BNSF El Paso Subdivision

- Single main track, non-signaled, hand-throw switches.
- Maximum track speed is 49 MPH.
- Between El Paso and Las Cruces (42 miles) there is only one passing siding which is located at Mesquite. Only location to meet most trains.
- Numerous storage and industrial tracks along this segment but only relatively short trains such as roadswitchers and locals can use some of these tracks to clear the main track for longer trains.
- BNSF serves well over 100 customers between El Paso and Las Cruces.
- A roadswitcher, a local, and yard jobs operate on this segment. The roadswitcher and locals operate 5 days per week (Monday - Friday). These trains typically hold the main track when working at customer locations.
- BNSF also operates an average of 5 other “through” trains per day on this route. Loaded and empty grain trains, merchandise trains, and vehicle trains.
Proposed Commuter Operations

- **Train sets** - 3 passenger cars with one MP36PH locomotive (3600 HP) in "push-pull" configuration. Similar to Rail Runner.

- **Morning runs.** Train sets will be stored at El Paso overnight. At 5:00 a.m., the two sets of equipment will be combined and repositioned to Las Cruces. Las Cruces departures timed to arrive at El Paso at 7:15 a.m. and 8:30 a.m. Modeling runs predict 38 minute run times so Las Cruces departures planned for 6:37 a.m. and 7:52 a.m.

  Both trains dwell at El Paso for 20 minutes for disembarking and embarking passengers before returning to Las Cruces.

  At Las Cruces trains will be combined for reposition to El Paso. Trains remain at El Paso until the evening runs.

- **Evening runs.** El Paso departures timed to arrive at Las Cruces at 4:30 p.m. and 5:45 p.m. so El Paso departures planned for 3:52 p.m. and 5:07 p.m.

  Both trains dwell at Las Cruces for 20 minutes for disembarking and embarking passengers before returning to El Paso.

After disembarking passengers, the trains remain at El Paso overnight.
Proposed Network Upgrade Requirements

- Install a CTC/PTC signalized control system.
- Upgrade timetable operating speed to 79 MPH for passenger trains.
- Upgrade road crossing protection devices to allow 79 MPH passenger operations.
- Construct a minimum of 26.6 miles of second main track.
- Install three universal crossovers.
- Install dual-control and electric lock switches (various locations).

Upgrade plan developed with primary concerns being:
- Safety
- Protecting BNSF service performance
- Meeting commuter schedule goals.
High-Level Engineering Proposal

Convert existing industry Track (201) to Main 2

Yard Track 204

Union Depot
High-Level Engineering Proposal

- Install dual-control switches
- Construct 2\textsuperscript{nd} main track
- Realign tracks to fit under overpass
- Construction of 2\textsuperscript{nd} main infeasible due to proximity of Highway 85 and the ASARCO smelter property
- Convert existing industry Track (201) to Main 2
High-Level Engineering Proposal

Construct universal Crossovers (dual-control)

Construct 2nd main track
High-Level Engineering Proposal

- Construct universal Crossovers (dual-control) 7700'
- Private crossing
- 9800' between east crossover MP 1144 and public at-grade crossing
- Construct 2nd main track
High-Level Engineering Proposal

- Construct universal Crossovers (dual-control)
- Realign main tracks to accommodate 4601/4602 at Anthony
- Install dual-control switch
- Construct 2nd main track
- Private crossings
High-Level Engineering Proposal

Install dual-control switch

Construct 2\textsuperscript{nd} main track
High-Level Engineering Proposal

- Realign main tracks to accommodate industry tracks at Vado
- Install dual-control switch
- Install dual-control switch
- Construct 2nd main track
Install dual-control switch
High-Level Engineering Proposal

Construct 2nd main track

Install dual-control switch
High-Level Engineering Proposal

- Install dual-control switch
- Construct 2nd main track
RTC Study – Test Network (2nd Main)

El Paso

Union Depot
El Paso - Las Cruces Commuter RTC Analysis
Average Annual Train Delay

Train Delay - Hours per Year

- Base case
- Test case 1
- Test case 2

Locals / Roadswitchers

All Trains
RTC Time Distance Diagram – 2nd Main Track With Commuters (Test 2)

Commuters meet on double track

Las Cruces Depot  1112.63
Mesilla Park  1115.38
Mesquite  1123.74
Vado  1127.99
Berino  1131.29
Anthony  1135.91
Vinton  1139.67
Canutillo  1142.40
Monkoya  1145.06
El Paso  1153.91
Union Depot  1155.40

Case: ELP-Las Cruces
Belen-El Paso
Time zone displayed: MT
Line: El Paso - Las Cruces
Train colors: Type

Commuter and local/roadswitchers can operate at same time
Commuters meet on double track