CALIFORNIA COASTAL COMMISSION
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STAFF REPORT: REGULAR CALENDAR

Application No.: **5-20-0542**

Applicants: **Alan and Kim Gibson**

Agent: Erin Cherson

Location: 204 4th Street, Seal Beach, Orange County (APN: 199-022-15)

Project Description: Demolish an existing one-story, 936 sq. ft., single family residence and detached garage. Construct a new two-story, 2,122 sq. ft. single family residence with a 449 sq. ft. detached ADU and a two-car garage.

Staff Recommendation: **Approval with Conditions**

SUMMARY OF STAFF RECOMMENDATION

The applicants are proposing to demolish an existing one-story, 936 square foot single family residence and detached garage, and construct a 24'10" high, two-story, 2,122 square foot single family residence with a 449 square foot Accessory Dwelling Unit (ADU) and an attached 417 square foot two-car garage.

The project site is a 3,516 square foot, rectangular-shaped lot located 0.2 miles (approximately 1,000 feet) inland from the beach in an urbanized area characterized by

residential development. The project site is zoned Residential High Density-20 (RHD-20), which permits single-family residences and multifamily residences to be developed. The proposed residence is of a similar mass, scale, and character as the surrounding development, which includes mostly single-family residences and some multi-family structures. The proposed development will add one ADU to the lot where one currently does not exist. There are no public coastal views within the vicinity of the project site, so the project will not adversely impact coastal views. The project provides adequate onsite vehicle parking and is overall consistent with the Coastal Act's public access policies. Landscaping will consist only of non-invasive, drought-tolerant plantings.

Although the project site is not located within the first line of development, the site is within a large, low-lying coastal area that is vulnerable to flooding under a minimum 3.3 feet of sea level rise. The lowest finished floor elevation will be at 14.85 feet above sea level. In addition, a vapor retarder system over a 4"-thick base of 1/2" clean aggregate would be utilized on the foundation to minimize the transmission of water and to protect the structure from potential scouring and saltwater intrusion that could result from coastal flooding. While the applicants have attempted to adapt the proposed residence to account for coastal flooding risks, the proposed adaptation measures may not be enough to withstand the flooding that is projected to impact the project site with even 3.3 feet of sea level rise. Because the proposed single-family residence constitutes new development, the residence is not entitled to shoreline protection under Section 30235 of the Coastal Act. Therefore, staff recommends the Commission impose **Special Condition 1** and **Special Condition 4** requiring the applicants to waive any right to construct a future shoreline protective device, and to assume the risks of developing a new single-family residence in an inherently hazardous area. In further consideration of the hazardous project location, **Special Condition 5** requires an amendment to Coastal Development Permit (CDP) No. 5-20-0542, or an additional CDP, for any future development on the site. As proposed by the applicants and with the recommended conditions, the project can be found consistent with Section 30253 of the Coastal Act.

During and post-construction, the proposed project has potential for adverse impacts to water quality and marine resources. Therefore, staff recommends the Commission impose **Special Condition 3** which provides standards for the safe storage of construction materials and the safe disposal of construction debris. Staff also recommends the Commission impose **Special Condition 2**, which requires that all vegetated landscaped areas only consist of native or non-native, non-invasive drought tolerant plants. In addition, **Special Condition 6** requires the applicants to record a deed restriction against the property that imposes the conditions of the permit for the purpose of providing notice to future property owners.

As conditioned, the proposed project conforms with Chapter 3 of the Coastal Act, which is the standard of review because the City of Seal Beach does not have a certified Local Coastal Program. The motion and resolution to approve the permit can be found on **Page 4**.

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EXHIBITS

I. MOTION AND RESOLUTION

Motion:

I move that the Commission approve Coastal Development Permit No. 5-20-0542 pursuant to 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 Commissioners present.

Resolution:

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 will 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 applicant 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 applicant to bind

all future owners and possessors of the subject property to the terms and conditions.

III. SPECIAL CONDITIONS

1. No Future Shoreline Protective Device.

A. By acceptance of this permit, the permittees agree, on behalf of themselves and any successors and assigns, that no shoreline protective device(s) shall ever be constructed to protect the development approved pursuant to Coastal Development Permit No. 5-20-0542 including, but not limited to, the residence and foundation in the event that the development is threatened with damage or destruction from waves, erosion, storm conditions, liquefaction, flooding, sea level rise, or any other natural hazards in the future. By acceptance of this permit, the permittees hereby waive, on behalf of themselves and all successors and assigns, any rights to construct such devices that may exist under Public Resources Code Section 30235, any similar provision of a certified LCP, or any applicable law.

B. By acceptance of this Permit, the permittees further agree, on behalf of themselves and all successors and assigns, that they are required to remove all or a portion of the development authorized by this permit and restore the site, if:

i. The City or any government agency with jurisdiction has issued a final order, not overturned through any appeal or writ proceedings, determining that the structures are currently and permanently unsafe for occupancy or use due to damage or destruction from waves, erosion, storm conditions, liquefaction, flooding, sea level rise, or other natural hazards related to coastal processes, and that there are no feasible measures that could make the structure suitable for habitation or use without the use of bluff or shoreline protective devices;

ii. Essential services to the site (e.g. utilities, roads) can no longer feasibly be maintained due to the coastal hazards listed above;

iii. Removal is required pursuant to LCP policies for sea level rise adaptation planning; or

iv. The development requires new or augmented shoreline protective devices that conflict with applicable LCP or Coastal Act policies.

Approval of CDP No. 5-20-0542 does not allow encroachment onto public trust lands. Any future encroachment onto public trust lands shall be removed unless authorized by the Coastal Commission. Additionally, encroachment onto public trust lands is subject to approval by the State Lands Commission or other designated trustee agency.

2. Water Quality, Drainage and Landscaping Plans.

A. The permittees shall undertake development in accordance with the drainage and run-off control plan received by Commission staff on October 8, 2020 showing that roof and surface runoff will be captured and filtered with downspouts and connect to the municipal storm drain system through a drain pipe. Vegetated landscaped areas shall only consist of native or non-native, non-invasive drought tolerant plants. No plant species listed as problematic and/or invasive by the California Native Plant Society, the California Exotic Pest Plant Council, or as may be identified from time to time by the State of California shall be employed or allowed to naturalize or persist on the site. No plant species listed as a 'noxious weed' by the State of California or the U.S. Federal Government shall be utilized within the property. The permittees shall incorporate Best Management Practices (BMPs) into the construction and post-construction phases of the subject development, and shall also comply with the applicable water efficiency and conservation measures of the City's adopted CALGreen standards concerning irrigation systems, efficient fixtures, and appliances.

B. 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.

3. Storage of Construction Materials, Mechanized Equipment, and Removal of Construction Debris. The permittees 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 applicants 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; and
M. All BMPs shall be maintained in a functional condition throughout the duration of construction activity.

4. Assumption of Risk, Waiver of Liability and Indemnity. By acceptance of this permit, the permittees acknowledge and agree (i) that the site may be subject to hazards including but not limited to waves, erosion, storm conditions, liquefaction, flooding, and sea level rise; (ii) to assume the risks to the permittees 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.

5. Future Development. This permit is only for the development described in CDP No. 5-20-0542. Any future improvements to the residence and foundation and any other future improvements including but not limited to repair and maintenance identified as requiring a permit in Public Resources Code Section 30610(d) and Title 14 of the California Code of Regulations Sections 13252(a)-(b), shall require an amendment to CDP No. 5-20-0542 from the Commission or shall require an additional CDP from the Commission or from the applicable certified local government.

6. Deed Restriction. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicants 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 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 and Background

The project site is located at 204 4th Street in the City of Seal Beach, Orange County **(Exhibit 1)**. The site is a 3,516 square foot, rectangular-shaped lot located 0.2 miles (approximately 1,000 feet) inland from the beach. The City of Seal Beach, which does not have a certified LCP, designates the project site as Residential High Density (RHD-20) in its Zoning Code with a maximum development of 25 dwelling units/acre, or one unit per 2,178 sq. ft. The Zoning Code is not certified by the Commission. The project site is located on the seaward side of Pacific Coast Highway in a residential neighborhood in the Old Town area of Seal Beach. The predominant character of the surrounding area is one or two-story residential structures with parking accessed from rear alleyways. The project site is not located between the first public road and the sea.

The applicants are proposing to demolish an existing one-story, 936 square foot single family residence and detached garage, and construct a 24'10" high, two-story, 2,122 square foot single family residence with a 449 square foot Accessory Dwelling Unit (ADU) and an attached 417 square foot two-car garage **(Exhibit 2)**. Landscaping is proposed, and will consist only of non-invasive, drought-tolerant plantings.

The proposed residence is of similar mass and scale as the surrounding development and will not be out of character with the area. There are no public coastal views within the vicinity of the project site, so the project will not adversely impact coastal views.

The City of Seal Beach does not have a certified Local Coastal Program (LCP) or a certified Land Use Plan (LUP). Therefore, the standard of review for this permit is Chapter 3 of the Coastal Act.

B. Development

Section 30250 of the Coastal Act states, in pertinent part:

> (a) New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. In addition, land divisions, other than leases for agricultural uses, outside existing developed areas shall be permitted only where 50 percent of the usable parcels in the area have been developed and the created parcels would be no smaller than the average size of surrounding parcels.

Section 30250 of the Coastal Act requires new development to be sited as close as possible to existing developed areas, where it can be accommodated without adverse impacts to coastal resources.

The proposed project will demolish an existing single-family residence and construct a new single-family residence with a detached accessory dwelling unit (ADU). This will not result in the loss of any housing units and will instead increase housing opportunities in Seal Beach, consistent with Section 30250 and with the intent of the new state housing laws that went into effect on January 1, 2020, to encourage the provision of additional accessory dwelling units.[1] In this case, the proposed detached ADU is 449 sq. ft. and has its own full kitchen, bathroom, bedroom, and a separate exterior entrance. There is no ingress and egress (doors) between the ADU and the primary residence. Consistent with Government Code §§ 65852.2, no parking is required for the accessory dwelling unit as the project site is located within 0.2 miles of a public transportation stop, which is located northeast of the project site on Electric Avenue.[2] The proposed development is consistent with Section 30250 of the Coastal Act pertaining to new development.

C. 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 fishkills should be phased out or upgraded where feasible.

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[1] Government Code §§ 65852.2, 65852.22.

[2] Government Code §65852.2(d)(1) states that parking standards shall not be imposed for an accessory dwelling unit when the accessory dwelling unit is located within one-half mile walking distance of public transit.

Section 30251 of the Coastal Act states, in pertinent part:

> …Permitted development shall be cited and designed…to minimize the alteration of natural land forms.

Section 30253 of the Coastal Act 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 protective devices that would substantially alter natural landforms along bluffs and cliffs.

Section 30253 of the Coastal Act requires that new development minimize risks to life and property in hazardous areas, including areas subject to flooding. New development must also not significantly contribute to erosion or destruction of the site or surrounding area or require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs. The proposed project raises potential hazards concerns related to the project site's location in a low-lying area that is inherently vulnerable to flooding. This flood hazard, along with storm hazards, may be exacerbated by sea level rise (SLR) that is expected to occur at this site over the coming decades.

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 SLR 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 SLR continues to accelerate. Since the advent of satellite altimetry in 1993, measurements of absolute sea level from space indicate an average global rate of SLR 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. 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.

The State of California has undertaken significant research to understand how much SLR to expect over this century and to anticipate the likely impacts of such SLR. On November 7, 2018, the Commission adopted a science update to its Sea level Rise Policy Guidance. This document provides interpretive guidelines to ensure that projects are designed and built in a way that minimizes SLR risks to the development and avoids related impacts to coastal resources, consistent with Coastal Act Section 30253. These guidelines state, "to comply with Coastal Act Section 30253 or the equivalent LCP section, projects will need to be planned, located, designed, and engineered for the

changing water levels and associated impacts that might occur over the life of the development." The most recent projections in the statewide sea level rise guidance indicate that sea levels in this area may rise between 5.5 feet and 6.8 feet by the year 2100, though there is a risk of much more significant SLR depending on various uncertainties, including the dynamics of ice sheet loss. The projection is given in a range largely because researchers cannot know exactly how much greenhouse gases we will continue to emit over the coming decades – large-scale curtailment of greenhouse gas emissions would keep SLR towards the lower end of the projections, while business as usual emissions scenarios would result in the higher end of the projections. Because the world has continued along the "business as usual" scenario (and data suggests temperatures and SLR are tracking along the higher projections), the Ocean Protection Council and the Natural Resources Agency have continued to recommend that we avoid relying on the lower projections in planning and decision-making processes.

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. 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. 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.

The Coastal Commission, in line with statewide guidance, generally advocates for a precautionary approach to sea level rise adaptation planning, which stems from the overall importance of keeping people and development safe from coastal hazards and protecting coastal resources, consistent with the Coastal Act. It also derives from the fact that the costs and consequences associated with inadvertently underestimating SLR hazards could be quite high. As explained in the State of California Sea Level Rise Guidance written by the Ocean Protection Council (OPC), the "risk aversion scenario" is a principle of SLR risk analysis that is used to account for variable risk tolerance for different types of development by establishing SLR probability thresholds for varying degrees of risk aversion. For example, a critical infrastructure asset, such as a hospital, should be analyzed with high risk aversion, and would use a more precautionary range

of probabilities of amounts of SLR, while a parking lot or a bike path could be analyzed with lower risk aversion. In this case, the risk aversion scenario recommended by both the Commission and OPC Guidance for residential projects is “medium-high,” as it represents a scenario that is relatively high within the range of possible future SLR scenarios and is therefore appropriately precautionary. In other words, the statewide SLR guidance recommends use of the relatively high projection of SLR associated with the medium-high risk aversion scenario, even though it has a lower probability (1-in-200 chance), because of the high consequences to precious coastal resources, valuable development, and life and safety that would occur if SLR were underestimated, and the recognition that many of these impacts cannot be undone once they have occurred.

Given the project site’s location within a potentially hazardous area, Commission staff followed the methodology outlined in the OPC’s 2018 Sea Level Rise document to establish a projected sea level range for the new development. The 2018 OPC guidance uses NOAA tide gauges, a projected project lifespan, and risk aversion scenario to estimate a sea level rise range. The sea level rise analysis assumed a 75-year projected lifespan for the project, consistent with the Commission’s Sea Level Rise Policy Guidance for residential development. According to the 2018 OPC update, the projected sea level rise range for the project site is tied to the Los Angeles NOAA Tide Gauge. This tide gauge estimates a range between 5.3 and 6.7 ft. of sea level rise by 2100 (which falls within the 75-year projected lifespan for the project). With regard to the risk-aversion scenario, both the Commission’s Sea Level Rise Policy Guidance and the OPC documents recommend a medium-high risk scenario for residential developments. Under a 75-year projected lifespan, a medium-high risk scenario, and the project’s location within the Los Angeles NOAA tide gauge, staff estimated 6.7 ft. of sea level rise within the project vicinity.

Using the sea level rise estimates listed above, staff used the CoSMoS sea level rise and hazards model to analyze the project site’s vulnerability to sea level rise impacts. Staff ran the CoSMoS model using a 6.6-ft. sea level rise scenario (the closest available option that was within the determined sea level range) and a 100-year storm scenario to represent the worst-case scenario. According to CoSMoS, the project site is susceptible to flooding at a minimum 3.3 feet of sea level rise and a 100-yr. storm scenario, which under the medium high risk aversion scenario, would occur far before the anticipated end of the structure’s life **(Exhibit 3)**.

For adaptation measures to address the inherent flooding risk on the project site, the first finished floor elevation would be 14.85 feet above sea level. In addition, a vapor retarder over a 4”-thick base of 1/2” clean aggregate would be utilized on the foundation to minimize the transmission of water vapor from the sub-slab support system and to protect the structure from scouring and saltwater intrusion that could result from coastal flooding. While the applicants have attempted to adapt the proposed residence to account for coastal flooding risks, the adaptation measures may not be enough to withstand the flooding that would occur with 3.3 feet or more of sea level rise. Because the project is located inland of the first line of homes, it is not expected to be subject to wave action in the near term, but the first line of homes might not always exist in their current location. Even if wave action does not damage the home, flooding may occur

during the life of the development, which may affect the home and the surrounding streets and utilities.

Although the project site is not located within the first line of development, the site is within a large, low-lying coastal area that is particularly vulnerable to flooding. This vulnerability is further exacerbated with sea level rise and increased storm surge activity and may become the first line of development, at some point in the future. Historically, the most common response to coastal hazards has been to construct shoreline protective devices in order to slow the erosion of beaches and bluffs, retain unstable slopes, and prevent flooding. However, the Coastal Act discourages shoreline protection devices because they generally cause adverse impacts to coastal resources and can constrain the ability of the shoreline to respond to dynamic coastal processes. Shoreline protection devices are physical structures that take up space and displace or modify prior uses of coastal land (e.g., beach recreation, habitat, etc.), including the occupation of public beach. Seawalls and, in particular, revetments, may have large horizontal footprints, displacing what would otherwise be sandy beach, and resulting in a long-term loss of beach area for public access, recreation and other uses. In addition to frequently encroaching onto the public beach, shoreline protection devices, by slowing or stopping natural processes of shoreline retreat, also prevent the future creation of new beach and eliminate a supply of new sand that would otherwise have resulted from bluff and shoreline erosion. By design, shoreline protection devices establish a fixed landward boundary of the back beach ("fixing the back beach"), and prevent the natural, on-going inland adjustment of the beach that occurs on an eroding coast; over time, this restriction of a beach's adaptive capacity can result in the narrowing or loss of the beach ("passive erosion"). Future sea level rise is expected to result in the drowning or "pinching out" of many California beaches,[3] an effect that will only be exacerbated in locations with extensive shoreline protection.

In addition, as sea levels rise, and beaches and bluffs migrate inland, maintaining residential development adjacent to the shoreline will in many cases cause the narrowing and eventual loss of beaches, dunes and other shoreline habitats as well as the loss of offshore recreational areas. This narrowing, often referred to as "coastal squeeze," can occur when shoreline protection or other fixed development prevents the landward migration of the beach that would have otherwise occurred, and it can also occur when the beach migrates up to and underneath elevated structures. Failure to address impacts related to coastal squeeze has the potential to result in significant conflicts with the Coastal Act, which was enacted for the purpose of protecting California's coastal resources. It also presents challenges for upholding the Public Trust Doctrine. Furthermore, coastal squeeze presents a significant environmental justice

[3] Vitousek, S., Barnard, P.L, Limber, P., Erikson, L., Cole, B., 2017. A model integrating longshore and cross-shore processes for predicting long-term shoreline response to climate change. J. Geophysical Research Earth Surface, 122, 25pp.

issue if private residents adjacent to the shoreline continue to enjoy shoreline access, while the general public is blocked from accessing the shore.[4]

By substituting hard materials (e.g., rock, concrete) in place of more erodible natural substrates (e.g., sand, soils, terrace deposits, sedimentary rocks), shoreline protection devices can also change wave reflection patterns, cause scour or winnowing of beach sediments along the shoreline, and increase erosion rates at unarmored locations up- and down-coast of the structure ("end effects"). In certain locations, shoreline protection devices may also interrupt or interfere with longshore and cross-shore sediment transport, resulting in deposition of sand in one location at the expense of other locations further "down drift" along the coast. Broader effects of shoreline protection devices include changes to the recreational and beach use experience, impacts to beach and other coastal ecosystems, and impairment of the aesthetic and visual character of the coast.

Because shoreline protection devices, such as seawalls, revetments, and groins, can create adverse impacts on coastal processes, Coastal Act Section 30253 specifically prohibits development that could "create [or] contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs." Section 30235 of the Coastal Act recognizes that existing development may be protected by shoreline protective devices subject to certain conditions. This limitation is particularly important when considering new development, such as in this case, because if it is known that a new development may need shoreline protection in the future, it would be unlikely that such development could be found to be consistent with Section 30253 of the Coastal Act, which requires new development to minimize risks to life and property and assure stability and structural integrity. Additionally, Section 30251 requires that permitted development be sited and designed to minimize the alteration of natural landforms. Therefore, the Commission's action on this project must consider potential future effects of wave uprush, flooding, and storm events (with sea-level rise considerations). The Commission must also consider impacts of coastal squeeze on public access and recreation. In particular, as sea level rises, coastal squeeze will eventually result in the loss of not only vulnerable intertidal and low-lying habitats, but also recreational beach areas and surfing resources, if hardened shorelines are constructed and allowed to remain in the future as a way to protect existing development.

Because the proposed single-family residence constitutes new development, the residence is not entitled to shoreline protection under Section 30235 of the Coastal Act. Therefore, the Commission imposes conditions requiring the applicants waive the right to future shoreline protection and assume the risks of the development. **Special Condition 1** requires the permittees to waive any possible right to construct a shoreline protective device to protect the development in the future. Further, the permittees must

[4] California Coastal Commission, Residential Adaptation Policy Guidance, March 2018.

remove this permitted development 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 protective device that is inconsistent with the coastal resource protection policies of the Coastal Act or certified LCP. **Special Condition 4** requires the permittees to assume the risks of developing a new single-family residence in an inherently hazardous area. Furthermore, any potential changes to the proposed project may result in adverse impacts to coastal resources. In further consideration of the hazardous project location, **Special Condition 5** requires an amendment to Coastal Development Permit (CDP) No. 5-20-0542, or an additional CDP, for any future development on the site that would otherwise be exempt from permit conditions. As proposed by the applicants and conditioned by the Commission, the project can be found to be consistent with Sections 30235, 30251, and 30253 of the Coastal Act pertaining to hazards.

D. Public Access

Section 30210 of the Coastal Act 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.

Section 30250 of the Coastal Act states:

> (a)New residential…development…shall be located…where it will not have significant adverse effects, either individually or cumulatively, on coastal resources….

Section 30210 of the Coastal Act requires that public access to the coast be provided and Section 30250 requires that new residential development will be located where it will not have cumulative adverse impacts on coastal resources, including public access.

Two vehicle parking spaces will be provided onsite in the attached garage and will be accessed through an alleyway parallel to 4th Street. This alleyway is used to access garages along 4th Street, but it does not provide public parking spaces. The project also does not propose any curb cuts along 4th Street, so no public parking spaces will be impacted. The proposed residence adheres to the City's setback requirements and does not encroach onto the public right-of-way along 4th Street. Therefore, the project is consistent with Sections 30210 and 30250 of the Coastal Act because, as conditioned, it will not have any new adverse impacts on public access to the coast or to nearby

recreational facilities or displace any public vehicle parking spaces that are used for coastal access.

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

The proposed project has the potential to adversely impact the water quality of the nearby Pacific Ocean. Much of the pollutants entering the ocean come from land-based development. The Commission finds that it is necessary to minimize to the extent feasible within its jurisdiction the cumulative adverse impacts on water quality resulting from incremental increases in impervious surface associated with additional development. The applicants have indicated that roof and surface runoff will be managed onsite through the use of downspouts and a drainage pipe to capture and filter runoff and direct flow to the public storm drains located along 4th Street and the rear alleyway. Thus, to protect water quality and biological productivity, the Commission imposes **Special Condition 3**, which outlines construction-related requirements to provide for the safe storage of construction materials and the safe disposal of construction debris.

While the proposed landscaping consists of non-invasive and drought tolerant plants, future landscaping may not consist of such plants. For water conservation, any plants in the landscape plan should only be drought tolerant to minimize the use of water (and preferably native to coastal Orange County). In order to make sure that any onsite landscaping minimizes the use of water and the spread of invasive vegetation, the Commission imposes **Special Condition 2**, which imposes landscape controls that require that all vegetated landscaped areas consist of native or non-native, drought tolerant plants, which are non-invasive and to implement the proposed drainage plan so that water is captured and filtered on site.

Therefore, the Commission finds that the proposed development, as conditioned, conforms with 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.

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, as conditioned, this permit ensures that any prospective future owner will have actual notice of the restrictions and/or obligations imposed on the use and enjoyment of the land in connection with the authorized development.

G. Local Coastal Program (LCP)

Coastal Act section 30604(a) states that, prior to certification of a local coastal program ("LCP"), a coastal development permit can only 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. On July 28, 1983, the Commission denied the proposed City of Seal Beach Land Use Plan (LUP) as submitted and certified it with suggested modifications. The City did not act on the suggested modifications within six months from the date of Commission action. Therefore, pursuant to Section 13537(b) of Title 14 of the California Code of Regulations, the Commission's certification of the land use plan with suggested modifications expired. The LUP has not been resubmitted for certification since that time. However, the City received an LCP Grant from the Commission in 2016 and is working toward the completion of a sea level rise vulnerability assessment and Local Coastal Program update.

As conditioned, the proposed development will be consistent with Chapter 3 of the Coastal Act. 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 of the Coastal Act.

H. California Environmental Quality Act

Section 13096 of the Commission's administrative regulations requires Commission approval of coastal development permit applications to be supported by a finding showing the application, as modified 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 approval of a proposed development if there are feasible alternatives or feasible mitigation measures available that would substantially lessen any significant impacts that the activity may have on the environment. As the lead agency under CEQA, the City of Seal Beach determined the

project to be a categorically exempt Class 3 (15303) project under CEQA on October 6, 2020. The project as conditioned herein incorporates measures necessary to avoid any significant environmental effects under the Coastal Act, and there are no less environmentally damaging feasible alternatives or mitigation measures. Therefore, the proposed project is consistent with CEQA.

APPENDIX A – SUBSTANTIVE FILE DOCUMENTS

Coastal Development Permit Application No. 5-20-0542 and associated File Documents