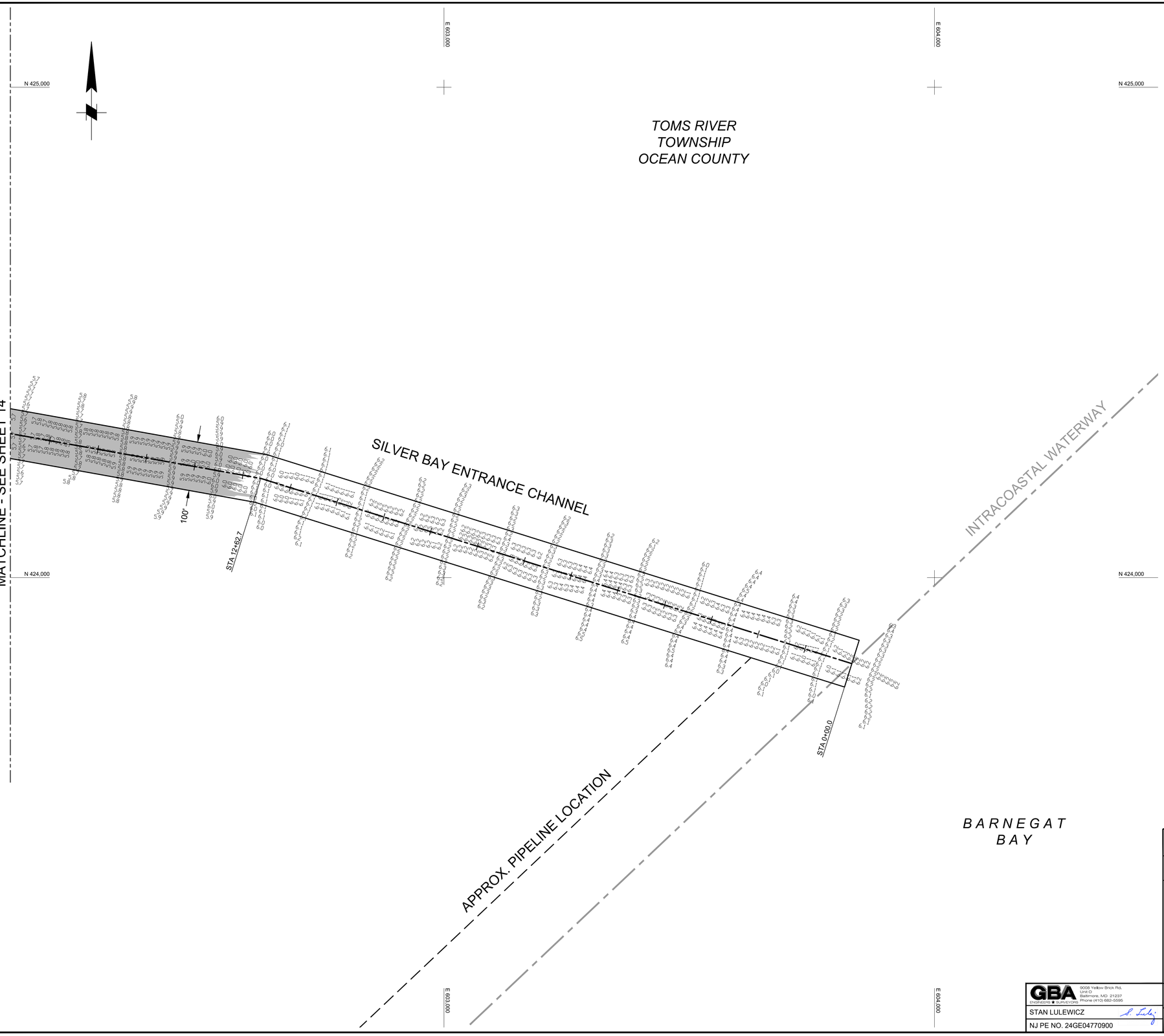

CHANNEL VOLUMES BASED ON JULY 6, 2017
CONDITIONAL SURVEY DATA

	SILVER BAY ENTRANCE CHANNEL 0+00.0 to 122+80.0
TEMPLATE (-5 MLW)	50
OVERDEPTH (-6 MLW)	19,885
TOTAL (CY)	19,935

NOTES:

1. VERTICAL DATUM IS IN REFERENCE TO MEAN LOW WATER (MLW). MLW IS 0.34 FEET BELOW THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88). INFORMATION OBTAINED FROM NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION (NOAA) VDATUM DATUM TRANSFORMATION PROGRAM, VERSION 4.0.1.
2. COORDINATES ARE EXPRESSED IN FEET AND REFER TO THE NEW JERSEY STATE PLANE GRID COORDINATE SYSTEM NORTH AMERICAN DATUM OF 1983 (NAD83).
3. CONDITIONAL (CND) SOUNDING DATA SHOWN WAS COLLECTED ON JULY 6, 2017 BY GAHAGAN & BRYANT ASSOCIATES (GBA) AND INDICATES DEPTH BELOW MLW.
4. THE INFORMATION DEPICTED ON THIS PLAN REPRESENTS THE RESULTS OF SURVEYS CONDUCTED ON THE ABOVE DATES AND SHOULD BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
5. EXISTING SHORELINE, DOCK, & PILING LOCATIONS BASED ON GOOGLE MAPS AERIAL IMAGERY DATED MAY, 2019 AND SHOULD BE CONSIDERED APPROXIMATE.

LEGEND

- CHANNEL CENTERLINE
- CHANNEL LIMITS
- APPROXIMATE SHORELINE (MHWL)
- APPROXIMATE PIPELINE LOCATION
- EXISTING ROAD/PAVEMENT
- CHANNEL SAMPLE LOCATION
- HISTORIC RESOURCE AND BUFFER
- AREA PRESENTLY ABOVE TEMPLATE (ABOVE ELEV. −5 MLW)
- AREA PRESENTLY ABOVE OVERDEPTH (BETWEEN ELEV. −6 & −5 MLW)

0.67 HTL (MHHW)
0.50 MHW
0.34 NAVD88
0.26 MTL
0.00 MLW
-0.07 MLLW

RANGE OF TIDE (FT)
NOT TO SCALE

0' 100' 200' 400'
GRAPHIC SCALE (FT)

GBA ENGINEERS ★ SURVEYORS
9008 Yellow Brick Rd, Unit O
Baltimore, MD 21237
Phone (410) 682-5595
STAN LULEWICZ
NJ PE NO. 24GE04770900

REV.	DATE:	DESCRIPTION	BY	APPR.

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: SILVER BAY ENTRANCE CHANNEL
CHANNEL BATHYMETRY PLAN

PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR ANDREWS POINT CHANNEL, SILVER BAY CHANNEL, SILVER BAY ENTRANCE CHANNEL, PIER 1 CHANNEL, BAY SHORE BRIDGE CHANNEL
TOMS RIVER TOWNSHIP
OCEAN COUNTY, NEW JERSEY

DRAWN BY: SEF	WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800	PROJECT NO.
CHECKED BY: MJM		SHEET 13 OF 30
SCALE: AS SHOWN	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500	DWG. NO. PERMIT - 13
DATE: APRIL 2020		

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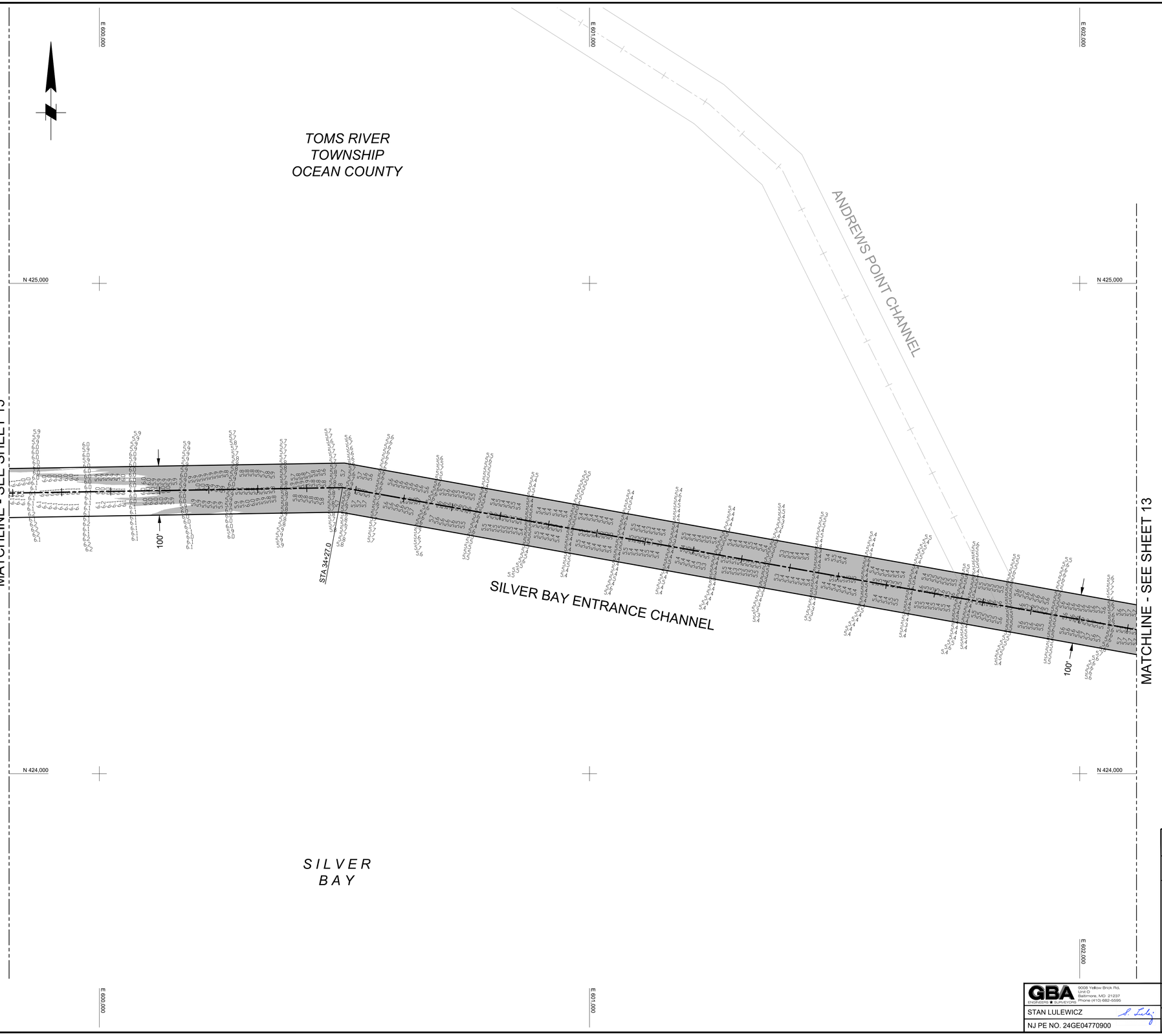

CHANNEL VOLUMES BASED ON JULY 6, 2017
CONDITIONAL SURVEY DATA

	SILVER BAY ENTRANCE CHANNEL 0+00.0 to 122+80.0
TEMPLATE (-5 MLW)	50
OVERDEPTH (-6 MLW)	19,885
TOTAL (CY)	19,935

NOTES:

1. VERTICAL DATUM IS IN REFERENCE TO MEAN LOW WATER (MLW). MLW IS 0.34 FEET BELOW THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88). INFORMATION OBTAINED FROM NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION (NOAA) VDATUM DATUM TRANSFORMATION PROGRAM, VERSION 4.0.1.
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5. EXISTING SHORELINE, DOCK, & PILING LOCATIONS BASED ON GOOGLE MAPS AERIAL IMAGERY DATED MAY, 2019 AND SHOULD BE CONSIDERED APPROXIMATE.

LEGEND

- CHANNEL CENTERLINE
- CHANNEL LIMITS
- APPROXIMATE SHORELINE (MHWL)
- APPROXIMATE PIPELINE LOCATION
- EXISTING ROAD/PAVEMENT
- CHANNEL SAMPLE LOCATION
- HISTORIC RESOURCE AND BUFFER
- AREA PRESENTLY ABOVE TEMPLATE (ABOVE ELEV. −5 MLW)
- AREA PRESENTLY ABOVE OVERDEPTH (BETWEEN ELEV. −6 & −5 MLW)

RANGE OF TIDE (FT)
NOT TO SCALE

0.67 HTL (MHHW)
0.50 MHW
0.34 NAVD88
0.26 MTL
0.00 MLW
-0.07 MLLW

0' 100' 200' 400'
GRAPHIC SCALE (FT)

REV.	DATE:	DESCRIPTION	BY	APPR.

GBA ENGINEERS ★ SURVEYORS
9008 Yellow Brick Rd, Unit O
Baltimore, MD 21237
Phone (410) 682-5595
STAN LULEWICZ
NJ PE NO. 24GE04770900

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: SILVER BAY ENTRANCE CHANNEL
CHANNEL BATHYMETRY PLAN

PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR ANDREWS POINT CHANNEL, SILVER BAY CHANNEL, SILVER BAY ENTRANCE CHANNEL, PIER 1 CHANNEL, BAY SHORE BRIDGE CHANNEL
TOMS RIVER TOWNSHIP
OCEAN COUNTY, NEW JERSEY

DRAWN BY: SEF	WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800	PROJECT NO.
CHECKED BY: MJM		SHEET 14 OF 30
SCALE: AS SHOWN	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500	DWG. NO. PERMIT - 14
DATE: APRIL 2020		

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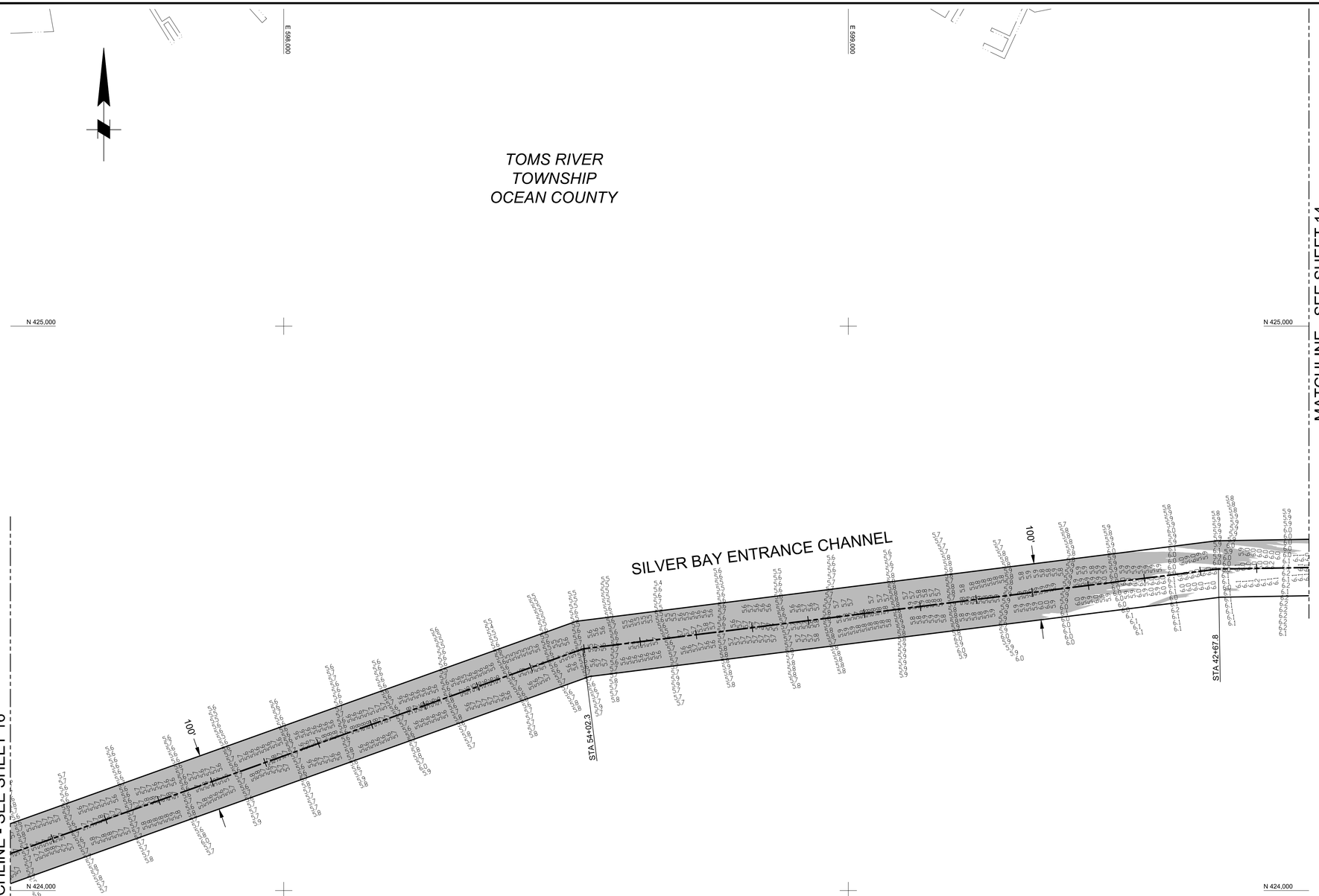

CHANNEL VOLUMES BASED ON JULY 6, 2017
CONDITIONAL SURVEY DATA

	SILVER BAY ENTRANCE CHANNEL 0+00.0 to 122+80.0
TEMPLATE (-5 MLW)	50
OVERDEPTH (-6 MLW)	19,885
TOTAL (CY)	19,935

NOTES:

1. VERTICAL DATUM IS IN REFERENCE TO MEAN LOW WATER (MLW). MLW IS 0.34 FEET BELOW THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88). INFORMATION OBTAINED FROM NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION (NOAA) VDATUM DATUM TRANSFORMATION PROGRAM, VERSION 4.0.1.
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5. EXISTING SHORELINE, DOCK, & PILING LOCATIONS BASED ON GOOGLE MAPS AERIAL IMAGERY DATED MAY, 2019 AND SHOULD BE CONSIDERED APPROXIMATE.

LEGEND

- CHANNEL CENTERLINE
- CHANNEL LIMITS
- APPROXIMATE SHORELINE (MHWL)
- APPROXIMATE PIPELINE LOCATION
- EXISTING ROAD/PAVEMENT
- CHANNEL SAMPLE LOCATION
- HISTORIC RESOURCE AND BUFFER
- AREA PRESENTLY ABOVE TEMPLATE (ABOVE ELEV. −5 MLW)
- AREA PRESENTLY ABOVE OVERDEPTH (BETWEEN ELEV. −6 & −5 MLW)

RANGE OF TIDE (FT)
NOT TO SCALE

0.67 HTL (MHHW)
0.50 MHW
0.34 NAVD88
0.26 MTL
0.00 MLW
-0.07 MLLW

0' 100' 200' 400'
GRAPHIC SCALE (FT)

REV.	DATE:	DESCRIPTION	BY	APPR.

GBA ENGINEERS ★ SURVEYORS
9008 Yellow Brick Rd, Unit D, Baltimore, MD 21237 Phone (410) 682-5595

STAN LULEWICZ
NJ PE NO. 24GE04770900

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: SILVER BAY ENTRANCE CHANNEL
CHANNEL BATHYMETRY PLAN

PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR ANDREWS POINT CHANNEL, SILVER BAY CHANNEL, SILVER BAY ENTRANCE CHANNEL, PIER 1 CHANNEL, BAY SHORE BRIDGE CHANNEL
TOMS RIVER TOWNSHIP
OCEAN COUNTY, NEW JERSEY

DRAWN BY: SEF	WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800	PROJECT NO.
CHECKED BY: MJM		SHEET 15 OF 30
SCALE: AS SHOWN	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500	DWG. NO. PERMIT - 15
DATE: APRIL 2020		

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E 696,000

E 697,000

N 424,000

TOMS RIVER
TOWNSHIP
OCEAN COUNTY

MATCHLINE - SEE SHEET 15

100'

STA 68+73.2

STA 15+24.1

SILVER BAY ENTRANCE CHANNEL

MATCHLINE - SEE SHEET 17

N 423,000

SILVER
BAY

CHANNEL VOLUMES BASED ON JULY 6, 2017
CONDITIONAL SURVEY DATA

	SILVER BAY ENTRANCE CHANNEL 0+00.0 to 122+80.0
TEMPLATE (-5 MLW)	50
OVERDEPTH (-6 MLW)	19,885
TOTAL (CY)	19,935

NOTES:

1. VERTICAL DATUM IS IN REFERENCE TO MEAN LOW WATER (MLW). MLW IS 0.34 FEET BELOW THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88). INFORMATION OBTAINED FROM NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION (NOAA) VDATUM DATUM TRANSFORMATION PROGRAM, VERSION 4.0.1.
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5. EXISTING SHORELINE, DOCK, & PILING LOCATIONS BASED ON GOOGLE MAPS AERIAL IMAGERY DATED MAY, 2019 AND SHOULD BE CONSIDERED APPROXIMATE.

LEGEND

- CHANNEL CENTERLINE
- CHANNEL LIMITS
- APPROXIMATE SHORELINE (MHWL)
- APPROXIMATE PIPELINE LOCATION
- EXISTING ROAD/PAVEMENT
- CHANNEL SAMPLE LOCATION
- HISTORIC RESOURCE AND BUFFER
- AREA PRESENTLY ABOVE TEMPLATE (ABOVE ELEV. −5 MLW)
- AREA PRESENTLY ABOVE OVERDEPTH (BETWEEN ELEV. −6 & −5 MLW)

0.67 HTL (MHHW)
0.50 MHW
0.34 NAVD88
0.26 MTL
0.00 MLW
-0.07 MLLW

RANGE OF TIDE (FT)
NOT TO SCALE

0' 100' 200' 400'

GRAPHIC SCALE (FT)

REV.	DATE:	DESCRIPTION	BY	APPR.

GBA ENGINEERS ★ SURVEYORS
9008 Yellow Brick Rd, Unit O
Baltimore, MD 21237
Phone (410) 682-5595

STAN LULEWICZ
NJ PE NO. 24GE04770900

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: SILVER BAY ENTRANCE CHANNEL
CHANNEL BATHYMETRY PLAN

PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR ANDREWS POINT CHANNEL, SILVER BAY CHANNEL, SILVER BAY ENTRANCE CHANNEL, PIER 1 CHANNEL, BAY SHORE BRIDGE CHANNEL
TOMS RIVER TOWNSHIP
OCEAN COUNTY, NEW JERSEY

DRAWN BY: SEF	WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800	PROJECT NO.
CHECKED BY: MJM		SHEET 16 OF 30
SCALE: AS SHOWN	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500	DWG. NO. PERMIT - 16
DATE: APRIL 2020		

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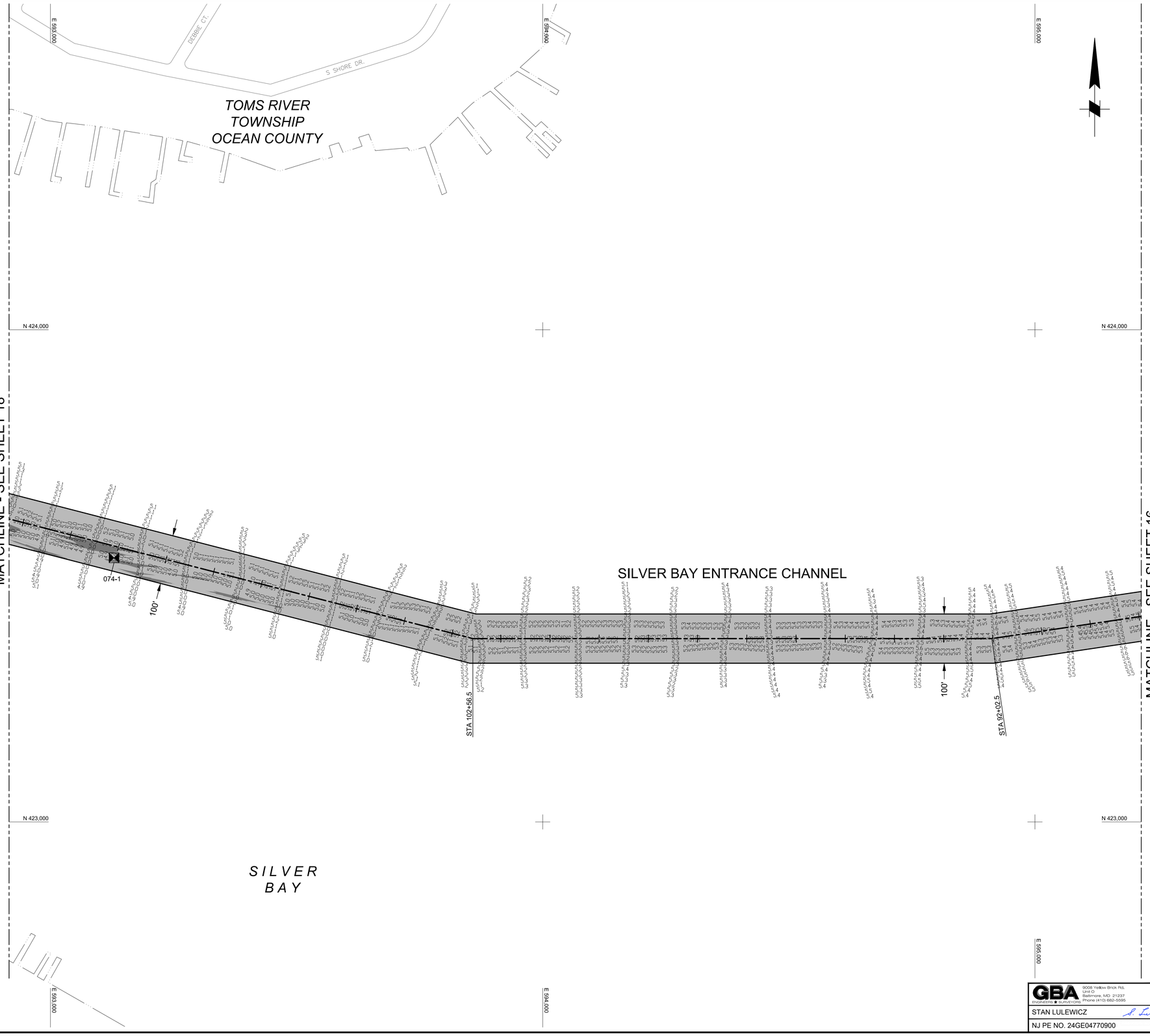

CHANNEL VOLUMES BASED ON JULY 6, 2017
CONDITIONAL SURVEY DATA

	SILVER BAY ENTRANCE CHANNEL 0+00.0 to 122+80.0
TEMPLATE (-5 MLW)	50
OVERDEPTH (-6 MLW)	19,885
TOTAL (CY)	19,935

NOTES:

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5. EXISTING SHORELINE, DOCK, & PILING LOCATIONS BASED ON GOOGLE MAPS AERIAL IMAGERY DATED MAY, 2019 AND SHOULD BE CONSIDERED APPROXIMATE.

LEGEND

- CHANNEL CENTERLINE
- CHANNEL LIMITS
- APPROXIMATE SHORELINE (MHWL)
- APPROXIMATE PIPELINE LOCATION
- EXISTING ROAD/PAVEMENT
- CHANNEL SAMPLE LOCATION
- HISTORIC RESOURCE AND BUFFER
- AREA PRESENTLY ABOVE TEMPLATE (ABOVE ELEV. −5 MLW)
- AREA PRESENTLY ABOVE OVERDEPTH (BETWEEN ELEV. −6 & −5 MLW)

RANGE OF TIDE (FT)
NOT TO SCALE

0.67 HTL (MHHW)
0.50 MHW
0.34 NAVD88
0.26 MTL
0.00 MLW
-0.07 MLLW

0' 100' 200' 400'
GRAPHIC SCALE (FT)

GBA ENGINEERS ★ SURVEYORS
9008 Yellow Brick Rd, Unit O
Baltimore, MD 21237
Phone (410) 682-5595
STAN LULEWICZ
NJ PE NO. 24GE04770900

REV.	DATE:	DESCRIPTION	BY	APPR.

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: SILVER BAY ENTRANCE CHANNEL
CHANNEL BATHYMETRY PLAN

PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR ANDREWS POINT CHANNEL, SILVER BAY CHANNEL, SILVER BAY ENTRANCE CHANNEL, PIER 1 CHANNEL, BAY SHORE BRIDGE CHANNEL
TOMS RIVER TOWNSHIP
OCEAN COUNTY, NEW JERSEY

DRAWN BY: SEF	WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800	PROJECT NO.	
CHECKED BY: MJM		SHEET 17 OF 30	
SCALE: AS SHOWN	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500	DWG. NO. PERMIT - 17	
DATE: APRIL 2020			

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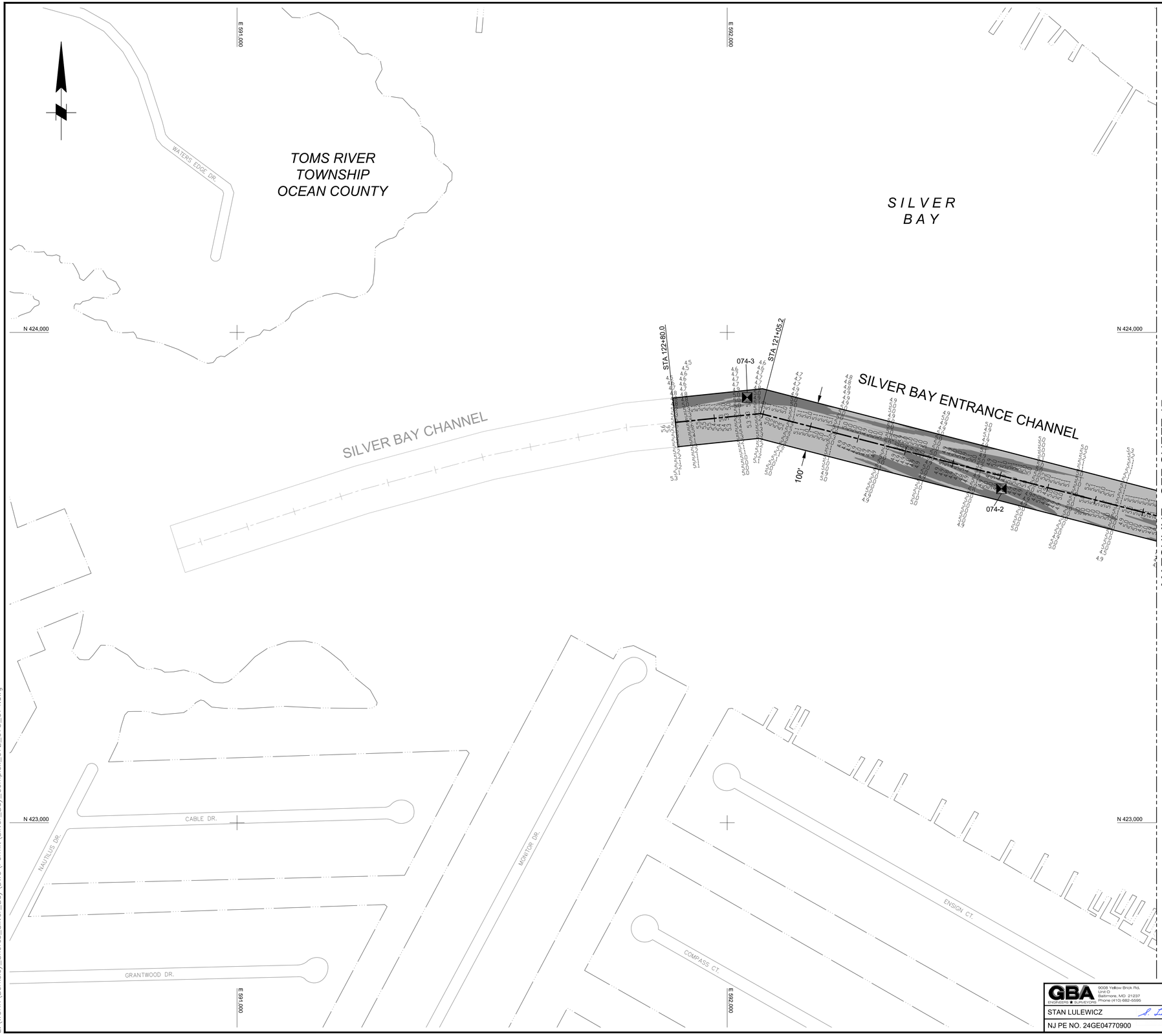

CHANNEL VOLUMES BASED ON JULY 6, 2017
CONDITIONAL SURVEY DATA

	SILVER BAY ENTRANCE CHANNEL 0+00.0 to 122+80.0
TEMPLATE (-5 MLW)	50
OVERDEPTH (-6 MLW)	19,885
TOTAL (CY)	19,935

NOTES:

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5. EXISTING SHORELINE, DOCK, & PILING LOCATIONS BASED ON GOOGLE MAPS AERIAL IMAGERY DATED MAY, 2019 AND SHOULD BE CONSIDERED APPROXIMATE.

LEGEND

- CHANNEL CENTERLINE
- CHANNEL LIMITS
- APPROXIMATE SHORELINE (MHWL)
- APPROXIMATE PIPELINE LOCATION
- EXISTING ROAD/PAVEMENT
- # CHANNEL SAMPLE LOCATION
- HISTORIC RESOURCE AND BUFFER
- AREA PRESENTLY ABOVE TEMPLATE (ABOVE ELEV. −5 MLW)
- AREA PRESENTLY ABOVE OVERDEPTH (BETWEEN ELEV. −6 & −5 MLW)

0.67 HTL (MHHW)
0.50 MHW
0.34 NAVD88
0.26 MTL
0.00 MLW
-0.07 MLLW

RANGE OF TIDE (FT)
NOT TO SCALE

0' 100' 200' 400'
GRAPHIC SCALE (FT)

GBA ENGINEERS ★ SURVEYORS
9005 Yellow Brick Rd, Unit O
Baltimore, MD 21237
Phone (410) 682-5595
STAN LULEWICZ
NJ PE NO. 24GE04770900

REV.	DATE:	DESCRIPTION	BY	APPR.

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: SILVER BAY ENTRANCE CHANNEL
CHANNEL BATHYMETRY PLAN

PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR ANDREWS POINT CHANNEL, SILVER BAY CHANNEL, SILVER BAY ENTRANCE CHANNEL, PIER 1 CHANNEL, BAY SHORE BRIDGE CHANNEL
TOMS RIVER TOWNSHIP
OCEAN COUNTY, NEW JERSEY

DRAWN BY: SEF	WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800	PROJECT NO.
CHECKED BY: MJM		SHEET 18 OF 30
SCALE: AS SHOWN	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500	DWG. NO. PERMIT - 18
DATE: APRIL 2020		

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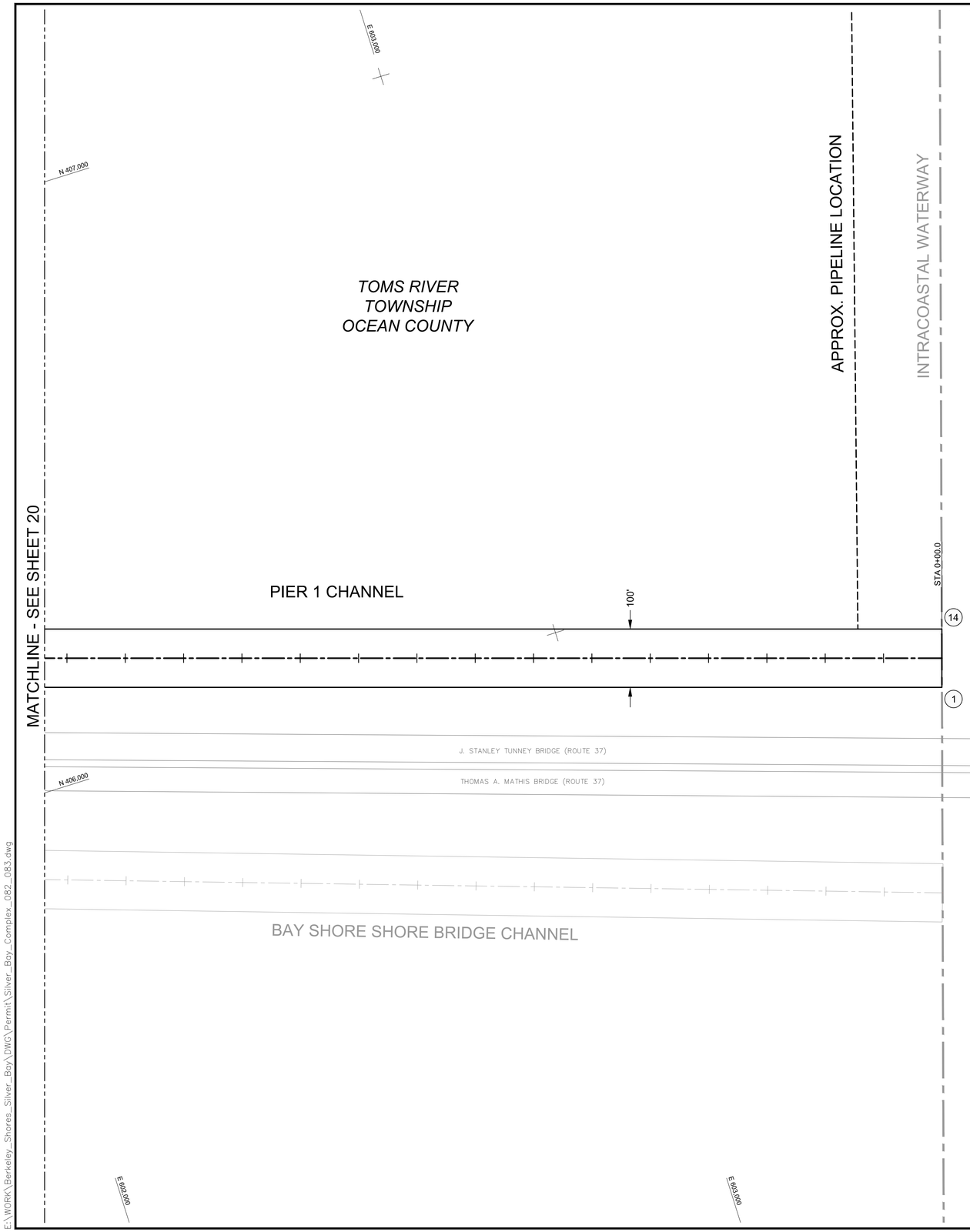
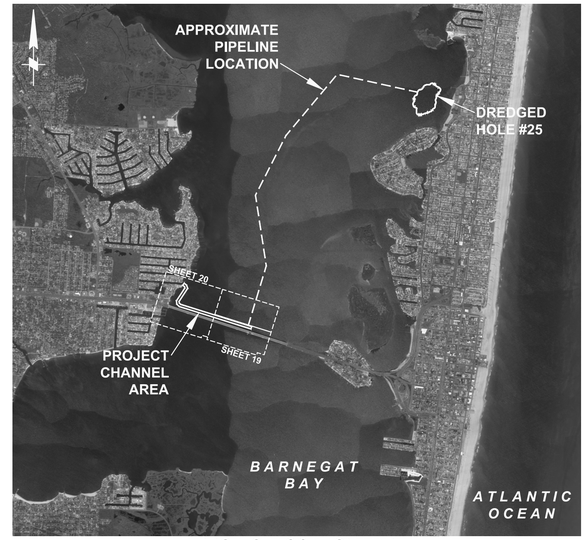
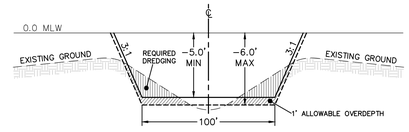




PROJECT LOCATION MAP
SCALE: 1" = 3000'



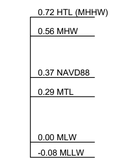
TYPICAL SECTION: PIER 1 CHANNEL NORTH STA 0+00.0 to 39+80.0
NOT TO SCALE

NOTES:

1. VERTICAL DATUM IS IN REFERENCE TO MEAN LOW WATER (MLW). MLW IS 0.37 FEET BELOW THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88). INFORMATION OBTAINED FROM NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION (NOAA) VDATUM DATUM TRANSFORMATION PROGRAM, VERSION 4.0.1.
2. COORDINATES ARE EXPRESSED IN FEET AND REFER TO THE NEW JERSEY STATE PLANE GRID COORDINATE SYSTEM NORTH AMERICAN DATUM OF 1983 (NAD83).
3. EXISTING SHORELINE (MHWL) & DOCK LOCATIONS ARE BASED ON AERIAL IMAGERY AND SHOULD BE CONSIDERED APPROXIMATE.
4. AERIAL IMAGERY IS FROM GOOGLE MAPS DATED MAY, 2019.

LEGEND

- CHANNEL CENTERLINE
- CHANNEL LIMITS
- APPROXIMATE SHORELINE (MHWL)
- APPROXIMATE PIPELINE LOCATION
- EXISTING ROAD/PAVEMENT
- # CHANNEL SAMPLE LOCATION
- HISTORIC RESOURCE AND BUFFER



RANGE OF TIDE (FT)
NOT TO SCALE

GRAPHIC SCALE (FT)

REV.	DATE:	DESCRIPTION	BY	APPR.

GBA ENGINEERS ★ SURVEYORS
9009 Yellow Brick Rd, Suite 1
Baltimore, MD 21237
Phone (410) 682-5595
STAN LULEWICZ
NJ PE NO. 24GE04770900

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: PIER 1 CHANNEL
CHANNEL ARRANGEMENT & GEOMETRY PLAN

PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR ANDREWS POINT CHANNEL, SILVER BAY CHANNEL, SILVER BAY ENTRANCE CHANNEL, PIER 1 CHANNEL, BAY SHORE BRIDGE CHANNEL
TOMS RIVER TOWNSHIP
OCEAN COUNTY, NEW JERSEY

DRAWN BY: SEF	WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800	PROJECT NO.	
CHECKED BY: MJM		SHEET 19 OF 30	
SCALE: AS SHOWN	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500		
DATE: APRIL 2020		DWG. NO. PERMIT - 19	

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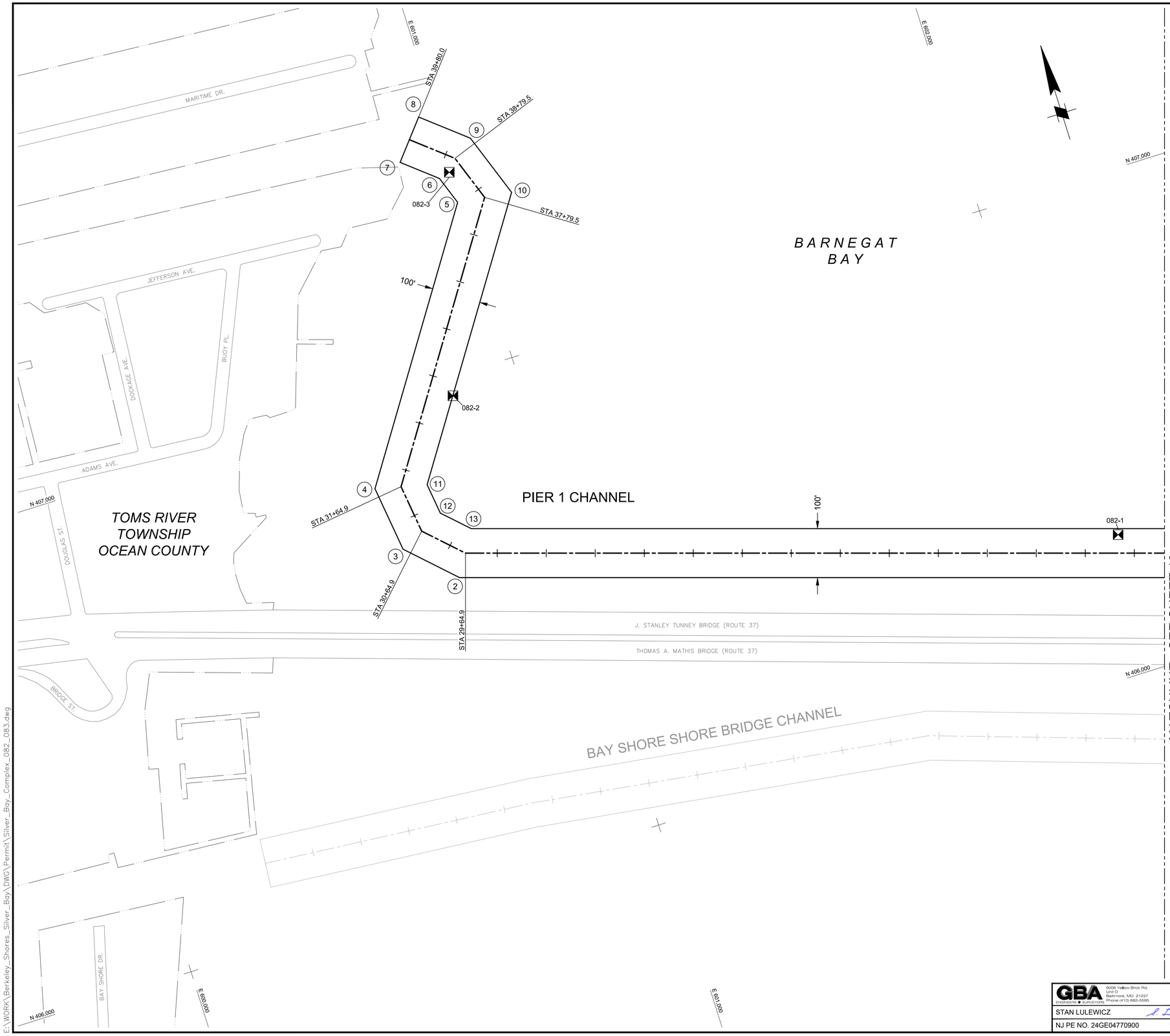
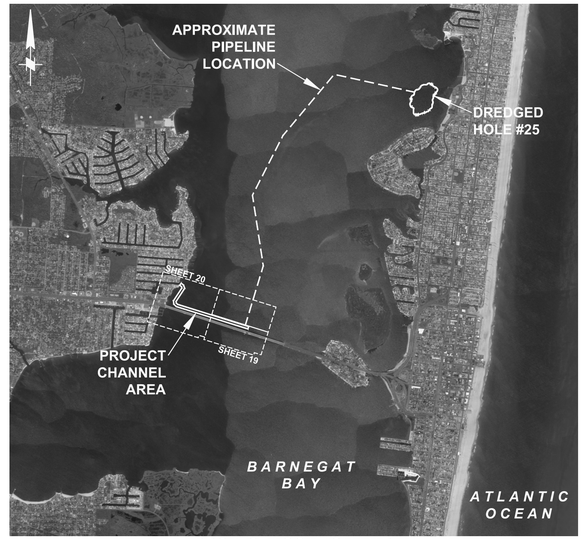
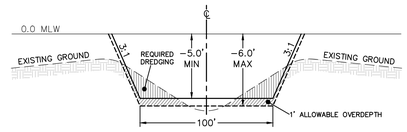




PROJECT LOCATION MAP
SCALE: 1" = 3000'



TYPICAL SECTION: PIER 1 CHANNEL NORTH STA 0+00.0 to 39+80.0
NOT TO SCALE

NOTES:

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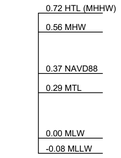
LEGEND

- CHANNEL CENTERLINE
- CHANNEL LIMITS
- APPROXIMATE SHORELINE (MHWL)
- APPROXIMATE PIPELINE LOCATION
- EXISTING ROAD/PAVEMENT
- CHANNEL SAMPLE LOCATION
- HISTORIC RESOURCE AND BUFFER



RANGE OF TIDE (FT)
NOT TO SCALE

GRAPHIC SCALE (FT)

GBA ENGINEERS ★ SURVEYORS
9008 Yellow Brick Rd, Unit O
Baltimore, MD 21237
Phone (410) 682-5595
STAN LULEWICZ
NJ PE NO. 24GE04770900

REV.	DATE:	DESCRIPTION	BY	APPR.

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: PIER 1 CHANNEL
CHANNEL ARRANGEMENT & GEOMETRY PLAN

PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR ANDREWS POINT CHANNEL, SILVER BAY CHANNEL, SILVER BAY ENTRANCE CHANNEL, PIER 1 CHANNEL, BAY SHORE BRIDGE CHANNEL
TOMS RIVER TOWNSHIP
OCEAN COUNTY, NEW JERSEY

DRAWN BY: SEF	WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800	PROJECT NO.	
CHECKED BY: MJM		SHEET 20 OF 30	
SCALE: AS SHOWN	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500	DWG. NO. PERMIT - 20	
DATE: APRIL 2020			

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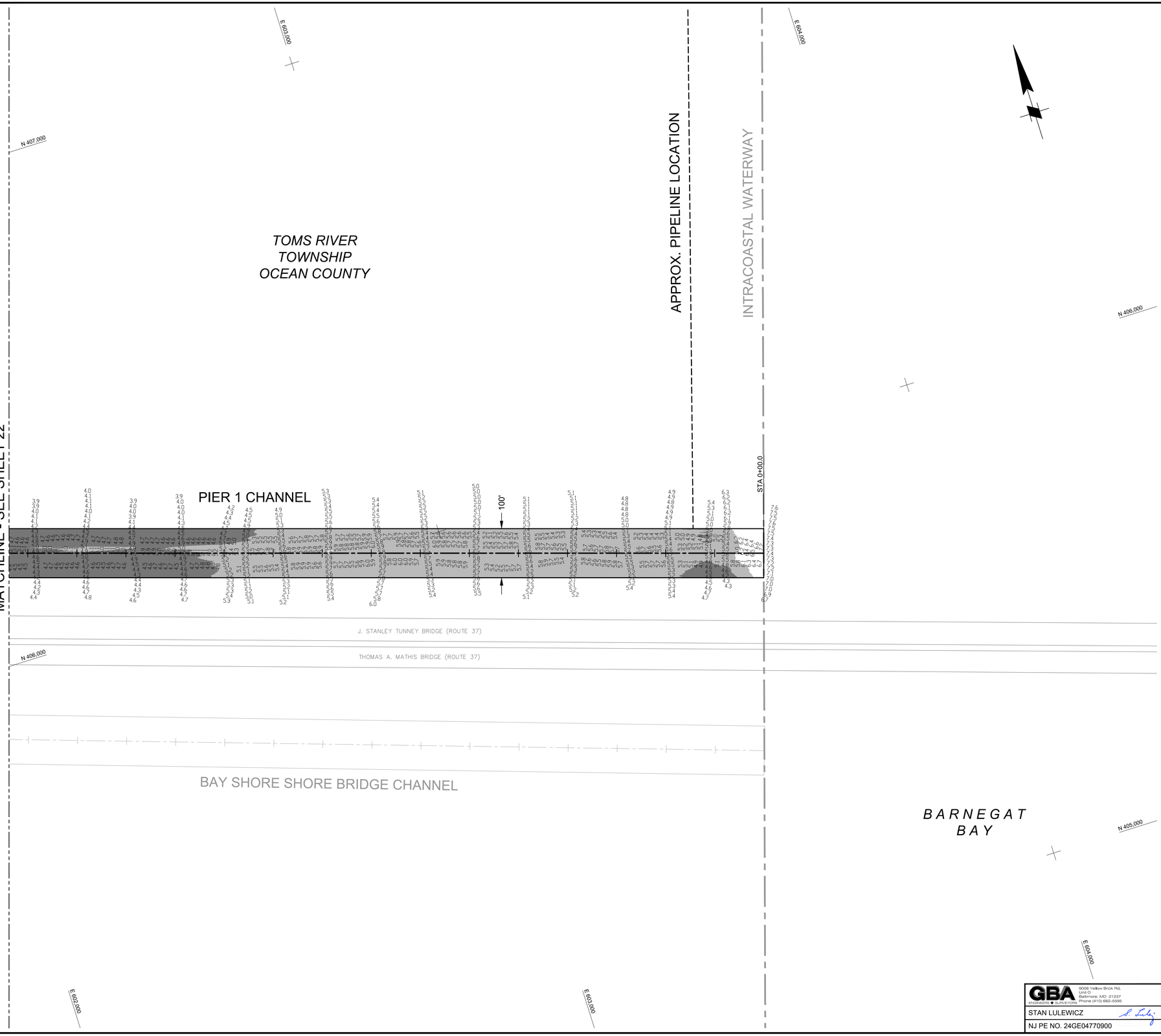

CHANNEL VOLUMES BASED ON JULY 7, 2017
CONDITIONAL SURVEY DATA

	PIER 1 CHANNEL 0+00.0 to 39+80.0
TEMPLATE (-5 MLW)	1,255
OVERDEPTH (-6 MLW)	8,970
TOTAL (CY)	10,225

NOTES:

1. VERTICAL DATUM IS IN REFERENCE TO MEAN LOW WATER (MLW). MLW IS 0.37 FEET BELOW THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88). INFORMATION OBTAINED FROM NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION (NOAA) VDATUM DATUM TRANSFORMATION PROGRAM, VERSION 4.0.1.
2. COORDINATES ARE EXPRESSED IN FEET AND REFER TO THE NEW JERSEY STATE PLANE GRID COORDINATE SYSTEM NORTH AMERICAN DATUM OF 1983 (NAD83).
3. CONDITIONAL (CND) SOUNDING DATA SHOWN WAS COLLECTED ON JULY 7, 2017 BY GAHAGAN & BRYANT ASSOCIATES (GBA) AND INDICATES DEPTH BELOW MLW.
4. THE INFORMATION DEPICTED ON THIS PLAN REPRESENTS THE RESULTS OF SURVEYS CONDUCTED ON THE ABOVE DATES AND SHOULD BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
5. EXISTING SHORELINE, DOCK, & PILING LOCATIONS BASED ON GOOGLE MAPS AERIAL IMAGERY DATED MAY, 2019 AND SHOULD BE CONSIDERED APPROXIMATE.

LEGEND

- CHANNEL CENTERLINE
- CHANNEL LIMITS
- APPROXIMATE SHORELINE (MHWL)
- APPROXIMATE PIPELINE LOCATION
- EXISTING ROAD/PAVEMENT
- CHANNEL SAMPLE LOCATION
- HISTORIC RESOURCE AND BUFFER
- AREA PRESENTLY ABOVE TEMPLATE (ABOVE ELEV. −5 MLW)
- AREA PRESENTLY ABOVE OVERDEPTH (BETWEEN ELEV. −6 & −5 MLW)

RANGE OF TIDE (FT)
NOT TO SCALE

0.72 HTL (MHHW)
0.56 MHW
0.37 NAVD88
0.29 MTL
0.00 MLW
-0.08 MLLW

0' 100' 200' 400'
GRAPHIC SCALE (FT)

GBA ENGINEERS ★ SURVEYORS
9008 Yellow Brick Rd, Unit O
Baltimore, MD 21237
Phone (410) 682-5595
STAN LULEWICZ
NJ PE NO. 24GE04770900

REV.	DATE:	DESCRIPTION	BY	APPR.

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: PIER 1 CHANNEL
CHANNEL BATHYMETRY PLAN

PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR ANDREWS POINT CHANNEL, SILVER BAY CHANNEL, SILVER BAY ENTRANCE CHANNEL, PIER 1 CHANNEL, BAY SHORE BRIDGE CHANNEL
TOMS RIVER TOWNSHIP
OCEAN COUNTY, NEW JERSEY

DRAWN BY: SEF	WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800	PROJECT NO.
CHECKED BY: MJM		SHEET 21 OF 30
SCALE: AS SHOWN	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500	DWG. NO. PERMIT - 21
DATE: APRIL 2020		

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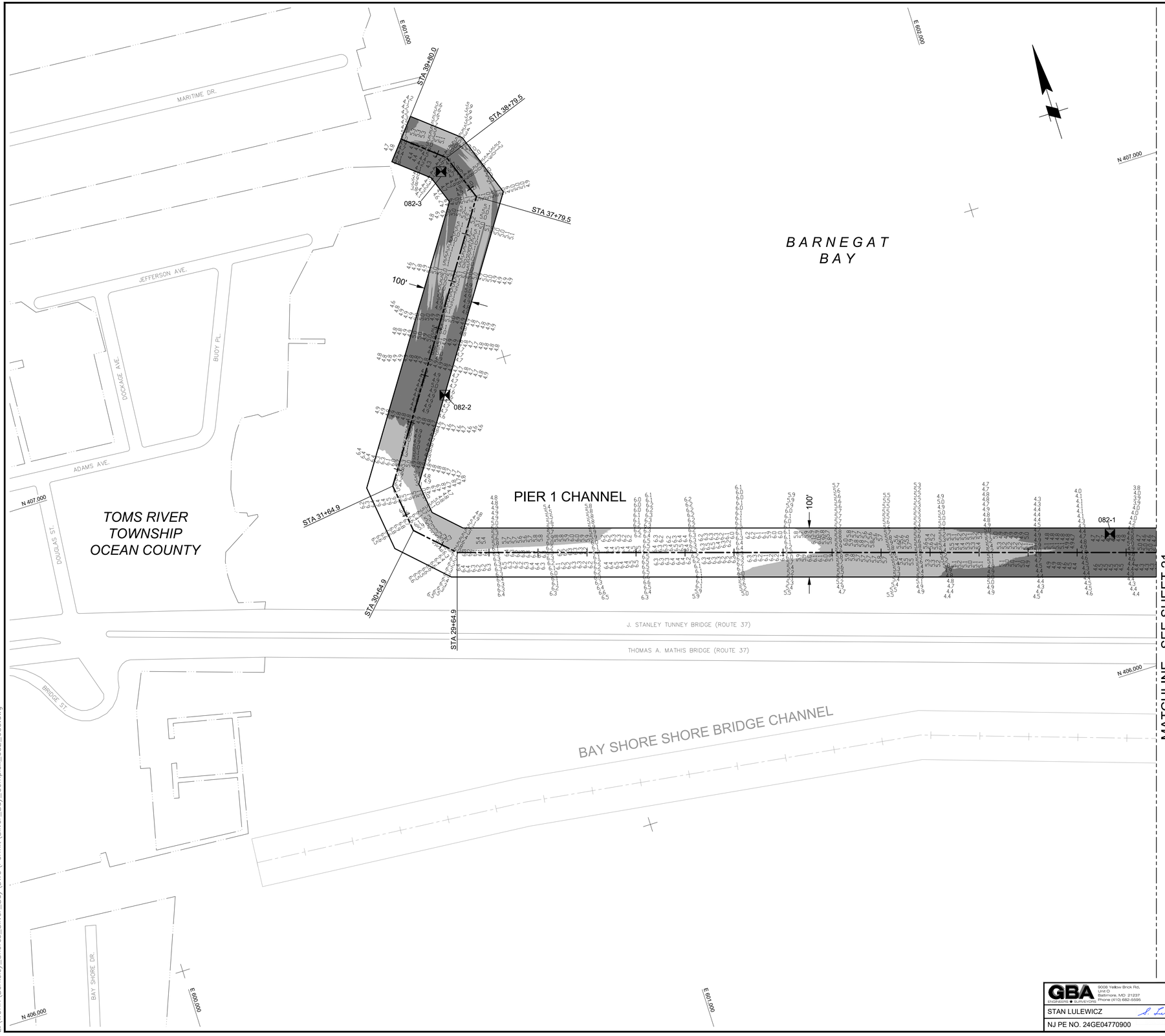

CHANNEL VOLUMES BASED ON JULY 7, 2017
CONDITIONAL SURVEY DATA

	PIER 1 CHANNEL 0+00.0 to 39+80.0
TEMPLATE (-5 MLW)	1,255
OVERDEPTH (-6 MLW)	8,970
TOTAL (CY)	10,225

NOTES:

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5. EXISTING SHORELINE, DOCK, & PILING LOCATIONS BASED ON GOOGLE MAPS AERIAL IMAGERY DATED MAY, 2019 AND SHOULD BE CONSIDERED APPROXIMATE.

LEGEND

- CHANNEL CENTERLINE
- CHANNEL LIMITS
- APPROXIMATE SHORELINE (MHWL)
- APPROXIMATE PIPELINE LOCATION
- EXISTING ROAD/PAVEMENT
- # CHANNEL SAMPLE LOCATION
- HISTORIC RESOURCE AND BUFFER
- AREA PRESENTLY ABOVE TEMPLATE (ABOVE ELEV. −5 MLW)
- AREA PRESENTLY ABOVE OVERDEPTH (BETWEEN ELEV. −6 & −5 MLW)

RANGE OF TIDE (FT)
NOT TO SCALE

0.72 HTL (MHHW)
0.56 MHW
0.37 NAVD88
0.29 MTL
0.00 MLW
-0.08 MLLW

0' 100' 200' 400'
GRAPHIC SCALE (FT)

REV.	DATE:	DESCRIPTION	BY	APPR.

GBA ENGINEERS ★ SURVEYORS
9008 Yellow Brick Rd, Unit Q
Baltimore, MD 21237
Phone (410) 682-5595

STAN LULEWICZ
NJ PE NO. 24GE04770900

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: PIER 1 CHANNEL
CHANNEL BATHYMETRY PLAN

PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR ANDREWS POINT CHANNEL, SILVER BAY CHANNEL, SILVER BAY ENTRANCE CHANNEL, PIER 1 CHANNEL, BAY SHORE BRIDGE CHANNEL
TOMS RIVER TOWNSHIP
OCEAN COUNTY, NEW JERSEY

DRAWN BY: SEF	WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800	PROJECT NO.
CHECKED BY: MJM		SHEET 22 OF 30
SCALE: AS SHOWN	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500	DWG. NO. PERMIT - 22
DATE: APRIL 2020		

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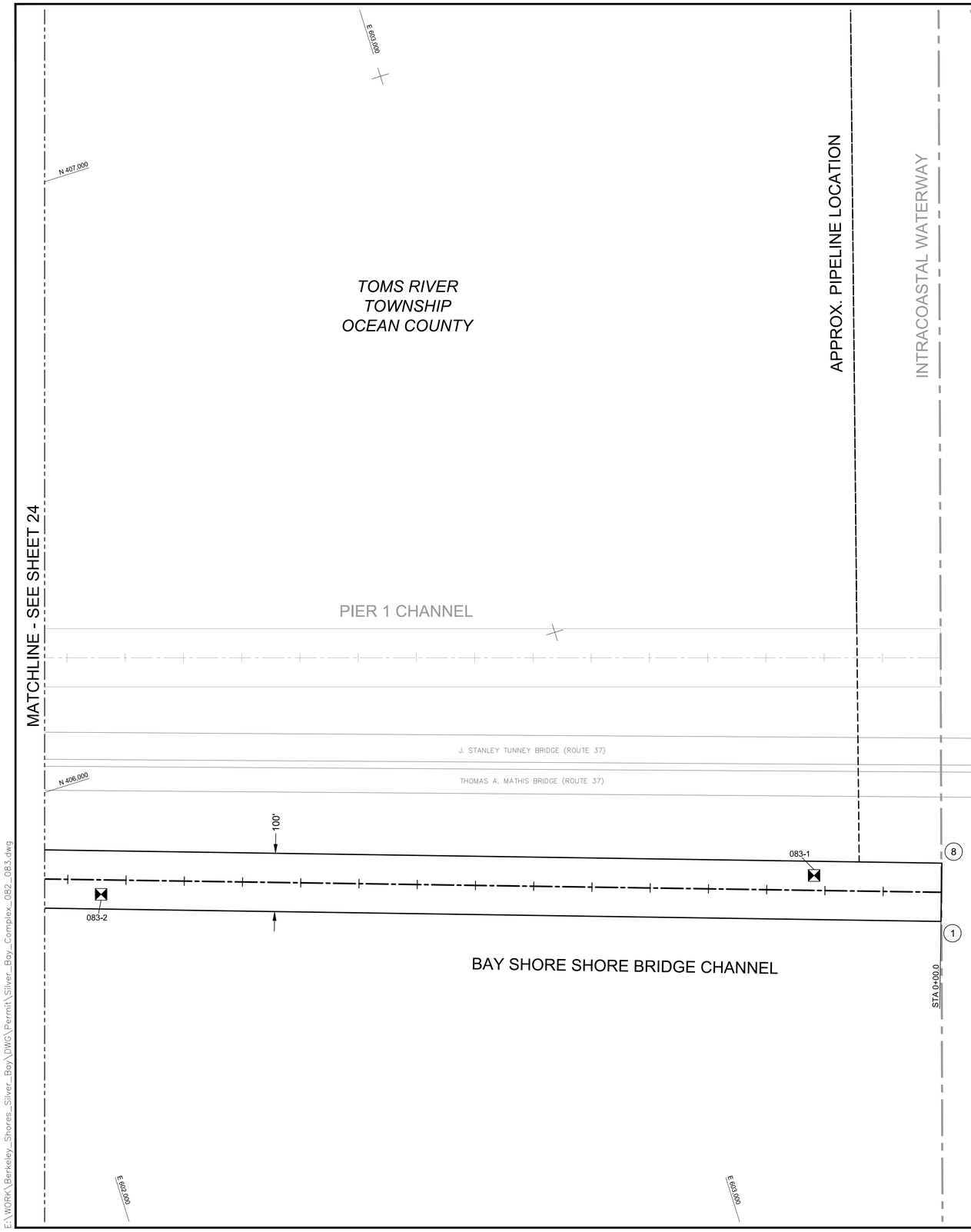
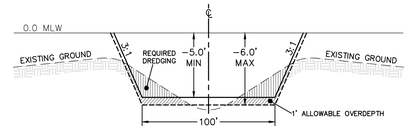


PROJECT LOCATION MAP
SCALE: 1" = 3000'



TYPICAL SECTION: BAY SHORE BRIDGE CHANNEL NORTH STA 0+00.0 to 34+00.0
NOT TO SCALE

NOTES:

1. VERTICAL DATUM IS IN REFERENCE TO MEAN LOW WATER (MLW). MLW IS 0.38 FEET BELOW THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88). INFORMATION OBTAINED FROM NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION (NOAA) VDATUM DATUM TRANSFORMATION PROGRAM, VERSION 4.0.1.
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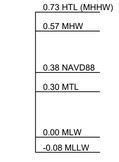

RANGE OF TIDE (FT)
NOT TO SCALE

LEGEND

- CHANNEL CENTERLINE
- CHANNEL LIMITS
- APPROXIMATE SHORELINE (MHWL)
- APPROXIMATE PIPELINE LOCATION
- EXISTING ROAD/PAVEMENT
- # CHANNEL SAMPLE LOCATION
- HISTORIC RESOURCE AND BUFFER

GRAPHIC SCALE (FT)

REV.	DATE	DESCRIPTION	BY	APPR.

GBA ENGINEERS ★ SURVEYORS
9008 Yellow Brick Rd, Suite 7
Baltimore, MD 21237
Phone (410) 682-5595
STAN LULEWICZ
NJ PE NO. 24GE04770900

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: BAY SHORE BRIDGE CHANNEL
CHANNEL ARRANGEMENT & GEOMETRY PLAN

PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR ANDREWS POINT CHANNEL, SILVER BAY CHANNEL, SILVER BAY ENTRANCE CHANNEL, PIER 1 CHANNEL, BAY SHORE BRIDGE CHANNEL
TOMS RIVER TOWNSHIP
OCEAN COUNTY, NEW JERSEY

DRAWN BY: SEF	WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800	PROJECT NO.	
CHECKED BY: MJM		SHEET 23 OF 30	
SCALE: AS SHOWN	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500	DWG. NO. PERMIT - 23	
DATE: APRIL 2020			

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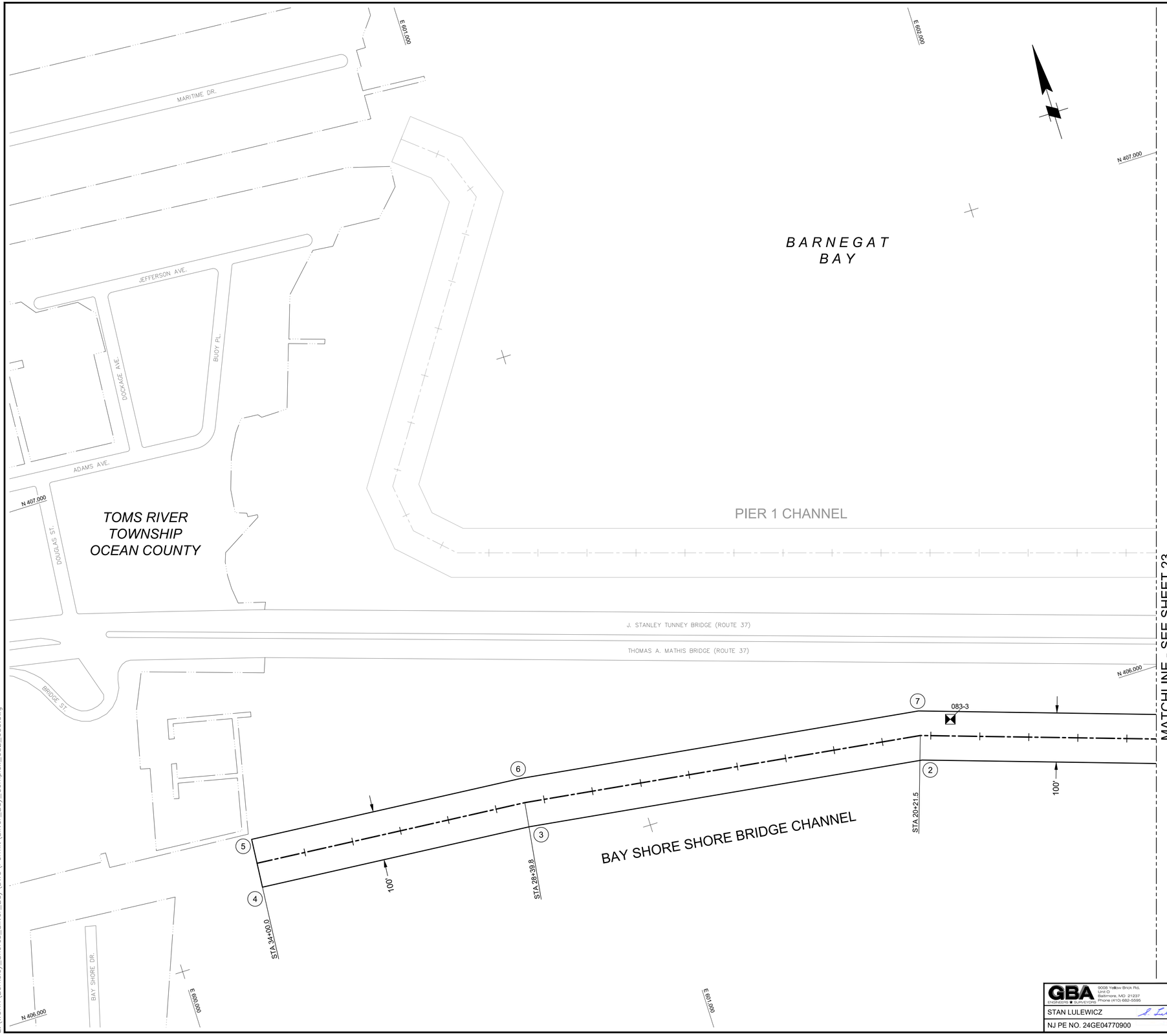
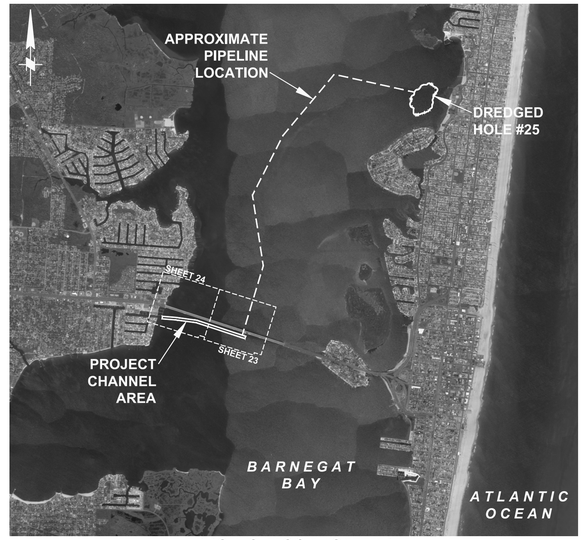
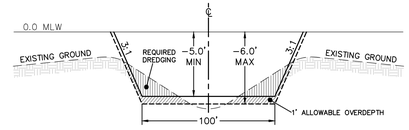




PROJECT LOCATION MAP
SCALE: 1" = 3000'



TYPICAL SECTION: BAY SHORE BRIDGE CHANNEL NORTH STA 0+00.0 to 34+00.0
NOT TO SCALE

NOTES:

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LEGEND

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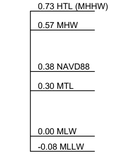
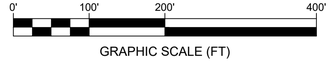
- CHANNEL LIMITS
- APPROXIMATE SHORELINE (MHWL)
- APPROXIMATE PIPELINE LOCATION
- EXISTING ROAD/PAVEMENT
- # CHANNEL SAMPLE LOCATION
- HISTORIC RESOURCE AND BUFFER



RANGE OF TIDE (FT)
NOT TO SCALE



GRAPHIC SCALE (FT)

REV.	DATE:	DESCRIPTION	BY	APPR.

GBA ENGINEERS ★ SURVEYORS
9008 Yellow Brick Rd, Unit G
Baltimore, MD 21237
Phone (410) 682-5595

STAN LULEWICZ
NJ PE NO. 24GE04770900

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: BAY SHORE BRIDGE CHANNEL
CHANNEL ARRANGEMENT & GEOMETRY PLAN

PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR ANDREWS POINT CHANNEL, SILVER BAY CHANNEL, SILVER BAY ENTRANCE CHANNEL, PIER 1 CHANNEL, BAY SHORE BRIDGE CHANNEL
TOMS RIVER TOWNSHIP
OCEAN COUNTY, NEW JERSEY

DRAWN BY: SEF	WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800	PROJECT NO.	
CHECKED BY: MJM		SHEET 24 OF 30	
SCALE: AS SHOWN	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500	DWG. NO. PERMIT - 24	
DATE: APRIL 2020			

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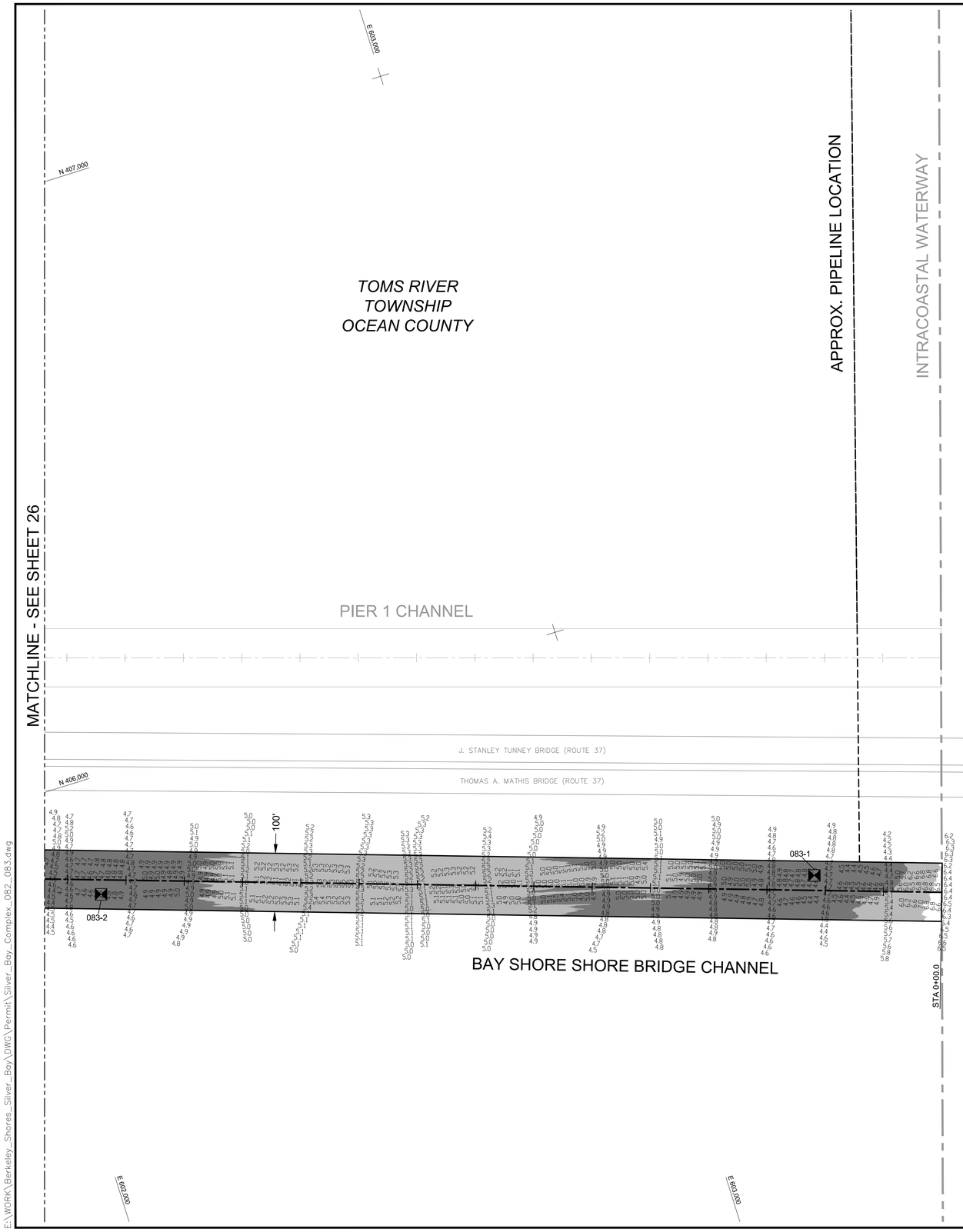

CHANNEL VOLUMES BASED ON JULY 6, 2017
CONDITIONAL SURVEY DATA

	BAY SHORE BRIDGE CHANNEL 0+00.0 to 34+00.0
TEMPLATE (-5 MLW)	1,245
OVERDEPTH (-6 MLW)	8,340
TOTAL (CY)	9,585

NOTES:

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LEGEND

- CHANNEL CENTERLINE
- CHANNEL LIMITS
- APPROXIMATE SHORELINE (MHWL)
- APPROXIMATE PIPELINE LOCATION
- EXISTING ROAD/PAVEMENT
- # CHANNEL SAMPLE LOCATION
- HISTORIC RESOURCE AND BUFFER
- AREA PRESENTLY ABOVE TEMPLATE (ABOVE ELEV. −5 MLW)
- AREA PRESENTLY ABOVE OVERDEPTH (BETWEEN ELEV. −6 & −5 MLW)

RANGE OF TIDE (FT)
NOT TO SCALE

0.73 HTL (MHHW)
0.57 MHW
0.38 NAVD88
0.30 MTL
0.00 MLW
-0.08 MLLW

0' 100' 200' 400'
GRAPHIC SCALE (FT)

GBA ENGINEERS ★ SURVEYORS
9008 Yellow Brick Rd, Unit O
Baltimore, MD 21237
Phone (410) 682-5595
STAN LULEWICZ
NJ PE NO. 24GE04770900

REV.	DATE:	DESCRIPTION	BY	APPR.

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: BAY SHORE BRIDGE CHANNEL
CHANNEL BATHYMETRY PLAN

PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR ANDREWS POINT CHANNEL, SILVER BAY CHANNEL, SILVER BAY ENTRANCE CHANNEL, PIER 1 CHANNEL, BAY SHORE BRIDGE CHANNEL
TOMS RIVER TOWNSHIP
OCEAN COUNTY, NEW JERSEY

DRAWN BY: SEF	WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800	PROJECT NO.	
CHECKED BY: MJM		SHEET 25 OF 30	
SCALE: AS SHOWN	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500		
DATE: APRIL 2020		DWG. NO. PERMIT - 25	

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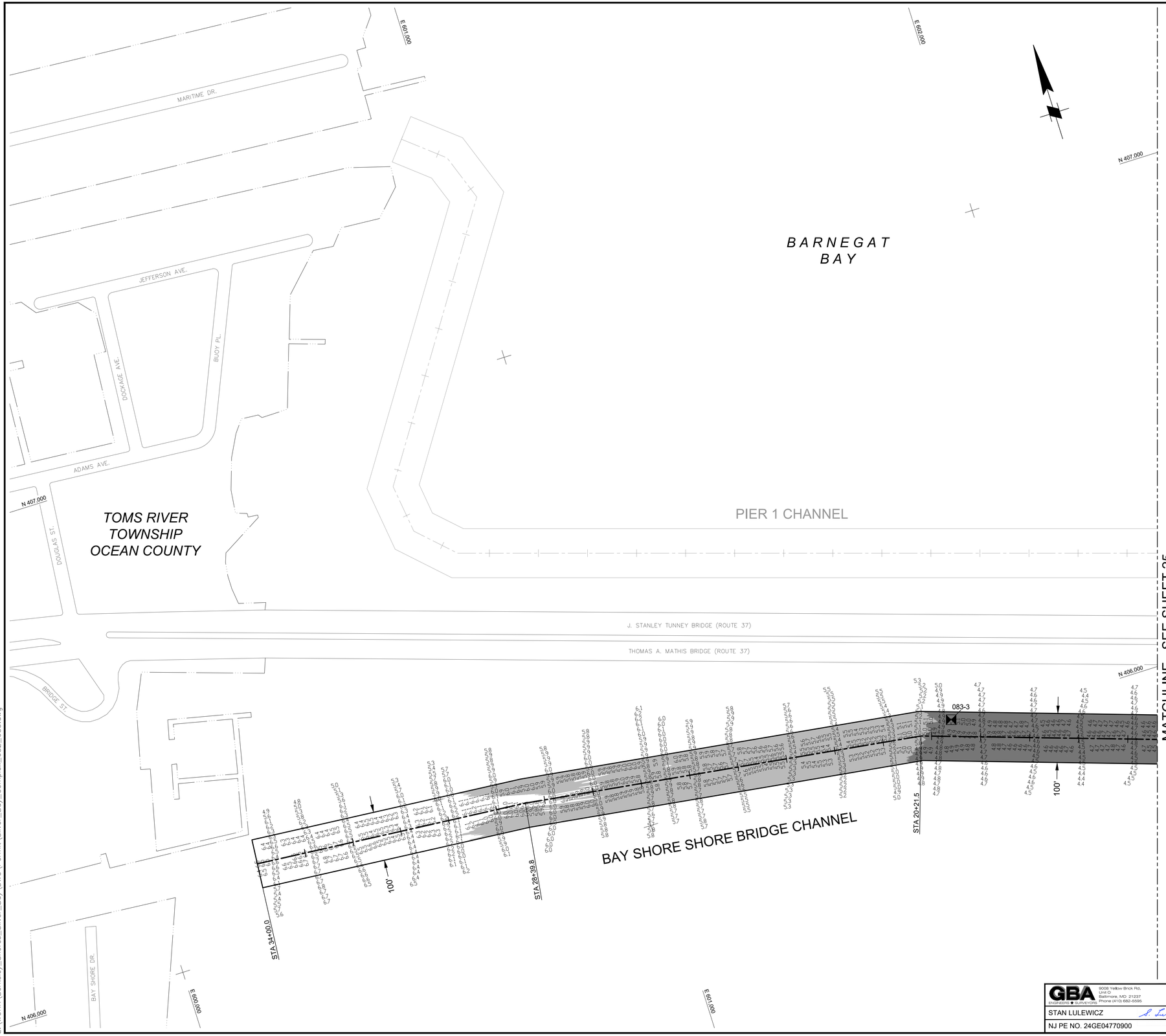

CHANNEL VOLUMES BASED ON JULY 6, 2017
CONDITIONAL SURVEY DATA

	BAY SHORE BRIDGE CHANNEL 0+00.0 to 34+00.0
TEMPLATE (-5 MLW)	1,245
OVERDEPTH (-6 MLW)	8,340
TOTAL (CY)	9,585

NOTES:

1. VERTICAL DATUM IS IN REFERENCE TO MEAN LOW WATER (MLW). MLW IS 0.38 FEET BELOW THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88). INFORMATION OBTAINED FROM NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION (NOAA) VDATUM DATUM TRANSFORMATION PROGRAM, VERSION 4.0.1.
2. COORDINATES ARE EXPRESSED IN FEET AND REFER TO THE NEW JERSEY STATE PLANE GRID COORDINATE SYSTEM NORTH AMERICAN DATUM OF 1983 (NAD83).
3. CONDITIONAL (CND) SOUNDING DATA SHOWN WAS COLLECTED ON JULY 6, 2017 BY GAHAGAN & BRYANT ASSOCIATES (GBA) AND INDICATES DEPTH BELOW MLW.
4. THE INFORMATION DEPICTED ON THIS PLAN REPRESENTS THE RESULTS OF SURVEYS CONDUCTED ON THE ABOVE DATES AND SHOULD BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
5. EXISTING SHORELINE, DOCK, & PILING LOCATIONS BASED ON GOOGLE MAPS AERIAL IMAGERY DATED MAY, 2019 AND SHOULD BE CONSIDERED APPROXIMATE.

LEGEND

- CHANNEL CENTERLINE
- CHANNEL LIMITS
- APPROXIMATE SHORELINE (MHWL)
- APPROXIMATE PIPELINE LOCATION
- EXISTING ROAD/PAVEMENT
- CHANNEL SAMPLE LOCATION
- HISTORIC RESOURCE AND BUFFER
- AREA PRESENTLY ABOVE TEMPLATE (ABOVE ELEV. −5 MLW)
- AREA PRESENTLY ABOVE OVERDEPTH (BETWEEN ELEV. −6 & −5 MLW)

0.73 HTL (MHHW)
0.57 MHW
0.38 NAVD88
0.30 MTL
0.00 MLW
-0.08 MLLW

RANGE OF TIDE (FT)
NOT TO SCALE

0' 100' 200' 400'
GRAPHIC SCALE (FT)

GBA ENGINEERS ★ SURVEYORS
9008 Yellow Brick Rd, Unit Q
Baltimore, MD 21237
Phone (410) 682-5595
STAN LULEWICZ
NJ PE NO. 24GE04770900

REV.	DATE:	DESCRIPTION	BY	APPR.

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: BAY SHORE BRIDGE CHANNEL
CHANNEL BATHYMETRY PLAN

PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR ANDREWS POINT CHANNEL, SILVER BAY CHANNEL, SILVER BAY ENTRANCE CHANNEL, PIER 1 CHANNEL, BAY SHORE BRIDGE CHANNEL
TOMS RIVER TOWNSHIP
OCEAN COUNTY, NEW JERSEY

DRAWN BY: SEF	WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800	PROJECT NO.
CHECKED BY: MJM		SHEET 26 OF 30
SCALE: AS SHOWN	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500	DWG. NO. PERMIT - 26
DATE: APRIL 2020		

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ANDREWS POINT CHANNEL CENTERLINE COORDINATES		
STATION	NORTHING	EASTING
0+00.0	424,344.4	601,832.4
9+90.6	425,232.1	601,392.7
11+90.6	425,365.6	601,243.8
20+94.1	425,849.9	600,481.1
23+19.1	426,020.1	600,334.0
26+78	426,379.0	600,336.7
32+09	426,904.7	600,411.6
36+83	427,372.6	600,336.0
42+45	427,904.1	600,153.1

ANDREWS POINT CHANNEL COORDINATES		
POINT	NORTHING	EASTING
1	424,322.2	601,787.6
2	425,201.3	601,352.2
3	425,325.6	601,213.5
4	425,811.6	600,448.0
5	426,001.7	600,283.8
6	426,382.8	600,286.7
7	426,904.3	600,361.0
8	427,360.4	600,287.3
9	427,887.8	600,105.8
10	427,920.3	600,200.4
11	427,384.8	600,384.6
12	426,905.2	600,462.2
13	426,375.3	600,386.7
14	426,038.6	600,384.1
15	425,888.1	600,514.1
16	425,405.6	601,274.1
17	425,262.9	601,433.3
18	424,366.6	601,877.2

ANDREWS POINT CHANNEL SAMPLE LOCATION COORDINATES		
BORING	NORTHING	EASTING
072/073-1	426,483.9	600,346.2

PIER 1 CHANNEL CENTERLINE COORDINATES		
STATION	NORTHING	EASTING
0+00.0	405,760.0	603,619.0
29+64.9	406,647.5	600,790.1
30+64.9	406,717.1	600,718.3
31+64.9	406,816.2	600,705.2
37+79.5	407,328.6	601,044.7
38+79.5	407,422.6	601,010.7
39+80.0	407,486.8	600,933.4

PIER 1 CHANNEL COORDINATES		
POINT	NORTHING	EASTING
1	405,712.3	603,604.0
2	406,603.3	600,763.8
3	406,693.3	600,670.9
4	406,828.2	600,653.2
5	407,335.2	600,989.1
6	407,392.8	600,968.3
7	407,448.3	600,901.5
8	407,525.3	600,965.3
9	407,452.4	601,053.2
10	407,321.9	601,100.2
11	406,804.2	600,757.2
12	406,740.9	600,765.6
13	406,691.6	600,816.3
14	405,807.7	603,634.0

PIER 1 CHANNEL SAMPLE LOCATION COORDINATES		
BORING	NORTHING	EASTING
082-1	406,284.7	602,072.1
082-2	406,961.5	600,861.8
082-3	407,398.9	600,991.2

SILVER BAY CHANNEL CENTERLINE COORDINATES		
STATION	NORTHING	EASTING
0+00.0	423,816.6	591,894.2
1+00	423,806.3	591,794.7
3+86.5	423,749.2	591,514.0
6+55.5	423,679.2	591,254.3
10+50	423,558.0	590,878.8

SILVER BAY CHANNEL COORDINATES		
POINT	NORTHING	EASTING
1	423,766.8	591,899.4
2	423,756.8	591,802.3
3	423,700.5	591,525.5
4	423,631.2	591,268.4
5	423,510.4	590,894.2
6	423,605.5	590,863.5
7	423,727.1	591,240.1
8	423,797.9	591,502.5
9	423,855.8	591,787.2
10	423,866.3	591,889.1

SILVER BAY CHANNEL SAMPLE LOCATION COORDINATES		
BORING	NORTHING	EASTING
072 / 073-2	423,671.6	591,043.4

SILVER BAY ENTRANCE CHANNEL CENTERLINE COORDINATES		
STATION	NORTHING	EASTING
0+00.0	423,824.5	603,831.6
12+62.7	424,202.3	602,626.7
34+27.0	424,583.5	600,496.2
42+67.8	424,569.8	599,655.5
54+02.3	424,428.1	598,529.9
66+73.2	424,000.0	597,333.3
75+24.7	423,619.2	596,571.7
92+02.5	423,372.5	594,912.1
102+56.5	423,372.5	593,858.1
121+05.2	423,834.5	592,068.0
122+80.0	423,816.6	591,894.2

SILVER BAY ENTRANCE CHANNEL COORDINATES		
POINT	NORTHING	EASTING
1	423,776.8	603,816.6
2	424,153.6	602,614.7
3	424,533.5	600,492.2
4	424,519.8	599,659.0
5	424,379.2	598,541.6
6	423,954.0	597,352.9
7	423,570.9	596,586.9
8	423,322.5	594,915.8
9	423,322.5	593,851.8
10	423,783.9	592,064.3
11	423,766.8	591,899.4
12	423,866.3	591,889.1
13	423,885.2	592,071.8
14	423,422.5	593,864.5
15	423,422.5	594,908.5
16	423,667.5	596,556.4
17	424,046.1	597,313.6
18	424,477.1	598,518.2
19	424,619.7	599,652.0
20	424,633.6	600,500.2
21	424,251.0	602,638.6
22	423,872.2	603,846.5

SILVER BAY ENTRANCE CHANNEL SAMPLE LOCATION COORDINATES		
BORING	NORTHING	EASTING
074-1	423,536.7	593,129.2
074-2	423,681.2	592,559.4
074-3	423,867.3	592,040.8

BAY SHORE BRIDGE CHANNEL CENTERLINE COORDINATES		
STATION	NORTHING	EASTING
0+00.0	405,375.7	603,499.8
20+21.5	406,009.2	601,580.1
28+39.8	406,120.0	600,769.3
34+00.0	406,165.6	600,211.0

BAY SHORE BRIDGE CHANNEL COORDINATES		
POINT	NORTHING	EASTING
1	405,328.2	603,484.1
2	405,960.3	601,568.8
3	406,070.3	600,763.9
4	406,115.8	600,206.9
5	406,215.4	600,215.1
6	406,169.7	600,774.7
7	406,058.1	601,591.5
8	405,423.2	603,515.5

BAY SHORE BRIDGE CHANNEL SAMPLE LOCATION COORDINATES		
BORING	NORTHING	EASTING
083-1	405,468.6	603,299.8
083-2	405,804.1	602,122.2
083-3	406,022.4	601,648.5

NOTES:

1. COORDINATES ARE EXPRESSED IN FEET AND REFER TO THE NEW JERSEY STATE PLANE GRID COORDINATE SYSTEM NORTH AMERICAN DATUM OF 1983 (NAD83).

GBA ENGINEERS ★ ACTIVE YOU
9008 Yellow Brick Rd.
Unit G
Baltimore, MD 21237
Phone: (410) 682-5090
STAN LULEWICZ
NJ PE NO. 24GE04770900

REV.	DATE:	DESCRIPTION	BY	APPR.

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: CHANNEL GEOMETRY & SAMPLING LOCATION COORDINATE TABLES

PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR ANDREWS POINT CHANNEL, SILVER BAY CHANNEL, SILVER BAY ENTRANCE CHANNEL, PIER 1 CHANNEL, BAY SHORE BRIDGE CHANNEL
TOMS RIVER TOWNSHIP
OCEAN COUNTY, NEW JERSEY

DRAWN BY: SEF
CHECKED BY: MJM
SCALE: AS SHOWN
DATE: APRIL 2020

WSP USA Inc.
CERTIFICATION OF AUTHORIZATION
NO. 24GA28029800

MICHAEL J. MARANO
NEW JERSEY PROFESSIONAL ENGINEER
NO. 24GE04087500

PROJECT NO.

SHEET 27 OF 30

DWG. NO. PERMIT - 27

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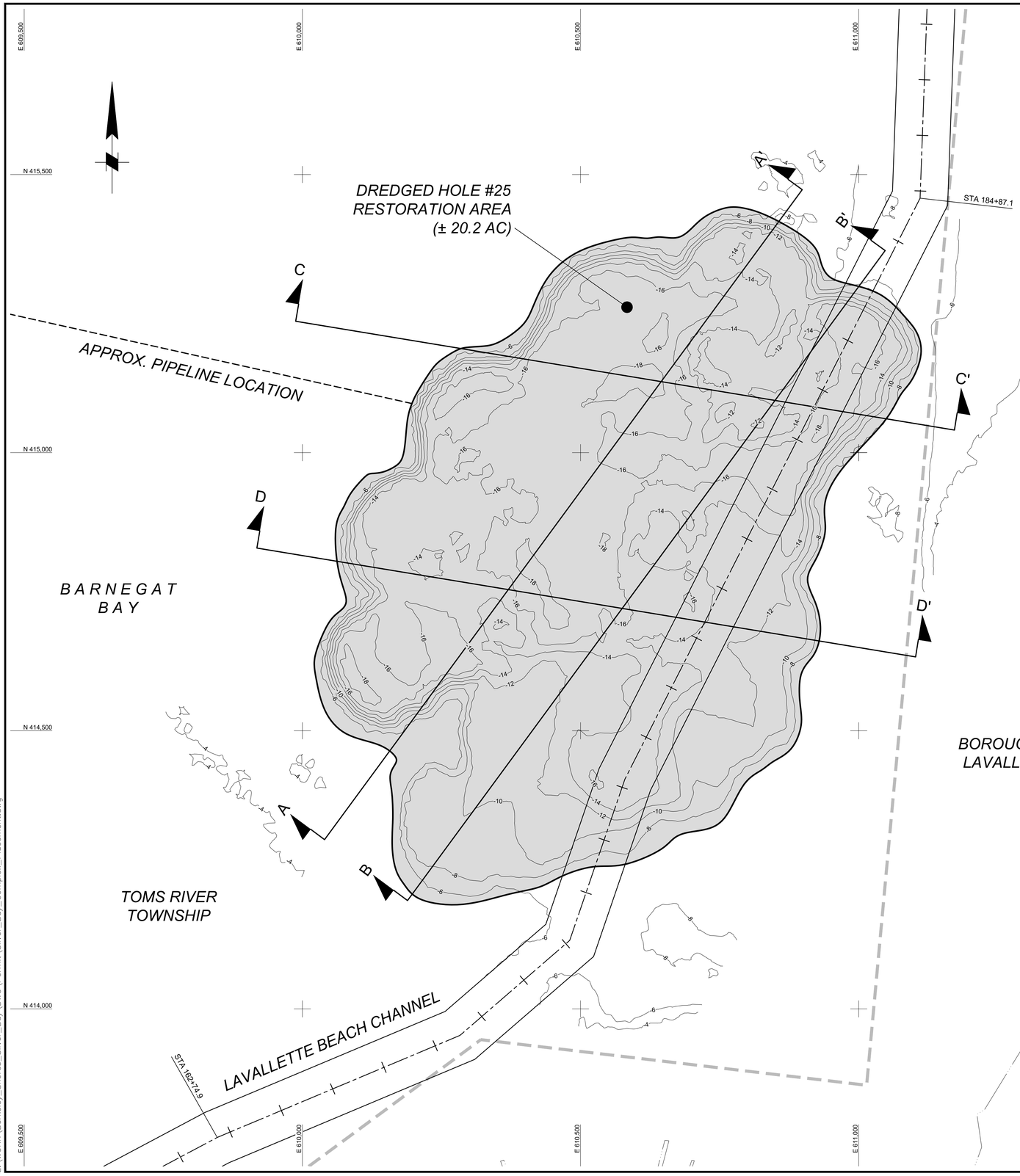
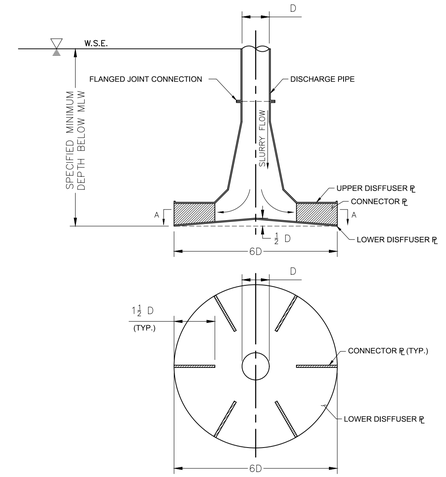




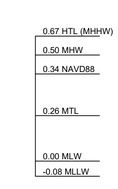
SECTION A-A

TYPICAL DISCHARGE PIPELINE & DIFFUSER DETAIL
NOT TO SCALE

DREDGED HOLE #25 STORAGE VOLUMES (JANUARY 21, 2020)	
ELEVATION (MLW)	STORAGE (CY)
-19 to -18	100
-18 to -16	7,300
-16 to -14	25,100
-14 to -12	40,600
-12 to -10	49,900
-10 to -8	55,600
-8 to -6	59,300
TOTAL (CY)	237,900

NOTES:

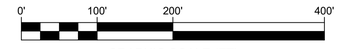
1. VERTICAL DATUM IS IN REFERENCE TO MEAN LOW WATER (MLW). MLW IS 0.34 FEET BELOW THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88). INFORMATION OBTAINED FROM NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION (NOAA) VDATUM DATUM TRANSFORMATION PROGRAM, VERSION 4.0.
2. COORDINATES ARE EXPRESSED IN FEET AND REFER TO THE NEW JERSEY STATE PLANE GRID COORDINATE SYSTEM NORTH AMERICAN DATUM OF 1983 (NAD83).
3. EXISTING SHORELINE (MHWL), DOCK, & PILING LOCATIONS BASED ON GOOGLE AERIAL IMAGERY DATED JULY 2018 AND SHOULD BE CONSIDERED APPROXIMATE.
4. DREDGED HOLE #25 EXISTING CONTOUR DATA SHOWN WAS COLLECTED ON JANUARY 21, 2020 BY GAHAGAN & BRYANT ASSOCIATES (GBA).
5. THE INFORMATION DEPICTED ON THIS PLAN REPRESENTS THE RESULTS OF SURVEYS CONDUCTED ON THE ABOVE DATES AND SHOULD BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.



RANGE OF TIDE (FT)
NOT TO SCALE

LEGEND

- EXISTING CHANNEL CENTERLINE
- EXISTING CHANNEL LIMIT
- APPROXIMATE SHORELINE (MHWL)
- APPROXIMATE PIPELINE LOCATION
- EXISTING ROAD/PAVEMENT
- EXISTING 2' CONTOUR (DREDGED HOLE #25)
- MUNICIPALITY LIMIT
- APPROX. MATERIAL PLACEMENT LIMIT (ELEV. −6 TO −8 MLW)



GRAPHIC SCALE (FT)

GBA
ENGINEERS ▼ SURVEYORS
9008 Yellow Brick Rd, Unit Q
Baltimore, MD 21237
Phone (410) 682-5595
STAN LULEWICZ
NJ PE NO. 24GE04770900

REV.	DATE:	DESCRIPTION	BY	APPR.

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: DREDGED HOLE #25 PLACEMENT PLAN

PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR ANDREWS POINT CHANNEL, SILVER BAY CHANNEL, SILVER BAY ENTRANCE CHANNEL, PIER 1 CHANNEL, BAY SHORE BRIDGE CHANNEL
TOMS RIVER TOWNSHIP
OCEAN COUNTY, NEW JERSEY

DRAWN BY: SEF	WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800	PROJECT NO.
CHECKED BY: MJM		SHEET 28 OF 30
SCALE: AS SHOWN	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500	DWG. NO. PERMIT - 28
DATE: APRIL 2020		

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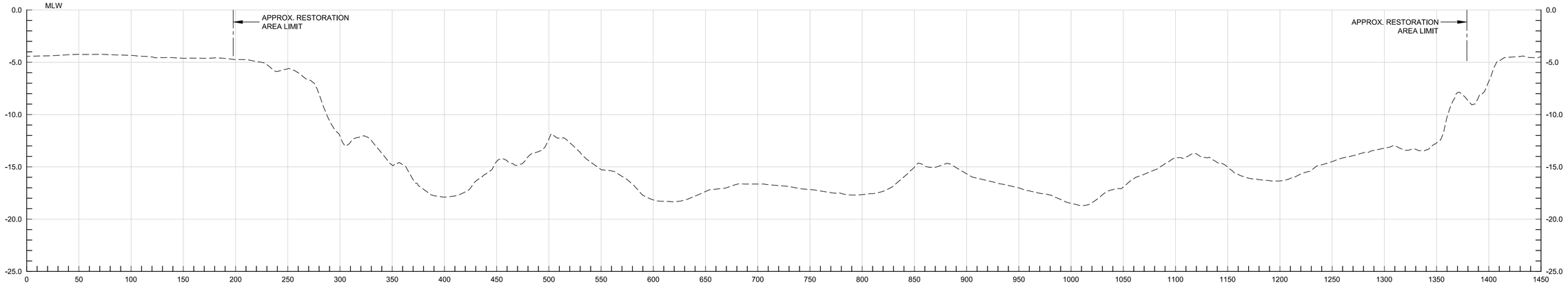
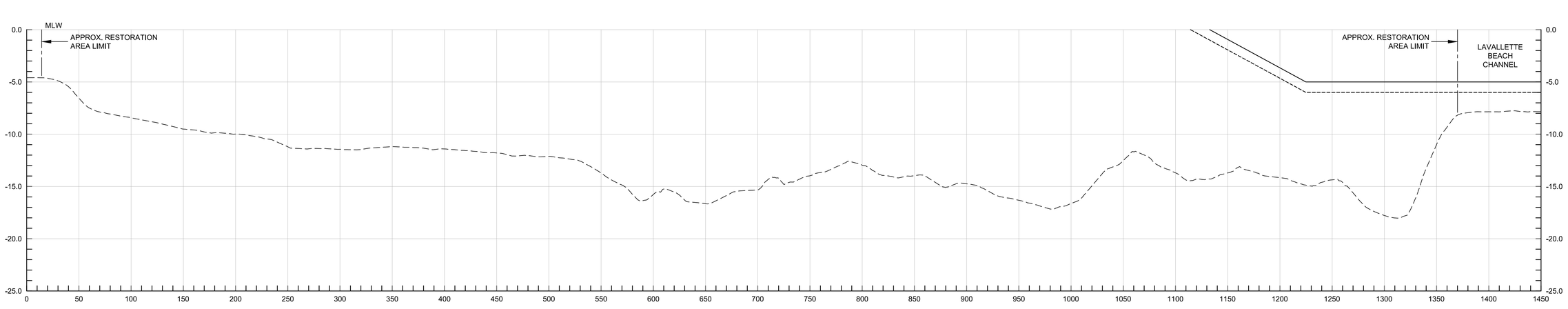


SECTION A-A'

H SCALE : 1" = 50'
V SCALE : 1" = 5'



SECTION B-B'

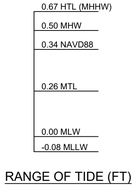
H SCALE : 1" = 50'
V SCALE : 1" = 5'

LEGEND

- EXISTING GROUND (JANUARY 21, 2020)
- EXISTING CHANNEL TEMPLATE
- EXISTING CHANNEL OVERDEPTH TEMPLATE
- RESTORATION AREA LIMIT

NOTES:

1. VERTICAL DATUM IS IN REFERENCE TO MEAN LOW WATER (MLW). MLW IS 0.34 FEET BELOW THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88). INFORMATION OBTAINED FROM NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION (NOAA) VDATUM DATUM TRANSFORMATION PROGRAM, VERSION 4.0.
2. THE INFORMATION DEPICTED ON THIS PLAN REPRESENTS THE RESULTS OF SURVEYS CONDUCTED ON THE ABOVE DATES AND SHOULD BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.



RANGE OF TIDE (FT)
NOT TO SCALE

GBA ENGINEERS ■ SURVEYORS
9008 Yellow Brick Rd, Unit O
Baltimore, MD 21237
Phone (410) 682-5595
STAN LULEWICZ
NJ PE NO. 24GE04770900

REV.	DATE:	DESCRIPTION	BY	APPR.

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: DREDGED HOLE #25 CROSS SECTIONS

PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR ANDREWS POINT CHANNEL, SILVER BAY CHANNEL, SILVER BAY ENTRANCE CHANNEL, PIER 1 CHANNEL, BAY SHORE BRIDGE CHANNEL
TOMS RIVER TOWNSHIP
OCEAN COUNTY, NEW JERSEY

DRAWN BY: SEF	WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800	PROJECT NO.
CHECKED BY: MJM		SHEET 29 OF 30
SCALE: AS SHOWN	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500	
DATE: APRIL 2020		DWG. NO. PERMIT - 29

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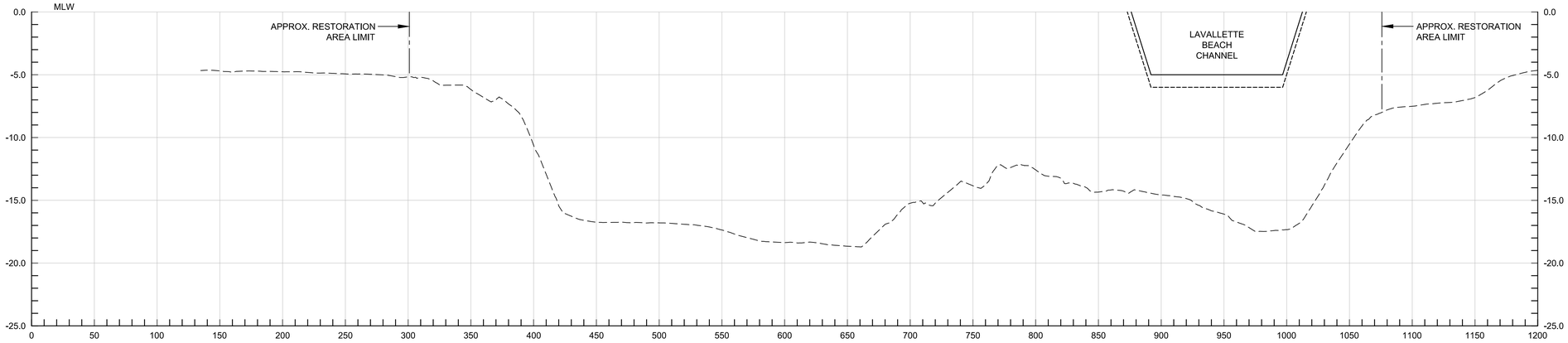
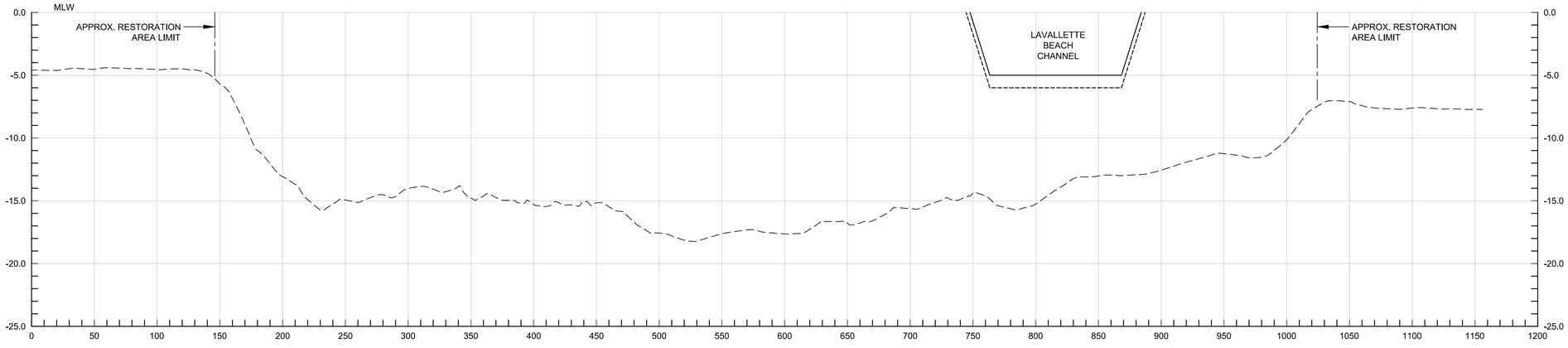


SECTION C-C'

H SCALE : 1" = 50'
V SCALE : 1" = 5'



SECTION D-D'

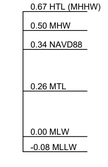
H SCALE : 1" = 50'
V SCALE : 1" = 5'

LEGEND

- EXISTING GROUND (JANUARY 21, 2020)
- EXISTING CHANNEL TEMPLATE
- EXISTING CHANNEL OVERDEPTH TEMPLATE
- RESTORATION AREA LIMIT

NOTES:

1. VERTICAL DATUM IS IN REFERENCE TO MEAN LOW WATER (MLW). MLW IS 0.34 FEET BELOW THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88). INFORMATION OBTAINED FROM NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION (NOAA) VDATUM DATUM TRANSFORMATION PROGRAM, VERSION 4.0.
2. THE INFORMATION DEPICTED ON THIS PLAN REPRESENTS THE RESULTS OF SURVEYS CONDUCTED ON THE ABOVE DATES AND SHOULD BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.



RANGE OF TIDE (FT)
NOT TO SCALE

REV.	DATE:	DESCRIPTION	BY	APPR.

GBA ENGINEERS ■ SURVEYORS
9008 Yellow Brick Rd, Unit O
Baltimore, MD 21237
Phone (410) 682-5595
STAN LULEWICZ
NJ PE NO. 24GE04770900

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: DREDGED HOLE #25 CROSS SECTIONS

PROJECT: MAINTENANCE DREDGING AND CHANNEL IMPROVEMENTS FOR ANDREWS POINT CHANNEL, SILVER BAY CHANNEL, SILVER BAY ENTRANCE CHANNEL, PIER 1 CHANNEL, BAY SHORE BRIDGE CHANNEL
TOMS RIVER TOWNSHIP
OCEAN COUNTY, NEW JERSEY

DRAWN BY: SEF	WSP USA Inc. CERTIFICATION OF AUTHORIZATION NO. 24GA28029800	PROJECT NO.	
CHECKED BY: MJM		SHEET 30 OF 30	
SCALE: AS SHOWN	MICHAEL J. MARANO NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04087500		
DATE: APRIL 2020		DWG. NO. PERMIT - 30	

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