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February 14, 2020

By E-Filing

Ms. Cynthia T. Brown
Chief, Section of Administration
Office of Proceedings
Surface Transportation Board
395 E Street, SW
Washington, DC 20423


Re: Docket No. FD 36386 - *KCVN, LLC and Colorado Pacific Railroad, LLC - Feeder Line Application - Line of Union Pacific Railroad Company Located in Pueblo, Fremont, Chaffee, Lake, and Eagle Counties, Colorado*

Dear Ms. Brown:

Accompanying this letter for filing in the referenced docket on behalf of KCVN, LLC and Colorado Pacific Railroad, LLC is a Feeder Line Application. Please note that this filing is being e-filed in three volumes, and that it contains color images.

Do not hesitate to contact the undersigned with any questions or if you need additional information.

Sincerely,


Thomas W. Wilcox
Attorney for KCVN, LLC and
Colorado Pacific Railroad

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cc: All parties required to receive service by 49 CFR §1151.2(a)

CONTAINS COLOR IMAGES

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

STB Docket No. FD 36386

**KCVN, LLC AND COLORADO PACIFIC RAILROAD, LLC – FEEDER LINE
APPLICATION – LINE OF UNION PACIFIC RAILROAD COMPANY LOCATED IN
PUEBLO, FREMONT, CHAFFEE, LAKE, AND EAGLE COUNTIES, COLORADO,**

FEEDER LINE APPLICATION

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February 14, 2020

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 KCVN has two members, Mr. Stefan Q. Soloviev, and Mr. Sheldon H. Solow, described in more detail below and in the Osborn V.S. Mr. Soloviev’s title is General Manager. Their address is 9 West 57th Street, Suite 4500, New York, NY 10019-2701..... 15

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EXHIBIT E	UP'S SYSTEM DIAGRAM MAP

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

STB Docket No. FD 36383

**KCVN, LLC AND COLORADO PACIFIC RAILROAD, LLC – FEEDER LINE
APPLICATION – LINE OF UNION PACIFIC RAILROAD COMPANY LOCATED IN
IN PUEBLO, FREMONT, CHAFFEE, LAKE, AND EAGLE COUNTIES, COLORADO**

FEEDER LINE APPLICATION

Come now KCVN, LLC (“KCVN”), and its wholly owned subsidiary, Colorado Pacific Railroad, LLC (“CPRR”) (collectively, “Applicants”), and hereby submit this Feeder Line Application pursuant to 49 U.S.C. § 10907 and 49 CFR Part 1151.1. By this Application, KCVN and CPRR ask the Surface Transportation Board (“Board” or “STB”) to issue an order requiring Union Pacific Railroad Company (“UP”) to sell a line of railroad owned by it to CPRR for a price not less than the line’s constitutional minimum value (“CMV”), which Applicants estimate to be the Net Liquidated Value (“NLV”) of \$8,835,833.¹ The line of railroad in question is the continuous 228.80-mile line of railroad and 58.23 miles of other tracks running between UP

¹ Because Applicants have not been given permission by UP to physically inspect the Tennessee Pass Line, and because some revenue, costs, and other data relevant to the Application and the CMV calculation are primarily or exclusively in the possession and control of UP, Applicants CMV calculation at this point in the process is a highly informed desktop analysis conducted by Applicants’ experts, L.E. Peabody & Associates, Inc. In order to obtain more precision regarding the CMV calculation, and to learn more about the current use of the Tennessee Pass Line and relevant issues such as rehabilitation costs, Applicants have included as Exhibit A to this Application a first set of Discovery Requests to UP pursuant to 49 C.F.R. 1114, subpart B and 49 C.F.R. §1151.2(d) to the extent the Board determines that regulation is applicable.

milepost (“MP”) 118.20, near Pueblo, CO and MP 341.9, near Dotsero, CO, which is historically known as the Tennessee Pass Line. The tracks at issue are located in Pueblo, Fremont, Chaffee, Lake, and Eagle counties, CO. For the reasons set forth in this Application all of the statutory and policy justifications for a forced sale set forth in Section 10907 and the STB’s feeder line program are easily met in this case.

I. INTRODUCTION

A. Overview

The owners of KCVN and CPRR are committed to the restoration and improvement of freight railroad service on formerly active major railroad lines in the Western United States for the purpose of creating new rail transportation opportunities for rail shippers in that area of the country. This commitment was first manifested by CPRR’s acquisition in 2018, through another Feeder Line Application, of the 121.9-mile former main line of the Missouri Pacific Railroad (“MoPac”) and UP in central Colorado historically known as the Towner Line.² In that proceeding, the Board directed V and S Railway, LLC, which had allowed the Towner Line to fall in to significant disrepair and had ceased providing freight service over it, to sell the main line and related assets to CPRR. Since acquiring the Towner Line CPRR has spent \$3,500,000 rehabilitating that line of railroad and restoring freight service over it.³ As detailed in the Verified Statement of Harvey Crouch (“Crouch V.S.”)(Exhibit C), president of the engineering

² STB Docket FD 36005, *KCVN, LLC and Colorado Pacific Railroad, LLC – Feeder Line Application – Line of V and S Railway, LLC located in Crowley, Pueblo, Otero, and Kiowa Counties, Colorado* (served April 16, 2016, July 31, 2017, and December 18, 2017).

³ Verified Statement of William S. Osborn (“Osborn V.S.”)(Exhibit B), at 5. Mr. Osborn is Attorney-in-Fact for both KCVN and CPRR. Osborn V.S., Attachment 1.

firm retained by CPRR to supervise the rehabilitation of the Towner Line, all 121.9 miles of mainline track was rehabilitated to FRA Class 2⁴ standards in 2019.⁵

Although the track upgrades were made, commencement of freight service was delayed in response to some community protests filed with the Colorado State Public Utility Commission (“CPUC”) regarding plans for signalization of four state highway grade crossings along the line.⁶ These protests were resolved and the CPUC approved the crossings in late December. CPUC approved applications for signalization of nine other road crossings in January, and those will be installed in time for the entire Towner Line to reopen for common carrier service by April 1, 2020.⁷ A test run of some grain traffic from the Stuart siding near Sheridan Lake, CO to the eastern terminus of the line at Towner, KS was operated in December 2019 by the Kansas & Oklahoma Railroad (“K&O”), the Class III shortline operator selected by CPRR who provides rail service over the Towner Line pursuant to an operating agreement arrangement approved by the Board in 2019.⁸ In February, a test run for grain pickup from the Scouler Grain Elevator at Haswell, CO (at the approximate midpoint of the line) will be operated to the Towner interchange.⁹

As mentioned above and explained in greater detail in this Application, the Verified Statement of Mr. Osborn and the Verified Statement of Thomas D. Crowley, President of L.E. Peabody & Associates, Inc. (“Crowley V.S.”)(Exhibit D) this Application seeks the directed sale of the Tennessee Pass Line, defined herein as the 228.80 miles of UP-owned main line track (and

⁴ The maximum allowable train speed for freight service is 25 miles per hour. 49 C.F.R. §213.9(a).

⁵ Crouch V.S. at 4.

⁶ Osborn V.S. at 6.

⁷ *Id.*

⁸ Docket No. FD 36310, *Kansas & Oklahoma Railroad, LLC – Operation Exemption – Colorado Pacific Railroad, LLC* (served June 24, 2019).

⁹ Osborn V.S. at 6.

UP's residual trackage rights interest over one 11.75 mile segment of that track) extending from MP 118.20 in Pueblo to MP 341.9 at Dotsero. This track includes the 5.10-mile long track known as the Leadville Branch, which connects to the mainline track at MP 271 in Leadville, CO. A map of Tennessee Pass Line and a larger schematic of rail lines connected to the line is contained in Crowley V.S., Exhibit TDC-2

The Tennessee Pass Line is connected to the Towner Line by a 26-mile line of railroad jointly owned and operated by BNSF and UP that begins in Pueblo and interchanges with the Towner Line at NA Junction, CO ("NA Jct/Pueblo Segment").¹⁰ KCVN and CPRR are in the process of working with BNSF and UP to restore that interchange to enable traffic to once again move to and from the Towner Line from Pueblo.¹¹ The continuous rail line constructed and owned by UP's predecessors MoPac, the Denver & Rio Grande Western Railroad ("DRGW") and the Southern Pacific Transportation Company ("SP") running from NA Junction to Dotsero was classified by them as the Tennessee Pass Subdivision.¹² This route is still referred to by that name in UP's official timetables and track charts.¹³ Consequently, the directed sale of the Tennessee Pass Line to CPRR and the subsequent restoration of continuous freight service over it, combined with the re-activated Towner Line and the movement of traffic to and from Pueblo over the NA Jct./Pueblo Segment, would result in the re-activation of a nearly 400-mile, continuous mainline railroad extending from Towner, KS to Dotsero that would provide a

¹⁰ See ICC Docket No. 25002, et al, *Atchison, Topeka, and Santa Fe Railway Co. and Missouri Pacific Railroad Co., - Joint Use in Pueblo, County, Colorado* (served July 22, 1968); and Docket No. FD 36222, *BNSF Railway Company – Lease Exemption – Union Pacific Railroad Company* (served October 11, 2018).

¹¹ Osborn V.S. at 6-7.

¹² Crowley V.S. at 16.

¹³ *Id.*

substantial and significant competitive alternative to BNSF and UP to many freight rail shippers in Colorado but also throughout the Western United States.

Applicants believe that the directed sale of all the Tennessee Pass Line would clearly fall within the statutory language and intent of §10907 and the Board's regulations and would be in the public interest to the extent that standard is applicable. However, should the Board ultimately decline to direct UP to sell Applicants all of the Tennessee Pass Line described in this Application, then Applicants request the alternative directed sale of (1) the 163.1 miles of mainline and 40.16miles of sidings of Tennessee Pass Line tracks between Parkdale, CO and Sage, CO that UP sought to abandon in the UP/SP merger proceeding but for which the Board granted discontinuance authority¹⁴ and which tracks have been designated by UP as Category 1 tracks on the UP's official System Diagram Map ("SDM") submitted pursuant to 49 C.F.R. §1152.10,¹⁵ and (2) the remaining 6.9 miles of UP-owned track running between Sage and Dotsero.

B. The History of the Tennessee Pass Line

The tracks and facilities making up the Tennessee Pass Line were primarily constructed by the DRGW beginning in the late 1880s because some of DRGW's tracks connecting Denver to Salt Lake City at that time were narrow-gauge, which hampered their use because most of the

¹⁴ Interstate Commerce Commission ("ICC"), Docket No. 32760, *Union Pacific Corporation, Union Pacific Railroad Company and Missouri Pacific Railroad Company -Control and Merger- Southern Pacific Rail Corporation, Southern Pacific Transportation Company, St. Louis Southwestern Railway Company, SPCSL Corp. and the Denver and Rio Grande Western Railroad Company*, (Decision No. 44 served August 12, 1996) at 20, note 31 ("Decision No. 44").

¹⁵ UP's SDM on file with the Board is dated June 29, 2011. Although UP's website states that the most current SDM is available upon request, a request made by Counsel for Applicants in January 2018 was ignored. A copy of the SDM is attached to this Application as Exhibit E, as required by 49 C.F.R. § 1151.3(a)(ii). Applicants have marked in red the location of the Tennessee Pass Line in the SDM and have also attached an enlarged map of the area.

other railroad tracks in the Western United States had been converted to standard-gauge track.¹⁶ According to the DRGW.net website, “To alleviate this issue the D&RG began looking at the prospect of constructing a new route over the Rocky Mountains, eventually choosing a heading north of Leadville and following the Colorado River.” A newly upgraded and constructed line from Pueblo to Grand Junction, CO was completed in 1890. At Grand Junction the DRGW connected with the Rio Grande Western that reached Salt Lake City.

Traffic over the Tennessee Pass waned in the 1980s with the availability and use of the Moffat Tunnel to cross the Rocky Mountains, but the purchase of SP by Philip Anschutz and Rio Grande Industries in 1988, coupled with the merger of DRGW and SP that year, resulted in a marked increase in the use of the Tennessee Pass Line for up to 30 trains per day by 1996 with much of the new traffic originating in California.¹⁷ However, during the early phases of the proposed merger of SP and UP in 1996, UP proposed abandoning the majority of the Tennessee Pass Line, specifically the 181.75-mile portion beginning near MP 160.20 in Cañon City, CO and extending to MP 335 in Sage, and the 5.1-mile long Leadville Branch connected to the mainline at MP 271.¹⁸ UP did not propose to abandon the segment of the Tennessee Pass Line from Pueblo to Cañon City connected to the eastern terminus of the Tennessee Pass Line, or the Sage to Dotsero segment connected to the western terminus. The proposed abandonment was contested by numerous parties who, to state some of their concerns, feared the loss of the ability to ship locally produced grain,¹⁹ and feared the loss of alternative access to the Front Range urban area and eastern rail markets if the Central Corridor line,²⁰ including the Moffat Tunnel,

¹⁶ <http://www.drgw.net/info/TennesseePass>.

¹⁷ *Id.*

¹⁸ *Decision No. 44* at 20; 155, note 193.

¹⁹ *Id.* at 50.

²⁰ The Central Corridor line runs through Dotsero, Bond, CO, and Winter Park, CO to

experienced major congestion²¹ or a major shutdown. A broad coalition of Colorado state and private entities argued that the proposed abandonment of the Tennessee Pass lines, as well as the Towner Line, “would have a devastating impact in an area that relies heavily on rail.”²² As a result of these and other complaints,²³ UP backed away from its initial line abandonment position and instead sought approval for discontinuance of its obligation to provide common carrier service over the Tennessee Pass Line tracks. Under this scenario, UP would stop providing service over the line and would be relieved of its common carrier obligation, but it would retain the land and track infrastructure along the route.

As part of its decision approving the UP/SP merger, the Board agreed to this alternative proposal, and determined that it would monitor the situation to see if the action caused bottlenecks along the Central Corridor. In part, its reasoning was to “ensure that the merger does not result in service degradation for Central Corridor coal (and other) movements.”²⁴ The Board also recognized the Tennessee Pass Line route “might need to be retained just in case the Moffat Tunnel Line is overwhelmed.”²⁵ After considering all of the evidence, the Board decided “we will grant discontinuance authority rather than full abandonment authority *because of the crucial nature of this through route.*”²⁶ If service along the Central Corridor were to deteriorate, the STB indicated it would require reinstatement of rail service on the Tennessee Pass Line. Thus, the clear intention of the STB’s action in the UP/SP merger proceeding was to

Denver, CO.

²¹ Decision No. 44 at 62 (complaint of Public Service Company of Colorado (now Xcel Energy) about the Moffat Tunnel exceeding its available capacity).

²² *Id.* at 92.

²³ *Id.* at 94 -97.

²⁴ *Id.* at 154.

²⁵ *Id.* at 156

²⁶ *Id.* (emphasis supplied)

ensure the preservation of the continuous freight rail route extending from Pueblo to Dotsero for potential reactivation in the future.

UP has not conducted any freight operations on the entire Tennessee Pass Line since the UP/SP merger was approved, and the Centralized Traffic Control (“CTC”) signal system along the Tennessee Pass Line was turned off in the early 2000s.²⁷ Public UP timetables for the Tennessee Pass Subdivision from 2006 and 2009 contain notes in the “Main Track Authority” section that state: “[b]etween MP 171.9 [Parkdale, CO] and MP 335.0 [Sage, CO] the main track is not in service.”²⁸ As stated above, since 1996 the tracks over which the STB granted discontinuance authority have been designated as Category 1 tracks subject to abandonment by UP on its SDM. UP does not conduct any freight rail operations over the eastern portion of the Tennessee Pass Line between Pueblo and Parkdale. Rather, the Rock & Rail railroad (“R&R”) conducts aggregate freight operations over 39.57 miles of the line from Cañon City to Pueblo (MP 160.15 to MP 120.73) and certain other tracks connected to the main line. The R&R acquired these rights in 1999 from BNSF, which owned certain tracks and also had trackage rights over this portion of the Tennessee Pass Line.²⁹ In 2015, Martin Marietta Materials (“MMM”) acquired a controlling interest of R&R, and R&R describes itself on its website as a

²⁷ “*Tennessee Pass: Where Silence Has Lease*” by Kevin Morgan, published July 13, 2015. Accessed December 20, 2016,

from https://issuu.com/coloradorailfan/docs/tpass_summer_2015/15

²⁸ Union Pacific Denver Area Timetable #3, effective November 12, 2006 and Union Pacific Denver Area Timetable #4, effective November 16, 2009.

²⁹ See STB Docket No. 33738, *Rock & Rail Acquisition and Operation Exemption – Lines of BNSF Railway Decision* (served April 30, 1999) at 2. Specifically, R&R acquired from BNSF (1) ownership of around 410 feet of track serving shippers located along the line; (2) BNSF’s trackage rights it had received from UP over the 39.57 miles of main line; and (3) “incidental trackage rights over BNSF’s lines from the connection between BNSF’s line and UP’s line at Milepost 120.73 in Pueblo and approximately 2,243 feet over Track No. 254, approximately 4,200 feet over BNSF’s main line track to Milepost 619.75,” for the purpose of interchanging with BNSF in Pueblo.

wholly owned subsidiary of MMM. However, R&R still operates over the tracks as it used to do prior to being acquired.³⁰

The 6.9 miles of the western end of the Tennessee Pass Line between Sage and Dotsero, (MP 335.00 to MP 341.90) were also not included with the track UP sought to abandon in the UP/SP merger. This segment runs along the Eagle River and US Interstate 70 through a narrow canyon pass.

Finally, in July 1998, the Royal Gorge Express, LLC acquired from UP 11.75 miles of the discontinued Tennessee Pass Line located between MP 171.90, at Parkdale, and MP 160.15, at Cañon City, for passenger excursion train operations. UP expressly retained “a permanent, irrevocable trackage rights [easement] so as to preserve the integrity of the Tennessee Pass route.”³¹ Simultaneously with the acquisition of this UP track by Royal Gorge Express, it leased the track to R&R, subject to UP’s permanent overhead trackage rights reservation.³² The operating passenger excursion railroad is now called the Royal Gorge Route Railroad, according to its website.³³ UP’s permanent irrevocable trackage rights easement means that if the entire Tennessee Pass Line is put back into service, the new owner of the line would be able to travel over these tracks and preserve the integrity of the continuous routing.

³⁰ “Martin Marietta Acquires Control of Rock & Rail” by Rock Product News, published December 1, 2015. Accessed March 7, 2017, from <http://www.rockproducts.com/news-late/14939-martin-marietta-acquires-control-of-rock-rail.html#.WL8PtPnyvuo>.

³¹ STB Finance Docket No. 33622, *Royal Gorge Express, LLC—Acquisition and Operation Exemption—Union Pacific Railroad Company* (served July 15, 1998) at 1.

³² See STB Docket No. 33608, *Rock & Rail Acquisition and Operation Exemption – Royal Gorge Express* (served July 15, 1998) at 1.

³³ According to the R&R website, it owns a 50% interest in Royal Gorge Express, LLC. The other 50% is owned by the Cañon City Royal Gorge Railroad (“CCRG”), which operates the excursion trains.

C. State Interest in Reactivating the Tennessee Pass Line

The State of Colorado has long been interested in reactivating the Tennessee Pass Line and has regularly included this desire in its annual state rail plans. For example, an October 2017 report prepared by the Colorado Department of Transportation (“CDOT”) discussed the rail lines in Colorado that have the potential to be acquired by the CDOT. The report states that:

The Tennessee Pass line has been identified as significant to CDOT because of its potential to carry both passengers and freight, and because it is the only existing trans-mountain alternative in Colorado to the Moffat Tunnel line, which often runs near capacity. The Tennessee Pass Line may be able to be used as an alternative route as trans-mountain rail demand grows due to increased development on the Western Slope or if the Moffat Tunnel were damaged or closed for any reason. Such an event would have a significant impact on Colorado, particularly on the Western Slope, since the railroads would be forced to move freight through Wyoming. The Royal Gorge Route Railroad currently offers scenic, tourist rail trips on 12 miles of the Tennessee Pass Line west of Cañon City. No freight has been shipped across the full Tennessee Pass Line since 1996, but in relatively recent (2011) conversations with the UP, there was no indication that UP would abandon this line in the near future. There have been no changes since.³⁴

In a Colorado State Freight and Passenger Rail Plan issued in 2019, CDOT added that “[t]he line provides critical network redundancy and opportunities for alternative uses.”³⁵ The CDOT reports reaffirm the long time position of CDOT that should the UP continue to refuse to reactivate the Tennessee Pass Line and eventually seek to abandon it, Colorado should consider purchasing the Tennessee Pass Line to preserve it for freight and/or passenger service in the future.

³⁴ “Report to the Transportation Legislation Review Committee on Rail Abandonments and the Potential for Rail Line Acquisitions.” Prepared by the Colorado Department of Transportation, published October 2017.

See <https://www.codot.gov/programs/transitandrail/plans-studies-reports/report-to-the-transportation-legislation-review-committee-on-rail-abandonments-and-the-potential-for-rail-line-acquisitions/sb-37-report-for-2017>.

³⁵ https://www.codot.gov/programs/planning/transportation-plans-and-studies/documents/2018-colorado-state-freight-and-passenger-rail-plan-appendices_final.pdf/view

D. KCVN and CPRR Offer to Purchase the Tennessee Pass Line

On November 14, 2019, Mr. Osborn, on behalf of CPRR presented an offer to UP's Chief Executive Officer, Mr. Lance M. Fritz, to purchase the Tennessee Pass Line for \$10 million.³⁶ Although not explicitly stated, the offer was a cash offer.³⁷ The offer stated in part that "[CPRR] proposes to restore the Tennessee Pass line to service, thus providing an alternative to using the Moffat Tunnel and routing freight through Denver."³⁸ On December 30, 2019, UP declined CPRR's offer in a letter from Mr. Chris D. Goble, Assistant Vice President – Real Estate. In that letter, (Attachment 4 to Mr. Osborn's Verified Statement), UP stated in part that "[w]e are in active discussions with other parties to restore service on this line, and we intend to see these discussions through before we explore other options." No further details of such discussions were provided. CPRR's subsequent inquiries to CDOT, shippers along the line, short line railroads, and other parties revealed no evidence of any such discussions,³⁹ and CPRR has therefore included with this Application certain discovery requests directed to UP for documents and other information confirming that such discussions are bearing fruit.

II.
SHOWINGS UNDER SECTION 1151.3

A. Identification of Line to be Purchased (49 CFR §1151.3(a)(1))

i. The name of the owning carrier

The name and address of the incumbent carrier is as follows:

Union Pacific Railroad Company
1400 Dodge Street

³⁶ Letter from William Osborn to Lance M. Fritz, dated November 14, 2019, Attachment 3 to Osborn V.S.

³⁷ Osborn V.S. at 7.

³⁸ Letter to Fritz at 1.

³⁹ Osborn V.S. at 7.

ii. The exact location of the line to be purchased including milepost designations, origin and termination points, stations located on the line, and cities, counties and States traversed by the line

a. Preferred Acquisition

It is KCVN's and CPRR's strong preference to acquire UP's ownership and reserved easement rights in the 228.80-mile long continuous Tennessee Pass Line extending from MP 118.20 in Pueblo to MP 341.90 at Dotsero, as more fully described below. Applicants believe that the entire Tennessee Pass Line falls within the category of continuous, unitary lines of rail that the Feeder Line Development Program was enacted to preserve. It should therefore be sold in its entirety in order to preserve and reactivate that continuous routing in the public interest. Pursuant to the applicable rules and agency precedent Applicants' offer to purchase the Tennessee Pass Line is based on an estimation of the CMV for the entire 228.80-mile long main line and all associated sidings calculated in accordance with accepted practices for GVC and NLV.

The exact location of the Tennessee Pass Line sought by Applicants is shown on the maps contained in Exhibit TDC-2 of Mr. Crowley's Verified Statement and track charts included with workpapers associated with the statement. The line runs through Pueblo, Fremont, Chaffee, Lake, and Eagle counties, Colorado. The main cities located along the line are Pueblo, Salida, Gypsum and Cañon City, Colorado. The stations along the line are shown on Exhibit TDC-3 of the Crowley V.S.

While the Tennessee Pass Line has been preserved as a continuous, unitary line of railroad and should be conveyed to CPRR as such, it is composed of four primary segments that have different legal statuses that bear on this Application and the standards governing feeder line applications. The four segments are briefly described as follows below:

1. The Pueblo to Cañon City Segment (41.95 miles between MP 120.18 and MP 160.15)

Applicants would acquire UP's ownership interest in the active Pueblo to Cañon City Segment, subject to the existing trackage rights of BNSF Railway, and the trackage rights and operations conducted by R&R.⁴⁰

2. The Cañon City to Parkdale Segment (11.75 Miles between MP 160.15 and 171.90)

Applicants would acquire UP's reserved, permanent and irrevocable trackage rights interest in this segment, since UP no longer owns this track.⁴¹

3. The Parkdale to Sage Segment (163.1 miles between MP 171.9 and MP 335)

As stated previously all of the tracks in the Parkdale to Sage Segment received discontinuance authority in the UP/SP merger proceeding and have been designated on UP's official SDM as being in Category 1 since 1996. This Segment includes the Leadville Branch, a 5.1-mile segment of track connected to the mainline at MP 271 and extending to MP 276.1 for the purpose of serving former and existing mines in Leadville, Colorado. In 1998, UP filed a notice of exemption under 49 CFR 1152 Subpart F to abandon approximately 1.8 miles of the Leadville Branch from MP 274.3 to the end of the line at MP 276.1.⁴² In 1998, the Lake County Board of County Commissioners filed a request for a notice of interim trail use ("NITU") under the National Trails System Act for the purpose of forestalling abandonment and turning the 1.8

⁴⁰ Crowley V.S. at 2-3.

⁴¹ *Id.* at 3.

⁴² STB Docket No. AB-33 (Sub-No. 117X), *Union Pacific Railroad Co. – Abandonment Exemption – in Lake County, CO* (served June 4, 1998).

mile segment into a recreational trail.⁴³ This 1.8 miles of track may still be part of a local recreational trail.⁴⁴

4. The Sage to Dotsero Segment (6.9 miles between MP 335 and MP 341.90)

The Sage to Dotsero segment is an active line of railroad owned by UP but is primarily used for occasional storage of UP cars.⁴⁵ There is only one potentially active shipper on the Sage to Dotsero Segment, which is the American Gypsum Company's plant located in Gypsum, Colorado.⁴⁶ At Dotsero, the Tennessee Pass Line connects with UP's main line, and Dotsero is the point at which BNSF has trackage rights over UP's tracks extending west to Salt Lake City that it was granted as a condition on the Board's approval of the UP/SP merger.

Further details on the location, and composition of the Tennessee Pass Line and other information required by 49 C.F.R. §1151.3(a)(1)(ii) are set forth in the Crowley V.S. For example, the Tennessee Pass Line also contains approximately 58.23 miles of connecting rail sidings and spur tracks, bringing the total track miles up to 287.03 miles.⁴⁷

b. Alternative Acquisition

Applicants believe the Tennessee Pass Line should be retained as a continuous routing over the Rocky Mountains and operated as such. However, should the Board ultimately disagree with Applicants' position and not direct the sale of the entire Tennessee Pass Line to them, Applicants would seek the issuance of an order directing UP to sell to CPRR (1) all of the Tennessee Pass Line tracks and sidings for which the Board granted discontinuance authority for

⁴³ STB Docket No. AB-33 (Sub-No. 117X), *Union Pacific Railroad Co. – Abandonment Exemption – in Lake County, CO* (Decisions served July 2, 1998 and December 15, 1998)

⁴⁴ Applicants' first discovery requests to UP include questions about this segment of the Tennessee Pass Line.

⁴⁵ Crowley V.S. at 4.

⁴⁶ *Id.*

⁴⁷ Crowley V.S. at 13, Table 3.

in *Decision No. 44* i.e., (a) the Parkdale to Sage Segment and (b) the Leadville Branch and (2) the final 6.9-mile long Sage to Dotsero Segment.

B. Identification of Applicants (49 CFR §1151.3(a)(2))

i. The applicants' names and addresses;

KCVN is a Delaware limited liability company with its principal office at 9 West 57th Street, Suite 4500 New York, NY 10019-2701.

CPRR is a Delaware limited liability company, with its principal office at 515 Congress, Suite 2450, Austin, Texas 78701.

ii. The name, address, and phone number of the representative to receive correspondence concerning this Application;

Thomas W. Wilcox, Esq.
GKG Law, P.C.
The Foundry Building
1055 Thomas Jefferson Street NW
Suite 500
Washington, DC 20007
(202) 342-5248

iii. A description of applicants' affiliation with any railroad

Neither of the applicants is affiliated with any other railroad.

iv. If the applicant is a corporation, the names and addresses of its officers and directors.

KCVN has two members, Mr. Stefan Q. Soloviev, and Mr. Sheldon H. Solow, described in more detail below and in the Osborn V.S. Mr. Soloviev's title is General Manager. Their address is 9 West 57th Street, Suite 4500, New York, NY 10019-2701.

CPRR has one member, Mr. Soloviev. His title is General Manager, and his address is 9 West 57th Street, Suite 4500, New York, NY 10019-2701.

C. Financial Responsibility (49 CFR §1151.3(a)(3))

To be an eligible purchaser under the feeder line program, an applicant must show that it is financially responsible. 49 U.S.C. §10907(a). To be considered financially responsible, §10907(a) provides that the purchaser must be able (1) to pay the CMV for the line and (2) to cover the expenses of operating on the line for at least the first three years. The CMV for a line subject to a feeder line application is the greater of the GCV or the NLV. Because the Tennessee Pass Line was historically a continuous, unitary line of railroad and has been preserved for that purpose since 1996, Applicants instructed Mr. Crowley to calculate the CMV by estimating the NLV and the GVC for the entire Tennessee Pass Line. The results of that analysis are summarized in Parts IV and V of his Verified Statement. The GCV for the entire Tennessee Pass Line is estimated to be \$6.8 million.⁴⁸ In accordance with the Board's rules and procedures Mr. Crowley also calculated the NLV for the entire Tennessee Pass Line, which is estimated as of the date of this Application to be \$8,835,833.⁴⁹ Accordingly, to accomplish its Preferred Acquisition CPRR is offering to purchase the entire Tennessee Pass Line for \$8,835,833. Mr. Crowley has also estimated that it will cost approximately \$278 million to rehabilitate the Tennessee Pass Line to Federal Railroad Administration ("FRA") Class 2 standards.⁵⁰ Since CPRR intends for the Tennessee Pass Line to be operated by a third-party rail carrier, which is explained in more detail below in the discussion of CPRR's operating plan, CPRR does not anticipate incurring operating costs. However, CPRR estimates that the annual operating expenses would be \$6,718,303.⁵¹ Consequently, KCVN and CPRR estimate that the total cost

⁴⁸ Crowley V.S. at 35.

⁴⁹ *Id.* at 34.

⁵⁰ Crowley V.S., Part XI at 70.

⁵¹ *Id.* at 58.

associated with the Preferred Acquisition and the showing of financial responsibility as of the date of its filing is approximately \$29,000,000.

For purposes of demonstrating financial responsibility, because the Alternative Acquisition would not include the Pueblo to Cañon City Segment, the CMV and estimated rehabilitation costs would be less than the estimate for the entire Tennessee Pass Line. Since under the scenario proposed by Applicants CPRR would either receive trackage rights which would be operated by CPRR's third-party rail carrier, or it would interchange with the R&R or BNSF, the operating costs would remain roughly the same, but in any event for purposes of determining financial responsibility the costs associated with the Alternative Acquisition would be less than the Preferred Acquisition.

As recently as 2017 this Board has previously determined that KCVN and CPRR were financially responsible parties under §10907(a). Specifically, in Docket FD 36005, the Board, through its Director of the Office of Proceedings, stated in conjunction with accepting that Feeder Line application:

Based on the information in the application, Colorado Pacific appears to have access to considerable funds to pay the expenses of acquiring and rehabilitating the Towner Line. Colorado Pacific states that it does not anticipate incurring operating costs because they would be borne by K&O, the anticipated operator. Nonetheless, the applicants should provide financial statements showing a breakdown of three years of K&O service costs, including maintenance costs, to fully demonstrate that Colorado Pacific or KCVN could cover any revenue shortfall during the first three years.⁵²

In its subsequent July 31, 2017 decision granting the Feeder Line Application for the Towner Line, the Board stated at 13-14:

The Board agrees [with the Director's April 15 determination] and finds that Colorado Pacific is financially responsible for purposes of the statute. As Applicants note, KCVN owns large holdings near the Line and has access to

⁵² Decision served April 16, 2017 at 3-5.

significant funds. These funds establish the ability to purchase the Line at any of the NLVs proposed in this case and to cover the expenses of operating on the Line for at least the first three years. Although V&S suggests that KCVN's commitment to Colorado Pacific is not firm, KCVN has offered to post a line of credit for Colorado Pacific in any amount required by the Board. (Application, V.S. Osborn 5.) KCVN has also stated that, to the extent the application process results in a final purchase price for the Line beyond the amount Colorado Pacific has offered or requires additional funds for operating or rehabilitation, KCVN or its owners would provide a cash infusion. (Applicants Reply 19, Sept. 27, 2016.) Such funds would be in addition to the \$6.5 million KCVN has already set aside for the Towner Line. Although V&S questions whether K&O could finance rehabilitation or haul as much traffic as projected, these concerns are immaterial in light of the resources KCVN is willing to commit. As such, the Board finds that Colorado Pacific is financially responsible under the statute.

KCVN and CPRR both still meet the requirements of being a financially responsible party under §10907. As explained by Mr. Osborn, KCVN is still owned and managed by its active principal, Mr. Stefan Soloviev, and his father, Mr. Sheldon H. Solow.⁵³ The family also still has extensive land holdings in the Western United States, which have expanded and grown since 2017 to exceed \$100 million in worth.⁵⁴ Mr. Soloviev continues to be one of the top 100 landowners (by acreage) in America. Mr. Solow is still listed by Forbes Magazine as one of the 400 wealthiest Americans, with a current net worth of \$4.6 billion.⁵⁵

In 2017 KCVN owned 58,000 acres of land valued at \$50 million within Cheyenne, Kiowa, and Powers Counties, Colorado. This acreage was primarily dedicated to the cultivation of dryland wheat.⁵⁶ KCVN now owns 81,000 acres of land in those counties.⁵⁷ KCVN also owns a significant amount of farming equipment and farm buildings. KCVN's assets and total liability and equity are summarized in its most current financial statements and other information

⁵³ Osborn V.S. at 2. Mr. Soloviev readopted the original family name, which had been shortened upon immigration to America over 100 years ago.

⁵⁴ *Id.* at 2-3.

⁵⁵ *Id.*

⁵⁶ *Id.*

⁵⁷ *Id.* at Attachment 1.

in Attachment 3 to Mr. Osborn's Verified Statement. Finally, as previously stated, since acquiring the Towner Line in 2017, KCVN and CPRR have expended over \$3,500,000 in cash to upgrade the entire 121.9 miles of line to FRA Class 2 specifications, and worked with state, local and federal authorities to reinstall proper signaling and signage.

For its purchase and rehabilitation of the Tennessee Pass Line, CPRR is and will be supported by the deep financial resources of KCVN and its principals but CPRR can also meet the STB's requirement in feeder line proceedings that it has sufficient financial resources of its own.⁵⁸ As envisioned by KCVN when it purchased the Towner Line, Mr. Soloviev will manage the CPRR's efforts as its Manager, and the CPRR's acquisition and maintenance of the Tennessee Pass Line will be financed by cash provided by KCVN and revenues from the Towner Line.⁵⁹ To the extent this feeder line application process results in a final purchase price for the Tennessee Pass Line in excess of the amount of KCVN/CPRR's offer, CPRR will obtain the necessary funds through a letter-of-credit and/or direct cash infusions from KCVN and/or its owners.⁶⁰

In his Verified Statement, Mr. Crowley has preliminarily estimated the cost of rehabilitating the entire Tennessee Pass Line to be approximately \$278 million, most of which would be for the rehabilitation of the 208.36 miles of main line tracks and siding of the segment of the line between Parkdale, Colorado and Sage, Colorado.⁶¹ While it will have access to the financial resources of KCVN's principals CPRR will seek to finance the rehabilitation cost of the line with a loan from the Federal Railroad Rehabilitation & Improvement Financing Program

⁵⁸ STB FD No. 34335, *Keokuk Junction Railway Co – Feeder Line Acquisition – Line of Peoria and Western Railway Corp. Between La Harpe and Hollis, Ill.*, (“Keokuk Junction”) (served May 9, 2003) at 4-5.

⁵⁹ *Id.* at 5, and Attachment 6

⁶⁰ *Id.* at 5

⁶¹ Crowley V.S. at 13, Table 3.

(“RRIF”).⁶² The RRIF program is authorized by 45 U.S.C. §822 and §823 and administered by the Office of Passenger and Freight Programs within the FRA pursuant to regulations promulgated at 49 CFR Part 260. CPRR will fund whatever equity requirement is made by the FRA for an RRIF loan, and if for any reason the FRA declines to approve such loan application, CPRR will seek commercial bank financing to cover a portion of the cost of rehabbing the Tennessee Pass Line for service.⁶³

Based on all of the foregoing, and the financial and other information attached hereto, Applicants submit that CPRR has the financial resources to acquire the Tennessee Pass Line and fulfill its responsibilities to pay the expenses of rehabilitating, operating, and maintaining the line for at least the first three years from the date of acquisition of the line. CPRR therefore meets the requirements of being a “financially responsible” party under the regulations and applicable agency precedent.

D. Estimate of the NLV and the GCV (49 CFR § 1151.3(a)(4))

The price of acquiring a line of rail in a feeder line proceeding is the higher of the estimated NLV and the estimated GCV. The Tennessee Pass Line sought by Applicants was historically operated as a continuous, unitary line of railroad extending from Pueblo to Dotsero, and indeed it has been preserved as such by the UP at the Board’s direction in *Decision No. 44* . The Tennessee Pass Line in its entirety is therefore a “particular railroad line” under §10907(b)(1) that Applicants may purchase through a feeder line application⁶⁴

⁶² Osborn V.S. at 4-5.

⁶³ *Id.* at 5.

⁶⁴ *Caddo Antoine and Little Missouri RR Co., et al v. STB*, 95 F.3d 740, 744. (8th Cir. 1996)(“*Caddo*”); STB Finance Docket No. 35160, *Oregon International Port of Coos Bay – Feeder Line Application – Coosbay Line of the Central Oregon & Pacific RR, Inc.*, (served October 31, 2008) at 4.

In *Caddo*, the 8th Circuit determined that if a line of rail is unitary and continuous then whether the requirements of §10907 are met is to be determined by considering the line as a whole, not divided by segments. In that proceeding one segment of the overall line at issue (“the southern portion”) was active and generating revenue. That segment therefore arguably had a GCV that was higher than its NLV, while the remainder of the line had only NLV since it was subject to abandonment.⁶⁵ When considering what the appropriate CMV was for the line at issue, the Board originally sought to segment the tracks and conduct the NLV vs. GCV for each segment.⁶⁶ However, upon reconsideration after the 8th Circuit’s opinion in *Caddo*, the Board stated “it is not clear that a computation of GVC for the southern portion is permissible in this case in light of the Eighth Circuit’s holding in *Caddo Antoine* that, for sale purposes, the Norman Branch must be treated as a single entity.”⁶⁷ Accordingly the Board analyzed whether the NLV of the line as whole or the GCV of the line as a whole was higher.⁶⁸

Following this precedent, Applicants’ experts have presented NLV and GCV calculations that are based on the Tennessee Pass as a unitary line of railroad.⁶⁹ The NLV for the Tennessee Pass calculated by Mr. Crowley is \$8,835,833. As stated in footnote 1 of this Application, because Mr. Crowley’s firm has not yet been granted access to conduct a physical inspection of

⁶⁵ *Caddo* at 744.

⁶⁶ STB Finance Docket No. 32479, *Caddo Antoine and Little Mo. R. Co. – Feeder Line Acquisition – Arkansas Midland Railroad Co. Line Between Gurdon and Birds Mill, AR*, (Served August 12, 1999)(*Caddo II*) at 6.

⁶⁷ STB Finance Docket No. 32479, *Caddo Antoine and Little Mo. R. Co. – Feeder Line Acquisition – Arkansas Midland Railroad Co. Line Between Gurdon and Birds Mill, AR*, (Served May 5, 2000)(*Caddo III*) at 10.

⁶⁸ This analysis was later applied in *Keokuk Jct. Railway Co. – Feeder Line Acquisition – Line of Toledo Peoria and Western Railway Corp. Between La Harpe and Hollis, Ill.*(served July 9, 2003)(where the Board adopted the GCV value for the entire line made up of active and inactive segments because it was higher than the NLV for the entire line, and the GCV was mostly derived from the active segment).

⁶⁹ Crowley’s V.S. at Part IV.

the Tennessee Pass Line, much of which is remote (and because a physical inspection of the line is not possible in the winter months in Colorado due to deep snowpack) the NLV analysis provided with this Application is a “desktop” analysis that relies on (1) a broad range of data sources and is highly informed by Mr. Crowley’s extensive experience and knowledge of the STB’s rules governing NLV calculations acquired over his 45-year career, (2) current prices for steel and used rail, and (3) his extensive knowledge of the markets for rail track and scrap steel. Mr. Crowley has also prepared an estimate of the GCV for the Tennessee Pass Line which is contained in Part V of his Verified Statement. Based on Applicants’ knowledge of the Tennessee Pass Line to date, most of the GCV for the Tennessee Pass Line is contained in the Sage to Dotsero Segment. Mr. Crowley has calculated the GCV for the Tennessee Pass Line to be \$6,800,000.⁷⁰

E. Offer to Purchase (49 CFR § 1151.3(a)(5))

In accordance with §10907 and the Board’s feeder line rules, CPRR offers to buy the Tennessee Pass Line for \$8,835,833, which is the higher of the estimated NLV or estimated GCV. Thus, CPRR offers to purchase the Tennessee Pass Line for this amount. Should the Board ultimately determine that the entire Tennessee Pass Line should not be conveyed to Applicants and that the Alternative Acquisition is appropriate, then CPRR offers to purchase the Parkdale to Sage Segments and the Sage to Dotsero Segments at the higher of the GCV or NLV calculated pursuant to the rules applicable to the details of the Board’s decision directing that alternative sale. Applicants do not yet have sufficient information to determine whether the GCV or NLV would be higher for setting the CMV for this alternative.

⁷⁰ Crowley V.S. at 22.

F. The Dates For the Proposed Period of Operation of the Line (49 CFR § 1151.3(a)(6))

Applicants request that the Board order closing on their purchase of the Tennessee Pass Line to occur within 90 days of the service date granting their application. CPRR will close on the purchase at the earliest possible time within that period. Thereafter, CPRR intends for rehabilitation of the Tennessee Pass Line to immediately commence in coordination with existing rail shippers, the R&R, and BNSF. Once the entire Tennessee Pass Line is completely rehabilitated, Applicants anticipate that it will remain in operation indefinitely.

G. Operating Plan (49 CFR § 1151.3(a)(7))

KCVN and CPRR intend to duplicate CPRR's success in reactivating freight service over the Towner Line by engaging an experienced third-party railroad operator conduct to provide for the day-to-day rail operations on the entire Tennessee Pass Line subject to existing trackage rights agreements, and to undertake all required maintenance activities and capital repairs. Part VII of the Verified Statement of Mr. Crowley explains in detail the proposed plan of KCVN and CPRR for rail operations over the Tennessee Pass. In general, however, CPRR will enter into discussions with the K&O and other experienced short line railroad companies upon acceptance of its Application, and CPRR expects to enter into a lease and/or operating agreement with a qualified operator for an initial term of five (5) to 10 years, with automatic extensions absent any contractual terms requiring termination.⁷¹ The operating agreement will provide the operator rights to operate over the entire Tennessee Pass Line from Pueblo to Dotsero using its own locomotives, crews and equipment, but subject to existing trackage rights and operating rights of other railroads on the Pueblo to Parkdale segment. The operator will seek approval from the STB to operate on the Tennessee Pass Line on behalf of CPRR with CPRR retaining the residual

⁷¹ Crowley V.S. at 47-48.

common carrier obligation to provide rail service. CPRR will retain responsibility for ensuring Tennessee Pass Line is maintained at FRA Class 2 standards and complying with applicable Federal and state regulations.

CPRR envisions two (2) alternatives for operations over the Tennessee Pass Line. In the first alternative (“Alternative No. 1”), if CPRR purchases the entire Tennessee Pass Line, CPRR’s operator will interchange traffic with both UP and BNSF at Pueblo and Dotsero, which BNSF can serve through its trackage rights over the UP Central Corridor line. The operator could also interchange with R&R at Parkdale to accomplish an end-to-end route from Pueblo to Dotsero. CPRR would continue to allow R&R and BNSF to operate between Parkdale and Pueblo subject to their existing trackage rights agreements with UP. Finally, operations of the Royal Gorge Tourist line would be fully accommodated and protected; it is the owner of the portion of the line over which it operates.

Under the second alternative (“Alternative No. 2”), if the Board directs the sale to CPRR of the rail line between Parkdale and Dotsero, CPRR’s operator would interchange with UP and BNSF at Dotsero and interchange with R&R at Parkdale for the subsequent movement of railcars to and from Pueblo. The additional details of the operating plan called for by the Board’s policies and precedent are set forth in Part VII, of the Crowley V.S.

H. Liability Insurance Coverage (49 CFR §1151.3(a)(8))

CPRR anticipates that the lease and/or operating agreement it will negotiate with its operator will provide that the carrier secure and maintain at all times an insurance policy from a reputable insurance company that provides for commercial liability coverage in an amount not less than \$25,000,000. CPRR would be named as an additional insured under all such policies.

In addition, CPRR would obtain and maintain separate liability insurance policies as necessary to supplement the third-party carrier's coverages.

I. Preconditions (49 CFR §1151.3(a)(9))

Applicants are not seeking STB approval of any preconditions at this time. Absent the STB approval, no preconditions will be placed upon shippers in order to receive service over the Tennessee Pass Line.

J. Name and Address of Subsidizing Person (49 CFR §1151.3(a)(10))

CPRR will bear the entire cost of acquisition as described above and does not anticipate that any form of subsidization will be required.

K. Statement Concerning the Type of the Feeder Line Application 49 CFR §1151.3(a)(11)

Pursuant to 49 C.F.R. §1151.3(a)(11), a feeder line application must show either that (1) “the line is currently in category 1 or 2 of the owning railroad’s system diagram map,” or (2) that “the public convenience and necessity permit or require acquisition.” As explained previously, the Tennessee Pass Line sought to be purchased through this Application is composed of four segments and the vast majority of the line has long been classified by UP as in Category 1 in its railroad SDM. In this case, over 72% of the tracks at issue fall under §10907(b)(1)(A)(ii)⁷² but the Pueblo to Cañon City Segment and the Sage to Dotsero Segment are active lines of rail. Where an Applicant seeks to acquire a continuous, unitary line of railroad which is made up of tracks falling under both §10907(b)(1)(A)(i) and (ii), the Applicants must generally demonstrate that the five criteria in §10907(c) require or permit a forced sale of the entire line.⁷³

⁷² Crowley V.S. at 13, Table 3.

⁷³ STB Finance Docket No. 32479, *Caddo Antoine and Little Mo. R. Co. – Feeder Line Acquisition – Arkansas Midland Railroad Co. Line Between Gurdon and Birds Mill, AR*, (Served August 12, 1999)(*Caddo II*) at 6.

i. The Sale of the Tennessee Pass Line to CPRR is Required by the Public Convenience and Necessity (§ 1151.3(a)(11)(i))

KCVN and CPRR submit that in addition to the vast majority of the Tennessee Pass Line being classified as Category 1 by UP, the public convenience and necessity nevertheless clearly require and permit the forced sale of the Tennessee Pass Line to CPRR pursuant to §10907(b)(1)(A)(i).

ii. UP has no interest in Providing Service to Shippers Who Would Transport Traffic Over the Line (§1151.3(a)(11)(i)(A))

The Board should find that UP has “refused within a reasonable time to make the necessary efforts to provide adequate service to shippers who transport over the line,” §1151.3(a)(11)(i)(A), because UP has never had any interest in providing service to shippers who would transport over the entire Tennessee Pass Line to cross the Rocky Mountains. As stated previously, the Tennessee Pass was constructed and operated by railroads who eventually merged into UP, namely the DRW and SP. As recounted above, the SP had reinstated service over the line and traffic was up to 30 trains per day when the SP and UP announced their merger in 1996. Rather than incorporate the Tennessee Pass into its merged system UP immediately attempted to abandon most of it in the UP/SP Merger Proceeding. The Pueblo to Cañon City segment was not abandoned or discontinued, but it has been operated by other railroads and shippers on that segment are unable to ship their commodities west of Parkdale. On the western terminus the 6.9 miles of track have primarily been used by UP for storing its railcars. Despite ongoing keen interest from the CDOT to reactivate the Tennessee Pass UP has persistently refused to do so.

iii. Transportation Over the Line by UP is Clearly Inadequate Since UP Provides None (§1151.3(a)(11)(i)(B))

UP presently conducts no common carrier freight service for any shippers along the line, or any shippers located elsewhere who could use the Tennessee Pass Line to reach western customers and markets. The requirement of §1151.3(a)(11)(i)(B) that “transportation over the line is clearly inadequate for the majority of shippers” is clearly met.

iv. The sale of the line will not have a significantly adverse financial effect on UP (§ 1151.3(a)(11)(i)(C))

The sale of the Tennessee Pass Line to CPRR would have no adverse financial effect on UP, let alone “have a significantly adverse financial effect” as this regulation requires. UP is the largest railroad in North America with 30,000 miles of track and annual revenues of nearly \$22 billion. UP is presently deriving little or no revenues from its ownership of the Tennessee Pass Line, and so the sale will have no effect on its bottom line. CPRR will pay UP the CMV of the Tennessee Pass Line and so UP will be fully compensated for the transfer of the line. To the extent UP is expending any costs to maintain and own the line, which appear to be negligible, it would be relieved of the burden of such costs.

v. The sale of the line will not have an adverse effect on the overall operational performance of UP (§ 1151.3(a)(11)(i)(D))

The sale of the Tennessee Pass Line will have no adverse effect on the overall operational performance of UP because none of the tracks are presently part of UP’s systemwide operating plan. Moreover, the sale of the Tennessee Pass Line to Applicants would be completely consistent with UP’s implementation, starting in the Fall of 2018, to improve its overall performance by drastically cutting track, equipment, personnel and other assets. The program, dubbed UP2020, is a form of the so-called “precision scheduled railroading” model, which emphasizes higher revenues and lower operating revenues. In part VI of his Verified Statement

Mr. Crowley includes an extensive discussion demonstrating why the sale of the Tennessee Pass Line to CPRR would advance one of the goals of UP's UP2020, namely minimizing its railcar classification and handling events across its system. Consequently, the sale of the Tennessee Pass Line would be completely consistent with, and would therefore help advance, UP's corporate goals to streamline its operating plan.

vi. The sale of the line will likely result in improved railroad transportation for shippers who transport traffic over the line (§ 1151.3(a)(11)(i)(E))

Presently, no rail shippers may transport any commodities over the entire Tennessee Pass Line from Pueblo to Dotsero. This includes rail shippers located on the Tennessee Pass Line, but more significantly, rail shippers located west of Dotsero cannot ship east over the Tennessee Pass, and rail shippers located east of Pueblo cannot ship east past Parkdale. Thus, the sale of the line and CPRR's reactivation of the entire Tennessee Pass Line will certainly result in improved transportation options for local shippers and the entire intermountain region and beyond.

As an overarching point, the sale of the Tennessee Pass Line and its reactivation as continuous routing from Pueblo to Dotsero would help meet the federal rail transportation policy goal by increasing both intramodal and intermodal competition in the Western United States.⁷⁴ See 49 U.S.C. § 10101, which states that it is "the policy of the United States Government . . . (1) to allow, to the maximum extent possible, competition and the demand for services to establish reasonable rates for transportation by rail; . . . (4) to ensure the development and continuation of a sound rail transportation system with effective competition among rail carriers and with other modes, to meet the needs of the public and the national defense;" . . . (5) to foster sound

⁷⁴ The rail transportation policy of the United States, as stated in 49 U.S. Code § 10101, calls for the development and continuation of a sound rail transportation system with effective competition among rail carriers and with other transportation modes.

economic conditions in transportation and to ensure effective competition and coordination between rail carriers and other modes; . . . (7) to reduce regulatory barriers to entry into and exit from the industry; (9) to encourage honest and efficient management of railroads; . . . [and] (12) to prohibit predatory pricing and practices, to avoid undue concentrations of market power, and to prohibit unlawful discrimination.” The Board has applied these policies to approve the acquisition of an inactive line of rail for the purpose of reinstating common carrier service over it.⁷⁵

The sale of the Tennessee Pass would increase intramodal competition in the western states by allowing shippers a substantial option to UP and BNSF, while strengthening the ability of BNSF to compete with UP in the Central Corridor. Reactivation of the Tennessee Pass by UP, however, would not enhance intramodal competition because UP, as a bottleneck carrier, would not be required to interchange traffic with its primary western rail competitor BNSF if the so-called “bottleneck rules” are applied.⁷⁶ The sale of the Tennessee Pass Line to CPRR, on the other hand, would enhance intramodal competition by allowing traffic moving to and from the rail line to interchange directly with UP and BNSF at both terminuses of the purchased line. The sale of the Tennessee Pass Line would enhance competition by allowing shippers that were previously captive to UP access to a competing Class I carrier.

⁷⁵ STB Docket No. FD 35446, *City of Temple, Tex.—Acquisition Exemption—Georgetown Railroad Company*, (served February 10, 2011). In that case, the STB held that “By allowing the City of Temple to acquire a previously inactive rail line for operation by [a third party railroad operator] an exemption would: foster sound economic conditions in transportation; reduce regulatory barriers to entry into the rail transportation industry; and encourage efficient management of the line. 49 U.S.C. §§ 10101(5), (7), and (9).”

⁷⁶ See, Docket No. 41242, *Central Power & Light Company v. Southern Pacific Transportation*, 1 STB 1059 (“*Bottleneck I*”).

The increased intermodal competition and reactivation of the Tennessee Pass Line generally would significantly improve in service for numerous existing and new shippers. These shippers and the associated service opportunities are discussed extensively in the Crowley V.S. at pages 50-56 and the Osborn V.S. at 9-13, and include:

L. Freeport-McMoRan Inc.’s (“FMI”) Climax Molybdenum mine near Leadville CO.

The Climax mine produced 21 million pounds of molybdenum, or 10,500 short tons, in 2018 and has the capacity to produce 30 million pounds of molybdenum, or 15,000 short tons per year.⁷⁷ Rail service to this mine was eliminated when the Tennessee Pass Line was discontinued and so FMI transports its output by truck. CPRR believes the existing truck movements can be diverted to rail either through a buildout to the mine, or the development of a truck to rail transload site in or near Leadville, CO. FMI has indicated to a CPRR representative its interest in discussing rail access.⁷⁸

M. Martin Marietta Materials (“MMM”) quarry at Parkdale

The only rail-served quarry in Colorado, and most of its material is shipped by rail, but only eastward from Parkdale.⁷⁹ MMM personnel met with CPRR representatives in the summer of 2019 and indicated the company would ship its quarry products westward on the Tennessee Pass Line if it were reopened.⁸⁰ The company has currently pending before the BLM an application to expand the size of its operation, dramatically increasing its output.

⁷⁷ Crowley V.S. at 51; *See*, “FMI 2018 SEC Form 10-K.pdf” at page 13.

⁷⁸ *Id.*

⁷⁹ *Id.*

⁸⁰ *Id.*

N. The Lafarge Holcim cement plant located at Florence, CO

This facility presently uses rail services but can only ship eastward to Pueblo and points beyond. CPRR anticipates that it would also ship west by rail if the Tennessee Pass Line were reopened.

O. The American Gypsum plant at Gypsum, CO

This company is the fifth largest wallboard producer in North America. CPRR does not know the specific number of shipments originating at the American Gypsum plant, if any, which are currently moving north and west to Dostero. However, this facility, which is expanding, is currently prevented from shipping its products east to Pueblo and points beyond. Reopening of the Tennessee Pass Line would provide American Gypsum an alternative route for eastbound shipments towards Texas, which is one of the fastest growing construction markets in the Nation.⁸¹

P. Grain Shipments by KCVN and other Agricultural Shippers

Reactivation of the Tennessee Pass Line would result in better service for KCVN and its affiliated western companies, as well as other locally situated wheat growers in eastern Colorado and Western Kansas by providing a much more efficient route for moving their grain and other crops west.⁸² Specifically, these shippers want to move grain west but the wheat must first move 250 miles east to Hutchison KS, and then be placed on another westbound UP line only to travel 250 miles back west just to reach the State of Colorado again, thereby traveling 500 miles without any net westward progress.⁸³ CPRR is in the process of reopening a western gateway through its reactivation of the Towner Line and the NA Junction interchange, but Mr. Osborn

⁸¹ *Id.* at 50.

⁸² Osborn V.S. at 9-10.

⁸³ *Id.*

explains how the efficient westward path of grain from that point is still stymied,⁸⁴ and how restoration of the Tennessee Pass Line can help meet increased demand for Colorado and Kansas grains and provide Colorado farmers with additional market outlets for their grain. In summary, reactivation of the Towner Line will enable wheat and other commodities originating in Colorado and Kansas to be transported to Pueblo, where it could then move over the reactivated Tennessee Pass Line to interchange with either UP or BNSF at Dotsero.⁸⁵ Such an operation would bypass the Denver, CO terminal and avoid trackage rights over the summit in UP's Moffat Tunnel Subdivision. In addition to the Towner Line grain traffic, the Tennessee Pass Line is ideally situated to link grain producers in all big grain producing states of the Upper Great Plains to export and food processing markets on the west coast.

Finally, while the Tennessee Pass Line route over the Rocky Mountains has been out of service for 25 years, the population of Colorado has increased from 3.8 to 5.8 million people, with the State Demographer projecting a population of 8 million people by mid-century.⁸⁶ As stated previously The Colorado State Freight and Passenger Rail Plan has long classified the Tennessee Pass Line as a State Significant Rail Corridor and has advocated for restoration of service on the Tennessee Pass Line to allow shippers to avoid Denver congestion, to accommodate increased rail demand due to development on Colorado's Western Slope, and to have an alternate way west in case the Moffat Tunnel fails or should ever be temporarily closed. CPRR's acquisition of the Tennessee Pass Line followed by its reactivation for freight rail service would fulfill the desires of the State of Colorado and help achieve its goals.⁸⁷ In regards to the Moffat Tunnel, Applicants note that when the tunnel was first completed in 1928 it was a

⁸⁴ *Id.* at 10.

⁸⁵ *Id.* at 53.

⁸⁶ Osborn V.S. at 10.

⁸⁷ *Id.*

significant improvement because it shortened the distance between Denver and the Pacific coast by 176 miles.⁸⁸ However, in the nearly 100 years since concerns and limitations have emerged that may eclipse that advantage. For example, rail traffic through the Moffat Tunnel is limited because the Moffat Tunnel does not have the vertical clearance necessary to handle double-stack intermodal trains. The Tennessee Pass Line was cleared for double-stack operations in the late 1980s.⁸⁹ In addition, because of the way the way the Moffat Tunnel is bored, ground water flows from seepages inside the tunnel, which has led to concerns about water pollution in the nearby Fraser River, and eventually UP paying \$140,000 in civil penalties under a consent order.⁹⁰ Reactivation of the Tennessee Pass Line will provide an alternative to the Moffat Tunnel route, which would limit use of the tunnel and reduce the number of trains that contribute to polluting nearby rivers, which serve as one of Denver's drinking water supply sources.

Q. Election of Exemption from the Provisions of Title 49 (49 CFR 1151.3(a)(12))

Applicants do not seek to be exempt from the provisions of Title 49, U.S.C. at this time.

R. Trackage Rights Sought Over the Owning Railroad (49 CFR 1151.3(a)(13))

Applicants do not seek trackage rights over UP's tracks pursuant to this regulation at this time.

S. No Joint Rate and Division Agreement (49 CFR 1151.3(a)(14))

Applicants do not request the establishment of joint rates and divisions at this time.

T. Owning Railroad's Employees Who Service the Line (49 CFR 1151.3(a)(15))

⁸⁸ Crowley V.S. at 65.

⁸⁹ *Id.*

⁹⁰ *Id.*

No common carrier service is provided over the Tennessee Pass Line by UP. UP has performed no maintenance on the Tennessee Pass Line since. As it is evident that no UP employees currently service the Tennessee Pass Line, this provision is not applicable.

III. ENVIRONMENTAL ISSUES

KCVN and CPRR recognize there is a possibility that circumstances surrounding the Tennessee Pass Line and their anticipated plans for it post-acquisition an environmental report might trigger the environmental reporting requirements of 49 C.F.R. §1105.7. Specifically, since no common carrier freight rail operations are being conducted over the majority of the Tennessee Pass Line now, any increase in rail traffic could be considered an increase in traffic sufficient to trigger environmental review under 49 C.F.R. §1105.7(e)(5). However, KCVN and CPRR submit good cause exists for this Application to be accepted for filing subject to any required compliance with 49 C.F.R. §1105.7, as the Board has permitted in other proceedings.⁹¹ KCVN and CPRR intend to seek the input of the STB's Section of Environmental Analysis ("SEA") on whether and, if so, what type of environmental report may be required for this Application.

⁹¹ *Keokuk Junction, Railway Co.-Feeder Line Acquisition-Line of Peoria and Western Railway Corp. Between La Harpe and Hollis, Il.*, (served July 1, 2003) at 5.

IV.
CONCLUSION

In conclusion, KCVN and CPRR respectfully submit that all of the requirements of 49 U.S.C. §10907 are met by the facts and circumstances set out in this Application. Further, their Application meets all the requirements in the regulations set forth in 49 C.F.R. Part 1151. They therefore request the Board to accept this Application pursuant to 49 C.F.R. §1151.2(b) and that the Board establish a procedural schedule for further activity in this proceeding.

Respectfully submitted,



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*Attorneys for KCVN, LLC and Colorado
Pacific Railroad, LLC*

EXHIBIT A

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

**STB Docket No. FD 36386
KCVN, LLC AND COLORADO PACIFIC RAILROAD, LLC – FEEDER LINE APPLI-
CATION – LINE OF UNION PACIFIC RAILROAD COMPANY LOCATED IN PUEB-
LO, FREMONT, CHAFFEE, LAKE, AND EAGLE COUNTIES, COLORADO**

**FIRST DISCOVERY REQUESTS OF KCVN, LLC
AND COLORADO PACIFIC RAILROAD, LLC**

KCVN, LLC (“KCVN”) and Colorado Pacific Railroad, LLC (“CPRR”) (together “Applicants”) hereby serve their First Discovery Requests upon the Union Pacific Railroad Company (“UP”) pursuant to 49 C.F.R. Part 1114. Responses and responsive Documents, as well as any objections, must be delivered by March 13, 2020 to counsel for Applicants, Thomas W. Wilcox, GKG Law, P.C., 1055 Thomas Jefferson Street, N.W., Suite 500, Washington, D.C. 20007.

INSTRUCTIONS

1. These discovery requests ("Requests") call for all non-privileged information which is in the possession, custody, or control of UP and its affiliates, subsidiaries and counsel.
2. Where a Request has a number of separate subdivisions, or related parts or portions, a complete response is required to each part or portion. Any objection to a Request should clearly indicate the subdivision, part, or portion of the Request to which it is directed.
3. Each Request shall operate and be construed independently, and, unless otherwise indicated, no Request limits the scope of any other Request.

4. Words used in the singular shall include the plural and words used in the plural shall include the singular, whenever the context permits. Terms such as "and", "or", or "including" shall be construed in the broadest and most inclusive manner, in the disjunctive or conjunctive as necessary, in order to call for all responsive information without limitation.

5. References to the present tense shall be construed to include the past tense, and references to the past tense shall be construed to include the present tense, as necessary to bring within the scope of each Request all Documents that might otherwise be construed to be outside the scope of the Request.

6. If You believe that any request or definition or instruction applicable thereto is ambiguous, You should set forth the language that You believes is ambiguous and the interpretation that You are using in responding to the Request.

7. If any Document covered by a Request is withheld for whatever reason, including any privilege, You shall furnish a written Document identifying all withheld Documents in the following manner:

- a. the specific Request to which the Document is responsive;
- b. the date of the Document;
- c. the name of each author or preparer;
- d. the name of each person who received the Document and the name of such person's employer at the time the person received the Document;
- e. a brief description of the subject matter of the Document and any withheld attachments or appendices;
- f. the specific factual and legal basis for withholding; and
- g. the number of pages withheld.

8. Each Document produced shall be an authentic original Document or a true duplicate of an authentic original Document.

9. All Requests are continuing and amended, or supplemental responses shall be provided if and when responsive new information and Documents are discovered by You.

10. Identify all persons who provided information for each response.

11. Unless otherwise stated, the discovery data should be provided by segment, as referred to and defined in the Application, as follows:

1. Pueblo, CO to Cañon City, CO
2. Cañon City, CO to Parkdale, CO
- 3a. Malta, CO to Leadville, CO Branch
3. Parkdale, CO to Sage, CO
4. Sage, CO to Dotsero, CO

12. Where these discovery requests seek data in a computer-readable format, machine-readable format, or in its native format, this data is defined as an electronic file which contains structured, relational data, and is managed within a commercially available and relational database system (for example Microsoft, Oracle, IBM) and is readable via commercially available and standard Microsoft Windows software API (Application Programming Interfaces) methods to include Open Database Connectivity (ODBC) implementations, thereby making the data accessible independent of the host system.

13. If the source table is stored within a non-relational system, such as a 'flat file,' or a custom system (not commercially available), provide the data in standard sequential or delimited text files. The text files should be MS-DOS or MS-Windows compatible text formats.

a. For each computer file supplied provide:

- i. The name and description of the source database or other file from which the records in the computer file were selected (stating whether the file is

an original extract from a line of business transactional or data warehouse computer system, or if the provided file is an extract, or report, created specifically for this request) including a graphic or textual representation of the database relational model for each system to include all named tables of data within the system's relational model. Assure the data tables contain the primary and foreign key fields necessary to establish proper parent-child relationships, and for every table provide a list of fields, primary keys, foreign keys, list relational links to other tables and fields, and filters, if any, associated to the relational links. Include all related tables, and all fields within each included table. List the fields which define a unique record (row) for each table, or state if the table does not require unique row differentiators or primary keys. For code tables, provide the code and associated data elements in a discreet list (no duplicates);

- ii. A description of how the records in the file produced were selected;
- iii. The original table names (no aliases), original field names, to match the provided systems' data structures within each computer program (in native software and text file) and intermediate file used in deriving the files produced if the files produced are flat files. If the files produced are commercially available relational database files, provide the method used and code (if code was created) used to export the data to this relational format, including the operating system and version under which the final text files or relational tables were produced; and
- iv. A relational diagram defining relationships between tables, with all fields, listing primary keys, foreign keys, with each table or file provided as listed in the relational diagram. Also provide all table indexes, and index files, which define the index to be clustered or non-clustered.

b. For each field in each computer database file provide a complete, standard data structure, including:

- i. The name of the field including its source table name, and if different from the LOB (line of business) or off-line analytical system field name, provide all field name incarnations so that there is a linkage between the provided fieldname and the original source fieldname and source table, and source application/system. Also provide the "Synonymous Name," that being a single word or multiple words that differ from the fieldname, but represents the same data element using alternative or more descriptive terminology. Also provide the "Context," that being a designation or description of the application environment in which the data item (or field) is applied or from which it is originally derived (its origin);
- ii. The starting and ending positions of the field if the file is a non-delimited flat file, or if the file is delimited, verify that the delimiter is inserted at the end of each field and the delimiter is not contained, as data, within any da-

ta cell (provide row terminators and line feed codes), otherwise, if the provided data set is a relational database “table,” export the table structure into a separate ANSI SQL 92 code or text file;

- iii. A detailed definition of the field and whether this field is the record’s (or row’s) unique identifier, or it is one of many fields which create a unique row (list them);
- iv. A detailed description of the data in the field, including an explanation of what they are used for and also provide all related index files in SQL code format or text files, if any;
- v. The type of data in the field, i.e., whether numeric, character, alphanumeric, number of digits, number of significant digits, whether signed or unsigned (i.e., negatives allowed) and whether this field is Unicode, or contains any constraints, or requirements to be Non-Null, or non-blank;
- vi. If the values in a field are terms or abbreviations, a list of all terms or abbreviations used with detailed definitions of each and provide the approved domain (range of values if indeterminate) or list of values permitted if determinate. Also provide minimum and maximum values, including whether the values are Null, hidden, or specific ASCII or ISO codes. Include the character encoding or software vendor’s code page, for each table if any;
- vii. An indication of whether the data in the field are packed or compressed; and
- viii. If the data in the field are packed or compressed, the type of packing or compression:
 - (1) Zoned with low-order sign;
 - (2) Binary with LSB first;
 - (3) Binary with MSB first;
 - (4) Packed with high-order sign;
 - (5) Packed with low-order sign;
 - (6) Packed with no sign; and
 - (7) Other (specify and provide detailed instructions for unpacking).
- ix. If the data files and tables originate on a non-Microsoft Windows operating system, state the original operating system and convert to Microsoft Windows format.
- x. For data or other electronic information submissions where the source system does not have at least a 32-bit operating system, verify that all data and files are computer-readable on at least a 32-bit operating system.

14. These Requests cover the time frame from January 1, 1996 to the present unless otherwise noted.

DEFINITIONS

“Document” means all writings in any form whatsoever, including but not limited to letters, electronic mail, memoranda, reports, agendas, hand-written materials and meeting notes. The term “Documents” also includes all drafts of all writings in any form whatsoever.

“Identity” or “Identify” means to state the name, employer, and title of the subject of the request.

“Possession, custody or control” means any Document or other information that is within the possession or control of a You or any of Your employees, agents, or affiliates or subsidiaries and their employees.

“Refer or relate” means to have any direct or implied reference or relationship to any subject matters to which such phrase is applied.

“Tennessee Pass Line ” means all lines of railroad and related assets identified as the “Tennessee Pass Line” and described in the Feeder Line Application filed by Applicants in this Docket, said tracks and assets being in located in Pueblo, Fremont, Chaffee, Lake and Eagle counties Colorado, and extending between milepost 118.20 near Pueblo, CO, and milepost 335, near Dotsero, CO.

“You or Your” means UP, UP’s employees or any of Your affiliates, and Your consultants. The terms “You,” “Your,” and any other nouns or pronouns shall be gender inclusive.

REQUEST FOR PHYSICAL INSPECTION

1. Please provide Applicants and their designated experts with reasonable access to the Tennessee Pass Line and right-of-way for the purposes of allowing Applicants and/or their experts to conduct a physical inspection of the tracks and right of way of the Tennessee Pass

Line, as well as all appurtenant facilities, including but not limited to bridges, tunnels and sidings.

DOCUMENT REQUESTS

1. Please produce any trackage rights agreements implementing the “permanent, irrevocable overhead trackage rights” retained by UP when it conveyed 11.75-mile segment of the Line from Parkdale to Canon City to Royal Gorge Express, LLC, and all Documents referring to or relating such trackage rights and/or agreements.

2. Please produce copies of all trackage rights agreements entered into by You and any other party for the segment of the Tennessee Pass Line from Pueblo to Canon City, and all Documents referring or relating to any trackage rights agreements covering the segment of the Tennessee Pass Line from Canon City to Pueblo.

3. Please produce all Documents referring or relating to the Leadville Branch, which is the 5.1-mile segment of the Tennessee Pass Line which connects at MP 571 near Malta, Colorado, including but not limited to the notice of interim trail use request made by the Lake County Board of County Commissioners in 1998 and any agreements UP entered into as a result of that notice.

4. Please produce a true and correct copy of UP’s currently effective System Diagram Map (“SDM”), and prior versions of that SDM from January 1, 2011 to the present, prepared pursuant to 49 C.F.R. §§1152.11, 1152.12 and 1152.13.

5. Please produce all Documents related or referring to the preparation of UP’s SDM from January 1, 2011 to the present, to the extent such Documents refer to any segment of the Tennessee Pass Line.

6. Please produce copies of all trackage rights agreements entered into by You for the segment of the Tennessee Pass Line from Sage to Dotsero, and all Documents referring or relating to any trackage rights agreements for the segment of the Line from Sage to Dotsero.

7. Please produce copies of all bills and/or payments from 2015 to the present (including all supporting Documents and data) associated with the trackage rights agreements referenced above, including but not limited to all payments made by the Rock & Rail railroad to UP for use of the UP line segment between Canon City and Pueblo for each month, quarter and/or annual period from 2015 to the present.

8. For the time covering January 1, 2011 to the present, please produce copies of all Documents referring or relating to UP’s actual or potential rail service along the Tennessee Pass Line, including but not limited to, any correspondence between UP and shippers located along the Line.

9. Please produce copies of all Documents referring or relating to the total ton-miles of freight moved by UP on the Tennessee Pass Line and in the state of Colorado, and any other measures of UP's revenue on the Line and in Colorado, including storage revenue, since 1996, and all Documents referring or relating to the costs, including storage costs incurred by UP related to the Line or freight moved in Colorado over the same time period.

10. Please produce copies of all Documents referring or relating to all transportation services provided by UP in response to any requests for service over the segment of the Tennessee Pass Line from Sage to Dotsero, including but not limited to, any correspondence between UP and shippers, including but not limited to American Gypsum, located in Gypsum, Colorado.

11. Please produce all Documents that refer or relate to any planned or actual change made in the condition or configuration of any track making up the Tennessee Pass Line since 2011, including but not limited to, the planned or actual expenditures associated with such changes.

12. Please produce copies of all Documents referring or relating to the taxes assessed to You by the counties the County Commissioners of Pueblo, Fremont, Chaffee, Lake and Eagle Counties since January 1, 2011 due to Your ownership of the Tennessee Pass Line, including but not limited to all correspondence between You and county representatives referring or relating to any disputes over the assessed taxes and assessed value of the Line's assets.

13. Please produce all Documents referring or relating to the "active discussions with other parties to restore service on this line" referenced in the letter dated December 30, 2019 from Mr. Chris D. Goble to Mr. William Osborn, including but not limited to all Documents that identify the "other parties" Mr. Goble's letter refers to.

14. Please produce all Documents covering January 1, 2011 to the present that refer or relate to whether to reactivate freight service by UP or another railroad over the entire Tennessee Pass Line.

15. Please produce all current tariffs from You or another railroad that govern traffic on all segments of the Tennessee Pass Line.

16. Please produce all current agreements or contracts with any customers on the Tennessee Pass Line, including car storage agreements.

17. Please produce all current agreements or contracts with any rail operators on the Tennessee Pass Line, including car storage agreements.

18. Please produce copies of all Documents referring or relating to all expenses and capital expenditures incurred to support all segments of UP's operations on the Tennessee Pass Line.

19. Please produce copies of all Documents referring or relating to forecasts of traffic, revenue, or expense and capital expenditure data for all segments of the Tennessee Pass Line.

20. Please provide the number/amount, condition, and location of all unloading facilities for all segments of the Tennessee Pass.

21. Please provide any studies or estimates that UP has on the cost of removal and transportation cost of any track or other material for all segments of the Tennessee Pass Line or any other line segment.

22. Please provide any studies or estimates UP has on the cost of marketing relay rail and/or scrap metal.

23. Please provide any studies or estimates UP has on the value of the Tennessee Pass Line Real Estate.

24. Please provide the number and location of non-reversionary acres owned by UP along the Tennessee Pass Line.

25. Please provide any studies or estimates UP has on the cost to restore the inactive segments of the Tennessee Pass Line to FRA Class 1 or Class 2 status. Studies should include, but not limited to, costs for the following: a) Vegetation removal; b) Crosstie replacement; c) Ballast cleaning and replacement; d) Track resurfacing; e) Rail replacement; f) Track and bridge inspections; g) Crossing re-pavement; and h) Communications & Signaling.

26. Please produce current operating timetables (including special instructions and/or operating rule books), station lists, station books, and track charts (including a legend for the track chart markings) covering UP's the Tennessee Pass Line. Please provide the requested Documents in their native format to the extent available (including all necessary Documentation). If current versions of any of the requested Documents are not available, please produce the most recent versions that are available.



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(202) 342-5248
Attorneys for KCVN, LLC and Colorado Pacific

Railroad, LLC

Dated: February 14, 2020

Certificate of Service

I hereby certify that on this 14th day of February 2020, I served a copy of the foregoing First Discovery Requests of KCVN LLC and Colorado Pacific Railroad, LLC by First Class Mail on the following person:

Rhonda S. Ferguson Executive
Vice President, Chief Legal Officer
and Corporate Secretary
Union Pacific Corporation
1400 Douglas Street, MS 1580
Omaha, Nebraska 68179



By:
Thomas W. Wilcox

EXHIBIT B

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

**STB Docket No. FD 36386
KCVN, LLC AND COLORADO PACIFIC RAILROAD, LLC – FEEDER LINE
APPLICATION – LINE OF UNION PACIFIC RAILROAD COMPANY LOCATED
IN PUEBLO, FREMONT, CHAFFEE, LAKE, AND EAGLE COUNTIES,
COLORADO, COLORADO**

This Filing Contains Color Photographs

VERIFIED STATEMENT OF WILLIAM S. OSBORN

My name is William S. Osborn. I am a partner at Osborn, Griffith & Hargrove, LLC, in Austin, Texas and attorney-in-fact for KCVN, LLC (“KCVN”). I am also general counsel and attorney-in-fact for the Colorado Pacific Railroad Company (“CPRR”), the wholly owned subsidiary of KCVN which acquired the 121.9-mile line of railroad known as the “Towner Line” from V&S Railway LLC pursuant to a Feeder Line Application granted by the Board in Docket FD 36005, *KCVN, LLC and Colorado Pacific Railroad, LLC – Feeder Line Application – Line of V AND S Railway, LLC Located in Crowley, Pueblo, Otero, and Kiowa Counties, Colorado* (served July 31, 2017). At attachment 1 are copies of powers of attorney.

As attorney-in-fact for KCVN, LLC and CPRR, I am authorized to speak on behalf of the principals of KCVN and CPRR, which are Stefan Soloviev and his father, Sheldon H. Solow. Mr. Soloviev readopted the original family name, which had been shortened upon immigration to America some 100 years ago. I have represented the family in their western business affairs for more than 20 years. This Verified Statement is offered in support of KCVN’s and CPRR’s Feeder Line Application in this docket, which contemplates that CPRR would acquire by purchase the railroad line and other tracks and facilities currently owned by

the Union Pacific Railroad Company (“UP”) that traverses the top of the front range of the Rocky Mountains, from Pueblo, Colorado to Dotsero, Colorado. The rail line sought in the Application is generally known historically as the Tennessee Pass Line. Even though the Board in FD 36005 already found KCVN and CPRR to be financially responsible parties for purposes of purchasing the Towner Line, this Verified Statement provides information that demonstrates that KCVN and CPRR are both financially responsible parties for the purchase of the Tennessee Pass Line and provides other information relevant to the Application.

1. KCVN and CPRR

KCVN is a Delaware limited liability company headquartered in New York City, and its manager and active principal is Mr. Soloviev. Mr. Soloviev and Mr. Solow continue to maintain considerable landholdings and other assets. Mr. Solow is one of the 400 wealthiest Americans as determined by Forbes Magazine, which lists his net worth at \$4.6 billion. Mr. Soloviev is listed as one of the largest American landowners on the Land Report Magazine “Top 100” list. While based in New York, KCVN’s interests and assets are centered on farmland in several western United States. When CPRR acquired the Towner Line in 2018, KCVN owned 58,000 acres of Colorado farmland. It has since expanded its Colorado farmland holdings to 81,000 acres. Title to other western farm and ranch lands is held by the family (primarily by Mr. Soloviev) in the name of KGCK LLC, KICT LLC and Crossroads West Phoenix LLC. These companies operate collectively under the name of Crossroads Agriculture, and have a website at www.kanagri.com. Attachment 2 to this statement is a spreadsheet listing company-owned lands, which total 81,367 acres of farmland in Colorado, 18,214 acres of farmland in Kansas, and 252,450 acres of farm and ranch land in New Mexico, for a total of 352,032 acres of ground. Additional purchases are currently under

contract. All of these land purchase closings were handled through my office, and the collective price paid to date slightly exceeds \$100 million. The principal farm crop is dryland wheat, of which the companies harvested 1.3 million bushels in 2019. The companies experimented with cultivation of hemp in the 2019 crop season and will be one of the largest hemp growers in Colorado in the 2020 season, cultivating the crop for fiber and for CBD oil. The companies also run a cow-calf operation with about 2500 mother cows. Some 120,000 acres of western company ground has been leased to renewable power companies Invenegy and Orsted, and construction of wind turbines on this acreage has commenced. The assets and total liability and equity of the consolidated companies are summarized in greater detail in the financial statement which is Attachment 3 (covering only Mr. Soloviev's interest in the properties, and not that of his father). This statement can be updated and expanded to cover both father and son's western interests, if considered necessary by the Board. The first land purchase in Colorado happened in 2006, and since then the value of Colorado farmland has increased dramatically. As noted in Attachment 3, the Federal Farm Credit Bank system at the end of 2018 carried in its records a valuation of \$237 million for all of the western acreage owned by KCVN and its affiliates, against which there was long term purchase mortgage debt of about \$85 million. The western land investment has more than doubled in value since inception of the project in 2006.

CPRR is a wholly owned subsidiary of KCVN that was created for the initial purpose of purchasing and overseeing the rehabilitation, operation and maintenance of the Towner Line. In FD 36005, CPRR demonstrated to the satisfaction of the Board that it is independently financially responsible through my sworn testimony as attorney-in-fact. For purchase and rehabilitation of the Tennessee Pass Line, KCVN and/or its affiliated western

business entities will provide CPRR with any level of funding ultimately considered necessary by the Board for CPRR to acquire the Tennessee Pass Line and secure the financial solvency of its operations at least for the first three years. Upon acceptance of this application by the Board as complete, CPRR offers to post a letter of credit in favor of Union Pacific Railroad for \$8,835,833 million in order to demonstrate financial responsibility sufficient to cover the suggested constitutional minimum value of \$8,835,833 set forth in the Application. KCVN and CPRR also estimate annual operating expenses of \$6,718,303 for three years.¹ Consequently, KCVN and CPRR estimate that the total cost associated with the Preferred Acquisition and the showing of financial responsibility as of the date of its filing is approximately \$29,000,000.

In its feeder line application, CPRR estimates a constitutional minimum value (“CMV”) of \$8,835,833million for the purchase price of UP’s tracks, reserved interests, and related assets associated with the Tennessee Pass Line, and a rehabilitation cost of about \$278 million, most of which would be for the rehabilitation of the 208.36 miles of main line tracks and siding of the segment of the line between Parkdale, Colorado and Sage, Colorado This figure assumes complete replacement of all rail and tie components for this segment. These amounts, particularly the rehabilitation cost estimate, are being submitted initially as a “desktop analysis” figure for the avoidance of argument as to how much of the line might be possible for use without replacement, because CPRR and its experts have not yet received permission from the Union Pacific to physically inspect the line (which in any event is covered with snow at the time of this writing, making onsite inspection impractical). CPRR anticipates that the CMV and rehabilitation cost estimates might change once that inspection

¹ Verified Statement of Thomas D. Crowley at 58-59.

is performed. In any event CPRR would pay the CMV in cash without need of borrowing same, and it will thereafter seek to finance the rehabilitation cost of the line with a loan from the Federal Railroad Rehabilitation & Improvement Financing Program (“RRIF”). The RRIF program is authorized by 45 U.S.C. §822 and §823 and administered by the Office of Passenger and Freight Programs within the Federal Railroad Administration (“FRA”) pursuant to regulations promulgated at 49 CFR Part 260. Under this program the FRA Administrator is authorized to provide direct loans and loan guarantees up to \$35.0 billion to finance development of railroad infrastructure. At least \$7.0 billion of the amount is reserved for projects benefiting freight railroads other than Class I carriers. FRA-generated program documents state that the FRA prefers that applicants provide equity to the project. The interest rates on direct loans “will be equal to the rate on Treasury securities of a similar term.” 49 C.F.R. §260.9. A new streamlined “RRIF Express” program has just been announced, and it eases the application process.

Eligible applicants include States or local governments, a government sponsored authority or corporation, railroads, or a combination of these entities in a joint venture, as long as one of the entities is a railroad. Consequently, the CPRR, which has been issued railroad reporting mark CXR by the FRA, is an eligible applicant. CPRR will fund whatever equity requirement is made by the FRA for an RRIF loan, and if for any reason the FRA declines to approve such loan application, CPRR will seek commercial bank financing to cover a portion of the cost of rehabbing the Tennessee Pass Line for service.

1. Restoration of the Towner Line

The financial commitment and responsibility of KCVN and CPRR has also been demonstrated in their undertaking to repair and put back into service the 121.9-mile long

Towner Line. The record in FD 36005 revealed to the Board how the former owner of the Towner Line had allowed it to fall into a serious state of disrepair and much of the line was accordingly out of service and unusable for freight service. To date, nearly \$3,500,000 million has been spent by KCVN and CPRR to restore the entire line to FRA Class 2 standards. All of these repairs were paid for by cash, and neither KCVN nor CPRR incurred any debt to restore the Towner Line.

These repairs are detailed in the Verified Statement of Mr. Harvey Crouch of Crouch Engineering that also accompanies the Application. As of the end of December 2019 all of the track had been restored and passed FRA inspection for operation at a 25 mph speed. Commencement of service was thereafter delayed in response to some community protests filed with the Colorado State Public Utility Commission (“CPUC”) regarding plans for signalization of four state highway grade crossings along the line. CPRR resolved these protests with the communities and then the CPUC approved the crossing signalization plans in late December. Progress Rail Company concluded work for CPRR on the installation of these signals at the end of January 2020. On January 29, 2020 the CPUC approved applications for signalization of nine other road crossings, and those will be installed shortly, allowing the railroad to reopen for common carrier service by April 1, 2020 after all of the new signals are fully tested and pass regulatory inspection. A test run of some grain traffic from the Stuart siding near Sheridan Lake CO to the eastern terminus of the line at Towner, KS was operated in December 2019. In February, a test run for grain pickup from the Scoular Grain Elevator at Haswell, Colorado (at the approximate midpoint of the line) will be operated to the Towner interchange. Freight operations on the Towner Line are conducted by the Kansas & Oklahoma Railroad (“K&O”), a Class III shortline pursuant to an Operating Agreement with

CPRR that went into effect January 1, 2019. The K&O's existing system in Kansas connects to the CPRR track at Towner, KS, which in effect makes the Towner Line a westward extension of the K&O lines for the term of the Operating Agreement. CPRR and K&O anticipate opening the entire Towner Line to regular common carrier service on or about April 1, 2020, in time for the upcoming wheat harvest. For this purpose, in 2019 CPRR also commenced discussions with BNSF Railway to re-construct the interchange tracks at NA Junction at the western terminus of the Towner Line. This will allow traffic to be transported to and from the Towner Line and Pueblo, CO over that carrier's 26-mile long track, which it owns jointly with UP, but fully maintains on behalf of both companies. Such reconstruction has been accompanied by discussions with both BNSF and UP to reach mutually agreeable terms for interchange.

2. Discussions with UP and CPRR Plans for Tennessee Pass Line

On November 14, 2019, on behalf of CPRR I presented an offer to UP's Chief Executive Officer, Mr. Lance M. Fritz, to purchase the Tennessee Pass Line for \$10 million. (Attachment 4). This was a cash offer. Attachment 5 is a copy of UP's reply letter dated December 30, 2019. UP stated in part that "[w]e are in active discussions with other parties to restore service on this line, and we intend to see these discussions through before we explore other options." No further details of such discussions were provided. CPRR's subsequent inquiries to CDOT, shippers along the line, short line railroads, and other parties has yielded no public evidence yet of these discussions. CPRR has also searched the trade press and western rail comment boards for any recent mention of the possibility, and finds none, nor even any speculation about it. CPRR's purchase offer for the Tennessee Pass Line was commented on in these media sources, and no other potential purchaser has reached out to it.

There have been no further discussions between UP and CPRR. The occasional discussions about the Tennessee Pass Line in the trade press and on social media focus mostly on its



increasing decrepitude, illustrating trees now growing between the rails, and blockade by



fallen boulders, for instance near mileposts 300 and 319.5, as illustrated on the embedded photographs.

KCVN and its affiliated western companies are like many locally situated wheat growers in that they are presently captive to UP with regard to grain shipments out of eastern Colorado and Western Kansas. The companies own trackside grain storage elevators at First View, Colorado (on the UP line) and at Astor, Kansas (on the K&O line, which it leases from UP, and to which it looks for grain cars). The KCVN companies presently have about 500,000 bushels of wheat in storage at Astor, and their plight is similar to that of other locally situated wheat growers. If they want to move grain west, either to flour mills at Salt Lake City/Ogden or Los Angeles, or for export from Pacific Northwest points along the Columbia River in Washington, the wheat must first move 250 miles east to Hutchison Kansas, and then be placed on another westbound UP line, along which it travels 250 miles back west just to reach the State of Colorado again, having traveled 500 miles without any net westward progress. Most of the time, grain producers along the Colorado/Kansas state line find that it is more profitable to ship to the Texas gulf coast. However, Scoular Grain Company, a principal grain buyer from KCVN in Colorado, reports to me that many times it is more profitable to ship west. Presently, efforts to economically ship west by rail are confounded by the 500-mile detour described above, and by the long-closed western gateway at NA Junction, cutting off the ability to directly reach Pueblo and western points beyond via the Towner line. CPRR is reopening that western gateway through its reactivation of the Towner Line, but the efficient westward path of grain from that point remains stymied. BNSF no longer operates freight service over the Raton Pass to Albuquerque New Mexico, so grain cannot travel to the west coast by that route, instead it would have to backtrack through Texas first to reach a different line to the West Coast. <https://www.abqjournal.com/14854/bnsf-discontinues-freight-route-raton-loses-jobs.html> *This 2009 decision to close the Raton Pass to freight*

traffic completely changed the future balance and directionality of traffic flow for rail service in the state of Colorado, in a way as yet little realized or cared about in the popular imagination. Enclosed as Attachment 6 is a color map on two pages (being a reproduction of Exhibit TDC-2 and 3 of Thomas Crowley’s Verified Statement) illustrating the “Rocky Mountain Bottleneck” at the Moffat Tunnel. Rail customers now tend to be routed away from use of the tunnel; it sees only very light traffic. Barring a backtrack through Texas or Kansas, the only current western outlet for this grain traffic to reach the Pacific Coast or intermediate points would be to travel north to Denver or Cheyenne, and then west on UP-owned lines. Due in part to improved plant genetics and improved fertilizer application technology, these days there is so much grain being produced in eastern Colorado that storage capacity is overwhelmed. The inset photograph shows a mountain of excess wheat delivered by area farmers and stored on the ground at Scoular Grain Company’s facility at Haswell, Colorado on July 25, 2019. Haswell is located at about at the midpoint of the CPRR Towner line. Improvements in agricultural productivity are outracing the local infrastructure capability,

which requires improvement and expansion to meet market demand. Restoration to service of idle transportation assets such as the Tennessee Pass



railroad line can help meet this demand and provide Colorado farmers with additional market outlets for their grain.

Small scale wheat shippers such as KCVN and other growers in its territory do not receive good service from UP, and the problems are growing worse as that company implements its version of “precision scheduled railroading.” UP’s PSR practices make it difficult for KCVN to obtain the cars it needs for wheat loading at its Astor, Kansas elevator. KCVN is but one among many small shippers suffering in the same way. In order to empty storage at the Astor elevator by June 2020, when it is needed for the next harvest, KCVN needs to move six cars a week, every week. But it has trouble reliably obtaining these cars, even with diligent advance planning by competent personnel who are highly familiar with the UP computerized car ordering system. UP blames “missed connections” for car delivery failures, but it seems now that some of these connections can only happen once a week under the new PSR scheduling, so a single “miss” kills an entire week. UP’s shedding of assets, equipment and personnel, and the accompanying reduction in service and interest in capturing market share can be somewhat countered by the Board by directing the sale to CPRR of the Tennessee Pass Line and its subsequent reactivation. KCVN considers that if this continuous routing from Pueblo and Dotsero can be reactivated and placed in the operating hands of a qualified shortline railroad, whether it is K&O or one of its competitors, small and large shippers located along the 400 mile line of rail between Towner KS and Dotsero Colorado will receive better attention. These shippers will have competitive choices, gaining the ability to at least reach another Class I carrier, and the operator will begin to offer an alternative to both BNSF and UP for crossing the front range of the Rockies.

While UP has for decades resisted reactivating the Tennessee Pass Line, KCVN through CPRR is willing to gamble that if the continuous routing of the Tennessee Pass Line is restored, other customers will use it, enabling its profitable operation. Potential industrial

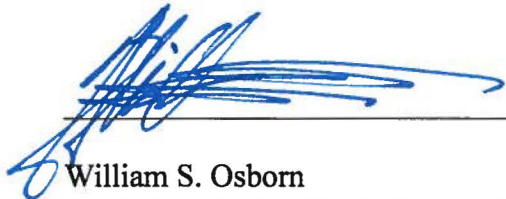
customers alongside or near the line and its tributaries include Martin Marietta Materials (Parkside, Colorado quarry), LaFarge Holcim (Florence, Colorado cement plant), Freeport McMoran (Climax, Colorado molybdenum mine), American Gypsum (Gypsum, Colorado wallboard plant), Vestas Wind (Pueblo, Colorado factory), Evraz Steel (Pueblo, Colorado mill), Vossloh (Pueblo, Colorado concrete railroad tie plant), Scoular Grain Company (Haswell, Colorado grain elevator) and Hutchinson Salt (Hutchinson, Kansas mine – road salt). KCVN anticipates that many of these shippers wanting to cross the Front Range of the Rockies would avail themselves of competitive rail access offered by a shortline operator with connections to two Class I railroads at Dotsero, since BNSF has trackage rights over UP's tracks that begin at that interchange.

The Tennessee Pass Line route over the Rocky Mountains has laid silent for nearly 25 years. In that time, the population of Colorado has increased from 3.8 to 5.8 million people, with the State Demographer projecting a population of 8 million people by mid-century. A territory this dynamic and growing should not suffer itself to only one railway across the mountains which divide it. The Colorado State Freight and Passenger Rail Plan has long classified the Tennessee Pass Line as a State Significant Rail Corridor and has advocated for restoration of service on the Tennessee Pass Line to allow shippers to avoid Denver congestion, to accommodate increased rail demand due to development on Colorado's Western Slope, and to have an alternate way west in case the Moffat Tunnel fails or should ever be temporarily closed. CPRR's acquisition of the Tennessee Pass Line followed by its reactivation for freight rail service would well serve rail shippers in or across Colorado and fulfill one of the transportation planning desires of the State of Colorado, helping to achieve its goals.

Verification

I, William S. Osborn, declare under penalty of perjury that the foregoing is true and correct. Further, I certify that I am qualified and authorized to sponsor this testimony.

Executed: February 13, 2020



William S. Osborn
For **Colorado Pacific Railroad, LLC**

Osborn, Marsland & Hargrove
515 Congress Avenue Suite 2450
Austin, Texas 78701
www.texasenergylaw.com

ATTACHMENT 1

GENERAL POWER OF ATTORNEY



TRV

2016046448

2 PGS

THE STATE OF COLORADO

§
§
§
§
§

KNOW ALL MEN BY THESE PRESENTS

THAT, I, STEFAN Q. SOLOVIEV, acting on behalf of COLORADO PACIFIC RAILROAD, LLC; a Delaware limited liability company, (the "Company"), whose address is 515 Congress Avenue, Suite 2450, Austin, Texas 78701, have made, constituted, and by these presents do make, constitute and appoint WILLIAM S. OSBORN ("Attorney-in-Fact"), whose address is 515 Congress Avenue, Suite 2450, Austin, Texas 78701, the true and lawful Attorney-in-Fact, for said Company.

I hereby give and grant unto said Attorney-in-Fact all power to do any act in the name of said Company and covenant and agree to hold harmless any person who may act in reliance upon the authority hereby granted to said Attorney-in-Fact. This Power of Attorney shall become effective when recorded in Travis County, Texas and remains in force and effect until amended or revoked, and notice of amendment or revocation thereof is filed of record in said County. The Company indemnifies and holds harmless William S. Osborn from any claims against him which may arise from the exercise of this Power of Attorney.

EXECUTED this the 16th day of March, 2016.

COLORADO PACIFIC RAILROAD, LLC

By _____
STEFAN Q. SOLOVIEV, Manager

The State of Colorado §
County of Prowers §

This instrument was acknowledged before me on the 16th day of March 2016, by STEFAN Q. SOLOVIEV, _____ in the capacity stated herein.

ALICE NELSON
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 20134068725
MY COMMISSION EXPIRES OCTOBER 31, 2017

Alice Nelson
Notary Public, State of Colorado
My Commission Expires: 10-31-2017

SEAL

Ret:

OSBORN GRIFFITH & HARROVE
515 CONGRESS AVE
STE 2450
AUSTIN TX 78701

Recorders Memorandum-At the time of recordation this instrument was found to be inadequate for the best reproduction, because of illegibility, carbon or photocopy, discolored paper, etc. All blockouts, additions and changes were present at the time the instrument was filed and recorded.

FILED AND RECORDED

OFFICIAL PUBLIC RECORDS

Dana DeBeauvoir

Mar 29, 2016 03:17 PM 2016046448

RAMIREZA: \$30.00

Dana DeBeauvoir, County Clerk

Travis County TEXAS

GENERAL POWER OF ATTORNEY

Patricia Daugherty, County Clerk & Recorder
Cheyenne County Colorado RP \$0.00
06-16-2015 12:42 PM Recording Fee \$16.00

THE STATES OF TEXAS
NEW MEXICO, COLORADO
KANSAS, OKLAHOMA, WYOMING
MONTANA, SOUTH DAKOTA,
NEBRASKA and ARIZONA

§
§
§
§
§

KNOW ALL MEN BY THESE PRESENTS

THAT, I, STEFAN Q. SOLOVIEV, acting on behalf of KCVN, LLC; KICT, LLC; and KGCK, LLC, all Delaware limited liability companies, and CROSSROADS WEST PHOENIX, LLC, an Arizona limited liability company (the "Companies"), whose address is 515 Congress Avenue, Suite 2450, Austin, Texas 78701, have made, constituted, and by these presents do make, constitute and appoint WILLIAM S. OSBORN ("Attorney-in-Fact"), whose address is 515 Congress Avenue, Suite 2450, Austin, Texas 78701, the true and lawful Attorney-in-Fact, for said Companies.

I hereby give and grant unto said Attorney-in-Fact all power to do any act in the name of said Companies and covenant and agree to hold harmless any person who may act in reliance upon the authority hereby granted to said Attorney-in-Fact. This Power of Attorney shall become effective when recorded in Travis County, Texas and remains in force and effect until amended or revoked, and notice of amendment or revocation thereof is filed of record in said County. The Companies indemnify and hold harmless William S. Osborn from any claims against him which may arise from the exercise of this Power of Attorney.

EXECUTED this the 25th day of March, 2013.

KCVN, LLC; KICT, LLC; KGCK, LLC; and
CROSSROADS WEST PHOENIX, LLC

By _____
STEFAN Q. SOLOVIEV, Manager

2017 JUL 28 AM 10 49

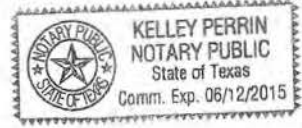


TRV 2013059404
2 PGS

The State of Texas
County of Travis

§
§
§

This instrument was acknowledged before me on the 25th day of March, 2013, by STEFAN Q. SOLOVIEV, MANAGER in the capacity stated herein.



Notary Public, State of Texas
My Commission Expires: 6/12/2015

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Page: 1 of 2 Fee: 25.00 POA
Donna J. Carpenter, Roosevelt Co. Clk., Roosevelt, NM

279630
Page 1 of 2
Requested By: Kiowa County Abstract Company
Kiowa County, CO
Debra C. Lenins, Recorder
12-16-2014 02:52 PM Recording Fee \$16.00

FEES 4 NMSLO 001-00003
54 0 31-JUL-17 09:21 10.00

Return?

OSBORN AND GRIFFITH IOLTA
515 CONGRESS AVE
STE 2450
AUSTIN TX 78701

2017 JUL 28 AM 10 49

FILED AND RECORDED
OFFICIAL PUBLIC RECORDS

Dana DeBeauvoir

Apr 03, 2013 10:30 AM 2013059404

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Dana DeBeauvoir, County Clerk
Travis County TEXAS

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Donna J. Carpenter, Roosevelt Co. Clk., Roosevelt, NM



DJ



ATTACHMENT 2

Solow/Soloviev Western USA Land Holdings

Unit Name	County	State	Size	Purchased	Owner
Haswell East Unit	Kiowa	CO	3,456.00	10/25/06	KICT
Haswell West Unit	Kiowa	CO	7,666.00	02/01/07	KCVN
Shafer II Unit	Kiowa	CO	627.75	01/05/07	KICT
J-B Farms Unit	Kiowa	CO	320.00	03/01/07	KICT
Busby Unit	Kiowa	CO	2,240.00	03/28/07	KCVN
Wells Rev. Trust Unit	Kiowa	CO	320.00	07/10/09	KCVN
Brining Estate Unit	Prowers	CO	2,440.00	04/25/07	KCVN
Hopkins Unit	Kiowa	CO	320.00	05/31/07	KICT
Darrel Humble Unit	Kiowa	CO	300.00	04/12/07	KICT
Paul Fleener Unit	Prowers	CO	320.00	05/03/07	KCVN
Steckel Auction	Kiowa	CO	5,661.40	03/05/08	KCVN
GSR Properties Unit	Kiowa	CO	320.00	03/07/08	KCVN
Fallwell Unit	Prowers	CO	19.66	03/10/10	KCVN
Watch Hill Unit	Kiowa	CO	320.00	12/17/10	KICT
Redetzke Unit	Prowers	CO	479.00	01/18/11	KCVN
Midnight Sun Unit	Kiowa & Cheyenne	CO	13,289.00	02/28/11	KICT
Pathfinder Unit	Kiowa	CO	320.00	07/22/11	KICT
Mitchek Unit	Cheyenne	CO	2,361.00	08/25/11	KCVN
Kenecreek Unit	Cheyenne	CO	640.00	08/25/11	KCVN
Stavelly Unit	Kiowa	CO	240.00	03/16/12	KICT
Wild Horse Unit	Cheyenne	CO	875.00	10/17/12	KCVN
Pfeifer (Teeter Trust) Unit	Kiowa	CO	1,120.00	11/14/14	KCVN
Simmerman Unit (First View Trade)	Cheyenne	CO	1,440.00	10/30/15	KCVN
Cozart Unit (First View Trade)	Cheyenne	CO	160.00	11/13/15	KCVN
Sharp Unit (First View Trade)	Cheyenne	CO	1,560.00	10/30/15	KCVN
Mohorcich Unit (First View Trade)	Cheyenne	CO	1,200.00	11/02/15	KCVN
KCM Trust Unit (First View Trade)	Cheyenne	CO	160.00	11/13/15	KCVN
Gunderson Unit	Cheyenne, Prowers, Kiowa	CO	7,831.00	12/22/15	KCVN
Schick Unit	Cheyenne	CO	66.00	01/14/16	KCVN
Lowe Farms Auction Unit	Cheyenne	CO	8,645.05	01/08/16	KCVN
Schnittker Unit	Kiowa	CO	82.14	05/10/16	KCVN
Mitchek Purchase Option	Cheyenne	CO	2,280.00	03/01/16	KCVN
Criss Inc Unit	Prowers	CO	2,263.80	06/03/16	KCVN
Golden Grain Resources Unit	Kiowa, Powers	CO	5,516.62	05/26/16	KCVN
Deines Unit	Kiowa	CO	1,040.00	05/05/17	KCVN
V&S Railway-Towner Line	Various Counties	CO	RAILWAY	1/5/2018	KCVN
Armstrong Trust	Prowers	CO	1,217.00	09/18/18	KCVN
Dwyer Unit	Kiowa	CO	160.00	10/12/18	CRWP
Mervin Page Unit	Kiowa	CO	160.00	05/03/19	KCVN
J-S Farms, Inc.	Prowers	CO	1,140.00	05/02/19	KCVN
Vanderpool Unit	Prowers	CO	1,120.00	5/18/2019	KCVN
C. Land	Kiowa	CO	1,120.00	10/6/2019	KCVN
Hopkins Unit	Kiowa	CO	551.00	9/23/2019	KCVN
		Total:	81,367.42		
Unit Name	County	State	Size	Purchased	Owner
Shafer I Unit	Hamilton	KS	771	01/08/07	KICT
Matney Unit	Greeley	KS	1,920	12/07/06	KGCK
Krieger Unit	Greeley	KS	254	01/15/07	KGCK
Connie Hurd	Greeley	KS	160	05/23/07	KGCK
Guldner Unit	Greeley	KS	160	11/08/07	KICT
Brining Estate Unit	Hamilton	KS	409	04/09/07	KICT
Sue Calhoun Unit	Hamilton	KS	160	04/18/07	KICT
Sinsabaugh South	Hamilton	KS	640	04/24/07	KICT
Hanna/Ogg Unit	Greeley	KS	160	04/04/08	KGCK
Shafer Farms	Greeley	KS	1,440	05/30/08	KICT

J. Moritz Unit	Greeley	KS	160	05/30/09	KGCK
Meyer Unit	Greeley	KS	160	01/15/10	KGCK
Wright Unit	Greeley	KS	1,760	02/04/10	KGCK
Leonida Unit	Hamilton	KS	480	04/26/10	KICT
Stout Trust Unit	Greeley	KS	640	06/17/11	KICT
Hansen Unit	Greeley	KS	160	06/26/12	KGCK
3M Farms Unit	Hamilton	KS	640	10/26/12	KICT
Meyer II Unit	Hamilton	KS	640	10/26/12	KICT
Barrett Family Trust Unit	Hamilton	KS	320	07/23/13	KGCK
CHS-Farmco Unit	Greeley	KS	n/a, bldgs, eqpmt	10/21/14	KGCK
Hansen "June 7th 2016 Auction"	Greeley	KS	160	06/10/16	KGCK
Hildebrand "June 7 th 2016 Auction"	Kearny	KS	320	06/11/16	KGCK
Kitch "June 7 th 2016 Auction"	Hamilton	KS	160	06/11/16	KICT
Smith Unit	Greeley	KS	160	03/18/15	KGCK
Hazlett IRA Unit	Greeley	KS	640	12/07/16	KGCK
Moritz Unit	Greeley	KS	15	05/26/17	KGCK
613 Agro	Gray	KS	5,725	11/01/19	KICT
		Total:	18,214		
Unit Name	County	State	Size	Purchased	Owner
Don Field Unit	Roosevelt	NM	2,476	05/18/07	CRWP
Lowry Unit	Roosevelt	NM	1,155	04/01/07	CRWP
Ganada Unit	Roosevelt	NM	368	03/15/07	CRWP
Horn Farms	Roosevelt	NM	13,582	04/18/08	KGCK-1560
Corbin Unit	Roosevelt	NM	1,280	06/11/08	CRWP
Mullins Unit	Roosevelt	NM	480	07/18/08	CRWP
Kizer I Unit	Roosevelt	NM	160	01/13/10	KGCK
Kizer III Unit	Chaves	NM	4,040	12/18/12	CRWP
Billingsley Unit	Roosevelt	NM	480	12/29/09	KGCK
Franklin Unit	Curry	NM	n/a, grain elev.	01/22/10	CRWP
Dement Unit	Roosevelt	NM	2,080	04/28/10	KGCK
Mullins 2 Unit	Roosevelt	NM	480	07/06/10	CRWP
Dora Unit	Roosevelt	NM	640	11/01/10	CRWP
OS Farms	Roosevelt	NM	1,085	06/14/11	CRWP
Miller Unit	Chaves	NM	34,571	02/28/12	KGCK
K. O'Hare Unit	Roosevelt	NM	633	10/26/12	CRWP
Boyd Unit	Roosevelt	NM	1,120	03/01/13	CRWP
Leer Unit	Chaves	NM	3,259	05/03/13	KGCK
Russell Unit	Roosevelt	NM	2,042	05/03/13	KGCK
Hays (Kizer) Unit	Roosevelt	NM	1,920	06/26/13	CRWP
Collins Unit	Roosevelt	NM	160	12/16/13	CRWP
Moss Unit	Roosevelt	NM	1,060	03/31/14	CRWP
Dement II Unit	Roosevelt	NM	830	08/07/14	KGCK
O'Hare Settlement Unit	Roosevelt	NM	3,444	01/09/15	CRWP
Pierce Unit	Chaves	NM	2	12/23/14	CRWP
Gavilon Grain/Curry Ave Complex Unit	Curry	NM	n/a, grain elev.	04/11/16	KGCK
Scott Unit	Roosevelt	NM	160	10/07/16	CRWP
Kizer Mitchell Unit	Chaves	NM	30,535	11/16/16	KGCK
Kizer Kenna Unit	Roosevelt	NM	20,000	11/16/16	KGCK
Kizer Yeso Unit	De Baca	NM	28,000	11/16/16	KGCK
Marley Ranch Unit	Chaves	NM	25,961	02/10/17	KGCK
White Lakes Ranch Unit	Chaves	NM	69,325	08/21/17	CRWP
Horn Heirs	Roosevelt	NM	1,122	10/01/19	KGCK
		Total:	252,450		
		Grand Total:	352,032		

ATTACHMENT 3

Consolidated Balance Sheet

KICT Cons (KICT, Stephan + entities)

Case #

			KICT, LLC	Stefan Quinn Soloviev	KGCK, LLC	KCVN LLC	CROSSROA DS WEST PHOENIX, LLC
	Cons AC Hoffman Pur 01/02/2019		01/02/2019 AC Hoffman Land 100%	01/02/2019 AC Hoffman Land Pur 100%	12/31/2018 12/31/2018 B/S 50%	01/01/2019 PF CO ranches 50%	12/31/2018 12/31/2018 B/S 100%
	Total	Net +/-					
Cash & Equivalents	1,450,335		107,004		1,171,782	159,617	11,932
Cash & Savings	14,968,806			14,653,523			315,283
Accounts Receivable	26,594			26,594			
Crop Inventory	105,231						105,231
Production Livestock	2,710,134						2,710,134
Other Current Assets	1,666,217			12,613	1,653,604		
Total Current Ag Assets	20,927,317		107,004	14,692,730	2,825,386	159,617	3,142,580
Purchased Breeding Stock	3,879,300						3,879,300
Machinery & Equipment	3,958,814				140,601	3,276,076	542,137
Computer software/Hardware	46,295					46,295	
Other Intermediate Assets	426,501			426,501			
Total Intern. Ag Assets	8,310,910			426,501	140,601	3,322,371	4,421,437
Buildings & Improvements	458,204				138,919	319,285	
Farm Real Estate	95,717,118			67,760,501			27,956,617
Other Real Estate	43,227,492			42,100,000			1,127,492
Real Estate - Land	62,389,834		8,561,424		27,251,213	26,577,197	
Equity in Corps/Partnerships		-38,450,671		38,450,671			
Other Long Term Assets	6,464,283		80,725		7,095	6,044,990	331,473
Other LT Assets	116,264			116,264			
Total LT Ag Assets	208,373,195	-38,450,671	8,642,149	148,427,436	27,397,227	32,941,472	29,415,582
Total Ag Assets	237,611,422	-38,450,671	8,749,153	163,546,667	30,363,214	36,423,460	36,979,599
Accounts Payable	811,422			159	641,291	27,195	126,935
Current Notes Payable - Other	300						300
Cur. Portion Term Debt - Ours	224,122		153,473			70,649	
Cur. Portion Term Debt - Other	2,846,927		253,441	1,125,719	670,207	269,523	528,037
Accrued Interest	1,506,168		206,074		735,164	239,582	325,348
Total Current Ag Liab.	5,388,939		613,147	1,767,010	1,432,566	595,596	980,620
Intermediate Term Debt - Other	566,270			89,484		476,786	
Total Intern. Ag Liab.	566,270			89,484		476,786	
Long Term Debt - Ours	7,825,178		6,188,763			1,636,415	
Long Term Debt - Other	77,260,148		4,969,372	36,515,800	17,080,436	6,230,292	12,464,248
Total LT Ag Liab.	85,085,326		11,158,135	36,515,800	17,080,436	7,866,707	12,464,248
Total Ag Liab.	91,040,535		11,771,282	38,372,294	18,513,002	8,939,089	13,444,868
Total Ag Equity	146,570,887	-38,450,671	-3,022,129	125,174,373	11,850,212	27,484,371	23,534,731
Variance	146,570,887	-38,450,671	-3,022,129	125,174,373	11,850,212	27,484,371	23,534,731
GRAND TOTALS							
Total Assets	237,611,422	-38,450,671	8,749,153	163,546,667	30,363,214	36,423,460	36,979,599
Total Liab.	91,040,535		11,771,282	38,372,294	18,513,002	8,939,089	13,444,868
Total Equity	146,570,887	-38,450,671	-3,022,129	125,174,373	11,850,212	27,484,371	23,534,731
Total Variance	146,570,887	-38,450,671	-3,022,129	125,174,373	11,850,212	27,484,371	23,534,731

ATTACHMENT 4

OSBORN, MARSLAND & HARGROVE

ATTORNEYS AT LAW
515 CONGRESS AVENUE, SUITE 2450
AUSTIN, TEXAS 78701
(512) 476-3529
FACSIMILE:
(512) 476-8310

ELMER F. PATMAN
(1907-1987)
PHILIP F. PATMAN
(1937-2005)

WILLIAM S. OSBORN
ANA MARIA MARSLAND
ROBERT G. HARGROVE

November 14, 2019

By Federal Express
Airbill 8146 8597 9550

Mr. Lance M. Fritz
Chief Executive Officer
Union Pacific Railroad Company
1400 Douglas Street
Omaha, Nebraska 68179

Re: Offer to Purchase UP's Interest in Tennessee Pass Railroad Line - Colorado

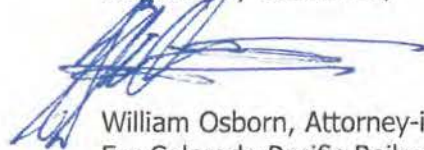
Dear Mr. Fritz:

Since 1995 Union Pacific has held inactive its Tennessee Pass railroad line across central Colorado, between milepost 171.9 (west of Parkdale) and milepost 341.9 (near Dotsero.) Our client Colorado Pacific Railroad LLC (a Delaware LLC with rail reporting mark CXR) offers to purchase these track assets and all associated rights, including UP's retained trackage rights to Pueblo, for \$10,000,000. CXR proposes to restore the Tennessee Pass line to service, thus providing an alternative to using the Moffat Tunnel and routing freight rail traffic through Denver. A map is enclosed, for convenience of reference.

CXR acquired the nearby Towner line in 2018 as a result of STB Finance Docket 36005, and that line is now under lease to Watco for operational purposes. The line was rehabilitated this year to serve at a 25 mph speed with a rated carload weight of 286,000 pounds, and service will commence shortly, pending final Colorado PUC approval of signaling requirements.

May I come to your office and discuss this offer further with Union Pacific representatives?

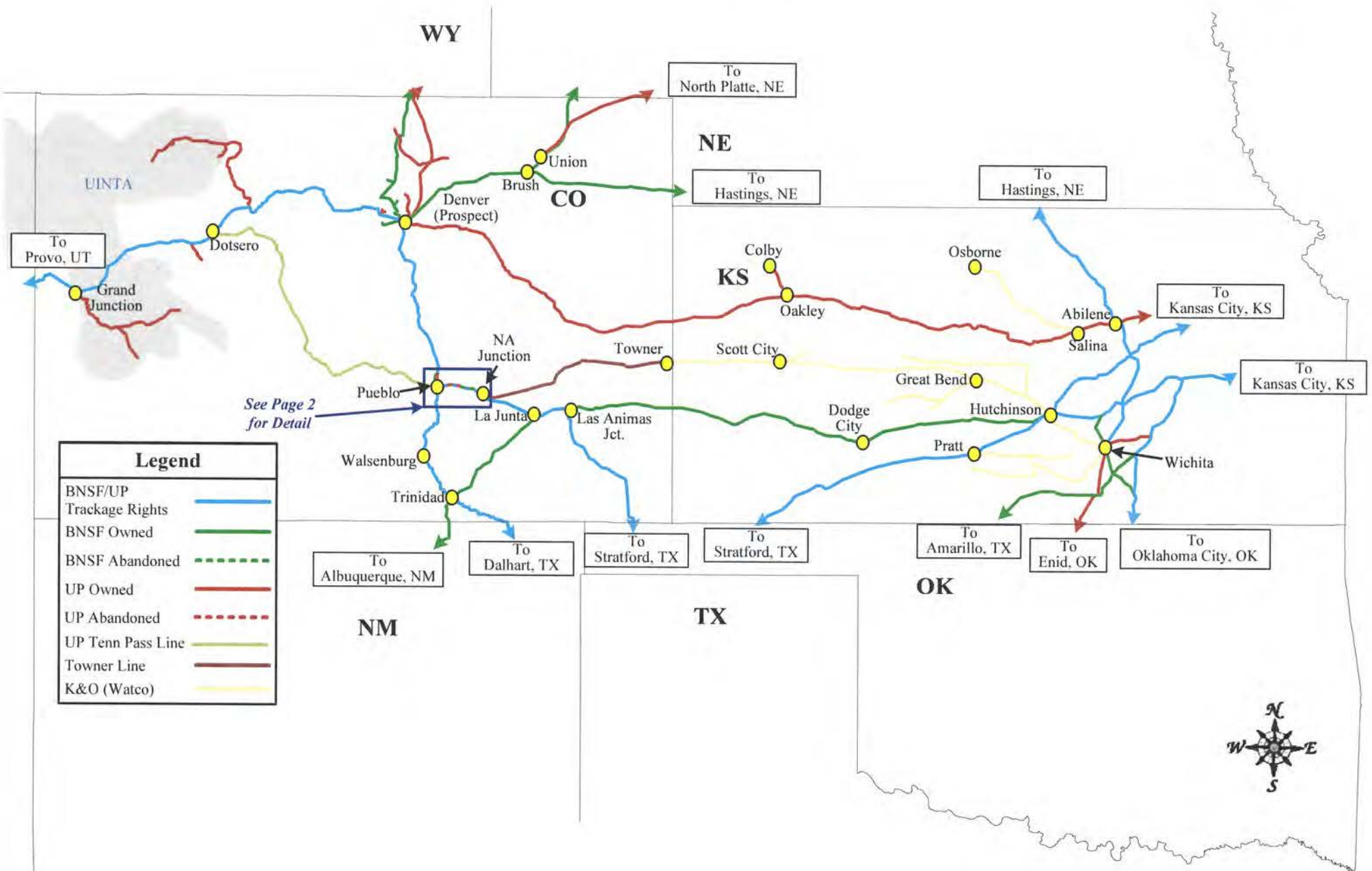
Respectfully Submitted,



William Osborn, Attorney-in-Fact
For Colorado Pacific Railroad LLC
william@texasenergylaw.com

cc: Hon. Bill Thiebaut - CDOT Chairman
David Krutsinger - CDOT Rail Division Director
Pam Fischhaber - Colorado DORA
Doug Friednash - Brownstein Hyatt
Tom Wilcox - GKG Law
Doug Story - Watco Company
Chris Bertel - Rio Grande Pacific
Curt Engel - Scoular Grain
Michael Sheahan - Martin Marietta Materials

Schematic of Tennessee Pass Subdivision and Towner Line (Colorado and Kansas)



ATTACHMENT 5



December 30, 2019

William Osborn
Osborn, Marsland & Hargrove
515 Congress Avenue, Suite 2450
Austin, Texas 78701

Re: Tennessee Pass Rail Line

Dear Mr. Osborn:

I am responding on behalf of Chairman, President and CEO Lance Fritz to the letter addressed to him, dated November 14, 2019. Union Pacific appreciates your interest in restoring rail service on the Tennessee Pass line. At this time, we cannot entertain your offer to purchase the line. We are in active discussions with other parties to restore service on this line, and we intend to see these discussions through before we explore other options.

We would be happy to place your client on Union Pacific's list of potentially interested bidders for future rail line dispositions, if you would like.

Sincerely,

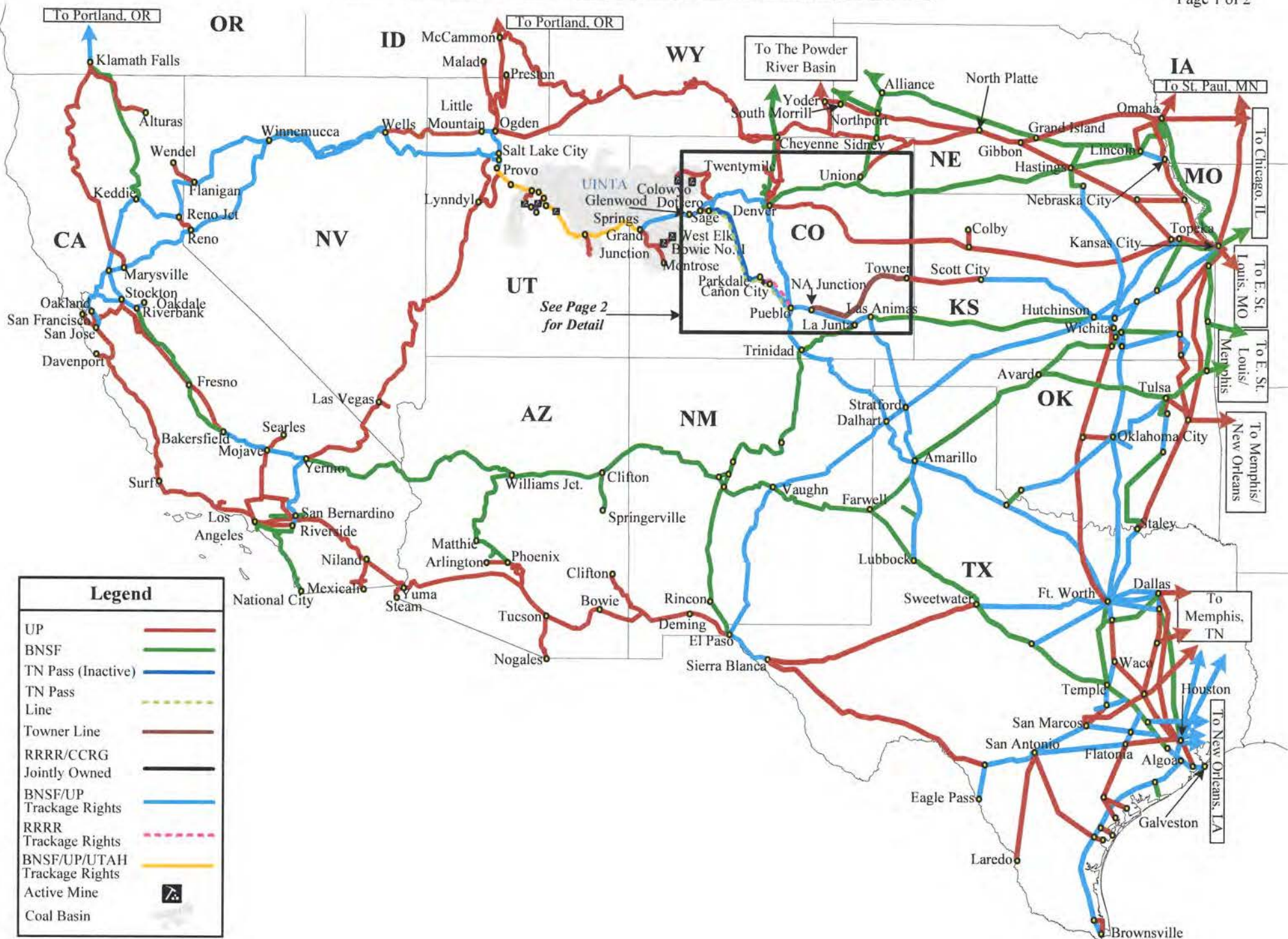
A handwritten signature in blue ink that reads "Chris D. Goble".

Chris D. Goble
Assistant Vice President – Real Estate

cc: Mr. Lance M. Fritz

ATTACHMENT 6

Schematic of Tennessee Pass Subdivision and Surrounding Rail Lines



Schematic of Tennessee Pass Subdivision and Surrounding Rail Lines

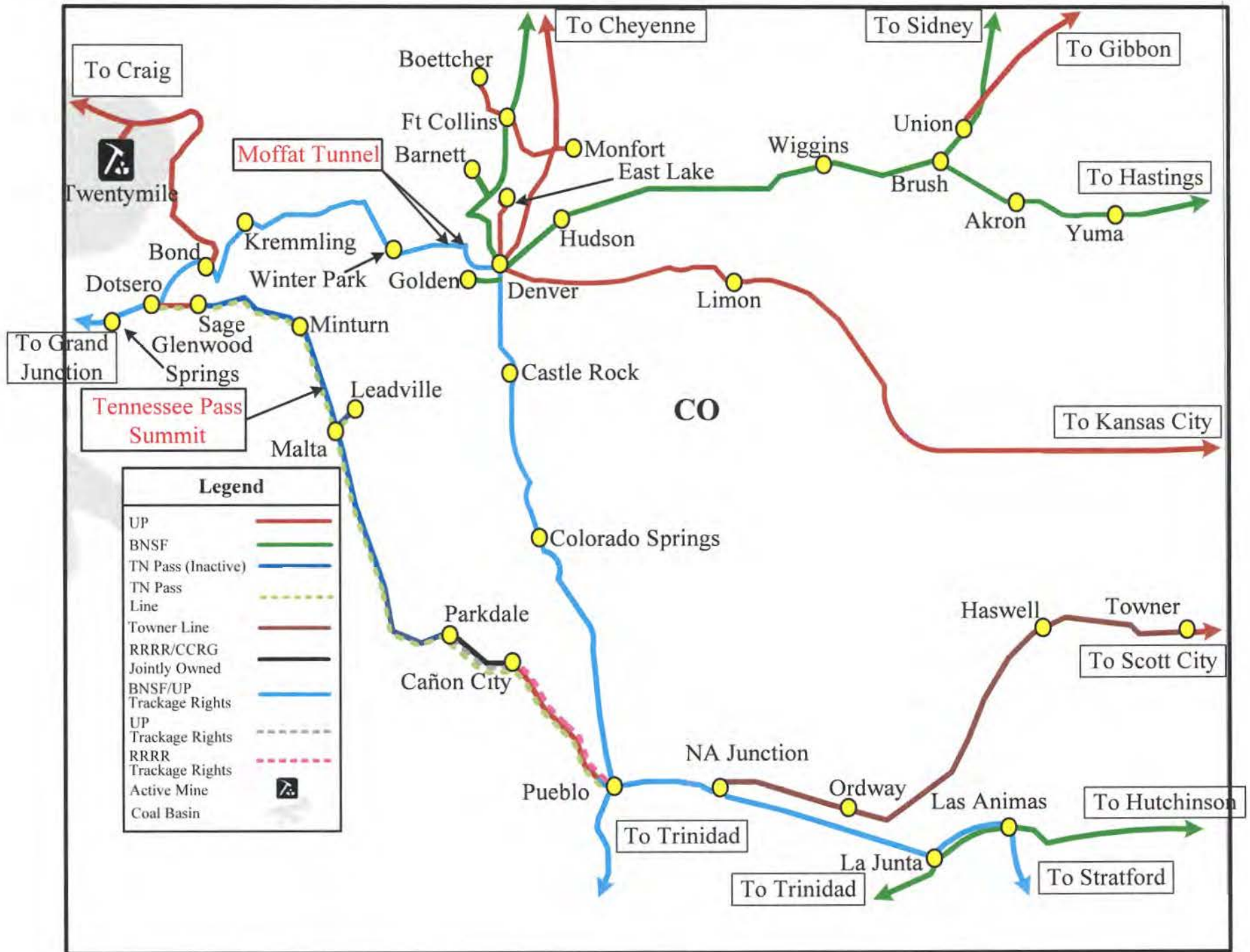


EXHIBIT C

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

STB Docket No. FD 36386

**KCVN, LLC AND COLORADO PACIFIC RAILROAD, LLC – FEEDER LINE
APPLICATION – LINE OF UNION PACIFIC RAILROAD COMPANY LOCATED IN
PUEBLO, FREMONT, CHAFFEE, LAKE, AND EAGLE COUNTIES, COLORADO**

VERIFIED STATEMENT OF HARVEY CROUCH

My name is Harvey Crouch. I am the President of Crouch Engineering, Inc. (“Crouch Engineering”) in Brentwood, Tennessee. I have been the President of Crouch Engineering since 1991. Crouch Engineering was founded in 1991 and is a recognized industry leader, railroad contractor and engineering firm for many Class 1 and Short Line railroads, private industries and government agencies throughout North America and internationally. My resume is attached as Exhibit A to this Verified Statement.

I was retained by KCVN, LLC (“KCVN”) and Colorado Pacific Railroad, LLC (“CPRR”) on March 13, 2019 for the purpose of conducting a physical inspection of the 121.9 miles of CPRR main line track that runs between Towner, Colorado and NA Junction, Colorado. This line of railroad – known historically as the Towner Line - was acquired by CPRR from V&S Railway, LLC as a result of the Surface Transportation Board (“Board” or “STB”) granting a Feeder Line Application filed by CPRR and KCVN in STB Docket No. FD 36005. CPRR took possession of the Towner Line, much of which had fallen into severe disrepair, in early 2018.

I was asked to oversee Crouch Engineering's physical inspection of the Towner Line for the purpose of providing KCVN and CPRR with a more accurate estimate of the cost to rehabilitate the entire line to Federal Railroad Administration ("FRA") Class 2 standards. The verified statement is offered to provide the Board with information on the results of that inspection and the rehabilitation of the Towner Line that has subsequently been performed.

Crouch Engineering performed both a walking and hy-rail vehicle inspection of the Towner Line between March and April of 2019. The inspection was performed in accordance with both the FRA's and the American Railway Engineering and Maintenance-of-Way Association's guidelines for inspecting and reporting railroads. The inspection encompassed all the railroad bridges, track, and sidings on the Towner Line, and was performed with the aim of determining what repairs and other measures were needed to put the tracks back into service at FRA Class 2 standards. The inspection was completed at the end of April 2019 and rehabilitation of the Towner Line commenced on May 6, 2019.

Because of the poor conditions of the tracks west of Haswell, Colorado when the Towner Line was acquired, and the possibility of freight traffic being resumed between Haswell and Towner, KS by CPRR's operator, the Kansas & Oklahoma Railroad ("K&O"), rehabilitation of the tracks began primarily on the Haswell to Towner segment. However, between May 6, 2019 and January 2020, the following rehabilitation work was also performed on the entire 121.9-mile line:

Track: The inspection identified 500 stripped joints on the Towner Line that required repair and additional center cracked joint bars that needed to be replaced. The stripped joints were repaired, and the center cracked joint bars that were identified were replaced. Portions of the track that were identified as requiring rehabilitation were surfaced and lined. The entire Towner Line

was brush cut, swept with a ballast regulator, and vegetation control applications were made twice during 2019.

Bridges: Five of the bridges on the Towner Line were rehabilitated in order to handle railcars with 286,000-pound car loading capacity. A bridge at Mile Post (MP) 810.3 west of Haswell, CO that had been destroyed by fire was replaced using metal pipe culverts and fill. As a result of the rehabilitation, all bridges on the Towner Line now rate for 286,000-pound car loading capacity.

Crossties: Approximately 1600 crossties have been replaced between MP 773 and MP 777, MP 846 and MP 858. Approximately two hundred defective switch timbers were also identified and replaced in main line turnouts on the entire line.

Turnouts: All turnouts were inspected and the frog at the east end of Stuart siding was replaced. All electric locks were removed, switch stands adjusted, and switch point areas cleaned and lubricated on the entire line.

Grade Crossings: All grade crossings were inspected, flangeways cleared, and approaches cleaned.

Grade Crossing Signals: Four signal systems were replaced with new systems in the following at-grade road crossings along the line between Towner and N.A. Junction:

1. U.S. Route 385 in Sheridan Lake, CO
2. State Highway 96 in Sugar City, CO
3. State Highway 71 in Ordway, CO
4. State Highway 96 in Fowler, CO

Signage: New emergency notification system (“ENS”) signs were erected at all grade crossings. New YIELD, and Crossbuck signs on new posts were erected at all public crossings, and new Milepost signs were erected along the CPRR Line. Further, Crouch Engineering coordinated advance warning signs for state roads with the Colorado Public Utilities Commission, and the Colorado Department of Transportation.

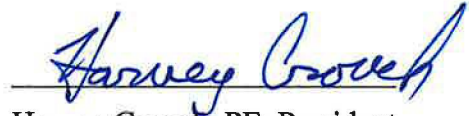
Future rehabilitation plans: All of the Towner Line tracks currently meet FRA Class 2 specifications. However, there are plans to reestablish the connection at NA Junction and replace nine-signal crossings with passive warning signs.

Verification

I, Harvey Crouch, declare under penalty of perjury that the foregoing is true and correct.

Further, I certify that I am qualified and authorized to sponsor this Verified Statement.

Executed: Feb. 11, 2020

A handwritten signature in blue ink that reads "Harvey Crouch". The signature is written in a cursive style and is positioned above a horizontal line.

Harvey Crouch, PE. President
Crouch Engineering, Inc.

5115 Maryland Way, Suite 225
Brentwood, TN 37027
(615)308-3850
hcrouch@crouchengineering.com

EXHIBIT A

**Harvey A. Crouch P.E.****Crouch Engineering, Inc.**

EDUCATION Tennessee Technological University - MSCE – 1989
Tennessee Technological University - BSCE - 1982

CURRENT POSITION President and Chief Executive Officer

PROFESSIONAL REGISTRATION

Professional Engineer - Licensed in AL, AZ, AR, CO, CT, FL, GA, HI, IL, IN, KS, KY, ME, MD, MA, MI, MN, MS, MO, MT, NE, NH, NM, NC, NV, OH, OK, OR, PA, SC, TN, TX, UT, VT, VA, WA, WV

PROFESSIONAL MEMBERSHIP

- American Railway Engineering and Maintenance-of-way Association
- American Short Line and Regional Railroad Association
- Tennessee Short Line Railroad Association
- American Society of Civil Engineers
- National Society of Professional Engineers

EMPLOYMENT HISTORY

1991- Present, President and CEO, Crouch Engineering

1990 - 1991 Project Manager - McCoy Associates, Inc.

1989 - 1990 Environmental Engineer - Tennessee Valley Authority

1988 - 1989 Graduate Research Assistant - Tennessee Tech

1986 - 1987 Track Supervisor MW&S - Norfolk Southern Corporation

1983 - 1986 Project Engineer MW&S - Norfolk Southern Corporation

1977 - 1983 Co-op Engineer and Management Trainee MW&S - Norfolk Southern Corporation

Crouch Engineering, Inc. – President and CEO - Mr. Crouch is the founder, President, and CEO of Crouch Engineering. In addition to his leadership role, he maintains a lead role in many railroad track, bridge, highway, and industrial development projects. Responsibilities include project planning and feasibility studies, planning for and work on the survey, design, and construction management tasks for large railroad capital improvement and capacity projects.

A few examples of recent project work include inspection and rehabilitation of a 122 mile long short line main line in Southeastern Colorado; a new 4.5 mile double track design project near Somerset, KY; redesign of a railroad yard in Mobile, AL; design of projects for new Amtrak passenger service between Richmond and Norfolk, VA (80 miles; \$93 million), and between Lynchburg and Roanoke, VA; planning for an inland port near Kumasi, Ghana; planning, survey, geotechnical, design and construction project management for a new ten mile long main line for US Sugar, and an 18 mile long new main line project for the South Central Florida Express; design of new tracks for the expansion of the hump yard in Bellevue, OH; design of an expansion for Mercedes Benz USI; design of a new railroad yard in Hartsville, SC; the design of ten new railway locomotive and car repair shops; and FRA compliant bridge management plans, inspections, and load ratings for many short line and museum railways.



engineering p.c.

Mr. Crouch has over 42 years of experience in all areas of Railway Engineering, including: track and bridge design, FRA tested and Railroad certified track inspection, track and bridge rehabilitation program design, derailment analysis, construction cost estimates, route planning, construction project management; bridge inspection and rehabilitation program design; highway road and bridge design; grade crossing design; industrial development for local governments and private industry; safety training; railroad topographic surveys; new railroad track and bridge facility design; planning for local governments including benefit cost analyses and grant applications for Federal Railroad Administration Grants, Appalachian Regional Commission Grants, state grants in Alabama, Georgia, Texas, Tennessee, Kentucky, Pennsylvania, Michigan, etc., construction cost estimates, planning for industrial development corridors, new facilities and industrial parks, and hydrologic and hydraulic analyses for bridge and culvert replacements; investigation and resolution of right-of-way encroachment issues; preparation and updating of Track charts; preparation of valuation maps and location maps; preparation of plans, specifications, bid documents and contract documents; conducting bid processes; grade separation project design and management, etc.

Mr. Crouch has worked with more than 200 short line and regional railroads, four Class 1 railroads, and more than 200 industrial railroad customers. Job duties include the project management of assigned projects, preparation of plans, environmental assessments, track and bridge design, environmental permitting, hydrology and hydraulics, specifications, and bidding documents, and review of engineering work, as engineer in responsible charge of the office.

As a former Southern Railway and Norfolk Southern employee, and with four class 1 railroad clients, Mr. Crouch is familiar with Class 1 engineering, maintenance, and operating practices.

Mr. Crouch receives annual roadway worker protection safety training, meeting the individual railroad's FRA compliance requirements, for many railroads, including CSX Transportation Railroad, BNSF, CN, and Norfolk Southern Railway.

Examples of prior expert Witness work:

- DuPont – US Surface Transportation Board (STB) Rate Complaint, for DuPont, Plaintiff
- TPI – US Surface Transportation Board (STB) Rate Complaint, for TPI, Plaintiff
- SMEPA – US Surface Transportation Board (STB) Rate Complaint, for SMEPA, Plaintiff
- CP&L – US Surface Transportation Board (STB) Rate Complaint, for TPI, Plaintiff
- Patrick Carney Injury case, for Plaintiff
- MNA RR Injury Case, for Defendant RR
- DGNO RR Injury Case, for Defendant RR
- Flood Plain / Levee dispute for TKRR, for Defendant RR
- Paper Barrier Case before the STB, for Plaintiff RR
- Numerous railroad right-of-way disputes

EXHIBIT D

BEFORE THE
SURFACE TRANSPORTATION BOARD

STB Docket No. FD 36386

)
)
) **KCVN, LLC AND COLORADO**
) **PACIFIC RAILROAD, LLC - -**
) **FEEDER LINE APPLICATION - -**
) **LINE OF UNION PACIFIC RAILROAD**
) **COMPANY LOCATED IN**
) **PUEBLO, FREMONT, CHAFFEE,**
) **LAKE AND EAGLE COUNTIES,**
) **COLORADO**
)

Verified Statement

of

Thomas D. Crowley
President

L. E. PEABODY & ASSOCIATES, INC.
ECONOMIC CONSULTANTS

On Behalf Of

Colorado Pacific Railroad, LLC

Filing Date: February 14, 2020

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TDC-2	Schematic of The Tennessee Pass Subdivision and Surrounding Rail Lines
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B	TN Pass Main Line and Siding Miles
C	Tennessee Pass Rail Assets Gross Salvage Value ("GSV") -- 1Q20
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C	Net UP Revenues on Sage - Dotsero Line Segment

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APPENDIX	DESCRIPTION
(1)	(2)
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A	Summary of Capital Costs to Restore Tennessee Pass Line to Federal Railroad Administration ("FRA") Class 2 Service -- 1Q20
B	Summary of Vegetation Control Costs in Rail Rehabilitation Grant Application and Reports -- 1Q20
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I	Summary of Engineering and Contingencies Percentages in Rail Rehabilitation Grant Application and Reports
TDC-7	Photographs of The Tennessee Pass Line

I. INTRODUCTION

I am Thomas D. Crowley, Economist and President of L. E. Peabody & Associates, Inc., an economic consulting firm with offices at 1501 Duke Street, Alexandria, VA 22314. Our Firm specializes in solving economic, transportation, marketing, financial, accounting and fuel supply problems. I spent most of my consulting career of over forty-five (45) years evaluating fuel supply issues, railroad operations, railroad costs, prices, financing, capacity and equipment planning issues and other projects related to the North American freight railroad industry. My assignments in these matters were commissioned by railroads, producers, shippers of different commodities, and government departments and agencies.

I have extensive experience in Surface Transportation Board (“STB” or “Board”) regulatory proceedings, litigation and other projects involving railroad valuation issues. These matters have involved railroad valuation issues on a nation-wide, system-wide, individual rail line and individual rail movement scope and basis. A copy of my credentials is included as Appendix TDC-1 to this verified statement (“VS”).

A. SUBJECT OF PROCEEDING

The subject of this STB proceeding concerns the Feeder Line Application of KCVN LLC and CPRR for an order from the STB directing the sale to CPRR of a line of railroad owned by UP, which runs from Pueblo, CO to Dotsero, CO, and which is referred to and described in the Application and this Verified Statement as the Tennessee Pass Line. The Tennessee Pass Line formally was part of the continuous line of railroad classified as the Tennessee Pass Subdivision running from NA Junction, CO to Dotsero, CO by three (3) Union Pacific Railroad Company (“UP”) predecessor railroads that operated this rail line, i.e., the Denver & Rio Grande Western

Railroad (“DRGW”), the Southern Pacific Transportation Company (“SP”)¹ and Missouri Pacific (“MP”).

Colorado Pacific Railroad, LLC (“CPRR”) is a wholly owned subsidiary of KCVN, LLC (“KCVN”). KCVN and its affiliated companies own approximately 81,000 acres of farm land in Cheyenne, Kiowa, and Powers Counties, CO. CPRR acquired the 121.9 mile Towner Line which runs through the middle of this farm territory in 2018 through another feeder line application and is in the process of restoring it to provide railroad freight service to current shippers on the line, shippers who may locate along the line and otherwise develop the line for transportation of other commodities by other shippers located at points beyond the termini of the line.

Following its successful Towner Line blue print, CPRR is interested in acquiring the Tennessee Pass Line described herein from UP, restoring the line and providing railroad freight service to the current shippers on the line as well as providing an alternate and potential detour route for the Moffat Tunnel line.

A schematic of the Tennessee Pass Line and its geographic relationship to other rail lines in the southwestern United States along with the track charts are included as Appendix TDC-2 and Appendix TDC-3, respectively, to this VS.

As explained in Volume I of the Application, and discussed in greater detail in this statement, the Tennessee Pass Line is presently comprised of four segments that together form a continuous line of rail 228.80 miles long plus ancillary tracks. The four (4) segments include:

1. Pueblo to Cañon City;
2. Cañon City to Parkdale;
3. Parkdale to Sage; and
4. Sage to Dotsero.

¹ DRGW and SP merged in 1988. *See*, “ICC Permits Southern Pacific Sale – Washington Post.pdf”

Each segment is briefly summarized below.

1. Pueblo to Cañon City

The eastern portion of the Tennessee Pass Line between Pueblo, CO and Cañon City is currently in active service by railroads other than UP. Rather, the Rock & Rail railroad (“R&R”), conducts aggregate freight operations over 41.95 miles of the line from Cañon City to Pueblo (MP 160.15 to MP 118.20) and certain other tracks connected to the main line via trackage rights it acquired in 1999 from the BNSF Railway Company (“BNSF”), which owned certain tracks and had trackage rights over this portion of the Tennessee Pass Line. While BNSF assigned its trackage rights to R&R, it appears that BNSF may still have trackage rights over the Cañon City to Pueblo line.² In 2015, Martin Marietta Materials (“MMM”) acquired a controlling interest in R&R. R&R describes itself as a wholly owned subsidiary of MMM on its website and R&R still operates over the tracks.³

2. Cañon City to Parkdale

In July 1998, the Royal Gorge Express, LLC acquired 11.75 miles of track from UP between MP 171.90 at Parkdale and MP 160.15 at Cañon City, for passenger excursion train operations. This segment of track was part of the 168.2 miles of tracks for which the STB granted discontinuance authority as one of its conditions for approval of the UP/SP Merger Proceeding⁴. Consistent with the intent and purpose of STB’s decision to deny abandonment authority –

² Based on review of the May 24, 2016 BNSF System Map, it appears that BNSF still has trackage rights that begin in Pueblo, CO and continue west along the Tennessee Pass. The map does not label the trackage rights end point, but it appears to be in the vicinity of Cañon City. See, “May 24, 2016 BNSF Network Map.pdf”

³ See, “*Martin Marietta Acquires Control of Rock & Rail*” by Rock Product News, published December 1, 2015. Accessed from <http://www.rockproducts.com/news-late/14939-martin-marietta-acquires-control-of-rock-rail.html#.WL8PtPnyvuo>. See, “Martin Marietta Acquires Control of Rock & Rail.pdf”

⁴ Interstate Commerce Commission (“ICC”), Docket No. 32760, *Union Pacific Corporation, Union Pacific Railroad Company and Missouri Pacific Railroad Company -Control and Merger- Southern Pacific Rail Corporation, Southern Pacific Transportation Company, St. Louis Southwestern Railway Company, SPCSL Corp. and the Denver and Rio Grande Western Railroad Company*, (Decision No. 44 served August 12, 1996) (See “UP_SP Merger, Decision No. 44.pdf”)

preservation of this continuous route for future use - UP expressly retained “a permanent, irrevocable trackage rights [easement] so as to preserve the integrity of the Tennessee Pass route.”⁵ Simultaneous with the acquisition, Royal Gorge Express leased the track to R&R, subject to UP’s permanent overhead trackage rights easement.⁶ The operating passenger excursion railroad is now called the Royal Gorge Route Railroad.⁷

3. Parkdale to Sage

The Parkdale to Sage segment constitutes the remaining 163.1 miles of track for which UP received discontinuance authority from the STB as an outcome of the UP/SP Merger Proceeding. This track has been inactive since 1996, and is presently classified as discontinued track and is designated as Category 1 on UP’s System Diagram Map.

4. Sage to Dotsero

The western end of the Tennessee Pass Line between Sage, CO and Dotsero, CO (MP 335.0 to MP 341.9) is still in active rail service. Owned and operated by UP, this 6.9 mile segment of the line runs along the Eagle River and Interstate 70 through a narrow canyon pass. My research suggests one customer, American Gypsum at Gypsum, CO, is still active on the line and that UP also uses this section of the line for railcar storage activities during periods of soft railcar demand.⁸

⁵ See, STB Docket No. 33608 *Rock & Rail Acquisition and Operation Exemption – Royal Gorge Express*, decision served July 15, 1998 at page 1 and STB Docket No. 33622 *Royal Gorge Express – Acquisition and Operation Exemption – UP*, decision served July 15, 1998 at page 1. See, “1998.07.15_STB Docket No. 33622 Royal Gorge Express – Acq. and Oper. Exemption – UP.pdf” and “1998.07.15_STB Docket No. 33608 R&R Acq. and Oper. Exemption- Royal George Express.pdf”

⁶ *Id.*

⁷ According to the R&R website, R&R owns a 50 percent interest in Royal Gorge Express, LLC. The other 50 percent is owned by the Cañon City Royal Gorge Railroad (“CCRG”), which operates the excursion trains. See, “Rock and Rail.pdf”

⁸ See, <http://www.drgw.net/info/TennesseePass> (“DRGW.Net _ Tennessee Pass Route.pdf”).

UP has not operated the entire Tennessee Pass Line since the UP/SP merger was approved. The Centralized Traffic Control (“CTC”) signal system along the Tennessee Pass Line route was turned off in the early 2000’s.⁹ Public UP timetables for the Tennessee Pass Line contain notes in the “Main Track Authority” section that state: “[b]etween MP 171.9 [Parkdale, CO] and MP 335.0 [near Sage, CO] the main track is not in service.”¹⁰

B. STB’S CMV STANDARDS

I have been asked by KCVN/CPRR to develop and prepare an estimate of the constitutional minimum value (“CMV”) of the Tennessee Pass Line based on STB standards. Pursuant to 49 U.S.C. 10907, the CMV of a particular railroad line shall be presumed to be not less than the net liquidation value (“NLV”) of such line or the going concern value (“GCV”) of such line, whichever is greater.¹¹

The Feeder Line Statute does not define the NLV, however, the valuation of individual railroad lines or segments is often an issue before the STB in other regulatory proceedings. For example, the definition of NLV in the abandonment and discontinuation statute of the Code of Federal Regulations at 49 C.F.R. §1152.34 is as follows:

The net liquidation value for the highest and best use, for non-rail purposes, of the rail properties.

...

This value shall be determined by computing the current appraised market value of such properties for other than rail purposes, less all costs of

⁹ See, “*Tennessee Pass: Where Silence Has Lease*” by Kevin Morgan, published July 13, 2015. Accessed from https://issuu.com/coloradorailfan/docs/tpass_summer_2015/15. See, “Tennessee Pass – Where Silence Has Lease.pdf”

¹⁰ Union Pacific Denver Area Timetable #3, effective November 12, 2006 and Union Pacific Denver Area Timetable #4, effective November 16, 2009. See, “Union Pacific Denver Area Timetable #4.pdf” and “Union Pacific Denver Area Timetable #3.pdf”

¹¹ 49 U.S.C. § 10907(b)(2) 49 CFR § 1151.3 (a)(3)(i) (“Feeder Line Statute”). See, “49 U.S.C§10907(b)(2).pdf” and “49 CFR § 1151.3(a)(3)(i).pdf”

dismantling and disposition of improvements necessary to make the remaining properties available for their highest and best use.

The NLV is a minimum valuation standard which consists of the salvage value of track and materials less the cost of removal of the salvaged tracks and materials plus the value of the real estate. The GCV is the value of the rail line as an ongoing business based on its current operations. The STB computes GCV by dividing current anticipated operating profits (revenues less costs) by an earnings multiplier (the pre-tax equivalent of the railroad industry cost of capital rate).¹²

In addition to reviewing the available public information on various sections of the Tennessee Pass Line, I conducted extensive virtual inspections of the rail assets via Google Earth Pro, as well as reviewed publicly available merger dockets. My firm has not yet been given permission by UP to conduct an onsite inspection of the Tennessee Pass Line, and winter snowpack accumulation would prevent a meaningful visual inspection in any event. Consequently, this initial estimate of NLV and GCV is a detailed desktop analysis, to be updated and refined once an actual on-the-ground inspection is allowed. To that end, Applicants have served discovery on UP pursuant to the Board's rules seeking permission to conduct a site inspection and other relevant documents and data per the Board's rules.

Based on STB standards, and current relay, reroll and scrap rail prices, I estimated the CMV based on the greater of NLV and GCV of the entire Tennessee Pass Line to be \$8.8 million. I also estimated the capital costs associated with rehabilitating the rail line to Federal Railroad Administration ("FRA") Class 2 Status.¹³

¹² STB Finance Docket No. 32479, *Caddo Antoine and Little Missouri Railroad Company - - Feeder Line Acquisition - - Arkansas Midland Railroad Company Line Between Gordon and Birds Mill, AR* (served May 5, 2000) "Caddo Antoine." See, "2000.05.05_STB Finance Docket No. 32479 Caddo Antoine and Little Missouri Railroad Company.pdf"

¹³ Class 2 status has a maximum allowable operating speed for freight trains of 25 miles per hour ("mph").

The results of my analyses are summarized in the remainder of this VS and accompanying Appendices. Specifically, my VS is organized under the following topical headings:

- II. Summary of Findings
- III. Characteristics of the Tennessee Pass Line
- IV. Net Liquidation Value Calculation
- V. Going Concern Value Calculation
- VI. Precision Scheduled Railroad
- VII. Operating Plan for the Tennessee Pass Line
- VIII. Public Convenience and Necessity
- IX. Rehabilitation of the Tennessee Pass Line
- X. Conclusion

II. SUMMARY OF FINDINGS

Pursuant to the Feeder Line statute, the CMV of a particular railroad line shall be presumed to be not less than the NLV of such line or the GCV of such line, whichever is greater.¹⁴

Table 1 below summarizes my CMV calculations.

<u>Item</u>	<u>Source</u>	<u>Amount</u>
(1)	(2)	(3)
1. NLV	Appendix TDC-4	\$8.8
2. GCV	Appendix TDC-5	\$6.8
3. CMV	Higher of NLV or GCV	\$8.8

The CMV of the Tennessee Pass Line equals \$8.8 million, as shown in Table 1 above.

CPRR is pursuing the purchase of the Tennessee Pass Line to restore rail freight service on the line. To that end, CPRR developed an operating plan that is detailed in Section VII below. However, the full Tennessee Pass Line is currently not in operation nor is it in operating condition. The rail line will require a significant amount of work to restore it to FRA Class 2 service.¹⁵

The STB found in past Feeder Line cases that rehabilitation costs are not relevant in NLV determinations:

Section 10907 requires us to set the price at the higher of the GCV and NLV of the Line. The calculation of the GCV of a line often considers rehabilitation costs, because the calculation assumes that the line will continue to be used to provide rail service. In contrast, rehabilitation costs are not considered in an NLV calculation, because the NLV calculation assumes that the subject line will be dismantled and taken out of service. In this case, the Port and CORP both agree that the Coos Bay Line has no

¹⁴ 49 U.S.C. § 10907(b)(2) 49 CFR § 1151.3 (a)(3)(i).

¹⁵ FRA categorizes track for freight in six (6) classes, segregated by maximum speed limits: Class 1 – 10 mph; Class 2 – 25 mph; Class 3 – 40 mph; Class 4 – 60 mph; Class 5 - 80 mph; and Class 6 – 110 mph. See, “49 CFR 213.9.pdf”.

GCV. Accordingly, we are precluded from considering rehabilitation costs in determining the constitutional minimum value.¹⁶

Rehabilitation costs, however, are relevant to the determination of an applicant’s financial responsibility and ability to cover the expenses associated with providing rail service over the line for the first three (3) years after acquisition of the line.¹⁷ The cost of rehabilitating the Tennessee Pass Line to FRA Class 2 safety standards is summarized in Table 2 below.

Category (1)	Cost (2)
1. Vegetation Removal	\$2,169,028
2. Crosstie Replacement	\$25,387,864
3. Ballast Cleaning & Replacement	\$4,442,235
4. Track Resurfacing	\$3,410,437
5. Rail Replacement	\$206,826,470
6. Track, Bridge and Tunnel Inspections	\$206,276
7. Crossing Re-pavement	\$112,340
8. Communication & Signaling	\$1,256,518
9. Engineering & Contingencies	<u>\$34,133,563</u>
10. Total	\$277,944,731

Source: Appendix TDC-6A.

The rehabilitation work is summarized in Section IX of this VS and I estimate the cost will be \$277.9 million to complete the work.

¹⁶ STB Docket No. FD 35160, *Oregon International Port of Coos Bay—Feeder Line Application—Coos Bay Line of The Central Oregon & Pacific Railroad, Inc.* (“Coos Bay”), served October 31, 2008 (page 16). *See*, “2008.10.31_STB Docket No. FD 35160 Oregon International Port of Coos Bay-Feeder Line Application.pdf”

¹⁷ *See*, STB Docket No. FD 36005, *KCVN, LLC and Colorado Pacific Railroad, LLC-Feeder Line Application of V and S Railway, LLV Located in Crowley, Pueblo, Otero, and Kiowa Counties, Colorado* (“KCVN/CPRR Feeder Line Application”), decision dated July 28, 2017 at 12. *See*, “2017.07.28_STB Docket No. FD 36005 KCVN and Colorado Pacific Railroad-Feeder Line Application.pdf”

III. CHARACTERISTICS OF THE TENNESSEE PASS LINE

The Tennessee Pass Line is located in central Colorado and runs through the Rocky Mountains from Pueblo, CO to Dotsero, CO. When it was constructed, the line was primarily used in support of the mining industry. Because of its location in the Rocky Mountains, there have always been significant challenges to operations. The most obvious challenge is the steep terrain of the Rocky Mountains. Dotsero to Minturn has a relatively manageable gradient of 1.3 percent. The challenge intensifies in Minturn where the gradient begins to steepen and increase from 1.75 percent to 3.0 percent. Here, helper engines could be added to the rear or the middle of trains. Malta to Pueblo is slightly less steep with a gradient below 1.5 percent reaching a maximum gradient of 2.0 percent. The highest peak on the Tennessee Pass Line is over 10,000 feet.

The majority of the Tennessee Pass Line is currently inactive. There have been no revenue trains over the entire Tennessee Pass Line since 1997. The decline in the use of the Tennessee Pass Line began in 1934 when an alternate route through the Moffat Tunnel, passing directly to Denver, opened and absorbed some traffic that formerly moved over the Tennessee Pass Line. Also contributing to the decline in usage was the change in ownership. After the merger of UP and SP, UP had redundant routes in the area and determined that it did not have sufficient traffic or any other compelling reasons to continue operations over both the Tennessee Pass Line and the Moffat Tunnel lines.

Though UP does not currently operate over the line, portions of the line are still active and used by UP and by short line railroads. UP retains irrevocable trackage rights from Parkdale, CO to Cañon City, CO in order to maintain the integrity of the Tennessee Pass Line route. Dotsero to Sage is a 6.9 mile segment, which is owned by UP and is still active. UP stores railcars along this portion of the line and serves one customer. The Sage to Parkdale segment is owned by UP and

runs for approximately 160 miles. This portion of the line does not currently have any service and is not being maintained by UP. In July 1998, the Royal Gorge Express, LLC acquired 11.75 miles of Tennessee Pass Line track from UP between Parkdale and Cañon City for passenger excursion train operations. The Cañon City Royal Gorge Railroad currently operates the passenger train excursions from Parkdale to Cañon City. R&R conducts freight operations over the Parkdale to Pueblo segment. BNSF also has trackage rights over a portion of the Tennessee Pass Line between Cañon City and Pueblo, which is currently owned by UP.

Despite its challenges, the Tennessee Pass Line is strategically located to offer a route that avoids some of the country's most congested rail lines. It is directly connected to an untapped rail intermodal lane. If this market were opened, westbound intermodal trains could depart Dallas/Fort Worth, TX and travel northwest toward Pueblo, CO, where they could be run over the Tennessee Pass Line on their way to Salt Lake City, UT and points west. In addition to bypassing the Denver terminal and using the more gradual gradients on the eastern approach to the Tennessee Pass Line, this route offers an alternative to the UP Sunset Route which spans the extreme desert southwest and is expected to handle 90 trains per day in the coming years.¹⁸ In a similar vein, eastbound trains laden with import and domestic intermodal trailers and containers could move over the Tennessee Pass Line.

The Tennessee Pass Line is advantageously located in close proximity to western U.S. natural resources and other industries. It is adjacent to a major grain production region served by both UP and BNSF. Currently, the grain transportation market in western Kansas and eastern

¹⁸ See, "The railroad with better profit margins than Google," by Shawn Tully, published June 4, 2015, Fortune.com ("Union Pacific_ The railroad with better profit margins than Google _ Fortune.pdf").

Colorado is limited by restrictions placed on it by other shippers. There is a large grain market that is currently not utilizing rail transportation that could move over the Tennessee Pass Line.

Oil sands and oil shale are plentiful in the Uinta Basin but have remained an untapped resource because of the difficulty in extracting the oil and natural gas. Recent advances in extraction technology could transform the basin. The Tennessee Pass Line could provide an alternate route out of the Uinta Basin to the refineries in the southern and eastern United States.

Any expansion of oil and gas exploration in the area will necessitate additional fracking (“frac”) sand deliveries. In 2018, the forecasted demand for frac sand was approximately 100 million tons. In addition to frac sand, growth will continue for aggregates such as gravel, crushed stone, slag, recycled concrete, etc.

The current rail customer base and the centralized location relative to the market makes Pueblo, CO a good foundation for a revitalization of the Tennessee Pass Line with Vestas, Evraz, Vossloh (successor to Rocla) and other industrial customers all situated within a five (5) mile radius of Pueblo.

Table 3 below shows the four primary segments of the Tennessee Pass Line (and includes the Leadville Branch track contained within Parkdale to Sage segment) and identifies the rail miles and the operational status for each segment, i.e., either active or inactive.

Table 3
Tennessee Pass Line Mileage and Status

Segment	Miles			Operational Status
	Mainline	Siding	Total	
(1)	(2)	(3)	(4)	(5)
1. Pueblo, CO to Cañon City, CO	41.95	13.85	55.80	Active
2. Cañon City, CO to Parkdale, CO	11.75	4.22	15.97	Active
3. Parkdale, CO to Sage, CO	163.10	40.16	203.26	Inactive
3a. Malta, CO to Leadville, CO Branch	5.10	0.00	5.10	Inactive
4. Sage, CO to Dotsero	<u>6.90</u>	<u>0.00</u>	<u>6.90</u>	Active
5. Total	228.80	58.23	287.03	xxx
6. Total Active Miles	60.60	18.07	78.67	Active
7. Total Inactive Miles (Rehab Miles)	168.20	40.16	208.36	Inactive
8. Percent Active	26.5%	31.0%	27.4%	xxx
9. Percent Inactive	73.5%	69.0%	72.6%	xxx

Source: Appendix TDC-4B.

The Tennessee Pass Line consists of 60.6 active mainline rail miles and 168.2 inactive mainline rail miles. When miles of siding are included, the Tennessee Pass Line has 78.67 total active miles and 208.36 total inactive miles. Stated differently, the Tennessee Pass Line is made up of 27.4 percent active rail miles and 72.6 percent inactive rail miles.

IV. NET LIQUIDATION VALUE CALCULATION

The Gross Salvage Value (“GSV”) is the nominal value of the track assets (excluding land) such as rail, ties, ballast, signals and other track materials (“OTM”) before adjustments to reflect removal and liquidation costs. To determine the value of the component parts of the track of the Tennessee Pass Line, I reviewed UP track charts, STB case findings, inspected the line using Google Earth Pro and researched other publicly available sources regarding the Tennessee Pass Line. Using this information, I estimated the quantities of the Tennessee Pass Line rail assets, including rail, rail anchors, tie plates, track spikes, ties, joint bars and turnouts.

I contacted 11 different rail material merchants and suppliers to obtain current purchasing and selling prices for rail and OTM. I also performed detailed market research to see what, if any, pricing information was available. A list of the companies I received pricing from is included in the supporting workpapers to this VS.

The railroad materials market is competitive and participants are sometimes reluctant to provide prices. Vendors also sometimes have limited stock and may not have current market pricing data for a particular grade or weight of rail. However, even with these limitations, I was able to obtain current market prices from reputable vendors for many of the rail and OTM items described above.

A. OVERSUPPLY IN THE STEEL AND RAIL PRODUCTS MARKET

Asian steel production has continued at a high level despite slow global economic growth. Steel producers in the U.S. and abroad curtailed production because the market is flooded with low-priced Chinese steel.¹⁹ In addition, U.S. steel production facilities are over-capacity and there

¹⁹ Since 2012, the global economy has been experiencing average growth rates of less than three (3) percent. As a result, demand for steel has weakened. Despite the procyclical nature of the global steel market, some nations,

is less demand for steel. As a result, pricing is depressed for both scrap and relay grade rail products.

1. Pricing is Depressed for Scrap Rail

The laws of supply and demand have resulted in prices for all finished steel products being low. Scrap steel is an input to the steel recycling process. As finished steel prices have dropped, input prices have dropped accordingly. Moreover, because production has been reduced and facilities have been shuttered, demand has been reduced even further, i.e., there is a shortage of scrap buyers.

2. Pricing is Depressed for Relay Rail

Due to the steel market supply glut, prices for all finished steel products (including new rail and OTM) are low. Low pricing on new rail applies downward pressure on pricing for relay rail.

In addition to the general steel market supply glut, there is also a glut in the relay rail market. According to the companies interviewed, there are more sellers than buyers in the relay market.

An executive at Harmer Steel indicated that relay rail prices are lower than what he has seen in the past and have dropped in the last year. This same executive indicated that his company is not aggressively pursuing purchasing opportunities at this time.

most notably China, are producing large amounts of steel, thereby driving down the price.” See, <http://www.heritage.org/research/reports/2016/09/the-us-steel-market-needs-free-trade-not-favoritism>. See, “Heritage Foundation 2016.pdf”

B. RAIL

The Tennessee Pass Line main line and siding tracks consist of several weights and types of rail.²⁰ Rail weight is defined as the weight of a three-foot section of rail. For example, a three-foot section, which weighs 115 pounds is referred to as 115 lb. rail. Rail typically is installed in 39-foot sections, which are jointed together, or in one-quarter mile sections, which are welded together in the field. The 39-foot sections of rail are referred to as “jointed” rail and the one-quarter mile sections of rail are referred to as “continuous welded rail” (“CWR”).

I relied upon UP’s 2002 track chart for the Tennessee Pass Subdivision (“Tennessee Pass track chart”²¹), as well as other publicly available sources, to determine the types of rail that make up the Tennessee Pass Line. The Tennessee Pass track chart identifies the rail weight and rail type for main line and siding along the Tennessee Pass Line. Appendix TDC-4P contains a summary of the rail type for each segment along the Tennessee Pass Line. There are various segments along the Tennessee Pass Line in which the Tennessee Pass track chart did not identify the rail type or rail weight. In these cases, it was necessary to make an assumption regarding the rail type and weight. For example, if the Tennessee Pass track chart did not identify the rail type or weight for a small segment, but did identify the previous connecting segment as 136 CWR, I made the assumption that the unidentified rail was also 136 CWR. There are also instances in which I had to rely upon Google Earth Pro to measure the track for sidings or yards. Using the track charts for these measurements would have been very time consuming and not as accurate as using Google Earth Pro. The segments which were calculated using Google Earth Pro are identified in Appendix TDC-4P.

²⁰ I made assumptions about the various types of rail based on my experience and publicly available data that are explained further in this VS.

²¹ See, Appendix TDC-3.

Table 4 below displays the rail miles of the Tennessee Pass Line by estimated weight and type of rail.

Table 4
Tennessee Pass Line Rail Miles by Estimated Type and Weight of Rail

Rail Weight and Type	Segment					Sidings	Total
	Pueblo to Cañon City	Cañon City to Parkdale 1/	Parkdale to Sage	Malta to Leadville Branch	Sage to Dotsero		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. 85 JT	0.00	0.00	0.00	1.20	0.00	0.00	1.20
2. 90 CWR	0.00	0.00	0.00	0.00	0.00	1.20	1.20
3. 90 JT	0.00	0.00	0.00	3.90	0.00	0.00	3.90
4. 100 CWR	0.00	0.00	0.00	0.00	0.00	2.35	2.35
5. 106 CWR	0.00	0.00	0.15	0.00	0.00	0.00	.15
6. 110 CWR	0.00	0.00	0.00	0.00	0.00	7.12	7.12
7. 112 CWR	0.80	0.00	7.35	0.00	0.00	3.75	11.90
8. 115 CWR	14.63	0.00	44.65	0.00	2.30	20.19	81.77
9. 119 CWR	0.00	0.00	0.75	0.00	0.00	0.00	0.75
10. 131 CWR	0.00	0.00	6.45	0.00	2.05	7.15	15.65
11. 132 CWR	0.00	0.00	1.40	0.00	0.00	0.00	1.40
12. 136 CWR	26.52	0.00	94.90	0.00	2.55	12.25	136.22
13. 136 JTD	<u>0.00</u>	<u>0.00</u>	<u>7.45</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>7.45</u>
14. Total	41.95	0.00	163.10	5.10	6.90	54.01	271.06

Source: Appendix TDC-4N.

1/ Segment not included in NLV.

The rail is classified into rail that can be reused in other railroad applications and rail that cannot be reused. Rail that can be reused is termed “relay” or “fit” rail. Relay rail is salvaged rail that is in excellent condition and provides companies with the opportunity to “re-lay” the rail. Reroll rail does not have the ability to be re-laid, but is able to be rerolled. Rerolled rail is converted into new products without having to re-melt the steel. Reroll rail typically has a slightly higher value than scrap. Rail that cannot be reused is sold as scrap steel.

Using Google Earth Pro, the photographs found in Appendix TDC-7, and given the number of years since the Parkdale, CO to Sage, CO portion of the Tennessee Pass Line has been operated (more than 20 years), I assumed the rail along this inactive segment is scrap.

For the remaining UP segments of the Tennessee Pass Line that have been active since 1996 (Pueblo, CO to Cañon City, CO and Sage, CO to Dotsero, CO)²², I relied upon evidence filed in the KCVN/CPRR Feeder Line Application Opening Comments on behalf of V&S Railway to determine the rail that would be categorized as relay, reroll or scrap.²³ Two (2) sets of V&S Railway inventories were provided for the Towner Line, the first by Crew Heimer (“Heimer”) in 2014 and the second by Ralph Lee Meadows (“Meadows”) in 2016. Both inventories were based on inspections of the line. Meadows identified the Towner Line rail as 93.13 percent relay, 0.00 percent reroll, and 6.87 percent scrap. The Board released a July 31, 2017 decision which stated that KCVN/CPRR met the criteria and eligibility requirements for the forced sale and acquisition of the Towner Line. In the decision, the Board discussed asset inventory and stated that “[t]he Board will accept the inventory put forward by Meadows on behalf of V&S. That inventory is the most recent, and it is extremely close to Heimer’s inventory.”²⁴ I used these rail classification percentages put forth by Meadows for the active UP rail segments that make up the Tennessee Pass Line. Since various segments of the Tennessee Pass Line are active, it is necessary for UP to maintain these segments and make sure the rail is in good working condition, supporting the use of the Towner Line percentages.

The inactive and active percentages of relay/reroll/scrap rail discussed above were applied to the 271.06 UP miles that make up the Tennessee Pass Line resulting in an estimated 58.39 miles of relay rail, 0.00 miles of reroll rail and 212.67 miles of scrap rail. This distribution results in

²² The Cañon City, CO to Parkdale, CO segment has not been included due to the fact that UP does not own this segment.

²³ KCVN/CPRR Feeder Line Application - *Comments of V and S Railway, LLC*, Volume I, Exhibit F-1, Page 23, filed on August 30, 2016. See “36005 KCVN v. V & S 2016.08.30 ID_241398 V&S Opening Comments.pdf”.

²⁴ KCVN/CPRR Feeder Line Application – *Surface Transportation Board Decision*, Page 14, filed on July 31, 2017. See, “36005 KCVN v. V & S 2017.07.31 ID_45890 BOARD DECISION APPROVES FORCED SALE OF TOWNER LINE.pdf”.

12,900 relay tons, 0 reroll tons and 47,283 scrap tons for a total of 60,183 tons. Due to the age of the rail line and the time it has sat idle, I assumed that 97 percent²⁵ of the rail would be recovered. This 97 percent factor was applied to the tons listed above and results in a total of 58,377 tons that would be recovered.

Table 5 below displays both the weight and type of recoverable rail estimated in the main line and siding tracks that make up the Tennessee Pass Line.

Table 5
Estimated Tennessee Pass Line Recoverable Rail Weight by Type and Weight
(Tons)

Rail Weight and Type	Relay	Reroll	Scrap	Total
(1)	(2)	(3)	(4)	(5)
1. 85 lb. JT	0.00	0.00	174.13	174.13
2. 90 lb. CWR	0.00	0.00	184.38	184.38
3. 90 lb. JT	0.00	0.00	599.23	599.23
4. 100 lb. CWR	238.48	0.00	162.71	401.19
5. 106 lb. CWR	0.00	0.00	27.14	27.14
6. 110 lb. CWR	253.59	0.00	1,083.49	1,337.08
7. 112 lb. CWR	747.90	0.00	1,527.46	2,275.36
8. 115 lb. CWR	3,954.84	0.00	12,098.91	16,053.75
9. 119 lb. CWR	0.00	0.00	152.37	152.37
10. 131 lb. CWR	426.97	0.00	3,073.05	3,500.02
11. 132 lb. CWR	0.00	0.00	315.49	315.49
12. 136 lb. CWR	6,891.20	0.00	24,736.25	31,627.45
13. 136 lb. JTD	<u>0.00</u>	<u>0.00</u>	<u>1,729.73</u>	<u>1,729.73</u>
14. Total Rail Tons	12,512.98	0.00	45,864.34	58,377.32

Source: Appendix TDC-4C.

The price of relay rail is expressed in terms of dollars per net ton and varies depending on the weight and type of rail. The price also reflects the current status of the rail markets. The cost of relay rail removal varies by rail weight. For relay rail, I obtained current market prices either

²⁵ This factor is based on KCVN/CPRR Feeder Line Application. Both KCVN/CPRR and V&S assumed a recovery rate of 97 percent. See “36005 KCVN v. V & S 2016.03.18 ID_240327 KCVN OPENING STATEMENT AND APPLICATION.pdf.”

from publicly available quotes or from conversations with vendors for fourteen (14) different weights and grade of rail.²⁶

On January 16, 2020, I received quotes for each rail type considered in this analysis from Harmer Steel, LB Foster and Progress Rail, ranging from \$140 per ton for 112 lb. jointed rail to \$625 per ton for 115 lb. CWR and jointed rail. These price quotes are based on the current market for rail and are subject to change as the market changes. Reroll and scrap are sold on a dollar per gross ton basis and do not vary by weight per yard or type of rail. The current reroll and scrap values are based on quotes received from Harmer Steel and Progress Rail (LB Foster did not provide a quote for reroll or scrap rail). For the price of reroll rail, I used the average of Harmer Steel and Progress Rail's reroll prices of \$195.00 per gross ton, which equates to \$174.11 per net ton for reroll rail.²⁷ I also used the average of Harmer Steel and Progress Rail's scrap prices of \$159.00 per gross ton, which equates to \$141.96 per net ton for rail scrap.²⁸ Appendix TDC-4C to this VS sets forth the classification of the weight and type of rail and estimated salvage value in the Tennessee Pass Line mainline and siding tracks.

Table 6 below shows the estimated GSV for rail by type of rail for the Tennessee Pass Line mainline and siding tracks.

²⁶ See, Appendix TDC-4O.

²⁷ $\$195.00 \text{ per gross ton} \times (2,000 \text{ lbs. per net ton} \div 2,240 \text{ lbs. per gross ton}) = \$174.11 \text{ per net ton.}$

²⁸ $\$159.00 \text{ per gross ton} \times (2,000 \text{ lbs. per net ton} \div 2,240 \text{ lbs. per gross ton}) = \$141.96 \text{ per net ton.}$

<u>Rail Type</u>	<u>Reusable Tons</u>	<u>Value per Ton</u>	<u>GSV</u>
(1)	(2)	(3)	(4)
1. Relay	12,512.98	\$170-\$441	\$4,661,365
2. Reroll	0.00	\$174	\$0
3. Scrap	<u>45,864.34</u>	\$142	<u>\$6,511,098</u>
4. Rail GSV	58,377.32	--	\$11,172,463

Source: Appendix TDC-4C.

The 58.3 thousand tons of reusable rail translate to an \$11.1 million GSV as shown in Table 6 above.

C. CROSSTIES

According to the Railway Tie Association, crossties are typically laid every 19.5 inches.²⁹ I followed this approach and assumed that crossties on the main line are spaced at intervals of 19.5 inches, which translates to 3,249 ties per mile of rail³⁰ and results in 880,736 total ties on the Tennessee Pass Line.³¹

Ties are classified as reusable for railroad purposes (relay), reusable for landscape purposes (landscape), or as scrap. According to the AAR’s 2018 Railroad Tie Survey, 1.1 percent of ties are reused by railroads (either reused by same RR or reused by another RR); 27.0 percent of ties are used for landscape purposes (reused commercial landscape; reused agriculture; or reused residential landscape); and 71.9 percent of ties are scrap (other; incineration; recycle combustion (for energy); recycle gasify (for energy); and landfill).³² As can be seen from the AAR survey, over 70 percent of ties are classified as scrap by railroads. Given that the Parkdale, CO to Sage,

²⁹ See, “Railway Tie Association_FAQ_Tie Spacing.pdf.”

³⁰ (5,280 feet per mile x 12 inches per foot) ÷ 19.5 inches between ties = 3,249 ties per mile.

³¹ 3,249 ties per mile x 271.06 miles = 880,736 ties.

³² See, “2018 Railroad Ties Survey.pdf.”

CO portion of the Tennessee Pass Line has not seen traffic, or been maintained, for over 20 years, I assumed that 100 percent of the ties along the inactive portion of the Tennessee Pass Line are scrap.

For the segments of the Tennessee Pass Line that have been active since 1996 (Pueblo, CO to Cañon City, CO and Sage, CO to Dotsero, CO), I followed the classification percentages listed above and assumed that 1.1 percent of the ties would be relay, 27.0 percent of the ties would be landscape (I assigned 13.5 percent to landscape #1 and 13.5 percent to landscape #2), and 71.9 percent would be scrap.

I valued crossties that are reusable for railroad purposes at \$7.50 each and ties that are useable for landscape purposes at negative \$1.50 each. Given that scrap ties must be removed and disposed of, scrap ties were assigned a negative value of \$10 each to account for the proper disposal of used railroad ties. All of the crosstie prices above are based on quotes that I received from Harmer Steel and Progress Rail on January 16, 2020.³³ In addition to the unit costs above, I reached out to vendors in an attempt to get a quote for the cost to remove each tie. I was not able to get a response to my inquiry. However, as identified in the March 18, 2016 KCVN/CPRR Feeder Line Application Opening Comments³⁴, KCVN/CPRR assumed that tie removal would be equal to \$2.00 per tie. Using RS Means, I indexed the \$2.00 per tie from 1Q16 to 1Q20 and arrived at an estimated tie removal cost of \$2.32 per tie. Based on the salvage value of the ties as well as the cost to remove the ties, I determined that the cost to remove and dispose of the ties that make up the Tennessee Pass Line is greater than the value obtained by selling the landscape ties. Based prior on STB proceedings, if the total ties Net Salvage Value (“NSV”) is less than zero it is

³³ See, Appendix TDC-4O for complete list of crosstie quotes.

³⁴ See, “36005 KCVN v. V & S 2016.03.18 ID_240327 KCVN OPENING STATEMENT AND APPLICATION.pdf.”

assumed that the railroad would not go through the process of removing and disposing of the ties and the NSV is assumed to be zero.

Table 7 below sets forth the estimated NSV of Tennessee Pass Line ties.

<u>Salvage Type</u>	<u>Ties</u>	<u>Value per Tie</u>	<u>NSV 1/</u>
(1)	(2)	(3)	(4)
1. Relay	2,241	\$7.50	\$16,808
2. Landscape #1	27,503	(\$1.50)	(\$41,255)
3. Landscape #2	27,503	(\$1.50)	(\$41,255)
4. Scrap	823,489	(\$10.00)	(\$8,234,890)
5. Tie Removal	<u>880,736</u>	(\$2.32)	<u>(\$2,042,515)</u>
6. Tie Net Salvage Value	880,736	----	(\$10,343,107)

Source: Appendix TDC-4D.
1/ Column (2) x Column (3).

The calculated NSV for the 880,736 ties on the Tennessee Pass Line equals negative \$10.3 million, as shown in Table 7 above, which means there is no value for the purposes of this analysis.

D. OTHER TRACK MATERIAL

OTM consists of the material required to hold the rail in place along the tracks and includes such things as tie plates, joint bars, rail anchors, track spikes and bolts and washers.

Table 8 below summarizes the estimated amount of OTM on the Tennessee Pass Line.

Table 8
Estimated Tennessee Pass Line Other Track Material

Item	Amount
(1)	(3)
1. Relay Tie Plates	368,077
2. Scrap Tie Plates Tons	16,411
3. Relay Joint Bars	0
4. Scrap Joint Bars Tons	172
5. Relay Welded Rail Anchors	303,548
6. Relay Jointed Rail Anchors	0
7. Scrap Rail Anchors Tons	716
8. Scrap Spikes Tons	946
9. Scrap Bolt & Washers Tons	299

Source: Appendix TDC-4F.

OTM is typically labeled as relay or scrap. Given the age and inactivity of the Parkdale, CO to Sage, CO portion of the Tennessee Pass Line, I determined that the entire segment would be scrap and has an estimated value of \$150.89 per net ton based on the quotes received from Harmer Steel and Progress Rail and discussed above.

Relay OTM equals the same number of miles as relay rail on the segments of the Tennessee Pass Line that have been active since 1996 (Pueblo, CO to Cañon City, CO and Sage, CO to Dotsero, CO). The segments that are reroll or scrap for rail were considered scrap for OTM, with the exception of spikes, bolts and washers which are all considered to be scrap.

I calculated the tons for each OTM category and applied the unit prices to develop the total OTM liquidation value. Table 9 below summarizes the estimated GSV for OTM on the Tennessee Pass Line.

Table 9
Estimated Tennessee Pass Line Other Track Material GSV -- 1Q20

Item	Unit	Amount	Value per Unit	GSV 1/
(1)	(2)	(3)	(4)	(5)
1. Relay Tie Plates	Reusable Ties	368,077	\$4.42	\$1,625,673
2. Scrap Tie Plates	Reusable Scrap Tons	16,411	\$150.89	\$2,476,303
3. Relay Joint Bars	Reusable Joint Bars	0	\$37.33	\$0
4. Scrap Joint Bars	Reusable Scrap Tons	172	\$150.89	\$25,954
5. Relay Welded Rail Anchors	Reusable Anchors	303,548	\$0.46	\$139,632
6. Relay Jointed Rail Anchors	Reusable Anchors	0	\$0.46	\$0
7. Scrap Rail Anchors	Reusable Scrap Tons	716	\$150.89	\$108,039
8. Scrap Spikes	Reusable Scrap Tons	946	\$150.89	\$142,745
9. Scrap Bolt & Washers	Reusable Scrap Tons	299	\$150.89	\$45,117
10. OTM GSV				\$4,563,463

Source: Appendix TDC-4F.
1/ Column (3) x Column (4).

OTM GSV on the Tennessee Pass Line equals \$4.6 million, as shown in Table 9 above.

E. TURNOUTS

Using Google Earth Pro and UP’s Tennessee Pass track chart, I reviewed the Tennessee Pass Line to identify the number of turnouts on the rail line as well as the type of turnout, i.e. rail weight of the turnout. The Tennessee Pass Line has a total of 140 turnouts.³⁵ Of these turnouts, 104 are on the Parkdale, CO to Sage, CO segment (101 along Parkdale, CO to Sage, CO and three (3) along the Malta, CO to Leadville, CO Branch) and 36 turnouts are on the remaining UP segments of the Tennessee Pass Line.

Table 10 below separates the turnouts by segment.

³⁵ This does not include the Cañon City, CO to Parkdale, CO segment, as that segment is not owned by UP.

Table 10
Estimated Tennessee Pass Line Turnouts

Segment	Quantity
(1)	(2)
1. Pueblo, CO to Cañon City, CO	28
2. Cañon City, CO to Parkdale, CO	xxx
3. Parkdale, CO to Sage, CO	101
3a. Malta, CO to Leadville, CO Branch	3
4. Sage, CO to Dotsero, CO	<u>8</u>
5. Total Tennessee Pass Line Turnouts	140

Source: Appendix TDC-4R.

Based on the age of the rail line between Parkdale, CO and Sage, CO and the lack of maintenance for over two (2) decades, these 104 turnouts³⁶ are not reusable and are classified as scrap. Each scrap turnout contains five (5) tons of scrap metal for a total of 520 tons on the Parkdale, CO to Sage, CO segment. Based on a recovery rate of 97 percent, there are 504 salvageable tons of scrap metal associated with the Parkdale, CO to Sage, CO turnouts. I used the scrap price of \$141.96 per net ton provided by Harmer Steel and Progress Rail, and discussed above, for the scrap turnouts.

For the remaining 36 turnouts on the active Pueblo, CO to Cañon City, CO and Sage, CO to Dotsero, CO segments, I followed the same approach I did for rail classification. As discussed above, I followed the classification percentages used in the Towner Feeder Line Application and accepted by the Board. I assumed that 93.13 percent of the active turnouts would be relay and 6.87 percent would be scrap. Following these classification percentages results in 31 relay turnouts (20 136 lb. and 11 112/115 lb.) and five (5) scrap turnouts.³⁷

³⁶ 101 turnouts on the Parkdale – Sage segment and three (3) turnouts on the Malta – Leadville branch.

³⁷ See, Appendix TDC-4R.

The estimated unit cost per turnout for removal of the 136 lb. and 112/115 lb. rail turnouts is \$2,250 based on the January 16, 2020 unit costs provided by Harmer Steel and Progress Rail. This equates to a total cost of \$45,000 for removal of the 20, 136 lb. turnouts and a total cost of \$24,750 for removal of the 11, 112/115 lb. rail turnouts.

Table 11 below summarizes the estimated GSV for turnouts on the Tennessee Pass Line.

<u>Salvage Type</u>	<u>Quantity</u>	<u>Value per Unit</u>	<u>GSV 1/</u>
(1)	(2)	(3)	(4)
1. Relay 136 lb. No. 10 Turnouts	20	\$2,250	\$45,000
2. Relay 112/115 lb. No. 10 Turnouts	11	\$2,250	\$24,750
3. Scrap – Reusable Tons	529	\$141.96	<u>\$75,099</u>
4. Turnout GSV	xxx	xxx	\$144,849

Source: Appendix TDC-4H.
1/ Column (2) x Column (3).

Turnout GSV on the Tennessee Pass Line equals \$0.1 million, as shown in Table 11 above.

F. BALLAST

No value was assigned to ballast in the calculation of the salvage value of the line. Marketing costs to inform railroads of second-hand availability and handling costs would exceed the amount that could be recovered through sale and so they are not included in NLV calculations.

G. SIGNALS

No value was assigned to signals and communications facilities in the calculation of the salvage value of the line. Reuse of signals by even a short line railroad is unlikely. Typically, no inventory is kept on-hand and new replacements are ordered from standard suppliers and immediately installed. Marketing costs to inform railroads of second-hand availability and

handling costs would exceed the amount that could be recovered through sale. Signal material scrap value would not exceed salvage costs.

H. CROSSING EQUIPMENT

No value was assigned to crossing equipment in the calculation of the salvage value of the line. Marketing costs to inform railroads of second-hand availability and handling costs would exceed the amount that could be recovered through sale. Furthermore, there is no ready market in which to sell used, highway crossing signals.

I. BRIDGES

No salvage value was assigned to bridges in the calculation of the salvage value of the line. Bridges are not reflected in a standard calculation of an NLV as their removal cost would exceed any recoverable salvage value.

J. TUNNELS

No salvage value was assigned to tunnels in the calculation of the salvage value of the line. Tunnels are not reflected in a standard calculation of an NLV as their removal cost would exceed any recoverable salvage value.

K. REMOVAL AND LIQUIDATION COSTS

The salvage values set forth above are all gross salvage values, i.e., they do not include the cost of recovery or removal of the assets from their current location.³⁸ I developed the removal costs of relay rail and relay OTM, scrap rail and scrap OTM, relay turnouts and scrap turnouts as well as the costs to restore public and private highway crossings to calculate the total estimated recovery costs for the Tennessee Pass Line.

³⁸ Except for scrap ties which are discussed above and are net of recovery costs.

I relied upon the unit costs presented in the August 30, 2016 Opening Comments of V&S Railway in the KCVN/CPRR Feeder Line Application.³⁹ I then indexed these unit costs from 3Q16 to 1Q20 using the RS Means Index. I also used Google Earth Pro and UP’s Tennessee Pass track chart to estimate the number of public and private crossings that must be restored.⁴⁰

Table 12 below details the amounts I subtracted from the estimated gross salvage values to account for removal and recovery costs.

<u>Item</u> (1)	<u>Quantity</u> (2)	<u>Units</u> (3)	<u>Cost per Unit</u> (4)	<u>Total Cost</u> (5)
1. Fit Rail and OTM	58.39	Miles	\$18,454	\$1,077,552
2. Scrap Rail and OTM	212.67	Miles	\$17,878	\$3,802,006
3. Fit Turnouts	31	Turnout	\$923	\$28,604
4. Scrap Turnouts	109	Turnout	\$577	\$62,860
5. Public Highway Crossings	65	Crossing	\$2,307	\$149,942
6. Private Highway Crossings	60	Crossing	\$346	<u>\$20,761</u>
7. Total Recovery Costs	--	--	--	\$5,141,725

Source: Appendix TDC-4I.

The removal and recovery costs for the Tennessee Pass Line equal \$5.1 million, as shown in Table 12 above.

1. Marketing and Disposition Costs

In addition to removal and restoration costs, it is also necessary to include the costs to market the assets and to administer the disposal process. I included 15 percent of the relay GSV for relay marketing and disposition costs and five (5) percent of the reroll and scrap GSV for scrap

³⁹ KCVN/CPRR Feeder Line Application, V&S Opening Comments, Page 33 of Exhibit F-1, filed on August 30, 2016. See, “36005 KCVN v. V & S 2016.08.30 ID_241398 V&S Opening Comments.pdf”

⁴⁰ See Appendix TDC-4Q.

marketing and disposition costs.⁴¹ The total estimated marketing and disposition costs equal \$1.4 million.

Appendix TDC-4A contains the development of the marketing and disposition costs included in this analysis.

L. TRANSPORTATION COSTS

Transportation costs for transporting the assets to market must also be considered. Chicago, IL is the key market in the United States for used and scrap rail assets. It is also possible to deliver scrap to Evraz Rocky Mountain Steel, which is a vendor in Pueblo, CO. Evraz does not accept relay or reroll rail, so it would still be necessary to ship these assets to Chicago.

Current UP rail tariffs for the movement of relay, scrap and reroll steel products from the Tennessee Pass Line⁴² to Chicago and Pueblo include a charge of \$5,358⁴³ per rail car to transport the relay and reroll assets to Chicago and \$2,021⁴⁴ per rail car to transport scrap assets to Pueblo. I used these rates, along with the number of rail cars to each destination, to calculate a weighted average cost per car of \$2,561 and the total estimated transportation costs of \$2.0 million.

Appendix TDC-4J identifies the number of railcars needed, along with the cost per railcar, required to transport relay, reroll and scrap material from the Tennessee Pass Line to Pueblo and Chicago.

⁴¹ STB Docket No. FD 36005 filed March 18, 2016, KCVN/CPRR Feeder Line Application for Towner Line, Volume I. KCVN/CPRR assumed that relay marketing would be equal to 20% and scrap marketing would be equal to 10%. V&S Railway's Opening Comments filed August 30, 2016 assumed that relay marketing would be equal to 13% and scrap marketing would be equal to 5%. It has been assumed that the Tennessee Pass Line would realize relay marketing costs equal to 15% and scrap marketing costs equal to 5%.

⁴² Assumes Parkdale, CO is the point of origin.

⁴³ UP public tariff UPRR 33126, Item 1017-AE identifies rates for STCC 33128 ("Railway Track Material Viz/ Rail, Joint Bars, Tie Plates Or Related Products"). Based on UP's public tariff, the cost to ship railway material from Parkdale, CO to Chicago, IL is equal to \$5,358 per car for plain/open gondola. See "UPRR33126BOOK.pdf" at 174.

⁴⁴ UP public tariff UPRR 4021, Item 1217-AM identifies rates for STCC 40211 ("Iron Or Steel Scrap, Wastes Or Tailings"). Based on UP's public tariff, the cost to ship scrap from Parkdale, CO to Pueblo, CO is equal to \$2,021 per car for boxcar/gondola/hopper. See "UPRR4021BOOK.pdf" at 90.

M. LAND VALUE

The mainline and siding tracks on the Tennessee Pass Line extend from Pueblo, CO to Dotsero, CO. The terrain in this region is predominantly mountainous, with the mainline running through five (5) Colorado counties. These counties include Pueblo County, Fremont County, Chaffee County, Lake County, and Eagle County.

The Tennessee Pass Line is located on both reversionary acres and non-reversionary acres. Reversionary land is land which is not owned by the railroad and thus cannot be sold. I developed the value of the Tennessee Pass Line non-reversionary acres, i.e., land that is owned by the railroad and can be sold, based on data in the 1995 UP/SP merger application. The 1995 UP/SP merger application identified the reversionary and non-reversionary acres that make-up the Tennessee Pass Line.⁴⁵

Table 13 below summarizes the reversionary and non-reversionary acres identified in the UP/SP merger application for the segments of the Tennessee Pass Line.

<u>Segment</u>	<u>Total Acres</u>	<u>Reversionary Acres 1/</u>	<u>Non-Reversionary Acres</u>
(1)	(2)	(3)	(4)
1. Sage, CO to Malta, CO	1,336.00	1,231.00	105.00
2. Malta, CO to Leadville, CO	70.00	30.00	40.00
3. Malta, CO to Cañon City, CO	<u>2,487.00</u>	<u>2,233.95</u>	<u>253.05</u>
4. Total	3,893.00	3,494.95	398.05

Source: Appendix TDC-4M.
1/ Column (2) – Column (4).

⁴⁵ See, STB Docket No. 32760 *UP/SP Merger*, Volume 5, page 293 for Sage, CO to Malta, CO and Malta, CO Leadville, CO segments and Page 343 for Malta, CO to Cañon City, CO segment. (“1995.11.30 FD No. 32760_UP SP Merger Application_TN Pass.pdf”)

For the segments of the Tennessee Pass Line that were not included in the land valuation section of the UP/SP merger application, I estimated non-reversionary acres using a weighted average non-reversionary acre per mile, weighted on miles, using the Tennessee Pass Line segments included in the UP/SP merger application. Appendix TDC-4M provides a breakdown of UP/SP non-reversionary acres per track mile. I estimated 2.21 non-reversionary acres per mile, which I applied to the miles that make up the Pueblo, CO to Cañon City, CO segment, the Parkdale, CO to Sage, CO segment, and the Sage, CO to Dotsero, CO segment.⁴⁶

The UP/SP merger application also states that the non-reversionary acres that make up the Malta-Cañon City segment had an NLV of \$378,000. This equates to \$1,493.78 per acre (\$378,000 ÷ 253.05 non-reversionary acres). I indexed this per acre value to a 2019 value of \$3,016 per acre⁴⁷ using the United States Department of Agriculture’s National Agricultural Statistics Service. I then applied the \$3,016 per acre unit cost to each segment’s non-reversionary acres as shown in Table 14 below.

Segment	Non- Reversionary Acres	Estimated Value Per Acre	Total Land Value
(1)	(2)	(3)	(4)
1. Pueblo, CO to Cañon City, CO	93.00	\$3,016.28	\$280,514
2. Cañon City, CO to Parkdale, CO	0.00	\$3,016.28	\$0
3. Parkdale, CO to Sage, CO	361.00	\$3,016.28	\$1,088,876
3a. Malta, CO to Leadville, CO Branch	40.00	\$3,016.28	\$120,651
4. Sage, CO to Dotsero, CO	<u>15.00</u>	<u>\$3,016.28</u>	<u>\$45,244</u>
5. Total	509.0	\$3,016.28	\$1,535,285

Source: Appendix TDC-4L.

⁴⁶ See Appendix TDC-4L.

⁴⁷ See Appendix TDC-4M.

As shown in Table 14 above, the total land value for Pueblo, CO to Dotsero, CO equals \$1.5 million.

Based on the individual components of the Tennessee Pass Line identified and quantified in this Section of my VS, the NLV of the Tennessee Pass Line can be identified. Specifically, there are two (2) components included in the determination of the NLV:

1. Net Salvage Value (“NSV”) - the salvage value of track and materials (Gross Salvage Value less cost of removal); and
2. Land Value - the value of the underlying real estate or land value.

The components that make up the net salvage value of track and materials are summarized in Table 15 below.

<u>Track Component</u> (1)	<u>Amount</u> (2)
1. Rail	\$11,172,463
2. Cross Ties	\$0
3. Other Track Material	\$4,563,463
4. Turnouts	\$144,849
5. Ballast	\$0
6. Signals	\$0
7. Crossing Equipment	\$0
8. Bridges	\$0
9. Tunnels	<u>\$0</u>
10. Gross Salvage Value	\$15,880,775
11. Liquidation Cost	(\$8,580,227)
12. NSV of Track Assets	\$7,300,548

Source: Appendix TDC-4A.

The NSV of the Tennessee Pass Line equals the gross salvage value of \$15.9 million less removal and restoration costs, marketing and disposition costs and transportation costs totaling

\$8.6 million.⁴⁸ Subtracting these costs from the gross salvage value produces an NSV for the Tennessee Pass Line track assets equal to \$7.3 million.

The total land value for Pueblo, CO to Dotsero, CO equals \$1.5 million, as shown above in this Section of my VS. Combining the NSV of track assets and the value of land results in the NLV of the Tennessee Pass Line shown in Table 16 below.

<u>Asset Category</u> (1)	<u>Net Liquidation Value</u> (2)
1. NSV of Track Assets	\$7,300,548
2. Value of Land	<u>\$1,535,285</u>
3. Total NLV	\$8,835,833
See: Appendix TDC-4A.	

The NSV of Tennessee Pass Line track assets equals \$7.3 million and the value of associated land equals \$1.5 million for a total Tennessee Pass Line NLV of \$8.8 million.

⁴⁸ Restoration costs of \$5,141,725 plus marketing and disposition costs of \$1,443,681 plus transportation costs of \$1,994,821.

V. GOING CONCERN VALUE CALCULATION

GCV is the worth of a rail line as an operating business. As stated by the STB in *Pyco*,⁴⁹ the GCV of a rail line is the worth of the line to the seller, not the worth to the buyer.⁵⁰ The Tennessee Pass Line is not currently being operated as a single going concern, therefore I cannot calculate GCV for the portions of the line that are not in active service. Stated differently, that portion of the Tennessee Pass Line that UP currently does not operate or maintain, e.g., the Parkdale to Sage line segment, has a GCV equal to zero.

In contrast to the inactive portion of the line, I was able to estimate a GCV for the currently “active” portions of the Tennessee Pass Line, which include: (1) Pueblo to Cañon City; and (2) Sage to Dotsero. The GCV of these two (2) portions of the Tennessee Pass Line are based on my estimate of revenues and variable costs that UP realizes for traffic moving over these two (2) segments. As shown in Appendix TDC-5A, I estimate the GCV for these two (2) segments equals \$6.8 million.

Following STB procedures, GCV is calculated by dividing the owner’s net revenues from operating the rail line by the railroad industry’s pre-tax cost of capital adjusted for growth.⁵¹ The net revenues are determined by subtracting the variable costs of operating the line from the gross revenues earned from traffic operating on the line.⁵² I discuss each aspect of my GCV analysis below.

⁴⁹ STB Finance Docket No. 34890, *Pyco Industries, Inc.—Feeder Line Application— Lines Of South Plains Switching, Ltd. Co.*, served August 31, 2007 (“*Pyco*”), *See*, “STB Finance Docket No. 34890, *Pyco Industries, Inc.-Feeder Line Application-Lines of South Plains Switching, LTD.Co..pdf*”

⁵⁰ *See, Pyco* at page 19.

⁵¹ *Id.*

⁵² *Id.*

A. PUEBLO TO CAÑON CITY NET REVENUES

UP owns the Pueblo to Cañon City segment. R&R and BNSF operate over this segment via a trackage rights agreement. Based upon publicly available information, UP is responsible for the maintenance of this 41.95 mile segment of track.⁵³ I found no public evidence that UP currently serves any customers on the Pueblo to Cañon City line.

1. Traffic and Revenues

Little publicly available information is available about R&R and BNSF's operations on the Pueblo to Cañon City segment. Published reports indicate that Front Range Aggregates transports aggregates from its Parkdale facility via rail⁵⁴ and LafargeHolcim operates a Portland cement facility near Florence, CO.⁵⁵ I was unable to determine the current volumes from these, or any other shippers along this segment.

Without specific carload or train information for this line segment, I turned to broader reported measures of traffic that are publicly available. The 2012 Colorado State Freight and Passenger Rail Plan, prepared for CDOT, shows that the Pueblo-Cañon City segment realizes between zero and five (5) million gross tons of traffic per year.⁵⁶ Accident reports filed by UP and R&R with the FRA show between 0.8 and one million gross tons in annual track density for this line segment in 2012. Given the paucity of traffic volume information on this rail line, and the information reported by CDOT and FRA, I assumed this line segment sees 2.5 million gross tons

⁵³ A November 2012 Rail Equipment Accident/Incident Report filed by the UP with the FRA lists UP as the name of the railroad responsible for track maintenance. A different FRA Rail Equipment Accident/Incident Report filed the same month by the R&R also lists UP as the railroad responsible for track maintenance on this line segment. See, "UP 2012 FRA Safety Report with Density.pdf"

⁵⁴ See, "*Last of its Kind: Shipping by Rail*" by Kevin Yanik, published February 3, 2015 at <http://www.pitandquarry.com/last-of-its-kind-shipping-by-rail/> ("Last of its Kind Shipping by Rail.pdf").

⁵⁵ See, <https://www.lafargeholcim.us/our-locations> ("LafargeHolcim Locations.pdf").

⁵⁶ See, "2012 Colorado State Freight and Passenger Rail Plan.pdf" at page 3-5.

of traffic per year. This is the midpoint of the CDOT's line segment traffic estimate, and assumes that volumes have grown since the density information provided by UP and R&R to the FRA.

As indicated above, it appears that UP does not currently serve any customers on this line segment. UP instead receives revenues generated through trackage rights fees charged to R&R and BNSF. Trackage rights agreements are, in most cases, private agreements between railroads and not publicly reported. To estimate the trackage rights fees paid by the BNSF and R&R to UP, I relied upon the trackage rights agreement entered into by UP and BNSF as part of a settlement agreement in the UP/SP merger. UP stated in a February 4, 2019 STB filing, that the current trackage rights fee under this agreement for carload traffic is 3.31 mills per gross ton-mile ("GTM").⁵⁷ I used the URCS based adjustment methodology called for in the trackage rights agreement to index the rate to 2020 levels.⁵⁸ As shown in Appendix TDC-5B, the estimated trackage rights fee for the Pueblo-Cañon City line segment is 3.31 mills per GTM. Overall, applying the estimated trackage rights fee to the estimated volume of 2.5 million gross tons per year produces estimated trackage rights revenues of \$347,000 per year.

2. Operating Expenses

My research indicates UP currently does not directly serve customers on the Pueblo-Cañon City segment, and therefore does not incur any above the rail operating expenses for this section of its network. As the party responsible for track maintenance on this line segment, UP does incur below the wheel costs.

⁵⁷ Union Pacific Railroad Company's Submission in Response to Decision No. 6 in Finance Docket No. 32760 (Sub-No. 46), *BNSF Railway Company - Terminal Trackage Rights - Kansas City Southern Railway Company and Union Pacific Railroad Company*, submitted February 4, 2019. See, "2019.02.04 Finance Docket No. 32760 (Sub-No. 46)_UP Submission in Response to Decision No.6.pdf"

⁵⁸ See, e-workpaper "Trackage Rights Rate Adjustment.xlsx."

I estimated UP's below the wheel variable costs for the Pueblo-Cañon City segment using the STB's 2018 UP URCS variable costs. As described below, I developed UP's system average below wheel variable costs, excluding ROI and converted the aggregate costs to a cost per GTM. This resulted in a below the wheel URCS variable cost, excluding ROI, of 2.13 mills per GTM. I then adjusted the 2018 unit costs to 1Q20 wage and price levels by applying the change in the STB's Rail Cost Adjustment Factor - - Unadjusted for Productivity ("RCAF-U"), and applied it to the estimated GTMs moving on the line to develop an estimated below the wheel variable cost. As shown in Appendix TDC-5B, Line 11, UP's variable costs for this line segment are estimated to equal \$221,000.

3. Net Revenues

Based on the estimated revenues and variable costs described above, I estimated the net revenues attributable to the Pueblo-Cañon City line segment. Appendix TDC-5B, Line 12 shows that the estimated net revenues on this line segment equal approximately \$126,000 per year.

B. SAGE TO DOTSERO NET REVENUES

I relied upon public data to estimate traffic volumes and revenues received by UP for traffic moving on the Sage to Dotsero segment.

1. Traffic and Revenues

The only active shipper on this portion of the Tennessee Pass Line is American Gypsum based on available public documents. American Gypsum is the fifth largest producer of gypsum wallboard in North America, and operates five (5) gypsum plants with an annual capacity approaching 3.5 billion square feet of wallboard. One of the plants is located along the Tennessee Pass Line in Gypsum, CO.⁵⁹ Rail service to the drywall plant is provided by a UP local train, the

⁵⁹ See, <https://www.americangypsum.com/about/locations> ("American Gypsum Locations.pdf").

Minturn Local. The Minturn Local originates at Grand Junction, CO and, public information and comments indicate, the train operates the 6.1 miles east beyond Dotsero, CO to Gypsum at milepost 335.8 once per week.⁶⁰ Public comments and documents also indicate the Gypsum, CO plant ships approximately eight (8) railcars per week on UP.⁶¹

I estimated the traffic revenues for the American Gypsum traffic based on the STB's 2018 Public Use Waybill file.⁶² The STB waybill data shows the average rate per car for gypsum wallboard⁶³ that moves in center beam flat cars from this region equals approximately \$5,402 per car.⁶⁴ I used the reported change in average revenue per carload for UP industrial traffic between 2018 and 4Q19 as reported in its publicly available financial statements to forecast the average rate per carload to 1Q20 wage and price levels. Based on the above, I estimate the 1Q20 rate for American Gypsum traffic to equal \$5,447, as shown on Appendix TDC-5C, Line 14.

In recent years, significant revenues from rail car storage, especially coal cars, have been reported. However, storage revenues will decline in the future, as coal shippers ultimately rationalize their railcar fleets. "The widespread adoption of PSR means the big U.S. railroads want to be in the moving business, not the storage business."⁶⁵ I did not include storage revenues in my UP revenue forecast for Sage to Dotsero.

⁶⁰ See, <http://salidacitizen.com/wp/?p=11962> ("More Rail History_Salida Citizen.pdf"), <https://www.trainorders.com/discussion/read.php?1,3722968> ("Train Orders Discussion_1,3722968.pdf").

⁶¹ See, <https://www.trainorders.com/discussion/read.php?1,1917308> ("Train Orders Discussion_1,1917308.pdf"), <https://www.trainorders.com/discussion/read.php?1,3722968> ("Train Orders Discussion_1,3722968.pdf"), <https://www.railpictures.net/viewphoto.php?id=671835> ("Rail Pictures_671835.pdf"), <https://www.trainorders.com/discussion/read.php?1,2375789> ("Train Orders Discussion_1,2375789.pdf") and <https://www.flickr.com/photos/tylereaton/47302414532> ("Flickr Photo_47302414532.pdf").

⁶² See, e-workpaper "2018 Public Use Waybill for Gypsum Board.xlsx." The 2018 Waybill is the most current file available.

⁶³ STCC 32754. See "STCC 32754.pdf".

⁶⁴ Public documents and maps show the Gypsum, CO plant primarily receive center beam flatcars. Therefore, I limited my Public Use Waybill Sample search to traffic originating in Western Colorado in center beam flatcars and moving exclusively by one railroad.

⁶⁵ See, <https://www.freightwaves.com/news/railroads-shift-to-psr-model-puts-storage-railcar-onus-on-shippers>. ("FreightWaves.pdf")

Assuming 416 railcars per year and a rate of \$5,447 results in 2020 gross revenue equal to \$2.3 million, as shown on Appendix TDC-5C, Line 15.

2. Operating Expenses

Following STB procedures, the URCS formula is used to calculate variable costs when developing the operating expenses in a feeder line application.⁶⁶ As noted by the STB, the use of variable costs enables one to determine economic value, as opposed to accounting value, because the comparison of revenues to variable costs is a more appropriate comparison of the future cash flow available to the railroad.⁶⁷

I relied upon the STB's 2018 UP URCS to develop the estimated variable costs. To apply the UP URCS costs to the GCV calculation, I made four (4) specific adjustments to the URCS costs. First, I separated UP's total costs into its fixed and variable components. Second, I segregated the variable costs between operating costs, depreciation and lease costs ("D&L") and return on investment ("ROI") costs. STB precedent calls for only including variable costs associated with operating and maintaining the rail line and not ROI, so I excluded the variable ROI component from my calculations. Third, I identified the "below the wheel" costs, i.e., costs associated only with track ownership and maintenance, and the "above the rail" costs or costs associated with road and yard operations, clerical and carload, freight cars and special services. Fourth, I calculated UP's above the rail and below the wheel variable costs, excluding ROI, on a cost per GTM and cost per mile basis.⁶⁸

To calculate the variable costs associated with the Sage to Dotsero segment, I calculated both below the wheel and above the rail costs. It was necessary to separate the costs in this way

⁶⁶ See, *Pyco* at page 29.

⁶⁷ *Id.*

⁶⁸ See, e-workpaper "2018 UP URCS Costs.xlsx."

because traffic from the only shipper on the line, American Gypsum, only uses a portion of the line segment. In other words, American Gypsum traffic moves over only six (6) miles of the 10 mile Sage to Dotsero line segment. Applying a combined variable cost (above the rail and below the wheel) to the American Gypsum traffic would understate the expense required to operate and maintain the entire section of track since it would not cover the costs of the entire segment.

To calculate the above the rail costs, I applied the 2018 URCS variable costs, excluding ROI, of 8.31 mills per GTM to the estimated GTMs for American Gypsum traffic along its entire route of movement. I calculated both the revenue and above the rail operating costs associated with the American Gypsum traffic on a full movement basis because STB precedent calls for the current owner to receive the benefit from serving existing business on the subject rail line.⁶⁹

The 2018 UP URCS variable cost is the most current STB URCS variable cost available. I used the STB's RCAF-U to index the 2018 costs to 1Q20 wage and price levels, the expected acquisition date of the rail line. As shown in Appendix TDC-5C, Line 19, the estimated above the rail operating expense equals approximately \$785,000.

To calculate the below the wheel variable costs for the total Sage to Dotsero segment, I relied upon the 2018 UP URCS system average variable costs, excluding ROI, of \$83,204 per route mile. I adjusted this value to 1Q20 wage and price levels by the change in the RCAF-U and applied the product to the line segment miles identified in UP's timetable. The result, as shown in Appendix TDC-5C, Line 24 is an estimated below the wheel variable cost of \$503,000.

3. Net Revenues

Based on the above the rail and below the wheel costs described above, I estimate the variable costs associated with the Sage to Dotsero line segment to equal \$1.3 million. Applying

⁶⁹ See, *Caddo Antoine* 1999 at page 14 ("STB Finance Docket No. 32479 Decided 8_10_1999_Feeder Line Acquisition.pdf").

the variable costs to the estimated line segment revenues produces a net revenue amount of \$1.0 million, as shown in Appendix TDC-5C, Line 26.

C. TOTAL GCV

As I stated above, STB procedures to calculate GCV use a capitalization of earnings approach.⁷⁰ This approach involves dividing the owner's net revenues from operating the line by the railroad industry's pre-tax cost of capital adjusted for growth.⁷¹

I demonstrated above that net revenues on the Pueblo-Cañon City line segment are estimated to equal \$0.1 million and on the Sage-Dotsero line segment net revenues are estimated to equal \$1.0 million. Adding the two (2) values together produces total net revenues for the Tennessee Pass Line of \$1.1 million, as shown in Appendix TDC-5A, Line 3.

The STB's most current cost of capital determination is the 2018 railroad industry after-tax cost of capital equal to 12.22 percent.⁷² To convert the STB's cost of capital estimate from after-tax basis to a pre-tax basis requires dividing the STB's cost of equity estimate by one less corporate tax rates.⁷³ For this calculation, I relied upon the current 21 percent Federal corporate income tax rate and the current 4.63 percent Colorado corporate tax rate.⁷⁴ This resulted in a pre-tax cost of capital of 16.19 percent.⁷⁵

The pre-tax cost of capital is customarily adjusted for future traffic growth under the STB's GCV approach.⁷⁶ My research found no indications that traffic on either the Pueblo-Cañon City

⁷⁰ See, *Pyco* at 19.

⁷¹ *Id.*

⁷² See, "STB Docket No. EP 558 (Sub-No. 22), *Railroad Cost Of Capital—2018.pdf*", served August 6, 2019.

⁷³ After-tax cost of equity ÷ (1 – tax rate) = Pre-tax cost of equity.

⁷⁴ See, *Caddo Antoine 1999* at page 15, note 20.

⁷⁵ See, e-workpaper "2018 Cost of Capital Estimate with State Tax Rates.xlsx."

⁷⁶ See, *Pyco* at page 28.

or Sage-Dotsero line segments is growing, or is expected to grow in the future under UP ownership. I therefore included a growth factor of zero in my GCV calculation.

Appendix TDC-5A shows the calculation of the Tennessee Pass Line GCV. Based on aggregate net revenue of \$1.1 million and a pre-tax cost of capital of 16.19 percent, I estimate the GCV to equal \$6.8 million.

VI. PRECISION SCHEDULED RAILROAD

On September 17, 2018, UP announced the implementation of its Unified Plan 2020 (“UP2020”), the railroad’s new operating plan that implemented Precision Scheduled Railroading (“PSR”) principles.⁷⁷ PSR is a reworking of the traditional railroad operating plan, which had historically focused on maximizing train size through gathering and holding railcars until enough had been gathered to be economically moved. In contrast, PSR focuses on operating plans that emphasize moving railcars on a reliable schedule. As noted by UP on its corporate website:

Where railroads previously focused on moving trains, PSR shifts that focus to moving cars. So, instead of waiting for a long train to be built, trains are always moving and cars are picked up on schedule, regardless of train length. Velocity and train length are still important to railroads, but now, the focus on moving cars takes precedence.⁷⁸

UP implemented UP2020 to improve reliability for its customers, to increase operating efficiencies and to reduce network complexity.⁷⁹ To meet these stated goals, UP identified four (4) key principles it incorporated in UP2020:

1. Shifting the focus of operations from moving trains to moving railcars;
2. Minimizing car dwell, car classification events and locomotive power requirements;
3. Utilizing general-purpose trains by blending existing train services; and
4. Balancing train movements to improve utilization of crews and rail assets.⁸⁰

The reactivation of the Tennessee Pass Line would assist UP in meeting UP2020 key principles, principally that of minimizing its railcar classification events across its system.

UP traffic that moves over UP’s Tennessee Pass Subdivision between Parkdale and Pueblo, CO that is destined to the west coast must currently pass through UP’s Denver classification yards

⁷⁷ See, “UP SEC Form 8-K issued September 17, 2018.pdf”.

⁷⁸ See, <https://www.up.com/customers/track-record/tr091019-precision-scheduled-railroading.htm> and “UP_ What Is Precision Scheduled Railroading.pdf”.

⁷⁹ See, “UP SEC Form 8-K issued September 17, 2018.pdf”.

⁸⁰ *Id.*

before proceeding on westbound trains. Reactivation of the Tennessee Pass Line would allow UP to reduce the number of railcars moving through and being classified in its Denver yards. UP has already identified its Denver Yards as a key improvement area under UP2020, and removing the number of railcars utilizing UP's Denver Yards would help to increase UP's railcar and asset efficiency.⁸¹

Reactivation of the Tennessee Pass Line will only become more important to UP in meeting its UP2020 goals when UP begins interchanging with the Kansas and Oklahoma Railroad ("K&O") at N/A Junction after reactivation of the Towner Line. K&O expects to transport 1,486 railcars over the Towner Line, some of which are expected to be interchanged with UP at N/A Junction.⁸² This additional traffic, moving to and from the west coast, will increase the number of railcars moving through UP's Denver Yard operations, making the avoidance of these yards even more critical.

Senior UP management has publicly stated that a key aspect of UP2020 is the reduction in car handling and switching by the railroad. UP Vice President, Network Planning and Operations, Ms. Cindy M. Sanborn, recently verified in a filing with the STB that the railroad is striving to increase the velocity of railcars on its network by minimizing the amount of time UP moves railcars through its yards.⁸³ As noted by Ms. Sanborn:

Under UP 2020, Union Pacific improved car velocity by, in part, restructuring our network and transportation plans so cars avoid terminals whenever feasible. When a car must enter a terminal, we strive to get that

⁸¹ See, UP Second Quarter 2019 Earnings Release, which provides an update to UP2020, and shows Denver as one of the focuses of the UP2020 terminal rationalization and network changes ("UP Second Quarter 2019 Earnings Release.pdf").

⁸² See, STB Docket No. FD 36005, *KCVN, LLC and Colorado Pacific Railroad, LLC-Feeder Line Application of V and S Railway, LLV Located in Crowley, Pueblo, Otero, and Kiowa Counties, Colorado* ("KCVN/CPRR Feeder Line Application"), KVCN Reply Comments decision dated September 27, 2016 at 11.

⁸³ See, Written Testimony of Union Pacific Railroad Company Presented by Cindy M. Sanborn, Vice President, Network Planning and Operations in Docket No. EP 761, *Hearing on Revenue Adequacy*, and Docket No. 722, *Railroad Revenue Adequacy*, Submitted November 26, 2019 ("*Sanborn VS*") ("Union Pacific EP 761 and 722, Submitted November 26, 2019.pdf").

car moving as soon as possible. While UP 2020 is a departure from our previous operating model, one core operating principle has been consistently reaffirmed: eliminate unnecessary car handling.⁸⁴

Ms. Sanborn further noted that every time a railcar is switched from one train to another, delay results and capacity is consumed.⁸⁵ Reactivation of the Tennessee Pass Line and the routing of railcars over the line and away from UP's Denver Yards will eliminate unnecessary railcar handling by the railroad and help it achieve the UP2020 goals.

⁸⁴ *Id.* at page 4.

⁸⁵ *Id.* at page 5.

VII. OPERATING PLAN FOR THE TENNESSEE PASS LINE

Upon completion of the sale of the line from UP, CPRR will commence operations on the Tennessee Pass Line. CPRR will enter into an agreement with an experienced third-party rail operator (“Operator”) to provide for the day-to-day rail operations on the rail line and to undertake all required maintenance activities and capital repairs. Outsourcing rail and maintenance operations to an experienced third-party operator is common within the railroad industry and has been successfully used by CPRR on its Towner Line where the K&O provides rail operations and maintenance.⁸⁶ CPRR will enter into discussions with the K&O and other experienced short line railroad companies upon submittal of its application to acquire the Tennessee Pass Line to perform as the line Operator.

CPRR expects to enter into a lease and/or operating agreement (“Operating Agreement”) for the Tennessee Pass Line with an Operator for an initial term of five (5) to 10 years, with automatic extensions of the Operating Agreement absent any contractual terms requiring termination. The Operating Agreement will provide the Operator rights to operate over the entire Tennessee Pass Line from Pueblo to Dotsero, but subject to existing trackage rights and operating rights of other railroads on the Pueblo to Parkdale segment. The Operator will seek approval from the STB to operate on the Tennessee Pass Line on behalf of CPRR with CPRR retaining the residual common carrier obligation to provide rail service.

The Operator will conduct operations on the Tennessee Pass Line using its own locomotives, crews and equipment. CPRR will retain responsibility for maintaining the Tennessee Pass Line at FRA Class 2 standards and complying with applicable Federal and state regulations.

⁸⁶ There are many other examples as well. Genesee & Wyoming, Inc., the largest short-line holding company in the U.S., leases and operates over 25 railroads throughout the country. See, <https://www.sec.gov/Archives/edgar/data/1012620/000101262019000004/gwr10k20181231secimport.htm#s024DFA282B4C58819A5261396A68A840> (“Genesee & Wyoming List of 25 Railroads it Operates and Leases.pdf”).

CPRR envisions two (2) alternatives for operations over the Tennessee Pass Line. In the first alternative (“Alternative No. 1”), CPRR will purchase the entire Tennessee Pass Line. Under Alternative No. 1, CPRR, through its chosen Operator, will interchange traffic with UP, BNSF and R&R. The UP interchanges will be at Pueblo, CO and Dotsero, CO. The BNSF interchanges will be at Pueblo, CO and Dotsero, CO, which BNSF can serve through its trackage rights over the UP Central Corridor line. The interchange with R&R will be at Parkdale, CO. While recognizing the right to operate on the Cañon City to Parkdale, CO portion of the line as the owner of the rail line, CPRR would continue to allow R&R and BNSF to operate between Parkdale and Pueblo, CO subject to their existing trackage rights agreements with UP. Operations of the Royal Gorge Tourist line would be fully accommodated and protected; it is the owner of the portion of the line over which it operates.

Under the second alternative (“Alternative No. 2”), CPRR will purchase the rail line between Parkdale, CO and Dotsero, CO. Under Alternative No. 2, CPRR will interchange with UP and BNSF at Dotsero, CO and interchange with R&R at Parkdale, CO for the subsequent movement of railcars to and from interchanges with UP and BNSF at Pueblo, CO. In other words, UP, BNSF and R&R would continue with their existing operating relationships and practices on the rail line east of Parkdale, CO.

Publicly available information indicates UP, and the prior operator SP, operated the Tennessee Pass Line with crews stationed at Grand Junction, Minturn and Pueblo, CO.⁸⁷ Since CPRR will only be acquiring the Tennessee Pass Line and not the UP line to Grand Junction, CO, under Alternative No. 1, the Operator will setup on-duty stations at Pueblo, CO and Dotsero, CO,

⁸⁷ See, <http://www.drgw.net/info/TennesseePass> (“DRGW.Net _ Tennessee Pass Route.pdf”) and <https://www.trainorders.com/discussion/read.php?1,128343> (“Train Orders _ Moffat Route Crew Districts.pdf”).

and at Minturn, CO, if required, for the operation of helper locomotives.⁸⁸ Under Alternative No. 2, the Operator will setup on-duty stations at Parkdale, CO and Dotsero, CO, and potentially at Minturn, CO.⁸⁹ The Operator will be expected to provide at least one crew at each on-duty station to start, with additional crews added as Tennessee Pass Line traffic increases.

The sections of the Tennessee Pass Line between Pueblo, CO and Parkdale, CO and between Gypsum, CO and Dotsero, CO operate under centralized traffic control (“CTC”). Publicly available information indicates that the inactive section of rail line between Parkdale, CO and Sage, CO also operated under CTC when in operation, but the CTC system on this section of line has been removed or is not operational.⁹⁰ For those sections of track currently operating under CTC, the Operator will take control of the CTC.⁹¹ If the Operator does not have centralized dispatching capabilities, CPRR will seek to enter into an agreement between the Operator and UP to continue to provide CTC over the section of the line currently operating under CTC. For traffic operating over the currently inactive section of the Tennessee Pass Line, CPRR will initially operate under a track warrant control system, until traffic levels increase to a level requiring the reinstatement of CTC.

CPRR will work with the Operator on establishing equipment and line maintenance requirements and procedures. CPRR will require the Operator to provide at least five (5) locomotives of sufficient horsepower to operate over the Tennessee Pass Line, including the

⁸⁸ Given the distance involved, the speeds along the line at Class 2 status and the grades along the route, one (1) crew may not be able to move a train between Pueblo and Dotsero within the 12-hour maximum crew time limit. Therefore this proposal includes crews at Pueblo and Dotsero.

⁸⁹ Given the shorter distances between Parkdale, CO and Dotsero, CO and no interference from other railroads operating on the Pueblo to Parkdale line, it is believed one crew can move a train between Parkdale and Dotsero without the need for a relief crew.

⁹⁰ See, https://issuu.com/coloradorailfan/docs/tpass_summer_2015/15 (“Tennessee Pass - Where Silence Has Lease.pdf”).

⁹¹ Many of the larger short line operating companies, including Watco Companies, the parent company of the K&O, operate their own centralized dispatching centers.

provision of helper service in the Minturn, CO area, as required. CPRR will also require the Operator to provide track maintenance, mobile mechanical repair and locomotive repair services for the Tennessee Pass Line.

Rehabilitation of the currently discontinued segments of the rail line between Parkdale, CO and Sage, CO will involve two (2) general steps. First, CPRR will update its preliminary analysis of the required materials and costs to reactive the line. Second, CPRR will work with the Operator to put together and execute the rehabilitation plan.

A. TRAFFIC ON THE TENNESSEE PASS LINE

CPRR anticipates several on-line traffic growth opportunities for the line's operation. There is currently one customer on the northern section of the Tennessee Pass Line that originates rail traffic. As discussed above, American Gypsum operates a plant at Gypsum, CO that produces wallboard for the construction industry. This company is the fifth largest wallboard producer in North America. Because current UP traffic statistics to individual customers is proprietary, CPRR does not know the specific number of shipments originating at the American Gypsum plant, if any, which are currently moving north to the nearby UP line. However, publicly available information indicates that the company has filed an application with the U.S. Bureau of Land Management to expand its gypsum mining operations that support its wallboard plant at this location⁹². Wallboard shipments should increase in the future because the State's population is growing rapidly. Reopening of the Tennessee Pass Line would provide American Gypsum an alternative route for eastbound shipments towards Texas, which is one of the fastest growing construction markets in the Nation.

⁹² See, <https://www.blm.gov/press-release/blm-seeks-public-comment-american-gypsum%E2%80%99s-expansion-proposal> ("BLM Seeks Comment on American Gypsum Expansion Proposal.pdf").

A second potential source of originating traffic on the Tennessee Pass Line is from Freeport-McMoRan Inc.'s ("FMI") Climax Molybdenum mine near Leadville, CO. The Climax mine produced 21 million pounds of molybdenum, or 10,500 short tons, in 2018 and has the capacity to produce 30 million pounds of molybdenum, or 15,000 short tons per year.⁹³ <https://www.climaxmolybdenum.com/operations/usa> FMI currently transports its refined molybdenum from the Climax Mine by truck to destinations throughout the U.S. and to export ports on the Gulf and west coasts. CPRR believes the existing truck movements can be diverted to rail either through a buildout to the mine, or the development of a truck to rail transload site in or near Leadville, CO.⁹⁴ FMI has indicated to a CPRR representative its interest in discussing rail access.

Another potential source of originating traffic on the Tennessee Pass Line is from the Martin Marietta Materials ("MMM") quarry at Parkdale, CO. This is the only rail-served quarry in the entire state, and most of its material is shipped by rail, east from Parkdale. MMM personnel met with CPRR representatives in the summer of 2019 and indicated the company would ship its quarry products westward on the Tennessee Pass Line if it were reopened. The company has currently pending before the BLM an application to expand the size of its operation, dramatically increasing its output.⁹⁵ .

The Lafarge Holcim cement plant located at Florence, CO presently uses rail services to ship east from that point, by rail to Pueblo and points beyond. CPRR anticipates that it would also ship west by rail, if the Tennessee Pass Line were reopened. This is a large modern plant with

⁹³ See, "FMI 2018 SEC Form 10-K.pdf" at page 13.

⁹⁴ The Climax Mine was previously directly served by a spur line off of the Tennessee Pass Line, however that spur was abandoned in the 1980's.

⁹⁵ See, <https://www.csindy.com/TheWire/archives/2019/08/06/martin-marietta-eyes-quarry-expansion> ("Martin Marietta eyes quarry expansion _ The Wire.pdf").

about 125 employees. A company fact sheet says the plant current supplies customers in Colorado, New Mexico, Kansas, Wyoming, Idaho, Texas, Utah and Nebraska.⁹⁶ In order to reach Wyoming, Idaho and Utah by rail, the company could more efficiently use the Tennessee Pass Line than by any route it is currently using.

B. OVERHEAD TRAFFIC

CPRR expects growth of new overhead traffic from two (2) primary sources, i.e., grain and crude oil. Each of these is discussed below.

1. Grain

The United States is the world's top grain producer. The average annual U.S. grain production from 2009 to 2018 was 578 million tons. In 2018, Class I railroads originated 1.49 million carloads of grain (five (5) percent of total carloads) carrying 147.2 million tons (8.9 percent of total tonnage) and earning gross revenue of \$5.8 billion (7.7 percent of total revenue).⁹⁷ Four (4) states (Illinois, Minnesota, Nebraska and North Dakota), accounted for approximately half of all originated rail tons of grain in 2018.⁹⁸ Likewise, the top states in terms of rail terminations of grain are typically Washington, Texas, Illinois and California, which accounted for nearly half of all rail grain terminations in 2018.⁹⁹

The market for grain, particularly the export market, is notoriously volatile and complex. Fluctuations in volume of U.S. grain production are common from one year to the next due to factors such as weather, global stockpiles and the strength of the U.S. dollar. According to the

⁹⁶ See, https://www.lafargeholcim.us/sites/us/files/atoms/files/portland_plant_fact_sheet_final.pdf (“Holcim Portland Cement Plant Fact Sheet.pdf”).

⁹⁷ See, “*Railroads and Grain*” Association of American Railroads, published May 2019. Accessed from <https://www.aar.org/wp-content/uploads/2018/05/AAR-Railroads-Grain.pdf> (“Railroads and Grain.pdf”).

⁹⁸ *Id.*

⁹⁹ *Id.*

AAR, “[i]n the years to come, railroads will have to continue to maintain their existing capacity and install new capacity to meet the needs of current and potential customers.”¹⁰⁰

The Towner Line was reactivated, in part, to give Midwest grain producers more options and a more direct route to the West Coast and possible export markets. KCVN’s witness, Darrell Hanavan, estimated the potential annual draw volume for the Towner Line is a total of 5,480,000¹⁰¹ bushels of grain,¹⁰² which equates to 1,486 grain cars from the Towner Line alone.

Grain traffic moving off of the CPRR’s Towner Line and moving to west coast elevators and export ports is expected to move over the Tennessee Pass Line to interchange with either UP, which accesses most major grain markets, linking the Midwest and western U.S. production areas to export terminals in the Pacific Northwest, Gulf Coast ports and Mexico, or BNSF where grain traffic flows in a similar manner to UP traffic, with originations in the Northern Great Plains flowing primarily south and west, at Dotsero. Such an operation would bypass the Denver, CO terminal and avoid trackage rights over the summit in UP’s Moffat Tunnel Subdivision. The easier gradient of the east and west sides of the Tennessee Pass Line would not be too steep for such loaded grain unit trains, with the potential for helper engines around Minturn, CO on the western slope. In addition to the Towner Line grain traffic, the Tennessee Pass Line is ideally situated to link grain producers in all big grain producing states of the Upper Great Plains to export and food processing markets on the west coast.

¹⁰⁰ *Id.*

¹⁰¹ This number includes hard red winter wheat and hard white winter wheat (4,633,000 bushels) and grain sorghum (847,000 bushels).

¹⁰² See, STB Docket No. FD 36005, *KCVN, LLC and Colorado Pacific Railroad, LLC-Feeder Line Application of V and S Railway, LLV Located in Crowley, Pueblo, Otero, and Kiowa Counties, Colorado* (“KCVN/CPRR Feeder Line Application”), KVCN Reply Comments decision dated September 27, 2016 at 11 (“36005 KCVN v. V & S 2016.09.27 ID_241586 KCVN REPLY COMMENTS.pdf”).

2. Crude Oil

Crude oil traffic originating in the Uinta Basin and moving to Gulf Coast refineries and terminals is expected to move over the Tennessee Pass Line to Pueblo, CO for interchange with UP or BNSF.

Oil sands and oil shale are plentiful in the Uinta Basin¹⁰³ but remain an untapped resource because of the difficulty in extracting the oil and natural gas and the dearth of transportation options.¹⁰⁴ Recent advances in extraction technology could transform the basin. Utah Geological Survey estimates Utah's oil sand deposits contain 14 to 15 billion barrels of measured in-place oil, with an additional estimated resource of 23 to 28 billion barrels¹⁰⁵ and that the potential economic oil shale resource in Utah is approximately 77 billion barrels.¹⁰⁶ The U.S. Geological Survey estimates that, if fully utilized, there is enough oil shale in the Uinta Basin to yield 1.32 trillion barrels of oil.¹⁰⁷

A 2010 GAO report found that oil shale deposits in the nearby Green River Formation¹⁰⁸ are "estimated to contain up to 3 trillion barrels of oil, half of which may be recoverable, which is about equal to the entire world's proven oil reserves."¹⁰⁹ To put that volume in perspective, in 2017, the average carload of crude oil originated in the U.S. carried 691 barrels of oil. Using that

¹⁰³ Crude oil is shipped in tank cars in unit train service, with typically between 100 and 120 cars per train and 700 barrels of crude oil per tank car.

¹⁰⁴ The specific physical qualities of the Utah crude require it to be kept warm during transport or it will become solid which complicates any pipeline options.

¹⁰⁵ See, Utah Geological Survey, Circular 124, 2018 at 25 ("Utah Geological Survey Circ 124.pdf").

¹⁰⁶ *Id.* at 24.

¹⁰⁷ *Id.*

¹⁰⁸ Located in Colorado and Wyoming.

¹⁰⁹ "Unconventional Oil and Gas Production" for the U.S. Government Accountability Office published May 10, 2012 ("Unconventional Oil and Gas Production.pdf").

metric, the 128,967 carloads of crude oil originated by U.S. Class I railroads in 2017 was equivalent to approximately 89 million barrels per year.¹¹⁰

Once refining challenges are overcome and macroeconomic conditions justify production, the potential flood of railroad oil traffic from the Uinta Basin could be disruptive for rail operations in the region. An increase in oil train traffic could cause ripple effects throughout the western U.S., much like oil from North Dakota's Bakken Formation did in 2013.¹¹¹ The Tennessee Pass Line could provide an alternate route out of the Uinta Basin to the refineries in the southern and eastern United States. The location of the Uinta Basin relative to the Tennessee Pass Line is shown on the schematic in Appendix TDC-2.

Recent advances in extraction technology could unlock the oil but it still needs a path to market. For years, a rail line to move crude oil from Utah to gulf refineries has been discussed and studied. The Seven County Infrastructure Coalition ("SCIC"), a public implementation and ownership entity, has recently achieved several key goals, raising hopes the project may be on track this time.

The SCIC intends to seek STB approval to construct and operate an approximately 85-mile rail line between two (2) terminus points in the Uinta Basin near Myton, Utah, and Leland Bench, Utah, and the interstate rail network. Michael McKee, executive director of the SCIC, says the group has the support of the Utah congressional delegation, as well as state and local leaders. A national RFP launched earlier this year resulted in the selection of New York-based Drexel

¹¹⁰ "U.S. Rail Crude Oil Traffic," Association of American Railroads, December 2018, at <https://www.aar.org/wp-content/uploads/2018/07/AAR-US-Rail-Crude-Oil-Traffic.pdf> ("U.S. Rail Crude Oil Traffic.pdf").

¹¹¹ Rail traffic in the northern middle states of the U.S. was widely and severely disrupted during the winter months of 2013 into 2014, due primarily to the surging demand for tanker car shipments from the Bakken shale formation. Shale oil and gas production from the Bakken formation and the resulting increase in rail shipments occurred quickly and, when added to the shipping demands for grain, fertilizer, and coal, overwhelmed the rail infrastructure in that part of the country.

Hamilton Infrastructure LP, which agreed to provide the estimated \$1.5 billion in design and construction costs through private financing. Drexel Hamilton will partner with Fort Worth-based Rio Grande Pacific Corp. in a joint venture to build and operate the line.¹¹²

The SCIC anticipates that shippers would use the proposed rail line to transport crude oil, and potentially other agricultural (e.g., livestock, corn, barley, oats, and alfalfa hay) and mining (e.g., phosphorous, soda ash, and gilsonite¹¹³) products out of the Uinta Basin to markets across the U.S. The proposed rail line could also be used to move products and commodities, such as fracturing sand, proppant, steel, and machinery, to markets in the Uinta Basin.

The Coalition estimates that between 3.68 and 9.98¹¹⁴ trains with 110 cars per train could move along the proposed rail line per day, on average, including loaded and unloaded trains.¹¹⁵

Construction is expected to take place in 2022-2023.¹¹⁶

The STB's Office of Environmental Analysis ("OEA") anticipates that the majority of rail traffic on the proposed rail line would terminate at refineries on the Gulf Coast. That would mean up to 400,000 crude oil railcars per year potentially traveling from Utah to the Gulf Coast. The Tennessee Pass Line location would be an efficient bridge between the source and destination.

¹¹² Fryer, Brian, Engineering News Record, "Long-Stalled \$1.5B Utah Railroad Project Now On Right Track" October 2, 2019. Accessed at <https://www.enr.com/articles/47704-long-stalled-15b-utah-railroad-project-now-on-right-track> ("Long-Stalled \$1.5B Utah Railroad Project Now On Right Track.pdf").

¹¹³ Gilsonite is a shiny, black, solid hydrocarbon that occurs in veins in the Uinta Basin. Utah is the only place in the world that contains large deposits of gilsonite, and it has been shipped worldwide for use in numerous and diverse products including asphalt paving mixes, coatings, inks, paints, and oil and gas well drilling additives. Over the past decade, gilsonite production from the Uinta Basin has ranged between 60,000 and 85,000 st per year. See, Utah Geological Survey, Circular 124, 2018 at 16 ("Utah Geological Survey Circ 124.pdf").

¹¹⁴ The estimate is for between 3.68 and 9.92 crude oil trains and between zero and 0.6 fracking trains per day on average, including loaded and unloaded trains.

¹¹⁵ See, STB Finance Docket No. 36284, *Notice of Availability of the Final Scope of Study for the Environmental Impact*, December 9, 2019, at 7 ("STB FD No. 36284, Notice of Availability of the Final Scope of Study for the EIS.pdf").

¹¹⁶ See, Uinta Basin Railway web page at <http://uintabasinrailway.com/> ("Unita Basin Railway.pdf").

3. Anticipated Annual Traffic

It is difficult to accurately estimate annual traffic levels for the entire Tennessee Pass Line given the circumstances surrounding it, i.e., its poor physical state and the lack of rail service being provided for so long. I feel confident that, at a minimum, the annual traffic over the first three (3) years, e.g., 2021 to 2023, will come from the following three (3) sources.

First, CPRR will have access to the American Gypsum traffic originating at Gypsum, CO. As discussed above in the calculation of the GCV, publicly available information suggests American Gypsum is transporting an estimated 416 railcars per year from its Gypsum, CO facility.¹¹⁷ CPRR would transport eastbound traffic from Gypsum, CO to Pueblo, CO under the Alternative No. 1 operating plan or to Parkdale, CO under the Alternative No. 2 operating plan. CPRR has two (2) options for the American Gypsum traffic that moves west from Gypsum, CO. CPRR could, through its operator, transport the railcars the approximately six (6) miles from Gypsum, CO to Dotsero, CO for interchange with UP or BNSF. In the alternative, CPRR could grant trackage rights to UP and BNSF to operate over the CPRR line and serve the American Gypsum plant directly.

Second, I anticipate that a significant volume of grain and other traffic from the Towner Line would begin moving within the first three (3) years when both lines are fully operational. The current Towner Line operator, K&O, indicated that it expects to transport between 1,000 and 2,000 carloads of grain within the first full year of its operation of the reactivated Towner Line. K&O also indicated that it will transport an additional 1,000 to 3,000 railcars in subsequent years as a result of marketing and development. This would indicate traffic coming off of the Towner

¹¹⁷ Eight (8) railcars per week x 52 weeks per year = 416 annual railcars.

line would be between 2,000 and 5,000 carloads per year within the first three (3) years. I assumed some of this traffic moved west over the Tennessee Pass Line.

Third, crude oil is expected to begin flowing out of the Uinta basin in 2023. I anticipate CPRR will conservatively attract five (5) percent of that traffic, eventually reaching 20 percent (80,000 railcars) per year. I expect that the CPRR ownership group will gain valuable experience from reestablishing service on the nearby Towner line that will enable the lines to grow in service together.

C. ANNUAL OPERATING EXPENSES

As explained above, CPRR anticipates entering into an Operating Agreement to operate and maintain the Tennessee Pass Line. The level of operating expenses incurred by the Operator will depend upon several factors, including, but not limited to, the Operator's location relative to the Tennessee Pass Line, the availability of its current equipment pool and the current level of its other operations. For example, if CPRR entered into an Operating Agreement with K&O or the R&R to operate the Tennessee Pass Line, these railroads would be able to eliminate or reduce some costs by sharing assets and personnel with their current nearby operations as compared to Operators without nearby operations.

I estimated the operating expenses a typical Operator will incur to operate the Tennessee Pass Line under both the Alternative No. 1 operating plan and the Alternative No. 2 operating plan discussed above assuming the Operator moves three (3) round-trip trains per week. This level of operation will allow the Operator to transport the anticipated carloads expected to move annually on the line over its first three (3) years of operations.

I estimated the annual operating expenses for the two (2) alternative operating plans based on the anticipated level of operations, publicly reported railroad unit prices, my experience in the railroad industry and my knowledge of the Tennessee Pass Line.

Under the Alternative No. 1 operating plan, I estimate CPRR operating expenses for the first three (3) years of operation will equal \$6.7 million per year, as shown in Table 17 below.

Cost Item (1)	Value (2)
1. Train and Engine Crew	\$491,360
2. Equipment Lease, Maintenance and Operating	\$3,132,974
3. Operating Personnel, Supplies and Equipment	\$420,884
4. G&A, Ad Valorem Tax and Insurance	\$742,848
5. Maintenance of Way	<u>\$1,930,737</u>
6. Total Operating Costs per Year	\$6,718,803

See: Estimated Tennessee Pass Line Operating Expenses.xlsx.

In total, I estimate the Alternative No. 1 operating plan annual operating expenses will equal \$6,718,803.¹¹⁸

Under the Alternative No. 2 operating plan, I estimate CPRR operating expenses for the first three (3) years will equal \$5.7 million per year, as shown in Table 18 below.

¹¹⁸ See, e-workpaper “Estimated Tennessee Pass Line Operating Expenses.xlsx.”

Table 18
Annual Operating Expenses
Under Alternative No. 2 Operating Plan

<u>Cost Item</u>	<u>Value</u>
(1)	(2)
1. Train and Engine Crew	\$368,520
2. Equipment Lease, Maintenance and Operating	\$2,773,576
3. Operating Personnel, Supplies and Equipment	\$420,684
4. G&A, Ad Valorem Tax and Insurance	\$706,653
5. Maintenance of Way	<u>\$1,447,968</u>
6. Total Operating Costs per Year	<u>\$5,717,401</u>

See: Estimated Tennessee Pass Line Operating Expenses.xlsx.

In total, I estimate the Alternative No. 2 operating plan annual operating expenses will equal \$5,717,401.¹¹⁹

¹¹⁹ See, e-workpaper “Estimated Tennessee Pass Line Operating Expenses.xlsx.”

VIII. PUBLIC CONVENIENCE AND NECESSITY

The STB can require the sale of a rail line if public convenience and necessity (“PC&N”), as defined in 49 U.S.C. 10907(c)(1) requires it.¹²⁰ To determine that the PC&N require or permit the sale of a rail line, the STB must find that the following five (5) criteria are met:

1. The rail carrier operating the line has refused within a reasonable time to make the necessary efforts to provide adequate service to shippers who transport traffic over the line;
2. The transportation over such line is inadequate for the majority of shippers who use the line;
3. The sale of such line will not have a significantly adverse financial effect on the rail carrier operating it;
4. The sale of such line will not have an adverse effect on the overall operational performance of the rail carrier operating it; and
5. The sale will likely result in improved rail transportation for shippers that use the line.¹²¹

I believe the sale of the Tennessee Pass Line will satisfy the PC&N requirements. Currently, there are no shippers using the entire Tennessee Pass Line because UP refuses to reactivate the tracks for which discontinued authority was granted by the Board in 1996. UP is not providing adequate service for any shipper who would use the reactivated, entire line, thus the first and second criteria are met. The line is generating minimal revenue for UP based on my estimates from public sources outlined in the GCV section of this VS. My estimates of the revenue UP currently receives on the Tennessee Pass Line are less than 0.01% of total UP revenues in 2018.¹²² The sale of the line will therefore have negligible impact on UP, financial or operational, therefore the third and fourth criteria are met.

¹²⁰ 49 C.F.R. § 1151.1. *See*, “49 C.F.R. § 1151.1.pdf”.

¹²¹ 49 U.S.C. § 10907(c)(1). *See*, “49 U.S.C. § 10907(b)(2).pdf”

¹²² \$1.1 million ÷ \$22.8 billion = 0.005%

Finally, fifth criterion, that the sale will likely result in improved rail transportation for shippers that use the line, is easily met, in fact, exceeded because the sale will likely result in improved rail transportation for shippers that are not currently using the line but could be. This fact has been recognized by the Colorado Department of Transportation (“CDOT”) for a number of years. The Tennessee Pass Line is identified annually by the CDOT as significant because of its potential to carry both passengers and freight and because it is the only existing trans-mountain alternative in Colorado to the Moffat Tunnel rail line. The December 2019 CDOT Report to the Transportation Legislation Review Committee states that:

The Department of Transportation is recommending continued monitoring of activities on the Tennessee Pass and the Fort Collins Branch Lines. While there is no indication that the UP will abandon these lines in the near future, the Tennessee Pass Line has not been used for freight movements in over 15 years and interest has been expressed for other uses, such as passenger train service and a bicycle trail. If either of these lines is abandoned the State should consider purchasing them to preserve them for freight and/or passenger service in the future (emphasis omitted).¹²³

The discontinuance of operations over the Tennessee Pass Line between Parkdale and Sage, CO forced existing, and any potentially new rail shippers, along this section of rail line to use other transportation modes to move inbound and outbound shipments. At the time of the rail lines deactivation, it was estimated traffic originating and/or terminating on the rail line was generating approximately \$3 million per year (in 1996 dollars) in annual revenue above the railroad’s operating costs.¹²⁴ All of this former traffic that had moved over the Tennessee Pass Line had to be moved to truckload shipments, or ceased to be moved entirely.

¹²³ “*Report to the Transportation Legislation Review Committee on Rail Abandonments and the Potential for Rail Line Acquisitions.*” Prepared by the Colorado Department of Transportation, published December 2019. Accessed <https://www.codot.gov/programs/transitandrail/plans-studies-reports/report-to-the-transportation-legislation-review-committee-on-rail-abandonments-and-the-potential-for-rail-line-acquisitions/sb-37-report-for-2019/view>, page 13. See, “SB 37 Report for 2019.pdf”.

¹²⁴ See, UP/SP Merger, *Decision No. 44*, 1 STB 233 at note 62 (“UP_SP Merger, Decision No. 44.pdf”).

This includes the FMI Climax Molybdenum mine located near Leadville, CO. Reactivation of the Tennessee Pass Line could provide a competitive alternative to long-haul truck movements from the Climax mine.¹²⁵

The Tennessee Pass Line is advantageously located in close proximity to western U.S. natural resources and other industries. It is adjacent to a major grain production region served by both UP and BNSF. This large grain market is currently not efficiently utilizing rail transportation and could move its traffic over the Tennessee Pass Line.

The current rail customer base and the centralized location relative to the market makes Pueblo, CO a good foundation for a revitalization of the Tennessee Pass Line with Vestas¹²⁶, Evraz¹²⁷, Vossloh North America¹²⁸, and other industrial customers all situated within a five (5) mile radius of Pueblo.

The Tennessee Pass Line could also provide an alternate route out of the Uinta Basin to the refineries in the southern and eastern United States for any potential crude shipments on the new Uinta Basin rail line. If the crude oil from the Uinta Basin begins to move to market, it will likely face opposition from the city of Denver.¹²⁹ Oil trains from Niobrara Shale originations currently

¹²⁵ The Climax mine was previously directly connected to the Tennessee Pass Line by a rail spur that has been abandoned. Direct service to the mine could be reestablished through rebuilding of the rail spur, or indirect rail service could be established by the use of a transload facility on the Tennessee Pass Line.

¹²⁶ Vestas' North American market is served from our Portland, Oregon Headquarters and we supply turbines from our four factories in Colorado. The Vestas Tower Factory in Pueblo, CO is the largest in the world. <http://us.vestas.com/> ("Vestas US.pdf")

¹²⁷ EVRAZ Rocky Mountain Steel produces rail, seamless pipe, rod and coiled reinforcing bar. Multi-million dollar upgrades were recently made to the historic Pueblo mill, including the addition of a state-of-the-art Product Technology Center, <https://www.evrazna.com/locationsfacilities/rockymountainsteelmills/tabid/71/default.asp> ("EVRAZ Rocky Mountain Steel - EVRAZ North America.pdf")

¹²⁸ In 2017 the Vossloh Group acquired Rocla Concrete Tie, Inc. the leading North American manufacturer of pre-stressed concrete ties. <http://www.vossloh-north-america.com/us/company/About-Vossloh-North-America/> ("Vossloh Home _ Vossloh North America.pdf")

¹²⁹ See, "Oil trains raise alarm for Denver residents in growing neighborhoods" by Jon Murray for the Denver Post December 1, 2015. <http://www.denverpost.com/2015/12/01/oil-trains-raise-alarm-for-denver-residents-in-growing-neighborhoods/>. ("Oil trains raise alarm for Denver residents in growing neighborhoods – The Denver Post.pdf")

travel through Denver’s city center, past sports stadiums and through developing high-rent districts.¹³⁰ Some city officials have policy positions which oppose the unsafe transportation of crude oil and other hazardous materials.¹³¹ Public opinion would support rerouting crude oil traffic from Utah away from Denver over the Tennessee Pass Line.

In addition to avoiding Denver, reactivation of the Tennessee Pass Line will provide an alternative for trains that are unable to travel through the Moffat Tunnel. When the tunnel was first completed in 1928 it was a significant improvement because it shortened the distance between Denver and the Pacific coast by 176 miles. However, in the nearly 100 years since concerns and limitations have emerged that may eclipse that advantage. For example, rail traffic through the Moffat Tunnel is limited. UP’s publicly available timetables explicitly prohibit double-stack equipment, auto-rack equipment, or any other rail equipment with a vertical distance above the rail of greater than eighteen (18) feet on the Moffat Tunnel subdivision.¹³² This means that Moffat Tunnel does not have the vertical clearance necessary to handle double-stack intermodal trains which are typically twenty (20) feet high above the rail. The Tennessee Pass Line was cleared for double-stack operations in the late 1980s.¹³³

In addition, because of the way the way the Moffat Tunnel is bored, ground water flows from seepages inside the tunnel, picking up coal dust left by passing trains and heavy metals leached from the railroad ballast and exposed rock. Further, the way the Moffat Tunnel is pitched,

¹³⁰ Id.

¹³¹ See, “*Railroads and Hazardous Materials*” – a policy document by Deborah Ortega. Source: from <https://www.denvergov.org/content/denvergov/en/denver-city-council/council-members/at-large-2/priorities.html> (“*Railroads and Hazardous Materials* – a policy document by Deborah Ortega.pdf”)

¹³² “Union Pacific Denver Area Timetable #3.pdf”, effective November 12, 2006 and “Union Pacific Denver Area Timetable #4.pdf”, effective November 16, 2009.

¹³³ See, Weart, Walter, “*Nothing Called - The last days of Tennessee Pass*,” See: https://www.rgmhs.org/data/history/t_pass.html (“*Nothing Called* by Walter Weart.pdf”) and See, UP/SP Merger, Decision No. 44, 1 STB 233 at note 194 (“UP_SP Merger, Decision No. 44.pdf”).

water flows from both the east and west portals of the tunnel.¹³⁴ These engineering factors have led to concerns about water pollution in the nearby Fraser River. In September 2016 the Colorado Department of Public Health and Environment began receiving reports that sediment-laden water was discharging into the river.¹³⁵ UP, without admitting to any of the factual or legal determinations agreed that the Consent Order constituted a notice of alleged violation and agreed to pay \$140,000.00 in civil penalties.¹³⁶ Reactivation of the Tennessee Pass Line will provide an alternative to the Moffat Tunnel route, which would limit use of the tunnel and reduce the number of trains that contribute to polluting nearby rivers, which serve as one of Denver’s drinking water supply sources.

The Tennessee Pass Line will improve rail transportation for shippers nationally as well as regionally. It is strategically located to offer a route that avoids some of the country’s most congested rail lines. It is directly connected to an untapped rail intermodal lane. If this market were opened, westbound intermodal trains could depart Dallas/Fort Worth, TX and travel northwest toward Pueblo, CO, where they could be run over the Tennessee Pass Line on their way to Salt Lake City, UT and points west. In addition to bypassing the Denver terminal and using the more gradual gradients on the eastern approach to the Tennessee Pass Line, this route offers an alternative to the UP Sunset Route which spans the extreme desert southwest and is expected to

¹³⁴ See, Shell, Hank, “Union Pacific to treat Fraser River Discharge,” July 3, 2014, at <https://www.skyhineews.com/news/union-pacific-to-treat-fraser-river-discharge/> (“Union Pacific to treat Fraser River discharge _ SkyHiNews.com.pdf”)

¹³⁵ See, D’Argonne, Sawyer, “Union Pacific Railroad gets cease and desist order after illegal discharge into Fraser River,” February 23, 2018 accessed at <https://www.skyhineews.com/news/union-pacific-railroad-gets-cess-and-desist-order-after-illegal-discharge-into-fraser-river/> (“Union Pacific Railroad gets cease and desist order after illegal discharge into Fraser River _ SkyHiNews.com.pdf”)

¹³⁶ Colorado Department of Public Health & Environment Water Quality Control Division Compliance Order on Consent, Number: IC-191114-1, November 14, 2019 (“Colorado Department of Public Health & Environment Water Quality Control Division Compliance Order on Consent.PDF”)

handle 90 trains per day in the coming years.¹³⁷ In a similar vein, eastbound trains laden with import and domestic intermodal trailers and containers could move over the Tennessee Pass Line.

The sale of the Tennessee Pass Line will also enhance intramodal competition by potentially increasing BNSF's traffic movements over the Central Corridor. The merger of UP and SP in 1996, raised many competitive issues, including how to handle the loss of competition by moving from three (3) to two (2) major Class I carriers in the western U.S. One of the solutions implemented to mitigate this issue was the STB's provision of trackage rights to BNSF over several UP and SP rail lines, including the Central Corridor line that connects with the Tennessee Pass Line at Dotsero, CO. The STB noted at the time that while the provision of trackage rights to BNSF to mitigate competitive issues raised by the merger was not unprecedented, the amount of trackage rights issued in the UP/SP decision (over 4,000 miles) had no prior precedent given the magnitude of trackage rights provided.¹³⁸ The unprecedented amount of trackage rights issued, led to a concern that BNSF might not be able to achieve sufficient traffic density to conduct effective operations on its trackage rights lines.¹³⁹

Traffic density is a key factor in rail economics. Economy of density refers to the fact that greater use of assets results in a declining average cost. Insufficient levels of traffic could mean that a railroad could not recover enough of its costs to economically operate a rail line given the level of revenues allowed to the carrier given competitive conditions. In other words, a railroad must have enough traffic moving over a rail line in order to make it economically feasible to continue operations.

¹³⁷ See, "Union Pacific_ The railroad with better profit margins than Google _ Fortune.pdf").

¹³⁸ See, UP/SP Merger, *Decision No. 61*, served November 20, 1996 at page 11 ("UP_SP Merger, Decision No. 61.pdf").

¹³⁹ *Id.*

A key for BNSF to successfully operate over the Central Corridor line, and to provide effective competition to UP, is having sufficient traffic density to continue its operations over the line in an economically efficient manner. The sale of the Tennessee Pass Line could provide additional traffic to BNSF on traffic movements over the Central Corridor line. More traffic moved by BNSF over the line would place it in a stronger economic position and would provide more effective competition to UP on movements to and from the west coast.

IX. REHABILITATION OF THE TENNESSEE PASS LINE

The majority of the miles of the Tennessee Pass Line are currently out of service and clearly in need of substantial repairs and maintenance in order to restore service. A large portion of the Tennessee Pass Line has experienced degradation as vegetation growth has gone unchecked. The degradation problem is caused by a lack of maintenance, as significant portions of the rail line sat idle for at least 20 years. Photographs of the current state of the inactive portions of the Tennessee Pass Line are shown in the photos¹⁴⁰ in Figure No. 1 below, which were taken in 2015. See Appendix TDC-7 for additional photographs depicting the condition of the Tennessee Pass Line.

Figure No. 1



¹⁴⁰ See, “Tennessee Pass: Where Silence Has Lease” by Kevin Morgan, published July 13, 2015. https://issuu.com/coloradorailfan/docs/tpass_summer_2015/15 (“Tennessee Pass - Where Silence Has Lease.pdf”).

In addition to vegetation control, the ballast is in very poor condition and nonexistent in many places. Also, the Tennessee Pass Line has been subjected to rock slides that have not been cleared, as shown in Figure No. 2 and Figure No. 3 below.

Figure No. 2



Figure No. 3

Rocks strewn on railbanked (closed) Union Pacific, ex-DRGW, Tennessee Pass line about milepost 319.5.



©2019 Colorado Zephyr - along Tennessee Pass line closed August 1997. Wolcott, CO, September 26, 2019

The majority of the Tennessee Pass Line has not been maintained in over two (2) decades. I estimated that nine (9) categories¹⁴¹ of restoration would be necessary to restore the rail line to FRA Class 2 operating status. These include: (1) vegetation removal; (2) crosstie replacement; (3) ballast cleaning and replacement; (4) track resurfacing; (5) rail replacement; (6) track, bridge and tunnel inspections; (7) crossing re-pavement; (8) communications and signaling; and (9) engineering and contingencies.

¹⁴¹ A tenth category of restoration may be tunnels and an eleventh category may be bridges. While my analysis considers the below-the-wheel components of the tunnels and bridges, it does not consider the condition of the tunnels and bridges. The condition of the tunnels and bridges on the Tennessee Pass Line will be determined during a field inspection.

To determine the rehabilitation cost of restoring the Tennessee Pass Line to FRA Class 2 operating status with a maximum operating speed of 25 MPH, I first estimated the current state of the rail line.¹⁴²

Table 17 below separates the Tennessee Pass Line into segments and identifies the rail miles and the operational status for each segment, i.e., either active or inactive.

Segment (1)	Miles			Operational Status (5)
	Mainline (2)	Siding (3)	Total (4)	
1. Pueblo Jct. CO to Cañon City, CO	41.95	13.85	55.80	Active
2. Cañon City, CO to Parkdale, CO	11.75	4.22	15.97	Active
3. Parkdale, CO to Sage, CO	163.10	40.16	203.26	Inactive
3a. Malta, CO to Leadville, CO Branch	5.10	0.00	5.10	Inactive
4. Sage, CO to Dotsero, CO	<u>6.90</u>	<u>0.00</u>	<u>6.90</u>	Active
5. Total	228.80	58.23	287.03	xxx
6. Total Active Miles	60.60	18.10	78.70	Active
7. Total Inactive Miles (Rehab Miles)	168.20	40.16	208.36	Inactive
8. Percent Active	26.5%	31.0%	27.4%	xxx
9. Percent Inactive	73.5%	69.0%	72.6%	xxx

I estimated that the rehabilitation cost for the nine (9) categories of restoration discussed above to FRA Class 2 status would equal \$277.9 million. Table 18 below summarizes my estimated rehabilitation cost for each of these categories.

¹⁴² I have not confirmed the exact condition of the track along the Tennessee Pass, which would require a field inspection. I made assumptions about the condition of the rail line based on my experience and publicly available data that are explained in this VS.

Table 18
**Estimated Rehabilitation Cost to Upgrade the
Tennessee Pass Line to Class 2 Rail Line – 1Q20**

Category (1)	Cost (2)
1. Vegetation Removal	\$2,169,028
2. Crosstie Replacement	\$25,387,864
3. Ballast Cleaning & Replacement	\$4,442,235
4. Track Resurfacing	\$3,410,437
5. Rail Replacement	\$206,826,470
6. Track, Bridge and Tunnel Inspections	\$206,276
7. Crossing Re-pavement	\$112,340
8. Communication & Signaling	\$1,256,518
9. Engineering & Contingencies	<u>\$34,133,563</u>
10. Total	<u>\$277,944,731</u>

Source: Appendix TDC-6A.

The development of the rehabilitation costs for the Tennessee Pass Line shown in Table 18 above is discussed in detail below for each restoration category.

A. VEGETATION REMOVAL

As shown in the photos in Appendix TDC-7, vegetation control is a major problem for the inactive segments of the Tennessee Pass Line. There appears to have been little to no on-going vegetation control in the last two (2) decades for these segments. In order to restore complete service to the Tennessee Pass Line, the inactive segments would need to be chemically treated to remove the vegetation from the rail right-of-way (“ROW”). In many locations, larger brush, weeds and even trees have inundated the rail line. These will require more expensive and time intensive mechanical or hand removal.

Based on recent cost estimates in rail rehabilitation grant proposals, I estimated 1Q20 vegetation removal cost at \$10,410 per mile, based on the Northeast Texas Rural Rail

Transportation District U.S. Department of Transportation TIGER grant applications.¹⁴³ The active segments are assumed to have undergone continuous maintenance and therefore would not require any additional vegetation control or removal in order to operate at FRA Class 2 status.

The initial vegetation removal cost to achieve FRA Class 2 operating service on the entire Tennessee Pass Line is estimated to equal \$2.17 million.¹⁴⁴

B. CROSSTIE REPLACEMENT

Ties are classified as either “good condition” or “poor condition” under FRA inspection standards. I estimated that crossties on the Tennessee Pass Line main line are spaced at intervals of one crosstie every 19.5 inches along the rail, or 3,249 ties per mile of rail.¹⁴⁵ I assumed that none of the ties are in “good condition” along the inactive portions of the Tennessee Pass Line.

In order to meet FRA Class 2 standards, each 39-foot inspection section of rail needs eight (8) “good” condition ties for track with a curve of less than two (2) degrees and nine (9) “good” condition ties for track with a curve of over two (2) degrees. The Tennessee Pass Line is mostly mountainous and extremely curvy so I assumed nine (9) ties per 39-foot section of track will need to be replaced, for a total of 253,879 replacement ties along the inactive section of the rail line.¹⁴⁶

For the active segments, I assumed that the tie condition is currently within FRA Class 2 requirements and no ties would need to be replaced for these segments.

Based on recent rail rehabilitation grant application cost estimates, I estimated the 1Q20 cost, including labor to replace ties, equals \$100 per tie, based on rehabilitation grant

¹⁴³ See, Appendix TDC-6B.

¹⁴⁴ See, Appendix TDC-6A, Section A.

¹⁴⁵ $(5,280 \text{ feet per mile} \times 12 \text{ inches per foot}) \div 19.5 \text{ inches between ties} = 3,249 \text{ ties per mile.}$

¹⁴⁶ See, Appendix TDC-6A, Section B.

applications.¹⁴⁷ The total estimated cost for crosstie replacement on the Tennessee Pass Line equals \$25.4 million.¹⁴⁸

C. BALLAST REPLACEMENT

The lack of vegetation control along the inactive portions of the Tennessee Pass Line resulted in the deterioration of the ballast. In some inactive areas, the ballast needs to be replaced, while in other inactive areas the ballast needs cleaning and rehabilitation.

Based on recent rail rehabilitation grant applications, I estimated that 520 tons of ballast per mile¹⁴⁹ would need to be restored along the inactive areas, at a 1Q20 cost of \$41 per ton, based on rehabilitation grant applications.¹⁵⁰ The active segments are assumed to have undergone continuous maintenance and would not require any additional ballast replacement in order to operate at FRA Class 2 status.

The total estimated cost for ballast replacement on the Tennessee Pass Line is estimated to equal \$4.4 million.¹⁵¹

D. TRACK REHABILITATION

In addition to the replacement of ties and ballast along the Tennessee Pass Line, the rail line would require significant track rehabilitation to obtain FRA Class 2 operating status along the inactive segments. Missing or damaged spikes or OTM would need to be replaced or repaired and joints tightened where necessary.

¹⁴⁷ See, Appendix TDC-6C.

¹⁴⁸ See, Appendix TDC-6A, Section B.

¹⁴⁹ See, Appendix TDC-6D.

¹⁵⁰ *Id.*

¹⁵¹ See, Appendix TDC-6A, Section C.

I assumed that the entire rail line in the inactive areas would need track resurfacing. I estimated the 1Q20 cost to resurface the rail at \$3.10 per track foot, based on rehabilitation grant applications.¹⁵²

The active segments are assumed to have undergone continuous maintenance and would not require any additional track rehabilitation in order to operate at FRA Class 2 status.

The total estimated cost for track rehabilitation on the Tennessee Pass Line is \$3.4 million.¹⁵³

E. RAIL REPLACEMENT

Similar to track rehabilitation, rail would need to be replaced on the inactive segments of the Tennessee Pass Line. The lack of maintenance and/or use over the last two (2) decades along the inactive portions of the Tennessee Pass Line where lines were subjected to severe weather changes, e.g., freezing and thawing, caused deterioration to the point of needing replacement. Rail replacement is necessary to achieve FRA Class 2 operating status.

Based on recent rail rehabilitation grant application cost estimates, I estimated the 1Q20 cost to replace the rail at \$94 per track foot, based on rehabilitation grant applications.¹⁵⁴ The active segments were assumed to have undergone continuous maintenance and would not require any rail replacements in order to operate at FRA Class 2 status.

The total estimated cost for rail replacement on the Tennessee Pass Line is \$206.8 million.¹⁵⁵

¹⁵² See, Appendix TDC-6E.

¹⁵³ See, Appendix TDC-6A, Section D.

¹⁵⁴ See, Appendix TDC-6F.

¹⁵⁵ See, Appendix TDC-6A, Section E.

F. TRACK, BRIDGE AND TUNNEL INSPECTIONS

To restore the Tennessee Pass Line to FRA Class 2 operating status, the rail line would need to undergo numerous operating and safety inspections. These would include inspections of the 287.03 miles of track, as well as the approximately 75 bridges and five (5) tunnels on the Tennessee Pass Line. The track inspections would include either mechanical rail flaw detection or ultra-sonic rail testing, as well as track geometry inspection, while the bridge and crossing inspections would be manual inspections.

Based on recent cost evidence accepted by the STB in its three (3) most recent maximum rate cases, I estimated the 1Q20 cost of inspections to be \$990 per mile, based on STB case decisions.¹⁵⁶ The total estimated cost for track, bridge and tunnel inspections on the Tennessee Pass Line equals \$206,000.¹⁵⁷

I have not included costs for bridge and tunnel rehabilitation or repair in this rehabilitation cost estimate for the bridges and tunnels along the inactive rail line. The development of these costs requires a field inspection of the individual assets, which has not yet been performed.

G. CROSSING RE-PAVEMENT

After the restoration work along the inactive portions of the Tennessee Pass Line is completed, many of the rail and highway crossings would need to be cleared or repaved. To determine the cost to restore these crossings, I relied upon the unit costs in the KCVN/CPRR Feeder Line Application.¹⁵⁸ These unit costs were used by both KCVN and V&S.

¹⁵⁶ See, Appendix TDC-6G.

¹⁵⁷ See, Appendix TDC-6A, Section F.

¹⁵⁸ KCVN/CPRR Feeder Line Application, Volume I, page 4 of Appendix GWF-7, filed on March 18, 2016 (“36005 KCVN v. V & S 2016.03.18 ID_240327 KCVN OPENING STATEMENT AND APPLICATION.pdf”).

I classified crossings as either public or private based on my Google Earth review. For the segments needing rehabilitation, I estimated that 42 of the crossings are public with an estimated re-paving cost of \$2,326 per crossing and 42 are private with an estimated re-paving cost of \$349 per crossing.¹⁵⁹

The total estimated cost for crossing re-pavement on the Tennessee Pass Line is \$112,000.¹⁶⁰

H. COMMUNICATIONS & SIGNALING

Based on publicly available operating timetables and other information, I included an additional cost for each public crossing that I identified as having existing crossing signals. Based on the time of inactivity and review of photos of signals in Appendix TDC-7, I estimated replacement costs for these crossing signals. I estimated that eight (8) of the crossings need replacement of a bell, flasher and gate system with an estimated cost of \$120,819 per crossing and eight (8) crossings need replacement of a bell and flasher system with an estimated cost of \$36,246 per crossing.¹⁶¹

The total estimated cost for upgrades and repairs to the communications and signaling system on the Tennessee Pass Line is \$1.3 million.¹⁶²

¹⁵⁹ See, Appendix TDC-6A.

¹⁶⁰ See, Appendix TDC-6, Section G.

¹⁶¹ See, Appendix TDC-6H.

¹⁶² See, Appendix TDC-6A, Section H.

1. Positive Train Control

Class I railroads¹⁶³ and passenger rail carriers were required to implement positive train control (“PTC”) by December 31, 2020.¹⁶⁴ PTC is an automated system designed to prevent train-to-train collisions and other accidents.¹⁶⁵ Class I rail carriers with traffic routes that carry passengers and/or hazardous toxic-by-inhalation (“TIH”) or poisonous-by-inhalation (“PIH”) materials, as designated under federal regulation, must implement PTC pursuant to the Rail Safety Improvement Act of 2008 (“RSIA”).

I assumed that the railroad selected to conduct freight operations over the Tennessee Pass Line will be a Class II/III railroad and will not be required to implement PTC. Therefore, I have not included PTC costs¹⁶⁶ in this analysis. I also assumed that the PTC costs associated with the Royal Gorge Railroad passenger service between Parkdale, CO and Cañon City, CO has already been taken care of by the Royal Gorge Railroad.

¹⁶³ The STB defines railroad classifications based on annual operating revenue. Note that this is different than the FRA classifications of track. Class I railroads are currently defined by the STB as those that have an annual carrier operating revenue of over \$250 million in 1991 dollars. Class II railroads are those with an annual carrier operating revenue of less than \$250 million in 1991 dollars but greater than \$20 million in 1991 dollars. Class III railroads are those with an annual operating revenue of less than \$20 million in 1991 dollars.

¹⁶⁴ In 2008, Congress passed and the President signed the Rail Safety Improvement Act of 2008 requiring PTC systems to be fully implemented by December 31, 2015, on Class I railroads’ main lines that transport poison- or toxic-by-inhalation hazardous materials and any main lines with regularly scheduled intercity or commuter rail passenger service. In October 2015, Congress extended the deadline for full implementation by at least three years to December 31, 2018, and required FRA to approve any railroad’s request for an “alternative schedule and sequence” with a final deadline not later than December 31, 2020, if a railroad demonstrated it met certain statutory criteria by December 31, 2018. As of December 31, 2018, four host railroads self-reported that they fully implemented PTC systems on their required main lines. Also, two tenant-only commuter railroads reported that they have been operating with PTC since 2017. All other railroads subject to the statutory mandate met, or surpassed, the six statutory criteria necessary to qualify for an alternative schedule by law. *See*, <https://railroads.dot.gov/train-control/ptc/positive-train-control-ptc> (“Positive Train Control (PTC) _ FRA.pdf”).

¹⁶⁵ The costs to implement PTC ranges between \$150,000 and \$175,000 per route mile and includes all required assets from office servers to trackside equipment to locomotive equipment.

¹⁶⁶ Class II/III railroads that operate on Class I railroad PTC equipped tracks may be required to utilize PTC equipped locomotives. The regulation permits non-PTC equipped locomotives of connecting Class II/III railroads to run on Class I railroad lines for distances up to 20 miles. However, if the Class I requires PTC on its own locomotives used on the line segment, it will require the same of its trackage rights tenants.

I. ENGINEERING & CONTINGENCIES

Based on recent rail rehabilitation grant application cost estimations, I assumed a 14 percent engineering and contingency additive for construction costs, based on rehabilitation grant applications.¹⁶⁷ The total estimated cost for engineering and contingencies for the Tennessee Pass Line equals \$34.1 million.¹⁶⁸

¹⁶⁷ See, Appendix TDC-6I.

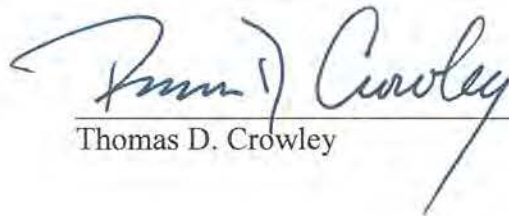
¹⁶⁸ See, Appendix TDC-6A, Section I.

X. CONCLUSION

Based on my analysis of the Tennessee Pass Line, I estimated that the CMV equals \$8.8 million at 1Q20 wage and price levels. As recognized by the CDOT, the Tennessee Pass Line is significant because it has the potential to carry both passenger and freight traffic and because it is the only existing trans-mountain alternative in Colorado to the Moffat Tunnel rail line.

VERIFICATION

I, Thomas D. Crowley, verify under penalty of perjury that I have read this Verified Statement on behalf of CPRR, that I know the contents thereof, and that the same are true and correct. Further, I certify that I am qualified and authorized to file this statement.


Thomas D. Crowley

Executed on February 14, 2020

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THOMAS D. CROWLEY
STATEMENT OF QUALIFICATIONS

My name is Thomas D. Crowley. I am an economist and President of the economic consulting firm of L. E. Peabody & Associates, Inc. The firm's offices are located at 1501 Duke Street, Suite 200, Alexandria, Virginia 22314, 760 E. Pusch View Lane, Suite 150, Tucson, Arizona 85737, and 7 Horicon Avenue, Glens Falls, New York 12801.

I am a graduate of the University of Maine from which I obtained a Bachelor of Science degree in Economics. I have also taken graduate courses in transportation at George Washington University in Washington, D.C. I spent three years in the United States Army and since February 1971 have been employed by L. E. Peabody & Associates, Inc.

I am a member of the American Economic Association, the Transportation Research Forum, and the American Railway Engineering and Maintenance-of-Way Association.

The firm of L. E. Peabody & Associates, Inc. specializes in analyzing matters related to the rail transportation of all commodities. As a result of my extensive economic consulting practice since 1971 and my participation in maximum-rate, rail merger, service disputes and rule-making proceedings before various government and private governing bodies, I have become thoroughly familiar with the rail carriers and the traffic they move over the major rail routes in the United States. This familiarity extends to subjects of railroad service, costs and profitability, cost of capital, railroad capacity, railroad traffic prioritization and the structure and operation of the various contracts and tariffs that historically have governed the movement of traffic by rail.

As an economic consultant, I have organized and directed economic studies and prepared reports for railroads, freight forwarders and other carriers, for shippers, for associations and for state governments and other public bodies dealing with transportation and related economic problems. Examples of studies I have participated in include organizing and directing traffic,

THOMAS D. CROWLEY
STATEMENT OF QUALIFICATIONS

operational and cost analyses in connection with single car and multiple car movements, unit train operations for coal, grain, oil and other commodities, freight forwarder facilities, TOFC/COFC rail facilities, divisions of through rail rates, operating commuter passenger service, and other studies dealing with markets and the transportation by different modes of various commodities from both eastern and western origins to various destinations in the United States. The nature of these studies enabled me to become familiar with the operating practices and accounting procedures utilized by railroads in the normal course of business.

Additionally, I have inspected and studied both railroad terminal and line-haul facilities used in handling various commodities. These operational reviews and studies were used as a basis for the determination of the traffic and operating characteristics for specific movements of numerous commodities handled by rail.

I have frequently been called upon to develop and coordinate economic and operational studies relative to the rail transportation of various commodities. My responsibilities in these undertakings included the analyses of rail routes, rail operations and an assessment of the relative efficiency and costs of railroad operations over those routes. I have also analyzed and made recommendations regarding the acquisition of railcars according to the specific needs of various shippers. The results of these analyses have been employed in order to assist shippers in the development and negotiation of rail transportation contracts which optimize operational efficiency and cost effectiveness.

I have developed property and business valuations of privately held freight and passenger railroads for use in regulatory, litigation and commercial settings. These valuation assignments required me to develop company and/or industry specific costs of debt, preferred equity and

THOMAS D. CROWLEY
STATEMENT OF QUALIFICATIONS

common equity, as well as target and actual capital structures. I am also well acquainted with and have used the commonly accepted models for determining a company's cost of common equity, including the Discounted Cash Flow Model ("DCF"), Capital Asset Pricing Model ("CAPM"), and the Farma-French Three Factor Model.

Moreover, I have developed numerous variable cost calculations utilizing the various formulas employed by the Interstate Commerce Commission ("ICC") and the Surface Transportation Board ("STB") for the development of variable costs for common carriers, with particular emphasis on the basis and use of the Uniform Railroad Costing System ("URCS") and its predecessor, Rail Form A. I have utilized URCS/Rail form A costing principles since the beginning of my career with L. E. Peabody & Associates Inc. in 1971.

I have frequently presented both oral and written testimony before the ICC, STB, Federal Railroad Administration, Federal Energy Regulatory Commission, Railroad Accounting Principles Board, Postal Rate Commission and numerous state regulatory commissions, federal courts and state courts. This testimony was generally related to the development of variable cost of service calculations, rail traffic and operating patterns, fuel supply economics, contract interpretations, economic principles concerning the maximum level of rates, implementation of maximum rate principles, and calculation of reparations or damages, including interest. I presented testimony before the Congress of the United States, Committee on Transportation and Infrastructure on the status of rail competition in the western United States. I have also presented expert testimony in a number of court and arbitration proceedings concerning the level of rates, rate adjustment procedures, service, capacity, costing, rail operating procedures and other economic components of specific contracts.

THOMAS D. CROWLEY
STATEMENT OF QUALIFICATIONS

Since the implementation of the *Staggers Rail Act of 1980*, which clarified that rail carriers could enter into transportation contracts with shippers, I have been actively involved in negotiating transportation contracts on behalf of shippers. Specifically, I have advised shippers concerning transportation rates based on market conditions and carrier competition, movement specific service commitments, specific cost-based rate adjustment provisions, contract reopeners that recognize changes in productivity and cost-based ancillary charges.

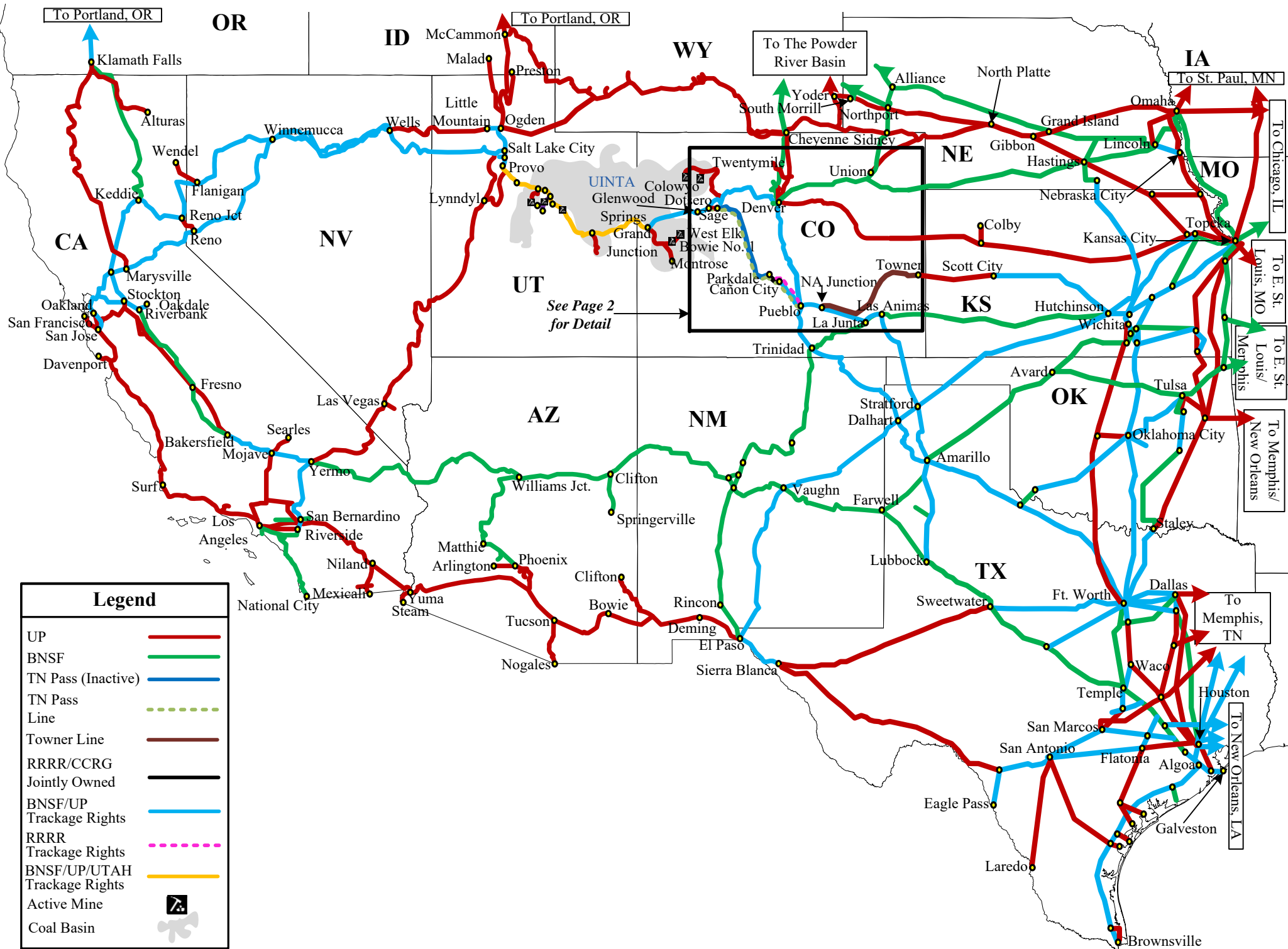
I have developed different economic analyses regarding rail transportation matters for over sixty (60) electric utility companies located in all parts of the United States, and for major associations, including American Chemistry Council, American Paper Institute, American Petroleum Institute, Chemical Manufacturers Association, the Chlorine Institute, Coal Exporters Association, Edison Electric Institute, the Fertilizer Institute, Mail Order Association of America, National Coal Association, National Grain and Feed Association, National Industrial Transportation League, North America Freight Car Association and Western Coal Traffic League. In addition, I have assisted numerous government agencies, major industries and major railroad companies in solving various transportation-related problems.

In the two Western rail mergers that resulted in the creation of the present BNSF Railway Company and Union Pacific Railroad Company and in the acquisition of Conrail by Norfolk Southern Railway Company and CSX Transportation, Inc., I reviewed the railroads' applications including their supporting traffic, cost and operating data and provided detailed evidence supporting requests for conditions designed to maintain the competitive rail environment that existed before the proposed mergers and acquisition. In these proceedings, I represented shipper interests, including plastic, chemical, coal, paper and steel shippers.

THOMAS D. CROWLEY
STATEMENT OF QUALIFICATIONS

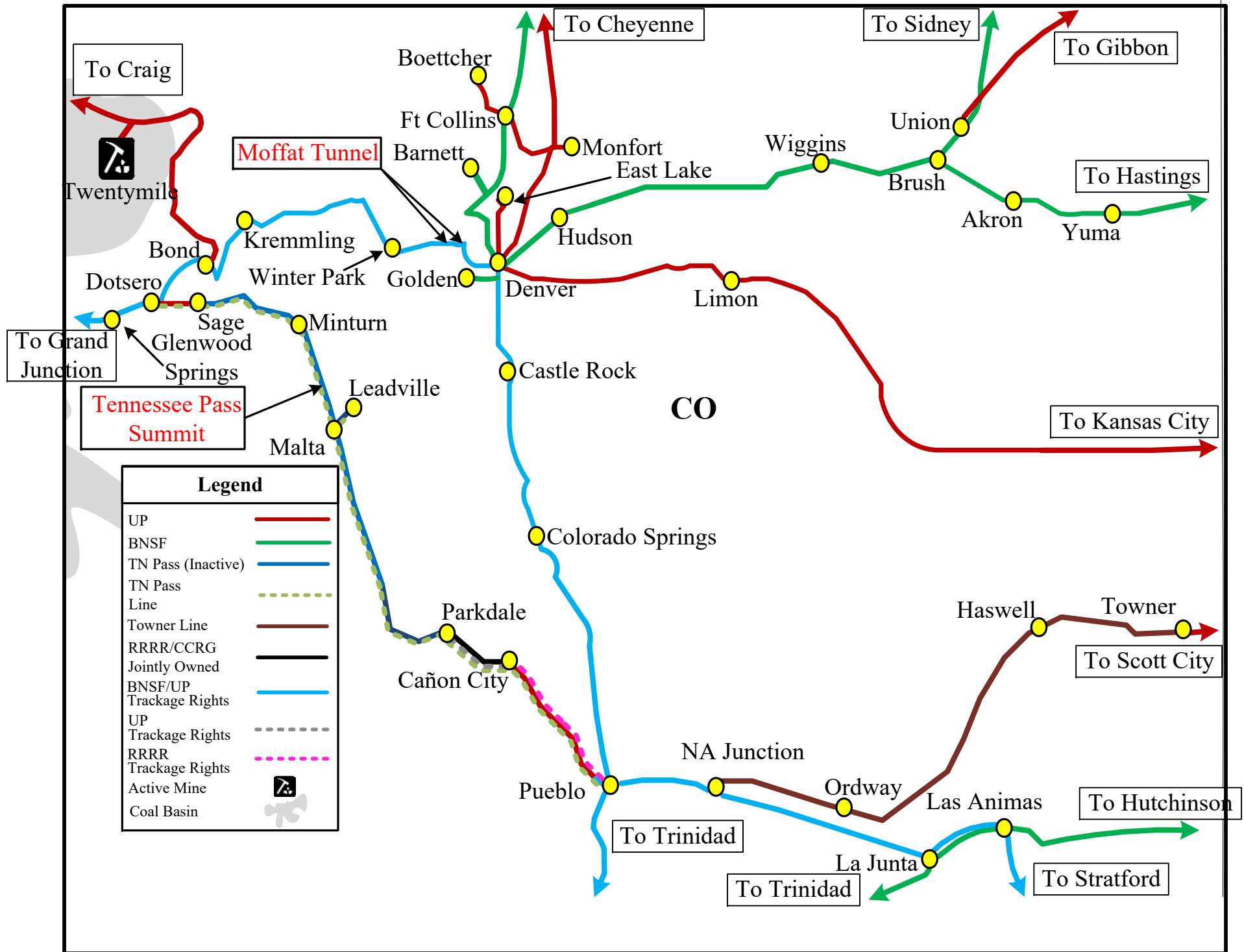
I have participated in various proceedings involved with the division of through rail rates. For example, I participated in ICC Docket No. 35585, *Akron, Canton & Youngstown Railroad Company, et al. v. Aberdeen and Rockfish Railroad Company, et al.* which was a complaint filed by the northern and mid-western rail lines to change the primary north-south divisions. I was personally involved in all traffic, operating and cost aspects of this proceeding on behalf of the northern and mid-western rail lines. I was the lead witness on behalf of the Long Island Rail Road in ICC Docket No. 36874, *Notice of Intent to File Division Complaint by the Long Island Rail Road Company.*

Schematic of Tennessee Pass Subdivision and Surrounding Rail Lines



Legend	
UP	
BNSF	
TN Pass (Inactive)	
TN Pass Line	
Towner Line	
RRRR/CCRG Jointly Owned	
BNSF/UP Trackage Rights	
RRRR Trackage Rights	
BNSF/UP/UTAH Trackage Rights	
Active Mine	
Coal Basin	

Schematic of Tennessee Pass Subdivision and Surrounding Rail Lines

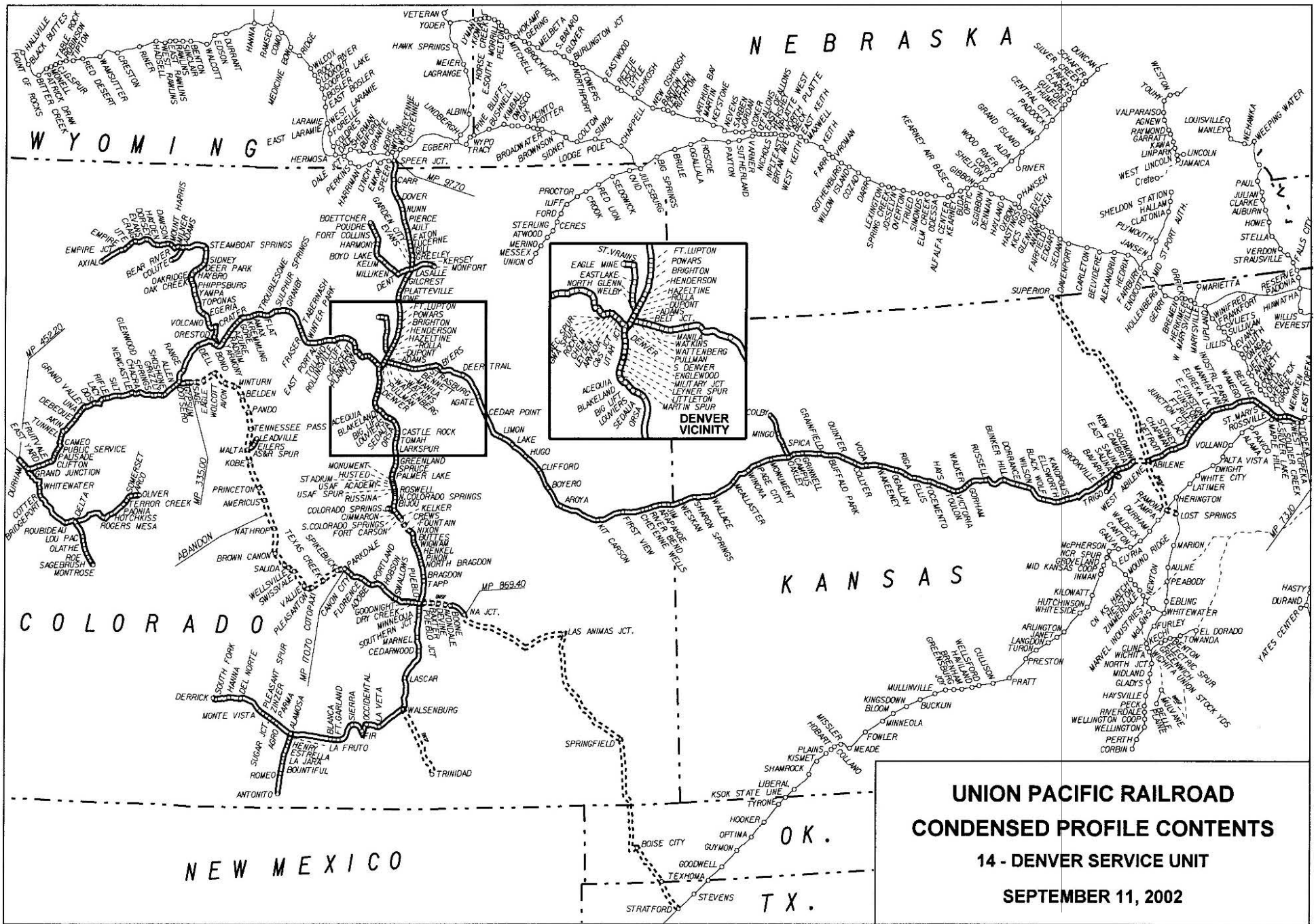




UNION PACIFIC RAILROAD

CONDENSED PROFILES

14. DENVER SERVICE UNIT



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STRUCTURE ABBREVIATIONS

Bridge Span Type	Bridge Span Descriptions
BM	Steel Beam Span
BMC	Steel Beam Span Continuous
CAB	Concrete Arch Bridge
CBDY	Car Body
CEB	Concrete Encased Beam
CTG	Concrete Through Girder
DPG	Deck Plate Girder
DPG-M	Deck Plate Girder Movable
DTP	Deck Truss Pinned
DTR	Deck Truss Riveted
PCB	Prestressed Concrete Box
PCI	Prestressed Concrete I-Beam
PCS	Prestressed Concrete Slab
PCT	Prestressed Concrete Tee
PTC	Post Tensioned Concrete
PTP	Pony Truss Pinned
PTR	Pony Truss Riveted
PTR-M	Pony Truss Riveted Movable
RCS	Reinforced Concrete Slab
RCT	Reinforced Concrete Tee
RG	Rail Girder
RT	Rail Top
SAB	Stone Arch Bridge
TPG	Through Plate Girder
TPG-M	Through Plate Girder Movable
TSG	Timber Stringers - Glulam
TST	Timber Stringers
TTP	Through Truss Pinned
TTP-M	Through Truss Pinned Movable
TTR	Through Truss Riveted
TTR-M	Through Truss Riveted Movable
WAG	Wagon Bridge
<p>All span types are shown as Ballast Deck; Open Deck is designated by a trailing "OD".</p> <p>Any movable span will be designated with a "-M" followed by "/" and a designation for the type of movable span: "S"=Swing, "L"=Lift, "B"=Bascule (ex. TTROD-M/S).</p>	

Culvert Type	Culvert Descriptions
BAC	Brick Arch Culvert
CAC	Concrete Arch Culvert
CBC	Concrete Box Culvert
CIP	Cast Iron Pipe
CMP	Corrugated Metal Pipe
CMPA	CMP Arch
COMB	Combination
CP	Concrete Pipe
GIP	Galvanized Iron Pipe
MAC	Masonry Arch Culvert
RTC	Rail Top Culvert
SAC	Stone Arch Culvert
SBC	Stone Box Culvert
SPP	Structural Plate Pipe
SPPA	SPP Arch
SSP	Smooth Steel Pipe
VCP	Vitrified Clay Pipe
WBC	Wood Box Culvert
WSP	Wood Stave Pipe
<p>Culverts identified in the Condensed Profile are (a) single culverts 4 ft. in diameter and larger, and (b) multiple culverts totaling 4 ft. in overall span (i.e. 2@24" CMPs would be included).</p> <p>Multi-segment (type) culverts are designated by "COMB" (Combination).</p>	

Tunnel Type	Tunnel Descriptions
CLTU	Concrete Lined Tunnel
CRSH	Concrete Rock Shed
CSSH	Concrete Snow Shed
NRTU	Natural Rock Tunnel
SLTU	Shotcrete Lined Tunnel
SSTU	Steel Sets Tunnel
TCTU	Timber Concrete Tunnel
TSTU	Timber Sets Tunnel

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Denver SU Station Listing for Condensed Profiles

Station	Circ 7	Control Pt	File Name	Page	Service Unit	Subdivision
		CP	buva.dan	431	DENVER DMISION	TENNESSEE PASS SUBDMISION
		CP	buva.dan	433	DENVER DMISION	TENNESSEE PASS SUBDMISION
		CP	buva.dan	434	DENVER DMISION	TENNESSEE PASS SUBDMISION
		CP	buva.dan	436	DENVER DMISION	TENNESSEE PASS SUBDMISION
		CP	buva.dan	438	DENVER DMISION	TENNESSEE PASS SUBDMISION
		CP	coap.dan	439	DENVER DMISION	TENNESSEE PASS SUBDMISION
		CP	coap.dan	440	DENVER DMISION	TENNESSEE PASS SUBDMISION
		CP	coap.dan	442	DENVER DMISION	TENNESSEE PASS SUBDMISION
		CP	coap.dan	444	DENVER DMISION	TENNESSEE PASS SUBDMISION
		CP	coap.dan	446	DENVER DMISION	TENNESSEE PASS SUBDMISION
		CP	coap.dan	447	DENVER DMISION	TENNESSEE PASS SUBDMISION
		CP	coap.dan	448	DENVER DMISION	TENNESSEE PASS SUBDMISION
		CP	coap.dan	449	DENVER DMISION	TENNESSEE PASS SUBDMISION
		CP	coap.dan	449	DENVER DMISION	TENNESSEE PASS SUBDMISION
		CP	crbo.dan	314	DENVER DMISION	CRAIG SUBDMISION
		CP	crbo.dan	316	DENVER DMISION	CRAIG SUBDMISION
	MJ471	CP	crbo.dan	318	DENVER DMISION	CRAIG SUBDMISION
		CP	crbo.dan	320	DENVER DMISION	CRAIG SUBDMISION
		CP	crbo.dan	322	DENVER DMISION	CRAIG SUBDMISION
		CP	crbo.dan	325	DENVER DMISION	CRAIG AND MOFFAT TUNNEL SUBDIVISIONS
		CP	crbo.dan	328	DENVER DMISION	MOFFAT TUNNEL SUBDMISION
		CP	crbo.dan	330	DENVER DMISION	MOFFAT TUNNEL SUBDMISION
		CP	crbo.dan	331	DENVER DMISION	MOFFAT TUNNEL SUBDMISION
		CP	dntl.dan	54	DENVER DMISION	MOFFAT TUNNEL SUBDMISION
		CP	dntl.dan	55	DENVER DMISION	MOFFAT TUNNEL SUBDMISION
		CP	dntl.dan	56	DENVER DMISION	MOFFAT TUNNEL SUBDMISION
		CP	dobe.dan	408	DENVER DMISION	TENNESSEE PASS SUBDMISION
		CP	dobe.dan	410	DENVER DMISION	TENNESSEE PASS SUBDMISION
		CP	dobe.dan	413	DENVER DMISION	TENNESSEE PASS SUBDMISION
		CP	dobe.dan	415	DENVER DMISION	TENNESSEE PASS SUBDMISION
		CP	dobe.dan	416	DENVER DMISION	TENNESSEE PASS SUBDMISION
		CP	dofr.dan	10	DENVER DMISION	GLENWOOD SPRINGS SUBDMISION
		CP	dofr.dan	11	DENVER DMISION	GLENWOOD SPRINGS SUBDMISION
		CP	dofr.dan	13	DENVER DMISION	GLENWOOD SPRINGS SUBDMISION
		CP	dofr.dan	14	DENVER DMISION	GLENWOOD SPRINGS SUBDMISION
		CP	dofr.dan	PS #15	DENVER DMISION	GLENWOOD SPRINGS SUBDMISION
		CP	dofr.dan	PS #15	DENVER DMISION	GLENWOOD SPRINGS SUBDMISION
		CP	dofr.dan	PS #15	DENVER DMISION	GLENWOOD SPRINGS SUBDMISION
		CP	dofr.dan	6	DENVER DMISION	GLENWOOD SPRINGS SUBDMISION
		CP	dofr.dan	7	DENVER DMISION	GLENWOOD SPRINGS SUBDMISION
		CP	dofr.dan	9	DENVER DMISION	GLENWOOD SPRINGS SUBDMISION
		CP	dots.dan	25	DENVER DMISION	GLENWOOD SPRINGS SUBDMISION
		CP	dots.dan	26	DENVER DMISION	GLENWOOD SPRINGS SUBDMISION
		CP	dots.dan	29	DENVER DMISION	GLENWOOD SPRINGS SUBDMISION
		CP	hornn.dan	451	DENVER DMISION	TENNESSEE PASS-SUBDMISION

Denver SU Station Listing for Condensed Profiles

Station	Circ 7	Control Pt	File Name	Page	Service Unit	Subdivision
		CP	homn.dan	452	DENVER DIVISION	TENNESSEE PASS-SUBDIVISION
		CP	ncas.dan	15	DENVER DIVISION	GLENWOOD SPRINGS SUBDIVISION
		CP	ncas.dan	16	DENVER DIVISION	GLENWOOD SPRINGS SUBDIVISION
		CP	ncas.dan	17	DENVER DIVISION	GLENWOOD SPRINGS SUBDIVISION
		CP	ncas.dan	18	DENVER DIVISION	GLENWOOD SPRINGS SUBDIVISION
		CP	ncas.dan	20	DENVER DIVISION	GLENWOOD SPRINGS SUBDIVISION
		CP	ncas.dan	21	DENVER DIVISION	GLENWOOD SPRINGS SUBDIVISION
		CP	ncas.dan	22	DENVER DIVISION	GLENWOOD SPRINGS SUBDIVISION
		CP	ncas.dan	23	DENVER DIVISION	GLENWOOD SPRINGS SUBDIVISION
		CP	ncas.dan	23	DENVER DIVISION	GLENWOOD SPRINGS SUBDIVISION
		CP	ncas.dan	24	DENVER DIVISION	GLENWOOD SPRINGS SUBDIVISION
		CP	ream.dan	418	DENVER DIVISION	TENNESSEE PASS SUBDIVISION
		CP	ream.dan	419	DENVER DIVISION	TENNESSEE PASS SUBDIVISION
		CP	ream.dan	421	DENVER DIVISION	TENNESSEE PASS SUBDIVISION
		CP	ream.dgn	423	DENVER DIVISION	TENNESSEE PASS SUBDIVISION
		CP	ream.dan	425	DENVER DIVISION	TENNESSEE PASS SUBDIVISION
		CP	ream.dgn	427	DENVER DIVISION	TENNESSEE PASS SUBDIVISION
		CP	ream.dan	428	DENVER DIVISION	TENNESSEE PASS SUBDIVISION
		CP	ref 14.dan	2	UTAH DIVISION	GREEN RIVER SUBDIVISION
	CP 8.2		enav.dan	310	DENVER DIVISION	ENERGY IND. LEAD
	CP12.2		enqv.dan	309	DENVER DIVISION	
	CP1666		crbo.dan	325	DENVER DIVISION	CRAIG AND MOFFAT TUNNEL SUBDIVISIONS
	CP1756		crbo.dgn	323	DENVER DIVISION	CRAIG SUBDIVISION
	CP2128		buva.dan	435	DENVER DIVISION	TENNESSEE PASS SUBDIVISION
	CPK091		jcit.dgn	182	DENVER DIVISION	SALINA SUBDIVISION
	CPK207		havs.dan	158	DENVER DIVISION	SHARON SPRINGS SUBDIVISION
	CPK230		havs.dan	153	DENVER DIVISION	SHARON SPRINGS SUBDIVISION
	CPK251		havs.dan	149	DENVER DIVISION	SHARON SPRINGS SUBDIVISION
	CPK293		havs.dan	141	DENVER DIVISION	SHARON SPRINGS SUBDIVISION
	CPK311		oakl.dan	137	DENVER DIVISION	SHARON SPRINGS SUBDIVISION
	CPK338		oakl.dan	132	DENVER DIVISION	SHARON SPRINGS SUBDIVISION
	CPK361		oakl.dan	127	DENVER DIVISION	SHARON SPRINGS SUBDIVISION
	CPK381		oakl.dan	123	DENVER DIVISION	SHARON SPRINGS SUBDIVISION
	CPK449		shsp.dan	110	DENVER DIVISION	LIMON SUBDIVISION
	CPK487		shsp.dan	102	DENVER DIVISION	LIMON SUBDIVISION
	CPK504		huqo.dgn	99	DENVER DIVISION	LIMON SUBDIVISION
	CPK550		huqo.dan	89	DENVER DIVISION	LIMON SUBDIVISION
	CPK568		huqo.dan	86	DENVER DIVISION	LIMON SUBDIVISION
	CPK594		huqo.dan	81	DENVER DIVISION	LIMON SUBDIVISION
	CPK627		huqo.dan	74	DENVER DIVISION	LIMON SUBDIVISION
	CPW011		lasa.dan	233	DENVER DIVISION	GREELEY SUBDIVISION
	CPW019		lasa.dgn	234	DENVER DIVISION	GREELEY SUBDIVISION
	CPW034		lasa.dan	238	DENVER DIVISION	GREELEY SUBDIVISION
	CPW045		lasa.dgn	241	DENVER DIVISION	GREELEY SUBDIVISION
	CPW051		lasa.dan	242	DENVER DIVISION	GREELEY SUBDIVISION
	CPW054		lasa.dan	242	DENVER DIVISION	GREELEY SUBDIVISION
	CPW062		lasa.dan	244	DENVER DIVISION	GREELEY SUBDIVISION
	CPW071		lasa.dan	246	DENVER DIVISION	GREELEY SUBDIVISION

Denver SU Station Listing for Condensed Profiles

Station	Circ 7	Control Pt	File Name	Page	Service Unit	Subdivision
		CPW085	lasa.dan	248	DENVER DMISION	GREELEY SUBDMISION
10TH STREET	KP897	CP	dofr.dan	PS #15	DENVER DMISION	GLENWOOD SPRINGS SUBDMISION
36TH STREET	WD640		lasa.dan	231	DENVER DMISION	GREELEY SUBDMISION
ABILENE	KP164		icit.dan	168	DENVER DMISION	SALINA SUBDIVISION
ABILENE	KP164		losp.dan	220	DENVER DMISION	
ADAMS	WD640	CPW006	lasa.dan	232	DENVER DMISION	GREELEY SUBDMISION
ADOBE	MJ028	CP	coap.dan	449	DENVER DMISION	TENNESSEE PASS SUBDMISION
AEC			rofl.dan	64	DENVER DMISION	
AEC SPUR	KP659		dntl.dgn	59	DENVER DMISION	MOFFAT TUNNEL SUBDIVISION
AGATE	YD26		huao.dan	85	DENVER DMISION	LIMON SUBDIVISION
AGRO	WD373		cred.dan	525	DENVER DMISION	
AKIN	KP871	CP	dofr.dan	10	DENVER DMISION	GLENWOOD SPRINGS SUBDMISION
ALAMOSA	WD385		alan.dan	517	DENVER DMISION	ANTONITO SUBDIVISION
ALAMOSA	WD385		cred.dan	527	DENVER DMISION	
ALAMOSA	WD385		rua1.dgn	528	DENVER DMISION	ALAMOSA SUBDIVISION
ALLEN	KP797	CP	dots.dan	25	DENVER DMISION	GLENWOOD SPRINGS SUBDMISION
AMAX	KP740		orst1.dgn	40	DENVER DMISION	MOFFAT TUNNEL SUBDIVISION
AMERICUS	MU125	CP	buva.dan	429	DENVER DMISION	TENNESSEE PASS SUBDMISION
ANTONITO	WD129		alan.dan	511	DENVER DMISION	ANTONITO SUBDIVISION
ARAPAHOE	KP453		shsp.dan	109	DENVER DMISION	LIMON SUBDIVISION
AROYA	KP508	CPK502	huao.dan	99	DENVER DMISION	LIMON SUBDIVISION
ARVADA	KP646		dntl.dan	61	DENVER DMISION	MOFFAT TUNNEL SUBDIVISION
AULT	WD703	CPW064	lasa.dan	244	DENVER DMISION	GREELEY SUBDMISION
AURORA			supe.dan	211	DENVER DMISION	
AVON	MJ189	CP	dobe.dan	415	DENVER DMISION	TENNESSEE PASS SUBDMISION
AVONDALE	MX889		pueb.dan	462	DENVER DMISION	TENNESSEE PASS SUBDMISION
AXIAL			axal.dan	300	DENVER DMISION	CRAIG SUBDMISION
AZURE	KP750	CP	orst1.dan	38	DENVER DMISION	MOFFAT TUNNEL SUBDIVISION
BAVARIA	KP195		icit.dan	161	DENVER DMISION	DENVER DMISION
BAXTER	MX897		pueb.dan	460	DENVER DMISION	TENNESSEE PASS SUBDMISION
BELDEN	MJ177	CP	dobe.dan	417	DENVER DMISION	TENNESSEE PASS SUBDMISION
BELT			kost.dgn	66	BELT LINE INDUSTRIAL LEAD	
BELT LINE CONN			lasa.dan	231	DENVER DMISION	GREELEY SUBDMISION
BELTLINE CONN.	KP638		denver.trm	229	DENVER DMISION	MOFFAT TUNNEL,DENVER AND GREELEY SUBDMISIONS
BELTLINE CONN.	KP638		denver.trm	70	DENVER DMISION	MOFFAT TUNNEL,DENVER AND GREELEY SUBDMISIONS
BELVUE	KP098		icit.dan	181	DENVER DMISION	SALINA SUBDIVISION
BENNETT	KP609		huao.dan	78	DENVER DMISION	LIMON SUBDIVISION
BIG LIFT	WD619		deto.dan	363	DENVER DMISION	COLORADO SPRINGS SUBDIVISION - NO. 1 TRACK
BISONTE			asda.dan	493	DENVER DMISION	
BLACK WOLF	KP232		havs.dan	153	DENVER DMISION	SHARON SPRINGS SUBDIVISION
BLAKELAND	WD623		deto.dan	363	DENVER DMISION	COLORADO SPRINGS SUBDIVISION - NO. 1 TRACK
BLANCA	YD02		rua1.dan	532	DENVER DMISION	ALAMOSA SUBDIVISION
BNSF XING			cher.dan	260	DENVER DMISION	FORT COLLINS SUBDMISION
BNSF XING			icit.dan	168	DENVER DMISION	SALINA SUBDIVISION
BOETTCHER	YD04		cher.dan	259	DENVER DMISION	FORT COLLINS SUBDMISION
BOND	E 7500		crbo.dan	333	DENVER DMISION	MOFFAT TUNNEL SUBDIVISION
BOND	W11750		orst1.dan	35	DENVER DMISION	GLENWOOD SPRINGS AND MOFFAT TUNNEL SUBDIVISIONS
BOONE	MX884		pueb.dan	10 DETEC		

Denver SU Station Listing for Condensed Profiles

Station	Circ 7	Control Pt	File Name	Page	Service Unit	Subdivision
BORIE	WX519	CPW519	lasa.dan	102	CHEYENNE DIVISION	BORIE CUT-OFF-GREELEY SUBDIVISION
BOUNTIFUL	WD118		alan.dan	514	DENVER DIVISION	ANTONITO SUBDIVISION
BOYD LAKE	WF814		cher.dan	262	DENVER DIVISION	FORT COLLINS SUBDIVISION
BOYERO	KP518		huao.dan	96	DENVER DIVISION	LIMON SUBDIVISION
BRIDGEPORT	MJ817		aimt.dan	277	DENVER DIVISION	NORTH FORK SUBDIVISION
BRIGHTON	WD659	CPW021	lasa.dan	236	DENVER DIVISION	GREELEY SUBDIVISION
BROOKVILLE	KP201		havs.dan	159	DENVER DIVISION	SHARON SPRINGS SUBDIVISION
BROWN CANON	MJ103	CP	buva.dan	433	DENVER DIVISION	TENNESSEE PASS SUBDIVISION
BUFFALO PARK	KP351		oakl.dan	129	DENVER DIVISION	SHARON SPRINGS SUBDIVISION
BUICK		CPK566	huao.dan	86	DENVER DIVISION	LIMON SUBDIVISION
BUNKER HILL	KP253		havs.dan	149	DENVER DIVISION	SHARON SPRINGS SUBDIVISION
BYERS	KP597	CPK593	huao.dan	81	DENVER DIVISION	LIMON SUBDIVISION
C&S JCT	KP645	CP	dntl.dan	397	DENVER DIVISION	MOFFAT TUNNEL SUBDIVISION
CAMEO	KP880	CP	dofr.dan	8	DENVER DIVISION	GLENWOOD SPRINGS SUBDIVISION
CAMPO			asda.dqn	495	DENVER DIVISION	
CAMPUS	KP371		oakl.dan	125	DENVER DIVISION	SHARON SPRINGS SUBDIVISION
CANON CITY	MJ041	CP	coap.dqn	446	DENVER DIVISION	TENNESSEE PASS SUBDIVISION
CARR	WD726	CPW086	lasa.dan	249	DENVER DIVISION	GREELEY SUBDIVISION
CASA		CP	swla.dan	472	DENVER DIVISION	
CASTANEDA			asda.dan	498	DENVER DIVISION	
CASTLE ROCK	WD606		sdla.dan	390	DENVER DIVISION	COLORADO SPRINGS SUBDIVISION - NO. 2 TRACK
CEDAR POINT	YD26		huao.dan	87	DENVER DIVISION	LIMON SUBDIVISION
CEDARWOOD			pula.dqn	550	DENVER DIVISION	ALAMOSA SUBDIVISION-NO.2
CEDARWOOD			wals.dan	577	DENVER DIVISION	ALAMOSA SUBDIVISION-NO.1
CHACRA	KP818	CP	ncas.dqn	21	DENVER DIVISION	GLENWOOD SPRINGS SUBDIVISION
CHAPMAN	KP152		icit.dan	170	DENVER DIVISION	SALINA SUBDIVISION
CHEM	KP654		dntl.dan	59	DENVER DIVISION	MOFFAT TUNNEL SUBDIVISION
CHEYENNE WELLS	KP463		shsp.dan	107	DENVER DIVISION	LIMON SUBDIVISION
CKR XING			icit.dan	162	DENVER DIVISION	SHARON SPRINGS AND SALINA SUBDIVISIONS
CLAY	KP660	CP	dntl.dan	58	DENVER DIVISION	MOFFAT TUNNEL SUBDIVISION
CLIFF	KP676	CP	dntl.dan	55	DENVER DIVISION	MOFFAT TUNNEL SUBDIVISION
CLIFFORD	KP526		huao.dan	94	DENVER DIVISION	LIMON SUBDIVISION
CLIFTON	KP891	CP	dofr.dan	6	DENVER DIVISION	GLENWOOD SPRINGS SUBDIVISION
CO/KS STATE LINE			shsp.dan	110	DENVER DIVISION	LIMON SUBDIVISION
CO/WY ST LINE	WD734		lasa.dan	250	DENVER DIVISION	GREELEY SUBDIVISION
COLBY	K0204		colb.dqn	187	DENVER DIVISION	
COLBY	KO204		colb.dan	192	DENVER DIVISION	PLAINVILLE SUBDIVISION
COLLYER SIDING	KP336	CPK336	oakl.dan	132	DENVER DIVISION	SHARON SPRINGS SUBDIVISION
COLORADO CITY			roca.dan	404	DENVER DIVISION	
COLORADO SPRINGS			roca.dan	403	DENVER DIVISION	TEMPLETON GAP SPUR
COLORADO SPRINGS			roca.dan	404	DENVER DIVISION	
COMMERCE CITY	WD645	CPW005	comc.dqn	258	DENVER DIVISION	BOULDER IND. LEAD
CONCORDIA			supe.dan	209	DENVER DIVISION	
CONVERSE	MJ934		deol.dqn	288	DENVER DIVISION	NORTH FORK SUBDIVISION
COOK			supe.dan	209	DENVER DIVISION	
COOK			supe.dan	210	DENVER DIVISION	
COTOPAXI	MJ072	CP	coap.dan	439	DENVER DIVISION	TENNESSEE PASS SUBDIVISION
COURTLAND			supe.dan	205	DENVER DIVISION	

Denver SU Station Listing for Condensed Profiles

Station	Circ 7	Control Pt	File Name	Page	Service Unit	Subdivision
COZY	KP182		icit.dan	163	DENVER DMISION	SALINA SUBDIVISION
CRAIG			axal.dan	305	DENVER DMISION	CRAIG SUBDMISION
CRAIG	MJ502		crbo.dan	312	DENVER DMISION	CRAIG SUBDMISION
CRATER		CP	crbo.dan	331	DENVER DMISION	MOFFAT TUNNEL SUBDIVISION
CRESCENT	KP670	CP	dntf.dan	56	DENVER DMISION	MOFFAT TUNNEL SUBDIVISION
DAWSON	MJ481	CP	crbo.dan	316	DENVER DMISION	CRAIG SUBDMISION
DE BEQUE	KP865	CP	dofr.dan	11	DENVER DMISION	GLENWOOD SPRINGS SUBDMISION
DEER TRAIL	YD26		huao.dan	83	DENVER DMISION	LIMON SUBDIVISION
DEL NORTE	WD354		cred.dgn	521	DENVER DMISION	
DELL	KP781	CP	orst1.dan	32	DENVER DMISION	GLENWOOD SPRINGS SUBDMISION
DELTA	MJ842		demo.dan	292	DENVER DMISION	MONTROSE INDUSTRIAL LEAD
DELTA	MJ842		deol.dan	282	DENVER DMISION	NORTH FORK SUBDIVISION
DELTA	MJ842		aimt.dan	281	DENVER DMISION	NORTH FORK SUBDIVISION
DENT	WF683		cher.dan	265	DENVER DMISION	FORT COLLINS SUBDMISION
DENVER			lasa.dgn	231	DENVER DMISION	GREELEY SUBDMISION
DENVER UNION DEPOT			dntf.dan	397	DENVER DMISION	MOFFAT TUNNEL SUBDIVISION
DERRICK	WD337		cred.dgn	518	DENVER DMISION	
DOLE	KP249	CPK249	havs.dan	150	DENVER DMISION	SHARON SPRINGS SUBDIVISION
DORRANCE	KP246		havs.dan	150	DENVER DMISION	SHARON SPRINGS SUBDIVISION
DORSEY	MJ492	CP	crbo.dan	314	DENVER DMISION	CRAIG SUBDMISION
DOS	KP847	CP	ncas.dan	15	DENVER DMISION	GLENWOOD SPRINGS SUBDMISION
DOTSERO	KP791	CP	dobe.dan	408	DENVER DMISION	TENNESSEE PASS SUBDMISION
DOTSERO	KP791	CP	dots.dan	26	DENVER DMISION	GLENWOOD SPRINGS SUBDMISION
DOTSERO	KP791	CP	dots.dan	27	DENVER DMISION	GLENWOOD SPRINGS SUBDMISION
DOVER	WD717		lasa.dan	247	DENVER DMISION	GREELEY SUBDMISION
DRY CREEK	MJ001	CP	homn.dan	454	DENVER DMISION	TENNESSEE PASS-SUBDIVISION
DUPONT	WD648		lasa.dan	232	DENVER DMISION	GREELEY SUBDMISION
E. PHIPPSBURG		CP	crbo.dan	325	DENVER DMISION	CRAIG AND MOFFAT TUNNEL SUBDIVISIONS
E.GRAND JCT.	KP898C	CP	dofr.dan	PS #15	DENVER DMISION	GLENWOOD SPRINGS SUBDMISION
EAGLE	MJ209		dobe.dan	411	DENVER DMISION	TENNESSEE PASS SUBDMISION
EAST ADAMS	MJ471	CP	crbo.dan	319	DENVER DMISION	CRAIG SUBDMISION
EAST BOND		CP	orst1.dgn	35	DENVER DMISION	GLENWOOD SPRINGS AND MOFFAT TUNNEL SUBDIVISIONS
EAST DURHAM	KP900	CP	ref 14.dan	3	UTAH AND DENVER DIVISIONS	GREEN RIVER SUBDMISION
EAST FUNSTON	KP132		icit.dgn	174	DENVER DMISION	SALINA SUBDIVISION
EAST MENOKEN	KX073	CPZ073	icit.dan	84	DENVER AND KANSAS CITY DIVISIONS	SALINA SUBDIVISION AND KANSAS SUBDIVISIONS
EAST PORTAL	KP689	CP	mfat.dan	52	DENVER DMISION	MOFFAT TUNNEL SUBDIVISION
EAST SALINA	KP185		icit.dan	163	DENVER DMISION	SALINA SUBDIVISION
EAST SPEER		CPW517	lasa.dan	101	CHEYENNE DIVISION	BORIE CUT-OFF-GREELEY SUBDMISION
EAST SPEER	C517.23	CPW517	lasa.dan	251	DENVER AND CHEYENNE DIVISIONS	GREELEY SUBDMISION
EAST YARD	KP895		dofr.dan	PS #15	DENVER DMISION	GLENWOOD SPRINGS SUBDMISION
EASTLAKE	WF654		comc.dgn	257	DENVER DMISION	BOULDER IND. LEAD
EATON	WD700		lasa.dan	243	DENVER DMISION	GREELEY SUBDMISION
EDNA			crbo.dan	324	DENVER DMISION	CRAIG SUBDMISION
ELLIS	KP303		oakl.dan	139	DENVER DMISION	SHARON SPRINGS SUBDIVISION
ELLSWORTH	YD02		havs.dan	155	DENVER DMISION	SHARON SPRINGS SUBDIVISION
EMPIRE			axal.dan	304	DENVER DMISION	CRAIG SUBDMISION

Denver SU Station Listing for Condensed Profiles

Station	Circ 7	Control Pt	File Name	Page	Service Unit	Subdivision
EMPIRE			enav.dan	308	DENVER DIVISION	EMPIRE INDUSTRIAL LEAD
EMPIRE JCT			axal.dan	304	DENVER DIVISION	CRAIG SUBDIVISION
EMPIRE JCT			enav.dan	308	DENVER DIVISION	EMPIRE INDUSTRIAL LEAD
EMPIRE JCT.	MJ610		enav.dan	308	DENVER DIVISION	EMPIRE INDUSTRIAL LEAD
ENERGY	YD38		enav.dan	309	DENVER DIVISION	
ENERGY #3			enav.dan	310	DENVER DIVISION	ENERGY IND. LEAD
ENGLEWOOD			roca.dan	402	DENVER DIVISION	
ENTERPRISE	KA193		losp.dan	221	DENVER DIVISION	
ESTRELLA	WD108		alan.dan	516	DENVER DIVISION	ANTONITO SUBDIVISION
EVANS	WD689		lasa.dan	241	DENVER DIVISION	GREELEY SUBDIVISION
EVANS		CP	axal.dan	305	DENVER DIVISION	CRAIG SUBDIVISION
EVANS	MJ501	CP	crbo.dan	312	DENVER DIVISION	CRAIG SUBDIVISION
FIR			waal.dan	537	DENVER DIVISION	ALAMOSA SUBDIVISION
FIRST VIEW	KP474		shsp.dan	105	DENVER DIVISION	LIMON SUBDIVISION
FLAT	KP732	CP	mfat.dgn	42	DENVER DIVISION	MOFFAT TUNNEL SUBDIVISION
FLORENCE	MJ032	CP	coap.dan	448	DENVER DIVISION	TENNESSEE PASS SUBDIVISION
FORT COLLINS	YD04		cher.dgn	260	DENVER DIVISION	FORT COLLINS SUBDIVISION
FORT LUPTON	WD666		lasa.dan	237	DENVER DIVISION	GREELEY SUBDIVISION
FOWLER	RR621		rord.dan	466	DENVER DIVISION	
FOX JCT	KP641	CP	dntl.dan	397	DENVER DIVISION	MOFFAT TUNNEL SUBDIVISION
FRASER	KP701	CP	mfat.dan	48	DENVER DIVISION	MOFFAT TUNNEL SUBDIVISION
FRICK			asda.dan	486	DENVER DIVISION	
FRUITVALE	KP893	CP	dofr.dgn	PS #15	DENVER DIVISION	GLENWOOD SPRINGS SUBDIVISION
FT. CARSON			roca.dan	404	DENVER DIVISION	
FT. GARLAND	WD408		rual.dgn	533	DENVER DIVISION	ALAMOSA SUBDIVISION
FUNSTON	KP134		icit.dan	174	DENVER DIVISION	SALINA SUBDIVISION
GARDEN CITY	WD690		lasa.dan	241	DENVER DIVISION	GREELEY SUBDIVISION
GILCREST	WD680		lasa.dan	240	DENVER DIVISION	GREELEY SUBDIVISION
GILL	WD694		lasa.dan	242	DENVER DIVISION	GREELEY SUBDIVISION
GLENWOOD SPRINGS	KP810	CP	ncas.dan	22	DENVER DIVISION	GLENWOOD SPRINGS SUBDIVISION
GOODNIGHT	MJ003	CP	homn.dan	454	DENVER DIVISION	TENNESSEE PASS-SUBDIVISION
GORE	KP745	CP	orst1.dan	39	DENVER DIVISION	MOFFAT TUNNEL SUBDIVISION
GORHAM	KP272		hays.dan	145	DENVER DIVISION	SHARON SPRINGS SUBDIVISION
GRAINFIELD	KP356		oakl.dan	128	DENVER DIVISION	SHARON SPRINGS SUBDIVISION
GRANBY	KP715	CP	mfat.dan	46	DENVER DIVISION	MOFFAT TUNNEL SUBDIVISION
GRAND JCT.	O.28		qimt.dgn	272	DENVER DIVISION	NORTH FORK SUBDIVISION
GRAND VALLEY	KP852	CP	dofr.dan	14	DENVER DIVISION	GLENWOOD SPRINGS SUBDIVISION
GREELEY	WD692	CPW053	lasa.dan	242	DENVER DIVISION	GREELEY SUBDIVISION
GRINNELL	KP365		oakl.dan	126	DENVER DIVISION	SHARON SPRINGS SUBDIVISION
GRIZZLY	KP804	CP	ncas.dan	24	DENVER DIVISION	GLENWOOD SPRINGS SUBDIVISION
GWA			roff.dan	65	DENVER DIVISION	
GWA SPUR	KP658		dntl.dgn	59	DENVER DIVISION	MOFFAT TUNNEL SUBDIVISION
GWR XING			cher.dan	263	DENVER DIVISION	FORT COLLINS SUBDIVISION
GYPSUM	MJ216		dobe.dgn	409	DENVER DIVISION	TENNESSEE PASS SUBDIVISION
HACKBERRY	KP380	CPK379	oakl.dan	124	DENVER DIVISION	SHARON SPRINGS SUBDIVISION
HANNA	WD347		cred.dan	520	DENVER DIVISION	
HARBORD			asda.dan	488	DENVER DIVISION	
HARMONY	WF820		cher.dan	261	DENVER DIVISION	FORT COLLINS SUBDIVISION

Denver SU Station Listing for Condensed Profiles

Station	Circ 7	Control Pt	File Name	Page	Service Unit	Subdivision
HARRIS	MJ478		crbo.dan	317	DENVER DIVISION	CRAIG SUBDIVISION
HAWKSNEST	MJ945		deol.dan	291	DENVER DIVISION	NORTH FORK SUBDIVISION
HAYBRO			crbo.dan	324	DENVER DIVISION	CRAIG SUBDIVISION
HAYDEN	MJ485		crbo.dan	315	DENVER DIVISION	CRAIG SUBDIVISION
HAYS	KP290		havs.dan	142	DENVER DIVISION	SHARON SPRINGS SUBDIVISION
HAYS SIDING	KP290	CPK291	havs.dan	141	DENVER DIVISION	SHARON SPRINGS SUBDIVISION
HAZELTINE	WD652	CPW013	lasa.dan	233	DENVER DIVISION	GREELEY SUBDIVISION
HENDERSON	WD655		lasa.dan	233	DENVER DIVISION	GREELEY SUBDIVISION
HOBSON	MJ020	CP	homn.dan	451	DENVER DIVISION	TENNESSEE PASS-SUBDIVISION
HOPE	MX467		losp.dan	224	DENVER DIVISION	
HOTCHKISS	MJ925		deol.dan	287	DENVER DIVISION	NORTH FORK SUBDIVISION
HUGO	KP536		huao.dan	92	DENVER DIVISION	LIMON SUBDIVISION
IKE	KP169		icit.dan	167	DENVER DIVISION	SALINA SUBDIVISION
INDUSTRIAL PARK	KP118		icit.dan	177	DENVER DIVISION	SALINA SUBDIVISION
JANSEN			trad.dgn	561	DENVER DIVISION	ALAMOSA SUBDIVISION
JIM	KP447	CPK447	shsp.dan	110	DENVER DIVISION	LIMON SUBDIVISION
JUNCTION CITY	KP140		icit.dgn	173	DENVER DIVISION	SALINA SUBDIVISION
KACKLEY			supe.dan	206	DENVER DIVISION	
KANOPOLIS	KP219		havs.dan	156	DENVER DIVISION	SHARON SPRINGS SUBDIVISION
KELIM	WF809		cher.dan	263	DENVER DIVISION	FORT COLLINS SUBDIVISION
KELKER			roca.dan	404	DENVER DIVISION	
KIRO	KP075		icit.dan	185	DENVER DIVISION	SALINA SUBDIVISION
KIT CARSON	KP488	CPK485	shsp.dan	102	DENVER DIVISION	LIMON SUBDIVISION
KOBE	MJ144	CP	ream.dan	425	DENVER DIVISION	TENNESSEE PASS SUBDIVISION
KOPPERS			kost.dan	66	BELT LINE INDUSTRIAL LEAD	
KREMMLING	KP743	CP	orst1.dan	40	DENVER DIVISION	MOFFAT TUNNEL SUBDIVISION
KYLE XING			supe.dan	207	DENVER DIVISION	
KYLE XING			supe.dan	209	DENVER DIVISION	
L.G.EVERIST			lasa.dan	232	DENVER DIVISION	GREELEY SUBDIVISION
LA JARA	WD115		alan.dan	514	DENVER DIVISION	ANTONITO SUBDIVISION
LA JUNTA	RR593		swla.dan	472	DENVER DIVISION	
LA SALLE	WD687		cher.dgn	266	DENVER DIVISION	FORT COLLINS SUBDIVISION
LA SALLE	WD687	CPW047	lasa.dan	241	DENVER DIVISION	GREELEY SUBDIVISION
LA VETA			waal.dgn	540	DENVER DIVISION	ALAMOSA SUBDIVISION
LACY	KP143		icit.dan	172	DENVER DIVISION	SALINA SUBDIVISION
LACY	YD03	CP	ncas.dan	16	DENVER DIVISION	GLENWOOD SPRINGS SUBDIVISION
LADORA	KP632		huao.dan	73	DENVER DIVISION	LIMON SUBDIVISION
LARKSPUR	WD596		sdla.dan	388	DENVER DIVISION	COLORADO SPRINGS SUBDIVISION - NO. 2 TRACK
LAS ANIMAS	RR574	CP	swla.dan	476	DENVER DIVISION	
LAS ANIMAS JCT		CP	swla.dan	477	DENVER DIVISION	
LAS ANIMAS JCT.		CP	swla.dan	478	DENVER DIVISION	
LASCAR			pula.dan	548	DENVER DIVISION	ALAMOSA SUBDIVISION-NO.2
LASCAR			wals.dan	575	DENVER DIVISION	ALAMOSA SUBDIVISION-NO.1
LAUTZ	RQ411		ref 14.dan	296	WICHITA DIVISION	
LEYDEN	KP651	CP	dntl.dan	60	DENVER DIVISION	MOFFAT TUNNEL SUBDIVISION
LIMON	KP551	CPK548	huao.dan	90	DENVER DIVISION	LIMON SUBDIVISION
LITTLETON INTERLOCK			deto.dan	364	DENVER DIVISION	COLORADO SPRINGS SUBDIVISION - NO. 1 TRACK
LITTLETON INTERLOCK			deto.dan	364	DENVER DIVISION	COLORADO SPRINGS SUBDIVISION - NO. 1 TRACK

Denver SU Station Listing for Condensed Profiles

Station	Circ 7	Control Pt	File Name	Page	Service Unit	Subdivision
LONGFORD			supe.dan	216	DENVER DIVISION	
LOST SPRINGS	HM179		losp.dan	226	DENVER DIVISION	
LOU PAC	MJ849		demo.dan	293	DENVER DIVISION	MONTROSE INDUSTRIAL LEAD
LOVEWELL			supe.dan	203	DENVER DIVISION	
LUCERNE	WD696	CPW056	lasa.dan	243	DENVER DIVISION	GREELEY SUBDIVISION
MAGEE	KP628		huqo.dan	74	DENVER DIVISION	LIMON SUBDIVISION
MALTA			lead.dan	587	DENVER DIVISION	TENNESSEE PASS SUBDIVISION - LEADVILLE INDUSTRIAL
MALTA	MJ151	CP	ream.dan	423	DENVER DIVISION	TENNESSEE PASS SUBDIVISION
MANCHESTER			supe.dan	217	DENVER DIVISION	
MANHATTAN	KP119		icit.dan	177	DENVER DIVISION	SALINA SUBDIVISION
MANZANOLA	RR612		rord.dan	468	DENVER DIVISION	
MCALLASTER SIDING	KP410	CPK411	shsp.dan	117	DENVER DIVISION	SHARON SPRINGS SUBDIVISION
MENOKEN JCT.	KX074		icit.dan	84	DENVER AND KANSAS CITY DIVISIONS	SALINA SUBDIVISION AND KANSAS SUBDIVISIONS
MESA	KP625	CPK625	huqo.dan	74	DENVER DIVISION	LIMON SUBDIVISION
MILITARY JCT			roca.dan	402	DENVER DIVISION	
MILLIKEN	WF802		cher.dan	265	DENVER DIVISION	FORT COLLINS SUBDIVISION
MILNER	MJ475		crbo.dan	318	DENVER DIVISION	CRAIG SUBDIVISION
MILTONVALLE			supe.dan	213	DENVER DIVISION	
MINGO	K0213		colb.dan	190	DENVER DIVISION	PLAINVILLE SUBDIVISION
MINNEQUA			pula.dan	554	DENVER DIVISION	ALAMOSA SUBDIVISION
MINNEQUA	BN122.5		pula.dan	554	DENVER DIVISION	ALAMOSA SUBDIVISION
MINTURN	MJ182	CP	dobe.dan	416	DENVER DIVISION	TENNESSEE PASS SUBDIVISION
MOFFAT TUNNEL			mfat.dan	51	DENVER DIVISION	MOFFAT TUNNEL SUBDIVISION
MOFFAT TUNNEL			mfat.dan	52	DENVER DIVISION	MOFFAT TUNNEL SUBDIVISION
MONTE VISTA	WD367		cred.dan	524	DENVER DIVISION	
MONTROSE	MJ863		demo.dan	296	DENVER DIVISION	MONTROSE INDUSTRIAL LEAD
MONUMENT	KP386		oakl.dan	122	DENVER DIVISION	SHARON SPRINGS SUBDIVISION
NA JCT	MX876		pueb.dan	464	DENVER DIVISION	TENNESSEE PASS SUBDIVISION
NATHROP	MJ113	CP	buva.dan	431	DENVER DIVISION	TENNESSEE PASS SUBDIVISION
NAVARRE	KD177		losp.dan	223	DENVER DIVISION	
NE/KS			supe.dan	201	DENVER DIVISION	
NEW CAMBRIA	KP180		icit.dan	165	DENVER DIVISION	SALINA SUBDIVISION
NEWCASTLE	KP822	CP	ncas.dan	20	DENVER DIVISION	GLENWOOD SPRINGS SUBDIVISION
NORTH YARD	KP643C		dntl.dan	397	DENVER DIVISION	MOFFAT TUNNEL SUBDIVISION
NORTHGLENN	WF652		comc.dan	257	DENVER DIVISION	BOULDER IND. LEAD
NUNN	WD712	CPW073	lasa.dan	246	DENVER DIVISION	GREELEY SUBDIVISION
OAK HILL			supe.dan	215	DENVER DIVISION	
OAKLEY	KP377		colb.dan	188	DENVER DIVISION	
OAKLEY	KP377		oakl.dan	124	DENVER DIVISION	SHARON SPRINGS SUBDIVISION
OCCIDENTAL			waal.dan	539	DENVER DIVISION	ALAMOSA SUBDIVISION
OGALLAH	KP314		oakl.dan	137	DENVER DIVISION	SHARON SPRINGS SUBDIVISION
OKT JCT.			losp.dan	220	DENVER DIVISION	
OLATHE	MJ853		demo.dan	294	DENVER DIVISION	MONTROSE INDUSTRIAL LEAD
ORESTOD		CP	crbo.dan	333	DENVER DIVISION	MOFFAT TUNNEL SUBDIVISION
ORESTOD	MJ407	CP	orst1.dan	35	DENVER DIVISION	GLENWOOD SPRINGS AND MOFFAT TUNNEL SUBDIVISIONS
OZ	KP359	CPK359	oakl.dan	128	DENVER DIVISION	SHARON SPRINGS SUBDIVISION
PAGE CITY	KP394		oakl.dan	121	DENVER DIVISION	SHARON SPRINGS SUBDIVISION

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Station	Circ 7	Control Pt	File Name	Page	Service Unit	Subdivision
PALISADE	KP885	CP	dofr.dan	7	DENVER DIVISION	GLENWOOD SPRINGS SUBDIVISION
PANDO	MJ169	CP	ream.dan	419	DENVER DIVISION	TENNESSEE PASS SUBDIVISION
PAONIA	MJ933		deol.dan	288	DENVER DIVISION	NORTH FORK SUBDIVISION
PARKDALE	MJ052	CP	coap.dan	443	DENVER DIVISION	TENNESSEE PASS SUBDIVISION
PARMA	WD374		cred.dan	525	DENVER DIVISION	
PAYNE	MJ912		deol.dan	284	DENVER DIVISION	NORTH FORK SUBDIVISION
PHIPPSBURG	MJ439	CP	crbo.dan	325	DENVER DIVISION	CRAIG AND MOFFAT TUNNEL SUBDIVISIONS
PIERCE	WD707		lasa.dan	245	DENVER DIVISION	GREELEY SUBDIVISION
PLAIN	KP664	CP	dntl.dgn	58	DENVER DIVISION	MOFFAT TUNNEL SUBDIVISION
PLATTEVILLE	WD675	CPW036	lasa.dan	239	DENVER DIVISION	GREELEY SUBDIVISION
PLEASANT SPUR	WD369		cred.dan	524	DENVER DIVISION	
PORTLAND	MJ026	CP	coap.dan	449	DENVER DIVISION	TENNESSEE PASS SUBDIVISION
POUDRE	WF828		cher.dan	259	DENVER DIVISION	FORT COLLINS SUBDIVISION
POWARS	WD663		lasa.dan	236	DENVER DIVISION	GREELEY SUBDIVISION
PRINCETON	MJ132	CP	ream.dgn	427	DENVER DIVISION	TENNESSEE PASS SUBDIVISION
PROSPECT	KP640		dntl.dan	397	DENVER DIVISION	MOFFAT TUNNEL SUBDIVISION
PUBLIC SERVICE	KP881	CP	dofr.dgn	8	DENVER DIVISION	GLENWOOD SPRINGS SUBDIVISION
PUEBLO			pula.dan	554	DENVER DIVISION	ALAMOSA SUBDIVISION
PULLMAN	KP638		huao.dan	72	DENVER DIVISION	LIMON SUBDIVISION
PULLMAN JCT	KP638		denver.trm	229	DENVER DIVISION	MOFFAT TUNNEL, DENVER AND GREELEY SUBDIVISIONS
PULLMAN JCT	KP638		denver.trm	70	DENVER DIVISION	MOFFAT TUNNEL, DENVER AND GREELEY SUBDIVISIONS
PULLMAN JCT	KP638		lasa.dan	231	DENVER DIVISION	GREELEY SUBDIVISION
QUINTER	KP343		oakl.dan	131	DENVER DIVISION	SHARON SPRINGS SUBDIVISION
RADIUM	KP755	CP	orst1.dan	37	DENVER DIVISION	MOFFAT TUNNEL SUBDIVISION
RAILHEAD, CO	YD02		ref_14.dan	3	UTAH AND DENVER DIVISIONS	GREEN RIVER SUBDIVISION
RANGE	KP786	CP	dots.dan	30	DENVER DIVISION	GLENWOOD SPRINGS SUBDIVISION
RIFLE	KP836	CP	ncas.dan	17	DENVER DIVISION	GLENWOOD SPRINGS SUBDIVISION
RIGA	KP308	CPK309	oakl.dan	138	DENVER DIVISION	SHARON SPRINGS SUBDIVISION
ROCKY			rofl.dan	64	DENVER DIVISION	
ROCKY	KP657	CP	dntl.dan	59	DENVER DIVISION	MOFFAT TUNNEL SUBDIVISION
ROCKY FORD	RR603		rord.dan	469	DENVER DIVISION	
ROE	MJ859		demo.dan	295	DENVER DIVISION	MONTROSE INDUSTRIAL LEAD
ROGERS MESA	MJ920		deol.dan	286	DENVER DIVISION	NORTH FORK SUBDIVISION
ROLLA	WD650		lasa.dgn	233	DENVER DIVISION	GREELEY SUBDIVISION
ROLLINSVILLE	KP681	CP	dntl.dan	54	DENVER DIVISION	MOFFAT TUNNEL SUBDIVISION
ROMEO	WD122		alan.dan	513	DENVER DIVISION	ANTONITO SUBDIVISION
ROSSVILLE	KP084		icit.dan	184	DENVER DIVISION	SALINA SUBDIVISION
ROSWELL			roca.dan	403	DENVER DIVISION	TEMPLETON GAP SPUR
ROUBIDEAU	MJ837		qimt.dan	281	DENVER DIVISION	NORTH FORK SUBDIVISION
ROYDALE	KP633		huao.dan	73	DENVER DIVISION	LIMON SUBDIVISION
RUSSELL	KP263		havs.dan	147	DENVER DIVISION	SHARON SPRINGS SUBDIVISION
RUSSINA SPUR	WD570		roca.dan	402	DENVER DIVISION	
RUXTON			asda.dan	483	DENVER DIVISION	
SA JCT.			losp.dan	220	DENVER DIVISION	
SABLE	KP631		huao.dan	73	DENVER DIVISION	LIMON SUBDIVISION
SAGE	MJ212	CP	dobe.dan	410	DENVER DIVISION	TENNESSEE PASS SUBDIVISION
SAGEBRUSH	MJ862		demo.dan	296	DENVER DIVISION	MONTROSE INDUSTRIAL LEAD
SALIDA		CP	buva.dan	435	DENVER DIVISION	TENNESSEE PASS SUBDIVISION

Denver SU Station Listing for Condensed Profiles

Station	Circ 7	Control Pt	File Name	Page	Service Unit	Subdivision
SALINA	KP187		icit.dan	162	DENVER DIVISION	SHARON SPRINGS AND SALINA SUBDIVISIONS
SALINA	YD02		tria.dan	193	DENVER DIVISION	TRIGO INDUSTRIAL LEAD -
SALT CREEK JCT	BN121.2		pula.dan	554	DENVER DIVISION	ALAMOSA SUBDIVISION
SAND CREEK	WD645	CPW005	lasa.dan	231	DENVER DIVISION	GREELEY SUBDIVISION
SANDOWN	KP634		huao.dan	73	DENVER DIVISION	LIMON SUBDIVISION
SEDALIA	WD614		deto.dan	362	DENVER DIVISION	COLORADO SPRINGS SUBDIVISION - NO.1 TRACK
SHALE	KP927	CP	ref 14.dan	2	UTAH DIVISION	GREEN RIVER SUBDIVISION
SHARON SPRINGS	S-9335		shsp.dan	114	DENVER DIVISION	LIMON AND SHARON SPRINGS SUBDIVISION
SHOSHONE	KP800	CP	ncas.dan	24	DENVER DIVISION	GLENWOOD SPRINGS SUBDIVISION
SIDING			asda.dan	491	DENVER DIVISION	
SIDNEY	MJ455	CP	crbo.dan	322	DENVER DIVISION	CRAIG SUBDIVISION
SIERRA			waal.dan	536	DENVER DIVISION	ALAMOSA SUBDIVISION
SILT	KP829	CP	ncas.dan	19	DENVER DIVISION	GLENWOOD SPRINGS SUBDIVISION
SOLDIER CREEK	KX076	CPZ076	icit.dan	185	DENVER DIVISION	SALINA SUBDIVISION
SOLOMON	KP172		icit.dgn	166	DENVER DIVISION	SALINA SUBDIVISION
SOMERSET	MJ943		deol.dan	290	DENVER DIVISION	NORTH FORK SUBDIVISION
SOUTH FORK	WD338		cred.dgn	518	DENVER DIVISION	
SOUTH JCT.			asda.dan	491	DENVER DIVISION	
SOUTHERN JCT	BN124.8		pula.dan	554	DENVER DIVISION	ALAMOSA SUBDIVISION
SOUTHERN JCT.			wals.dan	581	DENVER DIVISION	ALAMOSA SUBDIVISION
SP JCT		CP	waal.dan	543	DENVER DIVISION	ALAMOSA SUBDIVISION
SP JCT.	WD461	CP	pula.dan	544	DENVER DIVISION	ALAMOSA SUBDIVISION
SPEER	C-6756	CPW518	lasa.dgn	101	CHEYENNE DIVISION	BORIE CUT-OFF-GREELEY SUBDIVISION
SPEER	C-6756	CPW518	lasa.dan	251	DENVER AND CHEYENNE DIVISIONS	GREELEY SUBDIVISION
SPEER JCT	WS517	CPW098	lasa.dan	101	CHEYENNE DIVISION	BORIE CUT-OFF-GREELEY SUBDIVISION
SPEER JCT	WS517	CPW098	lasa.dgn	251	DENVER AND CHEYENNE DIVISIONS	GREELEY SUBDIVISION
SPIKEBUCK	MJ056	CP	coap.dan	442	DENVER DIVISION	TENNESSEE PASS SUBDIVISION
SPRINGFIELD			asda.dan	491	DENVER DIVISION	
ST.MARYS	KP092	CPK089	icit.dan	183	DENVER DIVISION	SALINA SUBDIVISION
STATE LINE			supe.dgn	201	DENVER DIVISION	
STEAMBOAT SPRINGS	MJ462	CP	crbo.dan	320	DENVER DIVISION	CRAIG SUBDIVISION
STOCKYARD SPUR	KP642		kost.dgn	66	BELT LINE INDUSTRIAL LEAD	
STRASBURG	KP603		huao.dan	79	DENVER DIVISION	LIMON SUBDIVISION
STRATFORD	SW492		ref 14.dan	139	DENVER AND WICHITA DIVISIONS	
SUGAR JCT.	WD370		cred.dan	524	DENVER DIVISION	
SULPHUR SPRINGS	KP725	CP	mfat.dan	43	DENVER DIVISION	MOFFAT TUNNEL SUBDIVISION
SUPERIOR JCT			supe.dan	201	DENVER DIVISION	
SUPERIOR NE			supe.dan	201	DENVER DIVISION	
SWALLOWS	MJ011	CP	horn.dan	453	DENVER DIVISION	TENNESSEE PASS-SUBDIVISION
SWINK	RR597		swfa.dan	471	DENVER DIVISION	
SWISSVALE	MJ088	CP	buva.dan	436	DENVER DIVISION	TENNESSEE PASS SUBDIVISION
TABERNASH	KP705	CP	mfat.dan	47	DENVER DIVISION	MOFFAT TUNNEL SUBDIVISION
TALMAGE			supe.dgn	218	DENVER DIVISION	
TENNESSEE PASS	MJ161	CP	ream.dan	422	DENVER DIVISION	TENNESSEE PASS SUBDIVISION
TERRA COTTA	KP206	CPK206	havs.dan	158	DENVER DIVISION	SHARON SPRINGS SUBDIVISION
TERROR CREEK	MJ938		deol.dan	289	DENVER DIVISION	NORTH FORK SUBDIVISION

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Station	Circ 7	Control Pt	File Name	Page	Service Unit	Subdivision
TEXAS CREEK	MJ065	CP	coap.dan	441	DENVER DMISION	TENNESSEE PASS SUBDMISION
THIS PAGE INTENTIONALLY LEFT	NK		blank.dan	128	DENVER DMISION	
THIS PAGE INTENTIONALLY LEFT	NK		blank.dan	588	DENVER DMISION	
TMSI			lasa.dan	232	DENVER DMISION	GREELEY SUBDMISION
TOPONAS		CP	crbo.dan	328	DENVER DMISION	MOFFAT TUNNEL SUBDIVISION
TOULON	KP285		havs.dan	143	DENVER DMISION	SHARON SPRINGS SUBDIVISION
TRIGO	GK021		tria.dan	193	DENVER DMISION	TRIGO INDUSTRIAL LEAD -
TRINIDAD			trad.dan	561	DENVER DMISION	ALAMOSA SUBDIVISION
TROUBLESOME	KP737	CP	mfat.dan	41	DENVER DMISION	MOFFAT TUNNEL SUBDIVISION
TUNNEL	KP876	CP	dofr.dan	9	DENVER DMISION	GLENWOOD SPRINGS SUBDMISION
UNA	KP857	CP	dofr.dan	13	DENVER DMISION	GLENWOOD SPRINGS SUBDMISION
UNION TERMINAL			lasa.dan	231	DENVER DMISION	GREELEY SUBDMISION
UP JCT			kost.dan	66	BELT LINE INDUSTRIAL LEAD	
UP TRANSFER			kost.dan	66	BELT LINE INDUSTRIAL LEAD	
UPRR XING			losp.dan	220	DENVER DMISION	
UPRR XING			ref 14.dan	139	DENVER AND WICHITA DMISIONS	
UTAH JCT			kost.dan	66	BELT LINE INDUSTRIAL LEAD	
UTAH JCT	KP644	CP	dntl.dan	397	DENVER DMISION	MOFFAT TUNNEL SUBDIVISION
UTE JCT			axal.dan	305	DENVER DMISION	CRAIG SUBDMISION
VALLIE	MJ078		buva.dan	438	DENVER DMISION	TENNESSEE PASS SUBDMISION
VICTORIA	KP280		havs.dan	144	DENVER DMISION	SHARON SPRINGS SUBDIVISION
VODA	KP330		oakl.dan	134	DENVER DMISION	SHARON SPRINGS SUBDIVISION
VOLCANO		CP	crbo.dan	330	DENVER DMISION	MOFFAT TUNNEL SUBDIVISION
VROMAN	RR609		rord.dan	468	DENVER DMISION	
WAKEENEY	KP322		oakl.dan	135	DENVER DMISION	SHARON SPRINGS SUBDIVISION
WALKER	KP276		havs.dan	144	DENVER DMISION	SHARON SPRINGS SUBDIVISION
WALLACE	KP421		shsp.dan	115	DENVER DMISION	SHARON SPRINGS SUBDIVISION
WALSENBERG JCT.	WD461		oula.dan	544	DENVER DMISION	ALAMOSA SUBDIVISION
WALSENBURG	WD461		oula.dan	544	DENVER DMISION	ALAMOSA SUBDIVISION
WALSENBURG	WD461		waal.dan	543	DENVER DMISION	ALAMOSA SUBDIVISION
WAMEGO	KP105		icit.dan	180	DENVER DMISION	SALINA SUBDIVISION
WATKINS	KP618		huqo.dan	76	DENVER DMISION	LIMON SUBDMISION
WATTENBERG	KP622		huqo.dan	75	DENVER DMISION	LIMON SUBDIVISION
WEBBER			supe.dan	202	DENVER DMISION	
WESKAN	KP442		shsp.dan	111	DENVER DMISION	LIMON SUBDIVISION
WEST ABILENE	KP165		icit.dan	168	DENVER DMISION	SALINA SUBDIVISION
WEST ADAMS	MJ471		crbo.dan	318	DENVER DMISION	CRAIG SUBDMISION
WEST ADAMS		CP	enqv.dan	311	DENVER DMISION	ENERGY IND. LEAD
WEST BOND		CP	orst1.dan	34	DENVER DMISION	
WEST DURHAM		CP	ref 14.dan	3	UTAH AND DENVER DIVISIONS	GREEN RIVER SUBDMISION
WEST ELK	MJ944		deol.dan	290	DENVER DMISION	NORTH FORK SUBDIVISION
WEST GRAND JCT	KP898	CP	ref 14.dan	3	UTAH AND DENVER DIVISIONS	GREEN RIVER SUBDMISION
WEST SPEER		CPW520	lasa.dan	101	CHEYENNE DIVISION	BORIE CUT-OFF-GREELEY SUBDMISION
WEST SPEER		CPW520	lasa.dan	251	DENVER AND CHEYENNE DIVISIONS	GREELEY SUBDMISION
WEST TOPEKA	KX070	CPZ070	icit.dan	84	DENVER AND KANSAS CITY DIVISIONS	SALINA SUBDIVISION AND KANSAS SUBDIVISIONS
WEST TRINIDAD			trad.dan	561	DENVER DMISION	ALAMOSA SUBDIVISION

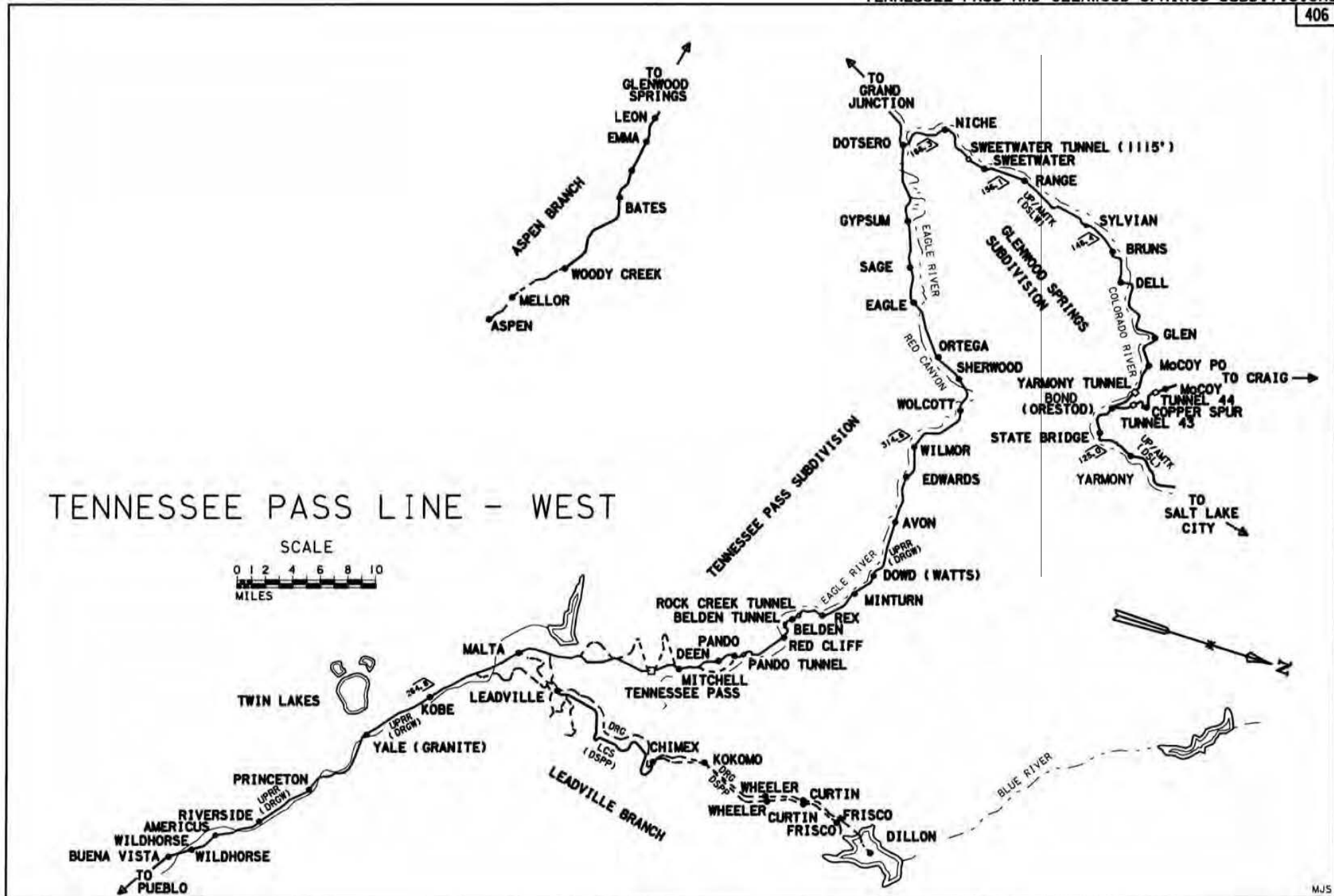
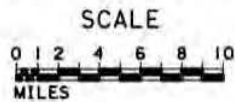
Denver SU Station Listing for Condensed Profiles

Station	Circ 7	Control Pt	File Name	Page	Service Unit	Subdivision
WHITEWATER	MJ813		aimt.dan	274	DENVER DIVISION	
WILSON	KP240		havs.dan	152	DENVER DIVISION	SHARON SPRINGS SUBDIVISION
WINONA	KP399		oakl.dan	120	DENVER DIVISION	SHARON SPRINGS SUBDIVISION
WINTER PARK	KP696	CP	mfat.dan	51	DENVER DIVISION	MOFFAT TUNNEL SUBDIVISION
WOLCOTT	MJ199	CP	dobe.dan	413	DENVER DIVISION	TENNESSEE PASS SUBDIVISION
WOLF SIDING	KP229	CPK229	havs.dan	154	DENVER DIVISION	SHARON SPRINGS SUBDIVISION
YAMPA	MJ433		crbo.dan	326	DENVER DIVISION	MOFFAT TUNNEL SUBDIVISION
YARMONY	KP762	CP	orst1.dan	36	DENVER DIVISION	MOFFAT TUNNEL SUBDIVISION
YOCEMENTO	KP295		havs.dan	140	DENVER DIVISION	SHARON SPRINGS SUBDIVISION
ZINZER	WD371		cred.dan	524	DENVER DIVISION	

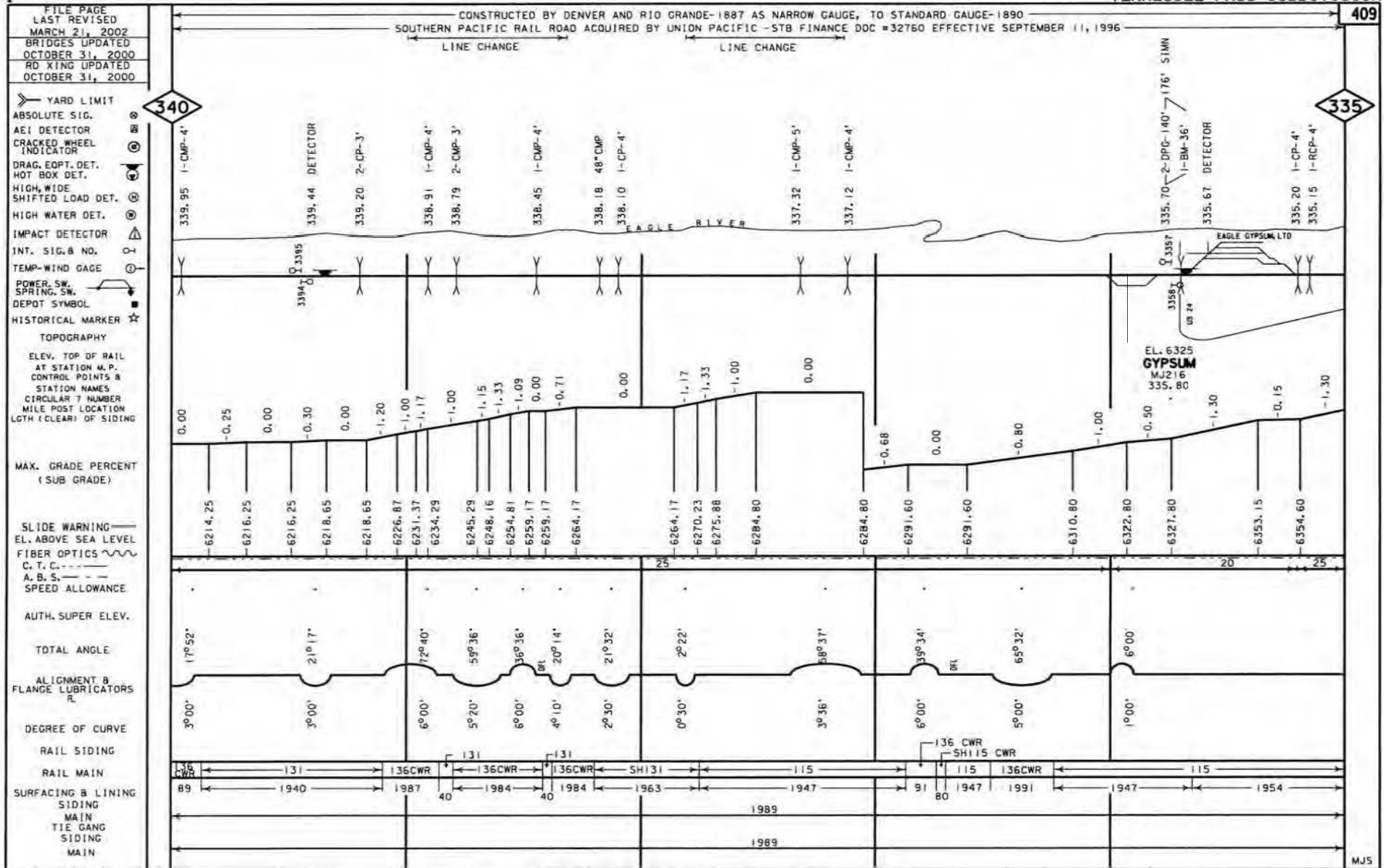
DENVER DIVISION
TENNESSEE PASS AND GLENWOOD SPRINGS SUBDIVISIONS

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TENNESSEE PASS LINE - WEST



DENVER DIVISION
TENNESSEE PASS SUBDIVISION



GRADE XING DATA
 X-BUCK
 BELL
 FLASHER
 GATES
 W/O WAG
 TRAFFIC SIGNAL
 STOP SIGN
 CANTILEVER

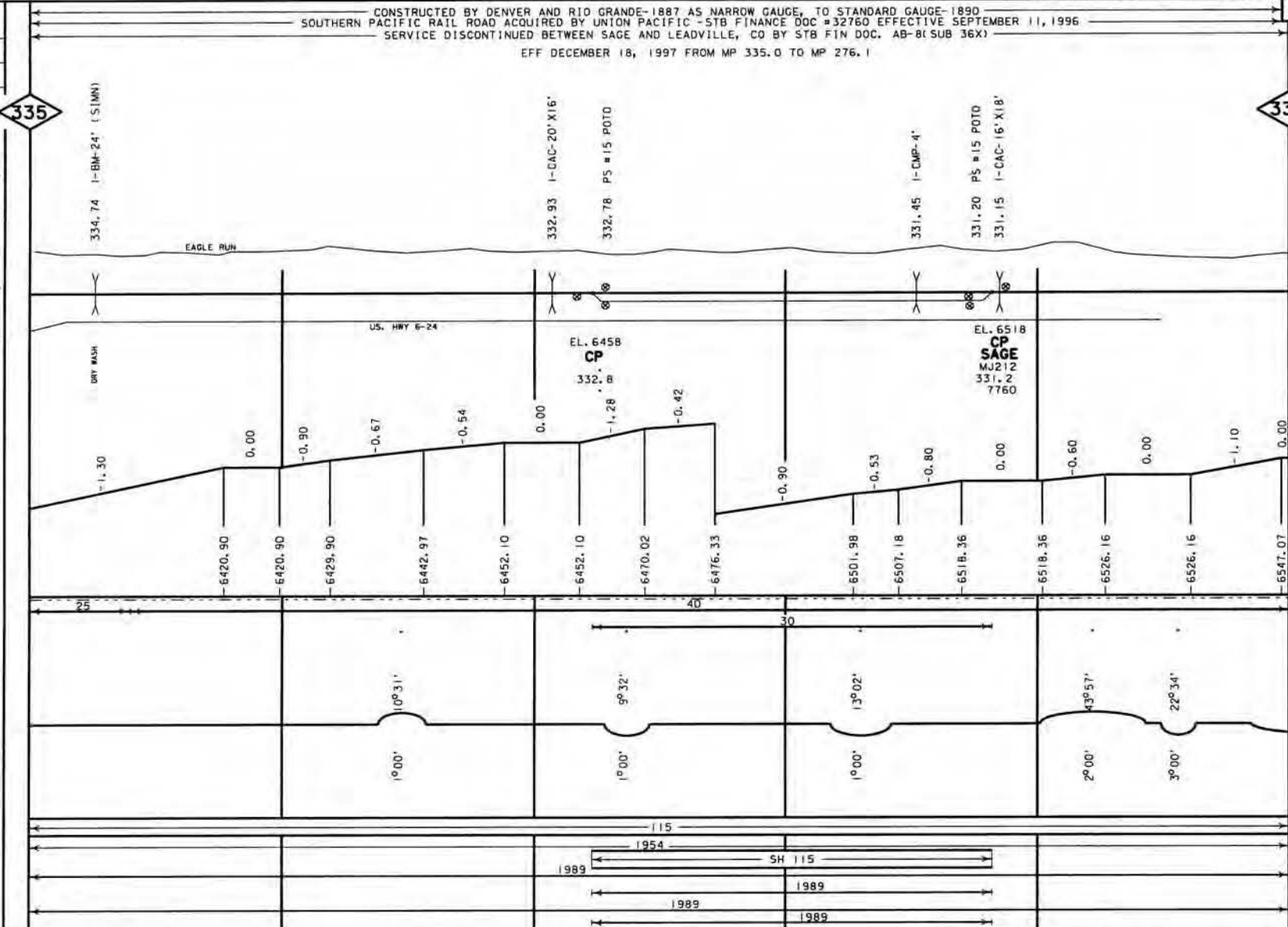
DENVER DIVISION
TENNESSEE PASS SUBDIVISION

CONSTRUCTED BY DENVER AND RIO GRANDE-1887 AS NARROW GAUGE, TO STANDARD GAUGE-1890
SOUTHERN PACIFIC RAIL ROAD ACQUIRED BY UNION PACIFIC - STB FINANCE DOC # 32760 EFFECTIVE SEPTEMBER 11, 1996
SERVICE DISCONTINUED BETWEEN SAGE AND LEADVILLE, CO BY STB FIN DOC. AB-8(SUB 36X)
EFF DECEMBER 18, 1997 FROM MP 335.0 TO MP 276.1

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FILE PAGE
LAST REVISED
MARCH 21, 2002
BRIDGES UPDATED
NOVEMBER 9, 2000
ROAD CROSSING UPDATED
NOVEMBER 9, 2000

- YARD LIMIT
- ABSOLUTE SIG.
- AE1 DETECTOR
- CRACKED WHEEL INDICATOR
- DRAG. EQPT. DET.
- HOT BOX DET.
- HIGH, WIDE SHIFTED LOAD DET.
- HIGH WATER DET.
- IMPACT DETECTOR
- INT. SIG. 8 NO.
- TEMP-WIND GAGE
- POWER, SW. SPRING, SW.
- DEPOT SYMBOL
- HISTORICAL MARKER
- TOPOGRAPHY
- ELEV. TOP OF RAIL AT STATION M.P.
- CONTROL POINTS & STATION NAMES
- CIRCULAR 7 NUMBER
- MILE POST LOCATION
- LGTH (CLEAR) OF SIDING
- MAX. GRADE PERCENT (SUB GRADE)
- SLIDE WARNING
- EL. ABOVE SEA LEVEL
- FIBER OPTICS
- C. T. C.
- A. B. S.
- SPEED ALLOWANCE
- AUTH. SUPER ELEV.
- TOTAL ANGLE
- ALIGNMENT & FLANGE LUBRICATORS
- DEGREE OF CURVE
- RAIL SIDING
- RAIL MAIN
- SURFACING & LINING
- SIDING MAIN
- TIE GANG SIDING MAIN

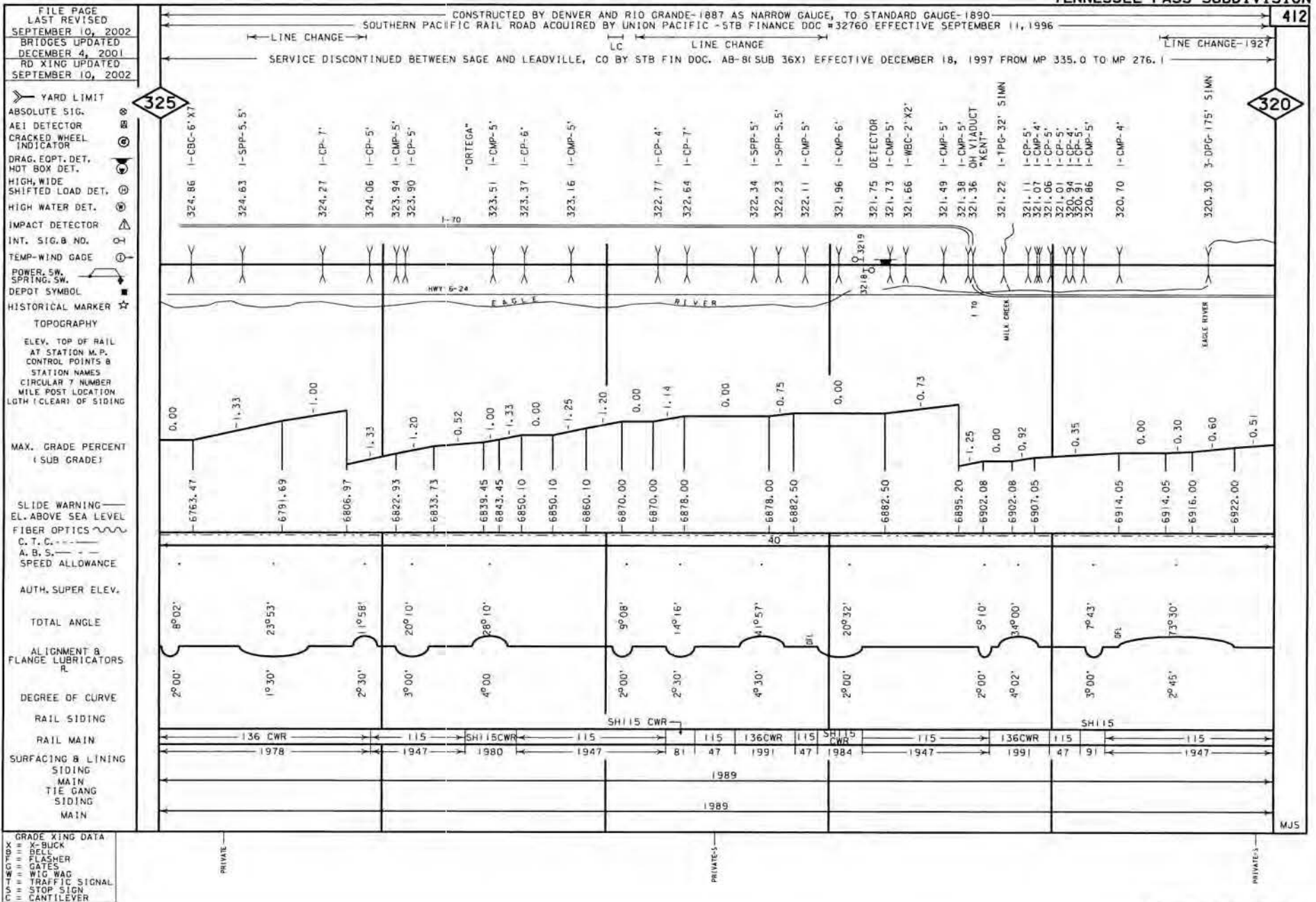


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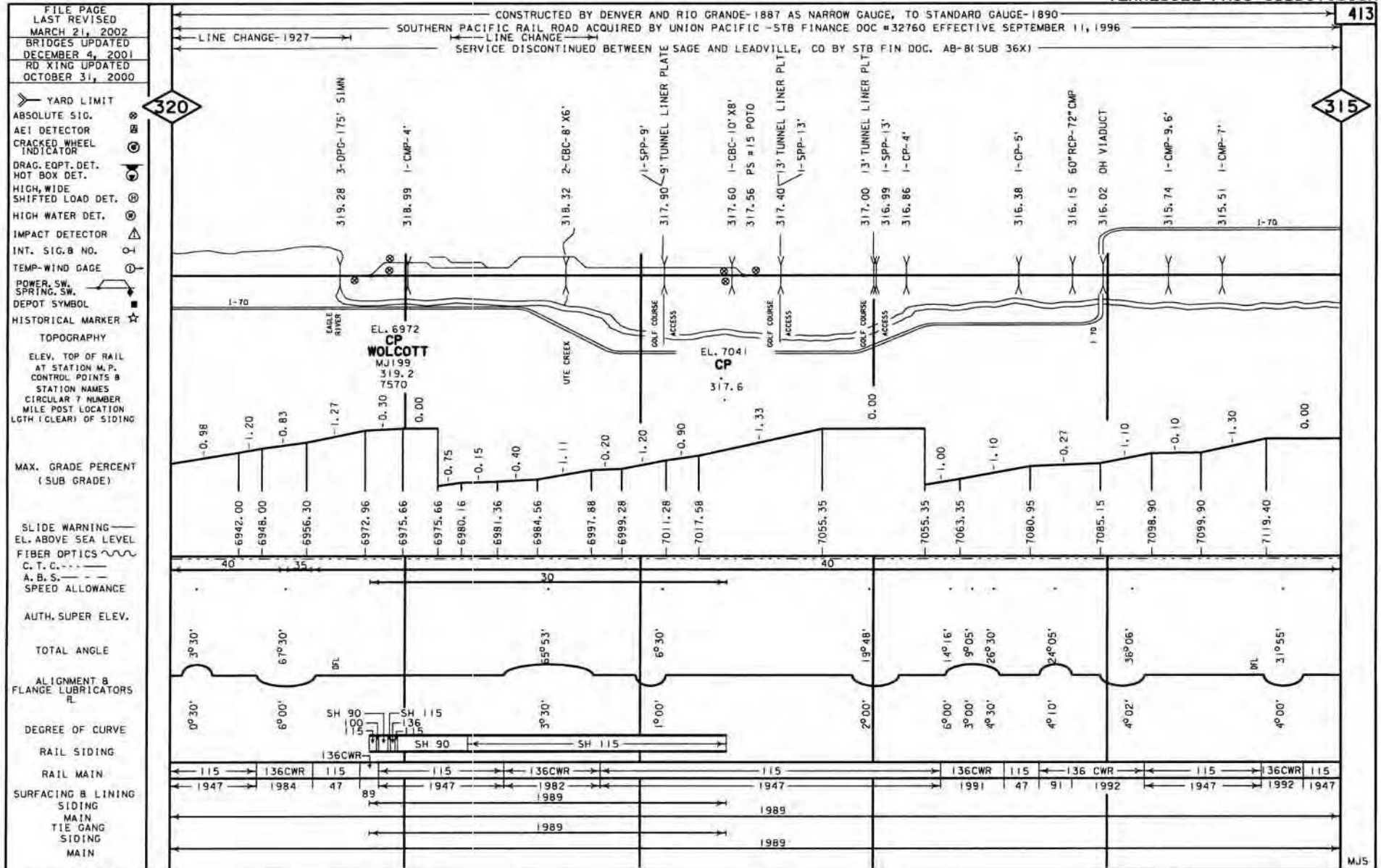
GRADE CROSSING DATA
X-BUCK
BELL
FLASHER
GATES
WIG WAG
TRAFFIC SIGNAL
STOP SIGN
CANTILEVER

PRIVATE PRIVATE PRIVATE PRIVATE PRIVATE PRIVATE PRIVATE PRIVATE X PRIVATE X PRIVATE X

DENVER DIVISION
TENNESSEE PASS SUBDIVISION



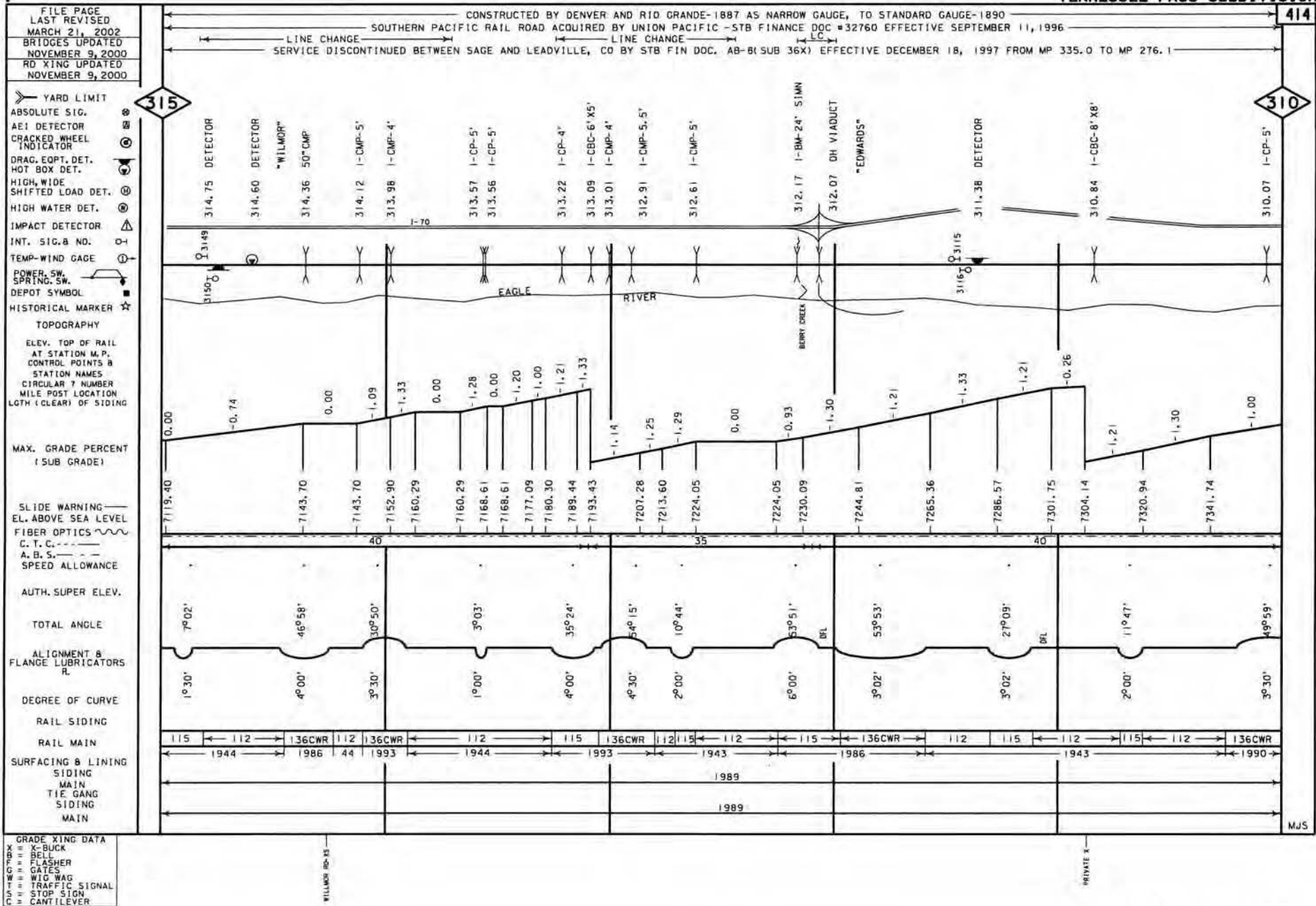
DENVER DIVISION
TENNESSEE PASS SUBDIVISION



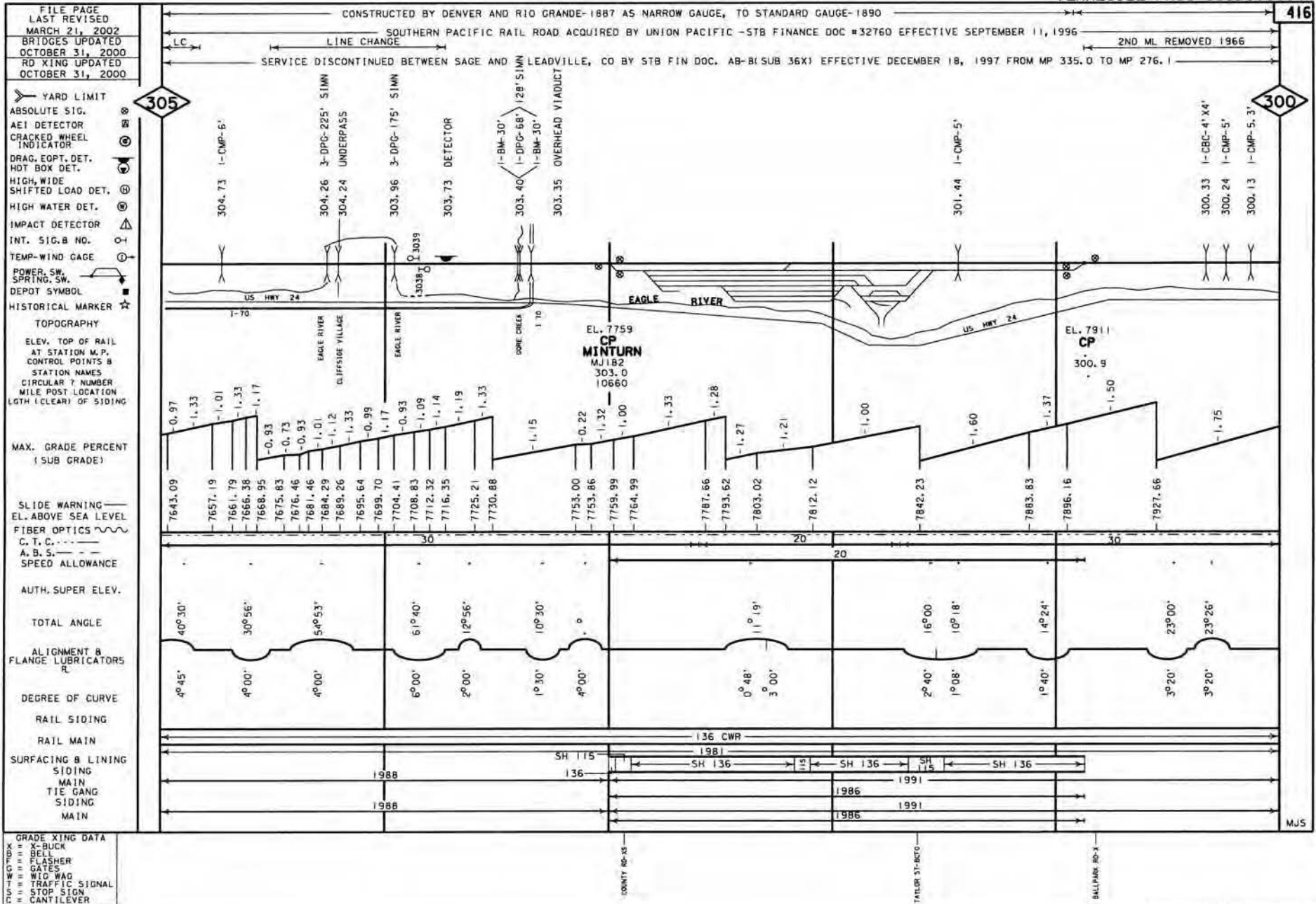
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X	=	BUCK
B	=	BELL
F	=	FLASHER
G	=	GATES
W	=	WIG WAG
T	=	TRAFFIC SIGNAL
S	=	STOP SIGN
C	=	CANTILEVER

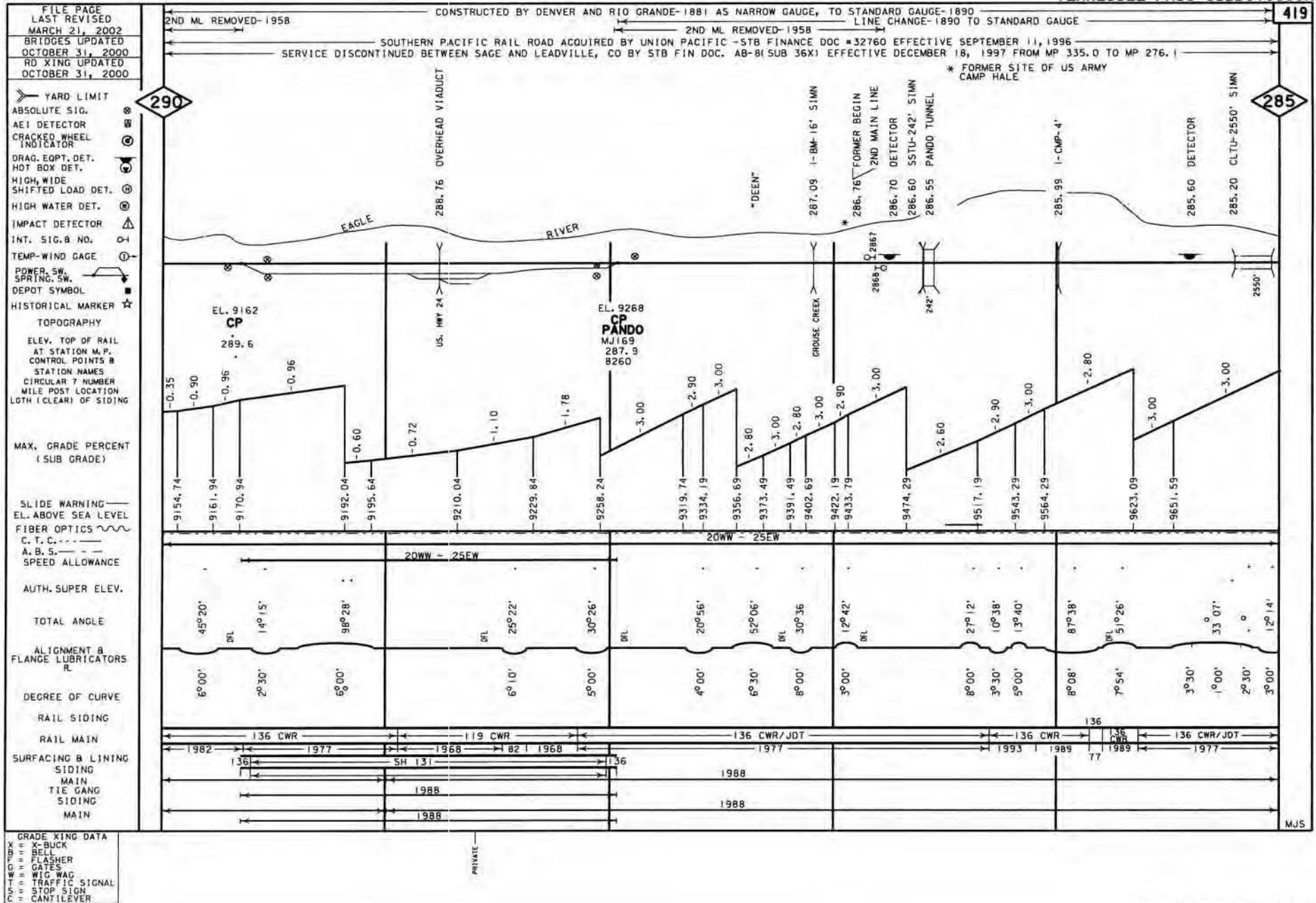
DENVER DIVISION
TENNESSEE PASS SUBDIVISION



DENVER DIVISION
TENNESSEE PASS SUBDIVISION

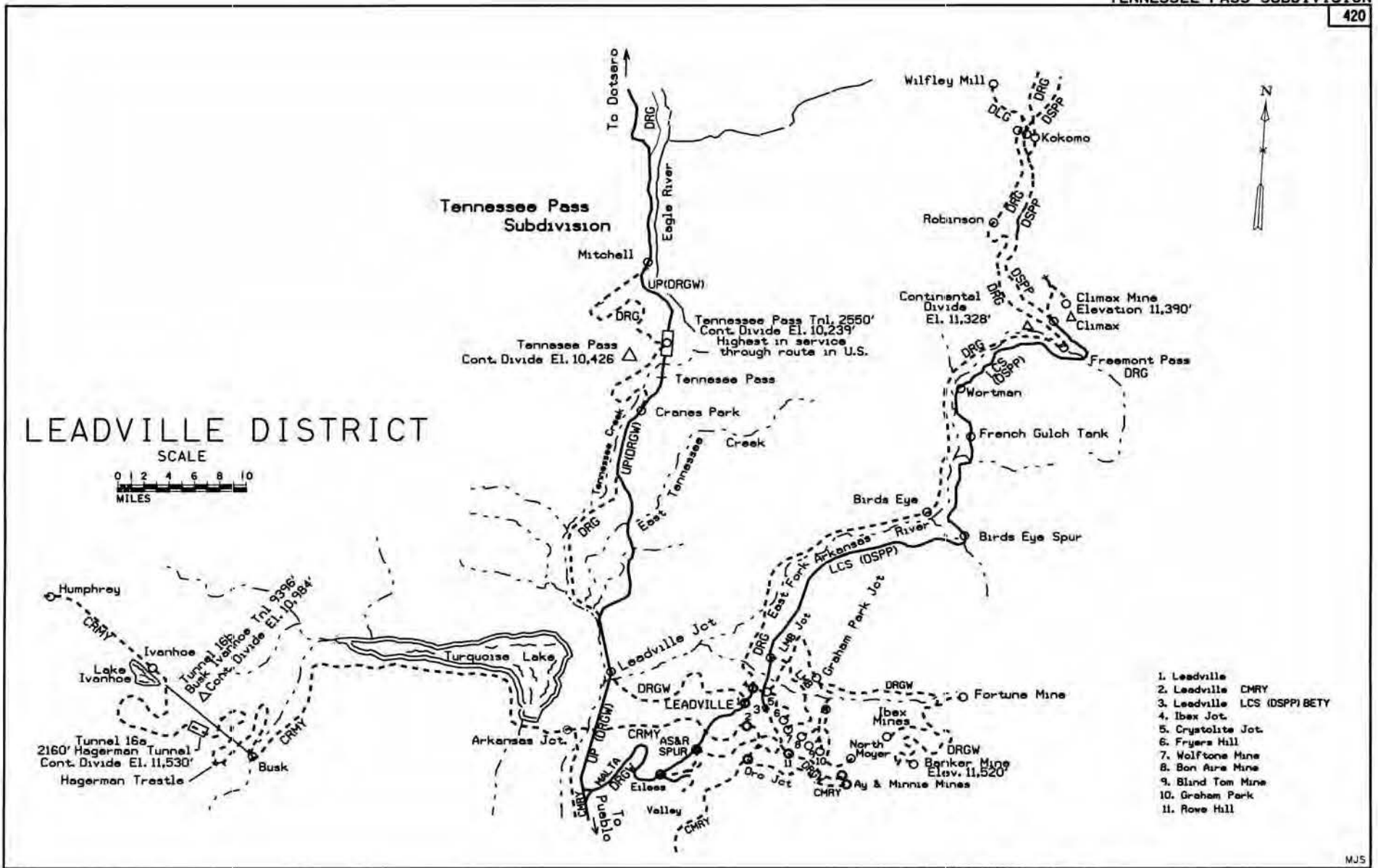


DENVER DIVISION
TENNESSEE PASS SUBDIVISION



DENVER DIVISION
TENNESSEE PASS SUBDIVISION

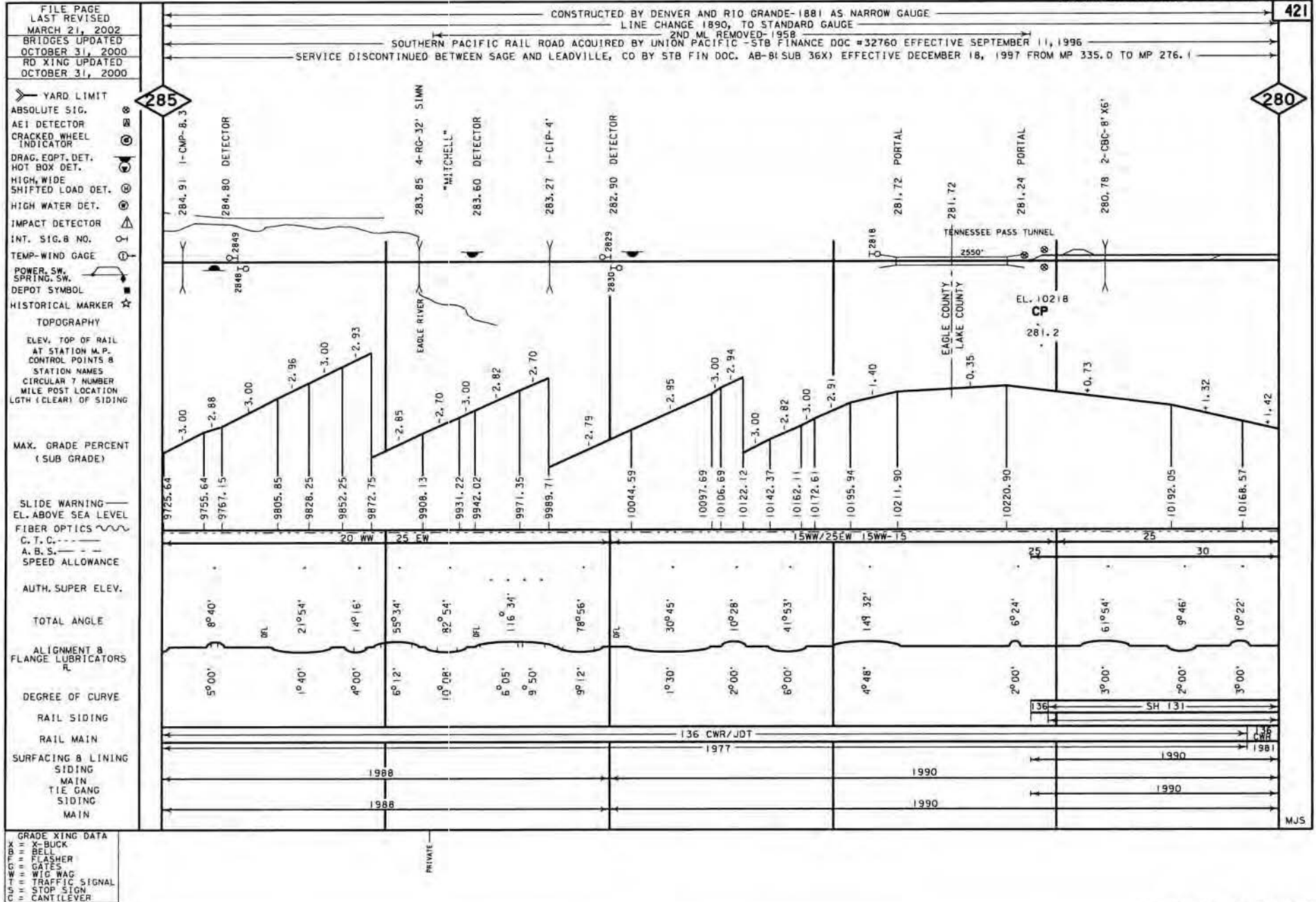
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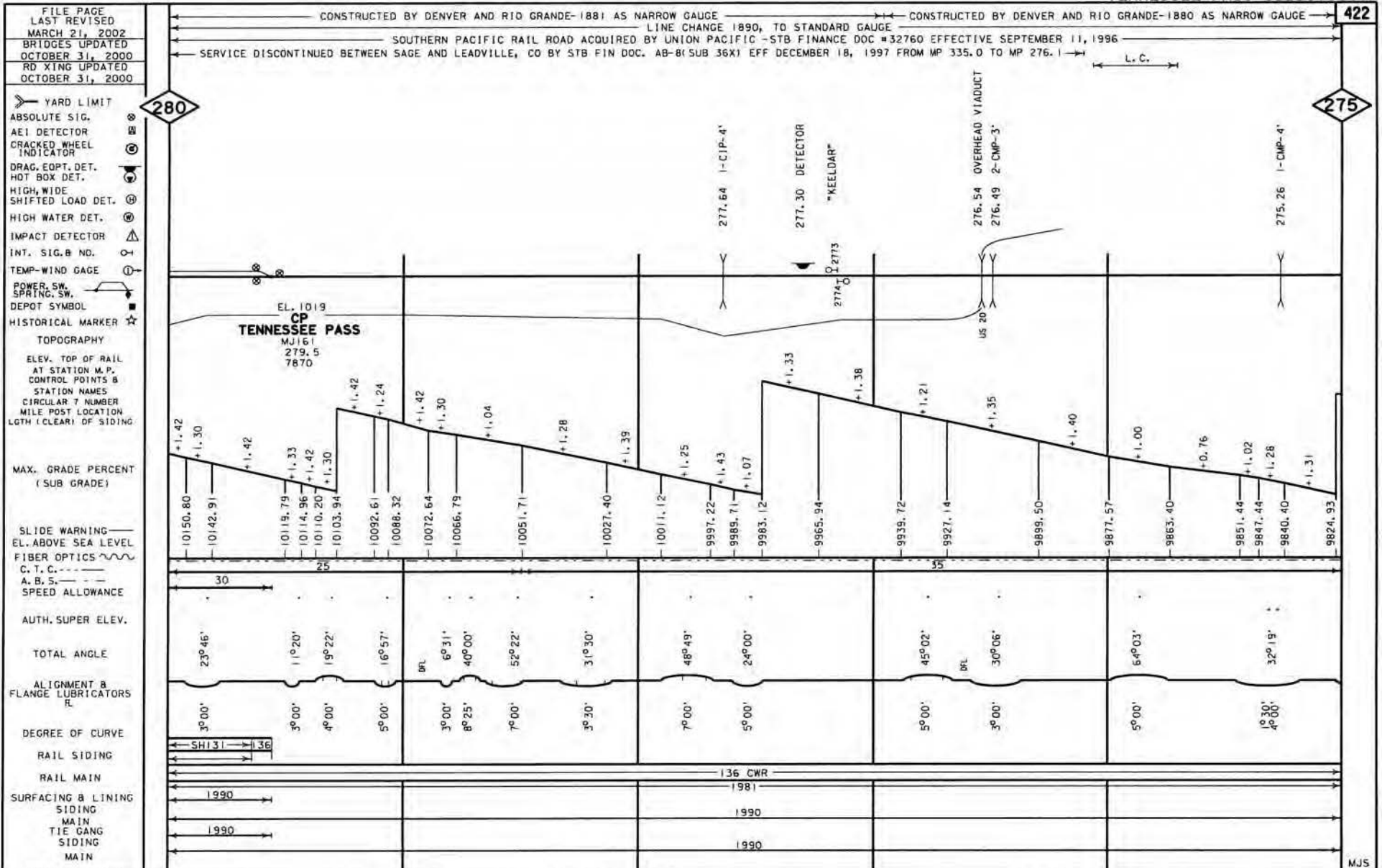
REVISED AS TO: MARCH 21, 2002

MJS

DENVER DIVISION
TENNESSEE PASS SUBDIVISION



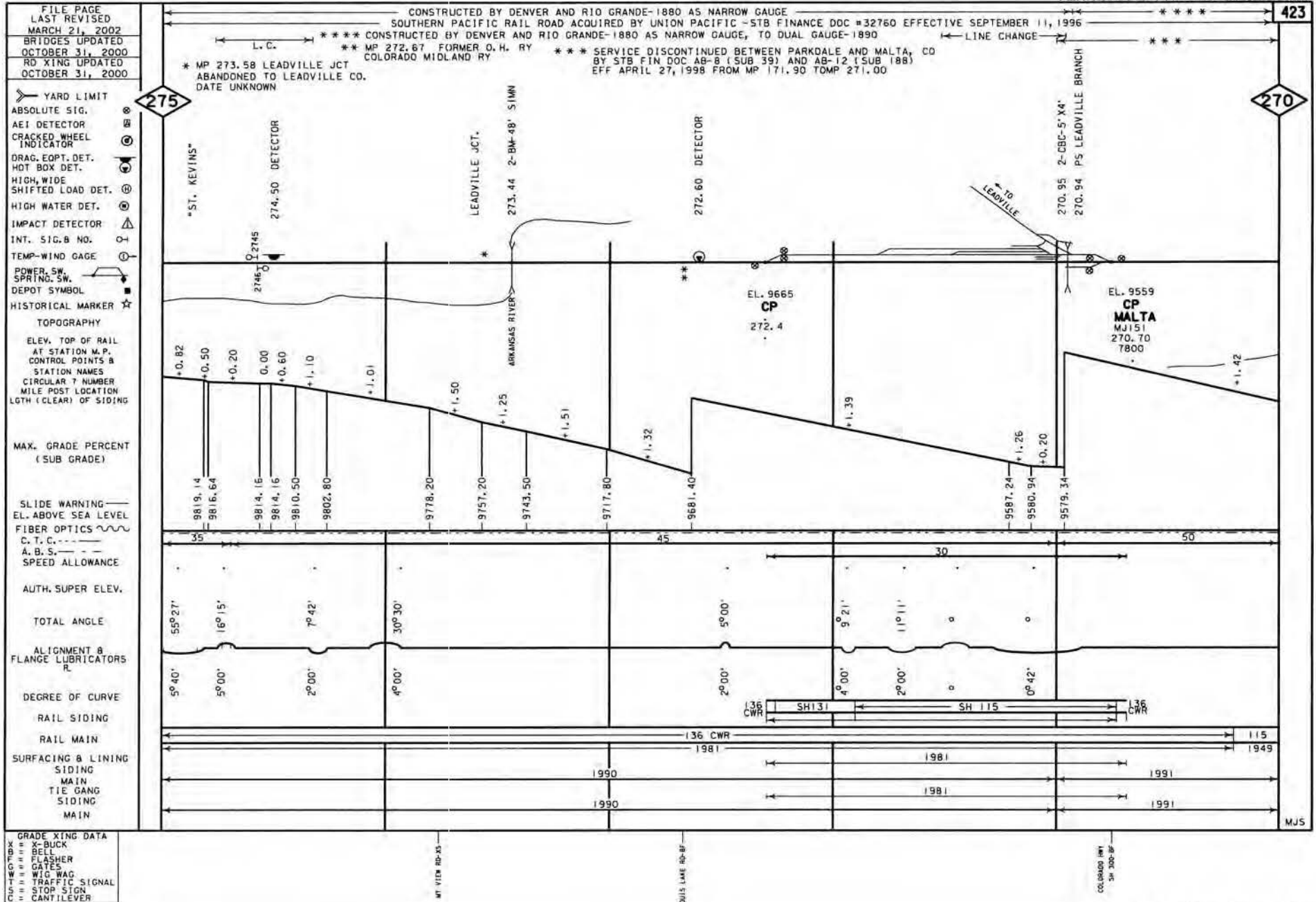
DENVER DIVISION
TENNESSEE PASS SUBDIVISION



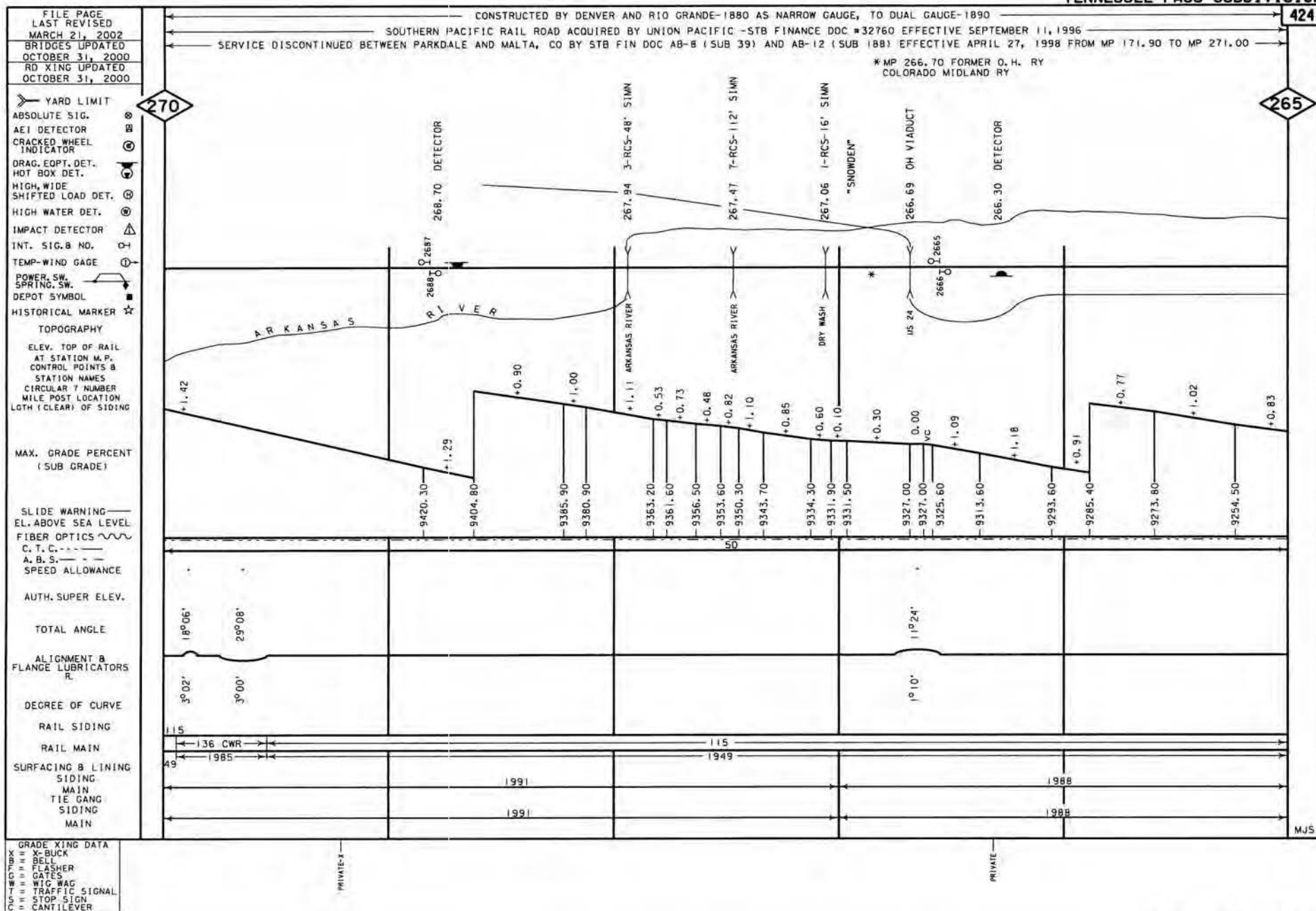
CONSTRUCTION
 X-BUCK
 BELL
 FLASHER
 GATES
 WIG WAG
 TRAFFIC SIGNAL
 STOP SIGN
 CANTILEVER

MJS

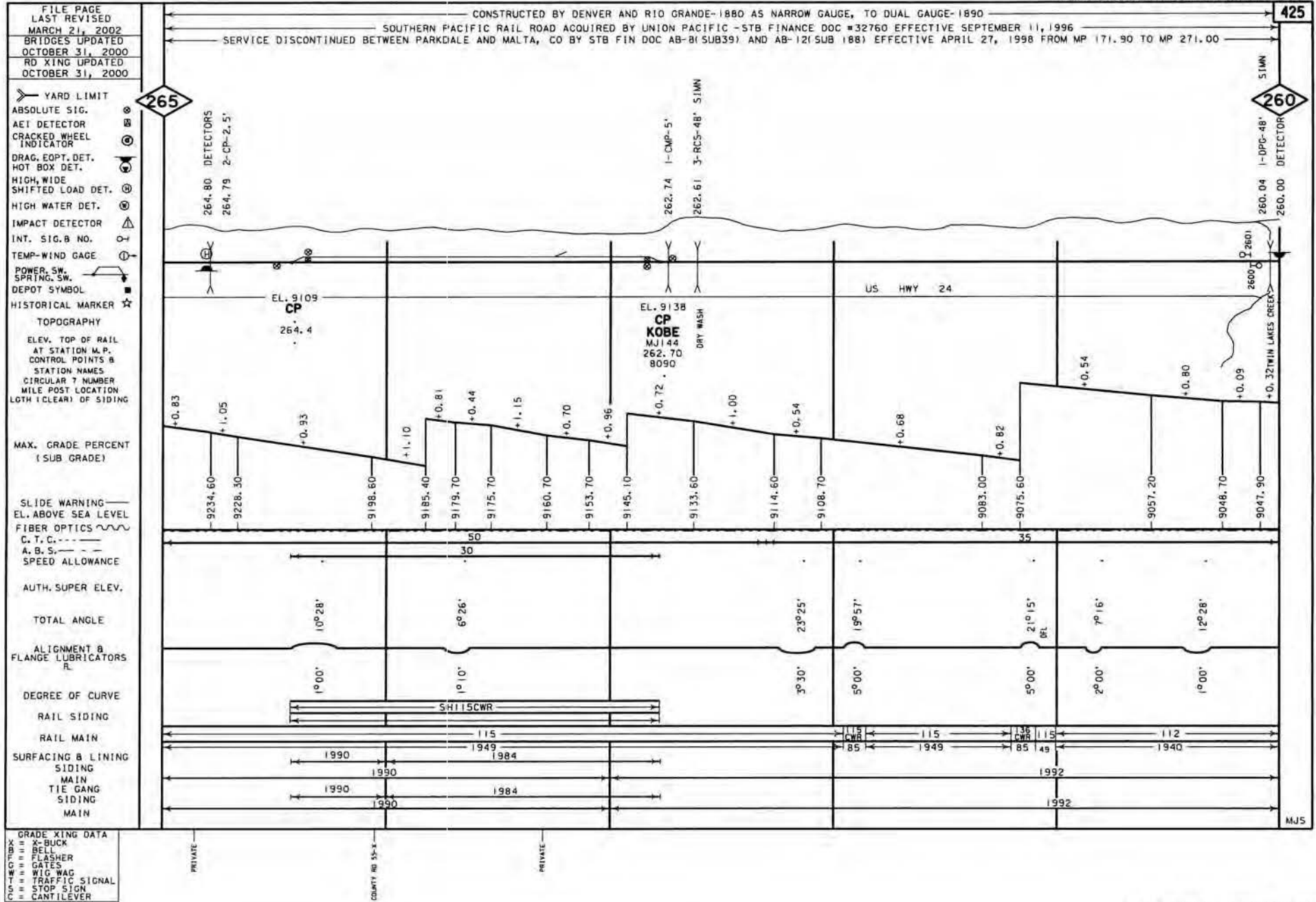
DENVER DIVISION
TENNESSEE PASS SUBDIVISION



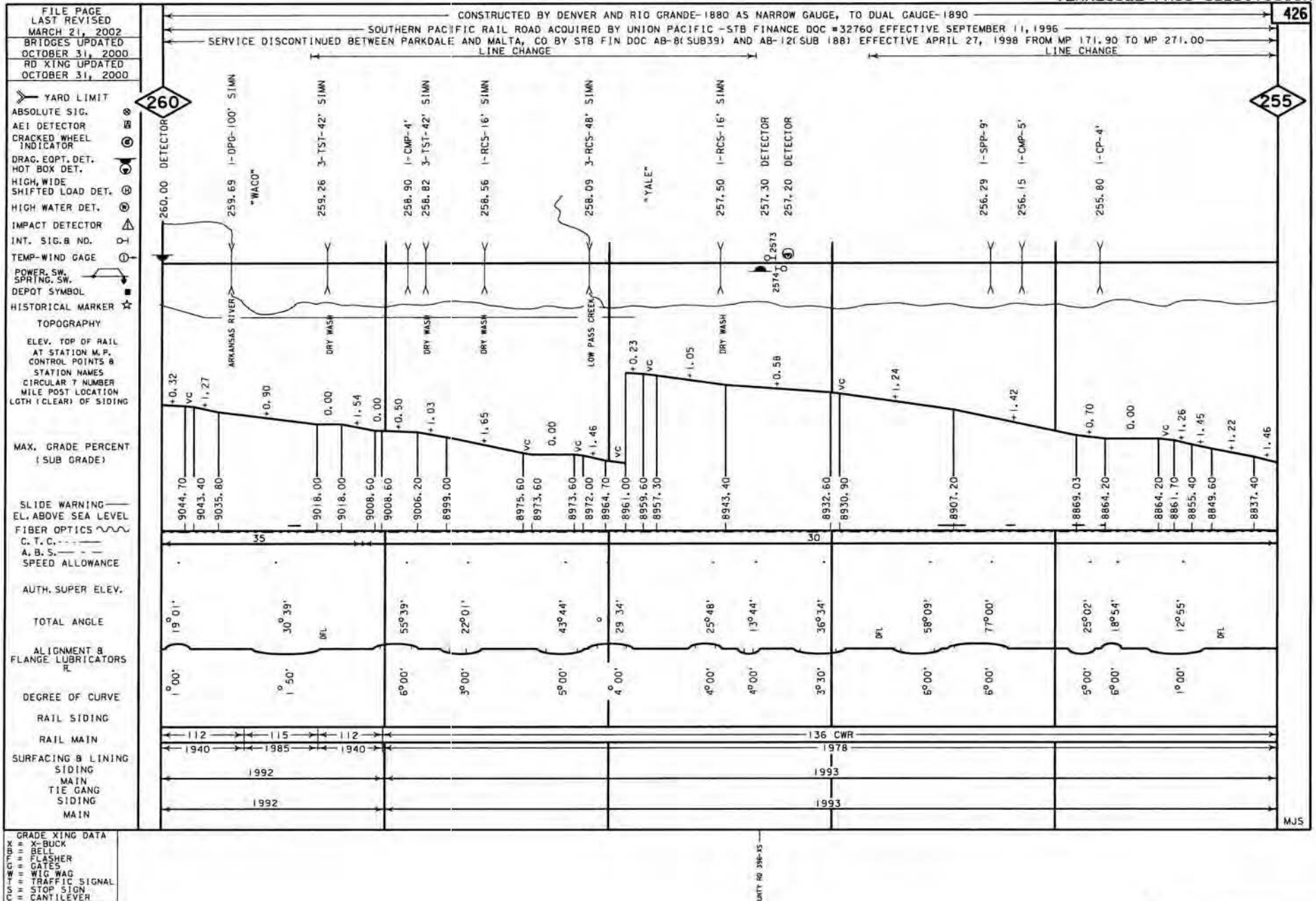
DENVER DIVISION
TENNESSEE PASS SUBDIVISION



DENVER DIVISION
TENNESSEE PASS SUBDIVISION

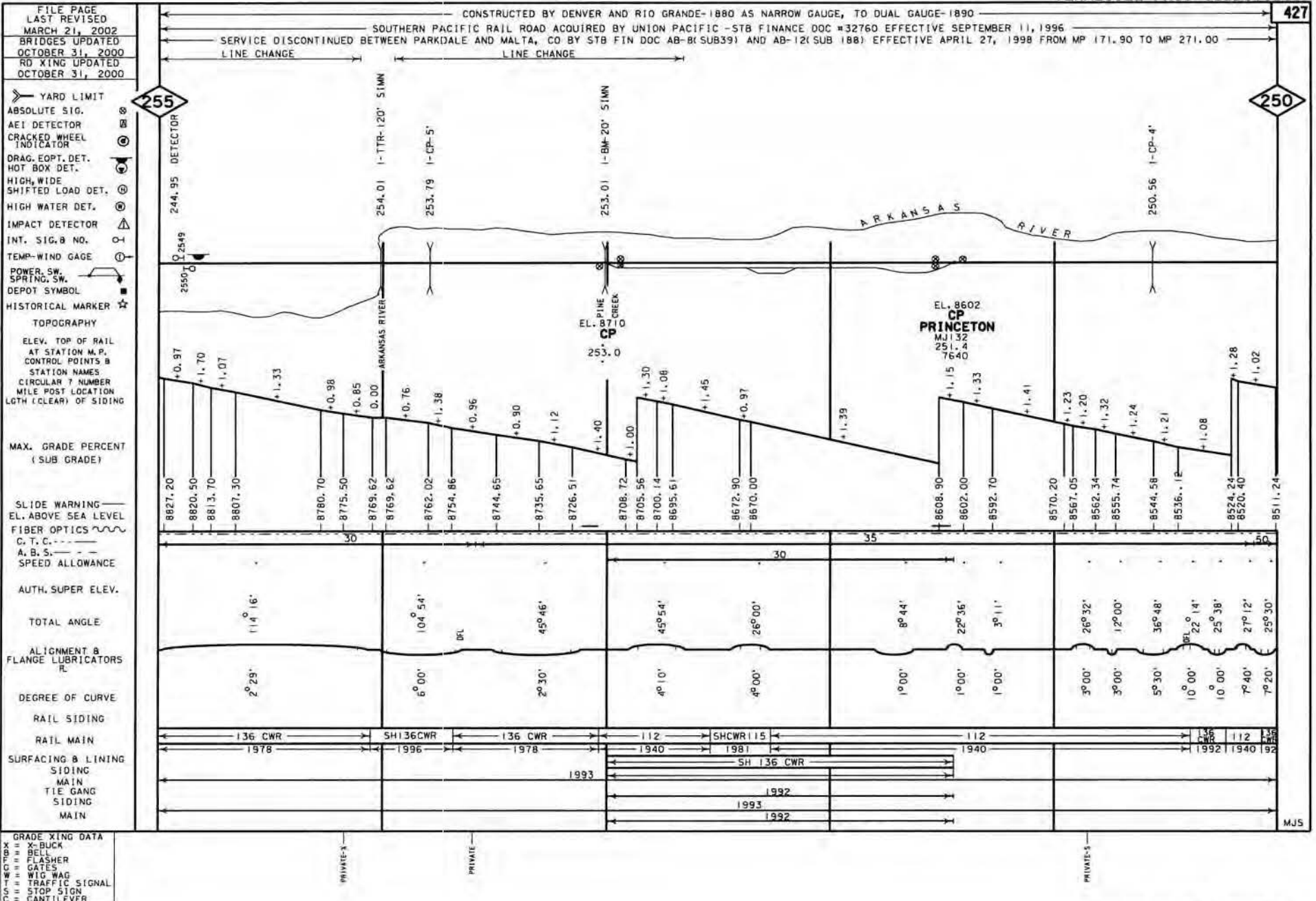


DENVER DIVISION
TENNESSEE PASS SUBDIVISION



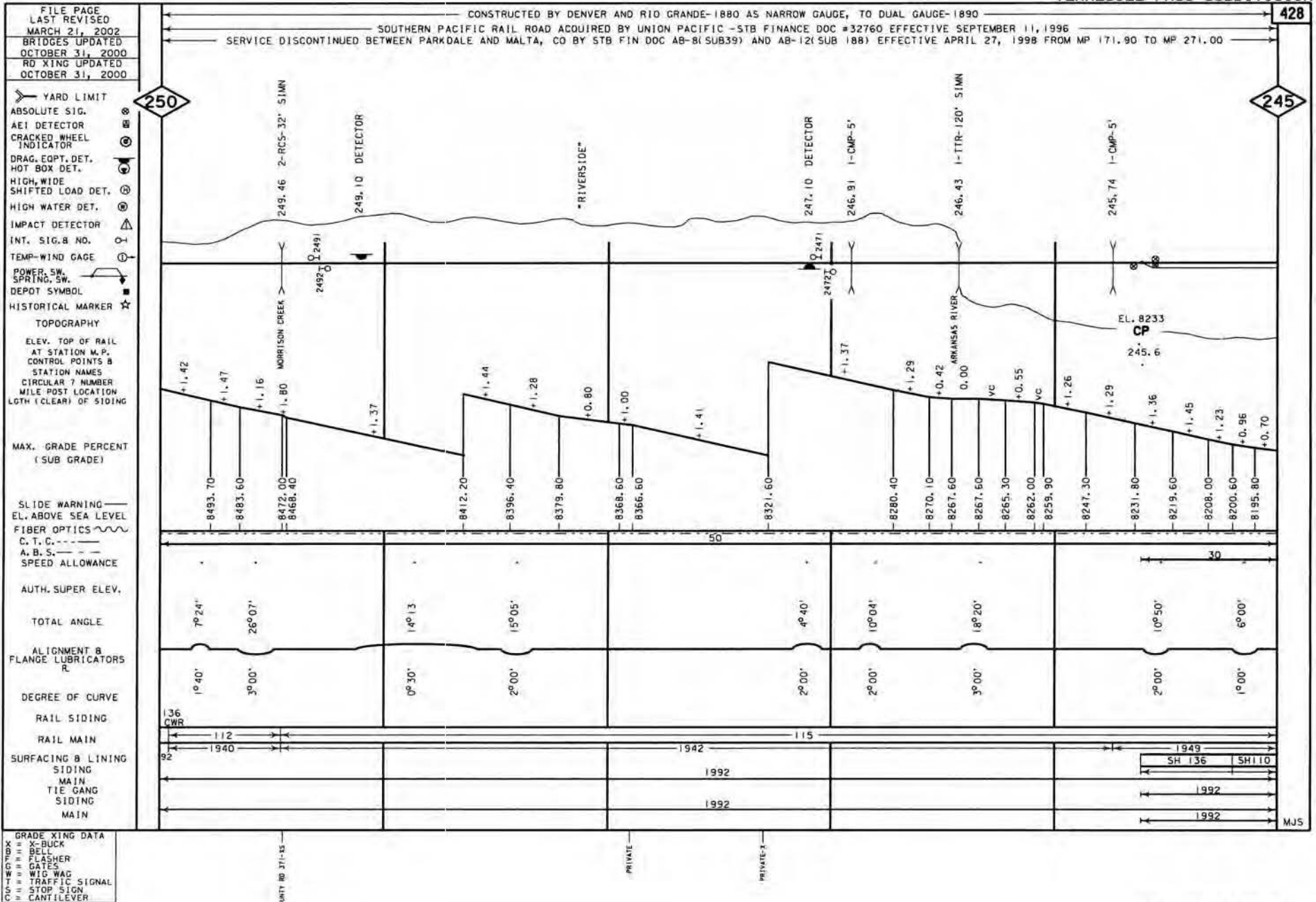
DENVER DIVISION
TENNESSEE PASS SUBDIVISION

427

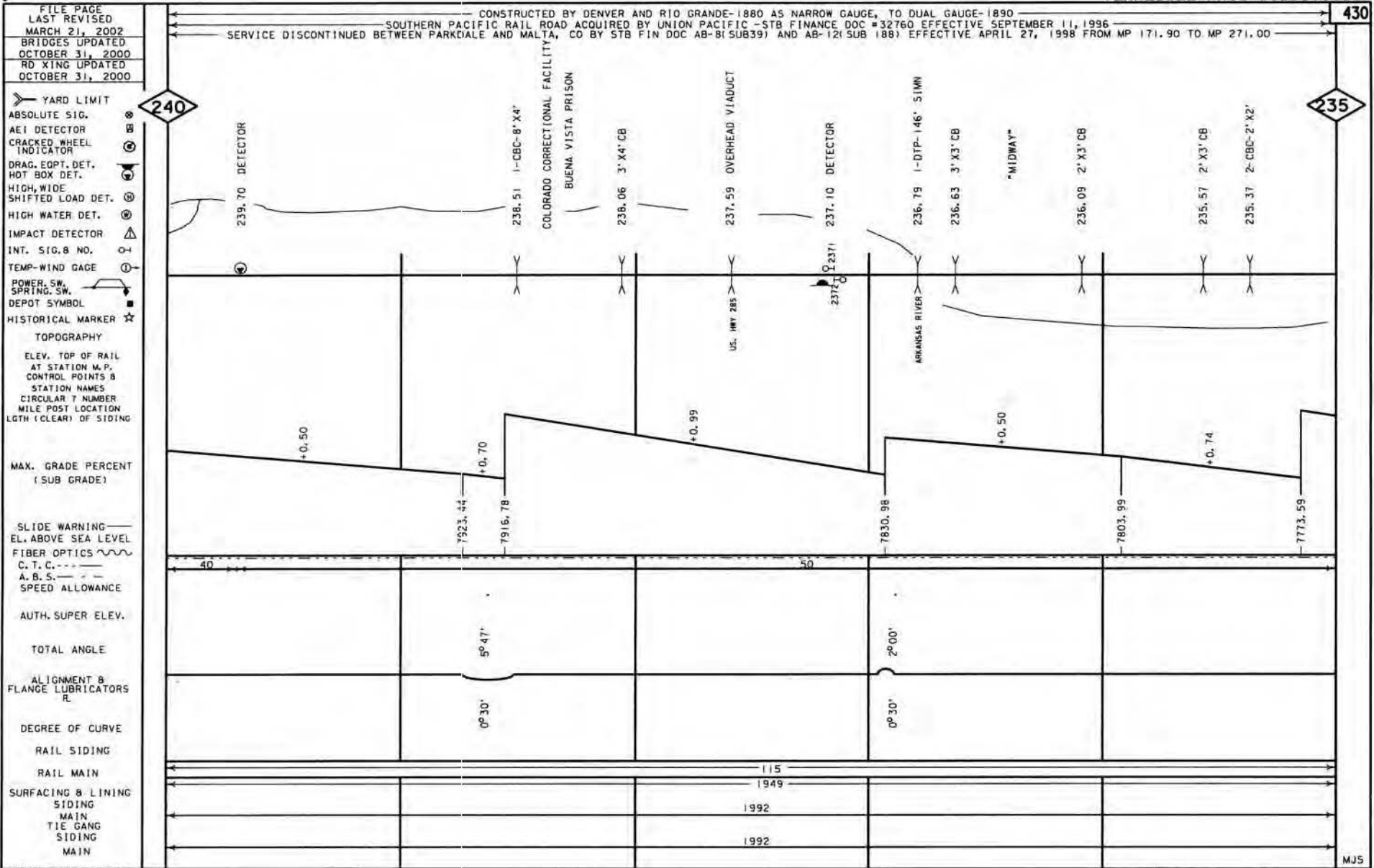


DENVER DIVISION
TENNESSEE PASS SUBDIVISION

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DENVER DIVISION
TENNESSEE PASS SUBDIVISION



FILE PAGE
LAST REVISED
MARCH 21, 2002
BRIDGES UPDATED
OCTOBER 31, 2000
RD KING UPDATED
OCTOBER 31, 2000

- YARD LIMIT
- ABSOLUTE SIG.
- AEI DETECTOR
- CRACKED WHEEL INDICATOR
- DRAG. EQPT. DET.
- HOT BOX DET.
- HIGH, WIDE SHIFTED LOAD DET.
- HIGH WATER DET.
- IMPACT DETECTOR
- INT. SIG. 8 NO.
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- POWER. SW.
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- A. B. S. ---
- SPEED ALLOWANCE
- AUTH. SUPER ELEV.
- TOTAL ANGLE
- ALIGNMENT & FLANGE LUBRICATORS R
- DEGREE OF CURVE
- RAIL SIDING
- RAIL MAIN
- SURFACING & LINING SIDING
- SIDING
- MAIN
- TIE GANG SIDING
- SIDING
- MAIN

- GRADE XING DATA
- X-BUCK
- BELL
- FLASHER
- GATES
- WIG WAG
- TRAFFIC SIGNAL
- STOP SIGN
- CANTILEVER

430

240

235

CONSTRUCTED BY DENVER AND RIO GRANDE-1880 AS NARROW GAUGE, TO DUAL GAUGE-1890
SOUTHERN PACIFIC RAIL ROAD ACQUIRED BY UNION PACIFIC -STB FINANCE DOC #32760 EFFECTIVE SEPTEMBER 11, 1996
SERVICE DISCONTINUED BETWEEN PARKDALE AND MALTA, CO BY STB FIN DOC AB-8(SUB39) AND AB-12(SUB 188) EFFECTIVE APRIL 27, 1998 FROM MP 171.90 TO MP 271.00

COLORADO CORRECTIONAL FACILITY
BUENA VISTA PRISON

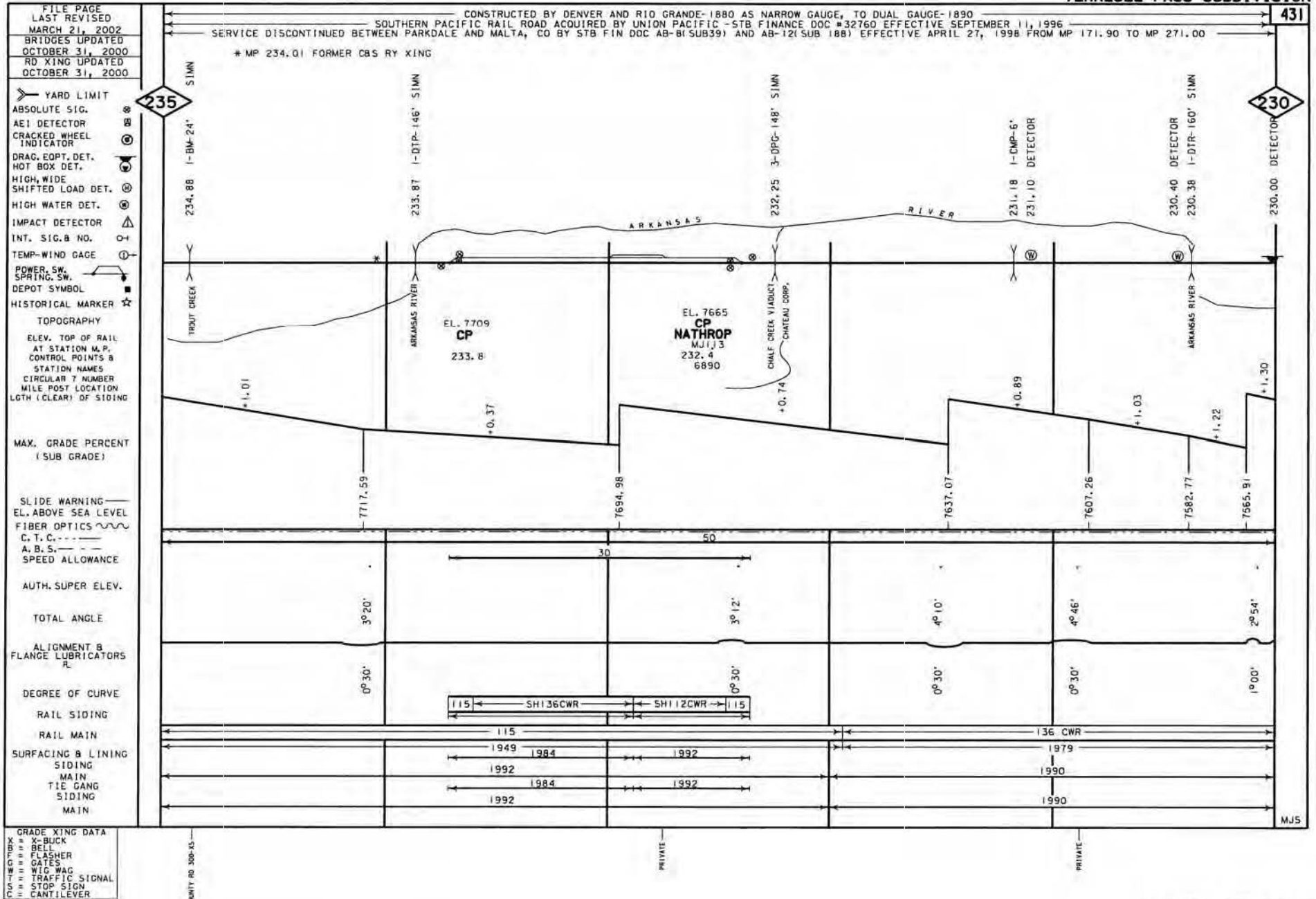
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ARKANSAS RIVER

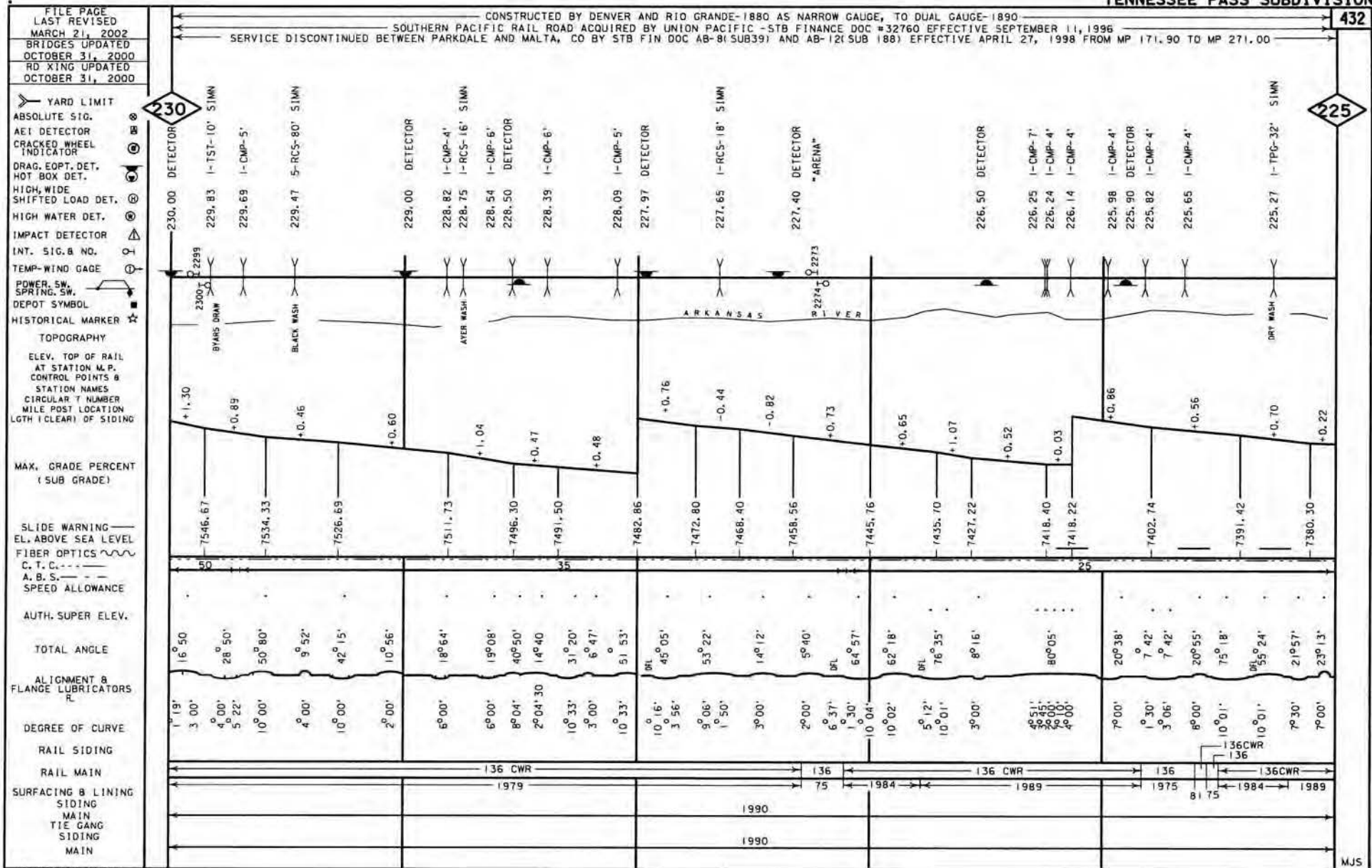
"MIDWAY"

MJS

DENVER DIVISION
TENNESEE PASS SUBDIVISION



DENVER DIVISION
TENNESSEE PASS SUBDIVISION



GRADE XING DATA
X-BUCK
BELL
FLASHER
GATES
WIG WAG
TRAFFIC SIGNAL
STOP SIGN
CANTILEVER

MJS

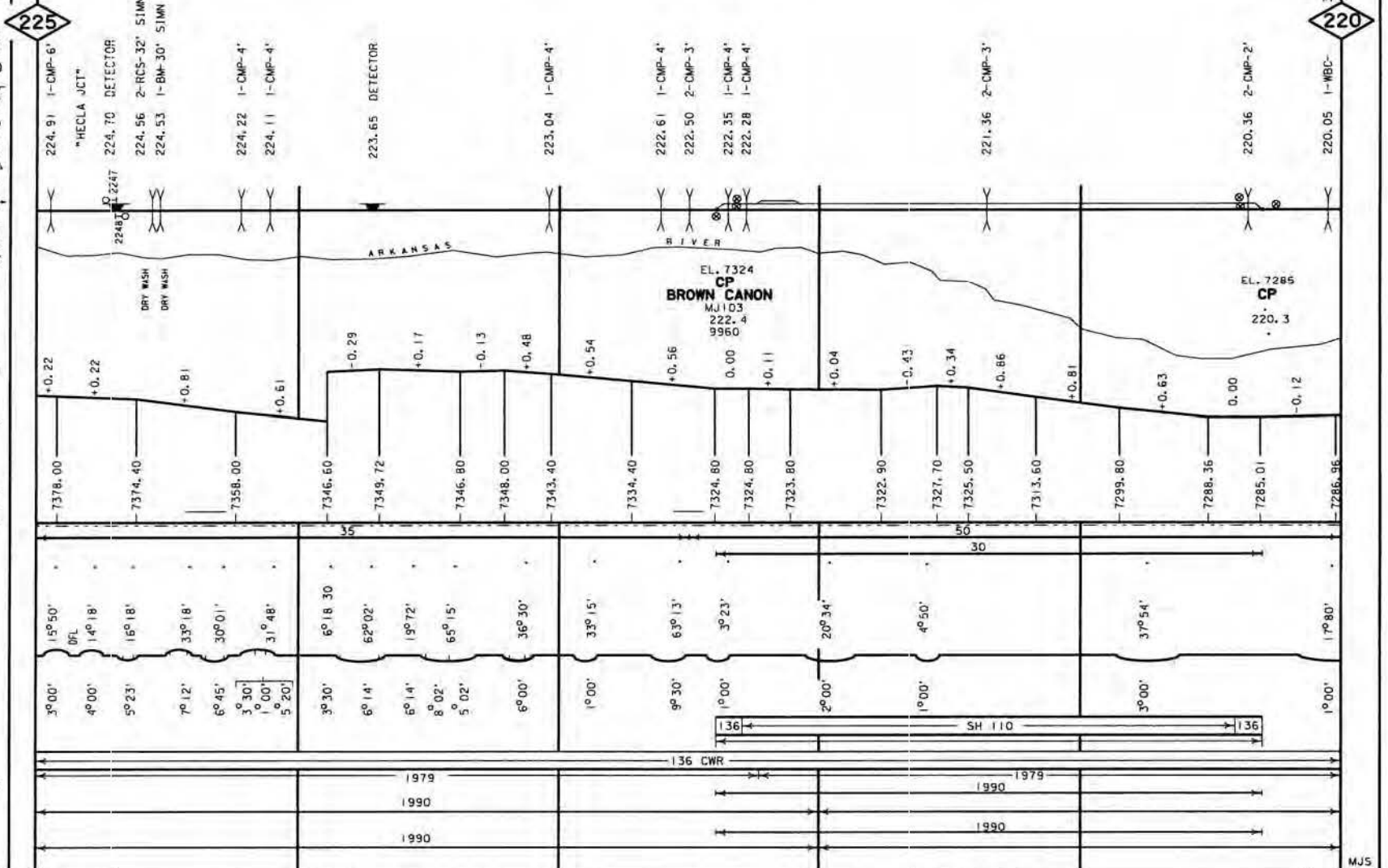
DENVER DIVISION
TENNESEE PASS SUBDIVISION

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FILE PAGE
LAST REVISED
MARCH 21, 2002
BRIDGES UPDATED
OCTOBER 31, 2000
RD XING UPDATED
OCTOBER 31, 2000

CONSTRUCTED BY DENVER AND RIO GRANDE-1880 AS NARROW GAUGE, TO DUAL GAUGE-1890
SOUTHERN PACIFIC RAIL ROAD ACQUIRED BY UNION PACIFIC -STB FINANCE DOC #32760 EFFECTIVE SEPTEMBER 11, 1996
SERVICE DISCONTINUED BETWEEN PARKDALE AND MALTA, CO BY STB FIN DOC AB-8(SUB33) AND AB-12(SUB 188) EFFECTIVE APRIL 27, 1998 FROM MP 171.90 TO MP 271.00

- YARD LIMIT
- ABSOLUTE SIG.
- AEI DETECTOR
- CRACKED WHEEL INDICATOR
- DRAG, EDPT, DET, HOT BOX DET.
- HIGH, WIDE SHIFTED LOAD DET.
- HIGH WATER DET.
- IMPACT DETECTOR
- INT. SIG. B NO.
- TEMP-WIND GAGE
- POWER, SW, SPRING, SW.
- DEPOT SYMBOL
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- A. B. S. ---
- SPEED ALLOWANCE
- AUTH. SUPER ELEV.
- TOTAL ANGLE
- ALIGNMENT & FLANGE LUBRICATORS
- DEGREE OF CURVE
- RAIL SIDING
- RAIL MAIN
- SURFACING & LINING
- SIDING MAIN
- TIE GANG SIDING MAIN
- SIDING MAIN



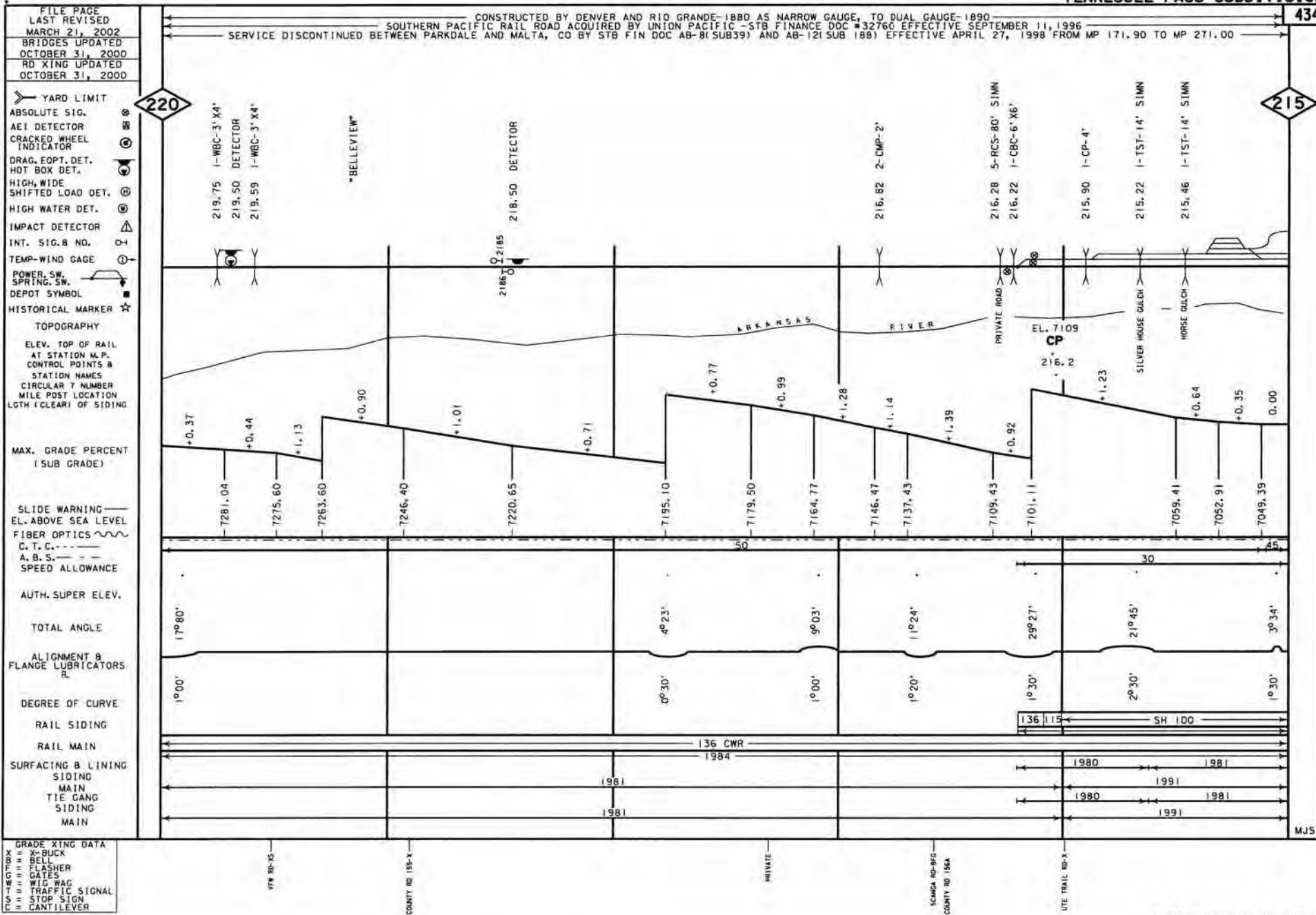
225

220

- GRADE XING DATA
- BUCK
- BELL
- FLASHER
- GATES
- WIG WAG
- TRAFFIC SIGNAL
- STOP SIGN
- CANTILEVER

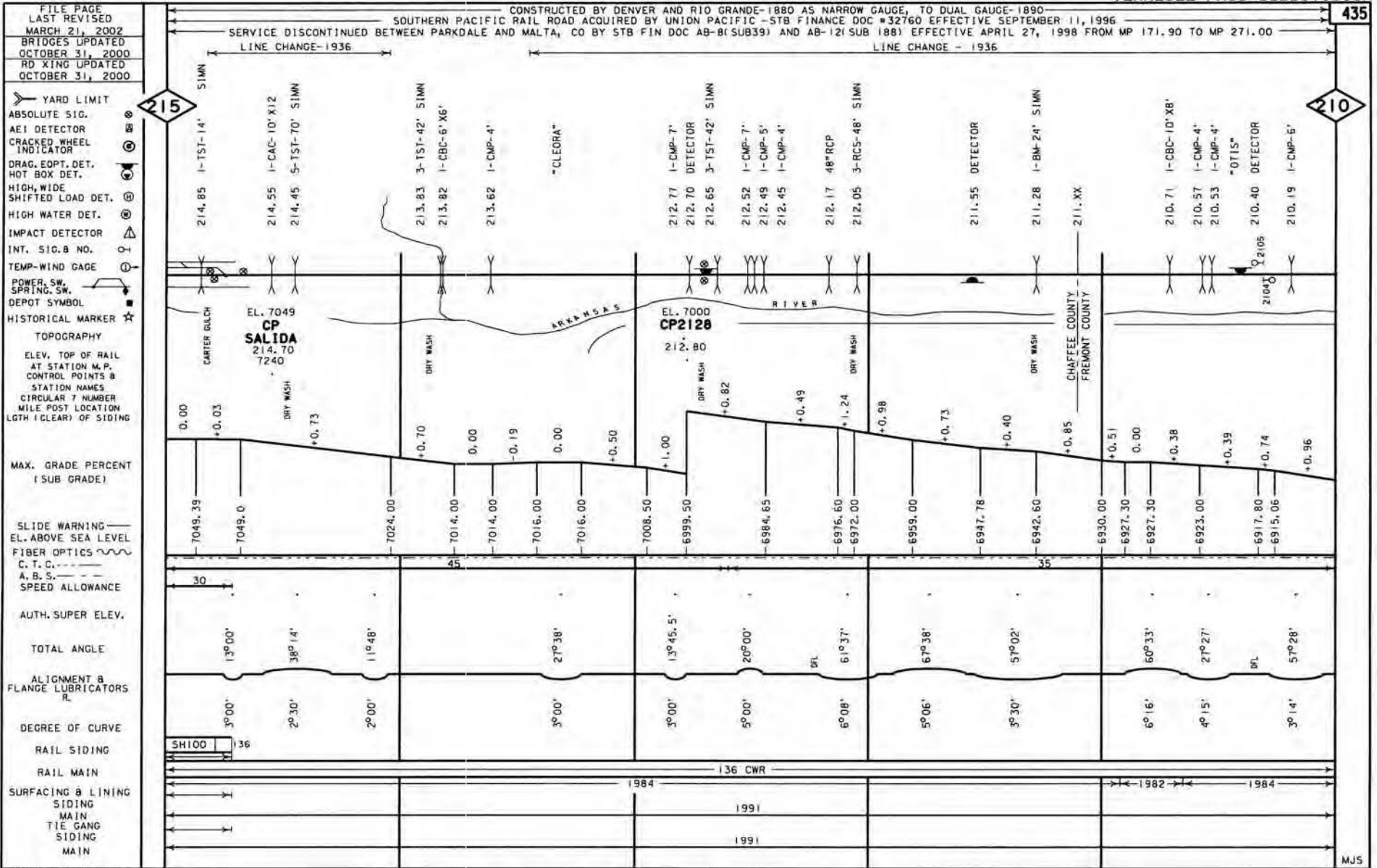
DENVER DIVISION
TENNESSEE PASS SUBDIVISION

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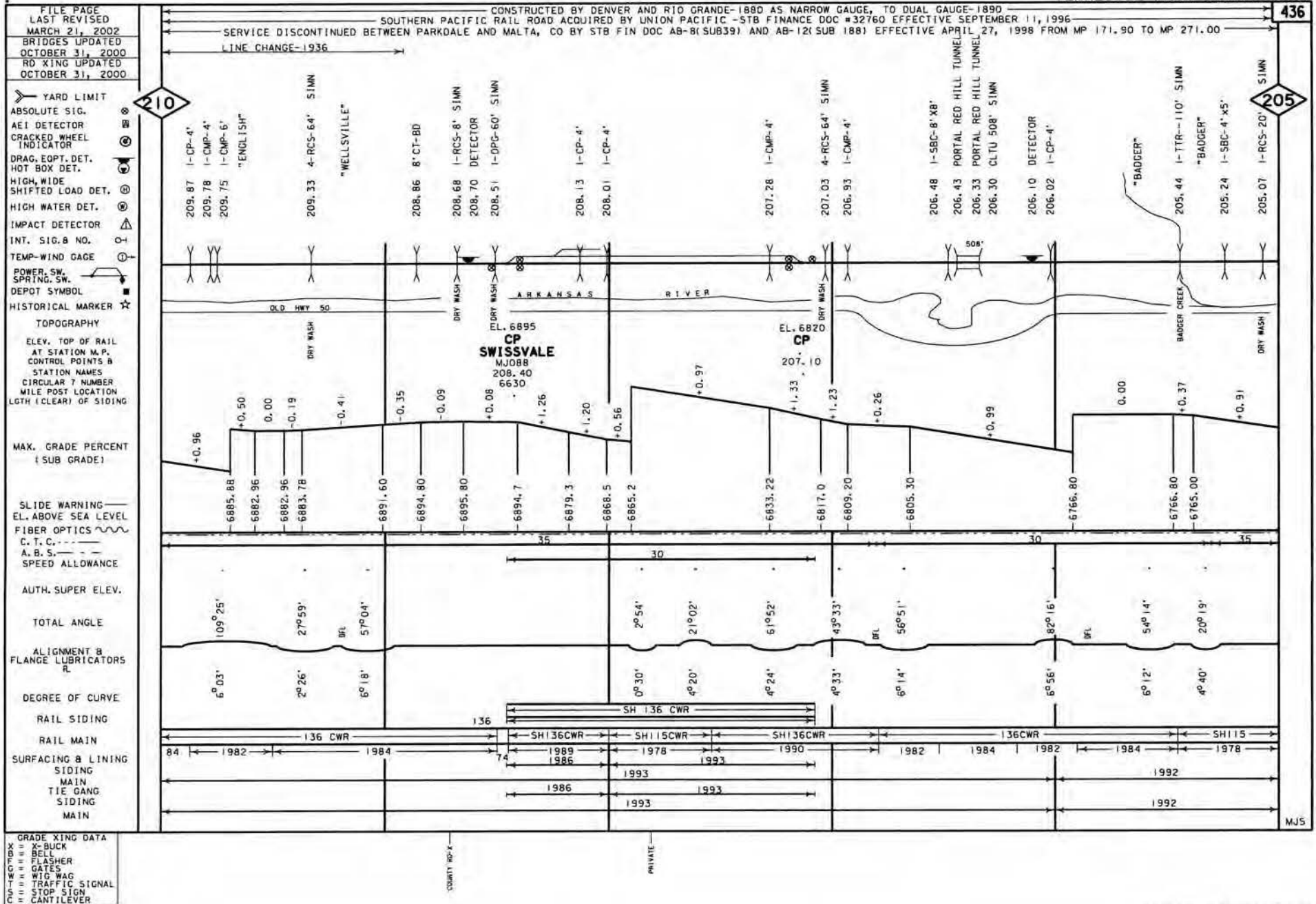


DENVER DIVISION
TENNESSEE PASS SUBDIVISION

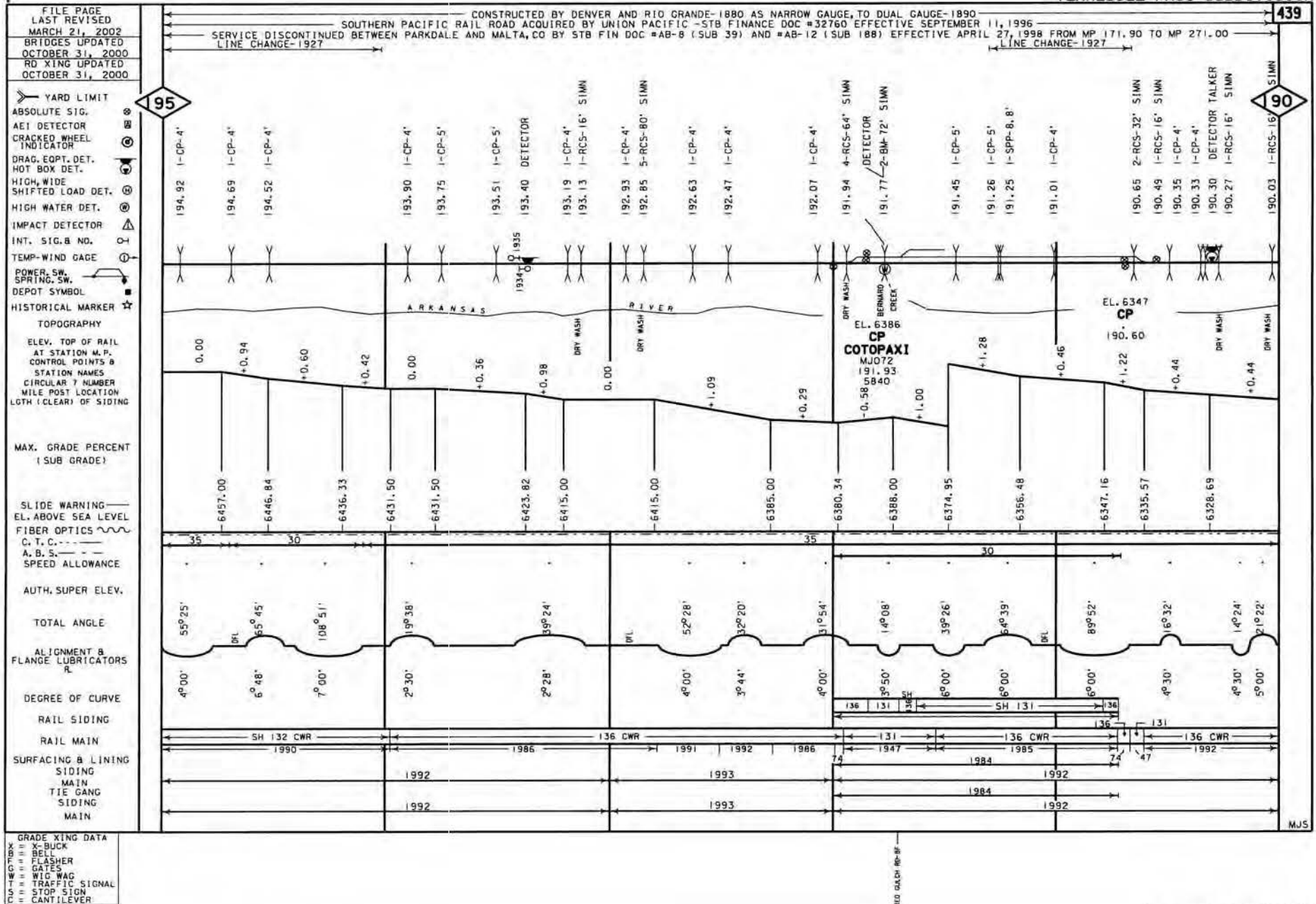
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DENVER DIVISION
TENNESSEE PASS SUBDIVISION

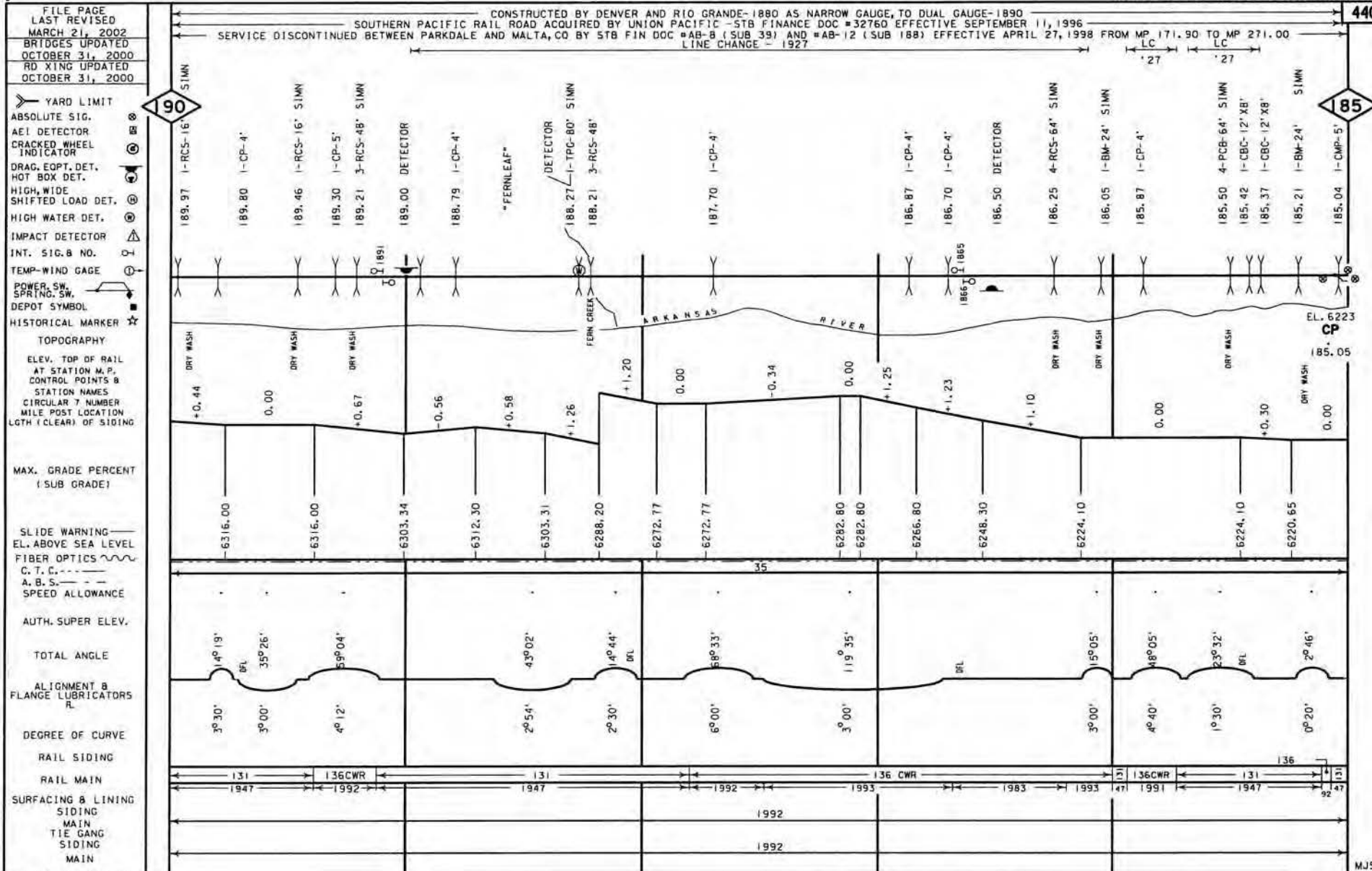


DENVER DIVISION
TENNESSEE PASS SUBDIVISION

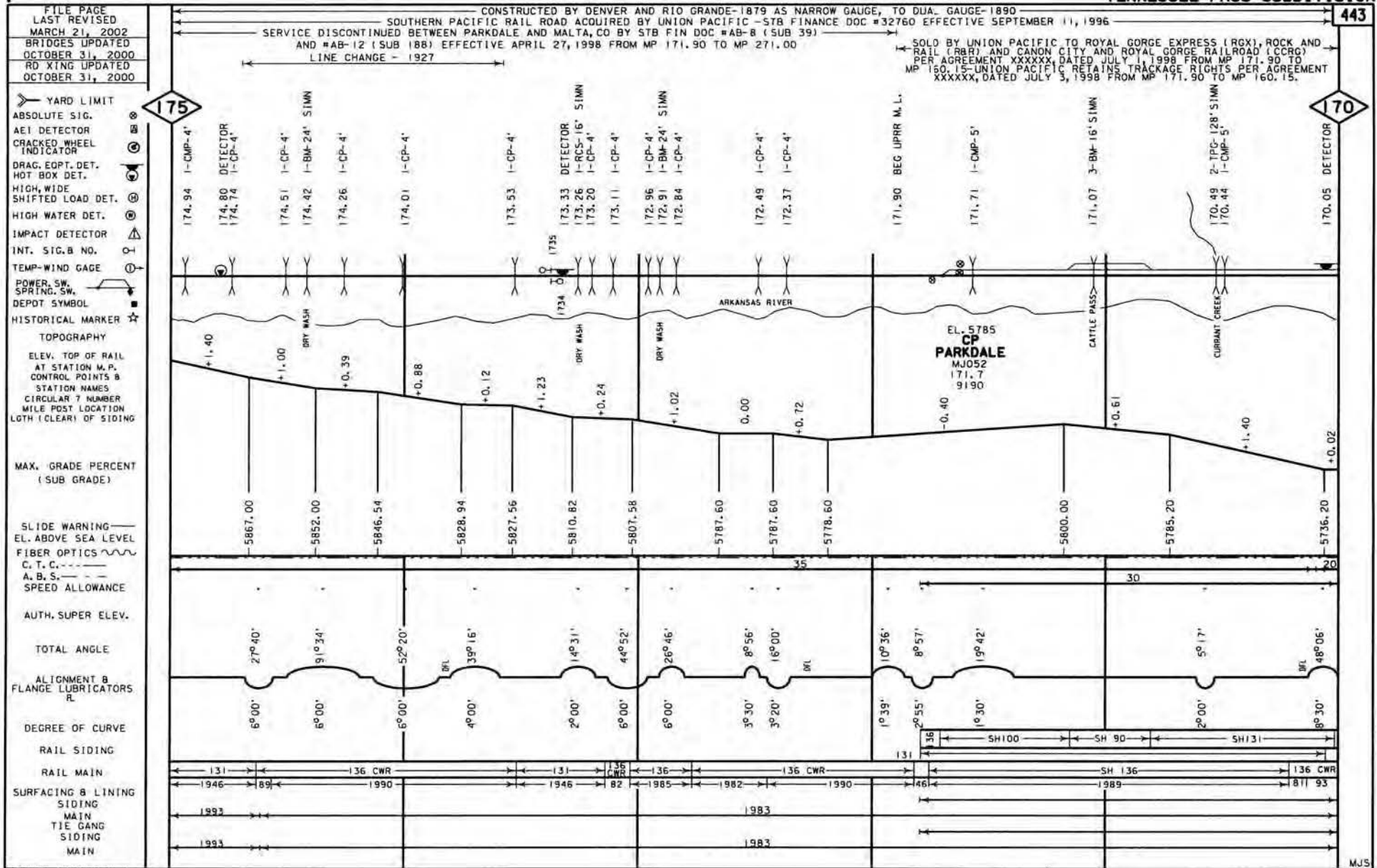


DENVER DIVISION
TENNESSEE PASS SUBDIVISION

440



DENVER DIVISION
TENNESSEE PASS SUBDIVISION



GRADE XING DATA
X-BUCK
BELL
FLASHER
GATES
WIG WAG
TRAFFIC SIGNAL
STOP SIGN
CANTILEVER

PRIVATE-X

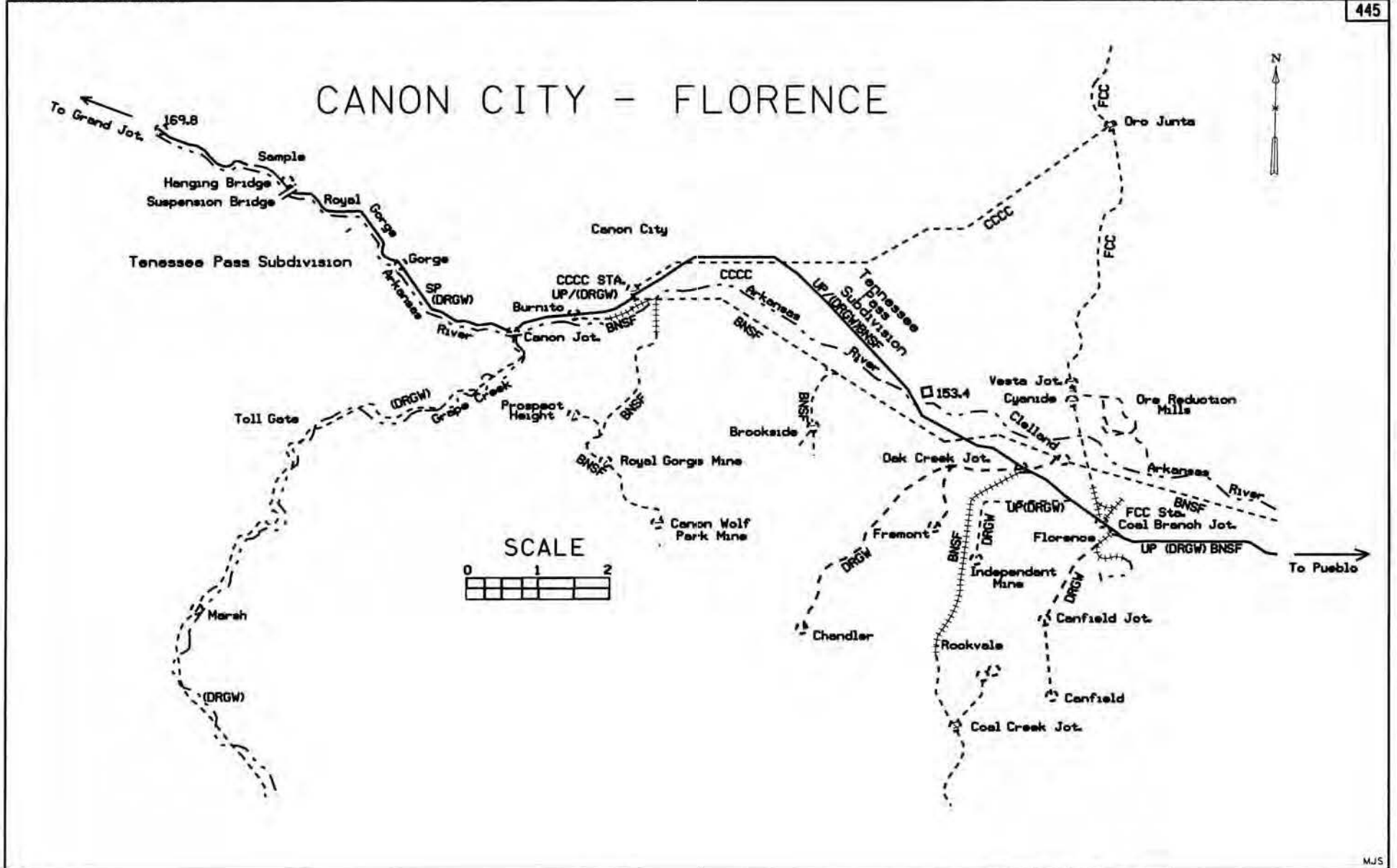
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BURLINGTON NORTHERN SANTA FE-COLORADO DIVISION
CANON CITY SUBDIVISION

DENVER DIVISION
TENNESSEE PASS SUBDIVISION

445

CANON CITY - FLORENCE

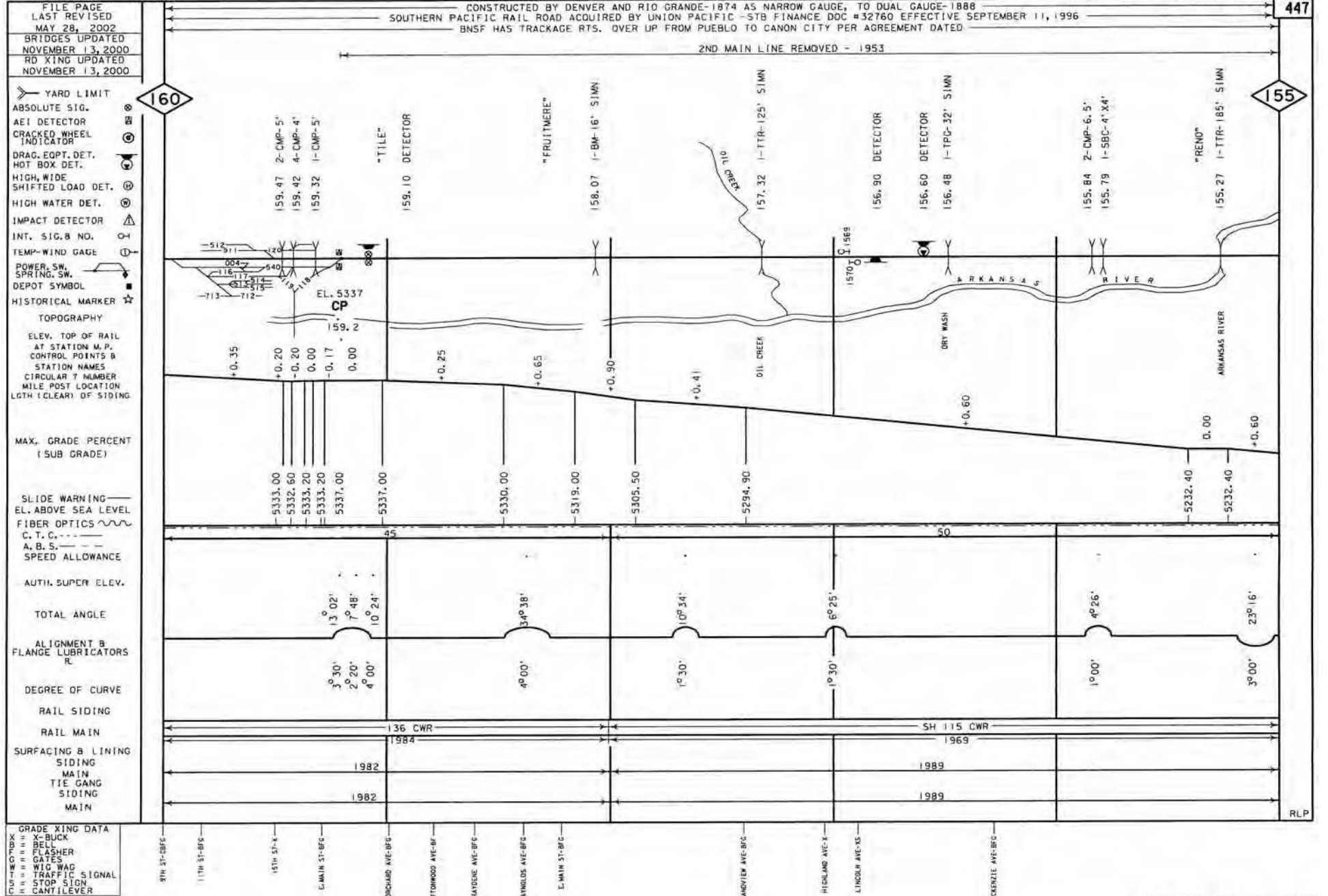


REVISED AS TO: MARCH 21, 2002

MJS

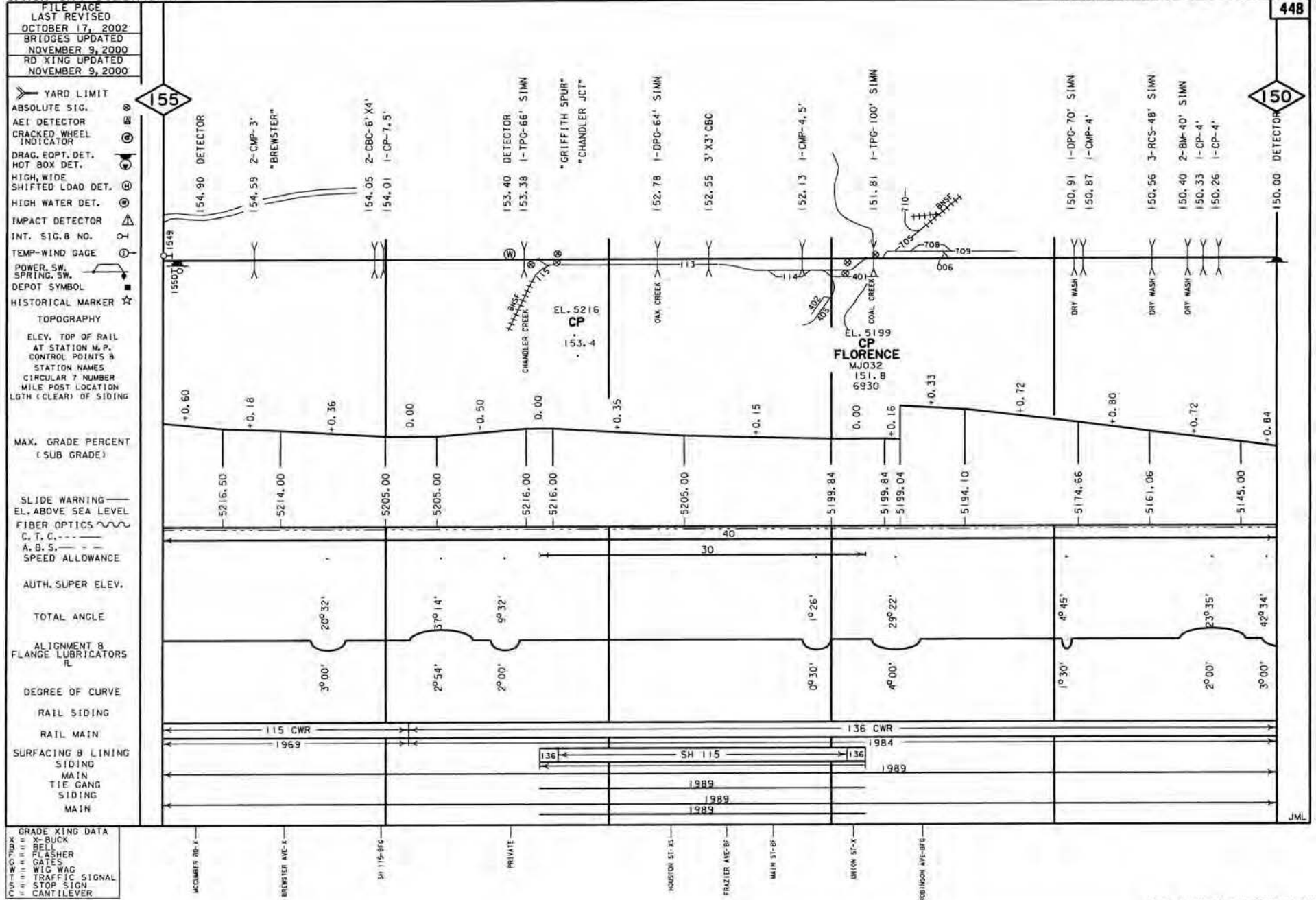
**BURLINGTON NORTHERN SANTA FE-COLORADO DIVISION
CANON CITY SUBDIVISION**

**DENVER DIVISION
TENNESSEE PASS SUBDIVISION**



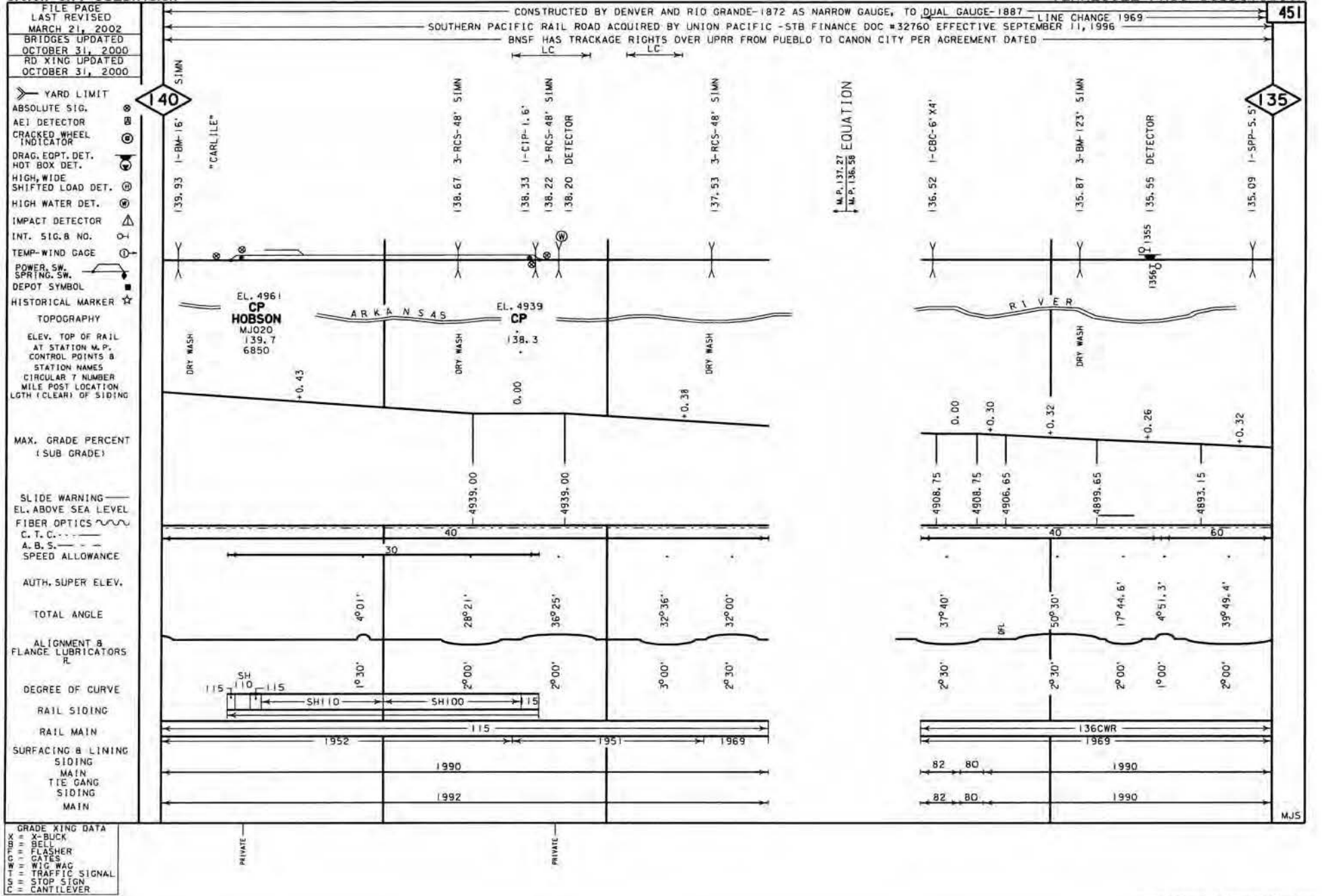
**BURLINGTON NORTHERN SANTA FE-COLORADO DIVISION
CANON CITY SUBDIVISION**

**DENVER DIVISION
TENNESSEE PASS SUBDIVISION**



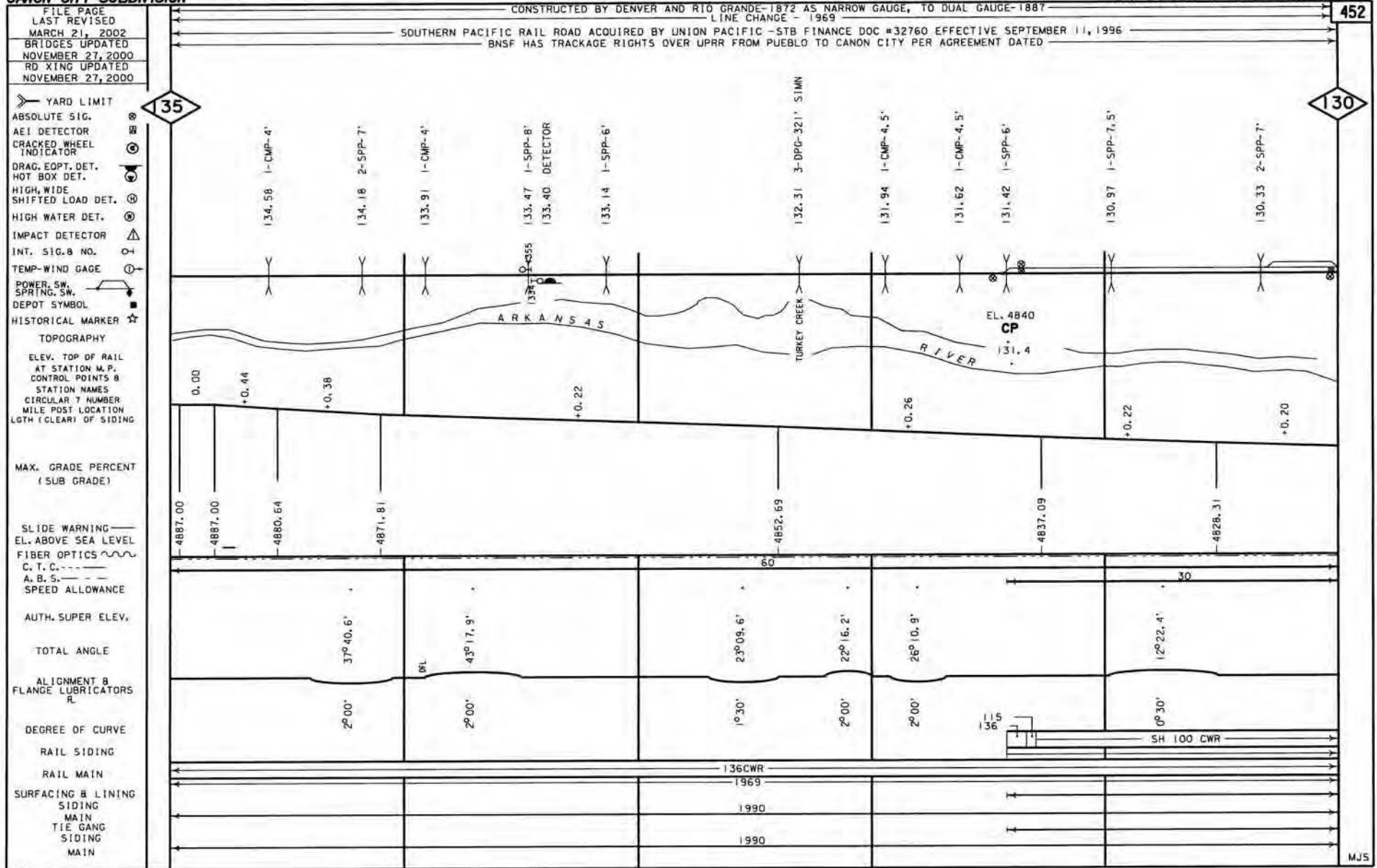
**BURLINGTON NORTHERN SANTA FE-COLORADO DIVISION
CANON CITY SUBDIVISION**

**DENVER DIVISION
TENNESSEE PASS-SUBDIVISION**



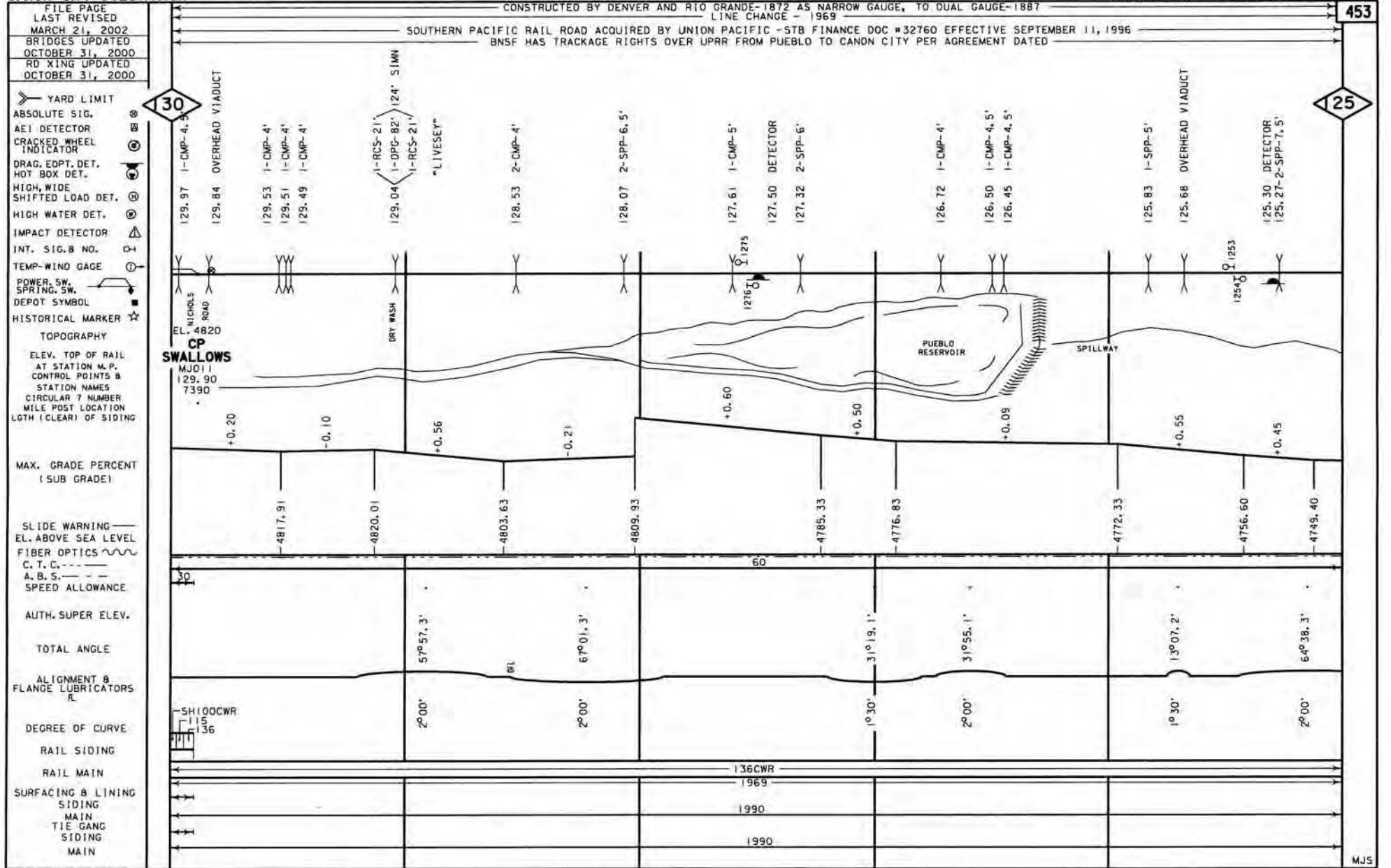
**BURLINGTON NORTHERN SANTA FE-COLORADO DIVISION
CANON CITY SUBDIVISION**

**DENVER DIVISION
TENNESSEE PASS-SUBDIVISION**



**BURLINGTON NORTHERN SANTA FE-COLORADO DIVISION
CANON CITY SUBDIVISION**

**DENVER DIVISION
TENNESSEE PASS-SUBDIVISION**



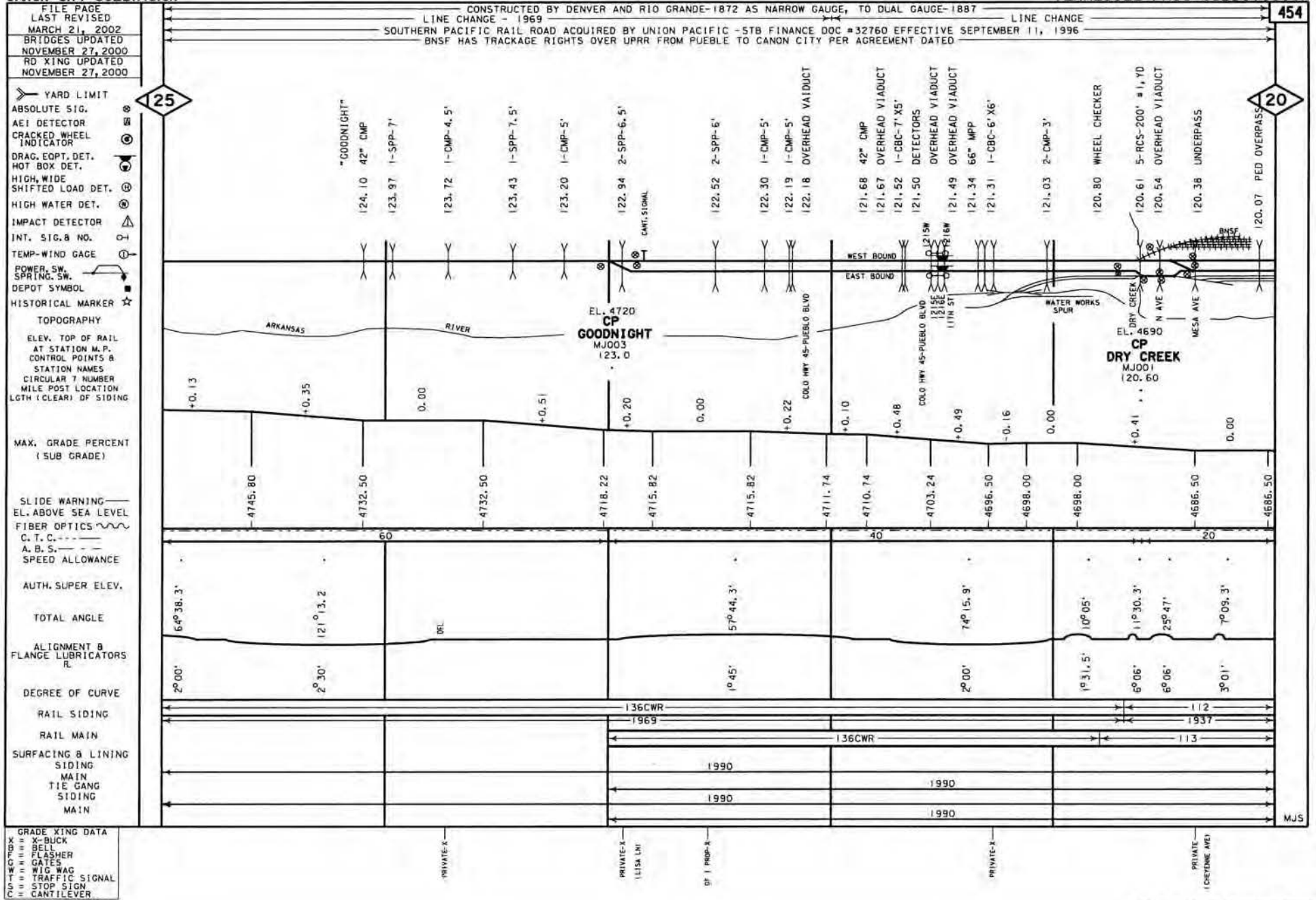
GRADE KING DATA

- X-BUCK
- BELL
- FLASHER
- GATES
- WIG WAG
- TRAFFIC SIGNAL
- STOP SIGN
- CANTILEVER

MJS

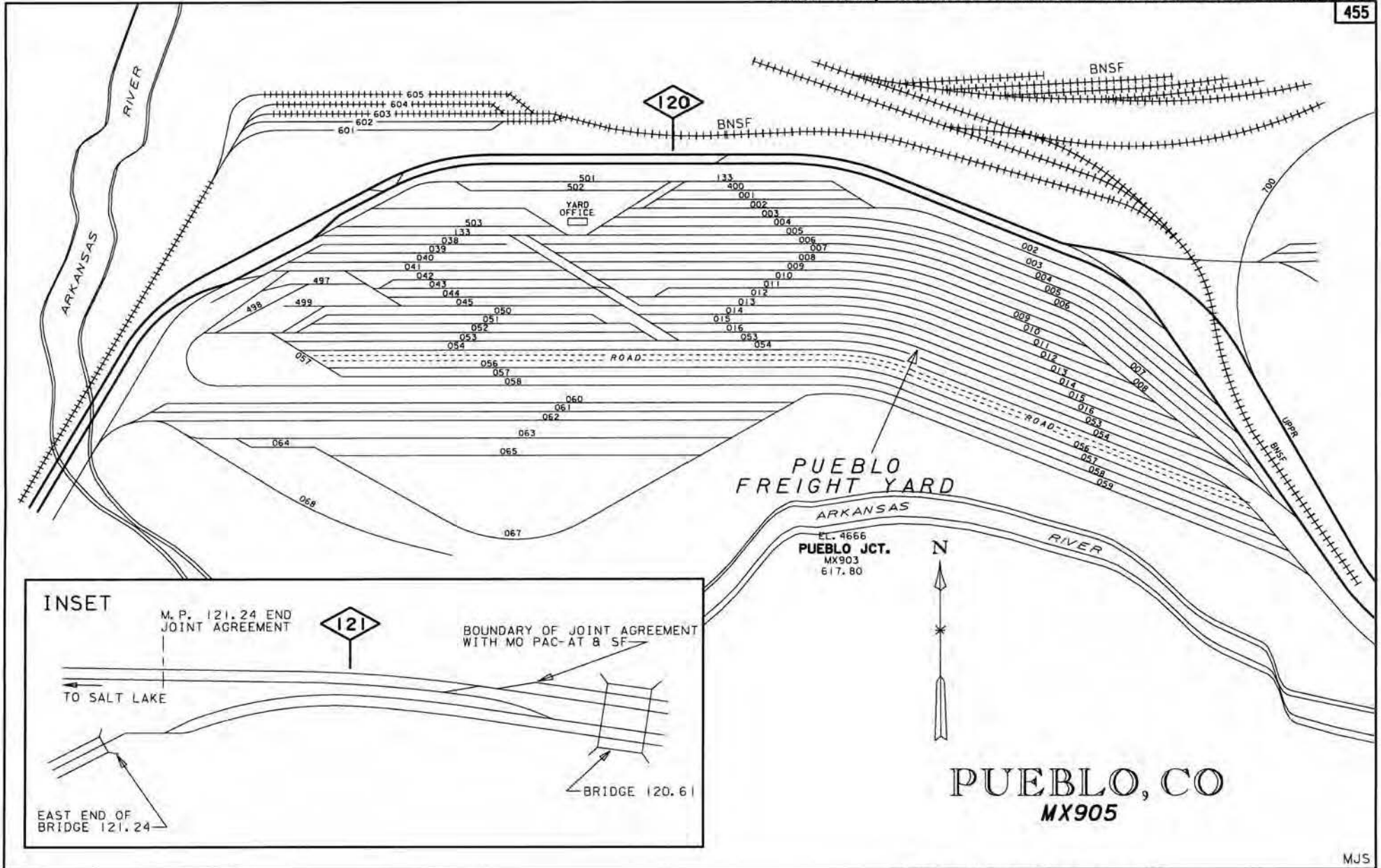
**BURLINGTON NORTHERN SANTA FE-COLORADO DIVISION
CANON CITY SUBDIVISION**

**DENVER DIVISION
TENNESSEE PASS-SUBDIVISION**



DENVER DIVISION
CANON CITY, COLORADO SPRINGS & TENNESSEE PASS SUBDIVISIONS

455

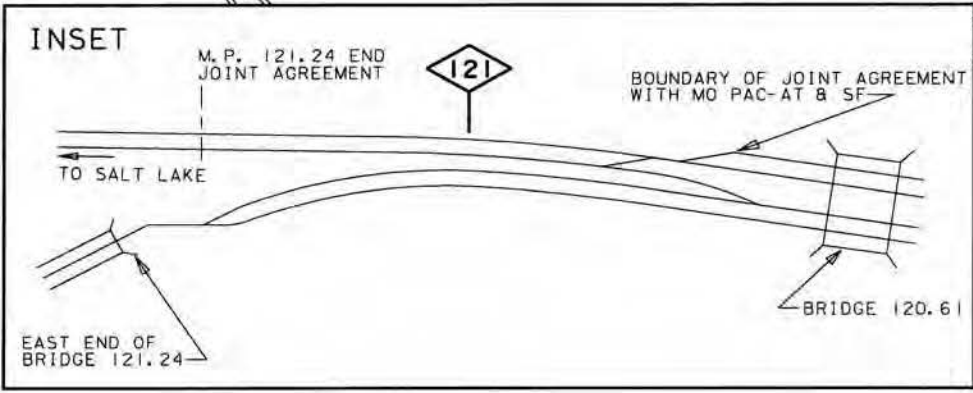


PUEBLO
FREIGHT YARD

EL. 4666
PUEBLO JCT.
MX903
617.80



PUEBLO, CO
MX905

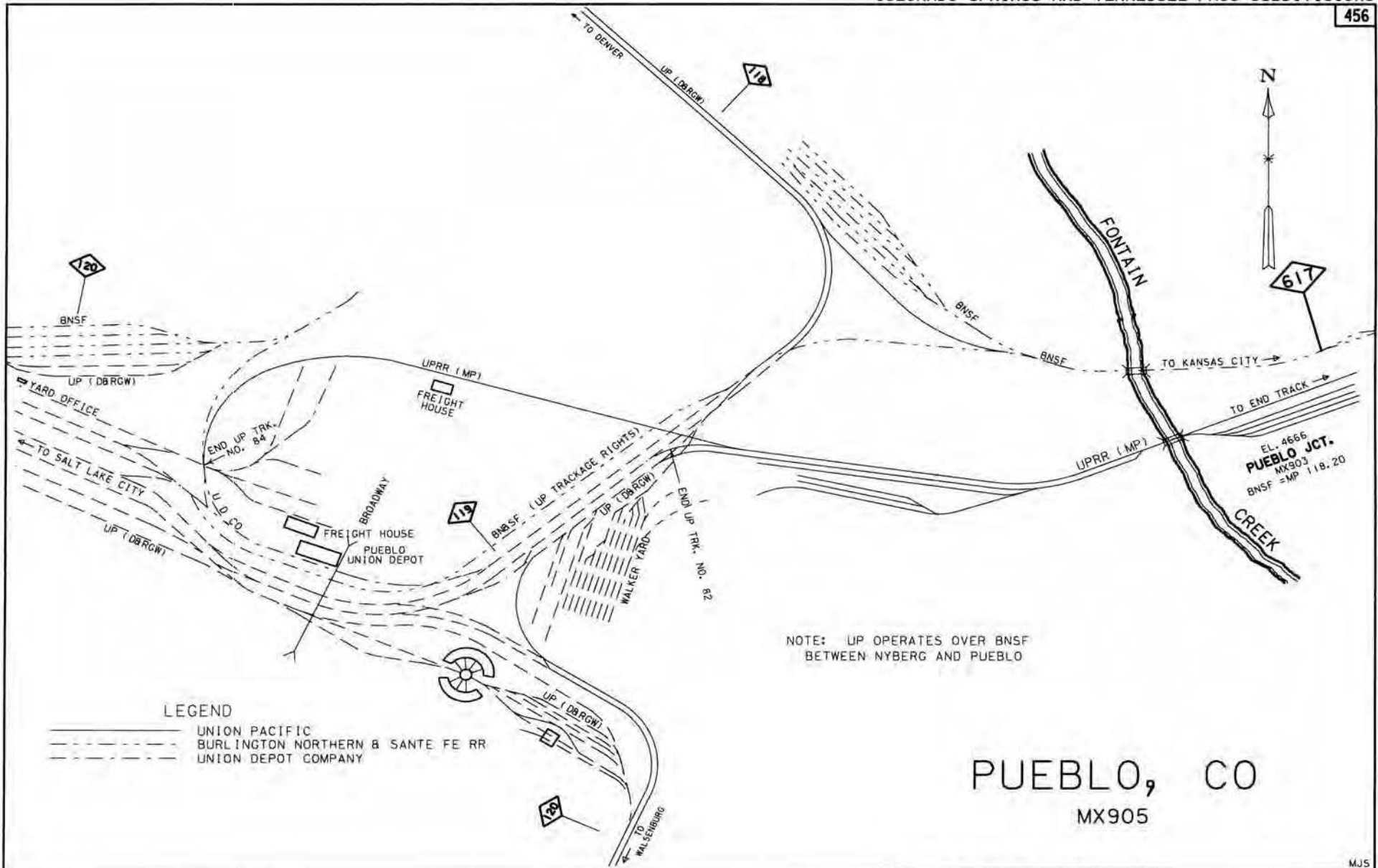


REVISED AS TO: MARCH 20, 2002

MJS

DENVER DIVISION
COLORADO SPRINGS AND TENNESSEE PASS SUBDIVISIONS

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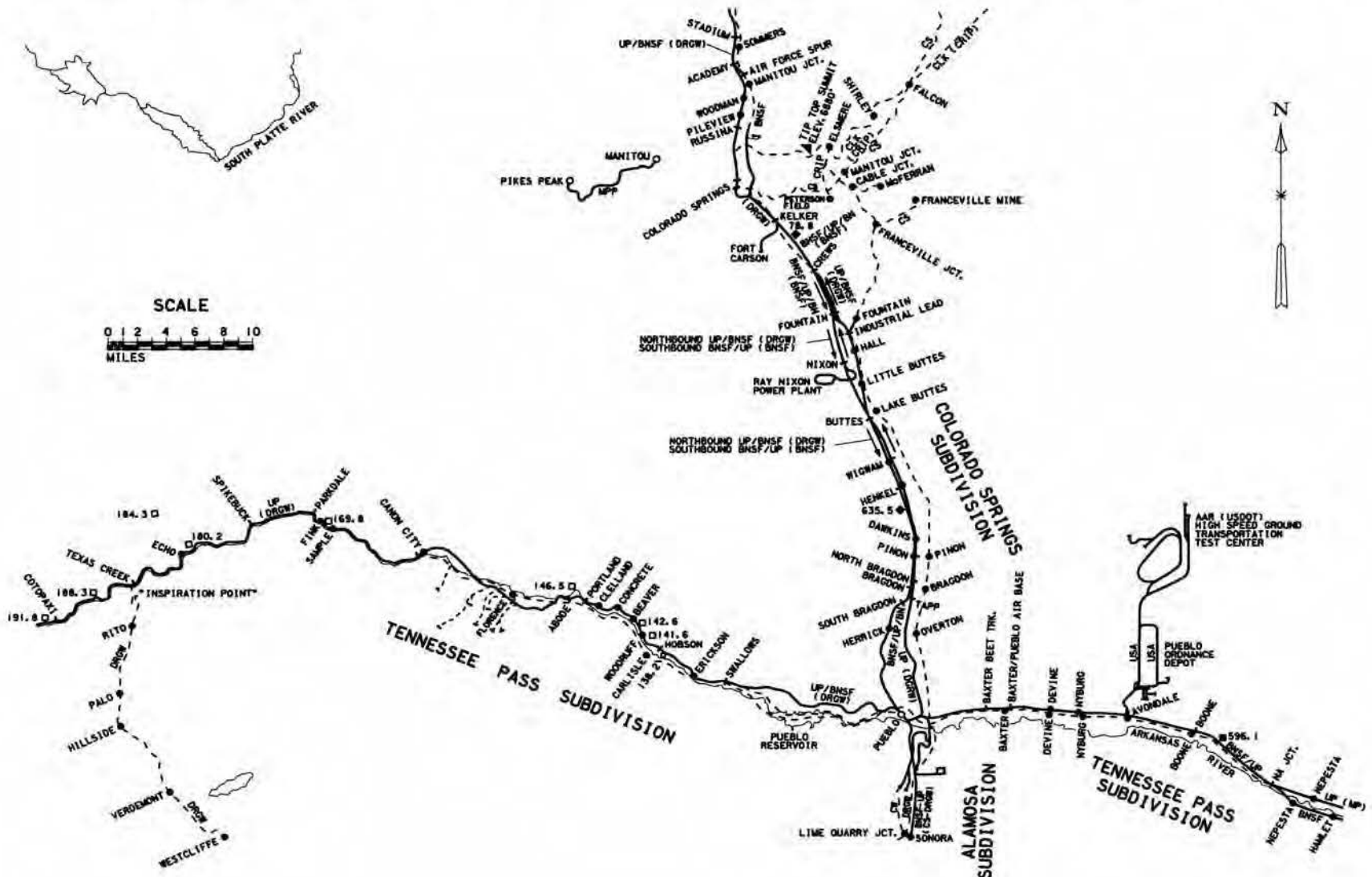
REVISED AS TO: MARCH 20, 2002

MJS

BURLINGTON NORTHERN SANTA FE
COLORADO DIVISION - PIKES PEAK, PUEBLO & SPANISH PEAKS SUBDIVISIONS

DENVER DIVISION
TENNESSEE PASS, ALAMOSA AND COLORADO SPRINGS SUBDIVISION

457



JOINT LINE SOUTH

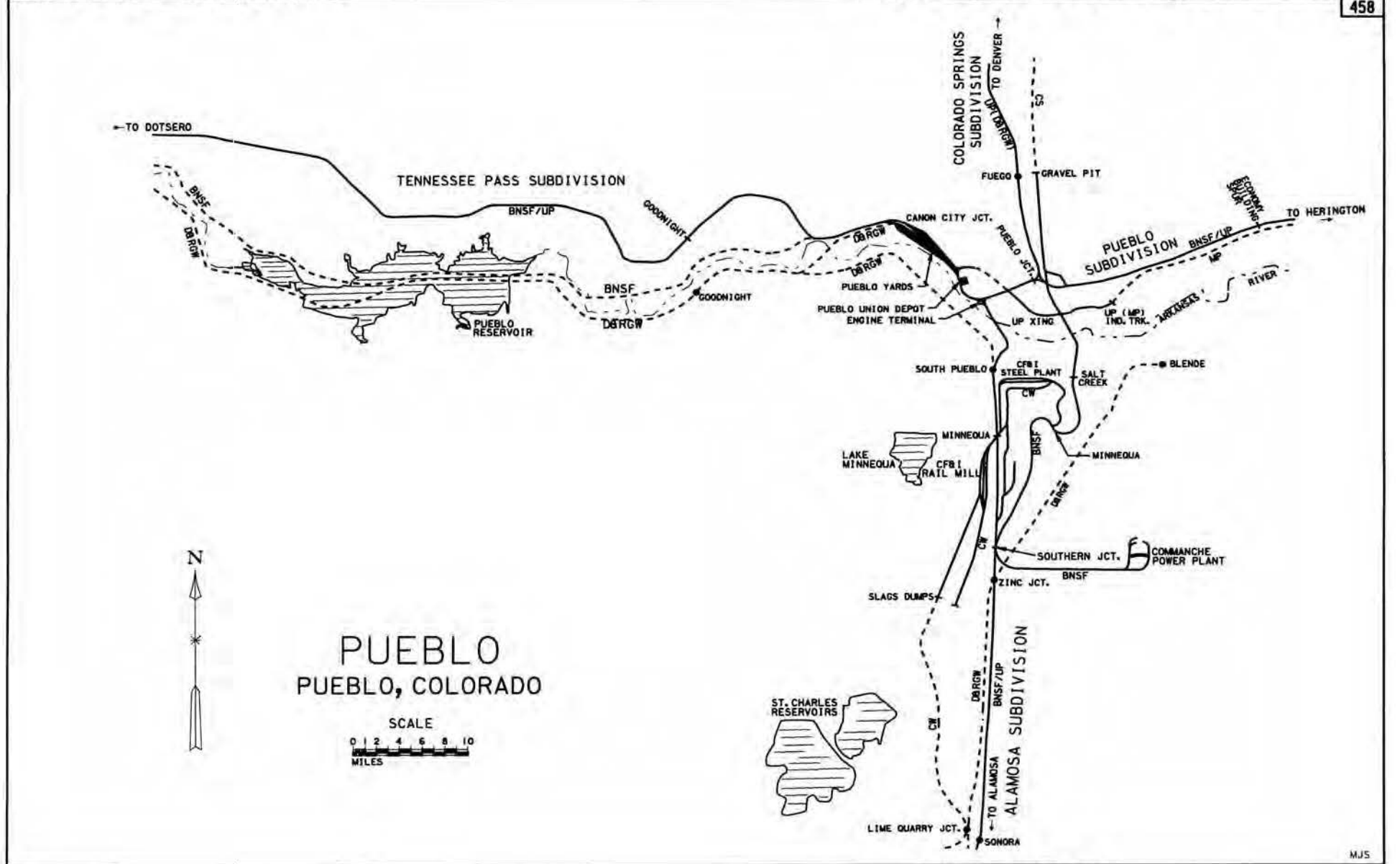
REVISED AS TO: MARCH 20, 2002

MJS

BURLINGTON NORTHERN SANTA FE
COLORADO DIVISION - PIKES PEAK SUBDIVISION

DENVER DIVISION
COLORADO SPRINGS, ALAMOSA & TENNESSEE PASS SUBDIVISIONS

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REVISED AS TO: MARCH 21, 2002

MJS

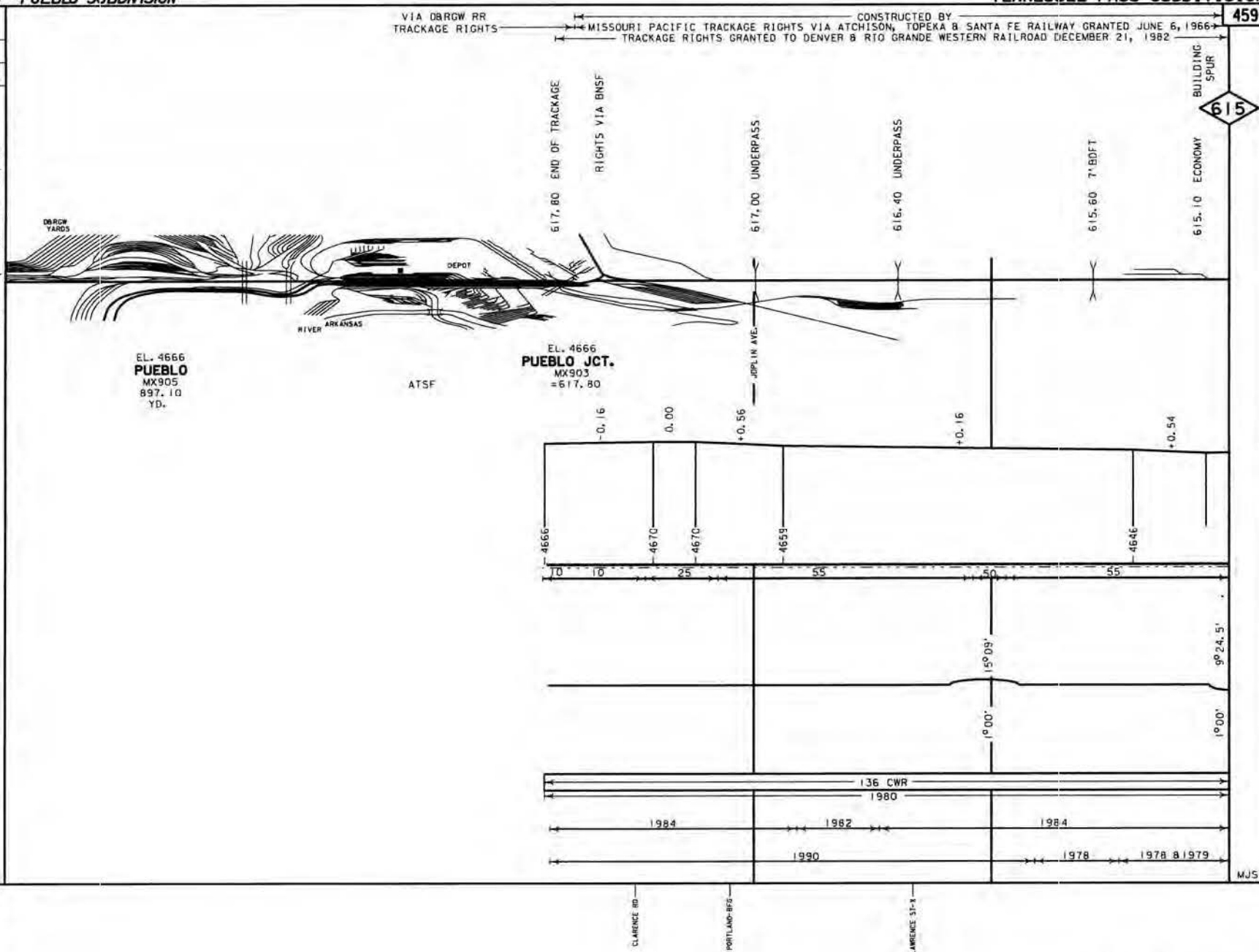
**BURLINGTON NORTHERN SANTA FE
KANSAS DIVISION - PUEBLO SUBDIVISION**

**DENVER DIVISION
TENNESSEE PASS SUBDIVISION**

FILE PAGE
LAST REVISED
MARCH 21, 2002
BRIDGES UPDATED
JANUARY 4, 2001
RD XING UPDATED
NOVEMBER 27, 2000

- YARD LIMIT
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- AEI DETECTOR
- CRACKED WHEEL INDICATOR
- DRAG. EQPT. DET.
- HOT BOX DET.
- HIGH, WIDE SHIFTED LOAD DET.
- HIGH WATER DET.
- IMPACT DETECTOR
- INT. SIG. B NO.
- TEMP-WIND GAGE
- POWER SW.
- SPRING SW.
- DEPOT SYMBOL
- HISTORICAL MARKER
- TOPOGRAPHY
- ELEV. TOP OF RAIL AT STATION M.P.
- CONTROL POINTS & STATION NAMES
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- C. T. C.
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- SPEED ALLOWANCE
- AUTH. SUPER ELEV.
- TOTAL ANGLE
- ALIGNMENT & FLANGE LUBRICATORS
- DEGREE OF CURVE
- RAIL SIDING
- RAIL MAIN
- SURFACING & LINING
- SIDING
- MAIN
- TIE GANG
- SIDING
- MAIN

- GRADE XING DATA
- X-BUCK
- BELL
- FLASHER
- GATES
- WIG WAG
- TRAFFIC SIGNAL
- STOP SIGN



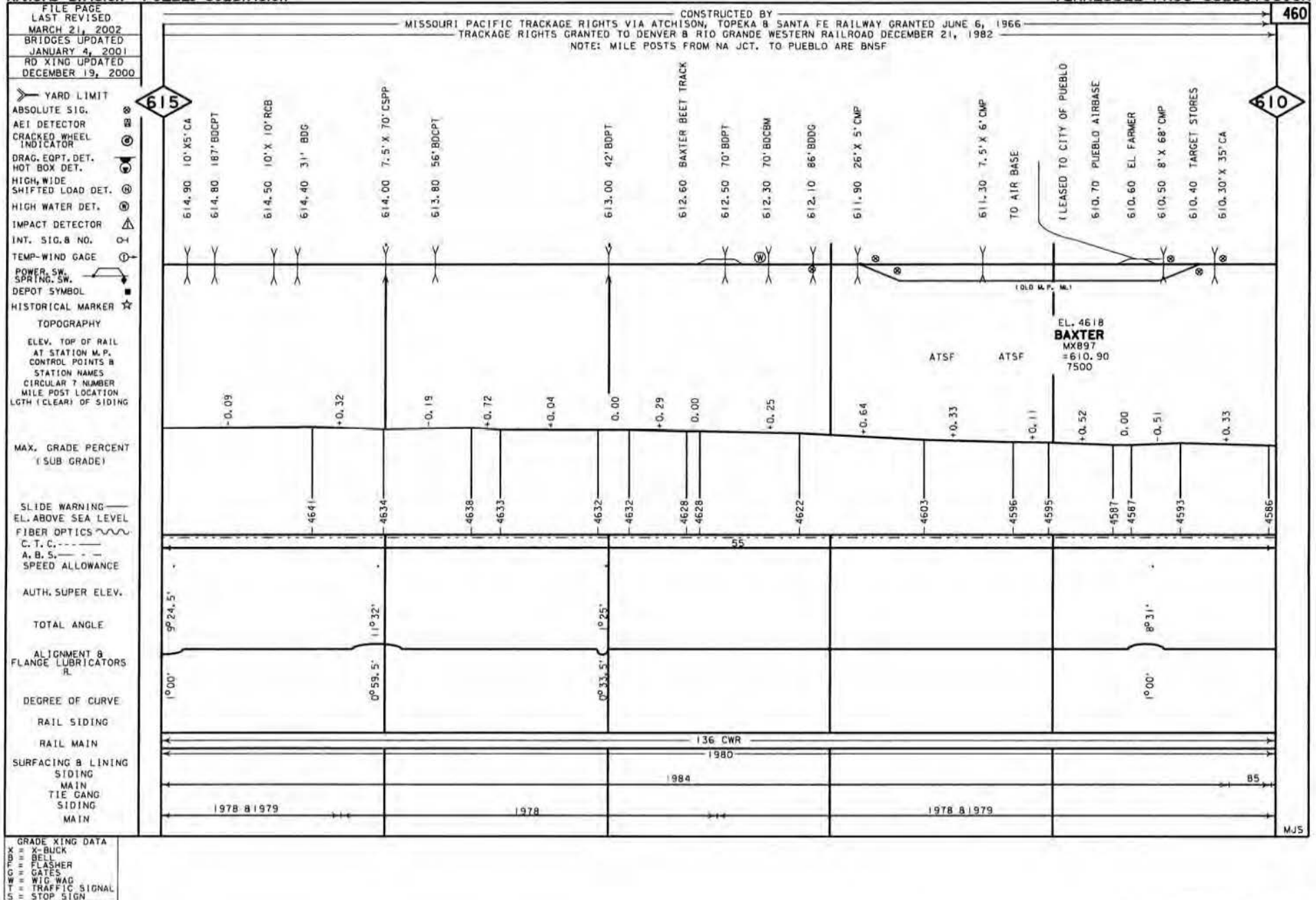
459

615

MJS

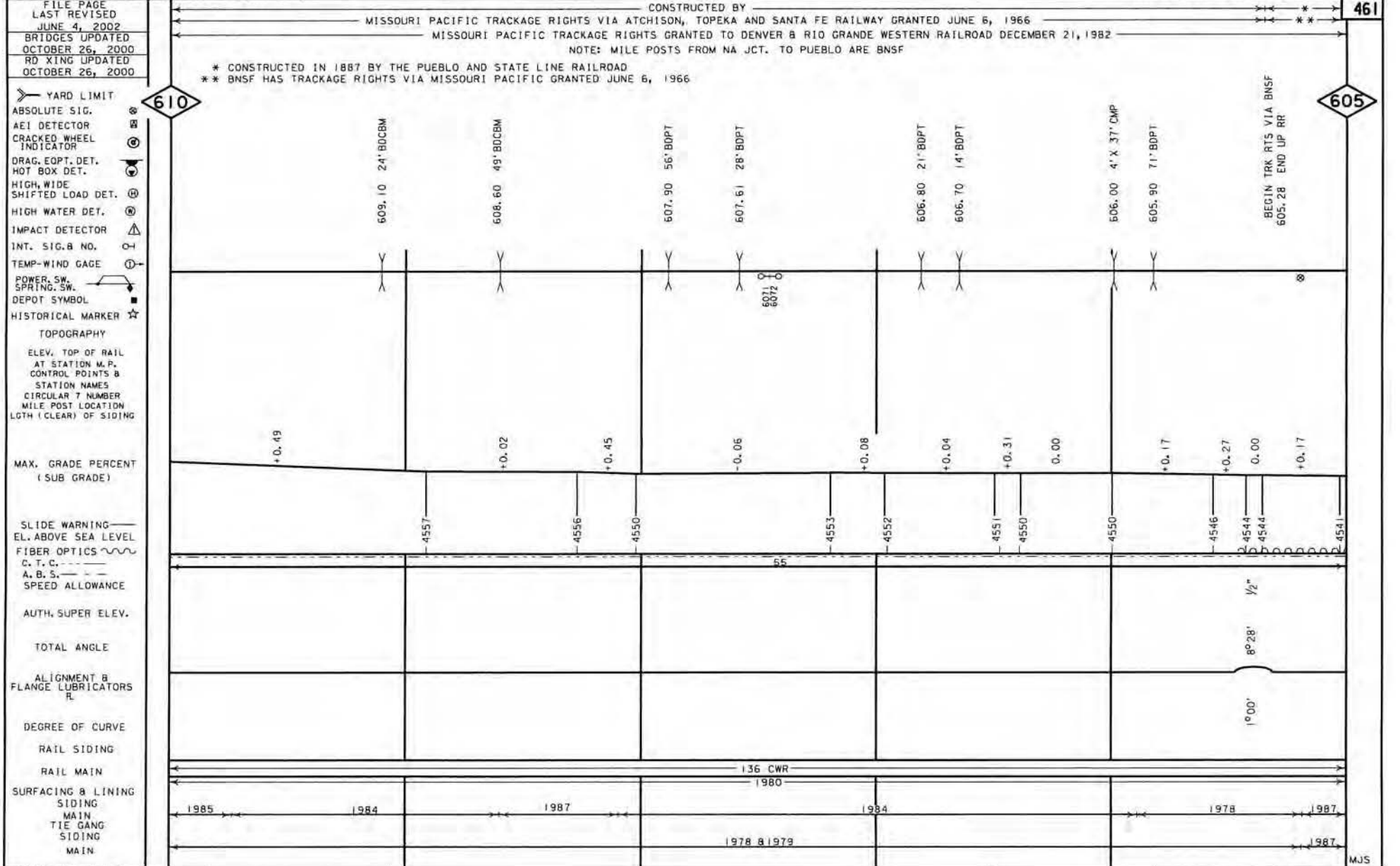
**BURLINGTON NORTHERN SANTA FE
KANSAS DIVISION - PUEBLO SUBDIVISION**

**DENVER DIVISION
TENNESSEE PASS SUBDIVISION**



**BURLINGTON NORTHERN SANTA FE
KANSAS DIVISION - PUEBLO SUBDIVISION**

**DENVER DIVISION
TENNESSEE PASS SUBDIVISION**

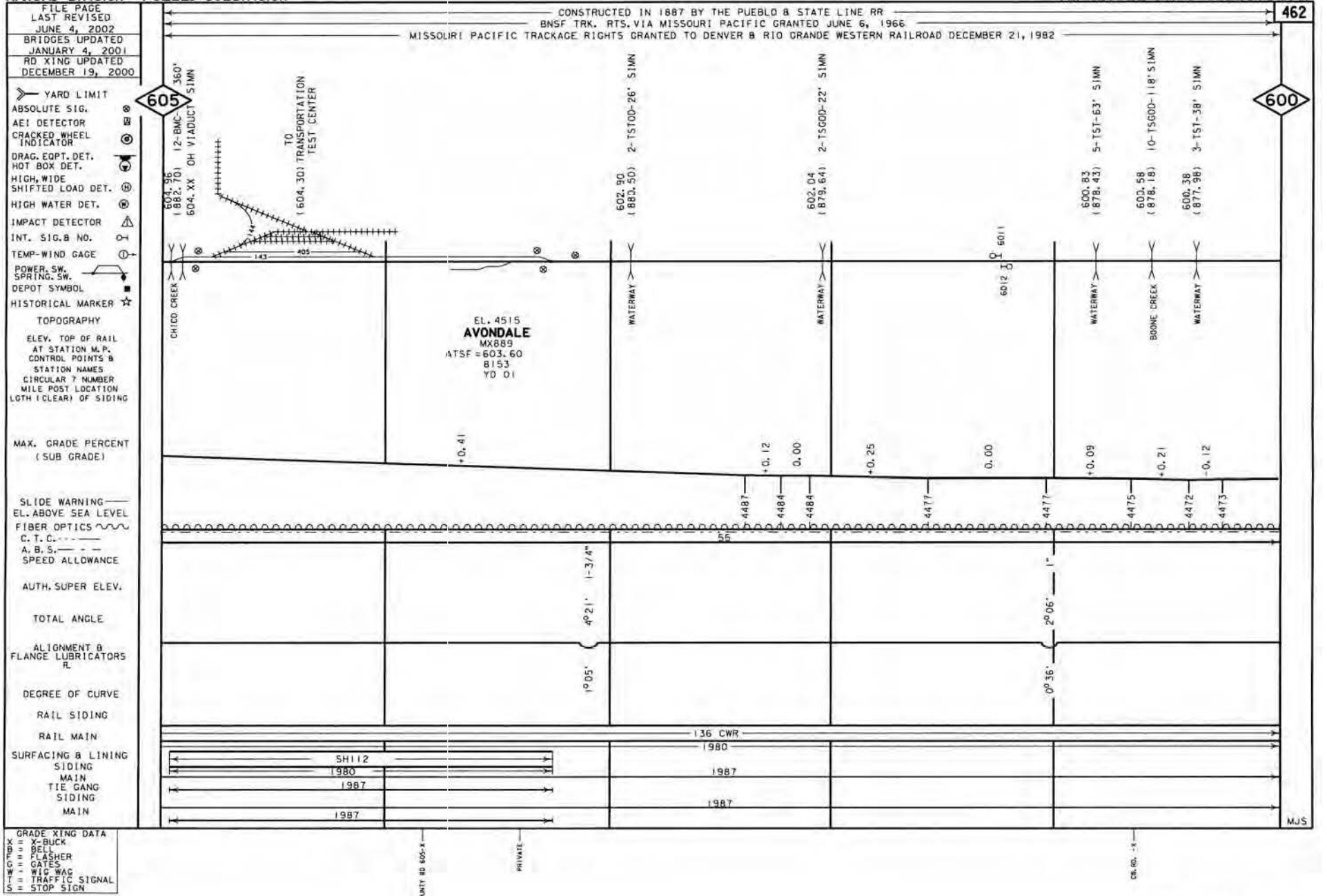


GRADE XING DATA
 = X = BUCK
 = B = BELL
 = F = FLASHER
 = G = GATES
 = W = WIG WAG
 = T = TRAFFIC SIGNAL
 = S = STOP SIGN

PRIVATE - X
 CO. RD. - X
 PRIVATE
 CO. RD. - X
 PRIVATE

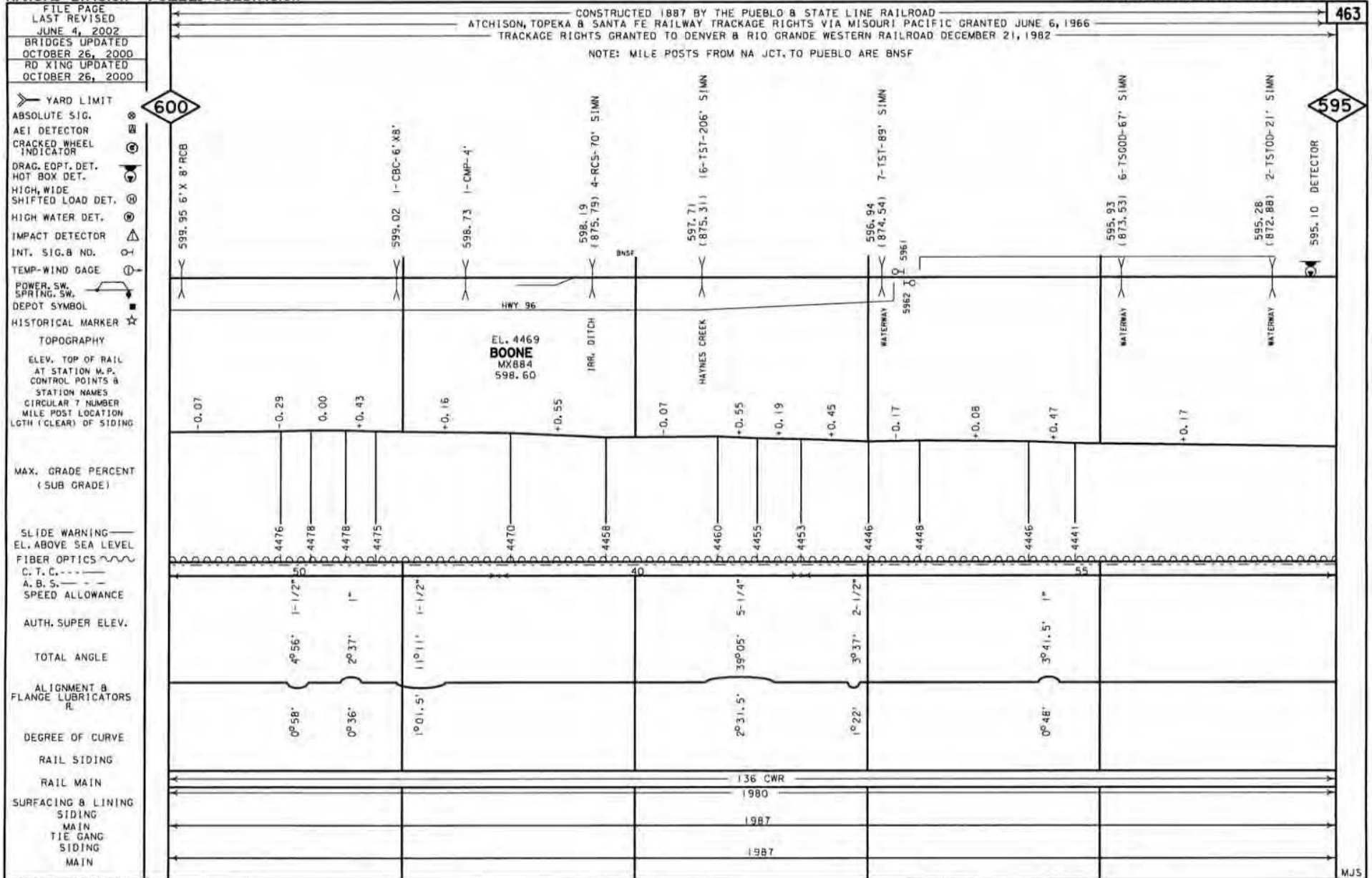
**BURLINGTON NORTHERN SANTA FE
KANSAS DIVISION - PUEBLO SUBDIVISION**

**DENVER DIVISION
TENNESSEE PASS SUBDIVISION**



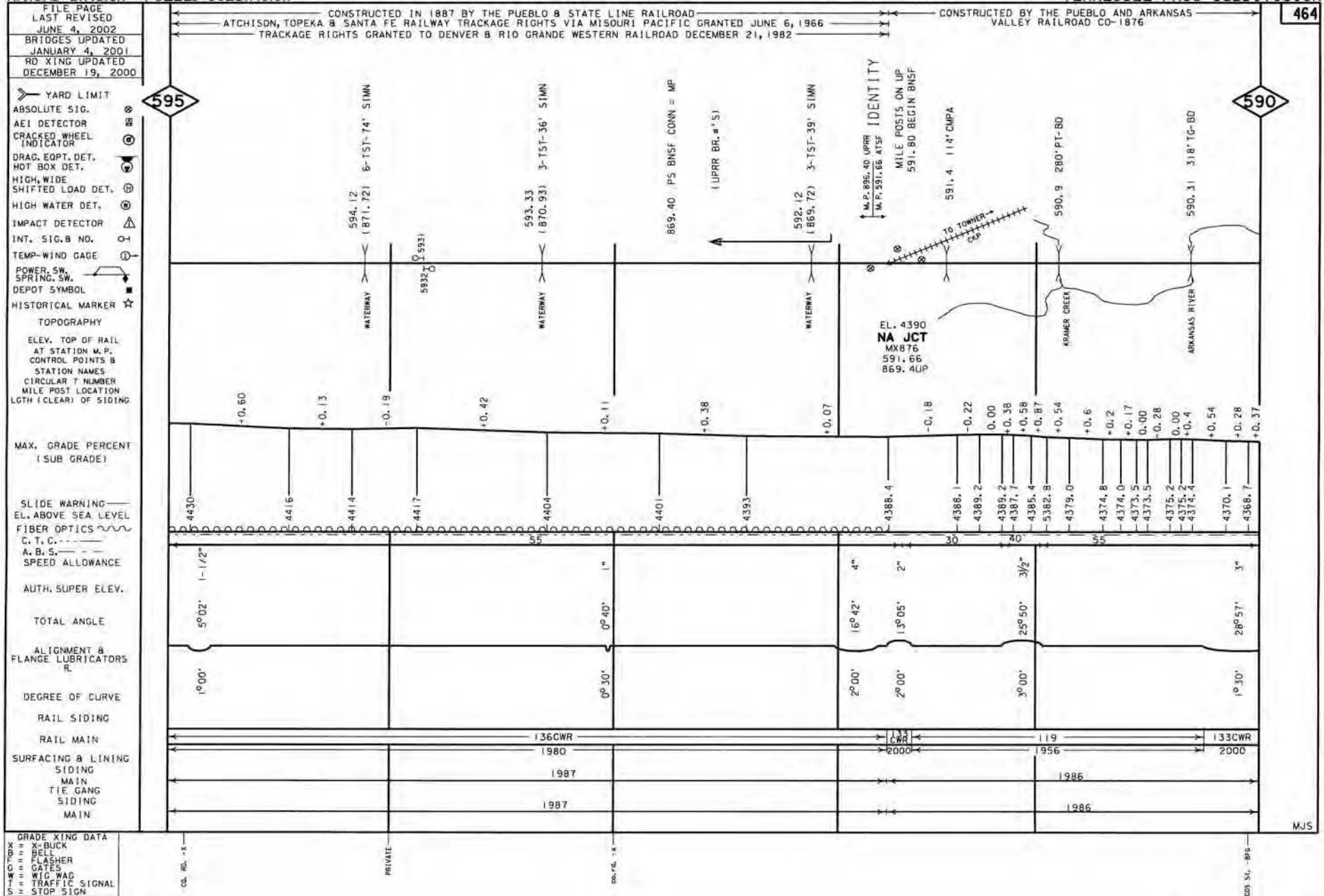
**BURLINGTON NORTHERN SANTA FE
KANSAS DIVISION - PUEBLO SUBDIVISION**

**DENVER DIVISION
TENNESSEE PASS SUBDIVISION**



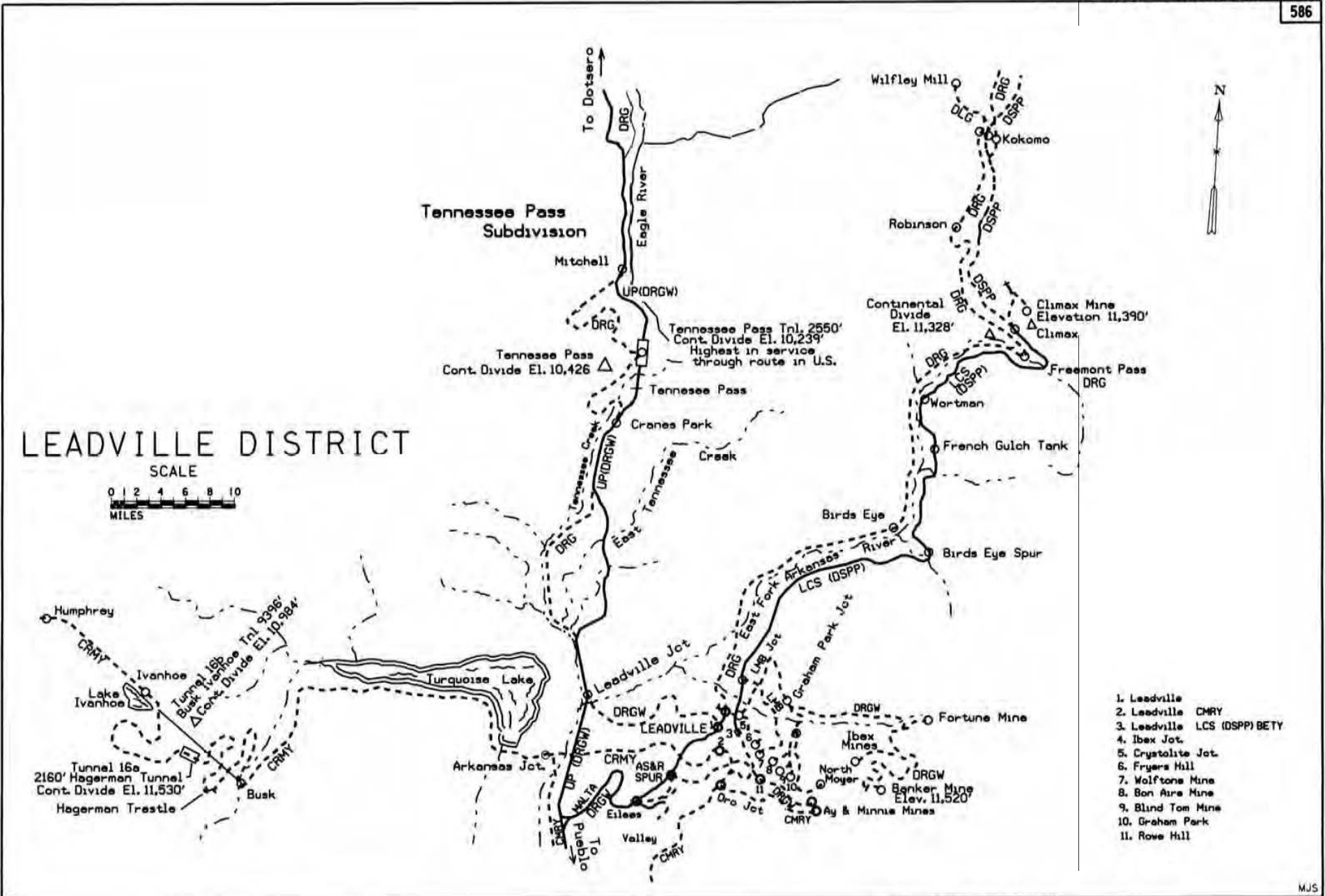
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KANSAS DIVISION - PUEBLO SUBDIVISION**

**DENVER DIVISION
TENNESSEE PASS SUBDIVISION**

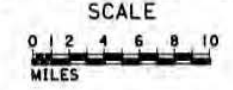


DENVER DIVISION
TENNESSEE PASS SUBDIVISION

586



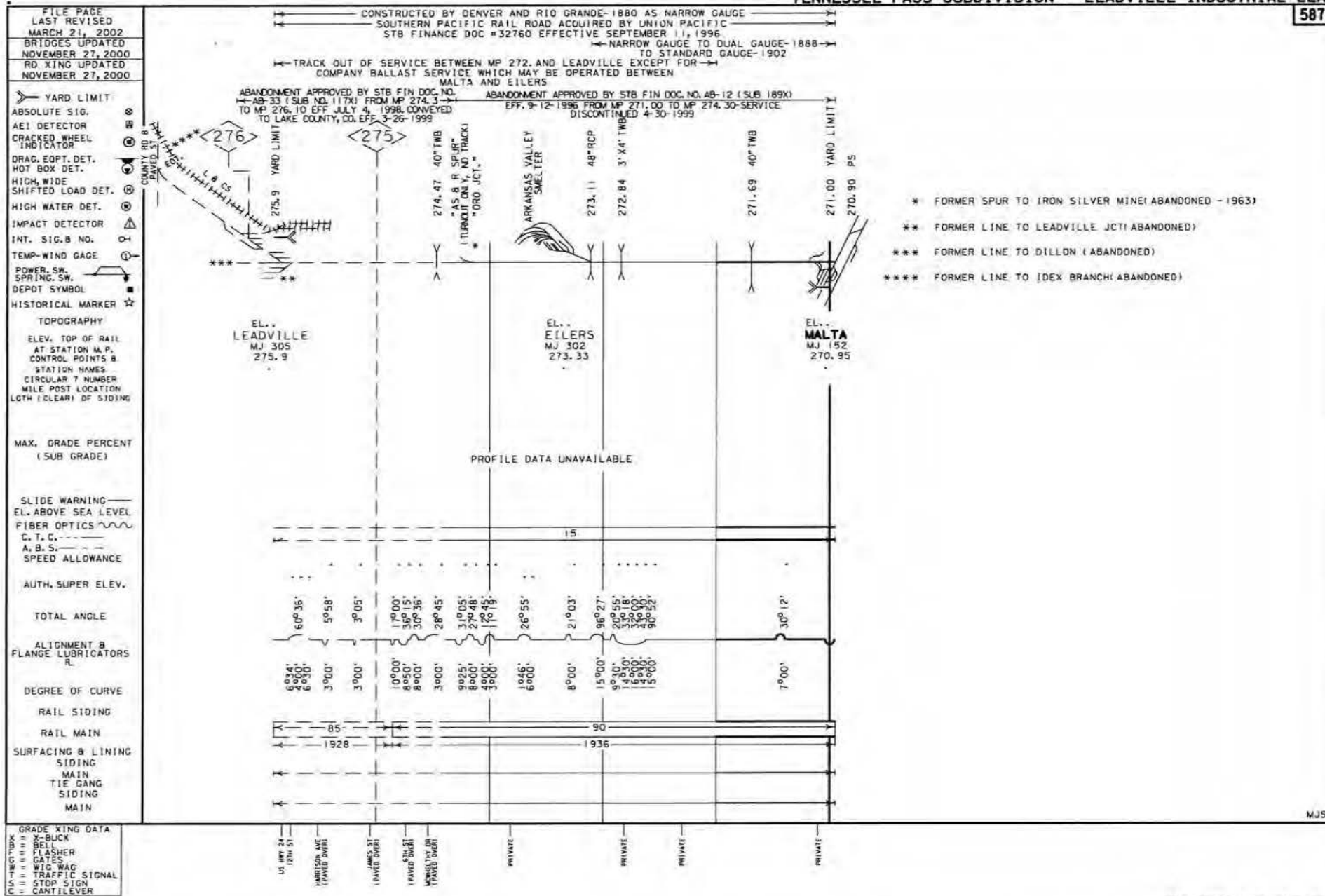
LEADVILLE DISTRICT



1. Leadville
2. Leadville CMRY
3. Leadville LCS (DSPP) BETY
4. IbeX Jct.
5. Crystalite Jct.
6. Fryers Hill
7. Wolfsons Mine
8. Bon Aire Mine
9. Blind Tom Mine
10. Graham Park
11. Rowe Hill

TENNESSEE PASS SUBDIVISION - LEADVILLE INDUSTRIAL LEAD

587



Development of Net Liquid Value (“NLV”) for The Tennessee Pass

TDC-4A	Tennessee Pass Net Liquidation Value ("NLV") Summary -- 1Q20
TDC-4B	TN Pass Main Line and Siding Miles
TDC-4C	Tennessee Pass Rail Assets Gross Salvage Value ("GSV") -- 1Q20
TDC-4D	Tennessee Pass Net Salvage Value ("GSV") For Ties -- 1Q20
TDC-4E	Tennessee Pass Tie Allocation Calculations
TDC-4F	Tennessee Pass Line Gross Salvage Value ("GSV") For Other Track Materials ("OTM") -- 1Q20
TDC-4G	Tennessee Pass Other Track Material Calculations
TDC-4H	Tennessee Pass Turnout Gross Salvage Value ("GSV") -- 1Q20
TDC-4I	Tennessee Pass Removal and Restoration Costs -- 1Q20
TDC-4J	Tennessee Pass Asset Transportation Costs -- 1Q20
TDC-4K	Tennessee Pass Asset Transportation Costs Calculations
TDC-4L	Tennessee Pass Estimated Value of Land -- 1Q20
TDC-4M	Tennessee Pass Estimated Value Per Acre Calculations
TDC-4N	TN Pass Main Line and Siding Miles--By Rail Type
TDC-4O	1Q20 Relay and Scrap Rail Wholesale Prices
TDC-4P	Tennessee Pass Rail Type Calculations
TDC-4Q	Tennessee Pass Crossing Calculations
TDC-4R	Tennessee Pass Turnout Calculations

Tennessee Pass Net Liquidation Value ("NLV") Summary -- 1Q20

<u>Item</u> (1)	<u>Source</u> (2)	<u>Amount</u> (3)
1. Relay Rail Gross Salvage Value ("GSV")	Appendix TDC-4C, Column (16), L.25	\$4,661,365
2. Relay Other Track Material ("OTM") GSV	Appendix TDC-4F, Column (3), L.68	\$1,765,305
3. Relay Turnouts GSV	Appendix TDC-4H, Column (8), L.3	<u>\$69,750</u>
4. Total Relay GSV	L.1 + L.2 + L.3	\$6,496,420
5. Reroll and Scrap Rail GSV	Appendix TDC-4C, Column (16), L.32	\$6,511,098
6. Scrap OTM GSV	Appendix TDC-4F, Column (3), L.69	\$2,798,158
7. Scrap Turnouts GSV	Appendix TDC-4H, Column (8), L.4	<u>\$75,099</u>
8. Total Reroll and Scrap GSV	L.5 + L.6 + L.7	\$9,384,355
9. Total Rail GSV	L.1 + L.5	\$11,172,463
10. Total OTM GSV	L.2 + L.6	\$4,563,463
11. Total Turnouts GSV	L.3 + L.7	<u>\$144,849</u>
12. Total Relay, Reroll and Scrap GSV	L.9 + L.10 + L.11	\$15,880,775
13. Ties Net Salvage Value	Appendix TDC-4D, Column (3), L.30	\$0
14. Total Gross Salvage Value	L.12 + L.13	\$15,880,775
15. Rail/Turnout Removal and Restoration Costs	Appendix TDC-4I, Column (3), L.33	\$5,141,725
16. Relay Marketing and Disposition Costs	L.4 x 15% 1/	\$974,463
17. Scrap Marketing and Disposition Costs	L.8 x 5% 1/	<u>\$469,218</u>
18. Total Marketing and Disposition Costs	L.16 + L.17	\$1,443,681
19. Transportation Costs	Appendix TDC-4J, Column (4), L.12	\$1,994,821
20. Total Liquidation Cost	L.15 + L.18 + L.19	\$8,580,227
21. Total Net Salvage Value ("NSV") of Track Assets	L.14 - L.20	\$7,300,548
22. Total Value of Land	Appendix TDC-4L, Column (5), L.5	\$1,535,285
23. Total Net Liquidation Value	L.21 + L.22	\$8,835,833

1/ STB Docket No. FD 36005 filed March 18, 2016, KCVN/CPRR Feeder Line Application for Towner Line, Volume I. KCVN/CPRR assumed that relay marketing would be equal to 20% and scrap marketing would be equal to 10%. V&S Railway's Opening Comments filed August 30, 2016 assumed that relay marketing would be equal to 13% and scrap marketing would be equal to 5%. It has been assumed that the Tennessee Pass Line would realize relay marketing costs equal to 15% and scrap marketing costs equal to 5%.

TN Pass Main Line and Siding Miles

Segment (1)	County (2)	Active/ Inactive (Owner) (3)	Main Line						Siding Miles 7/ (9)	Total Miles 8/ (10)	Included In NLV			
			Beginning		Ending		Miles 6/ (8)	Y/N 9/ (11)			Main Line 10/ (12)	Siding 11/ (13)	Total 12/ (14)	
			Milepost (4)	Source 1/ (5)	Milepost (6)	Source 1/ (7)								
1. Pueblo, CO to Canon City, CO	Pueblo/Fremont	Active (UP)	118.20	Page 456	160.15	Page 443 2/	41.95	13.85	55.80	Yes	41.95	13.85	55.80	
2. Canon City, CO to Parkdale, CO	Fremont	Active (Royal Gorge)	160.15	Page 443 2/	171.90	Page 443 2/	11.75	4.22	15.97	No	0.00	0.00	0.00	
3. Parkdale, CO to Sage, CO	Fremont/Chaffee/Lake/Eagle	Inactive (UP)	171.90	Page 423 3/	335.00	Page 410 4/	163.10	40.16	203.26	Yes	163.10	40.16	203.26	
3a. Malta, CO to Leadville, CO Spur	Lake	Inactive (UP)	271.00	Page 423 3/	276.10	Page 587 5/	5.10	0.00	5.10	Yes	5.10	0.00	5.10	
4. Sage, CO to Dotsero, CO	Eagle	Active (UP)	335.00	Page 410 4/	341.90	Page 408	6.90	0.00	6.90	Yes	6.90	0.00	6.90	
5. Total Active Miles 13/							60.60	18.07	78.67		48.85	13.85	62.70	
6. Total Inactive Miles 14/							<u>168.20</u>	<u>40.16</u>	<u>208.36</u>		<u>168.20</u>	<u>40.16</u>	<u>208.36</u>	
7. Total Miles 15/							228.80	58.23	287.03		217.05	54.01	271.06	

1/ All milepost footnotes are based on the Tennessee Pass portion of the UP Denver 2002 Track Chart. See "Appendix TDC-3.pdf".

2/ Page 443 of UP Denver 2002 track chart identifies the segment which was "sold by Union Pacific to Royal Gorge Express (RGX), Rock and Rail (R&R) and Canon City and Royal Gorge Railroad (CCRG) per agreement XXXXXX, Dated July 1, 1998 from MP 171.90 to MP 160.15-Union Pacific retains trackage rights per agreement XXXXXX, dated July 3, 1998 from MP 171.90 to MP 160.15."

3/ Page 423 of UP Denver 2002 track chart notes state that "service discontinued between Parkdale and Malta, CO...from MP 171.90 to MP 271.00."

4/ Page 410 of UP Denver 2002 track chart notes state that "service discontinued between Sage and Leadville, CO...from MP 335.0 to MP 276.1."

5/ Page 587 of UP Denver 2002 track chart identifies the Leadville Spur and states that "abandonment approved by STB...from MP 271.00 to MP 274.30-service discontinued 4-30-1999." The notes also state that "abandonment approved by STB from MP 274.3 to MP 276.1 eff July 4, 1998. Conveyed to Lake County, CO eff 3-26-1999."

6/ Column (4) - Column (6).

7/ See Appendix TDC-4P.

8/ Column (8) + Column (9).

9/ Based on owner in column (3). Only including segments owned by UP.

10/ Column (8) main line miles if segment is included.

11/ Column (9) siding miles if segment is included.

12/ Column (12) + Column (13).

13/ Sum of Active Miles.

14/ Sum of Inactive Miles.

15/ Active Miles + Inactive Miles.

Tennessee Pass Rail Assets Gross Salvage Value ("GSV") -- 1Q20

<u>Item</u>	<u>Source</u>	<u>85 JT</u>	<u>90 CWR</u>	<u>90 JT</u>	<u>100 CWR</u>	<u>106 CWR</u>	<u>110 CWR</u>	<u>112 CWR</u>	<u>115 CWR</u>	<u>119 CWR</u>	<u>131 CWR</u>	<u>132 CWR</u>	<u>136 CWR</u>	<u>136 JTD</u>	<u>Total 12/</u>
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
1. Total Main Track Miles	1/	1.20	0.00	3.90	0.00	0.15	0.00	8.15	61.58	0.75	8.50	1.40	123.97	7.45	217.05
2. Total Sidings Miles	2/	<u>0.00</u>	<u>1.20</u>	<u>0.00</u>	<u>2.35</u>	<u>0.00</u>	<u>7.12</u>	<u>3.75</u>	<u>20.19</u>	<u>0.00</u>	<u>7.15</u>	<u>0.00</u>	<u>12.25</u>	<u>0.00</u>	<u>54.01</u>
3. Total Rail Miles	L.1 + L.2	1.20	1.20	3.90	2.35	0.15	7.12	11.90	81.77	0.75	15.65	1.40	136.22	7.45	271.06
4. Relay Fit Miles	3/	0.00	0.00	0.00	1.40	0.00	1.35	3.91	20.14	0.00	1.91	0.00	29.68	0.00	58.39
5. Reroll Miles	4/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6. Scrap Miles	5/	<u>1.20</u>	<u>1.20</u>	<u>3.90</u>	<u>0.95</u>	<u>0.15</u>	<u>5.77</u>	<u>7.99</u>	<u>61.63</u>	<u>0.75</u>	<u>13.74</u>	<u>1.40</u>	<u>106.54</u>	<u>7.45</u>	<u>212.67</u>
7. Total Reroll and Scrap Miles	L.5 + L.6	1.20	1.20	3.90	0.95	0.15	5.77	7.99	61.63	0.75	13.74	1.40	106.54	7.45	212.67
8. Total Rail Miles	L.4 + L.7	1.20	1.20	3.90	2.35	0.15	7.12	11.90	81.77	0.75	15.65	1.40	136.22	7.45	271.06
9. Pounds per Yard	6/	85.00	90.00	90.00	100.00	106.00	110.00	112.00	115.00	119.00	131.00	132.00	136.00	136.00	-----
10. Rails Per Yard	7/	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	-----
11. Yards Per Mile	5,280 ft. per mile ÷ 3 ft. per yard	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760	-----
12. Pounds per Mile	L.9 x L.10 x L.11	299,200	316,800	316,800	352,000	373,120	387,200	394,240	404,800	418,880	461,120	464,640	478,720	478,720	-----
13. Tons Per Mile	L.12 ÷ 2,000 lbs.	149.60	158.40	158.40	176.00	186.56	193.60	197.12	202.40	209.44	230.56	232.32	239.36	239.36	-----
14. Relay Fit Tons	L.4 x L.13	0.00	0.00	0.00	245.86	0.00	261.43	771.03	4,077.15	0.00	440.18	0.00	7,104.33	0.00	12,899.98
15. Percent of Total Tons	L.14 ÷ L.20	0.00%	0.00%	0.00%	0.41%	0.00%	0.43%	1.28%	6.77%	0.00%	0.73%	0.00%	11.80%	0.00%	21.43%
16. Reroll Tons	L.5 x L.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17. Scrap Tons	L.6 x L.13	<u>179.52</u>	<u>190.08</u>	<u>617.76</u>	<u>167.74</u>	<u>27.98</u>	<u>1,117.00</u>	<u>1,574.70</u>	<u>12,473.10</u>	<u>157.08</u>	<u>3,168.09</u>	<u>325.25</u>	<u>25,501.29</u>	<u>1,783.23</u>	<u>47,282.82</u>
18. Total Reroll and Scrap Tons	L.16 + L.17	179.52	190.08	617.76	167.74	27.98	1,117.00	1,574.70	12,473.10	157.08	3,168.09	325.25	25,501.29	1,783.23	47,282.82
19. Percent of Total Tons	L.18 ÷ L.20	0.30%	0.32%	1.03%	0.28%	0.05%	1.86%	2.62%	20.73%	0.26%	5.26%	0.54%	42.37%	2.96%	78.57%
20. Total Tons By Rail Type	L.14 + L.18	179.52	190.08	617.76	413.60	27.98	1,378.43	2,345.73	16,550.25	157.08	3,608.27	325.25	32,605.62	1,783.23	60,182.80
21. Percent of Total Tons	L.15 + L.19	0.30%	0.32%	1.03%	0.69%	0.05%	2.29%	3.90%	27.50%	0.26%	6.00%	0.54%	54.18%	2.96%	100.00%
22. Reusable Percentage	8/	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%
23. Relay Fit Reusable Tons	L.14 x L.22	0.00	0.00	0.00	238.48	0.00	253.59	747.90	3,954.84	0.00	426.97	0.00	6,891.20	0.00	12,512.98
24. Relay Fit Unit Price Per Ton	9/	<u>\$170.00</u>	<u>\$225.00</u>	<u>\$170.00</u>	<u>\$225.00</u>	<u>\$225.00</u>	<u>\$225.00</u>	<u>\$225.00</u>	<u>\$441.67</u>	<u>\$441.67</u>	<u>\$255.00</u>	<u>\$255.00</u>	<u>\$366.67</u>	<u>\$363.33</u>	-----
25. Relay Fit GSV	L.23 x L.24	\$0	\$0	\$0	\$53,658	\$0	\$57,058	\$168,278	\$1,746,721	\$0	\$108,877	\$0	\$2,526,773	\$0	\$4,661,365
26. Reroll Reusable Tons	L.16 x L.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27. Reroll Price Per Ton	10/	<u>\$174.11</u>	<u>\$174.11</u>	<u>\$174.11</u>	<u>\$174.11</u>	<u>\$174.11</u>	<u>\$174.11</u>	<u>\$174.11</u>	<u>\$174.11</u>	<u>\$174.11</u>	<u>\$174.11</u>	<u>\$174.11</u>	<u>\$174.11</u>	<u>\$174.11</u>	-----
28. Reroll GSV	L.26 x L.27	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
29. Scrap Reusable Tons	L.17 x L.22	174.13	184.38	599.23	162.71	27.14	1,083.49	1,527.46	12,098.91	152.37	3,073.05	315.49	24,736.25	1,729.73	45,864.34
30. Scrap Price Per Ton	11/	<u>\$141.96</u>	<u>\$141.96</u>	<u>\$141.96</u>	<u>\$141.96</u>	<u>\$141.96</u>	<u>\$141.96</u>	<u>\$141.96</u>	<u>\$141.96</u>	<u>\$141.96</u>	<u>\$141.96</u>	<u>\$141.96</u>	<u>\$141.96</u>	<u>\$141.96</u>	-----
31. Scrap GSV	L.29 x L.30	\$24,720	\$26,175	\$85,069	\$23,099	\$3,853	\$153,817	\$216,845	\$1,717,613	\$21,631	\$436,263	\$44,788	\$3,511,664	\$245,560	\$6,511,098
32. Total Reroll and Scrap GSV	L.28 + L.31	\$24,720	\$26,175	\$85,069	\$23,099	\$3,853	\$153,817	\$216,845	\$1,717,613	\$21,631	\$436,263	\$44,788	\$3,511,664	\$245,560	\$6,511,098
33. Total Reusable Tons	L.23 + L.26 + L.29	174.13	184.38	599.23	401.19	27.14	1,337.08	2,275.36	16,053.75	152.37	3,500.02	315.49	31,627.45	1,729.73	58,377.32
34. Total Rail GSV	L.25 + L.32	\$24,720	\$26,175	\$85,069	\$76,757	\$3,853	\$210,875	\$385,122	\$3,464,334	\$21,631	\$545,141	\$44,788	\$6,038,437	\$245,560	\$11,172,463

Tennessee Pass Net Salvage Value ("NSV") For Ties -- 1Q20

<u>Item</u> (1)	<u>Source</u> (2)	<u>Amount</u> (3)
1. Total Miles	Appendix TDC-4C, Column (16), L.3	271.06
2. Ties Per Mile	1/	<u>3,249</u>
3. Total Ties	L.1 x L.2	880,736
4. Relay Ties Per Mile	L.6 ÷ L.1	8
5. Relay Percentage	2/	0.25%
6. Total Relay Ties	L.3 x L.5	2,241
7. Unit Price Per Relay Tie	3/	<u>\$7.50</u>
8. Total Relay Ties Gross Salvage Value ("GSV")	L.6 x L.7	\$16,808
9. Landscape #1 Ties Per Mile	L.11 ÷ L.1	101
10. Landscape #1 Ties Percentage	2/	3.12%
11. Total Landscape #1 Ties	L.3 x L.10	27,503
12. Unit Price Per Landscape #1 Tie	3/	<u>(\$1.50)</u>
13. Total Landscape #1 Ties GSV	L.11 x L.12	(\$41,255)
14. Landscape #2 Ties Per Mile	L.16 ÷ L.1	101
15. Landscape #2 Ties Percentage	2/	3.12%
16. Total Landscape #2 Ties	L.3 x L.15	27,503
17. Unit Price Per Landscape #2 Tie	3/	<u>(\$1.50)</u>
18. Total Landscape #2 GSV	L.16 x L.17	(\$41,255)
19. Scrap Ties Per Mile	L.21 ÷ L.1	3,038
20. Scrap Percentage	2/	93.50%
21. Total Scrap Ties	L.3 x L.20	823,489
22. Unit Price Per Scrap Tie	3/	<u>(\$10.00)</u>
23. Total Scrap Ties GSV	L.21 x L.22	(\$8,234,890)
24. Total Ties GSV	L.8 + L.13 + L.18 + L.23	(\$8,300,592)
25. Estimated Tie Removal Cost Per Tie	4/	\$2.00
26. RS Means Index	5/	1.15955
27. 1Q20 Cost Per Tie	L.25 x L.26	<u>\$2.32</u>
28. Estimated Tie Removal Cost	L.3 x L.27	\$2,042,515
29. Total Ties NSV	L.24 - L.28	(\$10,343,107)
30. STB NSV For Ties 6/	L.29 or Zero	\$0

1/ Crossties are typically laid every 19.5 inches, which equates to approximately 3,249 crossties per mile [(5,280 ft/mile x 12 in/ft) ÷ 19.5 in]. See 'Railway Tie Association_FAQ_Tie Spacing.pdf'

Tennessee Pass Net Salvage Value ("NSV") For Ties -- 1Q20

<u>Item</u>	<u>Source</u>	<u>Amount</u>
(1)	(2)	(3)
2/ Based on track miles, 23.13%, or 62.7 miles, of the Tennessee Pass is currently being operated by UP. Of this currently operated segment, it has been assumed that 1.1% of the ties would be classified as relay, 13.5% would be classified as landscape #1, 13.5% would be classified as landscape #2, and 71.9% would be classified as scrap. In addition to these ties, there are ties on the 76.87%, or 208.36 miles, that are non-operational. Of these ties, 0.0% have been classified as relay, 0.0% have been classified as landscape #1, 0.0% have been classified as landscape #2, and 100.0% have been classified as scrap. These distributions result in 0.25% of the Tennessee Pass ties being classified as relay, 3.12% being classified as landscape #1, 3.12% as landscape #2, and 93.5% being classified as scrap.		
3/ Average of quotes from Harmer Steel and Progress Rail received January 16, 2020.		
4/ STB Docket No. FD 36005 filed March 18, 2016, KCVN/CPRR Feeder Line Application for Towner Line, Volume I. KCVN/CPRR assumed that tie removal would be equal to \$2.00 per tie.		
5/ RS Means Historical Construction Cost Index from 1Q2016 to 1Q2020.		
6/ Based on STB proceedings, should the total ties NLV be less than zero it is assumed that the railroad would not go through the process of removing and disposing of the ties and the NLV is assumed to be zero.		

Tennessee Pass Tie Allocation Calculations

<u>Item</u> (1)	<u>Source</u> (2)	<u>Allocation Percent</u> (3)	<u>Amount</u> (4)
1. Active UP Miles	Appendix TDC-4B, L.5, Column (14).		62.70
2. Inactive UP Miles	Appendix TDC-4B, L.6, Column (14).		<u>208.36</u>
3. Total UP Miles	L.1 + L.2		271.06
4. Percent of UP Total Miles--Active	L.1 ÷ L.3		23.13%
5. Percent of UP Total Miles--Inactive	L.2 ÷ L.3		76.87%
6. <u>Tie Classification for Active Track 1/</u>			
7. Relay	L.4, Column (4) x L.7, Column (3)	1.1%	0.25%
8. Landscape 1	L.4, Column (4) x L.8, Column (3)	13.5%	3.12%
9. Landscape 2	L.4, Column (4) x L.9, Column (3)	13.5%	3.12%
10. Scrap	L.4, Column (4) x L.10, Column (3)	71.9%	<u>16.63%</u>
11. Total	Sum of L.7 through L.10.		23.13%
12. <u>Tie Classification for Inactive Track 2/</u>			
13. Relay	L.5, Column (4) x L.13, Column (3)	0%	0.00%
14. Landscape 1	L.5, Column (4) x L.14, Column (3)	0.0%	0.00%
15. Landscape 2	L.5, Column (4) x L.15, Column (3)	0.0%	0.00%
16. Scrap	L.5, Column (4) x L.16, Column (3)	100%	<u>76.87%</u>
17. Total	Sum of L.13 through L.16.		76.87%
18. <u>Total Tie Classification</u>			
19. Relay	L.7 + L.13		0.25%
20. Landscape 1	L.8 + L.14		3.12%
21. Landscape 2	L.9 + L.15		3.12%
22. Scrap	L.10 + L.16		<u>93.50%</u>
23. Total	Sum of L.19 through L.22.		100.0%

1/ Tie allocation percent for active track is based on the 2018 Railroad Tie Survey, which is based on surveys of railroads. The 2018 Tie Survey states that 1.1% of used ties are reused by railroads (reuse by same RR; reuse by other RR); 27.0% of ties are used for landscape purposes (reuse commercial landscape; reuse agriculture; reuse residential landscape); and 71.9% of ties are scrap (other; incineration; recycle combustion (for energy); recycle gasify (for energy); and landfill). It has been assumed that the 27.0% for landscape ties is split evenly between landscape 1 and landscape 2. See "2018 Railroad Ties Survey.pdf".

2/ Tie allocation percent for inactive track is based on the 2018 Railroad Tie Survey. As can be seen above, railroads categorize over 70% of ties being replaced as scrap. Given that the inactive portion of the Tennessee Pass has not seen a train in over 20 years, it has been assumed that 100% of the ties will be scrap along the inactive portion.

**Tennessee Pass Gross Salvage Value ("GSV")
For Other Track Materials ("OTM") -- 1Q20**

<u>Item</u> (1)	<u>Source</u> (2)	<u>Amount</u> (3)
<u>A. Tie Plates</u>		
1. Relay Tie Plates Miles	1/	58.39
2. Relay Tie Plates Per Mile	2/	<u>6,498</u>
3. Total Relay Tie Plates	L.1 x L.2	379,461
4. Reusable Percentage	3/	97%
5. Total Reusable Relay Tie Plates	L.3 x L.4	368,077
6. Unit Price Per Relay Tie Plate	4/	<u>\$4.42</u>
7. Total Relay Tie Plates GSV	L.5 x L.6	\$1,625,673
8. Scrap Tie Plates Miles	5/	212.67
9. Scrap Tie Tons Per Mile	6/	<u>81.23</u>
10. Total Scrap Tie Plates Tons	L.8 x L.9	17,275
11. Reusable Percentage	7/	95%
12. Total Reusable Scrap Tie Plates Tons	L.10 x L.11	16,411
13. Unit Price Per Scrap Ton	8/	<u>\$150.89</u>
14. Total Scrap Tie Plates GSV	L.12 x L.13	\$2,476,303
15. Total Tie Plates GSV	L.7 + L.14	\$4,101,976
<u>B. Joint Bars</u>		
16. Relay Joint Bars Miles	9/	0.00
17. Relay Joint Bars Per Mile	10/	<u>270.8</u>
18. Total Relay Joint Bars	L.16 x L.17	0
19. Reusable Percentage	11/	97%
20. Total Reusable Relay Joint Bars	L.18 x L.19	0
21. Unit Price Per Relay Joint Bar	4/	<u>\$37.33</u>
22. Total Relay Joint Bars GSV	L.20 x L.21	\$0
23. Scrap Joint Bars Miles	12/	12.55
24. Scrap Joint Bars Tons Per Mile	13/	<u>14.42</u>
25. Total Scrap Joint Bars Tons	L.23 x L.24	181
26. Reusable Percentage	14/	95%
27. Total Reusable Scrap Joint Bars Tons	L.25 x L.26	172
28. Unit Price Per Scrap Ton	8/	<u>\$150.89</u>
29. Total Scrap Joint Bars GSV	L.27 x L.28	\$25,954
30. Total Joint Bars GSV	L.22 + L.29	\$25,954
<u>C. Relay Anchors</u>		
31. Relay Rail Anchors Welded Miles	15/	58.39
32. Relay Rail Anchors Welded Per Mile	16/	<u>6,498</u>
33. Total Relay Rail Anchors Welded	L.31 x L.32	379,435

**Tennessee Pass Gross Salvage Value ("GSV")
For Other Track Materials ("OTM") -- 1Q20**

<u>Item</u> (1)	<u>Source</u> (2)	<u>Amount</u> (3)
34. Reusable Percentage	17/	80%
35. Total Reusable Relay Rail Anchors Welded	L.33 x L.34	303,548
36. Unit Price Per Relay Anchor	4/	<u>\$0.46</u>
37. Total Relay Rail Anchors Welded GSV	L.35 x L.36	\$139,632
38. Relay Rail Anchors Jointed Miles	9/	0.00
39. Relay Rail Anchors Jointed Per Mile	18/	<u>2,708</u>
40. Total Relay Rail Anchors Jointed	L.38 x L.39	0
41. Reusable Percentage	17/	80%
42. Total Reusable Relay Rail Anchors Jointed	L.40 x L.41	0
43. Unit Price Per Relay Anchor	4/	<u>\$0.46</u>
44. Total Relay Rail Anchors Jointed GSV	L.42 x L.43	\$0
45. Total Relay Rail Anchors GSV	L.37 + L.44	\$139,632
46. Scrap Rail Anchor Miles	5/	212.67
47. Scrap Tons of Anchors Per Mile	19/	<u>4.21</u>
48. Total Scrap Rail Anchors Tons	L.46 x L.47	895
49. Reusable Percentage	20/	80%
50. Total Reusable Rail Anchor Tons	L.48 x L.49	716
51. Unit Price Per Scrap Ton	8/	<u>\$150.89</u>
52. Total Scrap Rail Anchors Welded GSV	L.50 x L.51	\$108,039
53. Total Rail Anchors GSV	L.45 + L.52	\$247,671
<u>D. Spikes</u>		
54. Scrap Spike Miles	21/	271.06
55. Scrap Spike Tons Per Mile	22/	<u>4.36</u>
56. Total Scrap Spike Tons	L.54 x L.55	1,183
57. Reusable Percentage	23/	80%
58. Total Reusable Scrap Spikes Tons	L.56 x L.57	946
59. Unit Price Per Scrap Ton	8/	<u>\$150.89</u>
60. Total Scrap Spikes GSV	L.58 x L.59	\$142,745
<u>E. Bolts & Washers</u>		
61. Scrap Bolts & Washers Miles	21/	271.06
62. Scrap Bolts & Washers Tons Per Mile	24/	<u>1.38</u>
63. Total Scrap Bolt & Washers Tons	L.61 x L.62	374
64. Reusable Percentage	25/	80%
65. Total Reusable Scrap Bolts & Washers Tons	L.63 x L.64	299
66. Unit Price Per Scrap Ton	8/	<u>\$150.89</u>
67. Total Scrap Bolts & Washers GSV	L.65 x L.66	\$45,117

**Tennessee Pass Gross Salvage Value ("GSV")
For Other Track Materials ("OTM") -- 1Q20**

<u>Item</u> (1)	<u>Source</u> (2)	<u>Amount</u> (3)
F. Total		
68. Total Relay OTM GSV	L.7 + L.22 + L.45	\$1,765,305
69. Total Scrap OTM GSV	L.14 + L.29 + L.52 + L.60 + L.67	<u>\$2,798,158</u>
70. Total OTM GSV	L.68 + L.69	\$4,563,463

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- 1/ Appendix TDC-4C, Column (16), L.4
 - 2/ There are two tie plates per crosstie. According to the Railway Tie Association, crossties are typically laid every 19.5 inches. (5,280 ft. per mile x 12 in. per ft.) ÷ 19.5 in. between ties equals 3,249 crossties per mile and 2 crosstie plates per crosstie equals 6,498 tie plates per mile. See 'Railway Tie Association_FAQ_Tie Spacing.pdf'
 - 3/ STB Docket No. FD 36005 filed March 18, 2016, KCVN/CPRR Feeder Line Application for Towner Line, Volume I. Both KCVN/CPRR and V&S Railway assumed that 97 percent of Relay tie plates would be recovered.
 - 4/ Average of quotes from Harmer Steel, LB Foster, and Progress Rail received January 16, 2020.
 - 5/ Appendix TDC-4C, Column (16), L.7
 - 6/ Calculated based on a weighted average tie plate weight of 25.0 lbs. per tie plate and 6,498 tie plates per mile. [6,498 tie plates per mile x 25.0 lbs. per tie plate] ÷ 2000.0 lbs. per ton equals 81.23 tons per mile.
 - 7/ STB Docket No. FD 36005 filed March 18, 2016, KCVN/CPRR Feeder Line Application for Towner Line, Volume I. Both KCVN/CPRR and V&S Railway assumed that 95 percent of scrap tie plates would be recovered.
 - 8/ Average of quotes from Harmer Steel, LB Foster, and Progress Rail received January 16, 2020 was equal to \$169 per gross ton. Converted to price per net ton results in a scrap price of \$150.89 per net ton (\$169 x [2,000 lbs. per net ton ÷ 2,240 lbs. per gross ton]).
 - 9/ Appendix TDC-4C, Column (3), L.4 + Appendix TDC-4C, Column (5), L.4 + Appendix TDC-4C, Column (15), L.4
 - 10/ One joint bar is necessary for each side of rail per joint, joints are necessary to connect the rail section every 39 feet. [5,280 ft. per mile ÷ 39.0 ft. per rail section] x 2.0 rails per section equals 270.8.
 - 11/ STB Docket No. FD 36005 filed March 18, 2016, KCVN/CPRR Feeder Line Application for Towner Line, Volume I. Both KCVN/CPRR and V&S Railway assumed that 97 percent of Relay joint bars would be recovered.
 - 12/ Appendix TDC-4C, Column (3), L.7 + Appendix TDC-4C, Column (5), L.7 + Appendix TDC-4C, Column (15), L.7
 - 13/ Appendix TDC-4G, Column (16), L.16
 - 14/ STB Docket No. FD 36005 filed March 18, 2016, KCVN/CPRR Feeder Line Application for Towner Line, Volume I. Both KCVN/CPRR and V&S Railway assumed that 95 percent of scrap joint bars would be recovered.
 - 15/ Appendix TDC-4C, Column (4), L.4 + Appendix TDC-4C, Column (6), L.4 through Column (14), L.4
 - 16/ Calculated based on the assumption that CWR will need 24 anchors per 39 foot section of rail.
 - 17/ STB Docket No. FD 36005 filed March 18, 2016, KCVN/CPRR Feeder Line Application for Towner Line, Volume I. Both KCVN/CPRR and V&S Railway assumed that 80 percent of relay rail anchors would be recovered.

**Tennessee Pass Gross Salvage Value ("GSV")
For Other Track Materials ("OTM") -- 1Q20**

<u>Item</u> (1)	<u>Source</u> (2)	<u>Amount</u> (3)
18/	Calculated based on the assumption that CWR will need 10 anchors per 39 foot section of rail.	
19/	Calculated based on anchor weight of 1.88 lbs. per anchor and an assumed 16 anchors per 39 foot section of rail.	
20/	STB Docket No. FD 36005 filed March 18, 2016, KCVN/CPRR Feeder Line Application for Towner Line, Volume I. Both KCVN/CPRR and V&S Railway assumed that 80 percent of scrap rail anchors would be recovered.	
21/	Appendix TDC-4C, Column (16), L.3	
22/	Calculated based on a spike keg for 5/8 x 6 inch spikes with a keg weight of 200 lbs. and an assumed 43.64 spike kegs per mile of rail.	
23/	STB Docket No. FD 36005 filed March 18, 2016, KCVN/CPRR Feeder Line Application for Towner Line, Volume I. Both KCVN/CPRR and V&S Railway assumed that 80 percent of scrap spike tons would be recovered.	
24/	Calculated based on a bolt keg for 1 x 5 1/4 inch bolts with a keg weight of 200 lbs. and an assumed 13.8 bolt kegs per mile of rail.	
25/	STB Docket No. FD 36005 filed March 18, 2016, KCVN/CPRR Feeder Line Application for Towner Line, Volume I. Both KCVN/CPRR and V&S Railway assumed that 80 percent of scrap bolt and washer tons would be recovered.	

Tennessee Pass Other Track Material Calculations

Item (1)	Source (2)	85 JT (3)	90 CWR (4)	90 JT (5)	100 CWR (6)	106 CWR (7)	110 CWR (8)	112 CWR (9)	115 CWR (10)	119 CWR (11)	131 CWR (12)	132 CWR (13)	136 CWR (14)	136 JTD (15)	Total (16)
1. Feet Per Mile	Given	5,280	5,280	5,280	5,280	5,280	5,280	5,280	5,280	5,280	5,280	5,280	5,280	5,280	5,280
2. Inches Per Feet	Given	12	12	12	12	12	12	12	12	12	12	12	12	12	12
3. Feet Per Rail Section	Given	39	39	39	39	39	39	39	39	39	39	39	39	39	39
4. Rails Per Section	Given	2	2	2	2	2	2	2	2	2	2	2	2	2	2
5. Pounds Per Ton	Given	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
<u>A. Tie Plates</u>															
6. Inches Between Ties (Spacing)	1/	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
7. Miles of Rail	Appendix TDC-4C, L.8.	1.20	1.20	3.90	2.35	0.15	7.12	11.90	81.77	0.75	15.65	1.40	136.22	7.45	271.06
8. Pounds Per Tie Plate	2/	12	12	12	15	17	17	21	21	21	29	29	29	29	25
9. Ties Per Mile	(L.1 x L.2) ÷ L.6	3,249	3,249	3,249	3,249	3,249	3,249	3,249	3,249	3,249	3,249	3,249	3,249	3,249	3,249
10. Tie Plates Per Mile	L.9 x L.4	6,498	6,498	6,498	6,498	6,498	6,498	6,498	6,498	6,498	6,498	6,498	6,498	6,498	6,498
11. Tie Plate Tons Per Mile	(L.10 x L.8) ÷ L.5	38.99	38.99	38.99	48.74	55.24	55.24	68.23	68.23	68.23	94.23	94.23	94.23	94.23	81.23
<u>B. Joint Bars</u>															
12. Joint Bars Per Mile	3/	270.77	270.77	270.77	270.77	270.77	270.77	270.77	270.77	270.77	270.77	270.77	270.77	270.77	270.77
13. Joint Bar Pounds Per Pair	See Columns	93.84	4/ 0.00	5/ 93.84	4/ 0.00	5/ 0.00	5/ 0.00	5/ 0.00	5/ 0.00	5/ 0.00	5/ 0.00	5/ 0.00	5/ 0.00	5/ 115.2	6/ xxx
14. Scrap Joint Bars Tons Per Mile	(L.12 x L.13) ÷ L.5	12.70	0.00	12.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.60	xxx
15. Miles of Scrap Rail	Appendix TDC-4C, L.7	1.20	1.20	3.90	0.95	0.15	5.77	7.99	61.63	0.75	13.74	1.40	106.54	7.45	212.67
16. Weighted Average Scrap Joint Bar Tons Per Mile	Weighted Avg. of L.14 weighted on L.15	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	14.42
<u>C. Rail Anchors</u>															
17. Anchors Per Relay Welded Section	7/	24	24	24	24	24	24	24	24	24	24	24	24	24	24
18. Anchors Per Relay Jointed Section	8/	10	10	10	10	10	10	10	10	10	10	10	10	10	10
19. Anchors Per Scrap Section	9/	16	16	16	16	16	16	16	16	16	16	16	16	16	16
20. Weight Per Anchor	10/	1.875	1.875	1.875	1.875	1.875	1.875	1.875	1.875	1.875	1.99	1.99	1.99	1.99	1.943
21. Anchors Per Mile - Relay Welded Rail	[(L.1 ÷ L.3) x L.4] x L.17	6,498	6,498	6,498	6,498	6,498	6,498	6,498	6,498	6,498	6,498	6,498	6,498	6,498	6,498
22. Anchors Per Mile - Relay Jointed Rail	[(L.1 ÷ L.3) x L.4] x L.18	2,708	2,708	2,708	2,708	2,708	2,708	2,708	2,708	2,708	2,708	2,708	2,708	2,708	2,708
23. Anchors Per Mile - Scrap Rail	[(L.1 ÷ L.3) x L.4] x L.19	4,332	4,332	4,332	4,332	4,332	4,332	4,332	4,332	4,332	4,332	4,332	4,332	4,332	4,332
24. Anchor Scrap Tons Per Mile	(L.23 x L.20) ÷ L.5	4.06	4.06	4.06	4.06	4.06	4.06	4.06	4.06	4.06	4.31	4.31	4.31	4.31	4.21
<u>D. Rail Spikes</u>															
25. Spike Keg Weight	11/	200	200	200	200	200	200	200	200	200	200	200	200	200	200
26. Kegs Needed Per Mile	12/	43.64	43.64	43.64	43.64	43.64	43.64	43.64	43.64	43.64	43.64	43.64	43.64	43.64	43.64
27. Spike Tons Per Mile	(L.25 x L.26) ÷ L.5	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36
<u>E. Bolts and Washers</u>															
28. Bolts Keg Weight	13/	200	200	200	200	200	200	200	200	200	200	200	200	200	200
29. Kegs Needed Per Mile	14/	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80
30. Bolts Tons Per Mile	(L.28 x L.29) ÷ L.5	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38

Tennessee Pass Other Track Material Calculations

<u>Item</u>	<u>Source</u>	<u>85 JT</u>	<u>90 CWR</u>	<u>90 JT</u>	<u>100 CWR</u>	<u>106 CWR</u>	<u>110 CWR</u>	<u>112 CWR</u>	<u>115 CWR</u>	<u>119 CWR</u>	<u>131 CWR</u>	<u>132 CWR</u>	<u>136 CWR</u>	<u>136 JTD</u>	<u>Total</u>
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
FOOTNOTES															
1/ According to the Railway Tie Association crossties are typically laid every 19.5 inches. See "Railway Tie Association_FAQ_Tie Spacing.pdf"															
2/ STB Docket No. FD 36005 filed March 18, 2016, KCVN/CPRR Feeder Line Application for Towner Line, Volume I. RL Banks VS for Towner assumed tie plate weights of 12 lbs. for rail 90 lbs. or less, 15 lbs. for 100 lb. rail, 17 lbs. for 105/110 lb. rail, 21 lbs. for 112-130 lb rail, 23 lbs. for 131-141 rail (small) and 35 lbs. for 131-141 rail (big).															
3/ (L.1 ÷ L.3) x L.4 One joint bar is necessary for each side of rail per joint, joints are necessary to connect the rail section every 39 feet. [5,280 ft. per mile ÷ 39.0 ft. per rail section] x 2.0 rails per section equals 270.8.															
4/ Wabtec Corporation identifies 36 inch joint bars for 115 lb. rail as 93.84 lbs. per pair. See "Wabtec_Track Components Section.pdf" at 5.															
5/ Continuous Welded Rail does not need joints.															
6/ Wabtec Corporation identifies 36 inch joint bars for 136 lb. rail as 115.2 lbs per pair. See "Wabtec_Track Components Section.pdf" at 7.															
7/ LEPA assumption to achieve the 6,498 Relay anchors on welded track used in Appendix Two from RL Banks NLV in Towner Line.															
8/ LEPA assumption to achieve the 2,708 Relay anchors on jointed track used in Appendix Two from RL Banks NLV in Towner Line.															
9/ BNSF Design Guidelines for Industrial Track Projects page 3 notes that "[r]ail anchorage shall be provided at a minimum rate of 16 anchors per 39' panel." See "BNSF_Design Guidelines for Industrial Track.pdf"															
10/ According to Progress Rail, 5.5" is the standard rail anchor size for rail sections 110, 112, 115, and 119 and 6.0" is the standard rail anchor size for rail sections 131, 132, 133, 136, 140, and 141. Progress Rail lists the 5.5" standard weight as 1.79 lbs. and the heavy duty weight as 1.96 lbs. and the 6.0" standard weight as 1.88 lbs. and the heavy duty weight as 2.10 lbs. It has been assumed that any Tennessee Pass track less than 131 lbs. would use 5.5" anchors and track equal to or larger than 131 lbs. would use 6.0" anchors. For 5.5" anchors the average of Progress Rail's standard and heavy duty weights was used (1.79 lbs. + 1.96 lbs. ÷ 2 = 1.875 lbs.). For 6.0" anchors the average of Progress Rail's standard and heavy duty weights was used (1.88 lbs. + 2.10 lbs. ÷ 2 = 1.99 lbs.). See "Progress Rail_Rail Anchors Weight.pdf"															
11/ LBFoster Rail Products "Other Track Materials and Accessories" brochure Track Spikes sections which notes that a 200. Lb Keg of spikes for 5/8 x 6 inch spikes contains 242 spikes. See "LBF_Rail-OtherTrackMaterials.pdf" at 6.															
12/ LBFoster Rail Products "Other Track Materials and Accessories" brochure Track Spikes sections which notes that for 5/8 x 6 inch spike 43.64 kegs would be needed per mile. See "LBF_Rail-OtherTrackMaterials.pdf" at 6.															
13/ LBFoster Rail Products "Other Track Materials and Accessories" brochure Track Bolts sections which notes that a 200. Lb Keg of bolts for 1 x 5 1/4 inch spikes contains 109 spikes. See "LBF_Rail-OtherTrackMaterials.pdf" at 7.															
14/ LBFoster Rail Products "Other Track Materials and Accessories" brochure Track Bolts sections which notes that for 1 x 5 1/4 inch bolts 13.8 kegs would be needed per mile. See "LBF_Rail-OtherTrackMaterials.pdf" at 7.															

Tennessee Pass Turnout Gross Salvage Value ("GSV") -- 1Q20

<u>Description</u> (1)	<u>Quantity 1/</u> (2)	<u>Tons Per Unit 2/</u> (3)	<u>Total Tons 3/</u> (4)	<u>Percent Usable 4/</u> (5)	<u>Usable Tons 5/</u> (6)	<u>Unit Price</u> (7)	<u>Total</u> (8)
<u>A. Relay Turnouts</u>							
1. 136 lb. No. 10	20	xxx	xxx	xxx	xxx	\$2,250 6/	\$45,000 7/
2. 112/115 lb. No. 10	<u>11</u>	xxx	xxx	xxx	xxx	<u>\$2,250</u> 6/	<u>\$24,750</u> 7/
3. Total Relay 8/	31	xxx	xxx	xxx	xxx	\$4,500	\$69,750
<u>B. Scrap Turnouts</u>							
4. Various	109	5	545	97%	529	\$141.96 9/	<u>\$75,099</u> 10/
5. Total GSV 11/	140						\$144,849

1/ Appendix TDC-4R, Section 4, L.12 through L.14.

2/ STB Docket No. FD 36005 filed March 18, 2016, KCVN/CPRR Feeder Line Application for Towner Line, Volume I. Both KCVN/CPRR and V&S Railway assumed that scrap turnouts would weigh 5 tons per turnout.

3/ Column (2) x Column (3).

4/ STB Docket No. FD 36005 filed March 18, 2016, KCVN/CPRR Feeder Line Application for Towner Line, Volume I. Both KCVN/CPRR and V&S Railway assumed that 97 percent of scrap turnout tons would be recovered.

5/ Column (4) x Column (5).

6/ Quotes from Harmer Steel and Progress Rail received January 16, 2020.

7/ Column (2) x Column (7).

8/ L.1 + L.2.

9/ Average of quotes from Harmer Steel, LB Foster, and Progress Rail received January 16, 2020 was equal to \$159 per gross ton. Converted to price per net ton results in a scrap price of \$141.96 per net ton ($\$159 \times [2,000 \text{ lbs. per net ton} \div 2,240 \text{ lbs. per gross ton}]$).

10/ Column (6) x Column (7).

11/ L.3 + L.4.

Tennessee Pass Removal and Restoration Costs -- 1Q20

<u>Item</u> (1)	<u>Source</u> (2)	<u>Amount</u> (3)
1. Fit Rail and OTM Miles	Appendix TDC-4C, Column (16), L.4	58.39
2. Fit Rail and OTM Removal Cost Per Mile	1/	\$16,000
3. RS Means Index	2/	1.15340
4. 1Q20 Cost Per Mile	L.2 x L.3	<u>\$18,454</u>
5. Fit Rail and OTM Removal Costs	L.1 x L.4	\$1,077,552
6. Scrap Rail and OTM Miles	Appendix TDC-4C, Column (16), L.7	212.67
7. Scrap Rail and OTM Removal Cost Per Mile	1/	\$15,500
8. RS Means Index	2/	1.15340
9. 1Q20 Cost Per Mile	L.7 x L.8	<u>\$17,878</u>
10. Scrap Rail and OTM Removal Costs	L.6 x L.9	\$3,802,006
11. Fit Turnouts	Appendix TDC-4H, Column (2), L.3	31
12. Fit Turnout Removal Costs Per Turnout	1/	\$800
13. RS Means Index	2/	1.15340
14. 1Q20 Cost Per Turnout	L.12 x L.13	<u>\$923</u>
15. Fit Turnout Removal Costs	L.11 x L.14	\$28,604
16. Scrap Turnouts	Appendix TDC-4H, Column (2), L.4	109
17. Scrap Turnout Removal Costs Per Turnout	1/	\$500
18. RS Means Index	2/	1.15340
19. 1Q20 Cost Per Turnout	L.17 x L.18	<u>\$577</u>
20. Scrap Turnout Removal Costs	L.16 x L.19	\$62,860
21. Total Track Removal Costs	L.5 + L. 10 + L.15 + L.20	\$4,971,022
22. Public Highway Crossings	Appendix TDC-4Q, Column (7)	65
23. Public Highway Restoration Costs Per Crossing	1/	\$2,000
24. RS Means Index	2/	1.15340
25. 1Q20 Cost Per Crossing	L.23 x L.24	<u>\$2,307</u>
26. Total Public Highway Crossings Costs	L.22 x L.25	\$149,942
27. Private Highway Crossings	Appendix TDC-4Q, Column (7)	60
28. Private Highway Restoration Costs Per Crossing	1/	\$300
29. RS Means Index	2/	1.15340
30. 1Q20 Cost Per Crossing	L.28 x L.29	<u>\$346</u>
31. Total Private Highway Crossings Costs	L.27 x L.30	\$20,761

Tennessee Pass Removal and Restoration Costs -- 1Q20

<u>Item</u> (1)	<u>Source</u> (2)	<u>Amount</u> (3)
32. Total Crossing Restoration	L.26 + L.31	<u>\$170,703</u>
33. Total Removal and Restoration Costs	L.21 + L.32	\$5,141,725

1/ STB Docket No. FD 36005 filed August 30, 2016, Comments of V&S Railway, LLC to KCVN/CPRR Feeder Line Application for Towner Line. V&S Railway identifies the unit costs shown in Column (3) and states that the scrap removal cost has been calculated after identifying a scrap buyer in Pueblo, CO. V&S estimated the remaining removal unit costs.

2/ RS Means Historical Construction Cost Index from 3Q2016 to 1Q2020.

Tennessee Pass Asset Transportation Costs -- 1Q20

<u>Item</u> (1)	<u>Source</u> (2)	<u>Tons</u> (3)	<u>Number of Railcars 1/</u> (4)
1. Relay Rail	Appendix TDC-4C, Column (16), L.23	12,513	126
2. Reroll Rail	Appendix TDC-4C, Column (16), L.26	0	0
3. Scrap Rail	Appendix TDC-4C, Column (16), L.29	45,864	459
4. Scrap Tie Plates	Appendix TDC-4F, Column (3), L.12	16,411	165
5. Scrap Joint Bars	Appendix TDC-4F, Column (3), L.27	172	2
6. Scrap Anchors	Appendix TDC-4F, Column (3), L.50	716	8
7. Scrap Spikes	Appendix TDC-4F, Column (3), L.58	946	10
8. Scrap Bolt and Washers	Appendix TDC-4F, Column (3), L.65	299	3
9. Scrap Turnouts	Appendix TDC-4H, Column (6), L.4	<u>529</u>	<u>6</u>
10. Total Number of Railcars	Sum of L.1 to L.9	77,450	779
11. Cost Per Railcar	Appendix TDC-4K, Column (3), L. 4		<u>\$2,561</u>
12. Transportation Costs	L.10 x L.11		\$1,994,821

1/ Column (3) ÷ 100 tons per railcar.

Tennessee Pass Asset Transportation Costs Calculations

<u>Item</u> (1)	<u>Source</u> (2)	<u>Cost</u> <u>Per Car</u> (3)	<u>Number</u> <u>of Railcars</u> (4)
1. Relay and Reroll Rail	UPRR33126_1017.xlsx	\$5,358	126
2. Scrap Steel	UPRR4021_1217.xlsx	\$2,021	653
3. Total Number of Railcars	Line 1. + Line 2.	xxx	779
4. Weighted Average Cost Per Railcar	5/	\$2,561	

1/ UP public tariff UPRR 33126, Item 1017-AE identifies rates for STCC 33128 ("Railway Track Material Viz. Rails, Joint Bars, Tie Plates Or Related Products"). Based on UP's public tariff, the cost to ship railway material from Parkdale, CO to Chicago, IL is equal to \$5,358 per car for plain/open gondola. See page 174 of "UPRR33126BOOK.pdf" and excel row 158 of "UPRR33126_1017.xlsx".

2/ UP public tariff UPRR 4021, Item 1217-AM identifies rates for STCC 40211 ("Iron Or Steel Scrap, Wastes Or Tailings"). Based on UP's public tariff, the cost to ship scrap from Parkdale, CO to Pueblo, CO is equal to \$2,021 per car for boxcar/gondola/hopper. See page 90 of "UPRR4021BOOK.pdf" and excel row 18 of "UPRR4021_1217.xlsx".

3/ Sum of Appendix TDC-4J, L.1 through L.2.

4/ Sum of Appendix TDC-4J, L.3 through L.9.

5/ [L.1, Column (3) x L.1, Column (4) + L.2, Column (3) x L.2, Column (4)] ÷ L.3, Column (4).

Tennessee Pass Estimated Value of Land -- 1Q20

<u>Segment</u>	<u>Main Line Miles 1/</u>	<u>Non-Reversionary Acres 2/</u>		<u>Estimated Value Per Acre 6/</u>	<u>Total Land Value 7/</u>
(1)	(2)	(3)		(4)	(5)
1. Pueblo, CO to Canon City, CO	41.95	93.00	3/	\$3,016.28	\$280,514
2. Canon City, CO to Parkdale, CO	11.75	0.00	4/	\$3,016.28	\$0
3. Parkdale, CO to Sage, CO	163.10	361.00	3/	\$3,016.28	\$1,088,876
3a. Malta, CO to Leadville, CO Spur	5.10	40.00	5/	\$3,016.28	\$120,651
4. Sage, CO to Dotsero, CO	6.90	15.00	3/	\$3,016.28	\$45,244
5. Total 8/	228.80	509.0			\$1,535,285

1/ See Appendix TDC-4B, Column (8) for main line miles.

2/ The Tennessee Pass is comprised of reversionary acres and non-reversionary acres. Reversionary land is that which is not owned by the railroad and thus cannot be sold. In estimating the value of the Tennessee Pass land, it is necessary to only take into account the non-reversionary acres, i.e. land that is owned by the railroad and can be sold.

3/ Column (2) x 2.21 non-reversionary acres per mile. Based on the STB Docket No. 32760, Volume 5 non-reversionary acres for the Sage, Co to Malta, CO, Malta, CO to Leadville, CO and Malta, CO to Canon City, CO, we have estimated 2.21 non-reversionary acres per mile for this segment. See Appendix TDC-4M for calculation of 2.21 non reversionary acres per mile.

4/ As identified in Appendix TDC-4B, the Canon City, CO to Parkdale, CO segment is owned by Royal Gorge Railroad. Thus, UP's land value is equal to \$0.

5/ STB Docket No. 32760, Volume 5, Page 293 states that the Malta, CO to Leadville, CO segment consists of 70 acres, 40 of which are considered to be non-reversionary. See "1995.11.30 FD No. 32760_UP SP Merger Application_TN Pass.pdf".

6/ See Appendix TDC-4M, L.14, Column (4).

7/ Column (3) x Column (4).

8/ Sum of L.1 to L.4.

Tennessee Pass Estimated Value Per Acre Calculations

<u>Category</u> (1)	<u>Sage, Co to Malta, Co</u> (2)	<u>Malta, CO to Leadville, CO Spur</u> (3)	<u>Malta, CO to Canon City, CO</u> (4)	<u>Total</u> (5)
1. Beginning Milepost 1/	335.00	271.00	271.00	xxx
2. Ending Milepost 1/	<u>271.00</u>	<u>276.10</u>	<u>160.15</u>	<u>xxx</u>
3. Track Miles 2/	64.00	5.10	110.85	179.95
4. Total Acres	1,336.00	4/ 70.00	4/ 2,487.00	5/ 3,893.00
5. Non-Reversionary Acres 3/	105.00	4/ 40.00	4/ 253.05	5/ 398.05
6. Non-Reversionary Acres Per Track Mile 6/	1.64	7.84	2.28	2.21
7. Average Non-Reversionary Acres Per Track Mile 7/				3.92
8. Weighted Average Non-Reversionary Acres Per Track Mile 8/				2.21
9. November 1995 NLV of Non-Reversionary Acres 9/	xxx	xxx	\$378,000	
10. November 1995 \$ Per Non-Reversionary Acre 10/	xxx	xxx	\$1,493.78	
<u>USDA's National Agricultural Statistics Service 11/</u>				
11. 1995 CO AG Land, Including Buildings - Asset Value, Measured in \$/Acre				520
12. 2019 CO AG Land, Including Buildings - Asset Value, Measured in \$/Acre				1,570
13. 1995-2019 USDA CO Land % Change 12/				201.92%
14. 2019 \$ Per Non-Reversionary Acre Based on USDA Land % Change 13/			\$3,016.28	

1/ See Appendix TDC-4B.

2/ Line 1. - Line 2.

3/ The Tennessee Pass is comprised of reversionary acres and non-reversionary acres. Reversionary land is that which is not owned by the railroad and thus cannot be sold. In estimating the value of the Tennessee Pass land, it is necessary to only take into account the non-reversionary acres, i.e. land that is owned by the railroad and can be sold.

4/ STB Docket No. 32760, Volume 5, Page 293 states that the Sage, CO to Malta, CO segment consists of 1,336 acres, 105 of which are considered to be non-reversionary, and Malta, CO to Leadville, CO consists of 70 acres, 40 of which are considered to be non-reversionary. See "1995.11.30 FD No. 32760_UP SP Merger Application_TN Pass.pdf".

5/ STB Docket No. 32760, Volume 5, Page 343 states that the Malta, CO to Canon City, CO segment consists of 2,487 acres, 253.05 of which are considered to be non-reversionary. See "1995.11.30 FD No. 32760_UP SP Merger Application_TN Pass.pdf".

6/ Line 5. ÷ Line 3.

7/ Average of L.6, Column (2), Column (3), and Column (4).

8/ Weighted Average of Track Miles and Non-Reversionary Acres Per Track Mile.

9/ STB Docket No. 32760, Volume 5, Page 343 states that the Malta, CO to Canon City, CO non-reversionary segment has a NLV of \$378,000. See "1995.11.30 FD No. 32760_UP SP Merger Application_TN Pass.pdf". Based on the 253.05 non-reversionary acres identified above, this equates to \$1,493.78/acre.

10/ L.9, Column (4) ÷ L.5, Column (4).

11/ 1995 and 2019 \$/acre are based on the United States Department of Agriculture's National Agricultural Statistics Service's average value per acre for farm real estate. See "USDA Quick Stats Query.pdf" for summary of query and "USDA 2019 CO Land Value_Agriculture.xlsx" for query results.

12/ L.12, Column (5) ÷ L.11, Column (5) - 1.

13/ L.10, Column (4) x L.13, Column (5).

TN Pass Main Line and Siding Miles--By Rail Type 1/

Segment (1)	Segment Included (2)	Active/ Inactive (3)	Rail Type													Total (17)
			85 JT (4)	90 CWR (5)	90 JT (6)	100 CWR (7)	106 CWR (8)	110 CWR (9)	112 CWR (10)	115 CWR (11)	119 CWR (12)	131 CWR (13)	132 CWR (14)	136 CWR (15)	136 JTD (16)	
A. Main Line Miles																
1. Pueblo, CO to Canon City, CO	Yes	Active	0.00	0.00	0.00	0.00	0.00	0.00	0.80	14.63	0.00	0.00	0.00	26.52	0.00	41.95
2. Canon City, CO to Parkdale, CO	No	Active	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3. Parkdale, CO to Sage, CO	Yes	Inactive	0.00	0.00	0.00	0.00	0.15	0.00	7.35	44.65	0.75	6.45	1.40	94.90	7.45	163.10
3a. Malta, CO to Leadville, CO Spur	Yes	Inactive	1.20	0.00	3.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.10
4. Sage, CO to Dotsero, CO	Yes	Active	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>2.30</u>	<u>0.00</u>	<u>2.05</u>	<u>0.00</u>	<u>2.55</u>	<u>0.00</u>	<u>6.90</u>
5. Total Main Line Miles 2/			1.20	0.00	3.90	0.00	0.15	0.00	8.15	61.58	0.75	8.50	1.40	123.97	7.45	217.05
6. Total Relay Miles 3/			0.00	0.00	0.00	0.00	0.00	0.00	0.75	15.77	0.00	1.91	0.00	27.07	0.00	45.49
7. Total Reroll Miles 3/			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8. Total Scrap Miles 3/			<u>1.20</u>	<u>0.00</u>	<u>3.90</u>	<u>0.00</u>	<u>0.15</u>	<u>0.00</u>	<u>7.40</u>	<u>45.81</u>	<u>0.75</u>	<u>6.59</u>	<u>1.40</u>	<u>96.90</u>	<u>7.45</u>	<u>171.56</u>
9. Total Main Line Miles 4/			1.20	0.00	3.90	0.00	0.15	0.00	8.15	61.58	0.75	8.50	1.40	123.97	7.45	217.05
B. Siding Miles																
1. Pueblo, CO to Canon City, CO	Yes	Active	0.00	0.00	0.00	1.50	0.00	1.45	3.40	4.70	0.00	0.00	0.00	2.80	0.00	13.85
2. Canon City, CO to Parkdale, CO	No	Active	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3. Parkdale, CO to Sage, CO	Yes	Inactive	0.00	1.20	0.00	0.85	0.00	5.67	0.35	15.49	0.00	7.15	0.00	9.45	0.00	40.16
3a. Malta, CO to Leadville, CO Spur	Yes	Inactive	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4. Sage, CO to Dotsero, CO	Yes	Active	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
5. Total Siding Miles 2/			0.00	1.20	0.00	2.35	0.00	7.12	3.75	20.19	0.00	7.15	0.00	12.25	0.00	54.01
6. Total Relay Miles 3/			0.00	0.00	0.00	1.40	0.00	1.35	3.17	4.38	0.00	0.00	0.00	2.61	0.00	12.90
7. Total Reroll Miles 3/			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8. Total Scrap Miles 3/			<u>0.00</u>	<u>1.20</u>	<u>0.00</u>	<u>0.95</u>	<u>0.00</u>	<u>5.77</u>	<u>0.58</u>	<u>15.81</u>	<u>0.00</u>	<u>7.15</u>	<u>0.00</u>	<u>9.64</u>	<u>0.00</u>	<u>41.11</u>
9. Total Siding Miles 4/			0.00	1.20	0.00	2.35	0.00	7.12	3.75	20.19	0.00	7.15	0.00	12.25	0.00	54.01
C. Total Main Line and Siding Miles 5/																
1. Pueblo, CO to Canon City, CO	Yes	Active	0.00	0.00	0.00	1.50	0.00	1.45	4.20	19.33	0.00	0.00	0.00	29.32	0.00	55.80
2. Canon City, CO to Parkdale, CO	No	Active	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3. Parkdale, CO to Sage, CO	Yes	Inactive	0.00	1.20	0.00	0.85	0.15	5.67	7.70	60.14	0.75	13.60	1.40	104.35	7.45	203.26
3a. Malta, CO to Leadville, CO Spur	Yes	Inactive	1.20	0.00	3.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.10
4. Sage, CO to Dotsero, CO	Yes	Active	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>2.30</u>	<u>0.00</u>	<u>2.05</u>	<u>0.00</u>	<u>2.55</u>	<u>0.00</u>	<u>6.90</u>
5. Total Main Line and Siding Miles 2/			1.20	1.20	3.90	2.35	0.15	7.12	11.90	81.77	0.75	15.65	1.40	136.22	7.45	271.06
6. Total Relay Miles 3/			0.00	0.00	0.00	1.40	0.00	1.35	3.91	20.14	0.00	1.91	0.00	29.68	0.00	58.39
7. Total Reroll Miles 3/			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8. Total Scrap Miles 3/			<u>1.20</u>	<u>1.20</u>	<u>3.90</u>	<u>0.95</u>	<u>0.15</u>	<u>5.77</u>	<u>7.99</u>	<u>61.63</u>	<u>0.75</u>	<u>13.74</u>	<u>1.40</u>	<u>106.54</u>	<u>7.45</u>	<u>212.67</u>
9. Total Main Line and Siding Miles 4/			1.20	1.20	3.90	2.35	0.15	7.12	11.90	81.77	0.75	15.65	1.40	136.22	7.45	271.06

TN Pass Main Line and Siding Miles--By Rail Type 1/

<u>Segment</u>	<u>Segment</u>	<u>Active/ Included</u>	<u>Rail Type</u>													<u>Total</u>
			<u>85 JT</u>	<u>90 CWR</u>	<u>90 JT</u>	<u>100 CWR</u>	<u>106 CWR</u>	<u>110 CWR</u>	<u>112 CWR</u>	<u>115 CWR</u>	<u>119 CWR</u>	<u>131 CWR</u>	<u>132 CWR</u>	<u>136 CWR</u>	<u>136 JTD</u>	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)

1/ Miles were developed using UP track charts and Google Earth. See Appendix TDC-4P.

2/ Sum of L.1 through L.4.

3/ The Board's July 31, 2017 Decision in Docket No. FD 36005 ("KCVN, LLC and Colorado Pacific Railroad, LLC-Feeder Line Application-Line of V and S Railway, LLC, Located in Crowley, Pueblo, Otero, and Kiowa Counties, Colorado") stated that "[t]he Board will accept the inventory put forward by Meadows on behalf of V&S" when discussing asset inventory (See "36005 KCVN v. V & S 2017.07.31 ID_45890 BOARD DECISION APPROVES FORCED SALE OF TOWNER LINE.pdf" at 14). Ralph Lee Meadows' August 30, 2016 Verified Statement identifies the Meadows Inventory for rail as 93.13% relay, 0% reroll, and 6.87% scrap (See "36005 KCVN v. V & S 2016.08.30 ID_241398 V&S OPENING COMMENTS.pdf" at 136). This approach has been followed for the active segments of the Tennessee Pass Line. It has been assumed that rail along active segments owned by UP will be classified as 93.13% relay, 0% reroll, and 6.87% scrap, while rail along inactive segments will be classified as 100% scrap due to the age and condition.

4/ Sum of L.6 through L.8.

5/ Section A. + Section B.

1Q20 Relay and Scrap Rail Wholesale Prices

<u>Item</u>	<u>Wholesale Price 1/</u>							
	<u>Harmer Steel 2/</u>		<u>LB Foster 3/</u>		<u>Progress Rail 4/</u>		<u>Average 5/</u>	
	<u>Wholesale</u>		<u>Wholesale</u>		<u>Wholesale</u>		<u>Wholesale</u>	
	<u>Price</u>	<u>Unit</u>	<u>Price</u>	<u>Unit</u>	<u>Price</u>	<u>Unit</u>	<u>Price</u>	<u>Unit</u>
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
A. Steel (Rail) (per unit)								
1. Rail 136 pound per yard, CWR, Fit #1 78/80'	\$360.00	net ton	\$550.00	net ton	\$300.00	net ton	\$403.33	net ton
2. Rail 136 pound per yard, CWR, Fit #2	\$300.00	net ton	\$550.00	net ton	\$250.00	net ton	\$366.67	net ton
3. Rail 136 pound per yard, Jointed, Fit #2	\$300.00	net ton	\$515.00	net ton	\$275.00	net ton	\$363.33	net ton
4. Rail 133 pound per yard, CWR, Fit #1	\$360.00	net ton	\$500.00	net ton	\$300.00	net ton	\$386.67	net ton
5. Rail 133 pound per yard, Arema Fit #2	\$300.00	net ton	\$475.00	net ton	\$250.00	net ton	\$341.67	net ton
6. Rail 132 pound per yard, CWR, Fit #2	\$300.00	net ton	\$500.00	net ton	\$250.00	net ton	\$350.00	net ton
7. Rail 132 pound per yard, CWR, Fit #3	\$140.00	net ton	\$375.00	net ton	\$250.00	net ton	\$255.00	net ton
8. Rail 115 pound per yard, CWR, Fit #1 78/80'	\$400.00	net ton	\$625.00	net ton	\$300.00	net ton	\$441.67	net ton
9. Rail 115 pound per yard, Jointed, Fit #1	\$400.00	net ton	\$625.00	net ton	\$300.00	net ton	\$441.67	net ton
10. Rail 115 pound per yard, Fit #2	\$350.00	net ton	\$575.00	net ton	\$275.00	net ton	\$400.00	net ton
11. Rail 113 pound per yard, CWR, Fit #2	\$200.00	net ton	Scrap		\$250.00	net ton	\$225.00	net ton
12. Rail 112 pound per yard, Jointed, Fit #3	\$140.00	net ton	Scrap		\$200.00	net ton	\$170.00	net ton
13. Rail 112 pound per yard, Fit #2	\$300.00	net ton	\$525.00	net ton	\$250.00	net ton	\$358.33	net ton
14. Rail 90 pound per yard, Arema Fit #1	\$350.00	net ton	\$500.00	net ton	\$250.00	net ton	\$366.67	net ton
15. Rail Reroll (Gross Ton)	\$190.00	gross ton	6/		\$200.00	gross ton	\$195.00	gross ton
16. Rail Reroll (Net Ton) 7/	\$169.64	net ton	xxx	xxx	\$178.57	net ton	\$174.11	net ton
17. Rail Scrap (Gross Ton)	\$138.00	gross ton	6/		\$180.00	gross ton	\$159.00	gross ton
18. Rail Scrap (Net Ton) 8/	\$123.21	net ton	xxx	xxx	\$160.71	net ton	\$141.96	net ton
B. Steel (OTM) (per unit)								
1. Scrap OTM (Gross Ton)	\$138.00	gross ton			\$200.00	gross ton	\$169.00	gross ton
2. Scrap OTM (Net Ton) 9/	\$123.21	net ton	xxx	xxx	\$178.57	net ton	\$150.89	net ton
3. Tie Plates, D/S, 8" x 16" 6"	\$2.95	each	\$6.00	each	\$4.00	each	\$4.32	each
4. Tie Plates, D/S, 8" x 14" 6"	\$3.25	each	\$6.00	each	\$4.00	each	\$4.42	each
5. Tie Plates, D/S, 8" x 13" 6"	\$3.25	each	\$6.00	each	\$4.00	each	\$4.42	each
6. Joint Bars, 136 pound per yard, Fit six hole	\$27.00	pair	\$60.00	pair	\$25.00	pair	\$37.33	pair
7. Joint Bars, 134/133/131 pound per yard, Fit six hole	\$27.00	pair	\$50.00	pair	\$25.00	pair	\$34.00	pair

1Q20 Relay and Scrap Rail Wholesale Prices

<u>Item</u>	<u>Wholesale Price 1/</u>							
	<u>Harmer Steel 2/</u>		<u>LB Foster 3/</u>		<u>Progress Rail 4/</u>		<u>Average 5/</u>	
	<u>Wholesale</u>		<u>Wholesale</u>		<u>Wholesale</u>		<u>Wholesale</u>	
	<u>Price</u>	<u>Unit</u>	<u>Price</u>	<u>Unit</u>	<u>Price</u>	<u>Unit</u>	<u>Price</u>	<u>Unit</u>
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
8. Joint Bars, 119/112 pound per yard, Fit six hole	\$27.00	pair	\$60.00	pair	\$25.00	pair	\$37.33	pair
9. Joint Bars, 115 pound per yard, Fit six hole	\$27.00	pair	\$60.00	pair	\$25.00	pair	\$37.33	pair
10. Joint Bars, 90 pound per yard, Fit four hole	\$20.00	pair	\$35.00	pair	\$15.00	pair	\$23.33	pair
11. Joint Bars, 85 pound per yard, Fit four hole 5x5x5	\$10.00	pair	\$25.00	pair	\$15.00	pair	\$16.67	pair
12. Anchors, Fit 6"	\$0.13	each	\$0.75	each	\$0.50	each	\$0.46	each
C. Timber (Ties) (per unit)								
1. Relay 7x9x9' hardwood	\$10.00	each	6/		\$5.00	each	\$7.50	each
2. Landscape 7x9x9'	(\$5.00)	each	6/		\$2.00	each	(\$1.50)	each
3. Scrap 7x9x9'	(\$10.00)	each	6/		-	each	(\$10.00)	each
D. Turnouts (per unit)								
1. Weight 136 #9 AREMA relay	\$3,500.00	each	6/		\$1,000.00	each	\$2,250.00	each
2. Weight 115 #9 AREMA relay	\$3,500.00	each	6/		\$1,000.00	each	\$2,250.00	each

1/ Prices quoted do not include costs for removal or transportation to the location of the wholesale purchaser.

2/ See "RE Wholesale Track Materials Quote.msg" and "Harmer Steel's Response to Track Material Unit Price Quote January 16 2020.xlsx".

3/ See "RE Colorado Relay Rail Wholesale Prices.msg" and "LB Foster's Response to Track Material Unit Price Quote January 16 2020.xlsx".

4/ See "Copy of Track Material Unit Price Quote January 16 2020 xlsx.msg" and "Progress Rail's Response to Track Material Unit Price Quote January 16 2020.xlsx".

5/ Average of Column (2), Column (4), and Column (6).

6/ Quote was not provided.

7/ Rail Reroll Gross Ton has been converted to Net Ton. Section A, L.15 x (2,000 lbs. per net ton ÷ 2,240 lbs. per gross ton).

8/ Rail Scrap Gross Ton has been converted to Net Ton. Section A, L.17 x (2,000 lbs. per net ton ÷ 2,240 lbs. per gross ton).

9/ Scrap OTM Gross Ton has been converted to Net Ton. Section B, L.1 x (2,000 lbs. per net ton ÷ 2,240 lbs. per gross ton).

Tennessee Pass Rail Type Calculations

	Milepost 1/		Segment Included	Active / Inactive	Track Type 1/	Track	Google	TN Pass Miles	Track Chart		Year Installed 1/	Track	Comments	
	From	To				Rail	Earth		Rail	Rail		Chart		
	(1)	(2)	(3)	(4)	(5)	Miles 2/	Miles 3/	(8)	Weight 1/	Type 1/	(11)	(12)	(13)	(14)
1. Pueblo Jct., CO to Canon City, CO														
1.	160.15	160.00	Yes	Active	Main Line	0.15		0.15	136	CWR	136 CWR	1984	446	
2.	160.15	160.10	Yes	Active	Siding	0.05		0.05	110		110 CWR		446	Assumed rail type is CWR
3.	160.00	158.00	Yes	Active	Main Line	2.00		2.00	136	CWR	136 CWR	1984	447	
4.	158.00	155.00	Yes	Active	Main Line	3.00		3.00	115	CWR	115 CWR	1969	447	
5.	159.90	159.30	Yes	Active	Siding	0.60		0.60	136	CWR	136 CWR		447	Assumed 136 lb rail weight
6.	155.00	153.90	Yes	Active	Main Line	1.10		1.10	115	CWR	115 CWR	1969	448	
7.	153.90	150.00	Yes	Active	Main Line	3.90		3.90	136	CWR	136 CWR	1984	448	
8.	153.30	153.20	Yes	Active	Siding	0.10		0.10	136		136 CWR		448	Assumed rail type is CWR
9.	153.20	151.95	Yes	Active	Siding	1.25		1.25	115	SH	115 CWR		448	Assumed rail type is CWR
10.	151.95	151.85	Yes	Active	Siding	0.10		0.10	136		136 CWR		448	Assumed rail type is CWR
11.	152.25	152.10	Yes	Active	Siding	0.15		0.15	115		115 CWR		448	Assumed rail type is CWR
12.	152.05	151.95	Yes	Active	Siding	0.10		0.10	115		115 CWR		448	Assumed rail type is CWR
13.	151.71	151.20	Yes	Active	Siding	0.51		0.51	115		115 CWR		448	Assumed 115 lb rail weight and rail type is CWR
14.	151.60	151.40	Yes	Active	Siding	0.20		0.20	115		115 CWR		448	Assumed rail type is CWR
15.	151.75	151.40	Yes	Active	Siding	0.35		0.35	115		115 CWR		448	Assumed 115 lb rail weight and rail type is CWR
16.	150.00	147.80	Yes	Active	Main Line	2.20		2.20	136	CWR	136 CWR	1984 & 1985	449	
17.	147.80	146.70	Yes	Active	Main Line	1.10		1.10	115		115 CWR	1984 & 1985	449	Assumed rail type is CWR
18.	146.70	145.00	Yes	Active	Main Line	1.70		1.70	115	SH	115 CWR	1952 & 1985	449	Assumed rail type is CWR
19.	147.90	146.60	Yes	Active	Siding	1.30		1.30	115		115 CWR		449	Assumed 115 lb rail weight and rail type is CWR
20.	146.20	145.61	Yes	Active	Siding	0.59		0.59	115		115 CWR		449	Assumed 115 lb rail weight and rail type is CWR
21.	145.00	140.00	Yes	Active	Main Line	5.00		5.00	115	CWR	115 CWR	1952 & 1985	450	
22.	140.00	137.27	Yes	Active	Main Line	2.73		2.73	115		115 CWR	1951 - 1969	451	Assumed rail type is CWR
23.	137.27	135.00	Yes	Active	Main Line	2.27		2.27	136	CWR	136 CWR	1969	451	
24.	139.70	139.65	Yes	Active	Siding	0.05		0.05	115		115 CWR		451	Assumed rail type is CWR
25.	139.65	139.55	Yes	Active	Siding	0.10		0.10	110	SH	110 CWR		451	Assumed rail type is CWR
26.	139.55	139.50	Yes	Active	Siding	0.05		0.05	115		115 CWR		451	Assumed rail type is CWR
27.	139.50	139.00	Yes	Active	Siding	0.50		0.50	110	SH	110 CWR		451	Assumed rail type is CWR
28.	139.00	138.35	Yes	Active	Siding	0.65		0.65	100	SH	110 CWR		451	Assumed rail type is CWR
29.	138.35	138.30	Yes	Active	Siding	0.05		0.05	115		115 CWR		451	Assumed rail type is CWR
30.	139.50	139.35	Yes	Active	Siding	0.15		0.15	110	SH	110 CWR		451	Assumed rail type is CWR
31.	135.00	130.00	Yes	Active	Main Line	5.00		5.00	136	CWR	136 CWR	1969	452	
32.	131.45	131.30	Yes	Active	Siding	0.15		0.15	136		136 CWR		452	Assumed rail type is CWR
33.	131.30	131.25	Yes	Active	Siding	0.05		0.05	115		115 CWR		452	Assumed rail type is CWR
34.	131.25	130.00	Yes	Active	Siding	1.25		1.25	100	SH CWR	100 CWR		452	
35.	130.25	130.00	Yes	Active	Siding	0.25		0.25	100	SH CWR	100 CWR		452	
36.	130.00	125.00	Yes	Active	Main Line	5.00		5.00	136	CWR	136 CWR	1969	453	
37.	130.00	129.95	Yes	Active	Siding	0.05		0.05	115		115 CWR		453	Assumed rail type is CWR
38.	129.95	129.90	Yes	Active	Siding	0.05		0.05	136		136 CWR		453	Assumed rail type is CWR
39.	125.00	120.80	Yes	Active	Main Line	4.20		4.20	136	CWR	136 CWR		454	
40.	120.80	120.00	Yes	Active	Main Line	0.80		0.80	112		112 CWR		454	Assumed rail type is CWR
41.	123.00	120.80	Yes	Active	Siding	2.20		2.20	112		112 CWR		454	2nd Main Line Classified as Siding. Assumed rail type is CWR
42.	120.80	120.00	Yes	Active	Siding	0.80		0.80	112		112 CWR		454	2nd Main Line Classified as Siding. Assumed rail type is CWR
43.	120.40	120.00	Yes	Active	Siding	0.40		0.40	112		112 CWR		454	Assumed rail type is CWR

Tennessee Pass Rail Type Calculations

	Milepost 1/		Segment Included	Active / Inactive	Track Type 1/	Track	Google	Track Chart			Year Installed 1/	Track	Comments
	From (1)	To (2)				Rail Miles 2/ (6)	Earth Rail Miles 3/ (7)	Rail Weight 1/ (9)	Rail Type 1/ (10)	TN Pass Rail 4/ (11)		Page 1/ (13)	
44.	120.00	118.20	Yes	Active	Main Line	1.80		136	CWR	136 CWR		443	Assumed rail type is CWR
45.	120.00	118.20	Yes	Active	Siding	1.80		136	CWR	136 CWR		443	Assumed rail type is CWR
46.					Segment Main Line Miles	41.95							
47.					Segment Siding/Yard Miles	13.85							
48.					Segment Total Miles	55.80							

2. Canon City, CO to Parkdale, CO

1.	171.90	171.80	No	Active	Main Line	0.10		136	CWR	136 CWR	1990	443	
2.	171.80	171.70	No	Active	Main Line	0.10		131		131 CWR	1946	443	Assumed rail type is CWR
3.	171.70	170.00	No	Active	Main Line	1.70		136	CWR	136 CWR	1981 & 1993	443	
4.	171.70	171.65	No	Active	Siding	0.05		136		136 CWR		443	Assumed rail type is CWR
5.	171.65	171.15	No	Active	Siding	0.50		100	SH	100 CWR		443	Assumed rail type is CWR
6.	171.15	170.80	No	Active	Siding	0.35		90	SH	90 CWR		443	Assumed rail type is CWR
7.	170.80	170.00	No	Active	Siding	0.80		131	SH	131 CWR		443	Assumed rail type is CWR
8.	171.15	170.80	No	Active	Siding	0.35		90	SH	90 CWR		443	Assumed rail type is CWR
9.	170.00	169.55	No	Active	Main Line	0.45		136	CWR	136 CWR	1982 - 1993	444	Assumed rail type is CWR
10.	169.55	169.50	No	Active	Main Line	0.05		131		131 CWR	1936	444	Assumed rail type is CWR
11.	169.50	165.00	No	Active	Main Line	4.50		136		136 CWR		444	Assumed rail type is CWR
12.	170.00	169.90	No	Active	Siding	0.10		136		136 CWR		444	Assumed rail type is CWR
13.	165.00	160.15	No	Active	Main Line	4.85		136	CWR	136 CWR		446	
14.	161.60	161.50	No	Active	Siding	0.10		136		136 CWR	1977 - 1993	446	Assumed rail type is CWR
15.	161.50	160.20	No	Active	Siding	1.30		115	CWR	115 CWR		446	Assumed rail type is CWR
16.	160.20	160.15	No	Active	Siding	0.05		110		110 CWR		446	Assumed rail type is CWR
17.	Google Earth		No	Active	Siding		0.44	0.44	115	CWR	115 CWR	446	See Google Earth file "TN Pass_v10.kmz", "Sidings" folder, Siding "Parkdale to CC siding 3". Assumed rail weight is 115 lb.
18.	Google Earth		No	Active	Siding		0.18	0.18	115	CWR	115 CWR	446	See Google Earth file "TN Pass_v10.kmz", "Sidings" folder, Siding "Parkdale to CC siding 5". Assumed rail weight is 115 lb.
19.					Segment Main Line Miles	11.75							
20.					Segment Siding/Yard Miles	4.22							
21.					Segment Total Miles	15.97							

3. Parkdale, CO to Sage, CO

1.	335.00	331.20	Yes	Inactive	Main Line	3.80		3.80	115	115 CWR	1954	410	Assumed rail type is CWR
2.	332.80	331.20	Yes	Inactive	Siding	1.60		1.60	115	115 CWR		410	Assumed rail type is CWR
3.	331.20	330.00	Yes	Inactive	Main Line	1.20		1.20	115	115 CWR	1954	410	Assumed rail type is CWR
4.	330.00	328.95	Yes	Inactive	Main Line	1.05		1.05	115	115 CWR	1954	411	Assumed rail type is CWR
5.	328.95	328.70	Yes	Inactive	Main Line	0.25		0.25	136	CWR	136 CWR	1990 & 1991	411
6.	328.70	328.55	Yes	Inactive	Main Line	0.15		0.15	115	115 CWR	1954	411	Assumed rail type is CWR
7.	328.55	325.00	Yes	Inactive	Main Line	3.55		3.55	136	CWR	136 CWR	1978	411
8.	329.25	329.00	Yes	Inactive	Siding	0.25		0.25	115	115 CWR		411	Assumed rail type is CWR
9.	329.05	328.95	Yes	Inactive	Siding	0.10		0.10	115	115 CWR		411	Assumed rail type is CWR

Tennessee Pass Rail Type Calculations

	Milepost 1/		Segment Included	Active / Inactive	Track Type 1/	Track	Google	Track Chart			Year Installed 1/	Track	Comments	
	From	To				Chart Rail	Earth Rail	TN Pass	Rail	Rail		TN Pass Rail 4/		Chart Page 1/
	(1)	(2)	(3)	(4)	(5)	Miles 2/ (6)	Miles 3/ (7)	Miles (8)	Weight 1/ (9)	Type 1/ (10)	(11)	(12)	(13)	(14)
10.	325.00	324.05	Yes	Inactive	Main Line	0.95		0.95	136	CWR	136 CWR	1978	412	
11.	324.05	323.60	Yes	Inactive	Main Line	0.45		0.45	115		115 CWR	1947	412	Assumed rail type is CWR
12.	323.60	323.40	Yes	Inactive	Main Line	0.20		0.20	115	SH CWR	115 CWR	1980	412	Assumed rail type is CWR
13.	323.40	322.70	Yes	Inactive	Main Line	0.70		0.70	115		115 CWR	1947	412	Assumed rail type is CWR
14.	322.70	322.55	Yes	Inactive	Main Line	0.15		0.15	115	SH CWR	115 CWR	1981	412	Assumed rail type is CWR
15.	322.55	322.40	Yes	Inactive	Main Line	0.15		0.15	115		115 CWR	1947	412	Assumed rail type is CWR
16.	322.40	322.15	Yes	Inactive	Main Line	0.25		0.25	136	CWR	136 CWR	1991	412	
17.	322.15	322.05	Yes	Inactive	Main Line	0.10		0.10	115		115 CWR	1947	412	Assumed rail type is CWR
18.	322.05	321.80	Yes	Inactive	Main Line	0.25		0.25	115	SH CWR	115 CWR	1984	412	Assumed rail type is CWR
19.	321.80	321.25	Yes	Inactive	Main Line	0.55		0.55	115		115 CWR	1947	412	Assumed rail type is CWR
20.	321.25	321.00	Yes	Inactive	Main Line	0.25		0.25	136	CWR	136 CWR	1991	412	
21.	321.00	320.85	Yes	Inactive	Main Line	0.15		0.15	115		115 CWR	1947	412	Assumed rail type is CWR
22.	320.85	320.75	Yes	Inactive	Main Line	0.10		0.10	115	SH	115 CWR	1991	412	Assumed rail type is CWR
23.	320.75	320.00	Yes	Inactive	Main Line	0.75		0.75	115		115 CWR	1947	412	Assumed rail type is CWR
24.	320.00	319.60	Yes	Inactive	Main Line	0.40		0.40	115		115 CWR	1947	413	Assumed rail type is CWR
25.	319.60	319.40	Yes	Inactive	Main Line	0.20		0.20	136	CWR	136 CWR	1984	413	
26.	319.40	319.20	Yes	Inactive	Main Line	0.20		0.20	115		115 CWR	1947	413	Assumed rail type is CWR
27.	319.20	319.10	Yes	Inactive	Main Line	0.10		0.10	136	CWR	136 CWR	1989	413	
28.	319.10	318.55	Yes	Inactive	Main Line	0.55		0.55	115		115 CWR	1947	413	Assumed rail type is CWR
29.	318.55	318.15	Yes	Inactive	Main Line	0.40		0.40	136	CWR	136 CWR	1982	413	
30.	318.15	316.70	Yes	Inactive	Main Line	1.45		1.45	115		115 CWR	1947	413	Assumed rail type is CWR
31.	319.15	319.00	Yes	Inactive	Siding	0.15		0.15	115		115 CWR			Segment contained 6 sections with 90, 100, 115 & 136 lb rail. Assumed 115 lb for the whole segment
32.	319.00	318.70	Yes	Inactive	Siding	0.30		0.30	90	SH	90 CWR		413	Assumed rail type is CWR
33.	318.70	317.56	Yes	Inactive	Siding	1.14		1.14	115	SH	115 CWR		413	Assumed rail type is CWR
34.	316.70	316.40	Yes	Inactive	Main Line	0.30		0.30	136	CWR	136 CWR	1991	413	
35.	316.40	316.30	Yes	Inactive	Main Line	0.10		0.10	115		115 CWR	1947	413	Assumed rail type is CWR
36.	316.30	315.80	Yes	Inactive	Main Line	0.50		0.50	136	CWR	136 CWR	1992	413	
37.	315.80	315.35	Yes	Inactive	Main Line	0.45		0.45	115		115 CWR	1947	413	Assumed rail type is CWR
38.	315.35	315.15	Yes	Inactive	Main Line	0.20		0.20	136	CWR	136 CWR	1992	413	
39.	315.15	315.00	Yes	Inactive	Main Line	0.15		0.15	115		115 CWR	1947	413	Assumed rail type is CWR
40.	315.00	314.80	Yes	Inactive	Main Line	0.20		0.20	115		115 CWR	1944	414	Assumed rail type is CWR
41.	314.80	314.45	Yes	Inactive	Main Line	0.35		0.35	112		112 CWR	1944	414	Assumed rail type is CWR
42.	314.45	314.20	Yes	Inactive	Main Line	0.25		0.25	136	CWR	136 CWR	1986	414	
43.	314.20	314.10	Yes	Inactive	Main Line	0.10		0.10	112		112 CWR	1944	414	Assumed rail type is CWR
44.	314.10	313.90	Yes	Inactive	Main Line	0.20		0.20	136	CWR	136 CWR	1993	414	
45.	313.90	313.25	Yes	Inactive	Main Line	0.65		0.65	112		112 CWR	1944	414	Assumed rail type is CWR
46.	313.25	313.05	Yes	Inactive	Main Line	0.20		0.20	115		115 CWR	1993	414	Assumed rail type is CWR
47.	313.05	312.80	Yes	Inactive	Main Line	0.25		0.25	136	CWR	136 CWR	1993	414	
48.	312.80	312.70	Yes	Inactive	Main Line	0.10		0.10	112		112 CWR	1943	414	Assumed rail type is CWR
49.	312.70	312.60	Yes	Inactive	Main Line	0.10		0.10	115		115 CWR	1943	414	Assumed rail type is CWR
50.	312.60	312.25	Yes	Inactive	Main Line	0.35		0.35	112		112 CWR	1943	414	Assumed rail type is CWR
51.	312.25	311.95	Yes	Inactive	Main Line	0.30		0.30	115		115 CWR	1986	414	Assumed rail type is CWR
52.	311.95	311.60	Yes	Inactive	Main Line	0.35		0.35	136	CWR	136 CWR	1986	414	

Tennessee Pass Rail Type Calculations

	Milepost 1/		Segment Included	Active / Inactive	Track Type 1/	Track	Google	Track Chart			Year Installed 1/	Track	Comments	
	From	To				Chart Rail	Earth Rail	TN Pass	Rail	Rail		TN Pass Rail 4/		Chart Page 1/
	(1)	(2)	(3)	(4)	(5)	Miles 2/	Miles 3/	Miles	Weight 1/	Type 1/	(11)	(12)	(13)	(14)
53.	311.60	311.30	Yes	Inactive	Main Line	0.30		0.30	112		112 CWR	1943	414	Assumed rail type is CWR
54.	311.30	311.10	Yes	Inactive	Main Line	0.20		0.20	115		115 CWR	1943	414	Assumed rail type is CWR
55.	311.10	310.70	Yes	Inactive	Main Line	0.40		0.40	112		112 CWR	1943	414	Assumed rail type is CWR
56.	310.70	310.60	Yes	Inactive	Main Line	0.10		0.10	115		115 CWR	1943	414	Assumed rail type is CWR
57.	310.60	310.25	Yes	Inactive	Main Line	0.35		0.35	112		112 CWR	1943	414	Assumed rail type is CWR
58.	310.25	310.00	Yes	Inactive	Main Line	0.25		0.25	136	CWR	136 CWR	1990	414	
59.	310.00	305.00	Yes	Inactive	Main Line	5.00		5.00	136	CWR	136 CWR	1990	415	
60.	309.00	308.40	Yes	Inactive	Siding	0.60		0.60	115	SH	115 CWR		415	Assumed rail type is CWR
61.	308.40	308.30	Yes	Inactive	Siding	0.10		0.10	100	SH	100 CWR		415	Assumed rail type is CWR
62.	308.30	307.40	Yes	Inactive	Siding	0.90		0.90	131	SH	131 CWR		415	Track Chart lists weight as 131/133 lb., assumed rail weight of 131 lb. Assumed rail type is CWR
63.	307.40	307.35	Yes	Inactive	Siding	0.05		0.05	136		136 CWR		415	Assumed rail type is CWR
64.	305.00	300.00	Yes	Inactive	Main Line	5.00		5.00	136	CWR	136 CWR	1988 & 1991	416	
65.	303.00	302.85	Yes	Inactive	Siding	0.15		0.15	115	SH	115 CWR		416	Assumed rail type is CWR
66.	302.85	302.15	Yes	Inactive	Siding	0.70		0.70	136	SH	136 CWR		416	Assumed rail type is CWR
67.	302.15	302.10	Yes	Inactive	Siding	0.05		0.05	115		115 CWR		416	Assumed rail type is CWR
68.	302.10	301.65	Yes	Inactive	Siding	0.45		0.45	136	SH	136 CWR		416	Assumed rail type is CWR
69.	301.65	301.50	Yes	Inactive	Siding	0.15		0.15	115	SH	115 CWR		416	Assumed rail type is CWR
70.	301.50	300.80	Yes	Inactive	Siding	0.70		0.70	136	SH	136 CWR		416	Assumed rail type is CWR
71.	Google Earth		Yes	Inactive	Yard		1.29	1.29	115		115 CWR		416	See Google Earth file "TN Pass_v10.kmz", "Sidings" folder, Siding "Sage to Malta Siding 5". Assumed 115 lb. CWR.
72.	Google Earth		Yes	Inactive	Yard		1.12	1.12	115		115 CWR		416	See Google Earth file "TN Pass_v10.kmz", "Sidings" folder, Siding "Sage to Malta Siding 6". Assumed 115 lb. CWR.
73.	Google Earth		Yes	Inactive	Yard		0.14	0.14	115		115 CWR		416	See Google Earth file "TN Pass_v10.kmz", "Sidings" folder, Siding "Sage to Malta Siding 7". Assumed 115 lb. CWR.
74.	Google Earth		Yes	Inactive	Yard		0.56	0.56	115		115 CWR		416	See Google Earth file "TN Pass_v10.kmz", "Sidings" folder, Siding "Sage to Malta Siding 8". Assumed 115 lb. CWR.
75.	Google Earth		Yes	Inactive	Yard		0.45	0.45	115		115 CWR		416	See Google Earth file "TN Pass_v10.kmz", "Sidings" folder, Siding "Sage to Malta Siding 9". Assumed 115 lb. CWR.
76.	Google Earth		Yes	Inactive	Yard		0.64	0.64	115		115 CWR		416	See Google Earth file "TN Pass_v10.kmz", "Sidings" folder, Siding "Sage to Malta Siding 10". Assumed 115 lb. CWR.
77.	Google Earth		Yes	Inactive	Yard		0.14	0.14	115		115 CWR		416	See Google Earth file "TN Pass_v10.kmz", "Sidings" folder, Siding "Sage to Malta Siding 11". Assumed 115 lb. CWR.
78.	Google Earth		Yes	Inactive	Yard		0.11	0.11	115		115 CWR		416	See Google Earth file "TN Pass_v10.kmz", "Sidings" folder, Siding "Sage to Malta Siding 12". Assumed 115 lb. CWR.
79.	Google Earth		Yes	Inactive	Yard		0.12	0.12	115		115 CWR		416	See Google Earth file "TN Pass_v10.kmz", "Sidings" folder, Siding "Sage to Malta Siding 13". Assumed 115 lb. CWR.
80.	Google Earth		Yes	Inactive	Yard		0.10	0.10	115		115 CWR		416	See Google Earth file "TN Pass_v10.kmz", "Sidings" folder, Siding "Sage to Malta Siding 14". Assumed 115 lb. CWR.
81.	Google Earth		Yes	Inactive	Yard		0.13	0.13	115		115 CWR		416	See Google Earth file "TN Pass_v10.kmz", "Sidings" folder, Siding "Sage to Malta Siding 15". Assumed 115 lb. CWR.
82.	Google Earth		Yes	Inactive	Yard		0.46	0.46	115		115 CWR		416	See Google Earth file "TN Pass_v10.kmz", "Sidings" folder, Siding "Minturn Yard Track 1". Assumed 115 lb. CWR.
83.	300.00	295.00	Yes	Inactive	Main Line	5.00		5.00	136	CWR	136 CWR	1972 - 1993	417	

Tennessee Pass Rail Type Calculations

Milepost 1/ From (1)	Milepost 1/ To (2)	Segment Included (3)	Active / Inactive (4)	Track Type 1/ (5)	Track Chart Rail Miles 2/ (6)	Google Earth Rail Miles 3/ (7)	TN Pass Miles (8)	Track Chart		TN Pass Rail 4/ (11)	Year Installed 1/ (12)	Track Chart Page 1/ (13)	Comments (14)	
								Rail Weight 1/ (9)	Rail Type 1/ (10)					
84.	Google Earth	Yes	Inactive	Siding		0.10	0.10	136		136 CWR		417	See Google Earth file "TN Pass_v10.kmz", "Sidings" folder, Siding"Belden Siding Part 1". Assumed 136 lb. CWR	
85.	295.00	290.00	Yes	Inactive	Main Line	5.00		5.00	136	CWR	136 CWR	1973 - 1993	418	Assumed rail type is CWR
86.	Google Earth	Yes	Inactive	Siding		1.10	1.10	131		SH	131 CWR		418	See Google Earth file "TN Pass_v10.kmz", "Sidings" folder, Siding"Belden Siding Part 2". Assumed 136 lb. CWR
87.	290.00	288.90	Yes	Inactive	Main Line	1.10		1.10	136	CWR	136 CWR	1977 & 1982	419	
88.	288.90	288.15	Yes	Inactive	Main Line	0.75		0.75	119	CWR	119 CWR	1968	419	
89.	288.15	286.30	Yes	Inactive	Main Line	1.85		1.85	136	CWR/JTD	136 JTD	1977 - 1993	419	Assumed JTD
90.	286.30	285.60	Yes	Inactive	Main Line	0.70		0.70	136	CWR	136 CWR		419	
91.	285.60	285.00	Yes	Inactive	Main Line	0.60		0.60	136	CWR/JTD	136 JTD		419	Assumed JTD
92.	289.60	289.55	Yes	Inactive	Siding	0.05		0.05	136		136 CWR		419	Assumed rail type is CWR
93.	289.55	288.00	Yes	Inactive	Siding	1.55		1.55	131	SH	131 CWR		419	Assumed rail type is CWR
94.	288.00	287.95	Yes	Inactive	Siding	0.05		0.05	136		136 CWR		419	Assumed rail type is CWR
95.	288.80	288.50	Yes	Inactive	Siding	0.30		0.30	131	SH	131 CWR		419	Assumed rail type is CWR
96.	288.76	288.66	Yes	Inactive	Siding	0.10		0.10	131	SH	131 CWR		419	Assumed rail type is CWR
97.	285.00	280.00	Yes	Inactive	Main Line	5.00		5.00	136	CWR/JTD	136 JTD	1977	421	Assumed JTD
98.	281.15	281.10	Yes	Inactive	Siding	0.05		0.05	136		136 CWR		421	Assumed rail type is CWR
99.	281.10	280.00	Yes	Inactive	Siding	1.10		1.10	131	SH	131 CWR		421	Assumed rail type is CWR
100.	280.95	280.85	Yes	Inactive	Siding	0.10		0.10	131	SH	131 CWR		421	Assumed rail type is CWR
101.	280.00	275.00	Yes	Inactive	Main Line	5.00		5.00	136	CWR	136 CWR	1981	422	
102.	280.00	279.55	Yes	Inactive	Siding	0.45		0.45	131	SH	131 CWR		422	Assumed rail type is CWR
103.	279.55	279.50	Yes	Inactive	Siding	0.05		0.05	136	CWR	136 CWR		422	
104.	275.00	270.70	Yes	Inactive	Main Line	4.30		4.30	136	CWR	136 CWR	1981	423	
105.	272.40	272.35	Yes	Inactive	Siding	0.05		0.05	136	CWR	136 CWR		423	
106.	272.35	271.90	Yes	Inactive	Siding	0.45		0.45	131	SH	131 CWR		423	Assumed rail type is CWR
107.	271.90	270.85	Yes	Inactive	Siding	1.05		1.05	115	SH	115 CWR		423	Assumed rail type is CWR
108.	270.85	270.80	Yes	Inactive	Siding	0.05		0.05	136	CWR	136 CWR		423	
109.	Google Earth	Yes	Inactive	Yard		0.60	0.60	115		SH	115 CWR		423	See Google Earth file "TN Pass_v10.kmz", "Sidings" folder, Siding "Malta Yard Track 1". Assumed 115 lb. CWR rail weight.
110.	Google Earth	Yes	Inactive	Yard		0.55	0.55	115		SH	115 CWR		423	See Google Earth file "TN Pass_v10.kmz", "Sidings" folder, Siding "Malta Yard Track 2". Assumed 115 lb. CWR rail weight.
111.	Google Earth	Yes	Inactive	Yard		0.19	0.19	115		SH	115 CWR		423	See Google Earth file "TN Pass_v10.kmz", "Sidings" folder, Siding "Malta Yard Track 3". Assumed 115 lb. CWR rail weight.
112.	Google Earth	Yes	Inactive	Yard		0.15	0.15	115		SH	115 CWR		423	See Google Earth file "TN Pass_v10.kmz", "Sidings" folder, Siding "Malta Yard Track 4". Assumed 115 lb. CWR rail weight.
113.	Google Earth	Yes	Inactive	Yard		0.20	0.20	115		SH	115 CWR		423	See Google Earth file "TN Pass_v10.kmz", "Sidings" folder, Siding "Malta Yard Track 5". Assumed 115 lb. CWR rail weight.
114.	Google Earth	Yes	Inactive	Yard		0.05	0.05	115		SH	115 CWR		423	See Google Earth file "TN Pass_v10.kmz", "Sidings" folder, Siding "Malta Yard Track 6". Assumed 115 lb. CWR rail weight.
115.	Google Earth	Yes	Inactive	Yard		0.19	0.19	115		SH	115 CWR		423	See Google Earth file "TN Pass_v10.kmz", "Sidings" folder, Siding "Malta Yard Track 7". Assumed 115 lb. CWR rail weight.
116.	Google Earth	Yes	Inactive	Yard		0.16	0.16	115		SH	115 CWR		423	See Google Earth file "TN Pass_v10.kmz", "Sidings" folder, Siding "Malta Yard Track 8". Assumed 115 lb. CWR rail weight.
117.	270.70	270.20	Yes	Inactive	Main Line	0.50		0.50	136	CWR	136 CWR	1981	423	

Tennessee Pass Rail Type Calculations

	Milepost 1/		Segment Included	Active / Inactive	Track Type 1/	Track	Google	Track Chart			Year Installed 1/	Track	Comments	
	From	To				Chart Rail	Earth Rail	TN Pass	Rail	Rail		TN Pass Rail 4/		Chart Page 1/
	(1)	(2)	(3)	(4)	(5)	Miles 2/ (6)	Miles 3/ (7)	Miles (8)	Weight 1/ (9)	Type 1/ (10)	(11)	(12)	(13)	(14)
118.	270.20	270.00	Yes	Inactive	Main Line	0.20		0.20	115		115 CWR	1949	423	Assumed rail type is CWR
119.	270.00	269.90	Yes	Inactive	Main Line	0.10		0.10	115		115 CWR	1949	424	Assumed rail type is CWR
120.	269.90	269.55	Yes	Inactive	Main Line	0.35		0.35	136		136 CWR	1985	424	Assumed rail type is CWR
121.	269.55	265.00	Yes	Inactive	Main Line	4.55		4.55	115		115 CWR	1949	424	Assumed rail type is CWR
122.	265.00	261.20	Yes	Inactive	Main Line	3.80		3.80	115		115 CWR	1949	425	Assumed rail type is CWR
123.	261.20	261.10	Yes	Inactive	Main Line	0.10		0.10	136		136 CWR	1985	425	Assumed rail type is CWR
124.	261.10	261.00	Yes	Inactive	Main Line	0.10		0.10	115		115 CWR	1949	425	Assumed rail type is CWR
125.	261.00	260.00	Yes	Inactive	Main Line	1.00		1.00	112		112 CWR	1940	425	Assumed rail type is CWR
126.	264.40	262.70	Yes	Inactive	Siding	1.70		1.70	115	SH CWR	115 CWR		425	
127.	260.00	259.60	Yes	Inactive	Main Line	0.40		0.40	112		112 CWR	1940	426	Assumed rail type is CWR
128.	259.60	259.30	Yes	Inactive	Main Line	0.30		0.30	115		115 CWR	1985	426	Assumed rail type is CWR
129.	259.30	259.00	Yes	Inactive	Main Line	0.30		0.30	112		112 CWR	1940	426	Assumed rail type is CWR
130.	259.00	255.00	Yes	Inactive	Main Line	4.00		4.00	136	CWR	136 CWR	1978	426	
131.	255.00	253.05	Yes	Inactive	Main Line	1.95		1.95	136	CWR	136 CWR	1978 & 1996	427	
132.	253.05	252.50	Yes	Inactive	Main Line	0.55		0.55	112		112 CWR	1940	427	Assumed rail type is CWR
133.	252.50	252.25	Yes	Inactive	Main Line	0.25		0.25	115	SH CWR	115 CWR	1981	427	
134.	252.25	250.40	Yes	Inactive	Main Line	1.85		1.85	112		112 CWR	1940	427	Assumed rail type is CWR
135.	250.40	250.20	Yes	Inactive	Main Line	0.20		0.20	136	CWR	136 CWR	1992	427	
136.	250.20	250.05	Yes	Inactive	Main Line	0.15		0.15	112		112 CWR	1940	427	Assumed rail type is CWR
137.	250.05	250.00	Yes	Inactive	Main Line	0.05		0.05	136	CWR	136 CWR	1992	427	
138.	253.00	251.40	Yes	Inactive	Siding	1.60		1.60	136	CWR	136 CWR		427	
139.	252.40	252.20	Yes	Inactive	Siding	0.20		0.20	136	CWR	136 CWR		427	
140.	250.00	249.95	Yes	Inactive	Main Line	0.05		0.05	136	CWR	136 CWR	1992	428	
141.	249.95	249.45	Yes	Inactive	Main Line	0.50		0.50	112		112 CWR	1940	428	Assumed rail type is CWR
142.	249.45	245.00	Yes	Inactive	Main Line	4.45		4.45	115		115 CWR	1942 & 1949	428	Assumed rail type is CWR
143.	245.60	245.20	Yes	Inactive	Siding	0.40		0.40	136	SH	136 CWR		428	Assumed rail type is CWR.
144.	245.20	245.00	Yes	Inactive	Siding	0.20		0.20	110	SH	110 CWR		428	Assumed rail type is CWR.
145.	245.00	243.75	Yes	Inactive	Main Line	1.25		1.25	115		115 CWR	1949	429	Assumed rail type is CWR
146.	243.75	243.65	Yes	Inactive	Main Line	0.10		0.10	136	SH CWR	136 CWR	1996	429	
147.	243.65	243.40	Yes	Inactive	Main Line	0.25		0.25	115		115 CWR	1949	429	Assumed rail type is CWR
148.	243.40	243.20	Yes	Inactive	Main Line	0.20		0.20	136	SH CWR	136 CWR	1996	429	
149.	243.20	241.80	Yes	Inactive	Main Line	1.40		1.40	115		115 CWR	1949 & 1981	429	Assumed rail type is CWR
150.	241.80	241.55	Yes	Inactive	Main Line	0.25		0.25	136	SH CWR	136 CWR	1996	429	
151.	241.55	240.00	Yes	Inactive	Main Line	1.55		1.55	115		115 CWR	1949	429	Assumed rail type is CWR
152.	245.00	244.80	Yes	Inactive	Siding	0.20		0.20	110	SH	110 CWR		429	Assumed rail type is CWR.
153.	244.80	244.75	Yes	Inactive	Siding	0.05		0.05	115		115 CWR		429	Assumed rail type is CWR.
154.	244.75	243.95	Yes	Inactive	Siding	0.80		0.80	100	SH	110 CWR		429	Assumed rail type is CWR.
155.	243.95	243.90	Yes	Inactive	Siding	0.05		0.05	115	SH	115 CWR		429	Assumed rail type is CWR.
156.	240.00	235.00	Yes	Inactive	Main Line	5.00		5.00	115		115 CWR	1949	430	Assumed rail type is CWR
157.	235.00	231.90	Yes	Inactive	Main Line	3.10		3.10	115		115 CWR	1949	431	Assumed rail type is CWR
158.	231.90	230.00	Yes	Inactive	Main Line	1.90		1.90	136	CWR	136 CWR	1979	431	
159.	233.80	233.60	Yes	Inactive	Siding	0.20		0.20	115		115 CWR		431	Assumed rail type is CWR
160.	233.60	232.80	Yes	Inactive	Siding	0.80		0.80	136	CWR	136 CWR		431	
161.	232.80	232.45	Yes	Inactive	Siding	0.35		0.35	112	SH CWR	112 CWR		431	

Tennessee Pass Rail Type Calculations

	Milepost 1/		Segment Included	Active / Inactive	Track Type 1/	Track	Google	Track Chart			Year Installed 1/	Track	Comments	
	From	To				Rail	Earth	Rail	Rail	TN Pass		Chart		Page 1/
	(1)	(2)	(3)	(4)	(5)	Miles 2/	Miles 3/	Miles	Weight 1/	Type 1/	TN Pass Rail 4/	(12)	(13)	(14)
162.	232.45	232.40	Yes	Inactive	Siding	0.05		0.05	115		115 CWR		431	Assumed rail type is CWR
163.	230.00	225.00	Yes	Inactive	Main Line	5.00		5.00	136	CWR	136 CWR	1975 - 1989	432	
164.	225.00	220.00	Yes	Inactive	Main Line	5.00		5.00	136	CWR	136 CWR	1979	433	
165.	222.40	222.30	Yes	Inactive	Siding	0.10		0.10	136		136 CWR		433	Assumed rail type is CWR
166.	222.30	220.40	Yes	Inactive	Siding	1.90		1.90	110	SH	110 CWR		433	Assumed rail type is CWR.
167.	220.40	220.30	Yes	Inactive	Siding	0.10		0.10	136		136 CWR		433	Assumed rail type is CWR
168.	222.35	222.05	Yes	Inactive	Siding	0.30		0.30	110	SH	110 CWR		433	Assumed rail type is CWR.
169.	220.00	215.00	Yes	Inactive	Main Line	5.00		5.00	136	CWR	136 CWR	1984	434	
170.	216.20	216.05	Yes	Inactive	Siding	0.15		0.15	136		136 CWR		434	Assumed rail type is CWR
171.	216.05	216.00	Yes	Inactive	Siding	0.05		0.05	115		115 CWR		434	Assumed rail type is CWR
172.	216.00	215.00	Yes	Inactive	Siding	1.00		1.00	100	SH	110 CWR		434	
173.	Google Earth		Yes	Inactive	Yard		1.10	1.10	100	SH	110 CWR		434	See Google Earth file "TN Pass_v10.kmz", "Sidings" folder, Siding "Salida Yard Track 1". Assumed 110 lb. CWR rail weight.
174.	Google Earth		Yes	Inactive	Yard		0.17	0.17	100	SH	110 CWR		434	See Google Earth file "TN Pass_v10.kmz", "Sidings" folder, Siding "Salida Yard Track 2". Assumed 110 lb. CWR rail weight.
175.	215.00	210.00	Yes	Inactive	Main Line	5.00		5.00	136	CWR	136 CWR	1984	435	
176.	215.00	214.75	Yes	Inactive	Siding	0.25		0.25	100	SH	100 CWR		435	Assumed rail type is CWR.
177.	214.75	214.70	Yes	Inactive	Siding	0.05		0.05	136		136 CWR		435	Assumed rail type is CWR
178.	210.00	208.00	Yes	Inactive	Main Line	2.00		2.00	136	CWR	136 CWR	1982 - 1989	436	
179.	208.00	207.50	Yes	Inactive	Main Line	0.50		0.50	115	CWR	115 CWR	1978	436	
180.	207.50	205.45	Yes	Inactive	Main Line	2.05		2.05	136	CWR	136 CWR	1982 - 1984	436	
181.	205.45	205.00	Yes	Inactive	Main Line	0.45		0.45	115	SH	115 CWR	1978	436	Assumed rail type is CWR.
182.	208.40	207.10	Yes	Inactive	Siding	1.30		1.30	136	SH CWR	136 CWR		436	
183.	208.20	208.05	Yes	Inactive	Siding	0.15		0.15	136	SH CWR	136 CWR		436	
184.	205.00	202.10	Yes	Inactive	Main Line	2.90		2.90	115	CWR	115 CWR		437	
185.	202.10	200.00	Yes	Inactive	Main Line	2.10		2.10	136	CWR	136 CWR		437	
186.	200.00	198.35	Yes	Inactive	Main Line	1.65		1.65	136	SH CWR	136 CWR	1986 & 1990	438	
187.	198.35	198.20	Yes	Inactive	Main Line	0.15		0.15	106		106 CWR	1956	438	Assumed rail type is CWR
188.	198.20	196.00	Yes	Inactive	Main Line	2.20		2.20	136	SH CWR	136 CWR	1990	438	
189.	196.00	195.90	Yes	Inactive	Main Line	0.10		0.10	115	SH CWR	115 CWR	1985	438	
190.	195.90	195.60	Yes	Inactive	Main Line	0.30		0.30	136	CWR	136 CWR	1986	438	
191.	195.60	195.35	Yes	Inactive	Main Line	0.25		0.25	115	SH CWR	115 CWR	1985	438	
192.	195.35	195.00	Yes	Inactive	Main Line	0.35		0.35	132	SH CWR	132 CWR	1990	438	
193.	198.20	198.10	Yes	Inactive	Siding	0.10		0.10	136		136 CWR		438	Assumed rail type is CWR
194.	198.10	197.70	Yes	Inactive	Siding	0.40		0.40	115	SH	115 CWR		438	Assumed rail type is CWR.
195.	197.70	197.20	Yes	Inactive	Siding	0.50		0.50	100	SH	100 CWR		438	Assumed rail type is CWR.
196.	197.20	197.15	Yes	Inactive	Siding	0.05		0.05	115		115 CWR		438	Assumed rail type is CWR
197.	197.15	197.10	Yes	Inactive	Siding	0.05		0.05	136		136 CWR		438	Assumed rail type is CWR
198.	198.10	197.75	Yes	Inactive	Siding	0.35		0.35	115	SH	115 CWR		438	Assumed rail type is CWR.
199.	195.00	193.95	Yes	Inactive	Main Line	1.05		1.05	132	SH CWR	132 CWR	1990	439	
200.	193.95	191.90	Yes	Inactive	Main Line	2.05		2.05	136	CWR	136 CWR	1986 - 1992	439	
201.	191.90	191.50	Yes	Inactive	Main Line	0.40		0.40	131		131 CWR	1947	439	Assumed rail type is CWR
202.	191.50	190.65	Yes	Inactive	Main Line	0.85		0.85	136	CWR	136 CWR	1974 & 1985	439	
203.	190.65	190.55	Yes	Inactive	Main Line	0.10		0.10	131		131 CWR	1947	439	Assumed rail type is CWR

Tennessee Pass Rail Type Calculations

	Milepost 1/		Segment Included	Active / Inactive	Track Type 1/ (5)	Track	Google	Track Chart			Year Installed 1/ (12)	Track	Comments (14)	
	From (1)	To (2)				Chart Rail Miles 2/ (6)	Earth Rail Miles 3/ (7)	TN Pass Miles (8)	Rail Weight 1/ (9)	Rail Type 1/ (10)		TN Pass Rail 4/ (11)		Page 1/ (13)
204.	190.55	190.00	Yes	Inactive	Main Line	0.55		0.55	136	CWR	136 CWR	1992	439	
205.	191.90	191.80	Yes	Inactive	Siding	0.10		0.10	136		136 CWR		439	Assumed rail type is CWR
206.	191.80	191.70	Yes	Inactive	Siding	0.10		0.10	131		131 CWR		439	Assumed rail type is CWR
207.	191.70	191.60	Yes	Inactive	Siding	0.10		0.10	136	SH	136 CWR		439	Assumed rail type is CWR.
208.	191.60	190.70	Yes	Inactive	Siding	0.90		0.90	131	SH	131 CWR		439	Assumed rail type is CWR.
209.	190.70	190.65	Yes	Inactive	Siding	0.05		0.05	136	CWR	136 CWR		439	Assumed rail type is CWR
210.	190.00	189.35	Yes	Inactive	Main Line	0.65		0.65	131		131 CWR	1947	440	Assumed rail type is CWR
211.	189.35	189.10	Yes	Inactive	Main Line	0.25		0.25	136	CWR	136 CWR		440	
212.	189.10	187.80	Yes	Inactive	Main Line	1.30		1.30	131		131 CWR	1947	440	Assumed rail type is CWR
213.	187.80	186.00	Yes	Inactive	Main Line	1.80		1.80	136	CWR	136 CWR	1983 - 1993	440	
214.	186.00	185.90	Yes	Inactive	Main Line	0.10		0.10	131		131 CWR	1947	440	Assumed rail type is CWR
215.	185.90	185.70	Yes	Inactive	Main Line	0.20		0.20	136	CWR	136 CWR	1991	440	
216.	185.70	185.15	Yes	Inactive	Main Line	0.55		0.55	131		131 CWR	1947	440	Assumed rail type is CWR
217.	185.15	185.05	Yes	Inactive	Main Line	0.10		0.10	136		136 CWR	1992	440	Assumed rail type is CWR
218.	185.05	185.00	Yes	Inactive	Main Line	0.05		0.05	131		131 CWR	1947	440	Assumed rail type is CWR
219.	185.10	185.00	Yes	Inactive	Siding	0.10		0.10	136	CWR	136 CWR		440	
220.	185.00	183.75	Yes	Inactive	Main Line	1.25		1.25	131		131 CWR	1947	441	Assumed rail type is CWR
221.	183.75	180.00	Yes	Inactive	Main Line	3.75		3.75	136		136 CWR	1959 - 1993	441	Assumed rail type is CWR
222.	185.00	183.70	Yes	Inactive	Siding	1.30		1.30	136	CWR	136 CWR		441	
223.	184.80	184.50	Yes	Inactive	Siding	0.30		0.30	136	CWR	136 CWR		441	
224.	180.00	176.30	Yes	Inactive	Main Line	3.70		3.70	136		136 CWR	1959 - 1993	442	Assumed rail type is CWR
225.	176.30	175.35	Yes	Inactive	Main Line	0.95		0.95	131		131 CWR	1946	442	Assumed rail type is CWR
226.	175.35	175.30	Yes	Inactive	Main Line	0.05		0.05	136		136 CWR	1974	442	
227.	175.30	175.00	Yes	Inactive	Main Line	0.30		0.30	131		131 CWR	1946	442	Assumed rail type is CWR
228.	176.40	176.35	Yes	Inactive	Siding	0.05		0.05	136		136 CWR		442	Assumed rail type is CWR
229.	176.35	176.30	Yes	Inactive	Siding	0.05		0.05	131		131 CWR		442	Assumed rail type is CWR
230.	176.30	175.40	Yes	Inactive	Siding	0.90		0.90	90	SH	90 CWR		442	Assumed rail type is CWR
231.	175.40	175.35	Yes	Inactive	Siding	0.05		0.05	131		131 CWR		442	Assumed rail type is CWR
232.	175.35	175.30	Yes	Inactive	Siding	0.05		0.05	136		136 CWR		442	Assumed rail type is CWR
233.	175.50	175.40	Yes	Inactive	Siding	0.10		0.10	136		136 CWR		442	Assumed rail type is CWR
234.	175.00	174.60	Yes	Inactive	Main Line	0.40		0.40	131		131 CWR	1946	443	Assumed rail type is CWR
235.	174.60	173.50	Yes	Inactive	Main Line	1.10		1.10	136	CWR	136 CWR	1989 & 1990	443	
236.	173.50	173.10	Yes	Inactive	Main Line	0.40		0.40	131		131 CWR	1946	443	Assumed rail type is CWR
237.	173.10	171.90	Yes	Inactive	Main Line	1.20		1.20	136		136 CWR	1982 - 1990	443	Assumed rail type is CWR
238.					Segment Main Line Miles	163.10								
239.					Segment Siding/Yard Miles	40.16								
240.					Segment Total Miles	203.26								

3a. Malta, CO to Leadville, CO Spur

1.	271.00	274.90	Yes	Inactive	Main Line	3.90		3.90	90		90 JT	1936	587	Assumed Jointed Rail based on age of rail
2.	274.90	276.10	Yes	Inactive	Main Line	1.20		1.20	85		85 JT	1928	587	Assumed Jointed Rail based on age of rail

Tennessee Pass Rail Type Calculations

	Milepost 1/		Segment Included	Active / Inactive	Track Type 1/	Track Chart Rail Miles 2/	Google Earth Rail Miles 3/	TN Pass Miles (8)	Track Chart		Year Installed 1/	Track Chart Page 1/	Comments (14)	
	From (1)	To (2)							Rail Weight 1/	Rail Type 1/				TN Pass Rail 4/
3.						Segment Main Line Miles	5.10							
4.						Segment Siding/Yard Miles	0.00							
5.						Segment Total Miles	5.10							
4. Sage, CO to Dotsero, CO														
1.	341.90	341.85	Yes	Active	Main Line	0.05		0.05	131		131 CWR	1943	408	Assumed rail type is CWR
2.	341.85	341.6	Yes	Active	Main Line	0.25		0.25	136	CWR	136 CWR	1985	408	
3.	341.60	341.40	Yes	Active	Main Line	0.20		0.20	131		131 CWR	1943	408	Assumed rail type is CWR
4.	341.40	340.85	Yes	Active	Main Line	0.55		0.55	136	CWR	136 CWR	1986 & 1989	408	
5.	340.85	340.80	Yes	Active	Main Line	0.05		0.05	131		131 CWR		408	Rail weight not shown in track charts. Assumed 131 lb.
6.	340.80	340.60	Yes	Active	Main Line	0.20		0.20	131		131 CWR	1940	408	Assumed rail type is CWR
7.	340.60	340.30	Yes	Active	Main Line	0.30		0.30	136	CWR	136 CWR	1986 & 1993	408	
8.	340.30	340.20	Yes	Active	Main Line	0.10		0.10	131		131 CWR	1940	408	Assumed rail type is CWR
9.	340.20	340.10	Yes	Active	Main Line	0.10		0.10	136	CWR	136 CWR	1989	408	
10.	340.10	340.00	Yes	Active	Main Line	0.10		0.10	131		131 CWR	1940	408	Assumed rail type is CWR
11.	340.00	339.85	Yes	Active	Main Line	0.15		0.15	136	CWR	136 CWR	1989	409	
12.	339.85	339.10	Yes	Active	Main Line	0.75		0.75	131		131 CWR	1940	409	Assumed rail type is CWR
13.	339.10	338.80	Yes	Active	Main Line	0.30		0.30	136	CWR	136 CWR	1987	409	
14.	338.80	338.75	Yes	Active	Main Line	0.05		0.05	131		131 CWR	1940	409	Assumed rail type is CWR
15.	338.75	338.40	Yes	Active	Main Line	0.35		0.35	136	CWR	136 CWR	1984	409	
16.	338.40	338.35	Yes	Active	Main Line	0.05		0.05	131		131 CWR	1940	409	Assumed rail type is CWR
17.	338.35	338.20	Yes	Active	Main Line	0.15		0.15	136	CWR	136 CWR	1984	409	
18.	338.20	337.70	Yes	Active	Main Line	0.50		0.50	131	SH	131 CWR	1963	409	Assumed rail type is CWR
19.	337.70	336.85	Yes	Active	Main Line	0.85		0.85	115		115 CWR	1947	409	Assumed rail type is CWR
20.	336.85	336.70	Yes	Active	Main Line	0.15		0.15	136	CWR	136 CWR	1991	409	
21.	336.70	336.65	Yes	Active	Main Line	0.05		0.05	115	SH CWR	115 CWR	1980	409	
22.	336.65	336.50	Yes	Active	Main Line	0.15		0.15	115		115 CWR	1947	409	Assumed rail type is CWR
23.	336.50	336.25	Yes	Active	Main Line	0.25		0.25	136	CWR	136 CWR	1991	409	
24.	336.25	335.00	Yes	Active	Main Line	1.25		1.25	115		115 CWR	1947 & 1954	409	Assumed rail type is CWR
25.						Segment Main Line Miles	6.90							
26.						Segment Siding/Yard Miles	0.00							
27.						Segment Total Miles	6.90							
28.						Grand Total Main Line Miles 5/	217.05							
29.						Grand Total Siding/Yard Miles 5/	54.01							
30.						Grand Total Total Miles 5/	271.06							

1/ Developed using "Appendix TDC-3.pdf", UP 2002 Track Chart, Tennessee Pass Subdivision.

2/ Column (1) - Column (2).

3/ Rail miles calculated using Google Earth. See Comments column for specific Google Earth file name.

4/ Tennessee Pass Line rail was developed using the 2002 track chart cited above. Rail type assumptions were necessary for portions of track that did not identify weight or type. See the Comments column for any assumptions.

5/ The rail total does not include the Canon City, CO to Parkdale, CO segment as that segment is not owned by UP.

Tennessee Pass Crossing Calculations

Crossing # 1/ (1)	Google Earth Screen Shot 2/ (2)	Segment Included (3)	Active/ Inactive (4)	UP Track Chart 3/ (5) (6)		Public / Private 4/ (7)	Grade XING Data 5/ (8) (9) (10) (11) (12) (13) (14) (15)								Bell (B) / Flasher (F) / Gates (G) 6/ (16)	Bell (B) / Flasher (F) 6/ (17)
				Page	Milepost		X	B	F	G	W	T	S	C		
35.						Public Crossings									10	6
36.						Private Crossings									0	0
37.						Total Crossings									10	6

2. Canon City, CO to Parkdale, CO

1. CR81: PCC-CR01	GE CR81_PCC-CR01.jpg	No	Active	443	171 - 172	Private	Y									
2. CR82: PCC-CR02	GE CR82_PCC-CR02.jpg	No	Active	446	160 - 161	Public		Y	Y	Y					Y	
3. CR83: PCC-CR03	GE CR83_PCC-CR03.jpg	No	Active	446	160 - 161	Public		Y	Y	Y					Y	
4. CR84: PCC-CR04	GE CR84_PCC-CR04.jpg	No	Active	446	160.0	Public		Y	Y	Y				Y	Y	
5. CR85: PCC-CR05	GE CR85_PCC-CR05.jpg	No	Active	447	159 - 160	Public		Y	Y	Y					Y	
6. CR86: PCC-CR06	GE CR86_PCC-CR06.jpg	No	Active	447	159 - 160	Public	Y									
7. CR87: PCC-CR07	GE CR86_PCC-CR06.jpg	No	Active	447	159 - 160	Public	Y									
8. CR88: PCC-CR08	GE CR88_PCC-CR08.jpg	No	Active	447	159 - 160	Public		Y	Y	Y					Y	
9.						Public Crossings									5	0
10.						Private Crossings									0	0
11.						Total Crossings									5	0

3. Parkdale, CO to Sage, CO

1. CR8: SM-CR01	GE CR8_SM-CR01.jpg	Yes	Inactive	410	330 - 331	Private	Y									
2. CR9: SM-CR02	GE CR9_SM-CR02.jpg	Yes	Inactive	410	330 - 331	Private	Y									
3. CR10: SM-CR03	GE CR10_SM-CR03.jpg	Yes	Inactive	411	329 - 330	Private	Y							Y		
4. CR11: SM-CR04	GE CR11_SM-CR04.jpg	Yes	Inactive	411	329 - 330	Public	Y							Y		
5. CR12: SM-CR05	GE CR12_SM-CR05.jpg	Yes	Inactive	411	328 - 329	Public	Y									
6. CR13: SM-CR06	GE CR13_SM-CR06.jpg	Yes	Inactive	411	327 - 328	Private										
7. CR14: SM-CR07	GE CR14_SM-CR07.jpg	Yes	Inactive	411	326 - 327	Private	Y									
8. CR15: SM-CR08	GE CR15_SM-CR08.jpg	Yes	Inactive	411	325 - 326	Private										
9. CR16: SM-CR09	GE CR16_SM-CR09.jpg	Yes	Inactive	412	324 - 325	Private										
10. CR17: SM-CR10	GE CR17_SM-CR10.jpg	Yes	Inactive	412	322 - 323	Private								Y		
11. CR18: SM-CR11	GE CR18_SM-CR11.jpg	Yes	Inactive	412	320 - 321	Private								Y		
12. CR19: SM-CR12	GE CR19_SM-CR12.jpg	Yes	Inactive	413	318 - 319	Public		Y	Y							Y
13. CR20: SM-CR13	GE CR19_SM-CR12.jpg	Yes	Inactive	413	318 - 319	Public		Y	Y							Y
14. CR21: SM-CR14	GE CR21_SM-CR14.jpg	Yes	Inactive	413	317 - 318	Private										
15. CR22: SM-CR15	GE CR22_SM-CR15.jpg	Yes	Inactive	414	314 - 315	Public	Y							Y		
16. CR23: SM-CR16	GE CR23_SM-CR16.jpg	Yes	Inactive	414	310 - 311	Private	Y									
17. CR24: SM-CR17	GE CR24_SM-CR17.jpg	Yes	Inactive	xxx	xxx	Public	Y									
18. CR25: SM-CR18	GE CR25_SM-CR18.jpg	Yes	Inactive	415	308 - 309	Public		Y	Y	Y					Y	
19. CR26: SM-CR19	GE CR25_SM-CR18.jpg	Yes	Inactive	415	308 - 309	Public		Y	Y	Y					Y	

Tennessee Pass Turnout Calculations

<u>Turnout 1/</u> (1)	<u>Segment</u> <u>Included</u>	<u>Active/</u> <u>Inactive</u>	<u>Google Earth Screen Shot 2/</u> (4)	<u>UP Track Chart 3/</u>			<u>Comments</u> (8)	<u>Classification 4/</u>		
				<u>Milepost</u> (5)	<u>Page Number</u> (6)	<u>Turnout Type</u> (7)		<u>Relay</u> (9)	<u>Scrap</u> (10)	<u>Total</u> (11)
<u>1. Pueblo Jct., CO to Canon City, CO</u>										
1. TO105:CCPJ-TO1	Yes	Active	GE TO105_CCPJ-TO1.jpg	153 - 154	448	136				
2. TO106:CCPJ-TO2	Yes	Active	GE TO106_CCPJ-TO2.jpg	153 - 154	448	136				
3. TO107:CCPJ-TO3	Yes	Active	GE TO107_CCPJ-TO3.jpg	152 - 153	448	136				
4. TO108:CCPJ-TO4	Yes	Active	GE TO108_CCPJ-TO4.jpg	152 - 153	448	136				
5. TO109:CCPJ-TO5	Yes	Active	GE TO109_CCPJ-TO5.jpg	152 - 153	448	136				
6. TO110:CCPJ-TO6	Yes	Active	GE TO110_CCPJ-TO6.jpg	151 - 152	448	136				
7. TO167: Florence, CO	Yes	Active	GE TO167_ Florence, CO.jpg	151 - 152	448	136				
8. TO168: Florence, CO	Yes	Active	GE TO168_ Florence, CO.jpg	151 - 152	448	136				
9. TO169: Florence, CO	Yes	Active	GE TO169_ Florence, CO.jpg	151 - 152	448	136				
10. TO111:CCPJ-TO7	Yes	Active	GE TO111_CCPJ-TO7.jpg	151 - 152	448	136				
11. TO112:CCPJ-TO8	Yes	Active	GE TO112_CCPJ-TO8.jpg	151 - 152	448	136				
12. TO113:CCPJ-TO9	Yes	Active	GE TO113_CCPJ-TO9.jpg	147 - 148	449	136				
13. TO114:CCPJ-T10	Yes	Active	GE TO114_CCPJ-T10.jpg	147 - 148	449	112 / 115				
14. TO115:CCPJ-T11	Yes	Active	GE TO115_CCPJ-T11.jpg	146 - 147	449	112 / 115				
15. TO116:CCPJ-T12	Yes	Active	GE TO116_CCPJ-T12.jpg	146 - 147	449	112 / 115				
16. TO118:CCPJ-T14	Yes	Active	GE TO118_CCPJ-T14.jpg	145 - 146	449	112 / 115				
17. TO119:CCPJ-T15	Yes	Active	GE TO119_CCPJ-T15.jpg	139 - 140	451	112 / 115				
18. TO120:CCPJ-T16	Yes	Active	GE TO120_CCPJ-T16.jpg	139 - 140	451	112 / 115				
19. TO121:CCPJ-T17	Yes	Active	GE TO121_CCPJ-T17.jpg	138 - 139	451	112 / 115				
20. TO122:CCPJ-T18	Yes	Active	GE TO122_CCPJ-T18.jpg	131 - 132	452	136				
21. TO123:CCPJ-T19	Yes	Active	GE TO123_CCPJ-T19.jpg	130 - 131	452	136				
22. TO124:CCPJ-T20	Yes	Active	GE TO124_CCPJ-T20.jpg	130 - 131	452	136				
23. TO125:CCPJ-T21	Yes	Active	GE TO125_CCPJ-T21.jpg	129 - 130	453	136				
24. TO126:CCPJ-T22	Yes	Active	GE TO126_CCPJ-T22.jpg	123	454	136				
25. TO127:CCPJ-T23	Yes	Active	GE TO127_CCPJ-T23.jpg	120 - 121	454	136				
26. TO128:CCPJ-T24	Yes	Active	GE TO128_CCPJ-T24.jpg	120 - 121	454	136				
27. TO129:CCPJ-T25	Yes	Active	GE TO129_CCPJ-T25.jpg	120 - 121	454	136				
28. TO130:CCPJ-T26	Yes	Active	GE TO130_CCPJ-T26.jpg	120 - 121	454	136				
29.					112/115 Turnouts	7		6	xxx	6
30.					136 Turnouts	21		19	xxx	19
31.					Total Turnouts	28		25	3	28
<u>2. Canon City, CO to Parkdale, CO</u>										
1. TO80:PCC-TO1	No	Active	GE TO80_PCC-TO1.jpg	171 - 172	443	136				
2. TO166: Parkdale, CO	No	Active	GE TO166_ Parkdale, CO.jpg	171 - 172	443	136				

Tennessee Pass Turnout Calculations

<u>Turnout 1/</u> (1)	<u>Segment</u> <u>Included</u>	<u>Active/</u> <u>Inactive</u>	<u>Google Earth Screen Shot 2/</u> (4)	<u>UP Track Chart 3/</u>			<u>Comments</u> (8)	<u>Classification 4/</u>		
				<u>Milepost</u> (5)	<u>Page Number</u> (6)	<u>Turnout Type</u> (7)		<u>Relay</u> (9)	<u>Scrap</u> (10)	<u>Total</u> (11)
3. TO81:PCC-TO2	No	Active	GE TO81_PCC-TO2.jpg	171 - 172	443	136				
4. TO82:PCC-TO3	No	Active	GE TO82_PCC-TO3.jpg	170 - 171	443	136				
5. TO83:PCC-TO4	No	Active	GE TO83_PCC-TO4.jpg	170 - 171	443	136				
6. TO84:PCC-TO5	No	Active	GE TO84_PCC-TO5.jpg	170 - 171	443	136				
7. TO85:PCC-TO6	No	Active	GE TO85_PCC-TO6.jpg	169 - 170	444	136				
8. TO86:PCC-TO7	No	Active	GE TO86_PCC-TO7.jpg	161 - 162	446	136				
9. TO87:PCC-TO8	No	Active	GE TO87_PCC-TO8.jpg	161 - 162	446	136				
10. TO88:PCC-TO9	No	Active	GE TO88_PCC-TO9.jpg	161 - 162	446	136				
11. TO89:PCC-T10	No	Active	GE TO89_PCC-T10.jpg	160 - 161	446	136				
12. TO90:PCC-T11	No	Active	GE TO90_PCC-T11.jpg	160 - 161	446	136				
13. TO91:PCC-T12	No	Active	GE TO91_PCC-T12.jpg	160 - 161	446	136				
14. TO92:PCC-T13	No	Active	GE TO92_PCC-T13.jpg	160 - 161	446	136				
15. TO93:PCC-T14	No	Active	GE TO93_PCC-T14.jpg	159 - 160	447	136				
16. TO94:PCC-T15	No	Active	GE TO94_PCC-T15.jpg	159 - 160	447	136				
17. TO95:PCC-T16	No	Active	GE TO95_PCC-T16.jpg	159 - 160	447	136				
18. TO96:PCC-T17	No	Active	GE TO96_PCC-T17.jpg	159 - 160	447	136				
19. TO97:PCC-T18	No	Active	GE TO97_PCC-T18.jpg	159 - 160	447	136				
20. TO98:PCC-T19	No	Active	GE TO98_PCC-T19.jpg	159 - 160	447	136				
21. TO99:PCC-T20	No	Active	GE TO99_PCC-T20.jpg	159 - 160	447	136				
22. TO100:PCC-T21	No	Active	GE TO100_PCC-T21.jpg	159 - 160	447	136				
23. TO101:PCC-T22	No	Active	GE TO101_PCC-T22.jpg	159 - 160	447	136				
24. TO102:PCC-T23	No	Active	GE TO102_PCC-T23.jpg	159 - 160	447	136				
25. TO103:PCC-T24	No	Active	GE TO103_PCC-T24.jpg	159 - 160	447	136				
26. TO104:PCC-T25	No	Active	GE TO104_PCC-T25.jpg	159 - 160	447	136				
27.					112/115 Turnouts	0		0	xxx	0
28.					136 Turnouts	26		0	xxx	0
29.					Total Turnouts	26		0	0	0

3. Parkdale, CO to Sage, CO

1. TO9:SM-TO01	Yes	Inactive	GE TO9_SM-TO1.jpg	329 - 330	411	112 / 115
2. TO134: Eagle, CO	Yes	Inactive	GE TO134_Eagle, CO.jpg	329 - 330	411	112 / 115
3. TO10:SM-TO2	Yes	Inactive	GE TO10_SM-TO2.jpg	319 - 320	413	112 / 115
4. TO11:SM-TO3	Yes	Inactive	GE TO11_SM-TO3.jpg	318 - 319	413	112 / 115
5. TO12:SM-TO4	Yes	Inactive	GE TO12_SM-TO4.jpg	317.56	413	112 / 115
6. TO13:SM-TO5	Yes	Inactive	GE TO13_SM-TO5.jpg	309.02	415	136
7. TO14:SM-TO6	Yes	Inactive	GE TO14_SM-TO6.jpg	307.33	415	136

Tennessee Pass Turnout Calculations

<u>Turnout 1/</u> (1)	<u>Segment</u> <u>Included</u>	<u>Active/</u> <u>Inactive</u>	<u>Google Earth Screen Shot 2/</u> (4)	<u>UP Track Chart 3/</u>			<u>Comments</u> (8)	<u>Classification 4/</u>		
				<u>Milepost</u> (5)	<u>Page Number</u> (6)	<u>Turnout Type</u> (7)		<u>Relay</u> (9)	<u>Scrap</u> (10)	<u>Total</u> (11)
8. TO15:SM-TO7	Yes	Inactive	GE TO15_SM-TO7.jpg	303	416	136				
9. TO16:SM-TO8	Yes	Inactive	GE TO16_SM-TO8.jpg	301 - 303	416	136				
10. TO17:SM-TO9	Yes	Inactive	GE TO17_SM-TO9.jpg	301 - 303	416	136				
11. TO18:SM-TO10	Yes	Inactive	GE TO18_SM-TO10.jpg	301 - 303	416	136				
12. TO19:SM-TO11	Yes	Inactive	GE TO19_SM-TO11.jpg	301 - 303	416	136				
13. TO20:SM-TO12	Yes	Inactive	GE TO20_SM-TO12.jpg	301 - 303	416	136				
14. TO21:SM-TO13	Yes	Inactive	GE TO21_SM-TO13.jpg	301 - 303	416	136				
15. TO22:SM-TO14	Yes	Inactive	GE TO22_SM-TO14.jpg	301 - 303	416	136				
16. TO23:SM-TO15	Yes	Inactive	GE TO23_SM-TO15.jpg	301 - 303	416	136				
17. TO24:SM-TO16	Yes	Inactive	GE TO24_SM-TO16.jpg	301 - 303	416	136				
18. TO25:SM-TO17	Yes	Inactive	GE TO25_SM-TO17.jpg	301 - 303	416	136				
19. TO26:SM-TO18	Yes	Inactive	GE TO26_SM-TO18.jpg	301 - 303	416	136				
20. TO27:SM-TO19	Yes	Inactive	GE TO27_SM-TO19.jpg	301 - 303	416	136				
21. TO28:SM-TO20	Yes	Inactive	GE TO28_SM-TO20.jpg	301 - 303	416	136				
22. TO29:SM-TO21	Yes	Inactive	GE TO29_SM-TO21.jpg	301 - 303	416	136				
23. TO30:SM-TO22	Yes	Inactive	GE TO30_SM-TO22.jpg	301 - 303	416	136				
24. TO31:SM-TO23	Yes	Inactive	GE TO31_SM-TO23.jpg	301 - 303	416	136				
25. TO32:SM-TO24	Yes	Inactive	GE TO32_SM-TO24.jpg	301 - 303	416	136				
26. TO33:SM-TO25	Yes	Inactive	GE TO33_SM-TO25.jpg	301 - 303	416	136				
27. TO34:SM-TO26	Yes	Inactive	GE TO34_SM-TO26.jpg	301 - 303	416	136				
28. TO135: Minturn, CO	Yes	Inactive	GE TO135_ Minturn, CO .jpg	301 - 303	416	136				
29. TO136: Minturn, CO	Yes	Inactive	GE TO136_ Minturn, CO .jpg	301 - 303	416	136				
30. TO35:SM-TO27	Yes	Inactive	GE TO35_SM-TO27.jpg	301 - 303	416	136				
31. TO36:SM-TO28	Yes	Inactive	GE TO36_SM-TO28.jpg	301 - 303	416	136				
32. TO37:SM-TO29	Yes	Inactive	GE TO37_SM-TO29.jpg	301 - 303	416	136				
33. TO38:SM-TO30	Yes	Inactive	GE TO38_SM-TO30.jpg	301 - 303	416	136				
34. TO39:SM-TO31	Yes	Inactive	GE TO39_SM-TO31.jpg	300 - 301	416	136				
35. TO137: Belden, CO	Yes	Inactive	GE TO137_ Belden, CO .jpg	296 - 297	417	136				
36. TO40:SM-TO32	Yes	Inactive	GE TO40_SM-TO32.jpg	294 - 295	418	136				
37. TO138: Pando, CO	Yes	Inactive	GE TO138_ Pando, CO .jpg	289 - 290	419	136				
38. TO139: Pando, CO	Yes	Inactive	GE TO139_ Pando, CO .jpg	288 - 289	419	136				
39. TO140: Pando, CO	Yes	Inactive	GE TO140_ Pando, CO .jpg	288 - 289	419	136				
40. TO150: Pando, CO	Yes	Inactive	GE TO150_ Pando, CO .jpg	288 - 289	419	136				
41. TO141: Pando, CO	Yes	Inactive	GE TO141_ Pando, CO .jpg	288 - 289	419	136				
42. TO41:SM-TO33	Yes	Inactive	GE TO41_SM-TO33.jpg	281 - 282	421	136				
43. TO42:SM-TO34	Yes	Inactive	GE TO42_SM-TO34.jpg	280 - 281	421	136				
44. TO43:SM-TO35	Yes	Inactive	GE TO43_SM-TO35.jpg	280 - 281	421	136				

Tennessee Pass Turnout Calculations

<u>Turnout 1/</u> (1)	<u>Segment Included</u> (2)	<u>Active/ Inactive</u> (3)	<u>Google Earth Screen Shot 2/</u> (4)	<u>UP Track Chart 3/</u>			<u>Comments</u> (8)	<u>Classification 4/</u>		
				<u>Milepost</u> (5)	<u>Page Number</u> (6)	<u>Turnout Type</u> (7)		<u>Relay</u> (9)	<u>Scrap</u> (10)	<u>Total</u> (11)
45. TO142: TN. Pass Siding X-over	Yes	Inactive	GE TO142_ TN. Pass Siding X-over .jpg	280 - 281	421	136				
46. TO44:SM-TO36	Yes	Inactive	GE TO44_ SM-TO36.jpg	280 - 281	421	136				
47. TO45:SM-TO37	Yes	Inactive	GE TO45_ SM-TO37.jpg	279 - 280	422	136				
48. TO46:SM-TO38	Yes	Inactive	GE TO46_ SM-TO38.jpg	272 - 273	423	136				
49. TO47:SM-TO39	Yes	Inactive	GE TO47_ SM-TO39.jpg	271 - 272	423	136				
50. TO48:SM-TO40	Yes	Inactive	GE TO48_ SM-TO40.jpg	271 - 272	423	136				
51. TO49:SM-TO41	Yes	Inactive	GE TO49_ SM-TO41.jpg	271 - 272	423	136				
52. TO50:SM-TO42	Yes	Inactive	GE TO50_ SM-TO42.jpg	271 - 272	423	136				
53. TO51:SM-TO43	Yes	Inactive	GE TO51_ SM-TO43.jpg	271 - 272	423	136				
54. TO52:SM-TO44	Yes	Inactive	GE TO52_ SM-TO44.jpg	271 - 272	423	136				
55. TO53:SM-TO45	Yes	Inactive	GE TO53_ SM-TO45.jpg	271 - 272	423	136				
56. TO54:SM-TO46	Yes	Inactive	GE TO54_ SM-TO46.jpg	271 - 272	423	136				
57. TO55:SM-TO47	Yes	Inactive	GE TO55_ SM-TO47.jpg	271 - 272	423	136				
58. TO56:SM-TO48	Yes	Inactive	GE TO56_ SM-TO48.jpg	271 - 272	423	136				
59. TO57:SM-TO49	Yes	Inactive	GE TO57_ SM-TO49.jpg	271 - 272	423	136				
60. TO58:MP-TO1	Yes	Inactive	GE TO58_ MP-TO1.jpg	271 - 272	423	136				
61. TO59:MP-TO2	Yes	Inactive	GE TO59_ MP-TO2.jpg	271 - 272	423	136				
62. TO60:MP-TO3	Yes	Inactive	GE TO60_ MP-TO3.jpg	270 - 271	423	136				
63. TO61:MP-TO4	Yes	Inactive	GE TO61_ MP-TO4.jpg	264 - 265	425	112 / 115				
64. TO143: Kobe, CO	Yes	Inactive	GE TO143_ Kobe, CO.jpg	263 - 264	425	112 / 115				
65. TO62:MP-TO5	Yes	Inactive	GE TO62_ MP-TO5.jpg	262 - 263	425	112 / 115				
66. TO63:MP-TO6	Yes	Inactive	GE TO63_ MP-TO6.jpg	253 - 254	427	112 / 115				
67. TO144: Princeton, CO	Yes	Inactive	GE TO144_ Princeton, CO.jpg	252 - 253	427	112 / 115				
68. TO145: Princeton, CO	Yes	Inactive	GE TO145_ Princeton, CO.jpg	251 - 252	427	112 / 115				
69. TO64:MP-TO7	Yes	Inactive	GE TO64_ MP-TO7.jpg	251 - 252	427	112 / 115				
70. TO146: Americus, CO	Yes	Inactive	GE TO146_ Americus, CO.jpg	245 - 246	428	112 / 115				
71. TO65:MP-TO8	Yes	Inactive	GE TO65_ MP-TO8.jpg	244 - 245	429	112 / 115				
72. TO147: Americus, CO	Yes	Inactive	GE TO147_ Americus, CO.jpg	243 - 244	429	112 / 115				
73. TO66:MP-TO9	Yes	Inactive	GE TO66_ MP-TO9.jpg	233 - 234	431	112 / 115				
74. TO148: Nathrop, CO	Yes	Inactive	GE TO148_ Americus, CO.jpg	232 - 233	431	112 / 115				
75. TO149: Nathrop, CO	Yes	Inactive	GE TO149_ Americus, CO.jpg	232 - 233	431	112 / 115				
76. TO67:MP-T10	Yes	Inactive	GE TO67_ MP-T10.jpg	232 - 233	431	112 / 115				
77. TO68:MP-T11	Yes	Inactive	GE TO68_ MP-T11.jpg	222 - 223	433	136				
78. TO151: Brown Canon, CO	Yes	Inactive	GE TO151_ Brown Canon, CO.jpg	222 - 223	433	136				
79. TO152: Brown Canon, CO	Yes	Inactive	GE TO152_ Brown Canon, CO.jpg	222 - 223	433	136				
80. TO69:MP-T12	Yes	Inactive	GE TO69_ MP-T12.jpg	220 - 221	433	136				
81. TO70:MP-T13	Yes	Inactive	GE TO70_ MP-T13.jpg	216 - 217	434	136				

Tennessee Pass Turnout Calculations

Turnout 1/ (1)	Segment Included (2)	Active/ Inactive (3)	Google Earth Screen Shot 2/ (4)	UP Track Chart 3/ Milepost Page Number Turnout Type			Comments (8)	Classification 4/ Relay Scrap Total			
				(5)	(6)	(7)		(9)	(10)	(11)	
82.	TO71:MP-T14	Yes	Inactive	GE TO71_MP-T14.jpg	215 - 216	434	136				
83.	TO153: Salida, CO	Yes	Inactive	GE TO153_Salida, CO.jpg	215 - 216	434	136				
84.	TO154: Salida, CO	Yes	Inactive	GE TO154_Salida, CO.jpg	215 - 216	434	136				
85.	TO155: Salida, CO	Yes	Inactive	GE TO155_Salida, CO.jpg	215 - 216	434	136				
86.	TO72:MP-T15	Yes	Inactive	GE TO72_MP-T15.jpg	214 - 215	435	136				
87.	TO156: Swissvale, CO	Yes	Inactive	GE TO156_Swissvale, CO.jpg	208 - 209	436	136				
88.	TO157: Swissvale, CO	Yes	Inactive	GE TO157_Swissvale, CO.jpg	208 - 209	436	136				
89.	TO158: Swissvale, CO	Yes	Inactive	GE TO158_Swissvale, CO.jpg	207 - 208	436	136				
90.	TO159: Vallie, CO	Yes	Inactive	GE TO159_Vallie, CO.jpg	198 - 199	438	136				
91.	TO160: Vallie, CO	Yes	Inactive	GE TO160_Vallie, CO.jpg	197 - 198	438	136				
92.	TO161: Vallie, CO	Yes	Inactive	GE TO161_Vallie, CO.jpg	197 - 198	438	136				
93.	TO73:MP-T16	Yes	Inactive	GE TO73_MP-T16.jpg	191 - 192	439	136				
94.	TO162: Cotopaxi, CO	Yes	Inactive	GE TO162_Cotopaxi, CO.jpg	191 - 192	439	136				
95.	TO74:MP-T17	Yes	Inactive	GE TO74_MP-T17.jpg	190 - 191	439	136				
96.	TO163: Tx. Creek, CO	Yes	Inactive	GE TO163_TX. Creek, CO.jpg	185 - 186	440	136				
97.	TO164: TX. Creek, CO	Yes	Inactive	GE TO164_TX. Creek, CO.jpg	184 - 185	441	136				
98.	TO165: TX. Creek, CO	Yes	Inactive	GE TO165_TX. Creek, CO.jpg	183 - 184	441	136				
99.	TO77:MP-T20	Yes	Inactive	GE TO77_MP-T20.jpg	176 - 177	442	136				
100.	TO78:MP-T21	Yes	Inactive	GE TO78_MP-T21.jpg	175 - 176	442	136				
101.	TO79:MP-T22	Yes	Inactive	GE TO79_MP-T22.jpg	175 - 176	442	136				
102.						112/115 Turnouts	19		0	xxx	0
103.						136 Turnouts	82		0	xxx	0
104.						Total Turnouts	101		0	101	101

3a. Malta, CO to Leadville, CO Spur

1.	TO131:ML-TO1	Yes	Inactive	GE TO131_ML-TO1.jpg	271 - 272	587	112 / 115				
2.	TO132:ML-TO2	Yes	Inactive	GE TO132_ML-TO2.jpg	271 - 272	587	112 / 115				
3.	TO133:ML-TO3	Yes	Inactive	GE TO133_ML-TO3.jpg		587	112 / 115				
4.						112/115 Turnouts	3		0	xxx	0
5.						136 Turnouts	0		0	xxx	0
6.						Total Turnouts	3		0	3	3

4. Sage, CO to Dotsero, CO

1.	TO1:DS-TO1	Yes	Active	GE TO1_DS-TO1.jpg	341.98	408	136			
2.	TO2:DS-TO2	Yes	Active	GE TO2_DS-TO2.jpg	341 - 342	408	136			

Tennessee Pass Turnout Calculations

	<u>Turnout 1/</u> (1)	<u>Segment</u> <u>Included</u>	<u>Active/</u> <u>Inactive</u>	<u>Google Earth Screen Shot 2/</u> (4)	<u>UP Track Chart 3/</u>			<u>Comments</u> (8)	<u>Classification 4/</u>		
					<u>Milepost</u> (5)	<u>Page Number</u> (6)	<u>Turnout Type</u> (7)		<u>Relay</u> (9)	<u>Scrap</u> (10)	<u>Total</u> (11)
3.	TO3:DS-TO3	Yes	Active	GE TO3_DS-TO3.jpg	336	409	112 / 115				
4.	TO4:DS-TO4	Yes	Active	GE TO4_DS-TO4.jpg	335 - 336	409	112 / 115				
5.	TO5:DS-TO5	Yes	Active	GE TO5_DS-TO5.jpg	335 - 336	409	112 / 115				
6.	TO6:DS-TO6	Yes	Active	GE TO6_DS-TO6.jpg	335 - 336	409	112 / 115				
7.	TO7:DS-TO7	Yes	Active	GE TO7_DS-TO7.jpg	332.8	410	112 / 115				
8.	TO8:DS-TO8	Yes	Active	GE TO8_DS-TO8.jpg	331.2	410	112 / 115				
9.						112/115 Turnouts	6		5	xxx	5
10.						136 Turnouts	2		1	xxx	1
11.						Total Turnouts	8		6	2	8
12.						Total 112/115 Turnouts 5/	35		11	xxx	11
13.						Total 136 Turnouts 5/	105		20	xxx	20
14.						Grand Total Turnouts 5/	140		31	109	140

1/ See Google Earth file "TN Pass_v10.kmz", "Turnouts" folder for complete list and location of Tennessee Pass Line turnouts.

2/ See "Turnouts" subfolder of "Google Earth" folder for Google Earth screenshot of all turnouts.

3/ Developed using "Appendix TDC-3.pdf", UP 2002 Track Chart, Tennessee Pass Subdivision.

4/ The Board's July 31, 2017 Decision in Docket No. FD 36005 ("KCVN, LLC and Colorado Pacific Railroad, LLC-Feeder Line Application-Line of V and S Railway, LLC, Located in Crowley, Pueblo, Otero, and Kiowa Counties, Colorado") stated that "[t]he Board will accept the inventory put forward by Meadows on behalf of V&S" when discussing asset inventory (See "36005 KCVN v. V & S 2017.07.31 ID_45890 BOARD DECISION APPROVES FORCED SALE OF TOWNER LINE.pdf" at 14). Ralph Lee Meadows' August 30, 2016 Verified Statement identifies the Meadows Inventory for rail as 93.13% relay, 0% reroll, and 6.87% scrap (See "36005 KCVN v. V & S 2016.08.30 ID_241398 V&S OPENING COMMENTS.pdf" at 136). This approach has been followed for the active segments of the Tennessee Pass Line. It has been assumed that turnouts along active segments owned by UP will be classified as 93.13% relay and 6.87% scrap, while turnouts along inactive segments will be classified as 100% scrap due to the age and condition.

5/ The turnout total does not include the Canon City, CO to Parkdale, CO segment as that segment is not owned by UP.

Development of Going Concern Value (“GCV”) for The Tennessee Pass

TDC-5A	Tennessee Pass Going Concern Value - 1Q20
TDC-5B	Net UP Revenues On Pueblo – Canon City Line Segment
TDC-5C	Net UP Revenues on Sage – Dotsero Line Segment

Tennessee Pass Going Concern Value - 1Q20

Item	Source	Statistic
(1)	(2)	(3)
1. Net Revenue From Pueblo - Canon City Line Segment	Appendix TDC-5B	\$125,969
2. Net Revenue From Sage - Dotsero Line Segment	Appendix TDC-5C	\$978,038
3. Total Net Revenue from Tennessee Pass	L. 1 + L. 2	\$1,104,007
4. 2018 STB Pretax Cost of Capital	1/	16.19%
5. Expected Growth Rate	2/	0.0%
6. Growth-Adjusted Cost of Capital Multiplier	L. 4 + L. 5	16.19%
7. Going Concern Value		
a. Pueblo - Canon City Segment	L. 1 ÷ L. 6	\$778,066
b. Sage - Dotsero Segment	L. 2 ÷ L. 6	<u>\$6,041,000</u>
c. Total	L. 3 ÷ L. 6	\$6,819,066

1/ Based on STB 2018 cost of capital adjusted for a 21 percent Federal tax rate and a 4.63 percent Colorado tax rate.

2/ Based on publicly available information, current traffic volumes on the UP owned lines are not expected to grow under UP ownership.

Net UP Revenues On Pueblo - Canon City Line Segment

<u>Item</u>	<u>Source</u>	<u>Statistic</u>
(1)	(2)	(3)
<u>Traffic</u>		
1. Annual Gross-Tons	1/	2,500,000
2. Segment Miles	UP Timetable	<u>41.95</u>
3. Annual Gross Ton-Miles	L. 1 x L. 2	104,875,000
<u>Revenues</u>		
4. UP 2019 Trackage Rights Fee (mills/GTM)	2/	3.31
5. Adjustment Factor to 1Q20 Price Levels	3/	0.001
6. Estimated 1Q 2020 Trackage Rights Fee (mills/GTM)	L. 4 x (1 + L. 5)	<u>3.31</u>
7. Annual Trackage Rights Revenues	L. 3 x (L. 6 ÷ 1,000)	\$347,442
<u>Variable Operating Expenses</u>		
8. UP 2018 URCS Below the Wheel Variable Costs (mills/GTM)	4/	2.13
9. Adjustment Factor to 1Q20 Price Levels	5/	0.991
10. UP 2Q 2020 URCS Below the Wheel Variable Costs (mills/GTM)	L. 8 x L. 9	<u>2.11</u>
11. Annual Below the Wheel Variable Cost	L. 3 x (L. 10 ÷ 1,000)	\$221,473
12. Net Revenues	L. 7 - L. 11	\$125,969

1/ Estimated based upon line segment traffic densities shown in FRA Accident Report and Cross Inventories.

2/ Union Pacific Railroad Company's Submission in Response to Decision No. 6 in Finance Docket No. 32760 (Sub-No. 46), *BNSF Railway Company - Terminal Trackage Rights - Kansas City Southern Railway Company and Union Pacific Railroad Company*, submitted February 4, 2019.

3/ Calculation of UP's system average URCS cost for the categories of maintenance and operating costs covered by the trackage rights fee.

4/ UP 2018 system average below the wheel URCS variable cost per gross ton-mile, excluding variable ROI.

5/ 1Q 2020 RCAF-U divided by the average 2018 RCAF-U.

Net UP Revenues On Sage - Dotsero Line Segment

<u>Item</u>	<u>Source</u>	<u>Statistic</u>
(1)	(2)	(3)
<u>Traffic</u>		
1. American Gypsum Annual Carloads	1/	416
2. Estimated Average Haul Miles	2018 PUWS 2/	815.0
3. Net Tons Per Carload	2018 PUWS 2/	94.4
4. Tare Tons Per Carload	2018 PUWS 2/	31.7
5. Gross Ton-Miles From Carload Traffic	L.1 x L.2 x (L.3 + L.4 x 2)	53,500,512.0
6. Annual Number of Trains Per Year	3/	52
7. Number of Locomotives Per Train	4/	2.5
8. Locomotive Gross Weight (tons)	5/	197
9. Annual Gross Tons From Locomotives	L. 6 x L. 7 x L.8	25,610.0
10. Annual Gross Ton-Miles From Locomotives	L. 2 x L. 9 x 2	41,744,300.0
11. Total Gross Ton-Miles Line Traffic	L. 5 + L. 10	95,244,812.0
<u>Revenues</u>		
12. Estimated 2018 Revenue Per Carload From American Gypsum	2018 Public Use Waybill Sample	\$5,402
13. Adjustment from 2018 to 1Q20 Price Levels	6/	1.01
14. Estimated 2Q20 Revenue Per Carload From American Gypsum	L.12 x L.13	\$5,447
15. Estimated Annual 2020 Revenues From American Gypsum	L. 1 x L. 14	\$2,265,953
<u>Variable Operating Expenses</u>		
16. UP 2018 URCS Above The Rail Variable Costs (mills/GTM)	7/	8.31
17. Adjustment Factor to 1Q20 Price Levels	8/	<u>0.991</u>
18. UP 2Q20 URCS Above The Rail Variable Costs (mills/GTM)	L. 16 x L. 17	8.24
19. UP Annual Above the Rail Variable Costs	L. 11 x L. 18	\$784,713
20. UP 2018 URCS Below the Wheel Costs (\$/mile)	9/	\$83,204
21. Adjustment Factor to 1Q20 Price Levels	8/	<u>0.991</u>
22. UP 2Q20 URCS Below the Wheel Costs (\$/mile)	L. 20 x L. 21	\$82,492
23. Miles From Sage to Dotsero	UP Timetable	6.1
24. UP Annual Below the Wheel Variable Costs	L. 22 x L. 23	\$503,202
25. Total UP Variable Operating Costs	L. 19 + L. 24	\$1,287,915
26. Net Revenues	L. 15 - L. 25	\$978,038

1/ Estimated average carloads based on published reports.

2/ Averages from 2018 Public Use Waybill Sample.

3/ Estimated number of locomotive movements based on published reports of one train per week.

4/ Estimated average number of locomotives per railcar.

5/ Estimated average gross weight for a locomotive.

6/ 4Q19 average revenue per car ÷ 2018 average revenue per car (based on UP's 10Q and earnings release).

7/ UP 2018 system average above the rail URCS variable cost per gross ton-mile, excluding variable ROI.

8/ 1Q 2020 RCAF-U divided by the average 2018 RCAF-U.

9/ UP 2018 system average below the wheel URCS variable cost per mile, excluding variable ROI.

Development of Rehabilitation Costs for The Tennessee Pass

TDC-6A	Summary of Capital Costs to Restore Tennessee Pass Line to Federal Railroad Administration ("FRA") Class 2 Service -- 1Q20
TDC-6B	Summary of Vegetation Control Costs in Rail Rehabilitation Grant Application and Reports -- 1Q20
TDC-6C	Summary of Crosstie Replacement Costs in Rail Rehabilitation Grant Applications and Reports -- 1Q20
TDC-6D	Summary of Ballast Rehabilitation Costs in Rail Rehabilitation Grant Applications and Reports -- 1Q20
TDC-6E	Summary of Rail Rehabilitation Costs in Rail Rehabilitation Grant Applications and Reports -- 1Q20
TDC-6F	Summary of Rail Replacement Costs in Rail Rehabilitation Grant Applications and Reports -- 1Q20
TDC-6G	Summary of Inspection Costs in Recent STB Rate Cases -- 1Q20
TDC-6H	Summary of Signals Costs in Public Reports -- 1Q20
TDC-6I	Summary of Engineering and Contingencies Percentages in Rail Rehabilitation Grant Application and Reports

Summary of Capital Costs to Restore Tennessee Pass Line to Federal Railroad Administration ("FRA") Class 2 Service -- 1Q20 1/

<u>Item</u>	<u>Source</u>	<u>Pueblo, CO to Canon City, CO Amount 2/ (3)</u>	<u>Canon City, CO to Parkdale, CO Amount 3/ (4)</u>	<u>Parkdale, CO to Sage, CO Amount (5)</u>	<u>Malta, CO to Leadville, CO Amount (6)</u>	<u>Sage, CO to Dotsero, CO Amount 4/ (7)</u>	<u>Total Rehabilitated Amount 5/ (8)</u>
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Milepost Start	6/	118.20	160.15	171.90	271.00	335.00	xxx
2. Milepost End	6/	160.15	171.90	335.00	276.10	341.90	xxx
3. Route Miles	L.1 - L.2	41.95	11.75	163.1	5.1	6.9	168.2
4. Siding and Spur Miles	6/	<u>13.85</u>	<u>4.22</u>	<u>40.16</u>	<u>0.00</u>	<u>0.00</u>	<u>40.16</u>
5. Total Track Miles	L.3 + L.4	55.8	15.97	203.26	5.1	6.90	208.36
6. Total Track Feet	L.5 x 5,280 ft. per mile	294,624	84,322	1,073,213	26,928	36,432	1,100,141
<u>A. Vegetation Removal</u>							
7. Vegetation Removal Cost Per Mile	7/	\$0.00	\$0.00	\$10,410.00	\$10,410.00	\$0.00	xxx
8. Estimated Vegetation Removal Cost	L.5 x L.7	\$0	\$0	\$2,115,937	\$53,091	\$0	\$2,169,028
<u>B. Crosstie Replacement</u>							
9. Number of 39-ft. Sections	L.6 ÷ 39 ft.	7,554	2,162	27,518	690	934	28,209
10. Replacement Ties Required Per Section	8/	0	0	9	9	0	xxx
11. Estimated Replacement Ties	L.9 x L.10	0	0	247,664	6,214	0	253,879
12. Estimated Cost Per Tie	9/	<u>\$100.00</u>	<u>\$100.00</u>	<u>\$100.00</u>	<u>\$100.00</u>	<u>\$100.00</u>	xxx
13. Estimated Tie Replacement Cost	L.11 x L.12	\$0	\$0	\$24,766,449	\$621,415	\$0	\$25,387,864
<u>C. Ballast Replacement Cost</u>							
14. Estimated Ballast Tons Per Mile	10/	520	520	520	520	520	xxx
15. Estimated Ballast Tons	L.5 x L.14	0	0	105,695	2,652	0	108,347
16. Estimated Ballast Cost Per Ton	11/	<u>\$41.00</u>	<u>\$41.00</u>	<u>\$41.00</u>	<u>\$41.00</u>	<u>\$41.00</u>	xxx
17. Estimated Ballast Replacement Cost	L.15 x L.16	\$0	\$0	\$4,333,503	\$108,732	\$0	\$4,442,235
<u>D. Track Resurfacing</u>							
18. Estimated Cost to Re-Surface Track Per Track Foot	12/	\$3.10	\$3.10	\$3.10	\$3.10	\$3.10	xxx
19. Estimated Cost to Re-surface Track	L.6 x L.18	\$0	\$0	\$3,326,960	\$83,477	\$0	\$3,410,437
<u>E. Rail Replacement</u>							
20. Estimated Cost to Install Rail Per Track Foot	13/	\$94.00	\$94.00	\$94.00	\$94.00	\$94.00	xxx
21. Estimated Cost to Install Rail	L.6 x L.20 x 2 Rails	\$0	\$0	\$201,764,006	\$5,062,464	\$0	\$206,826,470
<u>F. Track, Bridge and Tunnel Inspections</u>							
22. Inspection Cost Per Mile	14/	\$990.00	\$990.00	\$990.00	\$990.00	\$990.00	xxx
23. Total Estimated Track and Bridge Inspections Cost	L.5 x L.22	\$0	\$0	\$201,227	\$5,049	\$0	\$206,276

Summary of Capital Costs to Restore Tennessee Pass Line to Federal Railroad Administration ("FRA") Class 2 Service -- 1Q20 1/

<u>Item</u> (1)	<u>Source</u> (2)	<u>Pueblo, CO to Canon City, CO Amount 2/ (3)</u>	<u>Canon City, CO to Parkdale, CO Amount 3/ (4)</u>	<u>Parkdale, CO to Sage, CO Amount (5)</u>	<u>Malta, CO to Leadville, CO Amount (6)</u>	<u>Sage, CO to Dotsero, CO Amount 4/ (7)</u>	<u>Total Rehabilitated Amount 5/ (8)</u>
<u>G. Crossing Re-pavement</u>							
24. Public Highway Crossings	15/	23	7	42	0	0	42
25. Public Highway Restoration Costs Per Crossing	16/	<u>\$0</u>	<u>\$0</u>	<u>\$2,326</u>	<u>\$2,326</u>	<u>\$0</u>	<u>xxx</u>
26. Total Public Highway Crossings Costs	L.24 x L.25	\$0	\$0	\$97,687	\$0	\$0	\$97,687
27. Private Highway Crossings	15/	11	1	37	5	7	42
28. Private Highway Restoration Costs Per Crossing	17/	<u>\$0</u>	<u>\$0</u>	<u>\$349</u>	<u>\$349</u>	<u>\$0</u>	<u>xxx</u>
29. Total Private Highway Crossings Costs	L.27 x L.28	\$0	\$0	\$12,909	\$1,744	\$0	\$14,653
30. Total Crossing Re-pavement Cost	L.26 + L.29	xxx	xxx	xxx	xxx	xxx	\$112,340
<u>H. Communications & Signaling</u>							
31. Crossings with Bells, Flashers and Gates	15/	10	5	8	0	0	8
32. Cost Per Bells, Flashers and Gates Signals	18/	<u>\$0</u>	<u>\$0</u>	<u>\$120,819</u>	<u>\$120,819</u>	<u>\$0</u>	<u>xxx</u>
33. Total Bells, Flashers and Gates Signals Costs	L.31 x L.32	\$0	\$0	\$966,552	\$0	\$0	\$966,552
34. Crossings with Bells and Flashers	15/	6	0	8	0	0	8
35. Cost Per Bells and Flashers Signals	19/	<u>\$0</u>	<u>\$0</u>	<u>\$36,246</u>	<u>\$36,246</u>	<u>\$0</u>	<u>xxx</u>
36. Total Bells and Flashers Signals Costs	L.34 x L.35	\$0	\$0	\$289,966	\$0	\$0	\$289,966
37. Total Communications & Signaling Cost	L.33 + L.36	xxx	xxx	xxx	xxx	xxx	\$1,256,518
<u>I. Engineering & Contingencies</u>							
38. Subtotal	20/	xxx	xxx	xxx	xxx	xxx	\$243,811,168
39. Engineering & Contingencies	L.38 x 14% 21/	xxx	xxx	xxx	xxx	xxx	\$34,133,563
<u>J. Total</u>							
40. Total Cost	L.38 + L.39	xxx	xxx	xxx	xxx	xxx	\$277,944,731
41. Total Cost Per Mile	L.40 ÷ L.5	xxx	xxx	xxx	xxx	xxx	\$1,333,964

Summary of Capital Costs to Restore Tennessee Pass Line to Federal Railroad Administration ("FRA") Class 2 Service -- 1Q20 1/

<u>Item</u> (1)	<u>Source</u> (2)	<u>Pueblo, CO to Canon City, CO Amount 2/</u> (3)	<u>Canon City, CO to Parkdale, CO Amount 3/</u> (4)	<u>Parkdale, CO to Sage, CO Amount</u> (5)	<u>Malta, CO to Leadville, CO Amount</u> (6)	<u>Sage, CO to Dotsero, CO Amount 4/</u> (7)	<u>Total Rehabilitated Amount 5/</u> (8)
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FOOTNOTES:

- 1/ FRA categorizes track for freight in six classes, segregated by maximum speed limits: Class 1 – 10 mph; Class 2 – 25 mph; Class 3 – 40 mph; Class 4 – 60 mph; Class 5 - 80 mph; and Class 6 – 110 mph. *See*, 49 CFR 213.9.
- 2/ According to the Union Pacific Denver Area Timetable #4, effective November 16, 2009, page 30, this line is operational. The speed table in the timetables notes that the maximum operating speed is 40 MPH. As this is greater than FRA Class 2 operating status, we assumed this line will need no rehabilitation to upgrade to FRA Class 2 status.
- 3/ According to the Union Pacific Denver Area Timetable #4, effective November 16, 2009, page 30, this line is operational. The timetable Main Track Authority notes that "Movements between MP 159.2 and MP 171.9 are over trackage of Canon City and Royal Gorge RR. Be governed by Joint Timetable of the Canon City & Royal Gorge RR and the Rock and Rail RR." As this is a continually operated passenger rail line, we assumed this line will need no rehabilitation to upgrade to FRA Class 2 status.
- 4/ According to the Union Pacific Denver Area Timetable #4, effective November 16, 2009, page 30, this line is operational. The speed table in the timetables notes that the maximum operating speed from MP 341.9 to MP 336.0 is 25 MPH, the maximum operating speed from MP 336 to MP 335.2 is 20 MPH, and the maximum operating speed from MP 335.2 to MP 334.6 is 25 MP, the remaining track from MP 334.6 to 331.2 is 40 MPH. As these are all greater than FRA Class 1 operating statuses, we assumed this line will need no rehabilitation to upgrade to FRA Class 2 status.
- 5/ Sum of Rehabilitated Segments in Column (5) and Column (6).
- 6/ *See*, Appendix TDC-4B.
- 7/ Appendix TDC-6B, Column (9), L.14.
- 8/ According to FRA Track and Rail and Infrastructure Integrity Compliance Manual January 2014, Class 2 track must have a minimum of nine (9) crossties on track over two (2) degrees or turnouts and nine (9) on tangent track and curves of less than 2 degrees. We used nine (9) crossties to be conservative.
- 9/ Appendix TDC-6C, Column (9), L.17.
- 10/ Appendix TDC-6D, Column (7), L.15.
- 11/ Appendix TDC-6D, Column (11), L.15.
- 12/ Appendix TDC-6E, Column (11), L.13.
- 13/ Appendix TDC-6F, Column (11), L.9.
- 14/ Appendix TDC-6G, Column (9), L.13.
- 15/ *See*, Appendix TDC-4Q.
- 16/ Appendix TDC-4I, Column (3), L.25.
- 17/ Appendix TDC-4I, Column (3), L.30.
- 18/ Appendix TDC-6H, Column (7), L.2.
- 19/ Appendix TDC-6H, Column (7), L.1.
- 20/ L.8 + L.13 + L.17 + L.19 + L.21 + L.23 + L.30 + L.37.
- 21/ Appendix TDC-6I, Column (4), L.9.

Summary of Vegetation Control Costs in Rail Rehabilitation Grant Application and Reports -- 1Q20

<u>Quarter</u>	<u>Year</u>	<u>Period</u>	<u>Method Used 1/</u>	<u>Miles of Application 1/</u>	<u>Total Cost 1/</u>	<u>Cost Per Mile 2/</u>	<u>RS Means Index 3/</u>	<u>1Q20 Cost Per Mile 4/</u>	<u>Source</u>	<u>Page</u>
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1. 1Q	2009	1Q2009	Hand Tools	29.0	\$120,500	\$4,155.17	1.3101	\$5,443.86	Alaska Railroad Company, Nash Report (1998)	9
2. 1Q	2009	1Q2009	Water, diesel	xxx	\$112,000	\$1,000.00 1/	1.3101	\$1,310.14	Alaska Railroad Company, Nash Report (1998)	12
3. 1Q	2009	1Q2009	Water, propane	42.0	\$68,600	\$1,633.33	1.3101	\$2,139.90	Alaska Railroad Company, Nash Report (1998)	15
4. 1Q	2009	1Q2009	Propane	36.7	\$66,710	\$1,817.71	1.3101	\$2,381.46	Alaska Railroad Company, Nash Report (1998)	18
5. 1Q	2009	1Q2009	Propane	30.8	\$102,303	\$3,321.53	1.3101	\$4,351.66	Alaska Railroad Company, Nash Report (1998)	21
6. 1Q	2009	1Q2009	Vegetation Control	7343.6	\$9,969,433	\$1,357.58	1.3101	\$1,778.62	DuPont Oct. 3rd, 2014 Technical Correction Decision	Table A-4
7. 3Q	2010	3Q2010	Vegetation Control	6911.9	\$5,777,734	\$835.91	1.3030	\$1,089.20	TPI Sept. 14, 2014 Decision	Table A-6
8. 3Q	2011	3Q2011	Vegetation Control	580.6	\$870,721	\$1,499.59	1.2505	\$1,875.27	SunBelt July 20, 2014 Decision	Table A-5
9. 1Q	2012	1Q2012	Vegetation Removal	69.6	\$400,000	\$5,747.13	1.2325	\$7,083.16	Northeast Texas Rural Rail Transportation District U.S. DOT TIGER Grant Application (2012)	10
10. 1Q	2013	1Q2013	Vegetation Removal	33.5	\$408,000	\$12,179.10	1.2143	\$14,789.33	Northeast Texas Rural Rail Transportation District U.S. DOT TIGER Grant Application (2013)	10
11. 1Q	2013	1Q2014	Vegetation Removal	69.6	\$552,200	\$7,933.91	1.1778	\$9,344.79	Northeast Texas Rural Rail Transportation District U.S. DOT TIGER Grant Application (2014)	14
12. Average Nash Report 5/			Vegetation Control					\$2,960.00		
13. Average STB Rate Cases MOW Vegetation Control Cost			Vegetation Control					\$1,580.00		
14. Average NETEX Cost Estimates 7/			Vegetation Removal					\$10,410.00		

1/ Information given in Report in Column (10).

2/ Unless otherwise noted, Column (6) ÷ Column (5).

3/ R.S. Means Historical Construction Cost Index from Quarter in Column (3) to 1Q20.

4/ Column (7) x Column (8).

5/ Average of L.1 through L.5, rounded to the nearest ten.

6/ Average of L.6 through L.8, rounded to the nearest ten.

7/ Average of L.9 through L.11, rounded to the nearest ten.

Summary of Crosstie Replacement Costs in Rail Rehabilitation Grant Applications and Reports -- 1Q20

<u>Quarter</u>	<u>Year</u>	<u>Period</u>	<u>Item</u>	<u>Ties Quantity</u>	<u>Total Cost</u>	<u>Cost Per Tie 1/</u>	<u>RS Means Index 2/</u>	<u>1Q20 Cost Per Tie 3/</u>	<u>Source</u>	<u>Page</u>
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1. 2Q	2013	2Q2013	Steel Crossties	1,754	\$157,860	\$90.00	1.2082	\$108.74	Iowa Department of Transportation Upper Midwest Transportation Hub U.S. DOT TIGER Grant Application (2013)	2
2. 2Q	2013	2Q2013	Steel Crossties	6,750	\$607,500	\$90.00	1.2082	\$108.74	Iowa Department of Transportation Upper Midwest Transportation Hub U.S. DOT TIGER Grant Application (2013)	3
3. 2Q	2013	2Q2013	Steel Crossties	10,477	\$942,930	\$90.00	1.2082	\$108.74	Iowa Department of Transportation Upper Midwest Transportation Hub U.S. DOT TIGER Grant Application (2013)	3
4. 1Q	2012	1Q2012	Crosstie Removal & Replacement	83,426	\$5,839,820	\$70.00	1.2325	\$86.27	Northeast Texas Rural Rail Transportation District MP 489.4 to MP 555 U.S. DOT TIGER Grant Application (2012)	10
5. 1Q	2014	1Q2014	Crosstie Removal & Replacement (Includes Spikes & Plates)	94,557	\$7,062,123	\$74.69	1.1778	\$87.97	Northeast Texas Rural Rail Transportation District MP 489.4 to MP 555 U.S. DOT TIGER Grant Application (2014)	14
6. 1Q	2013	1Q2013	Crosstie Removal & Replacement (Includes Spikes & Plates)	41,676	\$2,917,340	\$70.00	1.2143	\$85.00	Northeast Texas Rural Rail Transportation District MP 524 to MP 555 U.S. DOT TIGER Grant Application (2013)	10
7. 1Q	2013	1Q2013	Crosstie Removal & Replacement (Includes Spikes & Plates)	2,708	\$189,525	\$69.99	1.2143	\$84.99	Northeast Texas Rural Rail Transportation District MP 524 to MP 555 U.S. DOT TIGER Grant Application (2013)	10
8. 1Q	2004	1Q2004	Crossties	10,802	\$972,180	\$90.00	1.6639	\$149.75	Stafford Regional Planning Commission NH Northcoast Rail U.S. DOT TIGER Grant Application (2013)	1
9. 1Q	2012	1Q2012	Crosstie Installation	40,560	\$3,042,000	\$75.00	1.2325	\$92.44	Texas Department of Transportation South Orient Rehabilitation of Sulphur Junction to Fort Stockton U.S. DOT TIGER Grant Application (2012)	14
10. 1Q	2016	1Q2016	Wood Crossties	4,980	\$448,200	\$90.00	1.1596	\$104.36	Vermont Agency of Transportation VTR Northern Subdivision Rutland to Burlington U.S. DOT TIGER Grant Application (2016)	5
11. 2Q	2013	2Q2013	Wood Crossties	2,230	\$167,250	\$75.00	1.2082	\$90.61	Vermont Agency of Transportation VTR Northern Subdivision Rutland to Leicester U.S. DOT TIGER Grant Application (2013)	9
12. 2Q	2013	2Q2013	Wood Crossties	1,000	\$75,000	\$75.00	1.2082	\$90.61	Vermont Agency of Transportation VTR Northern Subdivision Rutland to Leicester U.S. DOT TIGER Grant Application (2013)	9
13. 2Q	2013	2Q2013	Wood Crossties	6,890	\$516,750	\$75.00	1.2082	\$90.61	Vermont Agency of Transportation VTR Northern Subdivision Rutland to Leicester U.S. DOT TIGER Grant Application (2013)	9
14. 1Q	2016	1Q2016	Wood Crossties	6,330	\$569,700	\$90.00	1.1596	\$104.36	Vermont Agency of Transportation VTR Northern Subdivision U.S. DOT TIGER Grant Application (2016)	5
15. 1Q	2015	1Q2015	Wood Crossties	399,747	\$35,952,638	\$89.94	1.1721	\$105.41	Washington State Short Line Rail Inventory and Needs Assessment - Publicly Owned Rail (2015)	14
16. 1Q	2015	1Q2015	Wood Crossties	175,946	\$15,835,130	\$90.00	1.1721	\$105.49	Washington State Short Line Rail Inventory and Needs Assessment - Privately Owned Rail (2015)	15
17. Average Crosstie Cost 4/						\$82.00		\$100.00		
18. Lowest Crosstie Cost 5/						\$69.99		\$84.99		
19. Highest Crosstie Cost 6/						\$90.00		\$149.75		

1/ Column (6) ÷ Column (5).

2/ R.S. Means Historical Construction Cost Index from Quarter in Column (3) to 1Q20.

3/ Column (7) x Column (8).

4/ Average of L.1 through L.16, rounded to the nearest dollar.

5/ Minimum of L.1 through L.16.

6/ Maximum of L.1 through L.16.

Summary of Ballast Rehabilitation Costs in Rail Rehabilitation Grant Applications and Reports -- 1Q20

<u>Quarter</u> (1)	<u>Year</u> (2)	<u>Period</u> (3)	<u>Item 1/ (4)</u>	<u>Miles</u> (5)	<u>Tons Quantity</u> (6)	<u>Tons Per Mile 1/ (7)</u>	<u>Total Cost</u> (8)	<u>Cost Per Ton 2/ (9)</u>	<u>RS Means Index 3/ (10)</u>	<u>1Q20 Cost Per Ton 4/ (11)</u>	<u>Source</u> (12)	<u>Page</u> (13)
1. 2Q	2013	2Q2013	Ballast - AREMA NO. 4	xxx	3,050	xxx	\$42,700	\$14.00	1.2082	\$16.91	Iowa DOT Upper Midwest Transportation Hub U.S. DOT TIGER Grant App. (2013)	2
2. 2Q	2013	2Q2013	Ballast - AREMA NO. 4	xxx	8,172	xxx	\$114,401	\$14.00	1.2082	\$16.91	Iowa DOT Upper Midwest Transportation Hub U.S. DOT TIGER Grant App. (2013)	3
3. 2Q	2013	2Q2013	Ballast - AREMA NO. 4	xxx	18,550	xxx	\$259,700	\$14.00	1.2082	\$16.91	Iowa DOT Upper Midwest Transportation Hub U.S. DOT TIGER Grant App. (2013)	3
4. 1Q	2012	1Q2012	Ballast & Delivery	69.6	31,320	450	\$1,566,000	\$50.00	1.2325	\$61.62	Northeast Texas Rural Rail Transportation District MP 489.4 to MP 555 U.S. DOT TIGER Grant Application (2012)	10
5. 1Q	2014	1Q2014	Ballast & Material Delivery	69.6	36,717	528	\$1,273,054	\$34.67	1.1778	\$40.84	Northeast Texas Rural Rail Transportation District MP 489.4 to MP 555 U.S. DOT TIGER Grant Application (2014)	14
6. 1Q	2013	1Q2013	Ballast & Delivery	33.5	19,600	585	\$1,078,000	\$55.00	1.2143	\$66.79	Northeast Texas Rural Rail Transportation District MP 524 to MP 555 U.S. DOT TIGER Grant Application (2013)	10
7. 1Q	2012	1Q2012	Ballast	16	8,100	506	\$405,000	\$50.00	1.2325	\$61.62	Texas DOT South Orient Rehabilitation of Sulphur Junction to Fort Stockton U.S. DOT TIGER Grant Application (2012)	14
8. 1Q	2016	1Q2016	Furnish and Place Ballast Surface Course	4.98	2,660	534	\$106,400	\$40.00	1.1596	\$46.38	Vermont Agency of Transportation VTR Northern Subdivision Rutland to Burlington U.S. DOT TIGER Grant Application (2016)	5
9. 1Q	2016	1Q2016	Furnish and Place Ballast Surface Course	6.33	3,300	521	\$132,000	\$40.00	1.1596	\$46.38	Vermont Agency of Transportation VTR Northern Subdivision Rutland to Burlington U.S. DOT TIGER Grant Application (2016)	5
10. 2Q	2013	2Q2013	Furnish and Place Ballast Surface Course	2.23	1,160	520	\$46,400	\$40.00	1.2082	\$48.33	Vermont Agency of Transportation VTR Northern Subdivision Rutland to Leicester U.S. DOT TIGER Grant Application (2013)	9
11. 2Q	2013	2Q2013	Furnish and Place Ballast Surface Course	1	520	520	\$20,800	\$40.00	1.2082	\$48.33	Vermont Agency of Transportation VTR Northern Subdivision Rutland to Leicester U.S. DOT TIGER Grant Application (2013)	9
12. 2Q	2013	2Q2013	Furnish and Place Ballast Surface Course	6.89	3,582	520	\$143,280	\$40.00	1.2082	\$48.33	Vermont Agency of Transportation VTR Northern Subdivision Rutland to Leicester U.S. DOT TIGER Grant Application (2013)	9
13. 1Q	2015	1Q2015	Ballast Distribution	xxx	544,315	xxx	\$13,607,880	\$25.00	1.1721	\$29.30	Washington State Short Line Rail Inventory and Needs Assessment - Publicly Owned Rail (2015)	14
14. 1Q	2015	1Q2015	Ballast Distribution	xxx	239,740	xxx	\$5,933,512	\$24.75	1.1721	\$29.01	Washington State Short Line Rail Inventory and Needs Assessment - Privately Owned Rail (2015)	15
15. Average 5/						520		\$34.00		\$41.00		
16. Lowest Ballast Cost 6/								\$14.00		\$16.91		
17. Highest Ballast Cost 7/								\$55.00		\$66.79		

1/ Column (6) ÷ Column (5).

2/ Column (8) ÷ Column (6).

3/ R.S. Means Historical Construction Cost Index from Quarter in Column (3) to 1Q20.

4/ Column (9) x Column (10).

5/ Average of L.1 through L.14, rounded to the nearest whole number (Column (7)) or dollar Column (9) and Column (11).

6/ Minimum of L.1 through L.14.

7/ Maximum of L.1 through L.14.

Summary of Rail Rehabilitation Costs in Rail Rehabilitation Grant Applications and Reports -- 1Q20

<u>Quarter</u>	<u>Year</u>	<u>Period</u>	<u>Item</u>	<u>Miles</u>	<u>Track Feet Quantity</u>	<u>Quantity Per Mile</u>	<u>Total Cost</u>	<u>Cost Per Track Foot 1/</u>	<u>RS Means Index 2/</u>	<u>1Q20 Cost Per Track Foot 3/</u>	<u>Source</u>	<u>Page</u>
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. 1Q	2012	1Q2012	Track Surfacing & Ballast Regulating	69.6	367,488 4/	5,280	\$416,000	\$1.13	1.2325	\$1.40	Northeast Texas Rural Rail Transportation District MP 489.4 to MP 555 U.S. DOT TIGER Grant App. (2012)	10
2. 1Q	2014	1Q2014	Track Surfacing	69.6	367,488 4/	5,280	\$459,360	\$1.25	1.1778	\$1.47	Northeast Texas Rural Rail Transportation District MP 489.4 to MP 555 U.S. DOT TIGER Grant App. (2014)	14
3. 1Q	2013	1Q2013	Track Surfacing & Ballast Regulating	33.5	176,880 4/	5,280	\$199,800	\$1.13	1.2143	\$1.37	Northeast Texas Rural Rail Transportation District MP 524 to MP 555 U.S. DOT TIGER Grant App. (2013)	10
4. 1Q	2004	1Q2004	Resurface & Regulate 42-mile Rail Line	42	221,760 4/	5,280	\$221,820	\$1.00	1.6639	\$1.66	Stafford Regional Planning Commission NH Northcoast Rail U.S. DOT TIGER Grant App. (2013)	1
5. 1Q	2012	1Q2012	Surfacing & Regulating	16	84,480 4/	5,280	\$75,120	\$0.89	1.2325	\$1.10	Texas Department of Transportation South Orient Rehabilitation of Sulphur Junction to Fort Stockton U.S. DOT TIGER Grant App. (2012)	14
6. 1Q	2016	1Q2016	Raise, Align and Surface Track	4.98	26,295	5,280 5/	\$105,180	\$4.00	1.1596	\$4.64	Vermont Agency of Transportation VTR Northern Subdivision Rutland to Burlington U.S. DOT TIGER Grant App. (2016)	5
7. 1Q	2016	1Q2016	Raise, Align and Surface Track	6.33	33,430	5,281 5/	\$133,720	\$4.00	1.1596	\$4.64	Vermont Agency of Transportation VTR Northern Subdivision Rutland to Burlington U.S. DOT TIGER Grant App. (2016)	5
8. 2Q	2013	2Q2013	Raise, Align and Surface Track	2.23	11,774	5,280 5/	\$47,096	\$4.00	1.2082	\$4.83	Vermont Agency of Transportation VTR Northern Subdivision Rutland to Leicester U.S. DOT TIGER Grant App. (2013)	9
9. 2Q	2013	2Q2013	Raise, Align and Surface Track	1	5,280	5,280 5/	\$21,120	\$4.00	1.2082	\$4.83	Vermont Agency of Transportation VTR Northern Subdivision Rutland to Leicester U.S. DOT TIGER Grant App. (2013)	9
10. 2Q	2013	2Q2013	Raise, Align and Surface Track	6.89	36,379	5,280 5/	\$145,516	\$4.00	1.2082	\$4.83	Vermont Agency of Transportation VTR Northern Subdivision Rutland to Leicester U.S. DOT TIGER Grant App. (2013)	9
11. 1Q	2015	1Q2015	Surface Line and Dress	515.45	2,721,576	5,280 5/	\$7,443,170	\$2.73	1.1721	\$3.21	Washington State Short Line Rail Inventory and Needs Assessment - Publicly Owned Rail (2015)	14
12. 1Q	2015	1Q2015	Surface Line and Dress	227.03	1,198,702	5,280 5/	\$3,278,301	\$2.73	1.1721	\$3.21	Washington State Short Line Rail Inventory and Needs Assessment - Privately Owned Rail (2015)	15
13.	Average Rail Rehabilitation 6/								\$2.57		\$3.10	
14.	Lowest Rail Rehabilitation 7/								\$0.89		\$1.10	
15.	Highest Rail Rehabilitation 8/								\$4.00		\$4.83	

1/ Column (8) ÷ Column (6).

2/ R.S. Means Historical Construction Cost Index from Quarter in Column (3) to 1Q20.

3/ Column (9) x Column (10).

4/ Column (5) x Column (7).

5/ Column (6) ÷ Column (5).

6/ Average of L.1 through L.12, rounded to the nearest tenth.

7/ Minimum of L.1 through L.12.

8/ Maximum of L.1 through L.12.

Summary of Rail Replacement Costs in Rail Rehabilitation Grant Applications and Reports -- 1Q20

<u>Quarter</u> (1)	<u>Year</u> (2)	<u>Period</u> (3)	<u>Item</u> (4)	<u>Miles</u> (5)	<u>Track Feet Quantity</u> (6)	<u>Quantity Per Mile 1/</u> (7)	<u>Total Cost</u> (8)	<u>Cost Per Track Foot 2/</u> (9)	<u>RS Means Index 3/</u> (10)	<u>1Q20 Cost Per Track Foot 4/</u> (11)	<u>Source</u> (12)	<u>Page</u> (13)	
1. 1Q	2007	1Q2007	Rail Replacement	10.23	48,523	4,743	\$3,154,008	\$65.00	1.4491	\$94.19	Maine Department of Transportation Mountain Division Rail Study (2007)	96	
2. 1Q	2007	1Q2007	Rail Replacement	48.97	230,896	4,715	\$15,008,266	\$65.00	1.4491	\$94.19	Maine Department of Transportation Mountain Division Rail Study (2007)	91	
3. 1Q	2016	1Q2016	Install 115 LB CWR to replace 105 lb. 39' Jointed Rail	4.98	52,590	10,560	\$3,944,250	\$75.00	1.1596	\$86.97	Vermont Agency of Transportation VTR Northern Subdivision Rutland to Burlington U.S. DOT TIGER Grant Application (2016)	5	
4. 1Q	2016	1Q2016	Install 115 LB CWR to replace 105 lb. 39' Jointed Rail	6.33	66,850	10,561	\$5,013,750	\$75.00	1.1596	\$86.97	Vermont Agency of Transportation VTR Northern Subdivision Rutland to Burlington U.S. DOT TIGER Grant Application (2016)	5	
5. 2Q	2013	2Q2013	Install 115 LB CWR to replace 105 lb. 39' Jointed Rail	2.23	23,549	10,560	\$1,766,175	\$75.00	1.2082	\$90.61	Vermont Agency of Transportation VTR Northern Subdivision Rutland to Leicester U.S. DOT TIGER Grant Application (2013)	9	
6. 2Q	2013	2Q2013	Install 115 LB CWR to replace 105 lb. 39' Jointed Rail	6.89	72,758	10,560	\$5,456,850	\$75.00	1.2082	\$90.61	Vermont Agency of Transportation VTR Northern Subdivision Rutland to Leicester U.S. DOT TIGER Grant Application (2013)	9	
7. 1Q	2015	1Q2015	Rail Replacement	515.45	2,721,576	5,280 1/	\$244,941,840	\$90.00	1.1721	\$105.49	Washington State Short Line Rail Inventory and Needs Assessment - Publicly Owned Rail (2015)	14	
8. 1Q	2015	1Q2015	Rail Replacement	227.03	1,198,702	5,280 1/	\$107,883,211	\$90.00	1.1721	\$105.49	Washington State Short Line Rail Inventory and Needs Assessment - Privately Owned Rail (2015)	15	
9.	Average Rail Replacement 5/								\$76.00		\$94.00		
10.	Lowest Rail Rehabilitation 6/								\$65.00		\$86.97		
11.	Highest Rail Rehabilitation 7/								\$90.00		\$105.49		

1/ Unless otherwise noted, Column (6) ÷ Column (5).

2/ Column (8) ÷ Column (6).

3/ R.S. Means Historical Construction Cost Index from Quarter in Column (3) to 1Q20.

4/ Column (9) x Column (10).

5/ Average of L.1 through L.8, rounded to the nearest dollar.

6/ Minimum of L.1 through L.8.

7/ Maximum of L.1 through L.8.

Summary of Inspection Costs in Recent STB Rate Cases -- 1Q20

<u>Quarter</u>	<u>Year</u>	<u>Period</u>	<u>Method Used</u>	<u>Miles of Application</u>	<u>Total Cost</u>	<u>Cost Per Mile 1/</u>	<u>RS Means Index 2/</u>	<u>1Q20 Cost Per Mile 3/</u>	<u>Source</u>	<u>Table</u>
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1. 1Q	2009	1Q2009	Geometry Testing	7,343.55	\$5,080,447	\$691.82	1.3101	\$906.39	DuPont Oct. 3rd, 2014 Technical Correction Decision	Table A-4
2. 1Q	2009	1Q2009	Rail Flaw Detection Testing	7,343.55	\$2,402,989	\$327.22	1.3101	\$428.71	DuPont Oct. 3rd, 2014 Technical Correction Decision	Table A-4
3. 1Q	2009	1Q2009	Major Bridge Inspection	7,343.55	\$935,379	\$127.37	1.3101	\$166.88	DuPont Oct. 3rd, 2014 Technical Correction Decision	Table A-4
4. 1Q	2009	1Q2009	Sub-Total	7,343.55	\$8,418,815	\$1,146.42	1.3101	\$1,501.97	xxx	xxx
5. 3Q	2010	3Q2010	Geometry Testing	6,911.87	\$748,265	\$108.26	1.3030	\$141.06	TPI Sept. 14, 2014 Decision	Table A-6
6. 3Q	2010	3Q2010	Ultrasonic Rail Testing	6,911.87	\$3,095,310	\$447.83	1.3030	\$583.52	TPI Sept. 14, 2014 Decision	Table A-6
7. 3Q	2010	3Q2010	Major Bridge Inspection	6,911.87	\$72,923	\$10.55	1.3030	\$13.75	TPI Sept. 14, 2014 Decision	Table A-6
8. 3Q	2010	3Q2010	Sub-Total	6,911.87	\$3,916,498	\$566.63	1.3030	\$738.32	TPI Sept. 14, 2014 Decision	xxx
9. 3Q	2011	3Q2011	Track Geometry Testing	580.64	\$110,696	\$190.64	1.2505	\$238.41	SunBelt July 20, 2014 Decision	Table A-5
10. 3Q	2011	3Q2011	Ultrasonic Rail Testing	580.64	\$141,599	\$243.87	1.2505	\$304.96	SunBelt July 20, 2014 Decision	Table A-5
11. 3Q	2011	3Q2011	Bridge Inspection	580.64	\$82,277	\$141.70	1.2505	\$177.20	SunBelt July 20, 2014 Decision	Table A-5
12. 3Q	2011	3Q2011	Sub-Total	580.64	\$334,572	\$576.21	1.2505	\$720.57	SunBelt July 20, 2014 Decision	xxx
13. Average Cost for 3 Recent Decisions 4/						\$760.00		\$990.00		
14. Lowest Decision Cost 5/						\$566.63		\$720.57		
15. Highest Decision Cost 6/						\$1,146.42		\$1,501.97		

1/ Column (6) ÷ Column (5).

2/ R.S. Means Historical Construction Cost Index from Quarter in Column (3) to 1Q20.

3/ Column (7) x Column (8).

4/ Average of L.4, L.8, and L.12, rounded to the nearest ten.

5/ Minimum of L.4, L.8, and L.12.

6/ Maximum of L.4, L.8, and L.12.

Summary of Signals Costs in Public Reports -- 1Q20

<u>Quarter</u>	<u>Year</u>	<u>Period</u>	<u>Item</u>	<u>Cost Per Crossing</u>	<u>RS Means Index 1/</u>	<u>1Q20 Cost Per Crossing 2/</u>	<u>Source</u>	<u>Page</u>
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. 2Q	2013	2Q2013	Crossings with bells and flashers	\$30,000.00	1.2082	\$36,245.70	Wisconsin DOT Facilities Development Manual Chapter 17 Section 25 June 19, 2013	1
2. 2Q	2013	2Q2013	Crossings with bells, flashers and gates	\$100,000.00	1.2082	\$120,819.00	Wisconsin DOT Facilities Development Manual Chapter 17 Section 25 June 19, 2013	1

1/ R.S. Means Historical Construction Cost Index from Quarter in Column (3) to 1Q20.

2/ Column (5) x Column (6).

**Summary of Engineering and Contingencies Percentages in
Rail Rehabilitation Grant Application and Reports**

<u>Report</u> (1)	<u>Engineering</u> (2)	<u>Contingencies</u> (3)	<u>Total</u> (4)
1. Northeast Texas Rural Rail Transportation District MP 489.4 to MP 555 U.S. DOT TIGER Grant Application (2012)	xxx	xxx	17.0% 1/
2. Northeast Texas Rural Rail Transportation District MP 524 to MP 555 U.S. DOT TIGER Grant Application (2013)	xxx	xxx	17.0% 2/
3. Northeast Texas Rural Rail Transportation District MP 489.4 to MP 555 U.S. DOT TIGER Grant Application (2014)	xxx	xxx	9.0% 3/
4. Vermont Agency of Transportation VTR Northern Subdivision Rutland to Leicester U.S. DOT TIGER Grant Application (2013)	6% 4/	5% 5/	11.0% 6/
5. Vermont Agency of Transportation VTR Northern Subdivision Rutland to Burlington U.S. DOT TIGER Grant Application (2016)	7% 7/	5% 8/	12.0% 6/
6. Texas Department of Transportation South Orient Rehabilitation of Sulphur Junction to Fort Stockton U.S. DOT TIGER Grant Application (2012)	7% 9/	8% 10/	15.0% 6/
7. Washington State Short Line Rail Inventory and Needs Assessment - Publicly Owned Rail (2015)	xxx	xxx	15.0% 11/
8. Washington State Short Line Rail Inventory and Needs Assessment - Privately Owned Rail (2015)	xxx	xxx	15.0% 12/
9. Average Engineering and Contingency Percentage 13/			14.0%
10. Lowest Engineering and Contingency Percentage 14/			9.0%
11. Highest Engineering and Contingency Percentage 15/			17.0%

1/ Engineering & Contingencies Total Amount of \$1,451,545 ÷ Project Total of \$9,990,045, see Report page 10.
2/ Engineering & Contingencies Total Amount of \$821,509 ÷ Project Total of \$5,653,918, see Report page 10.
3/ (Engineering & Contingencies Total Amount of \$505,041 + Project Management And Administration Total Amount of \$404,033) ÷ Project Total of \$11,009,895, see Report page 14.
4/ Listed percentage for "Construction Engineering" on Report page 9.
5/ Listed percentage for "Contingency" on Report page 9.
6/ Column (2) + Column (3).
7/ Listed percentage for "Construction Engineering" on Report page 5.
8/ Listed percentage for "Contingency" on Report page 5.
9/ Listed percentage for "Engineering & Contingencies" on Report page 14.
10/ Listed percentage for "Mobilization" on Report page 14.
11/ Listed percentage for "Misc. Items, Sales Tax, Mobilization" on Report page 14.
12/ Listed percentage for "Misc. Items, Sales Tax, Mobilization" on Report page 15.
13/ Average of L.1 through L.8, rounded to the nearest percent.
14/ Minimum of L.1 through L.8.
15/ Maximum of L.1 through L.8.

Photographs of The Tennessee Pass Line

Photo Sourcing:

- Figure TDC-7-1: Photo taken by Matt Prince, President of CWC Rail, Inc, October 2019.
- Figure TDC-7-2: Photo taken by Matt Prince, President of CWC Rail, Inc, October 2019.
- Figure TDC-7-3: Photo taken by Matt Prince, President of CWC Rail, Inc, October 2019.
- Figure TDC-7-4: Photo taken by Matt Prince, President of CWC Rail, Inc, October 2019.
- Figure TDC-7-5: Photo taken by Matt Prince, President of CWC Rail, Inc, October 2019.
- Figure TDC-7-6: Photo taken by Matt Prince, President of CWC Rail, Inc, October 2019.
- Figure TDC-7-7: Photo taken by Matt Prince, President of CWC Rail, Inc, October 2019.
- Figure TDC-7-8: Photo taken by Matt Prince, President of CWC Rail, Inc, October 2019.
- Figure TDC-7-9: Photo taken by Matt Prince, President of CWC Rail, Inc, October 2019.
- Figure TDC-7-10: Photo taken by Matt Prince, President of CWC Rail, Inc, October 2019.
- Figure TDC-7-11: Photo taken by Matt Prince, President of CWC Rail, Inc, October 2019.
- Figure TDC-7-12: Photo taken by Matt Prince, President of CWC Rail, Inc, October 2019.
- Figure TDC-7-13: Photo taken by Kevin Morgan on July 11, 2015. Posted to Colorado Railfan gallery <http://coloradorailfan.com/gallery/photo.asp?id=105282>. Retrieved February 2020.
- Figure TDC-7-14: Photo taken by Kevin Morgan on July 11, 2015. Posted to Colorado Railfan gallery <http://coloradorailfan.com/gallery/photo.asp?id=105284>. Retrieved February 2020.
- Figure TDC-7-15: Photo taken by Kevin Morgan on July 11, 2015. Posted to Colorado Railfan gallery <http://coloradorailfan.com/gallery/photo.asp?id=105287>. Retrieved February 2020.
- Figure TDC-7-16: Photo taken by Kevin Morgan on July 11, 2015. Posted to Colorado Railfan gallery <http://coloradorailfan.com/gallery/photo.asp?id=105297>. Retrieved February 2020.
- Figure TDC-7-17: Photo taken by Kevin Morgan on July 11, 2015. Posted to Colorado Railfan gallery <http://coloradorailfan.com/gallery/photo.asp?id=105306>. Retrieved February 2020.
- Figure TDC-7-18: Photo taken by Kevin Morgan on July 11, 2015. Posted to Colorado Railfan gallery <http://coloradorailfan.com/gallery/photo.asp?id=105316>. Retrieved February 2020.
- Figure TDC-7-19: Photo taken by Matt Prince, President of CWC Rail, Inc, October 2019.
- Figure TDC-7-20: Photo taken by Matt Prince, President of CWC Rail, Inc, October 2019.
- Figure TDC-7-21: Photo taken by Matt Prince, President of CWC Rail, Inc, October 2019.
- Figure TDC-7-22: Photo taken by Matt Prince, President of CWC Rail, Inc, October 2019.
- Figure TDC-7-23: Photo taken by Matt Prince, President of CWC Rail, Inc, October 2019.
- Figure TDC-7-24: Photo taken by Matt Prince, President of CWC Rail, Inc, October 2019.
- Figure TDC-7-25: Photo taken by Kevin Morgan on July 11, 2015. Posted to Colorado Railfan gallery <http://coloradorailfan.com/gallery/photo.asp?id=105308>. Retrieved February 2020.
- Figure TDC-7-26: Photo taken by Kevin Morgan on July 11, 2015. Posted to Colorado Railfan gallery <http://coloradorailfan.com/gallery/photo.asp?id=105350>. Retrieved February 2020.
- Figure TDC-7-27: Photo taken by Matt Prince, President of CWC Rail, Inc, October 2019.
- Figure TDC-7-28: Photo taken by Matt Prince, President of CWC Rail, Inc, October 2019.
- Figure TDC-7-29: Photo taken by Kevin Morgan on July 11, 2015. Posted to Colorado Railfan gallery <http://coloradorailfan.com/gallery/photo.asp?id=105285>. Retrieved February 2020.
- Figure TDC-7-30: Photo taken by Kevin Morgan on July 11, 2015. Posted to Colorado Railfan gallery <http://coloradorailfan.com/gallery/photo.asp?id=105300>. Retrieved February 2020.

Photographs of The Tennessee Pass Line

- Figure TDC-7-31: Photo taken by Kevin Morgan on July 11, 2015. Posted to Colorado Railfan gallery <http://coloradorailfan.com/gallery/photo.asp?id=105320>. Retrieved February 2020.
- Figure TDC-7-32: Photo taken by Kevin Morgan on July 11, 2015. Posted to Colorado Railfan gallery <http://coloradorailfan.com/gallery/photo.asp?id=105324>. Retrieved February 2020.
- Figure TDC-7-33: Photo taken by Kevin Morgan on July 11, 2015. Posted to Colorado Railfan gallery <http://coloradorailfan.com/gallery/photo.asp?id=105337>. Retrieved February 2020.
- Figure TDC-7-34: Photo taken by Kevin Morgan on July 11, 2015. Posted to Colorado Railfan gallery <http://coloradorailfan.com/gallery/photo.asp?id=105338>. Retrieved February 2020.
- Figure TDC-7-35: Colorado Zephyr taken September 21, 2018.
- Figure TDC-7-36: Colorado Zephyr taken September 21, 2018.
- Figure TDC-7-37: Colorado Zephyr taken September 26, 2019.

Photographs of The Tennessee Pass Line

Figure TDC-7-1



Figure TDC-7-2



Photographs of The Tennessee Pass Line

Figure TDC-7-3



Figure TDC-7-4



Photographs of The Tennessee Pass Line

Figure TDC-7-5



Figure TDC-7-6



Photographs of The Tennessee Pass Line

Figure TDC-7-7



Figure TDC-7-8



Photographs of The Tennessee Pass Line

Figure TDC-7-9



Figure TDC-7-10



Photographs of The Tennessee Pass Line

Figure TDC-7-11



Figure TDC-7-12



Photographs of The Tennessee Pass Line

Figure TDC-7-13



Figure TDC-7-14



Photographs of The Tennessee Pass Line

Figure TDC-7-15



Figure TDC-7-16



Photographs of The Tennessee Pass Line

Figure TDC-7-17



Figure TDC-7-18



Photographs of The Tennessee Pass Line

Figure TDC-7-19



Figure TDC-7-20



Photographs of The Tennessee Pass Line

Figure TDC-7-21



Figure TDC-7-22



Photographs of The Tennessee Pass Line

Figure TDC-7-23



Figure TDC-7-24



Photographs of The Tennessee Pass Line

Figure TDC-7-25



Kevin Morgan, ColoradoRailfan.com ©2015

Figure TDC-7-26



Kevin Morgan, ColoradoRailfan.com ©2015

Photographs of The Tennessee Pass Line

Figure TDC-7-27



Figure TDC-7-28



Photographs of The Tennessee Pass Line

Figure TDC-7-29



Figure TDC-7-30



Photographs of The Tennessee Pass Line
Figure TDC-7-31



Figure TDC-7-32



Photographs of The Tennessee Pass Line
Figure TDC-7-33



Figure TDC-7-34



Photographs of The Tennessee Pass Line

Figure TDC-7-35



Figure TDC-7-36



Photographs of The Tennessee Pass Line

Figure TDC-7-37

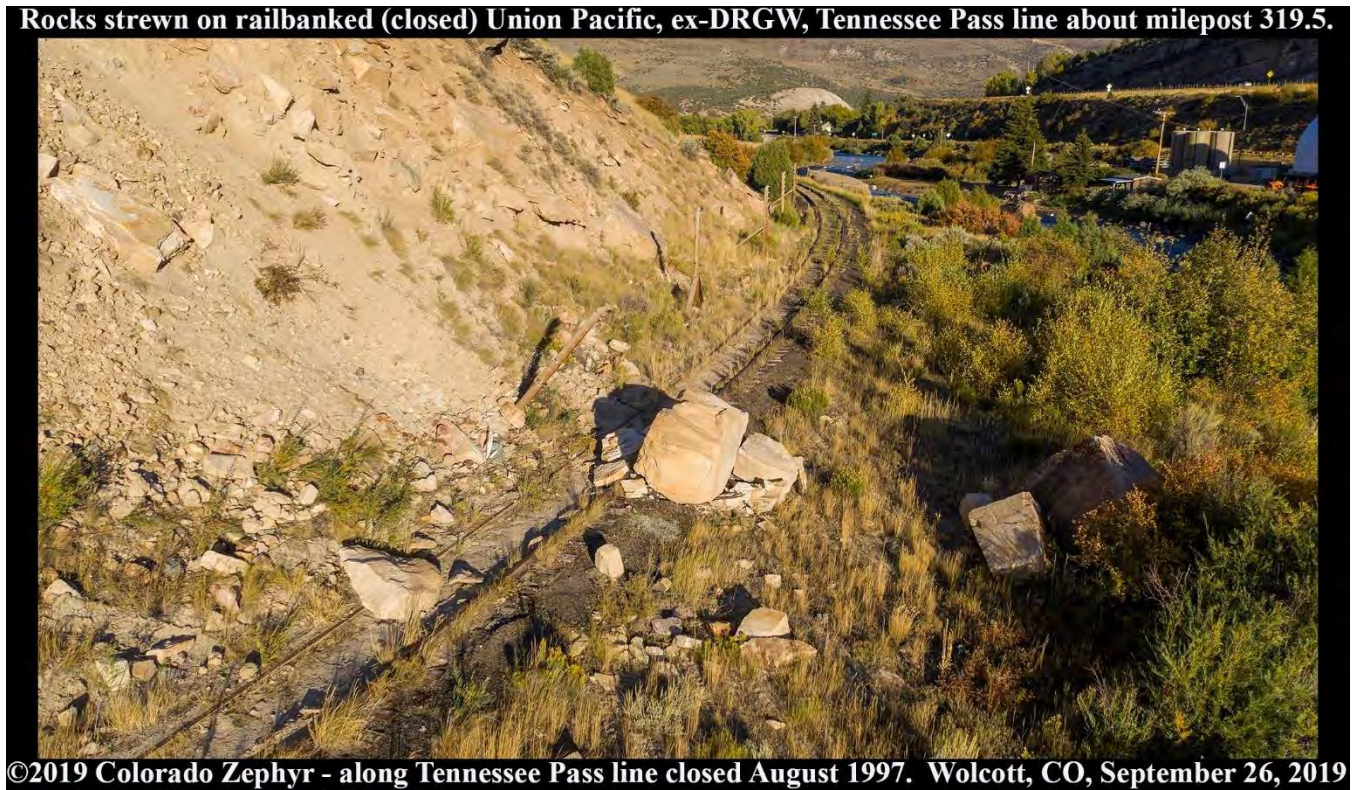


EXHIBIT E

230515

UNION PACIFIC RAILROAD
101 N. Wacker Dr, Rm. 1920
Chicago, Illinois 60606-1718

Mack H. Shumate, Jr. Senior General Attorney, Law Department

P 312 777 2055
F 312 777 2065

June 29, 2011

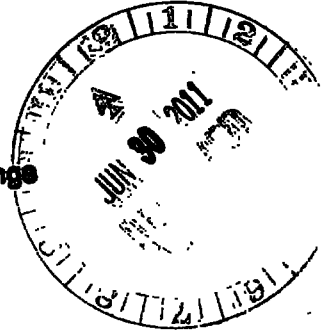
VIA UPS NEXT DAY DELIVERY

The Honorable Cynthia T. Brown
Chief, Section of Administration
Surface Transportation Board
395 E. Street, S.W., Room #100
Washington, DC 20423-0001

ENTERED
Office of Proceedings

JUL 30 2011

Part of
Public Record



RE: Updated System Diagram Map for Union Pacific Railroad Company (AB-33)

Dear Ms. Brown:

Three copies of an updated System Diagram Map, with Line Descriptions for rail lines in Categories 1 and 5, are enclosed pursuant to the Board's regulations at 49 C.F.R. §§1152.12(a) and 1152.13(b). An Affidavit of Service and Publication pursuant to 49 C.F.R. §1152.12(d) is included.

Please file stamp the enclosed copy of this letter and return it to me in the stamped, self-addressed envelope.

Sincerely,

Mack H. Shumate, Jr.

Enclosures

cc: State agencies listed on Appendix A

O:\Abandonments\System Diagram Map\System Diagram Map 06-11\2011_06_29 STB Ltr SDM.doc

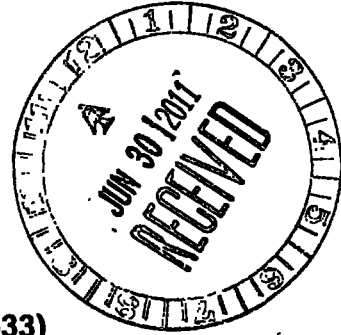


cc w/map: Rachel D. Campbell
Director
Office of Proceedings
Surface Transportation Board
395 E Street, SW, Room 1002
Washington, DC 20423

Victoria Rutson
Director
Office of Environmental Analysis
Surface Transportation Board
395 E Street, SW, Room 1106
Washington, DC 20423

Joseph C. Szabo (2 SDM copies)
Administrator
U.S. Department of Transportation
Federal Railroad Administration
1200 New Jersey Avenue, S.E.
Washington, D.C. 20590

Rails to Trails Conservancy
The Duke Ellington Building
2121 Ward Court, N.W., 5th Fl.
Washington, D. C. 20037



UNION PACIFIC RAILROAD COMPANY (AB-33)

SYSTEM DIAGRAM MAP

**LINE DESCRIPTIONS OF LINES DESIGNATED
CATEGORY 1 AND 5 ON THE MAP**

ENTERED
Office Proceedings

JUN 30 2011

Part of
Public Record

DATE FILED: June 30, 2011

UNION PACIFIC RAILROAD COMPANY (AB-33)

Includes all lines previously identified as Chicago & North Western Railway Company (AB-1); Southern Pacific Transportation Company (AB-12); St. Louis Southwestern Railway Company (AB-39); The Denver & Rio Grande Western Railroad Company (AB-8); and SPCSL Corp. (AB-357)

SYSTEM DIAGRAM MAP

LINE DESCRIPTIONS OF LINES IN CATEGORIES 1 AND 5

Updated on May 4, 2011

MAP COLOR CODES

- CATEGORY 1:** **RED.** Rail lines anticipated will be the subject of an abandonment application within three years.
- SOLID BLACK.** Rail lines approved for abandonment in the UP/SP merger proceeding but not yet abandoned.
- DASHED BLACK.** Rail service has been discontinued.
- DOTTED GREEN.** Trackage Rights to be discontinued.
- CATEGORY 2:** **GREEN.** Rail lines being studied for potential abandonment.
- CATEGORY 3:** **YELLOW.** Rail lines pending in an abandonment or discontinuance application proceeding.
- CATEGORY 4:** **BROWN.** Rail lines being operated under the rail service continuation provisions of 49 U.S.C. 10905 or of Section 304(c)(2) of the Regional Rail Reorganization Act of 1973, as amended.
- CATEGORY 5:** **LINED PURPLE.** Main line trackage rights.
- Lined Black.** All other lines or portions of owned and operated by the carrier, directly or indirectly.

ARIZONA

There are no lines in Category 1 or 5.

ARKANSAS

There are no lines in Category 1 or 5.

CALIFORNIA

There are no lines in Category 1 or 5.

COLORADO

There are no lines in Category 1 or 5.

IDAHO

There are no lines in Category 1 or 5.

ILLINOIS

- a. Designation of Line: Cissna Park Industrial Lead
- b. State(s) in which located: Illinois
- c. County(ies) in which located: Iroquois
- d. Mileposts locations: M.P. 98.15 near Goodwine to M.P. 104.04 near Cissna Park.
- e. There are no agency stations.

(See, Amended System Diagram Map filed April 22, 2009.)

IOWA

- a. Designation of Line: Fort Dodge Subdivision
- b. State(s) in which located: Iowa
- c. County(ies) in which located: Wright, Hancock, Winnebago
- d. Mileposts locations: M.P. 48.12 near Belmont to M.P. 75.95 near Forest City
- e. There are no agency stations.

(See, System Diagram Map filed September 22, 2008.)

KANSAS

There are no lines in Category 1 or 5.

LOUISIANA

- a. Designation of Line: Bastrop Industrial Lead
- b. State(s) in which located: Louisiana

- c. Parish/County(ies) in which located: Morehouse
- d. Mileposts locations: M.P. 551.76 near Bastrop to M.P. 560.48 near Collinston
- e. There are no agency stations.

(See, System Diagram Map filed June 30, 2011.)

MINNESOTA

There are no lines in Category 1 or 5.

MISSOURI

There are no lines in Category 1 or 5.

MONTANA

There are no lines in Category 1 or 5.

NEBRASKA

There are no lines in Category 1 or 5.

NEVADA

There are no lines in Category 1 or 5.

NEW MEXICO

There are no lines in Category 1 or 5.

OKLAHOMA

There are no lines in Category 1 or 5.

OREGON

- a. Designation of Line: Bailey Branch and Hull Oakes Lead
- b. State(s) in which located: Oregon
- c. County(ies) in which located: Benton
- d. Mileposts locations: Bailey Branch from M.P. 687.60 near Corvallis Jct. to M.P. 671.58 near Monroe, and Hull Oakes Lead from M.P. 673.21 near Alpine Jct. to M.P. 680.06 near Dawson.
- e. There are no agency stations.

(See, Amended System Diagram Map filed July 19, 2007.)

TENNESSEE

There are no lines in Category 1 or 5.

TEXAS

- a. Designation of Line: Seabrook – San Leon Line
- b. State(s) in which located: Texas
- c. County(ies) in which located: Galveston and Harris
- d. Mileposts locations: M.P. 30.00 near Seabrook to M.P. 40.50 near San Leon.
- e. There are no agency stations.

(Rail line approved for abandonment in the UP/SP merger proceeding (Finance Docket No. 32760, Decision No. 44) but not yet abandoned.)

UTAH

There are no lines in Category 1 or 5.

WASHINGTON

There are no lines in Category 1 or 5.

WISCONSIN

There are no lines in Category 1 or 5.

Before the
SURFACE TRANSPORTATION BOARD

SYSTEM DIAGRAM MAP

Updated on May 4, 2011

UNION PACIFIC RAILROAD COMPANY (AB-33)

Includes all lines previously identified as Chicago & North Western Railway Company (AB-1); Southern Pacific Transportation Company (AB-12); St. Louis Southwestern Railway Company (AB-39); The Denver & Rio Grande Western Railroad Company (AB-8); and SPCSL Corp. (AB-357)

AFFIDAVIT OF
SERVICE AND PUBLICATION
49 C.F.R. § 1152.12(d)

Mack H. Shumate, Jr.
Union Pacific Railroad Company
101 N. Wacker Drive, Room 1920
Chicago, IL 60606
TEL: 312-777-2055
FAX: 312-777-2065
mackshumate@up.com

Dated: June 29, 2011
Filed: June 30, 2011

**AFFIDAVIT OF
SERVICE AND PUBLICATION
49 C.F.R. § 1152.12(d)**

STATE OF ILLINOIS)
) ss.
COUNTY OF COOK)

Mack H. Shumate, Jr., makes oath and says that he has complied with the service and publication requirements of 49 C.F.R. § 1152.12 as follows:

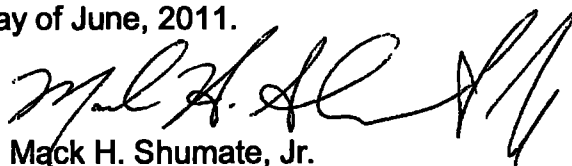
(1) Service. An updated color-coded system diagram map, with Line Descriptions for rail lines in Categories 1 and 5, for Union Pacific Railroad Company (AB-33), was served June 29, 2011 on the Governor, the Public Service Commission (or equivalent agency) and the designated State agency for each state in which Union Pacific Railroad Company operates, as follows: Arkansas, Arizona, California, Colorado, Idaho, Illinois, Iowa, Indiana (trackage rights only), Kansas, Louisiana, Minnesota, Missouri, Montana, Nebraska, New Mexico, Nevada, Oklahoma, Oregon, Tennessee, Texas, Utah, Washington, Wisconsin and Wyoming. The updated map was served by mailing a copy in first class mail with postage prepaid to the parties listed on the attached Appendix A. A copy of each newspaper notice and the System Diagram Map was posted at the Union Pacific National Customer Service Center and in the Customers Section of the Union Pacific Web site on June 29, 2011 in accordance with 49 C.F.R § 1152.12(c)(2)(ii).

(2) Publication. A newspaper ad entitled "Public Notice - System Diagram Map" is attached as Appendix B. The rail line in the notice is known as the Bastrop Industrial Lead and has been placed in Category 1 on the updated map. The line is in the State of

Louisiana. The ad was published in the parish/county where the rail line is located, as follows:

<u>State</u>	<u>Rail Line</u>	<u>County</u>	<u>Newspaper</u>	<u>Date</u>
LA	Bastrop Industrial Lead	Morehouse Parish	Bastrop Daily Enterprise	June 29, 2011

Dated at Chicago, Illinois this 29th day of June, 2011.



Mack H. Shumate, Jr.
Union Pacific Railroad Company
101 N. Wacker Drive, Room 1920
Chicago, IL 60606
TEL: 312-777-2055
FAX: 312-777-2065
mackshumate@up.com

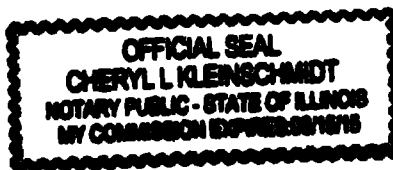
Subscribed and sworn to before me this 29th day of June, 2011.



Notary Public

My Commission Expires:

June 15, 2015



**APPENDIX A
UPDATED SYSTEM DIAGRAM MAP
AB-33**

Honorable Mike Beebe
Governor - State of Arkansas
State Capitol, Room 250
Little Rock, AR 72201

Arkansas Highway and
Transportation Department
P.O. Box 2261
Little Rock, AR 72203-2261

Chairman
Arkansas Public Service Commission
P.O. Box 400
Little Rock, AR 72203-0400

Honorable Jan Brewer
Governor-State of Arizona
1700 West Washington
Phoenix, AZ 85007

Arizona Corporation Commission
Commissioners Wing
1200 W. Washington St. 2nd Floor
Phoenix, AZ 85007-2996

Arizona Department of Transportation
206 S. 17 Ave., Room 101A
Phoenix, AZ 85007

Honorable Jerry Brown
Governor - State of California
C/O State Capitol, Suite 1173
Sacramento, CA 95814

Executive Director ATTN: Paul Clanon
Public Utilities Commission of
The State of California
505 Van Ness
San Francisco, CA 94102-3298

California Department of Transportation
Rail Program Manager
Division of Transportation, MS #32
P. O. Box 942873
Sacramento, CA 94273-0001

California Department of Transportation
Division of Transportation Planning
P. O. Box 942873
Sacramento, CA 94273-0001

Honorable John W. Hickenlooper
Governor - State of Colorado
136 State Capitol
Denver, CO 80203-1792

Executive Director
Colorado Transportation Department
4201 E. Arkansas Avenue
Denver, CO 80222

Executive Director
Colorado Public Utilities Commission
1560 Broadway, Suite 250
Denver, CO 80202

Honorable C.L. "Butch" Otter
Governor - State of Idaho
700 West Jefferson, 2nd Floor
P.O. Box 83720
Boise, ID 83720-0034

David S. Ekern, Director
Idaho Transportation Dept.
3311 W. State Street, P.O. Box 7129
Boise, ID 83707-1129

Donald Howell, Esq.
Idaho Public Utilities Commission
472 W. Washington
P. O. Box 83720
Boise, ID 83720-0074

Honorable Patrick Quinn
Governor - State of Illinois
207 State House
Springfield, IL 62706-1150

Executive Director
Illinois Commerce Commission
527 East Capitol Avenue
Springfield, IL 62701

Secretary
Department of Transportation
2300 South Dirksen Parkway #300
Springfield, IL 62764

Honorable Mitch Daniels
Governor - State of Indiana
State House
Indianapolis, IN 46204-2797

Railroad Manager
Intermodal Transp., Railroad Section
Transportation Department
100 N. Senate Ave.
Indianapolis, IN 46204-2219

Honorable Terry Branstad
Governor - State of Iowa
1007 East Grand Ave.
Des Moines, IA 50319

Planning & Programming Division
Iowa Dept. of Transportation
800 Lincoln Way
Ames, IA 50010

Iowa Railway Finance Authority
Staff Coordinator
800 Lincoln Way
Ames, IA 50010

Thomas B. Gronstal, Director
Iowa Department of Commerce
320 Maple Street
Des Moines, IA 50021

Honorable Sam Brownback
Governor - State of Kansas
State Capitol
300 SW 10th Ave., Ste 241S
Topeka, KS 66612-1590

Kansas Department of Transportation
Dwight D. Eisenhower State Office Building
700 SW Harrison Street
Topeka, KS 66603-3745

Executive Director
Kansas State Corporation Commission
1500 SW Arrowhead Rd.
Topeka, KS 66604-4027

Honorable Bobby Jindal
Governor - State of Louisiana
P. O. Box 94004
Baton Rouge, LA 70804-9004

Secretary
Louisiana Public Service Commission
Galvez Bldg., 12th Floor
602 North Fifth Street
P.O. Box 91154
Baton Rouge, LA 70821-9154

Rail Program Manager
Department of Transportation
and Development
1201 Capitol Access Road
P.O. Box 94245, Capitol Station
Baton Rouge, LA 70802

Honorable Mark Dayton
Governor of Minnesota
130 State Capitol
75 Rev. Dr. Martin Luther King Blvd.
St. Paul, MN 55155

Commissioner
Department of Transportation
395 John Ireland Blvd.
St. Paul, MN 55155

Railroad Administration Office
Minnesota Department of Transportation
395 John Ireland Boulevard
St. Paul, MN 55155-1899

Chairman
Transportation Regulation Board
254 Livestock Exchange Building
100 Stockyards Road, Room 254
South St. Paul, MN 55075

Honorable Jay Nixon
Governor - State of Missouri
201 State Capitol Ave, # B2
P. O. Box 720
Jefferson City, MO 65102

Stephen R. Waters, Director
Div. of Motor Carrier and Railroad Safety
301 W. High Street
P.O. Box 1216
Jefferson City, MO 65102-1216

Chief Engineer
Dept. of Highway and Transportation
105 W. Capitol
P.O. Box 270
Jefferson City, MO 65102-0270

Honorable Brian Schweitzer
Governor - State of Montana
P.O. Box 200801
State Capitol
Helena, MT 59620-0801

Supervisor, Rail Section
Transportation Planning Division
Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001

Chairman
Montana Public Service Commission
1701 Prospect Avenue
P.O. Box 202601
Helena, MT 59620-2601

Honorable Dave Heineman
Governor - State of Nebraska
State Capitol
P.O. Box 94848
Lincoln, NE 68509-4848

Deputy State Engineer
Nebraska Dept. of Roads
1500 Nebraska Highway 2
P.O. Box 94759
Lincoln, NE 68509-4759

Executive Director
Nebraska Public Service Commission
1200 N Street, Suite 300
Lincoln, NE 68508

Honorable Susana Martinez
Governor-State of New Mexico
Office of the Governor
490 Old Santa Fe Trail
Room 400
Santa Fe, NM 87501

Chairman
Public Regulation Commission
1120 Paseo De Peralta #417
P. O. Drawer 1269
Santa Fe, NM 87504-1269

Highway and Transportation Department
1120 Cerrillos Road
P. O. Box 1149
Santa Fe, NM 87504-1149

Honorable Jim Gibbons
Governor - State of Nevada
Capitol Building
101 N. Carson Street
Carson City, NV 89701

Secretary
Nevada Public Utilities Commission
1150 E. William Street
Carson City, NV 89701-3109

Director of Transportation
Department of Transportation
1263 S. Stewart Street
Carson City, NV 89712

Honorable Mary Fallin
Governor - State of Oklahoma
State Capitol
2300 N. Lincoln Blvd., Room 212
Oklahoma City, OK 73105

Chairman
Oklahoma Corporation Commission
2101 North Lincoln Blvd.
P.O. Box 52000
Oklahoma City, OK 73152-2000

Director - Chief Engineer
Department of Transportation
R.A. Ward Transportation Building
200 N. E. 21st Street
Oklahoma City, OK 73105

Honorable John Kitzhaber
Governor - State of Oregon
160 State Capitol
900 Court Street
Salem, OR 97301-4047

Commissioner
Transportation Program
Oregon Public Utility Commission
550 Capitol St. NE #215
P.O. Box 2148
Salem, OR 97310

Director
Oregon Dept. of Transportation
550 Capitol Street NE
Salem, OR 97310-3871

Honorable Bill Haslam
Governor - State of Tennessee
1st Floor, State Capitol
Nashville, TN 37243-0001

Director
Public Service Commission,
Transportation Division
460 James Robertson Parkway
Nashville, TN 37243-0505

Commissioner
Department of Transportation
James K. Polk Building
505 Deaderick Street
Suite 700
Nashville, TN 37243-0349

Rick Perry
Governor - State of Texas
Office of the Governor
P. O. Box 12428
Austin, TX 78711-2428

Director, Multi-Modal Transportation
Trans. Planning and Programming
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483

Chairman
Railroad Commission of Texas
P.O. Box 12967
Austin, TX 78711-2967

Honorable Gary Herbert
Governor - State of Utah
Utah State Capitol Complex
350 North State Street, Suite 200
PO Box 142220
Salt Lake City, Utah 84114-2220

Director
Utah Department of Transportation
4501 South 2700 West
P.O.Box 148240
Salt Lake City, UT 84114-8240

Executive Secretary
Division of Public Utilities
Box 146751
Salt Lake City, Utah 84114-6751

Governor Christine Gregoire
Office of the Governor
PO Box 40002
Olympia, WA 98504-0002

Administrative Manager and Secretary
Washington Utilities and
Transportation Commission
P. O. Box 47250
Olympia, WA 98504-7250

Secretary
Washington Dept. of Transportation
310 Maple Park Avenue SE
P. O. Box 47300
Olympia, WA 98504-7300

Honorable Scott Walker
Governor, State of Wisconsin
115 East Capital
Madison, WI 53702

Commission Secretary
Wisconsin Public Service Commission
P.O. Box 7854
Madison, WI 53707-7854

Office of Commissioner of Railroads
P. O. Box 7854
Madison, WI 53708-8968

State of Wisconsin
Department of Transportation
Office of General Counsel
P.O. Box 7911
Madison, WI 53707-7910

Honorable Matt Mead
Governor - State of Wyoming
State Capitol
200 West 24th Street
Cheyenne, WY 82002-0010

Director
Wyoming Department of Transportation
5300 Bishop Blvd
Cheyenne, WY 82009-3340

Wyoming Dept. of Transportation
State Planning Engineer
5300 Bishop Blvd
Cheyenne, WY 82009-3340

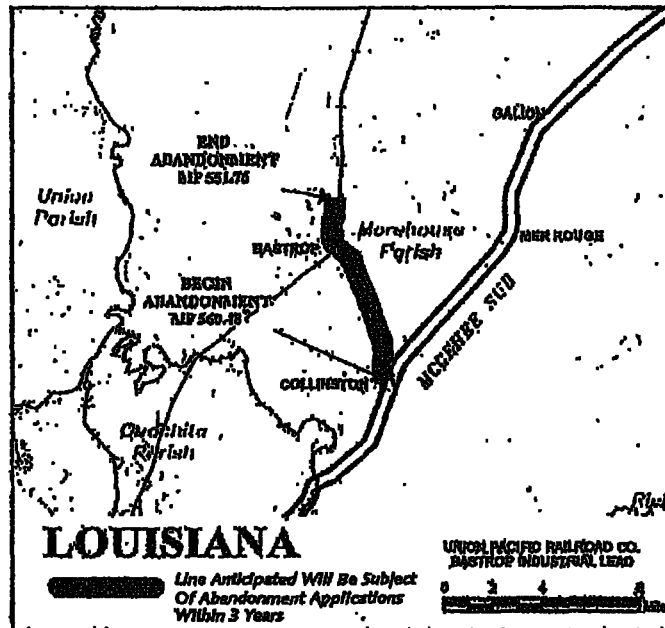
Regulatory Program
Department of Transportation
5300 Bishop Blvd
Cheyenne, WY 82009-3340

Chairman
Wyoming Public Service Commission
2515 Warren Avenue, Suite 300
Cheyenne, WY 82002

PUBLIC NOTICE--SYSTEM DIAGRAM MAP

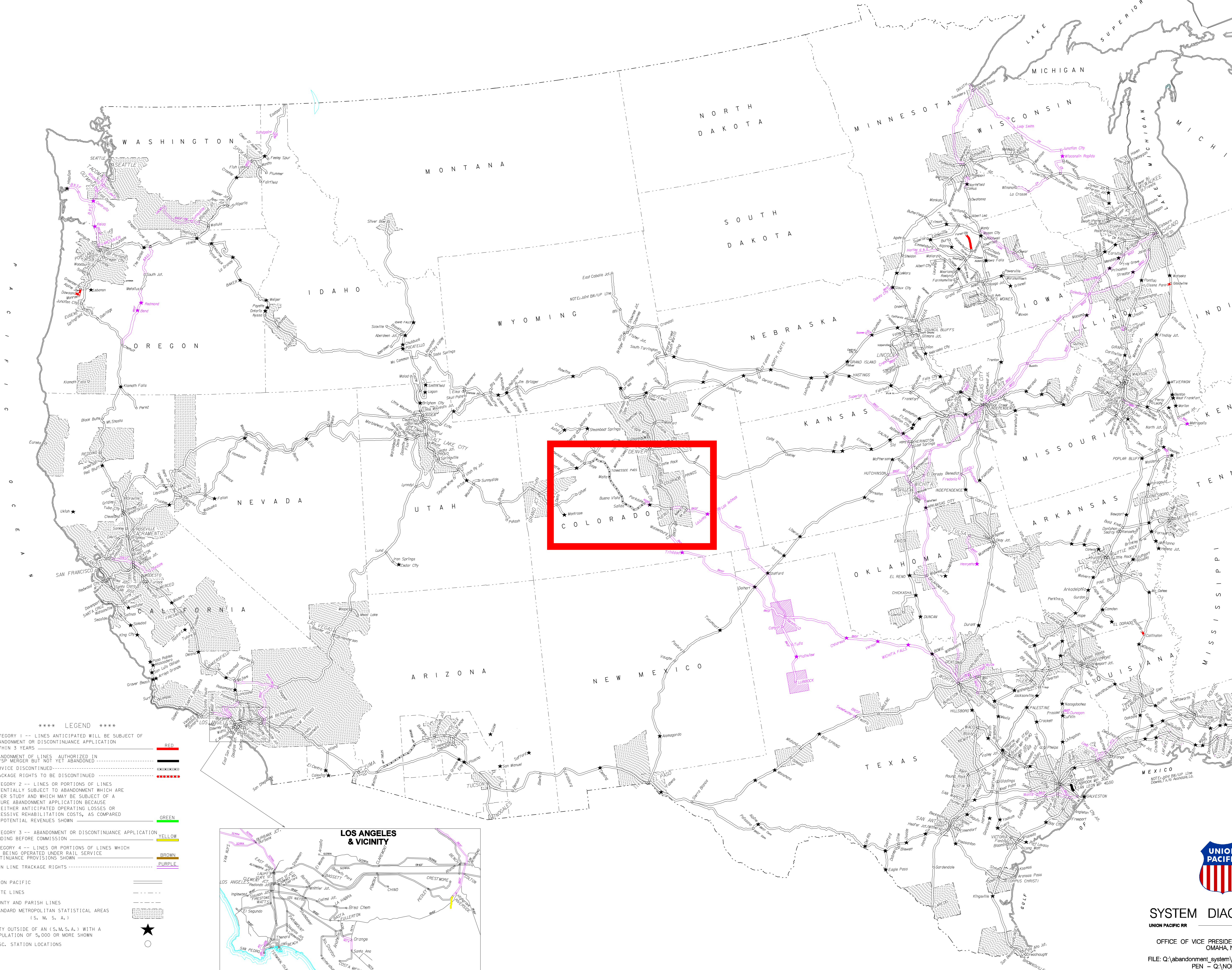
UNION PACIFIC RAILROAD COMPANY (AB-33) plans to file an updated System Diagram Map on or after June 30, 2011 and publishes this notice pursuant to the regulations of the Surface Transportation Board at 49 CFR 1152.12 and 1152.13. The rail line described below to be placed in Category 1 (rail lines anticipated will be the subject of an abandonment application within three years).

- a. Designation of Line: Bastrop Industrial Lead
- b. State(s) in which located: Louisiana
- c. Parish/County in which located: Morehouse, Louisiana
- d. Mileposts Locations: MP 551.78 near Bastrop, Louisiana to MP 560.48 near Collinston, Louisiana
- e. There are no agency stations.



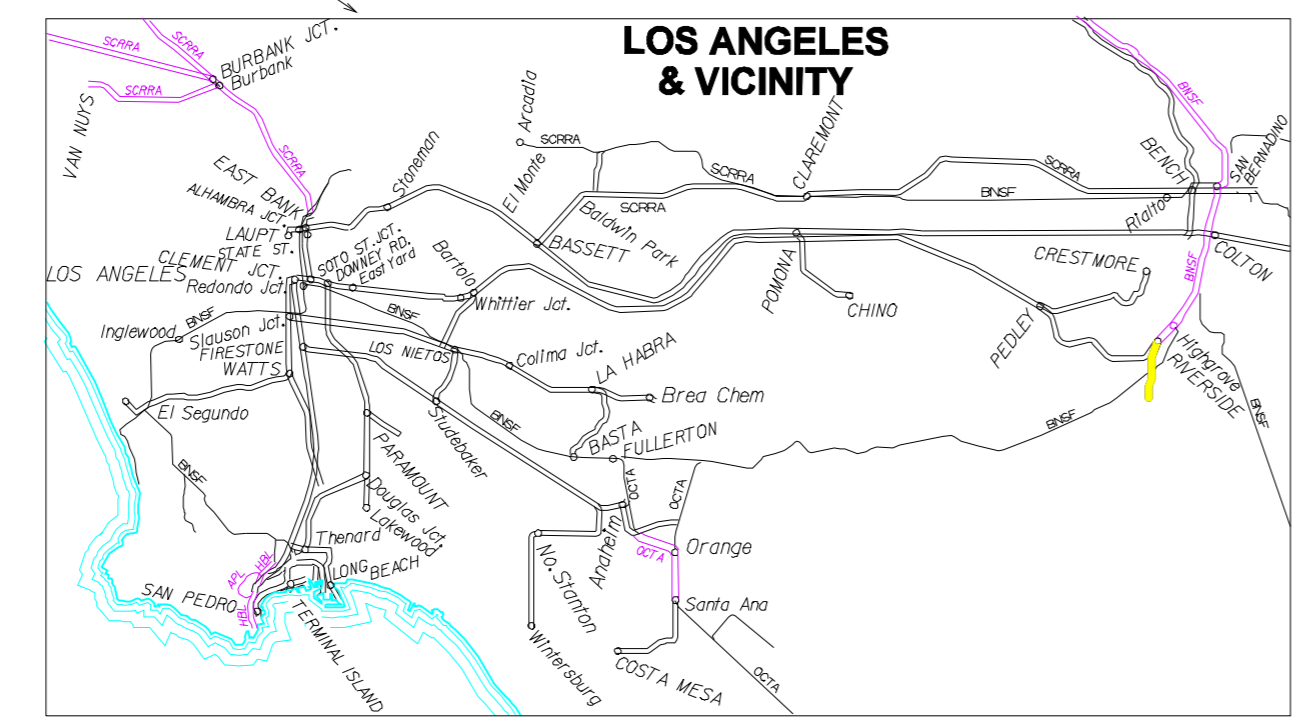
The color-coded System Diagram Map and line description for the rail line amended in the State of Louisiana will be provided upon request. Send \$15 to SYSTEM DIAGRAM MAP, Union Pacific Railroad Company, Mail Stop 1580, 1400 Douglas Street, Omaha, NE 68179.

PUBLISHED IN THE BASTROP DAILY ENTERPRISE, BASTROP, LOUISIANA,
JUNE 29, 2011.



**** LEGEND ****

- CATEGORY 1 -- LINES ANTICIPATED WILL BE SUBJECT OF ABANDONMENT OR DISCONTINUANCE APPLICATION WITHIN 3 YEARS — █ **RED**
- ABANDONMENT OF LINES AUTHORIZED IN UP/SP MERGER BUT NOT YET ABANDONED — █ **BROWN**
- SERVICE DISCONTINUED - - - - - █ **BROWN**
- TRACKAGE RIGHTS TO BE DISCONTINUED - - - - - █ **RED**
- CATEGORY 2 -- LINES OR PORTIONS OF LINES POTENTIALLY SUBJECT TO ABANDONMENT WHICH ARE UNDER STUDY AND WHICH MAY BE SUBJECT OF A FUTURE ABANDONMENT APPLICATION BECAUSE OF EITHER ANTICIPATED OPERATING LOSSES OR EXCESSIVE REHABILITATION COSTS, AS COMPARED TO POTENTIAL REVENUES SHOWN — █ **GREEN**
- CATEGORY 3 -- ABANDONMENT OR DISCONTINUANCE APPLICATION PENDING BEFORE COMMISSION — █ **YELLOW**
- CATEGORY 4 -- LINES OR PORTIONS OF LINES WHICH ARE BEING OPERATED UNDER RAIL SERVICE CONTINUANCE PROVISIONS SHOWN — █ **PURPLE**
- MAIN LINE TRACKAGE RIGHTS - - - - - █ **PURPLE**
- UNION PACIFIC — █ **UNION PACIFIC**
- STATE LINES - - - - - **STATE LINES**
- COUNTY AND PARISH LINES - - - - - **COUNTY AND PARISH LINES**
- STANDARD METROPOLITAN STATISTICAL AREAS (S. M. S. A.) - - - - - **STANDARD METROPOLITAN STATISTICAL AREAS (S. M. S. A.)**
- CITY OUTSIDE OF AN (S. M. S. A.) WITH A POPULATION OF 5,000 OR MORE SHOWN ★ **CITY OUTSIDE OF AN (S. M. S. A.) WITH A POPULATION OF 5,000 OR MORE SHOWN**
- MISC. STATION LOCATIONS ○ **MISC. STATION LOCATIONS**



SYSTEM DIAGRAM MAP

UNION PACIFIC RR AB-33

OFFICE OF VICE PRESIDENT - ENGINEERING
OMAHA, NE

FILE: Q:\abandonment_system\system_abandonments.dgn
PEN - Q:\NONE PEN
REVISED: MAY 03, 2011
DATE: 04-May-11 04:50

CERTIFICATE OF SERVICE

I do hereby certify that on this 14th day of February 2020, I have served a copy of the foregoing Feeder Line Application by first class mail on each of the following persons or entities, as required by 49 CFR § 1151.2:

(1) The owning railroad:

Rhonda S. Ferguson
Executive Vice President,
Chief Legal Officer and Corporate Secretary
Union Pacific Railroad
1400 Douglas St.
Omaha, NE 68179

(2) All rail patrons who originated and/or received traffic on the line during the 12-month period preceding the month in which the application is filed:

Charles Zaruba, Plant Manager
American Gypsum, Eagle Plant
Post Office Box 980
Gypsum, Colorado 81637

Michael Sheahan, General Manager
Martin Marietta Materials
1910 Rand Avenue
Colorado Springs, Colorado 80905

Climax Molybdenum
Corporate Headquarters
333 N. Central Ave.
Phoenix, AZ 85004-4415

LafargeHolcim
State Highway 120
Florence, CO 81226

(3) The designated State agencies:

David Krustsinger, Director
Division of Transit and Rail
Colorado Department of Transportation
2829 West Howard Place
Denver, Colorado 80204

(4) County governments:

Chairman Garrison M. Ortiz
Pueblo Board of County Commissioners
215 West 10th Street
Pueblo, Colorado 81003

Chairman Debbie Ball
Fremont County Board of Commissioners
615 Macon Avenue, Room 105
Canon City, Colorado 81212

Chairman Greg Felt
Chaffee County Board of Commissioners
Post Office Box 699
Salida, Colorado 81201

Chairman Kayla Marcella
Lake County Board of Commissioners
505 Harrison Avenue
Leadville, Colorado 80461

Kathy Chandler-Henry, Chairman
Eagle County Board of Commissioners
Post Office Box 850
Eagle, Colorado 81631

(5) The National Railroad Passenger Corporation (Amtrak):

Not Applicable

(6) The national offices of rail unions with employees Applicants believe may be working on the line:

Brotherhood of Maintenance of Way Employees (“BMWE”)
41475 Gardenbrook Road
Novi, MI 48375

Brotherhood of Locomotive Engineers and Trainmen (“BLET”)
7061 East Pleasant Valley Road
Independence, OH 44131

Brotherhood of Railroad Signalmen ('BRS')
917 Shenandoah Shores Road
Front Royal, VA 22630

(7) Other:

Rich Howell, General Manager
Rock & Rail Railroad
501 South 9th Street
Canon City, Colorado 81212

A handwritten signature in blue ink that reads "Thomas W. Wilcox". The signature is written in a cursive style with a prominent dot over the 'i' in "Wilcox".

Thomas W. Wilcox