



CAMP ELLIS

ARCHITECTURAL SURVEY AND CLIMATE RESILIENCY OPTIONS

AUGUST 2022

This material was produced with assistance from the Historic Preservation Fund, administered by the National Park Service, Department of the Interior and the Maine Historic Preservation Commission. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the Department of the Interior.

TABLE OF CONTENTS

<u>Introduction</u>	1
<u>Acronyms</u>	3
<u>Architectural Survey</u>	4
<u>Flood Projections</u>	7
<u>Building Typologies</u>	12
<u>Resiliency Options</u>	17
<u>Conclusion</u>	36
<u>References</u>	37
<u>Appendices</u>	
Appendix A: Architectural Survey.....	39
Appendix B: Flood Elevation Data Methods.....	66
Appendix C: Individual Structure Data.....	71
Appendix D: Guiding Flood Risk Level Maps.....	104
Appendix E: Building Conditions Matrix.....	106

INTRODUCTION

Camp Ellis, located at the southeast tip of Saco at the mouth of the Saco River, is a residential and commercial area that developed as a seasonal community after the construction of a breakwater into the Atlantic Ocean in 1867 by the U.S. Army Corps of Engineers. The jetty was built in order to provide a calmer shipping channel for vessels traveling to and from the industrial centers of Saco and Biddeford, located four miles



upriver. Sand dredged from the mouth of the river was deposited along the shore at Camp Ellis, creating a wider beach. In 1880 a rail line, known as the Dummy Railroad, was constructed adjacent to the beach and connected the area to Old Orchard Beach to the north, further encouraging development. A seasonal village made of up of cottages that ranged from modest one-story structures to larger houses enhanced with simple ornamentation grew up around the enlarged beach. The area attracted middle- and working-class families that could not afford the more affluent communities of Old Orchard Beach and Biddeford Pool. A few commercial structures, including a restaurant, general store, and hotel, were also constructed. Development continued throughout the twentieth century despite structures being lost due to erosion and storms beginning in the mid-twentieth century.

While the breakwater succeeded in calming the waters at the entrance to the Saco River, it also blocked sand, eroded during winter storms, from returning to from the Camp Ellis beach during the summer months. The jetty was extended in 1897, 1930, and 1938, in an attempt to stop the erosion. Unfortunately, a fundamental misunderstanding of the currents resulted in the extended jetty only making the problem worse. The frequency of strong storms has increased in recent years due to climate change and accelerated the erosion. There is also the additional threat of rising sea levels. In order to address these threats, the City of Saco has contracted with Kleinfelder to complete an architectural survey of the area to identify any historic resources as well as to develop climate resiliency strategies. The survey determined which, if any, structures in the Camp Ellis area are eligible for listing in the National Register of Historic Places and what historic integrity remains in the area. The survey determined that six structures are eligible as a historic district.

The Flood Projections and Climate Resiliency sections of this report are intended for use by the City of Saco as well as Camp Ellis property owners to assist with creating strategies for dealing with climate change. In these sections, Kleinfelder established two guiding flood risk elevations for Camp Ellis based on best and most recent sea level rise

INTRODUCTION

information and recommendations from the National Oceanographic and Atmospheric Administration (NOAA) and the Maine Climate Council Scientific and Technical Subcommittee. Resiliency options are outlined for three building typologies representative of the historic structures of Camp Ellis: wood frame buildings on slab foundation on grade, on concrete foundation with basement, and on piers.¹ The National Park Service has created guidance documents for working on historic buildings, including the *Secretary of the Interior's Standards for the Treatment of Historic Properties for Restoration or Rehabilitation* and *Guidelines on Flood Adaptation for Rehabilitating Historic Buildings*.² In creating climate resiliency recommendations, Kleinfelder referenced both of these guides.

The NPS' *Guidelines on Flood Adaptation for Rehabilitating Historic Buildings* includes considerations and recommendations for selecting an appropriate flood adaptation strategy at a historic building which protects the building from flooding up to an "established flood risk level." The "established flood risk level" should be based on the design flood elevation local, state, federal, and/or other authorities deem most appropriate at the location of the historic structure. The recommendations in the NPS' Flood Adaptations Guidelines consider both the depth of the established flood level and the anticipated frequency of flooding.

Resiliency options are tailored to two goals: First, protecting the property from the lower or "base scenario" flood risk elevation; and second, facilitating recovery following a storm which inundates the property to the second or "high scenario" flood risk elevation. Both guiding flood risk elevations are framed around projected flood exposure in the 2050 time horizon 30 years in the future. The subsequent sections describe guiding flood risk elevations, the depth of flooding at each historically significant building in Camp Ellis under each alternative, and historically sensitive resiliency recommendations for each building typology based on the guiding flood risk elevation.

Through the information gathered in the survey, the character defining features of each structure were also identified (see Appendix E). These features should be given special consideration and retained as much as possible when making any alterations to the buildings, including protections from flooding and sea level rise. The climate resiliency strategies attempt to balance preserving the historic features of the area with effective protection measures.

¹ At the onset of the project, the goal was to identify three representative building types in Camp Ellis for which to create resiliency strategies. Due to the variety of building forms found in the area, foundation types were chosen as the most useful typology.

² The full guidance documents can be found at: <https://www.nps.gov/tps/standards.htm> and <https://www.nps.gov/orgs/1739/upload/flood-adaptation-guidelines-2021.pdf>.

ACRONYMS

DEM: Digital Elevation Model

DFE: Design Flood Elevation

EWL: Extreme Water Level

FEMA: Federal Emergency Management Agency

HAT: Highest Astronomical Tide

LiDAR: Light Detection And Ranging, a method of using lasers to remotely sense distances commonly used to map elevation and create DEMs.

MCCSTS: Maine Climate Council's Scientific and Technical Subcommittee

MHHW: Mean Higher High Water

MSL: Mean Sea Level

NAVD88: North American Vertical Datum of 1988

NOAA: National Oceanographic and Atmospheric Administration

NPS: National Park Service

SACCIEM: Scientific Assessment of Climate Change and Its Effects in Maine report

SFHA: Special Flood Hazard Area

SL: Sea Level

SLOSH: Sea Lake and Overland Surges from Hurricanes, a storm surge model

SLR: Sea Level Rise

SOI: Secretary of the Interior

ARCHITECTURAL SURVEY

The architectural survey documented 134 structures fifty years and older through photography and completion of a survey form. The majority of the structures are residential, with only five having a commercial use (though two of these are currently vacant). The buildings largely date from the late-nineteenth century to early twentieth century. They vary in size from small, one-story cottages to larger, multi-story houses. New construction (less than fifty years old) tends to be

large. There are several duplex structures that have been constructed in the last 10 years, while most of the historic structures are single family dwellings. Many of the older buildings have undergone some alterations, most commonly the application of vinyl siding and enclosure of porches. Some buildings have been expanded dramatically, resulting in a loss of their original massing. Several original cottages have been demolished and replaced with large structures. Out of the 134 structures surveyed, six were determined eligible for listing in the National Register of Historic Places as a historic district. There are other individual properties spread throughout the area that retain a high level of integrity and overall the setting of Camp Ellis remains intact.



Eastern Avenue, looking north



Main Avenue, looking west

While only one area was found to retain sufficient integrity and cohesion to warrant a National Register-eligible historic district, the City should consider creating a larger locally designated historic district in Camp Ellis in order to preserve the remaining character of the area, prevent further loss of historic properties, and ensure new construction is done in a manner sensitive to the surrounding structures. (See Appendix A for full survey report, matrix, and map). The following resiliency recommendations can

be applied to the entirety of the Camp Ellis area, not just the eligible properties.

ARCHITECTURAL SURVEY

Examples of structures that retain integrity:



11 & 11B Cove Avenue



16 Camp Ellis Avenue



34 & 36 West Avenue



7 Riverside Avenue



2 Eastern Avenue



37 Main Avenue

ARCHITECTURAL SURVEY



32 Main Avenue



36 Main Avenue

Examples of new construction that do not match the scale of the surrounding area:



FLOOD PROJECTIONS

Flood projections for the Camp Ellis area are based on several different models, including land surface elevation, flood depth for the present sea level during Category 1 to Category 3 hurricanes, future mean sea level, and extreme water level exceedance probability. Flood risk elevation scenarios are also be given for present-day hurricanes as well as sea level rise.

Guiding Flood Risk Elevations

The objective of this analysis is to provide flood resiliency recommendations to the City of Saco and Camp Ellis property owners which reflect best available knowledge of future frequency and depth of inundation at Camp Ellis' buildings. Two guiding flood risk elevations are recommended which represent floods different severity and frequency under future sea level conditions to serve as flood mitigation targets. This section describes the two guiding flood risk elevations, how they were determined, and alternative higher flood risk elevations property owners or City of Saco staff may wish to consult for longer-range coastal planning.³

Sea Level Scenario	Sea Level Trajectory [3]	Sea Level Rise	Year	EWL Exceedance Probability	Water Level Elevation, NAVD88
Protect	Intermediate	1.5 ft	2050	10%	9.74 ft
Recover	Intermediate	1.5 ft	2050	1%	11.39 ft

Table 1: Guiding flood risk levels for Camp Ellis property owners.

The primary guiding flood risk elevations are based on the 2050 Mean Sea Level (MSL) "Intermediate" scenario from the Maine Climate Council's Scientific and Technical Subcommittee (MCCSTS) produced a set of recommendations for the larger Maine Climate Council in the *Scientific Assessment of Climate Change and Its Effects in Maine* (SACCIEM)⁴ report (Figure 1). In this scenario, MSL at Portland, ME, has risen by 1.5 feet. Data and estimates at the Portland tide gauge were utilized because the Portland tide gauge is the closest long-running tide gauge to Camp Ellis (15.4 miles).

³ Several additional flood risk elevations are provided based on supplementary coastal risk scenarios and information sources which do not directly inform the recommended resiliency options, but which property owners may wish to consult if interested in protecting their property to a higher level of flooding in Appendix C.

⁴ Maine Climate Council Scientific and Technical Subcommittee, *Scientific Assessment of Climate Change and Its Effects in Maine*,

https://digitalcommons.library.umaine.edu/cgi/viewcontent.cgi?article=3273&context=univ_publications (accessed 27 July 2022).

FLOOD PROJECTIONS

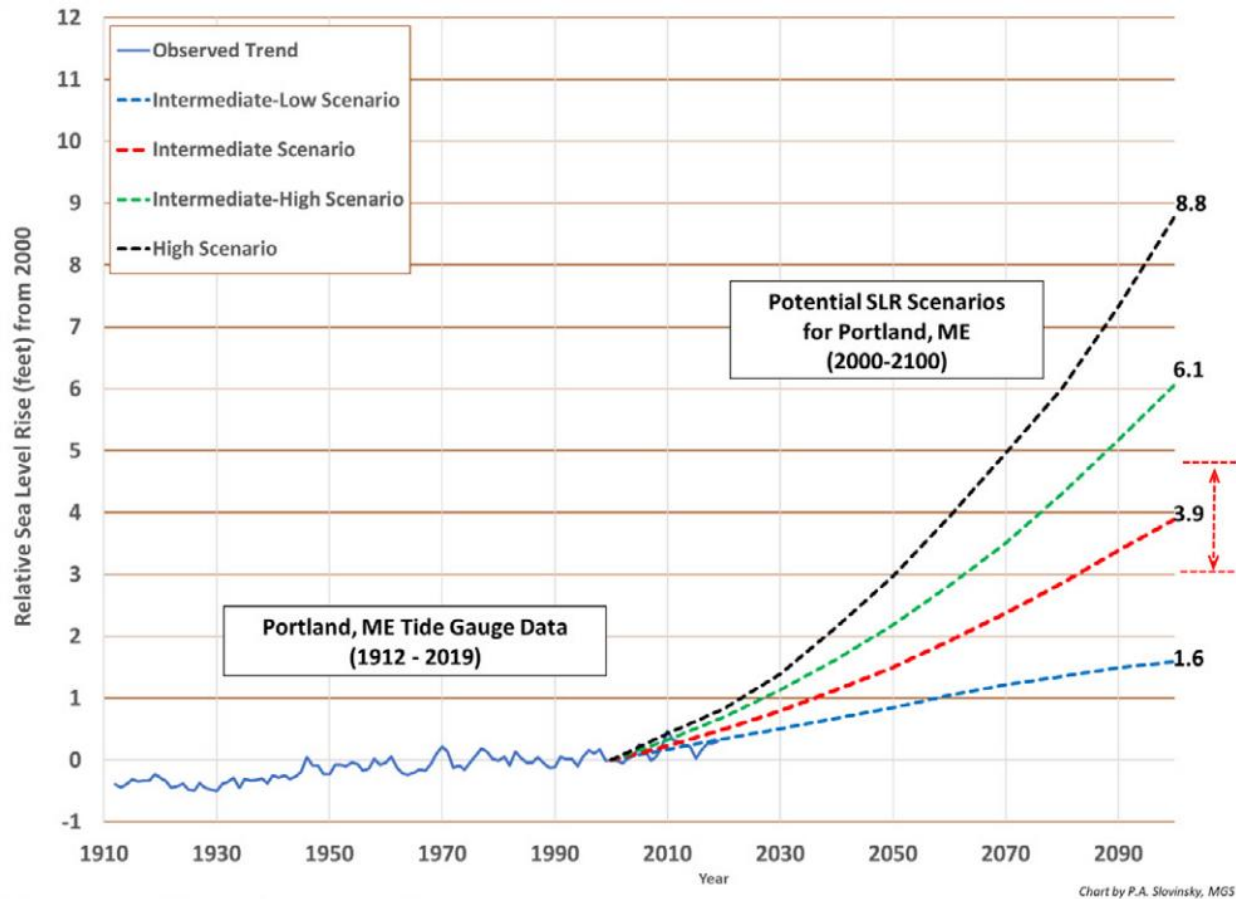


Figure 1: Graph illustrating historic sea level rise in Portland (solid blue line) and scenarios from 2000 – 2100 with central estimates (50% probability of being met or exceeded) for low-intermediate to high sea level rise scenarios from Sweet et al. (2017). The likely range of 3.0 to 4.6 feet (67% probability of sea level rise falling between these values) for the intermediate scenario is shown as a dashed red arrow and red lines on the right side of the figure. Figure and caption re-printed from [3].

The first guiding flood risk elevation is labeled “Protect” because it is recommended that Camp Ellis property owners select flood adaptation strategies to protect their property from flooding up to this water level. This means preventing water from entering the main living spaces of the building (if possible given physical and financial constraints) and preventing any damage to critical systems such as heating, cooling, or other utilities. “Protect” elevation is 9.74 feet over NAVD88. This elevation reflects the 2050 “Intermediate” future sea level after 1.5 feet of sea level rise combined with a Extreme Water Level (EWL) event which has a 10% chance of being equaled or exceeded in any given year. EWLs are rarely-occurring high water events resulting from any cause, or multiple causes in combination. For example, suppose an EWL of 10 feet NAVD88 has a 10% chance of occurring or being exceeded in any given year. In this example, the 10 feet NAVD88 EWL could be caused by a king tide, a small storm surge occurring during high tide, or a large storm surge which peaks at mid- or low-tide. The

FLOOD PROJECTIONS

depth of EWL at the Portland, ME, tide gauge relative to MSL is provided in the NOAA 2022 Technical Sea Level Rise Report⁵.

A 10% EWL is a rare and extreme event in any given year. However, over a 30-year period there is a 95.8% chance that a 10% EWL will occur at least once. Property owners who invest in protecting a building from flooding to this level have a high chance of benefiting from their investments over the life of a 30-year mortgage.

The second guiding flood risk elevation, hereafter referred to as the “Recover” elevation, is 11.39 feet NAVD88. This elevation reflects the 2050 Intermediate scenario MSL combined with a 1% annual chance EWL event. This guiding flood risk elevation is labeled “Recover” because it is recommended that Camp Ellis property owners select flood adaptation strategies which enable a low-impact recovery from flooding up to this water level. This means that when flooding exceeds the “Protect” water level, flood resiliency strategies may be designed to allow water into the home. Updates to the structure to this end should focus on preventing catastrophic structural damage, allowing water to drain from the structure rapidly after flooding, allowing materials to dry, and minimizing loss of historically significant materials and features during flooding.

The resiliency options recommendations in the following sections are framed around the “Protect” and “Recover” guiding flood risk elevations described above. They are also informed by the 2050 Intermediate Mean Sea Level (MSL) Mean Higher High Water (MHHW) elevation, or the elevation of the average daily highest water level at Portland, ME. This elevation is 6.15 feet NAVD88.

While the above flood risk elevations are the main focus of the report, additional information has been provided for use by the City and property owner in Appendix B. Appendix B shows additional flood elevation information and the corresponding depth above grade, as well as depth above first floor elevation on each structure. This data is based on several alternative scenarios and data sources, including but not limited to the highest tidal water level on a typical day (MHHW), and the 10%, 4%, and 1% chance EWLs (representing increasingly severe storm conditions) under several different sea level scenarios, as well as the surge inundation resulting from Category 1 and Category 2 hurricanes under current sea level conditions.⁶

Flood Risk Elevations at Camp Ellis

At present, the majority of buildings in Camp Ellis do not experience inundation above grade during low- and moderate-severity coastal storms. However, if sea level increases by up to 1.5 feet, more buildings in Camp Ellis will increase some level of inundation above grade during a 10% annual chance extreme water level (Figure 2). With sea

⁵ National Oceanic and Atmospheric Administration, “Global and Regional Sea Level Rise Scenarios for the United States,” <https://oceanservice.noaa.gov/hazards/sealevelrise/sealevelrise-tech-report.html> (accessed 25 July 2022).

⁶ Maine Department of Agriculture, Conservation, & Forestry, “Maine SLOSH Inundation Depths Category 1,” <https://maine.hub.arcgis.com/maps/34e410e577464fcb3cfa1d90da36c57/about> (accessed 25 July 2022).

FLOOD PROJECTIONS

level 1.5 feet higher, the majority of buildings will experience 1 – 3 feet of inundation above grade during a more extreme 1% annual chance EWL (Figure 3).

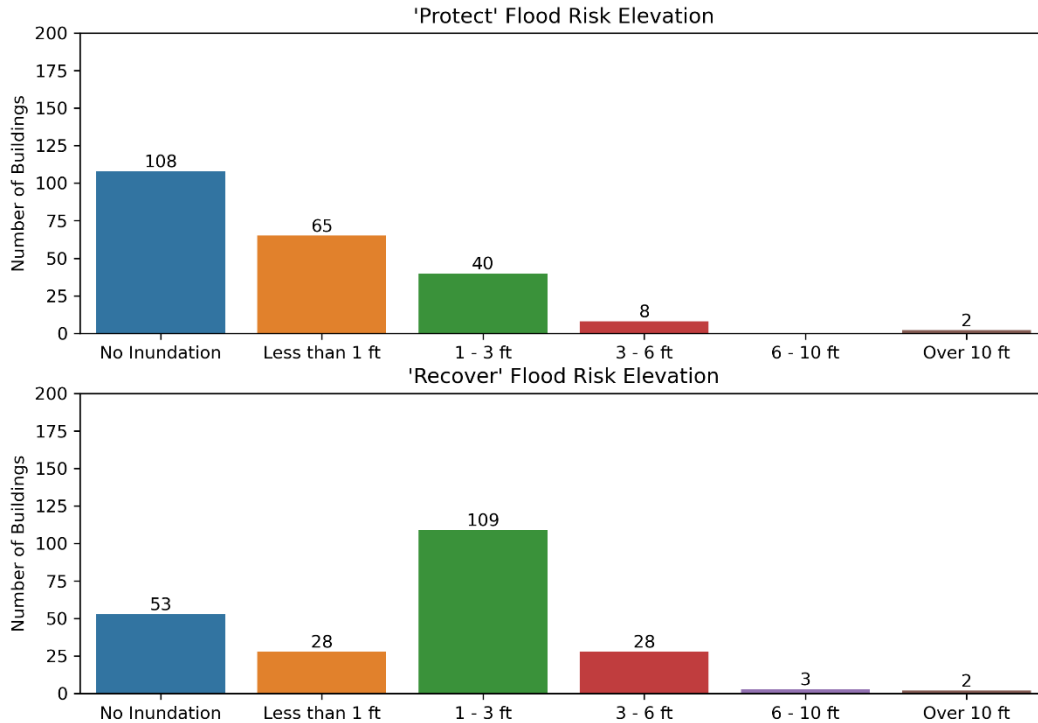


Figure 2: Inundation above grade at [Upper] the "Protect" flood risk elevation (10% annual chance EWL + 1.5 feet sea level rise); [Lower] the "Recover" flood risk elevation (1% annual chance EWL + 1.5 feet sea level rise).

The analysis indicates different levels of flood exposure at Camp Ellis buildings under the different future sea level scenarios, as illustrated in Figure 4. Only nine structures in Camp Ellis are predicted to experience water above grade at the 2050 base SL scenario MHHW level; the number increases to 17 structures at the 2050 high SL scenario (3 feet SLR) MHHW.

More structures experience flooding above grade at the 2100 base SL scenario (3.9 feet SLR) MHHW, but the overall proportion remains small. However, a majority of structures in Camp Ellis would experience water 3-6 feet above grade under the 2100 high SL scenario of 8.8 feet SLR (Figure 3). While this level of sea level rise by 2100 is highly uncertain, the impacts on Camp Ellis would be widespread. Numerous structures would likely need to be relocated or potentially demolished.

FLOOD PROJECTIONS

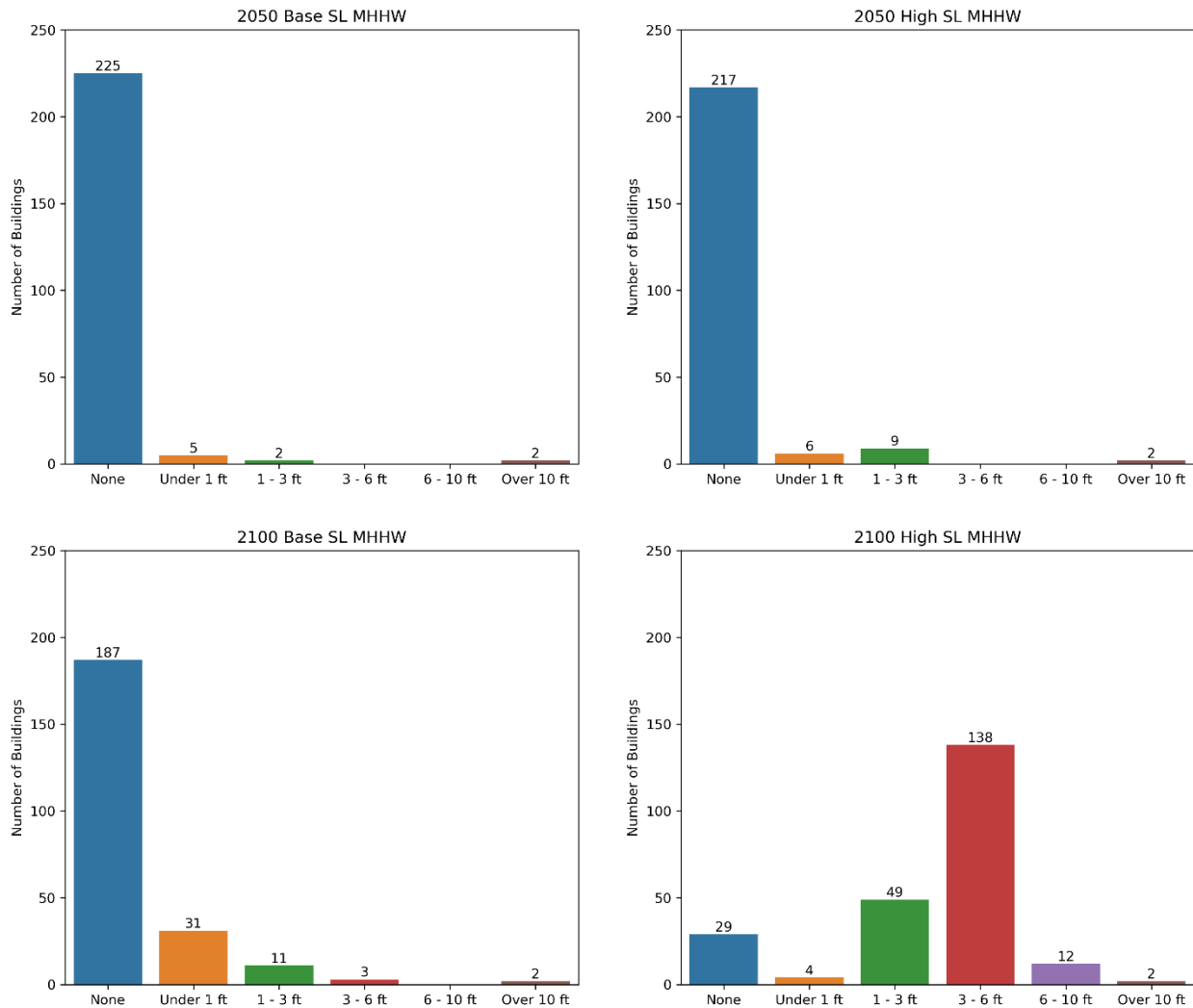


Figure 3: Depth of water above grade during MHHW, 2050 and 2100 base and high sea level rise scenarios.

An additional table listing the depths of different flood risk elevations on buildings at Camp Ellis is located in Appendix C and is organized by street address. Maps reflecting these depths are shown in Appendix D. The exposure information is based on both guiding flood risk elevations, hurricane surge, higher MCCSTS sea level trajectories, and further than 2050 time horizons.

The elevation of the lowest point outside each structure is sourced from the Maine 2020 LiDAR-based DEM⁷; this elevation roughly represents “grade” as used by an architect or engineer. However, the value is an estimate based on remotely sensed data which, while high quality, contains some location uncertainty and is provided for planning purposes only. Flood risk elevations’ depth above grade is especially likely to contain

⁷ Maine GIS, “Maine Elevation DEM 2020 (Imagery Layer),” <https://maine.hub.arcgis.com/datasets/maine::maine-elevation-dem-2020-imagery-layer/about> (accessed 25 July 2022).

FLOOD PROJECTIONS

larger uncertainty at properties which sit on or very near a steep slope. A licensed surveyor should be engaged to determine precisely where the guiding flood risk elevations sit on a specific property before detailed site designs are developed. Establishing future flood risk elevations guides what properties and sections of Camp Ellis are most vulnerable. The following sections outline the different building typologies identified and address strategies the city and property owners can implement to protect against future flood events based on the typologies.

BUILDING TYPOLOGIES

Three building typologies were selected based on the most common building types in the Camp Ellis area. While the buildings represent a broad range of historic periods and architectural styles, the buildings are almost entirely wood framed with either wood or vinyl cladding or siding and primarily used for residential purposes with limited exceptions. They vary in numbers of stories, footprints, and existing foundation heights. Many but not all buildings have already been updated for flood adaptation purposes in a way which is clearly visible from the public right of way. For example, some buildings have been elevated on piers, and in some cases, utilities have been elevated on platforms or affixed at height to the building's siding. Others are protected behind rudimentary barriers which may be intended to prevent inundation or erosion. From a flood mitigation engineering perspective, the most significant difference between buildings stems from the foundation type and presence or absence of a basement.



Example of raised structure at 7 Pearl Avenue



Wood seawall along Main Avenue

The buildings' foundations are primarily concrete or concrete block, some with windows suggesting the presence of a basement below grade and others at which it cannot be determined whether a basement is present. Buildings perched on concrete piers or wooden stilts, or another pole-based elevation support are also common. These buildings do not have basements; in some cases, the space created by the piers below the first-floor elevation is used for garage or other outdoor non-living space. Lastly, other buildings are constructed relatively low to the ground on concrete slab foundations without the presence of a basement.

Character-defining features of the area include clapboard or wood shingle siding, large porches, and modest sized structures.

Given the building inventory described above, resiliency options are framed around the following building typologies:

- Wood-framed building on concrete slab foundation
 - This building type has no living space below grade
 - Buildings with slab foundations are primarily one- or two-story
- Wood-framed building on concrete block foundation with basement
 - Not all buildings on concrete block foundations have basements

BUILDING TYPOLOGIES

- Buildings on concrete block foundations are typically either one- or two-story
- Wood-framed building elevated on piers
 - Buildings elevated on piers or pilons have no basement or living space below grade
 - Piers may be wooden poles, concrete, or metal
 - Some buildings which have been elevated use part of the footprint at grade as non-living space such as garage or storage uses
 - Buildings elevated on pilons are sometimes screened/enclosed at the perimeter of the building; sometimes the area under the building is left un-screened
 - Some elevated Camp Ellis buildings enclose the area under the first floor living space around the perimeter of the building in a material which matches the style of the primary siding above a certain level above grade, and a different type of enclosing surface, typically perforated such as fencing or latticework, is used below that level, presumably to allow floodwater to flow under the structure without causing excessive stress on the enclosing material above this level.

In the following sections, resiliency options are provided which individual property owners could implement at each of the three building typologies to (1) minimize water incursion into living spaces at the “protect” flood risk elevation and (2) prevent catastrophic damage and allow the building to recover gracefully from a flood at or below the “recover” flood risk elevation.

The focus encompasses all of Camp Ellis and below are resiliency options toward each of these goals which would be appropriate for the given building typology at several different representative depths of inundation above grade at the structure (Figure 4). Building categorizations under each flood exposure scenario are approximate and based on visual inspection of first floor elevation above grade as determined by an archaeological historian operating from the public right of way; the depth of each guiding flood risk elevation above the first floor and above grade at individual properties should be determined by a licensed surveyor.

BUILDING TYPOLOGIES

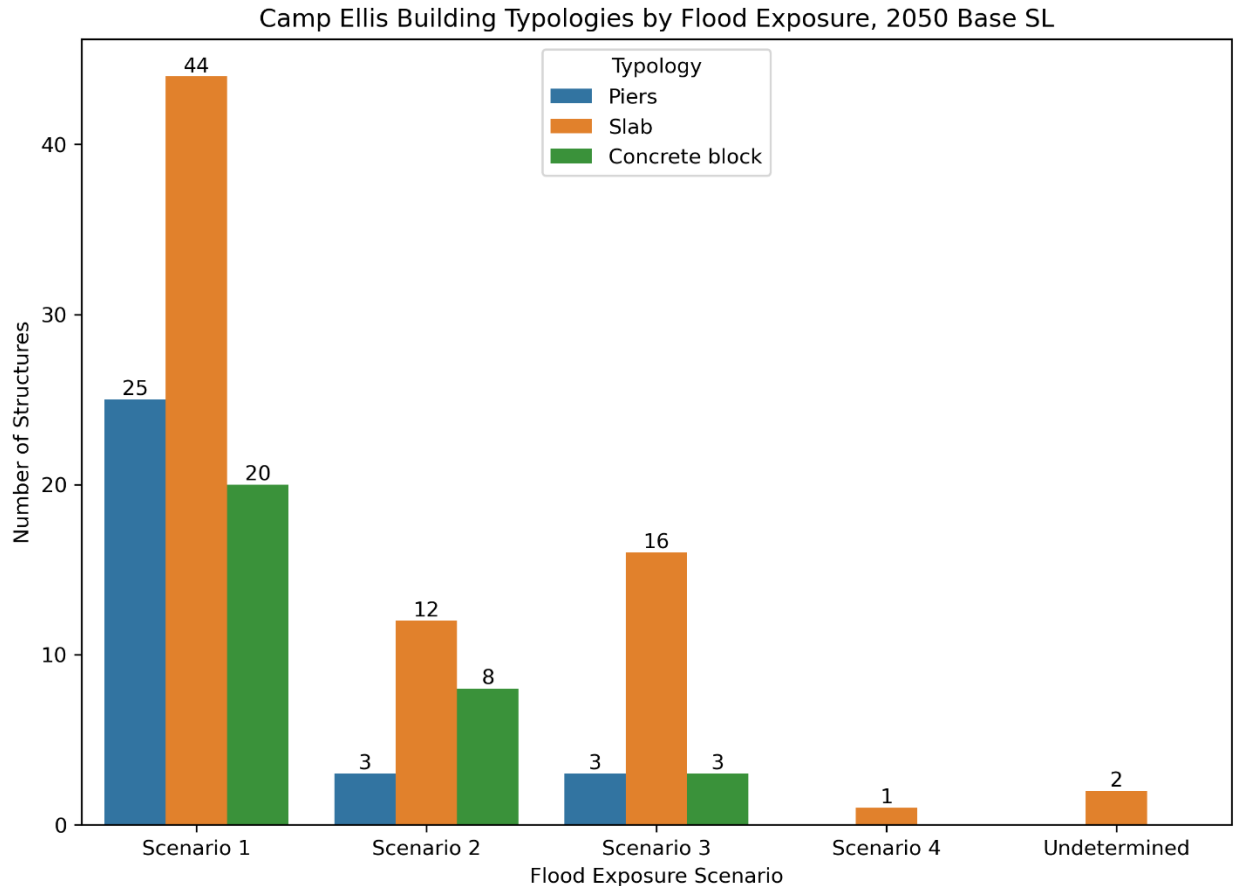


Figure 4: Camp Ellis structures by building typology and flood exposure scenario. Structures with “Undetermined” flood exposure scenario did not have an identified first floor elevation in the architectural survey.

The flood exposure scenarios are as follows:

- Scenario 1: “Recover” elevation is below first floor elevation.
- Scenario 2: “Recover” elevation is up to three feet above first floor elevation; “Protect” elevation falls below first floor
- Scenario 3: “Protect” elevation is up to three feet above first floor level; “Recover” elevation falls up to 4.5 feet above first floor level
- Scenario 4: MHHW is above grade

Wave action is an important component of flood exposure for properties adjacent to the coast. While the guiding flood risk elevations presented in this report do not address flooding due wave action, property owners whose property is located closest to the coastline should consider the hurricane surge inundation depth information in Appendix C as a guide to the potential increased inundation caused by wave action during a storm event. The City of Saco’s FEMA Flood Insurance Study (FIS)⁸ delineates the VE zone (shown in purple in Figure 6) where waves would be above 3 feet in height during

⁸ Federal Emergency Management Agency, *Flood Insurance Study, City of Saco, Maine, York County*, <https://map1.msc.fema.gov/data/23/S/PDF/230155V000A.pdf?LOC=95dd520b9622cd314f635b2b5d9016b3> (accessed 26 July 2022).

BUILDING TYPOLOGIES

an extreme 1% storm. However, the FIS does not include a Limits of Moderate Wave Action line which would mark where waves above 1.5 ft could also cause damage. No properties in Camp Ellis are located in a VE zone (Figure 6). While the modeled hurricane surge depth information in Appendix C is not the same as modeled wave action occurring during a storm, the depth information may be useful as a proxy measure for wave exposure.

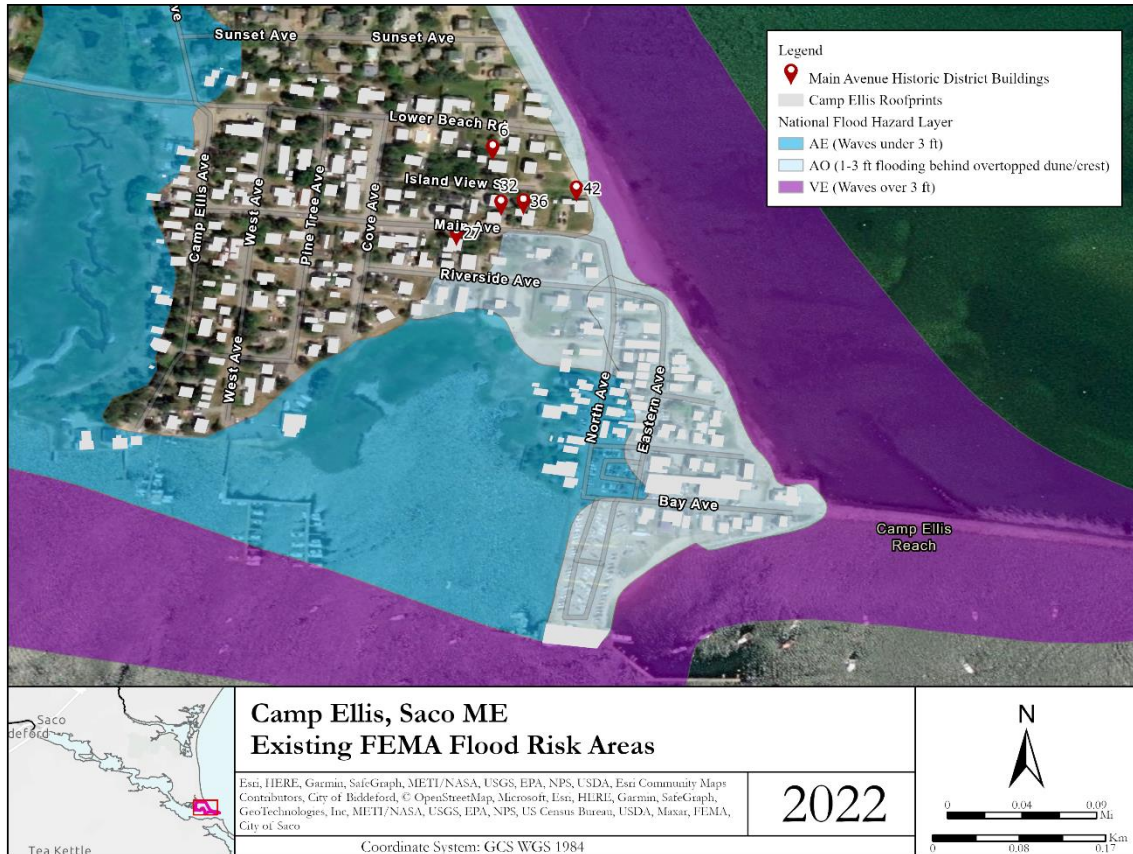


Figure 5: FEMA flood zones, Camp Ellis, ME.

The inundation depth information relative to grade and to each property's first floor elevation in Appendix C are planning-level estimates only and should always be confirmed by a licensed surveyor before taking any flood mitigation action.

In the following section, resiliency strategies are presented based on typologies and whether the building is a year-round residence, the number of stories, storage space available at or near the building, character defining features of the building, and whether either of the guiding flood risk elevations fall above the first floor.

RESILIENCY OPTIONS

The following recommendations provide pathways for Camp Ellis property owners to preserve their buildings and those buildings' character defining features in the face of evolving flood risk and sea level rise. Resiliency options are tailored to two goals:

- Goal #1: Protect the property from the lower or “base scenario” flood risk elevation (hereafter, the “Protect” elevation);
- Goal #2: Facilitate a low-impact recovery following storms inundating property to the second or “high scenario” flood risk elevation (hereafter, the “Recover” elevation).

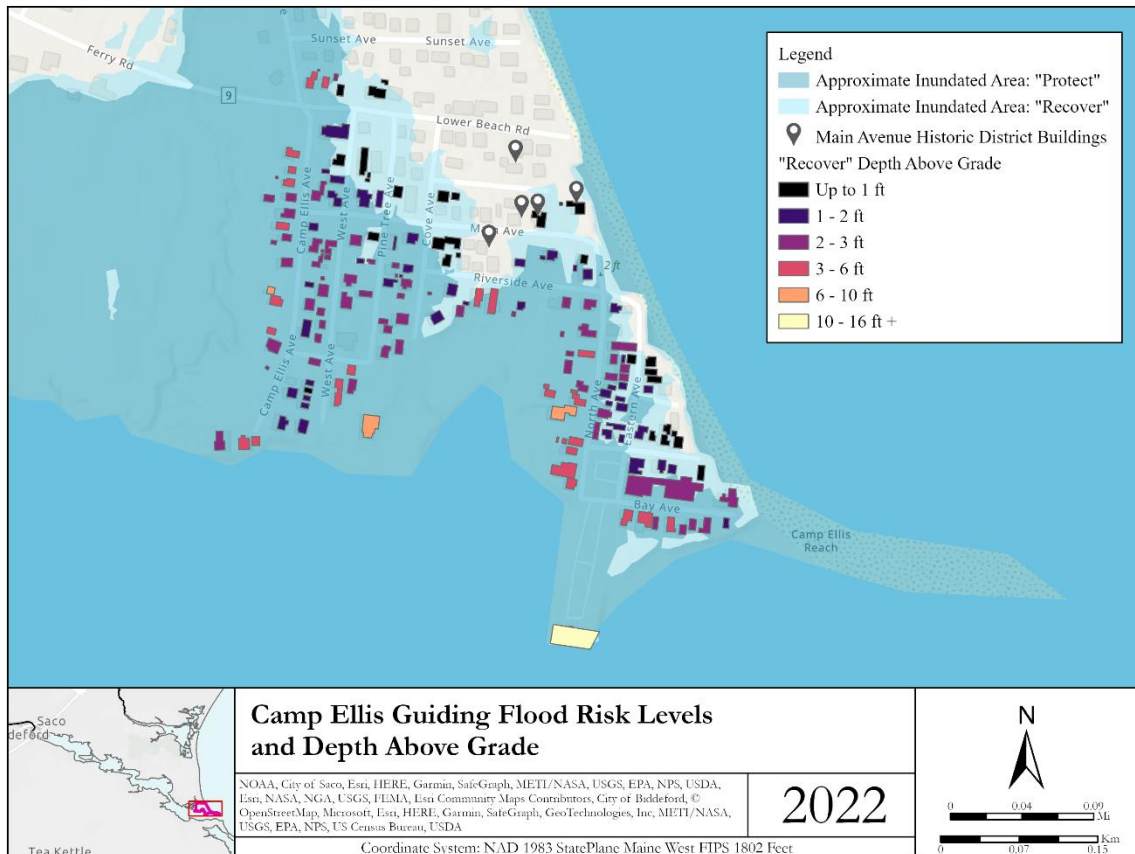


Figure 6: Approximate Inundated Extent for both "Protect" and "Recover" scenarios

The “Approximate Inundated Extent” overlay shown on the map above is a product of the Maine Sea Level Rise and Storm Surge Scenarios. The mapping model represents discrete water levels which do not align exactly with the “Protect” and “Recover” water levels and are only approximate. The shaded areas display the nearest mapped water level above each guiding flood risk elevation to reflect the potential effects of wave action on inundation.

The following sections discuss the merits of individual resiliency options as pertinent in Camp Ellis and presents a matrix for each building typology identifying in what conditions each resiliency options would be recommended or not recommended.

RESILIENCY OPTIONS

Property owners should consider the character defining features of their buildings as outlined in Appendix D when planning any alterations.

Minimize exposed assets: Ensure all flood-vulnerable belongings and infrastructure outside the main living space can be protected to the “Protect” elevation. For example, elevate any utilities below the “Protect” elevation to at least the “Protect” elevation and potentially the “Recover” elevation.

- Move any elevated utility such as electrical, plumbing, or heating systems to a utilitarian or insignificant space which will not detract from the historic character of the property. For example, some modern hot water heaters are small enough to be relocated to a small closet within the building’s main living space.
- If existing utilities are near the end of their lifespan, consider delaying the elevation of the utilities until they need to be replaced. Keep in mind that if this point occurs as the result of flood damage rather than reaching the end of the utility’s design life, there is likely to be a longer period without the utility in place as a replacement is sourced and installed.
- Alternatively, utilities may be enclosed within a waterproof barrier up to the established flood risk elevation rather than elevated. If utilities are located outdoors, consider whether the property is in an area vulnerable to wave action during flooding and ensure the enclosure is high enough to block encroaching waves. Consider also whether the waterproof enclosure can allow the property to access the utilities if needed.

Wet Floodproofing: A “wet floodproofing” strategy is designed to use openings which allow water to enter the structure during a flood event and drain afterwards. This reduces hydrostatic and hydrodynamic pressure on the structure’s walls, which can preserve the building. Wet floodproofing is recommended under the following circumstances:

- The established flood risk elevation is below the first floor/main living space; ideally wet-floodproofed areas will be basement or crawl spaces containing minimal valuable items.
 - Wet floodproofing may be an option even if the established flood risk elevation is higher than the level of the first floor of the main living space when:
 - The building is not a year-round residence
 - The building possesses two or more stories
 - It is practical and acceptable to the building’s owner or main inhabitants to remove furnishings and belongings from the area below the established flood risk elevation with limited notice prior to flooding. Furniture, flood-vulnerable appliances, and objects in buildings which are not occupied year-round should be secured above the established flood risk elevation at the end of the season.
 - It is possible that a flood of sufficient magnitude to enter the main living space could occur, but the probability is small.

RESILIENCY OPTIONS

- No character defining features or materials are located below the established flood risk elevation. If any historically significant features or materials are located below the “Recover” elevation, flooding with salt water will not damage them.
- Structural reinforcement and anchoring can be achieved without damaging character defining features of the building.
- Flooding is likely to occur rarely and for durations of 24 hours or less.

Property owners interested in wet floodproofing should take the following steps and considerations:

- Seek a professional's estimate of the number and size of flood vents needed to allow sufficient water to pass through to equalize hydrostatic pressure on the building's walls given the established flood risk elevation. Consider how alternative flood vents impact the building's historic character.
- Consider flood vents which allow debris to pass through the vent rather than blocking the vent, potentially leading to slowed flow into the building's interior and an imbalance of hydrostatic pressure on the walls which could cause structural damage.
- Determine whether the building can withstand the hydrostatic forces when inundated.
- Prompt drainage and drying of structural materials is key to recovery after flooding. Water retention in insulation between outer and inner wall surfaces can cause damage from prolonged moisture exposure and mold. Options to ensure prompt drainage can include drilling holes at the bottom of the wall or designing a system where the inner wall material can be removed to allow rapid drying of the insulation. Depending on flood depth above the first floor, insulation may need to be replaced after flooding. Research the materials used for the inner walls and whether the material is historically significant. Take photographs of the interior walls before pursuing any alterations so that any historically significant features can be put back in place correctly after making alterations.
- Identify a strategy for removing flood-vulnerable furniture and belongings from the area below the established flood risk elevation. For example, items could be moved to an upper story, placed on a platform above the flood risk elevation whose supports would not be damaged by flooding, or suspended from the ceiling. Consider using light weight furniture on the first floor so that the furniture can be removed. Alternatively, use furniture constructed from materials which are not flood-vulnerable below the flood risk elevation and ensure that the furniture would not be buoyant when inundated to the flood risk elevation.
- Make a plan for cleaning and drying any materials below the established flood risk elevation.
- Any alterations or additions will not significantly impact the character defining features of the building.

RESILIENCY OPTIONS

The cost of purchasing and installing flood vents in a crawlspace below a single-family home is estimated to fall between \$6,300 and \$9,500⁹. Additional costs may apply to install flood-resilient materials if the wet floodproofing is conducted above the first floor, reinforce the structure if needed, and to clean and restore the space after flooding.

Dry Floodproofing: Dry floodproofing strategies seek to prevent water from entering the building entirely. Dry floodproofing may include deploying temporary structures which block water or sealing the exterior of the building up to an established flood risk elevation with a waterproof coating, augmented by barriers which block flooding outside doors and windows below the established flood risk level. In Camp Ellis, dry floodproofing may be a favorable resiliency option when:

- Character defining features are located below grade or otherwise below the main living space
- The building has a load-bearing masonry foundation
- The “Recover” flood risk elevation is below the top of the masonry foundation
- The “Recover” flood risk elevation is three feet or less above grade
- The building components below the “Recover” elevation can withstand the hydrostatic force of inundation without any flooding of the interior void
- It is realistic and feasible for the property owner to block windows and doors with waterproof barriers with limited warning in advance of flooding
 - There is available storage for the barriers on site
 - The building is used year-round or the property owner lives nearby, alternatively the property owner secures the waterproof barriers at the end of each season
- It is realistic and feasible for the dry floodproofing system to be inspected and maintained regularly
- Ties can be installed to secure waterproof barriers outside windows and doors without disrupting the building’s character defining features
- Walls can be reinforced if necessary to withstand hydrostatic load

Property owners interested in dry floodproofing should seek the assistance of professional engineers and historic preservationists to determine the structural implications of alternative dry floodproofing strategies and the potential impact of any dry floodproofing method on historic materials and character defining features of the property.

Fill the Basement: Filling the basement involves filling the basement to grade with compacted gravel, soil, sand, and grout. This strategy prevents catastrophic structural damage which can result from high hydrostatic pressure on the basement walls and foundation, either during a surface flooding event at the building or when the high

⁹ Federal Emergency Management Agency, “Reducing Flood Risk to Residential Buildings That Cannot Be Elevated, FEMA P-1037, September 2015,”

https://www.fema.gov/sites/default/files/2020-07/fema_p1037_reducing_flood_risk_residential_buildings_cannot_be_elevated_2015.pdf (accessed 26 July 2022).

RESILIENCY OPTIONS

subsurface water level and hydrostatic pressure are not apparent to property owners. Filling the basement prevents unequal forces on the outside and inside of the wall from causing the walls to cave in. This strategy is also favorable because it typically involves little visible change in historic character. Filling the basement can be a favorable adaptation option in the following circumstances:

- The building has a basement below ground level on all sides (not suitable for walk-out basements)
- The basement is masonry construction
- No character defining features are located in the basement
- All utilities in the basement can be located to an appropriate location above the established flood risk level
- The established flood risk level is below the main living spaces

Property owners interested in filling in their basement should determine the following with the assistance of a professional engineer:

- Can drainage holes be installed in the bottom of the basement walls, a trench be made in the basement floor for drainage, or a pumping system be installed to remove water if needed?
- Is there sufficient clearance/access to the basement that fill and compacting equipment can enter and leave the basement?
- Are basement walls and footings strong enough to support fill after it has been compacted?

Consider that the fill may settle further after compaction; if the fill settles below grade, new fill should be added to bring the filled basement to grade. Filling the basement is a moderate to high cost intervention which may cost as much as \$50,000¹⁰.

Elevate the building on a new foundation: This strategy is popular because it raises the main living space above an established flood risk elevation entirely. This strategy works well for frame buildings above piers, post foundations, or crawl spaces, which are common forms in Camp Ellis. However, elevating the building on a new foundation can impact the building's historic character and its relationship to its setting if not implemented carefully. In Camp Ellis, buildings should be elevated on poles which allow fast-moving flood waters to flow below the building rather than on enclosed foundations, which are not favored in areas exposed to quickly moving floodwaters such as those caused by storm surge. In Camp Ellis, elevating the building may be favorable the following circumstances:

- There is a high chance flooding will enter the building's main living spaces over a thirty-year period

¹⁰ Basementing.com, "How to Fill in a Basement With Dirt," <https://basementing.com/how-to-fill-in-basement-with-dirt>, (accessed 26 July 2022).

RESILIENCY OPTIONS

- The building's relationship to the ground is not a historically character-defining feature
- The building is more than one-story or the building is a single story but its character-defining features and those of surrounding buildings are not intact
- The building is a single-story building with intact character defining features, but the amount by which the building will be elevated is less than a story.
- The building is near other buildings which have already been elevated
- The building is not on a slab foundation
 - It may be possible to elevate a building on a slab foundation, but this process is more challenging than elevating a building on another type of foundation.
 - Elevating a building on a slab foundation has a high probability of impacting its character defining features
- The building is structurally stable or can be temporarily reinforced during the process of raising the building to its new foundation
- There is sufficient space on site to allow the extension of stairs or other features to allow access to the building at its new height

Property owners in Camp Ellis who are interested in elevating the building on a new foundation should consider the following:

- Elevate the foundation on poles or piers rather than an enclosed foundation to allow fast-moving floodwaters to flow beneath the building.
- If the building has a wrap-around porch, elevate the porch along with the rest of the building to maintain the character-defining relationship between porch and building.
- Seek the help of a professional engineer to determine whether the building is structurally stable enough to undergo the process, or whether the building can be temporarily reinforced.
- Consider using landscaping to reduce the amount of elevated foundation that is visible.
- Consider using perforated screening to shield the area beneath the building from view. Select a screening material which is cohesive with the rest of the look of the building and appears in color and design as a natural extension downward from the building's structural walls.
- Whenever possible, replace the stairs used to access the building with a design similar in placement, direction, and appearance to the original stairs, especially if the stairs have not already been updated from their original form. For example, avoid moving the stairs to enter the porch from below within the porch footprint if the stairs originally approached the porch from outside its footprint. Avoid re-orienting the stairs so they approach from the direction parallel to the front of the house if the direction of the stairs was originally facing perpendicular to the front of the house, or vice versa.
- Consider installing access ways for people with mobility limitations. Install these access ways along the side of the structure if the access ways significantly alter the character-defining features of the property. Integrate the access way(s) with the building's existing features.

RESILIENCY OPTIONS

- Consider the impact on the character defining features of the building when designing the elevation.

The cost of raising a home on piers or pilings is typically \$10 - \$30 per square foot. Costs are lower (\$10 - \$20 per square foot) when the home is a single-story wood-framed home which is already on a pier or crawl space foundation. The cost to raise a multi-story home and/or a home on a concrete slab foundation is higher (\$15 - \$30 per square foot)¹¹. Costs may be higher if the existing foundation must be replaced, an additional \$5 - \$30 per square foot⁶. In total, costs can range from \$20,000 - \$100,000 [7].



Examples of structures elevated on piers along Beach Avenue

Move the building to another location: This flood resiliency option reduces flood risk by moving a building to a location where the building is not exposed to flood hazard. The NPS does not recommend relocating a historic structure unless it is the only way to save it from demolition. Relocation may be considered under extreme circumstances such as:

- The building has historical significance
- The building is expected to flood very frequently
- Access ways (roads, walking routes, etc.) to the building are expected to be permanently cut off by high tide or floodwater

¹¹ HomeGuide, "How Much Does it Cost to Raise a House?" <https://homeguide.com/costs/house-lifting-cost> (accessed 2 August 2022).

RESILIENCY OPTIONS

- The building can be relocated to a place and context which resembles its original location when it was first constructed

The cost of relocating a home may range from \$15,000 - \$200,000¹².

Flood Insurance: Flood insurance is a non-structural strategy property owners can use to ensure they are prepared to fund repairs and damage mitigation in the wake of flooding should it occur. Insurance is available from public entities such as FEMA, and may even be required to secure a federally-backed mortgage if the building is in a Special Flood Hazard Area (SFHA) at present. Flood insurance may also be available from private insurers. It is recommended that property owners consider purchasing flood insurance even if they are not currently located in a mapped flood zone. Investigate present and future flood risk at the property to determine whether flood risk exists at present sea level, or if risk of flooding may increase in the future. Property owners may also wish to consult present sea level studies of the impacts of extreme storms such as the SLOSH hurricane surge modeled flood depths [3] provided in Appendix C. Flood insurance is likely to be especially affordable if the building's current flood exposure is low.

- Investigate multiple public and private flood insurance options. Determine what different policies would or would not cover such as utilities outside the home, basement damage, contents damage, and post-flood moisture and mold remediation treatment.
- Consider whether adding coverage to ensure the policy would fund historically appropriate repair strategies.

In Maine, National Flood Insurance Program (NFIP) insurance costs most property owners between \$1,000 and \$3,000 per year, though costs for individual property owners may be lower or higher depending on flood exposure¹³.

Recommended resiliency options for each building typology based on the depth of inundation at the "Protect" and "Recover" levels relative to grade and the building's main living space are given. Approximate cost estimates for each resiliency options are provided by building type and scenario using the symbolization below:

\$: Under \$2500

\$\$: \$2500 - \$5000

\$\$\$: \$5000 - \$10,000

\$\$\$\$: \$10,000 - \$50,000

\$\$\$\$\$: \$50,000 - \$250,000

¹² Realtor.com, "How Much Does It Cost to Move a House? Here's How Home Raising and Relocating Work," <https://www.realtor.com/advice/buy/how-much-does-it-cost-to-move-a-house/> (accessed 2 August 2022.)

¹³ Policygenius, "How much does flood insurance cost in 2022?" <https://www.policygenius.com/homeowners-insurance/how-much-does-flood-insurance-cost/> (accessed 2 August 2022).

RESILIENCY OPTIONS

Typology 1: Wood-Frame Building on Slab Foundation

Buildings situated on slab foundations already possess several flood resiliency strengths. First, no utility, living space, or other valuable items or building components are located below grade. Second, the lack of below-grade void space means that there is no potential for unseen, below-grade hydrostatic forces to threaten the building's structural integrity. Because the building void space is above grade in a slab-foundation home, any water that enters the building during a flood event can drain naturally from the home via gravity with little need for introducing assisting measures such as pumping.

In Camp Ellis, buildings on slab foundations are almost uniformly wood-framed, which is characteristic of the area. As with any structural type, wood-framed construction can present challenges or even eliminate several potential flood adaptation measures while being well-suited to other solutions. Potential resiliency options which are likely to be suitable for slab-foundation wood framed buildings are discussed below depending on where the two guiding flood risk elevations fall on the building.

Flood Exposure Scenario 1: "Recover" elevation falls below first floor

If the "Recover" elevation falls below the first floor (likely three feet or less above grade), minimal flood adaptation measures are needed. Property owners should ensure utilities are situated above the "Protect" elevation at a minimum, and ideally above the "Recover" elevation. The property owner may wish to consult Appendix C and determine where more extreme flood elevations lie in relation to the first-floor elevation and take additional measures if they so choose, including purchasing flood insurance. Given the building's low level of flood exposure, flood insurance is likely to be affordable.

Resiliency Option	Protect Elevation	Recover Elevation	Cost
Elevate utilities	Y	Y	\$
Waterproof utilities	Y	Y	\$ - \$\$
Wet floodproof	N	N	\$\$\$
Dry floodproof	N	N	\$\$ - \$\$\$
Fill the basement	N/A	N/A	-
Elevate the building on new foundation	N	N	\$\$\$\$ - \$\$\$\$\$
Move the historic building	N	N	\$\$\$\$ - \$\$\$\$\$
Flood Insurance	Y	Y	\$

RESILIENCY OPTIONS

Flood Exposure Scenario 2: “Recover” elevation is up to three feet above first floor elevation; “Protect” elevation falls below first floor

Resiliency Option	Protect Elevation	Recover Elevation	Cost
Elevate utilities	Y	Y	\$
Waterproof utilities	Y	Y	\$\$
Wet floodproof	N	Y	\$\$\$
Dry floodproof	N	N	\$\$ - \$\$\$
Fill the basement	N/A	N/A	-
Elevate the building on new foundation	N	N	\$\$\$\$
Move the historic building	N	N	\$\$\$\$ - \$\$\$\$\$
Flood Insurance	Y	Y	\$\$

If the “Recover” elevation falls up to three feet above the first floor but the “Protect” elevation falls below the first floor, the depth of flooding that would occur above the first floor would be 1.45 feet or less. In this case, it is recommended to elevate or waterproof any electrical, mechanical, or plumbing utilities to the “Protect” elevation (considering wave action) and considering a wet floodproofing strategy up to the “Recover” elevation. Wet floodproofing, while generally not favorable for living spaces, is a realistic option for this scenario because flooding at the “Recover” elevation is expected to occur rarely, and other strategies which would protect to the “Recover” elevation are not suitable for wood-frame construction (dry floodproofing) or challenging to implement on slab foundations (elevating the structure). It is also recommended that flood insurance is purchased to mitigate the costs of recovery in the event of inundation.

Flood Exposure Scenario 3: “Protect” elevation is up to three feet above first floor level; “Recover” elevation falls up to 4.5 feet above first floor level

Under Scenario 3, the guiding flood risk elevations are higher on the building. The “Protect” elevation is up to three feet over the first-floor elevation and the “Recover” elevation is up to 4.5 feet over the first floor elevation. It is recommended that property owners whose building is exposed to flooding up to three feet deep at the “Protect” level elevate utilities above the “Protect” level and consider elevating utilities up to the “Recover” elevation and explore elevating the building on a new foundation. It is not recommended to surround utilities with a waterproof enclosure under this scenario because the flood elevation is likely to be high enough that the utilities will be difficult to access.

RESILIENCY OPTIONS

Resiliency Option	Protect Elevation	Recover Elevation	Cost
Elevate utilities	Y	Y	\$
Waterproof utilities	N	N	\$\$
Wet floodproof	N	Y	\$\$\$
Dry floodproof	N	N	\$\$\$
Fill the basement	N/A	N/A	-
Elevate the building on new foundation	Y	N	\$\$\$\$ - \$\$\$\$\$
Move the historic building	N	N	\$\$\$\$ - \$\$\$\$\$
Flood Insurance	Y	Y	\$\$

Wet floodproofing is not recommended under this scenario because the annual chance of inundation inside the main living space will become relatively high by 2050. Instead, it is recommended to pursue the option of elevating the building on a new foundation to above the "Recover" elevation. Even though elevating buildings which are on slab foundations is more challenging than elevating buildings on other foundation types, the additional investment may be worthwhile given the high chances of repeated inundation at buildings where the "Protect" elevation is inside the main living space.

Property owners may still wish to consider wet floodproofing strategies if the cost and logistics of elevating the property are more objectionable than the property retrofits intensive draining and cleaning process, and uninhabitable period after flooding which are necessary under wet floodproofing strategies. Property owners should consider the depth of the "Recover" elevation on their building and ensure that the buildings are able to withstand the forces on the structure during inundation. They should also ensure there is a practical way to store flood-vulnerable items above the "Recover" elevation. It is also recommended to purchase flood insurance to mitigate the costs of recovery in the event of inundation.

Flood Exposure Scenario 4: MHHW elevation at or above grade

Scenario 4 represents an extreme flood exposure where Mean Higher High Water (MHHW) is at or above grade outside the structure. This condition may overlap with Scenario 3 for buildings with foundations three feet or less above grade. Under this scenario, two potential strategies are recommended depending on the relationship between the building site and the surrounding area.

If grade at the building is at a similar or higher elevation relative to the surrounding areas, it is very likely that the building will be inaccessible on a daily basis due to tidal flooding of roads and other access ways. In this case, moving the building to another location may be the best option to protect the building from flooding. Because this is an intensive and costly option property owners may wish to seek relief through a buyout program instead, especially if the building does not maintain a high degree of intact historical features. Buildings which do possess high levels of intact historical character-defining features may benefit from relocation to a setting which is higher-elevation but

RESILIENCY OPTIONS

possesses many features of Camp Ellis in the late 1800s through mid-1900s, namely coastal proximity, proximity to other coastal summer cottages, and a historical working to middle-class character and history.

Resiliency Option	Protect Elevation	Recover Elevation	Cost
Elevate utilities	Y*	Y*	\$
Waterproof utilities	N	N	\$\$
Wet floodproof	N	Y	\$\$\$
Dry floodproof	N	N	\$\$ - \$\$\$
Fill the basement	N/A	N/A	-
Elevate the building on new foundation	Y	Y	\$\$\$\$ - \$\$\$\$\$
Move the historic building	Y	Y	\$\$\$\$ - \$\$\$\$\$
Flood Insurance	Y	Y	\$\$\$

If the building is at a low point and surrounding roads are unlikely to be regularly cut off during high tides, it is recommended to pursue the option of elevating the building on a new foundation to a level over the "Recover" elevation. Given the frequency of flooding, property owners may consider the additional costs and logistical considerations of elevating a slab foundation building worthwhile. Property owners may also wish to investigate landscaping improvements which provide elevated parking space above the highest astronomical tide elevation. Alternatively, property owners whose building are exposed to this level of flooding may wish to pursue relief options such as a buyout program. If the building contains intact historical character-defining features it is recommended to pursue options which would preserve the building.

Because buildings exposed to flooding at this level require high-intervention flood mitigation strategies which are likely to take time and planning to implement, it is also recommended to purchase flood insurance to mitigate the costs of recovery in the event of inundation in the intervening time.

Typology 2: Wood-Frame Building on Concrete (Block or Poured) Foundation with Basement

In Camp Ellis, buildings on concrete foundations are almost uniformly wood-framed, which is characteristic of the area. Some possess basements and others do not. Because floodproofing considerations are more extensive for buildings which possess basements below grade, recommendations are focused on buildings which possess basements. Potential resiliency options are discussed which are likely to be suitable for this typology depending on where the two guiding flood risk elevations fall on the building.

RESILIENCY OPTIONS

Flood Exposure Scenario 1: “Recover” elevation falls below first floor

If the “Recover” elevation falls below the first floor (likely three feet or less above grade), the property owner should determine whether the “Recover” elevation falls below the depth of the basement flooring. If so, minimal adaptation measures are needed. The property owner may wish to purchase flood insurance to mitigate the costs of recovery in the event of inundation. Given the building’s low level of flood exposure, flood insurance is likely to be affordable.

Resiliency Option	Protect Elevation	Recover Elevation	Cost
Elevate utilities	Y	Y	\$
Waterproof utilities	Y	Y	\$\$
Wet floodproof	Y	Y	\$\$\$
Dry floodproof	N*	N*	\$\$ - \$\$\$
Fill the basement	Y	Y	\$\$\$\$ - \$\$\$\$\$
Elevate the building on new foundation	N	N	\$\$\$\$ - \$\$\$\$\$
Move the historic building	N	N	\$\$\$\$ - \$\$\$\$\$
Flood Insurance	Y	Y	\$

If the “Recover” flood risk elevation falls within the basement space, it is recommended the property owner consider their proximity to potentially flooded areas and the history of water or dampness in the basement. If the property owner determines there is flood risk to the basement, it is recommended to either filling the basement to grade to ensure the basement’s and foundation’s structural integrity, wet floodproofing and elevating utilities above the “Protect” or “Recover” elevation, or dry floodproofing and elevating utilities if the structure is determined to be able to withstand the hydrostatic forces. Dry floodproofing is not recommended unless the basement contains important historical character-defining features below the established flood risk elevations.

Flood Exposure Scenario 2: “Recover” elevation is up to three feet above first floor elevation; “Protect” elevation falls below first floor

If the “Recover” elevation falls up to three feet above the first floor but the “Protect” elevation falls below the first floor, the depth of flooding that would occur above the first floor would be 1.45 feet or less. In this case, it is recommend to elevate or waterproof any electrical, mechanical, or plumbing utilities to the “Protect” elevation (considering wave action) and considering a wet floodproofing strategy up to the “Recover” elevation. Wet floodproofing, while generally not favorable for living spaces, is a realistic option for this scenario because flooding at the “Recover” elevation is expected to occur rarely. Property owners may also consider filling the basement space and elevating the building to above the “Recover” elevation on a new foundation. The new foundation should use posts or piers to allow floodwater to flow beneath the building.

RESILIENCY OPTIONS

Resiliency Option	Protect Elevation	Recover Elevation	Cost
Elevate utilities	Y	Y	\$
Waterproof utilities	Y	Y	\$\$
Wet floodproof	Y	Y	\$\$\$
Dry floodproof	N	N	\$\$ - \$\$\$
Fill the basement	Y	Y	\$\$\$\$ - \$\$\$\$\$
Elevate the building on new foundation	N	N	\$\$\$\$ - \$\$\$\$\$
Move the historic building	N	N	\$\$\$\$ - \$\$\$\$\$
Flood Insurance	Y	Y	\$\$

Dry floodproofing the basement space is not recommended when the “Recover” elevation is above the first floor because the “Protect” elevation will be necessarily near the basement ceiling. If the basement space contains significant historical character-defining features, contact local historical preservation resources to determine whether the features can be relocated or preserved in a historically sensitive way.

It is recommended that building owners purchase flood insurance to mitigate the costs of recovery in the event of inundation.

Flood Exposure Scenario 3: “Protect” elevation is up to three feet above first floor level; “Recover” elevation falls up to 4.5 feet above first floor level

Under Scenario 3, the guiding flood risk elevations are higher on the building. The “Protect” elevation is up to three feet over the first-floor elevation and the “Recover” elevation is up to 4.5 feet over the first floor elevation. It is recommended that property owners whose building is exposed to flooding up to three feet deep at the “Protect” level elevate utilities above the “Protect” level and consider elevating utilities up to the “Recover” elevation. Property owners should also explore filling the basement and elevating the building on a new foundation. It is not recommended to surround utilities with a waterproof enclosure under this scenario because the flood elevation is likely to be high enough that the utilities will be difficult to access.

Resiliency Option	Protect Elevation	Recover Elevation	Cost
Elevate utilities	Y	Y	\$
Waterproof utilities	N	N	\$\$
Wet floodproof	N	Y	\$\$\$
Dry floodproof	N	N	\$\$ - \$\$\$
Fill the basement	Y	Y	\$\$\$\$ - \$\$\$\$\$
Elevate the building on new foundation	Y	N	\$\$\$\$ - \$\$\$\$\$
Move the historic building	N	N	\$\$\$\$ - \$\$\$\$\$
Flood Insurance	Y	Y	\$\$

RESILIENCY OPTIONS

Wet floodproofing is not recommended under this scenario because the annual chance of inundation inside the main living space will become relatively high by 2050. Instead, it is recommended to pursue the option of elevating the building on a new foundation to above the “Recover” elevation.

It is also recommended that building owners purchase flood insurance to mitigate the costs of recovery in the event of inundation.

Flood Exposure Scenario 4: MHHW elevation at or above grade

Scenario 4 represents an extreme flood exposure where Mean Higher High Water (MHHW) is at or above grade outside the structure. This condition may overlap with Scenario 3 for buildings with foundations three feet or less above grade. Under this scenario, there are two recommended potential strategies depending on the relationship between the building site and the surrounding area.

If grade at the building is at a similar or higher elevation relative to surrounding areas, it is very likely that the building will be inaccessible on a daily basis due to tidal flooding of roads and other access ways. In this case, moving the building to another location may be the best option to protect the building from flooding. Relocation is not recommended under the SOI’s Standards and should only be considered in cases where the structure will be lost if not moved. Because this is an intensive and costly option property owners may wish to seek relief through a buyout program instead, especially if the building does not maintain a high degree of intact historical features. Buildings which do possess high levels of intact character defining features may benefit from relocation to a setting which is higher-elevation but possesses many features of Camp Ellis in the late 1800s through mid-1900s, namely coastal proximity, proximity to other coastal summer cottages, and a historical middle-class character and history.

Resiliency Option	Protect Elevation	Recover Elevation	Cost
Elevate utilities	Y*	Y*	\$
Waterproof utilities	N	N	\$\$
Wet floodproof	N	N	\$\$\$
Dry floodproof	N	N	\$\$ - \$\$\$
Fill the basement	Y	Y	\$\$\$\$ - \$\$\$\$\$
Elevate the building on new foundation	Y	Y	\$\$\$\$ - \$\$\$\$\$
Move the historic building	Y	Y	\$\$\$\$ - \$\$\$\$\$
Flood Insurance	Y	Y	\$\$\$

If the building is at a low point and surrounding roads are unlikely to be regularly cut off during high tides, It is recommended to pursue the option of filling the basement and elevating the building on a new foundation to a level over the “Recover” elevation. Property owners may also wish to investigate landscaping improvements which provide elevated parking space above the highest astronomical tide elevation. Alternatively,

RESILIENCY OPTIONS

property owners whose buildings are exposed to this level of flooding may wish to pursue relief options such as a buyout program. If the building contains intact historical character-defining features it is recommended to pursue options which would preserve the building.

Because buildings exposed to flooding at this level require high-intervention flood mitigation strategies which are likely to take time and planning to implement, it is also recommended to purchase flood insurance to mitigate the costs of recovery in the event of inundation in the intervening time.

Typology 3: Wood-Frame Building on Piers

In Camp Ellis, many buildings have been constructed or raised to sit on a foundation of wood, concrete, or metal piers. This foundation type allows flood water up to the height of the piers to flow freely below the building where the water cannot cause any structural damage. Potential resiliency options are discussed which are likely to be suitable for this typology depending on where the two guiding flood risk elevations fall on the building.

Flood Exposure Scenario 1: "Recover" elevation falls below first floor

If the "Recover" elevation falls below the first floor (likely three feet or less above grade), minimal adaptation measures are needed. The property owner may wish to purchase flood insurance to mitigate the costs of recovery in the event of inundation. Given the building's low level of flood exposure, flood insurance is likely to be affordable.

Resiliency Option	Protect Elevation	Recover Elevation	Cost
Elevate utilities	Y	Y	\$
Waterproof utilities	Y	Y	\$\$
Wet floodproof	N	N	\$\$\$
Dry floodproof	N	N	\$\$ - \$\$\$
Fill the basement	N/A	N/A	-
Elevate the building on new foundation	N	N	\$\$\$\$
Move the historic building	N	N	\$\$\$\$ - \$\$\$\$\$
Flood Insurance	Y	Y	\$

The property owner should ensure the building's utilities are elevated above at least the "Protect" flood risk elevation and ideally the "Recover" flood risk elevation.

Flood Exposure Scenario 2: "Recover" elevation is up to three feet above first floor elevation; "Protect" elevation falls below first floor

If the "Recover" elevation falls up to three feet above the first floor but the "Protect" elevation falls below the first floor, the depth of flooding that would occur above the

RESILIENCY OPTIONS

first floor would be 1.45 feet or less. In this case, it is recommended to elevate or waterproof any electrical, mechanical, or plumbing utilities to the “Protect” elevation (considering wave action) and to implement a wet floodproofing strategy inside the living space up to the “Recover” elevation. Wet floodproofing, while generally not favorable for living spaces, may be more desirable to property owners who have already gone through the process of elevating their homes on piers or stilts and do not wish to repeat the intensive process. Because flooding at the “Recover” elevation is expected to occur rarely even in 2050, the expected number of living space inundation the property owner will need to recover from over a thirty-year period is small.

Resiliency Option	Protect Elevation	Recover Elevation	Cost
Elevate utilities	Y	Y	\$
Waterproof utilities	Y	Y	\$\$
Wet floodproof	Y	Y	\$\$\$
Dry floodproof	N	N	\$\$ - \$\$\$
Fill the basement	N/A	N/A	-
Elevate the building on new foundation	Y	Y	\$\$\$\$
Move the historic building	N	N	\$\$\$\$ - \$\$\$\$\$
Flood Insurance	Y	Y	\$\$

Further elevating the building is recommended as an alternative resiliency option to building owners who would prefer not to pursue a wet floodproofing strategy because elevating buildings which are already on pier or post foundations is easier than elevating buildings on other foundation types. The costs of flood insurance are likely to decrease when the building has been elevated and other resiliency measures have been put into place.

Flood Exposure Scenario 3: “Protect” elevation is up to three feet above first floor level; “Recover” elevation falls up to 4.5 feet above first floor level

Under Scenario 3, the guiding flood risk elevations are higher on the building. The “Protect” elevation is up to three feet over the first floor elevation and the “Recover” elevation is up to 4.5 feet over the first floor elevation. It is recommended that property owners whose building is exposed to flooding up to three feet deep at the “Protect” level elevate utilities above the “Protect” level and consider elevating utilities up to the “Recover” elevation. Property owners should also consider elevating the building on a new foundation. It is not recommended to surround utilities with a waterproof enclosure under this scenario because the flood elevation is likely to be high enough that the utilities will be difficult to access.

RESILIENCY OPTIONS

Resiliency Option	Protect Elevation	Recover Elevation	Cost
Elevate utilities	Y	Y	\$
Waterproof utilities	N	N	\$\$
Wet floodproof	N	N	\$\$\$
Dry floodproof	N	N	\$\$ - \$\$\$
Fill the basement	N/A	N/A	-
Elevate the building on new foundation	Y	Y	\$\$\$\$
Move the historic building	N	N	\$\$\$\$ -\$\$\$\$\$
Flood Insurance	Y	Y	\$\$

Wet floodproofing is not recommended under this scenario because the annual chance of inundation inside the main living space will become relatively high by 2050. While property owners who have already elevated their building may object to repeating the process, elevating the building to above the "Recover" flood risk elevation reduces the chances that further flood protection efforts will be needed for multiple decades to come. It is recommended that flood insurance is purchased to mitigate the costs of recovery in the event of inundation. The cost of flood insurance is likely to decrease when other resiliency measures have been implemented on the property.

Flood Exposure Scenario 4: MHHW elevation at or above grade

Scenario 4 represents an extreme flood exposure where Mean Higher High Water (MHHW) is at or above grade outside the structure. This condition may overlap with Scenario 3 for buildings on piers or posts less than three feet above grade. Under this scenario, two potential strategies are recommended depending on the relationship between the building site and the surrounding area.

If grade at the building is at a similar or higher elevation relative to surrounding areas, it is very likely that the building will be inaccessible on a daily basis due to tidal flooding of roads and other access ways. In this case, moving the building to another location may be the best option to protect the building from flooding. Relocation is not recommended under the SOI's Standards and should only be considered in cases where the structure will be lost if not moved. Because this is an intensive and costly option property owners may wish to seek relief through a buyout program instead, especially if the building does not maintain a high degree of intact historical features. Buildings which do possess high levels of intact historical character-defining features may benefit from relocation to a setting which is higher-elevation but possesses many features of Camp Ellis in the late 1800s through mid-1900s, namely coastal proximity, proximity to other coastal summer cottages, and a historical working to middle-class character and history.

RESILIENCY OPTIONS

Resiliency Option	Protect Elevation	Recover Elevation	Cost
Elevate utilities	Y*	Y*	\$
Waterproof utilities	N	N	\$\$
Wet floodproof	N	N	\$\$\$
Dry floodproof	N	N	\$\$ - \$\$\$
Fill the basement	N/A	N/A	-
Elevate the building on new foundation	Y	Y	\$\$\$\$
Move the historic building	Y	Y	\$\$\$\$ -\$\$\$\$\$
Flood Insurance	Y	Y	\$\$\$

If the building is at a low point and surrounding roads are unlikely to be regularly cut off during high tides, elevating the building on a new foundation to a level over the “Recover” elevation is recommended. Property owners may also wish to investigate landscaping improvements which provide elevated parking space above the highest astronomical tide elevation. Alternatively, property owners whose building are exposed to this level of flooding may wish to pursue relief options such as a buyout program. If the building contains intact character-defining features, it is recommended that options which would preserve the building are pursued.

Because buildings exposed to flooding at this level require high-intervention flood mitigation strategies which are likely to take time and planning to implement, purchasing flood insurance is recommended to mitigate the costs of recovery in the event of inundation in the intervening time.

Summary

This report presents two guiding flood elevations, each representing different event severity and frequency:

- The “Protect” guiding flood elevation is based on a 10% EWL, which is a rare and extreme event in any given year. However, over a 30-year period there is a 95.8% chance that a 10% EWL will occur at least once. Property owners who invest in protecting a building from flooding to this level have a high chance of benefiting from their investments over the life of a 30-year mortgage.
- In contrast, the “Recover” guiding flood elevation is based on a 1% EWL. This is an even more rare and extreme event than the 10% water level. However, the “Recover” flood risk elevation is almost two feet higher than the “Protect” flood risk elevation, which could introduce significant additional costs to property owners who wish to secure their building against flooding to the same degree. In addition, setting the goal of fully protecting a historic structure to a higher elevation increases the chance that protection will necessitate substantial alterations to the building's character-defining features. While no property owner relishes the idea of draining, cleaning, potentially replacing lost possessions and making repairs after flooding, the cost of adaptation expenses (such as wet

RESILIENCY OPTIONS

floodproofing retrofits) may be more palatable given the lower chances of flooding exceeding the “Protect” guiding flood elevation.

However, the “Recover” flood risk elevation is almost two feet higher than the “Protect” flood risk elevation, which could introduce significant additional costs to property owners who wish to secure their building against flooding to the same degree. In addition, setting the goal of fully protecting a historic structure to a higher elevation increases the chance that protection will necessitate substantial alterations to the building’s character-defining features. While no property owner relishes the idea of draining, cleaning, potentially replacing lost possessions and making repairs after flooding, the cost of adaptation expenses (such as wet floodproofing retrofits) may be more palatable given the lower chances of flooding exceeding the “Protect” guiding flood elevation. Each property owner should weigh the costs of adaptation against the cost of recovering from one or more flood events.

CONCLUSION

Camp Ellis is a unique example of a seasonal coastal village in Southern Maine that developed as a working to middle class community, elements of which are still apparent today. Many of the buildings in Camp Ellis have undergone alterations over the years, including replacement siding, large additions, and new construction. However, the setting and original massing of many of the structures remain intact, and the area is a good example of a seasonal coastal community. The structures are under threats from both tear-downs and large additions as well as from flooding and erosion caused by climate change and the breakwater. The City of Saco should consider whether a locally designated historic district is warranted to ensure further development is undertaken in a manner that is sensitive to the historic character of the area. In order to protect both Camp Ellis' historic character and property owners' investment, different climate resiliency strategies have been proposed. This report has recommended two flood exposure elevations based on future coastal flood studies which the City of Saco and Camp Ellis property owners can use to develop flood adaptation interventions. This report has also made resiliency recommendations for the three most common building types in Camp Ellis based on different flood elevation heights. As building technology and further research into potential sea level rise develops, the guiding flood risk elevations and resiliency strategies should be reevaluated and amended as necessary.

REFERENCES

- Basementing.com. "How to Fill in a Basement With Dirt," <https://basementing.com/how-to-fill-in-basement-with-dirt>. Accessed 26 July 2022.
- Clark, Jeff. "Summering on the Brink," *Down East Magazine*, July 1996.
- Downs, Jacques M. *The Cities on the Saco*. Norfolk, VA: Donning Company, 1985.
- Fairfield, Roy P. *Sands, Spindles, and Steeples*. Portland, ME: House of Falmouth, 1956
- Federal Emergency Management Agency. *Flood Insurance Study, City of Saco, Maine, York County*.
<https://map1.msc.fema.gov/data/23/S/PDF/230155V000A.pdf?LOC=95dd520b9622cd314f635b2b5d9016b3>. Accessed 26 July 2022.
- _____. "Reducing Flood Risk to Residential Buildings That Cannot Be Elevated, FEMA P-1037, September 2015."
https://www.fema.gov/sites/default/files/2020-07/fema_P1037_reducing_flood_risk_residential_buildings_cannot_be_elevated_2015.pdf. Accessed 26 July 2022.
- _____. "Requirements for Flood Openings in Foundation Walls and Walls of Enclosures: Below Elevated Buildings in Special Flood Hazard Areas in Accordance with the National Flood Insurance Program." *NFIP Technical Bulletin 1*, March 2020.
- Greater Portland Landmarks. *Staying Above Water: Property Owner's Guide*.
https://static1.squarespace.com/static/555c99afe4b027a64d6975df/t/613924d97192cb11bb938e5b/1631134941239/PropertyOwnersGuideFINAL_WEB9.8.pdf. Accessed 1 August 2022.
- HomeGuide. "How Much Does it Cost to Raise a House?"
<https://homeguide.com/costs/house-lifting-cost>. Accessed 2 August 2022.
- Kelley, Joseph T. and Walter A. Anderson. "The Maine Shore and the Army Corps: A Tale of Two Harbors, Wells and Saco, Maine," *Maine Policy Review*, Fall 2000, Vol. 9, No. 2, pg. 20-28.
- Maine Climate Council Scientific and Technical Subcommittee. *Scientific Assessment of Climate Change and Its Effects in Maine*.
https://digitalcommons.library.umaine.edu/cgi/viewcontent.cgi?article=3273&context=univ_publications. Accessed 27 July 2022.
- Maine Department of Agriculture, Conservation, & Forestry. "Maine SLOSH Inundation Depths Category 1."
<https://maine.hub.arcgis.com/maps/34e410e577464fcfb3cfa1d90da36c57/about>. Accessed 25 July 2022.

REFERENCES

- Maine GIS. "Maine Elevation DEM 2020 (Imagery Layer)."
<https://maine.hub.arcgis.com/datasets/maine::maine-elevation-dem-2020-imagery-layer/about>. Accessed 25 July 2022.
- National Oceanic and Atmospheric Administration, "Global and Regional Sea Level Rise Scenarios for the United States."
<https://oceanservice.noaa.gov/hazards/sealevelrise/sealevelrise-tech-report.html>. Accessed 25 July 2022.
- National Park Service. *The Secretary of the Interior's Standards for Restoration and Rehabilitation*. <https://www.nps.gov/tps/standards.htm>. Accessed 1 August 2022.
- _____. *The Secretary of the Interior's Standards for Rehabilitation and Guidelines on Flood Adaptation for Rehabilitating Historic Buildings*.
<https://www.nps.gov/orgs/1739/upload/flood-adaptation-guidelines-2021.pdf>. Accessed 1 August 2022.
- Plan of Camp Ellis. Plan Book 1, Page 74. 21 September 1880. York County Registry of Deeds, Alfred, Maine.
- Policygenius. "How much does flood insurance cost in 2022?"
<https://www.policygenius.com/homeowners-insurance/how-much-does-flood-insurance-cost/>. Accessed 2 August 2022.
- Realtor.com. "How Much Does It Cost to Move a House? Here's How Home Raising and Relocating Work." <https://www.realtor.com/advice/buy/how-much-does-it-cost-to-move-a-house/>. Accessed 2 August 2022.
- Saco Revisted. Portsmouth, NH: Arcadia Publishing, 2009.
- Scontras, Peter N. *Saco: Then and Now*. Saco, ME: Scontras Publishing Co., 1994.
- Scully, Jeffrey A. *Saco*. August, ME: Alan Sutton, Inc., 1994.

Appendix A: Architectural Survey

Architectural Survey Report Camp Ellis Saco, Maine M17526

Erin Ware
Kleinfelder
16 Commerce Drive, Suite 2, Augusta,
Maine 04330
eware@kleinfelder.com
(207)626-4919

Prepared for: *Sponsoring agency or entity*
Maine Historic Preservation Commission, Augusta, Maine

Dates: *Provide the dates from when the project was started up through when the report was written and/or revised and submitted.*
June 29, 2022 – July 14, 2022

Level: *Reconnaissance or Intensive*
Reconnaissance

Name of surveyors: *(If different from author, provide contact information for each surveyor.)*
Erin Ware

Continuing project? *If so, please summarize previous efforts.*
No.

I. EXECUTIVE SUMMARY

The project consists of identifying and documenting all resources 50 years old or older within Camp Ellis and evaluate eligibility for listing in the National Register of Historic Places. There are 134 properties in the survey area that were identified as 50 years or older. Eighty-one resources were previously surveyed. Six are eligible for listing in the National Register of Historic Places.

II. RESEARCH DESIGN AND BACKGROUND RESEARCH

A. Basis: *Describe the purpose of this survey.*
The purpose of the survey is to identify and document all resources 50 years old or older within Camp Ellis and evaluate eligibility for listing in the National Register of Historic Places. The City of Saco initiated the survey, funded by a grant from the Maine Historic Preservation Commission.

B. Survey and Research Goals: *Describe the underlying project, specifically citing the type of project and duration of project. Summarize planned or anticipated alterations to landscapes, buildings, structures, districts, objects or sites.*
The City of Saco seeks to identify any National Register-eligible resources in the Camp Ellis area as part of climate resiliency planning.

C. Survey Boundaries: *1. Draw the boundaries of the survey on the topographic map in blue or black and label this line "Survey Boundaries."*

2. Describe the limits of the surveyed area. Make reference to geographic landmarks, addresses or political boundaries. Utilize reasonable demarcations – tree lines, back lots.

The survey area encompasses the entire area from the intersection of Lower Beach Road and Camp Ellis Avenue to the south and east, bordered by the Saco River on the south and the Atlantic Ocean on the east.

D. Survey Methodology:

1. Describe background research method.

The National Register Information System and MHPC files were consulted to determine if there are any properties in the survey area that are listed in, or officially eligible for listing in, the National Register. Additionally, the surveyor looked at MHPC files to determine if they contained any previously recorded resources within the survey area. The surveyor researched local histories at the Dyer Library in Saco and the MacArthur Library in Biddeford for information about properties in the survey area.

2. Describe field research method.

The surveyor conducted an initial drive through the project area and determined there were resources present greater than forty-five years of age. Next, the surveyor walked the project area and recorded on MHPC survey forms all of the buildings, structures, sites, objects, and landscape features within the boundaries that appeared to be fifty years old or older, and photographs were taken of each resource.

3. Did you undertake a file search at MHPC for NR or previously recorded properties?

Yes.

E. Goals

There are approximately 30 acres in the survey area. This project will result in one survey.

III. SURVEY FINDINGS

A. Acres:

Provide the total number of acres within the survey boundaries.

The survey area is approximately 30 acres.

B. Setting:

Provide a general overview of the setting, including topography, development, and landscape.

The setting of the project area is a point bordered by the Saco River on the south and the Atlantic Ocean to the east known as Camp Ellis. The area developed as a seasonal community beginning in the 1880s after a breakwater or jetty was built by the U.S. Army Corps of Engineers in 1867 where the river meets the ocean. A few commercial structures, including a restaurant, general store, and hotel, were eventually built. Development continued throughout the twentieth century even as the adjacent beach began to erode. In the past ten years several of the modest dwellings have been demolished and replaced with larger structures. There are narrow beaches along the northeastern and southeastern edges of the survey area. Rip rap has been placed in between the beach areas. The jetty extends from the southeastern section. A marsh borders the western edge. A large, paved parking lot extends from the southern edge into the river. The area contains a mix of mature deciduous and coniferous trees excepting the southeastern section which has little vegetation. The topography is generally even.

C. Number of Resources Recorded:

Count each individually recorded building, structure, object, or site.

134 resources were surveyed.

D. Previously Inventoried Properties:

Address whether any of the resources had been previously surveyed. If so, how many, and how were these properties represented and evaluated within the current project?

SM #2, 3, 5, 8, 10-15, 17, 19-23, 25-27, 29-36, 39, 40, 42, 44, 46, 48, 49, 51, 52, 54, 56-60, 62, 65-67, 69, 72, 74, 76-78, 80-82, 85, 86, 89-91, 93, 98, 101, 102, 104, 111, 112, 115, 117, 119-123, 125, 127, 128, 130, 132, and 134 were previously surveyed by Andrea Strassner in 2005. Digital photographs of the resources were taken by Margaret Gaertner in 2013, and along with the 2005 forms, were entered into CARMA. SM #113 was surveyed by Martha Burke in 2004, a digital photograph was taken by Margaret Gaertner in 2013, and a survey form was entered into CARMA in 2014. It was determined not eligible. No determinations of eligibility were made for the resources surveyed in 2005. SM #81, 82, and 121 have been demolished. SM #5, 10, 12-14, 26, 29, 42, 44, 72, 78, 128, and 134 have undergone changes and new forms have been entered into CARMA.

E. Types of Properties:

1. Summarize general trends within the project area: commercial, residential, urban, rural, etc.

The survey area contains mainly residential properties, with SM #8 and 48 having a commercial use. The setting is a small town.

2. Summarize the age, style, and condition of the resources within the project area.

The resources are varied in age and style. The project area contains Queen Anne (SM #48), 19th/20th Century Revival (SM #49, 80), and Ranch (SM #73, 90) styles. Most of the resources are vernacular. There are no forms that are repeated with any consistency within the survey area. The resources date from c.1880 to 1971 and are in poor to good condition.

3. Describe in detail any potentially eligible individual properties or historic districts.

The Main Avenue Historic District (SM #46, 49, 51-54) is eligible for listing in the National Register. It is a compact group of wood frame seasonal single-family dwellings. The district is made up of five houses and one associated carriage barn. They were built in the late-19th and early-20th century as summer cottages for middle class families. The houses are vernacular with simple to no ornamentation. SM #51 is the most ornate with square butt shingling in the gables and Eastlake style detailing on the porch and gable peak. SM #54 features scallop trim along its roofline. All houses feature wide front porches, reflecting their seasonal use. Main Avenue remains a narrow road without sidewalks, shoulders or parking.

F. NR Eligibility:

1. Address resource integrity, NR criteria, area of significance and period of significance.

The Main Avenue Historic District (SM #46, 49, 51-54) is eligible for listing in the National Register under Criterion A, Recreation/Leisure on the local level. The five houses and one carriage barn represent the seasonal community that began developing in the late-19th century. Many coastal areas of southern Maine became summer destinations for both the wealthy and the middle class during the mid to late 19th century. Camp Ellis attracted middle and working class families that could not afford the more affluent communities of Old Orchard Beach to the north and Biddeford Pool to the south. The Main Avenue Historic District represents the most intact group of late-19th/early-20th century cottages in the Camp Ellis area. While

some structures have experienced replacement windows and siding, the district retains integrity of design, workmanship, location, setting, feeling, and association. The period of significance is c.1880-1912. Note: SM #47 and 55, while located within the district boundaries are outside the period of significance and therefore do not contribute. SM #50, also located within the district boundaries, has undergone significant alterations and does not contribute.

2. For a historic district provide a topographic map showing the limits of the proposed district illustrating street or landscape views and all non-historic or non-contributing resources.



View of Main Avenue Historic District, looking northeast

See survey maps for historic district boundaries.

G. Threats

The Camp Ellis area is currently threatened by sea level rise and storm surges as well as expansion or demolition of the existing structures due to the area's increased popularity as both a summer destination and year-round community. Storm surges have caused severe flooding to the area, resulting in the loss of several structures.

H. Recommendations for Further Work

No further work is recommended currently.

I. Data Repository

Hard copies and digital copies of the survey materials, including photographs, will be kept in MHPC's files.

IV. BIBLIOGRAPHY

Clark, Jeff. "Summering on the Brink," *Down East Magazine*, July 1996.

Downs, Jacques M. *The Cities on the Saco*. Norfolk, VA: Donning Company, 1985.

Fairfield, Roy P. *Sands, Spindles, and Steeples*. Portland, ME: House of

Falmouth, 1956.

1956, 1970 Historic Aerials, NETROnline.com, accessed 1 July 2022.

Kelley, Joseph T. and Walter A. Anderson. "The Maine Shore and the Army Corps: A Tale of Two Harbors, Wells and Saco, Maine," *Maine Policy Review*, Fall 2000, Vol. 9, No. 2, pg. 20-28.

National Register Information System. National Park Service. nrhp.focus.nps.gov/natreghome.do (accessed June 29, 2022).

Plan of Camp Ellis. Plan Book 1, Page 74. 21 September 1880. York County Registry of Deeds, Alfred, Maine.

Saco Revisted. Portsmouth, NH: Arcadia Publishing, 2009.

Scontras, Peter N. *Saco: Then and Now*. Saco, ME: Scontras Publishing Co., 1994.

Scully, Jeffrey A. *Saco*. August, ME: Alan Sutton, Inc., 1994.

United States Department of the Interior, Geological Survey. "Biddeford Quadrangle, Maine York County, 7.5 Minute Series."

V. Historic Context Statement

Camp Ellis developed as a seasonal community for the working and middle class in the late-19th century. Development was spurred by the construction of the jetty at the mouth of the Saco River in 1867. The jetty was built in order to provide a calmer shipping channel for vessels traveling to and from the industrial centers of Saco and Biddeford, located four miles upriver. The jetty was extended in 1897, 1930, and 1938. Sand dredged from the mouth of the river was deposited at the beach at Camp Ellis, resulting in a wider beach. In 1880 a rail line, known as the Dummy Railroad, was constructed along the beach and connected the area to Old Orchard Beach to the north, further encouraging development. A seasonal village made of up of cottages that ranged from modest one-story structures to larger houses enhanced with simple ornamentation grew up around the enlarged beach. A few commercial structures, including a restaurant, general store, and hotel, were also constructed. Development continued throughout the twentieth century despite structures being lost due to erosion and storms beginning in the mid-twentieth century. The jetty, while succeeding in making the mouth of the Saco River easier to navigate, has exacerbated naturally occurring erosion.

As a whole, the Camp Ellis area lacks enough cohesion and integrity to warrant a larger historic district. Unlike the more historically affluent beach front communities such as Old Orchard Beach to the north and Biddeford Pool to the south, many of the cottages in Camp Ellis were built to be strictly utilitarian and do not follow any design patterns or styles. Many structures have undergone significant alterations, including large additions, changes in fenestration, enclosure of porches, and application of vinyl siding. Some original structures have been demolished and replaced with larger houses that are not in scale with the neighborhood. Many of the seasonal dwellings have been converted to year-round residences, often resulting in insensitive alterations. There are select individual properties that retain integrity

however they do not rise to the level of significance that would make them individually eligible. Deed and census research did not reveal information about the cottages at SM #96-99. The associated house (SM #95) has lost integrity due to the addition of a second story and application of vinyl siding. The cottages appear to be vacant and have lost their integrity of feeling and association. While they are unique examples of seasonal cottages in the area, the loss of integrity makes them ineligible for listing in the National Register.

“This publication has been financed in part with Federal funds from the National Park Service, Department of the Interior. However, the contents and opinions do not necessarily reflect the views and policies of the Department of the Interior, nor does the mention of trade names or commercial products constitute endorsement or recommendation by the Department of the Interior. The Maine Historic Preservation Commission receives Federal financial assistance for identification and protection of historic properties. Under Title VI of the Civil Rights Act of 1964 and section 504 of the Rehabilitation Act of 1973, the U.S. Department of the Interior prohibits discrimination on the basis of race, color, national origin, or handicap in its federally assisted program. If you believe you have been discriminated against in any program, activity, or facility as described above, or if you desire further information, please write to:

*Office of Equal Opportunity
National Park Service
1849 C Street, N.W.
Washington, D. C. 20240”*

Town(s):		Camp Ellis, Saco					
PIN #s:		M17526					
Surveyor:		Erin Ware Kleinfelder 16 Commerce Dr. Suite 2 Augusta, ME 04330 (207) 626-4919					
Survey Date:		6/29/2022					
Map No.	Street No.	Address	Town	Individually Eligible for NR	Contributing to an NR District	Criteria	Aspects of Integrity
1	21	Bay Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship and feeling due to additions and application of vinyl siding.
2	19	Bay Avenue	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.
3	15	Bay Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to enclosure of porch and application of vinyl siding.
4	13	Bay Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship and feeling due to addition of second story and application of vinyl siding.
5	11	Bay Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship and feeling due to large addition and application of vinyl siding.
6	7	Bay Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to enclosure of porch and application of vinyl siding.
7	5	Bay Avenue	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.

Map No.	Street No.	Address	Town	Individually Eligible for NR	Contributing to an NR District	Criteria	Aspects of Integrity
8	29-31	Eastern Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to alteration of roof line, application of vinyl sheathing, and changes in fenestration.
9	25	Eastern Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, feeling, and association due to vinyl sheathing, side addition, and changes in fenestration.
10	19	Beach Avenue	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.
11	14	Beach Avenue	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.
12	12	Beach Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due application of vinyl siding.
13	17-23	Eastern Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to rear addition and loss of porch details.
14	7	Pearl Avenue	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.
15	15	Eastern Avenue	Saco	n	n	n/a	Loss of integrity of design and feeling due enclosure of front porch.
16	15	Eastern Avenue	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.
17	11	Eastern Avenue	Saco	n	n	n/a	Loss of integrity of design, workmanship, materials, and feeling due to application of vinyl siding, enclosure of front porch and changes in fenestration.

Map No.	Street No.	Address	Town	Individually Eligible for NR	Contributing to an NR District	Criteria	Aspects of Integrity
18	2	Eastern Avenue	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.
19	6	Eastern Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to enclosure of front porch and application of vinyl siding.
20	10	Eastern Avenue	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.
21	10a	Eastern Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, and workmanship due to application of vinyl siding.
22	18	Eastern Avenue	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.
23	27	North Avenue	Saco	n	n	n/a	Loss of integrity of design and feeling due to enclosure of front porch.
24	27	North Avenue	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.
25	25	North Avenue	Saco	n	n	n/a	Loss of integrity of design, workmanship, materials, and feeling due to application of vinyl siding and faux stone veener and enclosure of front porch.
26	21	North Avenue	Saco	n	n	n/a	Loss of integrity of design, workmanship, materials, and feeling due to application of vinyl siding and changes in fenestration.
27	19	North Avenue	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.

Map No.	Street No.	Address	Town	Individually Eligible for NR	Contributing to an NR District	Criteria	Aspects of Integrity
28	15	North Avenue	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.
29	9	North Avenue	Saco	n	n	n/a	Loss of integrity of design, workmanship, materials, and feeling due to application of vinyl siding and changes in fenestration.
30	10	North Avenue	Saco	n	n	n/a	Loss of integrity of design, workmanship, materials, and feeling due to changes in side addition and application of vinyl siding.
31	14	North Avenue	Saco	n	n	n/a	Loss of integrity of design and feeling due to changes in large rear addition.
32	26	North Avenue	Saco	n	n	n/a	Loss of integrity of design and feeling due to enclosure of front porch.
33	28	North Avenue	Saco	n	n	n/a	Loss of integrity of design and feeling due to changes in fenestration and enclosure of front porch.
34	32	North Avenue	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.
35	34	North Avenue	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.
36	36	North Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, feeling and association due to application of vinyl siding and discontinuation as a hotel.
37	36B	North Avenue	Saco	n	n	n/a	Loss of integrity of materials and workmanship due to poor condition.
38	21	Riverside Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of vinyl siding, changes in fenestration, and side addition.

Map No.	Street No.	Address	Town	Individually Eligible for NR	Contributing to an NR District	Criteria	Aspects of Integrity
39	7	Riverside Avenue	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.
40	2	Riverside Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of vinyl siding, changes in fenestration, and enclosure of front porch.
41	8	Riverside Avenue	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.
42	10	Riverside Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of vinyl siding and changes in fenestration.
43	12	Riverside Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of vinyl siding, changes in fenestration, and side addition.
44	6	North Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of vinyl siding, changes in fenestration, loss of porch details, and partial enclosure of porch.
45	43	Main Avenue	Saco	n	n	n/a	Loss of integrity of design and feeling due to enclosure of front porch.
46	27	Main Avenue	Saco	n	Y	A	Retains sufficient integrity to contribute to the Main Avenue Historic District.
47	27	Main Avenue	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.
48	23	Main Avenue	Saco	n	n	n/a	Loss of integrity of design and feeling due to changes in fenestration and side addition.
49	32	Main Avenue	Saco	n	Y	A	Retains sufficient integrity to contribute to the Main Avenue Historic District.
50	32	Main Avenue	Saco	n	n	n/a	Loss of integrity of design and feeling due to changes in fenestration.

Map No.	Street No.	Address	Town	Individually Eligible for NR	Contributing to an NR District	Criteria	Aspects of Integrity
51	36	Main Avenue	Saco	n	Y	A	Retains sufficient integrity to contribute to the Main Avenue Historic District.
52	42	Main Avenue	Saco	n	Y	A	Retains sufficient integrity to contribute to the Main Avenue Historic District.
53	42	Main Avenue	Saco	n	Y	A	Retains sufficient integrity to contribute to the Main Avenue Historic District.
54	6	Island View Street	Saco	n	Y	A	Retains sufficient integrity to contribute to the Main Avenue Historic District.
55	6	Island View Street	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.
56	39	Lower Beach Road	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of vinyl siding and enclosure of porch.
57	33	Lower Beach Road	Saco	n	n	n/a	Loss of integrity of design, workmanship, and feeling due to changes in fenestration and enclosure of porch.
58	2	Surf Street	Saco	n	n	n/a	Loss of integrity of design, workmanship, and feeling due to changes in fenestration and addition of entry porch.
59	28-30	Lower Beach Road	Saco	n	n	n/a	Loss of integrity of design, workmanship, and feeling due to enclosure of porch and large side addition.
60	26	Lower Beach Road	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of aluminium siding, enclosure of porch, and addition of garage.
61	26B	Lower Beach Road	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of vinyl siding and enclosure of porch.
62	27	Lower Beach Road	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of vinyl siding and enclosure of porch.
63	27	Lower Beach Road	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of vinyl siding and changes in fenestration.

Map No.	Street No.	Address	Town	Individually Eligible for NR	Contributing to an NR District	Criteria	Aspects of Integrity
64	23	Lower Beach Road	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of vinyl siding and enclosure of porch.
65	11	Cove Avenue	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.
66	11B	Cove Avenue	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.
67	33	Cove Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of vinyl siding and enclosure of front porch.
68	36	Cove Avenue	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.
69	36	Cove Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of vinyl siding, changes in fenestration, and enclosure of porch.
70	32	Cove Avenue	Saco	n	n	n/a	Loss of integrity of design, workmanship, and feeling due to changes in fenestration and large additions.
71	32	Cove Avenue	Saco	n	n	n/a	Loss of integrity of design, workmanship, and feeling due to changes in fenestration.
72	26	Cove Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to addition of second floor and side addition.
73	12	Cove Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of vinyl siding and addition of gable structures.
74	8	Cove Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of vinyl siding and enclosure of porch.

Map No.	Street No.	Address	Town	Individually Eligible for NR	Contributing to an NR District	Criteria	Aspects of Integrity
75	6	Cove Avenue	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.
76	4	Cove Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of aluminum siding and enclosure of porch.
77	16	Lower Beach Road	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of vinyl siding.
78	15	Lower Beach Road	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of vinyl siding and enclosure of front porch.
79	15	Lower Beach Road	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.
80	14	Main Avenue	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.
81	27	Pine Tree Avenue	Saco	n	n	n/a	Destroyed c.2014.
82	35	Pine Tree Avenue	Saco	n	n	n/a	Destroyed c.2017.
83	9	Fore Street	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of vinyl siding and addition of large dormer.
84	9	Fore Street	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of vinyl siding and removal of pedestrian door.
85	9	Main Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of vinyl siding and enclosure of porch.
86	10	Main Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of vinyl siding and enclosure of porch.
87	6-8	Pine Tree Avenue	Saco	n	n	n/a	Loss of integrity of design and feeling due to enclosure of porch.

Map No.	Street No.	Address	Town	Individually Eligible for NR	Contributing to an NR District	Criteria	Aspects of Integrity
88	10	Lower Beach Road	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of vinyl siding.
89	11	Lower Beach Road	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to changes in fenestration and enclosure of porch.
90	7	West Avenue	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.
91	17	West Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of vinyl siding and enclosure of porch.
92	25	West Avenue	Saco	n	n	n/a	Loss of integrity of design and feeling due to enclosure of porch.
93	31	West Avenue	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.
94	43	West Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of vinyl siding.
95	46	West Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of vinyl siding and addition of second floor.
96	46	West Avenue	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.
97	46	West Avenue	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.
98	46	West Avenue	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.

Map No.	Street No.	Address	Town	Individually Eligible for NR	Contributing to an NR District	Criteria	Aspects of Integrity
99	46	West Avenue	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.
100	40	West Avenue	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.
101	36	West Avenue	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.
102	34	West Avenue	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.
103	28	West Avenue	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.
104	28	West Avenue	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.
105	22	West Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of vinyl siding.
106	22	West Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of vinyl siding.
107	22	West Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of vinyl siding.
108	10	West Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of vinyl siding.

Map No.	Street No.	Address	Town	Individually Eligible for NR	Contributing to an NR District	Criteria	Aspects of Integrity
109	10B	West Avenue	Saco	n	n	n/a	Loss of integrity of design and feeling due to enclosure of porch.
110	8	West Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of vinyl siding and large rear addition.
111	6	Lower Beach Road	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of vinyl siding and enclosure of porch.
112	4	Lower Beach Road	Saco	n	n	n/a	Loss of integrity of design, workmanship, and feeling due to additions and changes in fenestration.
113	2	Lower Beach Road	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of aluminum siding, enclosure of porch, and changes in fenestration.
114	3	Camp Ellis Avenue	Saco	n	n	n/a	Loss of integrity of design, feeling, and association due to loss of steeple and discontinuation as a church.
115	13	Camp Ellis Avenue	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.
116	1	Main Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of vinyl siding, enclosure of porch, and large rear addition.
117	21	Camp Ellis Avenue	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.
118	25	Camp Ellis Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to changes in fenestration, application of vinyl siding, and addition of second floor.
119	31	Camp Ellis Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of vinyl siding and changes in fenestration.

Map No.	Street No.	Address	Town	Individually Eligible for NR	Contributing to an NR District	Criteria	Aspects of Integrity
120	45	Camp Ellis Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of vinyl siding and enclosure of porches.
121	54	Camp Ellis Avenue	Saco	n	n	n/a	Destroyed c.2015.
122	52	Camp Ellis Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to large rear addition, application of vinyl siding, and changes in fenestration.
123	40	Camp Ellis Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of vinyl siding and enclosure of porch.
124	40	Camp Ellis Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, and workmanship due to application of vinyl siding.
125	30	Camp Ellis Avenue	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.
126	30	Camp Ellis Avenue	Saco	n	n	n/a	Retains integrity otherwise does not embody the distinctive characteristics of type, period, or method of construction; represent the work of a master; or possess high artistic values.
127	24	Camp Ellis Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, and workmanship due to application of vinyl siding.
128	22	Camp Ellis Avenue	Saco	n	n	n/a	Loss of integrity of design, workmanship, and feeling due to side addition and enclosure of front porch.
129	18	Camp Ellis Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of vinyl siding and enclosure of front porch.
130	14	Camp Ellis Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, workmanship, and feeling due to application of vinyl siding and enclosure of front porch.
131	14	Camp Ellis Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, and association due to filling in of garage bay.
132	12	Camp Ellis Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, and workmanship due to application of vinyl siding.

Map No.	Street No.	Address	Town	Individually Eligible for NR	Contributing to an NR District	Criteria	Aspects of Integrity
133	10	Camp Ellis Avenue	Saco	n	n	n/a	Loss of integrity of design, materials, and workmanship due to application of vinyl siding.
134	8	Camp Ellis Avenue	Saco	n	n	n/a	Loss of integrity of design, workmanship, and feeling due to enclosure of front porch.

Photo Index

Erin Ware, Photographer

06/29/22

SURVEY MAP #	STREET NO.	ADDRESS	TOWN	DIGITAL IMAGE #S
1	21	Bay Avenue	Saco	Camp Ellis_001
2	19	Bay Avenue	Saco	n/a
3	15	Bay Avenue	Saco	n/a
4	13	Bay Avenue	Saco	Camp Ellis_004
5	11	Bay Avenue	Saco	Camp Ellis_005
6	7	Bay Avenue	Saco	Camp Ellis_006
7	5	Bay Avenue	Saco	Camp Ellis_007
8	29-31	Eastern Avenue	Saco	n/a
9	25	Eastern Avenue	Saco	Camp Ellis_009
10	19	Beach Avenue	Saco	Camp Ellis_010
11	14	Beach Avenue	Saco	n/a
12	12	Beach Avenue	Saco	Camp Ellis_012
13	17-23	Eastern Avenue	Saco	Camp Ellis_013
14	7	Pearl Avenue	Saco	Camp Ellis_014
15	15	Eastern Avenue	Saco	n/a
16	15	Eastern Avenue	Saco	Camp Ellis_016
17	11	Eastern Avenue	Saco	n/a
18	2	Eastern Avenue	Saco	Camp Ellis_018
19	6	Eastern Avenue	Saco	Camp Ellis_019
20	10	Eastern Avenue	Saco	n/a
21	10a	Eastern Avenue	Saco	n/a
22	18	Eastern Avenue	Saco	n/a
23	27	North Avenue	Saco	n/a
24	27	North Avenue	Saco	Camp Ellis_024
25	25	North Avenue	Saco	n/a
26	21	North Avenue	Saco	Camp Ellis_026
27	19	North Avenue	Saco	n/a
28	15	North Avenue	Saco	Camp Ellis_028
29	9	North Avenue	Saco	Camp Ellis_029
30	10	North Avenue	Saco	n/a
31	14	North Avenue	Saco	n/a
32	26	North Avenue	Saco	n/a
33	28	North Avenue	Saco	n/a
34	32	North Avenue	Saco	Camp Ellis_034
35	34	North Avenue	Saco	n/a

Photo Index

Erin Ware, Photographer

06/29/22

SURVEY MAP #	STREET NO.	ADDRESS	TOWN	DIGITAL IMAGE #S
36	36	North Avenue	Saco	n/a
37	36B	North Avenue	Saco	Camp Ellis_037
38	21	Riverside Avenue	Saco	Camp Ellis_038
39	7	Riverside Avenue	Saco	n/a
40	2	Riverside Avenue	Saco	n/a
41	8	Riverside Avenue	Saco	Camp Ellis_041
42	10	Riverside Avenue	Saco	Camp Ellis_042
43	12	Riverside Avenue	Saco	Camp Ellis_043
44	6	North Avenue	Saco	Camp Ellis_044
45	43	Main Avenue	Saco	Camp Ellis_045
46	27	Main Avenue	Saco	n/a
47	27	Main Avenue	Saco	Camp Ellis_047
48	23	Main Avenue	Saco	n/a
49	32	Main Avenue	Saco	n/a
50	32	Main Avenue	Saco	Camp Ellis_050
51	36	Main Avenue	Saco	n/a
52	42	Main Avenue	Saco	n/a
53	42	Main Avenue	Saco	Camp Ellis_053
54	6	Island View Street	Saco	n/a
55	6	Island View Street	Saco	Camp Ellis_055
56	39	Lower Beach Road	Saco	n/a
57	33	Lower Beach Road	Saco	n/a
58	2	Surf Street	Saco	Camp Ellis_058
59	28-30	Lower Beach Road	Saco	n/a
60	26	Lower Beach Road	Saco	n/a
61	26B	Lower Beach Road	Saco	n/a
62	27	Lower Beach Road	Saco	n/a
63	27	Lower Beach Road	Saco	Camp Ellis_063
64	23	Lower Beach Road	Saco	Camp Ellis_064
65	11	Cove Avenue	Saco	n/a
66	11B	Cove Avenue	Saco	n/a
67	33	Cove Avenue	Saco	n/a
68	36	Cove Avenue	Saco	n/a
69	36	Cove Avenue	Saco	Camp Ellis_069
70	32	Cove Avenue	Saco	Camp Ellis_070

Photo Index

Erin Ware, Photographer

06/29/22

SURVEY MAP #	STREET NO.	ADDRESS	TOWN	DIGITAL IMAGE #S
71	32	Cove Avenue	Saco	Camp Ellis_071
72	26	Cove Avenue	Saco	Camp Ellis_072
73	12	Cove Avenue	Saco	Camp Ellis_073
74	8	Cove Avenue	Saco	n/a
75	6	Cove Avenue	Saco	Camp Ellis_075
76	4	Cove Avenue	Saco	n/a
77	16	Lower Beach Road	Saco	n/a
78	15	Lower Beach Road	Saco	Camp Ellis_078
79	15	Lower Beach Road	Saco	Camp Ellis_079
80	14	Main Avenue	Saco	n/a
81	27	Pine Tree Avenue	Saco	Camp Ellis_081
82	35	Pine Tree Avenue	Saco	Camp_Ellis_082
83	9	Fore Street	Saco	Camp Ellis_083
84	9	Fore Street	Saco	Camp Ellis_084
85	9	Main Avenue	Saco	Camp Ellis_085
86	10	Main Avenue	Saco	Camp Ellis_086
87	6-8	Pine Tree Avenue	Saco	Camp Ellis_087
88	10	Lower Beach Road	Saco	Camp Ellis_088
89	11	Lower Beach Road	Saco	n/a
90	7	West Avenue	Saco	n/a
91	17	West Avenue	Saco	n/a
92	25	West Avenue	Saco	Camp Ellis_092
93	31	West Avenue	Saco	n/a
94	43	West Avenue	Saco	n/a
95	46	West Avenue	Saco	Camp Ellis_095
96	46	West Avenue	Saco	Camp Ellis_096
97	46	West Avenue	Saco	Camp Ellis_097
98	46	West Avenue	Saco	n/a
99	46	West Avenue	Saco	Camp Ellis_099
100	40	West Avenue	Saco	Camp Ellis_100
101	36	West Avenue	Saco	n/a
102	34	West Avenue	Saco	n/a
103	28	West Avenue	Saco	Camp Ellis_103
104	28	West Avenue	Saco	n/a
105	22	West Avenue	Saco	Camp Ellis_105

Photo Index

Erin Ware, Photographer

06/29/22

SURVEY MAP #	STREET NO.	ADDRESS	TOWN	DIGITAL IMAGE #S
106	22	West Avenue	Saco	Camp Ellis_106
107	22	West Avenue	Saco	Camp Ellis_107
108	10	West Avenue	Saco	Camp Ellis_108
109	10B	West Avenue	Saco	Camp Ellis_109
110	8	West Avenue	Saco	Camp Ellis_110
111	6	Lower Beach Road	Saco	n/a
112	4	Lower Beach Road	Saco	n/a
113	2	Lower Beach Road	Saco	n/a
114	3	Camp Ellis Avenue	Saco	Camp Ellis_114
115	13	Camp Ellis Avenue	Saco	n/a
116	1	Main Avenue	Saco	Camp Ellis_116
117	21	Camp Ellis Avenue	Saco	n/a
118	25	Camp Ellis Avenue	Saco	Camp Ellis_118
119	31	Camp Ellis Avenue	Saco	n/a
120	45	Camp Ellis Avenue	Saco	n/a
121	54	Camp Ellis Avenue	Saco	Camp Ellis_121
122	52	Camp Ellis Avenue	Saco	n/a
123	40	Camp Ellis Avenue	Saco	n/a
124	40	Camp Ellis Avenue	Saco	Camp Ellis_124
125	30	Camp Ellis Avenue	Saco	n/a
126	30	Camp Ellis Avenue	Saco	Camp Ellis_126
127	24	Camp Ellis Avenue	Saco	n/a
128	22	Camp Ellis Avenue	Saco	Camp Ellis_128
129	18	Camp Ellis Avenue	Saco	Camp Ellis_129
130	14	Camp Ellis Avenue	Saco	n/a
131	14	Camp Ellis Avenue	Saco	Camp Ellis_131
132	12	Camp Ellis Avenue	Saco	n/a
133	10	Camp Ellis Avenue	Saco	Camp Ellis_133
134	8	Camp Ellis Avenue	Saco	Camp Ellis_134

CAMP ELLIS

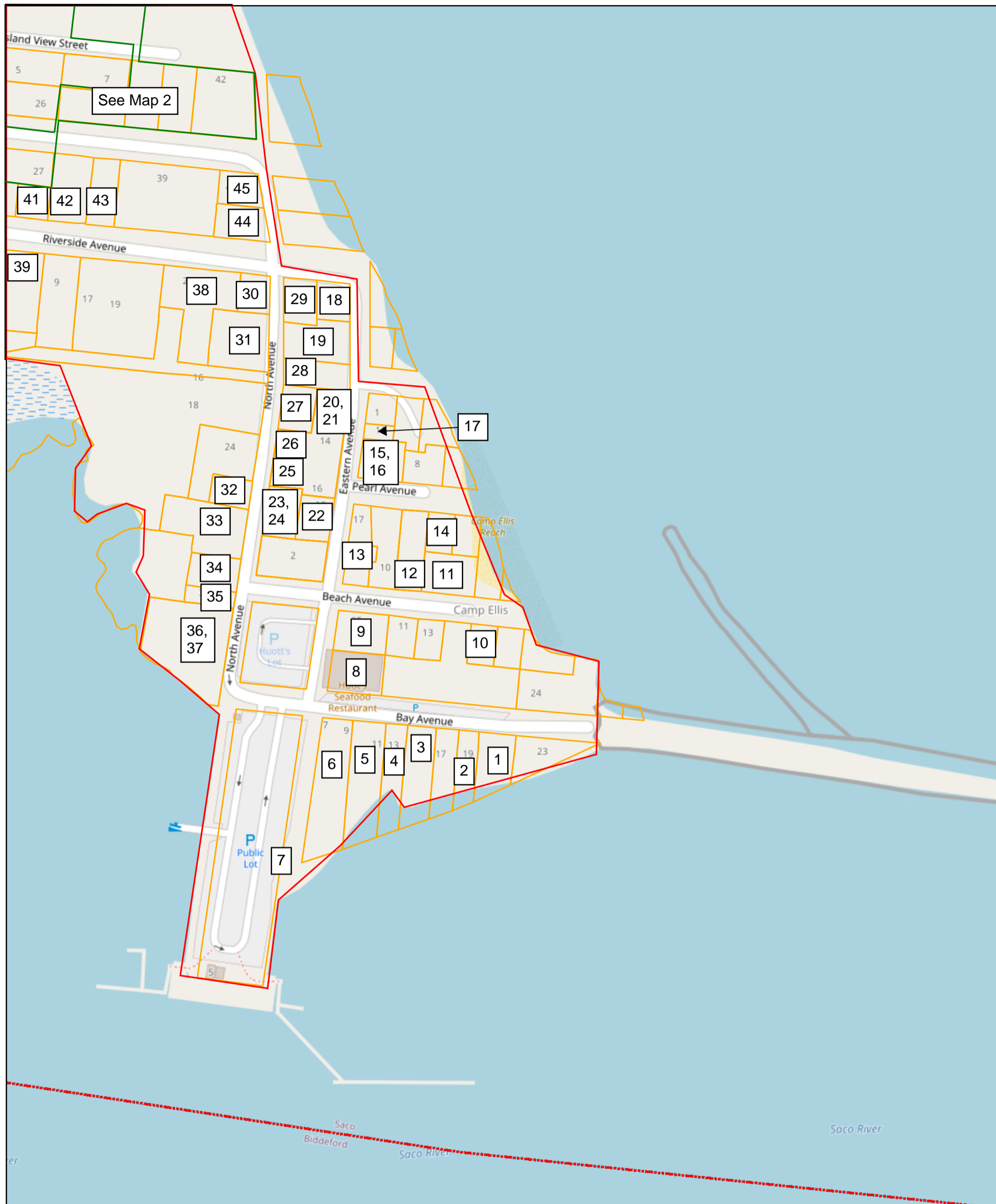


- Survey Area
- Main Avenue Historic District

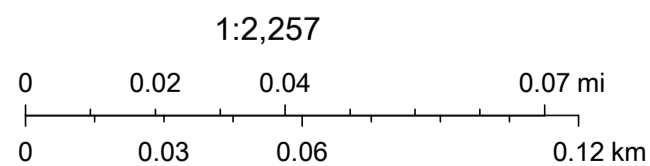
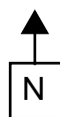
0.15 Miles
1 inch = 0.12 miles



Camp Ellis Map 1

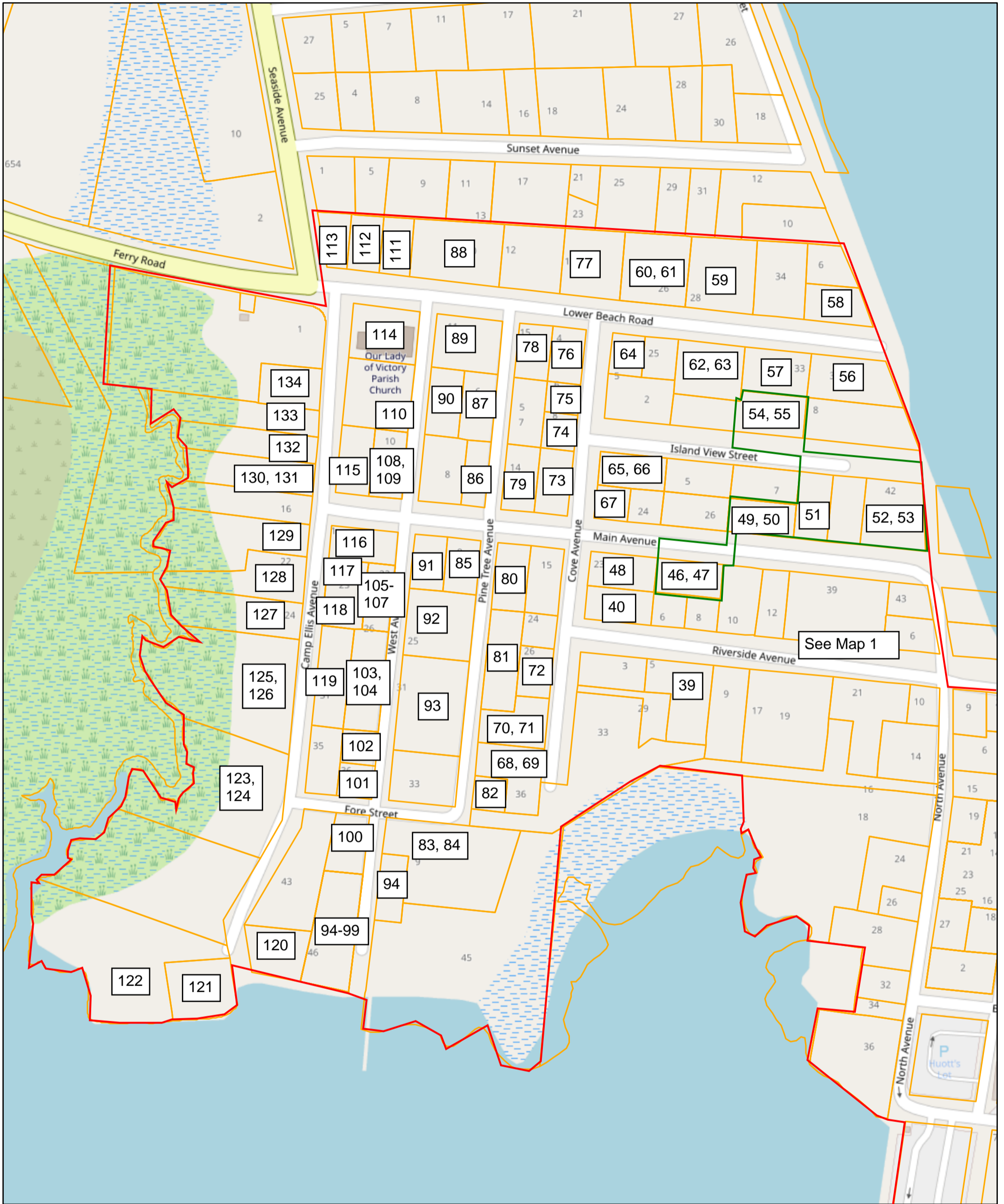


- Survey Area
- Main Avenue Historic District



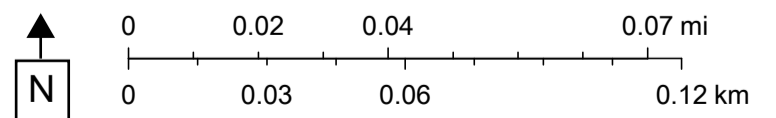
Map data © OpenStreetMap contributors, CC-BY-SA

Camp Ellis Map 2



— Survey Area
— Main Avenue Historic District

1:2,257



Map data © OpenStreetMap contributors, CC-BY-SA

Appendix B: Flood Elevation Data Methods

1. DATA SOURCES & METHODS

1.1 Camp Ellis Land Surface Elevation

Land surface grade elevation at each historically significant structure was determined using the 1-meter resolution Digital Elevation Model (DEM) produced for the State of Maine in 2020¹. The DEM was developed based on LiDAR data collected in 2020. DEM elevation values are reported in meters relative to the North American Vertical Datum of 1988 (NAVD88). To translate continuous elevation measurements to a single surface grade elevation at each building, Kleinfelder uses lowest land surface elevation at any point on the perimeter of the building footprint, as derived from County of Saco building footprint data produced in 2001 and the State of Maine DEM 2020.

The land surface elevation at each point in Camp Ellis is necessary to calculate the design flood depth on each structure. This flood depth is defined as a depth relative to the land surface grade elevation at the structure, rather than as a standard-form elevation (reference to a globally recognized elevation datum).

1.2 Flood Depth: Present Sea Level, Category 1 – 3 Hurricane

Storm surge flood depths at different points within Camp Ellis caused by winds of hurricanes categorized 1 – 3 on the Saffir-Simpson scale are provided by the Maine Sea Lake and Overland Surges from Hurricanes (SLOSH) Inundation Depths datasets².

Storm surge depth is driven primarily by wind speed, direction, and spatial variability over the coastal water surface. The Saffir-Simpson Scale categorizes hurricanes according to their sustained wind speed. The SLOSH model simulates coastal hydraulics and the resulting depth and extent of storm surge which would occur during hurricanes. The National Oceanographic and Atmospheric Administration (NOAA) uses SLOSH to forecast surge areas during ongoing storm events. The Maine SLOSH Inundation Depths dataset is an extract of a Texas – Maine storm surge study which used SLOSH to map areas which would be affected by hurricanes of different wind speeds (Saffir-Simpson categories) under recent mean sea level conditions.

1.3 Future Mean Sea Level

Projected future Mean Sea Level (MSL) is an important component of evolving risk to historic structures and neighborhoods. The Maine Climate Council's Scientific and Technical Subcommittee (MCCSTS) produced a set of recommendations for the larger Maine Climate Council in the *Scientific Assessment of Climate Change and Its Effects in Maine* (SACCIEM) report. The recommendations include committing to manage sea level rise and storm surge for a moderate, high-probability sea level scenario and to prepare to manage sea level rise and storm surge which would occur under a higher and less certain sea level rise scenario in case that new evidence shows managing the higher sea level scenario will become

¹ <https://maine.hub.arcgis.com/datasets/maine::maine-elevation-dem-2020-imagery-layer/about>

² <https://maine.hub.arcgis.com/maps/34e410e577464fcfb3cfa1d90da36c57/about>

necessary (Figure 1). The sea level scenarios in this report are derived from the MCCSTS' recommendations³.

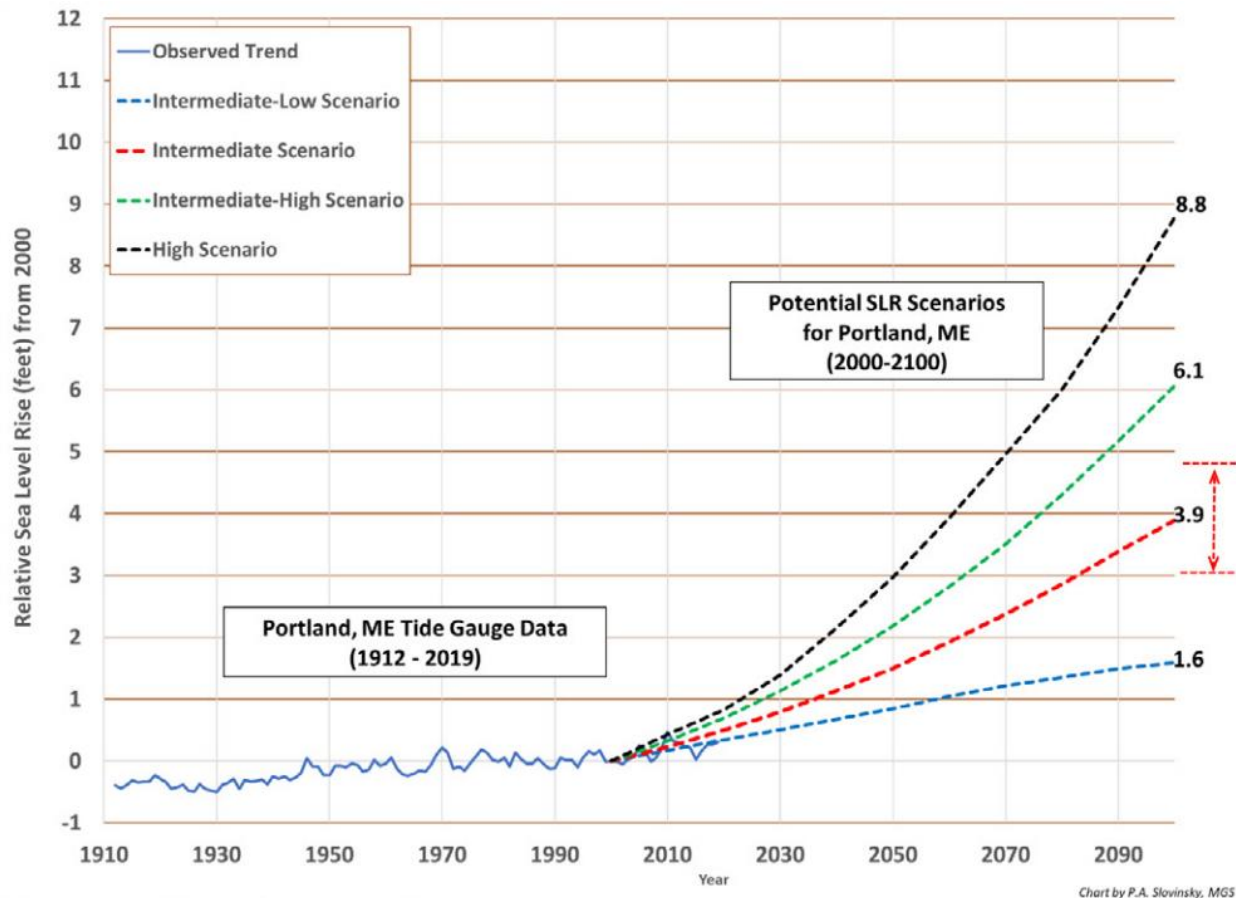


Figure 1: Graph illustrating historic sea level rise in Portland (solid blue line) and scenarios from 2000 – 2100 with central estimates (50% probability of being met or exceeded) for low-intermediate to high sea level rise scenarios from Sweet et al. (2017). The likely range of 3.0 to 4.6 feet (67% probability of sea level rise falling between these values) for the intermediate scenario is shown as a dashed red arrow and red lines on the right side of the figure. Figure and caption re-printed from [3].

The NOAA 2022 Technical Sea Level Rise report⁴ provides a detailed assessment of existing climate and ocean science studies and rigorously justified set of future MSL trajectories for each point on the US coastline, including the Northeast. Under each scenario, the report provides a probabilistic range of sea level over time. Because the sea level scenarios and trajectories in the MCCSTS' SACCIEM report cover a similar range, in fact exceeding the NOAA 2022 2100 upper bound scenario, Kleinfelder uses the Maine-specific sea level

³ Scientific Assessment of Climate Change and Its Effects in Maine, 2020. "Scientific Assessment of Climate Change and Its Effects in Maine." https://digitalcommons.library.umaine.edu/cgi/viewcontent.cgi?article=3273&context=univ_publications

⁴ National Oceanic and Atmospheric Administration, National Ocean Service, 2022. "Global and Regional Sea Level Rise Scenarios for the United States." <https://oceanservice.noaa.gov/hazards/sealevelrise/sealevelrise-tech-report.html>

planning recommendations as a basis of the guiding flood risk elevations in this report. However, Kleinfelder frames the recommendations to Camp Ellis property owners such that the recommendations will remain a valid reference if the scientific consensus around future sea level rise changes.

1.4 Extreme Water Level Exceedance Probability

The NOAA 2022 Technical Sea Level Rise Report³ includes information on the exceedance probability of Extreme Water Level (EWL) occurrence at U.S. tide gauges based on detailed regional statistical analysis of tide gauge records. EWLs are rarely-occurring high water events. EWL is measured as the elevation of coastal water level relative to a widely recognized elevation datum. EWLs include unusually high coastal water level events caused by multiple sources, sometimes in combination.

A given EWL elevation assigned a specific annual exceedance probability has that chance of being equaled or exceeded in any given year for any reason. For example, an EWL of 10 ft NAVD88 has a 10% chance of occurrence in any given year. In this example, the 10 ft NAVD88 EWL could be caused by a king tide, a small storm surge occurring during high tide, or a large storm surge which peaks at mid- or low-tide.

In this analysis, the difference between MSL and the upper bound estimate of EWL (per annual exceedance probability) is derived for Camp Ellis using the NOAA 2022 Technical Sea Level Rise Report EWL frequency data from the Portland, ME tide gauge (Station #8418150)⁵ and the MCCSTS sea level scenarios.

2 DETERMINATION OF ALTERNATIVE FLOOD ELEVATIONS

The objective of this analysis is to provide flood resiliency recommendations to property owners in Camp Ellis which reflect best available knowledge of future frequency and depth of inundation at Camp Ellis' buildings. Because future sea level and future coastal storm frequency and severity are uncertain, Kleinfelder recommends two guiding flood risk elevations and several additional alternative flood elevations which property owners may wish to consult.

One set of flood elevations represent the depth of flooding which would occur at each building during a hurricane. These values are derived from the highest value of depth at each building indicated in the NOAA SLOSH dataset. Depth values are reported in ranges which span one foot (i.e., "four feet to five feet").

The second set of flood elevations represent the inundation which would occur at each building on a typical day under each representative sea level scenario given in the Maine Climate Council's Scientific and Technical Subcommittee (MCCSTS) recommendations for the larger Maine Climate Council in the *Scientific Assessment of Climate Change and Its Effects in Maine* (SACCIEM). To calculate this elevation, the recommended future-scenario relative sea level rise at the Portland tide gage is added to the 1983 – 2001 tidal epoch local MHHW at the Portland tide gauge⁶. Kleinfelder uses data and estimates at the Portland tide

⁵ NOAA Tides and Currents Station Information Page, Portland, ME.

<https://tidesandcurrents.noaa.gov/stationhome.html?id=8418150>

⁶ NOAA Tidal Datums for Portland, ME.

<https://tidesandcurrents.noaa.gov/datums.html?id=8418150#:~:text=Tidal%20Datum%20Analysis%20Periods%2001%2F01%2F1983%20->

gauge because the Portland tide gauge is the closest long-running tide gauge to Camp Ellis (15.4 miles). The resulting local sea level rise depth is added to the present 1983 – 2001 tidal epoch Mean Higher High Water (MHHW) to produce a future-scenario MHHW elevation in NAVD88. The future-scenario MHHW is converted to units of feet NAVD88.

The third set of flood elevations represent the inundation which would occur during an EWL event under each representative sea level scenario. These elevations are determined by adding the NOAA 2022 Sea Level Rise Technical report EWLs for the selected annual exceedance probability, which are provided in feet over the present tidal epoch’s MHHW, to the future-scenario MHHW elevation.

The depth of inundation at each building under each future-scenario MHHW elevation and future-scenario MHHW + EWL combination is calculated by subtracting the lowest land surface elevation at any point in the building footprint, as derived from County of Saco building footprint data produced in 2001 and the State of Maine DEM 2020, from the future-scenario MHHW elevation.

All future-scenario flood elevations are reported relative to North American Vertical Datum of 1988 (NAVD88), i.e., “feet above NAVD88”. NOAA SLOSH Category 1 and Category 2 inundation depths at each building are reported within one foot.

3 FLOOD RISK ELEVATION SCENARIOS

Kleinfelder selects flood elevations alternatives which characterize frequency and depth of inundation at buildings in the Camp Ellis area of Saco, Maine under present and future conditions. This section describes each scenario and discusses its significance to coastal resilience planning.

Present-Day Hurricanes

Hurricanes are defined according to the sustained wind speed within the storm on the Saffir-Simpson scale (Table 1).

Table 1: Saffir-Simpson Hurricane Scale by Wind Speed

Category	Sustained Winds
1	74 – 95 mph
2	96 – 110 mph
3	111 – 129 mph
4	130 – 156 mph
5	157+ mph

Camp Ellis is a coastal community where the most immediate flood concern comes from storm surge, most often associated with Nor’easters and winter storms. The greatest determinant of storm surge depth (that is, increase in water elevation relative to predicted tide) is coastal wind speed toward the coast. While tropical cyclones affecting Maine are relatively infrequently (typically fading below hurricane strength before making landfall),

several past Category 1 and 2 hurricanes have affected Maine. For example, a Category 1 hurricane made landfall near Portsmouth in September 1869. A second hurricane made landfall near Boothbay at Category 2 two months later. In 1991, Hurricane Bob struck near Brunswick at Category 1. Storm surge resulting from Category 1 and Category 2 hurricanes is a very real possibility in Camp Ellis' future.

This study includes two flood elevation scenarios which represent the effects of storm surge during hurricanes at present sea levels. These flood elevations represent the depth of flooding (if any) at each building in Camp Ellis associated with storm surge conditions caused by (1) a Category 1 hurricane with sustained winds of 74 – 95 miles per hour (mph), or (2) a Category 2 hurricane with sustained winds of 96 – 110 mph.

Sea Level Scenarios

Kleinfelder selected two future mean sea levels to serve as guiding flood risk elevations. The first sea level represents an intermediate sea level trajectory 2050 MSL combined with a 10% exceedance probability EWL event. The second sea level represents the same intermediate-trajectory 2050 MSL combined with a more extreme 1% exceedance probability EWL event (Table 2).

Table 2: Guiding flood risk levels for Camp Ellis property owners.

Sea Level Scenario	Sea Level Trajectory [3]	Sea Level Rise	Year	EWL Exceedance Probability	Water Level Elevation, NAVD88
Protect	Intermediate	1.5 ft	2050	10%	9.74 ft
Recover	Intermediate	1.5 ft	2050	1%	11.39 ft

Both guiding flood risk elevations are framed around the 2050 Portland MSL derived from the MCCSTS Intermediate sea level trajectory. The 2050 time horizon (i.e., 30 years from present and the duration of a typical mortgage) is distant enough to provide a future-looking target, yet not so far in the future that property owners are likely to feel disconnected from this future scenario. Further, present sea level rise projections remain relatively clustered - varying less across multiple scenarios through 2050 - and diverge more widely in the latter half of the century.

Appendix C: Address-Level Building Key Elevations and Flood Exposure.

Building Table		KLF Categorization		Flood Exposure, Depth Over First Floor (KLF Analysis)				
Address	Typology	Flood Exposure Scenario (Depth of "Protect" and "Restore" elevations above grade and first floor)	"Protect" depth over first floor, ft	"Recover" depth over first floor, ft	2050 Base SL MHHW depth over first floor, ft	2050 High SL MHHW depth over first floor, ft	2100 Base SL MHHW depth over first floor, ft	2100 High SL MHHW depth over first floor, ft
1 Eastern Ave	Piers	Scenario 1	-7.3	-5.7	-10.9	-9.4	-8.5	-3.6
1 Main Ave	Slab	Scenario 1	-3.1	-1.5	-6.7	-5.2	-4.3	0.6
10 & 12 Lower Beach Rd		Undetermined						
10 Beach Ave		Scenario 1	-3.7	-2.1	-7.3	-5.8	-4.9	0.0
10 Camp Ellis Ave		Scenario 3	-0.3	1.3	-3.9	-2.4	-1.5	3.4
10 Camp Ellis Ave A		Undetermined						
10 Main Ave	Concrete b	Scenario 1	-2.6	-0.9	-6.2	-4.7	-3.8	1.1
10 North Ave		Scenario 1	-2.3	-0.6	-5.9	-4.4	-3.5	1.4
10 Riverside Ave	Slab	Scenario 1	-6.0	-4.3	-9.6	-8.1	-7.2	-2.3
10 West Ave	Slab	Scenario 2	-0.8	0.9	-4.4	-2.9	-2.0	2.9
10A Eastern Avenue		Undetermined						
11 Beach Ave	Piers	Scenario 1	-4.0	-2.3	-7.6	-6.1	-5.2	-0.3
11 Cove Ave	Piers	Scenario 1	-5.4	-3.7	-9.0	-7.5	-6.6	-1.7
11 Cove Ave A		Undetermined						
11 Eastern Ave	Concrete b	Scenario 1	-5.0	-3.3	-8.5	-7.0	-6.1	-1.2
11 Eastern Ave A		Undetermined						
11 Lower Beach Rd	Slab	Scenario 1	-4.9	-3.3	-8.5	-7.0	-6.1	-1.2
12 Beach Ave		Undetermined						
12 Beach Ave A		Undetermined						
12 Camp Ellis Ave		Scenario 3	0.4	2.1	-3.2	-1.7	-0.8	4.1
12 Cove Ave		Scenario 1	-3.1	-1.4	-6.7	-5.2	-4.3	0.6

Appendix C: Address-Level Building Key Elevations and Flood Exposure.

Building Table	KLF Categorization		Flood Exposure, Depth Over First Floor (KLF Analysis)					
12 Eastern Ave		Scenario 1	-3.6	-1.9	-7.2	-5.7	-4.8	0.1
12 Lower Beach Rd	Concrete b	Scenario 1	-5.3	-3.6	-8.8	-7.3	-6.4	-1.5
12 Lower Beach Rd A		Undetermined						
12 Lower Beach Rd B		Undetermined						
12 Lower Beach Rd C		Undetermined						
12 Riverside Ave	Slab	Scenario 3	0.0	1.6	-3.6	-2.1	-1.2	3.7
13 Bay Ave	Slab	Scenario 3	0.9	2.6	-2.6	-1.1	-0.2	4.7
13 Beach Ave	Piers	Scenario 1	-6.2	-4.6	-9.8	-8.3	-7.4	-2.5
13 Camp Ellis Ave	Slab	Scenario 2	-1.5	0.1	-5.1	-3.6	-2.7	2.2
13 Camp Ellis Ave A		Undetermined						
13 Main Ave	Slab	Scenario 1	-3.6	-1.9	-7.2	-5.7	-4.8	0.1
14 Beach Ave	Concrete b	Scenario 1	-4.1	-2.4	-7.7	-6.2	-5.3	-0.4
14 Camp Ellis Ave	Concrete b	Scenario 3	-0.3	1.4	-3.9	-2.4	-1.5	3.4
14 Camp Ellis Ave A		Undetermined						
14 Eastern Ave	Piers	Scenario 3	-0.4	1.2	-4.0	-2.5	-1.6	3.3
14 Main Ave		Scenario 1	-3.7	-2.0	-7.2	-5.7	-4.8	0.1
14 Main Ave A		Undetermined						
14 North Ave	Slab	Scenario 3	0.2	1.8	-3.4	-1.9	-1.0	3.9
14A Eastern Ave	Piers	Scenario 1	-8.0	-6.4	-11.6	-10.1	-9.2	-4.3
15 Bay Ave	Slab	Scenario 3	-0.6	1.1	-4.1	-2.6	-1.7	3.2
15 Eastern Ave	Concrete b	Scenario 2	-1.6	0.0	-5.2	-3.7	-2.8	2.1
15 Lower Beach Rd	Concrete b	Scenario 1	-3.9	-2.3	-7.5	-6.0	-5.1	-0.2
15 Lower Beach Rd A		Undetermined						
15 Main Ave	Concrete b	Scenario 1	-3.5	-1.8	-7.1	-5.6	-4.7	0.2
15 North Ave	Concrete b	Scenario 3	0.5	2.2	-3.1	-1.6	-0.7	4.2
16 Camp Ellis Ave	Concrete b	Scenario 1	-3.2	-1.6	-6.8	-5.3	-4.4	0.5
16 Eastern Ave	Slab	Scenario 1	-2.4	-0.7	-6.0	-4.5	-3.6	1.3

Appendix C: Address-Level Building Key Elevations and Flood Exposure.

Building Table	KLF Categorization		Flood Exposure, Depth Over First Floor (KLF Analysis)					
16 Lower Beach Rd	Concrete b	Scenario 1	-7.7	-6.0	-11.3	-9.8	-8.9	-4.0
16 North Ave		Scenario 1	-6.5	-4.8	-10.1	-8.6	-7.7	-2.8
16 North Ave A		Undetermined						
16 North Ave B		Undetermined						
16 North Ave C		Undetermined						
17 Bay Ave	Concrete b	Scenario 2	-0.9	0.7	-4.5	-3.0	-2.1	2.8
17 Eastern Ave	Piers	Scenario 1	-2.0	-0.4	-5.6	-4.1	-3.2	1.7
17 Riverside Ave		Scenario 1	-7.9	-6.2	-11.5	-10.0	-9.1	-4.2
17 Riverside Ave A		Undetermined						
17 West Ave	Piers	Scenario 1	-1.8	-0.2	-5.4	-3.9	-3.0	1.9
18 Camp Ellis Ave		Scenario 3	0.6	2.2	-3.0	-1.5	-0.6	4.3
18 Eastern Ave	Concrete b	Scenario 1	-2.3	-0.6	-5.8	-4.3	-3.4	1.5
19 Bay Ave	Slab	Scenario 2	-1.2	0.5	-4.7	-3.2	-2.3	2.6
19 Beach Ave	Piers	Scenario 1	-9.3	-7.7	-12.9	-11.4	-10.5	-5.6
19 North Ave		Scenario 1	-1.8	-0.1	-5.3	-3.8	-2.9	2.0
2 Beach Ave	Slab	Scenario 1	-3.9	-2.2	-7.5	-6.0	-5.1	-0.2
2 Beach Ave A		Undetermined						
2 Eastern Ave	Concrete b	Scenario 1	-5.8	-4.1	-9.3	-7.8	-6.9	-2.0
2 Island View St	Slab	Scenario 1	-7.9	-6.3	-11.5	-10.0	-9.1	-4.2
2 Lower Beach Rd	Slab	Scenario 3	-0.6	1.1	-4.2	-2.7	-1.8	3.1
2 Riverside Ave	Concrete b	Scenario 1	-6.3	-4.7	-9.9	-8.4	-7.5	-2.6
2 Riverside Ave A		Undetermined						
2 Riverside Ave B		Undetermined						
2 Surf St	Slab	Scenario 1	-7.5	-5.8	-11.1	-9.6	-8.7	-3.8
21 Bay Ave	Slab	Undetermined						
21 Camp Ellis Ave		Scenario 2	-1.7	0.0	-5.2	-3.7	-2.8	2.1
21 North Ave	Piers	Scenario 2	-1.5	0.1	-5.1	-3.6	-2.7	2.2

Appendix C: Address-Level Building Key Elevations and Flood Exposure.

Building Table	KLF Categorization		Flood Exposure, Depth Over First Floor (KLF Analysis)					
21 Riverside Ave	Slab	Scenario 2	-1.5	0.2	-5.0	-3.5	-2.6	2.3
21 Riverside Ave A		Undetermined						
22 Camp Ellis Ave	Slab	Scenario 3	-0.5	1.1	-4.1	-2.6	-1.7	3.2
22 Camp Ellis Ave A		Undetermined						
22 Main Ave	Slab	Scenario 1	-5.7	-4.0	-9.3	-7.8	-6.9	-2.0
22 West Ave	Slab	Scenario 1	-3.2	-1.6	-6.8	-5.3	-4.4	0.5
22 West Ave	Slab	Scenario 3	0.8	2.4	-2.8	-1.3	-0.4	4.5
22 West Ave	Slab	Scenario 3	0.8	2.4	-2.8	-1.3	-0.4	4.5
23 Bay Ave	Slab	Scenario 1	-1.7	-0.1	-5.3	-3.8	-2.9	2.0
23 Camp Ellis Ave	Concrete b	Scenario 1	-2.5	-0.9	-6.1	-4.6	-3.7	1.2
23 Lower Beach Rd	Concrete b	Scenario 1	-6.8	-5.1	-10.4	-8.9	-8.0	-3.1
23 Main Ave	Concrete b	Scenario 2	-0.8	0.9	-4.4	-2.9	-2.0	2.9
23 Main Ave A		Undetermined						
23 North Ave	Piers	Scenario 1	-2.2	-0.6	-5.8	-4.3	-3.4	1.5
23 North Ave A		Undetermined						
24 Bay Ave	Slab	Scenario 2	-1.2	0.5	-4.8	-3.3	-2.4	2.5
24 Camp Ellis Ave	Slab	Scenario 1	-3.3	-1.7	-6.9	-5.4	-4.5	0.4
24 Cove Ave	Slab	Scenario 1	-1.8	-0.2	-5.4	-3.9	-3.0	1.9
24 Main Ave	Slab	Scenario 1	-2.9	-1.2	-6.5	-5.0	-4.1	0.8
24 North Ave	Slab	Scenario 1	-1.7	-0.1	-5.3	-3.8	-2.9	2.0
24 North Ave A		Undetermined						
25 Camp Ellis Ave	Slab	Scenario 3	-0.5	1.2	-4.0	-2.5	-1.6	3.3
25 Eastern Ave	Slab	Scenario 2	-0.7	0.9	-4.3	-2.8	-1.9	3.0
25 Lower Beach Rd	Slab	Scenario 1	-9.8	-8.1	-13.4	-11.9	-11.0	-6.1
25 North Ave	Slab	Scenario 2	-0.7	1.0	-4.3	-2.8	-1.9	3.0
25 West Ave	Concrete b	Scenario 2	-1.0	0.6	-4.6	-3.1	-2.2	2.7
25 West Ave A		Undetermined						

Appendix C: Address-Level Building Key Elevations and Flood Exposure.

Building Table	KLF Categorization		Flood Exposure, Depth Over First Floor (KLF Analysis)					
25 West Ave B		Undetermined						
26 Cove Ave	Concrete b	Scenario 2	-1.2	0.5	-4.8	-3.3	-2.4	2.5
26 Lower Beach Rd	Concrete b	Scenario 1	-13.0	-11.3	-16.6	-15.1	-14.2	-9.3
26 Main Ave	Slab	Scenario 1	-8.0	-6.3	-11.6	-10.1	-9.2	-4.3
26 Main Ave A		Undetermined						
26 North Ave	Slab	Scenario 3	0.9	2.5	-2.7	-1.2	-0.3	4.6
26 North Ave A		Undetermined						
26B Lower Beach Rd	Slab	Scenario 1	-7.5	-5.9	-11.1	-9.6	-8.7	-3.8
27 Lower Beach Rd	Slab	Scenario 1	-10.4	-8.8	-14.0	-12.5	-11.6	-6.7
27 Lower Beach Rd	Slab	Scenario 1	-8.4	-6.8	-12.0	-10.5	-9.6	-4.7
27 Lower Beach Rd A		Undetermined						
27 Lower Beach Rd B		Undetermined						
27 Main Ave	Piers	Scenario 1	-5.2	-3.6	-8.8	-7.3	-6.4	-1.5
27 North Ave		Undetermined						
27 North Ave A		Undetermined						
27 North Ave B		Undetermined						
27 North Ave C		Undetermined						
27 Pine Tree Ave	Slab	Scenario 1	-1.9	-0.2	-5.4	-3.9	-3.0	1.9
27 Pine Tree Ave A		Undetermined						
27 Pine Tree Ave B		Undetermined						
27 Pine Tree Ave C		Undetermined						
27 Pine Tree Ave D		Undetermined						
28 - 30 Lower Beach Rd		Undetermined						
28 North Ave	Slab	Undetermined	3.4	5.0	-0.2	1.3	2.2	7.1
28 West Ave	Slab	Scenario 1	-1.7	0.0	-5.2	-3.7	-2.8	2.1
28 West Ave	Piers	Scenario 3	0.3	2.0	-3.2	-1.7	-0.8	4.1
28 West Ave A		Undetermined						

Appendix C: Address-Level Building Key Elevations and Flood Exposure.

Building Table	KLF Categorization		Flood Exposure, Depth Over First Floor (KLF Analysis)							
28 West Ave B		Undetermined								
29 - 31 Eastern Ave, 16 Bay Ave		Undetermined								
29 Cove Ave	Piers	Scenario 1	-2.6	-0.9	-6.2	-4.7	-3.8			1.1
29 Cove Ave A		Undetermined								
3 Camp Ellis Ave	Slab	Scenario 1	-3.8	-2.1	-7.4	-5.9	-5.0			-0.1
3 Riverside Ave		Scenario 3	-0.5	1.1	-4.1	-2.6	-1.7			3.2
3 Riverside Ave A		Undetermined								
30 Camp Ellis Ave		Scenario 3	1.6	3.2	-2.0	-0.5	0.4			5.3
30 Camp Ellis Ave A		Undetermined								
31 Camp Ellis Ave	Slab	Scenario 2	-1.1	0.5	-4.7	-3.2	-2.3			2.6
31 Camp Ellis Ave A		Undetermined								
31 West Ave	Concrete b	Scenario 2	-0.7	1.0	-4.3	-2.8	-1.9			3.0
31 West Ave A		Undetermined								
32 Cove Ave	Slab	Scenario 1	-2.6	-0.9	-6.2	-4.7	-3.8			1.1
32 Main Ave	Slab	Scenario 1	-7.8	-6.2	-11.4	-9.9	-9.0			-4.1
32 Main Ave	Slab	Scenario 1	-6.8	-5.2	-10.4	-8.9	-8.0			-3.1
32 North Ave	Slab	Scenario 3	0.3	2.0	-3.3	-1.8	-0.9			4.0
32 North Ave A		Undetermined								
32 North Ave B		Undetermined								
32B Cove Ave	Slab	Scenario 2	-0.8	0.8	-4.4	-2.9	-2.0			2.9
33 Cove Ave	Concrete b	Scenario 1	-4.3	-2.7	-7.9	-6.4	-5.5			-0.6
33 Lower Beach Rd	Slab	Scenario 1	-6.0	-4.4	-9.6	-8.1	-7.2			-2.3
33 Lower Beach Rd A		Undetermined								
33 West Ave	Slab	Scenario 1	-2.5	-0.8	-6.1	-4.6	-3.7			1.2
34 Lower Beach Rd	Slab	Scenario 1	-9.9	-8.2	-13.5	-12.0	-11.1			-6.2
34 North Ave	Slab	Scenario 3	1.2	2.9	-2.3	-0.8	0.1			5.0
34 West Ave	Piers	Scenario 2	-1.0	0.6	-4.6	-3.1	-2.2			2.7

Appendix C: Address-Level Building Key Elevations and Flood Exposure.

Building Table	KLF Categorization		Flood Exposure, Depth Over First Floor (KLF Analysis)						
34 West Ave A		Undetermined							
35 Camp Ellis Ave	Slab	Scenario 1	-3.3	-1.6	-6.9	-5.4	-4.5	0.4	
35 Pine Tree Ave	Slab	Scenario 2	-0.8	0.8	-4.4	-2.9	-2.0	2.9	
36 Cove Ave	Slab	Scenario 1	-2.6	-1.0	-6.2	-4.7	-3.8	1.1	
36 Cove Ave A		Undetermined							
36 Main Ave	Piers	Scenario 1	-3.4	-1.8	-7.0	-5.5	-4.6	0.3	
36 Main Ave A		Undetermined							
36 North Ave	Slab	Scenario 2	-1.2	0.5	-4.8	-3.3	-2.4	2.5	
36 North Ave A		Undetermined							
39 Lower Beach Rd	Piers	Scenario 1	-5.9	-4.3	-9.5	-8.0	-7.1	-2.2	
39 Lower Beach Rd A		Undetermined							
39 Main Ave	Piers	Scenario 1	-2.8	-1.2	-6.4	-4.9	-4.0	0.9	
39 Main Ave A		Undetermined							
4 Cove Ave	Concrete b	Scenario 1	-5.8	-4.1	-9.4	-7.9	-7.0	-2.1	
4 Cove Ave A		Undetermined							
4 Lower Beach Rd	Concrete b	Scenario 2	-1.6	0.1	-5.2	-3.7	-2.8	2.1	
4 Lower Beach Rd A		Undetermined							
40 Camp Ellis Ave A		Undetermined							
40 Camp Ellis Ave	Slab	Scenario 1	-1.7	0.0	-5.3	-3.8	-2.9	2.0	
40 Camp Ellis Ave B		Undetermined							
40 West Ave	Slab	Scenario 3	0.9	2.5	-2.7	-1.2	-0.3	4.6	
42 Main Ave	Slab	Scenario 1	-4.1	-2.4	-7.7	-6.2	-5.3	-0.4	
43 Camp Ellis Ave	Slab	Scenario 1	-1.9	-0.3	-5.5	-4.0	-3.1	1.8	
43 Main Ave	Piers	Scenario 1	-5.8	-4.1	-9.4	-7.9	-7.0	-2.1	
43 West Ave	Slab	Scenario 3	1.0	2.6	-2.6	-1.1	-0.2	4.7	
45 Camp Ellis Ave		Scenario 1	-2.0	-0.4	-5.6	-4.1	-3.2	1.7	
45 West Ave		Undetermined							

Appendix C: Address-Level Building Key Elevations and Flood Exposure.

Building Table	KLF Categorization		Flood Exposure, Depth Over First Floor (KLF Analysis)					
46 West Ave	Slab	Scenario 1	-1.8	-0.2	-5.4	-3.9	-3.0	1.9
46 West Ave	Piers	Scenario 1	-1.8	-0.2	-5.4	-3.9	-3.0	1.9
46 West Ave	Piers	Scenario 1	-1.8	-0.2	-5.4	-3.9	-3.0	1.9
46 West Ave	Piers	Scenario 1	-1.8	-0.2	-5.4	-3.9	-3.0	1.9
46 West Ave	Piers	Scenario 1	-1.8	-0.2	-5.4	-3.9	-3.0	1.9
46 West Ave A		Undetermined						
46 West Ave B		Undetermined						
46 West Ave C		Undetermined						
46 West Ave D		Undetermined						
5 Bay Ave	Slab	Scenario 4	15.0	16.6	11.4	12.9	13.8	18.7
5 Bay Ave A		Scenario 4						
5 Island View St	Slab	Scenario 1	-5.3	-3.7	-8.9	-7.4	-6.5	-1.6
5 Pearl Ave	Piers	Scenario 1	-7.8	-6.1	-11.3	-9.8	-8.9	-4.0
5 Pine Tree Ave	Slab	Scenario 1	-5.5	-3.8	-9.0	-7.5	-6.6	-1.7
52 Camp Ellis Ave	Slab	Scenario 3	-0.1	1.5	-3.7	-2.2	-1.3	3.6
54 Camp Ellis Ave	Piers	Scenario 3	-0.3	1.3	-3.9	-2.4	-1.5	3.4
54 Camp Ellis Ave	Piers	Scenario 1	-2.3	-0.7	-5.9	-4.4	-3.5	1.4
54 Camp Ellis Ave A		Undetermined						
6 Cove Ave	Slab	Scenario 1	-2.4	-0.8	-6.0	-4.5	-3.6	1.3
6 Eastern Ave	Piers	Scenario 1	-8.0	-6.3	-11.6	-10.1	-9.2	-4.3
6 Eastern Ave A		Undetermined						
6 Island View St		Scenario 1	-9.1	-7.5	-12.7	-11.2	-10.3	-5.4
6 Lower Beach Rd		Scenario 1	-4.8	-3.1	-8.4	-6.9	-6.0	-1.1
6 North Ave	Piers	Scenario 1	-5.5	-3.8	-9.1	-7.6	-6.7	-1.8
6 North Ave A		Undetermined						
6 Riverside Ave	Concrete b	Scenario 1	-7.8	-6.1	-11.4	-9.9	-9.0	-4.1
6 Surf St	Slab	Scenario 1	-8.1	-6.4	-11.7	-10.2	-9.3	-4.4

Appendix C: Address-Level Building Key Elevations and Flood Exposure.

Building Table	KLF Categorization		Flood Exposure, Depth Over First Floor (KLF Analysis)					
6 Surf St A		Undetermined						
7 Bay Ave	Concrete b	Scenario 3	-0.1	1.6	-3.7	-2.2	-1.3	3.6
7 Bay Ave A		Undetermined						
7 Island View St	Slab	Scenario 1	-6.7	-5.0	-10.3	-8.8	-7.9	-3.0
7 Pearl Ave	Piers	Scenario 1	-8.5	-6.9	-12.1	-10.6	-9.7	-4.8
7 Riverside Ave	Piers	Scenario 2	-1.6	0.0	-5.2	-3.7	-2.8	2.1
7 West Ave	Slab	Scenario 2	-1.5	0.2	-5.0	-3.5	-2.6	2.3
7 West Ave A		Undetermined						
8 Camp Ellis Ave	Concrete b	Scenario 2	-0.7	0.9	-4.3	-2.8	-1.9	3.0
8 Cove Ave	Concrete b	Scenario 1	-3.2	-1.6	-6.8	-5.3	-4.4	0.5
8 Island View St	Piers	Scenario 1	-4.6	-3.0	-8.2	-6.7	-5.8	-0.9
8 Main Ave		Scenario 2	-1.2	0.4	-4.8	-3.3	-2.4	2.5
8 Main Ave A		Undetermined						
8 Pearl Ave	Slab	Scenario 1	-4.6	-3.0	-8.2	-6.7	-5.8	-0.9
8 Pine Tree Ave	Slab	Scenario 1	-4.0	-2.4	-7.6	-6.1	-5.2	-0.3
8 Riverside Ave	Slab	Scenario 1	-7.6	-6.0	-11.2	-9.7	-8.8	-3.9
8 West Ave	Concrete b	Scenario 1	-4.1	-2.5	-7.7	-6.2	-5.3	-0.4
8 West Ave A		Undetermined						
9 Fore St		Scenario 1	-1.7	0.0	-5.3	-3.8	-2.9	2.0
9 Fore St	Slab	Scenario 3	1.3	3.0	-2.3	-0.8	0.1	5.0
9 Fore St A		Undetermined						
9 Main Ave	Slab	Scenario 1	-3.7	-2.1	-7.3	-5.8	-4.9	0.0
9 North Ave	Concrete b	Scenario 1	-5.9	-4.2	-9.4	-7.9	-7.0	-2.1
9 Riverside Ave		Scenario 1	-3.5	-1.8	-7.1	-5.6	-4.7	0.2

Building Table	Flood Exposure, Depth Above Grade (KLF Analysis)								Maine 2020 DEM Elevation	
	Recover Inundation Above Grade (ft)	Protect Inundation Above Grade (ft)	Protect: Inundation Above Grade	Recover: Inundation Above Grade	2100 Base Scenario MHHW: Inundation Above Grade	2100 High Scenario MHHW: Inundation Above Grade	2050 Base Scenario MHHW: Inundation Above Grade	2050 High Scenario MHHW: Inundation Above Grade	Minimum Elevation (NAVD88, m)	Grade Elevation (ft NAVD88)
1 Eastern Ave	0.3	-1.3	None	Under 1 ft	None	1 - 3 ft	None	None	3.4	11.1
1 Main Ave	1.5	-0.1	None	1 - 3 ft	None	3 - 6 ft	None	None	3.0	9.9
10 & 12 Lower Beach Rd	0.1	-1.6	None	Under 1 ft	None	1 - 3 ft	None	None	3.5	11.3
10 Beach Ave	0.9	-0.7	None	Under 1 ft	None	1 - 3 ft	None	None	3.2	10.5
10 Camp Ellis Ave	3.3	1.7	1 - 3 ft	3 - 6 ft	Under 1 ft	3 - 6 ft	None	None	2.5	8.1
10 Camp Ellis Ave A	2.8	1.1	1 - 3 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.6	8.6
10 Main Ave	1.1	-0.6	None	1 - 3 ft	None	3 - 6 ft	None	None	3.1	10.3
10 North Ave	2.4	0.7	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.8	9.0
10 Riverside Ave	-2.3	-4.0	None	None	None	None	None	None	4.2	13.7
10 West Ave	1.9	0.2	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.9	9.5
10A Eastern Avenue	0.9	-0.8	None	Under 1 ft	None	1 - 3 ft	None	None	3.2	10.5
11 Beach Ave	1.7	0.0	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	3.0	9.7
11 Cove Ave	0.3	-1.4	None	Under 1 ft	None	1 - 3 ft	None	None	3.4	11.1
11 Cove Ave A	0.1	-1.5	None	Under 1 ft	None	1 - 3 ft	None	None	3.4	11.3
11 Eastern Ave	0.7	-1.0	None	Under 1 ft	None	1 - 3 ft	None	None	3.3	10.7
11 Eastern Ave A	0.6	-1.1	None	Under 1 ft	None	1 - 3 ft	None	None	3.3	10.8
11 Lower Beach Rd	-0.3	-1.9	None	None	None	1 - 3 ft	None	None	3.6	11.7
12 Beach Ave	0.9	-0.8	None	Under 1 ft	None	1 - 3 ft	None	None	3.2	10.5
12 Beach Ave A	0.6	-1.1	None	Under 1 ft	None	1 - 3 ft	None	None	3.3	10.8
12 Camp Ellis Ave	3.1	1.4	1 - 3 ft	3 - 6 ft	Under 1 ft	3 - 6 ft	None	None	2.5	8.3
12 Cove Ave	-0.4	-2.1	None	None	None	1 - 3 ft	None	None	3.6	11.8
12 Eastern Ave	2.1	0.4	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.8	9.3
12 Lower Beach Rd	-0.6	-2.3	None	None	None	1 - 3 ft	None	None	3.7	12.0
12 Lower Beach Rd A	-0.2	-1.9	None	None	None	1 - 3 ft	None	None	3.5	11.6
12 Lower Beach Rd B	0.1	-1.6	None	Under 1 ft	None	1 - 3 ft	None	None	3.4	11.3

Building Table	Flood Exposure, Depth Above Grade (KLF Analysis)								Maine 2020 DEM Elevation	
12 Lower Beach Rd C	-0.8	-2.4	None	None	None	1 - 3 ft	None	None	3.7	12.2
12 Riverside Ave	1.6	0.0	None	1 - 3 ft	None	3 - 6 ft	None	None	3.0	9.7
13 Bay Ave	2.6	0.9	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.7	8.8
13 Beach Ave	1.4	-0.2	None	1 - 3 ft	None	3 - 6 ft	None	None	3.0	10.0
13 Camp Ellis Ave	2.1	0.5	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.8	9.3
13 Camp Ellis Ave A	1.8	0.1	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.9	9.6
13 Main Ave	1.1	-0.6	None	1 - 3 ft	None	3 - 6 ft	None	None	3.2	10.3
14 Beach Ave	0.6	-1.1	None	Under 1 ft	None	1 - 3 ft	None	None	3.3	10.8
14 Camp Ellis Ave	2.4	0.7	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.7	9.0
14 Camp Ellis Ave A	2.9	1.3	1 - 3 ft	1 - 3 ft	Under 1 ft	3 - 6 ft	None	None	2.6	8.5
14 Eastern Ave	2.2	0.6	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.8	9.2
14 Main Ave	0.0	-1.7	None	Under 1 ft	None	1 - 3 ft	None	None	3.5	11.4
14 Main Ave A	-0.8	-2.4	None	None	None	1 - 3 ft	None	None	3.7	12.2
14 North Ave	2.8	1.2	1 - 3 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.6	8.6
14A Eastern Ave	1.6	0.0	None	1 - 3 ft	None	3 - 6 ft	None	None	3.0	9.8
15 Bay Ave	3.1	1.4	1 - 3 ft	3 - 6 ft	Under 1 ft	3 - 6 ft	None	None	2.5	8.3
15 Eastern Ave	1.0	-0.6	None	1 - 3 ft	None	3 - 6 ft	None	None	3.2	10.4
15 Lower Beach Rd	-0.3	-1.9	None	None	None	1 - 3 ft	None	None	3.6	11.7
15 Lower Beach Rd A	-0.4	-2.0	None	None	None	1 - 3 ft	None	None	3.6	11.8
15 Main Ave	1.2	-0.5	None	1 - 3 ft	None	3 - 6 ft	None	None	3.1	10.2
15 North Ave	2.2	0.5	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.8	9.2
16 Camp Ellis Ave	2.4	0.8	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.7	9.0
16 Eastern Ave	1.3	-0.4	None	1 - 3 ft	None	3 - 6 ft	None	None	3.1	10.1
16 Lower Beach Rd	-3.0	-4.7	None	None	None	None	None	None	4.4	14.4
16 North Ave	3.2	1.5	1 - 3 ft	3 - 6 ft	Under 1 ft	3 - 6 ft	None	None	2.5	8.2
16 North Ave A	3.6	1.9	1 - 3 ft	3 - 6 ft	Under 1 ft	3 - 6 ft	None	None	2.4	7.8
16 North Ave B	2.1	0.4	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.8	9.3
16 North Ave C	3.5	1.9	1 - 3 ft	3 - 6 ft	Under 1 ft	3 - 6 ft	None	None	2.4	7.9
17 Bay Ave	2.7	1.1	1 - 3 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.6	8.7
17 Eastern Ave	1.6	0.0	None	1 - 3 ft	None	3 - 6 ft	None	None	3.0	9.8
17 Riverside Ave	1.8	0.1	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.9	9.6

Building Table	Flood Exposure, Depth Above Grade (KLF Analysis)								Maine 2020 DEM Elevation	
17 Riverside Ave A	2.2	0.5	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.8	9.2
17 West Ave	2.8	1.2	1 - 3 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.6	8.6
18 Camp Ellis Ave	3.2	1.6	1 - 3 ft	3 - 6 ft	Under 1 ft	3 - 6 ft	None	None	2.5	8.2
18 Eastern Ave	1.4	-0.3	None	1 - 3 ft	None	3 - 6 ft	None	None	3.0	10.0
19 Bay Ave	2.5	0.8	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.7	8.9
19 Beach Ave	0.3	-1.3	None	Under 1 ft	None	1 - 3 ft	None	None	3.4	11.1
19 North Ave	2.9	1.2	1 - 3 ft	1 - 3 ft	Under 1 ft	3 - 6 ft	None	None	2.6	8.5
2 Beach Ave	1.8	0.1	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.9	9.6
2 Beach Ave A	1.5	-0.2	None	1 - 3 ft	None	3 - 6 ft	None	None	3.0	9.9
2 Eastern Ave	-0.1	-1.8	None	None	None	1 - 3 ft	None	None	3.5	11.5
2 Island View St	-4.3	-5.9	None	None	None	None	None	None	4.8	15.7
2 Lower Beach Rd	3.1	1.4	1 - 3 ft	3 - 6 ft	Under 1 ft	3 - 6 ft	None	None	2.5	8.3
2 Riverside Ave	-0.7	-2.3	None	None	None	1 - 3 ft	None	None	3.7	12.0
2 Riverside Ave A	1.0	-0.7	None	Under 1 ft	None	3 - 6 ft	None	None	3.2	10.4
2 Riverside Ave B	0.3	-1.4	None	Under 1 ft	None	1 - 3 ft	None	None	3.4	11.1
2 Surf St	-3.8	-5.5	None	None	None	None	None	None	4.6	15.2
21 Bay Ave	2.9	1.2	1 - 3 ft	1 - 3 ft	Under 1 ft	3 - 6 ft	None	None	2.6	8.5
21 Camp Ellis Ave	2.0	0.3	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.9	9.4
21 North Ave	2.1	0.5	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.8	9.3
21 Riverside Ave	2.2	0.5	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.8	9.2
21 Riverside Ave A	2.5	0.8	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.7	8.9
22 Camp Ellis Ave	2.1	0.5	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.8	9.2
22 Camp Ellis Ave A	2.4	0.8	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.7	9.0
22 Main Ave	0.0	-1.7	None	None	None	1 - 3 ft	None	None	3.5	11.4
22 West Ave	2.4	0.8	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.7	8.9
22 West Ave	2.4	0.8	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.7	8.9
22 West Ave	2.4	0.8	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.7	8.9
23 Bay Ave	1.9	0.3	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.9	9.5
23 Camp Ellis Ave	2.1	0.5	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.8	9.3
23 Lower Beach Rd	-2.1	-3.8	None	None	None	None	None	None	4.1	13.5
23 Main Ave	0.9	-0.8	None	Under 1 ft	None	1 - 3 ft	None	None	3.2	10.5

Building Table	Flood Exposure, Depth Above Grade (KLF Analysis)								Maine 2020 DEM Elevation	
23 Main Ave A	-1.0	-2.6	None	None	None	1 - 3 ft	None	None	3.8	12.3
23 North Ave	1.4	-0.2	None	1 - 3 ft	None	3 - 6 ft	None	None	3.0	9.9
23 North Ave A	1.7	0.0	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	3.0	9.7
24 Bay Ave	2.5	0.8	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.7	8.9
24 Camp Ellis Ave	2.3	0.7	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.8	9.1
24 Cove Ave	1.8	0.2	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.9	9.6
24 Main Ave	-0.2	-1.9	None	None	None	1 - 3 ft	None	None	3.5	11.6
24 North Ave	2.9	1.3	1 - 3 ft	1 - 3 ft	Under 1 ft	3 - 6 ft	None	None	2.6	8.5
24 North Ave A	2.6	0.9	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.7	8.8
25 Camp Ellis Ave	2.2	0.5	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.8	9.2
25 Eastern Ave	1.9	0.3	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.9	9.4
25 Lower Beach Rd	-4.1	-5.8	None	None	None	None	None	None	4.7	15.5
25 North Ave	2.0	0.3	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.9	9.4
25 West Ave	2.6	1.0	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.7	8.7
25 West Ave A	2.2	0.5	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.8	9.2
25 West Ave B	1.6	-0.1	None	1 - 3 ft	None	3 - 6 ft	None	None	3.0	9.8
26 Cove Ave	2.5	0.8	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.7	8.9
26 Lower Beach Rd	-5.3	-7.0	None	None	None	None	None	None	5.1	16.7
26 Main Ave	-4.3	-6.0	None	None	None	None	None	None	4.8	15.7
26 Main Ave A	-3.7	-5.3	None	None	None	None	None	None	4.6	15.1
26 North Ave	3.5	1.9	1 - 3 ft	3 - 6 ft	Under 1 ft	3 - 6 ft	None	None	2.4	7.9
26 North Ave A	3.1	1.5	1 - 3 ft	3 - 6 ft	Under 1 ft	3 - 6 ft	None	None	2.5	8.3
26B Lower Beach Rd	-4.9	-6.5	None	None	None	None	None	None	5.0	16.3
27 Lower Beach Rd	-5.8	-7.4	None	None	None	None	None	None	5.2	17.2
27 Lower Beach Rd	-5.8	-7.4	None	None	None	None	None	None	5.2	17.2
27 Lower Beach Rd A	-7.1	-8.7	None	None	None	None	None	None	5.6	18.5
27 Lower Beach Rd B	-5.7	-7.3	None	None	None	None	None	None	5.2	17.1
27 Main Ave	-1.6	-3.2	None	None	None	Under 1 ft	None	None	4.0	13.0
27 North Ave	2.3	0.7	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.8	9.1
27 North Ave A	2.4	0.8	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.7	9.0
27 North Ave B	1.8	0.2	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.9	9.6

Building Table	Flood Exposure, Depth Above Grade (KLF Analysis)								Maine 2020 DEM Elevation	
27 North Ave C	2.0	0.3	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.9	9.4
27 Pine Tree Ave	1.8	0.1	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.9	9.6
27 Pine Tree Ave A	2.2	0.6	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.8	9.2
27 Pine Tree Ave B	2.6	0.9	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.7	8.8
27 Pine Tree Ave C	1.8	0.1	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.9	9.6
27 Pine Tree Ave D	2.0	0.4	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.9	9.4
28 - 30 Lower Beach Rd	-4.4	-6.0	None	None	None	None	None	None	4.8	15.8
28 North Ave	6.0	4.4	3 - 6 ft	6 - 10 ft	3 - 6 ft	6 - 10 ft	Under 1 ft	1 - 3 ft	1.6	5.4
28 West Ave	3.0	1.3	1 - 3 ft	1 - 3 ft	Under 1 ft	3 - 6 ft	None	None	2.6	8.4
28 West Ave	3.0	1.3	1 - 3 ft	1 - 3 ft	Under 1 ft	3 - 6 ft	None	None	2.6	8.4
28 West Ave A	2.8	1.2	1 - 3 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.6	8.6
28 West Ave B	2.6	0.9	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.7	8.8
29 - 31 Eastern Ave, 16 Bay A	2.3	0.6	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.8	9.1
29 Cove Ave	2.1	0.4	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.8	9.3
29 Cove Ave A	1.6	0.0	None	1 - 3 ft	None	3 - 6 ft	None	None	3.0	9.8
3 Camp Ellis Ave	1.9	0.2	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.9	9.5
3 Riverside Ave	1.1	-0.5	None	1 - 3 ft	None	3 - 6 ft	None	None	3.1	10.3
3 Riverside Ave A	2.3	0.7	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.8	9.1
30 Camp Ellis Ave	5.2	3.6	3 - 6 ft	3 - 6 ft	1 - 3 ft	6 - 10 ft	None	1 - 3 ft	1.9	6.2
30 Camp Ellis Ave A	6.3	4.7	3 - 6 ft	6 - 10 ft	3 - 6 ft	6 - 10 ft	1 - 3 ft	1 - 3 ft	1.5	5.1
31 Camp Ellis Ave	2.5	0.9	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.7	8.9
31 Camp Ellis Ave A	1.6	0.0	None	1 - 3 ft	None	3 - 6 ft	None	None	3.0	9.7
31 West Ave	3.0	1.3	1 - 3 ft	1 - 3 ft	Under 1 ft	3 - 6 ft	None	None	2.6	8.4
31 West Ave A	2.4	0.7	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.7	9.0
32 Cove Ave	2.1	0.4	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.8	9.3
32 Main Ave	-3.2	-4.8	None	None	None	None	None	None	4.4	14.5
32 Main Ave	-3.2	-4.8	None	None	None	None	None	None	4.4	14.5
32 North Ave	4.0	2.3	1 - 3 ft	3 - 6 ft	1 - 3 ft	6 - 10 ft	None	Under 1 ft	2.3	7.4
32 North Ave A	5.4	3.8	3 - 6 ft	3 - 6 ft	1 - 3 ft	6 - 10 ft	Under 1 ft	1 - 3 ft	1.8	6.0
32 North Ave B	3.8	2.1	1 - 3 ft	3 - 6 ft	Under 1 ft	3 - 6 ft	None	Under 1 ft	2.3	7.6
32B Cove Ave	2.8	1.2	1 - 3 ft	1 - 3 ft	Under 1 ft	3 - 6 ft	None	None	2.6	8.5

Building Table	Flood Exposure, Depth Above Grade (KLF Analysis)								Maine 2020 DEM Elevation	
33 Cove Ave	1.3	-0.3	None	1 - 3 ft	None	3 - 6 ft	None	None	3.1	10.1
33 Lower Beach Rd	-2.4	-4.0	None	None	None	None	None	None	4.2	13.8
33 Lower Beach Rd A	-3.1	-4.8	None	None	None	None	None	None	4.4	14.5
33 West Ave	3.2	1.5	1 - 3 ft	3 - 6 ft	Under 1 ft	3 - 6 ft	None	None	2.5	8.2
34 Lower Beach Rd	-3.2	-4.9	None	None	None	None	None	None	4.5	14.6
34 North Ave	3.9	2.2	1 - 3 ft	3 - 6 ft	1 - 3 ft	3 - 6 ft	None	Under 1 ft	2.3	7.5
34 West Ave	2.6	1.0	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.7	8.8
34 West Ave A	2.4	0.8	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.7	9.0
35 Camp Ellis Ave	1.4	-0.3	None	1 - 3 ft	None	3 - 6 ft	None	None	3.1	10.0
35 Pine Tree Ave	2.8	1.2	1 - 3 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.6	8.6
36 Cove Ave	2.0	0.4	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.8	9.3
36 Cove Ave A	2.5	0.8	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.7	8.9
36 Main Ave	0.2	-1.4	None	Under 1 ft	None	1 - 3 ft	None	None	3.4	11.2
36 Main Ave A	0.2	-1.4	None	Under 1 ft	None	1 - 3 ft	None	None	3.4	11.2
36 North Ave	3.5	1.8	1 - 3 ft	3 - 6 ft	Under 1 ft	3 - 6 ft	None	None	2.4	7.9
36 North Ave A	3.3	1.6	1 - 3 ft	3 - 6 ft	Under 1 ft	3 - 6 ft	None	None	2.5	8.1
39 Lower Beach Rd	-2.3	-3.9	None	None	None	None	None	None	4.2	13.7
39 Lower Beach Rd A	-2.2	-3.8	None	None	None	None	None	None	4.1	13.6
39 Main Ave	1.8	0.2	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.9	9.6
39 Main Ave A	1.7	0.0	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	3.0	9.7
4 Cove Ave	-1.1	-2.8	None	None	None	Under 1 ft	None	None	3.8	12.5
4 Cove Ave A	-1.8	-3.5	None	None	None	Under 1 ft	None	None	4.0	13.2
4 Lower Beach Rd	3.1	1.4	1 - 3 ft	3 - 6 ft	Under 1 ft	3 - 6 ft	None	None	2.5	8.3
4 Lower Beach Rd A	2.4	0.8	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.7	8.9
40 Camp Ellis Ave A	5.0	3.4	3 - 6 ft	3 - 6 ft	1 - 3 ft	6 - 10 ft	None	1 - 3 ft	1.9	6.4
40 Camp Ellis Ave	3.0	1.3	1 - 3 ft	1 - 3 ft	Under 1 ft	3 - 6 ft	None	None	2.6	8.4
40 Camp Ellis Ave B	2.9	1.2	1 - 3 ft	1 - 3 ft	Under 1 ft	3 - 6 ft	None	None	2.6	8.5
40 West Ave	2.5	0.9	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.7	8.9
42 Main Ave	0.6	-1.1	None	Under 1 ft	None	1 - 3 ft	None	None	3.3	10.8
43 Camp Ellis Ave	1.7	0.1	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.9	9.7
43 Main Ave	0.9	-0.8	None	Under 1 ft	None	1 - 3 ft	None	None	3.2	10.5

Building Table	Flood Exposure, Depth Above Grade (KLF Analysis)								Maine 2020 DEM Elevation	
43 West Ave	3.6	2.0	1 - 3 ft	3 - 6 ft	Under 1 ft	3 - 6 ft	None	None	2.4	7.8
45 Camp Ellis Ave	1.6	0.0	None	1 - 3 ft	None	3 - 6 ft	None	None	3.0	9.8
45 West Ave	6.5	4.9	3 - 6 ft	6 - 10 ft	3 - 6 ft	6 - 10 ft	1 - 3 ft	1 - 3 ft	1.5	4.9
46 West Ave	1.8	0.2	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.9	9.6
46 West Ave	1.8	0.2	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.9	9.6
46 West Ave	1.8	0.2	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.9	9.6
46 West Ave	1.8	0.2	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.9	9.6
46 West Ave A	1.4	-0.3	None	1 - 3 ft	None	3 - 6 ft	None	None	3.0	10.0
46 West Ave B	1.3	-0.3	None	1 - 3 ft	None	3 - 6 ft	None	None	3.1	10.1
46 West Ave C	0.8	-0.8	None	Under 1 ft	None	1 - 3 ft	None	None	3.2	10.6
46 West Ave D	1.2	-0.5	None	1 - 3 ft	None	3 - 6 ft	None	None	3.1	10.2
5 Bay Ave	16.6	15.0	Over 10 ft	Over 10 ft	Over 10 ft	Over 10 ft	Over 10 ft	Over 10 ft	-1.6	-5.2
5 Bay Ave A	16.6	15.0	Over 10 ft	Over 10 ft	Over 10 ft	Over 10 ft	Over 10 ft	Over 10 ft	-1.6	-5.2
5 Island View St	-3.7	-5.3	None	None	None	None	None	None	4.6	15.1
5 Pearl Ave	-0.1	-1.8	None	None	None	1 - 3 ft	None	None	3.5	11.5
5 Pine Tree Ave	-0.8	-2.5	None	None	None	1 - 3 ft	None	None	3.7	12.2
52 Camp Ellis Ave	2.5	0.9	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.7	8.9
54 Camp Ellis Ave	5.3	3.7	3 - 6 ft	3 - 6 ft	1 - 3 ft	6 - 10 ft	Under 1 ft	1 - 3 ft	1.9	6.1
54 Camp Ellis Ave	5.3	3.7	3 - 6 ft	3 - 6 ft	1 - 3 ft	6 - 10 ft	Under 1 ft	1 - 3 ft	1.9	6.1
54 Camp Ellis Ave A	5.5	3.9	3 - 6 ft	3 - 6 ft	1 - 3 ft	6 - 10 ft	Under 1 ft	1 - 3 ft	1.8	5.9
6 Cove Ave	-0.8	-2.4	None	None	None	1 - 3 ft	None	None	3.7	12.2
6 Eastern Ave	-0.3	-2.0	None	None	None	1 - 3 ft	None	None	3.6	11.7
6 Eastern Ave A	-0.3	-2.0	None	None	None	1 - 3 ft	None	None	3.6	11.7
6 Island View St	-5.5	-7.1	None	None	None	None	None	None	5.1	16.9
6 Lower Beach Rd	0.9	-0.8	None	Under 1 ft	None	1 - 3 ft	None	None	3.2	10.5
6 North Ave	1.2	-0.5	None	1 - 3 ft	None	3 - 6 ft	None	None	3.1	10.2
6 North Ave A	1.1	-0.6	None	1 - 3 ft	None	3 - 6 ft	None	None	3.1	10.3
6 Riverside Ave	-3.1	-4.8	None	None	None	None	None	None	4.4	14.5
6 Surf St	-3.4	-5.1	None	None	None	None	None	None	4.5	14.8
6 Surf St A	-3.9	-5.5	None	None	None	None	None	None	4.7	15.3

Building Table	Flood Exposure, Depth Above Grade (KLF Analysis)								Maine 2020 DEM Elevation	
7 Bay Ave	3.6	1.9	1 - 3 ft	3 - 6 ft	Under 1 ft	3 - 6 ft	None	None	2.4	7.8
7 Bay Ave A	3.5	1.8	1 - 3 ft	3 - 6 ft	Under 1 ft	3 - 6 ft	None	None	2.4	7.9
7 Island View St	-4.0	-5.7	None	None	None	None	None	None	4.7	15.4
7 Pearl Ave	-1.9	-3.5	None	None	None	Under 1 ft	None	None	4.0	13.3
7 Riverside Ave	4.0	2.4	1 - 3 ft	3 - 6 ft	1 - 3 ft	6 - 10 ft	None	Under 1 ft	2.2	7.4
7 West Ave	0.2	-1.5	None	Under 1 ft	None	1 - 3 ft	None	None	3.4	11.2
7 West Ave A	0.4	-1.3	None	Under 1 ft	None	1 - 3 ft	None	None	3.4	11.0
8 Camp Ellis Ave	3.9	2.3	1 - 3 ft	3 - 6 ft	1 - 3 ft	3 - 6 ft	None	Under 1 ft	2.3	7.5
8 Cove Ave	-0.6	-2.2	None	None	None	1 - 3 ft	None	None	3.6	12.0
8 Island View St	-1.0	-2.6	None	None	None	1 - 3 ft	None	None	3.8	12.3
8 Main Ave	1.4	-0.2	None	1 - 3 ft	None	3 - 6 ft	None	None	3.0	10.0
8 Main Ave A	0.5	-1.1	None	Under 1 ft	None	1 - 3 ft	None	None	3.3	10.8
8 Pearl Ave	-1.0	-2.6	None	None	None	1 - 3 ft	None	None	3.8	12.4
8 Pine Tree Ave	-0.4	-2.0	None	None	None	1 - 3 ft	None	None	3.6	11.7
8 Riverside Ave	-3.0	-4.6	None	None	None	None	None	None	4.4	14.3
8 West Ave	0.5	-1.1	None	Under 1 ft	None	1 - 3 ft	None	None	3.3	10.8
8 West Ave A	1.2	-0.5	None	1 - 3 ft	None	3 - 6 ft	None	None	3.1	10.2
9 Fore St	3.0	1.3	1 - 3 ft	1 - 3 ft	Under 1 ft	3 - 6 ft	None	None	2.6	8.4
9 Fore St	3.0	1.3	1 - 3 ft	1 - 3 ft	Under 1 ft	3 - 6 ft	None	None	2.6	8.4
9 Fore St A	3.2	1.5	1 - 3 ft	3 - 6 ft	Under 1 ft	3 - 6 ft	None	None	2.5	8.2
9 Main Ave	0.9	-0.7	None	Under 1 ft	None	1 - 3 ft	None	None	3.2	10.5
9 North Ave	1.8	0.1	Under 1 ft	1 - 3 ft	None	3 - 6 ft	None	None	2.9	9.6
9 Riverside Ave	4.2	2.5	1 - 3 ft	3 - 6 ft	1 - 3 ft	6 - 10 ft	None	Under 1 ft	2.2	7.2

Building Table	Flood Exposure Relative to Grade (KLF Analysis)									
Address	Category 2 Hurricane Depth (ft), Present SL	Category 1 Hurricane Depth (ft), Present SL	2050 Base Scenario MHHW, ft over grade	2050 Base Scenario 10% EWL, ft over grade	2050 Base Scenario 4% EWL, ft over grade	2050 Base Scenario 1% EWL, ft over grade	2100 Base Scenario MHHW, ft over grade	2100 Base Scenario 10% EWL, ft over grade	2100 Base Scenario 4% EWL, ft over grade	2100 Base Scenario 1% EWL, ft over grade
1 Eastern Ave	2		-4.9	-1.3	-0.7	0.3	-2.5	1.1	1.7	2.7
1 Main Ave	4		-3.7	-0.1	0.4	1.5	-1.3	2.3	2.8	3.9
10 & 12 Lower Beach Rd	2		-5.2	-1.6	-1.0	0.1	-2.8	0.8	1.4	2.5
10 Beach Ave			-4.3	-0.7	-0.2	0.9	-1.9	1.7	2.2	3.3
10 Camp Ellis Ave	6	2	-1.9	1.7	2.2	3.3	0.5	4.1	4.6	5.7
10 Camp Ellis Ave A			-2.4	1.1	1.7	2.8	0.0	3.5	4.1	5.2
10 Main Ave			-4.2	-0.6	0.0	1.1	-1.8	1.8	2.4	3.5
10 North Ave	5	1	-2.9	0.7	1.3	2.4	-0.5	3.1	3.7	4.8
10 Riverside Ave			-7.6	-4.0	-3.4	-2.3	-5.2	-1.6	-1.0	0.1
10 West Ave	4		-3.4	0.2	0.8	1.9	-1.0	2.6	3.2	4.3
10A Eastern Avenue	4		-4.4	-0.8	-0.2	0.9	-2.0	1.6	2.2	3.3
11 Beach Ave	4		-3.6	0.0	0.6	1.7	-1.2	2.4	3.0	4.1
11 Cove Ave	3		-5.0	-1.4	-0.8	0.3	-2.6	1.0	1.6	2.7
11 Cove Ave A			-5.1	-1.5	-1.0	0.1	-2.7	0.9	1.4	2.5
11 Eastern Ave	3		-4.5	-1.0	-0.4	0.7	-2.1	1.4	2.0	3.1
11 Eastern Ave A			-4.7	-1.1	-0.5	0.6	-2.3	1.3	1.9	3.0
11 Lower Beach Rd	3		-5.5	-1.9	-1.4	-0.3	-3.1	0.5	1.0	2.1
12 Beach Ave	3		-4.4	-0.8	-0.2	0.9	-2.0	1.6	2.2	3.3
12 Beach Ave A	2		-4.7	-1.1	-0.5	0.6	-2.3	1.3	1.9	3.0
12 Camp Ellis Ave			-2.2	1.4	2.0	3.1	0.2	3.8	4.4	5.5
12 Cove Ave	3		-5.7	-2.1	-1.5	-0.4	-3.3	0.3	0.9	2.0
12 Eastern Ave	5	1	-3.2	0.4	1.0	2.1	-0.8	2.8	3.4	4.5
12 Lower Beach Rd	1		-5.8	-2.3	-1.7	-0.6	-3.4	0.1	0.7	1.8
12 Lower Beach Rd A	3		-5.4	-1.9	-1.3	-0.2	-3.0	0.5	1.1	2.2
12 Lower Beach Rd B			-5.2	-1.6	-1.0	0.1	-2.8	0.8	1.4	2.5

Building Table	Flood Exposure Relative to Grade (KLF Analysis)									
12 Lower Beach Rd C			-6.0	-2.4	-1.8	-0.8	-3.6	0.0	0.6	1.6
12 Riverside Ave	3		-3.6	0.0	0.6	1.6	-1.2	2.4	3.0	4.0
13 Bay Ave	6	1	-2.6	0.9	1.5	2.6	-0.2	3.3	3.9	5.0
13 Beach Ave	4		-3.8	-0.2	0.4	1.4	-1.4	2.2	2.8	3.8
13 Camp Ellis Ave	5	1	-3.1	0.5	1.0	2.1	-0.7	2.9	3.4	4.5
13 Camp Ellis Ave A			-3.4	0.1	0.7	1.8	-1.0	2.5	3.1	4.2
13 Main Ave			-4.2	-0.6	0.0	1.1	-1.8	1.8	2.4	3.5
14 Beach Ave			-4.7	-1.1	-0.5	0.6	-2.3	1.3	1.9	3.0
14 Camp Ellis Ave	6	2	-2.9	0.7	1.3	2.4	-0.5	3.1	3.7	4.8
14 Camp Ellis Ave A	6	2	-2.3	1.3	1.8	2.9	0.1	3.7	4.2	5.3
14 Eastern Ave	5	1	-3.0	0.6	1.2	2.2	-0.6	3.0	3.6	4.6
14 Main Ave	3		-5.2	-1.7	-1.1	0.0	-2.8	0.7	1.3	2.4
14 Main Ave A	2		-6.0	-2.4	-1.9	-0.8	-3.6	0.0	0.5	1.6
14 North Ave	6	1	-2.4	1.2	1.8	2.8	0.0	3.6	4.2	5.2
14A Eastern Ave	4		-3.6	0.0	0.6	1.6	-1.2	2.4	3.0	4.0
15 Bay Ave	5	1	-2.1	1.4	2.0	3.1	0.3	3.8	4.4	5.5
15 Eastern Ave			-4.2	-0.6	0.0	1.0	-1.8	1.8	2.4	3.4
15 Lower Beach Rd	3		-5.5	-1.9	-1.4	-0.3	-3.1	0.5	1.0	2.1
15 Lower Beach Rd A	3		-5.6	-2.0	-1.5	-0.4	-3.2	0.4	0.9	2.0
15 Main Ave	4		-4.1	-0.5	0.1	1.2	-1.7	1.9	2.5	3.6
15 North Ave	4		-3.1	0.5	1.1	2.2	-0.7	2.9	3.5	4.6
16 Camp Ellis Ave	6	1	-2.8	0.8	1.4	2.4	-0.4	3.2	3.8	4.8
16 Eastern Ave			-4.0	-0.4	0.2	1.3	-1.6	2.0	2.6	3.7
16 Lower Beach Rd			-8.3	-4.7	-4.1	-3.0	-5.9	-2.3	-1.7	-0.6
16 North Ave			-2.1	1.5	2.1	3.2	0.3	3.9	4.5	5.6
16 North Ave A	7	2	-1.7	1.9	2.5	3.6	0.7	4.3	4.9	6.0
16 North Ave B			-3.1	0.4	1.0	2.1	-0.7	2.8	3.4	4.5
16 North Ave C			-1.7	1.9	2.4	3.5	0.7	4.3	4.8	5.9
17 Bay Ave	5	1	-2.5	1.1	1.7	2.7	-0.1	3.5	4.1	5.1
17 Eastern Ave	4		-3.6	0.0	0.6	1.6	-1.2	2.4	3.0	4.0
17 Riverside Ave	6	2	-3.5	0.1	0.7	1.8	-1.1	2.5	3.1	4.2

Building Table	Flood Exposure Relative to Grade (KLF Analysis)									
17 Riverside Ave A	7	3	-3.0	0.5	1.1	2.2	-0.6	2.9	3.5	4.6
17 West Ave	6	1	-2.4	1.2	1.8	2.8	0.0	3.6	4.2	5.2
18 Camp Ellis Ave	6	2	-2.0	1.6	2.2	3.2	0.4	4.0	4.6	5.6
18 Eastern Ave			-3.8	-0.3	0.3	1.4	-1.4	2.1	2.7	3.8
19 Bay Ave	5		-2.7	0.8	1.4	2.5	-0.3	3.2	3.8	4.9
19 Beach Ave	3		-4.9	-1.3	-0.8	0.3	-2.5	1.1	1.6	2.7
19 North Ave	6	2	-2.3	1.2	1.8	2.9	0.1	3.6	4.2	5.3
2 Beach Ave	4		-3.5	0.1	0.7	1.8	-1.1	2.5	3.1	4.2
2 Beach Ave A	4		-3.8	-0.2	0.4	1.5	-1.4	2.2	2.8	3.9
2 Eastern Ave	2		-5.3	-1.8	-1.2	-0.1	-2.9	0.6	1.2	2.3
2 Island View St			-9.5	-5.9	-5.3	-4.3	-7.1	-3.5	-2.9	-1.9
2 Lower Beach Rd	5	1	-2.2	1.4	2.0	3.1	0.2	3.8	4.4	5.5
2 Riverside Ave	3		-5.9	-2.3	-1.7	-0.7	-3.5	0.1	0.7	1.7
2 Riverside Ave A	4		-4.3	-0.7	-0.1	1.0	-1.9	1.7	2.3	3.4
2 Riverside Ave B			-5.0	-1.4	-0.8	0.3	-2.6	1.0	1.6	2.7
2 Surf St			-9.1	-5.5	-4.9	-3.8	-6.7	-3.1	-2.5	-1.4
21 Bay Ave	5		-2.4	1.2	1.8	2.9	0.0	3.6	4.2	5.3
21 Camp Ellis Ave	4		-3.2	0.3	0.9	2.0	-0.8	2.7	3.3	4.4
21 North Ave	6	1	-3.1	0.5	1.1	2.1	-0.7	2.9	3.5	4.5
21 Riverside Ave	5	1	-3.0	0.5	1.1	2.2	-0.6	2.9	3.5	4.6
21 Riverside Ave A			-2.7	0.8	1.4	2.5	-0.3	3.2	3.8	4.9
22 Camp Ellis Ave	6	2	-3.1	0.5	1.1	2.1	-0.7	2.9	3.5	4.5
22 Camp Ellis Ave A			-2.8	0.8	1.3	2.4	-0.4	3.2	3.7	4.8
22 Main Ave	3		-5.3	-1.7	-1.1	0.0	-2.9	0.7	1.3	2.4
22 West Ave	5	1	-2.8	0.8	1.4	2.4	-0.4	3.2	3.8	4.8
22 West Ave	5	1	-2.8	0.8	1.4	2.4	-0.4	3.2	3.8	4.8
22 West Ave	5	1	-2.8	0.8	1.4	2.4	-0.4	3.2	3.8	4.8
23 Bay Ave	4		-3.3	0.3	0.9	1.9	-0.9	2.7	3.3	4.3
23 Camp Ellis Ave			-3.1	0.5	1.0	2.1	-0.7	2.9	3.4	4.5
23 Lower Beach Rd			-7.4	-3.8	-3.2	-2.1	-5.0	-1.4	-0.8	0.3
23 Main Ave			-4.4	-0.8	-0.2	0.9	-2.0	1.6	2.2	3.3

Building Table	Flood Exposure Relative to Grade (KLF Analysis)									
23 Main Ave A			-6.2	-2.6	-2.0	-1.0	-3.8	-0.2	0.4	1.4
23 North Ave	4		-3.8	-0.2	0.4	1.4	-1.4	2.2	2.8	3.8
23 North Ave A			-3.6	0.0	0.6	1.7	-1.2	2.4	3.0	4.1
24 Bay Ave	3		-2.8	0.8	1.4	2.5	-0.4	3.2	3.8	4.9
24 Camp Ellis Ave	6	2	-2.9	0.7	1.2	2.3	-0.5	3.1	3.6	4.7
24 Cove Ave	5		-3.4	0.2	0.7	1.8	-1.0	2.6	3.1	4.2
24 Main Ave			-5.5	-1.9	-1.3	-0.2	-3.1	0.5	1.1	2.2
24 North Ave	7	2	-2.3	1.3	1.9	2.9	0.1	3.7	4.3	5.3
24 North Ave A	7	2	-2.7	0.9	1.5	2.6	-0.3	3.3	3.9	5.0
25 Camp Ellis Ave	4		-3.0	0.5	1.1	2.2	-0.6	2.9	3.5	4.6
25 Eastern Ave	5		-3.3	0.3	0.9	1.9	-0.9	2.7	3.3	4.3
25 Lower Beach Rd			-9.4	-5.8	-5.2	-4.1	-7.0	-3.4	-2.8	-1.7
25 North Ave	4		-3.3	0.3	0.9	2.0	-0.9	2.7	3.3	4.4
25 West Ave	6	2	-2.6	1.0	1.6	2.6	-0.2	3.4	4.0	5.0
25 West Ave A	3		-3.1	0.5	1.1	2.2	-0.7	2.9	3.5	4.6
25 West Ave B	4		-3.7	-0.1	0.5	1.6	-1.3	2.3	2.9	4.0
26 Cove Ave	4		-2.8	0.8	1.4	2.5	-0.4	3.2	3.8	4.9
26 Lower Beach Rd			-10.6	-7.0	-6.4	-5.3	-8.2	-4.6	-4.0	-2.9
26 Main Ave			-9.6	-6.0	-5.4	-4.3	-7.2	-3.6	-3.0	-1.9
26 Main Ave A			-8.9	-5.3	-4.8	-3.7	-6.5	-2.9	-2.4	-1.3
26 North Ave	6	2	-1.7	1.9	2.5	3.5	0.7	4.3	4.9	5.9
26 North Ave A			-2.1	1.5	2.1	3.1	0.3	3.9	4.5	5.5
26B Lower Beach Rd			-10.1	-6.5	-6.0	-4.9	-7.7	-4.1	-3.6	-2.5
27 Lower Beach Rd			-11.0	-7.4	-6.9	-5.8	-8.6	-5.0	-4.5	-3.4
27 Lower Beach Rd			-11.0	-7.4	-6.9	-5.8	-8.6	-5.0	-4.5	-3.4
27 Lower Beach Rd A			-12.3	-8.7	-8.2	-7.1	-9.9	-6.3	-5.8	-4.7
27 Lower Beach Rd B			-10.9	-7.3	-6.8	-5.7	-8.5	-4.9	-4.4	-3.3
27 Main Ave	1		-6.8	-3.2	-2.7	-1.6	-4.4	-0.8	-0.3	0.8
27 North Ave	4		-2.9	0.7	1.3	2.3	-0.5	3.1	3.7	4.7
27 North Ave A	5	1	-2.8	0.8	1.4	2.4	-0.4	3.2	3.8	4.8
27 North Ave B	4		-3.4	0.2	0.8	1.8	-1.0	2.6	3.2	4.2

Building Table	Flood Exposure Relative to Grade (KLF Analysis)									
27 North Ave C	4		-3.3	0.3	0.9	2.0	-0.9	2.7	3.3	4.4
27 Pine Tree Ave	5	1	-3.4	0.1	0.7	1.8	-1.0	2.5	3.1	4.2
27 Pine Tree Ave A			-3.0	0.6	1.1	2.2	-0.6	3.0	3.5	4.6
27 Pine Tree Ave B	6	2	-2.7	0.9	1.5	2.6	-0.3	3.3	3.9	5.0
27 Pine Tree Ave C			-3.5	0.1	0.7	1.8	-1.1	2.5	3.1	4.2
27 Pine Tree Ave D	5	1	-3.2	0.4	0.9	2.0	-0.8	2.8	3.3	4.4
28 - 30 Lower Beach Rd			-9.6	-6.0	-5.5	-4.4	-7.2	-3.6	-3.1	-2.0
28 North Ave	8	4	0.8	4.4	5.0	6.0	3.2	6.8	7.4	8.4
28 West Ave	5	1	-2.2	1.3	1.9	3.0	0.2	3.7	4.3	5.4
28 West Ave	5	1	-2.2	1.3	1.9	3.0	0.2	3.7	4.3	5.4
28 West Ave A	6	2	-2.4	1.2	1.7	2.8	0.0	3.6	4.1	5.2
28 West Ave B	5	1	-2.7	0.9	1.5	2.6	-0.3	3.3	3.9	5.0
29 - 31 Eastern Ave, 16 Bay A	6	2	-2.9	0.6	1.2	2.3	-0.5	3.0	3.6	4.7
29 Cove Ave	3		-3.2	0.4	1.0	2.1	-0.8	2.8	3.4	4.5
29 Cove Ave A	3		-3.6	0.0	0.5	1.6	-1.2	2.4	2.9	4.0
3 Camp Ellis Ave	5	1	-3.4	0.2	0.8	1.9	-1.0	2.6	3.2	4.3
3 Riverside Ave	5		-4.1	-0.5	0.0	1.1	-1.7	1.9	2.4	3.5
3 Riverside Ave A			-2.9	0.7	1.3	2.3	-0.5	3.1	3.7	4.7
30 Camp Ellis Ave	7	2	0.0	3.6	4.1	5.2	2.4	6.0	6.5	7.6
30 Camp Ellis Ave A	10	5	1.1	4.7	5.2	6.3	3.5	7.1	7.6	8.7
31 Camp Ellis Ave	5		-2.7	0.9	1.5	2.5	-0.3	3.3	3.9	4.9
31 Camp Ellis Ave A			-3.6	0.0	0.6	1.6	-1.2	2.4	3.0	4.0
31 West Ave	6	1	-2.3	1.3	1.9	3.0	0.1	3.7	4.3	5.4
31 West Ave A			-2.8	0.7	1.3	2.4	-0.4	3.1	3.7	4.8
32 Cove Ave	6	2	-3.2	0.4	1.0	2.1	-0.8	2.8	3.4	4.5
32 Main Ave			-8.4	-4.8	-4.2	-3.2	-6.0	-2.4	-1.8	-0.8
32 Main Ave			-8.4	-4.8	-4.2	-3.2	-6.0	-2.4	-1.8	-0.8
32 North Ave	7	2	-1.3	2.3	2.9	4.0	1.1	4.7	5.3	6.4
32 North Ave A			0.2	3.8	4.3	5.4	2.6	6.2	6.7	7.8
32 North Ave B			-1.4	2.1	2.7	3.8	1.0	4.5	5.1	6.2
32B Cove Ave	6	2	-2.4	1.2	1.8	2.8	0.0	3.6	4.2	5.2

Building Table	Flood Exposure Relative to Grade (KLF Analysis)									
33 Cove Ave	4		-3.9	-0.3	0.3	1.3	-1.5	2.1	2.7	3.7
33 Lower Beach Rd			-7.6	-4.0	-3.4	-2.4	-5.2	-1.6	-1.0	0.0
33 Lower Beach Rd A			-8.4	-4.8	-4.2	-3.1	-6.0	-2.4	-1.8	-0.7
33 West Ave	5	1	-2.1	1.5	2.1	3.2	0.3	3.9	4.5	5.6
34 Lower Beach Rd			-8.5	-4.9	-4.3	-3.2	-6.1	-2.5	-1.9	-0.8
34 North Ave	7	3	-1.3	2.2	2.8	3.9	1.1	4.6	5.2	6.3
34 West Ave			-2.6	1.0	1.6	2.6	-0.2	3.4	4.0	5.0
34 West Ave A	6	1	-2.8	0.8	1.3	2.4	-0.4	3.2	3.7	4.8
35 Camp Ellis Ave	5		-3.9	-0.3	0.3	1.4	-1.5	2.1	2.7	3.8
35 Pine Tree Ave	6	2	-2.4	1.2	1.7	2.8	0.0	3.6	4.1	5.2
36 Cove Ave	5		-3.2	0.4	1.0	2.0	-0.8	2.8	3.4	4.4
36 Cove Ave A			-2.7	0.8	1.4	2.5	-0.3	3.2	3.8	4.9
36 Main Ave	1		-5.0	-1.4	-0.9	0.2	-2.6	1.0	1.5	2.6
36 Main Ave A			-5.0	-1.4	-0.8	0.2	-2.6	1.0	1.6	2.6
36 North Ave	6	2	-1.8	1.8	2.4	3.5	0.6	4.2	4.8	5.9
36 North Ave A	6	1	-2.0	1.6	2.2	3.3	0.4	4.0	4.6	5.7
39 Lower Beach Rd			-7.5	-3.9	-3.3	-2.3	-5.1	-1.5	-0.9	0.1
39 Lower Beach Rd A			-7.4	-3.8	-3.2	-2.2	-5.0	-1.4	-0.8	0.2
39 Main Ave			-3.4	0.2	0.8	1.8	-1.0	2.6	3.2	4.2
39 Main Ave A	4		-3.6	0.0	0.6	1.7	-1.2	2.4	3.0	4.1
4 Cove Ave	1		-6.4	-2.8	-2.2	-1.1	-4.0	-0.4	0.2	1.3
4 Cove Ave A			-7.1	-3.5	-2.9	-1.8	-4.7	-1.1	-0.5	0.6
4 Lower Beach Rd	5	1	-2.2	1.4	2.0	3.1	0.2	3.8	4.4	5.5
4 Lower Beach Rd A			-2.8	0.8	1.4	2.4	-0.4	3.2	3.8	4.8
40 Camp Ellis Ave A	7	3	-0.2	3.4	4.0	5.0	2.2	5.8	6.4	7.4
40 Camp Ellis Ave	6	2	-2.3	1.3	1.9	3.0	0.1	3.7	4.3	5.4
40 Camp Ellis Ave B	6	1	-2.3	1.2	1.8	2.9	0.1	3.6	4.2	5.3
40 West Ave	5		-2.7	0.9	1.4	2.5	-0.3	3.3	3.8	4.9
42 Main Ave			-4.7	-1.1	-0.5	0.6	-2.3	1.3	1.9	3.0
43 Camp Ellis Ave	5		-3.5	0.1	0.6	1.7	-1.1	2.5	3.0	4.1
43 Main Ave	2		-4.4	-0.8	-0.2	0.9	-2.0	1.6	2.2	3.3

Building Table	Flood Exposure Relative to Grade (KLF Analysis)									
43 West Ave	5	1	-1.6	2.0	2.5	3.6	0.8	4.4	4.9	6.0
45 Camp Ellis Ave	4		-3.6	0.0	0.6	1.6	-1.2	2.4	3.0	4.0
45 West Ave	6	2	1.3	4.9	5.4	6.5	3.7	7.3	7.8	8.9
46 West Ave	4		-3.4	0.2	0.8	1.8	-1.0	2.6	3.2	4.2
46 West Ave	4		-3.4	0.2	0.8	1.8	-1.0	2.6	3.2	4.2
46 West Ave	4		-3.4	0.2	0.8	1.8	-1.0	2.6	3.2	4.2
46 West Ave	4		-3.4	0.2	0.8	1.8	-1.0	2.6	3.2	4.2
46 West Ave	4		-3.4	0.2	0.8	1.8	-1.0	2.6	3.2	4.2
46 West Ave A	4		-3.8	-0.3	0.3	1.4	-1.4	2.1	2.7	3.8
46 West Ave B	4		-3.9	-0.3	0.3	1.3	-1.5	2.1	2.7	3.7
46 West Ave C			-4.4	-0.8	-0.3	0.8	-2.0	1.6	2.1	3.2
46 West Ave D			-4.0	-0.5	0.1	1.2	-1.6	1.9	2.5	3.6
5 Bay Ave	4		11.4	15.0	15.6	16.6	13.8	17.4	18.0	19.0
5 Bay Ave A	4		11.4	15.0	15.6	16.6	13.8	17.4	18.0	19.0
5 Island View St	1		-8.9	-5.3	-4.7	-3.7	-6.5	-2.9	-2.3	-1.3
5 Pearl Ave	3		-5.3	-1.8	-1.2	-0.1	-2.9	0.6	1.2	2.3
5 Pine Tree Ave	3		-6.0	-2.5	-1.9	-0.8	-3.6	-0.1	0.5	1.6
52 Camp Ellis Ave			-2.7	0.9	1.4	2.5	-0.3	3.3	3.8	4.9
54 Camp Ellis Ave	5	1	0.1	3.7	4.2	5.3	2.5	6.1	6.6	7.7
54 Camp Ellis Ave	5	1	0.1	3.7	4.2	5.3	2.5	6.1	6.6	7.7
54 Camp Ellis Ave A			0.3	3.9	4.5	5.5	2.7	6.3	6.9	7.9
6 Cove Ave	2		-6.0	-2.4	-1.9	-0.8	-3.6	0.0	0.5	1.6
6 Eastern Ave	3		-5.6	-2.0	-1.4	-0.3	-3.2	0.4	1.0	2.1
6 Eastern Ave A			-5.5	-2.0	-1.4	-0.3	-3.1	0.4	1.0	2.1
6 Island View St			-10.7	-7.1	-6.6	-5.5	-8.3	-4.7	-4.2	-3.1
6 Lower Beach Rd	4		-4.4	-0.8	-0.2	0.9	-2.0	1.6	2.2	3.3
6 North Ave	3		-4.1	-0.5	0.1	1.2	-1.7	1.9	2.5	3.6
6 North Ave A			-4.2	-0.6	0.0	1.1	-1.8	1.8	2.4	3.5
6 Riverside Ave			-8.4	-4.8	-4.2	-3.1	-6.0	-2.4	-1.8	-0.7
6 Surf St			-8.7	-5.1	-4.5	-3.4	-6.3	-2.7	-2.1	-1.0
6 Surf St A			-9.1	-5.5	-5.0	-3.9	-6.7	-3.1	-2.6	-1.5

Building Table	Flood Exposure Relative to Grade (KLF Analysis)									
7 Bay Ave	6	1	-1.7	1.9	2.5	3.6	0.7	4.3	4.9	6.0
7 Bay Ave A	6	1	-1.7	1.8	2.4	3.5	0.7	4.2	4.8	5.9
7 Island View St			-9.3	-5.7	-5.1	-4.0	-6.9	-3.3	-2.7	-1.6
7 Pearl Ave			-7.1	-3.5	-3.0	-1.9	-4.7	-1.1	-0.6	0.5
7 Riverside Ave	4		-1.2	2.4	2.9	4.0	1.2	4.8	5.3	6.4
7 West Ave	3		-5.0	-1.5	-0.9	0.2	-2.6	0.9	1.5	2.6
7 West Ave A			-4.9	-1.3	-0.7	0.4	-2.5	1.1	1.7	2.8
8 Camp Ellis Ave	6	2	-1.3	2.3	2.8	3.9	1.1	4.7	5.2	6.3
8 Cove Ave	2		-5.8	-2.2	-1.7	-0.6	-3.4	0.2	0.7	1.8
8 Island View St	1		-6.2	-2.6	-2.0	-1.0	-3.8	-0.2	0.4	1.4
8 Main Ave	4		-3.8	-0.2	0.3	1.4	-1.4	2.2	2.7	3.8
8 Main Ave A			-4.7	-1.1	-0.5	0.5	-2.3	1.3	1.9	2.9
8 Pearl Ave	2		-6.2	-2.6	-2.1	-1.0	-3.8	-0.2	0.3	1.4
8 Pine Tree Ave	3		-5.6	-2.0	-1.4	-0.4	-3.2	0.4	1.0	2.0
8 Riverside Ave			-8.2	-4.6	-4.0	-3.0	-5.8	-2.2	-1.6	-0.6
8 West Ave	4		-4.7	-1.1	-0.5	0.5	-2.3	1.3	1.9	2.9
8 West Ave A			-4.1	-0.5	0.1	1.2	-1.7	1.9	2.5	3.6
9 Fore St	5		-2.3	1.3	1.9	3.0	0.1	3.7	4.3	5.4
9 Fore St	5		-2.3	1.3	1.9	3.0	0.1	3.7	4.3	5.4
9 Fore St A	5	1	-2.1	1.5	2.1	3.2	0.3	3.9	4.5	5.6
9 Main Ave	3		-4.3	-0.7	-0.1	0.9	-1.9	1.7	2.3	3.3
9 North Ave	4		-3.4	0.1	0.7	1.8	-1.0	2.5	3.1	4.2
9 Riverside Ave			-1.1	2.5	3.1	4.2	1.3	4.9	5.5	6.6

Building Table	Flood Exposure Relative to Grade (KLF Analysis)								
Address	2050 High Scenario MHHW, ft over grade	2050 High Scenario 10% EWL, ft over grade	2050 High Scenario 4% EWL, ft over grade	2050 High Scenario 1% EWL, ft over grade	2100 High Scenario MHHW, ft over grade	2100 High Scenario 10% EWL, ft over grade	2100 High Scenario 4% EWL, ft over grade	2100 High Scenario 1% EWL, ft over grade	First Floor Elevation (ft NAVD88)
1 Eastern Ave	-3.4	0.2	0.8	1.8	2.4	6.0	6.6	7.6	17.1
1 Main Ave	-2.2	1.4	1.9	3.0	3.6	7.2	7.7	8.8	12.9
10 & 12 Lower Beach Rd	-3.7	-0.1	0.5	1.6	2.1	5.7	6.3	7.4	
10 Beach Ave	-2.8	0.8	1.3	2.4	3.0	6.6	7.1	8.2	13.5
10 Camp Ellis Ave	-0.4	3.2	3.7	4.8	5.4	9.0	9.5	10.6	10.1
10 Camp Ellis Ave A	-0.9	2.6	3.2	4.3	4.9	8.4	9.0	10.1	
10 Main Ave	-2.7	0.9	1.5	2.6	3.1	6.7	7.3	8.4	12.3
10 North Ave	-1.4	2.2	2.8	3.9	4.4	8.0	8.6	9.7	12.0
10 Riverside Ave	-6.1	-2.5	-1.9	-0.8	-0.3	3.3	3.9	5.0	15.7
10 West Ave	-1.9	1.7	2.3	3.4	3.9	7.5	8.1	9.2	10.5
10A Eastern Avenue	-2.9	0.7	1.3	2.4	2.9	6.5	7.1	8.2	
11 Beach Ave	-2.1	1.5	2.1	3.2	3.7	7.3	7.9	9.0	13.7
11 Cove Ave	-3.5	0.1	0.7	1.8	2.3	5.9	6.5	7.6	15.1
11 Cove Ave A	-3.6	0.0	0.5	1.6	2.2	5.8	6.3	7.4	
11 Eastern Ave	-3.0	0.5	1.1	2.2	2.8	6.3	6.9	8.0	14.7
11 Eastern Ave A	-3.2	0.4	1.0	2.1	2.6	6.2	6.8	7.9	
11 Lower Beach Rd	-4.0	-0.4	0.1	1.2	1.8	5.4	5.9	7.0	14.7
12 Beach Ave	-2.9	0.7	1.3	2.4	2.9	6.5	7.1	8.2	
12 Beach Ave A	-3.2	0.4	1.0	2.1	2.6	6.2	6.8	7.9	
12 Camp Ellis Ave	-0.7	2.9	3.5	4.6	5.1	8.7	9.3	10.4	9.3
12 Cove Ave	-4.2	-0.6	0.0	1.1	1.6	5.2	5.8	6.9	12.8
12 Eastern Ave	-1.7	1.9	2.5	3.6	4.1	7.7	8.3	9.4	13.3
12 Lower Beach Rd	-4.3	-0.8	-0.2	0.9	1.5	5.0	5.6	6.7	15.0
12 Lower Beach Rd A	-3.9	-0.4	0.2	1.3	1.9	5.4	6.0	7.1	
12 Lower Beach Rd B	-3.7	-0.1	0.5	1.6	2.1	5.7	6.3	7.4	

Building Table	Flood Exposure Relative to Grade (KLF Analysis)									
17 Riverside Ave A	-1.5	2.0	2.6	3.7	4.3	7.8	8.4	9.5		
17 West Ave	-0.9	2.7	3.3	4.3	4.9	8.5	9.1	10.1	11.6	
18 Camp Ellis Ave	-0.5	3.1	3.7	4.7	5.3	8.9	9.5	10.5	9.2	
18 Eastern Ave	-2.3	1.2	1.8	2.9	3.5	7.0	7.6	8.7	12.0	
19 Bay Ave	-1.2	2.3	2.9	4.0	4.6	8.1	8.7	9.8	10.9	
19 Beach Ave	-3.4	0.2	0.7	1.8	2.4	6.0	6.5	7.6	19.1	
19 North Ave	-0.8	2.7	3.3	4.4	5.0	8.5	9.1	10.2	11.5	
2 Beach Ave	-2.0	1.6	2.2	3.3	3.8	7.4	8.0	9.1	13.6	
2 Beach Ave A	-2.3	1.3	1.9	3.0	3.5	7.1	7.7	8.8		
2 Eastern Ave	-3.8	-0.3	0.3	1.4	2.0	5.5	6.1	7.2	15.5	
2 Island View St	-8.0	-4.4	-3.8	-2.8	-2.2	1.4	2.0	3.0	17.7	
2 Lower Beach Rd	-0.7	2.9	3.5	4.6	5.1	8.7	9.3	10.4	10.3	
2 Riverside Ave	-4.4	-0.8	-0.2	0.8	1.4	5.0	5.6	6.6	16.0	
2 Riverside Ave A	-2.8	0.8	1.4	2.5	3.0	6.6	7.2	8.3		
2 Riverside Ave B	-3.5	0.1	0.7	1.8	2.3	5.9	6.5	7.6		
2 Surf St	-7.6	-4.0	-3.4	-2.3	-1.8	1.8	2.4	3.5	17.2	
21 Bay Ave	-0.9	2.7	3.3	4.4	4.9	8.5	9.1	10.2		
21 Camp Ellis Ave	-1.7	1.8	2.4	3.5	4.1	7.6	8.2	9.3	11.4	
21 North Ave	-1.6	2.0	2.6	3.6	4.2	7.8	8.4	9.4	11.3	
21 Riverside Ave	-1.5	2.0	2.6	3.7	4.3	7.8	8.4	9.5	11.2	
21 Riverside Ave A	-1.2	2.3	2.9	4.0	4.6	8.1	8.7	9.8		
22 Camp Ellis Ave	-1.6	2.0	2.6	3.6	4.2	7.8	8.4	9.4	10.2	
22 Camp Ellis Ave A	-1.3	2.3	2.8	3.9	4.5	8.1	8.6	9.7		
22 Main Ave	-3.8	-0.2	0.4	1.5	2.0	5.6	6.2	7.3	15.4	
22 West Ave	-1.3	2.3	2.9	3.9	4.5	8.1	8.7	9.7	12.9	
22 West Ave	-1.3	2.3	2.9	3.9	4.5	8.1	8.7	9.7	8.9	
22 West Ave	-1.3	2.3	2.9	3.9	4.5	8.1	8.7	9.7	8.9	
23 Bay Ave	-1.8	1.8	2.4	3.4	4.0	7.6	8.2	9.2	11.5	
23 Camp Ellis Ave	-1.6	2.0	2.5	3.6	4.2	7.8	8.3	9.4	12.3	
23 Lower Beach Rd	-5.9	-2.3	-1.7	-0.6	-0.1	3.5	4.1	5.2	16.5	
23 Main Ave	-2.9	0.7	1.3	2.4	2.9	6.5	7.1	8.2	10.5	

Building Table	Flood Exposure Relative to Grade (KLF Analysis)										
23 Main Ave A	-4.7	-1.1	-0.5	0.5	1.1	4.7	5.3	6.3			
23 North Ave	-2.3	1.3	1.9	2.9	3.5	7.1	7.7	8.7	11.9		
23 North Ave A	-2.1	1.5	2.1	3.2	3.7	7.3	7.9	9.0			
24 Bay Ave	-1.3	2.3	2.9	4.0	4.5	8.1	8.7	9.8	10.9		
24 Camp Ellis Ave	-1.4	2.2	2.7	3.8	4.4	8.0	8.5	9.6	13.1		
24 Cove Ave	-1.9	1.7	2.2	3.3	3.9	7.5	8.0	9.1	11.6		
24 Main Ave	-4.0	-0.4	0.2	1.3	1.8	5.4	6.0	7.1	12.6		
24 North Ave	-0.8	2.8	3.4	4.4	5.0	8.6	9.2	10.2	11.5		
24 North Ave A	-1.2	2.4	3.0	4.1	4.6	8.2	8.8	9.9			
25 Camp Ellis Ave	-1.5	2.0	2.6	3.7	4.3	7.8	8.4	9.5	10.2		
25 Eastern Ave	-1.8	1.8	2.4	3.4	4.0	7.6	8.2	9.2	10.4		
25 Lower Beach Rd	-7.9	-4.3	-3.7	-2.6	-2.1	1.5	2.1	3.2	19.5		
25 North Ave	-1.8	1.8	2.4	3.5	4.0	7.6	8.2	9.3	10.4		
25 West Ave	-1.1	2.5	3.1	4.1	4.7	8.3	8.9	9.9	10.7		
25 West Ave A	-1.6	2.0	2.6	3.7	4.2	7.8	8.4	9.5			
25 West Ave B	-2.2	1.4	2.0	3.1	3.6	7.2	7.8	8.9			
26 Cove Ave	-1.3	2.3	2.9	4.0	4.5	8.1	8.7	9.8	10.9		
26 Lower Beach Rd	-9.1	-5.5	-4.9	-3.8	-3.3	0.3	0.9	2.0	22.7		
26 Main Ave	-8.1	-4.5	-3.9	-2.8	-2.3	1.3	1.9	3.0	17.7		
26 Main Ave A	-7.4	-3.8	-3.3	-2.2	-1.6	2.0	2.5	3.6			
26 North Ave	-0.2	3.4	4.0	5.0	5.6	9.2	9.8	10.8	8.9		
26 North Ave A	-0.6	3.0	3.6	4.6	5.2	8.8	9.4	10.4			
26B Lower Beach Rd	-8.6	-5.0	-4.5	-3.4	-2.8	0.8	1.3	2.4	17.3		
27 Lower Beach Rd	-9.5	-5.9	-5.4	-4.3	-3.7	-0.1	0.4	1.5	20.2		
27 Lower Beach Rd	-9.5	-5.9	-5.4	-4.3	-3.7	-0.1	0.4	1.5	18.2		
27 Lower Beach Rd A	-10.8	-7.2	-6.7	-5.6	-5.0	-1.4	-0.9	0.2			
27 Lower Beach Rd B	-9.4	-5.8	-5.3	-4.2	-3.6	0.0	0.5	1.6			
27 Main Ave	-5.3	-1.7	-1.2	-0.1	0.5	4.1	4.6	5.7	15.0		
27 North Ave	-1.4	2.2	2.8	3.8	4.4	8.0	8.6	9.6			
27 North Ave A	-1.3	2.3	2.9	3.9	4.5	8.1	8.7	9.7			
27 North Ave B	-1.9	1.7	2.3	3.3	3.9	7.5	8.1	9.1			

Building Table	Flood Exposure Relative to Grade (KLF Analysis)									
27 North Ave C	-1.8	1.8	2.4	3.5	4.0	7.6	8.2	9.3		
27 Pine Tree Ave	-1.9	1.6	2.2	3.3	3.9	7.4	8.0	9.1	11.6	
27 Pine Tree Ave A	-1.5	2.1	2.6	3.7	4.3	7.9	8.4	9.5		
27 Pine Tree Ave B	-1.2	2.4	3.0	4.1	4.6	8.2	8.8	9.9		
27 Pine Tree Ave C	-2.0	1.6	2.2	3.3	3.8	7.4	8.0	9.1		
27 Pine Tree Ave D	-1.7	1.9	2.4	3.5	4.1	7.7	8.2	9.3		
28 - 30 Lower Beach Rd	-8.1	-4.5	-4.0	-2.9	-2.3	1.3	1.8	2.9		
28 North Ave	2.3	5.9	6.5	7.5	8.1	11.7	12.3	13.3	6.4	
28 West Ave	-0.7	2.8	3.4	4.5	5.1	8.6	9.2	10.3	11.4	
28 West Ave	-0.7	2.8	3.4	4.5	5.1	8.6	9.2	10.3	9.4	
28 West Ave A	-0.9	2.7	3.2	4.3	4.9	8.5	9.0	10.1		
28 West Ave B	-1.2	2.4	3.0	4.1	4.6	8.2	8.8	9.9		
29 - 31 Eastern Ave, 16 Bay A	-1.4	2.1	2.7	3.8	4.4	7.9	8.5	9.6		
29 Cove Ave	-1.7	1.9	2.5	3.6	4.1	7.7	8.3	9.4	12.3	
29 Cove Ave A	-2.1	1.5	2.0	3.1	3.7	7.3	7.8	8.9		
3 Camp Ellis Ave	-1.9	1.7	2.3	3.4	3.9	7.5	8.1	9.2	13.5	
3 Riverside Ave	-2.6	1.0	1.5	2.6	3.2	6.8	7.3	8.4	10.3	
3 Riverside Ave A	-1.4	2.2	2.8	3.8	4.4	8.0	8.6	9.6		
30 Camp Ellis Ave	1.5	5.1	5.6	6.7	7.3	10.9	11.4	12.5	8.2	
30 Camp Ellis Ave A	2.6	6.2	6.7	7.8	8.4	12.0	12.5	13.6		
31 Camp Ellis Ave	-1.2	2.4	3.0	4.0	4.6	8.2	8.8	9.8	10.9	
31 Camp Ellis Ave A	-2.1	1.5	2.1	3.1	3.7	7.3	7.9	8.9		
31 West Ave	-0.8	2.8	3.4	4.5	5.0	8.6	9.2	10.3	10.4	
31 West Ave A	-1.3	2.2	2.8	3.9	4.5	8.0	8.6	9.7		
32 Cove Ave	-1.7	1.9	2.5	3.6	4.1	7.7	8.3	9.4	12.3	
32 Main Ave	-6.9	-3.3	-2.7	-1.7	-1.1	2.5	3.1	4.1	17.5	
32 Main Ave	-6.9	-3.3	-2.7	-1.7	-1.1	2.5	3.1	4.1	16.5	
32 North Ave	0.2	3.8	4.4	5.5	6.0	9.6	10.2	11.3	9.4	
32 North Ave A	1.7	5.3	5.8	6.9	7.5	11.1	11.6	12.7		
32 North Ave B	0.1	3.6	4.2	5.3	5.9	9.4	10.0	11.1		
32B Cove Ave	-0.9	2.7	3.3	4.3	4.9	8.5	9.1	10.1	10.5	

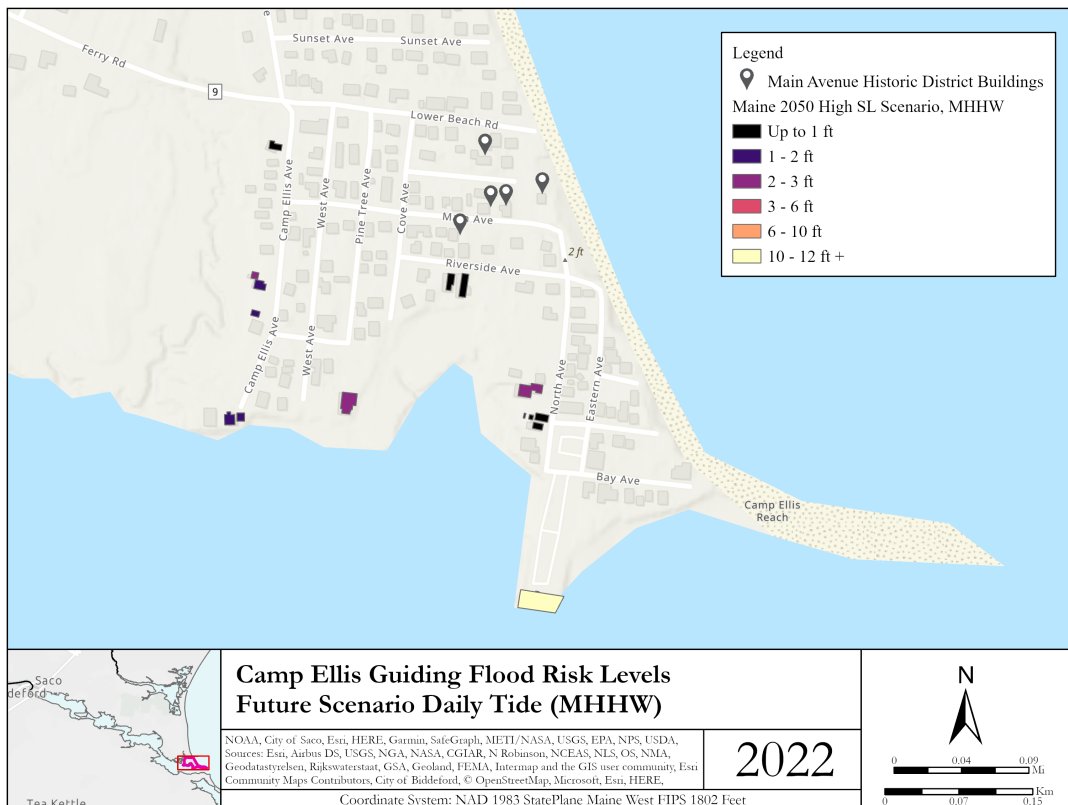
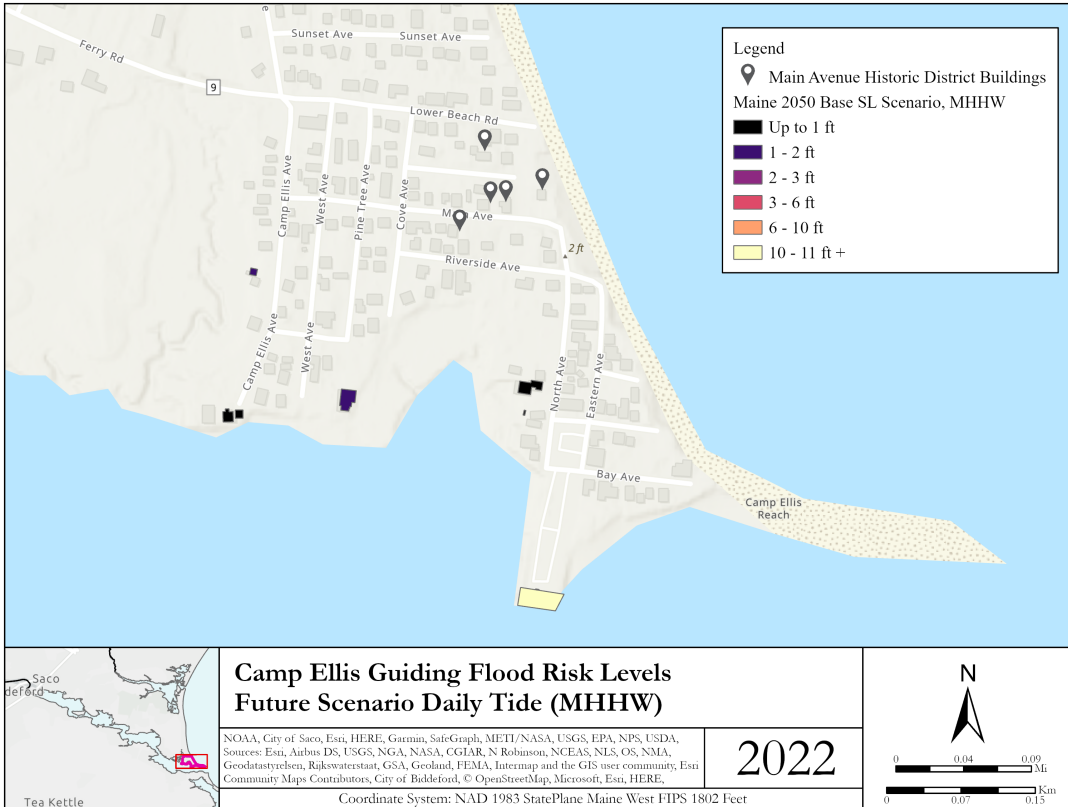
Building Table	Flood Exposure Relative to Grade (KLF Analysis)									
33 Cove Ave	-2.4	1.2	1.8	2.8	3.4	7.0	7.6	8.6	14.1	
33 Lower Beach Rd	-6.1	-2.5	-1.9	-0.9	-0.3	3.3	3.9	4.9	15.8	
33 Lower Beach Rd A	-6.9	-3.3	-2.7	-1.6	-1.1	2.5	3.1	4.2		
33 West Ave	-0.6	3.0	3.6	4.7	5.2	8.8	9.4	10.5	12.2	
34 Lower Beach Rd	-7.0	-3.4	-2.8	-1.7	-1.2	2.4	3.0	4.1	19.6	
34 North Ave	0.2	3.7	4.3	5.4	6.0	9.5	10.1	11.2	8.5	
34 West Ave	-1.1	2.5	3.1	4.1	4.7	8.3	8.9	9.9	10.8	
34 West Ave A	-1.3	2.3	2.8	3.9	4.5	8.1	8.6	9.7		
35 Camp Ellis Ave	-2.4	1.2	1.8	2.9	3.4	7.0	7.6	8.7	13.0	
35 Pine Tree Ave	-0.9	2.7	3.2	4.3	4.9	8.5	9.0	10.1	10.6	
36 Cove Ave	-1.7	1.9	2.5	3.5	4.1	7.7	8.3	9.3	12.3	
36 Cove Ave A	-1.2	2.3	2.9	4.0	4.6	8.1	8.7	9.8		
36 Main Ave	-3.5	0.1	0.6	1.7	2.3	5.9	6.4	7.5	13.2	
36 Main Ave A	-3.5	0.1	0.7	1.7	2.3	5.9	6.5	7.5		
36 North Ave	-0.3	3.3	3.9	5.0	5.5	9.1	9.7	10.8	10.9	
36 North Ave A	-0.5	3.1	3.7	4.8	5.3	8.9	9.5	10.6		
39 Lower Beach Rd	-6.0	-2.4	-1.8	-0.8	-0.2	3.4	4.0	5.0	15.7	
39 Lower Beach Rd A	-5.9	-2.3	-1.7	-0.7	-0.1	3.5	4.1	5.1		
39 Main Ave	-1.9	1.7	2.3	3.3	3.9	7.5	8.1	9.1	12.6	
39 Main Ave A	-2.1	1.5	2.1	3.2	3.7	7.3	7.9	9.0		
4 Cove Ave	-4.9	-1.3	-0.7	0.4	0.9	4.5	5.1	6.2	15.5	
4 Cove Ave A	-5.6	-2.0	-1.4	-0.3	0.2	3.8	4.4	5.5		
4 Lower Beach Rd	-0.7	2.9	3.5	4.6	5.1	8.7	9.3	10.4	11.3	
4 Lower Beach Rd A	-1.3	2.3	2.9	3.9	4.5	8.1	8.7	9.7		
40 Camp Ellis Ave A	1.3	4.9	5.5	6.5	7.1	10.7	11.3	12.3		
40 Camp Ellis Ave	-0.8	2.8	3.4	4.5	5.0	8.6	9.2	10.3	11.4	
40 Camp Ellis Ave B	-0.8	2.7	3.3	4.4	5.0	8.5	9.1	10.2		
40 West Ave	-1.2	2.4	2.9	4.0	4.6	8.2	8.7	9.8	8.9	
42 Main Ave	-3.2	0.4	1.0	2.1	2.6	6.2	6.8	7.9	13.8	
43 Camp Ellis Ave	-2.0	1.6	2.1	3.2	3.8	7.4	7.9	9.0	11.7	
43 Main Ave	-2.9	0.7	1.3	2.4	2.9	6.5	7.1	8.2	15.5	

Building Table	Flood Exposure Relative to Grade (KLF Analysis)									
43 West Ave	-0.1	3.5	4.0	5.1	5.7	9.3	9.8	10.9	8.8	
45 Camp Ellis Ave	-2.1	1.5	2.1	3.1	3.7	7.3	7.9	8.9	11.8	
45 West Ave	2.8	6.4	6.9	8.0	8.6	12.2	12.7	13.8		
46 West Ave	-1.9	1.7	2.3	3.3	3.9	7.5	8.1	9.1	11.6	
46 West Ave	-1.9	1.7	2.3	3.3	3.9	7.5	8.1	9.1	11.6	
46 West Ave	-1.9	1.7	2.3	3.3	3.9	7.5	8.1	9.1	11.6	
46 West Ave	-1.9	1.7	2.3	3.3	3.9	7.5	8.1	9.1	11.6	
46 West Ave	-1.9	1.7	2.3	3.3	3.9	7.5	8.1	9.1	11.6	
46 West Ave A	-2.3	1.2	1.8	2.9	3.5	7.0	7.6	8.7		
46 West Ave B	-2.4	1.2	1.8	2.8	3.4	7.0	7.6	8.6		
46 West Ave C	-2.9	0.7	1.2	2.3	2.9	6.5	7.0	8.1		
46 West Ave D	-2.5	1.0	1.6	2.7	3.3	6.8	7.4	8.5		
5 Bay Ave	12.9	16.5	17.1	18.1	18.7	22.3	22.9	23.9	-5.2	
5 Bay Ave A	12.9	16.5	17.1	18.1	18.7	22.3	22.9	23.9		
5 Island View St	-7.4	-3.8	-3.2	-2.2	-1.6	2.0	2.6	3.6	15.1	
5 Pearl Ave	-3.8	-0.3	0.3	1.4	2.0	5.5	6.1	7.2	17.5	
5 Pine Tree Ave	-4.5	-1.0	-0.4	0.7	1.3	4.8	5.4	6.5	15.2	
52 Camp Ellis Ave	-1.2	2.4	2.9	4.0	4.6	8.2	8.7	9.8	9.9	
54 Camp Ellis Ave	1.6	5.2	5.7	6.8	7.4	11.0	11.5	12.6	10.1	
54 Camp Ellis Ave	1.6	5.2	5.7	6.8	7.4	11.0	11.5	12.6	12.1	
54 Camp Ellis Ave A	1.8	5.4	6.0	7.0	7.6	11.2	11.8	12.8		
6 Cove Ave	-4.5	-0.9	-0.4	0.7	1.3	4.9	5.4	6.5	12.2	
6 Eastern Ave	-4.1	-0.5	0.1	1.2	1.7	5.3	5.9	7.0	17.7	
6 Eastern Ave A	-4.0	-0.5	0.1	1.2	1.8	5.3	5.9	7.0		
6 Island View St	-9.2	-5.6	-5.1	-4.0	-3.4	0.2	0.7	1.8	18.9	
6 Lower Beach Rd	-2.9	0.7	1.3	2.4	2.9	6.5	7.1	8.2	14.5	
6 North Ave	-2.6	1.0	1.6	2.7	3.2	6.8	7.4	8.5	15.2	
6 North Ave A	-2.7	0.9	1.5	2.6	3.1	6.7	7.3	8.4		
6 Riverside Ave	-6.9	-3.3	-2.7	-1.6	-1.1	2.5	3.1	4.2	17.5	
6 Surf St	-7.2	-3.6	-3.0	-1.9	-1.4	2.2	2.8	3.9	17.8	
6 Surf St A	-7.6	-4.0	-3.5	-2.4	-1.8	1.8	2.3	3.4		

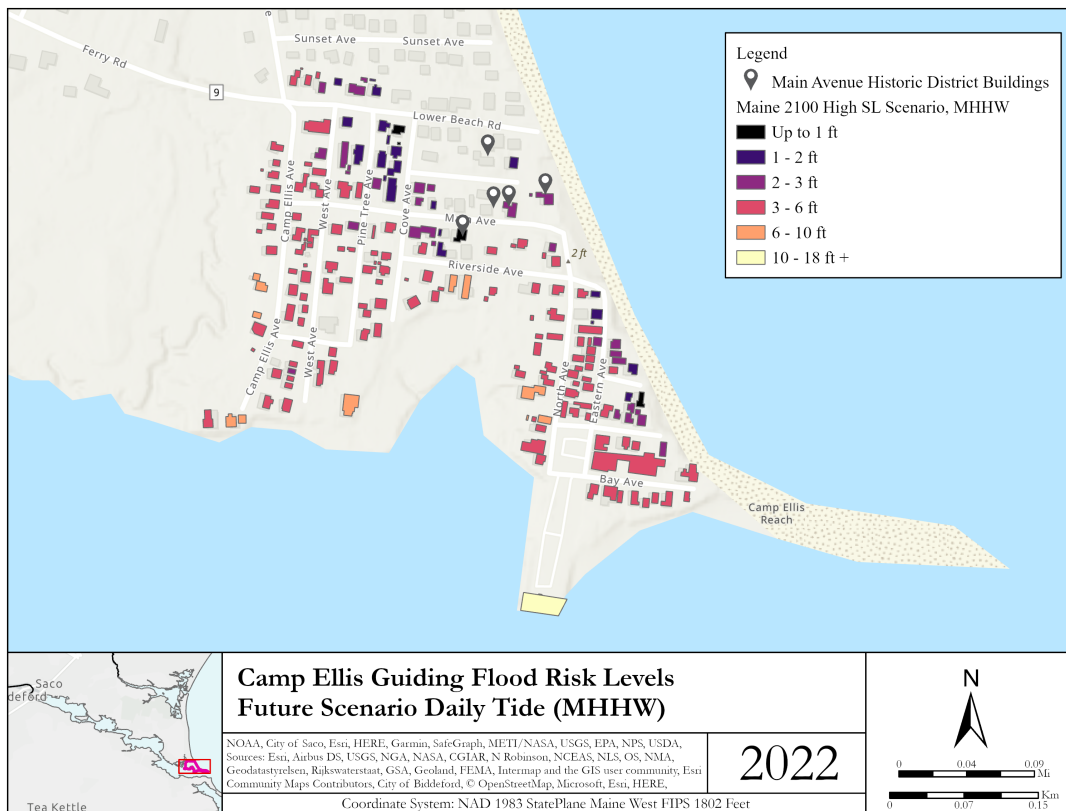
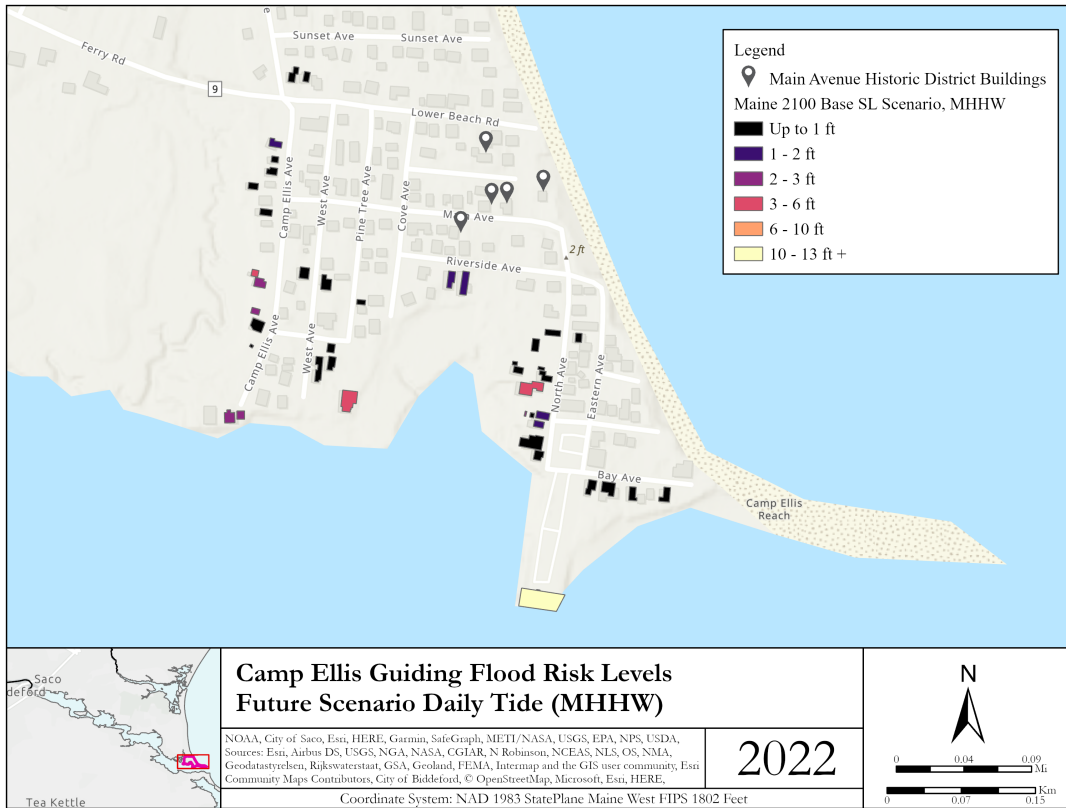
Building Table	Flood Exposure Relative to Grade (KLF Analysis)									
7 Bay Ave	-0.2	3.4	4.0	5.1	5.6	9.2	9.8	10.9	9.8	
7 Bay Ave A	-0.2	3.3	3.9	5.0	5.6	9.1	9.7	10.8		
7 Island View St	-7.8	-4.2	-3.6	-2.5	-2.0	1.6	2.2	3.3	16.4	
7 Pearl Ave	-5.6	-2.0	-1.5	-0.4	0.2	3.8	4.3	5.4	18.3	
7 Riverside Ave	0.3	3.9	4.4	5.5	6.1	9.7	10.2	11.3	11.4	
7 West Ave	-3.5	0.0	0.6	1.7	2.3	5.8	6.4	7.5	11.2	
7 West Ave A	-3.4	0.2	0.8	1.9	2.4	6.0	6.6	7.7		
8 Camp Ellis Ave	0.2	3.8	4.3	5.4	6.0	9.6	10.1	11.2	10.5	
8 Cove Ave	-4.3	-0.7	-0.2	0.9	1.5	5.1	5.6	6.7	13.0	
8 Island View St	-4.7	-1.1	-0.5	0.5	1.1	4.7	5.3	6.3	14.3	
8 Main Ave	-2.3	1.3	1.8	2.9	3.5	7.1	7.6	8.7	11.0	
8 Main Ave A	-3.2	0.4	1.0	2.0	2.6	6.2	6.8	7.8		
8 Pearl Ave	-4.7	-1.1	-0.6	0.5	1.1	4.7	5.2	6.3	14.4	
8 Pine Tree Ave	-4.1	-0.5	0.1	1.1	1.7	5.3	5.9	6.9	13.7	
8 Riverside Ave	-6.7	-3.1	-2.5	-1.5	-0.9	2.7	3.3	4.3	17.3	
8 West Ave	-3.2	0.4	1.0	2.0	2.6	6.2	6.8	7.8	13.8	
8 West Ave A	-2.6	1.0	1.6	2.7	3.2	6.8	7.4	8.5		
9 Fore St	-0.8	2.8	3.4	4.5	5.0	8.6	9.2	10.3	11.4	
9 Fore St	-0.8	2.8	3.4	4.5	5.0	8.6	9.2	10.3	8.4	
9 Fore St A	-0.6	3.0	3.6	4.7	5.2	8.8	9.4	10.5		
9 Main Ave	-2.8	0.8	1.4	2.4	3.0	6.6	7.2	8.2	13.5	
9 North Ave	-1.9	1.6	2.2	3.3	3.9	7.4	8.0	9.1	15.6	
9 Riverside Ave	0.4	4.0	4.6	5.7	6.2	9.8	10.4	11.5	13.2	

Appendix D: Camp Ellis Guiding Flood Risk Level Maps for 2050 and 2100

Year 2050, Base & High



Year 2100, Base & High



Appendix E: Building Conditions Matrix

Building Conditions Matrix								
Camp Ellis, Saco								
Address	Primary Structure	Condition	Foundation	Approx. Height Above Grade	Basement Windows	Visible Utilities	Existing Mitigation	Character Defining Features
1 Eastern Ave	Wood frame with vinyl cladding	Good	Wooden piers	6'	No	Electric, heat pump, propane tank	Structure is at least 4' above grade	n/a
1 Main Ave	Wood frame with vinyl cladding	Good	Concrete	3'	No	Electric	None	n/a
10 Beach Ave	Wood frame with wood siding	Good	Not visible	3'	No	Electric	None	n/a
10 Camp Ellis Ave	Wood frame with vinyl cladding	Good	Not visible	2'	No	Electric, propane tank	None	n/a
10 Eastern Ave	Wood frame with wood siding	Good	Concrete block	4'	Yes	Electric	Structure is at least 4' above grade	n/a
10 Lower Beach Rd	Wood frame with vinyl cladding	Good	Concrete	2'	No	Electric	None	n/a
10 Main Ave	Wood frame with vinyl cladding	Good	Concrete block	2'	No	Electric	None	n/a
10 North Ave	Wood frame with vinyl cladding	Good	Not visible	3'	No	Electric	None	Wrap around porch, decorative brackets on porch posts
10 Riverside Ave	Wood frame with vinyl cladding	Good	Concrete	2'	Yes	Electric	None	n/a
10 West Ave	Wood frame with vinyl cladding	Good	Concrete	1'	No	Electric	None	n/a
10B West Ave	Wood frame with aluminum siding	Good	Concrete	2'	No	Electric	None	n/a
11 Bay Ave	Wood frame with vinyl cladding	Good	Concrete	1'	Yes	Electric	None	n/a
11 Beach Ave	Wood frame with wood siding	Good	Wooden piers	4'	No	Electric	Structure is at least 4' above grade	n/a

Address	Primary Structure	Condition	Foundation	Approx. Height Above Grade	Basement Windows	Visible Utilities	Existing Mitigation	Character Defining Features
11 Cove Ave	Wood frame with wood siding	Good	Concrete piers	4'	No	Electric	Structure is at least 4' above grade	Single-story, integrated front porch, two-over-two windows, wood shingle siding, low-hipped roof, visible rafter tails
11B Cove Ave	Wood frame with wood siding	Good	Concrete block	0'	Yes	Electric	None	Small massing, full width front porch, wood shingle siding, four-paned windows
11 Eastern Ave	Wood frame with vinyl cladding	Good	Concrete block	4'	Yes	Electric	Structure is at least 4' above grade	n/a
11 Lower Beach Rd	Wood frame with vinyl cladding	Good	Concrete	3'	Yes	Electric	None	n/a
12 Beach Ave	Wood frame with vinyl cladding	Good	Concrete	2'	No	Electric	None	Modest massing, side gable roof, wrap around porch
12 Camp Ellis Ave	Wood frame with vinyl cladding	Good	Not visible	1'	No	Electric	None	n/a
12 Cove Ave	Wood frame with vinyl cladding	Good	Concrete	1'	No	Electric	None	Ranch form, interior chimney
12 Eastern Ave	Wood frame with vinyl cladding	Good	Not visible	4'	No	Electric	Structure is at least 4' above grade	n/a
12 Lower Beach Rd	Wood frame with vinyl cladding	Good	Concrete block	3'	Yes	Electric	None	n/a
12 Riverside Ave	Wood frame with vinyl cladding	Good	Concrete	0'	No	Electric	None	n/a
13 Bay Ave	Wood frame with vinyl cladding	Good	Concrete	0'	No	Electric, heat pump	None	n/a
13 Beach Ave	Wood frame with vinyl cladding	Good	Piers (type not visible)	6'	No	Electric	Structure is at least 6' above grade	n/a
13 Camp Ellis Ave	Wood frame with wood cladding	Good	Concrete	2'	No	Electric	None	Modest massing, front gable roof, wrap around porch
13 Main Ave	Wood frame with vinyl cladding	Good	Concrete	3'	No	Electric, heat pump	None	n/a

Address	Primary Structure	Condition	Foundation	Approx. Height Above Grade	Basement Windows	Visible Utilities	Existing Mitigation	Character Defining Features
14 Beach Ave	Wood frame with wood cladding	Good	Concrete block	3'	Yes	Electric	None	n/a
14 Camp Ellis Ave	Wood frame with vinyl cladding	Good	Concrete block	1'	Yes	Electric	None	n/a
14 Eastern Ave	Wood frame with vinyl cladding	Good	Concrete piers	1'	No	Electric	None	n/a
14A Eastern Ave	Wood frame with wood siding	Good	Piers (type not visible)	8'	No	Electric	None	n/a
14 Main Ave	Wood frame with wood siding	Good	Not visible	2'	No	Electric	None	Wrap around porch, turned porch posts, front gable roof, wood shingle siding, two-over-two windows, belt course, flared shingles on second floor, wide wood trim along cornice
14 North Ave	Wood frame with wood siding	Good	Concrete	1'	No	Electric	None	n/a
15 Bay Ave	Wood frame with vinyl cladding	Good	Concrete	2'	No	Electric	None	n/a
15 Eastern Ave	Wood frame with asbestos and wood siding	Good	Concrete block	1'	Yes	Electric, propane tank	None	n/a
15 Lower Beach Rd	Wood frame with vinyl cladding	Good	Concrete block	2'	No	Electric	None	n/a
15 Main Ave	Wood frame with vinyl cladding	Good	Concrete block	3'	Yes	Electric	None	n/a
15 North Ave	Concrete block	Good	Concrete block	0'	No	Electric	None	Concrete block construction, long massing, garage bays
16 Camp Ellis Ave	Wood frame with wood siding	Good	Concrete block	4'	Yes	Electric	Structure is at least 4' above grade	Wrap around porch, side gable roof with shed and gable dormers, wood shingle siding, wide wood trim along cornice
16 Eastern Ave	Wood frame with wood siding	Good	Concrete	2'	No	Electric, heat pumps	None	n/a

Address	Primary Structure	Condition	Foundation	Approx. Height Above Grade	Basement Windows	Visible Utilities	Existing Mitigation	Character Defining Features
16 Lower Beach Rd	Wood frame with vinyl cladding	Good	Concrete block	3'	Yes	Electric	None	n/a
16 North Ave	Wood frame with vinyl cladding	Good	Not visible	8'	No	Electric	Structure is at least 8' above grade	n/a
17 Bay Ave	Wood frame with wood siding	Good	Concrete block	2'	Yes	Electric	None	Small massing, wood shingle siding, shallow pitched roof
17 Eastern Ave	Wood frame with wood siding	Good	Concrete piers	2'	No	Electric, heat pumps	None	n/a
17 Riverside Ave	Wood frame with vinyl cladding	Good	Not visible	8'	No	Electric	Structure is at least 8' above grade	n/a
17 West Ave	Wood frame with vinyl cladding	Good	Wooden piers	3'	No	Electric	None	n/a
18 Camp Ellis Ave	Wood frame with vinyl cladding	Good	Not visible	1'	No	Electric	None	n/a
18 Eastern Ave	Wood frame with wood and vinyl siding	Good	Concrete block	2'	No	Electric	None	Modest massing, wood shingle siding, side gable roof, shed dormer
19 Bay Ave	Wood frame with wood siding	Good	Concrete	2'	Yes	Electric	None	Small massing, wood shingle siding, shallow pitched roof
19 Beach Ave	Wood frame with vinyl cladding	Good	Piers (type not visible)	8'	No	Electric	Structure is at least 8' above grade	n/a
19 North Ave	Wood frame with wood siding	Good	Not visible	3'	No	Electric	None	Wrap around porch, clapboard siding, front gable form
2 Beach Ave	Wood frame with vinyl cladding	Good	Concrete	4'	No	Electric, heat pumps	Structure is at least 3' above grade	n/a

Address	Primary Structure	Condition	Foundation	Approx. Height Above Grade	Basement Windows	Visible Utilities	Existing Mitigation	Character Defining Features
2 Eastern Ave	Wood frame with wood siding	Good	Concrete block	4'	Yes	Electric, propane tank	Structure is at least 4' above grade; wooden sea wall	Bungalow form, bay window, wood shingle cladding, jerkin head roof
2 Island View St	Wood frame with wood siding	Good	Concrete	2'	Yes	Electric	None	n/a
2 Lower Beach Rd	Wood frame with aluminum siding	Good	Concrete	2'	No	Electric	None	n/a
2 Riverside Ave	Wood frame with vinyl cladding	Good	Concrete block	4'	Yes	Electric	None	n/a
2 Surf St	Wood frame with wood siding	Good	Concrete	2'	No	Electric, heat pump	None	n/a
21 Bay Ave	Wood frame with vinyl cladding	Good	Concrete		No	Electric, propane tank	None	n/a
21 Camp Ellis Ave	Wood frame with wood siding	Good	Not visible	2'	No	Electric	None	n/a
21 North Ave	Wood frame with vinyl cladding	Good	Wooden piers	2'	No	Electric	None	n/a
21 Riverside Ave	Wood frame with vinyl cladding	Good	Concrete	2'	No	Electric, heat pumps	None	n/a
22 Camp Ellis Ave	Wood frame with vinyl cladding	Good	Concrete	1'	No	Electric	None	n/a
22 Main Ave	Wood frame with wood siding	Good	Concrete	4'	Yes	Electric, heat pump	None	n/a
22 West Ave	Wood frame with vinyl cladding	Good	Concrete	4'	Yes	Electric, heat pump	None	n/a
22 West Ave	Wood frame with vinyl cladding	Good	Concrete	0'	Yes	Electric	None	n/a
22 West Ave	Wood frame with vinyl cladding	Good	Concrete	0'	Yes	Electric	None	n/a
23 Bay Ave	Wood frame with vinyl cladding	Good	Concrete	2'	No	Electric	None	n/a
23 Camp Ellis Ave	Wood frame with vinyl cladding	Good	Concrete block	3'	No	Electric	None	n/a

Address	Primary Structure	Condition	Foundation	Approx. Height Above Grade	Basement Windows	Visible Utilities	Existing Mitigation	Character Defining Features
23 Lower Beach Rd	Wood frame with vinyl cladding	Good	Concrete	3'	Yes	Electric	None	n/a
23 Main Ave	Wood frame with wood siding	Good	Concrete	0'	No	Electric	None	n/a
23 North Ave	Wood frame with vinyl cladding	Good	Wooden piers	2'	No	Electric	Structure is at least 3' above grade	n/a
24 Bay Ave	Wood frame with vinyl cladding	Good	Concrete	2'	No	Electric	None	n/a
24 Camp Ellis Ave	Wood frame with vinyl cladding	Good	Concrete	4'	Yes	Electric	Structure is at least 4' above grade	Wrap around porch, front gable roof
24 Cove Ave	Wood frame with vinyl cladding	Good	Concrete	2'	Yes	Electric	None	n/a
24 Main Ave	Wood frame with aluminum siding	Good	Concrete	1'	No	Electric	None	Small massing, full width front porch, shallow hipped roof
24 North Ave	Wood frame with vinyl cladding	Good	Concrete	3'	No	Electric	None	n/a
25 Camp Ellis Ave	Wood frame with wood siding	Good	Concrete	1'	No	Electric	None	n/a
25 Eastern Ave	Wood frame with wood and vinyl siding	Good	Concrete	1'	No	Electric	None	n/a
25 Lower Beach Rd	Wood frame with vinyl cladding	Good	Concrete	4'	No	Electric, propane tank	None	n/a
25 North Ave	Wood frame with vinyl cladding	Good	Concrete	1'	No	Electric	None	n/a
25 West Ave	Wood frame with aluminum siding	Good	Concrete block	2'	No	Electric, propane tank	None	Cross gable roof, wide window trim, chamfered corner
26 Cove Ave	Wood frame with vinyl cladding	Good	Concrete block	2'	Yes	Electric	None	n/a

Address	Primary Structure	Condition	Foundation	Approx. Height Above Grade	Basement Windows	Visible Utilities	Existing Mitigation	Character Defining Features
26 Lower Beach Rd	Wood frame with aluminum siding	Good	Concrete block	6'	Yes	Electric	Main structure is at least 5' above grade	Wide front porch, side gabled roof, shed dormer, stamped concrete foundation
26B Lower Beach Rd	Wood frame with aluminum siding	Good	Concrete	1'	No	Electric	None	n/a
26 Main Ave	Wood frame with vinyl cladding	Good	Concrete	2'	No	Electric	None	n/a
26 North Ave	Wood frame with wood siding	Good	Concrete	1'	Yes	Electric	None	Wide front porch, cross gabled roof, wood shingle siding
27 Lower Beach Rd	Wood frame with vinyl cladding	Good	Concrete	3'	No	Electric, propane tank	None	Wrap around porch, cross gabled roof with jerkin heads, gambrel dormer, wide cornice trim with cornice returns
27 Lower Beach Rd	Wood frame with vinyl cladding	Good	Concrete	1'	No	Electric	None	n/a
27 Main Ave	Wood frame with wood siding	Good	Wooden piers	2'	No	Electric	None	Wrap around porch supported by Tuscan columns, wood siding, two-over-two windows, wide cornice trim, hipped roof
27 North Ave	Wood frame with wood siding	Good	Concrete	2'	No	Electric, propane tank	None	Modest massing, full wide front porch, wood shingle siding, front gabled roof
27 Pine Tree Ave		Good	Concrete	2'	No	Electric	None	n/a
28 North Ave	Wood frame with wood siding	Good	Concrete	1'	No	Electric	None	Wrap around porch, clapboard siding, side gable roof, front gabled projection, wide cornice trim with cornice returns
28 West Ave	Wood frame with wood siding	Good	Concrete	3'	Yes	Electric	Structure is at least 3' above grade	Wrap around porch, decorative brackets on porch posts, board and batten siding, barge board trim

Address	Primary Structure	Condition	Foundation	Approx. Height Above Grade	Basement Windows	Visible Utilities	Existing Mitigation	Character Defining Features
28 West Ave	Wood frame with wood siding	Good	Concrete piers	1'	Yes	Electric	None	n/a
28-30 Lower Beach Rd	Wood frame with wood siding	Good	Concrete	2'	Yes	Electric	None	n/a
29 Cove Ave	Wood frame with vinyl cladding	Good	Concrete piers	3'	No	Electric	Structure is at least 3' above grade	n/a
29-31 Eastern Ave	Wood frame with vinyl cladding	Good	Concrete	2'	No	Electric, propane tanks	None	n/a
3 Camp Ellis Ave	Wood frame with wood siding	Good	Concrete	4'	Yes	Electric, propane tank	Structure is at least 4' above grade	n/a
3 Riverside Ave	Wood frame with wood siding	Good	Not visible	0'	No	Electric	None	n/a
30 Camp Ellis Ave	Wood frame with wood siding	Good	Not visible	2'	No	Electric	Wood shutters	Wrap around porch, wood siding, two-over-two windows, cross gable roof
30 Lower Beach Rd	Wood frame with wood siding	Good	Concrete	1'	No	Electric	None	n/a
31 Camp Ellis Ave	Wood frame with vinyl cladding	Good	Concrete	2'	No	Electric	None	Wrap around porch, side gable roof, deep eaves
31 West Ave	Wood frame with wood siding	Good	Concrete, brick	2'	Yes	Electric	None	Wrap around porch, clapboard siding, 3-story tower, pedimented dormer, shed dormers, stained glass window, wide cornice with cornice returns
32 Cove Ave	Wood frame with wood siding	Good	Concrete	3'	No	Electric	Structure is at least 3' above grade	n/a
32B Cove Ave	Wood frame with wood siding	Good	Concrete	2'	Yes	Electric	None	n/a

Address	Primary Structure	Condition	Foundation	Approx. Height Above Grade	Basement Windows	Visible Utilities	Existing Mitigation	Character Defining Features
32 Main Ave	Wood frame with wood siding	Good	Concrete	3'	No	Electric	Structure is at least 3' above grade	Wrap around porch supported by Tuscan columns, wood siding, molded window trim, wide cornice trim, deep eaves, hipped roof, hipped dormer
32 Main Ave	Wood frame with wood siding	Good	Concrete	2'	No	Electric	None	n/a
32 North Ave	Wood frame with vinyl cladding	Good	Concrete	2'	No	Electric	None	Full width front porch, wood shingles, wide cornice trim with cornice returns, deep eaves, gable dormer
33 Cove Ave	Wood frame with vinyl cladding	Good	Concrete block	4'	Yes	Electric	Main structure is at least 4' above grade	Two-over-one windows, steep gabled roof with deep eaves
33 Lower Beach Rd	Wood frame with wood and vinyl siding	Good	Concrete	2'	Yes	Electric	None	Wrap around porch, wood siding, scalloped barge board, cross gable roof
33 West Ave	Wood frame with wood siding	Good	Concrete	4'	Yes	Electric	Main structure is at least 4' above grade	n/a
34 Lower Beach Rd	Wood frame with wood and vinyl siding	Good	Concrete	5'	Yes	Electric	Main structure is at least 5' above grade	n/a
34 North Ave	Wood frame with wood siding	Good	Concrete	1'	No	Electric	None	Small massing, clapboard siding, front gable form
34 West Ave	Wood frame with wood siding	Good	Wooden piers	2'	No	Electric	None	Full width front porch, wood shingles, side gabled roof with deep eaves, shed dormer
35 Camp Ellis Ave	Wood frame with wood siding	Good	Concrete	3'	Yes	Electric	Structure is at least 3' above grade	n/a

Address	Primary Structure	Condition	Foundation	Approx. Height Above Grade	Basement Windows	Visible Utilities	Existing Mitigation	Character Defining Features
35 Pine Tree Ave	Wood frame with wood siding	Good	Concrete	2'	No	Electric	None	n/a
36 Cove Ave	Wood frame with asbestos and vinyl siding	Good	Concrete	3'	Yes	Electric	Structure is at least 3' above grade	Side porch, side gable roof with large shed dormer
36 Main Ave	Wood frame with wood siding	Good	Concrete, stone piers	2'	No	Electric	None	Wrap around porch, wood siding, delicate wood trim on porch and gable peak, cross gable roof with deep eaves
36 North Ave	Wood frame with vinyl cladding	Good	Concrete	3'	No	Electric	None	n/a
36B North Ave	Wood frame with wood siding	Poor	Concrete	1'	No	Electric	None	n/a
36 West Ave	Wood frame with wood siding	Good	Concrete	2'	No	Electric	None	Wrap around porch, wood shingles, cross gable roof with deep eaves
39 Lower Beach Rd	Wood frame with vinyl cladding	Good	Concrete piers	2'	No	Electric	None	n/a
39 Main Ave	Wood frame with wood siding	Good	Concrete piers	3'	No	Electric	Structure is at least 3' above grade	Wrap around porch with decorative brackets, wood shingles, cross gable roof with deep eaves
4 Cove Ave	Wood frame with asbestos siding	Good	Concrete block	3'	Yes	Electric	Structure is at least 3' above grade	n/a
4 Lower Beach Rd	Wood frame with wood siding	Good	Concrete block	3'	Yes	Electric	Structure is at least 3' above grade	n/a
40 Camp Ellis Ave	Wood frame with wood and vinyl cladding	Good	Not visible	3'	No	Electric	None	Side porch supported by Tuscan columns, wood shingles, shed dormers, side gable form
40 West Ave	Wood frame with wood siding	Good	Concrete	0'	No	None	None	n/a

Address	Primary Structure	Condition	Foundation	Approx. Height Above Grade	Basement Windows	Visible Utilities	Existing Mitigation	Character Defining Features
42 Main Ave	Wood frame with vinyl cladding	Good	Concrete	3'	No	Electric, heat pump	Wood sea wall, structure is at least 3' above grade	Full width front porch, cross gable roof with deep eaves
43 Camp Ellis Ave	Wood frame with wood siding	Good	Concrete	2'	No	Electric	None	Modest massing, wood shingle siding, side gable roof, shed dormer
43 Main Ave	Wood frame with wood cladding	Good	Concrete piers	5'	No	Electric	Structure is at least 5' above grade	n/a
43 West Ave	Wood frame with vinyl cladding	Good	Concrete	1'	No	Electric	None	n/a
45 Camp Ellis Ave	Wood frame with vinyl cladding	Good	Not visible	2'	No	Electric	None	n/a
46 Camp Ellis Ave	Wood frame with vinyl cladding	Good	Concrete	1'	No	Electric	None	n/a
46 West Ave	Wood frame with vinyl cladding	Good	Concrete	2'	Yes	Electric	None	n/a
46 West Ave	Wood frame with wood siding	Good	Piers (type not visible)	2'	No	Electric	None	Full width front porch, clapboard siding, visible rafter tails, cottage form
46 West Ave	Wood frame with wood siding	Good	Piers (type not visible)	2'	No	Electric	None	Full width front porch, clapboard siding, visible rafter tails, cottage form
46 West Ave	Wood frame with wood siding	Good	Piers (type not visible)	2'	No	Electric	None	Full width front porch, clapboard siding, visible rafter tails, cottage form
46 West Ave	Wood frame with wood siding	Good	Piers (type not visible)	2'	No	Electric	None	Full width front porch, clapboard siding, visible rafter tails, cottage form
5 Bay Ave	Concrete block	Good	Concrete	0'	No	Electric	None	n/a
5 Island View St	Wood frame with vinyl cladding	Good	Concrete	0'	No	Electric	None	n/a

Address	Primary Structure	Condition	Foundation	Approx. Height Above Grade	Basement Windows	Visible Utilities	Existing Mitigation	Character Defining Features
5 Pearl Ave	Wood frame with wood siding	Good	Wooden piers	6'	No	Electric	Structure has been raised at least 6' above grade	n/a
5 Pine Tree Ave	Wood frame with vinyl cladding	Good	Concrete	3'	Yes	Electric	None	n/a
52 Camp Ellis Ave	Wood frame with vinyl cladding	Good	Concrete	1'	No	Electric	None	n/a
54 Camp Ellis Ave	Wood frame with vinyl cladding	Good	Concrete piers	4'	No	Electric	None	n/a
54 Camp Ellis Ave	Wood frame with vinyl cladding	Good	Concrete piers	6'	Garage door	Electric, propane tanks	None	n/a
6 Cove Ave	Wood frame with wood and vinyl cladding	Good	Concrete	0'	No	Electric	None	n/a
6 Eastern Ave	Wood frame with vinyl cladding	Good	Piers (type not visible)	6'	No	Electric, heat pump	Structure is at least 4' above grade	n/a
6 Island View St	Wood frame with wood siding	Good	Not visible	2'	No	Electric	None	Wrap around porch, cross gable roof and gable dormer, clapboard siding, two-over-one windows, scallop verge board trim
6 Lower Beach Rd	Wood frame with wood siding	Good	Not visible	4'	Yes	Electric	None	n/a
6 North Ave	Wood frame with vinyl cladding	Good	Piers (type not visible)	5'	No	Electric	Structure is at least 4' above grade	n/a
6 Riverside Ave	Wood frame with wood siding	Good	Concrete block	3'	No	Electric	None	n/a
6 Surf St	Wood frame with wood and vinyl siding	Good	Concrete	3'	Yes	Electric	Wood sea wall	n/a

Address	Primary Structure	Condition	Foundation	Approx. Height Above Grade	Basement Windows	Visible Utilities	Existing Mitigation	Character Defining Features
6 West Ave	Wood frame with vinyl cladding	Good	Concrete	2'	No	Electric, heat pumps	None	n/a
7 Bay Ave	Wood frame with vinyl cladding	Good	Concrete block	2'	Yes	Electric	None	n/a
7 Island View St	Wood frame with vinyl cladding	Good	Concrete	1'	No	Electric	None	n/a
7 Pearl Ave	Wood frame with vinyl cladding	Good	Concrete piers	5'	No	Electric	Structure has been raised at least 5' above grade	Narrow, one-story massing, integrated front porch, wood shingle siding
7 Riverside Ave	Wood frame with wood siding	Good	Piers (type not visible)	4'	No	Electric	Structure is at least 4' above grade	Wrap around porch, cross gable roof and gable dormer, wood shingle siding, two-over-one windows, molded window trim
7 West Ave	Wood frame with aluminum siding	Good	Concrete	0'	No	Electric	None	n/a
8 Camp Ellis Ave	Wood frame with wood siding	Good	Concrete block	3'	Yes	Electric	None	n/a
8 Cove Ave	Wood frame with vinyl cladding	Good	Concrete block	1'	Yes	Electric	None	n/a
8 Island View St	Wood frame with wood siding	Good	Wooden piers	2'	No	Electric	None	n/a
8 Main Ave	Wood frame with vinyl cladding	Good	Not visible	1'	No	Electric	None	n/a
8 Pearl Ave	Wood frame with vinyl cladding	Good	Concrete	2'	No	Electric	None	n/a
8 Pine Tree Ave	Wood frame with wood siding	Good	Concrete	2'	Yes	Electric	None	Ranch form, narrow band of windows, shallow pitched roof
8 Riverside Ave	Wood frame with vinyl cladding	Good	Concrete	3'	Yes	Electric	None	n/a
8 West Ave	Wood frame with vinyl cladding	Good	Concrete block	3'	No	Electric	None	n/a

Address	Primary Structure	Condition	Foundation	Approx. Height Above Grade	Basement Windows	Visible Utilities	Existing Mitigation	Character Defining Features
9 Fore St	Wood frame with vinyl cladding	Good	Not visible	3'	No	Electric	None	n/a
9 Fore St	Wood frame with brick and vinyl siding	Good	Concrete	0'	No	Electric	None	n/a
9 Main Ave	Wood frame with vinyl cladding	Good	Concrete	3'	Yes	Electric	None	n/a
9 North Ave	Wood frame with vinyl cladding	Good	Concrete block	6'	No	Electric, heat pump	Structure is at least 4' above grade; wooden sea wall	n/a
9 Riverside Ave	Wood frame with wood siding	Good	Not visible	6'	No	Electric	Structure is at least 6' above grade	n/a