

**CALIFORNIA COASTAL COMMISSION**

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# Th15b

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| Hearing Date:          | 7/11/24  |

## STAFF REPORT: REGULAR CALENDAR

|                              |                                                                                                                                                                                 |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Application No.:</b>      | <b>5-23-0345</b>                                                                                                                                                                |
| <b>Applicant:</b>            | <b>Newport Mesa Unified School District (NMUSD)</b>                                                                                                                             |
| <b>Agent:</b>                | Jason Dontje, Studio Plus Architecture Corp.                                                                                                                                    |
| <b>Location:</b>             | 1327 W. Ocean Front, Newport Beach, Orange County (APN: 047-290- 03)                                                                                                            |
| <b>Project Description:</b>  | Replacement of an existing beach playground- including new playground equipment, sand recompaction, new recycled synthetic rubber playground surfacing, and masonry site walls. |
| <b>Staff Recommendation:</b> | Approval with conditions.                                                                                                                                                       |

## SUMMARY OF STAFF RECOMMENDATION

The proposed project is the replacement of the existing beach playground- including new playground equipment, sand recompaction, new synthetic rubber playground surfacing, and masonry site walls (shallow retaining walls) on a beach parcel that serves as the recreational area for the Newport Elementary School, and is also available to the public during non-school hours, which include weekdays (before and after school), weekends, and school holidays.

The proposed project is located on sandy beach within the Commission's permit jurisdiction. Thus, the standard of review for this development is Chapter 3 of the Coastal Act, although the City's certified Local Coastal Plan (LCP) may provide

guidance. The major issues raised by this proposed development concern consistency with the hazards, marine resources, water quality, and the public access and recreation policies of the Coastal Act.

The applicant has stated that the project is driven by the need to replace severely deteriorated playground equipment and to improve accessibility of the playground. As such, the applicant is proposing to replace the northerly approximate 50 ft. section of the project site, oceanward of the Ocean Front public walkway, consisting of existing beach sand with a synthetic rubber playground surfacing product called PlayBound Poured -In-Place Rubber Playground Surfacing. It is a 2-layer system consisting of a base layer of 100% post-consumer recycled shredded waste vehicle tires, which contain the synthetic rubber SBR (Styrene Butadiene Rubber), held together with a polyurethane binder; and a top surface layer consisting of small synthetic rubber granules of recycled post-industrial EPDM (Ethylene Propylene Diene Monomer) or TPV (Thermoplastic Vulcanizates) held together with an aromatic or aliphatic urethane binder. The applicant indicates that this surface material meets or exceeds guidelines as set by the Americans with Disabilities Act (ADA) and the material has the required critical fall height compliance with the American Society for Testing and Materials (ASTM) F1292.

Upon review of this proposed playground surfacing material, the Commission's staff water quality specialist determined that this material would adversely impact the environment and biological resources, and potentially human health. The base layer of the proposed material is comprised of shredded waste tires, which contains numerous hazardous chemicals and compounds including heavy metals (e.g., lead, zinc, mercury, and arsenic), polyaromatic hydrocarbons (PAHs), volatile organic compounds (VOCs), 6-phenylenediamine (6-PPD), phthalates, organophosphate esters (OPEs), and per- and polyfluoroalkyl substances (PFAS), among others, that potentially pose problems for human and environmental health. Some of the additives found in waste tire rubber (including stabilizers, vulcanization agents, and antiozonants) are considered toxic to a wide range of aquatic life and have long-lasting adverse effects. Also, shredded tire rubber and EPDM synthetic rubber granules are microplastics that can be dislodged from the playground and distributed into the environment (including the soil, air, waterways, and the ocean) where both the microplastic particles and their leachates can have potential adverse ecological effects.

The top layer of the playground surface (also known as the "wear layer") that consists of small granules of synthetic rubber ("post-industrial EPDM rubber" or TPV) with a urethane binder is also problematic. One significant concern is that due to both layers of the playground surface being porous, rainwater (or wash water used for cleaning) passes through the top layer of EPDM and also through the base layer of shredded tires, potentially leaching toxic chemicals from these materials into the environment. Another proposed option for the top layer is TPV (Thermoplastic Vulcanizates) synthetic rubber granules that are made from polypropylene and EPDM synthetic rubber, which is also of concern. Both EPDM and TPV synthetic rubber granules contain several of the

same hazardous chemicals as waste tire rubber does, including lead, PAHs, VOCs, and OPEs. TPV is also more susceptible to shedding or breaking away small granules of rubber as the playground surface wears, compared to EPDM.

Therefore, the applicant's proposed surfacing product raises significant concerns due to its potential adverse impacts to the environment and biological resources. In order to avoid the adverse impacts to biologic resources raised by the use of the proposed synthetic rubber and waste tire playground surfacing materials, the Commission imposes the following special conditions: **Special Condition No. 1** prohibits the proposed Poured-in-Place rubber playground surfacing product and similar types of materials; **Special Condition No. 2** indicates the types of acceptable playground surfacing materials to minimize the discharge of hazardous chemicals and microplastic pollution into the environment; **Special Condition No. 3** requires submittal of Final Project Plans including an acceptable alternative playground surfacing material; and **Special Condition No. 4** requires maintenance of playground surfacing materials.

Besides these special conditions, several other typical special conditions are proposed regarding: no future shoreline protective devices, assumption of risk, construction responsibilities and debris removal, timing of construction, a final construction staging plan, a final traffic control plan, and future development.

If approved with conditions to address development located in hazardous areas and to preserve marine resources, water quality, public access, recreation, and visual resources, the proposed project will conform with the Chapter 3 policies of the Coastal Act.

Thus, staff recommends that the Commission **APPROVE** CDP Application No. 5-23-0345 with **11** special conditions. The motion to carry out the staff recommendation is on Page Five. The special conditions begin on Page Six.

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## EXHIBITS

[Exhibit No. 1 – Location Map](#)

[Exhibit No. 2 – Overall Site Plan, Visual Simulations and Site Photographs](#)

[Exhibit No. 3 – Demolition Plan](#)

[Exhibit No. 4 – Construction Plan](#)

[Exhibit No. 5 – Retaining Wall Map](#)

[Exhibit No. 6 – Grading Plan](#)

[Exhibit No. 7 – Traffic Control and Construction Staging Plan](#)

[Exhibit No. 8 – Memo prepared by Vanessa Metz, Ph.D., Senior Environmental Scientist, dated June 17, 2024](#)

## I. MOTION AND RESOLUTION

### Motion:

I move that the Commission approve Coastal Development Permit 5-23-0345 pursuant to the staff recommendation.

Staff recommends a **YES** vote on the foregoing motion. 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 the Coastal Development Permit for the proposed project 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. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

## II. STANDARD CONDITIONS

1. **Notice of Receipt and Acknowledgment.** The permit is not valid and development shall not commence until a copy of the permit, signed by the 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 of 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 that the 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. Prohibited Playground Surfacing Materials.

**A. Playground Surfacing Materials Made from Waste Tires.** Playground surfacing products made from shredded or granulated waste vehicle tires shall be prohibited, including any poured-in-place (PIP) rubber playground surfacing product. Shredded waste tire material such as that used in the cushioning base layer in PIP rubber playground surfacing is typically labeled in product descriptions as rubber, recycled rubber, or recycled SBR (styrene-butadiene rubber). Synthetic rubber playground mats, pads, and tiles made from granules of waste tires held together with chemical binders are typically labeled as rubber or recycled rubber products. Granules of waste tires used as infill for synthetic grass are typically called “crumb rubber.”

Prohibited types of playground surfaces made from waste tire materials shall include, but are not limited to, PIP rubber playground surfacing products made from shredded tires; loose-fill shreds or pieces of tires (i.e., “rubber mulch”); shredded tires held together with a resin binder (i.e., “bonded rubber mulch”); synthetic rubber mats, pads, and tiles manufactured from tire rubber; and synthetic grass (i.e., artificial turf) with tire crumb rubber infill.

**B. Playground Surfacing Materials Made from Synthetic Rubber Granules.**

Synthetic rubber granules commonly used in the top layer of PIP rubber surfacing products, including ethylene propylene diene monomer (EPDM), thermoplastic vulcanizate (TPV), and thermoplastic elastomer (TPE), shall be prohibited for use in playground surfacing products. EPDM may be labeled as “virgin rubber” if it is not derived from recycled materials; however, this is a synthetic rubber, not natural rubber.

#### 2. Acceptable Playground Surfacing Materials. Acceptable playground surfacing materials to minimize the discharge of hazardous chemicals and microplastic debris shall include, but are not limited to, the following:

**A. Natural Materials.** Natural materials such as engineered wood fiber (EWF); cork PIP surfacing; loose-fill materials such as sand, pea gravel, wood chips, bark, or pieces of natural rubber; and mats, pads, or tiles made from natural rubber (not waste tire rubber) shall be the preferable choice for playground surfacing materials, where feasible. Mats, pads, or tiles that do not contain waste tire material may be installed on top of EWF or loose-fill playground materials to create wheelchair-accessible pathways to playground equipment, and/or to prevent displacement of loose-fill materials in high-use areas such as under

swings. EWF with a resin binder (“bonded EWF”) may also be used to create wheelchair-accessible pathways in the playground. Though the materials described in this section are preferable, the materials discussed in **Section B.** below may be used instead in the circumstances described therein.

**B. Low-Toxicity Non-granular Plastics.** Playground surfacing products made from types of plastics that have documented low toxicity to humans and the environment shall be acceptable if use of natural surfacing materials is not feasible. Any plastic products used for the top surface of the playground shall contain only non-granular plastics, not resin-bonded granules, to minimize microplastic pollution. Acceptable low-toxicity non-granular plastic playground surfacing products shall include, but are not limited to:

- i. Woven or non-woven roll-out polyester beach access mats that provide wheelchair-accessible pathways across sand.
- ii. Injection-molded polyvinyl chloride (PVC) interlocking perforated tiles that integrate with loose-fill surfacing materials to provide wheelchair-accessible pathways and/or to prevent displacement of loose-fill surfacing materials under high-use playground equipment (such as swings and slides). These tiles may also be used throughout the playground when installed on top of a cushioning pad. The cushioning pad beneath these tiles shall not contain waste tire material.
- iii. Cross-linked polyethylene foam (XPE) shock pads may be used as a cushioning material, such as under injection-molded interlocking perforated PVC tiles, to provide fall protection under playground equipment or throughout the playground.

**3. Final Project Plans.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for the approval of the Executive Director, two (2) full size sets of final plans for the construction and maintenance of the playground that shall include:

**A, Composition of Playground Surfacing Materials.** A description of all playground surfacing materials or products to be installed, detailing the composition of all materials, consistent with the surfacing requirements laid out in **Special Conditions No. 1 and No. 2.**

**B. Stormwater Drainage System.** A description of and plans for the playground’s stormwater drainage system and any Best Management Practices (BMPs), including the potential dry well, that will be installed to treat stormwater and wash water runoff from the playground.

**C. Drywell Installation Report.** A report on the engineering test results that will be used to determine if installation of a stormwater infiltration drywell underneath the

playground is required, as noted on Site Plan Sheet L002 Construction Plan (dated 9-18-2023) in the Grading and Drainage Notes. This report shall include:

- i. The criteria to be used to determine if installation of a stormwater infiltration drywell is required.
- ii. The results of soil infiltration rate testing and measurement of the distance to groundwater in the location of the potential drywell. At least 10 feet of separation shall be maintained between the bottom of the drywell and the top of the seasonally high groundwater table.
- iii. Calculation of the stormwater treatment volume that will be provided by the drywell.
- iv. An evaluation of the placement of the drywell to determine if changing the location of the drywell to outside of the playground instead of underneath the playground is feasible, to facilitate inspection and maintenance of the drywell.
- v. An evaluation to determine if a pretreatment facility is needed to remove sand, sediment, microplastics, and other pollutants to prevent clogging of the drywell, and a maintenance plan for the drywell.

**D. Construction Debris Discharge Prevention.** A silt fence or similar BMP shall be installed around the perimeter of the playground during construction if needed to prevent the discharge of sediment, plastic debris from playground surfacing materials, and other debris from the construction site via wind or runoff. Any plastic debris from playground surfacing materials generated during installation of the playground shall be promptly removed from the site.

**E. Removal of Synthetic Surfacing Materials at End of Service Life.** Measures shall be implemented to minimize the discharge of microplastic debris to the environment during the removal of any of the proposed synthetic playground surfacing materials at the end of their service life, prior to replacement, including:

- a. Demolition and removal of any synthetic playground surfacing materials shall not be conducted when the wind is above 10 mph or when raining.
- b. A silt fence or similar BMP shall be installed around the perimeter of the playground during demolition and removal of any synthetic surfacing material if needed to prevent the discharge of sediment, microplastic debris, and other debris from the construction site via wind or runoff. Any microplastic debris generated during removal of the playground surfacing materials shall be promptly removed from the site.
- c. Removal of any proposed synthetic playground surfacing to address future seal level rise shall also be consistent with **Special Condition No. 4(B)**



and the removal plan submitted to the Commission dated September 19, 2023, and prepared by Studio+.

- F. The revised plans submitted to the Executive Director shall bear evidence of Approval-in-Concept of the revised design from the City of Newport Beach Planning Division.
- G. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Coastal Commission-approved amendment to this permit or a new coastal development permit unless the Executive Director determines that no amendment is legally required.

- 4. Maintenance of Playground Surfacing Materials.** Any synthetic playground surfacing materials shall be frequently inspected, and promptly repaired or replaced if the material becomes damaged or deteriorated, to minimize the discharge of microplastic debris into the environment. Playground surfaces that contain synthetic surfacing materials shall be inspected before and after power-washing, and any dislodged microplastic pieces shall be promptly collected for proper disposal. Microplastic pieces dislodged from playground surfacing materials shall not be washed or swept off the playground surface into adjacent areas, and instead shall be promptly collected for proper disposal.

**5. No Future Shoreline Protective Device.**

- A. By acceptance of this permit, the permittee agrees, on behalf of itself 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. 5-23-0345 including, but not limited to, the playground equipment, playground surfacing, and retaining walls, 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 itself 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 applicant further agrees, on behalf of itself and all successors and assigns, that it is required to remove all or a portion of the development authorized by this permit and restore the site, if:
  - i. The City of Newport Beach 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 or Coastal Act 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. 5-23-0345 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.

- C. Prior to removal, the permittee shall submit two copies of a Removal/Relocation 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/relocated and the affected area restored so as to best protect coastal resources, including the Pacific Ocean. In the event that portions of the development fall to the ocean before they are removed/relocated, the landowner shall remove all recoverable debris associated with the development from the ocean and lawfully dispose of the material in an approved disposal site. Such removal shall require a coastal development permit.

6. **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 including but not limited to waves, erosion, storm conditions, liquefaction, 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.

- 7. Construction Responsibilities and Debris Removal.** By acceptance of this permit, the applicant agrees to comply with the following construction related requirements:
- A.** No demolition or construction materials, equipment, debris, or waste shall be placed or stored where it may enter sensitive habitat, receiving waters or a storm drain, or be subject to wave, wind, rain, or tidal erosion and dispersion;
  - B.** Any and all debris resulting from demolition or construction activities, and any remaining construction material, shall be removed from the project site within 24 hours of completion of the project;
  - C.** Demolition or construction debris and sediment shall be removed from work areas each day that demolition or construction occurs to prevent the accumulation of sediment and other debris that may be discharged into coastal waters;
  - D.** Machinery or construction materials not essential for project improvements will not be allowed at any time in the intertidal zone;
  - E.** If turbid conditions are generated during construction a silt curtain will be utilized to control turbidity;
  - F.** Floating booms will be used to contain debris discharged into coastal waters and any debris discharged will be removed as soon as possible but no later than the end of each day;
  - G.** Non buoyant debris discharged into coastal waters will be recovered by divers as soon as possible after loss;
  - H.** All trash and debris shall be disposed in the proper trash and recycling receptacles at the end of every construction day;
  - I.** The applicant shall provide adequate disposal facilities for solid waste, including excess concrete, produced during demolition or construction;
  - J.** Debris shall be disposed of at a legal disposal site or recycled at a recycling facility. If the disposal site is located in the coastal zone, a Coastal Development Permit or an amendment to this permit shall be required before disposal can take place unless the Executive Director determines that no amendment or new permit is legally required;
  - K.** All stockpiles and construction materials shall be covered, enclosed on all sides, shall be located as far away as possible from drain inlets and any waterway, and shall not be stored in contact with the soil;

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

## **8. Timing of Construction**

By acceptance of this permit, the applicant agrees to minimize adverse impacts to the beach adjacent to the project site as well as at the beach nourishment locations pursuant to Coastal Development Permit No. 5-23-0345, as required below:

No construction shall occur on the beach between February and the day after the Labor Day weekend, to include: 1) the “peak use” beach season, defined as the period starting the day before the Memorial Day weekend and ending the day after the Labor Day weekend of any year; 2) the bird nesting season, defined as February through August; and 3) the grunion spawning season, defined as March through August.

## **9. Final Construction Staging Plan**

- A.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT the permittee shall submit for the review and approval of the Executive Director, two (2) full size sets of a Final Construction Staging Plan that indicates that the construction staging area(s) and construction corridor(s) will minimize public access impacts to the sandy public beach.

(1) The plan shall demonstrate that:

- (a) Construction equipment, materials or activity shall not occur outside the staging area and construction corridor identified on the site plan required by this condition;
  - (b) Construction equipment, materials, or activity shall not be placed on the sandy beach outside of the immediate construction zone;
  - (c) The construction staging area will gradually be reduced as less materials and equipment are necessary; and
  - (d) The construction access route will only be intermittently closed for transport of equipment and materials. When not in use for transportation of equipment and materials, it will be made available for undisrupted public access.
- (2) The plan shall include, at a minimum, the following components:
- (a) A site plan that depicts:
    - 1. limits of the staging area(s);
    - 2. construction corridor(s);
    - 3. construction site; and
    - 4. location of construction fencing and temporary job trailers with respect to the playground and sandy beach.
  - B.** The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this Coastal Development Permit unless the Executive Director determines that no amendment is legally required.

## **10. Final Traffic Control Plan**

- A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the permittee shall submit for the review and approval of the Executive Director, two (2) full size sets of a Final Traffic Control Plan that demonstrate the following:
  - (1) Every effort shall be made to minimize the duration of Ocean Front public access walkway (boardwalk), sidewalk, bike and road lane closures so that impacts upon public access are minimized;

- (2) The Ocean Front public access walkway (boardwalk), sidewalk, bike and road lanes should be opened, even intermittently, whenever possible during construction; and
- (3) A detour plan to re-route pedestrian and bicycle traffic shall be identified for those periods when the Ocean Front public access walkway (boardwalk), sidewalk and/or bicycle lane is closed within the project area.

**B.** The permittee shall undertake development in accordance with the approved plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this Coastal Development Permit unless the Executive Director determines that no amendment is legally required.

**11. Future Development.** This permit is only for the development described in CDP No. 5-23-0345. Pursuant to Title 14 of the 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 CDP No. 5-23-0345. Accordingly, any future improvements to the playground equipment, playground surfacing, and shallow retaining walls and any 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. 5-23-0345 from the Commission or shall require an additional CDP from the Commission or from the applicable certified local government.

## **IV. FINDINGS AND DECLARATIONS**

### **A. Project Location, Description, Standard of Review and Prior Permit History**

#### Project Location

The subject site is located on an area of the beach that is approximately 60 ft. wide x 120 ft. long (7,200 sq. ft.) seaward (south) of 1327 W. Balboa Boulevard, on the Balboa Peninsula within the City of Newport Beach ([Exhibit No. 1](#)). The subject site is the recreational area for the Newport Elementary School (Newport Elementary) and is available to the public during non-school hours, which include weekdays (before and after school), weekends, and school holidays. The playground is not bound by fencing or any other means for access control. Landward (north) of the project site is the Ocean Front public accessway (boardwalk) and the school, east of the project site has a turf area associated with Newport Elementary, Oceanward (South) of the parcel is an asphalt covered/black top Newport Elementary Playground area (approximately 100 feet in length) and then the sandy beach, and west of the project site is also sandy beach that is approximately 400-ft. wide.

Newport Elementary was constructed in 1933. The school grounds are surrounded by residential development on the northerly, easterly, and westerly sides, and by the beach on the southerly seaward side. The beach parcel is owned by the City of Newport Beach and is leased to the Newport Mesa Unified School District (NMUSD). As a result of limited sites to locate a recreational area for the school, NMUSD leased the beach area abutting the school and seaward of the Ocean Front public accessway in 1960 for a 50-year lease. The lease allows the School District to construct, install and maintain school playground facilities, including paved areas for basketball, other hardcourt games, and playground equipment. In February 2015, NMUSD's current lease agreement with the City of Newport Beach was extended for an additional 50 years.

### Project Description

The proposed project is the replacement of the existing beach playground, including new playground equipment, sand recompaction, new synthetic rubber playground surfacing, and masonry site walls (shallow retaining walls) ([Exhibit Nos. 2-6](#)). Currently, the entire subject site is covered with sand, and playground equipment is located throughout the entire parcel. The new playground equipment and synthetic rubber playground surface will be located within the northerly approximate 50 ft. section of the project site, oceanward of the Ocean Front public walkway, while the remaining southern portion of the site will remain sandy beach. The transition between these two areas will consist of four terraced steps approximately 2-1/2 ft. deep in total with an approximate grade change of 1 ft. from the new playground area up to the sandy beach area.

The applicant has stated that the project is driven by the need to replace severely deteriorated playground equipment and to improve accessibility of the playground. To improve accessibility, the applicant is proposing to replace the northerly approximate 50 ft. section of the project site, oceanward of the Ocean Front public walkway, consisting of existing beach sand with a synthetic rubber playground surfacing product called PlayBound Poured -In-Place Rubber Playground Surfacing. The applicant indicates that this surface material meets or exceeds guidelines as set by the Americans with Disabilities Act (ADA), as discussed in the ADA Accessibility Standards Chapter 10: Play Surfaces. Furthermore, the applicant states that this material has the required critical fall height compliance with the American Society for Testing and Materials (ASTM) F1292. The ASTM International (ASTM) Standard F1292 is designed to provide a testing method for surfacing materials that will allow assessment of impact attenuation of playground surfacing and thus reduce the severity and frequency of fall-related head injuries.

The new shallow retaining walls will be located along portions of the eastern and western ends of the project site along adjacent existing vertical concrete accessways with the western accessway leading from the end of 14<sup>th</sup> Street to the sandy beach that is approximately 400 ft. wide; and another shorter wall along a small northwest section of the site adjacent to the Ocean Front public accessway ([Exhibit Nos. 4-6](#)). The



eastern accessway leads to the asphalt covered/black top Newport Elementary Playground area. The retaining walls are required because the playground surfacing needs to be sloped at 2% maximum to comply with ADA accessibility requirements, which would not be met with the much steeper existing playground slope. To maintain access from the public accessway (boardwalk) to the north, the playground surface would be set lower to match the finished grade of the boardwalk and then gently slopes less than 2% up toward the ocean (south) while the two adjacent vertical concrete walkways leading south to the beach follow the existing natural, steeper slope up toward the south ocean (south). This creates a retaining wall condition that gets deeper as you go farther south.

The retaining walls have shallow footings that are approximately 3 ft. deep. The walls vary in height, ranging from approximately from 2 ft to 3 ft. high. According to the project plans, these proposed walls structurally serve the purpose of retaining sand only as required for this playground project. These walls are not designed as shoreline protective devices.

The excavation associated with the proposed project requires 290 cubic yards of cut of existing sand. The sand will be removed and immediately redistributed on the beach and recompacted.

#### Standard of Review

The subject property is located on sandy beach within the Commission's permit jurisdiction. Thus, the standard of review for development is Chapter 3 of the Coastal Act. The City's certified LCP is advisory in nature and may provide guidance.

#### Prior Permit History

##### CDP No. 5-99-289

In April 2000, the Commission approved Coastal Development Permit No. 5-99-289 for the construction of a 2 ft. high perimeter wall on the west and south-west sides of an existing grass recreational field. This approved wall is located to the east of the subject site. The perimeter wall was approximately 120 linear ft. on the west side and 25 ft. on the southwest side. The Commission approved the project subject to four special conditions requiring the following: 1) specification that proposed structure was appurtenant; 2) submittal of a color and texture plan; 3) prohibition of placement of signs for anything other than public safety; 3) prohibition of placement of signs for anything other than public safety; 4) assumption of risk deed restriction; 5) no future shoreline protective device.

##### CDP No. 5-14-1211

In September 2015, the Commission approved Coastal Development Permit No. 5-14-1211 for the leveling and expansion, by 0.2 acres of the existing 0.8-acre grass playfield seaward of Newport Beach Elementary within a City-owned beach parcel that is leased



to Newport Beach Elementary. The project included the removal of the existing and the installation of new drought-tolerant sod and irrigation system. The Commission approved the project subject to seven special conditions requiring the following: 1) specification that proposed structure was appurtenant; 2) submittal of a color and texture plan; 3) prohibition of placement of signs for anything other than public safety; 4) assumption of risk deed restriction; 5) no future shoreline protective devices; 6) future development; and 7) construction-related requirements to provide for the safe storage of construction materials and the safe disposal of construction debris.

#### CDP No. 5-14-1211-E1

In October 2017, the Commission approved an extension of the expiration date for Coastal Development Permit No. 5-14-1211.

#### CDP No. 5-14-1211-A1

In December 2017, the Commission approved Coastal Development Permit amendment No. 5-14-1211-A1, which amended Special Condition No. 2 to allow a new Concrete Masonry Unit (CMU), concrete blocks, wall on the southerly and easterly sides of the grassy field with a maximum height of 16.36 feet MSL (approximately 21 inches as measured above midpoint of landward edge of existing asphalt located seaward of the grassy field) to reduce windblown sand from entering field. The applicant also requested to reduce approved seaward grassy field expansion by approximately 40 ft., replace existing CMU wall and sidewalk along westerly side of field, regrade and replace asphalt along easterly side, add concrete swale between boardwalk and asphalt, and widen public boardwalk from 12 ft. to 18 ft. No other Special Conditions were modified.

#### CDP No. 5-21-0094-W

In March 2020, the Commission approved Coastal Development Permit Waiver No. 5-21-0094-W for the removal of corroded and damaged playground equipment. The following structures would be either partially or fully removed, or have already been removed: Swings 1 and 2 (unless they can be safely repaired) two bars from the S-climber (removed December 10, 2021), double white fixed climber 'U' latter, chin-up bars at the boardwalk (removed December 10, 2021), slides, arched climbers, spiral climber, and double white fixed climber. In addition, the project would replace missing slides with composite wood barriers and bridge end connector. The remaining and modified playground structures would remain open for public recreation during non-school hours. No grading or shoreline protective devices were proposed.

## **B. Hazards**

Section 30253 of the Coastal Act, Minimization of adverse impacts, 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 30270 of the Coastal Act, Sea Level Rise, states:

The commission shall take into account the effects of sea level rise in coastal resources planning and management policies and activities in order to identify, assess, and, to the extent feasible, avoid and mitigate the adverse effects of sea level rise

Coastal Land Use Plan, Hazards and Protective Devices, Policy 2.8.1-1 states,

Review all applications for new development to determine potential threats from coastal and other hazards.

Coastal Land Use Plan, Hazards and Protective Devices, Policy 2.8.1-2 states,

Design and site new development to avoid hazardous areas and minimize risks to life and property from coastal and other hazards.

Coastal Land Use Plan, Hazards and Protective Devices, Policy 2.8.1-4 states,

Require new development to assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.

Coastal Land Use Plan, Hazards and Protective Devices, Coastal Erosion, Policy 2.8.6-5 states,

Permit revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls and other structures altering natural shoreline processes or retaining walls when required to serve coastal-dependent uses or to protect existing principal

structures or public beaches in danger from erosion and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply, unless a waiver of future shoreline protection was required by a previous coastal development permit.

Coastal Land Use Plan, Hazards and Protective Devices, Coastal Erosion, Policy 2.8.6-6 states,

Design and site protective devices to minimize impacts to coastal resources, minimize alteration of natural shoreline processes, provide for coastal access, minimize visual impacts and eliminate or mitigate adverse impacts on local shoreline sand supply.

Coastal Land Use Plan, Hazards and Protective Devices, Coastal Erosion, Policy 2.8.6-7 states,

Discourage shoreline protective devices on public land to protect private property/development. Site and design any such protective devices as far landward as possible. Such protective devices may be considered only after hazard avoidance, restoration of the sand supply, beach nourishment and planned retreat are exhausted as possible alternatives.

Coastal Land Use Plan, Hazards and Protective Devices, Coastal Erosion, Policy 2.8.6-8 states,

Limit the use of protective devices to the minimum required to protect existing development and prohibit their use to enlarge or expand areas for new development or for new development. "Existing development" for purposes of this policy shall consist only of a principal structure, e.g. residential dwelling, required garage, or second residential unit, and shall not include accessory or ancillary structures such as decks, patios, pools, tennis courts, cabanas, stairs, landscaping, etc.

Coastal Land Use Plan, Hazards and Protective Devices, Coastal Erosion, Policy 2.8.6-9 states,

Require property owners to record a waiver of future shoreline protection for new development during the economic life of the structure (75 years) as a condition of approval of a coastal development permit for new development on a beach, shoreline or bluff that is subject to wave action, erosion, flooding, landslides or other hazard associated with development on a beach or bluff. Shoreline protection may be permitted to protect existing structures that were legally constructed prior to the certification of the LCP, unless a waiver of future shoreline protection was required by a previous coastal development permit.

Implementation Plan, Property Development Standards, Natural Landform and Shoreline Protection, Section 21.30.030.C(3) states,

3. Protective Structures. The following shall apply to the construction of protective structures:

...

(d) Protective Devices Shall be Designed and Sited to:

- i. Be as far landward as possible and within private property, where feasible;
- ii. Eliminate or mitigate adverse impacts to coastal resources;
- iii. Minimize alteration of natural shoreline processes
- iv. Provide for public access to State Tidelands and recreational areas and facilities
- v. Minimize visual impacts and maximize the enjoyment of the natural shoreline environment;
- vi. Eliminate or mitigate adverse impacts on local shoreline sand supply
- vii. To have the smallest footprint possible; and
- viii. Cause no reduction in public access, use or enjoyment of the natural shoreline environment and preserve or provide access to public recreational lands and facilities.

The subject site is located on a beach parcel, on the Balboa Peninsula between the Newport Pier and the Balboa Pier. Presently, there is a wide sandy beach between the subject development and the ocean. This wide sandy beach currently provides homes and other structures in the area with some protection against wave uprush and flooding hazards. However, similar to other nearby beach fronting communities, the wide sandy beach is the only protection from wave uprush hazards. Thus, potential hazards issues that must be addressed include the potential for flooding and storm hazards. These hazards may be exacerbated by the sea level rise that is expected to occur over the coming decades.

While uncertainty remains with regard to exactly how much sea levels will rise and when, it is critical to continue to assess sea level rise vulnerabilities when planning for future development, and such an assessment would be consistent with Coastal Act Section 30270, which requires that sea level rise be taken into account in order to identify, assess, and, to the extent feasible, avoid and mitigate the adverse effects of sea level rise. 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 in many locations, 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.

Currently, the best available science on SLR projections in California is provided in the State of California Sea-Level Rise Guidance (OPC 2018) and is reflected in the Coastal Commission Sea Level Rise Policy Guidance (CCC 2018).<sup>1</sup> These documents present probabilistic SLR projections as well as an extreme “H++” scenario for twelve locations (tide gauges) along the California coast, and provide recommendations for which projections to use in various planning contexts based on level of risk aversion and project type. For projects that would have limited consequences if impacted by SLR or a relatively high ability to adapt, the guidance recommends analyzing a set of SLR projections called the “low risk aversion scenario,” which has an estimated 17% chance of being met or exceeded according to current science. The medium-high risk aversion scenario, which has an estimated 0.5% chance of being exceeded, should be analyzed for projects with greater consequences and/or a lower capacity to adapt, like residential and commercial development. Finally, the “H++” scenario (which has no calculated probability but is associated with research on potential extreme ice sheet melt) should be analyzed for critical infrastructure (such as sewer treatment plants and related infrastructure) and other projects that have little to no adaptive capacity, would be irreversibly destroyed or significantly costly to repair, and/or would have considerable public health, public safety, or environmental impacts if damaged or destroyed.

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 development safe from coastal hazards and protecting coastal resources, consistent with the Coastal Act. Upon review of the applicant’s

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<sup>1</sup> [2018 Update to the Commission’s Sea Level Rise Policy Guidance](#). On June 4, 2024, the Ocean Protection Council (OPC) adopted its [2024 State SLR Guidance](#) and statewide SLR projection based on evolving science, including the recently released [NOAA SLR projections](#). Among other details, the new OPC Guidance changes how the extreme SLR scenario (referred to as the H++ scenario) is discussed. The Commission continues to rely on the current statewide guidance as it develops a new guidance update that takes OPC’s and newer relevant studies under advisement.

submitted hazards analysis (Coastal Hazards Analysis Report prepared by William Simpson and Associates, Inc. dated December 10, 2022) and taking into consideration the Coastal Commission's Statewide Guidance, Commission staff analyzed future sea level rise impacts for the site. The highest high tide in the project area is +7.7 ft. NAVD88 and the proposed finished surface elevation of the playground area is +11.66 ft. NAVD80. Based on the project's estimated 75-year design life (in accordance with LUP Policy 2.8.6-9), in 2099, the project site would be subject to +3.2 ft. (low end) and +6.7 ft. (high end) of sea level rise. Taking into consideration these sea level rise projections along with the highest high tide in the project area, the proposed project would adequately address 3.2 ft. of sea level rise as the Finished Surface Elevation would be located above the highest high tide that would result from the sea level rise low end scenario.

On the other hand, the proposed project Finished Surface Elevation would be below the highest high tide resulting from the high end sea level rise scenario. When coastal hazards cannot be avoided, new development needs to include provisions to ensure that hazard risks are minimized for the life of the development without shoreline protection, including through future modification, relocation, or removal when they become threatened by natural hazards, including sea level rise.

The applicant does not anticipate that sea level rise will impact the proposed development. However, as discussed above and also shown in the U.S. Geologic Survey Coastal Storm Modeling System (CoSMoS), a regional sea level rise modeling model, the project site would still be susceptible to flooding if 4.9 ft. of sea level rise occurs, and to wave uprush with even less sea level rise in conjunction with a 100-year storm scenario. The site would also be susceptible to regular flooding with 5.7 ft. of sea level rise and no storm. As such, the proposed development has been designed to address the low end sea level rise scenario, and the applicant has provided a removal plan if in the future the proposed development needs to be removed to address higher end sea level rise scenarios. The proposed project will provide important recreational and visitor-serving uses and has a higher ability to adapt to the threat of sea level rise since the development consists of playground ground equipment, surfacing and shallow retaining walls that can easily be removed to avoid risks from coastal hazards.

Section 30253 and LCP policies serving as guidance prohibit new developments that would require construction of a protective device that would substantially alter natural landforms along bluffs or cliffs. Here, the applicant has not proposed to construct a shoreline protection device and no shoreline protection would be authorized by this permit; however, the applicant or a successor-in-interest could request a shoreline protection device at some point in the future. With expected sea level rise and flooding, the area between the project site and ocean waters is expected to narrow with time, which in turn raises the question of a possible request for future shoreline protection at the site. Therefore, it must be clear that, as new development, the entire development approved by this permit is not entitled to a shoreline protection device now or in the future. **Special Condition No. 5** is imposed to require the applicant to acknowledge



that they and all successors/assigns have no right to a shoreline protective device for the project and that no future shoreline protective device will be allowed on site to protect the proposed development. This condition recognizes that predictions of the future cannot be made with certainty, thereby allowing for development that is currently safe and expected to be safe for the life of the development, but ensuring that the future risks of property damage or loss arising from sea level rise or other changed circumstances are borne by the applicant enjoying the benefits of new development, and not the public.

Given that coastal hazards may impact the proposed development before the end of its economic life, the Commission must also find that the project assures stability and structural integrity and minimizes risks to life and property in an area of high flood hazard without a shoreline protective device. Here, it is important to note that the site is not currently threatened by coastal hazards and has been designed to be stable and structurally sound under current conditions, as acknowledged by the applicant, and does adequately address the low end sea level rise scenario. In addition, the applicant has submitted a removal plan for the proposed development to address future sea level rise associated with the high end projections. Likewise, **Special Condition No. 5** requires that if the City of Newport Beach or any government agency determines that the proposed 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, that the proposed structures be removed.

The Commission finds that due to the possibility of flooding and other coastal hazards now or in the future, if the applicant chooses to build in this location despite those risks, they must assume the risks of development in a hazardous area as a condition of project approval. Because this risk of harm cannot be completely eliminated, the Commission requires the applicant to waive any claim of liability against the Commission for damage to life or property that 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 No. 6**, will show 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.

Since coastal processes are dynamic and structural development may alter the natural environment, future development adjacent to the beach could adversely affect future shoreline conditions if not properly evaluated. For this reason, the Commission imposes **Special Condition No. 11**, which states that any future improvements to the playground equipment, playground surfacing, and shallow retaining walls, 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 from the Commission or shall require an additional coastal development permit from the Commission or from the applicable certified local government. This condition ensures that any future



development on this site that may affect shoreline processes receives review under the Coastal Act (or future certified LCP) by the appropriate regulatory body.

### Conclusion

Thus, as conditioned, the Commission finds that the proposed project is consistent with Sections 30253 and 30270 of the Coastal Act and with the portions of the City's certified LCP used as guidance regarding hazards.

## **C. Marine Resources/Water Quality**

Section 30230 of the Coastal Act, Marine Resources; maintenance, 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, Biological productivity, water quality, 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.

Section 30232 of the Coastal Act, Oil and hazardous substance spills, states:

Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.

Coastal Land Use Plan, Water Quality, TMDLs, Policy 4.3.1-8 states,

Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.

Coastal Land Use Plan, Water Quality, NPDES, Policy 4.3.2-1 states,

Promote pollution prevention and elimination methods that minimize the introduction of pollutants into coastal waters, as well as the generation and impacts of dry weather and polluted runoff.

Coastal Land Use Plan, Water Quality, NPDES, Policy 4.3.2-6 states,

Implement and improve upon best management practices (BMPs) for residences, businesses, new development and significant redevelopment, and City operations.

Coastal Land Use Plan, Water Quality, NPDES, Policy 4.3.2-7 states,

Incorporate BMPs into the project design in the following progression:

Site Design BMPs.

Source Control BMPs.

Treatment Control BMPs.

Include site design and source control BMPs in all developments. When the combination of site design and source control BMPs are not sufficient to protect water quality as required by the LCP or Coastal Act, structural treatment BMPs will be implemented along with site design and source control measures.

Coastal Land Use Plan, Water Quality, NPDES, Policy 4.3.2-22 states,

Require beachfront and waterfront development to incorporate BMPs designed to prevent or minimize polluted runoff to beach and coastal waters.

Implementation Plan, Site Planning and Development Standards, Harbor and Bay Regulations, Harbor Development Regulations, 21.35.040(2)(d)(i-ii) states,

d. Minimize Impervious Surface Area. Plan, site, and design development to minimize the installation of impervious surfaces (including pavement, sidewalks, driveways, patios, parking areas, streets, and rooftops), in order to reduce runoff. Where feasible, increase the area of pervious surfaces in re-development.

Examples include:

i. Downsize impervious coverage by minimizing the footprint of buildings and impervious pavement (such as a shorter driveway, narrower road, or smaller parking lot).

ii. Where pavement is required, install a permeable pavement system (e.g., interlocking concrete pavers, porous asphalt, permeable concrete, or reinforced grass or gravel), where appropriate and feasible. Design permeable pavements so that runoff infiltrates into a subsurface recharge bed and the

underlying soil, if feasible, to reduce runoff, enhance groundwater recharge, and filter out pollutants.

### Synthetic Rubber Playground Surfacing

The Coastal Act contains policies that protect marine resources and water quality. For example, Section 30230 of the Coastal Act states that marine resources shall be protected, while Section 30231 of the Coastal Act states that biological productivity and quality of coastal waters shall be maintained. In order to improve accessibility of the playground, the applicant is proposing to replace an approximately 50 ft.-wide portion of the existing beach sand surface with a synthetic rubber playground surfacing product called PlayBound Poured -In-Place Rubber Playground Surfacing. This is a 2-layer system consisting of a base layer of 100% post-consumer recycled shredded waste vehicle tires, which contain synthetic rubber SBR (Styrene Butadiene Rubber), held together with a polyurethane binder; and a top surface layer consisting of small synthetic rubber granules of recycled post-industrial EPDM (Ethylene Propylene Diene Monomer) rubber or TPV (Thermoplastic Vulcanizates) held together with an aromatic or aliphatic urethane binder. The applicant indicates that this surface material meets or exceeds guidelines as set by the ADA, and the material has the required critical fall height for compliance with ASTM F1292. However, while this material would adequately provide the surfacing necessary to improve accessibility, the materials that make up this surfacing material raise concerns due to their potential impacts on biological resources.

The Commission's Water Quality specialist, Dr. Vanessa Metz, drafted a memo dated June 27, 2024 to summarize her analysis of the potential adverse environmental effects of the proposed playground surfacing materials ([Exhibit No. 8](#)). At the conclusion of staff's analyses, it was determined that use of the proposed Poured-in-Place rubber playground surfacing materials raises significant environmental concerns. The base layer of the proposed surface material is made of shredded waste tires. Tires contain a complex proprietary mixture of ingredients, including synthetic rubber (styrene-butadiene rubber or SBR), natural rubber, fillers, and numerous chemical additives that contain hazardous chemicals and compounds, including heavy metals (e.g., lead, zinc, mercury, and arsenic), polyaromatic hydrocarbons (PAHs), volatile organic compounds (VOCs), 6-phenylenediamine (6-PPD), phthalates, organophosphate esters (OPEs), and per- and polyfluoroalkyl substances (PFAS), among many others. Numerous studies have documented that hazardous chemicals in tire rubber particles can leach into water and soil, off-gas, and be transported via dust and particles into the environment. Impacts to aquatic organisms from chemicals in tires include acute and chronic toxicity, with significant adverse effects on survival, reproduction, and growth.

The top layer of the playground surface (also known as the "wear layer"), which consists of small granules of EPDM or TPV synthetic rubber held together with a urethane binder, is also problematic. One significant concern is that due to both layers of the playground surface being porous, rainwater (or wash water used for cleaning) passes through the top layer of EPDM and also through the base layer of shredded tires.

Therefore, although children using the playground would not usually have direct contact with the base layer of shredded tire material, the top layer of EPDM synthetic rubber granules does not prevent water from leaching toxic chemicals from these materials into the environment. Another proposed option for the top layer is TPV (Thermoplastic Vulcanizates) synthetic rubber granules that are made from polypropylene and EPDM synthetic rubber, which is also of concern. Both EPDM and TPV synthetic rubber granules contain several of the same hazardous chemicals as waste tire rubber does, including lead, PAHs, VOCs, and OPEs. TPV is also more susceptible to shedding or breaking away small granules of rubber as the playground surface wears, compared to EPDM.

In addition, small synthetic rubber granules (classified as microplastics) are continuously dislodged from the surface of Poured-in-Place rubber playgrounds, often in large numbers. Tire shreds (also microplastics) may also be dislodged from the base layer as the playground surface deteriorates. Granules of synthetic rubber and tire shreds are transported by wind, stormwater runoff, maintenance sweeping, power-washing, and playground users' feet and clothing into surrounding areas, where they contribute to microplastic pollution of soil, air, waterways, and the ocean. Both the microplastic particles and their leachates can cause adverse impacts to aquatic species. Due to their toxicological effects, environmental persistence, and bioaccumulation, microplastics have been documented to cause chronic toxicity in numerous aquatic organisms—including fish, mammals, amphibians, marine birds, aquatic invertebrates, and zooplankton—and to adversely impact human health.

Thus, the applicant's proposed playground surfacing product raises significant concerns due to its potential adverse impacts to the environment and biological resources. Therefore, this proposed material cannot be used for playground surfacing. In order to avoid potential adverse impacts to biologic resources raised by the use of the proposed synthetic rubber and waste tire playground surfacing materials, the Commission imposes the following special conditions: **Special Condition No. 1** prohibits the proposed Poured-in-Place rubber playground surface product and similar types of materials; **Special Condition No. 2** indicates the types of acceptable playground surfacing material(s) to minimize the discharge of hazardous chemicals and microplastic pollution into the environment, **Special Condition No. 3** requires submittal of Final Project Plans including acceptable alternative playground surfacing material(s), and **Special Condition No. 4**, requires maintenance of Playground Surfacing Materials

#### Construction and Post-Construction Impacts

Storage or placement of construction materials, debris, or waste in a location subject to erosion and dispersion or which may be discharged into coastal water via rain or wind would result in adverse impacts upon the marine environment that would reduce the biological productivity of coastal waters. For instance, construction debris entering coastal waters may cover and displace soft bottom habitat. Sediment discharged into coastal waters may cause turbidity, which can shade and reduce the productivity of foraging avian and marine species' ability to see food in the water column. In order to

avoid adverse construction-related impacts upon marine resources, the Commission imposes **Special Condition No. 7**, which outlines construction-related requirements to provide for the safe storage of construction materials and the safe disposal of construction debris.

The proposed development will result in an increase in urban runoff entering the municipal storm drain system, as the project includes an expansion of impervious area. Pollutants such as trash are often transported in urban runoff entering the storm drain system. In this case, the site drains a playground area that has been converted from a permeable, sandy surface to approximately 4,027 square feet of additional impervious surface area after construction. Therefore, the primary post-construction water quality concerns associated with the proposed project include trash.

The proposed development would result in the discharge of storm water into the storm municipal storm drain system which ultimately drains into the sea. As such, the number of pollutants carried through the system would increase proportionally. Therefore, the project has the potential to affect the water quality of the coastal waters in Newport Beach.

As stated, the current surface playground area is permeable sandy beach; however, the proposed project would replace a portion of the that sandy area with an impervious surface with the new playground equipment. Runoff from the site currently sheet flows to the adjacent beach area and drains directly to the beach. 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. Reductions in the amount of pollutants in the existing runoff would reduce cumulative adverse impacts to coastal water quality.

The currently proposed project drains a new impervious surface area for the playground into the City's stormwater drainage system which ultimately drains into the sea. As such, appropriate measures must be taken to assure that adverse effects on water quality are minimized. The applicant has indicated that the City of Newport Beach does not require any permanent post-construction water quality Best Management Practices to be a part of the project. Furthermore, the applicant states that the City does not require a Water Quality Management Plan (WQMP) for projects that add less than 5,000 square feet of impervious surface area. In addition, the applicant states that the project area is also more than 200 feet away from the beach (an environmentally sensitive area).

While the applicant does not believe any post-construction water quality mitigation is necessary, they have identified on their project plans that dry wells will be constructed on the project site, specifically within the playground's new impervious surface area. More specifically, the Site Plans state that the concrete base under the playground would slope 2% to a drywell that is 2 ft. diameter x 2 ft. deep. A stormwater infiltration drywell is a structure filled with crushed gravel that captures and temporarily stores

runoff underground, where it can slowly infiltrate into the underlying soil. However, within the Site Plan under the "grading and drainage" notes on the plan sheet, it indicates that whether or not they install the drywell will be determined later. Thus, it is unclear whether the drywells are actually proposed to be installed as part of the project.

Another significant post-construction problem with the proposed rubber playground surfacing is the addition of impervious surface area, which would result in runoff being directed off-site. The PlayBound product information sheet lists three options for the playground base (under the two layers of synthetic rubber): concrete, asphalt, and crushed stone. A concrete base is being proposed under the playground, which would convert the playground from the existing pervious surface area (sand) to impervious surface area. In addition, this would be inconsistent with the City of Newport Beach's LCP, as the Water Quality Chapter of the Implementation Plan (Section 21.35.040(2)(d)(i-ii) ) calls for minimizing impervious surface area.

Therefore, in order to protect water quality post construction, Commission imposes **Special Condition No. 3**, which requires submittal of Final Plans for the Stormwater Drainage System that will be installed to treat stormwater and wash-water runoff from the playground. As required by this special condition, a report on the engineering test results that will be used to determine if installation of a stormwater infiltration drywell underneath the playground is required.

### Conclusion

Thus, as conditioned, the Commission finds that the proposed project is consistent with Sections 30230, 30231, 30232, and 30250 of the Coastal Act and with the portions of the City's certified LCP used as guidance that generally require maintaining, protecting, and enhancing the biological productivity and the water quality of coastal waters.

## **D. Public Access and Recreation**

Article X, Section 4 of the California Constitution provides:

No individual, partnership, or corporation claiming or possessing the frontage or tidal lands of a harbor, bay inlet, estuary, or other navigable water in this state shall be permitted to exclude the right of way to such water whenever it is required for any public purpose... and the Legislature shall enact such law as will give the most liberal construction to this provision so that access to the navigable waters of this state shall always be attainable for the people thereof.

Section 30210 of the Coastal Act, Access; recreational opportunities; 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 30211 of the Coastal Act, Development not to interfere with access states:

Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.

Section 30221 of the Coastal Act, Oceanfront land; protection for recreational use and development, states:

Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.

Coastal Land Use Plan, Land Use Development, Visitor-Serving and Recreational Development, Open Space and Tidelands/Submerged Lands, Policy 2.3.2-1. states,

Continue to use public beaches for public recreational uses and prohibit uses on beaches that interfere with public access and enjoyment of coastal resources.

Coastal Land Use Plan, Land Use Development, Visitor-Serving and Recreational Development, Lower Cost Visitor and Recreational Facilities, Policy 2.3.3-5 states,

Continue to provide and protect public beaches and parks as a means of providing free and lower-cost recreational opportunities.

Coastal Land Use Plan, Public Access and Recreation, Shoreline and Bluff Top Access, Shoreline Access, Policy 3.1.1-1 states,

Protect, and where feasible, expand and enhance public access to and along the shoreline and to beaches, coastal waters, tidelands, coastal parks, and trails.

Coastal Land Use Plan , Public Access and Recreation, Shoreline and Bluff Top Access, Shoreline Access, Policy 3.1.1-2 states,

Protect and enhance all existing public street ends providing public access to the shoreline, beaches, coastal parks, and trails.

Coastal Land Use Plan, Public Access and Recreation, Shoreline and Bluff Top Access, Shoreline Access, Policy 3.1.1-9 states,

Protect, expand, and enhance a system of public coastal access that achieves the following:



Maximizes public access to and along the shoreline;

Coastal Land Use Plan , Public Access and Recreation, Shoreline and Bluff Top Access, Shoreline Access, Policy 3.1.1-11 states,

Require new development to minimize impacts to public access to and along the shoreline.

### Public Access and Recreation

The subject site is the recreational area for the Newport Elementary School. The playground is adjacent to and on the seaward side of a 12-foot wide Ocean Front public accessway (boardwalk), which is a lateral public walkway/bike path, which runs the length of the Balboa Peninsula and the beach ([Exhibit No. 1](#)). The paved boardwalk separates the main school facility, located on the landward side of the boardwalk, and the recreational areas for the school, located on the seaward side of the boardwalk. The playground area is bounded by the Ocean Front public accessway on the landward side (north), an asphalt/black top playground on the seaward (south) side, turf area on the east side and sandy beach on the west side that is approximately 400-ft. wide. An approximately 100-ft. wide sandy beach occurs seaward of the asphalt/black top playground.

As stated earlier, the project site (located on a beach) is flanked by two existing vertical concrete accessways, one on each side with the western accessway leading from the end of 14<sup>th</sup> Street to the approximately 400-ft wide sandy beach ([Exhibit Nos. 1 and 4](#)). The eastern accessway leads to the asphalt covered/black top Newport Elementary Playground area. The existing western vertical accessway provides access to the most seaward areas of the wide sandy beach in this area. The proposed project will not adversely impact these existing accessways, thus public access via these accessways will be preserved.

Presently, this playground recreational area is limited to use by elementary school children during school hours, which are 8 a.m. – 3 p.m., Monday-Friday. When the area is not in use by the school (which includes weekends and holidays), the public can use the recreational area pursuant to the lease agreement. The proposed project will not change this and operation of the park will remain after completion of the project. Therefore, existing public access will be maintained.

The applicant's goal with this project is to increase accessibility of the site, which will improve access to coastal recreation for the general public. As such, the proposed project will expand the availability of the playground area for the public.

### Construction Impacts

The project site is located on the sandy beach where the public has access to coastal recreation activities. Construction activities during the "peak beach use" (as the period starting the day before the Memorial Day weekend and ending the day after the Labor

Day weekend of any year) may adversely impact public access to these locations. Thus, Commission imposes **Special Condition No. 8**, which prohibits construction on the beach during the “peak use” beach season, defined as the period starting the day before the Memorial Day weekend and ending the day after the Labor Day weekend of any year.

During construction of the proposed project, which is located on a sandy public beach, there is a chance that public access to the playground and beach itself may be adversely impacted. In order to ensure that public access is protected during construction, the applicant submitted a Construction Traffic Management and Control Plan and Construction Staging Plan ([Exhibit No. 7](#)). These plans show that the staging areas will be located on a section of the hardscape school playground located oceanward of the subject site and a section of 14<sup>th</sup> Street between W. Balboa Blvd. and Ocean Front (basically fronting the subject site). However, a narrative explaining each of these plans has not been provided. Thus, in order to ensure access to the beach is protected during construction and that public access is not hindered during construction, the Commission finds that it is necessary to impose **Special Condition No. 9**, which requires the applicant to submit a Final Construction Staging Plan and **Special Condition No. 10**, which requires the applicant to submit a Final Traffic Control Plan.

### Conclusion

Thus, as conditioned, the Commission finds that the proposed project is consistent with Sections 30210, 30211, and 30221, of the Coastal Act and the City’s certified LCP used as guidance regarding the public’s right of access to the sea and does not interfere with recreational opportunities on public tidelands.

## **E. Visual Resources**

Section 30251 of the Coastal Act states, Scenic and visual qualities, in relevant part:

The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas...

Coastal Land Use Plan, Coastal Resource Protection, Scenic and Visual Resources, Coastal Views, Policy 4.4.1-1, states:

Protect and, where feasible, enhance the scenic and visual qualities of the coastal zone, including public views to and along the ocean, bay, and harbor and to coastal bluffs and other scenic coastal areas.

Coastal Land Use Plan, Coastal Resource Protection, Scenic and Visual Resources, Coastal Views, Policy 4.4.1-2, states:

Design and site new development, including landscaping, so as to minimize impacts to public coastal views.

Coastal Land Use Plan, Coastal Resource Protection, Scenic and Visual Resources, Coastal Views, Policy 4.4.1-5, states:

Where feasible, require new development to restore and enhance the visual quality in visually degraded areas.

Coastal Land Use Plan, Coastal Resource Protection, Scenic and Visual Resources, Coastal Views, Policy 4.4.1-11, states:

Restrict development on sandy beach areas to those structures directly supportive of visitor-serving and recreational uses, such as lifeguard towers, recreational equipment, restrooms, and showers. Design and site such structures to minimize impacts to public coastal views.

Presently within the leased area, there are partially obstructed views to and along the shoreline available from the Ocean Front walkway and from the sandy beach. These views include the sandy beach, ocean, Newport Pier to the north and Balboa Pier to the south, as well as distant views of the bluffs along Corona Del Mar. Obstructions include residential development, the recreational equipment such as basketball backboards, chain link fences, and playground equipment.

Topographic grades are not currently flat in this area. The area of the project site (parcel) adjacent to the Ocean Front public accessway (walkway) is located at +11.66 NAVD88 with a steeper slope ending at the southern end of the project site (parcel) at the sandy beach area with an elevation of approximately +15.65 NAVD88, or a total rise of about 4 ft. Public views of the ocean from the Ocean Front walkway through the site currently exist. While the proposed project will reduce the slope for the approximately northerly 50 ft. portion of the project site to improve accessibility of the playground area, it will not change the existing view angle from the Ocean Front walkway to the ocean and public views will be maintained.

The proposed project includes the replacement of playground equipment that is approximately similar in height ([Exhibit No. 2](#)). As part of the new playground equipment, two umbrella like structures will be placed over portions of the new playground equipment, thus raising the profile from the existing playground ([Exhibit No. 2](#)). However, the umbrella like structures will be placed at such a height that does not result in any adverse impacts to the existing public ocean views found below the height of the umbrellas and will maintain the public view of the ocean through the site.

## Conclusion

Thus, as conditioned, the Commission finds that the proposed project is consistent with Section 30251 of the Coastal Act and the City's LCP used as guidance regarding visual resources.

## **F. Local Coastal Program (LCP)**

On January 13, 2017, the City of Newport Beach LCP was effectively certified. Development is located on the sandy beach within located within the Commission's jurisdiction and consequently, the standard of review is Chapter 3 of the Coastal Act, and the certified LCP serves as guidance. As conditioned, the proposed development is consistent with Chapter 3 of the Coastal Act.

## **G. California Environmental Quality Act (CEQA)**

Section 13096 of Title 14 of the California Code of Regulations requires Commission approval of Coastal Development Permit applications to be supported by findings showing the approval, as conditioned, 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 Commission's regulatory program for reviewing and granting CDPs has been certified by the Resources Secretary to be the functional equivalent of CEQA. (14 CCR § 15251(c).)

In this case, the City of Newport Beach is the lead agency and the Commission is the responsible agency for the purposes of CEQA. The City of Newport Beach determined on March 2, 2023, that the proposed project is categorically exempt from CEQA pursuant to CEQA Guidelines Class 2 (Section 15302), Replacement and Reconstruction.

The proposed project is located in an urban area and will be placed in the same footprint of the existing playground. Infrastructure necessary to serve the project exists in the area. The proposed project has been conditioned in order to be found consistent with the resource protection policies of the Coastal Act. As conditioned, the proposed project has been found consistent with the hazards, marine resources, water quality, public access and recreation and visual resource policies of the Coastal Act.

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