Overview

- Background
- Process
- Integrated Program
- Track Project Phasing
- Other Key Issues
Background

- Corridor System Management Plans
- Key Precursor Work
- Working Group
- Projects
Prioritized Projects

1. CP San Diego to CP Pala
   MP 235.5 to MP 240.3
   4.8 miles
   Second main track, signals, a retaining wall, and bridge replacement

2. CP Fuller to CP Westlake
   MP 253.9 to MP 257.0
   3.1 miles
   Second main track, retaining wall, and Santa Maria station bridge replacement

3. CP Eastlake to CP Shell
   MP 251.0 to MP 253.0
   2.0 miles
   Second main track, and replacement of the San Luis Rey River bridge

4. Oceanside Double Track
   MP 227.5 to MP 228.5
   1.0 mile
   Double track and siding, from Oceanside Transit Center to Buena Vista Lagoon

5. Oceanside COASTER Stn Track
   MP 228.5 to MP 229.5
   1.0 mile
   Addition of a third track and crossover

6. Oceanside Parking Garage
   MP 228.5 to MP 229.5
   1.0 mile
   Addition of a third track and crossover

7. Carlsbad Village Double Track
   MP 228.5 to MP 229.5
   1.0 mile
   Double track and curve straightening on existing alignment

8. Carlsbad Village Parking Structure
   MP 228.5 to MP 229.5
   1.0 mile
   Double track, bridge replacement, and grade crossing elimination

9. Carlsbad Poinsettia Station
   MP 228.5 to MP 229.5
   1.0 mile
   Parking structure

10. CP Ponto to CP Moonlight
    MP 247.5 to MP 252.5
    7.0 miles
    Double track, Riverine Lagoon bridge replacement and grade crossing elimination at La Costa Avenue

11. Encinitas Red Line Grade Separation
    Grade separation to accommodate project 11

12. Encinitas Pedestrian Crossing
    Series of four grade separated crossings at Montgomery Ave, Santa Fe, El Portal, and Harvard

13. Encinitas Parking Structure

14. CP Moonlight to CP Swami
    MP 252.5 to MP 258.0
    5.5 miles
    Double track

15. CP Cardiff to CP Cram
    MP 258.0 to MP 263.0
    5.0 miles
    Double track and replacement of Salt Creek and San Elijo Lagoon bridge and grade crossing

16. San Elijo Bridge Double Track
    MP 262.0 to MP 263.5
    1.5 miles
    Double track and bridge replacement

17. Del Mar Towers Platform
    Addition of a new platform

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SAN DIEGO - LOSSAN RAIL CORRIDOR PROPOSED RAIL IMPROVEMENTS

- **RAIL STATIONS**
- **PROPOSED TUNNELS**
- **TRACK PROJECTS**
- **NON-TRACK PROJECTS**
- **EXISTING RAIL**

- **AIRPORT INTERMODAL TRANSPORTATION CENTER**
  MP 252.5 to MP 257.0
  4.5 miles
  Double track, platforms, signals & crossovers

- **TACOMA**
  MP 257.0 to MP 260.0
  3.0 miles
  Double track, signals & crossovers

- **PACIFIC GAS & ELECTRIC COMPANY PARKING LOT**
  MP 252.5 to MP 254.0
  1.5 miles
  Third track

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**STATIONS**

**PROJECTS**

**EXISTING RAIL**

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**MAP LEGEND**

- **RAIL STATIONS**
- **PROPOSED TUNNELS**
- **TRACK PROJECTS**
- **NON-TRACK PROJECTS**
- **EXISTING RAIL**
Evaluation Process

Final Project List

- Rail Simulation
  - Individual Projects
  - Project Combinations

- Document Review
  (See Section 2, Appendix B)

- RPWG Review & Input
  (See Section 3)

Evaluation Criteria & Weights

A) Prioritize projects to support near-term service scenario

B) Prioritize projects to support mid-term service scenario

C) Prioritize projects to support long-term service scenario

Project Analysis

Project Prioritization
## Final Performance Category Weights

<table>
<thead>
<tr>
<th>Performance Category</th>
<th>Evaluation Criteria</th>
<th>Category Weights</th>
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<td></td>
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<tr>
<td><strong>Project Cost</strong></td>
<td>• Total Project Cost</td>
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<tr>
<td></td>
<td>• Operating Cost</td>
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<tr>
<td><strong>Project Delivery</strong></td>
<td>• Funding Status</td>
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<tr>
<td></td>
<td>• Project Status</td>
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<td></td>
<td>• Impacts on Existing Service</td>
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<td></td>
<td>• Community Support</td>
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<td><strong>Rail Performance</strong></td>
<td>• Freight Train Accommodation</td>
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<td>• Travel-Time Savings</td>
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<td></td>
<td>• Passenger Rail Delay Cost</td>
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<tr>
<td></td>
<td>• Passenger Rail OTP</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Dispatch Variation</td>
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</tr>
<tr>
<td></td>
<td>• Fuel Cost</td>
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<tr>
<td><strong>Roadway Performance</strong></td>
<td>• Station Area Congestion</td>
<td>5%</td>
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<td></td>
<td>• At-Grade Crossing Time</td>
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<tr>
<td><strong>Environmental</strong></td>
<td>• Emissions</td>
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<td></td>
<td>• Proximity to Protected Areas</td>
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<tr>
<td><strong>Safety</strong></td>
<td>• Risk Exposure</td>
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### Service Driven Plan
#### Weekday Trains

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<tr>
<th></th>
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<th>Near-Term Service Expansion</th>
<th>Mid-Term Service Expansion</th>
<th>Long-Term Service Expansion</th>
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<tr>
<td>Amtrak</td>
<td>22 – 24</td>
<td>26</td>
<td>32</td>
<td>36</td>
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<tr>
<td>COASTER</td>
<td>22 - 26</td>
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<td>36</td>
<td>54</td>
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<td>Metrolink</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>20</td>
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<td>BNSF</td>
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<td>Total</td>
<td>65 – 73</td>
<td>79</td>
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### Integrated Service and Investment Program

#### Existing (2008)

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<thead>
<tr>
<th>Service</th>
<th>Annual Trips</th>
<th>Total Cost</th>
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</thead>
<tbody>
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<td>Amtrak</td>
<td>22-24</td>
<td>2.84 Million</td>
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<td>COASTER</td>
<td>22-26</td>
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<td>Metrolink</td>
<td>16</td>
<td>N/A</td>
</tr>
<tr>
<td>BNSF</td>
<td>5-7</td>
<td>N/A</td>
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<tr>
<td><strong>TOTAL</strong>:</td>
<td><strong>65-73</strong></td>
<td><strong>N/A</strong></td>
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</table>

#### Near-Term Service Expansion

<table>
<thead>
<tr>
<th>Service</th>
<th>Annual Trips</th>
<th>Total Cost</th>
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</thead>
<tbody>
<tr>
<td>Amtrak</td>
<td>26</td>
<td>N/A</td>
</tr>
<tr>
<td>COASTER</td>
<td>30</td>
<td>N/A</td>
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<tr>
<td>Metrolink</td>
<td>16</td>
<td>3.32 Million</td>
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<td>BNSF</td>
<td>7</td>
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<tr>
<td><strong>TOTAL</strong>:</td>
<td><strong>79</strong></td>
<td><strong>Subtotal: $130 Million</strong></td>
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**Infrastructure Needs**

- **Track Projects**: #1 – CP San Onofre to CP Pulga
  - #5a – Oceanside COASTER Stub Track
  - #5c – Oceanside Metrolink Stub Track
  - #8 – Carlsbad Double Track
  - #22a – Sorrento Valley Double Track
  - #23 – Sorrento to Miramar Phase I
  - #28 – Tecolote Crossover
  - #35 – Poinsettia Run-Through

- **Non-Track Projects**: None

- **Equipment/Other Needs**
  - Add 5th COASTER Equipment Set
  - Add 4th Layover Track
  - Expanded Track and Equipment Maintenance
  - Schedule Modification

**Capital Cost**: $145 Million

**Additional Annual Cost**: $1 Million

#### Mid-Term Service Expansion

<table>
<thead>
<tr>
<th>Service</th>
<th>Annual Trips</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amtrak</td>
<td>32</td>
<td>N/A</td>
</tr>
<tr>
<td>COASTER</td>
<td>36</td>
<td>N/A</td>
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<tr>
<td>Metrolink</td>
<td>16</td>
<td>4.07 Million</td>
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<td>BNSF</td>
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<td><strong>TOTAL</strong>:</td>
<td><strong>93</strong></td>
<td><strong>Subtotal: $210 Million</strong></td>
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</table>

**Infrastructure Needs**

- **Track Projects**: #3 – CP East Brook to CP Shell
  - #5 – Carlsbad Village Double Track
  - #15 – CP Cardiff to CP Craven
  - #27 – CP Elvira to CP Morena

- **Non-Track Projects**: #12 – Encinitas Pedestrian Crossings
  - #13 – Encinitas Parking
  - #16 – Solana Beach Parking
  - #33 – Santa Fe Depot Parking

- **Equipment/Other Needs**
  - Add 6th COASTER Equipment Set
  - Expanded Track and Equipment Maintenance
  - Schedule Modification

**Capital Cost**: $286 Million

**Additional Annual Cost**: $2 Million

#### Long-Term Service Expansion

<table>
<thead>
<tr>
<th>Service</th>
<th>Annual Trips</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amtrak</td>
<td>36</td>
<td>N/A</td>
</tr>
<tr>
<td>COASTER</td>
<td>54</td>
<td>N/A</td>
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<tr>
<td>Metrolink</td>
<td>20</td>
<td>5.07 Million</td>
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<td>BNSF</td>
<td>9</td>
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<tr>
<td><strong>TOTAL</strong>:</td>
<td><strong>119</strong></td>
<td><strong>Subtotal: $280 Million</strong></td>
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</table>

**Infrastructure Needs**

- **Track Projects**: #10 – CP Ponto to CP Moonlight
  - #14 – CP Moonlight to CP Swami
  - #17 – San Dieguito Bridge/Doublce Track
  - #24 – Sorrento to Miramar Phase II
  - #29 – CP Tecolote to CP Friar

- **Non-Track Projects**: #5b – Oceanside Parking
  - #7 – Carlsbad Village Parking
  - #9 – Carlsbad Poinsettia Parking

- **Equipment/Other Needs**
  - Add 7th COASTER Equipment Set
  - Add 4th Passenger Track at Santa Fe Depot
  - Add 5th Layover Track
  - Expanded Track and Equipment Maintenance
  - Schedule Modification

**Capital Cost**: $362 Million

**Additional Annual Cost**: $5 Million

*Annual boardings in San Diego County*
Existing Track Configuration

Track Projects
Track Projects to Support Near-Term Service Expansion

- Near-Term Track Projects
- Base Case Projects
- Proposed Airport Intermodal Transportation Center
Track Projects to Support Mid-Term Service Expansion

- **Mid-Term Track Projects**
- **Near-Term Track Projects**
- **Base Case Projects**
- **Mid-Term Non-Track Projects**
- **Proposed Airport Intermodal Transportation Center**
Track Projects to Support Long-Term Service Expansion

- Long-Term Track Projects
- Mid-Term Track Projects
- Near-Term Track Projects
- Base Case Projects
- Mid-Term Non-Track Projects
- Long-Term Non-Track Projects
- Proposed Airport Intermodal Transportation Center
## Closing the Single-Track Gap

<table>
<thead>
<tr>
<th></th>
<th>Existing</th>
<th>Near-Term Service Expansion</th>
<th>Mid-Term Service Expansion</th>
<th>Long-Term Service Expansion</th>
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<tbody>
<tr>
<td>Single-Track</td>
<td>28.0</td>
<td>18.1</td>
<td>12.4</td>
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<td>Double-Track</td>
<td>32.1</td>
<td>42.0</td>
<td>47.7</td>
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<tr>
<td>Total Miles</td>
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* Remaining single track sections through Del Mar (3.1 mi) and at the County line (1.9 mi).
Key Issues

- Passenger Service Schedules
- Role of Tunnels in Ultimate Vision
- Remaining Constraint Points
- Rail Through Del Mar
- Project Costs
- Other Needs
  - Layover facilities
  - Bridge replacement (maintenance driven)
  - Grade separations
  - Project planning
Project Overview Sheets

Project #1 – CP San Onofre to CP Pulgas

Description: Second main track, signals, retaining wall, and bridge replacement from Control Point (CP) San Onofre to CP Pulgas in Camp Pendleton, resulting in a 12.6-mile stretch of double-track from CP Songs to CP Pulier.

Extent: Milepost (MP) 212.3 to MP 218.1 (5.8 miles)

Recommended Priority: Near-Term Implementation. Recommended to support an initial service expansion that accommodates a 79-train weekday schedule.

Estimated Total Cost: $33,000,000 ($2008)

Committed Funding: None

Project Stage: Planning

Project Delivery: Environmental permitting required, low community opposition.

Rail Performance: Provides significant travel time savings for Metrolink and BNSF. Alleviates residual delay near CP San Onofre and CP Pulgas. Provides on-time performance benefits for COASTER, Metrolink, and northbound Amtrak. Provides moderate delay benefits for BNSF.
Next Steps

- CSMP/PWP – Integration of Rail and Highway Phases
- Federal Rail Stimulus Grant Applications
- SOFAR Settlement Agreement
- 2050 RTP
San Diego I-5 CSMP – LOSSAN Rail Corridor Analysis

Findings

presented to

presented by

Transportation leadership you can trust.