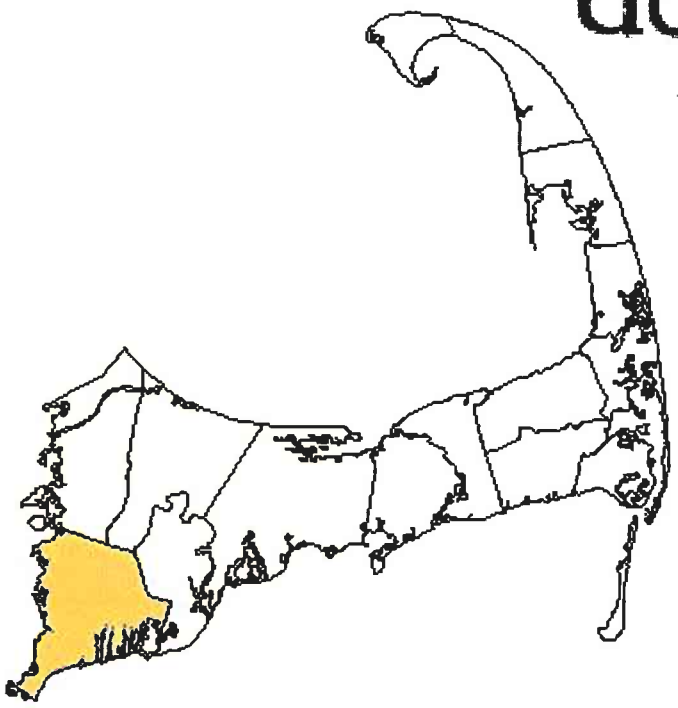
Massachusetts Coastal Infrastructure
Inventory and Assessment Project
Massachusetts Department of Conservation and Recreation
Office of Waterways

Upper Cape Cod

dcr

Falmouth



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Prepared for:

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Waterfront Engineers

Upper Cape Cod

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INTRODUCTION

The Project and Client

The Commonwealth of Massachusetts has initiated a Coastal Hazards Commission (CHC) to identify the vulnerability of the state to coastal hazards. As one of five working groups working under the CHC, the 20-Yr Infrastructure Plan was to establish a prioritization for the repair of coastal structures. The focus areas of the Working Group include:

- Publicly owned infrastructure
- Infrastructure for which State is responsible
- Inventory of public hazards infrastructure
- Evaluation on conditions
- Development for a prioritization of work
- Estimation of capital and maintenance costs

The 20-Yr Infrastructure Working Group is led by Representative Frank Hynes with CZM as the lead State Agency overseeing the management of the project. The Massachusetts coastline has been broken up into 4 major regions consisting of the North Shore, Boston, South Coast, and the Cape and Islands. The South Shore (the Towns of Hull, Cohasset, Seekonk, Hingham, Plymouth, Kingston, Scituate and Duxbury) was previously evaluated by Bourne Consulting Engineering as a demonstration project in 2006.

Consultant Team

The consultant team that performed the demonstration project was led by Bourne Consulting Engineering (***BCE***) of Franklin, MA who was responsible for overall project management, specified areas of field assessments, and research. Assisting ***BCE*** was Applied Coastal Research and Engineering Inc.of Mashpee, MA, Childs Engineering Corporation, of Medfield, MA., and Waterfront Engineer LLC of Stratham, NH.

PURPOSE

Study Purpose

CZM seeks to identify the capacity of Massachusetts coastal structures to resist major coastal storms and prevent storm damage. In working toward this goal, CZM has initiated a program to perform an assessment of Commonwealth owned and/or maintained coastal structures. The first phase of this program was the performance of a demonstration project for coastal structures located on the South Shore. The demonstration project identified existing structures, their general conditions, ability to provide coastal protection and the probable cost for repairs. The information collected and developed has been incorporated into the MassGIS system to allow use for developing a 20 Year Coastal Infrastructure Plan.

The demonstration project served as a basis for the current statewide inventory assessment of all Commonwealth coastal structures and the needs for their maintenance and/or repair.

Goals of Study

The goals of the Massachusetts Coastal Infrastructure Inventory and Assessment Project include:

- To identify all the coastal structures the state either owns or has responsibility to maintain for the 4 regions included within the study
- Of the structures identified, determine the structure location and characteristics, the structure condition relative to providing coastal protection and the structure importance in relation to what it is protecting.
- To the degree possible, identify the structure elevation and the FIRM mapping flood elevation and category.
- To the degree possible, identify structure owner and available documents from local, state and federal agencies.
- To establish an estimated cost to rehabilitate the coastal structures to provide the level of project established in the structure's original design.
- Provide the information in a format compatible for incorporation into the MassGIS system

Limit of Study

Due to the time constraints and the amount of effort necessary to collect, process and compile the information, the following are identified as limitations of the information presented:

- All property ownership was taken as presumed. No legal investigation of ownership was performed during the project. Property ownership is based on town assessor maps. Where structures were located outshore of assessor map defined property lines, it was assumed to be Town land unless other information indicated otherwise. Where structures were located outshore of Mean Low Water, property is assumed to be State owned.

- The structure ownership was based on assessor maps and research at the local, state and federal levels. Where there was indication of public work on a structure on Town land or on private property, the structure was presumed to be Town owned. Where the structure was on state property, the structure was presumed to be state owned. Where ownership of the structure was not clear but was located on private property, the structure ownership was defined as unknown.

- The study included town and state owned structures as it was assumed that most town owned structures received state funding at some level for construction and/or maintenance.
    - Structures that were determined to be private were not included.
    - Undocumented structures considered to be on private land, but having the potential to have been publicly built and/or maintained, were identified as having an "unknown ownership".

- The prioritizing of structures was based primarily on risk to general infrastructure and density of housing. Infrastructure included was buildings. The study did not consider all infrastructure issues including:
    - No consideration on utility impacts – water, electrical, sewer, gas
    - No consideration of roadway and bridge protection
    - Evacuation routes were not considered within the investigation
    - Location of Emergency Shelters were not included in priority assessments

- Research was performed at the local, state and federal levels. The local research was limited to location and documenting available coastal structure contract drawings. Research at DCR was restricted to available historic construction plans for coastal structures at the MA-DCR Waterways office in Hingham, MA, and MA-DCR Division of Urban Parks and Recreation in

Boston, MA. No investigation of state archives was performed. Research at MA DEP Chapter 91 and USACE was limited to recorded permits and licenses found in their files. No investigation was performed at the Registry of Deeds.

DEVELOPMENT OF MassGIS DATABASE ATTRIBUTES

The specific attributes that would be incorporated into the MassGIS system were developed based on the scope of work and the goals to be achieved. The following was established to standardize the data collection and presentation and to allow total flexibility for sorting by attributes in the final GIS database. The attributes identified below were input into a MS Access database which was used to manage the data from all eight communities within a single file.

Database Attributes

- Attribute Descriptions/Definitions

Structure Number: A unique structure number was given to each coastal structure. The number was based on existing numbering systems that include the State Department of Environmental Protection community number followed by the local community assessor's parcel numbering system. The last three digits of the number represent the structure within the parcel. Where structures extend over several parcels, the structure is referenced to a parcel that is approximately in the center of the structure. Where Town assessor's references include letters, those are also included within the structure number. Some communities have block numbering within their numbering system and these are included. Communities without block numbering still have the block numbering included but these are illustrated as all zeros for that specific segment.

Structures that are on Town property, which would otherwise not have a parcel number, are referenced to a parcel that is in the immediate vicinity of the coastal structure.

On this basis, the following is the general numbering convention:

CCC-MMM-BBB-PPP-SSS

Where:	CCC	DEP Community Number
	MMM	Community Map Number
	BBB	Block Number (000 if no block numbering system)
	PPP	Community Parcel Number
	SSS	Structure Number

Property Ownership: All property ownership was on a "presumed" basis as no legal verification of ownership was performed. The ownership of the property was classified under four basic areas which were private ownership (Private), Town ownership (Local), Commonwealth of Massachusetts ownership (State), federal government ownership (Federal) or unknown. Property ownership was based on Town assessor's maps. Where the location was located above Mean Low Water, and not within a defined parcel, the property ownership was presumed to be the Town unless documentation was found to indicate otherwise. Where a structure was located offshore of Mean Low Water, the property ownership was presumed to be federal.

Structure Ownership: The ownership of all structures is presumed as no verification of ownership was performed. Ownership of the structure was determined by research into historic state and federal

permits and the entity indicated on the permits as the applicant. Where no other information was found, the following was utilized:

- Structures located on private land but appearing to be significant structures were identified as owned by the Town or as "Unknown". Unknown was used were there was a question of local or private ownership.
- Structures on Town property were assumed to be owned by the Town
- Structures that were located off-shore were presumed to be federally owned
- Structures that were identified as being privately owned were eliminated from the database

Basis of Ownership: The basis of structure ownership was provided to give rationale to the structure ownership and identified the research resource that identified the ownership or the methodology otherwise used. The responses utilized were limited to the following:

- DPW – DPW Employee Interview
- DCR - Contract Drawings
- DEP – Ch 91 License
- USACE – Permits
- Property Ownership
- Offshore Structure

Structure Owner's Name: Ownerships names reflect the presumed owner of publicly owned structures. As this was for public structures only, the ownership was restricted to the community name, the state agency or the federal agency.

Earliest Structure Record: The year of the oldest document located for the structure. The information is determined from the document research performed on the structure from local, state and federal agencies. If no documents could be found than this entry is denoted as 'Unknown". Where documentation of the structure could be found, the date from the oldest document was utilized.

Primary Structure / Secondary Structure: Many of the coastal structures consisted of combined structures which were rated separately. It was typically found that one structure was significantly more predominant (Ex. Bulkhead/Seawall) and was therefore identified as the Primary Structure while a smaller structure might exist in front (ex. Revetment) of it. The type, height and material of each structure are identified separately. The condition of each structure was based on the Primary Structure. Where there was no secondary structure, the fields were left blank.

Structure Type: The structure type was categorized into five basic coastal structure categories which were Bulkhead/Seawall, Revetment, Coastal Beach, Coastal Dune, and Jetty/Groin.

Structure Material: The identification of the coastal structure's material of construction was performed and represents the primary material. Stone structures consisted of both mortared and non-mortared conditions.

Structure Height: Each type of structure was categorized by its visible height in feet which was broken into four specific ranges which are:

< 5 feet 5 to 10 feet 10 to 15 feet >15 feet

Structure Condition: A preliminary assessment of the condition for each structure was performed by the field teams. This was by visual observation only and no detailed investigation was performed. The condition assessments were based on a predefined five level rating system that ranged from Rating A for Excellent Condition to Rating F for Critical Condition. A detailed listing of the conditions and their definitions can be seen in Exhibit A.

Priority Rating: In order to account for the need for protection at any one site, a five level priority rating system was established. This allowed for consideration of public infrastructure protection, density of residential housing for development of structure overall importance for coastal protection. The ratings range from Level 1 for no infrastructure or residence protection to Level 5 for critical inshore infrastructure protection and/or high density residential. The detailed listing and definitions for the priority categories can be seen in Exhibit B.

Structure Repair / Reconstruction Cost: A preliminary estimation of construction costs to maintain or repair structures was made based on the preliminary field assessment of the structures. A Repair Cost Matrix was developed based on structure type, condition, height and material and can be seen in Exhibit C. Once each structure's type, height, and material classifications were determined, the cost per foot for the structure was determine from the Repair Cost Matrix and multiplied by the length of the structure to obtain the estimated repair/restoration cost. The cost matrix repair costs include a 20 percent construction cost contingency as well as 10 percent costs for engineering and permitting.

Structure Length: The length of each structure is provided and utilized in the development of the repair/reconstruction costs. The lengths are given to the nearest foot and taken as the linear distance along the structure, as determined by the GPS location, which takes into account structure angles and curvature.

Structure Elevation: The elevation of structures was determined in feet from existing information where available. The datum used is NAVD 88 and elevations are to the nearest foot. From a previous study much of the south shore coastal structures had elevations defined based on LIDAR mapping data. Where available structure documentation with elevations was found, in areas with no LIDAR data, the information was included within the structure information. Where there was no LIDAR information or existing documentation, the item has been left blank.

> LIDAR (Light Detection and Ranging) is technology that is currently being used for high-resolution topographic mapping by mounting a LIDAR sensor, integrated with Global Positioning System (GPS) and inertial measurement unit (IMU) technology, to the bottom of aircraft and measuring the pulse return rate to determine surface elevations.

FEMA Zone and Elevation: For each structure the FEMA Flood Insurance Rate Maps (FIRM) were researched for their Flood Zone designation and their Base Flood Elevation from the most recent FIRM maps for the specific Town. The elevations are provided in feet on the same datum as the FIRM maps (NGVD) with no adjustments or conversions.

Structure Comments: The engineering team provided a brief description and comment on the structure at the time of the field assessments which is provided in support of the condition rating that was given for the structure.

Pictures: At the time of the field assessments, digital photographs were taken to provide a general overview of the structure. The number of pictures was limited to a maximum of six. The first photograph for each structure is shown on the Structure Assessment Form. The list of all photographs is provided on the form.

Town Documents: Town documents represent the structure information that could be found in the Town's DPW/Engineering Department records. Where particular records could be found, a table of document information was developed and included within the database with limited descriptions.

MA - DCR Documents: MA-DCR documents represent the structure information that could be found within DCR – Waterways office in Hingham Where particular records could be found, a table of document information was developed and included within the database with limited descriptions.

MA - DEP Chp. 91 Licenses: MA-DEP Chapter 91 license documents represent the structure information that could be found within MA-DEP Chp 91 records in Boston. Where particular records could be found, they were scanned as pdf files and attached to the structure through the GIS database information. In addition, a table of license document information was developed and included within the database with limited descriptions

USACE Permits: USACE Permits represent the structure information that could be found within the Army Corp of Engineers regulatory office in Concord, MA. Where particular records could be found, they were scanned as pdf files and attached to the structure through the GIS database information. In addition, a table of license document information was developed and included within the database with limited descriptions.

DEVELOPMENT OF REPAIR / RECONSTRUCTION COSTS

A matrix to be used within the database has been developed to assess likely rehabilitation/repair costs to restore the coastal structures to their original design condition. No attempt was made to assess the level of exposure and associated level of protection that might be required to meet current design standards for these structures. These costs are only an estimation to bring these structures back to their original design intent based on 2006 construction costs.

The development of the cost matrix is based on the following:

Structure Condition Ratings – The condition of the coastal structures was determined in the field by the survey crew which was led by an engineer with waterfront structure assessment and design experience. The definitions of the rating criteria utilized for the assessments are presented elsewhere.

The cost implications for each rating condition are as follows:

- A Rating Structures not requiring any maintenance, repair or rehabilitation cost and would not be expected to experience damage if subject to a major coastal storm event
- B Rating Structures requiring limited or no repair and would be expected to experience only minor damage if subject to a major coastal storm event. The value of these maintenance costs is assumed to be 10 percent of the construction cost.
- C Rating Structures requiring moderate to significant level of repair or reconstruction and would be expected to experience significant damage if subject to a major coastal storm event. The structure is presumed to be effective under a major storm event. The value of the repair costs is assumed to be 50 percent of the construction cost.
- D Rating Structures requiring significant level of rehabilitation or total reconstruction and would be expected to experience significant damage or possibly fail if subject to a major coastal storm event. The value of the repair costs is assumed to be 100 percent of the construction cost.

- F Rating Structures requiring complete reconstruction and would expect to provide little or no protection from a major coastal storm event. The value of the repair costs is assumed to be 100 percent of the construction cost plus a cost for removal/disposal of the original structure.

Height of Structure – Height of a structure is a major factor in the structure cost and therefore was identified as a significant factor is assessing rehabilitation/repair construction costs. The structures were broken down into four major categories which were:

< 5'	Structures that were less than five feet in height
5'-10'	Structures five to 10 feet in height
10'-15'	Structures over 10 feet to 15 feet in height
> 15'	Structures greater than 15 feet in height – assumed 20 feet typical

Length of Structure – Length is based on field GPS location with measurements rounded to the nearest foot.

Bulkhead / Seawall Structures – These structures are assumed to be constructed out of concrete, steel, stone or wood with each having its own criteria for establishing costs. For each structure type the following was assumed:

- Concrete Seawalls – These walls were assumed to be gravity structures with the volume of concrete used based on the bottom width being one-half of the structure height. Costs of construction were based on a per cubic yard estimate that varied from $350 to $630 per cubic yard depending on the structure height. Values for excavation and demolition of existing structure were also included.
- Stone Seawalls - These walls were treated the same as concrete seawalls and assumed to be gravity structures with the volume of the structure based on the bottom width being one-half of the structure height. Costs of construction were based on a per cubic yard estimate that varied from $350 to $630 per cubic yard depending on the structure height. Values for excavation and demolition of existing structure were also included.
- Steel Bulkheads – Steel bulkheads were presumed to be constructed with steel sheet piling. Tie back systems were presumed for structures 10 feet or greater in height. Shorter walls were assumed to have a cantilever design. The total depth of sheeting was presumed to be two times the exposed height. The cost for construction varied from $40 per square foot to $60 per square foot plus the cost of excavation and demolition.
- Timber Bulkheads – Timber bulkheads were presumed to be constructed with timber piles at eight foot on center, horizontal wales and vertical four inch sheathing. The unit costs for installed materials used were $1,500 per pile and $7.50 per bfm.

Revetment Structures – Revetment structures were presumed to be constructed of dry placed (no concrete) stone with a two on one slope and a horizontal toe and crown equal to the thickness layer established for each height condition. The total thickness of the revetment layers varied from six to ten feet with the cost of armor and under-layer stone assumed to be $50 per ton and the crushed stone base to be $15 per ton.

Groins and Jetties – Groins and jetties were assumed to be the same materials and construction as the revetment structures but would have two sides and therefore double the quantities.

Coastal Beaches – Costs for restoration of Coastal beaches presumed the placement of beach renourishment sands at a 1-on-20 slope over the existing beach conditions. The cost for deposition of sand assumed relatively close source of material and utilized $20 per cubic yard for the material installed.

Coastal Dunes – Restoration of coastal dunes assumed a cross section of renourished sand with a one-on-four slope on one side of a 25 foot width at the defined dune height. The cost for deposition of sand assumed relatively close source of material and utilized $20 per cubic yard for the material installed.

Contingency – A contingency of 20 percent was added to all costs to reflect the unknowns associated with this level of rehabilitation/repair estimating.

Engineering and Regulatory Approvals – A ten percent increase to the cost matrix prices was assessed to represent the engineering design and regulatory approval requirements for the restoration of these structures.

EXHIBIT A

Structure Condition Table – 5 Level Rating System

Preliminary Condition Assessment		Definition Based Upon Perceived Immediacy of Action and Potential to Cause Damage if Not Corrected	Level of Action Required
A	Excellent	Like new condition. Structure expected to withstand major coastal storm without damage. Stable landform (beach, dune or bank). Adequate system exists to provide protection from major coastal storm	None
B	Good	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure	Minor
C	Fair	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide additional material for full protection and extended life	Moderate
D	Poor	Structure exhibits advanced levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure has strong risk of significant damage and possible failure during a major coastal storm Structure should be monitored until repairs/reconstruction can be initiated. Actions taken to reconstruct structure to regain full capacity to resist a major coastal storm. Landform eroded, stability threatened. Landform not adequate to provide protection during major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.	Major
F	Critical	Conditions of structure/landform may warrant emergency stabilization as failure may result in potential loss of property and/or life. Landform eroded, loss of integrity Structure exhibits critical levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure provides little or no protection from a major coastal storm. Actions taken to totally reconstruct structure to regain full capacity. Landform stability is severely compromised, rate of erosion/material loss may be increasing, and landform does not provide adequate protection from a major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.	Immediate

EXHIBIT B

Priority Rating System - 5 Level Rating System

Preliminary Priority Level Assessment		Level Based Upon Perceived Immediacy of Action and Presence of Potential Risk to Inshore Structures if Not Corrected	Level of Action Required
I	None	No Inshore Structures or Residential Dwelling Units Present	Long Term Planning Considerations
II	Low Priority	Inshore Structures Present with Limited potential for Significant Infrastructure Damage	Future Project Consideration
III	Moderate Priority	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)	Consider for Active Project Improvement Listing
IV	High Priority	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)	Consider for Next Project Construction Listing
V	Immediate / Highest Priority	Critical Inshore Structures Present with Potential for Infrastructure Damage and/or High Density Residential Dwellings Conditions of structure may warrant emergency stabilization as failure may result in potential loss of property and/or life. (>10 dwellings impacted / 100 feet of shoreline)	Consider For Immediate Action Due to Public Safety and Welfare Issues

CZM SOUTH SHORE COASTAL INFRASTRUCTURE INVENTORY AND ASSESMENT PROJECT

EXHIBIT C

September 14, 2006

REPAIR / REHABILITATION COSTING DATA

Cost per linear foot of structure

STRUCTURE TYPE	STRUCTURE MATERIALS	STRUCTURE HEIGHT	STRUCTURE CONDITION RATING A	B	C	D	F
BULKHEAD/ SEAWALL	CONCRETE	Under 5 Feet	$0	$84	$425	$850	$983
		5 To 10 Feet	$0	$152	$759	$1,518	$1,782
		10 To 15 Feet	$0	$251	$1,254	$2,508	$2,970
		Over 15 Feet	$0	$396	$1,980	$3,960	$4,752
	STEEL	Under 5 Feet	$0	$54	$273	$546	$680
		5 To 10 Feet	$0	$165	$825	$1,650	$1,848
		10 To 15 Feet	$0	$251	$1,254	$2,508	$2,772
		Over 15 Feet	$0	$343	$1,716	$3,432	$3,795
	STONE	Under 5 Feet	$0	$84	$425	$850	$983
		5 To 10 Feet	$0	$152	$759	$1,518	$1,782
		10 To 15 Feet	$0	$251	$1,254	$2,508	$2,970
		Over 15 Feet	$0	$396	$1,980	$3,960	$4,752
	WOOD	Under 5 Feet	$0	$86	$431	$862	$994
		5 To 10 Feet	$0	$127	$632	$1,265	$1,463
		10 To 15 Feet	$0	$161	$804	$1,608	$1,872
		Over 15 Feet	$0	$202	$1,008	$2,017	$2,380
COASTAL BEACH	SAND	Under 5 Feet	$0	$26	$132	$264	$264
		5 To 10 Feet	$0	$127	$634	$1,267	$1,267
		10 To 15 Feet	$0	$224	$1,122	$2,244	$2,244
		Over 15 Feet	$0	$396	$1,980	$3,960	$3,960
COASTAL DUNE	SAND	Under 5 Feet	$0	$18	$93	$186	$186
		5 To 10 Feet	$0	$48	$238	$476	$476
		10 To 15 Feet	$0	$79	$395	$790	$790
		Over 15 Feet	$0	$132	$660	$1,320	$1,320
REVETMENT	STONE	Under 5 Feet	$0	$66	$333	$664	$730
		5 To 10 Feet	$0	$120	$601	$1,201	$1,300
		10 To 15 Feet	$0	$157	$781	$1,564	$1,696
		Over 15 Feet	$0	$247	$1,234	$2,468	$2,666
GROIN	STONE	Under 5 Feet	$0	$132	$664	$1,328	$1,460
		5 To 10 Feet	$0	$240	$1,201	$2,402	$2,600
		10 To 15 Feet	$0	$314	$1,564	$3,128	$3,392
		Over 15 Feet	$0	$494	$2,468	$4,937	$5,333

NOTE: Repair / Rehabilitation Costs include 10% for engineering and regulatory approvals and 20 % construction contingency.

Section II - Falmouth

Part A

Community Findings

Section II – Community Findings – Town of Falmouth

COMMUNITY DESCRIPTION

The Town of Falmouth consists of a land area of 44.26 square miles out of a total area of 54.44 square miles and had a population of 32,660 in the 2000 census. The Town is located on Cape Cod of Massachusetts and its location can be seen on this report's cover. The estimated length of shoreline is 55 miles. Of the 55 miles, 10 miles are exposed to open ocean, while the remaining 45 are for the most part protected by the Cape Islands. The Town is protected from major coastal storms by both natural and man-made shoreline structures that require maintenance to insure the long term protection of its coastline. The man-made and publicly owned structures that protect the Town were investigated for their ability to provide adequate protection from major coastal storms. Structures have been identified as publicly owned, including coastal dunes and beaches, based on evidence of investment of public funds made to create/enhance/maintain these structures. The assessment did not include floating or pile supported structures as they are assumed not to provide any significant coastal protection from major storm events.

STRUCTURE INVENTORY

Within the Town of Falmouth, there were 89 structures which had public or unknown ownership which provide significant coastal protection. The location of the structures can be seen in Sheets 1 through Sheet 18 in Section II-B of this report. The structures were categorized by their type and by their structural condition based on a preliminary field assessment. The distribution of structures by type and condition can be seen in the following table:

STRUCTURE TYPE AND QUANTITY - Town of Falmouth

Primary Structure (1)	Total Structures	Structure Condition Rating A	B	C	D	F	Total Length
Bulkhead / Seawall	22	1	8	6	4	3	6480
Revetment	28		7	11	5	5	13490
Breakwater	3			2		1	1590
Groin / Jetty	36		7	21	7	1	9388
Coastal Dune							
Coastal Beach							
	89	1	22	40	16	10	30948

Within the above table, the total length of each type of structure is also provided. The structures are listed by the type which is providing the primary coastal protection. Many sites have multiple structure types at the same location (i.e. revetment in front of seawall). These secondary structures, although not identified within these tables, are included in the development of repair/rehabilitation costs.

The development of repair costs has been included by structure type and by condition. In the Town of Falmouth's case there are a total of 88 structures which would require approximately $ 27.4 million to bring all the coastal structures to "A" Rating. Most critical will be the structures in the "D" and "F" classifications as those are assumed to undergo some level of damage or failure during the next major coastal storm event. To reconstruct these structures, identified in the preliminary survey as being in poor condition, an estimated $ 14.6 million would be required to upgrade the Town's coastal protection.

STRUCTURE REPAIR / RECONSTRUCTION COST - Town of Falmouth

Primary Structure (1)	Total Structures	Structure Condition Rating A	B	C	D	F	Total Cost
Bulkhead / Seawall	22		$ 382,246	$ 1,268,263	$ 936,217	$ 607,347	$ 3,194,073
Revetment	28		$ 504,795	$ 3,192,644	$ 6,070,614	$ 927,841	$ 10,695,894
Breakwater	3			$ 1,561,300		$ 423,377	$ 1,984,677
Groin / Jetty	36		$ 247,680	$ 5,600,695	$ 5,457,487	$ 204,389	$ 11,510,251
Coastal Dune							$ -
Coastal Beach							$ -
	89	$ -	$ 1,134,721	$ 11,622,902	$ 12,464,318	$ 2,162,954	$ 27,384,895

Based on the limited research within the scope of this project research, the presumed ownership of the structures was established on an initial basis and would be subject to more intense review in future tasks. Structures identified as being owned privately were excluded from further consideration. Although ownership of the land on which the structure was located was a factor, the structure ownership was treated as a separate issue from land ownership. For the Town of Falmouth, the breakdown of structures by assumed ownership is as follows:

STRUCTURE OWNERSHIP / REPAIR COST - Town of Falmouth

Primary Structure (1)	Total Structures	Structure Condition Rating A	B	C	D	F	Total Cost
Town Owned	89		$ 1,134,721	$ 11,622,902	$ 12,464,318	$ 2,162,954	$ 27,384,895
Commonwealth of Massachusetts							$ -
Federal Government Owned							$ -
Unknown Ownership							$ -
	89	$ -	$ 1,134,721	$ 11,622,902	$ 12,464,318	$ 2,162,954	$ 27,384,895

The identification of presumed ownership was not based on the investigation of legal documents but relied on property ownership and from construction and regulatory documents that were found. A more detailed investigation of legal documents and agreements would be required where structure ownership is disputed. A more detailed identification of structure type, length, condition and location can be found in Section II-B which contains Structure Assessment Reports for each individual structure found.

SUMMARY

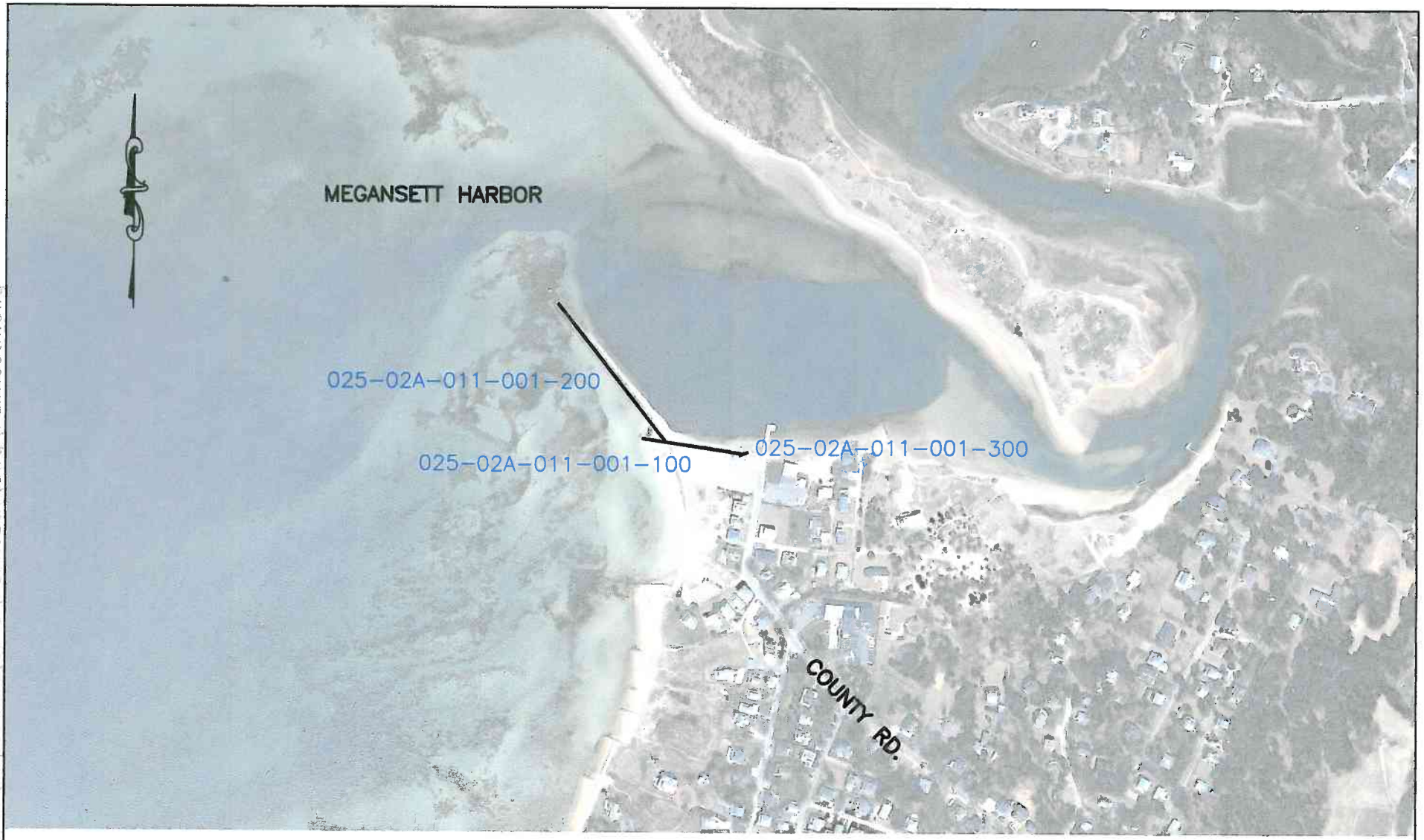
The enclosed reports and associated documents reflects the Town of Falmouth's coastal structure information that will eventually be input into a state-wide GIS database and will be accessible through MassGIS. This data, when compiled state-wide, will be critical in the development of both short term and long term planning for maintaining and improving Massachusetts coastal protection.

This database will also provide relatively quick access to identify available documentation for these structures as well as the ability to be updated as coastal structure improvements are made.

Section II - Falmouth

Part B

Structure Assessment Reports



COASTAL STRUCTURE LOCATION PLAN

TOWN OF FALMOUTH
COASTAL INFRASTRUCTURE INVENTORY
AND ASSESSMENT PROJECT
DECEMBER 2007

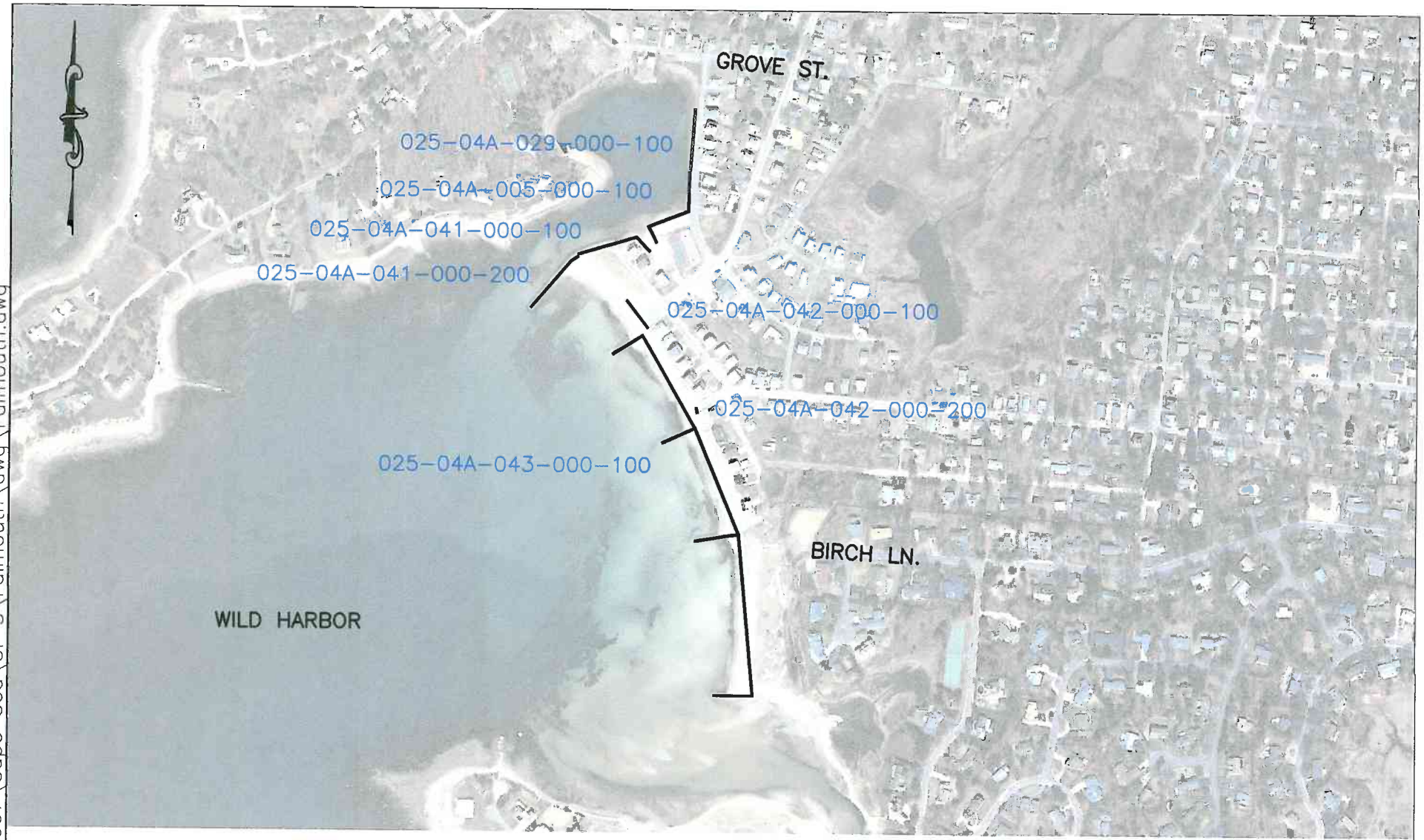
0 150

SCALE: 1" = 150'

BCE Bourne Consulting Engineering

SHEET 1

File: X:\27652-\27667\Cape Cod\CI-3\Falmouth\dwg\Falmouth.dwg



COASTAL STRUCTURE LOCATION PLAN

TOWN OF FALMOUTH
COASTAL INFRASTRUCTURE INVENTORY
AND ASSESSMENT PROJECT
DECEMBER 2007

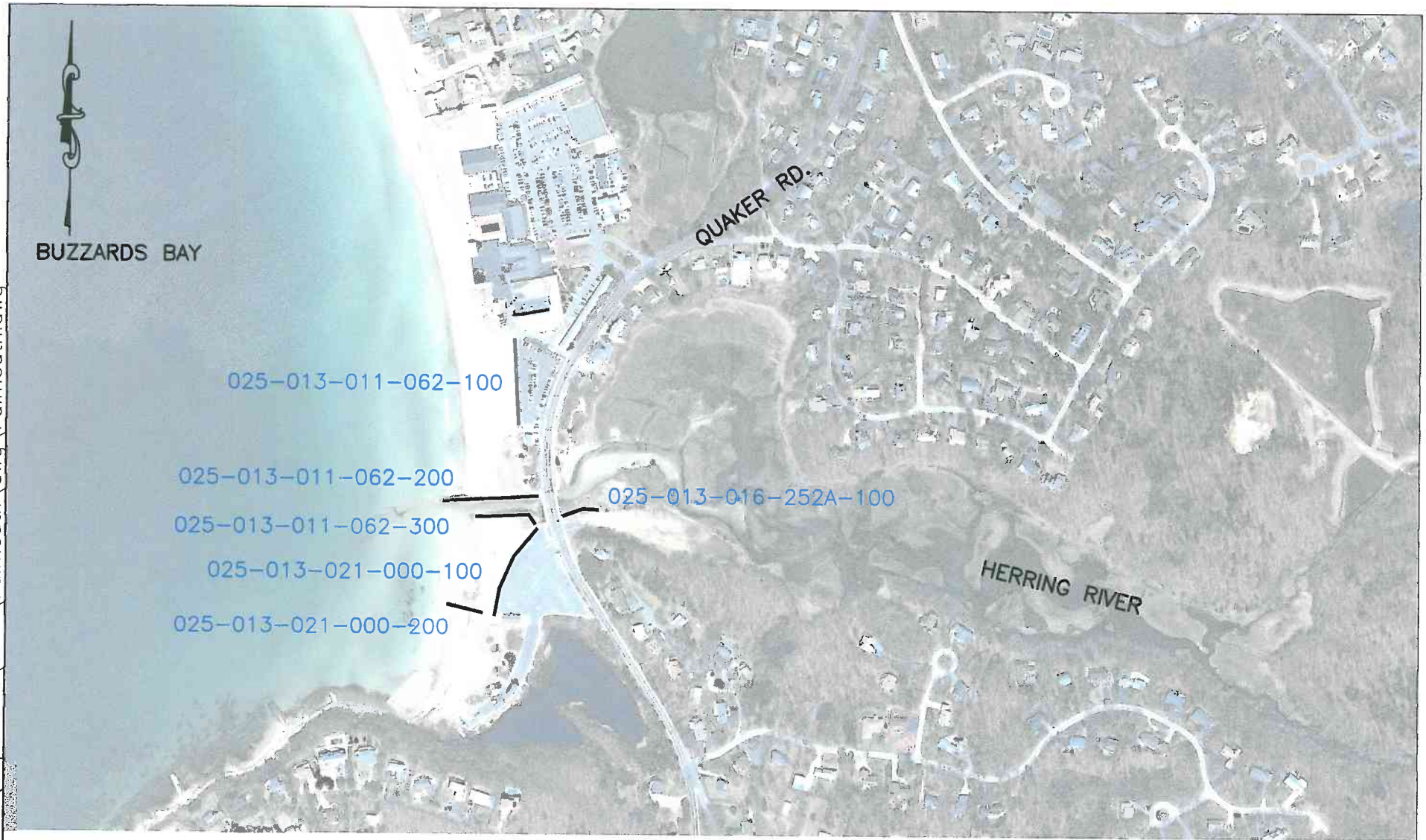
0 150

SCALE: 1" = 150'

BCE Bourne Consulting Engineering
3 Pearl Street
Franklin, MA 02038
TEL. (508) 553-0000 FAX. (508) 553-0009

SHEET 2

File: X:\27652-\27667\Cape Cod\CI-3\Falmouth\dwg\Falmouth.dwg



COASTAL STRUCTURE LOCATION PLAN

TOWN OF FALMOUTH
COASTAL INFRASTRUCTURE INVENTORY
AND ASSESSMENT PROJECT
DECEMBER 2007

0 150

SCALE: 1" = 150'

BCE Bourne Consulting Engineering

SHEET 3

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COASTAL STRUCTURE LOCATION PLAN

TOWN OF FALMOUTH
COASTAL INFRASTRUCTURE INVENTORY
AND ASSESSMENT PROJECT
DECEMBER 2007

0 150

SCALE: 1" = 150'

BCE Bourne Consulting Engineering
3 Pearl Street
Franklin, MA 02038
TEL. (508) 533-4000 FAX (508) 533-4001

SHEET 4

File: X:\27652-\27667\Cape Cod\CI-3\Falmouth\dwg\Falmouth.dwg

COASTAL STRUCTURE LOCATION PLAN

TOWN OF FALMOUTH
COASTAL INFRASTRUCTURE INVENTORY
AND ASSESSMENT PROJECT
DECEMBER 2007

0 150

SCALE: 1" = 150'

BCE Bourne Consulting Engineering

SHEET 5

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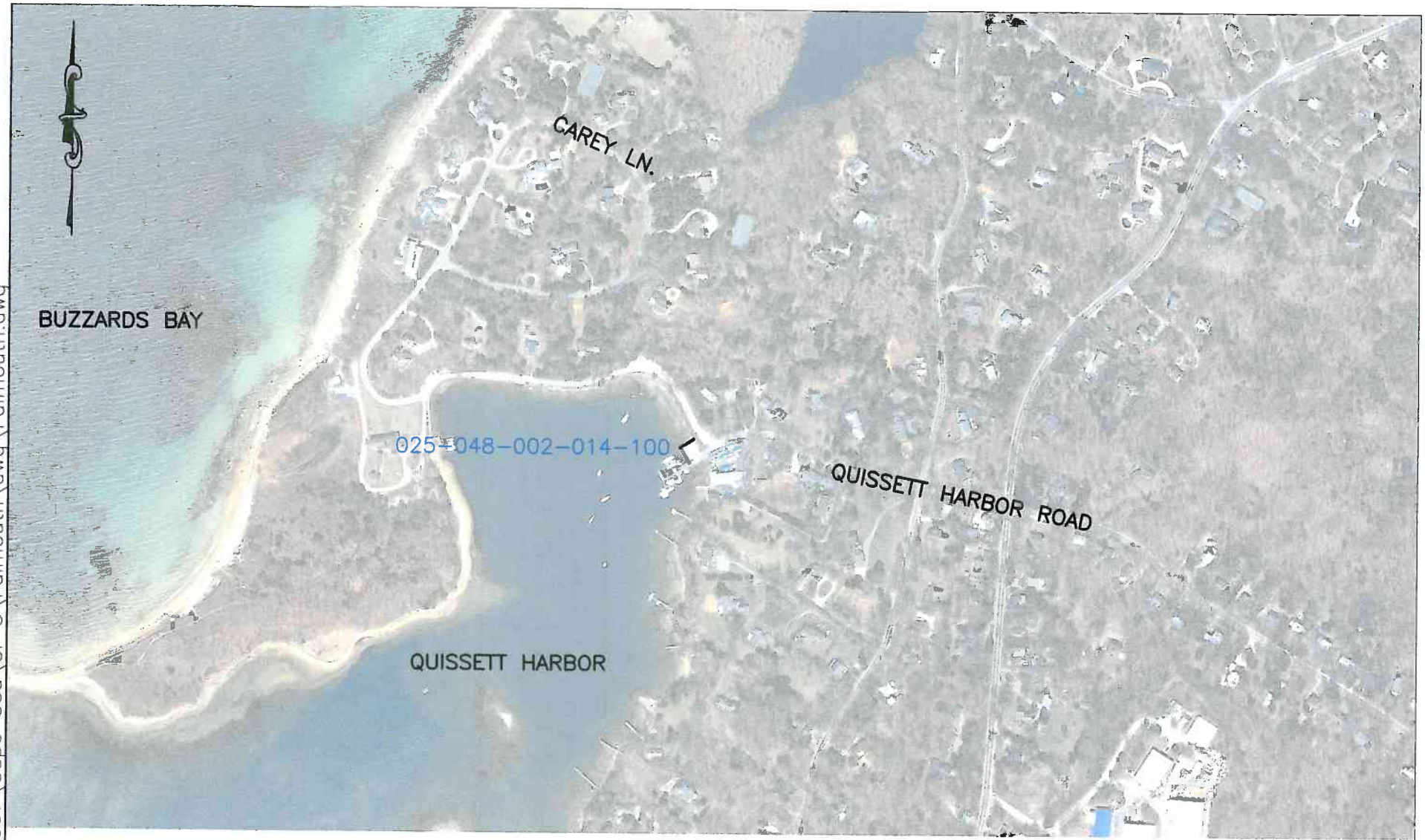

COASTAL STRUCTURE LOCATION PLAN

TOWN OF FALMOUTH
COASTAL INFRASTRUCTURE INVENTORY
AND ASSESSMENT PROJECT
DECEMBER 2007

0 150

SCALE: 1" = 150'

BCE Bourne Consulting Engineering
3 Bank Street
Franklin, MA 02038
TEL. (508) 553-0000 FAX. (508) 553-0000

SHEET 6

File: X:\27652-\27667\Cape Cod\CI-3\Falmouth\dwg\Falmouth.dwg

COASTAL STRUCTURE LOCATION PLAN

TOWN OF FALMOUTH
COASTAL INFRASTRUCTURE INVENTORY
AND ASSESSMENT PROJECT
DECEMBER 2007

0 150
SCALE: 1" = 150'

BCE Bourne Consulting Engineering
3 Bank Street
Franklin, MA 02038
TEL. (508) 553-4000 FAX. (508) 553-4004

SHEET 7

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COASTAL STRUCTURE LOCATION PLAN

TOWN OF FALMOUTH
COASTAL INFRASTRUCTURE INVENTORY
AND ASSESSMENT PROJECT
DECEMBER 2007

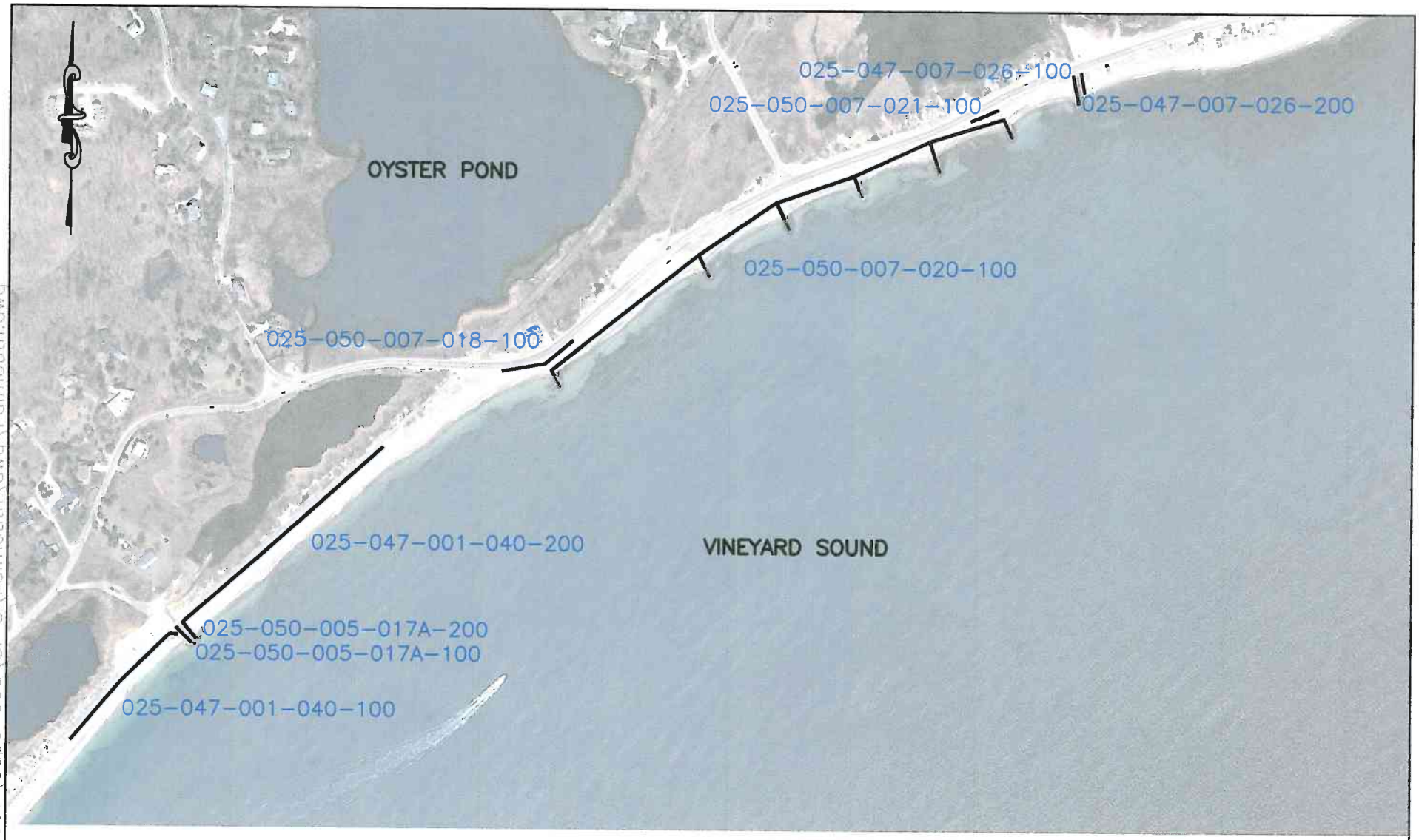
0 150

SCALE: 1" = 150'

BCE Bourne Consulting Engineering
3 Bank Street
Franklin, MA 02038
TEL. (508) 553-0000 FAX (508) 553-0000

SHEET 8

File: X:\27652-\27667\Cape Cod\CI-3\Falmouth\dwg\Falmouth.dwg



COASTAL STRUCTURE LOCATION PLAN

TOWN OF FALMOUTH
COASTAL INFRASTRUCTURE INVENTORY
AND ASSESSMENT PROJECT
DECEMBER 2007

0 150

SCALE: 1" = 150'

Bourne Consulting Engineering

SHEET 9

File: X:\27652-\27667\Cape Cod\CI-3\Falmouth\dwg\Falmouth.dwg

COASTAL STRUCTURE LOCATION PLAN

TOWN OF FALMOUTH
COASTAL INFRASTRUCTURE INVENTORY
AND ASSESSMENT PROJECT
DECEMBER 2007

0 150

SCALE: 1" = 150'

BCE Bourne Consulting Engineering

SHEET 10

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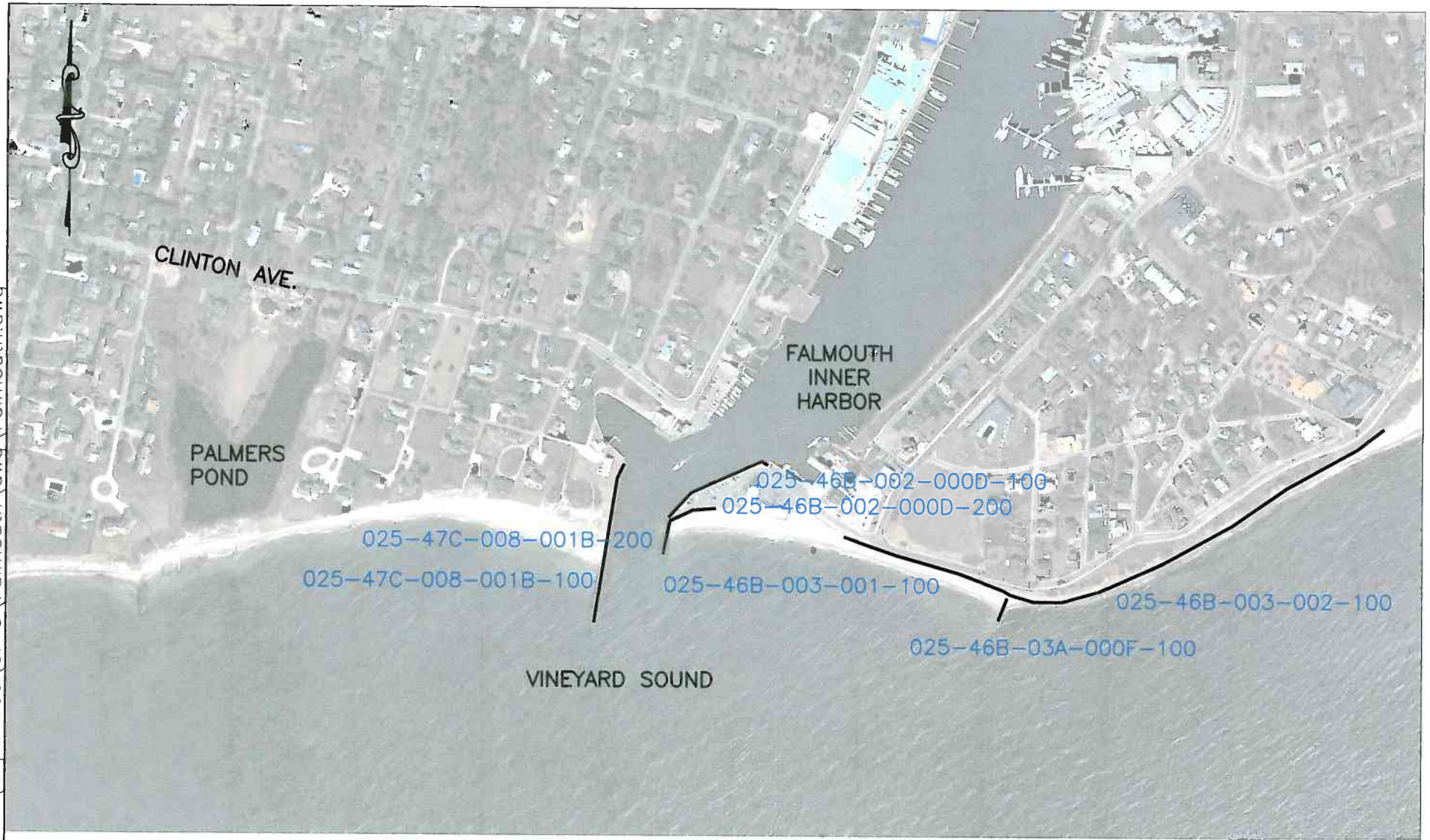


COASTAL STRUCTURE LOCATION PLAN

TOWN OF FALMOUTH
COASTAL INFRASTRUCTURE INVENTORY
AND ASSESSMENT PROJECT
DECEMBER 2007

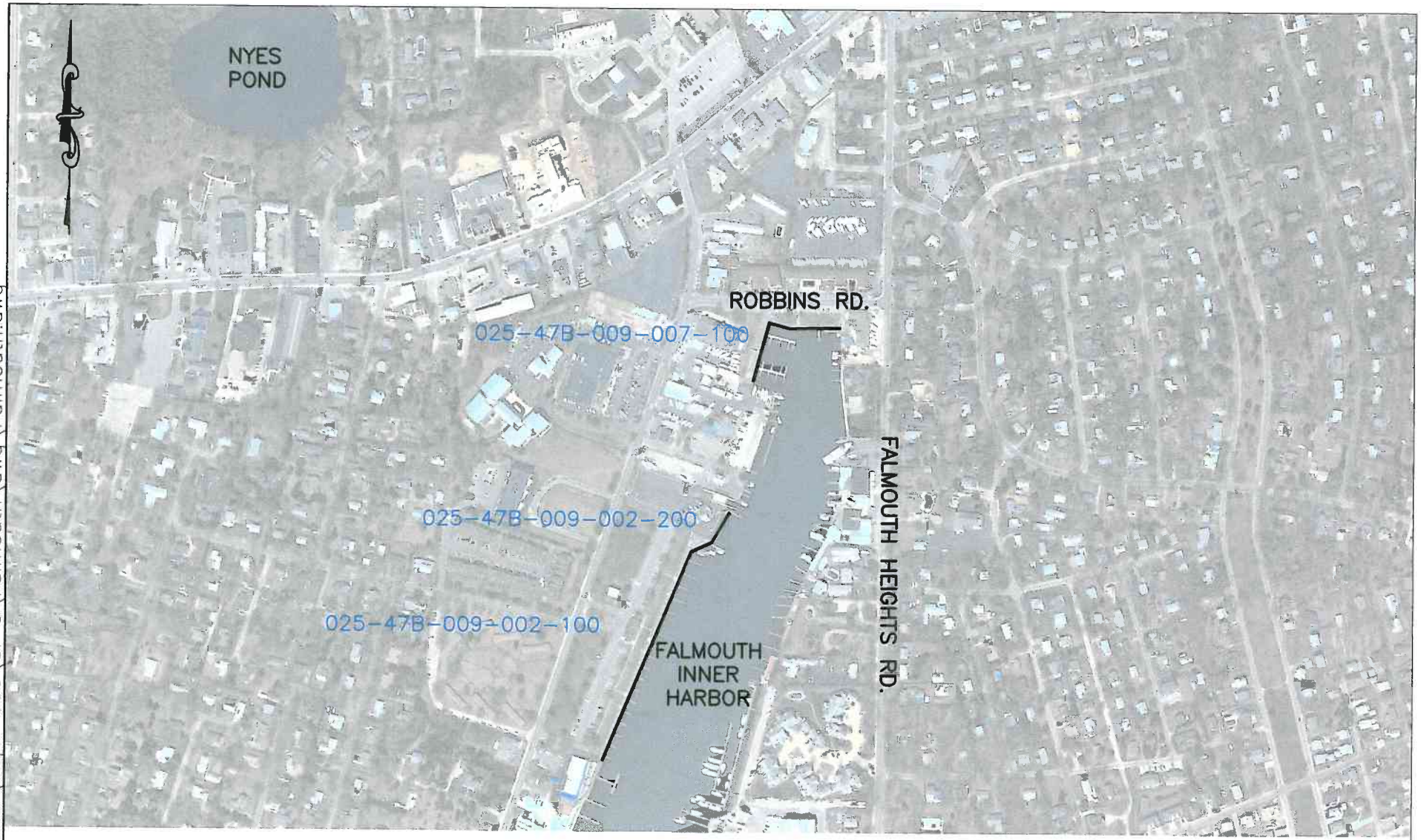
0 150

SCALE: 1" = 150'

BCE Bourne Consulting Engineering
3 Bank Street
Franklin, MA 02038
TEL. (508) 553-0000 FAX (508) 553-0000

SHEET 11

File: X:\27652-\27667\Cape Cod\CI-3\Falmouth\dwg\Falmouth.dwg



COASTAL STRUCTURE LOCATION PLAN

TOWN OF FALMOUTH
COASTAL INFRASTRUCTURE INVENTORY
AND ASSESSMENT PROJECT
DECEMBER 2007

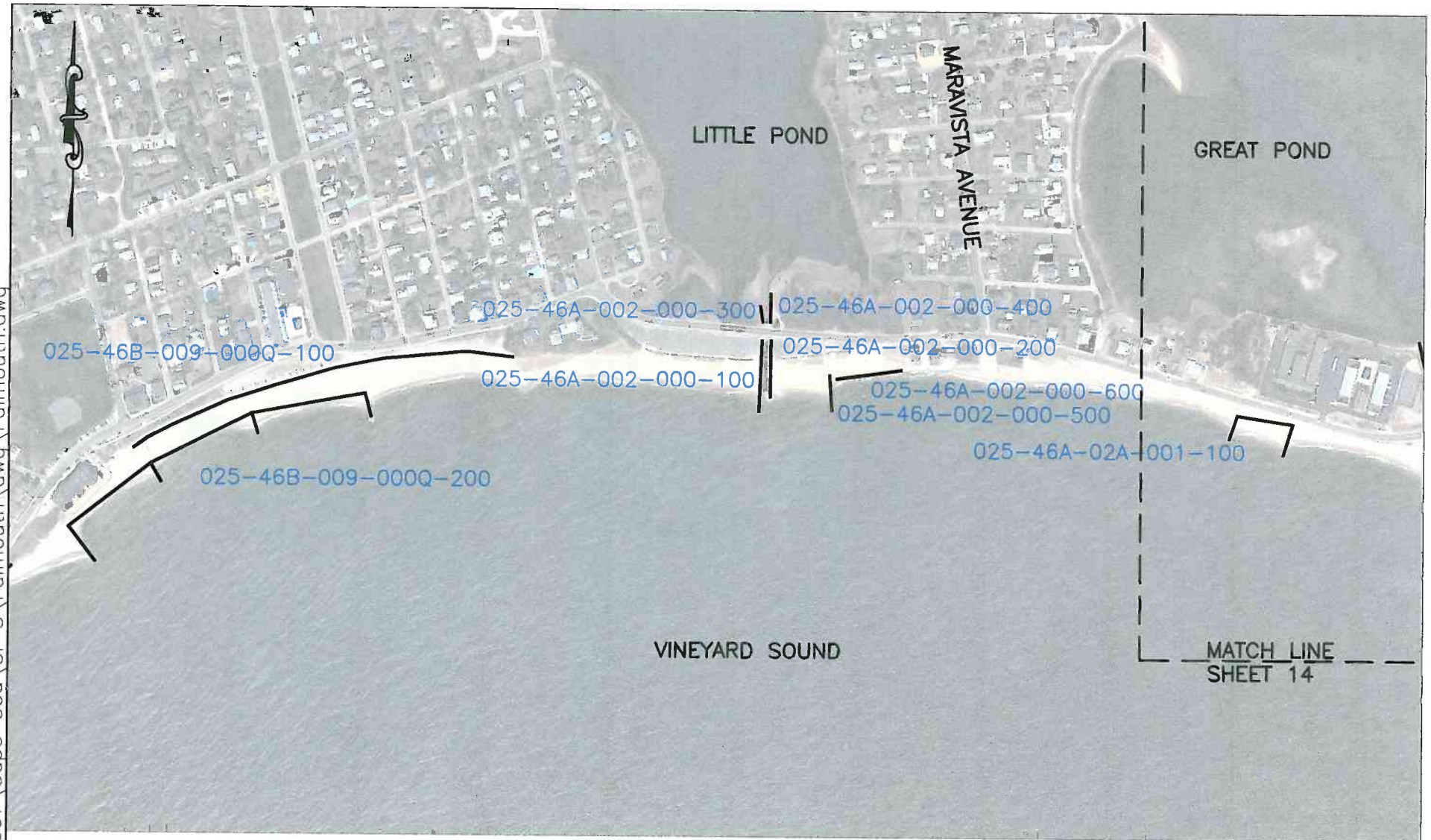
0 150

SCALE: 1" = 150'

BCE Bourne Consulting Engineering
2 Davis Street
Franklin, MA 02038
TEL. (508) 553-4000 FAX. (508) 553-4009

SHEET 12

File: X:\27652-\27667\Cape Cod\CI-3\Falmouth\dwg\Falmouth.dwg



COASTAL STRUCTURE LOCATION PLAN

TOWN OF FALMOUTH
COASTAL INFRASTRUCTURE INVENTORY
AND ASSESSMENT PROJECT
DECEMBER 2007

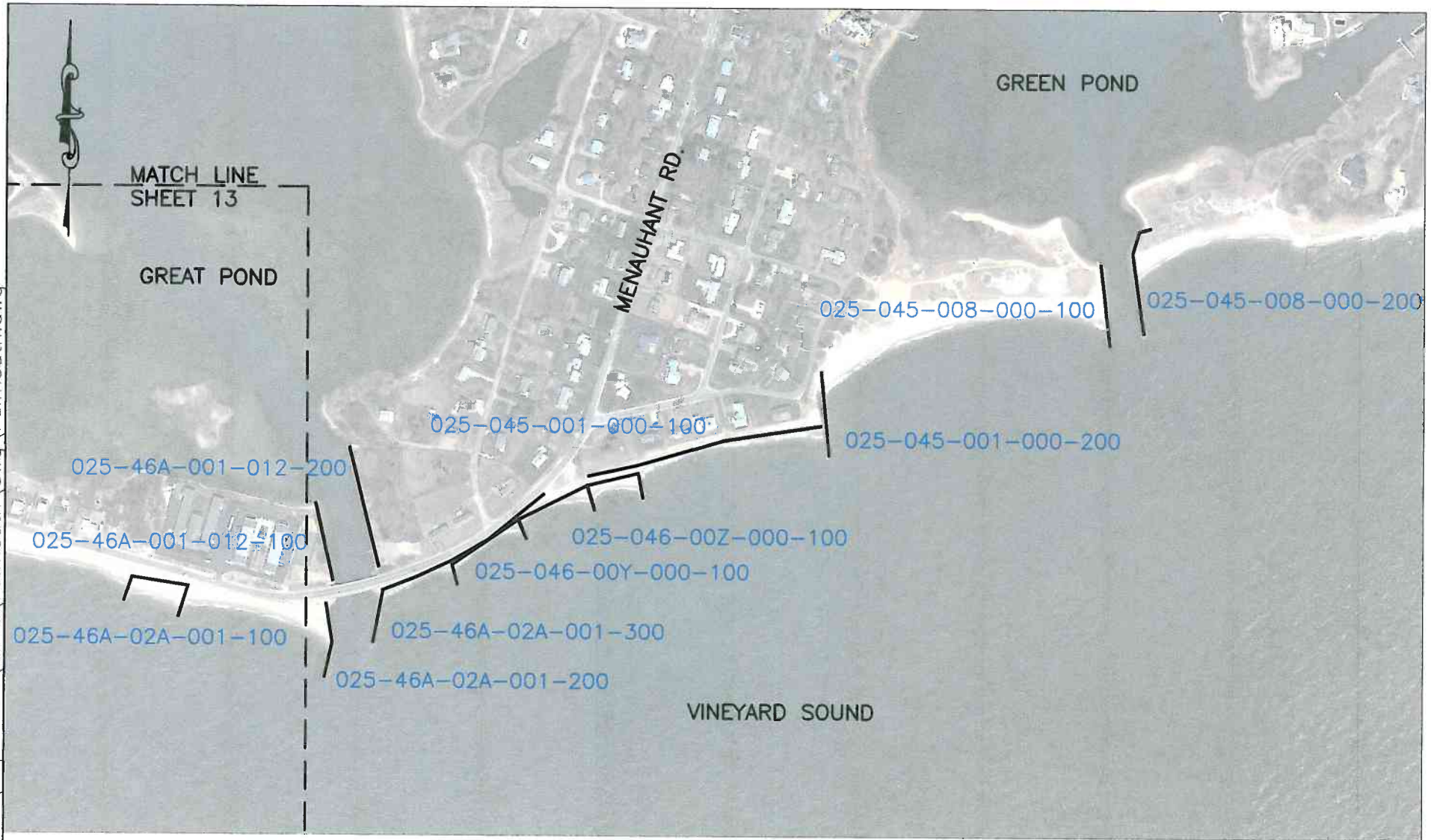
0 150

SCALE: 1" = 150'

BCE Bourne Consulting Engineering

SHEET 13

File: X:\27652-\27667\Cape Cod\CI-3\Falmouth\dwg\Falmouth.dwg



COASTAL STRUCTURE LOCATION PLAN

TOWN OF FALMOUTH
COASTAL INFRASTRUCTURE INVENTORY
AND ASSESSMENT PROJECT
DECEMBER 2007

0 150

SCALE: 1" = 150'

Bourne Consulting Engineering

SHEET 14

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COASTAL STRUCTURE LOCATION PLAN

TOWN OF FALMOUTH
COASTAL INFRASTRUCTURE INVENTORY
AND ASSESSMENT PROJECT
DECEMBER 2007

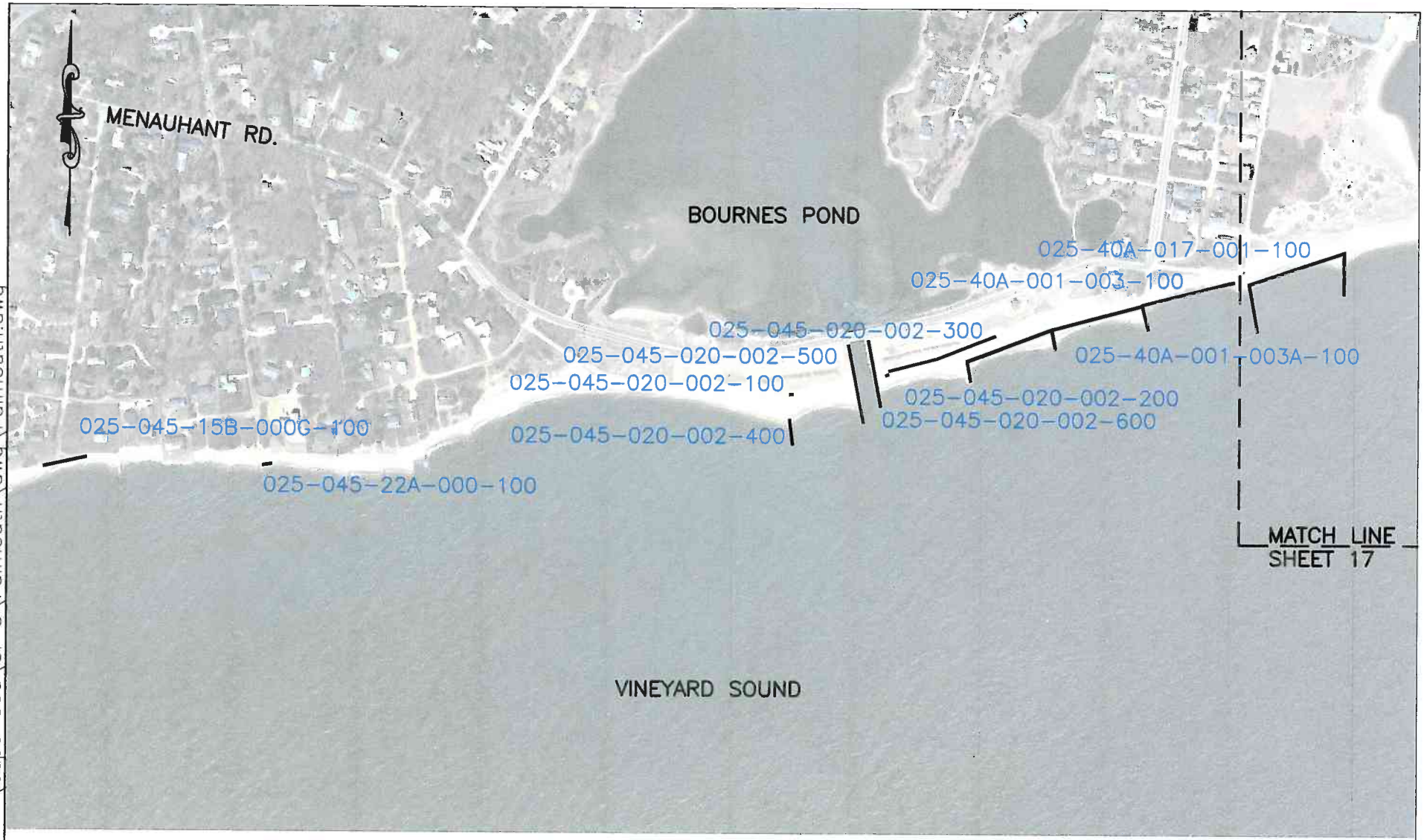
0 150

SCALE: 1" = 150'

BCE Bourne Consulting Engineering

SHEET 15

File: X:\27652-\27667\Cape Cod\CI-3\Falmouth\dwg\Falmouth.dwg



COASTAL STRUCTURE LOCATION PLAN

TOWN OF FALMOUTH
COASTAL INFRASTRUCTURE INVENTORY
AND ASSESSMENT PROJECT
DECEMBER 2007

0 150

SCALE: 1" = 150'

BCE Bourne Consulting Engineering

SHEET 16

File: X:\27652-\27667\Cape Cod\CI-3\Falmouth\dwg\Falmouth.dwg

COASTAL STRUCTURE LOCATION PLAN

TOWN OF FALMOUTH
COASTAL INFRASTRUCTURE INVENTORY
AND ASSESSMENT PROJECT
DECEMBER 2007

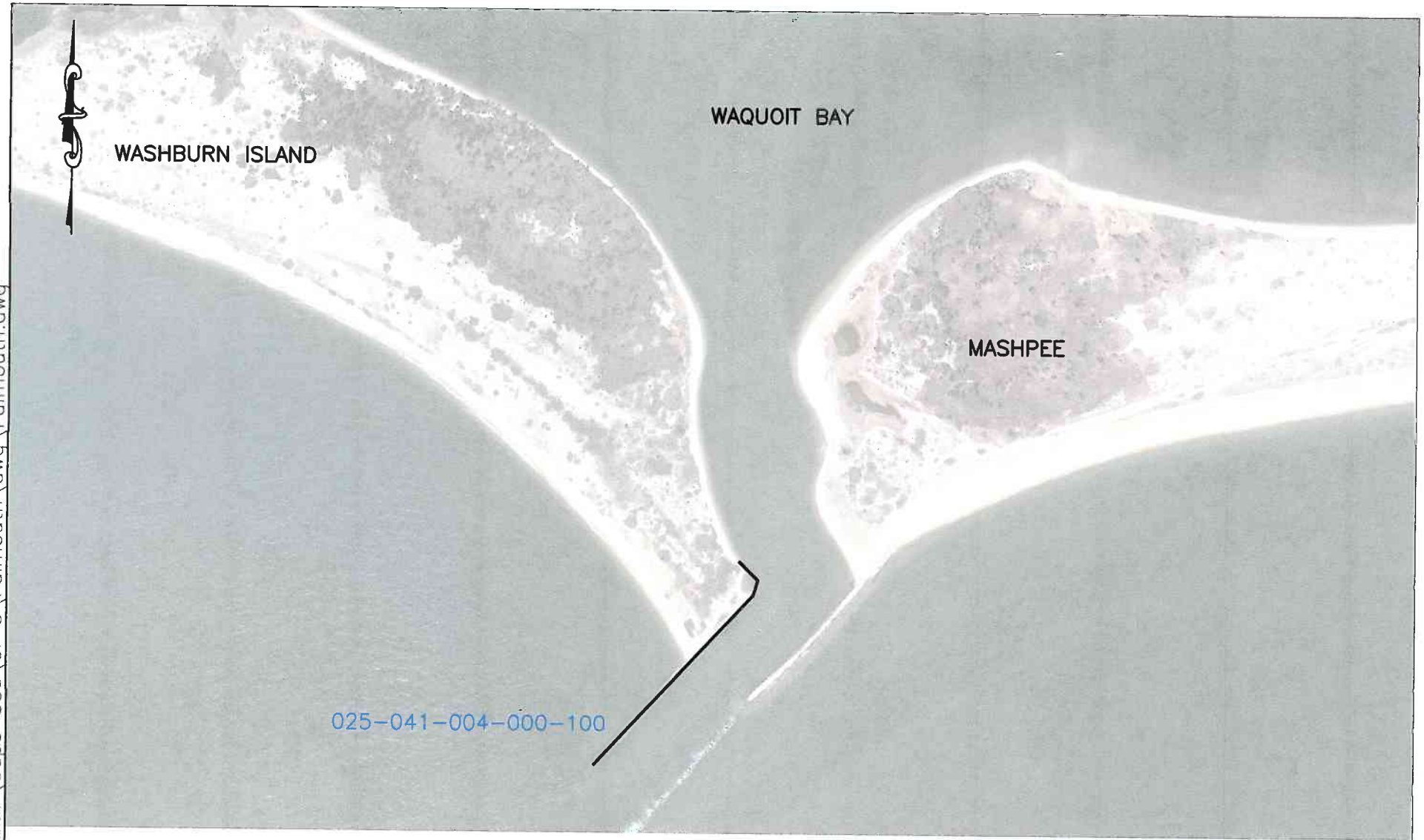
0 150

SCALE: 1" = 150'

BCE Bourne Consulting Engineering
3 Bond Street
Franklin, MA 02038
TEL. (508) 533-8000 FAX (508) 533-8008

SHEET 17

File: X:\27652-\27667\Cape Cod\CI-3\Falmouth\dwg\Falmouth.dwg



COASTAL STRUCTURE LOCATION PLAN

TOWN OF FALMOUTH
COASTAL INFRASTRUCTURE INVENTORY
AND ASSESSMENT PROJECT
DECEMBER 2007

0 150

SCALE: 1" = 150'

BCE Bourne Consulting Engineering
2 Bent Street
Franklin, MA 02038
TEL. (508) 533-8666 FAX. (508) 533-8616

SHEET 18

File: X:\27652-\27667\Cape Cod\CI-3\Falmouth\dwg\Falmouth.dwg

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-013-011-062-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Old Silver Beach	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$45,540.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
300 Feet	12 Feet NAVD 88	VE	15 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Concrete	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is a concrete seawall fronting the northern parking lot at Old Silver Beach. There is some cracking on the wall face but it is generally in good condition.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-013-011-062-100-PHO1A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-013-011-062-200

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Old Silver Beach	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1961	$79,200.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
330 Feet	3 Feet NAVD 88	VE	15 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Groin/ Jetty	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is the north jetty at Old Silver Beach. There is some minor slumping at the crest and a few cracked armor stones. Overall the structure is in good condition.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-013-011-062-200-PHO2A.jpg

025-013-011-062-200-PHO2B.jpg

Structure Documents:

USACE	May 1961	Proposed Groins and	025-013-011-062-200-COE2A
MA-DCR	April 1961	Proposed Shore	025-013-011-062-200-DCR2A

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-013-011-062-300

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Old Silver Beach	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1961	$53,520.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
223 Feet	5 Feet NAVD 88	VE	15 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Groin/ Jetty	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is the south jetty at Old Silver Beach. There is minor displacement of the armor stones and minor slumping at the head. The structure is generally in good condition.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-013-011-062-300-PHO3A.jpg

Structure Documents:

USACE	May 1961	Proposed Groins and	025-013-011-062-300-COE3A
MA-DCR	April 1961	Proposed Shore	025-013-011-062-300-DCR3A

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-013-016-252A-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Old Silver Beach	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$15,616.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
130 Feet	Feet NAVD 88	VE	15 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is a stone revetment fronting a dirt parking lot, east of Quaker Road. There is minor weathering of armor stone. The side slopes and crest are in good condition.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	II Low Priority
Action	Future Project Consideration
Description	Inshore Structures Present with Limited potential for Significant Infrastructure Damage

Structure Images:

025-013-016-252A-100-PHO1A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-013-021-000-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Old Silver Beach	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1935	$469,062.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
345 Feet	12 Feet NAVD 88	VE	14 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Concrete	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:
Bulkhead/ Seawall	Stone	5 to 10 Feet

Structure Summary :

This structure is a concrete seawall fronting the southern parking lot at Old Silver Beach. The wall is fronted by grouted armor stone. There is weathering of the wall crest. There is also some slumping and patching of the stone crest and there is missing grout.

Condition Rating	C Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-013-021-000-100-PHO1A.jpg

Structure Documents:

MA-DCR	April 1935	Proposed Stone Jetty	025-013-021-000-100-DCR1A

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-013-021-000-200

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Old Silver Beach	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1935	$17,160.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
130 Feet	3 Feet NAVD 88	VE	15 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Groin/ Jetty	Stone	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structue is a single stone groin at the southern portion of Old Silver Beach. There is some minor weathering of armor stone. The structure is in good condition. The groin is filled on the south side with some offset of the beach on the north side.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-013-021-000-200-PHO2A.jpg

Structure Documents:

USACE	May 1961	Proposed Groins and	025-013-021-000-200-COE2A
MA-DCR	April 1935	Proposed Stone Jetty	025-013-021-000-200-DCR2A
MA-DCR	April 1961	Proposed Shore	025-013-021-000-200-DCR2B

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-014-017-001-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	West Falmouth Harbor	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1949	$834,695.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
695 Feet	1 Feet NAVD 88	VE	19 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Breakwater	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is the north jetty at the entrance to West Falmouth Harbor. There are some slumping armor stones at the head. The armor stones throughout are weathered and cracked. The landward section of the jetty is very low profile with sand leaking through to the south forming a bar.

Condition Rating	C Fair	*Priority Rating*	II Low Priority
Level of Action	Moderate	*Action*	Future Project Consideration
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.	*Description*	Inshore Structures Present with Limited potential for Significant Infrastructure Damage

Structure Images:

- 025-014-017-001-100-PHO1A.jpg
- 025-014-017-001-100-PHO1B.jpg

Structure Documents:

USACE	August 1949	Proposed Stone	025-014-017-001-100-COE1A
MA-DCR	August 1949	Proposed Stone	025-014-017-001-100-DCR1A

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-014-017-001-200

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	West Falmouth Harbor	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$324,270.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
270 Feet	4 Feet NAVD 88	VE	19 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Groin/ Jetty	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:
		5 to 10 Feet

Structure Summary :

This structure is the south jetty at the entrance to West Falmouth Harbor. The structure consists of a wide concrete cap sitting atop armor stone. There is some weathering of the stone and cap present. The stones at the head are becoming unraveled.

Condition Rating	C Fair
Level of Action Description	Moderate Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-014-017-001-200-PHO2A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-024-007-005A-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Chapoquoit Beach	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$381,843.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
175 Feet	10 Feet NAVD 88	VE	19 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Concrete	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:
Revetment	Stone	Under 5 Feet

Structure Summary :

This structure is a concrete seawall fronted by dumped stone at the southern section of Chapoquoit Beach. The wall is cracked and spalled. Some cracks are quite large. The stone is weathered and shows no interlocking.

Condition Rating	D Poor
Level of Action	Major
Description	Structure exhibits advanced levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure has strong risk of significant damage and possible failure during a major coastal storm. Structure should be monitored until repairs/reconstruction can be initiated. Actions taken to reconstruct structure to regain full capacity to resist a major coastal storm. Landform eroded, stability threatened. Landform not adequate to provide protection during major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-024-007-005A-100-PHO1A.jpg

025-024-007-005A-100-PHO1B.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-024-007-012-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Chapoquoit Road	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$339,431.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
465 Feet	Feet NAVD 88	VE	14 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is a revetment along Chapoquoit Road heading to Chapoquoit Beach. The structure consists of dumped stone rubble with some small armor stone interspersed. There is no defined side slope or crest. There is little interlocking between stones. Erosion of the bank is evident behind the stones.

Condition Rating	F
	Critical
Level of Action	Immediate
Description	Conditions of structure/landform may warrant emergency stabilization as failure may result in potential loss of property and/or life. Landform eroded, loss of integrity. Structure exhibits critical levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure provides little or no protection from a major coastal storm. Actions taken to totally reconstruct structure to regain full capacity. Landform stability is severely compromised, rate of erosion/material loss may be increasing, and landform does not provide adequate protection from a major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.

Priority Rating	III
	Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-024-007-012-100-PHO1A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-026-006-003-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Chapoquoit Beach	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$121,922.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
1015 Feet	10 Feet NAVD 88	VE	22 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is the long revetment fronting Chapoquoit Road at Chapoquoit Beach. The side slopes and crest are in good condition throughout. The armor stones are also in fine condition.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-026-006-003-100-PHO1A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-02A-011-001-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Megansett Harbor	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1936	$228,228.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
380 Feet	Feet NAVD 88	VE	14 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is a stone revetment along the inside of Megansett Harbor. The toe area shows some slumping, and the grout has fractured and some toe stones are loose. The side slopes remain relatively intact.

Condition Rating	C Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-02A-011-001-100-PHO1A.jpg

Structure Documents:

USACE	May 1958	Proposed Jetty	025-02A-011-001-100-COE1A
MA-DCR	August 1936	Proposed Shore	025-02A-011-001-100-DCR1A
MA-DCR	June 1937	Proposed Stone	025-02A-011-001-100-DCR1B
DEP	August 2, 19	Plan To Accompany	025-02A-011-001-100-LIC1A

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-02A-011-001-200

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Megansett Harbor	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1952	$726,605.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
605 Feet	Feet NAVD 88	VE	19 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Breakwater	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is the rubble mound breakwater at the entrance to Megansett Harbor. There is no core stone visible. The armor is cracked and weathered. There are multiple areas of slumping and armor stones becoming unraveled.

Condition Rating	C Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

- 025-02A-011-001-200-PHO2A.jpg
- 025-02A-011-001-200-PHO2B.jpg

Structure Documents:

USACE	May 1952	Proposed Dredging	025-02A-011-001-200-COE2A
USACE	May 1958	Proposed Jetty	025-02A-011-001-200-COE2B
MA-DCR	May 1952	Proposed Dredging	025-02A-011-001-200-DCR2A
MA-DCR	April 1958	Proposed Harbor	025-02A-011-001-200-DCR2B

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-02A-011-001-300

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Megansett Harbor	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$26,565.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
35 Feet	Feet NAVD 88	VE	14 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is a stone seawall fronting the parking lot at Megansett Harbor. The armor stones at the toe are loose. The stones are weathered and missing grout.

Condition Rating	C Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-02A-011-001-300-PHO3A.jpg

Structure Documents:

DEP	May 1966	Plan Accompanying	025-02A-011-001-300-LIC3A

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-041-004-000-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Waquoit Bay	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1935	$2,987,622.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
955 Feet	Feet NAVD 88	V17	17 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Groin/ Jetty	Stone	10 to 15 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is the west jetty at the entrance to Waquoit Bay. There are some slumped sections with displaced and/or damaged armor stones. There is little interlocking between the armor stone along the landward section of the structure. The jetty head has come unraveled.

Condition Rating	D Poor
Level of Action	Major
Description	Structure exhibits advanced levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure has strong risk of significant damage and possible failure during a major coastal storm. Structure should be monitored until repairs/reconstruction can be initiated. Actions taken to reconstruct structure to regain full capacity to resist a major coastal storm. Landform eroded, stability threatened. Landform not adequate to provide protection during major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

- 025-041-004-000-100-PHO1A.jpg
- 025-041-004-000-100-PHO1B.jpg

Structure Documents:

MA-DCR	August 1935	Proposed Repairs to	025-041-004-000-100-DCR1A
MA-DCR	June 1936	Proposed Stone	025-041-004-000-100-DCR1B
MA-DCR	October 193	Proposed Stone Jetty	025-041-004-000-100-DCR1C
MA-DCR	May 1953	Proposed	025-041-004-000-100-DCR1D

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-045-001-000-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Ocean Avenue	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$990,990.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
825 Feet	Feet NAVD 88	VE	17 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is a stone revetment fronting 6 homes along Ocean Avenue. The side slope and crest are generally in good condition along the western portion of the structure. However the revetment is failing at the eastern end with a loss of crest elevation and no interlocking of adjacent armor stones.

Condition Rating	D Poor
Level of Action	Major
Description	Structure exhibits advanced levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure has strong risk of significant damage and possible failure during a major coastal storm. Structure should be monitored until repairs/reconstruction can be initiated. Actions taken to reconstruct structure to regain full capacity to resist a major coastal storm. Landform eroded, stability threatened. Landform not adequate to provide protection during major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.

Priority Rating	V Immediate / Highest Priority
Action	Consider For Immediate Action Due to Public Safety and Welfare Issues
Description	Critical Inshore Structures Present with Potential for Infrastructure Damage and/or High Density Residential Dwellings Condition of structure may warrant emergency stabilization as failure may result in potential loss of property and/or life. (>10 dwellings impacted / 100 feet of shoreline)

Structure Images:

025-045-001-000-100-PHO1A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-045-001-000-200

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Vineyard Street	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$354,295.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
295 Feet	Feet NAVD 88	VE	17 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Groin/ Jetty	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is a single stone groin at the terminus of Vineyard Street. The side slopes and crest are generally in good condition. The armor stone is becoming unraveled at the head.

Condition Rating	C Fair	*Priority Rating*	II Low Priority
Level of Action	Moderate	*Action*	Future Project Consideration
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.	*Description*	Inshore Structures Present with Limited potential for Significant Infrastructure Damage

Structure Images:

025-045-001-000-200-PHO2A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-045-008-000-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Green Pond	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1951	$342,285.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
285 Feet	Feet NAVD 88	VE	17 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Groin/ Jetty	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is the west jetty at the entrance to Green Pond. The structure is generally in good condition. The side slopes and head are unraveled in sections towards the outer end of the jetty.

Condition Rating	C Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-045-008-000-100-PHO1A.jpg

Structure Documents:

USACE	November 1	Proposed Stone	025-045-008-000-100-COE1A
USACE	October 195	Proposed Jetty	025-045-008-000-100-COE1B
MA-DCR	October 195	Proposed Stone	025-045-008-000-100-DCR1A
MA-DCR	December 1	Proposed Shore	025-045-008-000-100-DCR1B

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-045-008-000-200

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Green Pond	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1951	$486,405.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
405 Feet	Feet NAVD 88	VE	17 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Groin/ Jetty	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is the east jetty at the entrance to Green Pond. The armor is slumped and unraveled at the head of the structure and slumping in the midsection of the trunk.

Condition Rating	C Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-045-008-000-200-PHO2A.jpg

Structure Documents:

USACE	November 1	Proposed Stone	025-045-008-000-200-COE2A
USACE	October 195	Proposed Jetty	025-045-008-000-200-COE2B
MA-DCR	October 195	Proposed Stone	025-045-008-000-200-DCR2A

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-045-009-000-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Menauhant Road at Green Pond	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$177,962.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
535 Feet	Feet NAVD 88	AE	12 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is the riprap bank protection along the west side of Menauhant Road over Green Pond. The armor stones are loosely piled along the side of the bridge abutments. They are becoming unraveled.

Condition Rating	C
	Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	IV
	High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

025-045-009-000-100-PHO1A.jpg

025-045-009-000-100-PHO1B.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-045-009-000-200

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Menauhant Road at Green Pond	8/8/2007

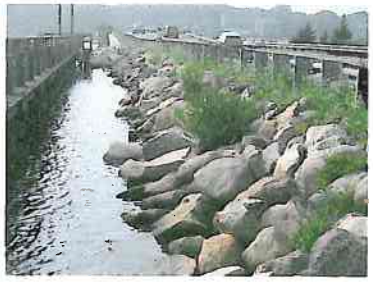
Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$227,858.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
685 Feet	Feet NAVD 88	AE	12 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:



Structure Summary :

This structure is the riprap bank protection along the west side of Menauhant Road over Green Pond.
The armor stones are loosely piled along the side of the bridge abutments. They are becoming unraveled.

Condition Rating	C
	Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	III
	Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-045-009-000-200-PHO2A.jpg

025-045-009-000-200-PHO2B.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-045-020-002-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Menauhant Road at Bournes Pond	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$14,910.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
15 Feet	Feet NAVD 88	VE	14 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Wood	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is reported as a wooden bulkhead. One section is visible beneath dune. The bulkhead appears to have fallen over and now lies flat. Structure length reported is only the visible section. Further inspection wasn't possible.

Condition Rating	F	*Priority Rating*	I
Level of Action	Immediate	*Action*	Long Term Planning Considerations
Description	Conditions of structure/landform may warrant emergency stabilization as failure may result in potential loss of property and/or life. Landform eroded, loss of integrity. Structure exhibits critical levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure provides little or no protection from a major coastal storm. Actions taken to totally reconstruct structure to regain full capacity. Landform stability is severely compromised, rate of erosion/material loss may be increasing, and landform does not provide adequate protection from a major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.	*Description*	No Inshore Structures or Residential Dwelling Units Present

Structure Images:

025-045-020-002-100-PHO1A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-045-020-002-200

Key: community-map-block-parcel-structure

Property Owner: Local

Location: Menauhant Road at Bournes Pond

Date: 8/8/2007

Presumed Structure Owner: Local

Based On Comment:

Owner Name: Falmouth

Earliest Structure Record: Unkown

Estimated Reconstruction/Repair Cost: $14,910.00

Length: 15 Feet

Top Elevation: Feet NAVD 88

FIRM Map Zone: AE

FIRM Map Elevation: 14 Feet NGVD

Primary Type: Bulkhead/ Seawall

Primary Material: Wood

Primary Height: Under 5 Feet

Secondary Type:

Secondary Material:

Secondary Height:

Structure Summary :

This structure is a wooden bulkhead which lies mostly buried in the beach east of the entrance to Bournes Pond. The small portion which is exposed is severely weathered and cracked. The reported length is for the visible section only. No further inspection was possible.

Condition Rating	F
	Critical
Level of Action	Immediate
Description	Conditions of structure/landform may warrant emergency stabilization as failure may result in potential loss of property and/or life. Landform eroded, loss of integrity. Structure exhibits critical levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure provides little or no protection from a major coastal storm. Actions taken to totally reconstruct structure to regain full capacity. Landform stability is severely compromised, rate of erosion/material loss may be increasing, and landform does not provide adequate protection from a major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.

Priority Rating	I
	None
Action	Long Term Planning Considerations
Description	No Inshore Structures or Residential Dwelling Units Present

Structure Images:

025-045-020-002-200-PHO2A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-045-020-002-300

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Menauhant Road at Bournes Pond	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$284,684.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
390 Feet	Feet NAVD 88	AE	14 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is a stone revetment fronting a parking lot east of the entrance to Bournes Pond. The armor stones are scattered in a row with no interlocking. There is no discernable crest or sideslope present.

Condition Rating	F
	Critical
Level of Action	Immediate
Description	Conditions of structure/landform may warrant emergency stabilization as failure may result in potential loss of property and/or life. Landform eroded, loss of integrity. Structure exhibits critical levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure provides little or no protection from a major coastal storm. Actions taken to totally reconstruct structure to regain full capacity. Landform stability is severely compromised, rate of erosion/material loss may be increasing, and landform does not provide adequate protection from a major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.

Priority Rating	II
	Low Priority
Action	Future Project Consideration
Description	Inshore Structures Present with Limited potential for Significant Infrastructure Damage

Structure Images:

025-045-020-002-300-PHO3A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-045-020-002-400

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Menauhant Road at Bournes Pond	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$119,513.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
90 Feet	Feet NAVD 88	VE	17 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Groin/ Jetty	Stone	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is a single stone groin on the beach west of the entrance to Bournes Pond. The groin was wholly submerged and inspection was not possible. Reported length is based on aerial photos.

Condition Rating	D
	Poor
Level of Action	Major
Description	Structure exhibits advanced levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure has strong risk of significant damage and possible failure during a major coastal storm. Structure should be monitored until repairs/reconstruction can be initiated. Actions taken to reconstruct structure to regain full capacity to resist a major coastal storm. Landform eroded, stability threatened. Landform not adequate to provide protection during major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.

Priority Rating	I
	None
Action	Long Term Planning Considerations
Description	No Inshore Structures or Residential Dwelling Units Present

Structure Images:

025-045-020-002-400-PHO4A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-045-020-002-500

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Bournes Pond	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1980	$660,660.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
275 Feet	Feet NAVD 88	VE	17 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Groin/ Jetty	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is the west jetty at the entrance to Bournes Pond. A section of armor stone along the trunk has come unraveled and slumped down. There is erosion is evident behind the damaged area.

Condition Rating	D Poor
Level of Action	Major
Description	Structure exhibits advanced levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure has strong risk of significant damage and possible failure during a major coastal storm. Structure should be monitored until repairs/reconstruction can be initiated. Actions taken to reconstruct structure to regain full capacity to resist a major coastal storm. Landform eroded, stability threatened. Landform not adequate to provide protection during major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-045-020-002-500-PHO5A.jpg

Structure Documents:

USACE	July 1980	Proposed Relocation	025-045-020-002-500-COE5A
DEP	February 5,	Plan Accompanying	025-045-020-002-500-LIC5A

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-045-020-002-600

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Bournes Pond	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1980	$564,564.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
235 Feet	Feet NAVD 88	VE	17 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Groin/ Jetty	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is the east jetty at the entrance to Bournes Pond. Sections of the jetty trunk see the side slopes slumping down and away from the crest, creating a gap between the two sections. There is erosion evident behind the damaged area.

Condition Rating	D Poor
Level of Action	Major
Description	Structure exhibits advanced levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure has strong risk of significant damage and possible failure during a major coastal storm. Structure should be monitored until repairs/reconstruction can be initiated. Actions taken to reconstruct structure to regain full capacity to resist a major coastal storm. Landform eroded, stability threatened. Landform not adequate to provide protection during major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-045-020-002-600-PHO6A.jpg

025-045-020-002-600-PHO6B.jpg

Structure Documents:

USACE	July 1980	Proposed Relocation	025-045-020-002-600-COE6A
DEP	February 5,	Plan Accompanying	025-045-020-002-600-LIC6A

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-045-15B-000G-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Davis Neck Road	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$201,531.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
155 Feet	Feet NAVD 88	AE	17 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is a grouted stone revetment at the end of Davis Neck Road. The grout is removed at the toe. There is major slumping at the crest with significant erosion of the fill behind the structure.

Condition Rating	F	*Priority Rating*	IV
	Critical		High Priority
Level of Action	Immediate	*Action*	Consider for Next Project Construction Listing
Description	Conditions of structure/landform may warrant emergency stabilization as failure may result in potential loss of property and/or life. Landform eroded, loss of integrity. Structure exhibits critical levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure provides little or no protection from a major coastal storm. Actions taken to totally reconstruct structure to regain full capacity. Landform stability is severely compromised, rate of erosion/material loss may be increasing, and landform does not provide adequate protection from a major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.	*Description*	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

025-045-15B-000G-100-PHO1A.jpg

025-045-15B-000G-100-PHO1B.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-045-22A-000-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Davisville Road	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$25,549.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
35 Feet	Feet NAVD 88	AE	17 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is a small stone revetment and the remnants of a wooden bulkhead at the end of Davisville Road. There are simply some stones sitting in a row across the beach and the weathered remains of some timbers. There is no storm protection provided.

Condition Rating	F
	Critical
Level of Action	Immediate
Description	Conditions of structure/landform may warrant emergency stabilization as failure may result in potential loss of property and/or life. Landform eroded, loss of integrity. Structure exhibits critical levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure provides little or no protection from a major coastal storm. Actions taken to totally reconstruct structure to regain full capacity. Landform stability is severely compromised, rate of erosion/material loss may be increasing, and landform does not provide adequate protection from a major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.

Priority Rating	II
	Low Priority
Action	Future Project Consideration
Description	Inshore Structures Present with Limited potential for Significant Infrastructure Damage

Structure Images:

025-045-22A-000-100-PHO1A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-046-00Y-000-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Great Pond	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$98,564.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
655		VE	13
Feet	Feet NAVD 88		Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:
Bulkhead/ Seawall	Concrete	Under 5 Feet

Structure Summary :

This structure is a revetment running along the shoreline east of the entrance to Great Pond. The structure is a stone revetment with a recurved concrete cap. The side slope of armor stone is in good condition. The concrete seawall shows minor weathering.

Condition Rating	B Good	*Priority Rating*	IV High Priority
Level of Action	Minor	*Action*	Consider for Next Project Construction Listing
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.	*Description*	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

025-046-00Y-000-100-PHO1A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-046-00Z-000-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Great Pond	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$215,800.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
325 Feet	Feet NAVD 88	VE	17 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Groin/ Jetty	Stone	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is a field of 4 stone groins east of the entrance to Great Pond. The armor stones are unraveled at the heads and the sides are starting to slump. The crests are generally level and in good condition.

Condition Rating	C Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	II Low Priority
Action	Future Project Consideration
Description	Inshore Structures Present with Limited potential for Significant Infrastructure Damage

Structure Images:

025-046-00Z-000-100-PHO1A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-047-001-040-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Trunk River Beach	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$321,321.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
535 Feet	Feet NAVD 88	VE	17 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is a stone revetment fronting a bike path immediately southwest of Trunk River. Some sections of the structure are slumping forward and are losing fill material from behind crest.

Condition Rating	C Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-047-001-040-100-PHO1A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-047-001-040-200

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Trunk River Beach	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$552,552.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
920		VE	17
Feet	Feet NAVD 88		Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is a stone revetment immediately northeast of Trunk River. Some areas of the crest have slumped forward. There is evidence of some fill behind the crest being eroded.

Condition Rating	C
	Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	III
	Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-047-001-040-200-PHO2A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-047-007-000A-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Surf Drive Beach	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1936	$73,775.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
270 Feet	Feet NAVD 88	VE	14 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Steel	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is a sheet pile seawall with a concrete cap at the eastern end of the Surf Drive Beach parking lot. The sheetpile is mostly below the beach. There is cracking and spalling of the concrete cap evident. The toe at the eastern end of the wall is becoming exposed. There is no evidence of undermining at this point.

Condition Rating	C
	Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	III
	Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-047-007-000A-100-PHO1A.jpg

025-047-007-000A-100-PHO1B.jpg

Structure Documents:

MA-DCR	September 1	Proposed Steel and	025-047-007-000A-100-DCR1A

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-047-007-000A-200

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Surf Drive Beach	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$204,389.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
140		VE	17
Feet	Feet NAVD 88		Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Groin/ Jetty	Stone	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is a stone groin at the west end of the Surf Drive Beach parking lot. This 'groin' is actually the western portion of the Old Stone Dock which used to be present at this location. There are no sideslopes to speak of, simply two rows of stones stacked aside one another.

Condition Rating	F
	Critical
Level of Action	Immediate
Description	Conditions of structure/landform may warrant emergency stabilization as failure may result in potential loss of property and/or life. Landform eroded, loss of integrity. Structure exhibits critical levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure provides little or no protection from a major coastal storm. Actions taken to totally reconstruct structure to regain full capacity. Landform stability is severely compromised, rate of erosion/material loss may be increasing, and landform does not provide adequate protection from a major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.

Priority Rating	I
	None
Action	Long Term Planning Considerations
Description	No Inshore Structures or Residential Dwelling Units Present

Structure Images:

025-047-007-000A-200-PHO2A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-047-007-000A-300

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Surf Drive Beach	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$423,377.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
290 Feet	Feet NAVD 88	VE	17 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Breakwater	Stone	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is a stone breakwater at the Surf Drive Beach parking lot. This 'breakwater' is actually the eastern portion of the Old Stone Dock which used to be present at this location. The stones show no interlocking. The structures serves as a small wavebreak for swimming but provides no storm protection.

Condition Rating	F
	Critical
Level of Action	Immediate
Description	Conditions of structure/landform may warrant emergency stabilization as failure may result in potential loss of property and/or life. Landform eroded, loss of integrity. Structure exhibits critical levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure provides little or no protection from a major coastal storm. Actions taken to totally reconstruct structure to regain full capacity. Landform stability is severely compromised, rate of erosion/material loss may be increasing, and landform does not provide adequate protection from a major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.

Priority Rating	I
	None
Action	Long Term Planning Considerations
Description	No Inshore Structures or Residential Dwelling Units Present

Structure Images:

025-047-007-000A-300-PHO3A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-047-007-000E-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Surf Drive Beach	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1965	$99,600.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
150 Feet	Feet NAVD 88	VE	17 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Groin/ Jetty	Stone	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is the west jetty at the Siders Pond outlet through Surf Drive Beach. Some stones are slumped at the head of the structure. The stones at the trunk near the outlet are also slumping.

Condition Rating	C Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-047-007-000E-100-PHO1A.jpg

Structure Documents:

USACE	January 196	Proposed Drainage	025-047-007-000E-100-COE1A

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-047-007-000E-200

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Surf Drive Beach	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1965	$106,240.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
160 Feet	Feet NAVD 88	VE	17 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Groin/ Jetty	Stone	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is the east jetty at the Siders Pond outlet through Surf Drive Beach. Some stones are slumped at the head of the structure. The stones at the trunk near the outlet are also slumping.

Condition Rating	C Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-047-007-000E-200-PHO2A.jpg

Structure Documents:

USACE	January 196	Proposed Drainage	025-047-007-000E-200-COE2A

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-047-007-026-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Surf Drive Beach	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1948	$126,105.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
105 Feet	Feet NAVD 88	VE	17 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Groin/ Jetty	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is the west jetty at Salt Pond. The crest still shows a constant elevation. The armor on the side slopes is displaced and slumped. There is reduced interlocking between stones.

Condition Rating	C Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-047-007-026-100-PHO1A.jpg

Structure Documents:

USACE	Janaury 194	Proposed Stone	025-047-007-026-100-COE1A
MA-DCR	January 195	Proposed Hurricane	025-047-007-026-100-DCR1A
DEP	August 1944	Plan to Accompany	025-047-007-026-100-LIC1A

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-047-007-026-200

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Surf Drive Beach	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1948	$90,075.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
75 Feet	Feet NAVD 88	VE	17 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Groin/ Jetty	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is the jetty on the east side of the Salt Pond outlet. There is no discernable crest evident. The armor stones on the side slopes are displaced and slumped forwards.

Condition Rating	C Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-047-007-026-200-PHO2A.jpg

Structure Documents:

USACE	January 194	Proposed Stone	025-047-007-026-200-COE2A
MA-DCR	January 195	Proposed Hurricane	025-047-007-026-200-DCR2A
DEP	August 1944	Plan to Accompany	025-047-007-026-200-LIC2A

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-048-002-014-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Quissett Harbor	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$0.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
125 Feet	Feet NAVD 88	AE	14 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Wood	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is a filled bulkhead/dock at the east end of Quissett Harbor. The timbers are clear and solid. The structure is in excellent condition.

Condition Rating	A Excellent	*Priority Rating*	II Low Priority
Level of Action	None	*Action*	Future Project Consideration
Description	Like new condition. Structure expected to withstand major coastal storm without damage. Stable landform (beach, dune or bank). Adequate system exists to provide protection from major coastal storm.	*Description*	Inshore Structures Present with Limited potential for Significant Infrastructure Damage

Structure Images:

025-048-002-014-100-PHO1A.jpg

Structure Documents:

DEP	December 1	Plan Accompanying	025-048-002-014-100-LIC1A
DEP	January 199	Plan Accompanying	025-048-002-014-100-LIC1B

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-04A-005-000-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Wild Harbor	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1937	$221,298.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
350 Feet	Feet NAVD 88	VE	16 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Wood	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is a timber bulkhead fronting West Avenue and a parking lot at the southeast corner of Wild Harbor. The timbers are weathered and the vertical piles are thining at the base. This structure was not inspected below the water line.

Condition Rating	C
	Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	IV
	High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

025-04A-005-000-100-PHO1A.jpg

Structure Documents:

MA-DCR	November 1	Proposed Timber	025-04A-005-000-100-DCR1A
MA-DCR	September 1	Proposed Timber	025-04A-005-000-100-DCR1B
MA-DCR	October 194	Proposed Timber	025-04A-005-000-100-DCR1C
MA-DCR	April 1969	Proposed Harbor	025-04A-005-000-100-DCR1D

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-04A-029-000-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Wild Harbor	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$71,518.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
215 Feet	Feet NAVD 88	VE	16 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is a stone revetment fronting West Avenue along the east side of Wild Harbor. The armor stone is slumped and becoming unraveled. There is a loss of interlocking between armor stones.

Condition Rating	C
	Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	IV
	High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

025-04A-029-000-100-PHO1A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-04A-041-000-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Wild Harbor	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1955	$33,634.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
280 Feet	Feet NAVD 88	VE	16 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

The structure is a stone revetment along the southern entrance to Wild Harbor leading to the south jetty. The stone and side slopes are in fair condition and the toe is intact. The crest and side slopes are level and straight.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-04A-041-000-100-PHO1A.jpg

Structure Documents:

USACE	September 1	Proposed Mound and	025-04A-041-000-100-COE1A
MA-DCR	January 195	Proposed Hurricane	025-04A-041-000-100-DCR1A

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-04A-041-000-200

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Wild Harbor	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1955	$294,245.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
245 Feet	Feet NAVD 88	VE	22 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Groin/ Jetty	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is the stone jetty at the southern side of the entrance to Wild Harbor. There is a concrete wall within the crest of the jetty along the landward portion of the structure. This concrete wall is broken and failing. The sideslopes and crest of the jetty itself show some minor stone displacement. The head is starting to unravel.

Condition Rating	C Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-04A-041-000-200-PHO2A.jpg

025-04A-041-000-200-PHO2B.jpg

Structure Documents:

MA-DCR	January 195	Proposed Hurricane	025-04A-041-000-200-DCR2A
MA-DCR	October 195	Proposed Shore	025-04A-041-000-200-DCR2B

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-04A-042-000-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Silver Beach	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1956	$106,260.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
125 Feet	Feet NAVD 88	VE	16 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Concrete	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is a small concrete wall fronting a parking lot at Silver Beach. A section of the wall is badly failed and there is cracking and spalling evident on the remainder.

Condition Rating	D Poor
Level of Action	Major
Description	Structure exhibits advanced levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure has strong risk of significant damage and possible failure during a major coastal storm. Structure should be monitored until repairs/reconstruction can be initiated. Actions taken to reconstruct structure to regain full capacity to resist a major coastal storm. Landform eroded, stability threatened. Landform not adequate to provide protection during major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.

Priority Rating	I None
Action	Long Term Planning Considerations
Description	No Inshore Structures or Residential Dwelling Units Present

Structure Images:

025-04A-042-000-100-PHO1A.jpg

Structure Documents:

MA-DCR	October 195	Proposed Shore	025-04A-042-000-100-DCR1A

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-04A-042-000-200

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Silver Beach	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$2,112.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
25 Feet	Feet NAVD 88	VE	16 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Concrete	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is a small concrete seawall at the end of Silver Beach Avenue. The wall shows some weathering and surface cracks. It is generally in good condition.

Condition Rating	B Good	*Priority Rating*	II Low Priority
Level of Action	Minor	*Action*	Future Project Consideration
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.	*Description*	Inshore Structures Present with Limited potential for Significant Infrastructure Damage

Structure Images:

025-04A-042-000-200-PHO2A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-04A-043-000-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Silver Beach	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1947	$358,560.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
540 Feet	Feet NAVD 88	VE	22 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Groin/ Jetty	Stone	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is the 4 groins along Silver Beach. The side slopes and crests show good lines and are in fair condition. The armor stone is discolored and weathered.

Condition Rating	C Fair
Level of Action Description	Moderate Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	II Low Priority
Action Description	Future Project Consideration Inshore Structures Present with Limited potential for Significant Infrastructure Damage

Structure Images:

025-04A-043-000-100-PHO1A.jpg

Structure Documents:

USACE	July 1947	Proposed Stone	025-04A-043-000-100-COE1A
USACE	January 195	Proposed Jetty	025-04A-043-000-100-COE1B
USACE	May 1953	Proposed Sand Fill	025-04A-043-000-100-COE1C
MA-DCR	December 1	Proposed Jetty	025-04A-043-000-100-DCR1A
MA-DCR	October 195	Proposed Shore	025-04A-043-000-100-DCR1B

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-050-005-017A-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Trunk River Beach	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1999	$19,200.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
80 Feet	Feet NAVD 88	VE	14 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Groin/ Jetty	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is the south jetty at Trunk River. The armor stone shows signs of weathering but are solid. The side slopes and crest are in good condition.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-050-005-017A-100-PHO1A.jpg

Structure Documents:

USACE	November 1	Plan Accompanying	025-050-005-017A-100-COE1A
DEP	October 200	Plan Accompanying	025-050-005-017A-100-LIC1A

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-050-005-017A-200

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Trunk River Beach	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1999	$19,200.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
80 Feet	Feet NAVD 88	VE	14 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Groin/ Jetty	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is the north jetty at Trunk River. The armor stone shows signs of weathering but are solid. The side slopes and crest are in good condition.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-050-005-017A-200-PHO2A.jpg

Structure Documents:

USACE	November 1	Plan Accompanying	025-050-005-017A-200-COE2A
DEP	October 200	Plan Accompanying	025-050-005-017A-200-LIC2A

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-050-007-018-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Surf Drive Beach	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$168,168.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
280 Feet	Feet NAVD 88	VE	14 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is a stone revetment at the far west end of Surf Drive beach. The structure exhibits a clear crest and side slopes. Some armor stones are broken and there is one section where the crest is slumping.

Condition Rating	C
Level of Action	Fair
Description	Moderate
	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	IV
Action	High Priority
Description	Consider for Next Project Construction Listing
	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

025-050-007-018-100-PHO1A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-050-007-020-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Surf Drive Beach	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1947	$345,280.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
520 Feet	Feet NAVD 88	VE	17 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Groin/ Jetty	Stone	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is the 6 stone groins at the eastern end of Surf Drive Beach. The armor stones are weathered and the heads of the groins are becoming unraveled. There are also some cracked and displaced stones.

Condition Rating	C Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	II Low Priority
Action	Future Project Consideration
Description	Inshore Structures Present with Limited potential for Significant Infrastructure Damage

Structure Images:

025-050-007-020-100-PHO1A.jpg

Structure Documents:

USACE	January 194	Proposed Stone	025-050-007-020-100-COE1A
MA-DCR	December 1	Proposed Stone	025-050-007-020-100-DCR1A

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-050-007-021-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Surf Drive Beach	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$76,646.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
105 Feet	Feet NAVD 88	VE	17 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is the remnants of riprap placed along the shoreline across from the west end of Salt Pond. The structure is fully unraveled and partially buried by the beach. There is no interlocking between stones.

Condition Rating	F
	Critical
Level of Action	Immediate
Description	Conditions of structure/landform may warrant emergency stabilization as failure may result in potential loss of property and/or life. Landform eroded, loss of integrity. Structure exhibits critical levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure provides little or no protection from a major coastal storm. Actions taken to totally reconstruct structure to regain full capacity. Landform stability is severely compromised, rate of erosion/material loss may be increasing, and landform does not provide adequate protection from a major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.

Priority Rating	IV
	High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

025-050-007-021-100-PHO1A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-051-002-049A-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Woods Hole	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1958	$680,427.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
435		AO	27
Feet	Feet NAVD 88		Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	10 to 15 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is the western section of the revetment running around Nobska Point. The stone was dumped, not placed and there is little interlocking between stones. There is granite stone dumped at the end of the structure which lies over the old material.

Condition Rating	D Poor	*Priority Rating*	IV High Priority
Level of Action	Major	*Action*	Consider for Next Project Construction Listing
Description	Structure exhibits advanced levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure has strong risk of significant damage and possible failure during a major coastal storm. Structure should be monitored until repairs/reconstruction can be initiated. Actions taken to reconstruct structure to regain full capacity to resist a major coastal storm. Landform eroded, stability threatened. Landform not adequate to provide protection during major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.	*Description*	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

025-051-002-049A-100-PHO1A.jpg

025-051-002-049A-100-PHO1B.jpg

Structure Documents:

MA-DCR	December 1	Proposed Shore	025-051-002-049A-100-DCR1A

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-051-002-050-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Woods Hole	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1958	$223,839.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
1425 Feet	Feet NAVD 88	VE	27 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	10 to 15 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is a stone revetment which runs a majority of the length around Nobska Point. The structure exhibits a 2-tiered crossed section, with a side slope up from the water line, a crest width of one armor stone and then a second sloped section running above the crest up the bank. The upper section is heavily vegetated.

Condition Rating	B Good	*Priority Rating*	IV High Priority
Level of Action	Minor	*Action*	Consider for Next Project Construction Listing
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.	*Description*	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

025-051-002-050-100-PHO1A.jpg

025-051-002-050-100-PHO1B.jpg

025-051-002-050-100-PHO1C.jpg

Structure Documents:

MA-DCR	December 1	Proposed Shore	025-051-002-050-100-DCR1A

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-24A-011-005-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	West Falmouth Harbor	8/7/2007
Presumed Structure Owner:	**Based On Comment:**	
Local		
Owner Name:	**Earliest Structure Record:**	**Estimated Reconstruction/Repair Cost:**
Falmouth	1955	$303,600.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
200 Feet	Feet NAVD 88	VE	16 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Stone	5 to 10 Feet
Secondary Type:	**Secondary Material:**	**Secondary Height:**

Structure Summary :

This structure is a bulkhead at the town pier in West Falmouth Harbor. The structure consists of a stone seawall with a concrete cap. There are some sections missing stones and there are spots where the cap has slumped. The central area beneath dock had no access for assessment.

Condition Rating	D Poor
Level of Action	Major
Description	Structure exhibits advanced levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure has strong risk of significant damage and possible failure during a major coastal storm. Structure should be monitored until repairs/reconstruction can be initiated. Actions taken to reconstruct structure to regain full capacity to resist a major coastal storm. Landform eroded, stability threatened. Landform not adequate to provide protection during major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-24A-011-005-100-PHO1A.jpg

025-24A-011-005-100-PHO1B.jpg

Structure Documents:

USACE	July 1955	Proposed Pile and	025-24A-011-005-100-COE1A
DEP	September 1	Plan to Accompany	025-24A-011-005-100-LIC1A

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-40A-001-003-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Washburn Road	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$577,527.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
335 Feet	Feet NAVD 88	VE	17 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Wood	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:
Revetment	Stone	Under 5 Feet

Structure Summary :

This structure is an abandoned wooden bulkhead fronted by armor stones. The structure runs parallel to Washburn Road. The bulkhead is just remnant timbers standing upright with a large majority of the wooden structure having been destroyed. The stones fronting the old piles are completely unraveled and the beach behind the structure is eroding.

Condition Rating	F Critical
Level of Action	Immediate
Description	Conditions of structure/landform may warrant emergency stabilization as failure may result in potential loss of property and/or life. Landform eroded, loss of integrity. Structure exhibits critical levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure provides little or no protection from a major coastal storm. Actions taken to totally reconstruct structure to regain full capacity. Landform stability is severely compromised, rate of erosion/material loss may be increasing, and landform does not provide adequate protection from a major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-40A-001-003-100-PHO1A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-40A-001-003A-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Menauhant Road East of Bournes Pond	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1948	$169,320.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
255 Feet	Feet NAVD 88	VE	17 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Groin/ Jetty	Stone	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is a field of 3 groins along the beach east of the entrance to Bournes Pond. The groins are seeing some loss of interlocking between armor stones. The stones at the head and the side slopes are becoming unraveled.

Condition Rating	C Fair	*Priority Rating*	I None
Level of Action	Moderate	*Action*	Long Term Planning Considerations
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.	*Description*	No Inshore Structures or Residential Dwelling Units Present

Structure Images:

025-40A-001-003A-100-PHO1A.jpg

Structure Documents:

USACE	December 1	Proposed Stone	025-40A-001-003A-100-COE1A
MA-DCR	December 1	Proposed Shore	025-40A-001-003A-100-DCR1A

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-40A-017-001-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Jewelers Road	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1948	$411,655.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
310 Feet	Feet NAVD 88	VE	17 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Groin/ Jetty	Stone	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is a pair of stone groins on the beach running east of Jewelers Road. The stones are unraveled and mostly submerged. The western groin is being flanked.

Condition Rating	D Poor
Level of Action	Major
Description	Structure exhibits advanced levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure has strong risk of significant damage and possible failure during a major coastal storm. Structure should be monitored until repairs/reconstruction can be initiated. Actions taken to reconstruct structure to regain full capacity to resist a major coastal storm. Landform eroded, stability threatened. Landform not adequate to provide protection during major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.

Priority Rating	I None
Action	Long Term Planning Considerations
Description	No Inshore Structures or Residential Dwelling Units Present

Structure Images:

025-40A-017-001-100-PHO1A.jpg

Structure Documents:

MA-DCR	December 1	Proposed Shore	025-40A-017-001-100-DCR1A

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-40A-017-001-200

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Eel Pond/Childs River	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1952	$600,600.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
250 Feet	Feet NAVD 88	VE	17 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Groin/ Jetty	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is the terminal groin which serves as the western channel edge at the entrance to Eel Pond/Childs River in East Falmouth. The armor stones at the head are becoming unraveled and the center of the trunk is slumping. There is erosion adjacent to slumped areas where material is lost throughthe structure.

Condition Rating	D Poor
Level of Action	Major
Description	Structure exhibits advanced levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure has strong risk of significant damage and possible failure during a major coastal storm. Structure should be monitored until repairs/reconstruction can be initiated. Actions taken to reconstruct structure to regain full capacity to resist a major coastal storm. Landform eroded, stability threatened. Landform not adequate to provide protection during major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-40A-017-001-200-PHO2A.jpg

025-40A-017-001-200-PHO2B.jpg

025-40A-017-001-200-PHO2C.jpg

Structure Documents:

USACE	Nobember 1	Proposed Shore	025-40A-017-001-200-COE2A

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-46A-001-012-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Great Pond	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1946	$168,168.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
280 Feet	Feet NAVD 88	AE	12 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is the channel protection along the west side of the entrance to Great Pond. The stones are becoming unraveled and some erosion of fill behind the structure is evident.

Condition Rating	C Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-46A-001-012-100-PHO1A.jpg

Structure Documents:

MA-DCR	June 1946	Proposed Shore	025-46A-001-012-100-DCR1A
MA-DCR	January 195	Proposed Hurricane	025-46A-001-012-100-DCR1B

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-46A-001-012-200

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Great Pond	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1946	$258,258.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
430 Feet	Feet NAVD 88	AE	12 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is the channel protection along the east side of the entrance to Great Pond. The stones are becoming unraveled along the water line. There is a loss of interlocking between the toe stones and the side slopes.

Condition Rating	C Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-46A-001-012-200-PHO2A.jpg

Structure Documents:

MA-DCR	June 1946	Proposed Shore	025-46A-001-012-200-DCR2A
MA-DCR	January 195	Proposed Hurricane	025-46A-001-012-200-DCR2B

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-46A-002-000-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Little Pond	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1955	$33,000.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
250 Feet	Feet NAVD 88	VE	14 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Groin/ Jetty	Stone	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is the west jetty at the entrance to Little Pond. The stone is weathered but solid. The side slopes and crest are generally in good condition.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-46A-002-000-100-PHO1A.jpg

Structure Documents:

USACE	May 1955	Proposed Stone	025-46A-002-000-100-COE1A
DEP	January 199	Plan to Accompany	025-46A-002-000-100-LIC1A

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-46A-002-000-200

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Little Pond	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1955	$26,400.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
200 Feet	Feet NAVD 88	VE	14 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Groin/ Jetty	Stone	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is the east jetty at the entrance to Little Pond. The stone is weathered but solid. The side slopes and crest are generally in good condition. There is minor slumping along trunk of the structure.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-46A-002-000-200-PHO2A.jpg

Structure Documents:

USACE	May 1955	Proposed Stone	025-46A-002-000-200-COE2A
DEP	January 199	Plan to Accompany	025-46A-002-000-200-LIC2A

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-46A-002-000-300

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Little Pond	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$4,290.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
65 Feet	Feet NAVD 88	VE	13 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is the stone revetment along the western channel side slope at the entrance to Little Pond. The stone is weathered but solid. The side slopes and crest are generally in good condition.

Condition Rating	B Good	*Priority Rating*	III Moderate Priority
Level of Action	Minor	*Action*	Consider for Active Project Improvement Listing
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.	*Description*	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-46A-002-000-300-PHO3A.jpg

Structure Documents:

DEP	January 199	Plan to Accompany	025-46A-002-000-300-LIC3A

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-46A-002-000-400

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Little Pond	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$6,930.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
105 Feet	Feet NAVD 88	VE	13 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is the stone revetment along the eastern channel side slope at the entrance to Little Pond. The stone is weathered but solid. The side slopes and crest are generally in good condition.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-46A-002-000-400-PHO4A.jpg

Structure Documents:

DEP	January 199	Plan to Accompany	025-46A-002-000-400-LIC4A

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-46A-002-000-500

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Little Pond	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1955	$156,130.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
130 Feet	Feet NAVD 88	VE	17 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Groin/ Jetty	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is a single stone groin on the beach east of the inlet to Little Pond. The head of the structure is becoming unraveled. The groin is filled on the west side with an offset in the beach on the east side. The crest and side slopes along the groin trunk are in good condition.

Condition Rating	C Fair
Level of Action Description	Moderate Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	II Low Priority
Action Description	Future Project Consideration Inshore Structures Present with Limited potential for Significant Infrastructure Damage

Structure Images:

025-46A-002-000-500-PHO5A.jpg

Structure Documents:

USACE	May 1955	Proposed Stone	025-46A-002-000-500-COE5A

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-46A-002-000-600

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Little Pond	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$276,276.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
230 Feet	Feet NAVD 88	VE	14 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:
		5 to 10 Feet

Structure Summary :

This structure is a revetment along the beach east of the entrance to Little Pond. The structure is fronting an empty lot and consists of dumped armor stones. The armor stones are unraveled and in a random pile exhibiting no crest or side slope.

Condition Rating	D Poor
Level of Action	Major
Description	Structure exhibits advanced levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure has strong risk of significant damage and possible failure during a major coastal storm. Structure should be monitored until repairs/reconstruction can be initiated. Actions taken to reconstruct structure to regain full capacity to resist a major coastal storm. Landform eroded, stability threatened. Landform not adequate to provide protection during major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-46A-002-000-600-PHO6A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-46A-02A-001-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Great Pond	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$139,440.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
210 Feet	Feet NAVD 88	VE	14 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Groin/ Jetty	Stone	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is two stone groins on the beach west of the entrance to Great Pond. The sides and heads are beginning to unravel on both groins.

Condition Rating	C
	Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	I
	None
Action	Long Term Planning Considerations
Description	No Inshore Structures or Residential Dwelling Units Present

Structure Images:

025-46A-02A-001-100-PHO1A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-46A-02A-001-200

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Great Pond	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1935	$318,265.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
265 Feet	Feet NAVD 88	VE	14 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Groin/ Jetty	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is the west jetty at the entrance to Great Pond. The crest and side slopes are in fair condition. The head is beginning to unravel with a loss of interlocking between adjacent armor stones.

Condition Rating	C Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

- 025-46A-02A-001-200-PHO2A.jpg
- 025-46A-02A-001-200-PHO2B.jpg

Structure Documents:

MA-DCR	March 1935	Proposed Excavation	025-46A-02A-001-200-DCR2A
MA-DCR	June 1946	Proposed Shore	025-46A-02A-001-200-DCR2B
MA-DCR	January 195	Proposed Hurricane	025-46A-02A-001-200-DCR2C

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-46A-02A-001-300

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Great Pond	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1935	$222,185.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
185 Feet	Feet NAVD 88	VE	14 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Groin/ Jetty	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is the east jetty at the entrance to Great Pond. The crest is in fair condition. There is some slumping of the side slopes. The head is beginning to unravel with a loss of interlocking between adjacent armor stones.

Condition Rating	C
	Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	III
	Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-46A-02A-001-300-PHO3A.jpg

Structure Documents:

MA-DCR	March 1935	Proposed Excavation	025-46A-02A-001-300-DCR3A
MA-DCR	June 1946	Proposed Shore	025-46A-02A-001-300-DCR3B
MA-DCR	January 195	Proposed Hurricane	025-46A-02A-001-300-DCR3C

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-46B-002-000D-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Falmouth Harbor	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1953	$51,322.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
405 Feet	Feet NAVD 88	VE	14 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Wood	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is a wooden bulkhead along the southeast portion of Falmouth Harbor. The timbers and pilings are weathered but solid. The structure appears to be in good condition. The structure was not inspected below the water line.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-46B-002-000D-100-PHO1A.jpg

Structure Documents:

USACE	January 195	Proposed Bulkhead -	025-46B-002-000D-100-COE1A
DEP	February 3,	Plan Accompanying	025-46B-002-000D-100-LIC1A

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-46B-002-000D-200

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Falmouth Harbor	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$144,514.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
170 Feet	Feet NAVD 88	VE	14 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Concrete	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is a recurved concrete seawall fronting a parking lot at the southeast corner of Falmouth Harbor. There is cracking and spalling evident throughout the structure. Some undermining of footing at the center is evident.

Condition Rating	D Poor
Level of Action	Major
Description	Structure exhibits advanced levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure has strong risk of significant damage and possible failure during a major coastal storm. Structure should be monitored until repairs/reconstruction can be initiated. Actions taken to reconstruct structure to regain full capacity to resist a major coastal storm. Landform eroded, stability threatened. Landform not adequate to provide protection during major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-46B-002-000D-200-PHO2A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-46B-003-001-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Falmouth Heights	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$549,549.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
915 Feet	Feet NAVD 88	VE	11 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is the western portion of the stone revetment fronting Grand Avenue at the base of Falmouth Heights. The sideslopes are intact but there is some small slumping in areas on the crest.

Condition Rating	C
Level of Action	Fair
Description	Moderate
	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	IV
Action	High Priority
Description	Consider for Next Project Construction Listing
	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

025-46B-003-001-100-PHO1A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-46B-003-002-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Falmouth Heights	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1970	$3,498,297.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
1135 Feet	Feet NAVD 88	VE	14 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	10 to 15 Feet

Secondary Type:	Secondary Material:	Secondary Height:
Bulkhead/ Seawall	Concrete	5 to 10 Feet

Structure Summary :

This structure is the eastern portion of the stone revetment fronting Grand Avenue at the base of Falmouth Heights. The structure is comprised of riprap fronting and backing an abandoned seawall. The seawall is completely failed in many sections. The riprap fronting the seawall is unraveled.

Condition Rating	D Poor
Level of Action	Major
Description	Structure exhibits advanced levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure has strong risk of significant damage and possible failure during a major coastal storm. Structure should be monitored until repairs/reconstruction can be initiated. Actions taken to reconstruct structure to regain full capacity to resist a major coastal storm. Landform eroded, stability threatened. Landform not adequate to provide protection during major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.

Priority Rating	IV High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

025-46B-003-002-100-PHO1A.jpg

025-46B-003-002-100-PHO1B.jpg

025-46B-003-002-100-PHO1C.jpg

Structure Documents:

MA-DCR	November 1	Proposed Shore	025-46B-003-002-100-DCR1A

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-46B-009-000Q-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Central Park Beach	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$582,305.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
1370 Feet	Feet NAVD 88	AE	14 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Concrete	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is a concrete seawall backing Central Park Beach along Grand Avenue. There is some superficial cracking and spalling evident along the wall. There are multiple small patched areas evident on the wall face.

Condition Rating	C
Level of Action	Fair
Description	Moderate Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	III
Action	Moderate Priority
Description	Consider for Active Project Improvement Listing Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-46B-009-000Q-100-PHO1A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-46B-009-000Q-200

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Central Park Beach	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1937	$265,600.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
400 Feet	Feet NAVD 88	VE	17 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Groin/ Jetty	Stone	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is the 4 stone groins at Central Park Beach along Grand Avenue. The groins are low profile and are becoing unraveled with reduced interlocking between armor stones.

Condition Rating	C Fair	*Priority Rating*	II Low Priority
Level of Action	Moderate	*Action*	Future Project Consideration
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.	*Description*	Inshore Structures Present with Limited potential for Significant Infrastructure Damage

Structure Images:

025-46B-009-000Q-200-PHO2A.jpg

Structure Documents:

MA-DCR	June 1937	Proposed Stone	025-46B-009-000Q-200-DCR2A
MA-DCR	October 193	Proposed Shore	025-46B-009-000Q-200-DCR2B
MA-DCR	May 1955	Proposed Beach	025-46B-009-000Q-200-DCR2C

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-46B-03A-000F-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Falmouth Heights	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$112,873.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
85 Feet	Feet NAVD 88	VE	17 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Groin/ Jetty	Stone	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is a single stone groin protruding from the revetment fronting Grand Avenue at the base of Falmouth Heights. It is just west of the terminus of Vernon Avenue. This is a low profile groin. The side slopes and head are unraveled.

Condition Rating	D
	Poor
Level of Action	Major
Description	Structure exhibits advanced levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure has strong risk of significant damage and possible failure during a major coastal storm. Structure should be monitored until repairs/reconstruction can be initiated. Actions taken to reconstruct structure to regain full capacity to resist a major coastal storm. Landform eroded, stability threatened. Landform not adequate to provide protection during major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.

Priority Rating	I
	None
Action	Long Term Planning Considerations
Description	No Inshore Structures or Residential Dwelling Units Present

Structure Images:

025-46B-03A-000F-100-PHO1A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-47B-009-002-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Falmouth Harbor	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1955	$109,613.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
865 Feet	Feet NAVD 88	AE	11 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Wood	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is the wooden bulkhead for town marina along the western edge of Falmouth Harbor. The timbers and piles are weathered but solid.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-47B-009-002-100-PHO1A.jpg

Structure Documents:

USACE	March 1957	Proposed Bulkhead	025-47B-009-002-100-COE1A
MA-DCR	April 1955	Proposed Timber	025-47B-009-002-100-DCR1A
MA-DCR	January 195	Proposed Timber	025-47B-009-002-100-DCR1B
DEP	February 3,	Plan Accompanying	025-47B-009-002-100-LIC1A
DEP	April 1996	Plan Accompanying	025-47B-009-002-100-LIC1B

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-47B-009-002-200

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Falmouth Inner Harbor	12/6/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1972	$91,080.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
120 Feet	Feet NAVD 88	AE	11 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Concrete	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is a concrete bulkhead immediately north of the town marina dockage on the west side of Falmouth Harbor. This is the section of dockage reserved for charter fishing boats. The bulkhead is weathered and discolored at sections. There are a few cracks visible on the face of the wall. There is some spalling of the concrete observed at the seams between the wall sections.

Condition Rating	C Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

- 025-47B-009-002-200-PHO2A.jpg
- 025-47B-009-002-200-PHO2B.jpg

Structure Documents:

USACE	July 1972	Plans to Accompany	025-47B-009-002-200-COE2A
USACE	January 197	Dredge and	025-47B-009-002-200-COE2B
DEP	March 24, 19	Plan Accompanying	025-47B-009-002-200-LIC2A
DEP	6063	Plan To Accompany	025-47B-009-002-200-LIC2B
DEP	April 1996	Plan Accompanying	025-47B-009-002-200-LIC2C

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-47B-009-007-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Falmouth Harbor	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1957	$58,291.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
460 Feet	Feet NAVD 88	AE	11 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Wood	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is a timber bulkhead at the north end of Falmouth Harbor. The dockage and boats tied up make a detailed inspection impossible. The visible portions appear solid.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-47B-009-007-100-PHO1A.jpg

Structure Documents:

USACE	January 195	Proposed Bulkhead,	025-47B-009-007-100-COE1A
USACE	January 199	Proposed Plan to	025-47B-009-007-100-COE1B
MA-DCR	November 1	Proposed Harbor	025-47B-009-007-100-DCR1A
DEP	February 3,	Plan Accompanying	025-47B-009-007-100-LIC1A
DEP	January 198	Plan Accompanying	025-47B-009-007-100-LIC1B

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-47C-008-001B-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Falmouth Harbor	

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1935	$875,840.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
560 Feet	Feet NAVD 88		Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Groin/ Jetty	Stone	10 to 15 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is the west jetty at the entrance to Falmouth Harbor. There is some slumping and displacement of armor stones along the middle of structure. Aside from this section, the crest and side slopes are in good condition.

Condition Rating	C
	Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	IV
	High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

025-47C-008-001B-100-PHO1A.jpg

025-47C-008-001B-100-PHO1B.jpg

Structure Documents:

MA-DCR	August 1935	Proposed Repairs to	025-47C-008-001B-100-DCR1A
MA-DCR	January 193	Proposed Riprap	025-47C-008-001B-100-DCR1B
MA-DCR	July 1952	Proposed	025-47C-008-001B-100-DCR1C

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-47C-008-001B-200

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Falmouth Harbor	8/8/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1935	$138,115.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
115 Feet	Feet NAVD 88	VE	17 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Groin/ Jetty	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is the east jetty at the entrance to Falmouth Harbor. There is a seciton at the head that is starting to unravel as well as a slumped section in the center. Aside from these areas, the crest and side slopes are in good condition.

Condition Rating	C Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	IV High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

025-47C-008-001B-200-PHO2A.jpg

Structure Documents:

MA-DCR	August 1935	Proposed Repairs to	025-47C-008-001B-200-DCR2A

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-49A-001-039-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Woods Hole	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$273,240.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
360 Feet	Feet NAVD 88	AE	11 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is a stone seawall along the west side of Eel Pond. The wall has a concrete cap. The cap and face of the wall are weathered. There is slumping of the ground behind wall crest suggesting some fill loss out of the front and bottom of the wall.

Condition Rating	C Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	IV High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

025-49A-001-039-100-PHO1A.jpg

025-49A-001-039-100-PHO1B.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-49A-001-055-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Woods Hole	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$37,191.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
245 Feet	Feet NAVD 88	AE	11 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is a stone wall fronting roadway School Street on the east side of Eel Pond. The wall has an iron railing along the top. The stone is weathered and discolored but the grout between stones is intact. There is marsh at the base of the wall.

Condition Rating	B Good	*Priority Rating*	IV High Priority
Level of Action	Minor	*Action*	Consider for Next Project Construction Listing
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.	*Description*	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

025-49A-001-055-100-PHO1A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-49A-001-059-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Woods Hole	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$7,590.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
50 Feet	Feet NAVD 88	AE	12 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:
Bulkhead/ Seawall	Concrete	

Structure Summary :

This structure is a seawall along the eastern side of the channel into Eel Pond. The wall is composed of rectangular granite blocks stacked atop each other. There is also a concrete section at the crest running back to the abutments of the bridge. The stone in the wall is weathered but solid. The concrete section is in good condition.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-49A-001-059-100-PHO1A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-49A-002-000I-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Woods Hole	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$70,587.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
465 Feet	Feet NAVD 88	AE	12 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is a stone seawall running parallel to Water Street. There is grout between the stones in the wall and evidence of sheetpile along toe. The stones are weathered but solid. The crest of the wall is level and even.

Condition Rating	B Good	*Priority Rating*	III Moderate Priority
Level of Action	Minor	*Action*	Consider for Active Project Improvement Listing
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.	*Description*	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

025-49A-002-000I-100-PHO1A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-49A-006-039-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Stoney Beach	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	1955	$172,640.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
260 Feet	Feet NAVD 88	AE	13 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Groin/ Jetty	Stone	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is the 2 stone groins at Stoney Beach. Both groins are very low profile. There is some weathering of stone and displacement of the armor stone.

Condition Rating	C
	Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	I
	None
Action	Long Term Planning Considerations
Description	No Inshore Structures or Residential Dwelling Units Present

Structure Images:

025-49A-006-039-100-PHO1A.jpg

Structure Documents:

USACE	March 1955	Proposed Stone	025-49A-006-039-100-COE1A
MA-DCR	March 1955	Proposed Beach	025-49A-006-039-100-DCR1A

Prepared By: Bourne Consulting Engineering

CZM Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Falmouth

Structure ID: 025-51A-001-019-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Woods Hole	8/7/2007

Presumed Structure Owner:	Based On Comment:
Local	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Falmouth	Unkown	$624,624.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
520 Feet	Feet NAVD 88	VE	20 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

This structure is a dumped stone revetment fronting the bike path at the head of the Coast Guard Harbor. The stone is slumped and unraveled with no clear crest or side slopes. Some sections of the structure have slumped forward.

Condition Rating	D Poor	*Priority Rating*	II Low Priority
Level of Action	Major	*Action*	Future Project Consideration
Description	Structure exhibits advanced levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure has strong risk of significant damage and possible failure during a major coastal storm. Structure should be monitored until repairs/reconstruction can be initiated. Actions taken to reconstruct structure to regain full capacity to resist a major coastal storm. Landform eroded, stability threatened. Landform not adequate to provide protection during major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.	*Description*	Inshore Structures Present with Limited potential for Significant Infrastructure Damage

Structure Images:

025-51A-001-019-100-PHO1A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

Section II - Falmouth

Part C

Structure Photographs

TOWN: FALMOUTH
SOURCE: ACE - FIELD PHOTOGRAPHS
LOCATION: Bourne Consulting Engineering
DATE OF RESEARCH: AUGUST 2007

BCE Structure No	Document No	Contract/ Drawing Number	Entity	Municipality	Date	Title	Sheets	Location	Description
025-013-011-062-100	025-013-011-062-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-013-011-062-200	025-013-011-062-200-PHO2A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-013-011-062-200	025-013-011-062-200-PHO2B.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-013-011-062-300	025-013-011-062-300-PHO3A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-013-016-252A-100	025-013-016-252A-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-013-021-000-100	025-013-021-000-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
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025-014-017-001-100	025-014-017-001-100-PHO1B.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-014-017-001-200	025-014-017-001-200-PHO2A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-024-007-005A-100	025-024-007-005A-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
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025-024-007-012-100	025-024-007-012-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
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025-02A-011-001-200	025-02A-011-001-200-PHO2A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-02A-011-001-200	025-02A-011-001-200-PHO2B.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-02A-011-001-300	025-02A-011-001-300-PHO3A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-041-004-000-100	025-041-004-000-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-041-004-000-100	025-041-004-000-100-PHO1B.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-045-001-000-100	025-045-001-000-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-045-001-000-200	025-045-001-000-200-PHO2A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey

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025-045-008-000-100	025-045-008-000-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
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025-045-009-000-100	025-045-009-000-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
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025-045-009-000-200	025-045-009-000-200-PHO2A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-045-009-000-200	025-045-009-000-200-PHO2B.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-045-020-002-100	025-045-020-002-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-045-020-002-200	025-045-020-002-200-PHO2A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-045-020-002-300	025-045-020-002-300-PHO3A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-045-020-002-400	025-045-020-002-400-PHO4A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-045-020-002-500	025-045-020-002-500-PHO5A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-045-020-002-600	025-045-020-002-600-PHO6A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-045-020-002-600	025-045-020-002-600-PHO6B.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-045-15B-000G-100	025-045-15B-000G-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-045-15B-000G-100	025-045-15B-000G-100-PHO1B.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-045-22A-000-100	025-045-22A-000-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-046-00Y-000-100	025-046-00Y-000-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-046-00Z-000-100	025-046-00Z-000-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-047-001-040-100	025-047-001-040-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-047-001-040-200	025-047-001-040-200-PHO2A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-047-007-000A-100	025-047-007-000A-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
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025-047-007-000A-200	025-047-007-000A-200-PHO2A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-047-007-000A-300	025-047-007-000A-300-PHO3A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-047-007-000E-100	025-047-007-000E-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-047-007-000E-200	025-047-007-000E-200-PHO2A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-047-007-026-100	025-047-007-026-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-047-007-026-200	025-047-007-026-200-PHO2A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-048-002-014-100	025-048-002-014-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-04A-005-000-100	025-04A-005-000-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-04A-029-000-100	025-04A-029-000-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
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025-04A-042-000-100	025-04A-042-000-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-04A-042-000-200	025-04A-042-000-200-PHO2A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-04A-043-000-100	025-04A-043-000-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-050-005-017A-100	025-050-005-017A-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-050-005-017A-200	025-050-005-017A-200-PHO2A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-050-007-018-100	025-050-007-018-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
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025-050-007-021-100	025-050-007-021-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-051-002-049A-100	025-051-002-049A-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
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025-051-002-050-100	025-051-002-050-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-051-002-050-100	025-051-002-050-100-PHO1B.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-051-002-050-100	025-051-002-050-100-PHO1C.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-24A-011-005-100	025-24A-011-005-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-24A-011-005-100	025-24A-011-005-100-PHO1B.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-40A-001-003-100	025-40A-001-003-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-40A-001-003A-100	025-40A-001-003A-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-40A-017-001-100	025-40A-017-001-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-40A-017-001-200	025-40A-017-001-200-PHO2A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
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025-40A-017-001-200	025-40A-017-001-200-PHO2C.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-46A-001-012-100	025-46A-001-012-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-46A-001-012-200	025-46A-001-012-200-PHO2A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-46A-002-000-100	025-46A-002-000-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
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025-46A-002-000-400	025-46A-002-000-400-PHO4A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-46A-002-000-500	025-46A-002-000-500-PHO5A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-46A-002-000-600	025-46A-002-000-600-PHO6A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-46A-02A-001-100	025-46A-02A-001-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-46A-02A-001-200	025-46A-02A-001-200-PHO2A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
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025-46B-002-000D-100	025-46B-002-000D-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-46B-002-000D-200	025-46B-002-000D-200-PHO2A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-46B-003-001-100	025-46B-003-001-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
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025-46B-003-002-100	025-46B-003-002-100-PHO1C.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-46B-009-000Q-100	025-46B-009-000Q-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-46B-009-000Q-200	025-46B-009-000Q-200-PHO2A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-46B-03A-000F-100	025-46B-03A-000F-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-47B-009-002-100	025-47B-009-002-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-47B-009-002-200	025-47B-009-002-200-PHO2A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
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025-47B-009-007-100	025-47B-009-007-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
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025-47C-008-001B-100	025-47C-008-001B-100-PHO1B.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-47C-008-001B-200	025-47C-008-001B-200-PHO2A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
025-49A-001-039-100	025-49A-001-039-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
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025-49A-001-055-100	025-49A-001-055-100-PHO1A.jpg		Bourne Consulting Engineering		October 2007	DIGITAL IMAGE	1	Structure Location	Structure Condition Photo at Time of Survey
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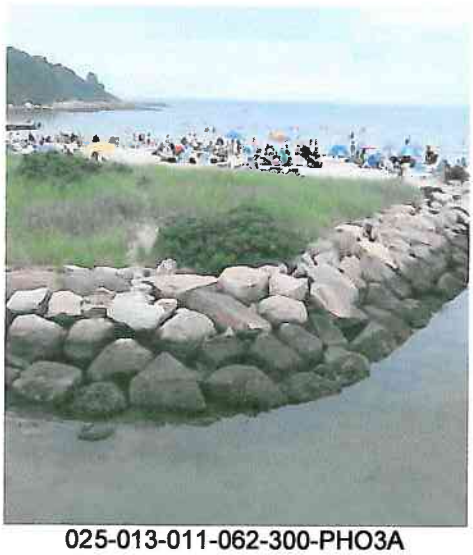
025-013-011-062-100-PHO1A

025-013-011-062-200-PHO2A

025-013-011-062-200-PHO2B



025-013-011-062-300-PHO3A

025-013-016-252A-100-PHO1A

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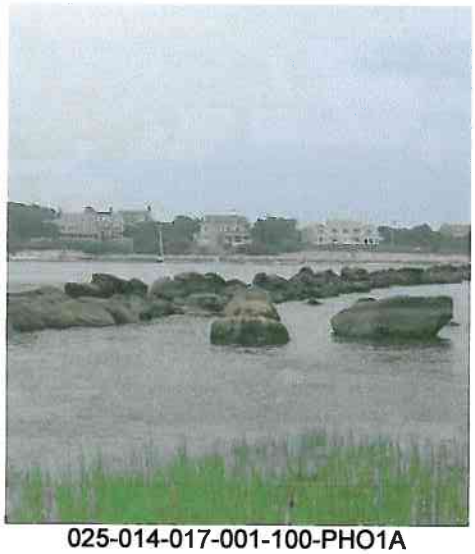
025-013-021-000-200-PHO2A



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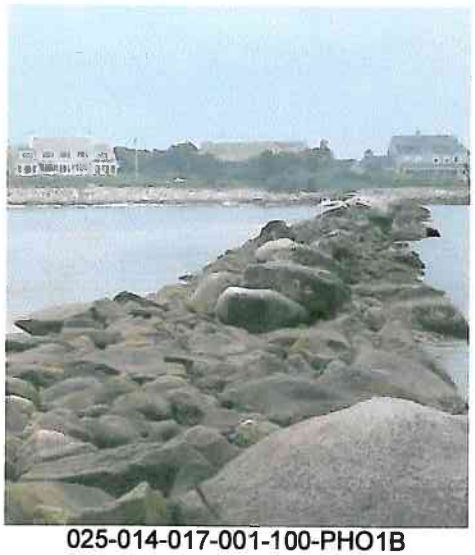

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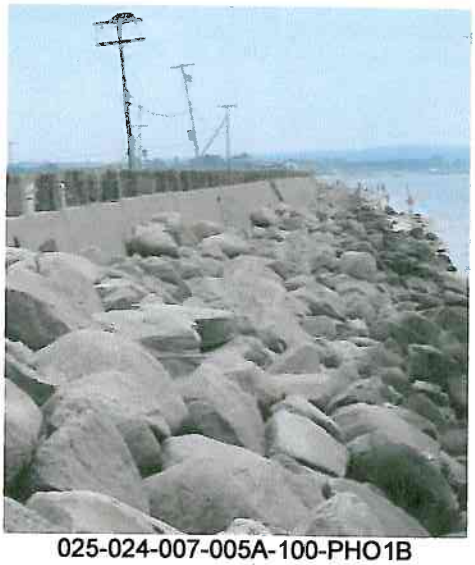
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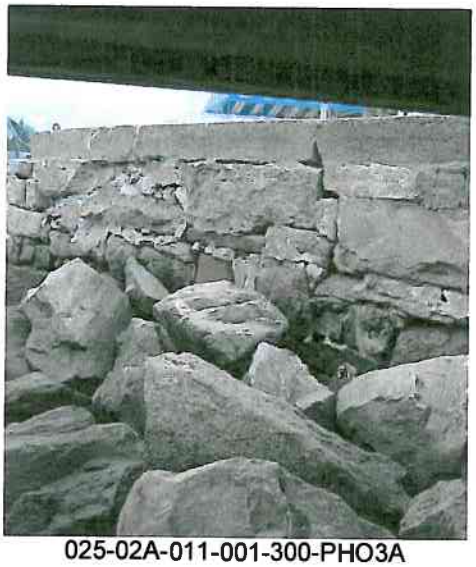
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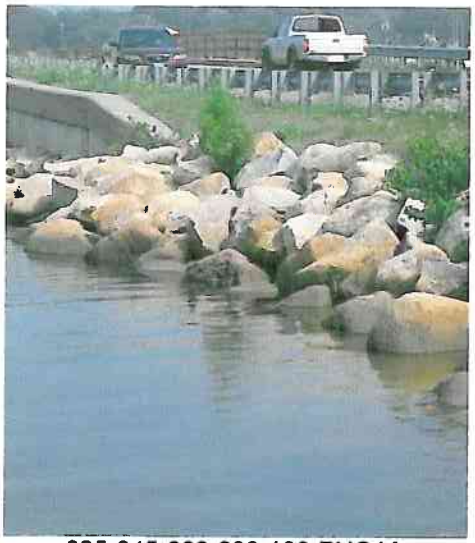
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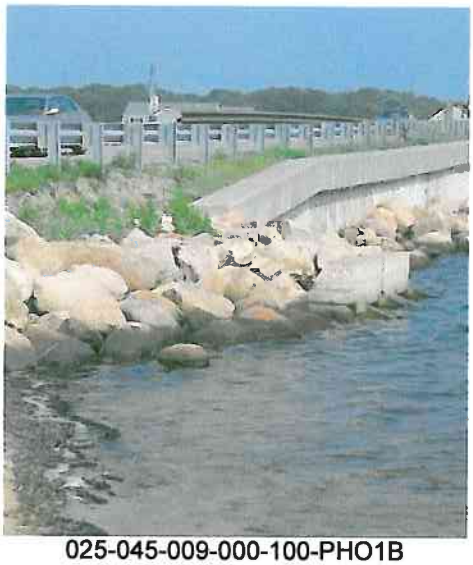
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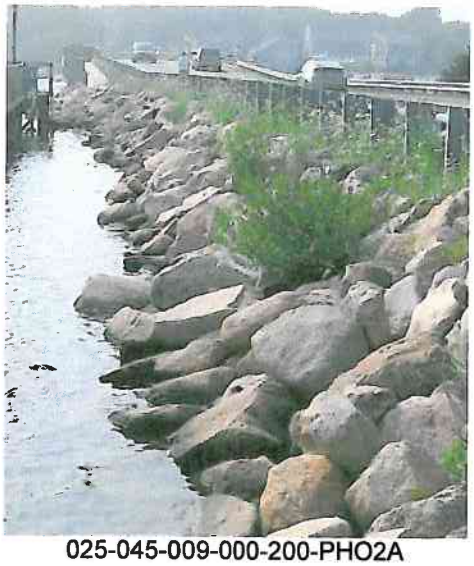
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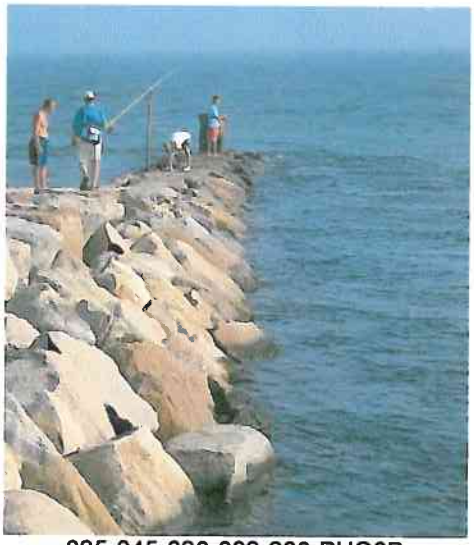
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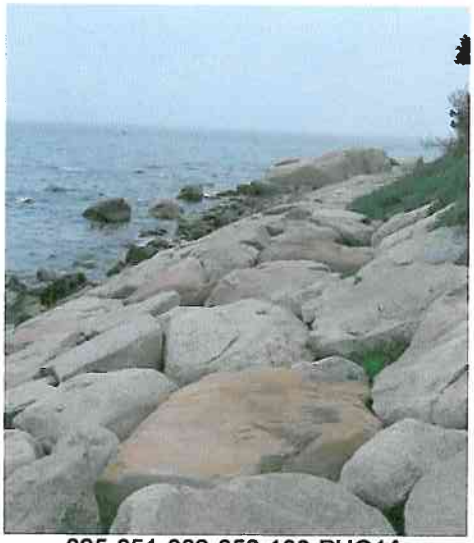
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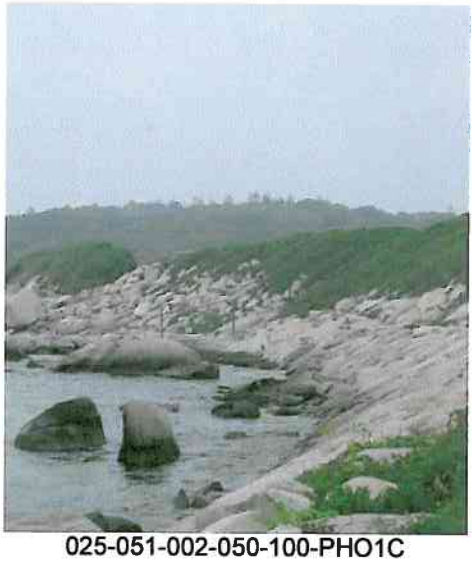
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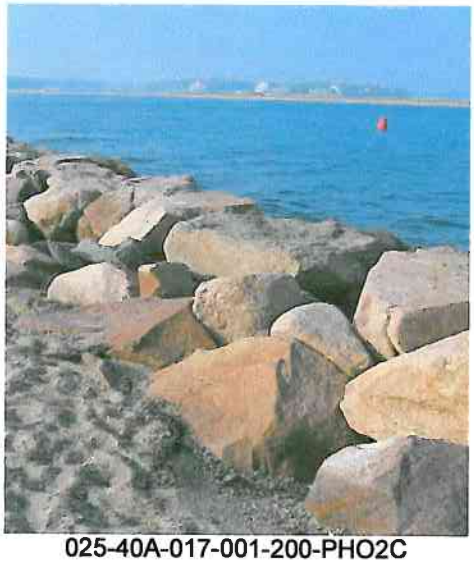
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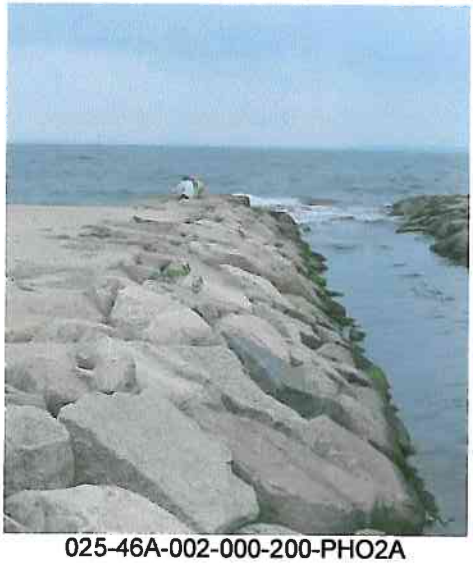
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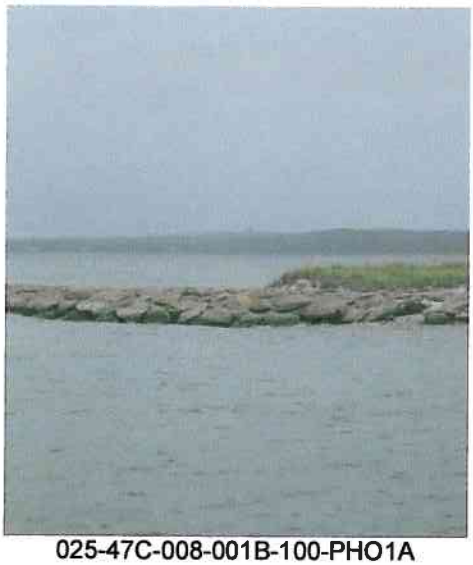
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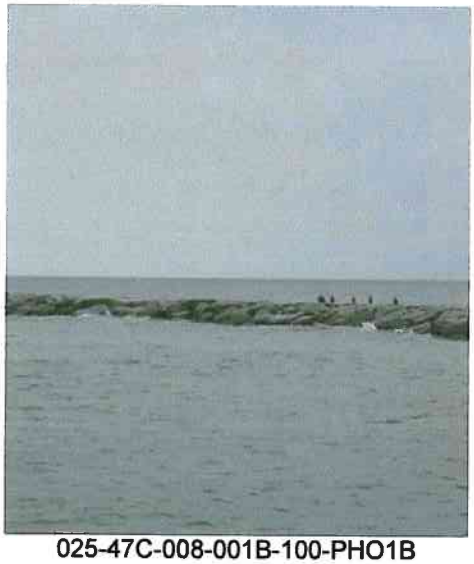
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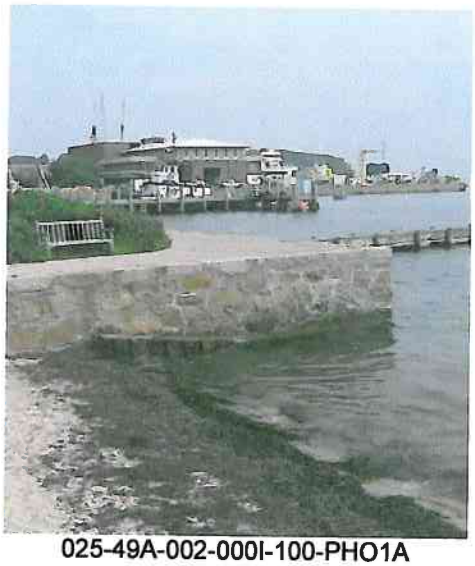

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025-51A-001-019-100-PHO1A

Section II - Falmouth

Part D

Structure Documents

TOWN DOCUMENT LIST

MA DCR - DOCUMENT LIST

MA DEP – Ch 91 DOCUMENT LIST

- Copies of License Documents

USACE – PERMIT DOCUMENT LIST

- Copies of Permit Documents

TOWN: FALMOUTH
SOURCE: Town of Falmouth
LOCATION: TOWN
DATE OF RESEARCH: JULY 2007

No Town Documents for the Town of Falmouth

BCE Structure No	Document No	Contract/ Drawing Number	Entity	Municipality	Date	Title	Sheets	Location	Description

TOWN: FALMOUTH
SOURCE: MA-DCR
LOCATION: MA-DCR BOSTON and HINGHAM, MA
DATE OF RESEARCH: JULY 2007

BCE Structure No	Document No	Contract/ Drawing Number	Entity	Municipality	Date	Title	Sheets	Location	Description
025-013-011-062-200	025-013-011-062-200-DCR2A	2291	MA-DCR	Falmouth	April 1961	Proposed Shore Protection - Stone Groins and Sand Fill - Herring River - Old Silver Beach - Falmouth - Prepared fo the DPW of Massachusetts - Division of Waterways	1	Shore Road	Groins and Sand Fill
025-013-011-062-300	025-013-011-062-300-DCR3A	2291	MA-DCR	Falmouth	April 1961	Proposed Shore Protection - Stone Groins and Sand Fill - Herring River - Old Silver Beach - Falmouth - Prepared fo the DPW of Massachusetts - Division of Waterways	1	Shore Road	Groins and Sand Fill
025-013-021-000-100	025-013-021-000-100-DCR1A	435	MA-DCR	Falmouth	April 1935	Proposed Stone Jetty and Return Wall - Herring River at Old Silver Beach - Falmouth - Prepared fo the DPW of Massachusetts - Division of Waterways	1	Herring River at Old Silver Beach	Stone Jetty and Return Wall
025-013-021-000-200	025-013-021-000-200-DCR2A	435	MA-DCR	Falmouth	April 1935	Proposed Stone Jetty and Return Wall - Herring River at Old Silver Beach - Falmouth - Prepared fo the DPW of Massachusetts - Division of Waterways	1	Herring River at Old Silver Beach	Stone Jetty and Return Wall
025-013-021-000-200	025-013-021-000-200-DCR2B	2291	MA-DCR	Falmouth	April 1961	Proposed Shore Protection - Stone Groins and Sand Fill - Herring River - Old Silver Beach, Falmouth - Prepared fo the DPW of Massachusetts - Division of Waterways	1	Shore Road	Groins and Sand Fill
025-014-017-001-100	025-014-017-001-100-DCR1A	1102	MA-DCR	Falmouth	August 1949	Proposed Stone Breakwater - West Falmouth harbor - Falmouth - Prepared fo the DPW of Massachusetts - Division of Waterways	1	West Falmouth Harbor	Breakwater
025-02A-011-001-100	025-02A-011-001-100-DCR1A	475	MA-DCR	Falmouth	August 1936	Proposed Shore Protection - Megansett Harbor - Falmouth - Prepared fo the DPW of Massachusetts - Division of Waterways	1	County Road	Breakwater
025-02A-011-001-100	025-02A-011-001-100-DCR1B	501	MA-DCR	Falmouth	June 1937	Proposed Stone Jetty - Menauhant Shore Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	1	Shore Road	Stone Jetty
025-02A-011-001-200	025-02A-011-001-200-DCR2A	1230	MA-DCR	Falmouth	May 1952	Proposed Dredging and Jetty Construction - Megansett Harbor - Falmouth, Massachusetts - Prepared for the DPW of Massachusetts - Division of Waterways	1	Megansett Harbor	Jetty
025-02A-011-001-200	025-02A-011-001-200-DCR2B	1889	MA-DCR	Falmouth	April 1958	Proposed Harbor Protection - Jetty Connection and Repairs - Megansett harbor - Falmouh - Prepared for the DPW of Massachusetts - Division of Waterways	1	County Road	Jetty Construction and Repairs
025-041-004-000-100	025-041-004-000-100-DCR1A	404	MA-DCR	Falmouth	August 1935	Proposed Repairs to Stone Jetty - Waquoit Bay - Falmouth and Mashpee - Prepared for the DPW of Massachusetts - Division of Waterways	1	Waquoit Bay	Jetty
025-041-004-000-100	025-041-004-000-100-DCR1B	468	MA-DCR	Falmouth	June 1936	Proposed Stone Jetty - Waquoit Bay - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	1	Waquoit Bay	Jetty
025-041-004-000-100	025-041-004-000-100-DCR1C	617	MA-DCR	Falmouth	October 1939	Proposed Stone Jetty Extension - Waquoit Bay - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	1	Waquoit Bay	Jetty Extension
025-041-004-000-100	025-041-004-000-100-DCR1D	1323	MA-DCR	Falmouth	May 1953	Proposed Reconstruction of Jetty at Waquoit Bay - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	1	Waquoit Bay	Jetty Reconstruction
025-045-008-000-100	025-045-008-000-100-DCR1A	1184	MA-DCR	Falmouth	October 1951	Proposed Stone Jetties - Green Pond - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	1	Green Pond	Jetties
025-045-008-000-100	025-045-008-000-100-DCR1B	2349	MA-DCR	Falmouth	December 1961	Proposed Shore Protection - Stone Groins and Sand Fill - Vicinity of Vineyard Street - Acapesket - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	1	Vineyard Street	Groins and Sand Fill
025-045-008-000-200	025-045-008-000-200-DCR2A	1184	MA-DCR	Falmouth	October 1951	Proposed Stone Jetties - Green Pond - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	1	Green Pond	Jetties
025-047-007-000A-100	025-047-007-000A-100-DCR1A	478	MA-DCR	Falmouth	September 1936	Proposed Steel and Concrete Bulkhead - Shore Street Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	1	Shore Street	Steel and Concrete Bulkhead
025-047-007-026-100	025-047-007-026-100-DCR1A	1464	MA-DCR	Falmouth	January 1955	Proposed Hurricane Repairs - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	4	Great Pond, Wild harbor, Salt Pond	Beach Restoration, Groins and Riprap Construction

TOWN: FALMOUTH
SOURCE: MA-DCR
LOCATION: MA-DCR BOSTON and HINGHAM, MA
DATE OF RESEARCH: JULY 2007

BCE Structure No	Document No	Contract/ Drawing Number	Entity	Municipality	Date	Title	Sheets	Location	Description
025-047-007-026-200	025-047-007-026-200-DCR2A	1464	MA-DCR	Falmouth	January 1955	Proposed Hurricane Repairs - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	4	Great Pond, Wild Harbor, Salt Pond	Beach Restoration, Groins and Riprap Construction
025-04A-005-000-100	025-04A-005-000-100-DCR1A	519	MA-DCR	Falmouth	November 1937	Proposed Timber Bulkhead - Wild Harbor - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	1	West Avenue	Timber Bulkhead
025-04A-005-000-100	025-04A-005-000-100-DCR1B	517	MA-DCR	Falmouth	September 1938	Proposed Timber Bulkhead - Wild Harbor - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	1	West Avenue	Timber Bulkhead
025-04A-005-000-100	025-04A-005-000-100-DCR1C	696	MA-DCR	Falmouth	October 1940	Proposed Timber Bulkhead - Wild Harbor - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	1	West Avenue	Timber Bulkhead
025-04A-005-000-100	025-04A-005-000-100-DCR1D	2662	MA-DCR	Falmouth	April 1969	Proposed Harbor Improvements - Bulkhead Repairs - Wild Harbor - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	1	Wild Harbor	Bulkhead Repairs
025-04A-041-000-100	025-04A-041-000-100-DCR1A	1464	MA-DCR	Falmouth	January 1955	Proposed Hurricane Repairs - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	4	Great Pond, Wild Harbor and Sald Pond	Beach Restoration, Groins and Riprap Construction
025-04A-041-000-200	025-04A-041-000-200-DCR2A	1464	MA-DCR	Falmouth	January 1955	Proposed Hurricane Repairs - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	4	Great Pond, Wild Harbor, Salt Pond	Beach Restoration, Groins and Riprap Construction
025-04A-041-000-200	025-04A-041-000-200-DCR2B	1670	MA-DCR	Falmouth	October 1956	Proposed Shore Protection - Concrete Seawall and Stone Jetty - Wild harbor - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	1	Wild Harbor	Seawall and Jetty
025-04A-042-000-100	025-04A-042-000-100-DCR1A	1670	MA-DCR	Falmouth	October 1956	Proposed Shore Protection - Concrete Seawall and Stone Jetty - Wild Harbor - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	1	Wild Harbor	Seawall and Jetty
025-04A-043-000-100	025-04A-043-000-100-DCR1A	1299	MA-DCR	Falmouth	December 1952	Proposed Jetty Construction - New Silver Beach - Falmouth, Massachusetts - Prepared for the DPW of Massachusetts - Division of Waterways	1	New Silver Beach	Jetty
025-04A-043-000-100	025-04A-043-000-100-DCR1B	1670	MA-DCR	Falmouth	October 1956	Proposed Shore Protection - Concrete Seawall and Stone Jetty - Wild Habor - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	1	Wild Harbor	Seawall and Jetty
025-050-007-020-100	025-050-007-020-100-DCR1A	1020	MA-DCR	Falmouth	December 1947	Proposed Stone Jetties - Falmouth Shore in Vicinity of Salt Point - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	1	Salt Point	Groins
025-051-002-049A-100	025-051-002-049A-100-DCR1A	1997	MA-DCR	Falmouth	December 1958	Proposed Shore Protection - Stone Mound and Riprap Slope - Nobska Point - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	2	Nobska Point	Stone Mound and Riprap Slope
025-051-002-050-100	025-051-002-050-100-DCR1A	1997	MA-DCR	Falmouth	December 1958	Proposed Shore Protection - Stone Mound and Riprap Slope - Nobska Point - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	2	Nobska Point	Stone Mound and Riprap Slope
025-40A-001-003A-100	025-40A-001-003A-100-DCR1A	1078	MA-DCR	Falmouth	December 1948	Proposed Shore Protection - Menauhant Shore - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	1	Menauhant Shore/Central Avenue	Groins
025-40A-017-001-100	025-40A-017-001-100-DCR1A	1078	MA-DCR	Falmouth	December 1948	Proposed Shore Protection - Menauhant Shore - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	1	Menauhant Shore/Central Avnue	Groins
025-46A-001-012-100	025-46A-001-012-100-DCR1A	903	MA-DCR	Falmouth	June 1946	Proposed Shore Protection at Great Pond Outlet - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	1	Great Pond Outlet	Riprap and Groins
025-46A-001-012-100	025-46A-001-012-100-DCR1B	1464	MA-DCR	Falmouth	January 1955	Proposed Hurricane Repairs - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	4	Great Pond, Wild Harbor and Salt Pond	Beach Restoration, Groins and Riprap Construction
025-46A-001-012-200	025-46A-001-012-200-DCR2A	903	MA-DCR	Falmouth	June 1946	Proposed Shore Protection at Great Pond Outlet - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	1	Great Pond Outlet	Riprap and Groins
025-46A-001-012-200	025-46A-001-012-200-DCR2B	1464	MA-DCR	Falmouth	January 1955	Proposed Hurricane Repairs - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	4	Great Pond, Wild Harbor, Salt Pond	Beach Restoration, Groins and Riprap Construction
025-46A-02A-001-200	025-46A-02A-001-200-DCR2A	430	MA-DCR	Falmouth	March 1935	Proposed Excavation and Stone Jetty - Great Pond - Falmouth	1	Great Pond	Stone Jetty

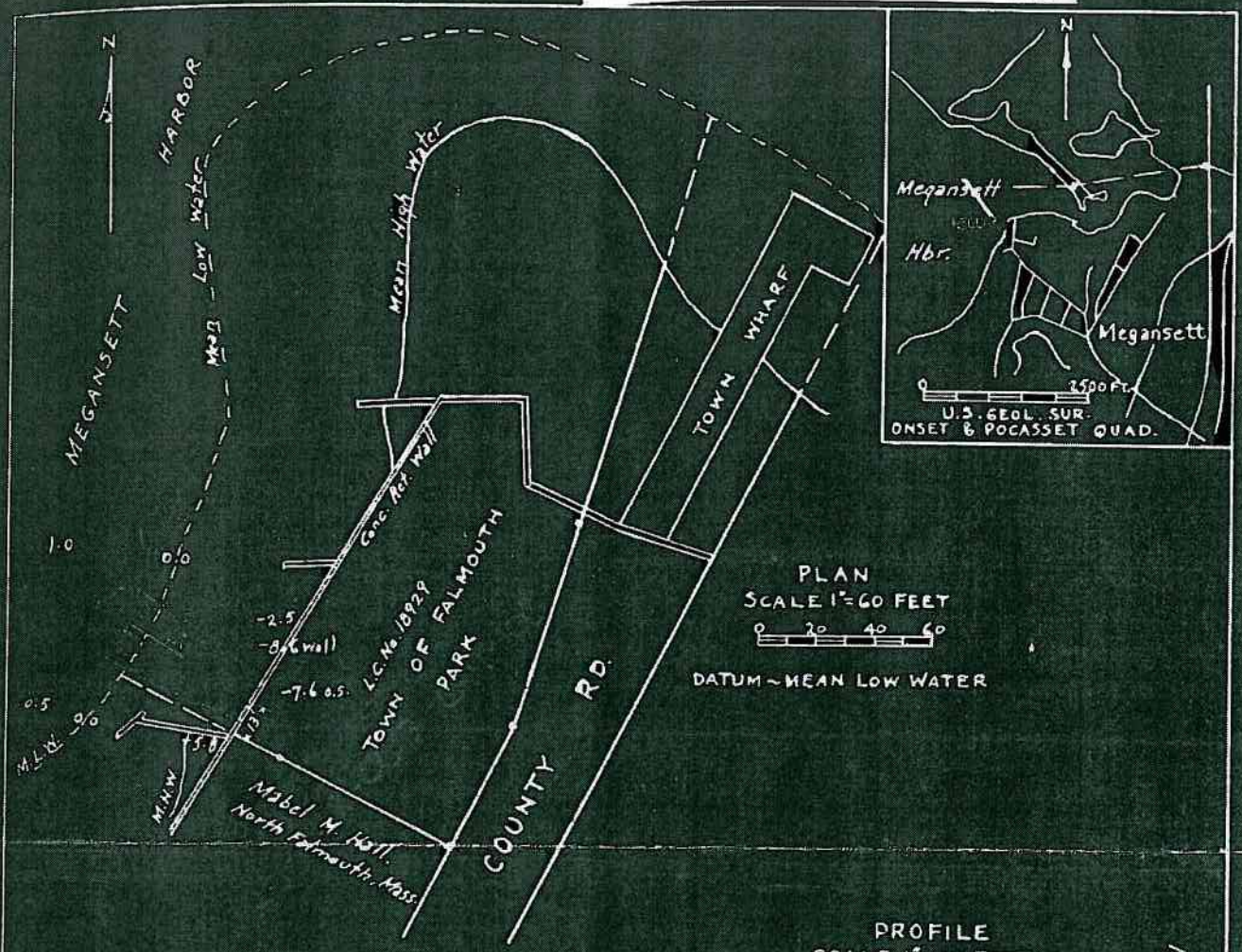
TOWN: FALMOUTH
SOURCE: MA-DCR
LOCATION: MA-DCR BOSTON and HINGHAM, MA
DATE OF RESEARCH: JULY 2007

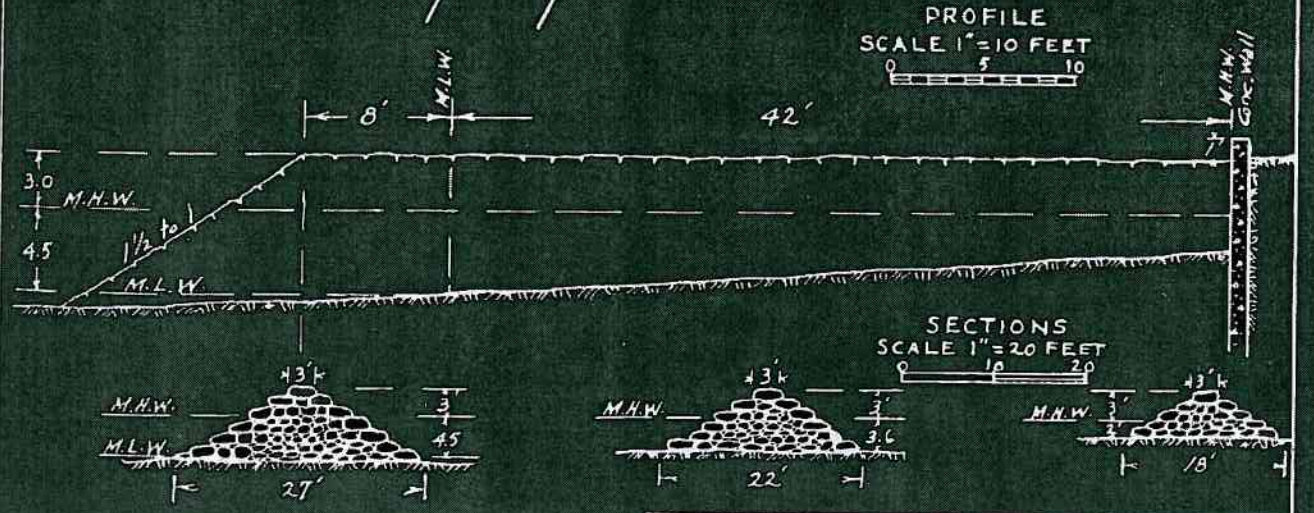
BCE Structure No	Document No	Contract/ Drawing Number	Entity	Municipality	Date	Title	Sheets	Location	Description
025-46A-02A-001-200	025-46A-02A-001-200-DCR2B	903	MA-DCR	Falmouth	June 1946	Proposed Shore Protection at Great Pond Outlet - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	1	Great Pond Outlet	Riprap and Groins
025-46A-02A-001-200	025-46A-02A-001-200-DCR2C	1464	MA-DCR	Falmouth	January 1955	Proposed Hurricane Repairs - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	4	Great Pond, Wild Harbor and Salt Pond	Beach Restoration, Groins and Riprap Construction
025-46A-02A-001-300	025-46A-02A-001-300-DCR3A	430	MA-DCR	Falmouth	March 1935	Proposed Excavation and Stone Jetty - Great Pond Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	1	Great Pond	Stone Jetty
025-46A-02A-001-300	025-46A-02A-001-300-DCR3B	903	MA-DCR	Falmouth	June 1946	Proposed Shore Protection at Great Pond Outlet - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	1	Great Pond	Riprap and Groins
025-46A-02A-001-300	025-46A-02A-001-300-DCR3C	1464	MA-DCR	Falmouth	January 1955	Proposed Hurricane Repairs - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	4	Great Pond, Wild Harbor and Salt Pond	Beach Restoration, Groins and Riprap Construction
025-46B-003-002-100	025-46B-003-002-100-DCR1A	2699	MA-DCR	Falmouth	November 1970	Proposed Shore Protection - Stone Revetment - Falmouth Heights	1	Vernon Avenue to Gertrude Street	Revetment
025-46B-009-000Q-200	025-46B-009-000Q-200-DCR2A	501	MA-DCR	Falmouth	June 1937	Proposed Stone Jetty - Falmouth Heights - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	1	Grand Avenue and Gertrude Street	Jetty
025-46B-009-000Q-200	025-46B-009-000Q-200-DCR2B	621	MA-DCR	Falmouth	October 1939	Proposed Shore Protection - Falmouth Heights - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	1	Central Park Avenue to Worcester Avenue	Groin
025-46B-009-000Q-200	025-46B-009-000Q-200-DCR2C	1481	MA-DCR	Falmouth	May 1955	Proposed Beach Development - Stone Groins and Sand Fill - Maravista Shore - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	2	Maravista Shore	Groins
025-47B-009-002-100	025-47B-009-002-100-DCR1A	1480	MA-DCR	Falmouth	April 1955	Proposed Timber Bulkhead - Falmouth Inner Harbor - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	2	Scranton Avenue	Timber Bulkhead
025-47B-009-002-100	025-47B-009-002-100-DCR1B	1726	MA-DCR	Falmouth	January 1957	Proposed Timber Bulkhead and Finger Piers at Falmouth Inner Harbor - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	2	Falmouth Inner Harbor	Bulkhead
025-47B-009-007-100	025-47B-009-007-100-DCR1A	1826	MA-DCR	Falmouth	November 1957	Proposed Harbor Development - Timber Bulkhead, Piers, Boat Ramp and Excavation - Davis Marine Park - Falmouth Inner Harbor - Prepared for the DPW of Massachusetts - Division of Waterways	3	Robins Road and Scranton Avenue	Timber Bulkhead
025-47C-008-001B-100	025-47C-008-001B-100-DCR1A	443	MA-DCR	Falmouth	August 1935	Proposed Repairs to Stone Jetty - Falmouth Inner Harbor - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	1	Scranton Avenue and Clinton Avenue	Jetty
025-47C-008-001B-100	025-47C-008-001B-100-DCR1B	580	MA-DCR	Falmouth	January 1939	Proposed Riprap East of Falmouth Inner Harbor - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	1	Clinton Avenue and Scranton Avenue	Riprap
025-47C-008-001B-100	025-47C-008-001B-100-DCR1C	1259	MA-DCR	Falmouth	July 1952	Proposed Reconstruction of Westerly Jetty - Falmouth Inner Harbor - Prepared for the DPW of Massachusetts - Division of Waterways	1	Falmouth Inner Harbor	Jetty
025-47C-008-001B-200	025-47C-008-001B-200-DCR2A	443	MA-DCR	Falmouth	August 1935	Proposed Repairs to Stone Jetty - Falmouth Inner Harbor - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	1	Scranton Avenue and Clinton Avenue	Jetty
025-49A-006-039-100	025-49A-006-039-100-DCR1A	1474	MA-DCR	Falmouth	March 1955	Proposed Beach Improvements - Stone Groin and Sand Fill - Woods Hole Beach - Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	1	Gosnold Street	Stone Groin and Fill

TOWN: FALMOUTH
SOURCE: DEP
LOCATION: BOSTON, MA
DATE OF RESEARCH: JULY 2007

BCE Structure No	Document No	Contract/ Drawing Number	Entity	Municipality	Date	Title	Sheets	Location	Description
025-02A-011-001-100	025-02A-011-001-100-LIC1A	2888	DEP	Falmouth	August 2, 1946	Plan To Accompany Petition of Town of Falmouth to Build and Maintain a Stone Jetty	1	Megansett Harbor	Jetty
025-04A-041-000-200	025-02A-011-001-300-LIC3A	5013	DEP	Falmouth	May 11, 1966	Plan Accompanying Petition of Town of Falmouth to build and Maintain Boat Ramp Stone Riprap	1	Megansett Harbor	Riprap
025-045-020-002-500	025-045-020-002-500-LIC5A	1193	DEP	Falmouth	February 5, 1985	Plan Accompanying Petition of MA. D.E.M. DIV. Of Waterways To Relocate Inlet at Bournes Pond	7	Bournes Pond	Riprap
025-045-020-002-600	025-045-020-002-600-LIC6A	1193	DEP	Falmouth	February 5, 1985	Plan Accompanying Petition of the MA D.E.M. Division of Waterways to Relocate Inlet at Bournes Pond, Falmouth, MA	7	Bournes Pond	Inlet with Stone Jetties
025-047-007-026-100	025-047-007-026-100-LIC1A	2682	DEP	Falmouth	August 1944	Plan to Accompany Petition of the Town of Falmouth to Open New Outlet to Salt Pond and Build Culvert and Place Riprap, Vineyard Sound, Falmouth, MA	1	Salt Pond	Outlet with Riprap
025-047-007-026-200	025-047-007-026-200-LIC2A	2682	DEP	Falmouth	August 1944	Plan to Accompany Petition of the Town of Falmouth to Open New Outlet to Salt Pond and Build Culver and Place Riprap, Vineyard Sound, Falmouth, MA	1	Salt Pond	Outlet with Riprap
025-048-002-014-100	025-048-002-014-100-LIC1A	2826	DEP	Falmouth	December 1945	Plan Accompanying Petition of the Town of Falmouth to Build Bulkhead Dredge and Fill Solid In Quissett Harbor, Falmouth	1	Quissett Harbor	Bulkhead
025-048-002-014-100	025-048-002-014-100-LIC1B	2141	DEP	Falmouth	January 1990	Plan Accompanying Petition of Waterways Committee, Town of Falmouth to Reconstruct and Maintain Pile Supported Bulkhead on Parcel 14 In Quissett Harbor, Falmouth, Barnstable County, Mass.	2	Quissett Harbor	Bulkhead
025-050-005-017A-100	025-050-005-017A-100-LIC1A	9808	DEP	Falmouth	October 2003	Plan Accompanying Petition of Town of Falmouth, Mass. DPW For the Dredging of Trunk River and the Reconstruction and Maintaining Stone Groins in Vineyard Sound	2	Oyster Pond Outlet	Riprap
025-050-005-017A-200	025-050-005-017A-200-LIC2A	9808	DEP	Falmouth	October 2003	Plan Accompanying Petition of Town of Falmouth, Mass. DPW For the Dredging of Trunk River and Reconstruction and Maintaining Stone Groins in Vineyard Sound	2	Oyster Pond Outlet	Stone Groins
025-24A-011-005-100	025-24A-011-005-100-LIC1A	3780	DEP	Falmouth	September 1955	Plan to Accompany Petition of the Town of Falmouth to Build a Pile and Timber Pier In West Falmouth Harbor,.Falmouth, MA	1	Nonamessett Street	Stone Wall
025-46A-002-000-100	025-46A-002-000-100-LIC1A	4342	DEP	Falmouth	January 1993	Plan to Accompany Petition of the Town of Falmouth to Repair and Construct Jetties Riprap and Culvert at Little Pond Outlet, Falmouth, Barnsatable County, MA	6	Little Pond	Riprap
025-46A-002-000-200	025-46A-002-000-200-LIC2A	4342	DEP	Falmouth	January 1993	Plan to Accompany Petition of the Town of Falmouth to Repair and Construct Jetties Riprap and Culvert at Little Pond Outlet, Falmouth, Barnsatable County, MA	6	Little Pond Outlet	Riprap
025-46A-002-000-300	025-46A-002-000-300-LIC3A	4342	DEP	Falmouth	January 1993	Plan to Accompany Petition of the Town of Falmouth to Repair and Construct Jetties Riprap and Culvert at Little Pond Outlet, Falmouth, Barnsatable County, MA	6	Little Pond Outlet	Riprap
025-46A-002-000-400	025-46A-002-000-400-LIC4A	4342	DEP	Falmouth	January 1993	Plan to Accompany Petition of the Town of Falmouth to Repair and Construct Jetties Riprap and Culvert at Little Pond Outlet, Falmouth, Barnsatable County, MA	6	Little Pond Outlet	Riprap
025-46B-002-000D-100	025-46B-002-000D-100-LIC1A	1884	DEP	Falmouth	February 3, 1989	Plan Accompanying Petition of Waterways Committee, Town of Falmouthto Reconstruct and Maintain Pile Supported Bulkhead on Parcel D In Falmouth Inner Harbor, Falmouth, Barnstable County, MA	2	Clinton Avenue	Bulkhead
025-47B-009-002-100	025-47B-009-002-100-LIC1A	1885	DEP	Falmouth	February 3, 1989	Plan Accompanying Petition of Waterways Committee, Town of Falmouth to Reconstruct and Maintain Pile Supported Bulkhead On Lot and Parcel 1 in Falmouth Inner Harbor	2	Falmouth Inner Harbor	Bulkhead
025-47B-009-002-100	025-47B-009-002-100-LIC1B	5563	DEP	Falmouth	April 1996	Plan Accompanying the Petition of the Town of Falmouth to Construct a Boat Ramp and Maintain Existing Bulkhead at Falmouth, MA	5	Scranton Avenue	Existing Bulkhead
025-47B-009-002-200	025-47B-009-002-200-LIC2A	89	DEP	Falmouth	March 24, 1976	Plan Accompanying Petition of Town of Falmouth to Dredge and Construct Bulkhead and Ramp	2	Falmouth Inner Harbor	Bulkhead
025-47B-009-002-200	025-47B-009-002-200-LIC2B	6063	DEP	Falmouth	6063	Plan To Accompany Petition of Town of Falmouth To Build Concrete Bulkhead, Maintain Existing Pier, Float, Mooring Piles, Dredge And Fill In Falmouth Inner Harbor, Falmouth, MA	1	Falmouth Inner Harbor	Concrete Bulkhead
025-47B-009-002-200	025-47B-009-002-200-LIC2C	5563	DEP	Falmouth	April 1996	Plan Accompanying the Petition of the Town of Falmouth to Construct a Boat Ramp and Maintain Existing Bulkhead at Falmouth, MA	5	Scranton Avenue	Existing Bulkhead
025-47B-009-007-100	025-47B-009-007-100-LIC1A	1886	DEP	Falmouth	February 3, 1989	Plan Accompanying Petition of Waterways Committee, Town of Falmouth to Reconstruct and Maintain Pile Supported Bulkhead and Replace piles on Lots 1C and 4 In Falmouth Inner Harbor, Falmouth, Barnstable County, Mass	1	Falmouth Inner Harbor	Bulkhead
025-47B-009-007-100	025-47B-009-007-100-LIC1B	2360	DEP	Falmouth	January 1980	Plan Accompanying Petition of the Waterways Committee, Town of Falmouth to Construct and Maintain Pile Supported Bulkhead and Abandon Existing Boat Ramp on Lot 1C In Falmouth Inner Harbor, Falmouth, Barnstable, MA	2	Falmouth Inner Harbor	Timber Bulkhead

025-02A-011-001-100





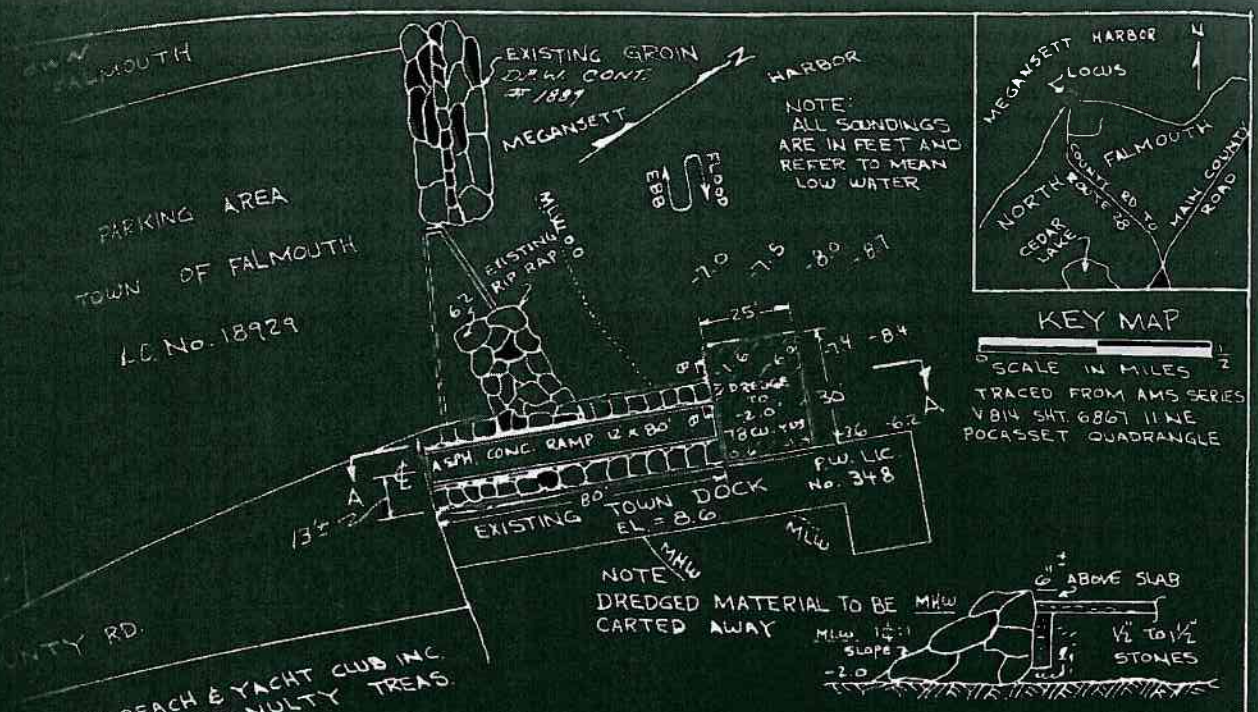
PLAN TO ACCOMPANY PETITION OF
TOWN OF FALMOUTH
TO BUILD AND MAINTAIN A
STONE JETTY
MEGANSETT HARBOR, NORTH FALMOUTH
1946 C.A. White, C.E.

NO. 2888
APPROVED BY DEPARTMENT OF PUBLIC WORKS
AUG. 2, 1946

Jos. F. Collins — COMMISSIONER OF PUBLIC WORKS

ASSOCIATE COMMISSIONERS

DIRECTOR-DIVISION OF WATERWAYS



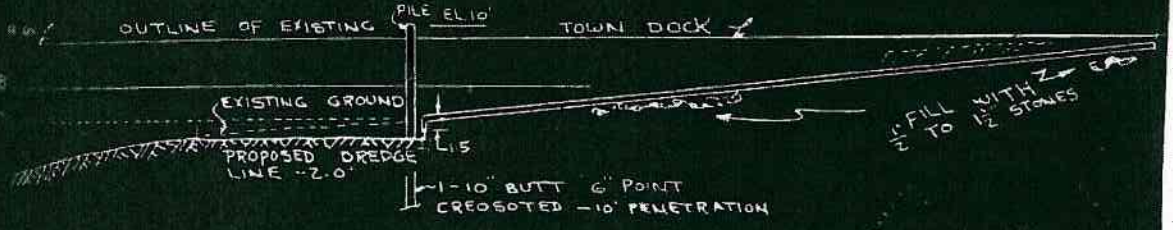
ANSETT BEACH & YACHT CLUB INC.
MRS FRANCIS McNULTY TREAS.
15 COREY ST.
WEST ROXBURY, MASS.

LOCATION PLAN

SCALE IN FEET 0 50

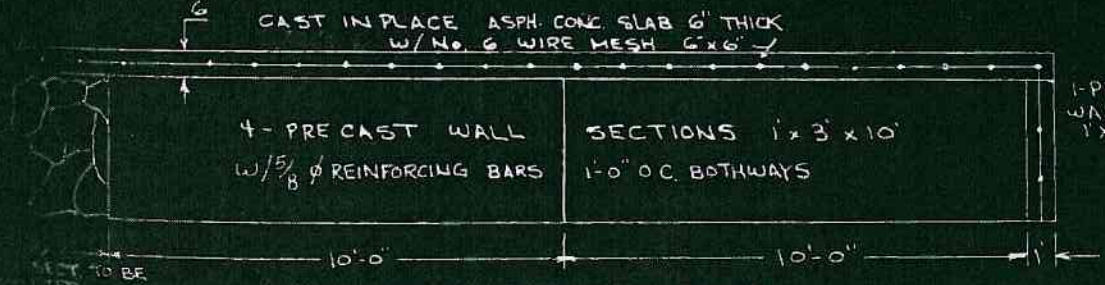
SECTION B-B

SCALE IN FEET 0 10



SECTION A-A

SCALE IN FEET 0 20



LONGITUDINAL SECTION OF RAMP

SECTION "C-C"

SCALE IN FEET 0 4

AN ACCOMPANYING PETITION OF

TOWN OF FALMOUTH

TO BUILD AND MAINTAIN BOAT RAMP, STONE RAP, DREDGE & PLACE A MOORING PILE IN

MEGANSETT HARBOR

NORTH FALMOUTH, MASS.

SCALE AS NOTED MAY 20, 1964

CHARLES N. SAVERY INC.
REGISTERED
ENGINEERS SURVEYORS
COTUIT CAPE COD FALMOUTH

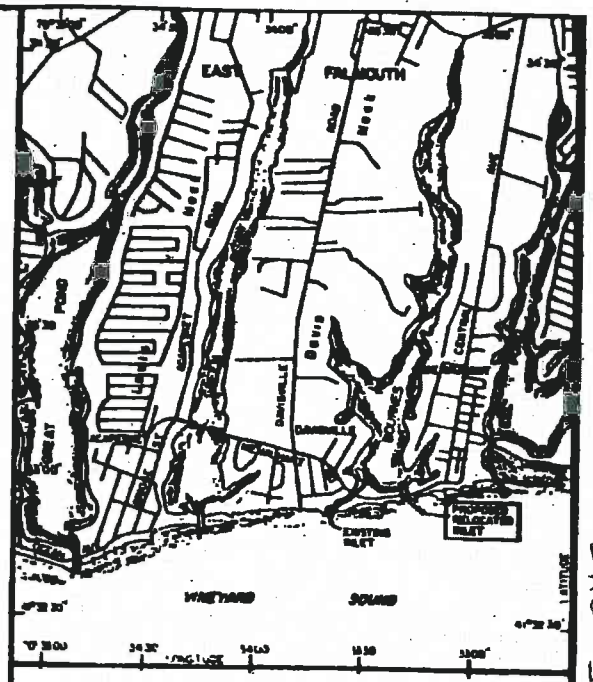
LICENSE PLAN NO. 5013
APPROVED BY DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS
MAY 11, 1966
COMMISSIONER OF PUBLIC WORKS
Anthony C. Powell
Robert J. Forte
Edward J. Dale
ASSOCIATE COMMISSIONERS

025-02A-011-001-300

DEPARTMENT OF PUBLIC WORKS

NOTES:

1. Elevations are in feet and tenths and refer to the plane of Mean Low Water.
2. Dredged material shall be disposed of at the Upland Disposal Site shown on Sheet 6.
3. Estimated Quantity of Dredged Material = 9500 Cubic Yards.
4. Dredging to be accomplished by hydraulic methods.



025-045-020-002-500
025-045-020-002-600

ISRAEL'S COVE

BOURNES POND

EAST FALMOUTH

ADJACENT PROPERTY OWNERS:

1. DORIS G. SHANKLIN
2. BEATRICE C. KETCHAM
3. CONSTANCE S. SPANCEL
4. JASON P. NASH

LEGEND

WETLAND

PROP. POND CHANNEL DREDGE AREA 8,250 ± C.Y.

PROP. SMALL BOAT CHANNEL (10' x 175')

DAVISVILLE

EBB FLOW

ISLAND

FILL IN INLET FOR RELOCATED ROADWAY (FILL BELOW M.H.W. = 500 C.Y.) SEE BRIDGE HALF PROFILE FOR TYP. SLOPE PROTECTION

KIST. INLET TO E ABANDONED

BOURNES POND RELOCATED RD.

MATCH LINE

MENAUHANT

EEL POND

BEACH ROAD

MENAUHANT

SEE DETAIL SHEET 2

DREDGE SPOIL DEWATERING BASIN - SHEET 6

VINEYARD SOUND

SCALE IN FEET 0 200 600 1000

REVISED JAN. 1984

PLAN ACCOMPANYING PETITION OF MA D.E.M. DIV. OF WATERWAYS TO RELOCATE INLET AT BOURNES POND

FALMOUTH, MA. DATE: JULY 1983

COMMONWEALTH OF MASSACHUSETTS
ROBERT C. VERKADE
No. 29781
Civil

84w-122

7/20/84 Robert C. Verkade

TIBBETTS ENGINEERING CORP. NEW BEDFORD, MA.

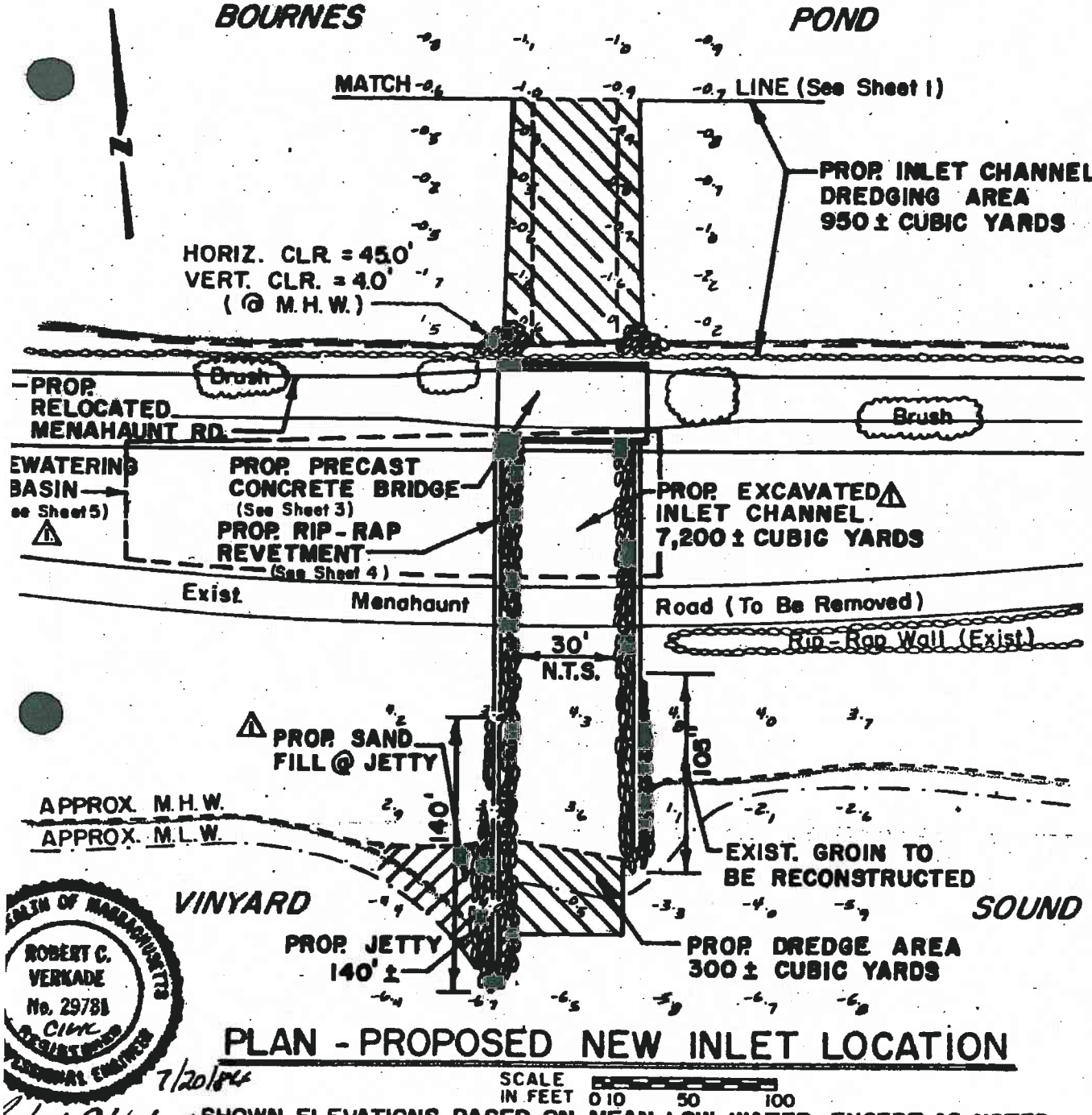
LICENSE PLAN NO. 1193

Approved by Department of Environmental Quality Engineering of Massachusetts

COMMISSIONER

CHIEF ENGINEER

DIVISION DIRECTOR



PLAN - PROPOSED NEW INLET LOCATION

SCALE IN FEET 0 10 50 100

SHOWN ELEVATIONS BASED ON MEAN LOW WATER, EXCEPT AS NOTED

⚠ MATERIALS BELOW M.H.W.

CORE STONE -	500 C.Y. ±
BEDDING STONE -	200 C.Y. ±
ARMOR STONE -	1,500 C.Y. ±
SAND FILL -	300 C.Y. ±

ROBERT C. VERKADE No. 29781 CIVIL REGISTERED ENGINEER COMMONWEALTH OF MASSACHUSETTS

7/20/84

Robert C. Verkade

LICENSE PLAN NO. 1193

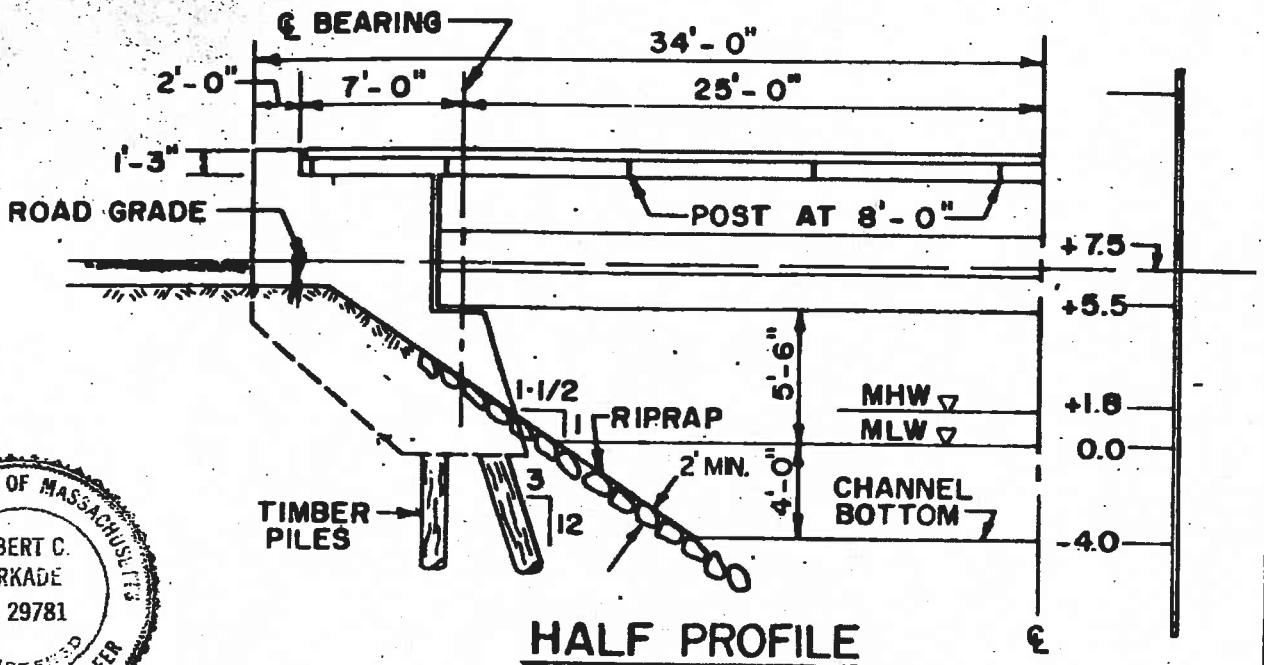
Approved by Department of Environmental Quality Engineering

FEBRUARY 5, 1985

PLAN ACCOMPANYING PETITION OF
MA. D.E.M. DIV. OF WATERWAYS
DATE: JULY 1980

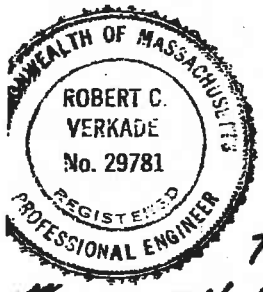
84W-122

025-045-020-002-500
025-045-020-002-600



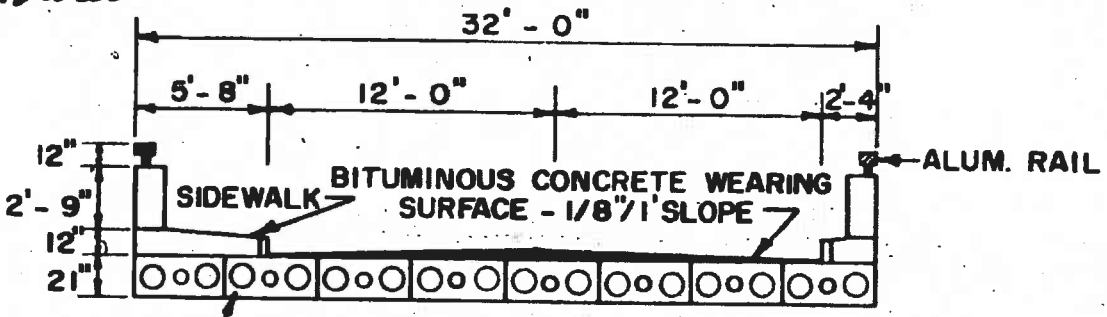
HALF PROFILE

SCALE IN FEET 0 1 2 3 4 5 10



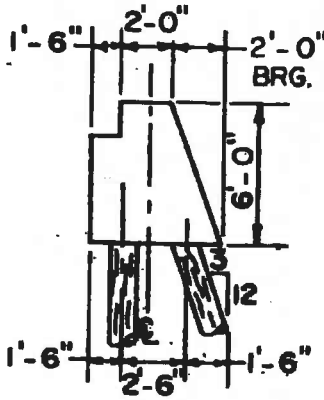
7/20/84

Robert C. Verkade



TYPICAL DECK CROSS-SECTION

SCALE IN FEET 0 1 2 3 4 5 10



LICENSE PLAN NO. 1193

Approved by Department of Environmental Quality Engineering

FEBRUARY 5 1985

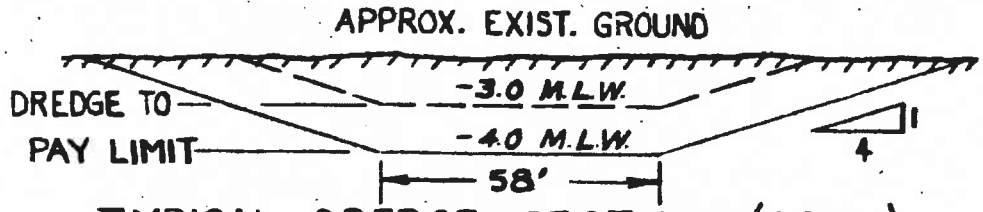
SECTION THROUGH ABUTMENT

SCALE IN FEET 0 1 2 3 4 5 10

PLAN ACCOMPANYING PETITION OF
MA. D.E.M. DIV. OF WATERWAYS
DATE : JULY 1980

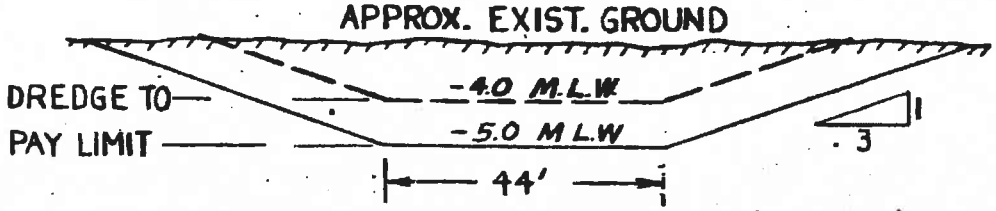
84w-122

025-045-020-002-560
025-045-020-002-600



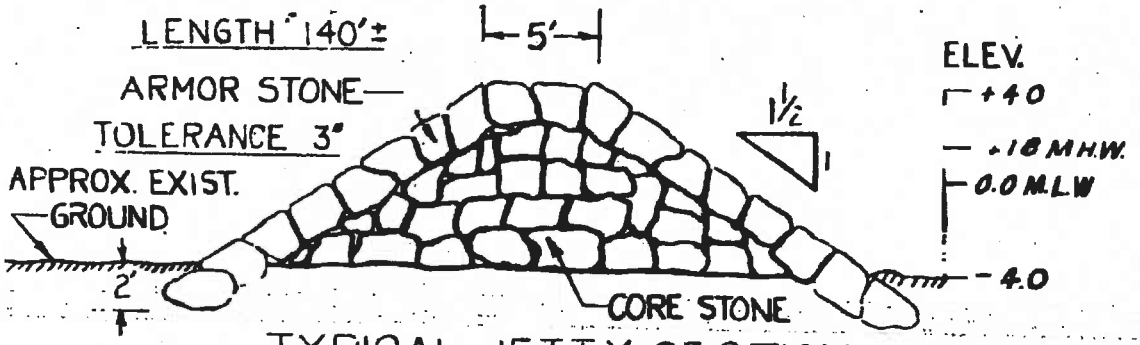
TYPICAL DREDGE SECTION (POND)

NOT TO SCALE



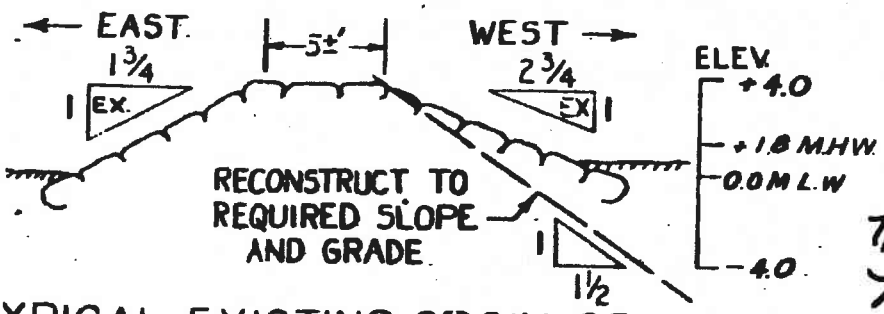
TYPICAL DREDGE SECTION (INLET)

NOT TO SCALE



TYPICAL JETTY SECTION

SCALE: IN FEET 0 1 2 4 6 8



TYPICAL EXISTING GROIN SECTION

SCALE: IN FEET 0 1 2 4 6 8

COMMONWEALTH OF MASSACHUSETTS
ROBERT C. VERKADE
No. 29781
REGISTERED PROFESSIONAL ENGINEER

7/20/84
Robert C. Verkade

LICENSE PLAN NO. 1193

Approved by Department of Environmental Quality Engineering

FEBRUARY 5, 1985

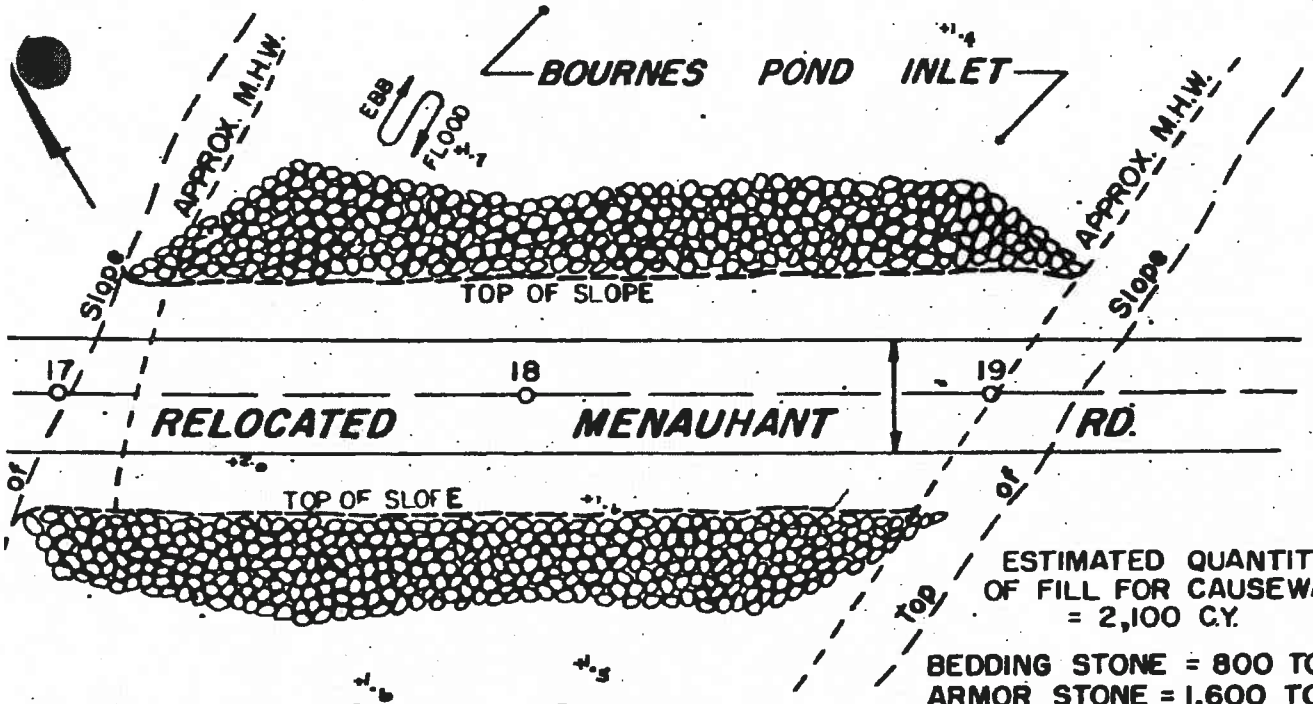
PLAN ACCOMPANYING PETITION OF 84W-122
MA. D.E.M. DIV. OF WATERWAYS
DATE: JULY 1980

025-045-020-002-500
025-045-020-002-600

LICENSE PLAN NO. 1193

Approved by Department of Environmental Quality Engineering
FEBRUARY 5, 1985

025-045-020-002-500
025-045-026-002-600

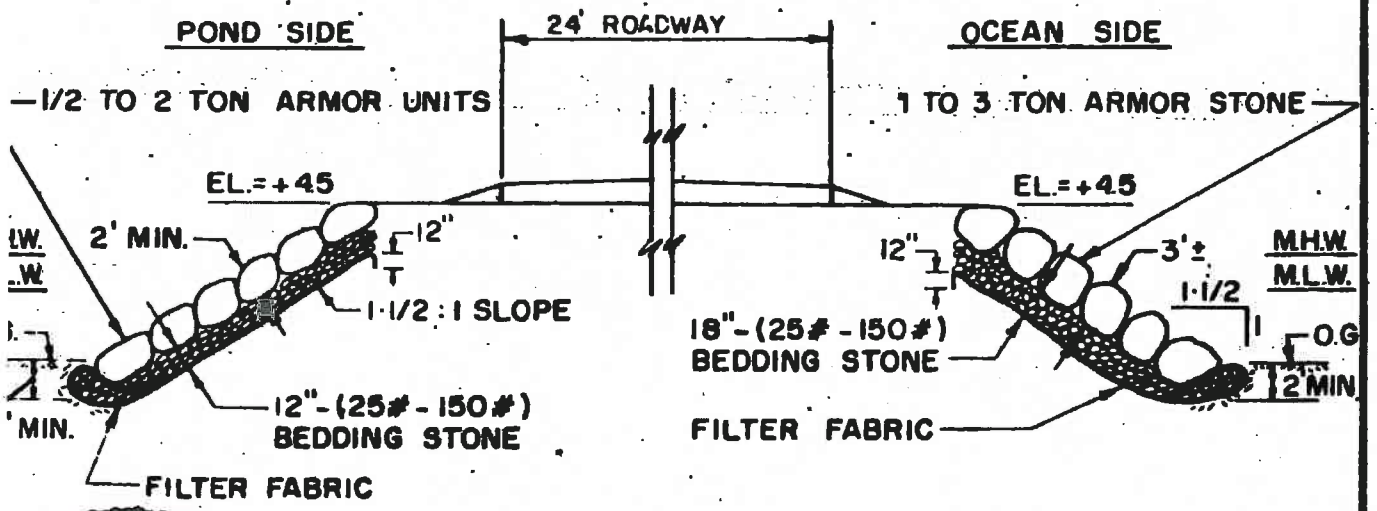


ESTIMATED QUANTITY OF FILL FOR CAUSEWAY = 2,100 C.Y.

BEDDING STONE = 800 TON
ARMOR STONE = 1,600 TON

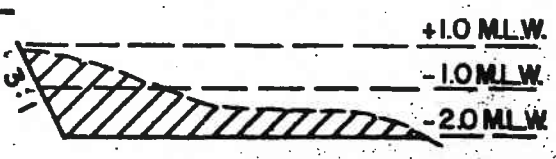
⚠ PLAN @ CAUSEWAY

40 20 0 40
SCALE: 1" = 40'



⚠ TYPICAL SECTION @ CAUSEWAY

0 1 2 3 4 5 10'
SCALE: 1" = 10'



CROSS SECTION SMALL BOAT CHANNEL

N.T.S.

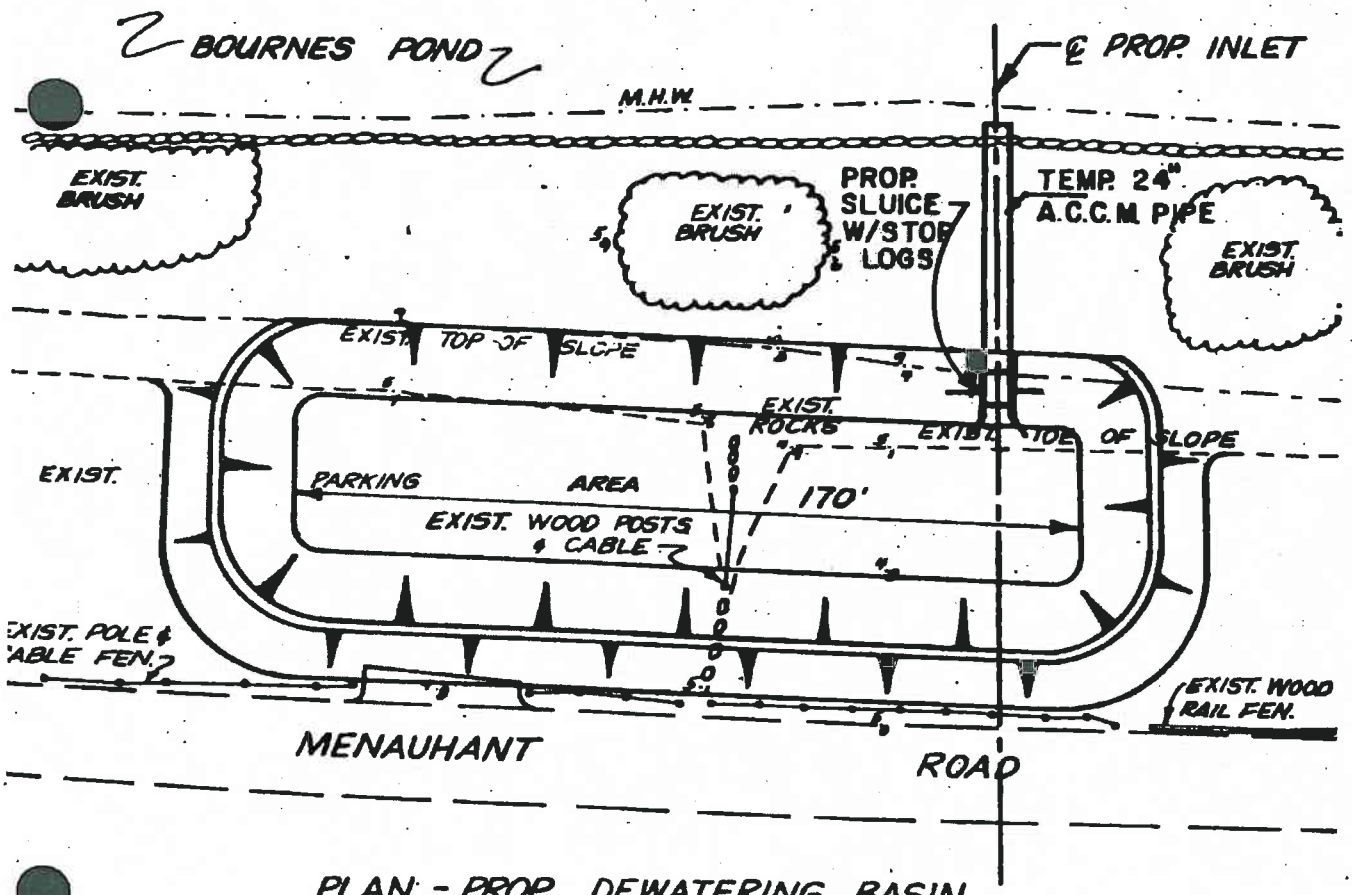
(TOTAL DREDGE QTY. = 65 C.Y.)

COMMONWEALTH OF MASSACHUSETTS
ROBERT C. VERKADE
No. 29781
REGISTERED

7/20/84
Robert C. Verkade

PLAN ACCOMPANYING PETITION OF
MA. D.E.M. DIV. OF WATERWAYS
DATE: JULY 1980

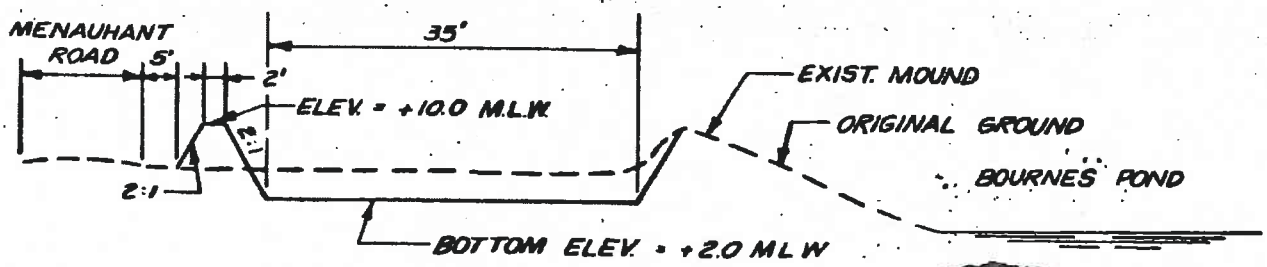
84w-122



PLAN - PROP. DEWATERING BASIN

SCALE 1" = 40'

40 20 0 40 FT.



TYPICAL SECTION

N.T.S.

COMMONWEALTH OF MASSACHUSETTS
ROBERT C. VERKADE
No. 29781
REGISTERED PROFESSIONAL ENGINEER

7-20-84
Robert C Verkade

CAPACITY OF DEWATERING BASIN

DREDGE SPOIL = 800± C.Y. @ 3' DEPTH (+2.0 TO +5.0)
WATER = 230,000 GAL. @ 3' DEPTH (+5.0 TO +8.0 APPROX.)

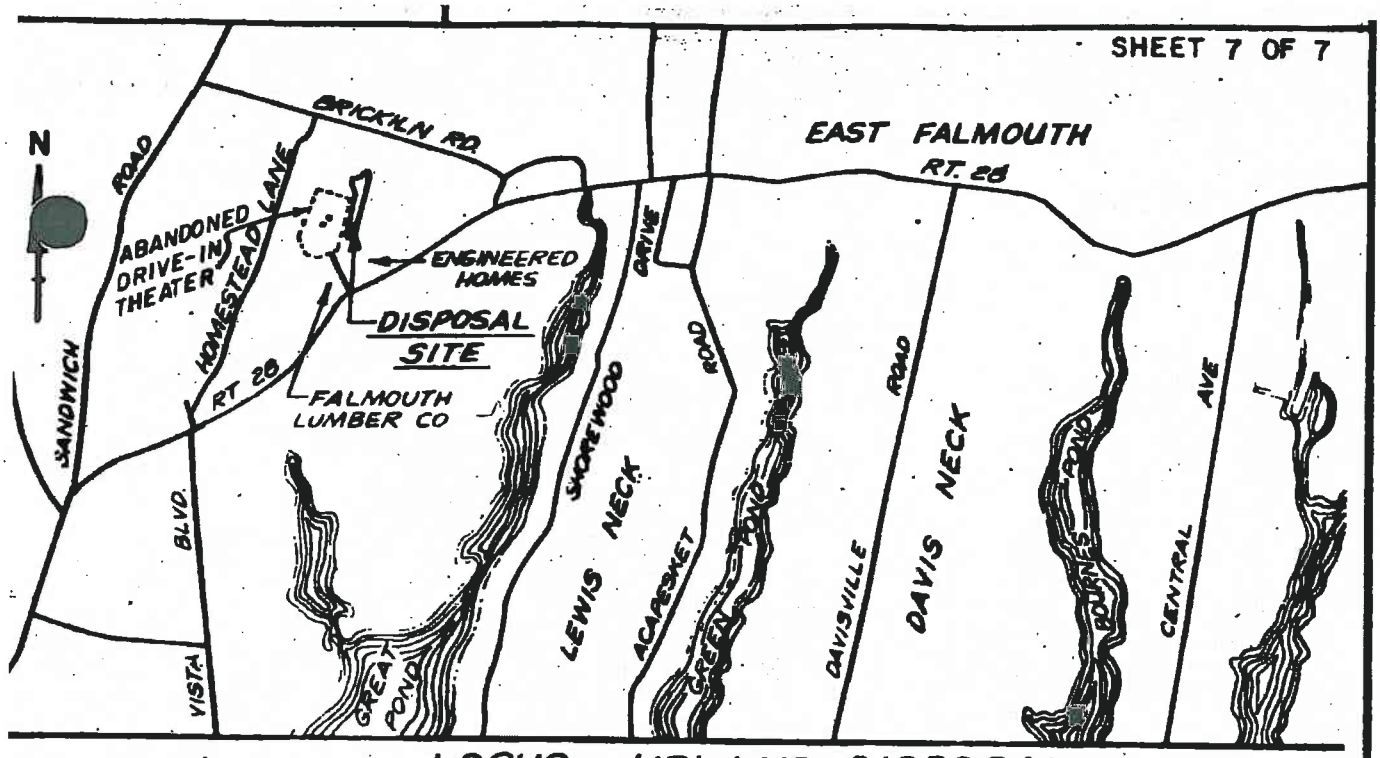
LICENSE PLAN NO. 1193
Approved by Department of Environmental Quality Engineering
FEBRUARY 5, 1985
84W-122

PLAN ACCOMPANY PETITION OF
MA. D.E.M. DIV. OF WATERWAYS
DATE: JULY 1980

⚠

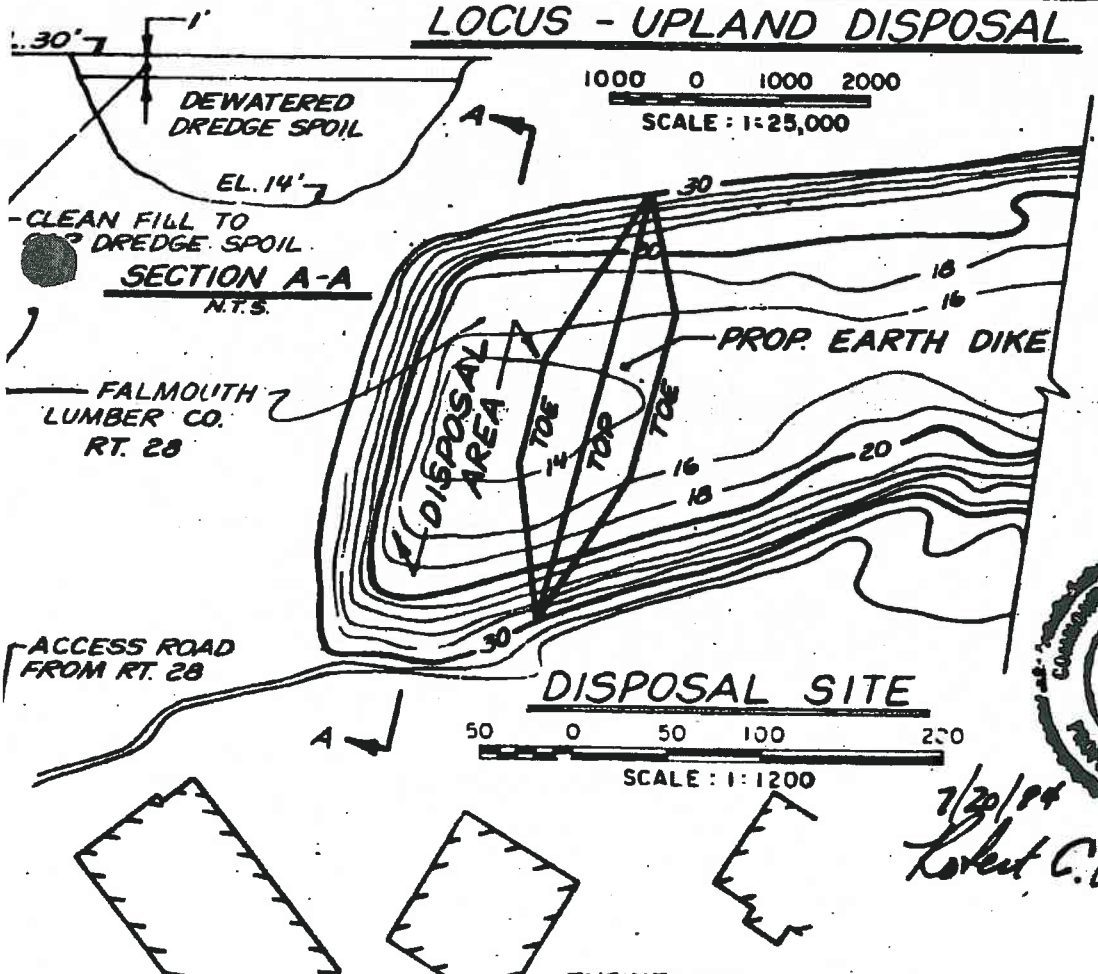
025-045-020-602-500
025-045-020-602-600

025-045-020-002-500
025-045-020-002-600



LOCUS - UPLAND DISPOSAL

1000 0 1000 2000
SCALE : 1:25,000



DISPOSAL SITE

50 0 50 100 200
SCALE : 1:1200

ENGINEERED HOMES
744 MAIN ST.
RT. 28

7/30/84
Robert C. Verrade

LICENSE PLAN NO. 1193

Approved by Department of Environmental Quality Engineering
FEBRUARY 5, 1985

PLAN ACCOMPANYING PETITION OF
MA. D.E.M. DIV. OF WATERWAYS

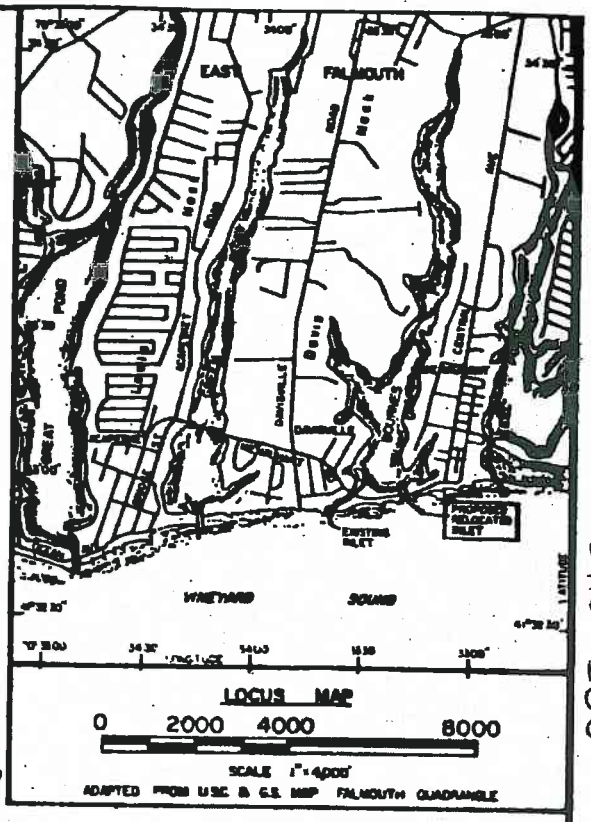
84W-122

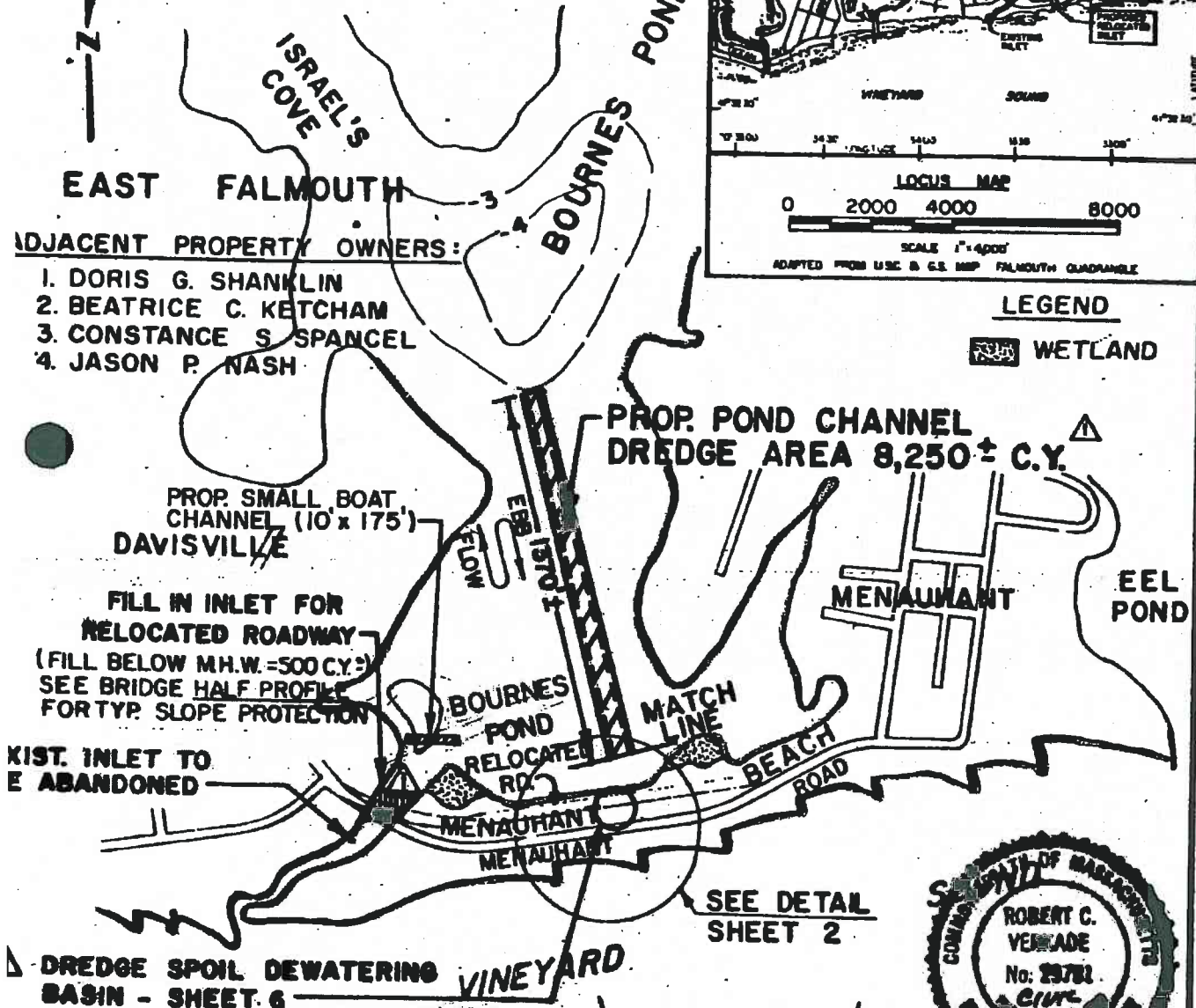
⚠

025-045-020-002-500
025-045-020-002-600

NOTES:

1. Elevations are in feet and tenths and refer to the plane of Mean Low Water.
2. Dredged material shall be disposed of at the Upland Disposal Site shown on Sheet 6.
3. Estimated Quantity of Dredged Material = 9500 Cubic Yards.
4. Dredging to be accomplished by hydralic methods.





SCALE IN FEET 0 200 600 1000

REVISED JAN. 1984

PLAN ACCOMPANYING PETITION OF MA D.E.M. DIV. OF WATERWAYS TO RELOCATE INLET AT BOURNES POND
FALMOUTH, MA. DATE: JULY 1983

COMMONWEALTH OF MASSACHUSETTS
ROBERT C. VERRADE
No. 29781
CIVIL

84w-122

TIBBETTS ENGINEERING CORP. NEW BEDFORD, MA.

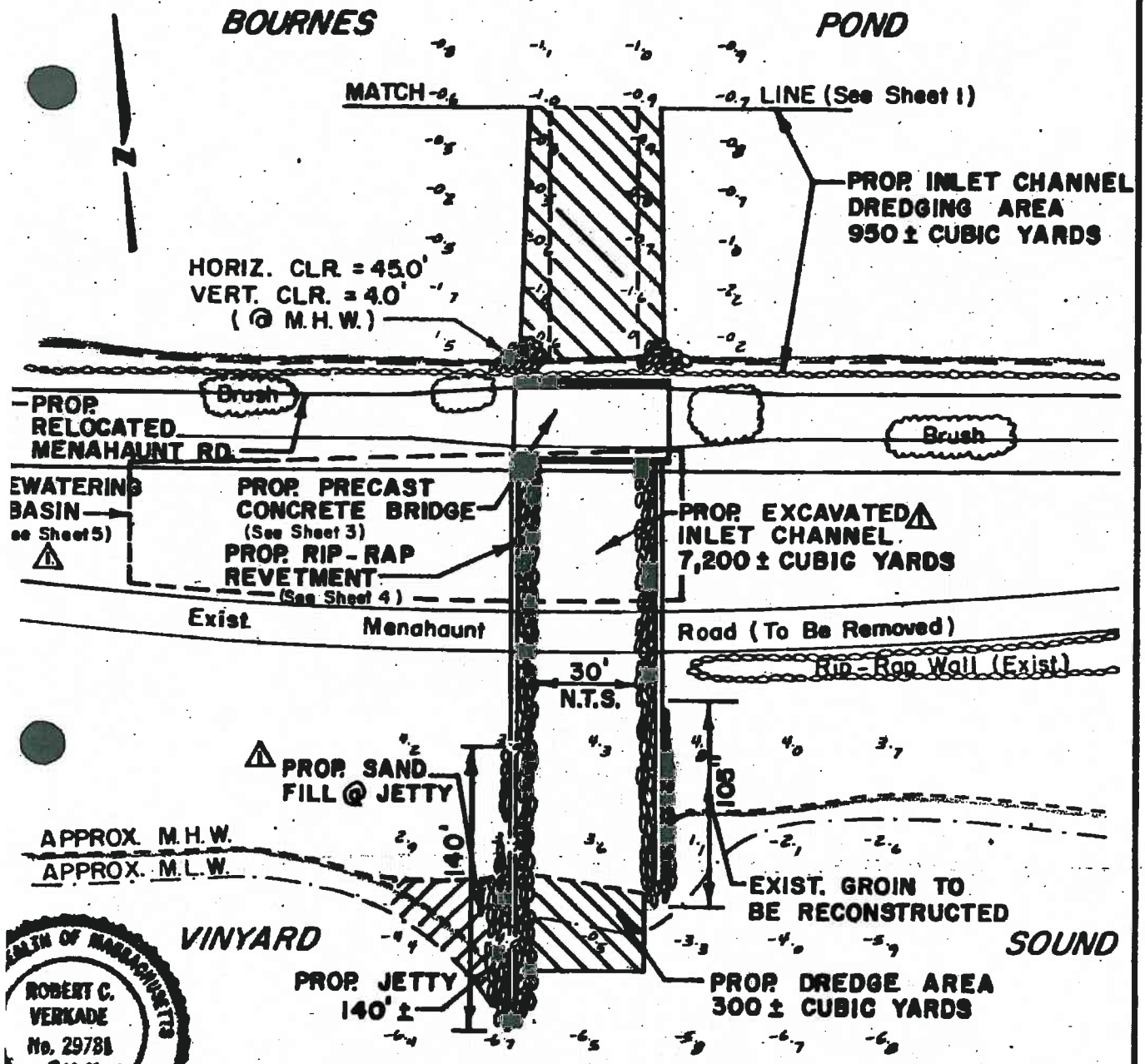
LICENSE PLAN NO. 1193

Approved by Department of Environmental Quality Engineering of Massachusetts

COMMISSIONER

CHIEF ENGINEER

DIVISION DIRECTOR



PLAN - PROPOSED NEW INLET LOCATION

SCALE IN FEET 0 10 50 100

SHOWN ELEVATIONS BASED ON MEAN LOW WATER, EXCEPT AS NOTED

COMMONWEALTH OF MASSACHUSETTS
ROBERT C. VERKADE
No. 29781
CIVIL
REGISTERED PROFESSIONAL ENGINEER

7/20/84

Robert C. Verkade

⚠ MATERIALS BELOW M.H.W.

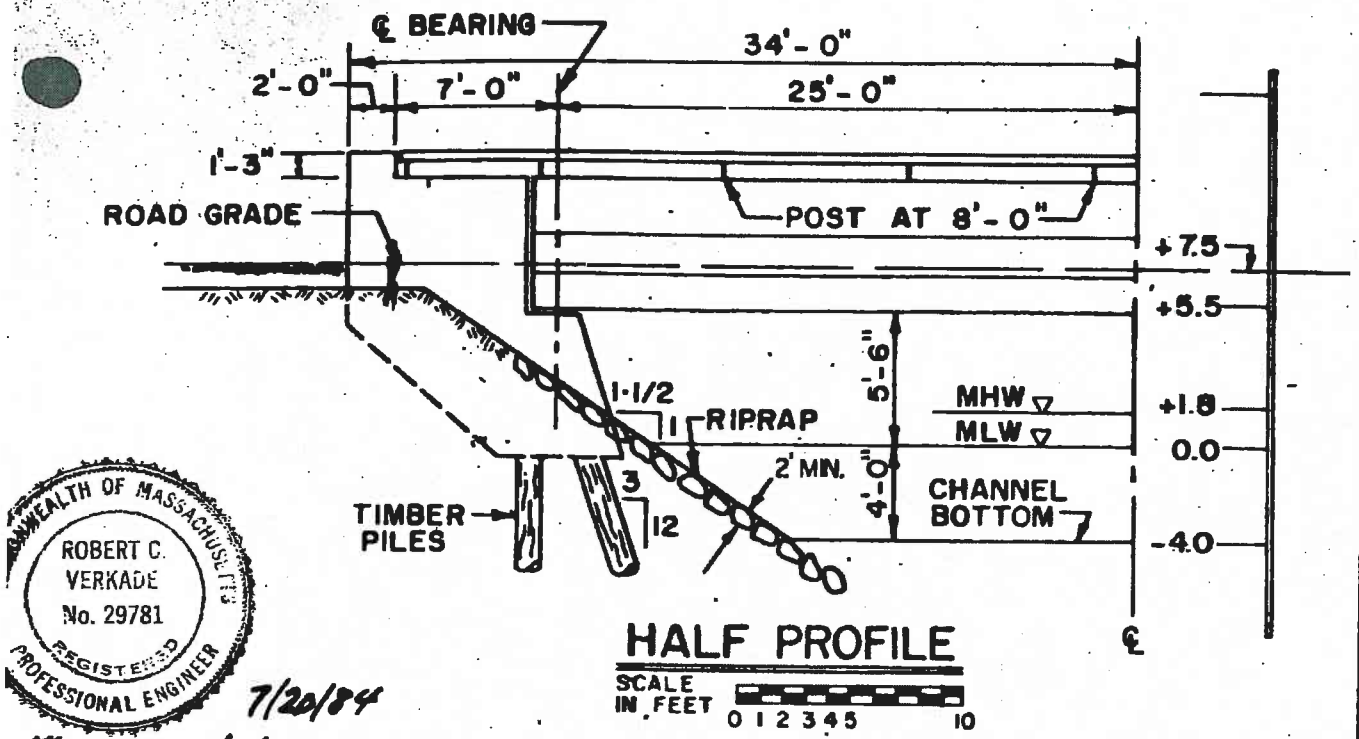
CORE STONE -	500 C.Y. ±
BEDDING STONE -	200 C.Y. ±
ARMOR STONE -	1,500 C.Y. ±
SAND FILL -	300 C.Y. ±

LICENSE PLAN NO. 1193
Approved by Department of Environmental Quality Engineering
FEBRUARY 5, 1985

LAN ACCOMPANYING PETITION OF
A. D.E.M. DIV. OF WATERWAYS
ATE: JULY 1980

84W-122

025-045-020-002-500
025-045-020-002-600

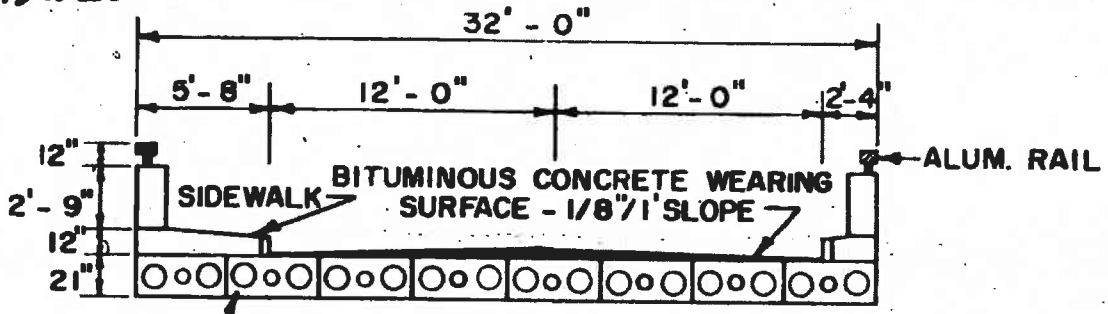


HALF PROFILE

SCALE IN FEET 0 1 2 3 4 5 10

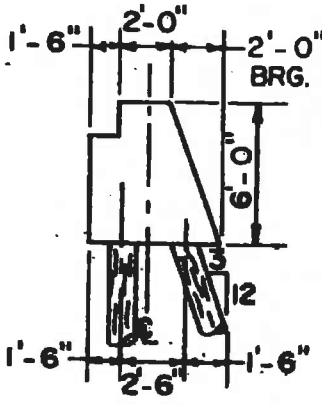
7/20/84

Robert C. Verkade



TYPICAL DECK CROSS-SECTION

SCALE IN FEET 0 1 2 3 4 5 10



LICENSE PLAN NO. 1193

Approved by Department of Environmental Quality Engineering

FEBRUARY 5 1985

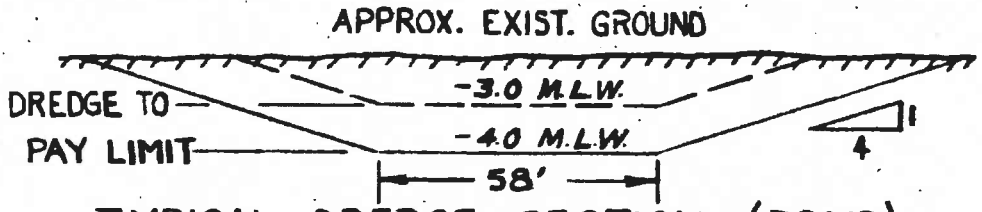
SECTION THROUGH ABUTMENT

SCALE IN FEET 0 1 2 3 4 5 10

PLAN ACCOMPANYING PETITION OF
MA. D.E.M. DIV. OF WATERWAYS
DATE : JULY 1980

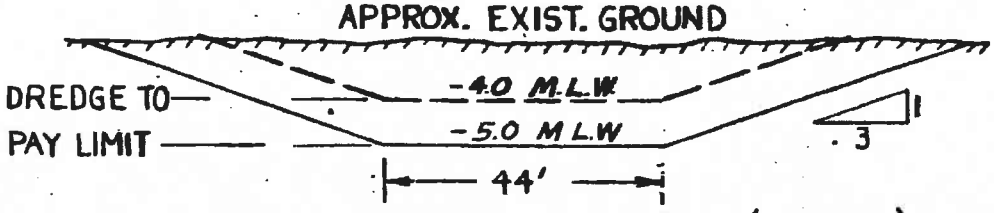
84w-122

025-045-020-002-560
025-045-020-002-600



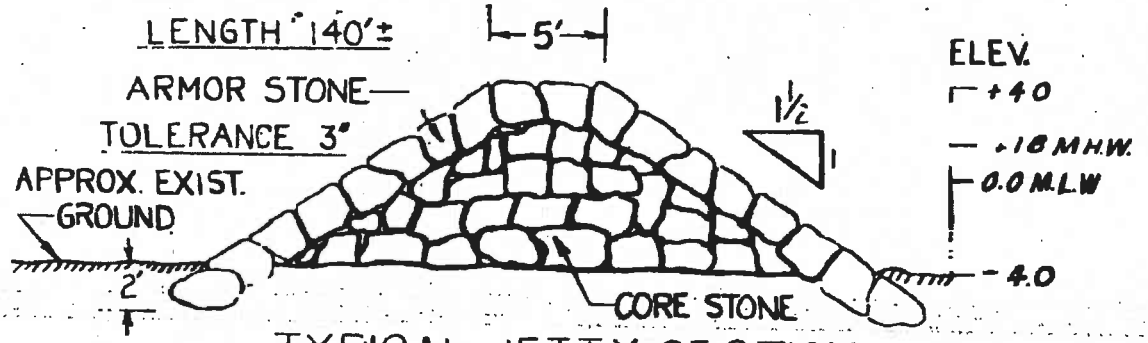
TYPICAL DREDGE SECTION (POND)

NOT TO SCALE



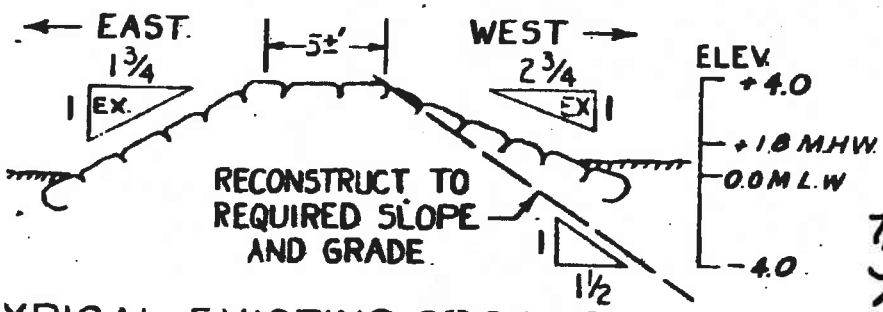
TYPICAL DREDGE SECTION (INLET)

NOT TO SCALE



TYPICAL JETTY SECTION

SCALE: IN FEET 0 1 2 4 6 8



TYPICAL EXISTING GROIN SECTION

SCALE: IN FEET 0 1 2 4 6 8

COMMONWEALTH OF MASSACHUSETTS
ROBERT C. VERKADE
No. 29781
REGISTERED PROFESSIONAL ENGINEER

7/20/84
Robert C. Verkade

LICENSE PLAN NO. 1193

Approved by Department of Environmental Quality Engineering

FEBRUARY 5, 1985

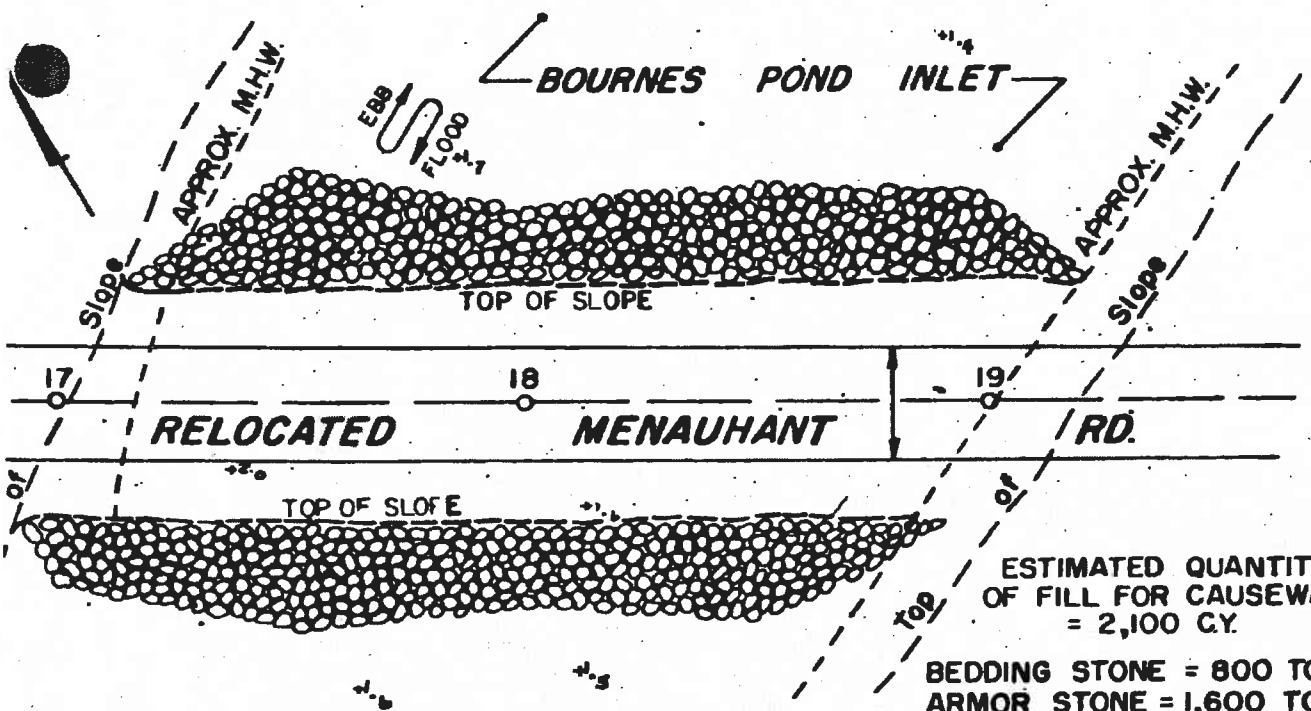
PLAN ACCOMPANYING PETITION OF 84W-122
MA. D.E.M. DIV. OF WATERWAYS
DATE: JULY 1980

025-045-020-002-500
025-045-020-002-600

LICENSE PLAN NO. 1193

Approved by Department of Environmental Quality Engineering
FEBRUARY 5, 1985

025-045-020-002-500
025-045-020-002-600

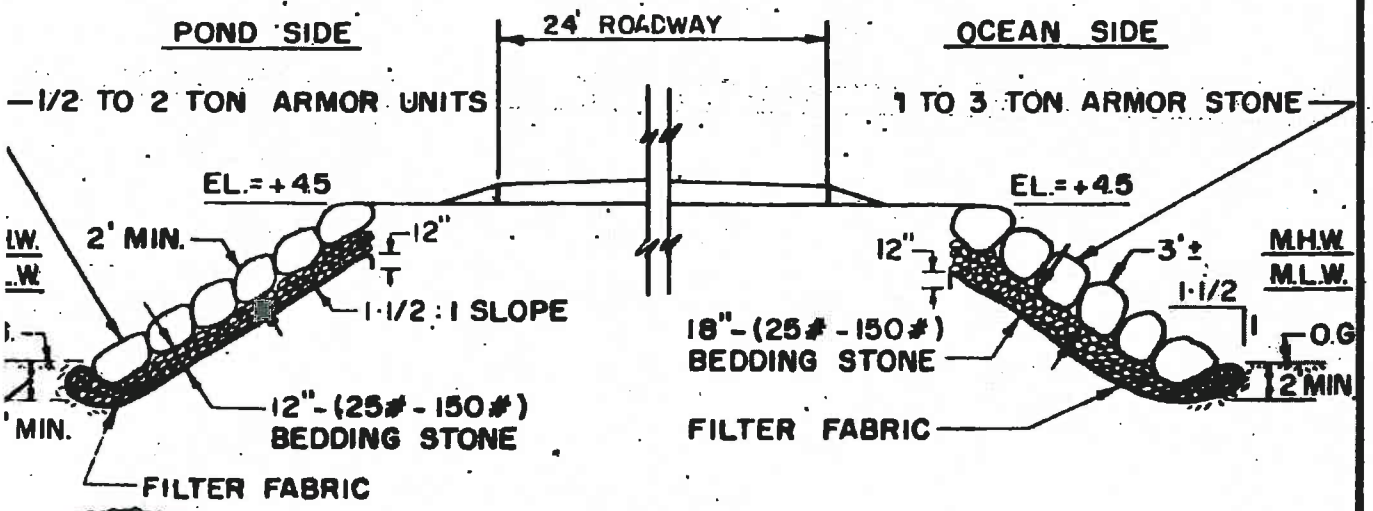


ESTIMATED QUANTITY OF FILL FOR CAUSEWAY = 2,100 C.Y.

BEDDING STONE = 800 TON
ARMOR STONE = 1,600 TON

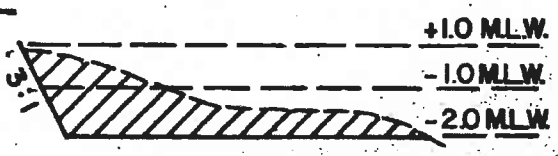
⚠ PLAN @ CAUSEWAY

40 20 0 40
SCALE: 1" = 40'



⚠ TYPICAL SECTION @ CAUSEWAY

0 1 2 3 4 5 10'
SCALE: 1" = 10'



CROSS SECTION SMALL BOAT CHANNEL

N.T.S.

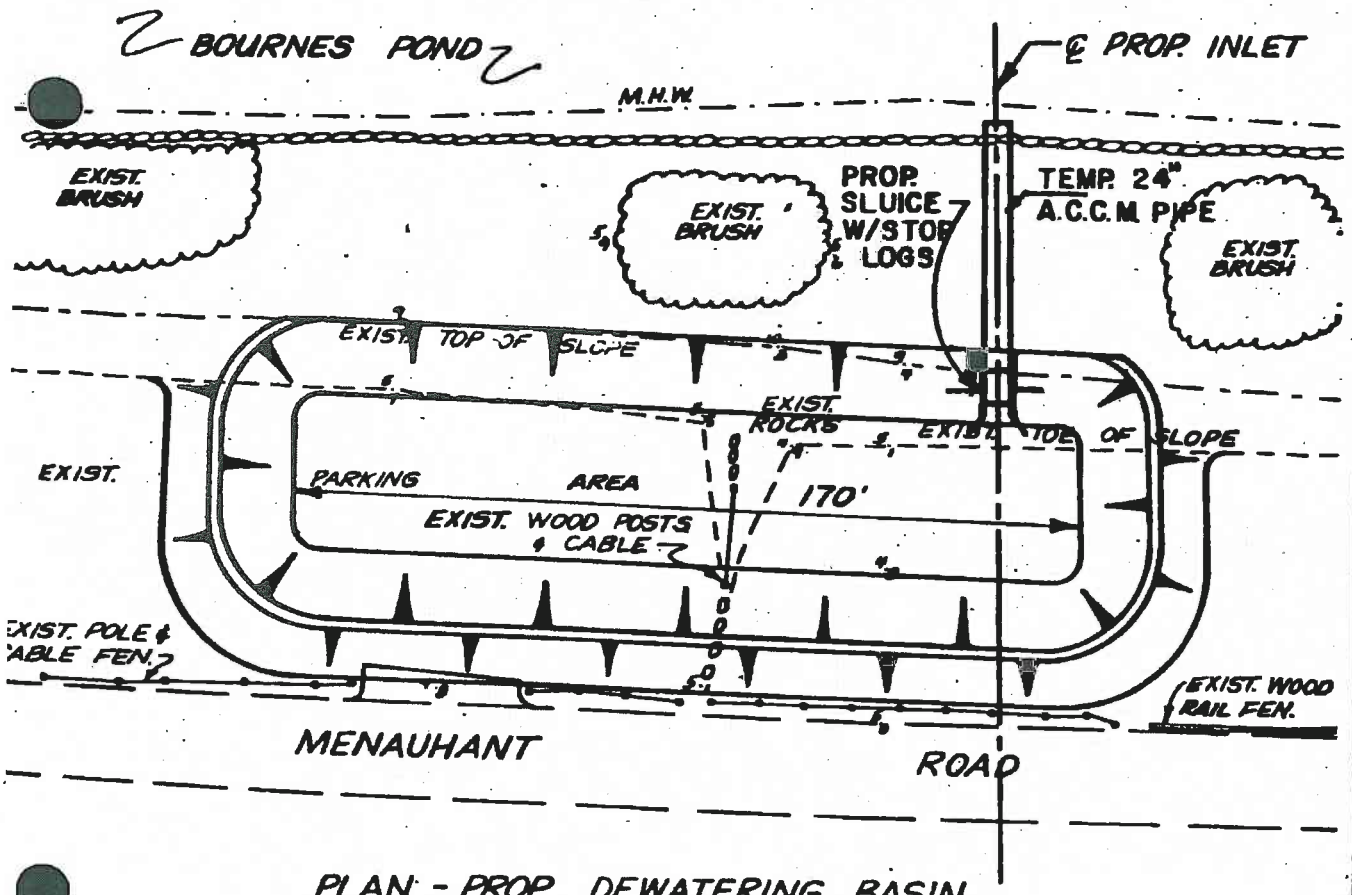
(TOTAL DREDGE QTY. = 65 C.Y.)

COMMONWEALTH OF MASSACHUSETTS
ROBERT C. VERKADE
No. 29781
REGISTERED

7/20/84
Robert C. Verkade

PLAN ACCOMPANYING PETITION OF
MA. D.E.M. DIV. OF WATERWAYS
DATE: JULY 1980

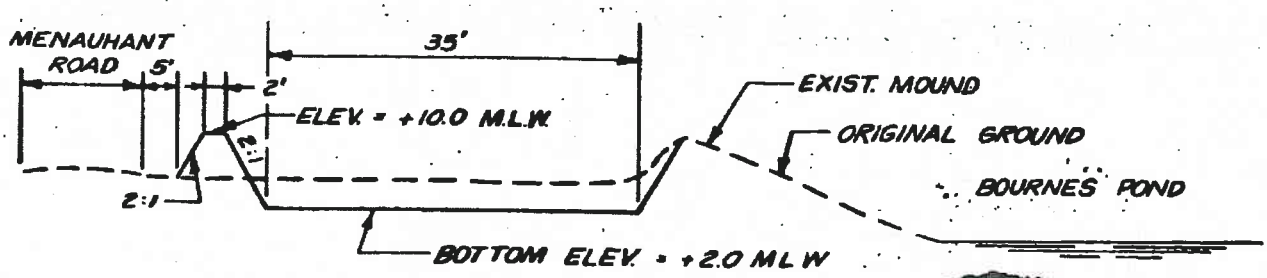
84w-122



PLAN - PROP. DEWATERING BASIN

SCALE 1" = 40'

40 20 0 40 FT.



TYPICAL SECTION

N.T.S.

COMMONWEALTH OF MASSACHUSETTS
ROBERT C. VERKADE
No. 29781
REGISTERED PROFESSIONAL ENGINEER

7-20-84
Robert C Verkade

CAPACITY OF DEWATERING BASIN

DREDGE SPOIL = 800± C.Y. @ 3' DEPTH (+2.0 TO +5.0)
WATER = 230,000 GAL. @ 3' DEPTH (+5.0 TO +8.0 APPROX.)

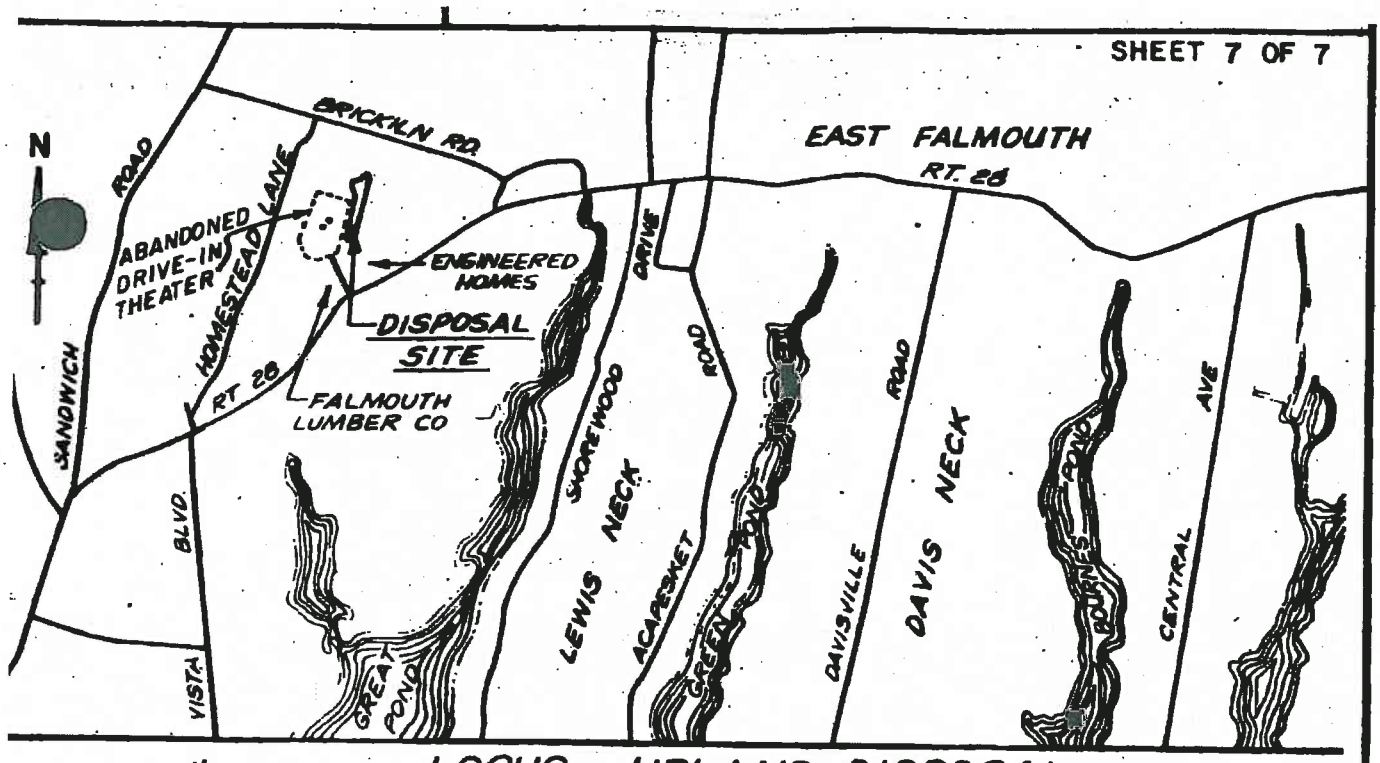
LICENSE PLAN NO. 1193

Approved by Department of Environmental Quality Engineering
FEBRUARY 5, 1985

84W-122

PLAN ACCOMPANY PETITION OF
MA. D.E.M. DIV. OF WATERWAYS
DATE: JULY 1980

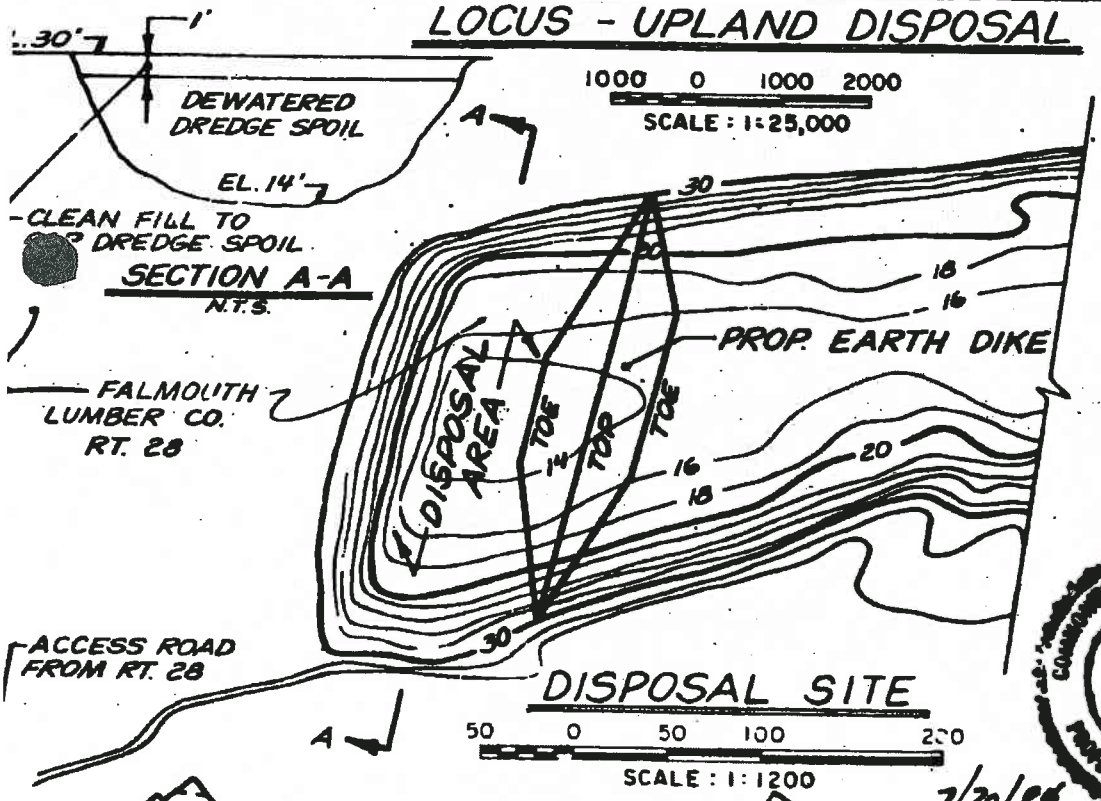
025-045-020-602-500
025-045-020-602-600



025-045-020-002-500
025-045-020-002-600

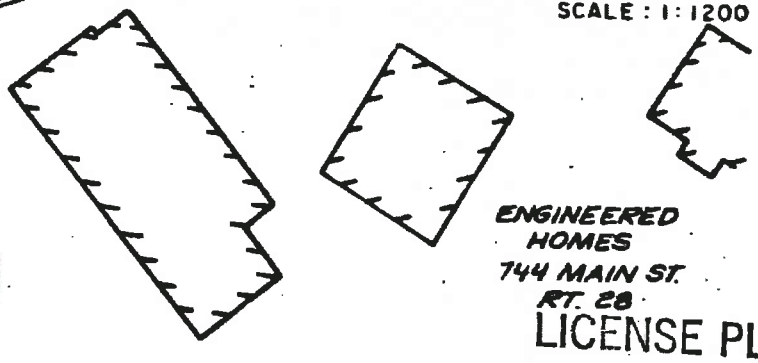
LOCUS - UPLAND DISPOSAL

1000 0 1000 2000
SCALE : 1:25,000



DISPOSAL SITE

50 0 50 100 200
SCALE : 1:1200



ENGINEERED HOMES
744 MAIN ST.
RT. 28

ROBERT C. VERNADE
No. 29781
CIVIL
REGISTERED PROFESSIONAL ENGINEER
COMMONWEALTH OF MASS.

7/30/84
Robert C. Vernade

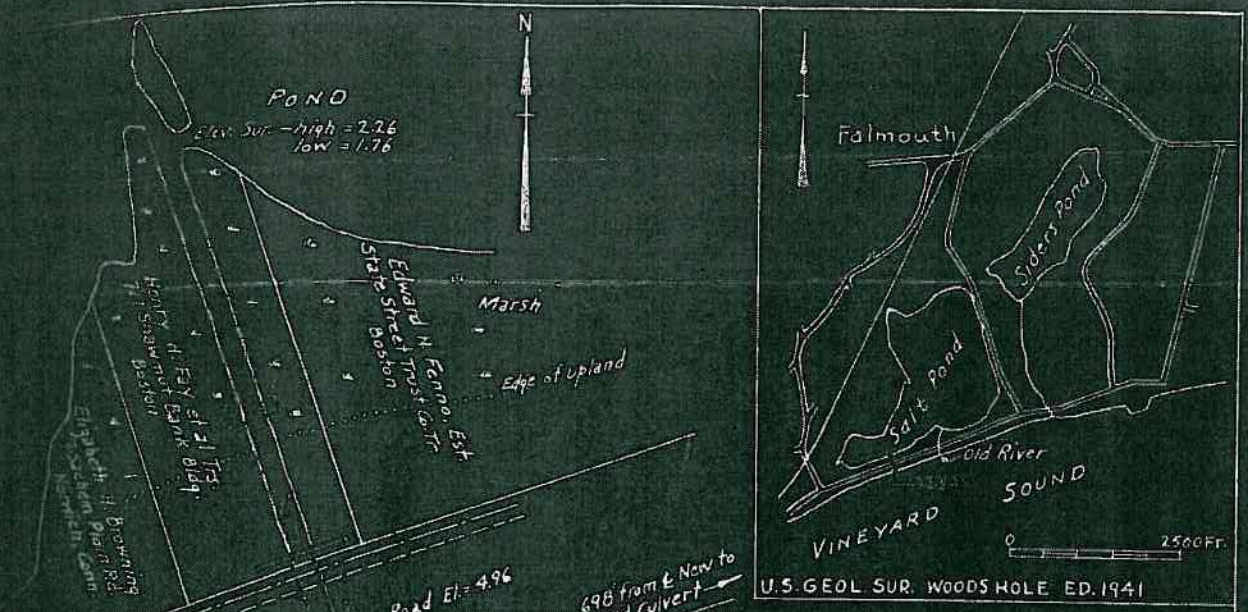
LICENSE PLAN NO. 1193

Approved by Department of Environmental Quality Engineering
FEBRUARY 5, 1985

PLAN ACCOMPANYING PETITION OF
MA. D.E.M. DIV. OF WATERWAYS

84W-122

⚠

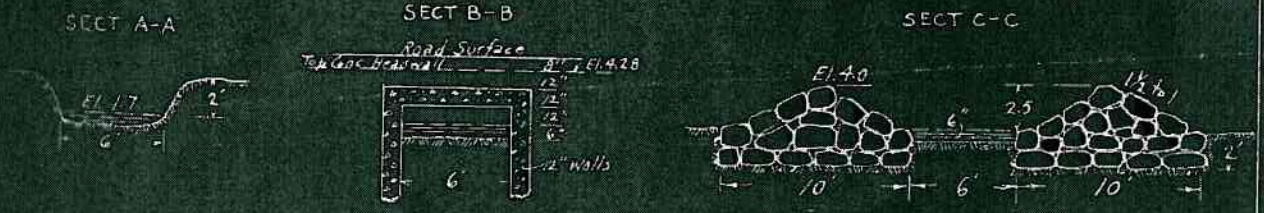


PLAN

SCALE OF FEET

25 0 25 50 75

025-047-007-026-100
025-047-007-026-200



SECTIONS

Scale of Feet

0 5 10 15 20

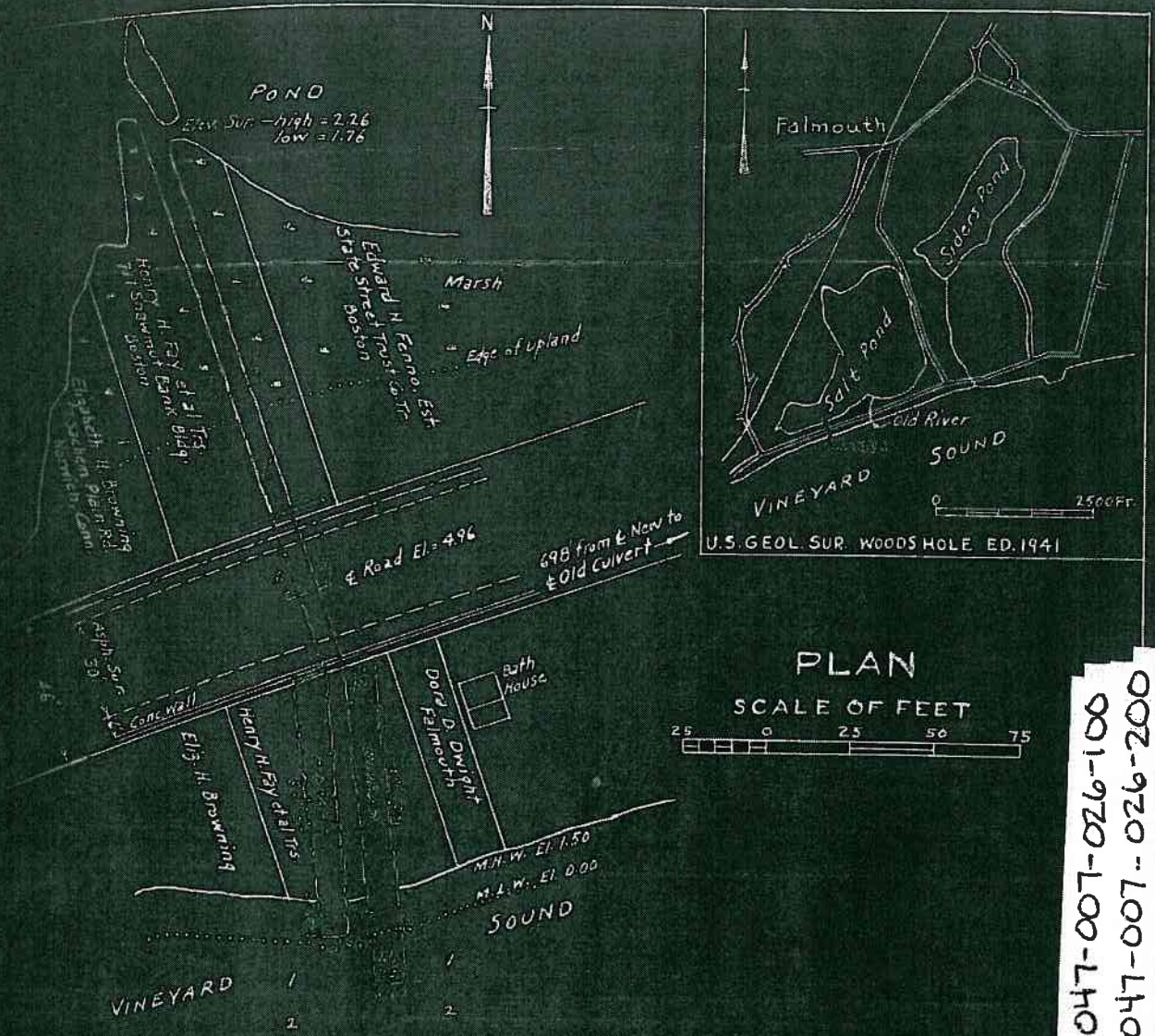
PLAN TO ACCOMPANY PETITION OF
TOWN OF FALMOUTH
TO OPEN NEW OUTLET TO SALT POND
BUILD CULVERT AND PLACE RIPRAP
VINEYARD SOUND, FALMOUTH, MASS.
1944
Charles A. White, C.E. Falmouth, Mass.

NO. 2682
APPROVED BY DEPARTMENT OF PUBLIC WORKS
AUGUST 15 1944

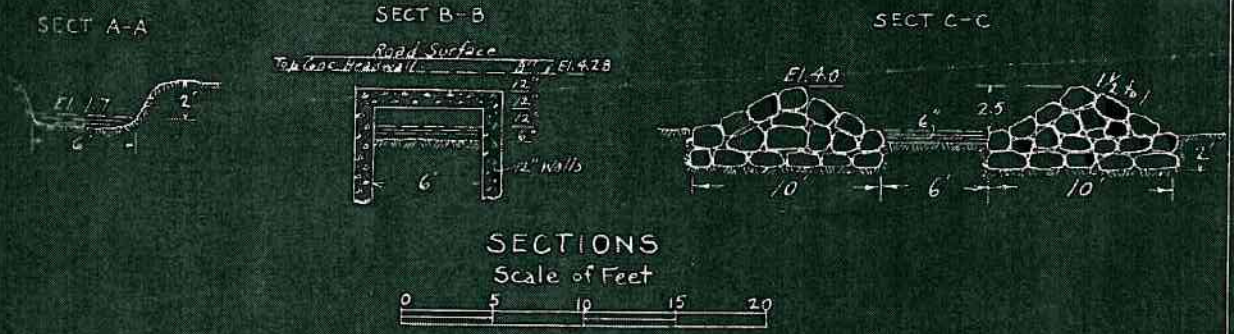
J. Amendola } COMMISSIONER OF PUBLIC WORKS

George A. Schreyer } ASSOCIATE COMMISSIONERS

Richard Kiley } DIRECTOR - DIVISION OF WATERWAYS



025-047-007-026-100
025-047-007-026-200



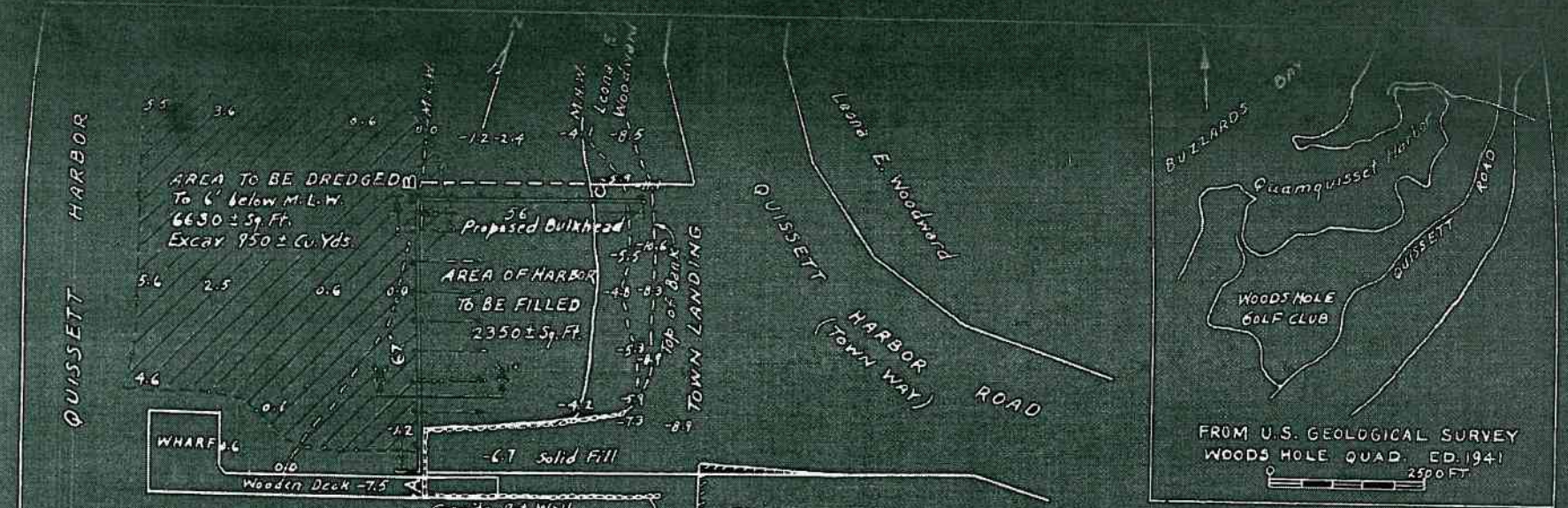
PLAN TO ACCOMPANY PETITION OF TOWN OF FALMOUTH

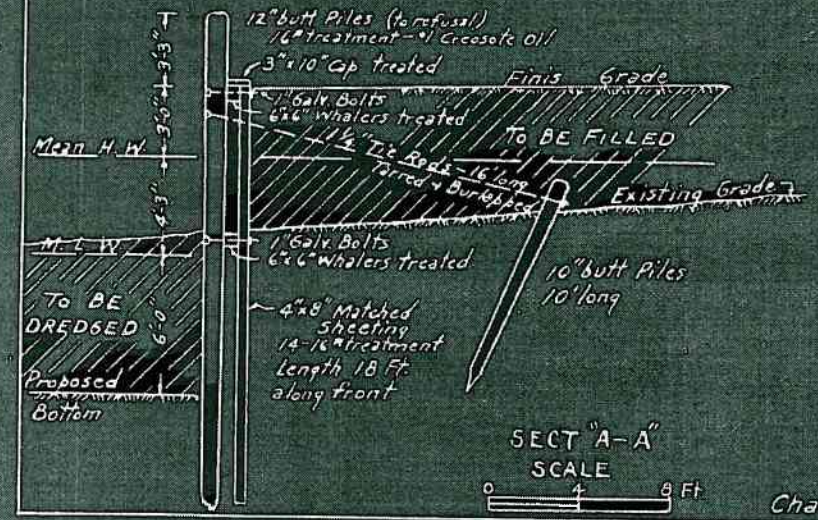
TO OPEN NEW OUTLET TO SALT POND
BUILD CULVERT AND PLACE RIPRAP
VINEYARD SOUND, FALMOUTH, MASS.
1944

Charles A. White, C.E. Falmouth, Mass.

NO. 2682
APPROVED BY DEPARTMENT OF PUBLIC WORKS
AUGUST 15 1944

J. Amorosa — COMMISSIONER OF PUBLIC WORKS
George A. Schruyer — ASSOCIATE COMMISSIONERS
Richard K. Hall — DIRECTOR - DIVISION OF WATERWAYS





PLAN ACCOMPANYING PETITION OF
TOWN OF FALMOUTH
TO BUILD BULKHEAD,
DREDGE AND FILL SOLID IN
QUISSETT HARBOR
FALMOUTH
1945

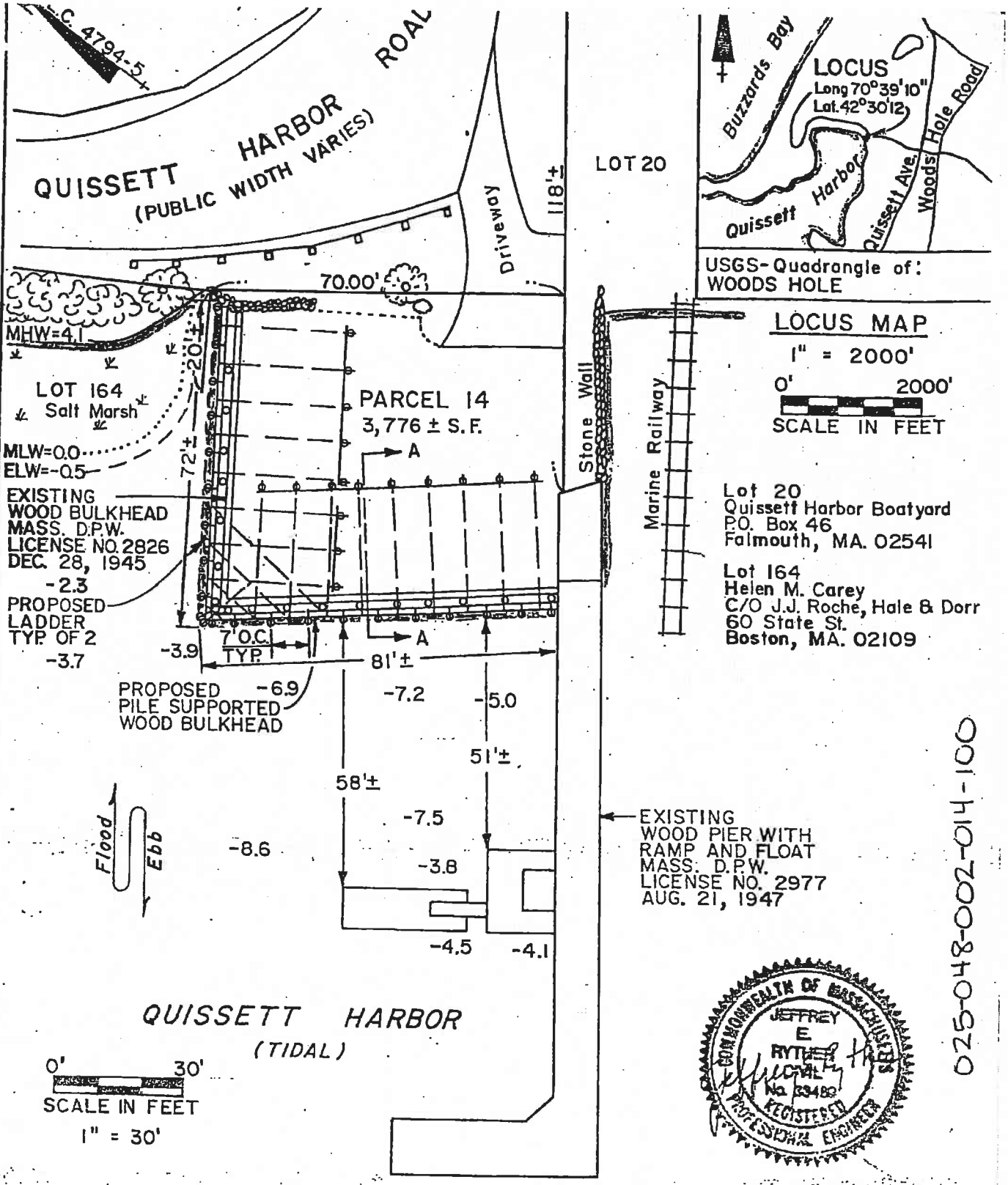
NO. 2826
APPROVED BY DEPARTMENT OF PUBLIC WORKS
DECEMBER 28 1945

COMMISSIONER OF PUBLIC WORKS

ASSOCIATE COMMISSIONERS

DIRECTOR - DIVISION OF WATERWAYS

025-048-002-014-100



025-048-002-014-100

PLAN ACCOMPANYING PETITION OF WATERWAYS COMMITTEE, TOWN OF FALMOUTH TO RECONSTRUCT AND MAINTAIN PILE SUPPORTED BULKHEAD ON PARCEL 14 IN QUISSETT HARBOR, FALMOUTH, BARNSTABLE COUNTY, MASS.

PLAN BY: holmes and mcgrath, inc
civil engineers and land surveyors
200 main st. falmouth, ma [illegible]40

- ALL TIDES FALL ON FACE OF BULKHEAD.
- PURPOSE: PUBLIC RECREATIONAL USE
- DATUM: ELEV. BASED ON MLW (elev. = 0.0)

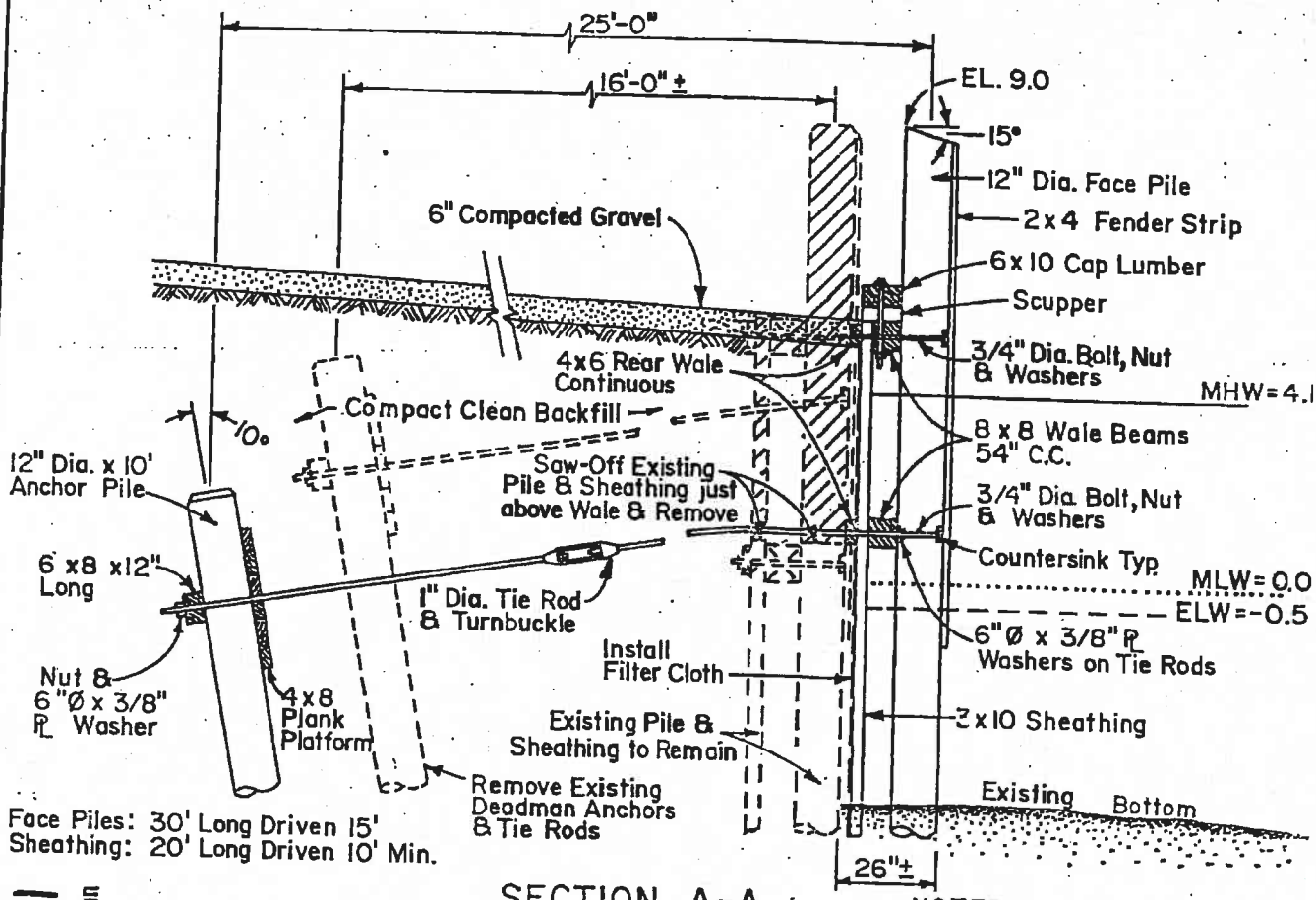
LICENSE PLAN NO. 2141

Approved by Department of Environmental Protection
of Massachusetts

JAN 30 1990

COMMISSIONER

BOSTON

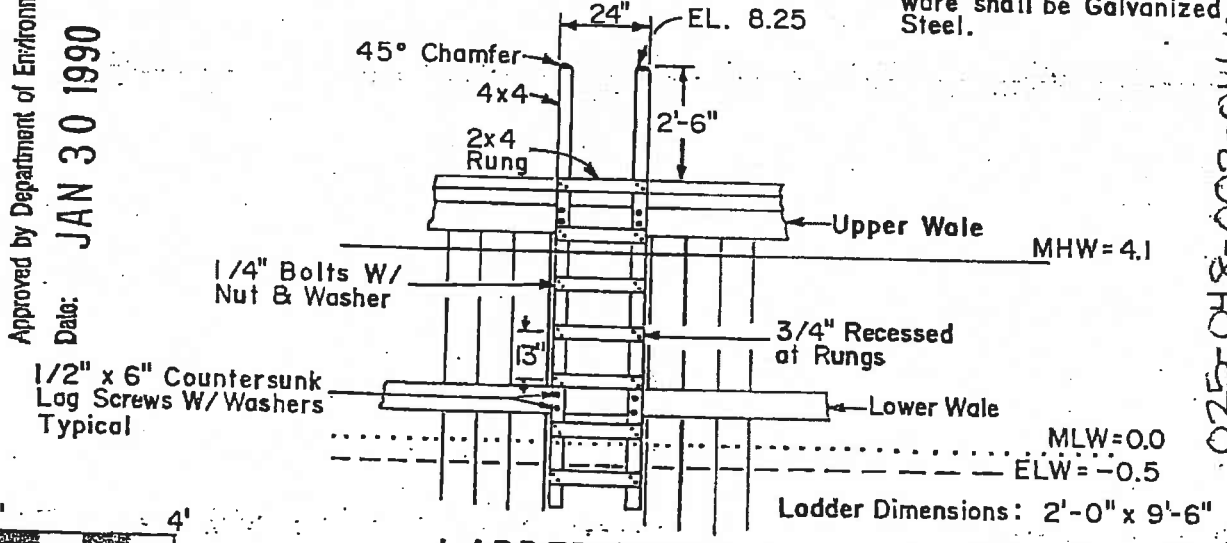


SECTION A-A

SCALE: 1/4" = 1'-0"

NOTES:

1. All lumber stock shall be CCA treated.
2. All metal fasteners and hardware shall be Galvanized Steel.



0' 4'

SCALE IN FEET

3/4" = 1'-0"

LADDER DETAIL

SCALE: 1/4" = 1'-0"

LICENSE PLAN NO. 2141

Approved by Department of Environmental Protection

Date: JAN 30 1990

025-048-002-014-100

APPLICANT:
WATERWAYS COMMITTEE, TOWN OF FALMOUTH

PREPARED BY: Holmes and Nagrath, Inc.
civil engineers and land surveyors

COMMONWEALTH OF MASSACHUSETTS
CIVIL
No. 23402
REGISTERED PROFESSIONAL ENGINEER

...AL NOTES GROIN RECONSTRUCTION:

...ROIN MATERIAL TO BE HARD DURABLE QUARRY STONE.

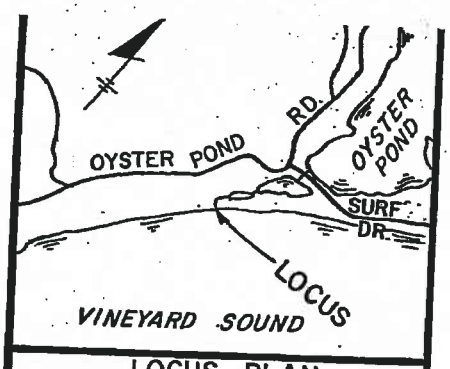
...NO CONSTRUCTION RUBBLE IS PERMISSIBLE.

...AVERAGE ARMOR STONE WEIGHT TO BE 2 TO 3 TON.

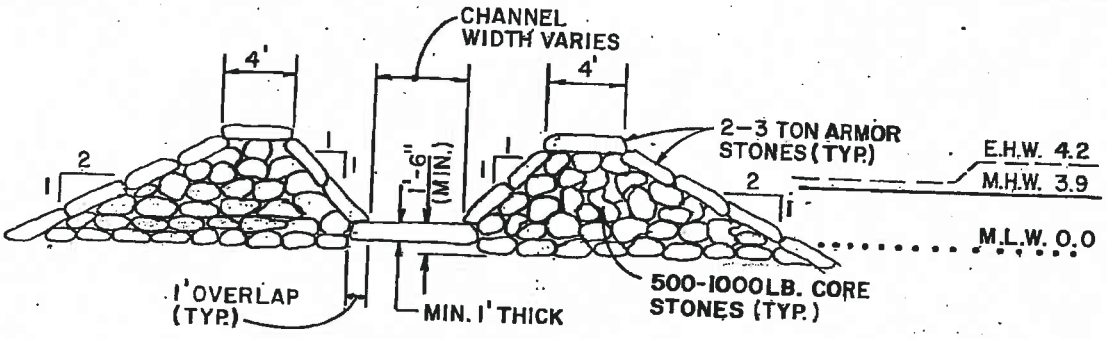
...CORE STONE TO BE 500 LB TO 1000 LB.

...RE-USE EXISTING STONE WHERE POSSIBLE.

6. CHANNEL STONE TO BE FLAT WITH A MINIMUM THICKNESS OF 1 FOOT.
7. CHANNEL STONE JOINTS TO BE TIGHTLY SET & ANCHORED UNDER ARMOR STONE AS SHOWN.
8. GROINS TO BE TIGHTLY CHINKED AND TO BE SAND TIGHT.

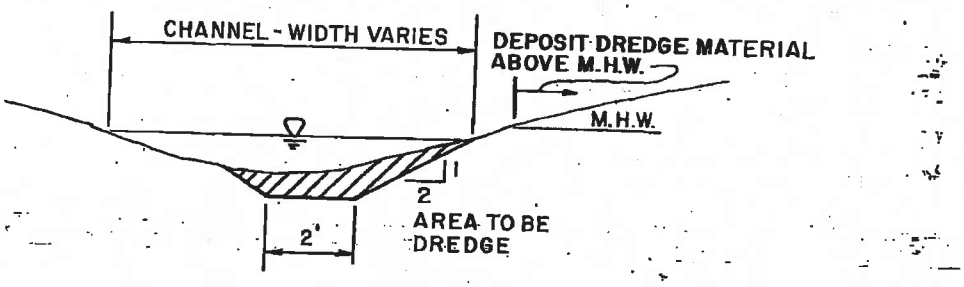


LOCUS PLAN
SCALE: 1:25,000 WOODS HOLE QUAD



SECTION A-A
SCALE: 1" = 10'

0 5' 10' 20'



SECTION B-B
SCALE: 1" = 4'

0 2' 4' 8'

CHANNEL DREDGING FROM FOOT BRIDGE TO SALT POND:

1. PROPOSED CHANNEL WIDTH TO BE 2' WITH A 1 ON 2 SIDE SLOPE.
2. CHANNEL WIDTH MEASURED FROM MOST SOUTHERLY & EASTERLY BANK FACE.
3. EVENLY DISTRIBUTE CHANNEL BOTTOM DREDGE MATERIAL ALONG SEAWARD FACE OF BANK ABOVE M.H.W.
4. PLANT BANK FACE WITH INDIGENOUS VEGETATION AS APPROVED BY THE CONSERVATION COMMISSION.
5. TRANSITION DREDGE SLOPE INTO POND AT A SLOPE OF 1 TO 4.

GENERAL NOTES:

1. FOR ORDER OF CONDITIONS SEE SE25-2449.
2. ELEVATIONS BASED ON M.L.W. DATUM.

COMMONWEALTH OF MASSACHUSETTS
PETER SULLIVAN
NO. 29733
CIVIL
REGISTERED PROFESSIONAL ENGINEER

Peter S. Sullivan

025-050-005-017A-100
025-050-005-017A-200

4.95-6.4

PLAN ACCOMPANYING PETITION OF
TOWN OF FALMOUTH MASS.
DEPARTMENT OF PUBLIC WORKS
FOR THE DREDGING OF TRUNK RIVER &
THE RECONSTRUCTION & MAINTAINING
STONE GROINS IN VINEYARD SOUND
NOVEMBER 5, 1999
SULLIVAN ENGINEERING INC.
OSTERVILLE, MASS.

SHEET 1 of 2

LICENSE PLAN NO. 9808
Approved by Department of Environmental Protection of Massachusetts

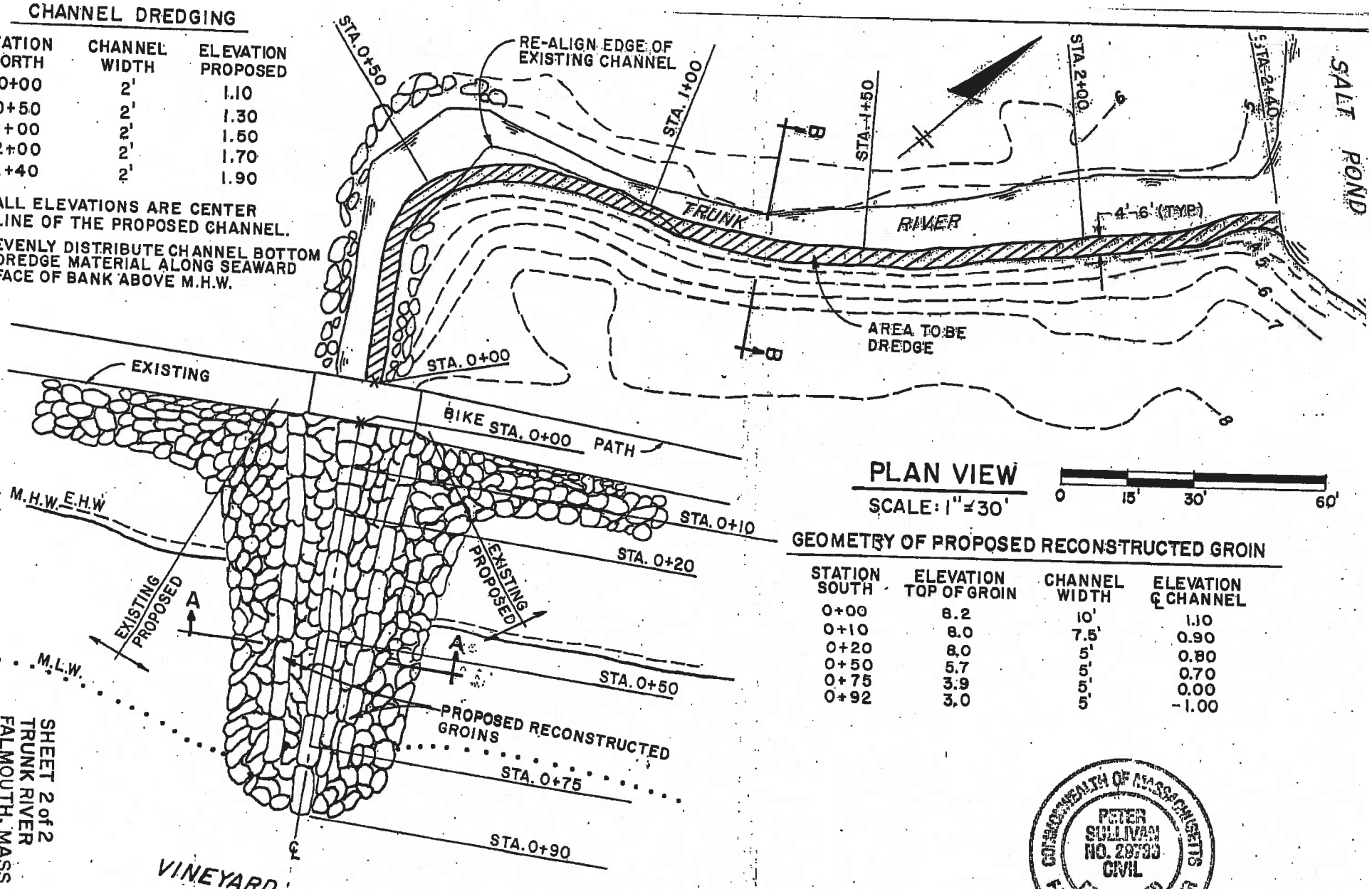
OCT 20 2003

CHANNEL DREDGING

STATION NORTH	CHANNEL WIDTH	ELEVATION PROPOSED
0+00	2'	1.10
0+50	2'	1.30
1+00	2'	1.50
2+00	2'	1.70
2+40	2'	1.90

ALL ELEVATIONS ARE CENTER LINE OF THE PROPOSED CHANNEL.

EVENLY DISTRIBUTE CHANNEL BOTTOM DREDGE MATERIAL ALONG SEAWARD FACE OF BANK ABOVE M.H.W.



PLAN VIEW

SCALE: 1" = 30'

0 15' 30' 60'

GEOMETRY OF PROPOSED RECONSTRUCTED GROIN

STATION SOUTH	ELEVATION TOP OF GROIN	CHANNEL WIDTH	ELEVATION ℄ CHANNEL
0+00	8.2	10'	1.10
0+10	8.0	7.5'	0.90
0+20	8.0	5'	0.80
0+50	5.7	5'	0.70
0+75	3.9	5'	0.00
0+92	3.0	5	-1.00

SHEET 2 of 2
TRUNK RIVER
FALMOUTH, MASS.
SULLIVAN ENGINEERING INC.
OSTERVILLE, MASS.
NOV. 5, 1999

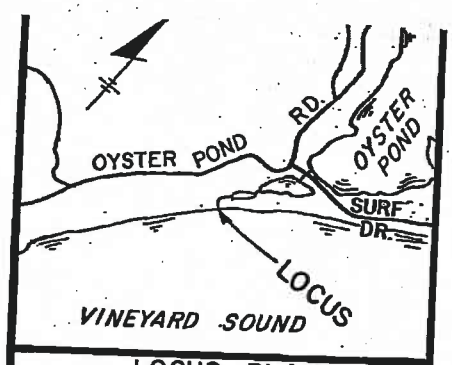
COMMONWEALTH OF MASSACHUSETTS
PETER SULLIVAN
NO. 29733
CIVIL
REGISTERED PROFESSIONAL ENGINEER

LICENSE PLAN NO. 9808
Approved by Department of Environmental Protection
Date: OCT 20 2003

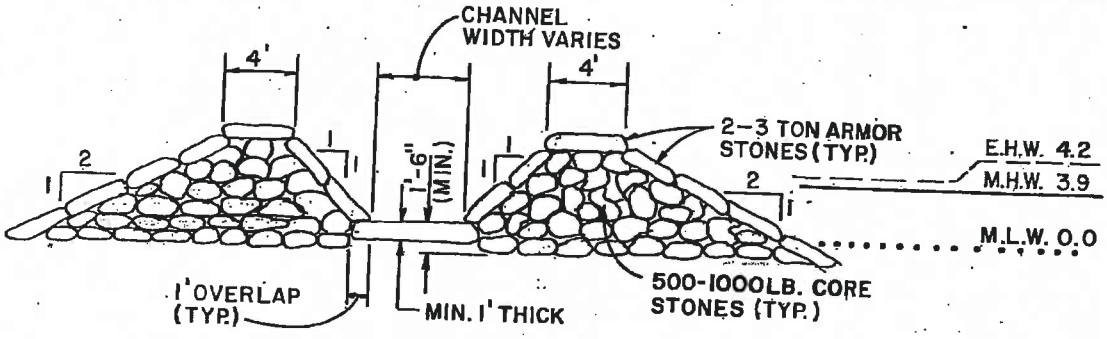
025-050-005-017A-100
025-050-005-017A-200

GENERAL NOTES GROIN RECONSTRUCTION:

1. GROIN MATERIAL TO BE HARD DURABLE QUARRY STONE.
2. NO CONSTRUCTION RUBBLE IS PERMISSIBLE.
3. AVERAGE ARMOR STONE WEIGHT TO BE 2 TO 3 TON.
4. CORE STONE TO BE 500LB TO 1000LB.
5. RE-USE EXISTING STONE WHERE POSSIBLE.
6. CHANNEL STONE TO BE FLAT WITH A MINIMUM THICKNESS OF 1 FOOT.
7. CHANNEL STONE JOINTS TO BE TIGHTLY SET & ANCHORED UNDER ARMOR STONE AS SHOWN.
8. GROINS TO BE TIGHTLY CHINKED AND TO BE SAND TIGHT.

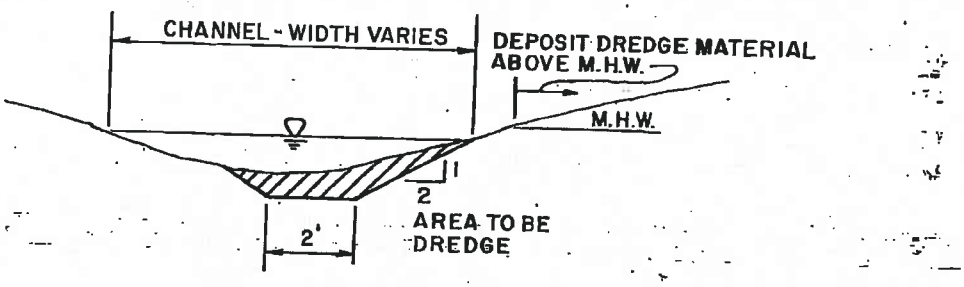


LOCUS PLAN
SCALE: 1:25,000 WOODS HOLE QUAD



SECTION A-A
SCALE: 1" = 10'

0 5' 10' 20'



SECTION B-B
SCALE: 1" = 4'

0 2' 4' 8'

CHANNEL DREDGING FROM FOOT BRIDGE TO SALT POND:

1. PROPOSED CHANNEL WIDTH TO BE 2' WITH A 1 ON 2 SIDE SLOPE.
2. CHANNEL WIDTH MEASURED FROM MOST SOUTHERLY & EASTERLY BANK FACE.
3. EVENLY DISTRIBUTE CHANNEL BOTTOM DREDGE MATERIAL ALONG SEAWARD FACE OF BANK ABOVE M.H.W.
4. PLANT BANK FACE WITH INDIGENOUS VEGETATION AS APPROVED BY THE CONSERVATION COMMISSION.
5. TRANSITION DREDGE SLOPE INTO POND AT A SLOPE OF 1 TO 4.

GENERAL NOTES:

1. FOR ORDER OF CONDITIONS SEE SE25-2449.
2. ELEVATIONS BASED ON M.L.W. DATUM.

COMMONWEALTH OF MASSACHUSETTS
PETER SULLIVAN
NO. 29733
CIVIL
REGISTERED PROFESSIONAL ENGINEER

PLAN ACCOMPANYING PETITION OF
TOWN OF FALMOUTH MASS.
DEPARTMENT OF PUBLIC WORKS
FOR THE DREDGING OF TRUNK RIVER &
THE RECONSTRUCTION & MAINTAINING
STONE GROINS IN VINEYARD SOUND
NOVEMBER 5, 1999
SULLIVAN ENGINEERING INC.
OSTERVILLE, MASS.

SHEET 1 of 2

LICENSE PLAN NO. 9808
Approved by Department of Environmental Protection of Massachusetts
Mitchell Ziemian
OCT 20 2003

025-050-005-017A-100
025-050-005-017A-200

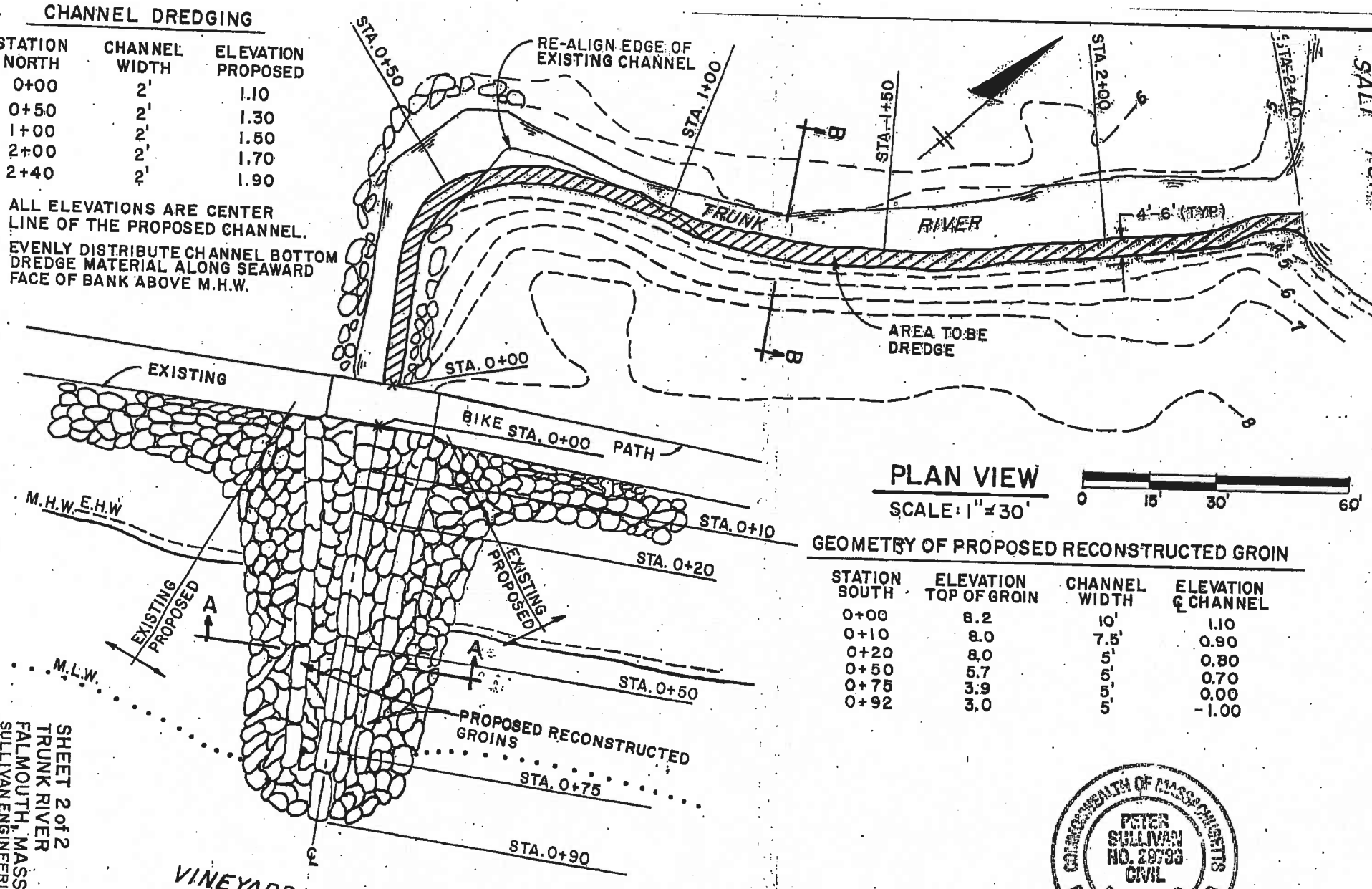
9-9-96

CHANNEL DREDGING

STATION NORTH	CHANNEL WIDTH	ELEVATION PROPOSED
0+00	2'	1.10
0+50	2'	1.30
1+00	2'	1.50
2+00	2'	1.70
2+40	2'	1.90

ALL ELEVATIONS ARE CENTER LINE OF THE PROPOSED CHANNEL.

EVENLY DISTRIBUTE CHANNEL BOTTOM DREDGE MATERIAL ALONG SEAWARD FACE OF BANK ABOVE M.H.W.



PLAN VIEW

SCALE: 1" = 30'

0 15' 30' 60'

GEOMETRY OF PROPOSED RECONSTRUCTED GROIN

STATION SOUTH	ELEVATION TOP OF GROIN	CHANNEL WIDTH	ELEVATION ℄ CHANNEL
0+00	8.2	10'	1.10
0+10	8.0	7.5'	0.90
0+20	8.0	5'	0.80
0+50	5.7	5'	0.70
0+75	3.9	5'	0.00
0+92	3.0	5	-1.00

SHEET 2 of 2
TRUNK RIVER
FALMOUTH, MASS.
SULLIVAN ENGINEERING INC.
OSTERVILLE, MASS.
NOV. 5, 1999

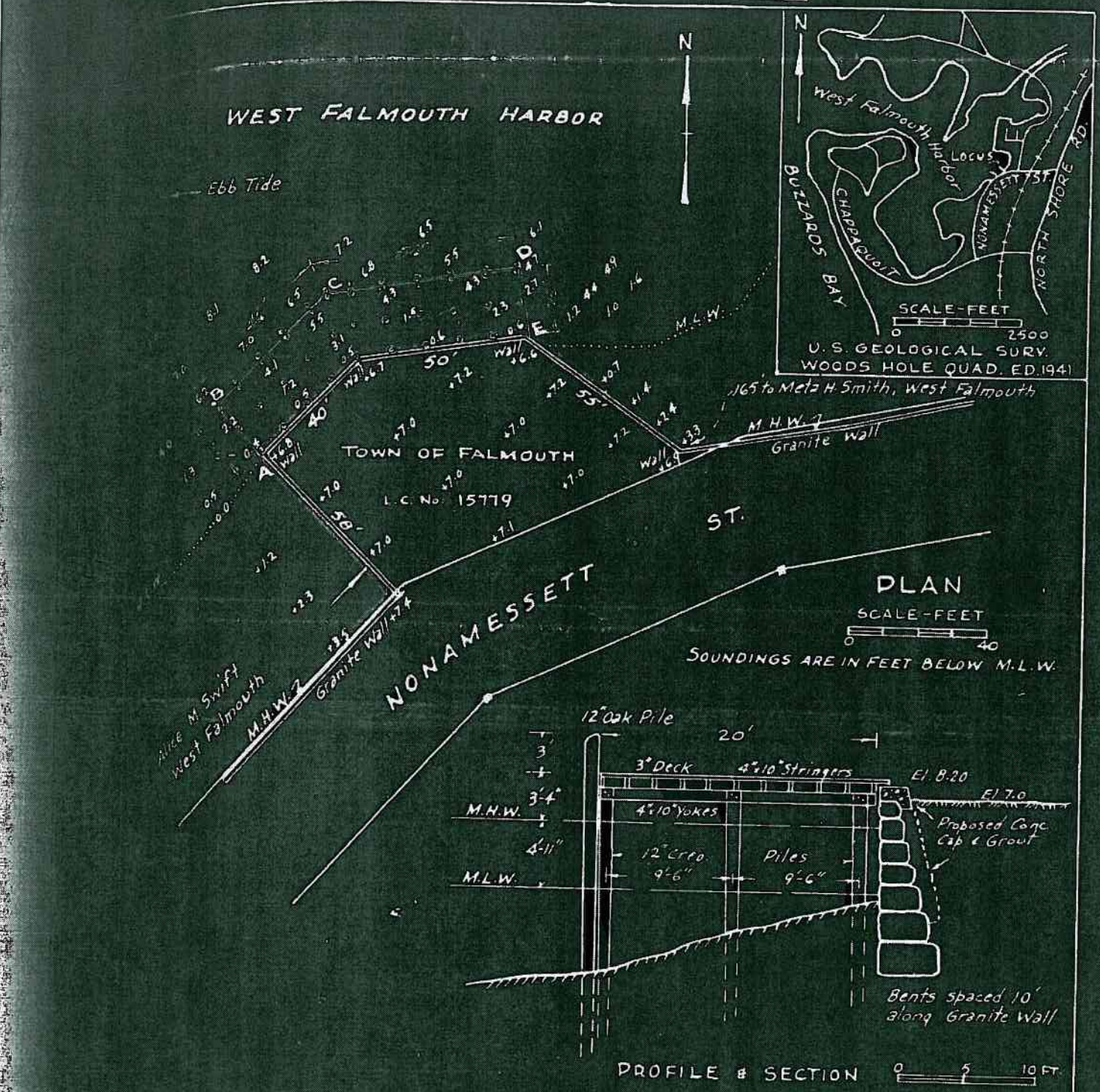
COMMONWEALTH OF MASSACHUSETTS
PETER SULLIVAN
NO. 29799
CIVIL
REGISTERED PROFESSIONAL ENGINEER

Peter Sullivan

LICENSE PLAN NO. 9808
Approved by Department of Environmental Protection
Date: OCT 20 2003

025-050-005-017A-100
025-050-005-017A-200

025-24A-011-005-100



PLAN TO ACCOMPANY PETITION OF
TOWN OF FALMOUTH
TO BUILD A PILE & TIMBER PIER
WEST FALMOUTH HARBOR
FALMOUTH, MASS.
JUNE 1955

NO. 3780
APPROVED BY DEPARTMENT OF PUBLIC WORKS
SEPTEMBER 26, 1955

Fred B. Dole — COMMISSIONER OF PUBLIC WORKS

ASSOCIATE COMMISSIONERS

DIRECTOR DIVISION OF WATERWAYS

ABUTTERS

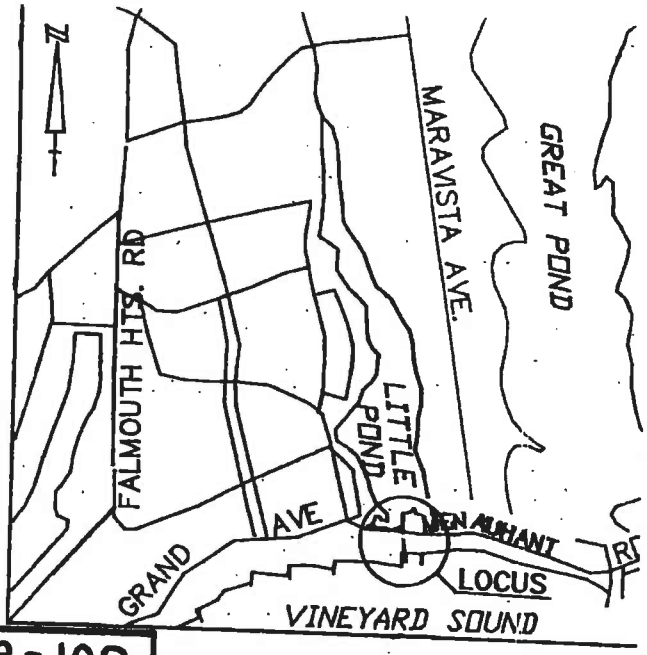
① MAY C.R. BRISTOL IRREVOCABLE TRUST
BENJAMIN H. BRISTOL TRUSTEE
P.O. BOX 272
FOXBORO, MA 02035

② JOHN L. HAM
176 GRAND AVENUE
FALMOUTH, MA 02540

③ VINCENT NICOSIA
196 SOUTH STREET
QUINCY, MA 02169

④ RAYMOND & CLARENCE FULLER
41 GOODING WAY
FALMOUTH, MA 02540

⑤ JOHN F. SISK
24 BEECHNUT CIRCLE
HANOVER, MA 02339

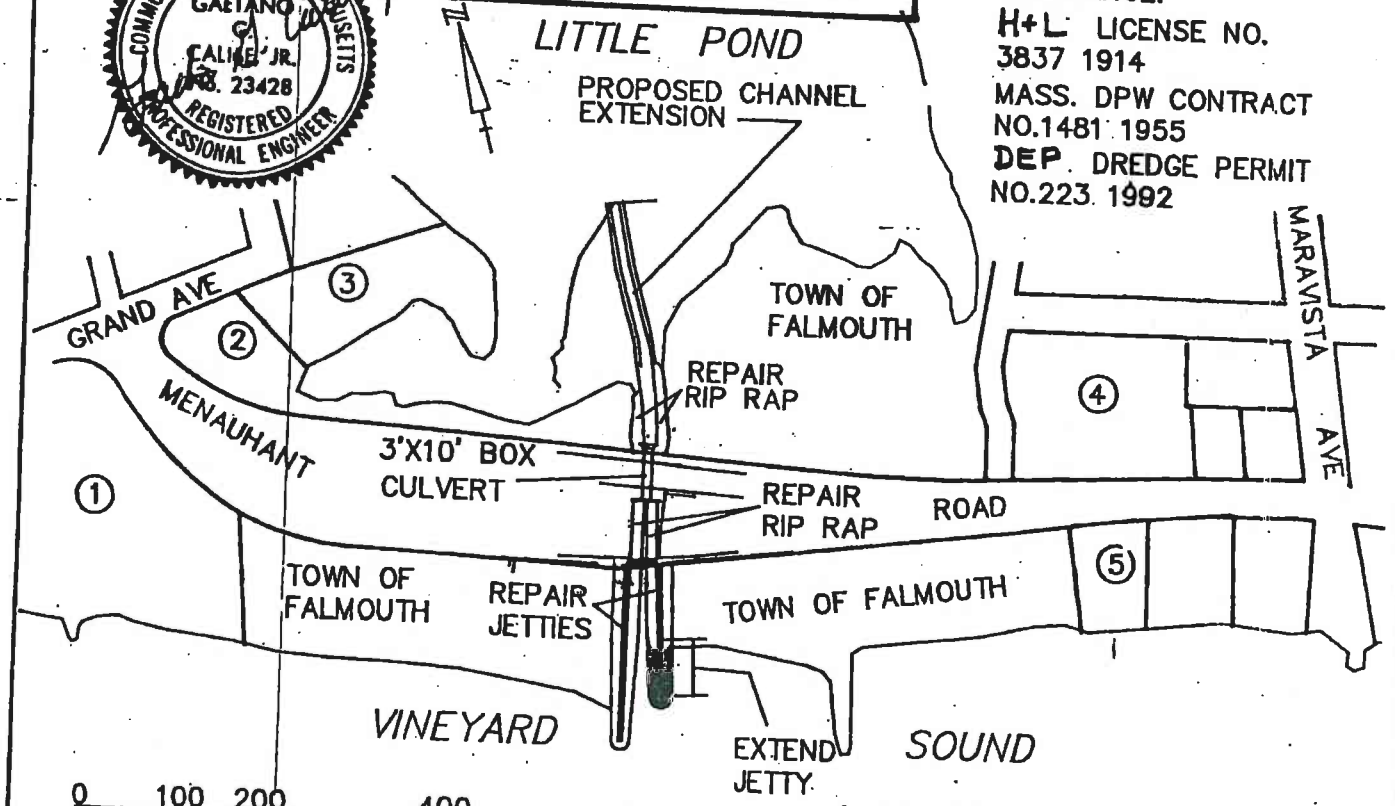


LOCUS MAP
1"=2000"

025-46A-002-100
025-46A-002-200
025-46A-002-300
025-46A-002-400

COMMONWEALTH OF MASSACHUSETTS
GAETANO C. CALISE JR.
NO. 23428
REGISTERED PROFESSIONAL ENGINEER

REFERENCE:
H+L LICENSE NO. 3837 1914
MASS. DPW CONTRACT NO.1481 1955
DEP. DREDGE PERMIT NO.223 1992



0 100 200 400 600
SCALE: 1"=200'

VICINITY PLAN

Rev. 11-30-94 SAE
REVISED: NOV 8, 1994

SHEET 1 OF 6

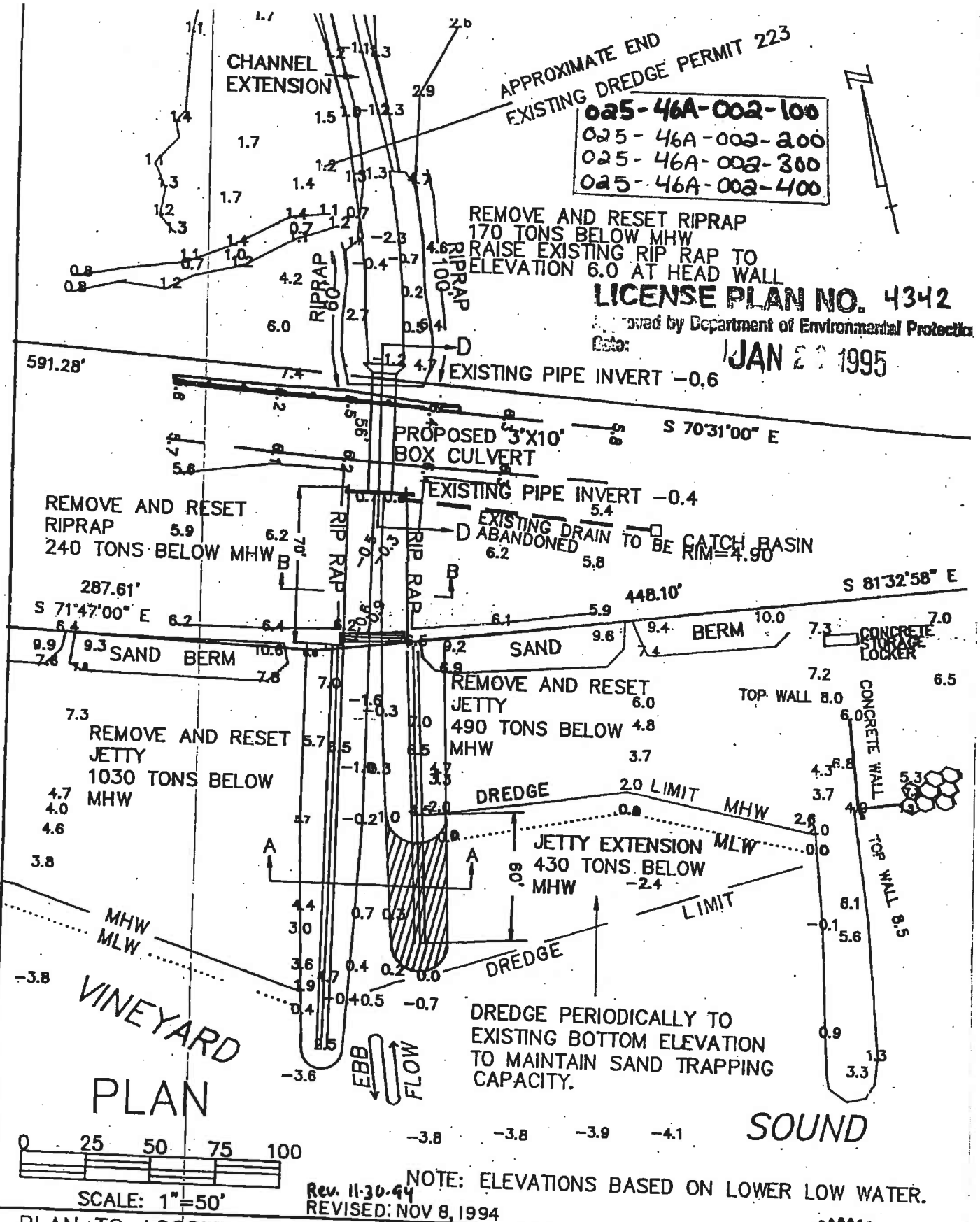
PLAN TO ACCOMPANY PETITION OF
TOWN OF FALMOUTH
TO REPAIR AND CONSTRUCT JETTIES
RIP RAP AND CULVERT AT
LITTLE POND OUTLET, FALMOUTH,
BARNSTABLE COUNTY, MASS.
SCALE: AS NOTED DATE: SEP 28, 1993
TOWN OF FALMOUTH
DEPARTMENT OF PUBLIC WORKS

LICENSE PLAN NO. 4342
Approved by Department of Environmental Protection
of Massachusetts

COMMISSIONER

DIVISION DIRECTOR

JAN 20 1995
DATE



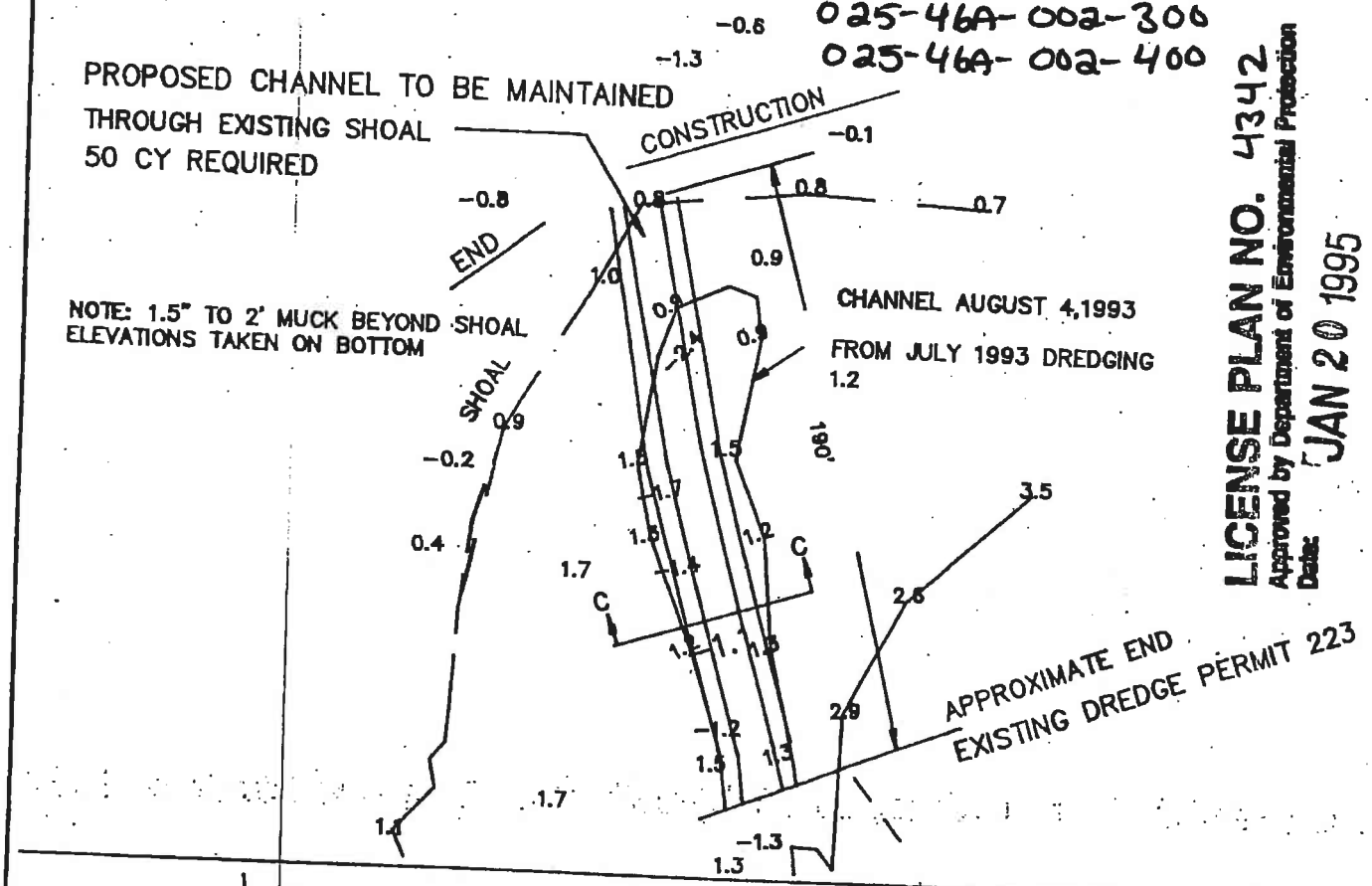
PLAN TO ACCOMPANY PETITION OF
TOWN OF FALMOUTH
TO REPAIR AND CONSTRUCT JETTIES
RIP RAP AND CULVERT AT
LITTLE POND OUTLET, FALMOUTH,
BARNSTABLE COUNTY, MASS.
SCALE: AS NOTED DATE: SEP 28, 1993
TOWN OF FALMOUTH
DEPARTMENT OF PUBLIC WORKS

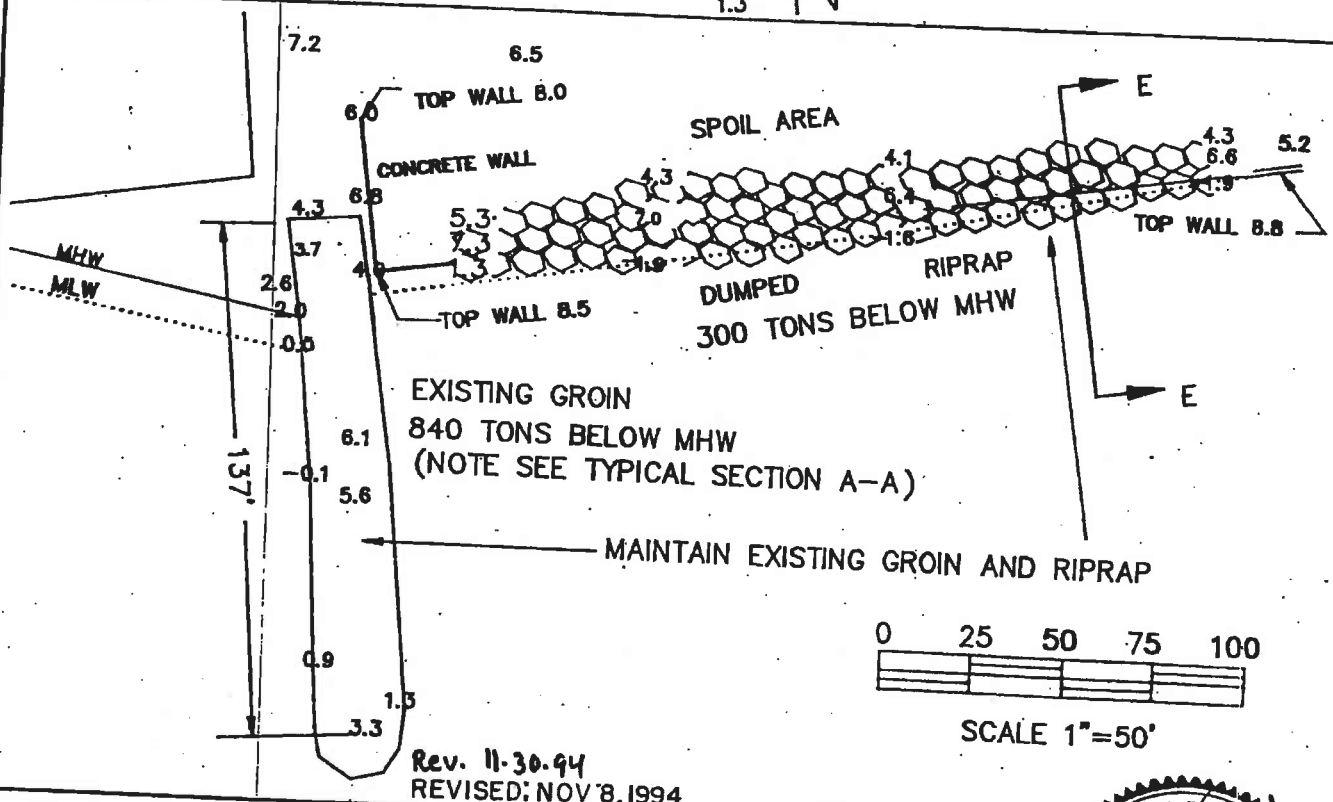
SPOIL MATERIALS FROM DREDGING TO BE USED FOR BEACH NOURISHMENT AT SITE OR FALMOUTH HEIGHTS BEACH. NO STOCKPILING OR DISPOSAL BELOW SPRING HIGH WATER

COMMONWEALTH OF MASSACHUSETTS
GAETANO G. CALISE JR.
No. 23428
REGISTERED PROFESSIONAL ENGINEER

025-46A-002-100
025-46A-002-200
025-46A-002-300
025-46A-002-400

LICENSE PLAN NO. 4342
Approved by Department of Environmental Protection
Date: JAN 20 1995





0 25 50 75 100

SCALE 1"=50'

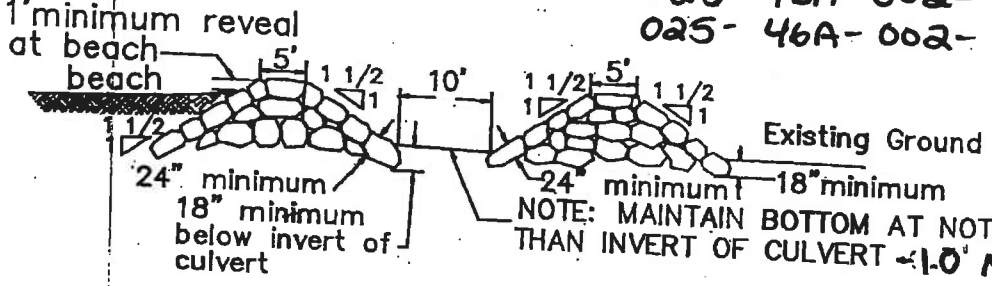
Rev. 11-30-94
REVISED: NOV 8, 1994

PLAN TO ACCOMPANY PETITION OF
TOWN OF FALMOUTH
TO REPAIR AND CONSTRUCT JETTIES
RIP RAP AND CULVERT AT
LITTLE POND OUTLET, FALMOUTH,
BARNSTABLE COUNTY, MASS.
SCALE: AS NOTED DATE: SEP 28,1993
TOWN OF FALMOUTH

PLAN

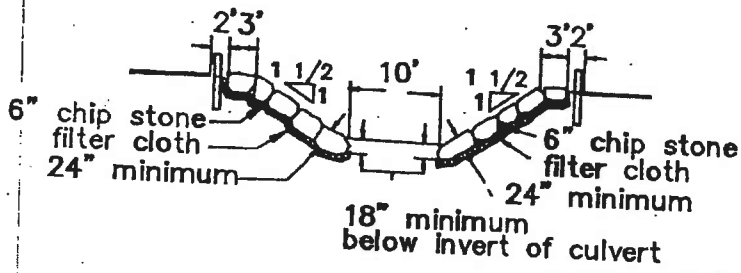
COMMONWEALTH OF MASSACHUSETTS
GAETANO CALISE, JR.
No. 23428
REGISTERED
PROFESSIONAL ENGINEER

025-46A-002-100
025-46A-002-200
025-46A-002-300
025-46A-002-400



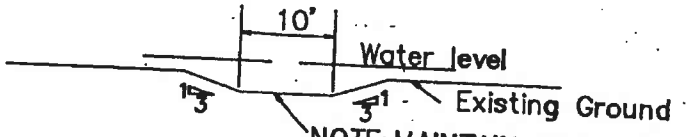
NOTE: MAINTAIN BOTTOM AT NOT LESS THAN INVERT OF CULVERT -1.0' M.L.W

SECTION A–A/2



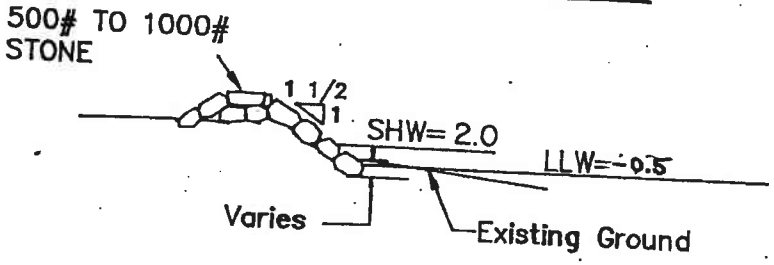
NOTE: MAINTAIN BOTTOM AT NOT LESS THAN INVERT OF CULVERT -1.0 M.L.W

SECTION B–B/2



NOTE: MAINTAIN CHANNEL BOTTOM AT NOT LESS THAN INVERT OF CULVERT. -1.0 M.L.W

SECTION C–C/3



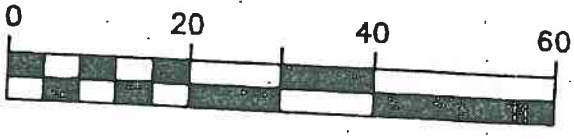
LICENSE PLAN NO. 4342
Approved by Department of Environmental Protection
Date: JAN 20 1995

COMMONWEALTH OF MASSACHUSETTS
GAETANO G. CAUSE, JR.
No. 23428
REGISTERED PROFESSIONAL ENGINEER

SECTION E–E/3

Rev. 11-30-94 REVISED: NOV 8, 1994

PLAN TO ACCOMPANY PETITION OF
TOWN OF FALMOUTH
TO REPAIR AND CONSTRUCT JETTIES
RIP RAP AND CULVERT AT
LITTLE POND OUTLET, FALMOUTH,
BARNSTABLE COUNTY, MASS.
SCALE: AS NOTED DATE: SEP 28, 1993
TOWN OF FALMOUTH
DEPARTMENT OF PUBLIC WORKS

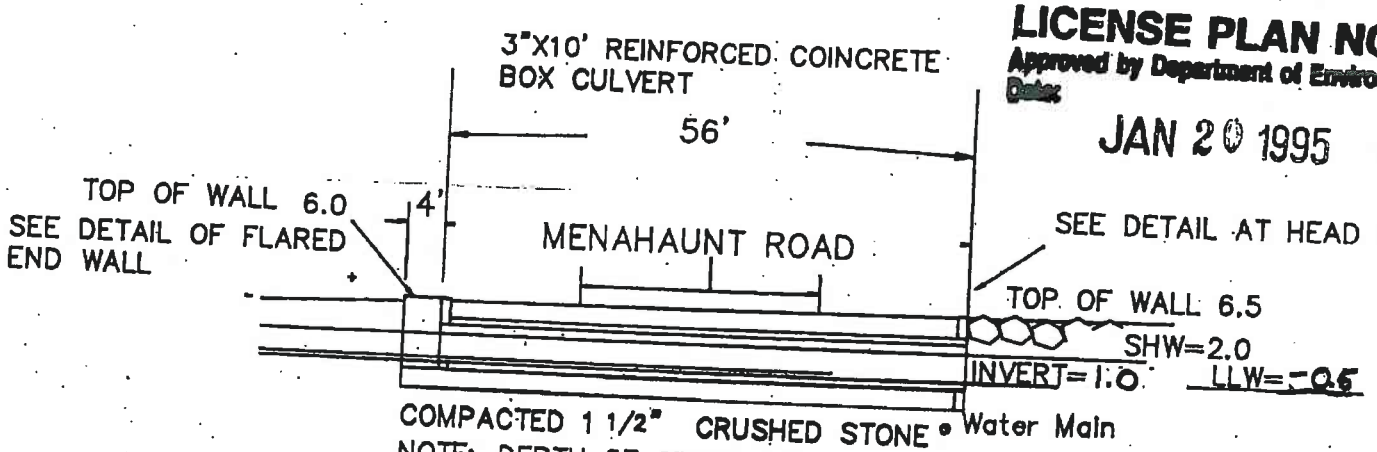


SCALE: 1"=20'

PLAN TO ACCOMPANY PETITION OF
TOWN OF FALMOUTH
TO REPAIR AND CONSTRUCT JETTIES
RIP RAP AND CULVERT AT
LITTLE POND OUTLET, FALMOUTH,
BARNSTABLE COUNTY, MASS.
SCALE: AS NOTED DATE: SEP 28, 1993
TOWN OF FALMOUTH
DEPARTMENT OF PUBLIC WORKS

Rev 11-30-94
REVISED: NOV. 8, 1994

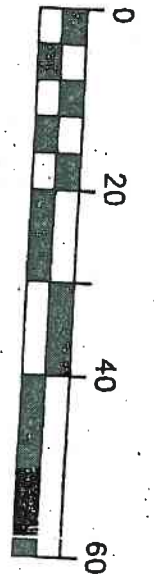
LICENSE PLAN NO. 4342
Approved by Department of Environmental Protection
Date:
JAN 20 1995



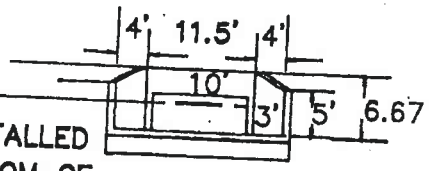
NOTE: DEPTH OF STONE REQUIRED SHALL BE CONFIRMED WITH MANUFACTURER.

NOTE: INVERT OF CULVERT TO BE SET AT -0.05 LOWER LOW WATER SUBJECT TO FIELD VERIFICATION OF LOCATION OF WATER MAIN. ADJUSTMENT OF INVERT ELEVATION MAY BE REQUIRED.

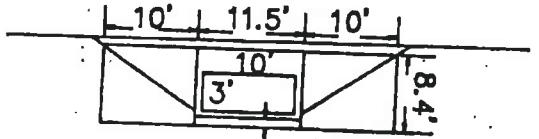
COMMONWEALTH OF MASSACHUSETTS
GAETANO DAUTI, JR.
REGISTERED PROFESSIONAL ENGINEER
No. 23428



SECTION D-D/2

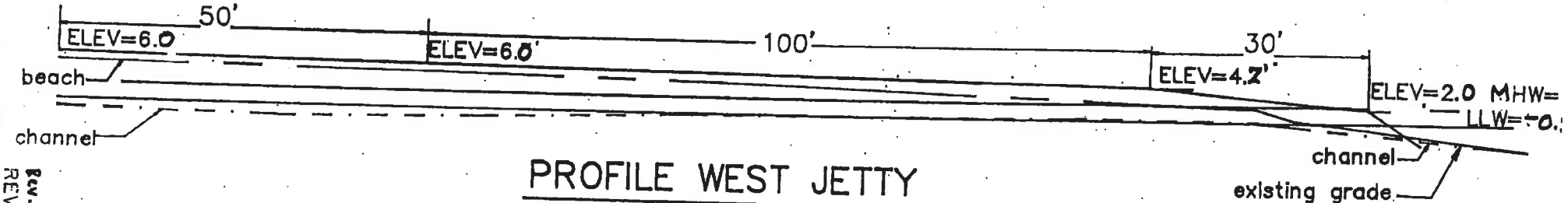


ELEVATION AT FLARED END WALL



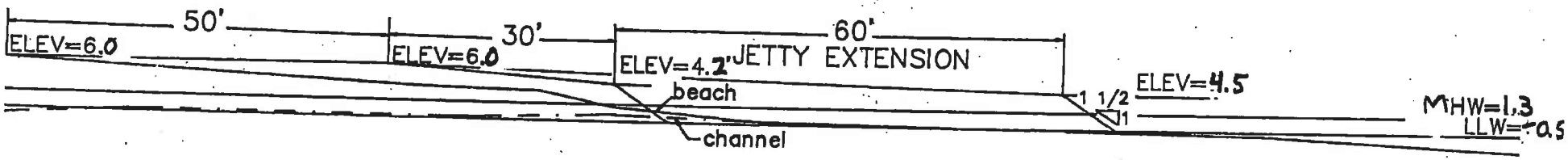
ELEVATION AT HEAD WALL

025-40H-002-100
025-46A-002-200
025-46A-002-300
025-46A-002-400



PROFILE WEST JETTY

Rev. 11-30-94
REVISED: NOV. 8, 1994



PROFILE EAST JETTY

025-46A-002-100
025-46A-002-200
025-46A-002-300
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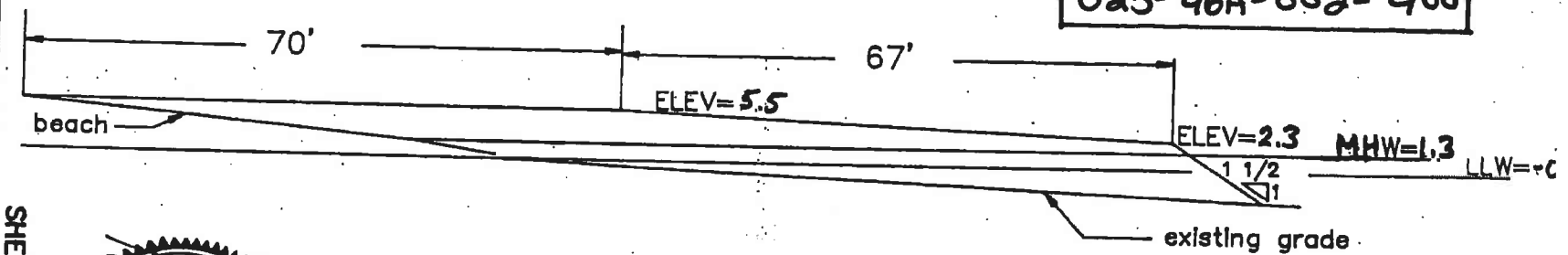


PROFILE EAST GROIN

PLAN TO ACCOMPANY PETITION OF TOWN OF FALMOUTH TO REPAIR AND CONSTRUCT JETTIES RIP RAP AND CULVERT AT LITTLE POND OUTLET, FALMOUTH, BARNSTABLE COUNTY, MASS.
SCALE: AS NOTED DATE: SEP 28, 1993
TOWN OF FALMOUTH
DEPARTMENT OF PUBLIC WORKS

SHEET 6 OF 6

COMMONWEALTH OF MASSACHUSETTS
GAETANO CAUSE, JR.
No. 23428
REGISTERED PROFESSIONAL ENGINEER

LICENSE PLAN NO. 4342
Approved by Department of Environmental Protection
Date: JAN 20 1995

SCALE: 1"=20'

ABUTTERS

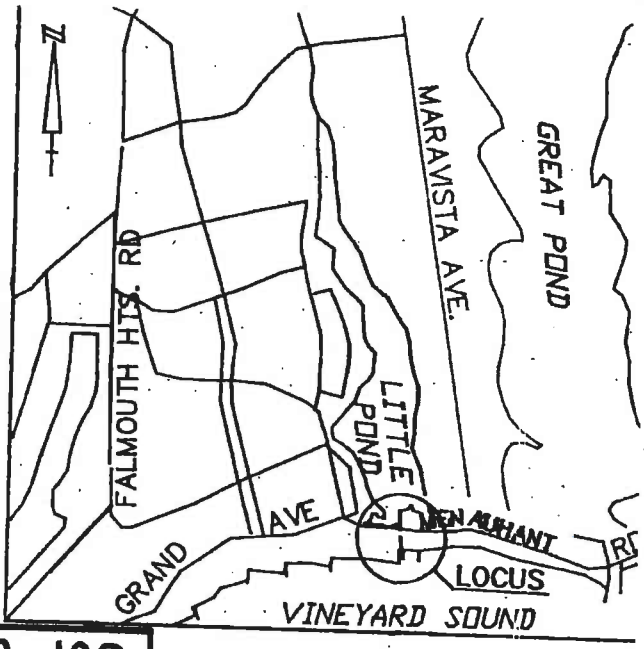
① MAY C.R. BRISTOL IRREVOCABLE TRUST
BENJAMIN H. BRISTOL TRUSTEE
P.O. BOX 272
FOXBORO, MA 02035

② JOHN L. HAM
176 GRAND AVENUE
FALMOUTH, MA 02540

③ VINCENT NICOSIA
196 SOUTH STREET
QUINCY, MA 02169

④ RAYMOND & CLARENCE FULLER
41 GOODING WAY
FALMOUTH, MA 02540

⑤ JOHN F. SISK
24 BEECHNUT CIRCLE
HANOVER, MA 02339

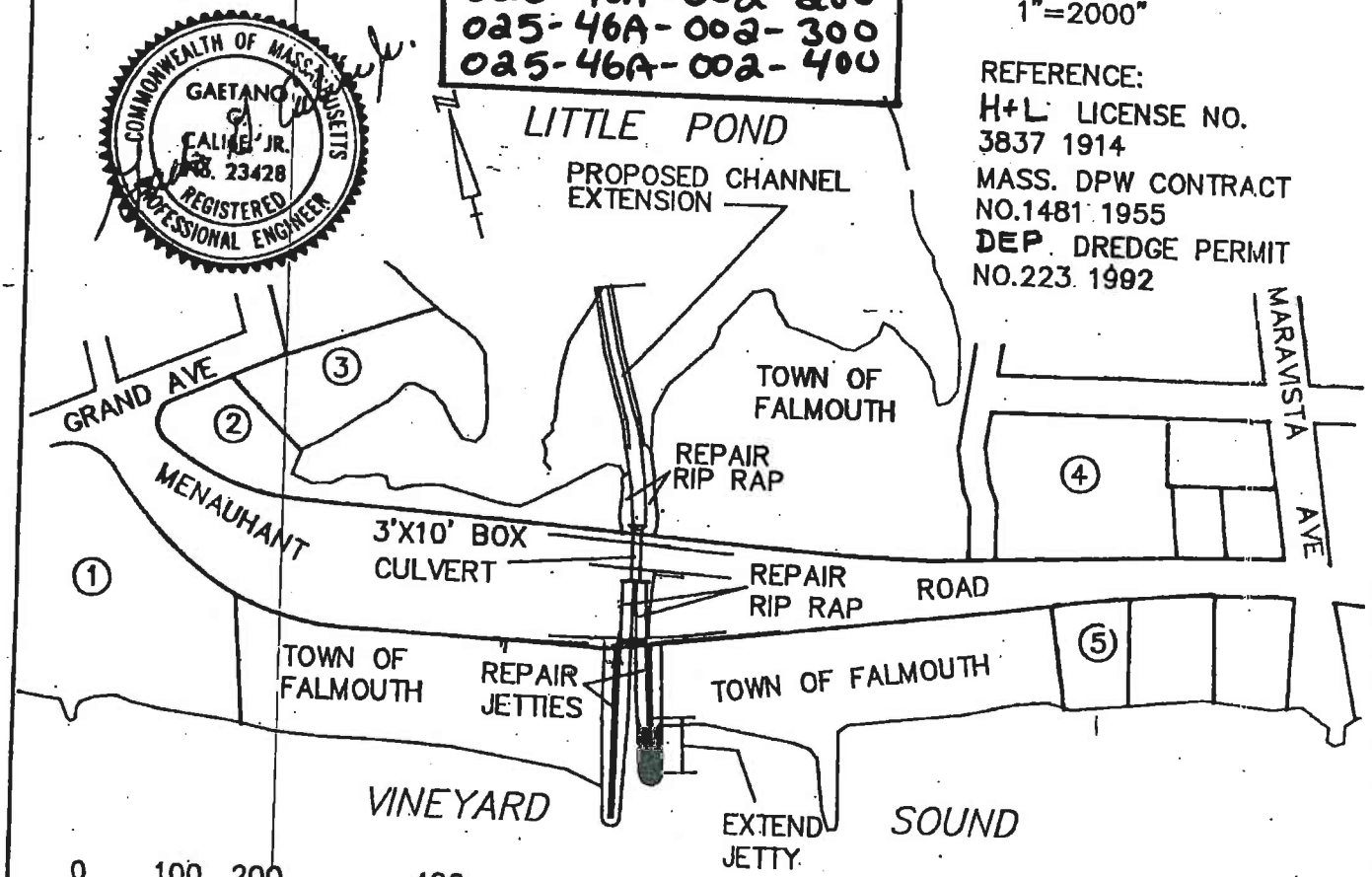


LOCUS MAP
1"=2000"

025-46A-002-100
025-46A-002-200
025-46A-002-300
025-46A-002-400

COMMONWEALTH OF MASSACHUSETTS
GAETANO G. CALISE JR.
NO. 23428
REGISTERED PROFESSIONAL ENGINEER

REFERENCE:
H+L LICENSE NO. 3837 1914
MASS. DPW CONTRACT NO.1481 1955
DEP. DREDGE PERMIT NO.223 1992



VICINITY PLAN

Rev. 11-30-94 SAE
REVISED: NOV 8, 1994

SHEET 1 OF 6

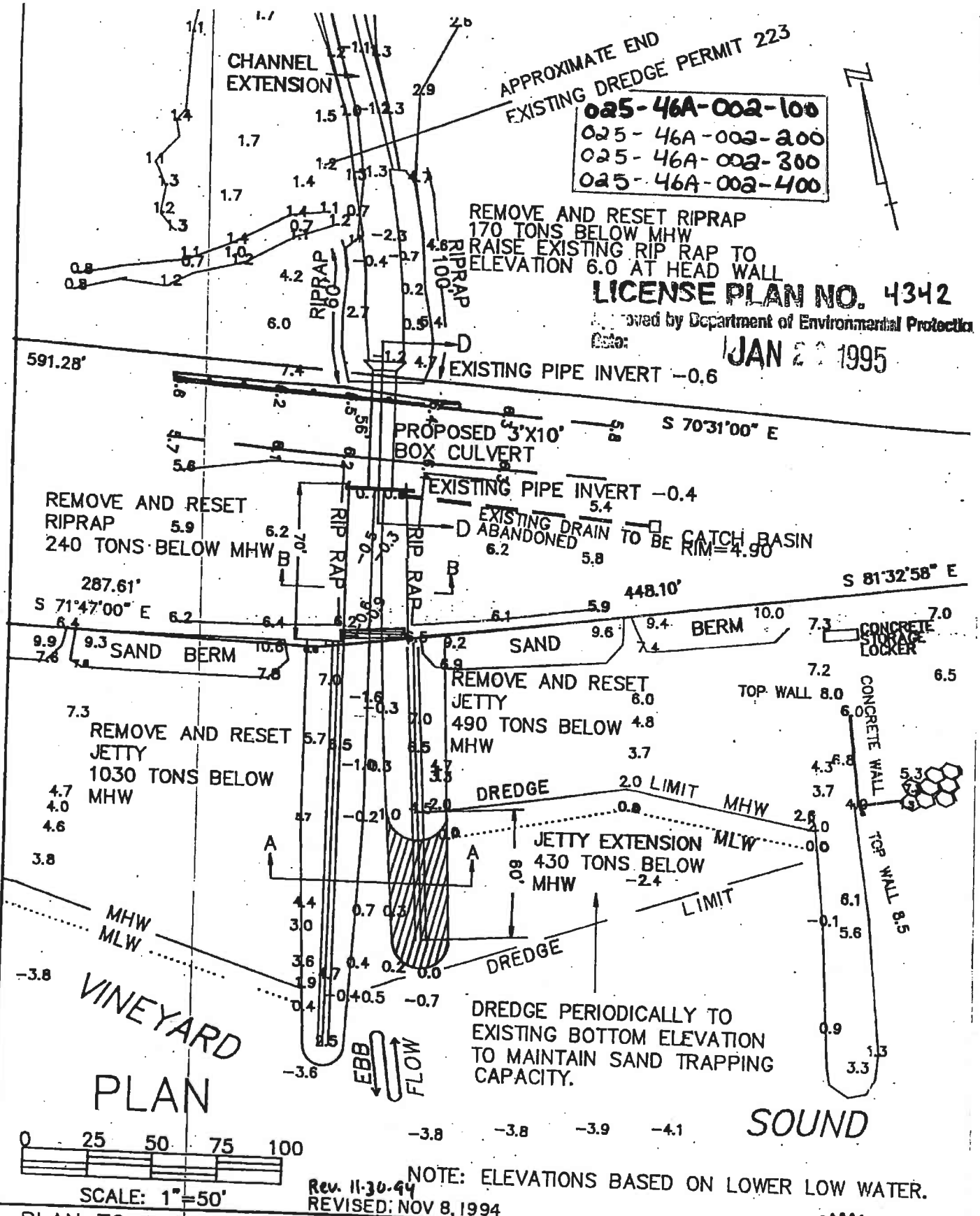
PLAN TO ACCOMPANY PETITION OF
TOWN OF FALMOUTH
TO REPAIR AND CONSTRUCT JETTIES
RIP RAP AND CULVERT AT
LITTLE POND OUTLET, FALMOUTH,
BARNSTABLE COUNTY, MASS.
SCALE: AS NOTED DATE: SEP 28, 1993
TOWN OF FALMOUTH
DEPARTMENT OF PUBLIC WORKS

LICENSE PLAN NO. 4342
Approved by Department of Environmental Protection
of Massachusetts

COMMISSIONER

DIVISION DIRECTOR

JAN 20 1995
DATE



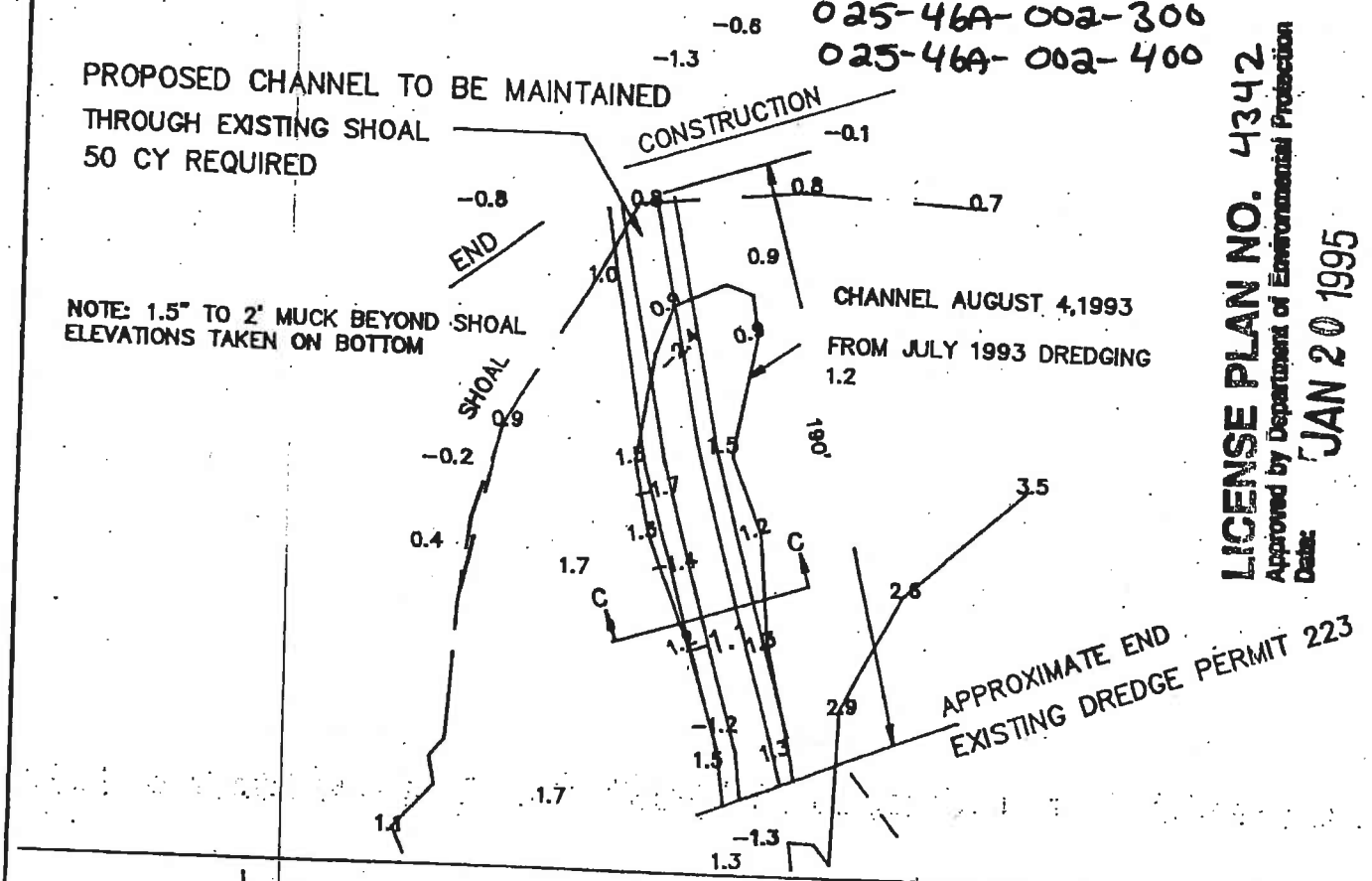
PLAN TO ACCOMPANY PETITION OF
TOWN OF FALMOUTH
TO REPAIR AND CONSTRUCT JETTIES RIP RAP AND CULVERT AT
LITTLE POND OUTLET, FALMOUTH, BARNSTABLE COUNTY, MASS.
SCALE: AS NOTED DATE: SEP 28, 1993
TOWN OF FALMOUTH
DEPARTMENT OF PUBLIC WORKS

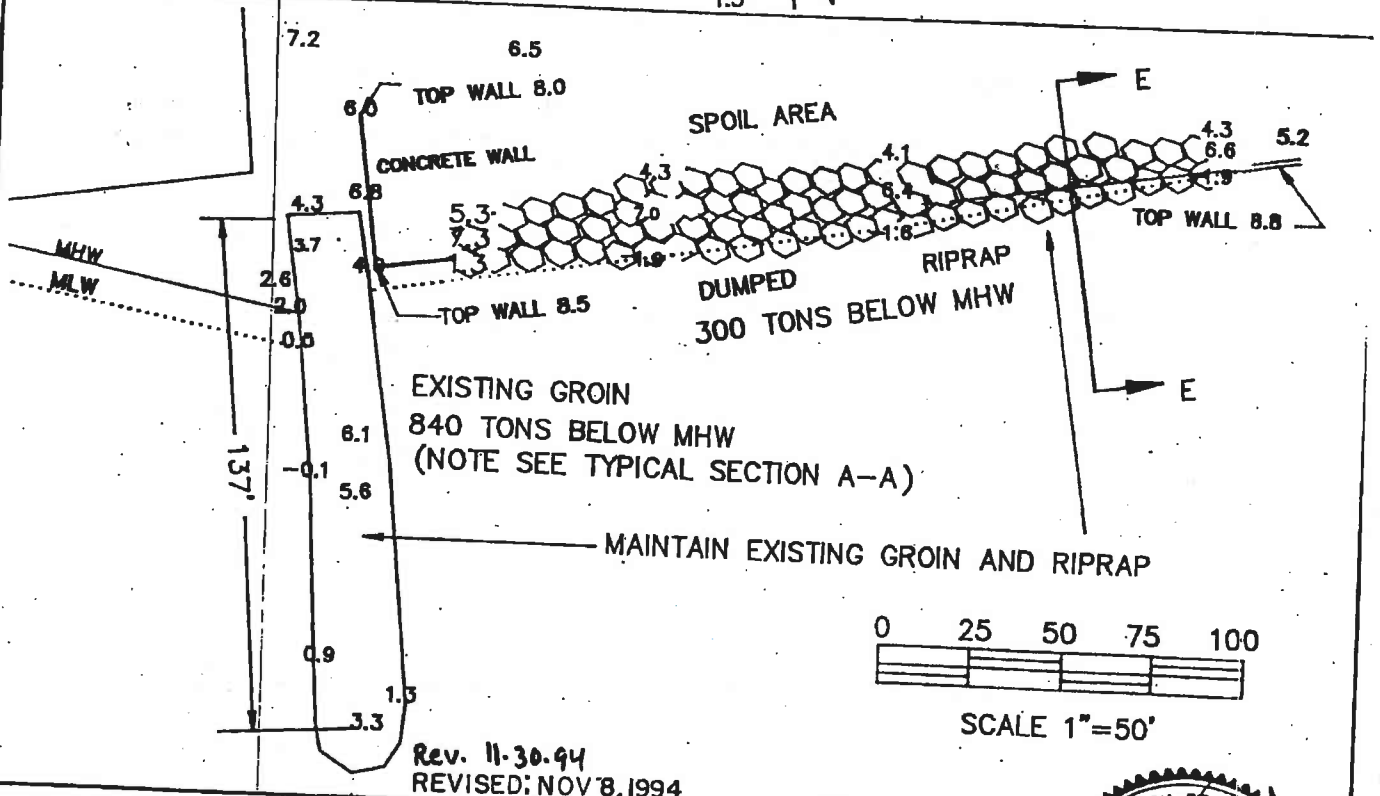
SPOIL MATERIALS FROM DREDGING TO BE USED FOR BEACH NOURISHMENT AT SITE OR FALMOUTH HEIGHTS BEACH. NO STOCKPILING OR DISPOSAL BELOW SPRING HIGH WATER

COMMONWEALTH OF MASSACHUSETTS
GAETANO G. CALISE JR.
NO. 23428
REGISTERED PROFESSIONAL ENGINEER

025-46A-002-100
025-46A-002-200
025-46A-002-300
025-46A-002-400

LICENSE PLAN NO. 4342
Approved by Department of Environmental Protection
Date: JAN 20 1995





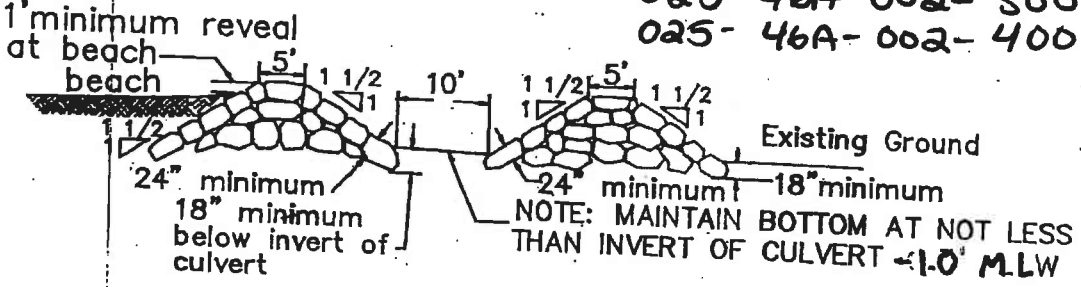
Rev. 11-30-94
REVISED: NOV 8, 1994

PLAN TO ACCOMPANY PETITION OF
TOWN OF FALMOUTH
TO REPAIR AND CONSTRUCT JETTIES
RIP RAP AND CULVERT AT
LITTLE POND OUTLET, FALMOUTH,
BARNSTABLE COUNTY, MASS.
SCALE: AS NOTED DATE: SEP 28, 1993
TOWN OF FALMOUTH

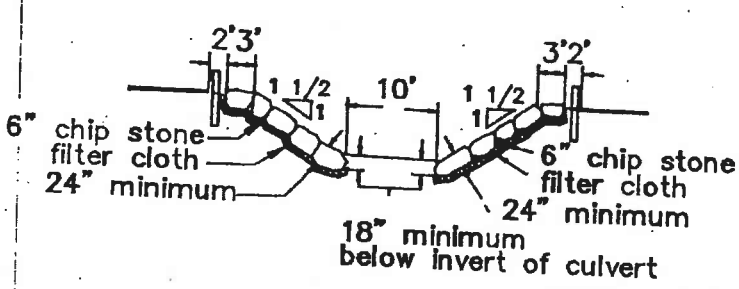
PLAN

COMMONWEALTH OF MASSACHUSETTS
GAETANO D'ALISE, JR.
No. 23428
REGISTERED
PROFESSIONAL ENGINEER

025-46A-002-100
025-46A-002-200
025-46A-002-300
025-46A-002-400

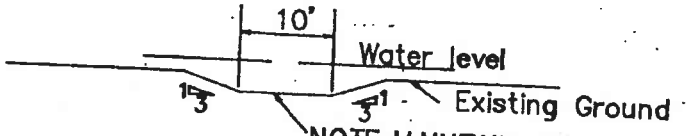


SECTION A–A/2



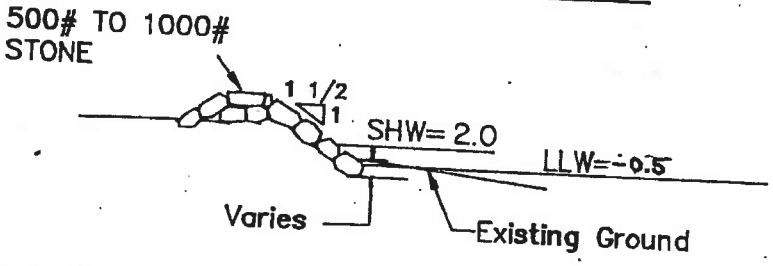
NOTE: MAINTAIN BOTTOM AT NOT LESS THAN INVERT OF CULVERT -1.0 MLW

SECTION B–B/2



NOTE: MAINTAIN CHANNEL BOTTOM AT NOT LESS THAN INVERT OF CULVERT. -1.0 MLW

SECTION C–C/3



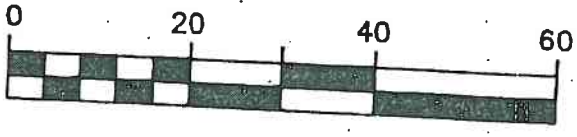
LICENSE PLAN NO. 4342
Approved by Department of Environmental Protection
Date: JAN 20 1995

COMMONWEALTH OF MASSACHUSETTS
GAETANO G. CAUSE, JR.
No. 23428
REGISTERED PROFESSIONAL ENGINEER

SECTION E–E/3

Rev. 11-30-94 REVISED: NOV 8, 1994

PLAN TO ACCOMPANY PETITION OF
TOWN OF FALMOUTH
TO REPAIR AND CONSTRUCT JETTIES
RIP RAP AND CULVERT AT
LITTLE POND OUTLET, FALMOUTH,
BARNSTABLE COUNTY, MASS.
SCALE: AS NOTED DATE: SEP 28,1993
TOWN OF FALMOUTH
DEPARTMENT OF PUBLIC WORKS

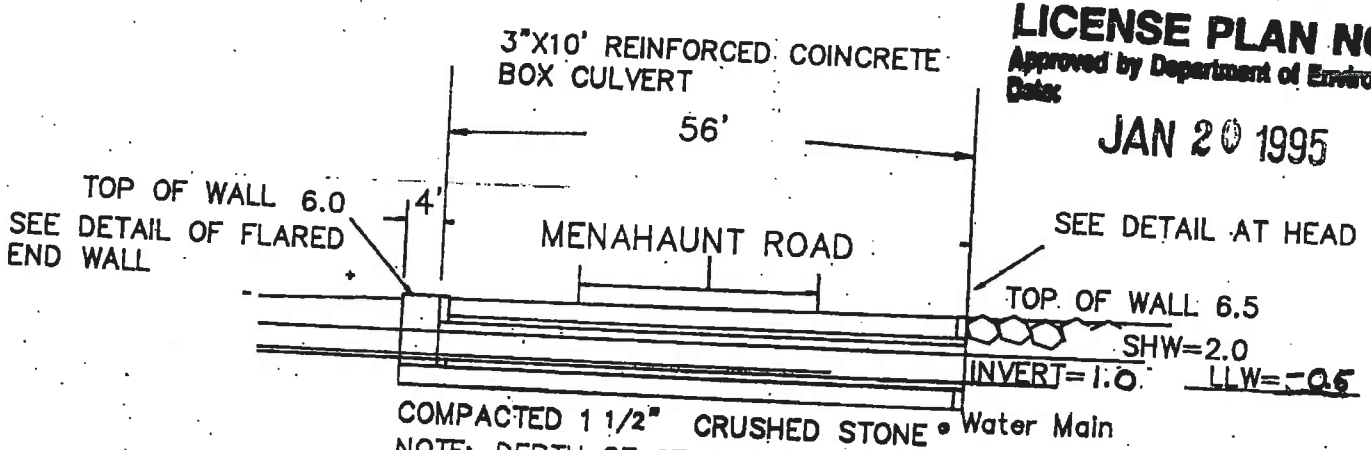


SCALE: 1"=20'

PLAN TO ACCOMPANY PETITION OF
TOWN OF FALMOUTH
TO REPAIR AND CONSTRUCT JETTIES
RIP RAP AND CONSTRUCT
LITTLE POND OUTLET, FALMOUTH,
BARNSTABLE COUNTY, MASS.
SCALE: AS NOTED DATE: SEP 28, 1993
TOWN OF FALMOUTH
DEPARTMENT OF PUBLIC WORKS

Rev 11-30-94
REVISED: NOV. 8, 1994

LICENSE PLAN NO. 4342
Approved by Department of Environmental Protection
Date:
JAN 20 1995

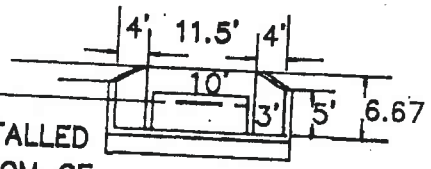


NOTE: DEPTH OF STONE REQUIRED SHALL BE CONFIRMED WITH MANUFACTURER.

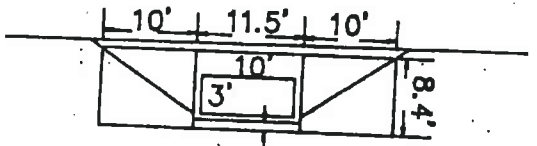
NOTE: INVERT OF CULVERT TO BE SET AT −0.05 LOWER LOW WATER SUBJECT TO FIELD VERIFICATION OF LOCATION OF WATER MAIN. ADJUSTMENT OF INVERT ELEVATION MAY BE REQUIRED.

COMMONWEALTH OF MASSACHUSETTS
GAETANO J. GALLO, JR.
REGISTERED PROFESSIONAL ENGINEER
NO. 23428

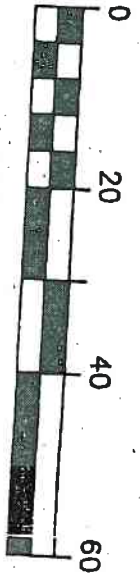
SECTION D–D/2



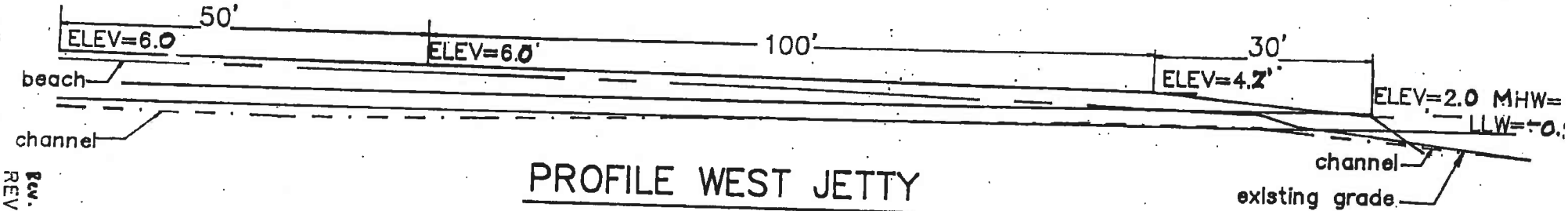
ELEVATION AT FLARED END WALL



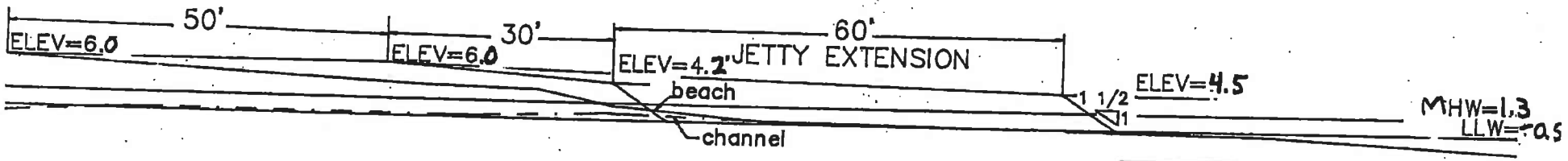
ELEVATION AT HEAD WALL



025-46A-002-200
025-46A-002-300
025-46A-002-400

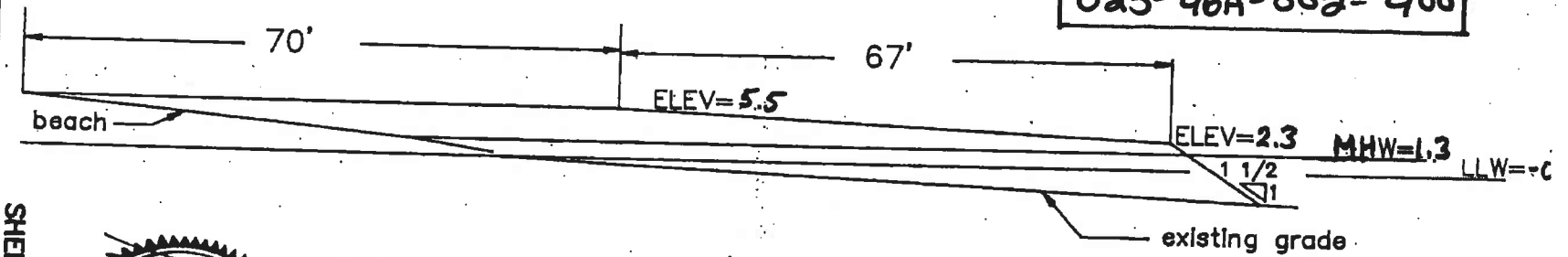


PROFILE WEST JETTY



PROFILE EAST JETTY

025-46A-002-100
025-46A-002-200
025-46A-002-300
025-46A-002-400



PROFILE EAST GROIN

PLAN TO ACCOMPANY PETITION OF TOWN OF FALMOUTH TO REPAIR AND CONSTRUCT JETTIES RIP RAP AND CULVERT AT LITTLE POND OUTLET, FALMOUTH, BARNSTABLE COUNTY, MASS.
SCALE: AS NOTED DATE: SEP 28, 1993
TOWN OF FALMOUTH
DEPARTMENT OF PUBLIC WORKS

SHEET 6 OF 6

Rev. 11-30-94
REVISED: NOV. 8, 1994

COMMONWEALTH OF MASSACHUSETTS
GAETANO E. CAUSE, JR.
No. 23428
REGISTERED PROFESSIONAL ENGINEER

LICENSE PLAN NO. 4342
Approved by Department of Environmental Protection
Date: JAN 20 1995

0 20 40 60
SCALE: 1"=20'

ABUTTERS

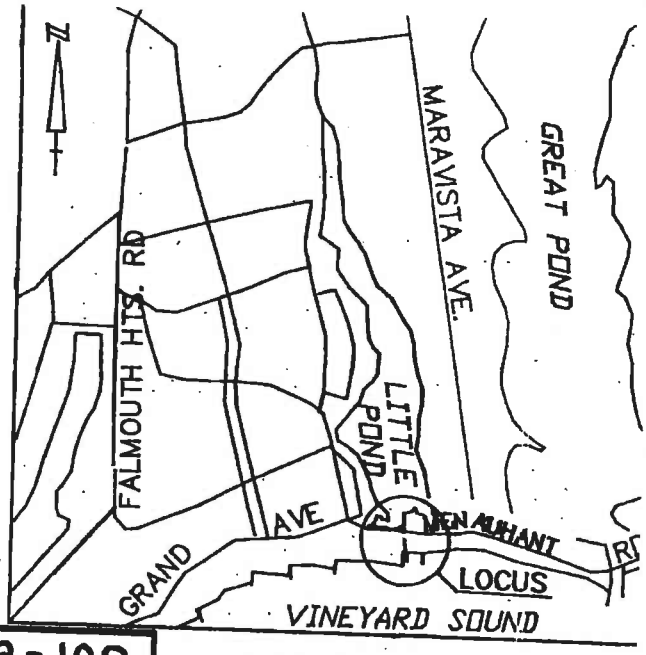
① MAY C.R. BRISTOL IRREVOCABLE TRUST
BENJAMIN H. BRISTOL TRUSTEE
P.O. BOX 272
FOXBORO, MA 02035

② JOHN L. HAM
176 GRAND AVENUE
FALMOUTH, MA 02540

③ VINCENT NICOSIA
196 SOUTH STREET
QUINCY, MA 02169

④ RAYMOND & CLARENCE FULLER
41 GOODING WAY
FALMOUTH, MA 02540

⑤ JOHN F. SISK
24 BEECHNUT CIRCLE
HANOVER, MA 02339

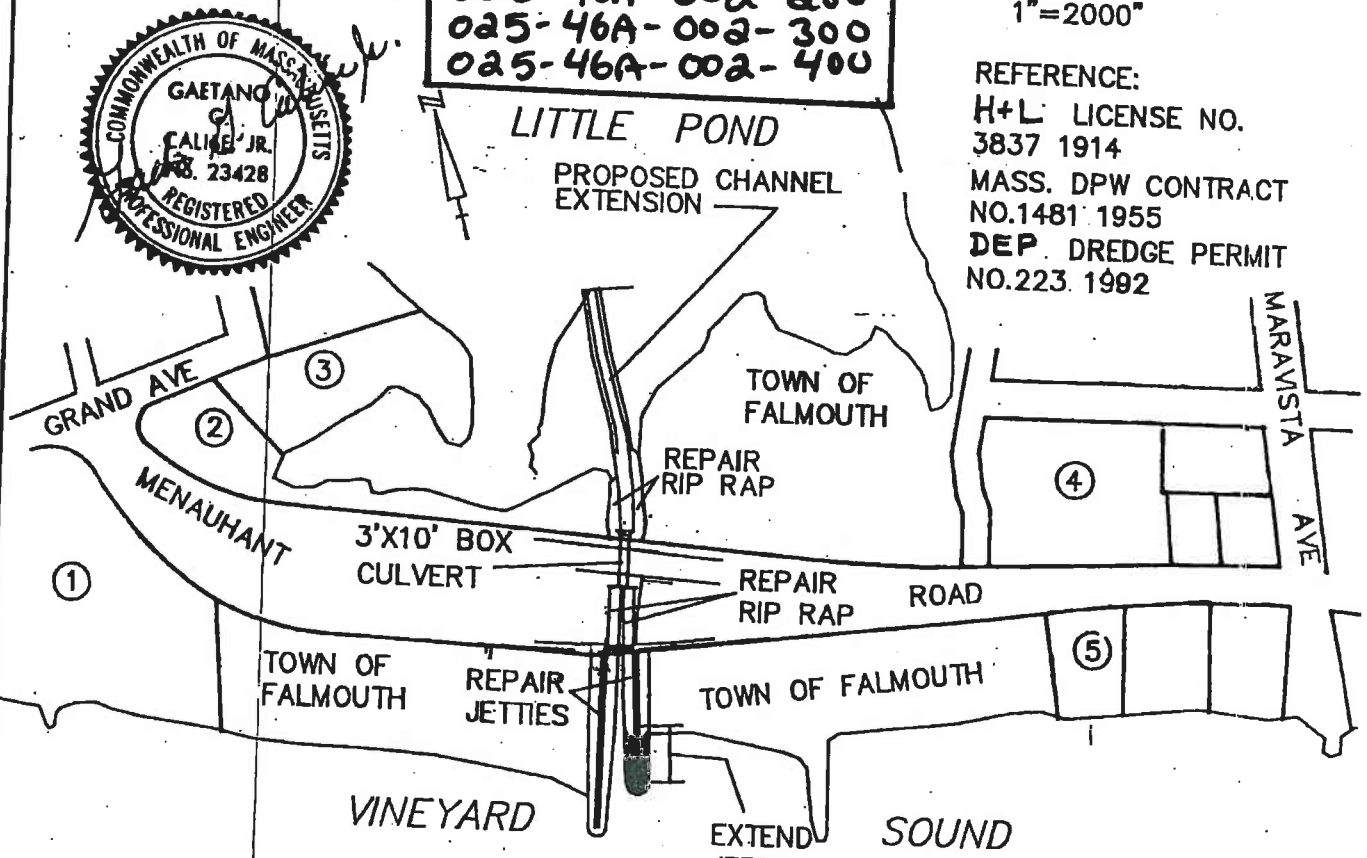


LOCUS MAP
1"=2000"

025-46A-002-100
025-46A-002-200
025-46A-002-300
025-46A-002-400

COMMONWEALTH OF MASSACHUSETTS
GAETANO G. CALIRI JR.
NO. 23428
REGISTERED PROFESSIONAL ENGINEER

REFERENCE:
H+L LICENSE NO. 3837 1914
MASS. DPW CONTRACT NO.1481 1955
DEP DREDGE PERMIT NO.223 1992



VICINITY PLAN

Rev. 11-30-94 sne
REVISED: NOV 8, 1994

SHEET 1 OF 6

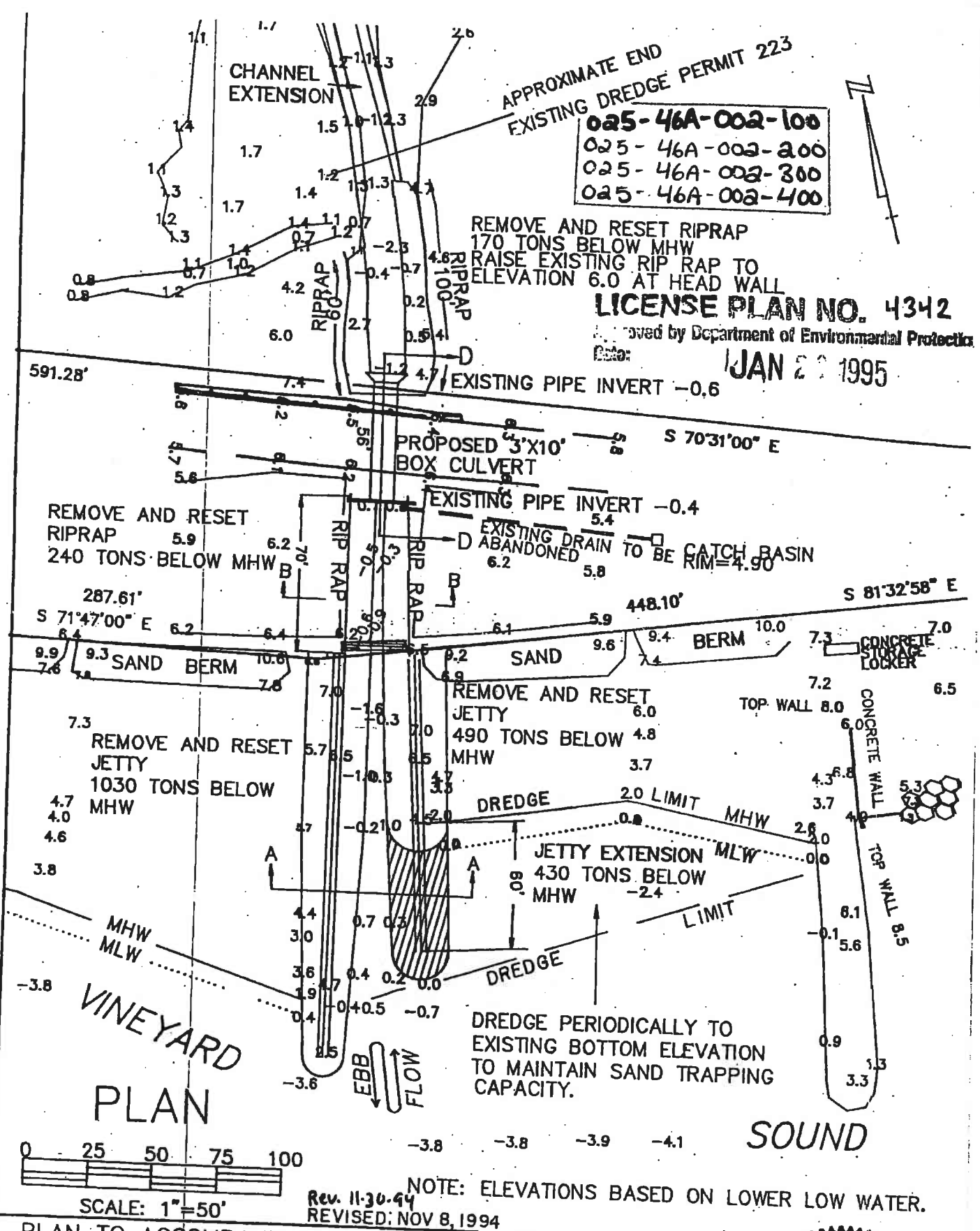
PLAN TO ACCOMPANY PETITION OF
TOWN OF FALMOUTH
TO REPAIR AND CONSTRUCT JETTIES
RIP RAP AND CULVERT AT
LITTLE POND OUTLET, FALMOUTH,
BARNSTABLE COUNTY, MASS.
SCALE: AS NOTED DATE: SEP 28, 1993
TOWN OF FALMOUTH
DEPARTMENT OF PUBLIC WORKS

LICENSE PLAN NO. 4342
Approved by Department of Environmental Protection
of Massachusetts

COMMISSIONER

DIVISION DIRECTOR

JAN 20 1995
DATE



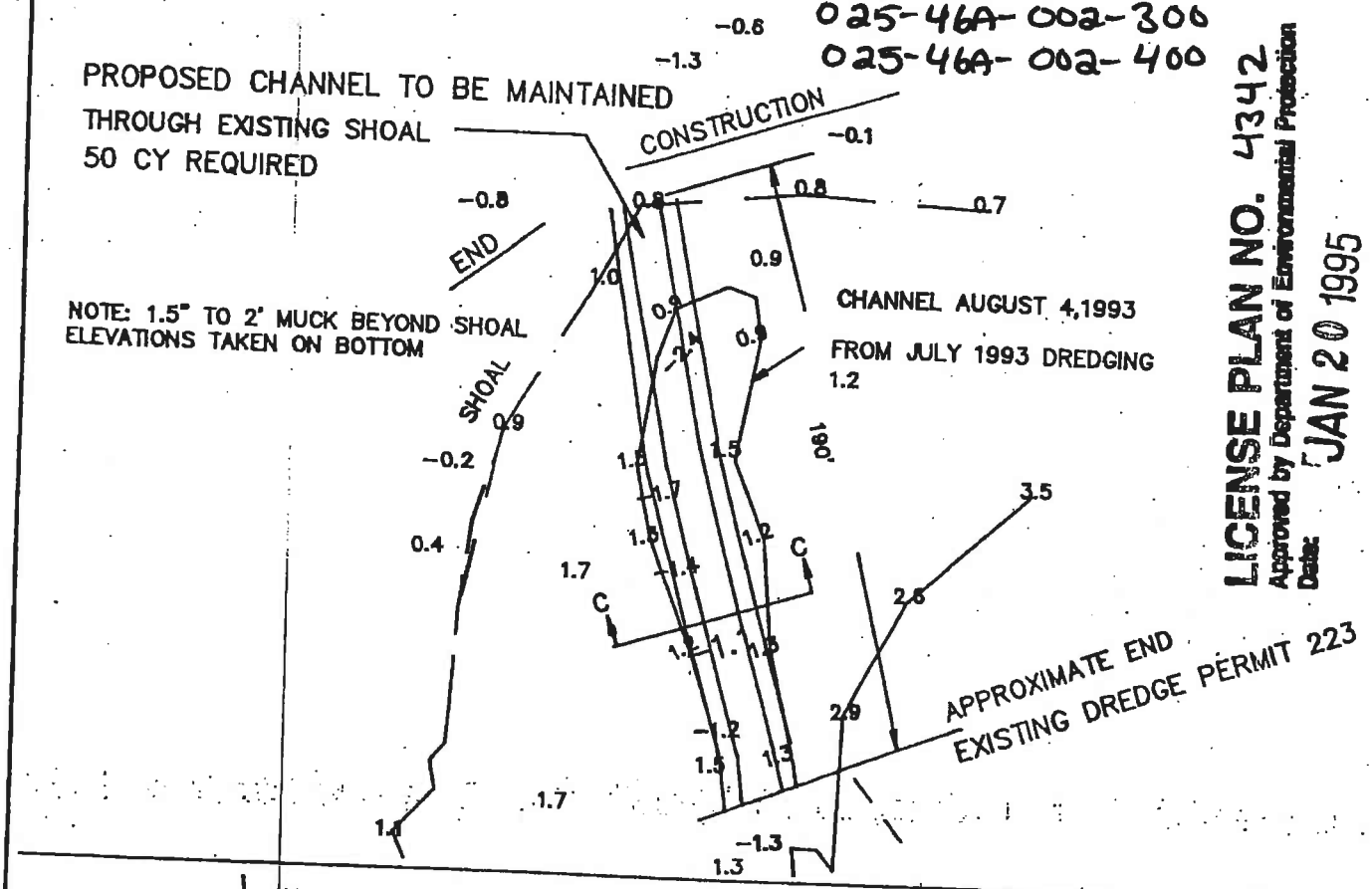
PLAN TO ACCOMPANY PETITION OF
TOWN OF FALMOUTH
TO REPAIR AND CONSTRUCT JETTIES
RIP RAP AND CULVERT AT
LITTLE POND OUTLET, FALMOUTH,
BARNSTABLE COUNTY, MASS.
SCALE: AS NOTED DATE: SEP 28, 1993
TOWN OF FALMOUTH
DEPARTMENT OF PUBLIC WORKS

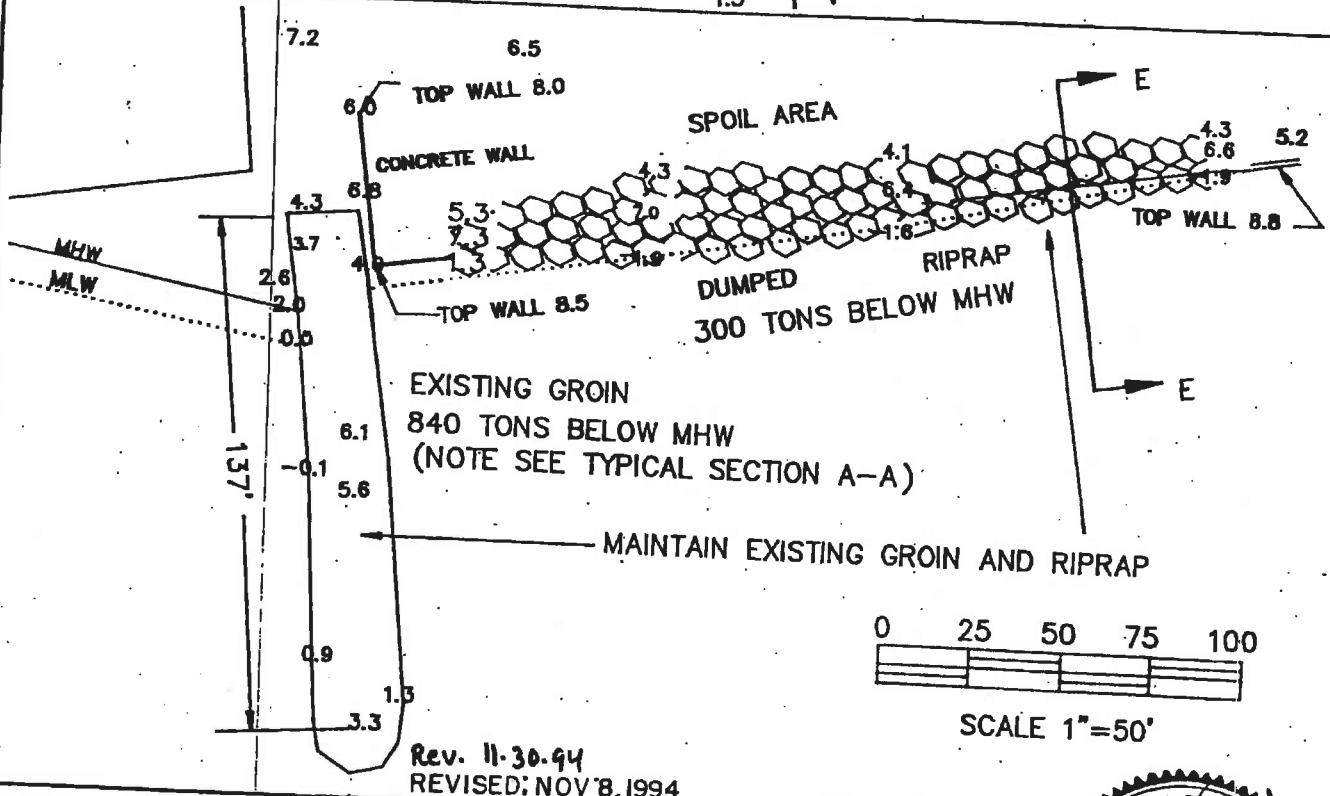
SPOIL MATERIALS FROM DREDGING TO BE USED FOR BEACH NOURISHMENT AT SITE OR FALMOUTH HEIGHTS BEACH. NO STOCKPILING OR DISPOSAL BELOW SPRING HIGH WATER

COMMONWEALTH OF MASSACHUSETTS
GAETANO G. CALISE JR.
No. 23428
REGISTERED PROFESSIONAL ENGINEER

025-46A-002-100
025-46A-002-200
025-46A-002-300
025-46A-002-400

LICENSE PLAN NO. 4342
Approved by Department of Environmental Protection
Date: JAN 20 1995





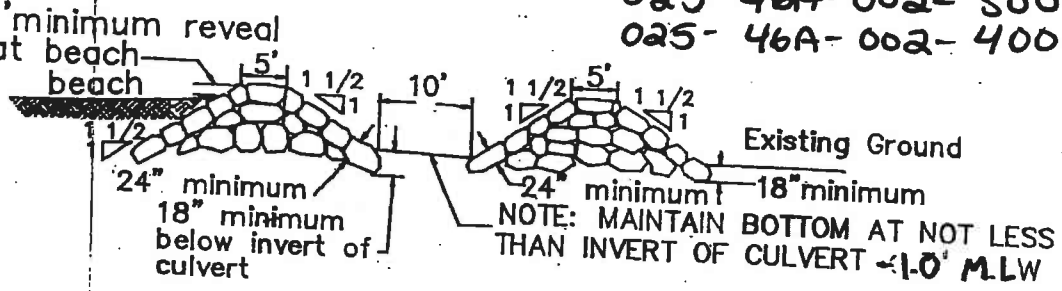
Rev. 11-30-94
REVISED: NOV 8, 1994

PLAN

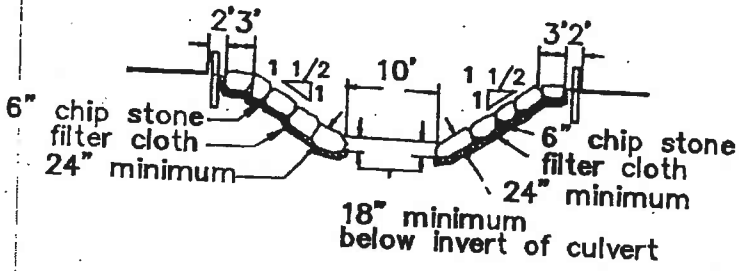
PLAN TO ACCOMPANY PETITION OF
TOWN OF FALMOUTH
TO REPAIR AND CONSTRUCT JETTIES
RIP RAP AND CULVERT AT
LITTLE POND OUTLET, FALMOUTH,
BARNSTABLE COUNTY, MASS.
SCALE: AS NOTED DATE: SEP 28, 1993
TOWN OF FALMOUTH

COMMONWEALTH OF MASSACHUSETTS
GAETANO CALISE, JR.
No. 23428
REGISTERED
PROFESSIONAL ENGINEER

025-46A-002-100
025-46A-002-200
025-46A-002-300
025-46A-002-400

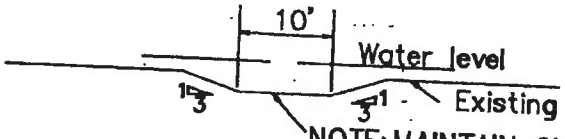


SECTION A–A/2



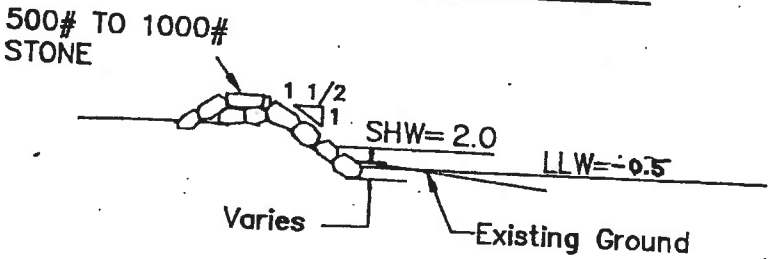
NOTE: MAINTAIN BOTTOM AT NOT LESS THAN INVERT OF CULVERT -1.0 MLW

SECTION B–B/2



NOTE: MAINTAIN CHANNEL BOTTOM AT NOT LESS THAN INVERT OF CULVERT. -1.0 MLW

SECTION C–C/3



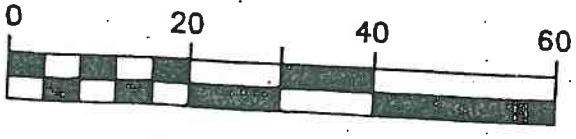
LICENSE PLAN NO. 4342
Approved by Department of Environmental Protection
Date: JAN 20 1995

COMMONWEALTH OF MASSACHUSETTS
GAETANO G. CAUSE, JR.
No. 23428
REGISTERED PROFESSIONAL ENGINEER

SECTION E–E/3

Rev. 11-30-94 REVISED: NOV 8, 1994

PLAN TO ACCOMPANY PETITION OF TOWN OF FALMOUTH TO REPAIR AND CONSTRUCT JETTIES RIP RAP AND CULVERT AT LITTLE POND OUTLET, FALMOUTH, BARNSTABLE COUNTY, MASS.
SCALE: AS NOTED DATE: SEP 28, 1993
TOWN OF FALMOUTH
DEPARTMENT OF PUBLIC WORKS



SCALE: 1"=20'

PLAN TO ACCOMPANY PETITION OF
TOWN OF FALMOUTH
TO REPAIR AND CONSTRUCT JETTIES
RIP RAP AND CULVERT AT
LITTLE POND OUTLET, FALMOUTH,
BARNSTABLE COUNTY, MASS.
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DEPARTMENT OF PUBLIC WORKS

Rev 11-30-94
REVISED: NOV. 8, 1994

LICENSE PLAN NO. 4342
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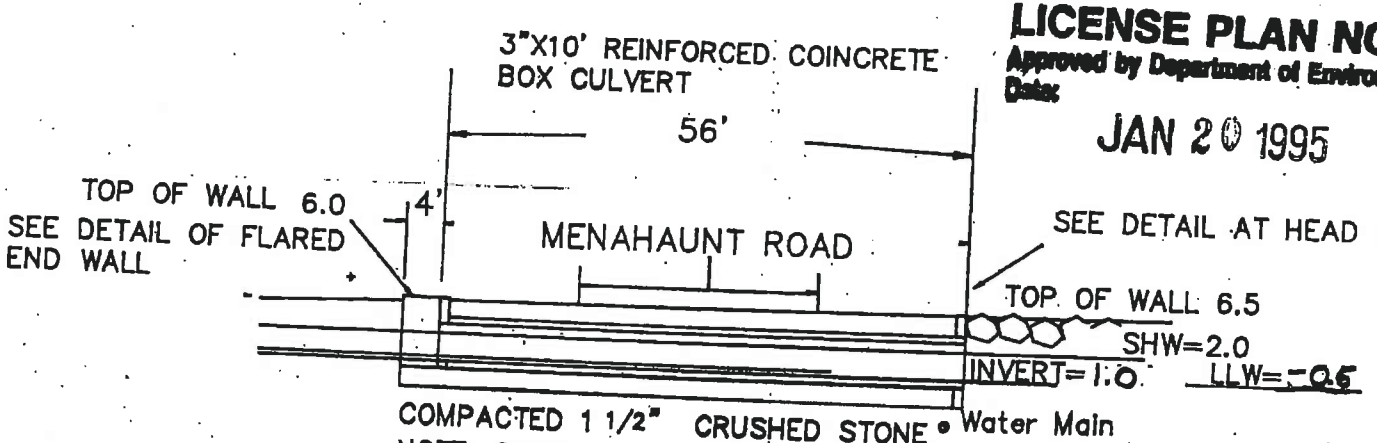
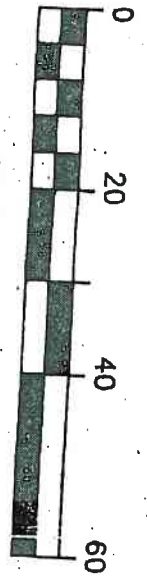
Date:
JAN 20 1995

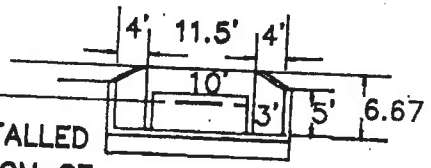


NOTE: DEPTH OF STONE REQUIRED SHALL BE CONFIRMED WITH MANUFACTURER.

NOTE: INVERT OF CULVERT TO BE SET AT −0.05 LOWER LOW WATER SUBJECT TO FIELD VERIFICATION OF LOCATION OF WATER MAIN. ADJUSTMENT OF INVERT ELEVATION MAY BE REQUIRED.

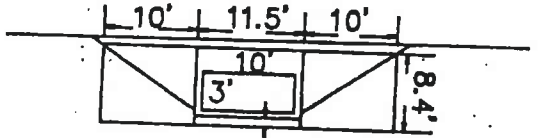


SECTION D−D/2



SEASONAL STORM BOARDS TO BE INSTALLED
ELEVATION OF BOTTOM OF BOARD TO BE SET AT 1.0

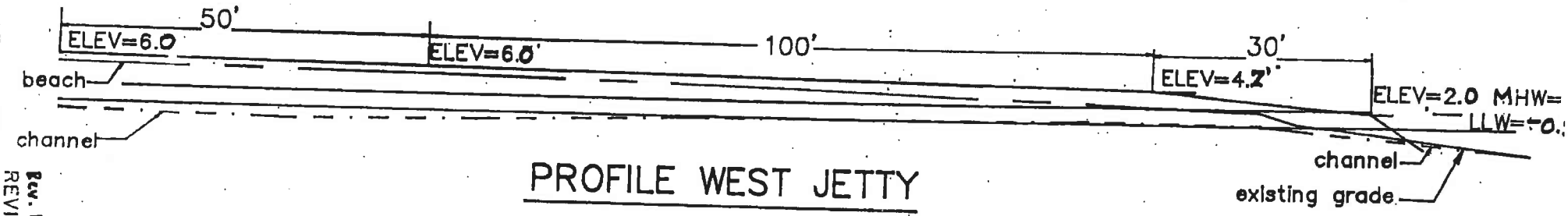
ELEVATION AT FLARED END WALL



MINIMUM 18" TOE WALL BELOW INVERT

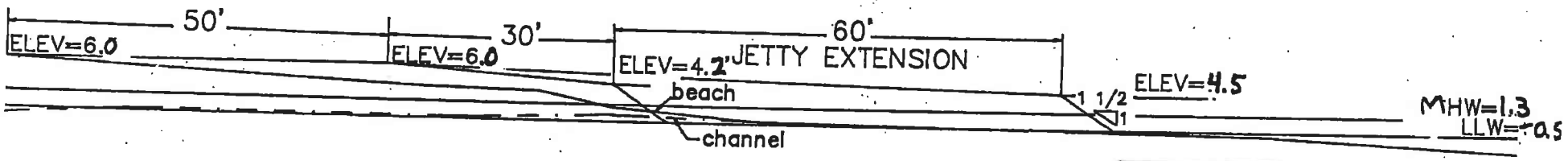
ELEVATION AT HEAD WALL

025-40H-002-100
025-46A-002-200
025-46A-002-300
025-46A-002-400



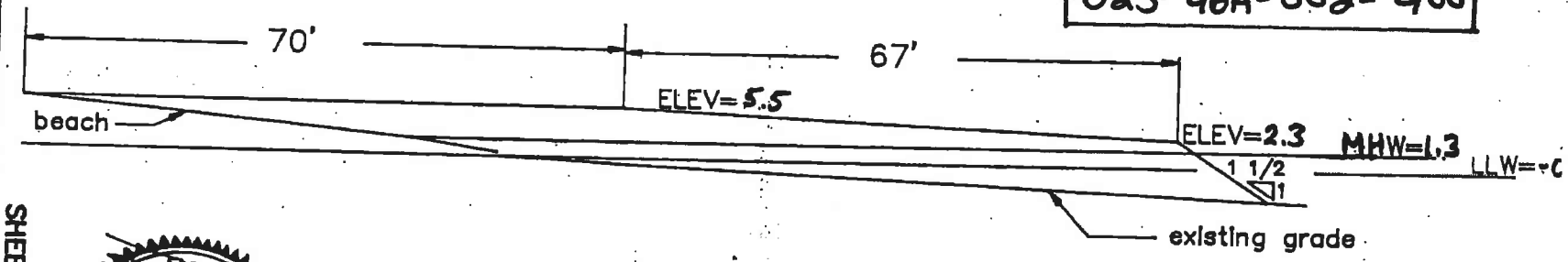
PROFILE WEST JETTY

Rev. 11-30-94
REVISED: NOV. 8, 1994



PROFILE EAST JETTY

025-46A-002-100
025-46A-002-200
025-46A-002-300
025-46A-002-400



PROFILE EAST GROIN

PLAN TO ACCOMPANY PETITION OF
TOWN OF FALMOUTH
TO REPAIR AND CONSTRUCT JETTIES
RIP RAP AND CULVERT AT
LITTLE POND OUTLET, FALMOUTH,
BARNSTABLE COUNTY, MASS.
SCALE: AS NOTED DATE: SEP 28, 1993
TOWN OF FALMOUTH
DEPARTMENT OF PUBLIC WORKS

SHEET 6 OF 6

COMMONWEALTH OF MASSACHUSETTS
GAETANO PELLEGRINI CAUSE, JR.
No. 23428
REGISTERED PROFESSIONAL ENGINEER

LICENSE PLAN NO. 4342
Approved by Department of Environmental Protection
Date: JAN 20 1995

0 20 40 60

SCALE: 1"=20'

ABUTTERS

① MAY C.R. BRISTOL IRREVOCABLE TRUST
BENJAMIN H. BRISTOL TRUSTEE
P.O. BOX 272
FOXBORO, MA 02035

② JOHN L. HAM
176 GRAND AVENUE
FALMOUTH, MA 02540

③ VINCENT NICOSIA
196 SOUTH STREET
QUINCY, MA 02169

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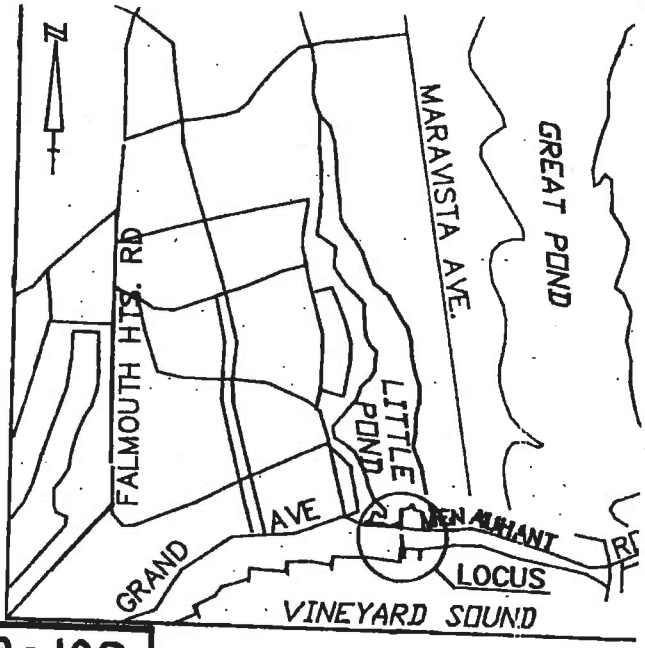
24 BEECHNUT CIRCLE
HANOVER, MA 02339

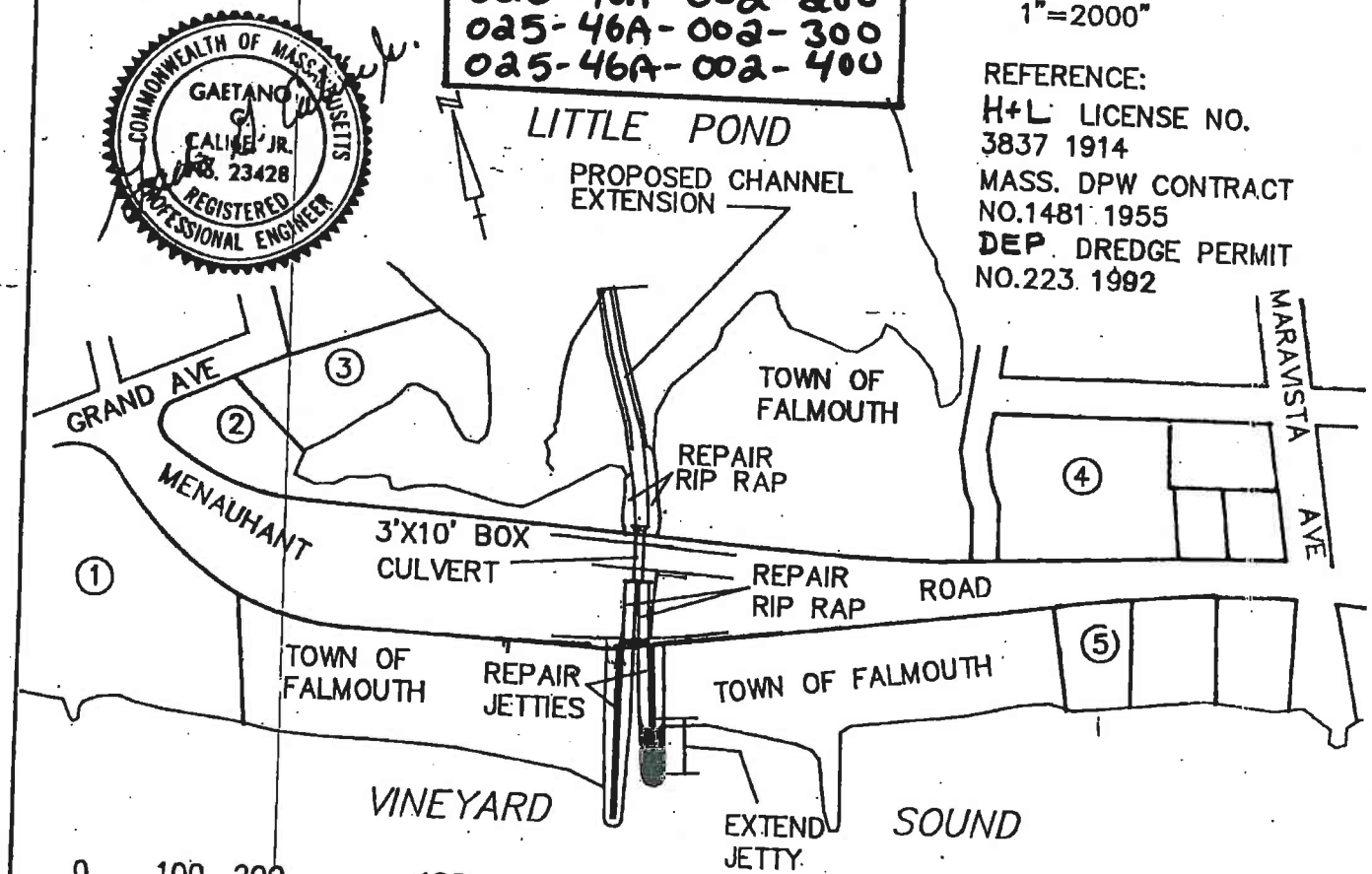


LOCUS MAP
1"=2000"

025-46A-002-100
025-46A-002-200
025-46A-002-300
025-46A-002-400

COMMONWEALTH OF MASSACHUSETTS
GAETANO CALISE JR.
NO. 23428
REGISTERED PROFESSIONAL ENGINEER

REFERENCE:
H+L LICENSE NO. 3837 1914
MASS. DPW CONTRACT NO.1481 1955
DEP. DREDGE PERMIT NO.223 1992



0 100 200 400 600
SCALE: 1"=200'

VICINITY PLAN

Rev. 11-30-94 SAE
REVISED: NOV 8, 1994 SHEET 1 OF 6

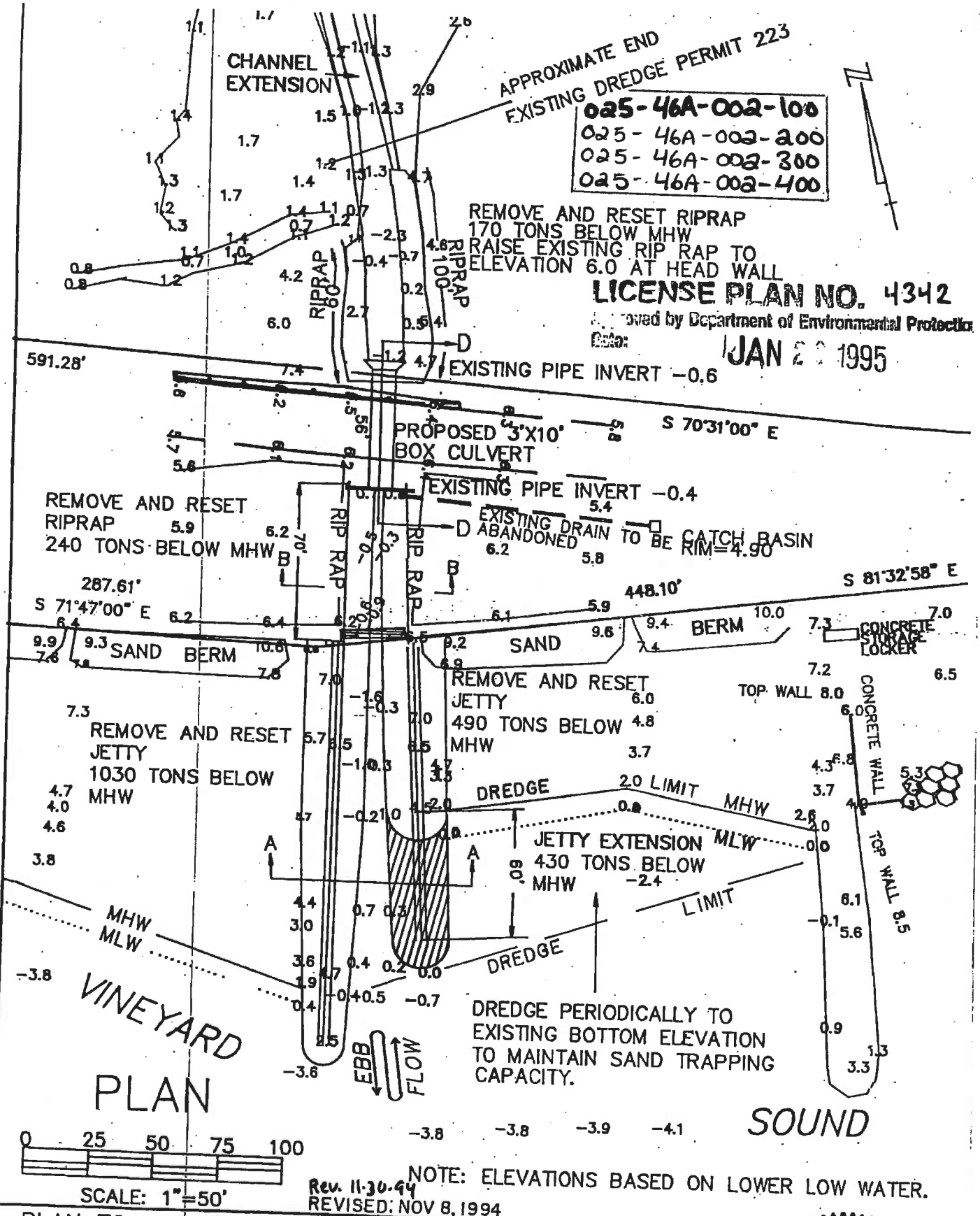
PLAN TO ACCOMPANY PETITION OF
TOWN OF FALMOUTH
TO REPAIR AND CONSTRUCT JETTIES
RIP RAP AND CULVERT AT
LITTLE POND OUTLET, FALMOUTH,
BARNSTABLE COUNTY, MASS.
SCALE: AS NOTED DATE: SEP 28, 1993
TOWN OF FALMOUTH
DEPARTMENT OF PUBLIC WORKS

LICENSE PLAN NO. 4342
Approved by Department of Environmental Protection
of Massachusetts

COMMISSIONER

DIVISION DIRECTOR

JAN 20 1995
DATE



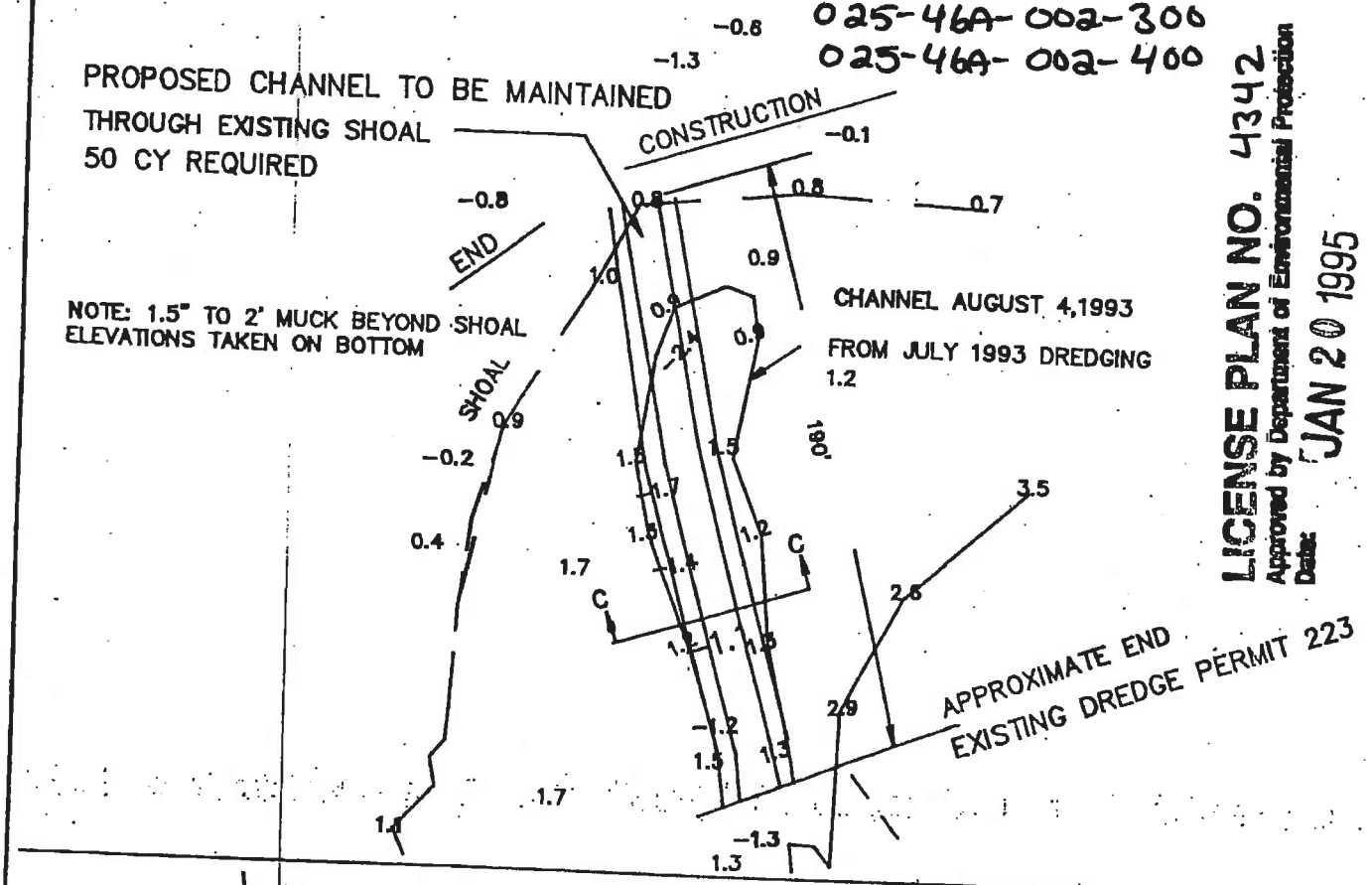
PLAN TO ACCOMPANY PETITION OF
TOWN OF FALMOUTH
TO REPAIR AND CONSTRUCT JETTIES
RIP RAP AND CULVERT AT
LITTLE POND OUTLET, FALMOUTH,
BARNSTABLE COUNTY, MASS.
SCALE: AS NOTED DATE: SEP 28, 1993
TOWN OF FALMOUTH
DEPARTMENT OF PUBLIC WORKS

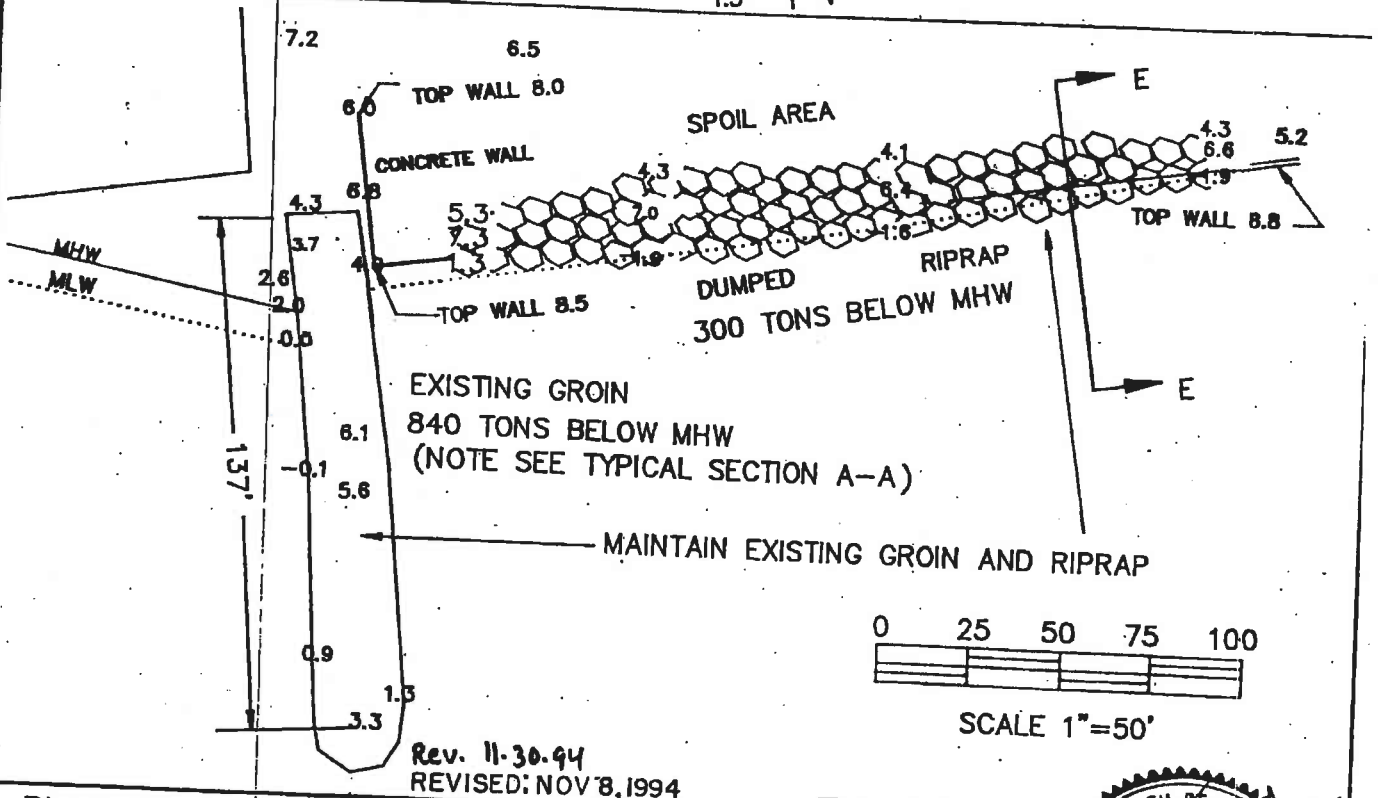
SPOIL MATERIALS FROM DREDGING TO BE USED FOR BEACH NOURISHMENT AT SITE OR FALMOUTH HEIGHTS BEACH. NO STOCKPILING OR DISPOSAL BELOW SPRING HIGH WATER

COMMONWEALTH OF MASSACHUSETTS
GAETANO G. CALISE JR.
No. 23428
REGISTERED PROFESSIONAL ENGINEER

025-46A-002-100
025-46A-002-200
025-46A-002-300
025-46A-002-400

LICENSE PLAN NO. 4342
Approved by Department of Environmental Protection
Date: JAN 20 1995





Rev. 11.30.94
REVISED: NOV 8, 1994

PLAN TO ACCOMPANY PETITION OF
TOWN OF FALMOUTH
TO REPAIR AND CONSTRUCT JETTIES
RIP RAP AND CULVERT AT
LITTLE POND OUTLET, FALMOUTH,
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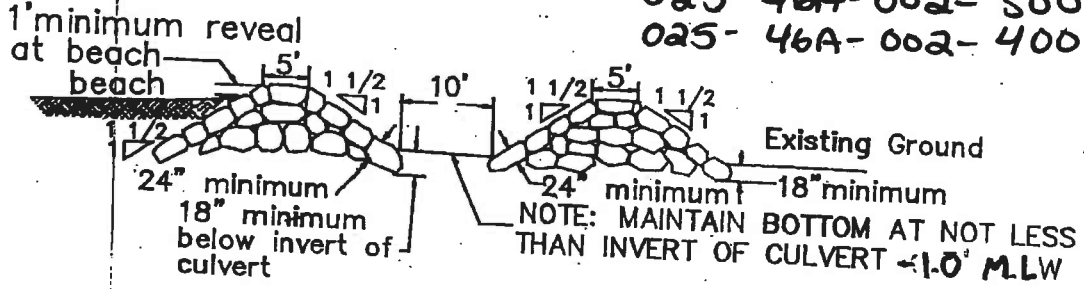
SCALE: AS NOTED DATE: SEP 28, 1993
TOWN OF FALMOUTH

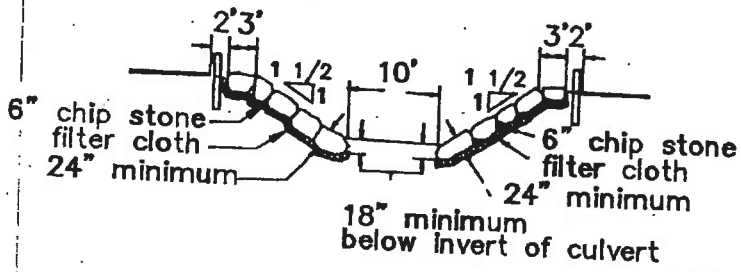
PLAN

COMMONWEALTH OF MASSACHUSETTS
GAETANO G. CALISE, JR.
No. 23428
REGISTERED PROFESSIONAL ENGINEER

025-46A-002-100
025-46A-002-200
025-46A-002-300
025-46A-002-400

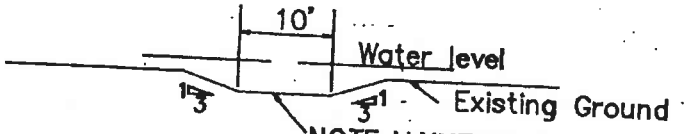


SECTION A–A/2



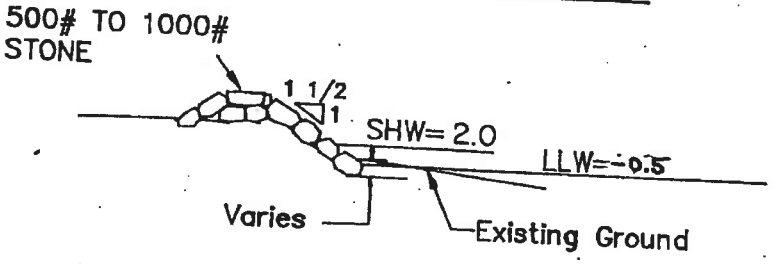
NOTE: MAINTAIN BOTTOM AT NOT LESS THAN INVERT OF CULVERT -1.0 MLW

SECTION B–B/2



NOTE: MAINTAIN CHANNEL BOTTOM AT NOT LESS THAN INVERT OF CULVERT. -1.0 MLW

SECTION C–C/3



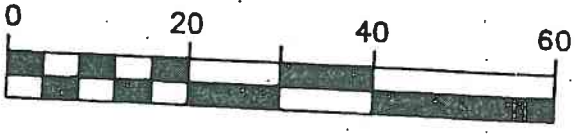
LICENSE PLAN NO. 4342
Approved by Department of Environmental Protection
Date: JAN 20 1995

COMMONWEALTH OF MASSACHUSETTS
GAETANO G. CAUSE, JR.
No. 23428
REGISTERED PROFESSIONAL ENGINEER

SECTION E–E/3

Rev. 11-30-94 REVISED: NOV 8, 1994

PLAN TO ACCOMPANY PETITION OF
TOWN OF FALMOUTH
TO REPAIR AND CONSTRUCT JETTIES
RIP RAP AND CULVERT AT
LITTLE POND OUTLET, FALMOUTH,
BARNSTABLE COUNTY, MASS.
SCALE: AS NOTED DATE: SEP 28, 1993
TOWN OF FALMOUTH
DEPARTMENT OF PUBLIC WORKS

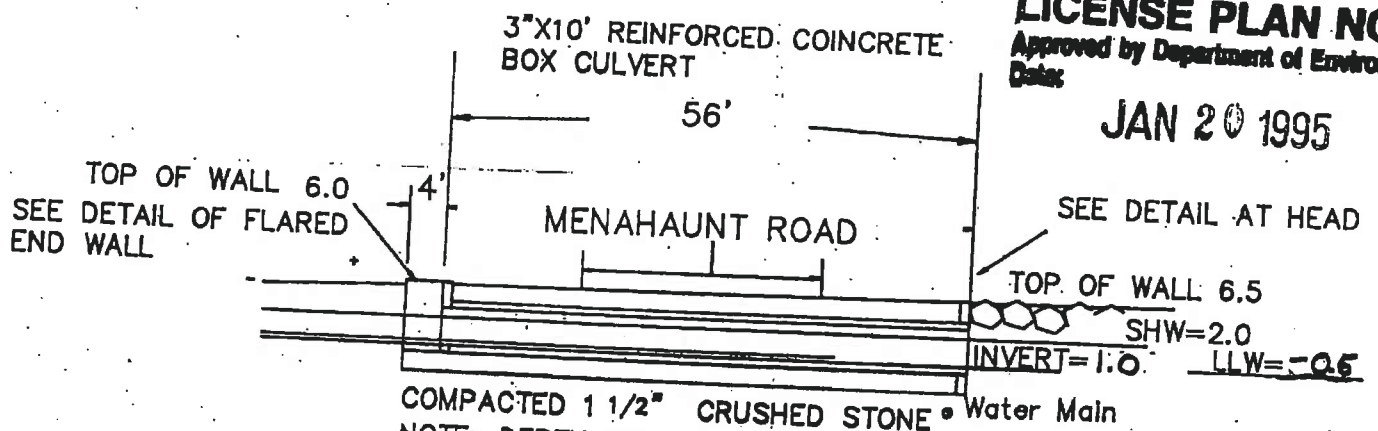


SCALE: 1"=20'

PLAN TO ACCOMPANY PETITION OF TOWN OF FALMOUTH TO REPAIR AND CONSTRUCT JETTIES RIP RAP AND CONSTRUCT LITTLE POND OUTLET, CULVERT AT FALMOUTH, BARNSTABLE COUNTY, MASS.
SCALE: AS NOTED DATE: SEP 28, 1993
TOWN OF FALMOUTH
DEP & ARMY CORPS OF ENGINEERS MAPS

Rev 11-30-94
REVISED: NOV. 8, 1994

LICENSE PLAN NO. 4342
Approved by Department of Environmental Protection
Date:
JAN 20 1995

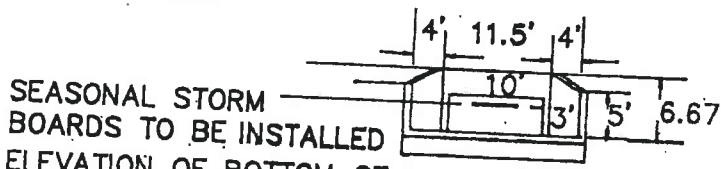


NOTE: DEPTH OF STONE REQUIRED SHALL BE CONFIRMED WITH MANUFACTURER.

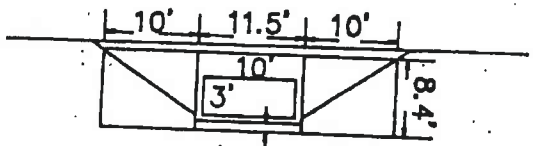
NOTE: INVERT OF CULVERT TO BE SET AT −0.05 LOWER LOW WATER SUBJECT TO FIELD VERIFICATION OF LOCATION OF WATER MAIN. ADJUSTMENT OF INVERT ELEVATION MAY BE REQUIRED.

COMMONWEALTH OF MASSACHUSETTS
GAETANO GALATI, JR.
No. 23428
REGISTERED PROFESSIONAL ENGINEER

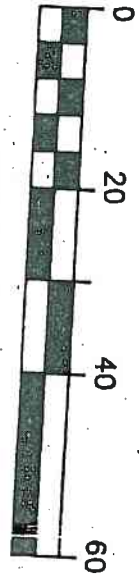
SECTION D–D/2



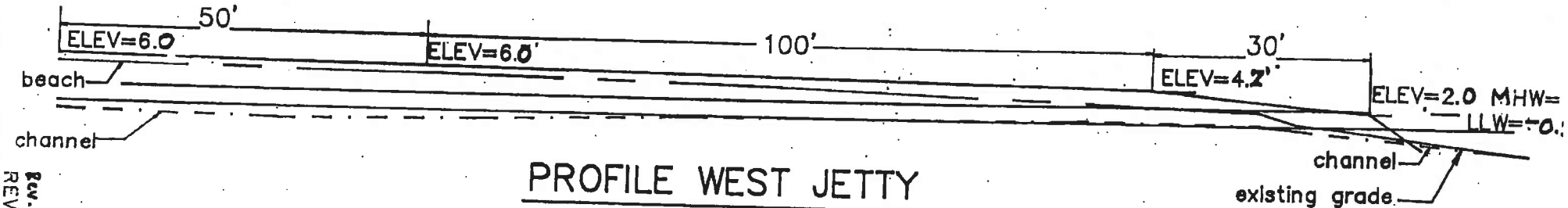
ELEVATION AT FLARED END WALL



ELEVATION AT HEAD WALL

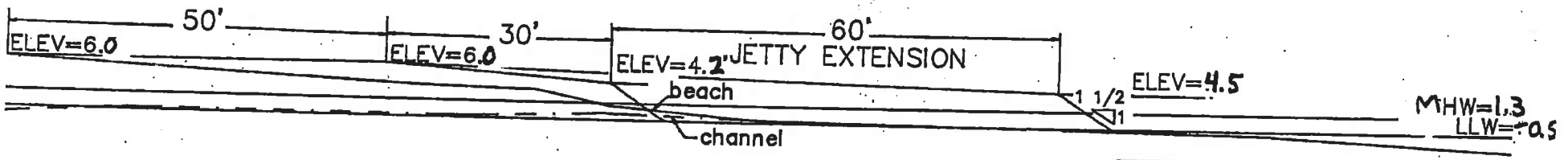


025- 46A-002-200
025- 46A-002-300
025- 46A-002-400



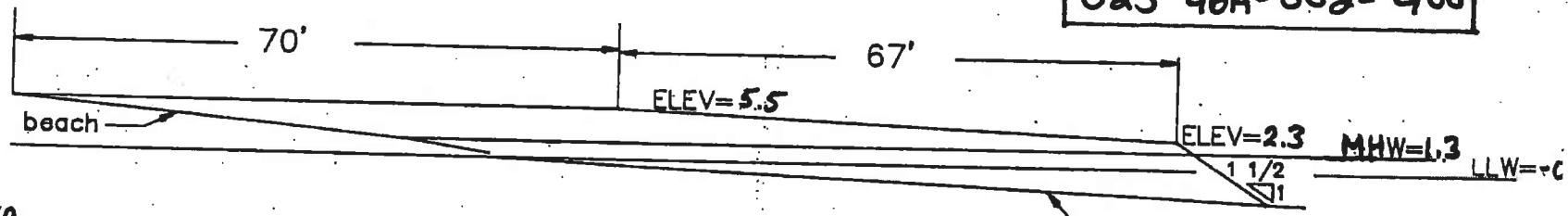
PROFILE WEST JETTY

Rev. 11-30-94
REVISED: NOV. 8, 1994



PROFILE EAST JETTY

025-46A-002-100
025-46A-002-200
025-46A-002-300
025-46A-002-400



PROFILE EAST GROIN

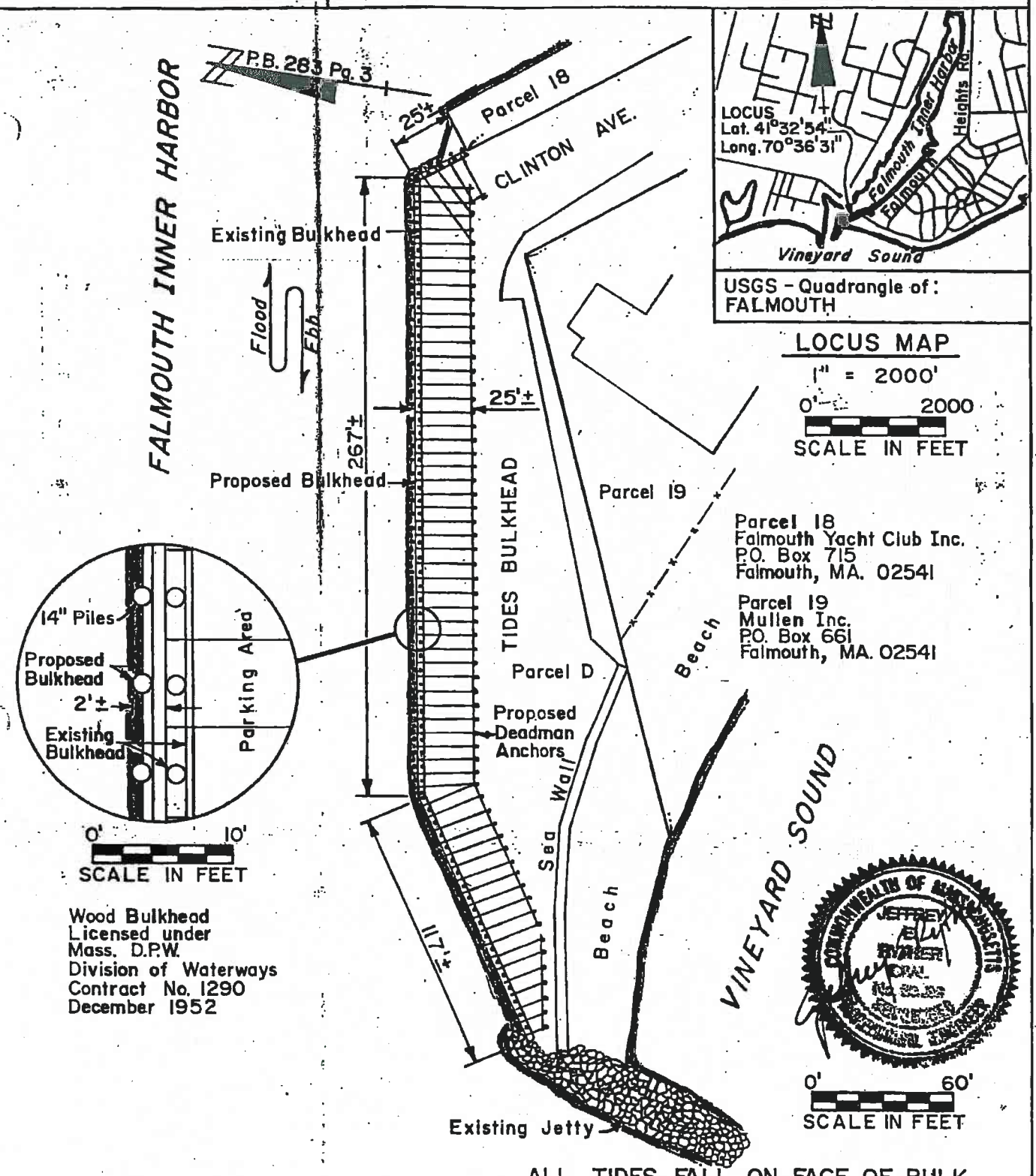
PLAN TO ACCOMPANY PETITION OF TOWN OF FALMOUTH TO REPAIR AND CONSTRUCT JETTIES RIP RAP AND CULVERT AT LITTLE POND OUTLET, FALMOUTH, BARNSTABLE COUNTY, MASS.
SCALE: AS NOTED DATE: SEP 28, 1993
TOWN OF FALMOUTH
DEPARTMENT OF PUBLIC WORKS

SHEET 6 OF 6

COMMONWEALTH OF MASSACHUSETTS
GAETANO CAUSE, JR.
No. 23428
REGISTERED PROFESSIONAL ENGINEER

LICENSE PLAN NO. 4342
Approved by Department of Environmental Protection
Date: JAN 20 1995

SCALE: 1"=20'



Wood Bulkhead
Licensed under
Mass. D.P.W.
Division of Waterways
Contract No. 1290
December 1952

ALL TIDES FALL ON FACE OF BULKHEAD WALL SEE SHEET 2 OF 2

PURPOSE: PUBLIC RECREATION USE
DATUM: ELEV BASED ON MLW (elev.=0.0)

PLAN ACCOMPANYING PETITION OF WATERWAYS COMMITTEE, TOWN OF FALMOUTH TO RECONSTRUCT AND MAINTAIN PILE SUPPORTED BULKHEAD ON PARCEL D IN FALMOUTH INNER HARBOR, FALMOUTH, BARNSTABLE COUNTY, MASS.

PLAN BY: holmes and mcgrath, inc.
civil engineers and land surveyors

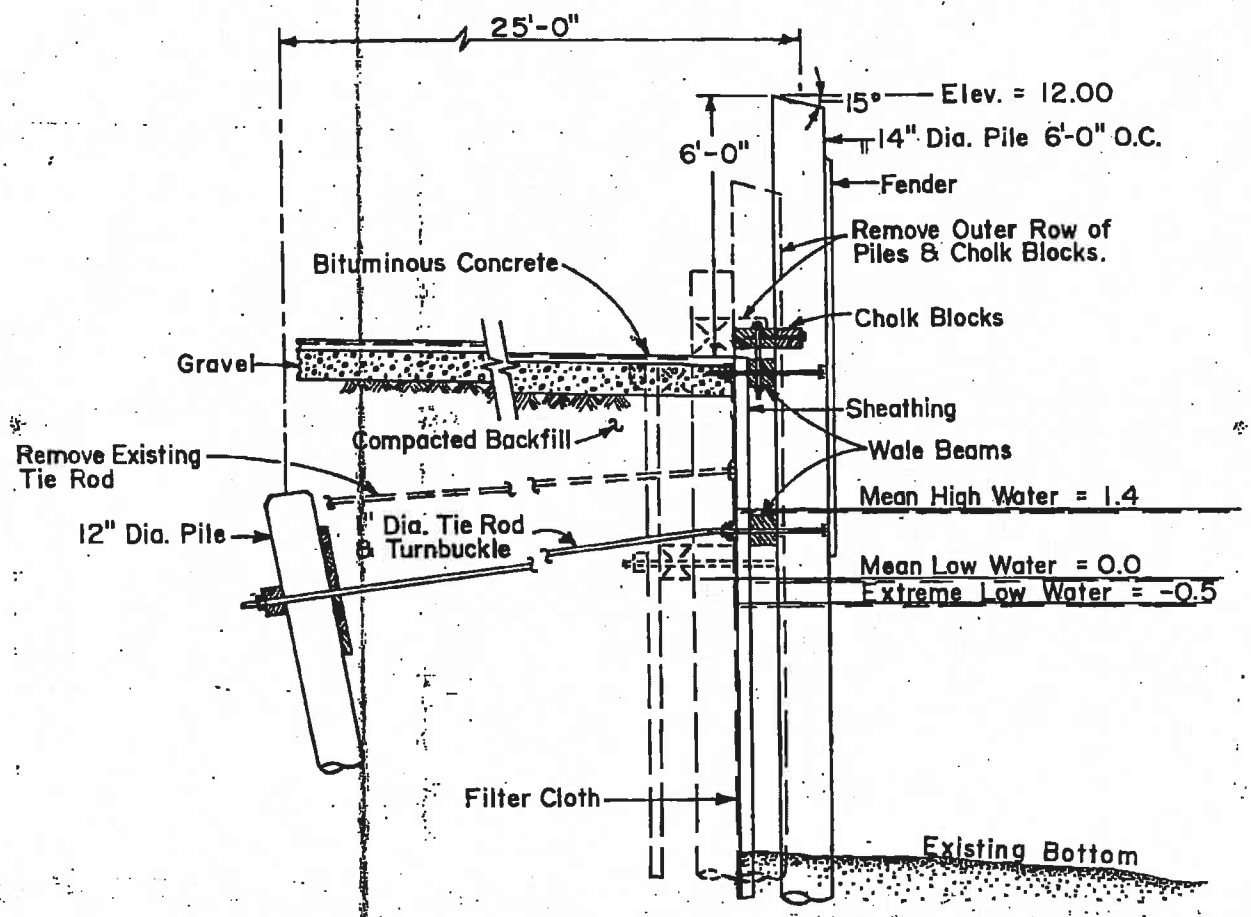
LICENSE PLAN NO. 1884
Approved by Department of Environmental Quality Engineering of Massachusetts

COMMISSIONER

Gary R Clayton
DIVISION DIRECTOR

025-463-002-000D-100

Face Piles: 40' Long - Driven 22' Minimum
Sheathing: 24' Long - Driven 12' Minimum
Anchor Piles: 14' Long



TYPICAL TIDES BULKHEAD CROSS-SECTION

SCALE: 1/4"= 1'-0"

0' 4'

SCALE: IN FEET

025-468-002-000D-100

APPLICANT:
WATERWAYS COMMITTEE, TOWN OF FALMOUTH

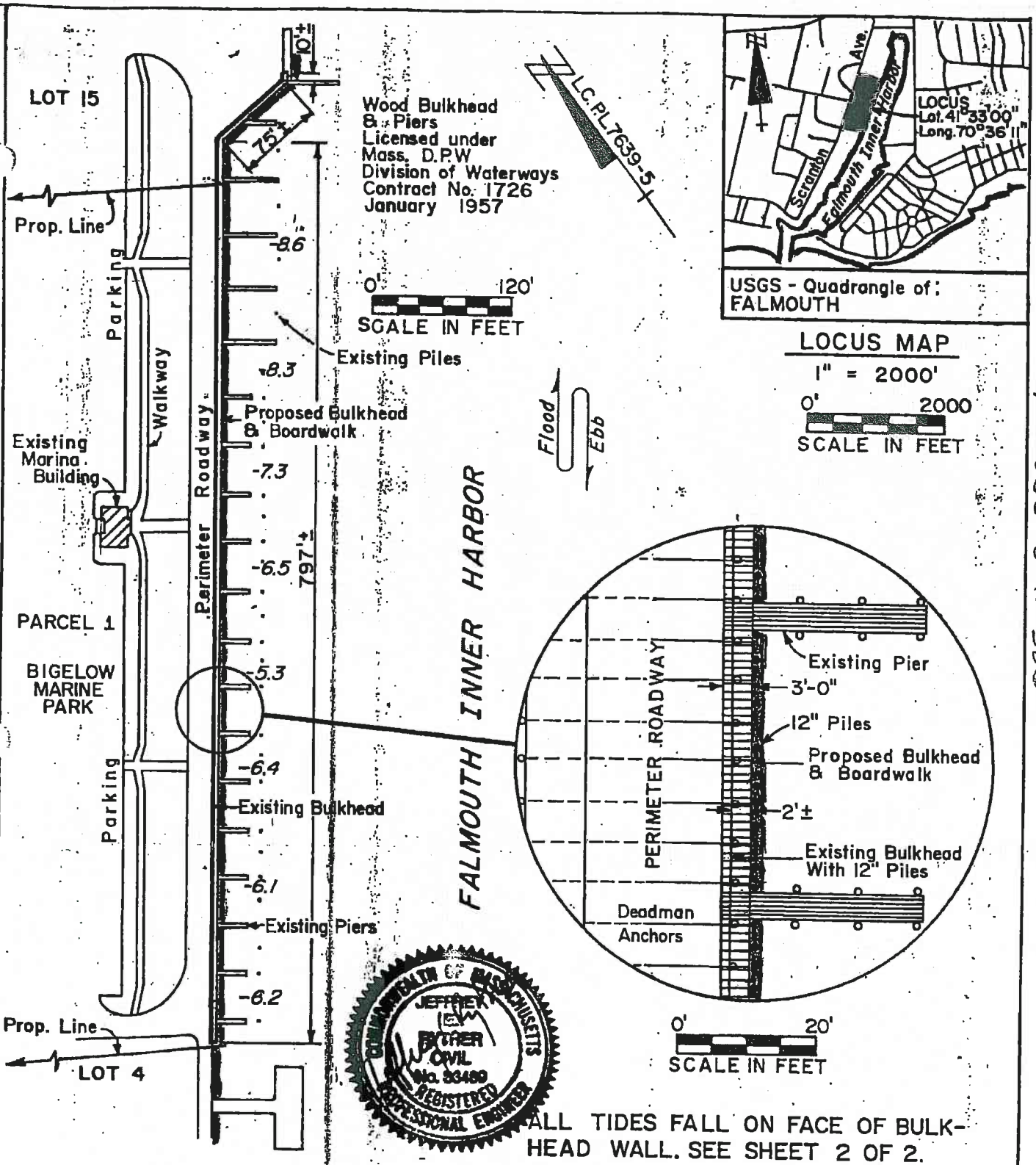
LICENSE PLAN NO. 1884

Approved by Department of Environmental Quality Engineering

Date: Feb. 3, 1989

PLAN BY: holmes and mcgrath, inc.
civil engineers and land surveyors
300 main st. falmouth, ma 02540

COMMONWEALTH OF MASSACHUSETTS
JEFFREY E. FYTHER
CIVIL
No. 33439
REGISTERED
PROFESSIONAL ENGINEER



025-478-009-002-180

ALL TIDES FALL ON FACE OF BULKHEAD WALL. SEE SHEET 2 OF 2.

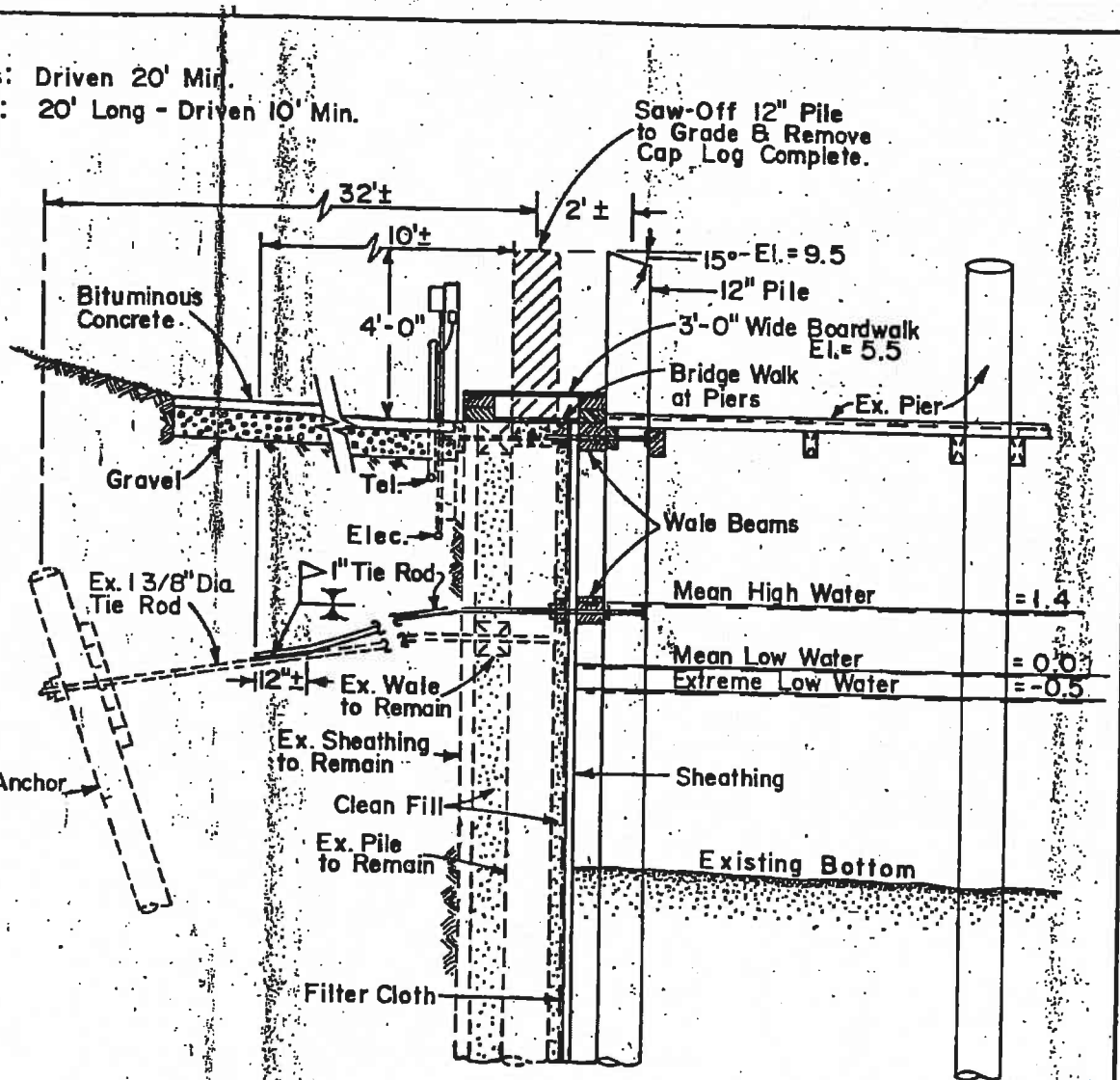
PLAN ACCOMPANYING PETITION OF WATERWAYS COMMITTEE, TOWN OF FALMOUTH TO RECONSTRUCT AND MAINTAIN PILE SUPPORTED BULKHEAD ON LOT 15 AND PARCEL 1 IN FALMOUTH INNER HARBOR, FALMOUTH, BARNSTABLE COUNTY, MASS.

PLAN BY: holmes and mcgrath, inc.
civil engineers and land surveyors
200 main st. falmouth, ma. 02540

PURPOSE: PUBLIC RECREATIONAL USE
DATUM: ELEV BASED ON MLW (elev. = 0.0)

LICENSE PLAN NO. 1885
Approved by Department of Environmental Quality Engineering of Massachusetts

COMMISSIONER
DIVISION DIRECTOR



MARINE PARK
TYPICAL BULKHEAD CROSS-SECTION

SCALE: 1/4" = 1'-0"

0' - 4'

SCALE: IN FEET

025-47B-009-002-100

APPLICANT:
WATERWAYS COMMITTEE, TOWN OF FALMOUTH

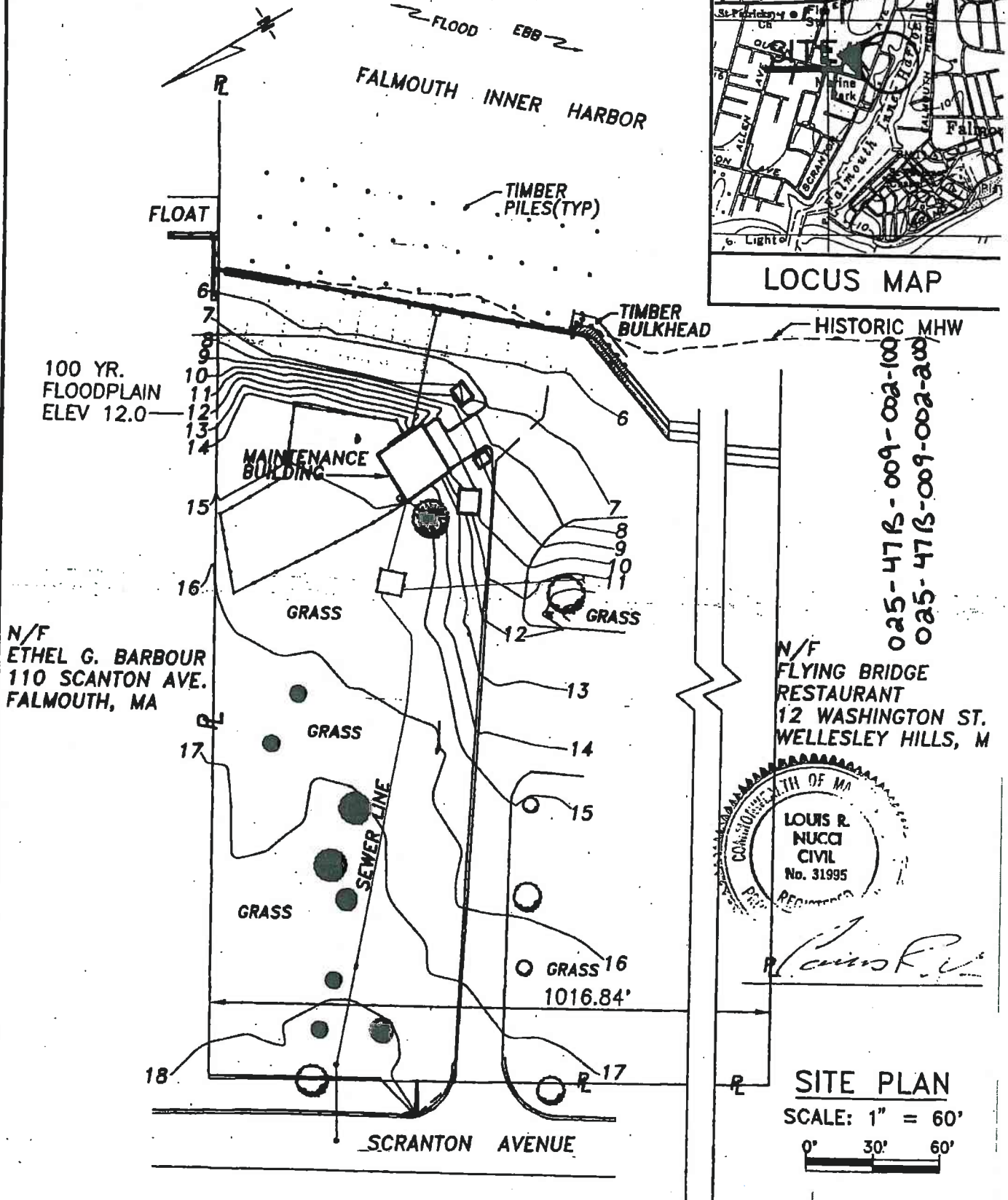
LICENSE PLAN NO. 1885

Approved by Department of Environmental Quality Engineering

Date: Feb. 3, 1989

PLAN BY: holmes and mcgrath, inc.
civil engineers and land surveyors
200 main st. falmouth, ma. 02540

COMMONWEALTH OF MASSACHUSETTS
JEFFREY S. MCGRATH
CIVIL
No. 33459
REGISTERED PROFESSIONAL ENGINEER



SITE PLAN

SCALE: 1" = 60'

0' 30' 60'

SHEET 1 OF 5

PLAN ACCOMPANYING THE PETITION OF THE TOWN OF FALMOUTH TO CONSTRUCT A BOAT RAMP AND MAINTAIN EXISTING BULKHEAD AT FALMOUTH, MA
AUGUST 1994

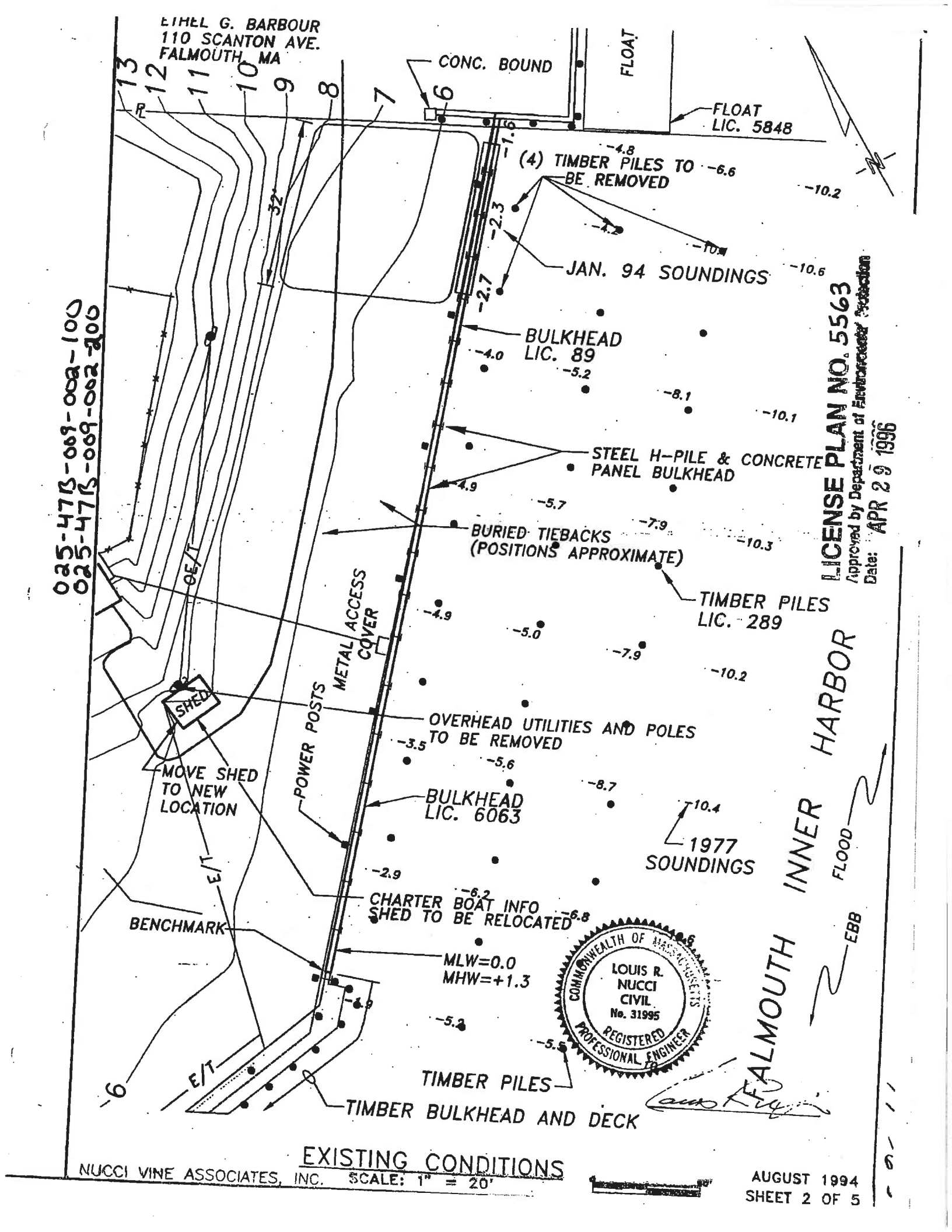
LICENSE PLAN NO. 5563

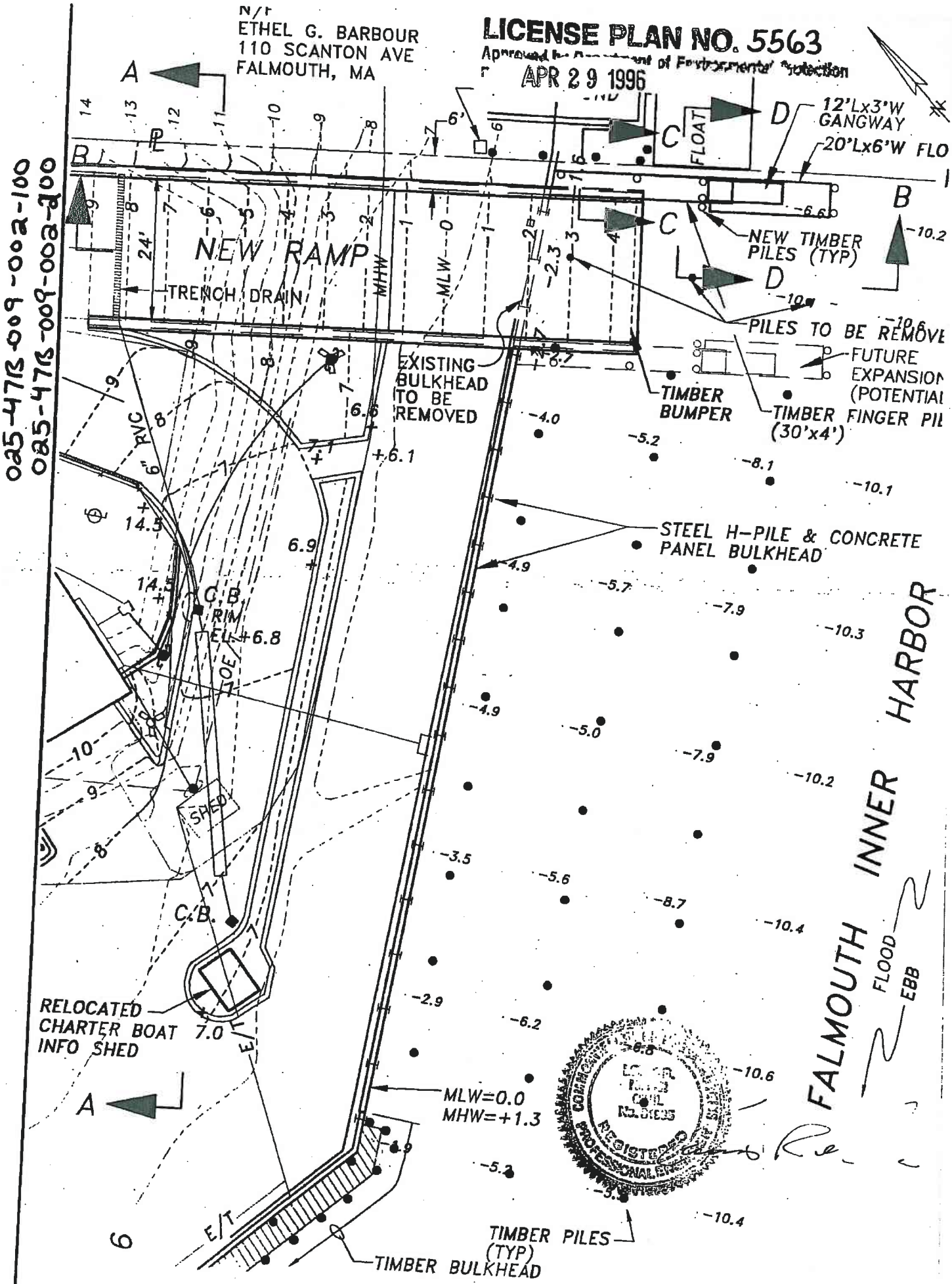
Approved by Department of Environmental Protection of Massachusetts

DIVISION DIRECTOR

SECTION CHIEF

APR 29 1996


ETHEL G. BARBOUR
110 SCANTON AVE.
FALMOUTH, MA
CONC. BOUND
FLOAT
FLOAT
LIC. 5848
(4) TIMBER PILES TO BE REMOVED
JAN. 94 SOUNDINGS
BULKHEAD
LIC. 89
STEEL H-PILE & CONCRETE PANEL BULKHEAD
BURIED TIEBACKS
(POSITIONS APPROXIMATE)
TIMBER PILES
LIC. 289
LICENSE PLAN NO. 5563
Approved by Department of Environmental Protection
Date: APR 29 1996
025-47B-009-00a-100
025-47B-009-002-200
METAL ACCESS COVER
POWER POSTS
SHED
OVERHEAD UTILITIES AND POLES TO BE REMOVED
MOVE SHED TO NEW LOCATION
BULKHEAD
LIC. 6063
1977
SOUNDINGS
INNER HARBOR
FLOOD
EBB
FALMOUTH
CHARTER BOAT INFO
SHED TO BE RELOCATED
BENCHMARK
MLW=0.0
MHW=+1.3
COMMONWEALTH OF MASSACHUSETTS
LOUIS R. NUCCI
CIVIL
No. 31995
REGISTERED PROFESSIONAL ENGINEER
TIMBER PILES
TIMBER BULKHEAD AND DECK
EXISTING CONDITIONS
NUCCI VINE ASSOCIATES, INC. SCALE: 1" = 20'
AUGUST 1994
SHEET 2 OF 5



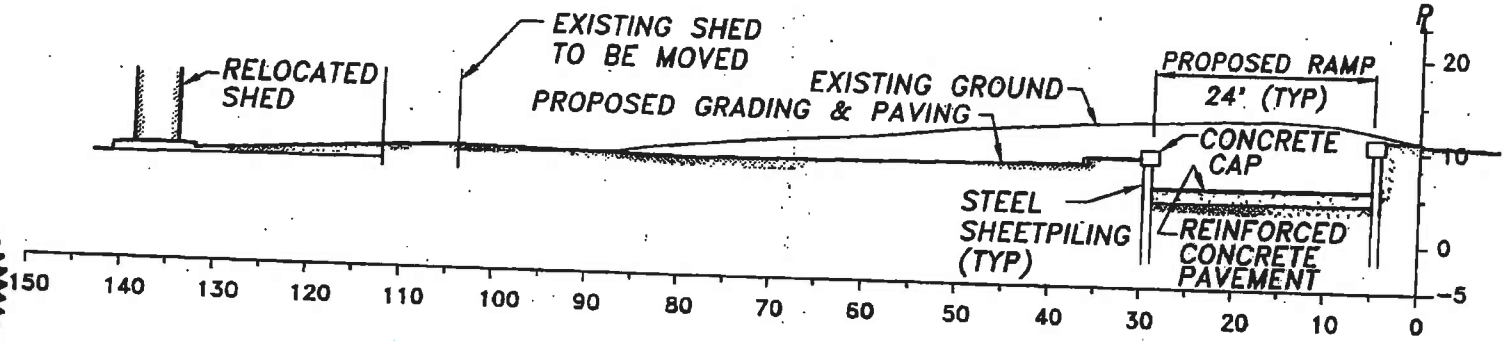
PROPOSED CONDITIONS

NUCCI VINE ASSOCIATES, INC. SCALE: 1" = 20'

AUGUST 1994
REV. OCT. 1996

SHEET 3 OF 5

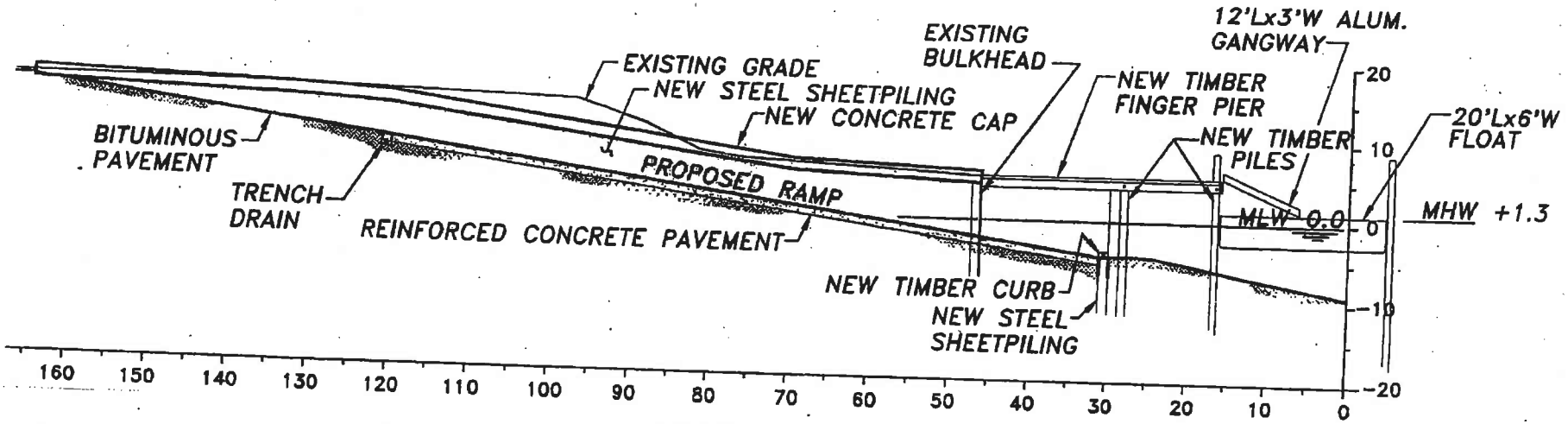
NUCCI VINE ASSOCIATES, INC.



SECTION A–A
SCALE: 1" = 20'

0 10' 20'

COMMONWEALTH OF MASSACHUSETTS
LOUIS R. NUCCI
No. 31995
REGISTERED PROFESSIONAL ENGINEER



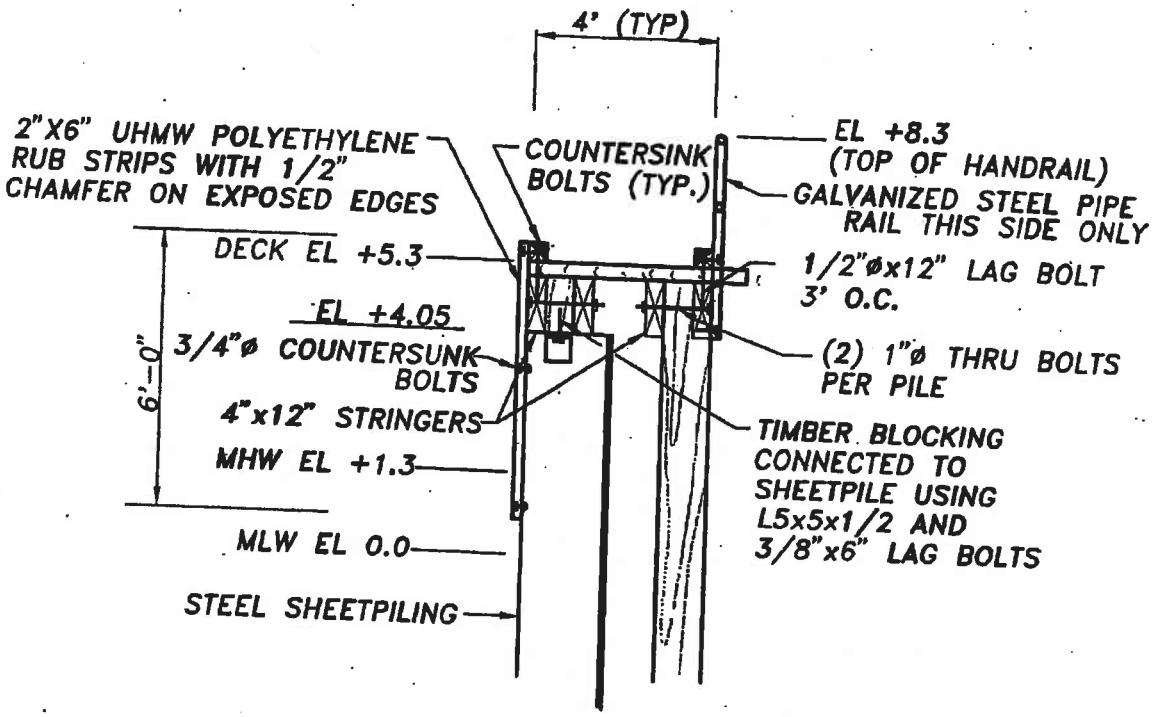
SECTION B–B
SCALE: 1" = 20'

0 10' 20'

LICENSE PLAN NO. 5563
Approved by Department of Environmental Protection
Date: APR 29 1996

025-47B-009-002-100
025-47B-009-002-200

AUGUST 1994
SHEET 4 OF 5

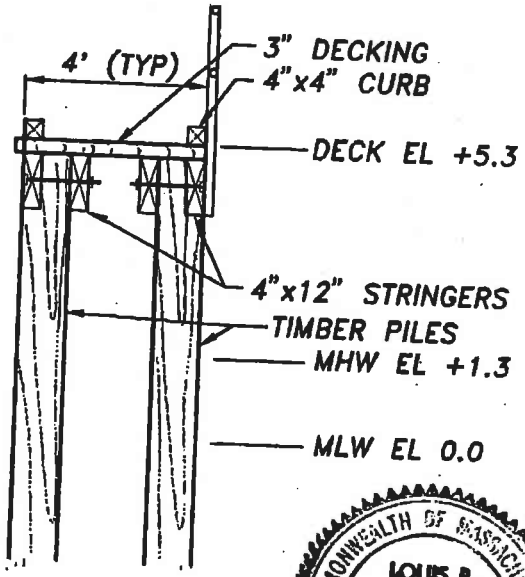


FINGER PIER SECTION C–C

SCALE: 1" = 4'-0"

0 2' 4'

025-47B-009-002-100
025-47B-009-002-200



LICENSE PLAN NO. 5563
Approved by Department of Environmental Protection
Date: APR 29 1996

COMMONWEALTH OF MASSACHUSETTS
LOUIS R. NUCCI
CIVIL
No. 31998
REGISTERED PROFESSIONAL ENGINEER

FINGER PIER SECTION D–D

SCALE: 1" = 4'-0"

0 2' 4'

025-47B-009-002-200

Ethel G. Barbour
110 Scranton Ave.
Falmouth, Mass.

Lic. # 5848

C 10×30

2 Special Panels to be determined in Field

"B" "B"

DREDGE TO ELEV. -3.0

FALMOUTH INNER HARBOR

Proposed Deadman

13 Bays @ 8'-0" = 104'-0"

Proposed Bulkhead 120'±

111'±

HP 10×42 (TYP)

Exist. Pile

M.L.W.

Exist. Conc. Panel Bulkhead Lic. # 6063

30'±

935' to R.
Falmouth Marine Railways, Inc.
Scranton Ave.
Falmouth, Mass.

Pool

4 Bays @ 8'-0" = 32'

4 Relocated Panels

Prop. Reinf. Cem. Conc. Ramp

Exist. Piles

"A" "A"

Exist. Pile to be cut off and driven to top Elev. -2.0

Prop. M.H.W.

Bench Mark

- Remove 4 Panels may be used on Ramp Return.
- Remove Exist. tie rods & 3'×4' Conc. Deadman Blocks for 3 Bulkhead Piles.

PLAN

Scale in Feet 1"=20'

RTE. 28

LOCUS

FALMOUTH HARBOR

VINEYARD SOUND

LOCATION MAP

1000 2000

Scale in Feet

Taken from U.S.G.S. Falmouth, Mass. Quad.

- Elevations are in feet and tenths above the plane of Mean Low Water. Minus figures indicate depths below that same plane.
- Bench Mark- Chisled ⊡ in corner of Conc. Cap. Elev. 6.17 M.L.W.

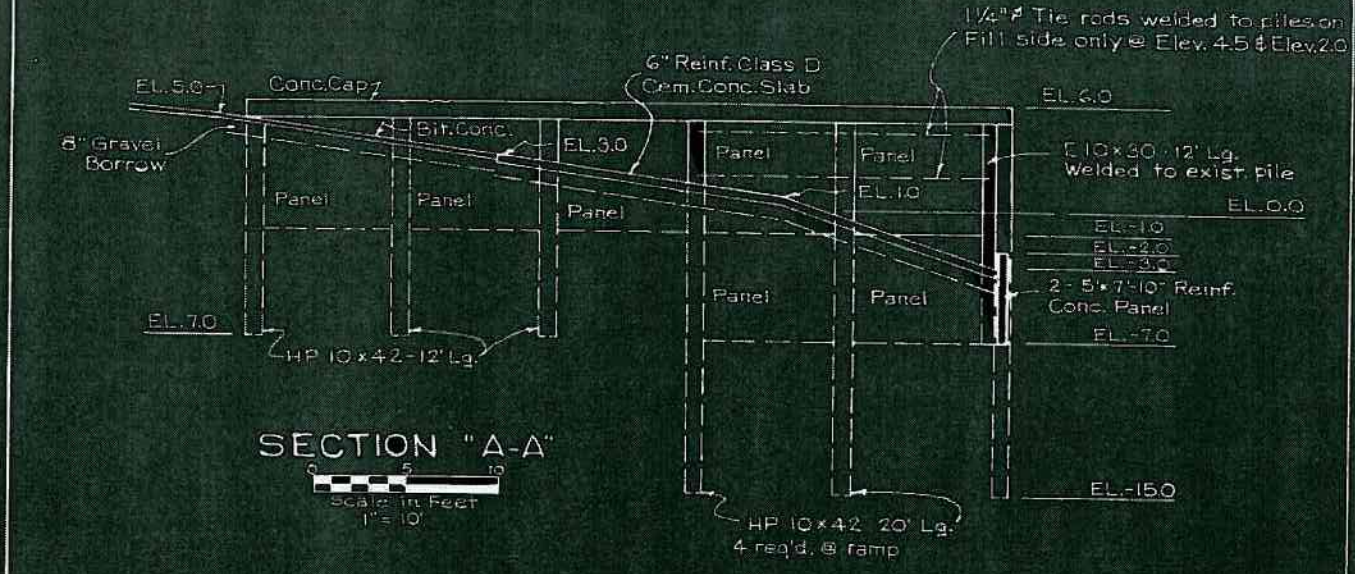
Robert A. Braman

COMMONWEALTH OF MASSACHUSETTS
ROBERT A BRAMAN
NO. 10905
REGISTERED PROFESSIONAL ENGINEER

PLAN ACCOMPANYING PETITION OF
TOWN OF FALMOUTH
TO DREDGE AND CONSTRUCT BULKHEAD & RAMP
FALMOUTH INNER HARBOR
FALMOUTH, MASS.
JANUARY 8, 1975 SHEET 1 OF 2
WALTER E. ROWLEY & ASSOCIATES, INC.
CIVIL ENGINEERS & SURVEYORS
WEST WAREHAM & FALMOUTH, MASS.

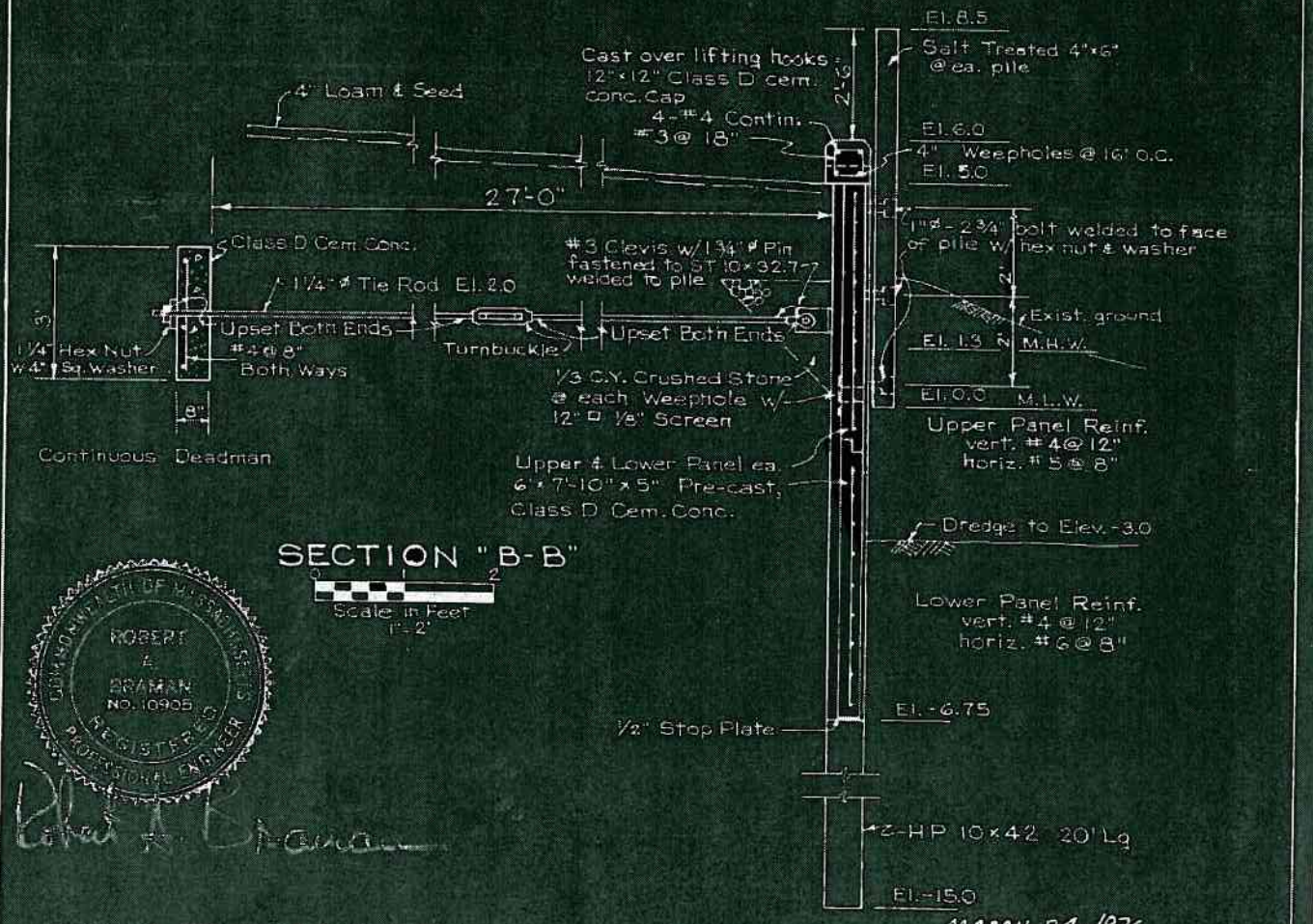
LICENSE PLAN NO. 89
APPROVED BY DEPARTMENT OF ENVIRONMENTAL QUALITY ENGINEERING
OF MASSACHUSETTS
MARCH 24, 1976

025-47B-009-002-200



SECTION "A-A"

Scale in Feet
1" = 10'



SECTION "B-B"

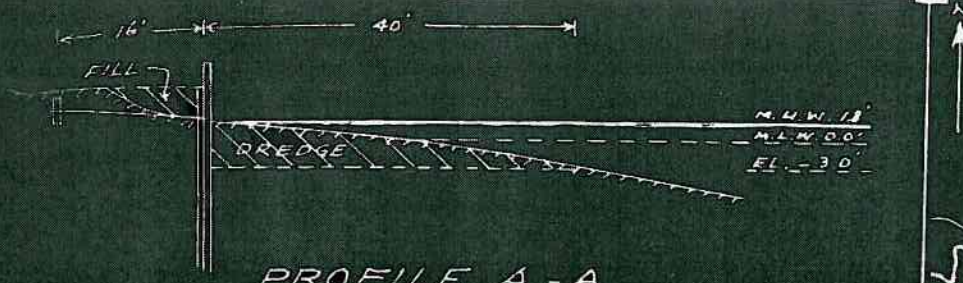
Scale in Feet
1" = 2'

COMMONWEALTH OF MASSACHUSETTS
ROBERT A. BRAMAN
NO. 10905
REGISTERED PROFESSIONAL ENGINEER

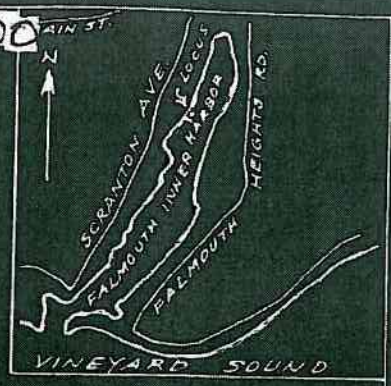
TOWN OF FALMOUTH
JANUARY 8, 1975 SHEET 2 OF 2

LICENSE PLAN NO. 89 MARCH 24, 1976
Approved by Department of Environmental Quality Engineering

025-47B-009-002-200



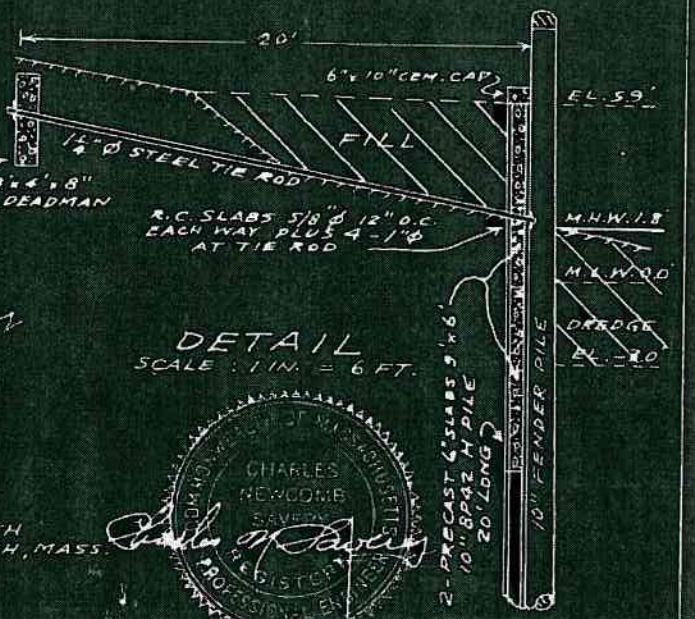
PROFILE A-A
SCALE : 1 IN. = 20 FT.



KEY MAP
SCALE : 1 IN. = 2000 FT.
FALMOUTH QUADRANGLE
U.S.G. SURVEY

ELEVATIONS ARE IN FEET. 0.0' REFERS TO A PLANE OF MEAN LOW WATER

DREDGED MATERIAL TO BE DISPOSED OF BEHIND BULKHEAD AS INDICATED. EXCESS TO BE CARRIED TO OTHER LAND OF TOWN OF FALMOUTH.



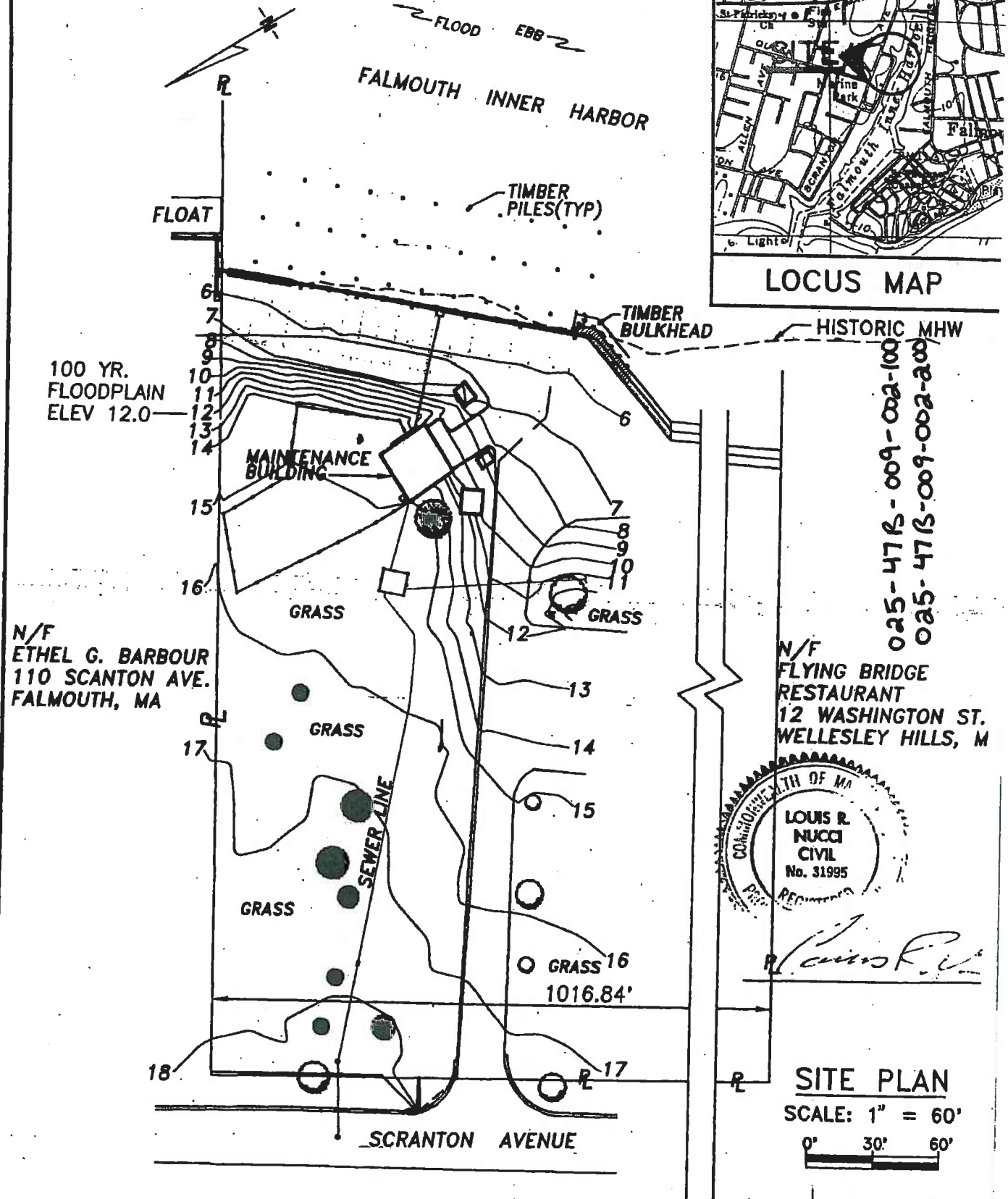
DETAIL
SCALE : 1 IN. = 6 FT.

PLAN
SCALE : 1 IN. = 40 FT.

PLAN TO ACCOMPANY PETITION OF
TOWN OF FALMOUTH
TO BUILD CONCRETE BULKHEAD, MAINTAIN EXISTING PIER, FLOAT, MOORING PILES, DREDGE AND FILL IN
FALMOUTH INNER HARBOR
FALMOUTH, MASS.
SCALES AS NOTED JULY 1972
CHARLES N. SAVERY INC.
REGISTERED
ENGINEERS SURVEYORS
HYANNIS SOUTH YARMOUTH

REVISED SEPT. 5, 1972

LICENSE PLAN NO. 6063
APPROVED BY DEPARTMENT OF PUBLIC WORKS OF THE COMMONWEALTH OF MASSACHUSETTS
APRIL 4, 1973
COMMISSIONER OF PUBLIC WORKS
ASSOCIATE COMMISSIONERS



SITE PLAN

SCALE: 1" = 60'

0' 30' 60'

SHEET 1 OF 5

PLAN ACCOMPANYING THE PETITION OF THE TOWN OF FALMOUTH TO CONSTRUCT A BOAT RAMP AND MAINTAIN EXISTING BULKHEAD AT FALMOUTH, MA
AUGUST 1994

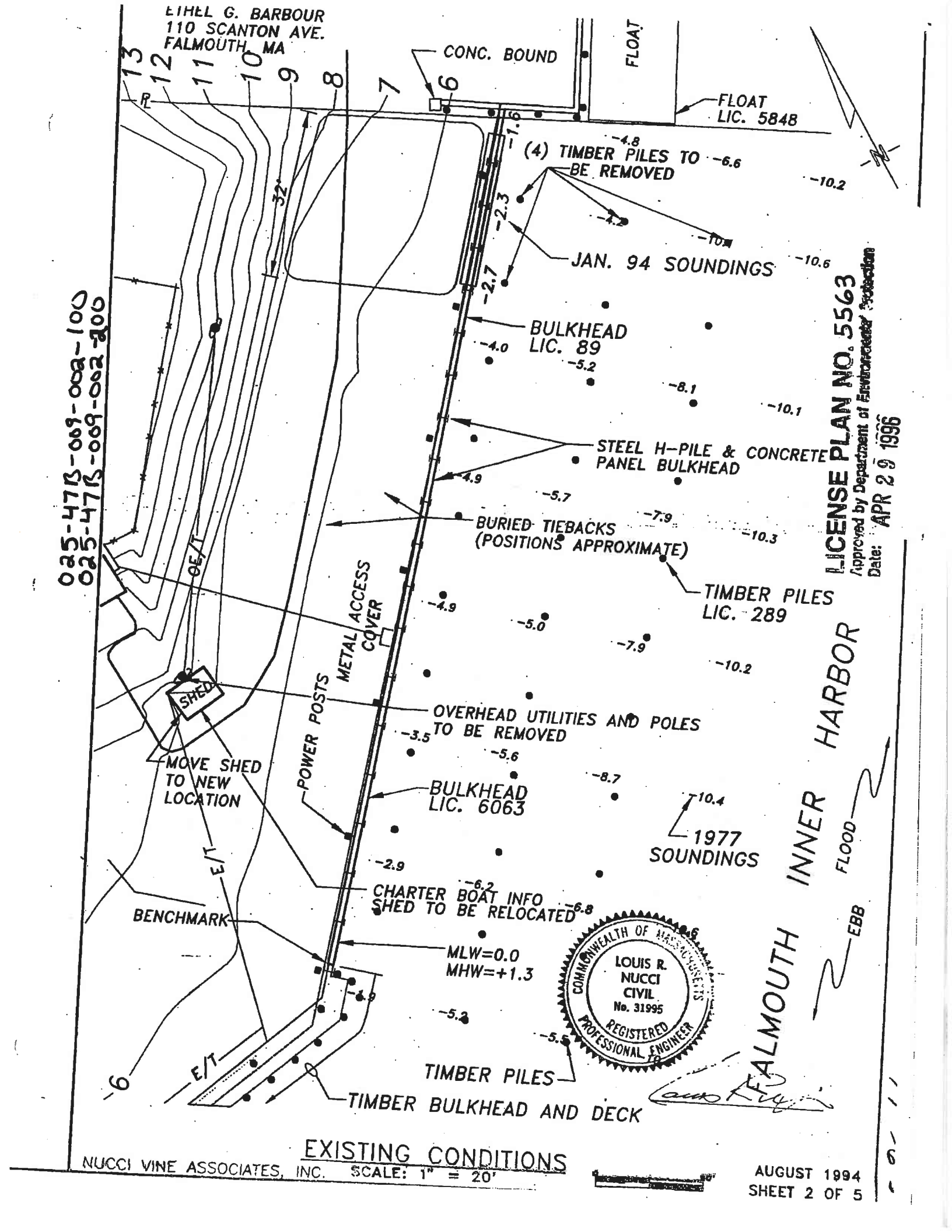
LICENSE PLAN NO. 5563

Approved by Department of Environmental Protection of Massachusetts

DIVISION DIRECTOR

SECTION CHIEF

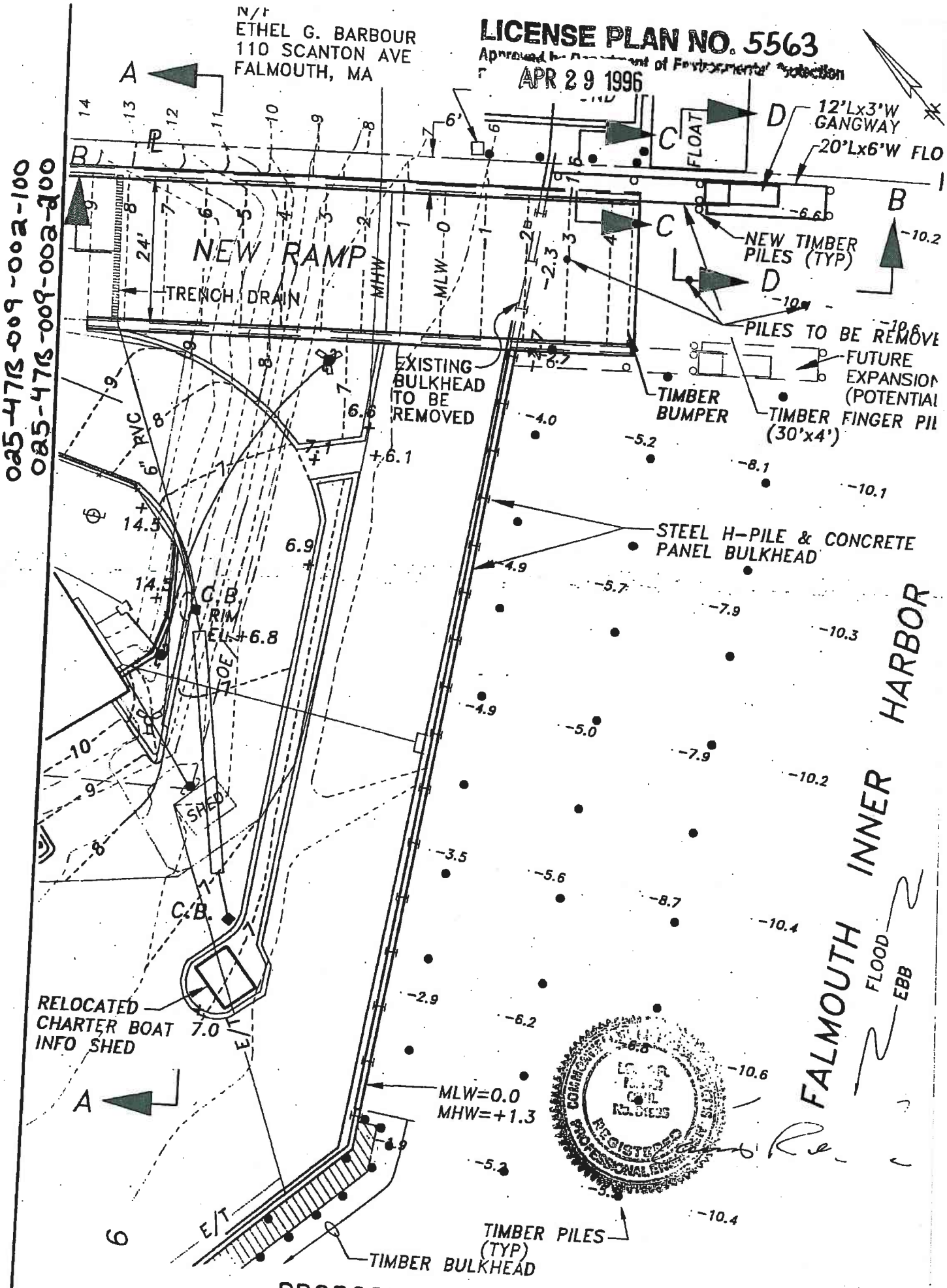
APR 29 1996



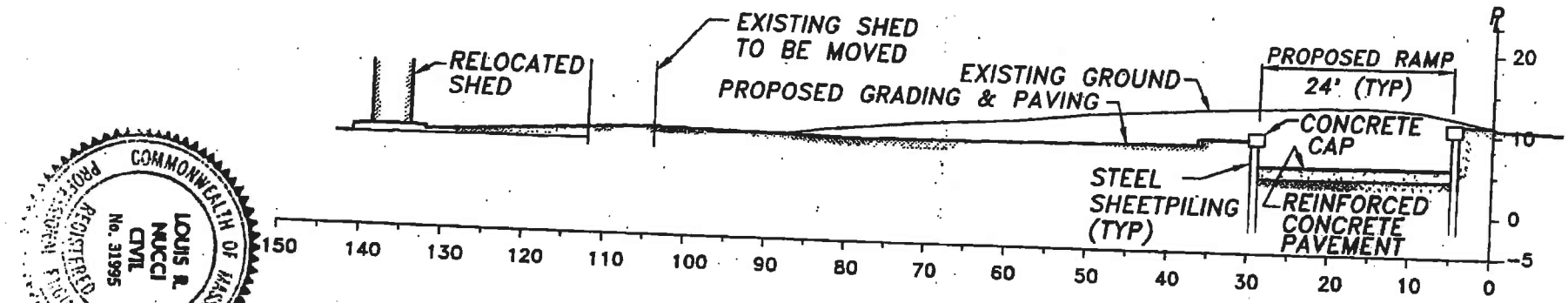
EXISTING CONDITIONS

NUCCI VINE ASSOCIATES, INC. SCALE: 1" = 20'

AUGUST 1994
SHEET 2 OF 5

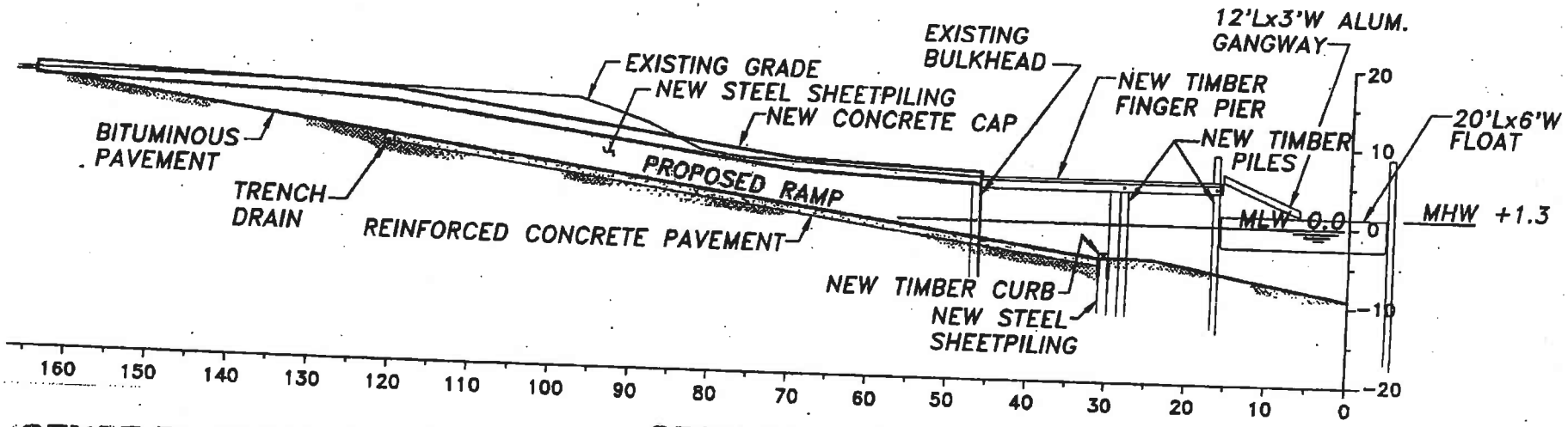

LICENSE PLAN NO. 5563
APR 29 1996
N/F
ETHEL G. BARBOUR
110 SCANTON AVE
FALMOUTH, MA
025-47B-009-002-100
025-47B-009-002-100
NEW RAMP
TRENCH DRAIN
MHW
MLW
FLOAT
12'Lx3'W GANGWAY
20'Lx6'W FLO
NEW TIMBER PILES (TYP)
PILES TO BE REMOVE
FUTURE EXPANSION (POTENTIAL
TIMBER BUMPER
TIMBER FINGER PIL (30'x4')
EXISTING BULKHEAD TO BE REMOVED
STEEL H-PILE & CONCRETE PANEL BULKHEAD
C.B. RIM EL. +6.8
INV. OUT
SHED
C.B.
RELOCATED CHARTER BOAT INFO SHED
MLW=0.0
MHW=+1.3
TIMBER PILES (TYP)
TIMBER BULKHEAD
FALMOUTH INNER HARBOR
FLOOD
EBB
PROPOSED CONDITIONS
SCALE: 1" = 20'
AUGUST 1994

NUCCI VINE ASSOCIATES, INC.



SECTION A–A
SCALE: 1" = 20'

0 10' 20'



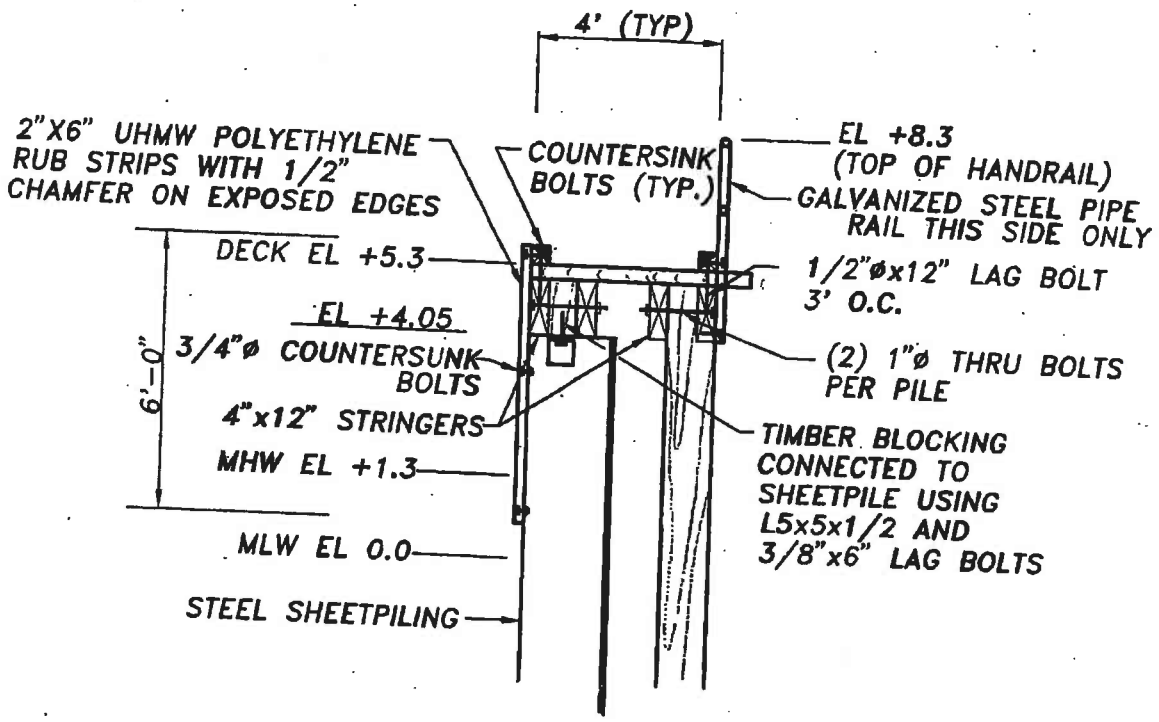
SECTION B–B
SCALE: 1" = 20'

0 10' 20'

LICENSE PLAN NO. 5563
Approved by Department of Environmental Protection
Date: APR 29 1996

025-47B-009-002-100
025-47B-009-002-200

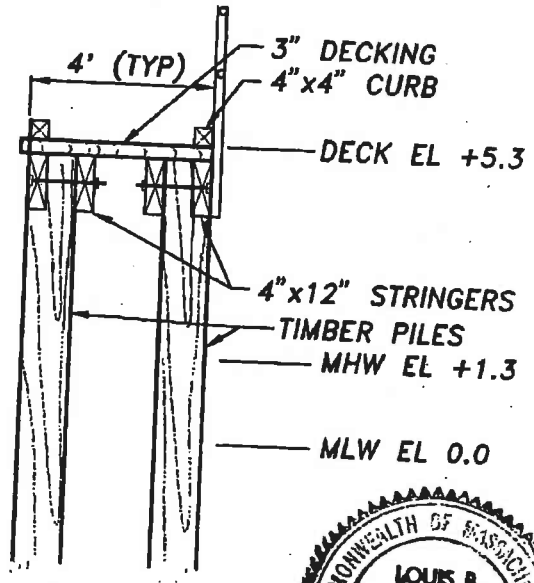
AUGUST 1994
SHEET 4 OF 5



FINGER PIER
SECTION C–C
SCALE: 1" = 4'-0"

0 2' 4'

025-47B-009-002-100
025-47B-009-002-200

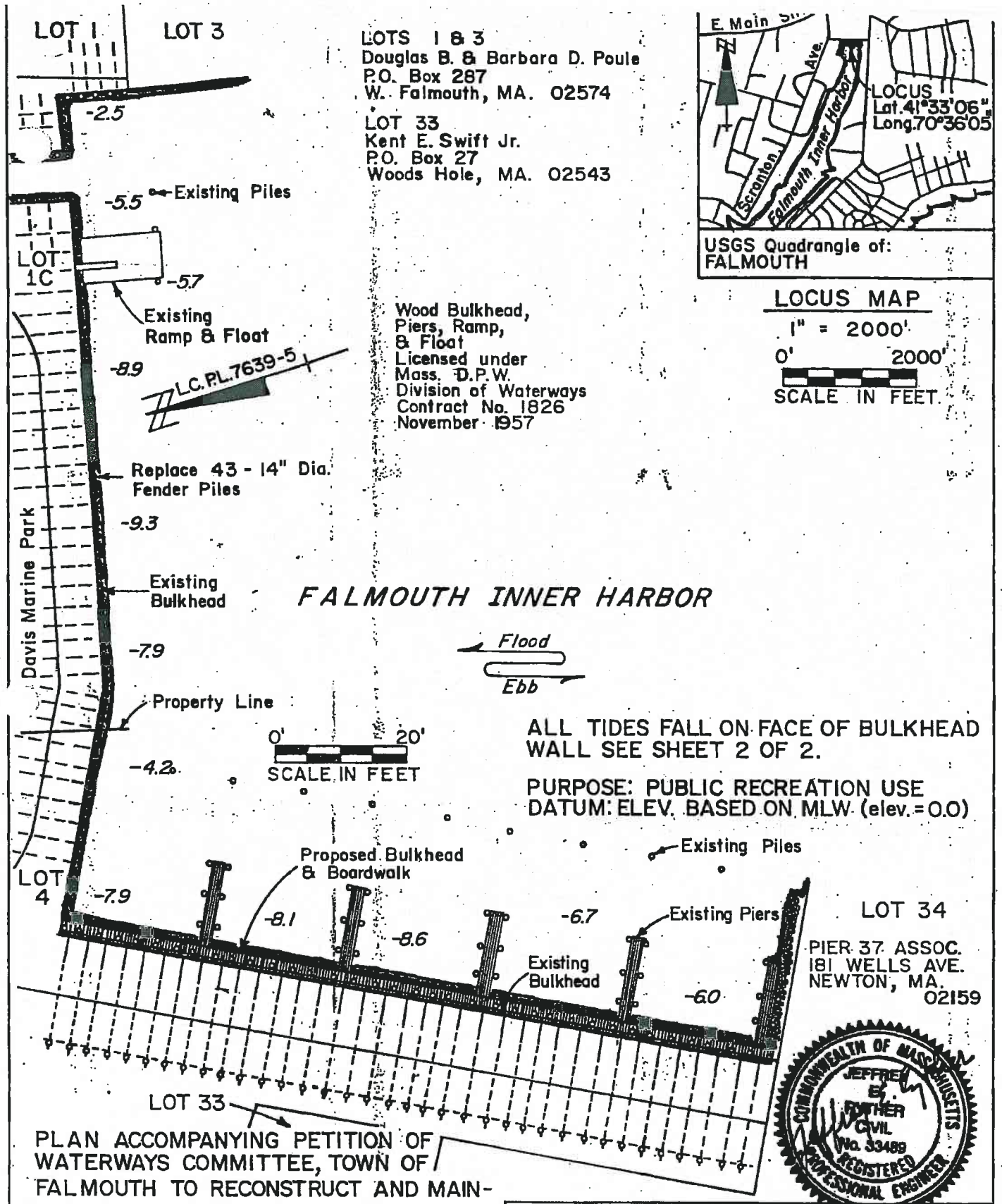


LICENSE PLAN NO. 5563
Approved by Department of Environmental Protection
Date: APR 29 1996

COMMONWEALTH OF MASSACHUSETTS
LOUIS R. NUCCI
CIVIL
No. 31998
REGISTERED PROFESSIONAL ENGINEER

NGER PIER
SECTION D–D
SCALE: 1" = 4'-0"

0 2' 4'



PLAN ACCOMPANYING PETITION OF WATERWAYS COMMITTEE, TOWN OF FALMOUTH TO RECONSTRUCT AND MAINTAIN PILE SUPPORTED BULKHEAD AND REPLACE PILES ON LOTS 1C AND 4 IN FALMOUTH INNER HARBOR, FALMOUTH, BARNSTABLE COUNTY, MASS.

PLAN BY: holmes and mcgrath, inc.
civil engineers and land surveyors
200 main st. falmouth, ma. 02540

SHEET 1 OF 2 DATE: JUL. 8, 1988

LICENSE PLAN NO. 1886

Approved by Department of Environmental Quality Engineering of Massachusetts

COMMISSIONER

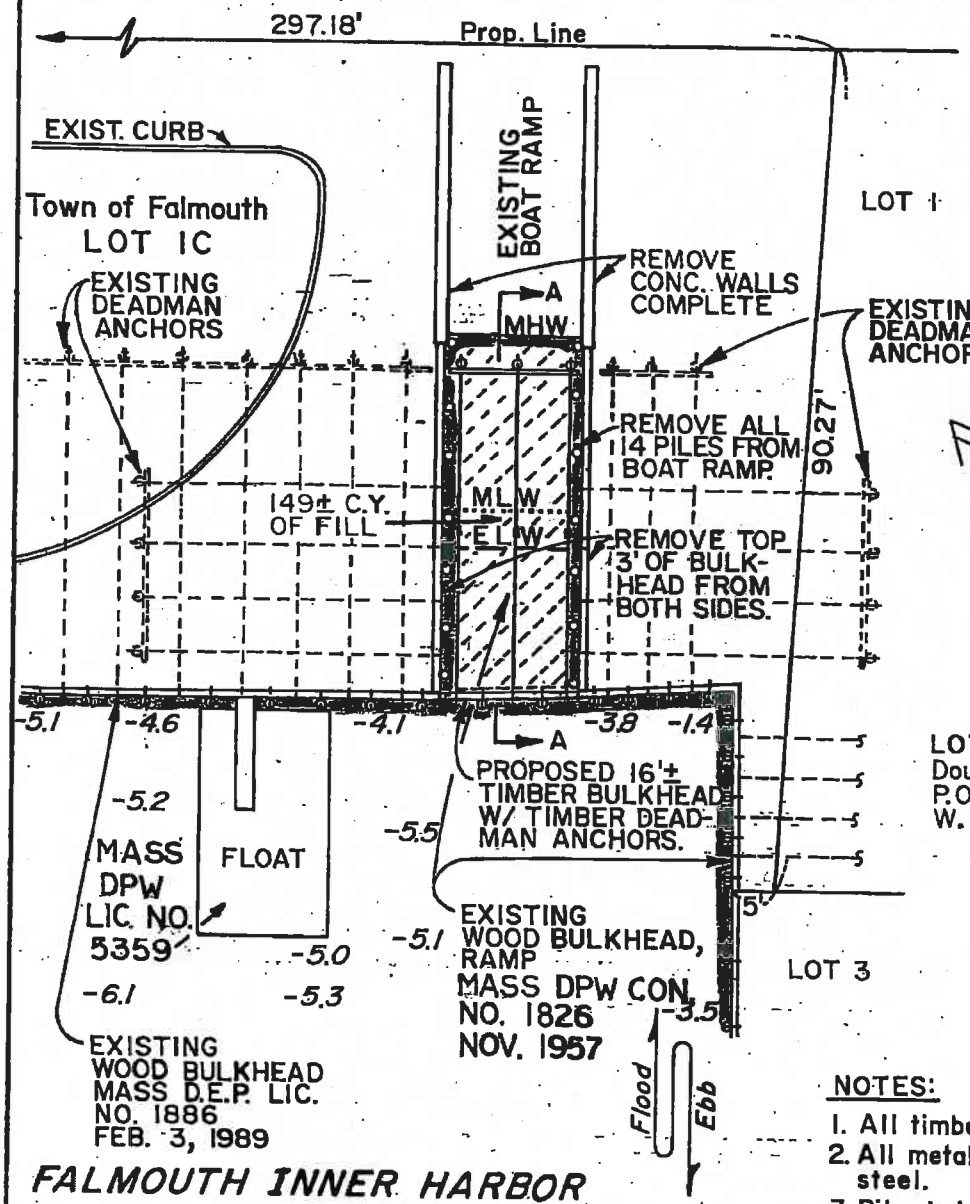
Gary R Clayton
DIVISION DIRECTOR

SECTION CHIEF

Feb 3, 1989
DATE

ROBBINS (PUBLIC 50' WIDE) ROAD

025-47B-009-007-100

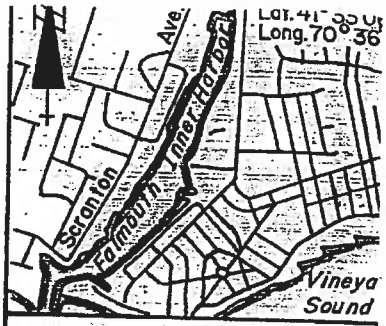


FALMOUTH INNER HARBOR

SCALE: 1" = 20'

0' 20'

SCALE IN FEET



USGS - Quadrangle of: FALMOUTH

LOCUS MAP

1" = 2000'

0' 2000'

SCALE IN FEET

LOTS 1 & 3
Douglas B. & Barbara D. Poule
P.O. Box 287
W. Falmouth, MA. 02574

LEGEND

MHW = 1.4 _____

MLW = 0.0 .....

ELW = -0.5 _ _ _ _

NOTES:

1. All timber shall be CCA treated.
2. All metal shall be hot dipped galvanize steel.
3. Piles to be driven to 1/2 their length o refusal.
4. All tides fall on face of bulkhead wall See sheet 2 of 2.

PLAN ACCOMPANYING PETITION OF THE WATERWAYS COMMITTEE, TOWN OF FALMOUTH TO CONSTRUCT AND MAINTAIN PILE SUPPORTED BULKHEAD AND ABANDON EXISTING BOAT RAMP ON LOT 1C IN FALMOUTH INNER HARBOR, FALMOUTH, BARNSTABLE COUNTY, MASS.

PLAN BY: holmes and mcgrath, inc.
civil engineers and land surveyors
200 main st. falmouth, ma. 02540

SHEET 1 OF 2 DATE: JAN 3, 1990

PURPOSE: PUBLIC RECREATION USE
DATUM: ELEV. BASED ON MLW (elev. = 0.0

LICENSE PLAN NO. 2360

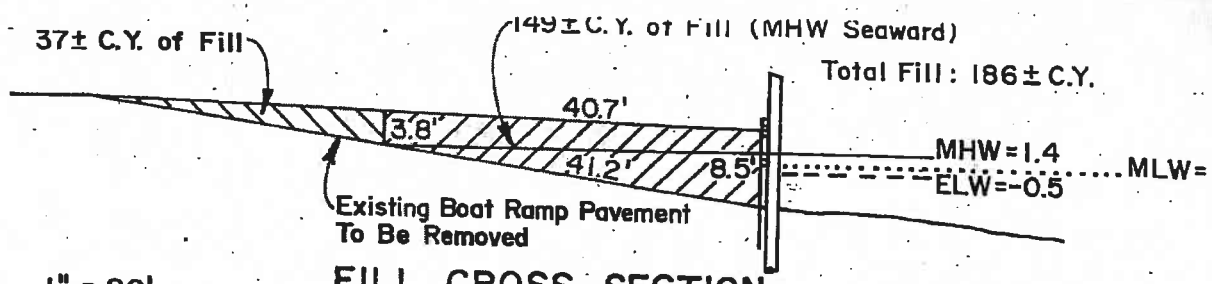
Approved by Department of Environmental Protection of Massachusetts

COMMISSIONER

DIVISION DIRECTOR

SECTION CHIEF

MAY 18 1990



FILL CROSS-SECTION

SCALE: 1" = 20'

1" = 20'

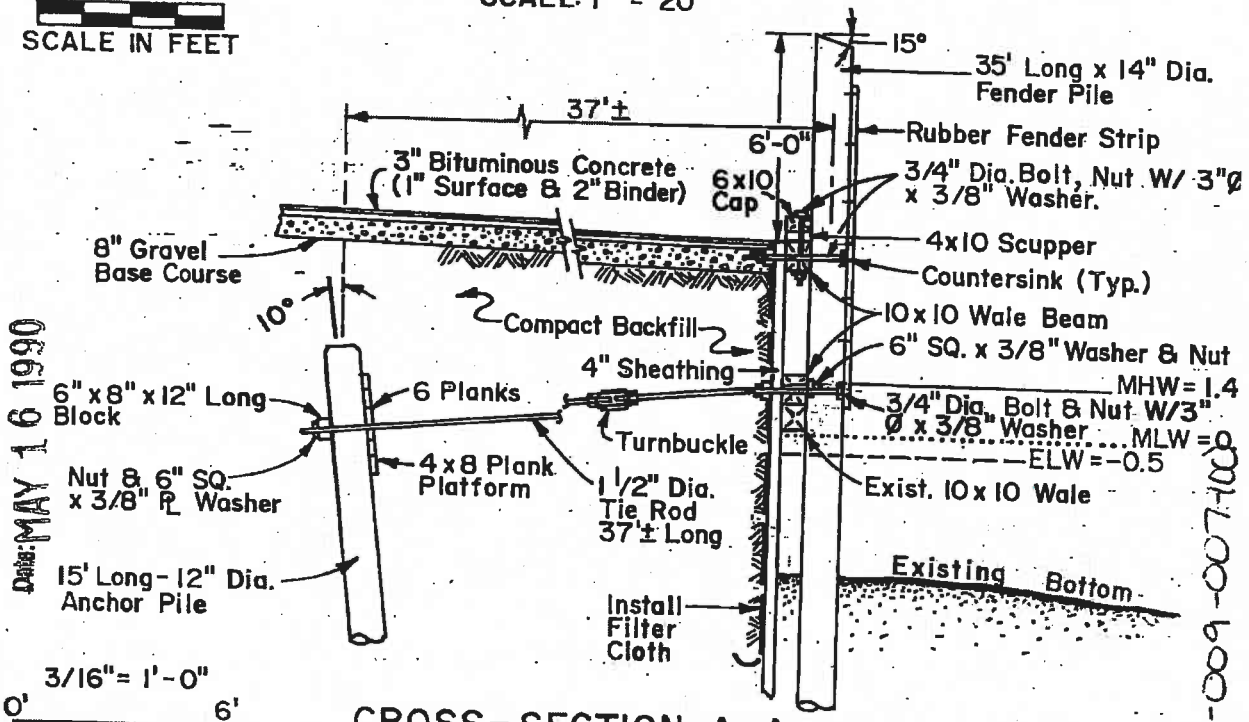
0' 20'

SCALE IN FEET

LICENSE PLAN NO. 2360

Approved by Department of Environmental Protection

Date: MAY 16 1990



3/16"= 1'-0"

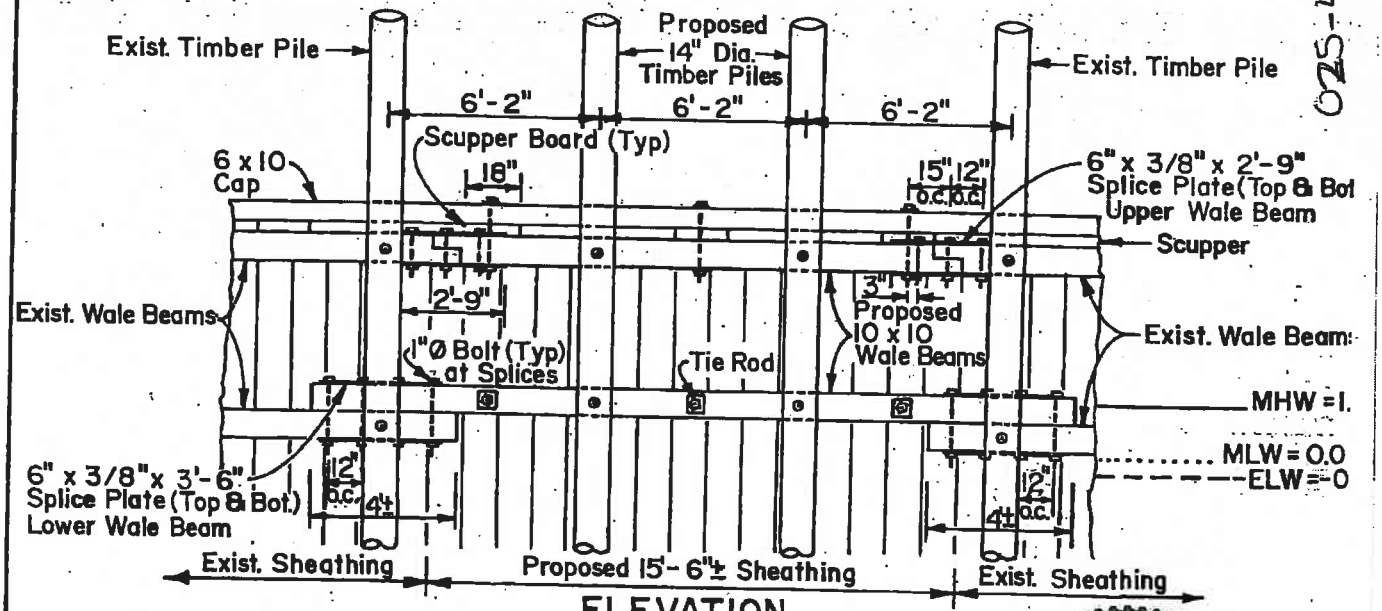
0' 6'

SCALE IN FEET

CROSS-SECTION A-A

SCALE: 3/16" = 1'-0"

025-478-009-007-100



ELEVATION

SCALE: 3/16" = 1'-0"

APPLICANT:
WATERWAYS COMMITTEE,
TOWN OF FALMOUTH

PLAN BY: holmes and mcgrath, inc.
civil engineers and land surveyors
200 main st. falmouth, ma. 02540

SHEET 2 OF 2 DATE: JAN. 3, 1990

TOWN: FALMOUTH
SOURCE: US ACOE
LOCATION: CONCORD, MA
DATE OF RESEARCH: AUGUST 2007

BCE Structure No	Document No	Contract/ Drawing Number	Entity	Municipality	Date	Title	Sheets	Location	Description
025-013-011-062-200	025-013-011-062-200-COE2A	61-173	USACE	Falmouth	May 1961	Proposed Groins and Sand Fill - Old Silver Beach - Herring River - Falmouth, Massachusetts - Prepared for the DPW of Massachusetts - Division of Waterways	1	Old Silver Beach	Groins
025-013-011-062-300	025-013-011-062-300-COE3A	61-173	USACE	Falmouth	May 1961	Proposed Groins and Sand Fill - Old Silver Beach - Herring River - Falmouth, Massachusetts - Prepared for the DPW of Massachusetts - Division of Waterways	1	Old Silver Beach	Groins
025-013-021-000-200	025-013-021-000-200-COE2A	61-173	USACE	Falmouth	May 1961	Proposed Groins and Sand Fill - Old Silver Beach - Herring River - Falmouth, Massachusetts - Prepared for the DPW of Massachusetts - Division of Waterways	1	Old Silver Beach	Groins
025-014-017-001-100	025-014-017-001-100-COE1A	49-161	USACE	Falmouth	August 1949	Proposed Stone Breakwater - West Falmouth Harbor - Falmouth, Massachusetts - Prepared for the DPW of Massachusetts - Division of Waterways	1	West Falmouth Harbor	Breakwater
025-02A-011-001-100	025-02A-011-001-100-COE1A	58-217	USACE	Falmouth	May 1958	Proposed Jetty Construction and Repairs - Megansett Harbor - Falmouth, Massaschusetts - Prepared for the DPW of Massachusetts - Division of Waterways	1	Megansett Harbor	Jetty
025-02A-011-001-200	025-02A-011-001-200-COE2A	52-144	USACE	Falmouth	May 1952	Proposed Dredging and Jetty Construction - Megansett Harbor - Falmouth, Massachusetts - Prepared for the DPW of Massachusetts - Division of Waterways	1	Megansett harbor	Jetty
025-02A-011-001-200	025-02A-011-001-200-COE2B	58-217	USACE	Falmouth	May 1958	Proposed Jetty Constructiona nd Repairs - Megansett Harbor - Falmouth, Massachusetts - Prepared for the DPW of Massachusetts - Division of Waterways	1	Megansett Harbor	Jetty
025-045-008-000-100	025-045-008-000-100-COE1A	51-202	USACE	Falmouth	November 1951	Proposed Stone Jetties and Dredging Green Pond - Falmouth, Massachusetts - Prepared for the DPW of Massachusetts - Division of Waterways	2	Green Pond	Jetties
025-045-008-000-100	025-045-008-000-100-COE1B	59-288	USACE	Falmouth	October 1959	Proposed Jetty Extension and Excavation - Green Pond - Falmouth, Massachusetts - Prepared for the DPW of Massachusetts - Division of Waterways	1	Green Pond	Jetties
025-045-008-000-200	025-045-008-000-200-COE2A	51-202	USACE	Falmouth	November 1951	Proposed Stone Jetties and Dredging - Green Pond - Falmouth, Massachusetts - Prepared for the DPW of Massachusetts - Division of Waterways	2	Green Pond	Jetties
025-045-008-000-200	025-045-008-000-200-COE2B	59-288	USACE	Falmouth	October 1959	Proposed Jetty Extension and Excavation - Green Pond - Falmouth, Massachusetts - Prepared for the DPW of Massachusetts - Division of Waterways	1	Green Pond	Jetties
025-045-020-002-500	025-045-020-002-500-COE5A	85-054	USACE	Falmouth	July 1980	Proposed Relocation of Inlet at Bounres Pond - Town of Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	7	Bournes Pond	Groins
025-045-020-002-600	025-045-020-002-600-COE6A	85-054	USACE	Falmouth	July 1980	Proposed Relocation of Inlet at Bournes Pond - Town of Falmouth - Prepared for the DPW of Massachusetts - Division of Waterways	7	Bournes Pond	Groins
025-047-007-000E-100	025-047-007-000E-100-COE1A	65-70	USACE	Falmouth	January 1948	Proposed Drainage Improvements, Extension of Jetties at Fresh River - Outlet of Siders Pond - Falmouth, Massachusetts - Prepared for the DPW of Massachusetts - Division of Waterways	1	Siders Pond	Jetties
025-047-007-000E-200	025-047-007-000E-200-COE2A	65-70	USACE	Falmouth	January 1948	Proposed Drainage Improvements - Extension of Jetties - Fresh River - Outlet of Siders Pond - Falmouth, Massachusetts - Prepared for the DPW of Massachusetts - Division of Waterways	1	Siders Pond	Jetties
025-047-007-026-100	025-047-007-026-100-COE1A	48-15	USACE	Falmouth	Janaury 1948	Proposed Stone Jetties In Vineyard Sound - Falmouth, Massachusetts - Prepared for the DPW of Massachusetts - Division of Waterways	1	Salt Pond	Jetties

TOWN: FALMOUTH
SOURCE: US ACOE
LOCATION: CONCORD, MA
DATE OF RESEARCH: AUGUST 2007

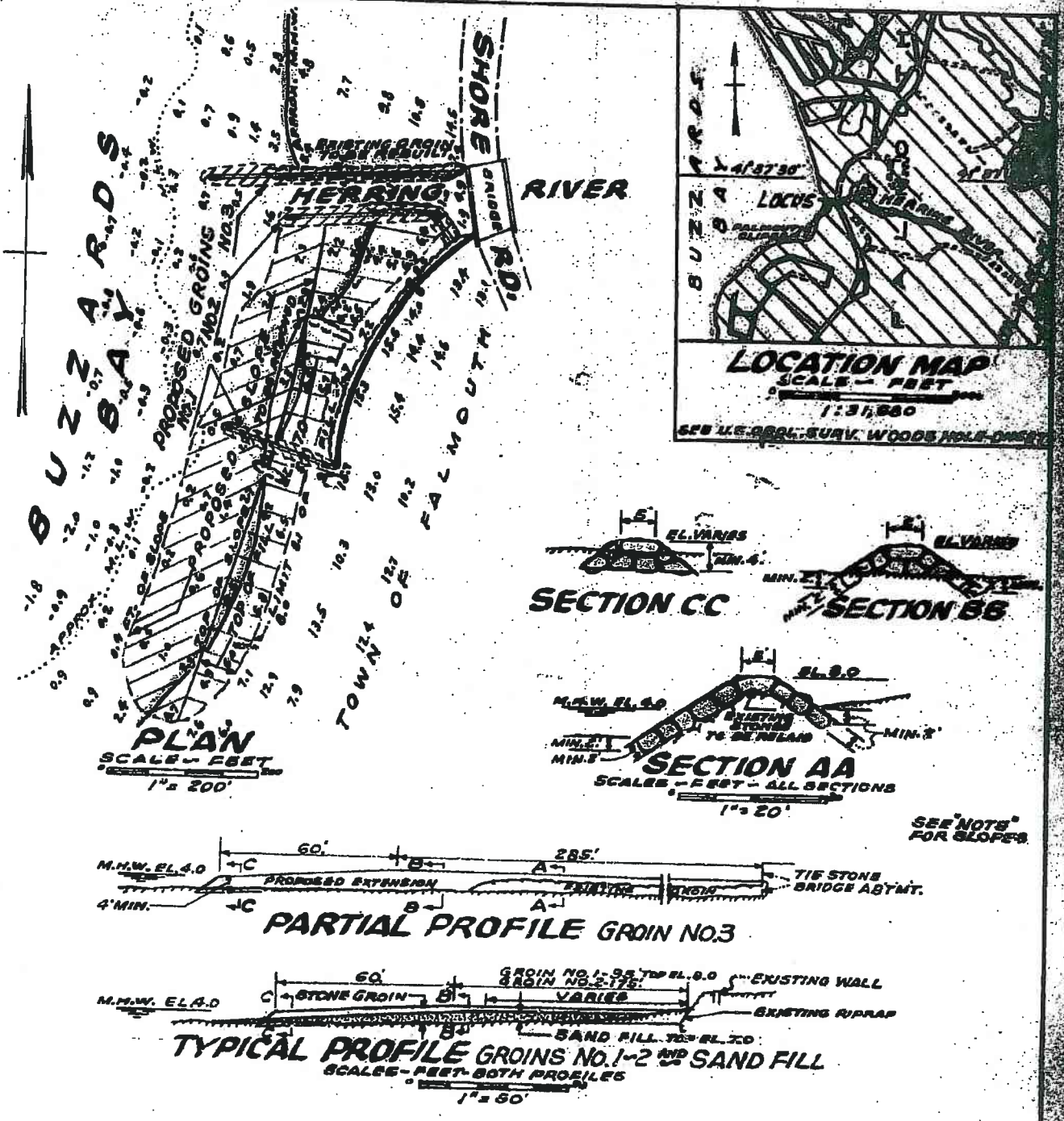
BCE Structure No	Document No	Contract/ Drawing Number	Entity	Municipality	Date	Title	Sheets	Location	Description
025-047-007-026-200	025-047-007-026-200-COE2A	48-15	USACE	Falmouth	January 1948	Proposed Stone Jetties in Vineyard Sound - Falmouth, Massachusetts - Prepared for the DPW of Massachusetts - Division of Waterways	1	Salt Pond	Jetties
025-04A-041-000-100	025-04A-041-000-100-COE1A	59-280	USACE	Falmouth	September 1959	Proposed Mound and Excavation - Silver Beach Avenue - Wild Harbor - Falmouth, Massachusetts - Prepared for the DPW of Massachusetts - Division of Waterways	1	Wild Harbor	Stone Mound
025-04A-043-000-100	025-04A-043-000-100-COE1A	47-179	USACE	Falmouth	July 1947	Proposed Stone Jetties - Wild Harbor - Falmouth, Massachusetts - Falmouth, Massaschusetts - Prepared for the DPW of Massachusetts - Division of Waterways	1	Wild Harbor	Jetties
025-04A-043-000-100	025-04A-043-000-100-COE1B	53-16	USACE	Falmouth	January 1953	Proposed Jetty Construction - New Silver Beach - Falmouth, Massachusetts - Prepared for the DPW of Massachusetts - Division of Waterways	1	Wild Harbor	Jetty
025-04A-043-000-100	025-04A-043-000-100-COE1C	53-116	USACE	Falmouth	May 1953	Proposed Sand Fill for Shore Improvements - New Silver Beach - Falmouth, Massachusetts - Prepared for the DPW of Massachusetts - Division of Waterways	1	Wild Harbor	Existing Groins
025-050-005-017A-100	025-050-005-017A-100-COE1A	199903198	USACE	Falmouth	November 1999	Plan Accompanying Petition of Town of Falmouth, Massachusetts DPW for the Dredging of Trunk River and the Reconstruction and Maintaining Stone Groins in Vineyard Sound	8	Oyster Pond	Groins
025-050-005-017A-200	025-050-005-017A-200-COE2A	199903198	USACE	Falmouth	November 1999	Plan Accompanying Petition of Town of Falmouth, Massachusetts DPW for the Dredging of Trunk River and the Reconstruction and Maintaining Stone Groins in Vineyard Sound	8	Oyster Pond	Groins
025-050-007-020-100	025-050-007-020-100-COE1A	48-15	USACE	Falmouth	January 1948	Proposed Stone Jetties in Vineyard Sound - Falmouth, Massachusetts - Prepared for the DPW of Massachusetts - Division of Waterways	1	Salt Pond	Jetties
025-24A-011-005-100	025-24A-011-005-100-COE1A	55-210	USACE	Falmouth	July 1955	Proposed Pile and Timber Wharf in West Falmouth Harbor at Falmouth, County of Barnstable, Massachusetts - Application by Town of Falmouth	2	West Falmouth Harbor	Bulkhead
025-40A-001-003A-100	025-40A-001-003A-100-COE1A	49-7	USACE	Falmouth	December 1948	Proposed Stone Jetties in Vineyard Sound at Menauhant Shore - Falmouth, Massachusetts - Prepared for the DPW of Massachusetts - Division of Waterways	1	Central Avenue	
025-40A-017-001-200	025-40A-017-001-200-COE2A	52-243	USACE	Falmouth	Nobember 1952	Proposed Shore Protection - Eel Pond - Falmouth, Massachusetts - Prepared for the DPW of Massachusetts - Division of Waterways	1	Eel Pond	Jetty
025-46A-002-000-100	025-46A-002-000-100-COE1A	55-152	USACE	Falmouth	May 1955	Proposed Stone Groins and Sand Fill - Maravista Shore - Vineyard Sound - Falmouth, Massachusetts - Prepared for the DPW of Massachusetts - Division of Waterways	2	Menauhant Road	Groins
025-46A-002-000-200	025-46A-002-000-200-COE2A	55-152	USACE	Falmouth	May 1955	Proposed Stone Groins and Sand Fill - Maravista Shore - Vineyard Sound - Falmouth, Massachusetts - Prepared for the DPW of Massachusetts - Division of Waterways	2	Menauhant Road	Groins
025-46A-002-000-500	025-46A-002-000-500-COE5A	55-152	USACE	Falmouth	May 1955	Proposed Stone Groins and Sand Fill - Maravista Shore - Vineyard Sound - Falmouth, Massachusetts - Prepared for the DPW of Massachusetts - Division of Waterways	2	Menauhant Road	Groins
025-46B-002-000D-100	025-46B-002-000D-100-COE1A	53-33	USACE	Falmouth	January 1953	Proposed Bulkhead - Falmouth Inner harbor - Falmouth, Massachusetts - Prepared for the DPW of Massachusetts - Division of Waterways	1	Falmouth Inner Harbor	Bulkhead

TOWN: FALMOUTH
SOURCE: US ACOE
LOCATION: CONCORD, MA
DATE OF RESEARCH: AUGUST 2007

BCE Structure No	Document No	Contract/ Drawing Number	Entity	Municipality	Date	Title	Sheets	Location	Description
025-47B-009-002-100	025-47B-009-002-100-COE1A	57-149	USACE	Falmouth	March 1957	Proposed Bulkhead and Finger Piers and Dredging - Falmouth Inner Harbor - Prepared for the DPW of Massachusetts - Division of Waterways	1	Falmouth Inner Harbor	Bulkhead
025-47B-009-002-200	025-47B-009-002-200-COE2A	73-163	USACE	Falmouth	July 1972	Plans to Accompany Petition of Town of Falmouth to Build a Concrete Bulkhead, Dredge and Fill in Falmouth Inner Harbor - Barnstable County - Massachusetts	1	Falmouth Inner Harbor	Concrete Bulkhead
025-47B-009-002-200	025-47B-009-002-200-COE2B	75-270	USACE	Falmouth	January 1975	Dredge and Construct Concrete Bulkhead and Ramp - Falmouth Inner Harbor - Falmouth, Barnstable County, Massachusetts - Application by Town of Falmouth	2	Falmouth Inner Harbor	Concrete Bulkhead
025-47B-009-007-100	025-47B-009-007-100-COE1A	58-78	USACE	Falmouth	January 1958	Proposed Bulkhead, Piers, Ramp, Excavation in Davis Marine Park - Falmouth Inner Harbor - Falmouth, Massachusetts - Prepared for the DPW of Massachusetts - Division of Waterways	3	Falmouth Inner Harbor	Bulkhead
025-47B-009-007-100	025-47B-009-007-100-COE1B	N/A	USACE	Falmouth	January 1990	Proposed Plan to Abandon Boat Ramp, Construct Wood Bulkhead and Fill in Falmouth Inner Harbor at Falmouth, Barnstable County, Massachusetts - Prepared for the DPW of Massachusetts - Division of Waterways	3	Falmouth Inner Harbor	Bulkhead
025-49A-006-039-100	025-49A-006-039-100-COE1A	55-70	USACE	Falmouth	March 1955	Proposed Stone Groins and Sand Fill - Woods hole Beach - Buzzards Bay - Falmouth, Massachusetts - Prepared for the DPW of Massachusetts - Division of Waterways	1	Woods Hole Beach	Groin

080 0237 025-013-011-062-200
025-013-011-062-300
025-013-021-000-200

109 07 36



NOTE

ELEVATIONS ARE IN FEET AND TENTHS AND REFER TO PLANE OF MEAN LOW WATER. MINUS FIGURES SHOW DEPTHS BELOW THE SAME PLANE.
APPROX. EXISTING SURFACE THUS
SIDE SLOPE AND ENDS FOR GROINS 1.5 TO 1.0
LOCATION OF PROPOSED WORK SHOWN IN RED.

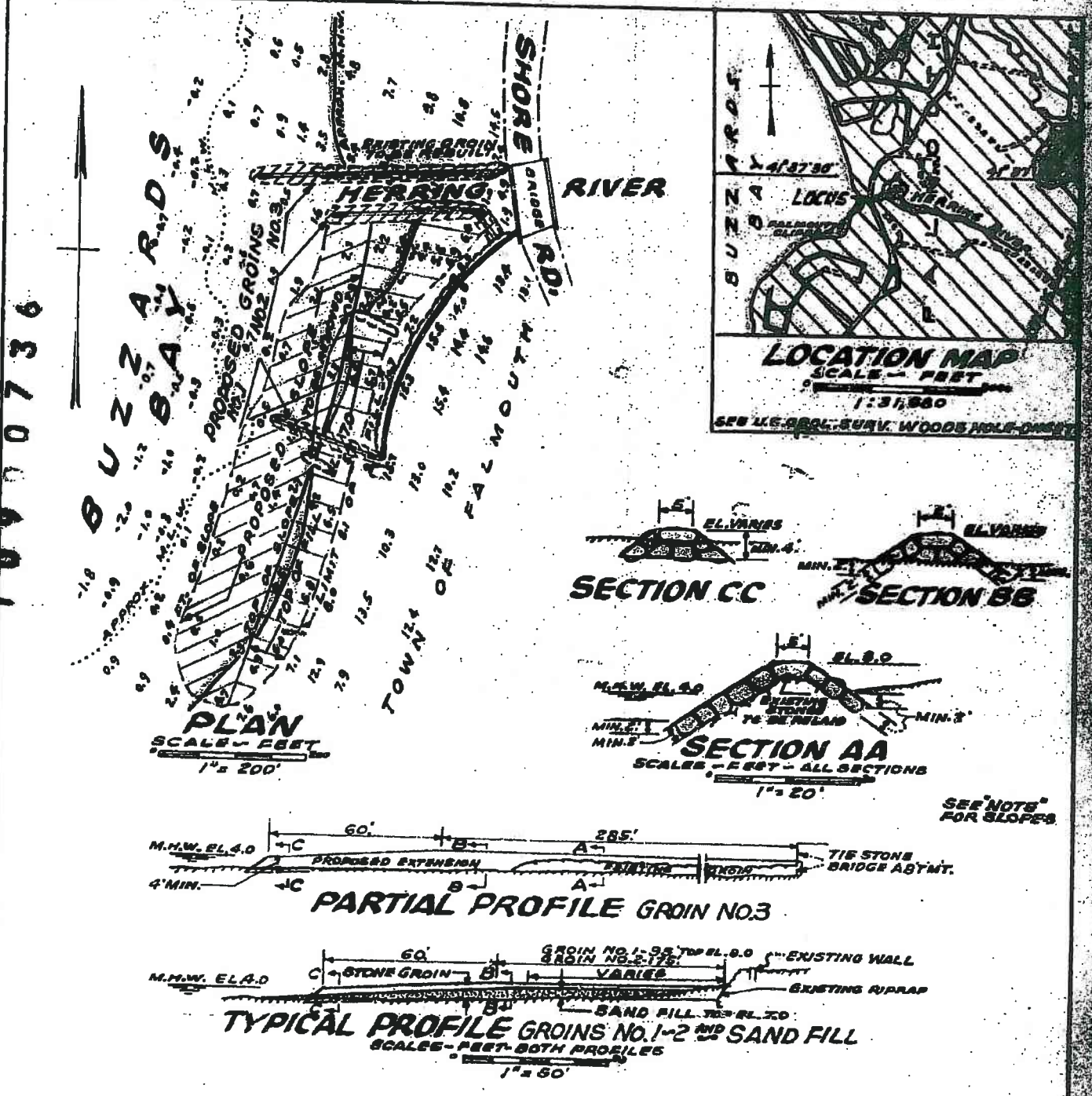
PROPOSED GROINS — SAND FILL
OLD SILVER BEACH

HERRING RIVER

FALMOUTH — MASS.
APPLICATION BY
DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS
DIVISION OF WATERWAYS
MAY - 1961

R. L. & M. V.

080 0237 025-013-011-062-100
025-013-011-062-300
025-013-021-000-200



NOTE

ELEVATIONS ARE IN FEET AND TENTHS AND REFER TO PLANE OF MEAN LOW WATER. MINUS FIGURES SHOW DEPTHS BELOW THE SAME PLANE.
APPROX. EXISTING SURFACE THUS
SIDE SLOPE AND ENDS FOR GROINS 1.5 TO 1.0
LOCATION OF PROPOSED WORK SHOWN IN RED.

PROPOSED GROINS - SAND FILL
OLD SILVER BEACH

HERRING RIVER

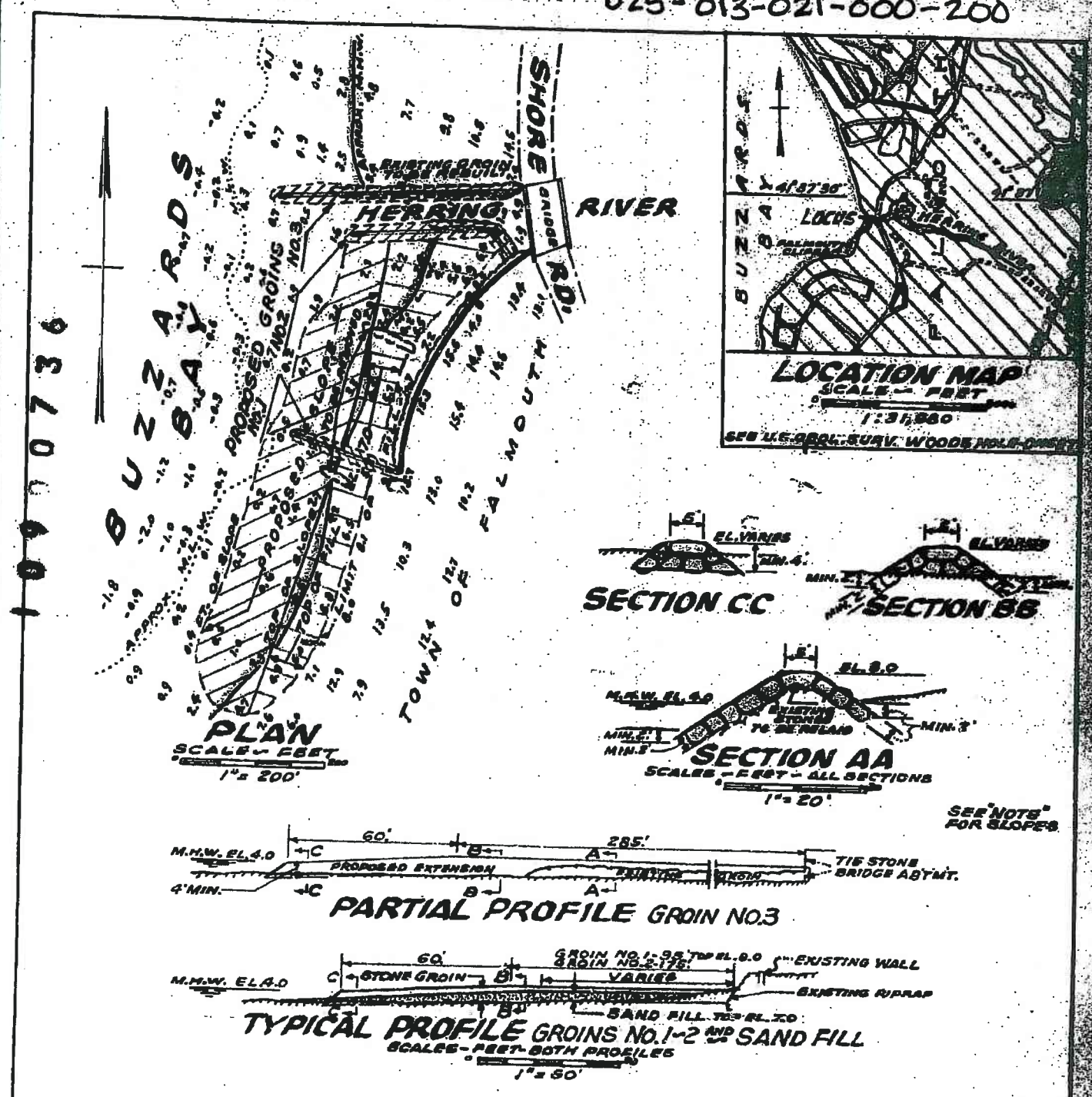
FALMOUTH - MASS.
APPLICATION BY
DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS
DIVISION OF WATERWAYS
MAY - 1961

P. L. & R. M. Y.

0 8 0 0 2 3 7

025-013-011-062-200
025-013-011-062-300
025-013-021-000-200

109 07 36



NOTE

ELEVATIONS ARE IN FEET AND TENTHS AND REFER TO PLANE OF MEAN LOW WATER. MINUS FIGURES SHOW DEPTHS BELOW THE SAME PLANE. APPROX. EXISTING SURFACE THUS ~~~~~ SIDE SLOPE AND ENDS FOR GROINS 1.5 TO 1.0 LOCATION OF PROPOSED WORK SHOWN IN RED.

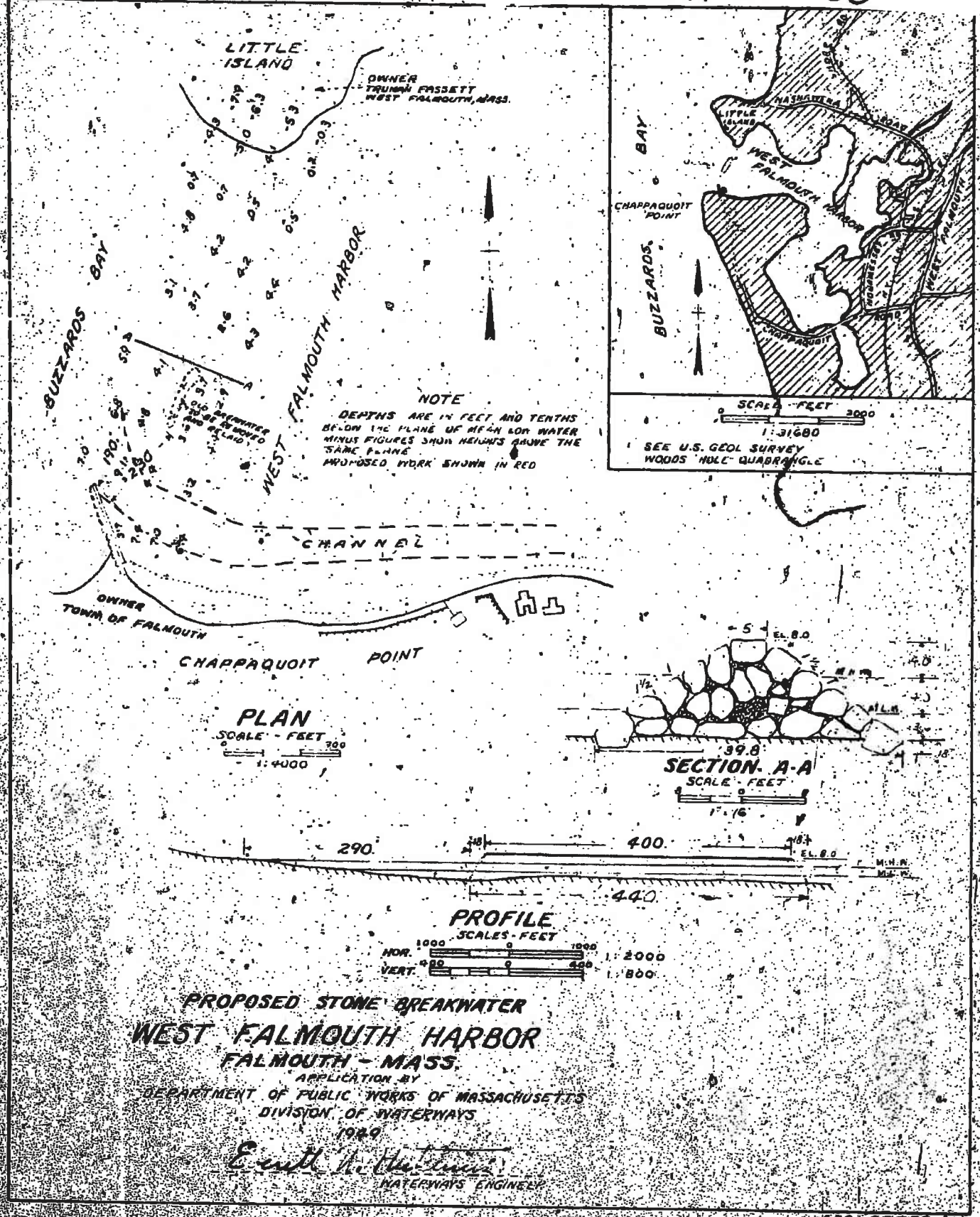
PROPOSED GROINS — SAND FILL
OLD SILVER BEACH

HERRING RIVER

FALMOUTH — MASS.
APPLICATION BY
DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS
DIVISION OF WATERWAYS
MAY — 1961

R. L. & R. M. J.

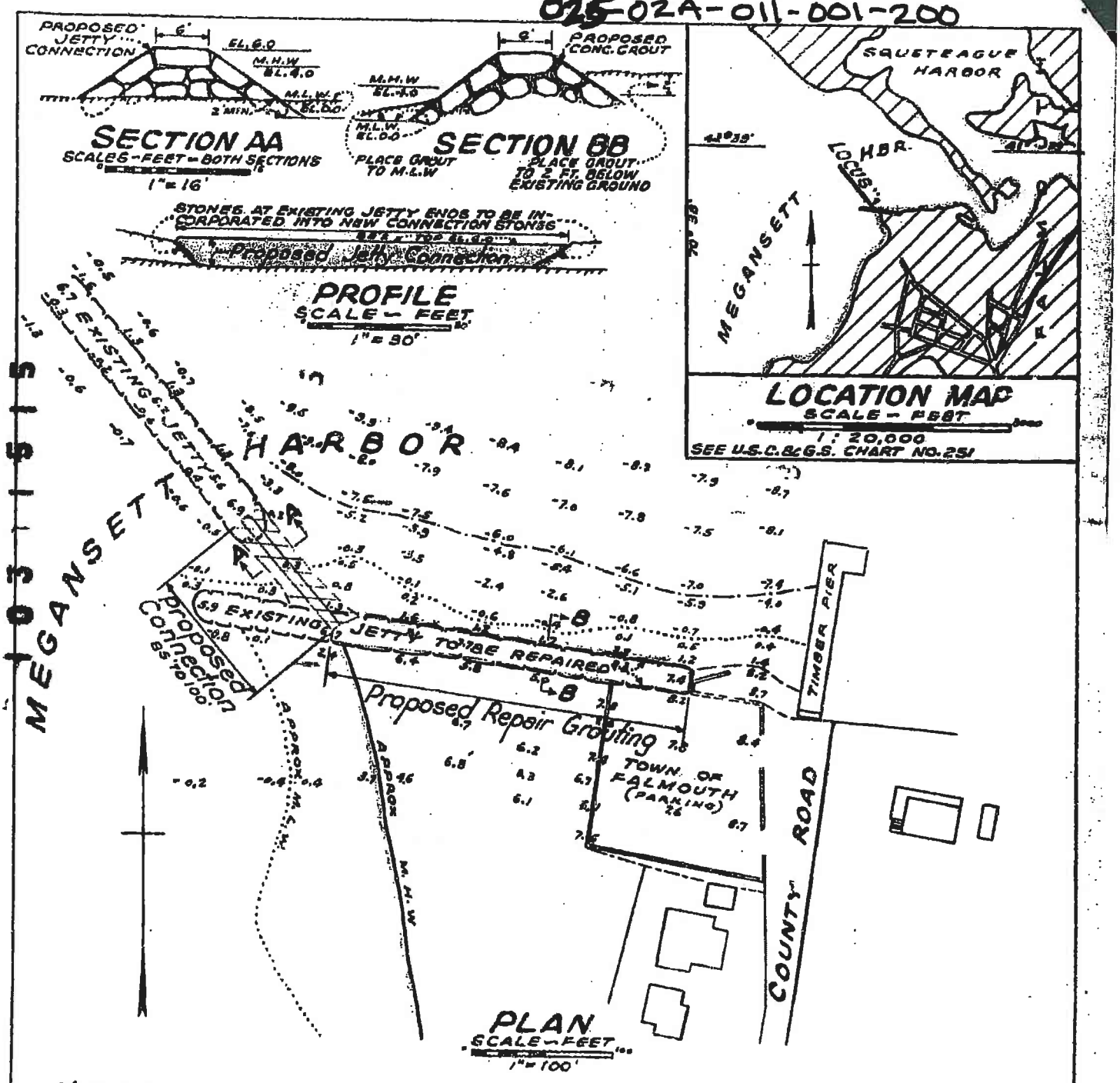
025-014-017-001-100



ACC. 02759

0 8 5 0 0 0 3

025-02A-011-061-100
025-02A-011-001-200



NOTE

ELEVATIONS ARE IN FEET AND TENTHS AND REFER TO PLANE OF MEAN LOW WATER. MINUS FIGURES SHOW DEPTHS BELOW SAME PLANE.
APPROX. EXISTING GROUND THUS
ALL SIDE SLOPES ARE 1.5 TO 1.0
LOCATION OF PROPOSED WORK SHOWN IN RED.

PROPOSED JETTY CONSTRUCTION AND REPAIRS MEGANSETT HARBOR

FALMOUTH - MASS.

APPLICATION BY
DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS
DIVISION OF WATERWAYS

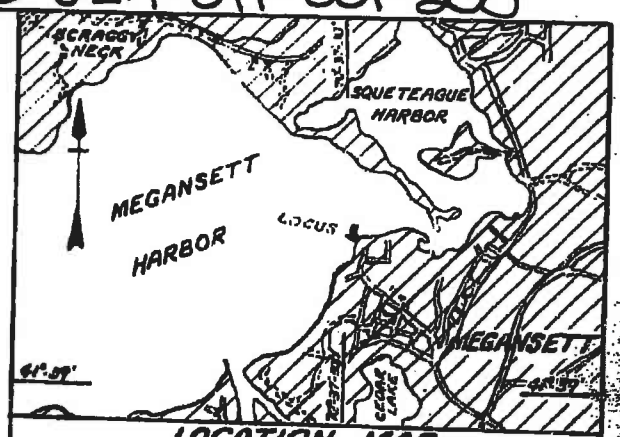
MAY - 1958

Robert B. MacKinnon

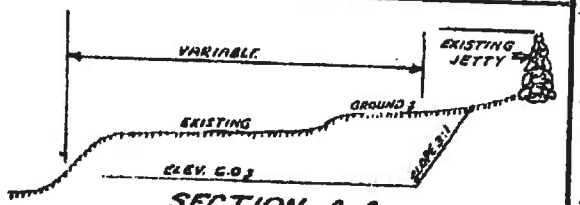
OWNERS

(1) TOWN OF FALMOUTH
(2) MABEL M. HALL
NORTH FALMOUTH, MASS
(3 & 4) HAROLD S. CROCKER
77 HIGHLAND TER., BROCTON, MASS
(5) JULIUS A. & HELEN C. HOERLINGER
60 EAST 83RD. ST., NEW YORK, N.Y.
(6) DAVID N. TAFT
OXFORD, MASS.
(7) WILLIAM M. BRADY
250 STUART ST., BOSTON, MASS.
(8) VIRGINIA H. HOOD
NORTH SMITHFIELD, RHODE ISLAND
(9) JANET G. ELLIS
324 SOUTH COLE ST., LIMA, OHIO
(10) CHESTER W. LATIMER
26 GILBERT PLACE
WEST ORANGE, NEW JERSEY
(11) JERNETTE D. CADY
1886 BEACON ST.
WARREN, MASS.

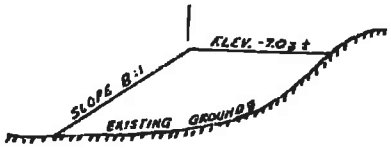
EXISTING JETTY



LOCATION MAP
SCALE - FEET 3000
1:31,680
SEE U.S. GEOL. SURVEY - ONSET & POCASSET QUADRANGLES



SECTION A-A
SCALE - FEET
HOR. 100
VERT. 10

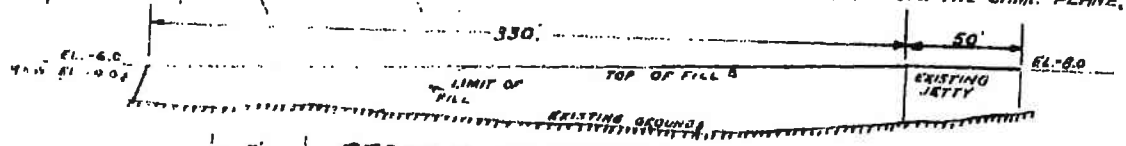


SECTION B-B
SCALE - FEET
HOR. 100
VERT. 10

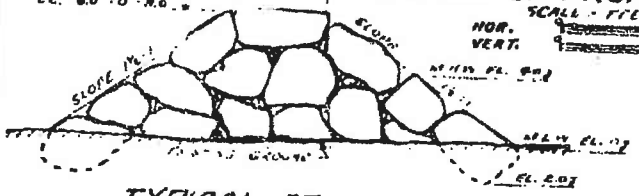
PLAN
SCALE - FEET
1000
1 2000

NOTE

AREA SHOWN HATCHED IN RED TO BE DREDGED TO A DEPTH OF 6 FEET AT MEAN LOW WATER. AMOUNT OF MATERIAL TO BE REMOVED APPROXIMATELY 18,600 CU. YDS. MATERIAL IS TO BE DREDGED BY THE HYDRAULIC METHOD AND TO BE DISPOSED OF ON THE SHORE IN AREA SHOWN CROSS HATCHED IN RED.
PROPOSED JETTY AND PORTION OF EXISTING JETTY TO BE REMOVED SHOWN IN RED.
SOUNDINGS ARE IN FEET AND TENTHS AND SHOW DEPTHS BELOW THE PLANE OF MEAN LOW WATER. MINUS FIGURES SHOW ELEVATIONS ABOVE THE SAME PLANE.



PROFILE OF PROPOSED JETTY
SCALE - FEET
HOR. 10
VERT. 10



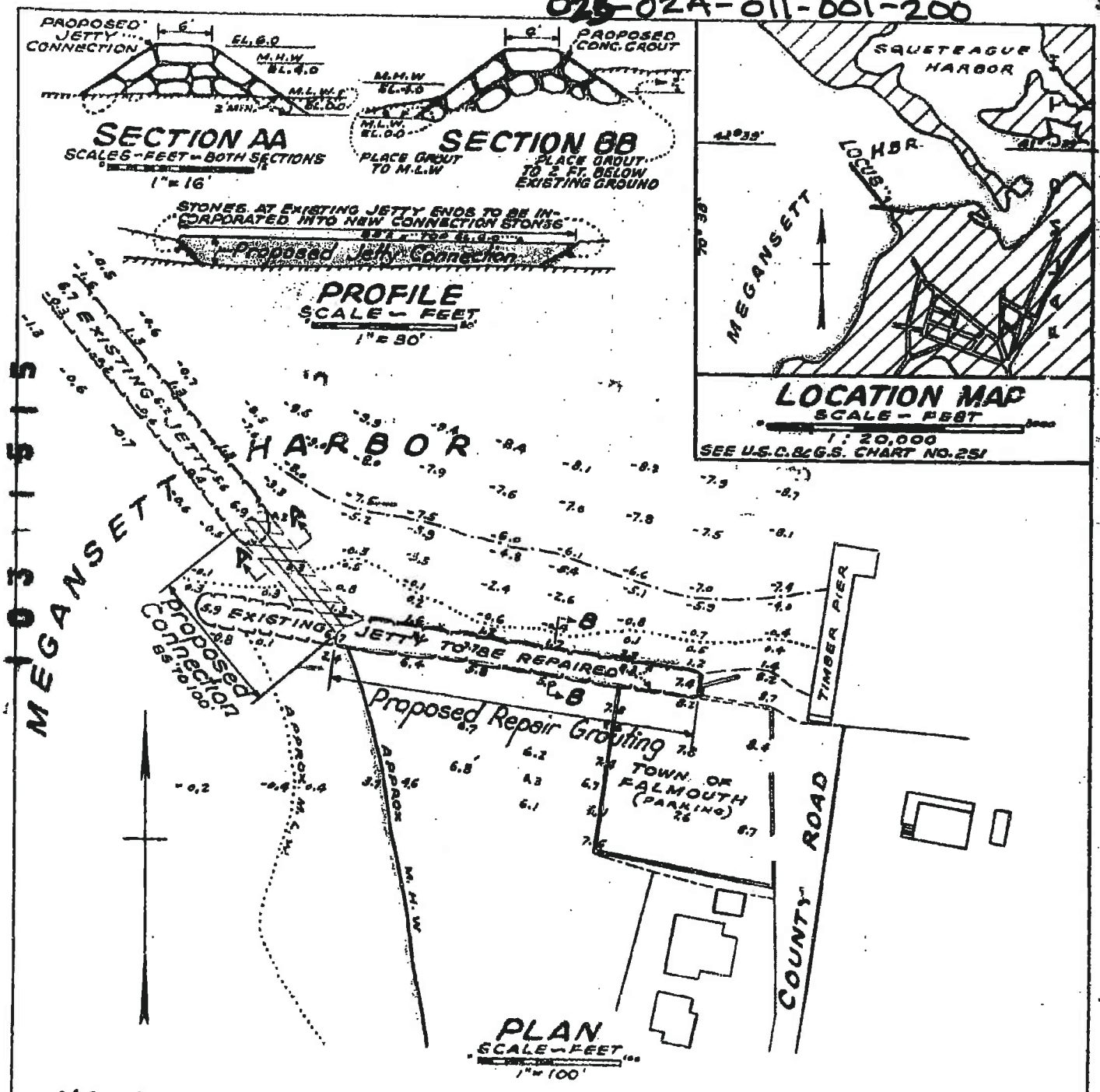
TYPICAL SECTION
SCALE - FEET 10
1 10

PROPOSED DREDGING & JETTY CONSTRUCTION
MEGANSETT HARBOR
FALMOUTH - MASS.
APPLICATION BY
DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS
DIVISION OF WATERWAYS
MAY 1952

DISTRICT WATERWAYS ENGINEER

0 8 5 0 0 0 3

025-02A-011-001-100
025-02A-011-001-200



NOTE

ELEVATIONS ARE IN FEET AND TENTHS AND REFER TO PLANE OF MEAN LOW WATER. MINUS FIGURES SHOW DEPTHS BELOW SAME PLANE.
APPROX. EXISTING GROUND THUS
ALL SIDE SLOPES ARE 1.5 TO 1.0
LOCATION OF PROPOSED WORK SHOWN IN RED.

PROPOSED JETTY CONSTRUCTION AND REPAIRS MEGANSET HARBOR

FALMOUTH - MASS.

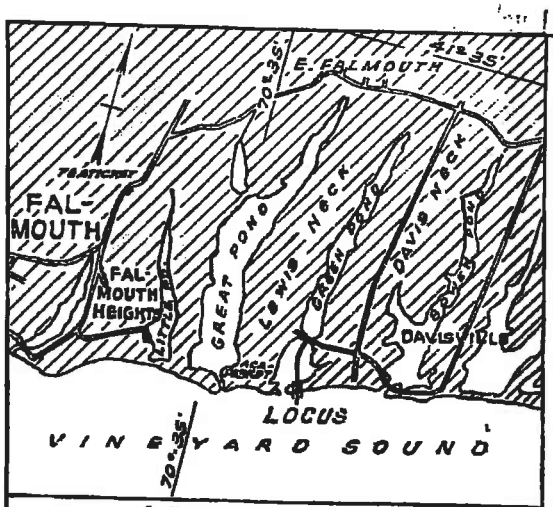
APPLICATION BY
DEPARTMENT of PUBLIC WORKS of MASSACHUSETTS
DIVISION of WATERWAYS

MAY - 1958

Robert B. MacKinnon

095 1658 025-045-008-000-100
025-045-008-000-200

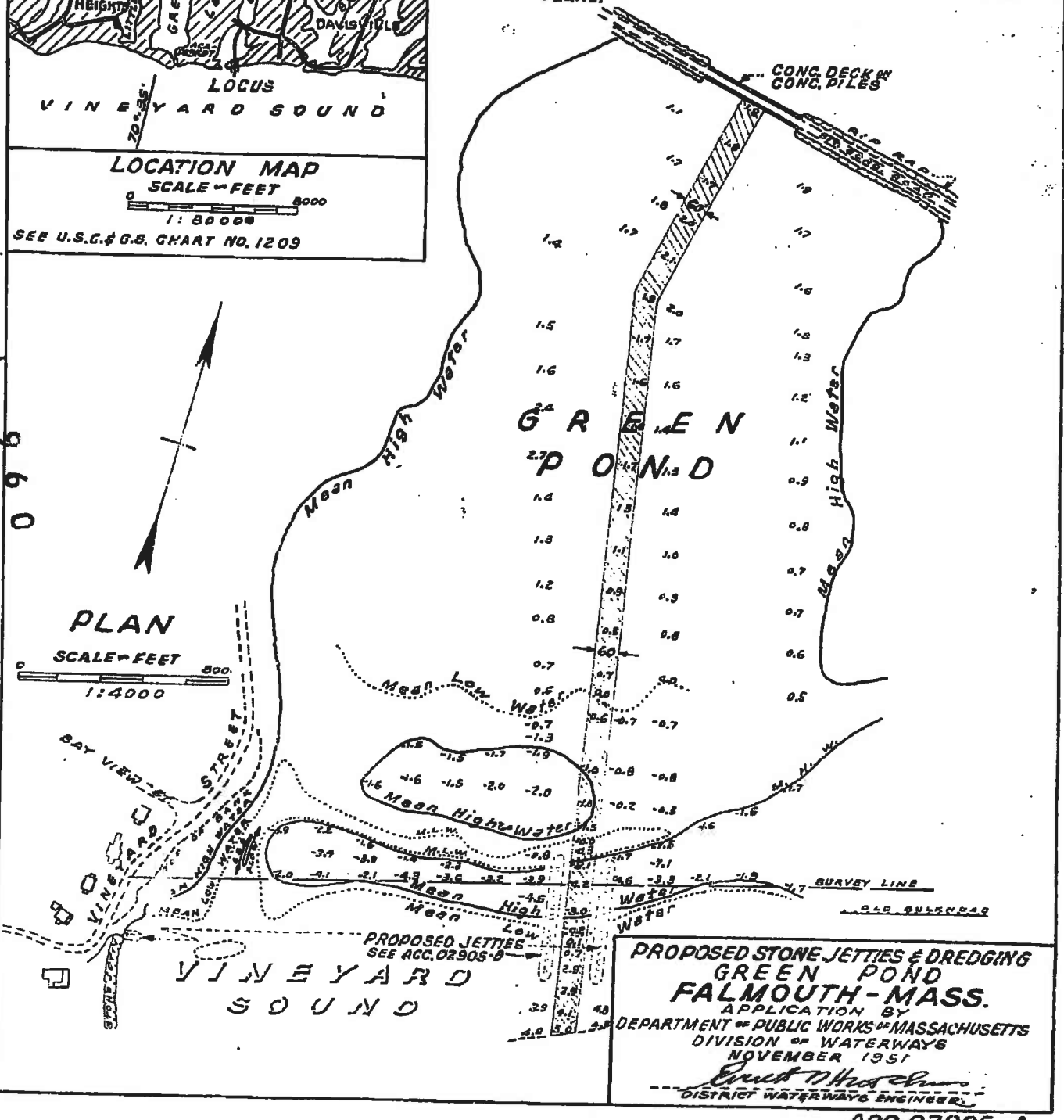
SHEET 1 OF 2



LOCATION MAP
SCALE OF FEET
0 8000
1:80000
SEE U.S.C.& G.S. CHART NO. 1209

NOTE

AREA SHOWN IN RED TO BE DREDGED TO A DEPTH OF 5 FEET AT MEAN LOW WATER. AMOUNT OF MATERIAL TO BE REMOVED APPROXIMATELY 32,000 CU. YARDS. MATERIAL IS TO BE DREDGED BY THE HYDRAULIC METHOD AND TO BE DISPOSED OF ON THE ADJACENT SHORE, ABOVE MEAN HIGH WATER IN LOCATIONS APPROVED BY THE ENGINEER.
SOUNDINGS ARE IN FEET AND TENTHS AND SHOW DEPTHS BELOW THE PLANE OF MEAN LOW WATER. MINUS FIGURES SHOW ELEVATIONS ABOVE THE SAME PLANE.



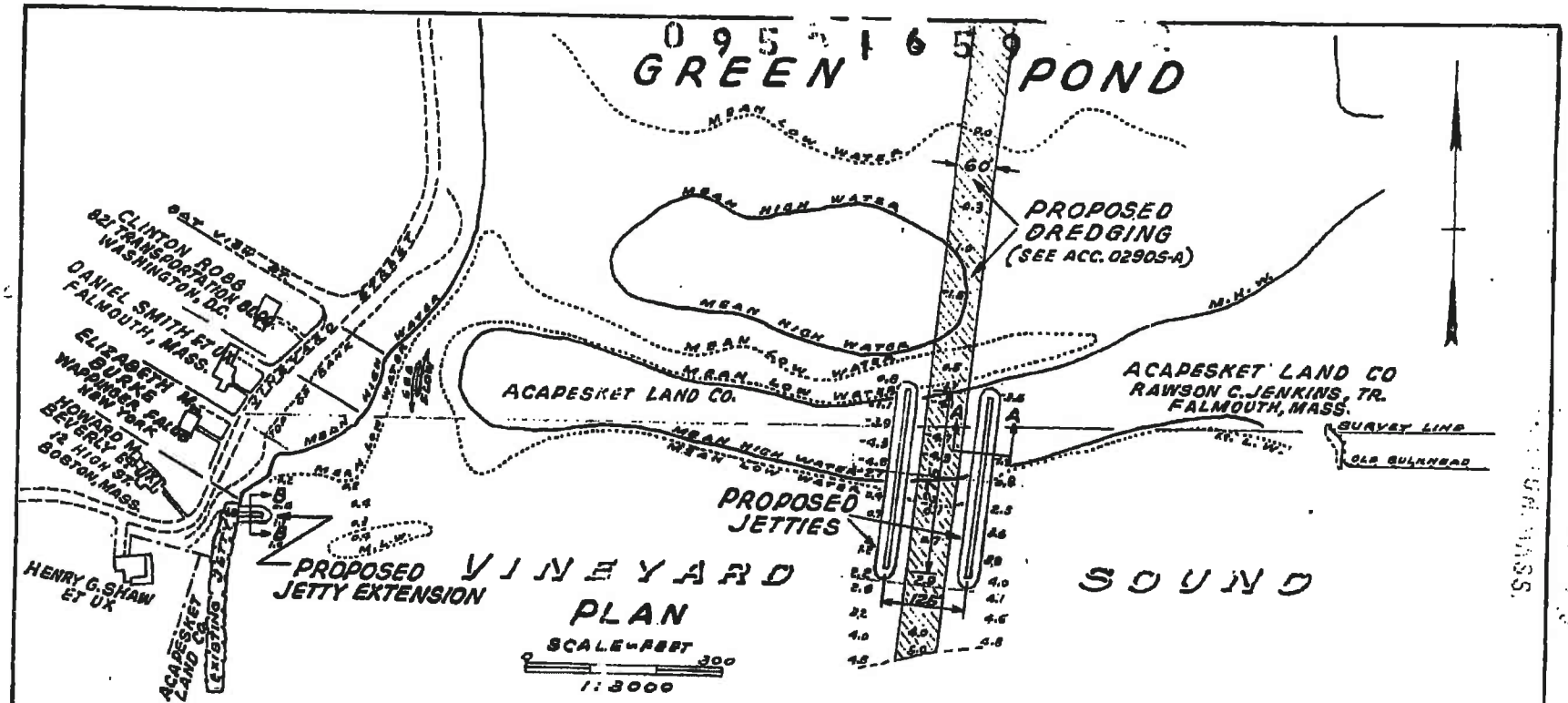
PLAN
SCALE OF FEET
0 800
1:4000

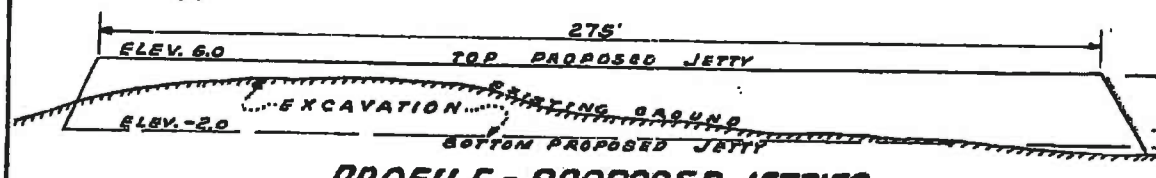
PROPOSED STONE JETTIES & DREDGING
GREEN POND
FALMOUTH - MASS.

APPLICATION BY
DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS
DIVISION OF WATERWAYS
NOVEMBER 1951

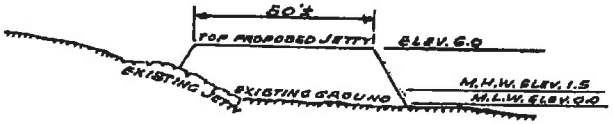
Ernest N. Hutchins
DISTRICT WATERWAYS ENGINEER

ACC. 02905-A





PROFILE - PROPOSED JETTIES

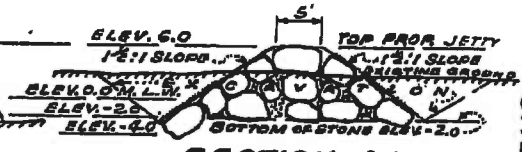


PROFILE - PROPOSED JETTY EXTENSION

SCALE IN FEET (BOTH PROFILES)

HOR. 1" = 50'

VERT. 1" = 20'



SECTION AA

SECTION BB

SCALE IN FEET (BOTH SECTIONS)

PROPOSED STONE JETTIES & DREDGING
GREEN POND
FALMOUTH - MASS.
APPLICATION BY
DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS
DIVISION OF WATERWAYS
NOVEMBER 1951

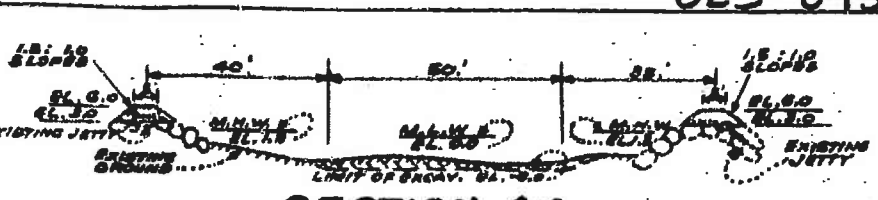
DISTRICT WATERWAYS ENGINEER

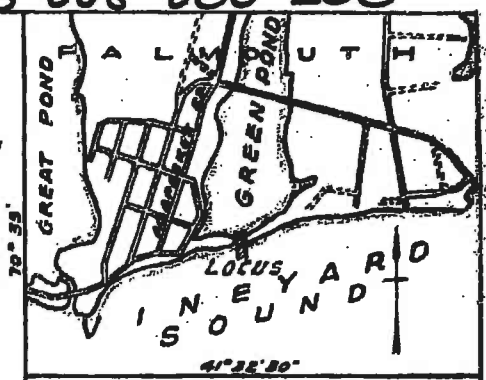
SHEET 2 OF 2

ACC. 02905-B

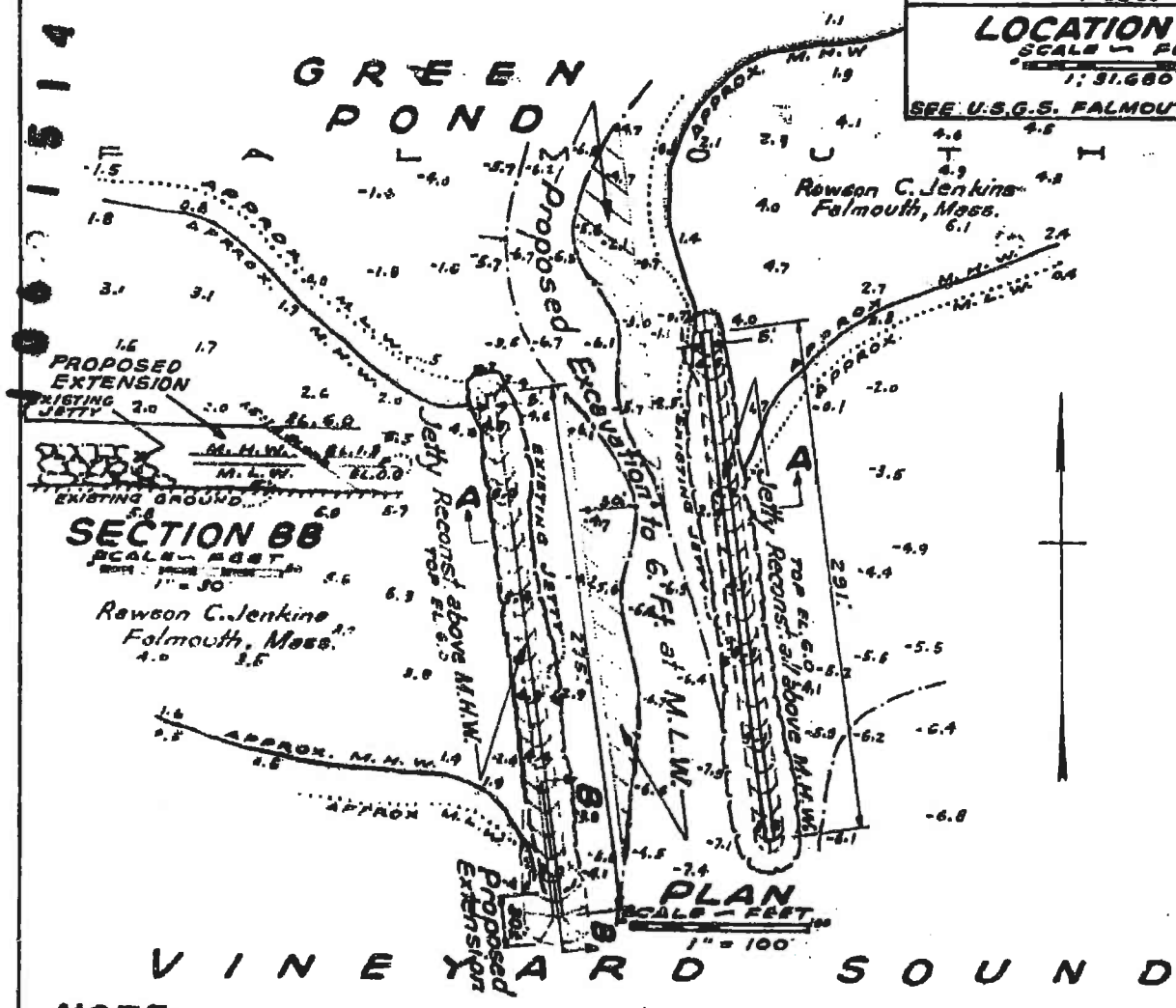
0 0 1 0 7 8 3

025-045-008-000-100
025-045-008-000-200





LOCATION MAP
SCALE — FEET
1: 31,680
SEE U.S.G.S. FALMOUTH QUAD.



NOTE

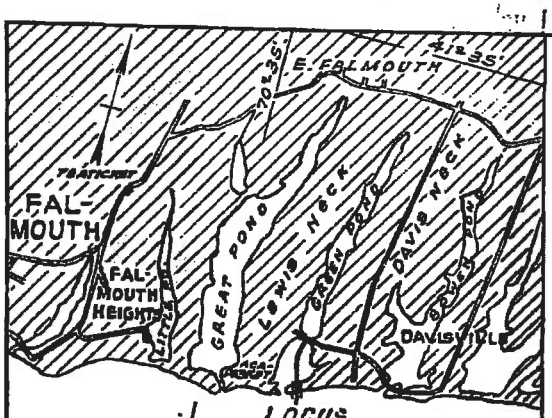
ELEVATIONS ARE IN FEET AND TENTHS AND REFER TO PLANE OF MEAN LOW WATER. MINUS FIGURES SHOW DEPTHS BELOW THE SAME PLANE.
EXCAVATED MATERIAL APPROX. 2600 C.Y. TO BE DISPOSED OF ABOVE MEAN HIGH WATER IN APPROVED LOCATION.
ATTENTION IS DIRECTED TO FACT THAT THE ONLY NEW CONSTRUCTION SUBJECT TO THIS PERMIT IS THE APPROX. 30 FT. EXTENSION SHOWN ON THE WESTERLY JETTY. OTHER CONSTRUCTION IS REPAIR AND RAISING OF [illegible] OF EXISTING JETTIES.

PROPOSED
JETTY EXTENSION AND EXCAVATION
GREEN POND
FALMOUTH — MASS.
APPLICATION BY
DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS
DIVISION OF WATERWAYS
OCTOBER — 1959

Robert B. MacKinnon
[illegible] ENGINEER

095 1658 025-045-008-000-100
025-045-008-000-200

SHEET 1 OF 2



LOCATION MAP
SCALE — FEET
0 8000
1:80000
SEE U.S.C.& G.S. CHART NO. 1209

NOTE

AREA SHOWN IN RED TO BE DREDGED TO A DEPTH OF 5 FEET AT MEAN LOW WATER. AMOUNT OF MATERIAL TO BE REMOVED APPROXIMATELY 32,000 CU. YARDS. MATERIAL IS TO BE DREDGED BY THE HYDRAULIC METHOD AND TO BE DISPOSED OF ON THE ADJACENT SHORE, ABOVE MEAN HIGH WATER IN LOCATIONS APPROVED BY THE ENGINEER.
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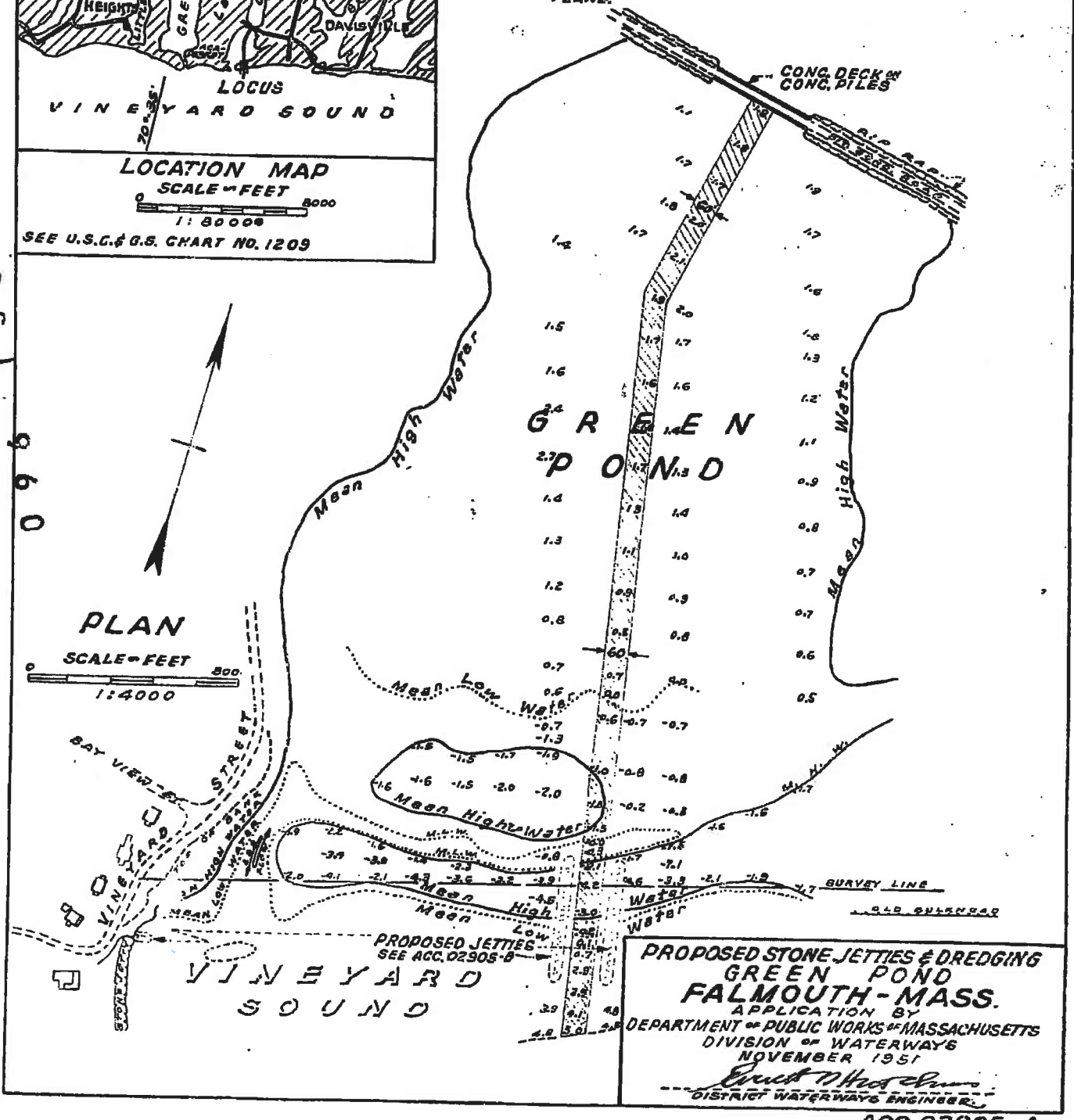
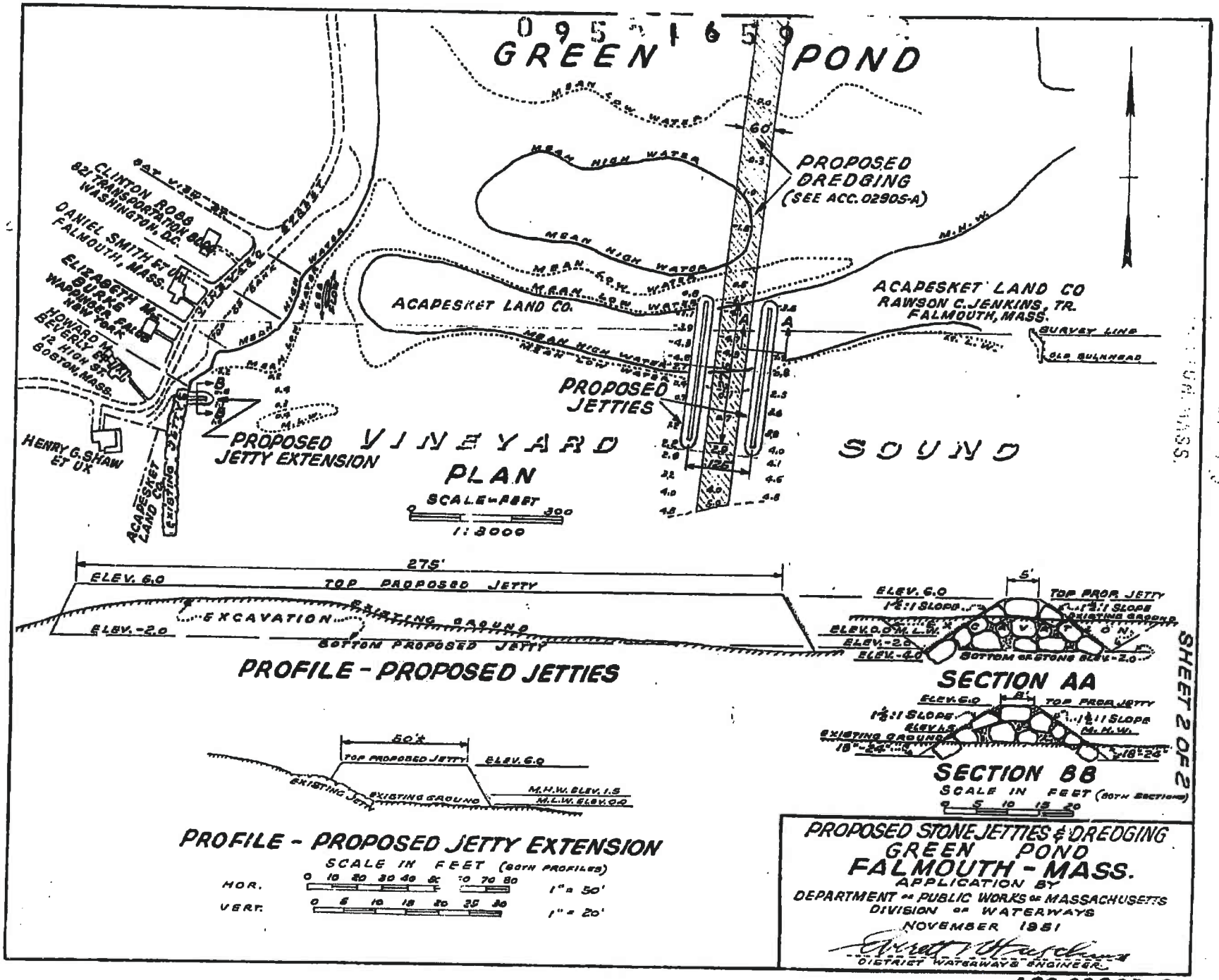


PLAN
SCALE — FEET
0 800
1:4000

PROPOSED STONE JETTIES & DREDGING
GREEN POND
FALMOUTH - MASS.
APPLICATION BY
DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS
DIVISION OF WATERWAYS
NOVEMBER 1951
Ernest N. Hutchins
DISTRICT WATERWAYS ENGINEER.

ACC. 02905-A



PROPOSED STONE JETTIES & DREDGING
GREEN POND
FALMOUTH - MASS.

APPLICATION BY
DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS
DIVISION OF WATERWAYS
NOVEMBER 1951

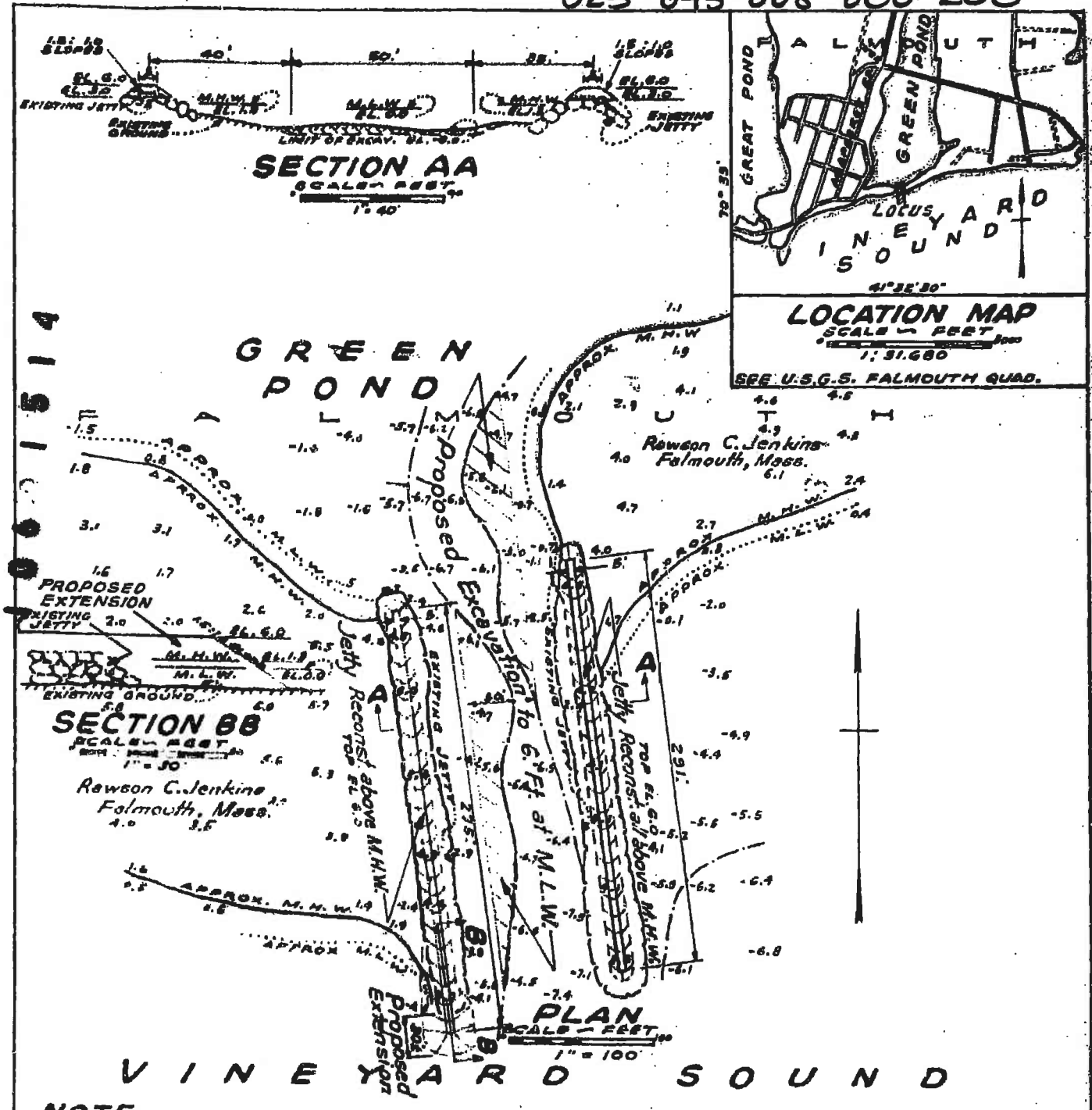
DISTRICT WATERWAYS ENGINEER

SHEET 2 OF 2

ACC. 02905-B

0 0 1 0 7 8 3

025-045-008-000-100
025-045-008-000-200



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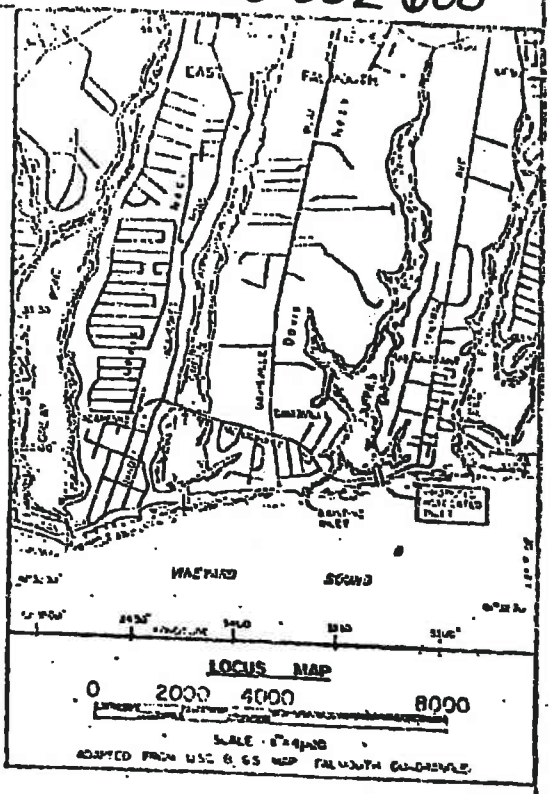
PROPOSED
JETTY EXTENSION AND EXCAVATION
GREEN POND
FALMOUTH — MASS.
APPLICATION BY
DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS
DIVISION OF WATERWAYS
OCTOBER — 1959

Robert B. MacKinnon
[illegible] ENGINEER

025-045-020-002-500
025-045-020-002-600

⚠ NOTES:

1. Elevations are in feet and tenths and refer to the plane of Mean Low Water.
2. Dredged material shall be disposed of at the Upland Disposal Site shown on Sheet 7
3. Estimated Quantity of Dredged Material = 9700 Cubic Yards.
4. Dredging to be accomplished by hydraulic methods.



1/17/84
CIVIL ENGR.

SCALE IN FEET 0 200 600 1000

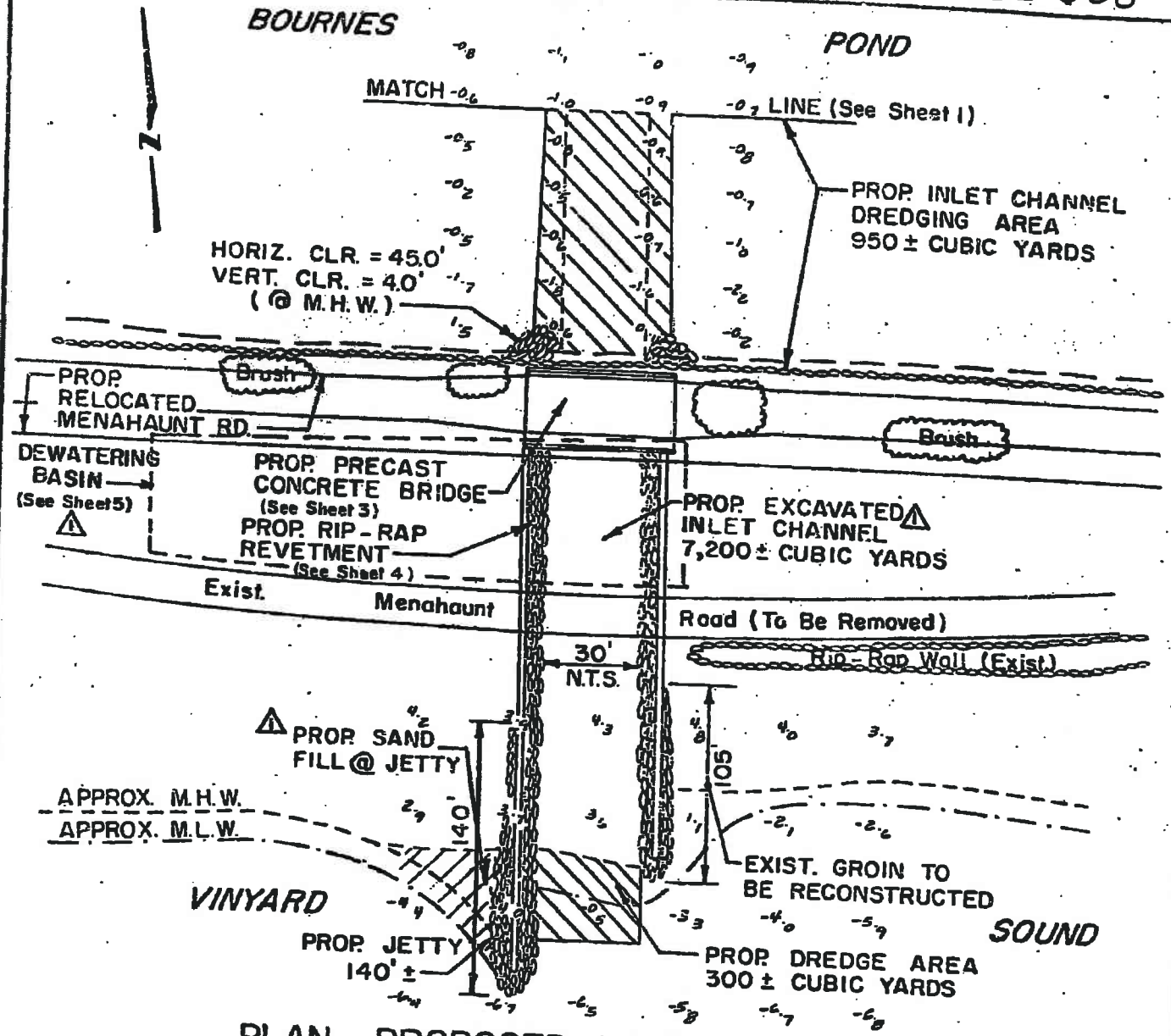
USE U.S. ENGINEERING CORE NEW BEDFORD, MA

⚠	REVISED	JAN 1984

REVISED NED 2/27/85

PROPOSED RELOCATION OF INLET
AT BOURNES POND
TOWN OF FALMOUTH
COUNTY OF BARNSTABLE
STATE OF MASSACHUSETTS
APPLICATION BY
MA DEM DIV OF WATERWAYS
SHEET 1 OF 7 DATE JULY 1980

025-045-020-002-500
025-045-020-002-600



PLAN - PROPOSED NEW INLET LOCATION

SCALE IN FEET 0 10 50 100

SHOWN ELEVATIONS BASED ON MEAN LOW WATER, EXCEPT AS NOTED

Richard L. Silveira

⚠ MATERIALS BELOW M.H.W.

CORE STONE -	500 C.Y. ±
BEDDING STONE -	200 C.Y. ±
ARMOR STONE -	1,500 C.Y. ±
SAND FILL -	300 C.Y. ±

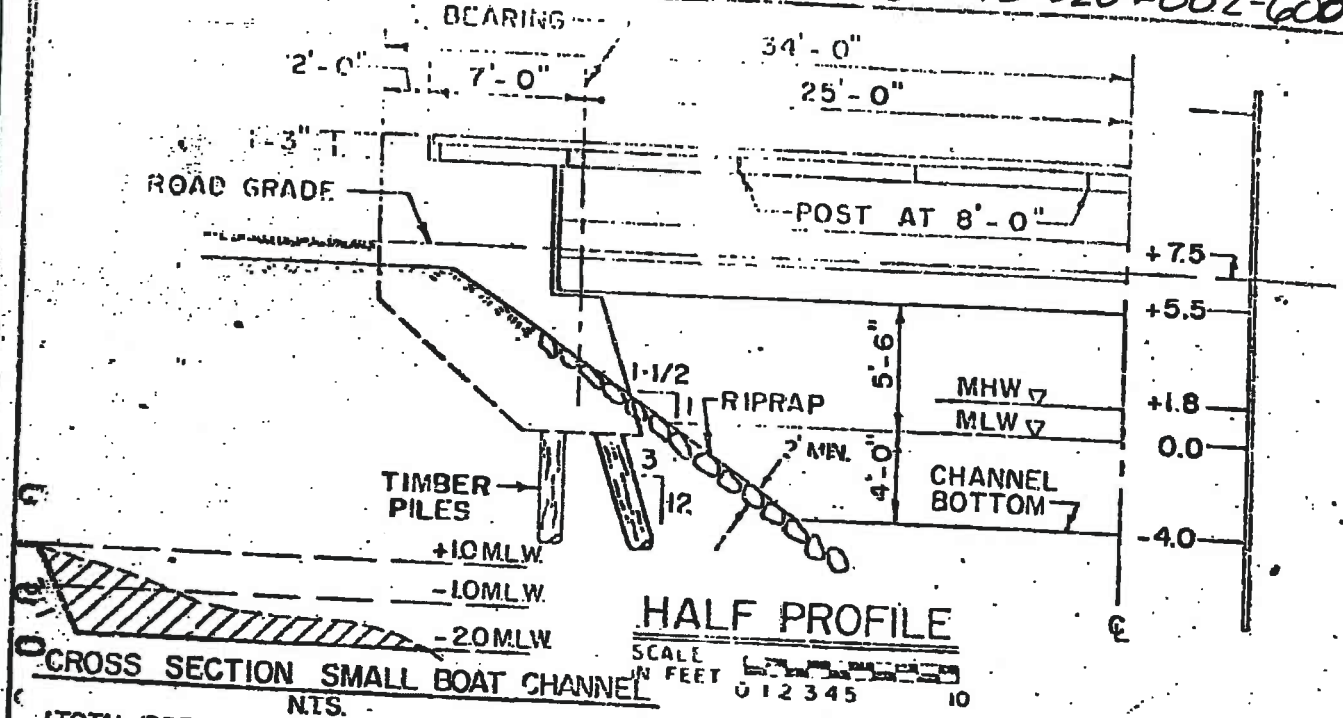
1/17/84
TIBBETTS ENGINEERING CORP. NEW BEDFORD, MA CIVIL ENGR.

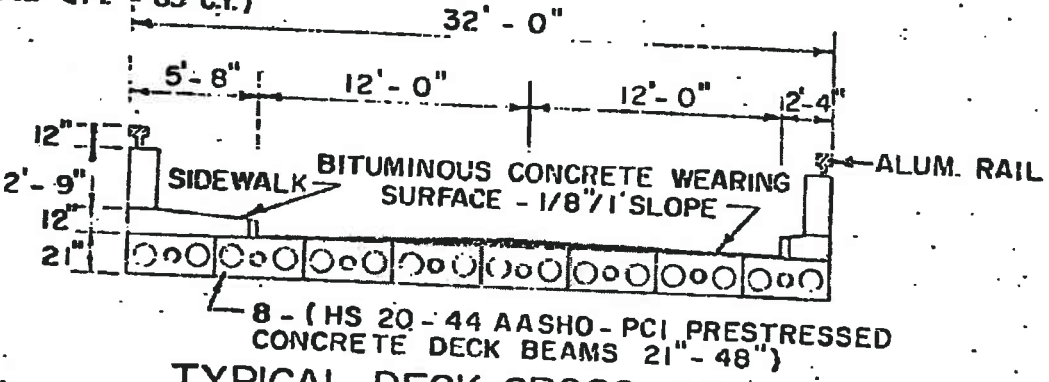
PROPOSED RELOCATION OF INLET
AT BOURNES POND
TOWN OF FALMOUTH
COUNTY OF BARNSTABLE STATE OF MASSACHUSETTS
APPLICATION BY
MA. DE.M. DIV. OF WATERWAYS
SHEET 2 OF 7 DATE: JULY 1980

ACC. NO 05092

9490009

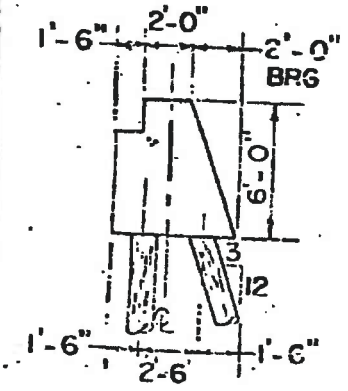
025-045-020-002-500
025-045-020-002-600





TYPICAL DECK CROSS-SECTION

SCALE IN FEET 0 1 2 3 4 5 10



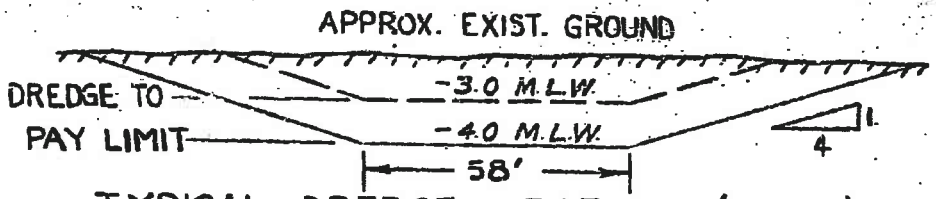
SECTION THROUGH ABUTMENT

SCALE IN FEET 0 1 2 3 4 5 10

TIBBETTS ENGINEERING CORP. NEW BEDFORD, MA

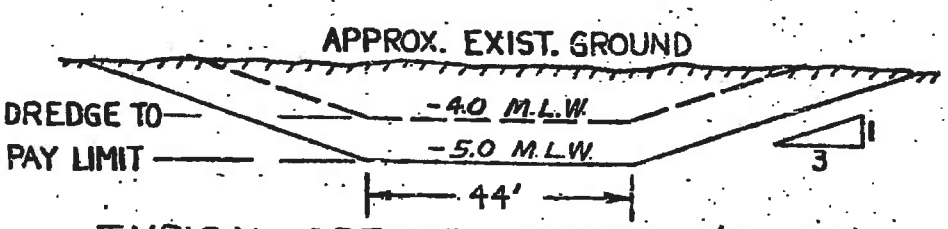
1/17/84
CIVIL ENGR.
Richard L. Silveira

PROPOSED RELOCATION OF INLET
AT BOURNES POND
TOWN OF FALMOUTH
COUNTY OF BARNSTABLE
STATE OF MASSACHUSETTS
APPLICATION BY
MA D.E.M. DIV. OF WATERWAYS
SHEET 3 OF 7
DATE: JULY 1980



TYPICAL DREDGE SECTION (POND)

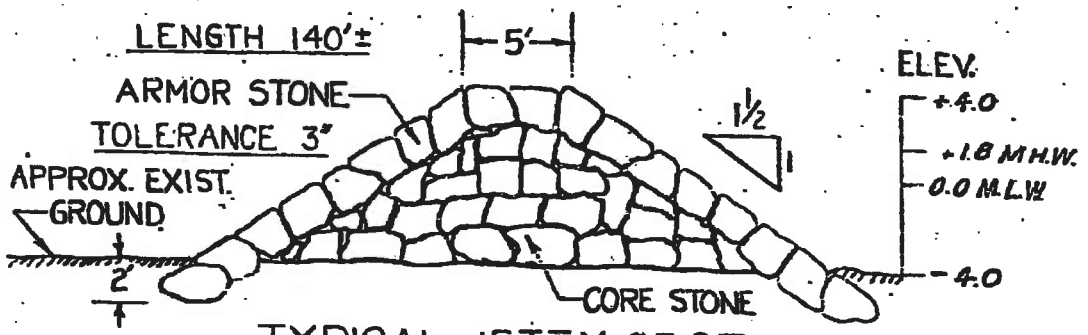
NOT TO SCALE



TYPICAL DREDGE SECTION (INLET)

NOT TO SCALE.

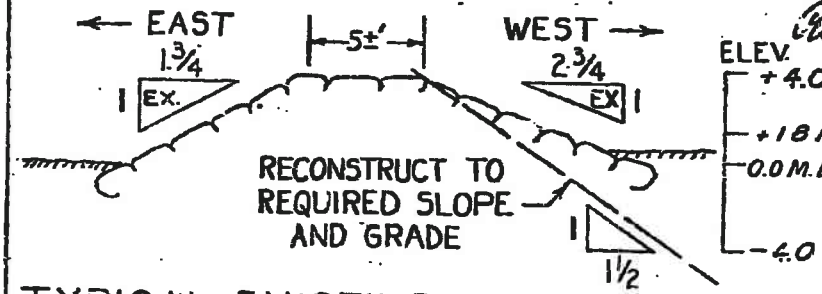
025-045-020-002-500
025-045-020-002-600



TYPICAL JETTY SECTION

SCALE: IN FEET 0 1 2 4 6 8

11/17/84
CIVIL ENGR.
Richard L. Silviera



TYPICAL EXISTING GROIN SECTION

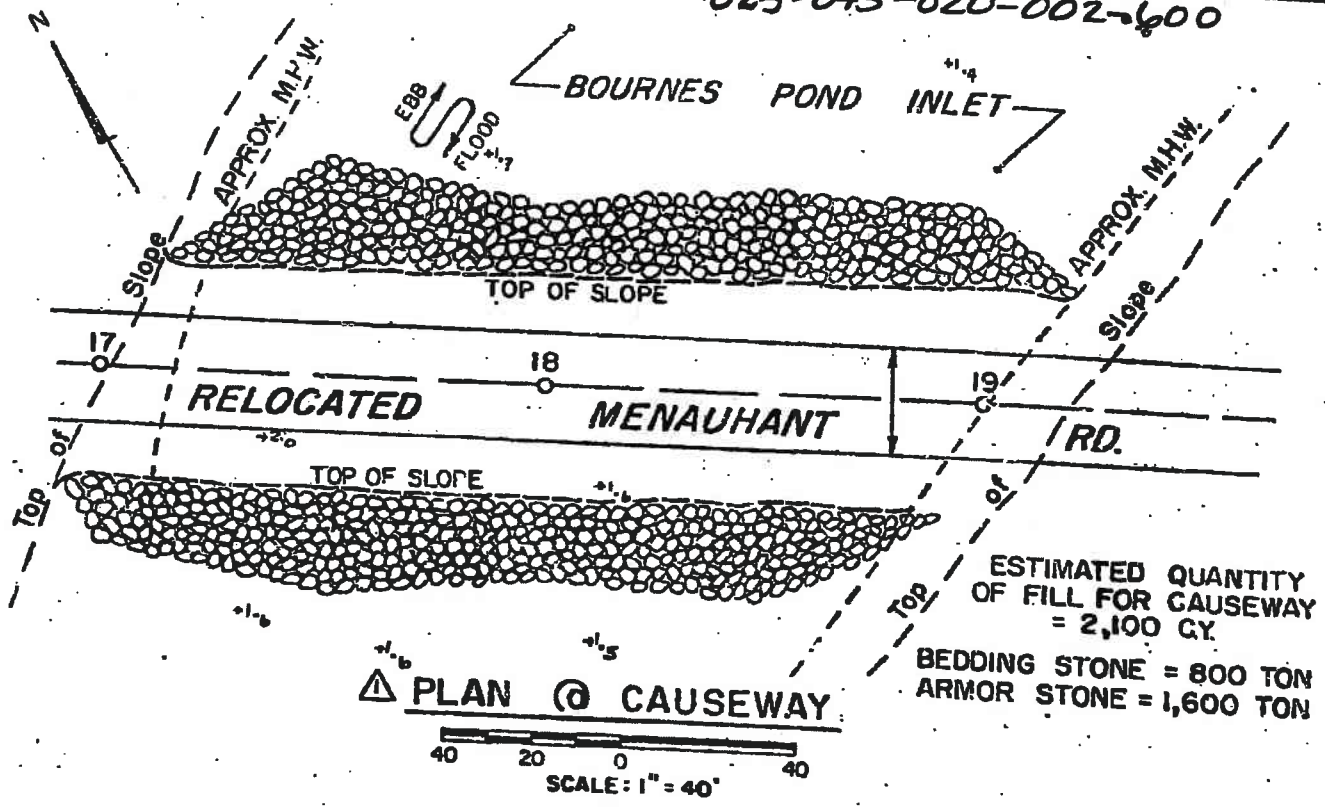
SCALE: IN FEET 0 1 2 4 6 8

TIBBETTS ENGINEERING CORP. NEW BEDFORD, MA.

PROPOSED RELOCATION OF INLET
AT BOURNES POND
TOWN OF FALMOUTH
COUNTY OF BARNSTABLE
STATE OF MASSACHUSETTS
APPLICATION BY
MA. D.E.M. DIV. OF WATERWAYS
SHEET 4 OF 7 DATE: JULY 1980

ACC. NO. 05092

025-045-020-002-500
025-045-020-002-600



⚠ PLAN @ CAUSEWAY

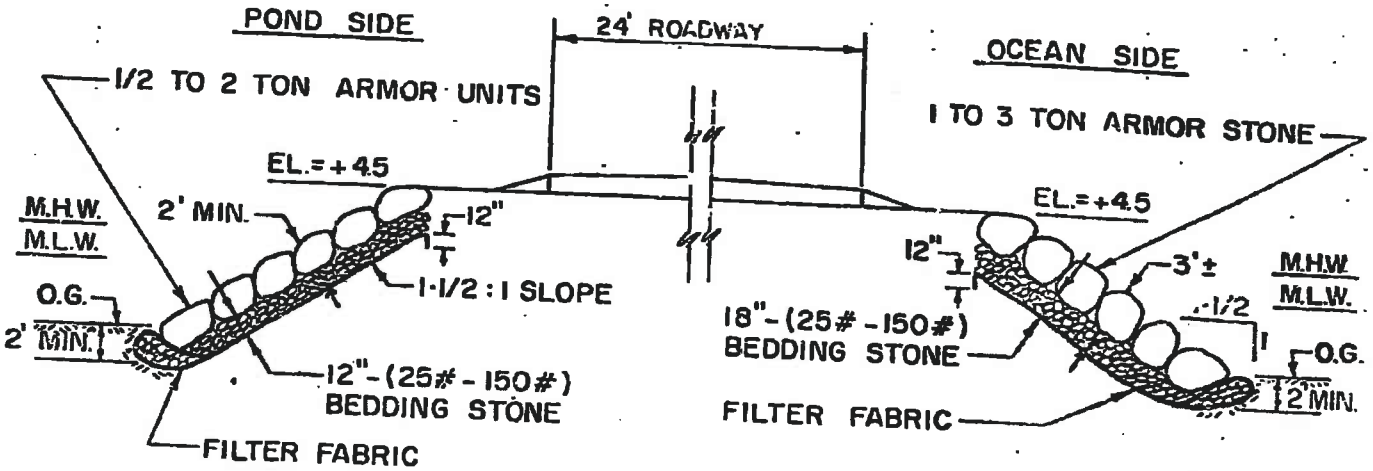
40 20 0 40

SCALE: 1" = 40'

ESTIMATED QUANTITY OF FILL FOR CAUSEWAY = 2,100 CY.

BEDDING STONE = 800 TON

ARMOR STONE = 1,600 TON



⚠ TYPICAL SECTION @ CAUSEWAY

0 1 2 3 4 5 10

SCALE: 1" = 10'

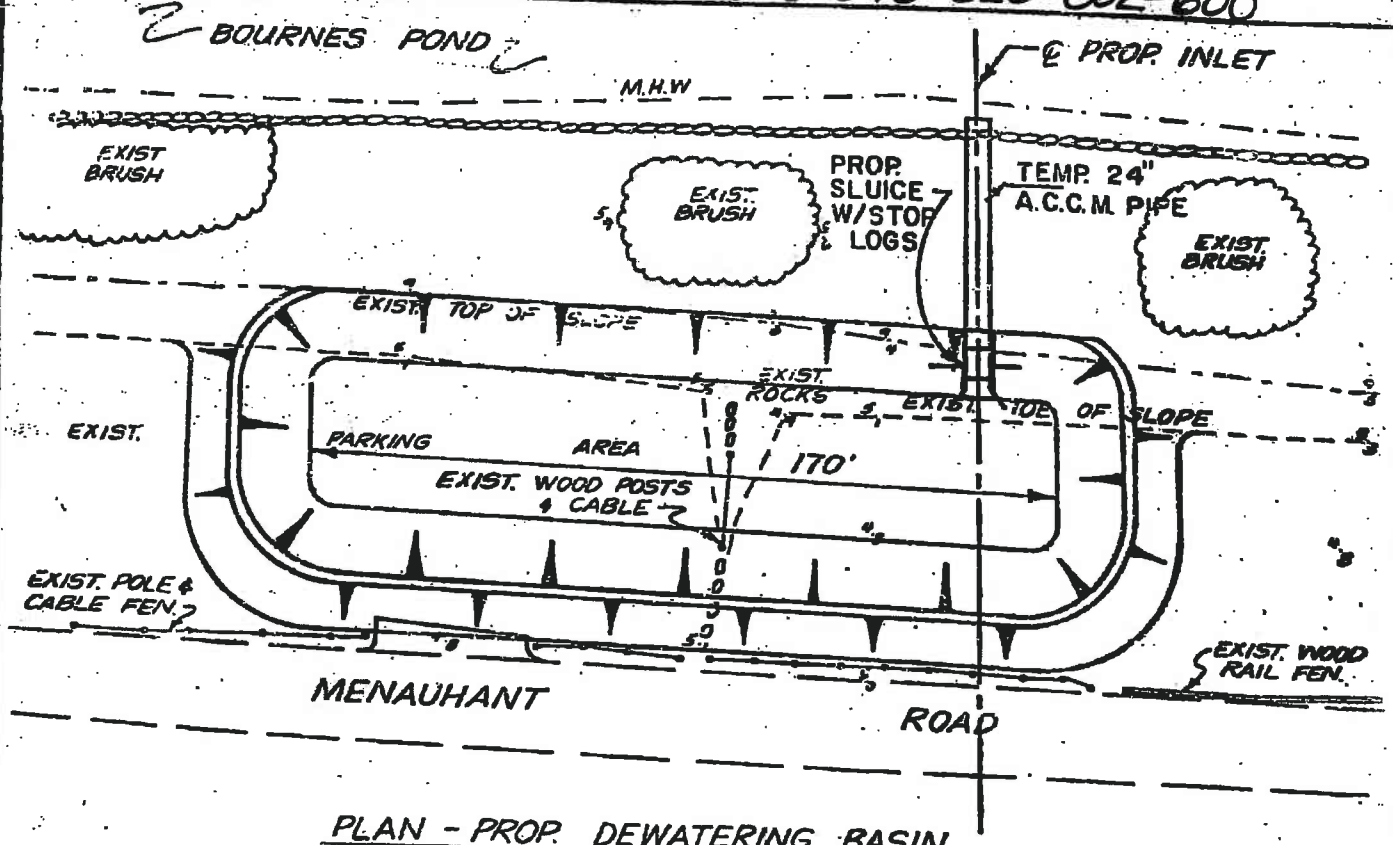
3/13/84
CIVIL ENGR.
Richard L. Silviera
TIBBETTS ENGINEERING CORP NEW BEDFORD, MA.

PROPOSED RELOCATION OF INLET
AT BOURNES POND
TOWN OF FALMOUTH
COUNTY OF BARNSTABLE
STATE OF MASSACHUSETTS
APPLICATION BY
MA. DE.M. DIV. OF WATERWAYS
SHEET 5 OF 7
DATE: JULY 1980

ACC. NO. 05092

9 4 9 0 0 1 2

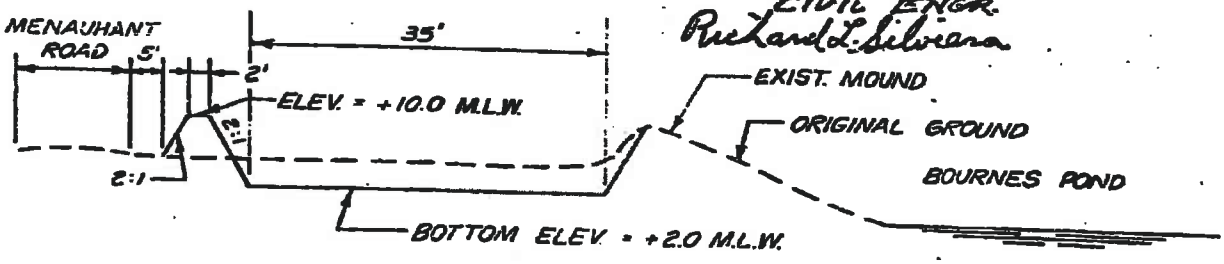
025-045-020-002-500
025-045-020-002-600



PLAN - PROP. DEWATERING BASIN

SCALE: 1" = 40'

40 20 0 40 FT.



TYPICAL SECTION

N.T.S

1/17/84
Civil Engr.
Richard L. Silvia

⚠1

CAPACITY OF DEWATERING BASIN

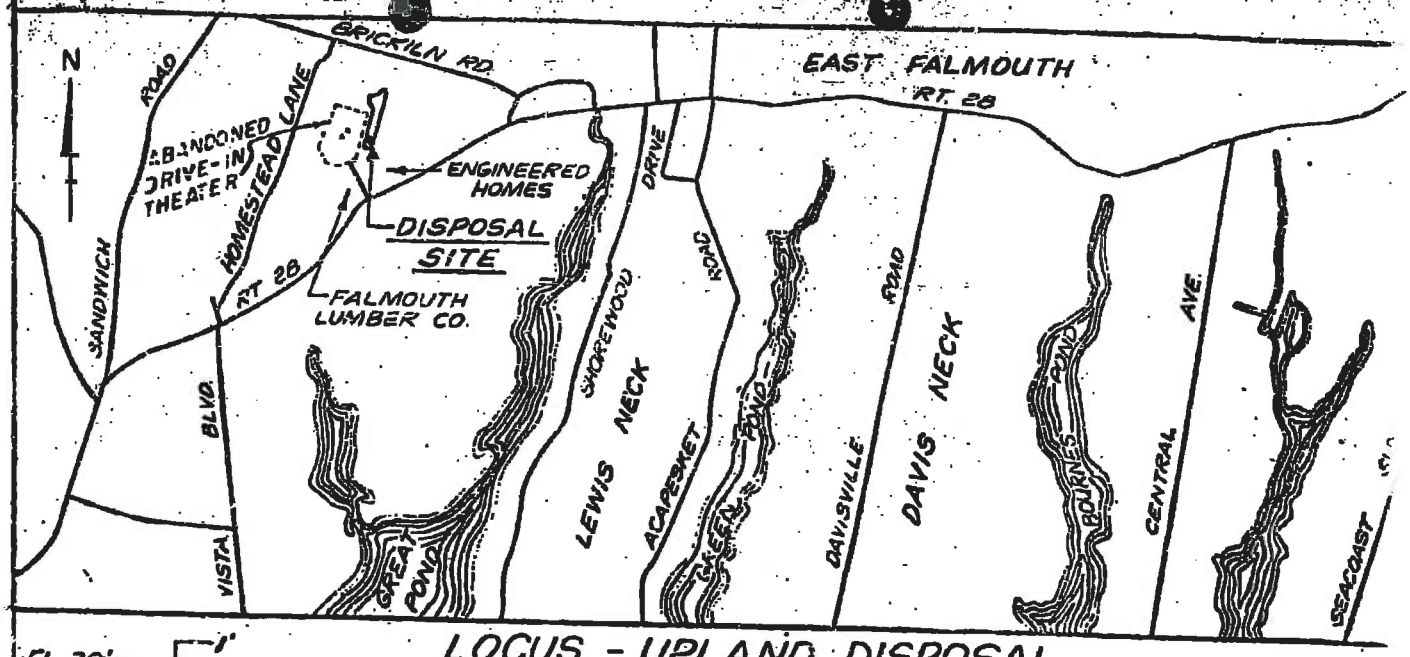
DREDGE SPOIL = 800± C.Y. @ 3' DEPTH (+2.0 TO +5.0)
WATER = 230,000 GAL. @ 3' DEPTH (+5.0 TO +8.0 APPROX.)

TIBBETTS ENGINEERING CORP. NEW BEDFORD, M

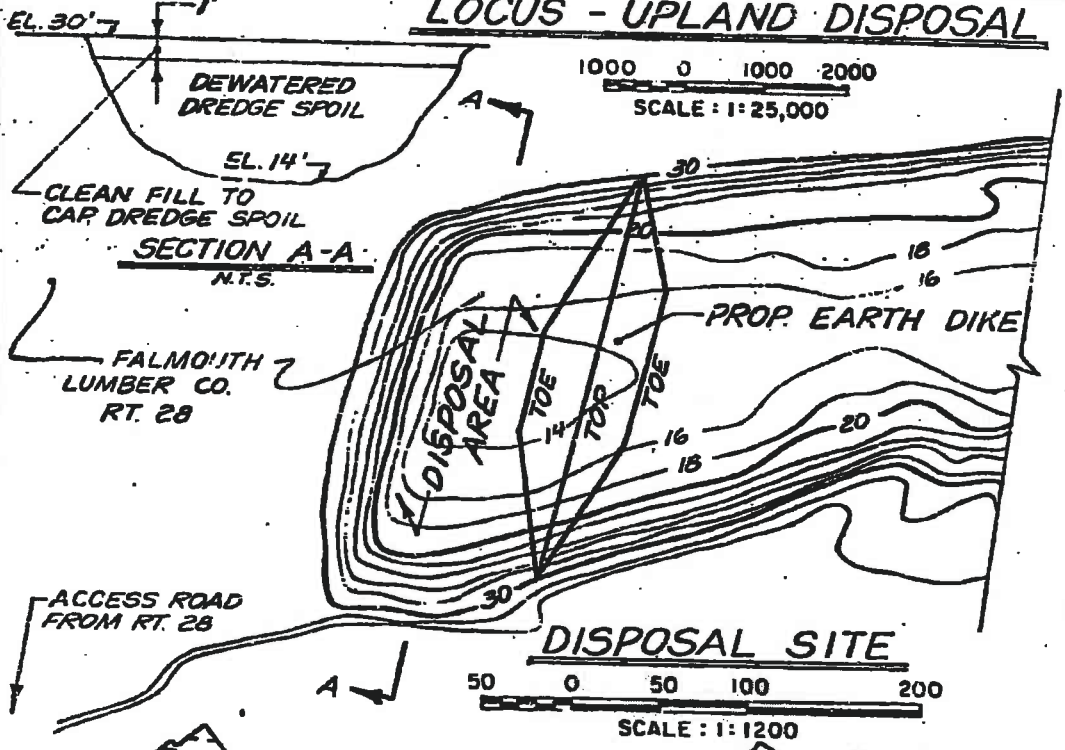
PROPOSED RELOCATION OF INLET
AT BOURNES POND
TOWN OF FALMOUTH
COUNTY OF BARNSTABLE
STATE OF MASSACHUSETTS
APPLICATION BY
MA. D.E.M. DIV. OF WATERWAYS
SHEET 6 OF 7 DATE: JULY 1980

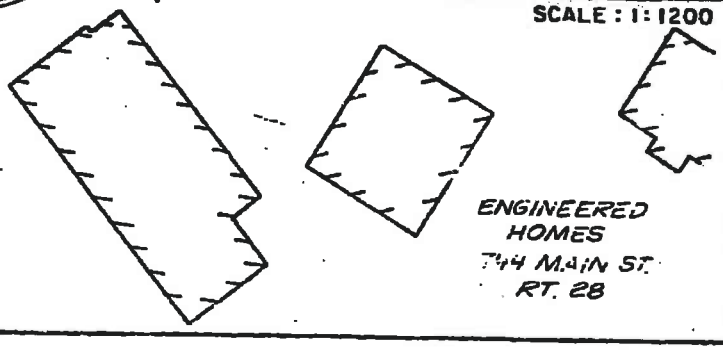
ACC. NO. 05092 F

9490013



LOCUS - UPLAND DISPOSAL





025-045-020-002-500
025-045-020-002-500

11/17/84
CIVIL ENGR.
Richard L. Libbi

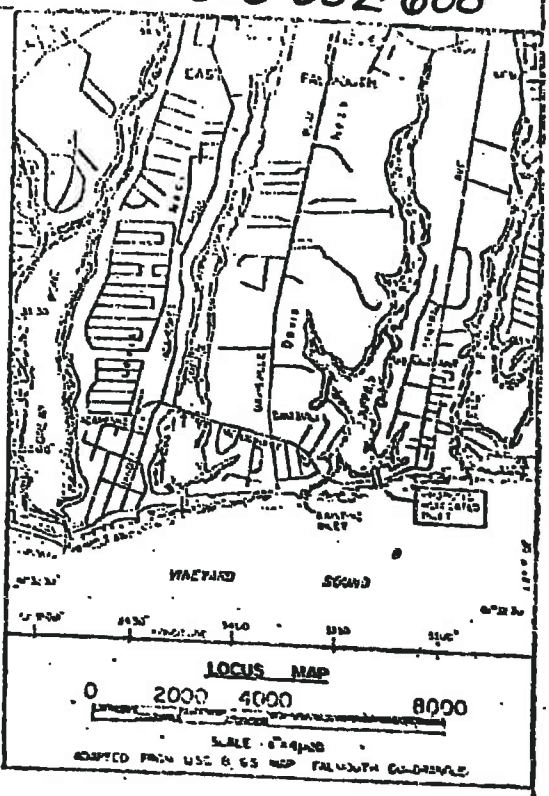
TIBBETTS ENGINEERING CORP. NEW BEDFORD, I

PROPOSED RELOCATION OF INLE
AT BOURNE'S POND
TOWN OF FALMOUTH
COUNTY OF BARNSTABLE
STATE OF MASSACHUSETTS
APPLICATION BY
MA. D.E.M. DIV. OF WATERWAYS
SHEET 7 OF 7
DATE: JULY 1980
ACC. NO. 05092

025-045-020-002-500
025-045-020-002-600

⚠ NOTES:

1. Elevations are in feet and tenths and refer to the plane of Mean Low Water.
2. Dredged material shall be disposed of at the Upland Disposal Site shown on Sheet 7
3. Estimated Quantity of Dredged Material = 9700 Cubic Yards.
4. Dredging to be accomplished by hydraulic methods.



SCALE IN FEET 0 200 600 1000

USE TS BUILDING CWP NEW BEDFORD, MA

1/17/85
Civil Engr.

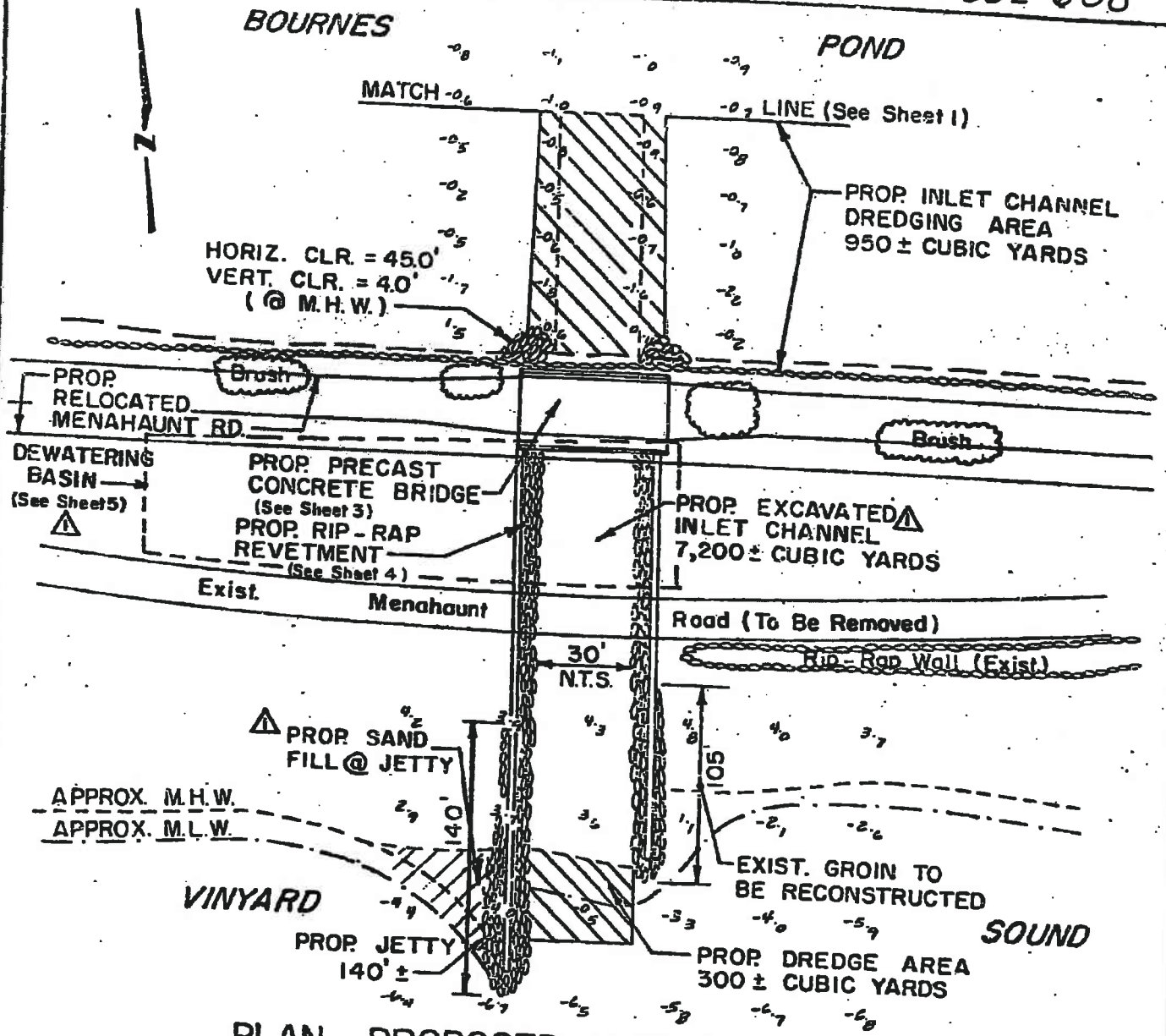
⚠	REVISED	JAN 1984

Revised NED 2/27/85

PROPOSED RELOCATION OF INLET
AT BOURNES POND
TOWN OF FALMOUTH
COUNTY OF BARNSTABLE
STATE OF MASSACHUSETTS
APPLICATION BY
MA DEM DIV OF WATERWAYS
SHEET 1 OF 7 DATE JULY 1980

9490

025-045-020-002-500
025-045-020-002-600



PLAN - PROPOSED NEW INLET LOCATION

SCALE IN FEET 0 10 50 100

SHOWN ELEVATIONS BASED ON MEAN LOW WATER EXCEPT AS NOTED

Richard L. Silveira

⚠ MATERIALS BELOW M.H.W.

CORE STONE -	500 C.Y. ±
BEDDING STONE -	200 C.Y. ±
ARMOR STONE -	1,500 C.Y. ±
SAND FILL -	300 C.Y. ±

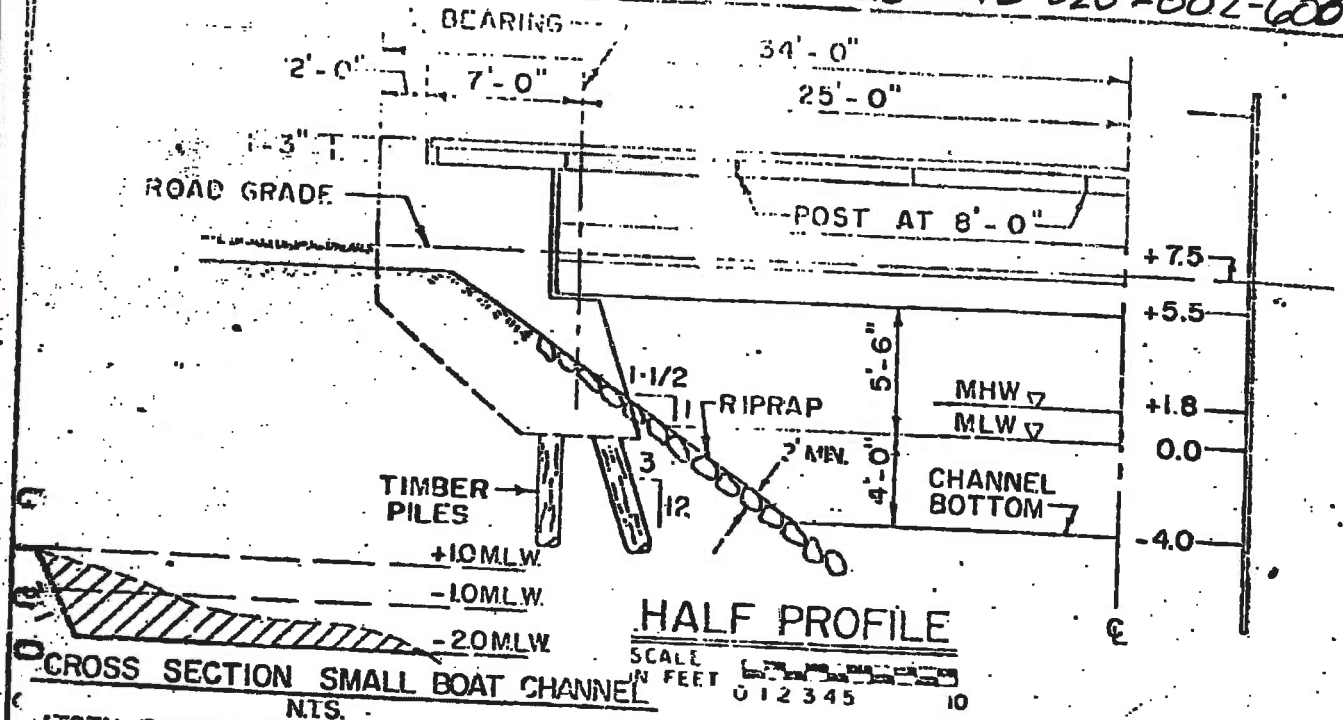
1/17/84
TIBBETTS ENGINEERING CORP. NEW BEDFORD, MA CIVIL ENGR.

PROPOSED RELOCATION OF INLET
AT BOURNES POND
TOWN OF FALMOUTH
COUNTY OF BARNSTABLE STATE OF MASSACHUSETTS
APPLICATION BY
MA. DE.M. DIV. OF WATERWAYS
SHEET 2 OF 7 DATE: JULY 1980

ACC. NO 05092

9490009

025-045-020-002-500
025-045-020-002-600



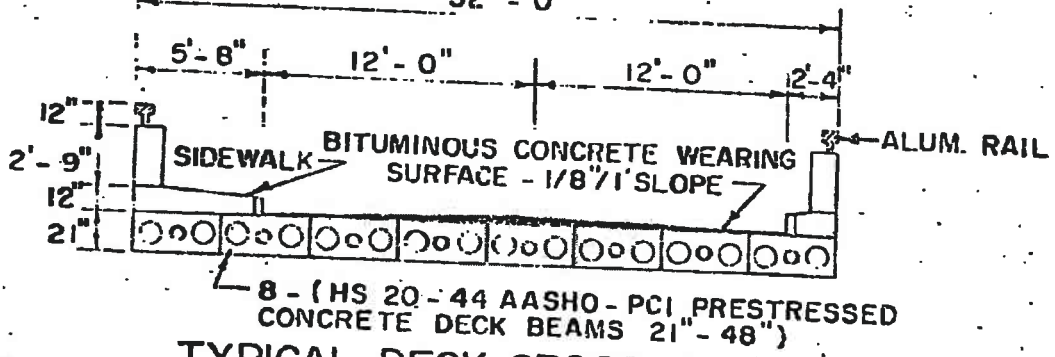
HALF PROFILE

SCALE IN FEET 0 1 2 3 4 5 10

CROSS SECTION SMALL BOAT CHANNEL

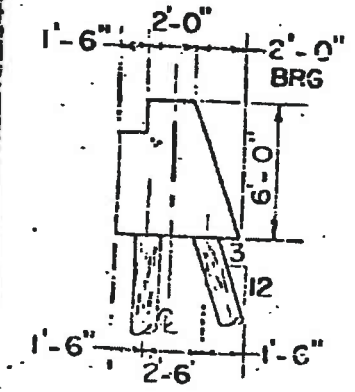
N.T.S.

(TOTAL DREDGE QTY. = 65 C.Y.)



TYPICAL DECK CROSS-SECTION

SCALE IN FEET 0 1 2 3 4 5 10



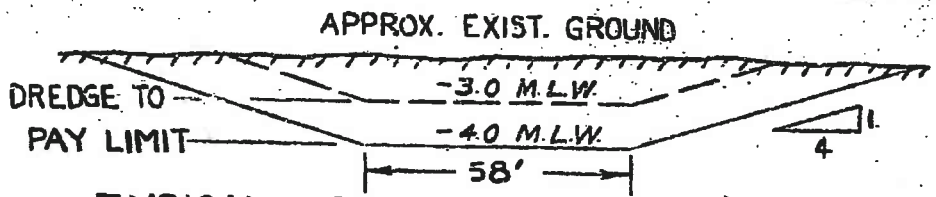
SECTION THROUGH ABUTMENT

SCALE IN FEET 0 1 2 3 4 5 10

TIBBETTS ENGINEERING CORP. NEW BEDFORD, MA

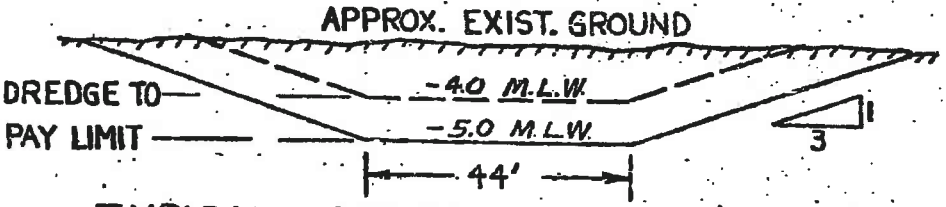
1/17/84
CIVIC ENGR.
Richard L. Silveira

PROPOSED RELOCATION OF INLET
AT BOURNES POND
TOWN OF FALMOUTH
COUNTY OF BARNSTABLE
STATE OF MASSACHUSETTS
APPLICATION BY
MA D.E.M. DIV. OF WATERWAYS
SHEET 3 OF 7 DATE: JULY 1980



TYPICAL DREDGE SECTION (POND)

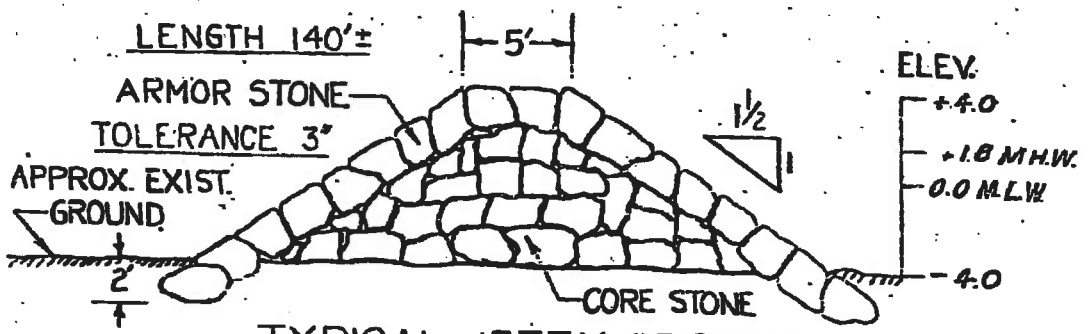
NOT TO SCALE



TYPICAL DREDGE SECTION (INLET)

NOT TO SCALE.

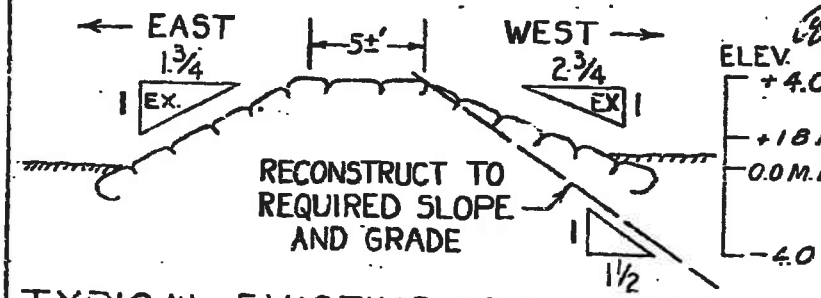
025-045-020-002-S00
025-045-020-002-L00



TYPICAL JETTY SECTION

SCALE: IN FEET 0 1 2 4 6 8

11/17/84
CIVIL ENGR.
Richard L. Silveira



TYPICAL EXISTING GROIN SECTION

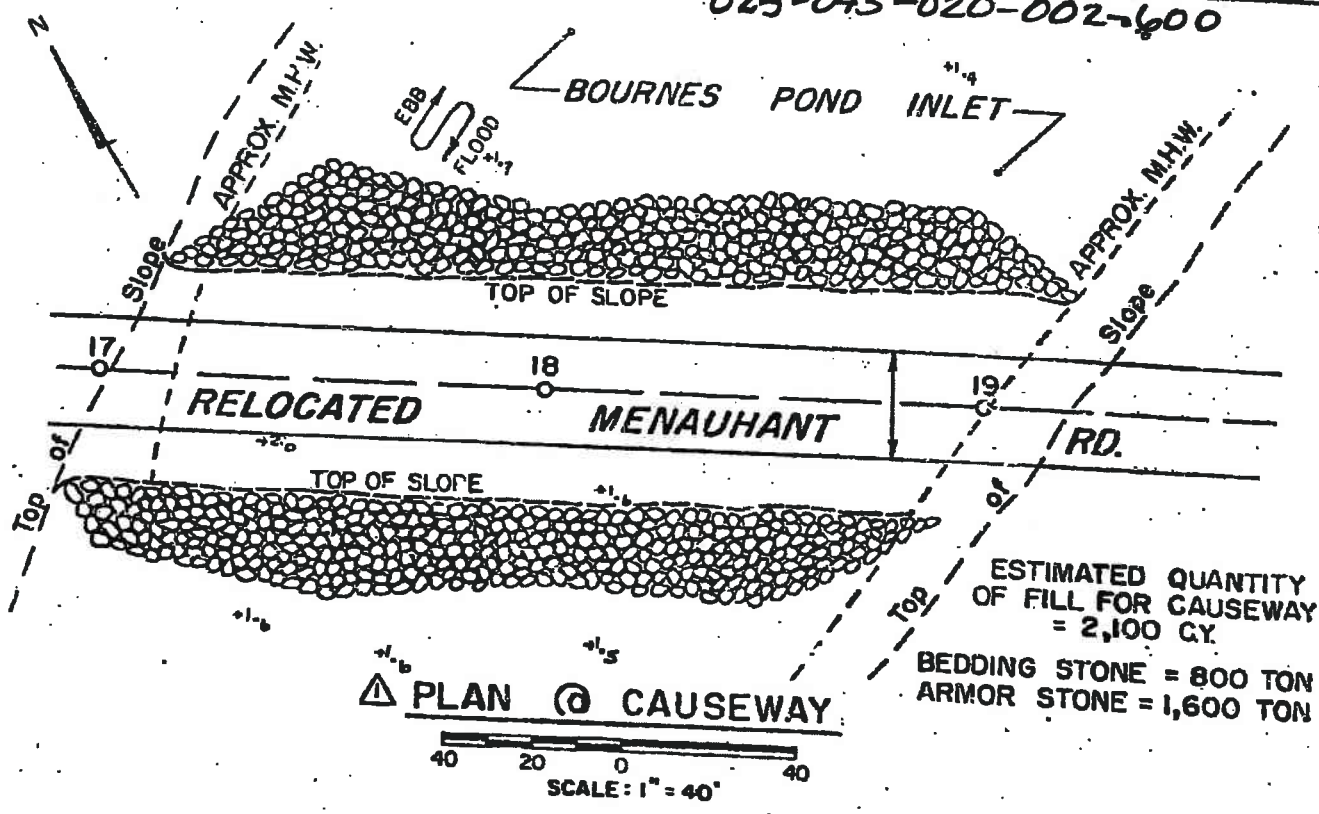
SCALE: IN FEET 0 1 2 4 6 8

TIBBETTS ENGINEERING CORP. NEW BEDFORD, MA.

PROPOSED RELOCATION OF INLET
AT BOURNES POND
TOWN OF FALMOUTH
COUNTY OF BARNSTABLE STATE OF MASSACHUSETTS
APPLICATION BY
MA. D.E.M. DIV. OF WATERWAYS
SHEET 4 OF 7 DATE: JULY 1980

ACC. NO. 05092

025-045-020-002-500
025-045-020-002-600

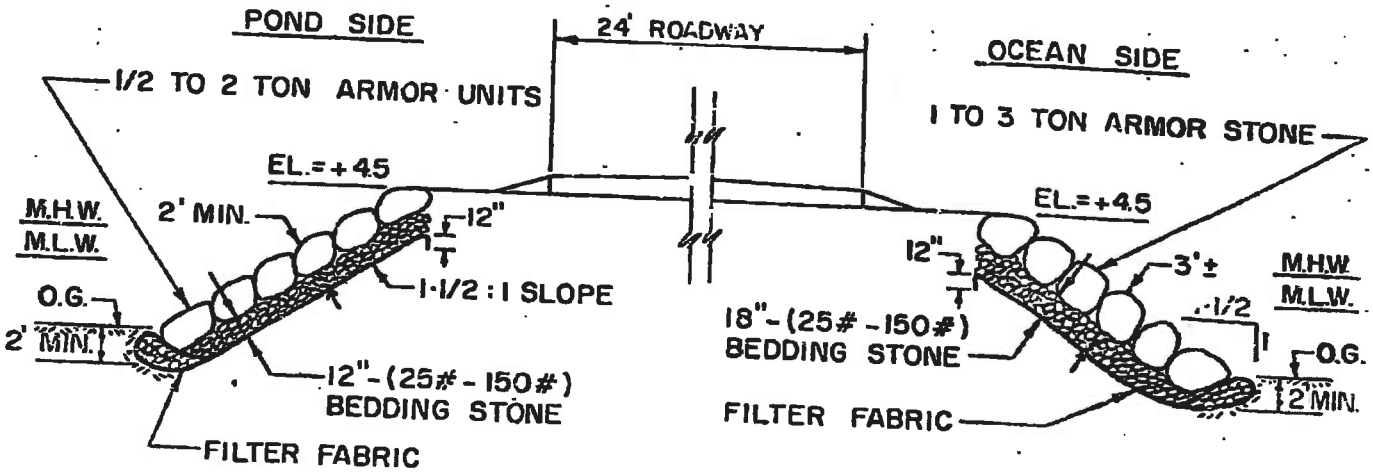


ESTIMATED QUANTITY OF FILL FOR CAUSEWAY = 2,100 C.Y.

BEDDING STONE = 800 TON
ARMOR STONE = 1,600 TON

⚠ PLAN @ CAUSEWAY

40 20 0 40
SCALE: 1" = 40'



⚠ TYPICAL SECTION @ CAUSEWAY

0 1 2 3 4 5 10
SCALE: 1" = 10'

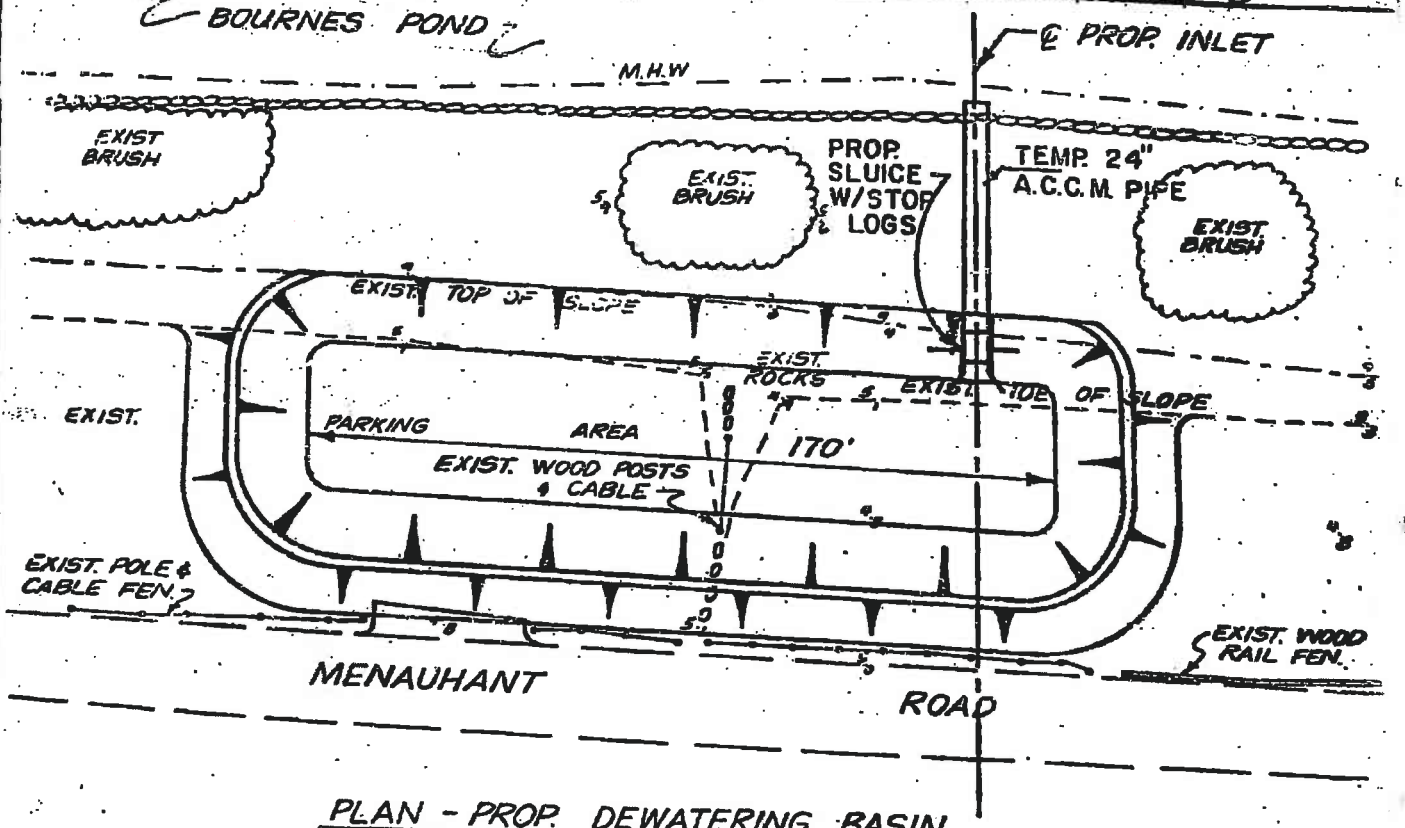
3/13/84
CIVIL ENGR.
Richard L. Silviera
TIBBETTS ENGINEERING CORP NEW BEDFORD, MA.

PROPOSED RELOCATION OF INLET
AT BOURNES POND
TOWN OF FALMOUTH
COUNTY OF BARNSTABLE
STATE OF MASSACHUSETTS
APPLICATION BY
MA. D.E.M. DIV. OF WATERWAYS
SHEET 5 OF 7
DATE: JULY 1980

ACC. NO. 05092

9 4 9 0 0 1 2

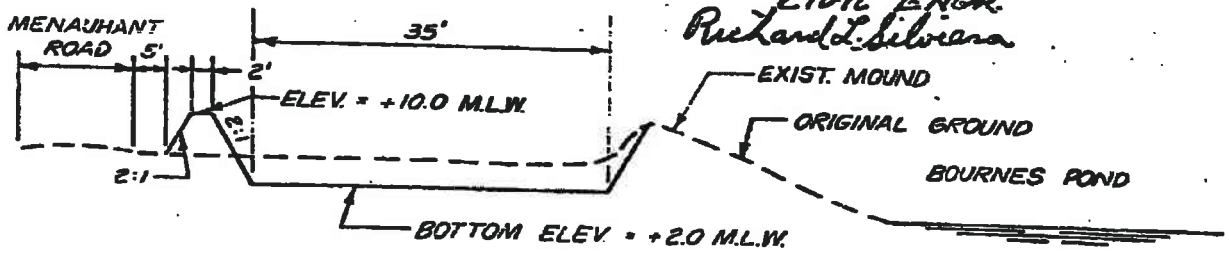
025-045-020-002-500
025-045-020-002-600



PLAN - PROP. DEWATERING BASIN

SCALE: 1" = 40'

40 20 0 40 FT.



TYPICAL SECTION

N.T.S.

1/17/84
Civil Engr.
Richard L. Silvia

⚠1

CAPACITY OF DEWATERING BASIN

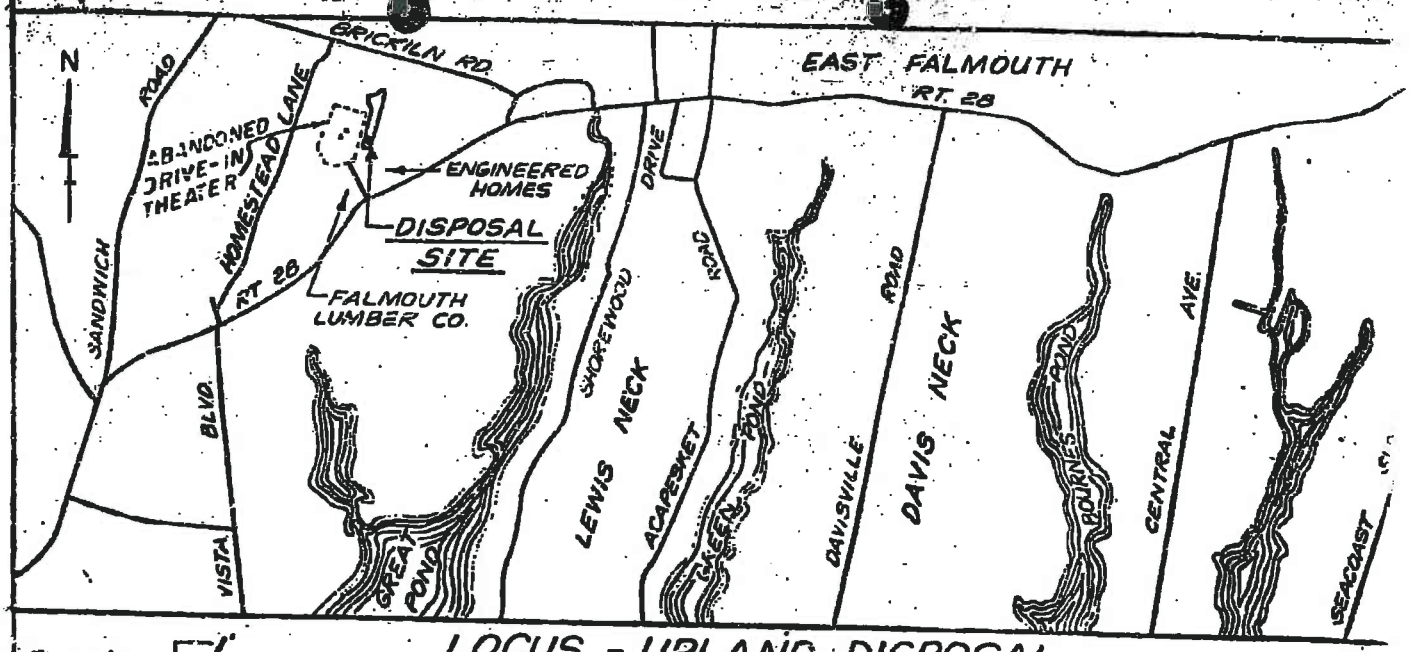
DREDGE SPOIL = 800± C.Y. @ 3' DEPTH (+2.0 TO +5.0)
WATER = 230,000 GAL. @ 3' DEPTH (+5.0 TO +8.0 APPROX.)

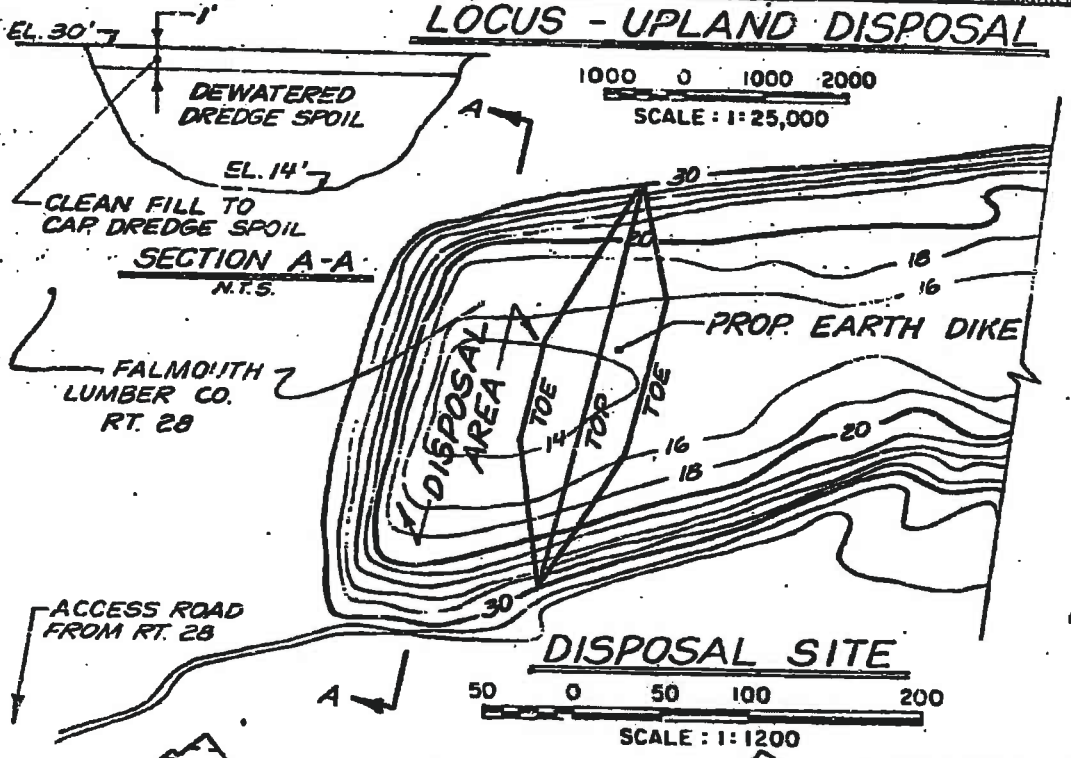
TIBBETTS ENGINEERING CORP. NEW BEDFORD, MASS.

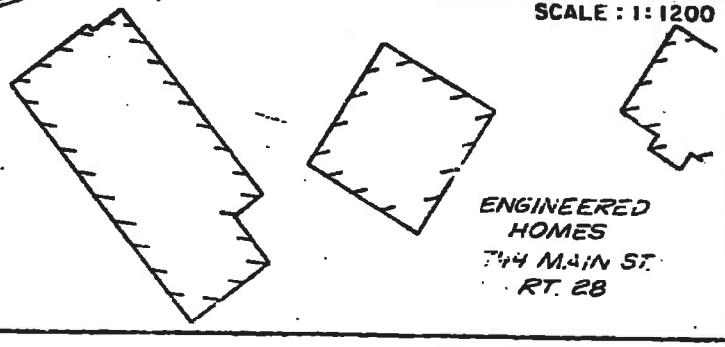
PROPOSED RELOCATION OF INLET
AT BOURNES POND
TOWN OF FALMOUTH
COUNTY OF BARNSTABLE STATE OF MASSACHUSETTS
APPLICATION BY
MA. D.E.M. DIV. OF WATERWAYS
SHEET 6 OF 7 DATE: JULY 1980

ACC. NO. 05092 F

9490013







11/17/84
CIVIL ENGR.
Richard L. Silvia

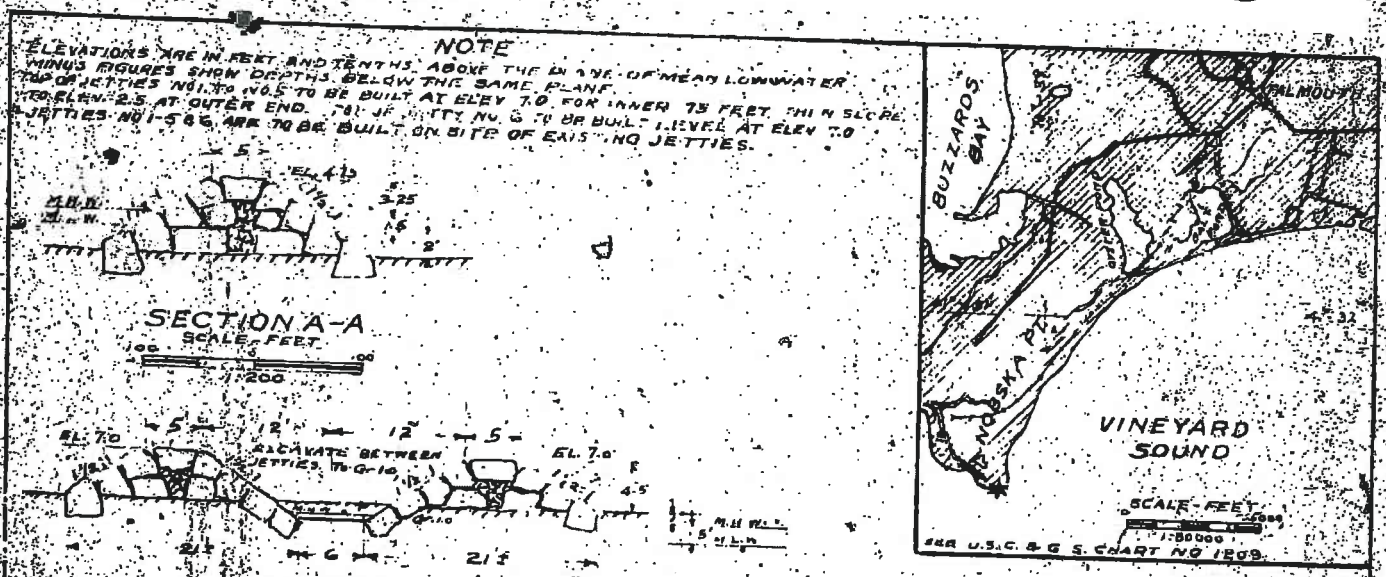
025-045-020-002-500
025-045-020-002-080

TIBBETTS ENGINEERING CORP. NEW BEDFORD,

PROPOSED RELOCATION OF INLE
AT BOURNE'S POND
TOWN OF FALMOUTH
COUNTY OF BARNSTABLE
STATE OF MASSACHUSETTS
APPLICATION BY
MA. D.E.M. DIV. OF WATERWAYS
SHEET 7 OF 7. DATE: JULY 1980

ACC. NO. 05092

025-047-007-026-100
025-047-007026-200
025-050-007-020-100



PROPOSED STONE JETTIES IN VINEYARD SOUND FALMOUTH MASS

APPLICATION BY
DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS
DIVISION OF WATERWAYS

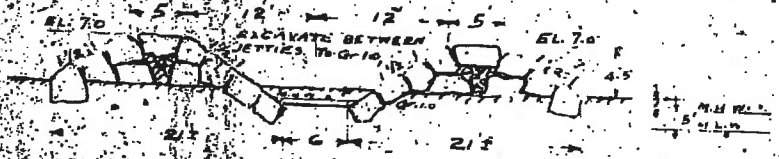
Everett Patches
DISTRICT WATERWAYS ENGINEER

025-047-007-026-100
025-047-007-026-200
025-050-007-020-100

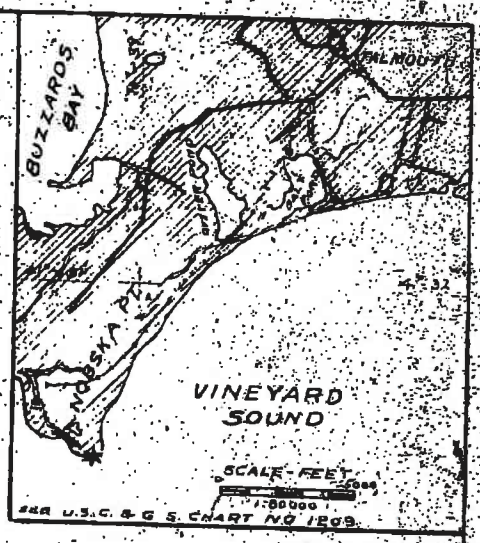
NOTE

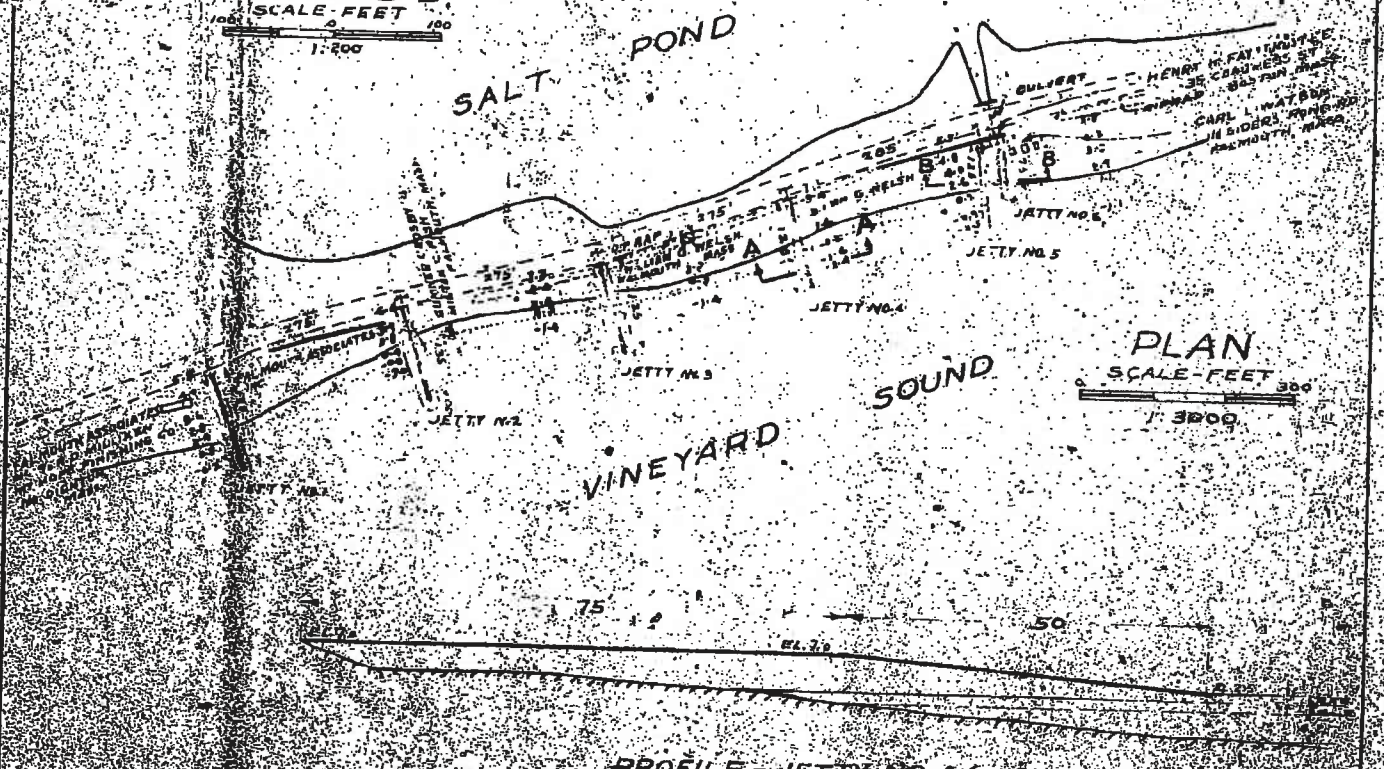
ELEVATIONS ARE IN FEET AND TENTHS ABOVE THE DATUM OF MEAN LOW WATER
MINUS FIGURES SHOW DEPTHS BELOW THE SAME PLANE.
TOP OF JETTIES NOS. 1 TO NO. 5 TO BE BUILT AT ELEV 7.0 FOR INNER 75 FEET THEN SLOPE
TO ELEV. 2.5 AT OUTER END. TOP OF JETTY NO. 6 TO BE BUILT LEVEL AT ELEV 7.0
JETTIES NOS 1-5 & 6 ARE TO BE BUILT ON SITE OF EXISTING JETTIES.

SECTION A-A
SCALE - FEET
100 0 100
1:200



SECTION B-B
SCALE - FEET
100 0 100
1:200





PROFILE - JETTY NO. 4 (TYPICAL)
SCALE - FEET
30 0 30
1:300

PROPOSED STONE JETTIES IN VINEYARD SOUND FALMOUTH MASS.

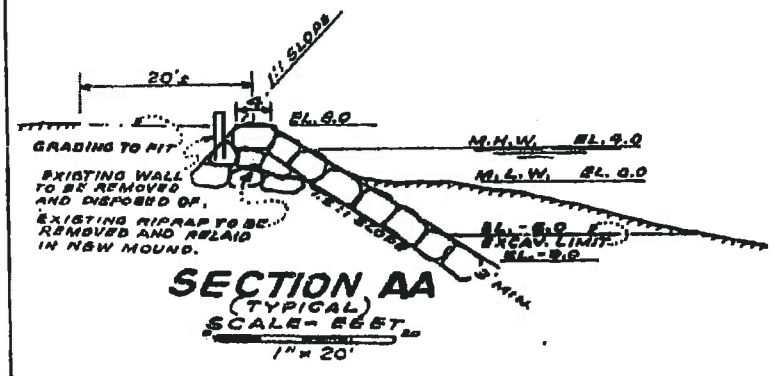
APPLICATION BY
DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS
DIVISION OF WATERWAYS

1960

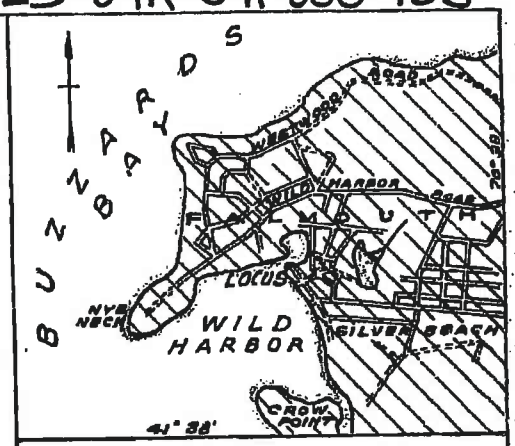
Everett M. Peterson
DISTRICT WATERWAYS ENGINEER

0 8 1 0 7 1 4

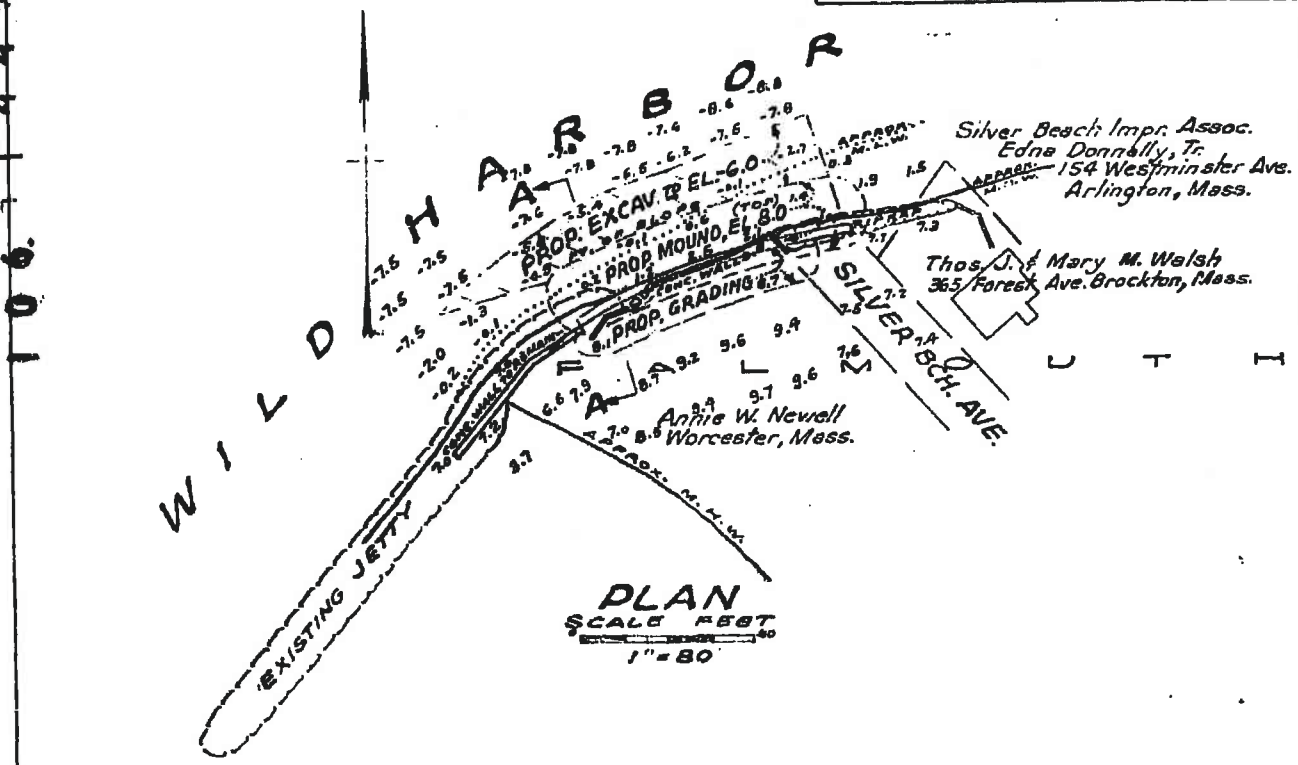
025-04A-041-000-100



SECTION AA
(TYPICAL)
SCALE - FEET
1" = 20'



LOCATION MAP
SCALE - FEET
1:31,680
SEE U.S.G.S. ONSET QUAD.



PLAN
SCALE FEET
1" = 80

NOTE

ELEVATIONS ARE IN FEET AND TENTHS AND REFER TO PLANE OF MEAN LOW WATER. MINUS FIGURES SHOW DEPTHS BELOW THE SAME PLANE.
CONC. WALLS, EXISTING, ARE TO BE REMOVED EXCEPT AS NOTED.
GRADING BACK OF NEW MOUND TO BE FITTED TO PRESENT SURFACE.
EXCAVATED MATERIAL, APPROX. 2600 C.Y. TO BE DEPOSITED IN APPROVED LOCATIONS ON TOWN PROPERTY ABOVE MEAN HIGH WATER. EXISTING GROUND THUS: ~~~~~
LOCATION OF THE PROPOSED WORK IS SHOWN IN RED.

PROPOSED MOUND AND EXCAVATION SILVER BEACH AVE. WILD HARBOR

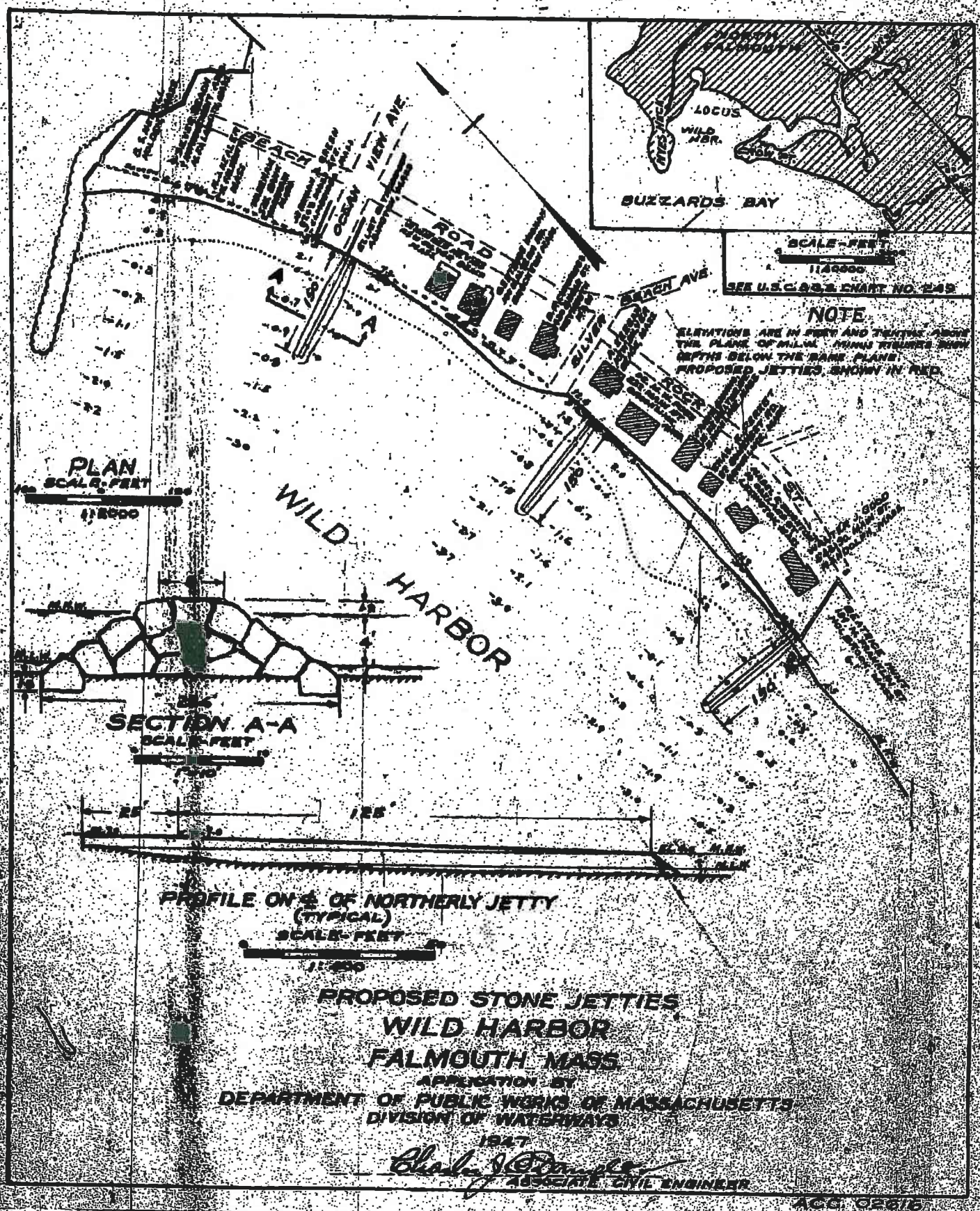
FALMOUTH — MASS.

APPLICATION BY
DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS
DIVISION OF WATERWAYS
SEPTEMBER-1959

Robert B. MacKinnon
CHIEF WATERWAYS ENGINEER

ACC. 04055

025-04A-043-000-100

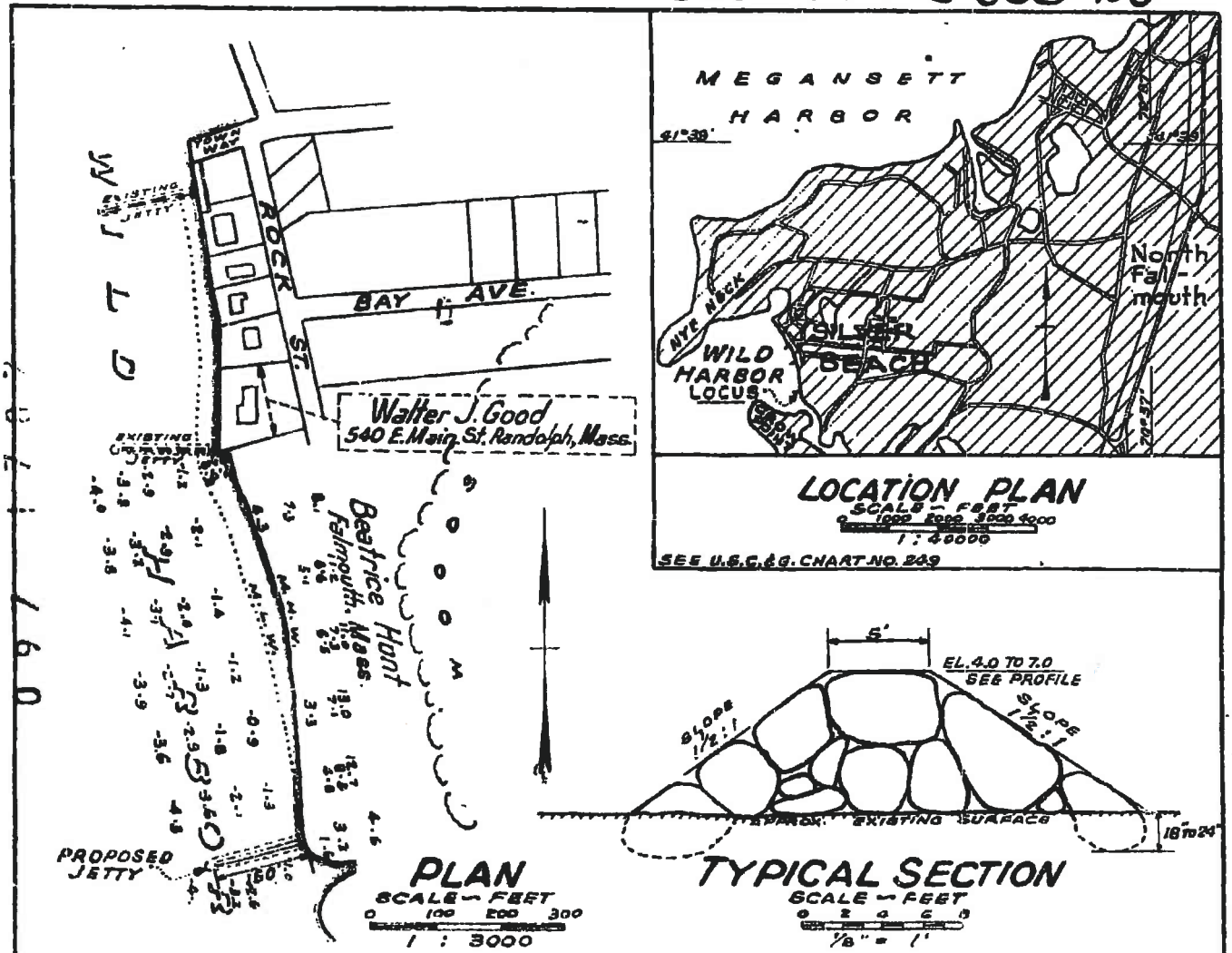


PROPOSED STONE JETTIES
WILD HARBOR
FALMOUTH MASS.
APPLICATION BY
DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS
DIVISION OF WATERWAYS
1947
Chas. J. Connolly
ASSOCIATE CIVIL ENGINEER

ACC. 02615

09 0947

025-04A-043-000-100



PROPOSED JETTY CONSTRUCTION

NEW SILVER BEACH

FALMOUTH, MASS.

APPLICATION BY

DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS
DIVISION OF WATERWAYS
JANUARY 1953

Ernest A. Hopkins
DISTRICT WATERWAYS ENGINEER.

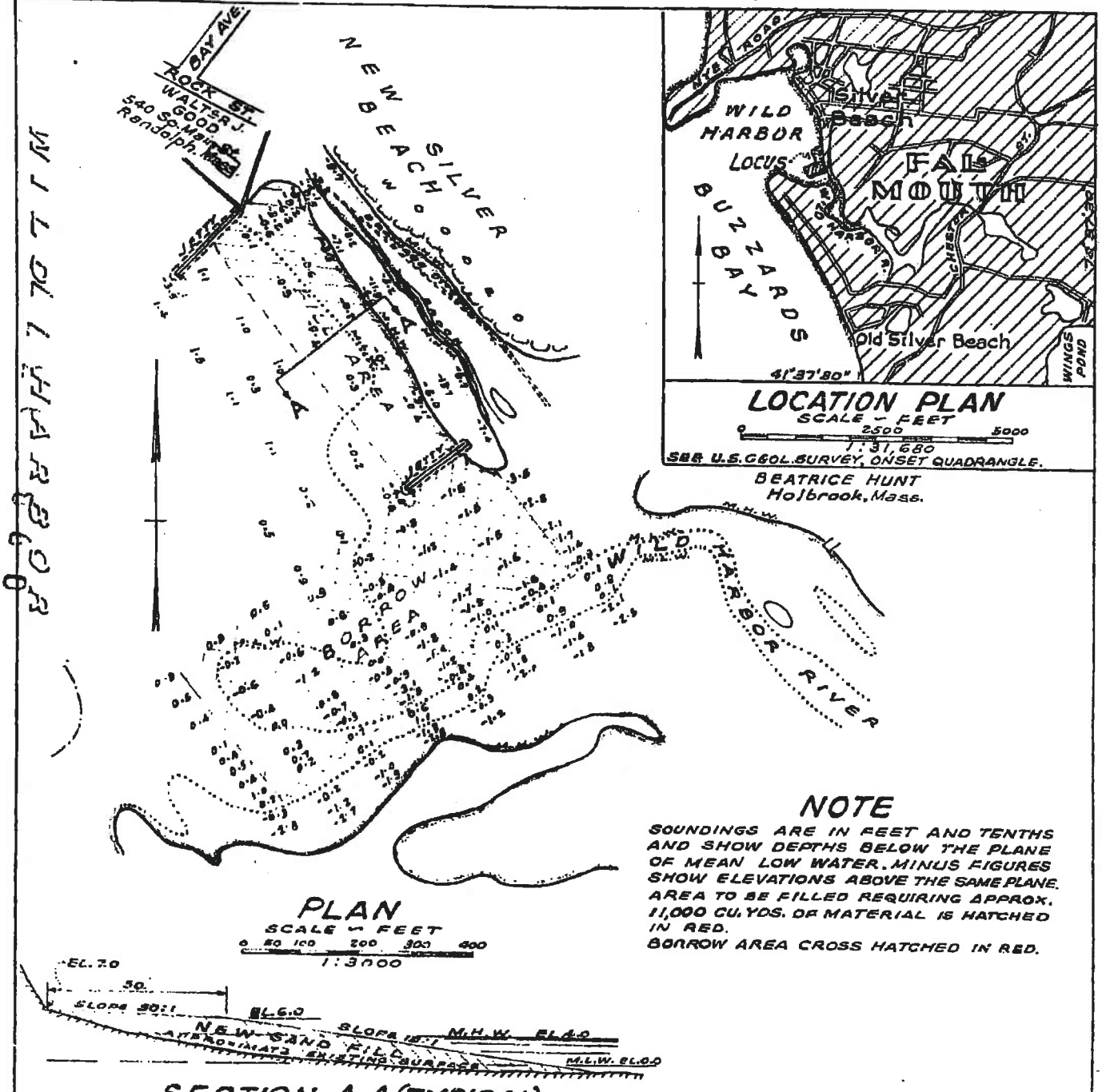
NOTE

ELEVATIONS ARE IN FEET AND TENTHS ABOVE THE PLANE OF MEAN LOW WATER. MINUS FIGURES SHOW DEPTHS BELOW THE SAME PLANE.
PROPOSED WORK SHOWN IN RED.

ACC. 03.077

0 9 2 1 8 9 3

025-04A-043-000-100



NOTE

SOUNDINGS ARE IN FEET AND TENTHS AND SHOW DEPTHS BELOW THE PLANE OF MEAN LOW WATER. MINUS FIGURES SHOW ELEVATIONS ABOVE THE SAME PLANE.
AREA TO BE FILLED REQUIRING APPROX. 11,000 CU. YDS. OF MATERIAL IS HATCHED IN RED.
BORROW AREA CROSS HATCHED IN RED.

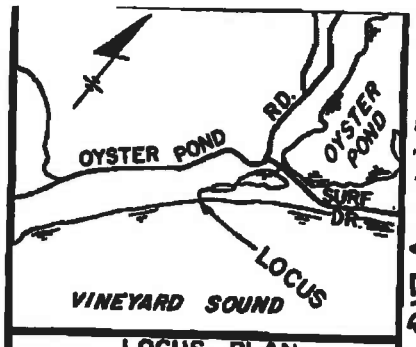
PROPOSED SAND FILL
FOR
SHORE IMPROVEMENT
NEW SILVER BEACH
FALMOUTH, MASS.
APPLICATION BY
DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS
DIVISION OF WATERWAYS
MAY 1953
SCALES SHOWN

John D. Bradford
ACTING DISTRICT WATERWAYS ENGINEER

ACC. 03114

GENERAL NOTES GROIN RECONSTRUCTION:

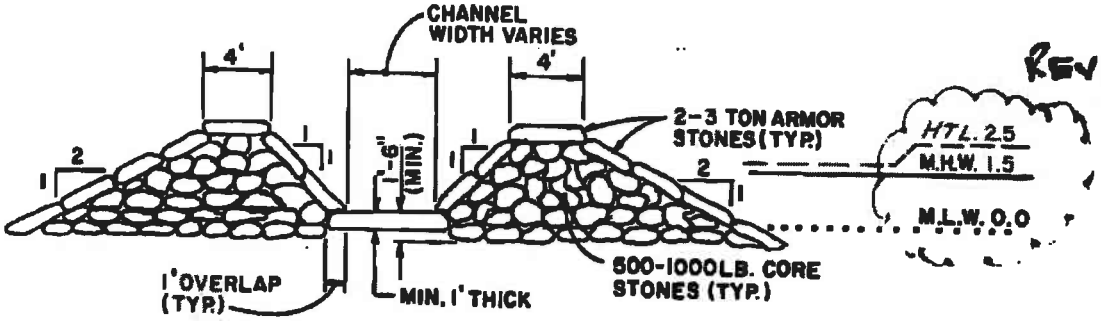
1. GROIN MATERIAL TO BE HARD DURABLE QUARRY STONE.
2. NO CONSTRUCTION RUBBLE IS PERMISSIBLE.
3. AVERAGE ARMOR STONE WEIGHT TO BE 2 TO 3 TON.
4. CORE STONE TO BE 500LB TO 1000LB.
5. RE-USE EXISTING STONE WHERE POSSIBLE.
6. CHANNEL STONE TO BE FLAT WITH A MINIMUM THICKNESS OF 1 FOOT.
7. CHANNEL STONE JOINTS TO BE TIGHTLY SET & ANCHORED UNDER ARMOR STONE AS SHOWN.
8. GROINS TO BE TIGHTLY CHINKED AND TO BE SAND TIGHT.



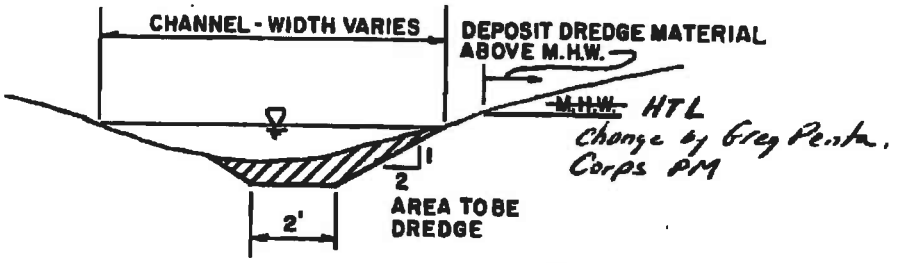
LOCUS PLAN
SCALE: 1:25,000 WOODS HOLE QUAD

025-050-005-017A-100
025-050-005-017A-200

REV: 5/31/00



SECTION A-A
SCALE: 1" = 10'



SECTION B-B
SCALE: 1" = 4'

CHANNEL DREDGING FROM FOOT BRIDGE TO SALT POND:

1. PROPOSED CHANNEL WIDTH TO BE 2' WITH A 1 ON 2 SIDE SLOPE.
2. CHANNEL WIDTH MEASURED FROM MOST SOUTHERLY & EASTERLY BANK FACE.
3. EVENLY DISTRIBUTE CHANNEL BOTTOM DREDGE MATERIAL ALONG SEAWARD FACE OF BANK ABOVE M.H.W.
4. PLANT BANK FACE WITH INDIGENOUS VEGETATION AS APPROVED BY THE CONSERVATION COMMISSION.
5. TRANSITION DREDGE SLOPE INTO POND AT A SLOPE OF 1 TO 4.

5/31/00

GENERAL NOTES:

1. FOR ORDER OF CONDITIONS SEE SE25-2449.
2. ELEVATIONS BASED ON M.L.W. DATUM.

SHEET 1 of 3

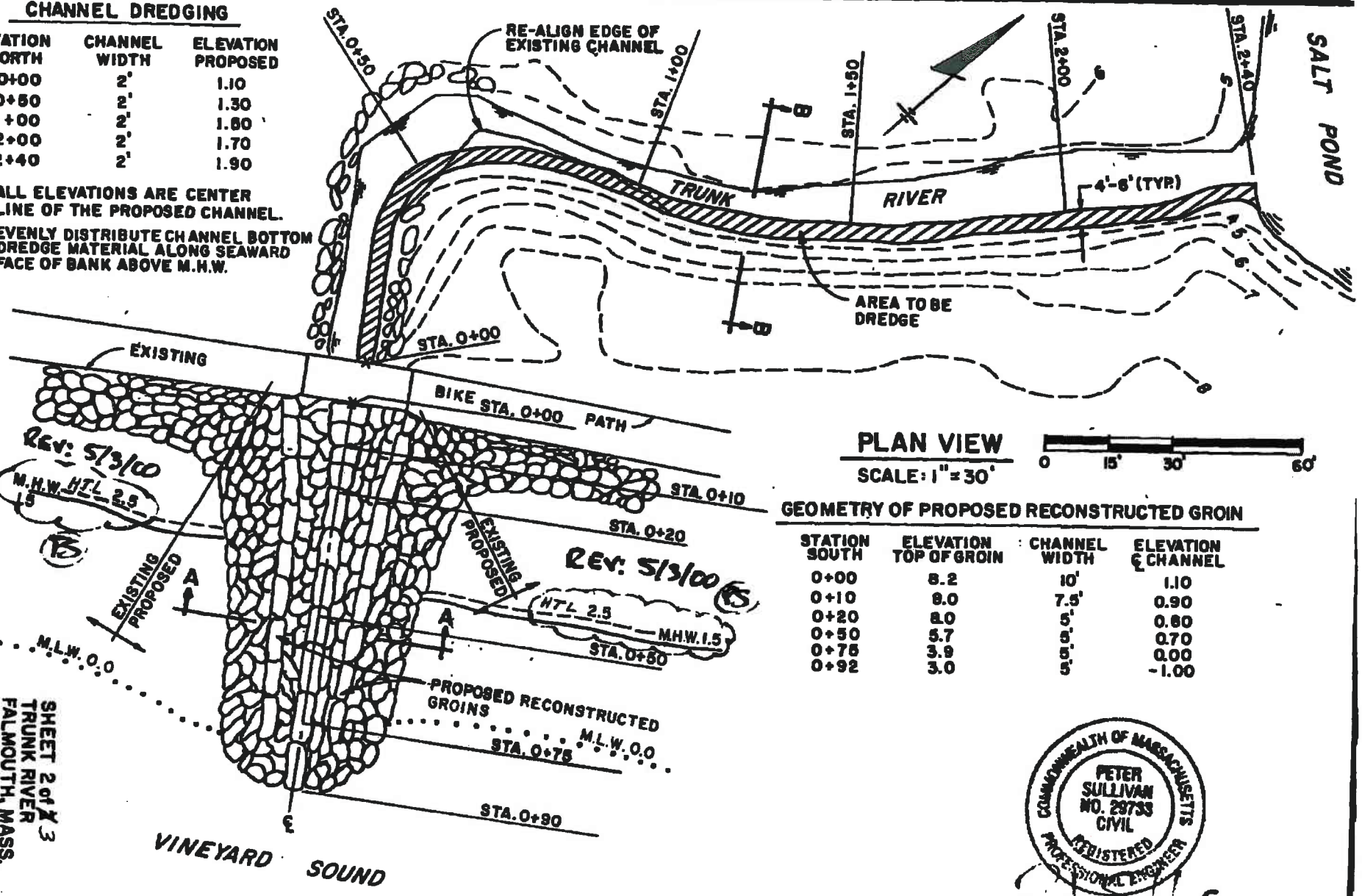
PLAN ACCOMPANYING PETITION OF
TOWN OF FALMOUTH MASS.
DEPARTMENT OF PUBLIC WORKS
FOR THE DREDGING OF TRUNK RIVER & THE RECONSTRUCTION & MAINTAINING STONE GROINS IN VINEYARD SOUND
NOVEMBER 5, 1999
SULLIVAN ENGINEERING INC.
OSTERVILLE, MASS.

CHANNEL DREDGING

STATION NORTH	CHANNEL WIDTH	ELEVATION PROPOSED
0+00	2'	1.10
0+50	2'	1.30
1+00	2'	1.60
2+00	2'	1.70
2+40	2'	1.90

ALL ELEVATIONS ARE CENTER LINE OF THE PROPOSED CHANNEL.

EVENLY DISTRIBUTE CHANNEL BOTTOM DREDGE MATERIAL ALONG SEAWARD FACE OF BANK ABOVE M.H.W.



PLAN VIEW

SCALE: 1" = 30'

0 15' 30' 60'

GEOMETRY OF PROPOSED RECONSTRUCTED GROIN

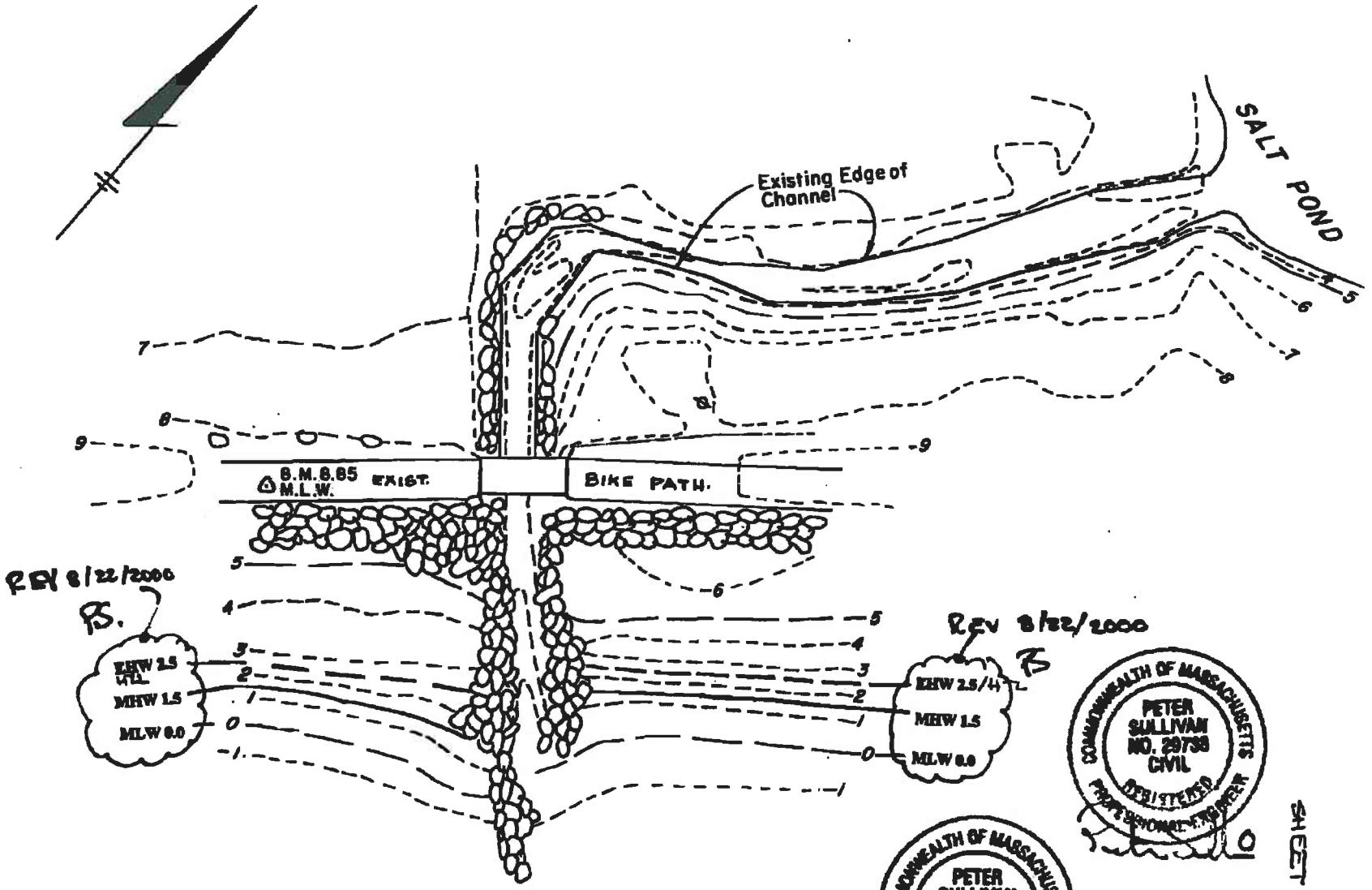
STATION SOUTH	ELEVATION TOP OF GROIN	CHANNEL WIDTH	ELEVATION ℄ CHANNEL
0+00	8.2	10'	1.10
0+10	8.0	7.5'	0.90
0+20	8.0	5'	0.80
0+50	5.7	5'	0.70
0+75	3.9	5'	0.00
0+92	3.0	5'	-1.00

SHEET 2 of X 3
TRUNK RIVER
FALMOUTH, MASS.
SULLIVAN ENGINEERING INC.
OSTERVILLE, MASS.
NOV. 5, 1999

COMMONWEALTH OF MASSACHUSETTS
PETER SULLIVAN
NO. 29733
CIVIL
REGISTERED
PROFESSIONAL ENGINEER

5/3/00

025-050-005-017A-100
025-050-005-017A-200



EXISTING SITE CONDITIONS

Scale: 1" = 40'

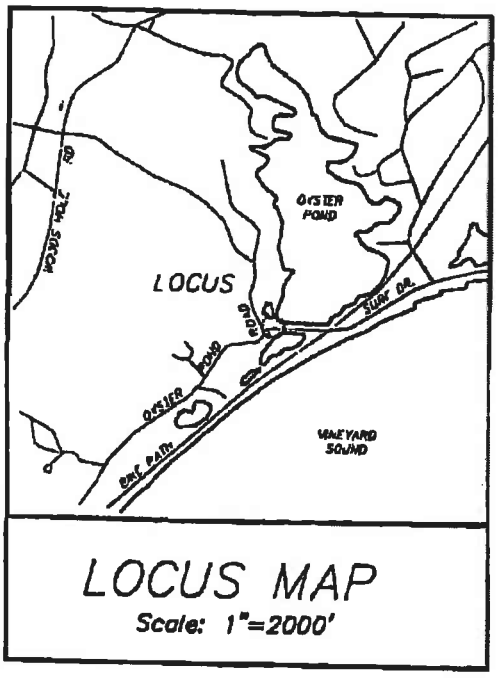
COMMONWEALTH OF MASSACHUSETTS
PETER SULLIVAN
NO. 29733
CIVIL
REGISTERED PROFESSIONAL ENGINEER

8/22/2000

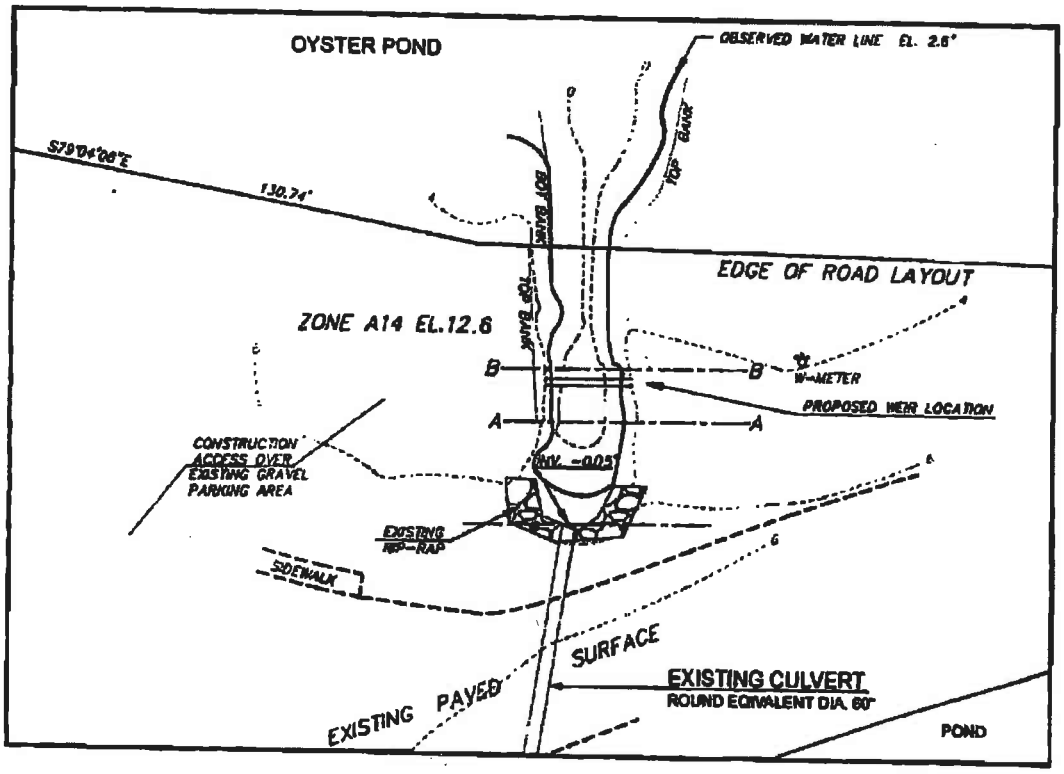
025-050-005-017A-100
025-050-005-017A-200

SHEET 3 OF 3

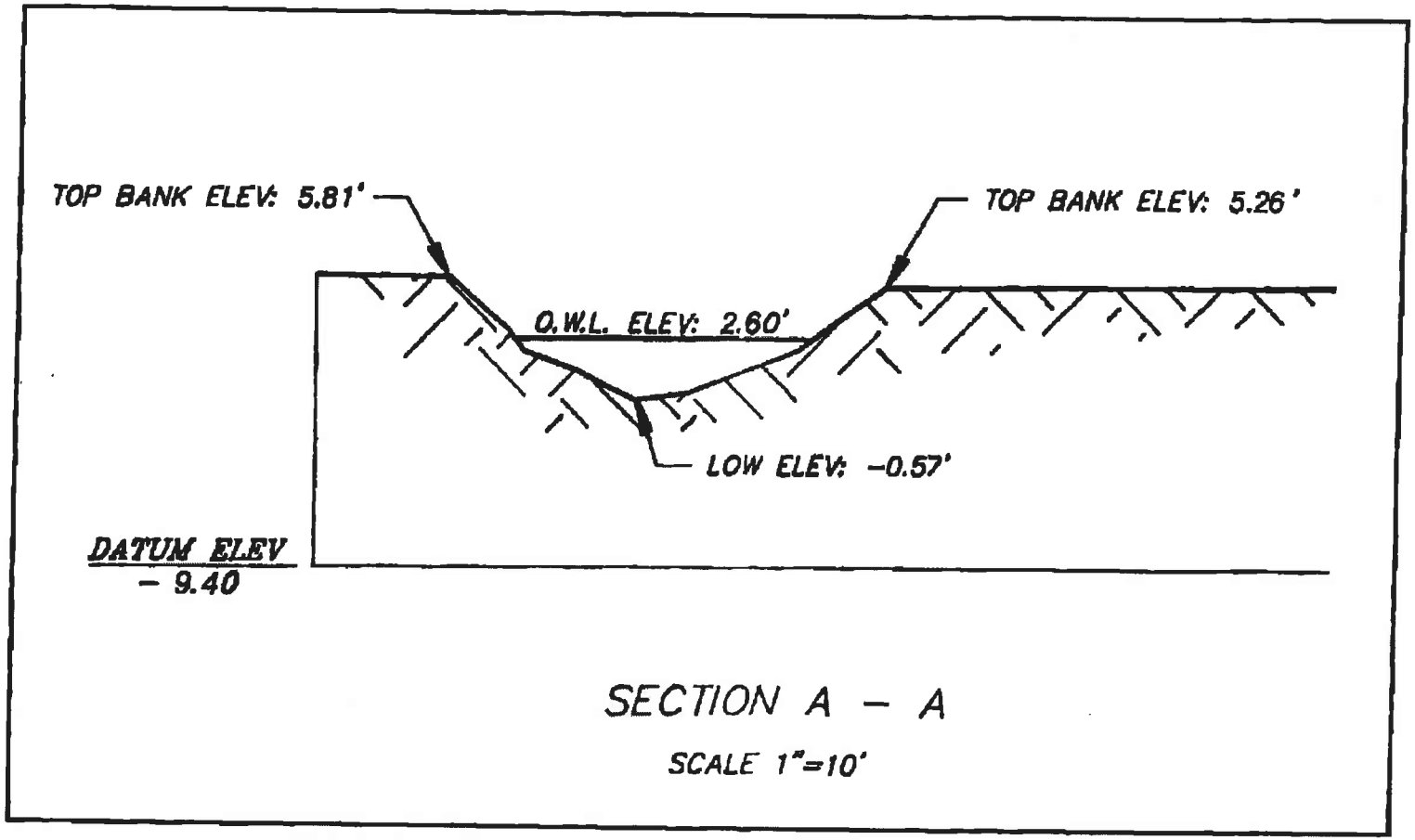
025-050-005-017A-100
025-050-005-017A-200



LOCUS MAP
Scale: 1"=2000'

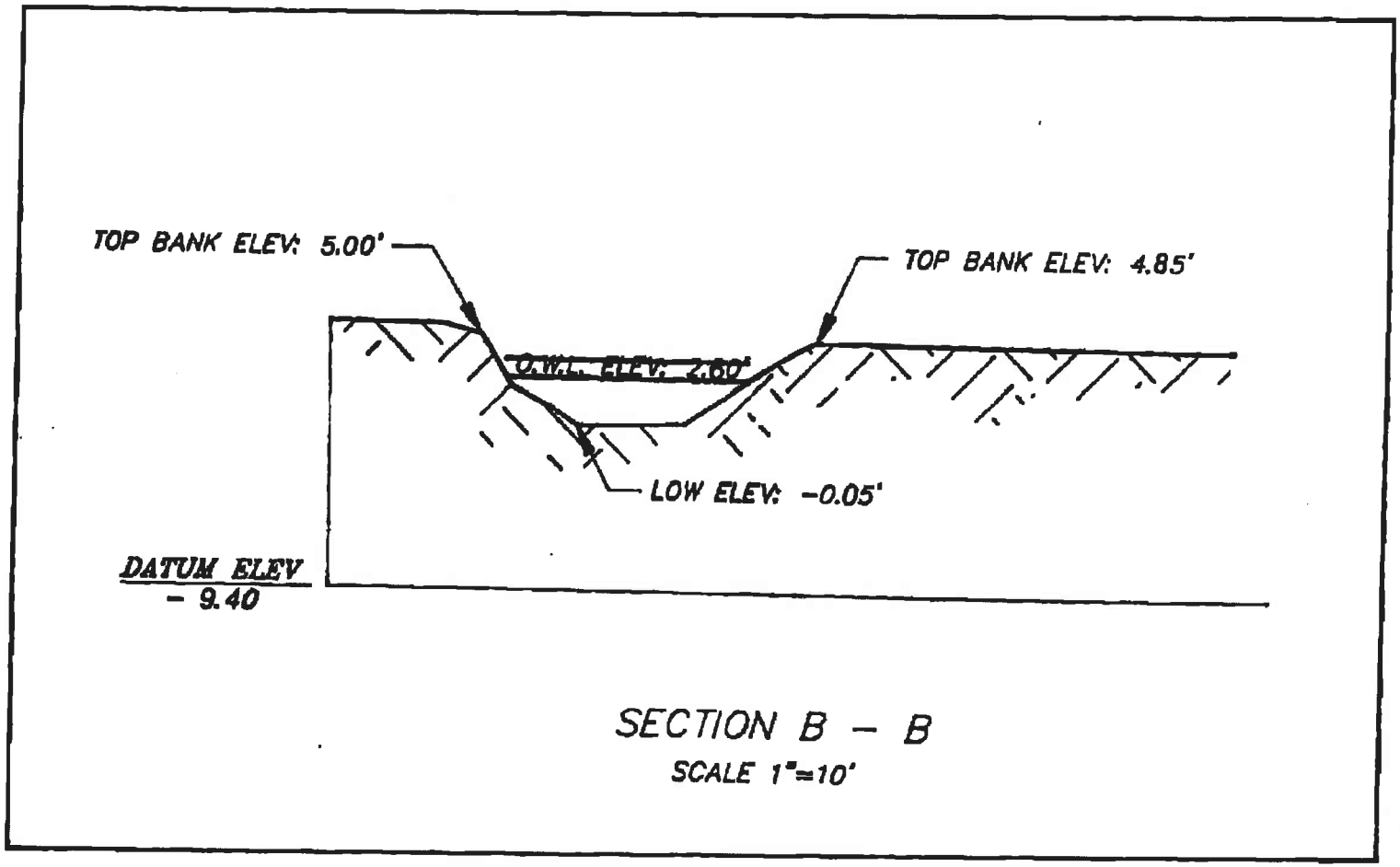


Existing Conditions 1" = 40', Elevations in feet, MLW



Elevation in feet, MLW

025-050-005-017A-100
025-050-005-017A-200

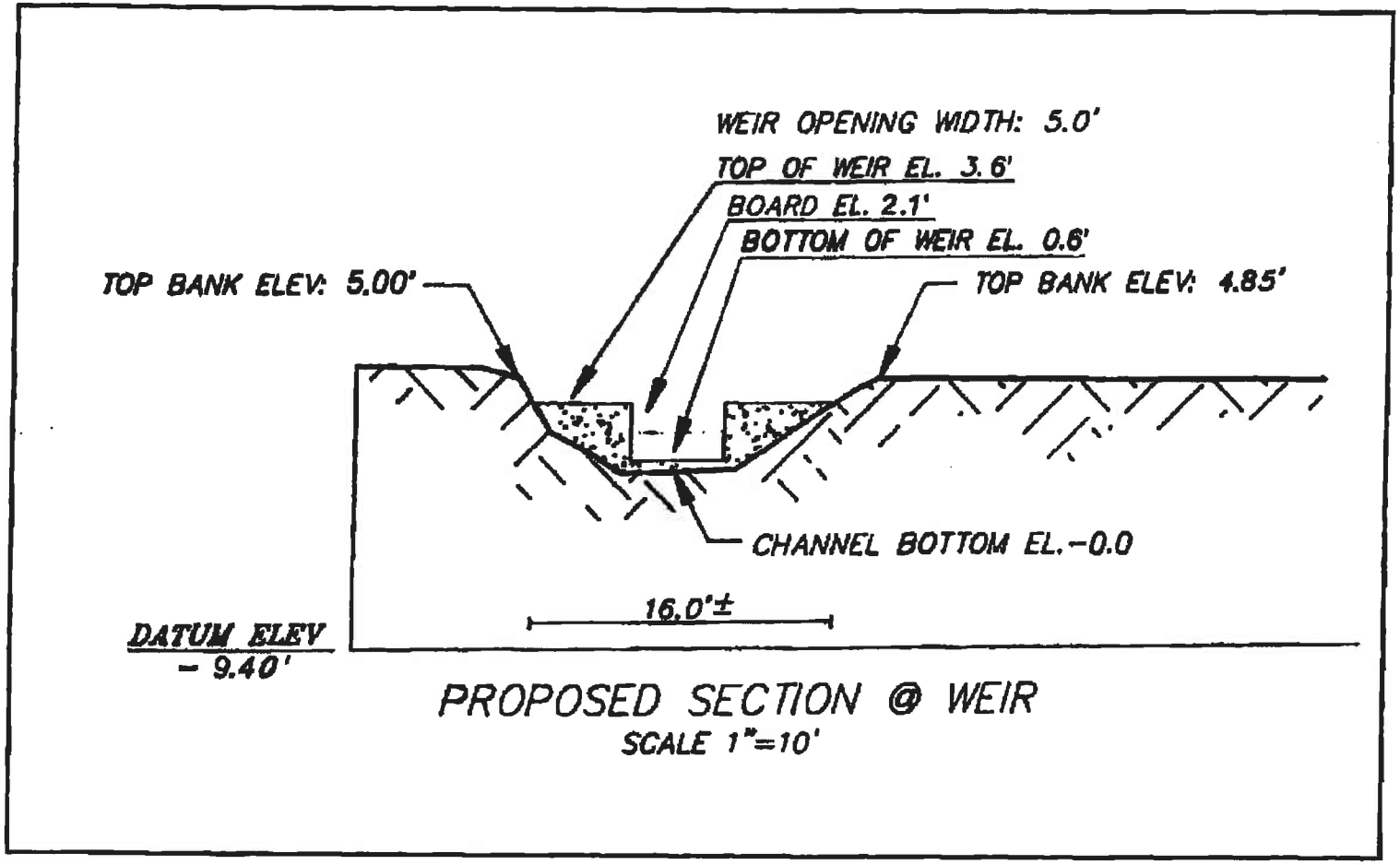


SECTION B – B

SCALE 1"=10'

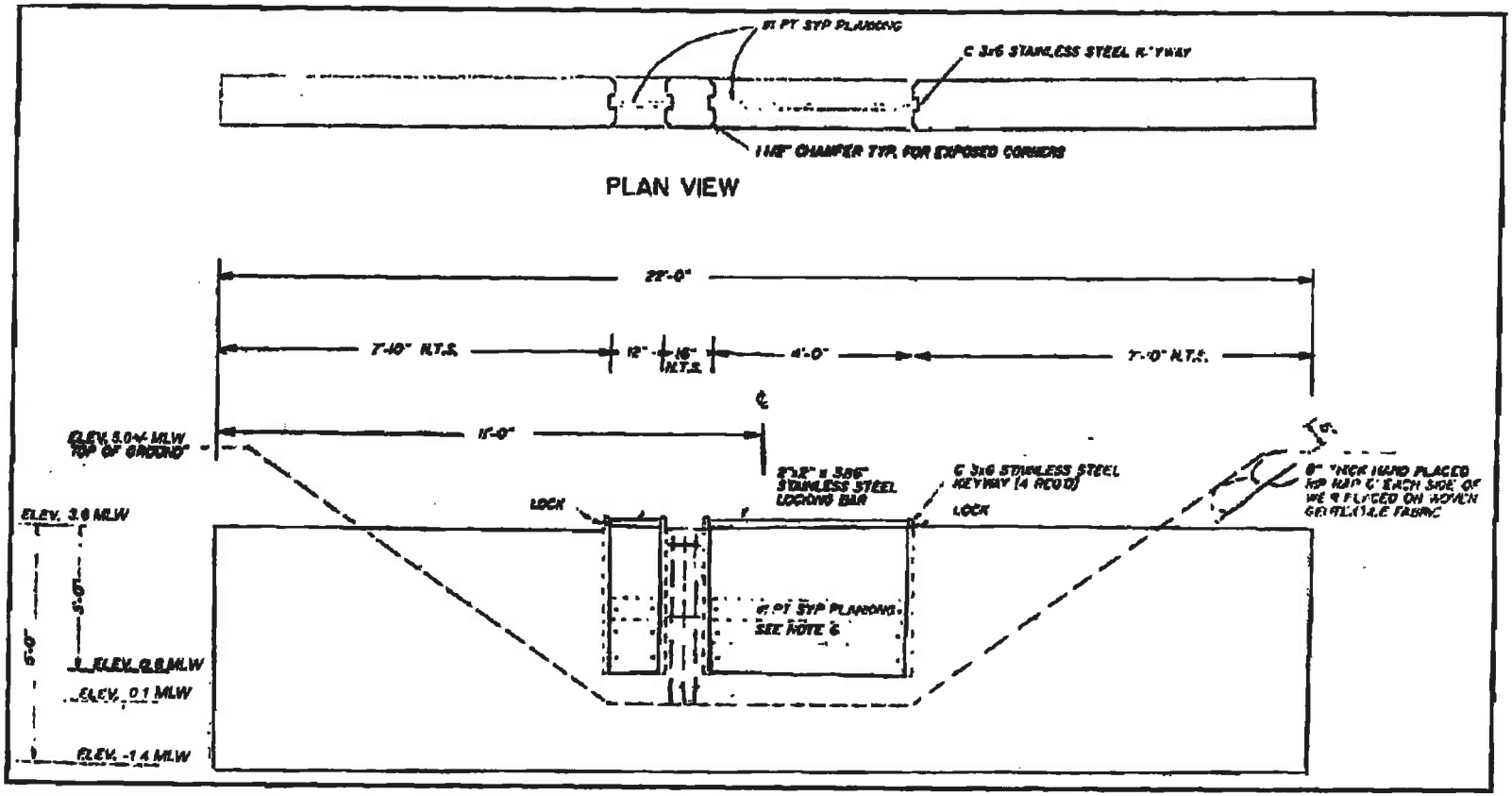
Elevation in feet, MLW

025-050-005-017A-100
025-050-005-017A-200



Elevation in feet, MLW

025-050-005-017A-100
025-050-005-017A-200



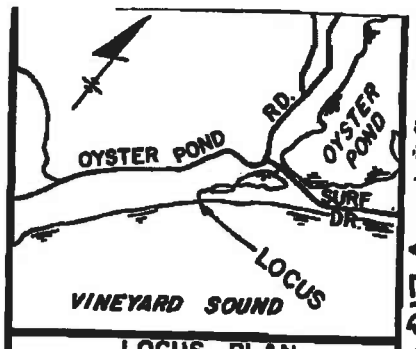
ELEVATION VIEW, Elevations in feet, ~~NGVD~~ MLW
(not to scale)

DESIGN FOR
OYSTER POND WEIR
OYSTER POND ROAD
FALMOUTH, MA
JANUARY 10, 1997

025-050-005 017A-100
025-050-005-017A-200

GENERAL NOTES GROIN RECONSTRUCTION:

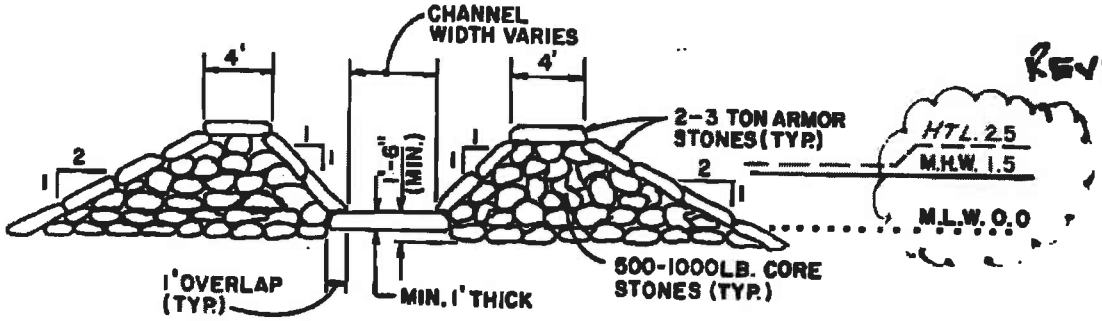
1. GROIN MATERIAL TO BE HARD DURABLE QUARRY STONE.
2. NO CONSTRUCTION RUBBLE IS PERMISSIBLE.
3. AVERAGE ARMOR STONE WEIGHT TO BE 2 TO 3 TON.
4. CORE STONE TO BE 500 LB TO 1000 LB.
5. RE-USE EXISTING STONE WHERE POSSIBLE.
6. CHANNEL STONE TO BE FLAT WITH A MINIMUM THICKNESS OF 1 FOOT.
7. CHANNEL STONE JOINTS TO BE TIGHTLY SET & ANCHORED UNDER ARMOR STONE AS SHOWN.
8. GROINS TO BE TIGHTLY CHINKED AND TO BE SAND TIGHT.



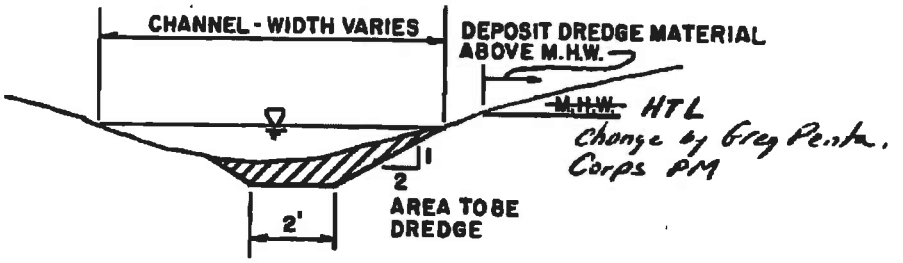
LOCUS PLAN
SCALE: 1:25,000 WOODS HOLE QUAD

025-050-005-017A-100
025-050-005-017A-200

REV: 5/31/00



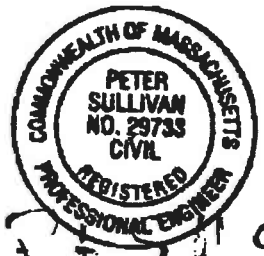
SECTION A-A
SCALE: 1" = 10'



SECTION B-B
SCALE: 1" = 4'

CHANNEL DREDGING FROM FOOT BRIDGE TO SALT POND:

1. PROPOSED CHANNEL WIDTH TO BE 2' WITH A 1 ON 2 SIDE SLOPE.
2. CHANNEL WIDTH MEASURED FROM MOST SOUTHERLY & EASTERLY BANK FACE.
3. EVENLY DISTRIBUTE CHANNEL BOTTOM DREDGE MATERIAL ALONG SEAWARD FACE OF BANK ABOVE M.H.W.
4. PLANT BANK FACE WITH INDIGENOUS VEGETATION AS APPROVED BY THE CONSERVATION COMMISSION.
5. TRANSITION DREDGE SLOPE INTO POND AT A SLOPE OF 1 TO 4.



Peter Sullivan
5/31/00

GENERAL NOTES:

1. FOR ORDER OF CONDITIONS SEE SE25-2449.
2. ELEVATIONS BASED ON M.L.W. DATUM.

SHEET 1 of 3

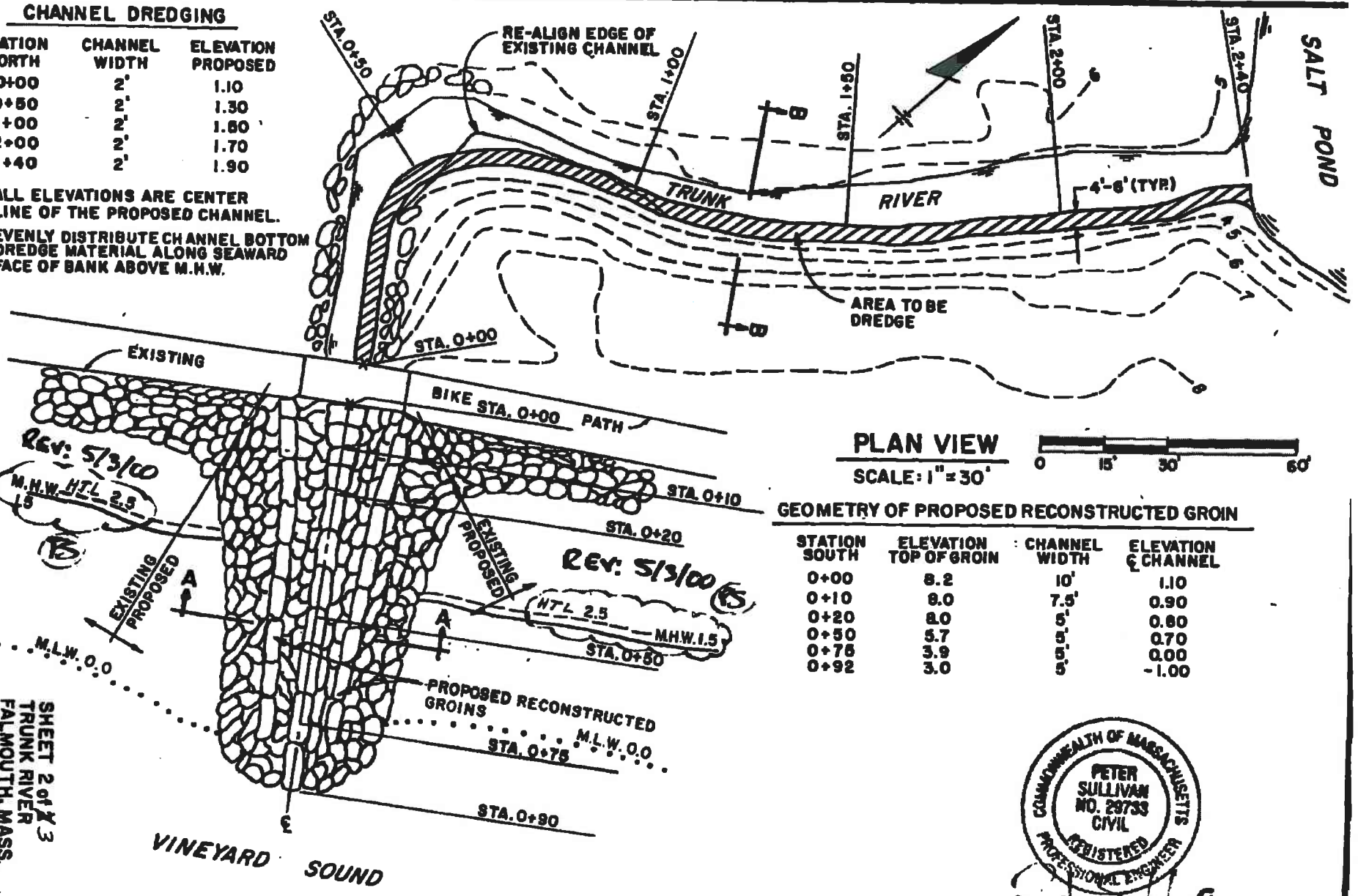
PLAN ACCOMPANYING PETITION OF
TOWN OF FALMOUTH MASS.
DEPARTMENT OF PUBLIC WORKS
FOR THE DREDGING OF TRUNK RIVER & THE RECONSTRUCTION & MAINTAINING STONE GROINS IN VINEYARD SOUND
NOVEMBER 5, 1999
SULLIVAN ENGINEERING INC.
OSTERVILLE, MASS.

CHANNEL DREDGING

STATION NORTH	CHANNEL WIDTH	ELEVATION PROPOSED
0+00	2'	1.10
0+50	2'	1.30
1+00	2'	1.60
2+00	2'	1.70
2+40	2'	1.90

ALL ELEVATIONS ARE CENTER LINE OF THE PROPOSED CHANNEL.

EVENLY DISTRIBUTE CHANNEL BOTTOM DREDGE MATERIAL ALONG SEAWARD FACE OF BANK ABOVE M.H.W.



PLAN VIEW

SCALE: 1" = 30'

0 15' 30' 60'

GEOMETRY OF PROPOSED RECONSTRUCTED GROIN

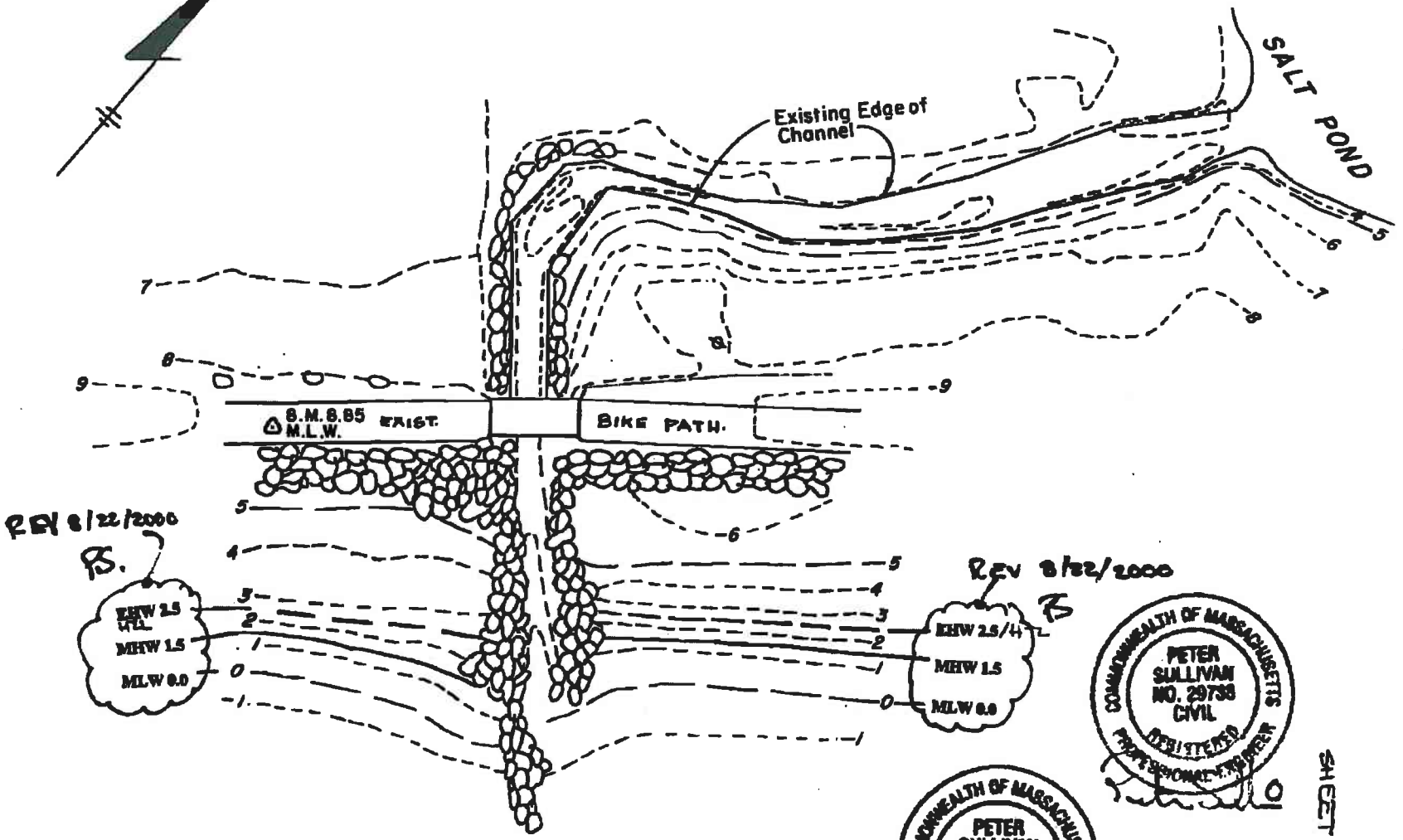
STATION SOUTH	ELEVATION TOP OF GROIN	CHANNEL WIDTH	ELEVATION ℄ CHANNEL
0+00	8.2	10'	1.10
0+10	8.0	7.5'	0.90
0+20	8.0	5'	0.80
0+50	5.7	5'	0.70
0+75	3.9	5'	0.00
0+92	3.0	5'	-1.00

SHEET 2 of X 3
TRUNK RIVER
FALMOUTH, MASS.
SULLIVAN ENGINEERING INC.
OSTERVILLE, MASS.
NOV. 5, 1999

COMMONWEALTH OF MASSACHUSETTS
PETER SULLIVAN
NO. 29733
CIVIL
REGISTERED
PROFESSIONAL ENGINEER

5/3/00

025-050-005-017A-100
025-050-005-017A-200



EXISTING SITE CONDITIONS

Scale: 1" = 40'

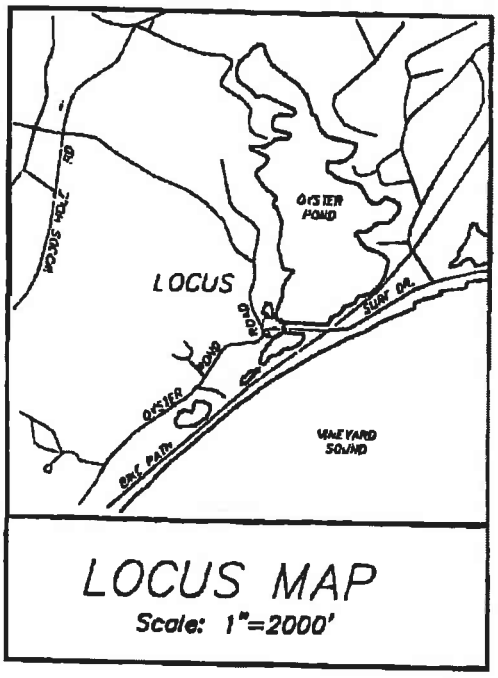
COMMONWEALTH OF MASSACHUSETTS
PETER SULLIVAN
NO. 29733
CIVIL
REGISTERED PROFESSIONAL ENGINEER

8/22/2000

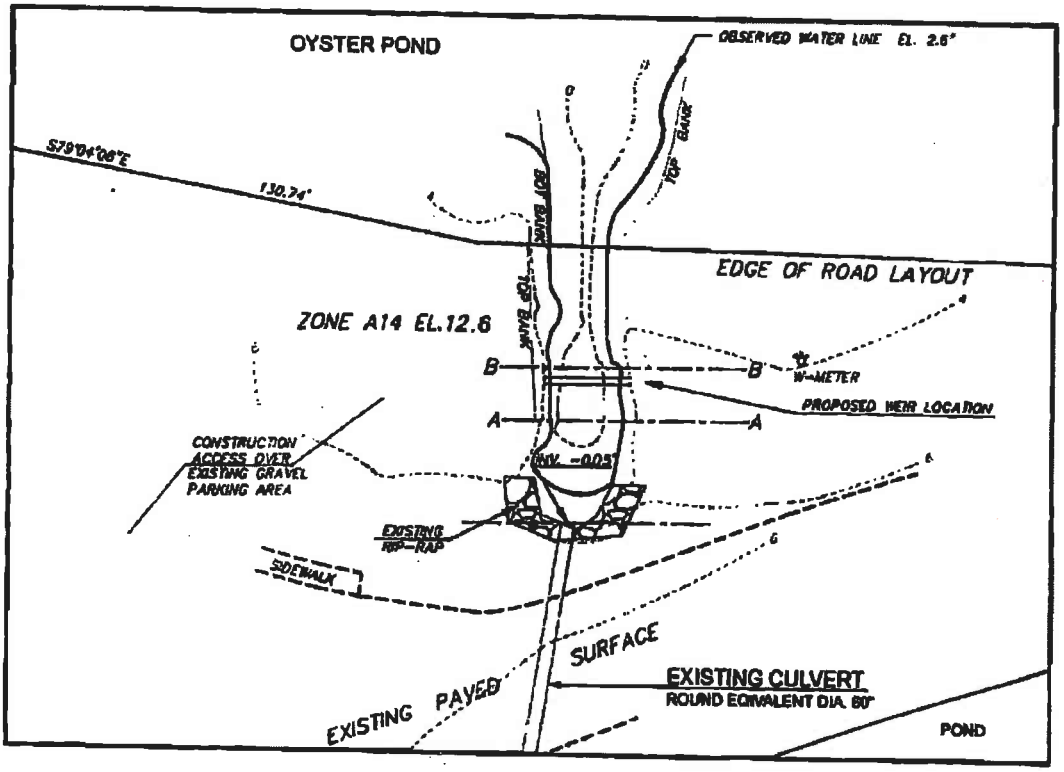
025-050-005-017A-100
025-050-005-017A-200

SHEET 3 OF 3

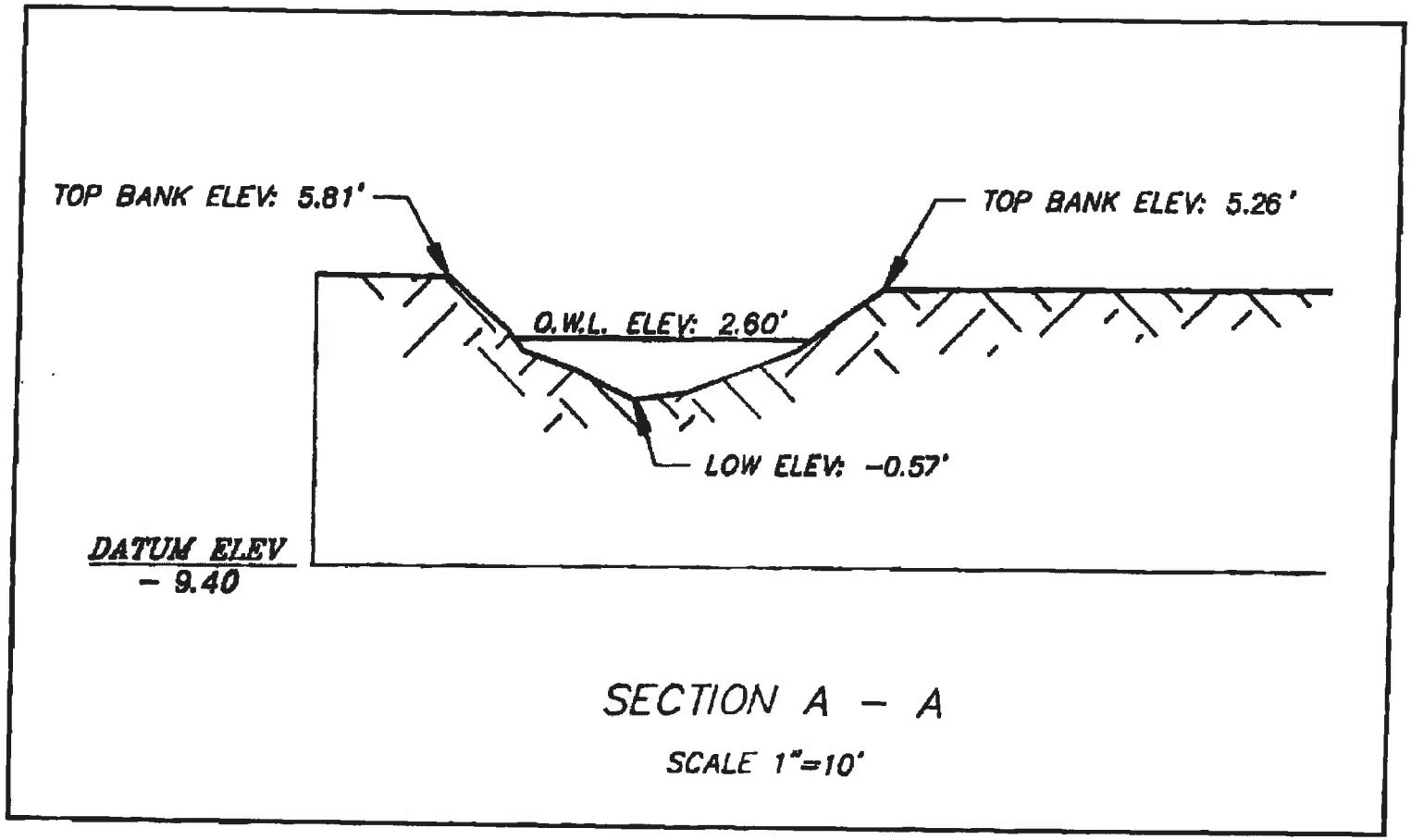
025-050-005-017A-100
025-050-005-017A-200



LOCUS MAP
Scale: 1"=2000'

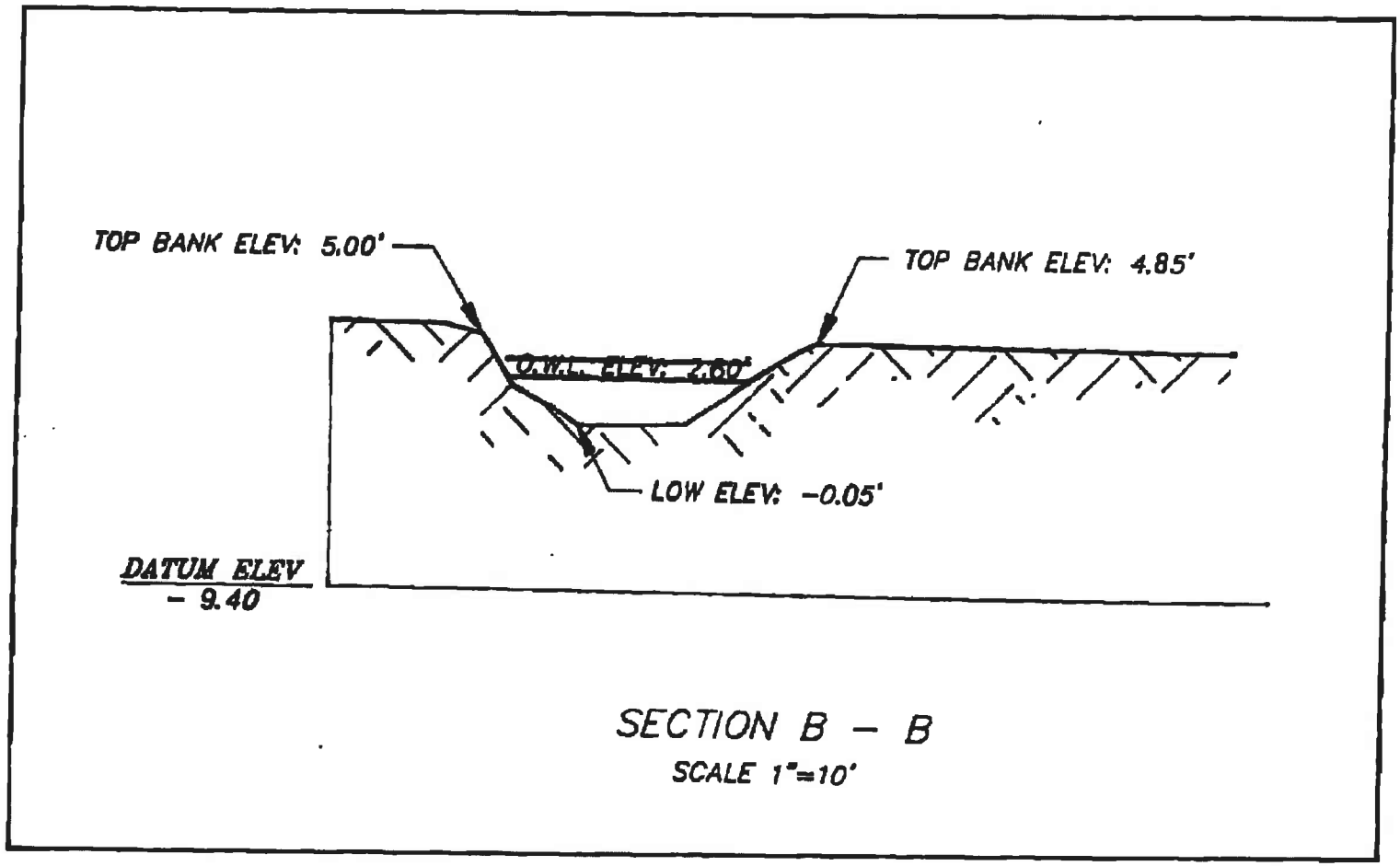


Existing Conditions 1" = 40', Elevations in feet, MLW



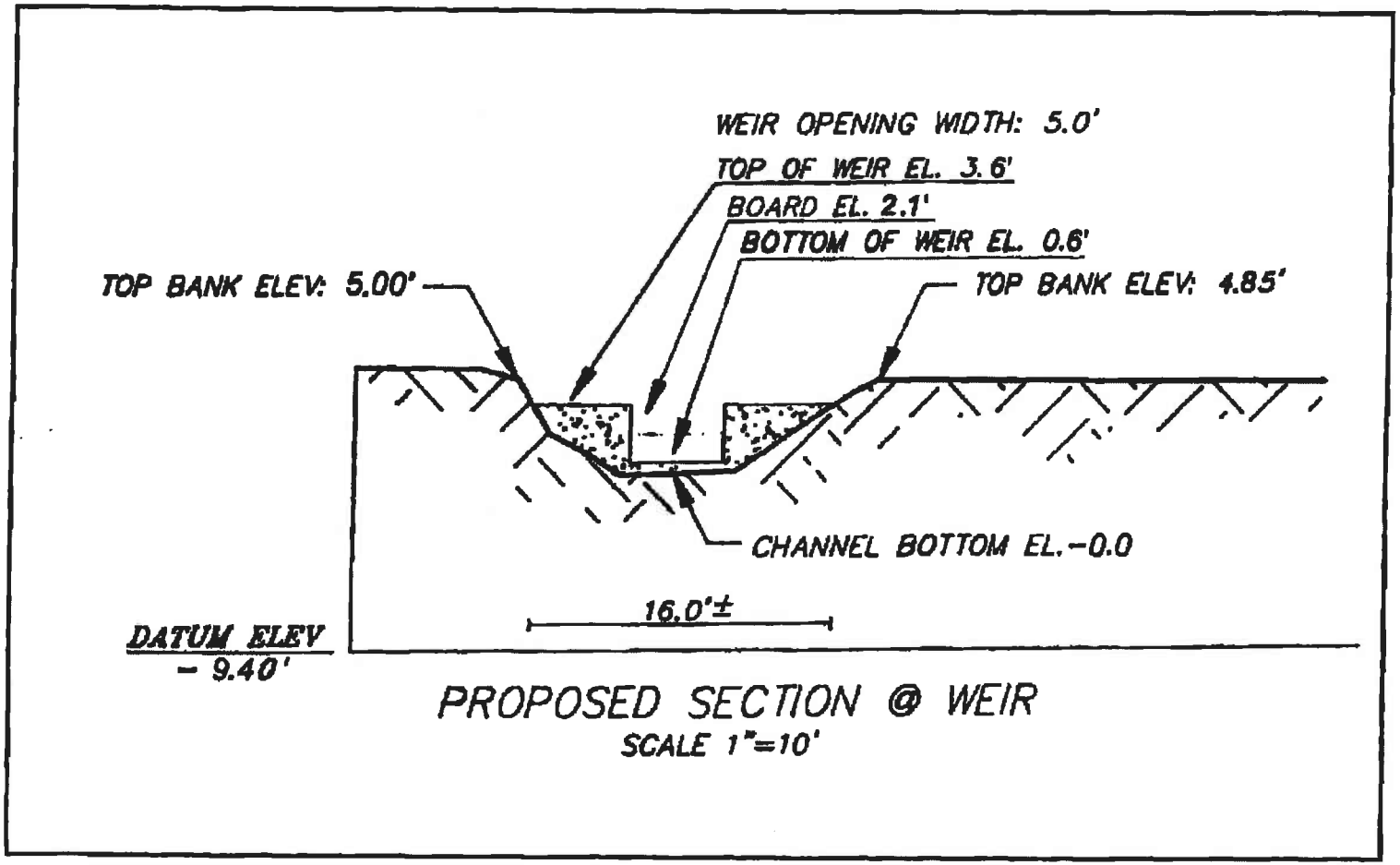
Elevation in feet, MLW

025-050-005-017A-100
025-050-005-017A-200



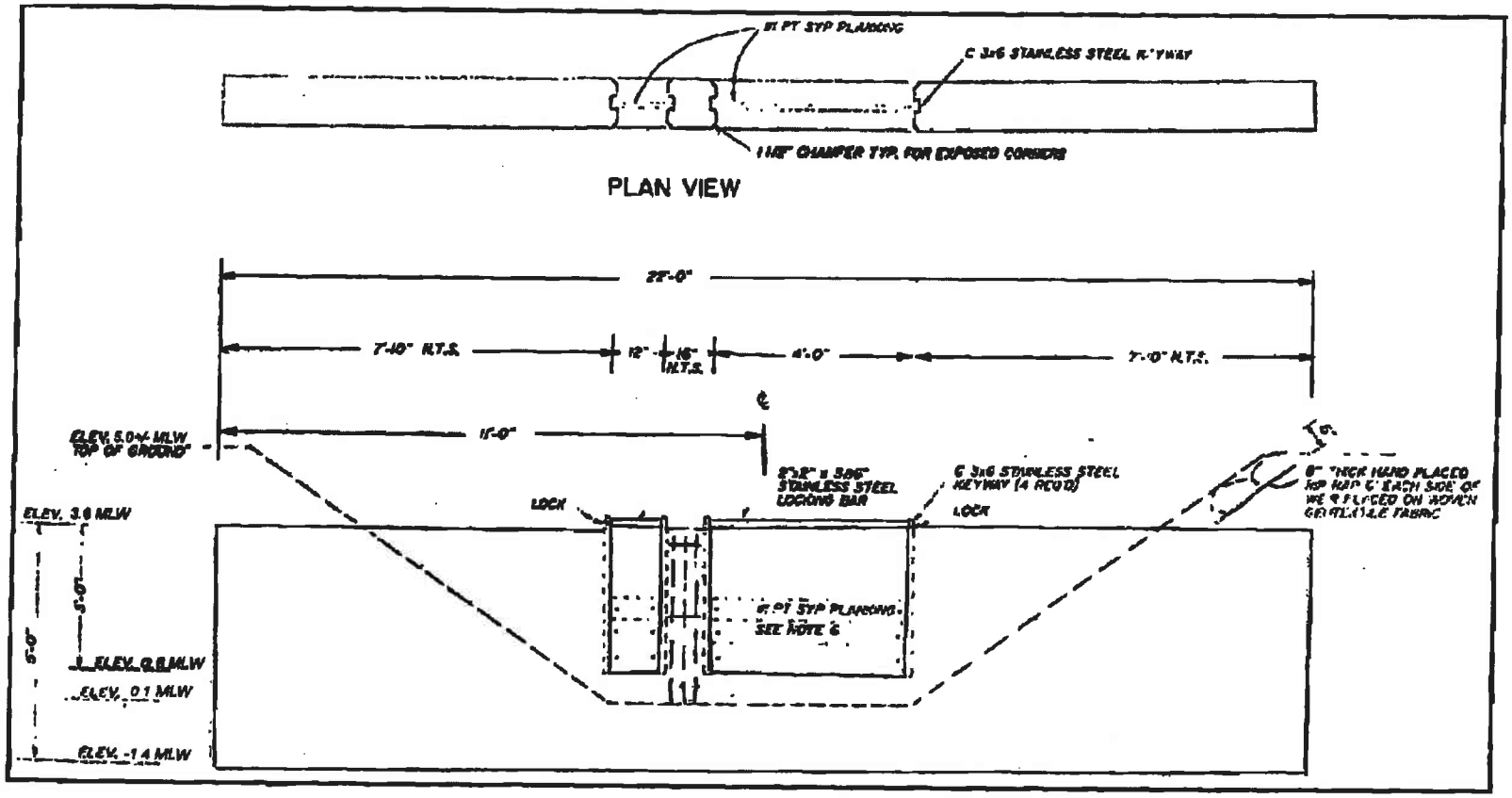
Elevation in feet, MLW

025-050-005-017A-100
025-050-005-017A-200



Elevation in feet, MLW

025-050-005-017A-100
025-050-005-017A-200



ELEVATION VIEW, Elevations in feet, ~~NGVD~~ MLW
(not to scale)

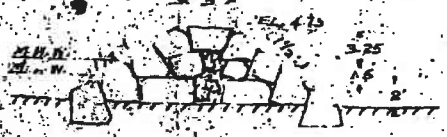
DESIGN FOR
OYSTER POND WEIR
OYSTER POND ROAD
FALMOUTH, MA
JANUARY 10, 1997

025-050-005 017A-100
025-050-005-017A-200

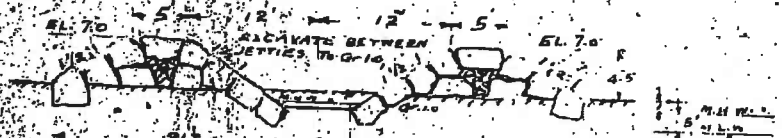
025-047-007-026-100
025-047-007-026-200
025-050-007-020-100

NOTE

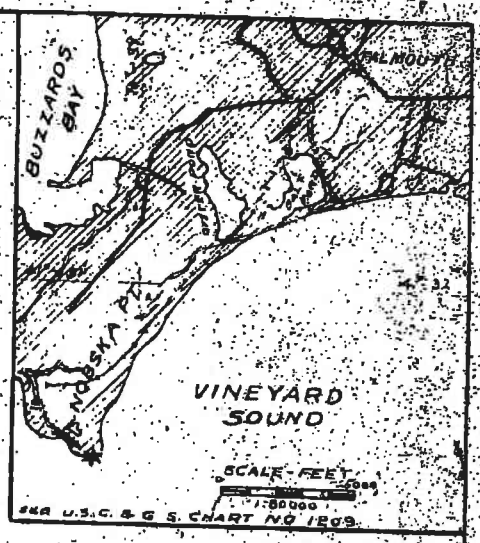
ELEVATIONS ARE IN FEET AND TENTHS. ABOVE THE PLANE OF MEAN LOWWATER
MINUS FIGURES SHOW DEPTHS BELOW THE SAME PLANE.
TOP OF JETTIES NO. 1 TO NO. 5 TO BE BUILT AT ELEV 7.0 FOR INNER 75 FEET. THEN SLOPE
TO ELEV. 2.5 AT OUTER END. TOP OF JETTY NO. 6 TO BE BUILT LEVEL AT ELEV 7.0
JETTIES NO 1-5 & 6 ARE TO BE BUILT ON SITE OF EXISTING JETTIES.

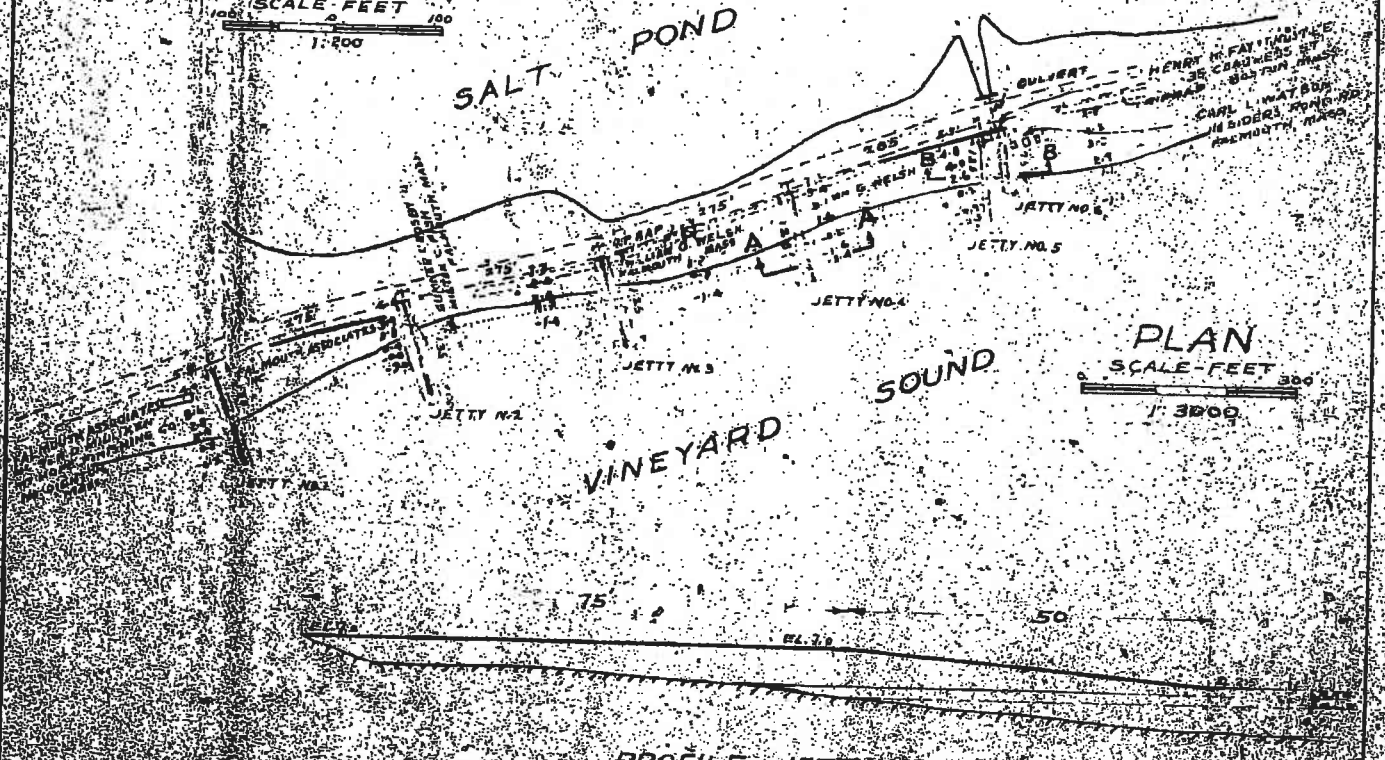


SECTION A-A
SCALE - FEET
100 0 100
1:200



SECTION B-B
SCALE - FEET
100 0 100
1:200





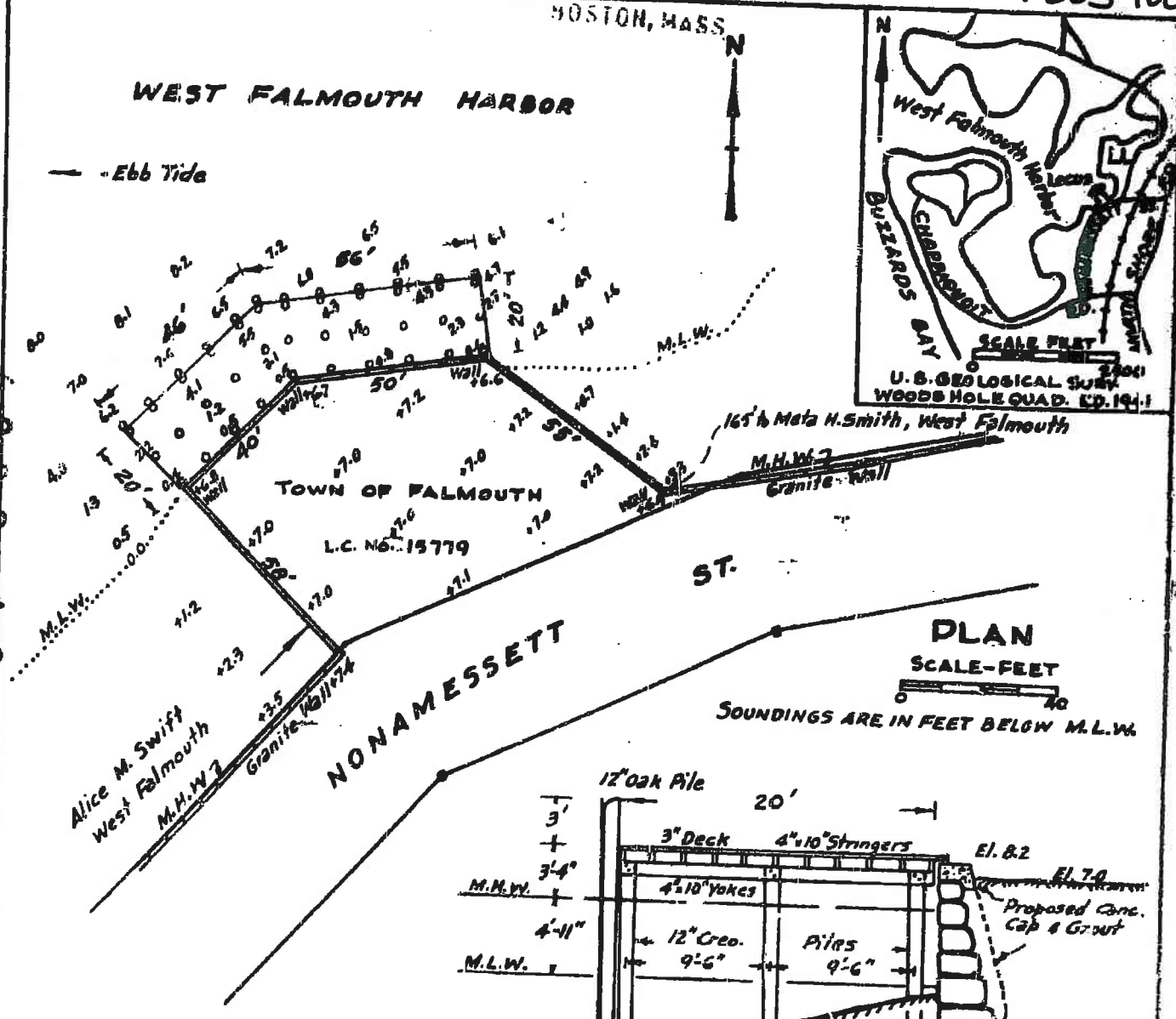
PROFILE - JETTY NO 4 (TYPICAL)
SCALE - FEET
1:300

PROPOSED STONE JETTIES
IN
VINEYARD SOUND
FALMOUTH MASS
APPLICATION BY
DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS
DIVISION OF WATERWAYS
1960

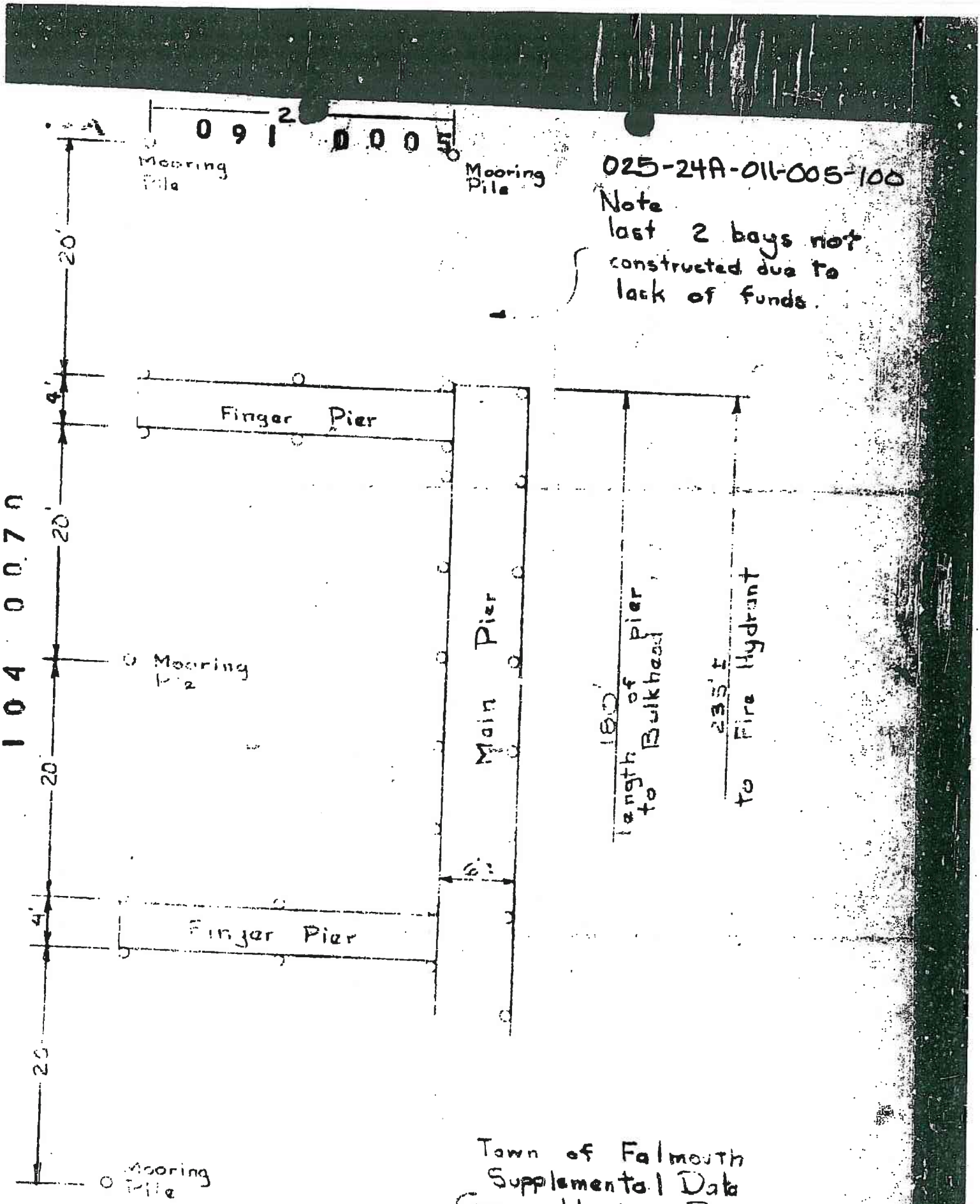
Earl J. Sutcliffe
DISTRICT WATERWAYS ENGINEER

025-24A-011-005-100

BOSTON, MASS.

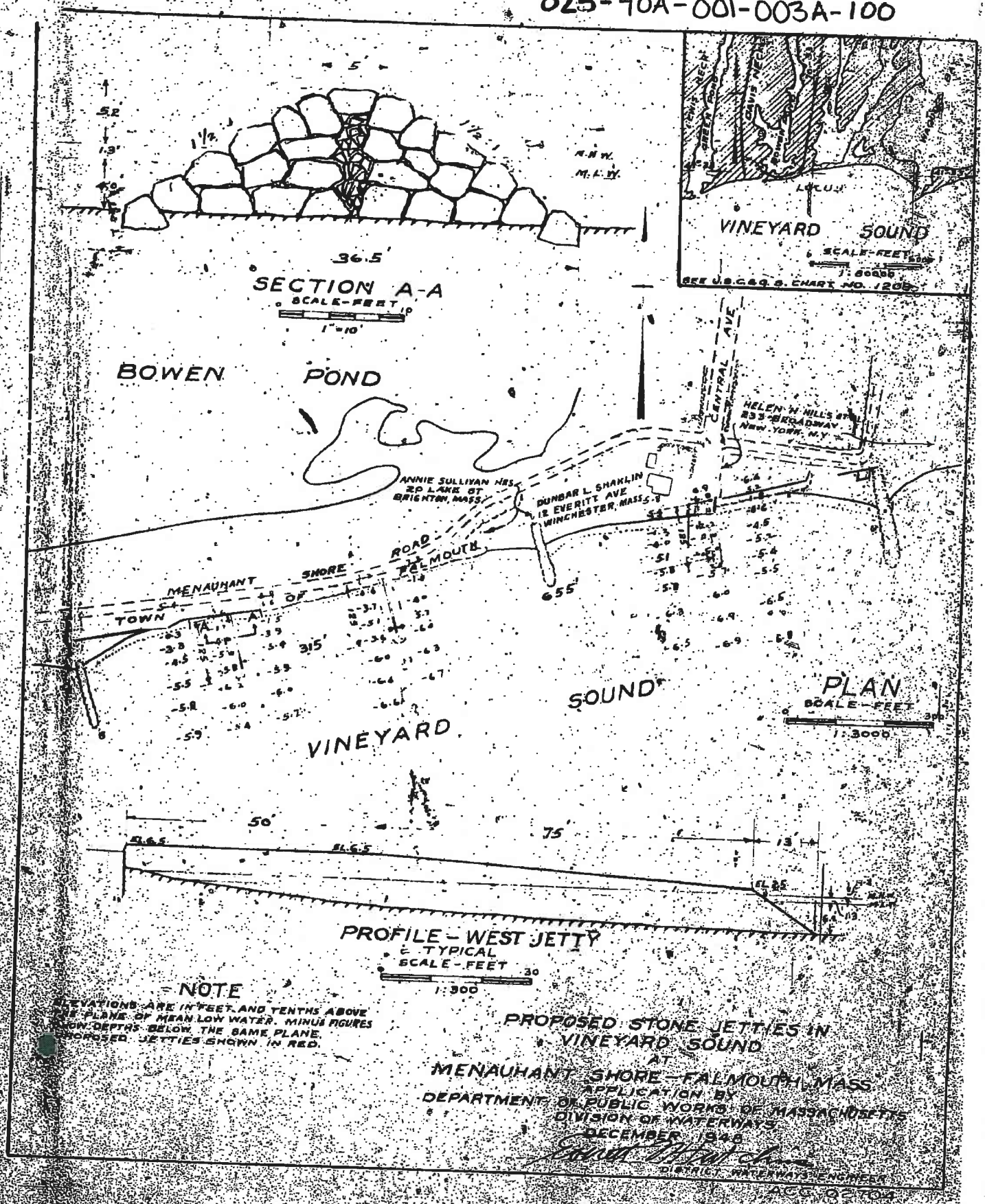


Proposed Pile & Timber Wharf
in West Falmouth Harbor
at Falmouth
County of Barnstable, Mass.
Application by Town of Falmouth



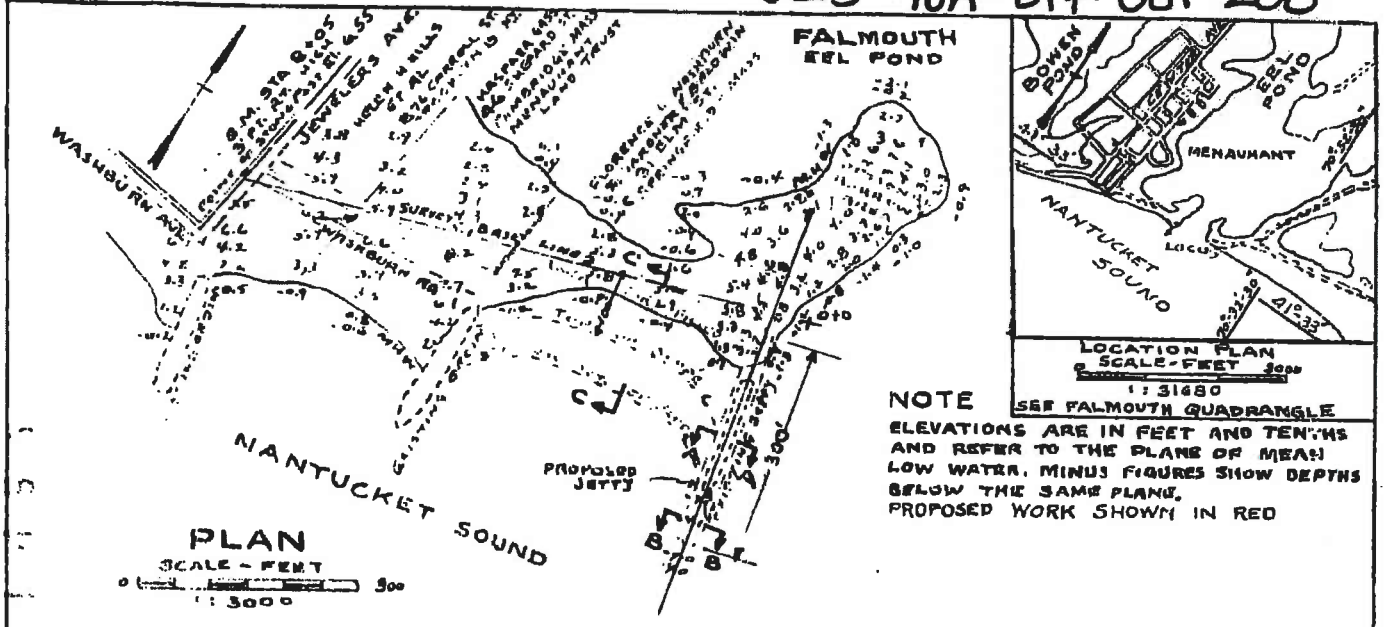
Town of Falmouth
Supplemental Data
Green Harbor Pier
Permits dated 9/30/64 & 9/15/64

025-40A-001-003A-100

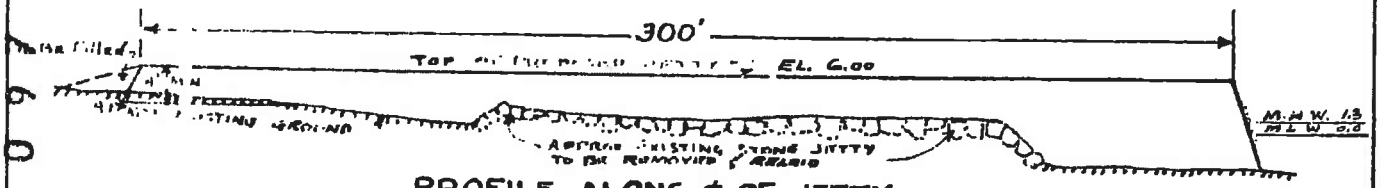


0 9 4 1 4 5 0

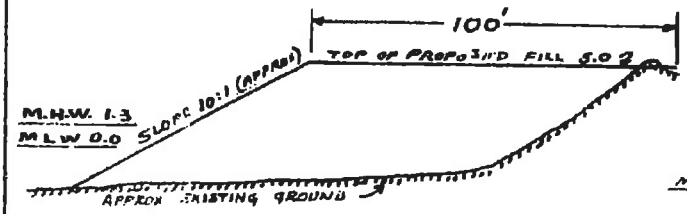
025-40A-017-001-200



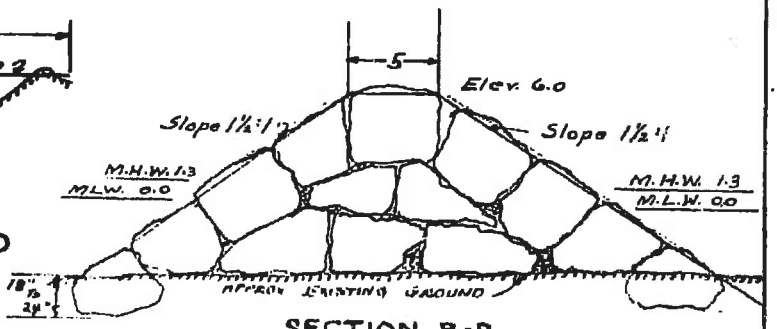
PLAN
SCALE - FEET
1 : 3000



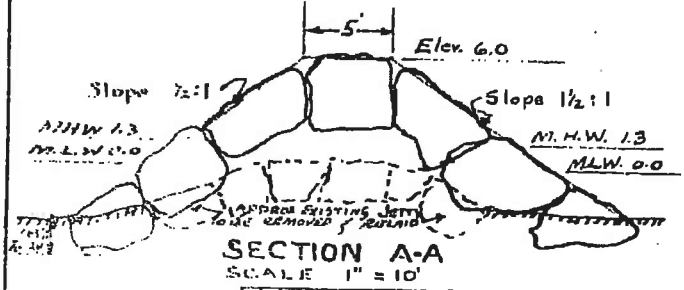
PROFILE ALONG ℄ OF JETTY
SCALE VERT. 1"=20'
HOR. 1"=50'



SECTION C-C AREA TO BE FILLED
SCALE VERT. 1"=10'
HOR. 1"=50'



SECTION B-B
SCALE 1"=10'



SECTION A-A
SCALE 1" = 10'

PROPOSED SHORE PROTECTION
EEL POND
FALMOUTH, MASS.

APPLICATION BY
DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS
DIVISION OF WATERWAYS
NOVEMBER 1952

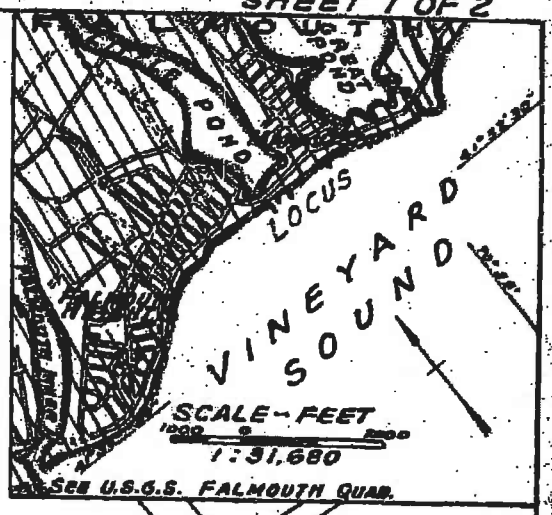
Everett M. Hutchinson
DISTRICT WATERWAYS ENGINEER

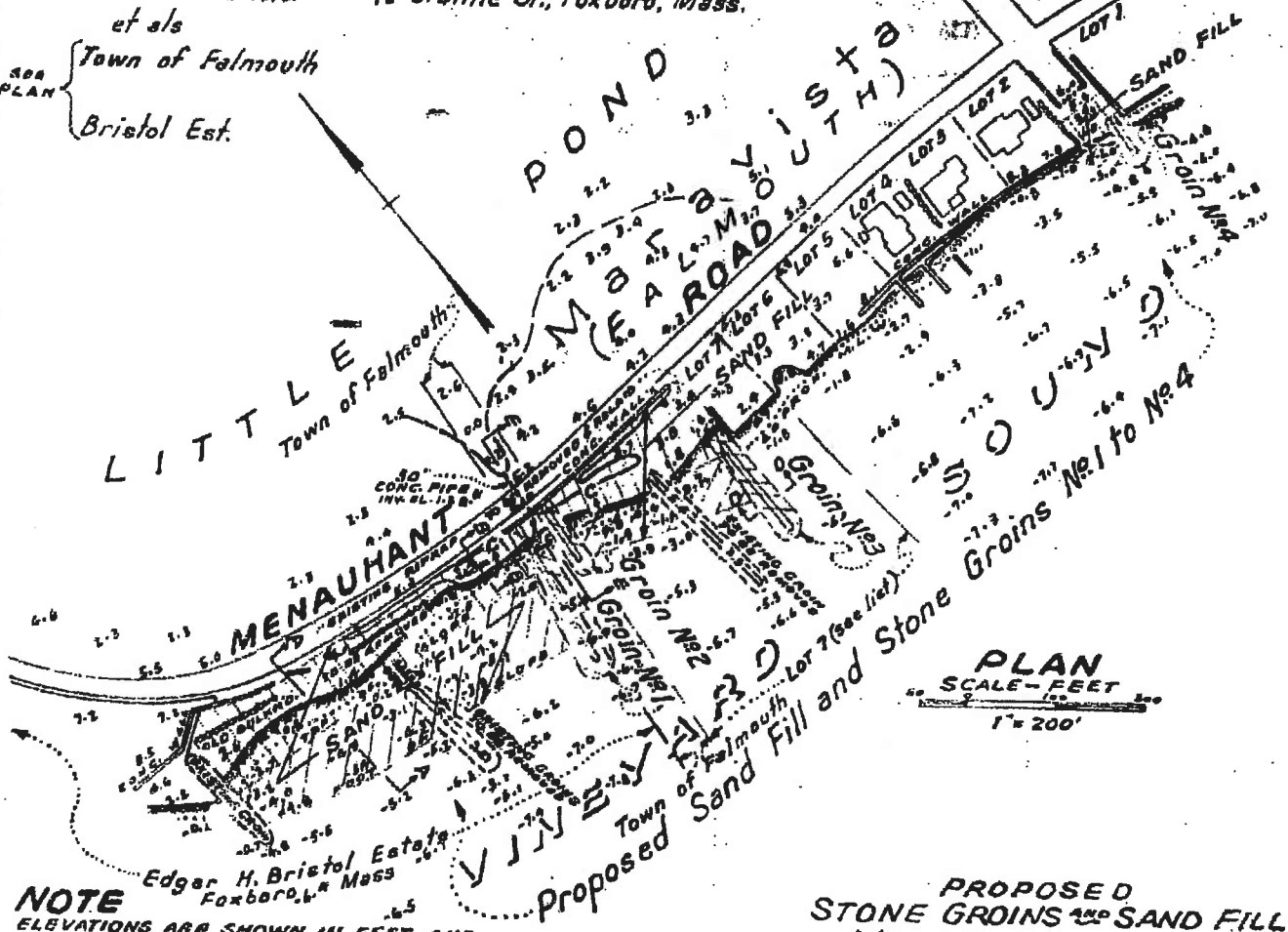
0 0 0 1 4 4 9

025-46A-002-000-100
025-46A-002-000-200
025-46A-002-000-500

SHEET 1 OF 2

PROPERTY OWNERS	ADDRESSES
LOT 1 National Shawmut Bank of Boston	Boston, Mass.
LOT 2 M. Fern Briggs	R.F.D. #1, Falmouth, Mass.
LOT 3 William J. Carroll	52 Flagg St, Worcester, Mass.
LOT 4 Harman Realty and Trading Corp.	1 Church St. New Bedford, Mass.
LOT 5 Wilfred H. Howe	68 Moose Hill Pkwy., Sharon, Mass.
LOT 6 Peter J. Haste	New Bedford, Mass.
LOT 7 Rexford A. Bristol et als	42 Granite St., Foxboro, Mass.
SEE PLAN Town of Falmouth	
Bristol Est.	





NOTE
ELEVATIONS ARE SHOWN IN FEET AND TENTHS ABOVE THE PLANE OF MEAN LOW WATER. MINUS FIGURES INDICATE DEPTHS BELOW THE SAME PLANE. LOCATION OF WORK TO BE DONE IS SHOWN IN RED.
SEE SHEET 2 FOR GROIN AND SAND FILL DETAILS.

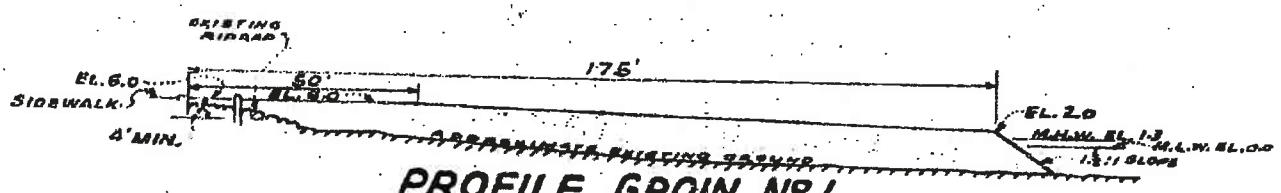
PROPOSED
STONE GROINS AND SAND FILL
MARAVISTA SHORE
VINEYARD SOUND
FALMOUTH - MASS.
APPLICATION BY
DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS
DIVISION OF WATERWAYS
MAY 1955
Robert B. MacKenzie

1054

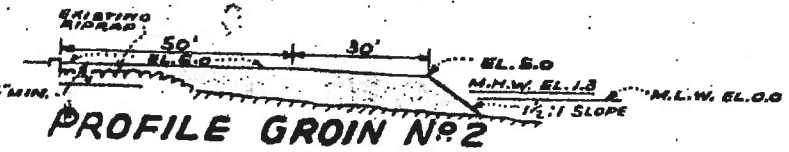
0 0 0 1 4 5 0

025-46A-002-000-100
025-46A-002-000-200
025-46A-002-000-500

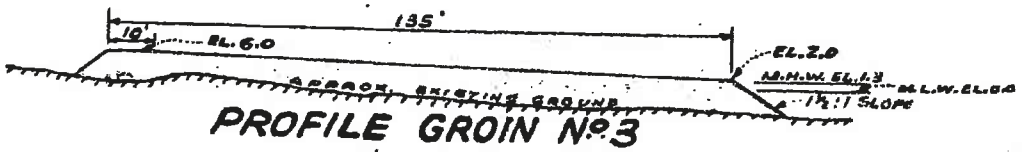
SHEET 2 OF 2



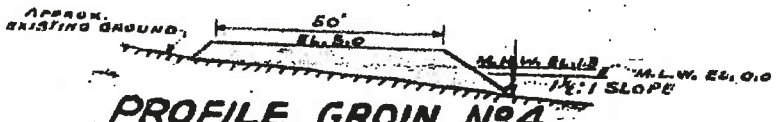
PROFILE GROIN Nº 1



PROFILE GROIN Nº 2



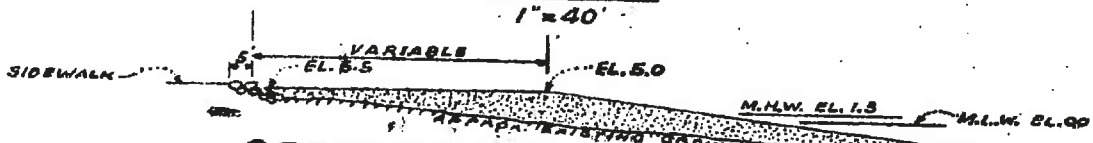
PROFILE GROIN Nº 3



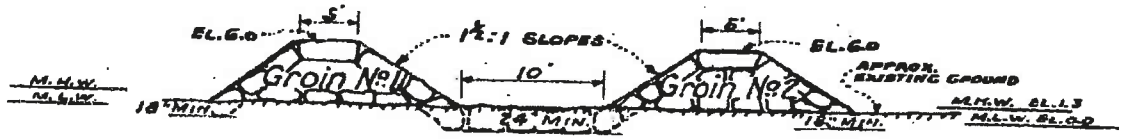
PROFILE GROIN Nº 4

SCALES - FEET - ALL PROFILES & SECTION AA

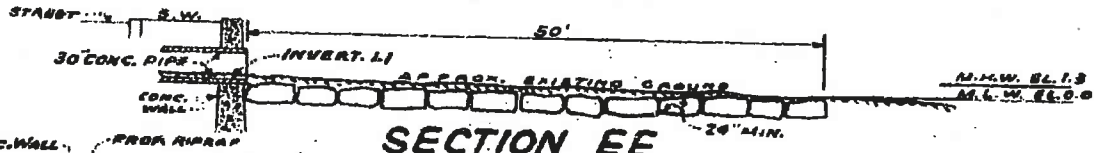
1" = 40'



SECTION AA - TYPICAL - SAND FILL

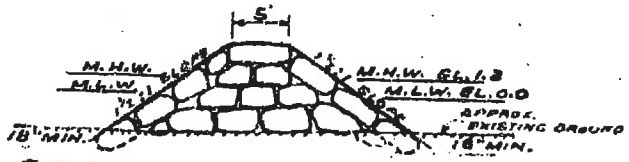


SECTION CC



SECTION EE

SEC. ION BB



SECTION DD - TYPICAL - GROINS

SCALES - FEET - ALL SECTIONS EXCEPT AA

1" = 16'

PROPOSED
STONE GROINS AND SAND FILL
MARAVISTA SHORE
VINEYARD SOUND
FALMOUTH - MASS.

APPLICATION BY
DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS
DIVISION OF WATERWAYS
MAY 1955

Robert B. MacKinnon
DISTRICT WATERWAYS ENGINEER.

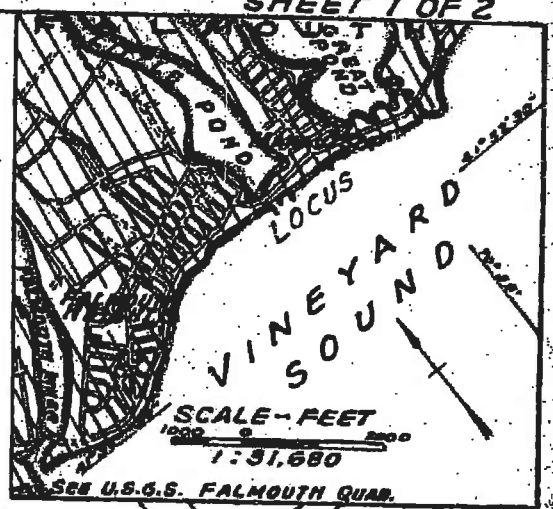
ACE 02410-B

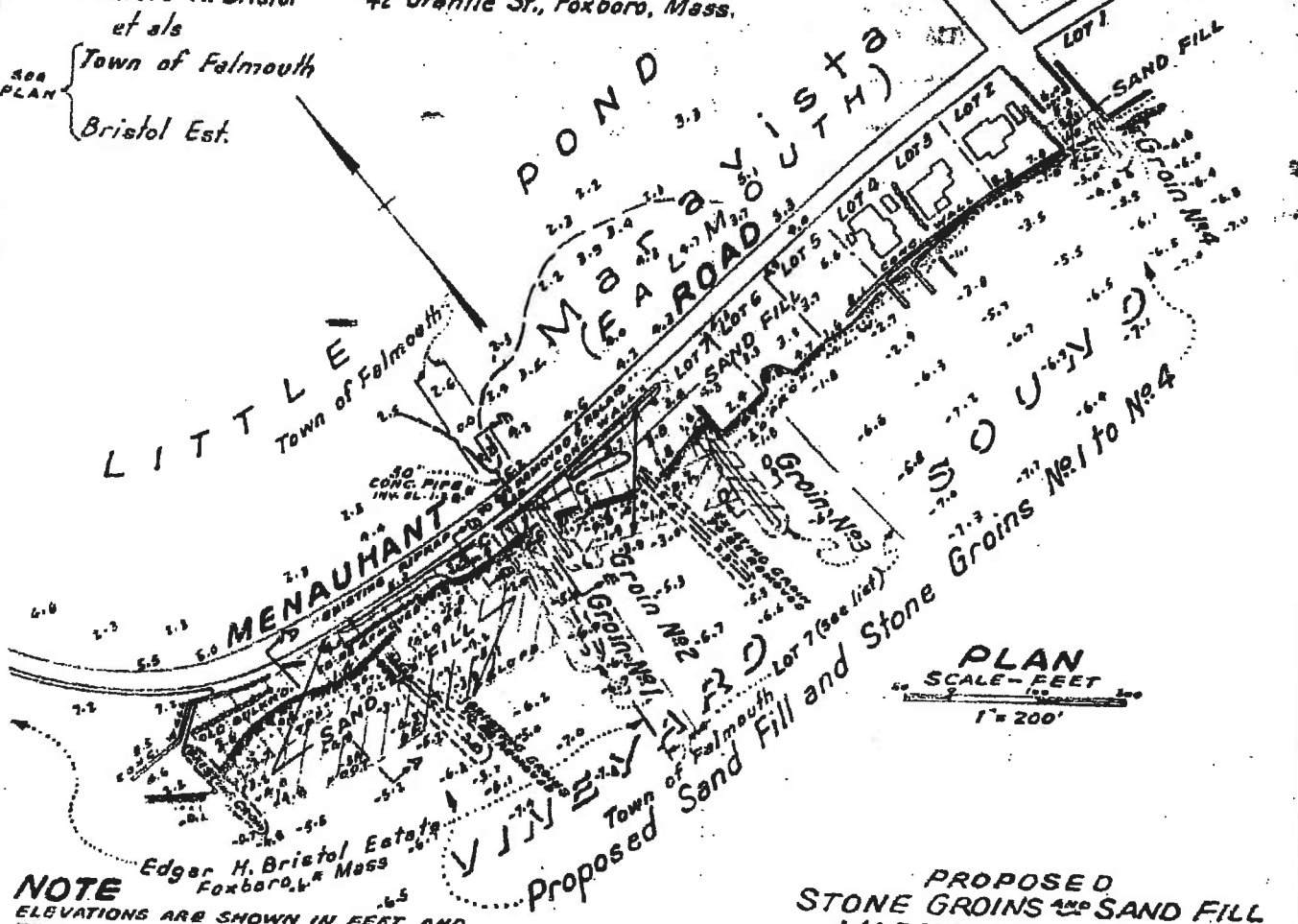
0 0 0 1 4 4 9

025-46A-002-000-100
025-46A-002-000-200
025-46A-002-000-500

SHEET 1 OF 2

PROPERTY OWNERS	ADDRESSES
Lot 1 National Shawmut Bank of Boston	Boston, Mass.
Lot 2 M. Fern Briggs	R.F.D. #1, Falmouth, Mass.
Lot 3 William J. Carroll	52 Flagg St, Worcester, Mass.
Lot 4 Harmon Realty and Trading Corp.	1 Church St. New Bedford, Mass.
Lot 5 Wilfred H. Howe	68 Moose Hill Pkwy., Sharon, Mass.
Lot 6 Peter J. Haste	New Bedford, Mass.
Lot 7 Rexford A. Bristol et als	42 Granite St., Foxboro, Mass.
See Plan: Town of Falmouth	
See Plan: Bristol Est.	





NOTE
ELEVATIONS ARE SHOWN IN FEET AND TENTHS ABOVE THE PLANE OF MEAN LOW WATER. MINUS FIGURES INDICATE DEPTHS BELOW THE SAME PLANE. LOCATION OF WORK TO BE DONE IS SHOWN IN RED.
SEE SHEET 2 FOR GROIN AND SAND FILL DETAILS.

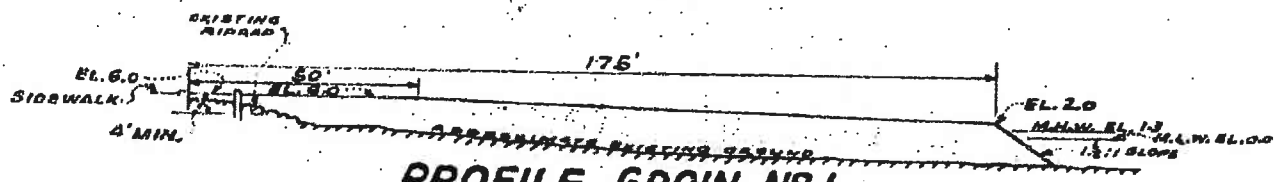
PROPOSED
STONE GROINS AND SAND FILL
MARAVISTA SHORE
VINEYARD SOUND
FALMOUTH - MASS.
APPLICATION BY
DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS
DIVISION OF WATERWAYS
MAY 1955
Robert B. MacKenzie

1 of 2 Sheets

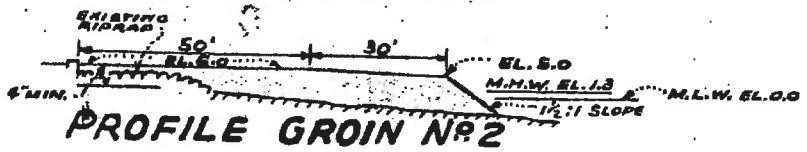
0 0 0 1450

025-46A-002-000-100
025-46A-002-000-200
025-46A-002-000-500

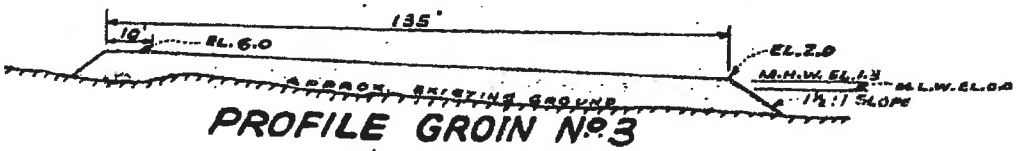
SHEET 2 OF 2



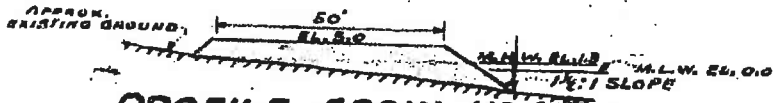
PROFILE GROIN No. 1



PROFILE GROIN No. 2



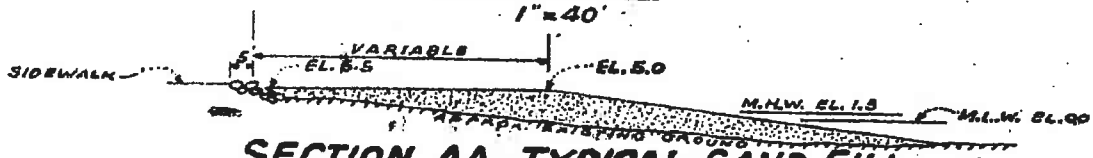
PROFILE GROIN No. 3



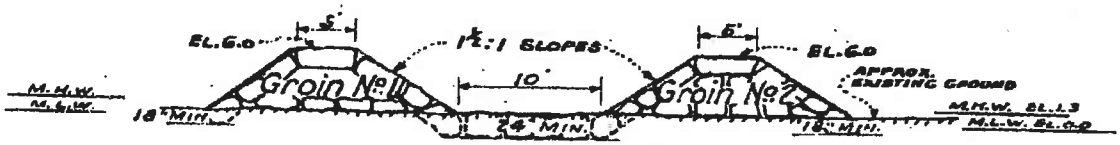
PROFILE GROIN No. 4

SCALES-FEET-ALL PROFILES & SECTION AA

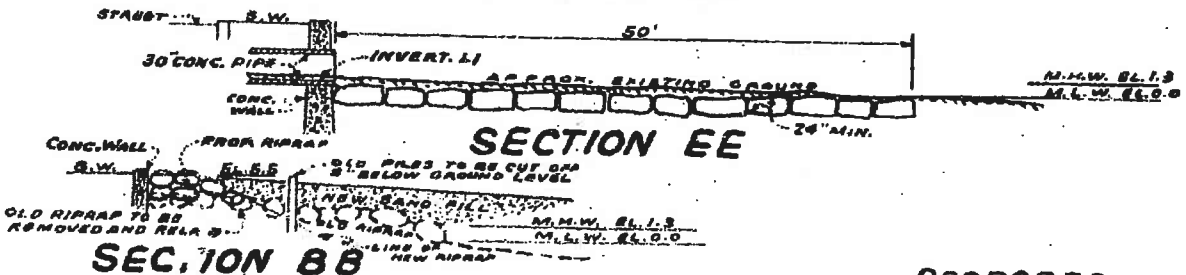
1" = 40'



SECTION AA-TYPICAL-SAND FILL

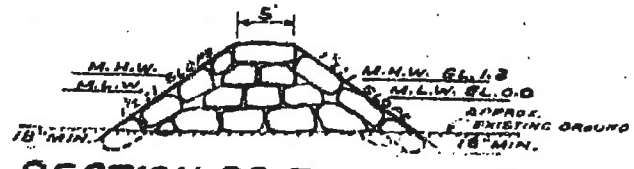


SECTION CC



SECTION EE

SEC. ION BB



SECTION DD-TYPICAL-GROINS

SCALES-FEET-ALL SECTIONS EXCEPT AA

1" = 16'

PROPOSED
STONE GROINS AND SAND FILL
MARAVISTA SHORE
VINEYARD SOUND
FALMOUTH - MASS.
APPLICATION BY
DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS
DIVISION OF WATERWAYS
MAY 1955

Robert B. MacKinnon
DISTRICT WATERWAYS ENGINEER.

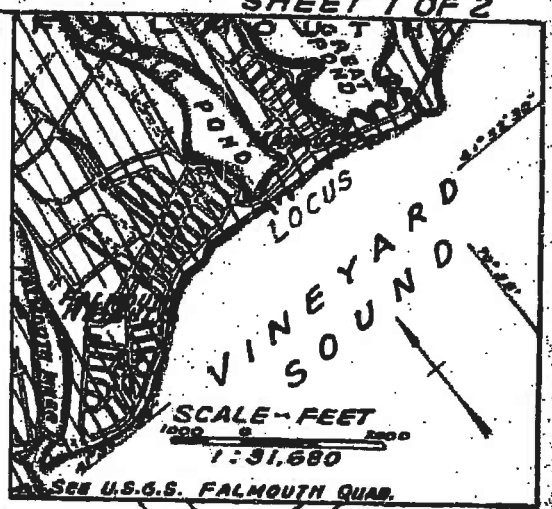
ACC 02410-B

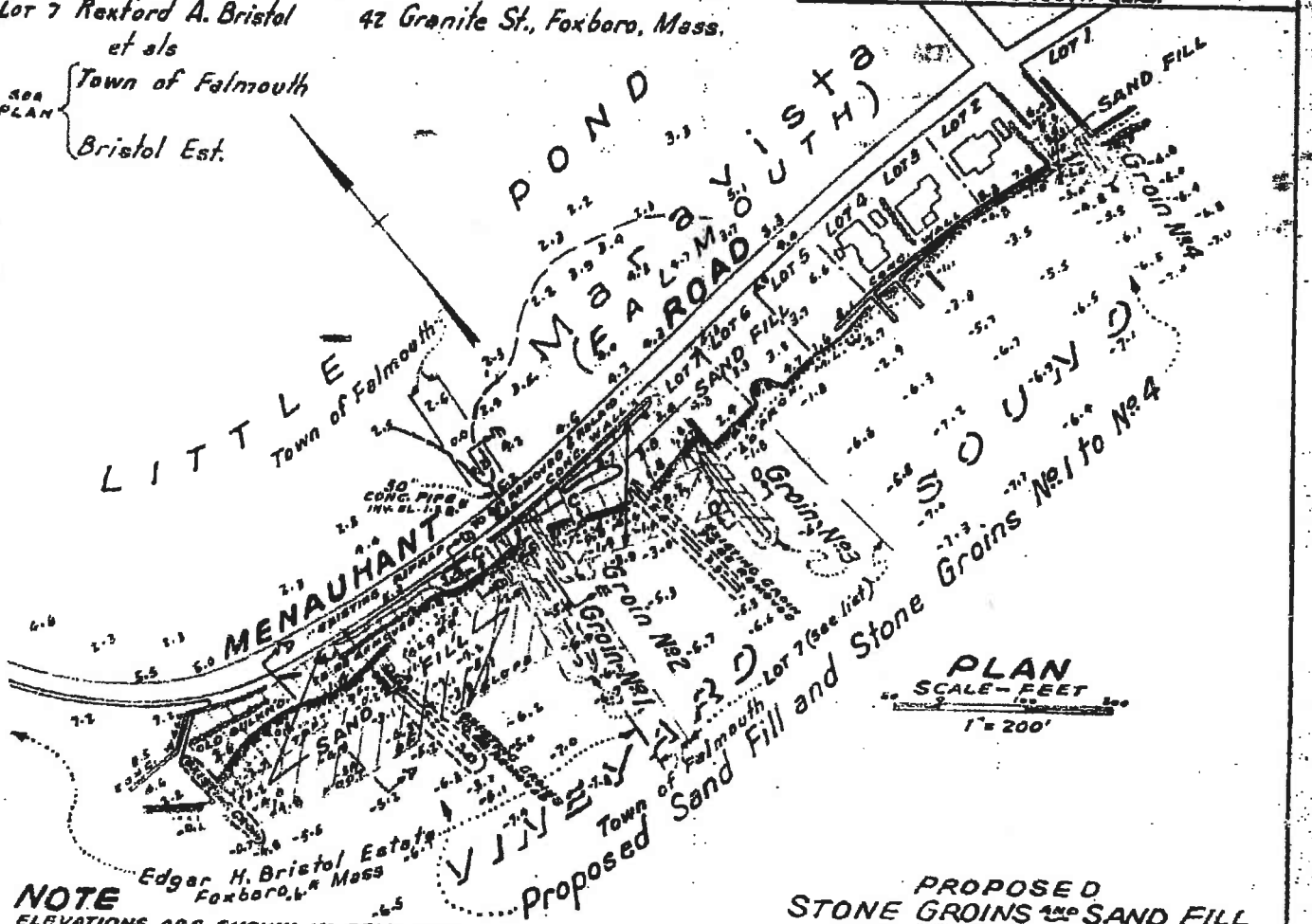
0 0 0 1449

025-46A-002-000-100
025-46A-002-000-200
025-46A-002-000-500

SHEET 1 OF 2

PROPERTY OWNERS	ADDRESSES
Lot 1 National Shawmut Bank of Boston	Boston, Mass.
Lot 2 M. Fern Briggs	R.F.D. #1, Falmouth, Mass.
Lot 3 William J. Carroll	52 Flagg St, Worcester, Mass.
Lot 4 Harmon Realty and Trading Corp.	1 Church St. New Bedford, Mass.
Lot 5 Wilfred H. Howe	68 Moose Hill Pkwy., Sharon, Mass.
Lot 6 Peter J. Haste	New Bedford, Mass.
Lot 7 Rexford A. Bristol et als	42 Granite St., Foxboro, Mass.
See Plan: Town of Falmouth	
See Plan: Bristol Est.	





NOTE
ELEVATIONS ARE SHOWN IN FEET AND TENTHS ABOVE THE PLANE OF MEAN LOW WATER. MINUS FIGURES INDICATE DEPTHS BELOW THE SAME PLANE. LOCATION OF WORK TO BE DONE IS SHOWN IN RED.
SEE SHEET 2 FOR GROIN AND SAND FILL DETAILS.

PROPOSED STONE GROINS AND SAND FILL MARAVISTA SHORE VINEYARD SOUND FALMOUTH - MASS.

APPLICATION BY
DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS
DIVISION OF WATERWAYS
MAY 1955

Robert B. MacKenzie

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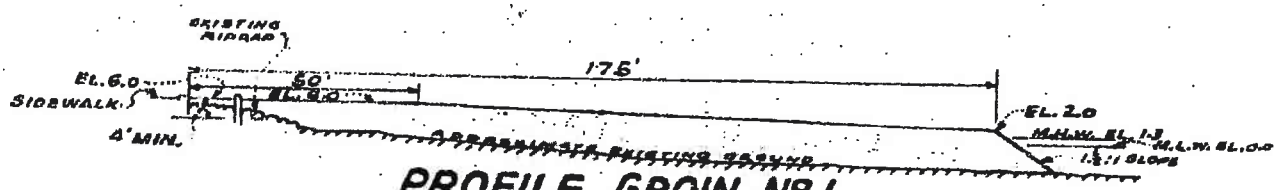
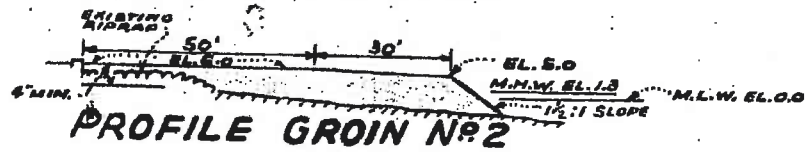
025-46A-002-000-100
025-46A-002-000-200
025-46A-002-000-500

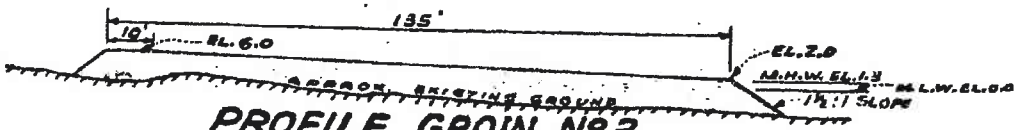
SHEET 2 OF 2



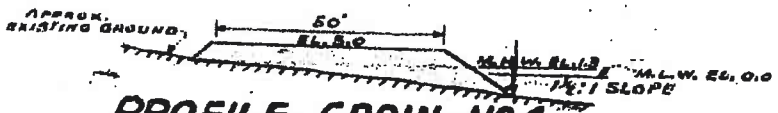
PROFILE GROIN Nº 1



PROFILE GROIN Nº 2



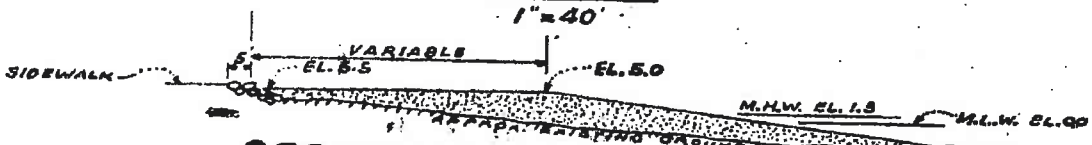
PROFILE GROIN Nº 3



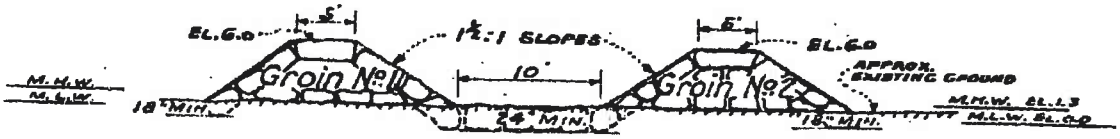
PROFILE GROIN Nº 4

SCALES - FEET - ALL PROFILES & SECTION AA

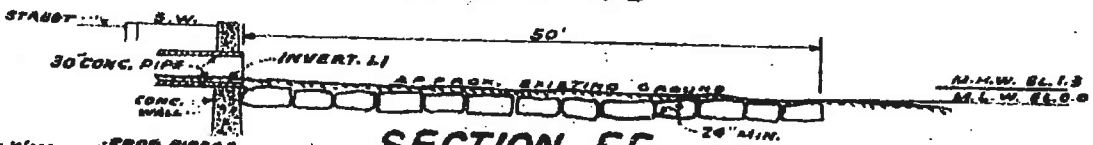
1" = 40'



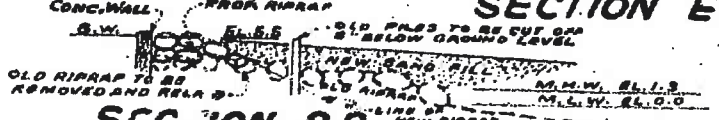
SECTION AA - TYPICAL - SAND FILL



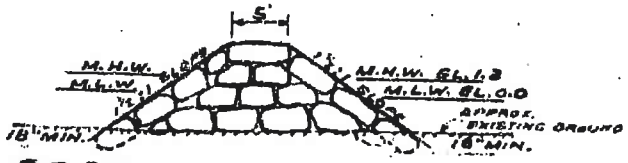
SECTION CC



SECTION EE



SEC. ION BB



SECTION DD - TYPICAL - GROINS

SCALES - FEET - ALL SECTIONS EXCEPT AA

1" = 16'

PROPOSED
STONE GROINS AND SAND FILL
MARAVISTA SHORE
VINEYARD SOUND
FALMOUTH — MASS.

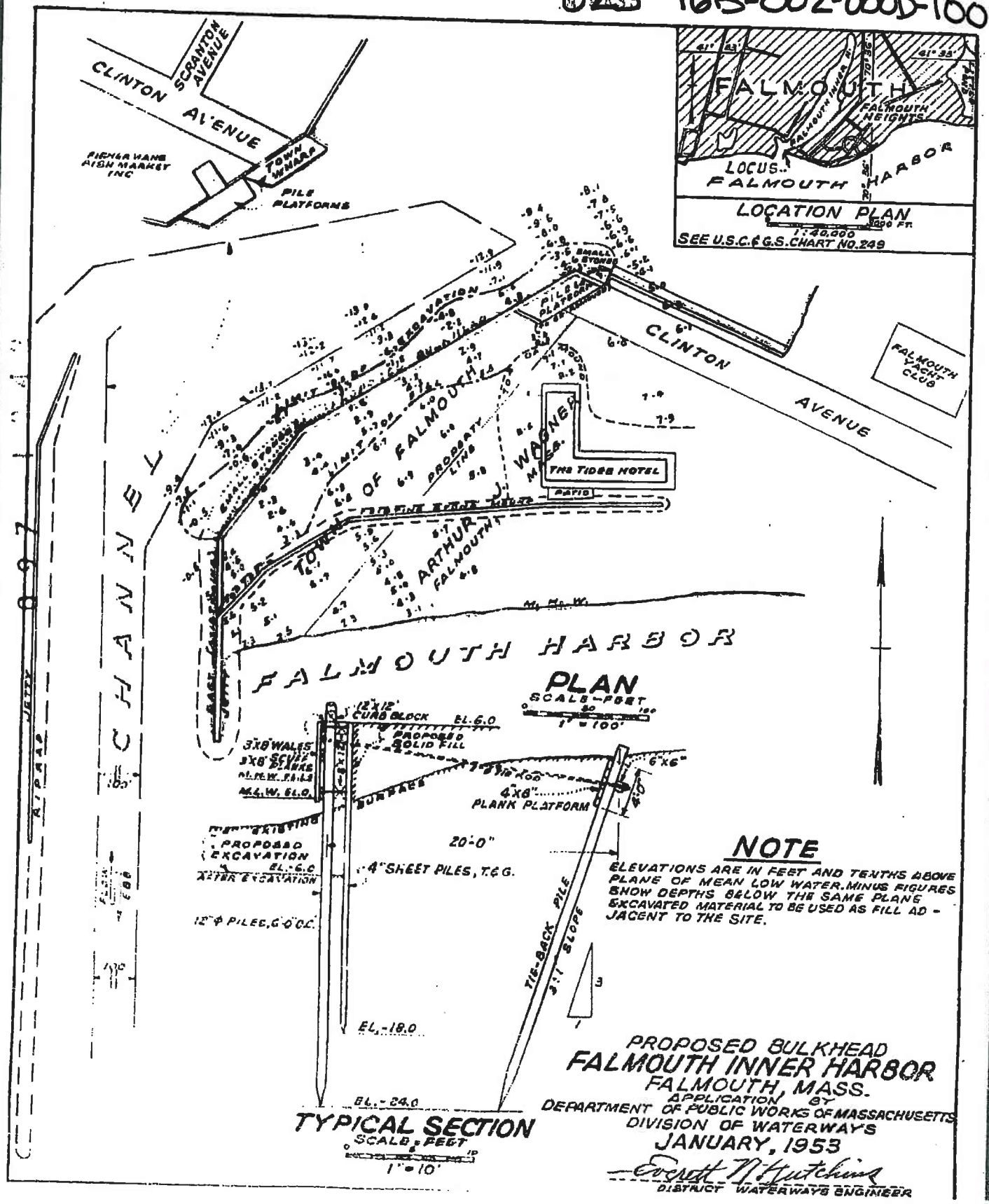
APPLICATION BY
DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS
DIVISION OF WATERWAYS
MAY 1955

Robert B. MacKinnon
DISTRICT WATERWAYS ENGINEER.

ACC 02410-B

0 9 2 1 1 3 4

025-46B-002-000D-100



NOTE

ELEVATIONS ARE IN FEET AND TENTHS ABOVE PLANE OF MEAN LOW WATER. MINUS FIGURES SHOW DEPTHS BELOW THE SAME PLANE EXCAVATED MATERIAL TO BE USED AS FILL ADJACENT TO THE SITE.

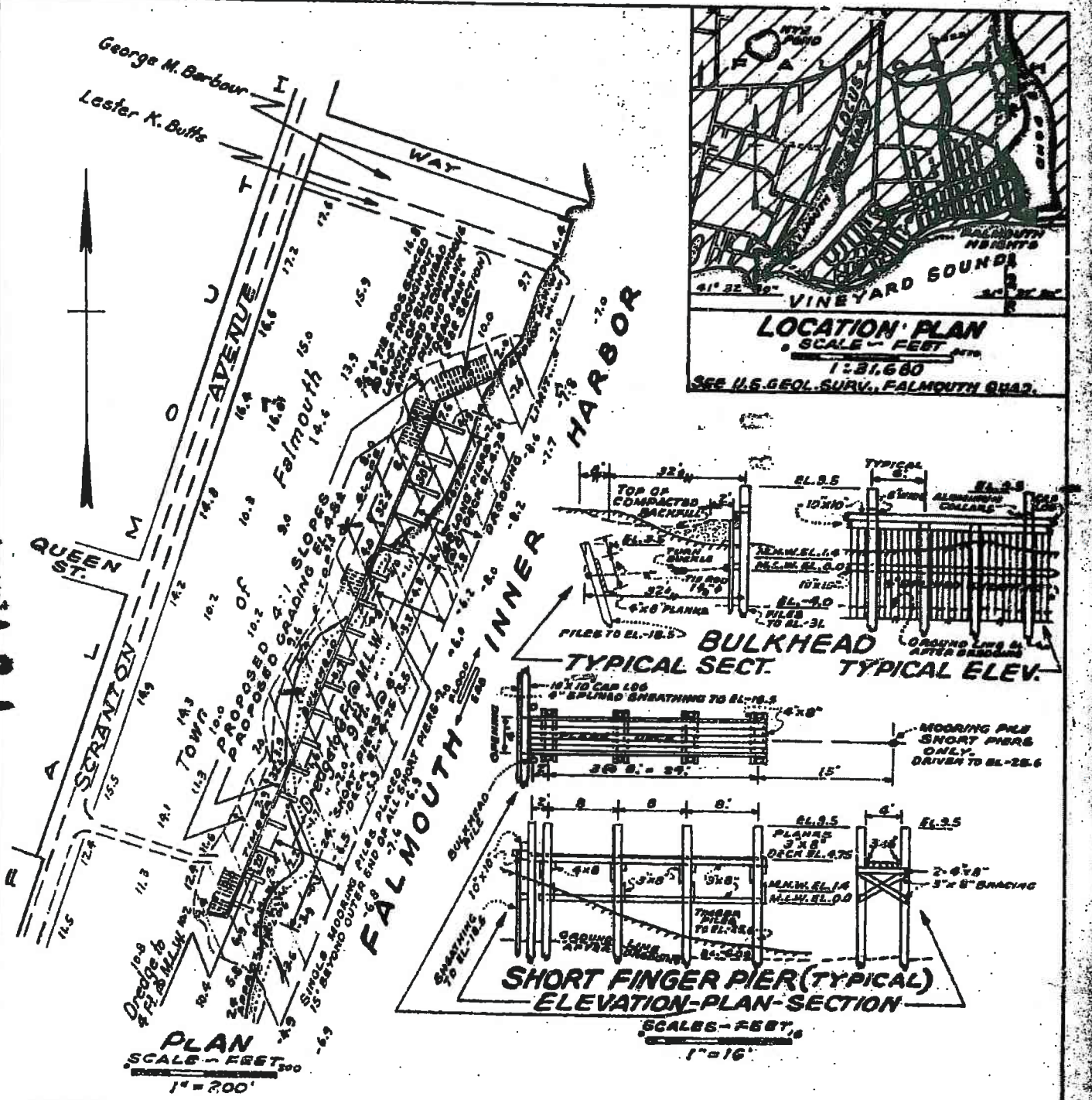
PROPOSED BULKHEAD
FALMOUTH INNER HARBOR
FALMOUTH, MASS.
APPLICATION BY
DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS
DIVISION OF WATERWAYS
JANUARY, 1953

Everett N. Hutchins
DISTRICT WATERWAYS ENGINEER

0 8 2067

025-47B-009-002-100

1603



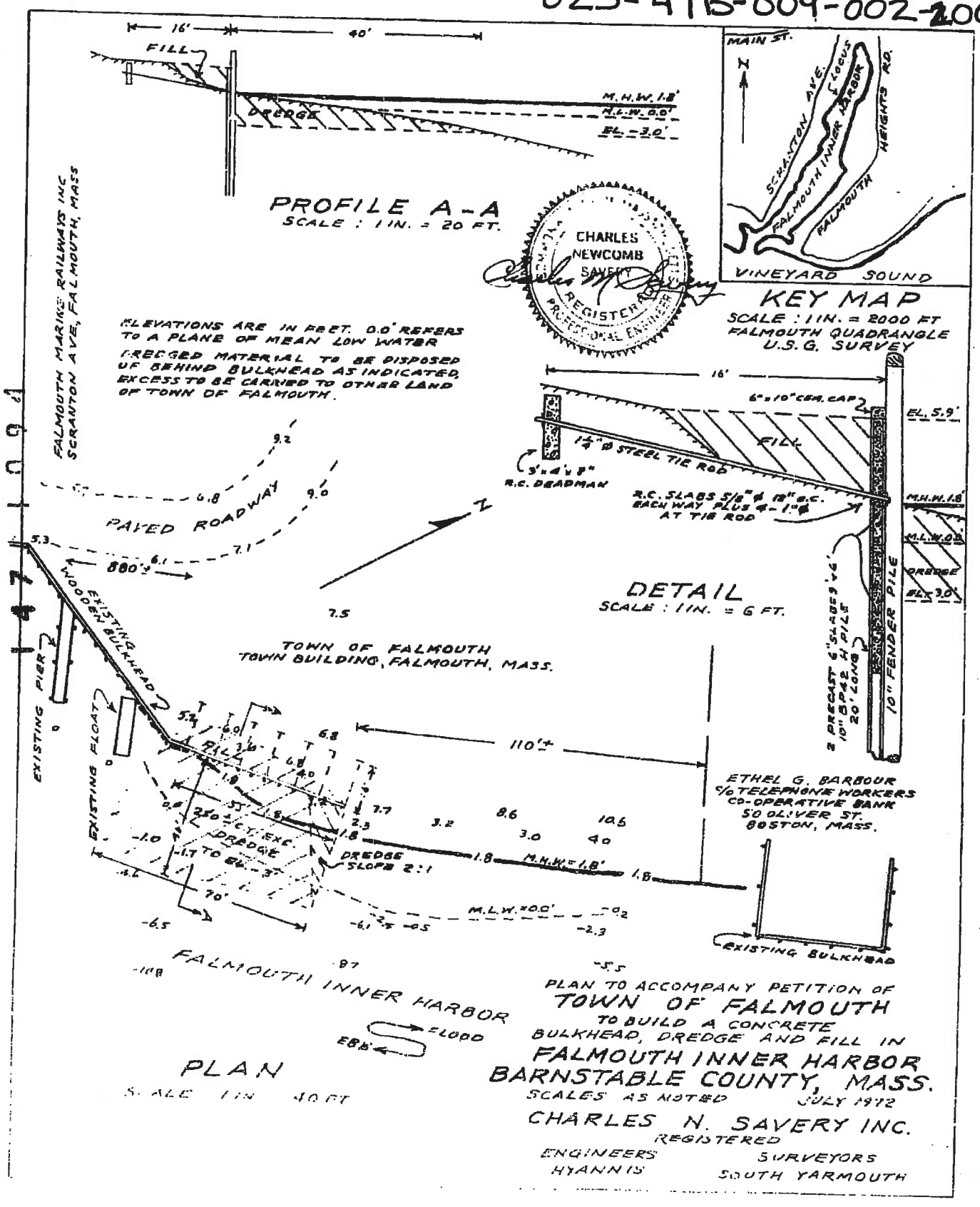
NOTE

ELEVATIONS ARE IN FEET AND TENTHS ABOVE PLANE OF MEAN LOW WATER. MINUS FIGURES SHOW DEPTHS BELOW THE SAME PLANE.
APPROX. EXISTING GROUND THUS
ALL HARDWARE SHALL BE RUST RESISTANT IN ACCORDANCE WITH BEST STANDARDS AND BRACING, FASTENING, SPLICING, ETC. IN ACCORDANCE WITH APPROVED PRACTICE.
SPECIAL ADDITIONAL RODS TO BE PLACED AT ENDS OF BULKHEAD.
LOCATION OF WORK TO BE DONE IS IN RED.

PROPOSED
BULKHEAD—FINGER PIERS—DREDGING
FALMOUTH INNER HARBOR
FALMOUTH — MASS.
APPLICATION BY
DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS
DIVISION OF WATERWAYS
MARCH 1957

039 0333

025-47B-009-002-200

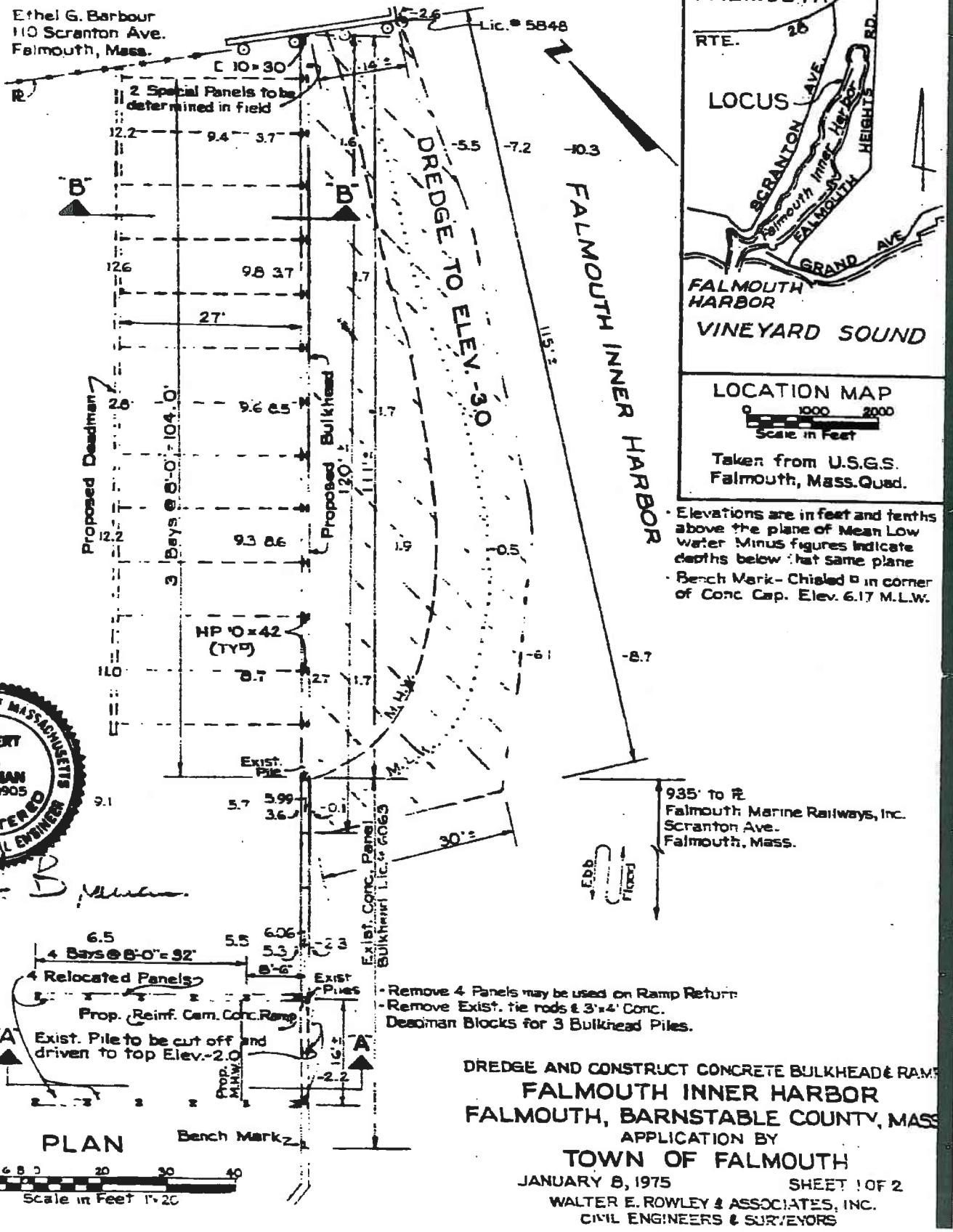


Permit Number: MA ALM-75-270
Date Issued: 12 November 1975

Paul

025-47B-009-002-200

1621970



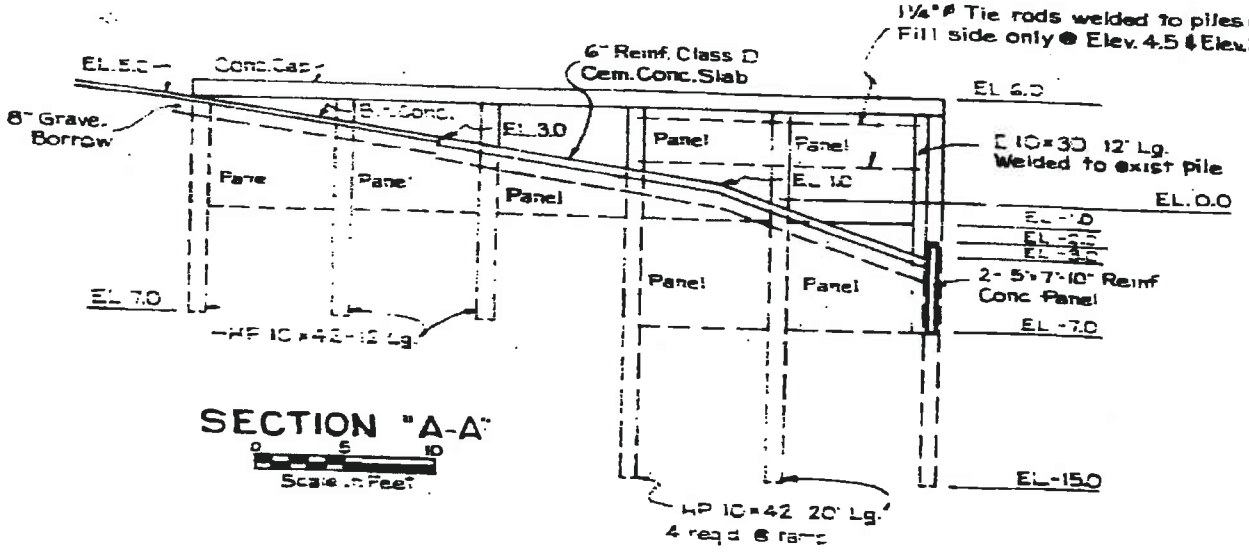
LOCATION MAP
0 1000 2000
Scale in Feet
Taken from U.S.G.S. Falmouth, Mass. Quad.

- Elevations are in feet and tenths above the plane of Mean Low Water. Minus figures indicate depths below that same plane
- Bench Mark - Chisled □ in corner of Conc Cap. Elev. 6.17 M.L.W.

COMMONWEALTH OF MASSACHUSETTS
ROBERT A. BRAMAN
NO. 10905
REGISTERED PROFESSIONAL ENGINEER

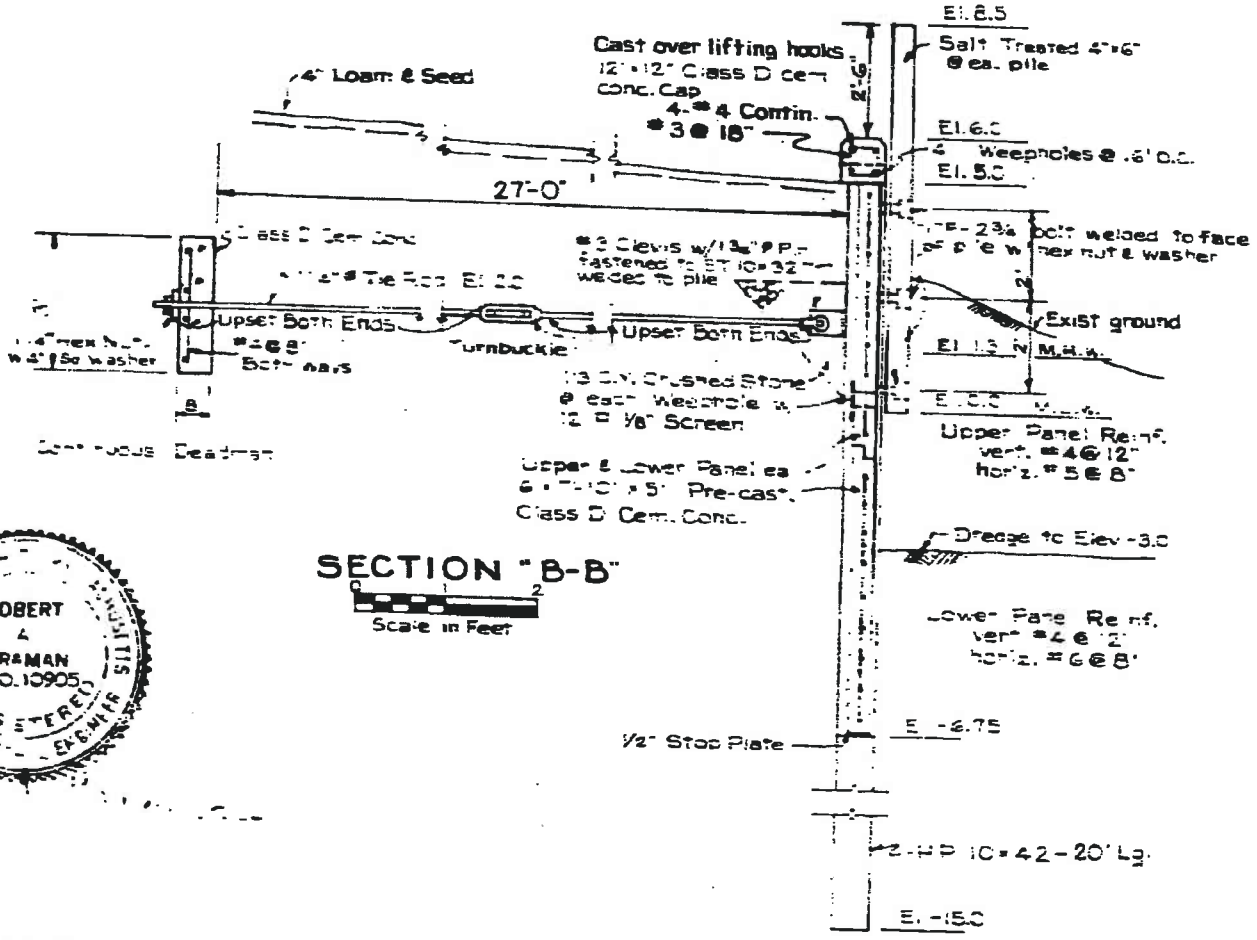
Robert A. Braman

DREDGE AND CONSTRUCT CONCRETE BULKHEAD & RAMP
FALMOUTH INNER HARBOR
FALMOUTH, BARNSTABLE COUNTY, MASS.
APPLICATION BY
TOWN OF FALMOUTH
JANUARY 8, 1975 SHEET 1 OF 2
WALTER E. ROWLEY & ASSOCIATES, INC.
CIVIL ENGINEERS & SURVEYORS



SECTION "A-A"

Scale in Feet



SECTION "B-B"

Scale in Feet

ROBERT A BRAMAN NO. 10905 REGISTERED PROFESSIONAL ENGINEER COMMONWEALTH OF MASSACHUSETTS

TOWN OF FALMOUTH

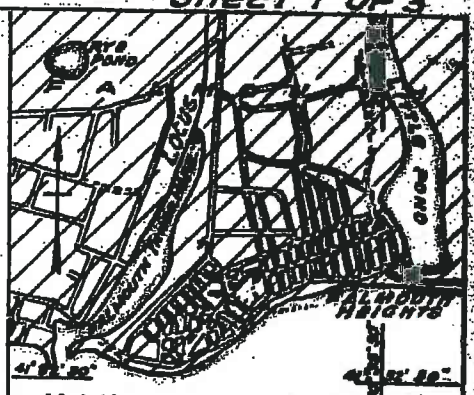
JANUARY 8, 1975 SHEET 2 OF 2

WEST WAREHAM & FALMOUTH, MASS.

162-1971

0 8 4 1 5 7 0 025-47B-009-007-100

SHEET 1 OF 3



LOCATION MAP
SCALE — FEET
1: 31,680
SEE U.S.G.S. SURV., FALMOUTH QUAD.

PLAN
SCALE — FEET
1" = 100'

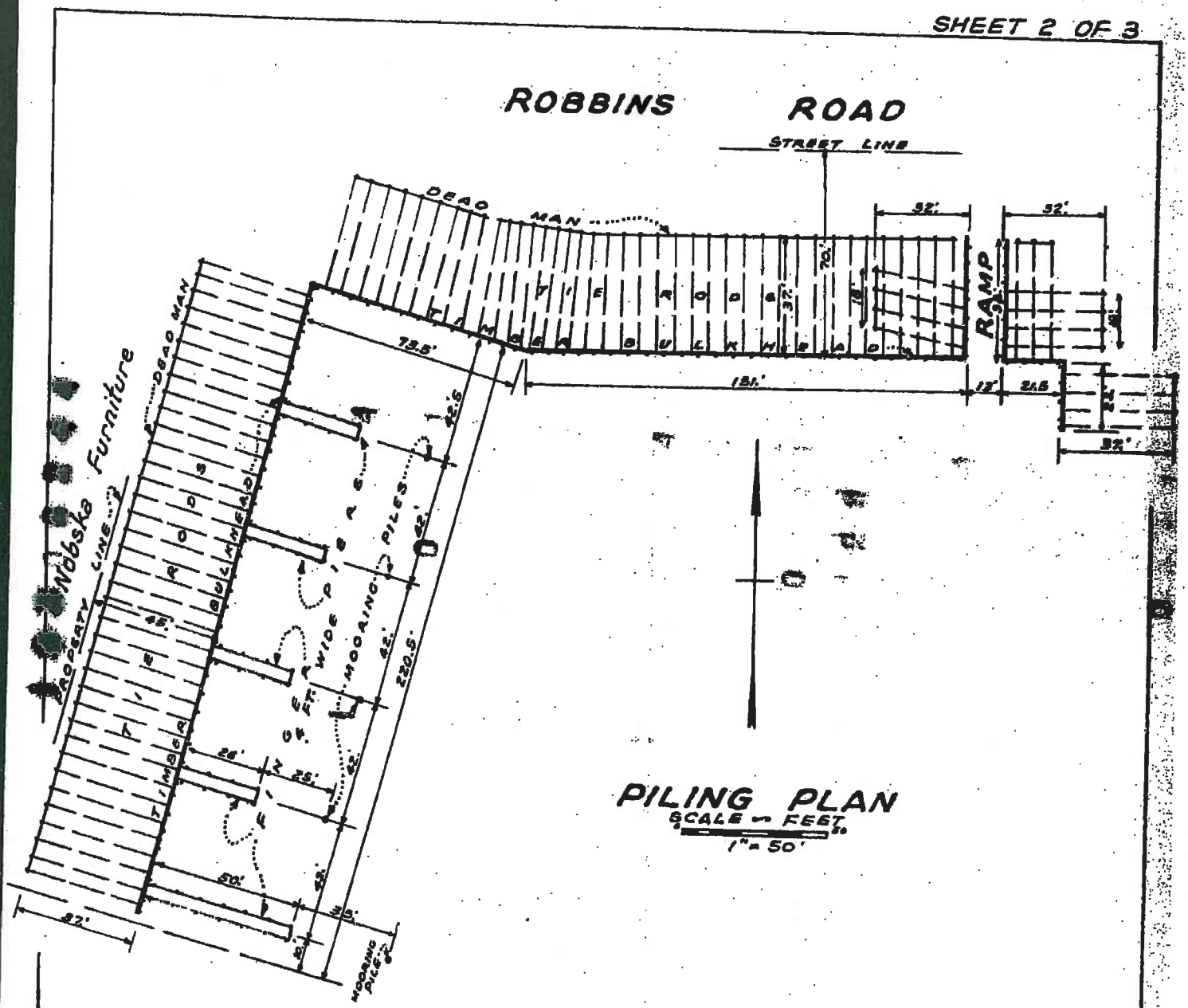
NOTE

ELEVATIONS ARE IN FEET AND TENTHS AND REFER TO PLANE OF MEAN LOW WATER. MINUS FIGURES SHOW DEPTHS BELOW THE SAME PLANE.
EXCAVATED MATERIAL, APPROX. 12,000 C.Y. TO BE DISPOSED OF IN ADJACENT APPROVED AREAS ABOVE MEAN HIGH WATER.
LOCATION OF PROPOSED WORK IS SHOWN IN RED.
SEE SHEETS 2 AND 3 FOR LAYOUT DIMENSIONS, SECTIONS, BOAT RAMP DETAILS, ETC.
MEAN RANGE OF TIDE 1.4 FEET.

PROPOSED
BULKHEAD, PIERS, RAMP EXCAVATION
DAVIS MARINE PARK
FALMOUTH INNER HARBOR
FALMOUTH — MASS.
APPLICATION BY
DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS
DIVISION OF WATERWAYS
JANUARY, 1958
Robert B. MacKinnon

0 8 4 1 5 7 1 025-47B-009-007-100

SHEET 2 OF 3



PILING PLAN
SCALE OF FEET.
1" = 50'

NOTE

EXCEPT IN OBVIOUSLY SPECIAL CASES DIMENSIONS ARE C. TO C. OF PILE LINES.
FOR PILE LENGTHS AND OTHER TIMBER DETAILS, SEE SHEET 3.
FOR BASIN EXCAVATION SEE SHEET 1 AND FURTHER CONSTRUCTION DETAILS SEE SHEET 3.

PROPOSED
BULKHEAD, PIERS, RAMP, EXCAVATION
DAVIS MARINE PARK
FALMOUTH INNER HARBOR
FALMOUTH — MASS.
APPLICATION BY
DEPARTMENT of PUBLIC WORKS of MASSACHUSETTS
DIVISION OF WATERWAYS
JANUARY, 1958

Robert B. MacKinnon
CHIEF WATERWAYS ENGINEER

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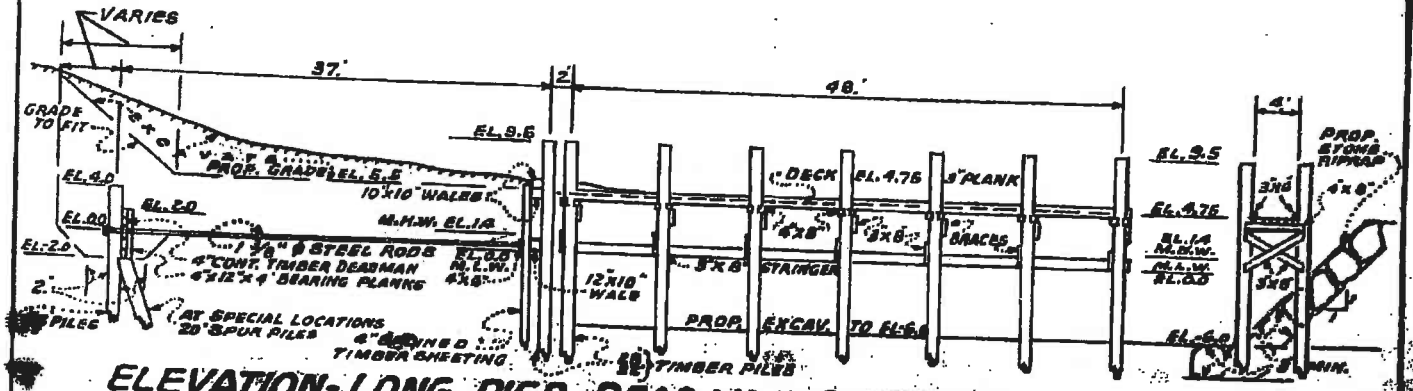
SHEET 3 OF 3

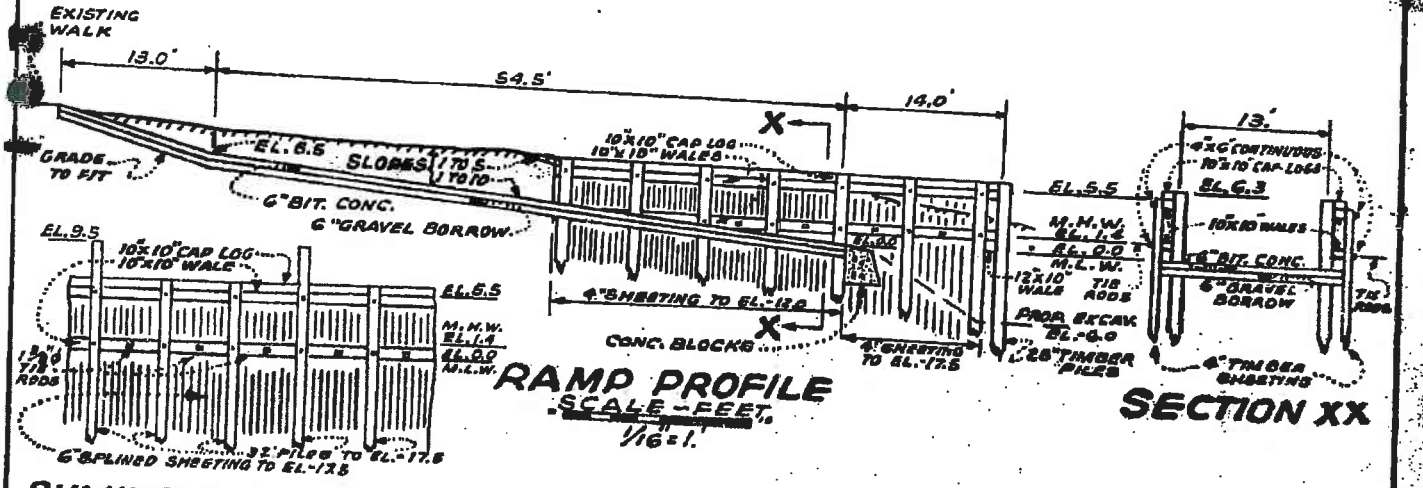


ELEVATION - LONG PIER, DEAD MAN, CONNECTION

SCALE - FEET

1/16" = 1'

SECTION AT BENT



RAMP PROFILE

SCALE - FEET

1/16" = 1'

SECTION XX

BULKHEAD ELEVATION

SCALE - FEET

1/16" = 1'

NOTE

APPROX. EXISTING SURFACE SHOWN THUS ~~~~~

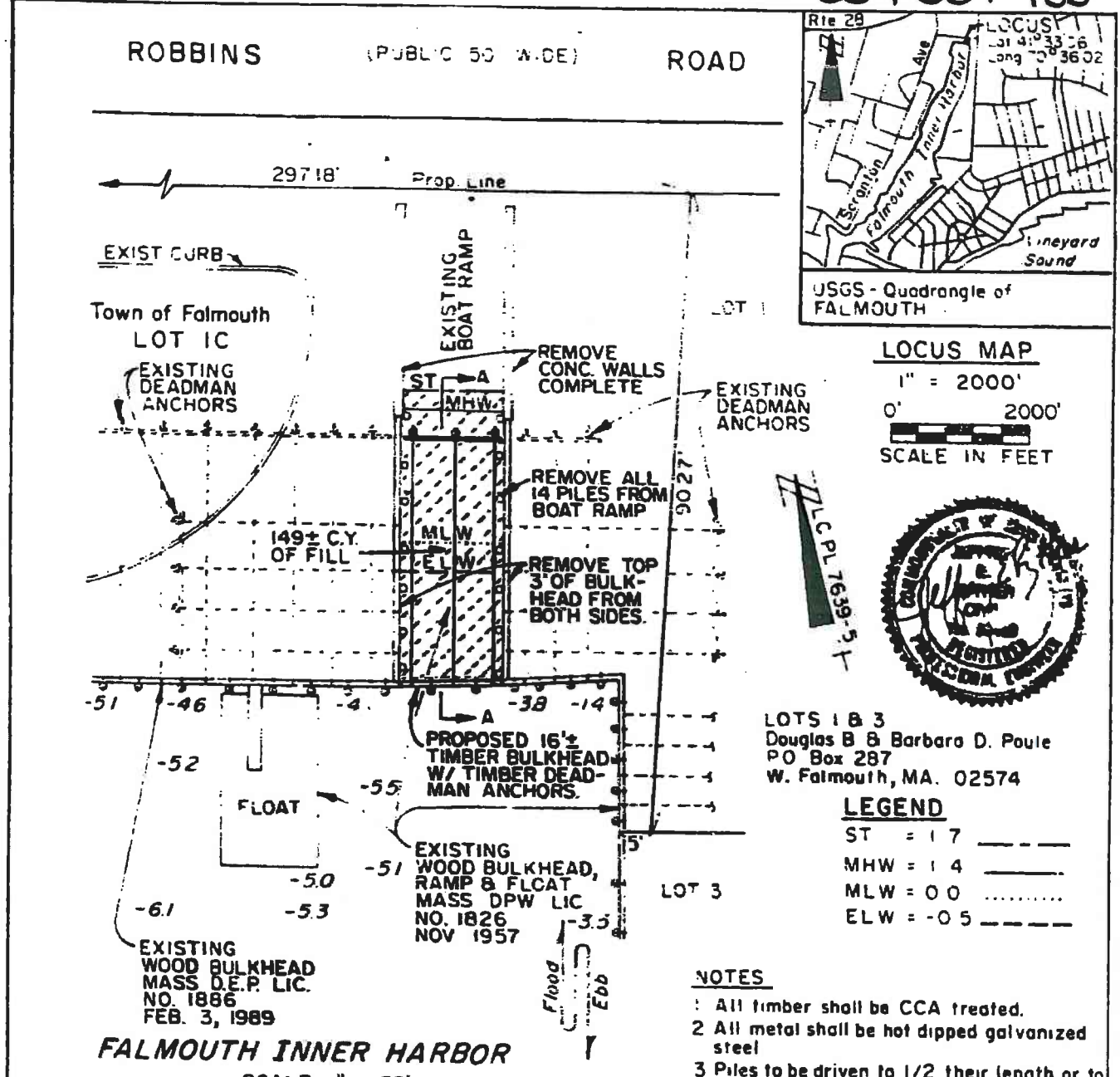
ALL HARDWARE, NUTS, BOLTS, WASHERS, SPIKES, TIE RODS AND TURNBUCKLES, SPLICE PLATES, ETC., TO BE SALT WATER RESISTANT OR PAINTED WITH BITUMINOUS SEALER.

CONSTRUCTION OPERATIONS ARE ALL TO BE IN ACCORDANCE WITH CURRENT STANDARD PRACTICE INCLUDING PLACEMENT OF SPUR PILES WHEN USED, LOCATION OF SCUPPER OUTLETS, CHAMFERING OF PILE TOPS, ETC. PILES ARE GREENHEART AND TIMBERS TO BE SALT TREATED OR CREOSOTED.

PROPOSED
BULKHEAD, PIERS, RAMP EXCAVATION
DAVIS MARINE PARK
FALMOUTH INNER HARBOR
FALMOUTH - MASS.
APPLICATION BY
DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS
DIVISION OF WATERWAYS
JANUARY, 1958

Robert B. MacKenzie
CHIEF WATERWAYS ENGINEER

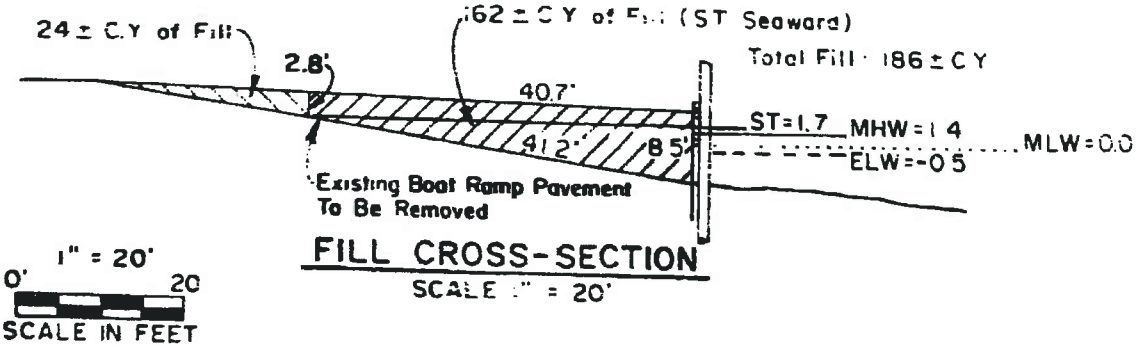
025-47B-009-007-100



PURPOSE: PUBLIC RECREATION USE
DATUM: ELEV. BASED ON MLW (elev. = 0.0)

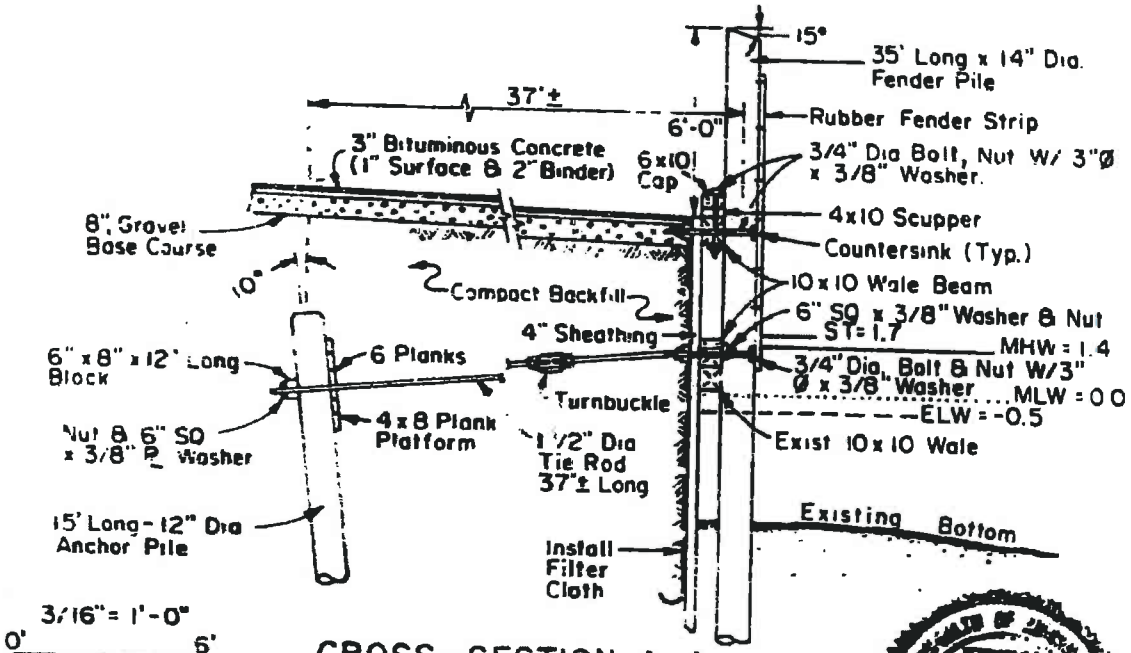
PROPOSED PLAN TO ABANDON BOAT RAMP, CONSTRUCT WOOD BULKHEAD AND FILL IN FALMOUTH INNER HARBOR AT FALMOUTH, BARNSTABLE COUNTY, MASS.
APPLICATION BY: WATERWAYS COMMITTEE, TOWN OF FALMOUTH
PLAN BY: holmes and mcgrath, inc.
civil engineers and land surveyors
200 main st. falmouth, mass. 02540
SHEET 1 of 3 JAN. 4, 1990

025-47B-009-007-100



FILL CROSS-SECTION
SCALE 1" = 20'

1" = 20'
0' 20
SCALE IN FEET

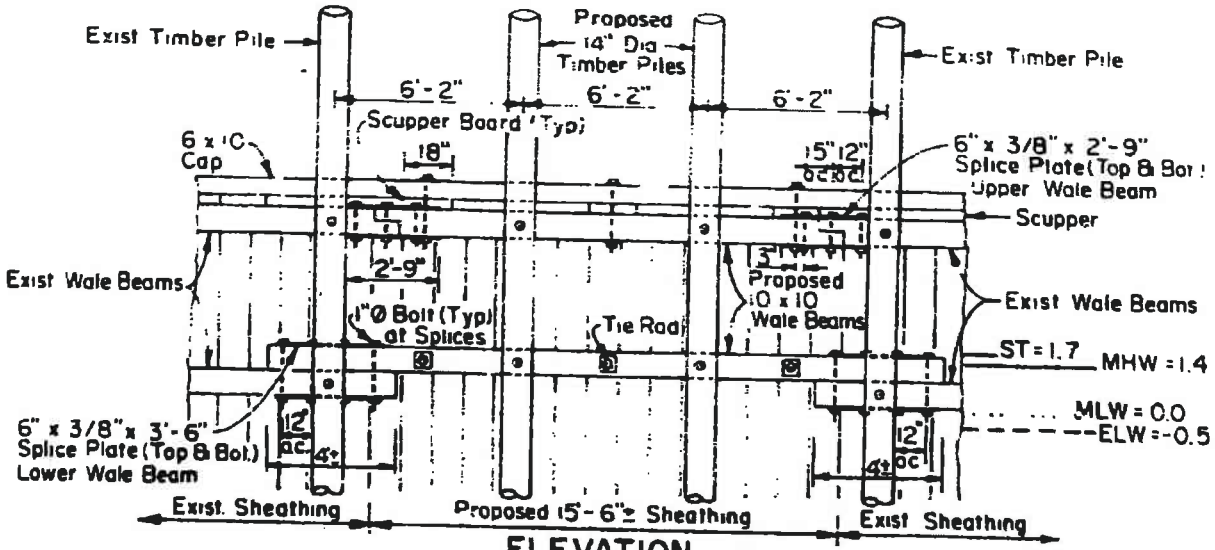


3/16"= 1'-0"
0' 6'
SCALE IN FEET

CROSS-SECTION A-A
SCALE: 3/16" = 1'-0"

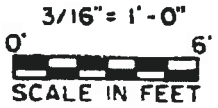
PROPOSED PLAN TO ABANDON BOAT RAMP, CONSTRUCT WOOD BULKHEAD AND FILL IN FALMOUTH INNER HARBOR AT FALMOUTH, BARNSTABLE COUNTY, MASS.
APPLICATION BY: WATERWAYS COMMITTEE, TOWN OF FALMOUTH
PLAN BY: holmes and mcgrath, inc.
civil engineers and land surveyors
200 main st. falmouth, mass. 02540
SHEET 2 of 3 JAN. 4, 1990

025-47B-009-007-100



ELEVATION

SCALE. 3/16" = 1'-0"



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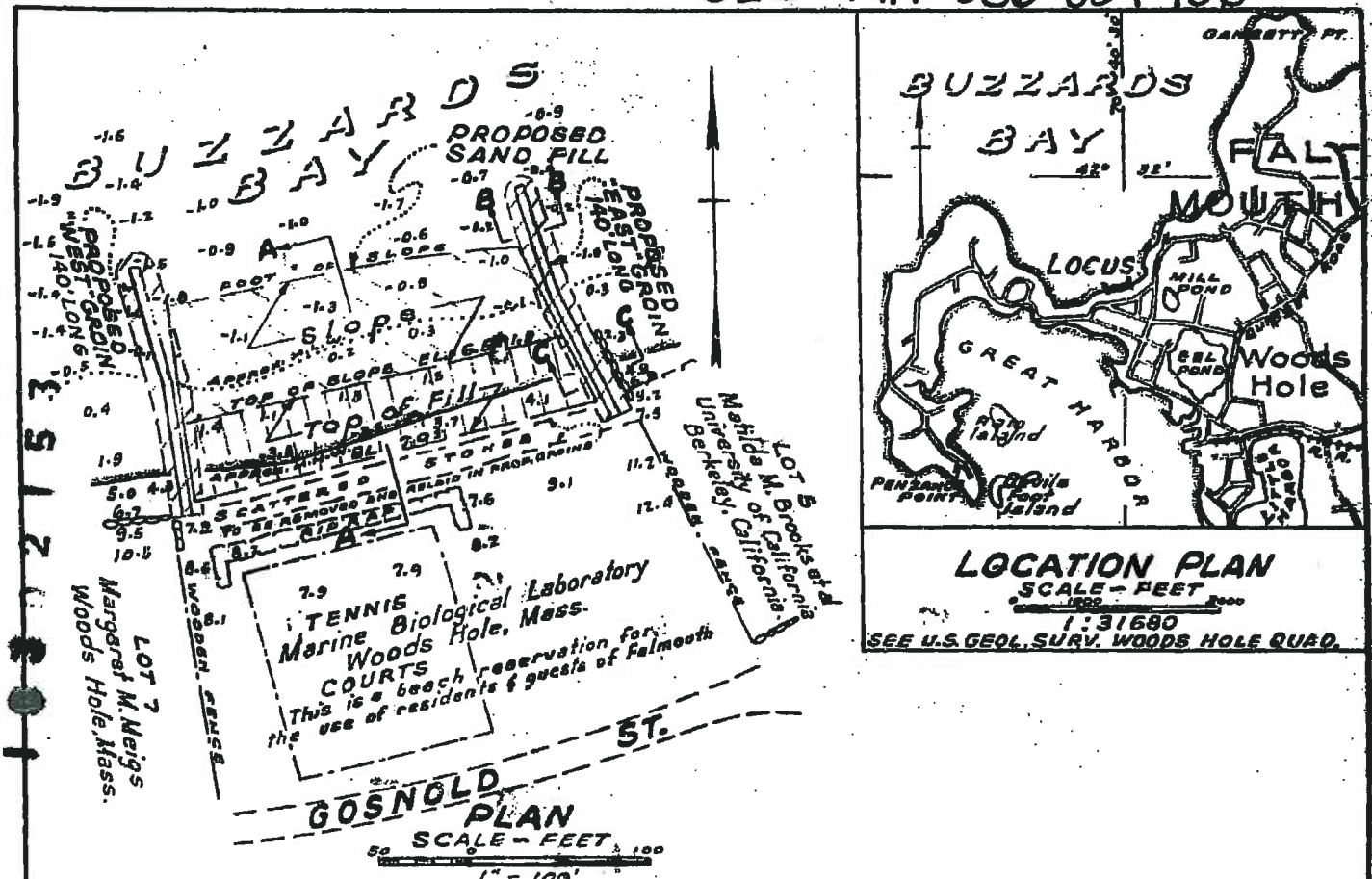
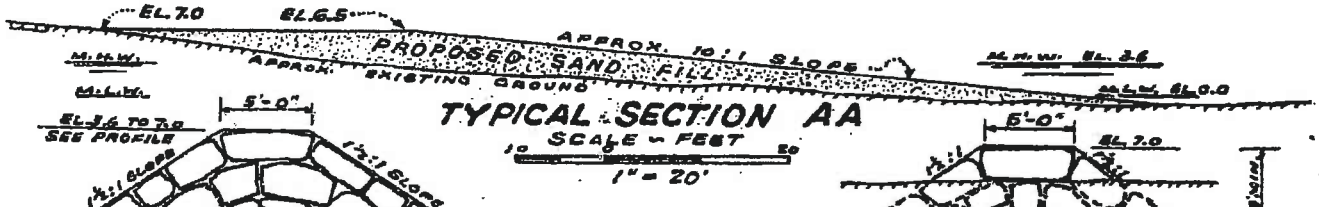
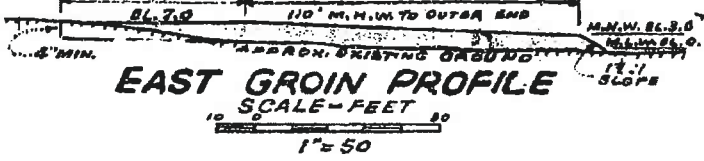
0 0 0 0 6 4 4

025-49A-006-039-100







NOTE

ELEVATIONS ARE IN FEET AND TENTHS ABOVE THE PLANE OF MEAN LOW WATER. MINUS FIGURES SHOW DEPTHS BELOW THE SAME PLANE. LOCATION OF PROPOSED STONE GROINS AND APPROXIMATELY 3000 CUBIC YDS. OF SAND FILL IS SHOWN IN RED.

PROPOSED
STONE GROINS & SAND FILL
WOODS HOLE BEACH
BUZZARDS BAY
FALMOUTH - MASS.
APPLICATION BY
DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS
DIVISION OF WATERWAYS
MARCH 1955

Robert B. MacKinnon
DISTRICT WATERWAYS ENGINEER.

ANC 03258