



***June 12, 2023***

**To:** Members of the Board of Directors

**From:** Darrell E. Johnson, Chief Executive Officer

**Subject:** Update on the Railroad Track Stabilization Project in the Vicinity of Milepost 206.8 and Related Agreement and Contract Change Order

***Overview***

A hillside adjacent to the Orange County Transportation Authority-owned railroad right-of-way, in the vicinity of Mile Post 206.8 on the Orange Subdivision, failed and pushed the railroad tracks toward the Pacific Ocean. Ongoing construction under a previous emergency declaration to stabilize the tracks requires environmental permitting mitigation and a construction contract change order. Staff is seeking Board of Directors' approval of an agreement to purchase environmental mitigation credits and a construction contract change order required for delivery of the project.

***Recommendations***

- A. Authorize the Chief Executive Officer to negotiate and execute Agreement No. C-3-2612 between the Orange County Transportation Authority and Wildlands SLR Holdings I, LLC, in the amount of \$307,500, for mitigation credits for waters of the United States.
- B. Authorize the Chief Executive Officer to negotiate and execute Contract Change Order No. 2 to Agreement No. C-2-2884 between the Orange County Transportation Authority and Condon Johnson & Associates, Inc., in the amount of \$2,174,626, for additional tieback strands, design support, and a temporary soil nail wall.
- C. Authorize the use of \$307,500 in Measure M2 High-Frequency Metrolink Service (Project R) funds for the mitigation work.

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- D. Authorize staff to process all necessary amendments to the Federal Transportation Improvement Program and execute or amend all necessary agreements to facilitate the above actions.

***Background***

The Orange County Transportation Authority (OCTA) owns the Orange Subdivision railroad right-of-way (ROW) between the Fullerton Junction and the San Diego County Line. This rail corridor is part of the Los Angeles – San Diego – San Luis Obispo (LOSSAN) Rail Corridor and is served by intercity and commuter passenger and freight rail service. This rail corridor is of state and national importance and is also designated as a national defense connector line as part of the Strategic Rail Corridor Network by the Department of Defense.

On September 16, 2021, the Southern California Regional Rail Authority (SCRRA) suspended passenger rail service for three weeks through south Orange County due to the failure of an adjacent slope, which moved the tracks toward the ocean at Mile Post (MP) 206.8 (Attachment A). At that time, SCRRA began emergency work to stabilize and realign the track with the addition of rock revetment on the ocean side of the tracks to stop slide movement and to protect the track from the ocean. Although passenger rail service resumed on October 4, 2021, SCRRA placed additional emergency rock revetment necessary to continue stabilizing the track. During this emergency effort, between late 2021 and early 2022, over 18,000 tons of riprap were placed along the beach adjacent to the track to halt the slope movement, during which time the track was laterally deflected toward the ocean by more than 28 inches. The track has since been realigned, and SCRRA continues to monitor the stability of the slope and track with inclinometers. Inclinometer readings from February 2022 to August 2022 were relatively stable with nearly no movement.

Due to high tidal events, ocean currents, waves, as well as a storm surge brought on by Hurricane Kay in early September 2022, movement of the slope began again with movement between 0.01 inch and 0.04 inch per day. SCRRA began placing more riprap on September 13, 2022. Over 6,000 tons of additional riprap have been placed to date to counteract the landslide and protect the track bed from ocean intrusion. These continual support efforts are funded by OCTA through Cooperative Agreement No. C-1-3749 with SCRRA.

On September 24, 2022, OCTA staff was informed that additional slope movement mitigation measures were required to stabilize the slope and track movement, and that the adjacent slope is in imminent danger of continued and accelerated failure. OCTA was advised by its geotechnical engineering consultant that immediate action must be taken to prevent further slipping of the

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slope, which would result in the track being pushed into the ocean. On September 30, 2022, passenger train service was again suspended.

### ***Discussion***

On October 3, 2022, the OCTA Board of Directors (Board) approved emergency Resolution No. 2022-075 authorizing the Chief Executive Officer to take all necessary actions to address the emergency need for the Railroad Track Stabilization Project in the vicinity of Mile Post 206.8 on the Orange Subdivision (Project).

On October 14, 2022, OCTA executed a contract with Condon Johnson & Associates, Inc., (CJA), a specialized contractor with expertise in geotechnical slope stability design and construction, to stabilize the slope and stop the movement of the railroad track.

On April 10, 2023, emergency Resolution No. 2022-075 expired. On April 17, 2023, following substantial completion of installation of the ground anchors, both Metrolink and Pacific Surfliner weekday passenger rail services resumed while the remainder of the construction continues to progress with rail flagging protection.

### **Project Update**

CJA completed all the tieback drilling operations on April 11, 2023. Testing and locking off the tieback strands in the second lower row of tiebacks was completed on May 12, 2023. Design recommendations included re-stressing and relocking each of the 220 tiebacks to the design loading. Upon completion of relocking the tiebacks, CJA would be able to cut off and cap the tiebacks, restore and revegetate the slope, and install fencing to complete the Project. A large quantity of the excavated soil was transported back to the site prior to the resumption of rail service to minimize the impact on the construction schedule. Resequencing the work within the limits of the defined operating track safety clearance and grading parts of the site to allow for tieback testing, testing issues, and additional tieback relocking are impacting the completion schedule. The remaining construction activities include cutting, capping, covering all tiebacks with shotcrete, installing a trench drain system, and restoration of the slope and fencing, and revegetation, which are anticipated to be completed in June 2023.

### **Construction and Support Costs**

The following contracts were executed or amended under the emergency resolution to support the construction and coastal erosion:

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1. Agreement No. C-2-2871 was executed on October 3, 2022, with Leighton Consulting, Inc., for third-party geotechnical design review for \$49,848.
2. Agreement No. C-2-2884 with CJA was executed on October 14, 2022, for design and construction for \$6,440,000.
  - a. A contract change order (CCO) with CJA was executed on January 11, 2023, for \$700,602.
3. Agreement No. C-8-1512 with HDR Engineering, Inc., for program management consultant services for regional rail programs was amended on November 17, 2022, to provide additional design review and construction management services for no additional cost.
4. Cooperative Agreement No. C-1-3749 with SCRRRA was amended on January 1, 2023, to provide training, flagging, and material mobilization during the placement of ground anchors during construction for \$500,000.

Project (Ground Anchors)			
Contracts	Previously Approved	Requested Change	Total Project Costs
	Base - \$6,440,000		
CJA	CCO No. 1 \$700,602	CCO No.2 \$2,174,626	\$9,315,228
SCRRA	Amendment 1 \$500,000	--	\$500,000
Leighton	\$49,848	--	\$49,848
HDR*	\$0	--	\$1,090,000
<b>Total</b>	<b>\$7,690,450</b>	<b>\$2,174,626</b>	<b>\$10,955,076</b>

\*Projected costs through April 2023. The existing contract was amended to cover this project for project and construction management with no change to contract budget.

**ROW Cost**

ROW acquisition costs for private property impacts, which include temporary construction easements and permanent subterranean easements, will be appraised with the as-built conditions and are yet to be determined.

### Regulatory Permitting Costs

Coordination with the California Coastal Commission to determine mitigation costs is ongoing.

The California State Lands Commission (SLC) is requiring OCTA to enter into a land lease for riprap improvements below the mean high tide line, including within OCTA-owned railroad ROW. The SLC considers any public or private land with improvements below the mean high tide line to be automatically vested as California sovereign land. This requires OCTA to pay SLC an annual lease cost, application fee, and SLC staff time. This SLC cost is yet to be determined.

The Department of the Army, United States Army Corps of Engineers (USACE), notified OCTA of requirements to make compensatory mitigation of impacts to waters of the United States (U.S.) for riprap improvements placed below the mean high tide line, which has recently moved due to beach erosion. The USACE Regional General Permit 63 verification letter requires OCTA to purchase 0.5-acres of re-established waters of the U.S. river credits from the San Luis Rey Mitigation Bank in San Diego County. The cost of this mitigation banking is \$307,500. Approval is required for Agreement No. C-3-2612 with Wildlands SLR Holdings I, LLC (Wildlands) to purchase these mitigation credits and receive a Bill of Sale from Wildlands to provide USACE with the permit.  
CJA CCO

As the Project progressed with design and construction, several changes and challenges were encountered including the following:

- The base design length of each tieback anchor was initially estimated at 115 feet for row one and 97 feet for row two. Upon further landslide delineation, design calculations, and review, 133 feet is now the required length for each anchor to achieve the required design loading.
- The base design of each tieback anchor was nine strands and through design refinement, the second row of tiebacks was modified from nine strands to 12 strands to maximize the effectiveness of the ground anchor system and the factor of safety.
- Additional slope stability analysis, quality control material testing, special inspection, construction observation, and design services during construction is required.
- At the north end of the Project, a temporary soil nail wall is required to keep the slope stable and protect the existing city storm drain to allow excavation for the first six grade beams.

These changes have resulted in an increase of \$2,174,626 for the additional work.

### ***Procurement Approach***

#### **Environmental Mitigation**

In order to secure the USACE permit, USACE requires OCTA to purchase mitigation credits from Wildlands which is an entity that has created the San Luis Rey Mitigation Bank located in San Diego County which is owned and managed by Wildlands. It is developed and approved through the USACE and the California Department of Fish and Wildlife and provides mitigation credits for impacts to federal and state jurisdictional wetlands, waters, and other habitat types. The purchase price of \$307,500 for approximately 0.5 acres is the value prescribed by USACE and Wildlands.

#### **CCO**

The initial procurement for Agreement No. C-2-2884 with CJA was handled under the authority of OCTA's Board-approved emergency Resolution No. 2022-075, which authorized the Chief Executive Officer to direct staff to procure services without going through a competitive procurement process.

Public Contract Code 22050 allows for emergency procurements whereby the requirement for a competitive process is waived and it provides that a public agency can, by a four-fifths vote of its governing body, authorize the procurement of equipment, services, and supplies to address an emergency circumstance. With Board approval of the emergency circumstances, the contract was issued to CJA on October 14, 2022, for the design and construction of the Project on the Orange Subdivision, in the amount of \$6,440,000.

Previously approved amendments to the CJA contract are shown on Attachment B. CCO No. 1 was issued, in the amount of \$700,602, for additional work related to clearing, grubbing, fencing, signs, and seeking water permits.

Proposed CCO No. 2, in the amount of \$2,174,626, will provide compensation to CJA for the additional work. The CCO will increase the cumulative value of the contract to \$9,315,228. Board approval is required for CCO No. 2 pursuant to the State of California Public Contracting Code Section 20142. The OCTA engineer's estimate for this CCO was \$2,233,445. The proposed CCO amount is 2.7 percent below the engineer's estimate and is considered by staff to be fair and reasonable.

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**Next Steps**

As work on the Project progresses, additional environmental mitigation and ROW acquisition costs will be developed and staff will return to the Board to seek approval for funding and any agreements as required.

**Fiscal Impact**

Funds are included in OCTA's Fiscal Year 2022-23 Budget, Capital Programs Division, under professional service, contribution to others, and construction accounts and are funded through federal, state, and local funds. The Project is funded with \$6,000,000 in Surface Transportation Block Grant funds, \$6,000,000 in State Transportation Improvement Program funds, \$1,000,000 in Coronavirus Response and Relief Supplemental Appropriations Act, and \$700,000 in local funds (Attachment C).

**Summary**

Staff is seeking Board of Directors' authorization to execute Agreement No. C-3-2612 between the Orange County Transportation Authority and Wildlands SLR Holdings I, LLC, in the amount of \$307,500, for mitigation credits. Additionally, staff is seeking approval for Contract Change Order No. 2 to Agreement No. C-2-2884 between the Orange County Transportation Authority and Condon Johnson & Associates, Inc., in the amount of \$2,174,626, for additional tieback strands, design support, and a temporary soil nail wall to support the ongoing delivery of the Railroad Track Stabilization Project in the vicinity of Milepost 206.8 on the Orange Subdivision.

***Attachments***

- A. Project Location Map
- B. Condon Johnson & Associates, Inc., Agreement No. C-2-2884, Contract Change Order (CCO) Log
- C. Capital Funding Program Report

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