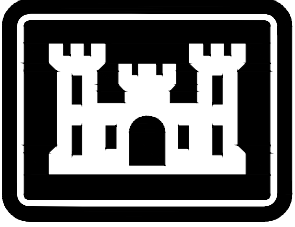
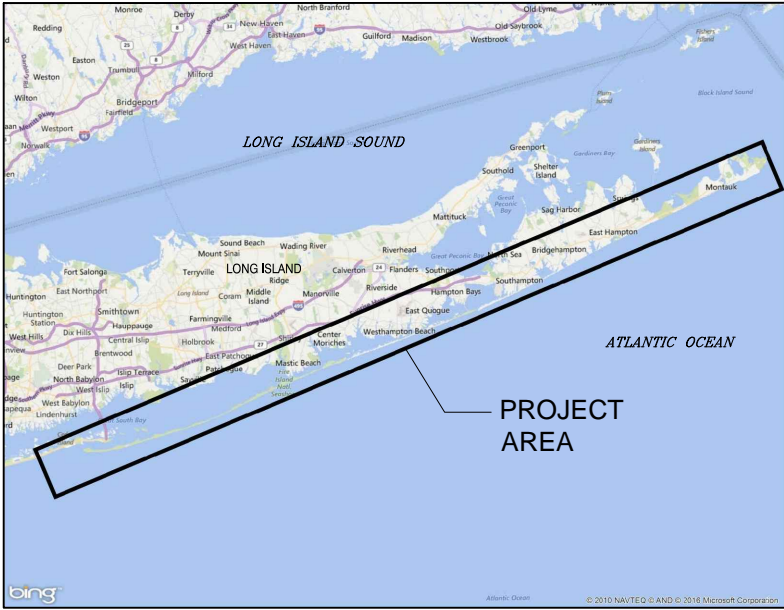




VICINITY MAP
NTS



REFORMULATION STUDY FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK





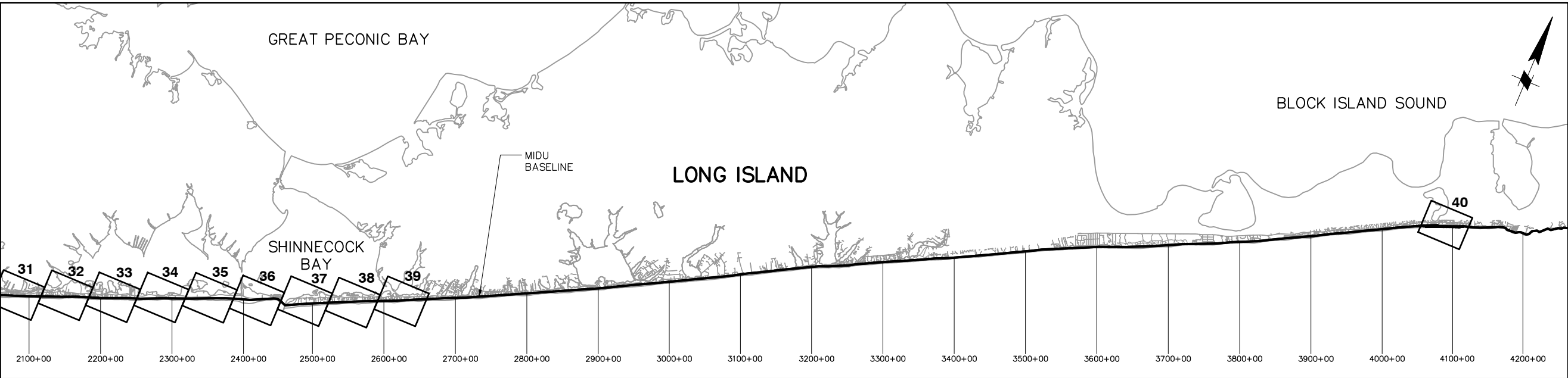
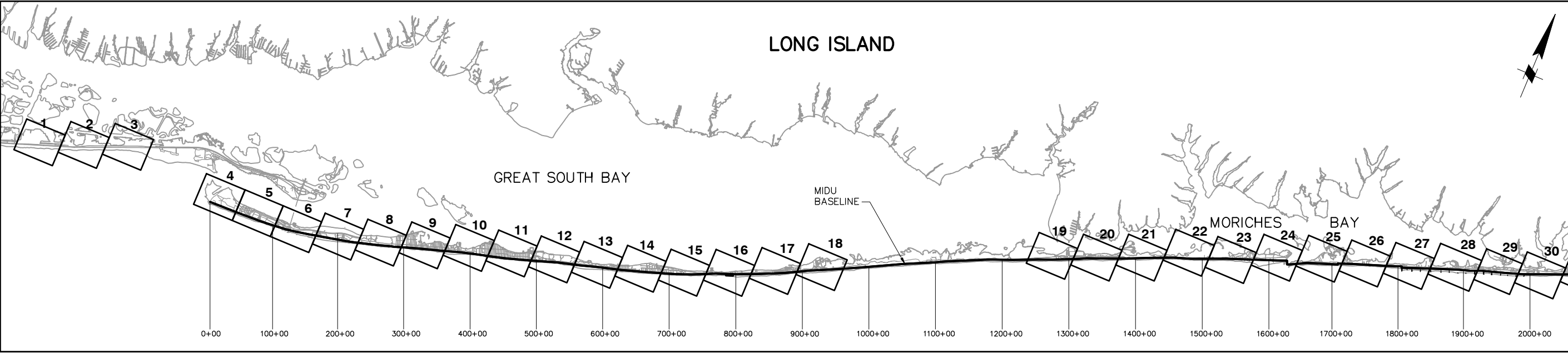
LOCATION PLAN
NTS

INDEX OF DRAWINGS

PLATE NO.	SHEET TITLE
G-001	TITLE SHEET
G-002	GENERAL PLAN
C-101	SHEET 1
C-102	SHEET 2
C-103	SHEET 3
C-104	SHEET 4
C-105	SHEET 5
C-106	SHEET 6
C-107	SHEET 7
C-108	SHEET 8
C-109	SHEET 9
C-110	SHEET 10
C-111	SHEET 11
C-112	SHEET 12
C-113	SHEET 13
C-114	SHEET 14
C-115	SHEET 15
C-116	SHEET 16
C-117	SHEET 17
C-118	SHEET 18
C-119	SHEET 19
C-120	SHEET 20
C-121	SHEET 21

PLATE NO.	SHEET TITLE
C-122	SHEET 22
C-123	SHEET 23
C-124	SHEET 24
C-125	SHEET 25
C-126	SHEET 26
C-127	SHEET 27
C-128	SHEET 28
C-129	SHEET 29
C-130	SHEET 30
C-131	SHEET 31
C-132	SHEET 32
C-133	SHEET 33
C-134	SHEET 34
C-135	SHEET 35
C-136	SHEET 36
C-137	SHEET 37
C-138	SHEET 38
C-139	SHEET 39
C-140	SHEET 40
C-301	BEACH FILL PLAN TYPICAL SECTIONS
C-302	PROACTIVE BREACH CLOSURE TYPICAL SECTIONS
C-303	SEDIMENT MANAGEMENT TYPICAL SECTION

 <div>DEPARTMENT OF THE ARMY NEW YORK DISTRICT CORPS OF ENGINEERS NEW YORK, N.Y. 10278-0090</div> 		
REFORMULATION STUDY FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK		
TENTATIVELY SELECTED PLAN		
DRAWING TITLE: TITLE SHEET		
SCALE: <div><div>250'0'250'500'</div><div>SCALE: 1"=250' (34"x22" Sheet) SCALE: 1"=500' (11"x17" Sheet)</div></div>		
DATE: OCTOBER/08/2018	FILE NAME: MIDU1590_G-001.dwg	PLATE NO. G-001



NOTES:

1. HORIZONTAL DATUM=NAD83 (1992), NEW YORK LONG ISLAND ZONE, VERTICAL DATUM=NGVD29.

2. BASELINE TOPOGRAPHY CONTOURS ARE BASED ON A LIDAR SURVEY COLLECTED IN NOVEMBER 2012 (11/2012).

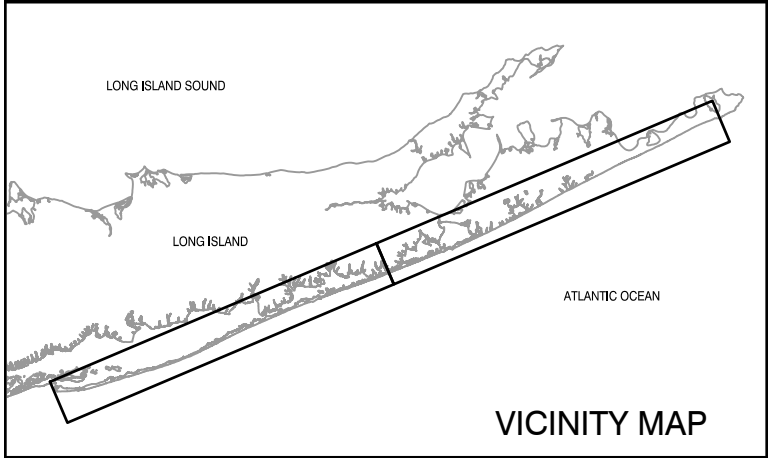
3. PLAN LAYOUTS DEPICT DESIGN BEACH FILL LAYOUTS ASSOCIATED WITH THE BEACH FILL PLAN, PROACTIVE BREACH CLOSURE PLAN, SEDIMENT MANAGEMENT PLAN, AND INLET MANAGEMENT PLAN.



4. "DESIGN" FEATURES DEPICT DESIGN FILL LAYOUT BASED ON A DUNE CREST AT EITHER +15 FT NGVD OR +13 FT NGVD AND 25 FT WIDE CENTERED ON THE MIDU BASELINE, AND 90 FT WIDE BERM AT +9.5 FT NGVD AND A SEAWARD SLOPE TO 2 FT NGVD (I.E., DESIGN SHORELINE) OF 1:12.1.
5. THE TERM "BERM" IN THESE DRAWINGS REFERS TO THE SEAWARD EDGE OF THE BERM UNLESS NOTED DIFFERENTLY.

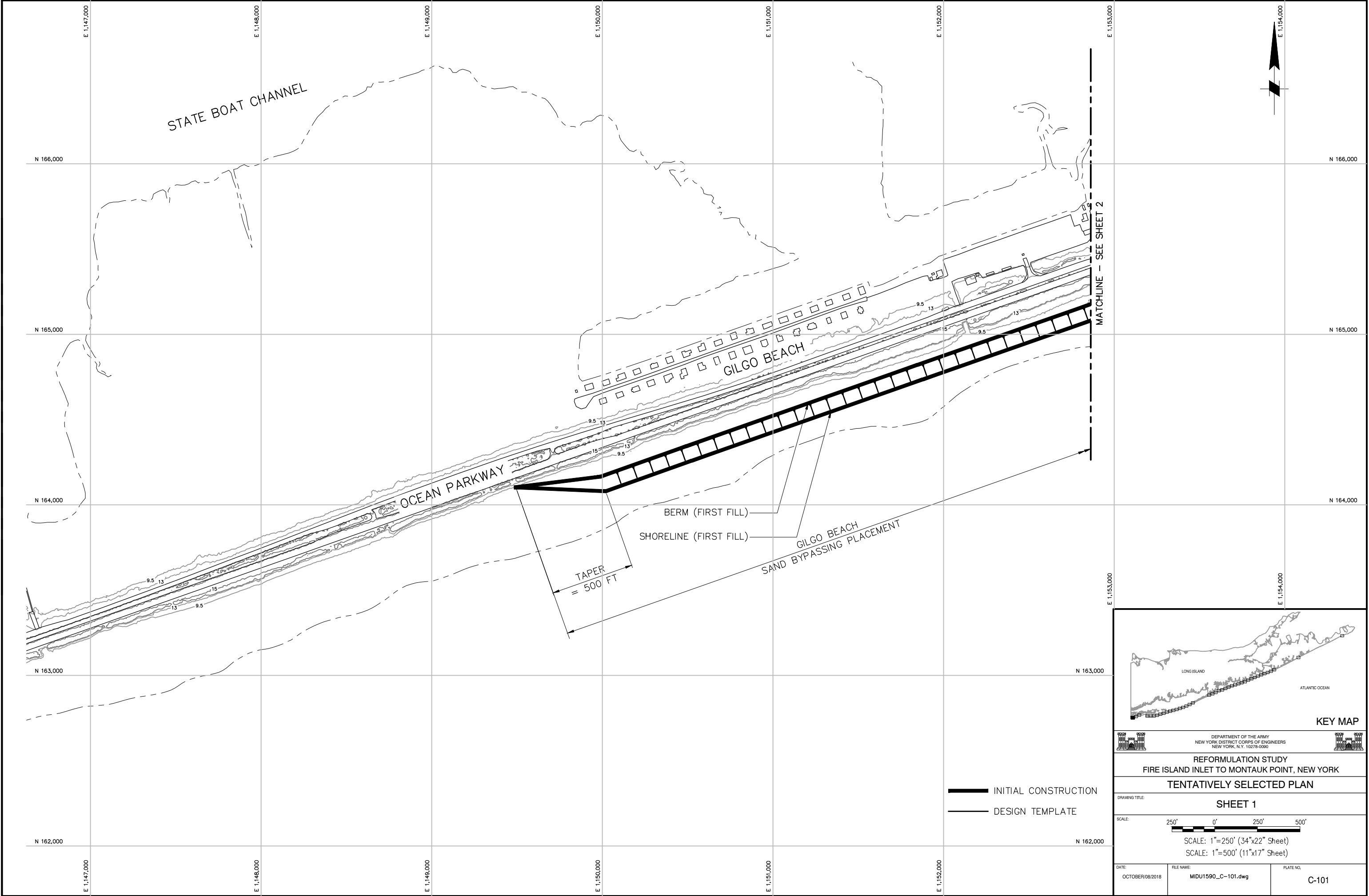
6. "FIRST FILL" FEATURES DEPICT AREAS WHERE BERM AND/OR DUNE FILL IS REQUIRED AT FIRST CONSTRUCTION.

7. IN SOME CASES BASELINE CONDITIONS (11/2012) EXCEED THE DESIGN TEMPLATE AND FILL IS NOT REQUIRED INITIALLY.

8. FIRST FILL REQUIREMENTS ARE BASED ON BASELINE CONDITIONS (11/2012) AND PREDICTED LOSSES BETWEEN RECENTLY COMPLETED OR PLANNED BEACH FILL PROJECTS, INCLUDING: FIRE ISLAND TO MORICHES INLET (FIMI) STABILIZATION PROJECT, DOWNTOWN MONTAUK STABILAZATION PROJECT, WESTHAMPTON INTERIM PROJECT, WEST OF SHINNECOCK INLET (WOSI) INTERIM PROJECT, AND AUTHORIZED NAVIGATION PROJECTS AT FIRE ISLAND INLET, MORICHES INLET, AND SHINNECOCK INLET.



<div><div>DEPARTMENT OF THE ARMY NEW YORK DISTRICT CORPS OF ENGINEERS NEW YORK, N.Y. 10278-0090</div></div>		
REFORMULATION STUDY FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK		
TENTATIVELY SELECTED PLAN		
DRAWING TITLE: GENERAL PLAN		
SCALE: <div><div>250'0'250'500'</div><div>SCALE: 1"=250' (34"x22" Sheet) SCALE: 1"=500' (11"x17" Sheet)</div></div>		
DATE: OCTOBER/08/2018	FILE NAME: MIDU1590_G-002.dwg	PLATE NO.: G-002



LONG ISLAND

ATLANTIC OCEAN

KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, N.Y. 10278-0090

REFORMULATION STUDY
FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK

TENTATIVELY SELECTED PLAN

DRAWING TITLE:

SHEET 1

SCALE:

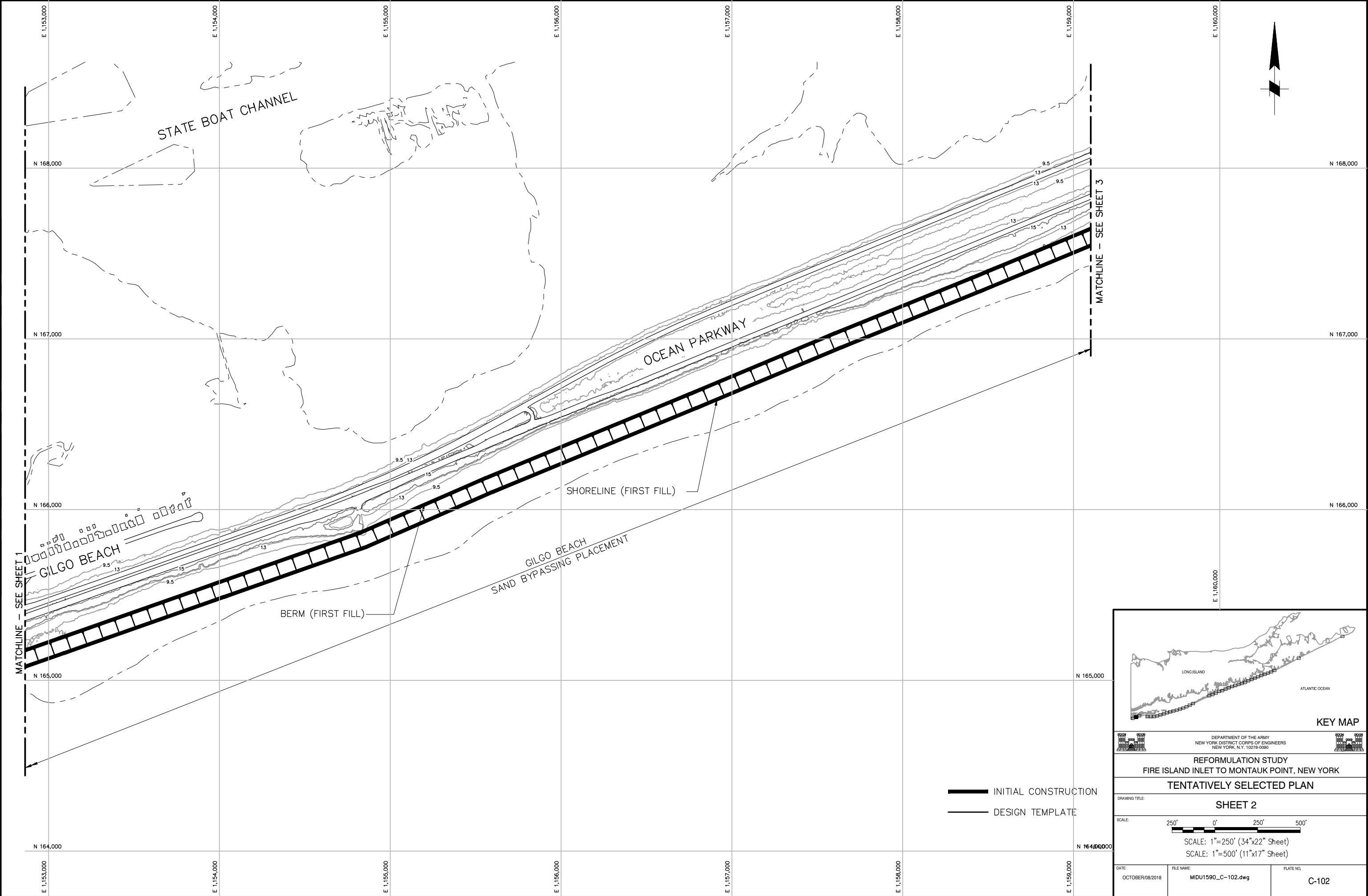
250' 0' 250' 500'

SCALE: 1"=250' (34"x22" Sheet)
SCALE: 1"=500' (11"x17" Sheet)

DATE:
OCTOBER/08/2018

FILE NAME:
MIDU1590_C-101.dwg

PLATE NO.
C-101



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, N.Y. 10278-0090

REFORMULATION STUDY
FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK

TENTATIVELY SELECTED PLAN

DRAWING TITLE:

SHEET 2

SCALE:

250' 0' 250' 500'

SCALE: 1"=250' (34"x22" Sheet)
SCALE: 1"=500' (11"x17" Sheet)

DATE:

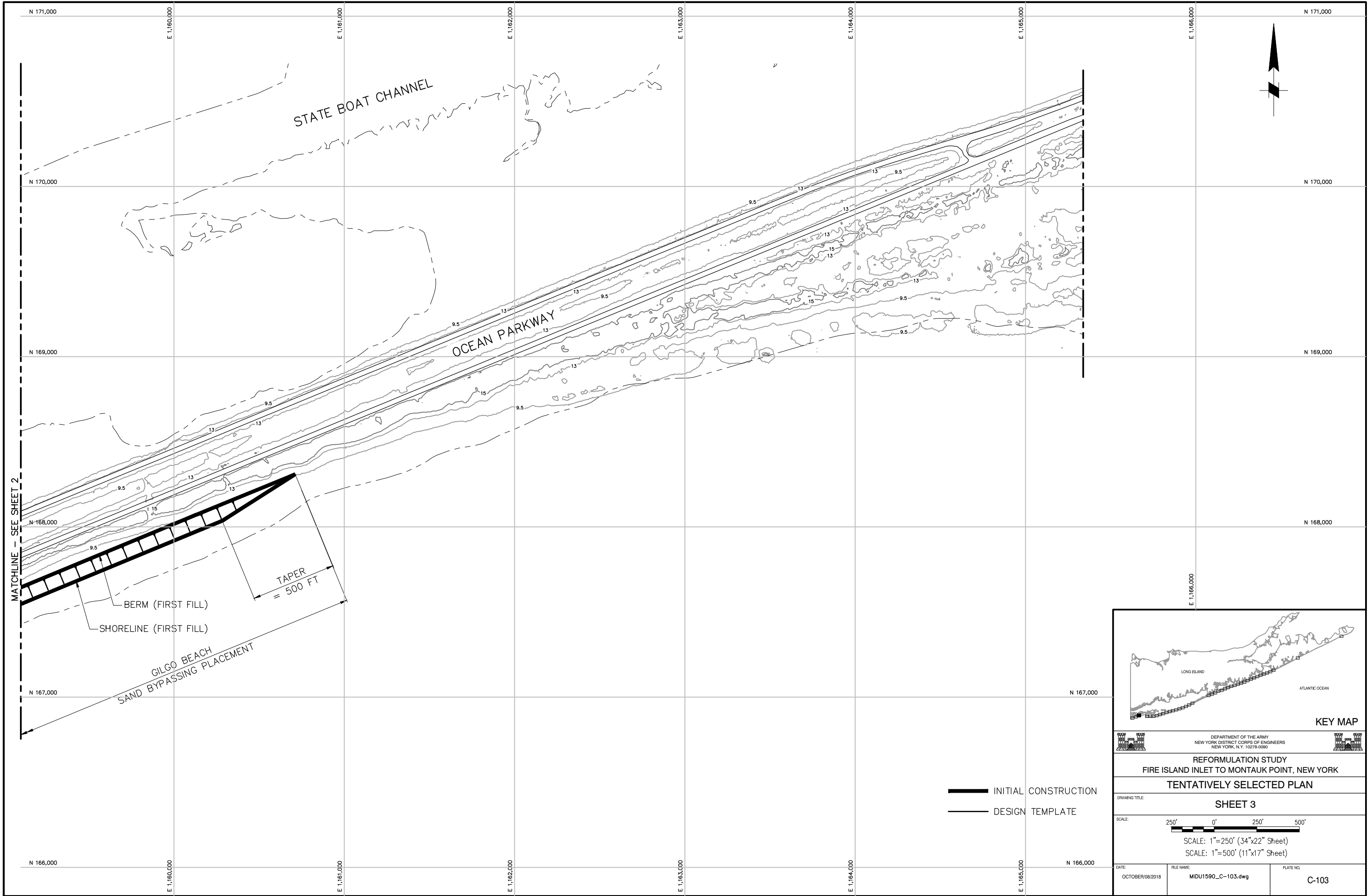
OCTOBER/08/2018

FILE NAME:

MIDU1590_C-102.dwg

PLATE NO.

C-102



KEY MAP

LONG ISLAND
ATLANTIC OCEAN

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, N.Y. 10278-0080

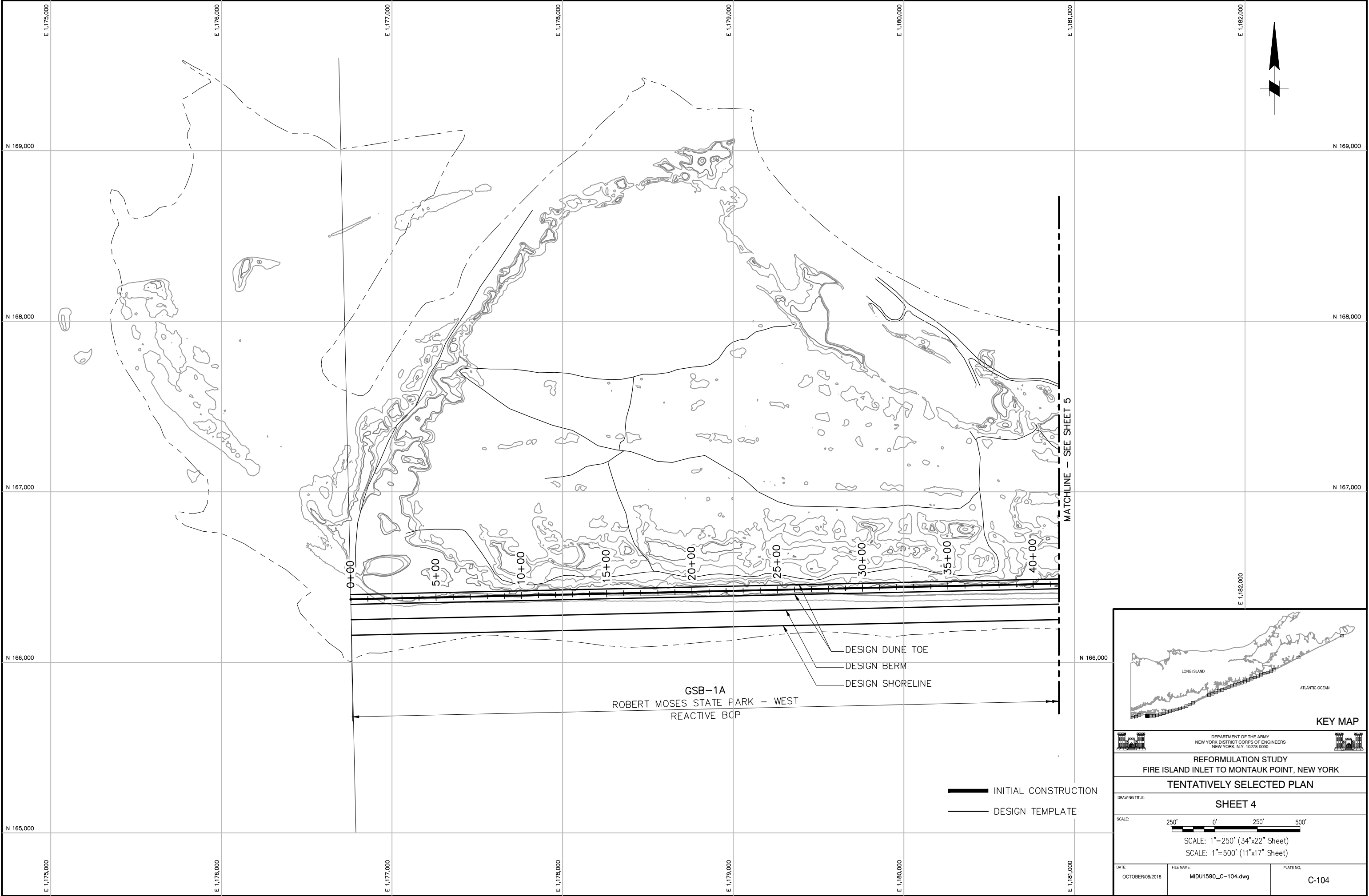
**REFORMULATION STUDY
FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK**

TENTATIVELY SELECTED PLAN

DRAWING TITLE: **SHEET 3**

SCALE: 1"=250' (34"x22" Sheet)
SCALE: 1"=500' (11"x17" Sheet)

DATE: OCTOBER/08/2018
FILE NAME: MIDU1590_C-103.dwg
PLATE NO.: C-103



KEY MAP

LONG ISLAND
ATLANTIC OCEAN

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, N.Y. 10278-0090

**REFORMULATION STUDY
FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK**

TENTATIVELY SELECTED PLAN

DRAWING TITLE: **SHEET 4**

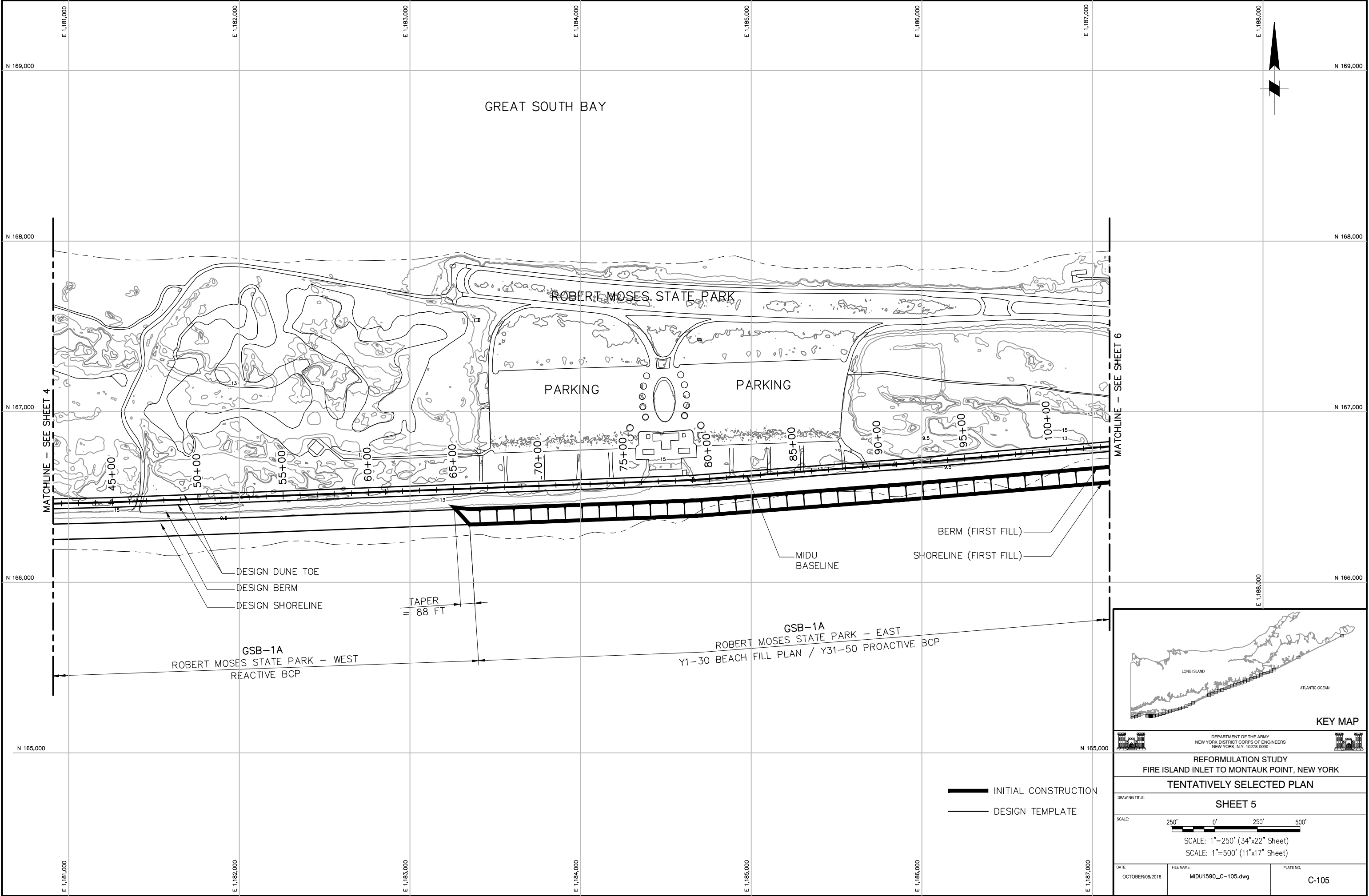
SCALE: 250' 0' 250' 500'

SCALE: 1"=250' (34"x22" Sheet)
SCALE: 1"=500' (11"x17" Sheet)

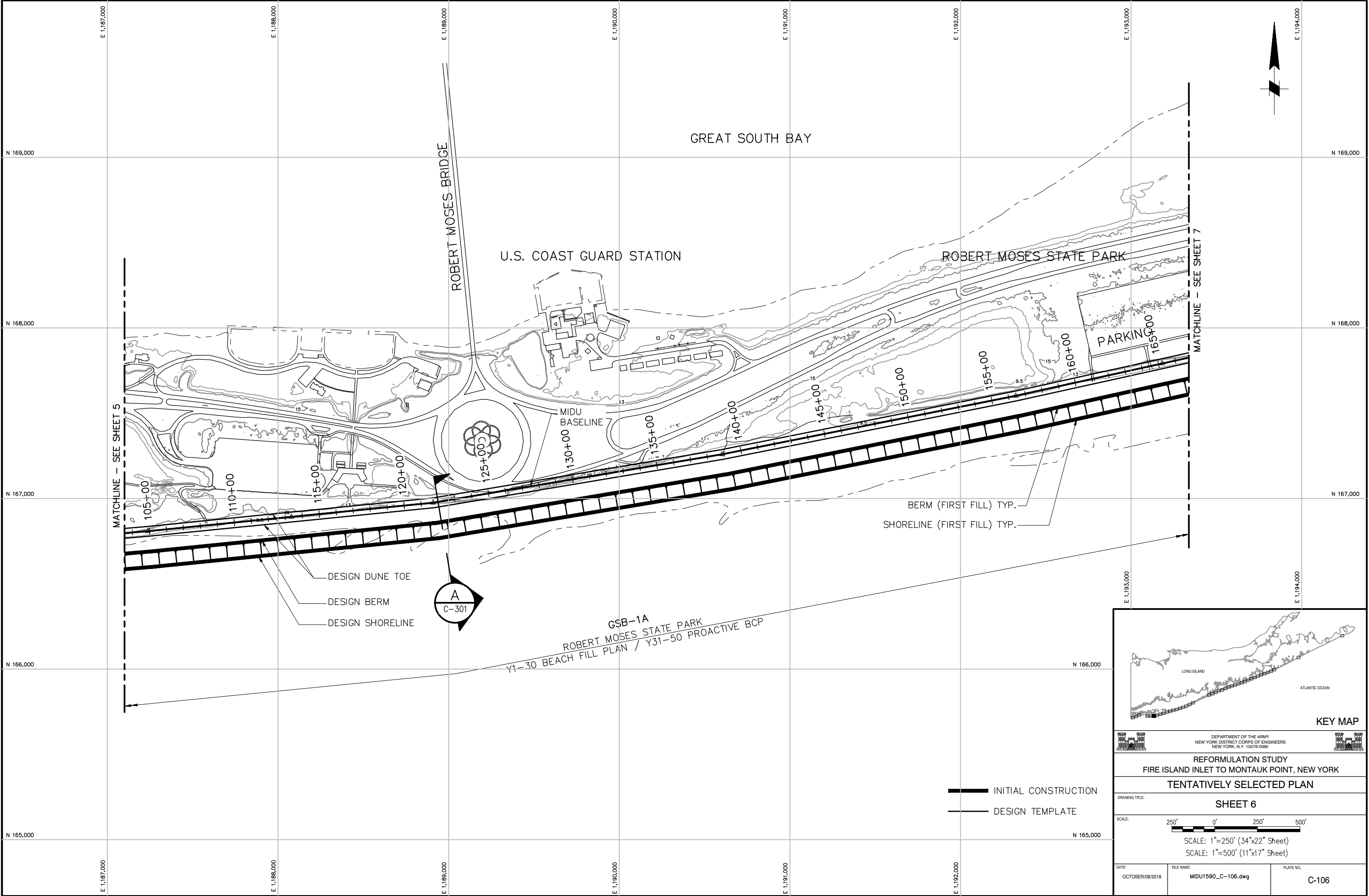
DATE: OCTOBER/08/2018

FILE NAME: MIDU1590_C-104.dwg

PLATE NO.: C-104



DEPARTMENT OF THE ARMY NEW YORK DISTRICT CORPS OF ENGINEERS NEW YORK, N.Y. 10278-0090		
REFORMULATION STUDY FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK		
TENTATIVELY SELECTED PLAN		
DRAWING TITLE: SHEET 5		
SCALE: 1"=250' (34"x22" Sheet) SCALE: 1"=500' (11"x17" Sheet)		
DATE: OCTOBER/08/2018	FILE NAME: MIDU1590_C-105.dwg	PLATE NO. C-105



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, N.Y. 10278-0080

REFORMULATION STUDY
FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK

TENTATIVELY SELECTED PLAN

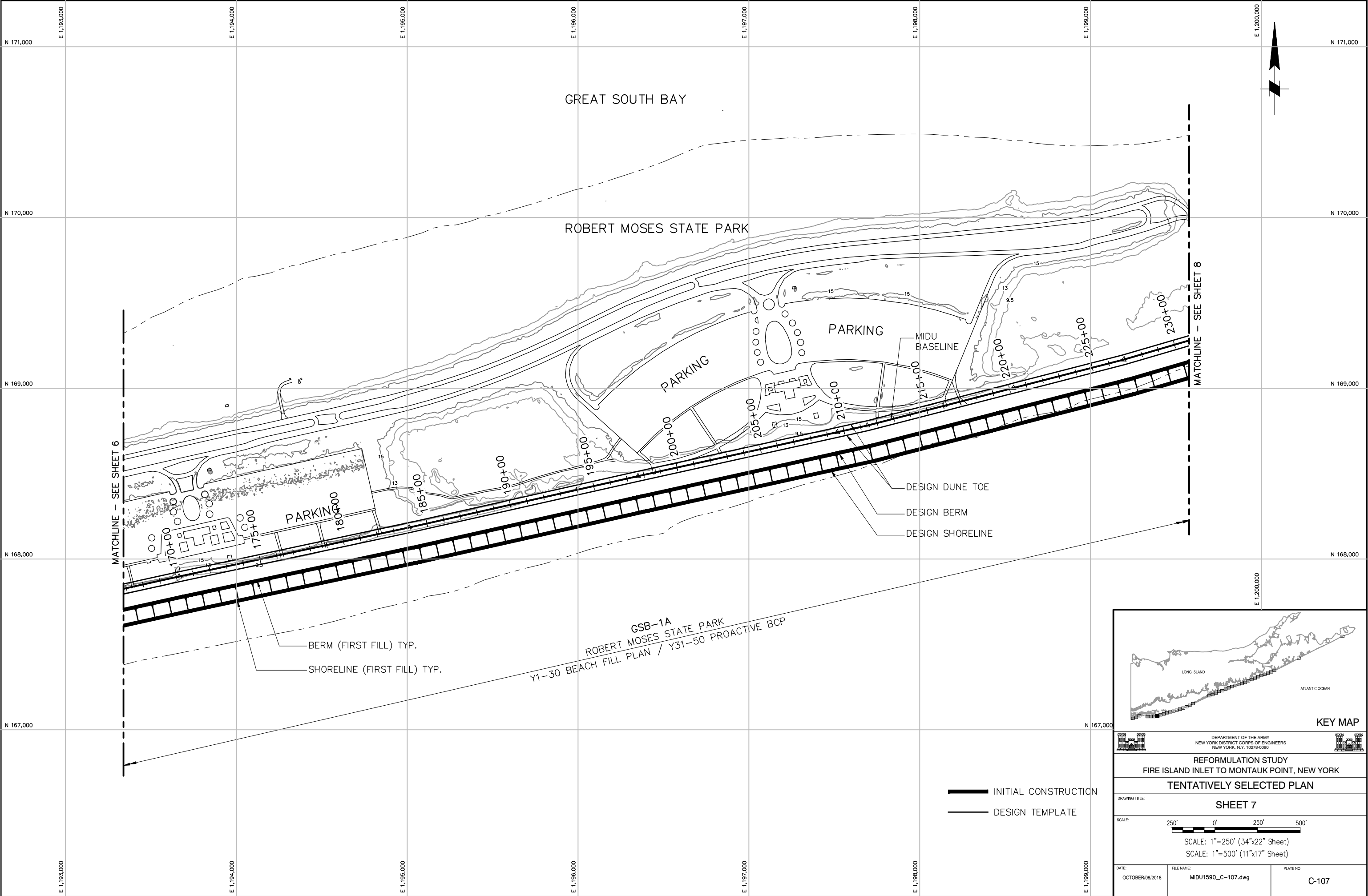
DRAWING TITLE: SHEET 6

SCALE: 1"=250' (34"x22" Sheet)
SCALE: 1"=500' (11"x17" Sheet)

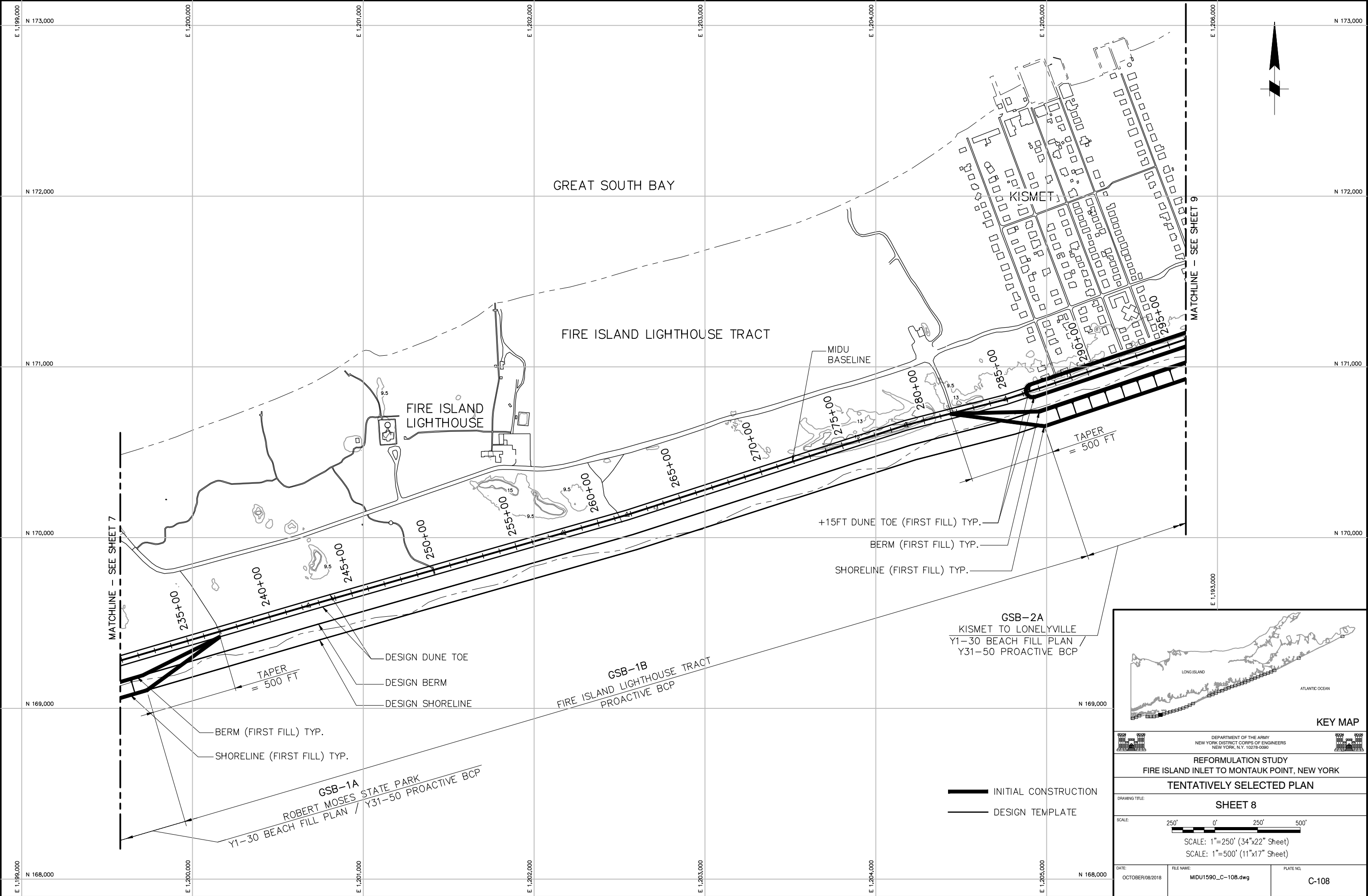
DATE: OCTOBER/08/2018

FILE NAME: MIDU1590_C-106.dwg

PLATE NO. C-106



DEPARTMENT OF THE ARMY NEW YORK DISTRICT CORPS OF ENGINEERS NEW YORK, N.Y. 10278-0090		
REFORMULATION STUDY FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK		
TENTATIVELY SELECTED PLAN		
DRAWING TITLE: SHEET 7		
SCALE: 250' 0' 250' 500' SCALE: 1"=250' (34"x22" Sheet) SCALE: 1"=500' (11"x17" Sheet)		
DATE: OCTOBER/08/2018	FILE NAME: MIDU1590_C-107.dwg	PLATE NO.: C-107



LONG ISLAND

ATLANTIC OCEAN

KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, N.Y. 10278-0090

REFORMULATION STUDY
FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK

TENTATIVELY SELECTED PLAN

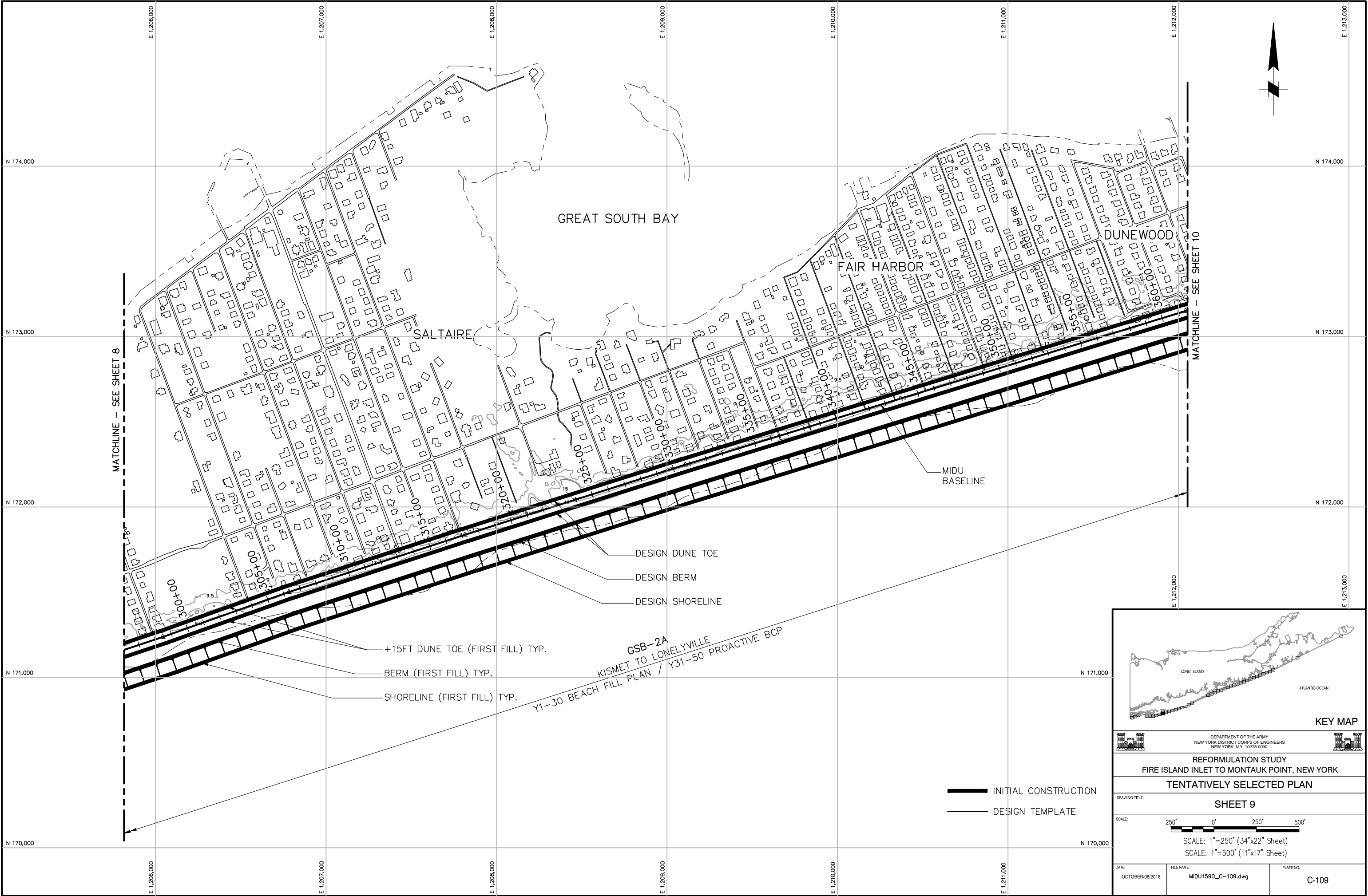
DRAWING TITLE: SHEET 8

SCALE: 1"=250' (34"x22" Sheet)
SCALE: 1"=500' (11"x17" Sheet)

DATE: OCTOBER/08/2018

FILE NAME: MIDU1590_C-108.dwg

PLATE NO. C-108



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, N.Y. 10278-0090

REFORMULATION STUDY
FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK

TENTATIVELY SELECTED PLAN

DRAWING TITLE:

SHEET 9

SCALE:

250' 0' 250' 500'

SCALE: 1"=250' (34"x22" Sheet)
SCALE: 1"=500' (11"x17" Sheet)

DATE:

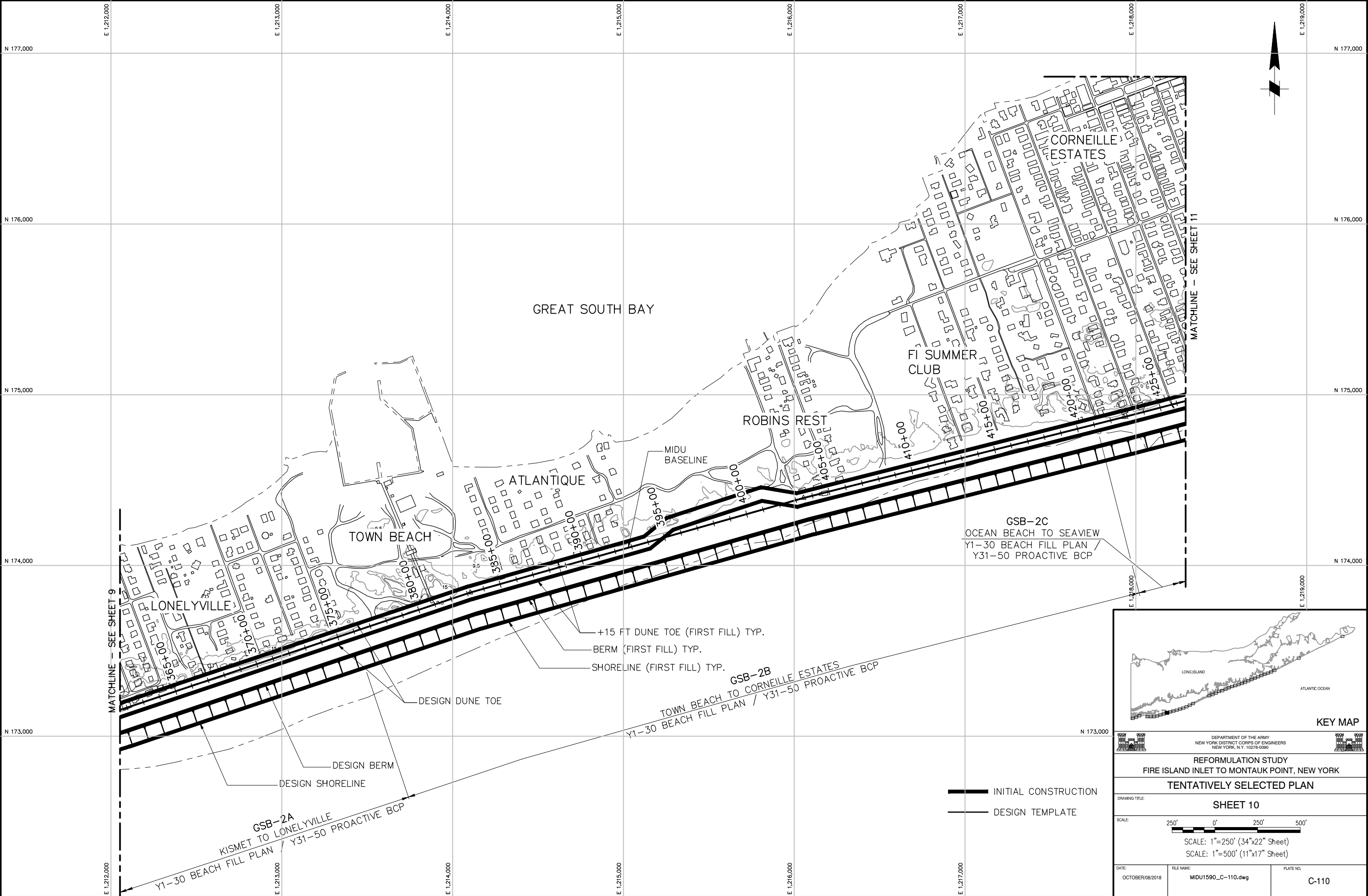
OCTOBER/08/2018

FILE NAME:

MIDU1590_C-109.dwg

PLATE NO.:

C-109



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, N.Y. 10278-0080

REFORMULATION STUDY
FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK

TENTATIVELY SELECTED PLAN

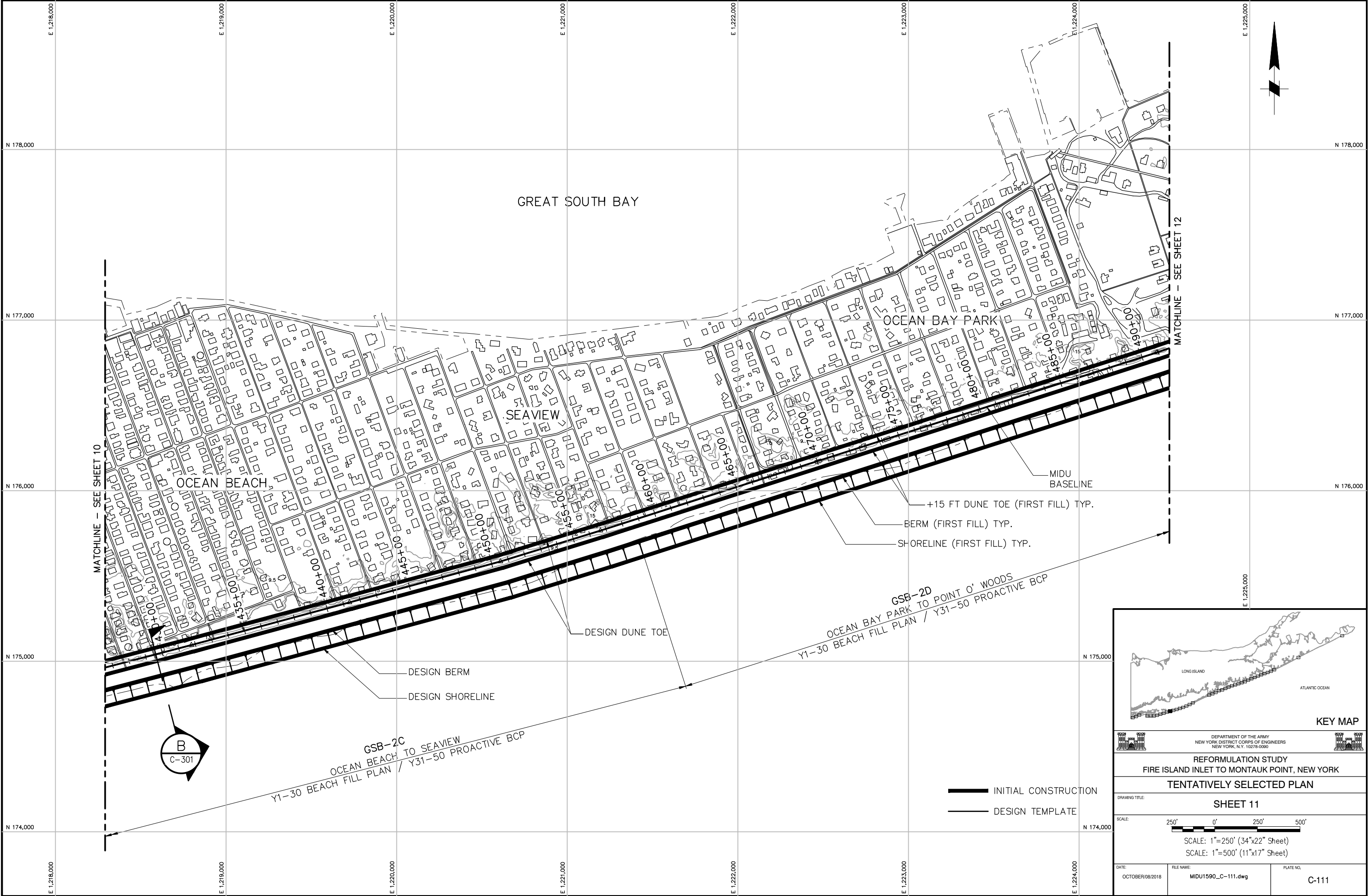
DRAWING TITLE: SHEET 10

SCALE: 1"=250' (34"x22" Sheet)
SCALE: 1"=500' (11"x17" Sheet)

DATE: OCTOBER/08/2018

FILE NAME: MIDU1590_C-110.dwg

PLATE NO. C-110



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, N.Y. 10278-0080

REFORMULATION STUDY
FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK

TENTATIVELY SELECTED PLAN

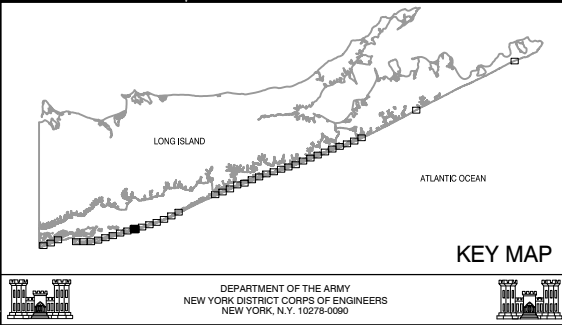
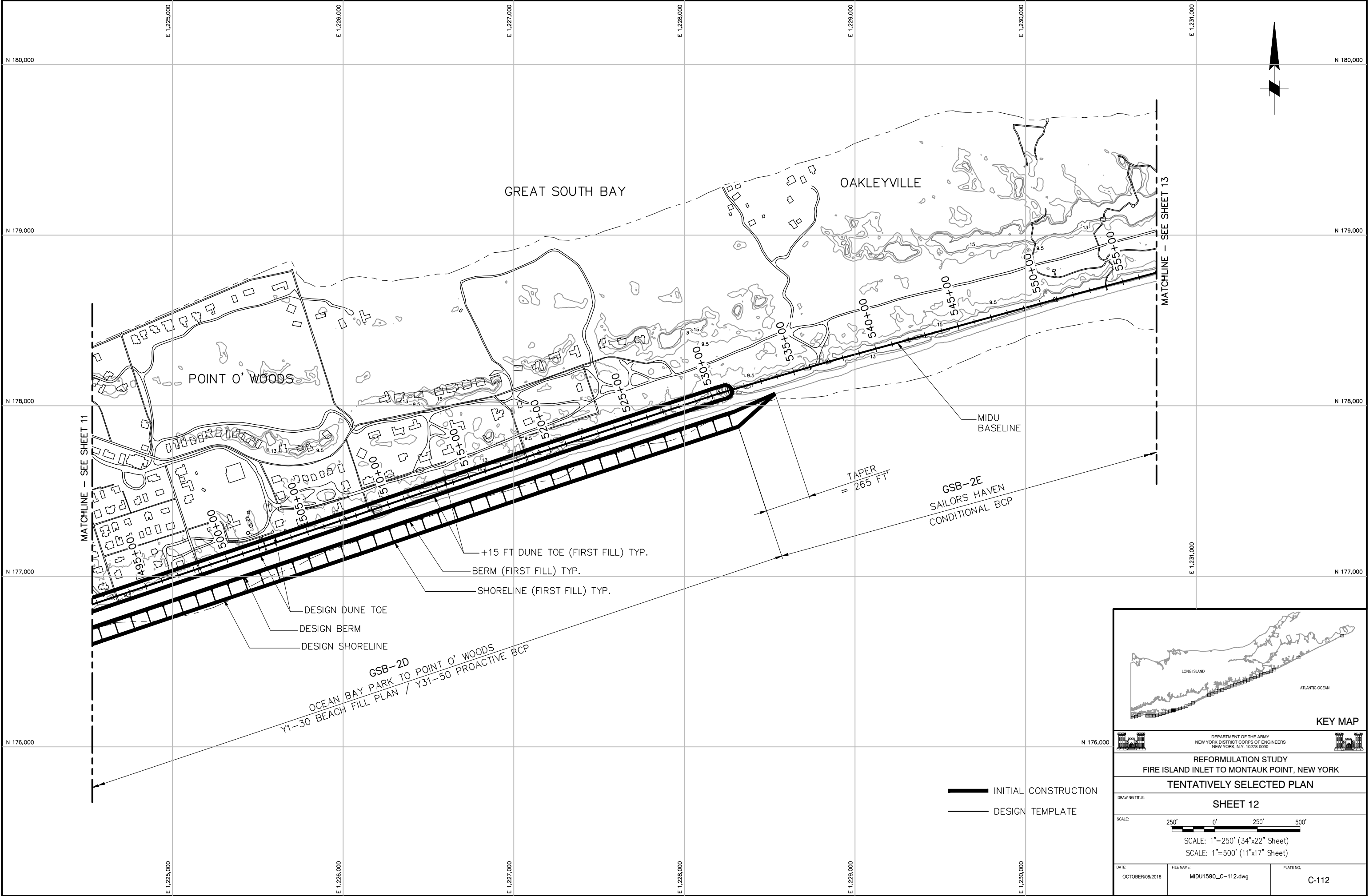
DRAWING TITLE: SHEET 11



SCALE: 1"=250' (34"x22" Sheet)
SCALE: 1"=500' (11"x17" Sheet)

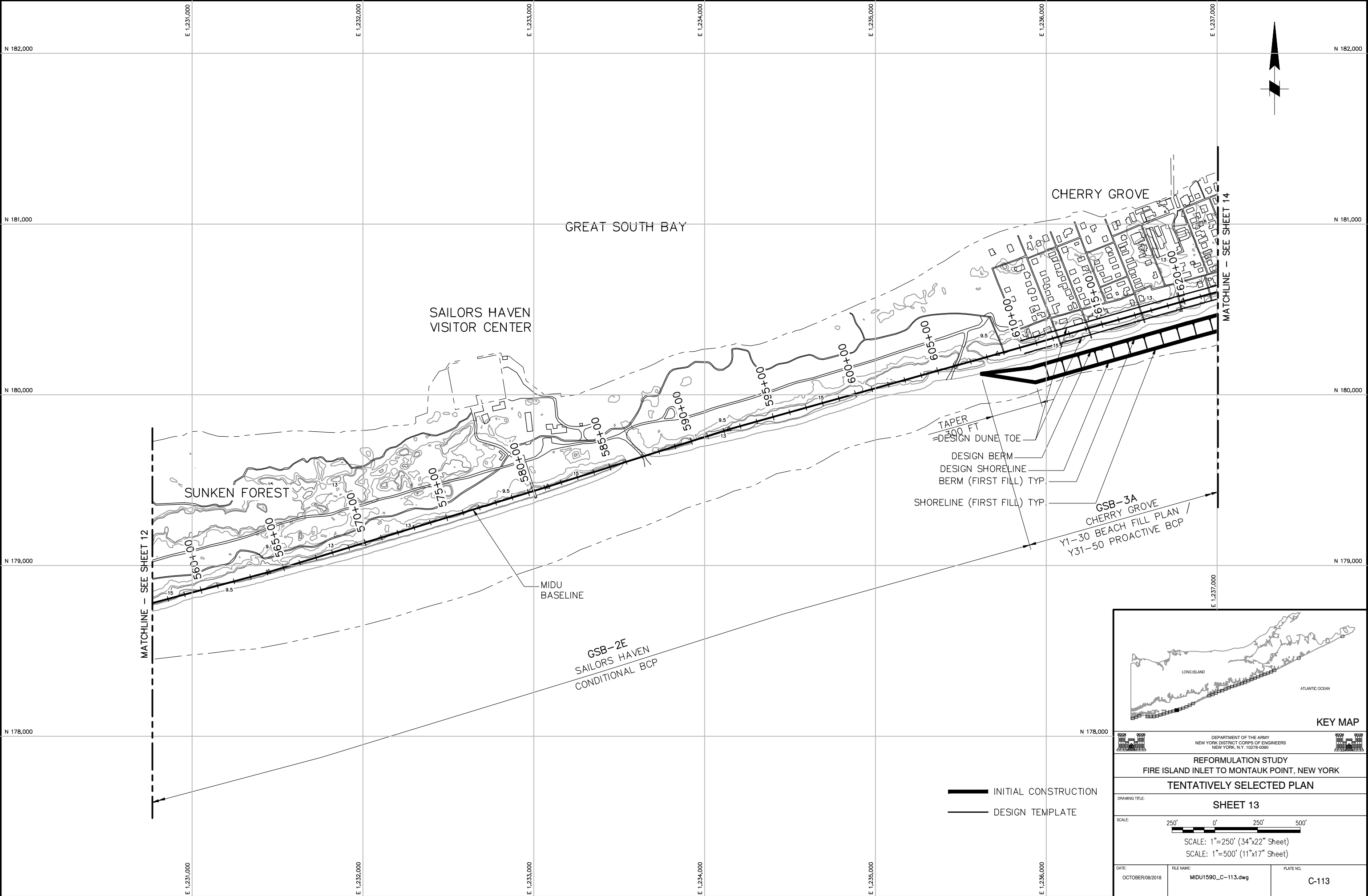
DATE: OCTOBER/08/2018

FILE NAME: MIDU1590_C-111.dwg

PLATE NO. C-111



 DEPARTMENT OF THE ARMY NEW YORK DISTRICT CORPS OF ENGINEERS NEW YORK, N.Y. 10278-0080 		
REFORMULATION STUDY FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK		
TENTATIVELY SELECTED PLAN		
DRAWING TITLE: SHEET 12		
SCALE: 250' 0' 250' 500' SCALE: 1"=250' (34"x22" Sheet) SCALE: 1"=500' (11"x17" Sheet)		
DATE: OCTOBER/08/2018	FILE NAME: MIDU1590_C-112.dwg	PLATE NO. C-112



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, N.Y. 10278-0090

REFORMULATION STUDY
FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK

TENTATIVELY SELECTED PLAN

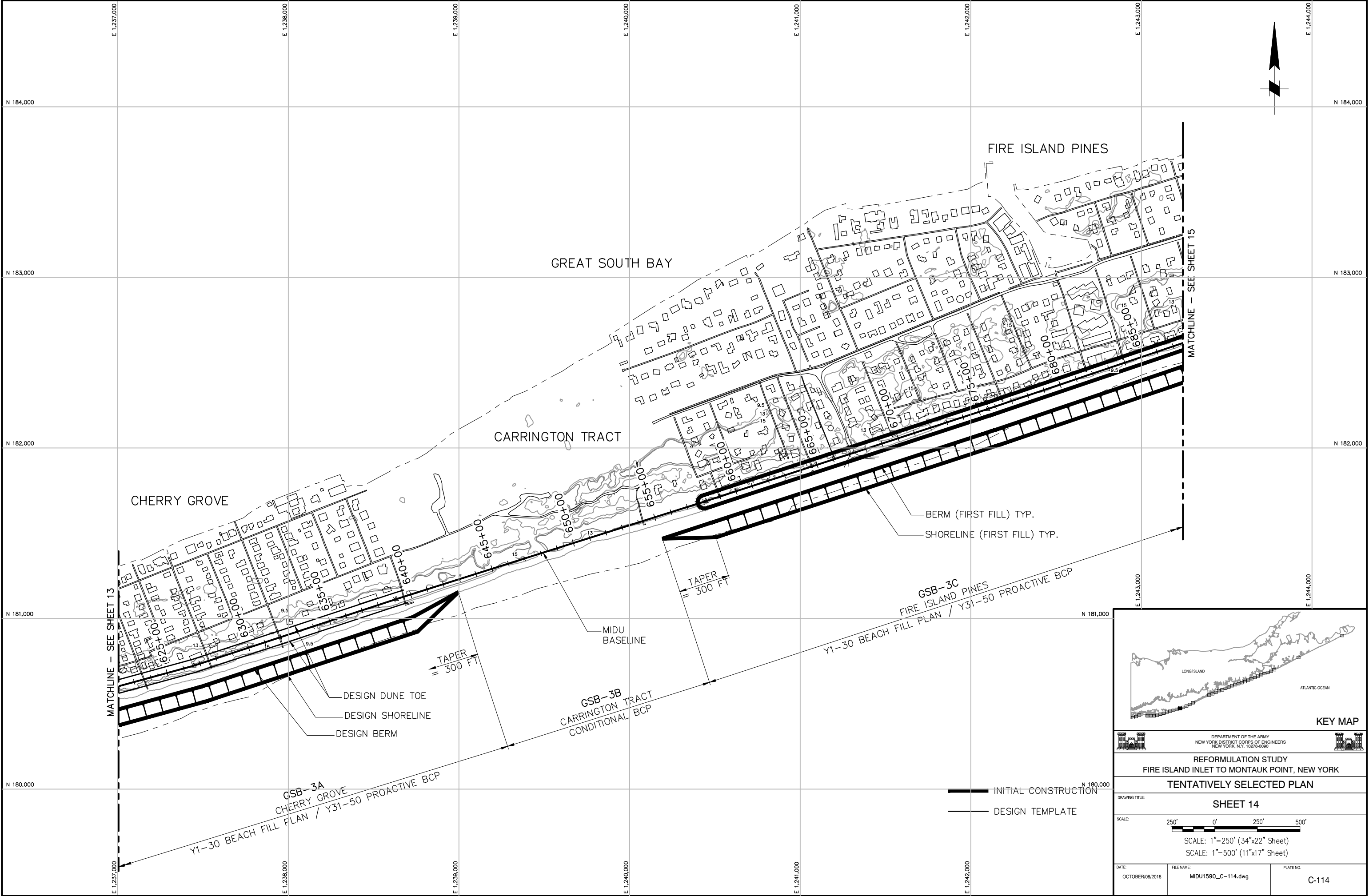
DRAWING TITLE: SHEET 13

SCALE: 1"=250' (34"x22" Sheet)
SCALE: 1"=500' (11"x17" Sheet)

DATE: OCTOBER/08/2018

FILE NAME: MIDU1590_C-113.dwg

PLATE NO. C-113



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, N.Y. 10278-0090

REFORMULATION STUDY
FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK

TENTATIVELY SELECTED PLAN

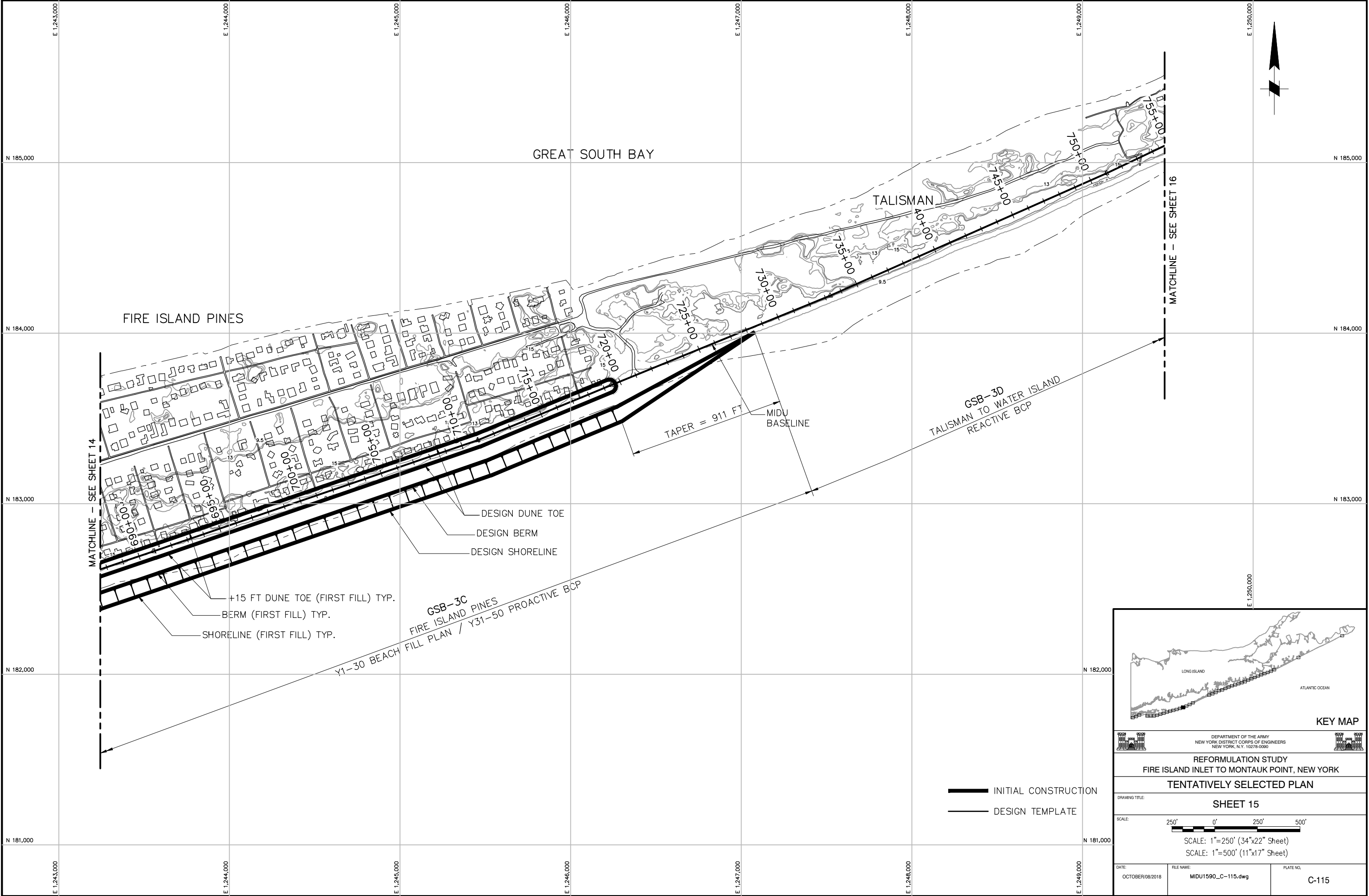
DRAWING TITLE: SHEET 14

SCALE: 1"=250' (34"x22" Sheet)
SCALE: 1"=500' (11"x17" Sheet)

DATE: OCTOBER/08/2018

FILE NAME: MIDU1590_C-114.dwg

PLATE NO.: C-114



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, N.Y. 10278-0090

REFORMULATION STUDY
FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK

TENTATIVELY SELECTED PLAN

DRAWING TITLE:

SHEET 15

SCALE:

250'

0'

250'

500'

SCALE: 1"=250' (34"x22" Sheet)
SCALE: 1"=500' (11"x17" Sheet)

DATE:

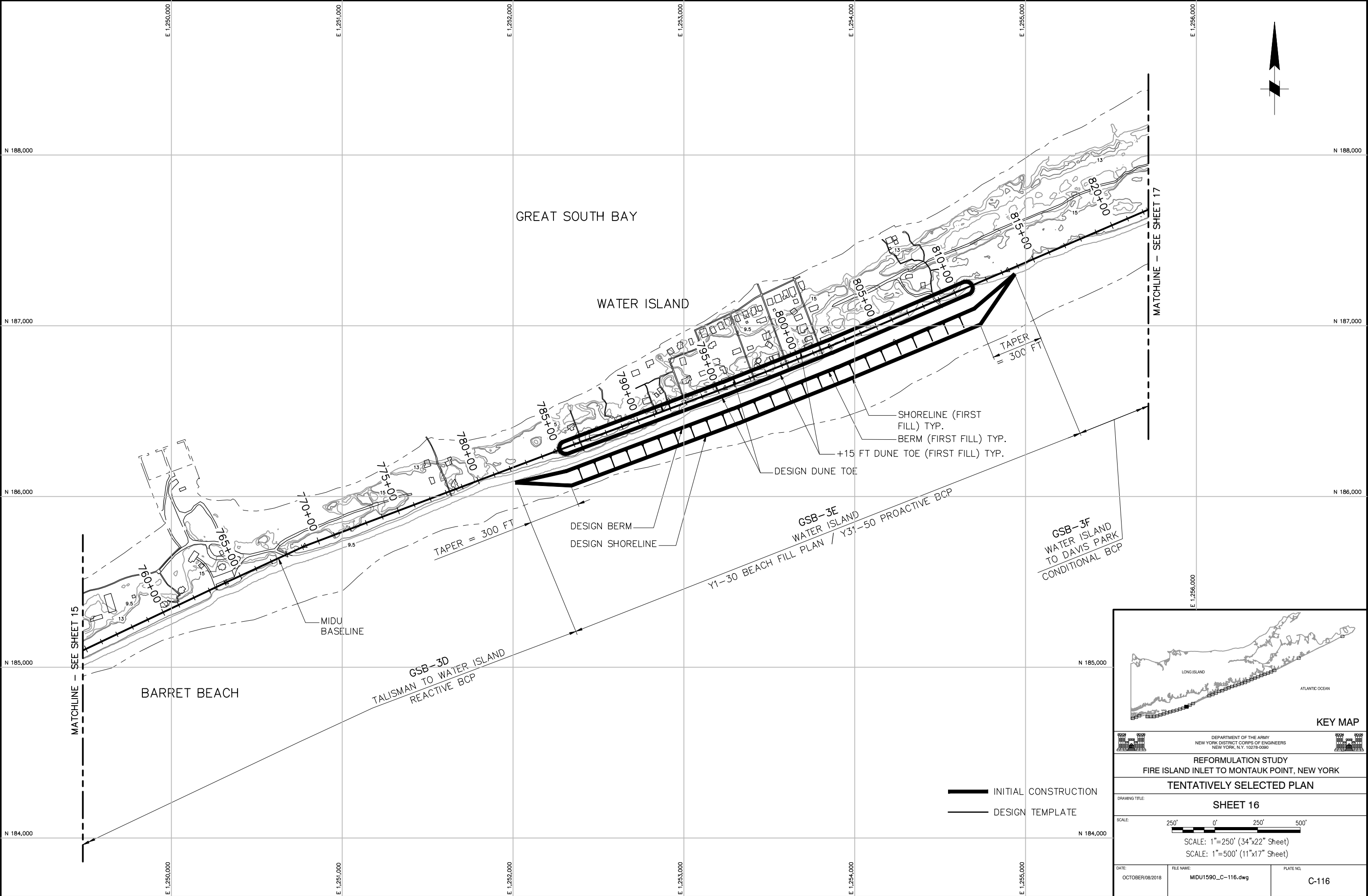
OCTOBER/08/2018

FILE NAME:

MIDU1590_C-115.dwg

PLATE NO.

C-115



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, N.Y. 10278-0090

REFORMULATION STUDY
FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK

TENTATIVELY SELECTED PLAN

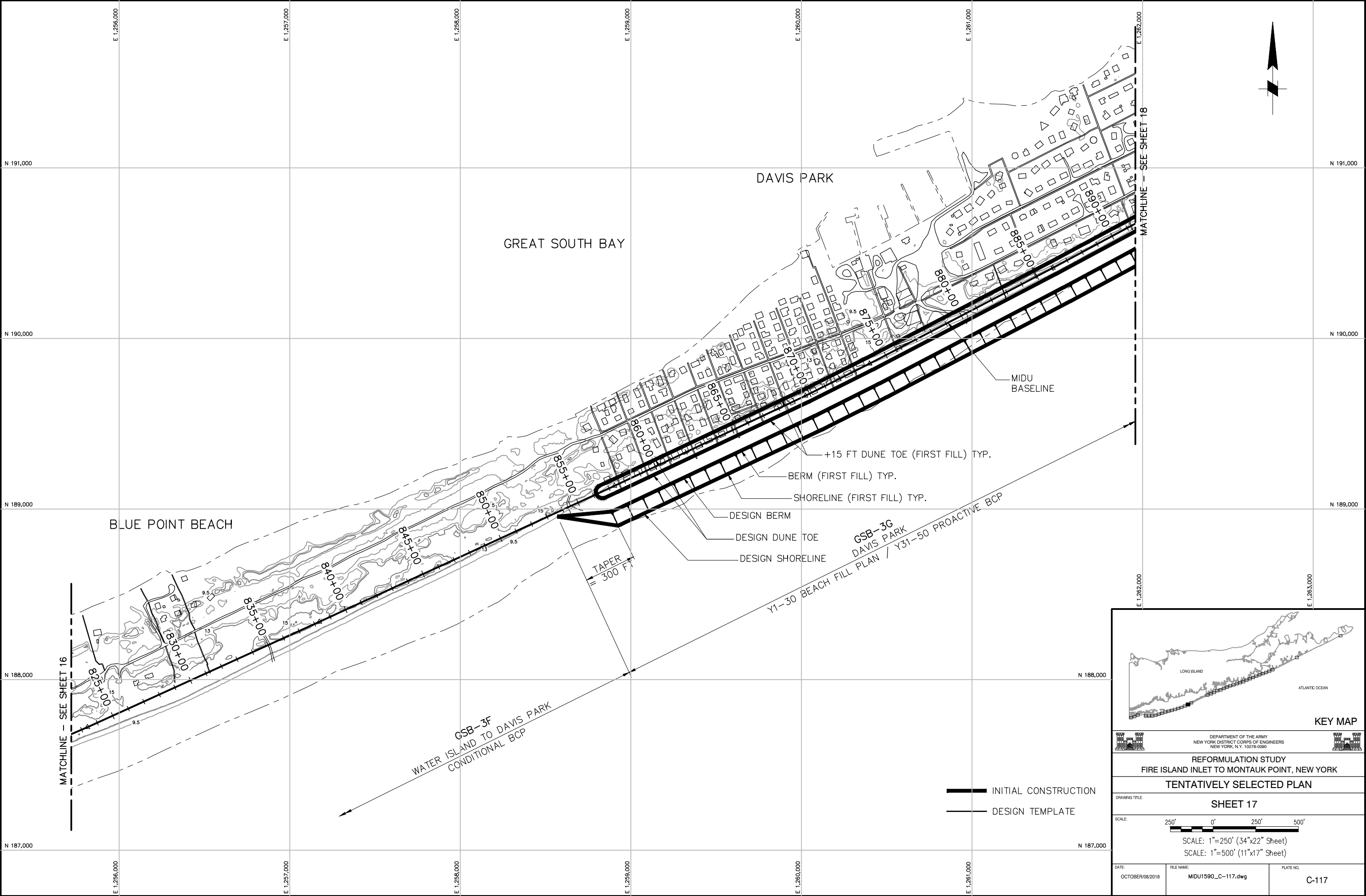
DRAWING TITLE: SHEET 16

SCALE: 1"=250' (34"x22" Sheet)
SCALE: 1"=500' (11"x17" Sheet)

DATE: OCTOBER/08/2018

FILE NAME: MIDU1590_C-116.dwg

PLATE NO. C-116



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, N.Y. 10278-0090

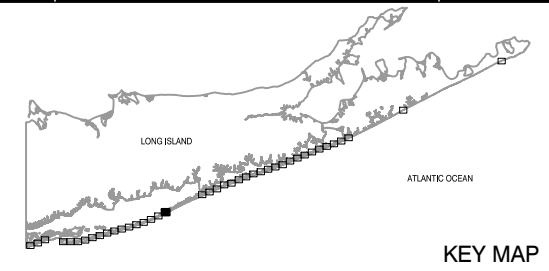
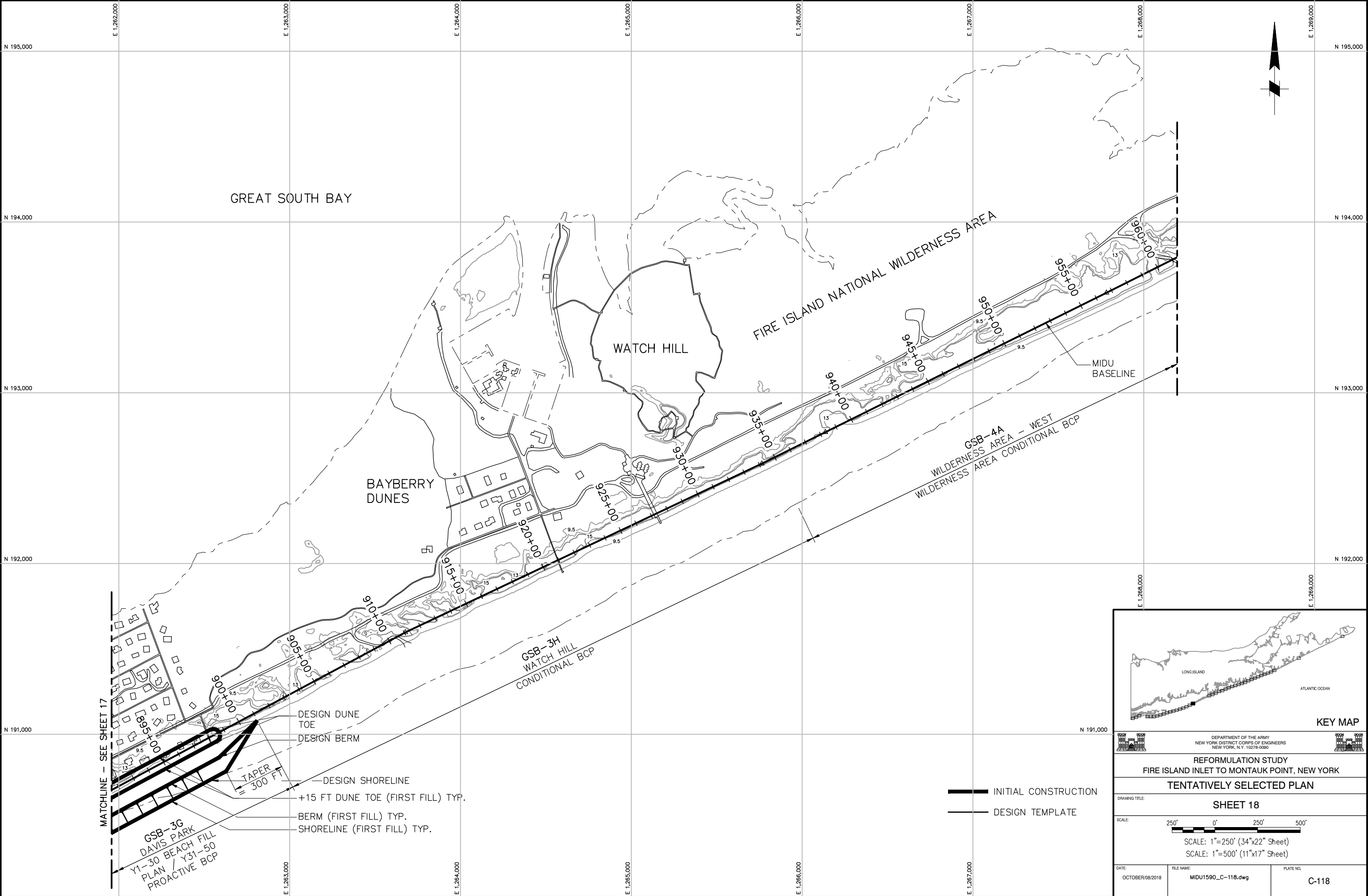
REFORMULATION STUDY
FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK

TENTATIVELY SELECTED PLAN

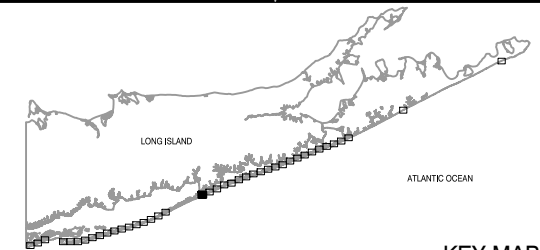
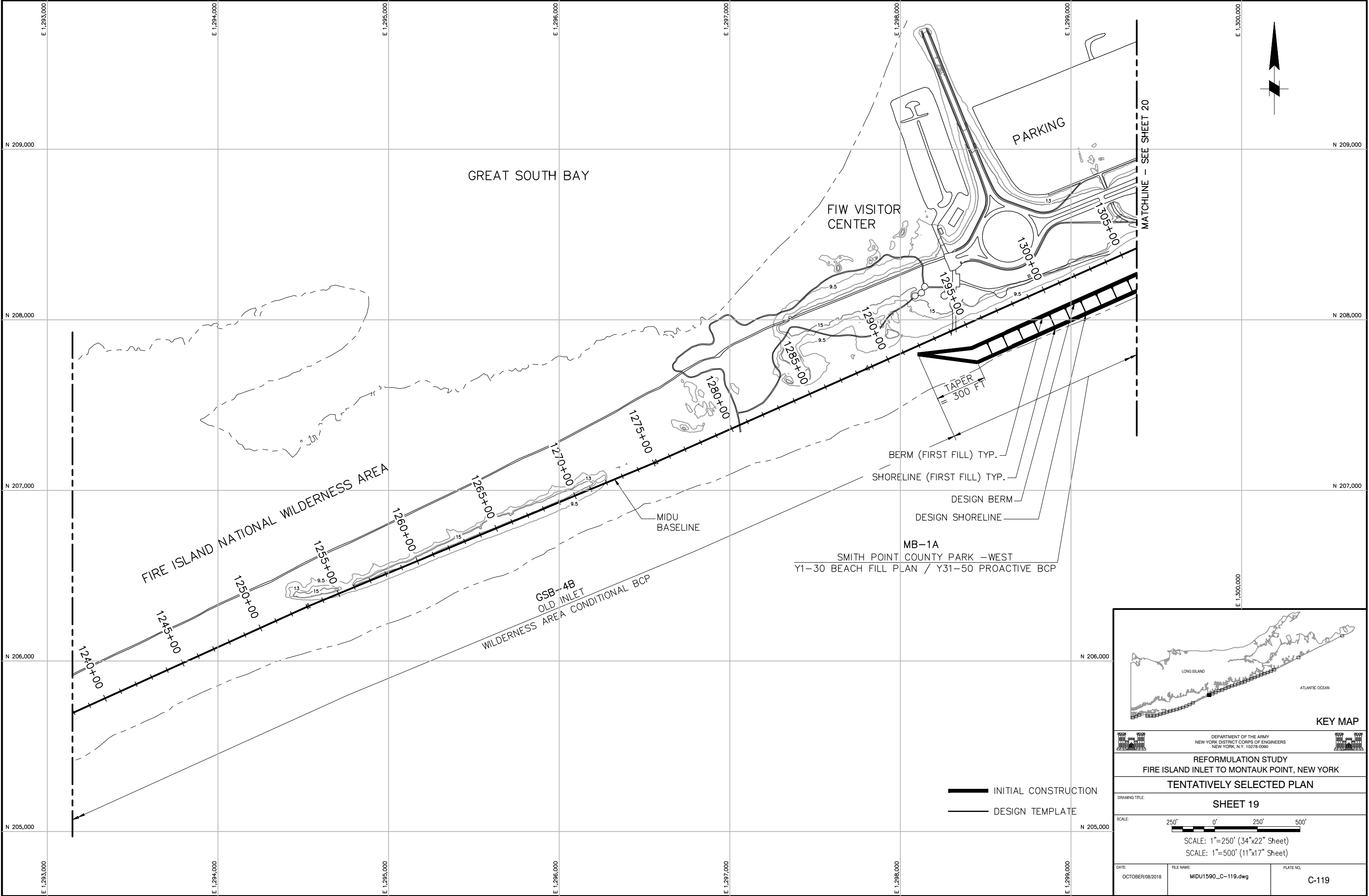
DRAWING TITLE:
SHEET 17



SCALE:
250' 0' 250' 500'
SCALE: 1"=250' (34"x22" Sheet)
SCALE: 1"=500' (11"x17" Sheet)

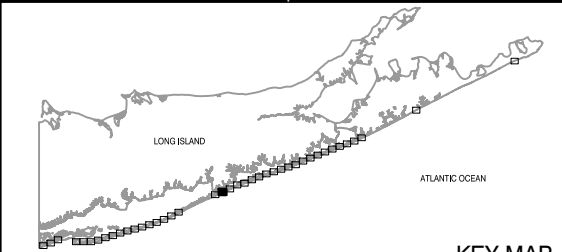
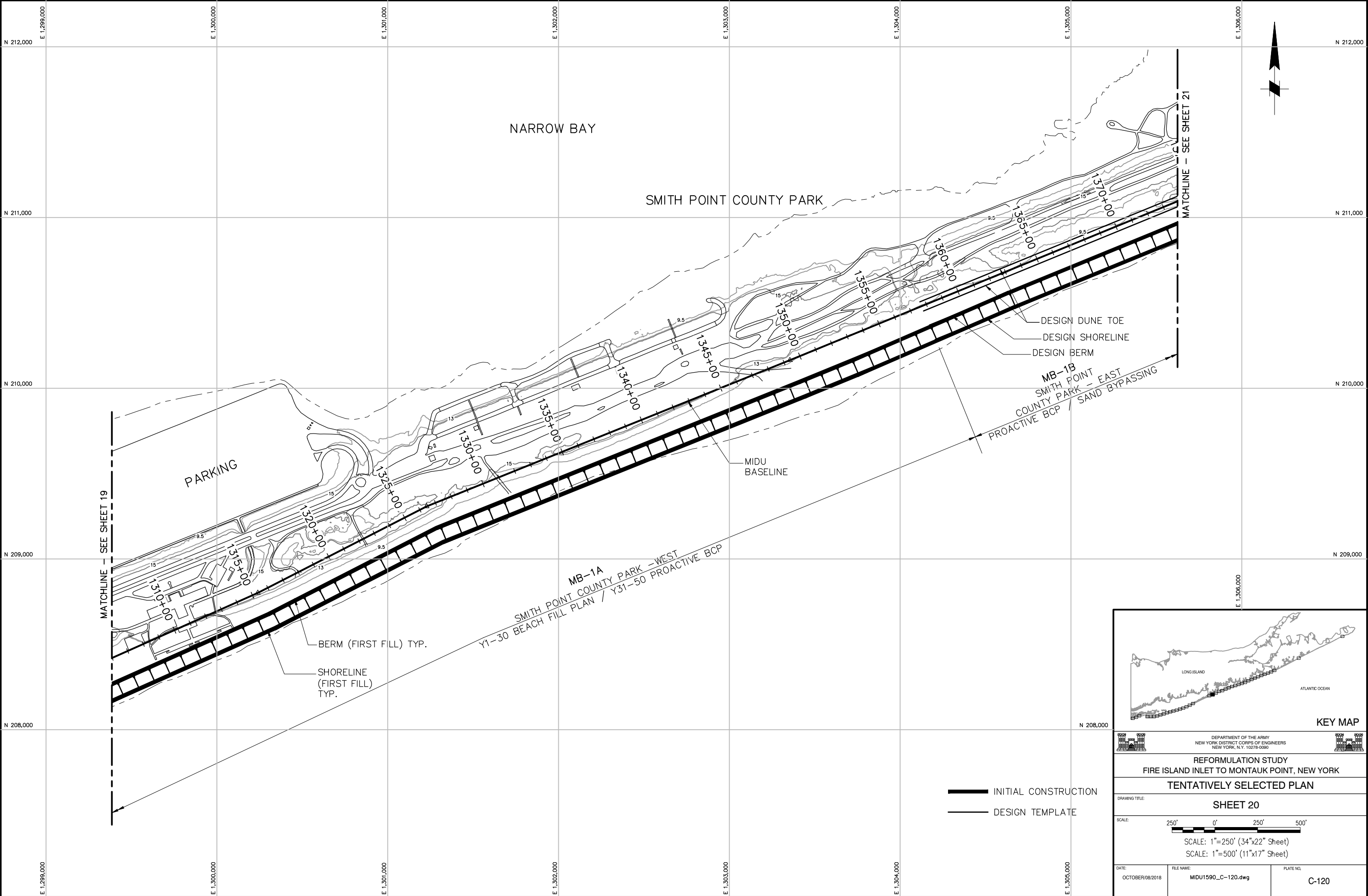
DATE: OCTOBER/08/2018	FILE NAME: MIDU1590_C-117.dwg	PLATE NO. C-117
--------------------------	----------------------------------	--------------------





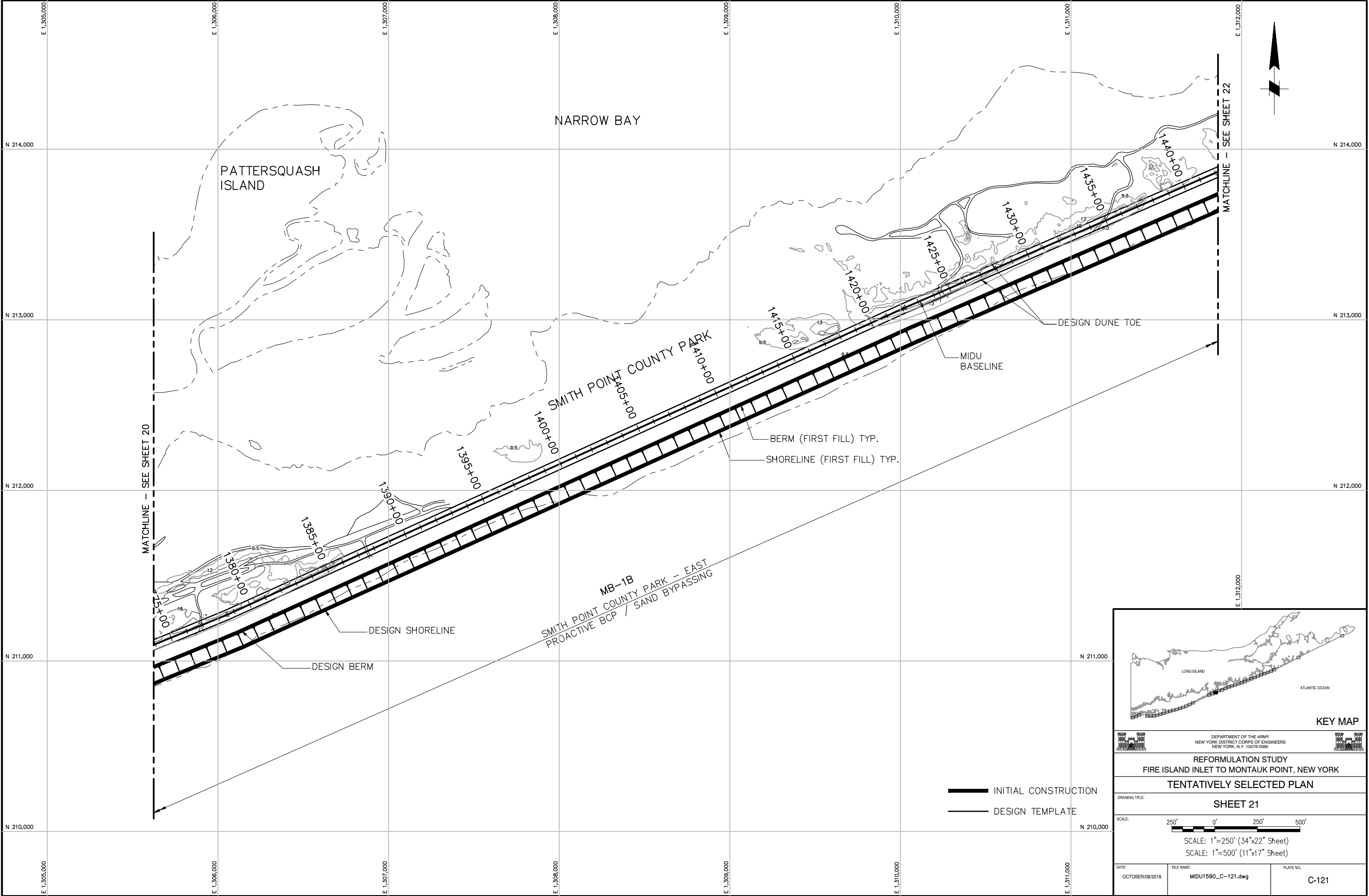
DEPARTMENT OF THE ARMY NEW YORK DISTRICT CORPS OF ENGINEERS NEW YORK, N.Y. 10278-0090		
REFORMULATION STUDY FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK TENTATIVELY SELECTED PLAN		
DRAWING TITLE: SHEET 18		
SCALE: 1"=250' (34"x22" Sheet) SCALE: 1"=500' (11"x17" Sheet)		
DATE: OCTOBER/08/2018	FILE NAME: MIDU1590_C-118.dwg	PLATE NO. C-118



 		
DEPARTMENT OF THE ARMY NEW YORK DISTRICT CORPS OF ENGINEERS NEW YORK, N.Y. 10278-0080		
REFORMULATION STUDY FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK		
TENTATIVELY SELECTED PLAN		
DRAWING TITLE: SHEET 19		
SCALE: 250' 0' 250' 500'		
SCALE: 1"=250' (34"x22" Sheet) SCALE: 1"=500' (11"x17" Sheet)		
DATE: OCTOBER/08/2018	FILE NAME: MIDU1590_C-119.dwg	PLATE NO. C-119



 DEPARTMENT OF THE ARMY NEW YORK DISTRICT CORPS OF ENGINEERS NEW YORK, N.Y. 10278-0090 		
REFORMULATION STUDY FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK		
TENTATIVELY SELECTED PLAN		
DRAWING TITLE: SHEET 20		
SCALE: 250' 0' 250' 500' SCALE: 1"=250' (34"x22" Sheet) SCALE: 1"=500' (11"x17" Sheet)		
DATE: OCTOBER/08/2018	FILE NAME: MIDU1590_C-120.dwg	PLATE NO. C-120



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, N.Y. 10278-0090

REFORMULATION STUDY
FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK

TENTATIVELY SELECTED PLAN

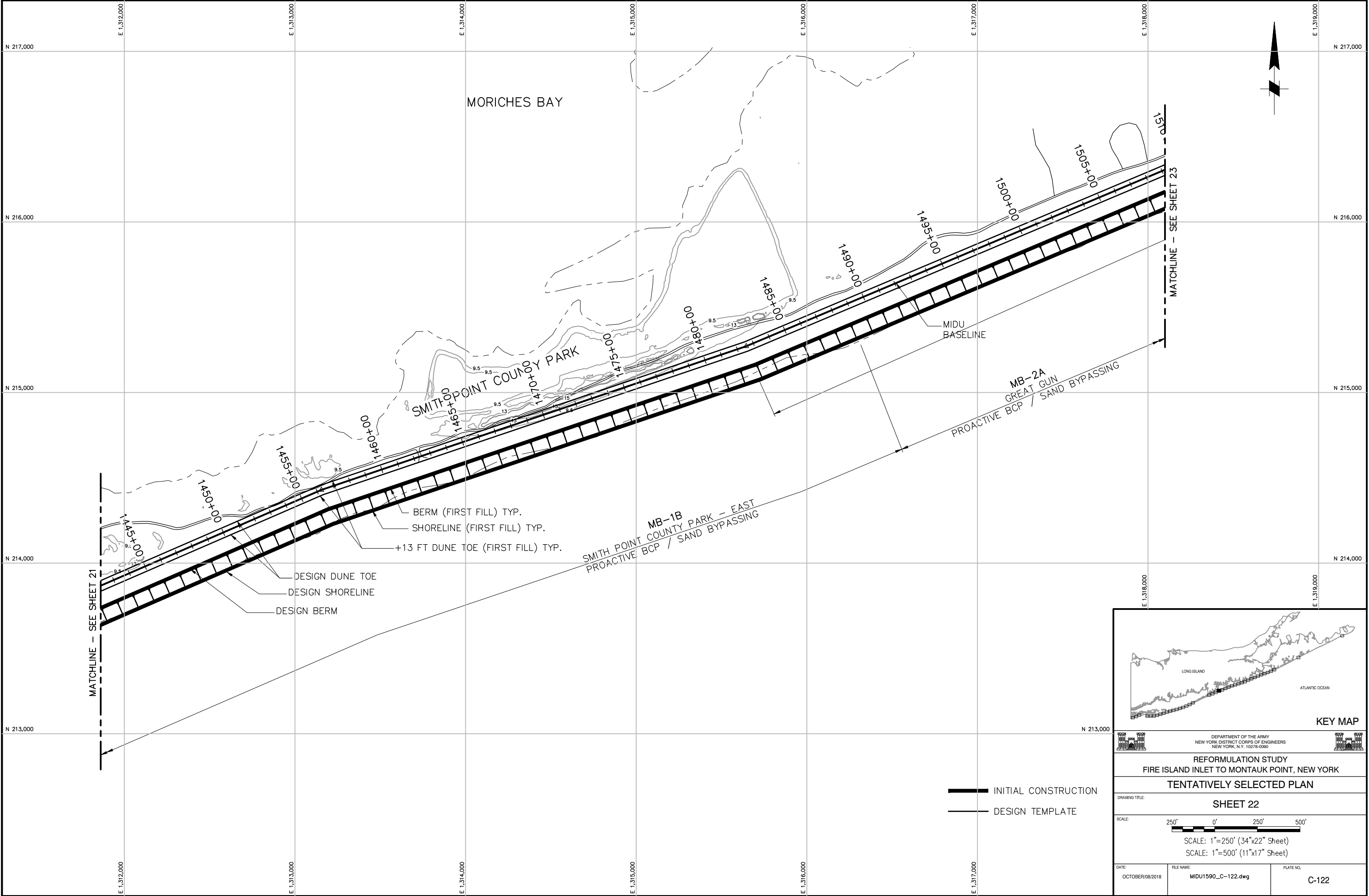
DRAWING TITLE: SHEET 21

SCALE: 1"=250' (34"x22" Sheet)
SCALE: 1"=500' (11"x17" Sheet)

DATE: OCTOBER/08/2018

FILE NAME: MIDU1590_C-121.dwg

PLATE NO. C-121



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, N.Y. 10278-0080

**REFORMULATION STUDY
FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK**

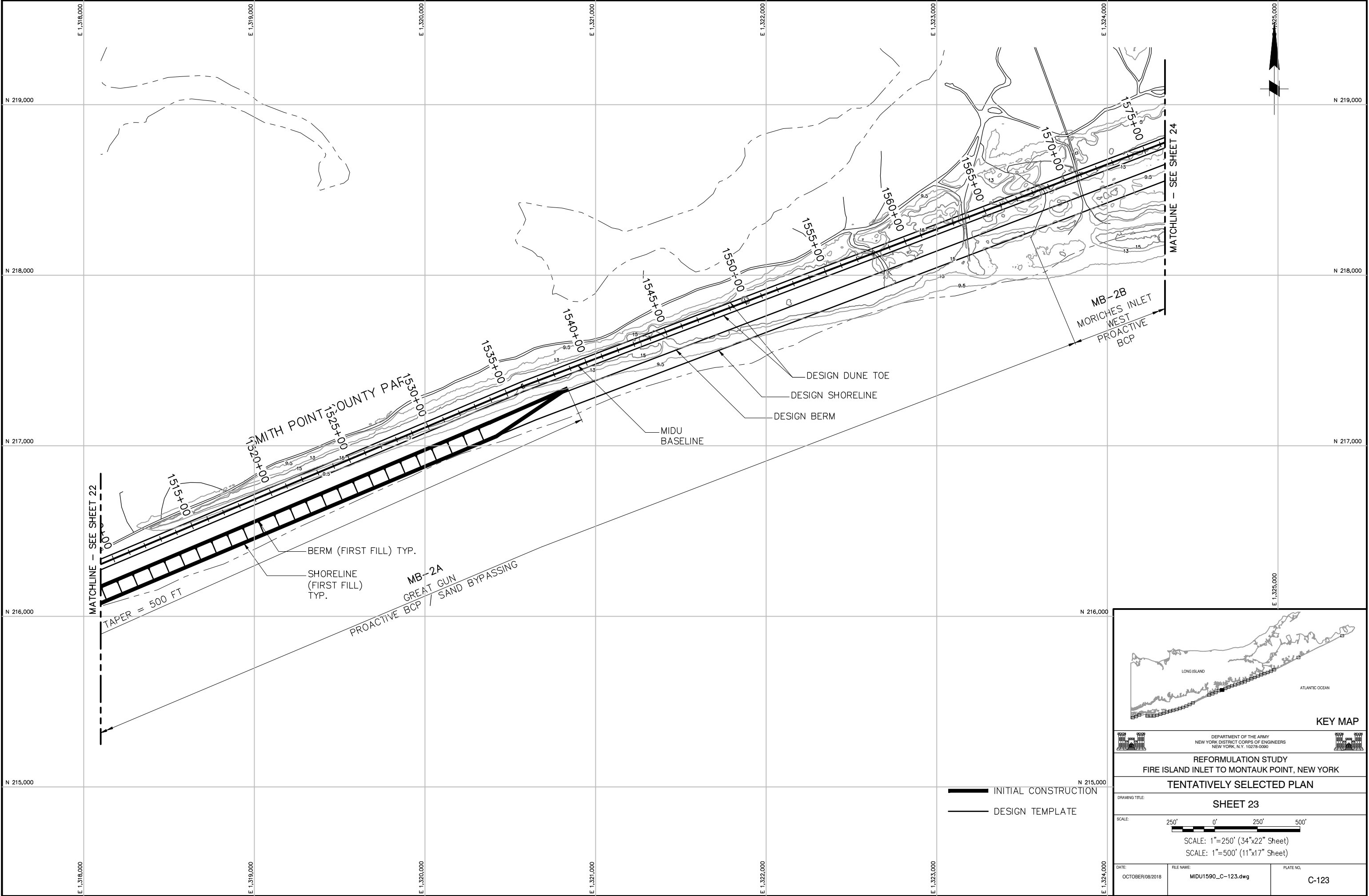
TENTATIVELY SELECTED PLAN

DRAWING TITLE: **SHEET 22**

SCALE:

SCALE: 1"=250' (34"x22" Sheet)
SCALE: 1"=500' (11"x17" Sheet)

DATE: OCTOBER/08/2018	FILE NAME: MIDU1590_C-122.dwg	PLATE NO. C-122
--------------------------	----------------------------------	--------------------



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, N.Y. 10278-0080

REFORMULATION STUDY
FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK

TENTATIVELY SELECTED PLAN

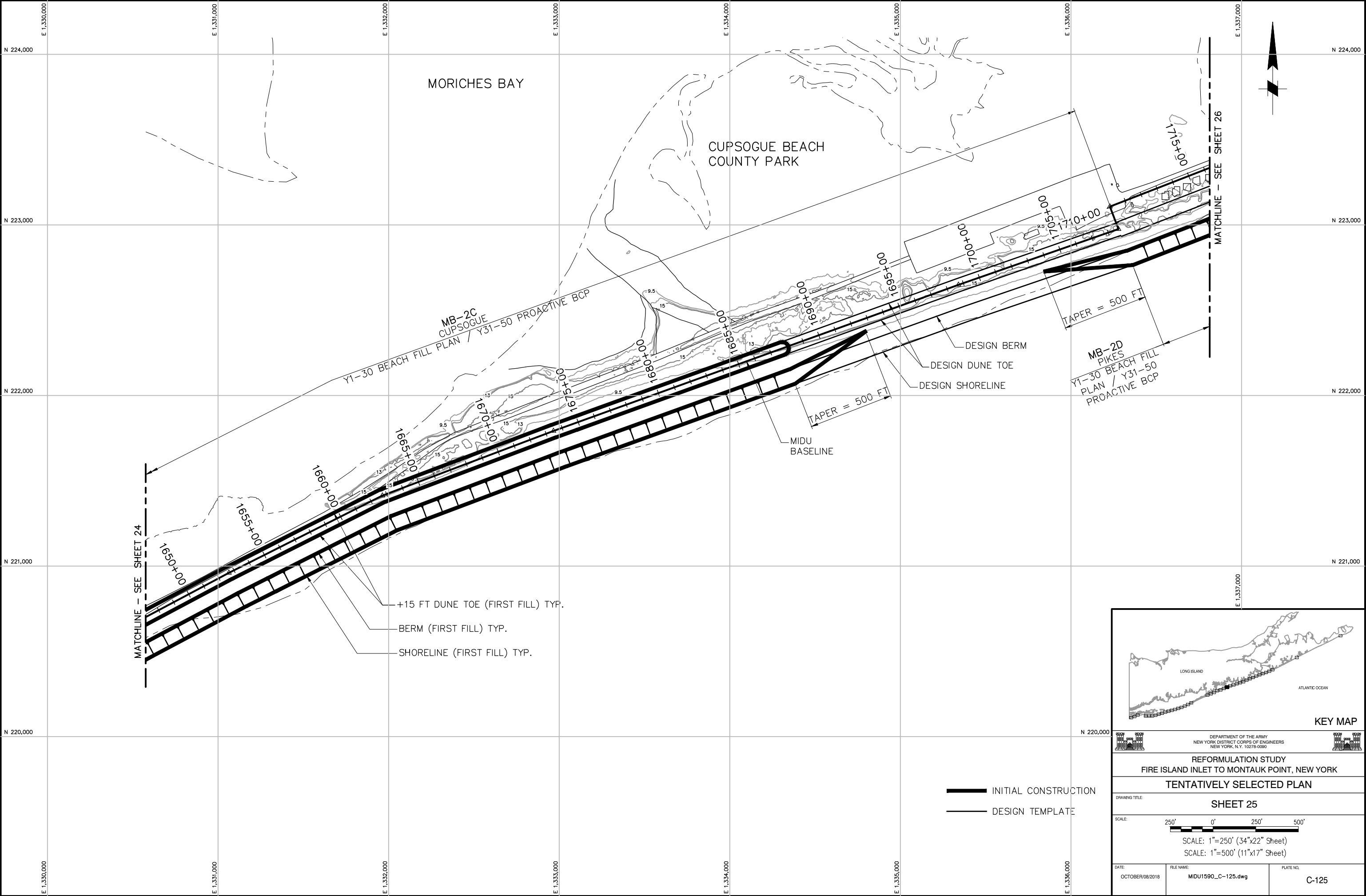
DRAWING TITLE: SHEET 23



SCALE: 1"=250' (34"x22" Sheet)
SCALE: 1"=500' (11"x17" Sheet)

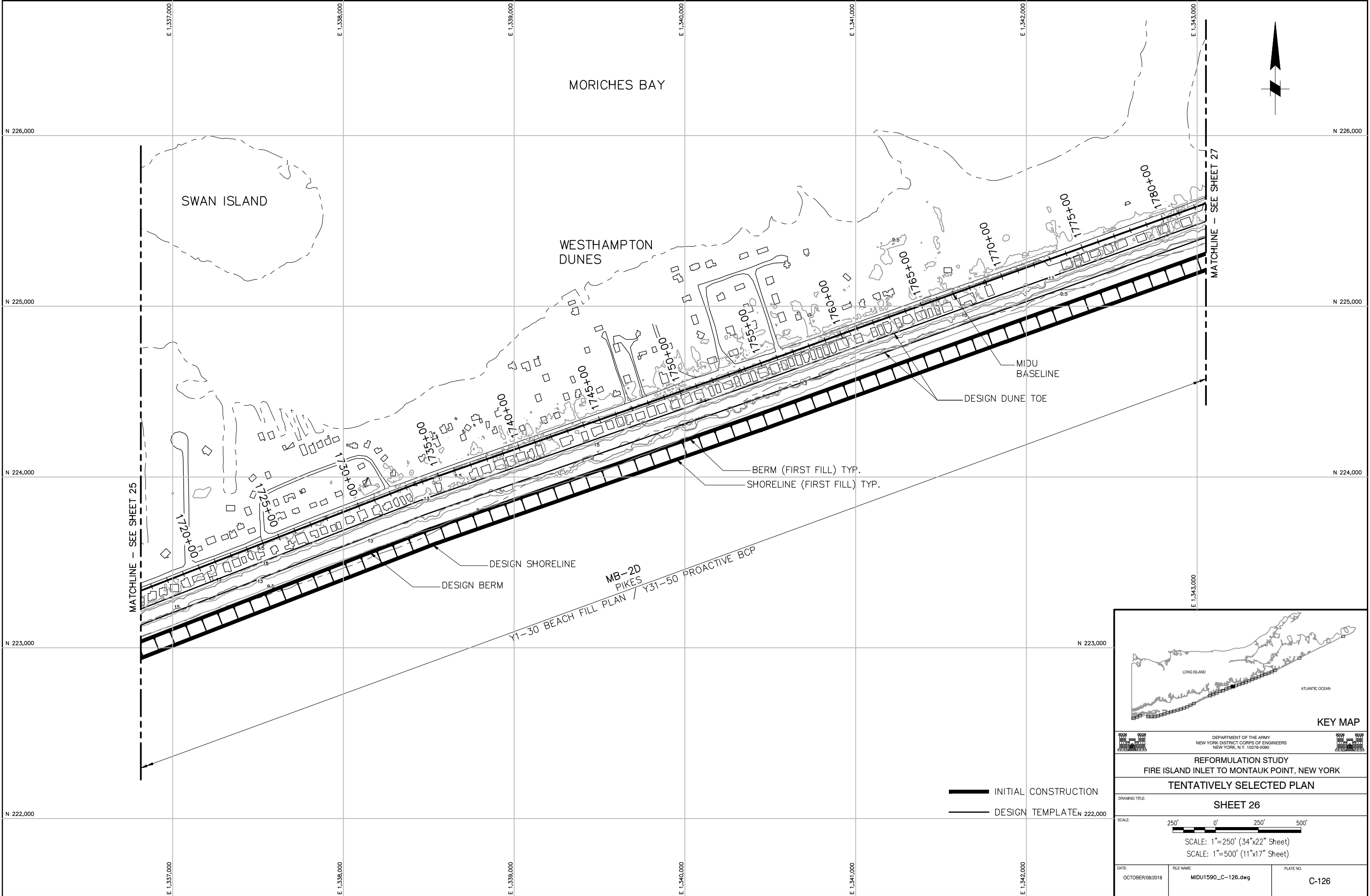
DATE: OCTOBER/08/2018

FILE NAME: MIDU1590_C-123.dwg

PLATE NO. C-123



					
DEPARTMENT OF THE ARMY NEW YORK DISTRICT CORPS OF ENGINEERS NEW YORK, N.Y. 10278-0080					
REFORMULATION STUDY FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK					
TENTATIVELY SELECTED PLAN					
DRAWING TITLE: SHEET 25					
SCALE: 1"=250' (34"x22" Sheet) 1"=500' (11"x17" Sheet)					
DATE: OCTOBER/08/2018	FILE NAME: MIDU1590_C-125.dwg	PLATE NO. C-125			



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, N.Y. 10278-0090

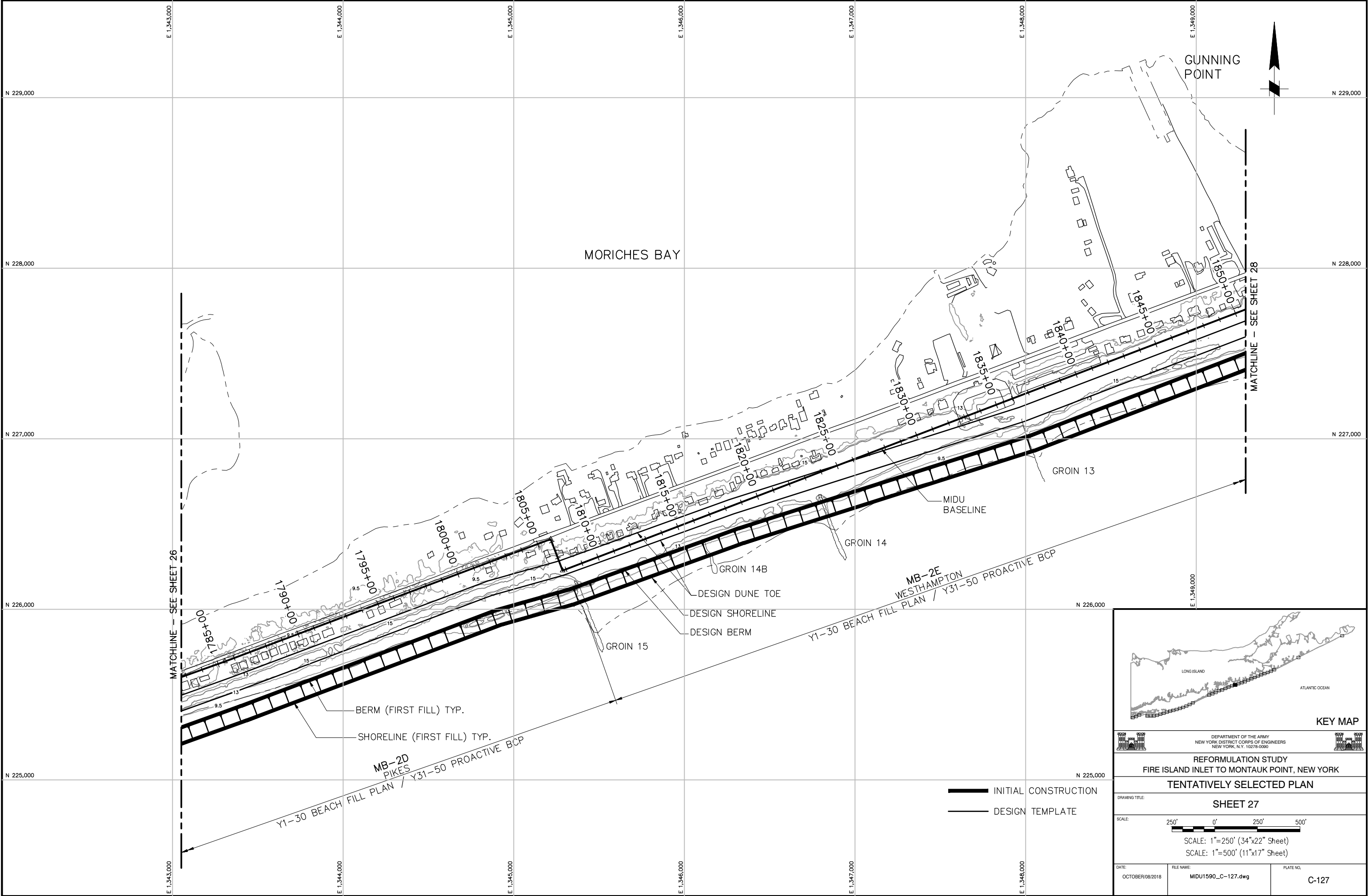
REFORMULATION STUDY
FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK

TENTATIVELY SELECTED PLAN

DRAWING TITLE:
SHEET 26

SCALE:
1"=250' (34"x22" Sheet)
1"=500' (11"x17" Sheet)

DATE: OCTOBER/08/2018	FILE NAME: MIDU1590_C-126.dwg	PLATE NO.: C-126
--------------------------	----------------------------------	---------------------



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, N.Y. 10278-0080

**REFORMULATION STUDY
FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK**

TENTATIVELY SELECTED PLAN

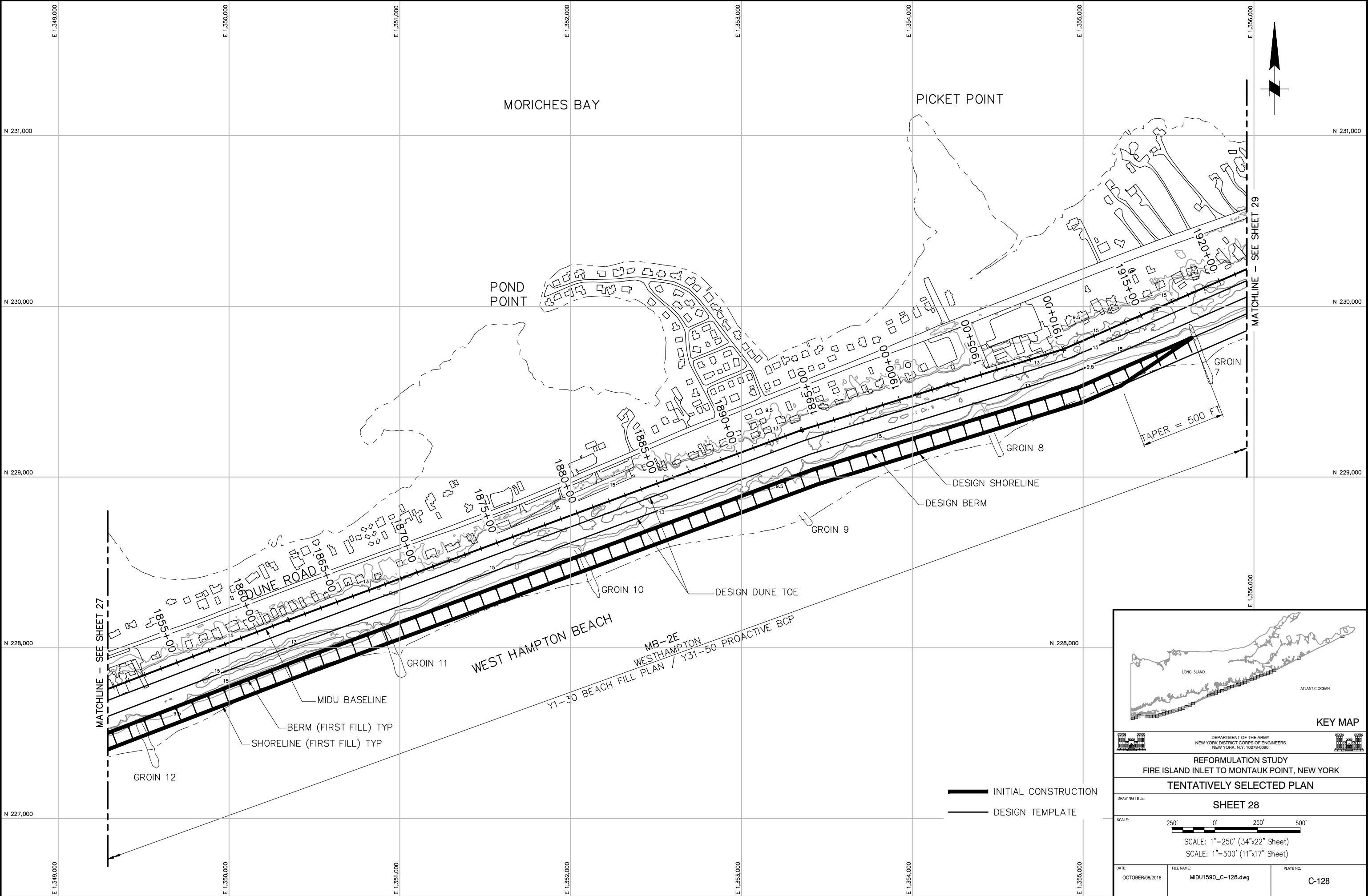
DRAWING TITLE: **SHEET 27**

SCALE: 1"=250' (34"x22" Sheet)
SCALE: 1"=500' (11"x17" Sheet)

DATE: OCTOBER/08/2018

FILE NAME: MIDU1590_C-127.dwg

PLATE NO. C-127



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, N.Y. 10278-0090

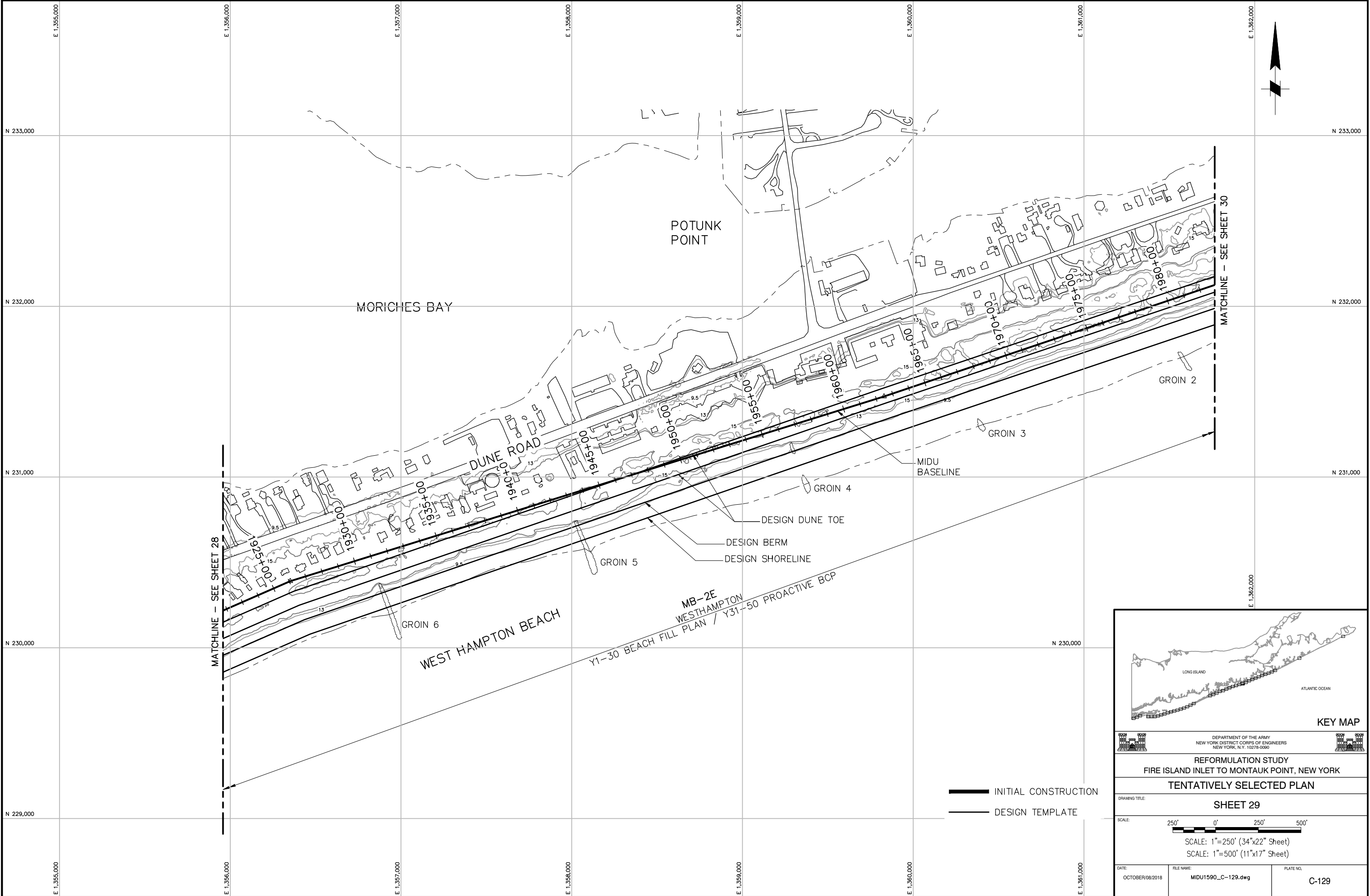
REFORMULATION STUDY
FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK

TENTATIVELY SELECTED PLAN

DRAWING TITLE: SHEET 28

SCALE: 1"=250' (34"x22" Sheet)
SCALE: 1"=500' (11"x17" Sheet)

DATE: OCTOBER/08/2018	FILE NAME: MIDU1590_C-128.dwg	PLATE NO. C-128
--------------------------	----------------------------------	--------------------



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, N.Y. 10278-0080

REFORMULATION STUDY
FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK

TENTATIVELY SELECTED PLAN

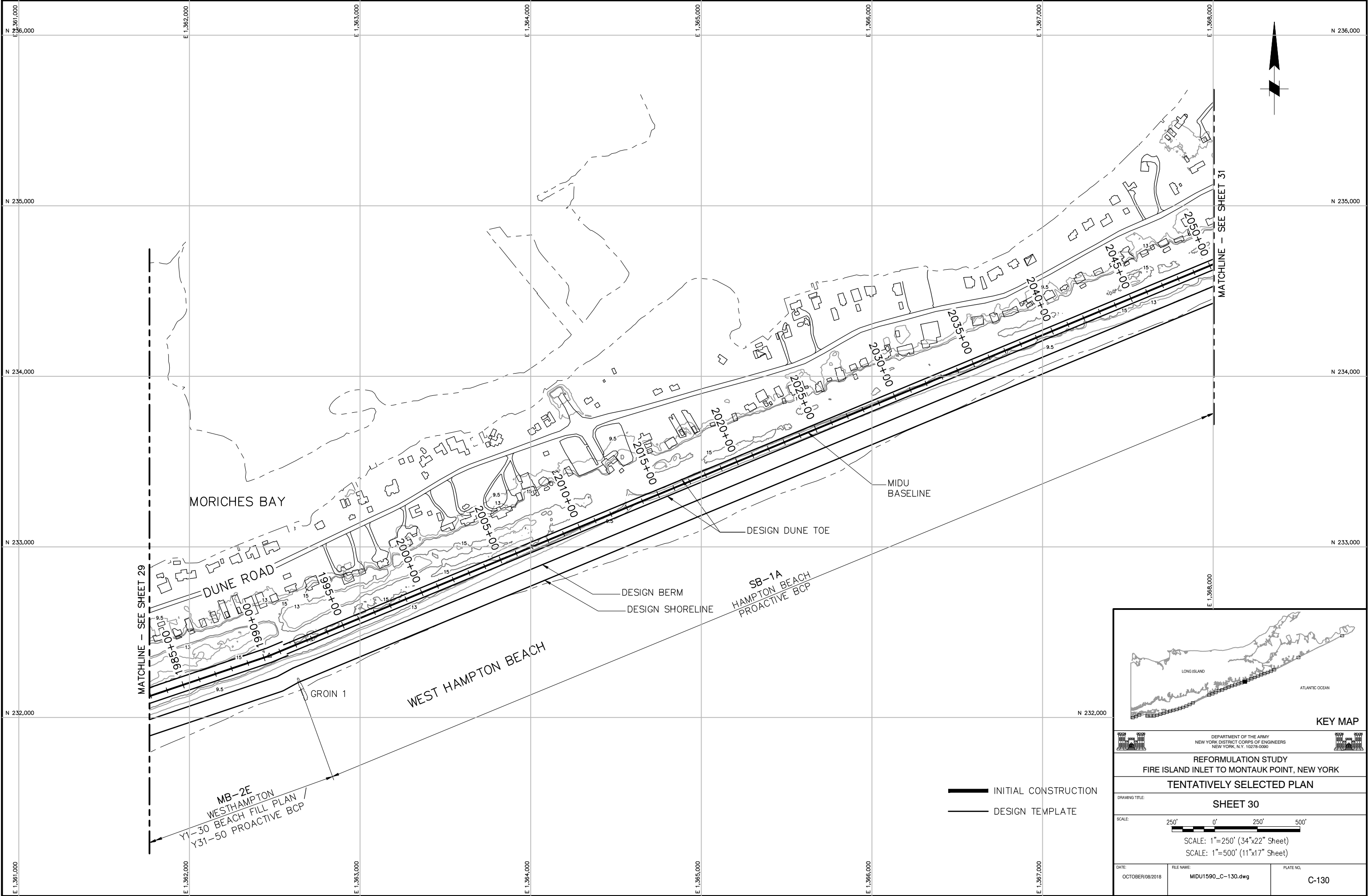
DRAWING TITLE: SHEET 29

SCALE: 1"=250' (34"x22" Sheet)
SCALE: 1"=500' (11"x17" Sheet)

DATE: OCTOBER/08/2018

FILE NAME: MIDU1590_C-129.dwg

PLATE NO. C-129



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, N.Y. 10278-0090

REFORMULATION STUDY
FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK

TENTATIVELY SELECTED PLAN

DRAWING TITLE:

SHEET 30

SCALE:

250'

0'

250'

500'

SCALE: 1"=250' (34"x22" Sheet)
SCALE: 1"=500' (11"x17" Sheet)

DATE:

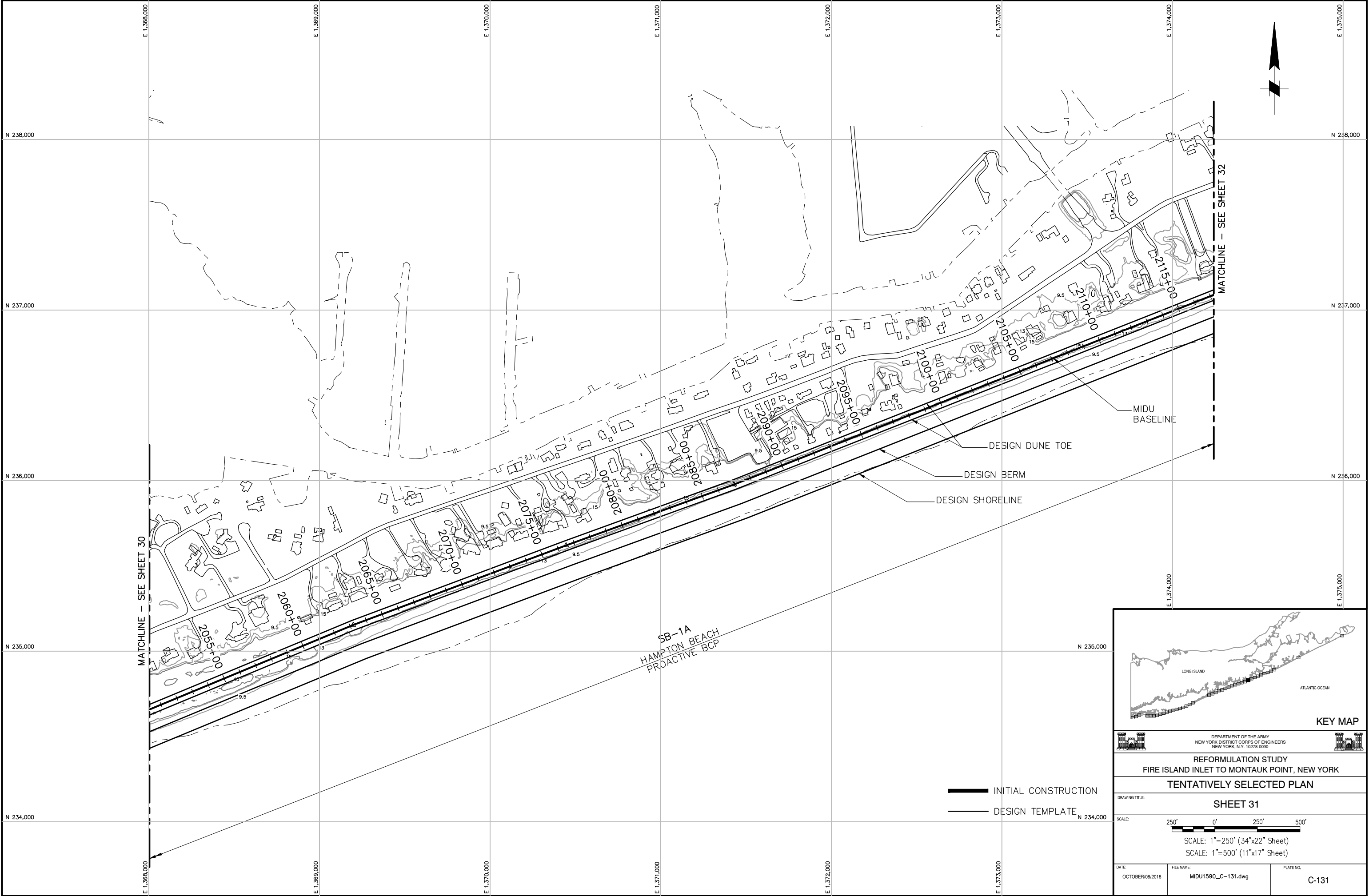
OCTOBER/08/2018

FILE NAME:

MIDU1590_C-130.dwg

PLATE NO.



C-130

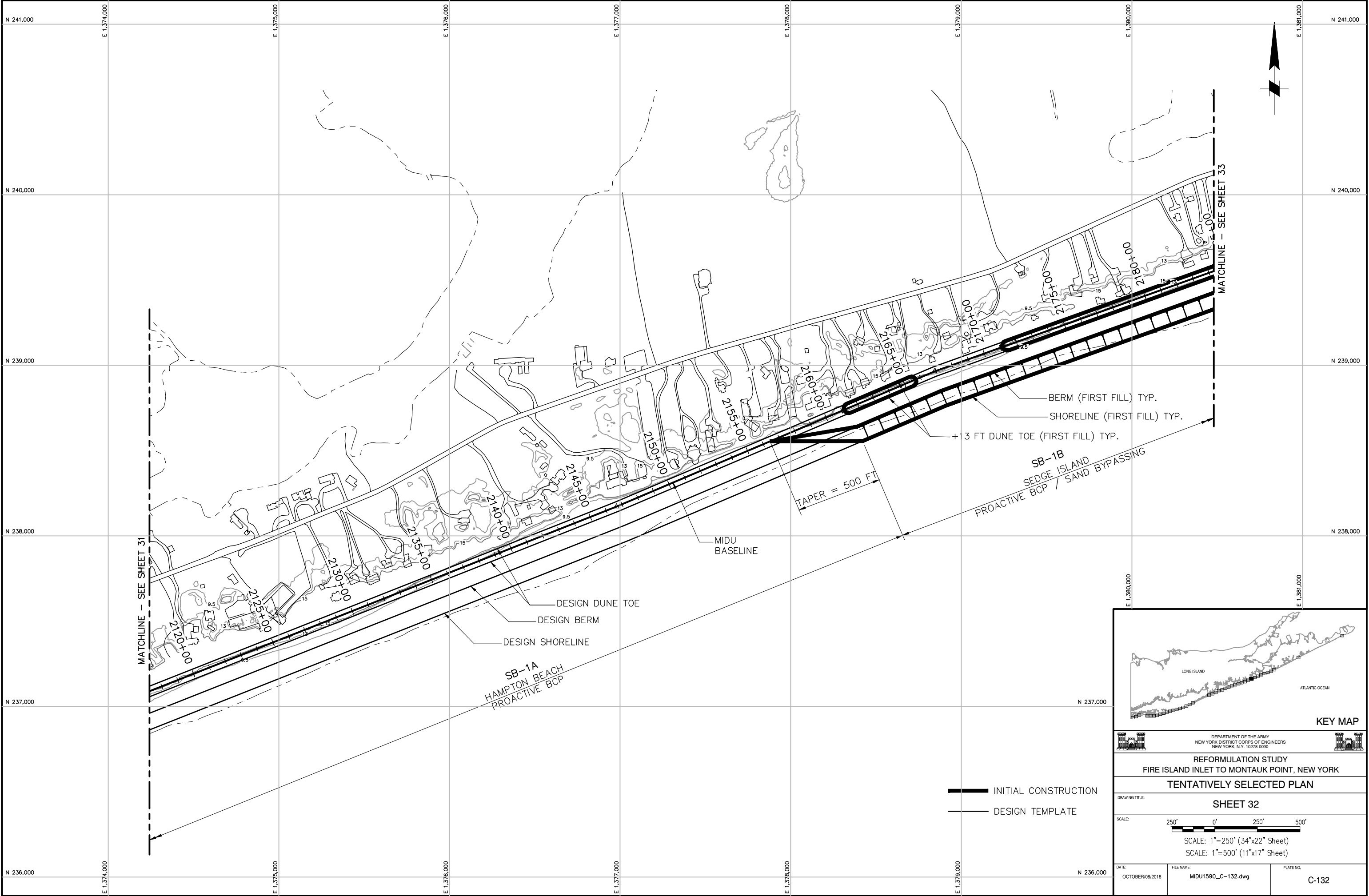


SB-1A
HAMPTON BEACH
PROACTIVE BCP

INITIAL CONSTRUCTION
DESIGN TEMPLATE



 		
DEPARTMENT OF THE ARMY NEW YORK DISTRICT CORPS OF ENGINEERS NEW YORK, N.Y. 10278-0080		
REFORMULATION STUDY FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK		
TENTATIVELY SELECTED PLAN		
DRAWING TITLE: SHEET 31		
SCALE: 1"=250' (34"x22" Sheet) 1"=500' (11"x17" Sheet)		
DATE: OCTOBER/08/2018	FILE NAME: MIDU1590_C-131.dwg	PLATE NO. C-131



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, N.Y. 10278-0080

REFORMULATION STUDY
FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK

TENTATIVELY SELECTED PLAN

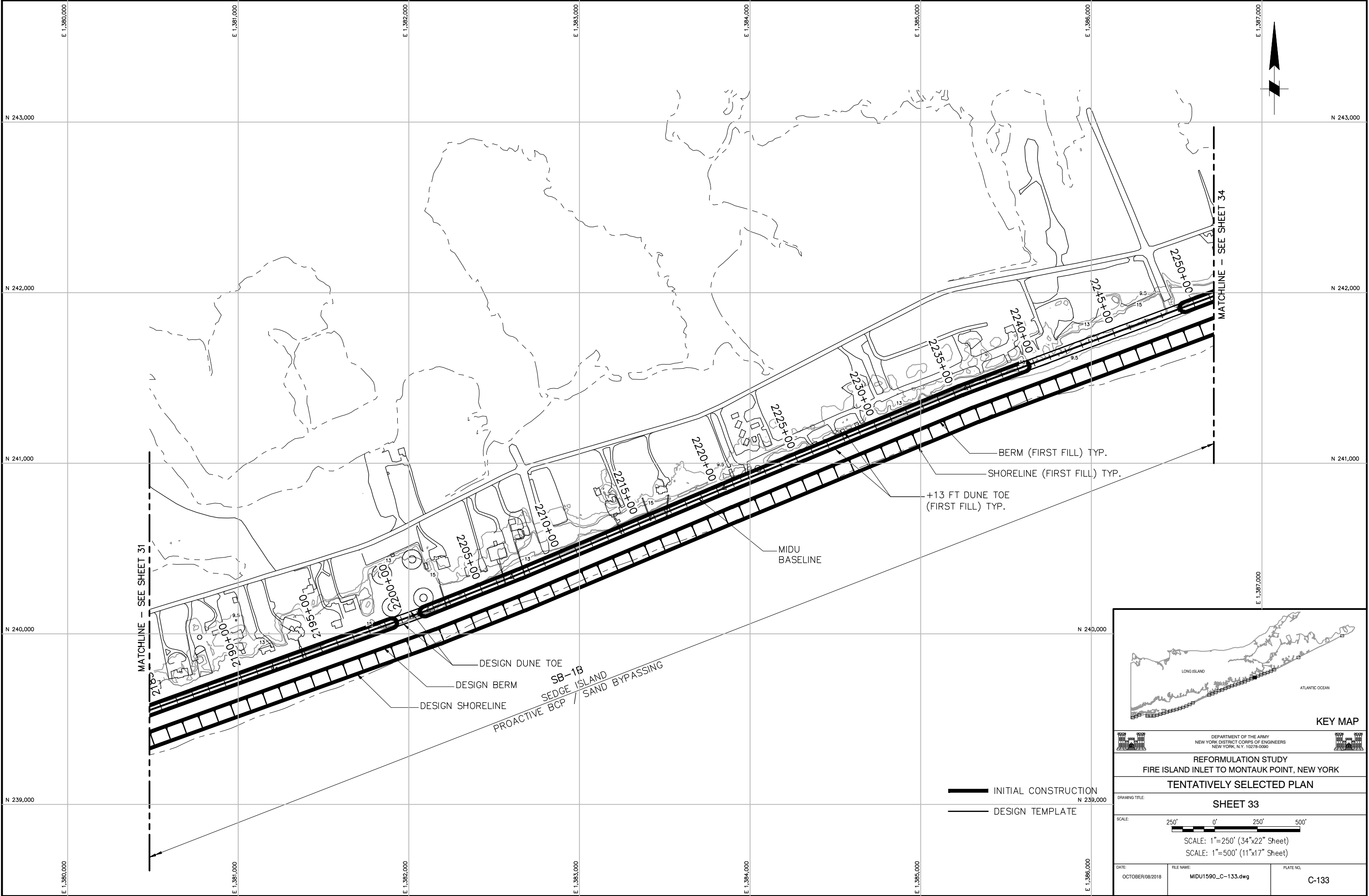
DRAWING TITLE: SHEET 32

SCALE: 1"=250' (34"x22" Sheet)
SCALE: 1"=500' (11"x17" Sheet)

DATE: OCTOBER/08/2018

FILE NAME: MIDU1590_C-132.dwg

PLATE NO. C-132



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, N.Y. 10278-0080

REFORMULATION STUDY
FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK

DRAWING TITLE: **TENTATIVELY SELECTED PLAN**

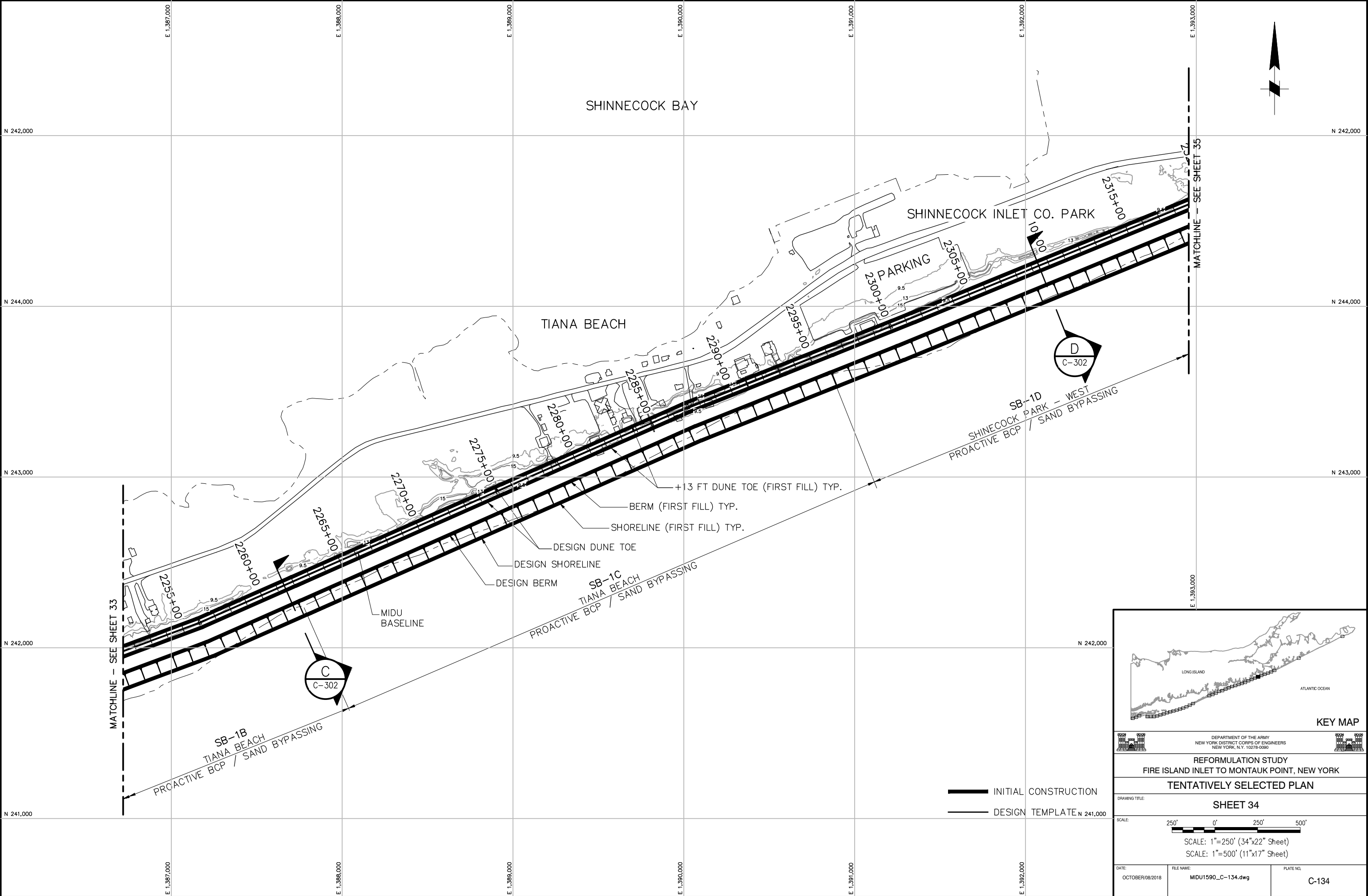
SHEET 33

SCALE: 1"=250' (34"x22" Sheet)
SCALE: 1"=500' (11"x17" Sheet)

DATE: OCTOBER/08/2018

FILE NAME: MIDU1590_C-133.dwg

PLATE NO. C-133



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, N.Y. 10278-0090

REFORMULATION STUDY
FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK

TENTATIVELY SELECTED PLAN

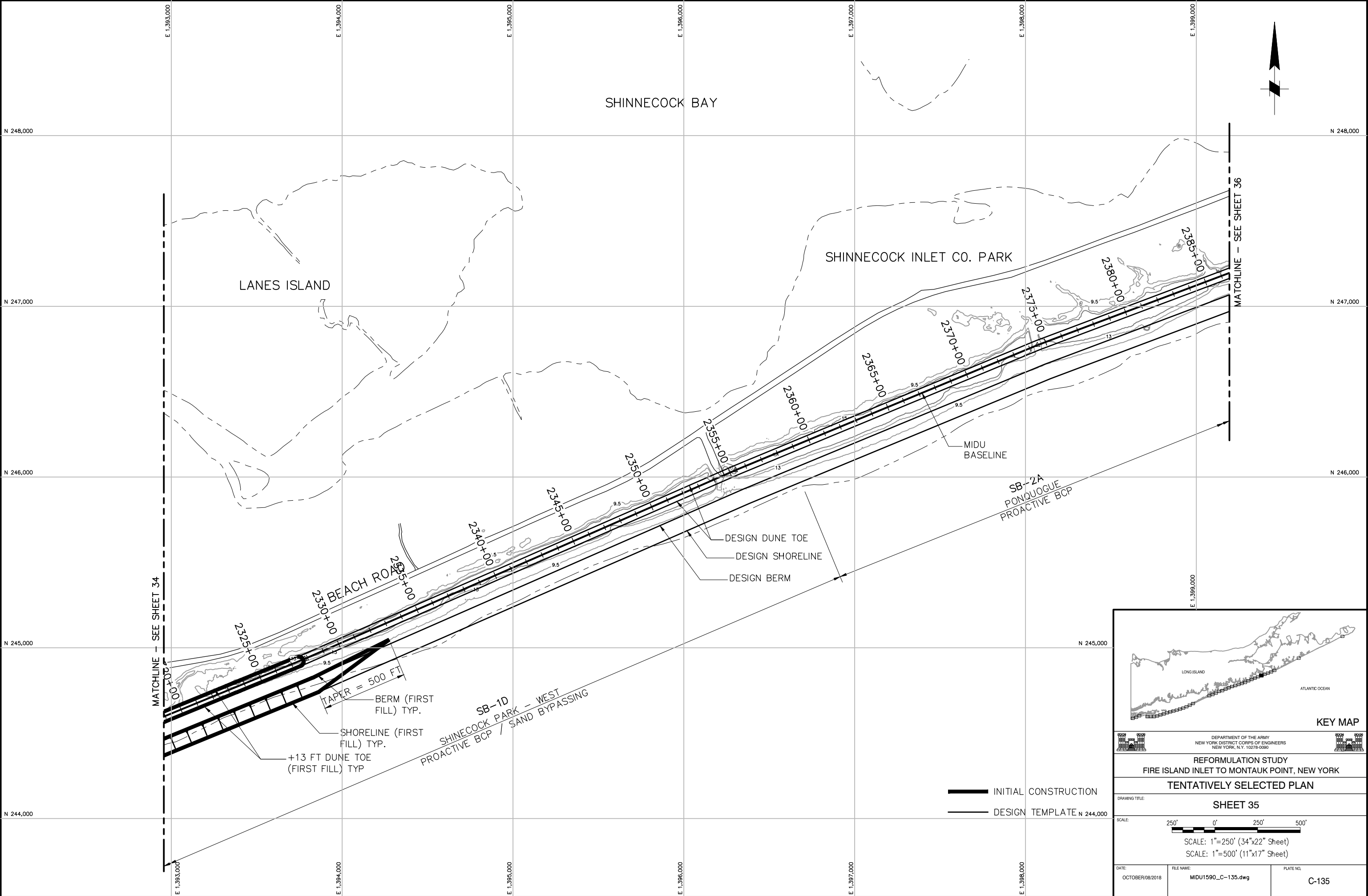
DRAWING TITLE: SHEET 34

SCALE: 1"=250' (34"x22" Sheet)
SCALE: 1"=500' (11"x17" Sheet)

DATE: OCTOBER/08/2018

FILE NAME: MIDU1590_C-134.dwg

PLATE NO. C-134



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, N.Y. 10278-0080

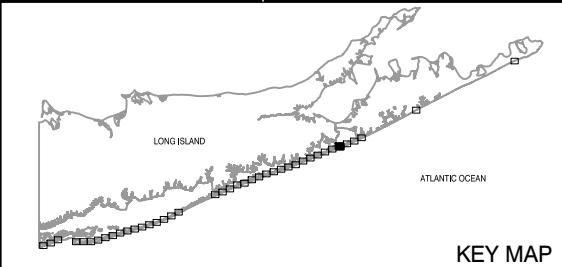
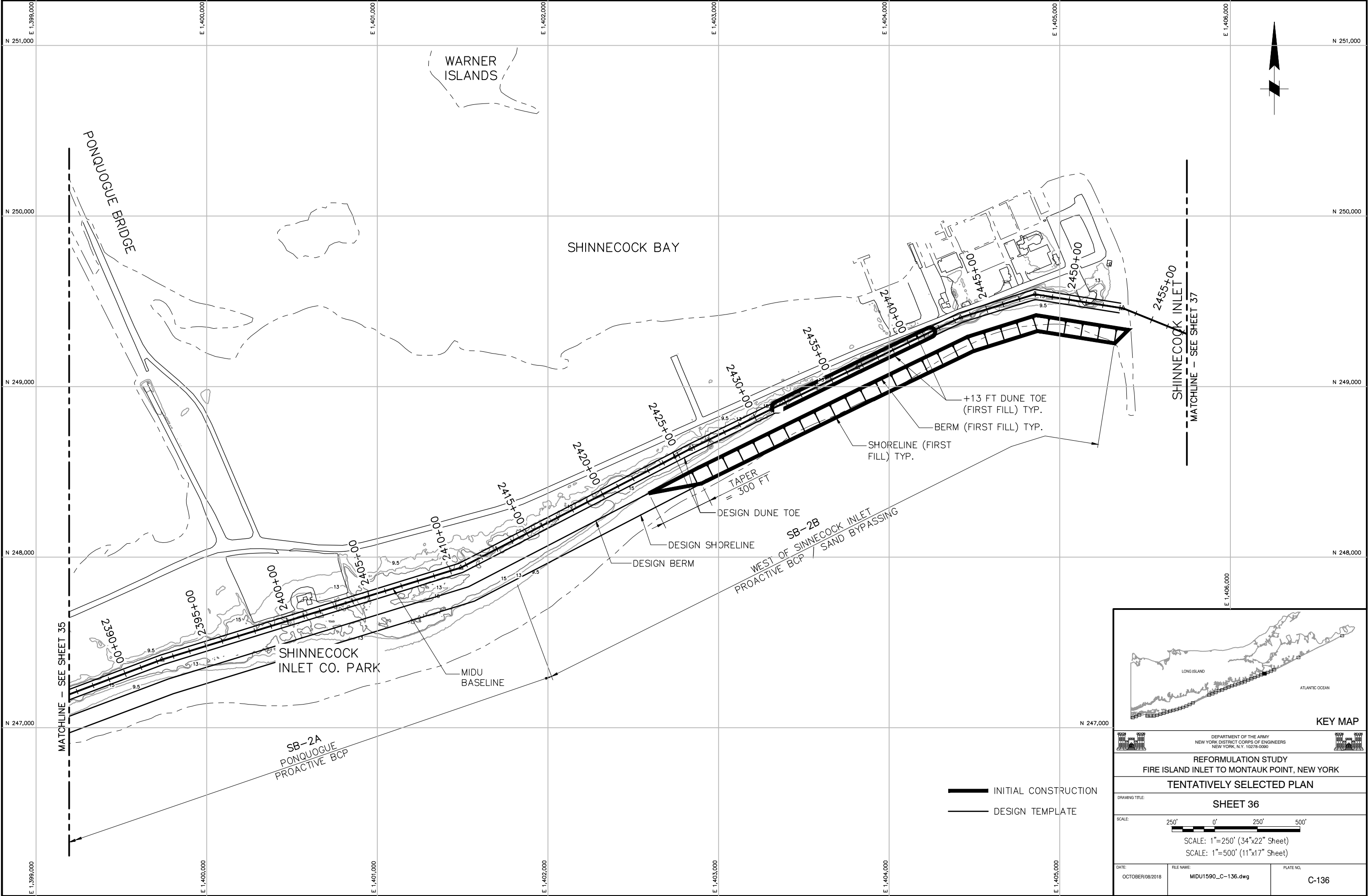
REFORMULATION STUDY
FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK



DRAWING TITLE: **TENTATIVELY SELECTED PLAN**

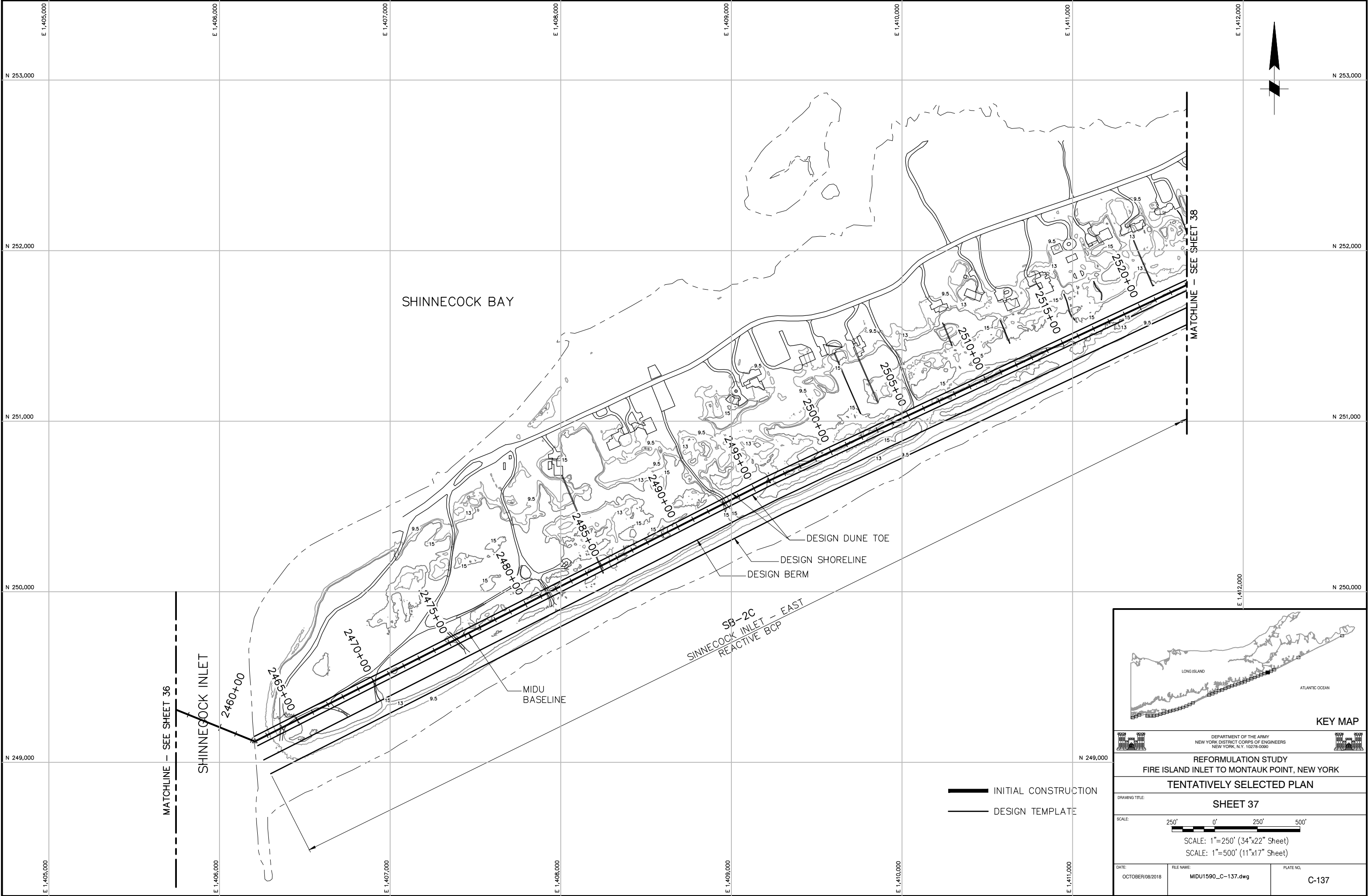
SHEET 35

SCALE: 1"=250' (34"x22" Sheet)
SCALE: 1"=500' (11"x17" Sheet)

DATE: OCTOBER/08/2018	FILE NAME: MIDU1590_C-135.dwg	PLATE NO. C-135
--------------------------	----------------------------------	--------------------



 DEPARTMENT OF THE ARMY NEW YORK DISTRICT CORPS OF ENGINEERS NEW YORK, N.Y. 10278-0090 		
REFORMULATION STUDY FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK		
TENTATIVELY SELECTED PLAN		
DRAWING TITLE: SHEET 36		
SCALE: 1"=250' (34"x22" Sheet) 1"=500' (11"x17" Sheet)		
DATE: OCTOBER/08/2018	FILE NAME: MIDU1590_C-136.dwg	PLATE NO. C-136



LONG ISLAND
ATLANTIC OCEAN

KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, N.Y. 10278-0080

REFORMULATION STUDY
FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK

TENTATIVELY SELECTED PLAN

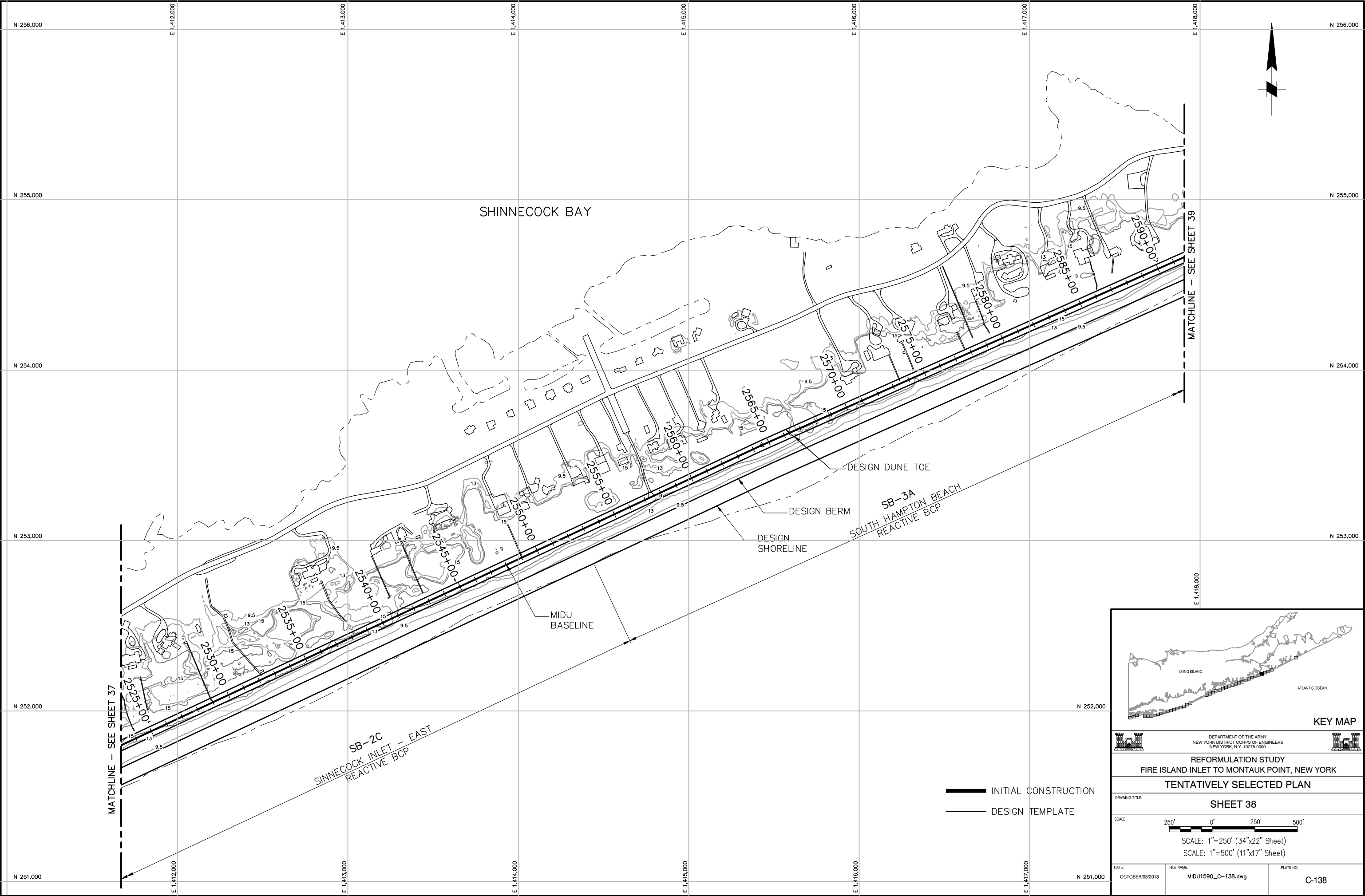
DRAWING TITLE:
SHEET 37

SCALE:
1"=250' (34"x22" Sheet)
1"=500' (11"x17" Sheet)

DATE:
OCTOBER/08/2018

FILE NAME:
MIDU1590_C-137.dwg

PLATE NO.
C-137



LONG ISLAND

ATLANTIC OCEAN

KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, N.Y. 10278-0080

REFORMULATION STUDY
FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK

TENTATIVELY SELECTED PLAN

DRAWING TITLE:

SHEET 38

SCALE:

SCALE: 1"=250' (34"x22" Sheet)
SCALE: 1"=500' (11"x17" Sheet)

DATE:

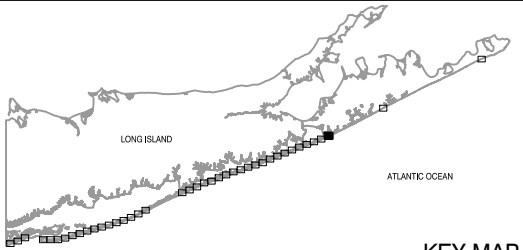
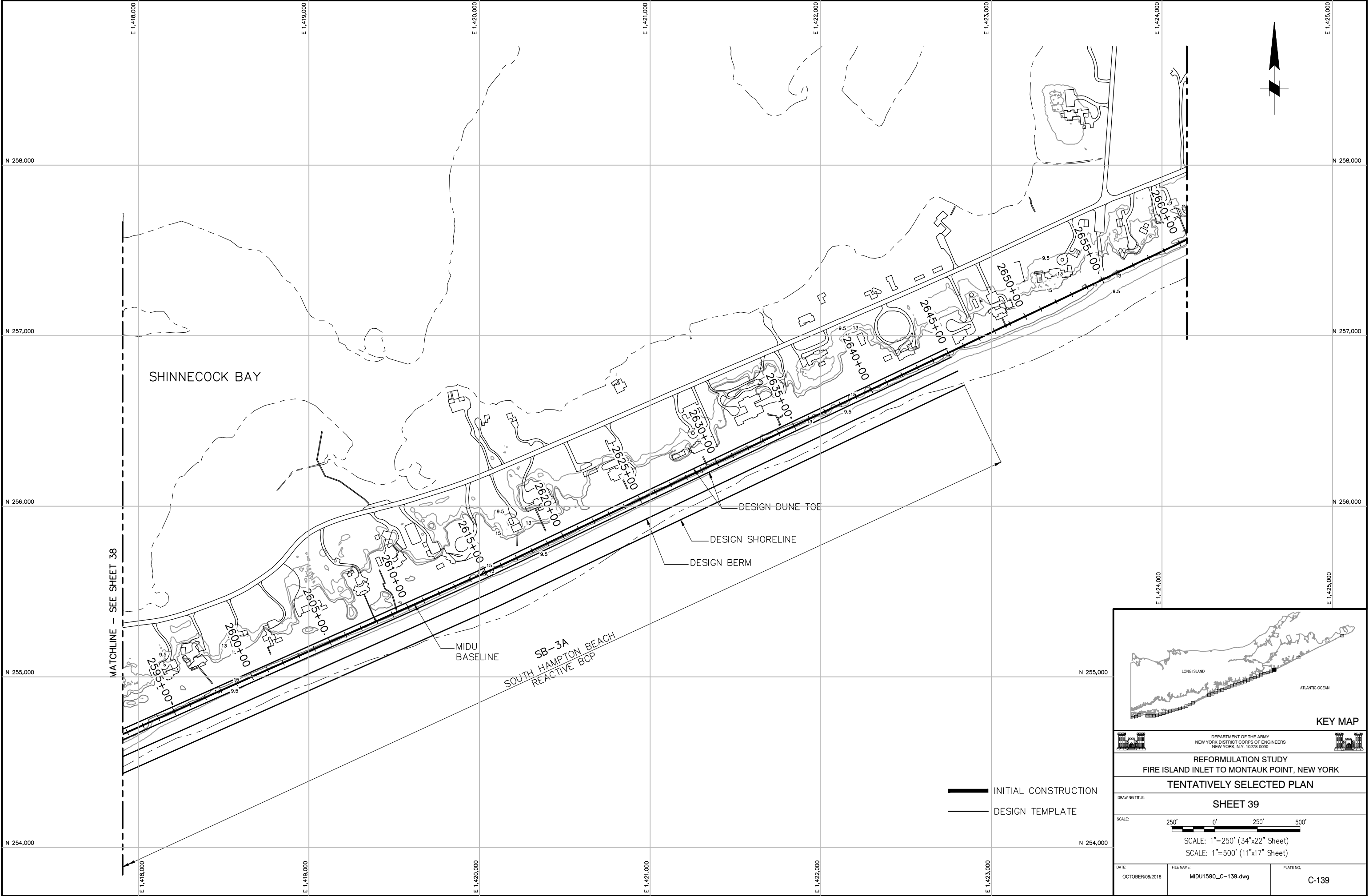
OCTOBER/08/2018



FILE NAME:

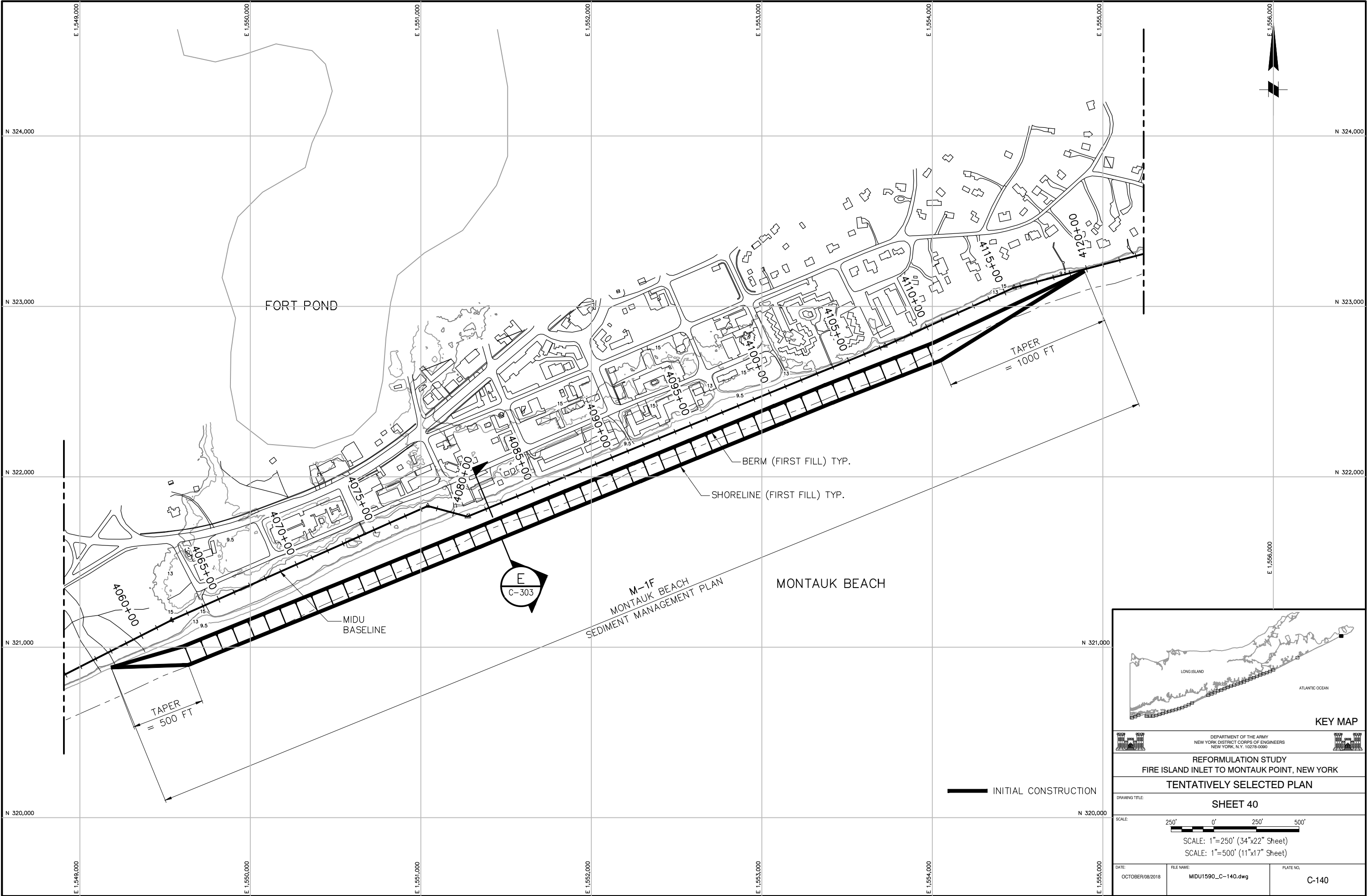
MIDU1590_C-138.dwg

PLATE NO.

C-138



 DEPARTMENT OF THE ARMY NEW YORK DISTRICT CORPS OF ENGINEERS NEW YORK, N.Y. 10278-0090 		
REFORMULATION STUDY FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK		
TENTATIVELY SELECTED PLAN		
DRAWING TITLE: SHEET 39		
SCALE: 250' 0' 250' 500' SCALE: 1"=250' (34"x22" Sheet) SCALE: 1"=500' (11"x17" Sheet)		
DATE: OCTOBER/08/2018	FILE NAME: MIDU1590_C-139.dwg	PLATE NO. C-139



LONG ISLAND

ATLANTIC OCEAN

KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, N.Y. 10278-0090

REFORMULATION STUDY
FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK

TENTATIVELY SELECTED PLAN

DRAWING TITLE:

SHEET 40

SCALE:

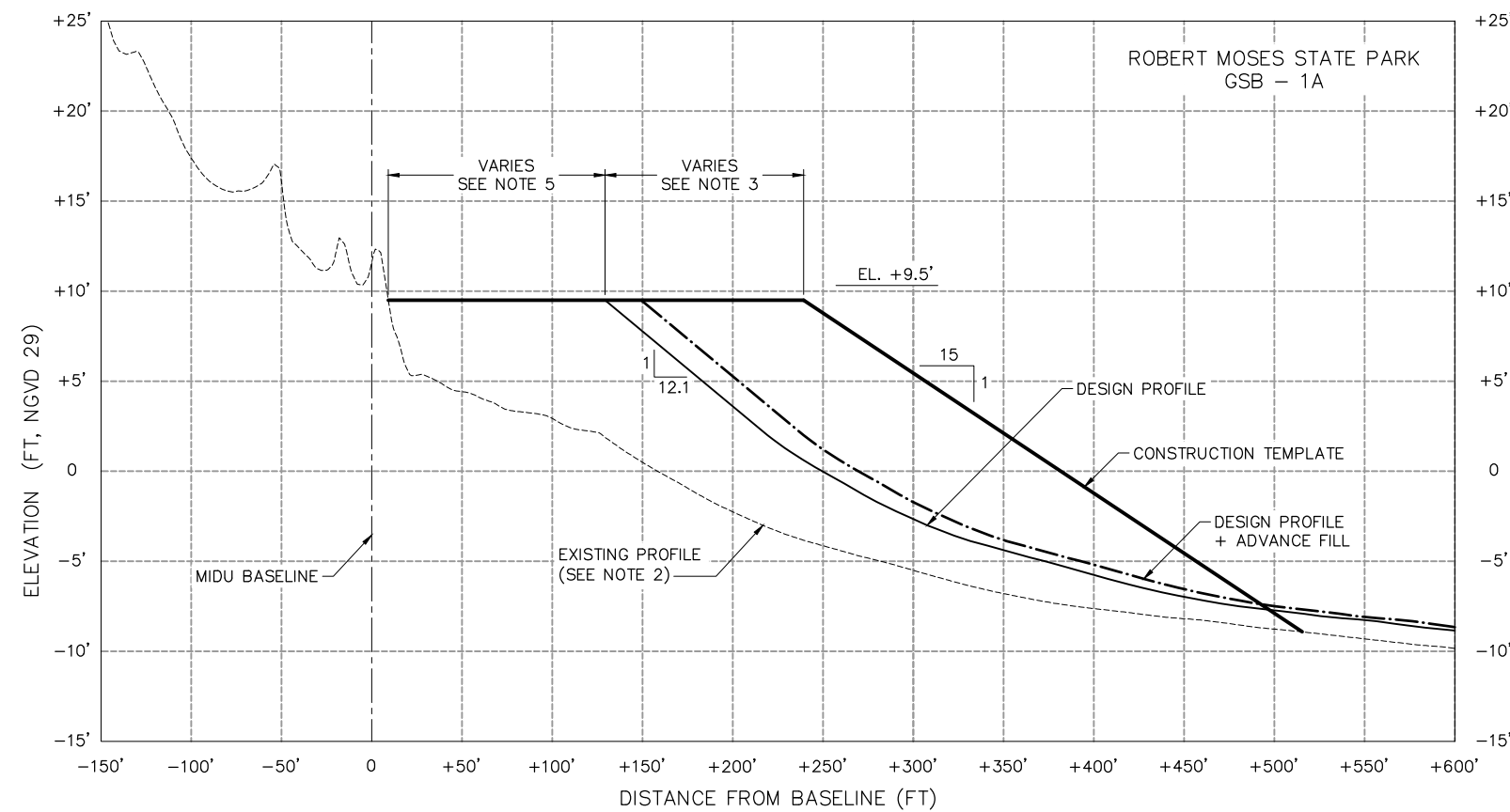
250' 0' 250' 500'

SCALE: 1"=250' (34"x22" Sheet)
SCALE: 1"=500' (11"x17" Sheet)

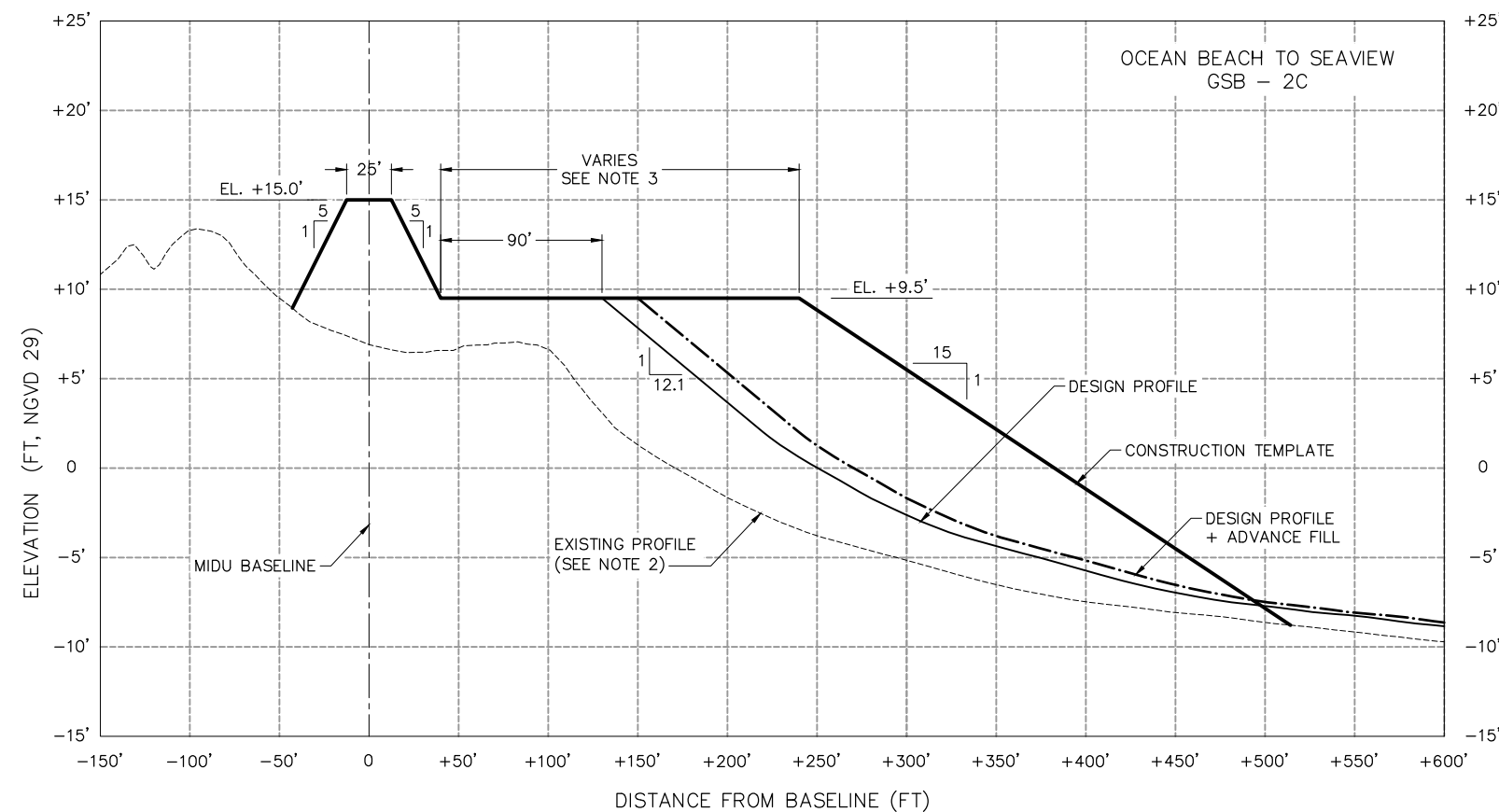
DATE:
OCTOBER/08/2018

FILE NAME:
MIDU1590_C-140.dwg

PLATE NO.
C-140





A TYPICAL BEACH FILL SECTION WITHOUT DUNE AND 90 FT BERM - STATION 122+00
C-106

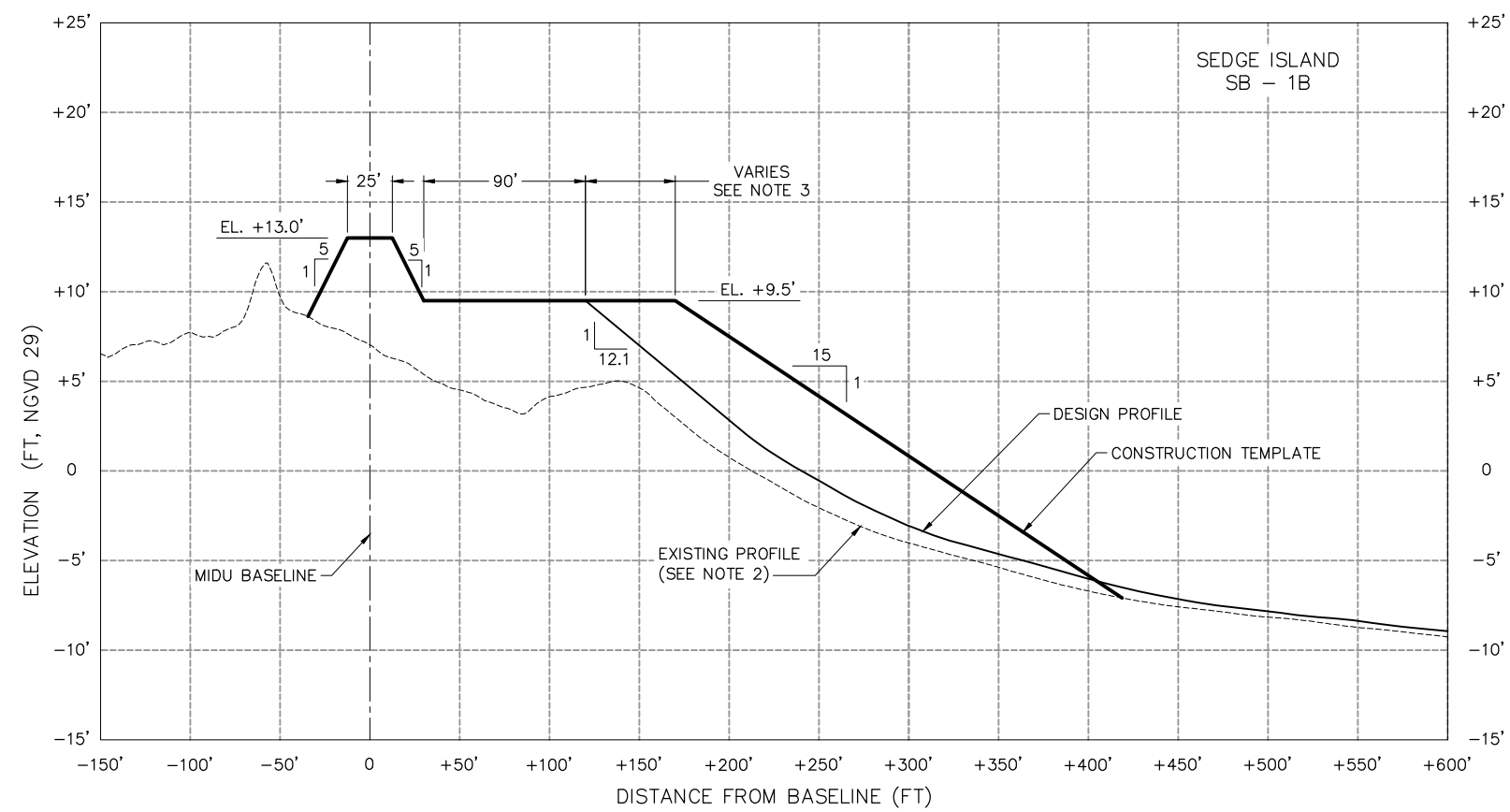


B TYPICAL BEACH FILL SECTION WITH +15 FT DUNE AND 90 FT BERM - STATION 429+61
C-111

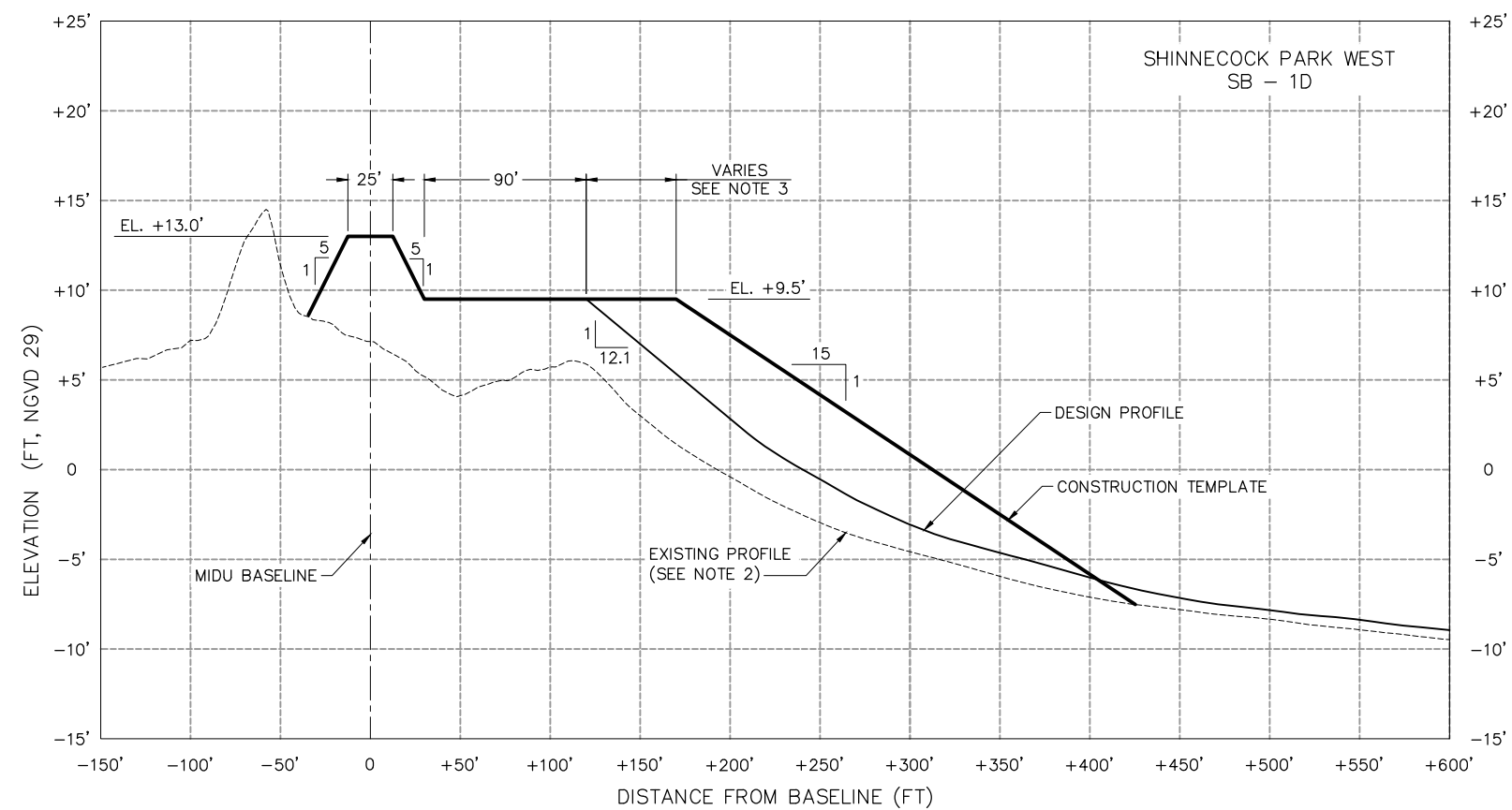
NOTES:

1. THE TYPICAL SECTION W/O DUNE APPLIES TO SUBREACHES GSB-1A AND MB-1A. THE TYPICAL SECTION WITH +15' DUNE APPLIES TO ALL OTHER BEACH FILL PLAN SUBREACHES.
2. EXISTING PROFILE IS A COMBINATION OF LIDAR (11/2012) DATA ABOVE MHW (+2' NGVD29) AND THE REPRESENTATIVE MORPHOLOGICAL PROFILE BELOW MHW.
3. THE WIDTH OF THE CONSTRUCTION TEMPLATE IS BASED UPON THE FILL VOLUME REQUIRED FOR DESIGN PROFILE + ADVANCE FILL AND VARIES FROM PROFILE TO PROFILE.
4. THE ADVANCE FILL WIDTH VARIES FROM REACH TO REACH BASED UPON THE EROSION RATE AND RENOURISHMENT INTERVAL.
5. THE DISTANCE FROM MIDU BASELINE TO SEAWARD EDGE OF BERM IS 120' FOR GSB-1A AND 140' FOR MB-1A.

 DEPARTMENT OF THE ARMY NEW YORK DISTRICT CORPS OF ENGINEERS NEW YORK, N.Y. 10278-0080			
REFORMATION STUDY FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK			
TENTATIVELY SELECTED PLAN			
DRAWING TITLE: BEACH FILL PLAN TYPICAL SECTIONS			
SCALE: 50' 0' 50' 100' HORIZONTAL SCALE: 1"=50' 10' 0' 10' 20' VERTICAL SCALE: 1"=10'			
DATE: OCTOBER/08/2018	FILE NAME: MIDU1590_C-301.dwg	PLATE NO. C-301	







C TYPICAL PROACTIVE BREACH CLOSURE SECTION – STATION 2261+43
C-134

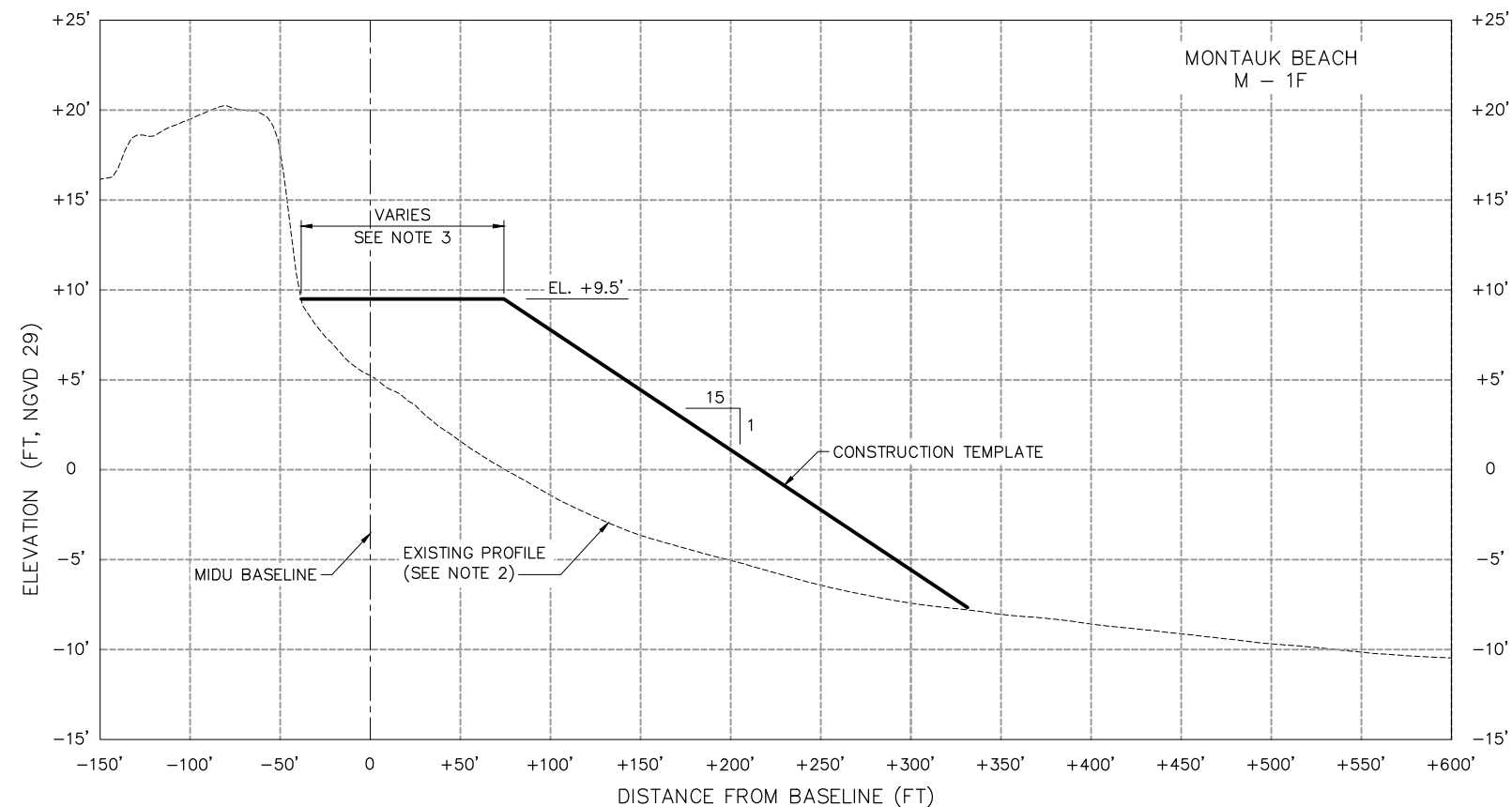


D TYPICAL PROACTIVE BREACH CLOSURE SECTION – STATION 2309+42
C-134

NOTES:

1. THESE TYPICAL SECTIONS APPLY TO ALL PROACTIVE BREACH CLOSURE PLAN SUBREACHES.
2. EXISTING PROFILE IS A COMBINATION OF LIDAR (11/2012) DATA ABOVE MHW (+2' NGVD29) AND THE REPRESENTATIVE MORPHOLOGICAL PROFILE BELOW MHW.
3. THE WIDTH OF THE CONSTRUCTION TEMPLATE IS BASED UPON THE FILL VOLUME REQUIRED FOR DESIGN PROFILE AND VARIES FROM PROFILE TO PROFILE.
4. THERE IS NO ADVANCE FILL IN THE PROACTIVE BREACH CLOSURE SECTIONS.



 DEPARTMENT OF THE ARMY NEW YORK DISTRICT CORPS OF ENGINEERS NEW YORK, N.Y. 10278-0080			
REFORMATION STUDY FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK			
TENTATIVELY SELECTED PLAN			
DRAWING TITLE: PROACTIVE BREACH CLOSURE TYPICAL SECTIONS			
SCALE:  HORIZONTAL SCALE: 1"=50'	 VERTICAL SCALE: 1"=10'		
DATE: OCTOBER/08/2018	FILE NAME: MIDU1590_C-302.dwg	PLATE NO. C-302	

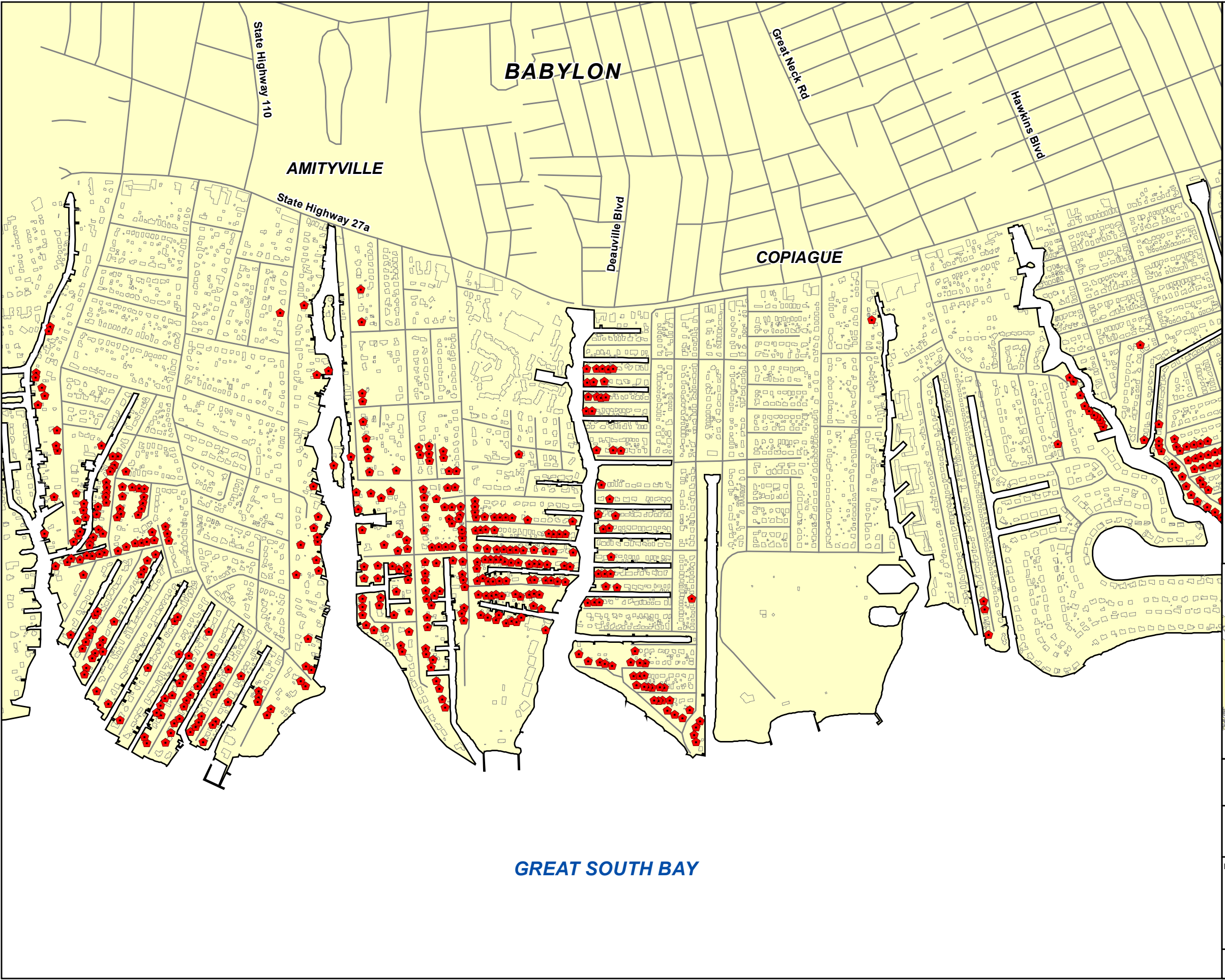


E TYPICAL SEDIMENT MANAGEMENT SECTION – STATION 4087+42
C-140

NOTES:

1. THESE TYPICAL SECTIONS APPLY TO SUBREACHES P-1G & M-1F.
2. EXISTING PROFILE IS A COMBINATION OF LIDAR (11/2012) DATA ABOVE MHW (+2' NGVD29) AND THE REPRESENTATIVE MORPHOLOGICAL PROFILE BELOW MHW.
3. THE WIDTH OF THE CONSTRUCTION TEMPLATE IS BASED UPON PLACING A FILL VOLUME OF 450,000 CY.
4. THERE IS NO DESIGN PROFILE OR ADVANCE FILL IN THE SEDIMENT MANAGEMENT SUBREACHES.

 DEPARTMENT OF THE ARMY NEW YORK DISTRICT CORPS OF ENGINEERS NEW YORK, N.Y. 10278-0080					
REFORMULATION STUDY FIRE ISLAND INLET TO MONTAUK POINT, NEW YORK					
TENTATIVELY SELECTED PLAN					
DRAWING TITLE: SEDIMENT MANAGEMENT TYPICAL SECTION					
SCALE: 50' 0' 50' 100' HORIZONTAL SCALE: 1"=50' 10' 0' 10' 20' VERTICAL SCALE: 1"=10'					
DATE: OCTOBER/08/2018	FILE NAME: MIDU1590_C-303.dwg	PLATE NO. C-303			



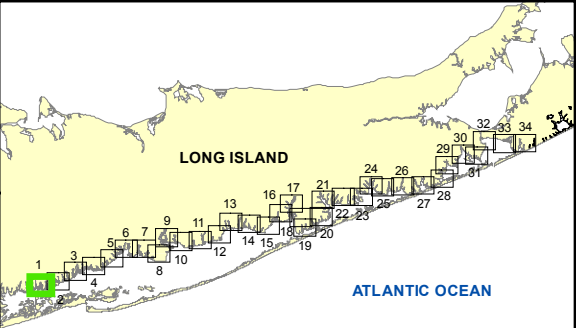
Legend

- Structures Assigned Non-Structural Treatment Under Selected Plan
- Street Centerlines
- Existing Structure

0 250 500 1,000 1,500 2,000 Feet

N

- Notes**
1. Location of the shoreline and structures was adapted from the April 1995 topographic maps prepared by Erdman Anthony Consulting Engineers.
 2. All buildings selected for treatment under the depicted plan will be protected to a design protection elevation of the 100-year water surface elevation plus 2 Feet



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, NY 10278-0090

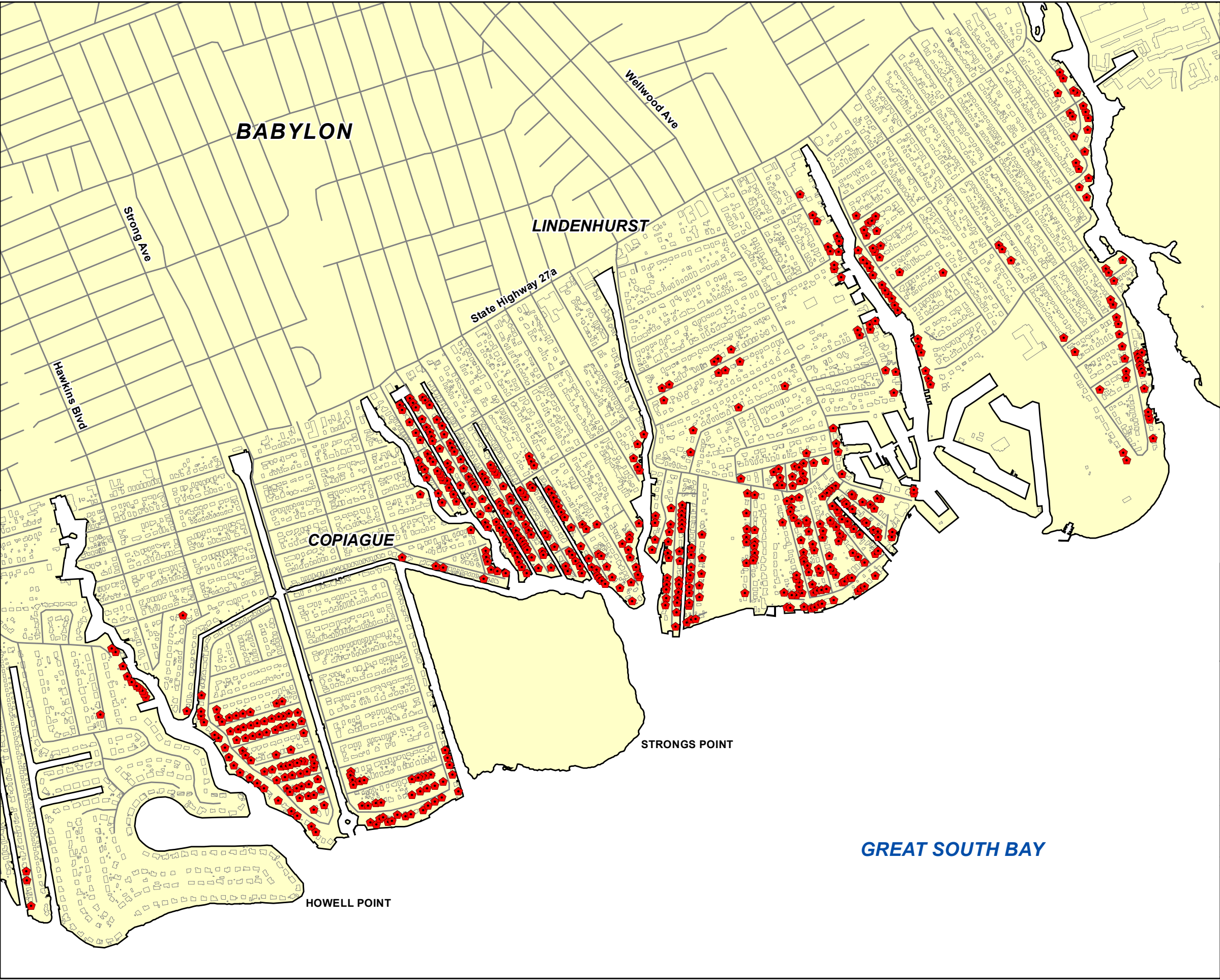


REFORMULATION STUDY
FIRE ISLAND INLET TO SHINNECOCK BAY

DRAWING TITLE:

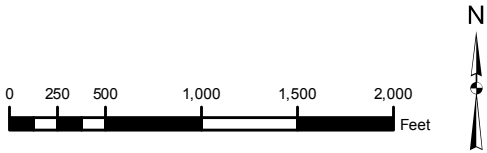
**TSP NON-STRUCTURAL
COMPONENT**

DATE: April 2018	FILE NAME: NonStructural_Maps.mxd	PLATE NO. NS-1
---------------------	--------------------------------------	--------------------------

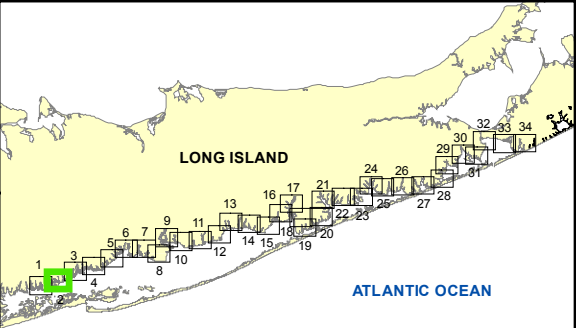


Legend

- Structures Assigned Non-Structural Treatment Under Selected Plan
- Street Centerlines
- Existing Structure



- Notes**
1. Location of the shoreline and structures was adapted from the April 1995 topographic maps prepared by Erdman Anthony Consulting Engineers.
 2. All buildings selected for treatment under the depicted plan will be protected to a design protection elevation of the 100-year water surface elevation plus 2 Feet



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, NY 10278-0090

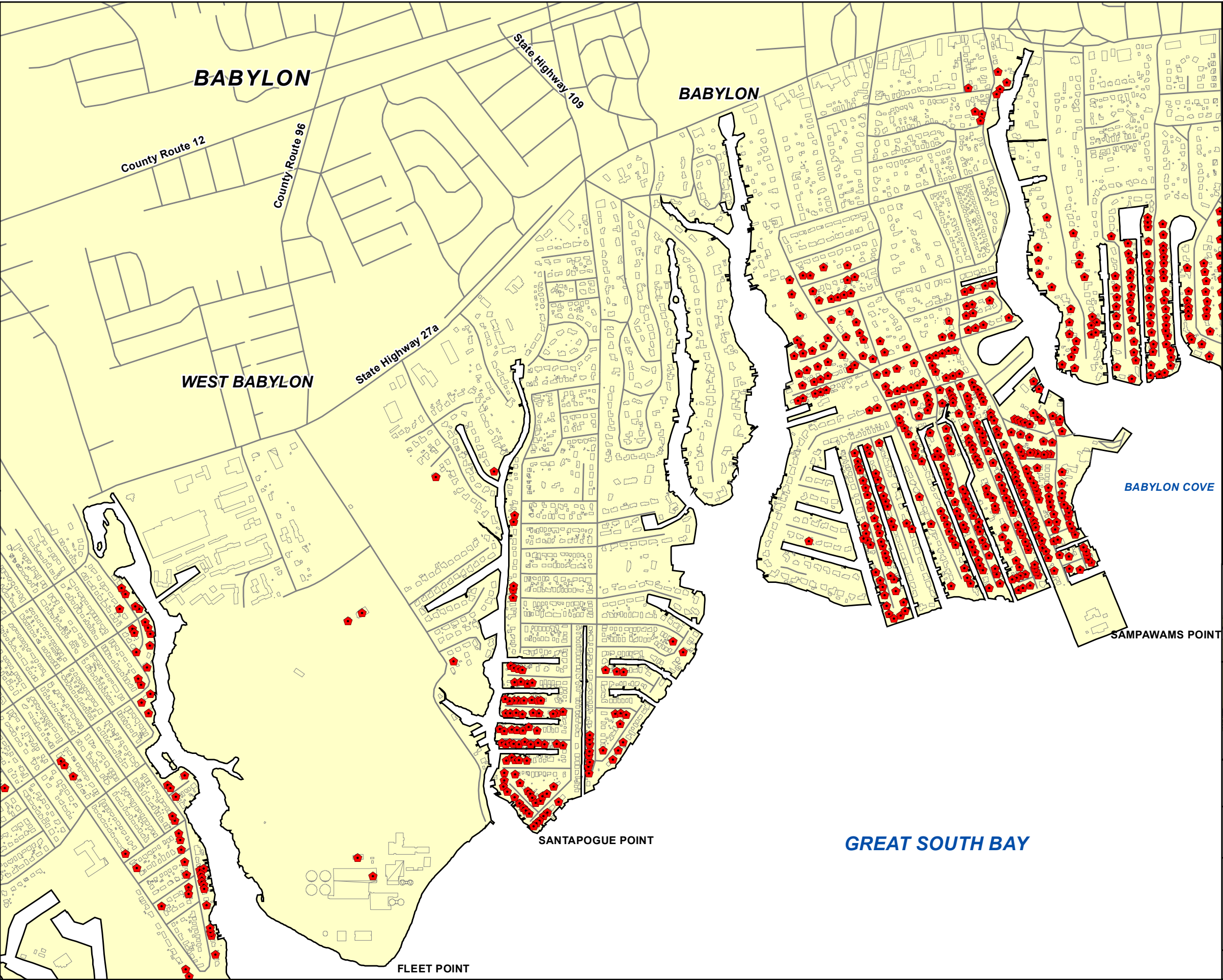


REFORMULATION STUDY
FIRE ISLAND INLET TO SHINNECOCK BAY

DRAWING TITLE:
**TSP NON-STRUCTURAL
COMPONENT**

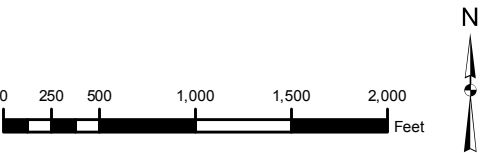
DATE: April 2018	FILE NAME: NonStructural_Maps.mxd
---------------------	--------------------------------------

PLATE NO.
NS-2

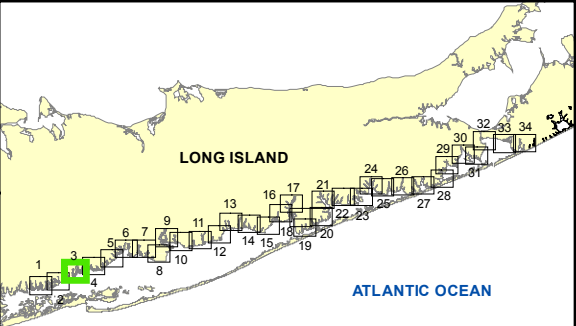


Legend

- Structures Assigned Non-Structural Treatment Under Selected Plan
- Street Centerlines
- Existing Structure



- Notes**
1. Location of the shoreline and structures was adapted from the April 1995 topographic maps prepared by Erdman Anthony Consulting Engineers.
 2. All buildings selected for treatment under the depicted plan will be protected to a design protection elevation of the 100-year water surface elevation plus 2 Feet



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, NY 10278-0090

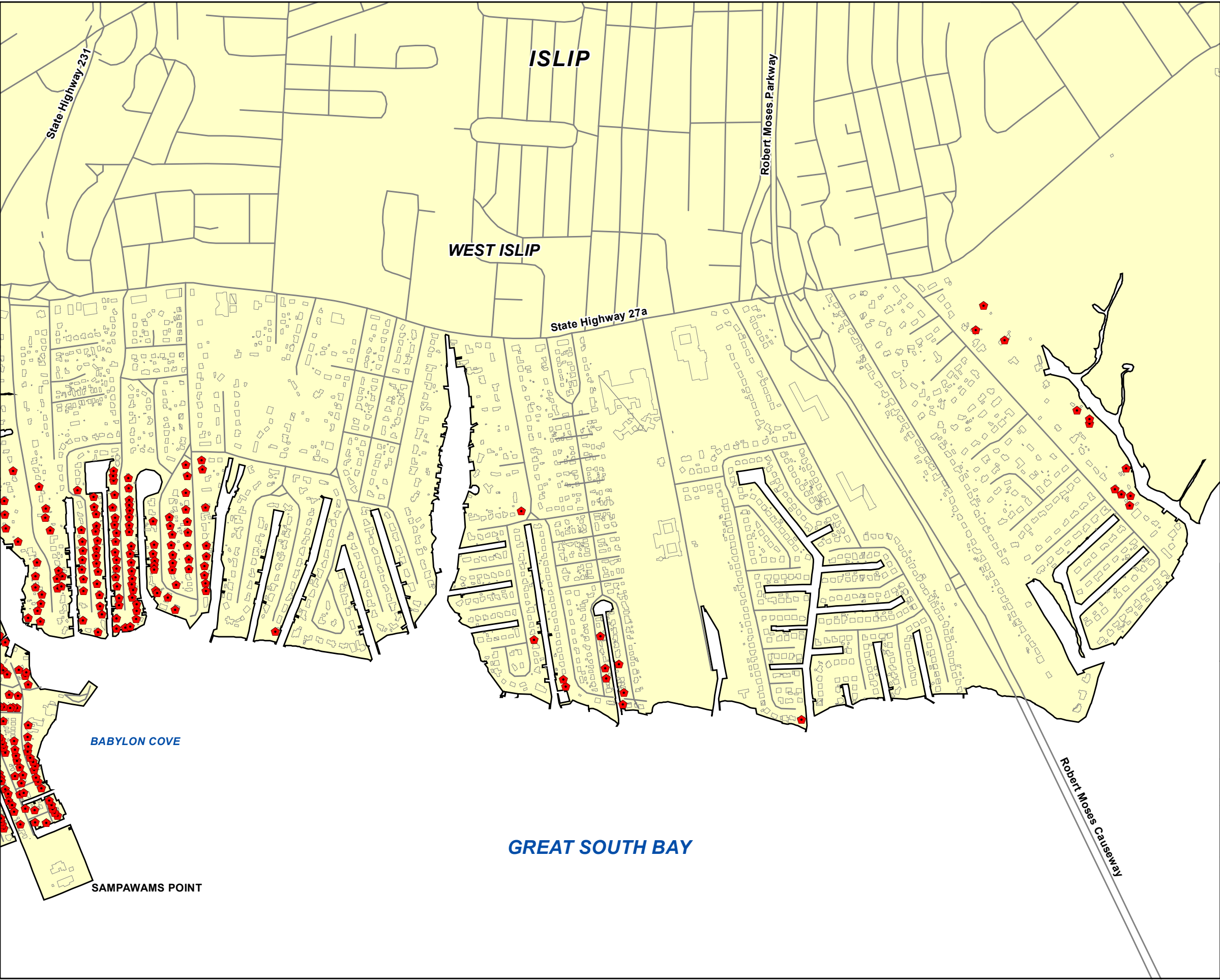


**REFORMULATION STUDY
FIRE ISLAND INLET TO SHINNECOCK BAY**

DRAWING TITLE:
**TSP NON-STRUCTURAL
COMPONENT**

DATE: April 2018
FILE NAME: NonStructural_Maps.mxd

PLATE NO.
NS-3



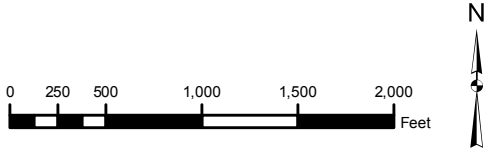
Legend

NS_Updated_Structures

Treatment Under Selected Plan

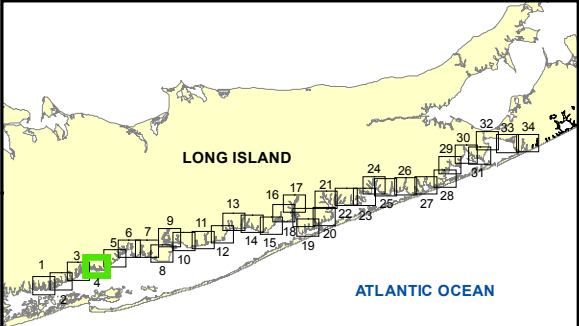
Street Centerlines

Existing Structure



- Notes
1. Location of the shoreline and structures was adapted from the April 1995 topographic maps prepared by Erdman Anthony Consulting Engineers.

2. All buildings selected for treatment under the depicted plan will be protected to a design protection elevation of the 100-year water surface elevation plus 2 Feet



KEY MAP

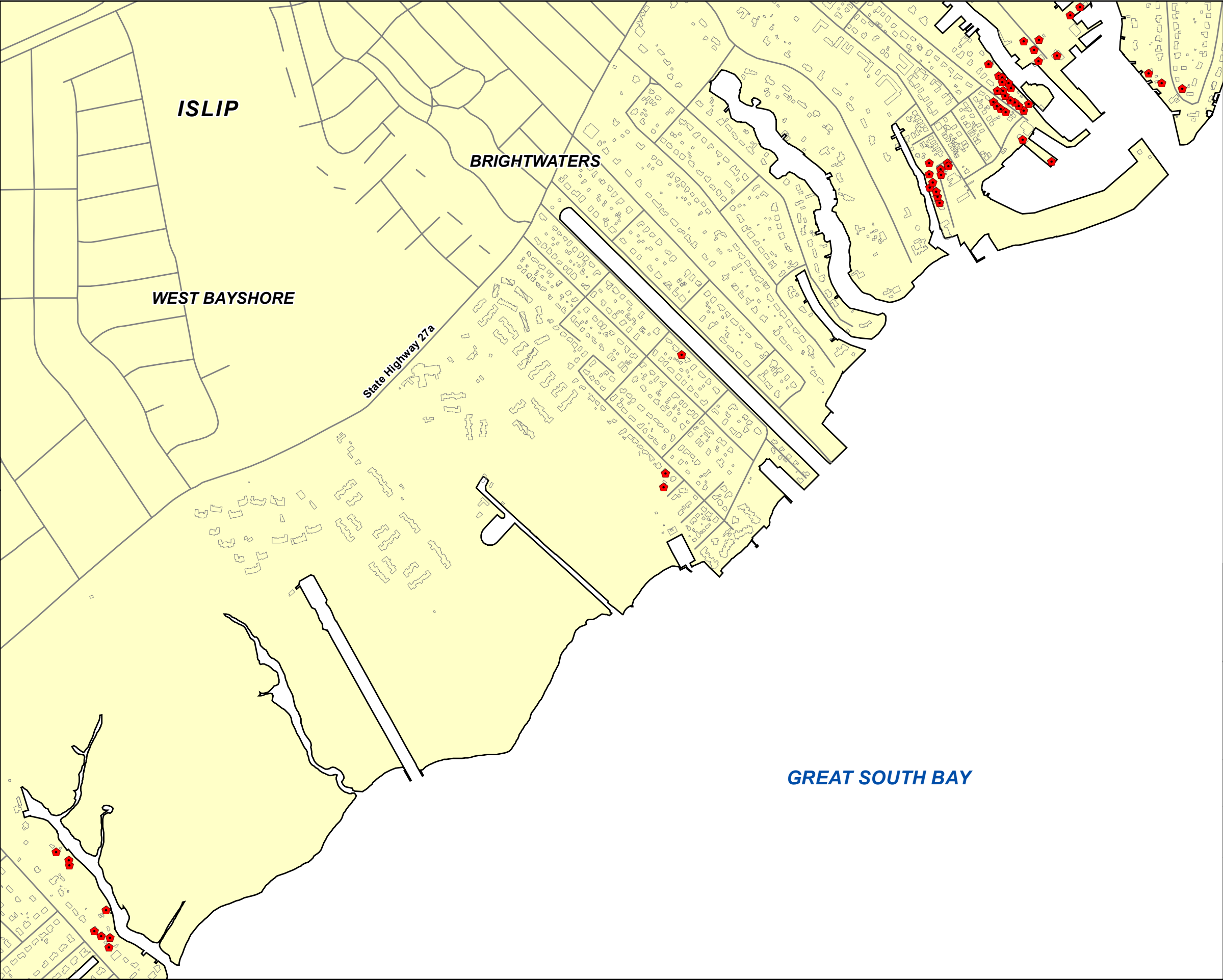
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, NY 10278-0090

REFORMULATION STUDY
FIRE ISLAND INLET TO SHINNECOCK BAY

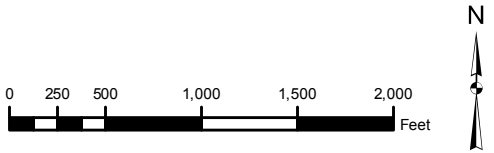
DRAWING TITLE:

TSP NON-STRUCTURAL
COMPONENT

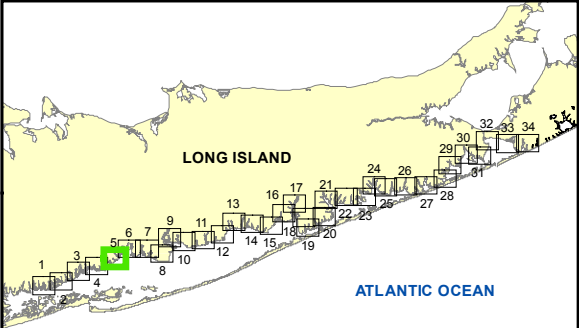
DATE: April 2018		FILE NAME: NonStructural_Maps.mxd	PLATE NO. NS-4
---------------------	--	--------------------------------------	-------------------



- Legend**
- Structures Assigned Non-Structural Treatment Under Selected Plan
 - Street Centerlines
 - Existing Structure



- Notes**
1. Location of the shoreline and structures was adapted from the April 1995 topographic maps prepared by Erdman Anthony Consulting Engineers.
 2. All buildings selected for treatment under the depicted plan will be protected to a design protection elevation of the 100-year water surface elevation plus 2 Feet



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, NY 10278-0090

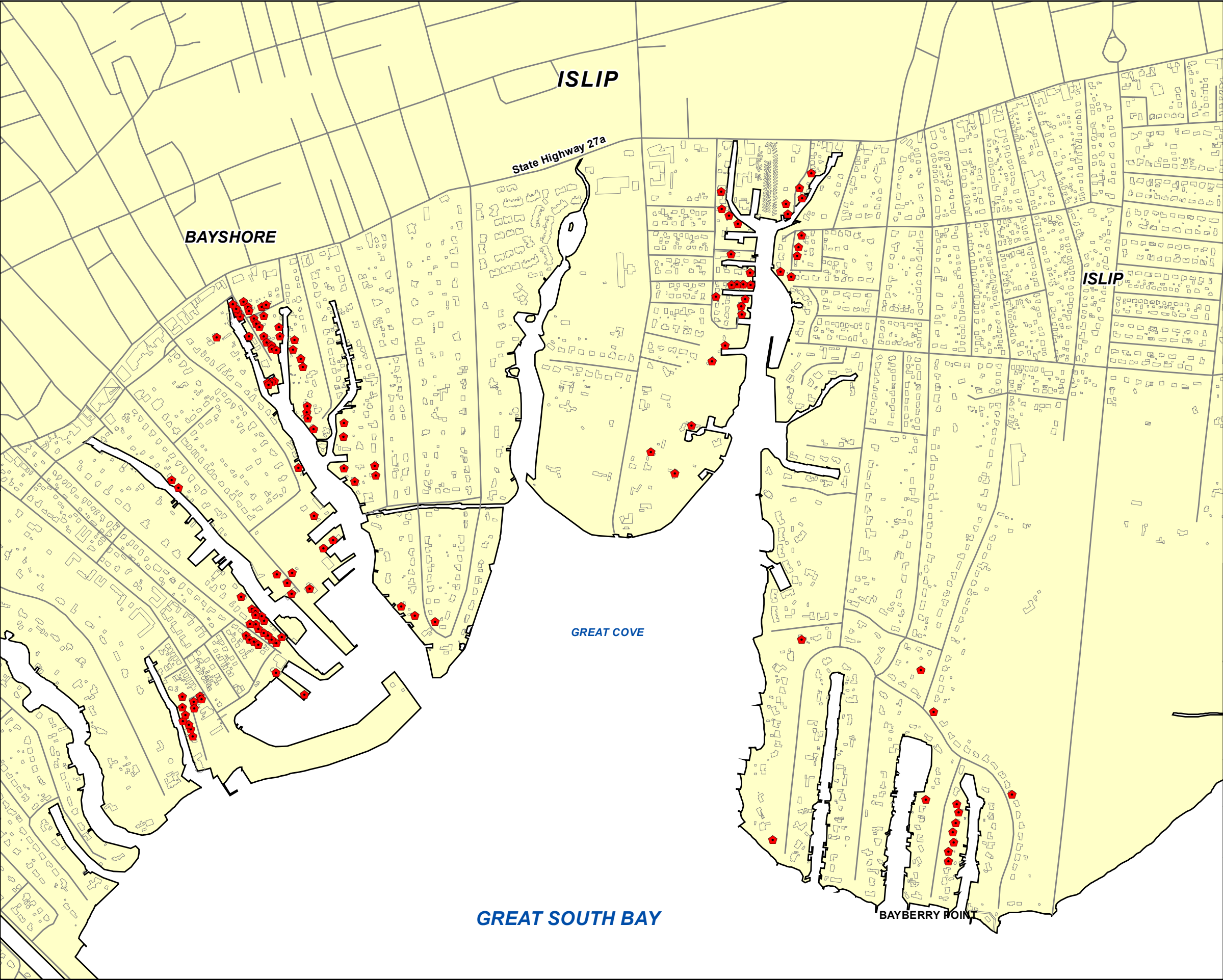


REFORMULATION STUDY
FIRE ISLAND INLET TO SHINNECOCK BAY

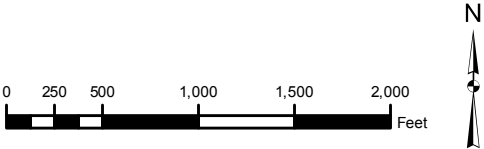
DRAWING TITLE:
**TSP NON-STRUCTURAL
COMPONENT**

DATE: April 2018
FILE NAME: NonStructural_Maps.mxd

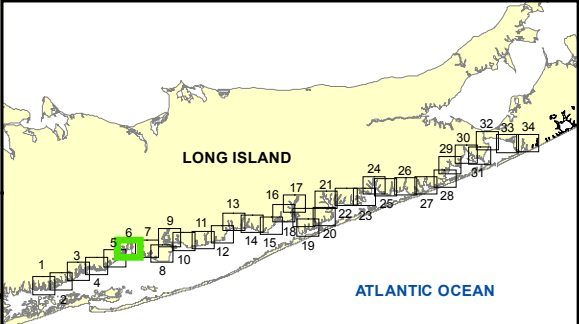
PLATE NO.
NS-5



- Legend**
- Structures Assigned Non-Structural Treatment Under Selected Plan
 - Street Centerlines
 - Existing Structure



- Notes**
1. Location of the shoreline and structures was adapted from the April 1995 topographic maps prepared by Erdman Anthony Consulting Engineers.
 2. All buildings selected for treatment under the depicted plan will be protected to a design protection elevation of the 100-year water surface elevation plus 2 Feet



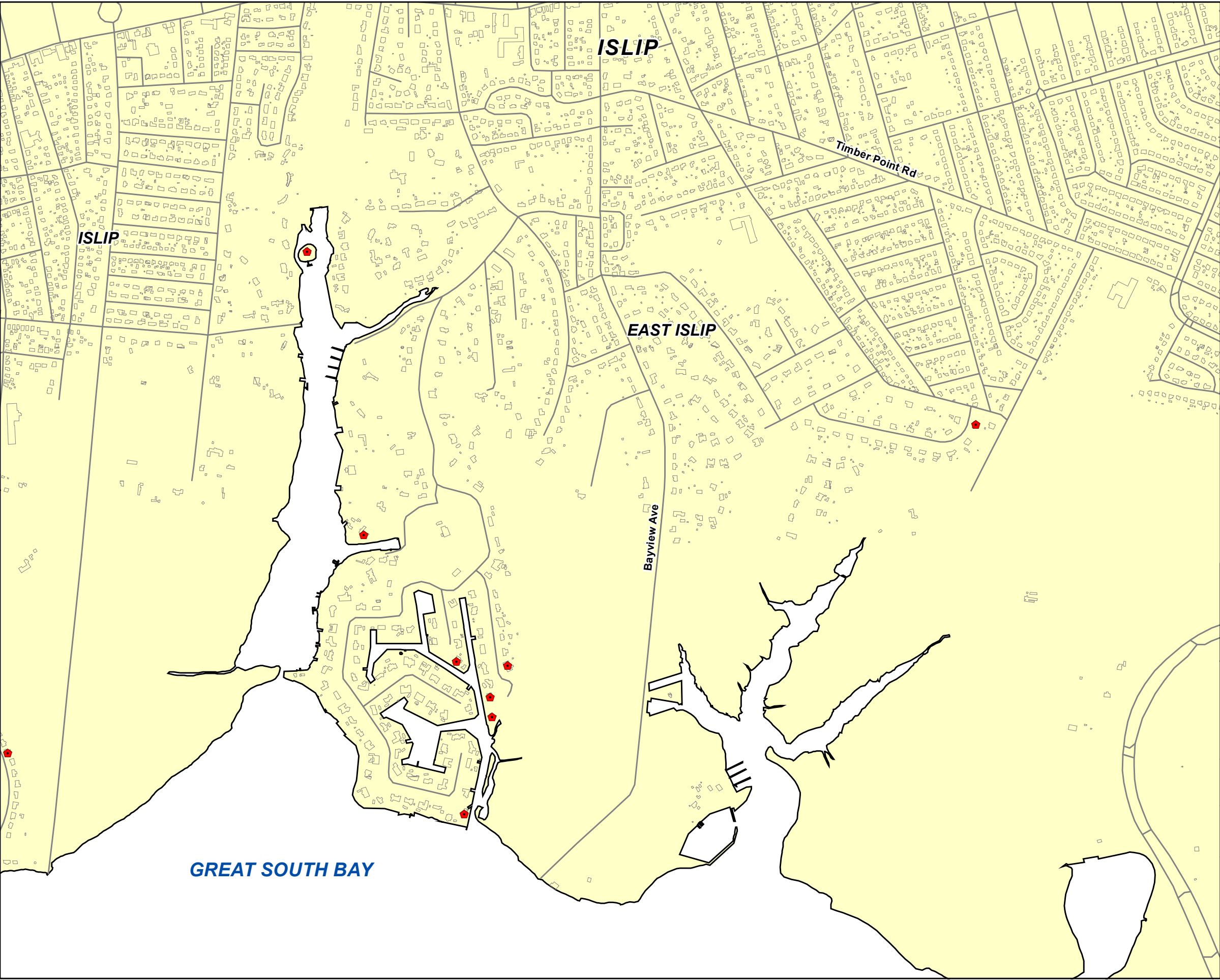
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, NY 10278-0090



**REFORMULATION STUDY
FIRE ISLAND INLET TO SHINNECOCK BAY**

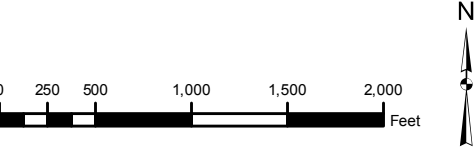
DRAWING TITLE:
**TSP NON-STRUCTURAL
COMPONENT**

DATE: April 2018	FILE NAME: NonStructural_Maps.mxd	PLATE NO. NS-6
---------------------	--------------------------------------	--------------------------

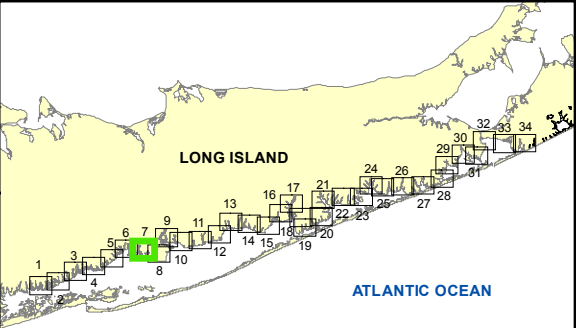


Legend

- Structures Assigned Non-Structural Treatment Under Selected Plan
- Street Centerlines
- Existing Structure



- Notes**
1. Location of the shoreline and structures was adapted from the April 1995 topographic maps prepared by Erdman Anthony Consulting Engineers.
 2. All buildings selected for treatment under the depicted plan will be protected to a design protection elevation of the 100-year water surface elevation plus 2 Feet



KEY MAP

DEPARTMENT OF THE ARMY
 NEW YORK DISTRICT CORPS OF ENGINEERS
 NEW YORK, NY 10278-0090

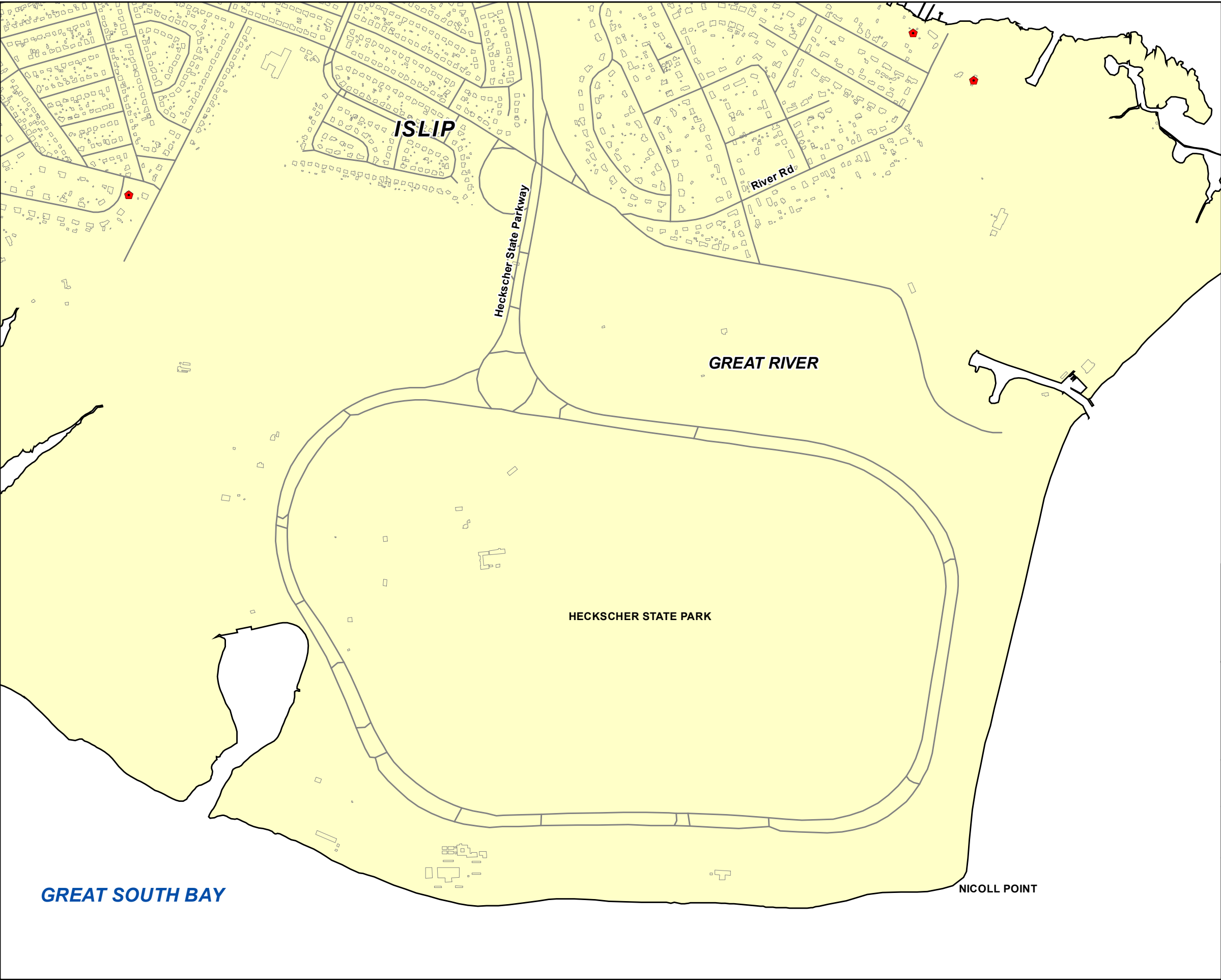


**REFORMULATION STUDY
 FIRE ISLAND INLET TO SHINNECOCK BAY**

DRAWING TITLE:
**TSP NON-STRUCTURAL
 COMPONENT**

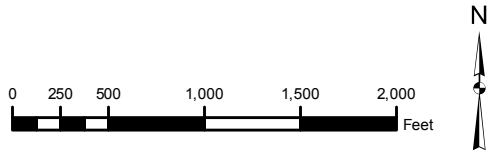
DATE: April 2018	FILE NAME: NonStructural_Maps.mxd
---------------------	--------------------------------------

PLATE NO.
NS-7

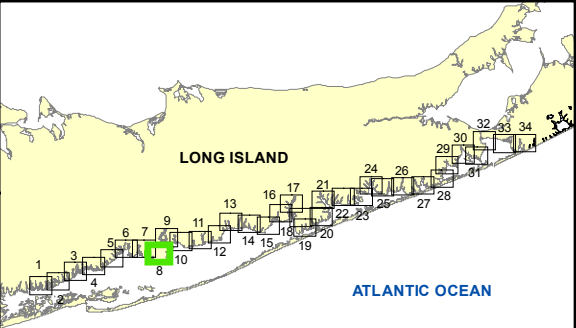


Legend

- Structures Assigned Non-Structural Treatment Under Selected Plan
- Street Centerlines
- Existing Structure



- Notes**
1. Location of the shoreline and structures was adapted from the April 1995 topographic maps prepared by Erdman Anthony Consulting Engineers.
 2. All buildings selected for treatment under the depicted plan will be protected to a design protection elevation of the 100-year water surface elevation plus 2 Feet



KEY MAP

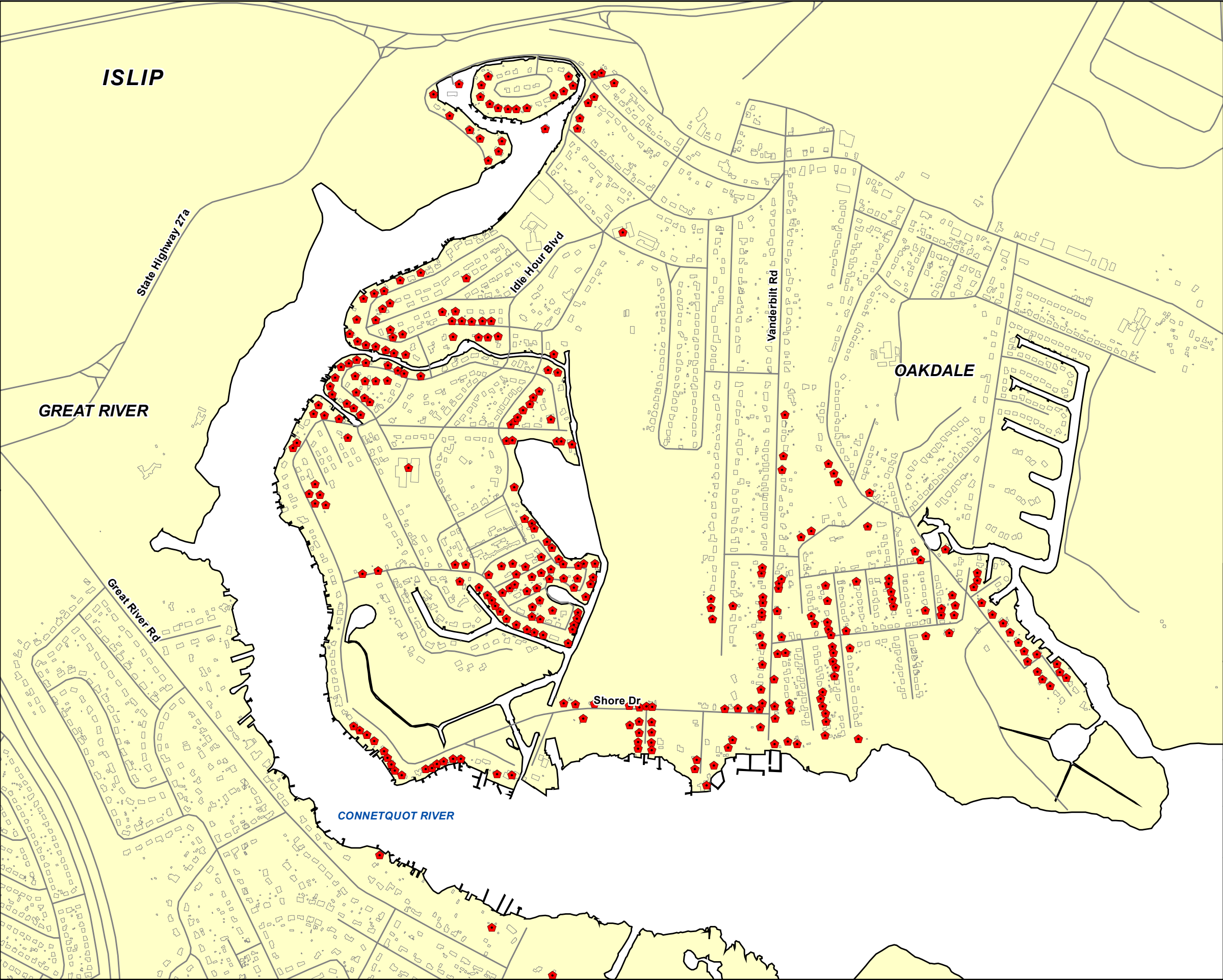
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, NY 10278-0090

**REFORMULATION STUDY
FIRE ISLAND INLET TO SHINNECOCK BAY**

DRAWING TITLE:

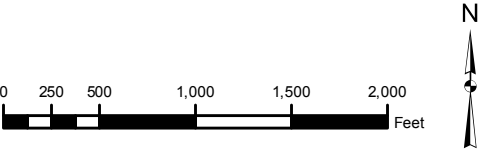
**TSP NON-STRUCTURAL
COMPONENT**

DATE: April 2018		FILE NAME: NonStructural_Maps.mxd	PLATE NO. NS-8
---------------------	--	--------------------------------------	--------------------------

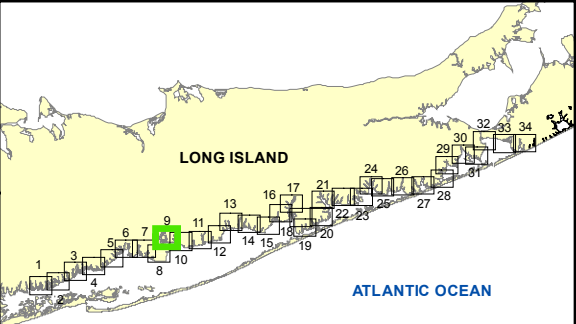


Legend

- Structures Assigned Non-Structural Treatment Under Selected Plan
- Street Centerlines
- Existing Structure



- Notes**
1. Location of the shoreline and structures was adapted from the April 1995 topographic maps prepared by Erdman Anthony Consulting Engineers.
 2. All buildings selected for treatment under the depicted plan will be protected to a design protection elevation of the 100-year water surface elevation plus 2 Feet



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, NY 10278-0090

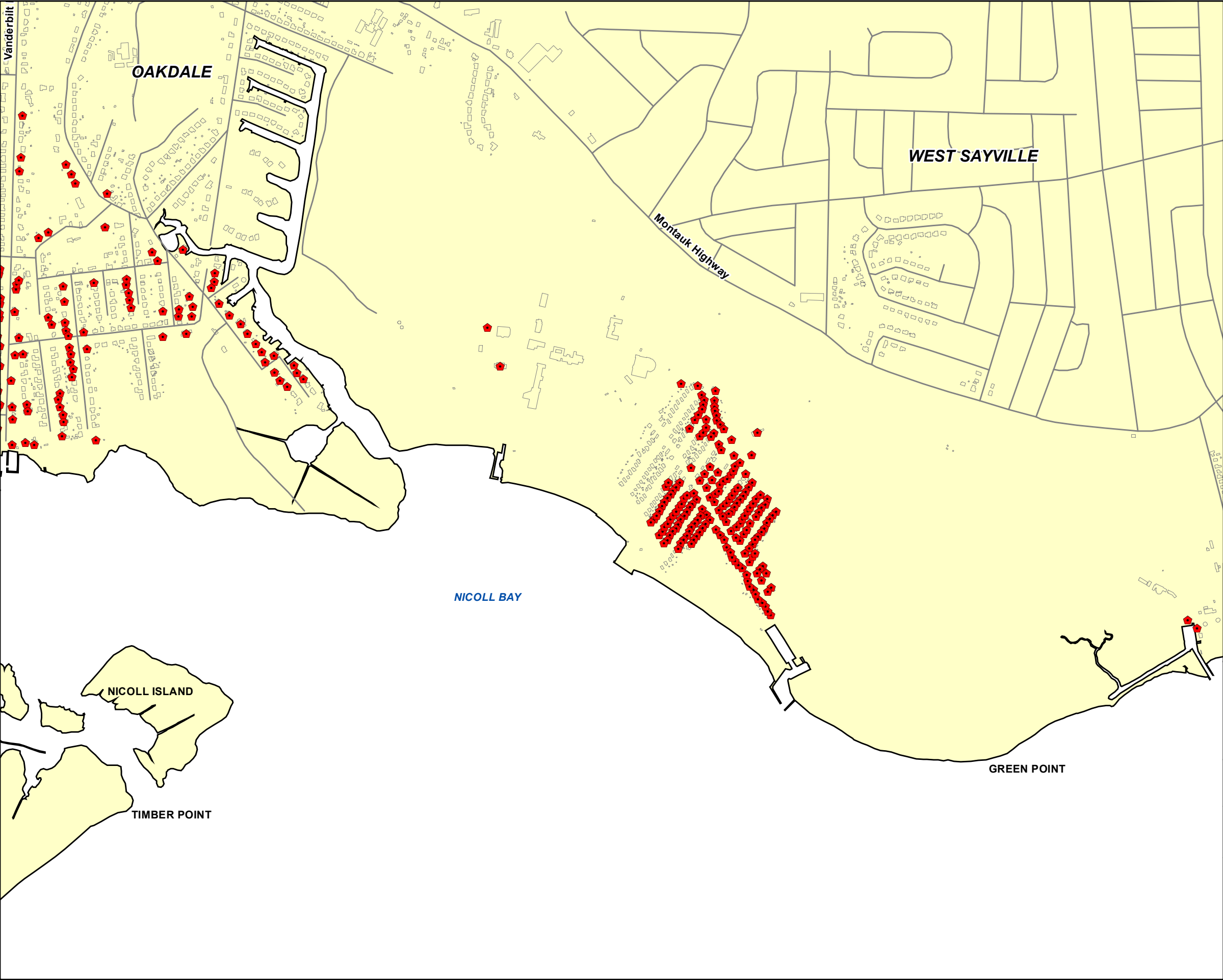


REFORMULATION STUDY
FIRE ISLAND INLET TO SHINNECOCK BAY

DRAWING TITLE:
**TSP NON-STRUCTURAL
COMPONENT**

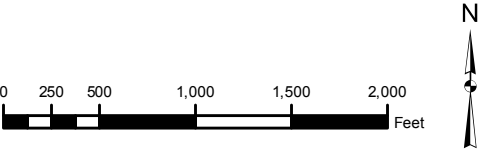
DATE: April 2018
FILE NAME: NonStructural_Maps.mxd

PLATE NO.
NS-9

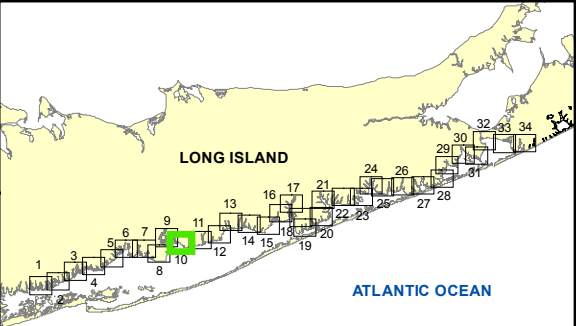


Legend

- Structures Assigned Non-Structural Treatment Under Selected Plan
- Street Centerlines
- Existing Structure



- Notes**
1. Location of the shoreline and structures was adapted from the April 1995 topographic maps prepared by Erdman Anthony Consulting Engineers.
 2. All buildings selected for treatment under the depicted plan will be protected to a design protection elevation of the 100-year water surface elevation plus 2 Feet



KEY MAP

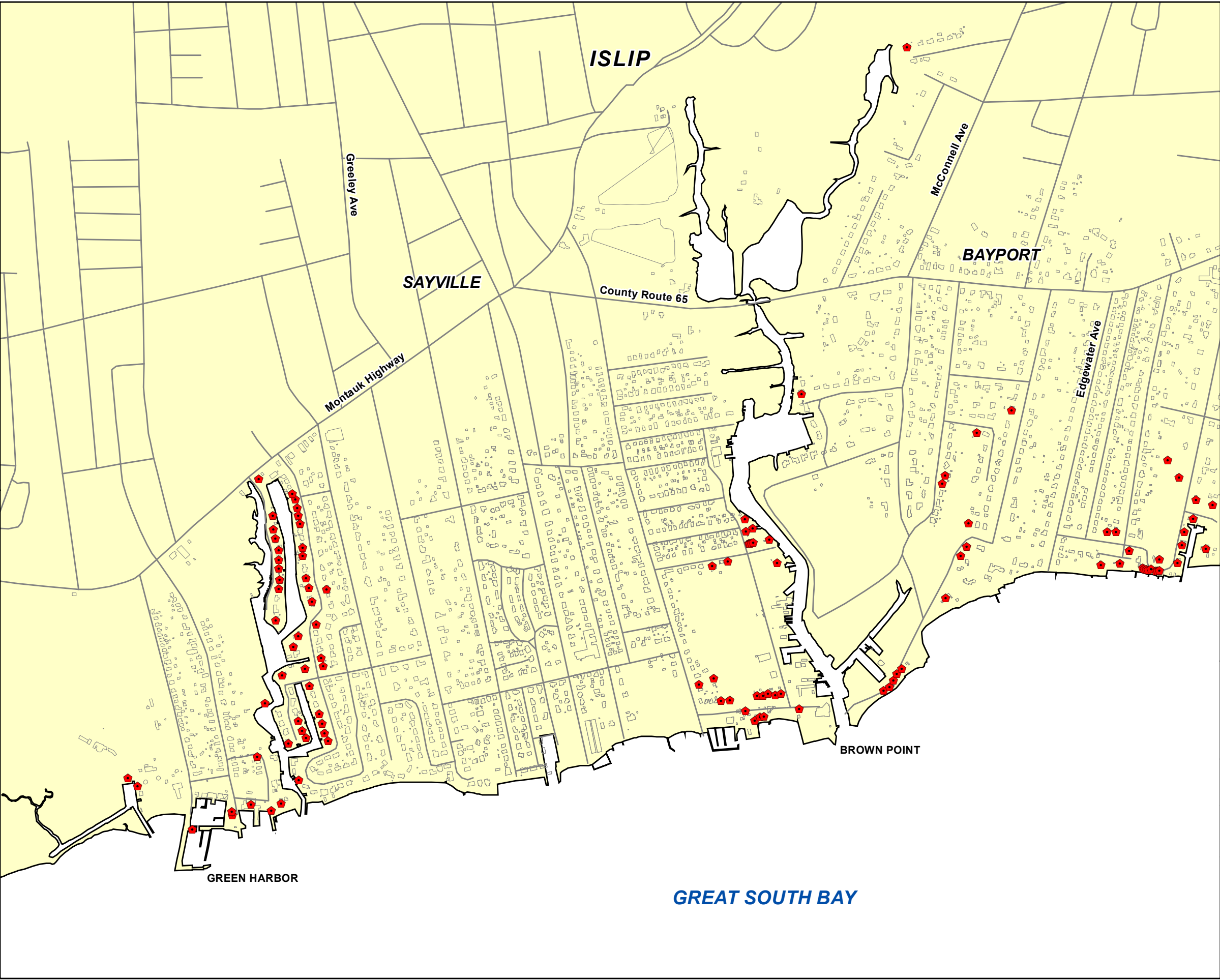
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, NY 10278-0090



**REFORMULATION STUDY
FIRE ISLAND INLET TO SHINNECOCK BAY**

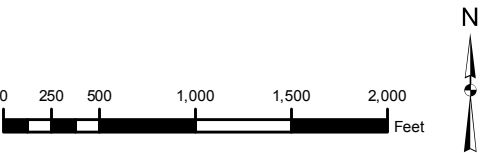
DRAWING TITLE:
**TSP NON-STRUCTURAL
COMPONENT**

DATE: April 2018	FILE NAME: NonStructural_Maps.mxd	PLATE NO. NS-10
---------------------	--------------------------------------	---------------------------

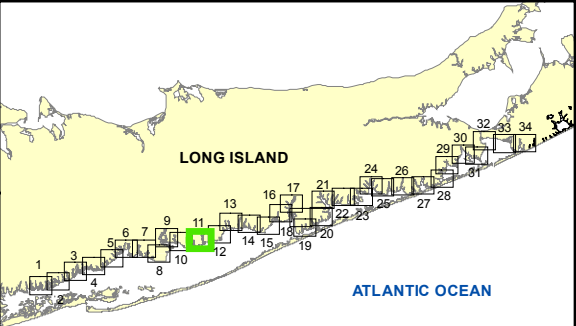


Legend

- Structures Assigned Non-Structural Treatment Under Selected Plan
- Street Centerlines
- Existing Structure



- Notes**
1. Location of the shoreline and structures was adapted from the April 1995 topographic maps prepared by Erdman Anthony Consulting Engineers.
 2. All buildings selected for treatment under the depicted plan will be protected to a design protection elevation of the 100-year water surface elevation plus 2 Feet



KEY MAP

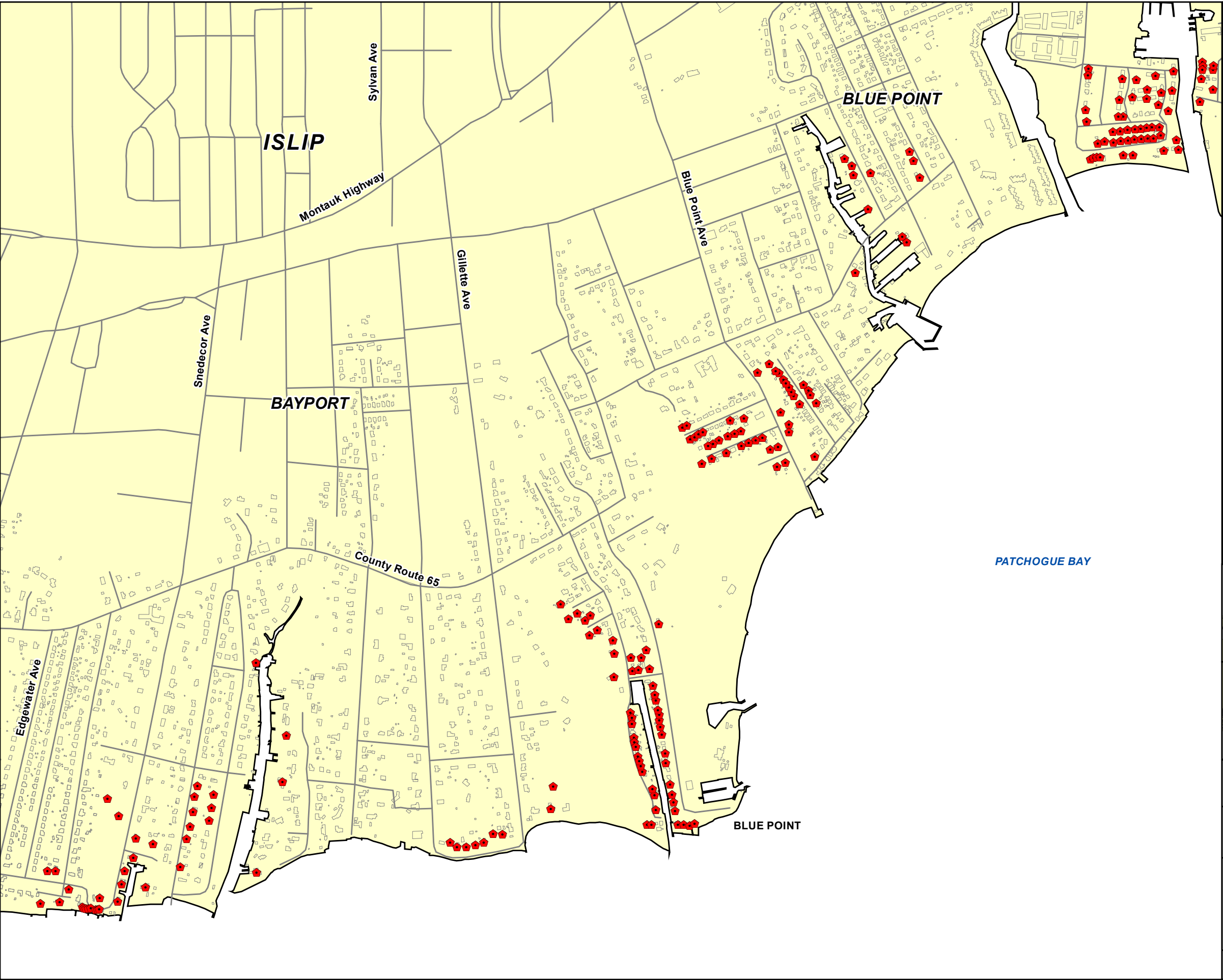
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, NY 10278-0090



**REFORMULATION STUDY
FIRE ISLAND INLET TO SHINNECOCK BAY**

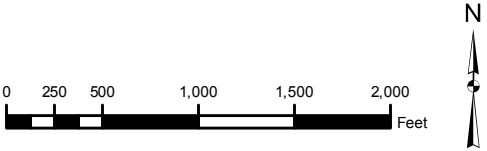
DRAWING TITLE:
**TSP NON-STRUCTURAL
COMPONENT**

DATE: April 2018		FILE NAME: NonStructural_Maps.mxd	PLATE NO. NS-11
---------------------	--	--------------------------------------	---------------------------

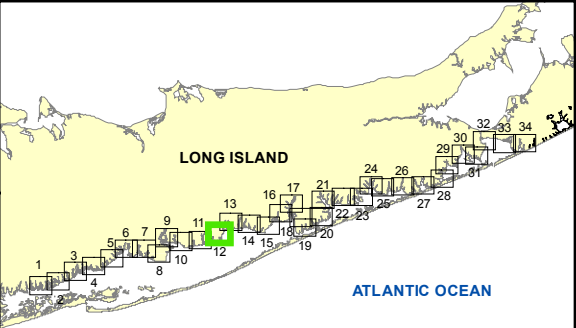


Legend

- Structures Assigned Non-Structural Treatment Under Selected Plan
- Street Centerlines
- Existing Structure



- Notes**
1. Location of the shoreline and structures was adapted from the April 1995 topographic maps prepared by Erdman Anthony Consulting Engineers.
 2. All buildings selected for treatment under the depicted plan will be protected to a design protection elevation of the 100-year water surface elevation plus 2 Feet



KEY MAP

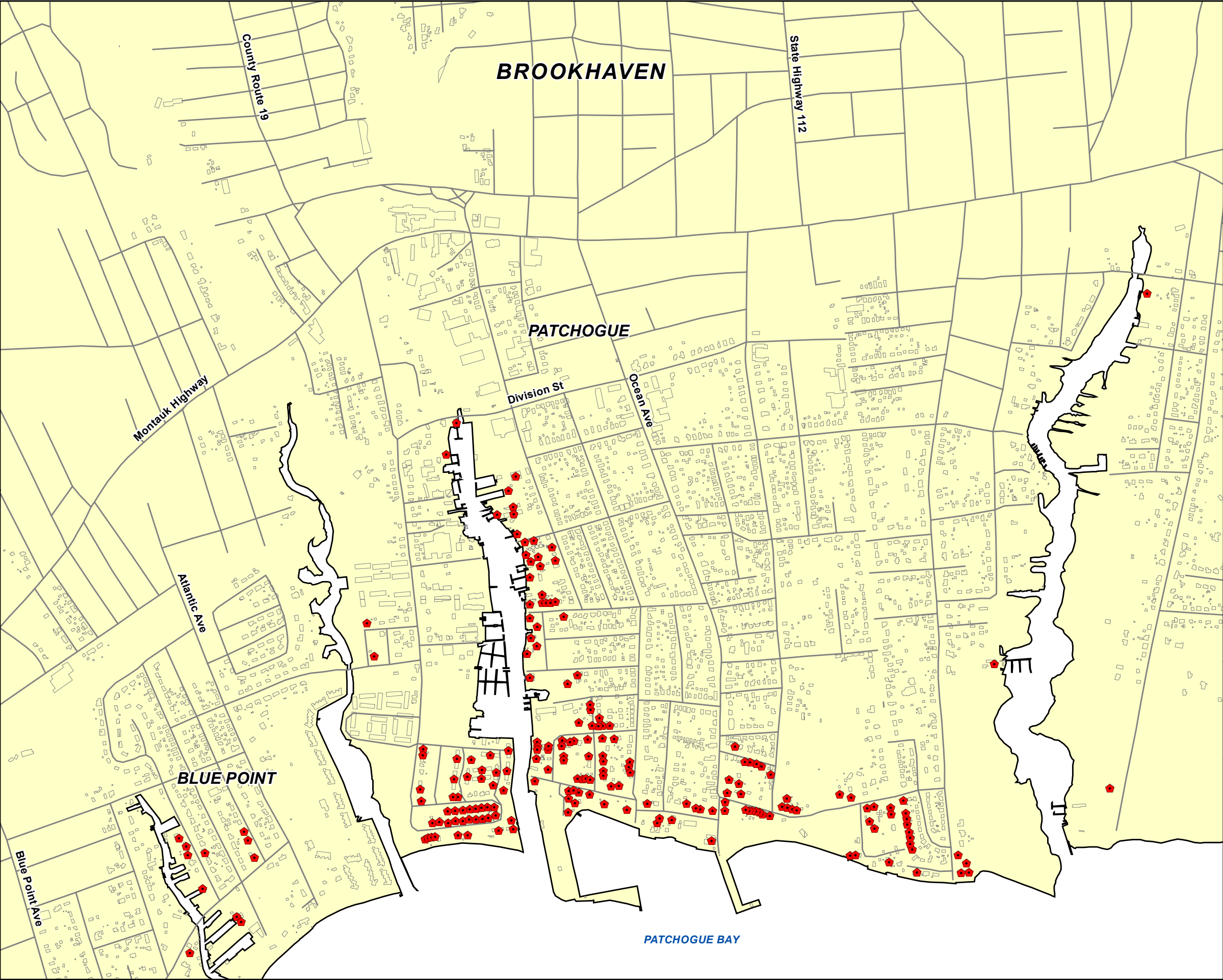
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, NY 10278-0090



REFORMULATION STUDY
FIRE ISLAND INLET TO SHINNECOCK BAY

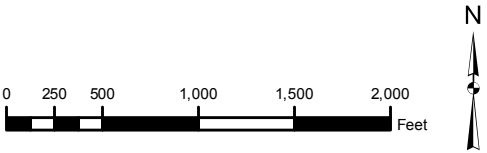
DRAWING TITLE:
**TSP NON-STRUCTURAL
COMPONENT**

DATE: April 2018	FILE NAME: NonStructural_Maps.mxd	PLATE NO. NS-12
---------------------	--------------------------------------	---------------------------

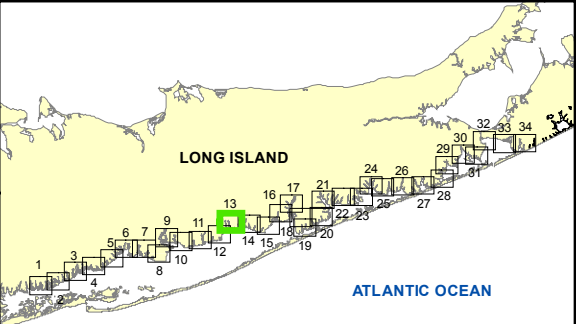


Legend

- Structures Assigned Non-Structural Treatment Under Selected Plan
- Street Centerlines
- Existing Structure



- Notes**
1. Location of the shoreline and structures was adapted from the April 1995 topographic maps prepared by Erdman Anthony Consulting Engineers.
 2. All buildings selected for treatment under the depicted plan will be protected to a design protection elevation of the 100-year water surface elevation plus 2 Feet



KEY MAP

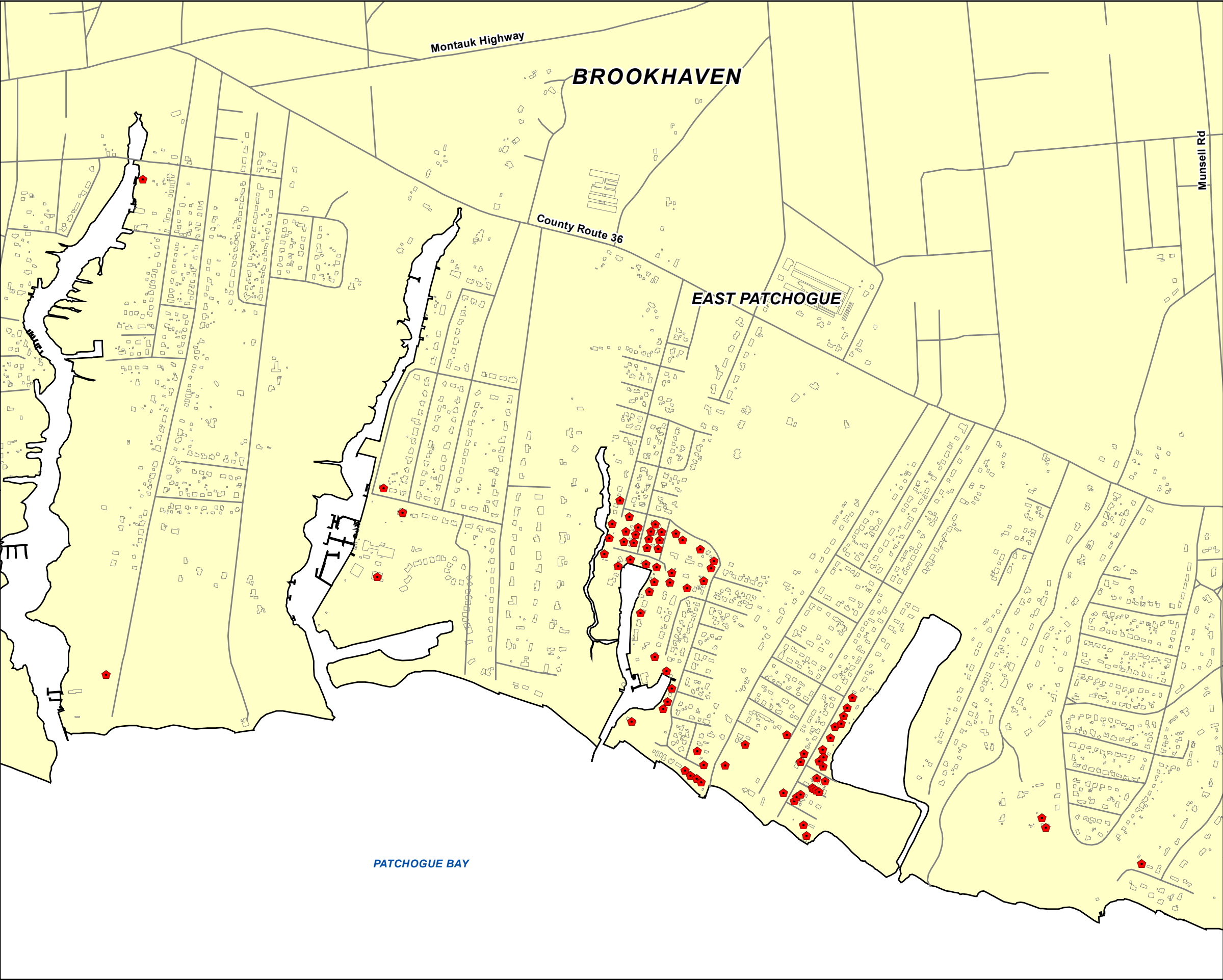
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, NY 10278-0090



**REFORMULATION STUDY
FIRE ISLAND INLET TO SHINNECOCK BAY**

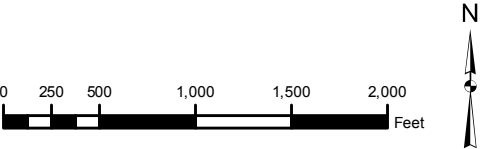
DRAWING TITLE:
**TSP NON-STRUCTURAL
COMPONENT**

DATE: April 2018	FILE NAME: NonStructural_Maps.mxd	PLATE NO. NS-13
---------------------	--------------------------------------	---------------------------

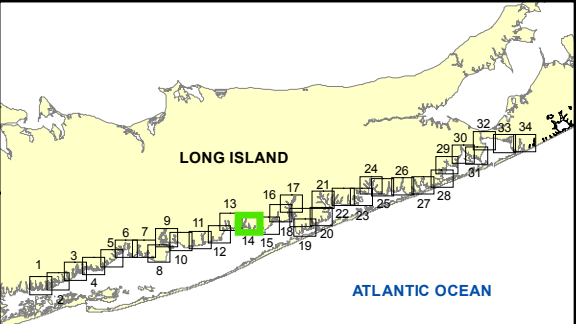


Legend

- Structures Assigned Non-Structural Treatment Under Selected Plan
- Street Centerlines
- Existing Structure



- Notes**
1. Location of the shoreline and structures was adapted from the April 1995 topographic maps prepared by Erdman Anthony Consulting Engineers.
 2. All buildings selected for treatment under the depicted plan will be protected to a design protection elevation of the 100-year water surface elevation plus 2 Feet



KEY MAP

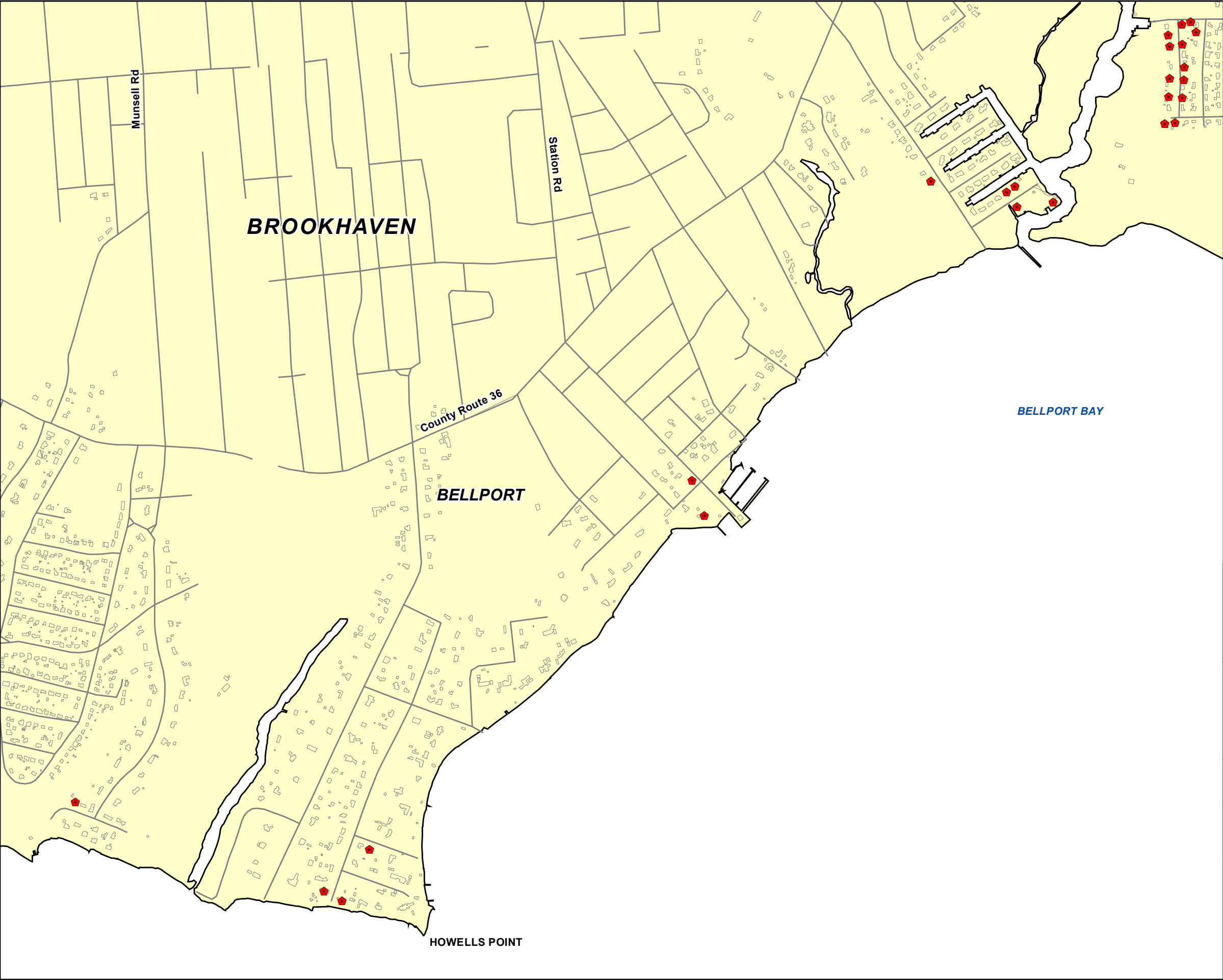
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, NY 10278-0090

**REFORMULATION STUDY
FIRE ISLAND INLET TO SHINNECOCK BAY**


DRAWING TITLE:


**TSP NON-STRUCTURAL
COMPONENT**


DATE: April 2018	FILE NAME: NonStructural_Maps.mxd	PLATE NO. NS-14
---------------------	--------------------------------------	---------------------------



Legend

 Structures Assigned Non-Structural Treatment Under Selected Plan

 Street Centerlines

 Existing Structure

0

250

500


1,000

1,500

2,000

Feet

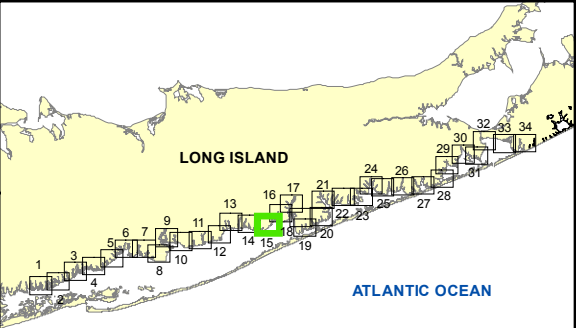
N



Notes


1. Location of the shoreline and structures was adapted from the April 1995 topographic maps prepared by Erdman Anthony Consulting Engineers.

2. All buildings selected for treatment under the depicted plan will be protected to a design protection elevation of the 100-year water surface elevation plus 2 Feet



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, NY 10278-0090



REFORMULATION STUDY
FIRE ISLAND INLET TO SHINNECOCK BAY

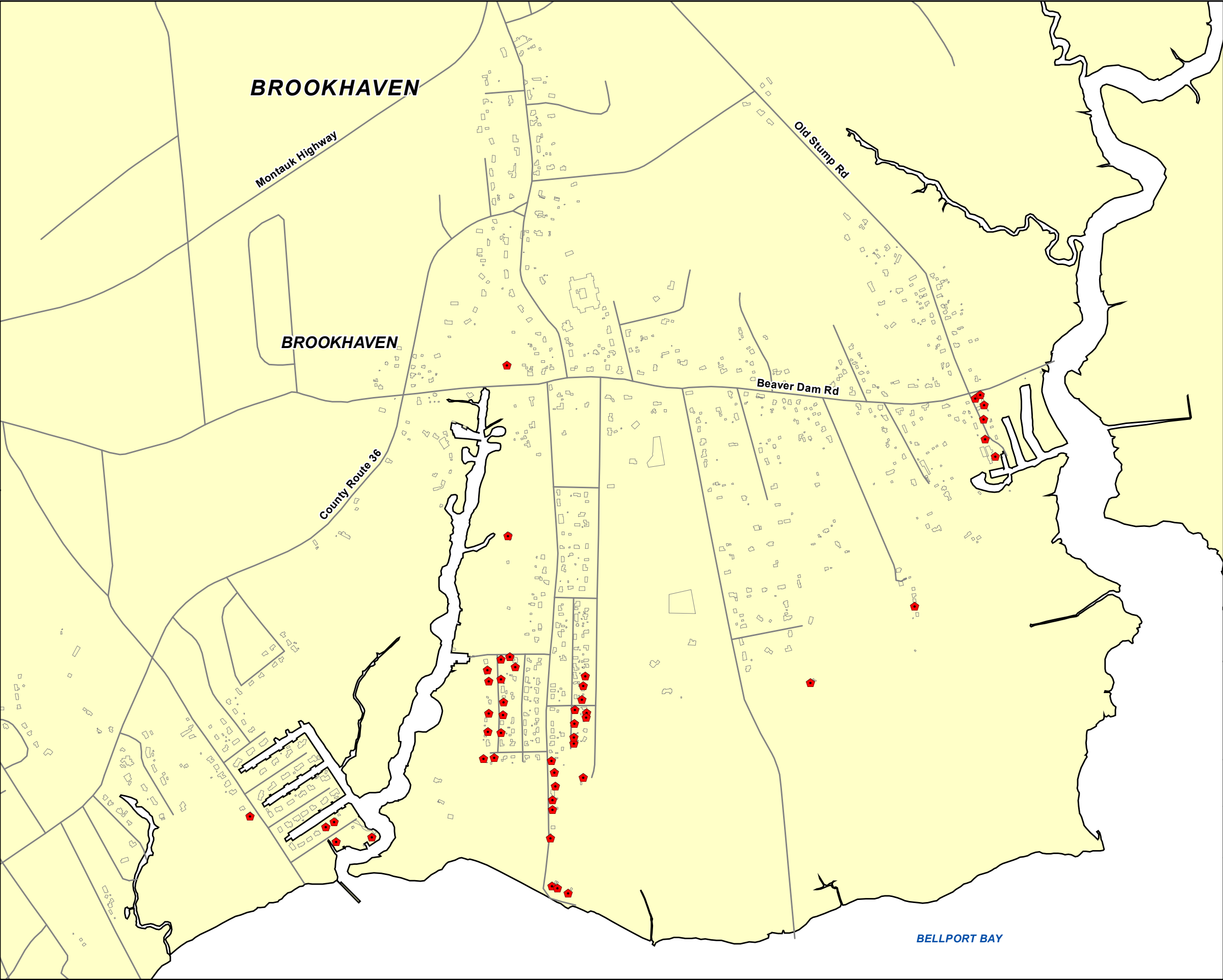
DRAWING TITLE:

TSP NON-STRUCTURAL
COMPONENT

DATE:
April 2018

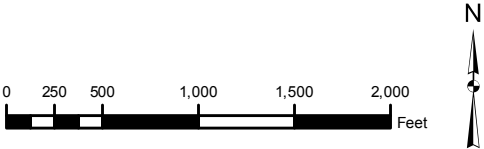
FILE NAME:
NonStructural_Maps.mxd

PLATE NO.
NS-15

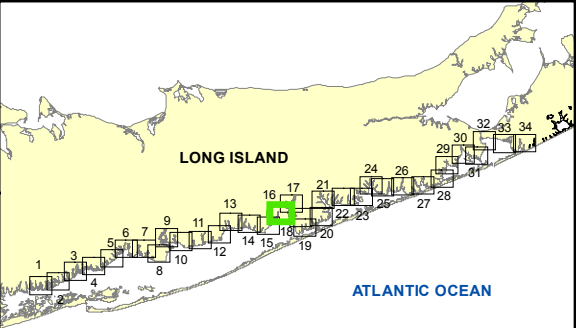


Legend

- Structures Assigned Non-Structural Treatment Under Selected Plan
- Street Centerlines
- Existing Structure



- Notes**
1. Location of the shoreline and structures was adapted from the April 1995 topographic maps prepared by Erdman Anthony Consulting Engineers.
 2. All buildings selected for treatment under the depicted plan will be protected to a design protection elevation of the 100-year water surface elevation plus 2 Feet



KEY MAP

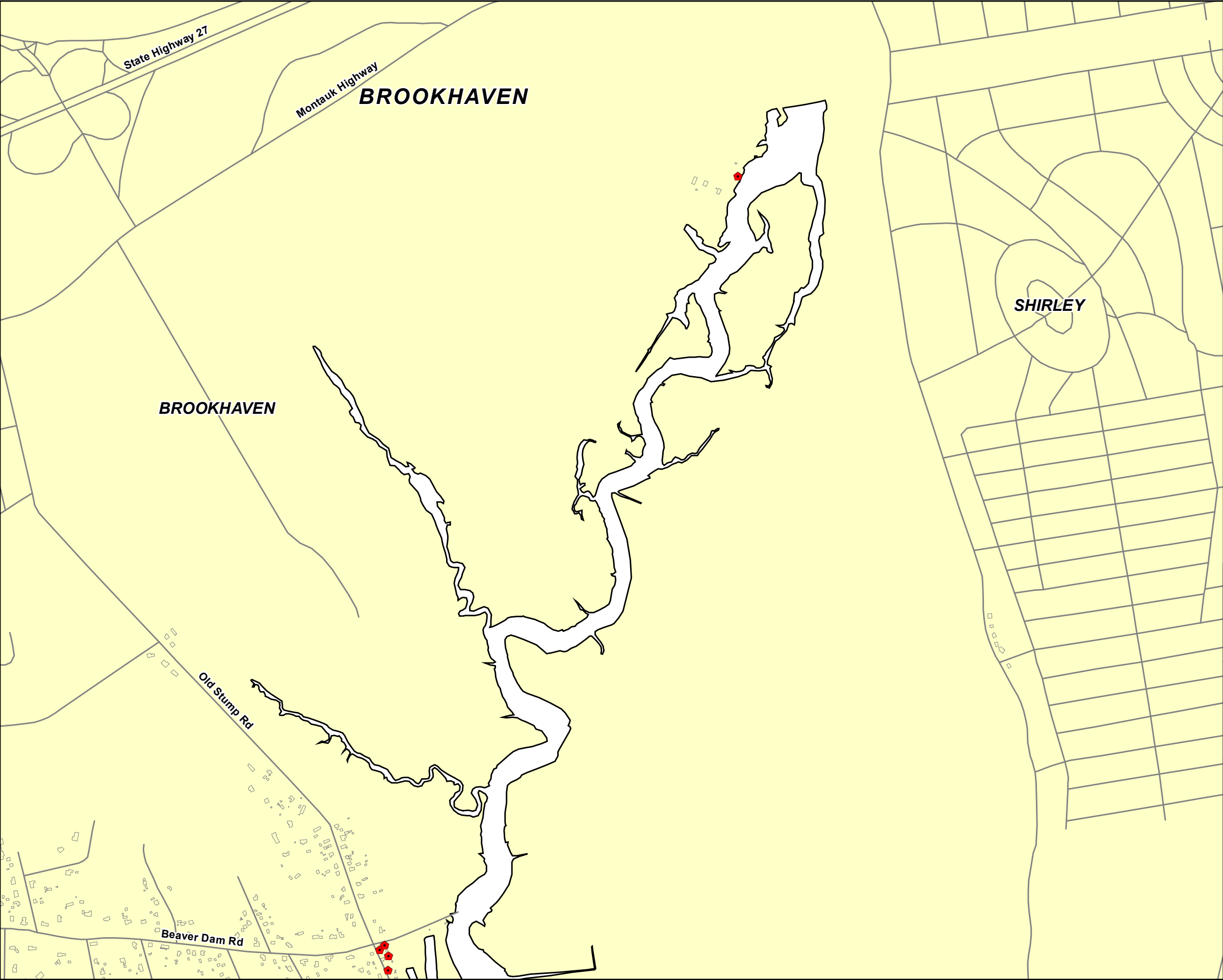
DEPARTMENT OF THE ARMY
 NEW YORK DISTRICT CORPS OF ENGINEERS
 NEW YORK, NY 10278-0090



**REFORMULATION STUDY
 FIRE ISLAND INLET TO SHINNECOCK BAY**

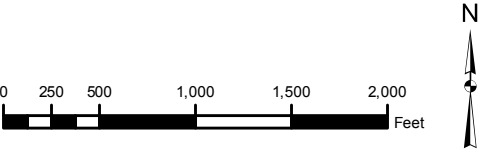
DRAWING TITLE:
**TSP NON-STRUCTURAL
 COMPONENT**

DATE: April 2018	FILE NAME: NonStructural_Maps.mxd	PLATE NO. NS-16
---------------------	--------------------------------------	---------------------------

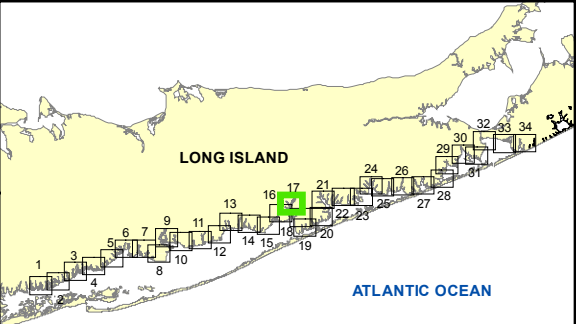


Legend

- Structures Assigned Non-Structural Treatment Under Selected Plan
- Street Centerlines
- Existing Structure



- Notes**
1. Location of the shoreline and structures was adapted from the April 1995 topographic maps prepared by Erdman Anthony Consulting Engineers.
 2. All buildings selected for treatment under the depicted plan will be protected to a design protection elevation of the 100-year water surface elevation plus 2 Feet



KEY MAP

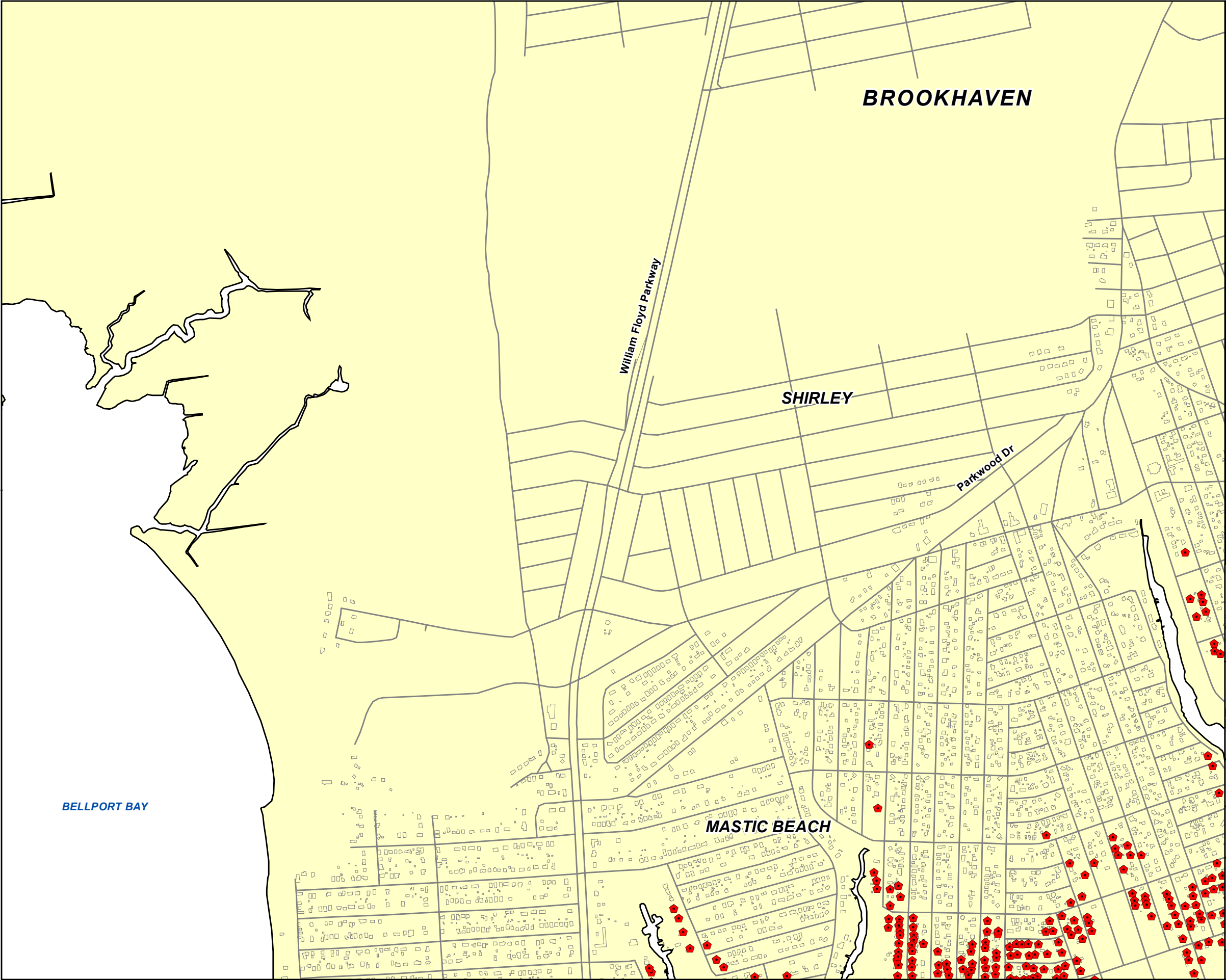
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, NY 10278-0090



**REFORMULATION STUDY
FIRE ISLAND INLET TO SHINNECOCK BAY**

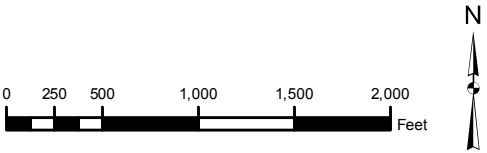
DRAWING TITLE:
**TSP NON-STRUCTURAL
COMPONENT**

DATE: April 2018		FILE NAME: NonStructural_Maps.mxd	PLATE NO. NS-17
---------------------	--	--------------------------------------	---------------------------

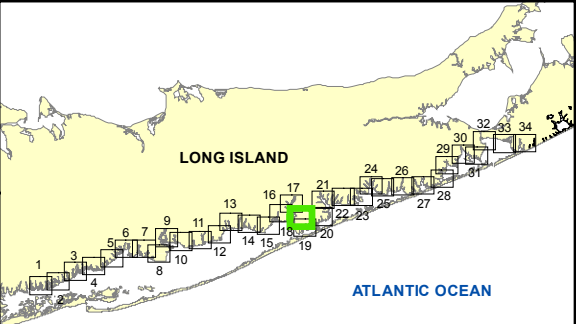


Legend

- Structures Assigned Non-Structural Treatment Under Selected Plan
- Street Centerlines
- Existing Structure



- Notes**
1. Location of the shoreline and structures was adapted from the April 1995 topographic maps prepared by Erdman Anthony Consulting Engineers.
 2. All buildings selected for treatment under the depicted plan will be protected to a design protection elevation of the 100-year water surface elevation plus 2 Feet



KEY MAP

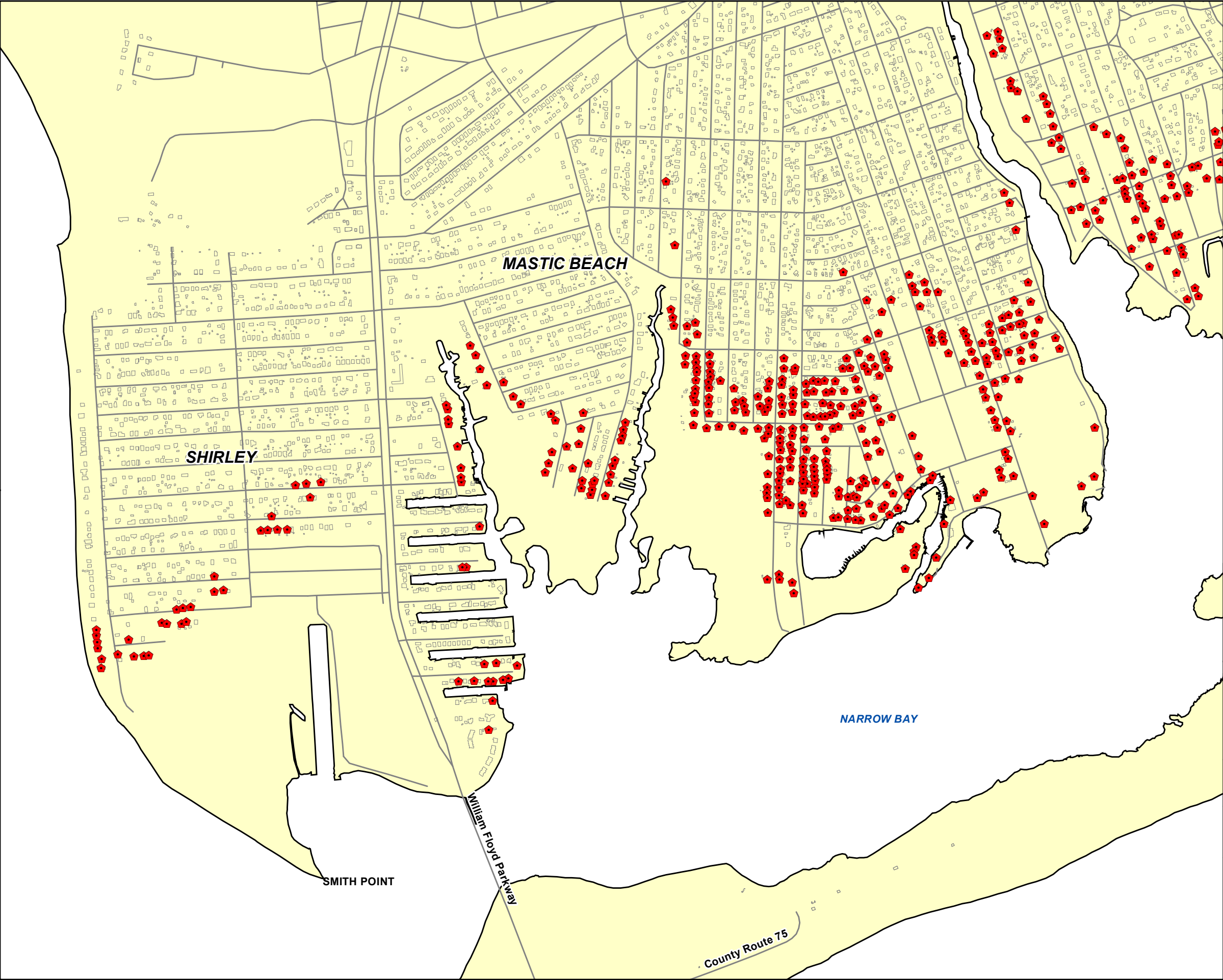
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, NY 10278-0090



REFORMULATION STUDY
FIRE ISLAND INLET TO SHINNECOCK BAY

DRAWING TITLE:
**TSP NON-STRUCTURAL
COMPONENT**

DATE: April 2018		FILE NAME: NonStructural_Maps.mxd	PLATE NO. NS-18
---------------------	--	--------------------------------------	---------------------------



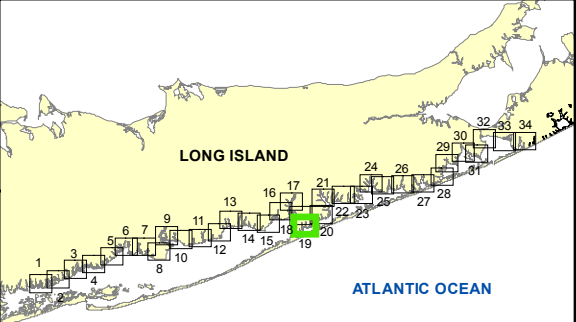
Legend

- Structures Assigned Non-Structural Treatment Under Selected Plan
- Street Centerlines
- Existing Structure

0 250 500 1,000 1,500 2,000 Feet

N

- Notes**
1. Location of the shoreline and structures was adapted from the April 1995 topographic maps prepared by Erdman Anthony Consulting Engineers.
 2. All buildings selected for treatment under the depicted plan will be protected to a design protection elevation of the 100-year water surface elevation plus 2 Feet



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, NY 10278-0090

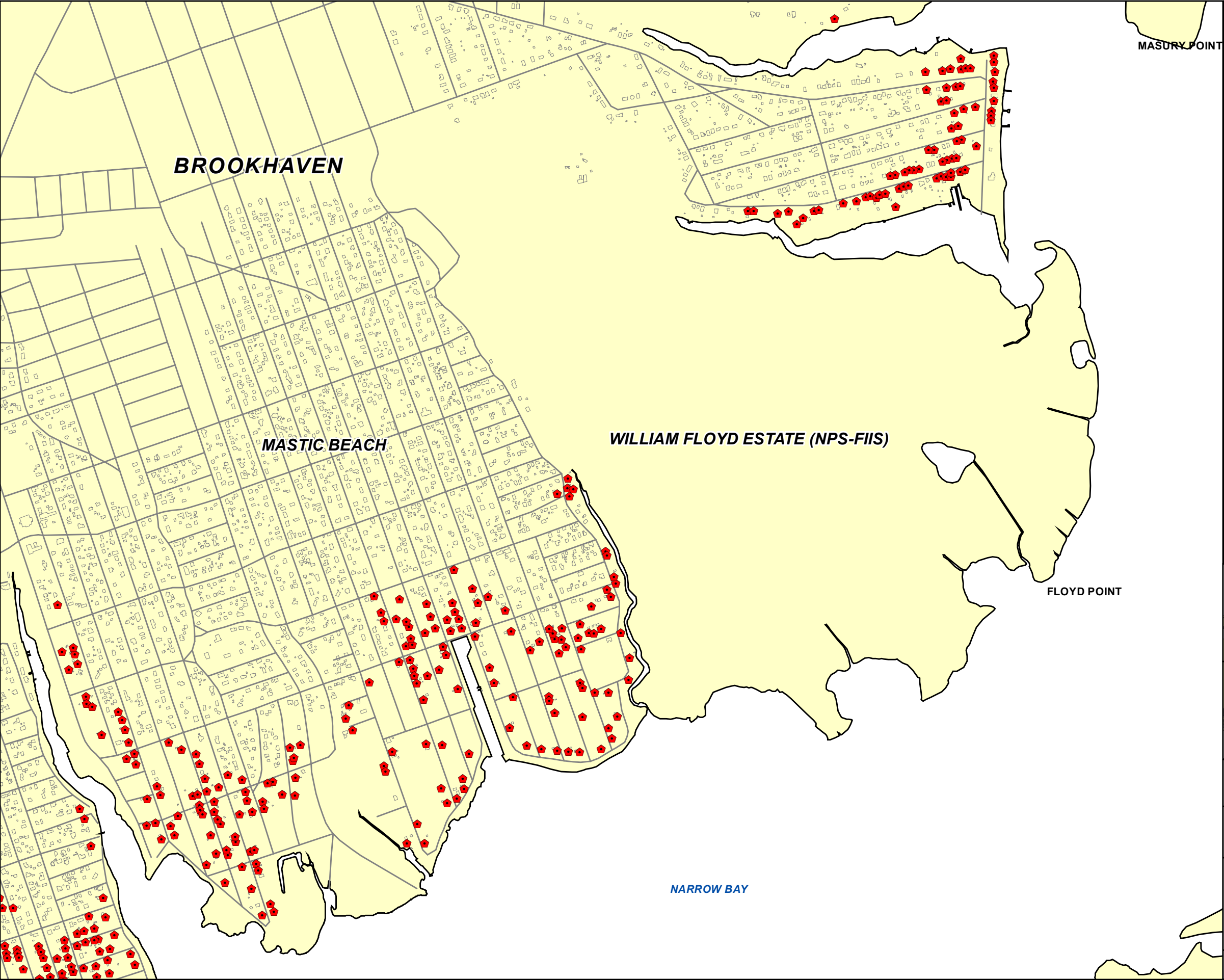


REFORMULATION STUDY
FIRE ISLAND INLET TO SHINNECOCK BAY

DRAWING TITLE:

TSP NON-STRUCTURAL
COMPONENT

DATE: April 2018		FILE NAME: NonStructural_Maps.mxd	PLATE NO. NS-19
---------------------	--	--------------------------------------	--------------------



MASURY POINT

BROOKHAVEN

MASTIC BEACH

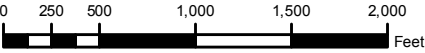
WILLIAM FLOYD ESTATE (NPS-FIIS)

FLOYD POINT

NARROW BAY

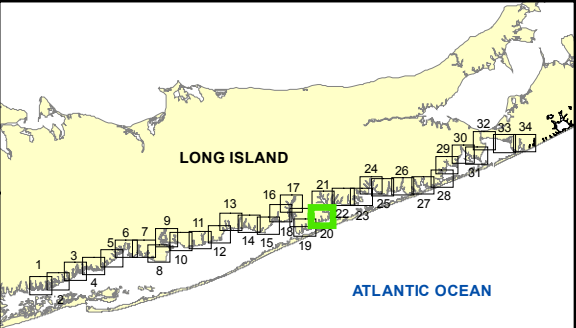
Legend

- Structures Assigned Non-Structural Treatment Under Selected Plan
- Street Centerlines
- Existing Structure



Notes

1. Location of the shoreline and structures was adapted from the April 1995 topographic maps prepared by Erdman Anthony Consulting Engineers.
2. All buildings selected for treatment under the depicted plan will be protected to a design protection elevation of the 100-year water surface elevation plus 2 Feet



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, NY 10278-0090



**REFORMULATION STUDY
FIRE ISLAND INLET TO SHINNECOCK BAY**

DRAWING TITLE:

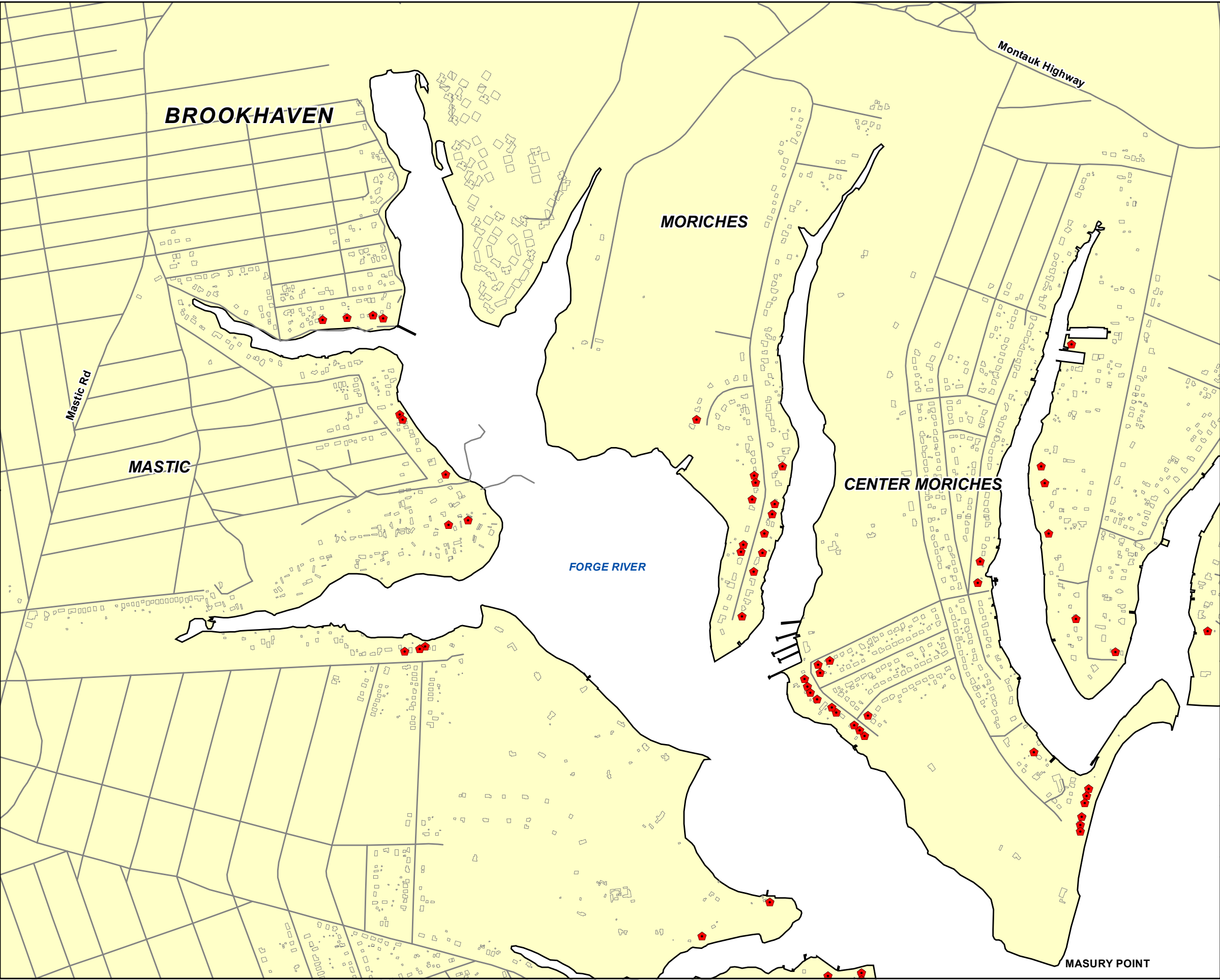
**TSP NON-STRUCTURAL
COMPONENT**

PLATE NO.

NS-20

DATE:
April 2018

FILE NAME:
NonStructural_Maps.mxd



Legend

Structures Assigned Non-Structural Treatment Under Selected Plan

Street Centerlines

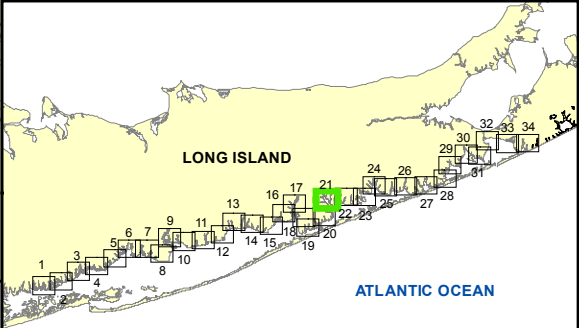
Existing Structure

02505001,0001,5002,000

Feet

- Notes
1. Location of the shoreline and structures was adapted from the April 1995 topographic maps prepared by Erdman Anthony Consulting Engineers.

2. All buildings selected for treatment under the depicted plan will be protected to a design protection elevation of the 100-year water surface elevation plus 2 Feet



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, NY 10278-0090

REFORMULATION STUDY
FIRE ISLAND INLET TO SHINNECOCK BAY

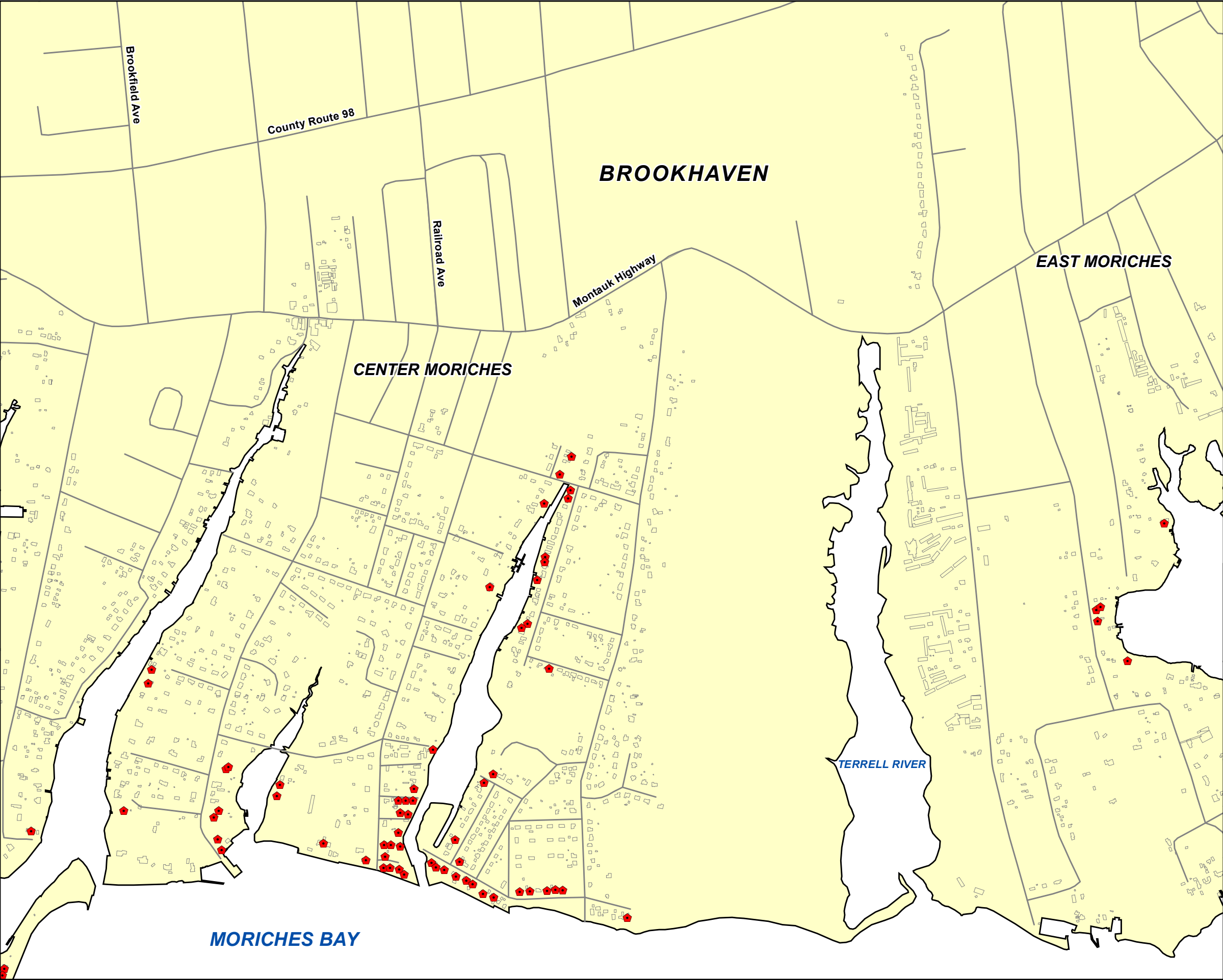
DRAWING TITLE:

TSP NON-STRUCTURAL COMPONENT

DATE:
April 2018

FILE NAME:
NonStructural_Maps.mxd

PLATE NO.
NS-21



Legend

◆

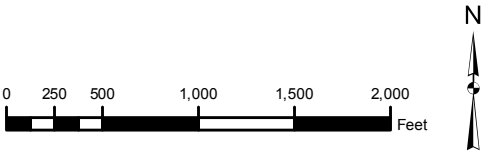
Structures Assigned Non-Structural Treatment Under Selected Plan

—

Street Centerlines

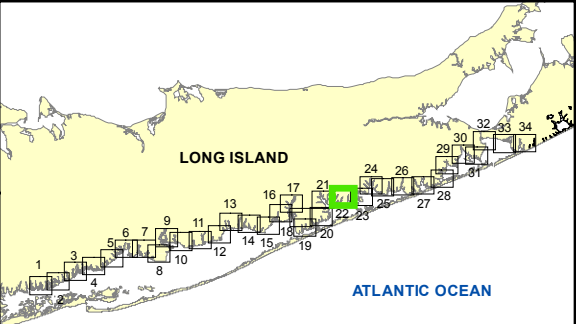
□

Existing Structure



- Notes
1. Location of the shoreline and structures was adapted from the April 1995 topographic maps prepared by Erdman Anthony Consulting Engineers.

2. All buildings selected for treatment under the depicted plan will be protected to a design protection elevation of the 100-year water surface elevation plus 2 Feet



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, NY 10278-0090

REFORMULATION STUDY
FIRE ISLAND INLET TO SHINNECOCK BAY

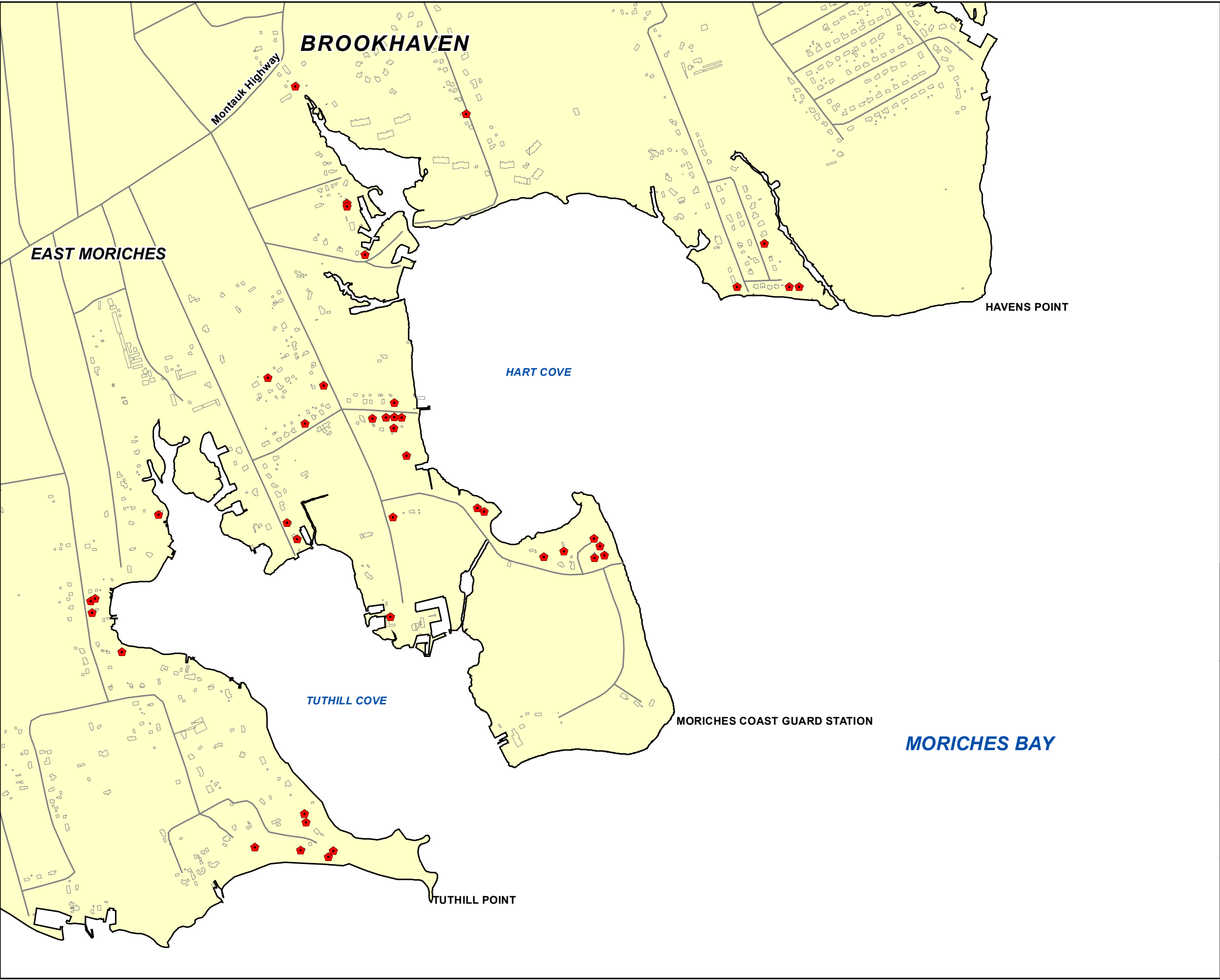
DRAWING TITLE:

TSP NON-STRUCTURAL
COMPONENT

DATE:
April 2018

FILE NAME:
NonStructural_Maps.mxd

PLATE NO.
NS-22

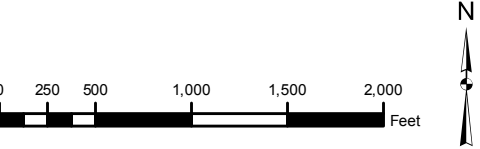


Legend

Structures Assigned Non-Structural Treatment Under Selected Plan

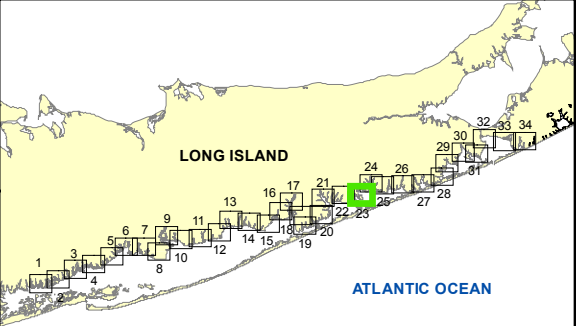
Street Centerlines

Existing Structure



- Notes
1. Location of the shoreline and structures was adapted from the April 1995 topographic maps prepared by Erdman Anthony Consulting Engineers.

2. All buildings selected for treatment under the depicted plan will be protected to a design protection elevation of the 100-year water surface elevation plus 2 Feet



KEY MAP

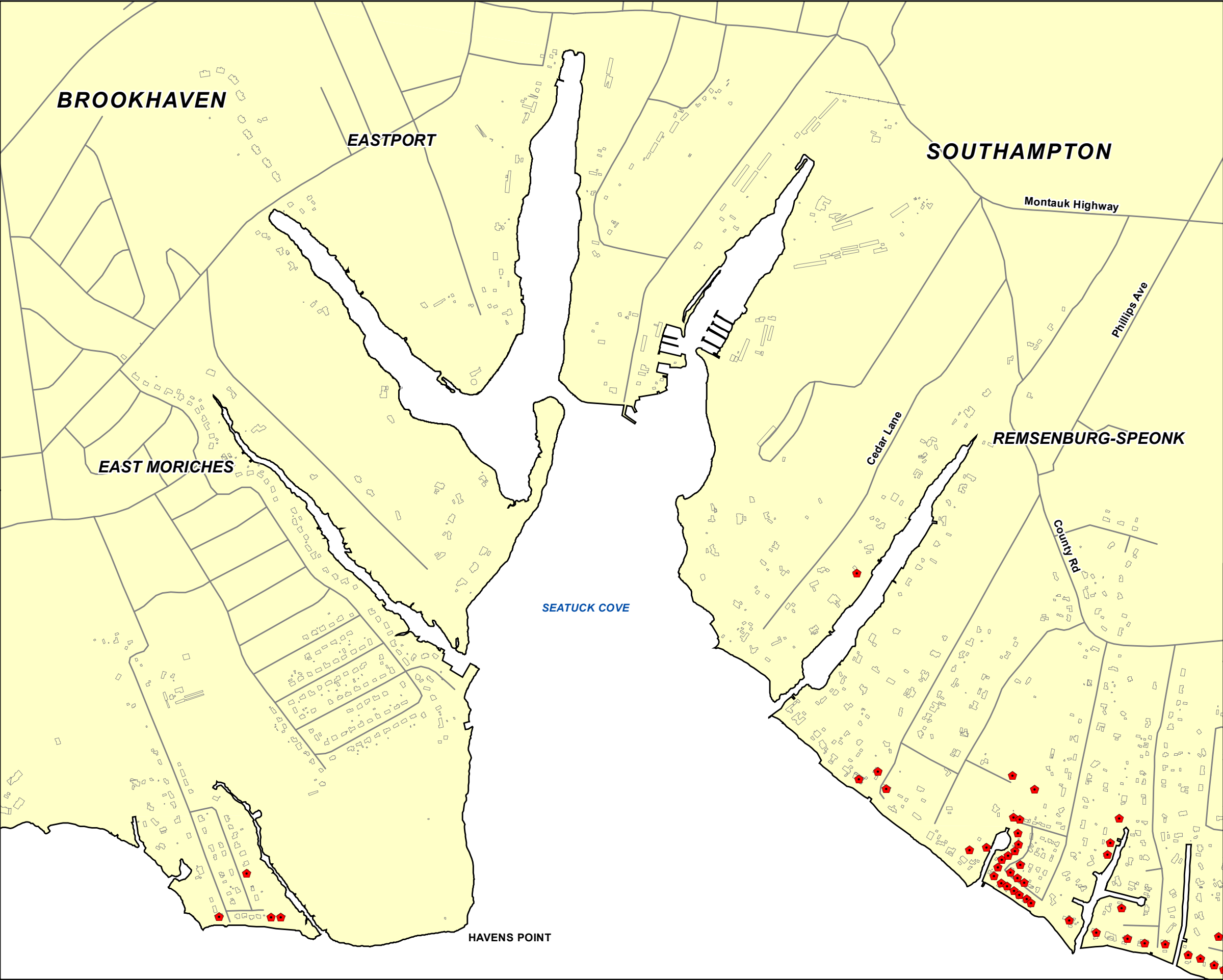
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, NY 10278-0090

REFORMULATION STUDY
FIRE ISLAND INLET TO SHINNECOCK BAY

DRAWING TITLE:

TSP NON-STRUCTURAL
COMPONENT

DATE: April 2018		FILE NAME: NonStructural_Maps.mxd	PLATE NO. NS-23
---------------------	--	--------------------------------------	--------------------

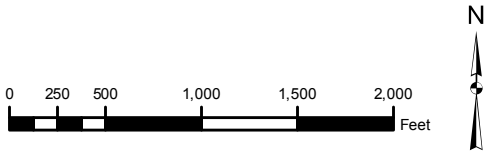


Legend

Structures Assigned Non-Structural Treatment Under Selected Plan

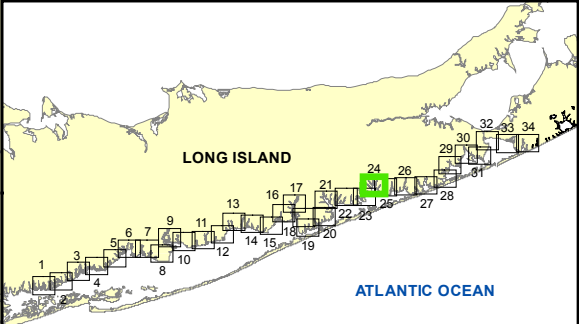
Street Centerlines

Existing Structure



- Notes
1. Location of the shoreline and structures was adapted from the April 1995 topographic maps prepared by Erdman Anthony Consulting Engineers.

2. All buildings selected for treatment under the depicted plan will be protected to a design protection elevation of the 100-year water surface elevation plus 2 Feet



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, NY 10278-0090

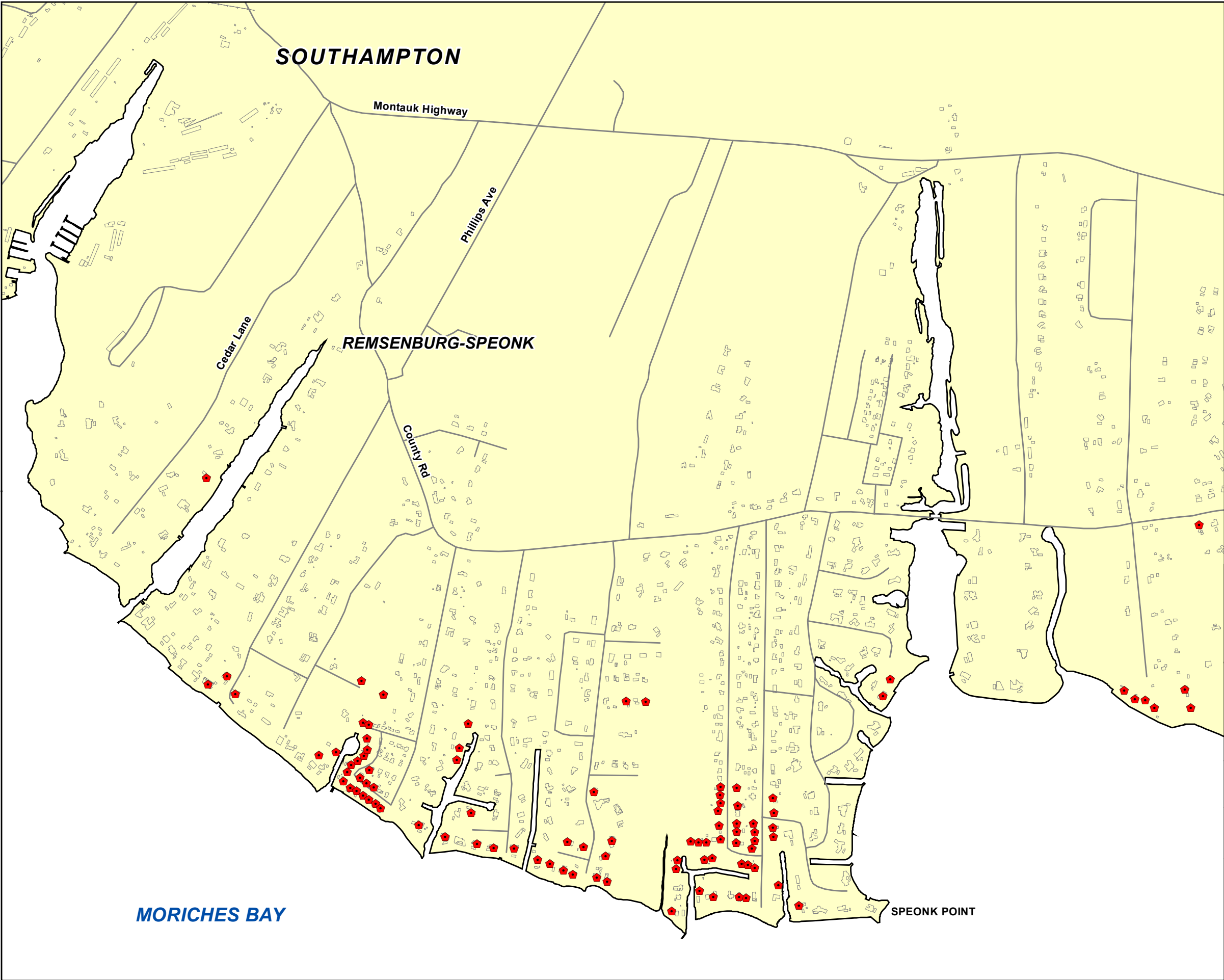
REFORMULATION STUDY
FIRE ISLAND INLET TO SHINNECOCK BAY

DRAWING TITLE:
**TSP NON-STRUCTURAL
COMPONENT**

DATE:
April 2018

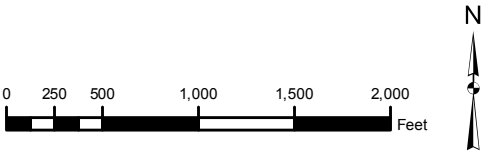
FILE NAME:
NonStructural_Maps.mxd

PLATE NO.
NS-24

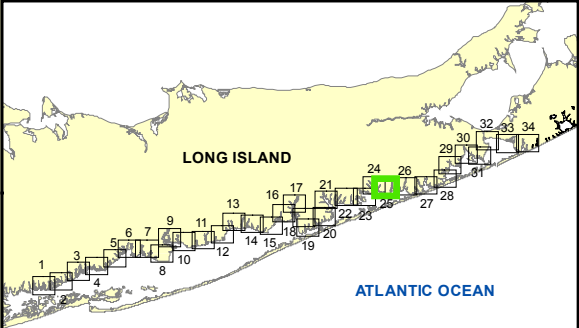


Legend

- Red pentagon: Structures Assigned Non-Structural Treatment Under Selected Plan
- Grey line: Street Centerlines
- White rectangle: Existing Structure



- Notes**
1. Location of the shoreline and structures was adapted from the April 1995 topographic maps prepared by Erdman Anthony Consulting Engineers.
 2. All buildings selected for treatment under the depicted plan will be protected to a design protection elevation of the 100-year water surface elevation plus 2 Feet



KEY MAP

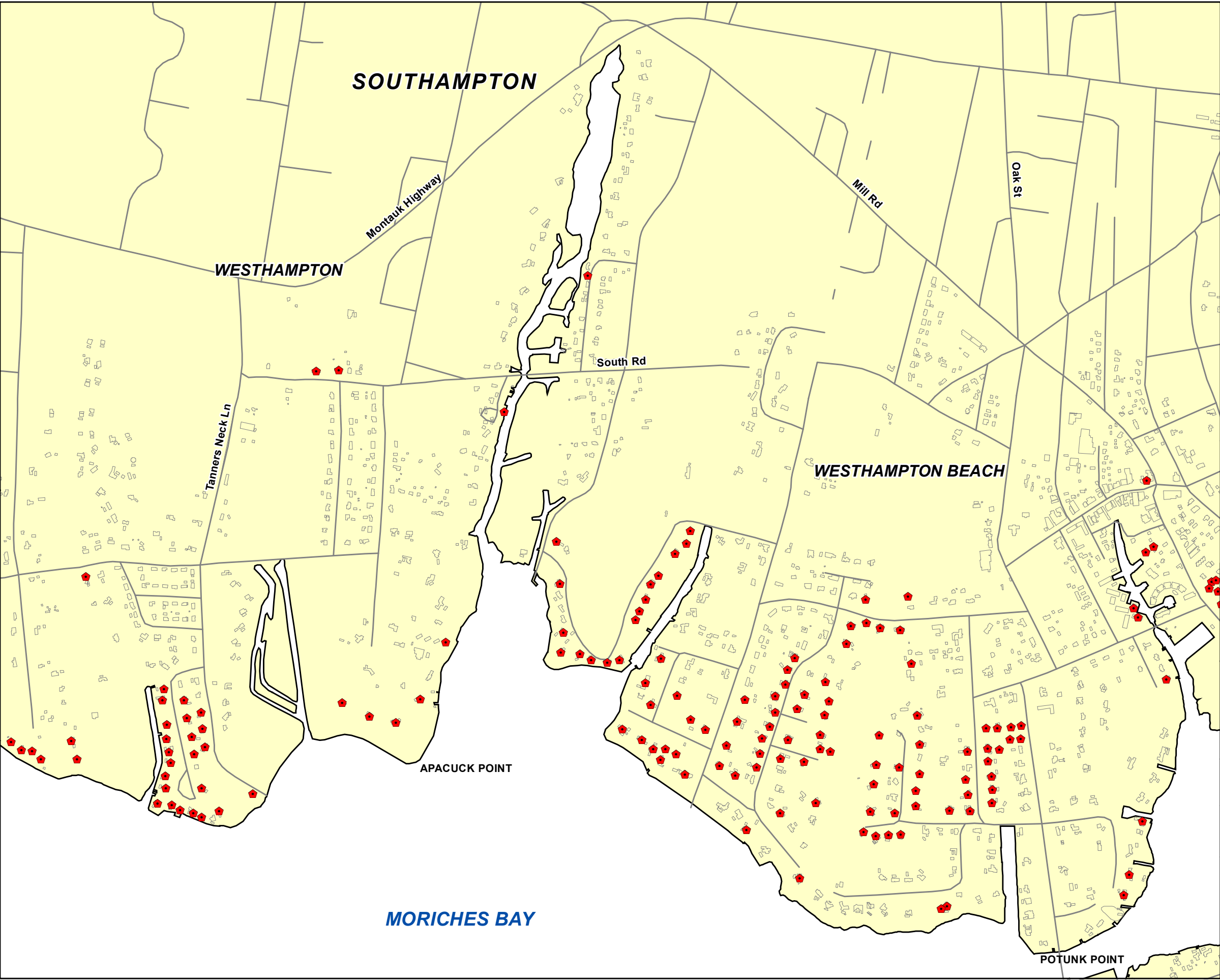
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, NY 10278-0090



**REFORMULATION STUDY
FIRE ISLAND INLET TO SHINNECOCK BAY**

DRAWING TITLE:
**TSP NON-STRUCTURAL
COMPONENT**

DATE: April 2018		FILE NAME: NonStructural_Maps.mxd	PLATE NO. NS-25
---------------------	--	--------------------------------------	---------------------------

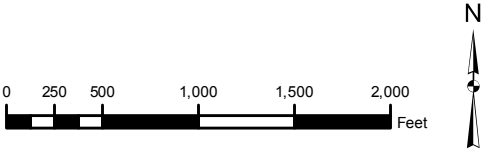


Legend

Structures Assigned Non-Structural Treatment Under Selected Plan

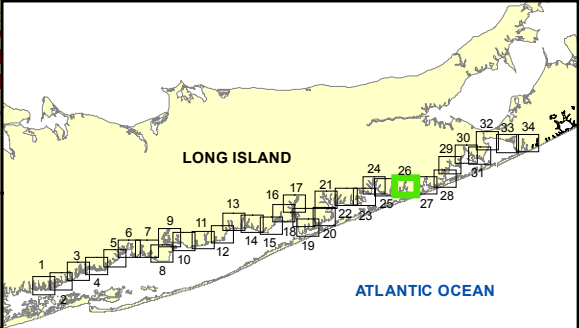
Street Centerlines

Existing Structure



- Notes
1. Location of the shoreline and structures was adapted from the April 1995 topographic maps prepared by Erdman Anthony Consulting Engineers.

2. All buildings selected for treatment under the depicted plan will be protected to a design protection elevation of the 100-year water surface elevation plus 2 Feet



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, NY 10278-0090

REFORMULATION STUDY
FIRE ISLAND INLET TO SHINNECOCK BAY

DRAWING TITLE:

TSP NON-STRUCTURAL COMPONENT

DATE:

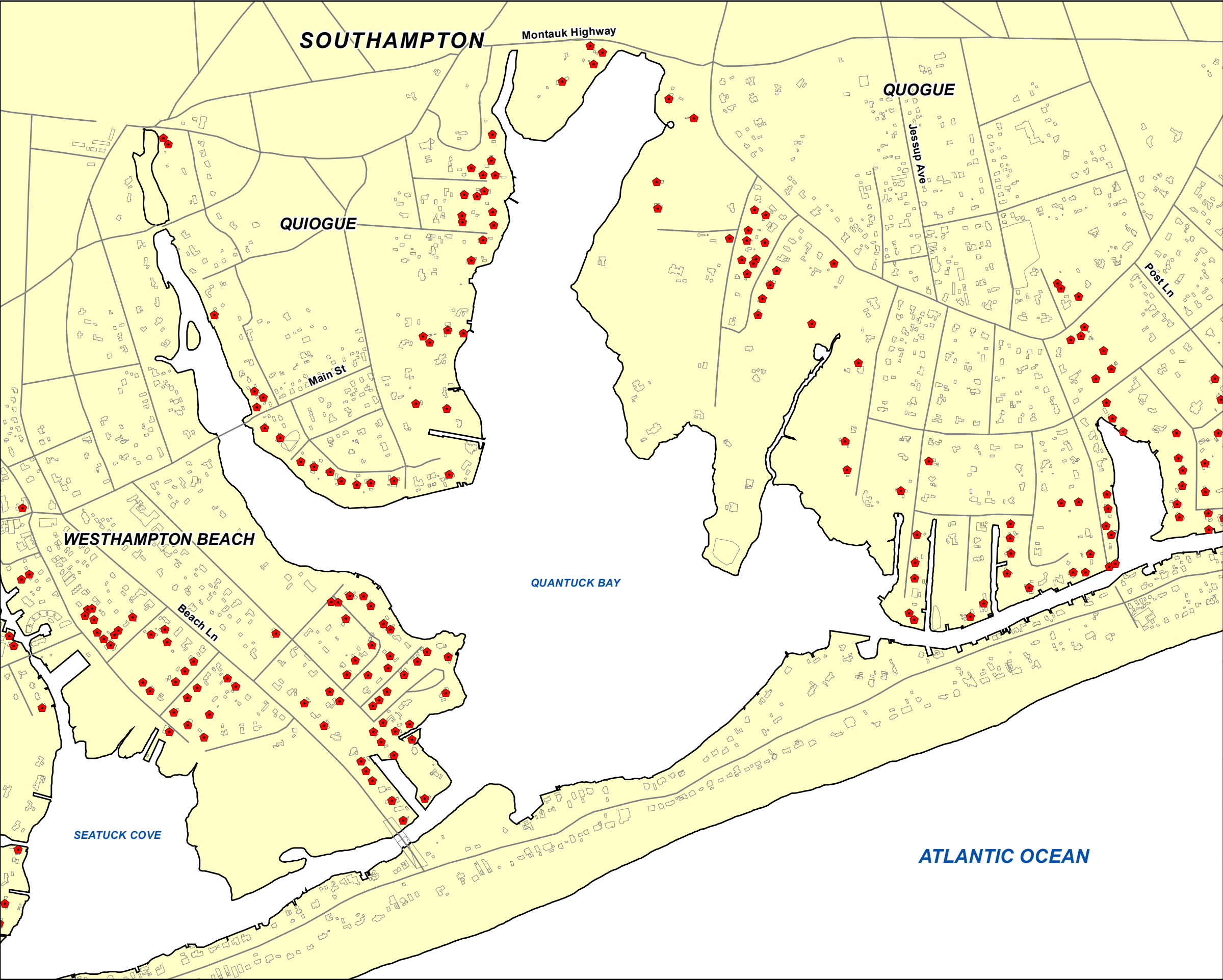
April 2018

FILE NAME:

NonStructural_Maps.mxd

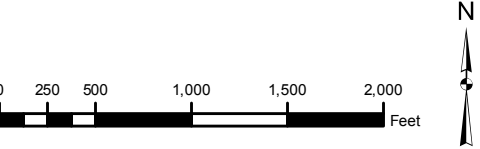
PLATE NO.

NS-26

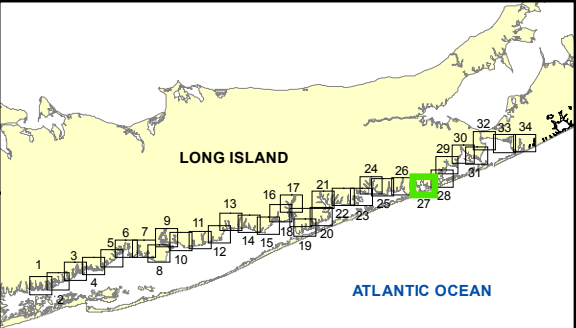


Legend

- Structures Assigned Non-Structural Treatment Under Selected Plan
- Street Centerlines
- Existing Structure



- Notes**
1. Location of the shoreline and structures was adapted from the April 1995 topographic maps prepared by Erdman Anthony Consulting Engineers.
 2. All buildings selected for treatment under the depicted plan will be protected to a design protection elevation of the 100-year water surface elevation plus 2 Feet



KEY MAP

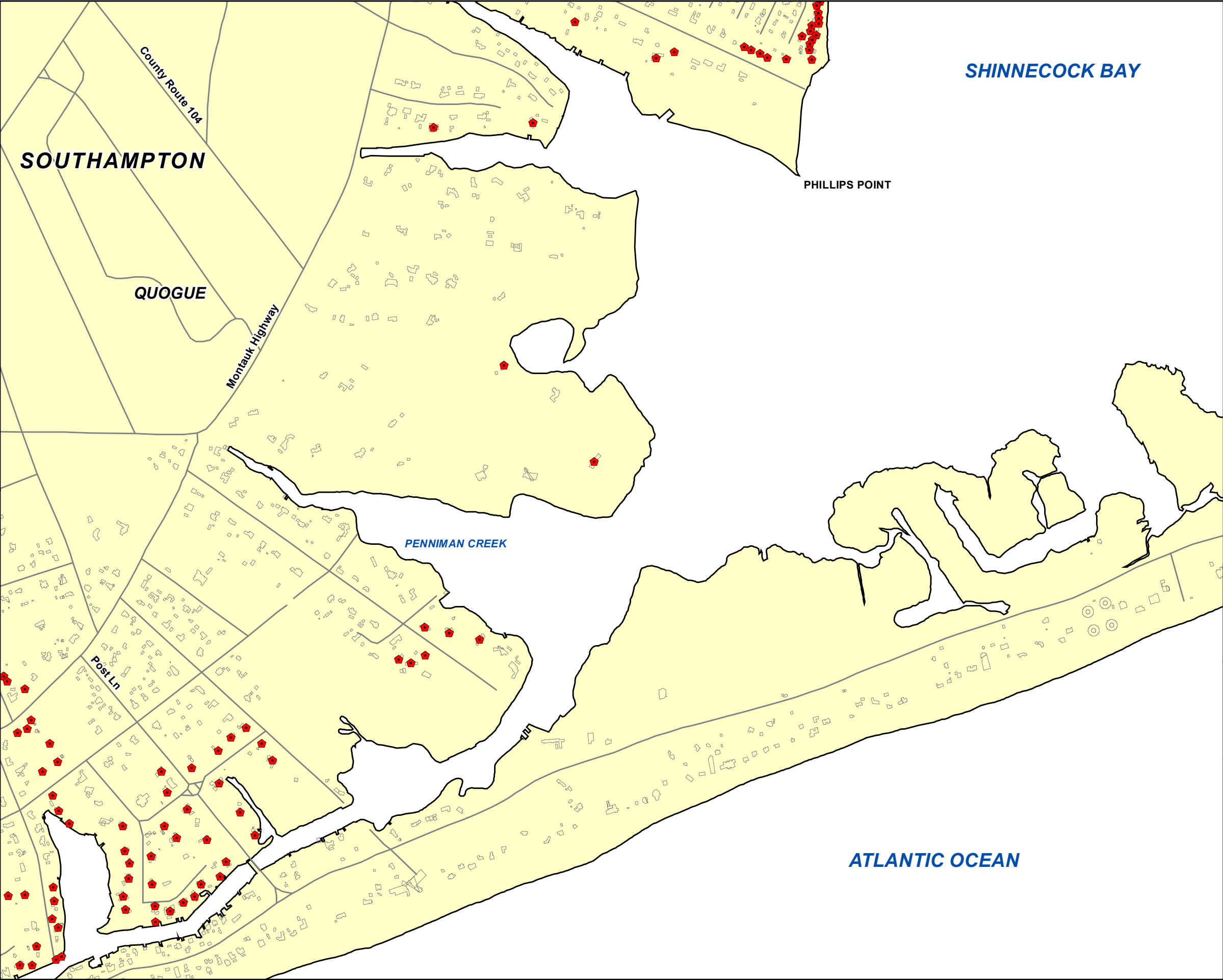
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, NY 10278-0090



REFORMULATION STUDY
FIRE ISLAND INLET TO SHINNECOCK BAY

DRAWING TITLE:
**TSP NON-STRUCTURAL
COMPONENT**

DATE: April 2018	FILE NAME: NonStructural_Maps.mxd	PLATE NO. NS-27
---------------------	--------------------------------------	---------------------------

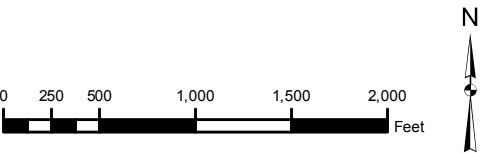


Legend

Structures Assigned Non-Structural Treatment Under Selected Plan

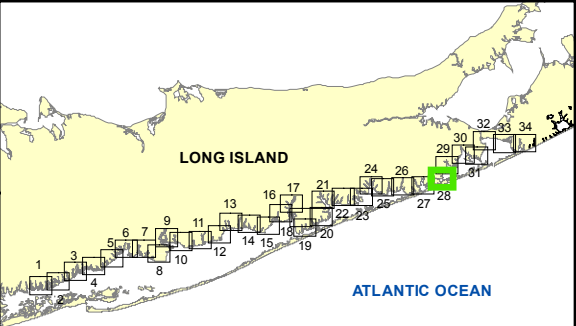
Street Centerlines

Existing Structure



- Notes
1. Location of the shoreline and structures was adapted from the April 1995 topographic maps prepared by Erdman Anthony Consulting Engineers.

2. All buildings selected for treatment under the depicted plan will be protected to a design protection elevation of the 100-year water surface elevation plus 2 Feet



KEY MAP

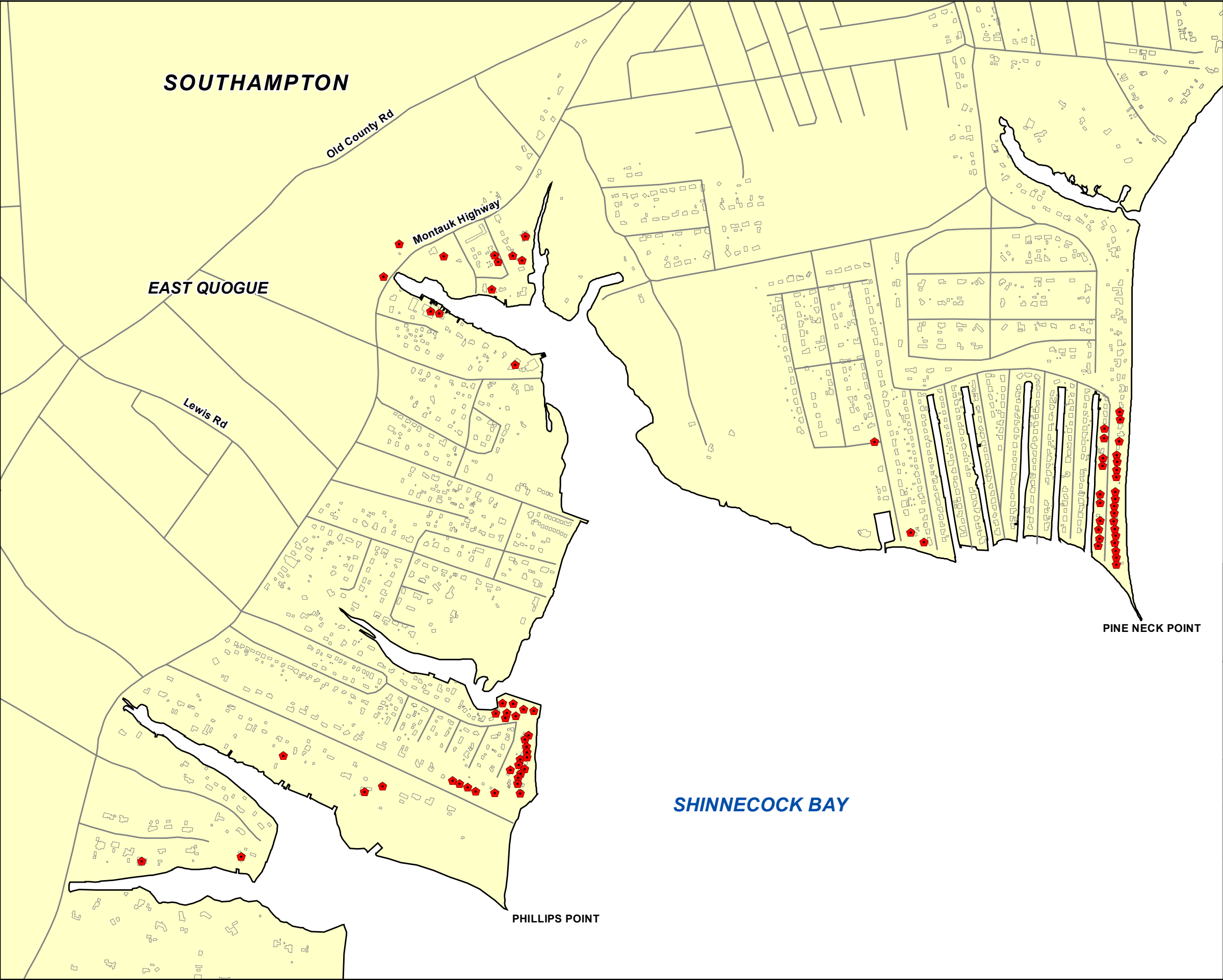
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, NY 10278-0090

REFORMULATION STUDY
FIRE ISLAND INLET TO SHINNECOCK BAY

DRAWING TITLE:

TSP NON-STRUCTURAL
COMPONENT

DATE: April 2018		FILE NAME: NonStructural_ Maps.mxd	PLATE NO. NS-28
---------------------	--	---------------------------------------	--------------------

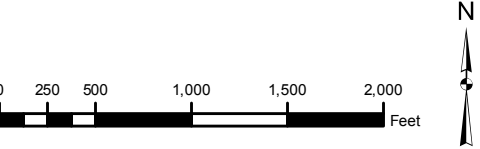


Legend

Structures Assigned Non-Structural Treatment Under Selected Plan

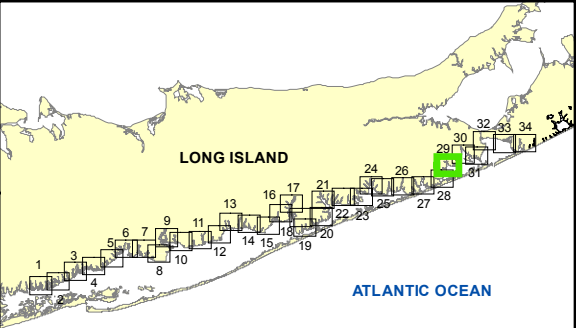
Street Centerlines

Existing Structure



- Notes
1. Location of the shoreline and structures was adapted from the April 1995 topographic maps prepared by Erdman Anthony Consulting Engineers.

2. All buildings selected for treatment under the depicted plan will be protected to a design protection elevation of the 100-year water surface elevation plus 2 Feet



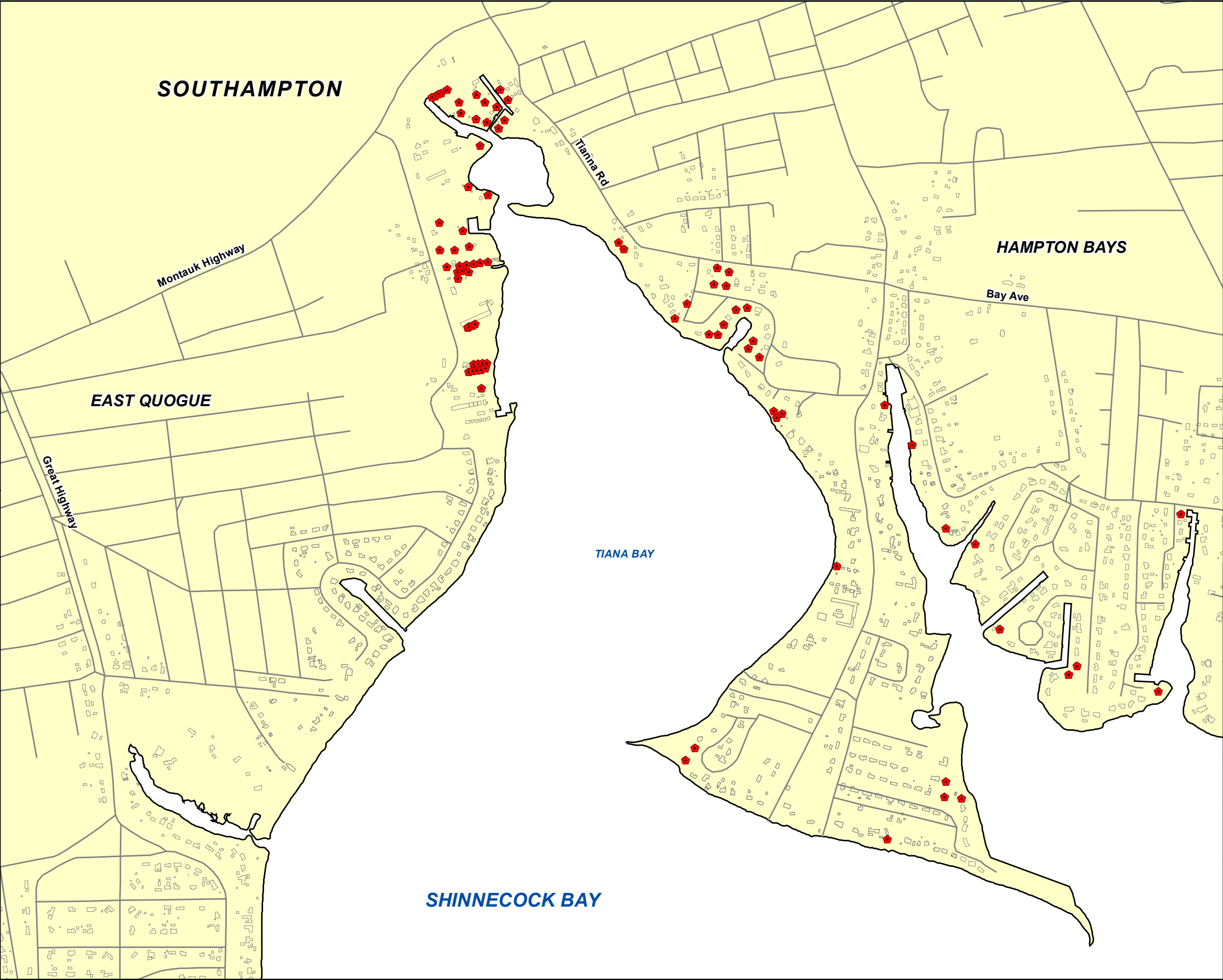
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, NY 10278-0090

REFORMULATION STUDY
FIRE ISLAND INLET TO SHINNECOCK BAY

DRAWING TITLE:

TSP NON-STRUCTURAL
COMPONENT

DATE: April 2018		FILE NAME: NonStructural_Maps.mxd	PLATE NO. NS-29
---------------------	--	--------------------------------------	--------------------

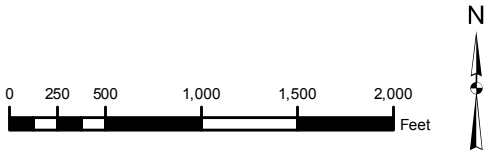


Legend

Structures Assigned Non-Structural Treatment Under Selected Plan

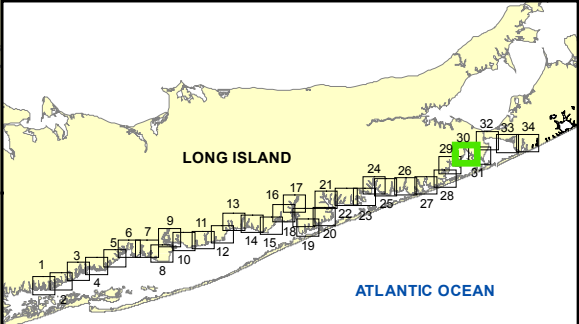
Street Centerlines

Existing Structure



- Notes
1. Location of the shoreline and structures was adapted from the April 1995 topographic maps prepared by Erdman Anthony Consulting Engineers.

2. All buildings selected for treatment under the depicted plan will be protected to a design protection elevation of the 100-year water surface elevation plus 2 Feet



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, NY 10278-0090

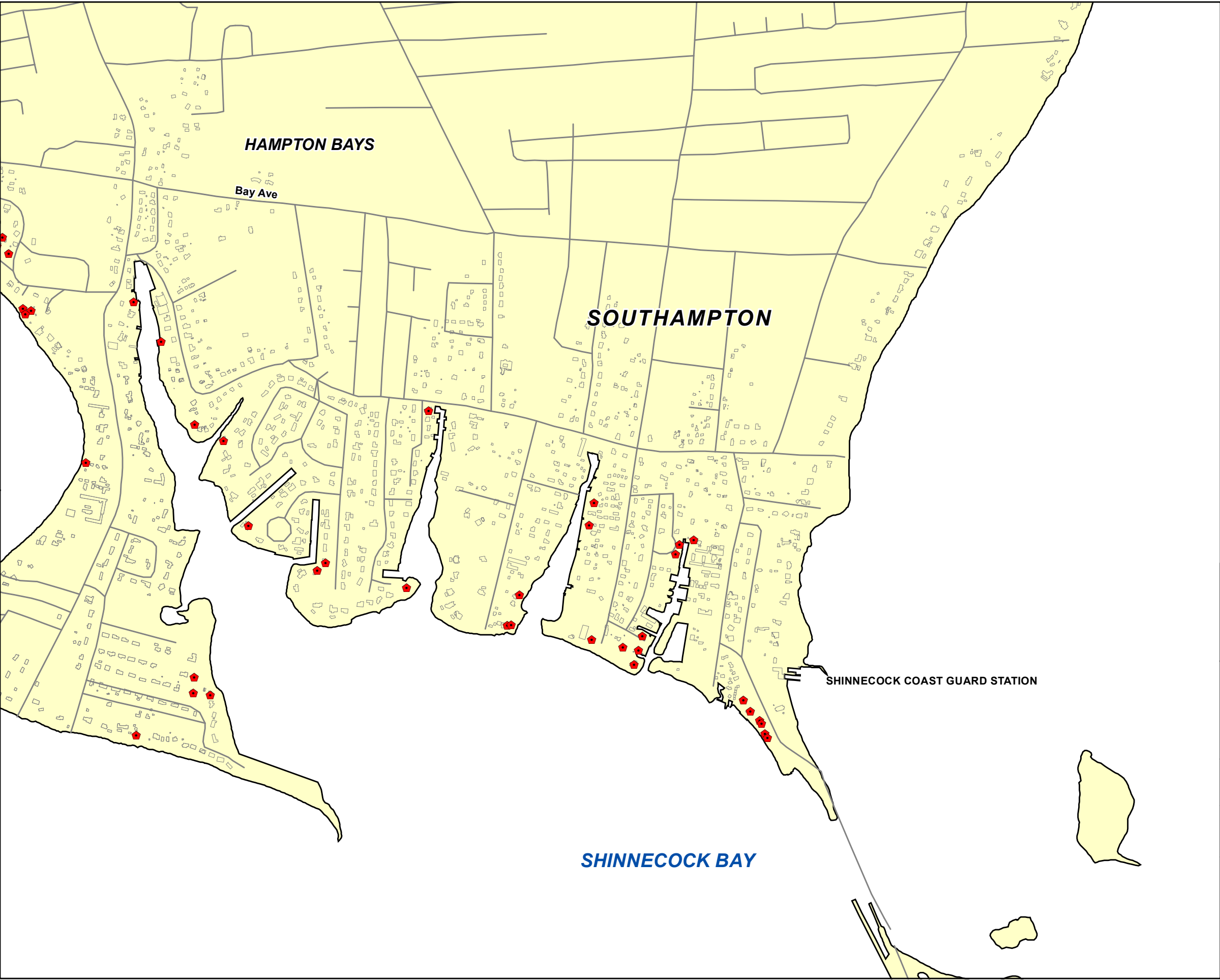
REFORMULATION STUDY
FIRE ISLAND INLET TO SHINNECOCK BAY

DRAWING TITLE:
TSP NON-STRUCTURAL COMPONENT

DATE:
April 2018

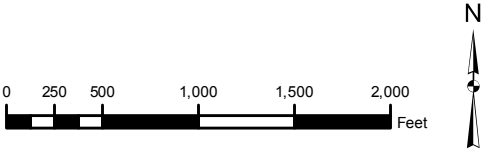
FILE NAME:
NonStructural_Maps.mxd

PLATE NO.
NS-30

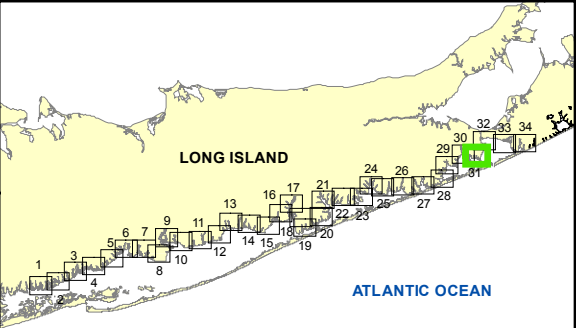


Legend

- Structures Assigned Non-Structural Treatment Under Selected Plan
- Street Centerlines
- Existing Structure



- Notes**
1. Location of the shoreline and structures was adapted from the April 1995 topographic maps prepared by Erdman Anthony Consulting Engineers.
 2. All buildings selected for treatment under the depicted plan will be protected to a design protection elevation of the 100-year water surface elevation plus 2 Feet



KEY MAP

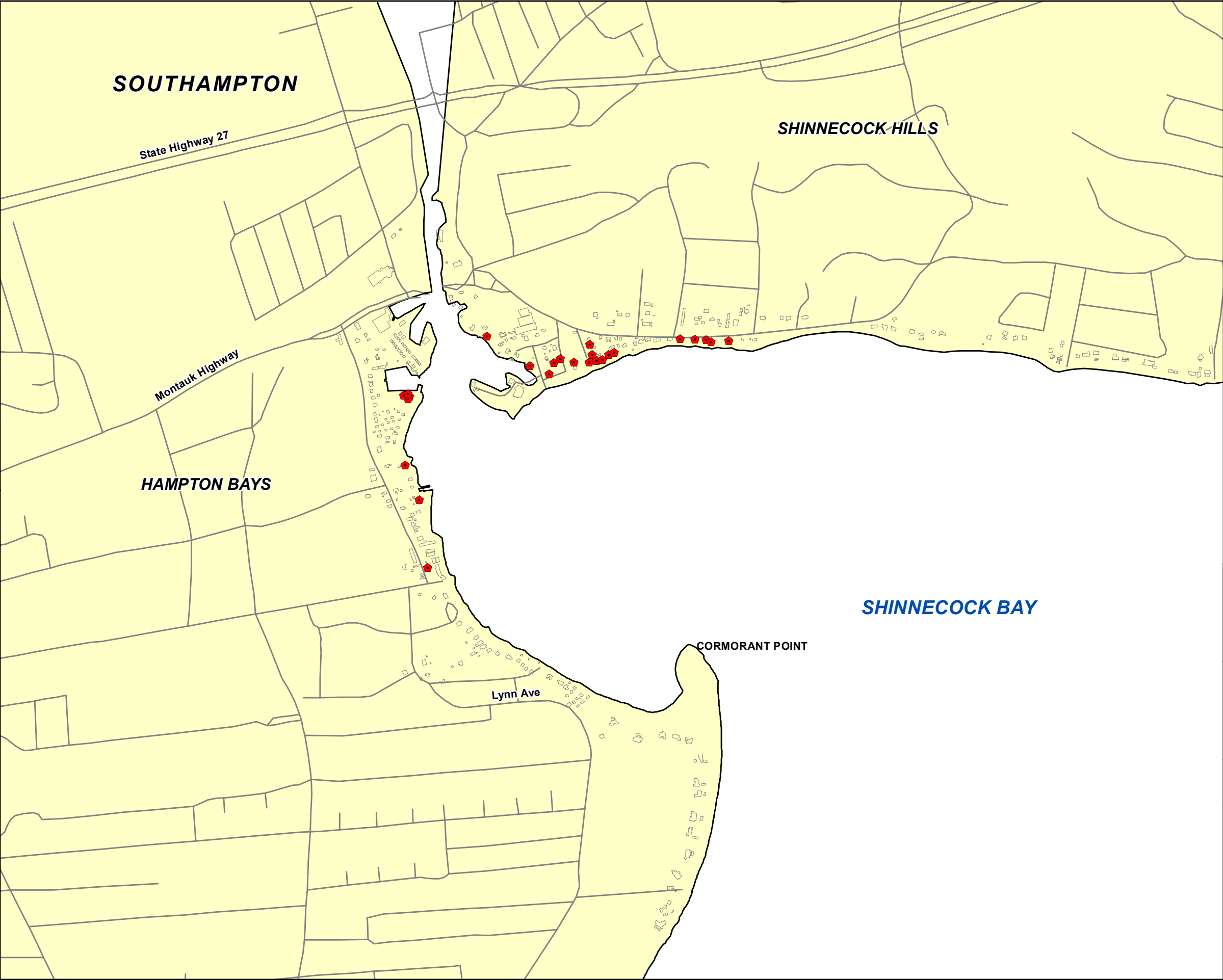
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, NY 10278-0090



REFORMULATION STUDY
FIRE ISLAND INLET TO SHINNECOCK BAY

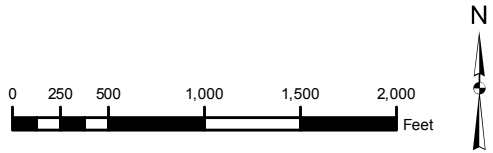
DRAWING TITLE:
TSP NON-STRUCTURAL
COMPONENT

DATE: April 2018		FILE NAME: NonStructural_Maps.mxd	PLATE NO. NS-31
---------------------	--	--------------------------------------	--------------------

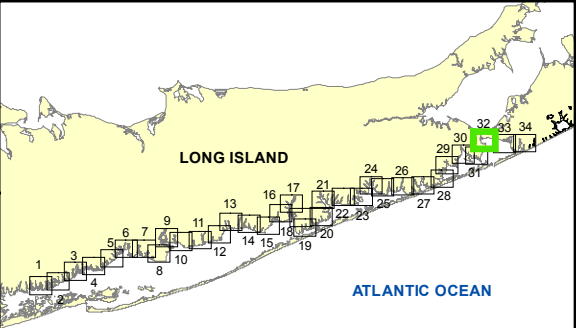


Legend

- Structures Assigned Non-Structural Treatment Under Selected Plan
- Street Centerlines
- Existing Structure



- Notes**
1. Location of the shoreline and structures was adapted from the April 1995 topographic maps prepared by Erdman Anthony Consulting Engineers.
 2. All buildings selected for treatment under the depicted plan will be protected to a design protection elevation of the 100-year water surface elevation plus 2 Feet



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, NY 10278-0090

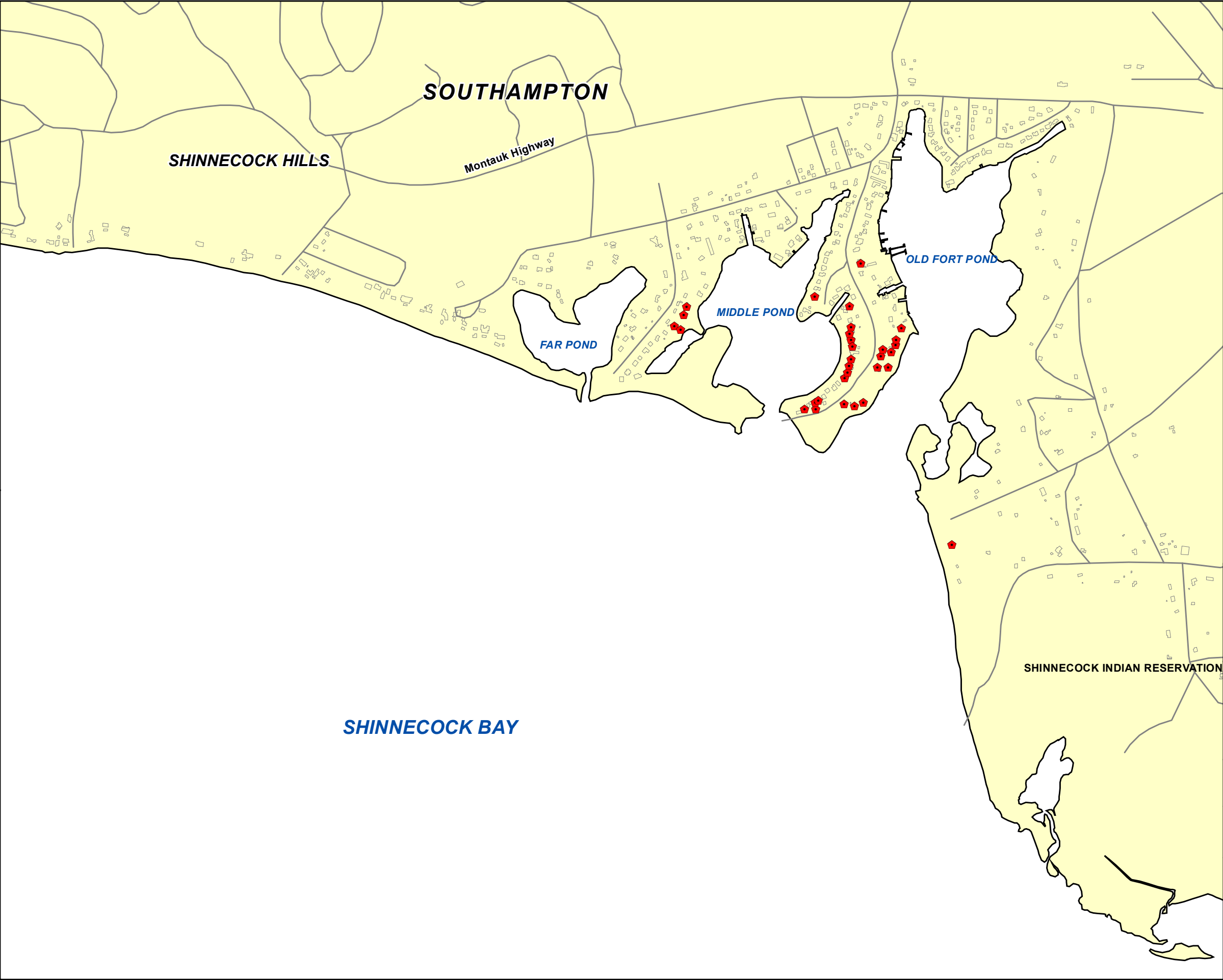
**REFORMULATION STUDY
FIRE ISLAND INLET TO SHINNECOCK BAY**

DRAWING TITLE:
**TSP NON-STRUCTURAL
COMPONENT**

DATE: April 2018

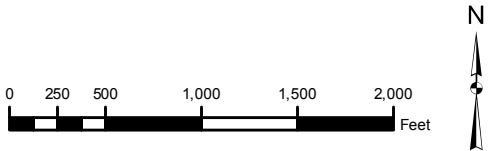
FILE NAME: NonStructural_Maps.mxd

PLATE NO.
NS-32



Legend

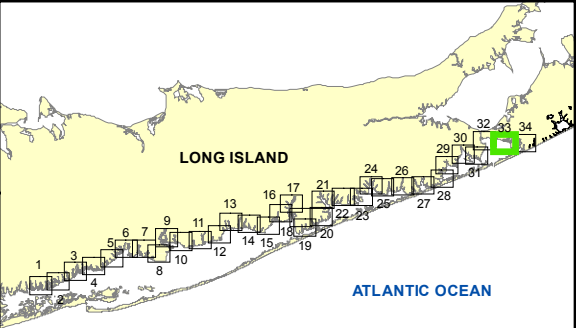
Structures Assigned Non-Structural Treatment Under Selected Plan

Street CenterlinesExisting Structure

Notes

1. Location of the shoreline and structures was adapted from the April 1995 topographic maps prepared by Erdman Anthony Consulting Engineers.

2. All buildings selected for treatment under the depicted plan will be protected to a design protection elevation of the 100-year water surface elevation plus 2 Feet



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, NY 10278-0090

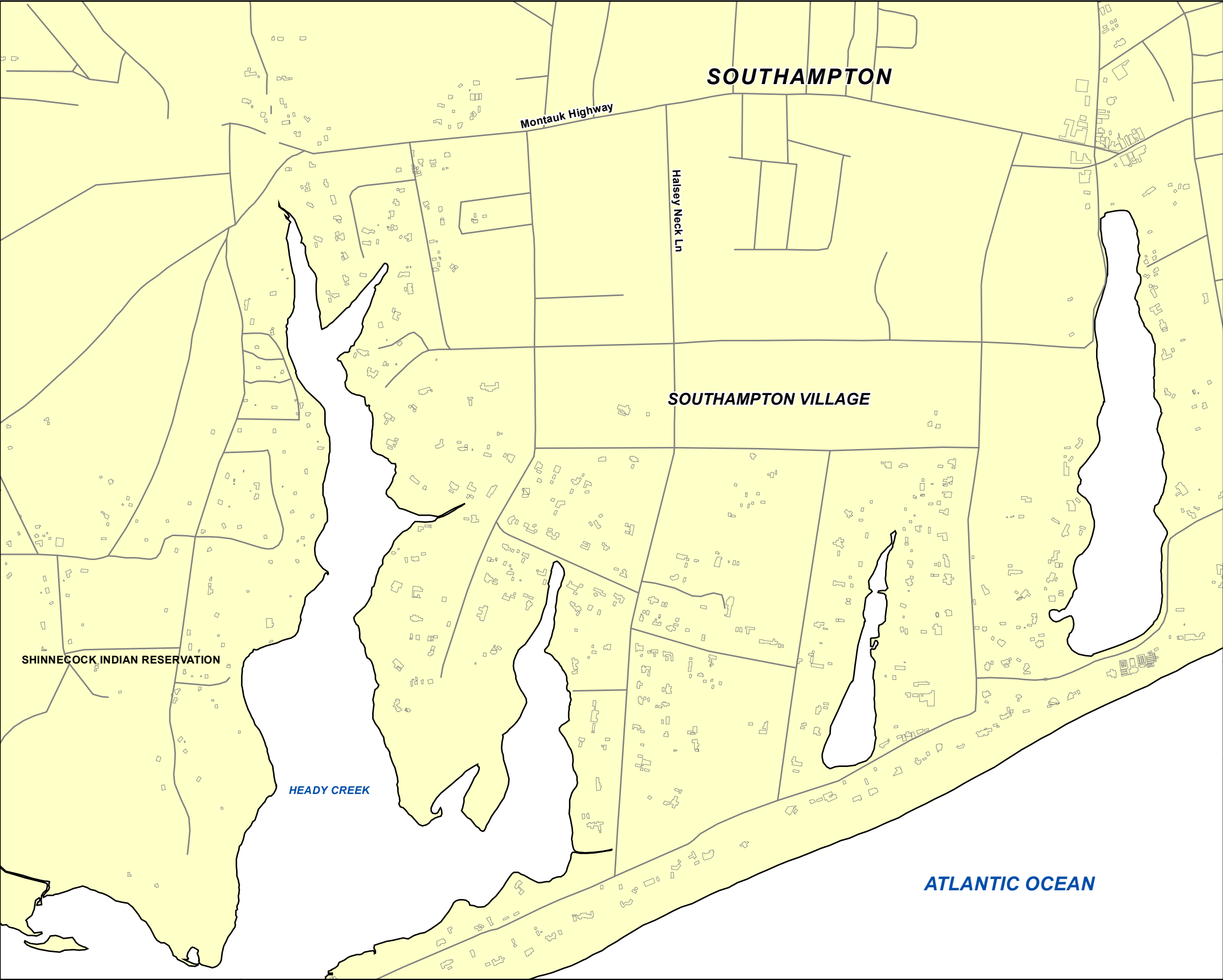
REFORMULATION STUDY
FIRE ISLAND INLET TO SHINNECOCK BAY

DRAWING TITLE:
**TSP NON-STRUCTURAL
COMPONENT**

DATE:
April 2018

FILE NAME:
NonStructural_Maps.mxd

PLATE NO.
NS-33

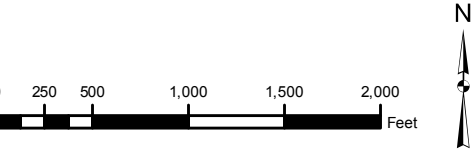


Legend

Structures Assigned Non-Structural Treatment Under Selected Plan

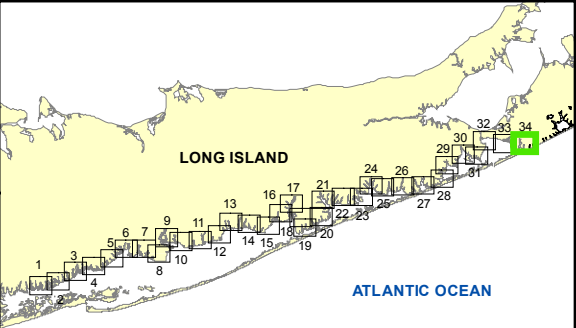
Street Centerlines

Existing Structure



- Notes
1. Location of the shoreline and structures was adapted from the April 1995 topographic maps prepared by Erdman Anthony Consulting Engineers.

2. All buildings selected for treatment under the depicted plan will be protected to a design protection elevation of the 100-year water surface elevation plus 2 Feet



KEY MAP

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT CORPS OF ENGINEERS
NEW YORK, NY 10278-0090

REFORMULATION STUDY
FIRE ISLAND INLET TO SHINNECOCK BAY

DRAWING TITLE:


TSP NON-STRUCTURAL COMPONENT

DATE:
April 2018

FILE NAME:
NonStructural_Maps.mxd

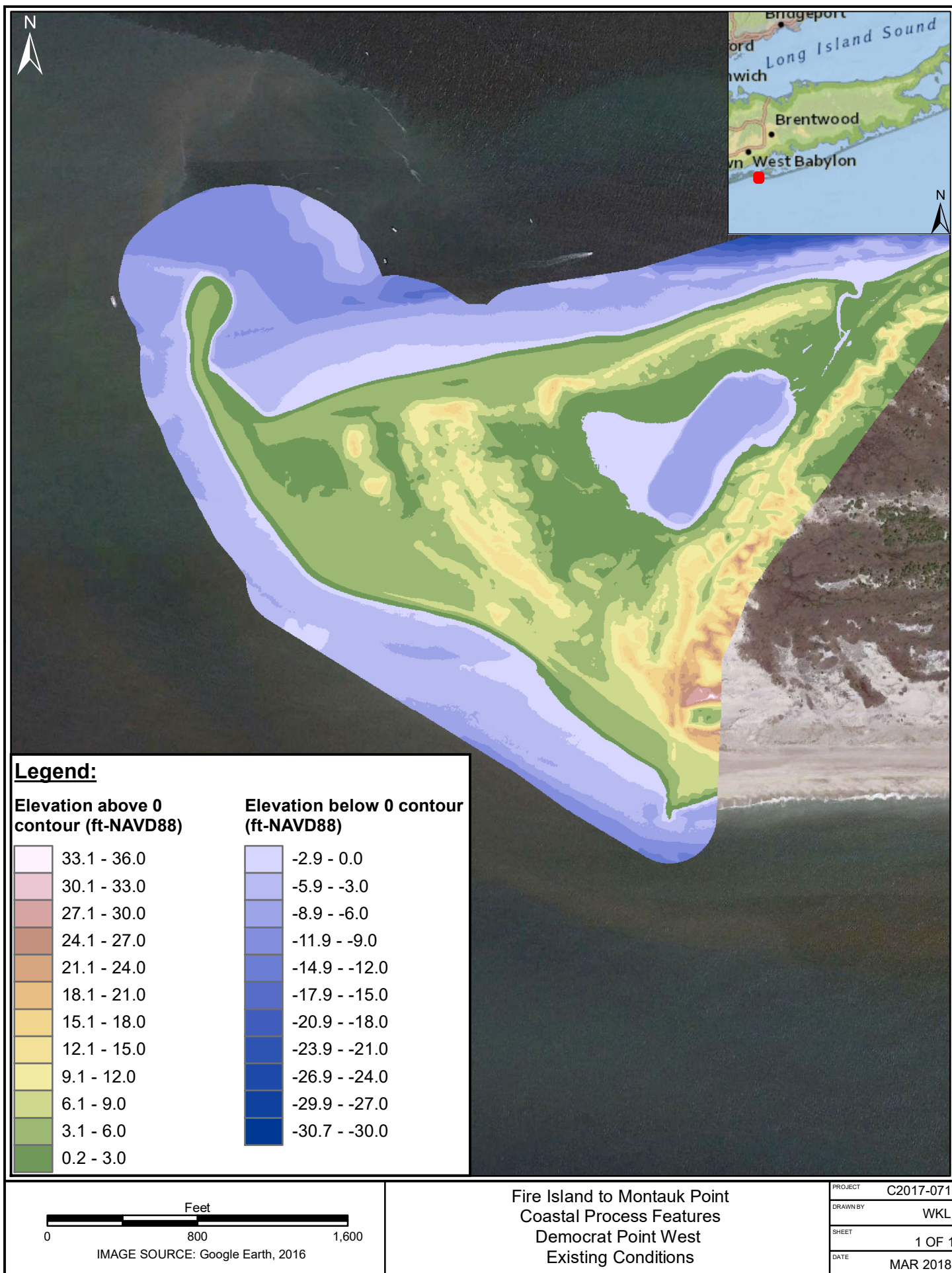
PLATE NO.
NS-34

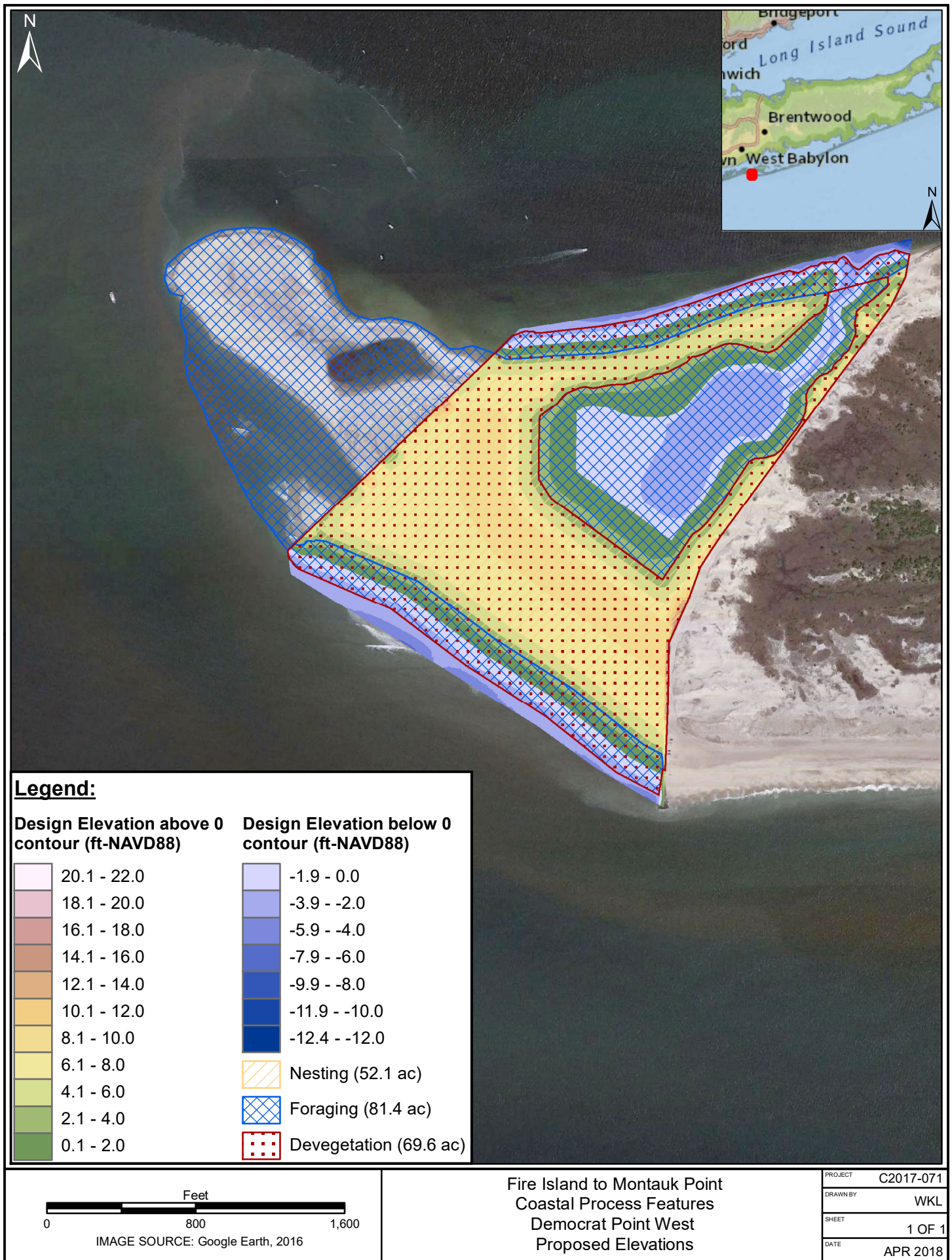
CPF Site 1 Democrat Point West	West of Jetty-Reach GSB-1A
	40.625280° N / 73.307751° W
<p>CPF SITE GOALS</p> <ul style="list-style-type: none"> • Earthwork to meet target elevations and slopes for ESA credit • Maximum elevation target = 8.33 ft-NAVD88 (9.5 ft-NGVD29) • Fill pond to reduce depth and improve overall productivity and functionality of existing wetland and create new foraging habitat • Conserve sand volume on site • Devegetate area to meet ESA goals <p>Democrat Point West is located on the western end of Fire Island within Robert Moses State Park. Democrat Point West defines the south and east boundary of Fire Island Inlet with Oak Beach to the north and west. Democrat Point West is a complex coastal area. At the western end lies a continuously evolving sand spit. A rock jetty spanning the width of the island defines the east boundary of Democrat Point West. Democrat Point West contains heavily vegetated dunes near the center of the site. These dunes taper in elevation toward the water on the north, west, and south sides. A small tidal pond, located just east of the Point's center, is surrounded by wetlands.</p> <p>Foraging habitat is defined as the intertidal area that is intermittently submerged and exposed during tidal induced water surface fluctuations. As a proxy for the local spring tide range, the following discussion applies NOAA's reported Lowest Astronomical Tide (LAT) as the lower bound and Highest Astronomical Tide (HAT) as the upper bound for foraging habitat.</p> <p>Nesting habitat is located immediately upland of foraging habitat and extends from the HAT elevation to +8.3 ft-NAVD88 at Democrat Point. Establishing the maximum elevation at +8.3 ft-NAVD88 should allow overwash of the site to occur multiple times a year.</p> <p>To create early successional habitat that provides nesting and foraging for shorebirds, plans call for regrading and devegetating approximately 69.6 acres (ac) of proposed habitat. The regrading template includes a 3% slope extending from the lowest astronomical tidal (LAT) elevation and/or the wetland boundary to the +7 ft-NAVD88 contour. Along the spine of the site, a raised dune feature will extend to +8.3 ft-NAVD88 (+9.5 ft-NGVD29). Foraging habitat (81.4 ac) encompasses the area between the LAT and the highest astronomical tide (HAT), while nesting habitat (52.1 ac) extends from the HAT to an elevation of +8.33 ft-NAVD88. The migrating sand spit (35.9 ac) along the western side of the CPF is considered foraging habitat. On the eastern side of the project area a 23.4 ac wetland and tidal pond exists. The pond will be filled to an elevation of -2.0 ft-NAVD88 to improve the wetland's overall productivity and functionality and establish the area as foraging habitat. Connectivity to bayside foraging habitat is maintained along the shallow creek on the northeast corner of the pond. Through the proposed activities at Democrat Point West, early successional habitat will be created.</p> <p>FIMP designates the Democrat Point West CPF as a species protection zone and recommends prohibiting installation of beach stabilization features. The USACE recommends the local land management agency consider predator management in newly set-aside areas.</p> <p>Sand placement at the CPF sites will be performed in coordination with renourishment cycles of the beachfill features and subject to monitoring to ensure the resolution of project objectives. The USACE will not implement vegetation management or manipulation of the sites unless conducted as an incidental action associated with future sediment placement.</p>	

CPF Site 1 Democrat Point West		West of Jetty-Reach GSB-1A	
		40.625280° N / 73.307751° W	
CPF PARAMETERS			
Feature		ESA	
Cut Volume (cy)		-187,017	
Fill Volume (cy)		168,514	
Net Volume (cy)		-18,503	
Acreage (Nesting\Foraging\Devegetation)		139.5 (52.1\81.4\69.6)	
Activity		Regrade & de-vegetate	
DATA SOURCES			
Topographic		USGS, 2016	
Bathymetric		USGS, 2016	
Aerial Imagery		Google Earth, 2016	
Vegetation		N/A*	
REAL ESTATE INFORMATION			
Property Owner		New York State Fire Island State Park	
Municipality		Islip	
County		Suffolk	
CBRA		NY-59, System Unit	
<div></div>			
*up to date vegetation data were not available for the study area			

BAYSIDE TIDAL ENVIRONMENT (ft-NAVD88)					
Closest Tidal Benchmark	Fire Island, NY		Highest Astronomical Tide (HAT)		2.79
			Mean Higher High Water (MHHW)		1.85
Coordinates	40.627811° N 73.306047° W		Mean High Water (MHW)		1.58
			Mean Sea Level (MSL)		-0.16
0 ft-NAVD	1.17 ft-NGVD		Mean Tide Level (MTL)		-0.24
Range (MHW-MLW)		3.64	Mean Low Water (MLW)		-2.06
Diurnal Range (MHHW - MLLW)		4.06	Mean Lower Low Water (MLLW)		-2.22
Largest Tidal Range (HAT-LAT)		5.89	Lowest Astronomical Tide (LAT)		-3.10
BAYSIDE WAVE ENVIRONMENT					
Return Period	Fetch (ft)	Wave Height (ft)	Wind Setup (ft)	Wave Setup (ft)	HAT + Setup + Wave Height (ft)
1-year	10,059	2.3	0.05	1.02	6.16
5-year	10,059	2.9	0.08	1.23	7.00
10-year	10,059	3.2	0.10	1.31	7.40

CPF Site 1 Democrat Point West				West of Jetty-Reach GSB-1A	
				40.625280° N / 73.307751° W	
OCEANSIDE TIDAL ENVIRONMENT (ft-NAVD88)					
Closest Tidal Benchmark	Fire Island, NY		Highest Astronomical Tide (HAT)		3.00
			Mean Higher High Water (MHHW)		2.06
Coordinates	40.62171° N 73.308894 ° W		Mean High Water (MHW)		1.76
			Mean Sea Level (MSL)		-0.18
0 ft-NAVD	1.17 ft-NGVD		Mean Tide Level (MTL)		-0.22
Range (MHW-MLW)		3.96	Mean Low Water (MLW)		-2.20
Diurnal Range (MHHW - MLLW)		4.41	Mean Lower Low Water (MLLW)		-2.36
Largest Tidal Range (HAT-LAT)		6.24	Lowest Astronomical Tide (LAT)		-3.24
OCEANSIDE WAVE ENVIRONMENT					
Return Period	Deep Water Wave Height (ft)	Surf Zone Wave Height (ft)	Wind Setup (ft)	Wave Setup (ft)	HAT + Setup + Surf Zone Wave Height (ft)
1-year	14.2	6.8	1.00	0.92	11.51
5-year	19.4	7.1	1.83	2.01	13.73
10-year	21.7	7.2	2.32	2.48	14.79

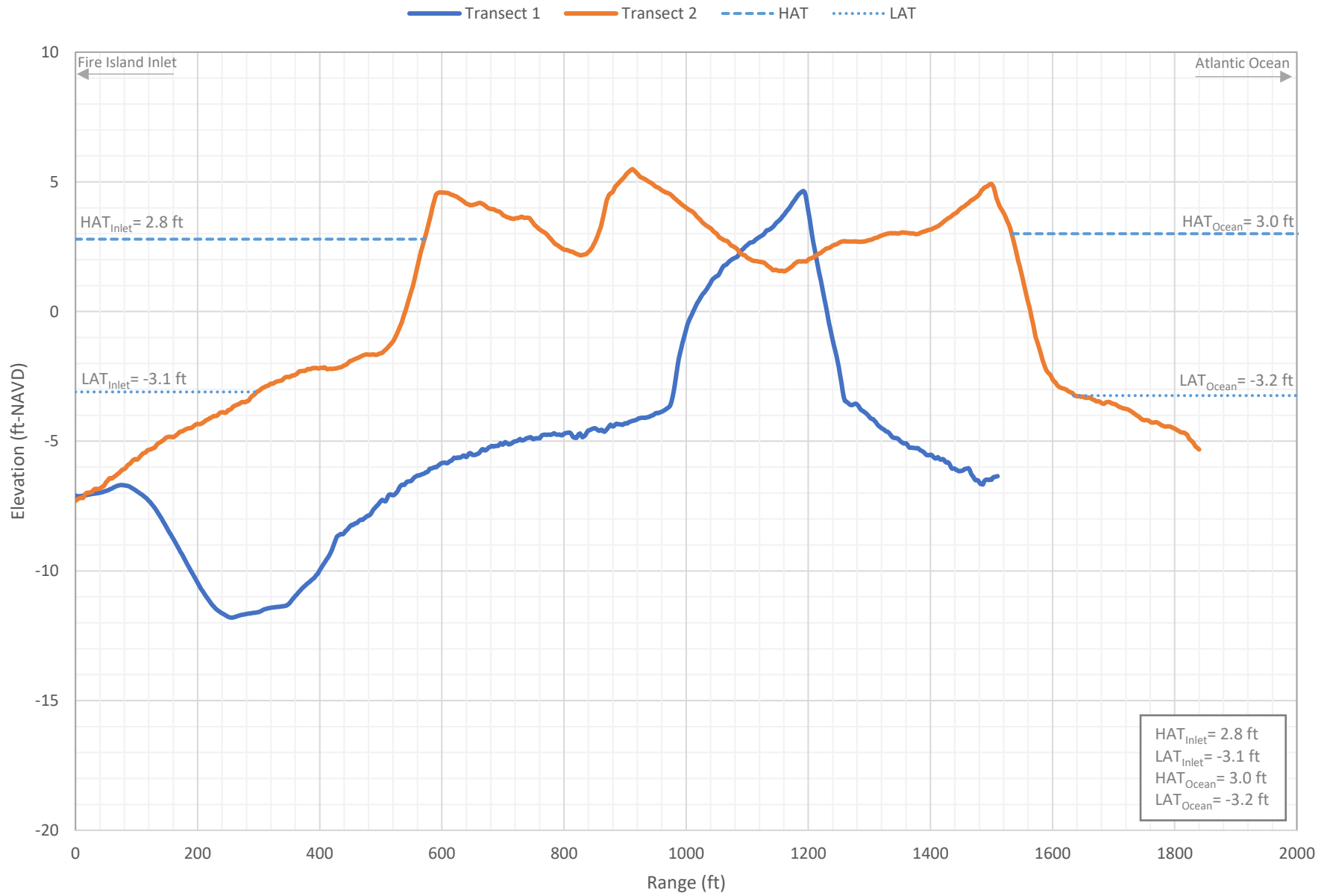




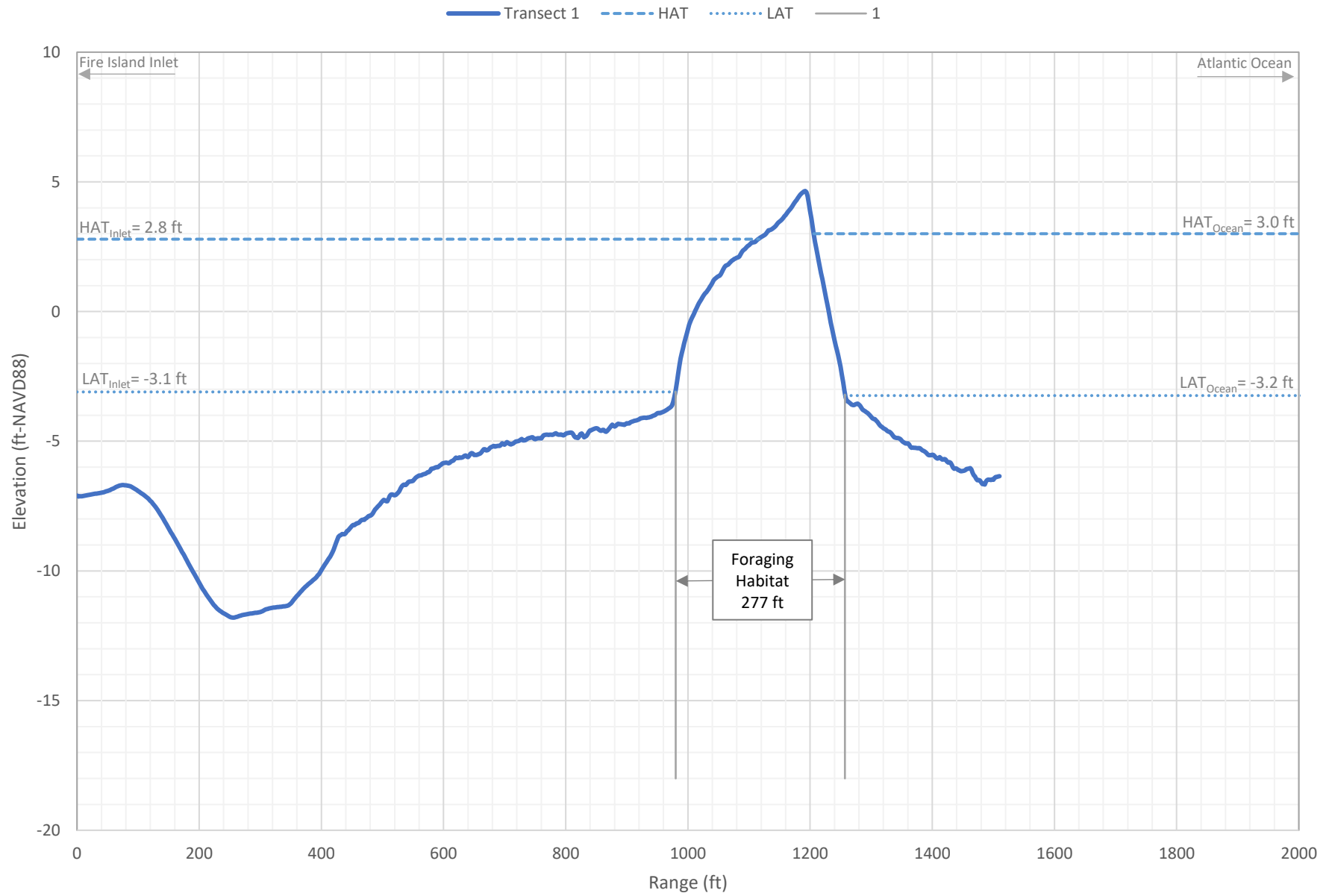




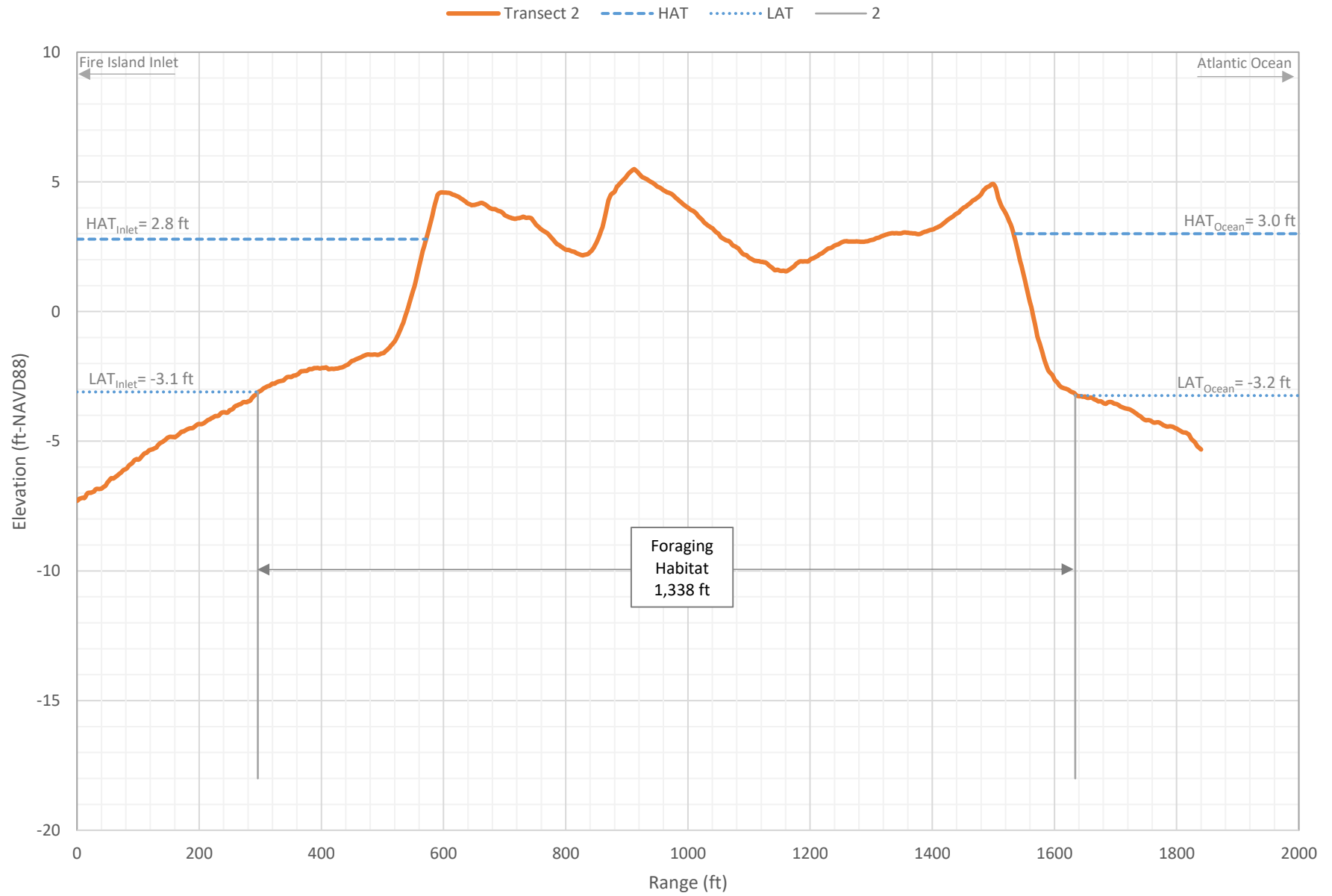
Democrat Point West



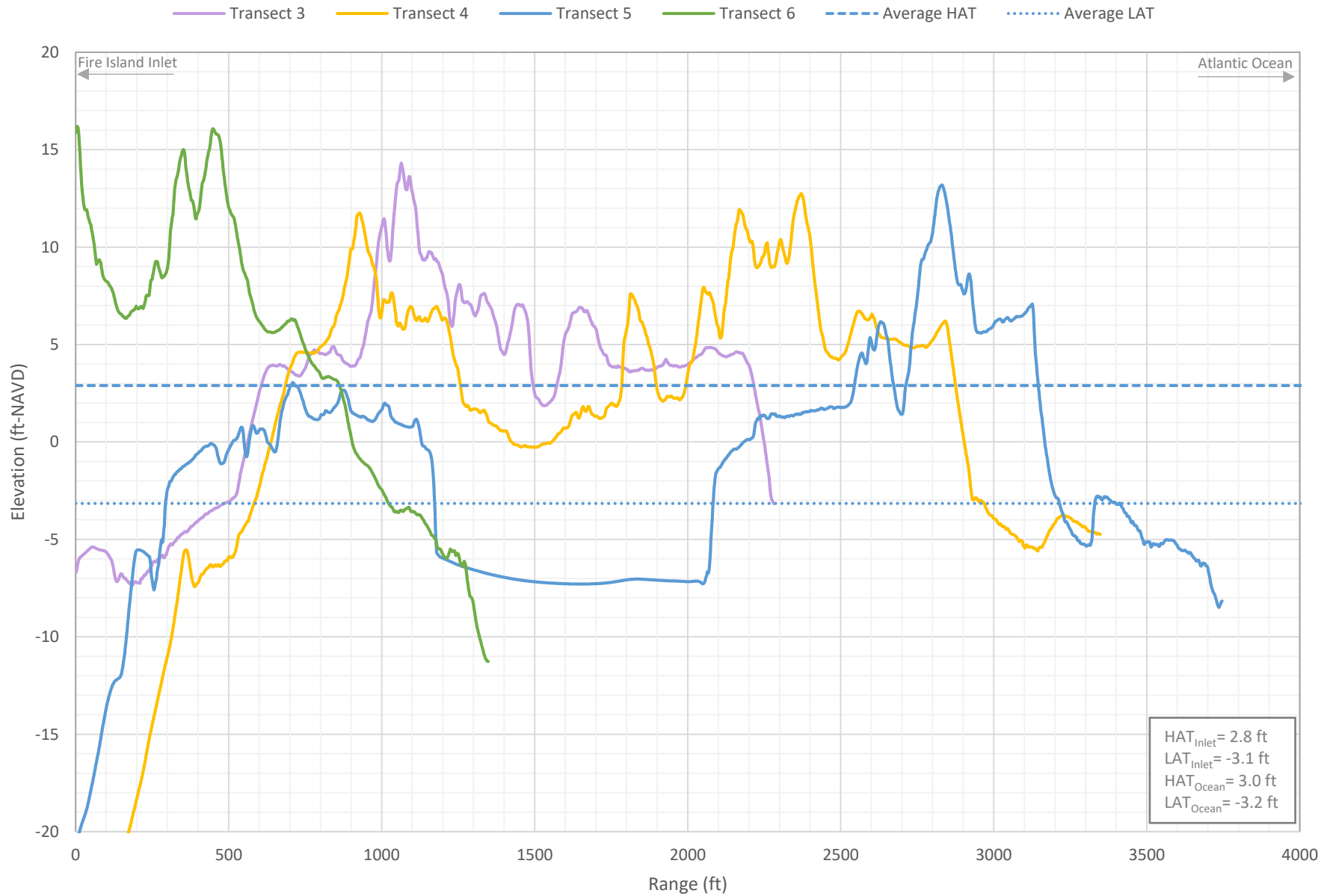
Democrat Point West Transect 1



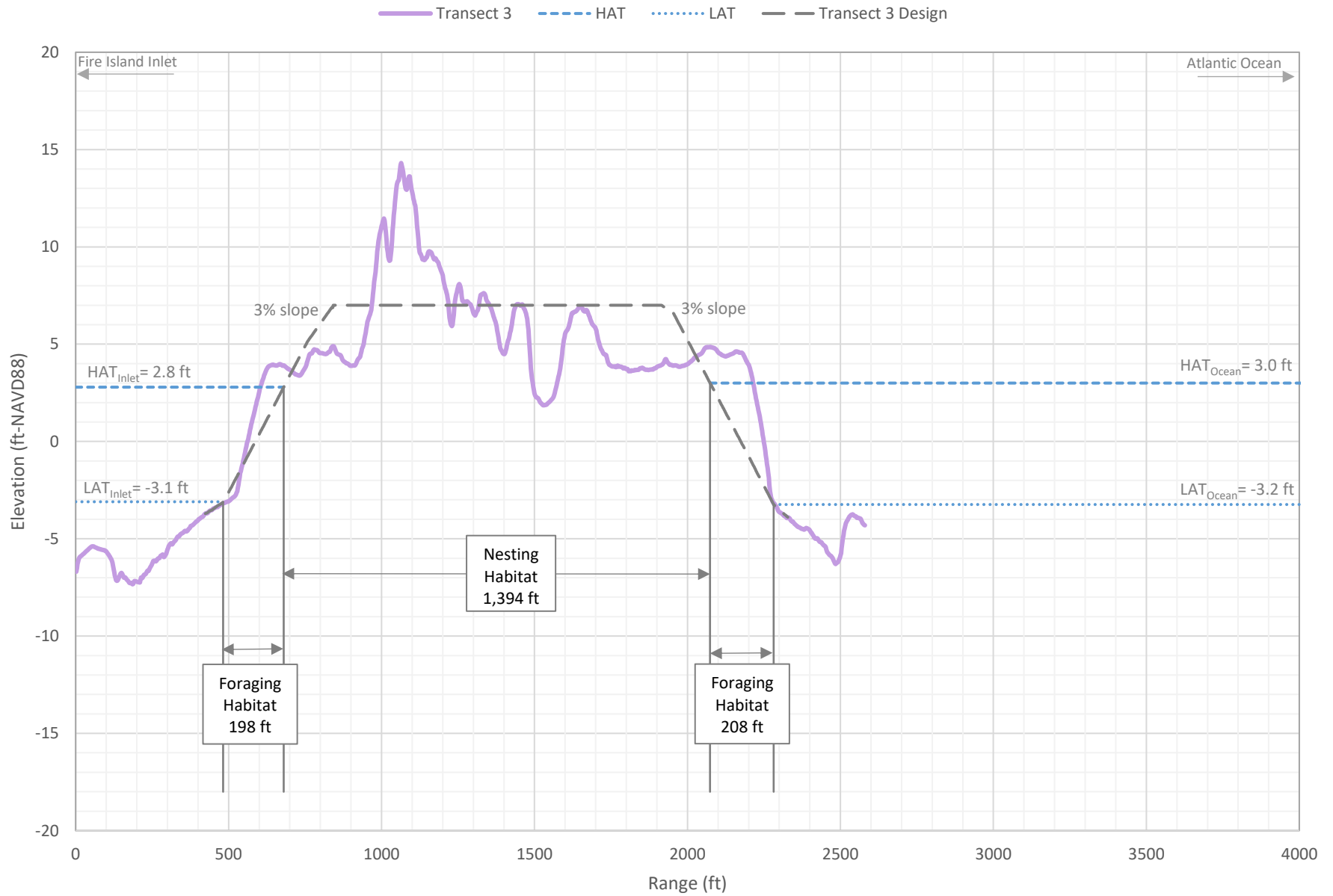
Democrat Point West Transect 2



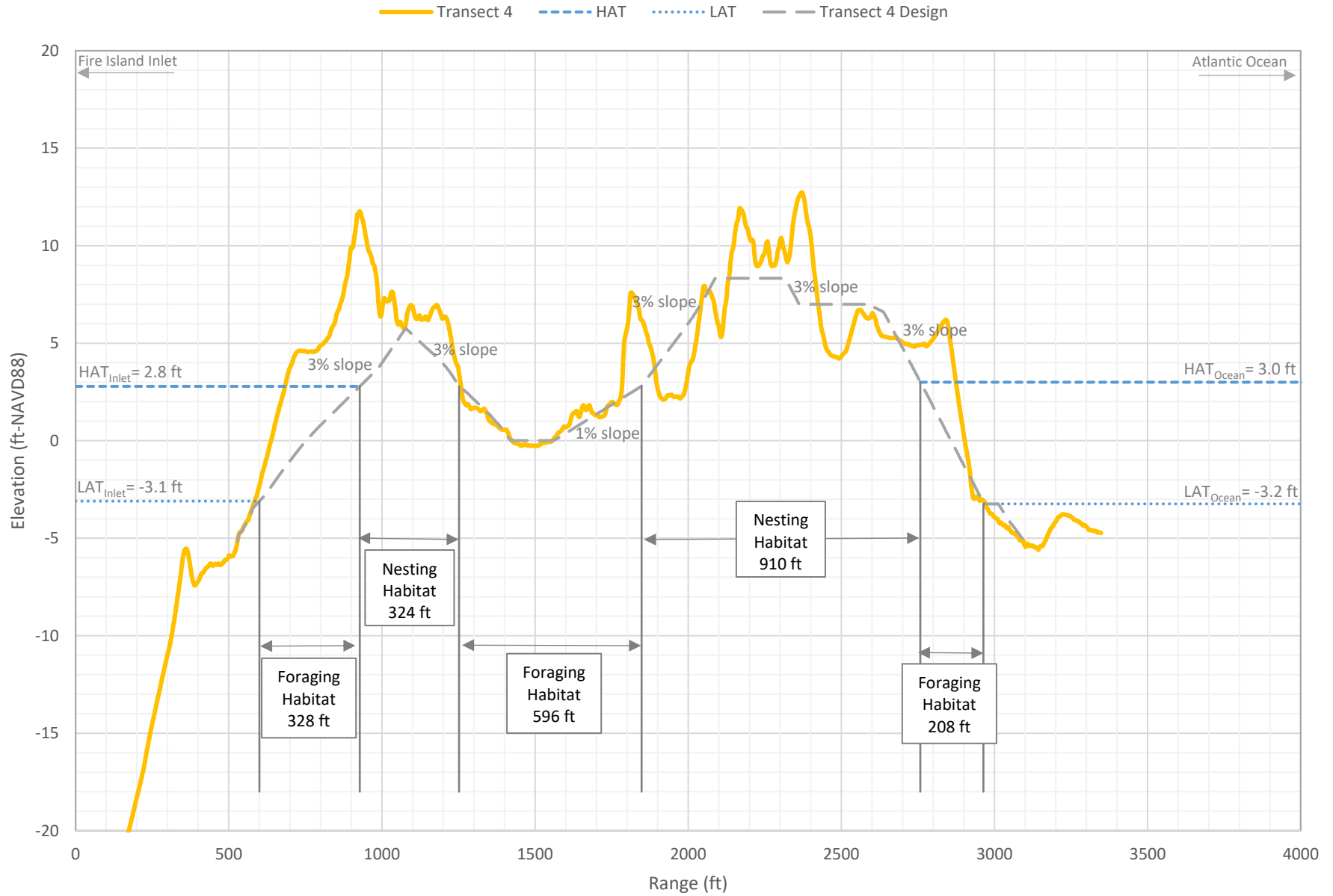
Democrat Point West Existing Conditions



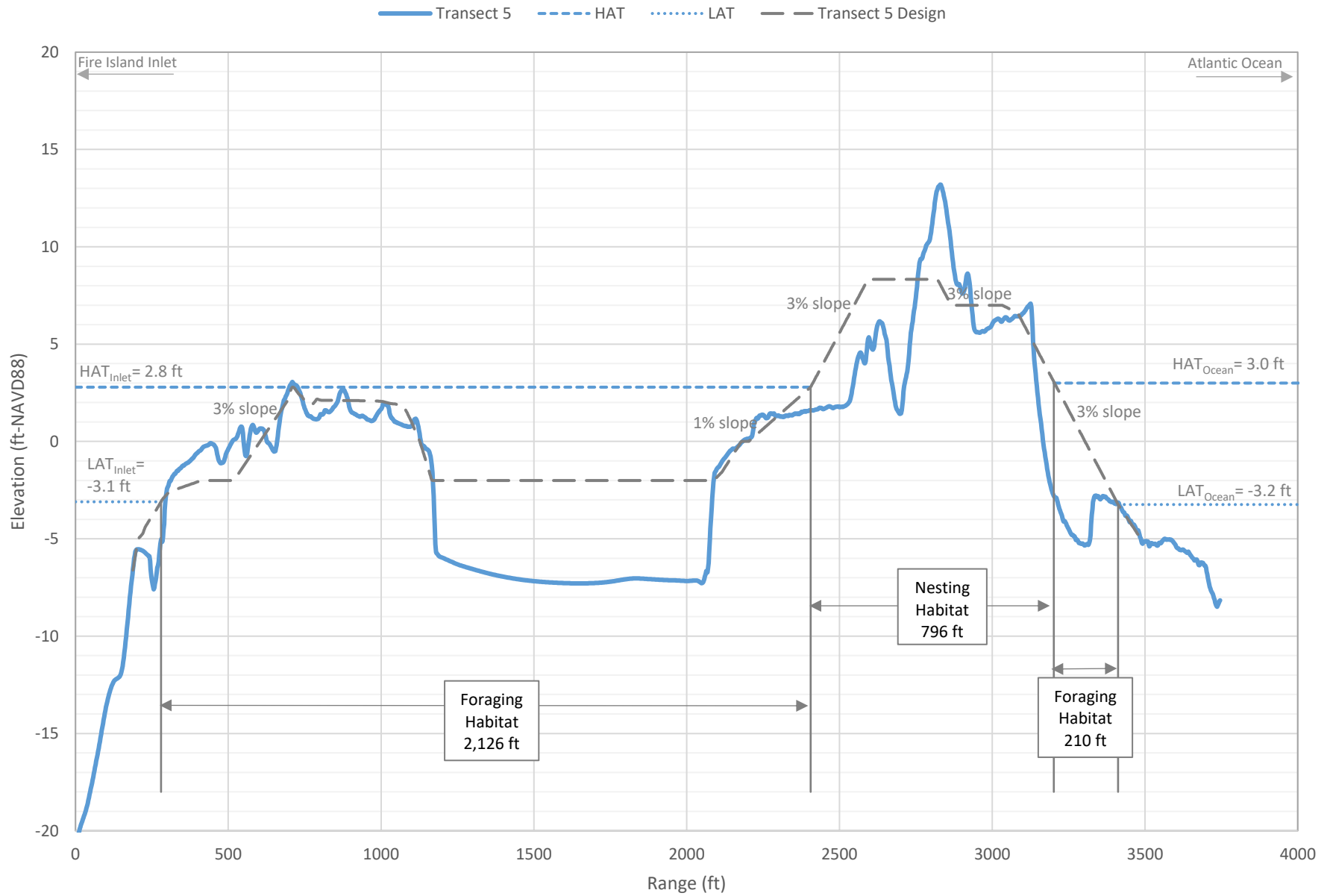
Democrat Point West Transect 3



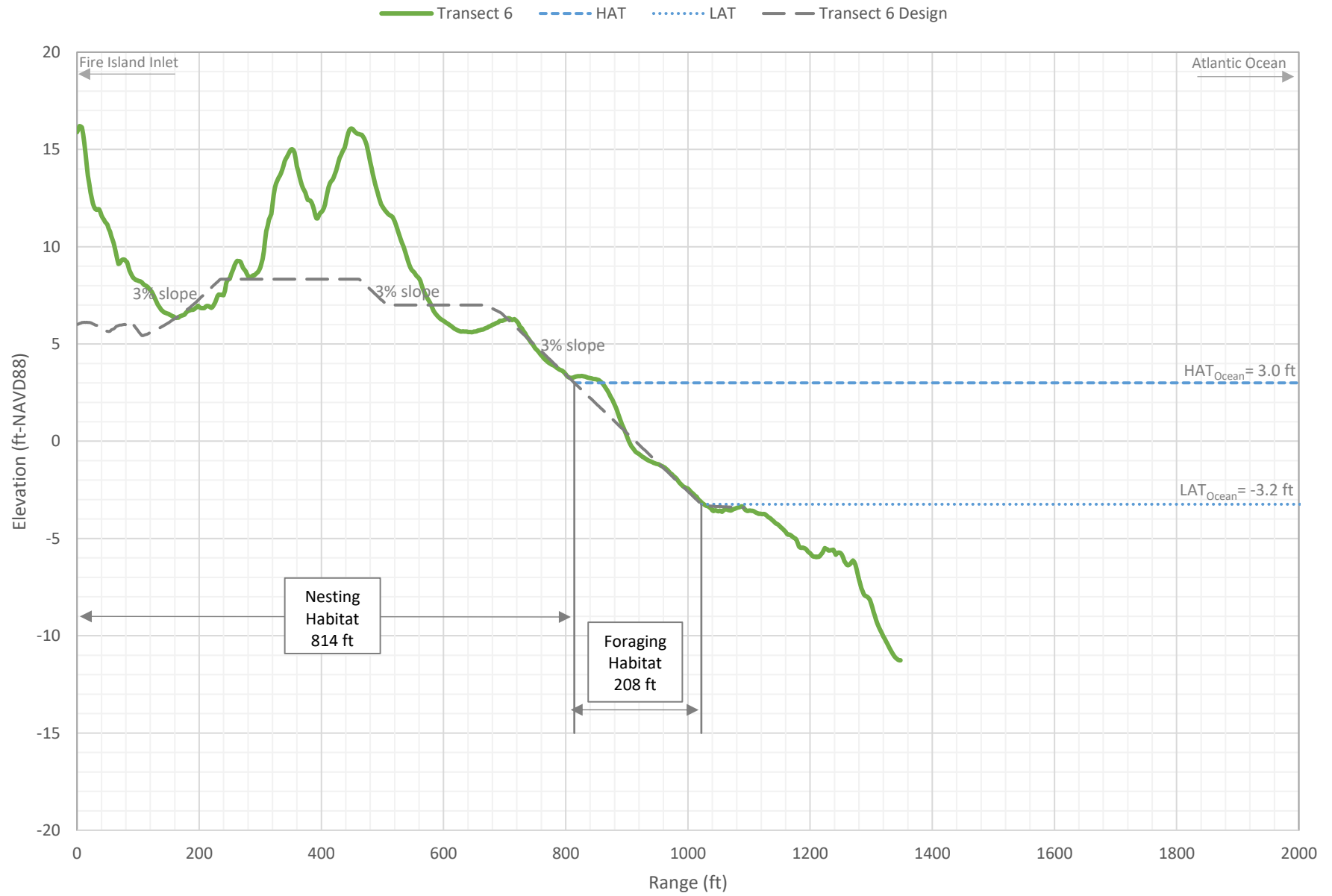
Democrat Point West Transect 4



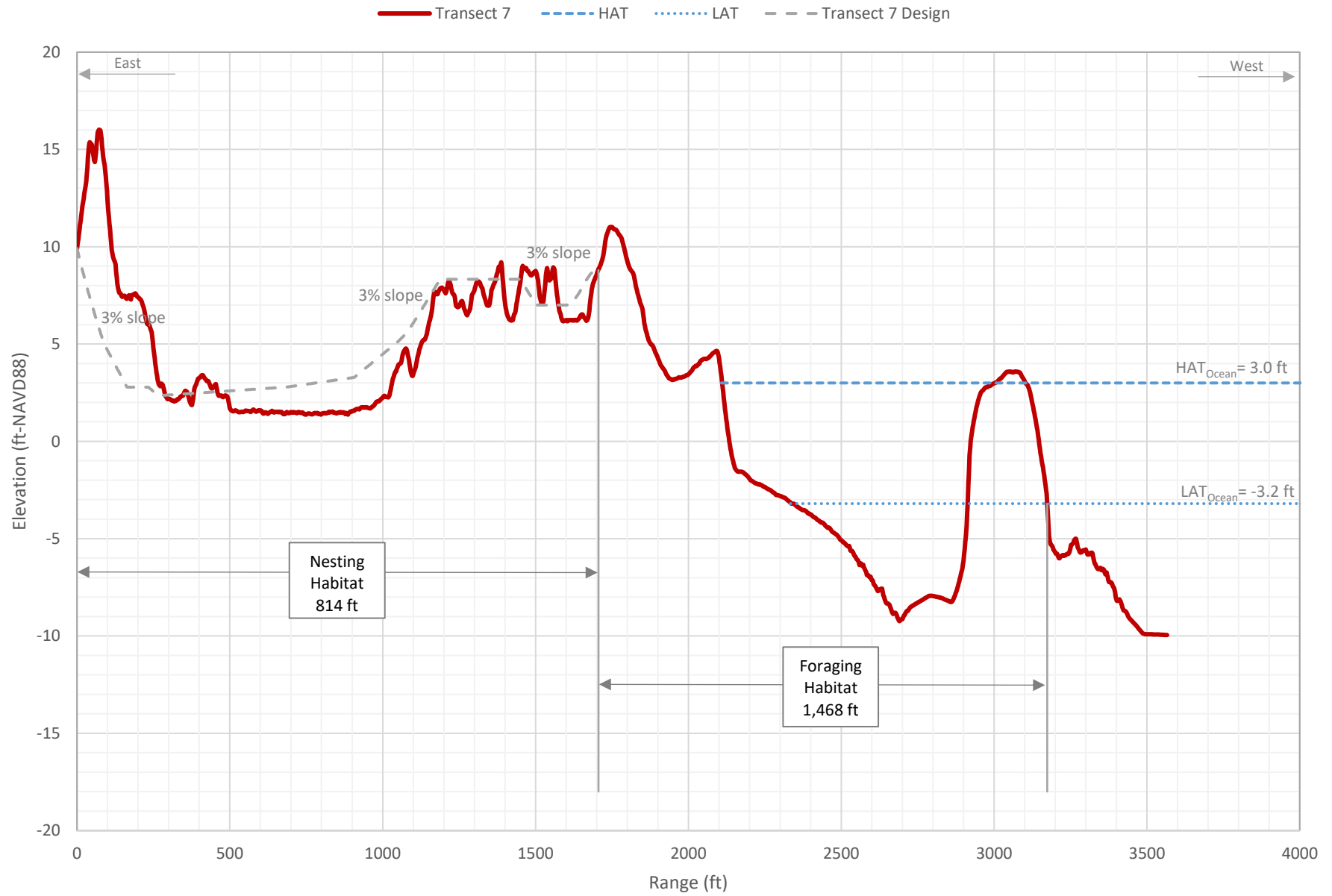
Democrat Point West Transect 5



Democrat Point West Transect 6




Democrat Point West Transect 7

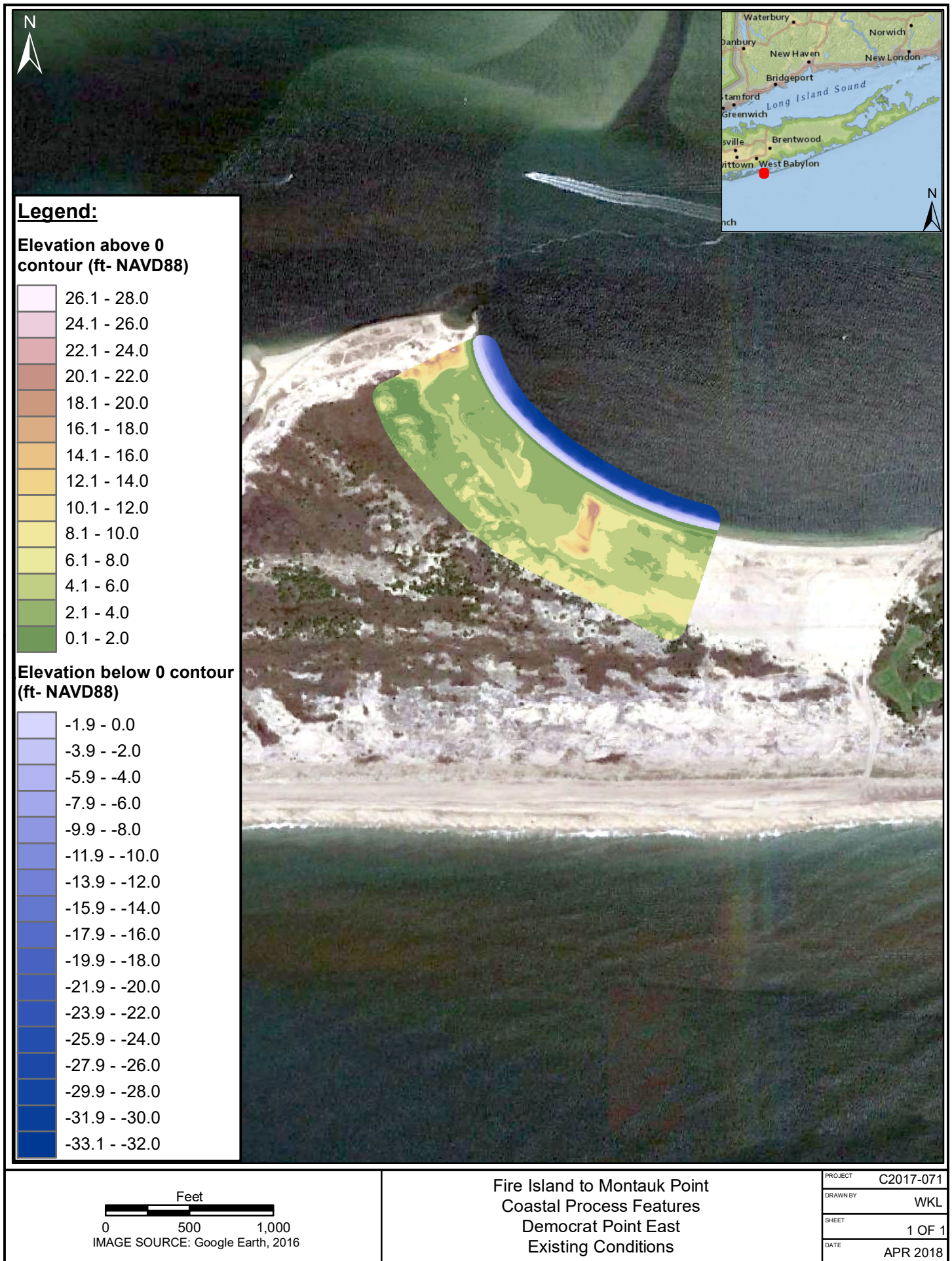


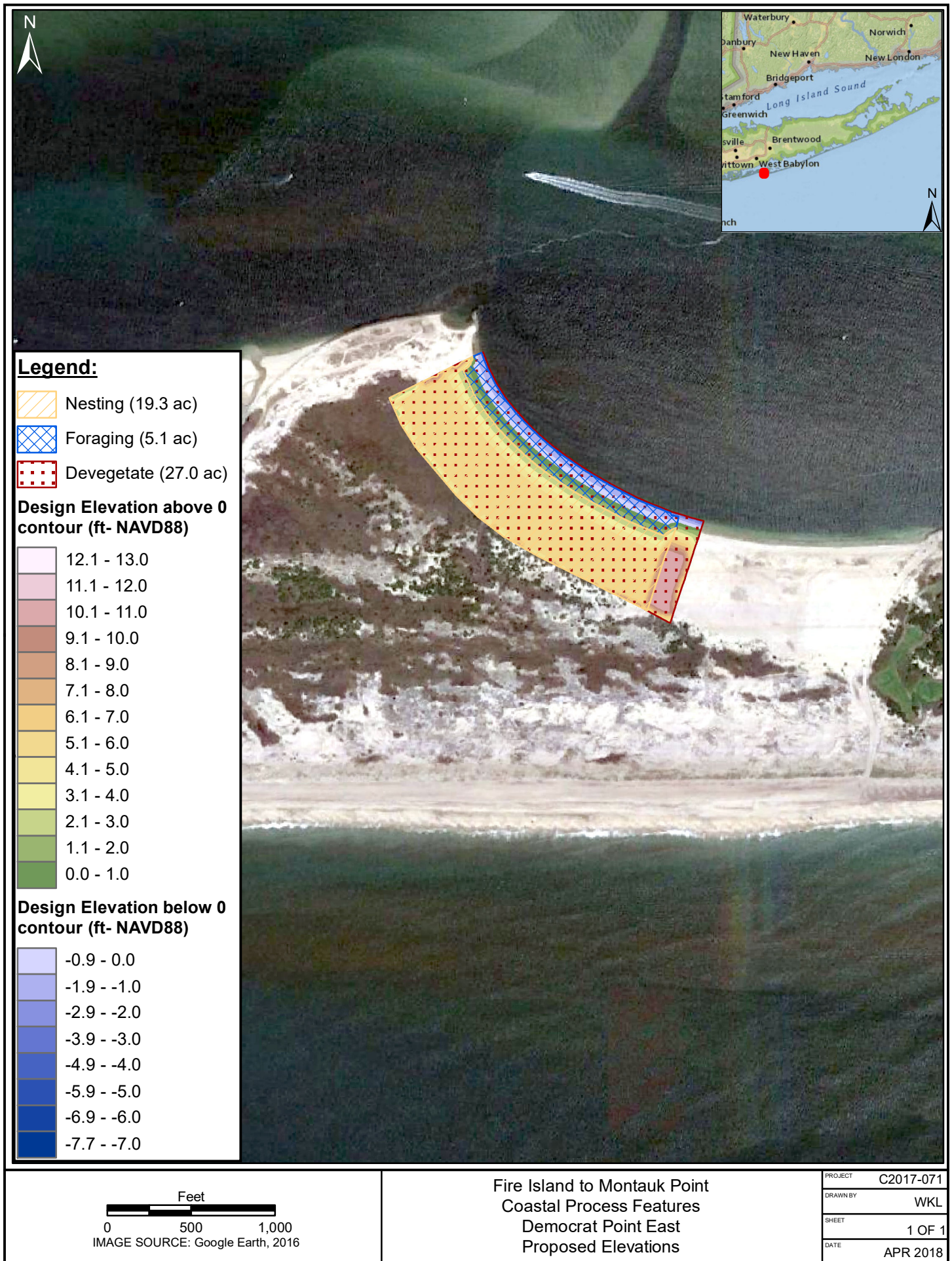
CPF Site 2 Democrat Point Bayside East of Jetty	East of Jetty-Reach GSB-1A
	40.626794° N / 73.293164° W
<p>CPF SITE GOALS</p> <ul style="list-style-type: none"> • Earthwork to meet target elevations and slopes for ESA credit • Shift existing sand stockpile to form barrier between recreational use (east) and ESA areas (west) • Conserve sand volume on site by adding any surplus to stockpile and/or back areas • Devegetate area to meet ESA goals <p>Democrat Point (East of Jetty) is located on the western end of Fire Island within Robert Moses State Park. Democrat Point (East of Jetty) lies just east of the Fire Island Inlet with Oak Beach to the north and west. Democrat Point (East of Jetty) is a sandy bayside beach, where sand was previously stockpiled after dredging projects in the vicinity. The project area contains coastal dunes with sporadic vegetation.</p> <p>Foraging habitat is defined as the intertidal area that is intermittently submerged and exposed during tidal induced water surface fluctuations. As a proxy for the local spring tide range, the following discussion applies NOAA's reported Lowest Astronomical Tide (LAT) as the lower bound and Highest Astronomical Tide (HAT) as the upper bound for foraging habitat.</p> <p>Nesting habitat is located immediately upland of foraging habitat and extends from the HAT elevation to +5 ft-NAVD88 at Democrat Point (East of Jetty) as depicted in the Proposed Elevation figure.</p> <p>To create early successional habitat that provides nesting and foraging for shorebirds, plans call for regrading and devegetating approximately 27.0 acres (ac). This includes 5.1 ac of foraging habitat and 19.3 ac of nesting habitat. The regrading template includes a 2% slope on the north bank to allow for viable shorebird habitat. Foraging habitat encompasses the area between the LAT and the HAT, while nesting habitat extends from the HAT to a constructed elevation of +5 ft-NAVD88.</p> <p>Sand placement at the CPF sites will be performed in coordination with renourishment cycles of the beachfill features and subject to monitoring to ensure resolution of project objectives. The USACE will not implement vegetation management or manipulation of the sites unless conducted as an incidental action associated with future placement. The USACE recommends the local land management agency consider predator management in newly created CPF's. In addition, the USACE anticipates the park's ORV policy will be implemented during nesting season.</p>	

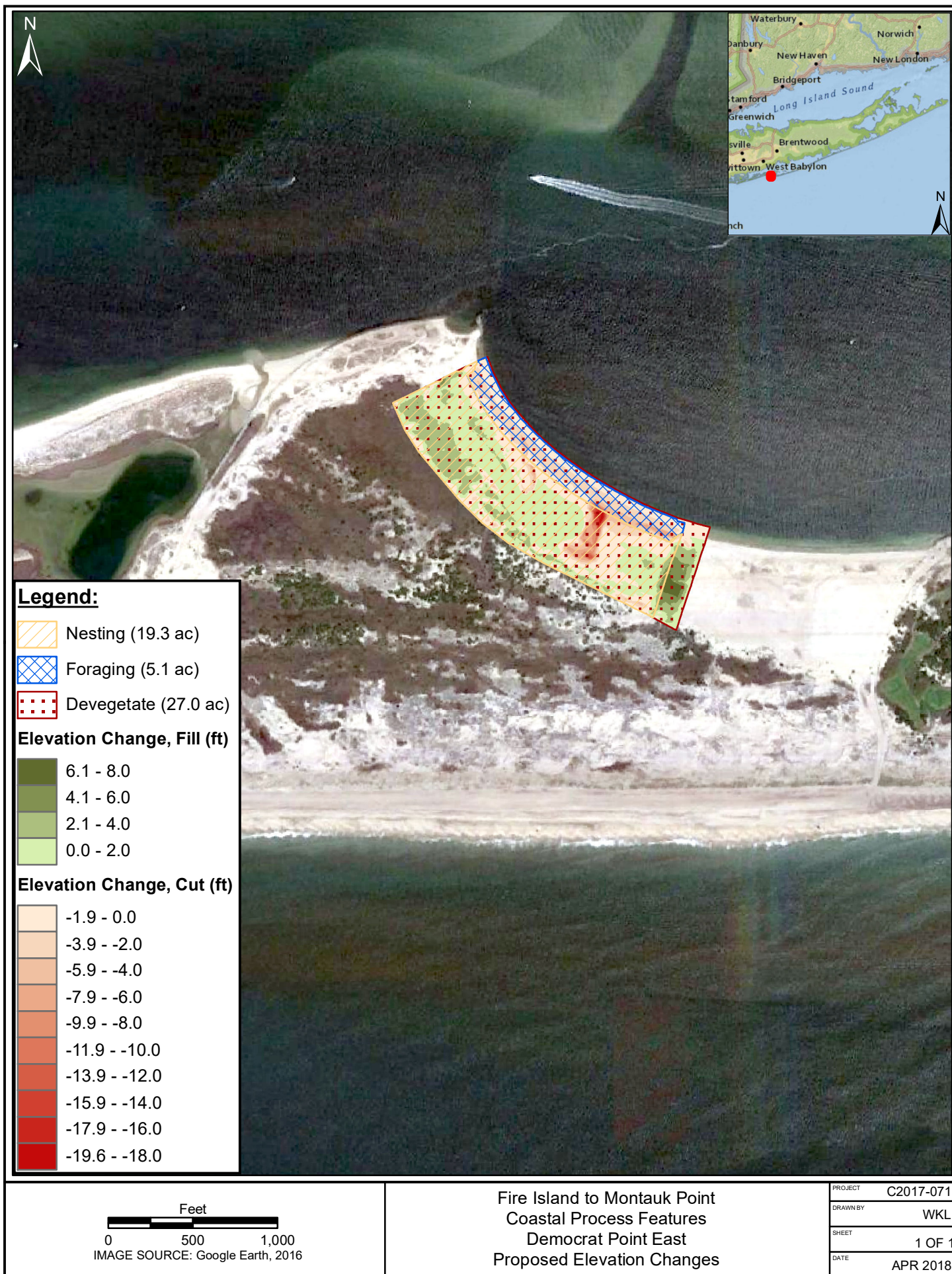
CPF Site 2 Democrat Point Bayside East of Jetty		East of Jetty-Reach GSB-1A	
		40.626794° N / 73.293164° W	
CPF PARAMETERS			
Feature		ESA	
Cut Volume (cy)		-42,997	
Fill Volume (cy)		40,428	
Net Volume (cy)		-2,569	
Acreage		27.0	
(Nesting\Foraging\Devegetation)		(19.3\5.1\27.0)	
Activity		Regrade / Devegetate	
DATA SOURCES			
Topographic		USGS, 2016	
Bathymetric		USGS, 2016	
Aerial Imagery		Google Earth, 2016	
Vegetation		NPS, 2010	
REAL ESTATE INFORMATION			
Property Owner		New York State Fire Island State Park	
Municipality		Islip	
County		Suffolk	
CBRA		NY-59, System Unit	



BAYSIDE TIDAL ENVIRONMENT (ft-NAVD88)					
Closest Tidal Benchmark	Fire Island, NY		Highest Astronomical Tide (HAT)		2.01
			Mean Higher High Water (MHHW)		1.54
Coordinates	40.626667° N 73.260000° W		Mean High Water (MHW)		1.30
			Mean Sea Level (MSL)		-0.14
0 ft-NAVD = 1.16 ft-NGVD			Mean Tide Level (MTL)		-0.15
Range (MHW-MLW)		2.89	Mean Low Water (MLW)		-1.59
Diurnal Range (MHHW - MLLW)		3.26	Mean Lower Low Water (MLLW)		-1.72
Largest Tidal Range (HAT-LAT)		4.21	Lowest Astronomical Tide (LAT)		-2.20
BAYSIDE WAVE ENVIRONMENT					
Return Period	Fetch (ft)	Wave Height (ft)	Wind Setup (ft)	Wave Setup (ft)	HAT + Setup + Wave Height (ft-NAVD88)
1-year	9,404	2.2	0.06	1.08	5.35
5-year	9,404	2.9	0.11	1.33	6.35
10-year	9,404	3.2	0.13	1.44	6.78

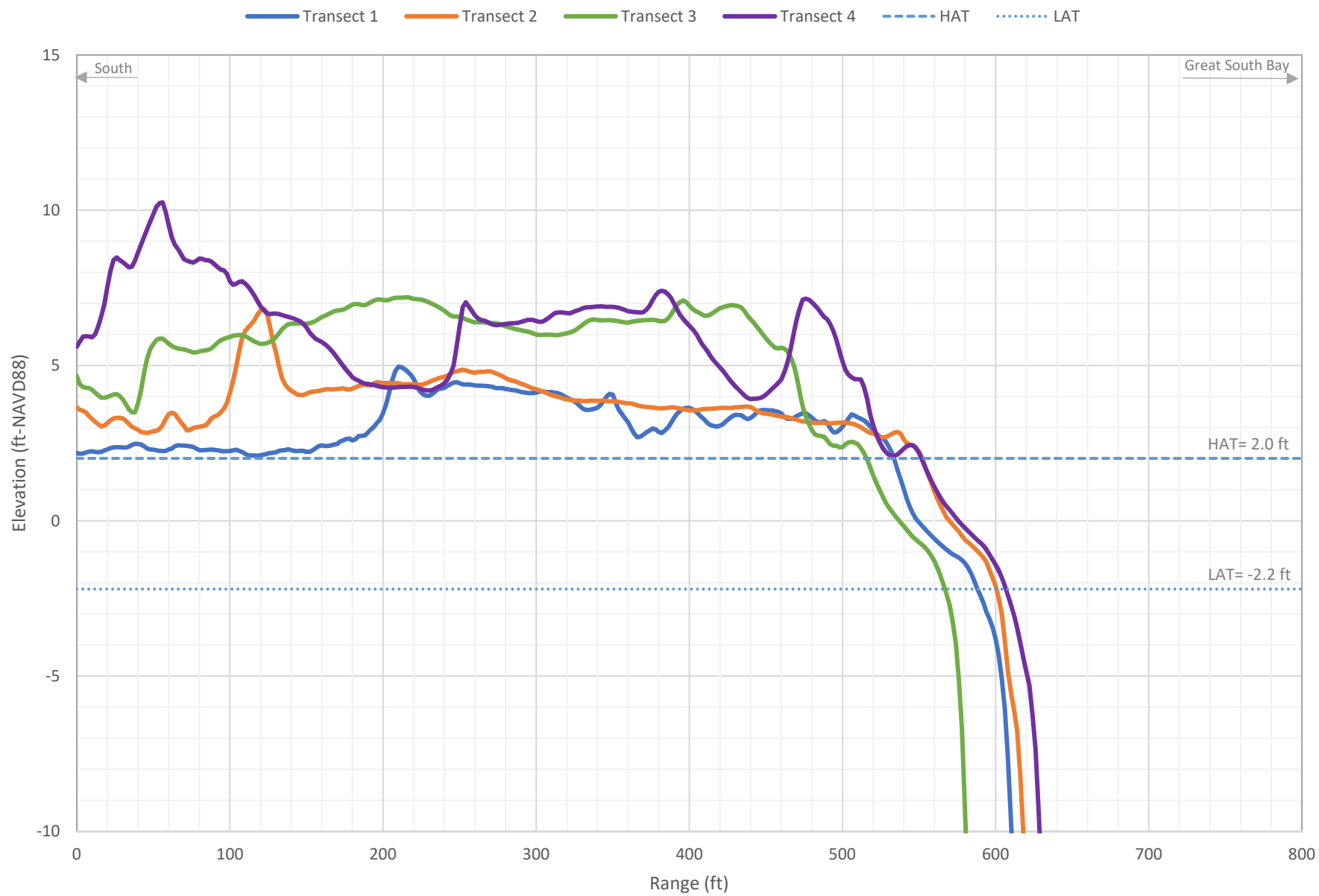




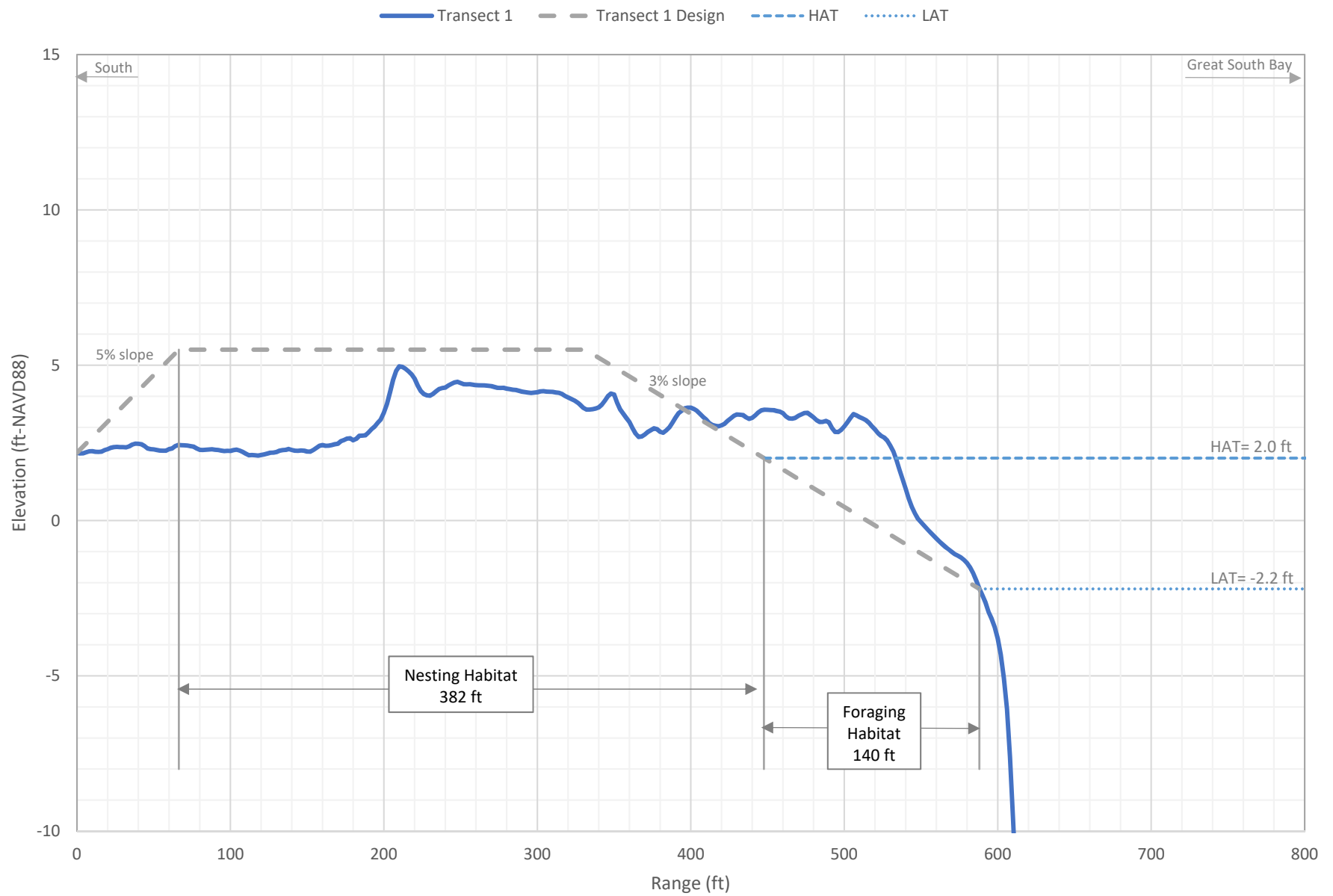




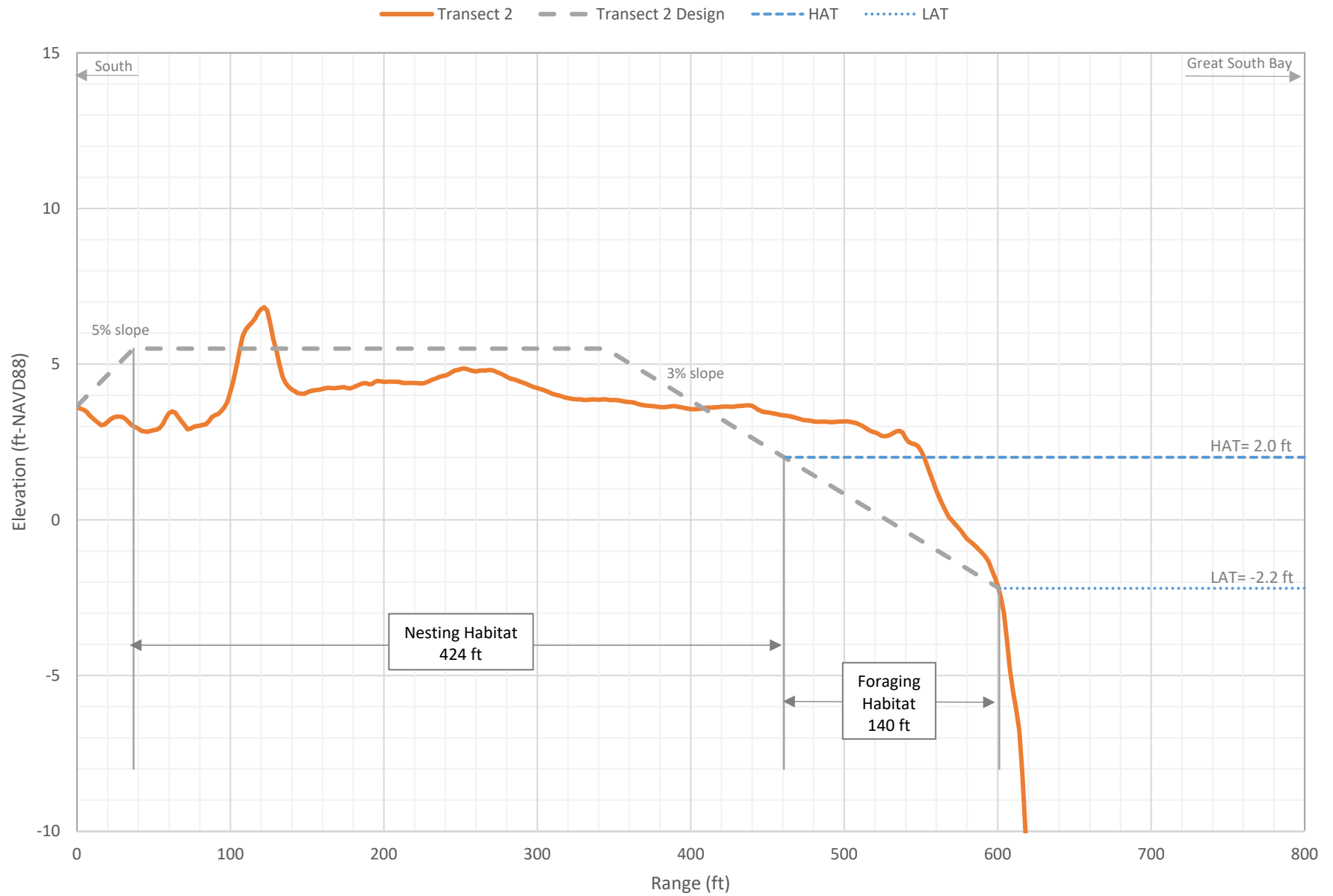
Democrat Point East Existing Conditions



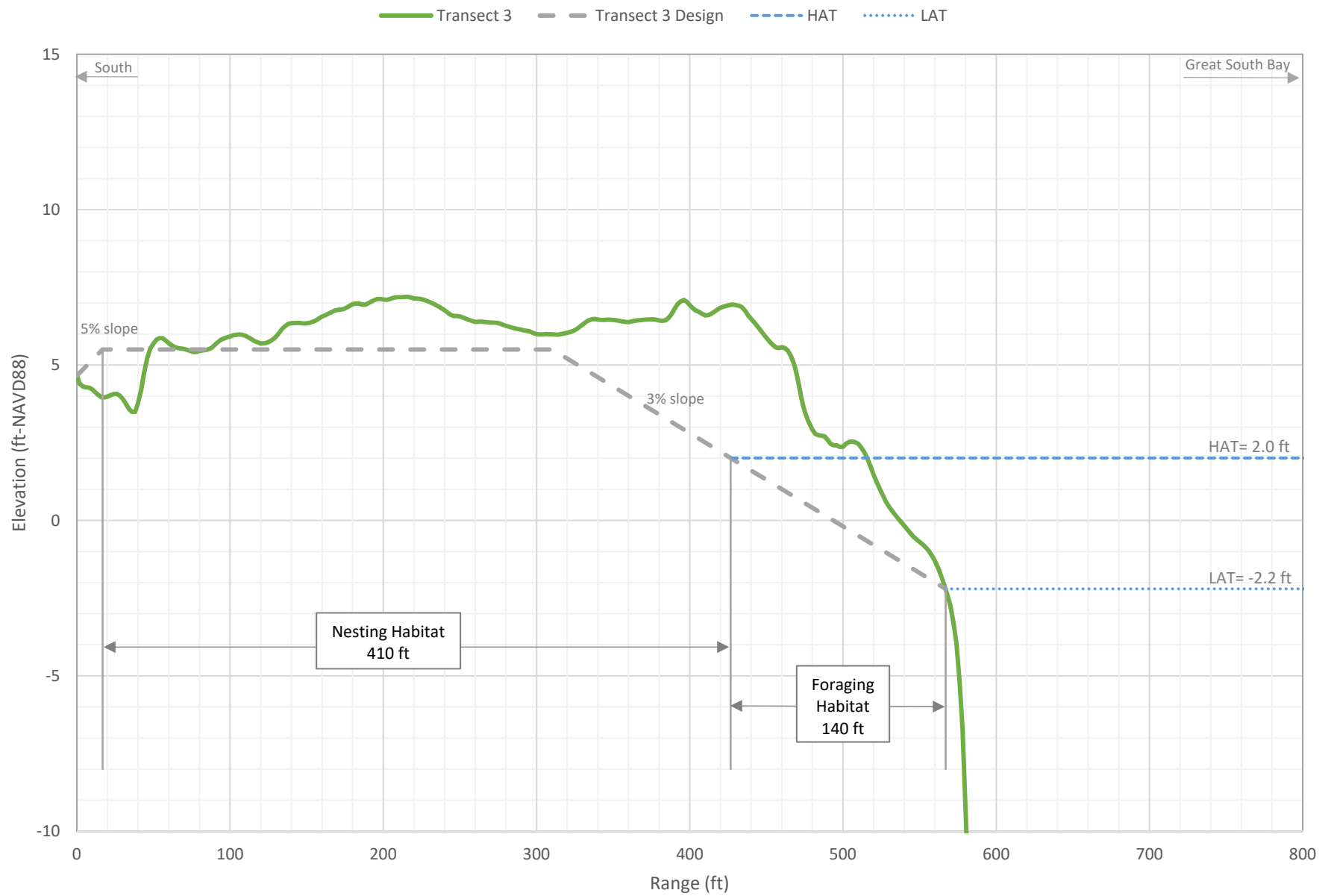
Democrat Point East Transect 1



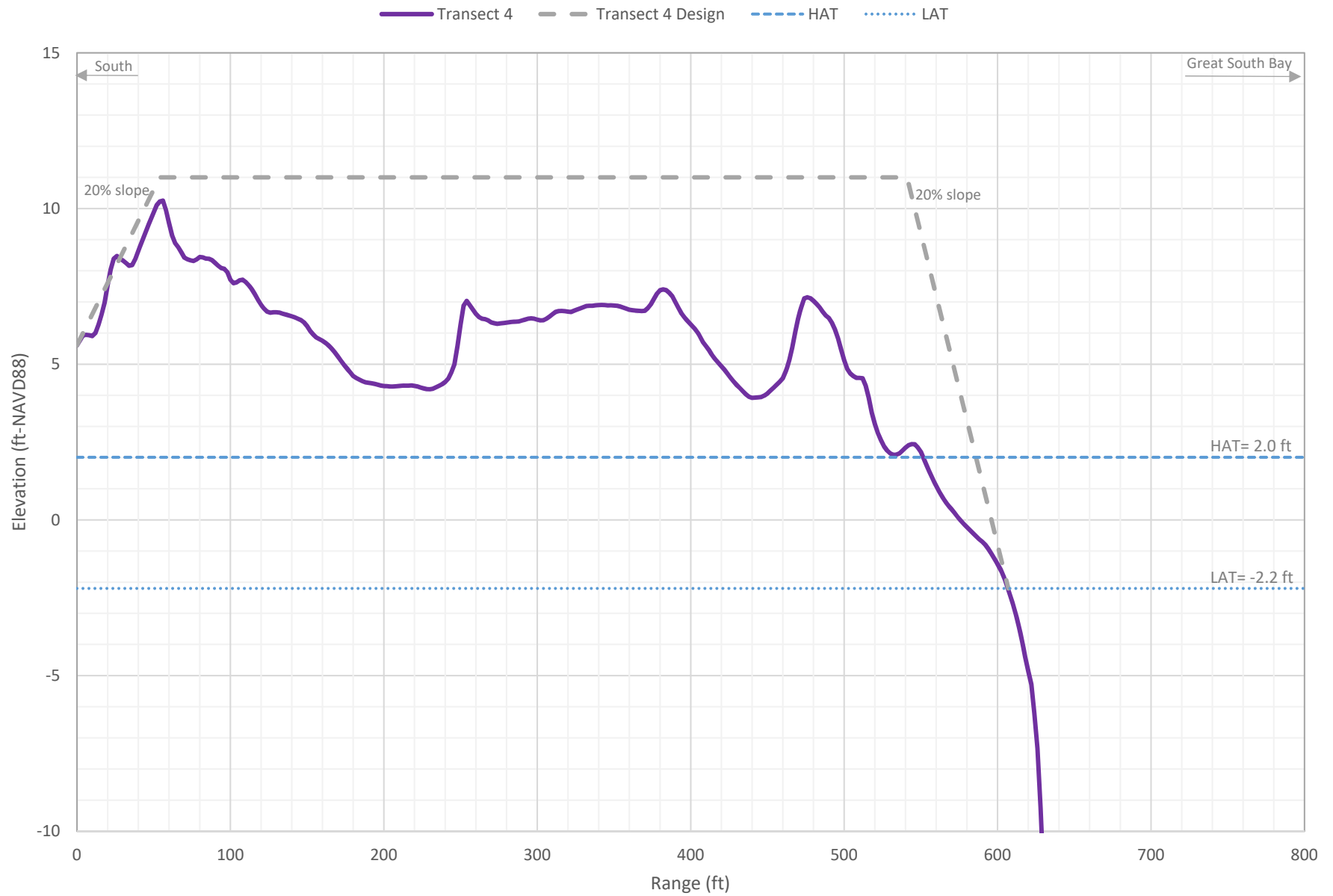
Democrat Point East Transect 2



Democrat Point East Transect 3



Democrat Point East Transect 4

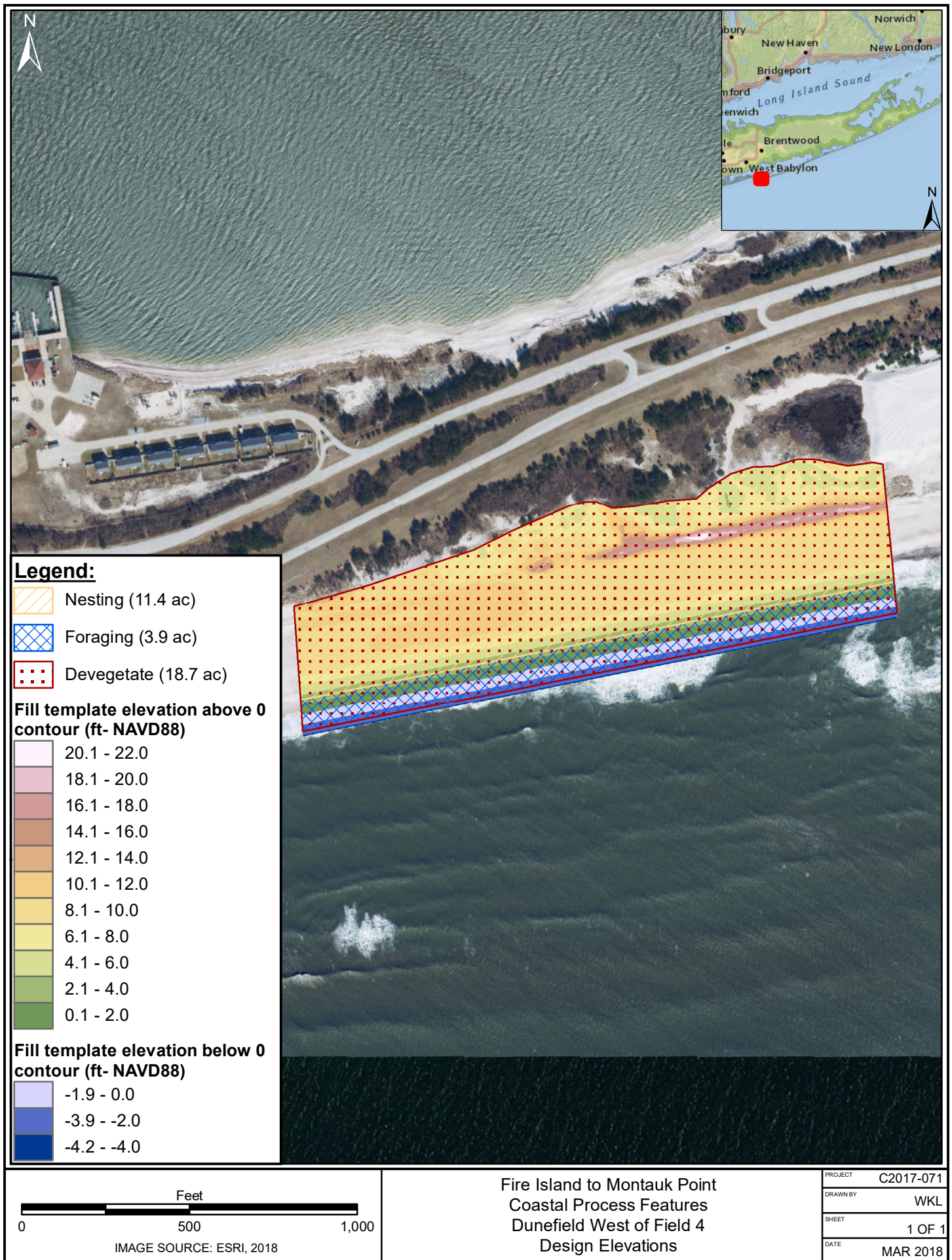


CPF Site 3 Dunefield West of Field 4	Reach GSB-1A
	40.622158° N / 73.252615° W
<p>CPF SITE GOALS</p> <ul style="list-style-type: none"> • Devegetate area to meet ESA goals • Maintain vegetation buffer on north side between road and site to discourage offroad parking <p>Dunefield West of Field 4 is located on the western end of Fire Island, southeast of the Robert Moses Causeway, within Robert Moses State Park on the oceanside. Dune Field West of Field 4 contains dunes with areas of heavy vegetation. This CPF design seeks to devegetate uplands to provide ESA bird habitat (foraging and nesting).</p> <p>To create early successional habitat that provides nesting and foraging for shorebirds, plans call for removing vegetation from approximately 18.7 acres (ac). Beachfront topography will approximate the anticipated FIMP beach fill template between stations 139+00 and 160+00. A high elevation dune exists on the eastern side of the project area behind the FIMP beach fill template. No regrading of the site beyond the FIMP beach fill plan is anticipated.</p> <p>Foraging habitat is defined as the intertidal area that is intermittently submerged and exposed during tide-induced water surface fluctuations. As a proxy for the local spring tide range, the following discussion applies NOAA's reported Lowest Astronomical Tide (LAT) as the lower bound and Highest Astronomical Tide (HAT) as the upper bound for foraging habitat.</p> <p>Nesting habitat is located immediately upland of foraging habitat and extends from the HAT elevation to +10 ft-NAVD88 at Dune Field West of Field 4 as depicted in the Proposed Devegetation figure.</p> <p>To create early successional habitat that provides nesting and foraging for shorebirds, plans call for devegetating approximately 18.7 acres (ac). This results in 3.9 ac of foraging habitat and 11.4 ac of nesting habitat within the project site. Foraging habitat encompasses the area between the LAT and the HAT, while nesting habitat extends from the HAT to the +10 ft-NAVD88 elevation contour.</p> <p>Maintenance activities at the CPF sites will be performed in coordination with renourishment cycles of the beachfill features and are subject to monitoring to ensure resolution of project objectives. The USACE will not implement vegetation management or manipulation of the sites unless conducted as an incidental action associated with future placement. The USACE recommends the local land management agency consider predator management in newly established CPF's.</p>	

CPF Site 3 Dunefield West of Field 4		Reach GSB-1A
		40.622158° N / 73.252615° W
CPF PARAMETERS		
Feature	Total Project Area	
Cut Volume (cy)	n/a	
Fill Volume (cy)	n/a	
Net Volume (cy)	n/a	
Acreage	19.4	
(Nesting\Foraging\Devegetation)	(11.4\3.9\18.7)	
Activity	Devegetate	
DATA SOURCES		
Topographic	USGS, 2016	
Bathymetric	USGS, 2016	
Aerial Imagery	Google Earth, 2017	
Vegetation	NPS, 2010	
REAL ESTATE INFORMATION		
Property Owner	New York State Robert Moses State Park	
Municipality	Islip	
County	Suffolk	
CBRA	NY-59, System Unit	



OCEANSIDE TIDAL ENVIRONMENT (ft-NAVD88)					
Closest Tidal Benchmark	Fire Island, NY		Highest Astronomical Tide (HAT)		2.97
			Mean Higher High Water (MHHW)		2.03
Coordinates	40.626667° N 73.260000° W		Mean High Water (MHW)		1.72
			Mean Sea Level (MSL)		-0.22
0 ft-NAVD = 1.16 ft-NGVD			Mean Tide Level (MTL)		-0.25
Range (MHW-MLW)		3.93	Mean Low Water (MLW)		-2.21
Diurnal Range (MHHW - MLLW)		4.40	Mean Lower Low Water (MLLW)		-2.37
Largest Tidal Range (HAT-LAT)		6.22	Lowest Astronomical Tide (LAT)		-3.25
OCEANSIDE WAVE ENVIRONMENT					
Return Period	Deep Water Wave Height (ft)	Surf Zone Wave Height (ft)	Wind Setup (ft)	Wave Setup (ft)	HAT + Setup + Surf Zone Wave Height (ft)
1-year	14.2	6.8	1.00	0.92	11.71
5-year	19.4	7.1	1.83	2.01	13.93
10-year	21.7	7.2	2.32	2.48	14.99



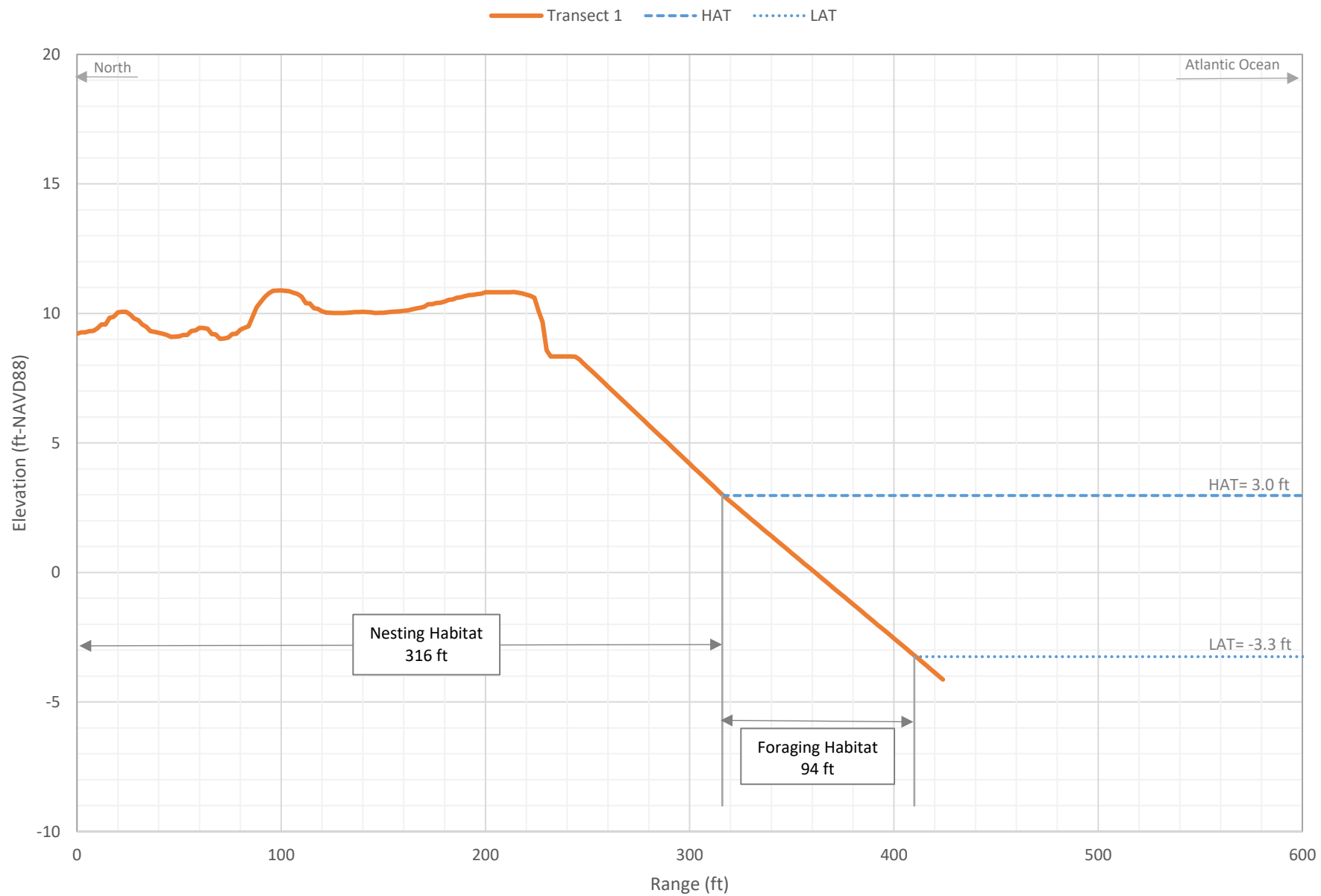




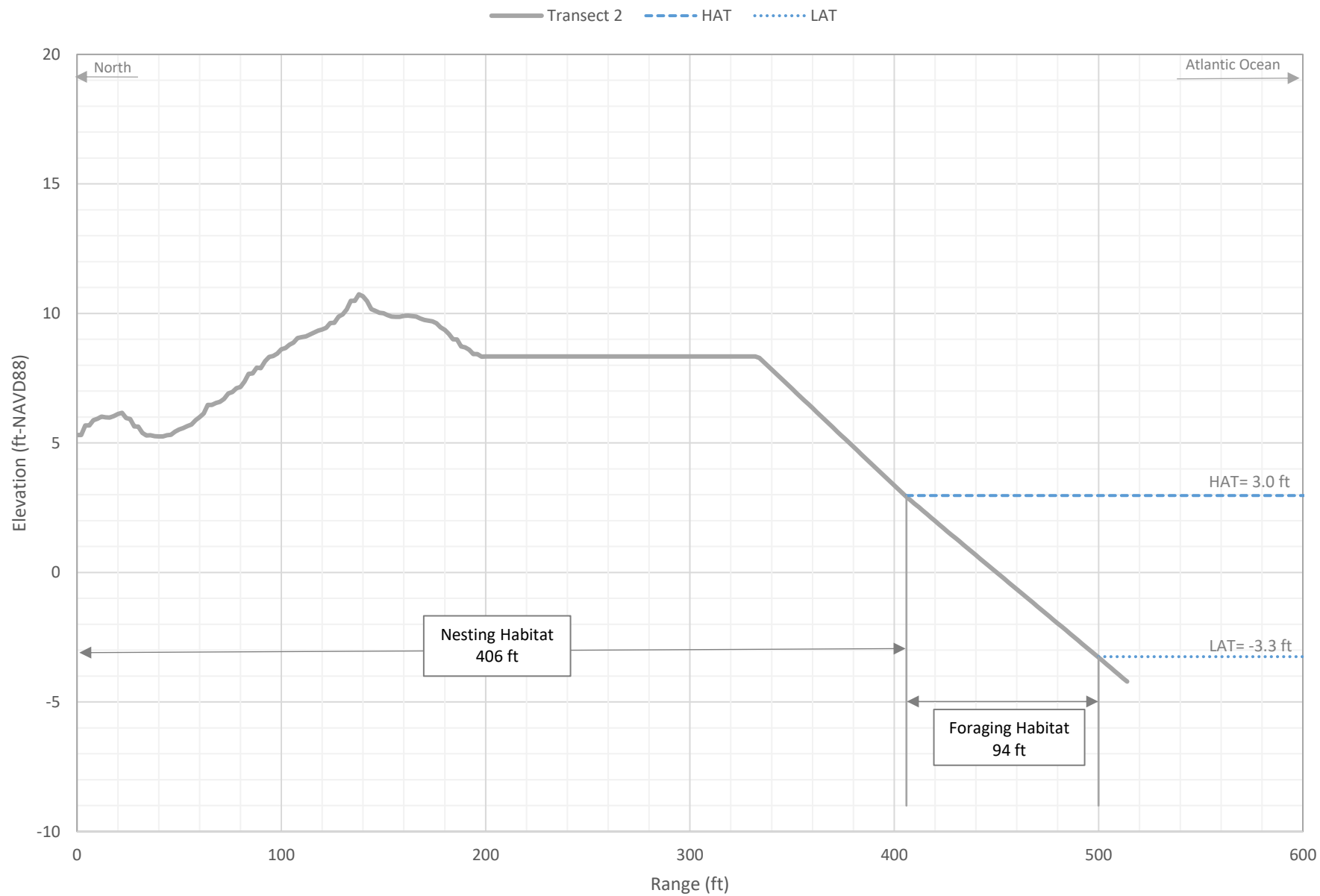
Dunefield West of Field 4 Existing Conditions



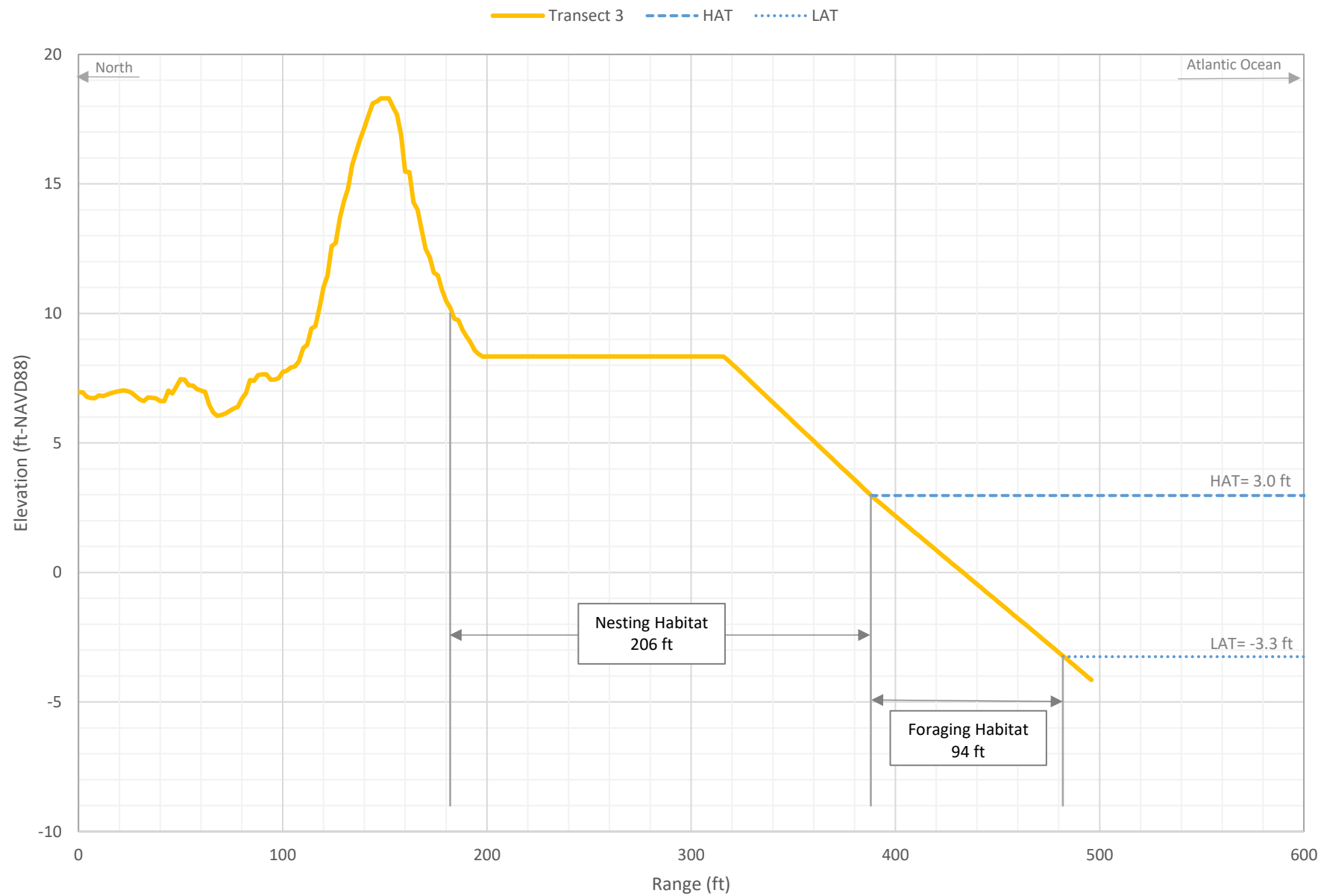
Dunefield West of Field 4 Transect 1



Dunefield West of Field 4 Transect 2




Dunefield West of Field 4 Transect 3



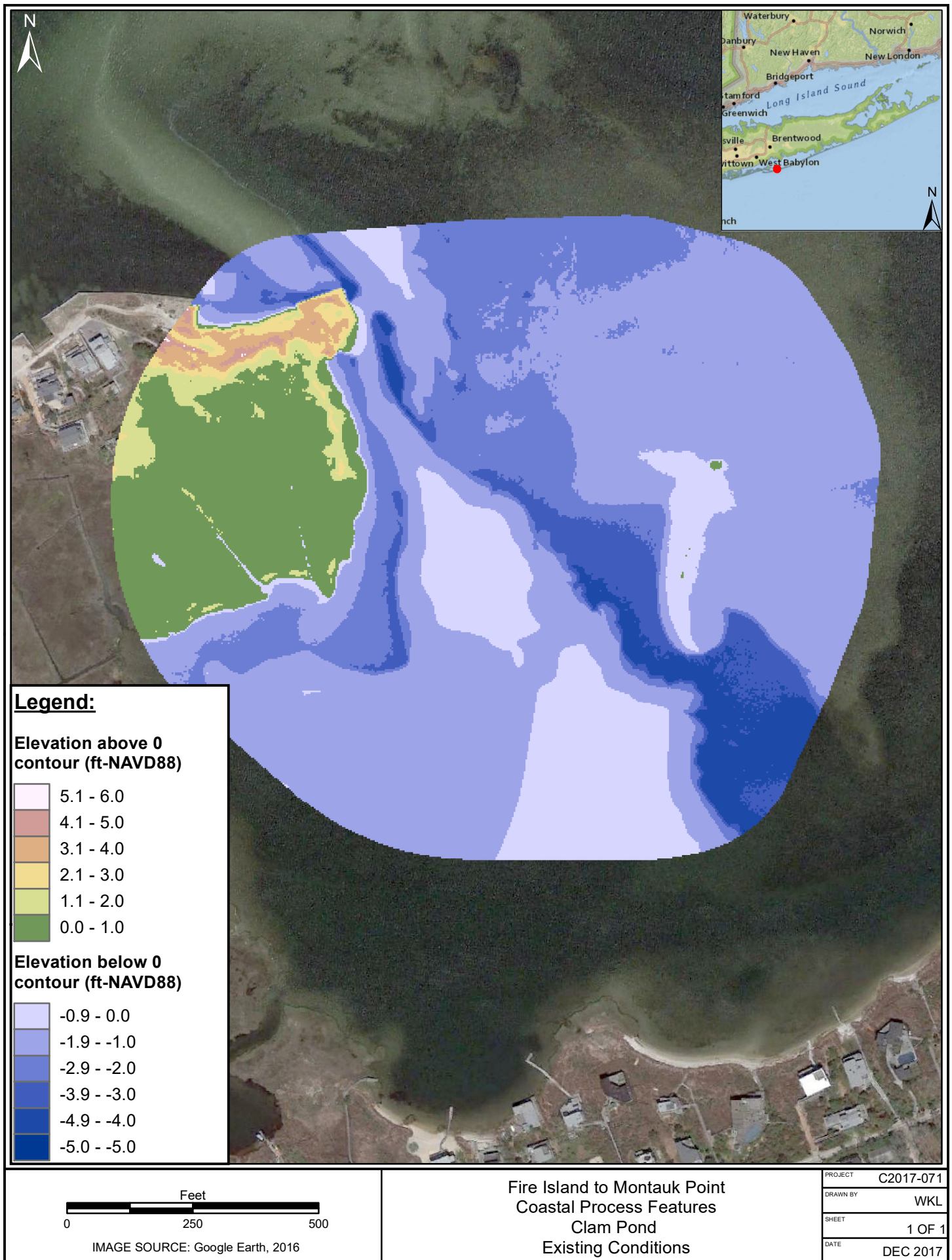
CPF Site 4 Clam Pond	Clam Pond-Reach GSB-2B
	40.642437° N / 73.191492° W
<p>CPF SITE GOALS</p> <ul style="list-style-type: none"> • Earthwork to meet target elevations and slopes for ESA credit • Fill placement to simulate cross island transport for CSRM credit • Possible living shoreline on north side per adaptive management plan <p>Clam Pond is located on the western portion of Fire Island between Saltaire and Fair Harbor. Clam Pond lies south of the West and East Fire Islands. The Clam Pond area is shallow with an average depth of approximately 1 ft with a maximum of about 5 ft. Historically a sand spit existed at this location. This CPF design seeks to add fill to provide ESA bird habitat (foraging and nesting) as well as provide CSRM benefits by simulating cross island transport.</p> <p>Foraging habitat is defined as the intertidal area that is intermittently submerged and exposed during tidal induced water surface fluctuations. As a proxy for the local spring tide range, the following discussion applies NOAA's reported Lowest Astronomical Tide (LAT) as the lower bound and Highest Astronomical Tide (HAT) as the upper bound for foraging habitat.</p> <p>Nesting habitat is located immediately upland of foraging habitat and extends from the HAT elevation to +5 ft-NAVD88 at Clam Pond.</p> <p>To create early successional habitat that provides nesting and foraging for shorebirds, plans call for fill placement and grading over a project area of approximately 15.3 acres (ac). The project area includes 4.4 ac of proposed newly created nesting habitat and 8.2 ac of proposed foraging habitat. The foraging habitat consists of both newly created and existing habitat between the HAT and LAT elevations. On the north side of the project, fill will slope from the +5 ft-NAVD88 contour to the intersection with existing grade. A living shoreline will be placed on the north side of the project site to help retain fill. On the south side, fill will slope at 3% between +5 ft-NAVD88 and the HAT elevation, then at 1% to the intersection with existing grade.</p> <p>Sand placement at the CPF sites will be performed in coordination with renourishment cycles of the beachfill features and subject to monitoring to ensure resolution of project objectives. The USACE will not implement vegetation management or manipulation of the sites unless conducted as an incidental action associated with future placement. The USACE recommends the local land management agency consider predator management.</p>	

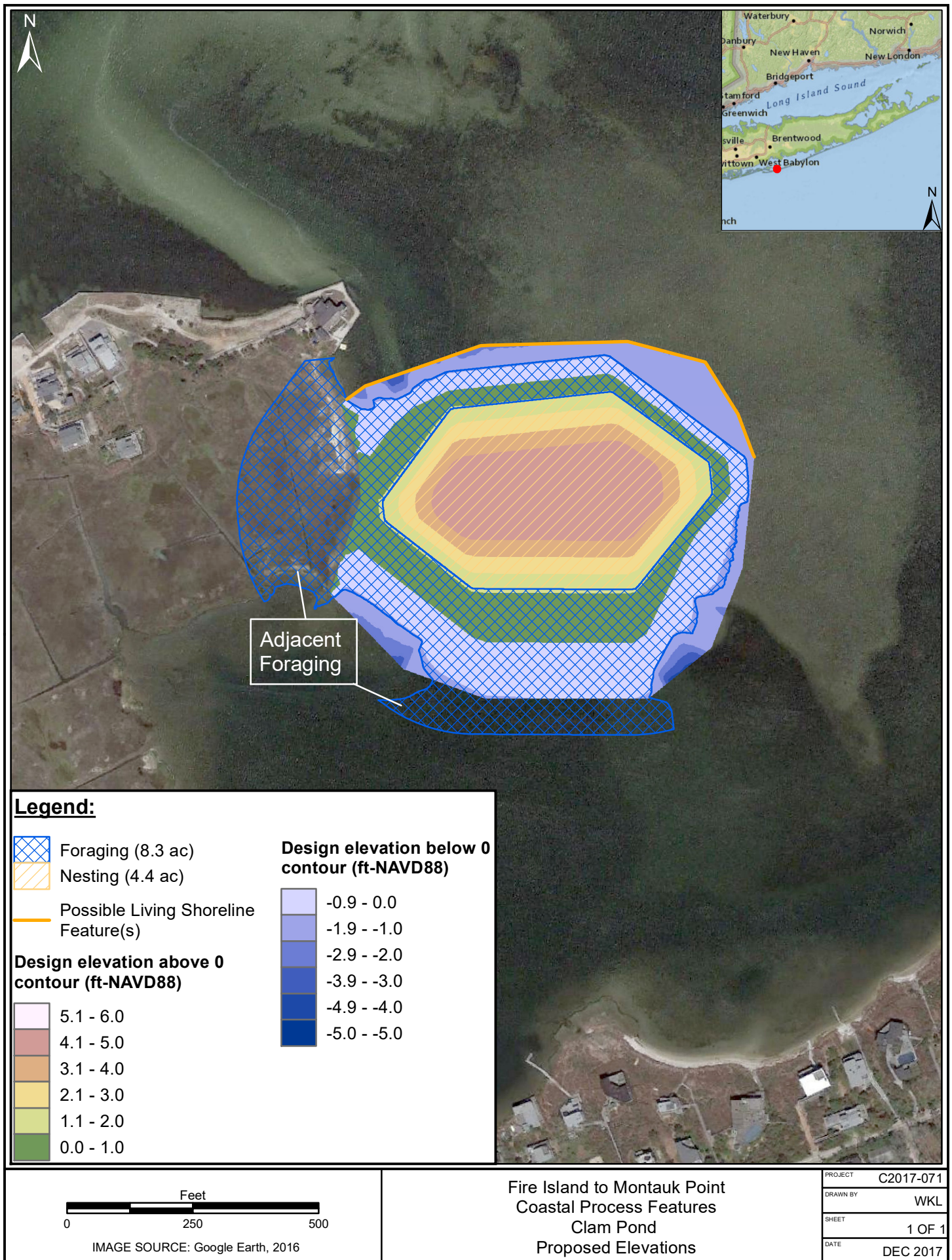
CPF Site 4 Clam Pond		Clam Pond-Reach GSB-2B
		40.642437° N / 73.191492° W
CPF PARAMETERS		
Feature	ESA/CSRM	
Cut Volume (cy)	0	
Fill Volume (cy)	51,312	
Net Volume (cy)	51,212	
Acreage	12.6	
Activity	Regrade	
DATA SOURCES		
Topographic	USGS, 2016	
Bathymetric	USGS, 2016	
Aerial Imagery	Google Earth, 2016	
Vegetation	N/A*	
REAL ESTATE INFORMATION		
Property Owner	U.S. Fire Island National Village of Saltaire	
Municipality	Islip	
County	Suffolk	
CBRA	NY-59P, Otherwise Protected Area	

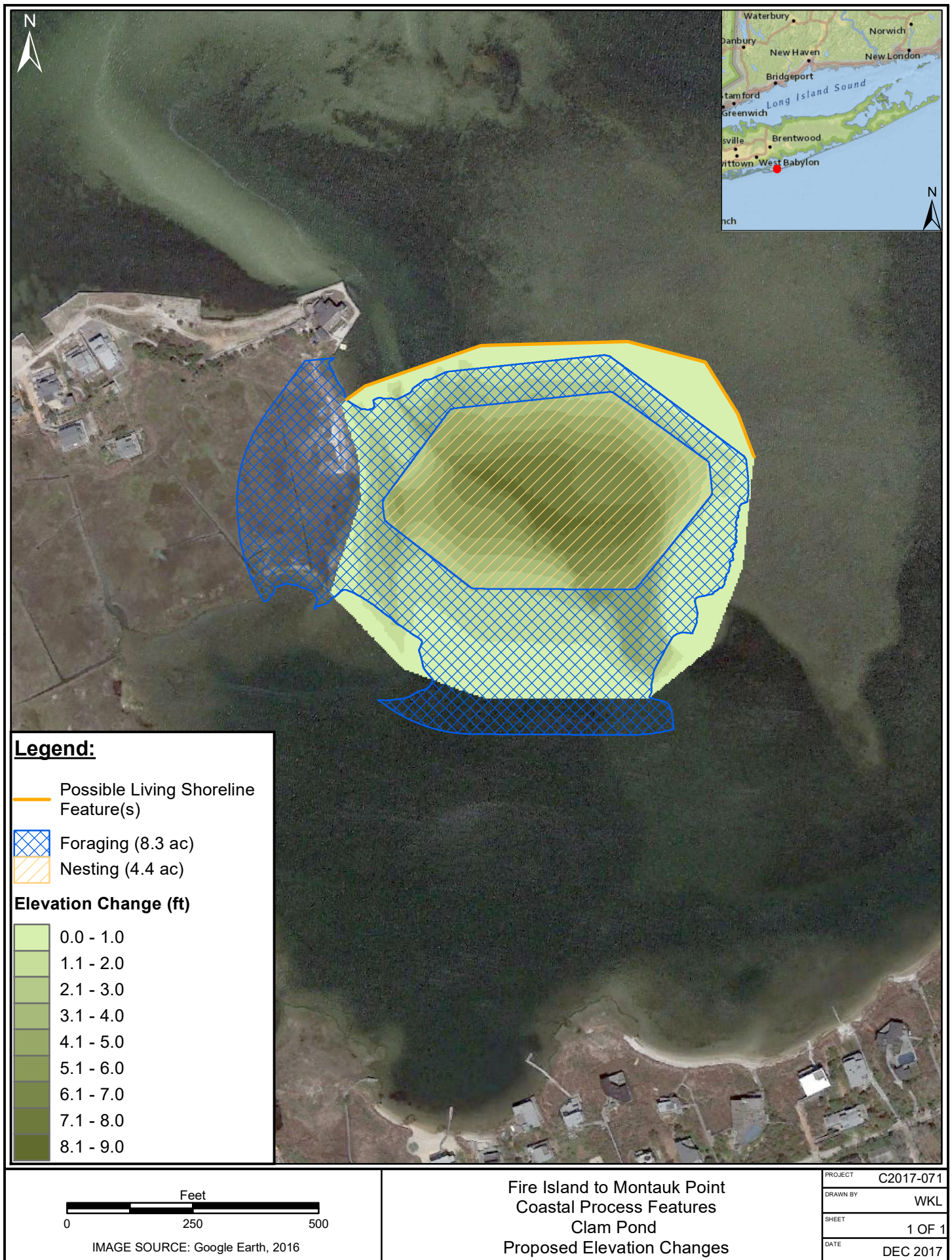


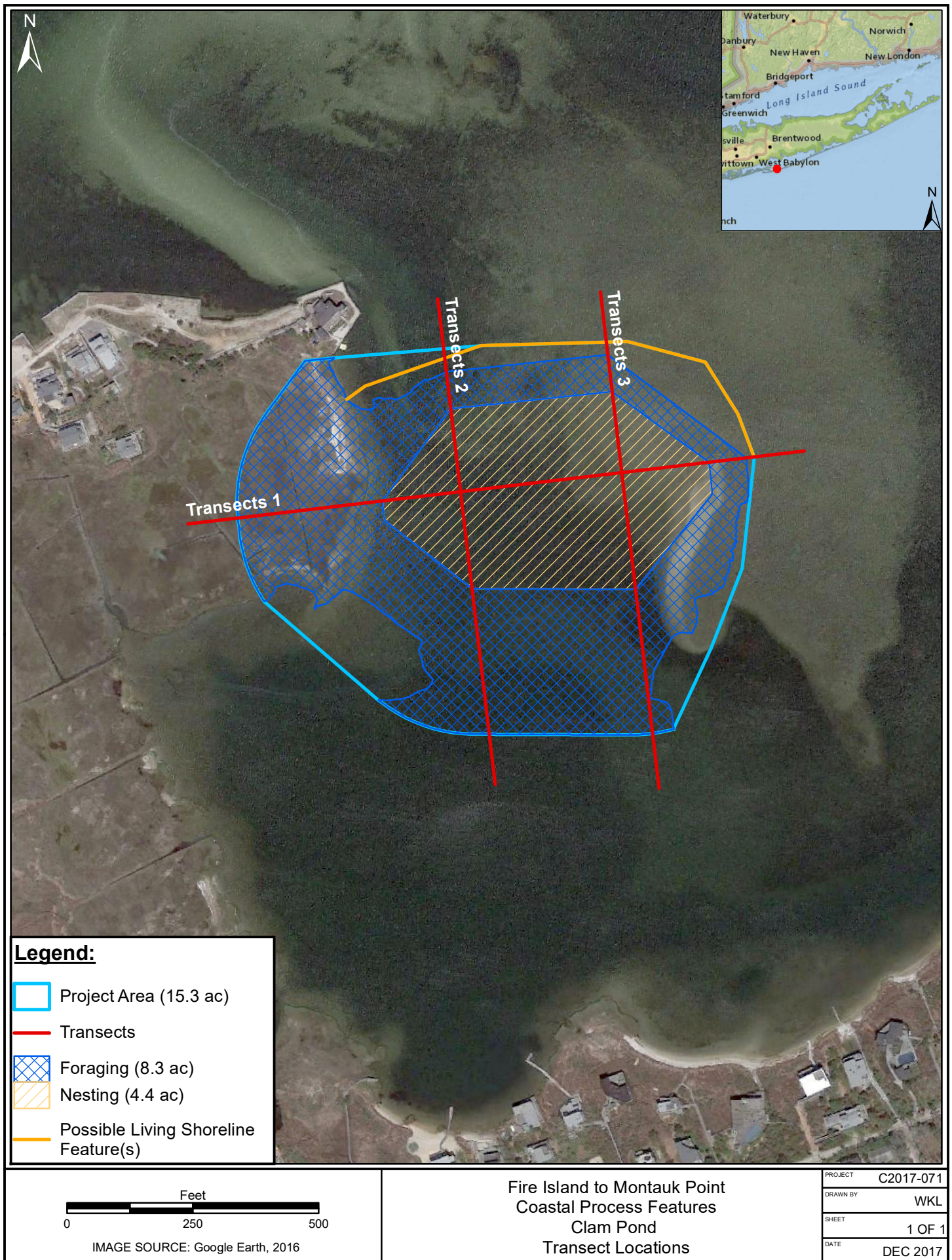
*up to date vegetation data were not available for the study area

BAYSIDE TIDAL ENVIRONMENT (ft-NAVD88)					
Closest Tidal Benchmark	Sea View Ferry Dock, NY		Highest Astronomical Tide (HAT)		1.08
			Mean Higher High Water (MHHW)		0.60
Coordinates	40.642437° N 73.191492° W		Mean High Water (MHW)		0.44
			Mean Sea Level (MSL)		-0.02
0 ft-NAVD	1.14 ft-NGVD		Mean Tide Level (MTL)		-0.04
Range (MHW-MLW)		0.96	Mean Low Water (MLW)		-0.52
Diurnal Range (MHHW - MLLW)		1.22	Mean Lower Low Water (MLLW)		-0.62
Largest Tidal Range (HAT-LAT)		2.18	Lowest Astronomical Tide (LAT)		-1.10
BAYSIDE WAVE ENVIRONMENT					
Return Period	Fetch (ft)	Wave Height (ft)	Wind Setup (ft)	Wave Setup (ft)	HAT + Setup + Wave Height (ft)
1-year	69,860	4.3	0.14	1.01	6.53
5-year	69,860	5.7	0.24	1.03	8.05
10-year	69,860	6.1	0.28	1.04	8.50

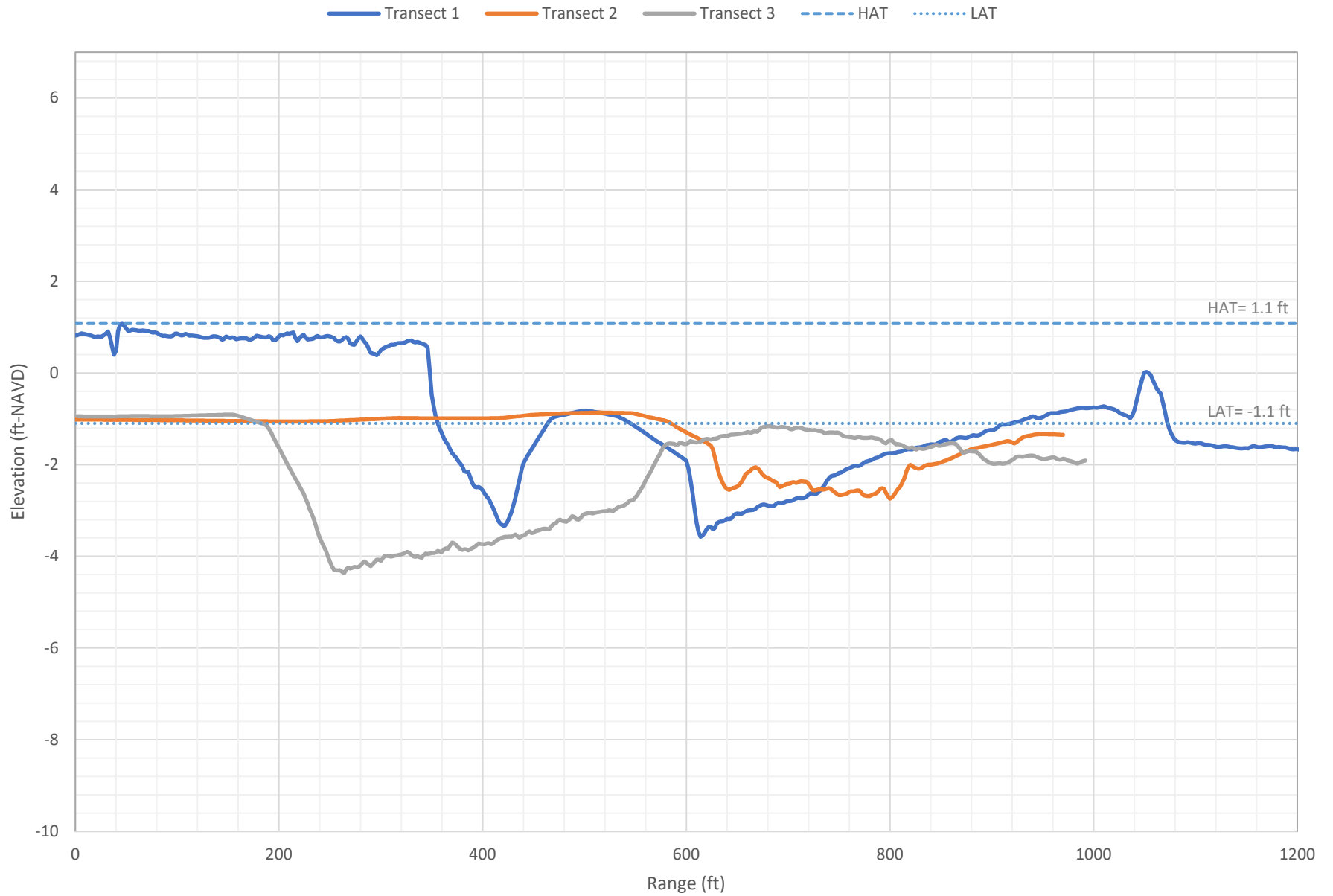




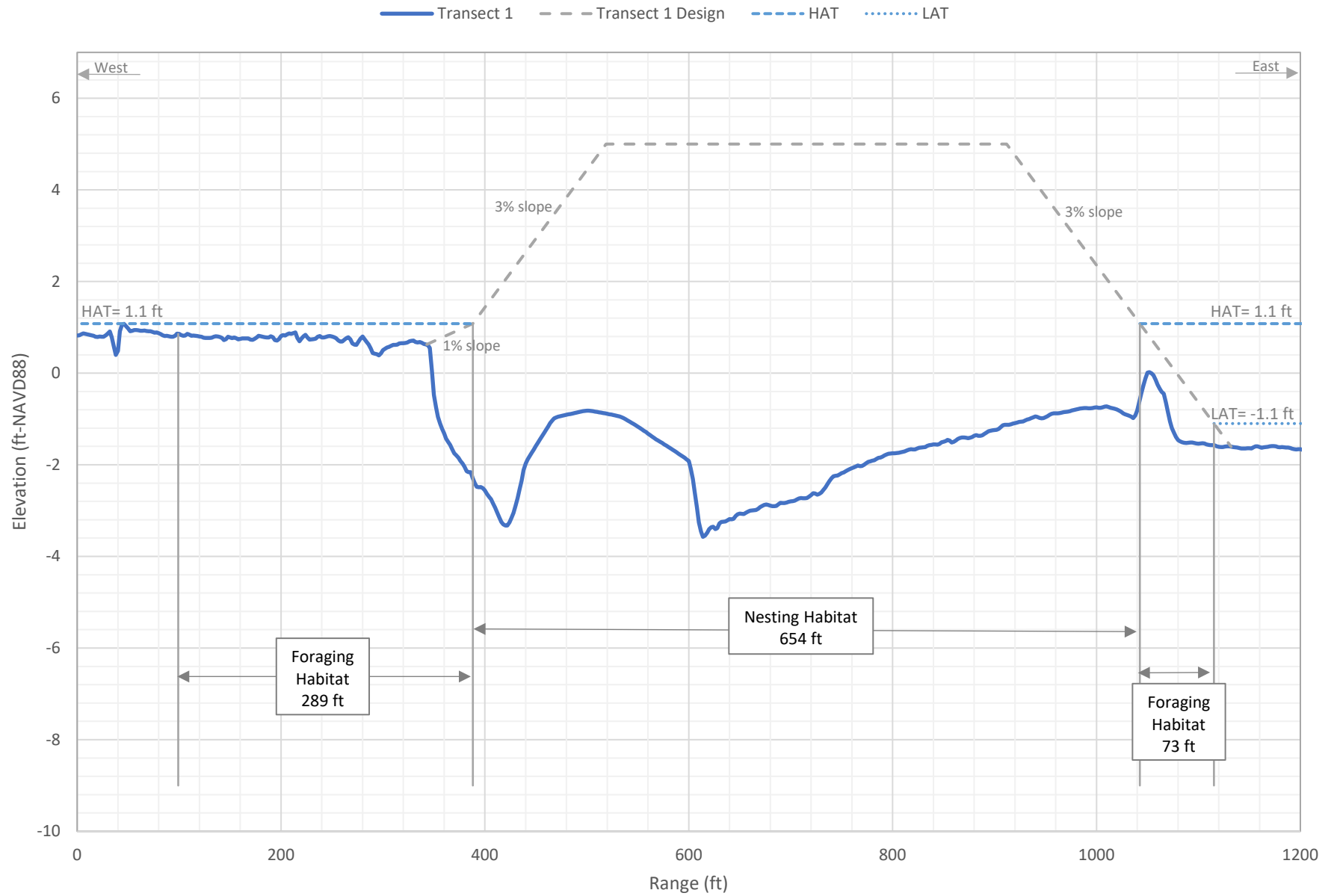




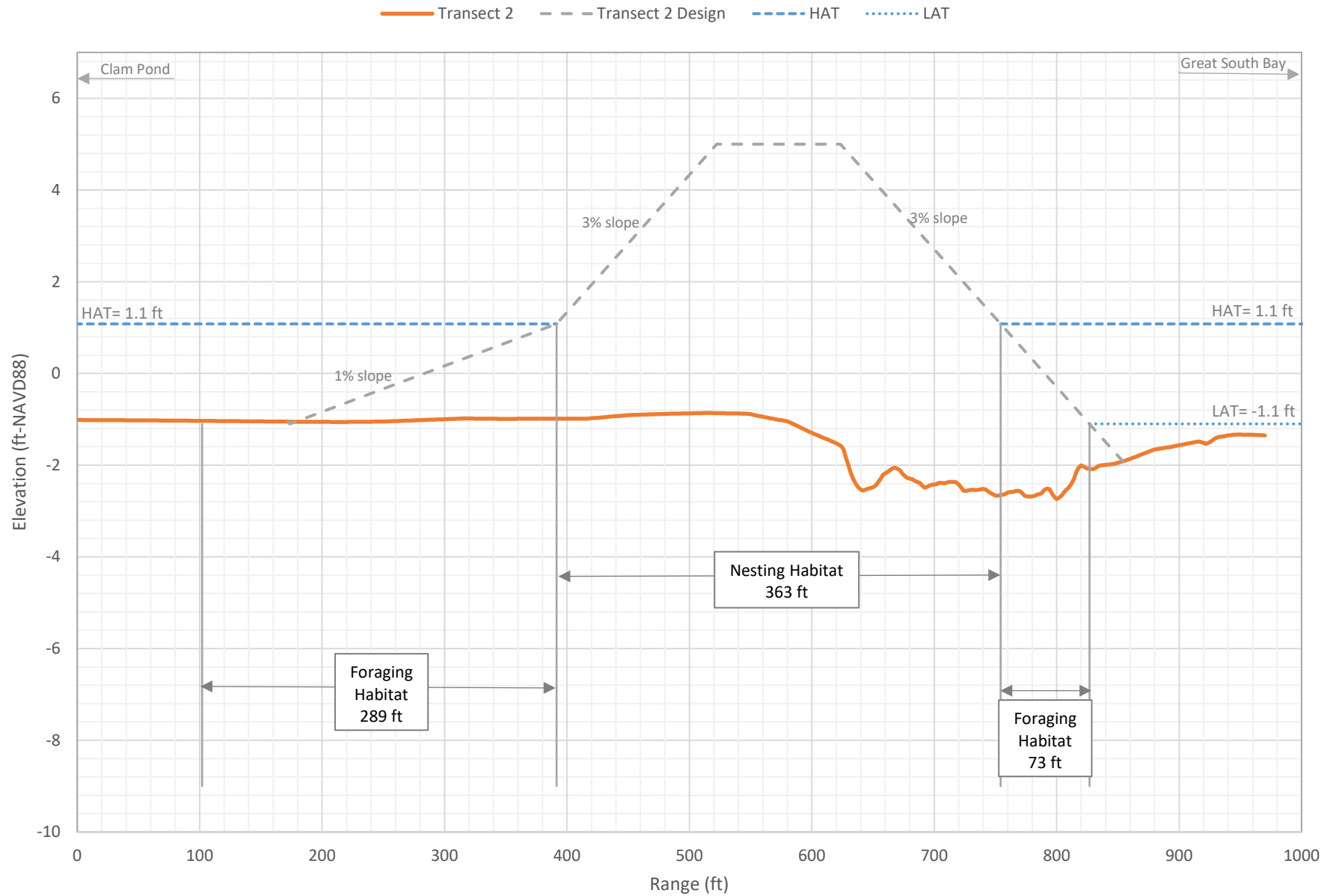
Clam Pond Existing Conditions



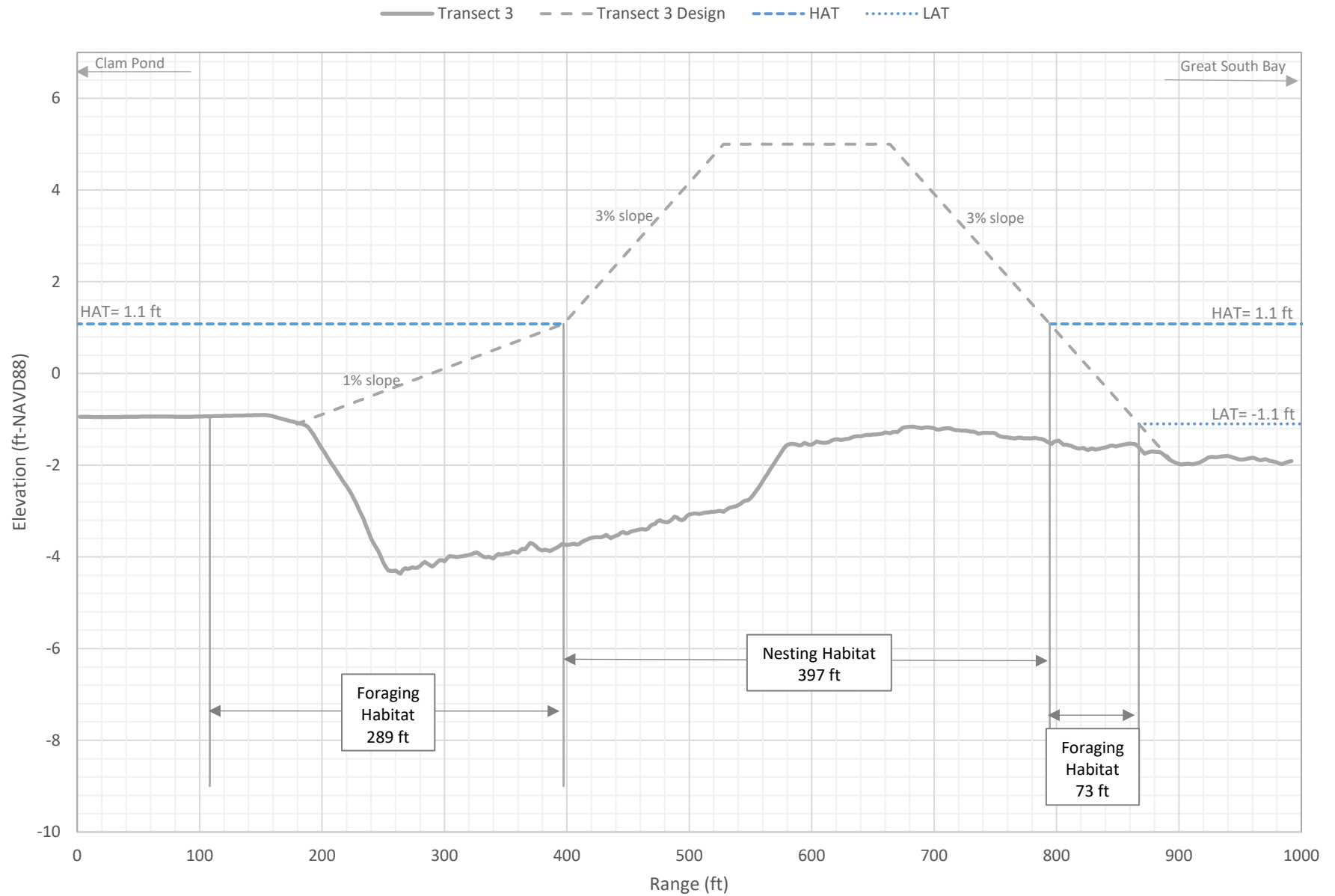
Clam Pond Transect 1




Clam Pond Transect 2



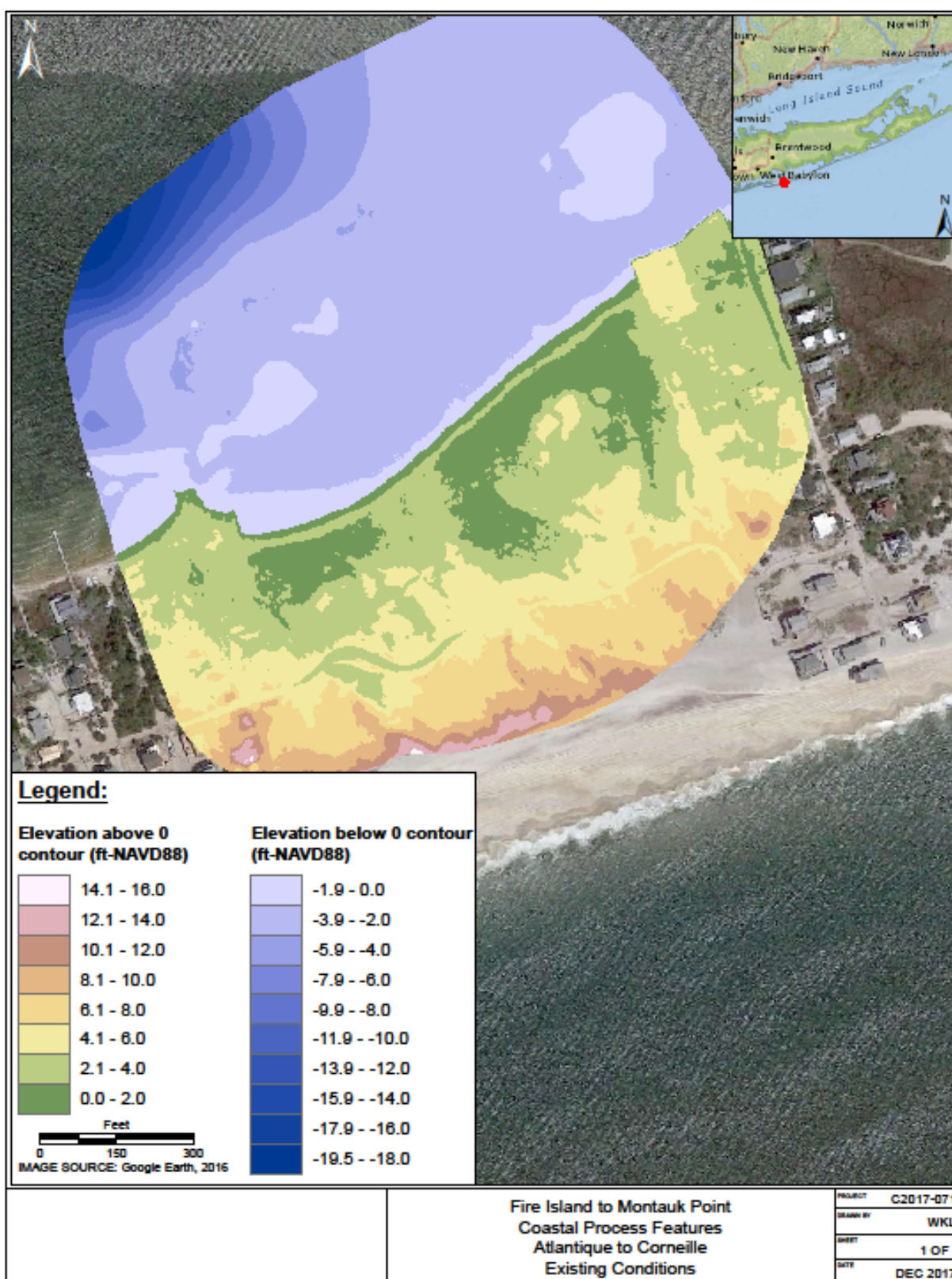
Clam Pond Transect 3

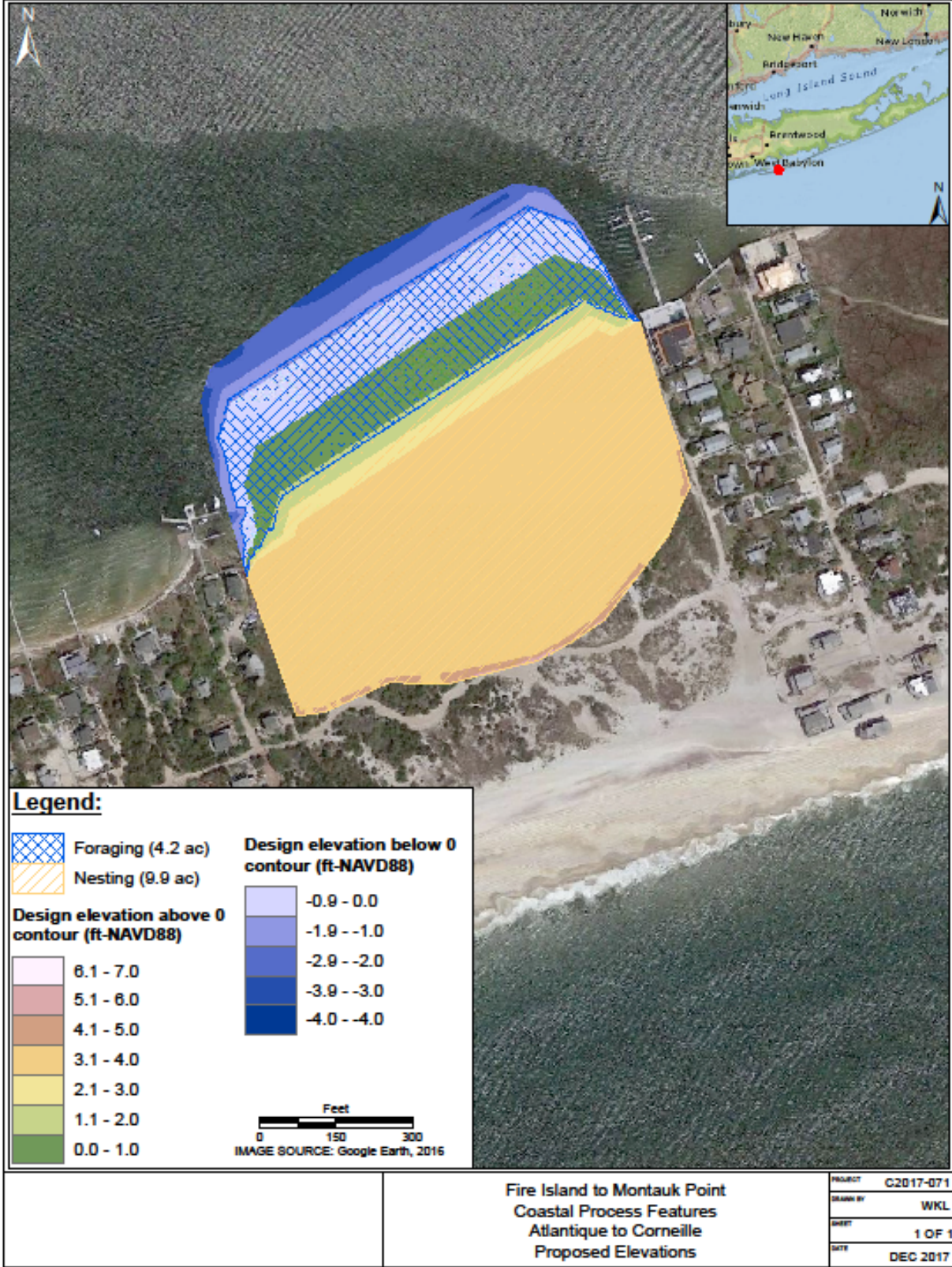


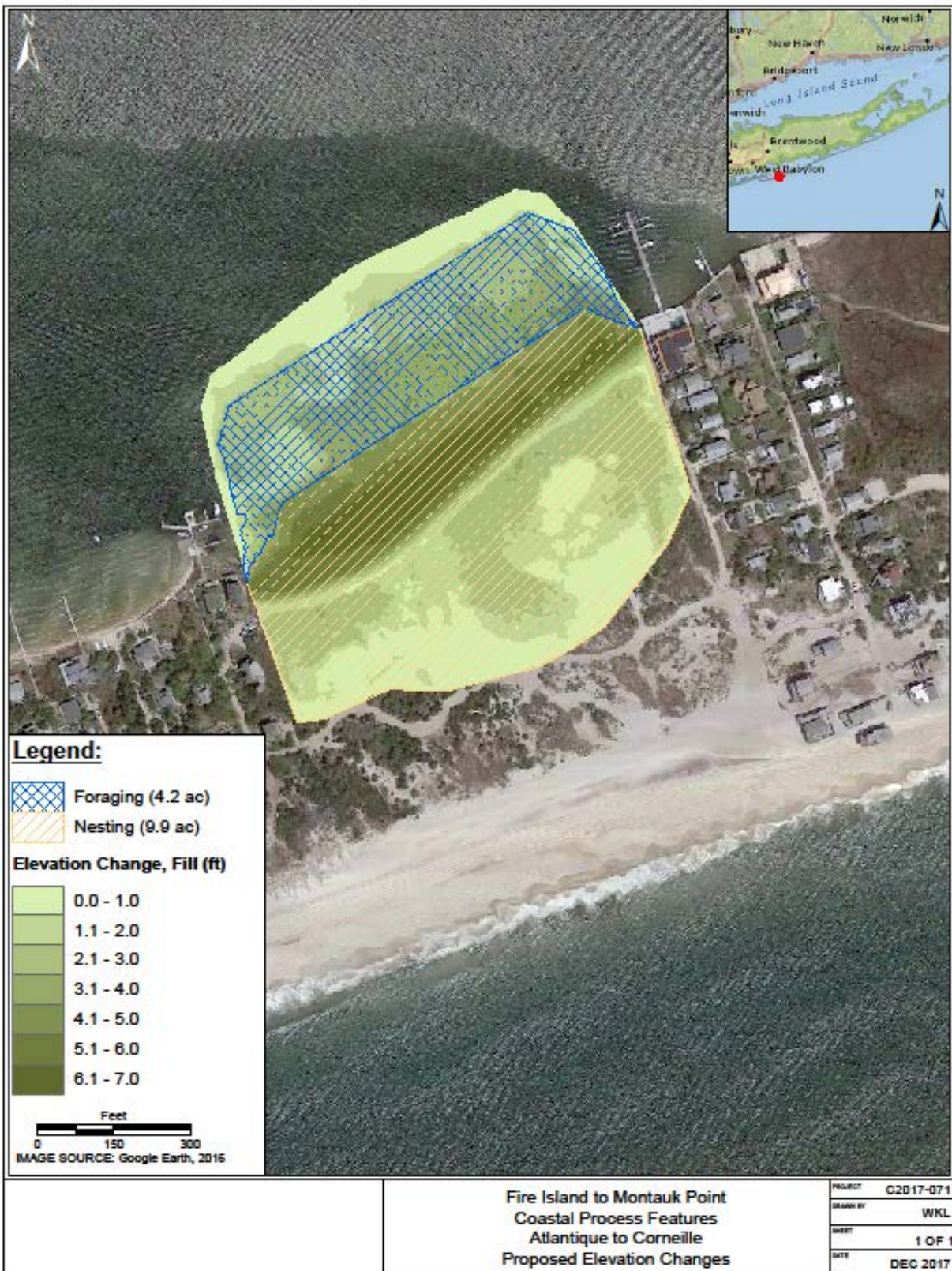
CPF Site 5 Atlantique to Corneille	Reach GSB-2B
	40.644944° N / 73.167889° W
<p>CPF SITE GOALS</p> <ul style="list-style-type: none"> • Earthwork to meet target elevations and slope for ESA credit • Fill placement to simulate cross island transport for CSRM credit <p>Atlantique to Corneille is located on the western portion of Fire Island, on the bay just east of Atlantique Park. The average nearshore water depth on the bayside at Atlantique to Corneille is approximately 3 ft. Boat docks exist to the east and west of this CPF, while several small bulkheads lie on either side of the site. The CPF design fill must limit impacts to navigation features. This CPF design seeks to add fill to provide ESA bird habitat (foraging and nesting) as well as provide CSRM benefits by simulating cross island transport.</p> <p>Foraging habitat is defined as the intertidal area that is intermittently submerged and exposed during tidal induced water surface fluctuations. As a proxy for the local spring tide range, the following discussion applies NOAA's reported Lowest Astronomical Tide (LAT) as the lower bound and Highest Astronomical Tide (HAT) as the upper bound for foraging habitat.</p> <p>Nesting habitat is located immediately upland of foraging habitat and extends from the HAT elevation to +4 ft-NAVD88 at Atlantique to Corneille as depicted in the Proposed Elevations figure that follows.</p> <p>To simulate cross island transport and create early successional habitat that provides nesting and foraging for shorebirds, plans call for the placement of fill over 15.8 acres (ac), transitioning from the western bulkhead area to the spit to the east. Within the project area there is a total of 4.2 ac of foraging habitat and 9.9 ac as nesting habitat. The regrading template includes 3% and 1% slopes on the north bank to allow for viable shorebird habitat, and a 4% slope below the LAT to tie into the existing grade. The landward side of the fill profile will tie into existing grade at +4 ft-NAVD88. The cross shore extent of this CPF is limited due to the overall site configuration.</p> <p>Sand placement at the CPF sites will be performed in coordination with renourishment cycles of the beachfill features and subject to monitoring to ensure resolution of project objectives. The USACE will not implement vegetation management or manipulation of the sites unless conducted as an incidental action associated with future placement. The USACE recommends the local land management agency consider predator management and symbolic fencing to the +10 ft-NAVD88 contour in newly created CPF's.</p>	

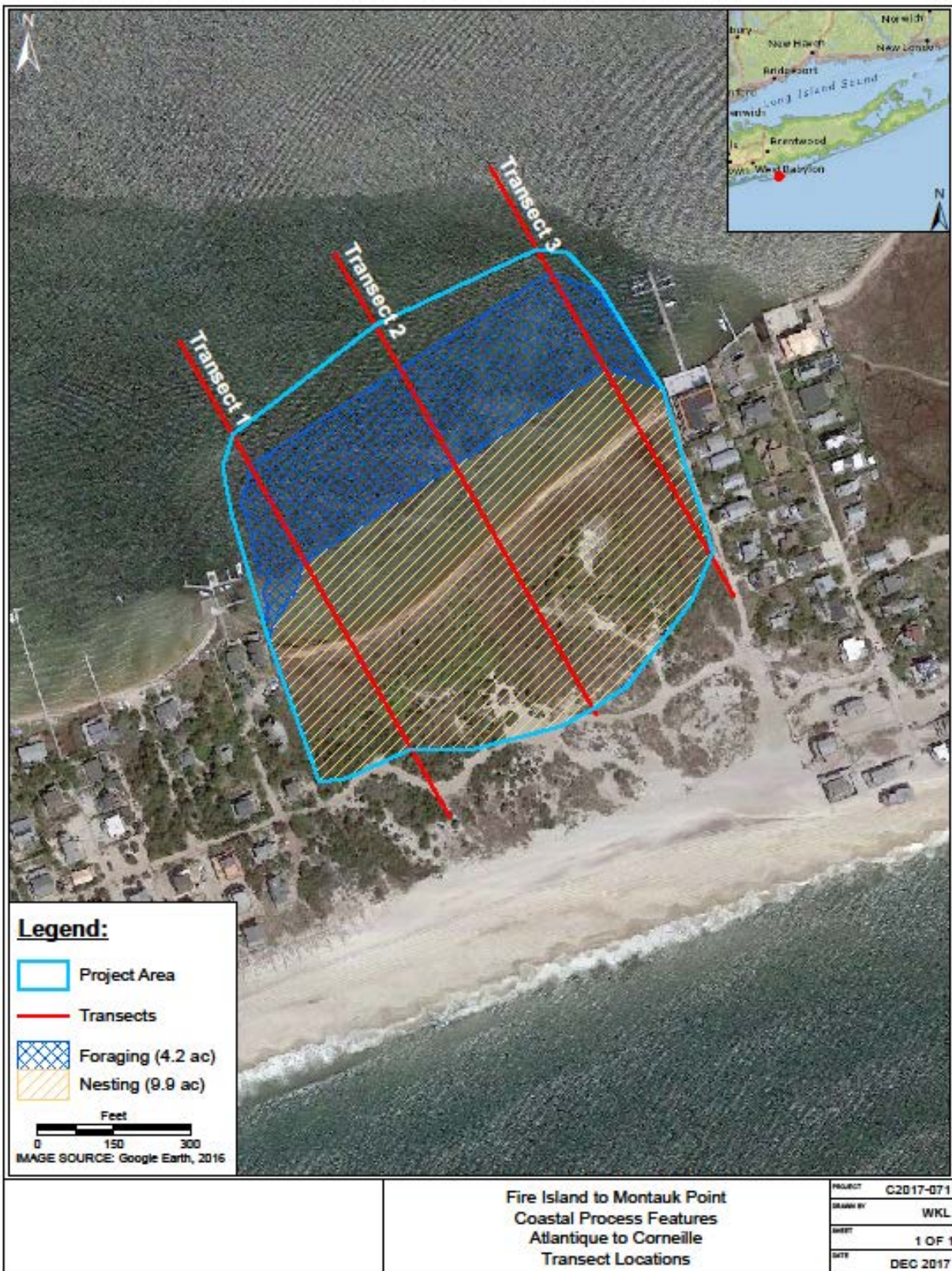
CPF Site 5 Atlantique to Corneille			Reach GSB-2B
			40.644944° N / 73.167889° W
CPF PARAMETERS			
Feature	Habitat	Total	
Cut Volume (cy)	0	0	
Fill Volume (cy)	62,694	64,640	
Net Volume (cy)	62,694	64,640	
Acreage	14.1	15.8	
Activity	Fill	Fill	
DATA SOURCES			
Topographic	USGS, 2016		
Bathymetric	USGS, 2016		
Aerial Imagery	Google Earth, 2016		
Vegetation	N/A*		
REAL ESTATE INFORMATION			
Property Owner	USA Town of Islip		
Municipality	Islip		
County	Suffolk		
CBRA	NY-59P, Otherwise Protected Area		

BAYSIDE TIDAL ENVIRONMENT (ft-NAVD88)					
Closest Tidal Benchmark	Seaview Ferry Dock, NY		Highest Astronomical Tide (HAT)		1.09
			Mean Higher High Water (MHHW)		0.62
Coordinates	40.648333° N 73.150000° W		Mean High Water (MHW)		0.45
			Mean Sea Level (MSL)		-0.01
0 ft-NAVD = 1.13 ft-NGVD			Mean Tide Level (MTL)		-0.03
Range (MHW-MLW)		0.97	Mean Low Water (MLW)		-0.52
Diurnal Range (MHHW - MLLW)		1.23	Mean Lower Low Water (MLLW)		-0.61
Largest Tidal Range (HAT-LAT)		2.18	Lowest Astronomical Tide (LAT)		-1.09
BAYSIDE WAVE ENVIRONMENT					
Return Period	Fetch (ft)	Wave Height (ft)	Wind Setup (ft)	Wave Setup (ft)	HAT + Setup + Wave Height (ft-NAVD88)
1-year	43,334	3.5	0.56	1.13	6.28
5-year	43,334	4.6	0.95	1.18	7.82
10-year	43,334	5.1	1.16	1.20	8.55

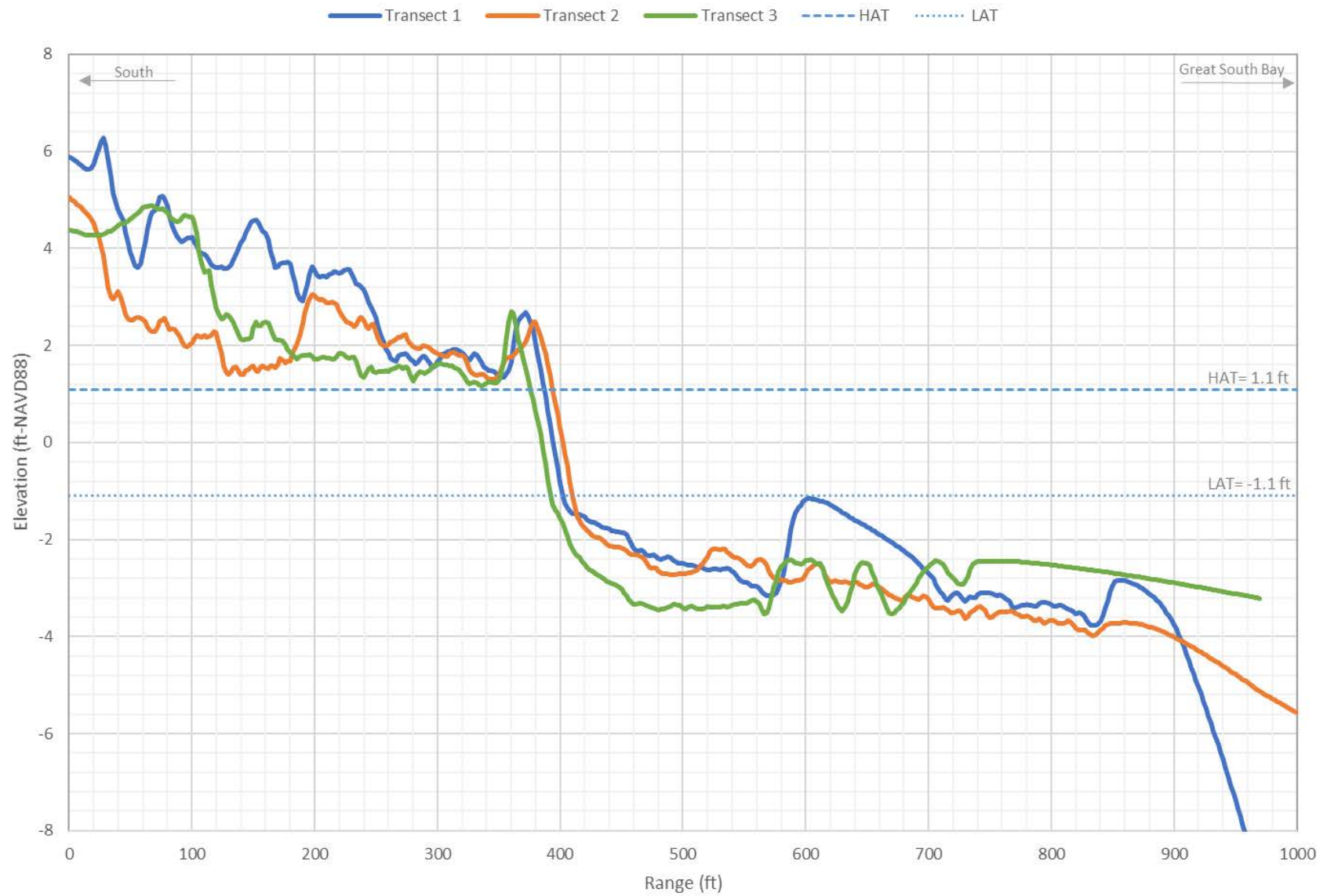




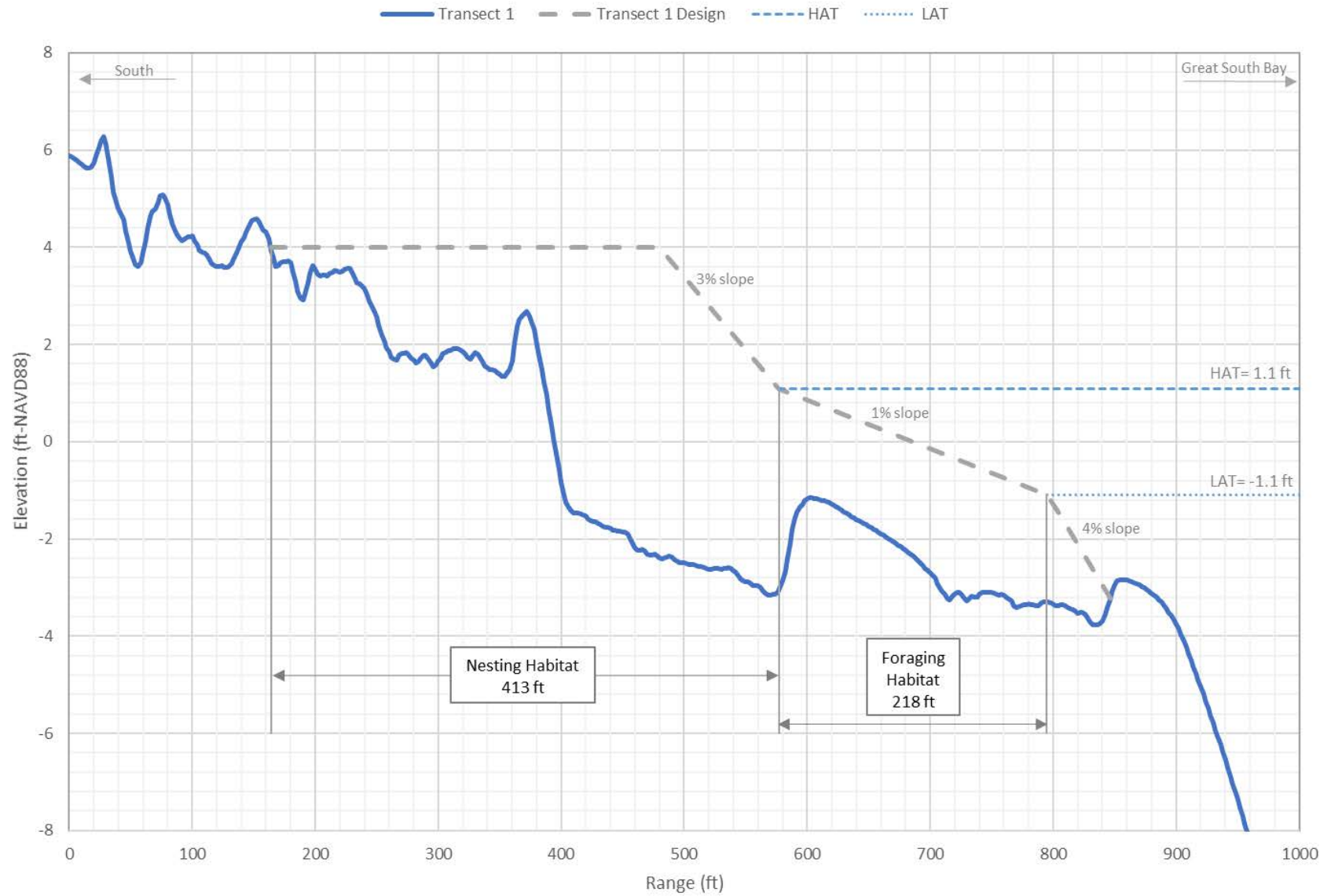




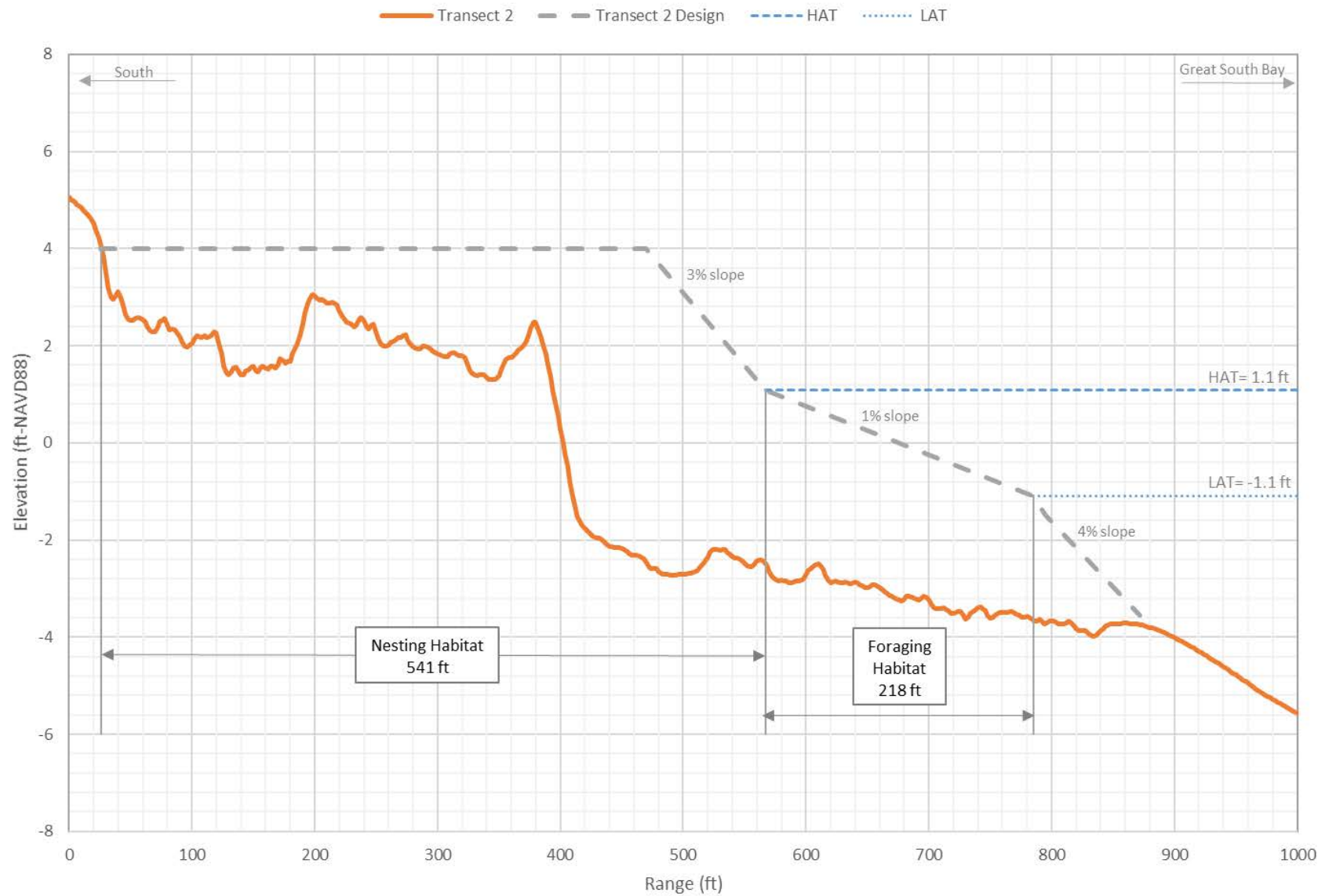
Atlantique to Corneille Existing Conditions



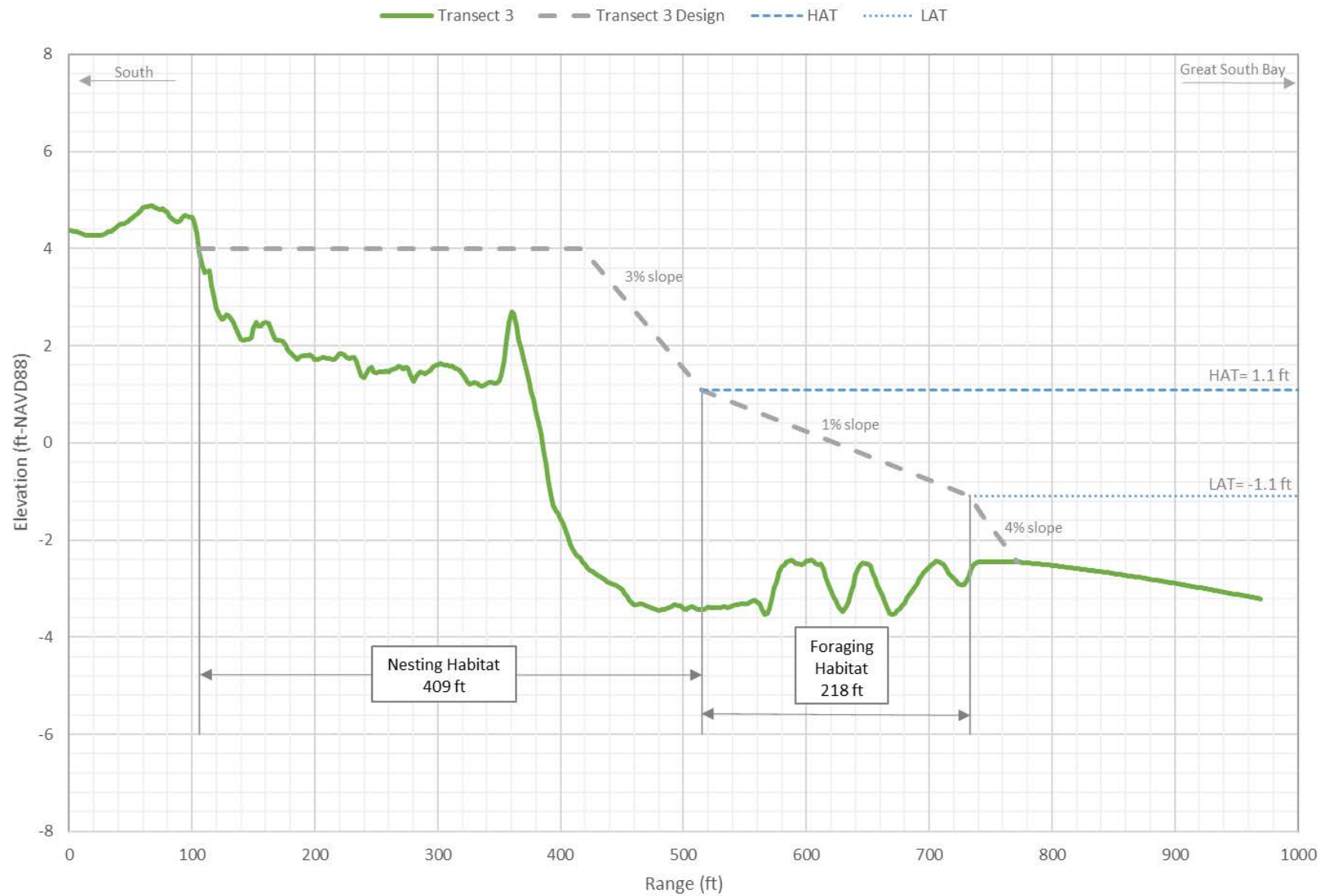
Atlantique to Corneille Transect 1




Atlantique to Corneille Transect 2



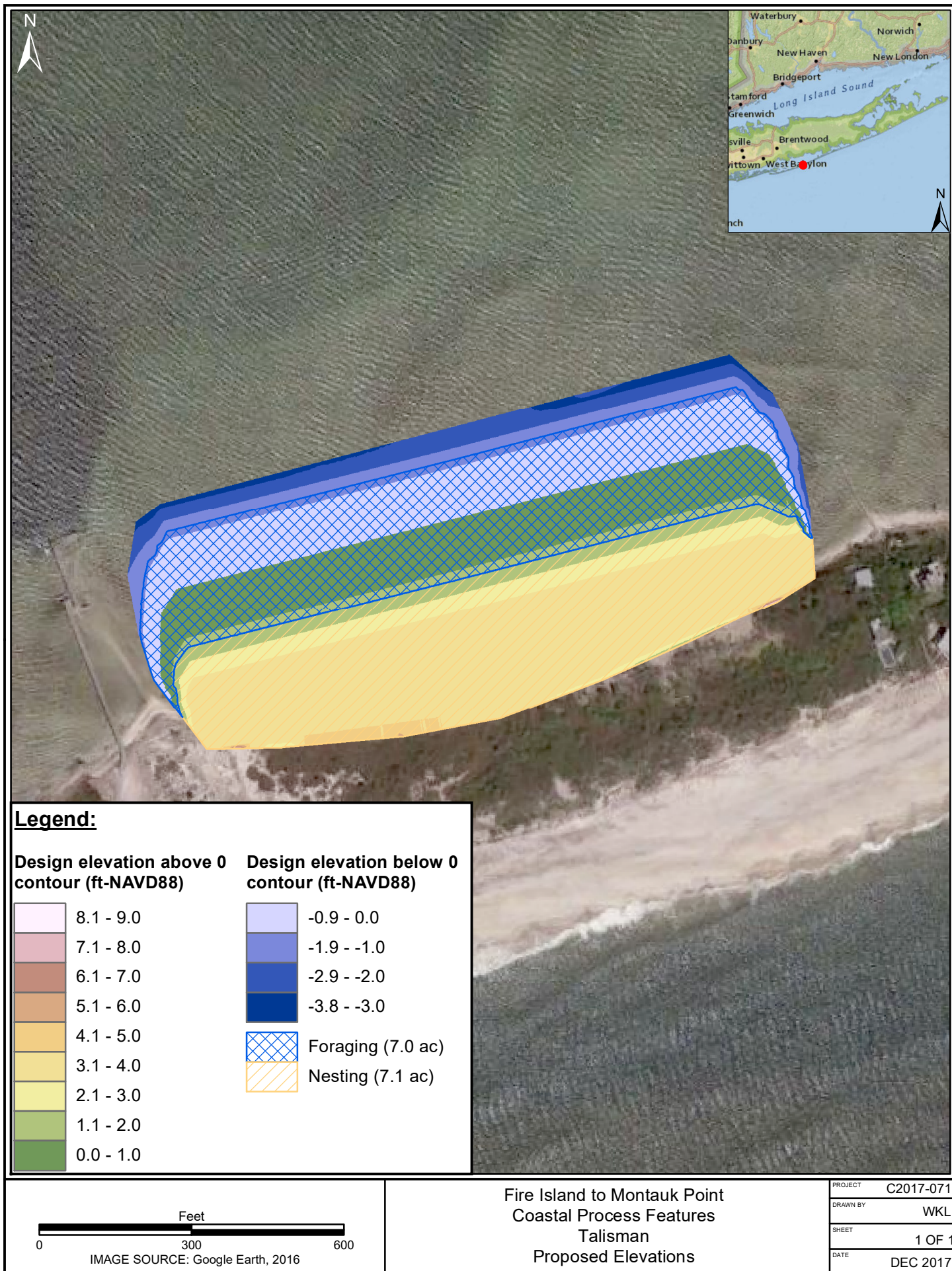
Atlantique to Corneille Transect 3



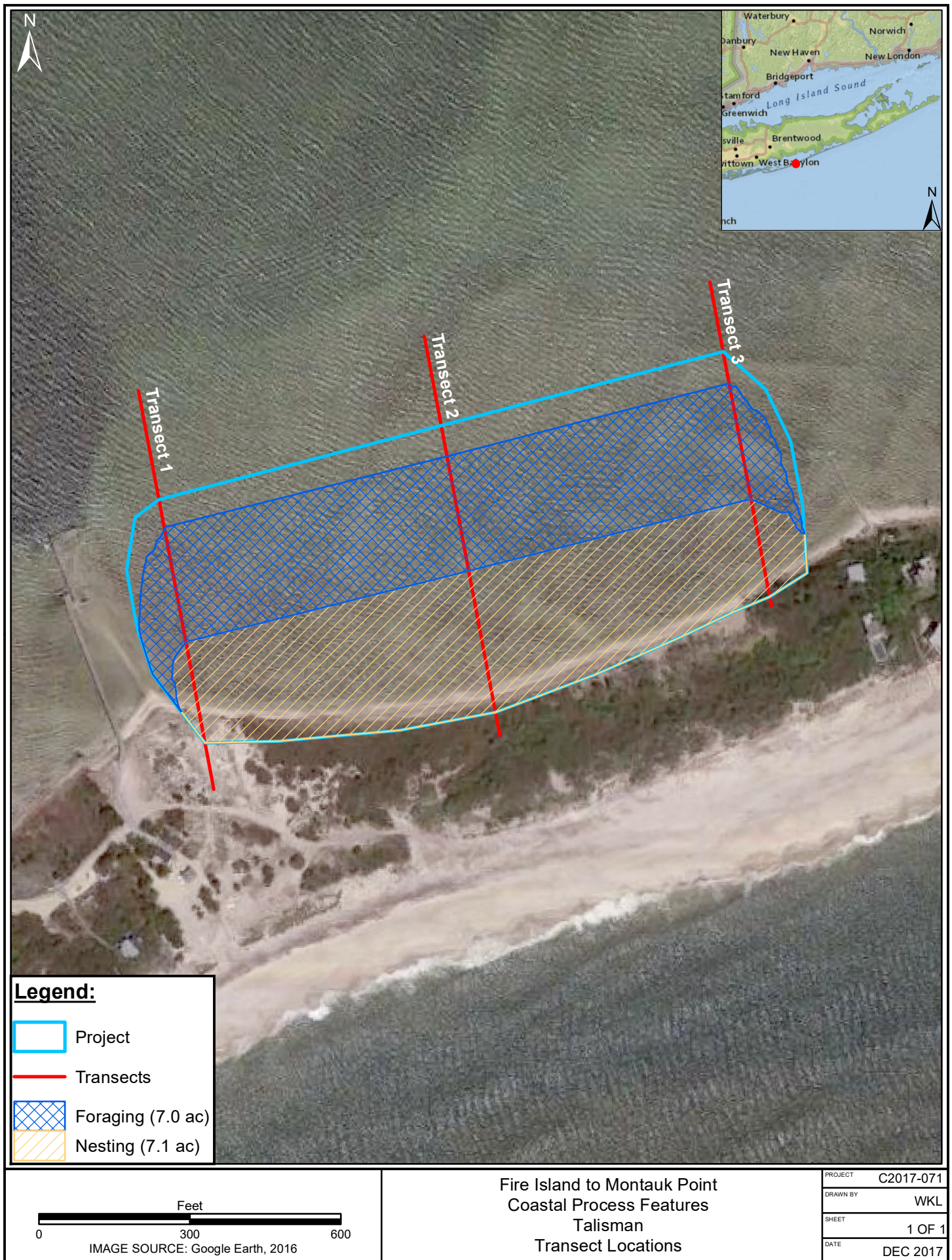
CPF Site 6 Talisman	Reach GSB-3D
	40.674629° N / 73.039332° W
<p>CPF SITE GOALS</p> <ul style="list-style-type: none"> • Earthwork to meet target elevations and slopes for ESA credit • Fill placement to simulate cross island transport for CSRM credit <p>Talisman is located in the central portion of Fire Island within Barrett Island Park between Fire Island Pines and Water Island. The average nearshore water depth on the bayside at Talisman range from 1 ft to 3 ft. Historically a sand spit existed at this location. The west side of Talisman includes a park dock extending approximately 400 ft into the bay. The proposed fill extends eastward approximately 1,400 ft. A private dock lies to the east of this CPF. Fill placed at this CPF should account for potential impacts to these structures. This CPF design seeks to add fill to provide ESA bird habitat (foraging and nesting) as well as provide CSRM benefits by simulating cross island transport.</p> <p>Foraging habitat is defined as the intertidal area that is intermittently submerged and exposed during tidal induced water surface fluctuations. As a proxy for the local spring tide range, the following discussion applies NOAA's reported Lowest Astronomical Tide (LAT) as the lower bound and Highest Astronomical Tide (HAT) as the upper bound for foraging habitat.</p> <p>Nesting habitat is located immediately upland of foraging habitat and extends from the HAT elevation up to +4 ft-NAVD88 at Talisman as depicted in the Proposed Elevations figure.</p> <p>To simulate cross island transport and create early successional habitat that provides nesting and foraging for shorebirds, plans call for the reestablishment of approximately 1,400 ft of the historic shoreline through the placement of fill over 16.1 acres (ac). A living shoreline may be placed on the north side of the project site to help reduce the erosion rate. Within the project area there is a total of 7.0 ac of foraging habitat and 7.1 ac of nesting habitat. The regrading template includes 3% and 1% slopes on the north bank to create viable shorebird habitat, and a 4% slope below the LAT to tie into the existing grade. Some of the upland portions of this CPF lie below the design berm elevation of +4 ft-NAVD88. As such, the landward side of the fill profile will transition to existing grade at a 4% slope, where necessary. Otherwise the berm will tie in to the existing grade at +4 ft-NAVD88. This will preserve the area as nesting habitat. The cross shore extent of this CPF is limited due to the overall site configuration.</p> <p>Sand placement at the CPF sites will be performed in coordination with renourishment cycles of the beachfill features and subject to monitoring to ensure resolution of project objectives. The USACE will not implement vegetation management or manipulation of the sites unless conducted as an incidental action associated with future placement. The USACE recommends the local land management agency consider predator management and symbolic fencing to the +10 ft-NAVD88 contour in newly created CPF's.</p>	

CPF Site 6 Talisman			Reach GSB-3D
			40.674629° N / 73.039332° W
CPF PARAMETERS			
Feature	Habitat	Total	
Cut Volume (cy)	0	0	
Fill Volume (cy)	83,741	85,880	
Net Volume (cy)	83,741	85,880	
Acreage	14.0	16.1	
Activity	Fill	Fill	
DATA SOURCES			
Topographic	USGS, 2016		
Bathymetric	USGS, 2016		
Aerial Imagery	Google Earth, 2016		
Vegetation	N/A*		
REAL ESTATE INFORMATION			
Property Owner	USA Town of Brookhaven		
Municipality	Brookhaven		
County	Suffolk		
CBRA	NY-59P, Otherwise Protected Area		
*up to date vegetation data were not available for the study area			

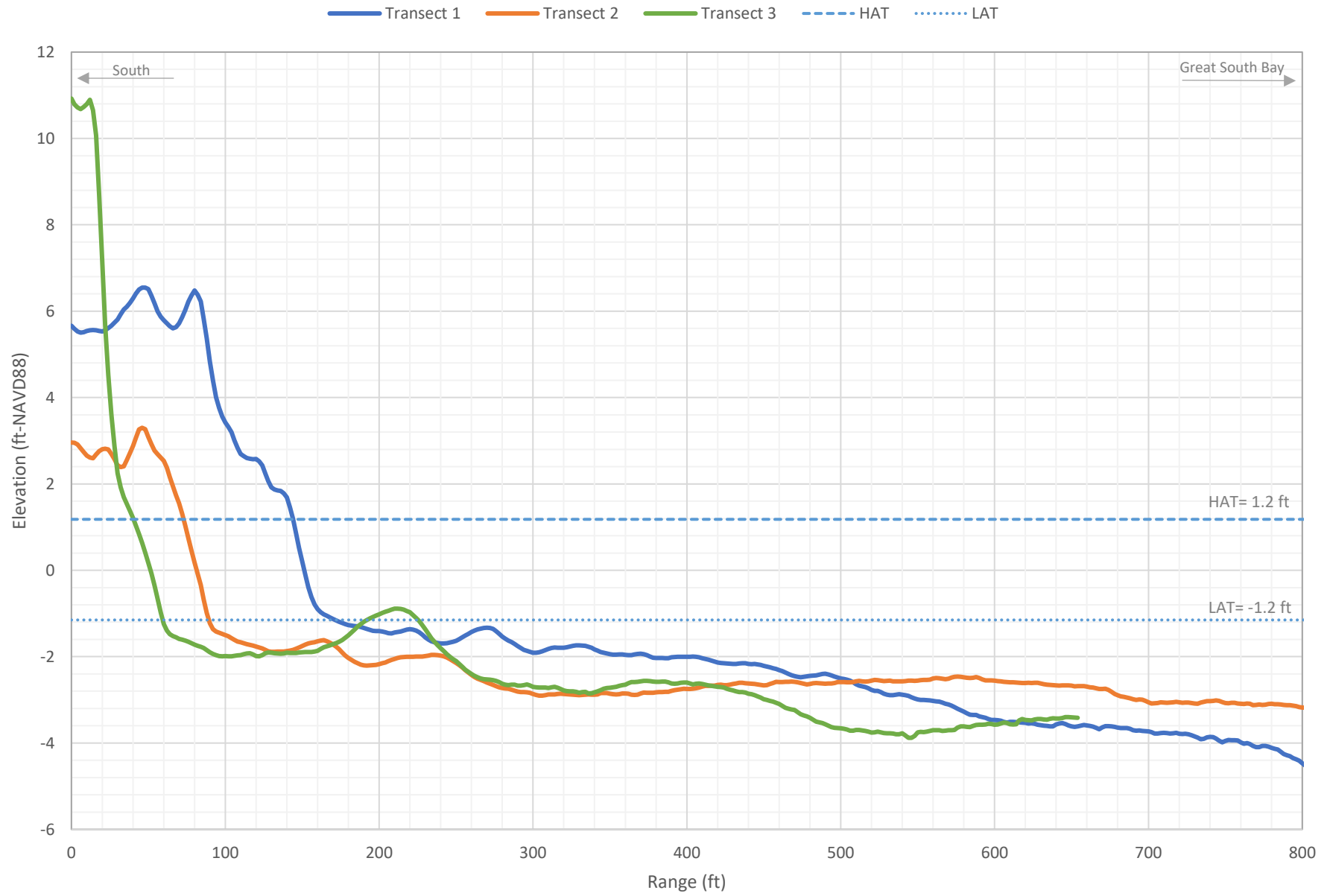
BAYSIDE TIDAL ENVIRONMENT (ft-NAVD88)					
Closest Tidal Benchmark	Seaview Ferry Dock, NY		Highest Astronomical Tide (HAT)		1.18
			Mean Higher High Water (MHHW)		0.70
Coordinates	40.648333° N 73.150000° W		Mean High Water (MHW)		0.54
			Mean Sea Level (MSL)		-0.02
0 ft-NAVD = 1.08 ft-NGVD			Mean Tide Level (MTL)		-0.02
Range (MHW-MLW)		1.11	Mean Low Water (MLW)		-0.57
Diurnal Range (MHHW - MLLW)		1.37	Mean Lower Low Water (MLLW)		-0.67
Largest Tidal Range (HAT-LAT)		2.33	Lowest Astronomical Tide (LAT)		-1.15
BAYSIDE WAVE ENVIRONMENT					
Return Period	Fetch (ft)	Wave Height (ft)	Wind Setup (ft)	Wave Setup (ft)	HAT + Setup + Wave Height (ft-NAVD88)
1-year	66,256	4.2	0.38	0.86	6.62
5-year	66,256	5.4	0.68	0.89	8.15
10-year	66,256	5.5	0.80	0.91	8.39



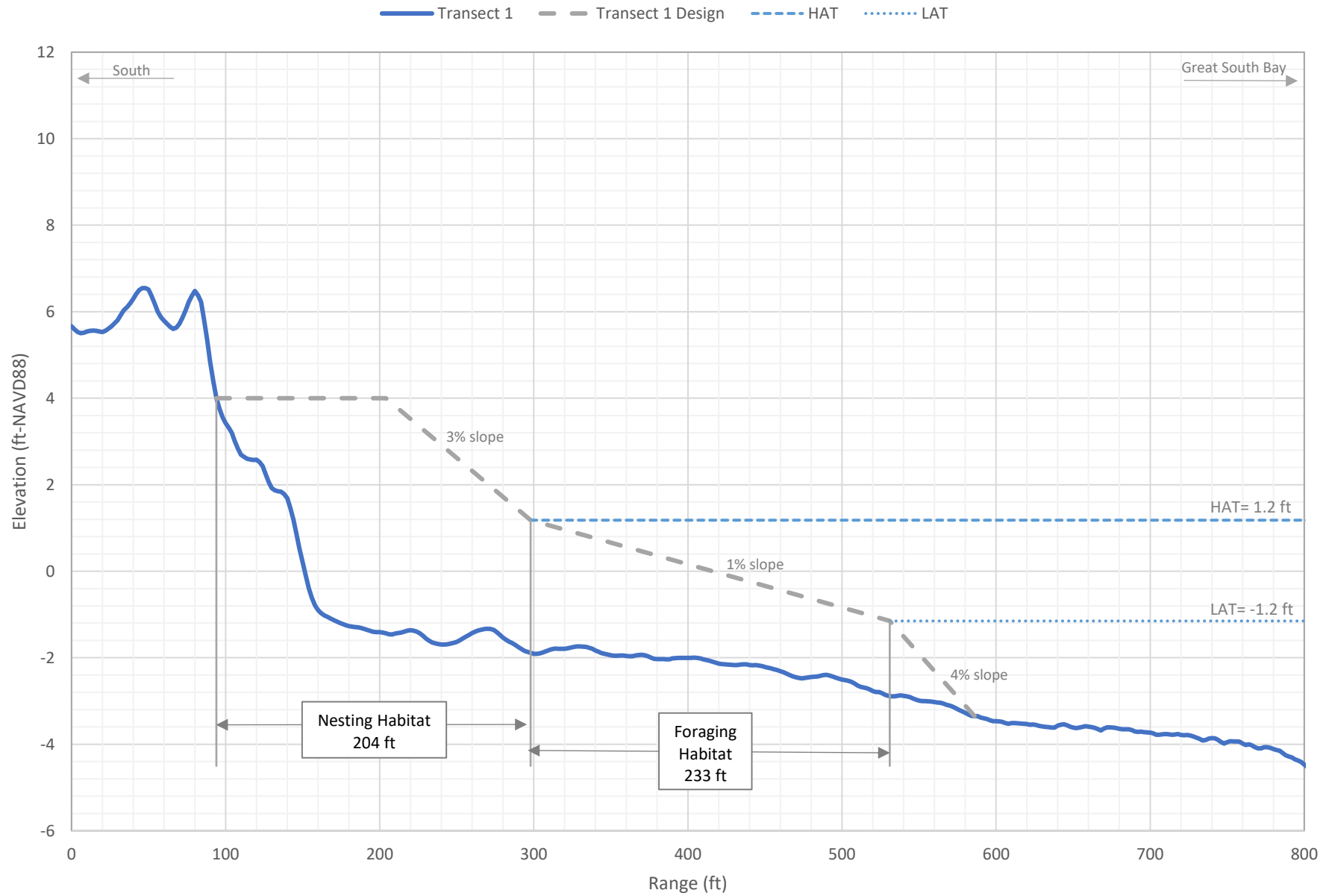




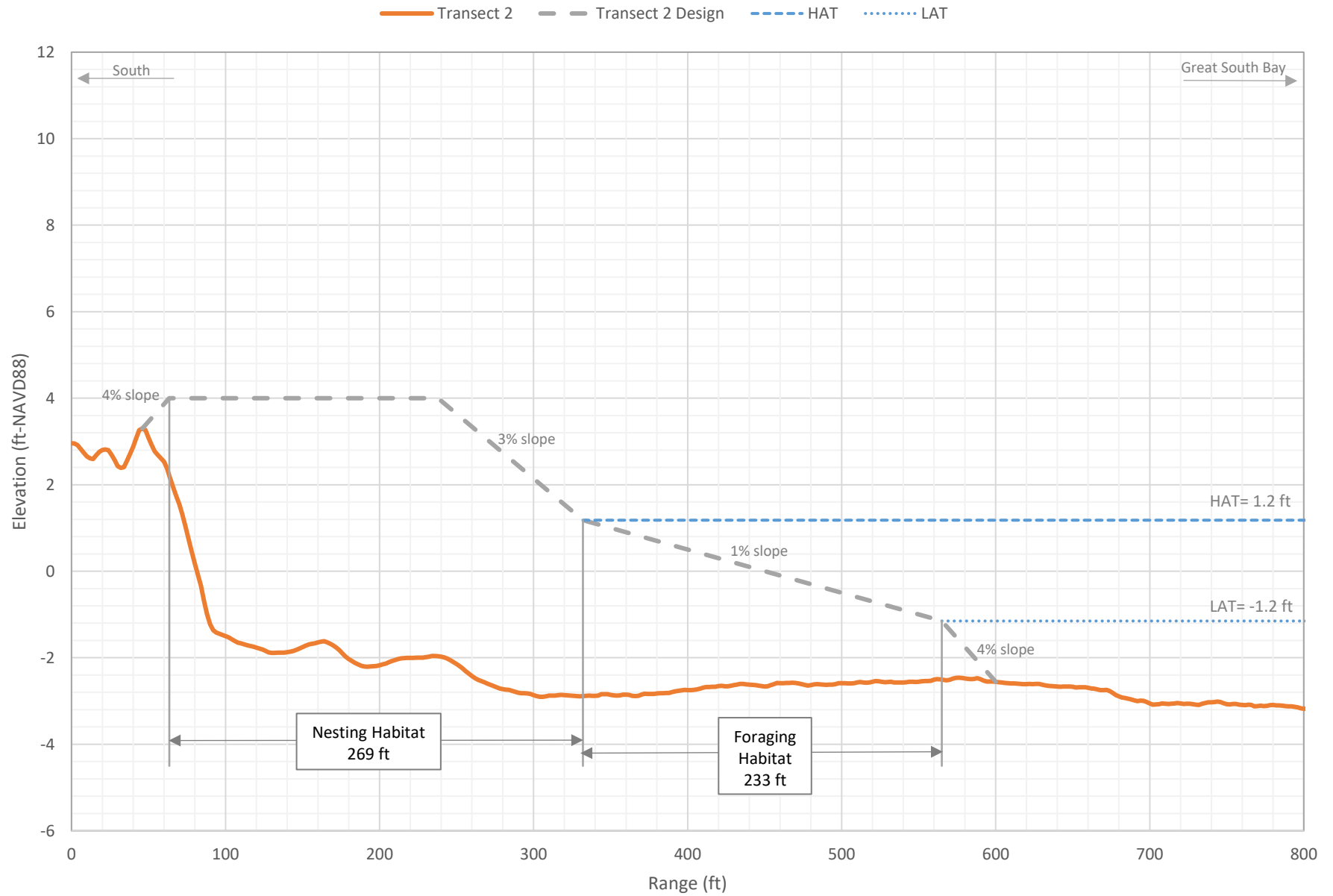
Talisman Existing Conditions



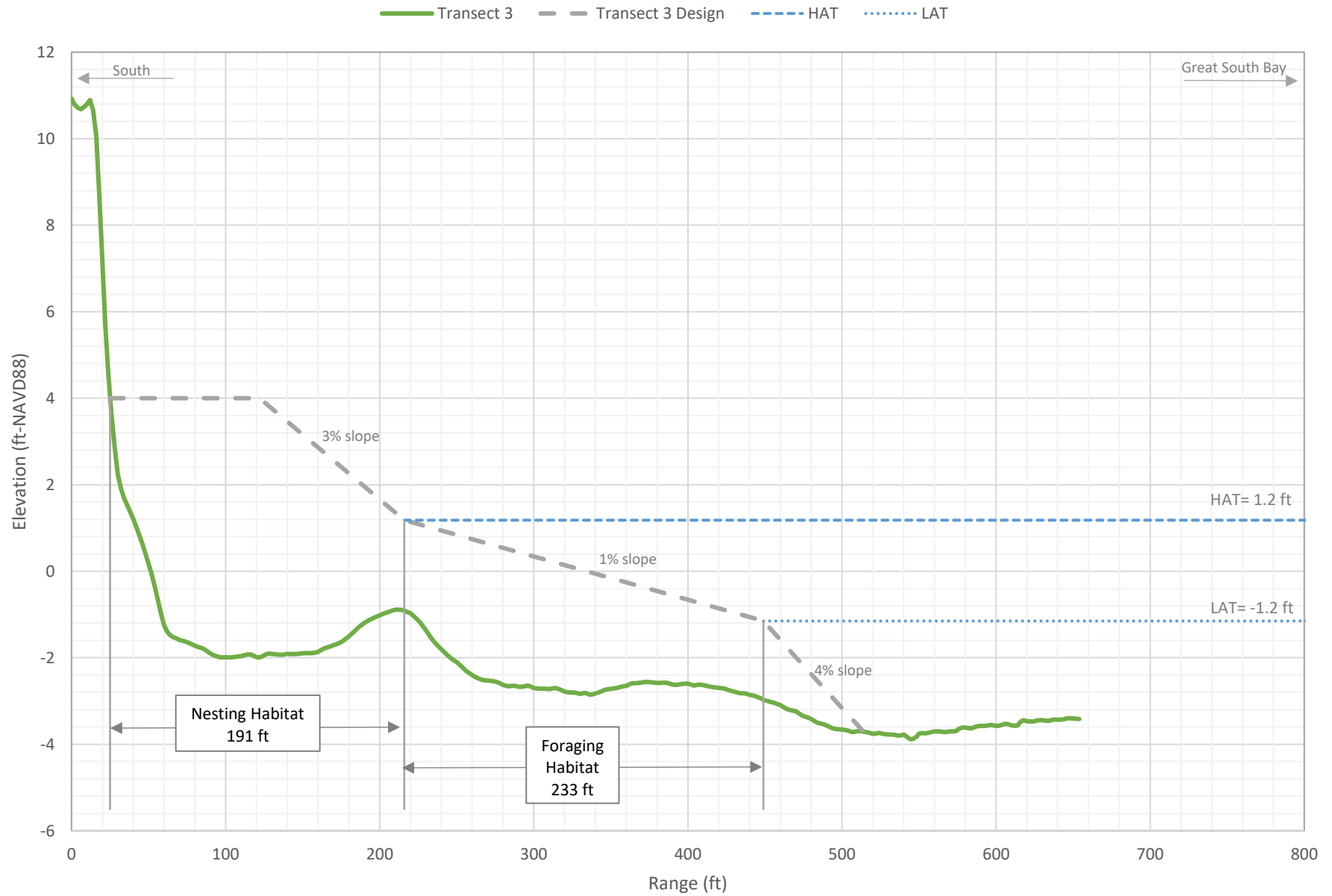
Talisman Transect 1



Talisman Transect 2




Talisman Transect 3

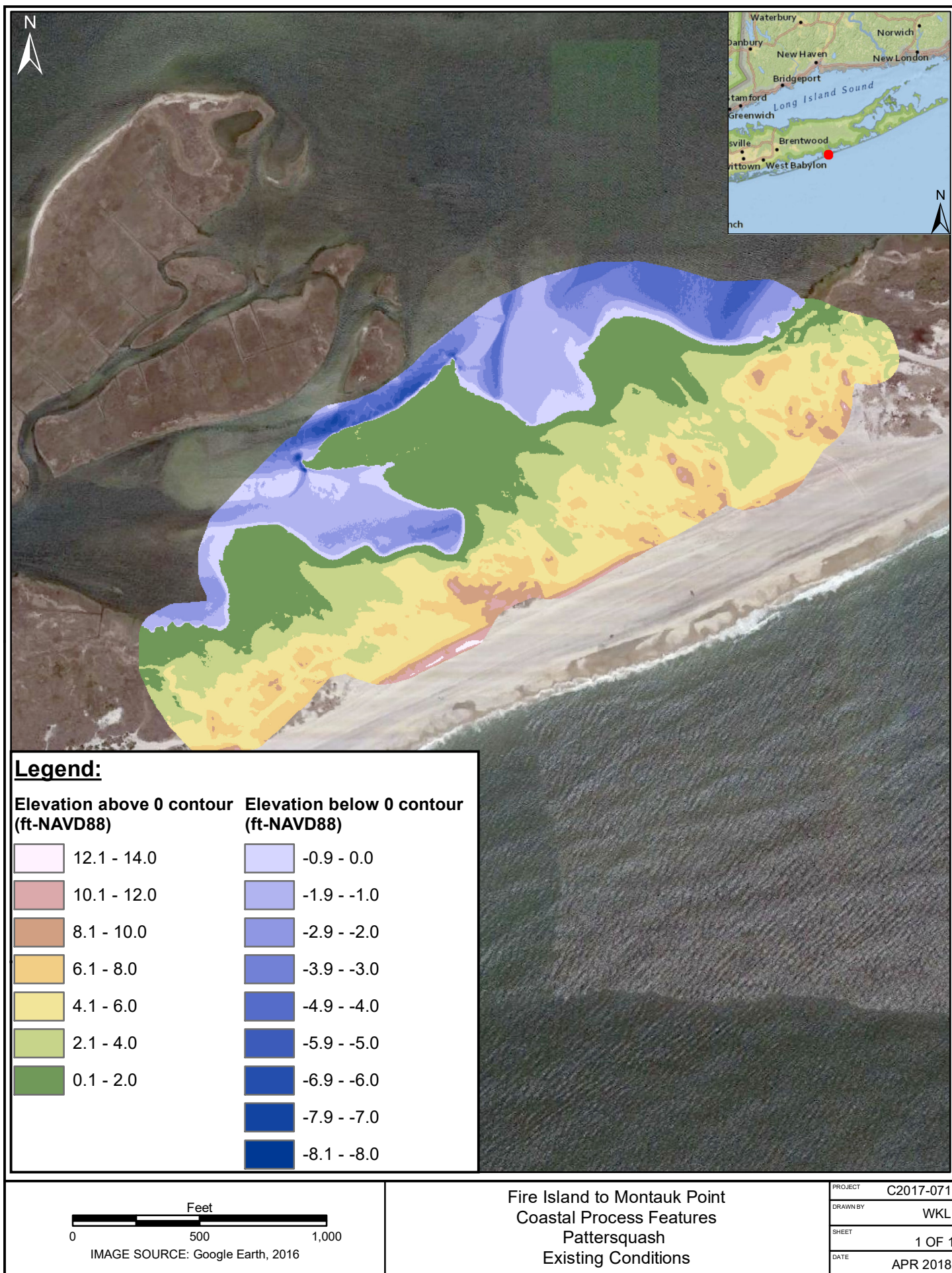


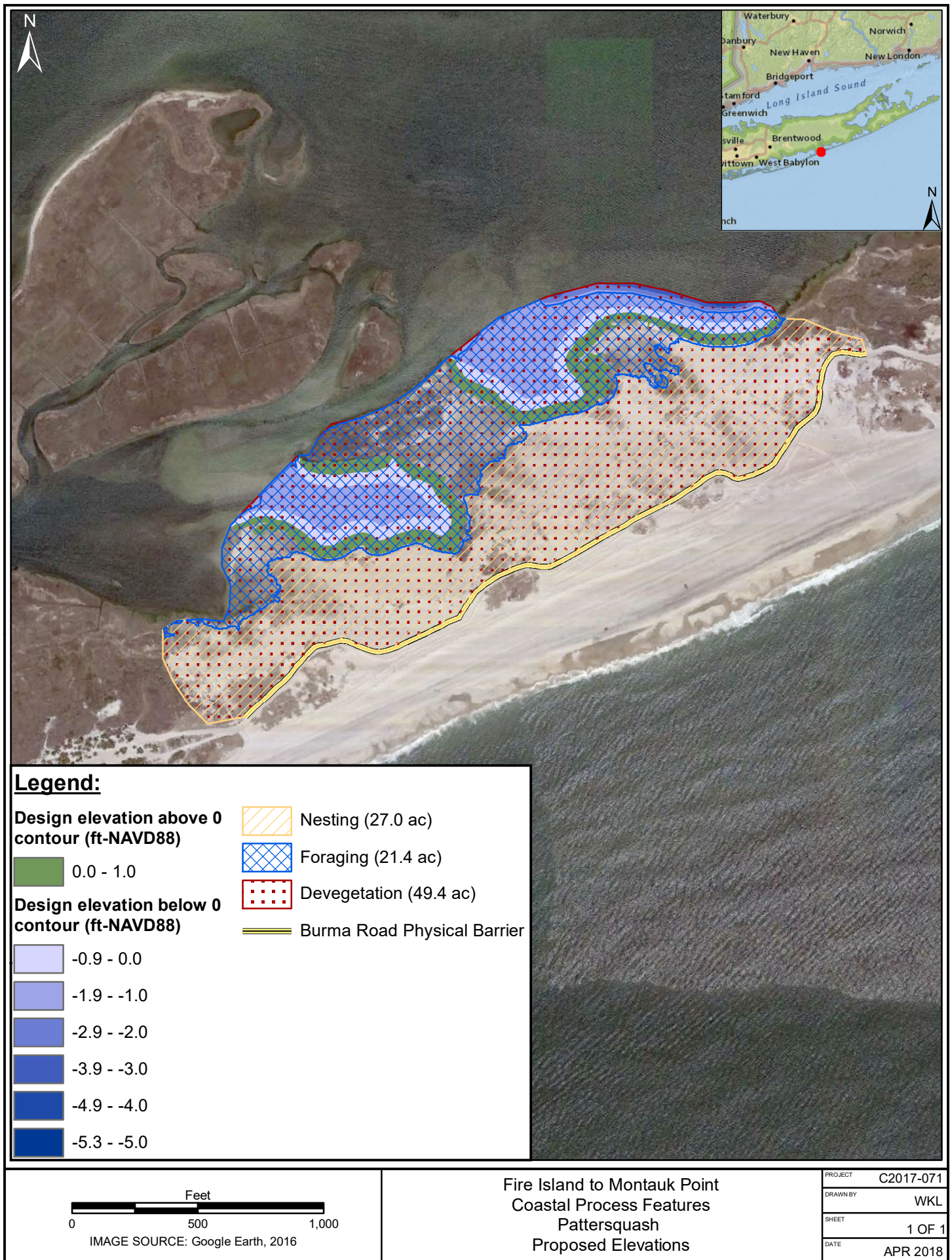
CPF Site 7 Pattersquash Reach	Reach MB-1B
	40.746433° N / 72.83247° W
<p>CPF SITE GOALS</p> <ul style="list-style-type: none"> • Devegetate area to meet ESA goals • Shallow water fill to meet CSRM goals • Southern boundary follows Burma Road alignment and includes physical barrier to limit chick movement into and beyond road <p>Pattersquash Reach is located on the eastern portion of Fire Island on the bayside within Smith Point County Park. Pattersquash Reach lies between two inlets, Old Inlet to the west and Moriches Inlet to the east. The project area contains coastal dunes with vegetation and an historically ephemeral sand spit. This CPF design seeks to devegetate uplands to provide ESA bird habitat (foraging and nesting) as well as provide CSRM benefits by placing fill to simulate cross island transport.</p> <p>To create early successional habitat that provides nesting and foraging for shorebirds, plans call for devegetating approximately 49.4 acres (ac), all of which qualify as proposed habitat. All devegetation will occur north of Burma Road. This includes 21.4 ac of foraging habitat and 27.0 ac of nesting habitat. In addition, in-water sediment placement extends from the +1 ft-NAVD88 contour offshore to -1 ft-NAVD88. Fill then follows the -1 ft-NAVD88 contour offshore for approximately 300 ft at which point the fill toes into the existing grade at a 2% slope. No upland regrading is anticipated.</p> <p>Foraging habitat is defined as the intertidal area that is intermittently submerged and exposed during tide-induced water surface fluctuations. As a proxy for the local spring tide range, the following discussion applies NOAA's reported Lowest Astronomical Tide (LAT) as the lower bound and Highest Astronomical Tide (HAT) as the upper bound for foraging habitat.</p> <p>Nesting habitat is located immediately upland of foraging habitat and extends from the HAT elevation to the naturally occurring +8 ft-NAVD88 contour at Pattersquash Reach as depicted in the Proposed Elevations figure.</p> <p>Maintenance activities at the CPF sites will be performed in coordination with renourishment cycles of the beachfill features and are subject to monitoring to ensure resolution of project objectives. CPF maintenance operations may be modified based on the adaptive management plan to meet ESA/CSRM criteria. The USACE will not implement vegetation management or manipulation of the sites unless conducted as an incidental action associated with future placement. The USACE recommends the local land management agency consider predator management in newly created CPFs.</p>	

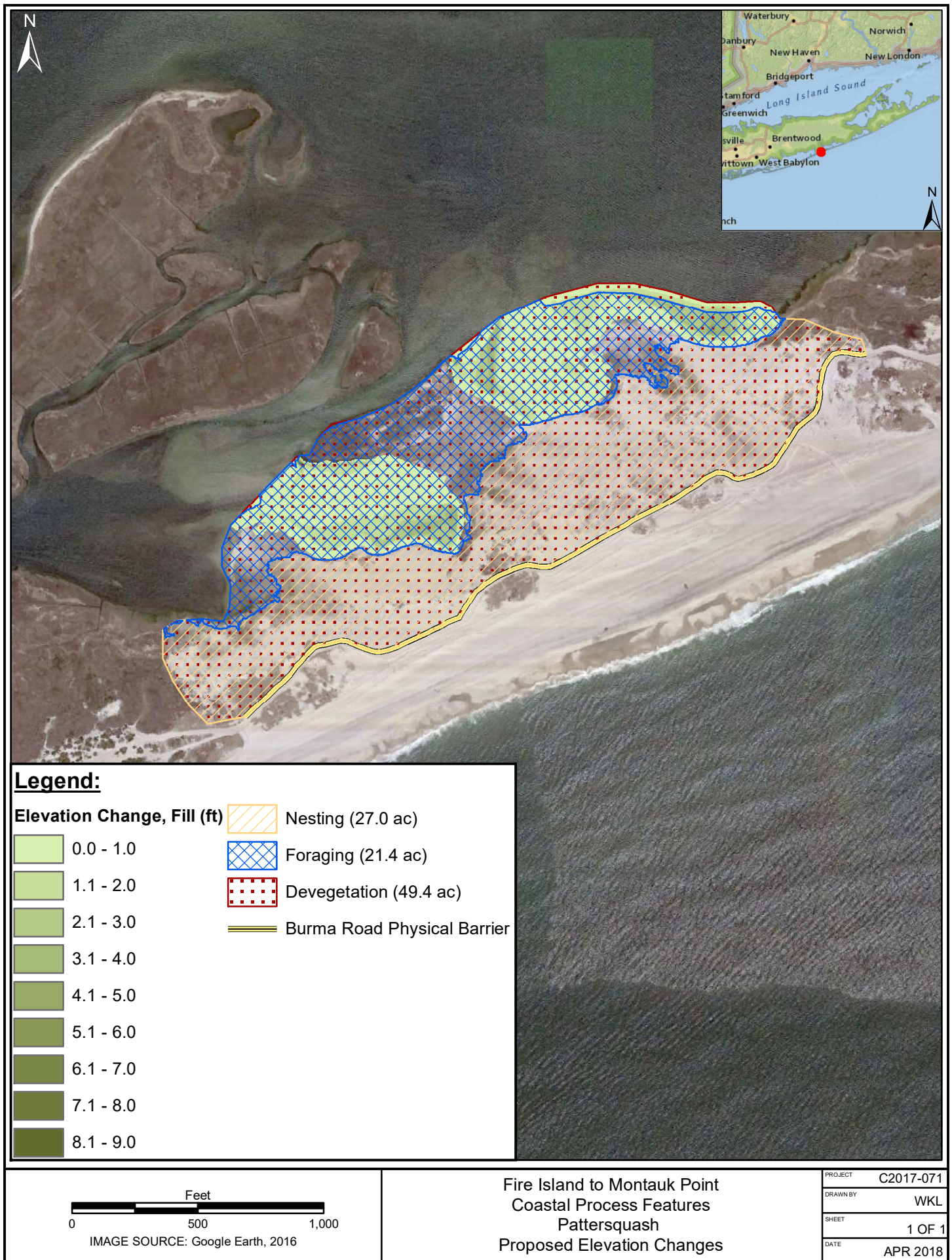
CPF Site 7 Pattersquash Reach		Reach MB-1B
		40.746433° N / 72.83247° W
CPF PARAMETERS		
Feature	ESA\CSRM	
Cut Volume (cy)	0	
Fill Volume (cy)	19,396	
Net Volume (cy)	19,396	
Acreage	49.4	
(Nesting\Foraging\Devegetation)	(27.0\21.4\49.4)	
Activity	Devegetate and Fill	
DATA SOURCES		
Topographic	USGS, 2016	
Bathymetric	USGS, 2016	
Aerial Imagery	Google Earth, 2016	
Vegetation	NPS, 2010	
REAL ESTATE INFORMATION		
Property Owner	County of Suffolk Town of Brookhaven	
Municipality	Brookhaven	
County	Suffolk	
CBRA	NY-59P, Otherwise Protected Area	

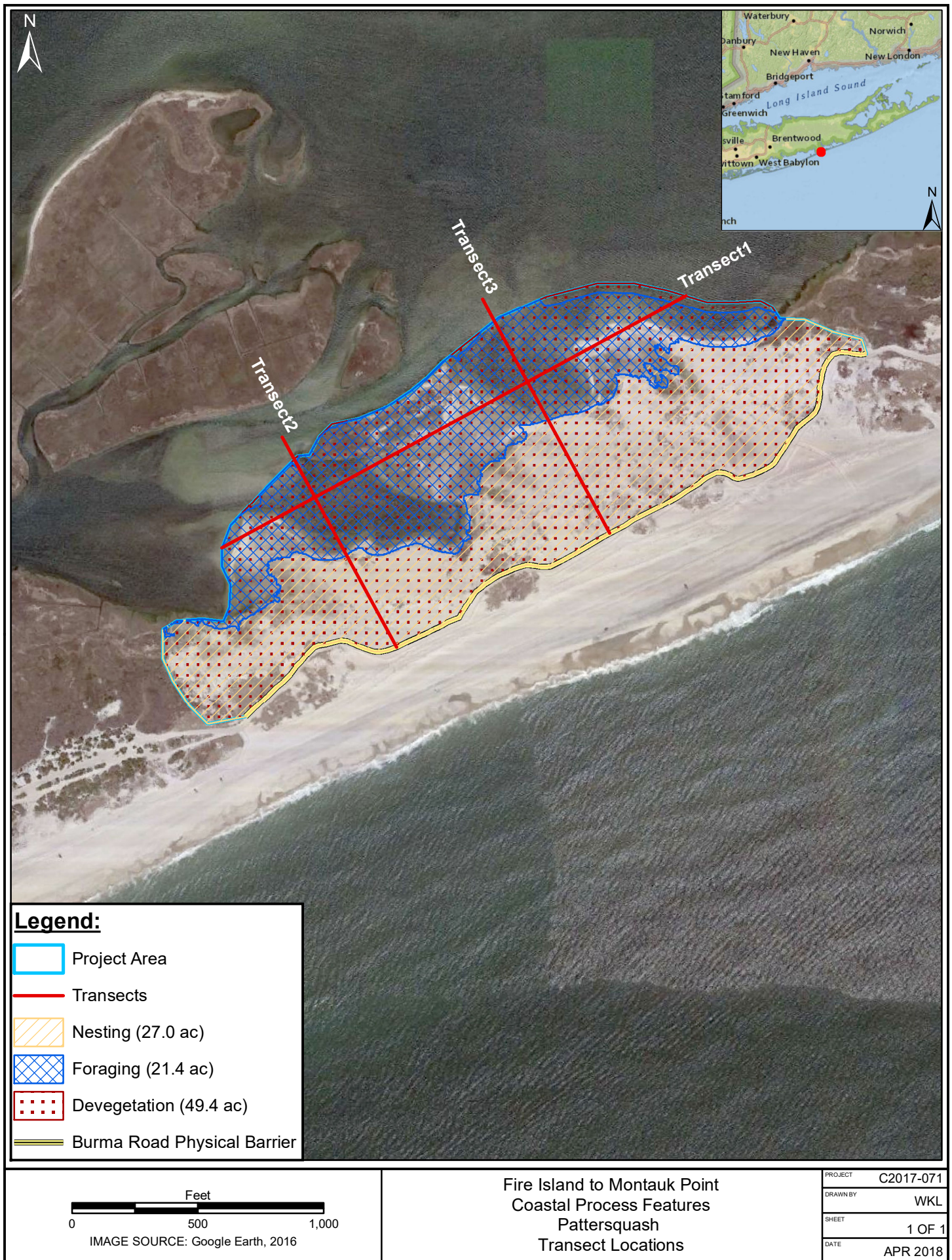


BAYSIDE TIDAL ENVIRONMENT (ft-NAVD88)					
Closest Tidal Benchmark	Smith Point Bridge, NY		Highest Astronomical Tide (HAT)		1.42
			Mean Higher High Water (MHHW)		0.95
Coordinates	40.738333° N 72.868333° W		Mean High Water (MHW)		0.75
			Mean Sea Level (MSL)		-0.09
0 ft-NAVD = 1.04 ft-NGVD			Mean Tide Level (MTL)		-0.10
Range (MHW-MLW)		1.70	Mean Low Water (MLW)		-0.95
Diurnal Range (MHHW - MLLW)		2.01	Mean Lower Low Water (MLLW)		-1.07
Largest Tidal Range (HAT-LAT)		2.97	Lowest Astronomical Tide (LAT)		-1.55
BAYSIDE WAVE ENVIRONMENT					
Return Period	Fetch (ft)	Wave Height (ft)	Wind Setup (ft)	Wave Setup (ft)	HAT + Setup + Wave Height (ft-NAVD88)
1-year	19,180	2.5	0.14	0.81	4.87
5-year	19,180	3.3	0.24	0.82	5.78
10-year	19,180	3.7	0.29	0.83	6.24

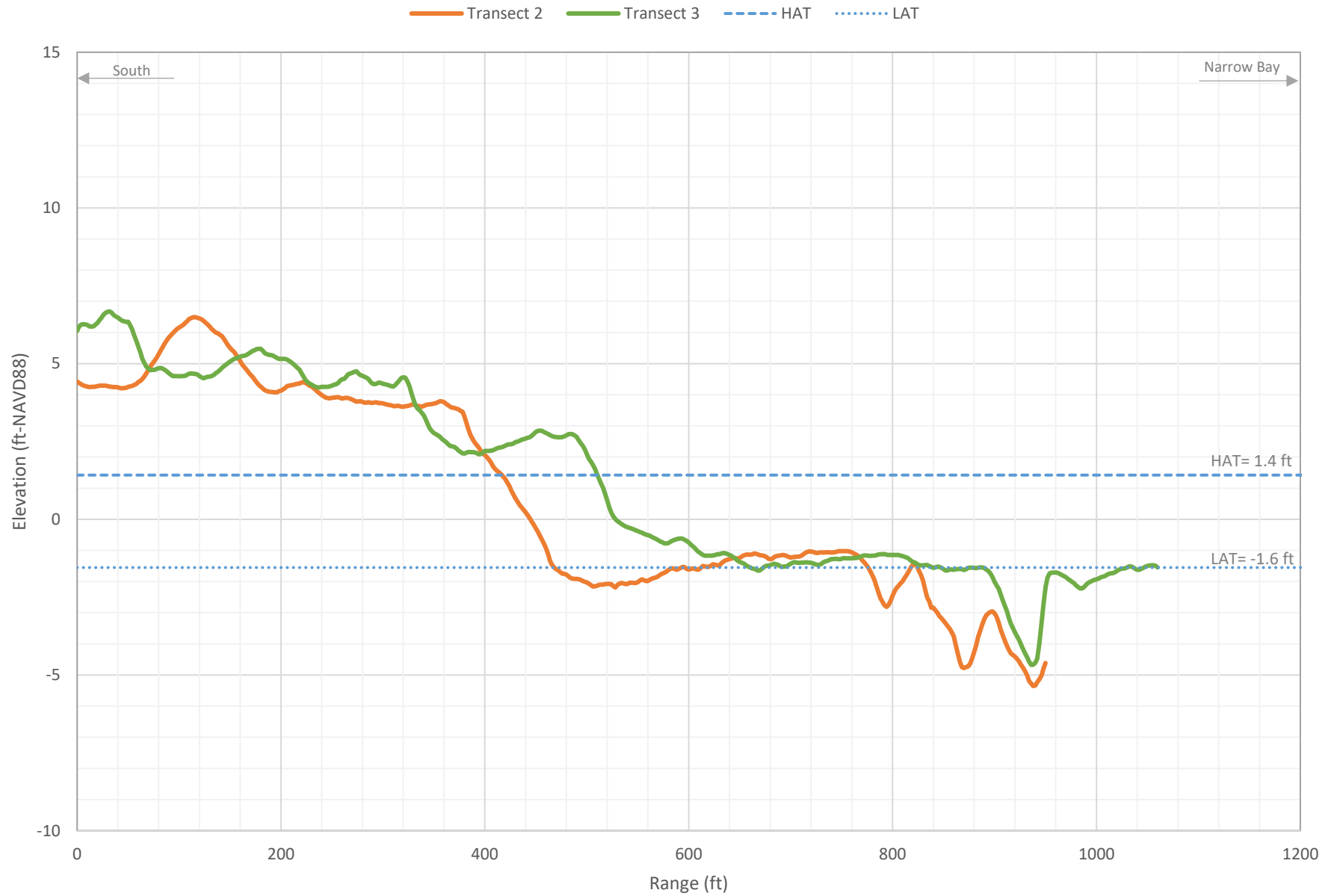




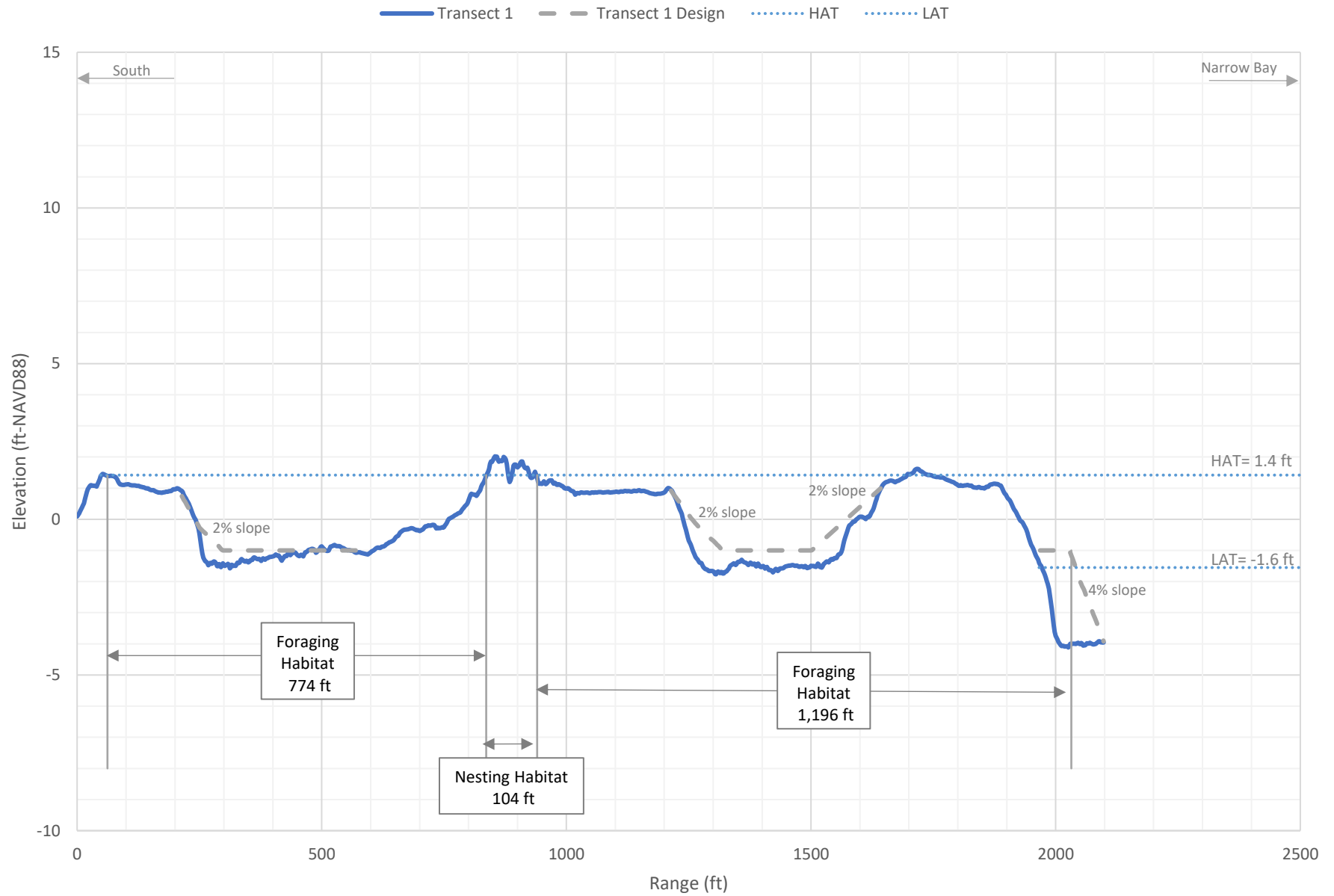




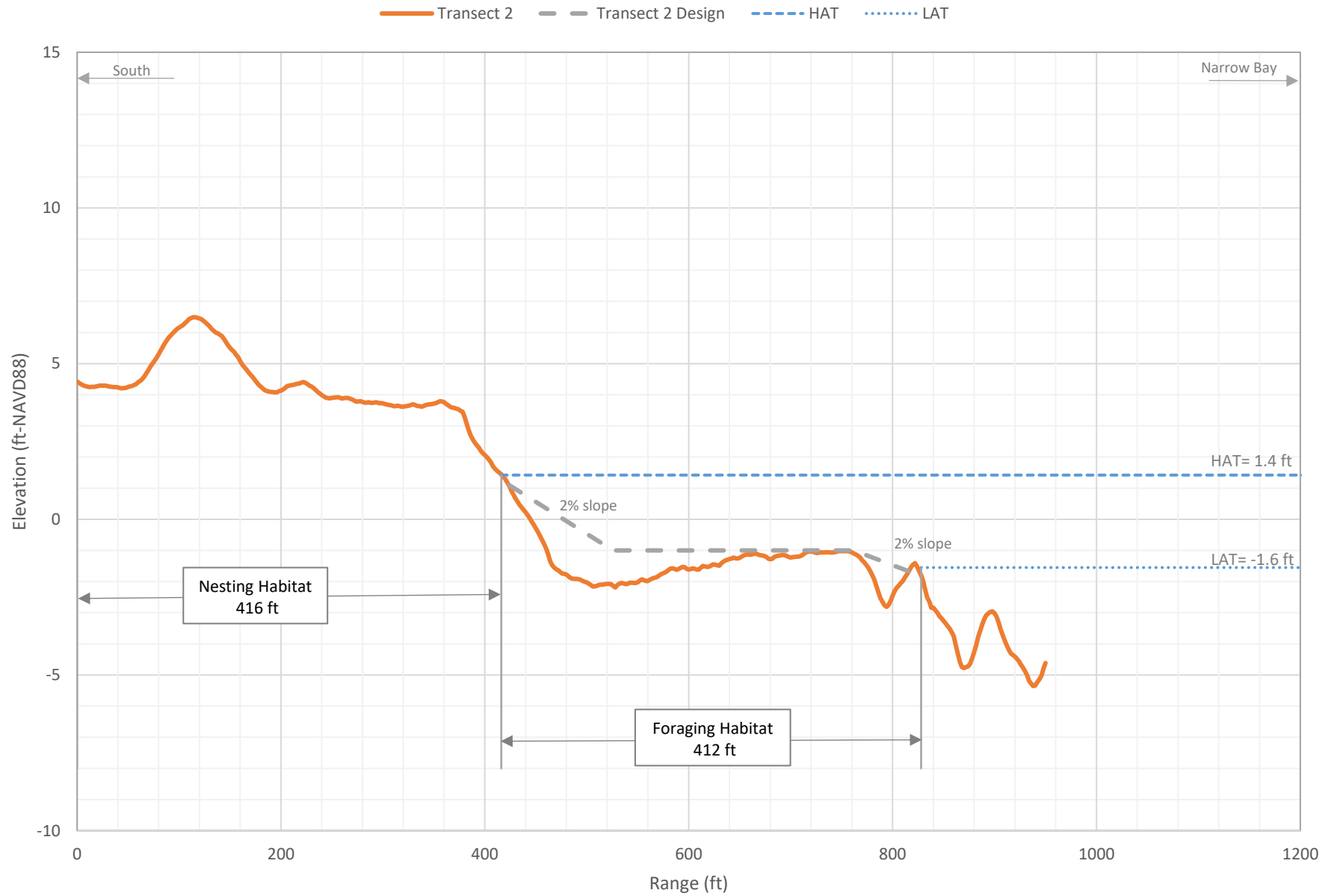
Pattersquash Existing Conditions



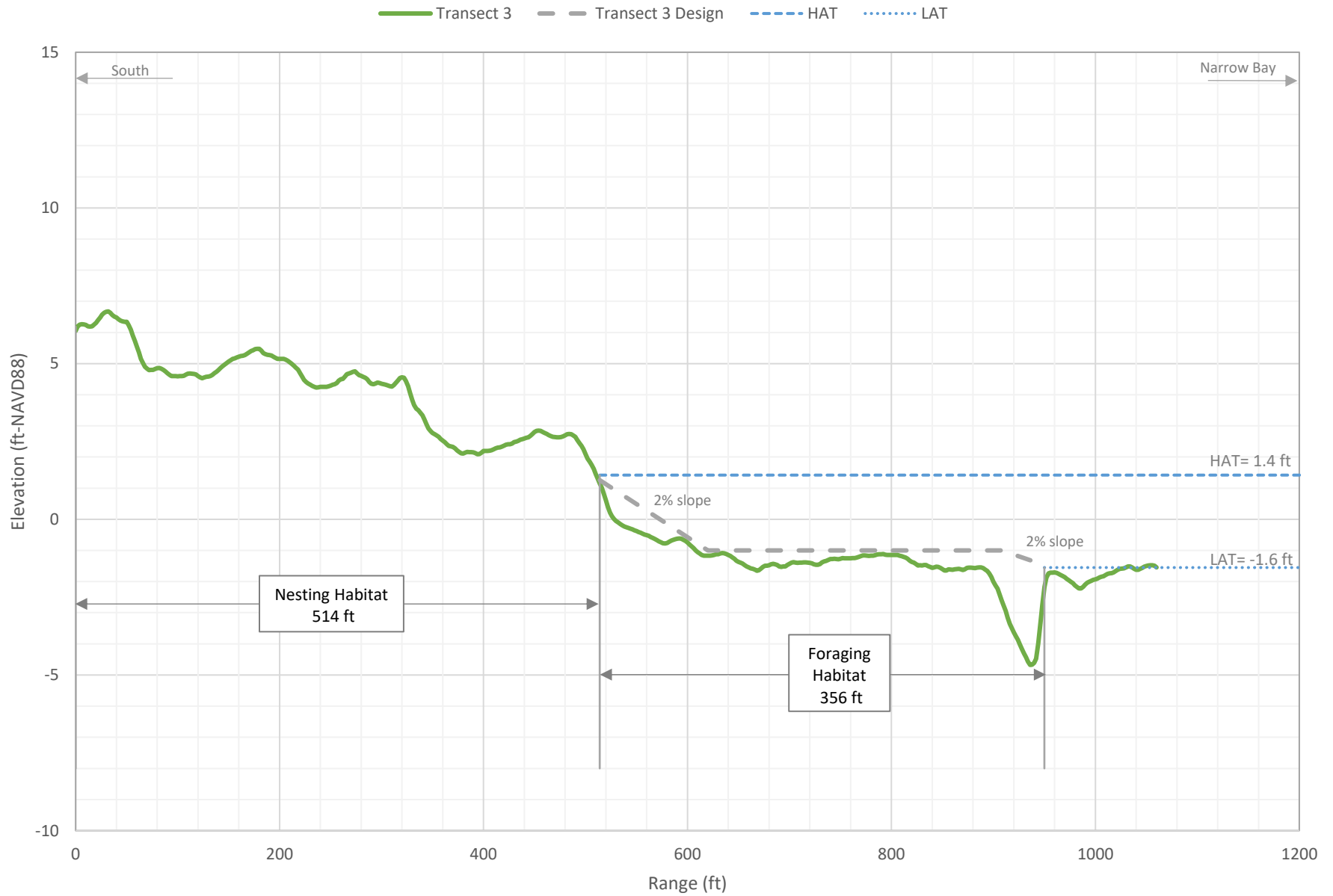
Pattersquash Transect 1




Pattersquash Transect 2



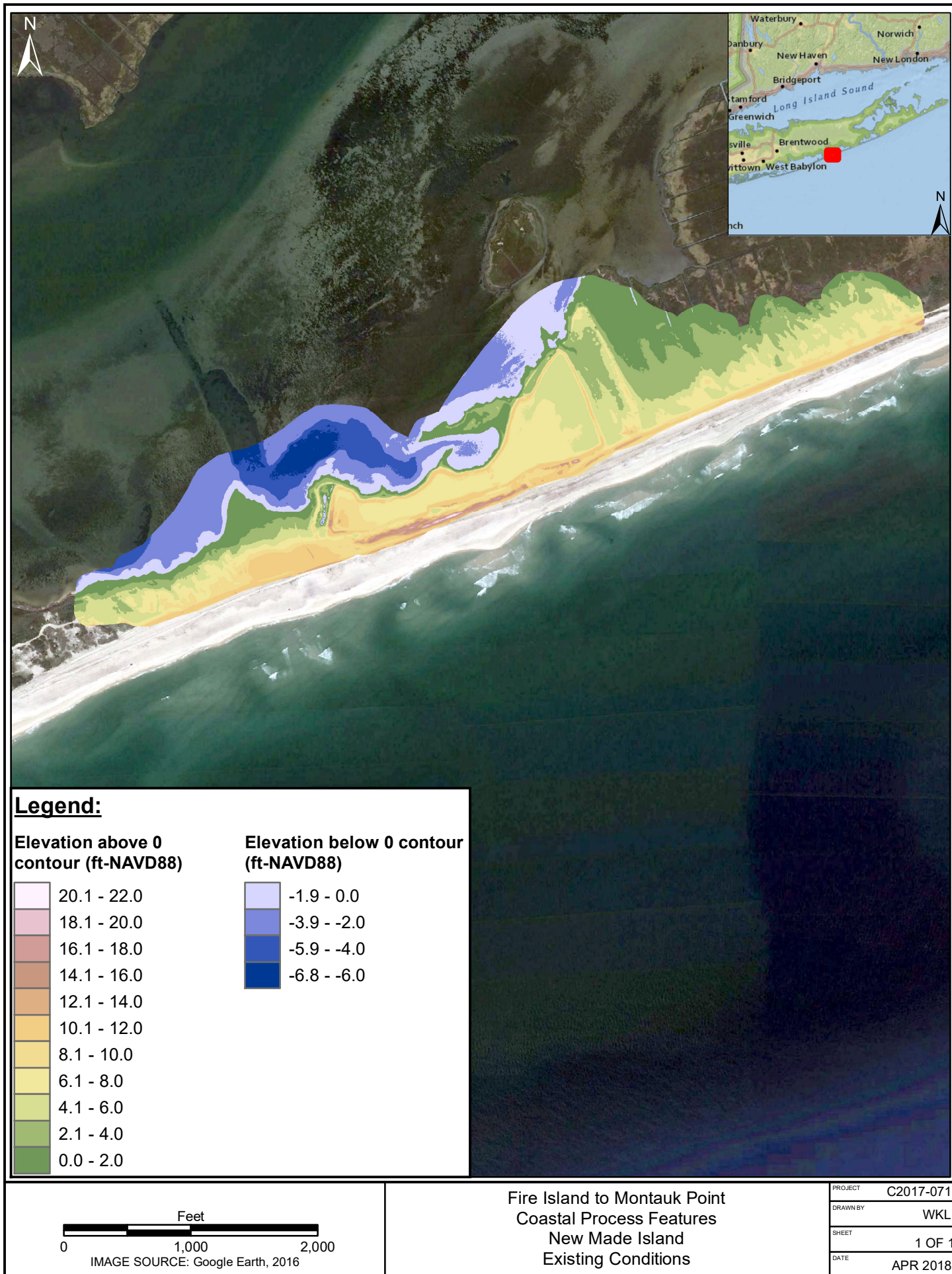
Pattersquash Transect 3

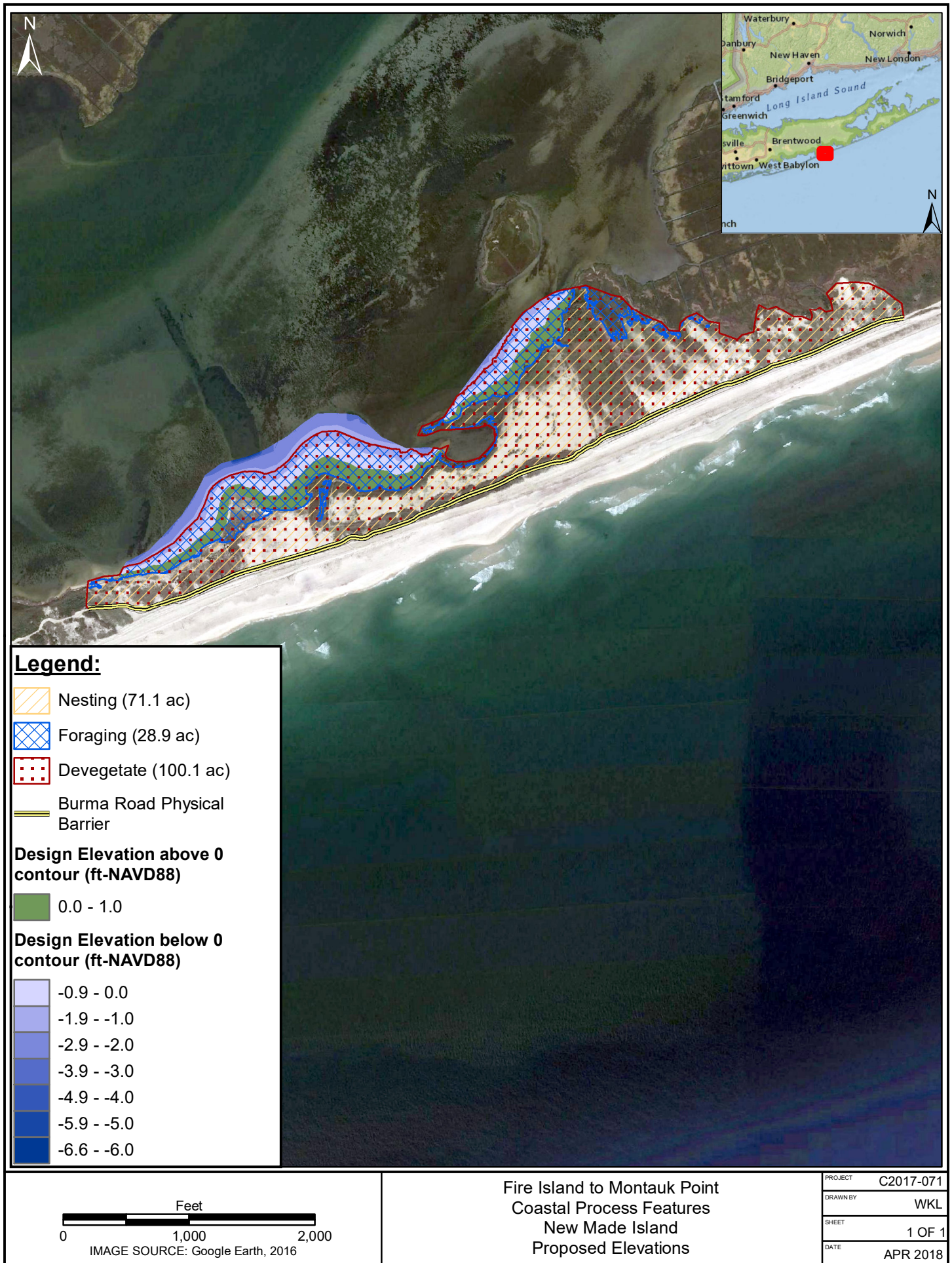


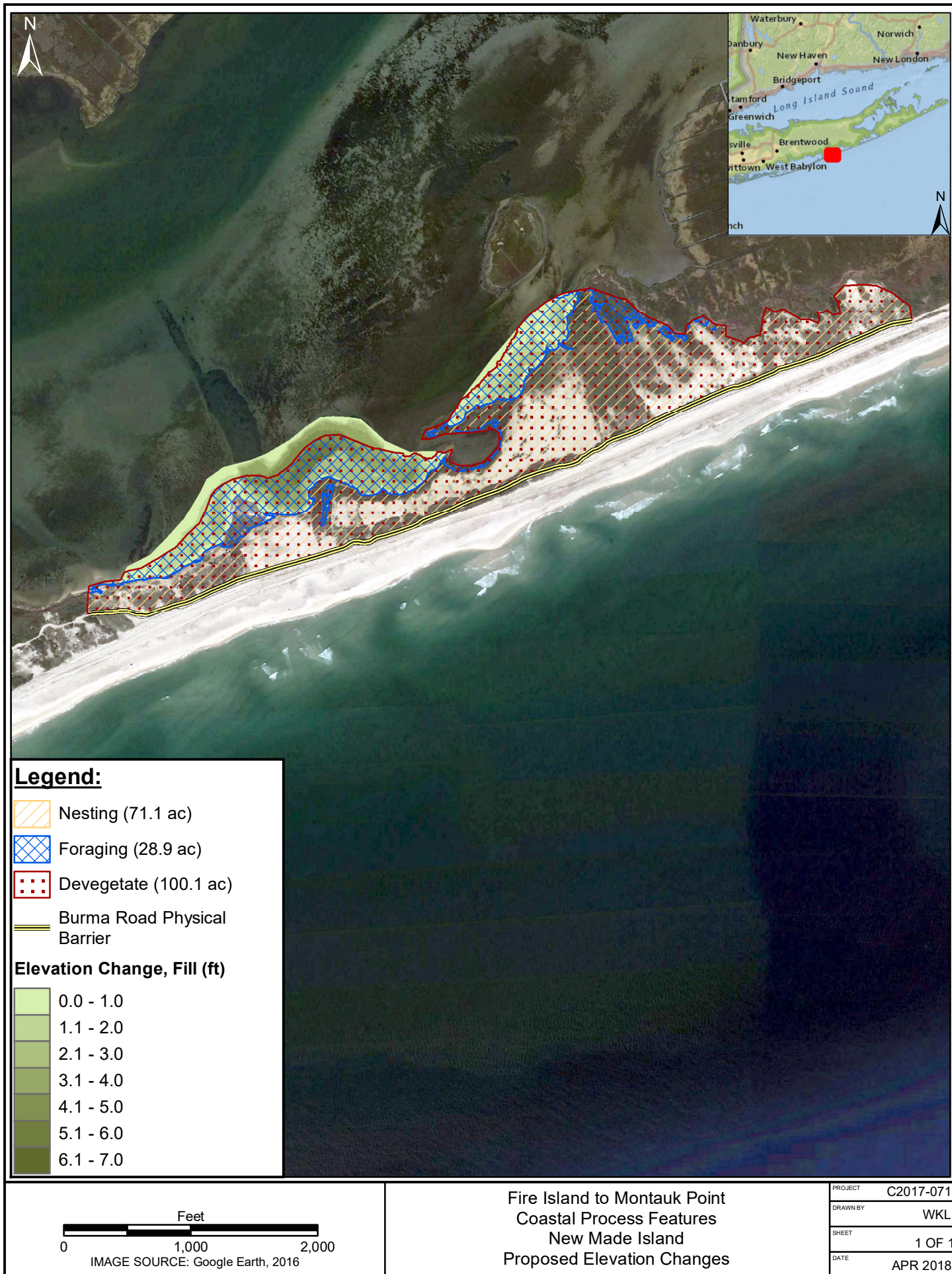
CPF Site 8 New Made Island Reach	Reach MB-2A
	40.753186° N / 72.80777° W
<p>CPF SITE GOALS</p> <ul style="list-style-type: none"> • Devegetate area to meet ESA goals • Shallow water fill to meet CSRM goals • Southern boundary follows Burma Road alignment and includes physical barrier to limit chick movement into and beyond road <p>New Made Island Reach is located on the eastern portion of Fire Island on the bayside, within Smith Point County Park. New Made Island Reach lies between two inlets, Old Inlet to the west and Moriches Inlet to the east. The project area contains coastal dunes with vegetation and an historically ephemeral sand spit. This CPF design seeks to devegetate uplands to provide ESA bird habitat (foraging and nesting) as well as provide CSRM benefits by placing fill to simulate cross island transport.</p> <p>To create early successional habitat that provides nesting and foraging for shorebirds, plans call for devegetating approximately 100.1 acres (ac), all of which qualify as proposed habitat. All devegetation will occur north of Burma Road. This includes 28.9 ac of foraging habitat and 71.1 ac of nesting habitat. In addition, in-water sediment placement extends at a 1% slope from +1 ft-NAVD88 to the intersection with existing grade in the offshore direction. No upland regrading is anticipated.</p> <p>Vehicular traffic on Burma Road presents a potential hazard for chicks and older birds. As such, a physical barrier shall be constructed to limit the ability of birds to enter traffic lanes. Past efforts using sand/snow fencing have had limited success primarily due to pedestrian openings in the fencing. Additional types of barriers shall be considered during the PED phase of the project. Possible physical barrier components may include dredge pipe, sand/snow fencing, etc., and elevated pedestrian cross walks to limit the number of openings through the barriers. Future detailed CPF design will be completed in close coordination with FWS, Suffolk County, and NY State Parks.</p> <p>Foraging habitat is defined as the intertidal area that is intermittently submerged and exposed during tide-induced water surface fluctuations. As a proxy for the local spring tide range, the following discussion applies NOAA's reported Lowest Astronomical Tide (LAT) as the lower bound and Highest Astronomical Tide (HAT) as the upper bound for foraging habitat.</p> <p>Nesting habitat is located immediately upland of foraging habitat and extends from the HAT elevation to the naturally occurring +8 ft-NAVD88 contour at Pattersquash Reach as depicted in the Proposed Elevations figure.</p> <p>Maintenance activities at the CPF sites will be performed in coordination with renourishment cycles of the beachfill features and are subject to monitoring to ensure resolution of project objectives. In addition, future renourishment of the site is subject to the adaptive management plan. The USACE will not implement vegetation management or manipulation of the sites unless conducted as an incidental action associated with future placement. The USACE recommends the local land management agency consider predator management and symbolic fencing to the 10 ft-NAVD88 contour.</p>	

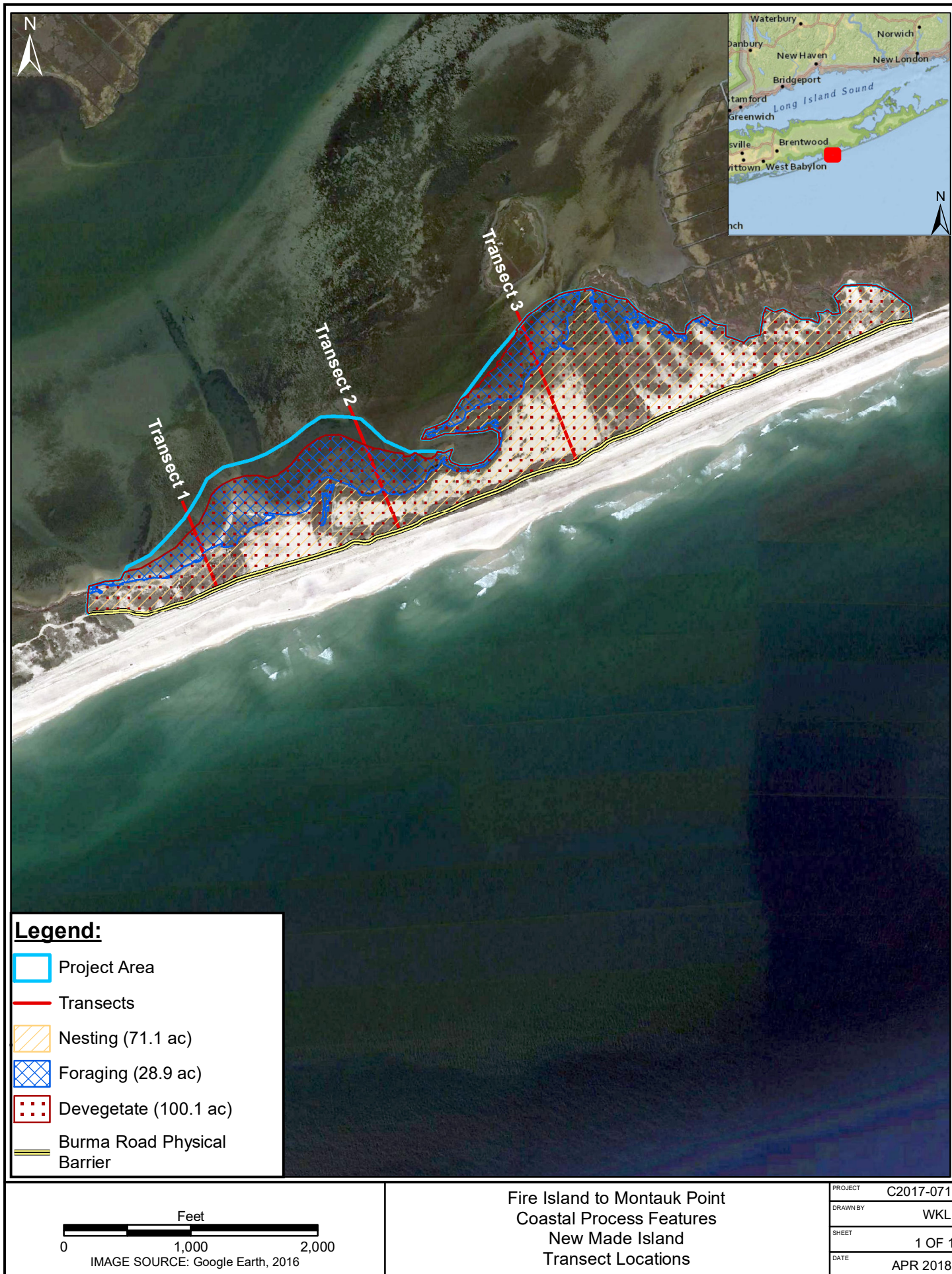
CPF Site 8 New Made Island Reach		Reach MB-2A 40.753186° N / 72.80777° W
CPF PARAMETERS		
Feature	ESA with CSRM Features	
Cut Volume (cy)	0	
Fill Volume (cy)	100,583	
Net Volume (cy)	100,583	
Acreage (Nesting\Foraging\Devegetation)	107.9 (71.1\28.9\100.1)	
Activity	Habitat Creation / Devegetation	
DATA SOURCES		
Topographic	USGS, 2016	
Bathymetric	USGS, 2016	
Aerial Imagery	Google Earth, 2016	
Vegetation	N/A*	
REAL ESTATE INFORMATION		
Property Owner	County of Suffolk Town of Brookhaven	
Municipality	Brookhaven	
County	Suffolk	
CBRA	NY-59P, Otherwise Protected Area	
		*up to date vegetation data were not available for the study area

BAYSIDE TIDAL ENVIRONMENT (ft-NAVD88)					
Closest Tidal Benchmark	Smith Point Bridge, NY		Highest Astronomical Tide (HAT)		1.46
			Mean Higher High Water (MHHW)		0.99
Coordinates	40.738333° N 72.868333° W		Mean High Water (MHW)		0.78
			Mean Sea Level (MSL)		-0.11
0 ft-NAVD = 1.03 ft-NGVD			Mean Tide Level (MTL)		-0.12
Range (MHW-MLW)		1.80	Mean Low Water (MLW)		-1.02
Diurnal Range (MHHW - MLLW)		2.12	Mean Lower Low Water (MLLW)		-1.14
Largest Tidal Range (HAT-LAT)		3.08	Lowest Astronomical Tide (LAT)		-1.62
BAYSIDE WAVE ENVIRONMENT					
Return Period	Fetch (ft)	Wave Height (ft)	Wind Setup (ft)	Wave Setup (ft)	HAT + Setup + Wave Height (ft-NAVD88)
1-year	13,672	2.1	0.13	0.75	4.44
5-year	13,672	2.8	0.21	0.76	5.23
10-year	13,672	3.1	0.26	0.76	5.58





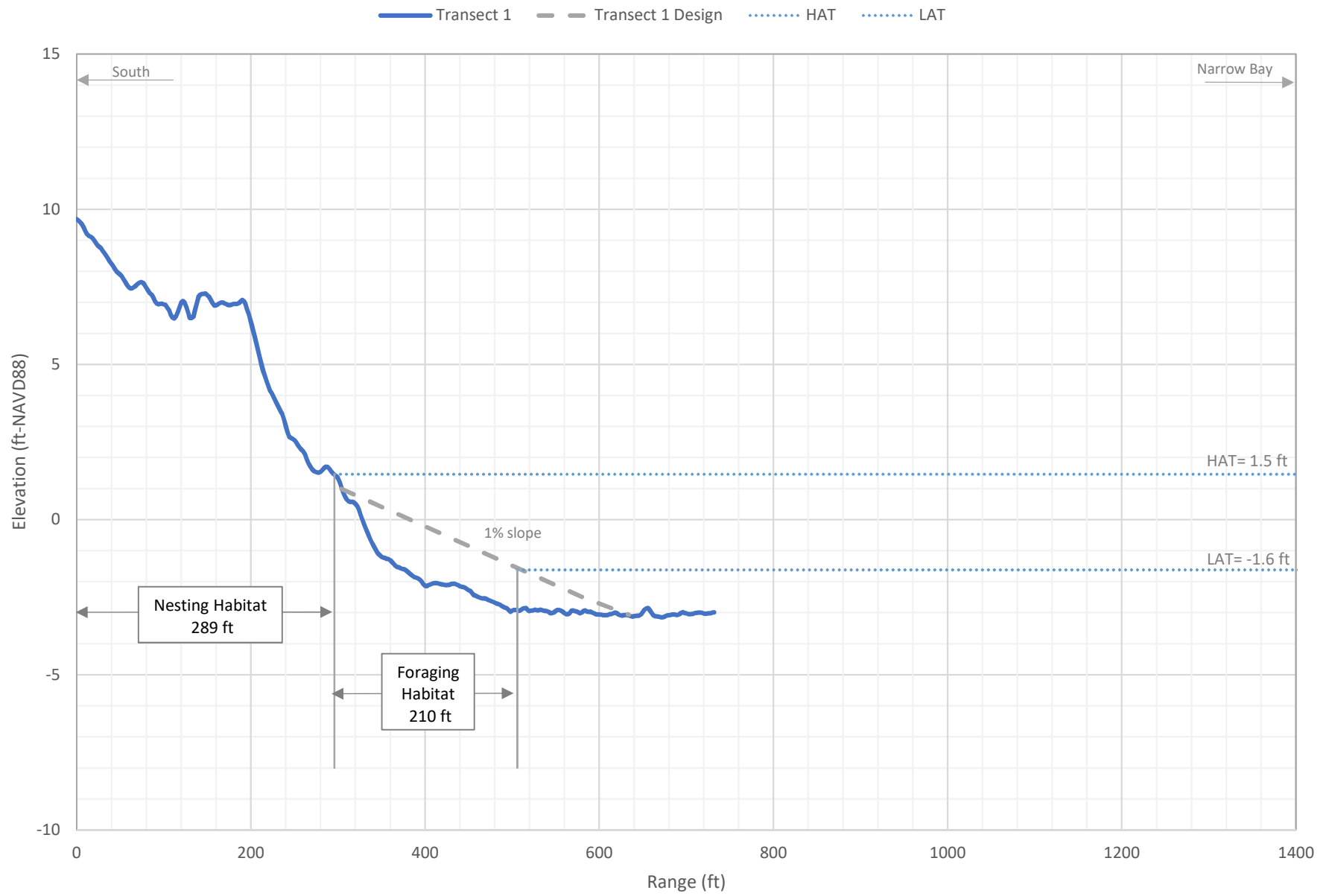




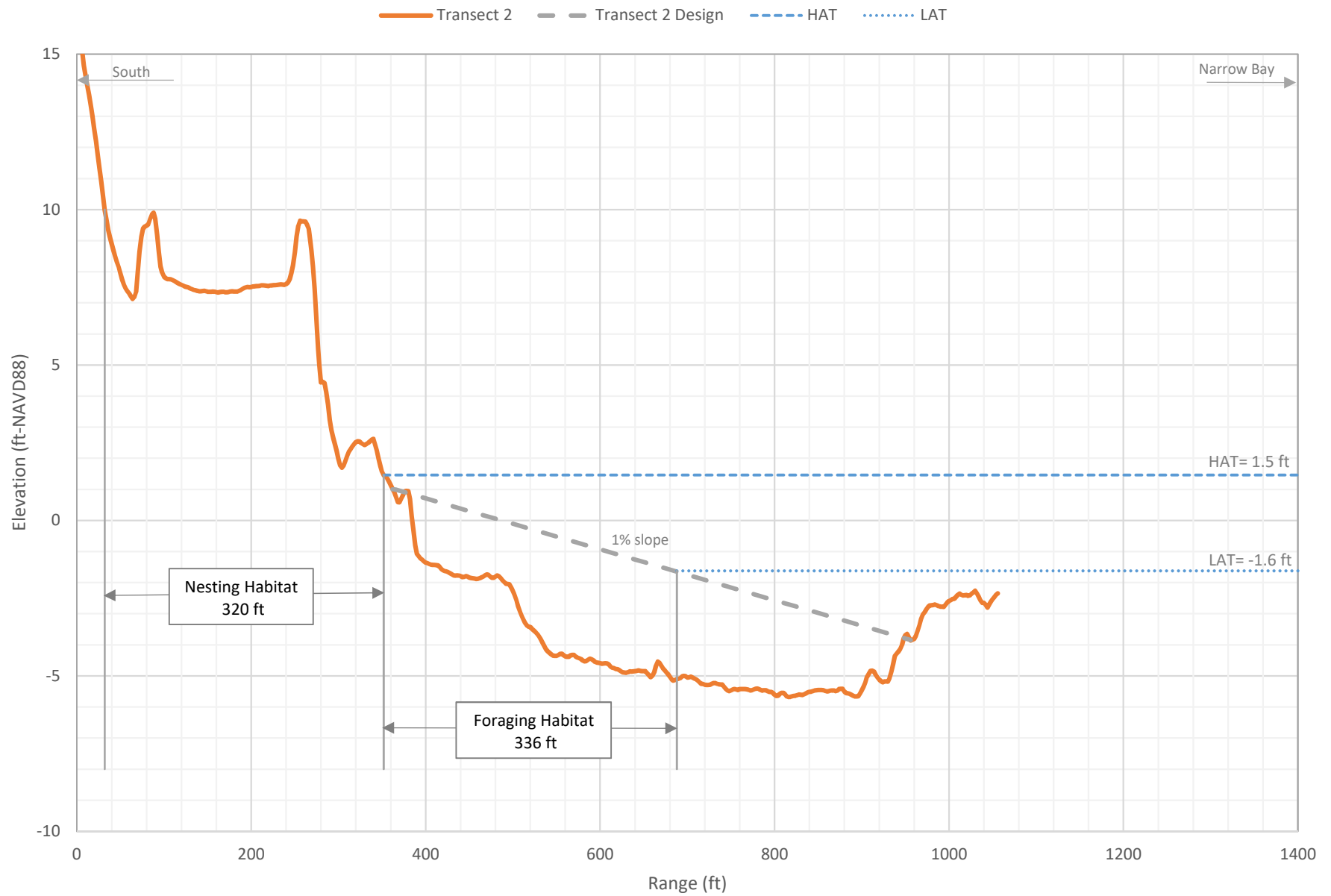
New Made Island Existing Conditions



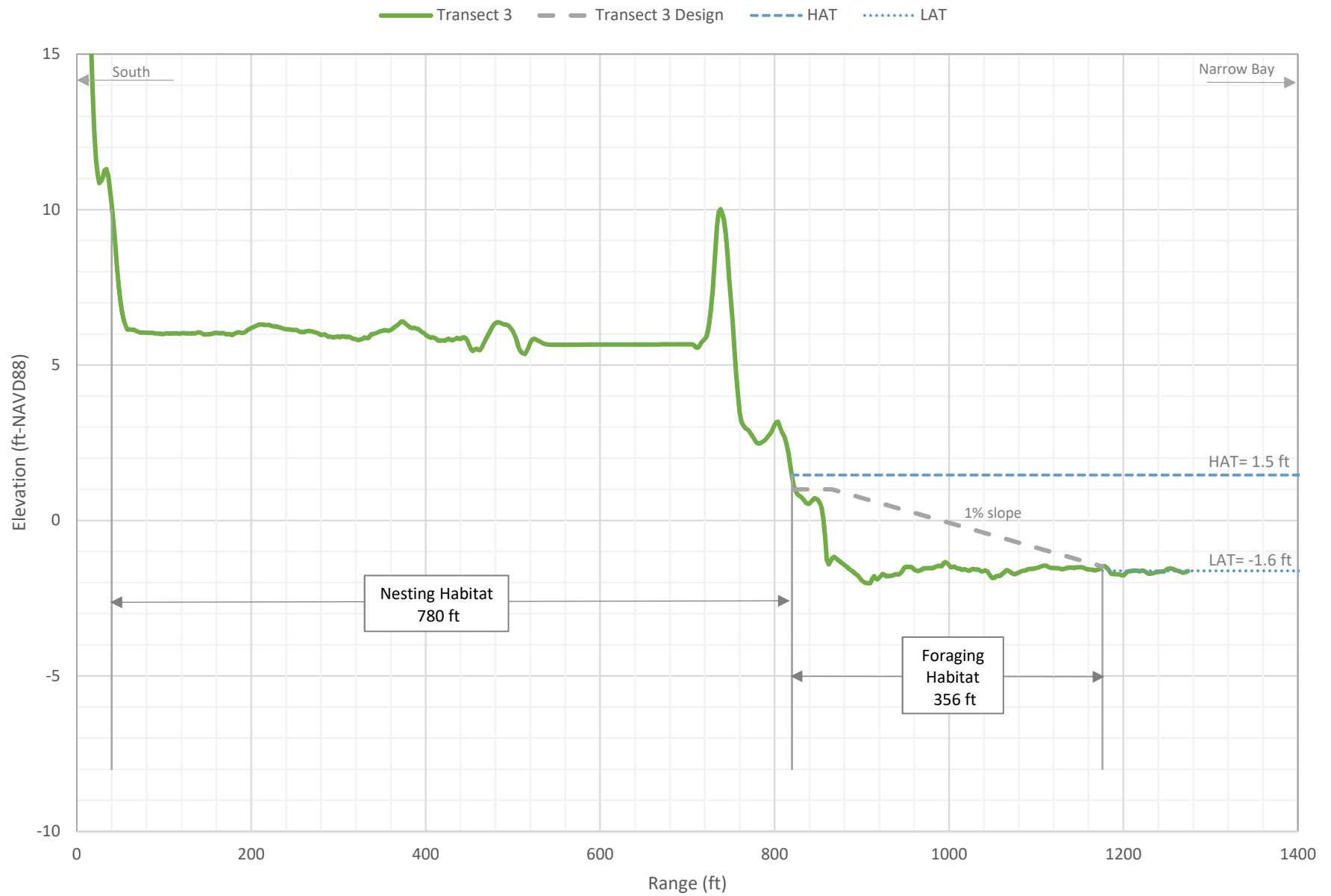
New Made Island Transect 1




New Made Island Transect 2



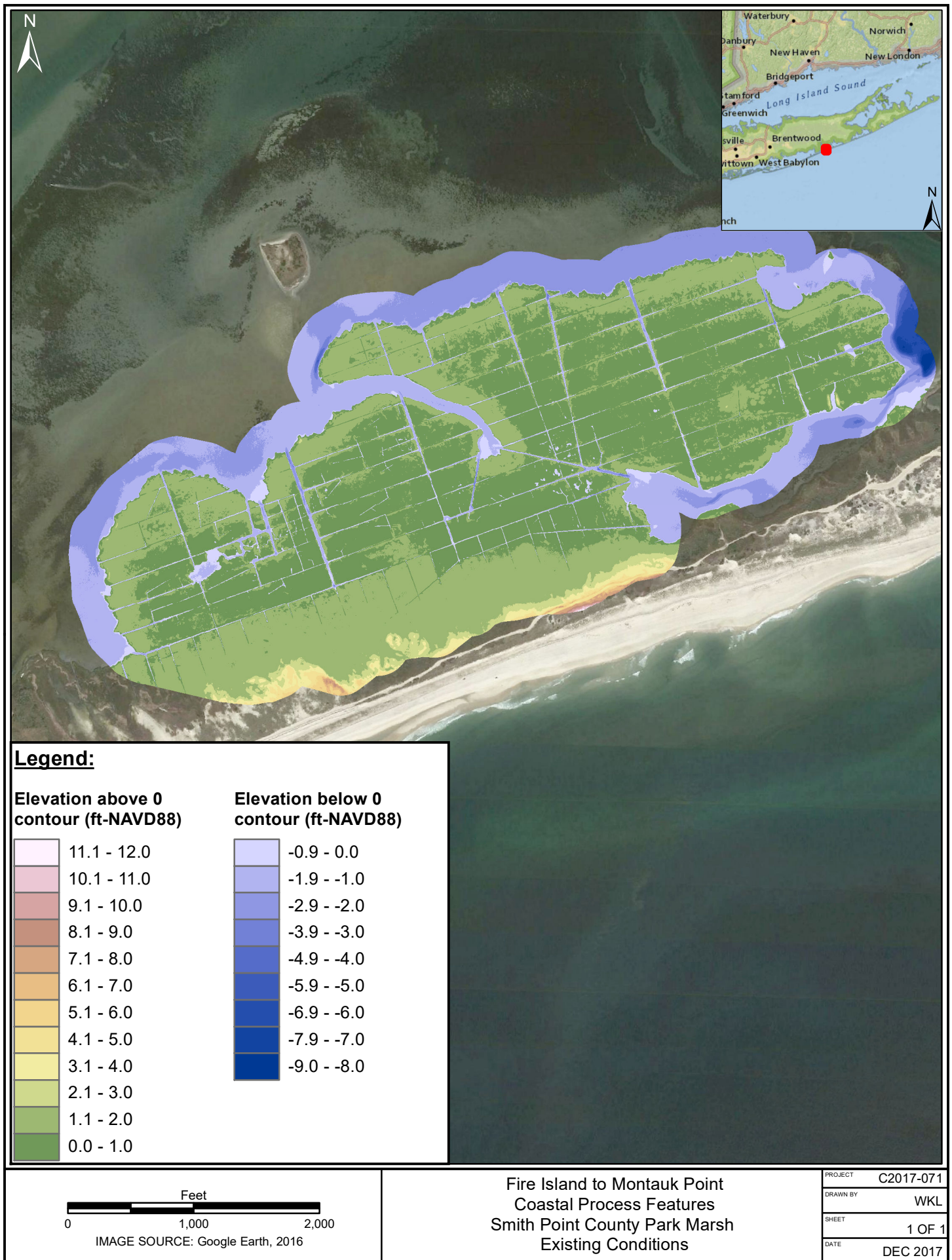
New Made Island Transect 3

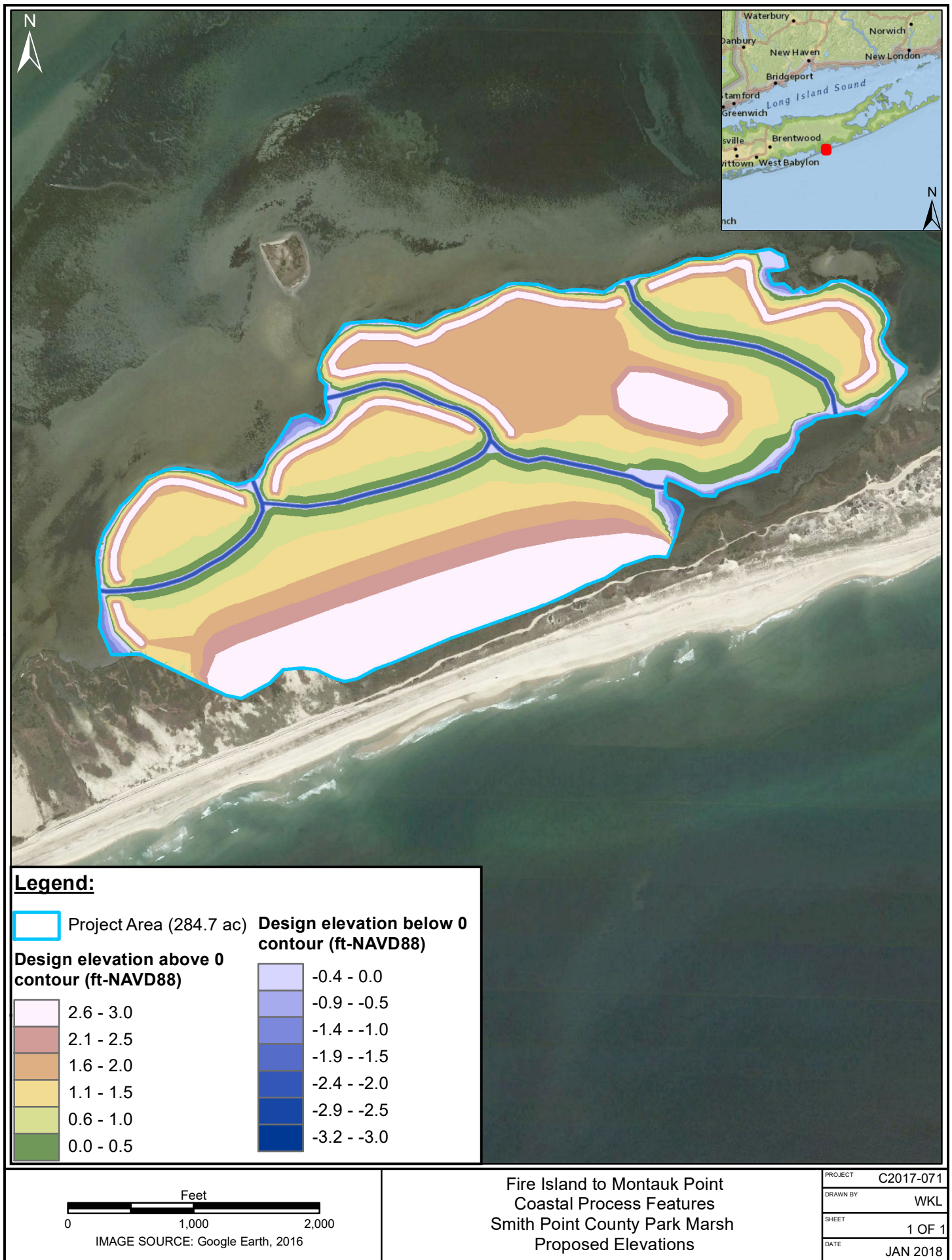


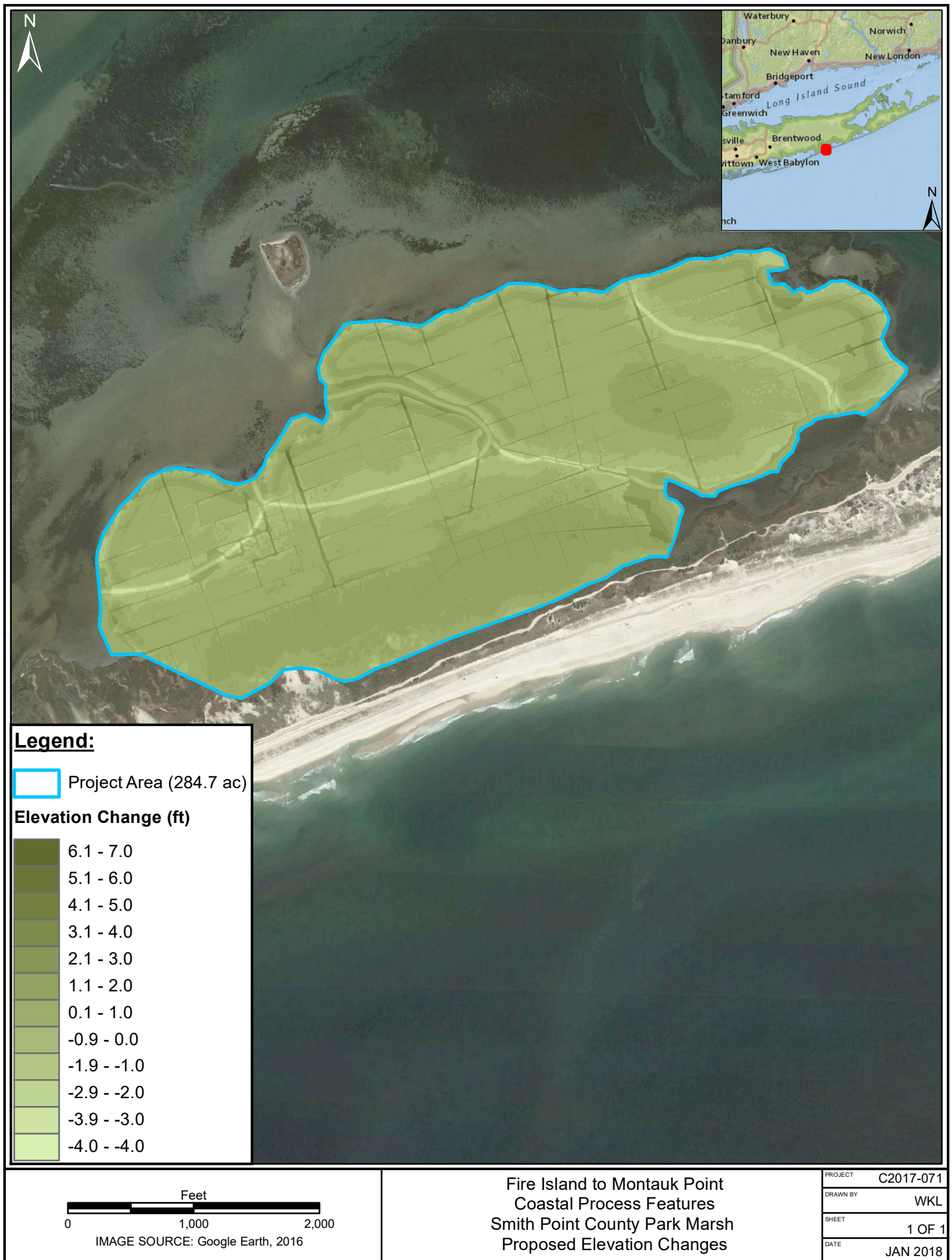
CPF Site 9 Smith Point County Park Marsh	Reach MB-2A
	40.763611° N / 72.79122° W
<p>CPF SITE GOALS</p> <ul style="list-style-type: none"> • Fill placement to simulate cross shore transport for CSRМ credit • Create a series of channels to promote tidal exchange within marsh <p>Smith Point County Park Marsh is located on the eastern portion of Fire Island on the bayside, within Smith Point County Park. Smith Point County Park Marsh lies between two inlets, Old Inlet to the west and Moriches Inlet to the east. The project area contains a large coastal salt marsh with linear man-made ditches cut through the wetland. The north/south running ditches are cut at approximately 1,000 ft intervals while the east/west running ditches are cut at approximately 200 ft intervals. This CPF design seeks to add fill to provide CSRМ benefits by simulating cross island transport.</p> <p>To restore cross island transport, plans call for placement of fill across 284.7 acres (ac) of salt marsh. The site will be regraded to allow for wetland vegetation reestablishment. Higher elevations buffer the project area mimicing its current state. The existing man-made ditches will be filled to reestablish a uniform marsh across the entire project area. A series of tidal channels will be established to promote tidal exchange within the interior of the marsh.</p> <p>Sand placement at the CPF sites will be performed in coordination with renourishment cycles of the beachfill features and subject to monitoring to ensure resolution of project objectives. The USACE will not implement vegetation management or manipulation of the sites unless conducted as an incidental action associated with future placement. The USACE recommends the local land management agency consider predator management.</p>	

CPF Site 9 Smith Point County Park Marsh		Reach MB-2A
		40.763611° N / 72.79122° W
CPF PARAMETERS		
Feature	CSRM	
Cut Volume (cy)	-61,523	
Fill Volume (cy)	320,953	
Net Volume (cy)	259,430	
Acreage	284.7	
Activity	Fill, cut 4 tidal channels	
DATA SOURCES		
Topographic	USGS, 2016	
Bathymetric	USGS, 2016	
Aerial Imagery	Google Earth, 2016	
Vegetation	N/A*	
REAL ESTATE INFORMATION		
Property Owner	County of Suffolk Town of Brookhaven	
Municipality	Brookhaven	
County	Suffolk	
CBRA	NY-59P, Otherwise Protected Area	
		*up to date vegetation data were not available for the study area

BAYSIDE TIDAL ENVIRONMENT (ft-NAVD88)					
Closest Tidal Benchmark	Moriches Inlet, NY		Highest Astronomical Tide (HAT)		1.53
			Mean Higher High Water (MHHW)		1.06
Coordinates	40.763333° N 72.755000° W		Mean High Water (MHW)		0.84
			Mean Sea Level (MSL)		-0.13
0 ft-NAVD = 1.02 ft-NGVD			Mean Tide Level (MTL)		-0.14
Range (MHW-MLW)		1.95	Mean Low Water (MLW)		-1.11
Diurnal Range (MHHW - MLLW)		2.28	Mean Lower Low Water (MLLW)		-1.23
Largest Tidal Range (HAT-LAT)		3.24	Lowest Astronomical Tide (LAT)		-1.71
BAYSIDE WAVE ENVIRONMENT					
Return Period	Fetch (ft)	Wave Height (ft)	Wind Setup (ft)	Wave Setup (ft)	HAT + Setup + Wave Height (ft)
1-year	22,858	2.7	0.22	0.65	5.10
5-year	22,858	3.5	0.37	0.67	6.07
10-year	22,858	4.0	0.45	0.68	6.66





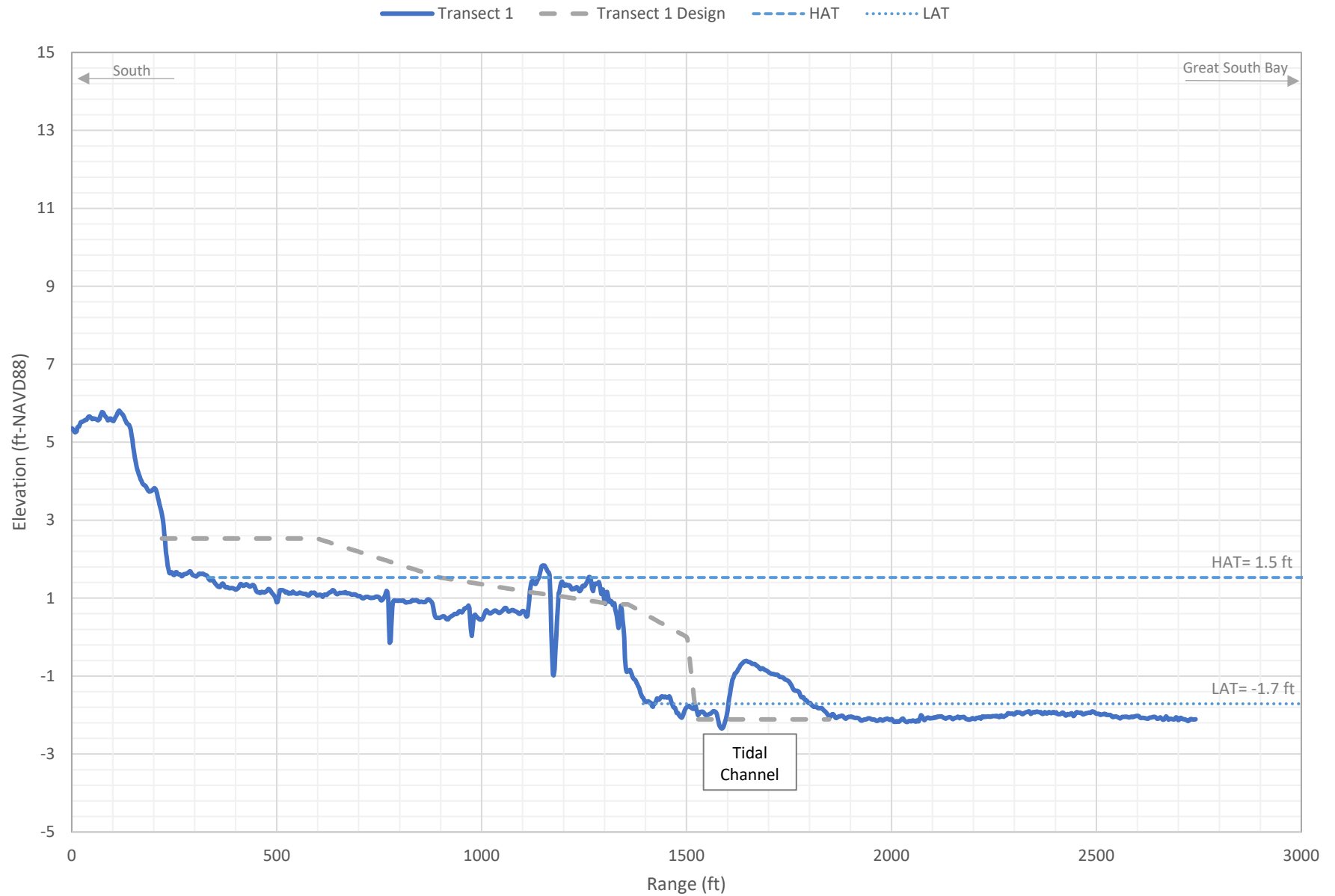




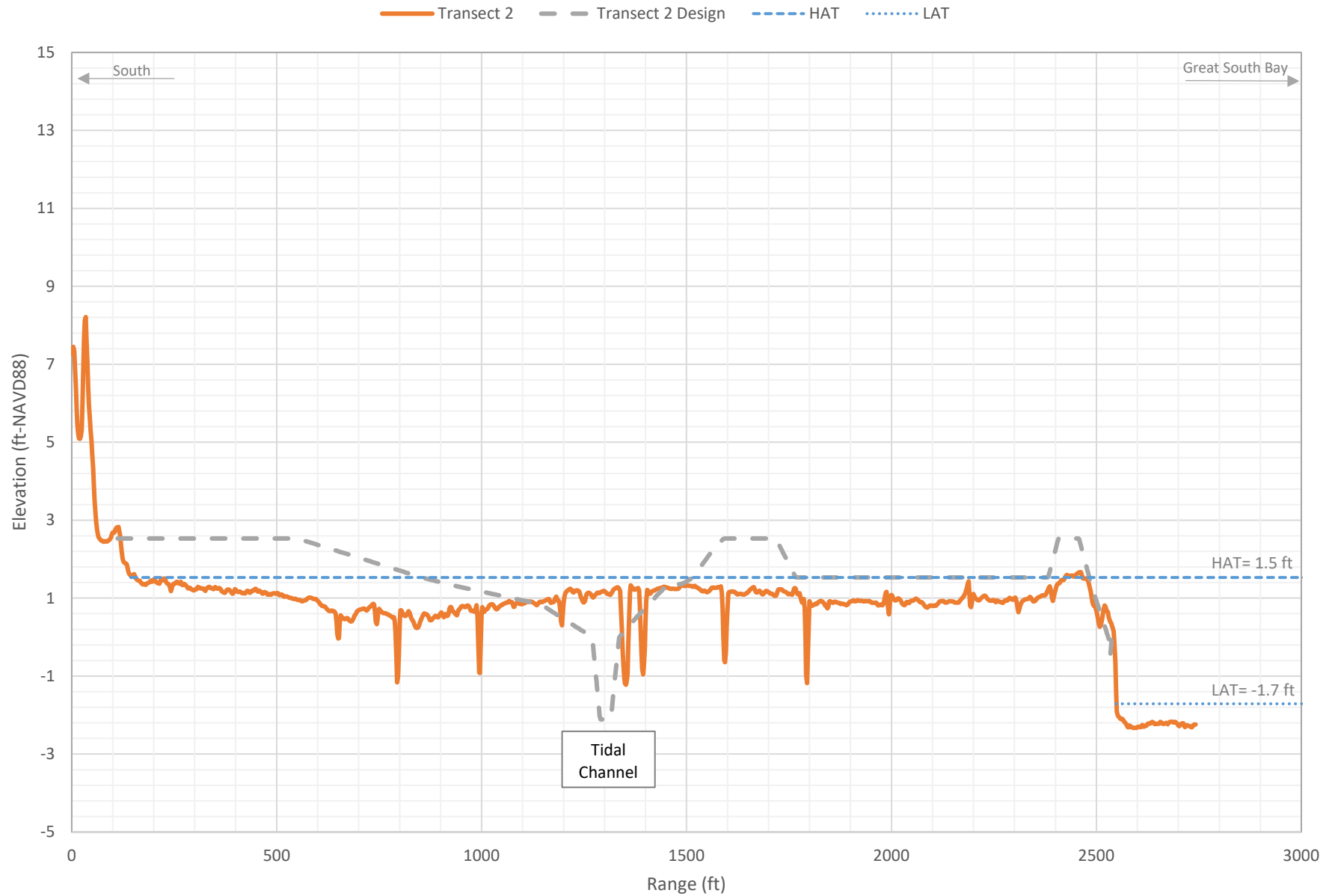
Smith Point County Park Marsh



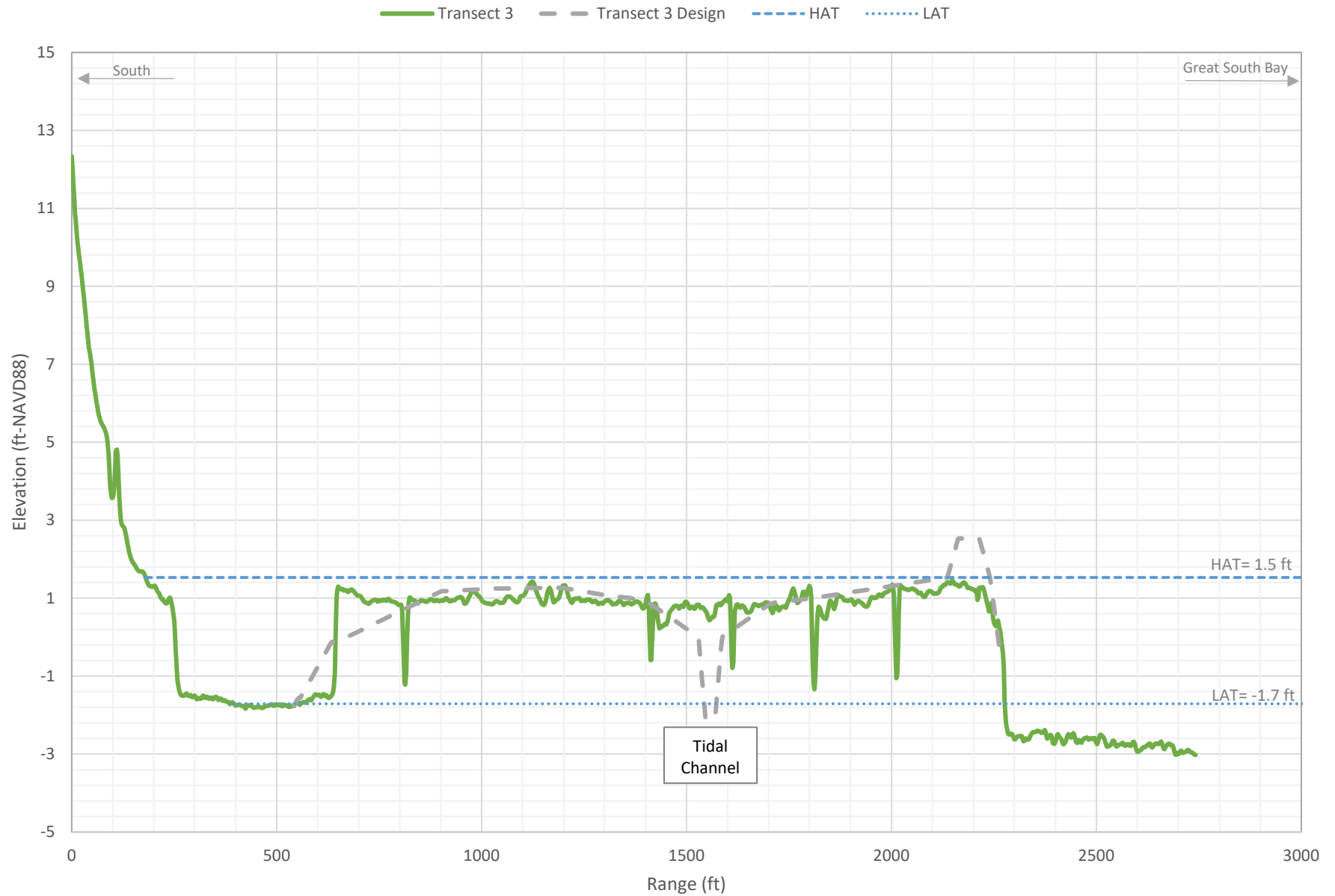
Smith Point County Park Marsh Transect 1




Smith Point County Park Marsh Transect 2



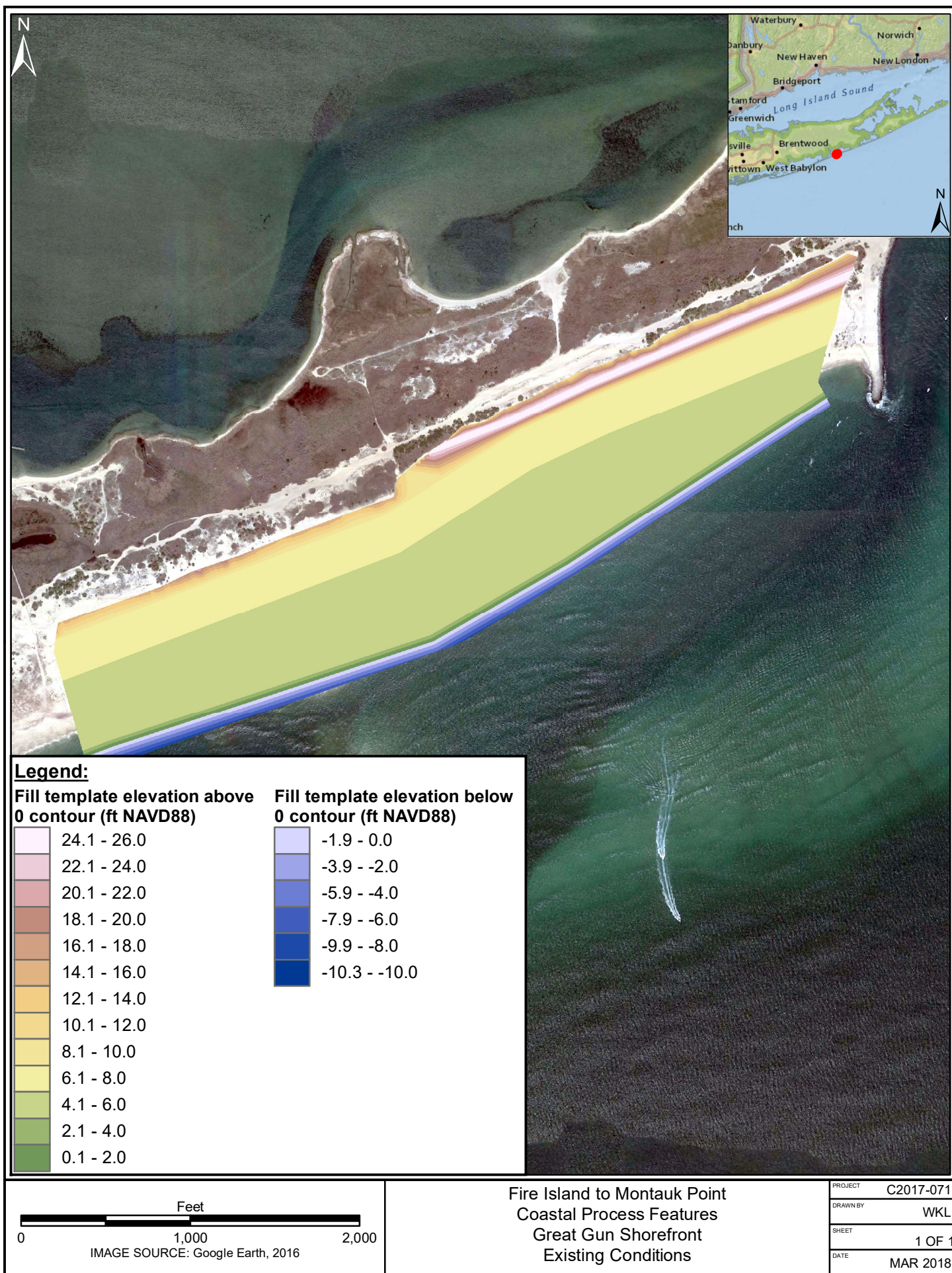
Smith Point County Park Marsh Transect 3



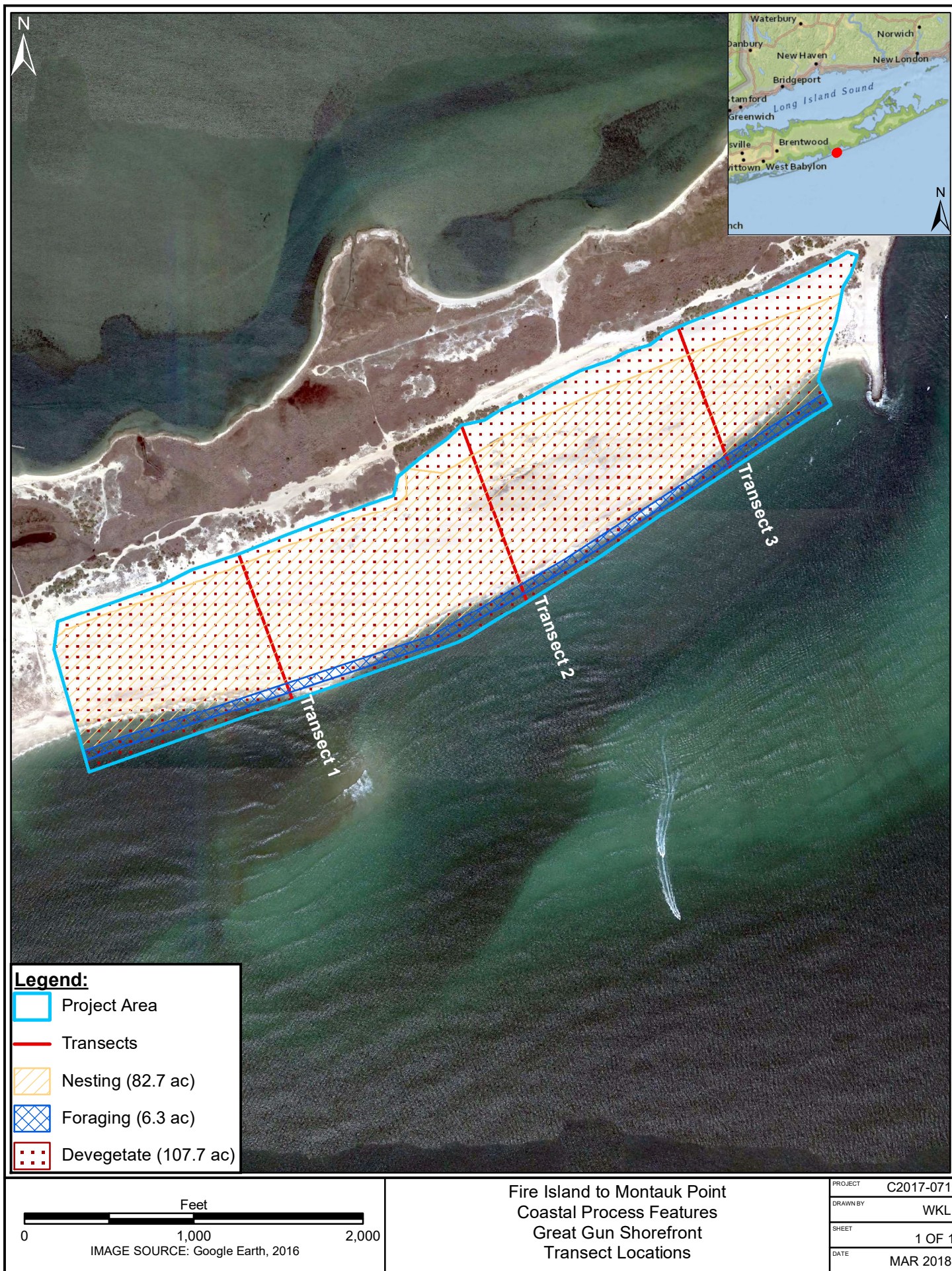
CPF Site 10 Great Gun	Reach MB-2B
	40.760937° N / 72.762574° W
<p>CPF SITE GOALS</p> <ul style="list-style-type: none"> • Devegetate area to meet ESA goals <p>Great Gun is located on the eastern portion of Fire Island on the Atlantic Ocean side within Smith Point County Park. Great Gun lies immediately west of Moriches Inlet. The project area contains coastal dunes with vegetation. This CPF design seeks to devegetate uplands to provide ESA bird habitat (foraging and nesting).</p> <p>To create early successional habitat that provides nesting and foraging for shorebirds, plans call for removing vegetation from approximately 107.7 acres (ac). Beachfront topography will approximate the anticipated FIMP beach fill template between stations 1572+00 and 1623+00. The design template includes a high dune extending above the vertical limit for ESA bird habitat. No regrading of the site beyond the FIMP beach fill plan is anticipated.</p> <p>Vehicular traffic on Burma Road presents a potential hazard for chicks and older birds. As such, a physical barrier shall be constructed to limit the ability of birds to enter traffic lanes. Past efforts using sand/snow fencing have had limited success primarily due to pedestrian openings in the fencing. Additional types of barriers shall be considered during the PED phase of the project. Possible physical barrier components may include dredge pipe, sand/snow fencing, etc., and elevated pedestrian cross walks to limit the number of openings through the barriers. Future detailed CPF design will be completed in close coordination with FWS, Suffolk County, and NY State Parks.</p> <p>Foraging habitat is defined as the intertidal area that is intermittently submerged and exposed during tide-induced water surface fluctuations. As a proxy for the local spring tide range, the following discussion applies NOAA's reported Lowest Astronomical Tide (LAT) as the lower bound and Highest Astronomical Tide (HAT) as the upper bound for foraging habitat.</p> <p>Nesting habitat is located immediately upland of foraging habitat and extends from the HAT elevation to +10 ft-NAVD88 at Great Gun as depicted in the Proposed Devegetation figure.</p> <p>To create early successional habitat that provides nesting and foraging for shorebirds, plans call for devegetating approximately 107.7 acres (ac), all of which qualify as proposed habitat. This includes 82.7 ac of nesting habitat and 6.3 ac of foraging habitat. Foraging habitat encompasses the area between the LAT and the HAT, while nesting habitat extends from the HAT to the naturally occurring +10 ft-NAVD88 elevation contour or 640 ft from the HAT.</p> <p>Maintenance activities at the CPF sites will be performed in coordination with renourishment cycles of the beachfill features and are subject to monitoring to ensure resolution of project objectives. CPF maintenance operations may be modified based on the adaptive management plan to meet ESA/CSRM criteria. The USACE will not implement vegetation management or manipulation of the sites unless conducted as an incidental action associated with future placement. The USACE recommends the local land management agency consider predator management in newly established CPF's.</p>	

CPF Site 10 Great Gun		Reach MB-2B
		40.760937° N / 72.762574° W
CPF PARAMETERS		
Feature	ESA	
Cut Volume (cy)	n/a	
Fill Volume (cy)	n/a	
Net Volume (cy)	n/a	
Acreage (Nesting\Foraging\Devegetation)	107.7 (82.7\6.3\107.7)	
Activity	Devegetate	
DATA SOURCES		
Topographic	USGS, 2016	
Bathymetric	USGS, 2016	
Aerial Imagery	Google Earth, 2016	
Vegetation	N/A*	
REAL ESTATE INFORMATION		
Property Owner	State of New York County of Suffolk	
Municipality	Southampton	
County	Suffolk	
CBRA	NY-59P, Otherwise Protected Area	
<div></div>		
*up to date vegetation data were not available for the study area		

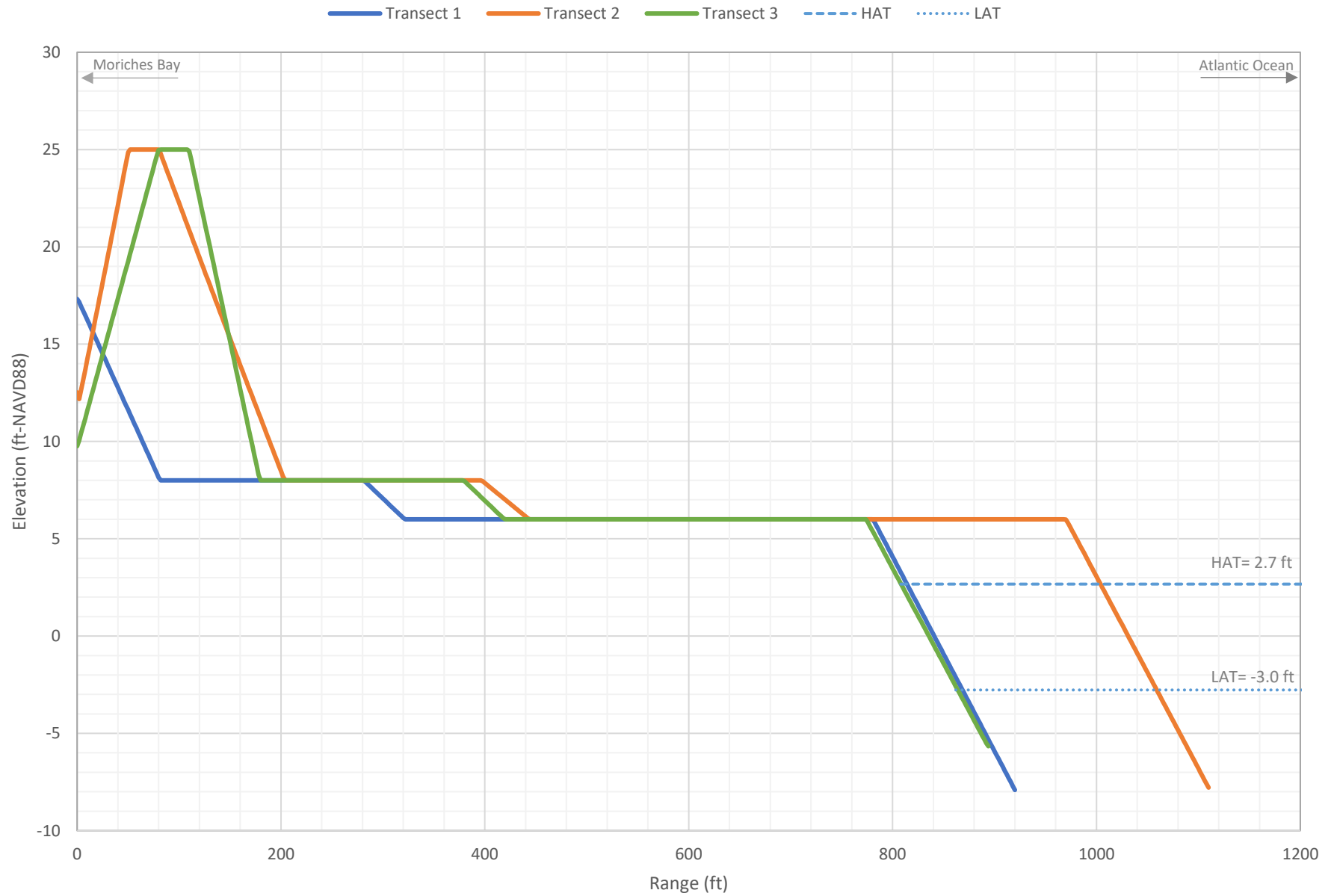
OCEANSIDE TIDAL ENVIRONMENT (ft-NAVD88)					
Closest Tidal Benchmark	Moriches Inlet, NY		Highest Astronomical Tide (HAT)		2.67
			Mean Higher High Water (MHHW)		1.73
Coordinates	40.763333° N 72.755000° W		Mean High Water (MHW)		1.45
			Mean Sea Level (MSL)		-0.23
0 ft-NAVD = 1.01 ft-NGVD			Mean Tide Level (MTL)		-0.25
Range (MHW-MLW)		3.38	Mean Low Water (MLW)		-1.94
Diurnal Range (MHHW - MLLW)		3.80	Mean Lower Low Water (MLLW)		-2.08
Largest Tidal Range (HAT-LAT)		5.63	Lowest Astronomical Tide (LAT)		-2.96
OCEANSIDE WAVE ENVIRONMENT					
Return Period	Deep Water Wave Height (ft)	Surf Zone Wave Height (ft)	Wind Setup (ft)	Wave Setup (ft)	HAT + Setup + Surf Zone Wave Height (ft-NAVD88)
1-year	15.0	6.8	0.80	1.09	11.36
5-year	21.9	7.2	1.50	2.53	13.90
10-year	24.9	7.4	1.90	3.16	15.13



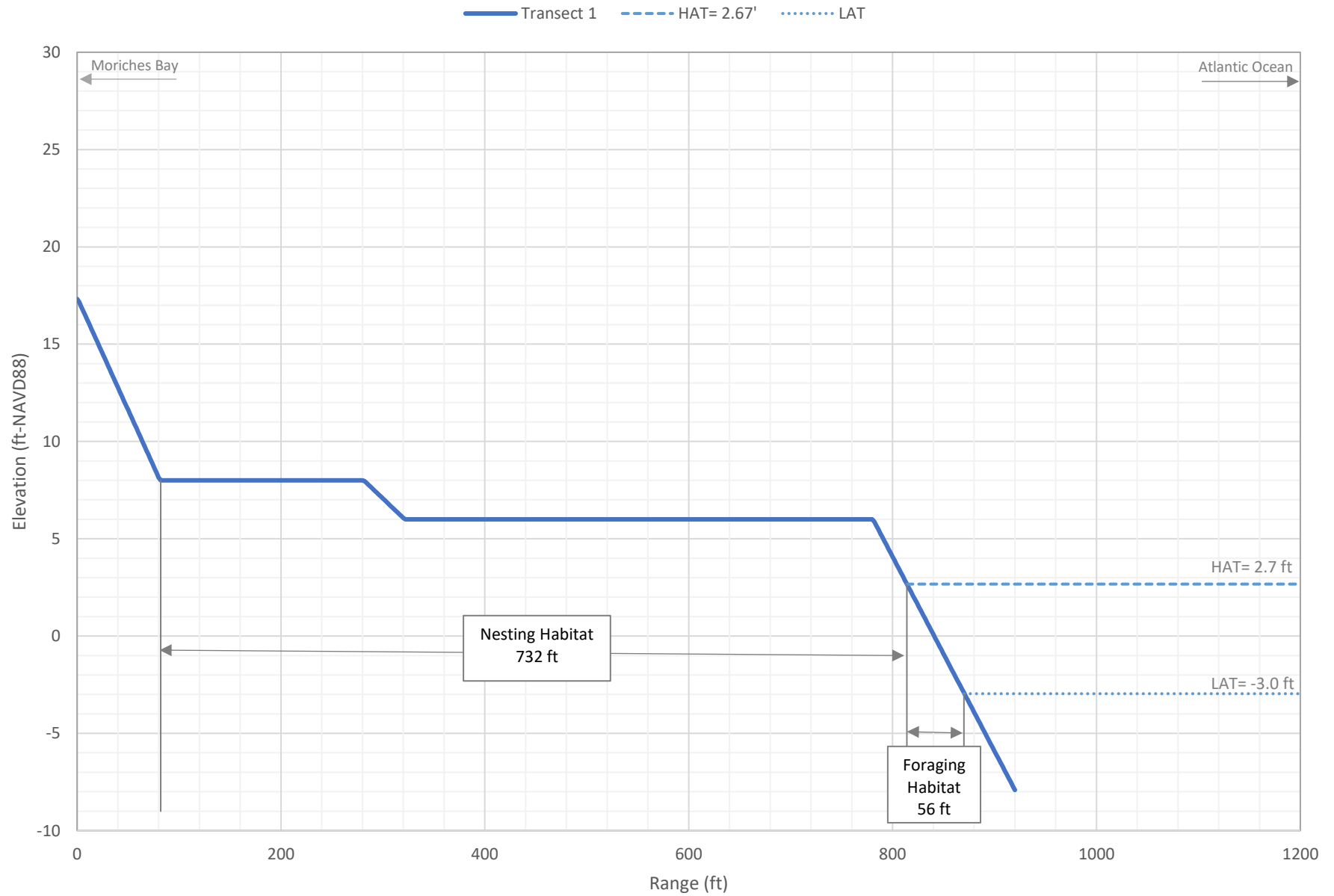




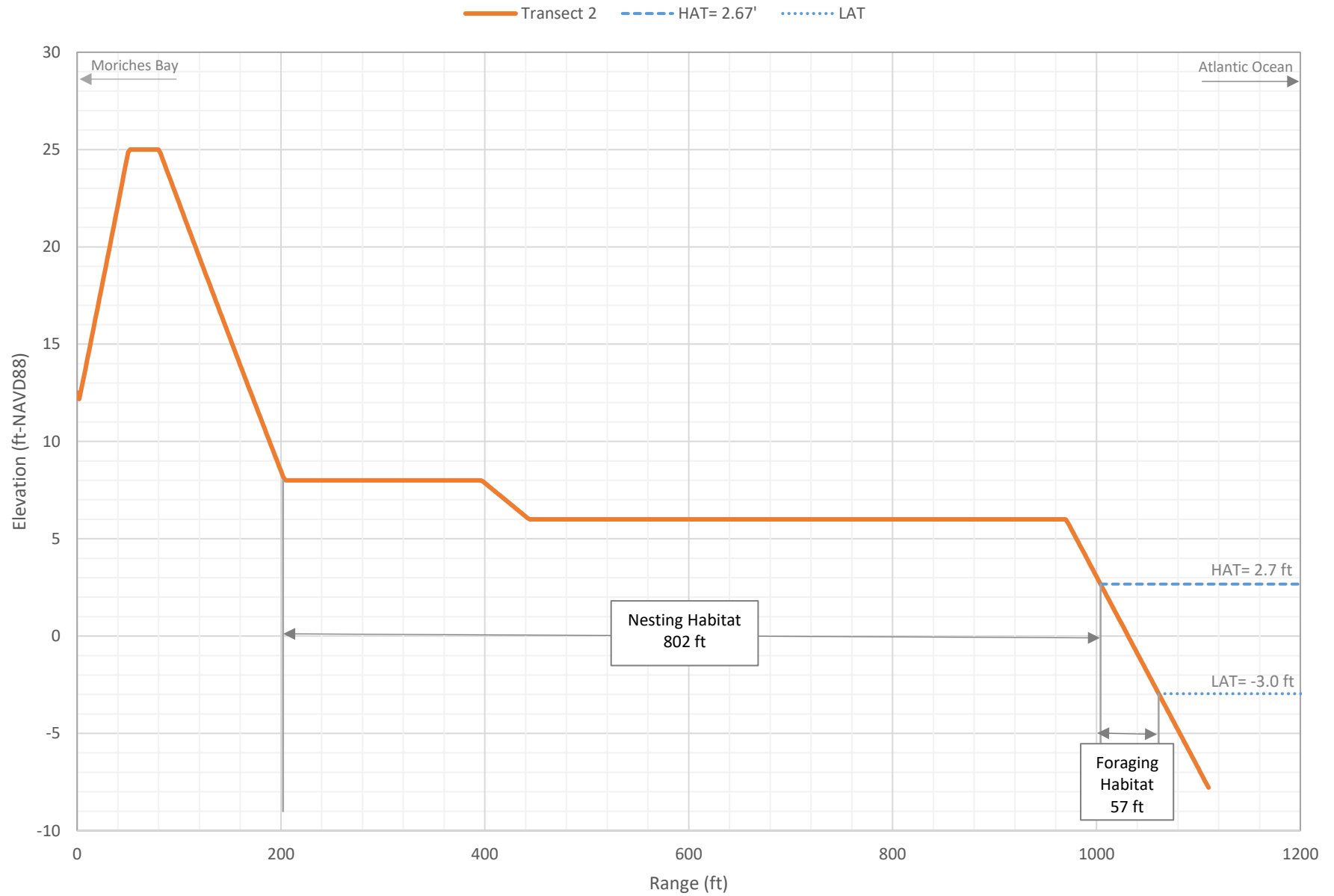
Great Gun Existing Conditions



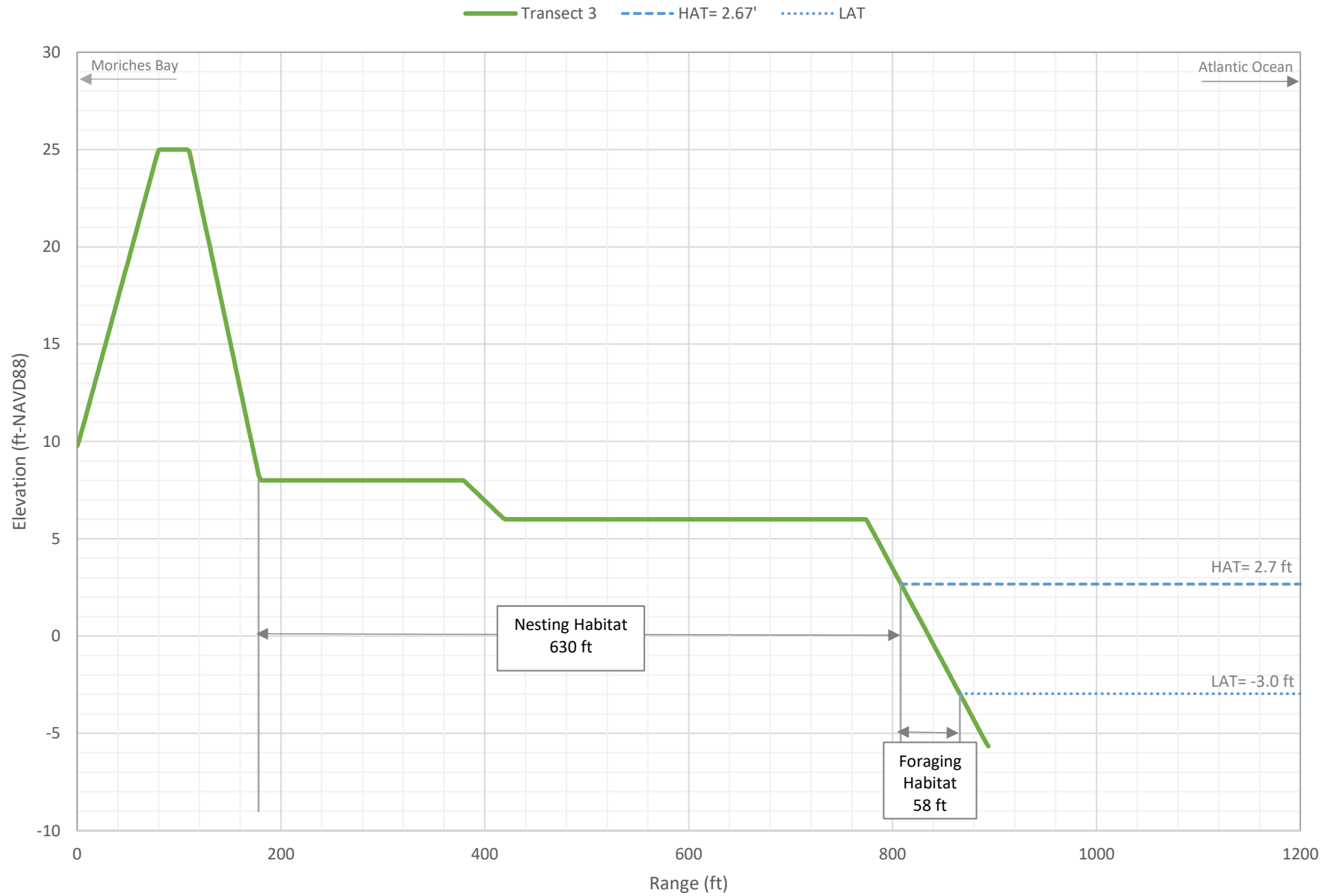
Great Gun Transect 1




Great Gun Transect 2



Great Gun Transect 3

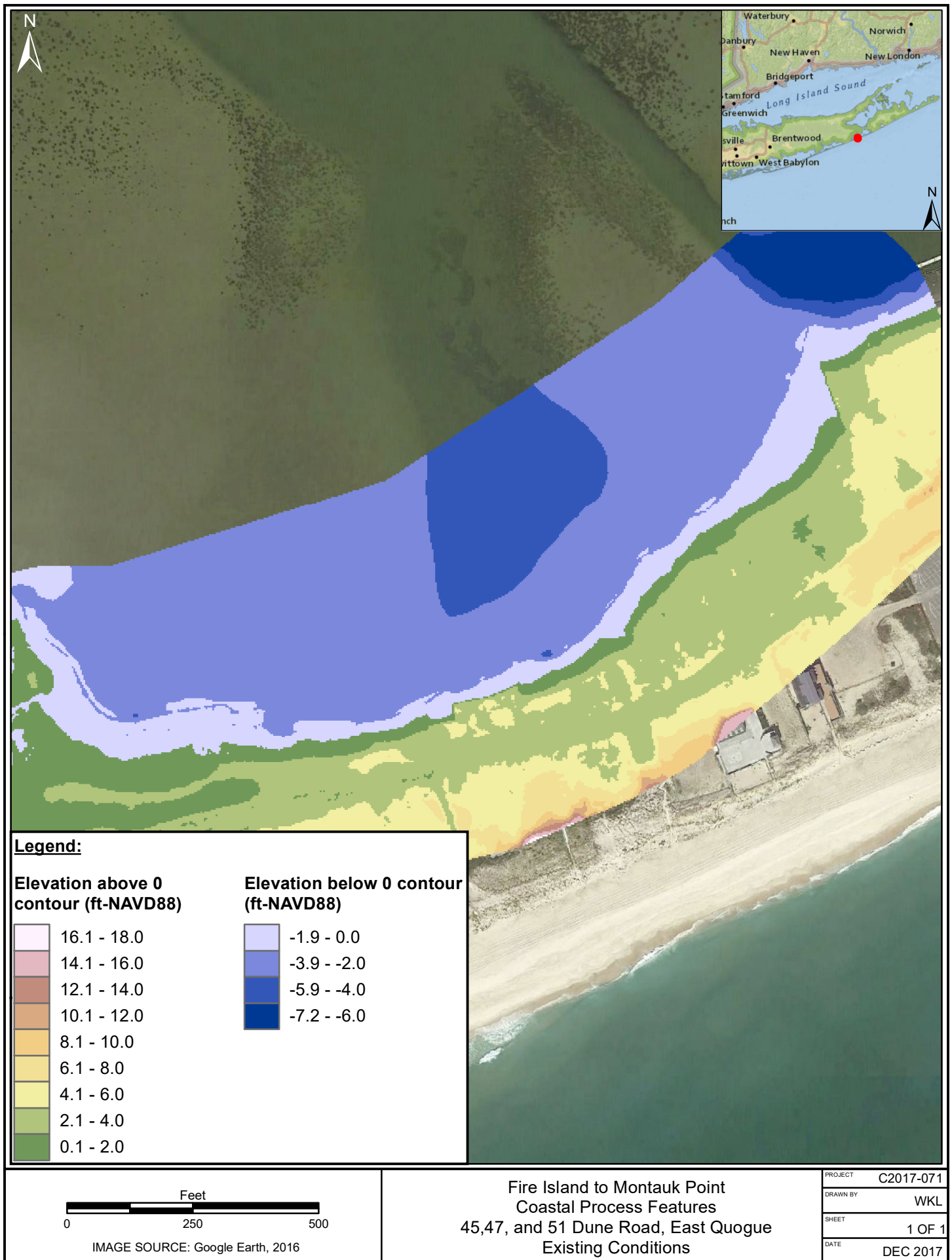


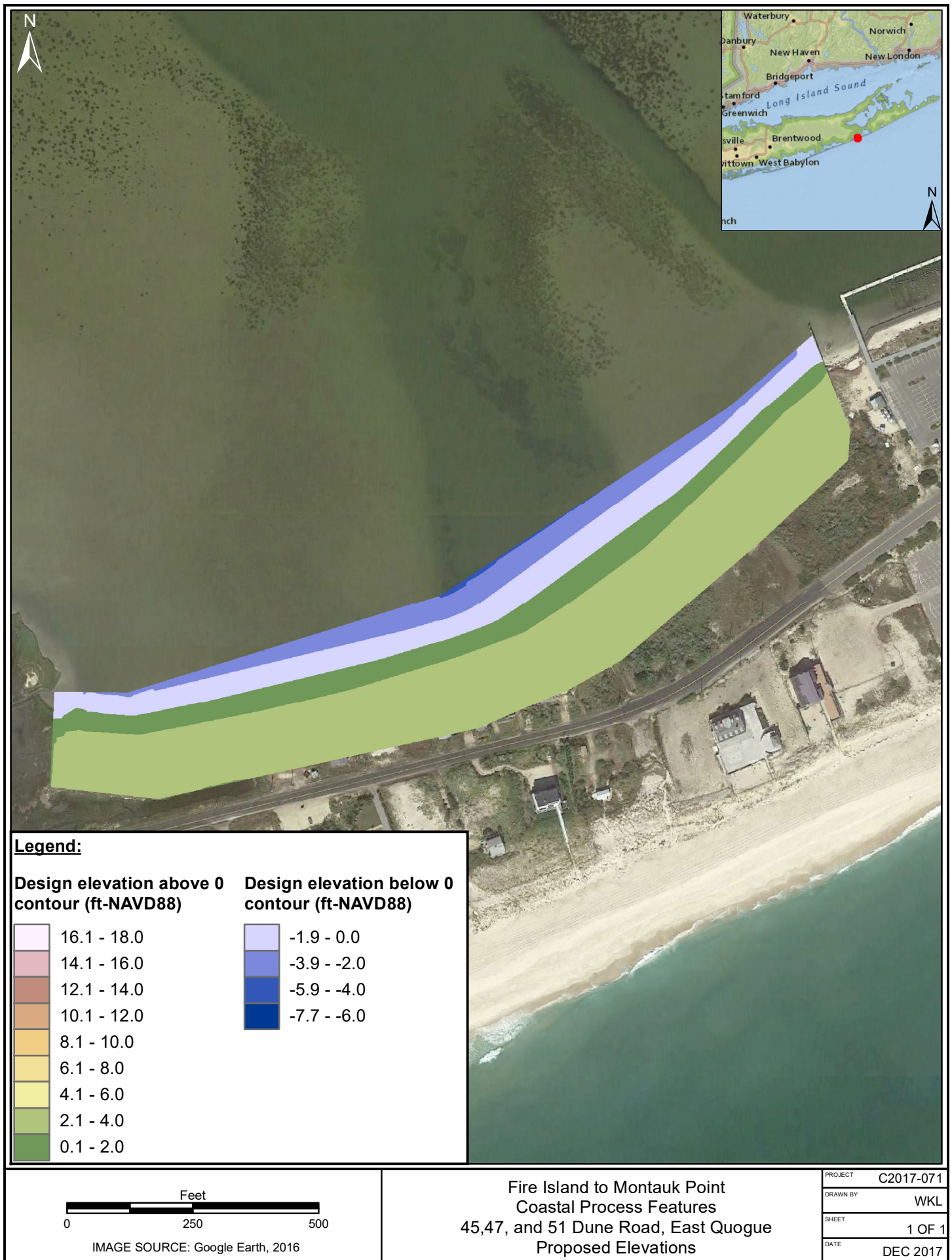
CPF Site 11 – 45, 47, and 51 Dune Road, East Quogue	Reach GSB-2D
	40.826855° N / 72.534709° W
<p>CPF SITE GOALS</p> <ul style="list-style-type: none"> • Fill placement to simulate cross island transport for CSRM credit <p>45, 47, and 51 Dune Road, East Quogue is located on the eastern portion of Westhampton Island, on the bayside just west of Shinnecock Inlet and Shinnecock County Park West. The average nearshore water depth on the bayside at 45, 47, and 51 Dune Road, East Quogue is approximately 3 ft with a maximum of about 6 ft. A couple bulkheads and groins lie in the center of the project site while multiple pile supported and floating docks associated with Tiana Bayside Park lie just to the east. The CPF design fill must limit impacts to adjacent navigation features. This CPF design seeks to add fill to provide CSRM benefits by simulating cross island transport.</p> <p>As a proxy for the local spring tide range, the following discussion applies NOAA’s reported Lowest Astronomical Tide (LAT) as the lower bound and the Highest Astronomical Tide (HAT) as the upper bound for the tide range.</p> <p>To restore cross island transport, plans call for removal of the bulkheads and groins and placement of fill over 10.2 acres (ac) extending across the embayment centered on the currently bulkheaded properties. The fill template includes a 75 ft berm extending bayward from the existing HAT contour with a landward extension to the intersection with native ground. The template includes an assumed 5% slope from the bayside edge of berm to the intersection with the bay bottom. The cross shore extent of this CPF is limited due to the overall site configuration. This is considered the base project for CPF 11.</p> <p>The design may add CSRM benefits by considering additional fill within the existing offshore channel. Two options are presented in the following tables and figures. Additional Fill 1 involves placing 7,021 cy of fill within a 350 ft x 600 ft area immediately north of the base project. Additional Fill 2 extends this area an additional 500 ft to the north and adds 8,581 cy. Combined Additional Fill 1 and 2 provide capacity for an additional 15,602 cy.</p> <p>Sand placement at the CPF sites will be performed in coordination with renourishment cycles of the beachfill features and subject to monitoring to ensure resolution of project objectives. The USACE will not implement vegetation management or manipulation of the sites unless conducted as an incidental action associated with future placement.</p>	

CPF Site 11 – 45, 47, and 51 Dune Road, East Quogue				Reach GSB-2D 40.826855° N / 72.534709° W	
CPF PARAMETERS					
Feature	Fill	Additional Fill 1	Additional Fill 2		
Cut Volume (cy)	0	0	0		
Fill Volume (cy)	49,890	7,021	8,581		
Net Volume (cy)	49,890	7,021	8,581		
Acreage	10.2	4.6	6.7		
Activity	Fill	Fill	Fill		
DATA SOURCES					
Topographic	USGS, 2016				
Bathymetric	USGS, 2016				
Aerial Imagery	Google Earth, 2016				
Vegetation	N/A*				
REAL ESTATE INFORMATION					
Property Owner	Town of Southhampton Bruce Ratner Private Rd Freedom Beach, LLC 42 Dune Rd, LLC Rebman Family Trust Jonathan Chilvers Mary F Phillips 53 Dune Rd, LLC				
Municipality	Southampton				
County	Suffolk				
CBRA	F13, System Unit				
*up to date vegetation data were not available for the study area					

*up to date vegetation data were not available for the study area

BAYSIDE TIDAL ENVIRONMENT (ft-NAVD88)					
Closest Tidal Benchmark	Shinnecock Bay Entrance, NY		Highest Astronomical Tide (HAT)		1.79
			Mean Higher High Water (MHHW)		1.31
Coordinates	40.820000° N 72.561667° W		Mean High Water (MHW)		1.05
			Mean Sea Level (MSL)		-0.30
0 ft-NAVD = 0.93 ft-NGVD			Mean Tide Level (MTL)		-0.28
Range (MHW-MLW)		2.66	Mean Low Water (MLW)		-1.60
Diurnal Range (MHHW - MLLW)		3.02	Mean Lower Low Water (MLLW)		-1.71
Largest Tidal Range (HAT-LAT)		3.98	Lowest Astronomical Tide (LAT)		-2.19
BAYSIDE WAVE ENVIRONMENT					
Return Period	Fetch (ft)	Wave Height (ft)	Wind Setup (ft)	Wave Setup (ft)	HAT + Setup + Wave Height (ft-NAVD88)
1-year	14,440	2.2	0.26	0.81	5.05
5-year	14,440	2.9	0.46	0.83	5.97
10-year	14,440	3.3	0.56	0.85	6.49



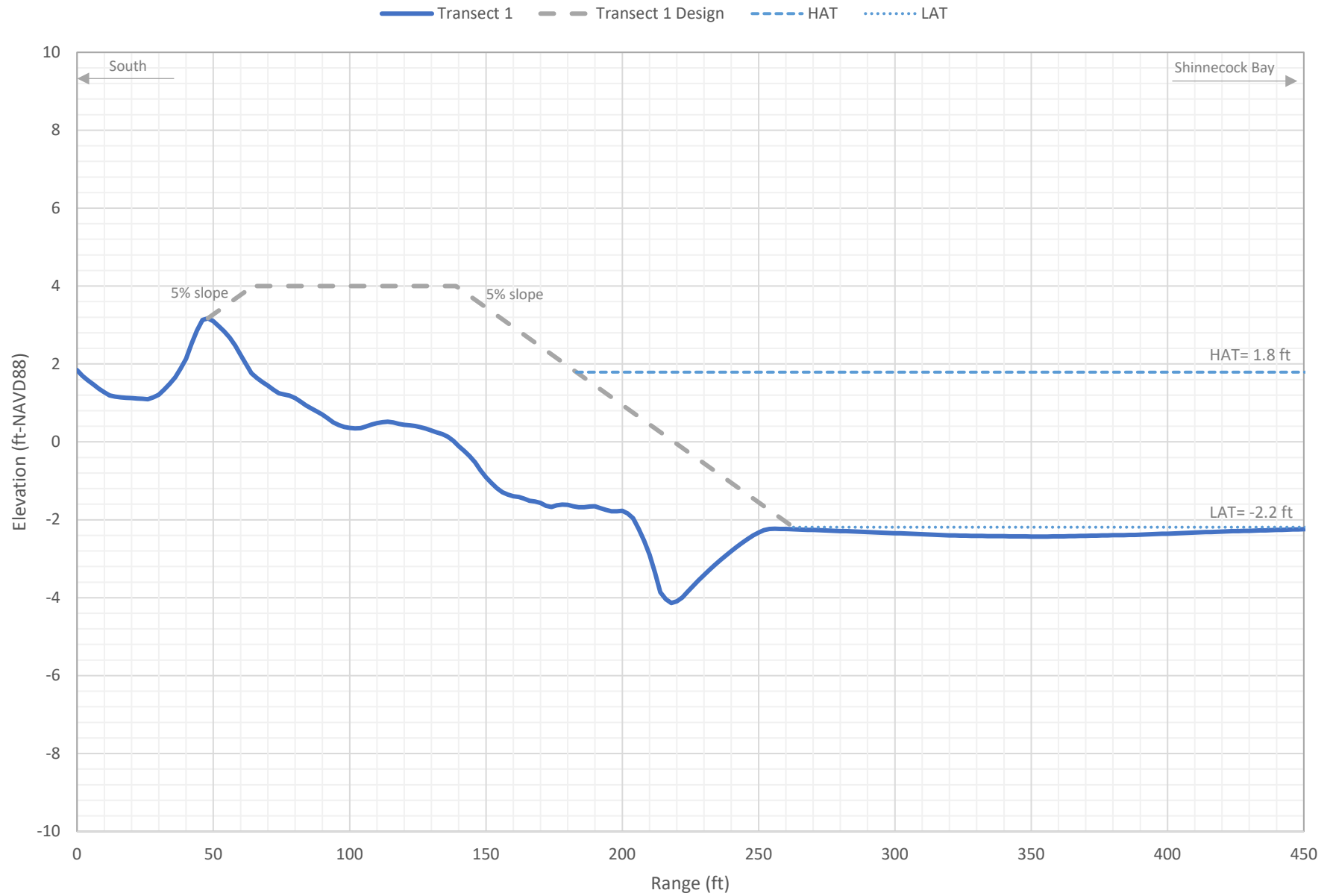




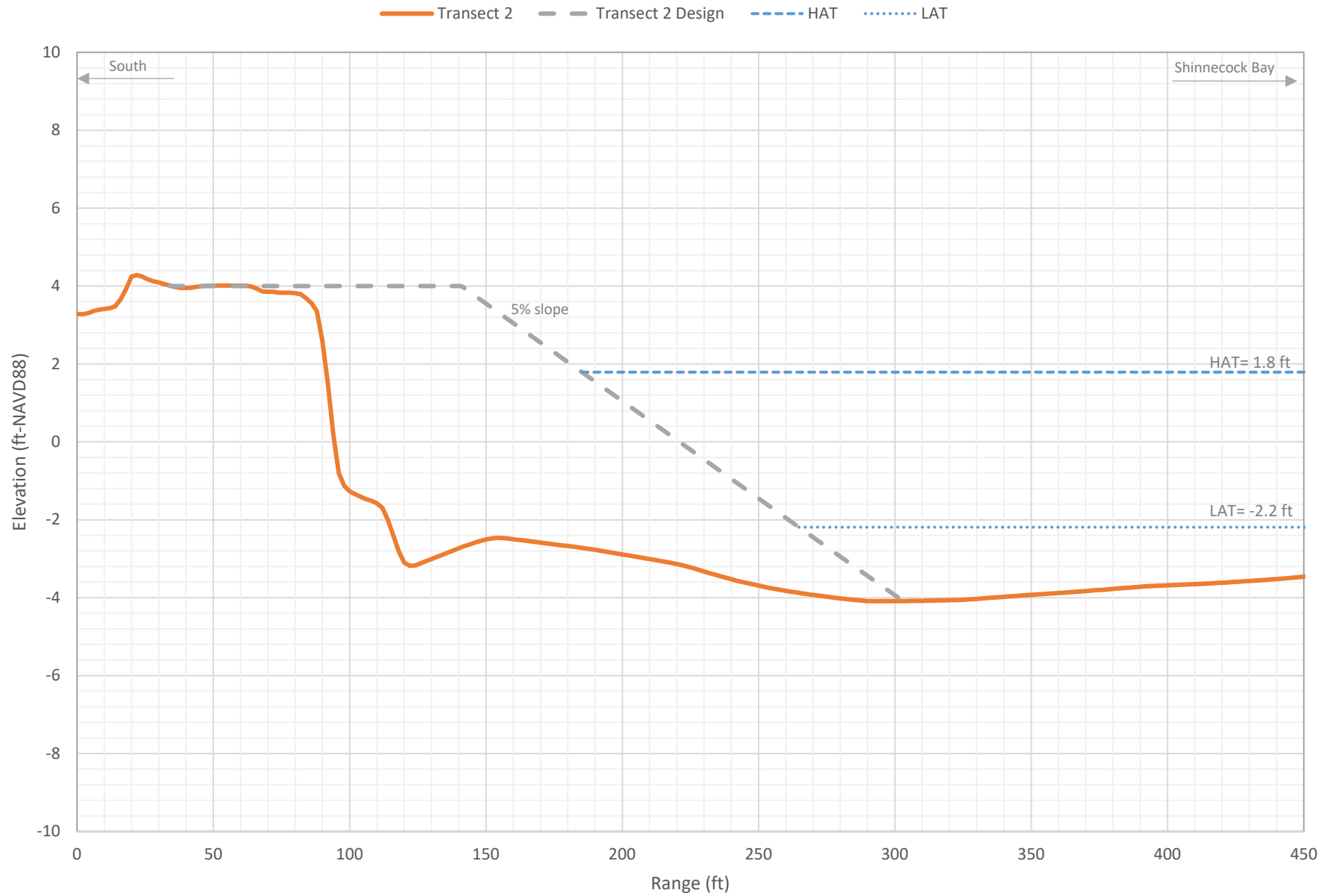
45, 47, and 51 Dune Road, East Quogue Existing Conditions



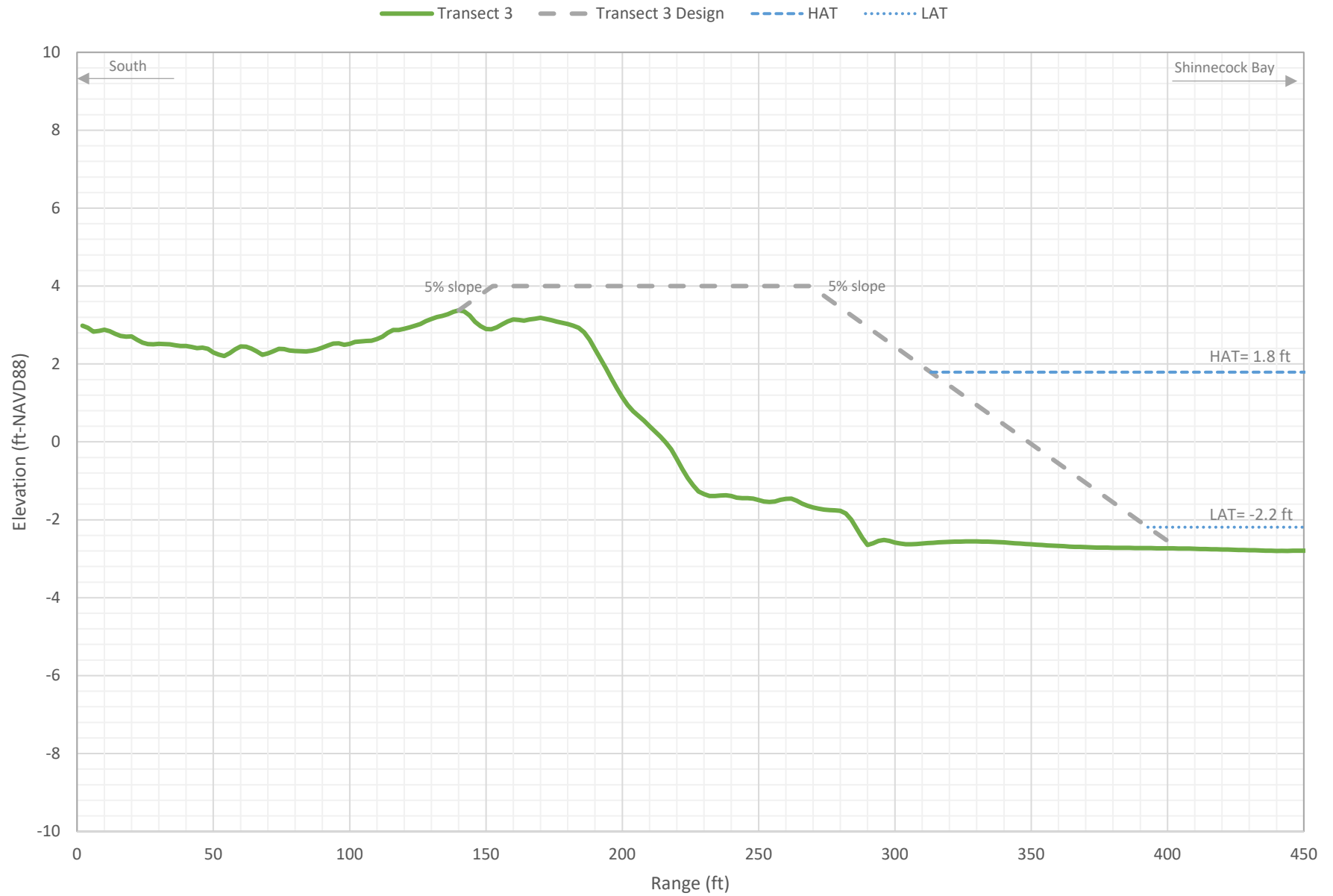
45, 47, and 51 Dune Road, East Quogue Transect 1

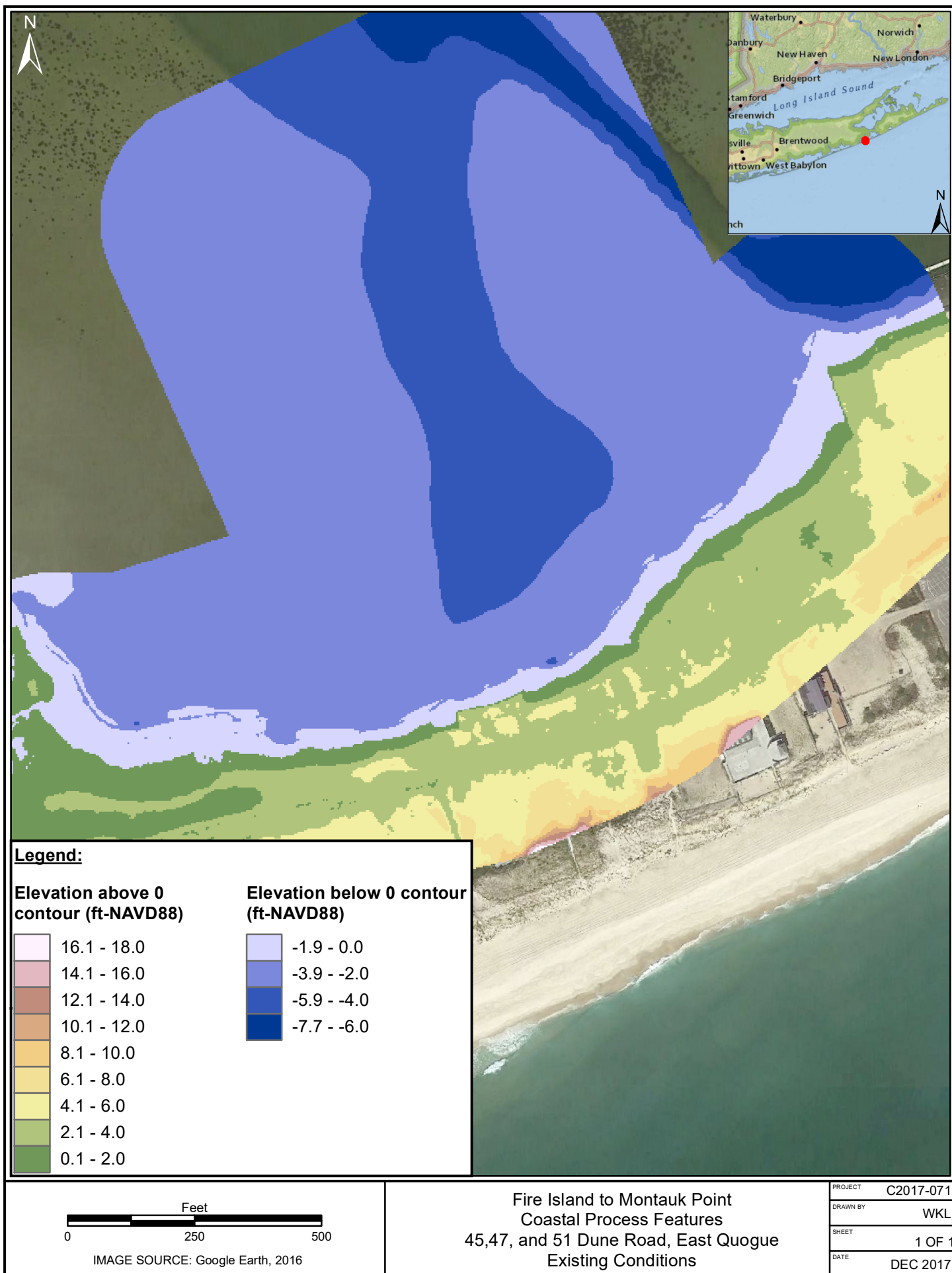


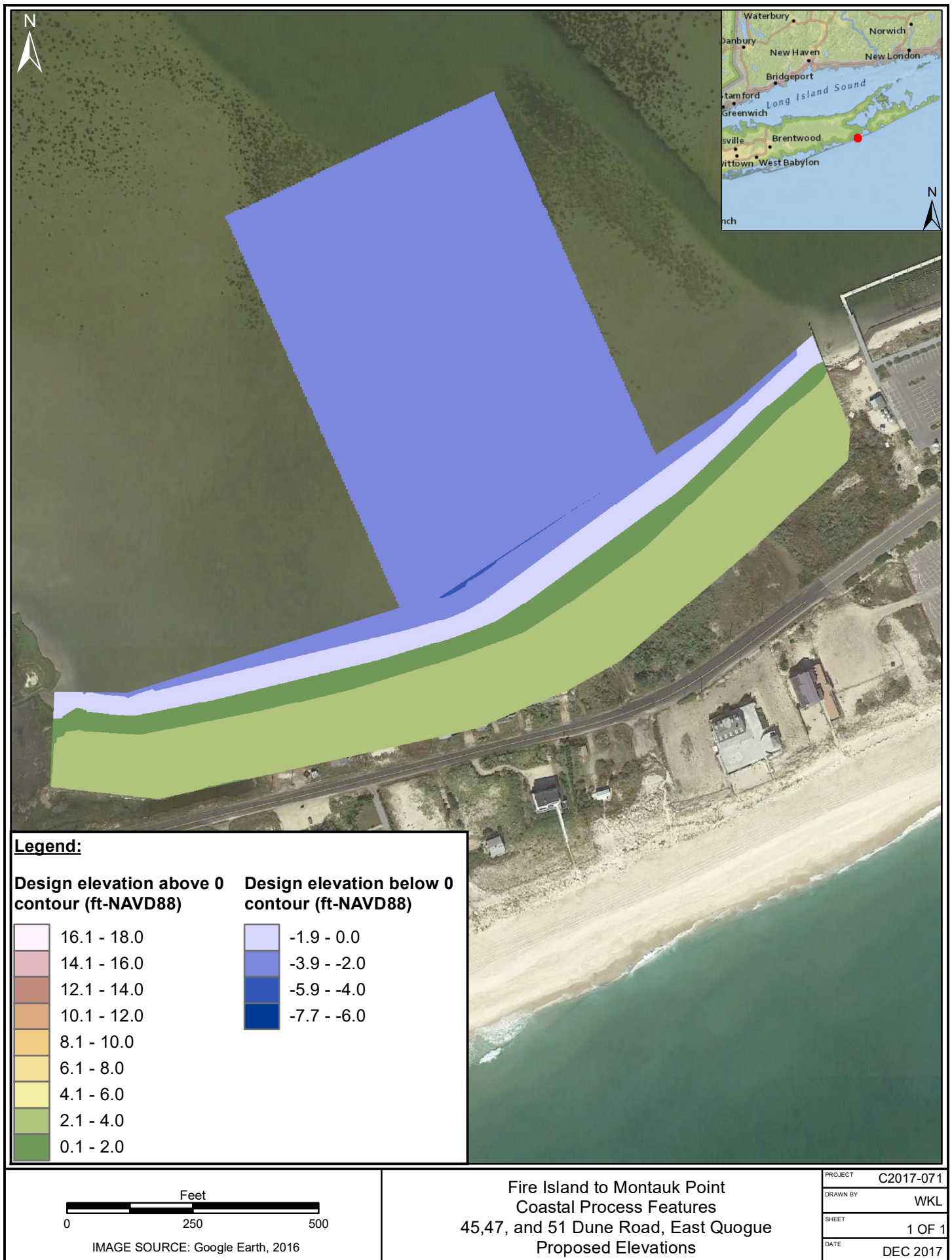
45, 47, and 51 Dune Road, East Quogue Transect 2



45, 47, and 51 Dune Road, East Quogue Park Transect 3









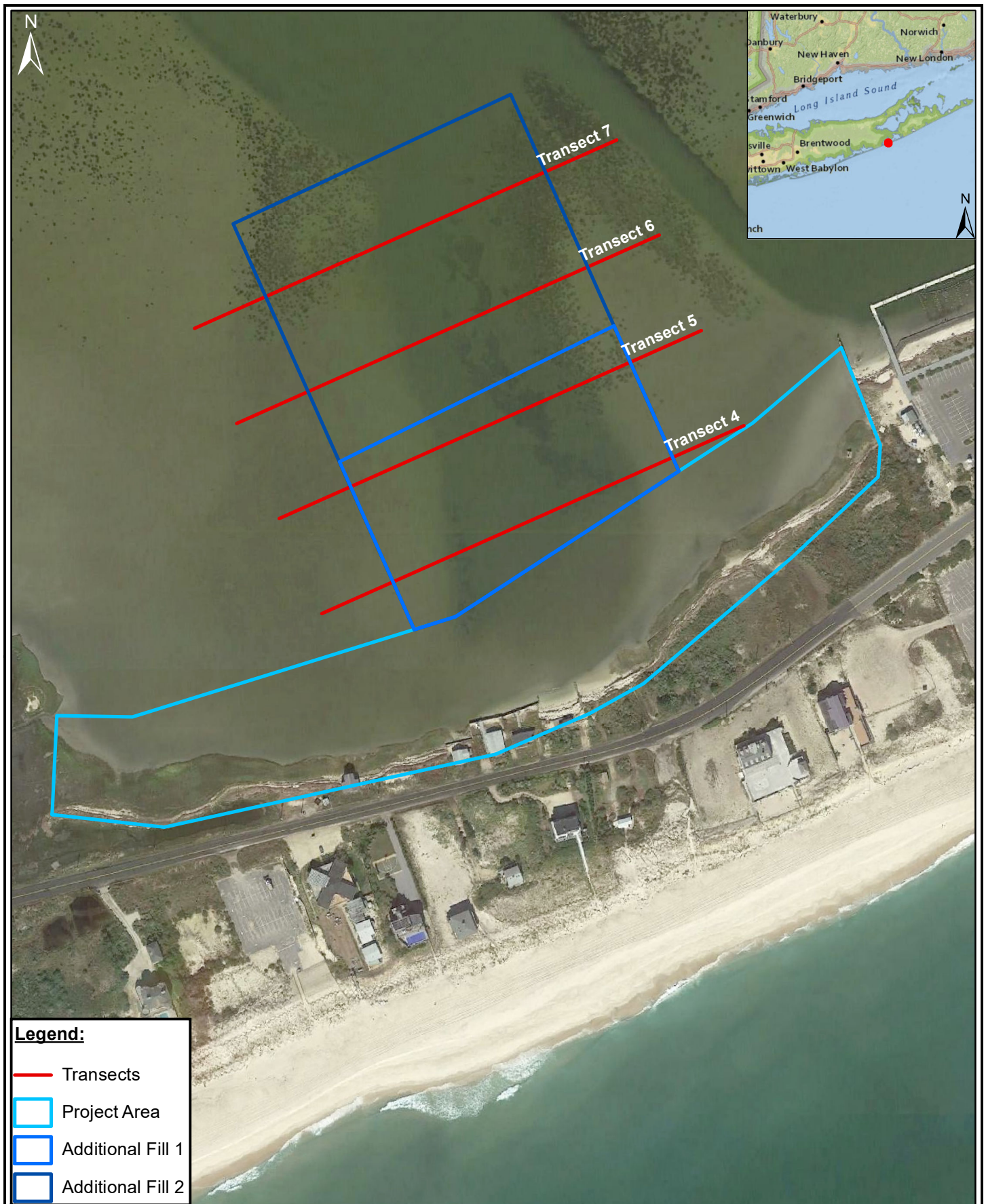
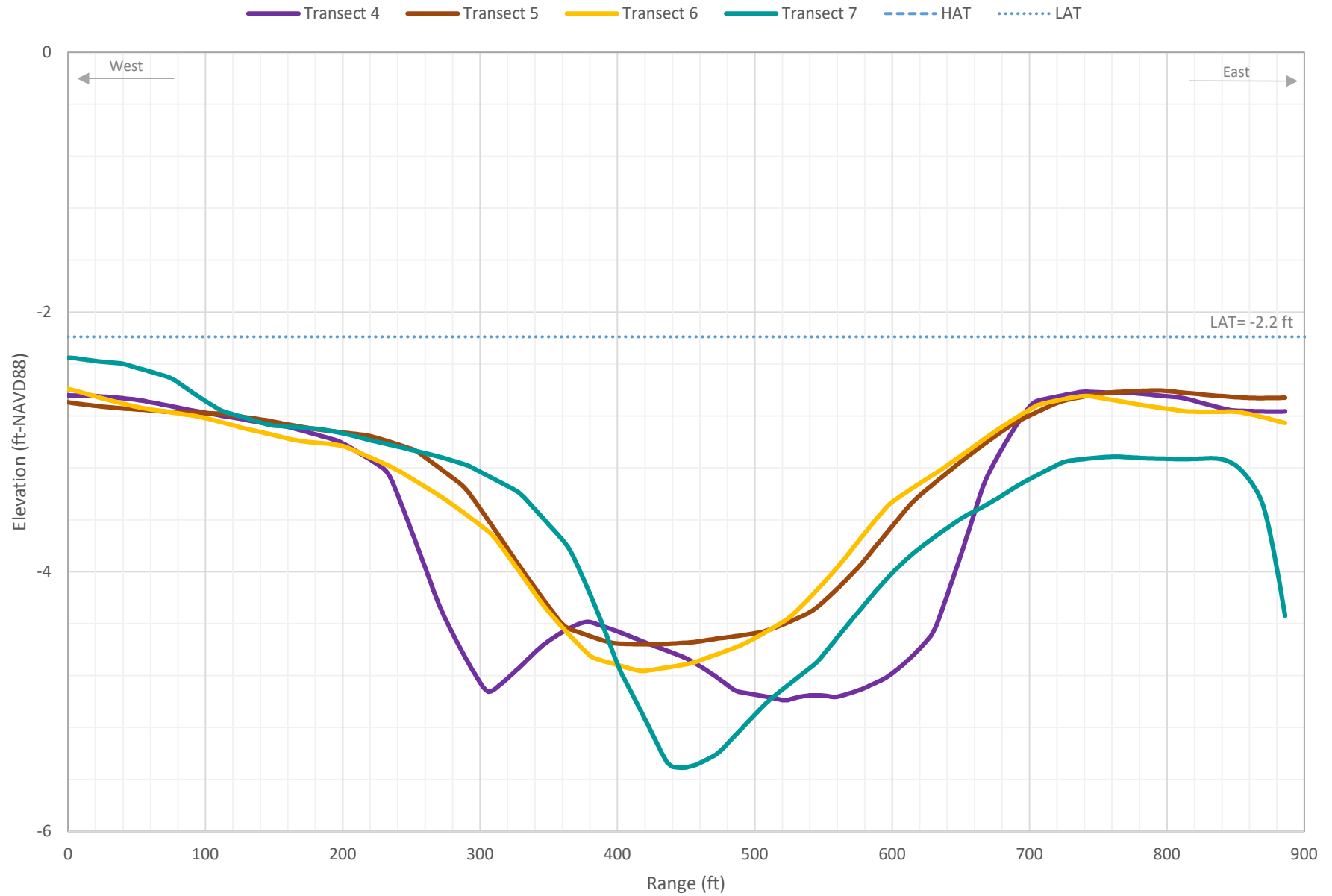


IMAGE SOURCE: Google Earth, 2016

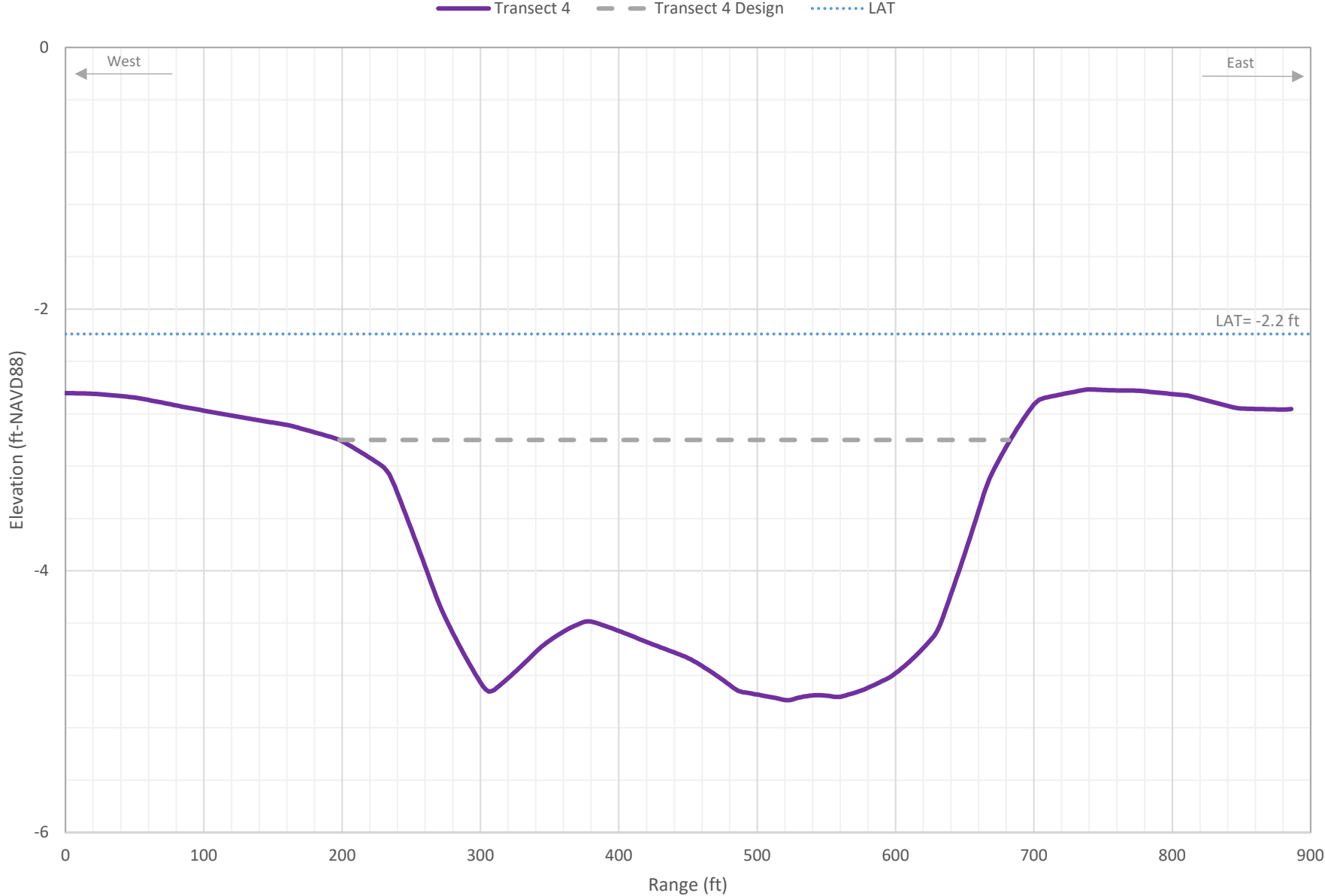
Fire Island to Montauk Point
Coastal Process Features
45,47, and 51 Dune Road, East Quogue
Transect Locations

PROJECT	C2017-071
DRAWN BY	WKL
SHEET	1 OF 1
DATE	DEC 2017

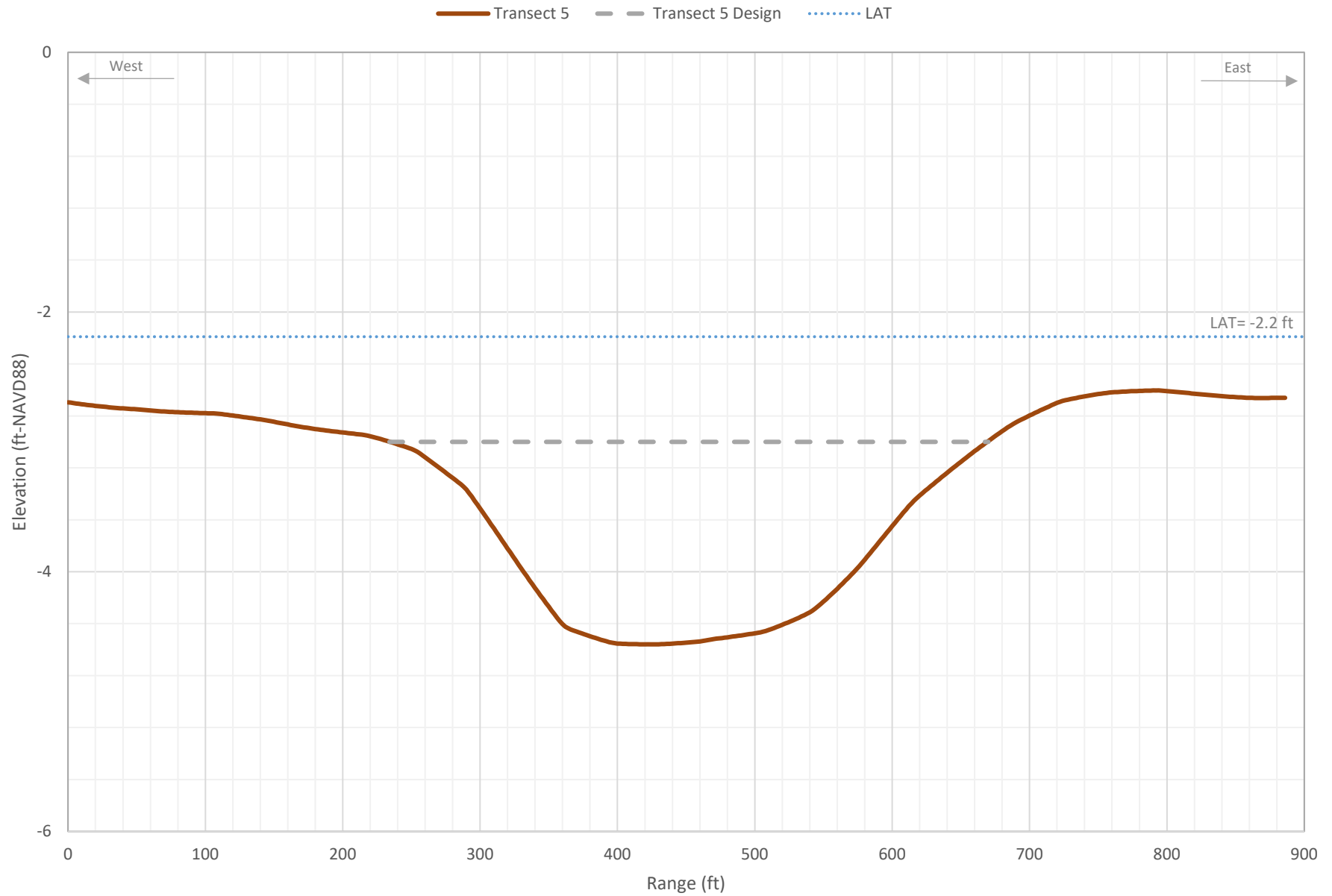
45, 47, and 51 Dune Road, East Quogue Existing Conditions



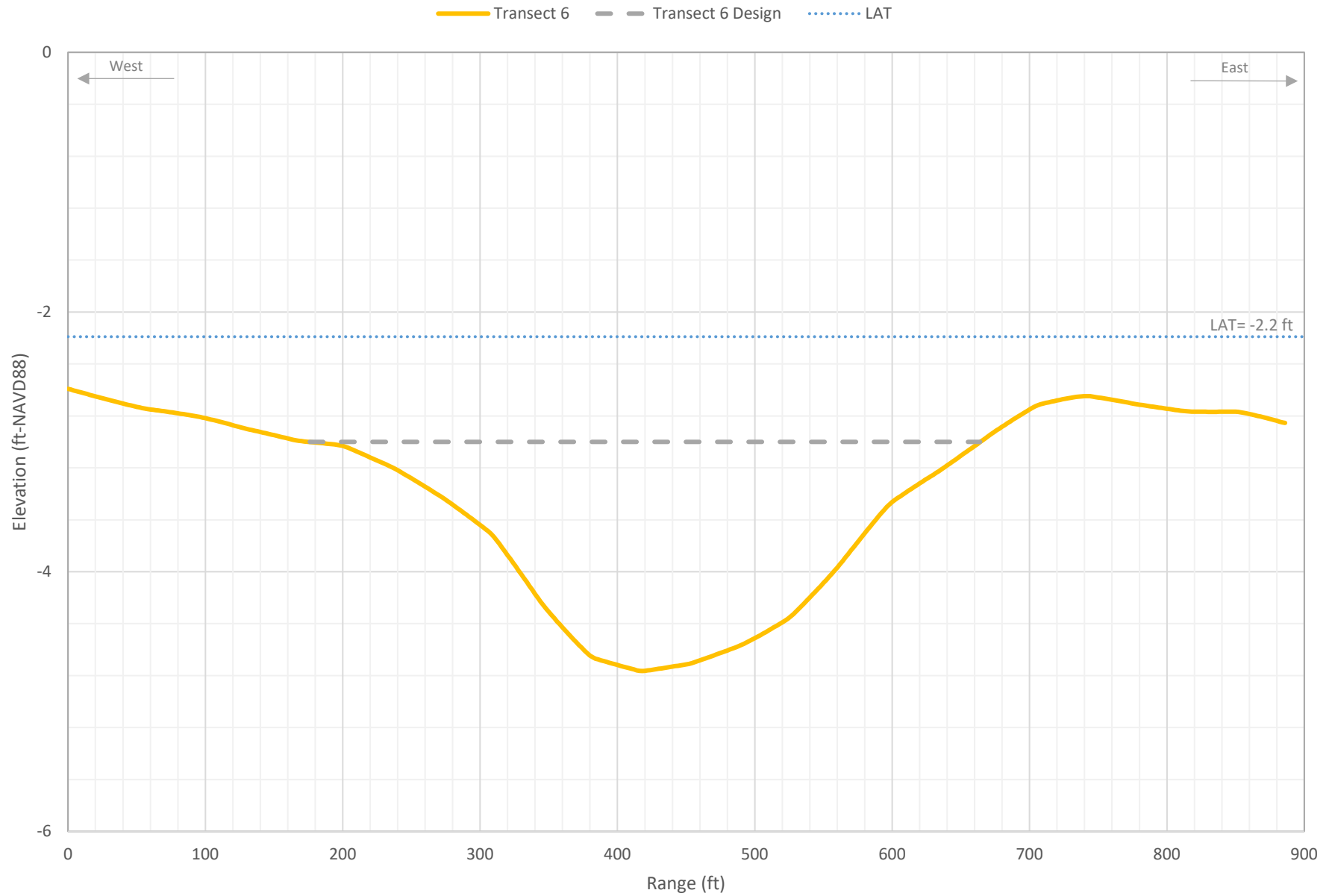
45, 47, and 51 Dune Road, East Quogue Transect 4



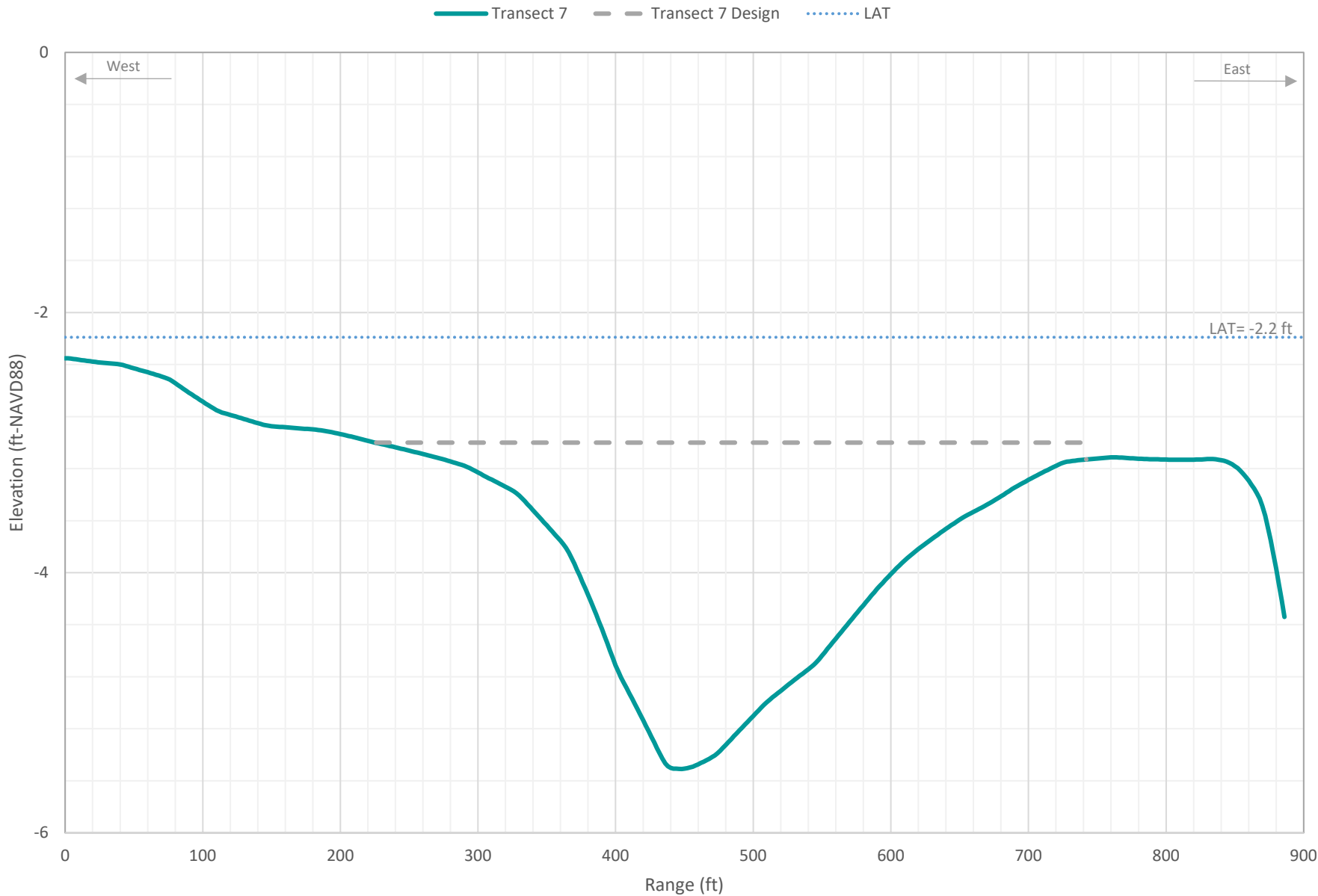
45, 47, and 51 Dune Road, East Quogue Transect 5




45, 47, and 51 Dune Road, East Quogue Transect 6



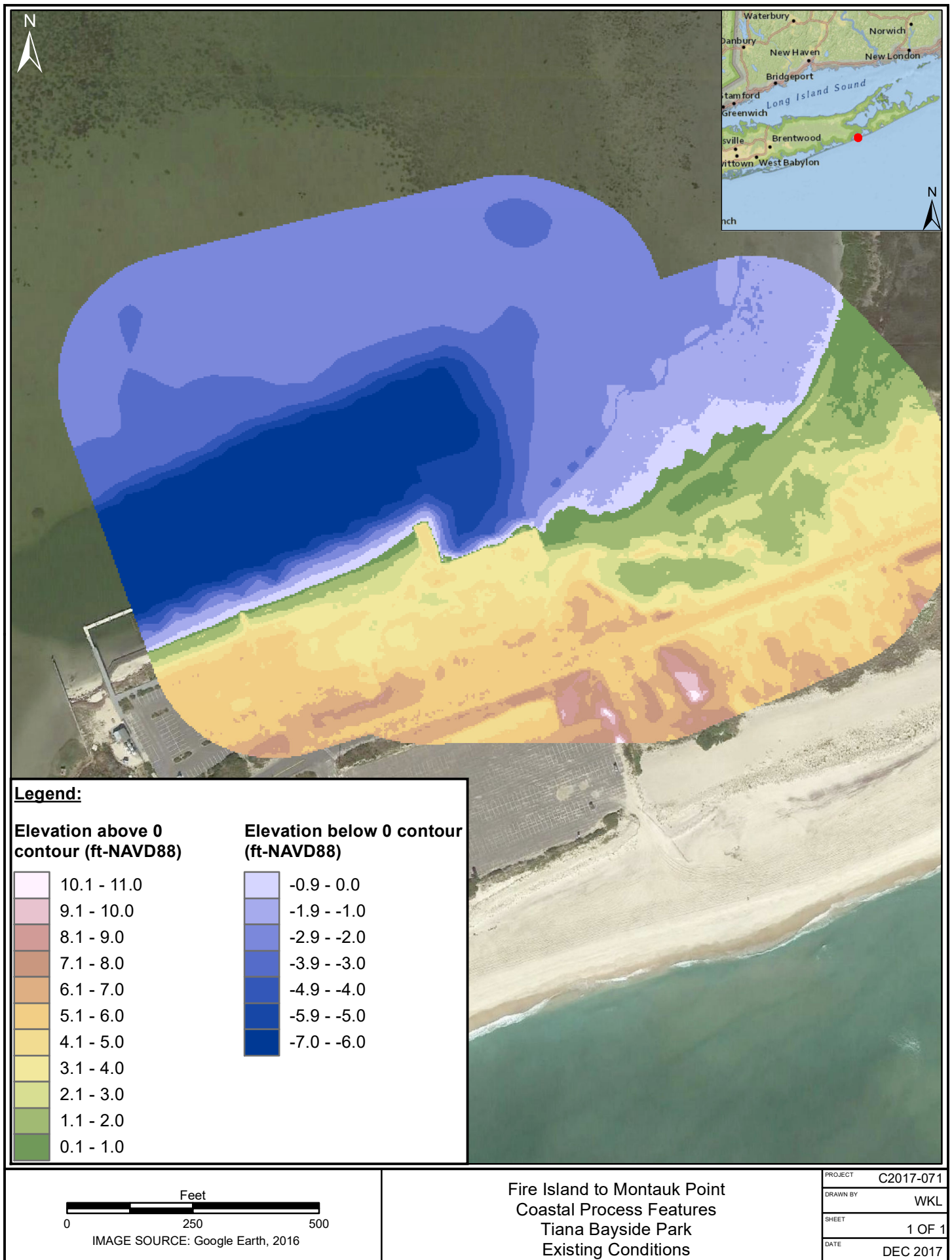
45, 47, and 51 Dune Road, East Quogue Transect 7

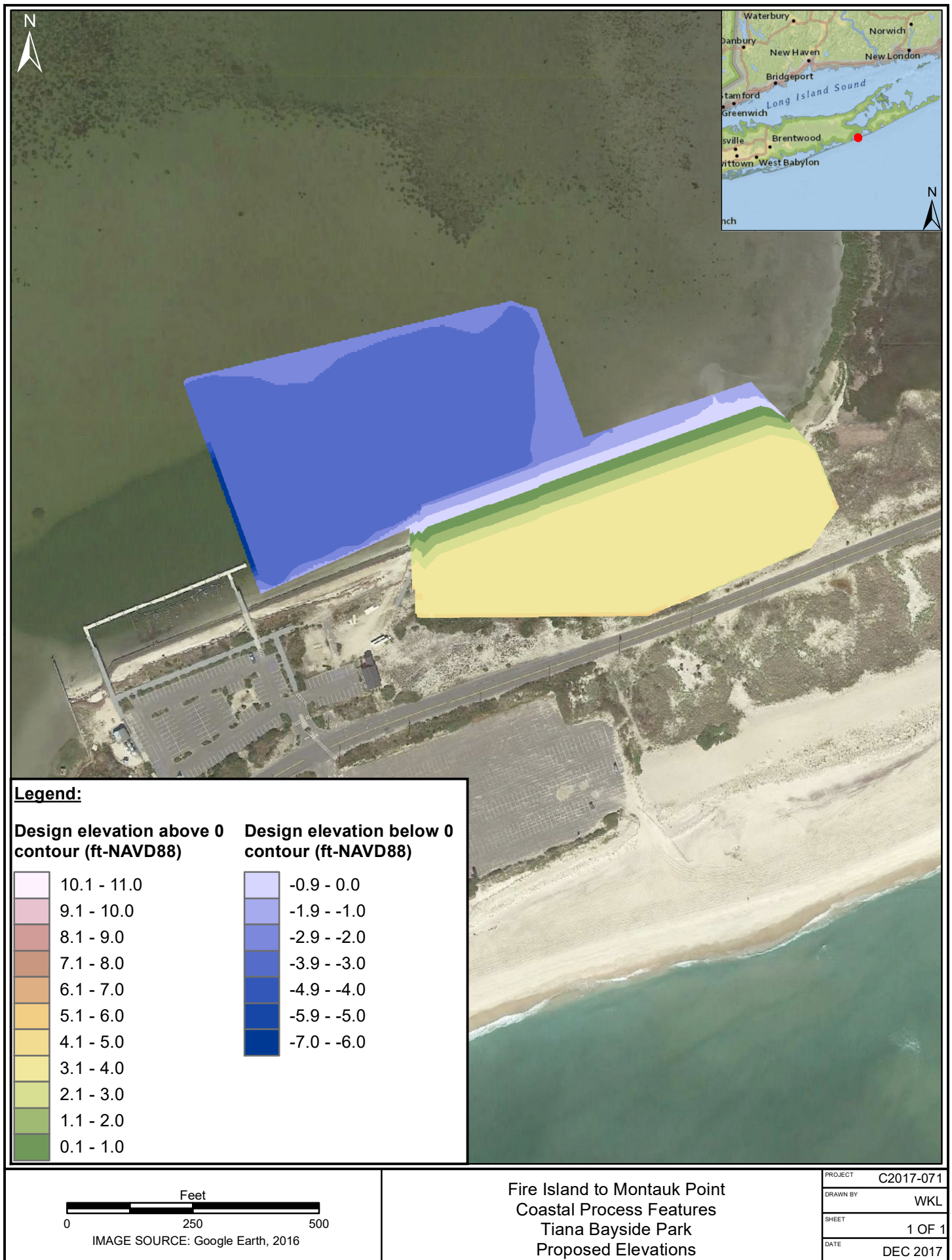


CPF Site 12 Tiana Bayside Park	Reach GSB-2D
	40.828985° N / 72.530510° W
<p>CPF SITE GOALS</p> <ul style="list-style-type: none"> • Fill placement to simulate cross shore transport for CSRM credit <p>Tiana Bayside Park is located on the eastern portion of Westhampton Island, on the bayside just west of Shinnecock Inlet and Shinnecock County Park West. The average nearshore water depth on the bayside at Tiana Bayside Park is approximately 3 ft with a maximum of 6 to 7 ft in an offshore channel. Several pile supported and floating docks lie along the western half of the project site. A 750 ft long line of rock-filled gabions fronts the shoreline within the dock structures. The CPF design fill must limit impacts to navigation features. This CPF design seeks to add fill to provide CSRM benefits by simulating cross island transport.</p> <p>As a proxy for the local spring tide range, the following discussion applies NOAA's reported Lowest Astronomical Tide (LAT) as the lower bound and Highest Astronomical Tide (HAT) as the upper bound for the tide range.</p> <p>To restore cross island transport, plans call for the placement of fill over 12.2 acres (ac) extending from the eastern bulkhead area across the adjacent bayside shoreline to the east. The landward side of the fill profile will tie into the closer of the existing grade at +4 ft-NAVD88 or the adjacent roadway right-of-way. The fill template includes a berm extending bayward. The template includes an assumed 5% slope from the bayside edge of berm to the intersection with the bay bottom. The cross shore extent of this CPF is limited due to the overall site configuration.</p> <p>The base design includes fill placed to -3 ft-NAVD88 within the eastern half of the navigation channel immediately offshore of the project area. The total fill currently envisioned in the project area is 36,647 cy.</p> <p>The eastern 350 ft of gabions may be treated in one of three possible ways. First, they may be left as-is in place. Second they may be removed and replaced with a small amount of fill to soften the shoreline. Finally, they may be left in place and buried beneath a small amount of fill to soften the shoreline while retaining the shoreline protection should erosion re-expose the gabions.</p> <p>Sand placement at the CPF sites will be performed in coordination with renourishment cycles of the beachfill features and subject to monitoring to ensure resolution of project objectives. The USACE will not implement vegetation management or manipulation of the sites unless conducted as an incidental action associated with future placement.</p>	

CPF Site 12 Tiana Bayside Park		Reach GSB-2D	
		40.828985° N / 72.530510° W	
CPF PARAMETERS			
Feature	Fill		
Cut Volume (cy)	0		
Fill Volume (cy)	36,647		
Net Volume (cy)	36,647		
Acreage	12.2		
Activity	Fill		
DATA SOURCES			
Topographic	USGS, 2016		
Bathymetric	USGS, 2016		
Aerial Imagery	Google Earth, 2016		
Vegetation	N/A*		
REAL ESTATE INFORMATION			
Property Owner	County of Suffolk Town of Southampton		
Municipality	Southampton		
County	Suffolk		
CBRA	F13, System Unit		

BAYSIDE TIDAL ENVIRONMENT (ft-NAVD88)					
Closest Tidal Benchmark	Shinnecock Bay Entrance, NY		Highest Astronomical Tide (HAT)		1.79
			Mean Higher High Water (MHHW)		1.31
Coordinates	40.820000° N 72.561667° W		Mean High Water (MHW)		1.05
			Mean Sea Level (MSL)		-0.30
0 ft-NAVD = 0.92 ft-NGVD			Mean Tide Level (MTL)		-0.28
Range (MHW-MLW)		2.66	Mean Low Water (MLW)		-1.60
Diurnal Range (MHHW - MLLW)		3.02	Mean Lower Low Water (MLLW)		-1.71
Largest Tidal Range (HAT-LAT)		3.98	Lowest Astronomical Tide (LAT)		-2.19
BAYSIDE WAVE ENVIRONMENT					
Return Period	Fetch (ft)	Wave Height (ft)	Wind Setup (ft)	Wave Setup (ft)	HAT + Setup + Wave Height (ft-NAVD88)
1-year	13,192	2.1	0.28	0.82	4.99
5-year	13,192	2.8	0.49	0.85	5.93
10-year	13,192	3.1	0.59	0.87	6.35









Legend:

Project Area

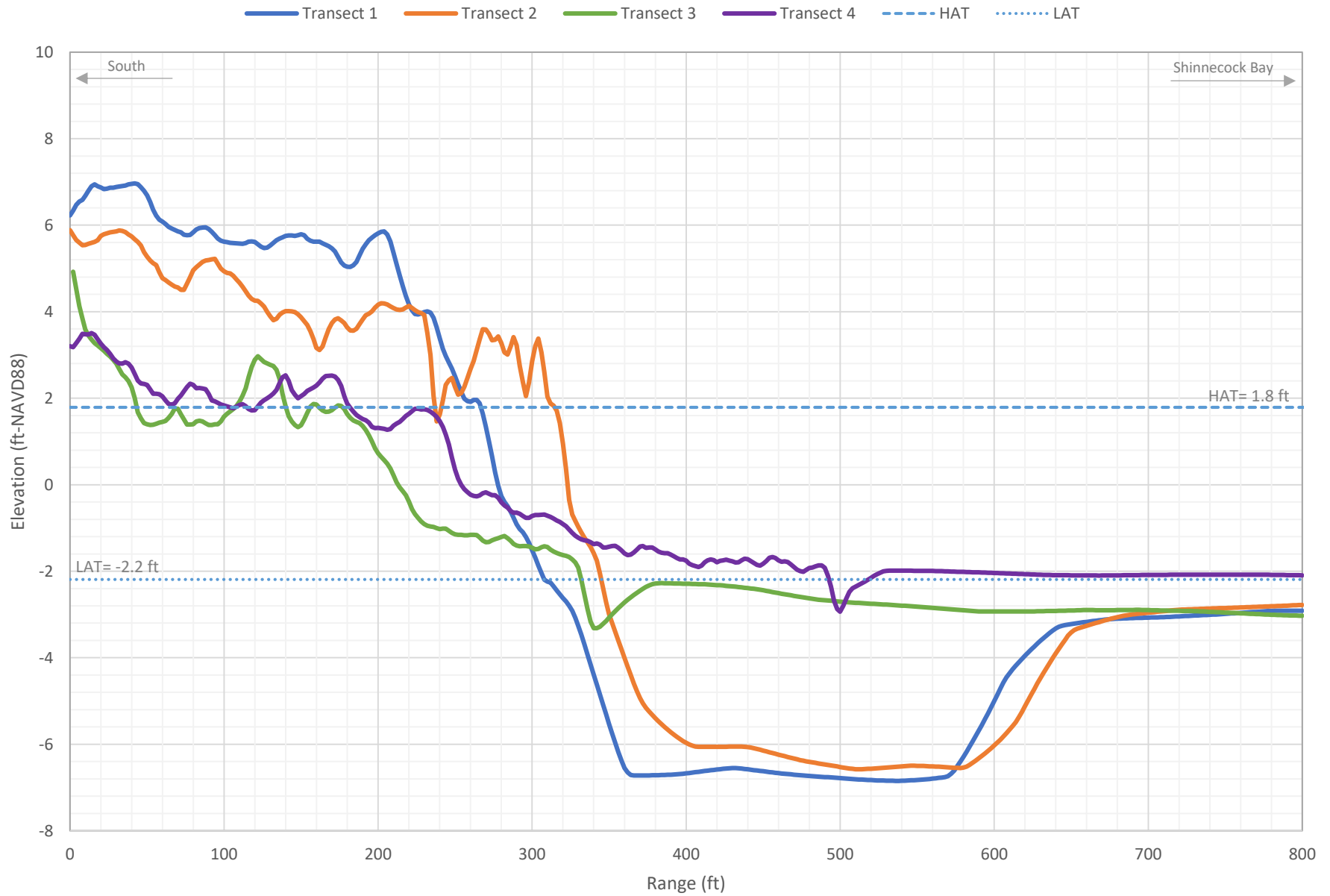
Transects



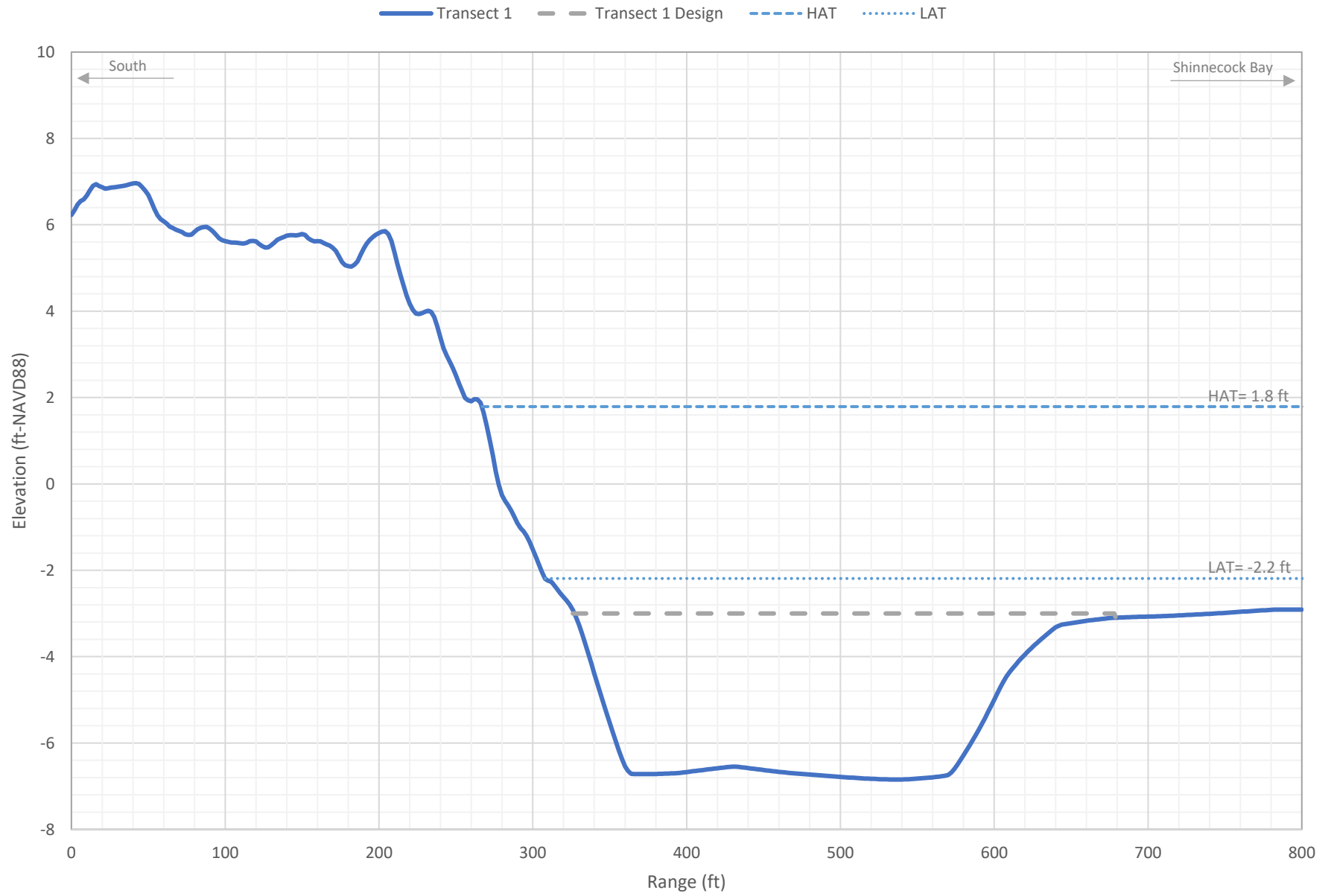
Fire Island to Montauk Point
Coastal Process Features
Tiana Bayside Park
Transect Locations

PROJECT	C2017-071
DRAWN BY	WKL
SHEET	1 OF 1
DATE	DEC 2017

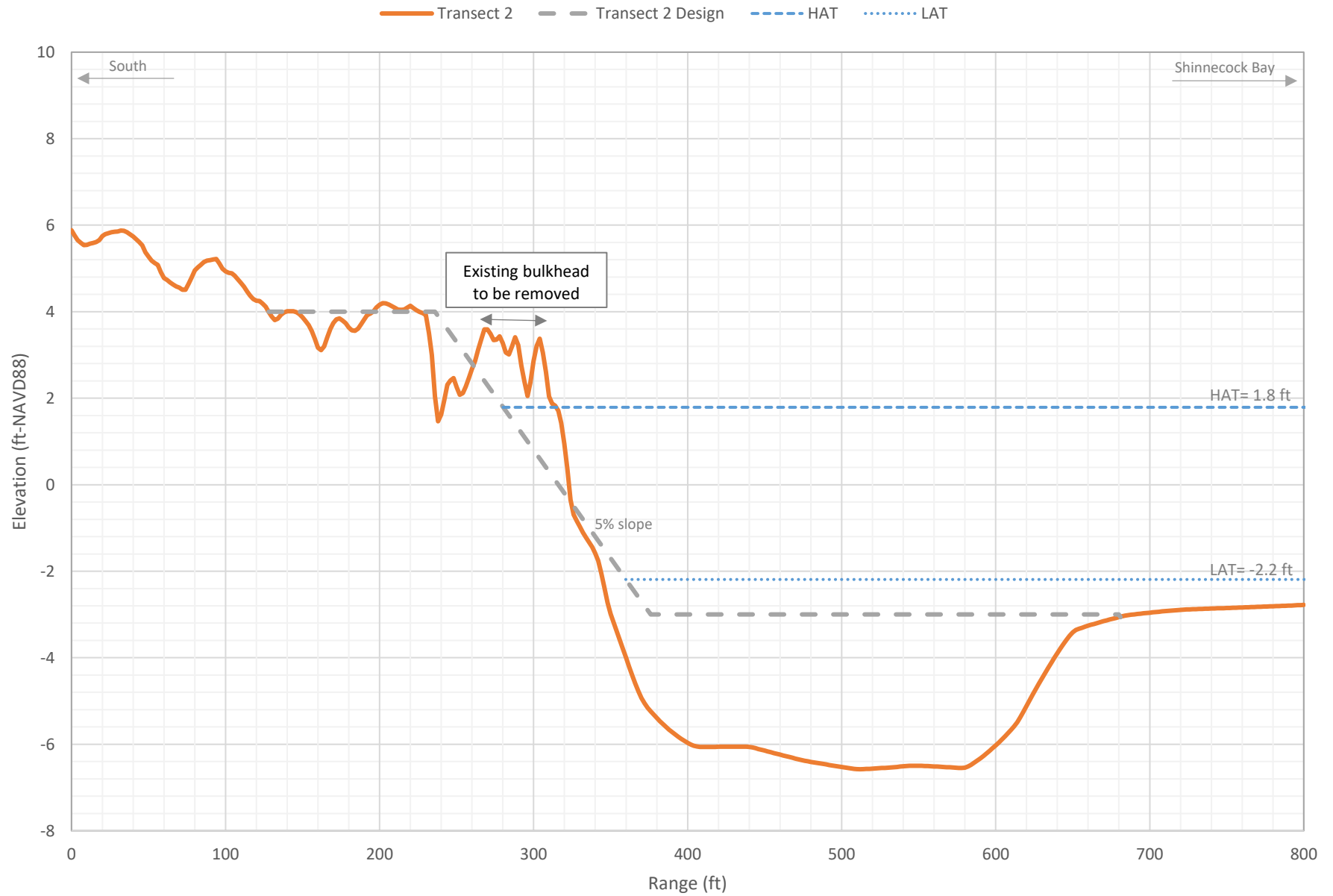
Tiana Bayside Park Existing Conditions



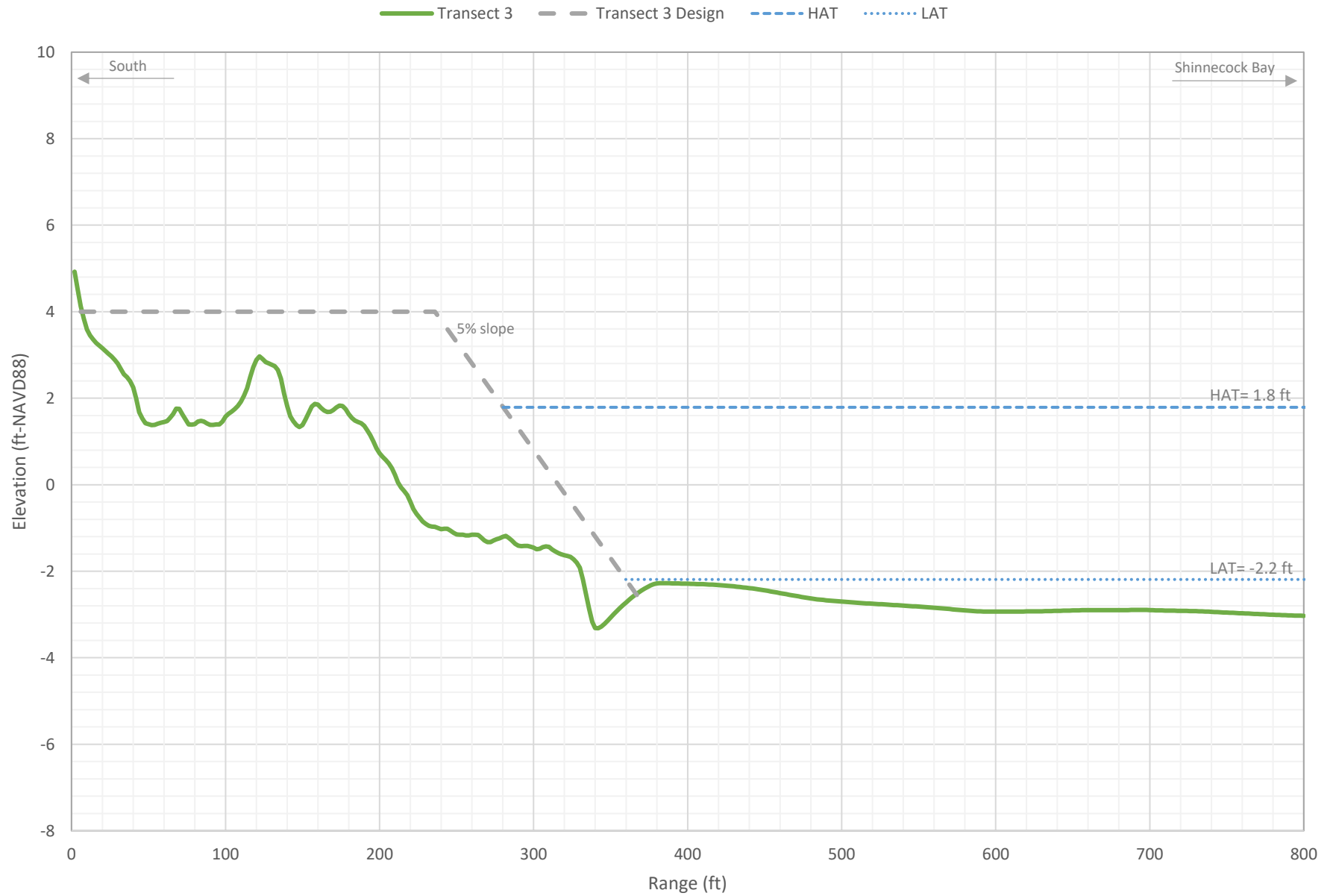
Tiana Bayside Park Transect 1



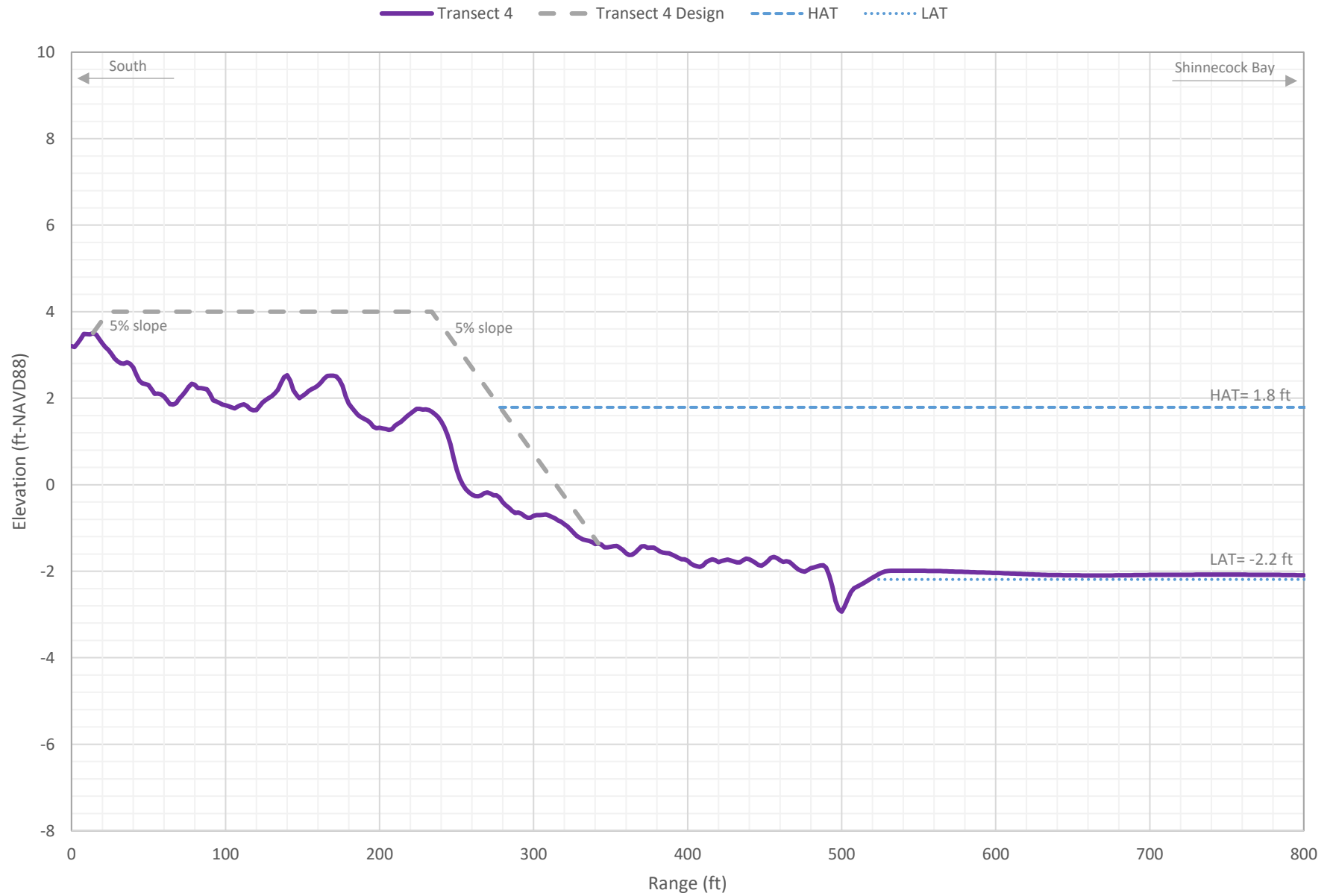
Tiana Bayside Park Transect 2



Tiana Bayside Park Transect 3




Tiana Bayside Park Transect 4



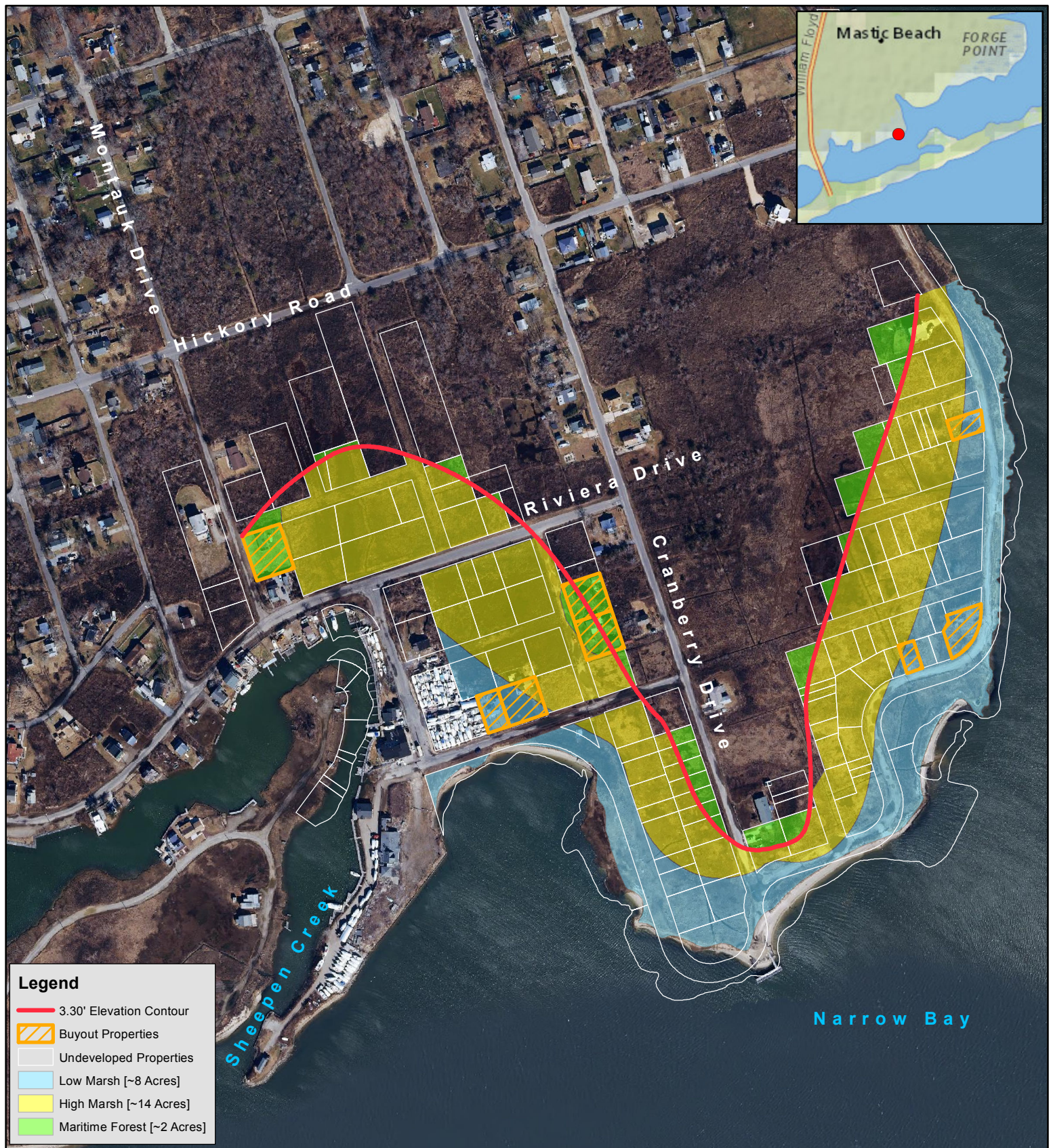
CPF Site MB1: Mastic Beach 1	Town of Brookhaven, NY/ east of William Floyd Parkway & West of Pattersquash Creek
	40.746981° N / -72.846617° W
<p>CPF SITE GOALS</p> <ul style="list-style-type: none"> • Combine non-structural acquisition with restoration of natural floodplain function • Create natural buffer to attenuate waves and reduce flooding impacts to developed areas <p>Coordination among agencies has identified the potential to combine the non-structural plans with restoration of natural systems to create a more effective CSRM plan.</p> <p>Mastic Beach 1 includes undeveloped lands and eight properties targeted for buyouts as part of the non-structural plan. The undeveloped land consists primarily of common reed dominated wetlands, some existing uplands and high marsh shrub areas.</p> <p>The conceptual CPF plan for Mastic Beach 1 consists of reestablishment of a natural vegetation community transition, beginning with forested uplands adjacent to the remaining residential areas, followed by high marsh shrub, high marsh grasses and low march near the shoreline at appropriate elevations. Following selective acquisition, former private parcels would be restored with native vegetation suited for the site conditions, thereby enhancing the CPF function of this vegetation type by increasing the width of vegetated area. Where higher elevations exist along the shoreline, these areas would be expanded if possible to create and enhance a high marsh shrub vegetation community. Although not depicted on the concept plan, existing linear channels, if and where present, would be altered to create more sinuous natural configurations to enhance the hydrologic function of the wetland and facilitate restoration of native vegetation. Details on existing channel configuration and reconfiguration, if needed, would be developed during the PED phase.</p>	

CPF Site MB1: Mastic Beach 1		Town of Brookhaven, NY/ east of William Floyd Parkway & West of Pattersquash Creek	
		40.746981° N / -72.846617° W	
CPF PARAMETERS			
Feature	CSRM		
Cut Volume (cy)	0		
Fill Volume (cy)	0		
Net Volume (cy)	0		
Acreage	~25		
Activity	Buyouts – 8 residences Habitat Restoration		
DATA SOURCES			
Topographic	LiDAR DEM, North Atlantic Coast Comprehensive Study, 2010		
Aerial Imagery	NY State High Resolution Orthoimagery (2016)		
REAL ESTATE INFORMATION			
Property Owners	See Real Estate Report		
Municipality Location	Town of Brookhaven Mastic Beach		
County	Suffolk		
CBRA	None		






BAYSIDE TIDAL ENVIRONMENT			Elevation (ft NAVD88)
		Highest Astronomical Tide (HAT) – (2018)	1.5
Flood Frequency Node (see Engineering Appendix)	10	HAT – Project Year 2048 Sea Level Rise (SLR)	1.9
		HAT – 2048 Intermediate SLR	2.1
Datum Conversion			
0 ft-NAVD88	= - 1.17 ft- NGVD29	Flood Frequency Data	
		2-year	3.1
Target Habitat Type	Acres	10-year	4.5
Low Marsh	9	25-year	5.3
High Marsh	14	100-year	6.1
Maritime Forest	2		



Fire Island to Montauk Point Coastal Process Features Mastic Beach 1 Target Habitats Concept Plan

CPF Site MB2: Mastic Beach 2 – Area 1	Town of Brookhaven, NY East of Pattersquash Creek
	40.7535° N / -72.840596° W
<p>CPF SITE GOALS</p> <ul style="list-style-type: none"> • Combine non-structural acquisition with restoration of natural floodplain function • Create natural buffer to attenuate waves and reduce flooding impacts to developed areas <p>Coordination among agencies has identified the potential to combine the non-structural plans with restoration of natural systems to create a more effective CSRM plan.</p> <p>Mastic Beach 2 – Area 1 includes undeveloped lands and one property targeted for buyout as part of the non-structural plan. The undeveloped land consists primarily of common reed dominated wetlands, some existing uplands and high marsh shrub areas. The common reed dominated wetlands appear to have been hydrologically altered as a result of linear channel construction and in some locations are low lying and may have restrictions to normal semi-diurnal tidal flow. Low marsh vegetation is present in lower lying areas and adjacent to channels. Uplands are present throughout and adjacent to the site.</p> <p>The conceptual CPF plan for Mastic Beach 2 - Area 1 consists of reestablishment of a natural vegetation community transition, beginning with forested uplands adjacent to the remaining residential areas, followed by high marsh shrub, high marsh grasses and low marsh near the shoreline at appropriate elevations. Following acquisition, former private parcel would be restored with native vegetation suited for the site conditions, thereby enhancing the CPF function of this vegetation type by increasing the width of vegetated area. Where higher elevations exist along the shoreline, these areas would be expanded if possible to create and enhance a high marsh shrub vegetation community. Although not depicted on the concept plan, existing linear channels, if and where present, would be altered to create more sinuous natural configurations to enhance the hydrologic function of the wetland and facilitate restoration of native vegetation. Details on existing channel configuration and reconfiguration, if needed, would be developed during the PED phase.</p>	

CPF Site MB2: Mastic Beach 2 – Area 1		Town of Brookhaven, NY East of Pattersquash Creek	
		40.7535° N / -72.840596° W	
CPF PARAMETERS			
Feature	CSRM		
Cut Volume (cy)	0		
Fill Volume (cy)	0		
Net Volume (cy)	0		
Acreage	~24		
Activity	Buyouts – 1 residence Habitat Restoration		
DATA SOURCES			
Topographic	LiDAR DEM, North Atlantic Coast Comprehensive Study, 2010		
Aerial Imagery	NY State High Resolution Orthoimagery (2016)		
REAL ESTATE INFORMATION			
Property Owners	See Real Estate Report		
Municipality	Town of Brookhaven		
Location	Mastic Beach		
County	Suffolk		
CBRA	None		



BAYSIDE TIDAL ENVIRONMENT			Elevation (ft-NAVD88)
		Highest Astronomical Tide (HAT) – (2018)	1.5
Flood Frequency Node (see Engineering Appendix)	10	HAT – Project Year 2048 Sea Level Rise (SLR)	1.9
		HAT – 2048 Intermediate SLR	2.1
Datum Conversion			
0 ft-NAVD88	= - 1.17 ft- NGVD29	Flood Frequency Data	
		2-year	3.1
Target Habitat Type	Acres	10-year	4.5
Low Marsh	13	25-year	5.3
High Marsh	9	100-year	6.1
Maritime Forest	2		




0 550 1,100 Feet



Fire Island to Montauk Point Coastal Process Features Mastic Beach 2 Area 1 Target Habitats Concept Plan

CPF Site MB2: Mastic Beach 2 – Area 2	Town of Brookhaven, NY West of Lawrence Creek
	40.758649° N / -72.828377° W
<p>CPF SITE GOALS</p> <ul style="list-style-type: none"> • Combine non-structural acquisition with restoration of natural floodplain function • Create natural buffer to attenuate waves and reduce flooding impacts to developed areas <p>Coordination among agencies has identified the potential to combine the non-structural plans with restoration of natural systems to create a more effective CSRM plan.</p> <p>Mastic Beach 2 – Area 2 includes undeveloped lands and five properties targeted for buyout as part of the non-structural plan. The undeveloped land consists primarily of common reed dominated wetlands and high marsh shrub areas, with some adjoining uplands.</p> <p>The conceptual CPF plan for Mastic Beach 2 - Area 2 consists of reestablishment of a natural vegetation community transition, beginning with forested uplands adjacent to the remaining residential areas, followed by high marsh shrub, high marsh grasses and low marsh near the shoreline at appropriate elevations. Following acquisition, former private parcels would be restored with native vegetation suited for the site conditions, thereby enhancing the CPF function of this vegetation type by increasing the width of vegetated area. Although not depicted on the concept plan, existing linear channels, if and where present, would be altered to create more sinuous natural configurations to enhance the hydrologic function of the wetland and facilitate restoration of native vegetation. Details on existing channel configuration and reconfiguration, if needed, would be developed during the PED phase.</p>	

CPF Site MB2: Mastic Beach 2 – Area 2		Town of Brookhaven, NY West of Lawrence Creek
		40.758649° N / -72.828377° W
CPF PARAMETERS		
Feature	CSRM	
Cut Volume (cy)	0	
Fill Volume (cy)	0	
Net Volume (cy)	0	
Acreage	~7	
Activity	Buyouts – 5 residences Habitat Restoration	
DATA SOURCES		
Topographic	LiDAR DEM, North Atlantic Coast Comprehensive Study, 2010	
Aerial Imagery	NY State High Resolution Orthoimagery (2016)	
REAL ESTATE INFORMATION		
Property Owners	See Real Estate Report	
Municipality	Town of Brookhaven	
Location	Mastic Beach	
County	Suffolk	
CBRA	None	



BAYSIDE TIDAL ENVIRONMENT			Elevation (ft-NAVD88)
		Highest Astronomical Tide (HAT) – (2018)	1.5
Flood Frequency Node (see Engineering Appendix)	10	HAT – Project Year 2048 Sea Level Rise (SLR)	1.9
		HAT – 2048 Intermediate SLR	2.1
Datum Conversion			
0 ft. NAVD88	= - 1.17 ft. NGVD29	Flood Frequency Data	
		2-year	3.1
Target Habitat Type	Acres	10-year	4.5
Low Marsh	3	25-year	5.3
High Marsh	2	100-year	6.1
Maritime Forest	2		



Fire Island to Montauk Point Coastal Process Features Mastic Beach 2 Area 2 Target Habitats Concept Plan