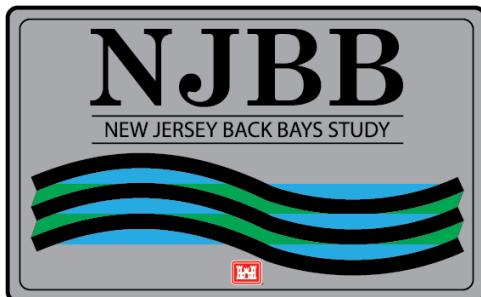

**ENGINEERING APPENDIX
STORM SURGE BARRIER CYCLE 3
SCREENING ANALYSIS**

**NEW JERSEY BACK BAYS
COASTAL STORM RISK MANAGEMENT
FEASIBILITY STUDY**

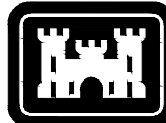
PHILADELPHIA, PENNSYLVANIA

APPENDIX B.7E

August 2021

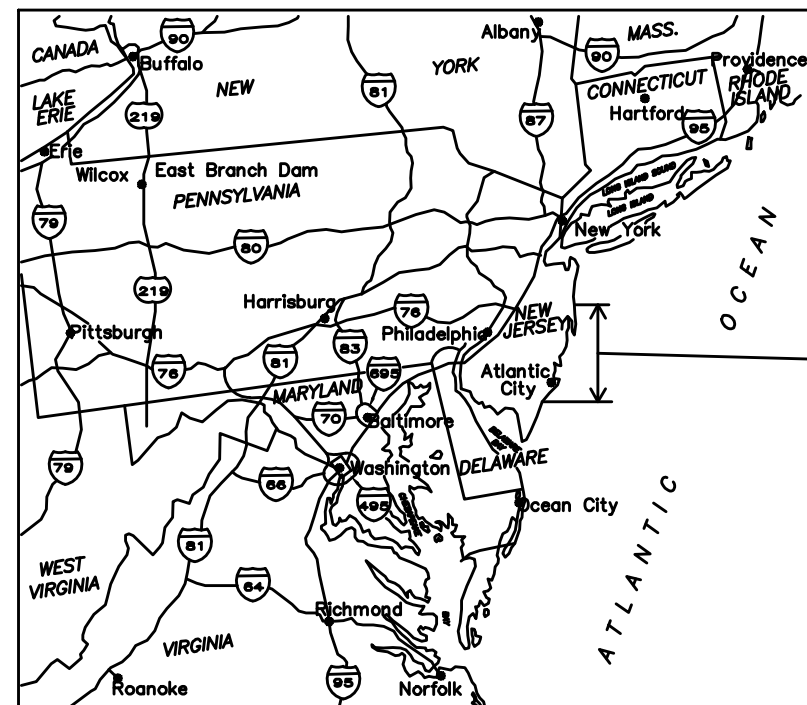


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US Army Corps
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DISTRICT

NEW JERSEY BACK BAYS CSRM FEASIBILITY STUDY STORM SURGE BARRIER CYCLE 3 SCREENING



LOCATION
OF PROJECT

N
VICINITY MAP
N.T.S.

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G-001	COVER SHEET
G-002	GENERAL PLAN
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C-102	GREAT EGG HARBOR INLET - A3
C-103	GREAT EGG HARBOR INLET - B1
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SOLICITATION NO:-
CONTRACT NO:-
ISSUE/SUBMITTAL DATE: MARCH 2019

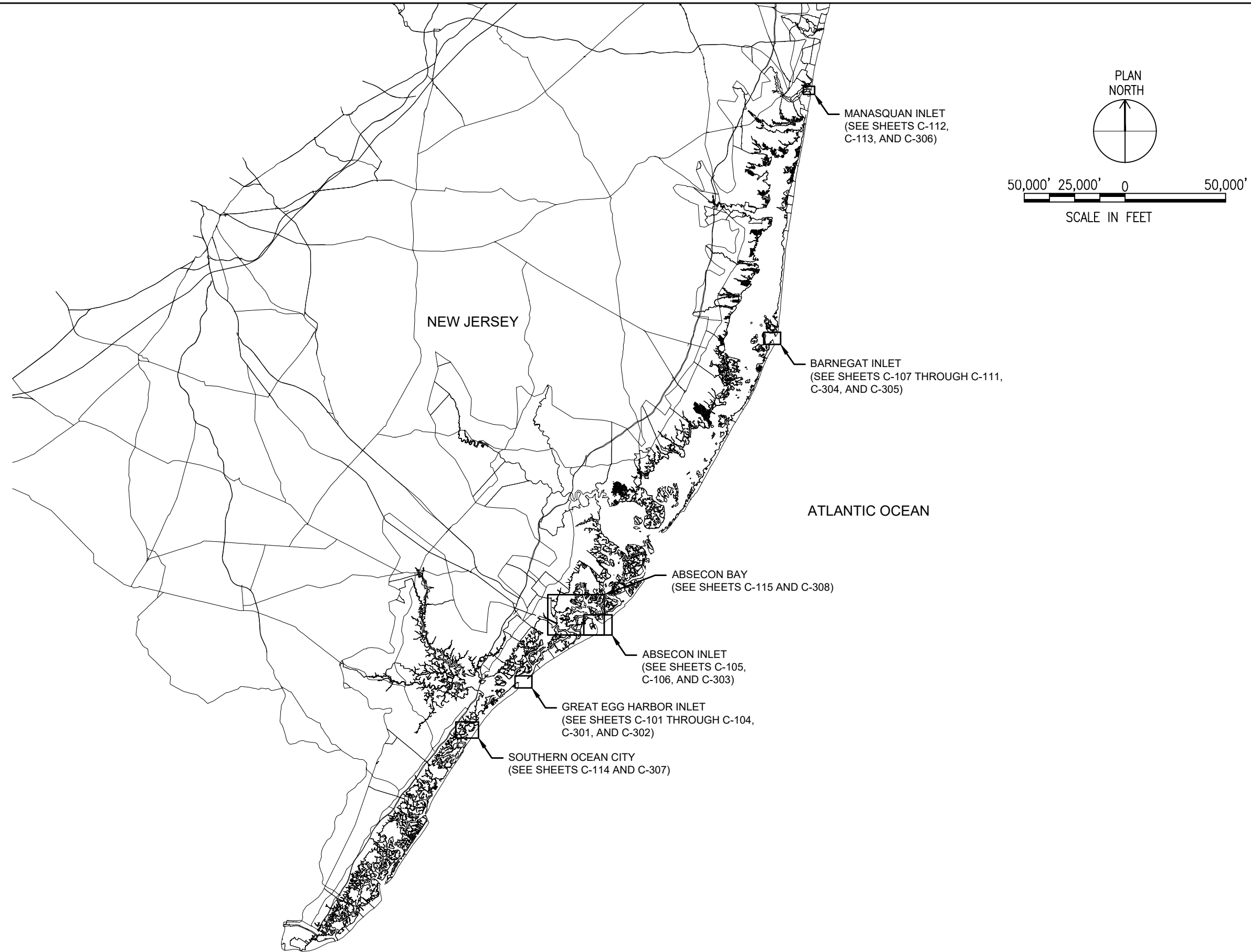
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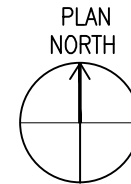
STORM SURGE BARRIER
CYCLE 3 SCREENING
NEW JERSEY BACK BAYS
CSRM FEASIBILITY STUDY
COVER SHEET

SHEET NUMBER

G-001



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50,000' 25,000' 0 50,000'
SCALE IN FEET

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STORM SURGE BARRIER
CYCLE 3 SCREENING
NEW JERSEY BACK BAYS
CSRM FEASIBILITY STUDY
GENERAL PLAN

SHEET NUMBER

G-002



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STORM SURGE BARRIER
CYCLE 3 SCREENING
NEW JERSEY BACK BAYS
CSRM FEASIBILITY STUDY
GREAT EGG HARBOR INLET - A1 & A2

SHEET NUMBER
C-101





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STORM SURGE BARRIER
CYCLE 3 SCREENING
NEW JERSEY BACK BAYS
CSRM FEASIBILITY STUDY
GREAT EGG HARBOR INLET - A3

SHEET NUMBER
C-102





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STORM SURGE BARRIER
CYCLE 3 SCREENING
NEW JERSEY BACK BAYS
CSRM FEASIBILITY STUDY
GREAT EGG HARBOR INLET - B1

SHEET NUMBER

C-103





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STORM SURGE BARRIER
CYCLE 3 SCREENING
NEW JERSEY BACK BAYS
CSRM FEASIBILITY STUDY
GREAT EGG HARBOR INLET - C1

SHEET NUMBER
C-104

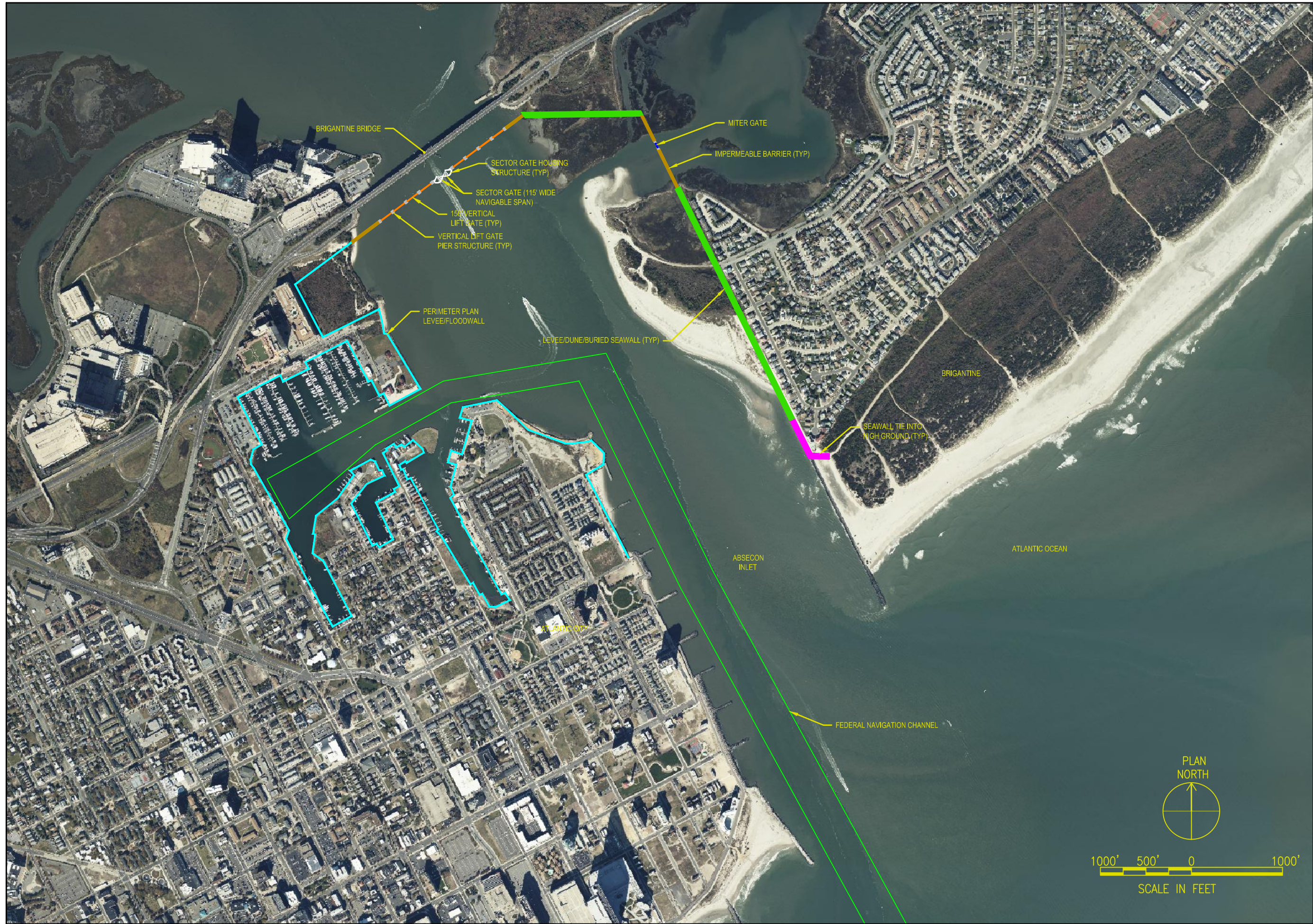


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STORM SURGE BARRIER
CYCLE 3 SCREENING
NEW JERSEY BACK BAYS
CSRM FEASIBILITY STUDY
ABSECON INLET - A1 & A2

SHEET NUMBER
C-105



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STORM SURGE BARRIER
CYCLE 3 SCREENING
NEW JERSEY BACK BAYS
CSRM FEASIBILITY STUDY
ABSECON INLET - B1

SHEET NUMBER
C-106

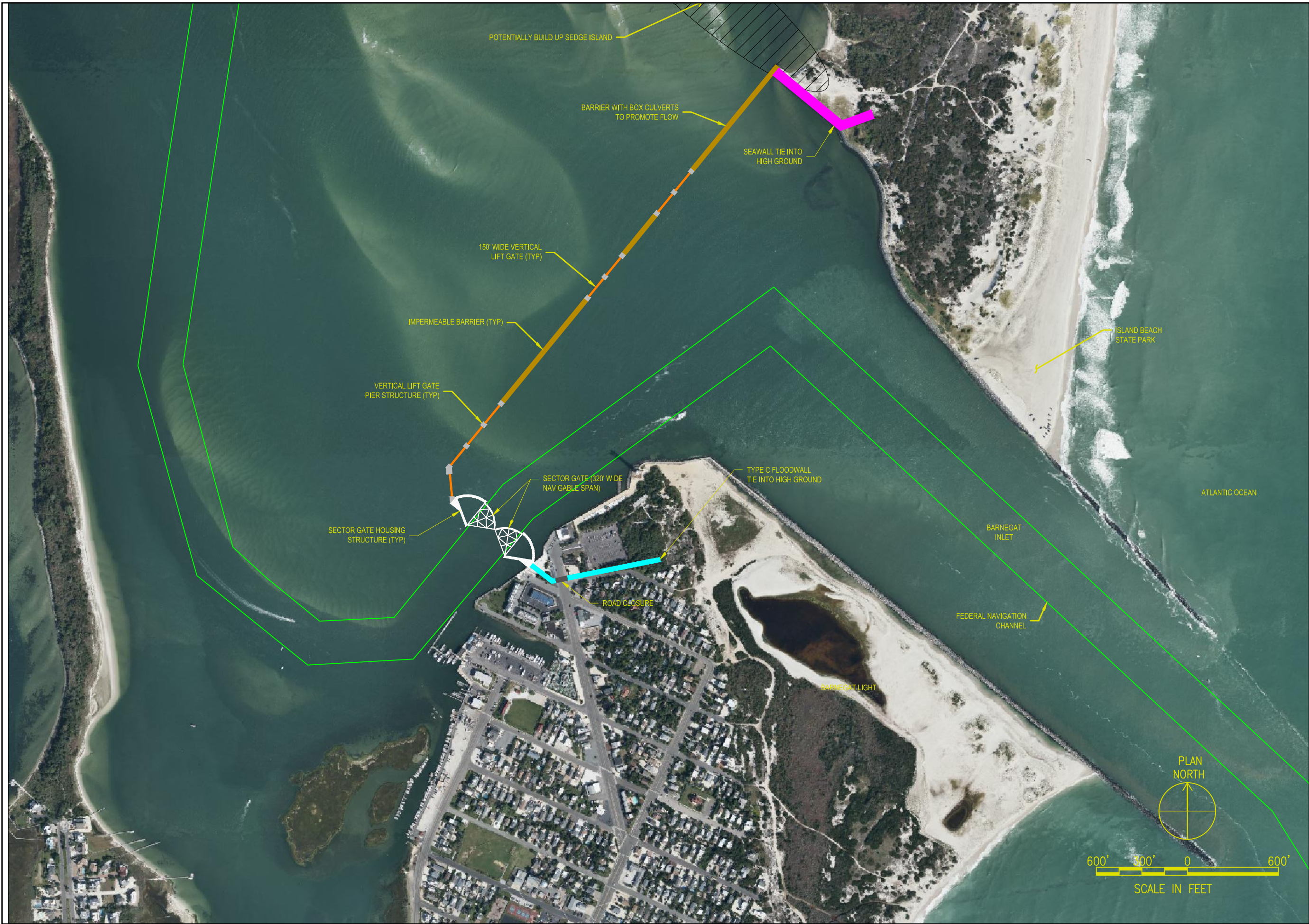




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STORM SURGE BARRIER
CYCLE 3 SCREENING
NEW JERSEY BACK BAYS
CSRM FEASIBILITY STUDY
BARNEGAT INLET - A1 & A2

SHEET NUMBER
C-107



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STORM SURGE BARRIER
CYCLE 3 SCREENING
NEW JERSEY BACK BAYS
CSR FEASIBILITY STUDY
BARNEGAT INLET - A3

SHEET NUMBER
C-108



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STORM SURGE BARRIER
CYCLE 3 SCREENING
NEW JERSEY BACK BAYS
CSRM FEASIBILITY STUDY
BARNEGAT INLET - A4

SHEET NUMBER
C-109



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STORM SURGE BARRIER
CYCLE 3 SCREENING
NEW JERSEY BACK BAYS
CSRM FEASIBILITY STUDY
BARNEGAT INLET - B1

SHEET NUMBER
C-110



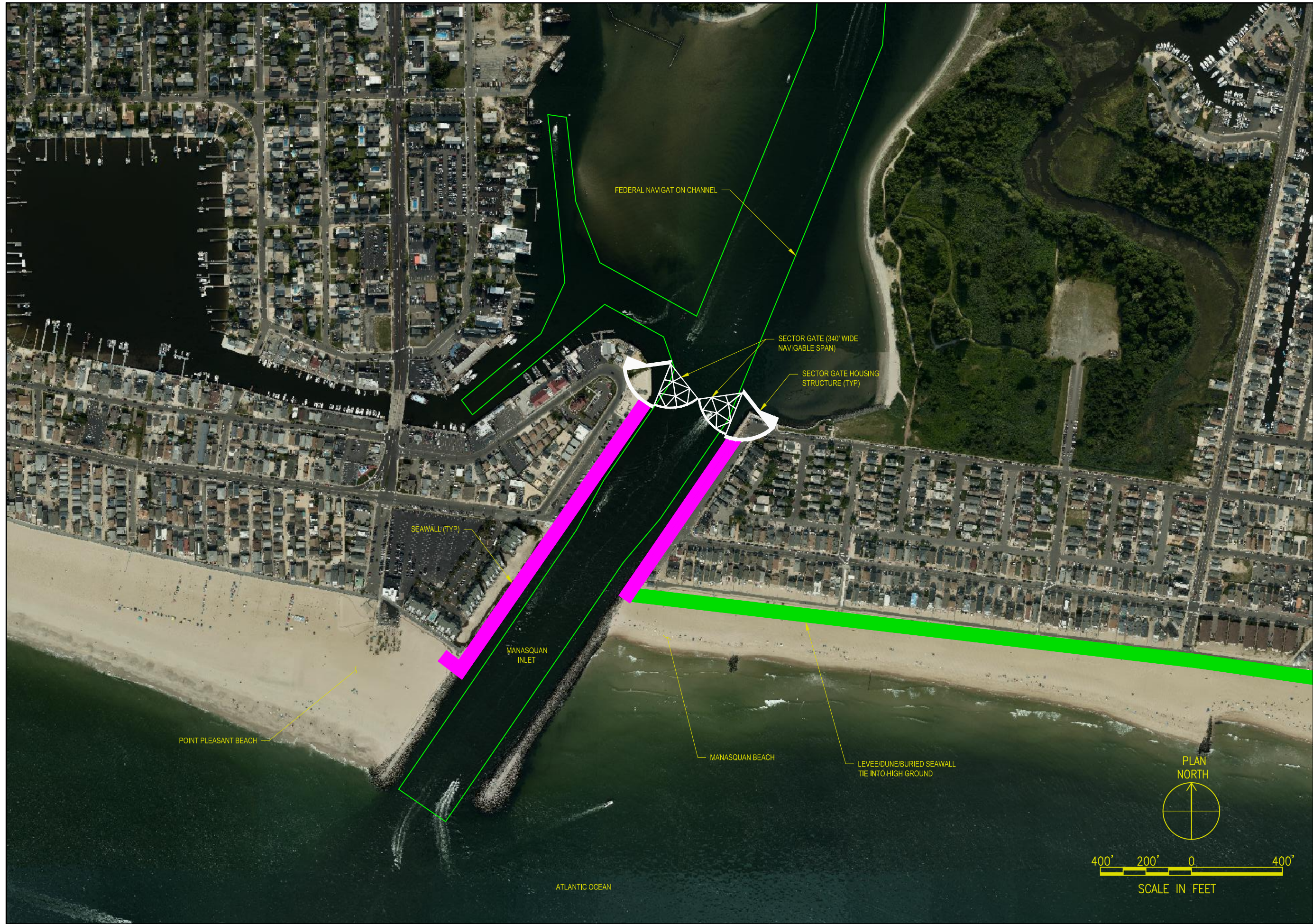
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STORM SURGE BARRIER
CYCLE 3 SCREENING
NEW JERSEY BACK BAYS
CSRM FEASIBILITY STUDY
BARNEGAT INLET - C1

SHEET NUMBER
C-111





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STORM SURGE BARRIER
CYCLE 3 SCREENING
NEW JERSEY BACK BAYS
CSRM FEASIBILITY STUDY
MANASQUAN INLET - A1

SHEET NUMBER
C-112





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STORM SURGE BARRIER
CYCLE 3 SCREENING
NEW JERSEY BACK BAYS
CSRM FEASIBILITY STUDY
MANASQUAN INLET - B1



SHEET NUMBER
C-113

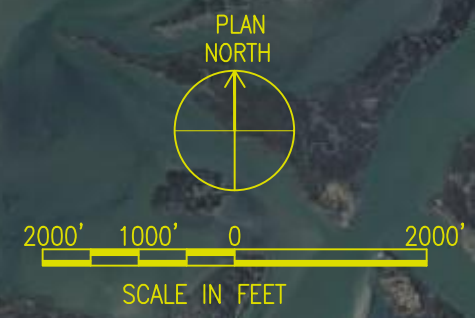


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STORM SURGE BARRIER
CYCLE 3 SCREENING
NEW JERSEY BACK BAYS
CSRM FEASIBILITY STUDY
SOUTHERN OCEAN CITY BAY CLOSURE - A1

SHEET NUMBER
C-114





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STORM SURGE BARRIER
CYCLE 3 SCREENING

NEW JERSEY BACK BAYS
CSRM FEASIBILITY STUDY

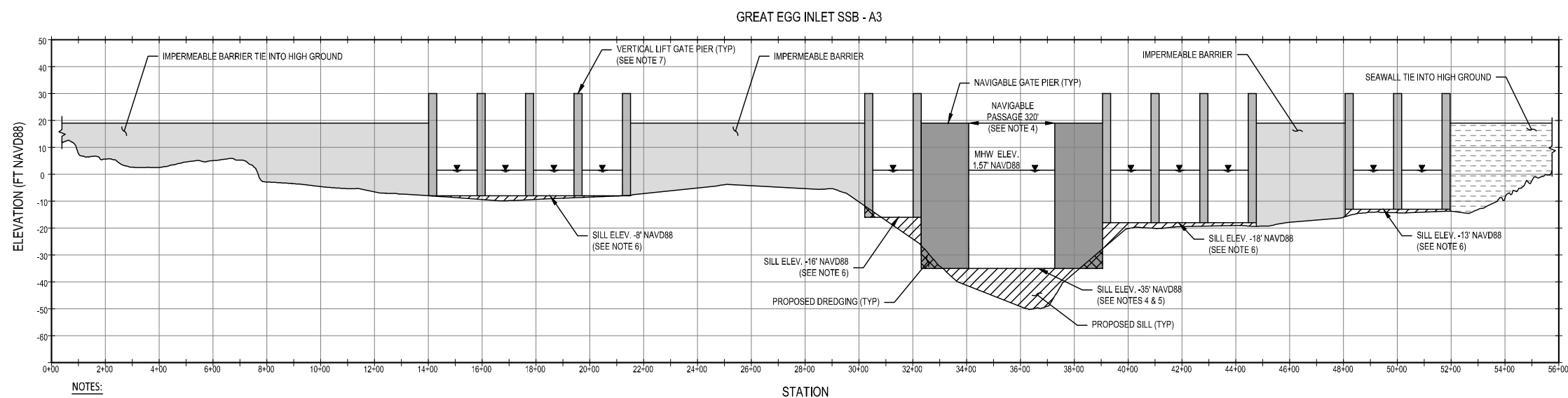
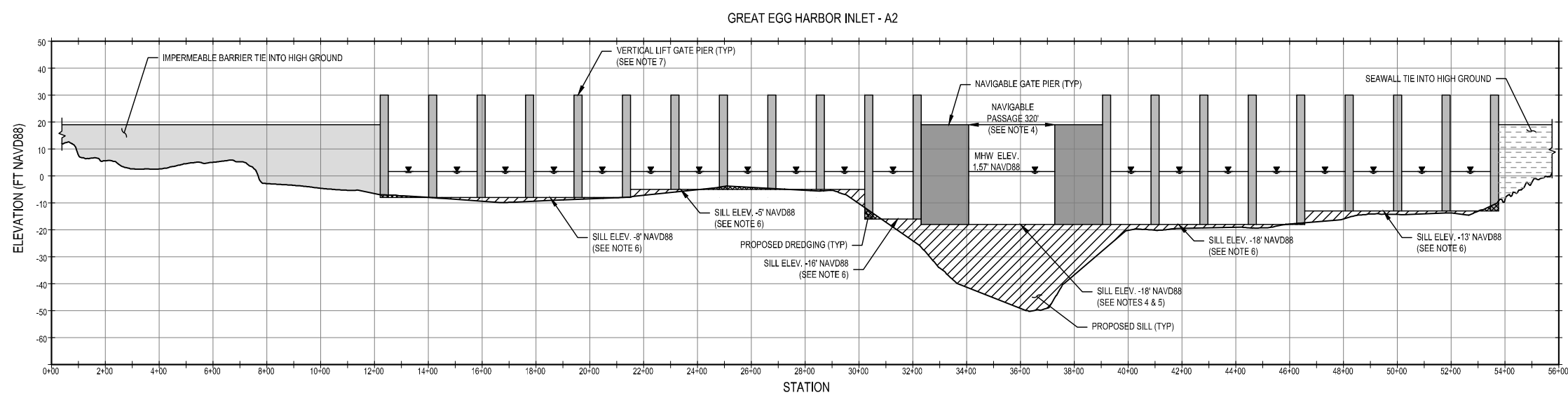
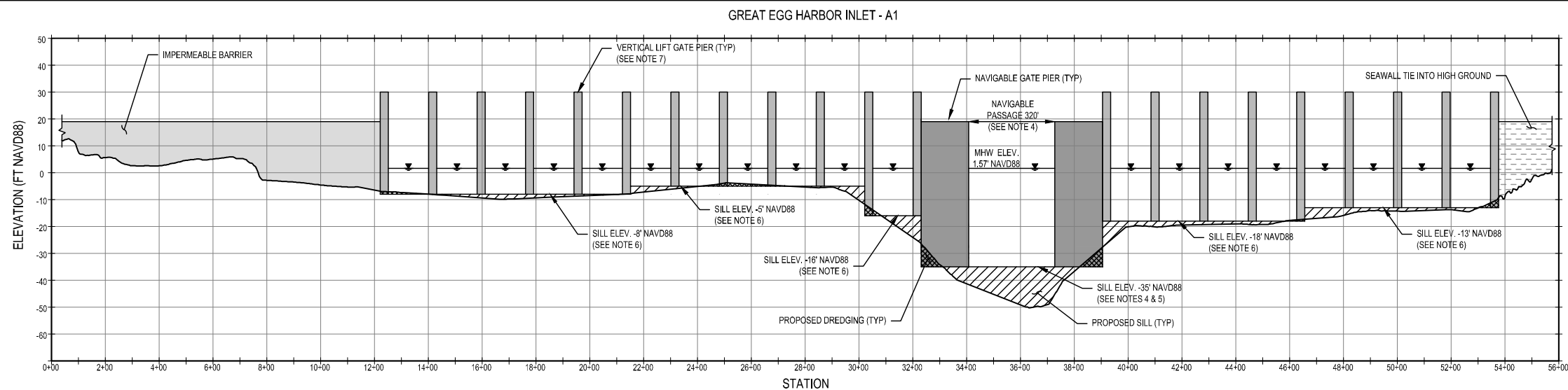
ABSECON BAY CLOSURE - A1

SHEET NUMBER

C-115

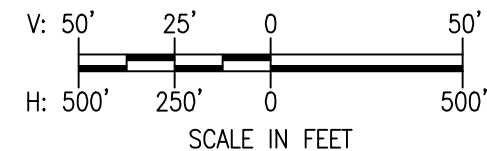


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PHILADELPHIA
DISTRICT



NOTES:

- CROSS SECTIONS SHOWN WERE USED IN THE ERDC ADH MODEL TO EVALUATE BARRIER AFFECTS ON VELOCITY, SALINITY, AND TIDAL PRISM WHILE IN THEIR "OPEN" POSITION. CONFIGURATION C1 WAS NOT MODELED FOR GREAT EGG HARBOR INLET BUT MAY BE FURTHER EVALUATED IN THE NEXT PHASE OF THE FEASIBILITY STUDY.
- ELEVATIONS ARE EXPRESSED IN FEET AND REFER TO THE NORTH AMERICAN VERTICAL DATUM (NAVD) 1988.
- NAVIGABLE SECTOR GATES ARE ASSUMED TO BE LOCATED ACROSS AUTHORIZED FEDERAL NAVIGATION CHANNELS AND SIZED TO ALLOW ACCESS THROUGH THE ENTIRE CHANNEL, OUTSIDE OF SIGNIFICANT STORM EVENTS.
- NO FEDERAL NAVIGATION CHANNEL AUTHORIZED FOR GREAT EGG HARBOR INLET. NAVIGATION REQUIREMENTS FOR GREAT EGG HARBOR INLET WERE ASSUMED TO BE COMPARABLE TO THE BARNEGAT INLET FEDERAL NAVIGATION CHANNEL. NAVIGATION REQUIREMENTS WERE FURTHER EVALUATED AT GREAT EGG HARBOR INLET THROUGH A MARITIME VESSEL ANALYSIS.
- ENGINEERING JUDGEMENT IS USED TO SET THE NAVIGABLE SILL TO PROMOTE NECESSARY FLOW THROUGH THE INLET.
- SILL ELEVATIONS FOR THE VERTICAL LIFT GATES ARE INITIALLY SET TO BE GENERALLY ABOVE THE EXISTING GROUND TO REDUCE THE POTENTIAL FOR SEDIMENTATION. SETTING CONSISTENT SILL ELEVATIONS ACROSS ADJACENT GATES INCREASES THE OVERALL CONSTRUCTABILITY OF THE STORM SURGE BARRIER.
- VERTICAL LIFT GATE PIER TOP ELEVATIONS ARE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY.
- ALL GATES ARE SHOWN IN THE "OPEN" POSITION. MOVEABLE GATES ARE NOT SHOWN FOR CLARITY.



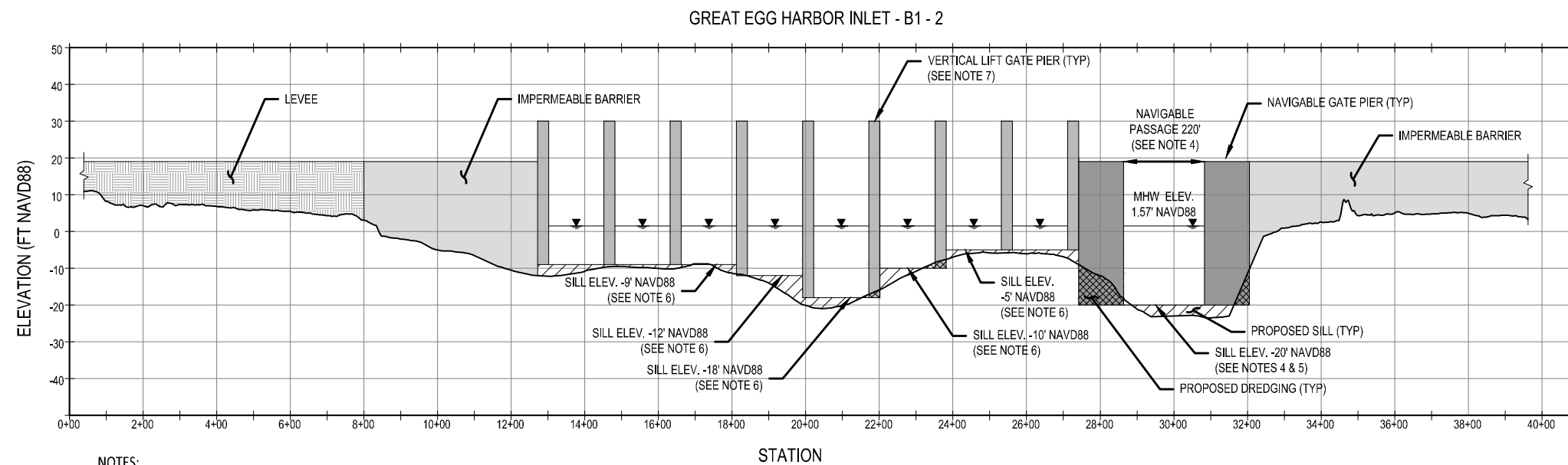
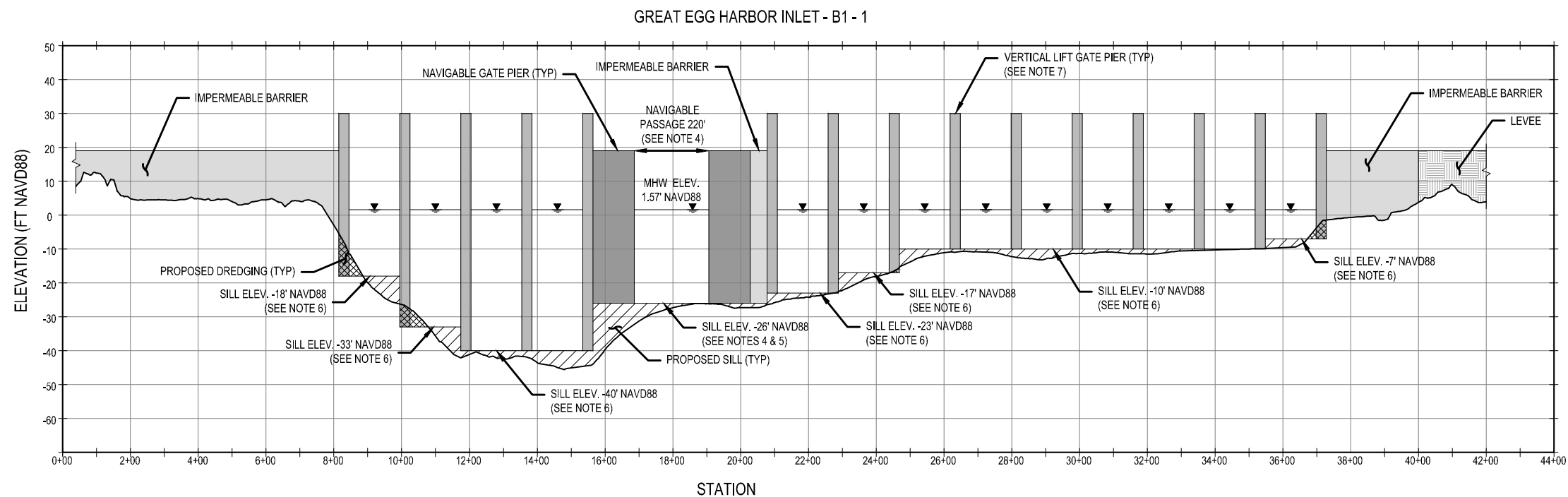
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STORM SURGE BARRIER
CYCLE 3 SCREENING
NEW JERSEY BACK BAYS
CSRM FEASIBILITY STUDY
CROSS SECTIONS - GREAT EGG - A1 TO A3

SHEET NUMBER
C-301

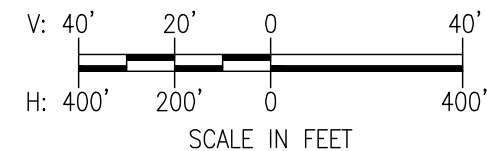


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PHILADELPHIA
DISTRICT



NOTES:

1. CROSS SECTIONS SHOWN WERE USED IN THE ERDC ADH MODEL TO EVALUATE BARRIER AFFECTS ON VELOCITY, SALINITY, AND TIDAL PRISM WHILE IN THEIR "OPEN" POSITION. CONFIGURATION C1 WAS NOT MODELED FOR GREAT EGG HARBOR INLET BUT MAY BE FURTHER EVALUATED IN THE NEXT PHASE OF THE FEASIBILITY STUDY.
2. ELEVATIONS ARE EXPRESSED IN FEET AND REFER THE NORTH AMERICAN VERTICAL DATUM (NAVD) 1988.
3. NAVIGABLE SECTOR GATES ARE ASSUMED TO BE LOCATED ACROSS AUTHORIZED FEDERAL NAVIGATION CHANNELS AND SIZED TO ALLOW ACCESS THROUGH THE ENTIRE CHANNEL, OUTSIDE OF SIGNIFICANT STORM EVENTS.
4. NO FEDERAL NAVIGATION CHANNEL AUTHORIZED FOR GREAT EGG HARBOR INLET. NAVIGATION REQUIREMENTS FOR ALIGNMENT B1 ARE CONSTRAINED BY THE PIER WIDTHS OF OCEAN DRIVE BRIDGE. NAVIGATION REQUIREMENTS WERE FURTHER EVALUATED AT GREAT EGG HARBOR INLET THROUGH A MARITIME VESSEL ANALYSIS.
5. ENGINEERING JUDGEMENT IS USED TO SET THE NAVIGABLE SILL TO PROMOTE NECESSARY FLOW THROUGH THE INLET.
6. SILL ELEVATIONS FOR THE VERTICAL LIFT GATES ARE INITIALLY SET TO BE GENERALLY ABOVE THE EXISTING GROUND TO REDUCE THE POTENTIAL FOR SEDIMENTATION. SETTING CONSISTENT SILL ELEVATIONS ACROSS ADJACENT GATES INCREASES THE OVERALL CONSTRUCTABILITY OF THE STORM SURGE BARRIER.
7. VERTICAL LIFT GATE PIER TOP ELEVATIONS ARE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY.
8. ALL GATES ARE SHOWN IN THE "OPEN" POSITION. MOVEABLE GATES ARE NOT SHOWN FOR CLARITY.



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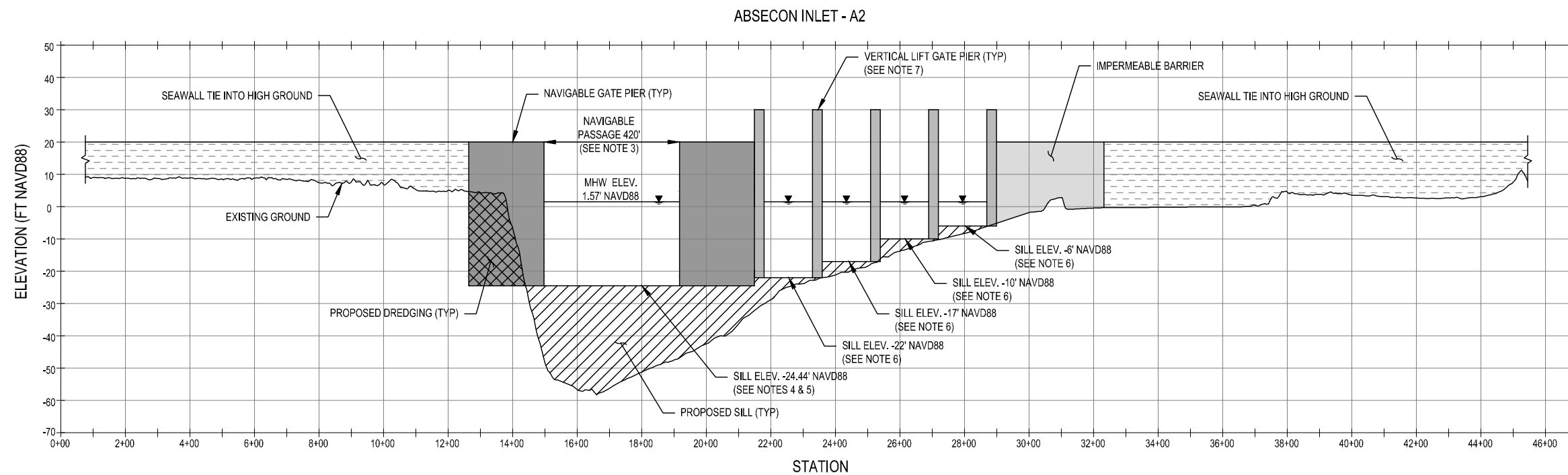
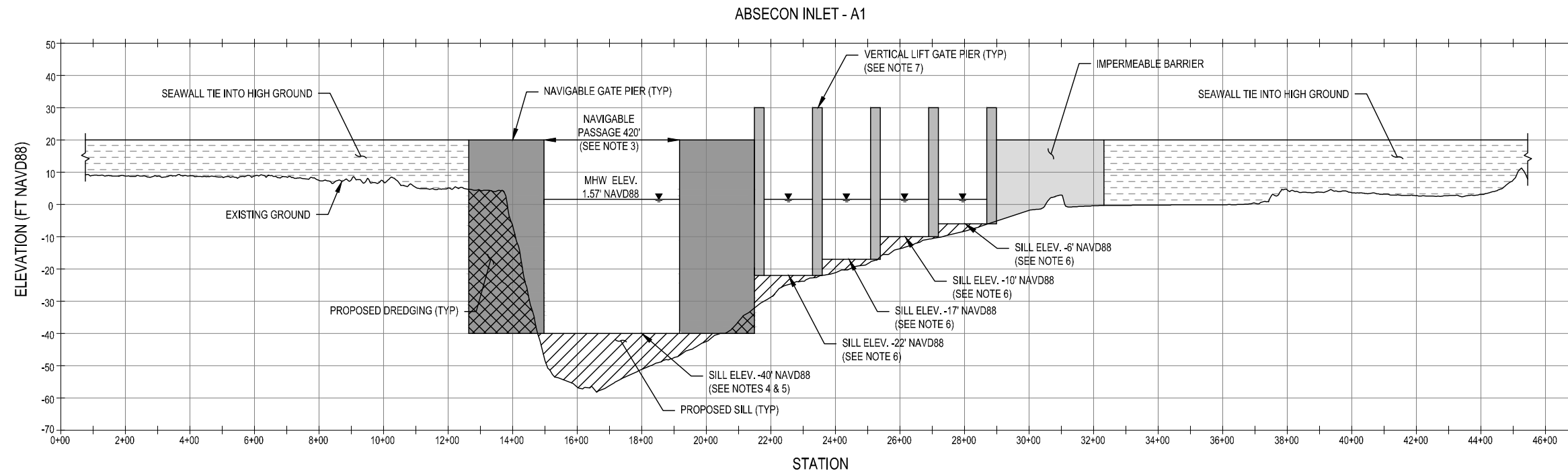
STORM SURGE BARRIER
CYCLE 3 SCREENING
NEW JERSEY BACK BAYS
CSRM FEASIBILITY STUDY
CROSS SECTIONS - GREAT EGG - B1

SHEET NUMBER

C-302

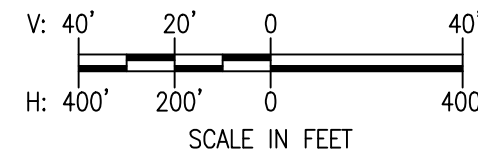


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NOTES:

- CROSS SECTIONS SHOWN WERE USED IN THE ERDC ADH MODEL TO EVALUATE BARRIER AFFECTS ON VELOCITY, SALINITY, AND TIDAL PRISM WHILE IN THEIR "OPEN" POSITION. CONFIGURATION B1 WAS NOT MODELED FOR ABSECON INLET BUT MAY BE FURTHER EVALUATED IN THE NEXT PHASE OF THE FEASIBILITY STUDY.
- ELEVATIONS ARE EXPRESSED IN FEET AND REFER THE NORTH AMERICAN VERTICAL DATUM (NAVD) 1988.
- NAVIGABLE SECTOR GATES ARE ASSUMED TO BE LOCATED ACROSS AUTHORIZED FEDERAL NAVIGATION CHANNELS AND SIZED TO ALLOW ACCESS THROUGH THE ENTIRE CHANNEL, OUTSIDE OF SIGNIFICANT STORM EVENTS. THE FEDERAL NAVIGATION CHANNEL AUTHORIZED WIDTH IS 400 FT. THE NAVIGABLE PASSAGE WAS SIZED TO PROVIDE A 10 FT BUFFER ON EITHER SIDE OF THE FEDERAL NAVIGATION CHANNEL.
- FEDERAL NAVIGATION CHANNEL AUTHORIZED DEPTH IS -20 FT MLW OR APPROXIMATELY -22.44 FT NAVD88.
- THE SILL ELEVATION AT THE FEDERAL NAVIGATION CHANNEL IS INITIALLY SET TO 2 FT BELOW THE AUTHORIZED CHANNEL DEPTH (2 FT OF UNDER-KEEL CLEARANCE TO ACCOUNT FOR A HARD BOTTOM STRUCTURE). THE EXISTING GROUND IN SOME LOCATIONS IS MUCH DEEPER THAN THE AUTHORIZED FEDERAL NAVIGATION CHANNEL. ENGINEERING JUDGEMENT IS USED TO DEEPEN THE SILL BELOW THE AUTHORIZED DEPTH IN ORDER TO PROMOTE ADDITIONAL FLOW.
- SILL ELEVATIONS FOR THE VERTICAL LIFT GATES ARE INITIALLY SET TO BE GENERALLY ABOVE THE EXISTING GROUND TO REDUCE THE POTENTIAL FOR SEDIMENTATION. SETTING CONSISTENT SILL ELEVATIONS ACROSS ADJACENT GATES INCREASES THE OVERALL CONSTRUCTABILITY OF THE STORM SURGE BARRIER.
- VERTICAL LIFT GATE PIER TOP ELEVATIONS ARE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY.
- ALL GATES ARE SHOWN IN THE "OPEN" POSITION. MOVEABLE GATES ARE NOT SHOWN FOR CLARITY.



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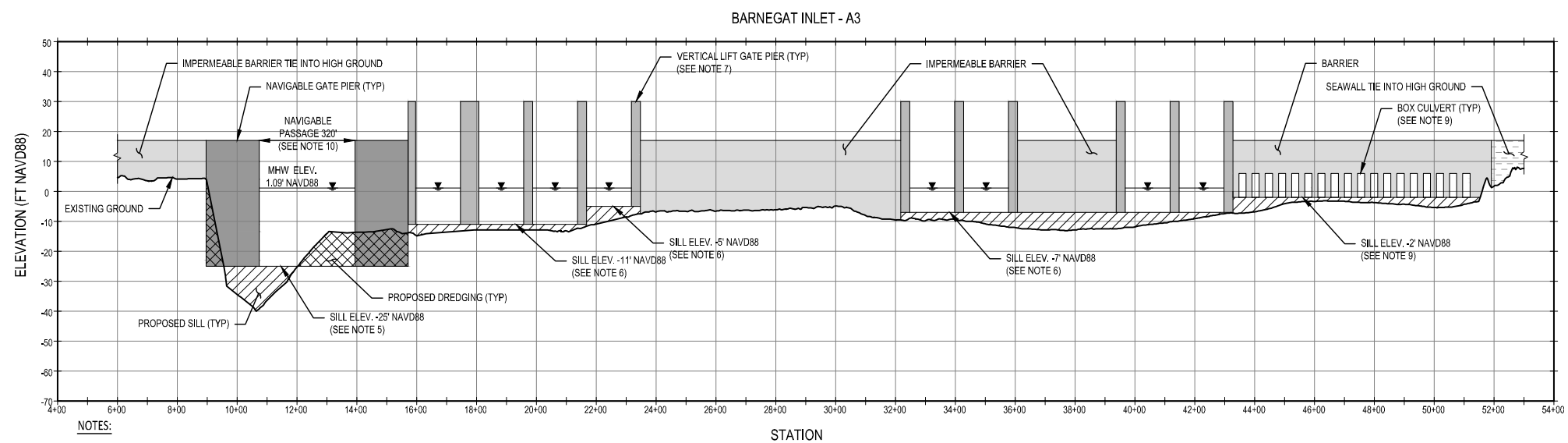
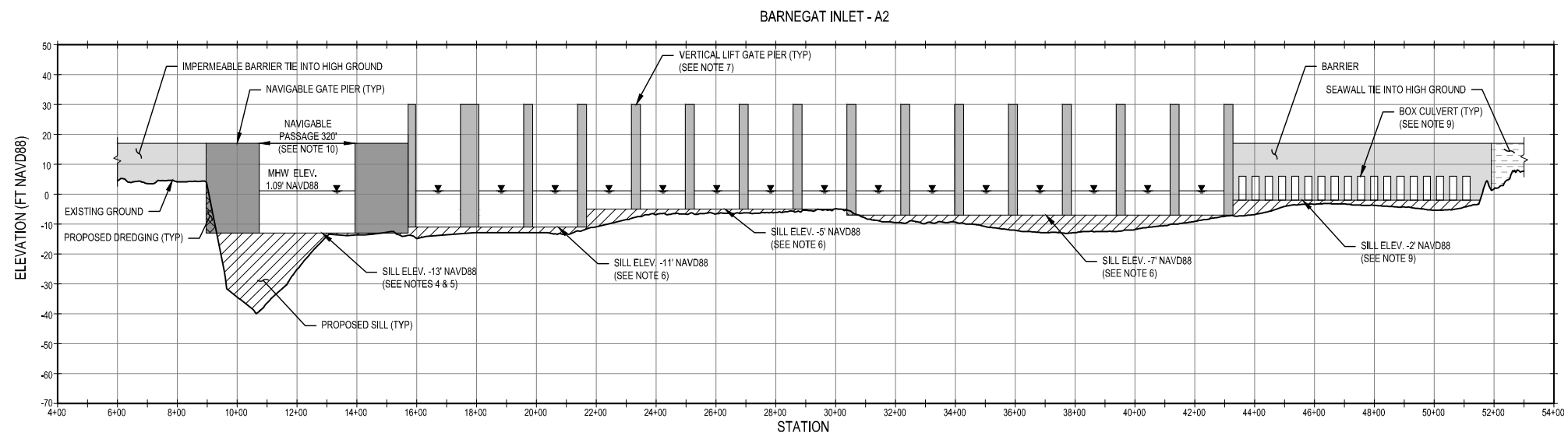
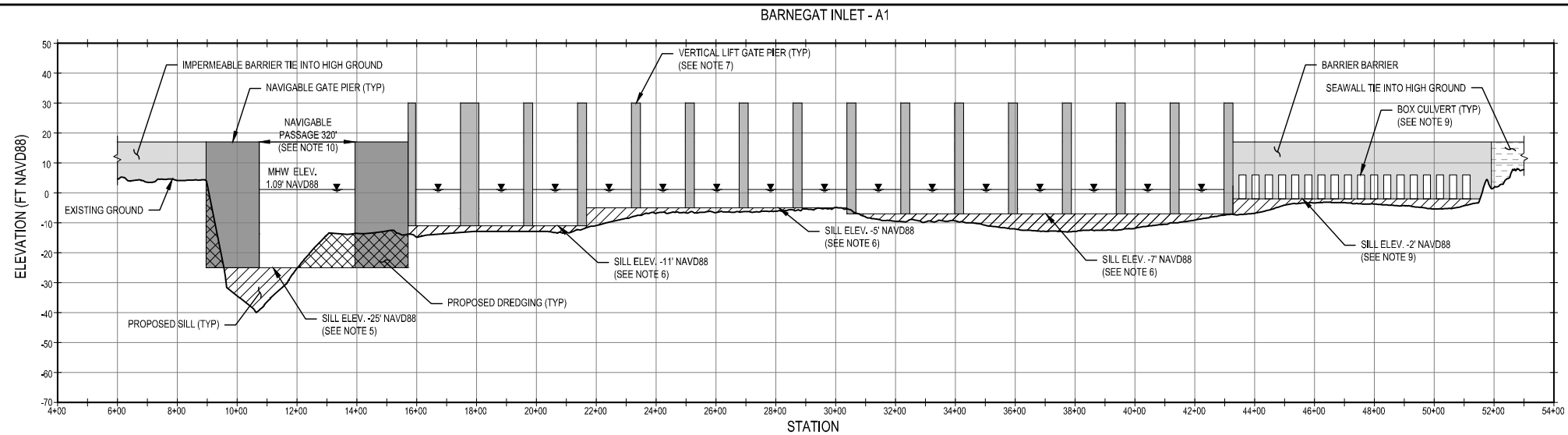
STORM SURGE BARRIER
CYCLE 3 SCREENING
NEW JERSEY BACK BAYS
CSRM FEASIBILITY STUDY
CROSS SECTIONS - ABSECON INLET - A1 & A2

SHEET NUMBER

C-303

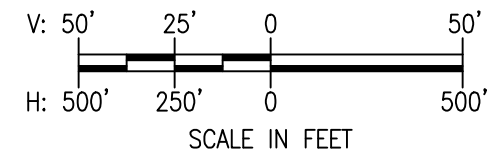


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DISTRICT



NOTES:

- CROSS SECTIONS SHOWN WERE USED IN THE ERDC ADH MODEL TO EVALUATE BARRIER AFFECTS ON VELOCITY, SALINITY, AND TIDAL PRISM WHILE IN THEIR "OPEN" POSITION.
- ELEVATIONS ARE EXPRESSED IN FEET AND REFER THE NORTH AMERICAN VERTICAL DATUM (NAVD) 1988.
- NAVIGABLE SECTOR GATES ARE ASSUMED TO BE LOCATED ACROSS AUTHORIZED FEDERAL NAVIGATION CHANNELS AND SIZED TO ALLOW ACCESS THROUGH THE ENTIRE CHANNEL, OUTSIDE OF SIGNIFICANT STORM EVENTS. THE FEDERAL NAVIGATION CHANNEL AUTHORIZED WIDTH IS 300 FT. THE NAVIGABLE PASSAGE WAS SIZED TO PROVIDE A 10 FT BUFFER ON EITHER SIDE OF THE FEDERAL NAVIGATION CHANNEL.
- FEDERAL NAVIGATION CHANNEL AUTHORIZED DEPTH IS -10 FT MLW OR APPROXIMATELY -11.06 FT NAVD88.
- THE SILL ELEVATION AT THE FEDERAL NAVIGATION CHANNEL IS INITIALLY SET TO 2 FT BELOW THE AUTHORIZED CHANNEL DEPTH (2 FT OF UNDER-KEEL CLEARANCE TO ACCOUNT FOR A HARD BOTTOM STRUCTURE). THE EXISTING GROUND IN SOME LOCATIONS IS MUCH DEEPER THAN THE AUTHORIZED FEDERAL NAVIGATION CHANNEL. ENGINEERING JUDGEMENT IS USED TO DEEPEN THE SILL BELOW THE AUTHORIZED DEPTH IN ORDER TO PROMOTE ADDITIONAL FLOW.
- SILL ELEVATIONS FOR THE VERTICAL LIFT GATES ARE INITIALLY SET TO BE GENERALLY ABOVE THE EXISTING GROUND TO REDUCE THE POTENTIAL FOR SEDIMENTATION. SETTING CONSISTENT SILL ELEVATIONS ACROSS ADJACENT GATES INCREASES THE OVERALL CONSTRUCTABILITY OF THE STORM SURGE BARRIER.
- VERTICAL LIFT GATE PIER TOP ELEVATIONS ARE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY.
- ALL GATES ARE SHOWN IN THE "OPEN" POSITION. MOVEABLE GATES ARE NOT SHOWN FOR CLARITY.
- BOX CULVERT DIMENSIONS ARE ASSUMED TO BE 24 FT X 8 FT. THE BOX CULVERT BASE IS AT ELEV. -2 FT NAVD88.



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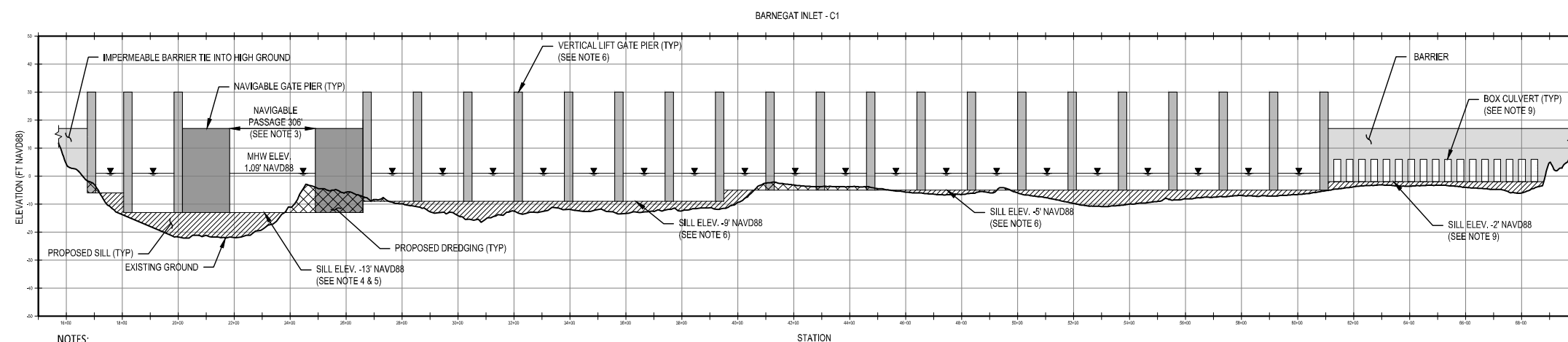
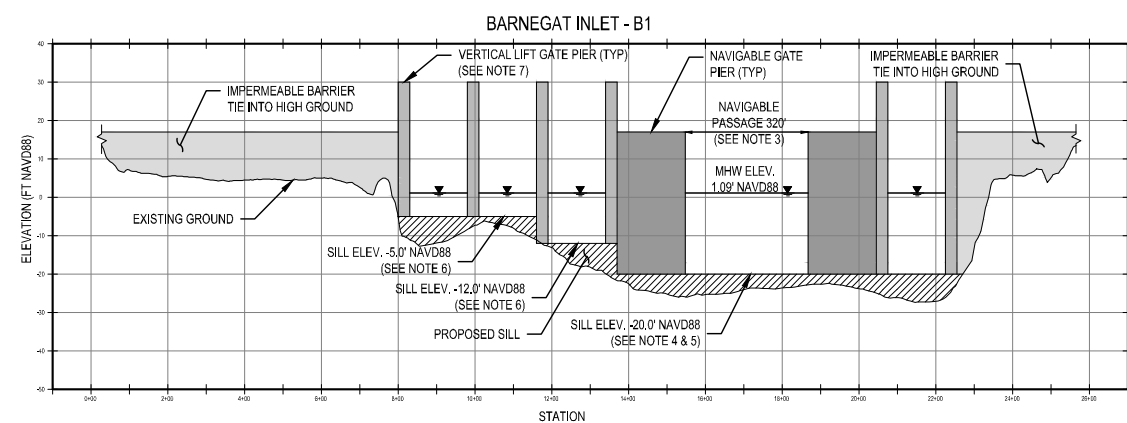
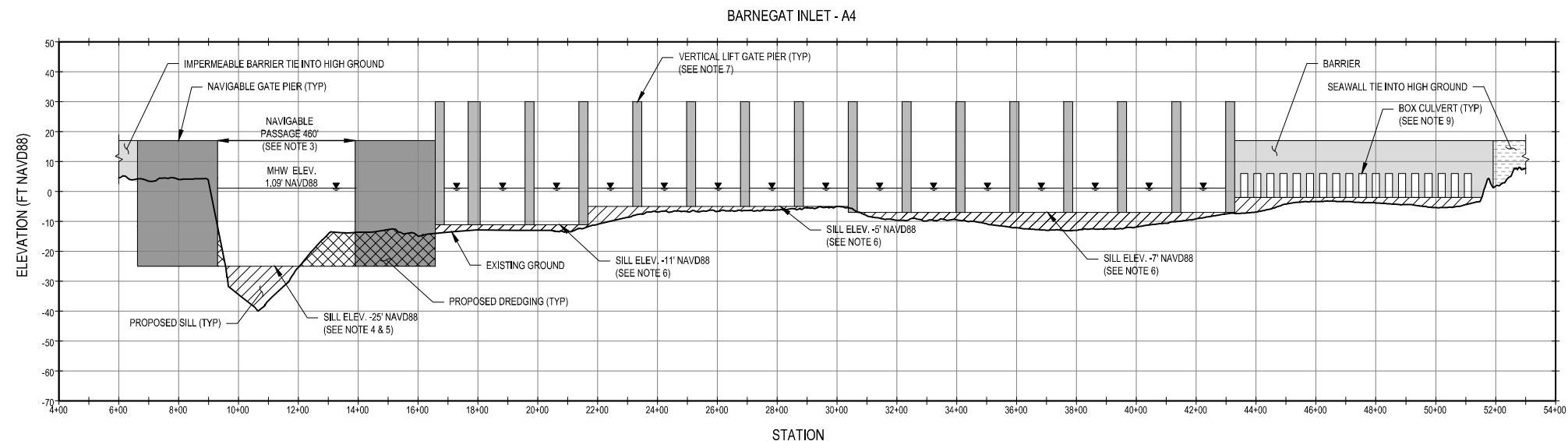
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STORM SURGE BARRIER
CYCLE 3 SCREENING
NEW JERSEY BACK BAYS
CSRM FEASIBILITY STUDY
CROSS SECTIONS - BARNEGAT - A1 TO A3

SHEET NUMBER
C-304

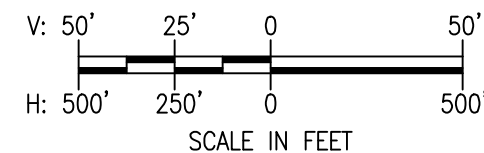


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NOTES:

- CROSS SECTIONS SHOWN WERE USED IN THE ERDC ADH MODEL TO EVALUATE BARRIER AFFECTS ON VELOCITY, SALINITY, AND TIDAL PRISM WHILE IN THEIR "OPEN" POSITION.
- ELEVATIONS ARE EXPRESSED IN FEET AND REFER THE NORTH AMERICAN VERTICAL DATUM (NAVD) 1988.
- NAVIGABLE SECTOR GATES ARE ASSUMED TO BE LOCATED ACROSS AUTHORIZED FEDERAL NAVIGATION CHANNELS AND SIZED TO ALLOW ACCESS THROUGH THE ENTIRE CHANNEL, OUTSIDE OF SIGNIFICANT STORM EVENTS. THE FEDERAL NAVIGATION CHANNEL AUTHORIZED WIDTH VARIES. FOR A4, THE NAVIGABLE PASSAGE WAS WIDENED TO PROMOTE ADDITIONAL FLOW AND SO THAT THE SECTOR GATE HOUSING STRUCTURE WOULD BE ON LAND. THE NAVIGABLE PASSAGE WAS SIZED TO PROVIDE A 10 FT BUFFER ON EITHER SIDE OF THE FEDERAL NAVIGATION CHANNEL FOR B1 AND C1.
- FEDERAL NAVIGATION CHANNEL AUTHORIZED DEPTH IS -10 FT MLW OR APPROXIMATELY -11.06 FT NAVD88.
- THE SILL ELEVATION AT THE FEDERAL NAVIGATION CHANNEL IS INITIALLY SET TO 2 FT BELOW THE AUTHORIZED CHANNEL DEPTH (2 FT OF UNDER-KEEL CLEARANCE TO ACCOUNT FOR A HARD BOTTOM STRUCTURE). THE EXISTING GROUND IN SOME LOCATIONS IS MUCH DEEPER THAN THE AUTHORIZED FEDERAL NAVIGATION CHANNEL. ENGINEERING JUDGEMENT IS USED TO DEEPEN THE SILL BELOW THE AUTHORIZED DEPTH IN ORDER TO PROMOTE ADDITIONAL FLOW.
- SILL ELEVATIONS FOR THE VERTICAL LIFT GATES ARE INITIALLY SET TO BE GENERALLY ABOVE THE EXISTING GROUND TO REDUCE THE POTENTIAL FOR SEDIMENTATION. SETTING CONSISTENT SILL ELEVATIONS ACROSS ADJACENT GATES INCREASES THE OVERALL CONSTRUCTABILITY OF THE STORM SURGE BARRIER.
- VERTICAL LIFT GATE PIER TOP ELEVATIONS ARE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY.
- ALL GATES ARE SHOWN IN THE "OPEN" POSITION. MOVEABLE GATES ARE NOT SHOWN FOR CLARITY.
- BOX CULVERT DIMENSIONS ARE ASSUMED TO BE 24 FT X 8 FT. THE BOX CULVERT BASE IS AT ELEV. -2 FT NAVD88.



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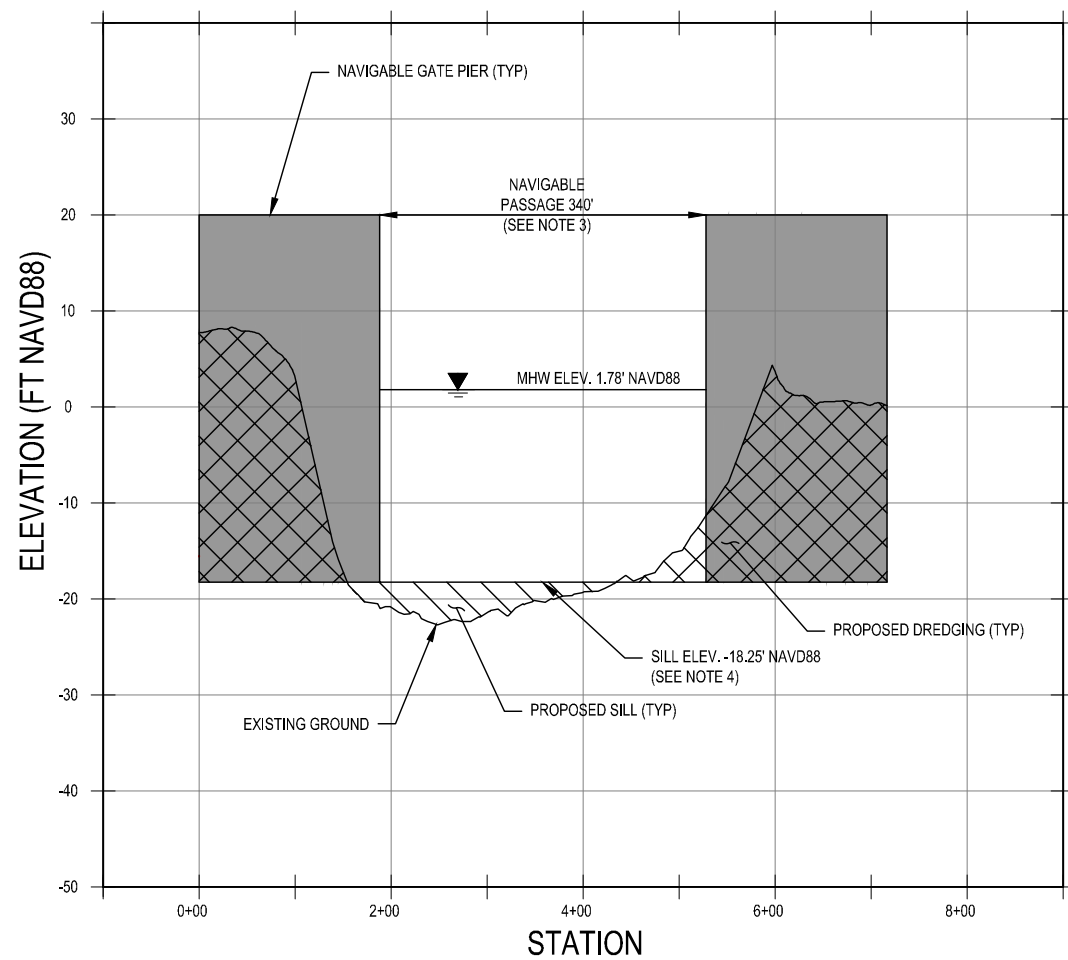
STORM SURGE BARRIER
CYCLE 3 SCREENING
NEW JERSEY BACK BAYS
CSRM FEASIBILITY STUDY
CROSS SECTIONS - BARNEGAT - A4 TO C1

SHEET NUMBER
C-305

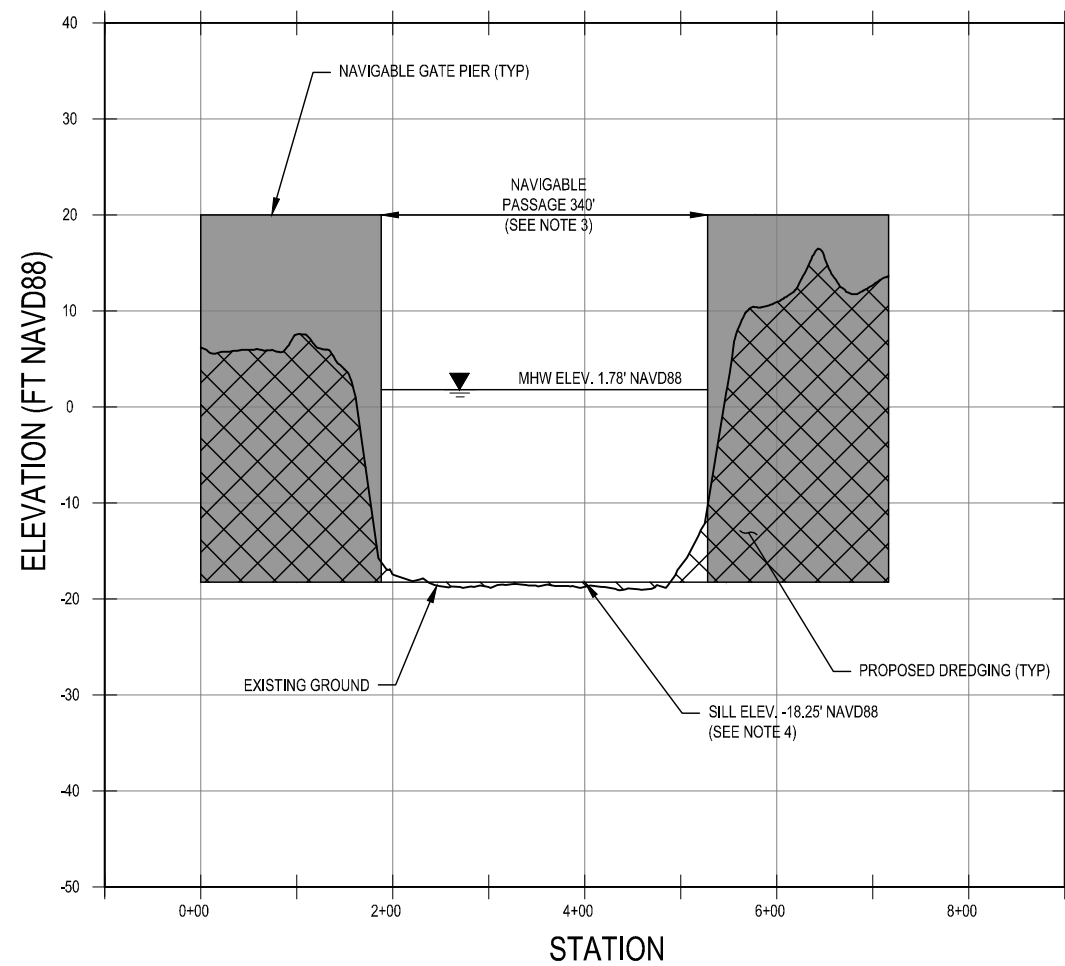


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MANASQUAN INLET - A1



MANASQUAN INLET - B1



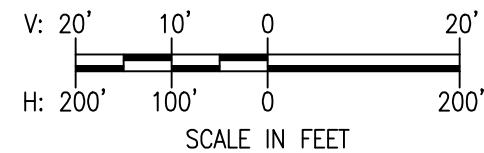
NOTES:

1. CROSS SECTIONS SHOWN WERE USED IN THE ERDC ADH MODEL TO EVALUATE BARRIER EFFECTS ON VELOCITY, SALINITY, AND TIDAL PRISM WHILE IN THEIR "OPEN" POSITION.
2. ELEVATIONS ARE EXPRESSED IN FEET AND REFER THE NORTH AMERICAN VERTICAL DATUM (NAVD) 1988.
3. NAVIGABLE SECTOR GATES ARE ASSUMED TO BE LOCATED ACROSS THE AUTHORIZED FEDERAL NAVIGATION CHANNEL AND SIZED TO ALLOW ACCESS TO THE ENTIRE CHANNEL, OUTSIDE OF SIGNIFICANT STORM EVENTS. THE FEDERAL NAVIGATION CHANNEL AUTHORIZED WIDTH IS 300 FT. THE NAVIGABLE PASSAGE WAS SIZED TO 340' TO PROVIDE A BUFFER FROM THE NAVIGATION CHANNEL AND TO PROMOTE ADDITIONAL FLOW.
4. FEDERAL NAVIGATION CHANNEL AUTHORIZED DEPTH IS -14 FT MLW OR APPROXIMATELY -16.25 FT NAVD88.
5. THE SILL ELEVATION AT THE FEDERAL NAVIGATION CHANNEL IS INITIALLY SET TO 2 FEET BELOW THE AUTHORIZED CHANNEL DEPTH (2 FT OF UNDER-KEEL CLEARANCE TO ACCOUNT FOR A HARD BOTTOM STRUCTURE). THE EXISTING GROUND AT SOME LOCATIONS IS MUCH DEEPER THAN THE AUTHORIZED FEDERAL NAVIGATION CHANNEL. ENGINEERING JUDGEMENT IS USED TO DEEPEN THE SILL BELOW THE AUTHORIZED DEPTH IN ORDER TO PROMOTE ADDITIONAL FLOW.
6. ALL GATES ARE SHOWN IN THE OPEN POSITION. MOVEABLE GATES ARE NOT SHOWN FOR CLARITY.

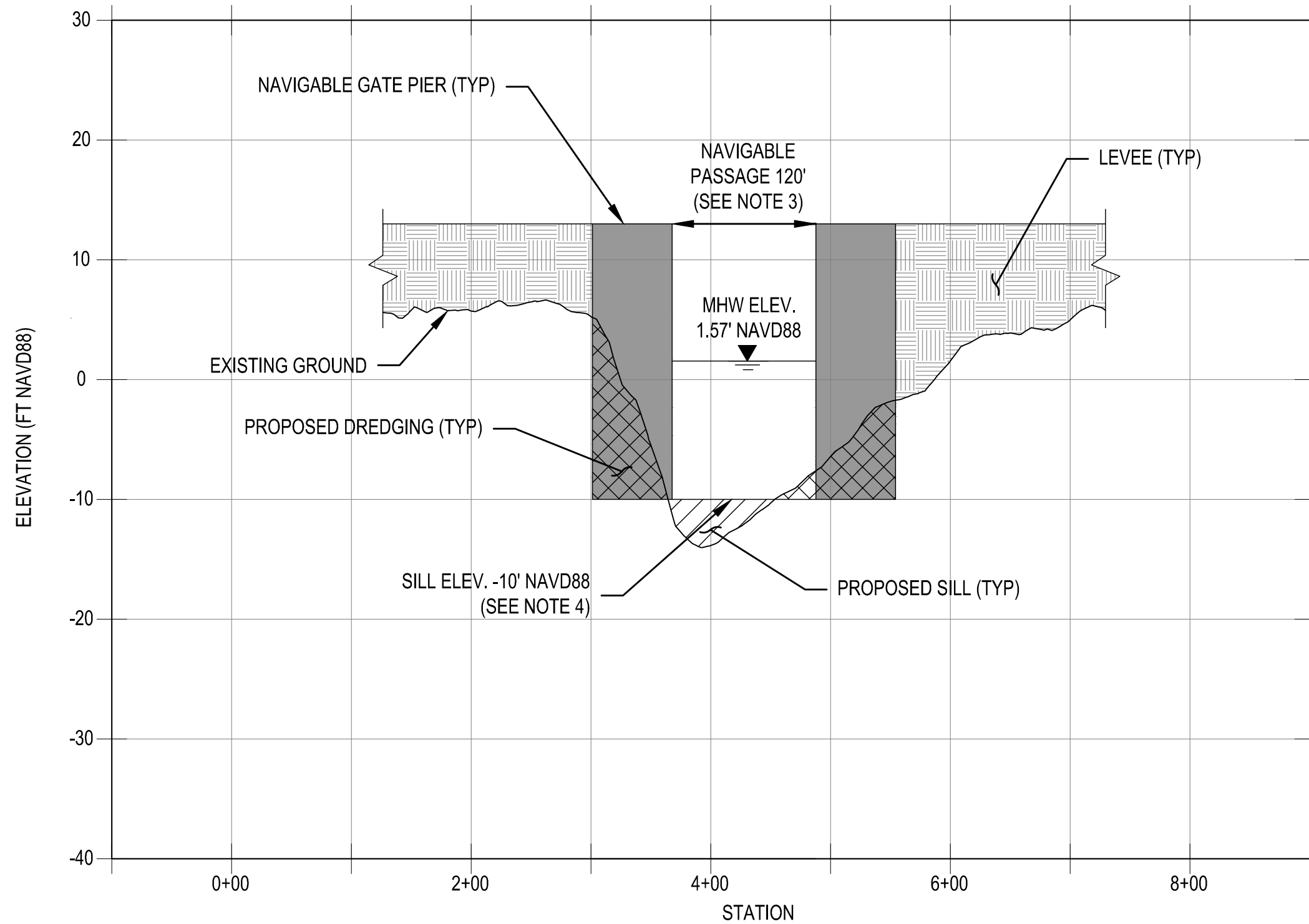
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STORM SURGE BARRIER
CYCLE 3 SCREENING
NEW JERSEY BACK BAYS
CSRM FEASIBILITY STUDY
CROSS SECTIONS - MANASQUAN - A1 & B1

SHEET NUMBER
C-306

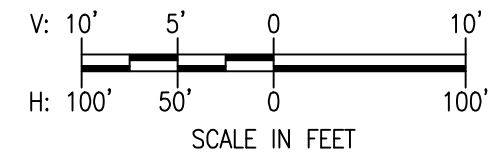


SOUTHERN OCEAN CITY BAY CLOSURE SECTOR GATE - A1



NOTES:

1. CROSS SECTIONS SHOWN WERE USED IN THE ERDC ADH MODEL TO EVALUATE BARRIER EFFECTS ON VELOCITY, SALINITY, AND TIDAL PRISM WHILE IN THEIR "OPEN" POSITION.
2. ELEVATIONS ARE EXPRESSED IN FEET AND REFER THE NORTH AMERICAN VERTICAL DATUM (NAVD) 1988.
3. NAVIGABLE SECTOR GATES ARE ASSUMED TO BE LOCATED ACROSS AUTHORIZED FEDERAL NAVIGATION CHANNELS AND SIZED TO ALLOW ACCESS THROUGH THE ENTIRE CHANNEL, OUTSIDE OF SIGNIFICANT STORM EVENTS. THE NJICWW AUTHORIZED WIDTH IS 100 FT. THE NAVIGABLE SECTOR GATE WAS SIZED TO PROVIDE A 10 FT BUFFER ON EITHER SIDE.
4. THE NJICWW IS NORMALLY MAINTAINED TO A DEPTH OF 6 FT MLW. THE SECTOR GATE SILL ELEVATION IS INITIALLY SET TO 2 FEET BELOW THE MAINTAINED DEPTH (2 FT OF UNDER-KEEL CLEARANCE TO ACCOUNT FOR A HARD BOTTOM STRUCTURE). THE EXISTING GROUND AT SOME LOCATIONS IS MUCH DEEPER THAN THE MAINTAINED DEPTH. ENGINEERING JUDGEMENT IS USED TO DEEPEN THE SILL BELOW THE MAINTAINED DEPTH TO PROMOTE ADDITIONAL FLOW.
5. SECTOR GATE SHOWN IN THE "OPEN" POSITION. MOVEABLE GATES ARE NOT SHOWN FOR CLARITY.



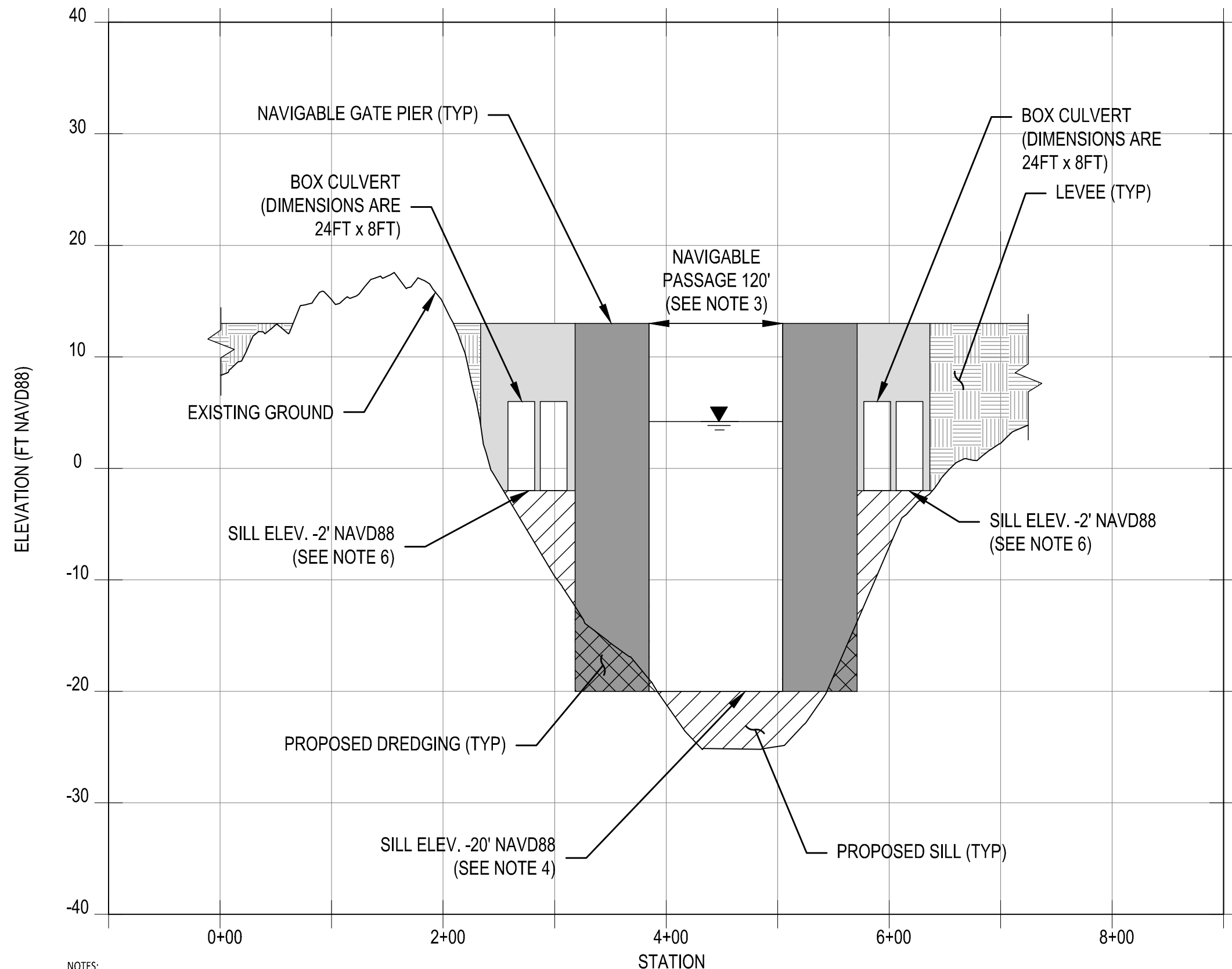
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STORM SURGE BARRIER
CYCLE 3 SCREENING
NEW JERSEY BACK BAYS
CSRM FEASIBILITY STUDY
CROSS SECTIONS - OC BAY CLOSURE - A1

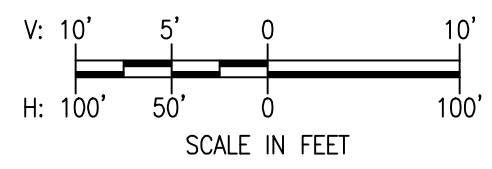
SHEET NUMBER
C-307

ABSECON BAY CLOSURE SECTOR GATE - A1



NOTES:

1. CROSS SECTIONS SHOWN WERE USED IN THE ERDC ADH MODEL TO EVALUATE BARRIER AFFECTS ON VELOCITY, SALINITY, AND TIDAL PRISM WHILE IN THEIR "OPEN" POSITION.
2. ELEVATIONS ARE EXPRESSED IN FEET AND REFER THE NORTH AMERICAN VERTICAL DATUM (NAVD) 1988.
3. NAVIGABLE SECTOR GATES ARE ASSUMED TO BE LOCATED ACROSS AUTHORIZED FEDERAL NAVIGATION CHANNELS AND SIZED TO ALLOW ACCESS THROUGH THE ENTIRE CHANNEL, OUTSIDE OF SIGNIFICANT STORM EVENTS. THE NJICWW AUTHORIZED WIDTH IS 100 FT. THE NAVIGABLE SECTOR GATE WAS SIDES TO PROVIDE A 10 FT BUFFER ON EITHER SIDE.
4. THE NJICWW IS NORMALLY MAINTAINED TO A DEPTH OF 6 FT MLW. THE SECTOR GATE SILL ELEVATION IS INITIALLY SET TO 2 FEET BELOW THE MAINTAINED DEPTH (2 FT OF UNDER-KEEL CLEARANCE TO ACCOUNT FOR A HARD BOTTOM STRUCTURE). THE EXISTING GROUND AT SOME LOCATIONS IS MUCH DEEPER THAN THE MAINTAINED DEPTH. ENGINEERING JUDGEMENT IS USED TO DEEPEN THE SILL BELOW THE MAINTAINED DEPTH IN ORDER TO PROMOTE ADDITIONAL FLOW.
5. SECTOR GATE SHOWN IN THE "OPEN" POSITION. MOVEABLE GATES ARE NOT SHOWN FOR CLARITY.
6. BOX CULVERT DIMENSIONS ARE ASSUMED TO BE 24 FT x 8 FT. THE BOX CULVERT BASE IS AT ELEV. -2 FT NAVD88.



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STORM SURGE BARRIER
CYCLE 3 SCREENING
NEW JERSEY BACK BAYS
CSRM FEASIBILITY STUDY
CROSS SECTIONS - ABSECON BAY CLOSURE - A1

SHEET NUMBER
C-308