

CALIFORNIA COASTAL COMMISSION

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W24a

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STAFF REPORT: REGULAR CALENDAR

Application No.: 5-18-0260

Applicant: George Barfield

Agent: N/A

Location: 16715 Bayview Drive, Sunset Beach
Huntington Beach, Orange County
(APNs 178-565-46 & 178-565-48)

Project Description: Demolition of a 1,320 square foot, 2-story, 29 feet high single-family residence, and construction of a 4,757 square foot, three-story, 35 feet high (measured from centerline of frontage road) single-family residence with an attached 730 square foot, three-car garage on a harbor front lot in Huntington Harbour.

Staff Recommendation: Approval with conditions

SUMMARY OF STAFF RECOMMENDATION

The applicant is proposing to demolish and reconstruct a single-family residence on a harbor front lot on Bayview Island in Huntington Harbour. The island is surrounded by bulkheads. The primary Coastal Act issue is coastal hazards related to future sea level rise, flooding, and coastal erosion.

The Bulkhead Condition Report prepared for the proposed development indicates that the bulkhead at the subject site will support the proposed development over its expected 75-year life, including consideration of future sea level rise, without any future bayward encroachment of the bulkhead. In addition, the Bulkhead Condition Report states that future adaptations such as raising the bulkhead vertically (without bayward encroachment), waterproofing and flood shields can be implemented if necessary in the future to adequately protect the development. No changes to the existing bulkhead are proposed. In order to reinforce and incorporate the coastal engineering consultant's conclusions into the proposed development, staff is recommending a special condition that prohibits future bayward extension of the shoreline protection device (bulkhead) and any future new shoreline protection device, and that the applicant agrees to remove development rather than protect it should it become threatened.

In all, staff is recommending approval of the proposed project with six (6) special conditions regarding: 1) prohibition on future seaward extension of the bulkhead (shoreline protection device) and any future new shoreline protection devices; 2) applicant's assumption of risk, waiver of liability and indemnity; 3) review of future development; 4) conformance with approved drainage plan; 5) conformance to protection construction methods; and, 6) recordation of a deed restriction against the property, referencing all of the Special Conditions contained in this staff report.

The project site is located in an uncertified area of the City of Huntington Beach. Therefore, the Commission is the permit-issuing entity for the proposed project and the standard of review is Chapter 3 of the Coastal Act.

The motion and resolution to carry out the staff recommendation is found on page 4. The applicant is in agreement with the staff recommendation.

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EXHIBITS

Exhibit 1 – Vicinity Map and Aerial Photo

Exhibit 2 – Project Plans

I. MOTION AND RESOLUTION

Motion:

*I move that the Commission **approve** the Coastal Development Permit Application No. 5-18-0260 subject to the conditions set forth in the staff recommendation.*

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:

The Commission hereby approves Coastal Development Permit Application No. 5-18-0260 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

This permit is granted subject to the following 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 CONDITIONS

This permit is granted subject to the following special conditions:

1. No Future Expansion to Existing Shoreline Protection Device, No Future New Shoreline Protection Device.

- A. By acceptance of this Permit, the applicant agrees, on behalf of himself and all successors and assigns, that no future repair or maintenance, enhancement, reinforcement, or any other activity affecting the shoreline protection device that is located at the seaward property line of the site that is the subject of Coastal Development Permit No. 5-17-0260, as depicted on an Exhibit 2a Site Plan of this staff report, shall be undertaken if such activity extends the footprint seaward of the subject shoreline protection device. By acceptance of this Permit, the applicant waives, on behalf of himself and all successors and assigns, any rights to such activity that may exist under applicable law.

- B. By acceptance of this Permit, the applicant agrees, on behalf of himself and all successors and assigns, that no new shoreline protection device(s) shall be constructed to protect the development approved pursuant to Coastal Development Permit No. 5-18-0260, as depicted on Exhibit 2a Site Plan of this staff report, including in the event that the development is threatened with damage or destruction from waves, erosion, storm conditions, or other coastal hazards in the future, and as may be exacerbated by sea level rise. By acceptance of this Permit, the applicant hereby waives, on behalf of himself and all successors and assigns, any rights to construct such devices that may exist under applicable law.

- C. By acceptance of this permit, the applicant further agrees, on behalf of himself and all successors and assigns, that the landowner(s) shall remove the development authorized by this permit, including the residence, garage, foundations, and hardscape if: (a) any government agency has ordered that the structures are not to be occupied due to coastal hazards, or if any public agency requires the structures to be removed; (b) essential services to the site can no longer feasibly be maintained (e.g., utilities, roads); (c) the development is no longer located on private property due to the migration of the public trust boundary; (d) removal is required pursuant to LCP policies for sea level rise adaptation planning; or (e) the development would require a shoreline protection device to prevent a-d above.

In the event that portions of the development fall into the bay before they are removed, the landowner(s) shall remove all recoverable debris associated with the development from the bay and ocean and lawfully dispose of the material in an approved disposal site. Such removal shall require a coastal development permit. Prior to removal, the permittee shall submit two copies of a Removal Plan to the Executive Director for review and written approval. The Removal Plan shall clearly describe the manner in which such development is to be removed and the

affected area restored so as to best protect coastal resources, including Huntington Harbour and the Pacific Ocean.

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 waves, erosion, storm conditions, flooding, and sea level rise; (ii) to assume the risks to the applicant 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. 5-18-0260. Pursuant to Title 14 California Code of Regulations Section 13253(b)(6), the exemptions otherwise provided in Public Resources Code Section 30610(b) shall not apply to the development governed by Coastal Development Permit No. 5-18-0260. Accordingly, any future improvements to the residence and/or foundations 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 Coastal Development Permit No. 5-18-0260 from the Commission or shall require an additional Coastal Development Permit from the Commission or from the applicable certified local government.
4. **Conformance with Drainage Plan.** Development of the site shall conform with the drainage plan prepared by Emerald Engineering (attached to the staff report dated 6/28/2018 as Exhibit 2e Drainage Plan), directing all site drainage toward the street side of the site and into a bottomless trench drain located across the entire length of the street-side property line. Any proposed changes to the approved plan shall be reported to the Executive Director. No changes to the approved plan shall occur without a Commission amendment to this Coastal Development Permit unless the Executive Director determines that no amendment is legally required.
5. **Storage of Construction Materials, Mechanized Equipment and Removal of Construction Debris.** The permittee shall comply with the following construction-related requirements:
 - A. No demolition or construction materials, 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. No demolition or construction equipment, materials, or activity shall be placed in or occur in any location that would result in impacts to environmentally sensitive habitat areas, streams, wetlands or their buffers.

- C. Any and all debris resulting from demolition or construction activities shall be removed from the project site within 24 hours of completion of the project.
 - D. 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.
 - E. All trash and debris shall be disposed in the proper trash and recycling receptacles at the end of every construction day.
 - F. The applicant shall provide adequate disposal facilities for solid waste, including excess concrete, produced during demolition or construction.
 - G. 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.
 - H. 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.
 - I. 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.
 - J. The discharge of any hazardous materials into any receiving waters shall be prohibited.
 - K. 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.
 - L. 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.
 - M. All BMPs shall be maintained in a functional condition throughout the duration of construction activity.
6. **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(s) have executed and recorded against the parcel(s) 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

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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

A. PROJECT DESCRIPTION

The proposed project is located on a 3,375 square foot harbor-front lot in the Sunset Beach area of the City of Huntington Beach, Orange County (Exhibit 1). The proposed development is the demolition of a 1,320 square foot, 2-story, 29 feet high single-family residence and construction of a new 4,757 square foot, three-story, 35 feet high (measured from centerline of frontage road) single-family residence with an attached 730 square foot, three car garage on a harbor front lot on Bayview Island in Huntington Harbour. The subject site is a harbor-front, bulkheaded lot. A boat dock also currently exists at the site. No work is proposed to the existing bulkhead or boat dock. Project plans are included as **Exhibit 2**. The City issued an Approval in Concept for the proposed project (City of Huntington Beach Initial Plan and Zoning Review No.18-001, dated 1/31/2018).

The site is a low-lying area, located within an existing urban residential area, on Bayview Island in Huntington Harbour. The subject lot is located between the first public road (Bayview Drive) and the sea (Huntington Harbour). Most of the Huntington Harbour water frontage is developed with single-family homes, on bulkheaded lots, many of which have boat docks over public waters, including properties adjacent to the project site. Virtually the entire water frontage in Huntington Harbor is supported by bulkheads.

Sunset Beach is located in an area that was formerly unincorporated Orange County. Under the County's jurisdiction, Sunset Beach was subject to a certified Local Coastal Program (LCP). However, in August 2011, Sunset Beach was annexed by the City of Huntington Beach, resulting in the lapse of certification of the County's LCP for Sunset Beach. The Sunset Beach area has not yet been incorporated into the City of Huntington Beach LCP. Therefore, the Commission is the permit-issuing entity for the proposed project and the Chapter 3 policies of the Coastal Act are the standard of review. The County's previously certified Sunset Beach LCP may be used as guidance; however, it should be noted that the previously certified LCP did not adequately address a number of issues of current concern including sea level rise concerns, which are likely to be a significant issue in the new LCP, given the high degree of sea level rise vulnerability in the area.

The City has adopted equivalent land use and zoning designations for the site as those set forth in the former Orange County LCP for Sunset Beach. However, the Commission has not yet certified land use designations or zoning for the Sunset Beach area since it was annexed into the City. Nevertheless, it is worth noting that the proposed project (a single-family residence) is consistent with many of the development standards that would have been applicable to the proposed project under the old Sunset Beach LCP. The old LCP designated the site *Sunset Beach Residential – High Density*. The proposed single-family residence is consistent with this designation. The proposed project meets the old LCP's height restriction of three stories and 35 feet for the *Sunset Beach Residential* zone, which is also the City's current height limit. In addition, the design of the proposed single-family residence project is consistent with existing surrounding residential development on Bayview Island in Sunset Beach.

B. Hazards

Coastal Act Section 30253 states, in pertinent part:

New Development shall do all of the following:

- (a) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.*
- (b) 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 protection devices that would substantially alter natural landforms along bluffs and cliffs.*

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 structure 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 fishkills should be phased out or upgraded where feasible.

The subject site is located directly adjacent to the waters of Huntington Harbour and within 500 feet of the ocean fronting sandy beach (see Exhibit 1). Because of the dynamic nature of the location, development adjacent to the ocean is inherently hazardous. Due to the location of the subject site, the proposed project must be examined for the potential for coastal hazards, including consideration of potential impacts due to storm events and future sea level rise (SLR). As mentioned, a bulkhead is present at the site. No work is proposed to the existing bulkhead. However, the bulkhead is believed to have been constructed in the late 1960s and so must be evaluated to assess whether it remains adequate to support the proposed residence, both under current conditions and considering future sea level rise.

Sea level has been rising for many years. Several different approaches have been used to analyze the global tide gauge records in order to assess the spatial and temporal variations, and these efforts have yielded sea level rise rates ranging from about 1.2 mm/year to 1.7 mm/year (about 0.5 to 0.7 inches/decade) for the 20th century, but since 1990 the rate has more than doubled, and the rate of sea level rise continues to accelerate. Since the advent of satellite altimetry in 1993, measurements of absolute sea level from space indicate an average global rate of sea level rise of 3.4 mm/year or 1.3 inches/decade – more than twice the average rate over the 20th century and greater than any time over the past one thousand years.¹ Recent observations of sea level along parts of the California coast have shown some anomalous trends; however, there is unequivocal evidence that the climate is warming, and such warming is expected to cause sea levels to rise at an accelerating rate throughout this century.

¹ <http://www.opc.ca.gov/webmaster/ftp/pdf/docs/rising-seas-in-california-an-update-on-sea-level-rise-science.pdf>

The State of California has undertaken significant research to understand how much sea level rise to expect over this century and to anticipate the likely impacts of such sea level rise. In April 2017, a working group of the Ocean Protection Council's (OPC) Science Advisory Team released *Rising Seas in California: An Update on Sea-Level Rise Science*.² This report synthesizes recent evolving research on sea level rise science, notably including a discussion of probabilistic sea level rise projections as well as the potential for rapid ice loss leading to extreme sea level rise. This science synthesis was integrated into the OPC's *State of California Sea-Level Rise Guidance 2018 Update*.³ This Guidance document provides high-level, statewide recommendations for state agencies and other stakeholders to follow when analyzing sea level rise. Notably, it provides a set of projections that OPC recommends using when assessing potential sea level rise vulnerabilities for various projects. Taken together, the Rising Seas science report and updated State Guidance account for the current best available science on sea level rise for the State of California.

The updated projections in the updated 2017 Rising Seas report and the OPC Guidance suggest sea levels could rise between 2.1 and 6.7 feet by 2100 at the Los Angeles tide gauge⁴, depending on greenhouse gas emissions. The updated 2017 Rising Seas report also includes an extreme scenario (termed the "H++" scenario) of 9.9 feet of sea level rise by 2100 based on recent modelling efforts that look at possible sea level rise associated with rapid ice sheet loss.

As our understanding of sea level rise continues to evolve, it is possible that sea level rise projections will continue to change as well (as evidenced by the recent updates to best available science). While uncertainty will remain with regard to exactly how much sea levels will rise and when, the direction of sea level change is clear and it is critical to continue to assess sea level rise vulnerabilities when planning for future development. Importantly, maintaining a precautionary approach that considers high or even extreme sea level rise rates and includes planning for future adaptation will help ensure that decisions are made that will result in a resilient coastal California.

On the California coast the effect of a rise in sea level will be the landward migration of the intersection of the ocean with the shore, which will result in increased flooding, erosion, and storm impacts to coastal areas. On a relatively flat beach, with a slope of 40:1, a simple geometric model of the coast indicated that every centimeter of sea level rise will result in a 40 cm landward movement of the ocean/beach interface. For fixed structures on the shoreline, such as a seawall, an increase in sea level will increase the inundation of the structure. More of the structure will be inundated or underwater than is inundated now and the portions of the structure that are now underwater part of the time will be underwater more frequently. Accompanying this rise in sea level will be an increase in wave heights and wave energy. Along much of the California coast, the bottom depth controls the nearshore wave heights, with bigger waves occurring in deeper water. Since wave energy increases with the square of the wave height, a small increase in wave height can cause a significant increase in wave energy and wave damage.

² Griggs, G, Árvai, J, Cayan, D, DeConto, R, Fox, J, Fricker, HA, Kopp, RE, Tebaldi, C, Whiteman, EA (California Ocean Protection Council Science Advisory Team Working Group). *Rising Seas in California: An Update on Sea-Level Rise Science*. California Ocean Science Trust, April 2017.

³ OPC State of California Sea-Level Rise Guidance, 2018 Update:

http://www.opc.ca.gov/webmaster/ftp/pdf/agenda_items/20180314/Item3_Exhibit-A_OPC_SLR_Guidance-rd3.pdf

⁴ The OPC Guidance provides sea level rise projections for 12 California tide gauges, and recommends using the projections from the tide gauge closest to the project site. The projections for the LA tide gauge can be found on page 72 of the OPC Guidance.

Combined with the physical increase in water elevation, a small rise in sea level can expose previously protected back shore development to increased wave action, and those areas that are already exposed to wave action will be exposed more frequently, with higher wave forces. Structures that are adequate for current storm conditions may not provide as much protection in the future.

Rising sea levels are exacerbating and will continue to intensify hazards along the shoreline, including inundation, storm flooding, erosion, saltwater intrusion into aquifers, and liquefaction. Some shoreline development will experience increasingly hazardous conditions over time; therefore, to ensure safety and structural integrity consistent with Section 30253 of the Coastal Act, development must be sited and designed in such a way that takes into account the anticipated impacts of sea level rise over the full time span of its economic life. Changing conditions could also alter the anticipated impacts of the development upon coastal resources. In particular, coastal resources such as beaches and wetlands that are located just inland of the sea could disappear if they are squeezed between rising sea levels and a fixed line of development on the shoreline, thus impacting public access, recreation, visual, and other coastal resources. Therefore, to be consistent with the Chapter 3 policies of the Coastal Act, proposed development must be sited, designed, and conditioned in such a way that considers the impact of the development upon coastal resources over its full economic life, avoiding and mitigating those impacts as appropriate.

No work is proposed to the existing bulkhead at the site. Nevertheless, in order to find the proposed development consistent with the hazard policies of the Coastal Act, assurances must be in place as to the adequacy of the existing bulkhead to support the proposed development, under both current conditions and with anticipated sea level rise over the expected life of the project.

In this geographic area (Bayview Island in Huntington Harbour), the main concerns raised by harborfront development are impacts from hazardous conditions (e.g. potential storm damage and/or flooding under current conditions as well as with expected future sea level rise) that might eventually lead to a request to expand the existing bulkhead (a shoreline protection device) to protect the proposed development. CoSMoS⁵ modeling suggests that flooding from the harbor will be a more significant threat than flooding from the ocean. Such flooding, in addition to threatening the proposed development, might also impact roadways and other infrastructure, thus limiting access to the proposed residence, and/or potentially damaging public services.

The applicant submitted a *Bulkhead Condition Report and Sea Level Rise Discussion* (Report), prepared by GeoSoils, Inc. and dated 3/5/2018, and updated 5/14/2018. The Report found: “The bulkhead is in reasonably good condition and is functioning as intended. There were no signs of any movement, or scour at the mudline. The weep holes are functioning. The cap of the bulkhead is spalled and should be patched⁶. The construction joints are in good condition. The bulkhead face is level and continuous with the bulkheads fronting the adjacent properties (no rotation).” The Report also identifies the top of the existing bulkhead at elevation +8.1 feet NAVD88 and

⁵ USGS CoSMoS, modeling (https://walrus.wr.usgs.gov/coastal_processes/cosmos/index.html) and mapping (<http://data.pointblue.org/apps/ocof/cms/>) tool.

⁶ Regarding patching of the bulkhead cap, the Report (5/14/18) states: “The cap spalling is not a structural deficiency of the bulkhead. It is minor and only an aesthetic issue. The condition of the cap does not impact the performance of the bulkhead over the life of the development. The project does not require the repair of the cap.”

the finished floor of the proposed residence at +10.11 feet⁷ NAVD88⁸. The Report further states: “The existing bulkhead can be adapted to respond to sea level rise.” The height of the bulkhead can be extended vertically. Such a [vertical] bulkhead extension would not require additional bay-ward encroachment. Based upon the mid to upper range of the 67% probability SLR projection, the residence will be safe from flooding until the year ~2100. Under the 5% probability the residence will be safe until about the year 2065. The existing bulkhead can structurally accommodate an increase in height. Vertical bulkhead extension is considered a viable means of mitigating SLR and bay water impacts to the Hunting Harbor bulkheads and residences. An additional ~3.9 feet of height, to about elevation +12.0 feet NAVD88, can be added to the existing bulkhead, which would protect against the 5% probability SLR flood risk past the year 2100. Such an adaptation would not result in additional bay-ward encroachment of the bulkhead since it could be added directly on top of the existing bulkhead.” In addition, the Report further states: “The proposed residence can incorporate a site specific SLR future adaptation strategy to waterproof the structure up to potential highest flood elevation and, if necessary, to deploy flood shields.”

Importantly, the Report relies upon lower sea level rise projections in this analysis than is recommended by the Ocean Protection Council. Based on the current configuration of the bulkhead, the Report suggests that the proposed structure would be safe from approximately 2 feet of sea level rise, or up to about 4-5 feet of sea level rise if the bulkhead was vertically extended. However, the OPC Guidance (2018) recommends that projects with low adaptive capacity and/or more significant consequences if impacted, such as residential structures, take a more precautionary approach by evaluating the medium-high risk aversion scenario (the 0.5% probability). Under this scenario, 2 feet of sea level rise could occur as early as about 2050, and the site could see as much as 5.3 feet of sea level rise over the project’s anticipated lifetime (through 2090). Note that this doesn’t include increased water levels from storms, El Nino, or other temporary fluctuations, nor does it account for the extreme ice loss scenario which could result in up to 8 feet of sea level rise by 2090. Overall, this suggests that the site is more vulnerable to hazards, and that these impacts could affect the property earlier, than is accounted for in the Report.

Based upon assurances from the applicant’s coastal engineering consultant, the proposed project is expected to be safe from coastal hazards without any project modifications or implementation of adaptation strategies up to approximately 2 feet of sea level rise. The coastal engineering consultant also finds that the existing bulkhead is adequate to support future bulkhead upward/vertical extension if deemed necessary in the future without any bay-ward encroachment of the bulkhead. Moreover, additional adaptations such as waterproofing and flood shields can be implemented to provide further protection from coastal hazards and future SLR. **Special Condition No. 1** enforces the coastal engineer’s statement that no bay-ward encroachment of the existing bulkhead (shoreline protection device) is expected to be needed to support the proposed development. **Special Condition No. 1** also requires that the applicant remove development should it become threatened due to coastal hazards. As conditioned, the Commission finds that the development conforms to the requirements of Sections 30253 of the Coastal Act regarding

⁷ The City of Huntington Beach requires the finished floor elevation to be 2 feet above the top of the bulkhead, consistent with the current top of bulkhead elevation and proposed finished floor elevation.

⁸ NAVD88 is the North American Vertical Datum of 1988, the vertical control datum of orthometric height established for vertical control surveying in the United States of America based upon the General Adjustment of the North American Datum of 1988.

the siting of development in hazardous locations, minimizing risks to life and property, assuring stability and structural integrity, and that proposed development neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area.

The Commission finds that due to the possibility of storm waves, surges, flooding and erosion, particularly as exacerbated by future sea level rise, the applicant shall assume these risks as a condition of approval. Because this risk of harm cannot be completely eliminated, **Special Condition No. 2** acknowledges that building near the coast is inherently hazardous and that the applicant is aware of and assumes the risks. The Commission requires the applicant to waive any claim of liability against the Commission for damage to life or property which may occur as a result of the permitted development. The applicant's Assumption of Risk, Waiver of Liability and Indemnity, as required by **Special Condition 2**, demonstrates that the applicant is aware of and understands the nature of the hazards which exist on the site, and that may adversely affect the stability or safety of the subject development, and will effectuate the necessary assumption of those risks by the applicant.

C. PUBLIC ACCESS

Coastal Act Section 30210 states:

In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.

As conditioned, the proposed development will not have any new adverse impact on public access to the coast or to nearby recreational facilities. There is no public walkway around the island at the water's edge, but public access to the bulkhead does exist at the island's street ends. The nearest public beach access exists approximately 500 feet west of the site, at Sunset Beach. Thus, as conditioned, the proposed development conforms with Section 30210 of the Coastal Act.

D. WATER QUALITY

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 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 waterflow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

The proposed development has the potential for construction and post-construction discharge of polluted runoff from the project site into coastal waters, either directly or via the community's storm drains, which ultimately flow to the sea. As proposed no site drainage will be directed into harbor waters. The applicant is proposing measures to address these water quality concerns, including directing site drainage to a bottomless trench drain across the entire length of the street-side of the lot. Special **Condition 4** requires the project to conform to the site drainage plan as proposed. (**Exhibit 2e**). In addition, the Commission imposes **Special Condition 5** which identifies construction related measures to be incorporated into the project during construction. By incorporating these water quality protection measures into the proposed development, as conditioned, the project minimizes the effect of construction and post-construction activities on the marine environment. Therefore, the Commission finds that the proposed development, as conditioned, conforms to Sections 30230 and 30231 of the Coastal Act regarding the protection of water quality to promote the biological productivity of coastal waters and to protect human health.

E. Future DEVELOPMENT

The proposed project raises concerns that future development of the project site may result in a development that is not consistent with the Chapter 3 policies of the Coastal Act. Section 30610(a) of the Coastal Act provides that certain improvements to existing single-family homes do not require a coastal development permit, subject to Section 13250 of the Commission's regulations, which lists certain improvements to single-family structures that require a coastal development permit because they involve a risk of adverse environmental effect, including those improvements to a structure that is located on adjacent to the harbor (13250(b)(1)). The Commission finds that exemption from coastal development permit requirements for certain improvements to existing single-family homes per section 30610(a) does not apply to the proposed single-family structure because it is located adjacent to the harbor. Thus, to assure that future improvements are consistent with the Chapter 3 policies of the Coastal Act, the Commission finds that it is necessary to impose **Special Condition 3** prohibiting the construction of future improvements to the proposed single-family structure without first obtaining an amendment to this permit or a new coastal development permit. Therefore, as conditioned, the development conforms to Section 30610(a) of the Coastal Act.

F. 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 6**, requiring 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, 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. Therefore, the Commission finds that the proposed development, as conditioned, conforms to the Coastal Act by ensuring that any successors-in-interest have proper actual notice, recorded against the subject parcel, of the proposed development's required mitigation measures that mitigate the development's impacts on coastal resources.

G. LOCAL COASTAL PROGRAM

Coastal Act section 30604(a) states that, prior to certification of a local coastal program ("LCP"), a coastal development permit must be issued upon a finding that the proposed development is in conformity with Chapter 3 of the Act and that the permitted development will not prejudice the ability of the local government to prepare an LCP that is in conformity with Chapter 3. Orange County's LCP for Sunset Beach was effectively certified in 1982 and updated in 1992. However, Sunset Beach was annexed into the City of Huntington Beach effective August 2011. This annexation terminated the County's LCP permitting jurisdiction for the area. The Sunset Beach annexation area has not yet been incorporated into the City of Huntington Beach certified LCP. Thus, there is not currently an effective certified LCP for Sunset Beach and, therefore, the Chapter 3 policies of the Coastal Act provide the standard of review for coastal development permits in the area. The previously certified Sunset Beach LCP may be used as guidance as appropriate. As conditioned, the proposed development is consistent with the Chapter 3 policies of the Coastal Act. Approval of the project, as conditioned, will not prejudice the ability of the local government to prepare an LCP that is in conformity with the provisions of Chapter 3 of the Coastal Act.

H. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Section 13096(a) of the Commission's 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). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

The City of Huntington Beach is the lead agency responsible for CEQA review. The City determined that the project qualifies for a CEQA exemption. Typically projects are exempt from CEQA pursuant to section 15303(a) of the CEQA Guidelines when they consist of construction of one single-family residence located within an urbanized residential zone. As conditioned, there are no additional feasible alternatives or additional feasible mitigation measures available which will substantially lessen any significant adverse impact the activity would have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified possible impacts, is consistent with CEQA and the policies of the Coastal Act.

APPENDIX A

SUBSTANTIVE FILE DOCUMENTS

- 1) Formerly Certified County of Orange Sunset Beach Local Coastal Program.
- 2) City of Huntington Beach Initial Plan and Zoning Review No. 18-001, dated 1/31/2018.
- 3) Bulkhead Condition Report and Sea Level Rise Discussion (GeoSoils, Inc., 3/5/2018); Response to California Coastal Commission Notice of Incomplete Application (GeoSoils , Inc., 5/14/2018).