

## San Diego LOSSAN Rail Realignment Project Objectives and Alternative Alignments

### Background

The Los Angeles—San Diego—San Luis Obispo (LOSSAN) rail corridor is the only rail connection between San Diego and the rest of the state and nation serving commuter (COASTER), intercity (Pacific Surfliner), and freight (BNSF) rail services. The segment of the LOSSAN corridor along the Del Mar bluffs is single tracked and has experienced temporary closures resulting from bluff collapses, erosion, and repair work to stabilize the bluffs and protect the rail corridor. While the stabilization projects and emergency repairs address safety and operational concerns with a 30-year design life, they do not provide a long-term solution for sea level rise and the ongoing coastal erosion that pose substantial safety and economic risks to the region. The San Diego LOSSAN Rail Realignment Project is a long-term solution to ensure the rail corridor is safe, reliable, and resilient.

### Action: **Approve**

The Board is asked to provide feedback on the project goals and objectives; and provide direction to staff on the alternative alignments to analyze in the Draft EIR for the San Diego LOSSAN Rail Realignment Project.

### Fiscal Impact:

Fiscal Impact: For project development activities related to the LOSSAN Rail Realignment project are funded with \$300 million in state funding (Capital Improvement Program No. 1239823).

### Schedule/Scope Impact:

The state funding for the environmental and design phases must be spent by June 30, 2027.

### Overview

In June 2024, SANDAG released a Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) for the LOSSAN Rail Realignment Project. SANDAG received over 1,500 comments in response to the NOP. The NOP marked the beginning of the EIR scoping process under the California Environmental Quality Act. In response to several topics raised in the comments, SANDAG conducted a Value Analysis (VA) study to seek to improve the alternatives proposed in the NOP and identify new ones for additional consideration. Participants in the study included staff and officials from the cities of Carlsbad, Del Mar, Encinitas, San Diego, Solana Beach, 22nd District Agricultural Association, North County Transit District, and Caltrans. The Metropolitan Transit System and the City of Oceanside were also invited to participate. The participants were supported by a team of technical subject matter experts (SMEs) in various engineering and environmental disciplines.

Staff will present their recommendations based upon the comments received on the NOP and results of the VA study. The NOP comments and VA Study are posted to the San Diego LOSSAN Rail Realignment [project website](#).

### Key Considerations

The VA study is a technical process that was sponsored by SANDAG in response to comments that were received on the NOP. The VA study was a collaborative process leveraging the knowledge of the multidisciplinary VA Team, including SMEs and stakeholders, to allow for a fresh look at the project objectives and alternative concepts, as well as identify other ideas and design refinements. The VA looks at improving the “value” of a project through consideration of improved performance, overall cost, timeliness of delivery, and reduction of risk.

Key themes from the VA that will be considered during the environmental review process include minimizing effects to private properties, including subsurface easements; minimizing disruptions to economic generators; demonstrating public stewardship by minimizing conflicts with prior and ongoing investments; consideration of total cost, including operations and maintenance; and allowing for lower design speeds to maximize use of public right-of-way.

The Board of Directors is asked to provide feedback on the refinements discussed in the VA that include refinements and additions made to the project goal and objectives included in the NOP. Staff's recommended refinements are shown in Attachment 1.

The VA participants developed 16 alternative concepts that include the three 2024 NOP alternative alignments and 13 new concepts. The VA study includes preliminary rough order magnitude (ROM) cost estimates for construction, right-of-way, soft costs, and cost escalation to the final year of construction for most of the alternatives. SANDAG has evaluated these alternative alignments, and based on study completed to date, recommends that the following four alignments (listed from east to west) be included for analysis in the Draft EIR<sup>1</sup> (Attachment 2):

- **San Dieguito Bridge to I-5 Knoll:** This alternative concept is derived from the VA study alternative 14 and was developed by SANDAG based upon discussions by the VA participants and comments received on the NOP. This alternative would minimize private subsurface easements by locating the bored tunnel segment along Interstate 5 (I-5) while being consistent with the VA objectives by preserving the investment made in the pending reconstructed San Dieguito bridge and avoiding impacts to the Del Mar Fairgrounds (a regional economic generator). The realigned rail would travel east from the San Dieguito bridge along an elevated viaduct to a portal located in Crest Canyon, where it would head south in a bored tunnel and exit at the I-5 Knoll Portal in the south. To show the potential connection at the San Dieguito bridge, Attachment 2 shows two lines at the northern end of the alignment that will be further analyzed during the environmental process. A similar alternative was one of the two preferred alignments in the 2007 Programmatic EIR/EIS led by the Federal Railroad Administration (FRA) and Caltrans. The preliminary ROM cost for this alternative is estimated to be \$3.8 to \$5.1 billion.
- **Under Crest Canyon (Under Jimmy Durante to I-5 Knoll):** This alternative concept (VA study alternative 6) would minimize private subsurface easements by locating the bored tunnel segment of the alignment under Crest Canyon Open Space Park and Torrey Pines Natural Reserve Extension, to the extent practicable. The realigned rail would go underneath Jimmy Durante Blvd into a portal in the north and would exit at the I-5 Knoll Portal in the south. The double track rail would continue to the south through the eastern portion of Los Peñasquitos Lagoon. The preliminary ROM cost for this alternative is estimated to be \$3.7 to \$5.0 billion.
- **Under Camino Del Mar (Under Jimmy Durante to Torrey Pines Road West):** This alternative concept (VA study alternative 8) would minimize private subsurface easements by locating the bored tunnel segment of the alignment directly under Camino Del Mar, to the extent practicable. The realigned rail would go underneath Jimmy Durante Blvd into a portal in the north and would exit at the Torrey Pines Road Portal West in the south. The double track rail would continue to the south through Los Peñasquitos Lagoon along the existing rail track. A similar alternative was identified as one of the two preferred alignments in the Programmatic EIR/EIS prepared in 2007 by the FRA and Caltrans. The preliminary ROM cost for this alternative is estimated to be \$3.3 to \$4.4 billion.
- **Del Mar Bluffs Double Track Reinforced:** This alternative concept (VA study alternative 12) would maintain the location of the existing rail alignment on the bluffs and add a second at-grade track to the east within the railroad right-of-way. The second track would pass under the existing Torrey Pines Overhead bridge and then travel south through Los Peñasquitos Lagoon along the existing rail track<sup>2</sup>. This proposal includes grade separation of the rail at Coast Boulevard and pedestrian improvements along the bluffs. This alternative would not require any tunnels or portals to be constructed and would utilize the pending reconstructed bridge over San Dieguito

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<sup>1</sup> These would be analyzed in addition to the "No Project" alternative during the environmental review process.

<sup>2</sup> The rail tracks would be elevated and widened for the double tracking, and to accommodate future flood and sea level rise projections.

Lagoon. The preliminary rough order magnitude (ROM) cost for this alternative is estimated to be \$1.9 to \$2.5 billion.

- **No Build:** This alternative would include the continuation of major stabilization efforts that would be required to protect the existing single-track alignment. Preliminary ROM cost for these continued stabilization efforts are being developed.
- Additionally, several design refinements and other ideas were identified by the VA stakeholders as described in Section 4.2 of the VA study and will be considered as design is advanced.
- SANDAG has conducted outreach in stakeholder communities over the past several weeks to provide information about the VA process. During these events, an idea with an alignment north of the San Dieguito Bridge to I-5 Knoll alignment was mentioned, and staff will explore this design concept during the environmental process.

### **Next Steps**

SANDAG will implement the Board's direction by advancing the design of alternatives for inclusion in the Draft EIR. An updated NOP would be posted in Spring 2025 for a 45-day comment period to seek additional input from local, state and federal agencies, and the public on the updated range of alternatives. Technical investigations would commence this spring to support the preparation of a Draft EIR that will be circulated for public review.

SANDAG staff will continue to collaborate with the state and federal partners to identify the federal lead agency for the project with the intent to prepare a joint document to satisfy state and federal requirements.

SANDAG staff will also continue to make refinements and revisions to alternative concepts based on comments and feedback received from the public and as informed by direction of the Board.

### ***Maria Rodriguez Molina, Director of Mega Projects, Border, and Goods Movement***

- Attachments:
1. Recommended Project Goal and Objectives
  2. Recommended Alternative Concepts for Analysis under CEQA

## Attachment 1: Recommended Project Goal and Objectives

### Project Goal:

To maintain and enhance passenger and freight service along the San Diego segment of the LOSSAN rail corridor.

### Project Objectives:

- Improve rail service reliability by minimizing risks from climate change, including consideration of sea level rise, flooding, and the stability of the coastal bluffs.
- Maintain passenger rail service to Solana Beach and Sorrento Valley and accommodate direct rail access to the 22nd District Agricultural Association (Del Mar Fairgrounds) while minimizing disruptions to passenger and freight service during construction.
- Minimize impacts to existing homes, businesses, tourism, and major economic generators, including the Del Mar Fairgrounds, and transportation facilities during and after construction.
- Avoid and/or minimize negative effects, and where possible enhance biological, cultural, and recreational resources of national, state, or local significance, including publicly owned parks, recreational trails, beaches, wetlands, ecological reserves, wildlife or waterfowl refuges, and any publicly or privately owned historic site listed or eligible for listing on the National Register of Historic Places.
- Help meet the goals of the 2021 Regional Plan and the 2024 California State Rail Plan by increasing passenger and freight train capacity, further reducing travel times, improving reliability, and considering existing and planned investments.
- Improve coastal access and safety by eliminating at grade railroad crossings and minimizing points of interaction between rail and all other modes of transportation.
- Demonstrate good public stewardship by delivering the project in a timely way that considers prior and ongoing investments, construction, right-of-way, operations, and maintenance costs.

**Attachment 2: Recommended Alternative Concepts for Analysis under CEQA**



**Preliminary Staff Proposed Alternatives**

February 2025

- San Dieguito Bridge to I-5 Knoll
- - - Under Crest Canyon
- - - Under Camino Del Mar
- Del Mar Bluffs Double Track Reinforced
- Portal Location
- Existing LOSSAN Corridor Track Alignment
- Municipal Boundary



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## San Diego LOSSAN Rail Realignment Project: Objectives and Alternative Alignments

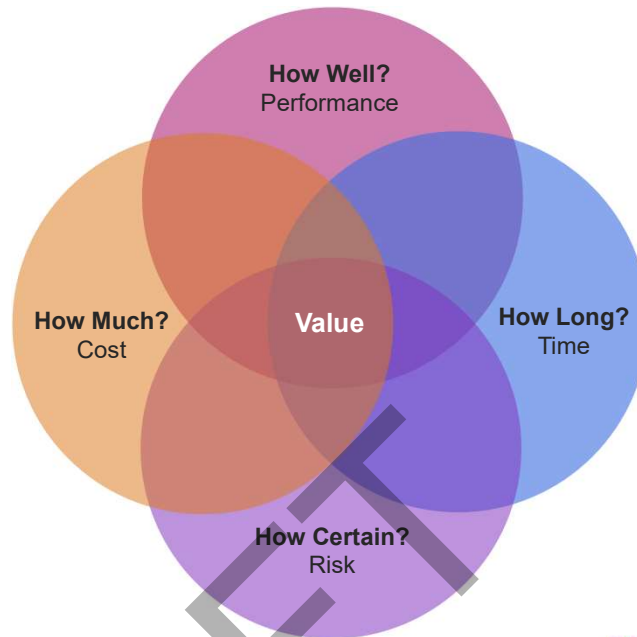
Board of Directors Meeting  
February 28, 2025

### Value Analysis

- Value Analysis (VA) is a technical study of project alternatives.
- Study held workshops and meetings in September through December 2024.
- Collaborative and technically driven fresh look at alternative concepts and ideas that could address the challenges of climate change and the eroding Del Mar bluffs to provide reliable passenger and freight service.
- The ideas, suggestions, and alternative concepts developed and evaluated by the VA Study participants are presented in the Final Value Analysis Study Report.

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## How we think about value?



## VA Study Team

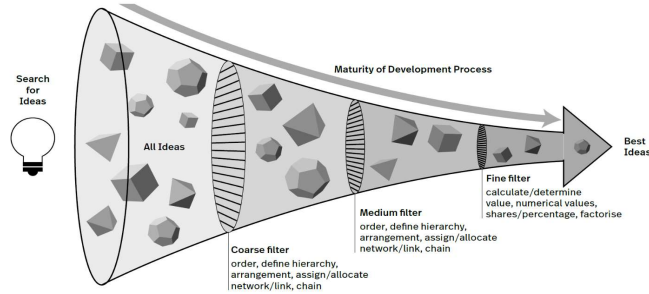
The following SANDAG Board of Directors member agencies and potentially affected jurisdictions were invited to participate in the VA Study. The VA Team was comprised of individuals with technical knowledge representing these stakeholders (listed in alphabetical order), and supported by additional subject matter experts:

- 22nd District Agricultural Association
- Caltrans
- City of Carlsbad
- City of Del Mar
- City of Encinitas
- City of Oceanside\*
- City of San Diego
- City of Solana Beach
- North County Transit District (NCTD)
- San Diego Metropolitan Transit System (MTS)\*

\*Opted not to participate in the VA Study

# Concept Ideas Generated

\* Results based on work by VA Study participants



## 205 initial ideas

Brainstormed based on functions to consider other alignments and improvements

## 26 preliminary evaluated concepts

Brainstormed based on functions to consider other alignments and improvements

## 16 alternatives advance

13 new alignment alternatives plus the 3 alignments will advance to Week 2 of the study to develop

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# VA Portals and Alignments

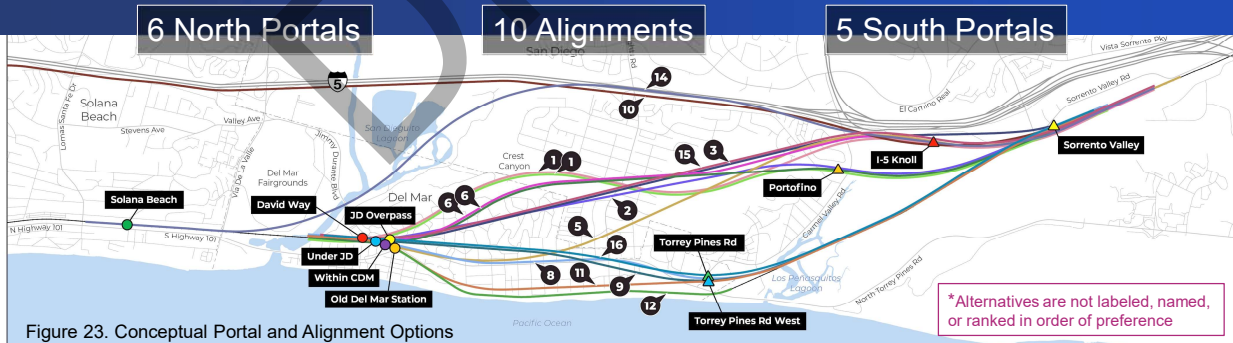


Figure 23. Conceptual Portal and Alignment Options

- Conceptual Alignments (Slightly Offset for Illustration Purposes)
- North & South Conceptual Portal Locations
- Existing LOSSAN Corridor Track Alignment
- Municipal Boundary

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- |   |                                     |
|---|-------------------------------------|
| 1 Crest Canyon 90                                   | 9 Camino Del Mar 110                |
| 2 Crest Canyon 110                                  | 10 I-5 Oceanside to Sorrento Valley |
| 3 Crest Canyon 110                                  | 11 Stratford Court 80               |
| 4 Realign Jimmy Durante/Camino Del Mar (Not Mapped) | 12 Double Track Bluffs              |
| 5 Crest Canyon 110                                  | 13 Freight to I-15 (Not Mapped)     |
| 6 Crest Canyon Improved 90                          | 14 I-5 110                          |
| 7 Optimize Bridges and Berms (Not Mapped)           | 15 Crest Canyon 110                 |
| 8 Camino Del Mar 90                                 | 16 Camino Del Mar 110               |

Reflects preliminary concepts as determined by VA Study participants

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## Staff Recommendations

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## What Did We Learn?

**Key themes and input that were incorporated into the draft revised objectives and alternative concepts developed as part of the VA Study include:**

- Minimize effects to private properties, including subsurface easements
- Minimize disruptions to economic generators, such as the Del Mar Fairgrounds
- Demonstrate public stewardship by minimizing conflicts with prior and ongoing investments

## Recommended Project Goal

To maintain and enhance passenger and freight service along the San Diego segment of the LOSSAN rail corridor.

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## Recommended Project Objectives

These objectives were developed collaboratively during the VA Study by VA participants. However, the participants did not reach unanimous consensus on the exact wording shown.

1. Improve rail service reliability by minimizing risks from climate change, including consideration of sea level rise, flooding, and the stability of the coastal bluffs.
2. Maintain passenger rail service to Solana Beach and Sorrento Valley and accommodate direct rail access to the 22nd District Agricultural Association (Del Mar Fairgrounds) while minimizing disruptions to passenger and freight service during construction.
3. Minimize impacts to existing homes, businesses, tourism, and major economic generators, including the Del Mar Fairgrounds, and transportation facilities during and after construction.

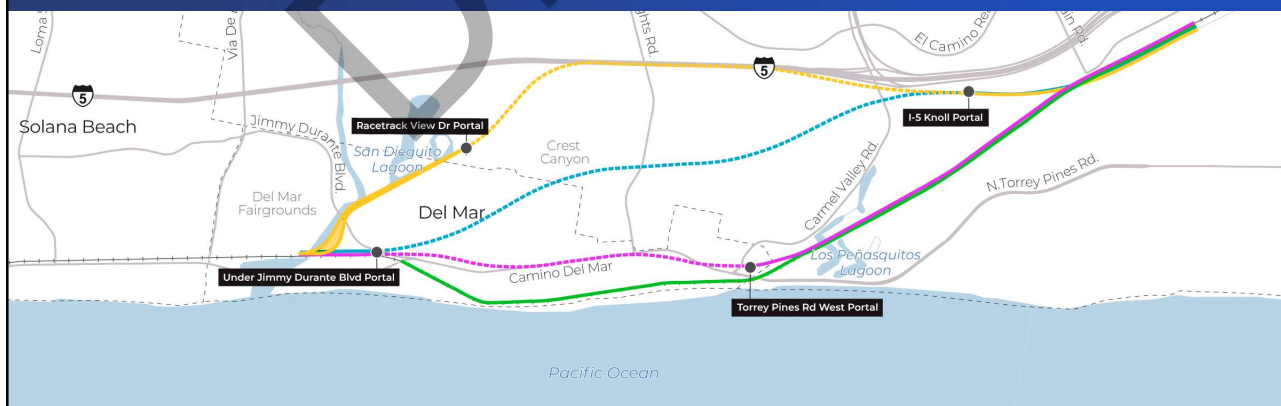
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## Recommended Project Objectives

4. Avoid and/or minimize negative effects, and where possible enhance biological, cultural, and recreational resources of national, state, or local significance, including publicly owned parks, recreational trails, beaches, wetlands, ecological reserves, wildlife or waterfowl refuges, and any publicly or privately owned historic site listed or eligible for listing on the National Register of Historic Places.
5. Help meet the goals of the Regional Plan and the California State Rail Plan by increasing passenger and freight train capacity, further reducing travel times, improving reliability, and considering existing and planned investments.
6. Improve coastal access and safety by eliminating at-grade railroad crossings and minimizing points of interaction between rail and all other modes of transportation.
7. Demonstrate good public stewardship by delivering the project in a timely way that considers prior and ongoing investments, construction, right-of-way, operations, and maintenance costs.

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## Preliminary Staff Proposed Alternatives



### Preliminary Staff Proposed Alternatives

February 2025

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|---|--|
| <span style="color: yellow;">—</span> San Diegoito Bridge to I-5 Knoll      | <span style="color: blue;">—</span> Tunnel Section   |
| <span style="color: cyan;">—</span> Under Crest Canyon                      | <span style="color: black;">●</span> Portal Location   |
| <span style="color: magenta;">—</span> Under Camino Del Mar                 | <span style="color: grey;">—</span> Existing LOSSAN Corridor Track Alignment   |
| <span style="color: green;">—</span> Del Mar Bluffs Double Track Reinforced | <span style="border: 1px dashed black; display: inline-block; width: 10px; height: 10px;"></span> Municipal Boundary |

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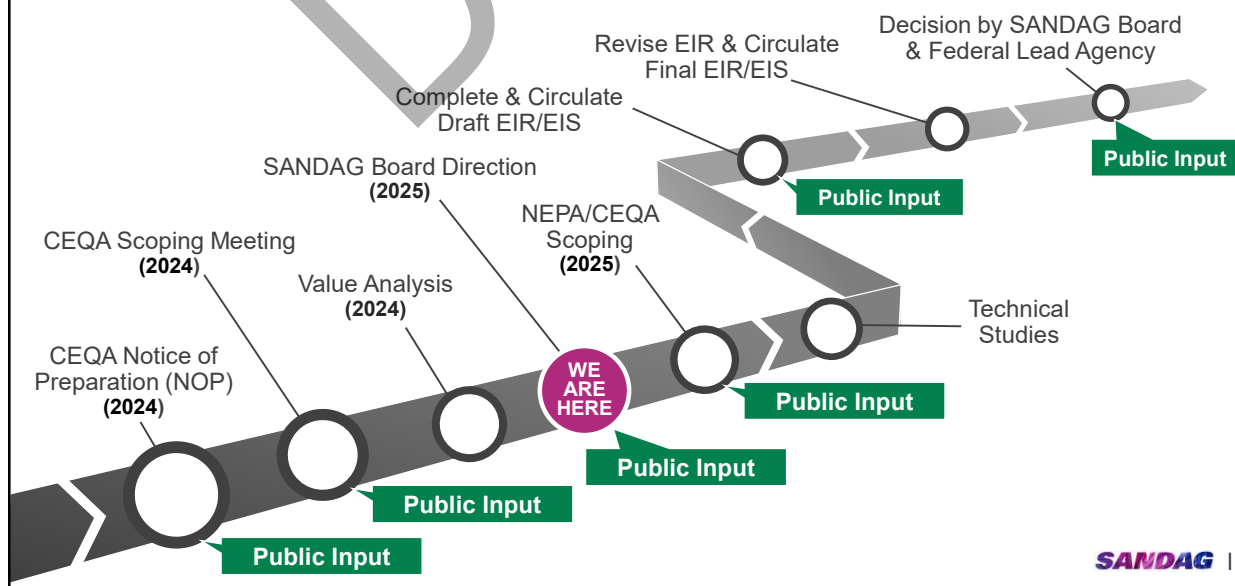
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# Preliminary Staff Proposed Alternatives ROM Costs

Color	Title	Estimated Cost (\$B)
Yellow	San Dieguito Bridge to I-5 Knoll	\$3.8 – \$5.1
Cyan	Under Crest Canyon	\$3.7 – \$5.0
Magenta	Under Camino Del Mar	\$3.3 – \$4.4
Green	Del Mar Bluffs Double Track Reinforced	\$1.9 – \$2.5

\*Preliminary rough order of magnitude (ROM) cost estimates


# Environmental Process (CEQA/NEPA)



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