

CALIFORNIA COASTAL COMMISSION

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Staff: Fernie Sy-LB
Staff Report: June 16, 2010
Hearing Date: July 7-9, 2010
Commission Action:

**STAFF REPORT: REGULAR CALENDAR**

APPLICATION NO.: 5-10-045

APPLICANT: Harley Broviak

AGENT: Shellmaker Inc., Attn: Lisa Miller

PROJECT LOCATION: 2709 Cove Street, City of Newport Beach (Orange County)

PROJECT DESCRIPTION: Reinforce an existing seawall associated with an existing single-family residence by constructing 'Truline' pile wall on the landward side of the existing seawall.

SUMMARY OF STAFF RECOMMENDATION:

The applicant is proposing reinforcement of an existing seawall/bulkhead associated with an existing bayfront single-family residence in Newport Harbor. A 'Truline' pile wall will be installed landward of the existing seawall/bulkhead and further embedded than the existing seawall/bulkhead to reinforce the existing seawall/bulkhead. The proposed seawall/bulkhead is necessary to protect an existing structure from tidal induced erosion and will have no new impacts upon shoreline sand supply because the device is located more landward than the existing wall. The major issues before the Commission relate to hazards associated with the development and the effect of the proposed development on the marine environment and water quality.

Commission staff is recommending **APPROVAL** of the proposed project with **SEVEN (7) SPECIAL CONDITIONS** regarding: **1)** conformance with geotechnical recommendations; **2)** assumption of risk; **3)** future development; **4)** no future seaward extension of shoreline protection device; **5)** construction responsibilities and debris removal; **6)** submittal of a construction staging plan and **7)** a deed restriction against the property, referencing all of the Special Conditions contained in this staff report.

Section 30600(c) of the Coastal Act provides for the issuance of coastal development permits directly by the Commission in regions where the local government having jurisdiction does not have a certified Local Coastal Program. The City of Newport Beach only has a certified Land Use Plan and has not exercised the options provided in 30600(b) or 30600.5 to issue its own permits. Therefore, the Coastal Commission is the permit issuing entity and the standard of review is Chapter 3 of the Coastal Act. The certified Land Use Plan may be used for guidance.

LOCAL APPROVALS RECEIVED: Approval in Concept (Harbor Permit No. 105-2709/Plan Check No. 2034-2009 & 2040-2009) from the City of Newport Beach Harbor Resources Division dated

January 22, 2010; & Approval in Concept (Harbor Permit No. 105-2709/Plan Check No. 2040-2009) from the City of Newport Beach Harbor Resources Division dated March 8, 2010.

SUBSTANTIVE FILE DOCUMENTS: City of Newport Beach Certified Land Use Plan; *Geotechnical Design Report, Repairs to Residential Foundation and Seawall (J.N. 1816.00)*, 2709 Cove Street, Corona Del Mar, California dated October 9, 2009 prepared by Albus-Keefe & Associates, Inc.; *Revised Response to Review Comments by City of Newport Beach dated 10-27-09, Repairs to Residential Foundation and Seawall (J.N. 1816.00)*, 2709 Cove Street, Corona Del Mar, California dated November 25, 2009 prepared by Albus-Keefe & Associates, Inc.; *Review of Proposed Secant Wall, Repairs to Residential Foundation and Seawall (J.N. 1816.00)*, 2709 Cove Street, Corona Del Mar, California dated December 21, 2009 prepared by Albus-Keefe & Associates, Inc.; Letter from the City of Newport Beach Harbor Resources Division dated January 26, 2010; *Second Response to Review Comments by City of Newport Beach dated 11-25-09, Repairs to Residential Foundation and Seawall (J.N. 1816.00)*, 2709 Cove Street, Corona Del Mar, California dated March 17, 2010 prepared by Albus-Keefe & Associates, Inc.; *Ongoing Erosion of Beach Adjacent Seawall, 2709 Cove Street, Corona Del Mar, California (J.N. 1816.00)* dated March 19, 2010 prepared by Albus-Keefe & Associates, Inc.; *Reinforcing the Existing Seawall at 2709 Cove Street, Corona Del Mar, CA 92625 (WSA Job #6435-6)* prepared by William Simpsons & Associates, Inc. dated March 1, 2010; Letter to Shellmaker Inc. Inc. from Commission staff dated April 1, 2010; Letter to Commission staff from Shellmaker Inc. dated April 7, 2010; Letter from William Simpson & Associates, Inc. regarding WSA Job #6435-7 dated April 6, 2010; and Letter from William Simpson & Associates, Inc. regarding WSA Job #6435-7 dated May 5, 2010.

LIST OF EXHIBITS

1. Vicinity Maps
 2. Project Plans
 3. 'Truline' Vinyl Caissons Information
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I. STAFF RECOMMENDATION, MOTION AND RESOLUTION OF APPROVAL

MOTION: *I move that the Commission approve Coastal Development Permit No. 5-10-045 pursuant to the staff recommendation.*

STAFF RECOMMENDATION OF APPROVAL:

Staff recommends a **YES** vote. Passage of this motion will result in approval of the permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

RESOLUTION TO APPROVE THE PERMIT:

The Commission hereby **APPROVES** a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming

to the provisions of Chapter 3. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. STANDARD CONDITIONS

1. **Notice of Receipt and Acknowledgment.** The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. **Expiration.** If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application.. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
3. **Interpretation.** Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.
4. **Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
5. **Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

III. SPECIAL CONDITONS

1. **CONFORMANCE WITH GEOTECHNICAL RECOMMENDATIONS**

- A. All final design and construction plans shall be consistent with all recommendations contained in the following documents: *Geotechnical Design Report, Repairs to Residential Foundation and Seawall (J.N. 1816.00)*, 2709 Cove Street, Corona Del Mar, California dated October 9, 2009 prepared by Albus-Keefe & Associates, Inc.; *Revised Response to Review Comments by City of Newport Beach dated 10-27-09, Repairs to Residential Foundation and Seawall (J.N. 1816.00)*, 2709 Cove Street, Corona Del Mar, California dated November 25, 2009 prepared by Albus-Keefe & Associates, Inc.; *Review of Proposed Secant Wall, Repairs to Residential Foundation and Seawall (J.N. 1816.00)*, 2709 Cove Street, Corona Del Mar, California dated December 21, 2009 prepared by Albus-Keefe & Associates, Inc.; *Second Response to Review Comments by City of Newport Beach dated 11-25-09, Repairs to Residential Foundation and Seawall (J.N. 1816.00)*, 2709 Cove Street, Corona Del Mar, California dated March 17, 2010 prepared by Albus-Keefe & Associates, Inc.; and *Ongoing Erosion of Beach Adjacent Seawall, 2709 Cove Street, Corona Del Mar, California (J.N. 1816.00)* dated March 19, 2010 prepared by Albus-Keefe & Associates, Inc.. No changes to the approved final plans shall occur

without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

- B. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit, for the Executive Director's review and approval, evidence that an appropriately licensed professional has reviewed and approved all final design and construction plans and certified that each of those final plans is consistent with all the recommendations specified in the above-referenced geologic engineering report.
- C.** The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment unless the Executive Director determines that no amendment is legally required.

2. ASSUMPTION OF RISK, WAIVER OF LIABILITY AND INDEMNITY

By acceptance of this permit, the applicant acknowledges and agrees (i) that the site may be subject to hazards from sea level rise, flooding, wave attack, and erosion; (ii) to assume the risks to the applicants and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

3. FUTURE DEVELOPMENT

This permit is only for the development described in Coastal Development Permit No. 5-10-045. Pursuant to Title 14 California Code of Regulations Section 13250(b)(6), the exemptions otherwise provided in Public Resources Code Section 30610(a) shall not apply to the development governed by Coastal Development Permit No. 5-10-045. Accordingly, any future improvements to the seawall/bulkhead and any other development authorized by this permit, including but not limited to repair and maintenance identified as requiring a permit in Public Resources Section 30610(d) and Title 14 California Code of Regulations Sections 13252(a)-(b), shall require an amendment to Permit No. 5-10-045 from the Commission or shall require an additional coastal development permit from the Commission or from the applicable certified local government.

4. NO FUTURE SEAWARD EXTENSION OF SHORELINE PROTECTIVE DEVICE

- A.** By acceptance of this permit, the applicant agrees, on behalf of itself and all successors and assigns, that no future repair or maintenance, enhancement, reinforcement, or any other activity affecting the shoreline protective device (seawall/bulkhead) approved pursuant to Coastal Development Permit No. 5-10-045, as described and depicted on an Exhibit attached to the Notice of Intent to Issue Permit (NOI) that the Executive Director issues for this permit, shall be undertaken if such activity extends the footprint seaward of the subject shoreline

protective device (seawall/bulkhead). By acceptance of this permit, the applicant waives, on behalf of itself (or himself or herself, as applicable) and all successors and assigns, any rights to such activity that may exist under Public Resources Code Section 30235.

- B.** Prior to the issuance by the Executive Director of the NOI FOR THIS PERMIT, the applicant shall submit for the review and approval of the Executive Director, and upon such approval, for attachment as an Exhibit to the NOI, a formal legal description and graphic depiction of the shoreline protective device approved by this permit, as generally described above and shown on Exhibit #2 attached to this staff report dated June 16, 2010, showing the footprint of the device and the elevation of the device referenced to NGVD (National Geodetic Vertical Datum).

5. CONSTRUCTION RESPONSIBILITIES AND DEBRIS REMOVAL

The permittee shall comply with the following construction-related requirements:

- A.** No demolition or construction materials, equipment, debris, or waste shall be placed or stored where it may enter sensitive habitat, receiving waters or a storm drain, or be subject to wave, wind, rain or tidal erosion and dispersion.
- B.** Any and all debris resulting from demolition or construction activities, and any remaining construction material, shall be removed from the project site within 24 hours of completion of the project.
- C.** Demolition or construction debris and sediment shall be removed from work areas each day that demolition or construction occurs to prevent the accumulation of sediment and other debris that may be discharged into coastal waters.
- D.** Machinery or construction materials not essential for project improvements will not be allowed at any time in the intertidal zone.
- E.** If turbid conditions are generated during construction a silt curtain will be utilized to control turbidity.
- F.** Floating booms will be used to contain debris discharged into coastal waters and any debris discharged will be removed as soon as possible but no later than the end of each day.
- G.** Non buoyant debris discharged into coastal waters will be recovered by divers as soon as possible after loss.
- H.** All trash and debris shall be disposed in the proper trash and recycling receptacles at the end of every construction day.
- I.** The applicant shall provide adequate disposal facilities for solid waste, including excess concrete, produced during demolition or construction.
- J.** Debris shall be disposed of at a legal disposal site or recycled at a recycling facility. If the disposal site is located in the Coastal Zone, a coastal development permit or

an amendment to this permit shall be required before disposal can take place unless the Executive Director determines that no amendment or new permit is legally required.

- K.** All stock piles and construction materials shall be covered, enclosed on all sides, shall be located as far away as possible from drain inlets and any waterway, and shall not be stored in contact with the soil.
- L.** Machinery and equipment shall be maintained and washed in confined areas specifically designed to control runoff. Thinners or solvents shall not be discharged into sanitary or storm sewer systems.
- M.** The discharge of any hazardous materials into any receiving waters shall be prohibited.
- N.** Spill prevention and control measures shall be implemented to ensure the proper handling and storage of petroleum products and other construction materials. Measures shall include a designated fueling and vehicle maintenance area with appropriate berms and protection to prevent any spillage of gasoline or related petroleum products or contact with runoff. The area shall be located as far away from the receiving waters and storm drain inlets as possible.
- O.** Best Management Practices (BMPs) and Good Housekeeping Practices (GHPs) designed to prevent spillage and/or runoff of demolition or construction-related materials, and to contain sediment or contaminants associated with demolition or construction activity, shall be implemented prior to the on-set of such activity.
- P.** All BMPs shall be maintained in a functional condition throughout the duration of construction activity.

6. STAGING AREA FOR CONSTRUCTION

- A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the permittee shall submit two (2) full size copies of a construction staging plan for the review and approval of the Executive Director which indicates that the construction staging area(s) and construction corridor(s) will minimize public access impacts to the adjacent public beach.
 - (1) The plan shall demonstrate that:
 - (a) Construction equipment, materials or activity shall not occur outside the staging area and construction corridor identified on the site plan required by this condition.
 - (b) Construction equipment, materials, or activity shall not be placed on the sandy beach outside of the immediate construction zone.
 - (c) The construction staging area will gradually be reduced as less materials and equipment are necessary.

- (d) The construction access route will only be intermittently closed for transport of equipment and materials. When not in use for transportation of equipment and materials, it will be made available for uninterrupted public access.
- (2) The plan shall include, at a minimum, the following components:
 - (a) A site plan that depicts:
 - 1. limits of the staging area(s);
 - 2. construction corridor(s);
 - 3. construction site;
 - 4. location of construction fencing and temporary job trailers with respect to the existing parking lot, day use area and the sandy beach.
- B. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

7. **DEED RESTRICTION**

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director for review and approval documentation demonstrating that the landowner has executed and recorded against the parcel(s) owned by the applicant that are governed by this permit a deed restriction, in a form and content acceptable to the Executive Director: (1) indicating that, pursuant to this permit, the California Coastal Commission has authorized development on the subject property, subject to terms and conditions that restrict the use and enjoyment of that property; and (2) imposing the special conditions of this permit as covenants, conditions and restrictions on the use and enjoyment of the Property. The deed restriction shall include a legal description of the entire parcel or parcels governed by this permit. The deed restriction shall also indicate that, in the event of an extinguishment or termination of the deed restriction for any reason, the terms and conditions of this permit shall continue to restrict the use and enjoyment of the subject property so long as either this permit or the development it authorizes, or any part, modification, or amendment thereof, remains in existence on or with respect to the subject property.

IV. FINDINGS AND DECLARATIONS

The Commission hereby finds and declares:

A. PROJECT LOCATION AND DESCRIPTION

1. Project Location

The project site is located near the corner of Cove Street and Way Lane, in the community of Corona Del Mar, City of Newport Beach (County of Orange) (Exhibit #1). The project site is bordered by Cove Street on the northeast, an adjacent residence and Way Lane on the southeast, a residential property on the southwest, and by a sandy beach and Newport Bay on the west. The property is occupied by an existing two-story single-family residence surrounded by a bulkhead on the north, west and southwest sides of the property. The distance between the existing residence and the seawall/bulkhead is minimal. The lot size is 1,800 square feet and the City of Newport Beach Land Use Plan (LUP) designates use of the site for Single Unit Residential Detached (RSD) and the proposed project adheres to this designation.

2. Project Description

The proposed project will reinforce the existing seawall/bulkhead located on the north, west and southwest property line by constructing a 'Truline' pile wall on the land side of the existing seawall/bulkhead and further embedded than the existing seawall/bulkhead (Exhibit #2).

According to the applicant, last summer the property suffered from a significant soil loss directly behind (landward) the existing seawall/bulkhead that resulted in an undermining of a portion of the home and exterior flatwork. As an emergency precaution, the City of Newport Beach filled the void with concrete slurry and temporarily shored the home. Prior to this, the existing seawall/bulkhead had not exhibited any obvious shifting or settling and had no modification made to it.

The residence is located adjacent to a pocket public beach and as the years have gone by repeated storms and wave and tidal action have scoured sand away from the toe of the seawall/bulkhead. When the failure occurred, the toe of the wall was completely exposed along a portion of the wall allowing sand to escape from underneath the house (under the living room) under the wall to the beach. The resulting sand loss caused the foundation of the house to fail. To save the existing residence and seawall/bulkhead, emergency shoring (consisting of a temporary wooden wall placed underneath the house that will be removed after the proposed project has been completed) was installed and pumping of slurry underneath the house took place which stabilized the situation until a permanent solution (the proposed project) could be sought.

Prior to the conclusion that a 'Truline' pile wall would be installed landward of the existing seawall/bulkhead to increase embedment to prevent any further sand loss, a number of other options were considered by the applicant. These other options were ultimately not chosen by the applicant due to reasons ranging from: resulting encroachment onto the public beach by those designs and also construction equipment, the minimum distance of the house from the seawall/bulkhead, cost, access, etc.

The new 'Truline' pile wall will be composed of interlocking vinyl caissons, approximately 12" wide by 8" deep, installed from bedrock to an elevation equal to the bottom of the existing coping (Exhibit #3). This design will prevent recurrence of erosion under and behind the wall. The elevation at the top of existing coping will be approximately +10.25' Mean Lower Low Water (MLLW), which will meet current City of Newport Beach height requirements for bulkheads (+9 MLLW). Epoxy coated rebar will then be placed in the vinyl caissons, which will then be filled with concrete. A bond beam will be cast above the caissons, unifying the existing wall to the new wall

behind it. All vinyl components will be manufactured by Truline LLC, a division of Formtech, Inc., based in Naples Florida. The new wall will be 60' long on the beach side (west) with a 9'-6" long return wall along the street side property line (north) and another return wall 29' long along the property line with the neighbor at 2708 Shell St (southwest). In order to install the 'Truline' pile wall, the existing slurry previously pumped in will be chipped away to create an approximate 6-foot deep trench behind the existing seawall/bulkhead to install the new seawall/bulkhead.

The current seawall/bulkhead will not be removed and all construction will occur behind the existing wall. The construction of the new seawall/bulkhead will not require any dewatering. All construction equipment will remain on the property of 2709 Cove Street or the adjacent paved street end (no equipment will encroach upon the public beach).

On top of the existing concrete coping, glass panels will be installed. However, in order to avoid bird strikes caused by transparent glass, the glass panels shall be frosted.

In addition, the project also includes a new trench drain along the north portion of the lot fronting Cove Street. Existing hardscape surrounding the residence will also be replaced like for like.

B. PROTECTIVE STRUCTURES AND HAZARDS

Section 30235 of the Coastal Act states:

Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fish kills should be phased out or upgraded where feasible.

Section 30253 of the Coastal Act states in relevant part:

New development shall:

- (1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.*
- (2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area...*

1. Seawall/Bulkhead

Site conditions include an existing seawall/bulkhead. As discussed previously, the property recently suffered from a significant soil loss in an area directly behind the existing seawall/bulkhead. The loss of soil resulted in the undermining of a portion of the home and exterior flatwork. As an emergency precaution, the void has been filled with concrete slurry and

the home temporarily shored. The existing seawall/bulkhead had not shown any signs of obvious shifting or settling, and no modifications had been made to the wall prior to the failure. In order to analyze and fully assess the situation, several geotechnical investigations have been completed: *Geotechnical Design Report, Repairs to Residential Foundation and Seawall (J.N. 1816.00)*, 2709 Cove Street, Corona Del Mar, California dated October 9, 2009 prepared by Albus-Keefe & Associates, Inc.; *Revised Response to Review Comments by City of Newport Beach dated 10-27-09, Repairs to Residential Foundation and Seawall (J.N. 1816.00)*, 2709 Cove Street, Corona Del Mar, California dated November 25, 2009 prepared by Albus-Keefe & Associates, Inc.; *Review of Proposed Secant Wall, Repairs to Residential Foundation and Seawall (J.N. 1816.00)*, 2709 Cove Street, Corona Del Mar, California dated December 21, 2009 prepared by Albus-Keefe & Associates, Inc.; *Second Response to Review Comments by City of Newport Beach dated 11-25-09, Repairs to Residential Foundation and Seawall (J.N. 1816.00)*, 2709 Cove Street, Corona Del Mar, California dated March 17, 2010 prepared by Albus-Keefe & Associates, Inc.; and *Ongoing Erosion of Beach Adjacent Seawall, 2709 Cove Street, Corona Del Mar, California (J.N. 1816.00)* dated March 19, 2010 prepared by Albus-Keefe & Associates, Inc.. The investigations determined that in order to best protect the site a 'Truline' pile wall should be installed landward of the existing seawall/bulkhead. The current seawall/bulkhead will not be removed and all construction will occur behind the existing wall. In order to ensure that the work does not adversely affect adjacent properties, that they minimize risks to life and property, and to assure stability and structural integrity, the Commission imposes **SPECIAL CONDITION NO. 1**, which requires the applicant to submit, prior to issuance of the permit, evidence of conformance with geotechnical recommendations.

The seawall/bulkhead is required at the subject site to protect the structural integrity of the site from tidal activity. The seawall/bulkhead supports the existing residence, public street and adjacent residences. If the seawall/bulkhead were removed and not replaced, tidal activity would erode and destabilize the lot and the development landward of the bulkhead (i.e. public street, adjacent residences). Therefore, the proposed seawall/bulkhead reinforcement is necessary to protect existing structures. The proposed seawall/bulkhead reinforcement would not result in new fill of coastal waters or changes to shoreline sand supply/erosion at the site. The proposed development will protect lot stability and reduce risks to life and property with a structurally superior bulkhead system.

2. Wave Uprush and Flooding Hazards

The project site is a seawall/bulkhead lot adjacent to a public beach and Newport Bay. Due to its location, the property may be subject to wave and flooding hazards. As evident by the situation that lead to the need for the seawall/bulkhead reinforcement, the beachfront site is subject to future flooding and wave attack because of the fluctuating nature of coastal conditions (i.e. sand supply and sea level rise).

To further analyze the suitability of the site for the proposed development relative to potential wave hazards and sea level rise, Commission staff requested the preparation of a wave run-up, flooding, and erosion hazard analysis, prepared by an appropriately licensed professional (e.g. coastal engineer). In response, the applicant submitted the following: Letter from William Simpson & Associates, Inc. regarding WSA Job #6435-7 dated April 6, 2010; and Letter from William Simpson & Associates, Inc. regarding WSA Job #6435-7 dated May 5, 2010. These letters indicated that the average top of concrete coping elevation along the existing seawall is +10.25' MLLW (Mean Lower Low Water), that the highest tides in Newport Beach threaten flooding of low lying terrain, and that historically the highest tides have reached approximately 7.8 feet MLLW twice (January

1983 and January 2005). The project was designed based on 2-feet of sea level rise by the year of 2075, or 65 years from now and that the wall shall serve as protection for the residence on the lot from sea level rise up to approximately 2-feet, 6-inches or so. If sea level rises greater than that, the residence may be put at risk. Furthermore, if the water level or waves exceed the design condition, the current wall will then have to be raised. Ultimately though, the letters conclude: *“All of the above being said, and considering the fact that proposed Truline Pile Wall on the landward side of the existing seawall and along both property lines perpendicular to the seawall, are practically reinforced concrete walls with top of wall elevations of at least +10.20 MLLW, we believe that the risk of the development on the site getting exposed to hazards from erosion, wave attack, wave run-up or flooding is very limited. Once constructed in compliance with the enclosed drawings S-0, S-0A, S-2 & S-2, no additional protective device at the proposed development will be required, during the economical life of the associated structure, to protect it from any existing or anticipated future hazards.”*

Commission staff has reviewed the hazards analysis and, based on the information provided and subsequent correspondence concurs with the conclusion that the site is safe from flooding and wave uprush hazards at this time. Therefore, the proposed development can be allowed under Section 30253 of the Coastal Act, which requires new development to *“assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices...”*

Although the applicant's report indicates that the site is safe for development at this time, beach areas are dynamic environments, which may be subject to unforeseen changes. Such changes may affect beach processes, including sand regimes. The mechanisms of sand replenishment are complex and may change over time, especially as beach process altering structures, such as jetties, are modified, either through damage or deliberate design. The effects of sea level rise also adds some uncertainty. In order to address this situation with respect to Coastal Act policy, **THREE (3) SPECIAL CONDITIONS** are necessary.

a. Assumption of Risk

Given that the applicant has chosen to implement the project despite potential risks from sea level rise, wave attack, erosion, or flooding, the applicant must assume the risks. Therefore, the Commission imposes **SPECIAL CONDITION NO. 2** for an assumption-of-risk agreement. In this way, the applicant is notified that the Commission is not liable for damage as a result of approving the permit for development. The condition also requires the applicant to indemnify the Commission in the event that third parties bring an action against the Commission as a result of the failure of the development to withstand the hazards. In addition, the condition ensures that future owners of the property will be informed of the risks and the Commission's immunity from liability. As conditioned, the Commission finds the proposed project is consistent with Section 30253 of the Coastal Act.

b. Future Development

As discussed previously, the project site is located on a beachfront lot that may be subject to future flooding and wave attack as coastal conditions change. Since coastal processes are dynamic and structural development may alter the natural environment, future development adjacent to the beach could adversely affect future shoreline conditions if not properly evaluated. For this reason, the Commission is imposing **SPECIAL CONDITION**

NO. 3, which states that any future development or additions on the property, including but not limited to any future improvements to the seawall/bulkhead, requires a coastal development permit from the Commission or its successor agency. Section 13250 (b) of Title 14 of the California Code of Regulations specifically authorizes the Commission to require a permit for improvements that could involve a risk of adverse environmental effect. This condition ensures that any future development on this site that may affect shoreline processes receives review by the Commission.

c. No seaward placement of bulkhead

The bulkhead design will conform to the current minimum elevation requirements set by the City of Newport Beach, that the bulkhead elevation be at least +9 foot MLLW. This elevation has been established as a minimum standard and, according to the City of Newport Beach's Harbor Committee Report on Global Warming and Sea Level Rise Effects on Newport Harbor, many of the existing bulkheads are lower than the +9 foot MLLW standard. Bulkhead standards for Dana Point and Huntington harbor require new bulkheads be built to +10 foot MLLW elevation. The City of Newport Beach recommended minimum elevation does not take into account a significant rise in sea level. The proposed bulkhead reinforcement results in a wall height that is higher than the City's minimum and will provide protection against flooding from some forecasted sea level rise. However, if the water level or waves exceed the design condition, the current wall will then have to be raised. **SPECIAL CONDITION NO. 4** requires that any future maintenance or work to address changing sea level, increased flooding or other coastal hazards be undertaken on or inland of the proposed development and that there not be any seaward encroachment beyond the identified and recorded line of development.

CONCLUSION

To assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area and to make sure the proposed project does not result in future adverse effects to coastal processes, **FOUR (4) SPECIAL CONDITIONS** have been imposed. **SPECIAL CONDITION NO. 1** requires incorporation of the recommendations in the bulkhead evaluation. **SPECIAL CONDITION NO. 2** require an assumption-of-risk agreement. **SPECIAL CONDITION NO. 3** states that any future development or additions on the property, including but not limited to hardscape improvements, grading, landscaping, vegetation removal and structural improvements requires a coastal development permit from the Commission or its successor agency. **SPECIAL CONDITION NO. 4** requires that any future maintenance or work to address changing sea level, increased flooding or other coastal hazards be undertaken on or inland of the proposed development and that there not be any seaward encroachment beyond the identified and recorded line of development. Only as conditioned does the Commission finds that the proposed project is consistent with Section 30235 and 30253of the Coastal Act.

C. WATER QUALITY AND THE MARINE ENVIRONMENT

Section 30230 of the Coastal Act states:

Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will

sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Section 30231 of the Coastal Act states:

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Section 30233 of the Coastal Act states in part:

(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

(1) New expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.

(2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.

(3) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.

(4) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.

(5) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.

(6) Restoration purposes.

(7) Nature study, aquaculture, or similar resource dependent activities.

1. Fill of Open Coastal Waters

Section 30233(a) limits the diking, filling and dredging of open coastal waters to certain specific allowable uses. In order for fill of open coastal waters to be approved, the proposed project must be found to be an allowable use, the project must also be the least environmentally damaging alternative, and the project must have adequate mitigation measures to minimize adverse impacts. The project proposes to install a seawall/bulkhead landward of the existing wall. Therefore, the

project does not result in the fill of open coastal waters. However, there is potential for the applicant to propose a seaward extension of the seawall/bulkhead resulting in fill of open coastal waters. Therefore the Commission imposes, **SPECIAL CONDITION NO. 4**, which requires no future seaward extension of the bulkhead into coastal waters to avoid future fill of coastal waters.

2. Construction Impacts to Water Quality

The proposed development will occur adjacent to a sandy public beach and Newport Bay. Construction of any kind adjacent to or in coastal waters has the potential to impact marine resources. The bay provides an opportunity for water oriented recreational activities and also serves as a home for marine habitat. Because of the coastal recreational activities and the sensitivity of the harbor habitat, potential water quality issues must be examined as part of the review of this project. In order to avoid adverse construction-related impacts upon marine resources, **SPECIAL CONDITION NO. 5** outlines construction-related requirements to provide for appropriate construction methods as well as the safe storage of construction materials and the safe disposal of construction debris.

CONCLUSION

To minimize the adverse impacts upon the marine environment, **TWO (2) SPECIAL CONDITIONS** have been imposed. **SPECIAL CONDITION NO. 4** requires no future seaward extension of the bulkhead into coastal waters to avoid future fill of coastal waters. **SPECIAL CONDITION NO. 5** outlines construction-related requirements to provide for appropriate construction methods as well as the safe storage of construction materials and the safe disposal of construction debris. Only as conditioned does the Commission find that the proposed project is consistent with Section 30230, 30231 and 30233 of the Coastal Act.

D. PUBLIC ACCESS

Section 30213 of the Coastal Act states, in pertinent part:

Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred.

The protection of public access is an important aspect of the Coastal Act. The project site is adjacent to a pocket public beach which can accommodate passive opportunities (i.e. sun bathing) for the public. Also, further east of the site is China Cove Beach, which is larger than this adjacent beach and therefore can accommodate both passive opportunities and active opportunities (i.e. volleyball) for the public.

The pocket public beach adjacent to the project site is highly used by residents in the area that either walk or bike to the beach. For those that drive from other areas to use this beach, public parking is available on Ocean Boulevard (Exhibit #1), which is located South and above this pocket beach. There is a stairway from Ocean Boulevard that leads down to the residential area where the beach is located. No public parking opportunities are available within the residential community that surrounds the Beach. However, as stated, public parking opportunities are available on Ocean Boulevard, which is near the beach.

The applicant has stated that the installation of the proposed 'Truline' pile wall will not require construction equipment on the adjacent pocket public beach and that the entire installation process

will be conducted within the limits of the property. However, while the applicant states that construction equipment will not be located on the pocket public beach, no construction staging plans have been submitted. Therefore, the Commission has imposed **SPECIAL CONDITION NO. 6**, which requires the applicant to submit construction staging plans.

CONCLUSION

To minimize the adverse impacts upon public access, **ONE (1) SPECIAL CONDITION** has been imposed. **SPECIAL CONDITION NO. 6** requires the applicant to submit a construction staging plan. Therefore, the Commission finds that the proposed development would be consistent with Sections 30210 and 30212 of the Coastal Act regarding public access.

E. DEED RESTRICTION

To ensure that any prospective future owners of the property are made aware of the applicability of the conditions of this permit, the Commission imposes **SPECIAL CONDITION NO. 7**, which requires that the property owner record a deed restriction against the property, referencing all of the above Special Conditions of this permit and imposing them as covenants, conditions and restrictions on the use and enjoyment of the property. Thus, as conditioned, any prospective future owner will receive actual notice of the restrictions and/or obligations imposed on the use and enjoyment of the land including the risks of the development and/or hazards to which the site is subject, and the Commission's immunity from liability.

F. LOCAL COASTAL PROGRAM

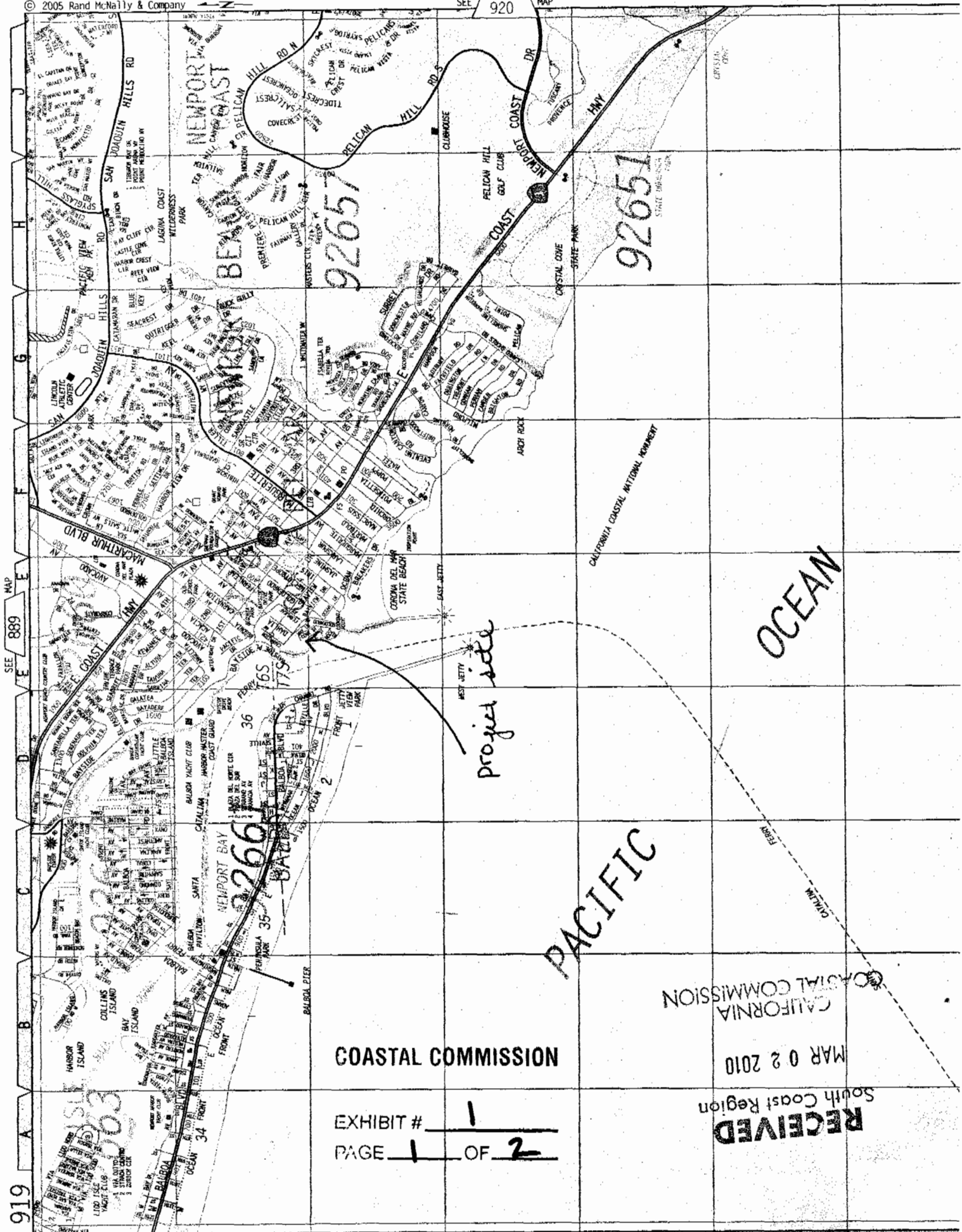
The LUP for the City of Newport Beach was effectively certified on May 19, 1982. The certified LUP was updated on October 8, 2009. As conditioned, the proposed development is consistent with Chapter 3 of the Coastal Act and with the certified Land Use Plan for the area. Approval of the project, as conditioned, will not prejudice the ability of the local government to prepare a Local Coastal Program that is in conformity with the provisions of Chapter 3.

G. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

The City of Newport Beach Harbor Resources Division is the lead agency responsible for certifying that the proposed project is in conformance with the California Environmentally Quality Act (CEQA). The City determined that in accordance with CEQA, the project is Categorically Exempt from Provisions of CEQA for the construction. Section 13096(a) of the Commission's administrative regulations requires Commission approval of coastal development permit applications to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA).

Although the proposed development is categorically exempt from CEQA, the Commission has imposed conditions to ensure conformity with Coastal Act requirements, as follows: **1)** conformance with geotechnical recommendations; **2)** assumption of risk; **3)** future development; **4)** no future seaward extension of shoreline protection device; **5)** construction responsibilities and debris removal; **6)** submittal of a construction staging plan and **7)** a deed restriction against the property, referencing all of the Special Conditions contained in this staff report.

Therefore, as conditioned, the Commission finds that there are no feasible alternatives or additional feasible mitigation measures available that would substantially lessen any significant adverse effect that the activity may have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified impacts, is the least environmentally damaging feasible alternative and consistent with the requirements of the Coastal Act and CEQA.



SEE 889 MAP

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EXHIBIT # 1
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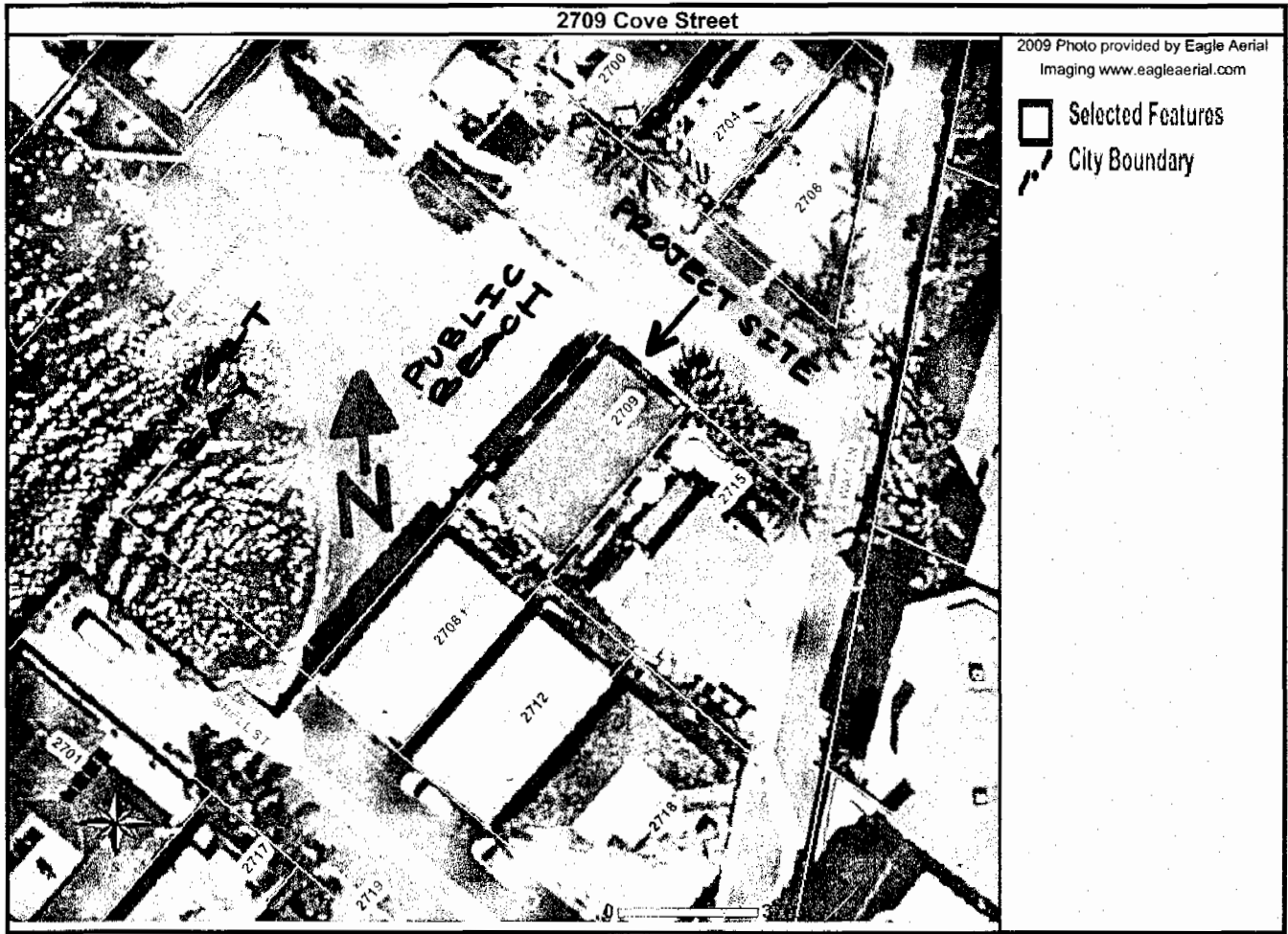
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project side

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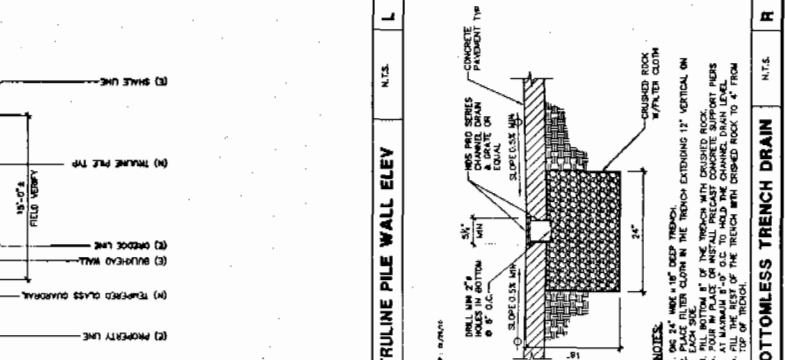
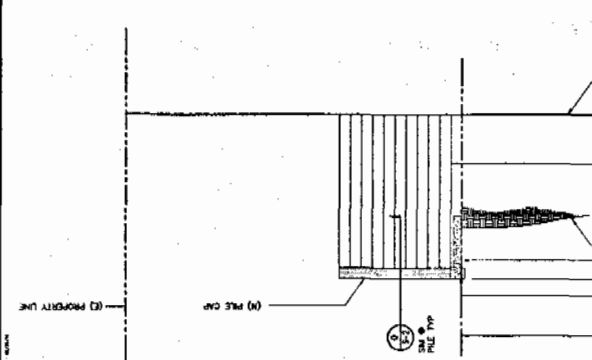
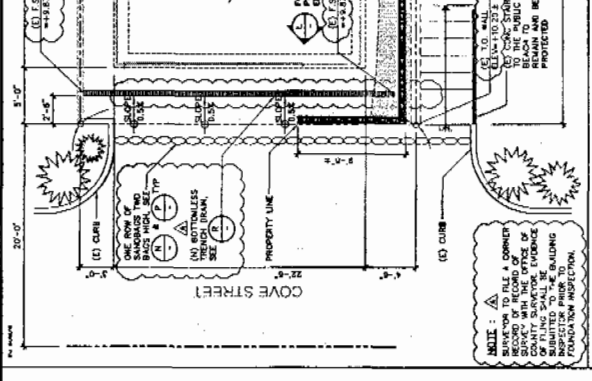
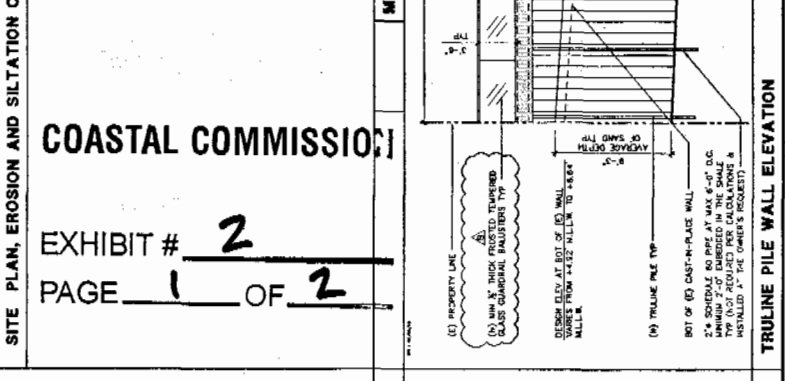
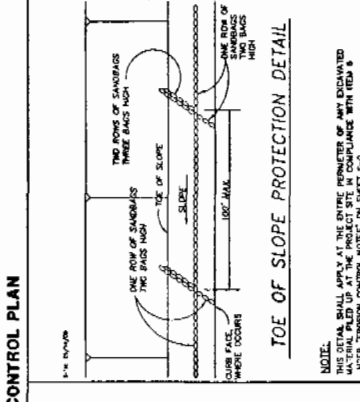
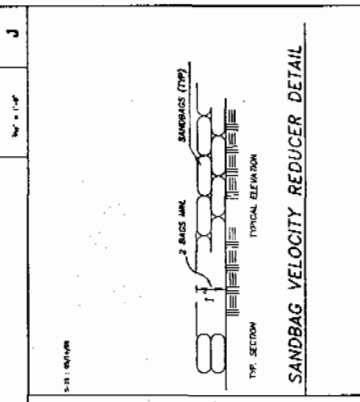
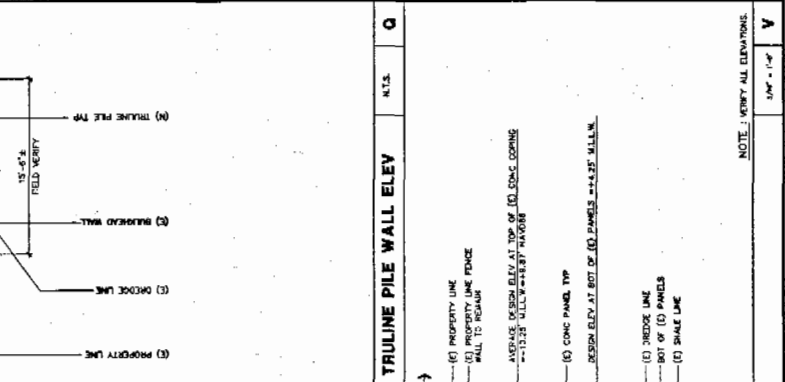
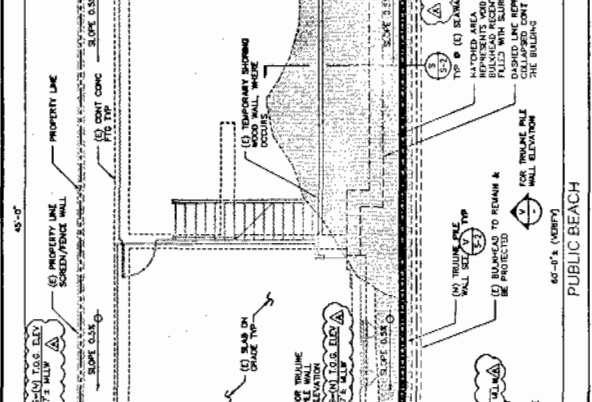
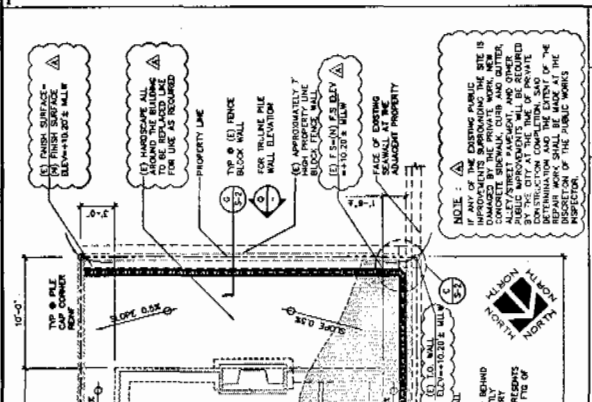
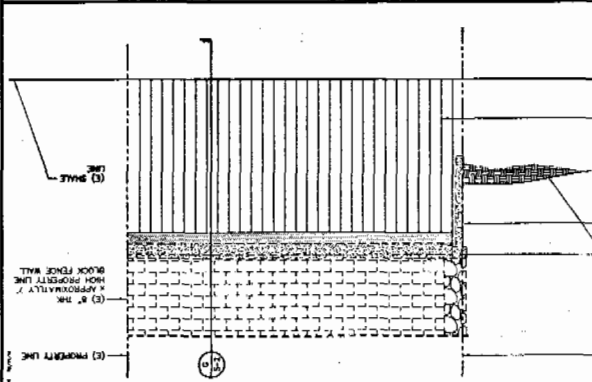
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6435-6	02/23/10	1. PLAN	1. PLAN
		2. SECTION	2. SECTION
		3. ELEVATION	3. ELEVATION
		4. DETAIL	4. DETAIL

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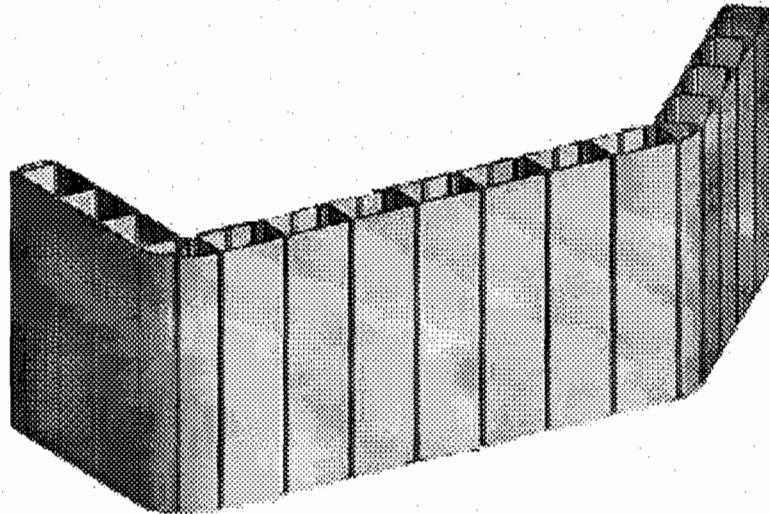
TRULINE

Home Products Photos Installation Engineering Testing Resources Testimonials Contact

THE VERSATILE SOLUTION

EROSION CONTROL • EARTH RETENTION • FLOOD PROTECTION

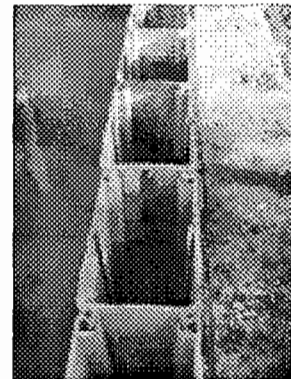
- SEAWALLS/ BULKHEADS
- RETAINING WALLS
- CUT-OFF WALLS
- COFFER DAMS
- BARRIER WALLS
- REVETMENTS
- TEMPORARY EMERGENCY FLOOD PROTECTION
- LANDSCAPING
- FORCE PROTECTION
- AND MORE!



TEMPORARY OR PERMANENT

Creative minds, representing professional engineering, marine construction and vinyl manufacturing, have come together to design the most innovative and unique piling system on the market today. As a vinyl product with a special ultraviolet resistant outer layer, the Truline system will help protect the appearance and value of property for years to come. See the [testimonials page](#) and read how Truline is the versatile solution.

- much less labor and equipment needed thereby reduced costs
- Truline solution came in at 25% of the cost of the prior method of repairing the protection wall, saving taxpayers over half million dollars.
- much less invasive than other repair techniques helping to make environmental permitting much simpler
- "in my 20 years' experience, this is the best product I have used for seawalls. I have zero complaints with this product."
- "My neighbors...talk about how spectacular it looks."



Dual-interlocking joints and double wall design.

CAST-IN-PLACE SYSTEM

As a hybrid cast-in-place system, Truline combines the **strength of concrete with the benefits of vinyl**. Concrete can be poured into the cells to create a wall with additional strength and the weather-ability of vinyl, or it can be filled with gravel or sand, depending upon the engineering specifications desired. For more benefits of casting-in-place, see below.

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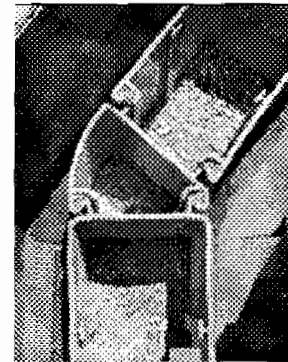
EXHIBIT # 3
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ENGINEERING VERSATILITY

This revolutionary vinyl form provides engineering versatility suitable for large to small marina and marine construction projects, golf courses, landscaping, military and defense barriers, flood and erosion control, soil stabilization requirements, and more. Can also be installed for temporary needs and reused again.

The versatile system of **multi-use components** allows for:

- various configurations, turns and radius while maintaining joint integrity
- the ability to configure wall returns to protect the new wall from failure of adjacent walls



Better corner joint strength and integrity.

INNOVATIVE DUAL-INTERLOCKING DESIGN

Innovative dual-interlocking design provides for twice as many locking joints and creates **double wall protection**. This design also provides for:

- Elimination of joint separation (no "walking" or "unzipping")
- Superior control of joint spacing
- Improved ability to control straightness of the wall during installation
- Due to its inherent design u-channels tendency is to "drive in column" and not "walk"



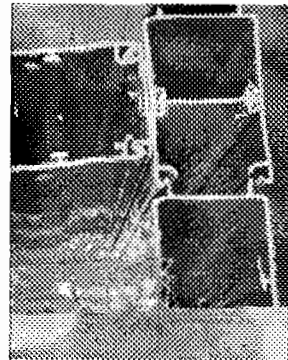
Smooth appearance

BENEFITS OF VINYL

UV resistant to discourage discoloration and fading in harsh marine environments. Will not rust or corrode. Virtually maintenance free.

OPTIONAL TOP CAPS

Due to the double wall design, capping is less complicated when forming for a concrete cap, helping to reduce overall installation time. Other caps that can be installed include aluminum and timber or composite decking caps. In addition, it has also been installed with no cap. Depending on the cap option, it can minimize the need for walers.



Multi-use components provide versatility. Return wall shown above.

ENVIRONMENTALLY-FRIENDLY & SUSTAINABLE MATERIALS

Contains more than 94% recycled materials.

SUPERIOR AESTHETICS

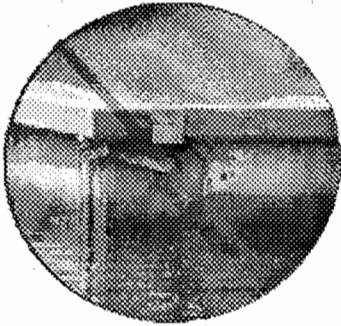
Smooth, flat appearance enhances property investment.

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EXHIBIT # 3

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[For more project photos, click here.](#)



Concrete panels can crack, exposing rebar to the corrosive effects of the environment, furthering rust discoloration.

No more concrete panel problems



Concrete panel corners are difficult to lock. This brand new concrete panel wall has already lost its integrity.

STRENGTH of Concrete with the BENEFITS of Vinyl

As a cast-in-place system, the TRULINE piles are first driven into the soil. Once the structure is in place and steel rebar is placed as necessary, concrete is quickly pumped into the cells.

- **Minimizes the need for barges, cranes, & other heavy equipment**
- **No need to transport panels**
- **No corrosion or discoloring**
- **No fracturing or soil erosion through the joints**
- **Reduces cure time**
- **Reduces amount of property tear up**
- **Turns and curves are easily made with corner parts**
- **Faster start to finish installation**
- **Attain taller exposures**
- **Minimize or eliminate need for walers**

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US Patent No. 7628570
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