# AGENDA ITEM #6 FEBRUARY 5, 2008

**RESOLUTION PC 07 47 CUP 08:** REQUEST FOR APPROVAL OF A CONDITIONAL USE PERMIT TO CONSTRUCT A SEAWALL ON LOTS THREE THROUGH TEN OF MARINE MANOR PUD LOCATED BETWEEN THE SIUSLAW RIVER AND RHODODENDRON DRIVE AT SITE ADDRESSES: 3215, 3225, 3265, 3285, 3305, AND 3315 RHODODENDRON DRIVE AND LOTS 3 AND 4 OF MARINE MANOR PUD. AS APPLIED FOR BY MARINE MANOR HOME OWNERS ASSOCIATION

**CRITERIA APPLYING TO THIS MATTER:**

**Florence Realization 2020 Comprehensive Plan**

**Florence City Code (FCC) Title 10: Zoning Regulations**

- Chapter 1: Zoning Administration
- Chapter 2: General Zoning Provisions
- Chapter 4: Conditional Uses
- Chapter 6: Design Review
- Chapter 7: Special Development Standards
- Chapter 11: Single Family Residential District
- Chapter 19: Estuary and Shorelands

**EXHIBITS**

"A" Findings of Fact

"B" Vicinity Map

"C" *City of Florence Site Investigation Report, Marine Manor PUD, N Portion, TL 1300-2200, Lane County Map 1812223*, January 11, 2008, by GeoScience, Inc. and Appendices A through D:
- Historical Aerial Photos (Appendix A)
- Selected Site Photos (Appendix B)
- McGee Engineering Design Drawings for Replacement Seawall (Appendix C)
- Completed City of Florence Site Investigation Report Summary (Appendix D)

"D" January 24, 2008 Letter from Brad Huby, Shannon & Wilson, Inc. to Robert Willoughby, re: Geotechnical Report Review Marine Manor Lot Owner's Association Conditional Use to Install Seawall."

"E" City of Florence Planning Commission Resolution 01-09-11-33, September 17, 2001

"F" *Marine Manor Sea Wall Inspection, Florence, Oregon*, By OBEC Consulting Engineers

"G" *Marine Manor Sea Wall Inspection, Florence, Oregon*, By OBEC Consulting Engineers, Revised: 8/15/2007

"H" December 18, 2007 Electronic Mail Communication from Michele Hanson, US Army Corps of Engineers, to Sande Tomlinson, Subject: Marine Manor Seawall Project

"I" January 3, 2008 Electronic Mail Communications from Cyril Young and Gloria Kiryuta, Oregon Division of State Lands, Subject: Marine Manor PUD Seawall

# STAFF REPORT AND FINDINGS
# FLORENCE COMMUNITY DEVELOPMENT DEPARTMENT
## Planning Commission
## Exhibit "A"

**Public Hearing Date:** February 5, 2008 **Planner:** Carol Heinkel
**Date of Report:** January 29, 2008
**Application:** PC 07 47 CUP 08

## I. PROPOSAL DESCRIPTION

1. **Proposal:** The applicants request a Conditional Use Permit to re-construct a seawall adjacent to the Marine Manor PUD.

2. **Applicant:** Marine Manor Lot Owners' Association

3. **Agent/Representatives/Consultants:**
   Jeffery Christian, Lot Owners' Association President
   Sande Tomlinson, Property Owner
   Gunnar Schlieder, Pd.D., CEG, GeoScience, Inc.

4. **Tax Lots and Property Owners:**

   The proposed seawall is adjacent to lots 3 through 10 of the Marine Manor PUD. At the time of this staff report, the following tax lots on Lane County Assessor's Map 18-12-22-23 and respective owners were identified. In the event there is a discrepancy between the tax lot information below and the map labeled Exhibit B, Exhibit B shall be the area that is subject to this request:

   Marine Manor Development Corporation:
   (Lots 3 and 4) Tax Lots 1500, 1600
   Barbara J. Davis Trust:
   (Lot 5) TL 1700
   A. Gordon Murry Trust:
   (Lot 6) TL 1800
   Richard and Mary Castenada:
   (Lot 7) TL 1900
   McKee Family Trust:
   (Lot 8) TL 2000
   R. Sande and Mary Tomlinson:
   (Lot 9) TL 2100
   Patrick and Elizabeth Thomson:
   (Lot 10) TL 2200

5. **Tax Lot Sizes:** Lots range in size from 7,405 sq. ft. (TL 1500) to 15,682 sq. ft. (TL 2200)*
   *Source: Lane County Assessor's Records

The proposal is consistent with this criterion because the proposed use does not require an environmental impact statement (EIS) through the Corps of Engineers Section 10/404 permit process, and, thus, the proposal does not require an impact assessment. As documented in the December 18, 2007, electronic mail correspondence from Michele Hanson to Sande Tomlinson (see Exhibit H), the U.S. Army Corps of Engineers has determined that the:

> "project to construct a secondary seawall behind the existing seawall will not require a Department of the Army permit provided the project is constructed as your have described. For example, all excavation and filling will occur landward of the existing seawall, disposal of excavated soils will occur in upland, all construction will occur outside or above the plane of the mean high water and the site will be secured to prevent discharges of fill material below the highest tide."

D. **Consultant's Reports: Should it be determined by the Planning Director that additional information is required on any of the criteria specified herein, the applicant may be required to submit a supplementary report containing findings prepared by engineer, geologist, biologist or other qualified consultant.**

The proposal is consistent with this criterion because the Planning Director has required supplementary reports from geotechnical engineers, GeoScience, Inc. and Shannon & Wilson, containing findings to address the criteria in these findings.

E. **Site Development Requirements: If found subject to the requirements of the /NRC District based on the results of the preliminary investigation specified by Section 10-19-6, the development requirements specified herein shall be in addition to those provided by the respective district or districts with which the /NRC is combined.**

1. **Development on shorelands within dune areas shall not result in clearance of a parcel's existing vegetation in excess of what is necessary for the construction of the proposed structure or structures, accessory buildings, necessary access, septic requirements, if applicable, and fire safety requirements.**

2. **In all cases, vegetative cover shall be retained on lands within the shoreland area. Construction activities shall occur in such a manner as to avoid unnecessary excavation and removal of indigenous vegetation unless cleared vegetation is to be replaced immediately following the construction activity. Interim soil stabilization methods shall be required during the construction phase of any project.**

3. **Thirty feet (30') of indigenous riparian vegetation shall be retained along all coastal water bodies. This shall be measured at right angles from the mean high water line of the coastal water body.**

4. **Existing trees must be retained within an area fifty feet (50') in width measured at right angles form the mean high water line of the coastal water body.**

5. **Cornices, canopies and eaves may extend two feet (2') into the setback area specified below.**

6. **Decks, uncovered porches, stairways and fire escapes may extend a distance of ten feet (10') into the setback area specified below.**

7. **The requirements for parking and vision clearance shall be provided by the respective district or districts with which the /NRC District is combined.**

The proposal complies with these requirements, with the applicable Conditions of Approval, because the seawall construction will not result in clearance of a parcel's existing vegetation in excess of what is necessary for the construction of the seawall; no existing vegetation will be cleared; interim soil stabilization methods will be required during the construction phase of the project; there are no indigenous riparian vegetation or existing trees that will be removed from the site; and no buildings or parking or vision clearance requirements apply to this request.

F. **Additional Setback Requirements: Setbacks shall be as required in the district or districts with which the /NRC is combined, except for the additional setback requirements specified herein.**

This criterion does not apply to this proposal because the seawall will be constructed within an established setback; and no new building construction is proposed.

I. **Uses Subject to Sate and Federal Permits:**

1. **When State or Federal permits, leases, easements or similar types of authorization are also required for a use, subject to special use approval, information required as part of the State or Federal permit process may be required to be made available to the City for the determination that applicable criteria are satisfied.**

2. **Applicants shall make application for all requisite State and/or Federal permits, leases, easements or similar type of authorization within ten (10) days following application for a special use approval in order to avoid unnecessary delays caused by the unavailability of State or Federal processing information which may be deemed necessary for special use review.**

3. **Any use authorized by the provisions of this District shall also require the securing of any necessary State or Federal permit, lease, easement or similar type of authorization.**

4. **Improvements to ocean shore areas (as defined in ORS 390.605) are subject to a permit from the Oregon Department of Transportation.**

The proposed seawall is not subject to a state or federal permit because it will be constructed landward of the existing seawall, as stated in the following responses from the Army Corps of Engineers and the Oregon Division of State Lands:

"Your project to construct a secondary seawall behind the existing seawall will not require a Department of the Army permit provided the project is constructed as your have described. For example, all excavation and filling will occur landward of the existing seawall, disposal of excavated soils will occur in upland, all construction will occur outside or above the plane of the mean high water and the site will be secured to prevent discharges of fill material below the highest tide." (December 18, 2007, electronic mail correspondence from Michele Hanson, U.S. Army Corps of Engineers, to Sande Tomlinson (Exhibit H); and

"Based on the information provided, the project will not require a state permit if it is currently behind a sea barrier and will not come into contact with the water, or casure the loss of estuarine habita." (Gloria Kiryuta, DSL); and "The ownership of the Siuslaw is below the cdurrent seawall and a new seawall constructed landward of the old seawall would not require a DSL permit from the Land Management Division" (Cyril Young, DSL), Exhibit I.

K. **Intent: The requirements imposed by the (/NRC), (/MD) or (/DMS) Districts shall be in addition to those imposed by the respective district, or, if the district conflicts with the requirements of the district or districts with which it is combined, the more restrictive requirements shall apply.**

The proposal is consistent with this criterion because the requirements of the NRC District, the Single-family Zoning District, FCC 10-4: Conditional Uses, and FCC 10-7: Special Development Standards, apply to this request.

**FCC Title 10**
**CHAPTER 4: CONDITIONAL USES**

**FCC 10-4-2: USE PERMIT PREREQUISITE TO CONSTRUCTION:**

**When a conditional use permit is required by the terms of this Title, no building permit shall be issued until the conditional use permit has been granted by the Planning Commission, and then only in accordance with the terms and conditions of the conditional use permit. Conditional use permits may be temporary or permanent.**

The proposal is consistent with this standard because the City will not issue a building permit for the seawall until the Planning Commission grants the Conditional Use Permit in accordance with the Conditions of Approval in the approved Resolution. If granted, the Conditional Use Permit will be for the permanent construction of a seawall and the permit will not expire unless the new seawall needs to be replaced in the future, in which case a new Conditional Use Permit will be required.

**FCC 10-4-4: PUBLIC HEARING AND NOTICE:**

**The Planning Commission shall hold at least one public hearing on each conditional use permit application. The procedures for the public hearing and notice shall conform to the requirements as stated in Section 10-1-2-2 of this Title.**

The Planning Commission held a public hearing on this request on February 5, 2008 consistent with the requirements in FCC Section 10-1-2-2..

**FCC 10-4-5: ACTION:**

**The Planning Commission shall make specific findings for granting or denying a conditional use permit in accordance with the general criteria and/or conditions of Section 10-4-9 of this Title.**

The Planning Commission's decision on the Conditional Use Permit is in accordance with the general criteria and conditions in FCC Section 10-4-9.

**FCC 10-4-6: EFFECTIVE DATE:**

**No conditional use permit shall become effective until the fifteen-day appeals period, stipulated in Section 10-1-1-4 of this Title, has elapsed without an appeal being filed.**

The Conditional Use Permit will be effective 15 days after the date the Planning Commission renders the decision without an appeal being filed.

**FCC 10-4-7: EXPIRATION OF CONDITIONAL USE PERMIT:**

**When the activity permitted by a conditional use permit is commenced within six (6) months from the effective date and diligently advanced to completion, the permit shall become permanent for the duration of that activity. If no progress is made to commence the activity within six (6) months of the effective date, the conditional use permit shall expire. However, within the allowed time period for commencement, the Planning Commission may, with a written request from the applicant and without further notice, extend the expiration date for periods of up to six (6) months, but not beyond the date which is eighteen (18) months from the original date that the conditional use permit became effective.**

If the seawall is not commenced within six months from the effective date and diligently advanced to completion, the conditional use permit shall expire unless the applicant re-

quests an extension in accordance with FCC 10-4-7; otherwise, if granted, the Conditional Use Permit for the seawall will be permanent for as long as the seawall serves its intended function.

**FCC 10-4-9: GENERAL CRITERIA:**

**A conditional use permit may be granted only if the proposal conforms to all the following general criteria: (Ord. 669, 5-17-82)**

**A. Conformity with the Florence Comprehensive Plan.**

The proposed seawall is in conformance with the Florence Comprehensive Plan, as documented in the findings below.

**REALIZATION 2020 COMPREHENSIVE PLAN FOR THE CITY OF FLORENCE**

**Chapter 7: Development Hazards and Constraints**

**Policies**

1. **The City shall restrict or prohibit development in known areas of natural hazard or disaster in order to minimize risk to citizens, reduce the hazard of loss of life and economic investments, the costs of expensive protection works, and public and private expenditures for disaster relief.**

2. **Prior to development taking place in known areas of potential natural hazard, applicants shall provide a Site Investigation Report which clearly determines the degree of hazard present and receive City approval for the measures to be taken to reduce the hazard.**

The proposal is consistent with Policies 1 and 2 because the proposal is to construct a seawall to protect existing development and not for new construction; and the applicant has provided a Site Investigation Report which clearly determines the degree of hazard present and the measures to be taken to reduce the hazard:

> "The proposed seawall replacement has no apparent negative impacts on the natural system in the area. It does have a positive economic impact on a larger area by ensuring that property values and property valuation for tax purposes are not negatively impacted by the catastrophic loss of several riverfront homes. Therefore, it is recommended to approve the currently proposed seawall replacement." (Site Investigation Report by GeoScience, Inc.)

The findings submitted in the report by Shannon & Wilson support the conclusions and information presented in the applicant's Site Investigation Report. As stated in their report, "We have reviewed the project Site Investigation Report solely as it pertains to the seawall replacement in front of lots 3 through 10 with

respect to the accuracy and completeness of information pertaining to geologic hazards and geotechnical conditions." The finding of these consultants, as follows, and are incorporated into the findings of this staff report:

"In making our review we find the following:

1, The project does not appear to present a hazard to the subject property or to the surrounding land."

3. **All new development shall conform to City Code, the Uniform Building Code and Flood Insurance Program requirements in flood-prone areas.**

The applicant will be required to obtain a construction permit for the seawall which will require conformance to the applicable City Code and the Uniform Building Code.

4. **For those areas that have excessive slopes or conditions which constitute a geological hazard, proposed developments shall be keyed to the degree of hazard and to the limitation on the use imposed by such hazard. Accepted engineering practices shall determine the extent of development allowed. The City may require a professional engineer's report to fulfill this requirement.**

The proposal is consistent with this criteria with the Conditions of Approval that the applicant comply with the findings by the consultants retained by the City to review the detailed construction drawings and specifications, including, but not limited to the following findings in the January 24, 2008 report by Shannon & Wilson:

"In making our review we find the following:

1. Documentation presented by the applicant shows the existing seawall is deteriorating and can be expected to fail in the near future. The failure will include erosion of rip rap that protects the wall and the wooden structure of the wall itself. Following failure of the existing wall, it can be expected that the Siuslaw River will remove soil from in front of the proposed replacement wall. The applicant has not provided an analysis that supports the retaining wall design with respect to scour from the Siuslaw river. The applicant should submit a scour analysis to support the design depth of embedment below the existing ground surface.

2. The Site Investigation Report does not indicate that site specific subsurface explorations have been performed to support the structural design of the proposed retaining wall. The applicant should provide documentation in the building permit application that provides the basis for structural design of the proposed wall. The geotechnical evaluation

should assume that soil is removed from the front face of the wall to the design scour depth.

3. The site investigation report states the sea wall will be supported on cylindrical steel pipes to a bearing of 20 tons. The report does not include a minimum embedment depth for the piles or estimate the depth that a bearing of 20 tons will be reached. The applicant should provide minimum pile embedment depths and other typical design and construction criteria with the Building Permit application."

**Coastal Erosion**

**The unique geology of the Florence area contributes to coastal erosion. Florence is located on a deep sand deposit in a sandstone basin. The sand layer contains a large aquifer which flows south and west through the sands to the Siuslaw River. A significant amount of the groundwater flow, particularly in high rainfall years, occurs at the junction of the sand and sandstone layers. As water exits along this sandstone layer at the base of sand banks, it carries sand away, causing upper sand layers to slough in significant amounts. Due to the steepness of these slopes and the normal erosion caused by wind and rains, it is difficult to establish and maintain vegetation on these slopes.**

**Since 1980, the City has required a 50 foot setback from the top of the bank of the Siuslaw River. Variances to the 50 foot setback can be requested with an engineering study. If granted, a set of conditions is attached which prohibit removal of vegetation, direct storm drainage away from the bank, restrict physical access and provide for special construction measures adjacent to the setback.**

The guidance in the above section of the Comprehensive Plan applies to new development along the river. The proposed seawall is intended to protect the existing development from encroachment by the river bank.

**Chapter 16: Estuarine Resources, Siuslaw Estuary and Shorelands**

**Policies**

1. **The Lane County Coastal Management Plan, (Appendix 16-1) and amendments shall serve as the definitive document for actions related to Goal 16 Estuarine Resources. Within the City of Florence, this plan designation shall be implemented through the Natural Resources Conservation Overlay District.**

   The proposal is consistent with this Comprehensive Plan policy because the proposal area has been committed to residential use since 2001 and the criteria in the Natural Resources Conservation Combining District in Florence City Code Section FCC 10-19-4 apply to this request, as outlined

in the section of these findings addressing criteria in the Florence City Code.

FCC 10-4-9: GENERAL CRITERIA: (continued)

B. **Compliance with special conditions established by the Planning Commission to carry out the purpose of this Chapter.**

The proposal is consistent with this criterion because approval is subject to the Conditions of Approval in the approved Resolution.

C. **Findings that adequate land is available for uses which are permitted outright in the district where the conditional use is proposed. Available land can be either vacant land or land which could be converted from another use within the applicable zoning district. Land needs for permitted uses may be determined through projections contained in the Florence Comprehensive Plan or other special studies.**

This criterion does not apply because the proposal is for a seawall and not a development that consumes land.

D. **Conditional uses are subject to design review under the provisions of Chapter 6 of this Title, except single family and duplex residential use. (Ord. 625, 6-30-80) See Code Section 10-6-3 for Design Review requirements.**

The proposal is consistent with the applicable design review criteria in Chapter 6 of FCC Title 10, as presented in the findings in that section of the staff report, below.

E. **Adequacy of public facilities, public services and utilities to service the proposed development.**

This criterion does not apply because the proposal is for a seawall and not a development with associated facilities.

F. **Adequacy of vehicle and pedestrian access to the site, including access by fire, police and other vehicles necessary to protect public health and safety. (Ord. 669, 5-17-82).**

This criterion does not apply because the proposal is for a seawall and not a development with access requirements.

FCC 10-4-10: GENERAL CONDITIONS:

**The Planning Commission may require any of the following conditions it deems necessary to secure the purpose of this Chapter. Where a proposed conditional use is permitted in another district, the Planning Commission may apply the rele-**

**vant development standards from the other district. In addition, conditions may be required by the Design Review Board. Such conditions may include: (Ord 625, 6-30-80; amd. Ord 669, 5-17-82).**

**K. Regulation of tree and vegetation removal to maintain soil stability, preserve natural habitat, protect riparian vegetation, buffer conflicting uses, and maintain scenic qualities.**

The proposal is consistent with these criteria with the Condition of Approval requirement to maintain soil stability, preserve natural habitat, protect native vegetation, protect riparian vegetation, and maintain scenic qualities to the maximum extent possible during construction of the seawall; and measures to effectively accomplish these outcomes will be required as part of the construction specifications during the building permit application process.

**L. Such other conditions as will make possible the development of the City in an orderly and efficient manner and in conformity with the intent and purpose of the Florence Comprehensive Plan.**

The proposal will comply with all Conditions of Approval contained in the Resolution passed by the Planning Commission.

**CHAPTER 6**
**DESIGN REVIEW**

**FCC 10-6-4: DRAWINGS TO BE APPROVED:**

**No permit for a new use, structure or exterior alteration or enlargement of an existing use or structure that is subject to design review, as prescribed in this Title, shall be issued until the drawings required by this Chapter have been approved by the Design Review Board. (Ord. 625, 6-30-80)**

The proposed seawall construction is depicted in detailed drawings, sketches, and photographs in the Site Investigation Report by GeoScience, Inc., including the following:

- Figure 1: Location Map
- Figure 2: Air Photo based Vicinity Map
- Figure 3: Existing Site Plan, including structures and failing sea wall locations
- Figure 4: Site Plan showing proposed replacement sea wall location
- Historical Aerial Photos (Appendix A)
- Selected Site Photos (Appendix B)
- McGee Engineering Design Drawings for Replacement Seawall (Appendix C)
- Completed City of Florence Site Investigation Report Summary (Appendix D)

FCC 10-6-5: GENERAL CRITERIA:

The Design Review Board may require any of the following conditions it deems necessary to secure the purpose and intent of this Chapter. The Board shall, consider the effect of its action on the availability and cost of needed housing. The Board shall not use the requirements of this Section to exclude needed housing types. However, consideration of these factors shall not prevent the Board from imposing conditions of approval if the costs of such conditions shall not unduly increase the cost of housing. The Board shall have no authority to affect dwelling unit densities. The Board shall consider the following criteria reviewing applications and may set conditions or standards which regulate and limit the following: (Ord. 680, 1-11-83)

K. Public health, safety and general welfare.

M. Requiring bonds to insure performance of special conditions. (Ord. 625, 6-30-80)

N. Such other conditions as are necessary to implement policies contained in the Florence Comprehensive Plan. (Ord. 680, 1- 11-83)

Conditions of Approval are contained in the Resolution to protect the public health, safety, and general welfare and no bond is required to insure performance of special conditions.

FCC 10-6-6: DRAWING SUBMITTAL:

The owner or authorized agent shall submit the following drawings to the City for review:

A. A site plan, drawn to scale, showing the proposed layout of structures and other improvements including, where appropriate, driveways, pedestrian walks, off-street parking and off-street loading areas, landscaped areas, locations of entrances and exists, the direction of traffic flow into and out of off-street parking space and loading berth, and areas for turning and maneuvering vehicles. The site plan shall indicate how utility services and drainage are to be provided.

B. A landscape plan, drawn to scale, showing the location of existing trees with trunks six inches (6") or more in diameter (this measurement to be at 2 feet above ground level), and major shrubbery such as "was" myrtle and rhododendrons (any shrubs 3 feet in height or more) proposed to be removed and to be retained on the site; the location and design of landscaped areas, the varieties and size of trees and plant materials to be planted on the site; other pertinent landscape features; and irrigation systems required to maintain trees and plant materials.

The proposal includes a site plan in accordance with the specific requirements; no landscape plan is included because the proposal is for a seawall and these requirements do not apply.

## CHAPTER 7
## SPECIAL DEVELOPMENT STANDARDS

### FCC 10-7-1: PURPOSE:

**The purpose of this Chapter is to apply additional development standards to areas with potential natural hazards or soils which are particularly subject to erosion, landslide or seasonal surface water. These standards are intended to eliminate the danger to the health, safety or property of those who would live in potential problem areas and the general public.**

The standards in Chapter 7 apply to this request because the subject site is identified as a potential hazard area and the standards are necessary to eliminate the danger to the health, safety and property of those who live in the area of the proposal site.

### FCC 10-7-2: IDENTIFICATION OF POTENTIAL PROBLEM AREAS:

**At minimum, the following maps shall be used to identify potential problem areas:**

**A. "Hazards Map", Florence Comprehensive Plan.**

**B. "Soils Map", Florence Comprehensive Plan. Other information contained in the plan or adopted by reference into the plan, or more detailed inventory data made available after adoption of the plan may also be used to identify potential problem areas. (Ord. 625, 6-30-80)**

The site is identified on the City's Hazards Map as a river cutbank area.

### FCC 10-7-3: DEVELOPMENT STANDARDS:

**The following standards shall be applied to development in potential problem areas unless an on-site examination shows that the condition which was identified in the Comprehensive Plan did not in fact exist on the subject property. These standards shall be applied in addition to any standards which may be shown to be necessary as a result of a site investigation.**

**D. River Cutbanks: No building shall be permitted within fifty feet (50') of a river cutbank unless the bank has been stabilized. Planning Commission approval, upon review of findings from site investigation report, is necessary for a lesser distance, using the same criteria as for Munsel Creek (see item C2 herein).**

This criterion does not apply to this request because the proposal is for a seawall, not for a building.

FCC 10-7-4: SITE INVESTIGATION:

A. **Areas Requiring a Site Investigation: Areas identified on the "Hazards Map", "Soils Map", or Resource Inventory are subject to the site investigation procedure contained in site investigation reports by Wilbur E. Ternyik, published by OCZMA. No building permit, conditional use permit or other permit subject to the provisions of this Title may be issued except with affirmative findings that:**

1. **Upon specific examination of the site, the condition identified on the "Hazards Map" or "Soils Map" or supporting inventory documents did not exist on the subject property; or**

2. **That harmful effects could be mitigated or eliminated through, for example, foundation of structural engineering, setbacks or dedication of protected natural areas.**

**Site investigation requirements may be waived where specific standards, adequate to eliminate the danger to health, safety and property, have been adopted by the City. This exception would apply to flood-prone areas, which are subject to requirements of the National Flood Insurance Program and other problem areas which may be adequately protected through provisions of the Building Code. (Ord. 669, 5-17-82)**

The proposal is consistent with this standard because the applicant has submitted a Site Investigation Report prepared by GeoScience, Inc. in accordance with the site investigation procedure contained in site investigation reports by Wilbur E. Ternyik, published by OCZMA and that report contains affirmative findings that the seawall will mitigate the erosion hazard to the existing dwellings; the findings in that report were further substantiated by the report by Shannon and Wilson, consultants retained by the City; and with the Conditions of Approval that all impacts from the proposed seawall construction be addressed in the seawall specifications, along with the other design aspects required in the Conditions of Approval. All of the supporting documentation, including the consultant reports, are attached to this staff report, are relied upon for this finding, and are incorporated into the record of this proceeding and action.

D. **Conditions may be placed or a bond may be required to be posted prior to issuance of permit to ensure that harmful effects are mitigated or eliminated.**

The Resolution approving the Conditional Use Permit contains Conditions of Approval.

**FCC Title 10**
**Chapter 11: SINGLE FAMILY RESIDENTIAL DISTRICT**

Note: The criteria cited in the findings in this section of the staff report are limited to those criteria that apply to the request for a seawall and not to a specific development request.

**FCC 10-11-1: PURPOSE:**

**The Single-Family Residential District is intended to provide a quality environment for medium density, urban, single-family residential uses and other compatible land uses determined to be desirable and/or necessary.**

The proposal is consistent with the purpose of the Single-Family Residential Zoning District because the seawall is intended to protect existing single-family homes from encroachment by the river.

**FCC 10-11-2: PERMITTED BUILDINGS AND USES:**

**A. Single-family dwellings.**
**B. Planned Unit Developments (Chapter 22 of this Title).**
**C. Home occupations.**
**D. Gardens and greenhouses for the raising and harvesting of fruit and vegetables and flowers for noncommercial use.**
**E. Accessory buildings and uses to the extent necessary and normal in a residential neighborhood.**
**Accessory buildings are not permitted in the front yard.**

The proposal is consistent with this criterion because the seawall is necessary for the continued viability of the existing single-family dwellings, an allowed use in this district.

## Statewide Planning Goals

Generally speaking, findings of compliance with Statewide Planning Goals are not required for quasi-judicial land use approvals because the City Comprehensive Plan is acknowledged by the State as compliant with the Goals; thus, findings of compliance with the Comprehensive Plan are usually all that is required.

Findings of compliance with Statewide Planning Goals are included in this staff report because they are required as part of the Site Investigation Report requirements in Florence City Code Title 10, Chapter 7, Special Development Standards.

**Goal 5: Natural Resources, Scenic and Historic Areas, and Open Space**

The Site Investigation Report finds that the proposal is consistent with Goal 5 because the development site, i.e., the area where the seawall will be constructed, is landward of the existing seawall and does not impact any known or inventoried Goal 5 resources;

and the wall will be below ground and will therefore not impact scenic qualities of the river.

### Goal 7: Areas Subject to Natural Hazards

The requirements of Goal 7 apply to this request to the extent that the proposed seawall has been determined to mitigate the natural hazards presented in the Site Investigation Report, primarily erosion of the river bank. The seawall itself is a stabilization measure, and, therefore, with the construction specifications in the Conditions of Approval, and the findings in the Site Investigation Report by GeoScience, Inc. and the report by Shannon and Wilson, the seawall is consistent with Goal 7.

### Goal 16: Estuarine Resources

The Site Investigation Report, page 14, finds that the seawall location is "entirely outside of the zone inundated at normal high tides for the Siuslaw River. The proposed work will not extend beyond areas already developed as a marina prior to 1977 and will not be visible from the river." Goal 16 requires that Comprehensive Plans and activities for each estuary shall provide for appropriate uses (including preservation) with as much diversity as is consistent with the overall Oregon Estuary Classification, as well as with the biological economic, recreational, and aesthetic benefits of the estuary. Estuary plans and activities shall protect the estuarine ecosystem, including its natural biological productivity, habitat, diversity, unique features and water quality. The Florence Comprehensive Plan relies on the Lane County Coastal Resources Management Plan for consistency with Goal 16 requirements and the proposal is consistent with the policies and standards in the Lane County Coastal Resources Management Plan; therfore, based on these findings and the findings in the Site Investigation Report, the project is in compliance with Goal 16.

### Goal 18: Beaches and Dunes

The Site Investigation Report (SIR) identifies a stabilized dune on the northernmost portion of the Marine Manor PUD (Lots 1 and 2). The SIR further "calls for additional assessment of that area prior to development with residential structures in order to ensure that development will not adversely impact the Marine Manor PUD, adjacent areas, or the river. A comprehensive geologic review of the area has not identified any other dunes in the actual project area. Therefore, the project appears in compliance with State Land Use Goal 18."

## VI. OPTIONS FOR THE PLANNING COMMISSION

1. Approve Resolution 07 47 CUP 08 based on the findings of fact in the staff report.

2. Modify the Resolution and approve a modified Resolution with additional and/or modified findings of fact.

3. Continue the hearing and/or the deliberation to leave the record open for more information.

4. Deny the request.

## VII. CONCLUSION, STAFF RECOMMENDATION, AND CONDITIONS OF APPROVAL

**Conclusion:**
The submitted request is consistent with the applicable criteria in the Florence City Code, Florence Comprehensive Plan, and Statewide Planning Goals with the Conditions of Approval set out below.

**Staff recommendation:**
Approve the request, with the Conditions of Approval, to allow the applicant to proceed with the building permit process to construct the seawall.

**Conditions of Approval:**

1. The Applicant agrees to comply with all regulations and requirements of the Florence City Code which are current as of the date of the application.

   Approval shall be shown on the Findings of Fact and the Site Plan.

   Findings of Fact attached as Exhibit "A" are incorporated by reference and adopted in support of this decision. Any modifications to the approved plans or changes of use, except those changes relating to the interior regulated by the building codes, will require approval by the Community Development Director or Planning Commission/Design Review Board.

   Unless appealed, the Planning Commission approval of the Conditional Use Permit shall become effective 15 days after the Planning Commission decision is rendered. The property owner shall submit to the Community Development Department a signed "Agreement of Acceptance" of all conditions of approval. The signed "Agreement of "Acceptance" must be received by the Community Development Department with this 15-day period.

2. Regardless of the content of material presented for this Planning Commission meeting, including application text and exhibits, staff reports, testimony and/or discussions, the Applicant agrees to comply with all regulations and requirements of the Florence City Code which are current on this date, EXCEPT where variance or deviation from such regulations and requirements has been specifically approved by formal Planning Commission action as documented by the record of this hearing and/or the associated Conditions of Approval.

3. The applicant will apply for a building permit and, as part of that process, will submit detailed design specifications and construction methods that demonstrate that, during and following construction, the following performance measures will be achieved to the maximum extent practical:

   - maintain soil stability,
   - preserve natural habitat,
   - protect native vegetation,
   - protect riparian vegetation, and
   - maintain scenic qualities.

4. The applicant shall comply with any additional findings by the consultants retained by the City to review the detailed construction drawings and specifications, including the following findings in the January 24, 2008 report by Shannon & Wilson:

   a. Following failure of the existing wall, it can be expected that the Siuslaw River will remove soil from in front of the proposed replacement wall. The applicant must provide an analysis that supports the retaining wall design with respect to scour from the Siuslaw River. The applicant should submit a scour analysis to support the design depth of embedment below the existing ground surface.

   b. The applicant should provide documentation in the building permit application that site specific subsurface explorations have been performed to support the structural design of the proposed retaining wall and provide the basis for structural design of the proposed wall. The geotechnical evaluation should assume that soil is removed from the front face of the wall to the design scour depth.

   c. The applicant should provide minimum pile embedment depths and other typical design and construction criteria with the Building Permit application. The site investigation report states the sea wall will be supported on cylindrical steel pipes to a bearing of 20 tons. The report does not include a minimum embedment depth for the piles or estimate the depth that a bearing of 20 tons will be reached.

5. As part of the construction permit process, provisions for a penetration in the seawall need to take place for the 36-inch stormwater culvert. The Lot Owners' Association will work with the Public Works Department on the work to replace the existing 36-inch culvert. In addition, the construction permit will include correction of the condition of the open ditch from the driveway that crosses the culvert to the box culvert on Rhody Drive where plywood is being used as a retaining wall, which is close to failure (the plywood is deteriorating), and is being held in place by light weight metal fence posts.

## VIII. EXHIBITS

"A" Findings of Fact
"B" Vicinity Map
"C" *City of Florence Site Investigation Report, Marine Manor PUD, N Portion, TL 1300-2200, Lane County Map 1812223*, January 11, 2008, by GeoScience, Inc. and Appendices A through D:
- o Historical Aerial Photos (Appendix A)
- o Selected Site Photos (Appendix B)
- o McGee Engineering Design Drawings for Replacement Seawall (Appendix C)
- o Completed City of Florence Site Investigation Report Summary (Appendix D)

"D" January 24, 2008 Letter from Brad Huby, Shannon & Wilson, Inc. to Robert Willoughby, re: Geotechnical Report Review Marine Manor Lot Owner's Association Conditional Use to Install Seawall."
"E" City of Florence Planning Commission Resolution 01-09-11-33, September 17, 2001
"F" *Marine Manor Sea Wall Inspection, Florence, Oregon*, By OBEC Consulting Engineers
"G" *Marine Manor Sea Wall Inspection, Florence, Oregon*, By OBEC Consulting Engineers, Revised: 8/15/2007
"H" December 18, 2007 Electronic Mail Communication from Michele Hanson, US Army Corps of Engineers, to Sande Tomlinson, Subject: Marine Manor Seawall Project
"I" January 3, 2008 Electronic Mail Communications from Cyril Young and Gloria Kiryuta, Oregon Division of State Lands, Subject: Marine Manor PUD Seawall

Approved BY THE FLORENCE PLANNING COMMISSION, this 5th day of February, 2008.

# STAFF REPORT AND FINDINGS
# FLORENCE COMMUNITY DEVELOPMENT DEPARTMENT
## Planning Commission
## Exhibit "A"

**Public Hearing Date:** February 5, 2008 **Planner:** Carol Heinkel
**Date of Report:** January 29, 2008
**Application:** PC 07 47 CUP 08

## I. PROPOSAL DESCRIPTION

1. **Proposal:** The applicants request a Conditional Use Permit to re-construct a seawall adjacent to the Marine Manor PUD.

2. **Applicant:** Marine Manor Lot Owners' Association

3. **Agent/Representatives/Consultants:**
   Jeffery Christian, Lot Owners' Association President
   Sande Tomlinson, Property Owner
   Gunnar Schlieder, Pd.D., CEG, GeoScience, Inc.

4. **Tax Lots and Property Owners:**

   The proposed seawall is adjacent to lots 3 through 10 of the Marine Manor PUD. At the time of this staff report, the following tax lots on Lane County Assessor's Map 18-12-22-23 and respective owners were identified. In the event there is a discrepancy between the tax lot information below and the map labeled Exhibit B, Exhibit B shall be the area that is subject to this request:

   Marine Manor Development Corporation:
   (Lots 3 and 4) Tax Lots 1500, 1600
   Barbara J. Davis Trust:
   (Lot 5) TL 1700
   A. Gordon Murry Trust:
   (Lot 6) TL 1800
   Richard and Mary Castenada:
   (Lot 7) TL 1900
   McKee Family Trust:
   (Lot 8) TL 2000
   R. Sande and Mary Tomlinson:
   (Lot 9) TL 2100
   Patrick and Elizabeth Thomson:
   (Lot 10) TL 2200

5. **Tax Lot Sizes:** Lots range in size from 7,405 sq. ft. (TL 1500) to 15,682 sq. ft. (TL 2200)*
   *Source: Lane County Assessor's Records

**6. Location:**

Located between the Siuslaw River and Rhododendron Drive at site addresses: 3215, 3225, 3265, 3285, 3305, and 3315 Rhododendron Drive and lots 3 and 4 of Marine Manor PUD.

**7. Comprehensive Plan Map Designation:** Medium Density Residential

**8. Land Uses/Zoning:**

Site: Single family dwellings, attached, and vacant land (lots 3 and 4) / Single-family Residential
North: Vacant land and single family residence / Single-family Residential
South: Vacant land and single family residence / Single-family Residential
East: Vacant and single family dwellings / Single-family Residential
West: Siuslaw River

## II. NARRATIVE

This proposal is to construct a new seawall on the land side of the existing seawall adjacent to lots 3 through 10 of the Marine Manor Planned Unit Development (PUD). The site is the former location of the Siuslaw Pacific Marina, which was destroyed by a storm in 1981. The existing seawall is anchored into the land by means of cable attached to deadmen located at the edge of the lots.

Relevant site conditions and history are portrayed in several documents included in the record of this application and attached as exhibits to this staff report. As stated in the January 11, 2008, *City of Florence Site Investigation Report, Marine Manor PUD, N Portion*, by Geoscience, Inc. (Exhibit C):

> "Most of the PUD is located in a relatively level area created during and following the mid-1960s by placement of fill on a previous low-sloping tidal flat. The area was historically used as a marina, including boat docks, cranes, and parking lots. In order to elevate the parking lot and boat service facilities above the high water level, a wooden seawall was constructed along what is now lots 3 through 10. This wall is now in poor repair due to rot and threatening to fail catastrophically. Such a failure would result in significant risk to the residential structures constructed since 2003 on lots 5 through 10."

The applicant submitted three reports pertaining to the need for the seawall construction and addressing applicable Code criteria. These are:

- *Marine Manor Sea Wall Inspection, Florence, Oregon*, by OBEC Consulting Engineers, (not dated) (Exhibit F);
- *Marine Manor Sea Wall Inspection, Florence, Oregon*, by OBEC Consulting Engineers, (Revised: 8/15/2007) (Exhibit G); and

- *City of Florence Site Investigation Report, Marine Manor PUD, N Portion, TL 1300-2200, Lane County Map 1812223*, January 11, 2008, by GeoScience, Inc. and Appendices A through D (Exhibit C), (referred to herein as the "Site Investigation Report" or "SIR")

The seawall conceptual drawings and other information in the first two of these reports are updated in the SIR, the third report by GeoScience, Inc. These findings therefore rely on the most current data available, which is the SIR GeoScience report and Appendices A through D of that report, and cite the earlier reports to the extent they provide salient documentation of site conditions or hazards.

The City retained the services of geotechnical and environmental consultants Shannon & Wilson, Inc. to review the Site Investigation Report submitted by the applicant. As stated in the January 24, 2008 letter from Brad Huby, PE, of Shannon & Wilson (Exhibit D), the scope of that review was "solely as it pertains to the seawall replacement in front of lots 3 through 10 with respect to the accuracy and completeness of information pertaining to geologic hazards and geotechnical conditions."

As acknowledged in this letter, a second review will occur when the applicant applies for a building permit which will "focus on detailed construction drawings and specifications."

**Record of Land Use Actions by the City**

The site is lots 3 through 10 of the Marine Manor Planned Unit Development (PUD) which received Tentative Plan approval by the Planning Commission through Resolution 01-09-11-33 on September 17, 2001 (Exhibit E). That action by the Planning Commission allowed the re-plat of then tax lots 800 and 900 and Tract A, Map 18-12-22-00 into a 19-lot subdivision including what is now the 18-lot Marine Manor PUD. Originally, the plat was approved for nine lots.

Lots 1 through 4 of the PUD are currently vacant and continue to be owned by Marine Manor Development Corporation. Vacant lots three and four are included in the present application as are lots five through ten which are now developed with single-family, attached housing (zero lot line). In accordance with the 2001 Resolution 01-09-11-33, the buildings on lots five through ten are setback 25 feet from the existing seawall.

## III. NOTICE AND REFERRALS

### 1. Notice:

Notice was mailed to property owners within 300 feet of the site on January 15, 2008 and published in the Siuslaw News on January 26 and 30, 2008.

### 2. Referrals:

Referrals were sent to the Oregon Department of Transportation, Florence Police Department, Central Lincoln Public Utility District, Qwest, Charter Communications, Florence Public Works Department, Florence U.S. Postal Service, and the Siuslaw Valley Fire and Rescue District, and the Confederated Tribes of Coos, Lower Umpqua and Siuslaw Indians.

In addition, the City retained the services of geotechnical and environmental consultants Shannon & Wilson, Inc. to review the Site Investigation Report submitted by the applicant. The review by Shannon & Wilson is contained in the January 24, 2008 letter from Brad Huby, PE, of Shannon & Wilson (Exhibit D).

As of this writing, no other referral responses have been received.

## IV. APPLICABLE CRITERIA

### 1. Florence Realization 2020 Comprehensive Plan

### 2. Florence City Code (FCC) Title 10: Zoning Regulations

- Chapter 1: Zoning Administration
- Chapter 2: General Zoning Provisions
- Chapter 4: Conditional Uses
- Chapter 6: Design Review
- Chapter 7: Special Development Standards
- Chapter 11: Single Family Residential District
- Chapter 19: Estuary and Shorelands

### 3. Statewide Planning Goals:

Goal 5: Natural Resources, Scenic and Historic Areas, and Open Spaces, OAR 660-015-0000(5)
Goal 7: Areas Subject to Natural Hazards, OAR 660-015-0000(7)
Goal 16: Estuarine Resources, OAR 660-015-0010(1)
Goal 17: Coastal Shorelands, OAR 660-015-0010(2)
Goal 18: Beaches and Dunes, OAR 660-015-0010(3)

## V. FINDINGS

Applicable criteria are shown in bold and findings are in regular font below criteria.

REALIZATION 2020 COMPREHENSIVE PLAN FOR THE CITY OF FLORENCE

Chapter 16: Estuarine Resources, Siuslaw Estuary and Shorelands

Policies

1. The Lane County Coastal Management Plan, (Appendix 16-1) and amendments shall serve as the definitive document for actions related to Goal 16 Estuarine Resources.

**Background** (page 255, third paragraph)

The *Coastal Management Plan* also establishes Shoreland Management Units, of which only three are applicable within Florence and its UGB. These are:

> **Residential Development**
>
> **This designation, when applied to lands within the city limits of Florence, recognizes that there are certain shoreline areas which have been committed to residential use by their development patterns over many years. The underlying assumption of this MU is that the residential character should remain undisturbed. Preservation and enhancement of riparian vegetation is a necessity along the estuary and coastal lakes, regardless of any development. Within the City of Florence, this plan designation shall be implemented through the Natural Resources Conservation Overlay District.**

The proposal is consistent with this Comprehensive Plan policy because the proposal area has been committed to residential use since 2001 and the criteria in the Natural Resources Conservation Combining District in Florence City Code Section FCC 10-19-4 apply to this request, as outlined in the section of these findings addressing criteria in the Florence City Code.

FLORENCE CITY CODE (FCC) TITLE 10: ZONING REGULATIONS

CHAPTER 1: ZONING ADMINISTRATION

FCC 10-1-1-5: LAND USE HEARINGS:

A. Hearings are required for quasi-judicial land use matters requiring Planning Commission review.

B. Notification of Hearing:

1. At least twenty (20) days prior to a quasi-judicial hearing, notice of hearing shall be provided to the applicant and to all owners of record of property within 100 feet of the subject property, except in the case of hearings for Conditional Use Permits, Variance, Planned Unit De-

**velopment and Zone Change, which notice shall be sent to all owners of record of property within 300 feet of the subject property.**

3. **For other land use applications, i.e. Variance, Conditional Use Permits, Planned Unit Development and quasi-judicial amendments to Title 10, notice of hearing shall be published two times in a newspaper of general circulation not more than ten (10) days prior to the date of the hearing.**

The proposal is consistent with these criteria because:

- the Planning Commission held a public hearing on the request;
- notice was sent to all owners of record of property within 300 feet of the subject property at least 20 days prior to the hearing; and
- notice of the hearing was published two (2) times in the Siuslaw News, a newspaper of general circulation, not more than ten (10) days prior to the date of the hearing.

**CHAPTER 2: GENERAL ZONING PROVISIONS**

**FCC 10-2-1: CONFORMANCE AND PERMITS:**

**No building or structure shall be erected, reconstructed, structurally altered, enlarged, moved or maintained, nor shall any building, structure or land be used or designed to be used for any use other than is permitted in the district in which such building, structure or land is located and there only after applying for and securing all permits and licenses required by all laws and ordinances of the City.**

The proposal is consistent with this criterion because the request is for a Conditional Use Permit to construct a seawall and such permit is required by FCC 10-19-4: Natural Resources Conservation Combining District and a building permit to construct the seawall is also required, consistent with the Uniform Building Code.

**CHAPTER 19: ESTUARY AND SHORELANDS**

**FCC 10-19-4: NATURAL RESOURCES CONSERVATION COMBINING DISTRICT (/NRC):**

D. **Conditional Uses: If found subject to the requirements of the /NRC District based on the results of the preliminary investigation specified by Section 10-19-6, the following specified uses and no others are permitted, subject to approval by the Planning Commission. The Planning Commission, subject to the procedures and conditions set forth in Chapter 4 of this Title, may grant a Conditional Use Permit for the following uses, upon satisfaction of the applicable criteria.**

1. **Uses:**

   a. **Artificial bank stabilization adjacent to estuaries and lakes.**

   **Criteria:**

   a. **The stabilization is necessary to protect structures existing on or before October 7, 1977, or to protect public or private roads, bridges or railroads, or to protect uses permitted outright or conditionally in the underlying zoning district.**

   b. **Natural bank stabilization methods are unfeasible.**

The proposal is consistent with these criteria because the proposal is for a Conditional Use Permit to construct a seawall that will provide artificial bank stabilization adjacent to the Siuslaw River, and, based on the evidence submitted by the applicant, below, the stabilization is necessary to protect the existing residences, uses permitted outright in the underlying Single-family Zoning District and natural bank stabilization methods are unfeasible.

The Site Investigation Report (SIR) was submitted by the applicant, Marine Manor Lot Owners Association, as required by Florence City Code, Title 10, Chapter 7, Special Development Standards, and is hereby incorporated into the record of this proceeding in its entirety with Appendices A through D (Exhibit C). Page 16 of the report states the purpose of the proposed project and the recommendation of the geotechnical expert retained by the applicant, as follows:

> "The proposed seawall replacement is designed to ensure the continued viability of the existing, failing, wooden seawall system in front of Lots 3 through 10 of Marine Manor PUD. Without the seawall system, the existing structures on these lots (on 5 through 10) are at significant short-term risk of catastrophic failure into the river. The proposed replacement seawall will result in long-term mitigation of this risk while also shoring up the existing seawall and maintaining the current appearance of the site."

**FCC 10-19-6: GENERAL PROVISIONS:**

**A. Preliminary Investigation:**

**Any proposal for development within the (/PW), (/NRC), (/RU) or (/MD) Districts shall require a preliminary investigation by the Planning Director to determine the specific area to which the requirements of the district shall apply. The requirements of the district shall apply in an area in which it is determined that one or more of the criteria specified herein below apply.**

1. **Lands which limit, control or are directly affected by the hydraulic action of the coastal waterways. These lands are composed of the following:**

a. **Floodways and the floodways fringe.**
b. **Land lying between the mean high, high water and mean low water mark of coastal water bodies.**
c. **Dikes, dams, levees, or steep embankments which control the coastal water body.**
d. **Lands along the ocean coast at or below the twenty six foot (26') elevation line.**

2. **Adjacent areas of geologic instability which are composed of:**

a. **Areas of geologic instability in which the instability is attributable to the hydraulic action of the water body.**

b. **Areas of geologic instability which have a direct impact on water quality, water temperature or on shoreline stability.**

The proposal is consistent with these criteria because the preliminary investigation by the Planning Director has determined the requirements of the Natural Resources Conservation Combining District (/NRC) applies to the subject site; and the proposed seawall will be designed to protect existing structures from erosion of the river bank, an adjacent area of geologic instability attributable to the hydraulic action of the Siuslaw River.

B. **Resource Capability Determination: Special uses or conditional uses in the Natural Estuary (NE, Conservation Estuary (CE) and Development Estuary (DE) Districts are allowed only if determined to meet the resource capability and purpose of the management unit in which the use or activity occurs. The purpose of this subsection is to establish a procedure for making a resource capability determination. Major activities or uses in the estuary may require an estuarine impact assessment. Those uses do not also require this resource capability determination.**

The proposed use, a seawall inside the existing seawall, does not represent a potential significant adverse impact or reduction of significant fish and wildlife habitats or essential properties of the estuarine resource. It is consistent with the resource capabilities and existing and potential uses of the management unit and corresponding zoning district and it meets the purpose of the management unit in which the use occurs, as follows:

**FCC 10-19-4: NATURAL RESOURCES CONSERVATION COMBINING DISTRICT (/NRC):**

A. **Purpose: The Natural Resources Conservation Combining District (/NRC) is applied to both natural resources conservation and residential development management units. It is the purpose of the /NRC District to encourage long- term human use of these coastal resources in a manner which protects the qualities of coastal water**

**bodies and respects the natural systems. Activities which protect or enhance renewable resources are encouraged, as are recreation and public access to coastal water.**

**The /NRC District is specifically designed to carry out the following purposes:**

1. **Protection of such natural resources as soil and such natural systems as drainage courses and waterways.**

2. **Enhancement of renewable resources such as the coastal fisheries and timber industries.**

3. **Allow for recreation and public access to coastal water.**

**The /NRC District provides a procedure by which to define the exact geographical boundaries of the shorelands within the /NRC District which require protection beyond that provided by the district or districts with which the /NRC is combined and imposes additional development requirements within these boundaries.**

The proposed seawall will encourage long- term human use of the estuary in a manner that protects the qualities of coastal water bodies and respects the natural systems.

C. **Estuarine Impact Assessment: The purpose of this subsection is to provide a procedure for evaluation of uses or activities which are major in nature and which could potentially alter the integrity of the estuarine ecosystem. Activities which require an impact assessment do not also require a resource capability determination. Uses which are permitted outright do not require an impact assessment. Uses requiring a special use permit or a conditional use permit will require an impact assessment only when an environmental impact statement (EIS) is required through the Corps of Engineers Section 10/404 permit process.**

The proposal is consistent with this criterion because the proposed use does not require an environmental impact statement (EIS) through the Corps of Engineers Section 10/404 permit process, and, thus, the proposal does not require an impact assessment. As documented in the December 18, 2007, electronic mail correspondence from Michele Hanson to Sande Tomlinson (see Exhibit H), the U.S. Army Corps of Engineers has determined that the:

"project to construct a secondary seawall behind the existing seawall will not require a Department of the Army permit provided the project is constructed as your have described. For example, all excavation and filling will occur landward of the existing seawall, disposal of excavated soils will occur in upland, all construction will occur outside or above the plane of the mean high

water and the site will be secured to prevent discharges of fill material below the highest tide."

D. **Consultant's Reports: Should it be determined by the Planning Director that additional information is required on any of the criteria specified herein, the applicant may be required to submit a supplementary report containing findings prepared by engineer, geologist, biologist or other qualified consultant.**

The proposal is consistent with this criterion because the Planning Director has required supplementary reports from geotechnical engineers, GeoScience, Inc. and Shannon & Wilson, containing findings to address the criteria in these findings.

E. **Site Development Requirements: If found subject to the requirements of the /NRC District based on the results of the preliminary investigation specified by Section 10-19-6, the development requirements specified herein shall be in addition to those provided by the respective district or districts with which the /NRC is combined.**

1. **Development on shorelands within dune areas shall not result in clearance of a parcel's existing vegetation in excess of what is necessary for the construction of the proposed structure or structures, accessory buildings, necessary access, septic requirements, if applicable, and fire safety requirements.**

2. **In all cases, vegetative cover shall be retained on lands within the shoreland area. Construction activities shall occur in such a manner as to avoid unnecessary excavation and removal of indigenous vegetation unless cleared vegetation is to be replaced immediately following the construction activity. Interim soil stabilization methods shall be required during the construction phase of any project.**

3. **Thirty feet (30') of indigenous riparian vegetation shall be retained along all coastal water bodies. This shall be measured at right angles from the mean high water line of the coastal water body.**

4. **Existing trees must be retained within an area fifty feet (50') in width measured at right angles form the mean high water line of the coastal water body.**

5. **Cornices, canopies and eaves may extend two feet (2') into the setback area specified below.**

6. **Decks, uncovered porches, stairways and fire escapes may extend a distance of ten feet (10') into the setback area specified below.**

7. **The requirements for parking and vision clearance shall be provided by the respective district or districts with which the /NRC District is combined.**

The proposal complies with these requirements, with the applicable Conditions of Approval, because the seawall construction will not result in clearance of a parcel's existing vegetation in excess of what is necessary for the construction of the seawall; no existing vegetation will be cleared; interim soil stabilization methods will be required during the construction phase of the project; there are no indigenous riparian vegetation or existing trees that will be removed from the site; and no buildings or parking or vision clearance requirements apply to this request.

F. **Additional Setback Requirements: Setbacks shall be as required in the district or districts with which the /NRC is combined, except for the additional setback requirements specified herein.**

This criterion does not apply to this proposal because the seawall will be constructed within an established setback; and no new building construction is proposed.

I. **Uses Subject to Sate and Federal Permits:**

1. **When State or Federal permits, leases, easements or similar types of authorization are also required for a use, subject to special use approval, information required as part of the State or Federal permit process may be required to be made available to the City for the determination that applicable criteria are satisfied.**

2. **Applicants shall make application for all requisite State and/or Federal permits, leases, easements or similar type of authorization within ten (10) days following application for a special use approval in order to avoid unnecessary delays caused by the unavailability of State or Federal processing information which may be deemed necessary for special use review.**

3. **Any use authorized by the provisions of this District shall also require the securing of any necessary State or Federal permit, lease, easement or similar type of authorization.**

4. **Improvements to ocean shore areas (as defined in ORS 390.605) are subject to a permit from the Oregon Department of Transportation.**

The proposed seawall is not subject to a state or federal permit because it will be constructed landward of the existing seawall, as stated in the following responses from the Army Corps of Engineers and the Oregon Division of State Lands:

"Your project to construct a secondary seawall behind the existing seawall will not require a Department of the Army permit provided the project is constructed

as your have described. For example, all excavation and filling will occur landward of the existing seawall, disposal of excavated soils will occur in upland, all construction will occur outside or above the plane of the mean high water and the site will be secured to prevent discharges of fill material below the highest tide." (December 18, 2007, electronic mail correspondence from Michele Hanson, U.S. Army Corps of Engineers, to Sande Tomlinson (Exhibit H); and

"Based on the information provided, the project will not require a state permit if it is currently behind a sea barrier and will not come into contact with the water, or casure the loss of estuarine habita." (Gloria Kiryuta, DSL); and "The ownership of the Siuslaw is below the cdurrent seawall and a new seawall constructed landward of the old seawall would not require a DSL permit from the Land Management Division" (Cyril Young, DSL), Exhibit I.

**K. Intent: The requirements imposed by the (/NRC), (/MD) or (/DMS) Districts shall be in addition to those imposed by the respective district, or, if the district conflicts with the requirements of the district or districts with which it is combined, the more restrictive requirements shall apply.**

The proposal is consistent with this criterion because the requirements of the NRC District, the Single-family Zoning District, FCC 10-4: Conditional Uses, and FCC 10-7: Special Development Standards, apply to this request.

**FCC Title 10**
**CHAPTER 4: CONDITIONAL USES**

**FCC 10-4-2: USE PERMIT PREREQUISITE TO CONSTRUCTION:**

**When a conditional use permit is required by the terms of this Title, no building permit shall be issued until the conditional use permit has been granted by the Planning Commission, and then only in accordance with the terms and conditions of the conditional use permit. Conditional use permits may be temporary or permanent.**

The proposal is consistent with this standard because the City will not issue a building permit for the seawall until the Planning Commission grants the Conditional Use Permit in accordance with the Conditions of Approval in the approved Resolution. If granted, the Conditional Use Permit will be for the permanent construction of a seawall and the permit will not expire unless the new seawall needs to be replaced in the future, in which case a new Conditional Use Permit will be required.

**FCC 10-4-4: PUBLIC HEARING AND NOTICE:**

**The Planning Commission shall hold at least one public hearing on each conditional use permit application. The procedures for the public hearing and notice shall conform to the requirements as stated in Section 10-1-2-2 of this Title.**

The Planning Commission held a public hearing on this request on February 5, 2008 consistent with the requirements in FCC Section 10-1-2-2..

FCC 10-4-5: ACTION:

**The Planning Commission shall make specific findings for granting or denying a conditional use permit in accordance with the general criteria and/or conditions of Section 10-4-9 of this Title.**

The Planning Commission's decision on the Conditional Use Permit is in accordance with the general criteria and conditions in FCC Section 10-4-9.

FCC 10-4-6: EFFECTIVE DATE:

**No conditional use permit shall become effective until the fifteen-day appeals period, stipulated in Section 10-1-1-4 of this Title, has elapsed without an appeal being filed.**

The Conditional Use Permit will be effective 15 days after the date the Planning Commission renders the decision without an appeal being filed.

FCC 10-4-7: EXPIRATION OF CONDITIONAL USE PERMIT:

**When the activity permitted by a conditional use permit is commenced within six (6) months from the effective date and diligently advanced to completion, the permit shall become permanent for the duration of that activity. If no progress is made to commence the activity within six (6) months of the effective date, the conditional use permit shall expire. However, within the allowed time period for commencement, the Planning Commission may, with a written request from the applicant and without further notice, extend the expiration date for periods of up to six (6) months, but not beyond the date which is eighteen (18) months from the original date that the conditional use permit became effective.**

If the seawall is not commenced within six months from the effective date and diligently advanced to completion, the conditional use permit shall expire unless the applicant requests an extension in accordance with FCC 10-4-7; otherwise, if granted, the Conditional Use Permit for the seawall will be permanent for as long as the seawall serves its intended function.

FCC 10-4-9: GENERAL CRITERIA:

**A conditional use permit may be granted only if the proposal conforms to all the following general criteria: (Ord. 669, 5-17-82)**

A. **Conformity with the Florence Comprehensive Plan.**

The proposed seawall is in conformance with the Florence Comprehensive Plan, as documented in the findings below.

## REALIZATION 2020 COMPREHENSIVE PLAN FOR THE CITY OF FLORENCE

### Chapter 7: Development Hazards and Constraints

### Policies

1. **The City shall restrict or prohibit development in known areas of natural hazard or disaster in order to minimize risk to citizens, reduce the hazard of loss of life and economic investments, the costs of expensive protection works, and public and private expenditures for disaster relief.**

2. **Prior to development taking place in known areas of potential natural hazard, applicants shall provide a Site Investigation Report which clearly determines the degree of hazard present and receive City approval for the measures to be taken to reduce the hazard.**

The proposal is consistent with Policies 1 and 2 because the proposal is to construct a seawall to protect existing development and not for new construction; and the applicant has provided a Site Investigation Report which clearly determines the degree of hazard present and the measures to be taken to reduce the hazard:

> "The proposed seawall replacement has no apparent negative impacts on the natural system in the area. It does have a positive economic impact on a larger area by ensuring that property values and property valuation for tax purposes are not negatively impacted by the catastrophic loss of several riverfront homes. Therefore, it is recommended to approve the currently proposed seawall replacement." (Site Investigation Report by GeoScience, Inc.)

The findings submitted in the report by Shannon & Wilson support the conclusions and information presented in the applicant's Site Investigation Report. As stated in their report, "We have reviewed the project Site Investigation Report solely as it pertains to the seawall replacement in front of lots 3 through 10 with respect to the accuracy and completeness of information pertaining to geologic hazards and geotechnical conditions." The finding of these consultants, as follows, and are incorporated into the findings of this staff report:

"In making our review we find the following:

1, The project does not appear to present a hazard to the subject property or to the surrounding land."

3. **All new development shall conform to City Code, the Uniform Building Code and Flood Insurance Program requirements in flood-prone areas.**

The applicant will be required to obtain a construction permit for the seawall which will require conformance to the applicable City Code and the Uniform Building Code.

4. **For those areas that have excessive slopes or conditions which constitute a geological hazard, proposed developments shall be keyed to the degree of hazard and to the limitation on the use imposed by such hazard. Accepted engineering practices shall determine the extent of development allowed. The City may require a professional engineer's report to fulfill this requirement.**

The proposal is consistent with this criteria with the Conditions of Approval that the applicant comply with the findings by the consultants retained by the City to review the detailed construction drawings and specifications, including, but not limited to the following findings in the January 24, 2008 report by Shannon & Wilson:

"In making our review we find the following:

1. Documentation presented by the applicant shows the existing seawall is deteriorating and can be expected to fail in the near future. The failure will include erosion of rip rap that protects the wall and the wooden structure of the wall itself. Following failure of the existing wall, it can be expected that the Siuslaw River will remove soil from in front of the proposed replacement wall. The applicant has not provided an analysis that supports the retaining wall design with respect to scour from the Siuslaw river. The applicant should submit a scour analysis to support the design depth of embedment below the existing ground surface.

2. The Site Investigation Report does not indicate that site specific subsurface explorations have been performed to support the structural design of the proposed retaining wall. The applicant should provide documentation in the building permit application that provides the basis for structural design of the proposed wall. The geotechnical evaluation should assume that soil is removed from the front face of the wall to the design scour depth.

3. The site investigation report states the sea wall will be supported on cylindrical steel pipes to a bearing of 20 tons. The report does not include a minimum embedment depth for the piles or estimate the depth that a bearing of 20 tons will be reached. The applicant should provide minimum pile embedment depths and other typical design and construction criteria with the Building Permit application."

**Coastal Erosion**

**The unique geology of the Florence area contributes to coastal erosion. Florence is located on a deep sand deposit in a sandstone basin. The sand layer contains a large aquifer which flows south and west through the sands to the Siuslaw River. A significant amount of the groundwater flow, particularly in high rainfall years, occurs at the junction of the sand and sandstone layers. As water exits along this sandstone layer at the base of sand banks, it carries sand away, causing upper sand layers to slough in significant amounts. Due to the steepness of these slopes and the normal erosion caused by wind and rains, it is difficult to establish and maintain vegetation on these slopes.**

**Since 1980, the City has required a 50 foot setback from the top of the bank of the Siuslaw River. Variances to the 50 foot setback can be requested with an engineering study. If granted, a set of conditions is attached which prohibit removal of vegetation, direct storm drainage away from the bank, restrict physical access and provide for special construction measures adjacent to the setback.**

The guidance in the above section of the Comprehensive Plan applies to new development along the river. The proposed seawall is intended to protect the existing development from encroachment by the river bank.

**Chapter 16: Estuarine Resources, Siuslaw Estuary and Shorelands**

**Policies**

1. **The Lane County Coastal Management Plan, (Appendix 16-1) and amendments shall serve as the definitive document for actions related to Goal 16 Estuarine Resources. Within the City of Florence, this plan designation shall be implemented through the Natural Resources Conservation Overlay District.**

   The proposal is consistent with this Comprehensive Plan policy because the proposal area has been committed to residential use since 2001 and the criteria in the Natural Resources Conservation Combining District in Florence City Code Section FCC 10-19-4 apply to this request, as outlined in the section of these findings addressing criteria in the Florence City Code.

**FCC 10-4-9: GENERAL CRITERIA: (continued)**

**B. Compliance with special conditions established by the Planning Commission to carry out the purpose of this Chapter.**

The proposal is consistent with this criterion because approval is subject to the Conditions of Approval in the approved Resolution.

C. **Findings that adequate land is available for uses which are permitted outright in the district where the conditional use is proposed. Available land can be either vacant land or land which could be converted from another use within the applicable zoning district. Land needs for permitted uses may be determined through projections contained in the Florence Comprehensive Plan or other special studies.**

This criterion does not apply because the proposal is for a seawall and not a development that consumes land.

D. **Conditional uses are subject to design review under the provisions of Chapter 6 of this Title, except single family and duplex residential use. (Ord. 625, 6-30-80) See Code Section 10-6-3 for Design Review requirements.**

The proposal is consistent with the applicable design review criteria in Chapter 6 of FCC Title 10, as presented in the findings in that section of the staff report, below.

E. **Adequacy of public facilities, public services and utilities to service the proposed development.**

This criterion does not apply because the proposal is for a seawall and not a development with associated facilities.

F. **Adequacy of vehicle and pedestrian access to the site, including access by fire, police and other vehicles necessary to protect public health and safety. (Ord. 669, 5-17-82).**

This criterion does not apply because the proposal is for a seawall and not a development with access requirements.

**FCC 10-4-10: GENERAL CONDITIONS:**

**The Planning Commission may require any of the following conditions it deems necessary to secure the purpose of this Chapter. Where a proposed conditional use is permitted in another district, the Planning Commission may apply the relevant development standards from the other district. In addition, conditions may be required by the Design Review Board. Such conditions may include: (Ord 625, 6-30-80; amd. Ord 669, 5-17-82).**

K. **Regulation of tree and vegetation removal to maintain soil stability, preserve natural habitat, protect riparian vegetation, buffer conflicting uses, and maintain scenic qualities.**

The proposal is consistent with these criteria with the Condition of Approval requirement to maintain soil stability, preserve natural habitat, protect native vege-

tation, protect riparian vegetation, and maintain scenic qualities to the maximum extent possible during construction of the seawall; and measures to effectively accomplish these outcomes will be required as part of the construction specifications during the building permit application process.

**L. Such other conditions as will make possible the development of the City in an orderly and efficient manner and in conformity with the intent and purpose of the Florence Comprehensive Plan.**

The proposal will comply with all Conditions of Approval contained in the Resolution passed by the Planning Commission.

## CHAPTER 6
## DESIGN REVIEW

### FCC 10-6-4: DRAWINGS TO BE APPROVED:

**No permit for a new use, structure or exterior alteration or enlargement of an existing use or structure that is subject to design review, as prescribed in this Title, shall be issued until the drawings required by this Chapter have been approved by the Design Review Board. (Ord. 625, 6-30-80)**

The proposed seawall construction is depicted in detailed drawings, sketches, and photographs in the Site Investigation Report by GeoScience, Inc., including the following:

- Figure 1: Location Map
- Figure 2: Air Photo based Vicinity Map
- Figure 3: Existing Site Plan, including structures and failing sea wall locations
- Figure 4: Site Plan showing proposed replacement sea wall location
- Historical Aerial Photos (Appendix A)
- Selected Site Photos (Appendix B)
- McGee Engineering Design Drawings for Replacement Seawall (Appendix C)
- Completed City of Florence Site Investigation Report Summary (Appendix D)

### FCC 10-6-5: GENERAL CRITERIA:

**The Design Review Board may require any of the following conditions it deems necessary to secure the purpose and intent of this Chapter. The Board shall, consider the effect of its action on the availability and cost of needed housing. The Board shall not use the requirements of this Section to exclude needed housing types. However, consideration of these factors shall not prevent the Board from imposing conditions of approval if the costs of such conditions shall not unduly increase the cost of housing. The Board shall have no authority to affect dwelling unit densities. The Board shall consider the following criteria reviewing applications and may set conditions or standards which regulate and limit the following: (Ord. 680, 1-11-83)**

The standards in Chapter 7 apply to this request because the subject site is identified as a potential hazard area and the standards are necessary to eliminate the danger to the health, safety and property of those who live in the area of the proposal site.

**FCC 10-7-2: IDENTIFICATION OF POTENTIAL PROBLEM AREAS:**

**At minimum, the following maps shall be used to identify potential problem areas:**

**A. "Hazards Map", Florence Comprehensive Plan.**

**B. "Soils Map", Florence Comprehensive Plan. Other information contained in the plan or adopted by reference into the plan, or more detailed inventory data made available after adoption of the plan may also be used to identify potential problem areas. (Ord. 625, 6-30-80)**

The site is identified on the City's Hazards Map as a river cutbank area.

**FCC 10-7-3: DEVELOPMENT STANDARDS:**

**The following standards shall be applied to development in potential problem areas unless an on-site examination shows that the condition which was identified in the Comprehensive Plan did not in fact exist on the subject property. These standards shall be applied in addition to any standards which may be shown to be necessary as a result of a site investigation.**

**D. River Cutbanks: No building shall be permitted within fifty feet (50') of a river cutbank unless the bank has been stabilized. Planning Commission approval, upon review of findings from site investigation report, is necessary for a lesser distance, using the same criteria as for Munsel Creek (see item C2 herein).**

This criterion does not apply to this request because the proposal is for a seawall, not for a building.

**FCC 10-7-4: SITE INVESTIGATION:**

**A. Areas Requiring a Site Investigation: Areas identified on the "Hazards Map", "Soils Map", or Resource Inventory are subject to the site investigation procedure contained in site investigation reports by Wilbur E. Ternyik, published by OCZMA. No building permit, conditional use permit or other permit subject to the provisions of this Title may be issued except with affirmative findings that:**

**1. Upon specific examination of the site, the condition identified on the "Hazards Map" or "Soils Map" or supporting inventory documents did not exist on the subject property; or**

**K. Public health, safety and general welfare.**

**M. Requiring bonds to insure performance of special conditions. (Ord. 625, 6-30-80)**

**N. Such other conditions as are necessary to implement policies contained in the Florence Comprehensive Plan. (Ord. 680, 1- 11-83)**

Conditions of Approval are contained in the Resolution to protect the public health, safety, and general welfare and no bond is required to insure performance of special conditions.

**FCC 10-6-6: DRAWING SUBMITTAL:**

**The owner or authorized agent shall submit the following drawings to the City for review:**

**A. A site plan, drawn to scale, showing the proposed layout of structures and other improvements including, where appropriate, driveways, pedestrian walks, off-street parking and off-street loading areas, landscaped areas, locations of entrances and exists, the direction of traffic flow into and out of off-street parking space and loading berth, and areas for turning and maneuvering vehicles. The site plan shall indicate how utility services and drainage are to be provided.**

**B. A landscape plan, drawn to scale, showing the location of existing trees with trunks six inches (6") or more in diameter (this measurement to be at 2 feet above ground level), and major shrubbery such as "was" myrtle and rhododendrons (any shrubs 3 feet in height or more) proposed to be removed and to be retained on the site; the location and design of landscaped areas, the varieties and size of trees and plant materials to be planted on the site; other pertinent landscape features; and irrigation systems required to maintain trees and plant materials.**

The proposal includes a site plan in accordance with the specific requirements; no landscape plan is included because the proposal is for a seawall and these requirements do not apply.

**CHAPTER 7**
**SPECIAL DEVELOPMENT STANDARDS**

**FCC 10-7-1: PURPOSE:**

**The purpose of this Chapter is to apply additional development standards to areas with potential natural hazards or soils which are particularly subject to erosion, landslide or seasonal surface water. These standards are intended to eliminate the danger to the health, safety or property of those who would live in potential problem areas and the general public.**

2. **That harmful effects could be mitigated or eliminated through, for example, foundation of structural engineering, setbacks or dedication of protected natural areas.**

**Site investigation requirements may be waived where specific standards, adequate to eliminate the danger to health, safety and property, have been adopted by the City. This exception would apply to flood-prone areas, which are subject to requirements of the National Flood Insurance Program and other problem areas which may be adequately protected through provisions of the Building Code. (Ord. 669, 5-17-82)**

The proposal is consistent with this standard because the applicant has submitted a Site Investigation Report prepared by GeoScience, Inc. in accordance with the site investigation procedure contained in site investigation reports by Wilbur E. Ternyik, published by OCZMA and that report contains affirmative findings that the seawall will mitigate the erosion hazard to the existing dwellings; the findings in that report were further substantiated by the report by Shannon and Wilson, consultants retained by the City; and with the Conditions of Approval that all impacts from the proposed seawall construction be addressed in the seawall specifications, along with the other design aspects required in the Conditions of Approval. All of the supporting documentation, including the consultant reports, are attached to this staff report, are relied upon for this finding, and are incorporated into the record of this proceeding and action.

**D. Conditions may be placed or a bond may be required to be posted prior to issuance of permit to ensure that harmful effects are mitigated or eliminated.**

The Resolution approving the Conditional Use Permit contains Conditions of Approval.

**FCC Title 10**
**Chapter 11: SINGLE FAMILY RESIDENTIAL DISTRICT**

Note: The criteria cited in the findings in this section of the staff report are limited to those criteria that apply to the request for a seawall and not to a specific development request.

**FCC 10-11-1: PURPOSE:**

**The Single-Family Residential District is intended to provide a quality environment for medium density, urban, single-family residential uses and other compatible land uses determined to be desirable and/or necessary.**

The proposal is consistent with the purpose of the Single-Family Residential Zoning District because the seawall is intended to protect existing single-family homes from encroachment by the river.

**FCC 10-11-2: PERMITTED BUILDINGS AND USES:**

**A. Single-family dwellings.**
**B. Planned Unit Developments (Chapter 22 of this Title).**
**C. Home occupations.**
**D. Gardens and greenhouses for the raising and harvesting of fruit and vegetables and flowers for noncommercial use.**
**E. Accessory buildings and uses to the extent necessary and normal in a residential neighborhood.**
**Accessory buildings are not permitted in the front yard.**

The proposal is consistent with this criterion because the seawall is necessary for the continued viability of the existing single-family dwellings, an allowed use in this district.

## Statewide Planning Goals

Generally speaking, findings of compliance with Statewide Planning Goals are not required for quasi-judicial land use approvals because the City Comprehensive Plan is acknowledged by the State as compliant with the Goals; thus, findings of compliance with the Comprehensive Plan are usually all that is required.

Findings of compliance with Statewide Planning Goals are included in this staff report because they are required as part of the Site Investigation Report requirements in Florence City Code Title 10, Chapter 7, Special Development Standards.

### Goal 5: Natural Resources, Scenic and Historic Areas, and Open Space

The Site Investigation Report finds that the proposal is consistent with Goal 5 because the development site, i.e., the area where the seawall will be constructed, is landward of the existing seawall and does not impact any known or inventoried Goal 5 resources; and the wall will be below ground and will therefore not impact scenic qualities of the river.

### Goal 7: Areas Subject to Natural Hazards

The requirements of Goal 7 apply to this request to the extent that the proposed seawall has been determined to mitigate the natural hazards presented in the Site Investigation Report, primarily erosion of the river bank. The seawall itself is a stabilization measure, and, therefore, with the construction specifications in the Conditions of Approval, and the findings in the Site Investigation Report by GeoScience, Inc. and the report by Shannon and Wilson, the seawall is consistent with Goal 7.

### Goal 16: Estuarine Resources

The Site Investigation Report, page 14, finds that the seawall location is "entirely outside of the zone inundated at normal high tides for the Siuslaw River. The proposed work will not extend beyond areas already developed as a marina prior to 1977 and will not be visible from the river." Goal 16 requires that Comprehensive Plans and

activities for each estuary shall provide for appropriate uses (including preservation) with as much diversity as is consistent with the overall Oregon Estuary Classification, as well as with the biological economic, recreational, and aesthetic benefits of the estuary. Estuary plans and activities shall protect the estuarine ecosystem, including its natural biological productivity, habitat, diversity, unique features and water quality. The Florence Comprehensive Plan relies on the Lane County Coastal Resources Management Plan for consistency with Goal 16 requirements and the proposal is consistent with the policies and standards in the Lane County Coastal Resources Management Plan; therfore, based on these findings and the findings in the Site Investigation Report, the project is in compliance with Goal 16.

**Goal 18: Beaches and Dunes**

The Site Investigation Report (SIR) identifies a stabilized dune on the northernmost portion of the Marine Manor PUD (Lots 1 and 2). The SIR further "calls for additional assessment of that area prior to development with residential structures in order to ensure that development will not adversely impact the Marine Manor PUD, adjacent areas, or the river. A comprehensive geologic review of the area has not identified any other dunes in the actual project area. Therefore, the project appears in compliance with State Land Use Goal 18."

## VI. OPTIONS FOR THE PLANNING COMMISSION

1. Approve Resolution 07 47 CUP 08 based on the findings of fact in the staff report.

2. Modify the Resolution and approve a modified Resolution with additional and/or modified findings of fact.

3. Continue the hearing and/or the deliberation to leave the record open for more information.

4. Deny the request.

## VII. CONCLUSION, STAFF RECOMMENDATION, AND CONDITIONS OF APPROVAL

**Conclusion:**
The submitted request is consistent with the applicable criteria in the Florence City Code, Florence Comprehensive Plan, and Statewide Planning Goals with the Conditions of Approval set out below.

**Staff recommendation:**
Approve the request, with the Conditions of Approval, to allow the applicant to proceed with the building permit process to construct the seawall.

**Conditions of Approval:**

1. The Applicant agrees to comply with all regulations and requirements of the Florence City Code which are current as of the date of the application.

   Approval shall be shown on the Findings of Fact and the Site Plan.

   Findings of Fact attached as Exhibit "A" are incorporated by reference and adopted in support of this decision. Any modifications to the approved plans or changes of use, except those changes relating to the interior regulated by the building codes, will require approval by the Community Development Director or Planning Commission/Design Review Board.

   Unless appealed, the Planning Commission approval of the Conditional Use Permit shall become effective 15 days after the Planning Commission decision is rendered. The property owner shall submit to the Community Development Department a signed "Agreement of Acceptance" of all conditions of approval. The signed "Agreement of "Acceptance" must be received by the Community Development Department with this 15-day period.

2. Regardless of the content of material presented for this Planning Commission meeting, including application text and exhibits, staff reports, testimony and/or discussions, the Applicant agrees to comply with all regulations and requirements of the Florence City Code which are current on this date, EXCEPT where variance or deviation from such regulations and requirements has been specifically approved by formal Planning Commission action as documented by the record of this hearing and/or the associated Conditions of Approval.

3. The applicant will apply for a building permit and, as part of that process, will submit detailed design specifications and construction methods that demonstrate that, during and following construction, the following performance measures will be achieved to the maximum extent practical:

   - maintain soil stability,
   - preserve natural habitat,
   - protect native vegetation,
   - protect riparian vegetation, and
   - maintain scenic qualities.

4. The applicant shall comply with any additional findings by the consultants retained by the City to review the detailed construction drawings and specifications, including the following findings in the January 24, 2008 report by Shannon & Wilson:

a. Following failure of the existing wall, it can be expected that the Siuslaw River will remove soil from in front of the proposed replacement wall. The applicant must provide an analysis that supports the retaining wall design with respect to scour from the Siuslaw River. The applicant should submit a scour analysis to support the design depth of embedment below the existing ground surface.

b. The applicant should provide documentation in the building permit application that site specific subsurface explorations have been performed to support the structural design of the proposed retaining wall and provide the basis for structural design of the proposed wall. The geotechnical evaluation should assume that soil is removed from the front face of the wall to the design scour depth.

c. The applicant should provide minimum pile embedment depths and other typical design and construction criteria with the Building Permit application. The site investigation report states the sea wall will be supported on cylindrical steel pipes to a bearing of 20 tons. The report does not include a minimum embedment depth for the piles or estimate the depth that a bearing of 20 tons will be reached.

## VIII. EXHIBITS

"A" Findings of Fact
"B" Vicinity Map
"C" *City of Florence Site Investigation Report, Marine Manor PUD, N Portion, TL 1300-2200, Lane County Map 1812223*, January 11, 2008, by GeoScience, Inc. and Appendices A through D:
- o Historical Aerial Photos (Appendix A)
- o Selected Site Photos (Appendix B)
- o McGee Engineering Design Drawings for Replacement Seawall (Appendix C)
- o Completed City of Florence Site Investigation Report Summary (Appendix D)

"D" January 24, 2008 Letter from Brad Huby, Shannon & Wilson, Inc. to Robert Willoughby, re: Geotechnical Report Review Marine Manor Lot Owner's Association Conditional Use to Install Seawall."
"E" City of Florence Planning Commission Resolution 01-09-11-33, September 17, 2001
"F" *Marine Manor Sea Wall Inspection, Florence, Oregon*, By OBEC Consulting Engineers
"G" *Marine Manor Sea Wall Inspection, Florence, Oregon*, By OBEC Consulting Engineers, Revised: 8/15/2007

"H" December 18, 2007 Electronic Mail Communication from Michele Hanson, US Army Corps of Engineers, to Sande Tomlinson, Subject: Marine Manor Seawall Project

"I" January 3, 2008 Electronic Mail Communications from Cyril Young and Gloria Kiryuta, Oregon Division of State Lands, Subject: Marine Manor PUD Seawall

Approved BY THE FLORENCE PLANNING COMMISSION, this 5th day of February, 2008.

# EXHIBIT B: VICINITY MAP
# MARINE MANOR SEAWALL CUP
# 07 47 CUP 08

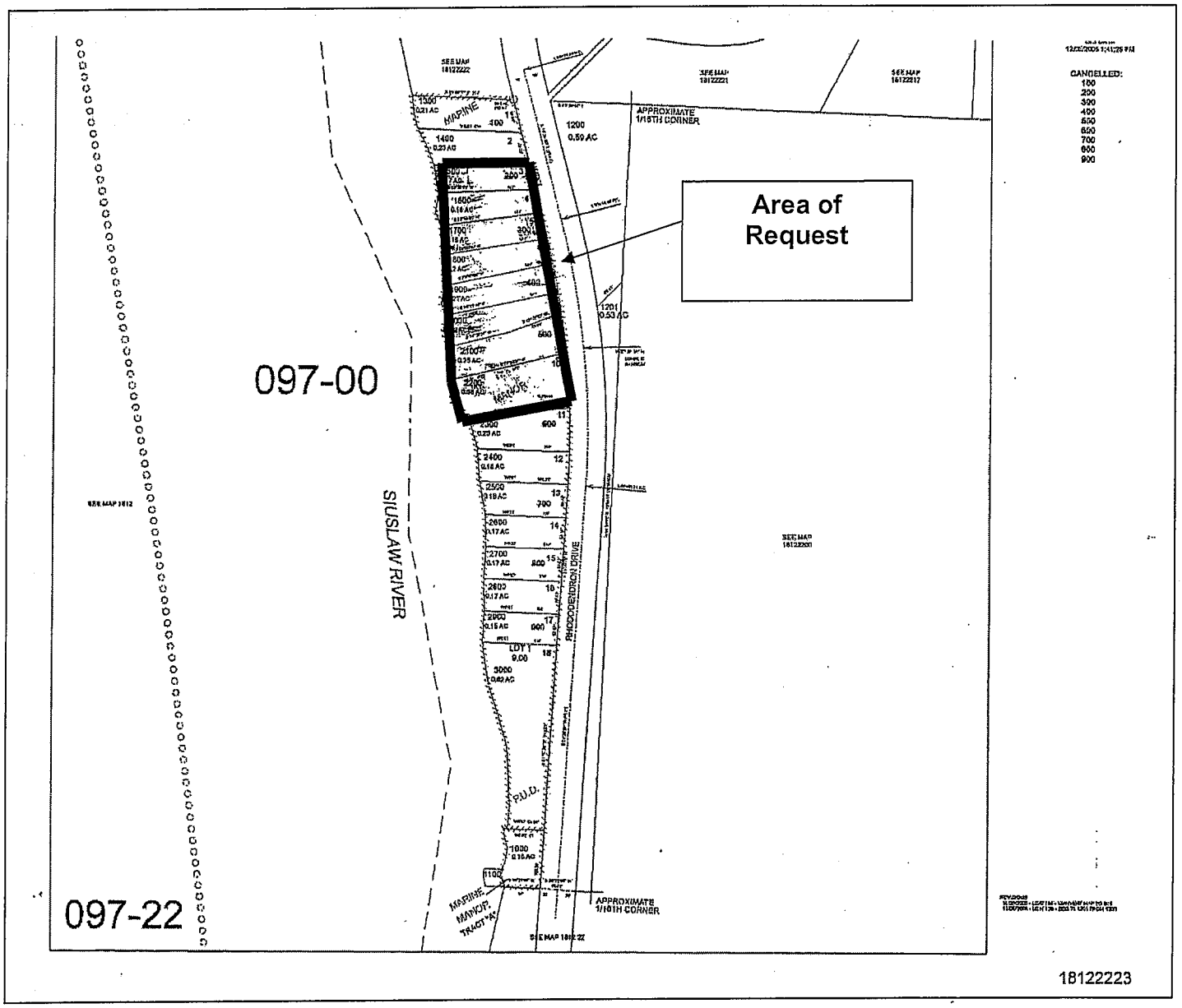


EXHIBIT "B"

GeoScience, Inc.

City of Florence
Site Investigation Report

Marine Manor PUD, N Portion
TL 1300 - 2200, Lane County Map 18122223

January 11, 2008

Prepared for:

Marine Manor Lot Owner's Association
P.O. Box 632
Florence OR 97439

**EXHIBIT "C"**

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## LIST OF FIGURES



## LIST OF APPENDICES

## EXECUTIVE SUMMARY

The proposed seawall replacement at Marine Manor PUD has no apparent negative impacts on the natural system in the area and the design is consistent with the natural constraints at the site. The work does have a probable positive economic impact on the larger area by ensuring that property values and property valuation for tax purposes are not negatively impacted by the catastrophic loss of several river-front homes.

The PUD is located between Rhododendron Drive on the east and the Siuslaw River on the west. Most of the PUD is located in a relatively level area created during and following the mid-1960s by placement of fill on a previous low-sloping tidal flat. The area was historically used as a marina, including boat docks, cranes, and parking lots. In order to elevate the parking lot and boat service facilities above the high water level, a wooden seawall was constructed along what is now lots 3 through 10. This wall is now in poor repair due to rot and threatening to fail catastrophically. Such a failure would result in significant risk to the residential structures constructed since 2003 on Lots 5 though 10.

Although retreat of the natural river bank has been slow during the time for which air photos are available, erosion of the imported fill on which the PUD is constructed would occur rapidly if no mitigating measures were present. The natural tidal flat is underlain by clay-cemented, relatively hard dune sands of the Pleistocene Marine Terrace Deposits. This material is eroded by the river only slowly. However, the fill imported into the southern portion consists in large part of dune sand and the fill behind the seawall consists mostly of crushed rock with significant fines. These materials are easily erodible by the river and require protection. The proposed replacement seawall is designed to continue this protection when the existing seawall fails.

In addition to the earlier seawall, rip rap was placed along the entire river frontage of the current PUD in early 1998. However, the rip rap may not have been installed properly to prevent sifting of finer-grained fill through large gaps between the rip rap stones.

The currently proposed project involves construction of a replacement steel-reinforced concrete seawall 2 feet east (landward) of the existing wooden wall. The work will be conducted entirely within a 25-foot setback area created to allow for maintenance of the existing seawall. The wall has been designed to be located entirely below current ground level and will be invisible when completed. As a result, no visual or other impacts are expected in the vicinity of the project or to the river. The two large culverts conveying storm drainage for a large area east of the PUD and Rhododendron Drive through the PUD will be extended through the proposed wall.

The proposed work is in compliance with all applicable Federal and State regulations and land use goals. However, if the existing wooden wall were to fail, additional Federal and State permit requirements would result because the mean high water line would shift eastward into the project area. The ensuing extended application process could lead to loss of the existing houses on Lots 5 through 10 as a result of rapid erosion of the finer-grained fill behind the wall.

Active dunes present to the east of the PUD and Rhododendron Drive are not considered a risk to the existing PUD because the prevailing wind directions (summer and winter) include a westerly component.

Although not part of the current proposed work, it is proposed to conduct further assessment of the stability of the river bank prior to development on Lots 1 and 2 of the PUD. These two lots are located on a dune stabilized by vegetation. Based on observations in the southern portion of the PUD the rip rap protecting the toe of the bank may not be installed properly to ensure that no loss of the dune sand occurs. Removal of the dune sand by the river from the toe of the bank would result in long-term stability issues with the bank above and presents a risk to any structures eventually constructed on these lots.

## INTRODUCTION

This report presents the results of a Site Investigation conducted in compliance with City of Florence requirements on the north portion (Lots 1 to 10) of the 18-lot Marine Manor PUD in Florence Oregon (Figure 1). The investigation was performed as part of the requirements for a conditional use permit to replace the failing seawall in the northern portion of the PUD. The report was prepared in its entirety by an Oregon Certified Engineering Geologist with experience in the Coastal Zone work. The report was prepared for the Marine Manor Lot Owner's Association. The report is structured to address the items listed in the "City of Florence Site Investigation Report Summary".

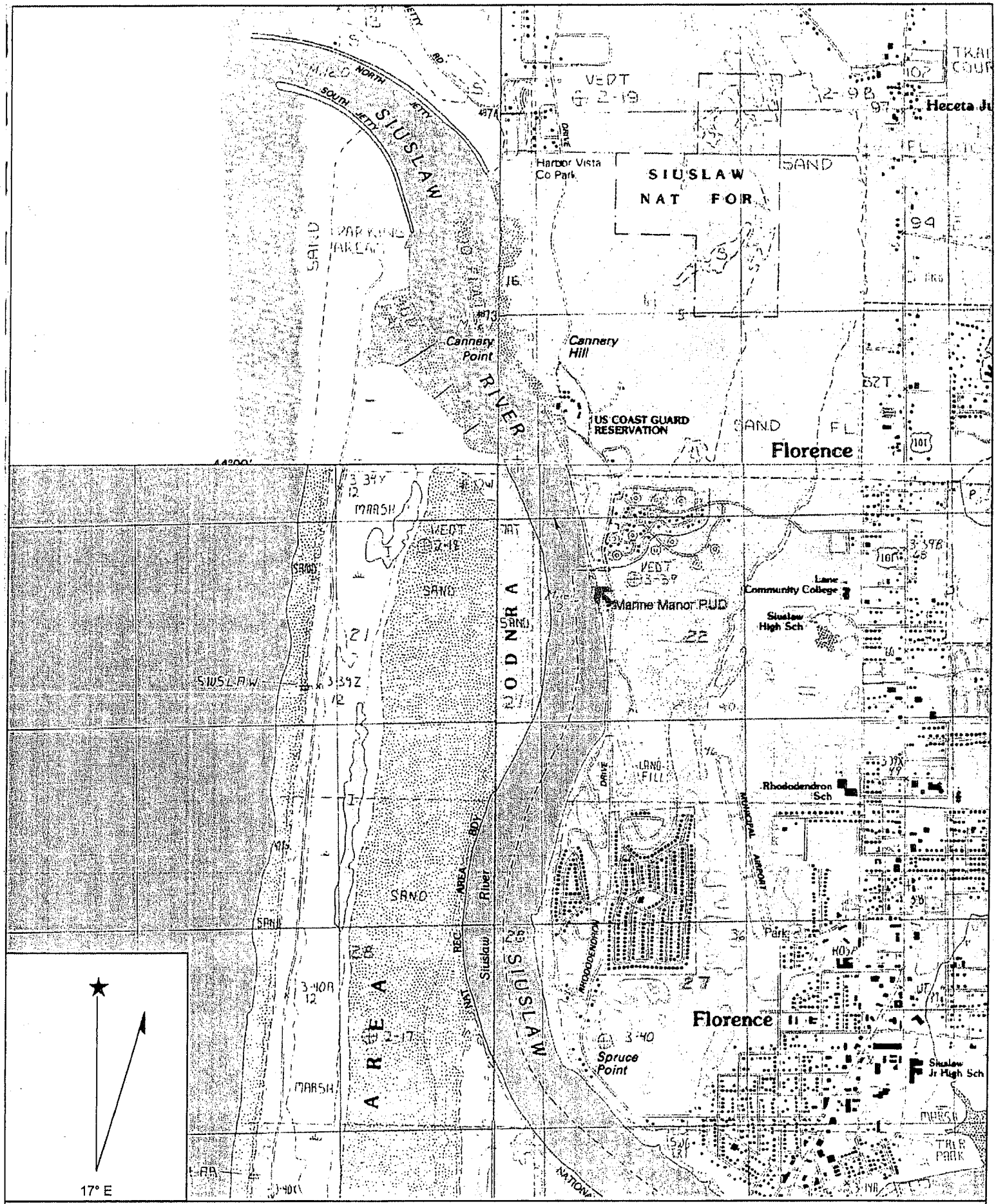
## SITE DESCRIPTION, GEOLOGY, AND SOILS

### Physical Setting

The site is located in T 28S, R 12W, Section 22. The site is bounded on the west by the Siuslaw River and on the east by Rhododendron Drive. According to Elevation Certificates for Lots 9 and 10 submitted by Mortier Engineering, the ground elevation in the project area is between 10 and 11 feet above mean sea level (AMSL) and the floors of the northern houses (lots 5 through 10) are located at approximately elevation 10' (crawl space elevation around 8.5' AMSL). The relatively level ground at lots 3 through 18 has been created by placement of fill at various times. Prior to the early 1960s, the area consisted of a west-sloping bank, the top of which was located a short distance west of the west edge of Rhododendron Drive. No filling has occurred on Lots 1 and 2 which are located on a stabilized (by vegetation) sand dune at general elevations of 10 to 20 feet and 20 to 35 feet AMSL respectively. The area was and is located at the mouth of two creeks, which are now conveyed through the northern portion of the PUD via two culverts, located between Lots 2 and 3 (24-inch) and Lots 8 and 9 (36-inch). Based on the extent of the creeks themselves, as mapped on the USGS topographic map, it appears that the drainage basin for each creek may be on the order of 50 acres for the northern creek and in excess of 100 acres for the southern creek.

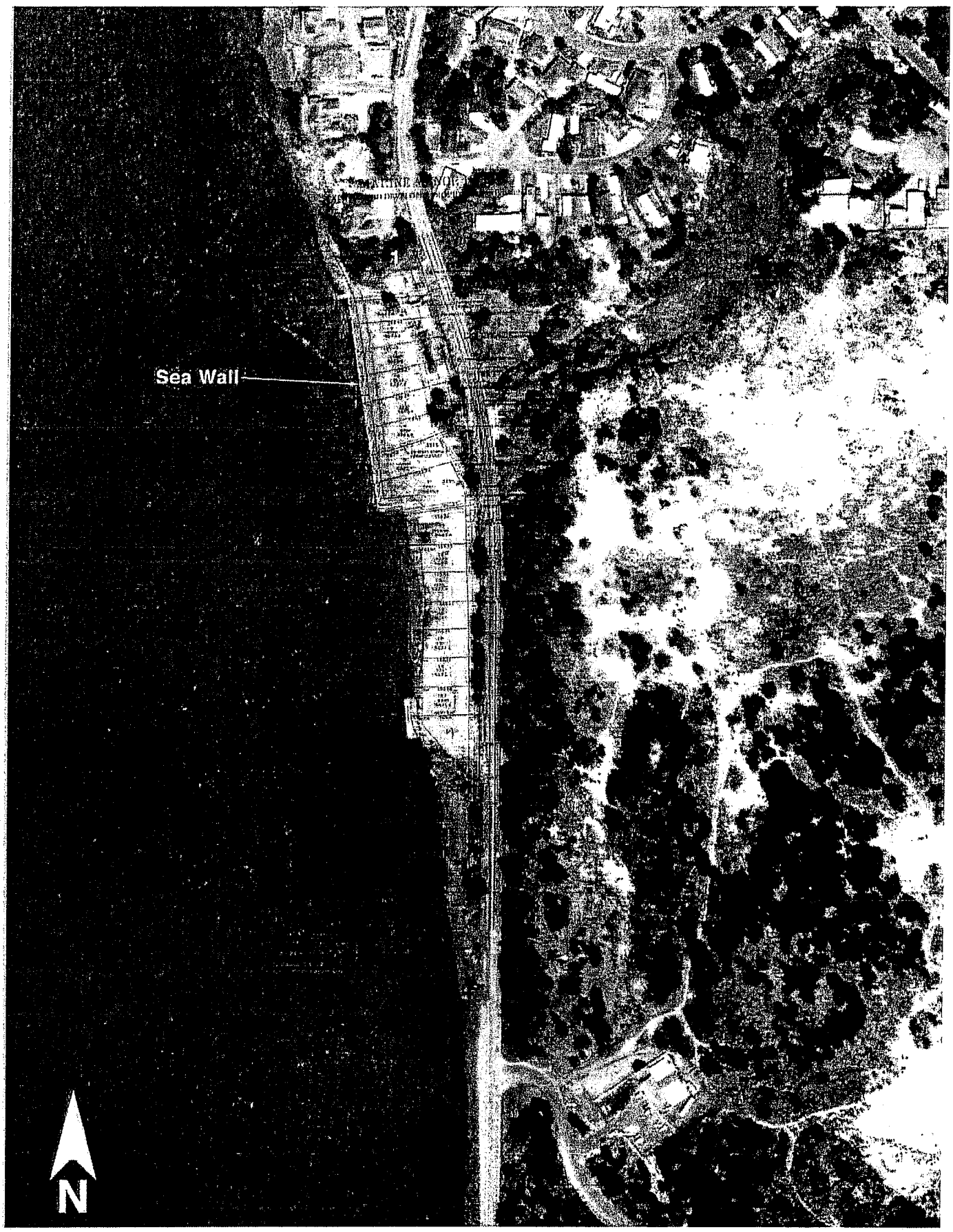
### Geologic History

The site is located on the east bank of the Siuslaw River, in an area indicated to be "Sand Dunes" on the geologic map accompanying USGS Water Supply Paper 1539-K *Ground Water in the Coastal Dune Area Near Florence, Oregon* (Hampton, E.R., 1963). The water resources paper indicates that the dune sand is located over a "planed-off" surface of underlying Tertiary *Tyee Formation* (sandstone). Cooper (1958) includes the area in the Coos Bay dune sheet, North Siuslaw Region. Lately, investigators (e.g. Beckstrand, 2001, Peterson, 2002) have described the area as part of the "Florence Dune Sheet". Whereas earlier researchers assumed that the dunes were formed in response to *Holocene* (younger than approx. 10,000 years Before Present) sea level rise, more recent thermoluminescence and radio-carbon dating has shown that portions of the dunes are up to 37,000 years old or older. Published thermoluminescence and radio-carbon dates (Beckstrand, 2001, Peterson, 2002) on dune deposits and vegetation covered by the Florence Dune Sheet just north of the subject area indicate ages ranging from 6,100 to 24,600 years BP. Of importance in this context




Name: FLORENCE
Date: 2/12/2007
Scale: 1 inch equals 2000 feet

Location: 043° 59' 38.0" N 124° 07' 30.6" W
Caption: Figure 1: Location Map

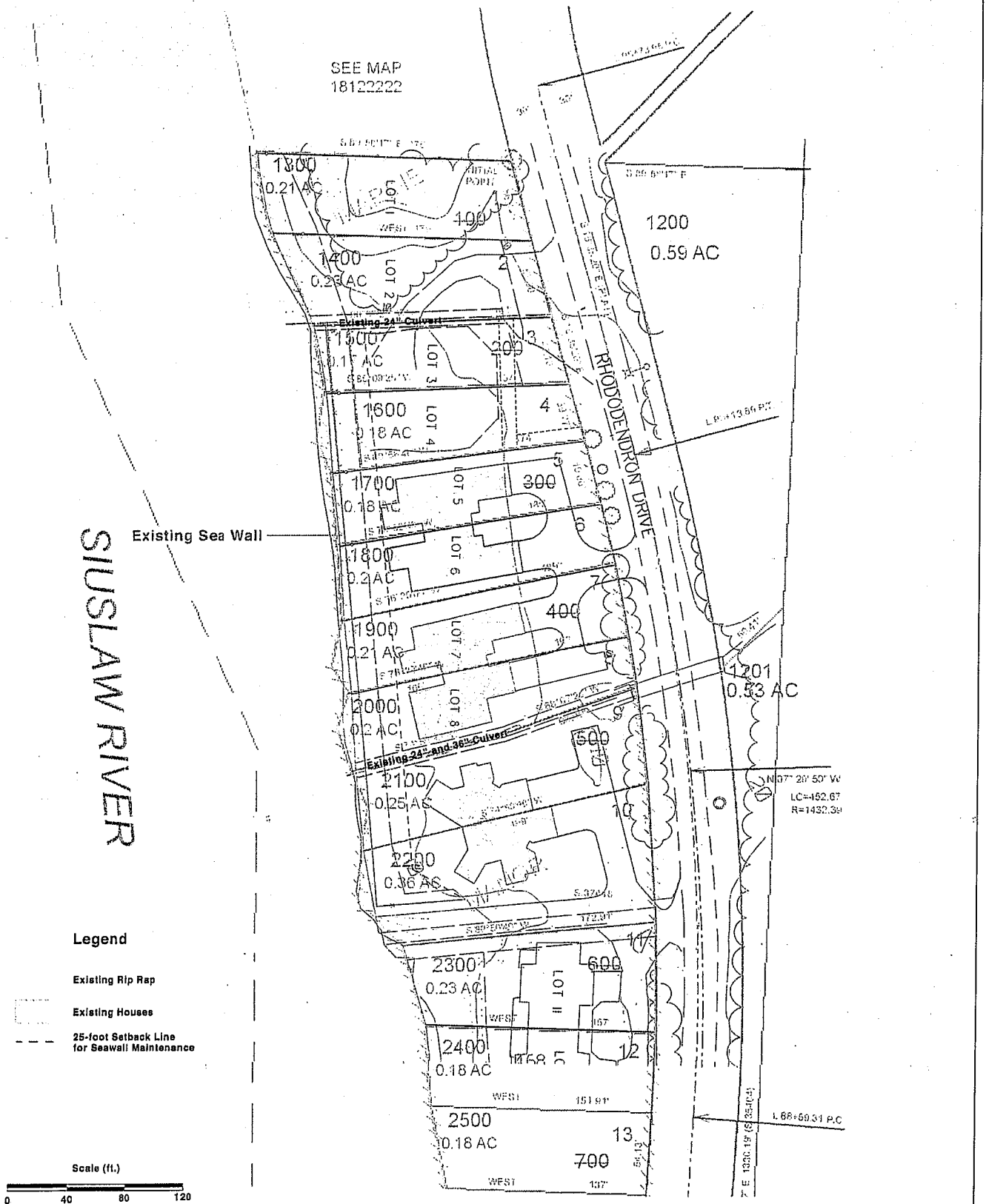



**Marine Manor PUD Site Investigation Report**

**Fig. 2: Site Map, Lot Nos, and Sea Wall**

Annotated Portion of 2001 WAC Air Photo.
Red Overlay of Mortier Engineering Lot Map

# SW 1/4 NW 1/4 SECTION 22 T18S R12W W.M.
## Lane County



are eustatic (global) sea level fluctuations which are related to the amount of water stored in ice sheets during glacial periods in the *Pleistocene* (appr. 1.64 Million to 10,000 yrs BP). As water is stored on land as ice, sea level drops. The maximum reported drop in the last 80,000 years occurred around 18,000 years ago, at the time of the last glacial maximum. At that time, global sea level is thought to have been approximately 400 feet lower than today (Shackleton, 1986, 1987) and the mouth of the Siuslaw would have been located up to 25 miles farther westward than today. With the *late Pleistocene* and *Holocene* deglaciation, sea level has once again risen and this rise is continuing today.

Based on the age dates obtained in the vicinity in recent years, a significant portion of the dune sand at the site was likely deposited during the period from approximately 24,000 to 6,000 yBP, including the period of the last glacial maximum. At that time, sea level was 400 feet lower than today and the mouth of the Siuslaw River would have been several miles to more than 20 miles west of its current location. It is probable that soil horizons formed at that time on several paleo-land surfaces which were subsequently buried by additional advancing dunes. This process of soil formation and subsequent burial was likely repeated several times during the period of deposition, resulting in the presence of several buried soil horizons within the dune sand deposits. The soil horizons are characterized by the presence of organics, buried tree stumps in growing position, and decomposition of some of the mineral grains contained in the sand. Partial or complete decomposition of some silicate minerals other than quartz (e.g. feldspars, pyroxenes, hornblende) has produced both clay minerals and iron-oxides which tend to cement the sand. These cemented sands and paleo-sols have been designated as part of a larger group of sediments known as Marine Terrace Deposits or MTDs.

The Siuslaw River is currently located immediately west of the subject site, although older channels, now buried by dunes, are probably present both to the west and south, and possibly east of the site. Since the early 1900s, the current location of the channel and mouth of the river has been artificially maintained by the US Army Corps of Engineers. Maintenance of the location of the channel is achieved by several means, including construction (and later extension) of the Siuslaw Jetty, dredging of the channel, and construction of several groins along the west side of the channel approximately one half mile downstream from the subject site. The latter measures are designed to prevent the river from shifting its mouth southward by breaking through the fore-dune area of the sand spit which extends northward west of the river for 3.5 miles from the area west of downtown Florence to the current mouth of the river.

The *Soil Survey of Lane County Area, Oregon* (USDA Soil Conservation Service, 1987) indicates that the site is underlain by *Waldport fine sand*, which is indicated to have formed stabilized sand dunes in aeolian sand of mixed origin. The typical soil profile is described as follows:

> "Typically, the surface is covered with a mat of leaves, needles and twigs about 3 inches thick. The surface layer is very dark gray and very dark grayish brown fine sand about 5 inches thick. The substratum to a depth of 60 inches or more is yellowish brown fine sand."

The Unified Soil Classification System (USCS) group names for the soil are: 0 - 5":SM; 5 - 60": SM.

## SITE HISTORY

### Review of Historical Aerial Photographs

Aerial photos on file at the University of Oregon's Aerial Photography Collection were reviewed stereographically to determine the history of development and bank configuration changes at the site. Air photos are available for the years 1939, 1945, 1953, 1954, 1959, 1961, 1966, 1968, 1972, 1974, 1976, 1979, 1980, 1982, 1984, 1985, 1989, and 1994. In addition, air photos of the area were purchased from WAC Corp. for the years 1998 and 2001. Pertinent portions of the air photos are included in Appendix A. The table on the following page summarizes observations made on the aerial photos.

### Other Pertinent Historical Information

Numerous historical documents were reviewed for this report, in order to obtain information regarding the history of the site. The pertinent documents include, in chronological order:

- 6/6/88: Department of the Army Permit issued to Don Wilhite for constructing a sports and commercial fisheries marina by rehabilitating and expanding an old moorage facility.
- 2/25/98: Letter from Howard Goldstein to Emile Mortier asking for updated report on "the marina site". Indicates that the entire 400 ft of seawall have been armored with rip rap, along with 600 ft. of rip to the south of there.
- 12/4/00: Letter from Howard Goldstein to Florence planning commissioner Franzen, indicating that 600 ft. of riverbank was protected with rip rap during two months in the spring of 1998.
- 11/8/02: FEMA Elevation Certificates prepared by Emile Mortier for structures on lots 9 and 10.
- 1/28/05: Poage Engineering report titled: "Drainage and Seawall Analysis for Marine Manor Subdivision, Florence, Oregon.
- 2/14/06: Joint Permit Application Form for installation of less than 500 cubic yards of rip rap in front of seawall.
- 7/26/05: Cover Letter and Joint Permit Application Form from Marine Manor Development Corp. to Michelle Hanson, regarding after-the-fact permits for reconstruction of the wood dock at the north end and boat ramp.

## Table 1: Air Photo Observations

| Year | Observations |
|---|---|
| 1961 | With the exception of Rhododendron Drive to the east, no development is evident on the air photos through 1961. |
| 1966 | A rectangular outline is visible in the area currently bounded by the sea wall and floating docks anchored at piles were present to the west of there. In the northeastern portion of the graded area behind the sea wall, close to Rhododendron Drive, the building which remained in that vicinity until recently is also apparent. Two boat cranes and associated buildings present at west edge of sea wall area near current lots 5 & 6. Fill had also been placed on the eastern portion of the south half of the property (now lots 11 through 18). The fill in the southern portion of the current subdivision appears to have been placed for use as a parking area. |
| 1972 | Another floating dock had been constructed in the river west of what are now lots 11 through 14. No other major changes are apparent on the 1972 photos from the 1966 photo. |
| 1974 | Similar to previous photo. |
| 1976 | Similar to previous photo. |
| 1979 | Similar to previous photo. |
| 1982 | All floating docks have been removed, or are no longer present. Vegetation encroaching on eastern portions of north pad between sea wall area and Rhododendron Drive. Little activity apparent compared to previous photos, possibly vacant. |
| 1984 | Similar to previous photo. |
| 1989 | Floating dock constructed in front of what is now lots 11 through 16. Dock on pilings constructed in front of current lots 17 and 18. Dock connected to parking area by placement of additional fill protected with rip rap. Building or trailers present at south end of this fill and dock area. Less vegetation in northern portion and vehicles in parking lot. Boat ramp constructed between sea wall and southern portion of site. |
| 1994 | Floating dock in front of lots 11 through 16 is partly missing and remainder has been pulled in close to bank. Dock on pilings still present but separation is appearing between dock and fill on south end. Building or trailers previously present at that location have been removed. Boat cranes and associated buildings removed from northern portion. Site appears to be vacant. |
| 1998 | Similar to previous photo. Only minor portions of floating dock remain. Separation between dock on pilings and fill at south end continues to increase in width and separation is beginning on north end. Unvegetated light-colored soil (sand) is visible on both southern and western margin of fill, apparently raveling down the slope. |
| 2001 | All portions of floating dock are gone. Light-colored soil is gone from southern and western bank, with rip rap exposed along western bank. Rip rap exposed between bank and dock on pilings. Rip rap present on west side of seawall. Several feet of new sand fill has been added to the entire southern portion of the site. Different colors of the fill and lack of vegetation indicate that filling was proceeding at the time of the photo. |

Currently, with the exception of the northernmost Lots 1 through 4, residences have been constructed on all lots in the PUD. Locations of the existing residences in the north portion of the PUD are shown on Figure 3. Approximately 3 to 4 feet of sandy fill have been imported to raise the elevation of Lots 3 and 4. With the exception of placement of a rip-rap revetment at the toe of the river bank, no significant modifications have been performed on Lots 1 and 2, which are located on the higher ground on the stabilized dune at the north end of the site.

## PROJECT DESCRIPTION

The reason for the work currently proposed along the west edge of Lots 3 through 10 is that the existing sea wall is failing. Based on historical information the sea wall, which consists of 4 x 10 wooden lagging behind wooden soldier piles is failing. Based on the assessment conducted by McGee Engineering, the wooden soldier piles have rotted sufficiently to bend westward at the interface with the cemented sand deposits into which they have been driven. Some of the wooden piles have rotted off completely. Based on observations in test pits excavated for the City of Florence in January, 2006, most of the steel cables which tie the middle and upper portions of the piles to wooden deadmen have corroded sufficiently to have snapped completely or be significantly reduced in strength.

As a result, the seawall is leaning westward at angles between 5 and 10 degrees from vertical (as of late spring, 2006) and the fill behind the wall is settling into the resulting void, forming "sinkholes". In addition, sinkholes may be forming due to lack of containment of the backfill at the base of the wood lagging. In some places, the gap between the top of the marine terrace deposits and the bottom of the wood lagging is in excess of 12 inches, and due to the deterioration of the geotextile containing the backfill, the material can be eroded out from behind the wall by wave action during high tide.

The seawall forms the only protection from erosion of the fill on which the residences on Lots 5 through 10 are constructed. Based on the observations in the test pits, the fill consists mostly of 3/4-minus crushed rock with various admixtures of sand and fines, which would be very easily removed by wave action and bank erosion if the wooden lagging were absent.

Because the mean high-water line is located on the river side of the existing seawall, both the US Army Corps of Engineers and the Oregon Division of State Lands have concluded that no permit requirements exist from their perspective for construction of a secondary or replacement seawall on the landward side of the current wall. Therefore, the design, as proposed, places the new seawall 2 feet landward of the existing wall, with a buried concrete tie-back wall located 16 feet east of the new wall (Figure 4). However, if even a small portion of the existing wooden wall were to fail prior to completion of the replacement wall at that location, it is probable that the mean high water line would be located east of the proposed location of the new wall, necessitating extensive permitting by both the US Army Corps of Engineers and the Oregon Division of State Lands. Due to the questionable and rapidly deteriorating condition of the existing wooden wall, time is of paramount essence in construction of the replacement wall.

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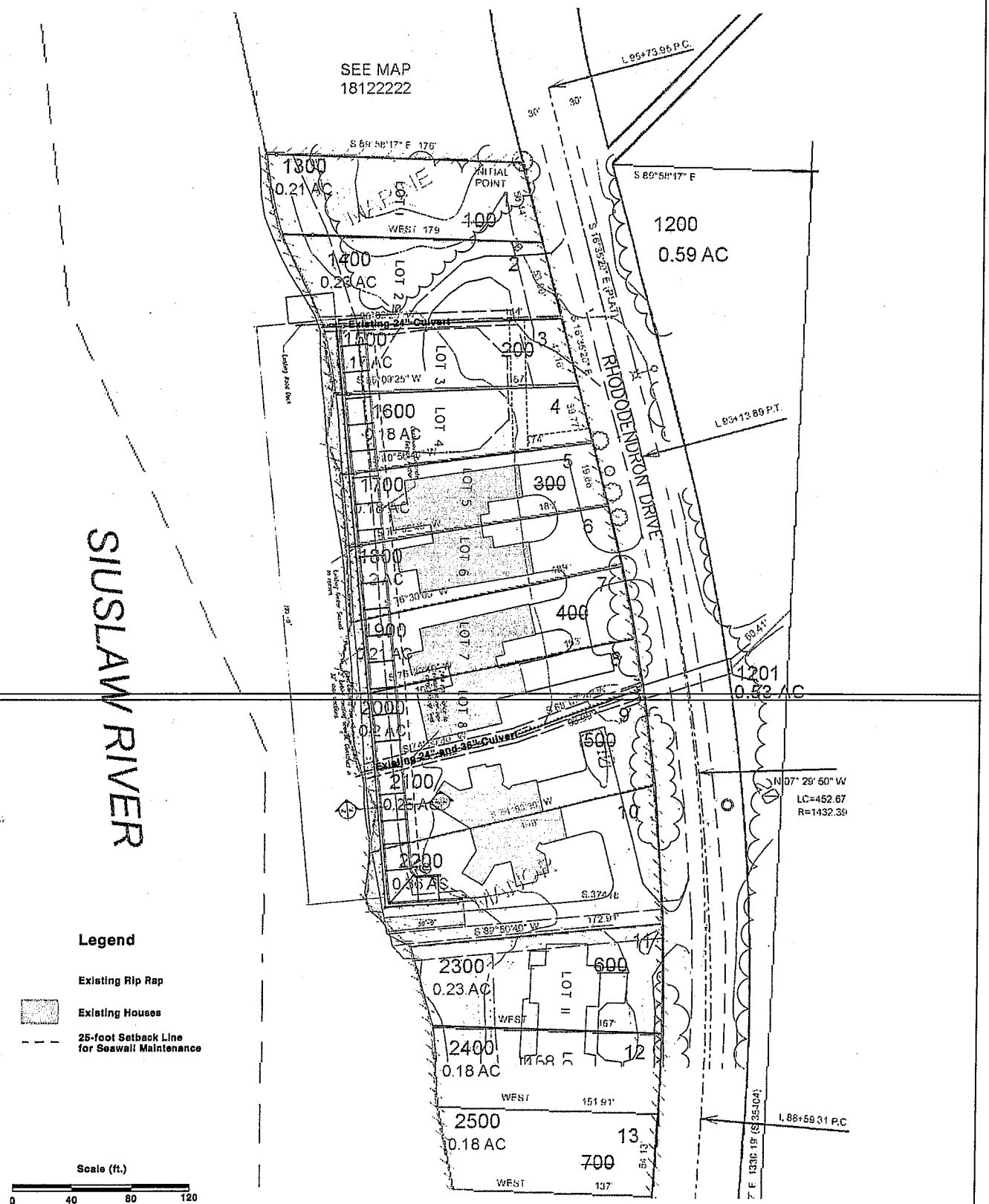



| | |
|---|---|
| | Marine Manor N Portion, Site Investigation Report |
| | Figure 4: Proposed Sea Wall Configuration and Location |

As designed, the wall is proposed to consist of cylindrical steel piles at 18-foot centers, driven to 20-ton bearing, filled with concrete, and supporting a steel-reinforced concrete retaining wall (see McGee Engineering design drawings and narrative, under separate cover). The upper portion of the new wall will be tied back to a continuous 2-foot high concrete deadman located 16 feet east and connected to the new concrete wall with galvanized angle iron tie backs.

All work proposed for the replacement of the seawall is located within the 25-foot seawall maintenance easement established at the time of the platting of the PUD. Based on the distances of the existing houses from the wooden seawall (from 26 to 36 feet), the construction in this portion of the subdivision conformed to the required setbacks. Therefore, the concrete tie-back deadman will be constructed 20 feet from the face of the wood lagging or 5 feet west of the setback line. Because the deadman wall is 3 feet high, the overall resulting slope from the tow of the excavation for this wall to the setback line is 1.67H : 1V, which is conservative for a temporary cut. In addition, the slope from the toe of this excavation to the base of the footings of the houses is significantly less. As a result, no stability issues are expected for the proposed temporary excavations.

## REGULATORY/ZONING CONDITIONS/SETBACKS

### Federal and State Agencies

As outlined above, regulatory issues regarding federal and state agencies have been addressed and resolved, as long as the new wall can be constructed behind the existing wall. Letters from the pertinent agencies to this effect are being submitted by the applicant under separate cover.

### Zoning, City Code, Comprehensive Plan

The proposed wall is a replacement for an existing wall, which is, moreover, proposed to be retained. The entire proposed structure will be located below current ground surface and will not be visible. The new seawall is merely a replacement of the existing wall which was initially constructed for a marina and was later utilized to protect the newer residential structures (3215 through 3315 Rhododendron Drive) in the northern portion of the Marine Manor PUD from bank erosion by the Siuslaw River. As a result, no inconsistencies are apparent of the proposed subsurface retaining structure with the residential zoning (Single-Family Residential), Florence City Code, or Comprehensive Plan.

### Setbacks

According to the City's Planning and Development Director (personal communication Carol Anne Heinkel), the City of Florence has established a 50-foot setback from the mean high water line. At the time the Marine Manor PUD was platted, this setback requirement was reduced to 25 feet. Whereas the construction is occurring within this setback, the setback was originally established expressly for the purpose of maintenance of the seawall, such as the proposed construction . None of the existing or proposed residential structures at this site are in violation of this setback distance.

## IDENTIFIED HAZARDS

Several potential risk factors can be identified in different portions of the Marine Manor PUD. These include:

- Bank erosion.
- Flooding by the Siuslaw River.
- Flooding by the two creeks crossing the development.
- Slope movement at Lots 1 and 2.
- Presence of an Inactive Dune Form on Lots 1 and 2.
- Tsunami impact.

### Bank Erosion

Two types of bank erosion can be identified. The first issue is erosion by the moving water (flowing and wave action) of the Siuslaw River. The second issue is mobilization of the sand fill in the southern portion of the PUD by discharge of significant amounts of shallow groundwater flowing through the native dune sand and fill sand on top of the relatively impermeable clay-cemented older dune sheet deposits (marine terrace deposit - MTD).

In the portion of the PUD affected by the proposed seawall replacement, only the first issue is apparent. In its current deteriorated condition, the wooden seawall permits some of the fill placed behind the wall to be removed through the gaps at the bottom of the wood lagging. This is occurring not only in response to the Siuslaw River but possibly also due to shallow groundwater discharge through the fill around the southern culvert.

The proposed seawall will address these issues in front of lots 3 through 10. The solid concrete wall extending to the MTD's will prevent further loss of back fill from behind the new wall and the coarse backfill proposed for the interstitial space between the new and existing wall is of sufficient size to remain on the MTDs even once the old wood seawall fails.

Other mitigation options have been proposed to address the bank erosion issue in front of lots 11 through 18. A final design has not been prepared for that segment of the bank.

### Flooding by the Siuslaw River

This issue has been addressed by placing the first-floor elevations of the existing residences higher than the 100-year flood elevations predicted on the FEMA maps.

**Flooding by the two Creeks Crossing the PUD**

Two larger culverts cross the PUD in public storm drainage easements. A 24-inch culvert runs between lots 2 and 3 and a 36-inch culvert is in place between lots 8 and 9. According to City of Florence Public Works employees who video-taped the latter pipe, it consists of 36-inch CMP in the eastern 95 feet, followed by 55 feet of 24-inch pipe downstream (west) of there. The 24-inch pipe consists of 44 feet of CMP and 11 feet of smooth-walled plastic pipe for the last 11 feet. Some questions have been raised regarding the adequacy of this "necked-down" system. As a result, it is proposed to construct the portion of the pipe penetrating the wall to accommodate higher flows. At this time, no reason is apparent to change the entire system, but it may be appropriate to increase the opening through the new seawall to allow for an increase in capacity in the future.

To date, no flooding issues have been noted with either of the two creeks crossing the PUD. If such issues should arise in the future, potentially as a result of upstream development, an increase in the pipe size would mitigate the issue.

With the exception of the culvert pipe opening through the wall, the proposed replacement of the seawall does not have a direct bearing on the storm water issues. The concrete wall will include 4-inch weep holes at 8 feet on center, which should allow for any water bypassing the culvert and discharging through the fill around the pipe to reach the river. In addition, the engineering plans call for installation of a drainage fabric on the east side of the new wall in the vicinity of the southern culvert to further prevent buildup of pore pressures behind the wall.

**Slope Movement**

Most of the PUD is constructed on essentially level ground. An exception are Lots 1 and 2 in the northernmost portion of the PUD, which are located on a dune which is approximately 25 feet higher than the adjacent portion of the development. The seawall does not extend past the north line of Lot 3, and, therefore does not protect the toe of the bank in this portion of the PUD. Rip rap has been installed along the toe of the bank, probably in 1998, when rip rap was also installed along the sea wall and on the bank along what are now Lots 11 through 18. However, the rip rap along Lots 11 through 18, which has been studied in more detail, was installed without an adequate system for retaining the dune sand behind the rip rap. As a result, sand is leaking through the rip rap at several locations in front of these lots. Several mitigation options have been developed for this portion of the PUD, and one of these options is expected to be implemented in the near future to prevent further issues with the bank in that vicinity.

It is probable that the rip rap at the toe of the bank on the west side of Lots 1 and 2 has been installed in a manner similar to that at Lots 11 through 18. As a result, it is probable that some sand movement is occurring from behind the rip rap which can reasonably be expected to result in loss of lateral support at the toe of the overall bank. In turn, this may result in minor failures of the slope extending up the bank. The issue has not been studied in detail, because no structures are currently present on these two lots. However, prior to development of Lots 1 and 2, it is recommended to

assess the potential for slope movement as a result of removal of sand at the toe of the slope and mitigate this process if found to be present.

The southerly slope extending across Lots 1 and 2 is less than the overall stable slope angle of 2H : 1V, and, therefore, no impacts are expected to Lot 3 as a result of the presence of the higher ground to the north.

**Presence of an Inactive Dune Form on Lots 1 and 2**

Lots 1 and 2 are located on a higher sand dune, which, according to work performed by GeoScience on other properties to the north of the PUD may consist partly of older dune sand partially cemented by clay and iron oxide/hydroxide deposits. Based on surface observations alone, the upper portion of the dune and the portion facing the river are underlain by un-cemented dune sand which is currently stabilized by vegetation. Prior to development on Lots 1 and 2, it is recommended to assess these lots to determine if organics may be buried under the dune sand but above the seasonal low water table. This measure is designed to prevent eventual settlement of structures as a result of decay of the organics. In addition, it is recommended to ensure that the design minimizes removal of vegetation or includes rapid re-vegetation, in order to ensure that aeolian sand transport to the south is minimized during the summer months. In the Florence area, sand transport occurs mainly during the summer months when the sand is dry, and during that time, the prevailing wind direction is from the north. It is probable that the current southern end of the sand dune in this vicinity is related to pre-historic and historic removal of sand arriving at the south end of the system by the two creeks discharging the west in this vicinity. The development has resulted in placing these two creeks below ground and additional sand arriving from the north (i.e. Lots 1 and 2) would be able to move across the subdivision.

Given the fact that the sand dune has been stabilized by natural encroachment of the vegetation, the risk of impact of the presence of this feature to Lots 3 through 18 without development is judged to be very small.

**Tsunami Risk**

Most of the developed portion of the subdivision is located at elevations ( 11 to 16 feet AMSL) which are likely to be flooded or impacted by larger tsunamis which may affect the Oregon coast as a result of seismic activity in the Pacific Basin. This risk has been partially mitigated by installation of Tsunami warning buoys and an emergency notification system along the Oregon coast. Local residents are aware of the risk and evacuation routes have been designated in the Florence area. No further mitigation appears necessary or possible.

## NATURAL AND HISTORIC RESOURCES

### Vegetation

Based on historic air photos, much of the PUD originally consisted of a tidal flat similar to the bench present to the south of Marine Manor. Vegetation was limited to a relatively narrow strip along Rhododendron Drive. The area now designated as Lots 1 and 2 was an exception, consisting of a dune form stabilized by vegetation. Beginning in the mid-1960s, the lower-lying portions of the area were filled and the currently present wooden seawall was constructed.

Because little or no vegetation was present on the areas which are now filled, no protection from soil erosion was present from the vegetation. With the exception of Lots 1 through 4 the PUD is now landscaped and the vegetation in those areas protects the sand fill (where applicable) from wind erosion. On lots 1 and 2, the natural vegetation protects the underlying dune sand from wind erosion. Additional dune sand has been imported as fill on lots 3 and 4 and this area has minimal vegetation but the sand is protected to some degree by a layer of mulch.

### Fire Hazard

The natural vegetation or landscaping does not represent a fire hazard with respect to the existing structures.

### Fish and Wildlife Habitat

The original tidal flat (pre-1960s) may have provided habitat although the quality would be questionable. The area is underlain by relatively hard clay-cemented dune sand and was diurnally inundated by the incoming tide. Currently on the southern extension of the tidal flat, barnacles on rip rap represent the most important sessile organism.

Lots 1 and 2 are of insufficient size to represent significant wildlife habitat, especially due to the proximity to Rhododendron Drive.

### Historical and Archaeological Sites

No known historical or archaeological resources are present in this vicinity.

## FLOOD PLAIN ELEVATION

According to FEMA maps, the ground elevation of portions of the Marine Manor PUD is lower than the 100-year flood elevation. However, elevation certificates have been prepared for the structures showing that the first-floor elevations are higher than the expected 100-year flood elevation. The proposed work consists of construction of a replacement seawall and no habitable space is proposed to be constructed at this time.

## ADJACENT AREAS

### Open Dunes

Open dunes are present in an area encompassing several hundred acres to the east of Rhododendron Drive. The open dune area is separated from Rhododendron Drive by a narrow strip of vegetation. However, to the northeast of the Marine Manor PUD, dunes stabilized by vegetation are present in a large area.

Because both summer and wintertime prevailing wind directions have a westerly component, the presence of open dunes to the east of the development does not represent an issue. Dune migration, if it were to occur would, most likely, be to the south-southeast.

### Active Foredune

The active foredunes are located to the west across the Siuslaw River. Due to the maintenance by the US Army Corps of Engineers, no significant changes in the location of either the Siuslaw River or the dune areas to the west is expected.

### Storm Run-off Erosion

Storm run-off erosion is occurring mostly in the southern portion of the Marine Manor PUD, where sand is sifting through improperly installed rip rap and is then removed by the Siuslaw River. It is not known whether a similar issue exists in the vicinity of Lots 1 and 2.

However, the proposed seawall replacement is not affected by storm run-off erosion, but rather is designed to prevent erosion of the bank of the Siuslaw in front (west) of Lots 3 through 10. Without the presence of the seawall at this location, the relatively fine-grained fill placed at this site during the mid-1960s would be eroded rapidly by the river, and the residences would be at significant risk of toppling within a few years, possibly as rapidly as two to three years. Therefore, a functioning seawall or revetment is imperative in order to preserve the viability of these houses and lots.

Currently, roof-drains from the existing homes on Lots 5 through 10 are discharged through a pipe manifold system to the culverts crossing between Lots 2 and 3 and Lots 8 and 9. It is proposed to reconstruct a similar system and direct the roof run-off to the culverts, from where it will be discharged to the river.

### Wave Undercutting or Over-Topping

Based on the historical air photos, wave undercutting of the clay-cemented marine-terrace dune sands is present although the rate of retreat of the tidal flat shelf does not appear significant. The location of the outer edge of the uppermost clay-cemented layer does not appear to have moved more than the margin of error present on air photos since the first flight in 1936. Therefore, as long as the rip

rap and seawall is present and in good condition, wave action does not appear to represent a significant risk to the structures in the PUD.

**Slide Areas**

As outlined above, larger scale slope movements are not present within the PUD itself or identifiable in the adjacent areas. With the exception of the river bank itself, the topographic relief in the vicinity is relatively small and slopes on the stabilized dunes are adjusted to long-term equilibrium angles (around 2H : 1V).

**Combustible Vegetative Cover**

None of the vegetation present at the site or in the vicinity appears to represent a fire risk to the Marine Manor PUD.

## DEVELOPMENT IMPACTS

The proposed development (seawall replacement) is not expected to result in adverse off-site impacts. The entire structure will be located below the current ground surface and provisions have been made in the design to allow shallow groundwater movement through the proposed wall. The proposed seawall replacement will not result in any changes to the river bank (existing seawall) or to as-yet undisturbed areas of the PUD. The new wall will not be visible from the river.

The area proposed for construction is underlain by crushed rock fill and the temporary removal of the sparse vegetative cover on the level ground will not result in either sand movement or increased erosion due to run-off.

The proposed wall is located within 2 feet of the discharge area (Siuslaw River) of the shallow perched aquifer and the design includes provisions for allowing discharge through and past the wall. As a result, no impact is expected on the shallow perched aquifer.

The proposed replacement wall is designed to maintain the status-quo of the site. As a result, it is not expected to have a significant social and economic benefit to the surrounding area. However, if the status quo is not maintained, the results would be significant economic impact to the larger Florence area. In that case the loss of several of these homes could be expected to result in an overall devaluation of the river-front property and significant impacts on the perceived value of property in this area. Besides a clear decrease in overall tax valuation, such a development could be expected to have some effect on the overall economy of the town.

## PROPOSED DESIGN

The design has been developed to account for several constraints of the site and regulatory environment. As Figure 4 shows, the area proposed for construction of the replacement seawall is located entirely within the 25-foot maintenance easement for the seawall originally platted with the PUD. The replacement wall has also been placed behind the existing wall in order to limit permit requirements from the US Army Corps of Engineers and the Oregon Division of State Lands. It is unlikely that the existing seawall could be permitted through these agencies at this time. And if such a permit could be obtained, the permit process is sufficiently lengthy to place several of the homes in significant danger of damage from the receding bank when the existing wall undergoes catastrophic failure, which is probable in the next few months.

The details of the design prepared by McGee Engineering are being submitted under separate cover, but address the questions provided in the summary of the Site Investigation Report. The replacement seawall represents a protective structure for the existing and future residences on Lots 3 through 10 of the PUD. No plans for additional protective structures appear required.

Once the replacement seawall is constructed, the landscaping currently present in portions of the affected area will be restored. Most of the construction area consists of a crushed-rock pad which remains from the use of the area as a marina, boat dock and parking lot. It is probable that additional landscaping will be installed by the homeowners once the area has been stabilized.

The area adjacent to the seawall is closed to motor vehicles and is not a horse trail. Based on the layout of the PUD, future such uses appear unlikely or impossible.

## COMPLIANCE WITH FEDERAL AND STATE REGULATIONS AND GOALS

As outlined above, the proposed work was specifically designed to be in compliance with federal and state regulations governing construction near navigable water or waters of the State. Letters of concurrence from the pertinent agencies (US Army Corps of Engineers and Oregon Division of State Lands) stating that the project was designed [illegible] it is [illegible]

surface and will not result in additional visual impact to scenic river views or open space.

### Oregon DLCD Goal 7, Areas Subject to Natural Hazards

The project is designed to ensure that existing mitigation of identified natural hazards, such as flooding or erosion, continues to be viable. Therefore, the project appears to comply with this goal.

**Oregon DLCD, Goal 16, Estuarine Resources**

Because the proposed project is designed to ensure the continued viability of existing mitigation of natural hazards otherwise present at this site and threatening existing structures, the project is related to the presence of the Siuslaw River and estuary. However, the proposed project is located entirely outside of the zone inundated at normal high tides for the Siuslaw River. The proposed work will not extend beyond areas already developed as a marina prior to 1977 and will not be visible from the river. The proposed project appears to fall under a "Use which maintains the integrity of the estuarine system". In addition, the project does not involve "activities including dredging, fill, in-water structures, rip rap log storage, application of pesticides and herbicides, water intake or withdrawal and effluent discharge, flow-lane disposal of dredged material, and other activities which could affect the estuary's physical processes or biological resources." Therefore, the project appears to be in compliance with Goal 16.

**Oregon DLCD, Goal 17, Coastal Shorelands**

The project area is located within 50 feet of an estuary, and, therefore this goal is applicable. The project is designed to mitigate "geologic instability related to ... a coastal water body", which would "impact a coastal water body". Loss of the existing seawall at the Marine Manor PUD would cause a significant amount of fill and possibly residential structures to slide into the river. The proposed project is designed to prevent these impacts, and is, therefore, in compliance with this land use goal.

**Oregon DLCD, Goal 18, Beaches and Dunes**

If not yet identified by other agencies, this report identifies a stabilized dune on the northernmost portion of the Marine Manor PUD. This document calls for additional assessment of that area prior to development with residential structures in order to ensure that development will not adversely impact the Marine Manor PUD, adjacent areas, or the river. A comprehensive geologic review of the area has not identified any other dunes in the actual project area. Therefore, the project appears in compliance with State Land Use Goal 18.

**As a result, no apparent conflicts with State Land Use Goals have been identified during this review.**

## CONCLUSIONS

The Marine Manor PUD is located between Rhododendron Drive on the east and the Siuslaw River on the west. Most of the PUD is located in a relatively level area created during and following the mid-1960s by filling on a previous low-sloping tidal flat. The area of Lots 3 through 10 was historically used as a boat dock, at times with a crane, for a marina, and parking lot. The area of Lots 11 through 18 was used primarily as a parking lot and for vehicular access to second dock constructed near the south end of the property for off-loading seafood from fishing vessels. In order to elevate the parking lot and boat service facilities above the high water level, a wooden seawall was constructed along what is now lots 3 through 10 during initial development of the marina. This wall is now in poor repair due to rot and threatening to fail catastrophically. Such a failure would result in significant short-term risk to the residential structures constructed since 2003 on Lots 5 though 10,and potentially in environmental impact to the Siuslaw River estuary.

Rip rap was placed along the entire river frontage of the current PUD in early 1998. However, in the areas where the seawall is not present, the rip rap may not have been installed properly to prevent sifting of dune sand fill through large gaps between the rip rap stones.

The currently proposed project involves construction of a replacement steel-reinforced concrete seawall 2 feet east (landward) of the existing wooden wall. The work will be conducted entirely within a 25-foot setback area created to allow for maintenance of the seawall.

Although retreat of the natural river bank appears to have been quite slow during the last 70 years for which air photos are available, erosion of the imported fill on which the PUD is constructed would occur rapidly if no mitigating measures were present. The natural tidal flat is underlain by clay-cemented, relatively hard dune sands of the Pleistocene Marine Terrace Deposits. This material is eroded by the river only slowly. However, the fill imported into the southern portion consists in large part of dune sand and the fill behind the seawall consists mostly of crushed rock with significant fines. These materials are easily erodible by the river and require protection. The proposed replacement seawall is designed to continue this protection when the existing seawall fails.

The wall has been designed to be located entirely below current ground level and will be invisible when completed. As a result, no visual or other impacts are expected in the vicinity of the project or to the river.

Storm drainage for a large area east of the PUD and Rhododendron Drive crosses through the PUD in the form of two culverts, located between Lots 2 and 3 (24-inch) and Lots 8 and 9 (36- to 24-inch). These culverts will extend through the proposed wall and additional drainage measures have been designed for the wall to allow shallow groundwater to drain through the wall. Where it passes

Additional assessment of this area may be necessary prior to development of these two lots in order to ensure that the design results in long-term viability of any structures there. However, at this time, the vegetated dune does not represent a risk to the proposed area.

The proposed work is in compliance with all applicable Federal and State regulations and land use goals. However, if the existing wooden wall were to fail, additional Federal and State permit requirements would result because the mean high water line would shift eastward into the project area. The ensuing extended application process could lead to loss of the existing houses on Lots 5 through 10 as a result of rapid erosion of the finer-grained fill behind the wall.

## RECOMMENDATIONS

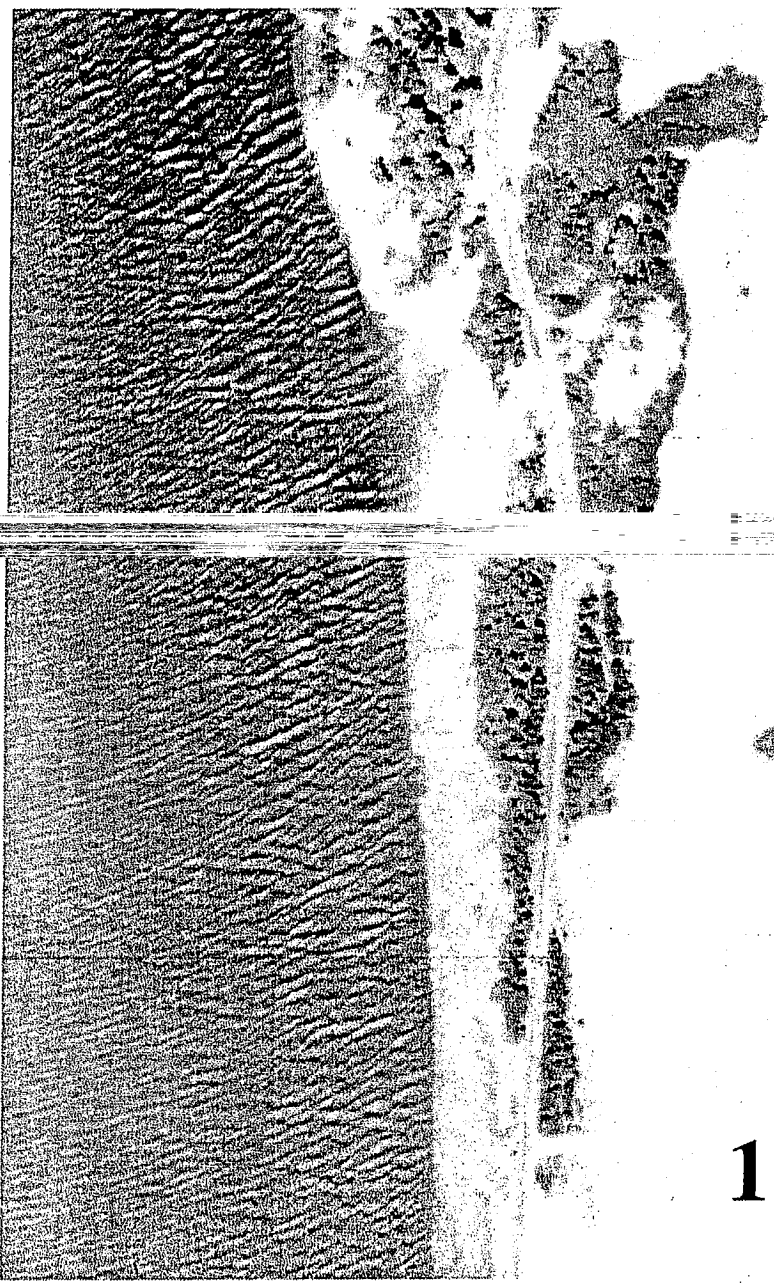
## LIMITATIONS

This report was prepared for the use of Marine Manor Lot Owner's Association, and their authorized agents for planning and design purposes. Our professional services were performed, and our recommendations provided in accordance with generally accepted principles and practices. The analyses, conclusions, and recommendations in this report are based on site conditions as they presently exist and assume that the limited number of points investigated are generally representative of subsurface conditions. The report is not a warranty of subsurface conditions. If, in the future, conditions are found which differ significantly from those presented here, GeoScience must be advised at once so that these conditions and our recommendations can be reviewed and revised, if necessary. Should a substantial lapse of time occur between this investigation and future site activity, or if conditions have changed due to nearby construction or natural causes, the data contained in this report should be reviewed to determine its continued applicability. This report is not intended to provide a seismic risk evaluation of the subject property. The report should be made available to potential contractors who will perform the construction work. GeoScience cannot be responsible for any deviation from the recommended construction methods or means discussed in this report, likewise, our firm cannot be responsible for construction activity on other sites which neighbor or abut the subject property referenced in this report.

If you have any questions about this report, please do not hesitate to contact me at (541) 607-5700.

Respectfully submitted,
GeoScience, Inc.

Gunnar Schlieder, Ph.D., CEG



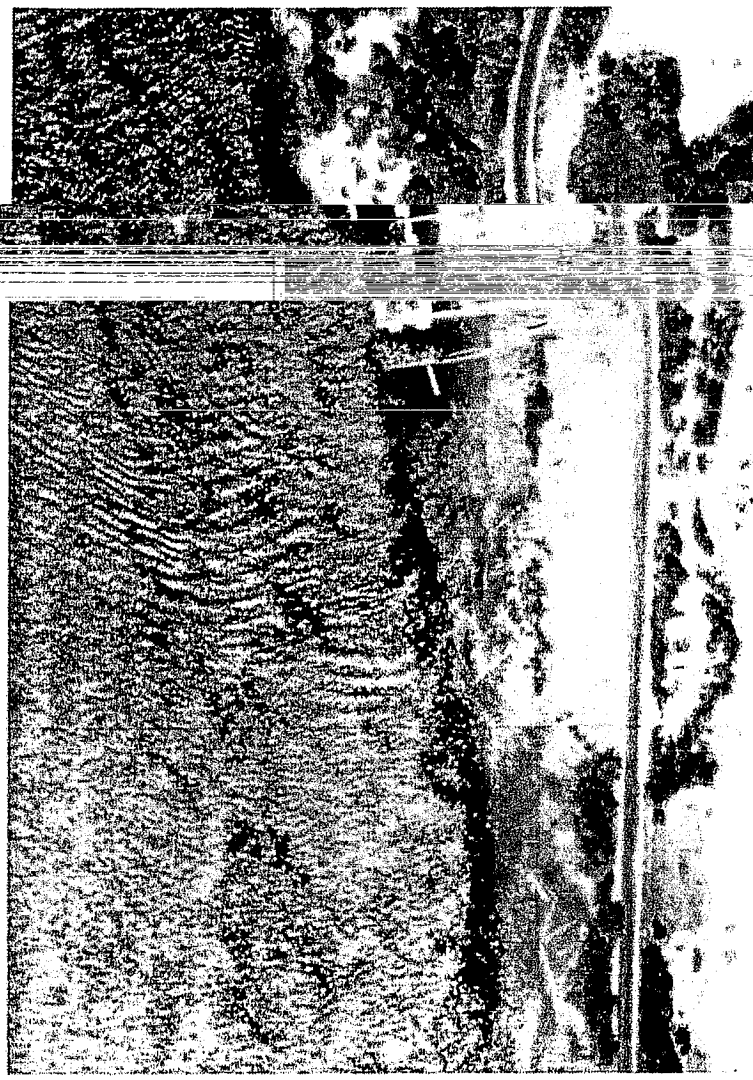
1961

N

Marine Manor Geotechnical Assessment

Historic Aerial Photogaphs

APPENDIX "A"



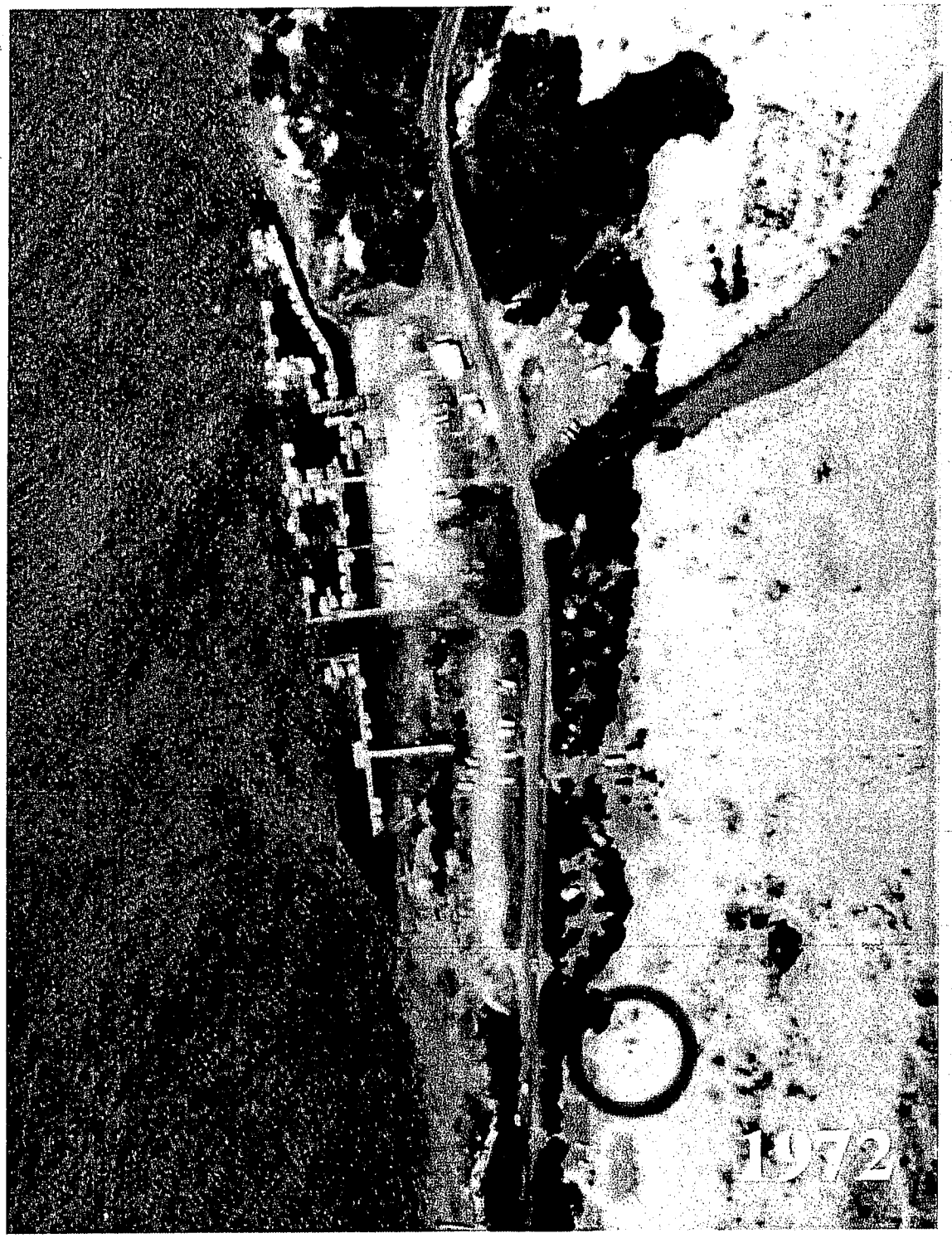
1966

N

Marine Manor Geotechnical Assessment

Historic Aerial Photogaphs

Not to Scale

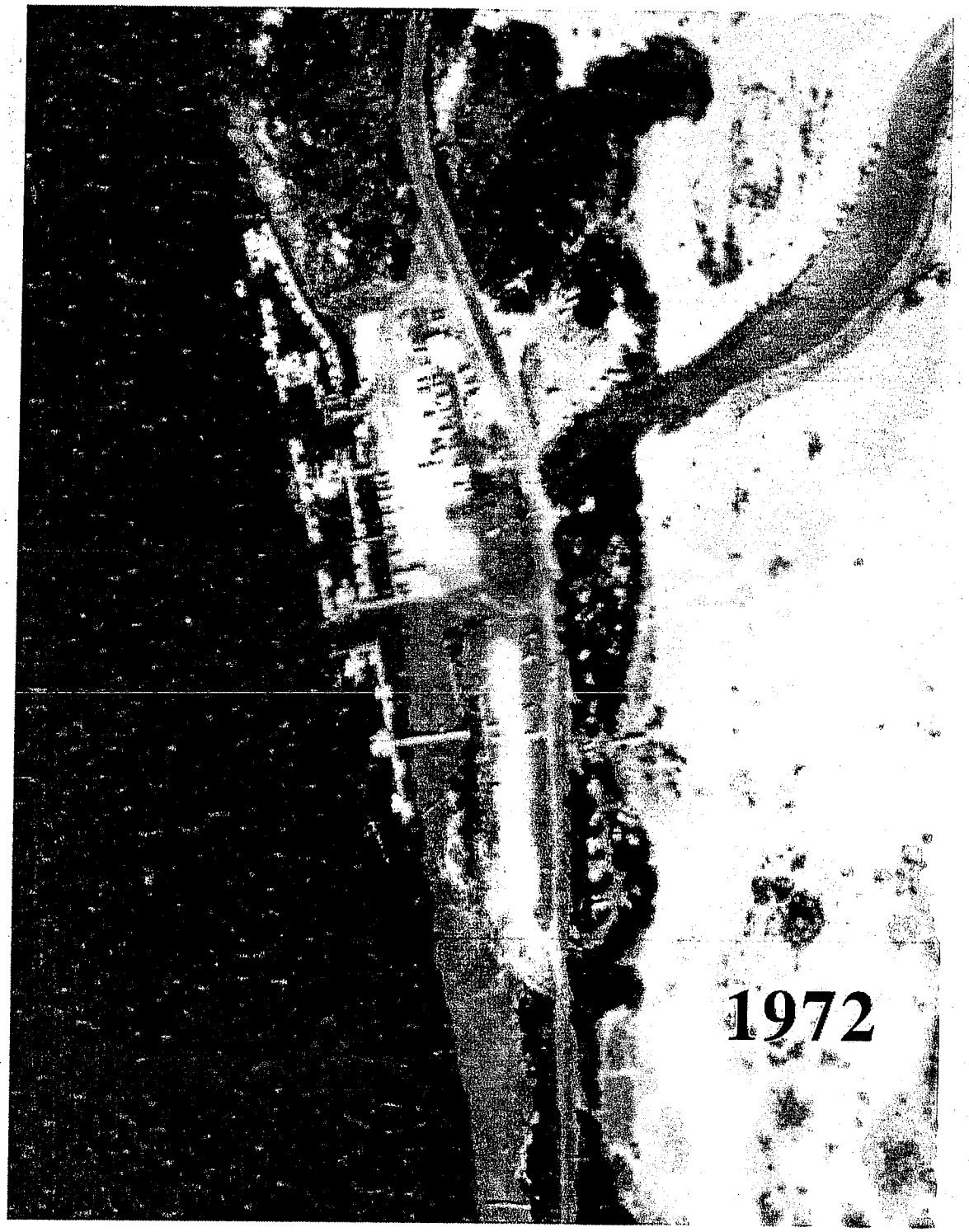



N

Marine Manor Geotechnical Assessment

Historic Aerial Photogaphs

Not to Scale




Marine Manor Geotechnical Assessment

Historic Aerial Photogaphs

Not to Scale


N

Marine Manor Geotechnical Assessment

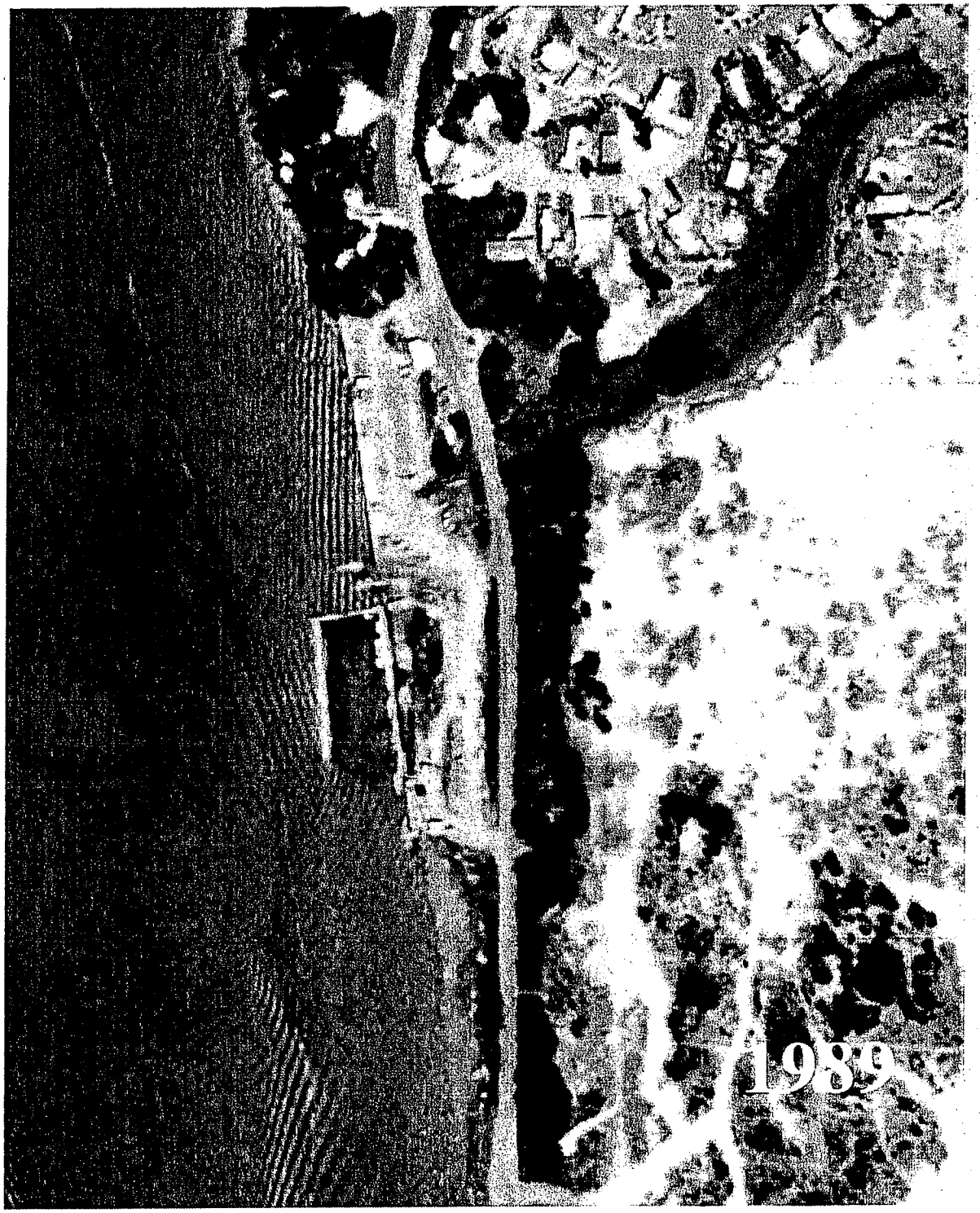
Historic Aerial Photogaphs

Not to Scale


Marine Manor Geotechnical Assessment

Historic Aerial Photogaphs

Not to Scale




Marine Manor Geotechnical Assessment

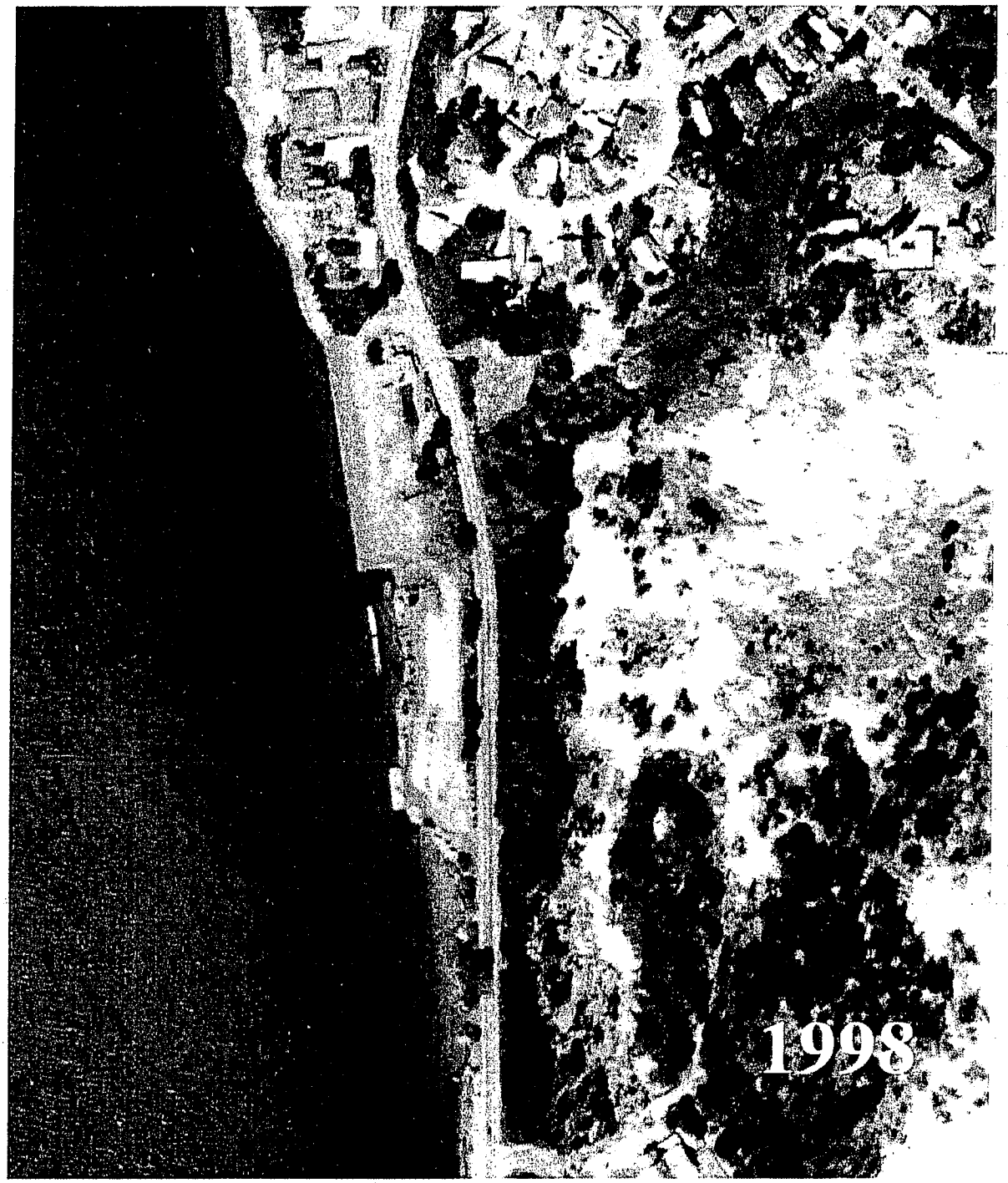
Historic Aerial Photogaphs

Not to Scale


**Marine Manor Geotechnical Assessment**

**Historic Aerial Photogaphs**

**Not to Scale**




N

Marine Manor Geotechnical Assessment

Historic Aerial Photogaphs

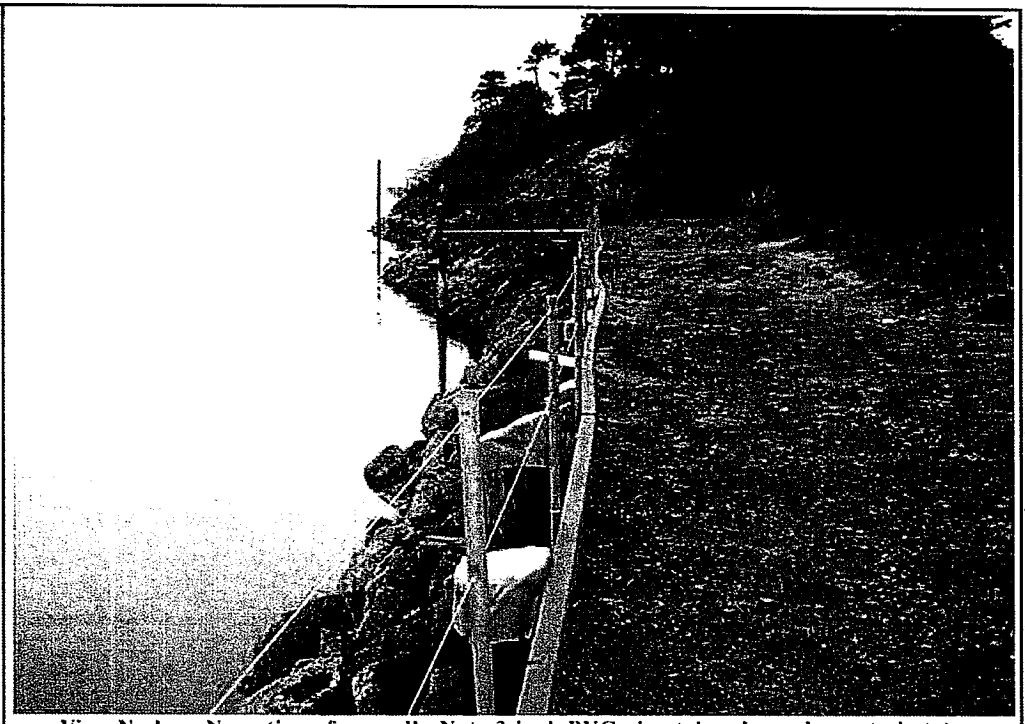
Not to Scale


**Marine Manor Geotechnical Assessment**

**Historic Aerial Photogaphs**

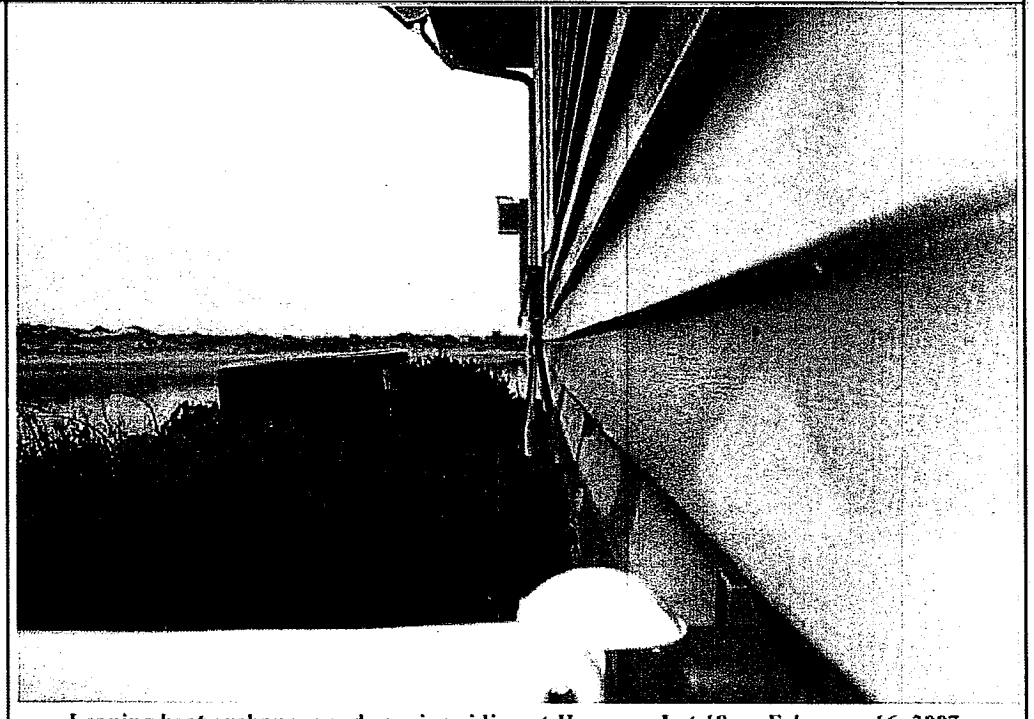
**Not to Scale**

View S along sea wall from approximately Lot 5. Tape measure along worst section.



View N along N portion of seawall. Note 3-inch PVC pipe (also shown in next photo).

Adverse (E-ward) slope on drainage pipe N of Lot 5. View N. Caused by settlement E of wall.



Leaning heat exchanger and sagging siding at House on Lot 18 on February 16, 2007.

APPENDIX B

View N of test pit near # 8/9 on January 12, 2006 . Note deflection in wall.

Piling completely rotted off W of # 9/10. View S. Photo taken 1/12/06.

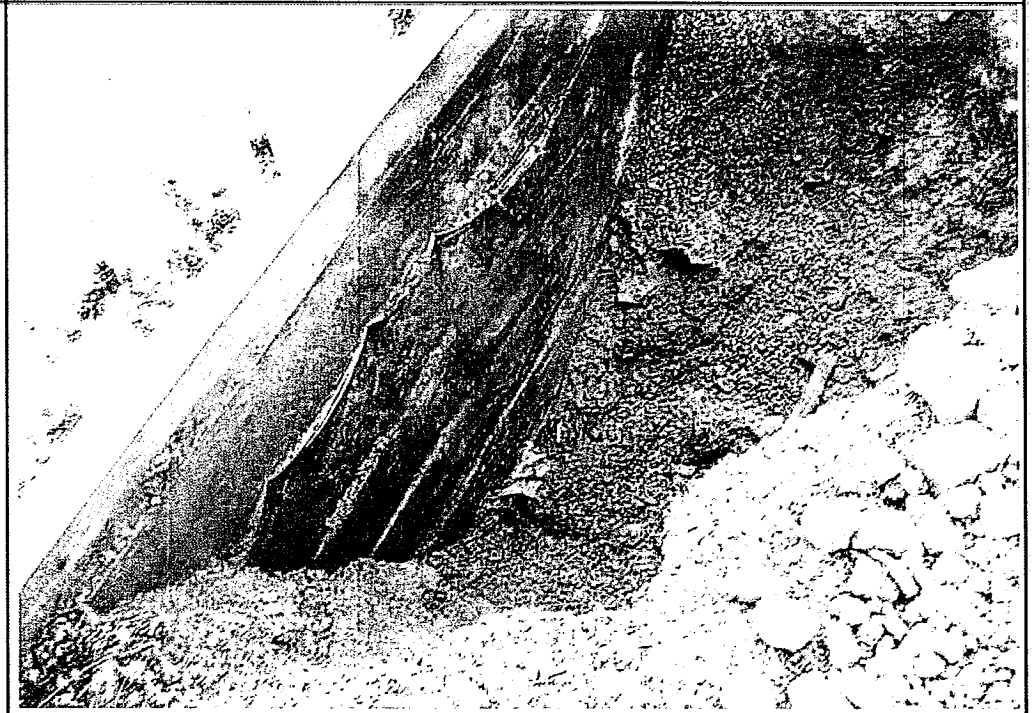
Same piling as previous photo, view E. Note lower portion completely missing. 5/30/06.

Undermined lagging at base of wall W of # 9. View NNE.

View S along seawall W of # 8/9. Note "sinkhole", bowed wall section, and leaning piles/wall.

Shearing of retained soil in response to westward movement of seawall.

Drop in retained soil behind seawall at location shown in previous pictures.



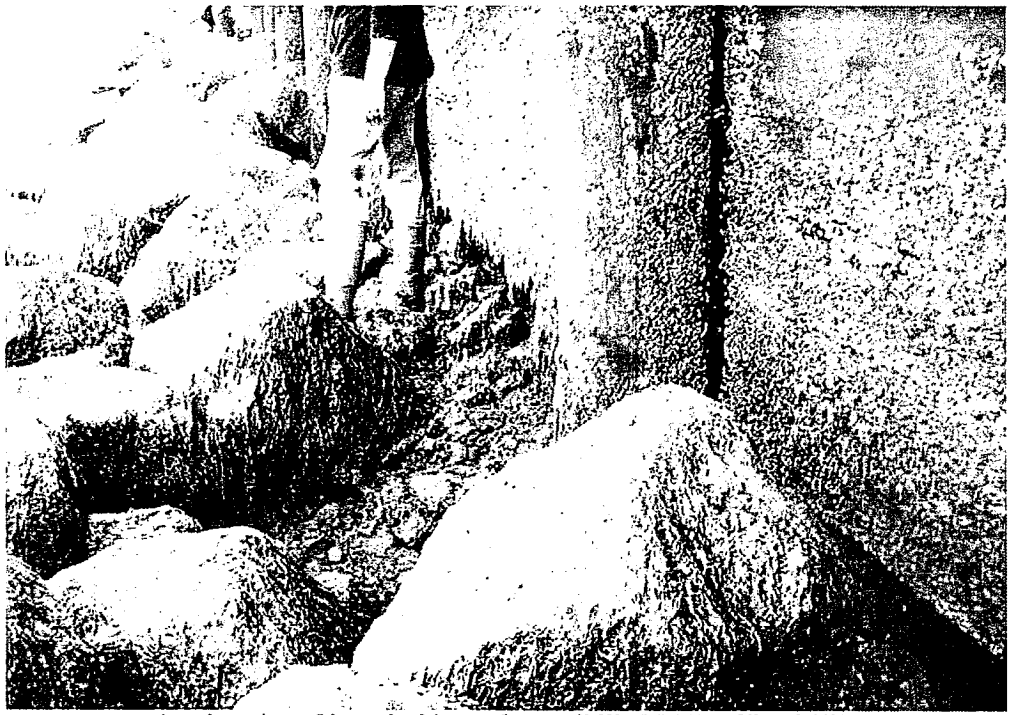
Test pit at same location exposes corroded/failed tie-back cable.

Closer view of corroded and frayed tie-back cable in previous picture. One strand may remain.

Another similar view. Cable was exposed by undermining on far side.

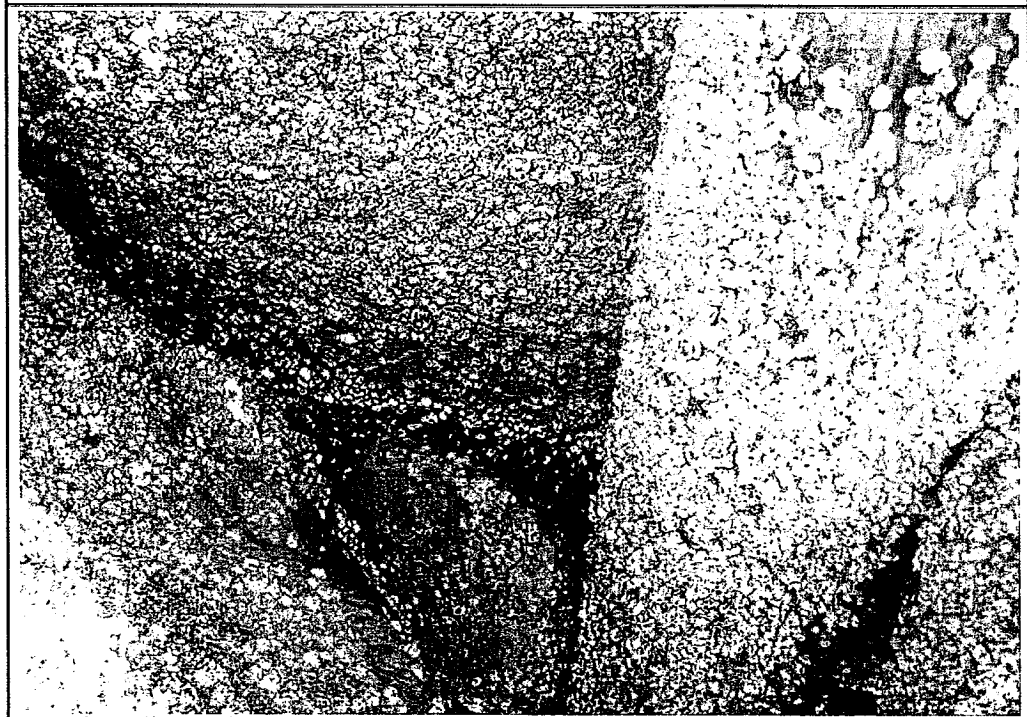
Crab killed in backfill for wall during excavation. Indicates that seawall has been breached.

Northern tet pit backfill stratigraphy. Unclassified fill, poor drainage.

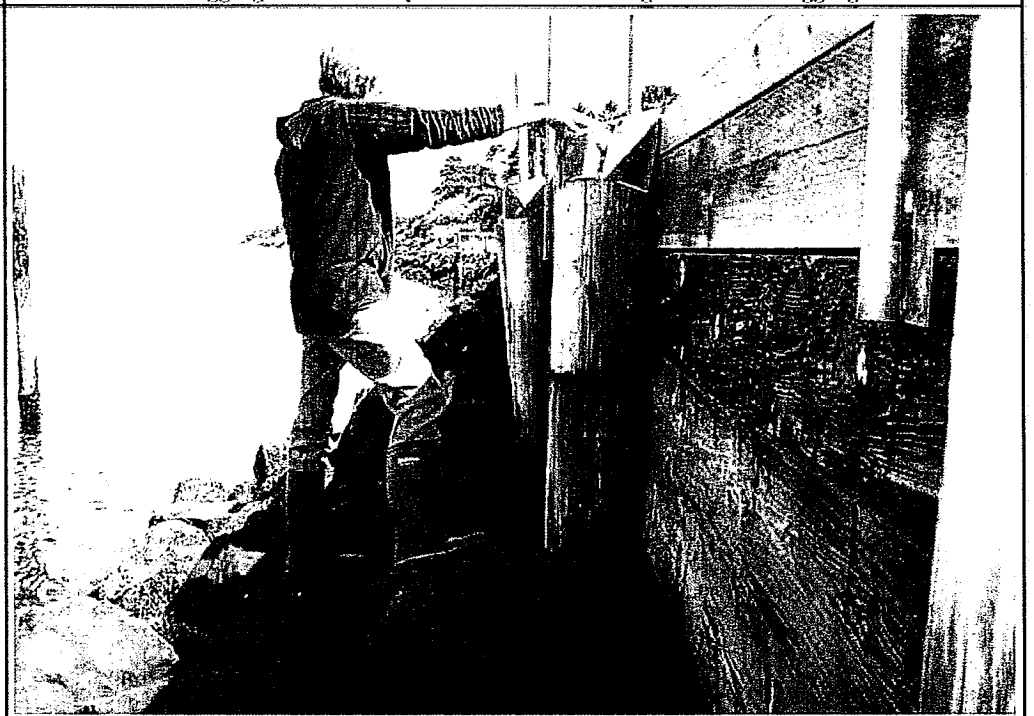


Another view of breached base of seawall W of # 9/10. View NNE.

Fabric behind lagging of seawall exposed at base. 12" height to lowest lagging. View NE.

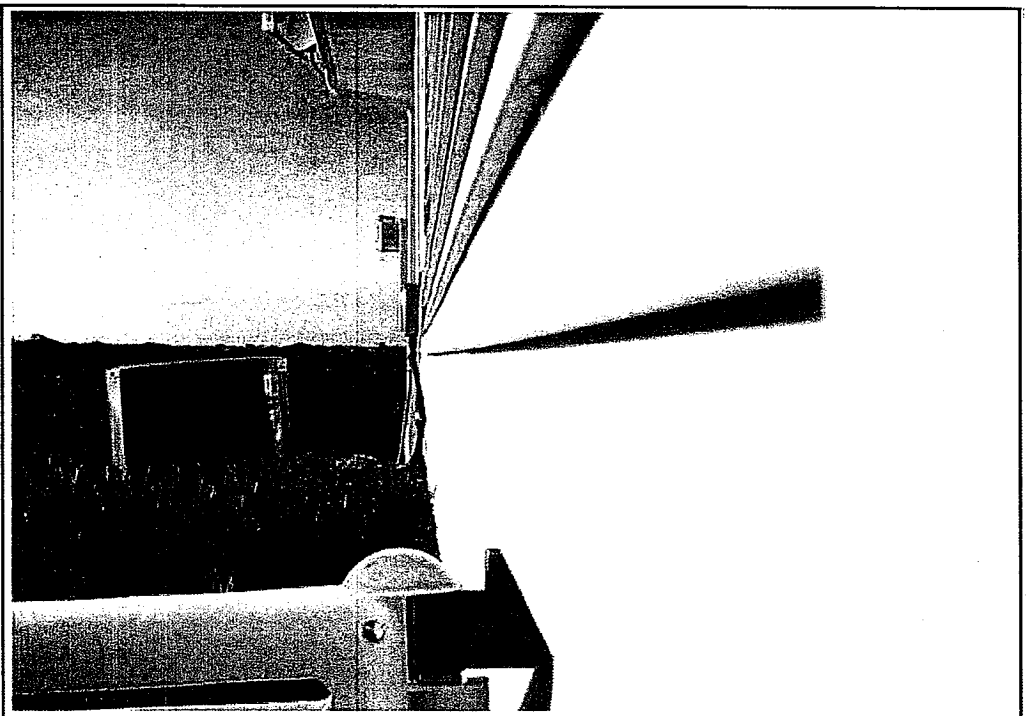


Water discharging from seawall W of drainage between 9 & 10. Seep at 6' below top.

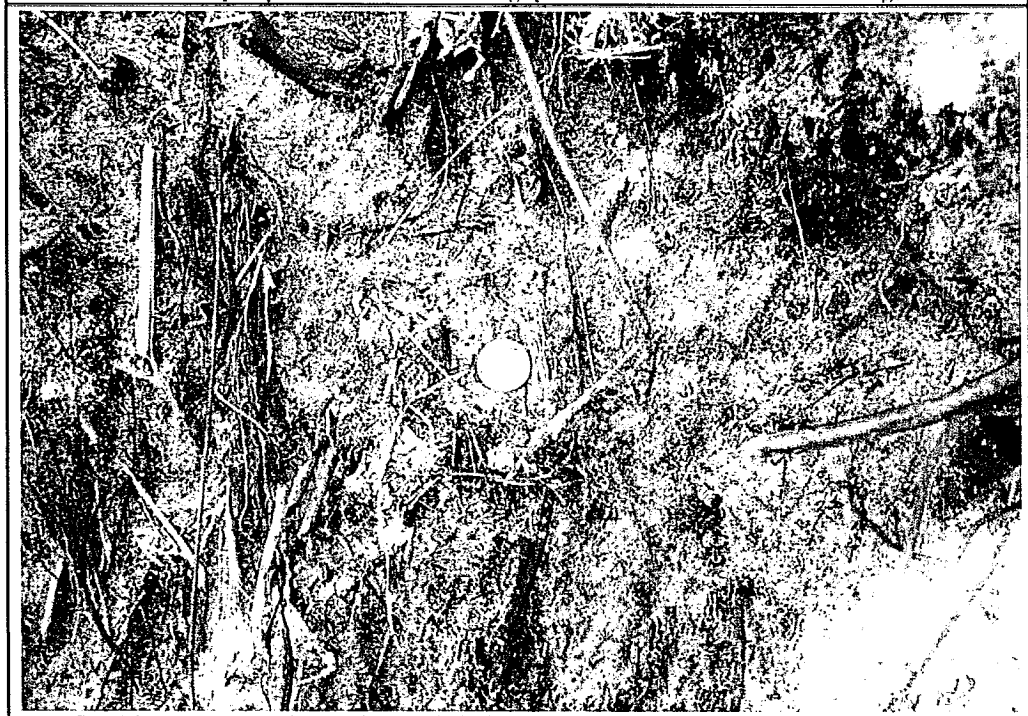


Angular deflection of piling N of # 9. View N. Note lack of upper tie-backs on 2nd pile.

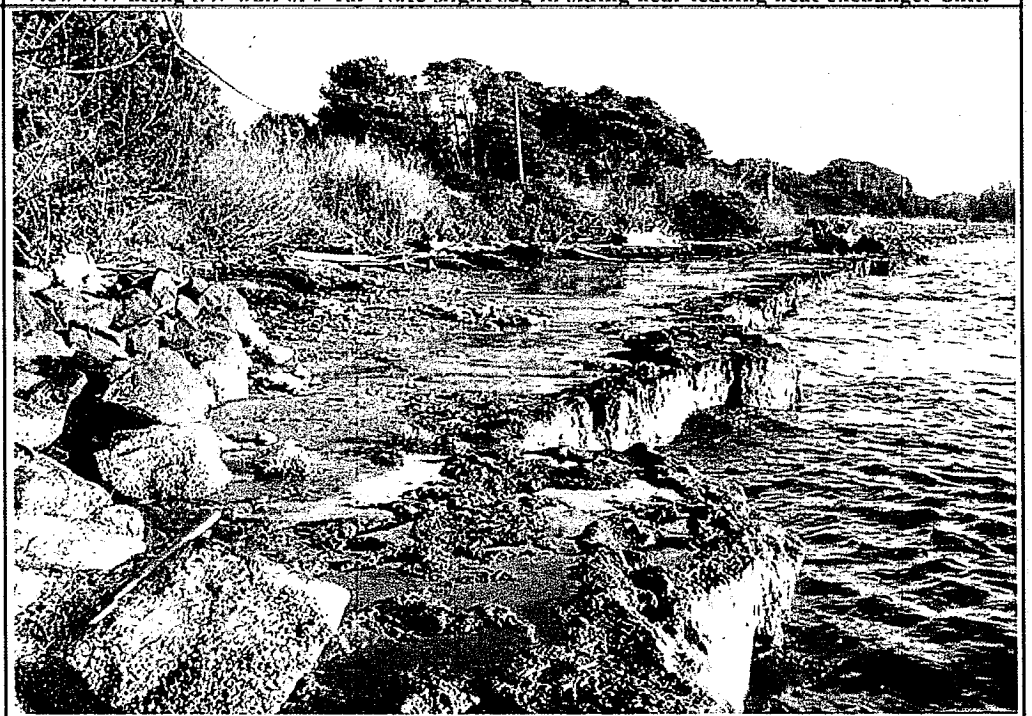
Closer view of rip rap at section A-B. Note gaps between rocks and absence of geotextile



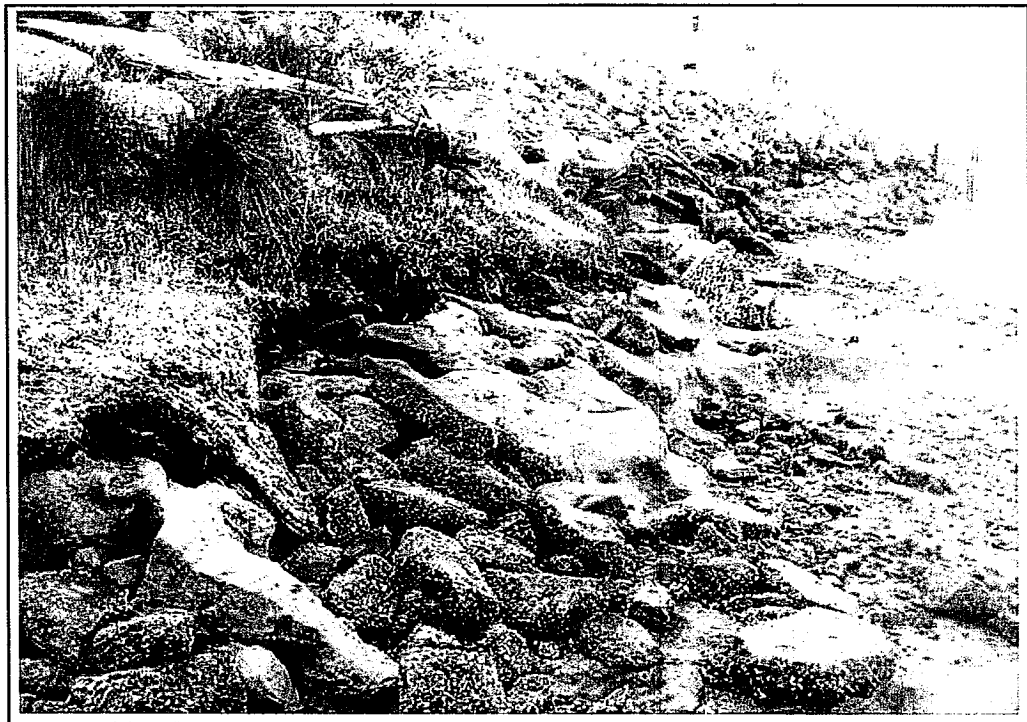
View NW along SW wall of # 18. Note slight sag in siding near leaning heat exchanger unit.



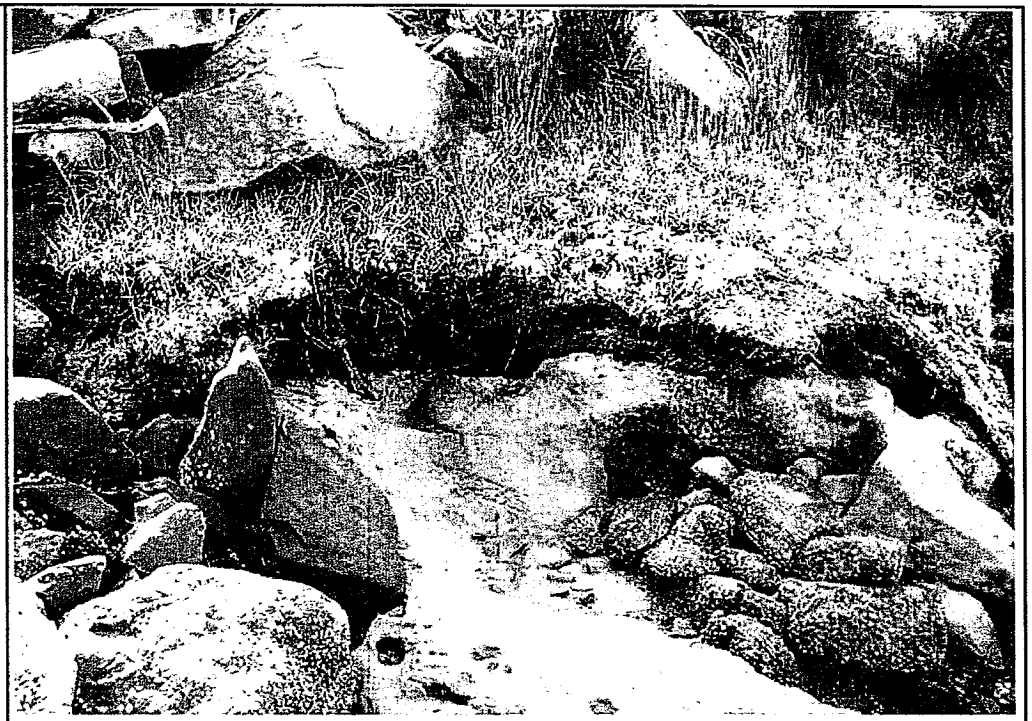
Sand in upper bank immediately NW of # 18. Note large amounts of organic matter.



View SSE along edge of MTDs S of # 18. Note large amounts of driftwood.



View S along bank below #11 - 18. Note MTD exposed through older rip rap.



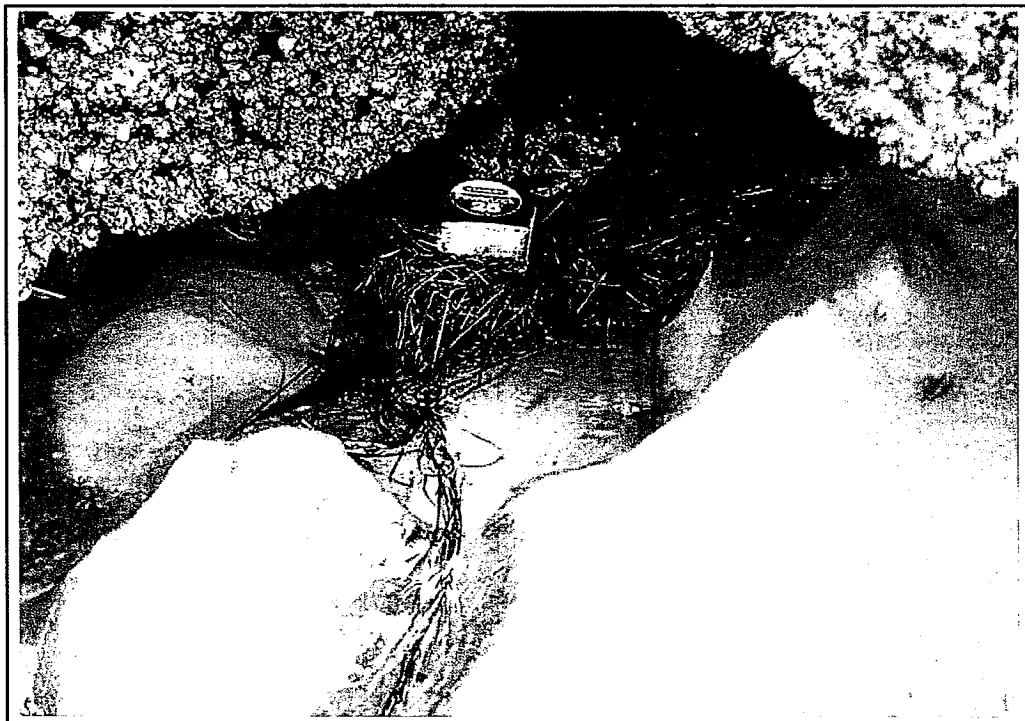
Organic-rich layer on top of older MTDs W of # 12. Note newer rip rap above.

Another view of eroding MTDs in front of # 11-18. Note high water mark on bank.

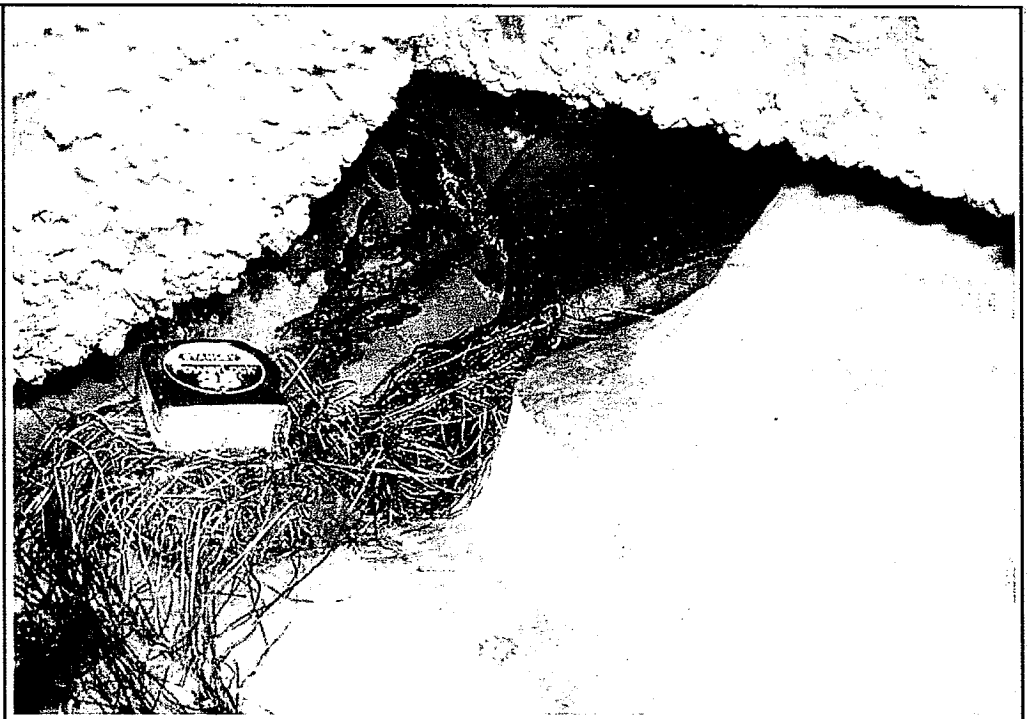
Buried old tree roots on top of MTDs below # 12. This will not rot as long as it is submerged.

(541) 607-5700

**Marine Manor, Florence, Seawall/Pad Stability Assessment**



Groundwater discharge on MTDs @ # 14. Deteriorated geotextile allows sand (gray) leakage.

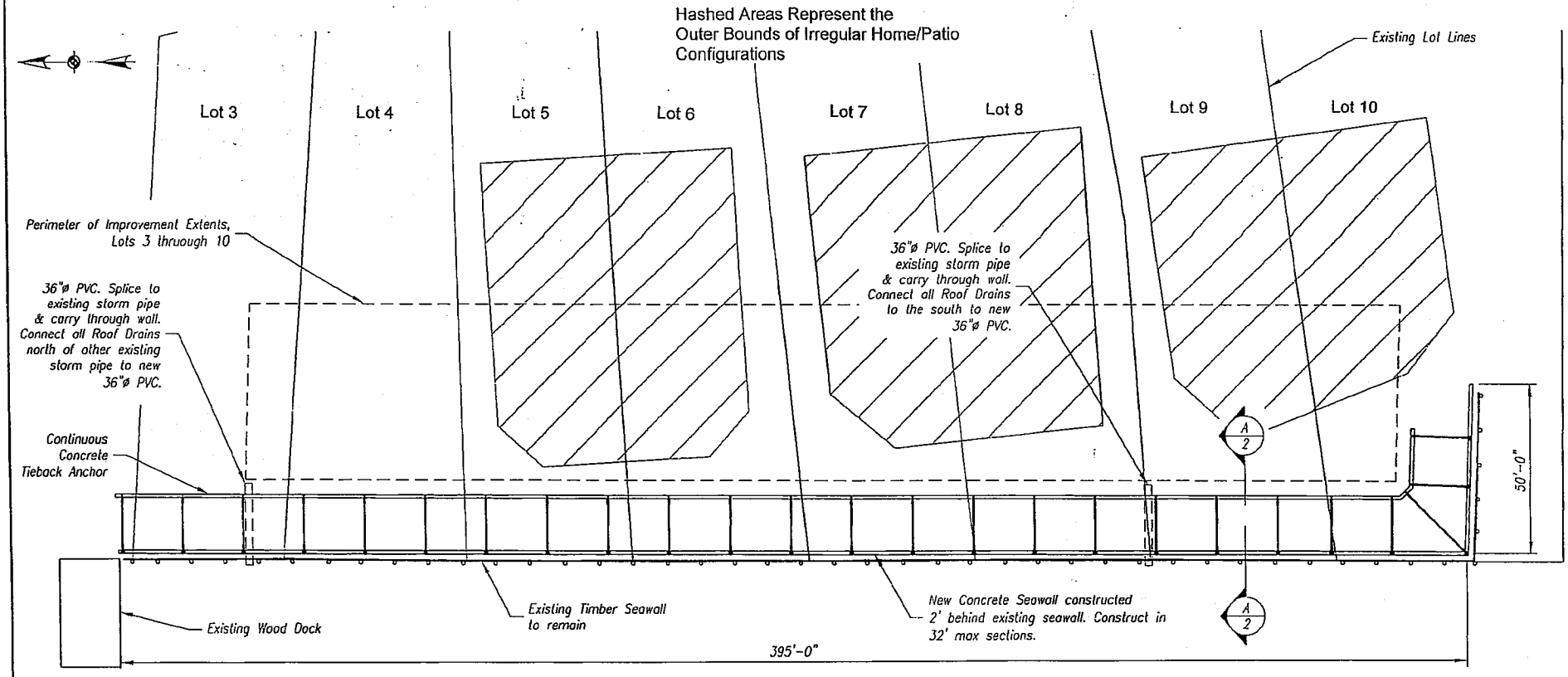


Closer view of deteriorated fabric, flowing water and sand eroded from behind fabric.

Combined groundwater discharge on top of MTDs W of # 14. Note running water.

Sand eroded from behind fabric in transport across MTDs in creek shown on photo on L.

APPENDIX "C"




## General Notes:

All material, workmanship and design shall conform to drawings and International Building Code, IBC, 2003 Edition.

Design Loading: Equivalent active fluid soil density = 35 pcf
Equivalent passive fluid soil density = 450 pcf

Concrete shall be mixed, placed and conveyed as per provisions of IBC Section 1905 and ACI 301.

Concrete strengths in wall shall be 4000 psi with 5" maximum slump, minimum 6½ sacks cement per yard.

Concrete strengths in anchor wall shall be 3000 psi with 5" maximum slump and minimum 5½ sacks cement per yard.

All concrete clearances shall be 3" minimum unless called out otherwise.

All structural and miscellaneous metal shall be hot-dip galvanized. All welding areas shall be slag- hammered, wheel brushed, and ground to silver-surface, then treated with 3 coats of galvanizing paint.

All welding shall be conducted with E70 electrodes by certified welders. Weld prepatation and application shall be as per AWS D.1.1 with the exception that no continuous inspection is required for down-hand fillet welds.

## Site Plan

Scale: 1" = 30'-0"

## Regulatory Requirement:

These plans address structural issues only pertinent to construction of the protective seawall. They may be used as exhibit in regulatory documents but in themselves do not present regulatory expertise.

1"

Measures one inch on original drawing. Adjust scales accordingly.

McGee Engineering
802 NW Buchanan Ave
Corvallis, OR 97330
Ph: 541-757-1270
Fax: 541 758-6585

REGISTERED PROFESSIONAL ENGINEER 07376 OREGON JULY 14, 1972 DENNIS M. McGEE

Renewal: 12/31/08

11/10/08

# Marine Manor

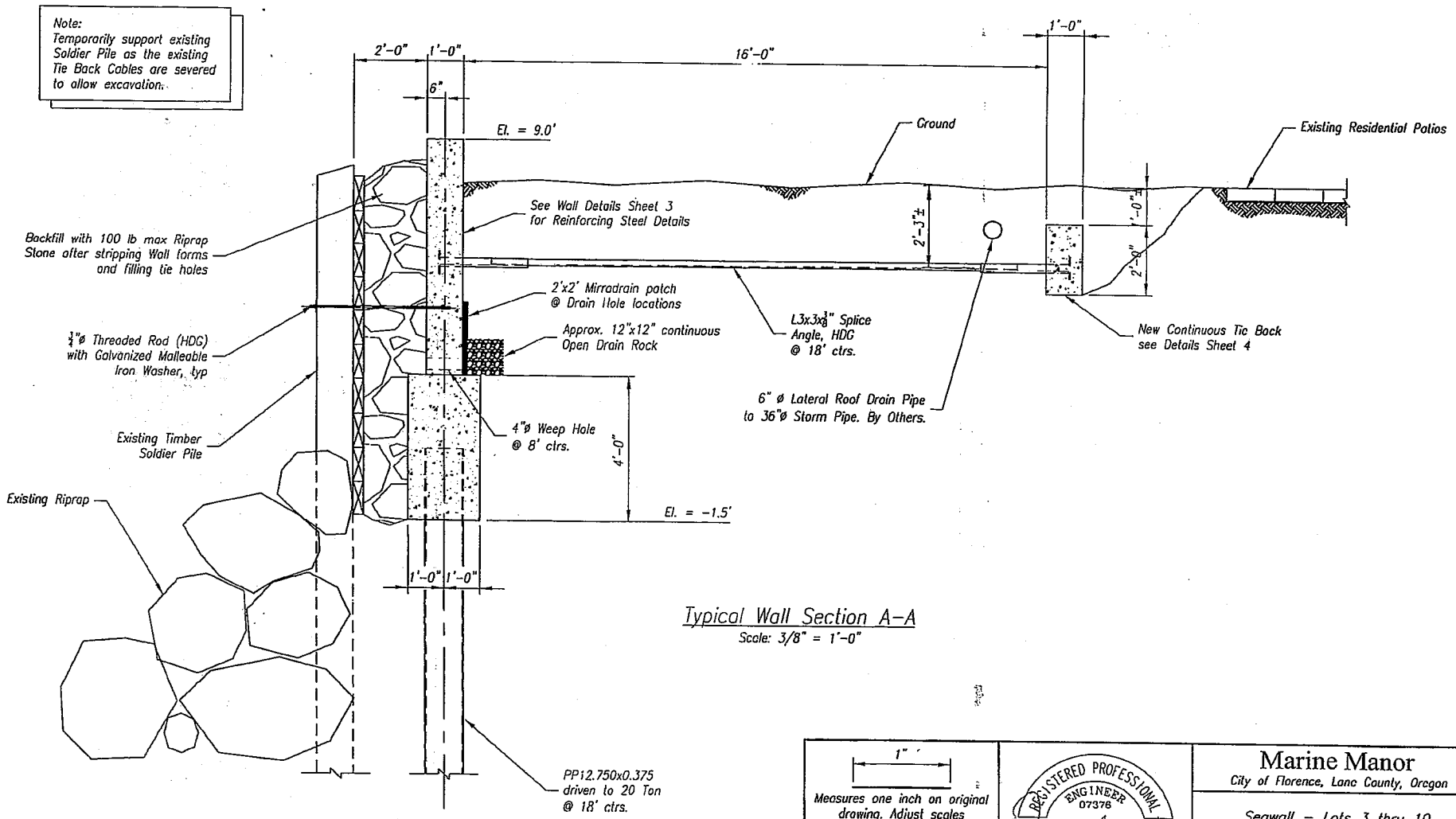
City of Florence, Lane County, Oregon

Seawall – Lots 3 thru 10

Site Plan

| | | |
|---|---|---|
| Date: | 1-10-08 | Sheet 1 of 4 |
| Drawn: | R. Jesse | |

ECAC




## Typical Wall Section A–A

Scale: 3/8" = 1'-0"

1"

Measures one inch on original drawing. Adjust scales accordingly.

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Corvallis, OR 97330
Ph: 541-757-1270
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REGISTERED PROFESSIONAL ENGINEER 07376 OREGON JULY 14, 1972 DENNIS M. McGEE

Renewal: 12/31/08

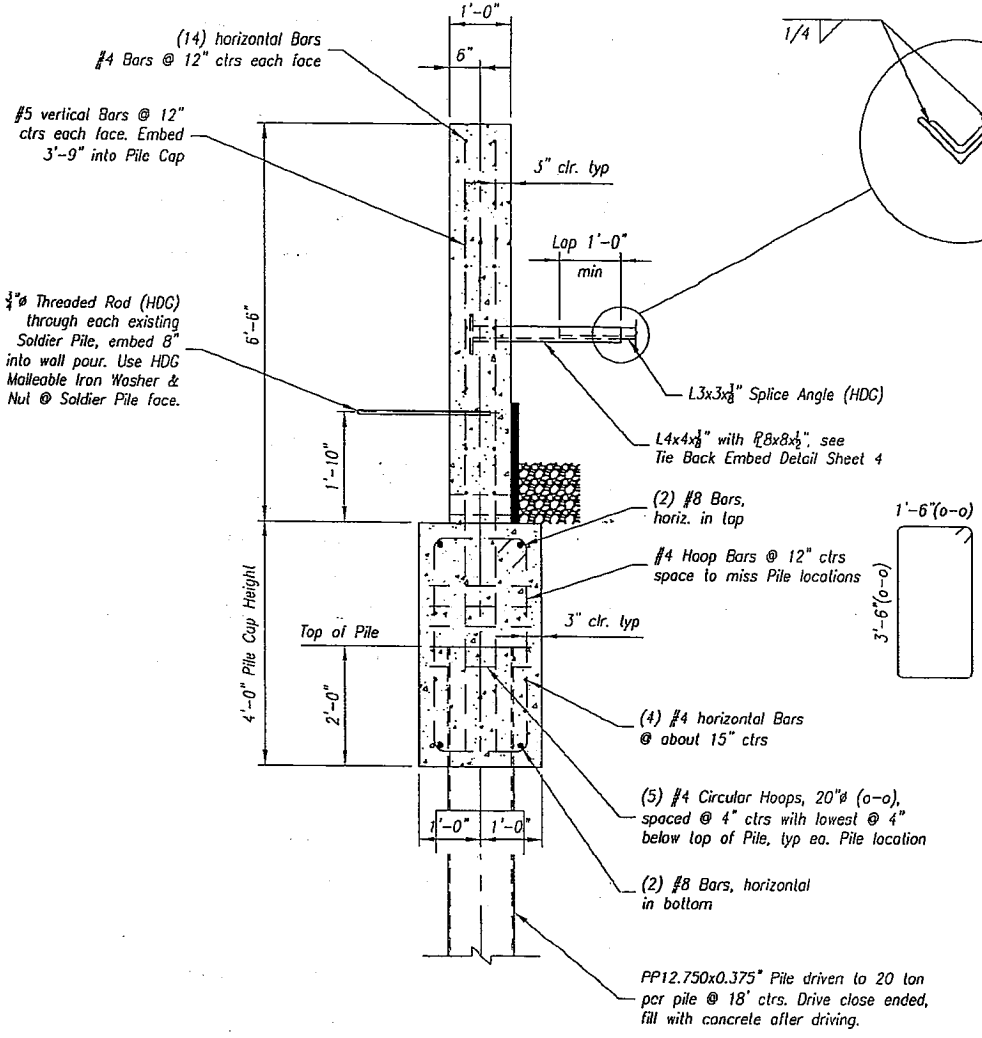
# Marine Manor

City of Florence, Lane County, Oregon

Seawall – Lots 3 thru 10

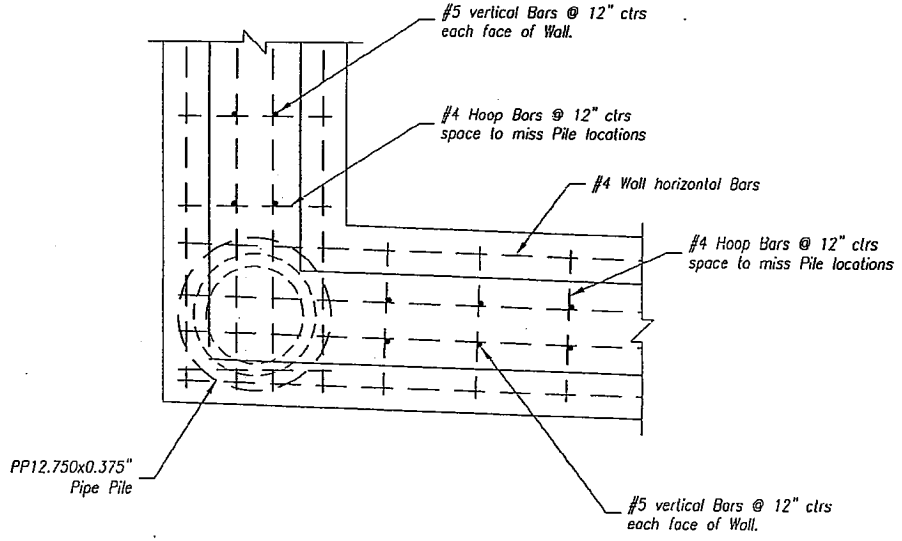
Typical Wall Section

| | | |
|---|---|---|
| Date: | 1-10-08 | Sheet 2 of 4 |
| Drawn: | R. Jesse | |




## Wall Section

Scale: 1/2" = 1'-0"




## Wall Corner Detail

Scale: 3/4" = 1'-0"

1"

Measures one inch on original drawing. Adjust scales accordingly.

McGee Engineering
802 NW Buchanan Ave
Corvallis, OR 97330
Ph: 541-757-1270
Fax: 541 758-6585

REGISTERED PROFESSIONAL ENGINEER 07376 OREGON JULY 14, 1978 DENNIS M. McGEE

Renewal: 12/31/08

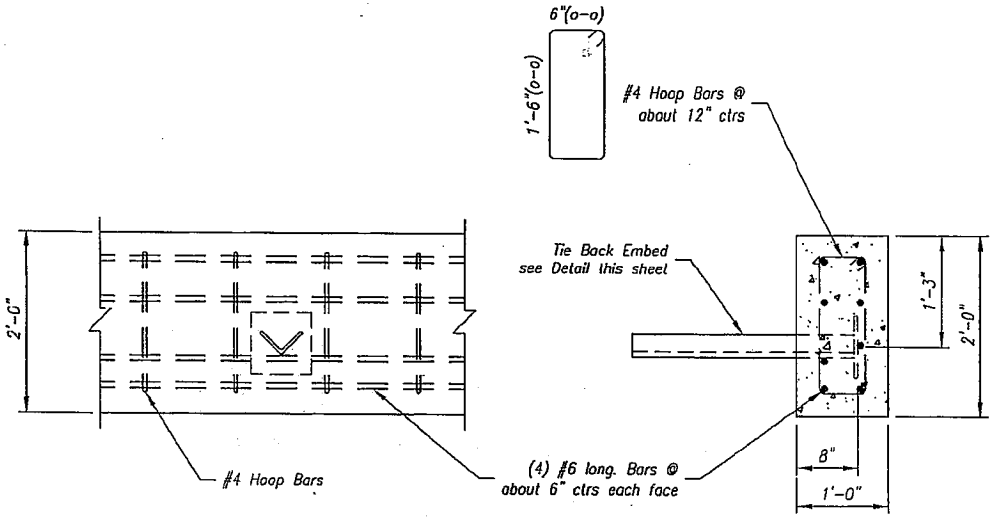
# Marine Manor

City of Florence, Lane County, Oregon

Seawall - Lots 3 thru 10

Wall Details

| Date: | 1-10-08 | Sheet 3 of 4 |
|---|---|---|
| Drawn: | R. Jesse | |

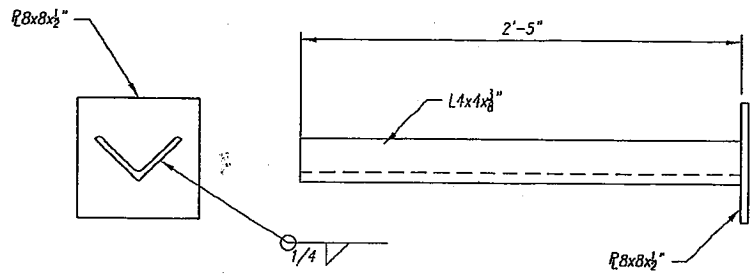



Front View

Side View

## Tie Back Anchor Details

Scale: 3/4"=1'-0"




Front View

Side View

## Tie Back Embed Details

Scale: 1 1/2"=1'-0"

Note:
All hot-dip Galvanized after Fabrication.

1"

Measures one inch on original drawing. Adjust scales accordingly.

McGee Engineering
802 NW Buchanan Ave
Corvallis, OR 97330
Ph: 541-757-1270
Fax: 541 758-6585

REGISTERED PROFESSIONAL ENGINEER 07376 OREGON JULY 14, 1972 DENNIS M. McGEE

Renewal: 12/31/08

# Marine Manor

City of Florence, Lane County, Oregon

Seawall - Lots 3 thru 10

Tie Back Details

| | | |
|---|---|---|
| Date: | 1-10-08 | Sheet 4 of 4 |
| Drawn: | R. Jesse | |

MARINE MANOR SITE INVESTIGATION REPORT
APPENDIX D:

CITY OF FLORENCE
SITE INVESTIGATION REPORT SUMMARY

| | |
|---|---|
| Marine Manor Lot Owner's Association | January 11, 2008 |
| Applicant | Date |
| Seawall Replacement | 18122223 1500 - 2200 |
| Proposal | Map No. Tax Lot |
| 3215 – 3315 Rhododendron Drive & Lots 3, 4 | Single Family Residential |
| Street Address | Zoning District |
| | Overlay District |

Based on submitted information, zoning and comprehensive plan requirements, and the completed Site Investigation Report, this proposal **does** / ~~**does not**~~ comply with Title 10 of the City Code and the Comprehensive Plan.

The completed Site Investigation Report is available at the Planning Department.

This investigation was done by:

Gunnar Schlieder, Ph.D., CEG
GeoScience, Inc.
Title

SITE INVESTIGATION – PHASE 1
INITIAL PROPOSED DEVELOPMENT APPLICATION CHECKLIST

LOCATION:

| YES | NO | | |
|---|---|---|---|
| _X_ | ____ | 1. | LOCAL ZONING REGULATIONS<br>Does the proposed development site plan conform to City, or County Zoning Regulations regarding setback lines and other code provisions? (Contact the City or County Engineer for details.) |
| YES | NO | 2. | COMPREHENSIVE PLAN SETBACK LINE OR DESIGNATION |
| _X__ | ____ | | a. Has a Coastal Construction Setback line (CCSBL) been adopted for this County or city? (Inquire from the County or City Engineer.) |
| ____ | _X_ | | b. If a CCSBL has been adopted for this County or City is the proposed site seaward of the CCSBL? |
| ____ | _N/A_ | | c. If the proposed site is seaward of the adopted CCSBL, has application for a variance or exception been made to the Planning Commission having jurisdiction? |

APPENDIX D

| YES | NO | | |
|---|---|---|---|
| | | 3. | IDENTIFIED HAZARDOUS CONDITIONS |
| X | | | a. Has any portion of the property been identified as being affected by any potential or existing geological hazard? (Contact County or City Planning Departments for information published by the State Department of Geology and Mineral Industries, US Department of Agriculture-Soil Conservation Service, US Geological Survey, US Army Corps of Engineers and other government agencies.) |
| | | | b. Are any of the following identified hazards present? |
| | X | | 1. Active foredune |
| X | | | 2. Water erosion |
| | X | | 3. Flooding |
| X | | | 4. Wind erosion |
| X | | | 5. Landslide or sluff activity |
| X | | | c. Are there records of these hazards ever being present of the site? |

| YES | NO | | |
|---|---|---|---|
| | | 4. | EXISTING SITE VEGETATION |
| | X | | a. Does the vegetation on the site, afford adequate protection against soil erosion from wind and surface water runoff? None present in project area. |
| | X | | b. Does the condition of vegetation present constitute a possible fire hazard or contributing factor to slide potential? |

| YES | NO | | |
|---|---|---|---|
| | | 5. | FISH AND WILDLIFE HABITAT |
| | X | | a. Does the site contain any identified rare or endangered species or unique habitat (feeding, nesting or resting)? Not in project area. |
| | X | | b. Will any significant habitat be adversely affected by the development? (Contact State Fish and Wildlife, County and City Planning Staffs for inventory data.) Not in project area. |

| YES | NO | | |
|---|---|---|---|
| | | 6. | HISTORICAL AND ARCHEEOLOGICAL SITES |
| | X | | Are there any identified historical or archaeological sites within the area proposed for development? (Contact local planning office.) |

| YES | NO | | |
|---|---|---|---|
| | | 7. | FLOOD PLAIN ELEVATION |
| X | | | a. If the elevation of the 100 year flood plain or storm tide has been determined, does it exceed the existing ground elevation at the proposed building site? (Contact the Federal Insurance Administration, City or County Planning Departments for information on 100 year flood pla9in. Existing site elevations can be identified by local registered surveyor.) |
| | N/A | | b. If elevations of the proposed development is subject to flooding during the 100 year flood or storm tide, will the lowest habitable floor be raised above the top of the highest predicted storm-wave cresting on the 100 year flood or storm tide? |

| YES | NO | | |
|---|---|---|---|
| | | 8. | CONDITION OF ADJOINING AND NEARBY AREAS |
| | | | Are any of the following natural hazards present on the adjoining or nearby properties that would pose a threat to this site? |
| | X | | a. Open dunes (Current conditions only, May change if Lot 1 and 2 are developed) |
| | X | | b. Active foredune |
| X | | | c. Storm runoff erosion |
| | X | | d. Wave undercutting or wave overtopping |
| | X | | e. Slide areas |
| | X | | f. Combustible vegetative cover |
| | x | | (Contact County and City Planning staffs for local hazard information.) |

| YES | NO | | |
|---|---|---|---|
| | | 9. | DEVELOPMENT INPACTS |
| ____ | _X_ | | a. Will there be adverse off-site impacts as a result of this development? |
| | | | b. Identify possible problem type |
| ____ | _X_ | | 1. Increased wind exposure |
| ____ | _X_ | | 2. Open sand movement |
| ____ | _X_ | | 3. Vegetative destruction |
| ____ | _X_ | | 4. Increased water erosion (storm runoff, driftwood removal, reduction of foredune, etc.) |
| ____ | _X_ | | 5. Increased slide potential |
| ____ | _X_ | | 6. Affect on aquifer |
| _X_ | __ | | c. Has landform capability (density, slope failure, groundwater, vegetation, etc) been a consideration in preparing the development proposal? |
| _X_ | ____ | | d. Will there be social and economic benefits from the proposed development? |
| | | | e. Identified benefits |
| ____ | _X_ | | 1. New jobs |
| _X_ | ____ | | 2. Increased tax valuation |
| ____ | _X_ | | 3. Improved fish and wildlife habitat |
| ____ | _X_ | | 4. Public access |
| _X_ | ____ | | 5. Housing needs |
| ____ | _X_ | | 6. Recreation potential |
| ____ | _X_ | | 7. Dune stabilization (protection of other features) |
| _X_ | __ | | 8. Other Protection of Existing Structures |

| YES | NO | | |
|---|---|---|---|
| | | 10. | PROPOSED DESIGN |
| _X_ | ____ | | a. Has a site map been submitted showing in detail exact location of proposed structures? |
| _X_ | ____ | | b. Have detailed plans showing structure foundations been submitted? |
| _X_ | ____ | | c. Have detailed plans and specifications for the placement of protective structures been submitted if need is indicated? |
| _X_ | __ | | d. Has a plan for interim stabilization, permanent revegetation and continuing vegetative maintenance been submitted? |
| | | | e. Is the area currently being used by the following? |
| ____ | _X_ | | 1. Off-road vehicles |
| ____ | _X_ | | 2. motorcycles |
| ____ | _X_ | | 3. horses |
| ____ | _N/A_ | | f. Has a plan been developed to control or prohibit the uses of off-road vehicles, motorcycles and horses? |

| YES | NO | | |
|---|---|---|---|
| | | 11. | LCDC COASTAL GOAL REQUIREMENTS |
| _X_ | ____ | | a. Have you read the LCDC Goals affecting the site? (contact LCDC, City or County office for copies of Goals.) |
| ____ | _X_ | | b. Have you identified any possible conflicts between the proposed development and the Goals or acknowledged comprehensive plans? (If so, list them and contact local planning staff for possible resolution.) |
| _X_ | ____ | | c. Have all federal and state agency consistency requirements been met? (Contact local planning office.) |
| _X_ | ____ | | d. Has applicant or investigator determined that the development proposal is compatible with the LCDC Beaches and Dunes Goal and other appropriate statewide land use planning laws? |

SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

ALASKA
COLORADO
FLORIDA
MISSOURI
OREGON
WASHINGTON

January 24, 2008

City of Florence Oregon
Robert Willoughby
City Manager
250 Highway 101
Florence, Oregon 97439

**RE: GEOTECHNICAL REPORT REVIEW**
**MARINE MANOR LOT OWNER'S ASSOCIATION**
**CONDITIONAL USE TO INSTALL SEAWALL**

Dear Mr. Willoughby:

We have reviewed the Site Investigation Report prepared for the Marine Manor Lot Owner's Association for construction of a seawall to replace an existing seawall. The seawall is located at the river's edge adjacent to lots three through nine of the Marine Manor PUD. A Site Investigation report was prepared by GeoScience, Inc. of Eugene, Oregon, dated January 11, 2008. In addition to the geotechnical report, you provided us with a report titled "Marine Manor Sea Wall Inspection, Florence, Oregon" prepared by OBEC Consulting Engineers, dated August 15, 2007. We understand these reports were provided by the applicant with their conditional use permit application.

We have reviewed the project Site Investigation Report solely as it pertains to the seawall replacement in front of lots 3 through 10 with respect to the accuracy and completeness of information pertaining to geologic hazards and geotechnical conditions. We understand that a second review will occur when the applicant applies for the construction a building permit. At that time, the review will focus on detailed construction drawings and specifications.

24-1-03474-001

3990 S.W. COLLINS WAY, SUITE 203
LAKE OSWEGO, OREGON 97035
503-223-6147 FAX 503-223-5140
www.shannonwilson.com

EXHIBIT "D"

In making our review we find the following:

1. The project does not appear to present a hazard to the subject property or to the surrounding land.

2. Documentation presented by the applicant shows the existing sea wall is deteriorating and can be expected to fail in the near future. The failure will include erosion of rip rap that protects the wall and the wooden structure of the wall itself. Following failure of the existing wall, it can be expected that the Siuslaw River will remove soil from in front of the proposed replacement wall. The applicant has not provided an analysis that supports the retaining wall design with respect to scour from the Siuslaw River. The applicant should submit a scour analysis to support the design depth of embedment below the existing ground surface.

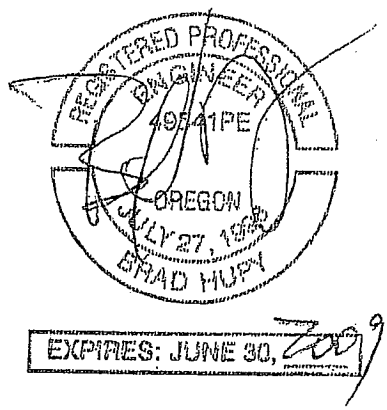
3. The Site Investigation Report does not indicate that site specific subsurface explorations have been performed to support the structural design of the proposed retaining wall. The applicant should provide documentation in the building permit application that provides the basis for structural design of the proposed wall. The geotechnical evaluation should assume that soil is removed from the front face of the wall to the design scour depth.

4. The site investigation report states the sea wall will be supported on cylindrical steel piles to a bearing of 20 tons. The report does not include a minimum embedment depth for the piles or estimate the depth that a bearing of 20 tons will be reached. The applicant should provide minimum pile embedment depths and other typical design and construction criteria with the Building Permit application.

The above findings are based on a review of the information provided. No visits were made to the project site.

Sincerely,

SHANNON & WILSON, INC.




Brad L. Hupy, PE
Senior Principal
Geotechnical Engineer

# CITY OF FLORENCE
# PLANNING COMMISSION
# RESOLUTION 01-09-11-33

**IN THE MATTER OF AN APPPLICATION FOR A RE-PLAT OF THE MARINE MANOR SUBDIVSION CREATING A 19 LOT SUBDIVISION WHICH TO INCLUDE AN 18 LOT PLANNED UNIT DEVELOPMENT. LOCATED BETWEEN THE SIUSLAW RIVER AND RHODODENDRON DRIVE IN THE SINGLE FAMILY RESIDENTIAL DISTRICT. MAP NUMBER 18-12-22-00, TAX LOT 800 & 900 AND TRACT A.**

WHEREAS, application was made by Emile Mortier for a tentative re-plat and planned unit development approved by the Planning Commission under Resolution 01-09-11-33 to re-plat Marine Manor Subdivision to a 19-lot subdivision including an 18 lot PUD,

WHEREAS, such request requires review by the Planning Commission under FCC Title 10 and 11, and

WHEREAS, the Planning Commission met in public hearing on September 11, 2001 to consider proposed re-plat and planned unit development, to hear testimony and to consider evidence presented,

NOW, THEREFORE the Planning Commission finds, based on the attached Findings of Fact and evidence presented, that this application be approved with the following conditions:

1. Unless appealed, the Planning Commission approval of the Tentative Plan shall become effective 30 days after the resolution is signed. The property owner shall submit to the Community Development Department a signed "Affidavit of Acceptance" of all conditions of approval. The signed affidavit must be received by the Community Development Department within this 30-day period.

2. The final plan/plat must be submitted within one year following the effective date of the Tentative Plan.

3. The required improvements shall be completed prior to the filing of the final plat, or a performance agreement or petition for improvements submitted to and approved by the City.

4. A vision clearance triangle of 20' shall be maintained at both points of access of the private street. Driveways shall maintain a 10' vision clearance triangle.

5. Each lot shall have at least two (2) off-street parking spaces.

6. Building height and lot coverage shall meet the requirements of the Single-Family Residential District (RS).

**EXHIBIT E**

7. A grading plan must be submitted to the City and approved prior to any site work. This plan will show soil stabilization measures during construction as well as proposed grades and any filling. This plan shall be coordinated with the vegetation plan and the storm drainage plan.

8. The final plan will be accompanied by CC&Rs which describe the use of the existing dock and boat ramp, contain provisions for coordinated maintenance of seawall and riprap, and continued maintenance of vegetation on the sloping back of Lot 1 as well as with in 30' of the shoreline on Lots 11-18. The CC &Rs will also clearly describe the ownership and intended use of Parcel A and provide for maintenance of the private road.

9. Streetlights will be provided as determined by the Planning Commission in conjunction with the Public Works Director.

10. Rear yard setbacks shall be at least 25' from the seawall on Lots 3-10, 25' from the top of the bank on Lot 1&2, 25' from the top of the bank on Lot 18; and 20' from the top of bank on Lots 11-17.

11. A plan for the construction of the private street shall be submitted to the City for approval by the Public Works Director. The plan shall show a minimum paved width of 12'. Deeds must include cross easements for use of the streets. All utilities shall be placed underground to protect visual access to the river.

12. Property owners shall enter into an agreement to indemnify, defend, and hold the city harmless from any claims arising in regard to the City's approval of this project prior to the issuance of a building permit. This agreement shall be recorded and apply to all assigns and successors of owner.

13. The final plat shall contain *s* warning and all promotional materials and sales agreements shall also include notification of tsunami potential.

14. Roof drainage shall be diverted away from the riverbank to a storm drainage facility. An oil and silt separator catch basin may be required at point of entry into the drainage facility.

15. Applicant and future purchasers shall sign a non-remonstrance agreement for future sidewalks.

16. Prior to final PUD approval, applicant shall submit calculations or plans indicating 20% open space requirement exclusive of streets, driveways and landscaping in right-of-way.

**APPROVED BY THE FLORENCE PLANNING COMMISSION,** this 17 day of September 11, 2001.

Wayne Paul, **CHAIRMAN**
**FLORENCE PLANNING COMMISSION**

**EXHIBIT "A"**
**FINDINGS OF FACT**
**September 11, 2001**
**Resolution 01-09-11-33**

PROPOSAL DESCRIPTION: The applicant is proposing a re-plat of the Marine Manor subdivision as a planned unit development (PUD). The development will include 18 lots on the west side of Rhododendron Drive fronting the Siuslaw River and a 19th lot on the east side of Rhododendron which although included in the subdivision will not be part of the PUD. Tract A at the south end of the subdivision will remain unchanged.

APPLICANT: Marine Manor Development Corp.

LOCATION: Map Number 18-12-22-00 Tax Lot 800

SURROUNDING LAND USES AND ZOINING DISTRICT:
Site: Vacant, Single Family Residence
North: Single Family Residence
South: Marine District
East: Mobile Home District
General Commercial
West: Siuslaw River

APPLICABLE CODES:
FCC Title 10, Chapter 10 – Single Family Residence
FCC Title 10, Chapter 23 – Planned Unit Development
FCC Title 11, Chapters 3-6 Subdivision Standards and Developments
FCC Title 10, Chapter 7 – Special Development Standards
FCC Title 10, Chapter 19 – Estuary and Shorelands

REFFERAL/CORRESPANDENCE:
Notice was published in the Siuslaw News on August 29, 2001 and September 5, 2001, and mailed to property owners within 300 feet of the site

**NARRATIVE:**
Description The parcel is the site of the Siuslaw Pacific Marina, which was destroyed by a storm in 1981. It abuts the Siuslaw River, and is separated from the water by a seawall and/or riprap, depending on the lot in question. Parcel A is not intended for residential use. The site is primarily flat, except for the area that slopes down to the water, and up to Rhododendron. There are an existing building, boat ramp, and dock on the property.

The seawall is anchored into the land by means of cable attached to 'deadmen' located within the body of the lots. There was some question about their location, so the original applicant trenched 3 lots at approximately 25' from the seawall to a depth of 8 feet. Onsite for the trenching was the previous AP Mulder, and no evidence of cable or

deadmen were located, leaving the exact location unknown. However, a letter dated 3/31/93 from Mortier Engineering stated the deadmen were located approximately 20' east of the seawall. Another letter submitted by Mortier Engineering dated 4/17/98 stated fourteen new tiebacks were installed, but did not give the exact location. The same letter indicates the seawall and the southerly upper plateau are at elevations varying from 10.8' to 13.5' above mean sea level. The 100-year flood plain is given at 10.5 ' above mean sea level, thus showing the site is technically out of the 100-year flood plain.

The applicant is proposing a planned unit development containing 18 single-family dwelling units located on the separate designated lots. Originally the plat was approved for 9 lots. The current proposal is to construct in groups of two with a common wall at the adjoining lot line. The common areas will be established by easement agreement. They will include the boat ramp, the walkway along the sea wall, the common access roadway that serves lots 10-18 with access to the existing dock, and the utility and drainage easements. These easements will be designated and defined on the plat map and the agreement, provisions, or covenants will establish a homeowners committee, which will be responsible for maintenance of those common facilities and enforcement of the CC & R's for the subdivision. These provisions will replace the existing CC & R's for the Marine Manor subdivision, which are not adequate for the purpose. There will be no common ownership lands since these designated areas will be defined as easements.

COMPLIANCE WITH CODE REQUIREMENTS

SINGLE-FAMILY RESIDENTIAL DISTRICT (RS)

**Minimum Lot Dimensions**: The RS requires minimum lot dimensions be 65' x 80', however through the PUD process the lot dimension can be modified to accommodate the proposal. All the lots contain adequate depth, however Lots 1-10 range from 35' – 55' in width. The applicant is proposing to construct in groups of two with a common wall at the adjoining lot line and maintain a 10-foot side yard setback between the two unit buildings to create a 20' open space. The single-family district allows duplexes as a conditional use, thus increasing density to 18 units. The applicant is proposing zero lot line single-family units at duplex densities. The applicant is proposing variety of building designs so that structures will appear to be large single-family units.

**Minimum lot area is 6500 sq. ft.:** The proposed lot area range from 6921 – 20,000 sq. ft., which exceeds lot area requirements.

**Lot coverage is limited to a total of 65%.** Lot coverage will be reviewed at the time building permits are issued. No request has been made to modify this requirement.

**Front yard setback:** Minimum front yard setback requirement is 20'. Front yard is defined as "an area lying between side lot lines, the depth of which is a specific horizontal distance between a street line and a line parallel thereto on the lot." The front yard is then determined to be the area of each lot abutting Rhododendron Drive. All lots are deep enough to allow the minimum setback.

**Side yard setback:** Minimum side yard setback is 5'. The applicant is proposing to construct in groups of two with a common wall at the adjoining lot line and maintain a 10-foot side yard setback between the two unit buildings to create a 20' open space between the two buildings. Some building projections would be required into the 10 foot setback such as bay windows, fireplace projections, wind screens, privacy fences, and other features such as eave overhangs and other architectural features, but would intrude into the minimum 5 foot required setback.. The main wall of the building will observe the 10-foot minimum side yard setback.

**Rear Yard setback:** Rear yard minimum setbacks are 10' from the rear property line, and 5', for accessory structures. All lots have sufficient depth to allow 10' rear yard setbacks. However, since dwellings must be located a sufficient distance from the seawall to allow for repair or replacement of pilings, deadmen, cables and repairs to the face of the seawall, staff recommends maintaining the original approved setback of at least 25'on Lots 1-10. Setbacks for the remaining lots will be addressed later in these findings.

**Building height:** Building height will be reviewed at the time building permits are issued.

**Vision Clearance:** Vision clearance is defined as " a triangular area at an intersection; the space being defined by a line across the corner, the ends of which are on street lines or alley lines, an equal and specified distance from the corner and containing no planting, walls, structures or temporary or permanent obstructions from 205 feet above the street grade to a height of 8 feet. In the interests of safety, since the access is directly to Rhododendron Drive, which is a minor arterial, staff recommends that the private street and all driveways maintain a vision clearance triangle at their intersection with Rhododendron Drive. FZC requires a 20' vision triangle at the intersection of two streets, and a 10' vision triangle at the intersection at the intersection of streets and alleys.

**Off-street parking**: Residential dwellings are required to have two permanent off-street parking spaces. All lots have sufficient area to accommodate two parking spaces.

**SHORELINE DISTRICT**

***Natural Resource Conservation Combining District: /NRC***

In the NRC/, a determination must first be made if the District applies. The criteria in FCC 10-19-6 are used to make this determination. The requirements of the (/NRC) apply only to those areas which are lands described in 10-19-6. The Marine Manor Subdivision contains lands lying between the MHHW and the MLW mark, and lands in which vegetation provides stabilization of the shoreline.

If lands subject to 10-19-6 are identified, then single family dwellings are allowed in the underlying district become a special use, subject to the criteria in 10-19-4 E & F. Special uses are approved by administrative review, subject to conformance with sections E & F. However, it makes more sense to review the criteria in E and F as a part of the

subdivision approval, since several of the criteria would apply to several lots. Review of sections E & F:

E.1 Clearance of existing vegetation. This applies primarily to Lot 1&2, as identified earlier. There is very little vegetation on Lots 11-18 between the MHHW and MLW. The Mortier letter dated 3/31/93 describes Lot 1&2 as a sand dune type of deposit with the sloped surfaces protected with natural vegetation. A letter of 4/17/98 states a 20' to 25' setback from the top of the existing sloped bank would be adequate provided that the slope bank above the riprap continues to protect from erosion with proper vegetation. The applicant landscape plan shows the addition of riverbank plantings of dwarf and other species.

E.2, 3 and 4. Again, there is very little vegetation within the subject areas of Lots 11-18. Soil stabilization is required during construction, and construction must avoid excavation and removal of indigenous vegetation wherever possible. Where such exists, an area of indigenous vegetation 30' in width shall be retained along all coastal water bodies, and existing trees within 50' of MHW must be saved. Parcel A has marine vegetation, since it is submerged a good portion of the year. It is not planned for residential use, and this limitation should be noted on the recorded final plat.

E.5, E6 will be reviewed at the time of application for building permits.

E.7 has been addressed under the Single Family Residential District

Section F does not apply since the site is not located on a coastal lake, nor is it an oceanfront parcel.

Conclusion: If properly conditioned, subdivision of this site will comply with Section E, thus allowing single-family dwellings. Section F does not apply.

***Shorelands Mixed Development Combining District (/MD)***

In the /MD, a determination must first be made if the District applies. The criteria in FCC 10-19-6 are used to make the determination. The requirements of the /MD apply ***only*** to those areas on the site which are lands described in 10-19-6. Again, Marine Manor has lands lying between the MHHW and the MLW, and lands in which vegetation provides stabilization of the shoreline.

Review of Section C3:

A. The proposed use is water dependent or water related; or
B. If the parcels are unsuited to water dependent uses, then uses which are nondependent, nonrelated, conform to the requirements of the underlying zoning district and the requirements of this section.

The site has been determined not to be necessary for water related/water dependent uses though the ESWD amendment process under the city's Comprehensive Plan review. The lots have been determined to comply with the requirements of the underlying district earlier in this report.

Conclusion: The proposal is in conformance with the requirements of the Shorelands Mixed Development Combining District.

*Special Development Standards*
A site investigation checklist was performed on the original plat, which identified several potential problem areas, which can be addressed by conditions of approval. The Special Development Standards require a 50' setback from river cutbanks, unless the bank has been stabilized. After reviewing the site investigative report, the Planning Commission may approve a lesser setback, provided that no erosion hazards, slide potential or possible flood damage are likely, and riparian vegetation is protected.

The Shorelands Districts require retention of shoreland vegetation within 30' of MHW, and retention of all trees within 50' of the MHW. In addition, the slope above the riprap on Lot 1&2 must be vegetated with appropriate materials to discourage wind and water erosion. The /NRC District requires that construction activities avoid unnecessary excavation and removal of indigenous vegetation unless replaced immediately, and that interim soil stabilization be taken during construction. Lots 13-18 have been riprapped to stabilize the bank. The 100-year flood plain is established at 10.5 feet. The top of the bank varies in elevation from approximately 12 feet on lots 11 & 12 to 14-15 feet on lots 13-18, this differs from the Mortier letter of 4/17/98 since fill has been added to the shoreline by the prior applicant after 4/17/98. The applicant is requesting the rear setback measured from the flood level elevation of 10.5 on lots 11-18 and be established at twenty feet from this line. However, the original recommendation for rear setbacks was to be measured from the top of the bank established by the elevation, which required a minimum of 20 feet on lots 11-17 and 25 feet on lot 18 due to the longer shoreline and greater exposure to the action of the water. To establish a lesser rear setback requirement the applicant is proposing in conjunction with the development of the residences on each of the lots to regrade the bank and install riprap from the present top-of-rock riprap to allow the new established grade, which will be approximately seven feet above flood elevation. The applicant contends the extension of the riprap and grade change will also result in a realignment of the top-of-bank from the present irregular alignment and therefore reduce the potential for erosion due to eddies in the river current which would be created by the present irregular alignment. In addition, the raising of the rip-rap protection, the higher grade level of the site and corresponding floor levels of the residences will provide greater protection on these sites than is afforded the sites where the sea wall occurs. If Planning Commission decides to modify the required rear yard setback from the original approved plat, staff would recommend the planting of additional vegetation along rip rap wall for additional bank stabilization.

**PLANNED UNIT DEVELOPMENT**

**Minimum Size:** According to FCC 10-23-5 (A) the minimum lot size requires five (5) acres of contiguous land, unless the Planning Commission finds a particular parcel of land less than five (5) acres is suitable as a planned unit development by virtue of its unique character, topography, landscape features, or of its special problem area. The

total proposed PUD subdivision is approximately 4.16 acres. Due to the unique character of the land, the location of the Siuslaw River, and residential development abutting the property to the north this parcel is suitable for a PUD less than 5 acres.

**Building Coverage:** FCC 10-23-5 (B) states in a residential PUD, not more than fifty percent (50%) of the land area being developed, exclusive of public or private streets, shall be covered by buildings. Lot coverage will be reviewed during the building permit process.

**Perimeter Yards:** Front yard setback requirements are the same at the surrounding development.

**Building Height:** Building height is restricted to 28' for primary structures under Single Family Residential District. Building height will be reviewed during the time the building permit is issued and shall not exceed 28'.

**Off-Street Parking:** Each lot is required to have two covered off-street parking spaces. The applicant is proposing dwellings with two car garages, which meet the requirement. Driveways must be designed to have no greater than a 6% slope entering or leaving the driveway.

**Underground Utilities:** All utilities are existing and located underground. Underground utilities are critical to the maintenance of Rhododendron Drive, a scenic road.

**Open Space:** The open space will include the walkway and landscaping along the sea wall, the boat ramp area, the access walkway to the docks south of lot 18, access to river along the southerly projection of lot 9 and tract A, which is available for all public use. The applicant is also including the landscape berm along Rhododendron Drive, which is basically in the right-of-way. Landscaping in the right-of-way shouldn't be relied upon for a vegetative buffer or be calculated in the required open space because at some point there is a plan to put a bicycle path along Rhododendron Drive and majority of the vegetation will be removed. The applicant shall provide to the Community Development Department showing calculations of the required minimum 20% open space without the Rhododendron landscape berm.

**SUBDIVISION STANDARDS (FCC Title 11, Chapter 5)**

Streets

Street is defined as " a public or private way, other than a public alley, that is created to provide ingress or egress for vehicular traffic to one or more lots, parcels, areas or tracts of land; excluding a private way that is created to provide ingress or egress to such land for forestry, mining, or agricultural purposes. A road or street includes the land between right of way lines, whether improved or unimproved. However, in the zoning section of the code a street is defined as, " a public thoroughfare, avenue, road, highway, boulevard, parkway, way, drive, lane, court, or ***private easement***, providing the primary roadway for ingress and egress from the property abutting thereon".

The applicant is proposing 4 ingress/egress points to Rhododendron Drive. Lots 1-8 would access directly to Rhododendron and Lots 9-18 would be accessed by common 25' access and utility easement. Under these definitions, the easement serving lots 11-18 is a private street. The easement shown is 25 feet, 20' is the minimum right-of-way (ROW) and also the minimum paved surface for an alley under 11-5-1B. The minimum ROW for a local street is 50', with a paved surface of 28'. A local street is defined as "a minor street less than 400 feet in length which cannot be extended or intersected." An alley is defined as "a narrow street through a block primarily for vehicular service access to the back or side of properties otherwise abutting on another street". If the Planning Commission determines that the internal easement meets the definition of an alley, then the standards have been met, provided the minimum paved width is required. If the Planning Commission determines that this is a local (private) street, then the criteria for modification of the requirements for ROW width and paved with (11-5-1B) must be met in order to allow a 25' ROW.

There is no need for slope easement, for reserve strips, or for provision for future extension of streets due to the topography and location of the site. There are no intersection offsets.

**Lots and Parcels**

There are no key and butt lots. The sidelines of the lots run generally at right angels to Rhododendron Drive. The lots are suitable for the intended use, provided that the conditions accompanying this decision are met. No land is being reserved for future partition or subdivision.

Drainage:
Drainage is an important issue on this site because it carries water from Rhododendron Drive, and parcels east of Rhododendron Drive to the river. There is a drainage ditch paralleling Rhododendron Drive traveling roughly from the bridge south to the point of intersection with the river. Drainage from the stream under the bridge is shown crossing the roadway and entering the river between proposed Lots 8 & 9. There is also a drainage ditch on the east side of Rhododendron Drive across from proposed Lots 1 & 2 which enters a culvert under Rhododendron Drive and discharges through a pipe between proposed Lots 2 & 3. Both these culverts are shown on the plan and can provide proper drainage for the area. However, it is important for all roof drainage to be diverted away from the river bank and diverted through means of drainage way.

**Unsuitable Area**

**Tsunami:** Single-family residences are exempt from State regulations pertaining to tsunami inundation areas. However, the final plat should contain s warning and all promotional materials and sales agreements should also include notification of tsunami potential.

**Water Supply:** The proposed subdivision will be served by City water from the 8" line in the Rhododendron Drive ROW. According to the Public Works Director, there is no problem with the provision of water to this site.

**Sewage Disposal:** Sewer plans were submitted to the Public Works Director for approval on the original plat. Applicant shall comply with approved plans.

**Storm Drainage and Streets:** Storm drainage and streets have been addressed earlier. No pedestrian way is proposed. City plans call far an improved bikeway along Rhododendron Drive, but this would be located in the ROW which is 60' in width. No additional dedication of ROW is required.

**Performance Bond:** All required improvements must be completed prior to submittal of the final plat, or a performance agreement must be approved by the City Council for installation of such improvements.

*OTHER CONERNS*

**Buildable area**: It should be understood that dwellings are intended to be sized to meet the City code requirements without the need for variances.

**Fire Protection:**
Fire hydrants exist in the Rhododendron Drive ROW just east of the camp building on the site, and south of the site near the entrance to the county landfill. The city will install an additional hydrant, at city expense, at the center of the east boundary of this site.

## CONCLUSION AND RECOMMENDATION:

Staff finds that the Tentative Plan for Marine Manor meets the requirements of the Florence Zoning and Subdivision code, or can meet those requirements through conditions, and recommends approval of the Tentative Plan subject to the following conditions:

1. Unless appealed, the Planning Commission approval of the Tentative Plan shall become effective 30 days after the resolution is signed. The property owner shall submit to the Community Development Department a signed "Affidavit of Acceptance" of all conditions of approval. The signed affidavit must be received by the Community Development Department within this 30-day period.
2. The final plan/plat must be submitted within one year following the effective date of the Tentative Plan.
3. The required improvements shall be completed prior to the filing of the final plat, or a performance agreement or petition for improvements submitted to and approved by the City.
4. A vision clearance triangle of 20' shall be maintained at both points of access of the private street. Driveways shall maintain a 10' vision clearance triangle.
5. Each lot shall have at least two (2) off-street parking spaces.
6. Building height and lot coverage shall meet the requirements of the Single-Family Residential District (RS).

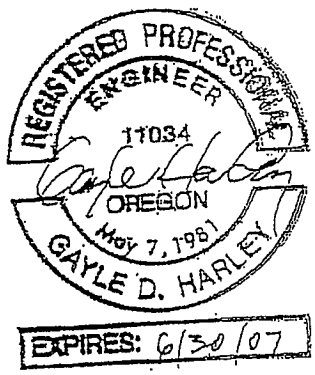
7. A grading plan must be submitted to the City and approved prior to any site work. This plan will show soil stabilization measures during construction as well as proposed grades and any filling. This plan shall be coordinated with the vegetation plan and the storm drainage plan.
8. The final plan will be accompanied by CC&Rs which describe the use of the existing dock and boat ramp, contain provisions for coordinated maintenance of seawall and riprap, and continued maintenance of vegetation on the sloping back of Lot 1 as well as with in 30' of the shoreline on Lots 11-18. The CC &Rs will also clearly describe the ownership and intended use of Parcel A and provide for maintenance of the private road.
9. Streetlights will be provided as determined by the Planning Commission in conjunction with the Public Works Director.
10. Rear yard setbacks shall be at least 25' from the seawall on Lots 3-10, 25' from the top of he bank on Lot 1&2, 25' from the top of the bank on Lot 18 and 20' from the 100 year flood plain of an elevation of 10.5 feet on Lots 11-17.
11. A plan for the construction of the private street shall be submitted to the City for approval by the Public Works Director. The plan shall show a minimum paved width of 20'. Deeds must include cross easements for use of the streets. All utilities shall be placed underground to protect visual access to the river.
12. Property owners shall enter into an agreement to indemnify, defend, and hold the city harmless from any claims arising in regard to the City's approval of this project prior to the issuance of a building permit. This agreement shall be recorded and apply to all assigns and successors of owner.
13. The final plat shall contain s warning and all promotional materials and sales agreements shall also include notification of tsunami potential.
14. Roof and drainage way shall be diverted away from the riverbank to a storm drainage facility. An oil and silt separator catch basin may be required at point of entry into the drainage facility.
15. Applicant shall sign a non-remonstrance agreement for future sidewalks.

# Marine Manor Sea Wall Inspection
Florence, Oregon

By

## OBEC Consulting Engineers

OBEC Job No. 674-1




Report by: Stewart L. McCornack
Reviewed by: Gayle D. Harley

OBEC Consulting Engineers, Inc.
920 Country Club Road, Suite 100B
Eugene, Oregon 97401
(541) 683-6090

**EXHIBIT F**

## Introduction

OBEC Consulting Engineers performed an inspection of the sea wall at the Marine Manor Properties in Florence, Oregon, on May 23, 2007, at the request of Emile Mortier. The purpose of the inspection was to determine the condition of the existing seawall and provide recommendations for future maintenance. Included with this report are the following:

- Figure 1 – Marine Manor Seawall Inspection Layout
- Figure 2 – Pile Inspection Notes
- Photos

## Scope of Work

1. A specific condition assessment of the sea wall elements, including piling, bulkhead and riprap.
2. Assessment of current maintenance recommended to bring the structure into a standard of "good order and repair" and the risks and life expectancy of the structure if the maintenance is completed.
3. Current risks and life expectancy if the recommended maintenance is not performed.

## Timber Condition

The Marine Manor Seawall Inspection Layout (Figure 1) was developed by the inspection team as a means to track locations of piling and pertinent details along the wall. In general, the layout is stationed in 1 foot increments from north to south for approximately 400 feet along the face of the wall, turning east for an additional 60 feet of wall. Each pile was numbered, measured and located by stationing (Figure 2).

The timber piles that support the backfill are both treated and untreated. The piles range in diameter from approximately 9 inches to 16 inches and appear to have been installed at different times. Approximately 49 percent of the pilings are in poor to very poor condition with at least 50 percent of the cross section decayed anywhere from 3 feet to 5 feet below the top of the seawall. Numerous pilings have face cuts and drilled holes that compromise the treatment and have allowed decay to propagate. The top 12 inches of all the pilings have been covered with a synthetic fabric in order to prevent further decay. The pile tops with extensive decay have also been filled with what appears to be concrete, and wrapped. At Stations 2+50 to 2+80 the sea wall is bulging and the 3 piles at this location appear to be broken at the ground line. Pile 38 is also completely severed at the top of the rip rap. Numerous other piling are also untreated and

vulnerable to decay. The piles are restrained by steel cable that appears to be anchored into the backfill. Several steel cables have completely corroded or broken loose and no longer offer support.

The timber backwall or bulkhead consists of treated 4x12-inch timber planks in most cases. The majority of this timber is in good condition. The top three planks and a top cap appear to be fairly new while the planks 3 feet to 9 feet down appear to be re-used bridge stringers. Some minor localized areas of decay exist, along with damage from riprap placement. From Station 3+00 to 3+67 the bulkhead does not extend to the ground at the front of the wall and backfill has been eroding from behind the sea wall. This may have also contributed to the loss of riprap at this location as well as backfill material exiting with tidal fluctuations. The horizontal and vertical timbers surrounding the pipe at 3+02 are also splitting and decaying. Plywood has been incorporated at this point to support backfill. Evidence of geotextile fabric and plastic visqueen were also found behind the wall during the inspection. The type and quality of the geotextile products appeared to be lower standard than typically used in subgrade and backfill construction and may not be adequate to last the entire life of the structure.

## Riprap

The riprap along the front of the sea wall appears to have moderate to major damage along the face of the wall. A distinct sandstone drop-off is visible at low water near the toe of much of the riprap bank. In many locations the riprap is loose and easily dislodged when traversing these areas. From 3+00 to 3+67 the riprap is very sparse, as indicated above. It appears that the riprap was neither keyed in at the toe nor plated on the surface to hold it in place. Presently, the top layer of protection is capable of sliding off or rolling into the water from merely walking on it. To bring this material to an order of good repair would require placement of more material that is keyed into the ground and interlocked together after wall repairs are made. No Trespassing signage should be installed in the interest of public safety until this work can be performed.

## Backfill and Drainage Structure

The backfill of this structure is made of native material, primarily sand. Two 24-inch corrugated plastic pipes bisect the fill and divert two small streams through the development. Seven 4-inch-diameter PVC pipes also exit the sea wall and provide local storm drainage from the homes. All of these pipes exhibit signs of settlement due to their upward angle at the point of exit from the seawall. The main 24-inch pipe at 3+02 is diverted from a 4x10-foot box culvert to a 36-inch corrugated metal pipe, then to the 24-inch pipe. This drastic reduction in cross sectional area brings into question the hydraulic adequacy of the 24-inch pipe.

The upward angle of all the pipes compromises their ability to transfer water and may be introducing water into the backfill, causing erosion and piping of fill material out from under the sea wall. Looking into the river end of the pipe does not allow a clear view back to the beginning of the pipe, indicating a disconnected joint. Also, drainage under the wall at low tide was more profuse at the vicinity under the pipe where a constant flow of water seeps under the bottom of the lagging. All of the drain pipes exiting the wall need readjusting to account for most recent settlement.

## Current Maintenance Needs, Risks and Life Expectancy

Given the harsh environment, fluctuating tides and consistency of backfill material as well as construction methods, an assessment of this structure's life expectancy is somewhat subjective. If all new materials had been utilized in the original structure construction and stable conditions existed, an estimated life could be up to 40 years with continued maintenance. At that time it would be expected that an entire replacement would be required.

The materials incorporated at the Marine Manor retaining wall were of varying age, quality and condition. Assuming the wall was built sometime in the 1980s, these materials are 20+ years into their projected life span; significant maintenance or complete replacement normally should be anticipated within 20 years.

Figure 2 is a chart showing the location, size and condition of the existing piling. This chart also gives a rough indication of length of time before maintenance will be required for each pile. Unfortunately, the deterioration appears to be in the top 10 feet of the members. This will require some type of retrofit to support the upper portion, or a complete replacement will be required.

The Figure 2 designations are as follows:

**Very Poor = Immediate replacement of the piling.** Fourteen of the 45 piling are in this category, or 31 percent.
**Poor = Repairs in 1-5 years.** Nine of the 45 will need to be replaced in the near future, or 20 percent.
**Fair = Repairs in 5 to 15 years.** Sixteen of the 45 piles fall into this category, or 36 percent.
**Good = New or Good condition exists.** This represents 13 percent of the piling.

This information validates the estimated life expectancy of this type of timber construction to be approximately 30 to 35 years, or that the life at this time is near its midpoint. It is also clear that within five years almost 50 percent of the piling will need to be replaced to restore it to a good overall condition.

Because of the nature of the retaining wall design, complete replacement of any pile is difficult when the lagging is spiked from the fill face and the tie-backs are in direct line with each pile. On the front side, the existing riprap would have to be removed and replaced to accomplish the work. The three cables that are identified as being broken, as well as the remaining cable tie-backs that are severely corroded, are already affecting the alignment of the wall. This pile replacement work will require fill removal and replacement on the backside of the wall.

## Maintenance Recommendations

The following recommendations are suggested for maximizing longevity of the structure:

1. Replace or repair decayed and damaged piling noted as Immediate Repairs within 1–2 years (14 total).
2. Repair or replace deteriorated tie-back cables within 1–2 years (noted tie-backs at Pile Nos. 34, 36, & 37).
3. Fortify riprap at top as well as toe to maximize protection. Currently, there are thin spots where very little protection is provided (approximately 30 percent). Riprap should be keyed in at the toe and "plated" to maximize life and stability.
4. Correct leaking and canted storm drain exit pipes.
5. Repair handrail posts pulled loose in places. Bring rail up to current safety standards.
6. Replace decayed and damaged piling noted as Poor Condition within 1–5 years (9 total).
7. Schedule regular inspections on a 2–3 year basis.

## General Suggestions

The following suggestions would facilitate future inspections and recommendations:

1. Generate a survey for elevation and horizontal control of wall line that can be periodically re-run to check for settlement or possible localized failure.
2. Obtain Pile Records, if possible, for actual depth of pile penetration. Correlate pile depths to cross section data taken and plotted perpendicularly at each pile row to determine stability and extent of riprap limits.
3. Investigate the hydraulic requirements of the channel passing through the property from the east as it approaches the development under the County road via the concrete box culvert. This body of water is currently

channeled into a 36-inch corrugated metal pipe and exits at the wall through a 24-inch ABS pipe that looks to have settled.

### Current Risks with No Maintenance

Predicting life expectancy for timber materials with major decay is very difficult. In this case, the decayed piles are still holding the fill back, and danger to life and property is not great. The major risk associated with a "do nothing" approach is that localized failures will eventually occur, probably during a major flood event, that may produce significant material loss behind the wall. For example, if a section of 1 to 3 piles approximately 20 feet in length failed, it could erode material directly behind that section at a rate of 1 to 2 times the wall height. With significant river flows, this erosion could spread laterally, pulling adjacent materials out from behind the wall before remedial measures can be taken. In addition, given the difficult permitting process for construction and placement of fill materials in or near a channel, adequate repairs may not be implemented immediately, so damage could continue and eventually jeopardize the homes.

Continually putting off repair and maintenance will eventually make the overall project too expensive for most home owners to tackle in one effort. Paying for continuous, lower cost maintenance will be more readily acceptable to the average home owner.

## Conclusion

The Marine Manor Retaining Wall will require significant repairs in the next five years to maintain its expected life of 30 to 35 years. Without the repairs that are indicated, continued timber deterioration as well as local failures will occur, causing settlement of the fills and possibly the support of the adjacent homes. At the very least, the drainage needs to be investigated to ensure that the backfill does not become oversaturated and prone to sloughing.

A plan to replace and repair, along with a continuous inspection program of the sea wall is needed to maintain the integrity of the wall system. A reasonable inspection cycle to reassess the condition would be estimated at three years, or after a severe weather event threatens the overall condition of the wall or its components.

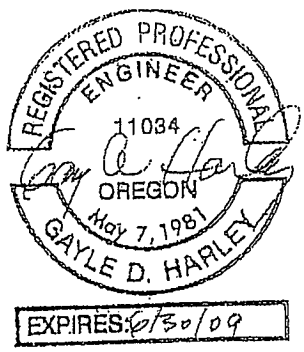
# Marine Manor Sea Wall Inspection

Florence, Oregon

By

## OBEC Consulting Engineers

OBEC Job No. 674-1




Report by: Stewart L. McCornack
Reviewed by: Gayle D. Harley
Revised: August 15, 2007

OBEC Consulting Engineers, Inc.
920 Country Club Road, Suite 100B
Eugene, Oregon 97401
(541) 683-6090



**EXHIBIT G**

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The backfill of this structure is made of native material, primarily sand. Two 24-inch corrugated plastic pipes bisect the fill and divert two small streams through the development. Seven 4-inch-diameter PVC pipes also exit the sea wall., These pipes are no longer functional since a cross pipe system was installed to intercept the drainage. The main 24-inch pipe at 3+02 is diverted from a 4x10-foot box culvert to a 36-inch corrugated metal pipe, then to the 24-inch pipe. This drastic reduction in cross sectional area brings into question the hydraulic adequacy of the 24-inch pipe. The upward angle of this pipe compromises the ability to transfer water and may be introducing water into the backfill, causing erosion and piping of fill material out from under the sea wall. Looking into the

river end of the pipe does not allow a clear view back to the beginning of the pipe, indicating a disconnected joint. Also, drainage under the wall at low tide was more profuse at the vicinity under the pipe where a constant flow of water seeps under the bottom of the lagging. The 24-inch drain pipe exiting the wall needs readjusting to account for most recent settlement.

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The materials incorporated at the Marine Manor retaining wall were of varying age, quality and condition. Assuming the wall was initially built sometime in the 1960s, the original materials are 35+ years into their projected life span; significant maintenance or complete replacement of some sections normally should be anticipated within 20 years. Some maintenance or replacement work has already occurred over the years, indicated by the newer materials incorporated in the structure.

Figure 2 is a chart showing the location, size and condition of the existing piling. This chart also gives a rough indication of length of time before maintenance will be required for each pile. Unfortunately, the deterioration appears to be in the top 10 feet of the members. This will require some type of retrofit to support the upper portion, or a complete replacement will be required.

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## General Suggestions

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Exhibit H

## R Sande Tomlinson

**From:** Hanson, Michele E NWP [Michele.E.Hanson@usace.army.mil]
**Sent:** Tuesday, December 18, 2007 11:46 AM
**To:** R Sande Tomlinson
**Subject:** Marine Manor seawall support project

Hi Sande,

Based on our review of the information you provided including the drawings and conversations with your contractor, we have completed our evaluation whether there will be a discharge into a jurisdictional water regulated under Section 404 of the Clean Water Act. The Corps has also considered the effect of the proposed work on the navigability of the Siuslaw River under Section 10 of the Rivers and Harbors Act.

The Corps has determined your project to construct a secondary seawall behind the existing seawall will not require a Department of the Army permit provided the project is constructed as you have described. For example, all excavation and filling will occur landward of the existing seawall, disposal of excavated soils will occur in upland, all construction will occur outside or above the plane of the mean high water and the site will be secured to prevent discharges of fill material below the highest tide.

Thank you for providing the information and for your cooperation. Have a great Holiday!

Shelly

Michele E. Hanson
Biologist-Project Manager
USACE-Regulatory
1600 Executive Parkway, Suite 210
Eugene, Oregon 97401-2156
pH: 541-465-6878

FAX:541-465-6888
michele.e.hanson@usace.army.mil

please visit our website at https://www.nwp.usace.army.mil/op/g/home.asp

Thank you for completing our Customer Survey

-----Original Message-----
From: R Sande Tomlinson [mailto:rst@wlrlaw.com]
Sent: Monday, December 17, 2007 10:03 AM
To: Hanson, Michele E NWP
Cc: R Sande Tomlinson
Subject: RE: My email

Shelly: I have attached the preliminary drawings prepared by Mr. Dennis McGee of McGee Engineering. I look forward to hearing further from you once you have reviewed the plans. If it would be of assistance, I can send you Mr. McGee's and Mr. Kronsteiner's (West Coast Contractor's) phone numbers so you can discuss the plans with someone who really knows what he is talking about rather than me.

Thanks again,

Sande Tomlinson

PS I am in Florence generally Friday thru Monday at 541-902-2122 and am in my office in Eugene, at Walkinson Laird et al Tues thru Thursday at 541-984-0222. I will be in my office tomorrow and if would be beneficial for me to stop by and meet with you it can certainly be arranged.



EXHIBIT H

----- Original Message -----
**From:** YOUNG Cyril
**To:** KIRYUTA Gloria ; R Sande Tomlinson ; cheinkel@msn.com
**Cc:** jdthchris@aol.com ; Ken Giorgi ; Alice Bloomer ; Cy
**Sent:** Thursday, January 03, 2008 1:01 PM
**Subject:** RE: Marine Manor PUD Seawall

This e-mail is a follow up to the inquiry below concerning DSL property issues and the proposed seawall. The ownership of the Siuslaw is below the current seawall and a new seawall constructed landward of the old seawall would not require a DSL permit from the Land Management Division. I hope this satisfies your proprietary concerns on the seawall. Thanks

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**From:** KIRYUTA Gloria [mailto:Gloria.Kiryuta@state.or.us]
**Sent:** Friday, December 28, 2007 2:09 PM
**To:** R Sande Tomlinson; cheinkel@msn.com
**Cc:** jdthchris@aol.com; Ken Giorgi; Alice Bloomer; Cy
**Subject:** RE: Marine Manor PUD Seawall

Mr Tomlinson and Ms Heinkel
Based on the information provided, the project will not require a state permit if it is currently behind a sea barrier and will not come into contact with the water, or cause the loss of estuarine habitat. However, I would consult with the proprietary division to see if a lease is required by the state. Please contact Cy Young at 503-986-5245

*Gloria M. Kiryuta*
Resource Coordinator
Fill and Removal Program
Wetlands & Waterways Conservation Division
Oregon Dept. State Lands
775 Summer Street NE Suite 100
Salem, Oregon 97301
Phone: 503.986.5226
Fax: 503.378.4844

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**From:** R Sande Tomlinson [mailto:rst@wlrlaw.com]
**Sent:** Friday, December 28, 2007 11:38 AM
**To:** KIRYUTA Gloria
**Cc:** R Sande Tomlinson; cheinkel@msn.com; jdthchris@aol.com; Ken Giorgi; Alice Bloomer
**Subject:** Marine Manor PUD Seawall

Dear Gloria: We spoke some time ago about Marine Manor Lot Owners' Associations need and desire to install a new seawall landward of the existing seawall which is located along the Siuslaw River in Florence Oregon. You advised me by phone that a permit would not be required from the DSL since the seawall was to be constructed inside the existing seawall and that the construction would not involve contact with the river or the water therein. I have since contacted Shelly Hanson at the US Army Corps. and she sent me an email indicating that no permit would be required as long as the seawall was constructed in accordance with the plans and landward of the existing seawall. The City of Florence has required the Association to file an Application for a Conditional Use Permit covering the seawall and I have completed the Application and submitted it to the City along with a copy of Ms. Hanson's email, the

**EXHIBIT I**

plans and other required information. Ms. Carol Heinkel, with the City of Florence, is reviewing the Application and has advised me that she needs an email from you to go with the email from Shelly indicating no permit from the DSL is required for the seawall as part of the documents to be submitted to the Planning Commission. I do not recall if I sent you a copy of the plans prepared by Mr. Dennis McGee, an engineer, but just in case I did not and you need them to send Ms. Heinkel the required email, I have attached a copy to this email. Ms. Heinkel's email address is cheinkel@msn.com. The City is really being cooperative and we are trying to work together to expedite the application and its consideration by the Planning Commission, so if you have any questions please call me at 541-984-0222 (office); 541-912-3417 (cell) or 541-902-2122 (Florence). Ms. Heinkel can be reached at 541-285-1824 (cell).

Thanks a million Gloria, your assistance and cooperation on this matter have been GREATLY appreciated.

SANDE <<McGee.prelim seawall

# CITY OF FLORENCE
# PLANNING COMMISSION

## RESOLUTION PC 07 47 CUP 08

REQUEST FOR APPROVAL OF A CONDITIONAL USE PERMIT TO CONSTRUCT A SEAWALL ON LOTS THREE THROUGH TEN OF MARINE MANOR PUD LOCATED BETWEEN THE SIUSLAW RIVER AND RHODODENDRON DRIVE AT SITE ADDRESSES: 3215, 3225, 3265, 3285, 3305, AND 3315 RHODODENDRON DRIVE AND LOTS 3 AND 4 OF MARINE MANOR PUD, AS SHOWN ON EXHIBIT B.

WHEREAS, application was made by the Marine Manor Lot Owners' Association, as required by FCC 10-1-1-4, FCC 10-2-1, FCC 10-19-4 (D), and FCC 10-4-3; and

WHEREAS, the Planning Commission/Design Review Board met in a duly advertised public hearing on February 5, 2008 to consider the application, evidence in the record and testimony received as per FCC 10-1-1-5, and

WHEREAS, the Planning Commission/Design Review Board determined per FCC 10-6-5, after review of the application, testimony and evidence in the record, that the application meets the applicable criteria, or can meet the criteria through compliance with certain Conditions of Approval; and

WHEREAS, the Planning Commission/Design Review Board of the City of Florence finds, based on the Findings of Fact, staff recommendation, and evidence and testimony presented to them, that the Conditions of Approval in this Resolution are required for full compliance with applicable criteria.

NOW THEREFORE BE IT RESOLVED that the Planning Commission/Design Review Board of the City of Florence finds, based on the Findings of Fact and the evidence in record that:

the application, as presented, meets or can meet the applicable City codes and requirements, provided that the following Conditions of Approval are met.

1. The Applicant agrees to comply with all regulations and requirements of the Florence City Code which are current as of the date of the application.

   Approval shall be shown on the Findings of Fact and the Site Plan. Findings of Fact attached as Exhibit "A" are incorporated by reference and adopted in support of this decision. Any modifications to the approved plans or changes of use, except those changes relating to the interior regulated by the building codes, will require approval by the Community

Development Director or Planning Commission/Design Review Board.

Unless appealed, the Planning Commission approval of the Conditional Use Permit shall become effective 15 days after the Planning Commission decision is rendered. The property owner shall submit to the Community Development Department a signed "Agreement of Acceptance" of all conditions of approval. The signed "Agreement of "Acceptance" must be received by the Community Development Department with this 15-day period.

2. Regardless of the content of material presented for this Planning Commission meeting, including application text and exhibits, staff reports, testimony and/or discussions, the Applicant agrees to comply with all regulations and requirements of the Florence City Code which are current on this date, EXCEPT where variance or deviation from such regulations and requirements has been specifically approved by formal Planning Commission action as documented by the record of this hearing and/or the associated Conditions of Approval.

3. The applicant will apply for a building permit and, as part of that process, will submit detailed design specifications and construction methods that demonstrate that, during and following construction, the following performance measures will be achieved to the maximum extent practical:

    - maintain soil stability,
    - preserve natural habitat,
    - protect native vegetation,
    - protect riparian vegetation, and
    - maintain scenic qualities.

4. The applicant shall comply with any additional findings by the consultants retained by the City to review the detailed construction drawings and specifications, including the following findings in the January 24, 2008 report by Shannon & Wilson:

    a. Following failure of the existing wall, it can be expected that the Siuslaw River will remove soil from in front of the proposed replacement wall. The applicant must provide an analysis that supports the retaining wall design with respect to scour from the Siuslaw River. The applicant should submit a scour analysis to support the design depth of embedment below the existing ground surface.

    b. The applicant should provide documentation in the building permit application that site specific subsurface explorations have been

performed to support the structural design of the proposed retaining wall and provide the basis for structural design of the proposed wall. The geotechnical evaluation should assume that soil is removed from the front face of the wall to the design scour depth.

c. The applicant should provide minimum pile embedment depths and other typical design and construction criteria with the Building Permit application. The site investigation report states the sea wall will be supported on cylindrical steel pipes to a bearing of 20 tons. The report does not include a minimum embedment depth for the piles or estimate the depth that a bearing of 20 tons will be reached.

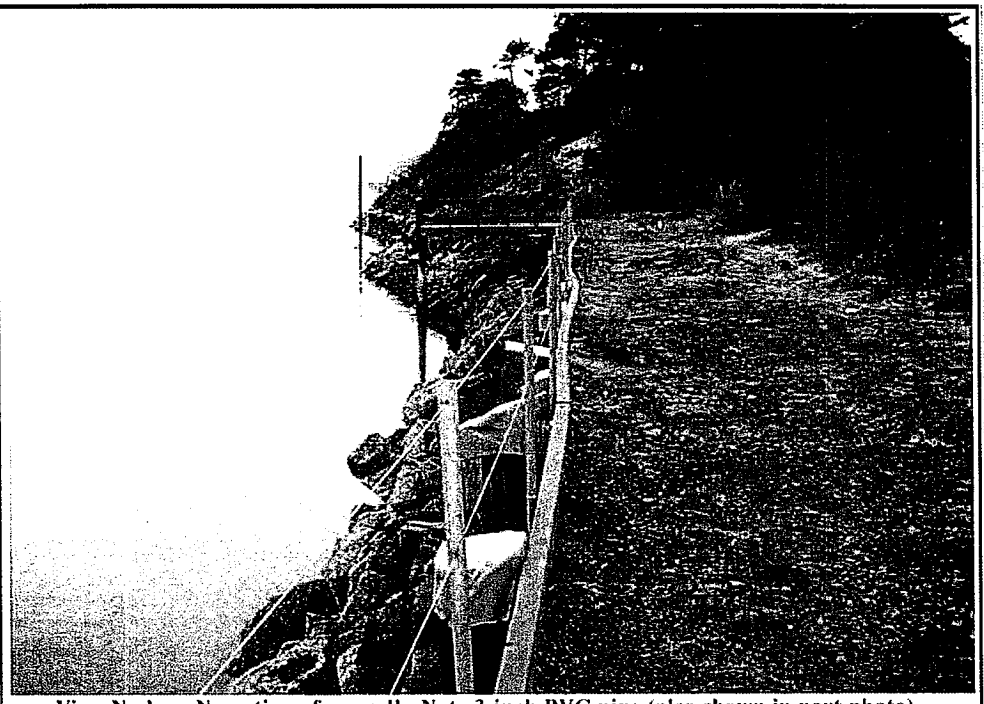
5. As part of the construction permit process, provisions for a penetration in the seawall need to take place for the 36-inch stormwater culvert. The Lot Owners' Association will work with the Public Works Department on the work to replace the existing 36-inch culvert. In addition, the construction permit will include correction of the condition of the open ditch from the driveway that crosses the culvert to the box culvert on Rhody Drive where plywood is being used as a retaining wall, which is close to failure (the plywood is deteriorating), and is being held in place by light weight metal fence posts.

APPROVED BY THE FLORENCE PLANNING COMMISSION the 5th day of February, 2008.

DONNA LEE, Chairperson Date
Florence Planning Commission

APPENDIX B

View S along sea wall from approximately Lot 5. Tape measure along worst section.



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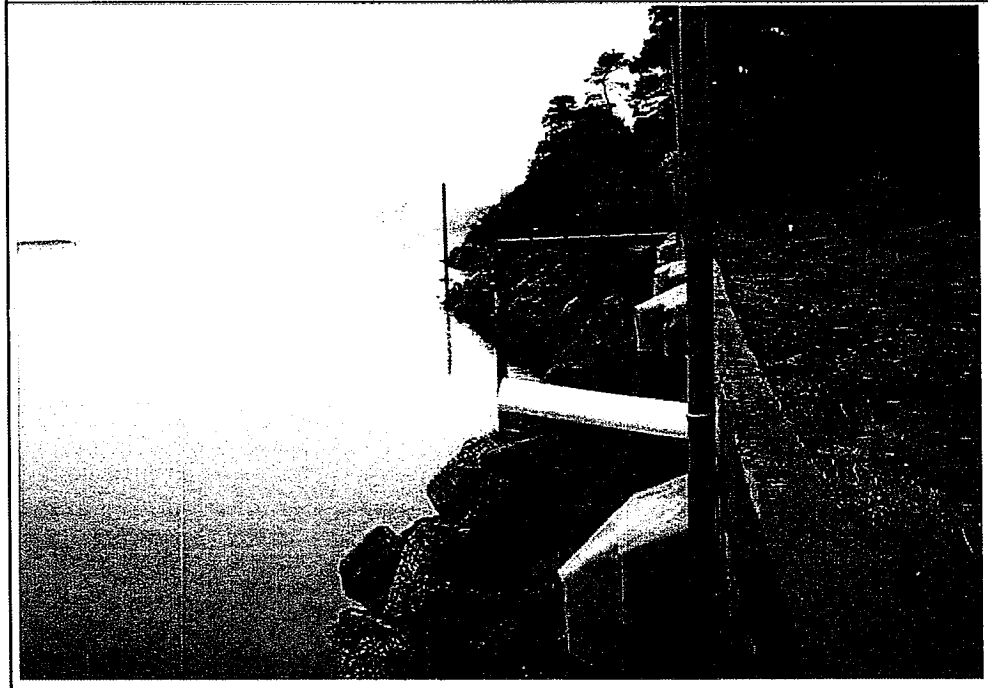

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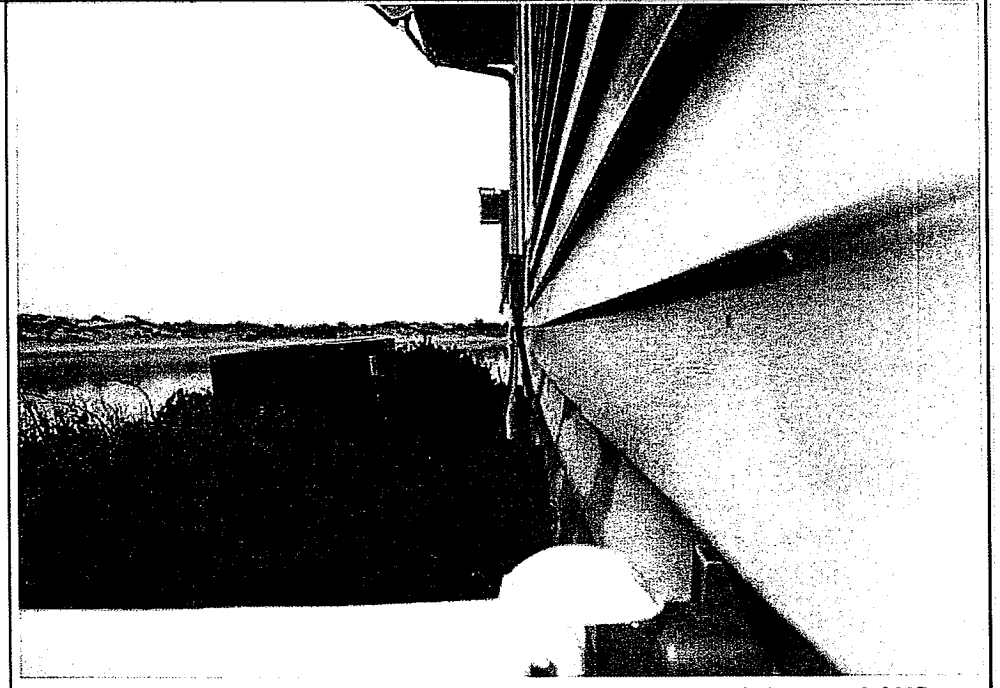
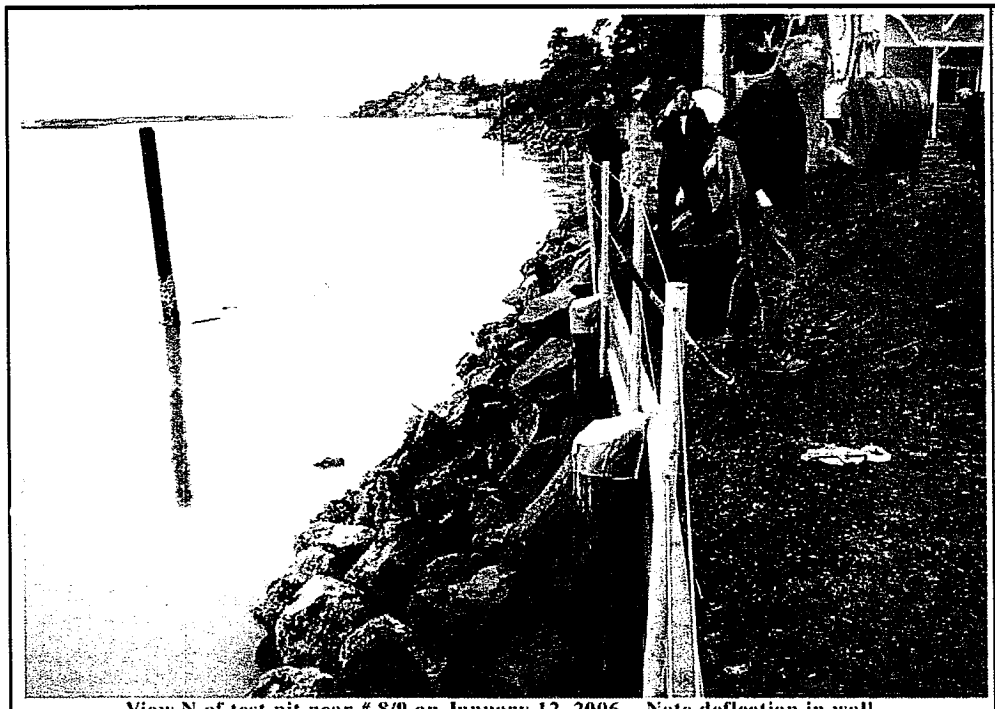
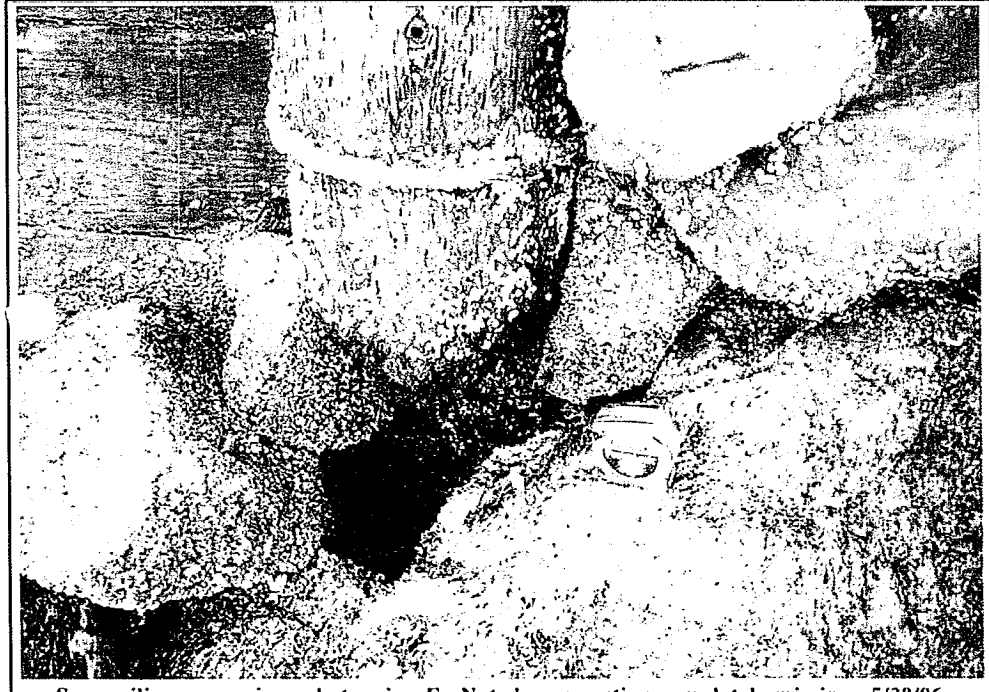


Leaning heat exchanger and sagging siding at House on Lot 18 on February 16, 2007.



View N of test pit near # 8/9 on January 12, 2006 . Note deflection in wall.

Piling completely rotted off W of # 9/10. View S. Photo taken 1/12/06.



Same piling as previous photo, view E. Note lower portion completely missing. 5/30/06.

Undermined lagging at base of wall W of # 9. View NNE.

GeoSc

(541) 607-5700

**Marine Manor, Florence, Seawall/Pad Stability Assessment**

View S along seawall W of # 8/9. Note "sinkhole", bowed wall section, and leaning piles/wall.

Shearing of retained soil in response to westward movement of seawall.

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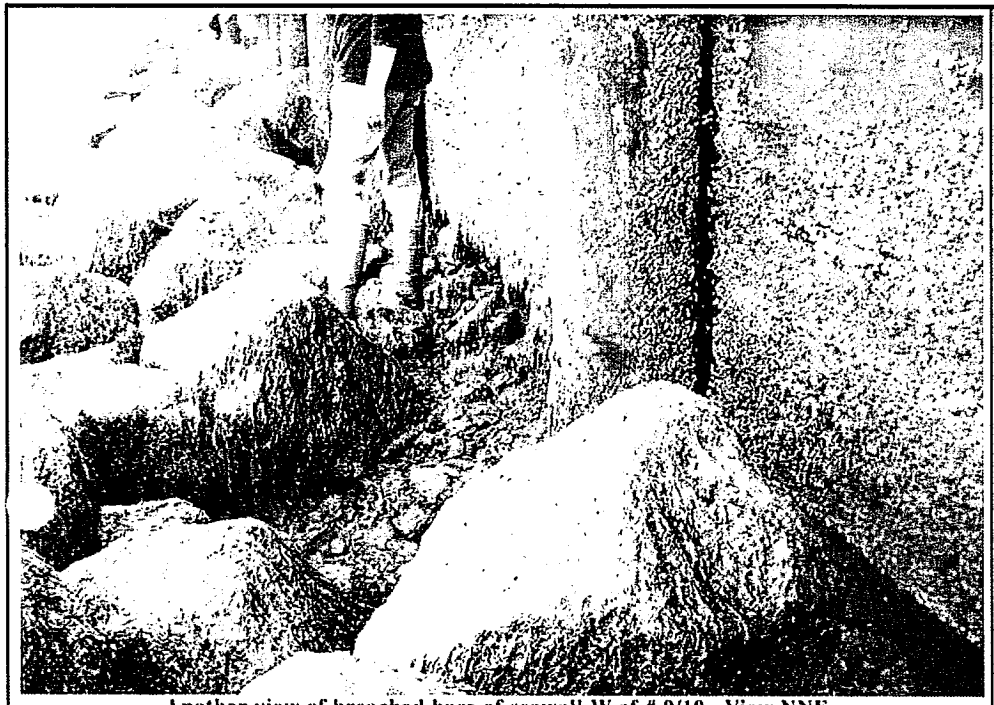

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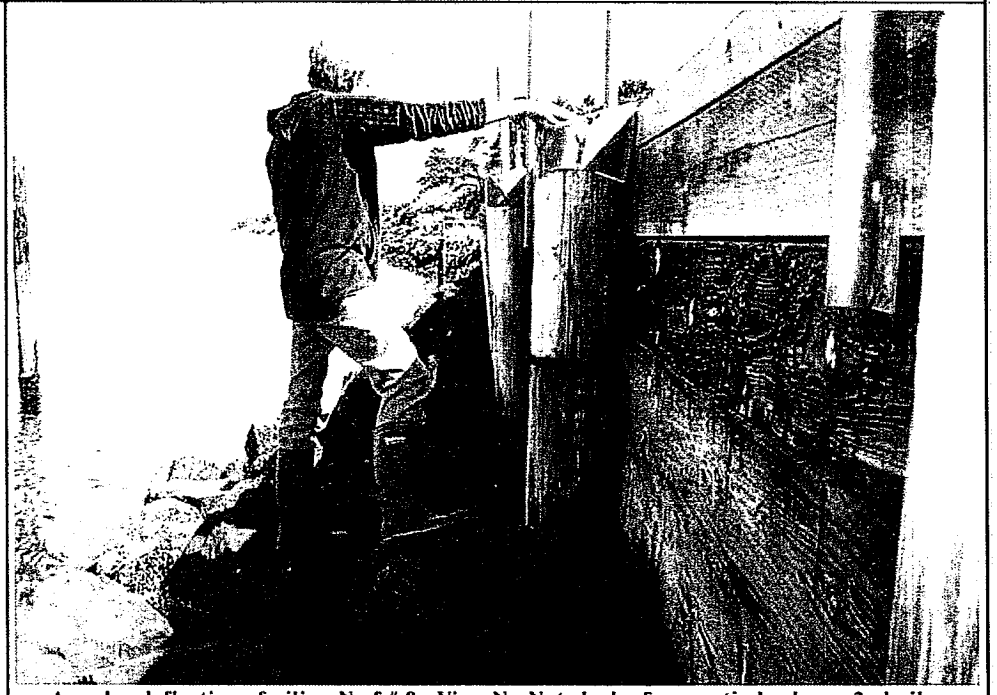

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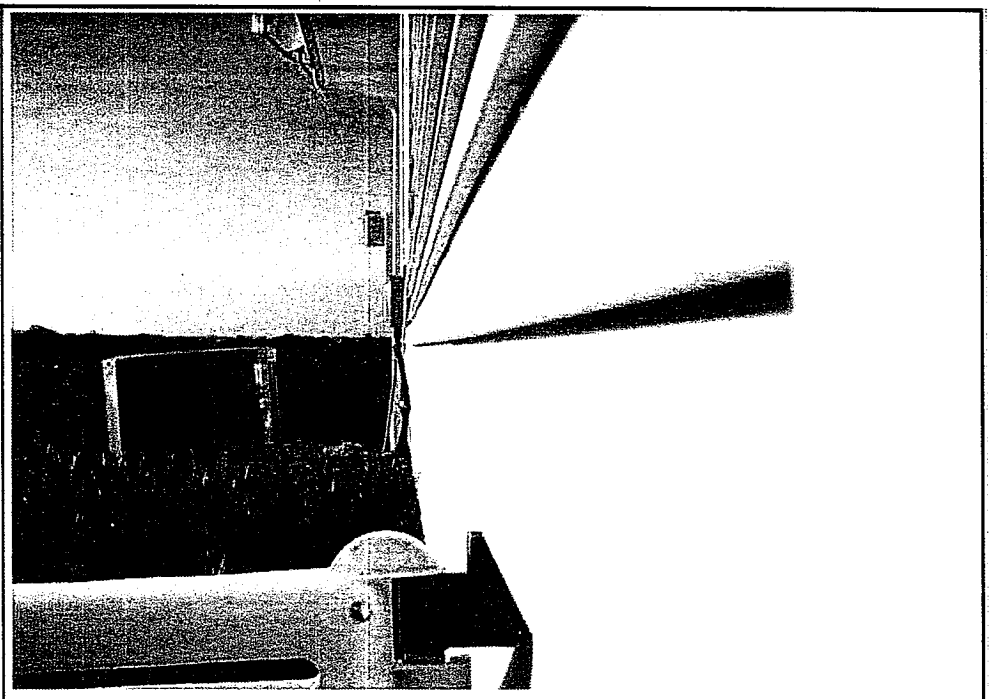

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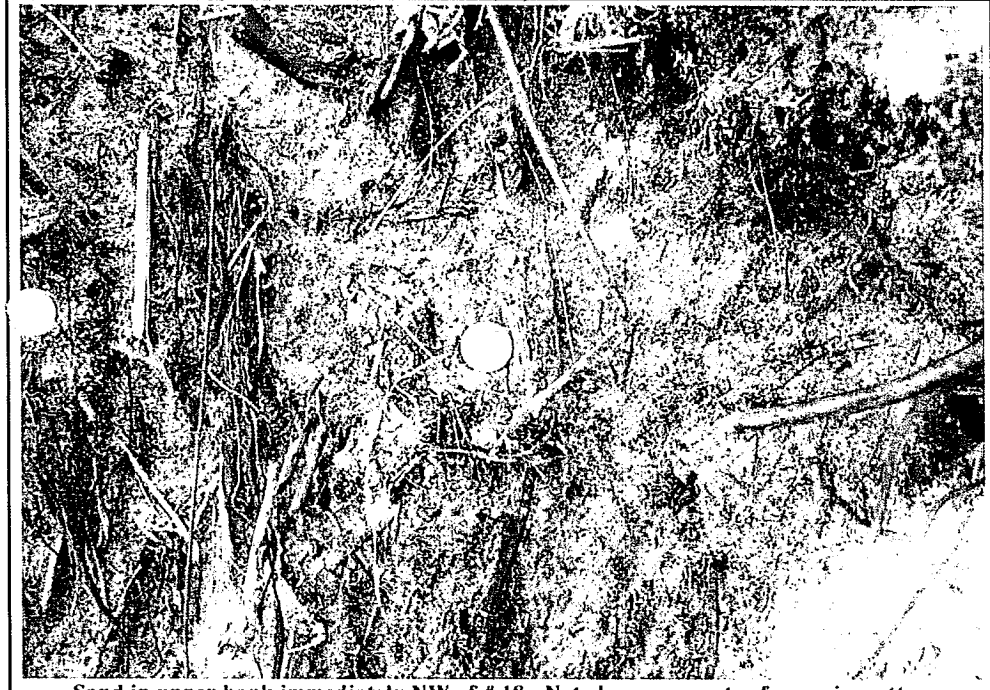
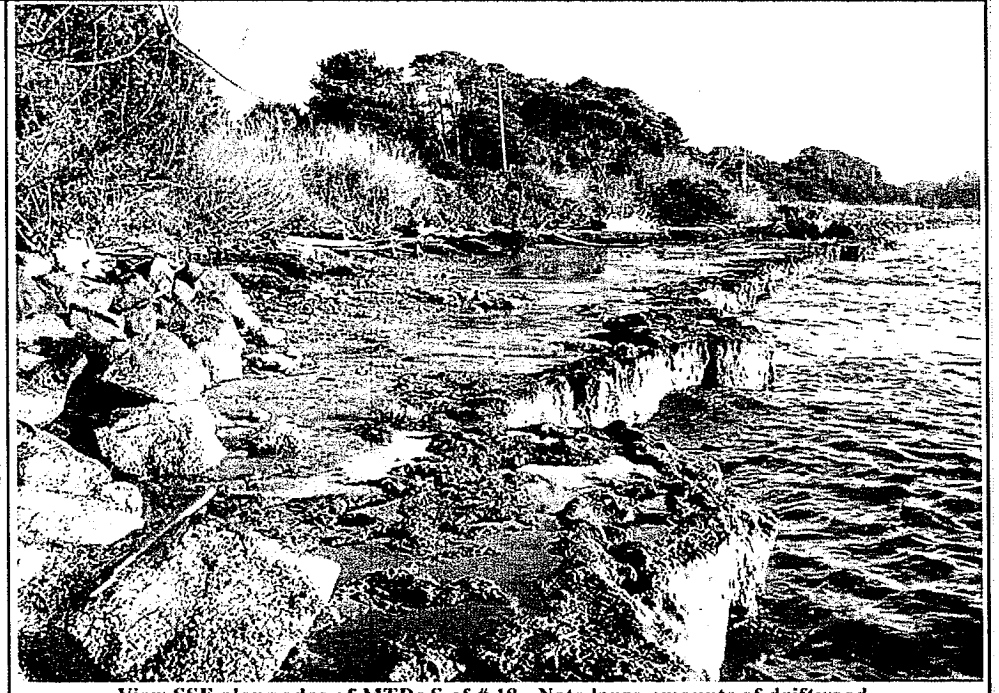


Sand in upper bank immediately NW of # 18. Note large amounts of organic matter.



View SSE along edge of MTDs S of # 18. Note large amounts of driftwood.

GeoSe

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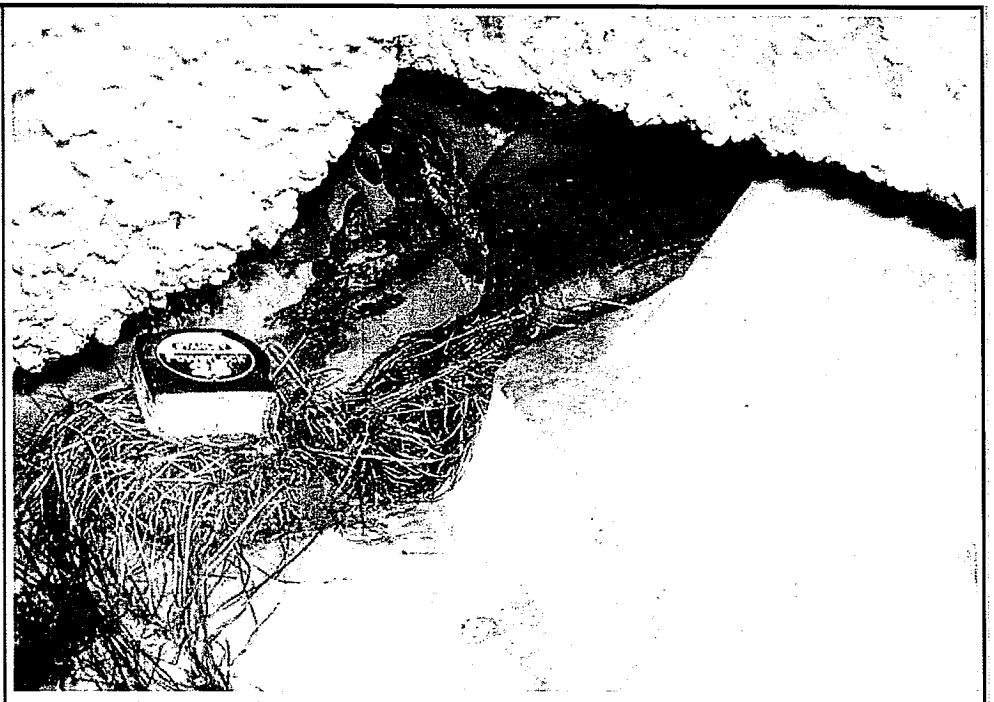
**Marine Manor, Florence, Seawall/Pad Stability Assessment**

Groundwater discharge on MTDs @ # 14. Deteriorated geotextile allows sand (gray) leakage.



Closer view of deteriorated fabric, flowing water and sand eroded from behind fabric.

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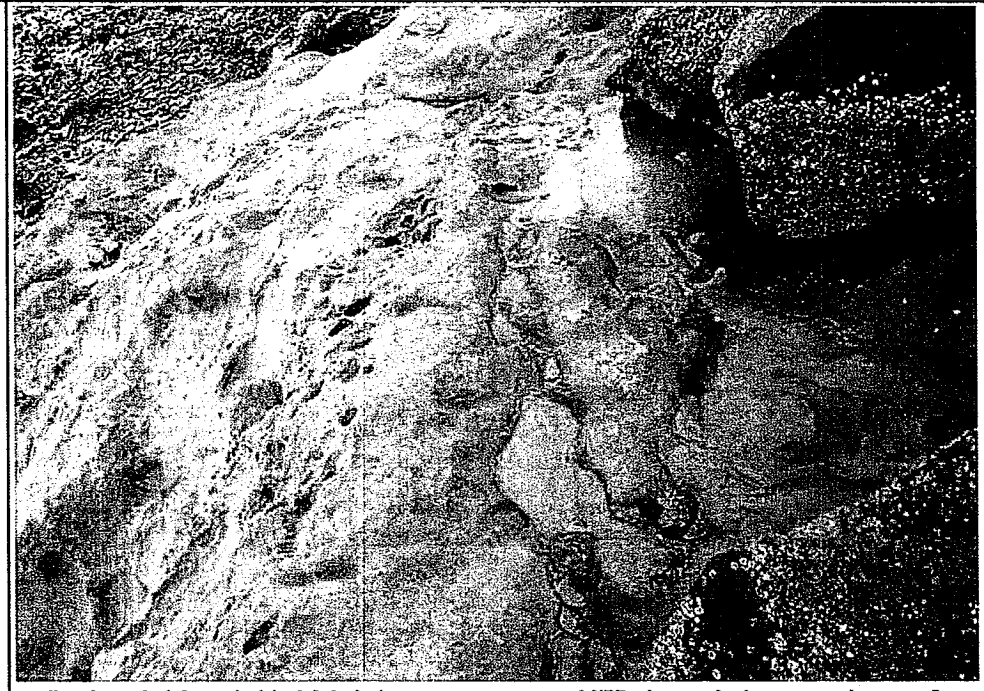

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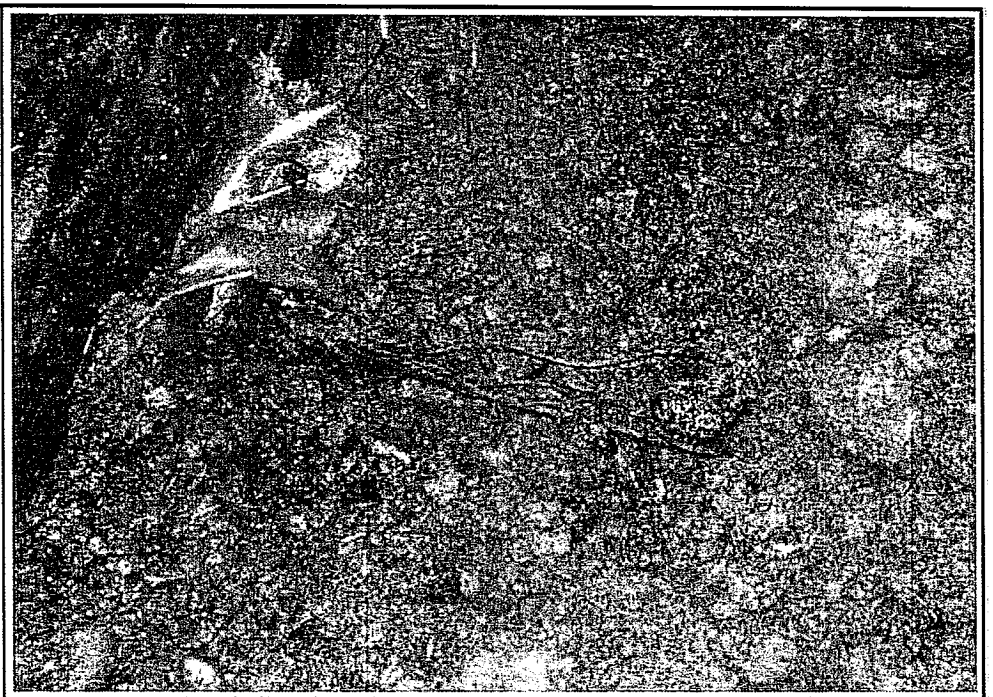

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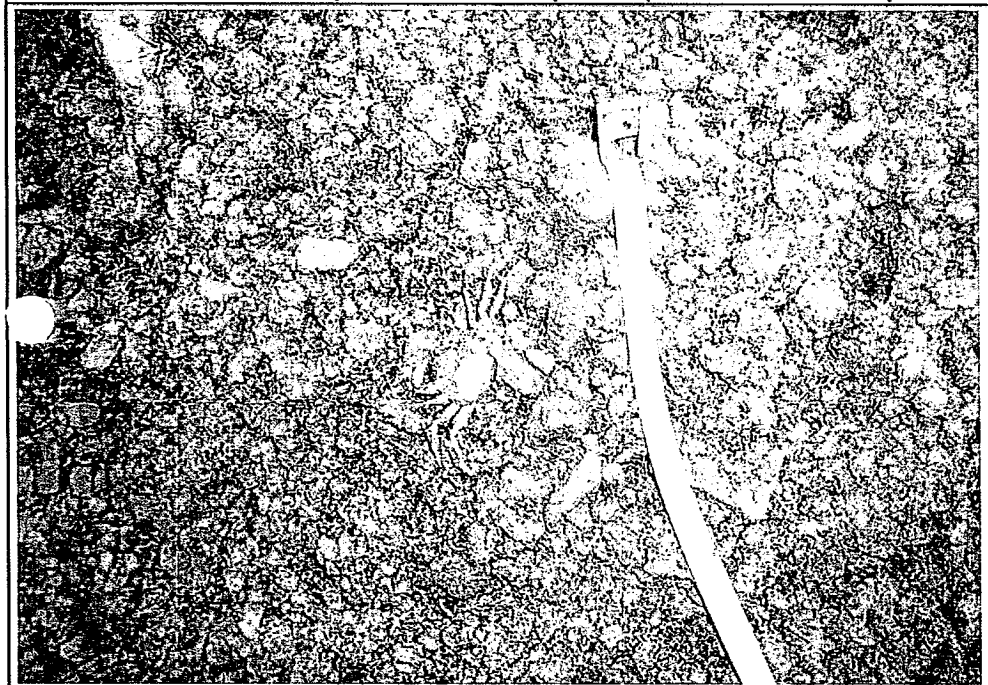

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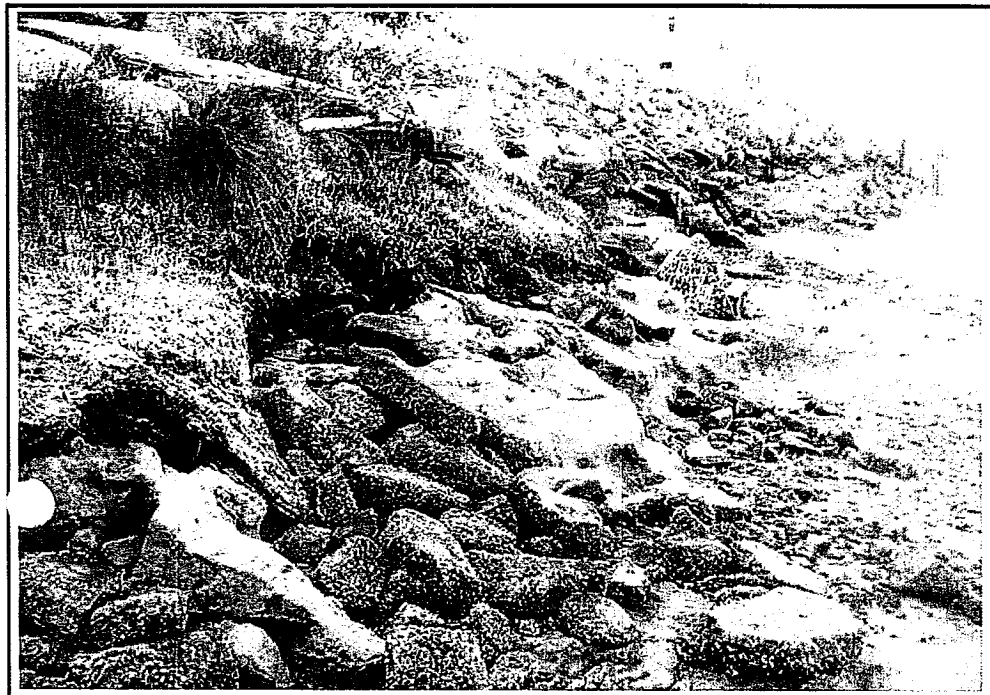

View S along bank below #11 - 18. Note MTD exposed through older rip rap.

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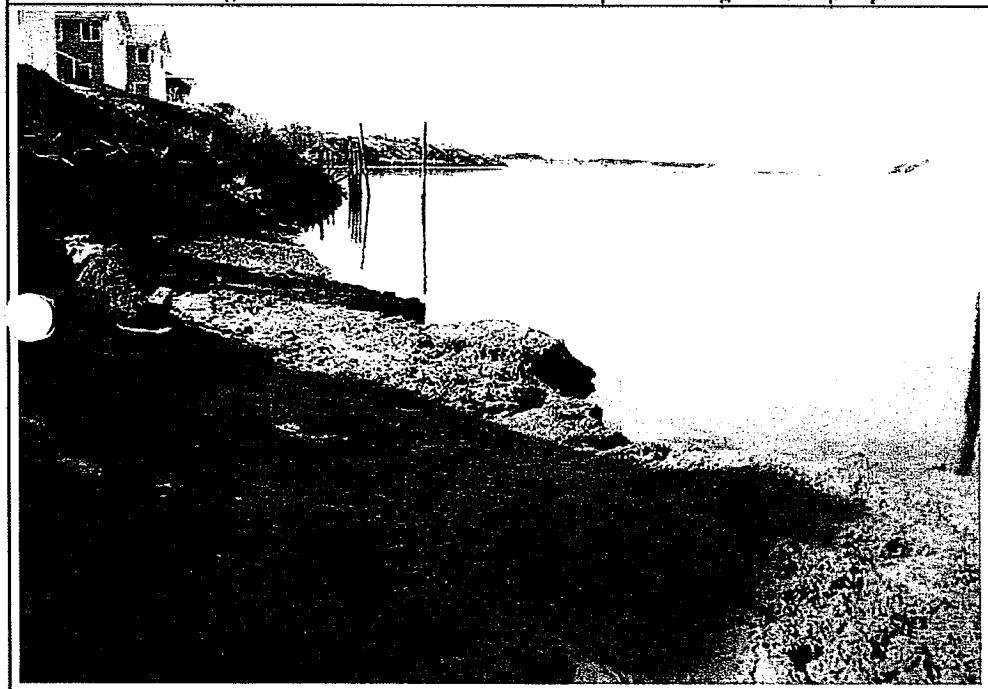

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APPENDIX B

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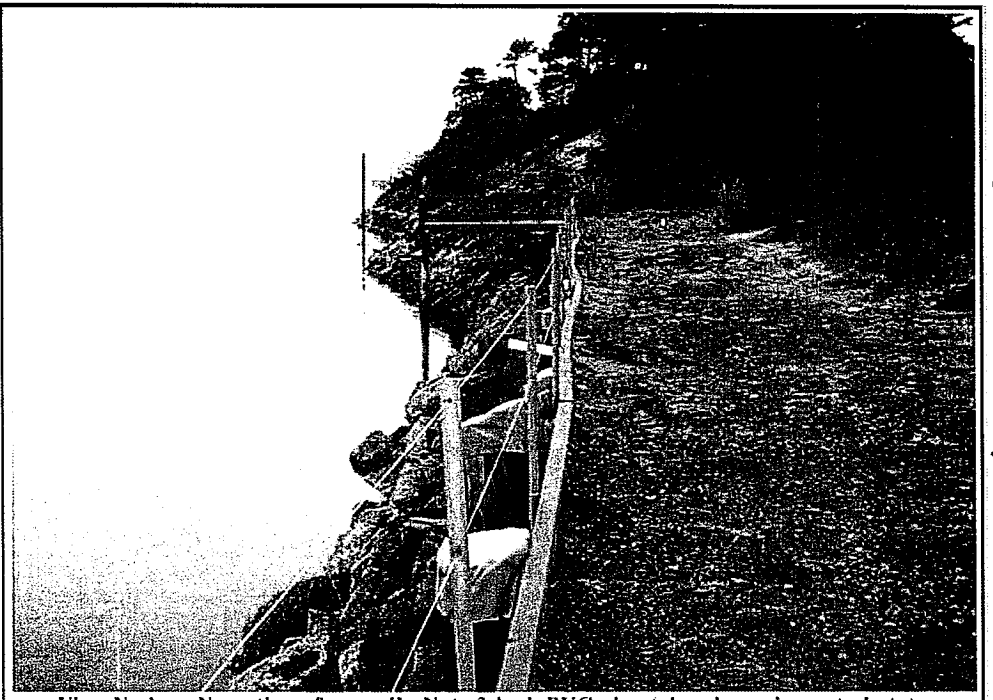

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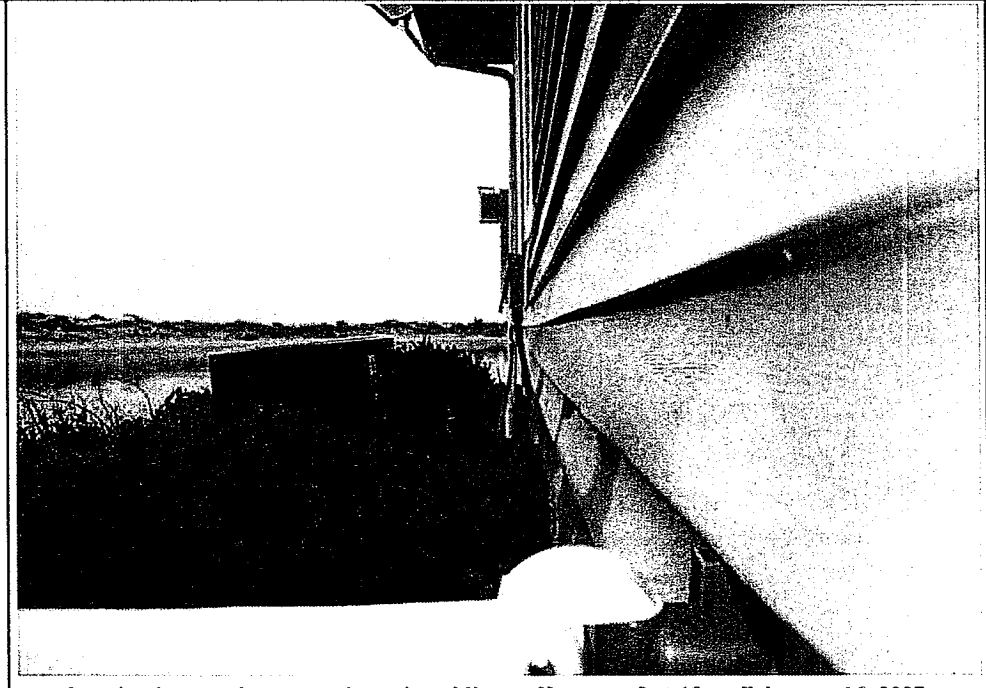

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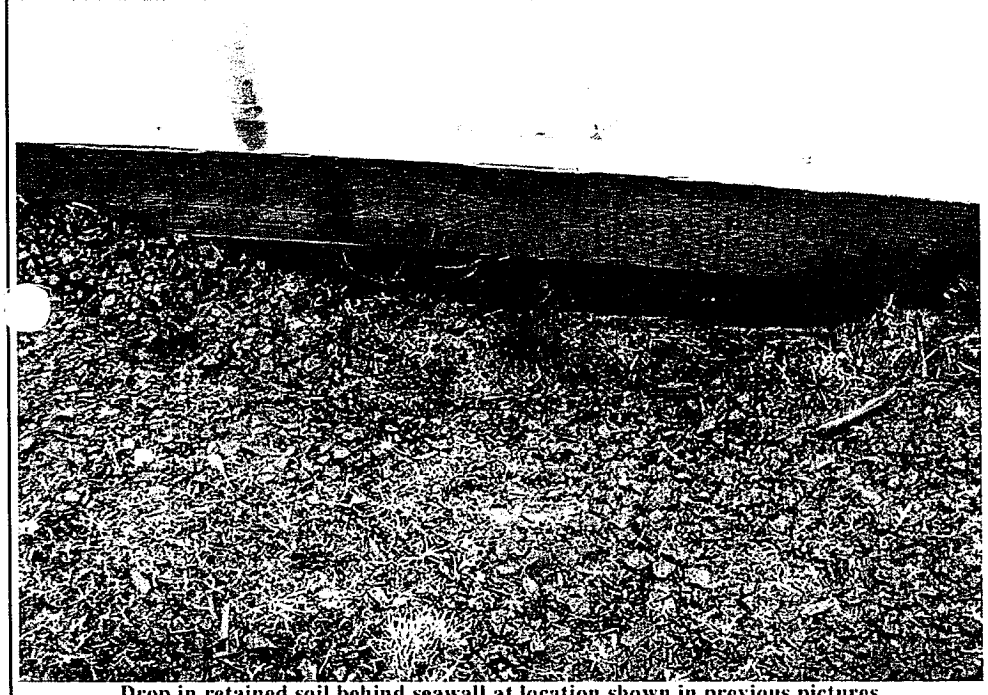

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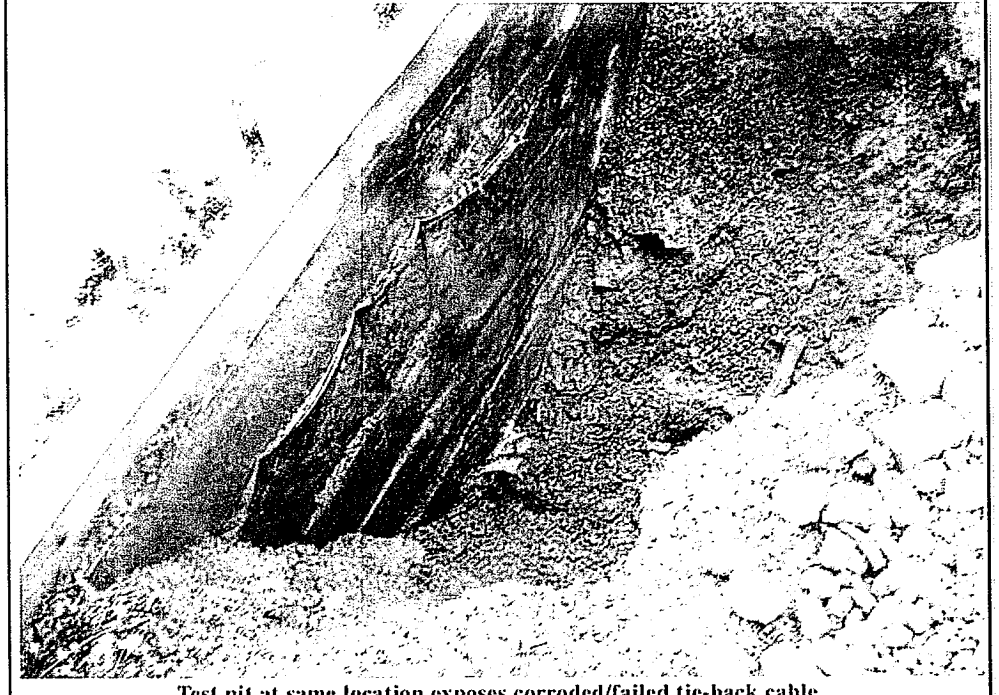

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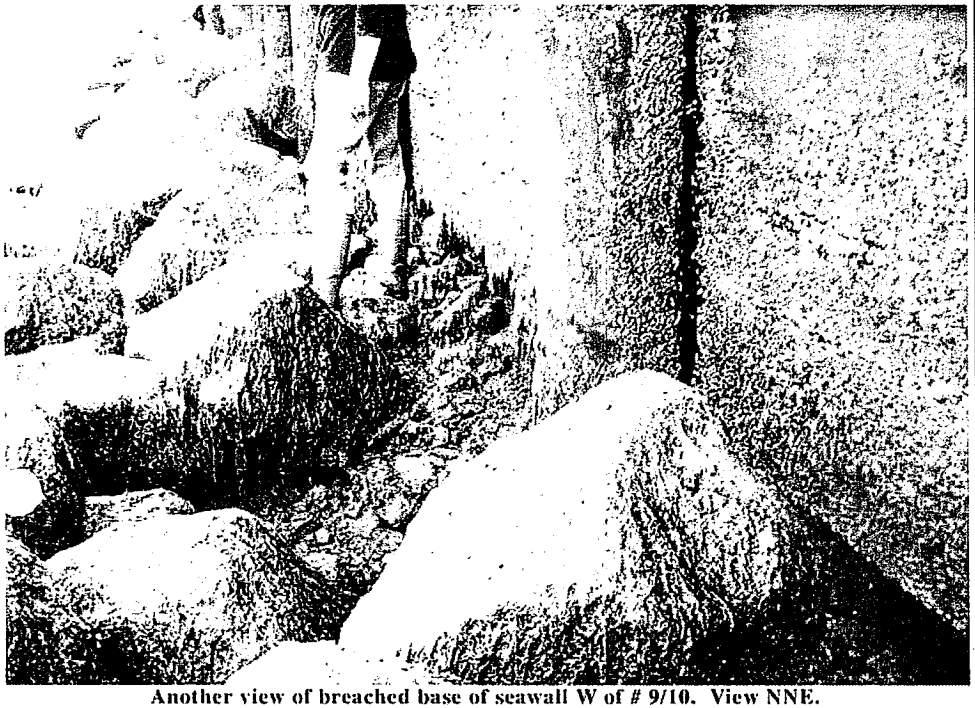

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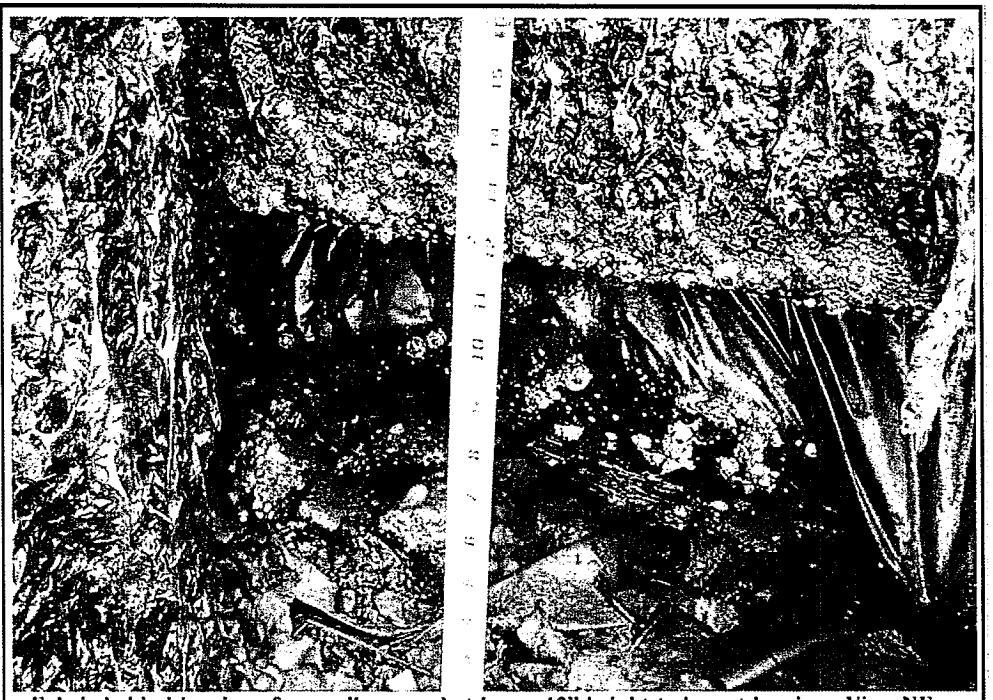

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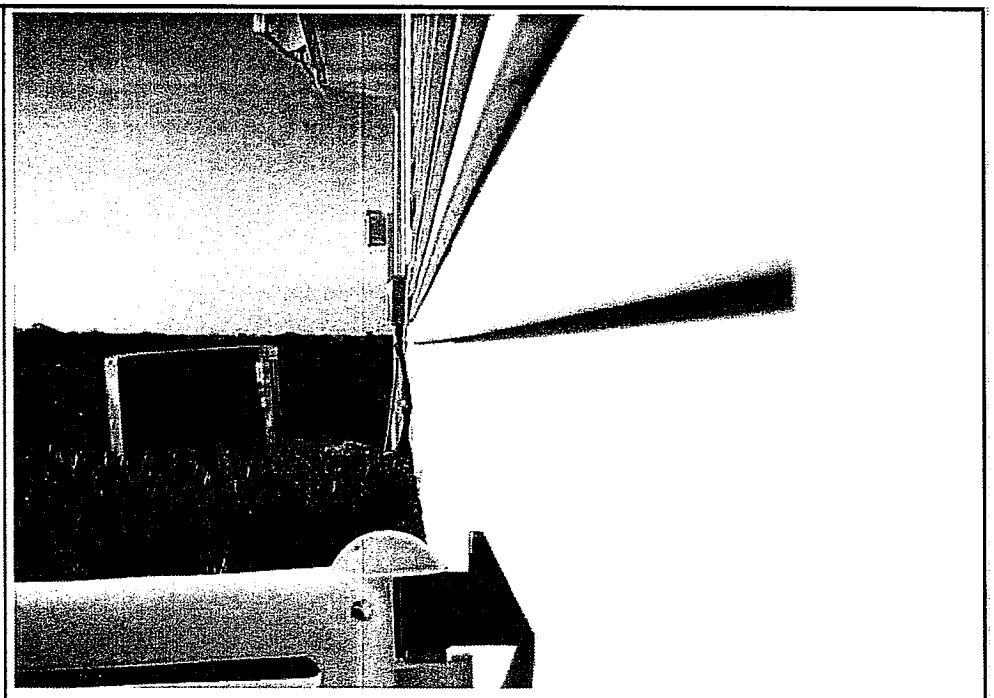

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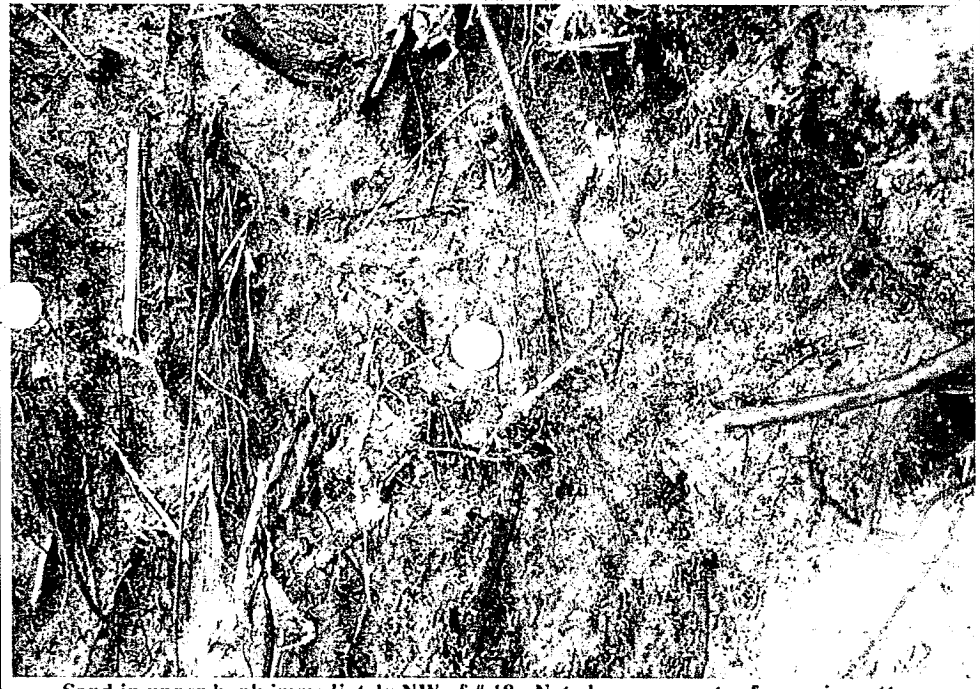

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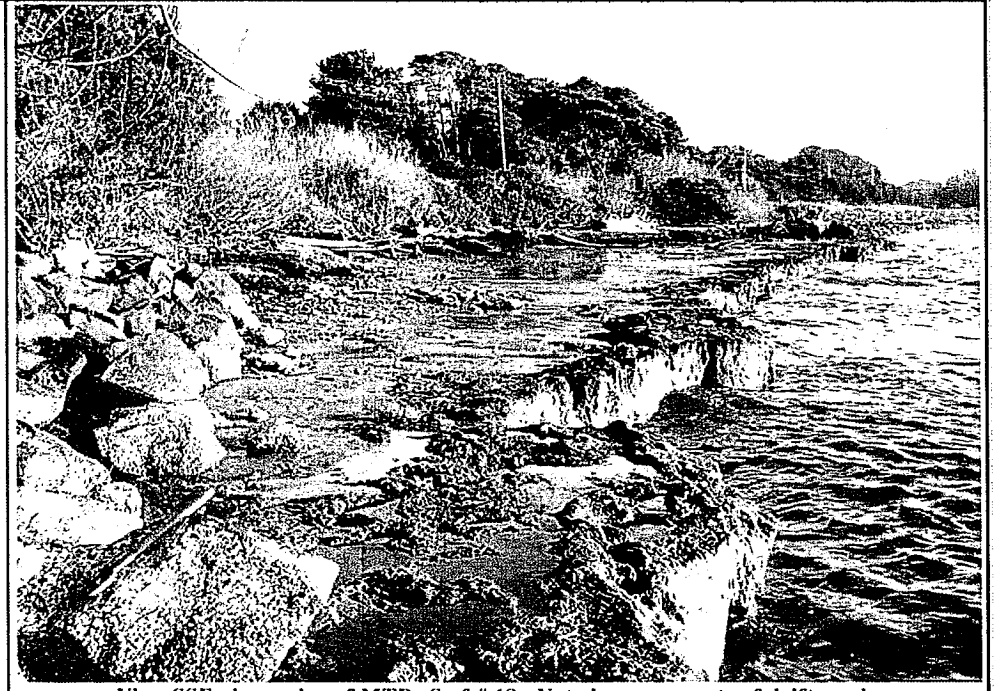

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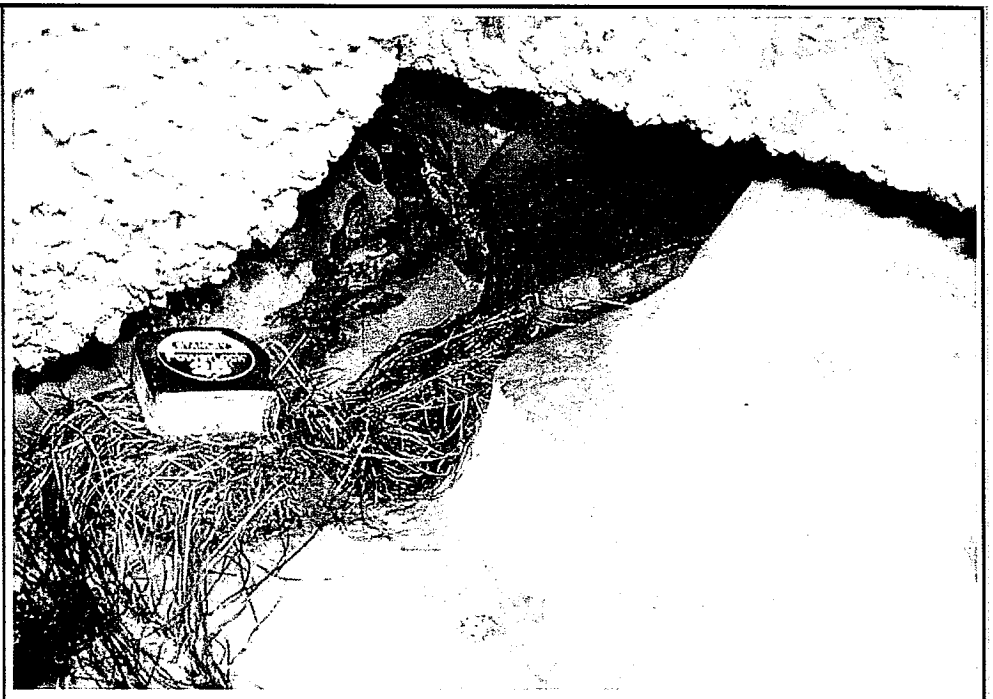

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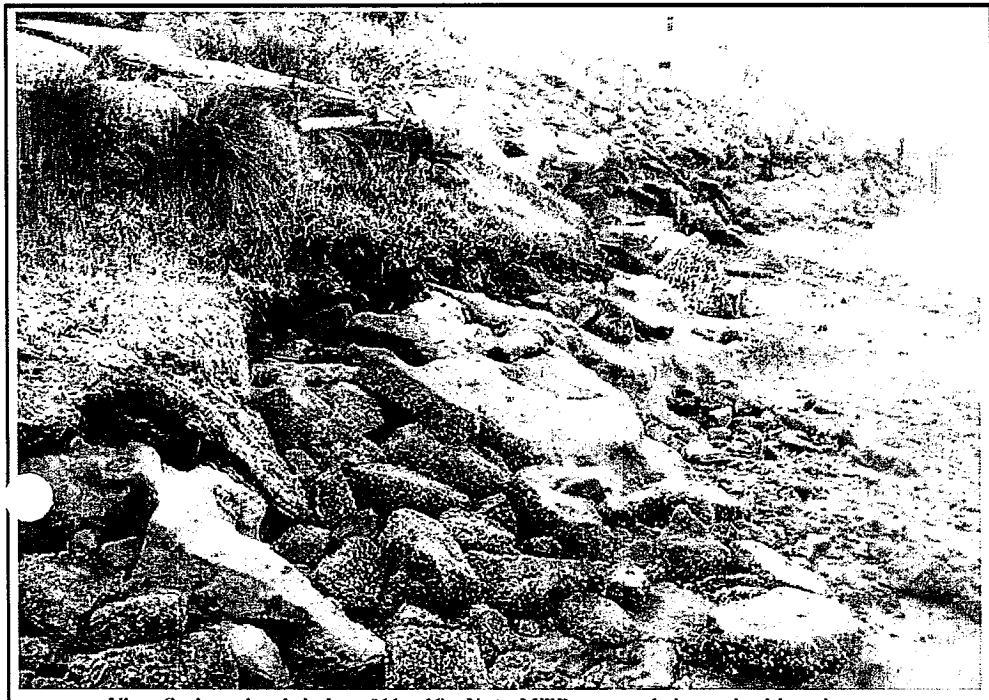

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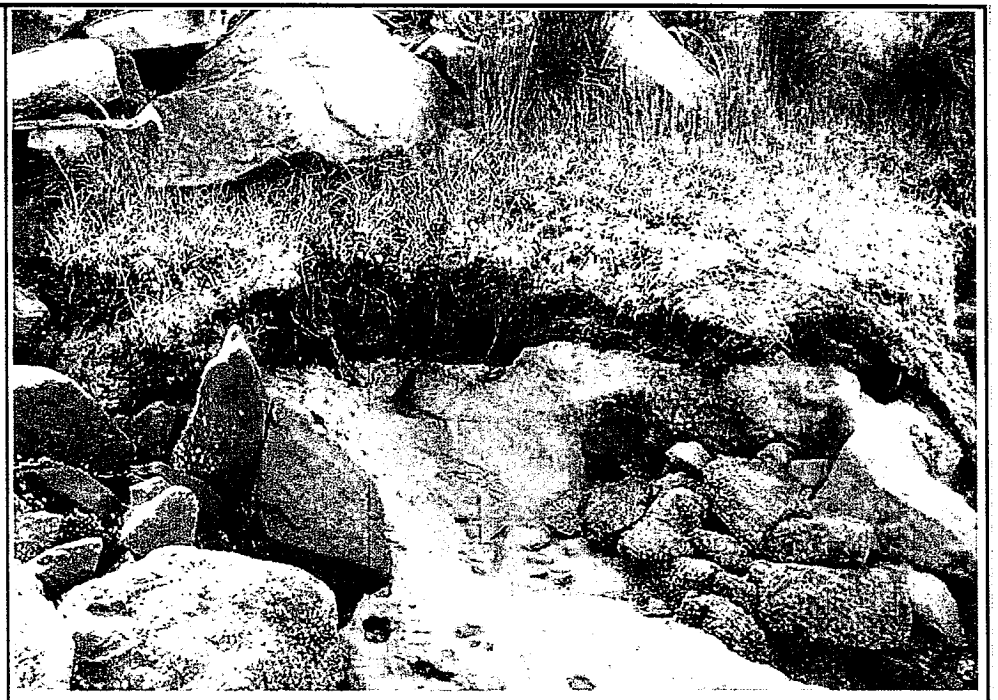

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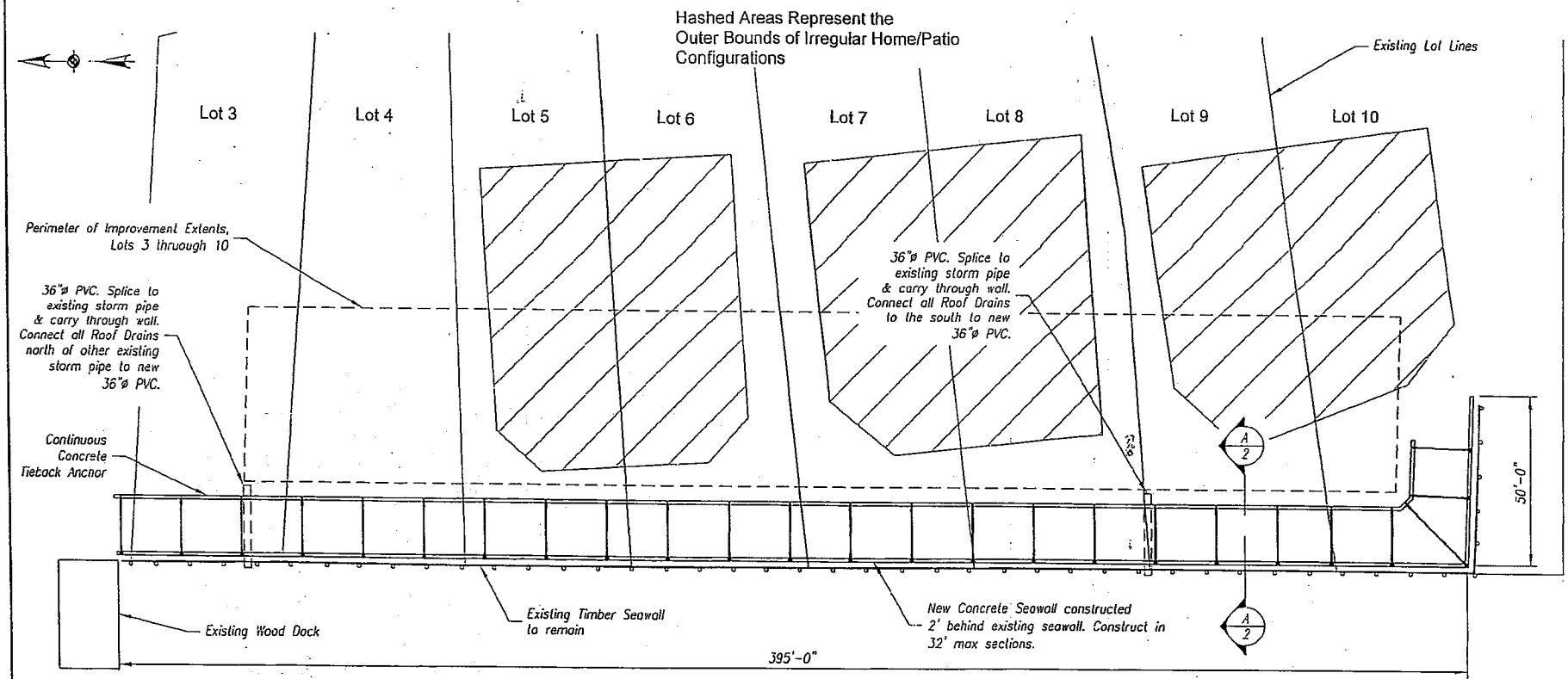
APPENDIX "C"




## General Notes:

All material, workmanship and design shall conform to drawings and International Building Code, IBC, 2003 Edition.

Design Loading: Equivalent active fluid soil density = 35 pcf
Equivalent passive fluid soil density = 450 pcf

Concrete shall be mixed, placed and conveyed as per provisions of IBC Section 1905 and ACI 301.

Concrete strengths in wall shall be 4000 psi with 5" maximum slump, minimum 6½ sacks cement per yard.

Concrete strengths in anchor wall shall be 3000 psi with 5" maximum slump and minimum 5½ sacks cement per yard.

All concrete clearances shall be 3" minimum unless called out otherwise.

All structural and miscellaneous metal shall be hot-dip galvanized. All welding areas shall be slag- hammered, wheel brushed, and ground to silver-surface, then treated with 3 coats of galvanizing paint.

All welding shall be conducted with E70 electrodes by certified welders. Weld preparation and application shall be as per AWS D.1.1 with the exception that no continuous inspection is required for down-hand fillet welds.

## Site Plan

Scale: 1" = 30'-0"

## Regulatory Requirement:

These plans address structural issues only pertinent to construction of the protective seawall. They may be used as exhibit in regulatory documents but in themselves do not present regulatory expertise.

1"

Measures one inch on original drawing. Adjust scales accordingly.

McGee Engineering
802 NW Buchanan Ave
Corvallis, OR 97330
Ph: 541-757-1270
Fax: 541 758-6585

REGISTERED PROFESSIONAL ENGINEER 07376 OREGON JULY 14, 1972 DENNIS M. McGEE

Renewal: 12/31/08

1/10/08

# Marine Manor

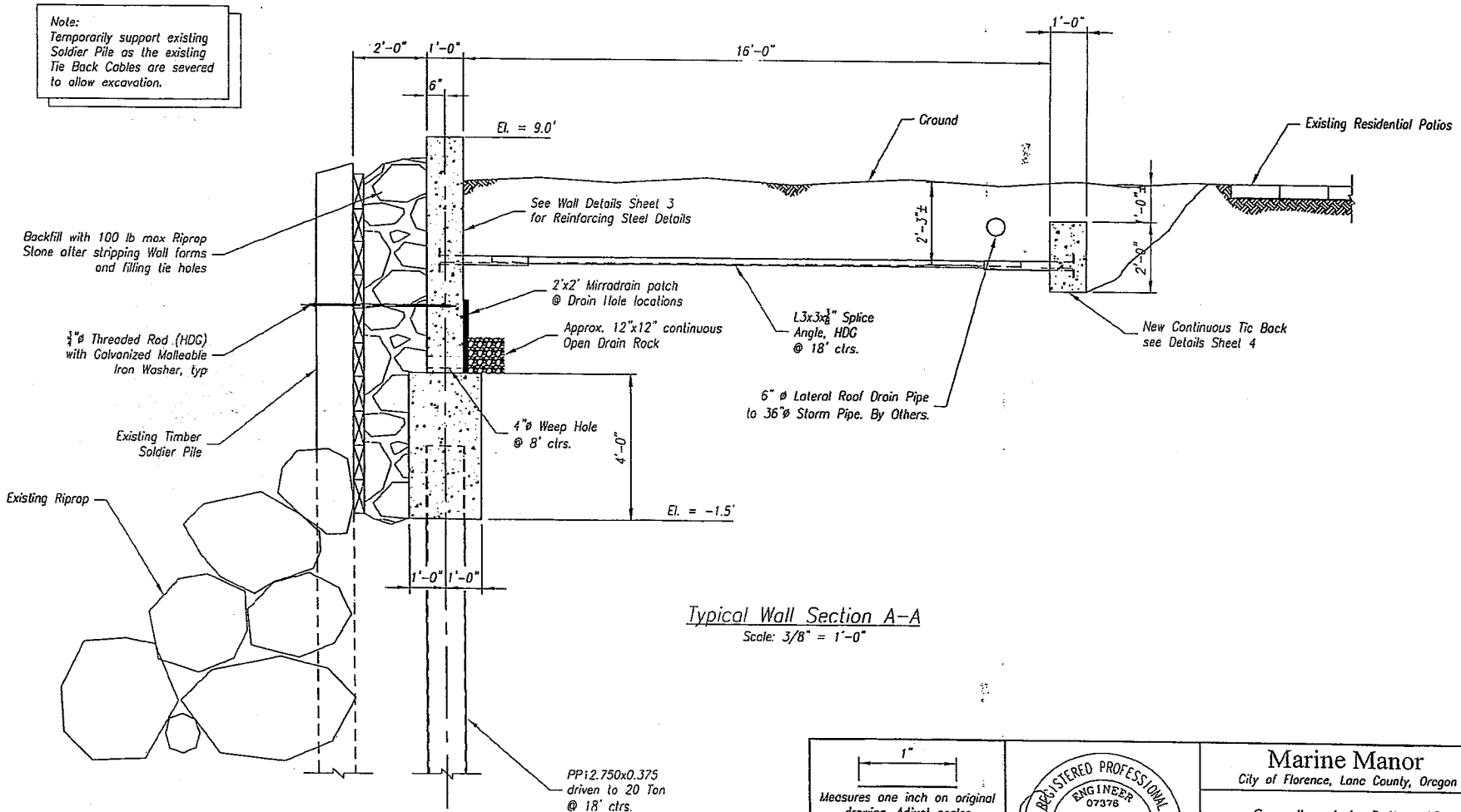
City of Florence, Lane County, Oregon

Seawall - Lots 3 thru 10

Site Plan

| | | |
|---|---|---|
| Date: | 1-10-08 | Sheet 1 of 4 |
| Drawn: | R. Jesse | |

ECAC




## Typical Wall Section A–A

Scale: 3/8" = 1'-0"

1"

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# Marine Manor

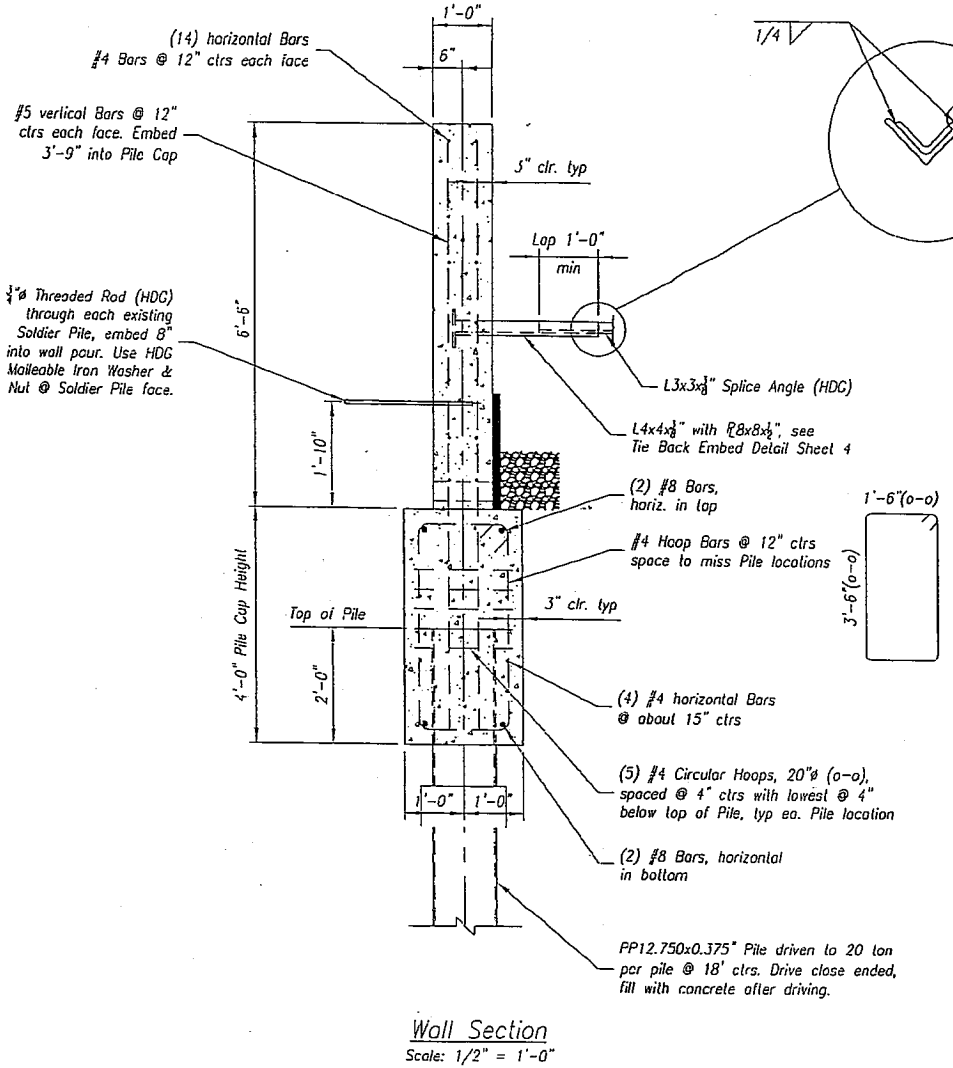
City of Florence, Lane County, Oregon

Seawall – Lots 3 thru 10

Typical Wall Section

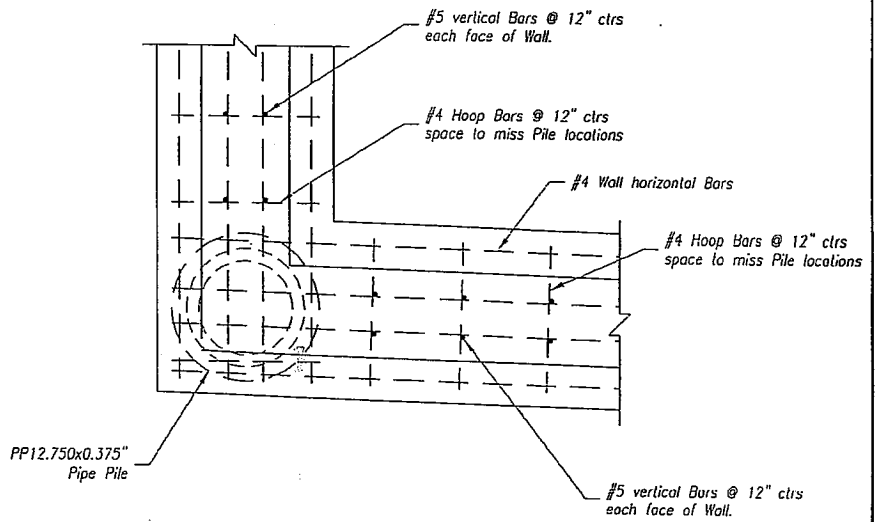
| | |
|---|---|
| Date: | 1-10-08 |
| Drawn: | R. Jesse |

Sheet 2 of 4




## Wall Section

Scale: 1/2" = 1'-0"




## Wall Corner Detail

Scale: 3/4" = 1'-0"

1"

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Ph: 541-757-1270
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Renewal: 12/31/08

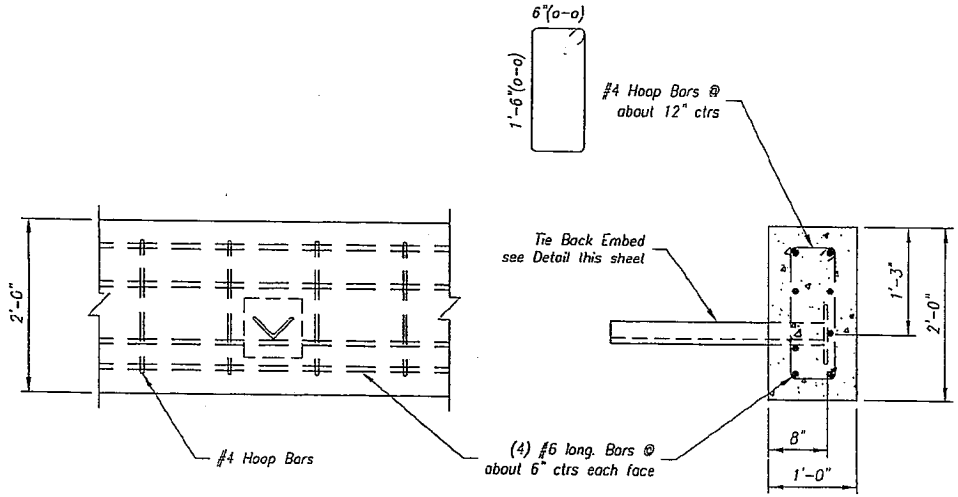
# Marine Manor

City of Florence, Lane County, Oregon

Seawall - Lots 3 thru 10

Wall Details

| | | |
|---|---|---|
| Date: | 1-10-08 | Sheet 3 of 4 |
| Drawn: | R. Jesse | |

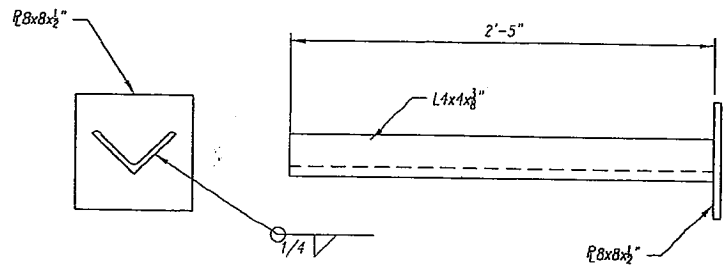



Front View

Side View

## Tie Back Anchor Details

Scale: 3/4"=1'-0"




Front View

Side View

## Tie Back Embed Details

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Note:
All hot-dip Galvanized after Fabrication.

1"

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REGISTERED PROFESSIONAL ENGINEER 07376 OREGON JULY 14, 1972 DENNIS M. McGEE

Renewal: 12/31/08

# Marine Manor

City of Florence, Lane County, Oregon

Seawall – Lots 3 thru 10

Tie Back Details

| | | |
|---|---|---|
| Date: | 1-10-08 | Sheet 4 of 4 |
| Drawn: | R. Jesse | |

MARINE MANOR SITE INVESTIGATION REPORT
APPENDIX D:

CITY OF FLORENCE
SITE INVESTIGATION REPORT SUMMARY

| | |
|---|---|
| Marine Manor Lot Owner's Association | January 11, 2008 |
| Applicant | Date |
| Seawall Replacement | 18122223 1500 - 2200 |
| Proposal | Map No. Tax Lot |
| 3215 – 3315 Rhododendron Drive & Lots 3, 4 | Single Family Residential |
| Street Address | Zoning District |
| | Overlay District |

Based on submitted information, zoning and comprehensive plan requirements, and the completed Site Investigation Report, this proposal **does** / ~~**does not**~~ comply with Title 10 of the City Code and the Comprehensive Plan.

The completed Site Investigation Report is available at the Planning Department.

This investigation was done by:

Gunnar Schlieder, Ph.D., CEG

GeoScience, Inc.

Title

SITE INVESTIGATION – PHASE 1
INITIAL PROPOSED DEVELOPMENT APPLICATION CHECKLIST

LOCATION:

| YES | NO | | |
|---|---|---|---|
| _X_ | ____ | 1. | LOCAL ZONING REGULATIONS<br>Does the proposed development site plan conform to City, or County Zoning Regulations regarding setback lines and other code provisions? (Contact the City or County Engineer for details.) |
| YES | NO | 2. | COMPREHENSIVE PLAN SETBACK LINE OR DESIGNATION |
| _X__ | ____ | | a. Has a Coastal Construction Setback line (CCSBL) been adopted for this County or city? (Inquire from the County or City Engineer.) |
| ____ | _X_ | | b. If a CCSBL has been adopted for this County or City is the proposed site seaward of the CCSBL? |
| ____ | _N/A_ | | c. If the proposed site is seaward of the adopted CCSBL, has application for a variance or exception been made to the Planning Commission having jurisdiction? |

APPENDIX "D"

| YES | NO | | |
|---|---|---|---|
| _X_ | ____ | 3. | IDENTIFIED HAZARDOUS CONDITIONS |
| | | | a. Has any portion of the property been identified as being affected by any potential or existing geological hazard? (Contact County or City Planning Departments for information published by the State Department of Geology and Mineral Industries, US Department of Agriculture-Soil Conservation Service, US Geological Survey, US Army Corps of Engineers and other government agencies.) |
| ____ | ____ | | b. Are any of the following identified hazards present? |
| | X | | 1. Active foredune |
| X | | | 2. Water erosion |
| | X | | 3. Flooding |
| X | | | 4. Wind erosion |
| X | | | 5. Landslide or sluff activity |
| _X_ | ____ | | c. Are there records of these hazards ever being present of the site? |

| YES | NO | | |
|---|---|---|---|
| _ _ | _X_ | 4. | EXISTING SITE VEGETATION |
| | | | a. Does the vegetation on the site, afford adequate protection against soil erosion from wind and surface water runoff? None present in project area. |
| ____ | _X_ | | b. Does the condition of vegetation present constitute a possible fire hazard or contributing factor to slide potential? |

| YES | NO | | |
|---|---|---|---|
| ____ | _X_ | 5. | FISH AND WILDLIFE HABITAT |
| | | | a. Does the site contain any identified rare or endangered species or unique habitat (feeding, nesting or resting)? Not in project area. |
| ____ | _X_ | | b. Will any significant habitat be adversely affected by the development? (Contact State Fish and Wildlife, County and City Planning Staffs for inventory data.) Not in project area. |

| YES | NO | | |
|---|---|---|---|
| ____ | _X_ | 6. | HISTORICAL AND ARCHEEOLOGICAL SITES |
| | | | Are there any identified historical or archaeological sites within the area proposed for development? (Contact local planning office.) |

| YES | NO | | |
|---|---|---|---|
| _X_ | ____ | 7. | FLOOD PLAIN ELEVATION |
| | | | a. If the elevation of the 100 year flood plain or storm tide has been determined, does it exceed the existing ground elevation at the proposed building site? (Contact the Federal Insurance Administration, City or County Planning Departments for information on 100 year flood pla9in. Existing site elevations can be identified by local registered surveyor.) |
| ____ | _N/A_ | | b. If elevations of the proposed development is subject to flooding during the 100 year flood or storm tide, will the lowest habitable floor be raised above the top of the highest predicted storm-wave cresting on the 100 year flood or storm tide? |

| YES | NO | | |
|---|---|---|---|
| | | 8. | CONDITION OF ADJOINING AND NEARBY AREAS |
| | | | Are any of the following natural hazards present on the adjoining or nearby properties that would pose a threat to this site? |
| ____ | _X_ | | a. Open dunes (Current conditions only, May change if Lot 1 and 2 are developed) |
| ____ | _X_ | | b. Active foredune |
| _X_ | ____ | | c. Storm runoff erosion |
| ____ | _X_ | | d. Wave undercutting or wave overtopping |
| ____ | _X_ | | e. Slide areas |
| ____ | _X_ | | f. Combustible vegetative cover |
| | x | | (Contact County and City Planning staffs for local hazard information.) |

| YES | NO | | |
|---|---|---|---|
| ____ | _X_ | 9. | DEVELOPMENT INPACTS |
| | | | a. Will there be adverse off-site impacts as a result of this development? |
| | | | b. Identify possible problem type |
| ____ | _X_ | | 1. Increased wind exposure |
| ____ | _X_ | | 2. Open sand movement |
| ____ | _X_ | | 3. Vegetative destruction |
| ____ | _X_ | | 4. Increased water erosion (storm runoff, driftwood removal, reduction of foredune, etc.) |
| ____ | _X_ | | 5. Increased slide potential |
| ____ | _X_ | | 6. Affect on aquifer |
| _X_ | __ | | c. Has landform capability (density, slope failure, groundwater, vegetation, etc) been a consideration in preparing the development proposal? |
| _X_ | ____ | | d. Will there be social and economic benefits from the proposed development? |
| | | | e. Identified benefits |
| ____ | _X_ | | 1. New jobs |
| _X_ | ____ | | 2. Increased tax valuation |
| ____ | _X_ | | 3. Improved fish and wildlife habitat |
| ____ | _X_ | | 4. Public access |
| _X_ | ____ | | 5. Housing needs |
| ____ | _X_ | | 6. Recreation potential |
| ____ | _X_ | | 7. Dune stabilization (protection of other features) |
| _X_ | __ | | 8. Other Protection of Existing Structures |

| YES | NO | | |
|---|---|---|---|
| _X_ | ____ | 10. | PROPOSED DESIGN |
| | | | a. Has a site map been submitted showing in detail exact location of proposed structures? |
| _X_ | ____ | | b. Have detailed plans showing structure foundations been submitted? |
| _X_ | ____ | | c. Have detailed plans and specifications for the placement of protective structures been submitted if need is indicated? |
| _X_ | __ | | d. Has a plan for interim stabilization, permanent revegetation and continuing vegetative maintenance been submitted? |
| | | | e. Is the area currently being used by the following? |
| ____ | _X_ | | 1. Off-road vehicles |
| ____ | _X_ | | 2. motorcycles |
| ____ | _X_ | | 3. horses |
| ____ | _N/A_ | | f. Has a plan been developed to control or prohibit the uses of off-road vehicles, motorcycles and horses? |

| YES | NO | | |
|---|---|---|---|
| _X_ | ____ | 11. | LCDC COASTAL GOAL REQUIREMENTS |
| | | | a. Have you read the LCDC Goals affecting the site? (contact LCDC, City or County office for copies of Goals.) |
| ____ | _X_ | | b. Have you identified any possible conflicts between the proposed development and the Goals or acknowledged comprehensive plans? (If so, list them and contact local planning staff for possible resolution.) |
| _X_ | ____ | | c. Have all federal and state agency consistency requirements been met? (Contact local planning office.) |
| _X_ | ____ | | d. Has applicant or investigator determined that the development proposal is compatible with the LCDC Beaches and Dunes Goal and other appropriate statewide land use planning laws? |

SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

ALASKA
COLORADO
FLORIDA
MISSOURI
OREGON
WASHINGTON

January 24, 2008

City of Florence Oregon
Robert Willoughby
City Manager
250 Highway 101
Florence, Oregon 97439

**RE: GEOTECHNICAL REPORT REVIEW**
**MARINE MANOR LOT OWNER'S ASSOCIATION**
**CONDITIONAL USE TO INSTALL SEAWALL**

Dear Mr. Willoughby:

We have reviewed the Site Investigation Report prepared for the Marine Manor Lot Owner's Association for construction of a seawall to replace an existing seawall. The seawall is located at the river's edge adjacent to lots three through nine of the Marine Manor PUD. A Site Investigation report was prepared by GeoScience, Inc. of Eugene, Oregon, dated January 11, 2008. In addition to the geotechnical report, you provided us with a report titled "Marine Manor Sea Wall Inspection, Florence, Oregon" prepared by OBEC Consulting Engineers, dated August 15, 2007. We understand these reports were provided by the applicant with their conditional use permit application.

We have reviewed the project Site Investigation Report solely as it pertains to the seawall replacement in front of lots 3 through 10 with respect to the accuracy and completeness of information pertaining to geologic hazards and geotechnical conditions. We understand that a second review will occur when the applicant applies for the construction a building permit. At that time, the review will focus on detailed construction drawings and specifications.

24-1-03474-001

3990 S.W. COLLINS WAY, SUITE 200
LAKE OSWEGO, OREGON 97035
503-223-6147 FAX 503-223-6140
www.shannonwilson.com

EXHIBIT "D"

In making our review we find the following:

1. The project does not appear to present a hazard to the subject property or to the surrounding land.

2. Documentation presented by the applicant shows the existing sea wall is deteriorating and can be expected to fail in the near future. The failure will include erosion of rip rap that protects the wall and the wooden structure of the wall itself. Following failure of the existing wall, it can be expected that the Siuslaw River will remove soil from in front of the proposed replacement wall. The applicant has not provided an analysis that supports the retaining wall design with respect to scour from the Siuslaw River. The applicant should submit a scour analysis to support the design depth of embedment below the existing ground surface.

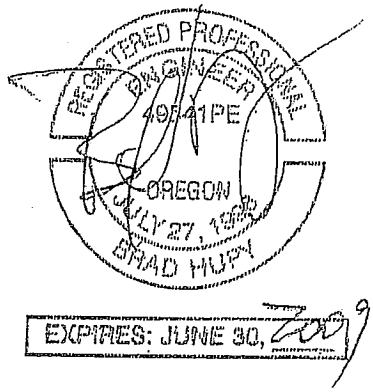
3. The Site Investigation Report does not indicate that site specific subsurface explorations have been performed to support the structural design of the proposed retaining wall. The applicant should provide documentation in the building permit application that provides the basis for structural design of the proposed wall. The geotechnical evaluation should assume that soil is removed from the front face of the wall to the design scour depth.

4. The site investigation report states the sea wall will be supported on cylindrical steel piles to a bearing of 20 tons. The report does not include a minimum embedment depth for the piles or estimate the depth that a bearing of 20 tons will be reached. The applicant should provide minimum pile embedment depths and other typical design and construction criteria with the Building Permit application.

The above findings are based on a review of the information provided. No visits were made to the project site.

Sincerely,

SHANNON & WILSON, INC.




Brad L. Hupy, PE
Senior Principal
Geotechnical Engineer

# CITY OF FLORENCE
# PLANNING COMMISSION
# RESOLUTION 01-09-11-33

**IN THE MATTER OF AN APPPLICATION FOR A RE-PLAT OF THE MARINE MANOR SUBDIVSION CREATING A 19 LOT SUBDIVISION WHICH TO INCLUDE AN 18 LOT PLANNED UNIT DEVELOPMENT. LOCATED BETWEEN THE SIUSLAW RIVER AND RHODODENDRON DRIVE IN THE SINGLE FAMILY RESIDENTIAL DISTRICT. MAP NUMBER 18-12-22-00, TAX LOT 800 & 900 AND TRACT A.**

WHEREAS, application was made by Emile Mortier for a tentative re-plat and planned unit development approved by the Planning Commission under Resolution 01-09-11-33 to re-plat Marine Manor Subdivision to a 19-lot subdivision including an 18 lot PUD,

WHEREAS, such request requires review by the Planning Commission under FCC Title 10 and 11, and

WHEREAS, the Planning Commission met in public hearing on September 11, 2001 to consider proposed re-plat and planned unit development, to hear testimony and to consider evidence presented,

NOW, THEREFORE the Planning Commission finds, based on the attached Findings of Fact and evidence presented, that this application be approved with the following conditions:

1. Unless appealed, the Planning Commission approval of the Tentative Plan shall become effective 30 days after the resolution is signed. The property owner shall submit to the Community Development Department a signed "Affidavit of Acceptance" of all conditions of approval. The signed affidavit must be received by the Community Development Department within this 30-day period.

2. The final plan/plat must be submitted within one year following the effective date of the Tentative Plan.

3. The required improvements shall be completed prior to the filing of the final plat, or a performance agreement or petition for improvements submitted to and approved by the City.

4. A vision clearance triangle of 20' shall be maintained at both points of access of the private street. Driveways shall maintain a 10' vision clearance triangle.

5. Each lot shall have at least two (2) off-street parking spaces.

6. Building height and lot coverage shall meet the requirements of the Single-Family Residential District (RS).

**EXHIBIT E**

7. A grading plan must be submitted to the City and approved prior to any site work. This plan will show soil stabilization measures during construction as well as proposed grades and any filling. This plan shall be coordinated with the vegetation plan and the storm drainage plan.

8. The final plan will be accompanied by CC&Rs which describe the use of the existing dock and boat ramp, contain provisions for coordinated maintenance of seawall and riprap, and continued maintenance of vegetation on the sloping back of Lot 1 as well as with in 30' of the shoreline on Lots 11-18. The CC &Rs will also clearly describe the ownership and intended use of Parcel A and provide for maintenance of the private road.

9. Streetlights will be provided as determined by the Planning Commission in conjunction with the Public Works Director.

10. Rear yard setbacks shall be at least 25' from the seawall on Lots 3-10, 25' from the top of the bank on Lot 1&2, 25' from the top of the bank on Lot 18; and 20' from the top of bank on Lots 11-17.

11. A plan for the construction of the private street shall be submitted to the City for approval by the Public Works Director. The plan shall show a minimum paved width of 12'. Deeds must include cross easements for use of the streets. All utilities shall be placed underground to protect visual access to the river.

12. Property owners shall enter into an agreement to indemnify, defend, and hold the city harmless from any claims arising in regard to the City's approval of this project prior to the issuance of a building permit. This agreement shall be recorded and apply to all assigns and successors of owner.

13. The final plat shall contain *s* warning and all promotional materials and sales agreements shall also include notification of tsunami potential.

14. Roof drainage shall be diverted away from the riverbank to a storm drainage facility. An oil and silt separator catch basin may be required at point of entry into the drainage facility.

15. Applicant and future purchasers shall sign a non-remonstrance agreement for future sidewalks.

16. Prior to final PUD approval, applicant shall submit calculations or plans indicating 20% open space requirement exclusive of streets, driveways and landscaping in right-of-way.

**APPROVED BY THE FLORENCE PLANNING COMMISSION**, this 17 day of September 11, 2001.

Wayne Paul, **CHAIRMAN**
**FLORENCE PLANNING COMMISSION**

**EXHIBIT "A"**
**FINDINGS OF FACT**
**September 11, 2001**
**Resolution 01-09-11-33**

PROPOSAL DESCRIPTION: The applicant is proposing a re-plat of the Marine Manor subdivision as a planned unit development (PUD). The development will include 18 lots on the west side of Rhododendron Drive fronting the Siuslaw River and a 19th lot on the east side of Rhododendron which although included in the subdivision will not be part of the PUD. Tract A at the south end of the subdivision will remain unchanged.

APPLICANT: Marine Manor Development Corp.

LOCATION: Map Number 18-12-22-00 Tax Lot 800

SURROUNDING LAND USES AND ZOINING DISTRICT:
Site: Vacant, Single Family Residence
North: Single Family Residence
South: Marine District
East: Mobile Home District
General Commercial
West: Siuslaw River

APPLICABLE CODES:
FCC Title 10, Chapter 10 – Single Family Residence
FCC Title 10, Chapter 23 – Planned Unit Development
FCC Title 11, Chapters 3-6 Subdivision Standards and Developments
FCC Title 10, Chapter 7 – Special Development Standards
FCC Title 10, Chapter 19 – Estuary and Shorelands

REFFERAL/CORRESPANDENCE:
Notice was published in the Siuslaw News on August 29, 2001 and September 5, 2001, and mailed to property owners within 300 feet of the site

**NARRATIVE:**
Description The parcel is the site of the Siuslaw Pacific Marina, which was destroyed by a storm in 1981. It abuts the Siuslaw River, and is separated from the water by a seawall and/or riprap, depending on the lot in question. Parcel A is not intended for residential use. The site is primarily flat, except for the area that slopes down to the water, and up to Rhododendron. There are an existing building, boat ramp, and dock on the property.

The seawall is anchored into the land by means of cable attached to 'deadmen' located within the body of the lots. There was some question about their location, so the original applicant trenched 3 lots at approximately 25' from the seawall to a depth of 8 feet. Onsite for the trenching was the previous AP Mulder, and no evidence of cable or

deadmen were located, leaving the exact location unknown. However, a letter dated 3/31/93 from Mortier Engineering stated the deadmen were located approximately 20' east of the seawall. Another letter submitted by Mortier Engineering dated 4/17/98 stated fourteen new tiebacks were installed, but did not give the exact location. The same letter indicates the seawall and the southerly upper plateau are at elevations varying from 10.8' to 13.5' above mean sea level. The 100-year flood plain is given at 10.5 ' above mean sea level, thus showing the site is technically out of the 100-year flood plain.

The applicant is proposing a planned unit development containing 18 single-family dwelling units located on the separate designated lots. Originally the plat was approved for 9 lots. The current proposal is to construct in groups of two with a common wall at the adjoining lot line. The common areas will be established by easement agreement. They will include the boat ramp, the walkway along the sea wall, the common access roadway that serves lots 10-18 with access to the existing dock, and the utility and drainage easements. These easements will be designated and defined on the plat map and the agreement, provisions, or covenants will establish a homeowners committee, which will be responsible for maintenance of those common facilities and enforcement of the CC & R's for the subdivision. These provisions will replace the existing CC & R's for the Marine Manor subdivision, which are not adequate for the purpose. There will be no common ownership lands since these designated areas will be defined as easements.

COMPLIANCE WITH CODE REQUIREMENTS

SINGLE-FAMILY RESIDENTIAL DISTRICT (RS)

**Minimum Lot Dimensions**: The RS requires minimum lot dimensions be 65' x 80', however through the PUD process the lot dimension can be modified to accommodate the proposal. All the lots contain adequate depth, however Lots 1-10 range from 35' – 55' in width. The applicant is proposing to construct in groups of two with a common wall at the adjoining lot line and maintain a 10-foot side yard setback between the two unit buildings to create a 20' open space. The single-family district allows duplexes as a conditional use, thus increasing density to 18 units. The applicant is proposing zero lot line single-family units at duplex densities. The applicant is proposing variety of building designs so that structures will appear to be large single-family units.

**Minimum lot area is 6500 sq. ft.:** The proposed lot area range from 6921 – 20,000 sq. ft., which exceeds lot area requirements.

**Lot coverage is limited to a total of 65%.** Lot coverage will be reviewed at the time building permits are issued. No request has been made to modify this requirement.

**Front yard setback:** Minimum front yard setback requirement is 20'. Front yard is defined as "an area lying between side lot lines, the depth of which is a specific horizontal distance between a street line and a line parallel thereto on the lot." The front yard is then determined to be the area of each lot abutting Rhododendron Drive. All lots are deep enough to allow the minimum setback.

**Side yard setback:** Minimum side yard setback is 5'. The applicant is proposing to construct in groups of two with a common wall at the adjoining lot line and maintain a 10-foot side yard setback between the two unit buildings to create a 20' open space between the two buildings. Some building projections would be required into the 10 foot setback such as bay windows, fireplace projections, wind screens, privacy fences, and other features such as eave overhangs and other architectural features, but would intrude into the minimum 5 foot required setback.. The main wall of the building will observe the 10-foot minimum side yard setback.

**Rear Yard setback:** Rear yard minimum setbacks are 10' from the rear property line, and 5', for accessory structures. All lots have sufficient depth to allow 10' rear yard setbacks. However, since dwellings must be located a sufficient distance from the seawall to allow for repair or replacement of pilings, deadmen, cables and repairs to the face of the seawall, staff recommends maintaining the original approved setback of at least 25'on Lots 1-10. Setbacks for the remaining lots will be addressed later in these findings.

**Building height:** Building height will be reviewed at the time building permits are issued.

**Vision Clearance:** Vision clearance is defined as " a triangular area at an intersection; the space being defined by a line across the corner, the ends of which are on street lines or alley lines, an equal and specified distance from the corner and containing no planting, walls, structures or temporary or permanent obstructions from 205 feet above the street grade to a height of 8 feet. In the interests of safety, since the access is directly to Rhododendron Drive, which is a minor arterial, staff recommends that the private street and all driveways maintain a vision clearance triangle at their intersection with Rhododendron Drive. FZC requires a 20' vision triangle at the intersection of two streets, and a 10' vision triangle at the intersection at the intersection of streets and alleys.

**Off-street parking**: Residential dwellings are required to have two permanent off-street parking spaces. All lots have sufficient area to accommodate two parking spaces.

**SHORELINE DISTRICT**

*Natural Resource Conservation Combining District: /NRC*

In the NRC/, a determination must first be made if the District applies. The criteria in FCC 10-19-6 are used to make this determination. The requirements of the (/NRC) apply only to those areas which are lands described in 10-19-6. The Marine Manor Subdivision contains lands lying between the MHHW and the MLW mark, and lands in which vegetation provides stabilization of the shoreline.

If lands subject to 10-19-6 are identified, then single family dwellings are allowed in the underlying district become a special use, subject to the criteria in 10-19-4 E & F. Special uses are approved by administrative review, subject to conformance with sections E & F. However, it makes more sense to review the criteria in E and F as a part of the

subdivision approval, since several of the criteria would apply to several lots. Review of sections E & F:

E.1 Clearance of existing vegetation. This applies primarily to Lot 1&2, as identified earlier. There is very little vegetation on Lots 11-18 between the MHHW and MLW. The Mortier letter dated 3/31/93 describes Lot 1&2 as a sand dune type of deposit with the sloped surfaces protected with natural vegetation. A letter of 4/17/98 states a 20' to 25' setback from the top of the existing sloped bank would be adequate provided that the slope bank above the riprap continues to protect from erosion with proper vegetation. The applicant landscape plan shows the addition of riverbank plantings of dwarf and other species.

E.2, 3 and 4. Again, there is very little vegetation within the subject areas of Lots 11-18. Soil stabilization is required during construction, and construction must avoid excavation and removal of indigenous vegetation wherever possible. Where such exists, an area of indigenous vegetation 30' in width shall be retained along all coastal water bodies, and existing trees within 50' of MHW must be saved. Parcel A has marine vegetation, since it is submerged a good portion of the year. It is not planned for residential use, and this limitation should be noted on the recorded final plat.

E.5, E6 will be reviewed at the time of application for building permits.

E.7 has been addressed under the Single Family Residential District

Section F does not apply since the site is not located on a coastal lake, nor is it an oceanfront parcel.

Conclusion: If properly conditioned, subdivision of this site will comply with Section E, thus allowing single-family dwellings. Section F does not apply.

***Shorelands Mixed Development Combining District (/MD)***

In the /MD, a determination must first be made if the District applies. The criteria in FCC 10-19-6 are used to make the determination. The requirements of the /MD apply ***only*** to those areas on the site which are lands described in 10-19-6. Again, Marine Manor has lands lying between the MHHW and the MLW, and lands in which vegetation provides stabilization of the shoreline.

Review of Section C3:

A. The proposed use is water dependent or water related; or
B. If the parcels are unsuited to water dependent uses, then uses which are nondependent, nonrelated, conform to the requirements of the underlying zoning district and the requirements of this section.

The site has been determined not to be necessary for water related/water dependent uses though the ESWD amendment process under the city's Comprehensive Plan review. The lots have been determined to comply with the requirements of the underlying district earlier in this report.

Conclusion: The proposal is in conformance with the requirements of the Shorelands Mixed Development Combining District.

*Special Development Standards*
A site investigation checklist was performed on the original plat, which identified several potential problem areas, which can be addressed by conditions of approval. The Special Development Standards require a 50' setback from river cutbanks, unless the bank has been stabilized. After reviewing the site investigative report, the Planning Commission may approve a lesser setback, provided that no erosion hazards, slide potential or possible flood damage are likely, and riparian vegetation is protected.

The Shorelands Districts require retention of shoreland vegetation within 30' of MHW, and retention of all trees within 50' of the MHW. In addition, the slope above the riprap on Lot 1&2 must be vegetated with appropriate materials to discourage wind and water erosion. The /NRC District requires that construction activities avoid unnecessary excavation and removal of indigenous vegetation unless replaced immediately, and that interim soil stabilization be taken during construction. Lots 13-18 have been riprapped to stabilize the bank. The 100-year flood plain is established at 10.5 feet. The top of the bank varies in elevation from approximately 12 feet on lots 11 & 12 to 14-15 feet on lots 13-18, this differs from the Mortier letter of 4/17/98 since fill has been added to the shoreline by the prior applicant after 4/17/98. The applicant is requesting the rear setback measured from the flood level elevation of 10.5 on lots 11-18 and be established at twenty feet from this line. However, the original recommendation for rear setbacks was to be measured from the top of the bank established by the elevation, which required a minimum of 20 feet on lots 11-17 and 25 feet on lot 18 due to the longer shoreline and greater exposure to the action of the water. To establish a lesser rear setback requirement the applicant is proposing in conjunction with the development of the residences on each of the lots to regrade the bank and install riprap from the present top-of-rock riprap to allow the new established grade, which will be approximately seven feet above flood elevation. The applicant contends the extension of the riprap and grade change will also result in a realignment of the top-of-bank from the present irregular alignment and therefore reduce the potential for erosion due to eddies in the river current which would be created by the present irregular alignment. In addition, the raising of the rip-rap protection, the higher grade level of the site and corresponding floor levels of the residences will provide greater protection on these sites than is afforded the sites where the sea wall occurs. If Planning Commission decides to modify the required rear yard setback from the original approved plat, staff would recommend the planting of additional vegetation along rip rap wall for additional bank stabilization.

## PLANNED UNIT DEVELOPMENT

**Minimum Size:** According to FCC 10-23-5 (A) the minimum lot size requires five (5) acres of contiguous land, unless the Planning Commission finds a particular parcel of land less than five (5) acres is suitable as a planned unit development by virtue of its unique character, topography, landscape features, or of its special problem area. The

total proposed PUD subdivision is approximately 4.16 acres. Due to the unique character of the land, the location of the Siuslaw River, and residential development abutting the property to the north this parcel is suitable for a PUD less than 5 acres.

**Building Coverage:** FCC 10-23-5 (B) states in a residential PUD, not more than fifty percent (50%) of the land area being developed, exclusive of public or private streets, shall be covered by buildings. Lot coverage will be reviewed during the building permit process.

**Perimeter Yards:** Front yard setback requirements are the same at the surrounding development.

**Building Height:** Building height is restricted to 28' for primary structures under Single Family Residential District. Building height will be reviewed during the time the building permit is issued and shall not exceed 28'.

**Off-Street Parking:** Each lot is required to have two covered off-street parking spaces. The applicant is proposing dwellings with two car garages, which meet the requirement. Driveways must be designed to have no greater than a 6% slope entering or leaving the driveway.

**Underground Utilities:** All utilities are existing and located underground. Underground utilities are critical to the maintenance of Rhododendron Drive, a scenic road.

**Open Space:** The open space will include the walkway and landscaping along the sea wall, the boat ramp area, the access walkway to the docks south of lot 18, access to river along the southerly projection of lot 9 and tract A, which is available for all public use. The applicant is also including the landscape berm along Rhododendron Drive, which is basically in the right-of-way. Landscaping in the right-of-way shouldn't be relied upon for a vegetative buffer or be calculated in the required open space because at some point there is a plan to put a bicycle path along Rhododendron Drive and majority of the vegetation will be removed. The applicant shall provide to the Community Development Department showing calculations of the required minimum 20% open space without the Rhododendron landscape berm.

**SUBDIVISION STANDARDS (FCC Title 11, Chapter 5)**

Streets

Street is defined as " a public or private way, other than a public alley, that is created to provide ingress or egress for vehicular traffic to one or more lots, parcels, areas or tracts of land; excluding a private way that is created to provide ingress or egress to such land for forestry, mining, or agricultural purposes. A road or street includes the land between right of way lines, whether improved or unimproved. However, in the zoning section of the code a street is defined as, " a public thoroughfare, avenue, road, highway, boulevard, parkway, way, drive, lane, court, or ***private easement***, providing the primary roadway for ingress and egress from the property abutting thereon".

The applicant is proposing 4 ingress/egress points to Rhododendron Drive. Lots 1-8 would access directly to Rhododendron and Lots 9-18 would be accessed by common 25' access and utility easement. Under these definitions, the easement serving lots 11-18 is a private street. The easement shown is 25 feet, 20' is the minimum right-of-way (ROW) and also the minimum paved surface for an alley under 11-5-1B. The minimum ROW for a local street is 50', with a paved surface of 28'. A local street is defined as "a minor street less than 400 feet in length which cannot be extended or intersected." An alley is defined as "a narrow street through a block primarily for vehicular service access to the back or side of properties otherwise abutting on another street". If the Planning Commission determines that the internal easement meets the definition of an alley, then the standards have been met, provided the minimum paved width is required. If the Planning Commission determines that this is a local (private) street, then the criteria for modification of the requirements for ROW width and paved with (11-5-1B) must be met in order to allow a 25' ROW.

There is no need for slope easement, for reserve strips, or for provision for future extension of streets due to the topography and location of the site. There are no intersection offsets.

**Lots and Parcels**

There are no key and butt lots. The sidelines of the lots run generally at right angels to Rhododendron Drive. The lots are suitable for the intended use, provided that the conditions accompanying this decision are met. No land is being reserved for future partition or subdivision.

Drainage:
Drainage is an important issue on this site because it carries water from Rhododendron Drive, and parcels east of Rhododendron Drive to the river. There is a drainage ditch paralleling Rhododendron Drive traveling roughly from the bridge south to the point of intersection with the river. Drainage from the stream under the bridge is shown crossing the roadway and entering the river between proposed Lots 8 & 9. There is also a drainage ditch on the east side of Rhododendron Drive across from proposed Lots 1 & 2 which enters a culvert under Rhododendron Drive and discharges through a pipe between proposed Lots 2 & 3. Both these culverts are shown on the plan and can provide proper drainage for the area. However, it is important for all roof drainage to be diverted away from the river bank and diverted through means of drainage way.

**Unsuitable Area**

**Tsunami:** Single-family residences are exempt from State regulations pertaining to tsunami inundation areas. However, the final plat should contain s warning and all promotional materials and sales agreements should also include notification of tsunami potential.

**Water Supply:** The proposed subdivision will be served by City water from the 8" line in the Rhododendron Drive ROW. According to the Public Works Director, there is no problem with the provision of water to this site.

**Sewage Disposal:** Sewer plans were submitted to the Public Works Director for approval on the original plat. Applicant shall comply with approved plans.

**Storm Drainage and Streets:** Storm drainage and streets have been addressed earlier. No pedestrian way is proposed. City plans call far an improved bikeway along Rhododendron Drive, but this would be located in the ROW which is 60' in width. No additional dedication of ROW is required.

**Performance Bond:** All required improvements must be completed prior to submittal of the final plat, or a performance agreement must be approved by the City Council for installation of such improvements.

*OTHER CONERNS*

**Buildable area**: It should be understood that dwellings are intended to be sized to meet the City code requirements without the need for variances.

**Fire Protection:**
Fire hydrants exist in the Rhododendron Drive ROW just east of the camp building on the site, and south of the site near the entrance to the county landfill. The city will install an additional hydrant, at city expense, at the center of the east boundary of this site.

## CONCLUSION AND RECOMMENDATION:

Staff finds that the Tentative Plan for Marine Manor meets the requirements of the Florence Zoning and Subdivision code, or can meet those requirements through conditions, and recommends approval of the Tentative Plan subject to the following conditions:

1. Unless appealed, the Planning Commission approval of the Tentative Plan shall become effective 30 days after the resolution is signed. The property owner shall submit to the Community Development Department a signed "Affidavit of Acceptance" of all conditions of approval. The signed affidavit must be received by the Community Development Department within this 30-day period.
2. The final plan/plat must be submitted within one year following the effective date of the Tentative Plan.
3. The required improvements shall be completed prior to the filing of the final plat, or a performance agreement or petition for improvements submitted to and approved by the City.
4. A vision clearance triangle of 20' shall be maintained at both points of access of the private street. Driveways shall maintain a 10' vision clearance triangle.
5. Each lot shall have at least two (2) off-street parking spaces.
6. Building height and lot coverage shall meet the requirements of the Single-Family Residential District (RS).

7. A grading plan must be submitted to the City and approved prior to any site work. This plan will show soil stabilization measures during construction as well as proposed grades and any filling. This plan shall be coordinated with the vegetation plan and the storm drainage plan.
8. The final plan will be accompanied by CC&Rs which describe the use of the existing dock and boat ramp, contain provisions for coordinated maintenance of seawall and riprap, and continued maintenance of vegetation on the sloping back of Lot 1 as well as with in 30' of the shoreline on Lots 11-18. The CC &Rs will also clearly describe the ownership and intended use of Parcel A and provide for maintenance of the private road.
9. Streetlights will be provided as determined by the Planning Commission in conjunction with the Public Works Director.
10. Rear yard setbacks shall be at least 25' from the seawall on Lots 3-10, 25' from the top of he bank on Lot 1&2, 25' from the top of the bank on Lot 18 and 20' from the 100 year flood plain of an elevation of 10.5 feet on Lots 11-17.
11. A plan for the construction of the private street shall be submitted to the City for approval by the Public Works Director. The plan shall show a minimum paved width of 20'. Deeds must include cross easements for use of the streets. All utilities shall be placed underground to protect visual access to the river.
12. Property owners shall enter into an agreement to indemnify, defend, and hold the city harmless from any claims arising in regard to the City's approval of this project prior to the issuance of a building permit. This agreement shall be recorded and apply to all assigns and successors of owner.
13. The final plat shall contain s warning and all promotional materials and sales agreements shall also include notification of tsunami potential.
14. Roof and drainage way shall be diverted away from the riverbank to a storm drainage facility. An oil and silt separator catch basin may be required at point of entry into the drainage facility.
15. Applicant shall sign a non-remonstrance agreement for future sidewalks.

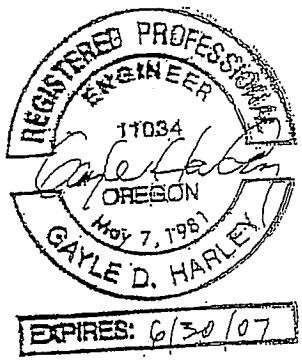
# Marine Manor Sea Wall Inspection

Florence, Oregon

By

## OBEC Consulting Engineers

OBEC Job No. 674-1




Report by: Stewart L. McCornack
Reviewed by: Gayle D. Harley

OBEC Consulting Engineers, Inc.
920 Country Club Road, Suite 100B
Eugene, Oregon 97401
(541) 683-6090

**EXHIBIT F**

## Introduction

OBEC Consulting Engineers performed an inspection of the sea wall at the Marine Manor Properties in Florence, Oregon, on May 23, 2007, at the request of Emile Mortier. The purpose of the inspection was to determine the condition of the existing seawall and provide recommendations for future maintenance. Included with this report are the following:

- Figure 1 – Marine Manor Seawall Inspection Layout
- Figure 2 – Pile Inspection Notes
- Photos

## Scope of Work

1. A specific condition assessment of the sea wall elements, including piling, bulkhead and riprap.
2. Assessment of current maintenance recommended to bring the structure into a standard of "good order and repair" and the risks and life expectancy of the structure if the maintenance is completed.
3. Current risks and life expectancy if the recommended maintenance is not performed.

## Timber Condition

The Marine Manor Seawall Inspection Layout (Figure 1) was developed by the inspection team as a means to track locations of piling and pertinent details along the wall. In general, the layout is stationed in 1 foot increments from north to south for approximately 400 feet along the face of the wall, turning east for an additional 60 feet of wall. Each pile was numbered, measured and located by stationing (Figure 2).

The timber piles that support the backfill are both treated and untreated. The piles range in diameter from approximately 9 inches to 16 inches and appear to have been installed at different times. Approximately 49 percent of the pilings are in poor to very poor condition with at least 50 percent of the cross section decayed anywhere from 3 feet to 5 feet below the top of the seawall. Numerous pilings have face cuts and drilled holes that compromise the treatment and have allowed decay to propagate. The top 12 inches of all the pilings have been covered with a synthetic fabric in order to prevent further decay. The pile tops with extensive decay have also been filled with what appears to be concrete, and wrapped. At Stations 2+50 to 2+80 the sea wall is bulging and the 3 piles at this location appear to be broken at the ground line. Pile 38 is also completely severed at the top of the rip rap. Numerous other piling are also untreated and

vulnerable to decay. The piles are restrained by steel cable that appears to be anchored into the backfill. Several steel cables have completely corroded or broken loose and no longer offer support.

The timber backwall or bulkhead consists of treated 4x12-inch timber planks in most cases. The majority of this timber is in good condition. The top three planks and a top cap appear to be fairly new while the planks 3 feet to 9 feet down appear to be re-used bridge stringers. Some minor localized areas of decay exist, along with damage from riprap placement. From Station 3+00 to 3+67 the bulkhead does not extend to the ground at the front of the wall and backfill has been eroding from behind the sea wall. This may have also contributed to the loss of riprap at this location as well as backfill material exiting with tidal fluctuations. The horizontal and vertical timbers surrounding the pipe at 3+02 are also splitting and decaying. Plywood has been incorporated at this point to support backfill. Evidence of geotextile fabric and plastic visqueen were also found behind the wall during the inspection. The type and quality of the geotextile products appeared to be lower standard than typically used in subgrade and backfill construction and may not be adequate to last the entire life of the structure.

## Riprap

The riprap along the front of the sea wall appears to have moderate to major damage along the face of the wall. A distinct sandstone drop-off is visible at low water near the toe of much of the riprap bank. In many locations the riprap is loose and easily dislodged when traversing these areas. From 3+00 to 3+67 the riprap is very sparse, as indicated above. It appears that the riprap was neither keyed in at the toe nor plated on the surface to hold it in place. Presently, the top layer of protection is capable of sliding off or rolling into the water from merely walking on it. To bring this material to an order of good repair would require placement of more material that is keyed into the ground and interlocked together after wall repairs are made. No Trespassing signage should be installed in the interest of public safety until this work can be performed.

## Backfill and Drainage Structure

The backfill of this structure is made of native material, primarily sand. Two 24-inch corrugated plastic pipes bisect the fill and divert two small streams through the development. Seven 4-inch-diameter PVC pipes also exit the sea wall and provide local storm drainage from the homes. All of these pipes exhibit signs of settlement due to their upward angle at the point of exit from the seawall. The main 24-inch pipe at 3+02 is diverted from a 4x10-foot box culvert to a 36-inch corrugated metal pipe, then to the 24-inch pipe. This drastic reduction in cross sectional area brings into question the hydraulic adequacy of the 24-inch pipe.

The upward angle of all the pipes compromises their ability to transfer water and may be introducing water into the backfill, causing erosion and piping of fill material out from under the sea wall. Looking into the river end of the pipe does not allow a clear view back to the beginning of the pipe, indicating a disconnected joint. Also, drainage under the wall at low tide was more profuse at the vicinity under the pipe where a constant flow of water seeps under the bottom of the lagging. All of the drain pipes exiting the wall need readjusting to account for most recent settlement.

## Current Maintenance Needs, Risks and Life Expectancy

Given the harsh environment, fluctuating tides and consistency of backfill material as well as construction methods, an assessment of this structure's life expectancy is somewhat subjective. If all new materials had been utilized in the original structure construction and stable conditions existed, an estimated life could be up to 40 years with continued maintenance. At that time it would be expected that an entire replacement would be required.

The materials incorporated at the Marine Manor retaining wall were of varying age, quality and condition. Assuming the wall was built sometime in the 1980s, these materials are 20+ years into their projected life span; significant maintenance or complete replacement normally should be anticipated within 20 years.

Figure 2 is a chart showing the location, size and condition of the existing piling. This chart also gives a rough indication of length of time before maintenance will be required for each pile. Unfortunately, the deterioration appears to be in the top 10 feet of the members. This will require some type of retrofit to support the upper portion, or a complete replacement will be required.

The Figure 2 designations are as follows:

**Very Poor = Immediate replacement of the piling.** Fourteen of the 45 piling are in this category, or 31 percent.
**Poor = Repairs in 1-5 years.** Nine of the 45 will need to be replaced in the near future, or 20 percent.
**Fair = Repairs in 5 to 15 years.** Sixteen of the 45 piles fall into this category, or 36 percent.
**Good = New or Good condition exists.** This represents 13 percent of the piling.

This information validates the estimated life expectancy of this type of timber construction to be approximately 30 to 35 years, or that the life at this time is near its midpoint. It is also clear that within five years almost 50 percent of the piling will need to be replaced to restore it to a good overall condition.

Because of the nature of the retaining wall design, complete replacement of any pile is difficult when the lagging is spiked from the fill face and the tie-backs are in direct line with each pile. On the front side, the existing riprap would have to be removed and replaced to accomplish the work. The three cables that are identified as being broken, as well as the remaining cable tie-backs that are severely corroded, are already affecting the alignment of the wall. This pile replacement work will require fill removal and replacement on the backside of the wall.

## Maintenance Recommendations

The following recommendations are suggested for maximizing longevity of the structure:

1. Replace or repair decayed and damaged piling noted as Immediate Repairs within 1–2 years (14 total).
2. Repair or replace deteriorated tie-back cables within 1–2 years (noted tie-backs at Pile Nos. 34, 36, & 37).
3. Fortify riprap at top as well as toe to maximize protection. Currently, there are thin spots where very little protection is provided (approximately 30 percent). Riprap should be keyed in at the toe and "plated" to maximize life and stability.
4. Correct leaking and canted storm drain exit pipes.
5. Repair handrail posts pulled loose in places. Bring rail up to current safety standards.
6. Replace decayed and damaged piling noted as Poor Condition within 1–5 years (9 total).
7. Schedule regular inspections on a 2–3 year basis.

## General Suggestions

The following suggestions would facilitate future inspections and recommendations:

1. Generate a survey for elevation and horizontal control of wall line that can be periodically re-run to check for settlement or possible localized failure.
2. Obtain Pile Records, if possible, for actual depth of pile penetration. Correlate pile depths to cross section data taken and plotted perpendicularly at each pile row to determine stability and extent of riprap limits.
3. Investigate the hydraulic requirements of the channel passing through the property from the east as it approaches the development under the County road via the concrete box culvert. This body of water is currently

channeled into a 36-inch corrugated metal pipe and exits at the wall through a 24-inch ABS pipe that looks to have settled.

### Current Risks with No Maintenance

Predicting life expectancy for timber materials with major decay is very difficult. In this case, the decayed piles are still holding the fill back, and danger to life and property is not great. The major risk associated with a "do nothing" approach is that localized failures will eventually occur, probably during a major flood event, that may produce significant material loss behind the wall. For example, if a section of 1 to 3 piles approximately 20 feet in length failed, it could erode material directly behind that section at a rate of 1 to 2 times the wall height. With significant river flows, this erosion could spread laterally, pulling adjacent materials out from behind the wall before remedial measures can be taken. In addition, given the difficult permitting process for construction and placement of fill materials in or near a channel, adequate repairs may not be implemented immediately, so damage could continue and eventually jeopardize the homes.

Continually putting off repair and maintenance will eventually make the overall project too expensive for most home owners to tackle in one effort. Paying for continuous, lower cost maintenance will be more readily acceptable to the average home owner.

## Conclusion

The Marine Manor Retaining Wall will require significant repairs in the next five years to maintain its expected life of 30 to 35 years. Without the repairs that are indicated, continued timber deterioration as well as local failures will occur, causing settlement of the fills and possibly the support of the adjacent homes. At the very least, the drainage needs to be investigated to ensure that the backfill does not become oversaturated and prone to sloughing.

A plan to replace and repair, along with a continuous inspection program of the sea wall is needed to maintain the integrity of the wall system. A reasonable inspection cycle to reassess the condition would be estimated at three years, or after a severe weather event threatens the overall condition of the wall or its components.

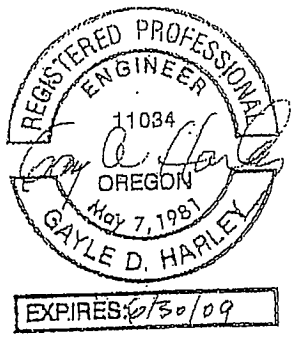
# Marine Manor Sea Wall Inspection

Florence, Oregon

By

## OBEC Consulting Engineers

OBEC Job No. 674-1




Report by: Stewart L. McCornack
Reviewed by: Gayle D. Harley
Revised: August 15, 2007

OBEC Consulting Engineers, Inc.
920 Country Club Road, Suite 100B
Eugene, Oregon 97401
(541) 683-6090



**EXHIBIT G**

## Introduction

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vulnerable to decay. The piles are restrained by steel cable that appears to be anchored into the backfill. Several steel cables have completely corroded or broken loose and no longer offer support.

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The backfill of this structure is made of native material, primarily sand. Two 24-inch corrugated plastic pipes bisect the fill and divert two small streams through the development. Seven 4-inch-diameter PVC pipes also exit the sea wall., These pipes are no longer functional since a cross pipe system was installed to intercept the drainage. The main 24-inch pipe at 3+02 is diverted from a 4x10-foot box culvert to a 36-inch corrugated metal pipe, then to the 24-inch pipe. This drastic reduction in cross sectional area brings into question the hydraulic adequacy of the 24-inch pipe. The upward angle of this pipe compromises the ability to transfer water and may be introducing water into the backfill, causing erosion and piping of fill material out from under the sea wall. Looking into the

river end of the pipe does not allow a clear view back to the beginning of the pipe, indicating a disconnected joint. Also, drainage under the wall at low tide was more profuse at the vicinity under the pipe where a constant flow of water seeps under the bottom of the lagging. The 24-inch drain pipe exiting the wall needs readjusting to account for most recent settlement.

## Current Maintenance Needs, Risks and Life Expectancy

Given the harsh environment, fluctuating tides and consistency of backfill material as well as construction methods, an assessment of this structure's life expectancy is somewhat subjective. If all new materials had been utilized in the original structure construction and stable conditions existed, an estimated life could be up to 40 years with continued maintenance. At that time it would be expected that an entire replacement would be required.

The materials incorporated at the Marine Manor retaining wall were of varying age, quality and condition. Assuming the wall was initially built sometime in the 1960s, the original materials are 35+ years into their projected life span; significant maintenance or complete replacement of some sections normally should be anticipated within 20 years. Some maintenance or replacement work has already occurred over the years, indicated by the newer materials incorporated in the structure.

Figure 2 is a chart showing the location, size and condition of the existing piling. This chart also gives a rough indication of length of time before maintenance will be required for each pile. Unfortunately, the deterioration appears to be in the top 10 feet of the members. This will require some type of retrofit to support the upper portion, or a complete replacement will be required.

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This information validates the estimated life expectancy of this type of timber construction to be approximately 35 to 40 years, or that the life at this time is near its end. It is also clear that within five years almost 50 percent of the piling will need to be replaced to restore it to a good overall condition.

Because of the nature of the retaining wall design, complete replacement of any pile is difficult when the lagging is spiked from the fill face and the tie-backs are in direct line with each pile. On the front side, the existing riprap would have to be removed and replaced to accomplish the work. The three cables that are identified as being broken, as well as the remaining cable tie-backs that are severely corroded, are already affecting the alignment of the wall. This pile replacement work will require fill removal and replacement on the backside of the wall.

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5. Repair handrail posts pulled loose in places. Bring rail up to current safety standards.
6. Replace decayed and damaged piling noted as Poor Condition within 1–5 years (9 total).
7. Schedule regular inspections on a 2–3 year basis.

## General Suggestions

The following suggestions would facilitate future inspections and recommendations:

1. Continue to survey for elevation and horizontal control of wall line that can be periodically re-run to check for settlement or possible localized failure.
2. Obtain Pile Records, if possible, for actual depth of pile penetration. Correlate pile depths to cross section data taken and plotted perpendicularly at each pile row to determine stability and extent of riprap limits.
3. Investigate the hydraulic requirements of the channel passing through the property from the east as it approaches the development under the County road via the concrete box culvert. This body of water is currently channeled into a 36-inch corrugated metal pipe and exits at the wall through a 24-inch ABS pipe that looks to have settled.

Revised: 8/15/2007

## Current Risks with No Maintenance

Predicting life expectancy for timber materials with major decay is very difficult. In this case, the decayed piles are still holding the fill back, and danger to life and property is not great. The major risk associated with a "do nothing" approach is that localized failures will eventually occur, probably during a major flood event, that may produce significant material loss behind the wall. For example, if a section of 1 to 3 piles approximately 20 feet in length failed, it could erode material directly behind that section at a rate of 1 to 2 times the wall height. With significant river flows, this erosion could spread laterally, pulling adjacent materials out from behind the wall before remedial measures can be taken. In addition, given the difficult permitting process for construction and placement of fill materials in or near a channel, adequate repairs may not be implemented immediately, so damage could continue and eventually jeopardize the homes.

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A plan to replace and repair, along with a continuous inspection program of the sea wall is needed to maintain the integrity of the wall system. A reasonable inspection cycle to reassess the condition would be estimated at three years, or after a severe weather event threatens the overall condition of the wall or its components.

Exhibit H

R Sande Tomlinson

From: Hanson, Michele E NWP [Michele.E.Hanson@usace.army.mil]
Sent: Tuesday, December 18, 2007 11:46 AM
To: R Sande Tomlinson
Subject: Marine Manor seawall support project

Hi Sande,

Based on our review of the information you provided including the drawings and conversations with your contractor, we have completed our evaluation whether there will be a discharge into a jurisdictional water regulated under Section 404 of the Clean Water Act. The Corps has also considered the effect of the proposed work on the navigability of the Siuslaw River under Section 10 of the Rivers and Harbors Act.

The Corps has determined your project to construct a secondary seawall behind the existing seawall will not require a Department of the Army permit provided the project is constructed as you have described. For example, all excavation and filling will occur landward of the existing seawall, disposal of excavated soils will occur in upland, all construction will occur outside or above the plane of the mean high water and the site will be secured to prevent discharges of fill material below the highest tide.

Thank you for providing the information and for your cooperation. Have a great Holiday!

Shelly

Michele E. Hanson
Biologist-Project Manager
USACE-Regulatory
1600 Executive Parkway, Suite 210
Eugene, Oregon 97401-2156
pH: 541-465-6878

FAX:541-465-6888
michele.e.hanson@usace.army.mil

please visit our website at https://www.nwp.usace.army.mil/op/g/home.asp

Thank you for completing our Customer Survey

-----Original Message-----
From: R Sande Tomlinson [mailto:rst@wlrlaw.com]
Sent: Monday, December 17, 2007 10:03 AM
To: Hanson, Michele E NWP
Cc: R Sande Tomlinson
Subject: RE: My email

Shelly: I have attached the preliminary drawings prepared by Mr. Dennis McGee of McGee Engineering. I look forward to hearing further from you once you have reviewed the plans. If it would be of assistance, I can send you Mr. McGee's and Mr. Kronsteiner's (West Coast Contractor's) phone numbers so you can discuss the plans with someone who really knows what he is talking about rather than me.

Thanks again,

Sande Tomlinson

PS I am in Florence generally Friday thru Monday at 541-902-2122 and am in my office in Eugene, at Walkinson Laird et al Tues thru Thursday at 541-984-0222. I will be in my office tomorrow and if would be beneficial for me to stop by and meet with you it can certainly be arranged.



EXHIBIT H

----- Original Message -----
From: YOUNG Cyril
To: KIRYUTA Gloria ; R Sande Tomlinson ; cheinkel@msn.com
Cc: jdthchris@aol.com ; Ken Giorgi ; Alice Bloomer ; Cy
Sent: Thursday, January 03, 2008 1:01 PM
Subject: RE: Marine Manor PUD Seawall

This e-mail is a follow up to the inquiry below concerning DSL property issues and the proposed seawall. The ownership of the Siuslaw is below the current seawall and a new seawall constructed landward of the old seawall would not require a DSL permit from the Land Management Division. I hope this satisfies your proprietary concerns on the seawall. Thanks

---

**From:** KIRYUTA Gloria [mailto:Gloria.Kiryuta@state.or.us]
**Sent:** Friday, December 28, 2007 2:09 PM
**To:** R Sande Tomlinson; cheinkel@msn.com
**Cc:** jdthchris@aol.com; Ken Giorgi; Alice Bloomer; Cy
**Subject:** RE: Marine Manor PUD Seawall

Mr Tomlinson and Ms Heinkel
Based on the information provided, the project will not require a state permit if it is currently behind a sea barrier and will not come into contact with the water, or cause the loss of estuarine habitat. However, I would consult with the proprietary division to see if a lease is required by the state. Please contact Cy Young at 503-986-5245

*Gloria M. Kiryuta*
Resource Coordinator
Fill and Removal Program
Wetlands & Waterways Conservation Division
Oregon Dept. State Lands
775 Summer Street NE Suite 100
Salem, Oregon 97301
Phone: 503.986.5226
Fax: 503.378.4844

---

**From:** R Sande Tomlinson [mailto:rst@wlrlaw.com]
**Sent:** Friday, December 28, 2007 11:38 AM
**To:** KIRYUTA Gloria
**Cc:** R Sande Tomlinson; cheinkel@msn.com; jdthchris@aol.com; Ken Giorgi; Alice Bloomer
**Subject:** Marine Manor PUD Seawall

Dear Gloria: We spoke some time ago about Marine Manor Lot Owners' Associations need and desire to install a new seawall landward of the existing seawall which is located along the Siuslaw River in Florence Oregon. You advised me by phone that a permit would not be required from the DSL since the seawall was to be constructed inside the existing seawall and that the construction would not involve contact with the river or the water therein. I have since contacted Shelly Hanson at the US Army Corps. and she sent me an email indicating that no permit would be required as long as the seawall was constructed in accordance with the plans and landward of the existing seawall. The City of Florence has required the Association to file an Application for a Conditional Use Permit covering the seawall and I have completed the Application and submitted it to the City along with a copy of Ms. Hanson's email, the

**EXHIBIT I**

plans and other required information. Ms. Carol Heinkel, with the City of Florence, is reviewing the Application and has advised me that she needs an email from you to go with the email from Shelly indicating no permit from the DSL is required for the seawall as part of the documents to be submitted to the Planning Commission. I do not recall if I sent you a copy of the plans prepared by Mr. Dennis McGee, an engineer, but just in case I did not and you need them to send Ms. Heinkel the required email, I have attached a copy to this email. Ms. Heinkel's email address is cheinkel@msn.com. The City is really being cooperative and we are trying to work together to expedite the application and its consideration by the Planning Commission, so if you have any questions please call me at 541-984-0222 (office); 541-912-3417 (cell) or 541-902-2122 (Florence). Ms. Heinkel can be reached at 541-285-1824 (cell).

Thanks a million Gloria, your assistance and cooperation on this matter have been GREATLY appreciated.

SANDE <<McGee.prelim seawall

# CITY OF FLORENCE
# PLANNING COMMISSION

## RESOLUTION PC 07 47 CUP 08

REQUEST FOR APPROVAL OF A CONDITIONAL USE PERMIT TO CONSTRUCT A SEAWALL ON LOTS THREE THROUGH TEN OF MARINE MANOR PUD LOCATED BETWEEN THE SIUSLAW RIVER AND RHODODENDRON DRIVE AT SITE ADDRESSES: 3215, 3225, 3265, 3285, 3305, AND 3315 RHODODENDRON DRIVE AND LOTS 3 AND 4 OF MARINE MANOR PUD, AS SHOWN ON EXHIBIT B.

WHEREAS, application was made by the Marine Manor Lot Owners' Association, as required by FCC 10-1-1-4, FCC 10-2-1, FCC 10-19-4 (D), and FCC 10-4-3; and

WHEREAS, the Planning Commission/Design Review Board met in a duly advertised public hearing on February 5, 2008 to consider the application, evidence in the record and testimony received as per FCC 10-1-1-5, and

WHEREAS, the Planning Commission/Design Review Board determined per FCC 10-6-5, after review of the application, testimony and evidence in the record, that the application meets the applicable criteria, or can meet the criteria through compliance with certain Conditions of Approval; and

WHEREAS, the Planning Commission/Design Review Board of the City of Florence finds, based on the Findings of Fact, staff recommendation, and evidence and testimony presented to them, that the Conditions of Approval in this Resolution are required for full compliance with applicable criteria.

NOW THEREFORE BE IT RESOLVED that the Planning Commission/Design Review Board of the City of Florence finds, based on the Findings of Fact and the evidence in record that:

the application, as presented, meets or can meet the applicable City codes and requirements, provided that the following Conditions of Approval are met.

1. The Applicant agrees to comply with all regulations and requirements of the Florence City Code which are current as of the date of the application.

   Approval shall be shown on the Findings of Fact and the Site Plan. Findings of Fact attached as Exhibit "A" are incorporated by reference and adopted in support of this decision. Any modifications to the approved plans or changes of use, except those changes relating to the interior regulated by the building codes, will require approval by the Community

Development Director or Planning Commission/Design Review Board.

Unless appealed, the Planning Commission approval of the Conditional Use Permit shall become effective 15 days after the Planning Commission decision is rendered. The property owner shall submit to the Community Development Department a signed "Agreement of Acceptance" of all conditions of approval. The signed "Agreement of "Acceptance" must be received by the Community Development Department with this 15-day period.

2. Regardless of the content of material presented for this Planning Commission meeting, including application text and exhibits, staff reports, testimony and/or discussions, the Applicant agrees to comply with all regulations and requirements of the Florence City Code which are current on this date, EXCEPT where variance or deviation from such regulations and requirements has been specifically approved by formal Planning Commission action as documented by the record of this hearing and/or the associated Conditions of Approval.

3. The applicant will apply for a building permit and, as part of that process, will submit detailed design specifications and construction methods that demonstrate that, during and following construction, the following performance measures will be achieved to the maximum extent practical:

    - maintain soil stability,
    - preserve natural habitat,
    - protect native vegetation,
    - protect riparian vegetation, and
    - maintain scenic qualities.

4. The applicant shall comply with any additional findings by the consultants retained by the City to review the detailed construction drawings and specifications, including the following findings in the January 24, 2008 report by Shannon & Wilson:

    a. Following failure of the existing wall, it can be expected that the Siuslaw River will remove soil from in front of the proposed replacement wall. The applicant must provide an analysis that supports the retaining wall design with respect to scour from the Siuslaw River. The applicant should submit a scour analysis to support the design depth of embedment below the existing ground surface.

    b. The applicant should provide documentation in the building permit application that site specific subsurface explorations have been

performed to support the structural design of the proposed retaining wall and provide the basis for structural design of the proposed wall. The geotechnical evaluation should assume that soil is removed from the front face of the wall to the design scour depth.

c. The applicant should provide minimum pile embedment depths and other typical design and construction criteria with the Building Permit application. The site investigation report states the sea wall will be supported on cylindrical steel pipes to a bearing of 20 tons. The report does not include a minimum embedment depth for the piles or estimate the depth that a bearing of 20 tons will be reached.

5. As part of the construction permit process, provisions for a penetration in the seawall need to take place for the 36-inch stormwater culvert. The Lot Owners' Association will work with the Public Works Department on the work to replace the existing 36-inch culvert. In addition, the construction permit will include correction of the condition of the open ditch from the driveway that crosses the culvert to the box culvert on Rhody Drive where plywood is being used as a retaining wall, which is close to failure (the plywood is deteriorating), and is being held in place by light weight metal fence posts.

APPROVED BY THE FLORENCE PLANNING COMMISSION the 5th day of February, 2008.

DONNA LEE, Chairperson Date
Florence Planning Commission