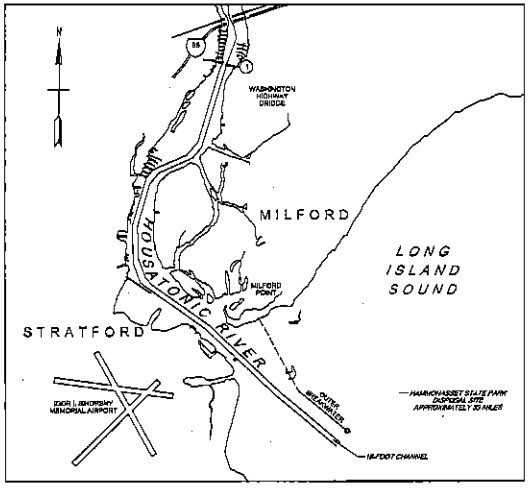
USACE

Attachment I

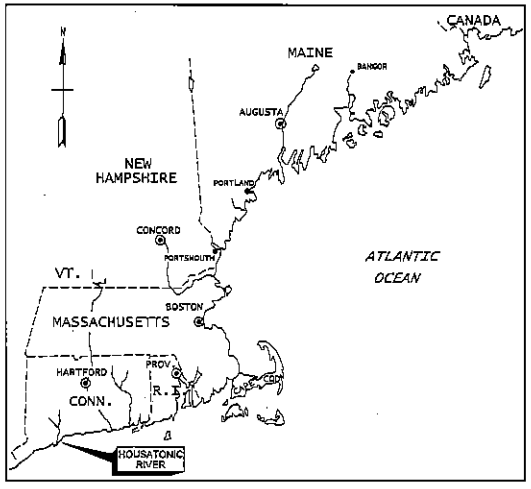
US Army Corps of Engineers®
New England District

MAINTENANCE DREDGING
HOUSATONIC RIVER
STRATFORD AND MILFORD, CONNECTICUT

INDEX TO DRAWINGS		
SHEET NO.	DESIGN FILE	SHEET TITLE
1 G-001	HOU-516_G-001.DGN	COVER SHEET AND INDEX
2 G-002	HOU-516_G-002.DGN	GENERAL PLAN, INDEX TO NAVIGATION AIDS, GENERAL NOTES, LEGEND AND FEDERAL CHANNEL COORDINATES
3 C-101	HOU-516_C-101.DGN	PLAN AND SECTION - STA. -12+00 TO STA. 19+10
4 C-102	HOU-516_C-102.DGN	PLAN AND SECTION - STA. 19+10 TO STA. 49+20
5 C-103	HOU-516_C-103.DGN	PLAN AND SECTION - STA. 49+20 TO STA. 74+25
6 C-104	HOU-516_C-104.DGN	PLAN AND SECTION - STA. 74+25 TO STA. 105+75
7 C-105	HOU-516_C-105.DGN	PLAN AND SECTION - STA. 105+75 TO STA. 135+80
8 C-106	HOU-516_C-106.DGN	PLAN AND SECTION - STA. 135+80 TO STA. 169+75
9 C-107	HOU-516_C-107.DGN	PLAN AND SECTION - STA. 169+75 TO STA. 184+00
10 C-108	HOU-516_C-108.DGN	BEACH PLACEMENT SITE PLAN, SECTION AND DETAIL



C2 VICINITY MAP
SCALE: NOT TO SCALE



C6 LOCATION MAP
SCALE: NOT TO SCALE

SOLICITATION NO.:
CONTRACT NO.:
ISSUE DATE:

SIGNATURES APPOSED BELOW INDICATE OFFICIAL RECOMMENDATION AND APPROVAL OF ALL DRAWINGS WITHIN SET AS INDICED ON THIS SHEET

APPROVED FOR TECHNICAL ADEQUACY BY:
TECHNICAL LEAD ENGINEER — DATE
REVIEWED BY:
CHIEF, SURVEY SECTION — DATE
REVIEWED BY:
CHIEF, GEOTECHNICAL/WATER RESOURCES BRANCH — DATE
REVIEWED BY:
CHIEF, DSD-ENV BR/DEPUTY CHIEF, ENGINEERING/PLANNING DIV — DATE
APPROVAL RECOMMENDED BY:
CHIEF, DESIGN BRANCH — DATE
APPROVED BY:
CHIEF, ENGINEERING/PLANNING DIVISION — DATE

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US Army Corps of Engineers®

DATE	REVISION	BY	CHK	APP

ISSUE DATE:
SOLICITATION NO.:
CONTRACT NO.:
DRAWING CODE: 0-001
SHEET 1 OF 9

DESIGNED BY: DRAWN BY: R. BARNES; CHECKED BY: D. SCHAEFER; SUBMITTED BY:
SCALE: 1:1

US ARMY CORPS OF ENGINEERS NEW ENGLAND DISTRICT 696 VIRGINIA ROAD CONCORD, MA 01742-2751

MAINTENANCE DREDGING HOUSATONIC RIVER STRATFORD AND MILFORD, CONNECTICUT

COVER SHEET AND INDEX

SHEET ID
G-001

%STATUS%

pw:\\CORP-NAEPW/PW1CDN.nae.ds.usace.army.mil:Doc-Mgr\60 Hou\Hou de Usace Army Mil\Documents\Civil Works\Navigation\Connecticut\Housatonic River\Maintenance Dredging FY16\60DAD - Plans & Specs\CAD_SIM_Sheets\Cover Sheet and Index in Drawings
G-001 03-MAY-2016 10:25 MicroStation

USACE

Attachment I

HOUSATONIC RIVER, CONNECTICUT
16-FOOT CHANNEL
STATE PLANE NAD 1983

#	EASTING	NORTHING
1	905126.04	918891.88
2	902832.73	920795.73
3	900021.09	923476.03
4	897485.54	925285.85
5	897199.78	926071.38
6	897166.16	927585.44
7	897706.42	929415.88
8	897970.57	929737.80
9	899286.49	930923.40
10	899705.39	930923.30
11	900607.57	933810.75
35	900568.01	933782.57
36	899849.98	933604.86
37	899514.23	933368.84
38	898186.86	932618.68
39	897851.21	929197.97
40	897386.61	927539.04
41	897385.52	926263.24
42	897685.95	925558.53
43	897910.51	925237.48
44	900148.72	923632.61
45	902985.03	920946.13
46	905254.45	919045.19
A	900329.05	932551.24
B	900439.53	932460.47

SEDIMENT SAMPLES LOCATION
REFER TO GEOTECHNICAL DATA
IN SPECIFICATIONS

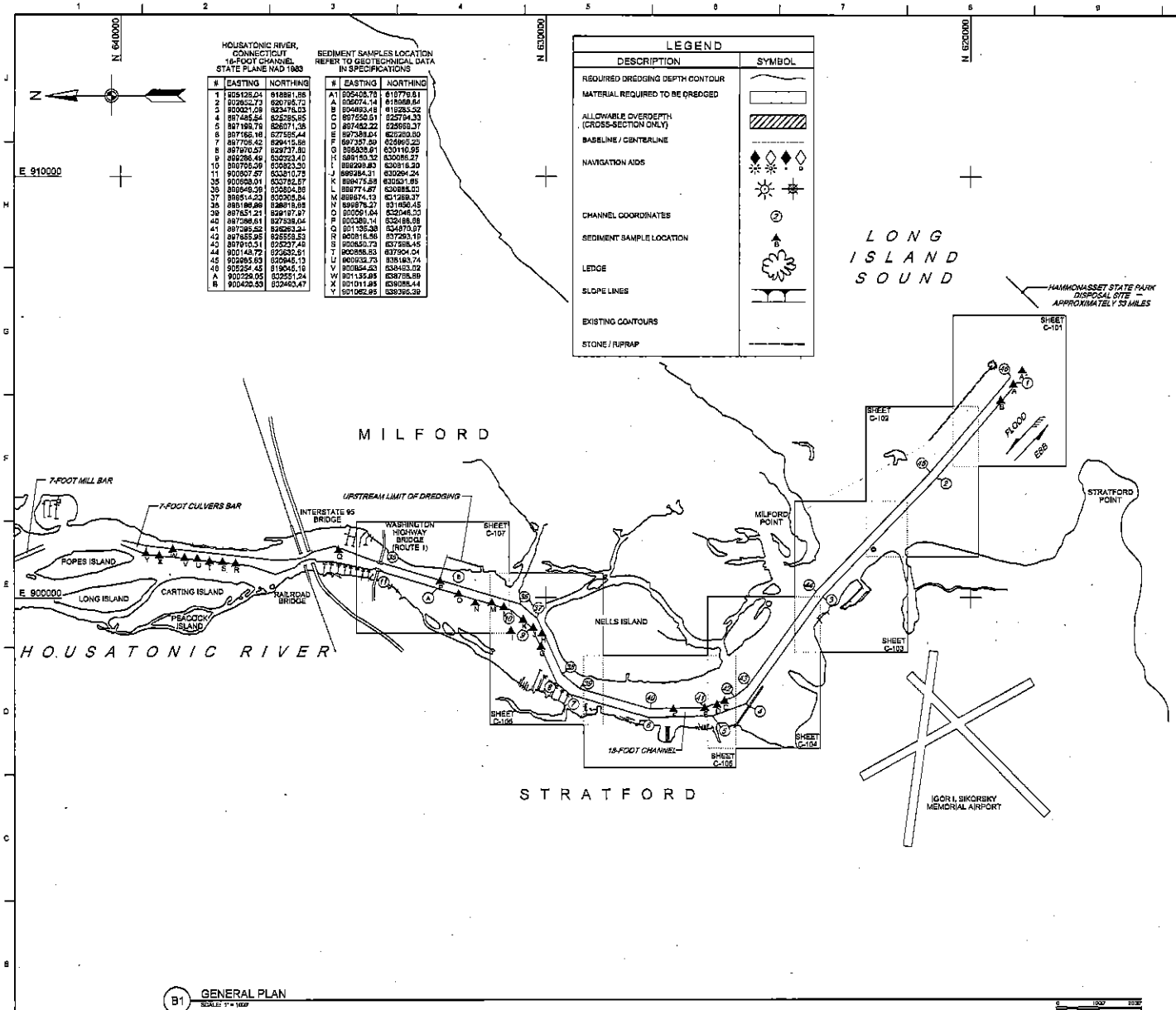
#	EASTING	NORTHING
A1	905405.78	918776.61
A	906074.14	919968.64
B	904893.48	919253.52
C	897550.51	925794.33
D	897452.22	925995.37
E	897388.04	926259.50
F	897357.89	926965.25
G	898338.61	930110.95
H	899150.12	930085.27
I	899299.83	930816.30
J	899284.31	930294.24
K	899475.84	930531.85
L	899774.87	930885.03
M	899874.13	931259.37
N	899876.27	931650.45
O	900091.04	932046.30
P	900389.14	932486.08
Q	901135.38	934870.97
R	900816.56	937293.10
S	900650.73	937398.45
T	900856.53	937904.04
U	900933.73	938163.74
V	900854.53	938493.02
W	901135.85	938795.89
X	901011.85	939055.44
Y	901062.95	939396.39

LEGEND

DESCRIPTION	SYMBOL
REQUIRED DREDGING DEPTH CONTOUR	
MATERIAL REQUIRED TO BE DREDGED	
ALLOWABLE OVERDEPTH (CROSS-SECTION ONLY)	
BASELINE / CENTERLINE	
NAVIGATION AIDS	
CHANNEL COORDINATES	2
SEDIMENT SAMPLE LOCATION	B
LEDGE	
SLOPE LINES	
EXISTING CONTOURS	
STONE / RIPRAP	

INDEX OF NAVIGATION AIDS

NO.	DATE	STATE PLANE COORDINATES	GEOGRAPHIC POSITION
FL G-1 BELL	02/04/16	N 618000.24 E 908206.60	41°-09'-24.1"N 73°-05'-28.1"W
GC-1A	02/04/16	N 618093.48 E 904743.87	41°-09'-34.4"N 73°-05'-45.3"W
RN-2	02/04/16	N 618247.50 E 905978.83	41°-09'-36.3"N 73°-05'-42.3"W
GC-3	02/04/16	N 620079.86 E 903314.58	41°-09'-47.5"N 73°-06'-04.1"W
RN-4	02/04/16	N 620861.36 E 902975.06	41°-09'-53.3"N 73°-06'-08.5"W
RN-6	02/04/16	N 622543.00 E 901341.98	41°-10'-05.7"N 73°-06'-30.0"W
GC-8	02/04/16	N 623547.49 E 899878.80	41°-10'-16.6"N 73°-06'-47.9"W
RN-10	02/04/16	N 623965.59 E 899178.32	41°-10'-19.8"N 73°-06'-46.3"W
RN-12	02/04/16	N 625393.64 E 897782.71	41°-10'-36.8"N 73°-07'-16.7"W
RN-14	02/04/16	N 626584.64 E 897367.09	41°-10'-43.7"N 73°-07'-22.2"W
RN-16	02/04/16	N 627529.52 E 897367.52	41°-10'-51.8"N 73°-07'-22.2"W
RN-18	02/04/16	N 629003.17 E 897795.73	41°-11'-12.7"N 73°-07'-17.1"W
GC-19	02/09/16	N 630030.43 E 898443.22	41°-11'-22.6"N 73°-07'-08.9"W
GC-21	02/09/16	N 630170.56 E 899298.38	41°-11'-24.0"N 73°-06'-57.1"W
GC-23	02/09/16	N 630815.53 E 899703.60	41°-11'-30.4"N 73°-06'-51.9"W



B1 GENERAL PLAN
SCALE: 1" = 1000'

GENERAL NOTES:

1. SOUNDINGS ARE IN FEET AND TENTHS. THE REFERENCE PLANE IS MEAN LOWER LOW WATER (MLLW) AND IS BASED ON THE 1960-2001 TIDAL EPOCH. SOUNDINGS NOTED WITH A (–) ARE ABOVE THE REFERENCE PLANE OF MLLW. SOUNDINGS WITHOUT A SIGN ARE BELOW THE REFERENCE PLANE OF MLLW, AND SHOULD BE CONSIDERED NEGATIVE.

2. TOPOGRAPHY SHOWN IS FROM PREVIOUS SURVEYS, AERIAL IMAGERY AND/OR NOAA CHART NO. 12370. ALL TOPOGRAPHY, INCLUDING SHORELINE, BRIDGES, PIERS, ETC., IS LOCATED APPROXIMATE UNLESS OTHERWISE NOTED AND SHOULD BE USED AS A GENERAL REFERENCE ONLY.

3. BENCH MARK DATA: TIDES WERE RECORDED USING RTK GPS. THE MLLW TO NAVD88 CORRECTION FOR THE LOWER HOUSATONIC RIVER IS 0.62 FEET. THE CORRECTION IS REFERENCED FROM NOAA'S V-DATUM MODEL IN THE VICINITY OF HOUSATONIC RIVER , CONNECTICUT. NAVD88 IS ABOVE MLLW; THEREFORE THE CORRECTION SHOULD BE ADDED TO NAVD88 TO CONVERT TO MLLW. NO TIDE GAUGES WERE USED ON THIS PROJECT. THE MEAN HIGH TIDE IS 5.6 FEET ABOVE MLLW.

4. COORDINATES SHOWN ARE BASED ON THE LAMBERT GRID SYSTEM FOR THE STATE OF CONNECTICUT (ZONE 0600), NAD 1983 AND ARE BASED ON U.S. SURVEY FEET.

5. SURVEY WAS PERFORMED USING A R2 SONIC 2024 MULTIBEAM SONAR SYSTEM OPERATING AT 300 KHZ. HORIZONTAL POSITIONING AND REAL TIME TIDE READINGS WERE RECORDED UTILIZING A TRIMBLE SPS 855 RTK GPS SYSTEM. THE RTK BASE STATIONS USED WERE STATION DOCK (2005) AND STRATFORD (2012).

6. THE SOUNDING INFORMATION SHOWN ON THESE PLANS REPRESENTS THE SHOALEST SOUNDINGS OF THOSE OBTAINED FROM HYDROGRAPHIC SURVEYS CONDUCTED DURING FEBRUARY 2016. THE DATA DEPICTED ON THESE PLANS SHOULD NOT BE USED FOR VOLUME CALCULATION PURPOSES.

7. THE INFORMATION DEPICTED ON THESE PLANS REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED, AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS EXISTING AT THAT TIME.

8. FIELD BOOK: R&H 4550
SURVEYED BY: ROBERT MACGOVERN AND CREW
REFER TO SURVEY NO. 16-1397

US Army Corps of Engineers®

NO.	DESCRIPTION	DATE

DESIGNED BY: BRIAN BERG, PE
DRAWN BY: ERIC CALLERY, NILS MATTES
SPEC. ASTEP
SCALE: 1:4
ISSUE DATE:
SOLICITATION NO.:
CONTRACT NO.:
STARTING CODE: HDU-516
SHEET 1 OF 9

U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT
696 VIRGINIA ROAD
CONCORD, MA 01742-2751

MAINTENANCE DREDGING
HOUSATONIC RIVER
STRATFORD AND MILFORD, CONNECTICUT

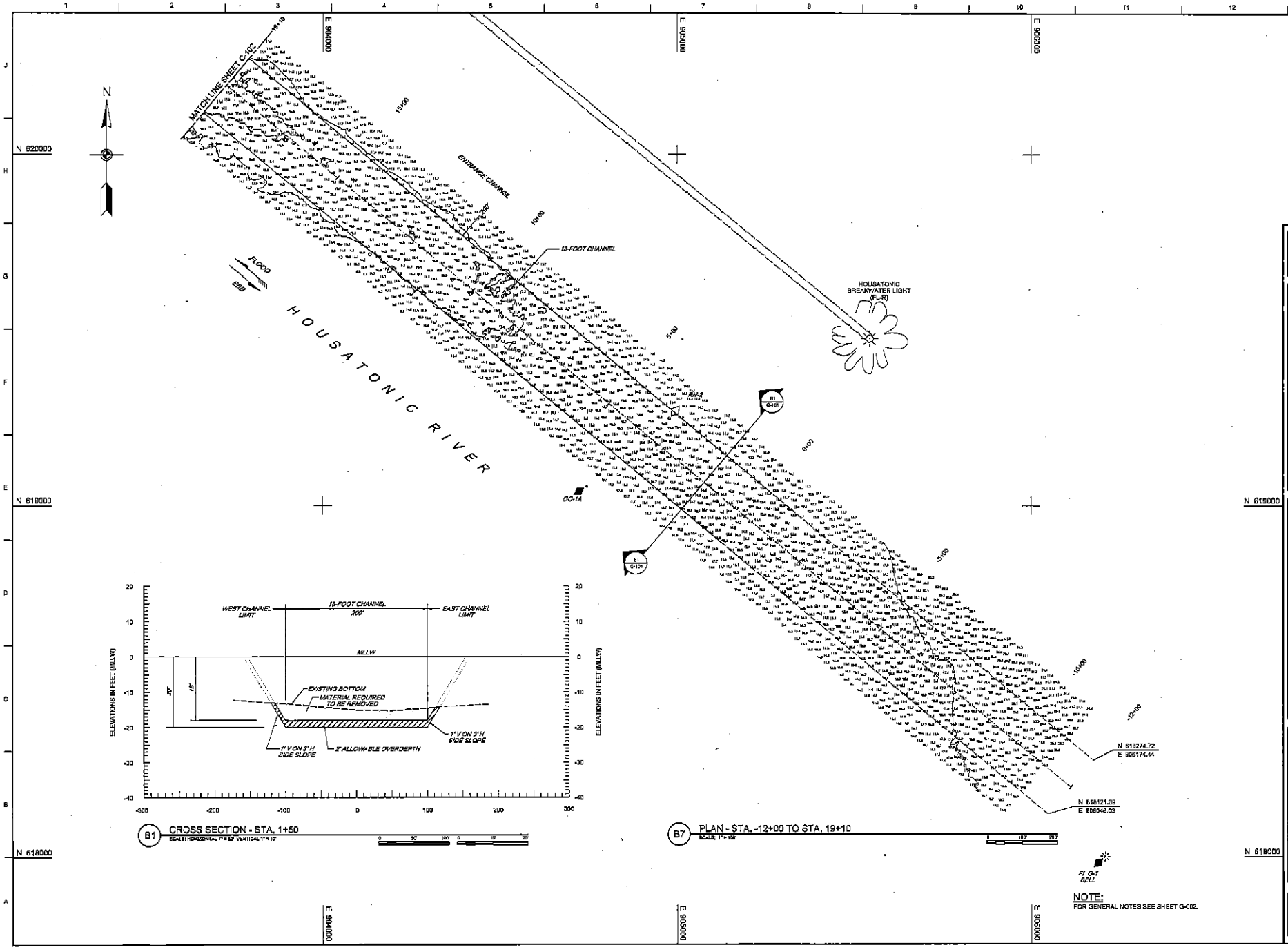
GENERAL PLAN, INDEX TO NAVIGATION AIDS, GENERAL NOTES, LEGEND AND FEDERAL CHANNEL COORDINATES

SHEET ID
G-002

%STATUS%

cw3COE-NABPWP01CON,hou-dsuMaps.army.mil\ne-nae\wp01con,hou-ds\users.army.mil\Data\Parts\Civil Works\Navigation\Connecticut\Housatonic River\Maintenance Dredging FY16\DDAD - Plans & Sheets\CAD_SIM_Sheets\HDU-516_G-002
HDU-516_G-002 - 03-MAY-2016 12:28 MicroStation

USACE Attachment I



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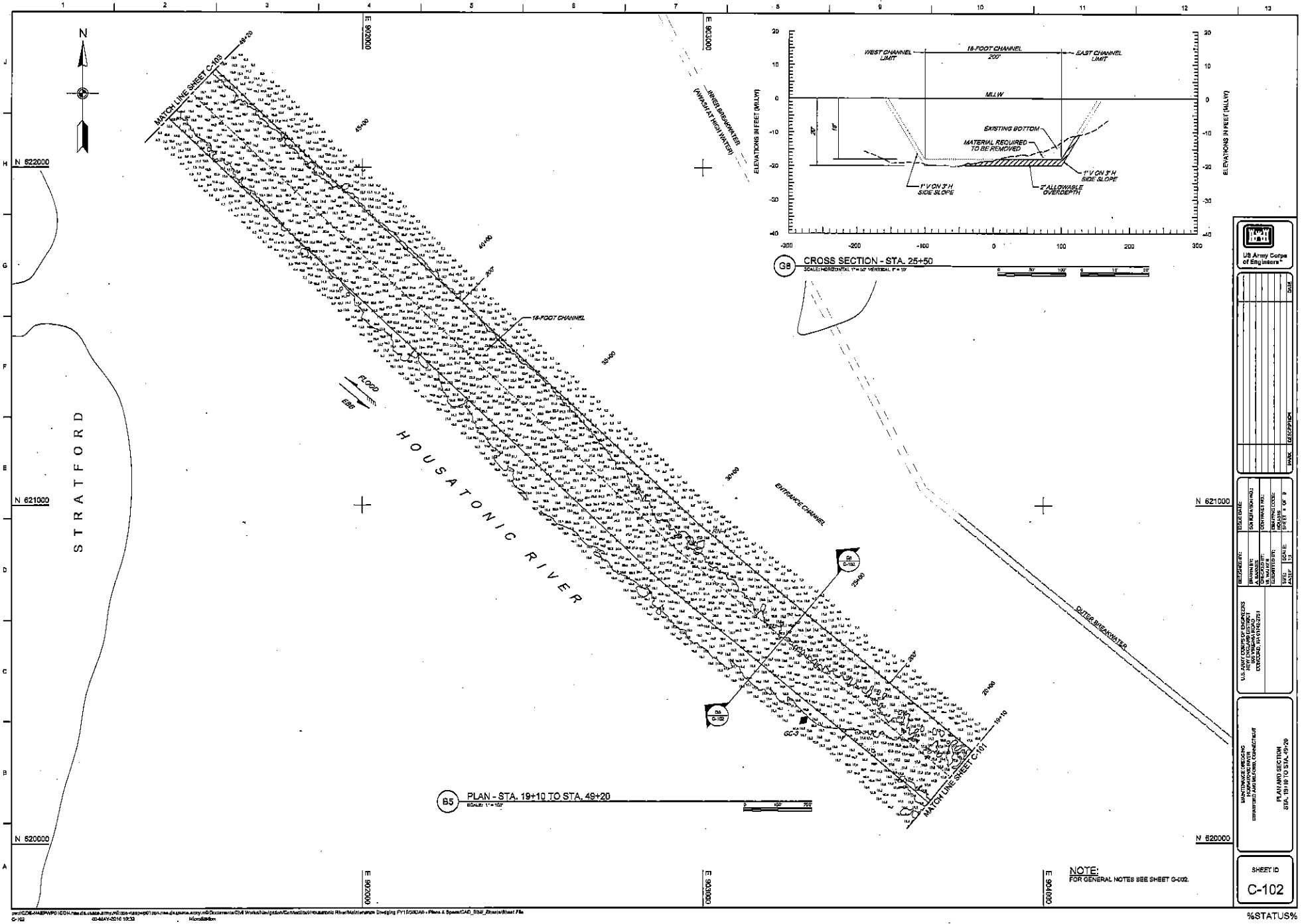
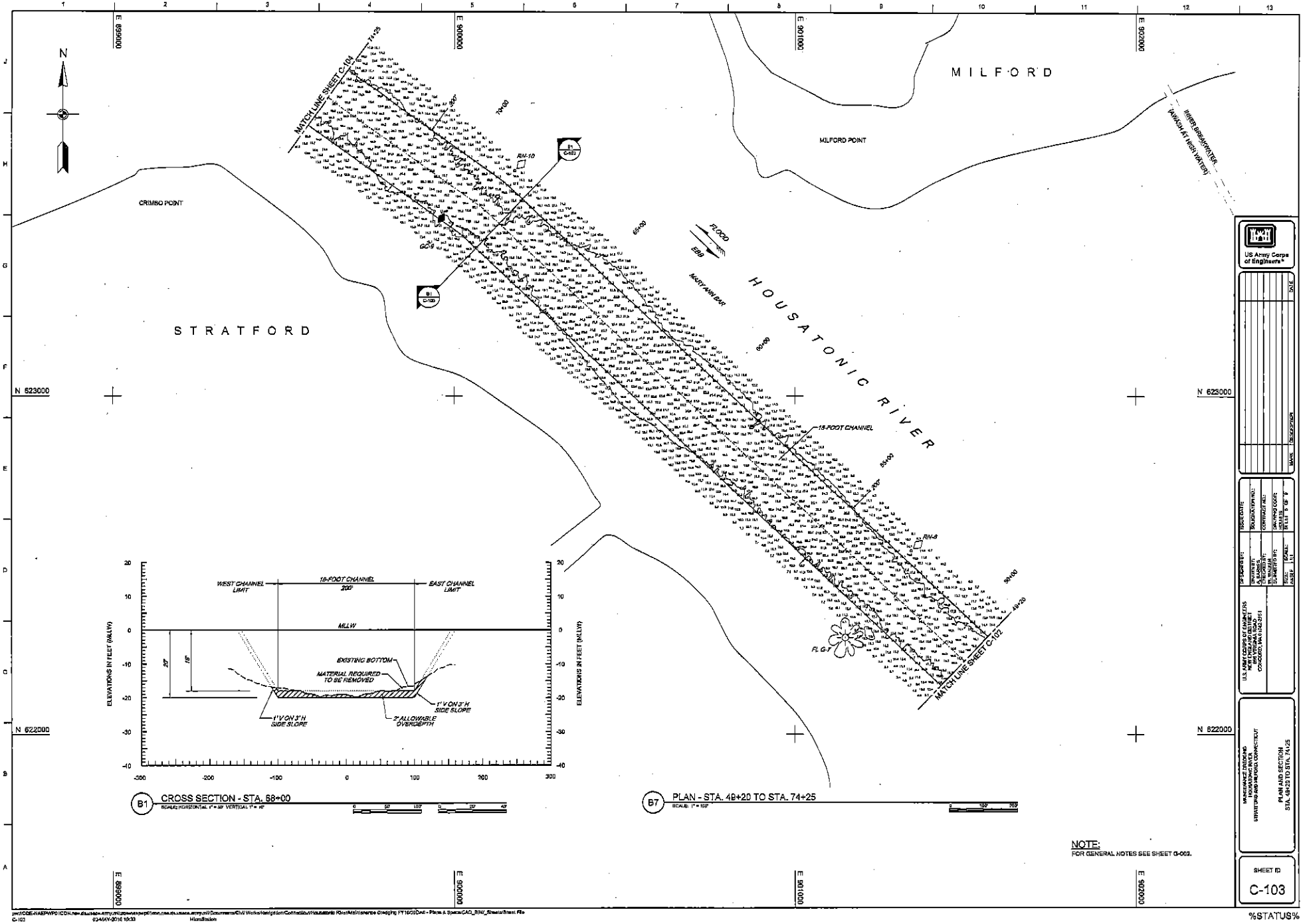
USACE Attachment I



NOTE:
FOR GENERAL NOTES SEE SHEET C-002.

USACE

Attachment I

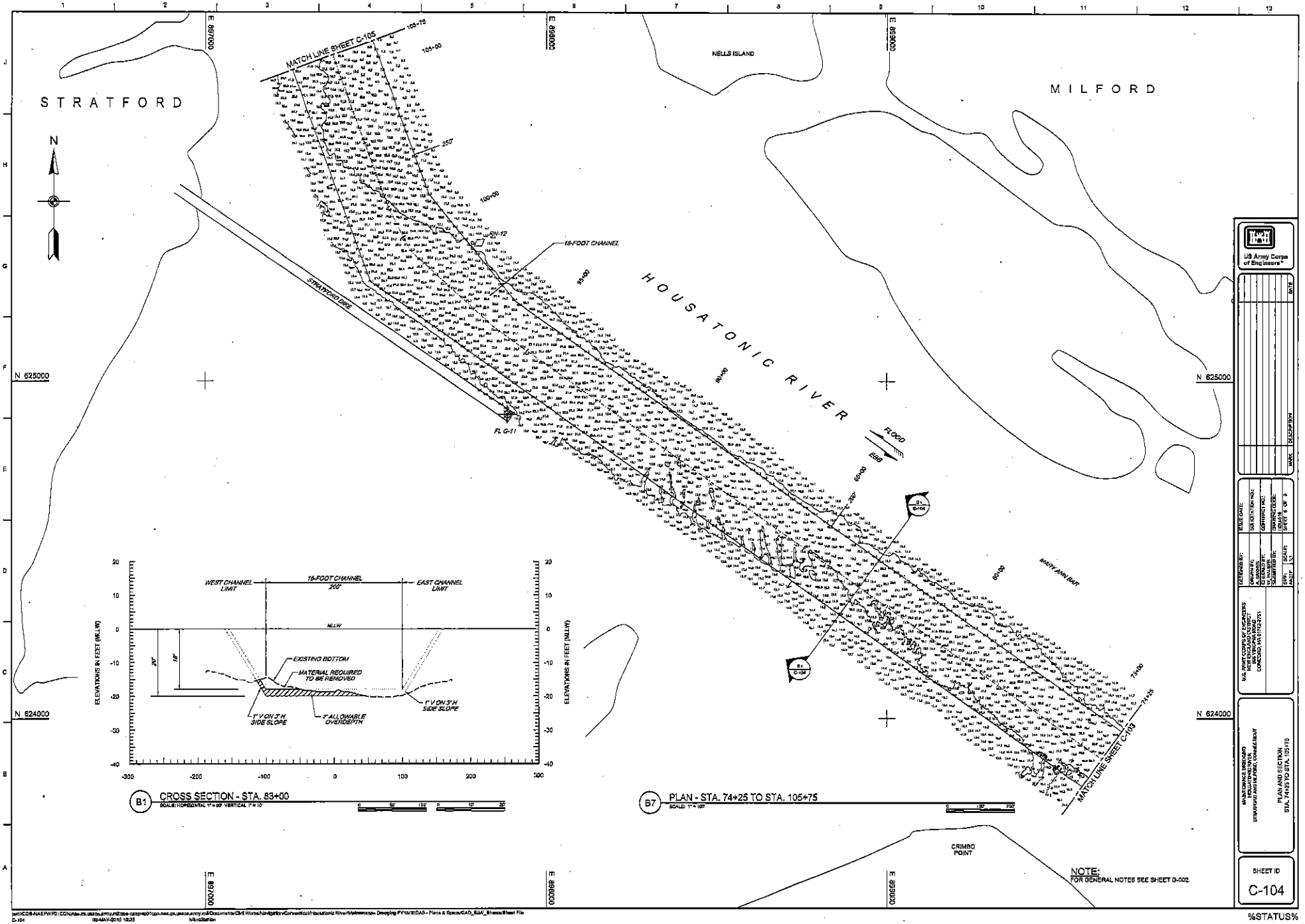


NOTE:
FOR GENERAL NOTES SEE SHEET G-002.

%STATUS%

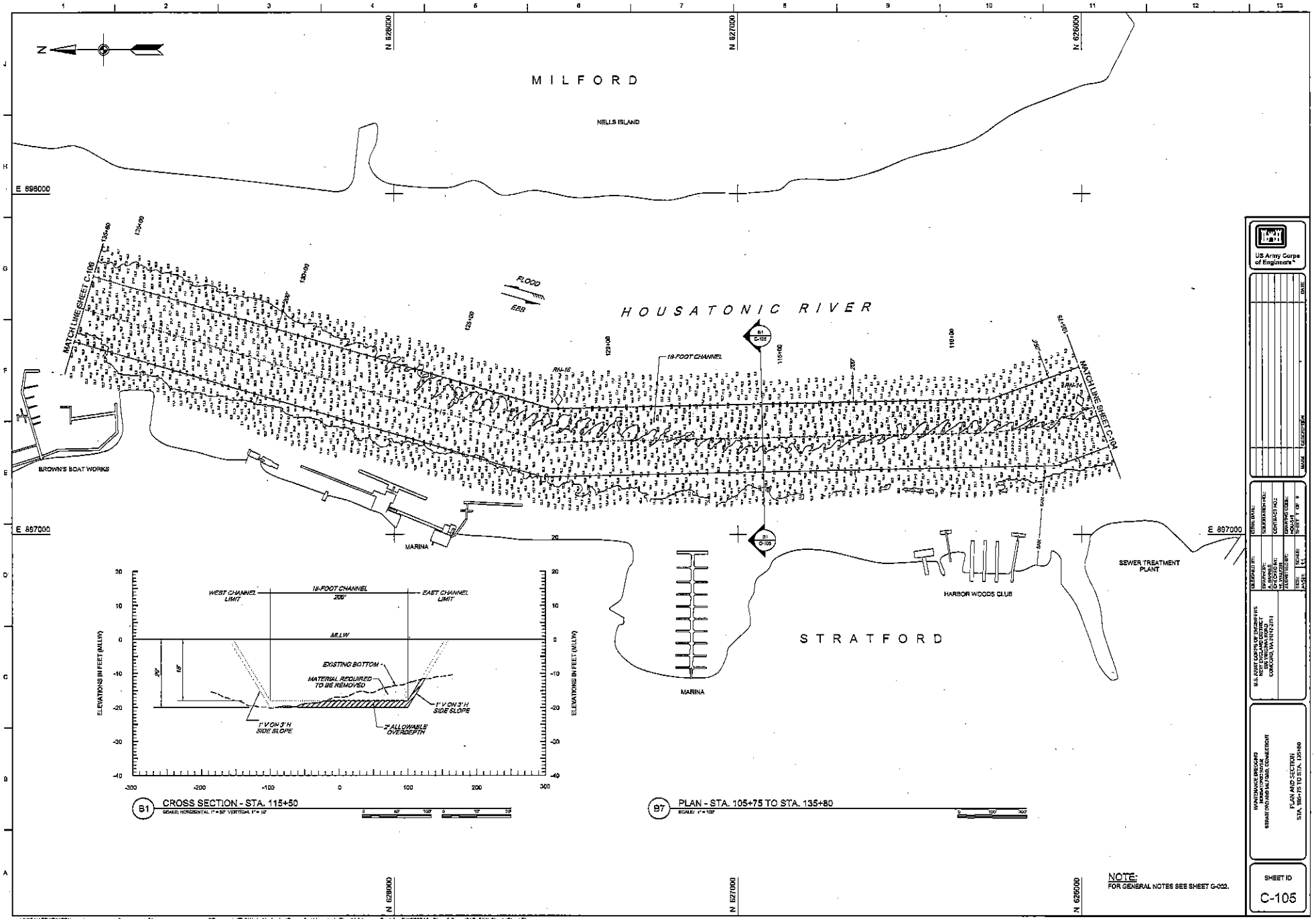
USACE

Attachment I



USACE

Attachment I



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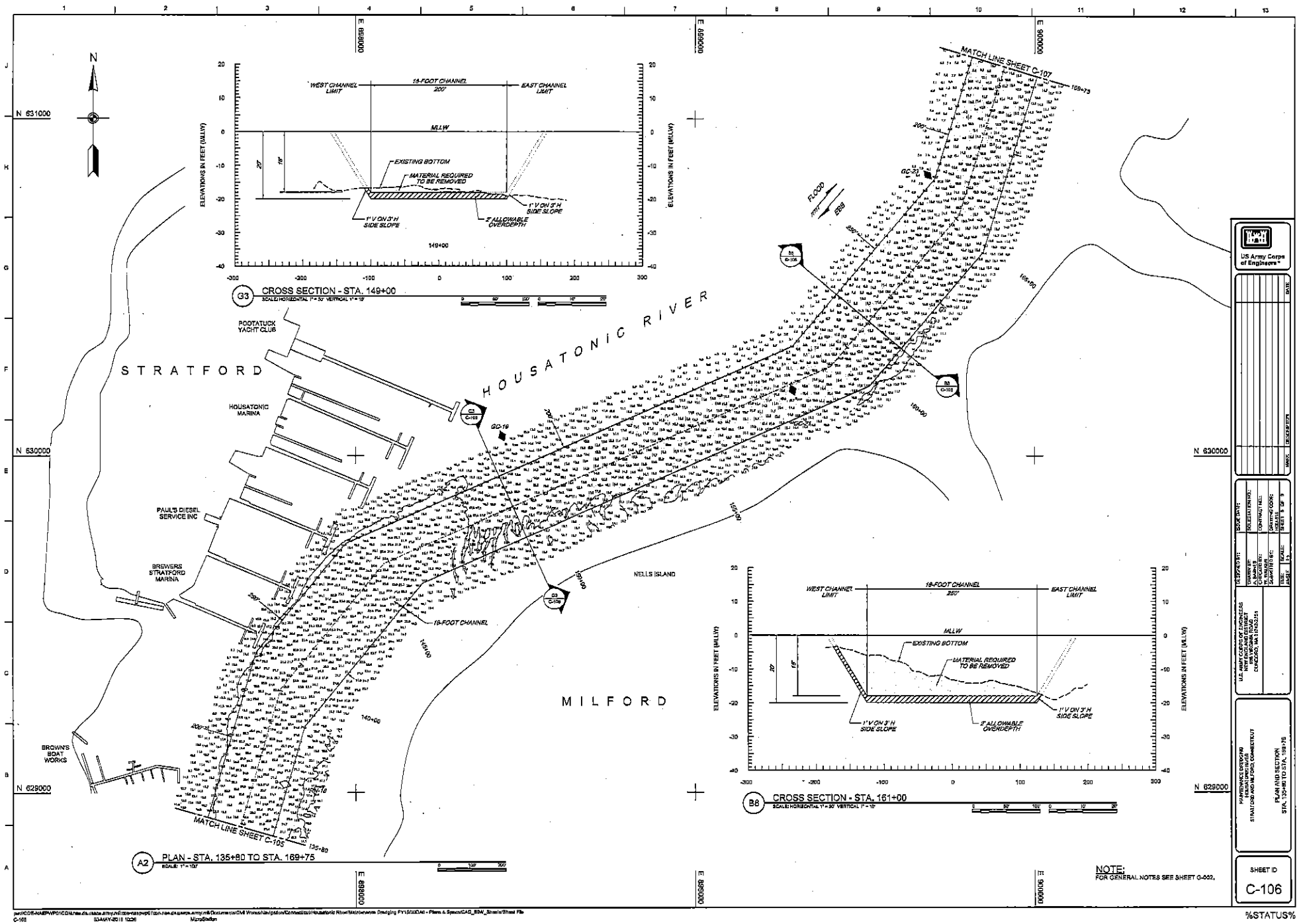
Attachment I



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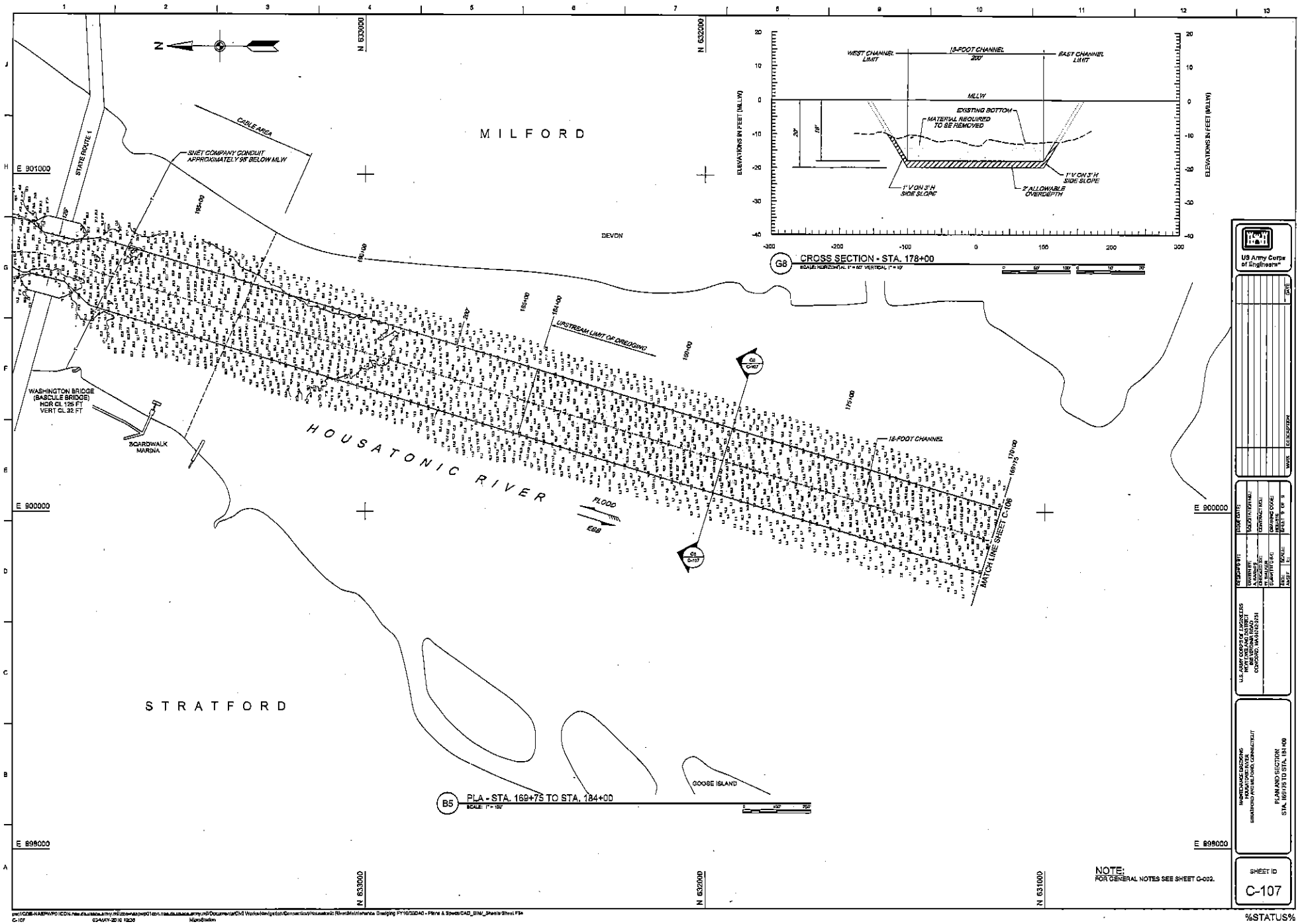

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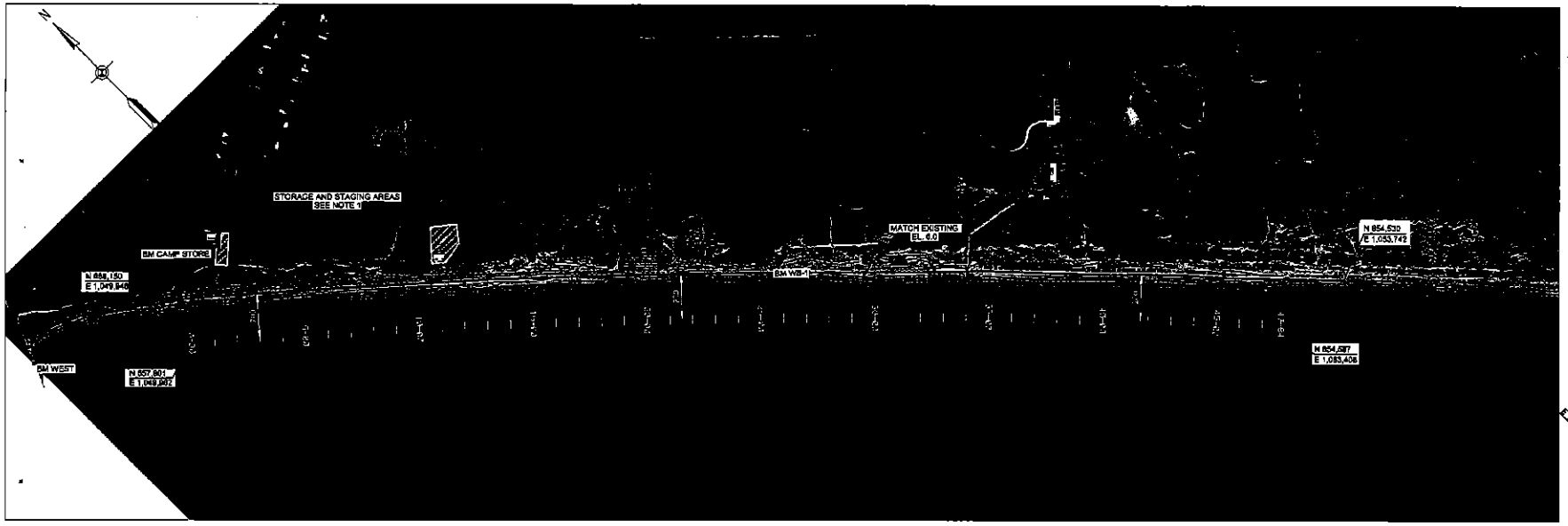
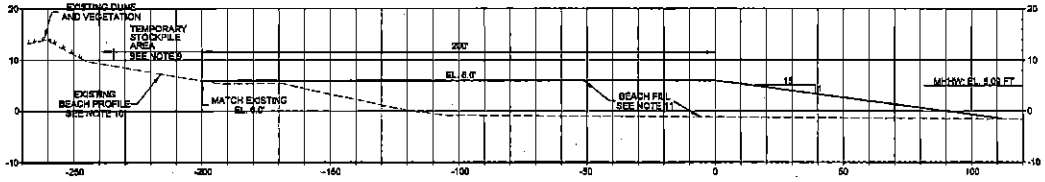


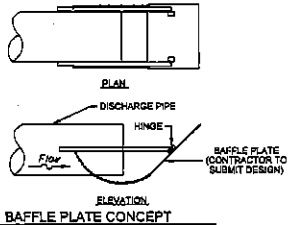
E1 HAMMONASSET BEACH PLACEMENT SITE PLAN

SCALE: 1" = 200'



C1 TYPICAL BEACH FILL SECTION

SCALE: HORIZONTAL 1" = 10' VERTICAL 1" = 10'



B1 BAFFLE PLATE CONCEPT

NOT TO SCALE

BEACH FILL NOTES:

1. SEE SPECIFICATIONS FOR CONTRACTOR'S STORAGE AND STAGING AREA.

2. AERIAL IMAGARY FROM 2013 CT COASTAL DIGITAL ORTHOPHOTOGRAPHY. HAMMONASSET BEACH STATE PARK IS CURRENTLY UNDERGOING SIGNIFICANT UPGRADES. SOME EXISTING STRUCTURES SHOWN ON THIS AERIAL PHOTO HAVE SINCE BEEN DEMOLISHED, AND NEW STRUCTURES, WHICH ARE NOT SHOWN, HAVE BEEN BUILT. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE EXISTING CONDITIONS OF THE PARK.

3. CONTOURS SHOWN ON HAMMONASSET BEACH ARE FROM MARCH 2016 USACE TOPOGRAPHIC SURVEY AND ARE REFERENCE TO THE PLANE OF MLLW. THE CONTOURS REPRESENT THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED, AND CAN ONLY BE CONSIDERED AS INDICATED THE CONDITIONS EXISTING AT THAT TIME.

4. COORDINATES SHOWN ARE BASED ON THE LAMBERT GRID SYSTEM FOR THE STATE OF CONNECTICUT, NAD 1983 AND ARE BASED ON U.S. SURVEY FEET.

5. FIELD BOOK: FC 661
SURVEYED BY R. ORLOWSKI AND CREW

6. BENCH MARK DATA: THE MLLW TO NAVD88 CORRECTION FOR HAMMONASSET BEACH IS 2.50 FEET. THE CORRECTION SHOULD BE ADDED TO NAVD 88 TO CONVERT TO MLLW.

BM WEST (2016) IS A NAIL IN A 1/2" LEAD-FILLED HOLE IN THE TOP OF A 6" X 4" FLAT GRANITE BOULDER ON THE WEST SIDE OF THE WEST JETTY THAT SEPARATES TONG CREEK AND HAMMONASSET BEACH. THIS STATION IS 0.8FT WEST OF ANOTHER LEAD-FILLED HOLE WITH A NAIL AND 0.36' SW OF A 0.3" HOLE. THE ELEVATION OF THIS BM IS 7.62 FEET.

BM CAMP STORE (2016) IS A 1/4" DRILLHOLE IN A CHISELED SQUARE SET IN THE MIDDLE OF A CONCRETE SIDEWALK BETWEEN TWO 1" X 1" X 2' WOOD POSTS OF A LOW WOOD GUARD RAIL. THIS STATION IS SOUTH OF THE CAMP STORE, SERVING THE CAMPGROUND. VICINITY OF THE FAR WEST END OF HAMMONASSET BEACH. THE ELEVATION OF THIS BM IS 7.81 FEET.

BM WB-1 (2016) IS AN ALLUMINUM MAG NAIL SET FLUSH IN THE 4TH COMPOSITE DECK BOARD FROM THE END OF THE BOARDWALK THAT PROJECTS WESTWARD AROUND THE DUNES OF HAMMONASSET BEACH. THIS STATION CAN BE FOUND IN THE VICINITY OF THE WEST BEACH PARING LOT WITH THE TWO LARGE PICNIC PAVILIONS. THE ELEVATION OF THIS BM IS 10.58 FEET.

7. PLACE BEACH FILL TO THE REQUIRED TEMPLATE BEGINNING AT THE WEST END OF THE PROJECT AND PROCEEDING TO THE EAST END OF THE PROJECT.

8. LENGTH OF BEACH FILL SHOWN IS APPROXIMATE BASED ON AWARD OF BASE AND ALL ADDITIVES. CONSTRUCTED BEACH FILL LENGTH WILL DEPEND UPON ADDITIVES AWARDED.

9. CONTRACTOR MAY TEMPORARILY STOCKPILE DREDGE MATERIAL LANDWARD OF THE BEACH FILL AREA. TEMPORARY STOCKPILE MUST MAINTAIN A MINIMUM DISTANCE OF 10 FT FROM ANY VEGETATION.

10. EXISTING CONDITIONS SHOWN ON THIS PLAN ARE APPROXIMATE.

11. THE GOVERNMENT WILL UPDATE THE BEACH DISPOSAL PLAN UPON ACCEPTANCE OF THE PRE-PLACEMENT SURVEY. REFER TO SPEC SECTION 35 20 23 3.2.1.

US Army Corps of Engineers®

MARK	DESCRIPTION	DATE

DESIGNED BY: N. STEARNS
DRAWN BY:
CHECKED BY:
SUBMITTED BY:
SCALE: AS NOTED
CONTRACT NO.:
DRAWING CODE: HDU1.8
SHEET 18 OF 19

U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT
696 VIRGINIA ROAD
CONCORD, MA 01742-2751

MAINTENANCE DREDGING
STRATFORD AND MILFORD, CONNECTICUT

HAMMONASSET STATE PARK
BEACH PLACEMENT SITE PLAN, TYPICAL SECTION AND DETAIL

SHEET ID
C-108

%PRODUCTION DATA 1%
%PRODUCTION DATA 2%
%PRODUCTION DATA 3%
%PRODUCTION DATA 4%

%STATUS%