

New COASTER Locomotives

- NCTD has procured nine new energy-efficient locomotives to replace the existing locomotives and expand service.
- Seven replacement locomotives have been fully funded and ordered from Siemens.
- In addition, SANDAG purchased 2 additional locomotives to support fleet expansion for the 2050 Regional Plan and increase frequencies from 22 to 42 trains per day.



1

As of August 20, 2020

COASTER Rail Car and Cab Replacement

- In order to improve service frequencies, NCTD has approved the purchase of 3 cab cars and 8 coach cars.
- Includes contract with Bombardier to order initial 11 cars plus an option to order up to 27 more cars, as needed.
- These cars will complete the two expansion trainsets approved by the SANDAG Board of Directors in September 2019 and an additional cab car to support NCTD's state-of-good-repair needs.
- Delivery estimated in February 2022.



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- The total project cost for 11 cars is estimated at **\$42.5 Million.**

As of August 20, 2020

New COASTER Locomotives (continued)

- The initial 5 locomotives have arrived. The 4 additional locomotives are expected to arrive in 4th Quarter FY22.
- Total project cost for the NCTD-funded locomotives is **\$53.5 Million.**
- Total project cost for the SANDAG-funded locomotives is **\$15.1 Million.**



2

As of August 20, 2020

SPRINTER Parking Lots Redevelopment Assessment

- NCTD is advancing an assessment that will identify underutilized SPRINTER parking lots that have potential for development.
- The assessment will include development scenarios with a preferred strategy and implementation plan.
- Assessment will be completed by the end of Q2 FY21.
- The total project cost is estimated at **\$215,000.**



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As of August 20, 2020

Overhaul of Rail Cars

- Overhaul of NCTD's 18 Coach Cars began in September 2019.
- Improvements include carpet replacement, seat fabric replacement, installation of LED bulbs, and addition of electrical/USB outlets.
- Exterior paint will be stripped and repainted in new color scheme. Expected to be complete by 2026.
- A minimum of four cars will be overhauled per year.
- Total project cost is estimated at **\$14 Million.**



3

As of August 20, 2020

Microtransit FLEX Pilot Program

- In January 2019, NCTD and SANDAG initiated project planning for pilot programs in NCTD area.
- NCTD plans to implement a new pilot on-demand service in 2021 within the cities of Carlsbad and San Marcos.
- Pilot will provide commuters flexible and convenient shared transportation options to help reduce emissions and achieve a sustainable future.

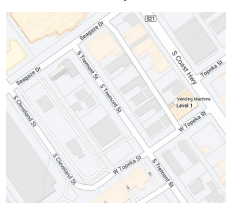


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As of August 20, 2020

Oceanside Transit Center TOD

- RFP was issued in January 2020.
- Contract awarded to Toll Brothers, Inc. for the redevelopment of the Oceanside Transit Center.
- Project will include:
 - Plans for a new administrative building at transit center
 - 101 affordable housing units
 - 30,625 sq. ft retail development
- There is no fiscal impact to NCTD for this project.



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As of August 20, 2020

Signal Optimization

- Project includes:
 - Braking analysis/proposed speed increase design and implementation
 - Currently progressing implementation of changes agreed to by all rail partners
 - Wireless Mesh Node Design
 - Broadway Control Point Design and Construction



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As of August 20, 2020

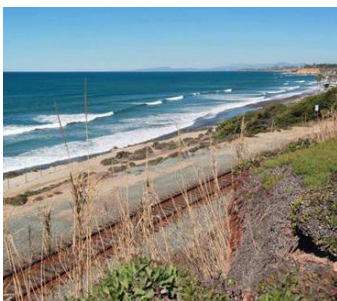


Signal Optimization *(continued)*

- Oceanside Transit Center Pedestrian Design and Construction
- Signal Train Control Replacement Design and Construction
- Legacy Crossing Control Design and Construction
- Sorrento Valley Crossing and Control point design
- The total project cost is estimated at **\$36.5 Million**. Approximately \$17.2 Million has been funded with a TIRCP grant.

Del Mar Bluff Stabilization

- The Bluffs retreat on an average of 6" per year due to wind, water, trespassers, sea level-rise, and irrigation infiltration.
- Stabilization of Del Mar Bluffs includes adding soldier piles, drainage, and bluff toe protection at beach level.



1

As of August 20, 2020

Batiquitos Lagoon Double Track and Bridge 234.8

- 0.8 miles of new double track railroad from Avenida Encinas (MP 234.3) to La Costa Avenue (MP 235.1) both in the City of Carlsbad and replacement of NCTD bridge at MP 234.8 with a new double track bridge spanning Batiquitos Lagoon.
- Final design and environmental permitting is expected to be complete in June 2021.
- The total project cost is estimated at **\$104 Million**.



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As of August 20, 2020

Del Mar Bluff Stabilization (continued)

- The Del Mar Bluffs 4 project began in May and is projected to be completed in November 2020. Stabilization of Del Mar Bluffs includes lower and upper bluff stabilization, drainage improvements, and bluff toe protection at beach level. DMB4 is fully funded.
- Del Mar Bluffs 5 & 6 projects improve seismic resistance, re-analyze bluff retreat, gain environmental clearance, develop construction plans, and re-analyze the effects of sea level rise.
- Total project cost for DMB5 is estimated to cost **\$65.2 Million**.
- Total project cost for DMB6 is estimated to cost **\$33.5 Million**.

2

As of August 20, 2020

San Dieguito Double Track and Bridge 234.8

- 2.1 miles of new double track railroad near Via de la Valle (CP Valley, MP 242.2) in the City of Solana Beach to south of CP Del Mar (MP 243.9) in the City of Del Mar and replacement of NCTD bridge at MP 243.0 with a new double track bridge spanning San Dieguito Lagoon.
- Project includes construction of special events station platforms at the Del Mar Fairgrounds.
- Final design and environmental permitting is expected to be complete in June 2021.
- The total project cost is estimated at **\$220 Million**.



6

As of August 20, 2020

San Onofre Bridge Replacements

- Four aged single-track timber trestle bridges with initial construction dates between 1915 and 1941.
- Bridges are located at mileposts 207.6, 207.8, and 209.9 north of NCTD's Stuart Mesa COASTER Maintenance Facility at Marine Corps Base Camp Pendleton.
- Total project cost is estimated at **\$50 Million**.



3

As of August 20, 2020

Sorrento to Miramar Phase 2 Double Track

- 2.0 miles of new double track railroad south of Sorrento Valley Road (CP Scripps, MP 251.0) to CP Miramar (MP 253.0) both in the City of San Diego.
- Project will provide for increase in allowable train speeds resulting in shorter travel times.
- Final design and environmental permitting will tentatively be complete in June 2021.
- The total project cost is estimated at **\$228 Million**.



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As of August 20, 2020

Rose Canyon Bridge Replacements

- Four aged timber trestle bridges with initial construction dates between 1917 and 1943.
- Bridges are located at mileposts 254.7, 255.1, and 255.3 within Rose Canyon between Miramar Air Station and the I-5 / SR-52 intersection.
- Total project cost is estimated at **\$27 Million**.



4

As of August 20, 2020

Eastbrook to Shell Double Track and Bridge 225.4

- 0.8 miles of new double track railroad near Harbor Drive (CP Eastbrook, MP 225.2) to south of Surfdrider Way (CP Shell, MP 226.0) both in the City of Oceanside and replacement of NCTD bridge at MP 225.4 with a new double track bridge spanning San Luis Rey River.
- Final design and environmental permitting will tentatively be complete in June 2021.
- The total project cost is estimated at **\$85 Million**.

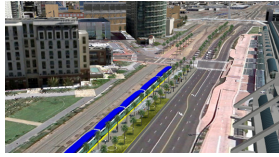


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As of August 20, 2020

Convention Center Platform

- BNSF and NCTD have conducted a study to evaluate opportunities for greater passenger and freight capacity south of downtown San Diego to serve the Convention Center and National City.
- Platform will be between 1st & 5th Avenue in Downtown San Diego with one platform on the West side.
- All scheduled COASTER trains will stop at this platform.
- NCTD is advancing preliminary engineering to develop plans and estimates for construction.



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As of August 20, 2020

Convention Center Platform (continued)

- Milestones:
 - Design contract awarded February 2020
 - Preliminary engineering design (30% level)
 - 5% Preliminary Design - Expected 1st Quarter FY21
 - 30% Preliminary Design - Expected 3rd Quarter FY21
 - NCTD will provide BNSF with completed 30% Preliminary Design
- A grant application to the Trade Corridor Enhancement Program (TCEP) has been submitted to fund this project. Total project cost estimated at **\$47 Million**.

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As of August 20, 2020

MOW Building

- Construction of new Maintenance-of-Way (MOW) building on existing NCTD property
- Includes a site evaluation and preliminary design that will:
 - Provide an alternative analysis on potential locations of the facility
 - Establish building requirements and complete a 30% level design
 - Estimate costs for final design and construction



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As of August 20, 2020

MOW Building (continued)

- Upon completion of the site evaluation and preliminary design, SANDAG award of a design-build project for construction of the MOW building is anticipated in FY22.
- The total project cost for preliminary design is estimated at **\$875,000**.



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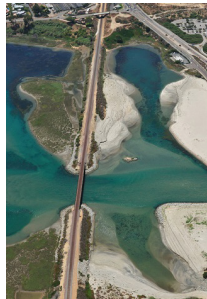
As of August 20, 2020

Key Unfunded Project Priorities

(continued)

La Costa Avenue to Encinitas Station Double Track

- 3.0 miles of new double track railroad between La Costa Avenue (MP 235.1) in the City of Carlsbad south of the City of Encinitas COASTER Station (MP 238.1).
- Project is currently listed in the Regional Transportation Improvement Plan (RTIP). Design and environmental permitting completion are tentatively scheduled for 2025.
- The total project cost is estimated at **\$120 Million**.



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As of August 20, 2020

Zero-Emission Bus Infrastructure (continued)

- The total project cost for the FCEB infrastructure is estimated at **\$8 Million**.
- Total project cost for additional modifications to East and West Division to support the full transition to ZEBs is estimated at **\$44 Million**.

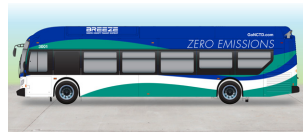


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As of August 20, 2020

Zero-Emission Bus Procurement

- NCTD intends to procure buses to use in a demonstration pilot across the NCTD service area. These will include:
 - 6 Battery Electric Buses (BEB) - FY21
 - 8 Fuel-Cell Electric Buses (FCEB) - FY22
- NCTD intends to replace CNG and Diesel buses with ZEB buses moving forward to comply with the recent ruling from California Air Resources Board (CARB).



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As of August 20, 2020

SPRINTER Corridor Double Tracking

- NCTD advanced a conceptual study to identify the infrastructure required to increase SPRINTER frequencies to 15 minutes.
- 9.5 miles of additional double track, signal, and additional platforms are needed.
- The total project cost is estimated at **\$190 million**.



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As of August 20, 2020

Zero-Emission Bus Procurement (continued)

- NCTD will construct the necessary refueling infrastructure for this pilot program in both East and West bus divisions to accurately assess their performance.
- Contractor STV, Inc. has been hired to assist with the ZEB Rollout Plan.
- The total cost of the battery-electric buses and chargers is estimated at **\$7 Million**. This project is fully funded with grants from FTA and the State for FY20.
- The total cost of the fuel-cell electric buses and fueling station is estimated at **\$13 Million**. Approximately \$1 Million has been funded through a TIRCP grant.

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As of August 20, 2020

Customer Wayfinding Program

- NCTD is developing and implementing a comprehensive and cohesive wayfinding program at transit stops, centers, and stations throughout the service area.
- The wayfinding plan and design is complete.
- Installation contract expected to be awarded in 2nd Quarter FY21.



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As of August 20, 2020

Zero-Emission Bus Infrastructure

- NCTD will install infrastructure to support the initial ZEB demonstration pilot for 6 Battery Electric Buses (BEB) in FY21.
- Installation will utilize SDG&E's Medium-Duty/Heavy Duty EV Charging Infrastructure Program for the electrical system improvements.
- NCTD will complete the initial design for hydrogen fueling infrastructure to support the 8 Fuel-Cell Electric Buses (FCEB) demonstration pilot in FY21.



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As of August 20, 2020

Customer Wayfinding Program (continued)

- The first two phases for installation of new bus stop signs and platform electronic signs are expected to be awarded in 2nd Quarter FY21. This has been funded with an estimated cost of \$1.4 Million.
- NCTD continues to seek grant funding for the remaining phases of this project. Total project cost is estimated at **\$7.3 Million**.



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As of August 20, 2020