

Switching to Hi-Rail Based Maintenance Access

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LOSSAN Railroad Corridor Operated by NCTD

NCTD operates the Coaster Commuter Railroad in North San Diego County and maintains the MTS-owned ROW

- ROW Width is typically 100'-200' wide
- SANDAG does Capacity-Adding Construction on behalf of NCTD on Coaster and for MTS on Trolley



Maintenance Access Today

- Utilizes existing MOW Access Roads or adjacent public streets or trails for access
- Signals Maintenance access - roadways
- MOW Maintenance access - 80% roads and 20% Hi-Rail
- Limited fencing



Driver for Change

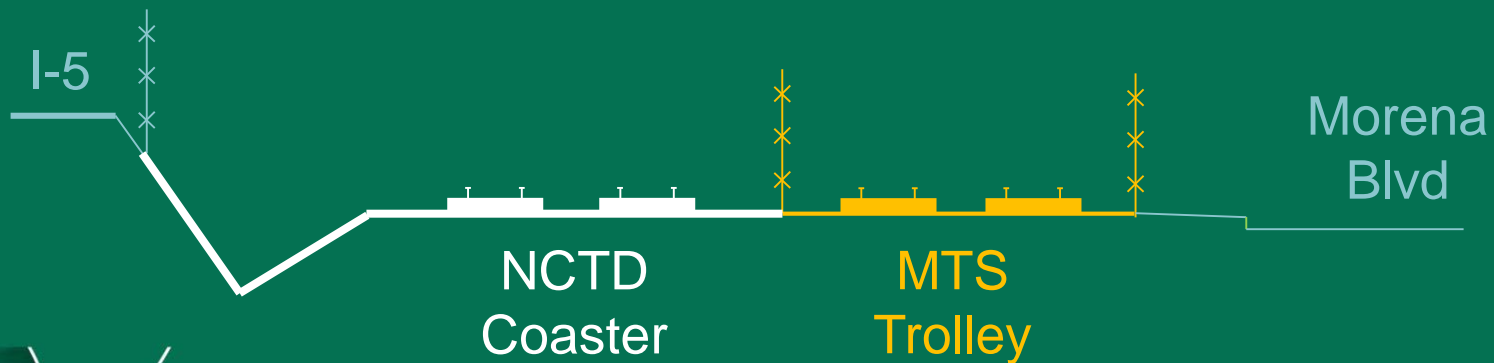
Mid-Coast Corridor Transit Project (MCCTP) adds 2 LRT tracks in the 7 mile shared railroad corridor through north San Diego.



Driver for Change

MCCTP Construction starts with shift of NCTD Commuter Rail Tracks to the edge of ROW.

- Traps NCTD tracks between fence and I-5
- Forces switch to 80% Hi-Rail-only Access

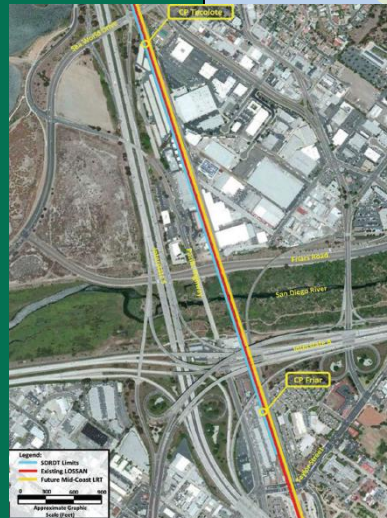


Making Space: Double Track NCTD

Creating space for LRT tracks and adding capacity to NCTD corridor to balance out maintenance access limitations.



Elvira to Morena DT



San Diego River Bridge DT

Hi-Rail Maintenance Access Issues

- Additional time required to obtain track time in multiple blocks for routine inspections and maintenance
- Specialized hi-rail vehicle and equipment
- Limited access to bridges and structures
- Only one grade crossing/hi-rail access in corridor at Taylor St



Analysis based on SOGR Inventory

Future maintenance needs based on SOGR Inventory. Four groups of activities:

- Monthly (signals)
- Quarterly (rail, turnouts)
- Annual (bridges, culverts, ditches)
- Major Maintenance (bridges, rail relays)



Analysis based on Access Needs

Future access needs based on type:

- Regular Maintenance (SOGR)
- Major Maintenance (bridges, rail relays)
- Emergency Maintenance
- Catastrophic Maintenance



Analysis based on Access Needs







SEGMENT 12 – MP 261.6 TO 262.3

NCTD/MID COAST CORRDOR MOW MGMT PLAN



Not to Scale

June 3, 2015
Sheet 12 of 15

Facilities Legend

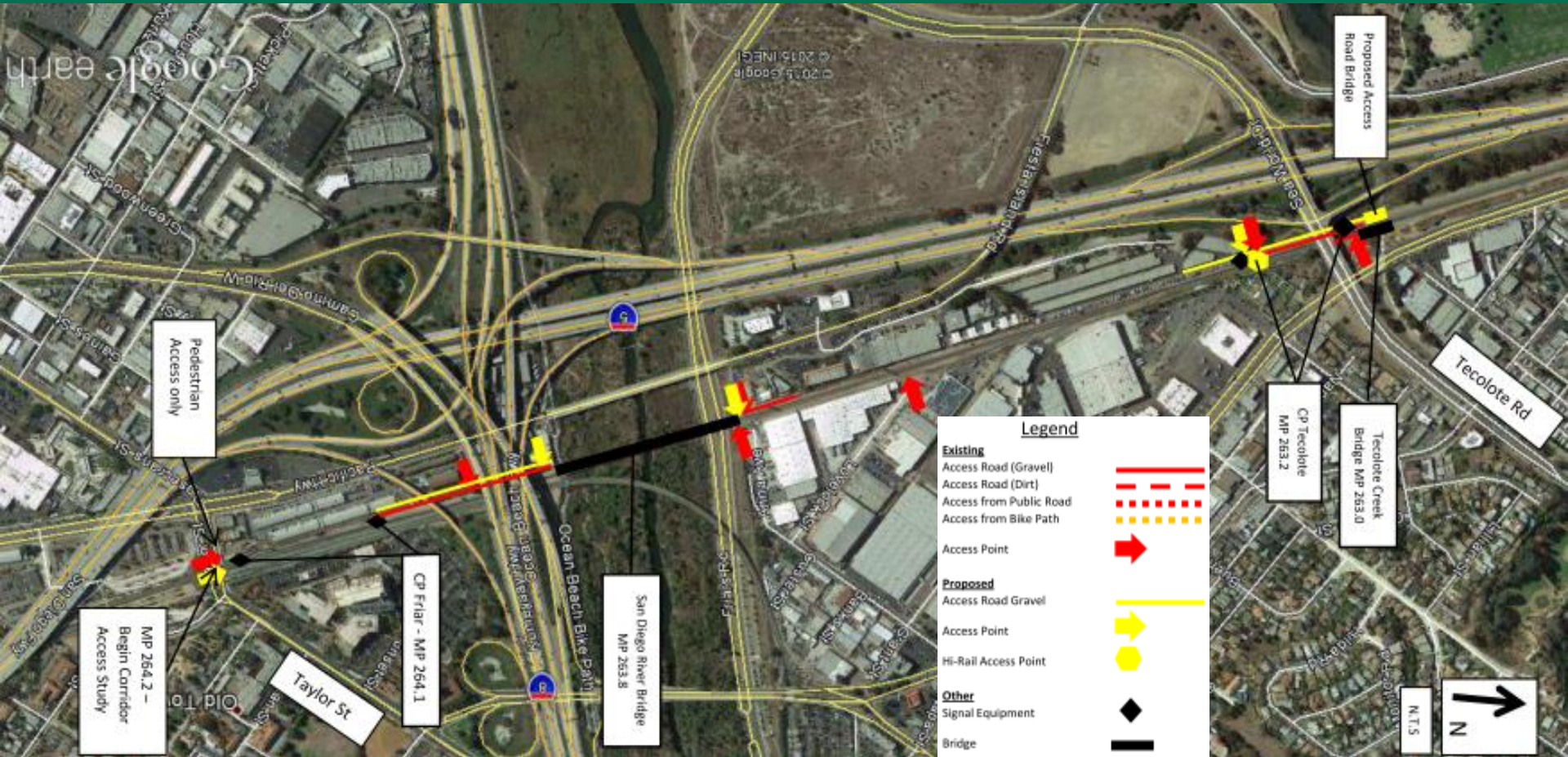
NCTD Track	
LRT Track	
Signals/Communications	
Bridge/Retaining Wall	
Curve	
Drainage Culvert	

Maintenance Activity Legend

Type	Emergency/Catastrophic	Regular/Major
Catastrophic Maintenance		<u>Probability Level</u> High 
Emergency Maintenance		Medium 
Major Maintenance		Low 
Regular Maintenance		<u>Frequency</u> Mnthly/Qtrly Annually Major:1-5 Yrs



Maintenance Access Plan



Access Mitigation Program

- Obtaining ROW Access Easements through adjacent properties
- Extending culverts for 1.5 miles of upgrade access road and new bridge over creek
- Adding 7 Hi-Rail Pads
- Adding 4 Emergency Access Locations



Post Construction – for NCTD

- 7 miles of 4 track section
(2 NCTD Coaster and 2 MTS Trolley)
- 1.7 mi. of all-weather access road
- 5.5 miles of Hi-Rail only access with 7 new Hi-Rail Pad locations in 3 Signal Blocks
- Access to all bridges



Key Presentation Take-Aways

- Impacts to Public Railroads are similar “Cost to Cure” as Freight Railroads
- Hi-Rail Maintenance is more complex than typical roadside access maintenance
- State of Good Repair (SOGR) Inventory was foundation for switching to Hi-Rail based Maintenance analysis



Coaster on San Diego River Bridge

