

## MEMORANDUM

TO: Cape Elizabeth Planning Board  
FROM: Maureen O'Meara, Town Planner  
DATE: August 6, 2013  
SUBJECT: Normal High Water Line Definition Amendment

### Introduction

The Town Council has referred to the Planning Board a request to amend/clarify/update the definition of Normal High Water Line, which is the basis for measuring the Shoreland Zoning setback. On July 16th, the Planning Board held a public hearing on a proposal to replace the current definition with the standard state definition. Following the hearing, the Planning Board decided to send the proposed definition back to workshop.

### Background

Concerns were raised at the public hearing with replacing the current definition with the standard state definition. A brief overview of past and present town policy may be helpful.

#### **Pre-1979 definition**

Normal High Water Line of Coastal Waters: That line on the shore of tidal waters reached by the shoreward limit of the rise of the medium tides between the spring and the neap.

This definition relies on tide information, and not the highest annual tide.

#### **1979-present definition**

Normal High Water Line of Coastal Waters: That line on the shore of tidal waters which is the apparent extreme limit of the effect of the tides, i.e. the top of the bank, cliff, beach above high tide.

This is the current definition, which extends beyond the height of the tides to include "the extreme limit." A court case in 1984 that the town won upheld the town's using the effect of wave action, even during storms, as the normal high water line (See attached). This decision has been referenced as a key reason for retaining the town's unique definition instead of adopting the state definition.

So why are we considering replacing the current definition? The current Code Enforcement Officer is recommending that the state definition be adopted because it is less subjective. The current definition incorporates the use of "i.e.," which itself has been the subject of debate. As noted below, the use of "ie" should be used to further describe what precedes "ie," when it may be that the

items following “ie” in the definition has been interpreted as examples. See below.

i.e.: *id est*, “that is,” paraphrase, further definition of what is stated before

e.g.: *exempli gratia*, “for the sake of example,” category of what is stated before, example

### Fundamental Goals

Unless the Planning Board has reached consensus on a recommendation, it may be useful to discuss what are the highest priorities for the normal high water line (NHWL) definition. Possible priorities are listed below and the Planning Board may want to agree on the highest priority goals.

- Public safety: The NHWL should be established to prevent the public from building in areas vulnerable to water damage (except for water dependent uses).

- Environmental Protection: The NHWL should be established to prevent building in areas that will cause water pollution, erosion, loss of wildlife habitat, etc.

- Community Character: The NHWL should be established to prevent construction that is out of character with current waterfront neighborhoods.

- Compliance with state requirements: The NWHL should be established to comply with minimum state standards.

- Equity. The NHWL should be established so that it can be consistently applied to waterfront properties.

- Other

### Options

#### **1. Keep current definition.**

The current definition appears above.

- + No unintended consequences from changing the definition; may be more restrictive in protecting coastline
- CEO says hard to interpret, apply consistently, no state backup; 3 lawsuits in last year

#### **2. Adopt State definition**

The proposed amendment incorporating the state definition appears at the end of this memo.

- + CEO can reference state history of interpretation; can be applied consistently; scientific basis
- Does not incorporate local rocky coastline; does not account for climate change

**3. Adopt State definition with local “bedrock” addition**

This option might read as follows:

Normal High Water: That line which is apparent from visible markings, changes in the character of soils due to prolonged action of the water or changes in vegetation, and which distinguishes between predominantly aquatic and predominantly terrestrial land. Areas contiguous with rivers and great ponds that support non-forested wetland vegetation and hydric soils and that are at the same or lower elevation as the water level of the river or great pond during the period of normal high-water are considered part of the river or great pond. Adjacent to tidal waters, setbacks are measured from the upland edge of the coastal wetland, defined herein.

**Coastal wetland:** all tidal and subtidal lands; all lands with vegetation present that is tolerant of salt water and occurs primarily in a salt water or estuarine habitat; and any swamp, marsh, bog, beach, flat or other contiguous low land that is subject to tidal action during the highest tide level for the year in which an activity is proposed as identified in tide tables published by the National Ocean Service. Coastal wetlands may include portions of coastal sand dunes. All areas below the highest annual tide elevation of the Portland Head Light are coastal wetlands. These areas may consist of rocky ledges, sand and cobble beaches, mud flats, etc., in addition to salt marshes and salt meadows. Areas up to (25' / 50' / 75') upland of the highest annual tide elevation of the Portland Head Light and bedrock with a slope of 60% or more are also considered coastal wetlands.

- + Uses most of state language; incorporates local rocky coastline; better chance of consistent application
- In field transition from state language to rocky coastline will be subjective (see attached sketch); increases restrictions on coastline most able to withstand climate change

**4. Adopt State definition plus 1’ height**

- + Uses state language; scientifically based; can be applied consistently; provides greater restriction town may want; provides greater restriction in areas that may be more susceptible to climate change
- Opposition to restrictions above minimum required; *may* still be less restrictive than current definition

**5. Adopt State definition plus 75’+ setback**

- + Uses state language; can be applied consistently; provides greater restriction town may want; provides greater restriction in areas that may be more susceptible to climate change
- Increased setback beyond state minimum may be politically difficult to pass; existing conforming structures become nonconforming.

#### Next Steps

The Planning Board should attempt to reach consensus and refer this item back to another regular meeting of the Planning Board. The next meeting is scheduled for August 20th.

ALVIN G. MACK and	)
PYA C. MACK,	)
	)
Plaintiffs	)
	)
v.	)
	)
MUNICIPAL OFFICERS OF THE	)
TOWN OF CAPE ELIZABETH,	)
MAINE,	)
	)
Defendants	)

DECISION AND ORDER

I. Proceedings

This is an appeal pursuant to 30 M.R.S.A. § 2411(2)(F) and M.R.Civ.P. 80B from a decision of the Town of Cape Elizabeth Board of Zoning Appeals (Board). The Board, after a public hearing on December 16, 1981, upheld the decision of the building inspector to deny the Plaintiffs (Macks) a building permit for a proposed house at Trundy Point because the plan failed to comply with the setback requirements of the applicable zoning ordinance. The Board on December 16, 1981 also denied the Macks request for an exception to the setback requirements on the grounds that the Macks had not satisfied two of the applicable nine criteria for an exception. The Plaintiffs also have included two counts in their complaint which reach beyond a Rule 80B appellate review of the Board's actions: Count V alleges that the zoning ordinance, as applied,

deprives the Macks of their property without just compensation in violation of the United States Constitution and the Maine Constitution; Count VI alleges that, based upon certain representations of the building inspector to an agent of the Macks prior to their purchase of the property, the Town should be estopped from denying the application for a building permit. The parties have stipulated that Counts V and VI are presently before the Court solely for the purpose of review as to whether each states a claim upon which relief may be granted. Depending upon the Court's ruling on Counts V and VI, a subsequent evidentiary hearing may be required.

## II. Setback Requirements of the Zoning Ordinance

The dispute over whether the building inspector correctly decided that the Macks' proposed residence would not meet the setback requirements of the ordinance involves two issues: (1) a legal construction of the applicable language of the zoning ordinance and (2) a review of whether there is substantial evidence in the record to support the Board in its decision to uphold the building inspector.

The Macks' proposed building site is subject to § 19-3-6 of the Cape Elizabeth zoning ordinance, specifically, "Shoreland Area Land Use Standards," because it is within 250 horizontal feet "of the normal high water mark of ... [a] salt water body." Setback requirements are as provided in § 19-3-6(i):

Setbacks within the areas subject to these standards shall mean the shortest horizontal distance from the foundation, sills or other

supports of a building or other structure, or from the edge of the improved area of any other improvement, to the normal high water mark of any pond, brook or marsh, or to the top of the bank, beach, cliff or other 'normal high water mark' of any salt water body, ...<sup>1</sup>

§ 19-1-3(t) defines "Normal high water mark of coastal waters":

That line on the shore of tidal waters which is the apparent extreme limit of the effect of the tides, i.e., the top of the bank, cliff or beach above high tide.

The building inspector interpreted the ordinance definition of normal high water mark to be a line on the surface of the earth upon which the "apparent extreme limit of the effect of the tide" is visually recognizable. The Trundy Point site is a rock ledge peninsula with some soil and vegetation on the higher elevations. The building inspector found that on the southeasterly side, "the top of the bank is clearly marked by a line of vegetation, beyond which the topography is characterized by jagged ledge and small pools." On the northwesterly side, the apparent extreme limit of the effect of the tides is "less readily apparent," but "clearly located inland 5 to 15 feet from the mean high tide line." (Letter of building inspector, November 5, 1981, Plaintiffs' Exhibit 8). The building inspector's conclusion was that these vegetation lines mark the apparent extreme limit of the effect of tidal processes, such as wave and storm action, upon the site. The Macks retained a coastal

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<sup>1</sup>The required setback is fifty feet for the residence, and thirty feet for the detached improvements. The Board can, however, grant an exception to the setback requirement if the conditions of § 19-2-8(c), 1-9, are met.

geologist, Barry Timson, who represented that the original position of the building inspector, as communicated to him, had been that the apparent extreme limit of the tide did not include wave action. Mr. Timson also received a letter from the town counsel opining that "breaking waves water levels" are not relevant in locating the normal high water mark as defined. (Letter of August 5, 1981, Plaintiffs' Exhibit 3). Mr. Timson's site examination led him to conclude that on Trundy Point, the mosaic appearance of vegetation and soil does not constitute a definite line that is the apparent extreme limit of the effect of the tide. Because an apparent line was not clear to Mr. Timson, he decided to calculate the exact extreme limit of the tide itself, from which line he defined the fifty foot setback.<sup>2</sup> Mr. Timson's exact extreme tide limit is below lines which he calculated to indicate the so-called 100-year wave runup storm level, and the 200-year wave runup storm level, which would be extreme storm effect levels. However, those storm lines are themselves below the building inspector's "soil scarp" line. Mr. Timson stated that there are no marine processes visible at or above the building inspector's line, and in his opinion, all storm and wave processes stop short of that line. Mr. Timson also noted that the building inspector's line of apparent extreme tide limit produces

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<sup>2</sup>Mr. Timson analogized to the definition of "Normal high water mark of inland waters" in the ordinance, § 19-1-3-(u), which provides that in places where the shore or bank is of such character that the high water mark cannot be easily determined (e.g. ledge), the normal high water mark can be visually estimated.



a wide variation in elevation on the north and south sides of Trundy Point; a physical impossibility for the normal high tide water level on both sides of a small peninsula. Mr. Timson concluded that the building inspector's soil scarp lines were present "because of wave erosion of the soil below them at lower heights, followed by what would be called normal mass wasting or weathering processes: rain, ice, normal freezing and thawing....," and not because of the effect of the tides themselves.

The Board of Zoning Appeals unanimously accepted the construction of normal high water mark advanced by the building inspector. The Trundy Point peninsula, being a jagged ledge dropping off into the sea, is not a site where the extreme limit of tidal effects is an easily recognizable line. The ordinance seems designed, however, to define the base line of normal high water mark of coastal waters not from a perspective solely of some absolute tidal water level, but rather by taking into account the limit of the effect of the tides, which during storms can include extreme storm surges and wave runup. It does not seem unreasonable to conclude that the line at the top of the cliff or bank where soil and vegetation have mastered the ledge would also be the apparent limit of any erosion caused by such extreme tidal processes as storm surge and wave runup. Any earlier representations of either the building inspector or the town counsel with respect to the relevance of wave action cannot limit the power of the Board to construe the zoning ordinance to include wave processes, and consequent erosion, as relevant to a determination of the apparent extreme limit of the effect of the tides. The Court finds no error of law in the legal construction of the ordinance definition of normal high water

mark, or in the manner in which the building inspector applied the definition to the site.

Based upon the construction of normal high water mark adopted by the Board, there was substantial evidence before it to support its decision that the building inspector correctly found that the proposed plan would violate the setback requirements both for the residence, and the driveway. The Board's decision is affirmed.

### III. Exception to the Setback Requirements

Pursuant to § 19-3-6(i), the Board may reduce the setback requirements upon a finding that the reduced setback would meet the requirements of § 19-2-8-(c), (1-9):

- (1) will not result in unsafe or unhealthful conditions;
- (2) will not result in erosion or sedimentation;
- (3) will not result in water pollution;
- (4) will not result in damage to spawning grounds, fish, aquatic life, bird and other wildlife habitat;
- (5) will conserve shoreland vegetation;
- (6) will conserve visual points of access to waters as viewed from public facilities;
- (7) will conserve actual points of public access to waters;
- (8) will conserve natural beauty; and
- (9) will avoid problems associated with flood plain development and use.

The burden of proof that the reduced setback would satisfy each of these nine criteria is on the party seeking an exception.

There were four Board members, in addition to the Chairman, at the hearing on December 16, 1981. Four Board members found

that criteria numbers one and eight would not be satisfied by the reduced setback, and accordingly, the request for an exception was denied.

The reasons given for the denial were:

"1. Will not result in unsafe or unhealthful conditions": the Board found that wave action could make the residence unsafe for its inhabitants, that storm action could so damage the entrance drive as to leave the inhabitants isolated in a dangerous position, that damage to the drive could have damaging and unhealthful effects on the marsh, and that the raised drive could increase the hazards of extreme storm and tidal effects on neighboring property;

"8. Will conserve natural beauty": the Board found that the proposed building location is exceptional so that almost anything constructed there would detract from its natural beauty, that the proposed drive could lead to the beach and marsh being damaged or washed out with the loss of their natural beauty, and that while the proposed residence might be handsome, and might not block views of the ocean from public facilities, it would detract from the natural beauty of the setting.

The Court holds that the Board's factual finding that permitting a reduced setback for the proposed residence would result in unsafe or unhealthful conditions is not supported by substantial evidence in the record. The decision of an administrative body of government must "be based upon substantial evidence rather than the visceral reactions of its members." V.S.H. Realty v. Gendron, 338 A.2d 143, 145 (Me. 1975). The Board made a finding that wave and storm action could damage the residence and entrance drive, or roadway, and thereby isolate the inhabitants. There was evidence consisting of testimony from a number of area residents that in the past during severe winter storms waves had broken over the point, and water had overrun

the neck of the peninsula. Photographs tended to support this testimony. The Macks' experts, however, conclusively established that the proposed structure and roadway were designed in order to address and prevent any foreseeable health or safety hazards. Mr. Timson testified that even in an extreme, 200-year storm, the proposed residence would not be subjected to mass water pressure or wave runup. His opinion was that the defendant's photographic evidence showed a wind borne spray, rather than breaking waves, on the point. The design for the house would place it well above any risk from storm surge or breaking waves. The architect and engineer testified to the design strength of the proposed structure. They also testified that the raised roadway was designed to be a stable structure even in extreme storm conditions. Culverts were incorporated to permit the flow through underneath the roadway of water which in the past had overrun the neck in storm conditions. Although these experts admitted the likelihood that water would on rare occasions wash over the rip-rap side walls of the roadway, the design intends for this water to ride up over to the other side and not affect the integrity of the roadway. This expert evidence established that the residence and roadway would not, as designed, create any unsafe condition for the inhabitants. The projections of danger are speculative and without firm evidentiary basis when viewed against the weight of expert testimony presented to the Board. With respect to the finding that the roadway could erode into the adjacent marsh, having damaging and unhealthful effects there, the Court finds insufficient evidence to support this possibility, in light of the expert testimony that the

roadway would be stable in extreme weather conditions. The Court also finds insufficient evidence that the roadway as designed will significantly increase the hazards of extreme storm and tidal effects on neighboring property. Accordingly, the Court holds that there is insufficient evidence in the record to support the Board's finding on criterion one, and holds that there is sufficient evidence to find that the plaintiffs' have met their burden of proof that the proposed residence and roadway will not result in unsafe or unhealthful conditions.

The Court holds that the Board's construction of criterion eight, which requires that the proposed residence "will conserve natural beauty," would effectively preclude any building on the site and for this reason, is an error of law. The Court has serious reservations about the legitimacy of utilizing solely aesthetic, and therefore necessarily arbitrary, standards in evaluating whether a proposal satisfies the exceptions criteria. Purely subjective aesthetic considerations have consistently been rejected as a basis for imposing zoning restrictions. Wright v. Michaud, 160 Me. 164, 173 (1964). It is permissible, however, for a zoning ordinance to seek, among other goals, to conserve natural beauty. It is unreasonable, however, to construe "conserve" to mandate an absolute prohibition for building on this site. If this was the intended construction, no proposal could ever satisfy the exception and this part of the ordinance would be rendered superfluous. The Board found that Trundy Point is an exceptional site where any structure would detract from natural

beauty, implying that other sites exist where it would be possible to build while conserving natural beauty. It may well be that the proposed residence does not "conserve natural beauty" to the greatest extent possible on this site, but it is unreasonable for the Board to rule absolutely that no structure could satisfy this requirement; this is equivalent to spot zoning Trundy Point for aesthetic reasons. An examination of the other exceptions criteria indicates that the objective considerations in preservation of natural beauty are actually covered in criteria four, relating to fish and wildlife; five, relating to shoreland vegetation; and six, relating to the maintenance of scenic views of the waters from public facilities. The Board found for the plaintiffs on each of these three other criteria. What is accomplished by including the additional criterion eight, relating to natural beauty, in the ordinance, therefore, in order not to be merely duplicative of criteria four through six, is to provide a mechanism for the Board to decide, without any objective standards, that a proposed site is too "exceptional" to permit building, or that a proposed structure does not meet some unknown aesthetic standards applied by the Board with respect to design or materials. The Plaintiffs have absolutely no way of knowing what kind of structure or materials would meet the Board's standards. This is simply an impermissible, arbitrary exercise of the zoning power and is thus an unconstitutional provision. Due process requires that the ordinance bear a reasonable relationship to the public health, safety, morals or general welfare. Warren v. Municipal Officers of Town of Gorham,

431 A.2d 624, 627 (Me. 1981). Accordingly, the Court holds that the Board's finding with respect to criterion eight is reversible error because the exception, both as a matter of law and as applied, is unreasonable and arbitrary. The finding with respect to a danger of damage to the beauty of the adjacent beach and marsh is inconsistent with positive findings on other exceptions criteria, and is not supported by substantial evidence in the record.

The Board's findings with respect to criteria one and eight are reversed. Accordingly, because the Court finds that the plaintiffs have satisfied their burden of proof on the applicable exceptions criteria, they are entitled to an exception to the setback requirements and to a building permit for the proposed residence.

#### IV. Counts V and VI

The Court's disposition of the Rule 30B appeal of the decision of the Board makes it unnecessary to reach the issue of whether either Count V or Count VI states a claim upon which relief may be granted.

#### V. Conclusion

Based upon the foregoing, it is hereby ORDERED and DECREED that:

(1) The decision of the Town of Cape Elizabeth Board of Zoning Appeals on December 16, 1981 that the plaintiffs' request for a building permit for a residence on Trundy Point failed to satisfy the setback requirements of the ordinance is AFFIRMED.

(2) The decision of the Town of Cape Elizabeth Board of Zoning Appeals on December 16, 1981 that the plaintiffs' request for an exception to the setback requirements of the zoning ordinance was denied for failure to satisfy criteria one and eight of § 19-2-8-(c) of the ordinance is REVERSED.

(3) The case is REMANDED to the Town of Cape Elizabeth Board of Zoning Appeals for the issuance of a building permit in accordance with this order, with the stipulation that the building permit may be made subject to such additional reasonable requirements of the zoning ordinance as the Board may order, consistent with the terms of this decision.

Dated: July 9, 1982

  
Morton A. Brody  
Justice, Superior Court



Coastal wetland: all tidal and subtidal lands; all lands with vegetation present that is tolerant of salt water and occurs primarily in a salt water or estuarine habitat; and any swamp, marsh, bog, beach, flat or other contiguous low land that is subject to tidal action during the highest tide level for the year in which an activity is proposed as identified in tide tables published by the National Ocean Service. Coastal wetlands may include portions of coastal sand dunes. All areas below the highest annual tide elevation of the Portland Head Light are coastal wetlands. These areas may consist of rocky ledges, sand and cobble beaches, mud flats, etc., in addition to salt marshes and salt meadows.

~~Normal High Water Line of Coastal Waters: That line on the shore of tidal waters which is the apparent extreme limit of the effect of the tides, i.e. the top of the bank, cliff or beach above high tide.~~

**Normal High Water Line of Inland Waters:** That line which is apparent from visible markings, changes in the character of soils due to prolonged action of the water or changes in vegetation, and which distinguishes between predominantly aquatic and predominantly terrestrial land. Areas contiguous with rivers and great ponds that support non-forested wetland vegetation and hydric soils and that are at the same or lower elevation as the water level of the river or great pond during the period of normal high-water are considered part of the river or great pond. Adjacent to tidal waters, setbacks are measured from the upland edge of the coastal wetland, defined herein, on the shores and banks of non-tidal waters which marks normal high water, and which is apparent because of the contiguous different character of the soil or the vegetation due to the prolonged action of the water. Relative to vegetation, it is that line where the vegetation changes from predominantly terrestrial to predominantly aquatic vegetation. (By way of illustration, aquatic vegetation includes but is not limited to the following plants and plant groups—water lily, pond lily, pickerelweed, cattail, wild rice, sedges, rushes and marsh grasses, and terrestrial vegetation includes but is not limited to the following plants and plant groups—upland grasses, aster, lady slipper, wintergreen, partridge berry, sarsaparilla, pines, cedars, oaks, ashes, alders, elms, and maples). In places where the shore or bank is of such character that the normal high water line cannot be easily determined (rockslides, ledges, rapidly eroding or slumping banks) the normal high water line shall be estimated from places where it can be determined by the above method. Areas contiguous with rivers and great ponds that support non-forested wetland vegetation and hydric soils and that are at the same or lower elevation as the water level of the river or Great pond during the period of normal high water are considered part of the river or Great pond. (Effective October 15, 2009)

# NHWL Sample location

Existing Conditions Survey Made For  
 Town Of Cape Elizabeth  
 Of Fort Williams Park & Portland Head Light  
 Shore Road  
 Cape Elizabeth, Maine

PREPARED BY:

**James D. Nadeau, LLC**  
 Professional Land Surveyors  
 Certified Floodplain Managers

918 BRIGHTON AVENUE  
 PORTLAND, ME 04102 PH. (207) 87  
 FAX (207) 87

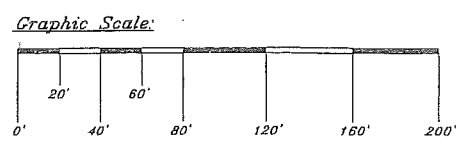
RECORD OWNER: Town Of Cape Elizabeth c/o Town Manager 320 Ocean House Road Cape Elizabeth, Maine 04107	DRAWN BY: NLC/JDN	PLAN DATE: 06/0
	CHECKED BY: TFB/AAV	SURVEY DATE: N/A
	INSTR: Topcon GPT-3003H & Topcon Hyper II	SCALE: 1" =
FIELD BOOK: FB 396 & Topcon Ranger	JOB No: 2111200FC	SHEET No: 2 of

Match  
Line

HAT   
 Top of bank   
 Both 

*See Sheet 1 of  
Legend Locus Dec*

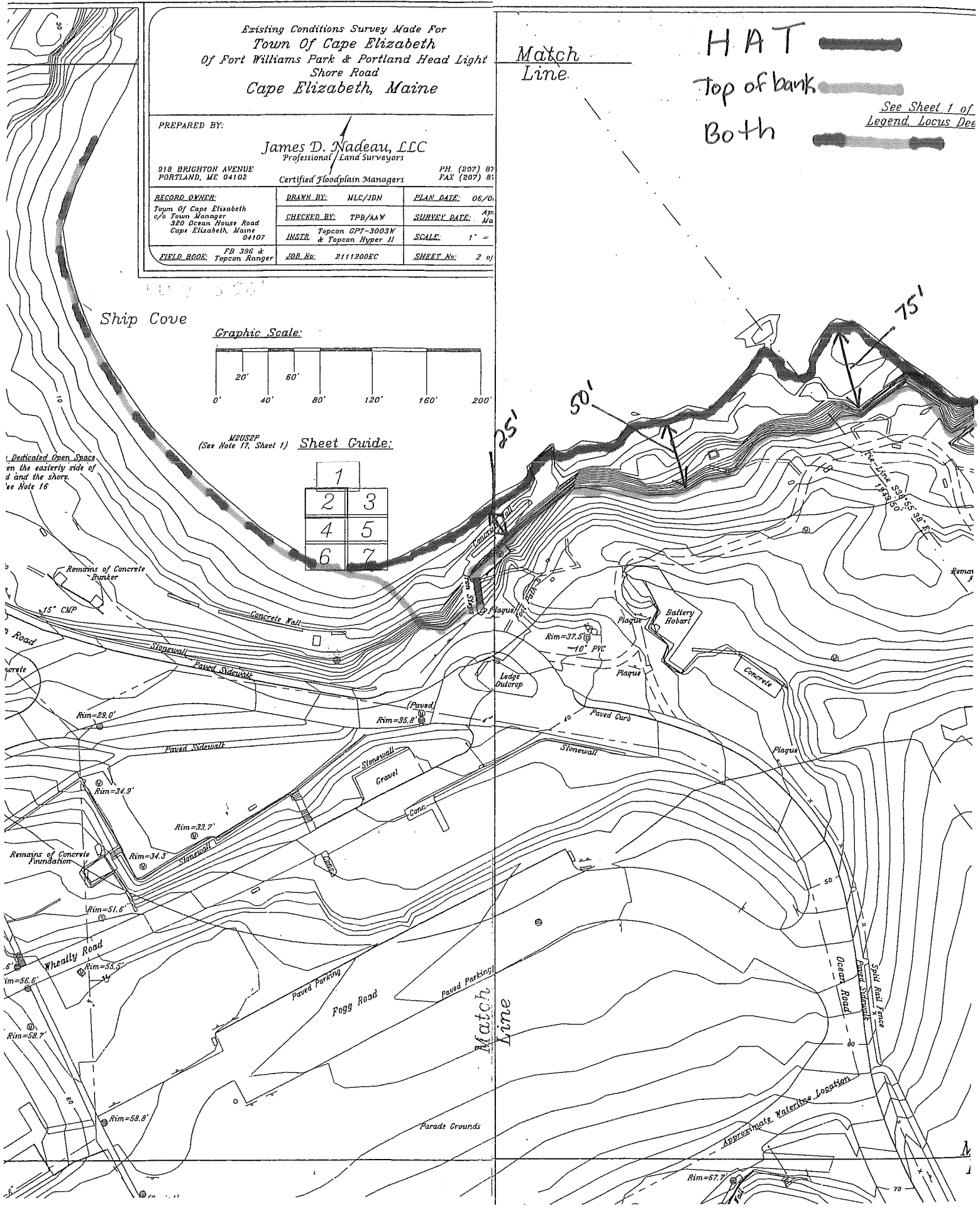
Ship Cove



M2US2P  
 (See Note 17, Sheet 1) Sheet Guide:

1	
2	3
4	5
6	7

Dedicated Open Space  
 on the easterly side of  
 d and the shore.  
 See Note 16



Match  
Line

Approximate Waterline Location

Parade Grounds

Rim=67.7

70