CITY OF SAN CLEMENTE
OFFICE OF THE CITY MANAGER

Date: January 6, 2025
To: Jason Lee, OCTA
From: Leslea Meyerhoff, AICP, Coastal Administrator
Re: Feedback on OCTA Coastal Rail Stabilization Priority Project Concepts
CC: City Manager, Mayor and City Council

Introduction

The City of San Clemente (City) appreciates the opportunity to provide preliminary feedback on the Draft Coastal Rail Stabilization Priority Project Concepts presented on 12/19/24. The OCTA rail line traverses the entire 5-mile length of shoreline in the City within a 100-foot right of way (ROW) that includes beaches and bluffs. As such the City is the primary stakeholder with a direct vested interest in the coastal rail stabilization project outcomes.

To that end, the City requests that the "Evaluation Criteria" being used by OCTA explicitly include "Local Preference" as a criterion. As a criterion, local preference should also be integrated into the scoring process.

As written, it is unclear if consideration of local/community preference is integrated into your decision-making process or assigned any weight in the alternatives analysis. However, given the extensive community outreach OCTA conducted in 2024 within our community in San Clemente it would seem that OCTA is committed to implementing stabilization projects in San Clemente that are supported by the community in which they will be constructed.

Our comments on the Coastal Rail Stabilization Priority Project concepts are provided below for your review and consideration. These comments should be reviewed in tandem with the City's comments to OCTA on the "*Coastal Rail Resiliency Study*" draft design concepts as the reinforcement area priority project delivery have the potential to set design precedent as they are interrelated in both physical space and time in the City.

Please note that the City of San Clemente will be a CEQA Responsible Agency if these projects undergo environmental review and are not found to be either statutorily or categorically exempted from the requirements of CEQA.

Local Coastal Resiliency Planning Context

For coastal policy and resiliency planning context, the City of San Clemente (City) continues to be a leader. In 2018, the City prepared a comprehensive, *Certified Local Coastal Program (LCP) Land Use Plan* update. In 2019, the City prepared a *Sea Level Rise Vulnerability Assessment* (SLRVA). In 2021, the City prepared a *Coastal Resiliency Plan* to establish an action plan for the preferred, long term shoreline management strategy for San Clemente. In 2022, the City established a regional shoreline monitoring program that collects data for that benefits all South Orange Counties agencies with coastal assets.

The direction provided by the City leadership, and the overwhelming consensus of the community, is that comprehensive and consistent beach sand replenishment, combined with strategic supplemental sand retention features is the preferred strategy for short and long-term shoreline management. This strategy emerged as the preferred approach to (1) addressing the immediate needs caused by coastal erosion due to sand supplies being cut off and (2) building long term coastal resilience in San Clemente. Comprehensive beach sand replenishment was intentionally and thoughtfully selected as it is the locally preferred approach that provides shoreline protection for existing structures and critical public infrastructure, and co-benefits sandy beach recreational space and natural resources.

The City's coastal setting and its sandy beach is the economic foundation of the local economy in San Clemente. In 2024, the City completed the first cycle of a 50-year beach sand replenishment project developed in partnership with the federal and State governments. The partnerships successfully forged with the US Army Corps of Engineers and California State Parks represent an important collaboration that will help to restore the sand supply in San Clemente bringing 2 million cubic yards of sand to the City over the next 50 years. In 2024, the City also conducted its third opportunistic beach sand replenishment project at North Beach.

The City also signed an MOU with SANDAG in December 2023 to participate in the third Regional Beach Sand Project which will bring another 1 million cubic yards of sand to the City in the coming years. The City's request to SANDAG to participate also opened the door to regional partners including Dana Point and the County of Orange.

The City is also conducting a sand retention study to develop alternative methods of slowing down the sand loss in the City and we are conducting an offshore borrow site investigation to develop additional offshore sand sources that can be used to sustain long term beach sand replenishment. Both of these efforts are grant funded and both will be completed in 2025 and we will make these available to you when complete.

The City brings these recently completed and planned costal resilience building projects to your attention to emphasize that efforts have already been initiated to implement our preferred comprehensive and consistent beach sand replenishment strategy and that we welcome OCTA as a partner in this effort.

By OCTA's own accounts, when the railroad was first established, and for the last 100 years the railroad was well buffered by the presence of a sandy beach that protected the railway.

Since the sand supplies from San Juan Creek have effectively been cut off from reaching the beach, the San Clemente region has reached critical mass in its lack of sand supply. This lack of sand is having a material effect on the OCTA rail line as well as all other existing structures along the coast. Focusing on restoring the sand supply remains the City's primary focus as it works to rebuild its beaches for current and future generations of residents and visitors.

Our expert coastal engineers have calculated that there is a sediment deficit on the order of 5 million cubic yards in the City in San Clemente. It is clear that in order to save the local beaches that have historically protected the railroad, OCTA and the City need to continue to work together to solve this regional challenge together.

To this end we recommend that you include (1) remaining a good regional partner agency and (2) maintaining a walkable sandy beach as two of the project goals and objectives which are listed in the presentation as Project Purpose and Need.

Recommendations for Reinforcement Area 3 (Bluffside Concepts)

The City prefers Area 3 Wall Design Concept with the 27-foot Offset as it relocates the pedestrian California Coastal Trail to the west side of the retaining wall. The trail is highly valued by the community and is heavily used by residents and visitors. In addition, the trail provides emergency access by City Lifeguards from Marine Safety to North Beach during high tides.

The City desires to have proactive, uniform, consistent and natural appearing bluff retention devices that replicate the look of the native bluffs installed in the City rather than a haphazard and inconsistent structures. The City also urges OCTA to ensure that no bluffside solutions preclude the existing Coastal Trail and that if it is jeopardized, it be relocated to the westside of the OCTA ROW along the beach as it is an important, highly valued and highly utilized community asset.

In response to recent failures, in 2024 the City explored the concept of a forming a district to cost share a uniform and consistent approach to stabilizing coastal bluffs through formalizing a plan of control. Such a plan of control could implement one or more of the

bluffside solutions identified by OCTA. Costs are borne by all property owners who benefit from the solution(s). Note also that the City has begun prohibiting permanent irrigation on coastal bluff top properties for projects requiring a discretionary action. While this will not have an immediate effect of reducing perched groundwater within the bluffs it will assist over time with slope stability.

The City desires to continue evaluating this option in collaboration with OCTA since the toe of the bluff slope and in some cases the slopes themselves are located within OCTA ROW. Additionally, when bluff failures do occur, they have a material and detrimental effect on OCTA rail line and railroad operations in general since the OCTA ROW is downslope from the coastal bluffs in San Clemente. Therefore, we request that you add a district to your list of alternatives that could be implemented Citywide, or in select areas more prone to bluff instability, and cost shared with all property owners that benefit from its formation.

Recommendations for Reinforcement Areas 1, 2 and 4 (Beachside Concepts)

Coastal resiliency is being achieved in San Clemente through implementing comprehensive and sustained beach sand replenishment. Any shore-parallel or shore-perpendicular structures such as mini-headlands or seawalls should be optimized to have a minimal footprint on the public beach. Minimizing the footprint of hard structures has significant economic benefits to OCTA too as CCC impact mitigation fees for beach sand and public recreation are based on the footprint/area of the structure. The bigger the structure the larger the mitigation fees according to CCC impact mitigation fee methodologies for shoreline structures.

When considering the comparative costs of a seawall versus revetment, the economics should consider reduced sand and public recreation impact mitigation fees for seawalls due to their smaller footprint on the beach. CCC currently calculates their fees on a square foot (area) basis.

It is unclear why the concepts for Reinforcement Areas 1, 2 and 4 have a 10-year design life as opposed to a 30-year design life to synchronize with the 30-year Coastal Rail Resiliency Study project design life. We think this is short-sighted and request clarification on the rationale behind a 10-year design life.

Similarly, the City does not understand the rationale for designing for a 50-year storm event as opposed to a more standard/traditional 100-year storm event. The San Clemente shoreline has a high energy wave climate and coastal storms create the most erosive hazard events likely to be encountered. Designing a solution that is intended to underperform and possibly fail from the outset does not make sense. We seek to understand the rationale and request that OCTA elaborate on the thinking behind the selection of a 50-year storm as the basis of design.

It is interesting that on slide 16, the “No-Project” alternative is defined as “reactive to emergencies”. In this case the no project alternative is not a no-action alternative (See CEQA §15626.6(e). This reference appears again on slide 19 where the no-project alternative explicitly states that no-project = placement of stone when needed.

We appreciate OCTA acknowledging that sand placed by the City of San Clemente at North Beach in summer 2024 (at its own cost of $2M) will benefit the railroad as the sand was placed partially within OCTA Reinforcement Areas 1 & 2. The City had permits to place up to 50,000 cubic yards of sand on the beach but was only able to obtain 37,000 cubic yards with approximately 10,000 cubic yards being diverted instead to Newport Beach.

Of the “General Concepts Being Considered” on slide 16, the City has made clear its preference for beach sand replenishment as the primary means for stabilizing the railroad tracks by replicating the original conditions that existed with the railroad was originally built whereby a wide sandy beach protected the railroad.

The City has offered to be a co-applicant with OCTA on a State Lands Lease (and other regulatory agency permits) to help OCTA expedite the placement of sand along the shoreline fronting the rail line. The City has also specifically offered use of the City’s existing land lease of the Surfside Sunset borrow site to assist OCTA as this approach enables utilization of a proven sand source to deliver sand in an expedited manner.

We understand that OCTA is contemplating armor stone units of up to 8 tons. The City is not in favor of adding additional shore parallel rock (e.g., unengineered riprap or engineered revetment) unless it is being designed to serve as the foundation of a living shoreline concept with additional beach area in front of the living shoreline. The City’s chief concern with the addition of more rock to the San Clemente shoreline is it that it will fundamentally and profoundly preclude the City’s ability to continue to implement its own beach sand replenishment projects which are the foundation of the City’s coastal erosion and SLR adaptation strategy.

In areas of the City, the OCTA rock revetment has migrated seaward such that it occupies up to 75 feet of the beach. Placement of beach sand (whether trucked or pumped onshore) occurs on the back of the beach as was done at North Beach in Summer 2024. The presence of rip rap or revetment creates a significant physical obstacle to beach nourishment and hinders lateral coastal access; therefore, the City is strongly opposed the addition of any more shore parallel rock or armor stone to its shoreline.

The City supports restacking existing rock (e.g., rip rap repair concept) if it means existing rock can be made more effective at protecting the tracks while remedying the seaward migration of the rock within the OCTA ROW and freeing up space for additional beach

sand replenishment efforts by OCTA and the City. To reiterate, addition of more rock to the beach is not supported by the community or the City for the reasons stated above.

The City may be supportive of the placement of short rock groins/headlands to create pocket beaches along the coast which would then be prefilled with sand to widen the beach such as the concept in place at Newport Beach. In fact, we are currently studying this option as part of our sand retention study. The City is conducting a study to evaluate the effectiveness of offshore structures including breakwaters and the feasibility study will be completed in Summer 2025 and we will share our findings with your team.

The City recommends that if railroad stabilization cannot be achieved solely by sand, exploring a bio-engineered concrete (such as ECOncrete or similar) seawall with a minimal footprint be studied for placement at the back of the beach to protect the railroad. A typical coastal seawall exposed to direct wave attack has a footprint of approximately 2.5 feet in width compared to the 50- to 75-foot-wide revetment footprint being contemplated by OCTA. While the City's preference is for sand only, as a secondary option the City may be supportive of a structure with a minimal footprint.

The City would not be supportive of cobble beaches due to community opposition or geotextile bags given the high wave energy environment in Reinforcement Areas 1, 2 and 4. Also, the Surfers Point concept shown on slide 24 should be deleted from the slide deck as that is a managed retreat project which is not an option on the table nor is it appropriate for a fully urbanized coastline.

Conclusion

In summary, we think that a combination of beach sand replenishment on regular intervals (every 5 or 10 years to synchronize with the City's USACE beach sand project) with potentially some minimal structures (mini-headlands or seawalls) may be a good solution to protect the tracks and retain a wide sandy beach that can protect the tracks over the long term. Monitoring would be required to ensure the solutions are performing as designed and adaptive management could be implemented as needed.

In 2024 alone, the City placed nearly 250,000 cubic yards of sand in the City. The City is developing several shovel ready beach sand projects to be built in 2025, 2026, 2027, 2028, and 2029. The USACE project will return to the City in 2030 to build the second phase of the City's 50-year federal beach sand project.

The City appreciates the continued conversation with OCTA regarding options for building short-term and long-term coastal resiliency in San Clemente. We request that OCTA remain focused on alternatives that provide the greatest public benefit and do not preclude the City's ability to implement its vision and plans for restoring the public beach to ensure a walkable dry sandy beach for current and future generations.