



COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOUTHEAST REGIONAL OFFICE
20 RIVERSIDE DRIVE, LAKEVILLE, MA 02347 508-946-2700

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TIMOTHY P. MURRAY
Lieutenant Governor

IAN A. BOWLES
Secretary

LAURIE BURT
Commissioner

PERMIT NO. 12379

Name and Address of Permittee:

Town of Harwich
Attn: Tom Leach, Harbormaster
P.O. Box 207
Harwich Port, MA 02646

ISSUED: March 6, 2009
EXPIRES: March 6, 2019

Permission is hereby given by the Department of Environmental Protection to: maintenance dredge approximately 20,000 cubic yards (per channel) of sediment from the entrance channels leading into the Herring River, Allen Harbor, Wychmere Harbor and Squatucket Harbor, Harwich. Dredge material will be utilized for public and private beach nourishment along the Nantucket Sound shoreline.

All work authorized herein shall be in the location shown and to the dimensions indicated in the permit plan titled: "Proposed Dredging and Nourishment Plan, Harwich, MA", Coastal Engineering Company, Inc., dated August 29, 2007, Final Revision 10/22/08 (10 Sheets).

STANDARD WATERWAYS PERMIT CONDITIONS

1. Acceptance of this Waterways Permit shall constitute an agreement by the Permittee to conform to all terms and conditions stated herein.
2. This Waterways Permit is issued upon the express condition that any and all other applicable authorizations necessitated due to the provisions hereof shall be secured by the Permittee prior to the commencement of any activity authorized pursuant to this Permit.

This information is available in alternate format. Call Donald M. Gomes, ADA Coordinator at 617-556-1057. TDD# 866-539-7622 or 617-574-6868.

DEP on the World Wide Web: <http://www.mass.gov/dep>

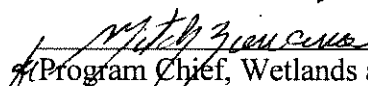
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3. This Waterways Permit shall be revocable by the Department for noncompliance with the terms and conditions set forth herein. This Permit may be revoked after the Department has given written notice of the alleged noncompliance to the Permittee, or his/her agent, and those persons who have filed a written request, with the Department, for such notice and has afforded the Permittee a reasonable opportunity to correct said noncompliance. Failure to correct said noncompliance after the issuance of a written notice by the Department shall render this Waterways Permit void.
4. This Waterways Permit is issued subject to all applicable federal, state, county, and municipal laws, ordinances, by-laws, and regulations, including but not limited to, a valid Order of Conditions issued pursuant to the Wetlands Protection Act, M.G.L. Chapter 131, s.40. In particular, this issuance is subject to the provisions of Sections 52 to 56, inclusive of Chapter 91 of the General Law and its Regulations 310 CMR 9.40(5), which provides, in part, that the transportation and dumping of dredge material shall be done under the supervision of the Department, and, when required, the Permittee shall provide at his/her expense a dredge inspector approved by the Department.
5. This Waterways Permit is issued upon the express condition that dredging and transportation and disposal of dredge material shall be in strict conformance with the Water Quality Certification issued by the Department of Environmental Protection.
6. All subsequent maintenance dredging and transportation and disposal of this dredge material, during the term of this Permit, shall conform to all standards and conditions applied to the original dredging operation performed under this Permit.
7. After completion of the work authorized, the Permittee shall furnish to the Department a suitable plan showing the depths at mean low water over the area dredged. Dredging under this Permit shall be conducted so as to cause no unnecessary obstruction of the free passage of vessels, and care shall be taken to cause no shoaling. If, however, any shoaling is caused, the Permittee shall, at his/her expense, remove the shoal areas. The Permittee shall pay all costs of supervision, and if at any time the Department deems necessary a survey or surveys of the area dredged, the Permittee shall pay all costs associated with such work. Nothing in this Permit shall be construed to impair the legal rights of any persons, or to authorize dredging on land not owned by the Permittee without consent of the owner(s) of such property.
8. The Permittee shall assume and pay all claims and demands arising in any manner from the work authorized herein, and shall save harmless and indemnify the Commonwealth of Massachusetts, its officers, employees, and agents from all claims, audits, damages, costs and expenses incurred by reason thereof.
9. The Permittee shall, at least three days prior to the commencement of any dredging in tide water, give written notice to the Department of the time, location and amount of the proposed work.
10. Whosoever violates any provisions of this Permit shall be subject to a fine of \$25,000 per day for each day such violation occurs or continues, or by imprisonment for not more than one year, or both such fine and imprisonment; or shall be subject to civil penalty not to exceed \$25,000 per day for each day such violation occurs or continues.

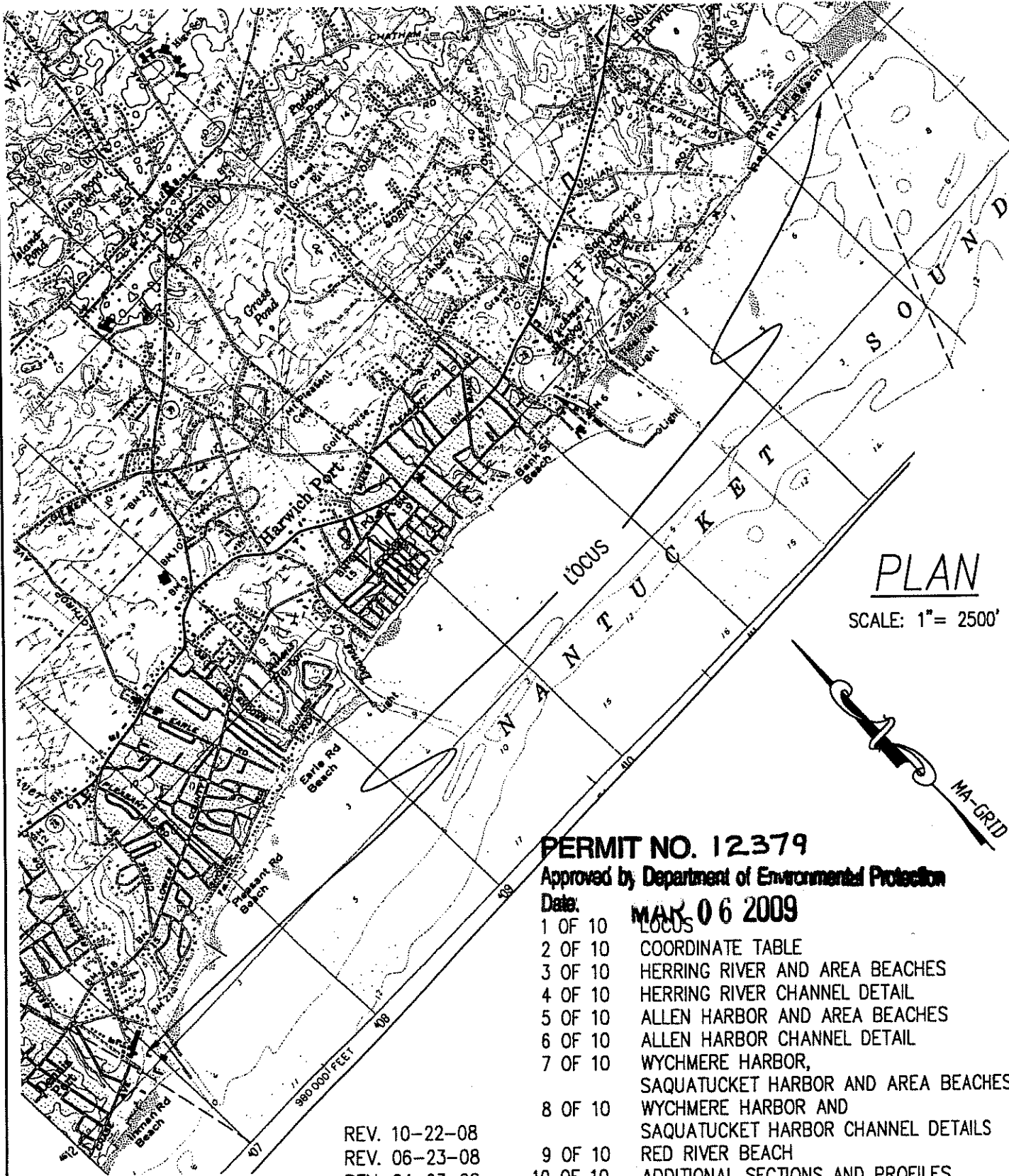
SPECIAL WATERWAYS PERMIT CONDITIONS

1. Dredging shall be performed by hydraulic methods.
2. Dredging shall be to a maximum depth of 6.0 feet below the mean low water (MLW) datum with an allowable one-foot overdredge at the Herring River, Allen Harbor and Wychmere Harbor entrance channels. Dredging shall be to a maximum depth of 8.0 feet below the mean low water (MLW) datum with an allowable one-foot overdredge at the Saquatucket Harbor entrance channel.
3. In order to protect spawning, larval and juvenile development of winter flounder, no dredging shall occur between January 15th and May 30th of any year. In addition, no dredging shall occur between March 15th and June 15th of any year in the Herring River to protect herring migration and spawning.
4. Dredged material shall be utilized for beach nourishment at the locations shown on Permit Plan No. 12379. The material shall be placed and graded above the mean high water shoreline. No beach nourishment work, including the placement or removal of pipes or other equipment, and placement, dewatering and grading of dredged material, shall occur between April 1st and August 31st unless explicitly approved by the Natural Heritage and Endangered Species Program.
5. Maintenance dredging may be performed for a period of ten (10) years subsequent to the date of issuance of this permit.
6. After completion of the work authorized, the Permittee shall furnish to the Department a suitable plan showing the depths at mean low water over the area dredged within 90 days of completion of dredging. At the end of each dredging season, a dredge and beach nourishment activities summary report shall be prepared and submitted to the MassDEP Wetlands and Waterways, Southeast Regional Office. At a minimum, the summary shall include, but not limited to, dredge volume and locations, beach nourishment locations and compatibility of grain-size distribution of the material dredged as compared to the receiving beach.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

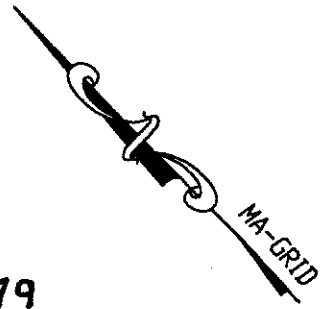


Program Chief, Wetlands and Waterways



PLAN

SCALE: 1" = 2500'



PERMIT NO. 12379

Approved by Department of Environmental Protection

Date: **MAR 06 2009**

- 1 OF 10 LOCUS
- 2 OF 10 COORDINATE TABLE
- 3 OF 10 HERRING RIVER AND AREA BEACHES
- 4 OF 10 HERRING RIVER CHANNEL DETAIL
- 5 OF 10 ALLEN HARBOR AND AREA BEACHES
- 6 OF 10 ALLEN HARBOR CHANNEL DETAIL
- 7 OF 10 WYCHMERE HARBOR,
SAQUATUCKET HARBOR AND AREA BEACHES
- 8 OF 10 WYCHMERE HARBOR AND
SAQUATUCKET HARBOR CHANNEL DETAILS
- 9 OF 10 RED RIVER BEACH
- 10 OF 10 ADDITIONAL SECTIONS AND PROFILES

- REV. 10-22-08
- REV. 06-23-08
- REV. 04-03-08

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COASTAL ENGINEERING COMPANY, INC.
 260 Cranberry Hwy. Orleans, MA 02653
 508.255.6511 Fax: 508.255.6700

PROPOSED DREDGING AND NOURISHMENT PLAN
 PROJECT HARWICH, MA

SHEET NO.
1 OF 10

PROJECT NO. C16678.01
 SCALE AS NOTED
 DATE -08/29/07

BEACH COORDINATES				CHANNEL COORDINATES				SAMPLE LOCATIONS						
NORTH	EAST	BEACH LETTER	TYPE	L (FT)	HT. (FT)	AVE W. (FT)	AREA (SQ.FT)	VOL CU YDS	NORTHING	EASTING	S #	NORTHING	EASTING	
2702510.99	1033955.73	"A"	PRIVATE	480	3	40	19,200	2,133	HERRING RIVER			1	2707219.00	1054115.00
2702344.08	1034427.46	"A"	PRIVATE	480	3	40	19,200	2,133	2701662.24	1034542.87	2	2707114.00	1053851.50	
2703077.14	1034627.18	"B"	PRIVATE	2,280	3	50	114,000	12,667	2702609.83	1034520.50	3	2706374.50	1051974.00	
2704012.80	1036725.49	"B"	PRIVATE	2,280	3	50	114,000	12,667	2703242.02	1034605.58	4	2706041.50	1048666.00	
2704012.80	1036725.49	"B"	PUBLIC	450	3	40	18,000	2,000	2703495.91	1034621.66	5	2705578.00	1046554.00	
2704092.97	1037175.99	"C"	PRIVATE	920	3	40	36,800	4,089	2703497.06	1034578.92	6	2705771.50	1045476.00	
2704092.97	1037175.99	"C"	PRIVATE	920	3	40	36,800	4,089	2703293.27	1034569.39	7	2705394.00	1042375.50	
2704306.02	1038062.02	"C"	PUBLIC	60	3	40	2,400	267	2701944.64	1034388.47	8	2704986.00	1040257.00	
2704306.02	1038062.02	"C"	PUBLIC	60	3	40	2,400	267	2701810.77	1034479.06	9	2704717.00	1039566.00	
2704314.06	1038120.61	"D"	PRIVATE	830	3	45	37,350	4,150	2701662.24	1034542.87	10	2704598.00	1038857.00	
2704314.06	1038120.61	"D"	PRIVATE	830	3	45	37,350	4,150	ALLEN HARBOR			11	2704335.50	1038076.50
2704526.91	1038920.38	"D"	PUBLIC	60	3	45	2,700	300	2702592.00	1043021.00	12	2704164.00	1037054.50	
2704526.91	1038920.38	"D"	PUBLIC	60	3	45	2,700	300	2702649.00	1043101.00	13	2703481.50	1036215.00	
2704543.89	1038982.30	"E"	PRIVATE	630	3	40	25,200	2,800	2704646.00	1041727.00	14	2703464.50	1035401.00	
2704543.89	1038982.30	"E"	PRIVATE	630	3	40	25,200	2,800	2705023.00	1041662.00	15	2703113.00	1034567.50	
2704703.21	1039589.87	"E"	PUBLIC	230	3	40	9,200	1,022	2705466.64	1041704.69	16	2702655.50	1034508.00	
2704703.21	1039589.87	"E"	PUBLIC	230	3	40	9,200	1,022	2705480.46	1041655.80	1c	2704478.11	1049483.47	
2704801.02	1039806.62	"F"	PRIVATE	1,700	3	80	136,000	15,111	2704673.00	1041585.00	2c	2703584.57	1049652.23	
2704801.02	1039806.62	"F"	PRIVATE	1,700	3	80	136,000	15,111	2702592.00	1043021.00	3c	2706144.79	1049184.33	
2704805.51	1041551.31	"G"	PRIVATE	570	3	50	28,500	3,167	WYCHMERE HARBOR			1b	2706330.82	1050060.33
2705328.01	104175.54	"G"	PRIVATE	570	3	50	28,500	3,167	2704781.50	1049390.49	2b	2706347.35	1050205.92	
2705431.25	1042272.33	"G"	PRIVATE	1,750	3	50	87,500	9,722	2704785.57	1049119.41	3b	2706400.57	1051525.36	
2705431.25	1042272.33	"G"	PRIVATE	1,750	3	50	87,500	9,722	2704678.74	1048562.74	4b	2706420.09	1051728.01	
2705690.34	1044010.51	"H"	PRIVATE	4,130	3	50	206,500	22,944	2705008.66	1048367.24	181	2704749.80	1041629.52	
2705690.34	1044010.51	"H"	PRIVATE	4,130	3	50	206,500	22,944	2705789.88	1048210.18	182	2705084.06	1041645.03	
2705139.01	1048110.59	"I"	PRIVATE	790	3	40	31,600	3,511	2706214.37	1048041.23	183	2705443.14	1041680.14	
2705877.28	1048312.59	"J"	PRIVATE	2,020	3	40	80,800	8,978	2706232.14	1048087.96	420	2705108.50	1048439.00	
2706120.32	1049087.68	"J"	PRIVATE	2,020	3	40	80,800	8,978	2705787.64	1048256.92	421	2704761.00	1048652.50	
2706094.09	1049332.17	"K"	PRIVATE	1,040	3	45	46,800	5,200	2705500.80	1048600.26	422	2704121.62	1042035.43	
2706252.04	1051320.14	"K"	PRIVATE	1,040	3	45	46,800	5,200	2704943.73	1048808.38	423	2702928.22	1042851.04	
2706252.04	1051320.14	"K"	PRIVATE	1,040	3	45	46,800	5,200	2704930.29	1049363.56	H1	2703494.27	1034623.65	
2706466.10	1052322.60	"L"	PRIVATE	680	3	45	30,600	3,400	2704781.50	1049390.49	H2	2703463.24	1034583.35	
2706252.04	1052322.60	"L"	PRIVATE	680	3	45	30,600	3,400	SACUJACKET HARBOR			1c	2703989.72	1049714.82
2706466.10	1052986.59	"M"	PRIVATE	270	3	40	10,800	1,200	2702989.72	1049714.82	1c	2703989.72	1049714.82	
2706466.10	1052986.59	"M"	PRIVATE	270	3	40	10,800	1,200	2705182.80	1049136.94	1c	2705182.80	1049136.94	
2706707.08	1053215.71	"M"	PUBLIC	2,620	3	50	131,000	14,556	2706627.47	1049320.26	1c	2706627.47	1049320.26	
2706707.08	1053215.71	"M"	PUBLIC	2,620	3	50	131,000	14,556	2706590.69	1049386.22	1c	2706590.69	1049386.22	
2707328.25	1055754.89	"END"	TOTAL	21,610			1,054,950	117,217	2706174.53	1049214.56		2706174.53	1049214.56	
									2703015.78	1049786.31		2703015.78	1049786.31	
									2702989.72	1049714.82		2702989.72	1049714.82	

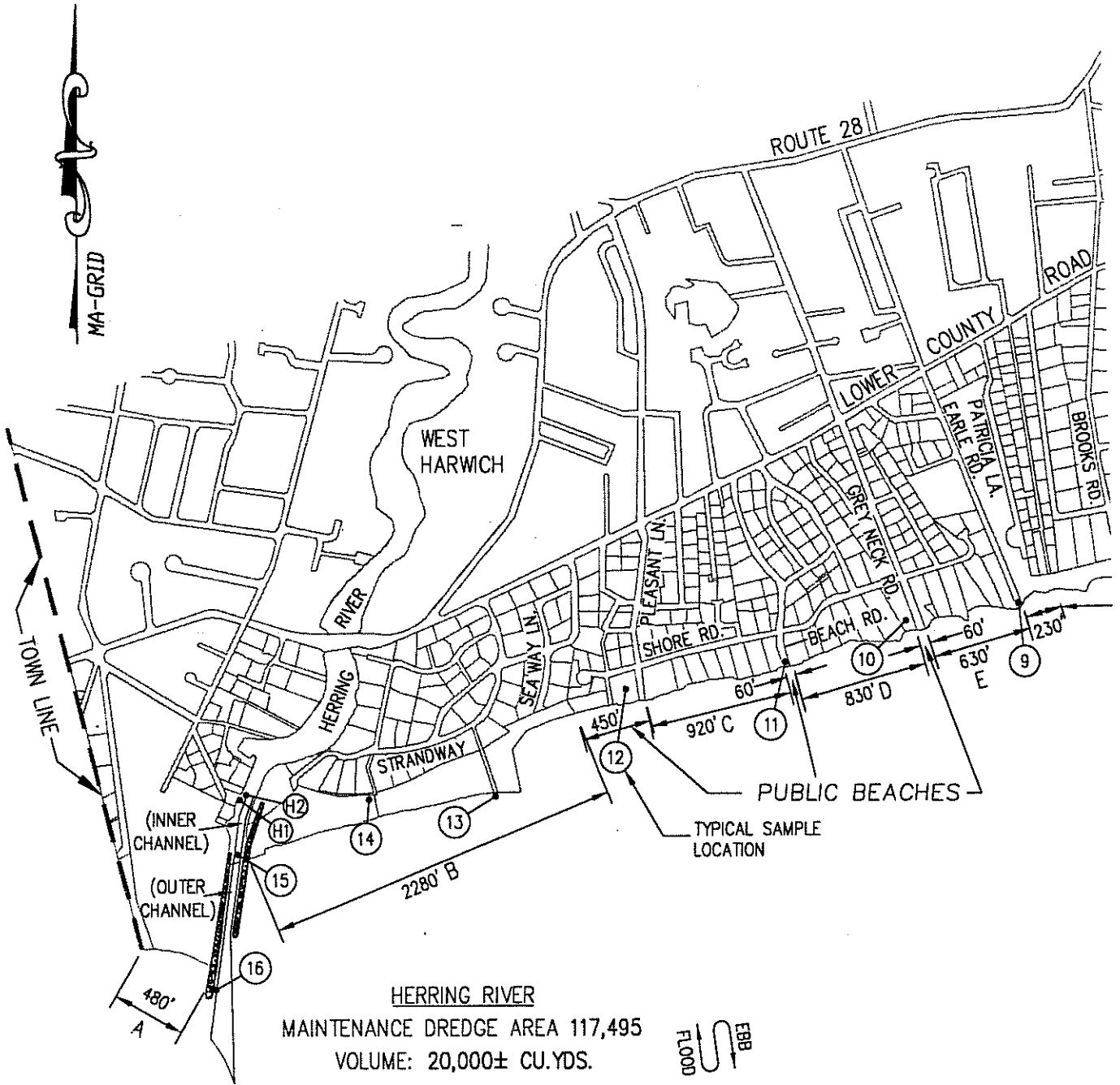
REV. 06-23-08
REV. 04-03-08

PERMIT NO. 12379
Approved by Department of Environmental Protection
Date: MAR 06 2009

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PROPOSED DREDGING AND NOURISHMENT PLAN
HARWICH, MA

PROJECT NO. C16678.01
SCALE AS NOTED
DATE 08/29/07



PLAN

SCALE: 1" = 1000'

HERRING RIVER
 MAINTENANCE DREDGE AREA 117,495
 VOLUME: 20,000± CU.YDS.

NANTUCKET SOUND

PERMIT NO. 12379

Approved by Department of Environmental Protection

Date:

MAR 06 2008

REV. 10-22-08
 REV. 06-23-08
 REV. 04-03-08

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PROPOSED DREDGING AND NOURISHMENT PLAN

PROJECT HARWICH, MA

SHEET NO.

3 OF 10

PROJECT NO.

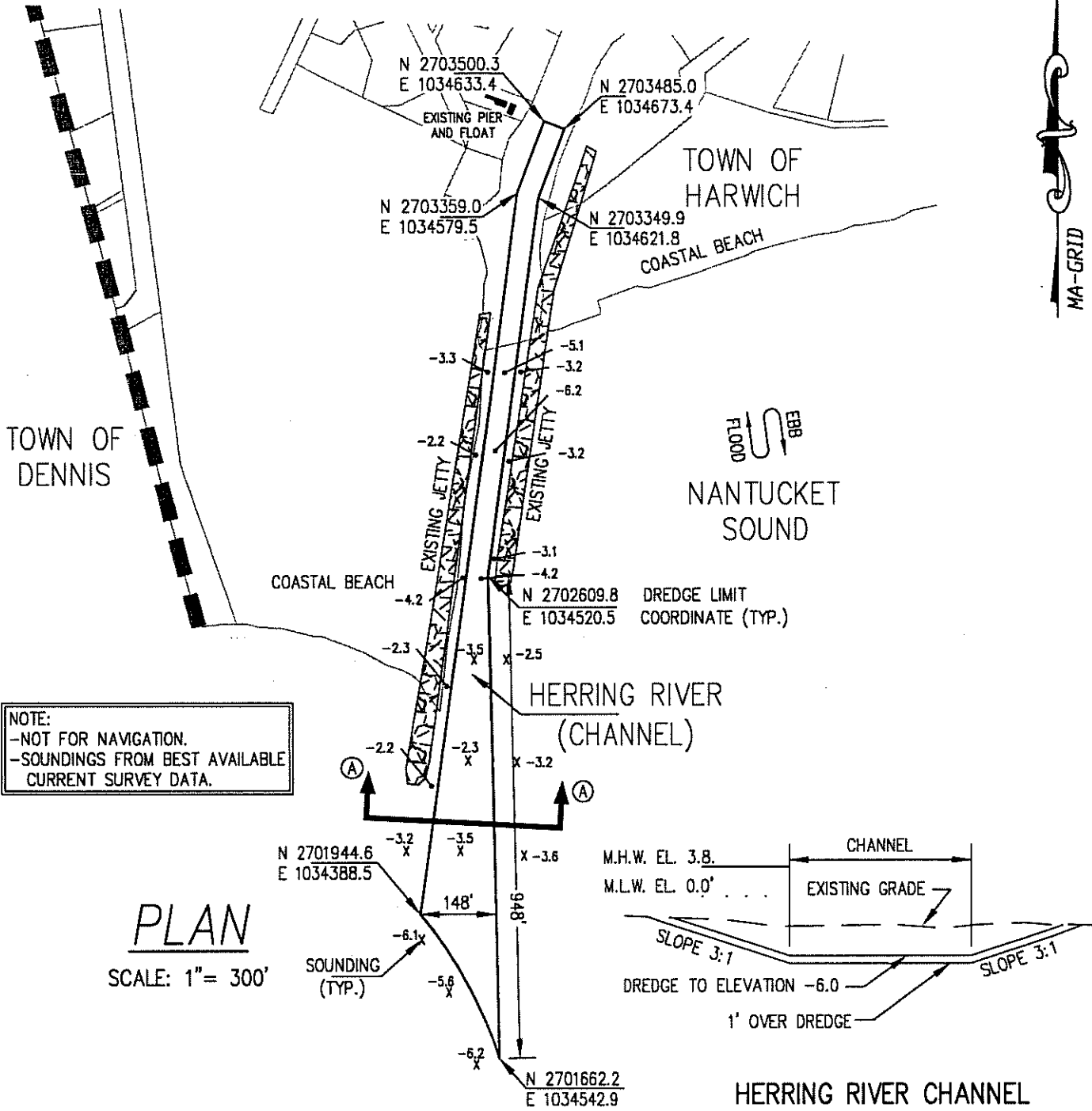
C16678.01

SCALE

AS NOTED

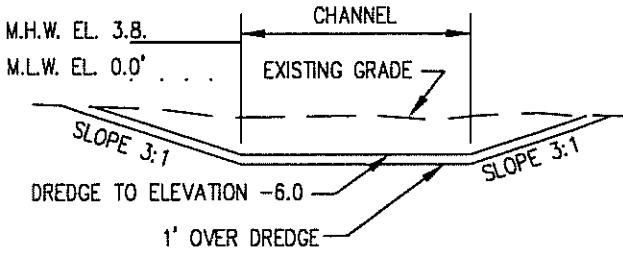
DATE

-08/29/07



PLAN

SCALE: 1" = 300'



**HERRING RIVER CHANNEL
DREDGE PROFILE A-A**

DREDGE TO EL. -6.0
NOT TO SCALE

PERMIT NO. 12379
 Approved by Department of Environmental Protection
 Date: **MAR 06 2009**

REV. 10-22-08
 REV. 06-23-08
 REV. 04-03-08

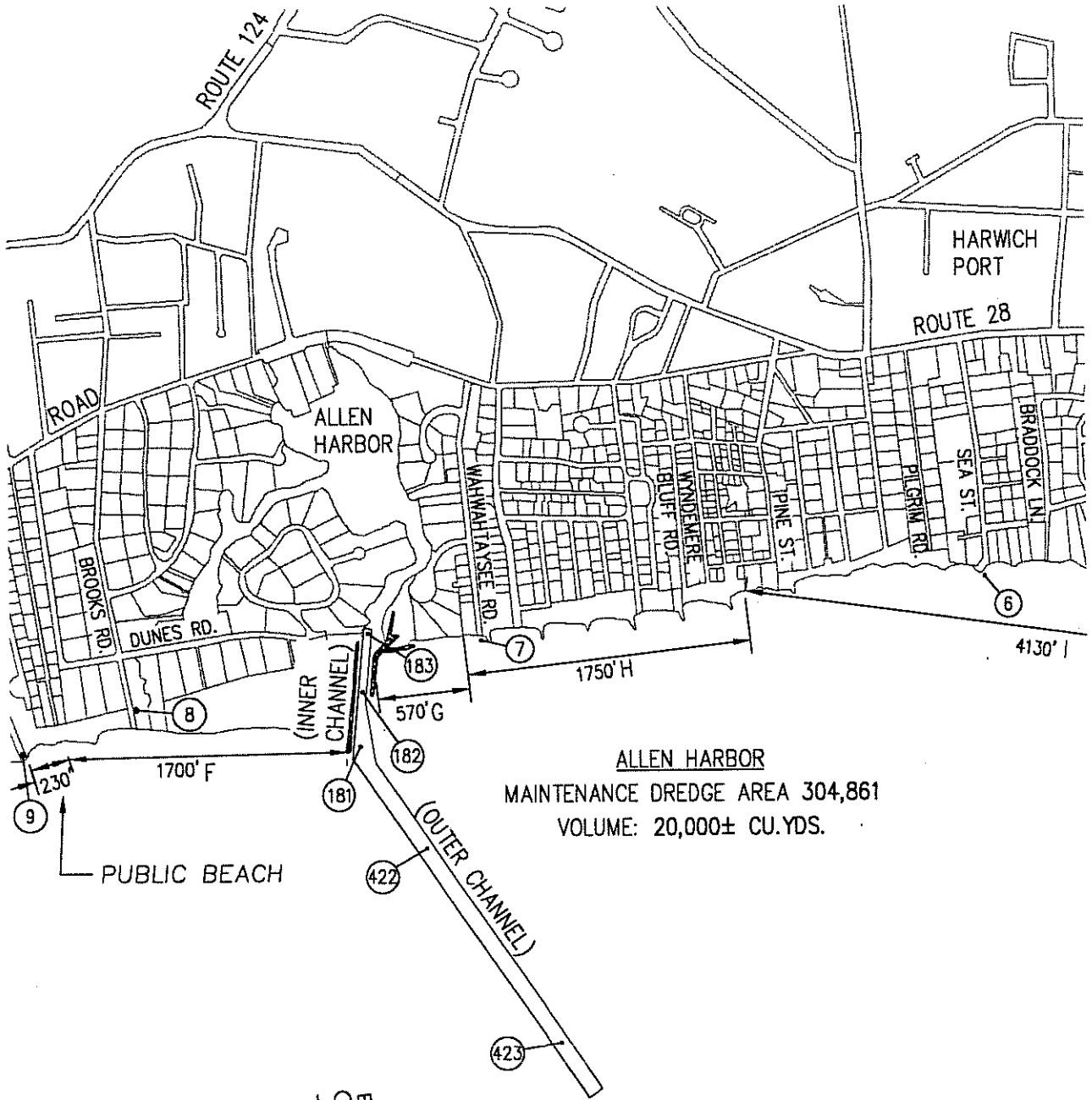
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**PROPOSED DREDGING
AND
NOURISHMENT PLAN**
 PROJECT **HARWICH, MA**

SHEET NO.
4 OF 10

PROJECT NO.
 C16678.01
 SCALE
 AS NOTED
 DATE
 -08/29/07



ALLEN HARBOR
 MAINTENANCE DREDGE AREA 304,861
 VOLUME: 20,000± CU.YDS.

PLAN

SCALE: 1" = 1000'



NANTUCKET SOUND

PERMIT NO. 12379

Approved by Department of Environmental Protection

Date: **MAR 06 2009**

REV. 10-22-08
 REV. 06-23-08
 REV. 04-03-08

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PROPOSED DREDGING AND NOURISHMENT PLAN
 HARWICH, MA

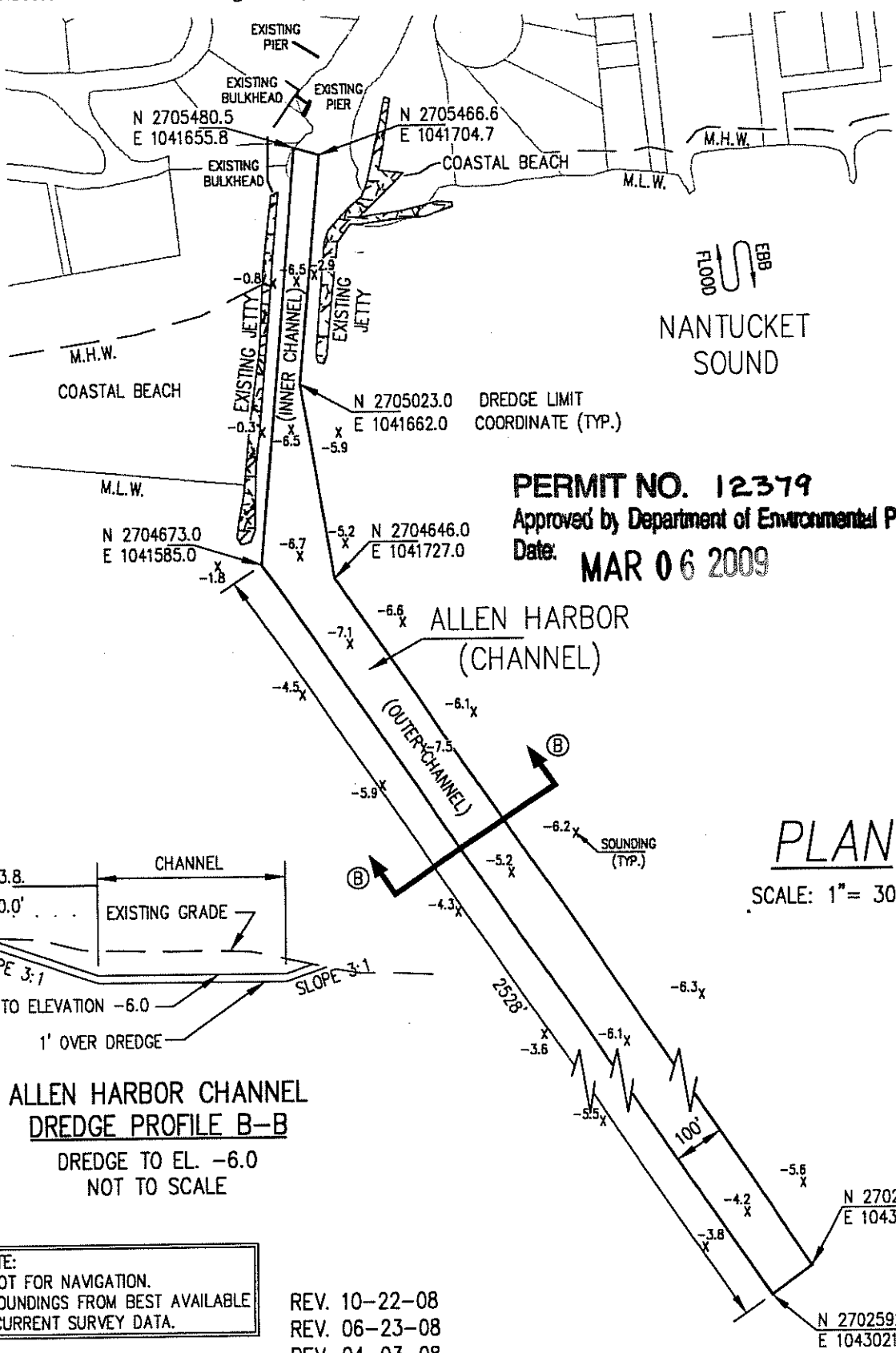
SHEET NO.

5 OF 10

PROJECT NO.
 C16678.01

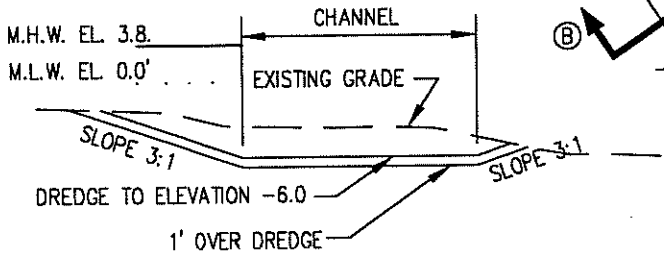
SCALE
 AS NOTED

DATE
 -08/29/07



PERMIT NO. 12379
 Approved by Department of Environmental Protection
 Date: **MAR 06 2009**

PLAN
 SCALE: 1" = 300'



**ALLEN HARBOR CHANNEL
 DREDGE PROFILE B-B**
 DREDGE TO EL. -6.0
 NOT TO SCALE

NOTE:
 -NOT FOR NAVIGATION.
 -SOUNDINGS FROM BEST AVAILABLE
 CURRENT SURVEY DATA.

REV. 10-22-08
 REV. 06-23-08
 REV. 04-03-08

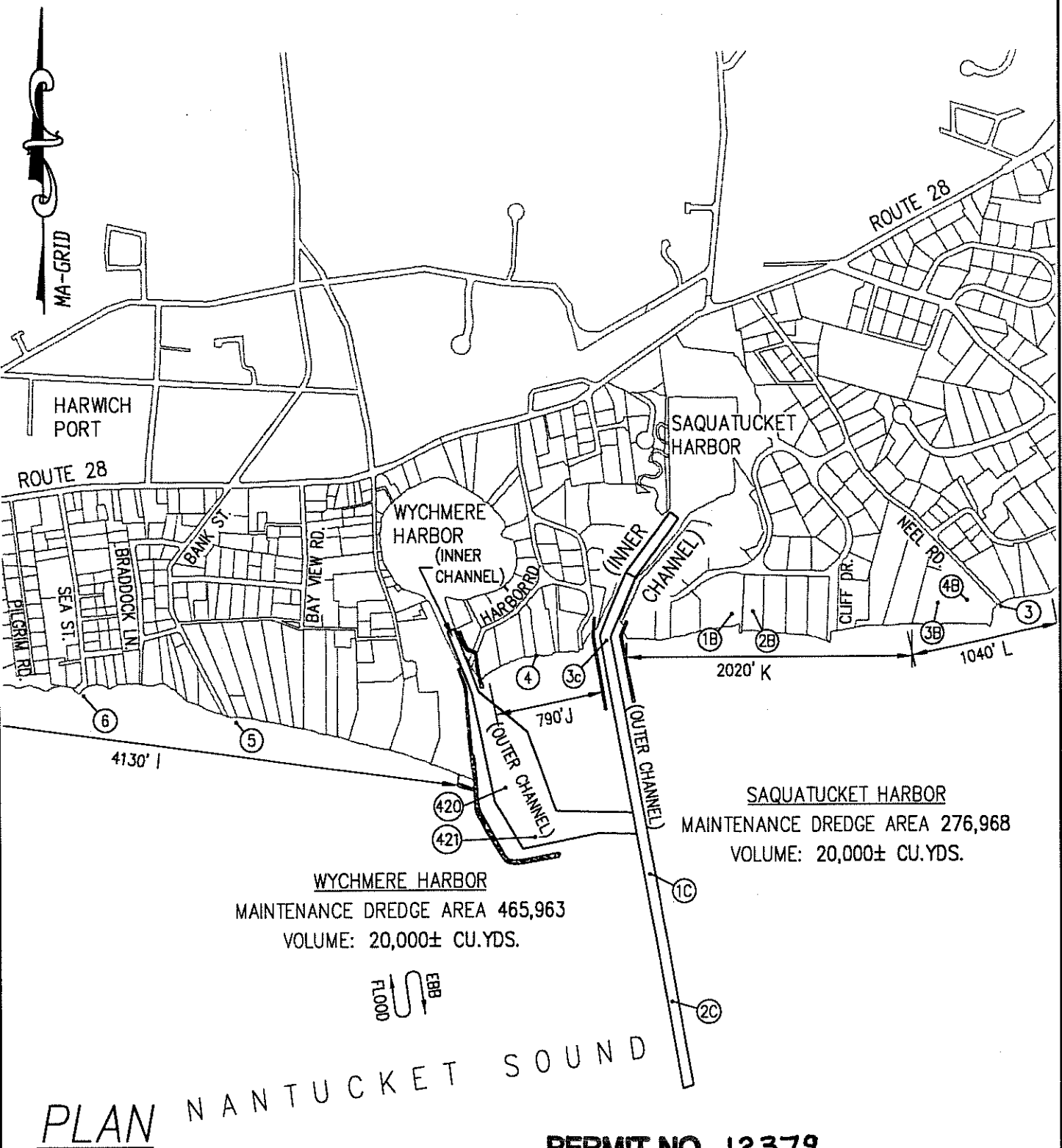
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**PROPOSED DREDGING
 AND
 NOURISHMENT PLAN**
 PROJECT HARWICH, MA

SHEET NO.
6 OF 10

PROJECT NO.
 C16678.01
 SCALE
 AS NOTED
 DATE
 -08/29/07



WYCHMERE HARBOR
 MAINTENANCE DREDGE AREA 465,963
 VOLUME: 20,000± CU.YDS.

SAQUATUCKET HARBOR
 MAINTENANCE DREDGE AREA 276,968
 VOLUME: 20,000± CU.YDS.

PLAN NANTUCKET SOUND

SCALE: 1" = 1000'

REV. 10-22-08
 REV. 06-23-08
 REV. 04-03-08

PERMIT NO. 12379
 Approved by Department of Environmental Protection
 Date: **MAR 06 2009**

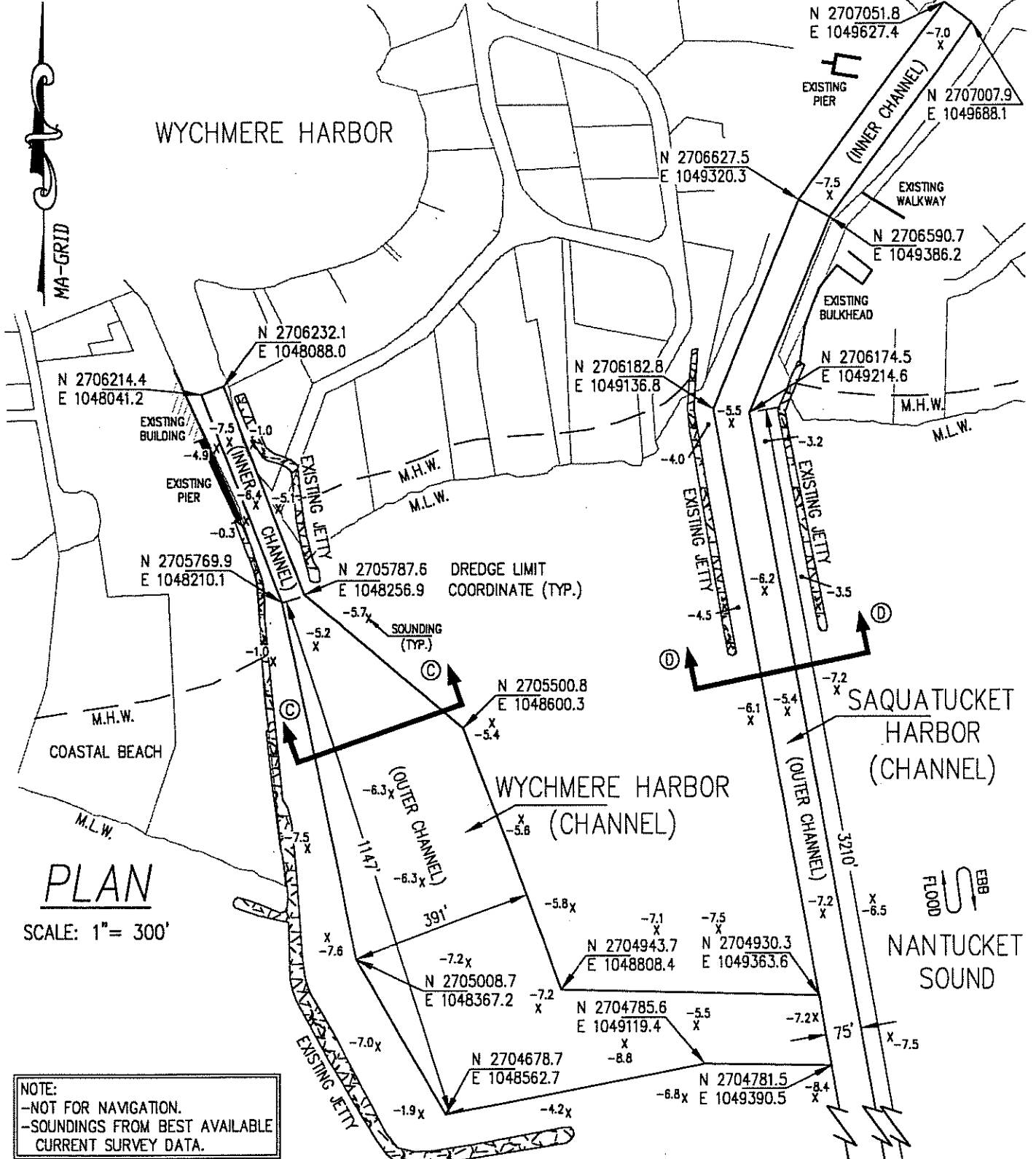
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PROPOSED DREDGING AND NOURISHMENT PLAN
 SAQUATUCKET HARWICH, MA

SHEET NO.
7 OF 10

PROJECT NO.
 C16678.01
 SCALE
 AS NOTED
 DATE
 -08/29/07



PLAN
SCALE: 1" = 300'

NOTE:
-NOT FOR NAVIGATION.
-SOUNDINGS FROM BEST AVAILABLE CURRENT SURVEY DATA.

REV. 10-22-08 **PERMIT NO. 12379**
 REV. 06-23-08 **Approved by Department of Environmental Protection**
 REV. 04-03-08 **Date: MAR 06 2009**

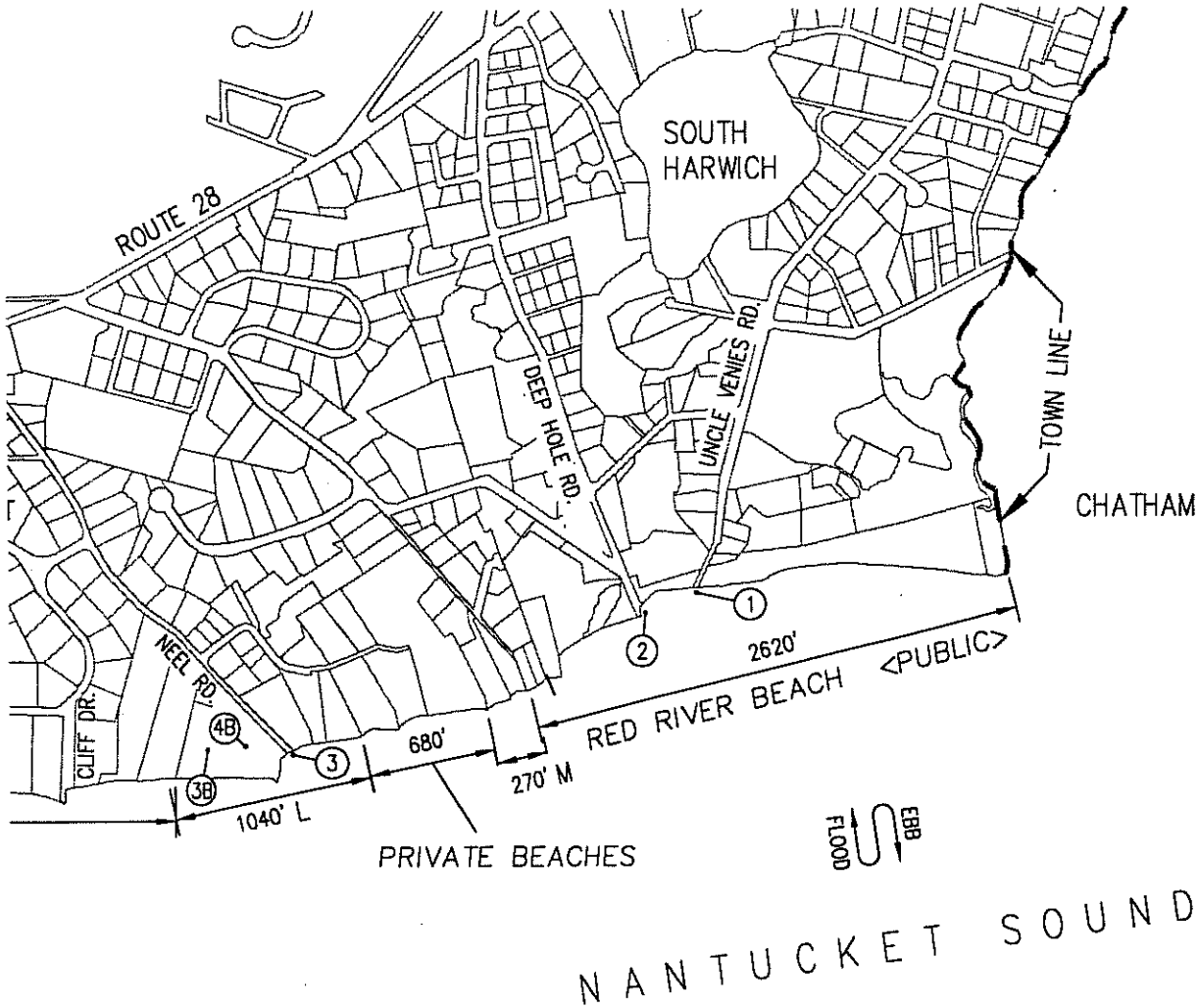
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PROPOSED DREDGING AND NOURISHMENT PLAN
 SAQUATUCKET HARWICH, MA

SHEET NO.
8 OF 10

PROJECT NO.
C16678.01
 SCALE
AS NOTED
 DATE
-08/29/07



NANTUCKET SOUND

PLAN

SCALE: 1" = 1000'

REV. 10-22-08
 REV. 06-23-08
 REV. 04-03-08

PERMIT NO. 12379

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**PROPOSED DREDGING
 AND
 NOURISHMENT PLAN**
 PROJECT HARWICH, MA

SHEET NO.

9 OF 10

PROJECT NO.

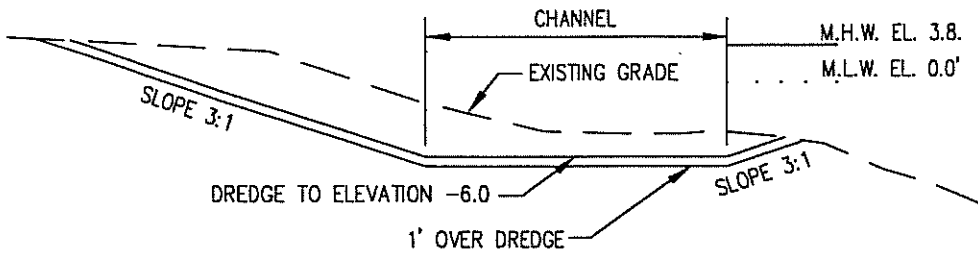
C16678.01

SCALE

AS NOTED

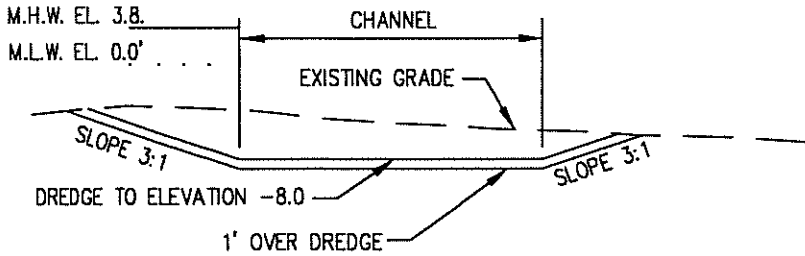
DATE

-08/29/07



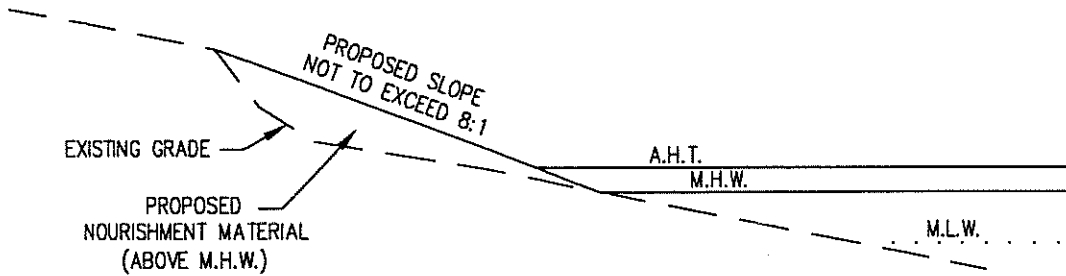
**WYCHMERE HARBOR CHANNEL
DREDGE PROFILE C-C**

DREDGE TO EL. -6.0
NOT TO SCALE



**SAQUATUCKET HARBOR CHANNEL
DREDGE PROFILE D-D**

DREDGE TO EL. -8.0
NOT TO SCALE



TYPICAL BEACH NOURISHMENT PROFILE

NOT TO SCALE

REV. 10-22-08
REV. 06-23-08
REV. 04-03-08

PERMIT NO. 12379
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**PROPOSED DREDGING
AND
NOURISHMENT PLAN**
PROJECT **HARWICH, MA**

SHEET NO.
10 OF 10

PROJECT NO.
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